FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		SHEET NO.
6	IM 0335(151)		672
STATE	STATE DIST.	COUNTY	
TEXAS	2	TARRANT	
CONT.	SECT.	JOB	HIGHWAY NO.
0014	16	255, ETC	IH 35W

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

FUNCTIONAL CLASS: URBAN FREEWAY
DESIGN SPEED: 70 MPH MANAGED/GENERAL PUROOSE LANES
45 MPH RAMPS & MANAGED LANE RAMPS
40-45 MPH DIRECT CONNECTORS
40 MPH FRONTAGE ROADS
35 MPH CROSS STREETS

PLANS OF PROPOSED
STATE HIGHWAY IMPROVEMENT
FEDERAL AID PROJECT: IM 0335(151)
TARRANT COUNTY
IH-35W (URBAN FREEWAY)
VOLUME 3

LIMITS: FROM NORTH TARRANT PARKWAY TO IH 820
NET LENGTH OF PROJECT = 18,900.00 FT = 3.580 MI.

ADT	2010	2030
NORTH TARRANT PKWY TO US 287 SPLIT	115,100	178,700
US 287 SPLIT TO IH 820	174,900	269,800

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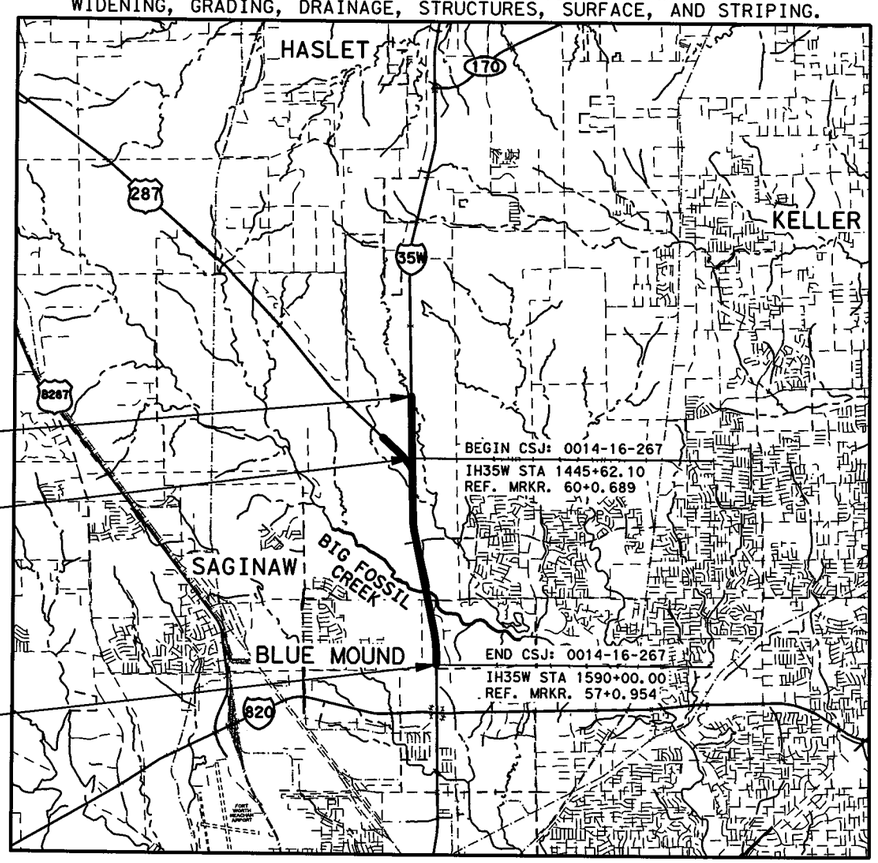
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	INDEX OF SHEETS

TDLR INSPECTION REQUIRED

LOCATION	ROADWAY	BRIDGE	TOTAL
CSJ 0014-16-255	13,860.99 FT = 2.626 MI.	576.91 FT = 0.109 MI.	14,437.90 FT = 2.735 MI.
CSJ 0081-12-045	4,462.10 FT = 0.845 MI.	-	4,462.10 FT = 0.845 MI.
TOTAL	18,523.09 FT = 3.475 MI.	576.91 FT = 0.109 MI.	18,900.00 FT = 3.580 MI.
CSJ 0014-16-267	(ROW AND UTILITIES)	-	14,437.90 FT = 2.735 MI.

FOR THE CONSTRUCTION OF A FREEWAY FACILITY CONSISTING OF WIDENING, GRADING, DRAINAGE, STRUCTURES, SURFACE, AND STRIPING.



N

0 1 2
SCALE: 1" = 2 MILES

BEGIN PROJECT
CSJ:0081-12-045
IH 35W STA 1401+00.00
REF. MRKR. 61+0.534

END CSJ:0081-12-045
BEGIN CSJ:0014-16-255
IH 35W STA 1445+62.10
REF. MRKR. 60+0.689

END PROJECT
CSJ:0014-16-255
IH 35W STA 1590+00.00
REF. MRKR. 57+0.954

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, JUNE 1, 2004 AND SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT: REQUIRED CONTRACT PROVISIONS FOR ALL FEDERAL-AID CONSTRUCTION CONTRACTS (FORM FHWA 1273, MARCH 1994).

EXCEPTIONS: NONE
EQUATIONS: NONE
RAILROADS: NONE

FINAL PLANS

LETTING DATE: _____
DATE CONTRACTOR BEGAN WORK: _____
DATE WORK WAS COMPLETED & ACCEPTED: _____
FINAL CONTRACT COST: _____
CONTRACTOR: _____

STATE OF TEXAS
M. N. MOZAFFAR
85191
LICENSED
PROFESSIONAL ENGINEER

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER

I. S. ENGINEERS, LLC

KENNEDY CONSULTING

SUBMITTED BY 7/13/2012
PROJECT MANAGER

SUBMITTED BY 7/13/12
DEPUTY PROJECT MANAGER

TEXAS DEPARTMENT OF TRANSPORTATION

SUBMITTED FOR LETTING
AREA ENGINEER

RECOMMENDED FOR LETTING
DISTRICT DESIGN ENGINEER

APPROVED FOR LETTING
DIRECTOR, TRAFFIC OPERATIONS DIVISION

RECOMMENDED FOR LETTING
DISTRICT ENGINEER

APPROVED FOR LETTING
DIRECTOR, DESIGN DIVISION

DRAWING DATE: 7/13/2012 FILENAME: S3BTITLE03.dgn
COUNTY TARRANT PROJ. NO.
HWY. NO. LETTING DATE
DATE ACCEPTED

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STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER

* THE STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

KURT W. AUNGST, P.E. , P.E. 8/30/12 DATE

STATE OF TEXAS
M. N. MOZAFFAR
85191
LICENSED
PROFESSIONAL ENGINEER

** THE STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

M. N. MOZAFFAR, P.E. , P.E. 8/30/12 DATE

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

I. S. ENGINEERS, LLC
TBPE REG. # F-11657

Texas Department of Transportation
© 2012

IH 35W FROM NORTH TARRANT PKWY TO IH 820

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GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	673
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 8/30/2012 FILENAME: S3BINDEX31.dgn

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STATE OF TEXAS
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KURT W. AUNGST, P.E. , P.E. 8/22/12 DATE

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M. N. MOZAFFAR, P.E. , P.E. 8/22/2012 DATE

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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TBPE REG. # F-11657

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

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DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	674
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BINDEX32.dgn
DRAWING DATE: 8/22/2012

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1383-1384	TRAFFIC CONTROL PLANS PHASE 2
1385-1388	TRAFFIC CONTROL PLANS PHASE 3
1389	TRAFFIC CONTROL PLANS SANITARY SEWER PHASE 1
1390-1391	EROSION CONTROL
1392	EROSION CONTROL DETAILS
	VOLUME V
	VII. BRIDGES
1393	TITLE SHEET
1394-1398	INDEX OF SHEETS
1399-1401	BRIDGE LAYOUT - NB IH 35W TO WB US 287
1402	FOUNDATION LAYOUT
1403	EST. QUANTITIES AND BEARING SEAT ELEV.
1404-1405	ABUTMENT NO. 1
1406-1407	ABUTMENT NO. 6
1408-1410	INTERIOR BENT NO. 2 & 5
1411-1412	INTERIOR BENT NO. 3
1413-1414	INTERIOR BENT NO. 4
1415	COLUMN DETAILS TYPE A
1416	COLUMN DETAILS TYPE B
1417	FOOTING DETAILS TYPE A
1418	FOOTING DETAILS TYPE B
1419	GIRDER LAYOUT (SPAN 1)
1420-1421	120.00' PRESTRESSED CONCRETE I-GIRDER UNIT
1422-1427	493.00' CONTINUOUS PLATE GIRDER UNIT
1428	GIRDER LAYOUT (SPAN 5)
1429-1430	112.00' PRESTRESSED CONCRETE I-GIRDER UNIT
1431-1434	BRIDGE LAYOUT - NB IH 35W ML TO WB US 287
1435-1436	FOUNDATION LAYOUT
1437	EST. QUANTITIES AND BEARING SEAT ELEV.
1438-1439	ABUTMENT NO. 1
1440-1441	ABUTMENT NO. 9
1442-1445	INTERIOR BENT NO. 2, 7 AND 8
1446-1448	INTERIOR BENT NO. 3 & 6
1449-1450	INTERIOR BENT NO. 4
1451-1453	INTERIOR BENT NO. 5
1454	COLUMN DETAILS TYPE A
1455	COLUMN DETAILS TYPE B
1456	COLUMN DETAILS TYPE C
1457	COLUMN DETAILS TYPE D
1458	FOOTING DETAILS TYPE A
1459	FOOTING DETAILS TYPE B
1460	FOOTING DETAILS TYPE C
1461	FOOTING DETAILS TYPE D
1462	GIRDER LAYOUT (SPANS 1 - 2)
1463-1464	236.00' PRESTRESSED CONCRETE I-GIRDER UNIT
1465-1470	440.00' CONTINUOUS PLATE GIRDER UNIT
1471-1476	172.00' PLATE GIRDER UNIT
1477	GIRDER LAYOUT (SPANS 6 - 8)
1478-1479	381.00' PRESTRESSED CONCRETE I-GIRDER UNIT
1480-1482	BRIDGE LAYOUT - EB US 287 TO SB IH 35W ML
1483	FOUNDATION LAYOUT
1484	EST. QUANTITIES AND BEARING SEAT ELEV.
1485-1486	ABUTMENT NO. 1
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1489-1490	INTERIOR BENT NO. 2 & 3
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1494-1495	INTERIOR BENT NO. 5
1496-1497	INTERIOR BENT NO. 6
1498-1499	INTERIOR BENT NO. 7
1500	COLUMN DETAILS - TYPE A
1501	COLUMN DETAILS - TYPE B
1502	COLUMN DETAILS - TYPE C
1503	COLUMN DETAILS - TYPE D
1504	FOOTING DETAILS - TYPE A
1505	FOOTING DETAILS - TYPE B
1506	FOOTING DETAILS - TYPE C
1507	FOOTING DETAILS - TYPE D
1508-1510	BRIDGE DRAIN DETAILS
1511	GIRDER LAYOUT (SPANS 1 - 3)
1512-1513	390.00' PRESTRESSED CONCRETE I-GIRDER UNIT
1514-1520	220.00' CONTINUOUS PLATE GIRDER UNIT
1521	GIRDER LAYOUT (SPANS 5 - 7)
1522-1523	305.00' PRESTRESSED CONCRETE I-GIRDER UNIT
1524	BRIDGE LAYOUT - BASSWOOD BLVD NS TURNAROUND - IH 35W UNDERPASS

SHEET NO.	DESCRIPTION
	VOLUME V (CONT'D)
	VII. BRIDGES
1525	ESTIMATED QUANTITIES AND BEARING SEAT ELEV.
1526	FOUNDATION LAYOUT
1527-1528	ABUTMENT NO. 1
1529-1530	ABUTMENT NO. 5
1531	INTERIOR BENT NO. 2
1532	INTERIOR BENT NO. 3
1533	INTERIOR BENT NO. 4
1534	GIRDER LAYOUT (SPANS 1 & 2)
1535-1536	201.00' PRESTRESSED CONCRETE I-GIRDER UNIT (SPANS 1 & 2)
1537	GIRDER LAYOUT (SPANS 3 & 4)
1538-1539	201.00' PRESTRESSED CONCRETE I-GIRDER UNIT (SPANS 3 & 4)
1540	APPROACH SLAB DETAILS
1541	BRIDGE END DETAILS
1542	BRIDGE LAYOUT - BASSWOOD BLVD SN TURNAROUND - IH 35W UNDERPASS
1543	ESTIMATED QUANTITIES AND BEARING SEAT ELEV.
1544	FOUNDATION LAYOUT
1545-1546	ABUTMENT NO. 1
1547-1548	ABUTMENT NO. 5
1549	INTERIOR BENT NO. 2
1550	INTERIOR BENT NO. 3
1551	INTERIOR BENT NO. 4
1552	GIRDER LAYOUT (SPANS 1 & 2)
1553-1554	201.00' PRESTRESSED CONCRETE I-GIRDER UNIT (SPANS 1 & 2)
1555	GIRDER LAYOUT (SPANS 3 & 4)
1556-1557	201.00' PRESTRESSED CONCRETE I-GIRDER UNIT (SPANS 3 & 4)
1558	APPROACH SLAB DETAILS
1559	BRIDGE END DETAILS
1560-1562	BRIDGE LAYOUT - SB IH35W ENTRANCE RAMP TO MANAGED LANES
1563	EST. QUANTITIES AND BEARING SEAT ELEV.
1564	FOUNDATION LAYOUT
1565	FOOTING DETAILS - BENTS 2, 3, 7 & 8
1566	FOOTING DETAILS - BENTS 4 & 6
1567	FOOTING DETAILS - BENT 5
1568	ABUTMENT NO. 1
1569	ABUTMENT NO. 9
1570-1571	INTERIOR BENT NO. 2
1572-1573	INTERIOR BENT NO. 3
1574-1575	INTERIOR BENT NO. 4
1576-1580	INTERIOR BENT NO. 5
1581-1582	INTERIOR BENT NO. 6
1583-1584	INTERIOR BENT NO. 7
1585-1586	INTERIOR BENT NO. 8
1587-1588	GIRDER LAYOUT
1589-1594	353.00' PLATE GIRDER UNIT
1595-1596	348.00' PRESTR. CONCRETE I-GIRDER UNIT
1597-1598	354.00' PRESTR. CONCRETE I-GIRDER UNIT
1599	BRIDGE DRAIN DETAILS
1600-1603	BRIDGE LAYOUT - NB IH35W EXIT RAMP FROM MANAGED LANES
1604	EST. QUANTITIES AND BEARING SEAT ELEV.
1605-1606	FOUNDATION LAYOUT
1607	FOOTING DETAILS - BENTS 2-4, 9-10
1608	FOOTING DETAILS - BENTS 5, 6 & 8
1609	FOOTING DETAILS - BENT 7
1610	ABUTMENT NO. 1
1611	ABUTMENT NO. 11
1612-1613	INTERIOR BENTS NO. 2 - 4
1614-1615	INTERIOR BENT NO. 5
1616-1617	INTERIOR BENT NO. 6
1618-1622	INTERIOR BENT NO. 7
1623-1624	INTERIOR BENT NO. 8
1625-1626	INTERIOR BENT NO. 9
1627-1628	INTERIOR BENT NO. 10
1629-1630	GIRDER LAYOUT
1631-1637	564.00' PLATE GIRDER UNIT
1638-1639	472.00' PRESTRESSED CONCRETE I-GIRDER UNIT
1640-1641	354.00' PRESTRESSED CONCRETE I-GIRDER UNIT
1642-1644	BRIDGE DRAIN DETAILS
1645	AS-BUILT BRIDGE LAYOUT - RAMP D OVER RAMP C
1646	ESTIMATED QUANTITIES
1647	AS-BUILT ABUTMENT
1648	AS-BUILT BRIDGE LAYOUT - RAMP A OVER RAMP B
1649	ESTIMATED QUANTITIES
1650	AS-BUILT ABUTMENT
1651	BRIDGE LAYOUT - NB FRONTAGE RD - OVER BIG FOSSIL CK
1652	PHASING DETAILS
1653	FOUNDATION LAYOUT
1654	EST. QUANTITIES AND BEARING SEAT ELEV.
1655-1656	ABUTMENT NO. 1
1657-1658	ABUTMENT NO. 4

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SHEET 3 OF 5

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KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	675
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BINDEX33.dgn

SHEET NO.	DESCRIPTION
	VOLUME V (CONT'D)
	VII. BRIDGES
1659-1660	INTERIOR BENT NO. 2 & 3
1661	GIRDER LAYOUT (SPANS 1 - 3)
1662-1663	209.50' PRESTRESSED CONCRETE I-GIRDER UNIT
1664	BRIDGE LAYOUT - SB FRONTAGE RD - OVER BIG FOSSIL CK
1665	PHASING DETAILS
1666	FOUNDATION LAYOUT
1667	EST. QUANTITIES AND BEARING SEAT ELEV.
1668-1669	ABUTMENT NO. 1
1670-1671	ABUTMENT NO. 4
1672-1673	INTERIOR BENT NO. 2
1674-1675	INTERIOR BENT NO. 3
1676	GIRDER LAYOUT (SPANS 1 - 3)
1677-1678	211.50' PRESTRESSED CONCRETE I-GIRDER UNIT
1679	BRIDGE LAYOUT - NB IH 35W - OVER BIG FOSSIL CK
1680-1681	PHASING DETAILS
1682-1683	AS-BUILT - BRIDGE LAYOUT - BIG FOSSIL CREEK BRIDGE - NORTHBOUND
1684	FOUNDATION LAYOUT
1685	EST. QUANTITIES AND BEARING SEAT ELEV.
1686-1688	ABUTMENT NO. 1
1689-1691	ABUTMENT NO. 4
1692-1694	INTERIOR BENT NO. 2 AND 3
1695	GIRDER LAYOUT SPANS 1 - 3
1696-1698	213.15' PRESTRESSED CONCRETE I-GIRDER UNIT
1699-1700	APPROACH SLAB DETAILS
1701	BRIDGE LAYOUT - SB IH 35W - OVER BIG FOSSIL CK
1702-1703	PHASING DETAILS
1704-1705	AS-BUILT - BRIDGE LAYOUT - BIG FOSSIL CREEK BRIDGE - SOUTHBOUND
1706	FOUNDATION LAYOUT
1707	EST. QUANTITIES AND BEARING SEAT ELEV.
1708-1709	ABUTMENT NO. 1
1710-1711	ABUTMENT NO. 4
1712	INTERIOR BENT NO. 2
1713	INTERIOR BENT NO. 3
1714	GIRDER LAYOUT (SPANS 1 - 3)
1715-1716	213.15' PRESTRESSED CONCRETE I-GIRDER UNIT
1717-1718	APPROACH SLAB DETAILS
1719	BRIDGE LAYOUT - SB IH35W ENTR RAMP TO GP - OVER BIG FOSSIL CREEK
1720	BRIDGE TYPICAL SECTION
1721	EST. QUANTITIES AND BEARING SEAT ELEV.
1722	FOUNDATION LAYOUT
1723	ABUTMENT NO. 1
1724	ABUTMENT NO. 4
1725	MISCELLANEOUS ABUTMENT DETAILS
1726	INTERIOR BENTS NO. 2 & 3
1727	GIRDER LAYOUT (SPANS 1 - 3)
1728-1729	218.65' PRESTRESSED CONCRETE I-GIRDER UNIT
1730	BRIDGE LAYOUT - NB IH35W EXIT RAMP FROM GP - OVER BIG FOSSIL CREEK
1731	BRIDGE TYPICAL SECTION
1732	EST. QUANTITIES AND BEARING SEAT ELEV.
1733	FOUNDATION LAYOUT
1734	ABUTMENT NO. 1
1735	ABUTMENT NO. 4
1736	MISCELLANEOUS ABUTMENT DETAILS
1737	INTERIOR BENTS NO. 2 & 3
1738	GIRDER LAYOUT (SPANS 1 - 3)
1739-1740	246.90' PRESTRESSED CONCRETE I-GIRDER UNIT
1741	BRIDGE LAYOUT - NB IH 35W GP, ML AND EX R - OVER WESTERN CENTER BLVD
1742	PHASING DETAILS
1743	AS-BUILT BRIDGE LAYOUT
1744	AS-BUILT BRIDGE LAYOUT TYP SECTION
1745	FOUNDATION LAYOUT
1746-1747	ABUTMENT 1 DETAILS
1748-1749	ABUTMENT 4 DETAILS
1750	INTERIOR BENT NO. 2
1751	INTERIOR BENT NO. 3
1752	GIRDER LAYOUT
1753-1754	267.30' PRESTRESSED CONCRETE I-GIRDER UNIT
1755-1756	ABUTMENT 1 DETAILS
1757-1758	ABUTMENT 4 DETAILS
1759	INTERIOR BENT NO. 2
1760	INTERIOR BENT NO. 3
1761	GIRDER LAYOUT
1762-1763	267.30' PRESTRESSED CONCRETE I-GIRDER UNIT
1764	BRIDGE LAYOUT - SB IH 35W GP, ML AND ENT R - OVER WESTERN CENTER BLVD
1765	PHASING DETAILS
1766	AS-BUILT BRIDGE LAYOUT
1767	AS-BUILT BRIDGE LAYOUT TYP SECTION
1768	FOUNDATION LAYOUT
1769-1770	ABUTMENT 1 DETAILS
1771-1772	ABUTMENT 4 DETAILS

SHEET NO.	DESCRIPTION
	VOLUME V (CONT'D)
	VII. BRIDGES
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1774	INTERIOR BENT NO. 3
1775	GIRDER LAYOUT
1776-1777	267.30' PRESTRESSED CONCRETE I-GIRDER UNIT
1778	ESTIMATED QUANTITIES
	STANDARDS
1779	**BAS-A
1780	**BAS-C
1781-1782	**BMCS
1783-1784	**BRSM
1785-1786	**BRSM (MOD)
1787	**BS-EJCP
1788-1790	**C221
1791-1794	**C402 (MOD)
1795	**CRR
1796	**BAT-CTFB-08(FW)
1797	**CSB(3)-10
1798-1799	**FD
1800-1801	**IGD
1802-1804	**IGEB
1805-1807	**IGEB (MOD)
1808	**IGMS
1809-1814	**IGND
1815	**IGTS
1816	**MEBR(C)
1817	**MEBR(S)
1818-1821	**PCP
1822	**PCP-FAB
1823-1824	**PMDF
1825	**SBMS
1826	**SBTS
1827-1828	**SEJ-A
1829-1831	**SGEB
1832-1834	**SGMD
1835-1836	**SSCB(2)-10
1837-1838	**SSTR
1839-1841	**T401

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1849	TRAFFIC SIGNAL PLANS - PROPOSED INTERSECTION LAYOUT
1850	TRAFFIC SIGNAL PLANS - SUMMARY CHARTS
1851	TRAFFIC SIGNAL PLANS - TERMINATION & PHASING
1852	TRAFFIC SIGNAL PLANS - SIGNS LAYOUT
1853	EXISTING CONDITIONS TRAFFIC SIGNAL LAYOUT - NBFR AT BASSWOOD BLVD
1854	TRAFFIC SIGNAL PLANS - PROPOSED INTERSECTION LAYOUT
1855	TRAFFIC SIGNAL PLANS - SUMMARY CHARTS
1856	TRAFFIC SIGNAL PLANS - TERMINATION & PHASING
1857	TRAFFIC SIGNAL PLANS - SIGNS LAYOUT
1858	EXISTING CONDITIONS TRAFFIC SIGNAL LAYOUT - SBFR AT WESTERN CENTER BLVD
1859	TRAFFIC SIGNAL PLANS - TEMPORARY INTERSECTION LAYOUT
1860	TRAFFIC SIGNAL PLANS - TEMP SIGNAL SUMMARY CHARTS
1861	TRAFFIC SIGNAL PLANS - TEMP SIGNAL TERMINATION & PHASING
1862	TRAFFIC SIGNAL PLANS - TEMP SIGNAL SIGN LAYOUT
1863	TRAFFIC SIGNAL PLANS - PROPOSED INTERSECTION LAYOUT
1864	TRAFFIC SIGNAL PLANS - SUMMARY CHARTS
1865	TRAFFIC SIGNAL PLANS - TERMINATION & PHASING
1866	TRAFFIC SIGNAL PLANS - SIGNS LAYOUT
1867	TRAFFIC SIGNAL PLANS - EXISTING CONDITIONS LAYOUT - NBFR AT WESTERN CENTER BLVD
1868	TRAFFIC SIGNAL PLANS - TEMPORARY INTERSECTION LAYOUT
1869	TRAFFIC SIGNAL PLANS - TEMP SIGNAL SUMMARY CHARTS
1870	TRAFFIC SIGNAL PLANS - TEMP SIGNAL TERMINATION & PHASING
1871	TRAFFIC SIGNAL PLANS - TEMP SIGNAL SIGNS LAYOUT
1872	TRAFFIC SIGNAL PLANS - PROPOSED INTERSECTION LAYOUT
1873	TRAFFIC SIGNAL PLANS - SUMMARY CHARTS

SHEET NO.	DESCRIPTION
	VOLUME VI (CONT'D)
	VIII. TRAFFIC ITEMS
1874	TRAFFIC SIGNAL PLANS - TERMINATION & PHASING
1875	TRAFFIC SIGNAL PLANS - SIGNS LAYOUT
1876	CITY OF FORT WORTH - FIGURE 4 MOVEMENT DIAGRAM
1877	TRAFFIC SIGNAL DETAILS - SIGNAL HEADS AND PED POLE DETAILS
	STANDARDS
1878-1879	**SMA-80(1)-12 AND SMA-80(2)-12
1880	**LUM-A-12
1881	**CFA-12
1882-1883	**MA-C-12 AND MA-D-12
1884	**MA-DPD-12
1885	**TS-FD-12
1886-1887	**VDZ(1)-05(FTW) AND VDZ(2)-05(FTW)
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1891	**TYPE 170 CABINET INSTALLATION DETAILS
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1920	GROUND BOX SUMMARY
1921	ELECTRICAL SERVICE SUMMARY
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1928-1929	**ED(7)-03 AND ED(8)-03
1930-1931	**RID(LUM1)-07 AND RID(LUM2)-07
1932	**RID(FND)-11
1933	**RID(UP)-07
1934	**RID(IF)-07
1935-1938	**RIP(1)-11 THRU RIP(4)-11
1939-1947	**HMID(1)-03 THRU HMID(9)-03
1948-1949	**HMIP(1)-98 AND HMIP(2)-98
1950-1951	**HMIF(1)-98 AND HMIF(2)-98

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SHEET 4 OF 5

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KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	676
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 8/28/2012 FILENAME: S3BINDEX34.dgn

SHEET NO.	DESCRIPTION

VOLUME VI (CONT'D)

VIII. TRAFFIC ITEMS

1952-1973	SIGN LAYOUTS
1974-2017	SIGN SUPPORT LAYOUTS
2018-2028	LARGE GUIDE SIGN DETAILS
2029-2030	SMALL SIGN DETAILS
2031	LARGE SIGNS SCHEDULE & QUANTITIES

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2033-2034	*OSB-Z4I
2035-2036	*HOSB-Z4I
2037	*OSBC
2038-2039	*OSBT
2040	*OSB-FD
2041	*OSB-FD-SC
2042	*HCOSS-Z1-10
2043	*COSS AND OSB-SZ
2044	*COSS-Z3 AND Z3I-10
2045	*COSS-Z4 AND Z4I-10
2046-2047	*COSSD
2048	*COSSF
2049	*COSS-FD
2050	*SMD(GEN)-08
2051-2053	*SMD(SLIP-1)-08 THRU SMD(SLIP-3)-08
2054	*SMD(TWT)-08
2055	*SMD(FRP)-08
2056	*SMD(TY G)-08
2057-2060	*SMD(2-1)-08 THRU SMD(2-4)-08
2061	*SMD(2-6)-01
2062-2063	*SMD(8W1)-08 AND SMD(8W2)-08
2064-2068	*TSR(1)-08 THRU TSR(5)-08
2069-2092	PAVEMENT MARKINGS & DELINEATION

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2093	*D&OM(1)-10
2094-2097	*D&OM(2)-04 THRU D&OM(5)-04
2098	*D&OM(VIA)-04
2099-2102	*FPM(1)-12 THRU FPM(4)-12
2103-2106	*PM(1)-12 THRU PM(4)-12
2107	*BLPM-10
2108	*WZ(DERD)-03
2109-2133	ITS PLAN
2134	OMIT
2135-2137	ITS PLAN
2138	ITS DETAIL SHEET - CCTV COVERAGE MAP
2139-2162, 2162A, 2163-2167, 2167A, 2168-2176	ITS ELEVATION CROSS SECTIONS
2177-2189	ITS DETAIL SHEET
2190	TOLL LAYOUT - PROJECT SATELLITE BUILDING
2190A	CLF-10 (MOD)
2191-2194	ITS DETAIL SHEET
2195	TOLL LAYOUT - RAMP 35EX-MLS
2196-2198	TOLLING DETAILS
2199	TOLL LAYOUT - DC 287E-MLS
2200-2202	TOLLING DETAILS
2203	TOLL LAYOUT - RAMP BB-MLS
2204-2206	TOLLING DETAILS
2207	TOLL LAYOUT - MAINLANE
2208-2211	TOLLING DETAILS

IX. EROSION CONTROL

2212-2213	EPIC
2214	STORM WATER POLLUTION PREVENTION PLAN (SW3P)
2215-2237	EROSION CONTROL PLAN

STANDARDS

2238-2240	**EC(1)-09 THRU EC(3)-09

FILENAME: S3BINDEX35.dgn

DRAWING DATE: 8/28/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER

* THE STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

KURT W. AUNGST, P.E. , P.E. 8/29/12 DATE

STATE OF TEXAS
M. N. MOZAFFAR
85191
LICENSED
PROFESSIONAL ENGINEER

** THE STANDARD SHEETS SPECIFICALLY IDENTIFIED ABOVE HAVE BEEN SELECTED BY ME OR UNDER MY RESPONSIBLE SUPERVISION AS BEING APPLICABLE TO THIS PROJECT.

M. N. MOZAFFAR, P.E. , P.E. 8/29/12 DATE

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

I. S. ENGINEERS, LLC
TBPE REG. # F-11657

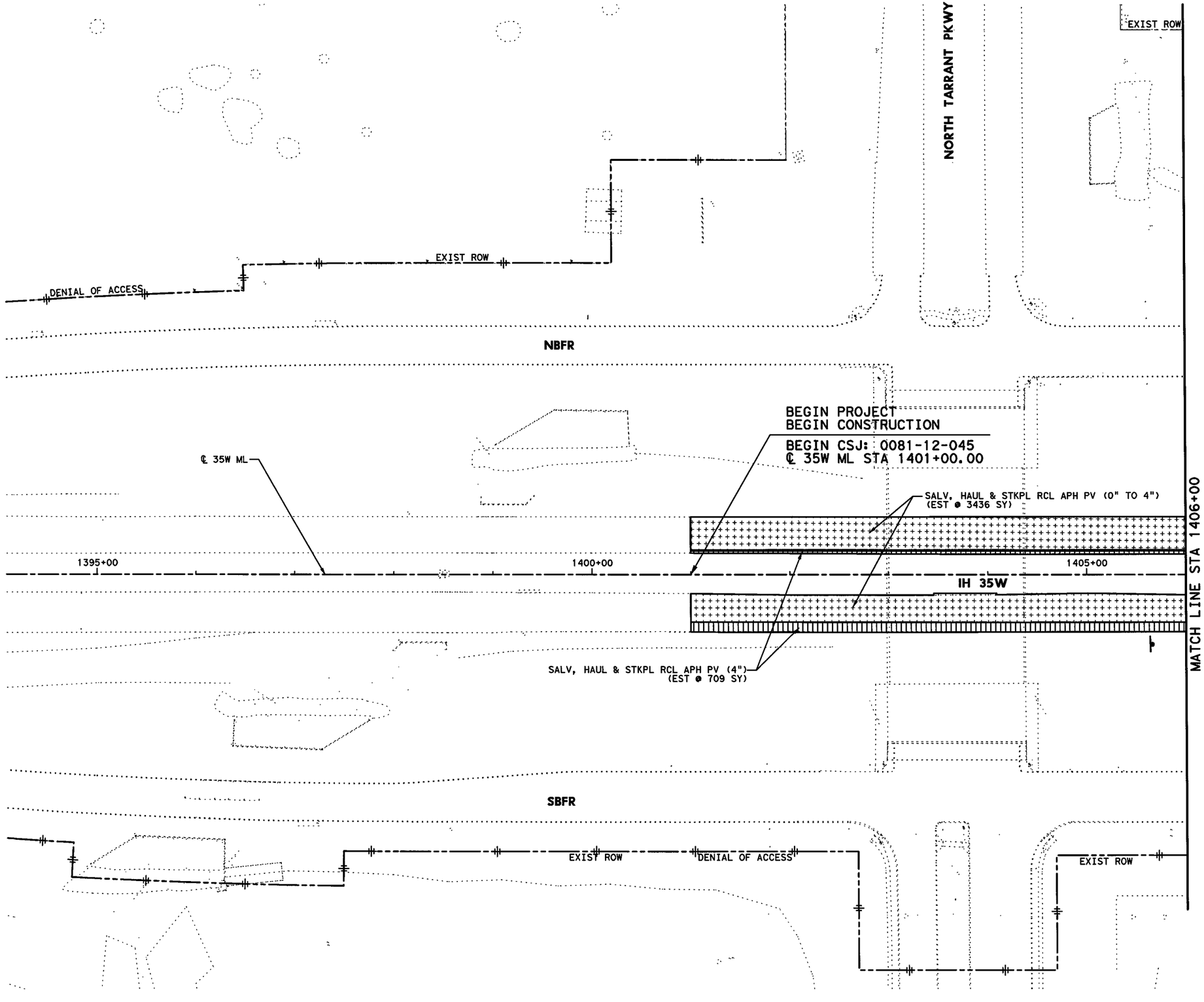
Texas Department of Transportation
© 2012

IH 35W FROM NORTH TARRANT PKWY TO IH 820

INDEX OF SHEETS

SHEET 5 OF 5

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	677
KCI	0014	16	255, ETC.	
CHECK				
KCI				



0′ 50′ 100′
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
LICENSED
PROFESSIONAL ENGINEER
7/30/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

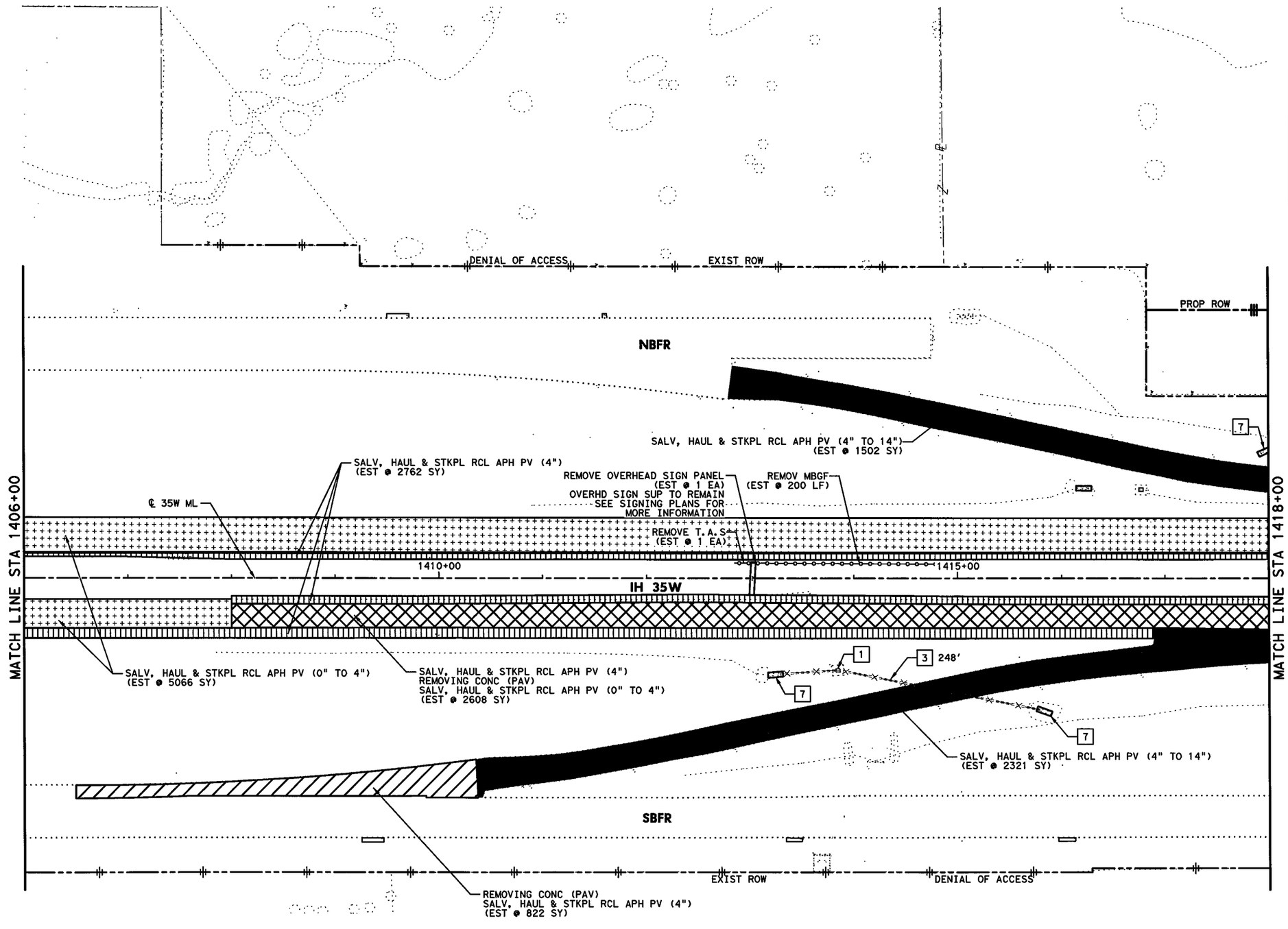
REMOVAL PLANS

BEGIN PROJECT TO STA 1406+00

SCALE 1" = 100′ SHEET 1 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	678
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*REMOVAL01.dgn
DRAWING DATE: 7/13/2012



0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
LICENSED
PROFESSIONAL ENGINEER

7/30/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

STA 1406+00 TO STA 1418+00

SCALE 1" = 100' SHEET 2 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	679
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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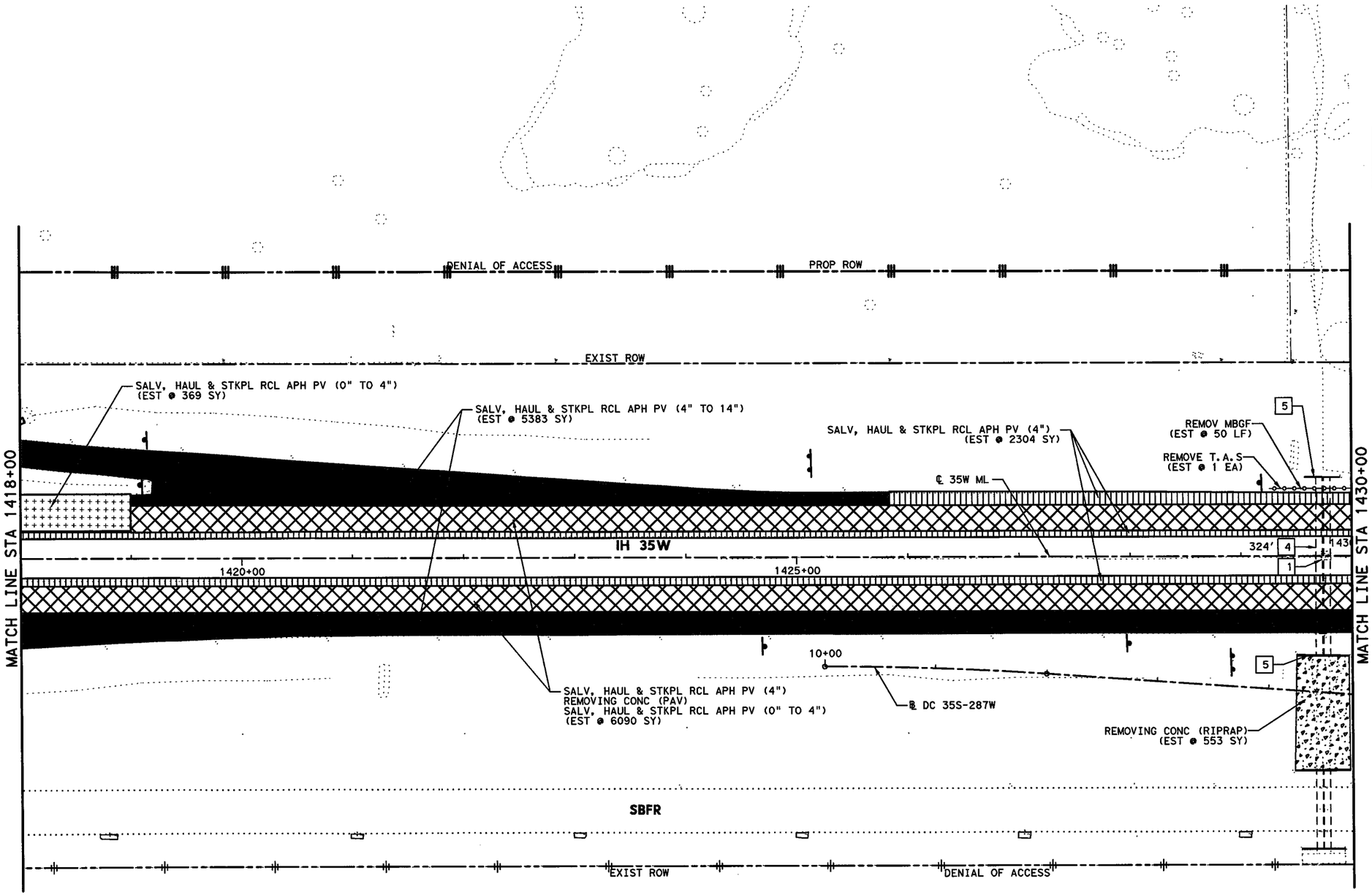

0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
LICENSED
PROFESSIONAL ENGINEER

7/16/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

STA 1418+00 TO STA 1430+00

SCALE 1" = 100' SHEET 3 OF 23

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
CPY	TEXAS	FTW	TARRANT	680
CHECK	CONTROL	SECTION	JOB	
CPY	0014	16	255, ETC.	

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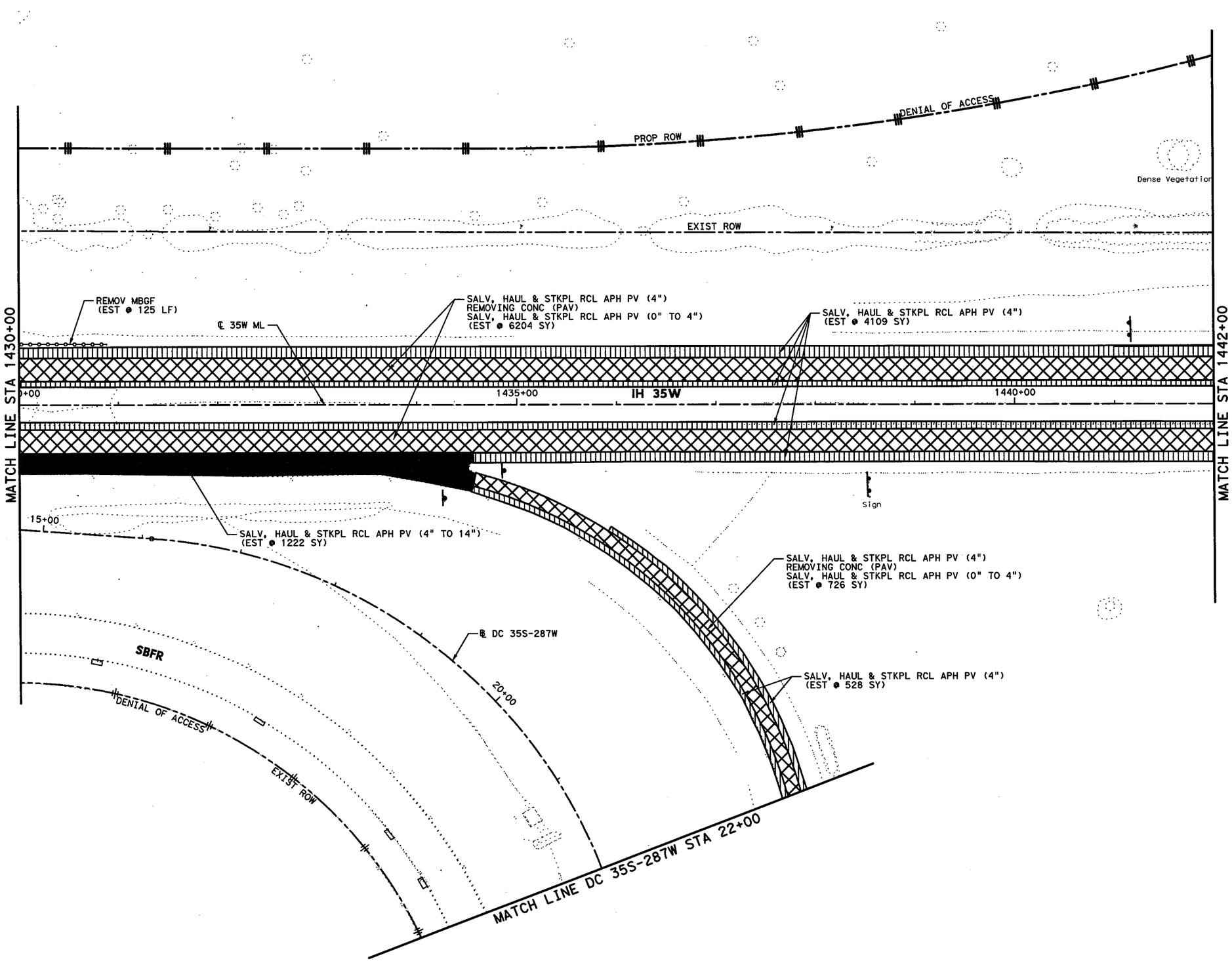
DRAWING DATE: 7/13/2012



0′ 50′ 100′
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
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7/16/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

STA 1430+00 TO STA 1442+00

SCALE 1" = 100′ SHEET 4 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	
CHECK CPY	CONTROL	SECTION	JOB	681
	0014	16	255, ETC.	

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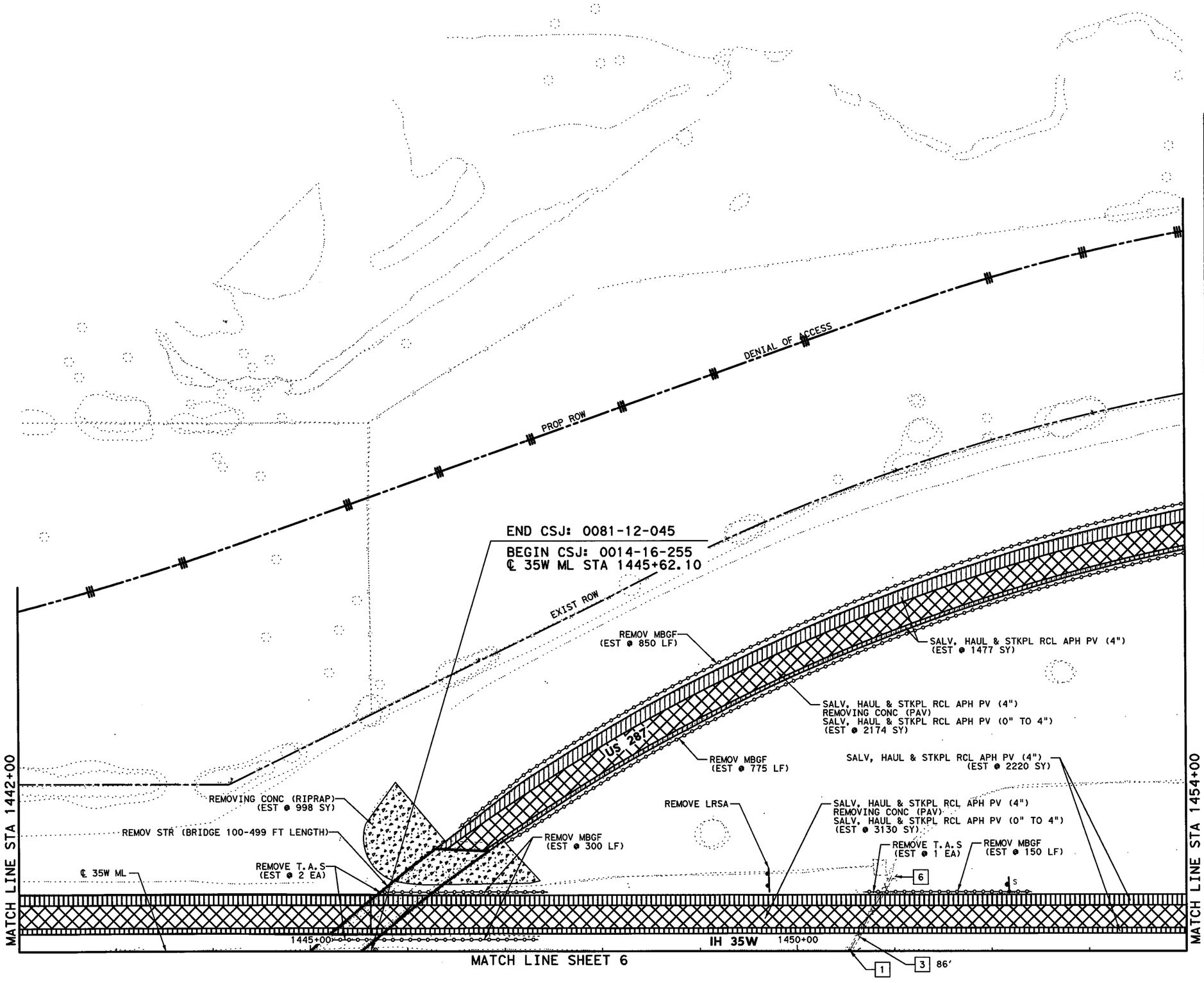

0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV) / SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4") / REMOVING CONC (PAV) / SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
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7/6/12

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TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

STA 1442+00 TO STA 1454+00

SCALE 1" = 100' SHEET 5 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	682
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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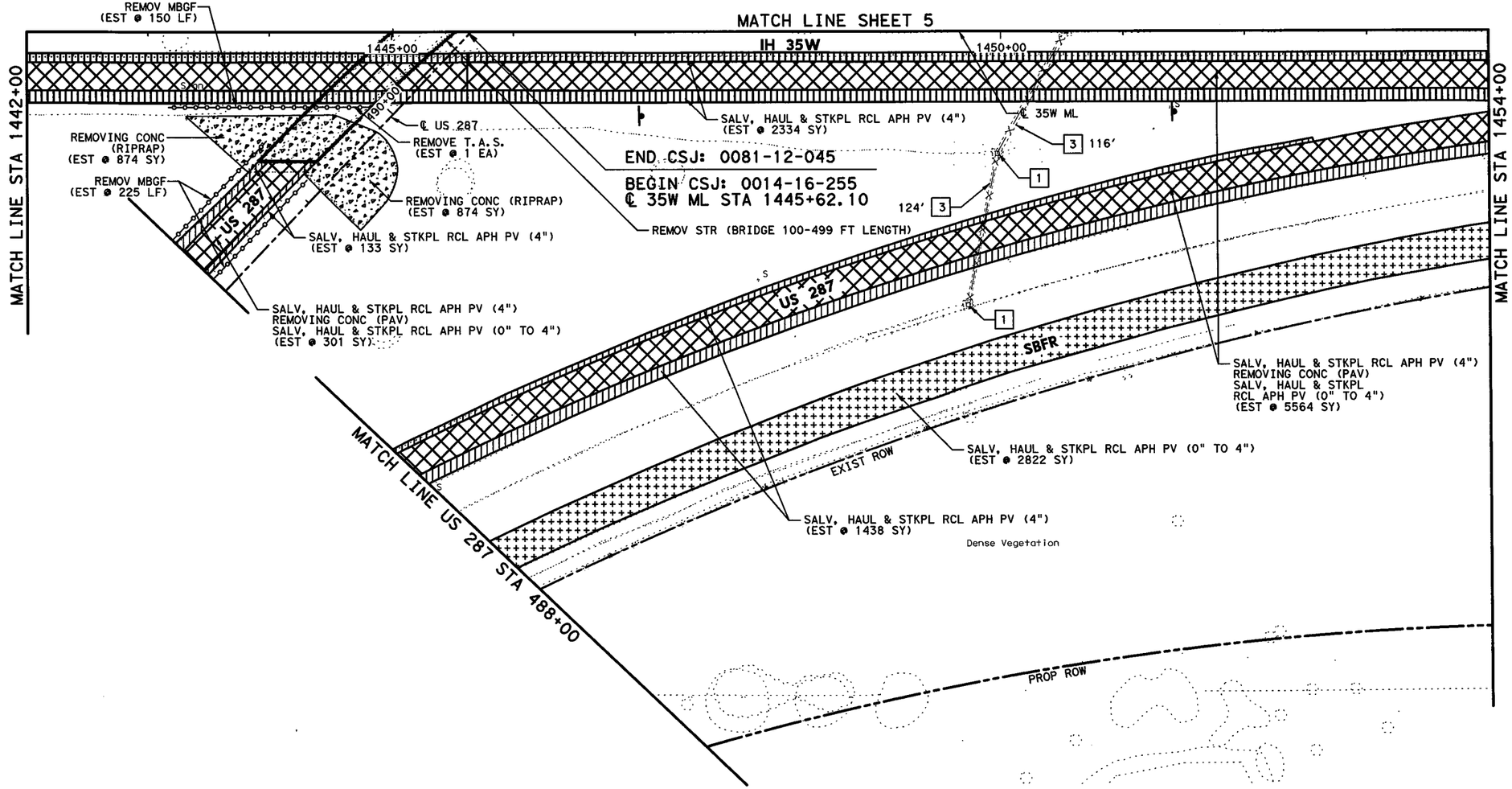

0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- [1] REMOVE STR (INLET)
- [2] REMOVE STR (MANHOLE)
- [3] REMOVE STR (PIPE)
- [4] REMOVE STR (BOX CULVERT)
- [5] REMOVE STR (WINGWALL)
- [6] REMOVE STR (HEADWALL)
- [7] REMOVE STR (SET)
- [8] REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
LICENSED
PROFESSIONAL ENGINEER
7/16/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

STA 1442+00 TO STA 1454+00

SCALE 1" = 100' SHEET 6 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
CPY	TEXAS	FTW	TARRANT	683
CHECK	CONTROL	SECTION	JOB	
CPY	0014	16	255, ETC.	
CHECK				
CPY				

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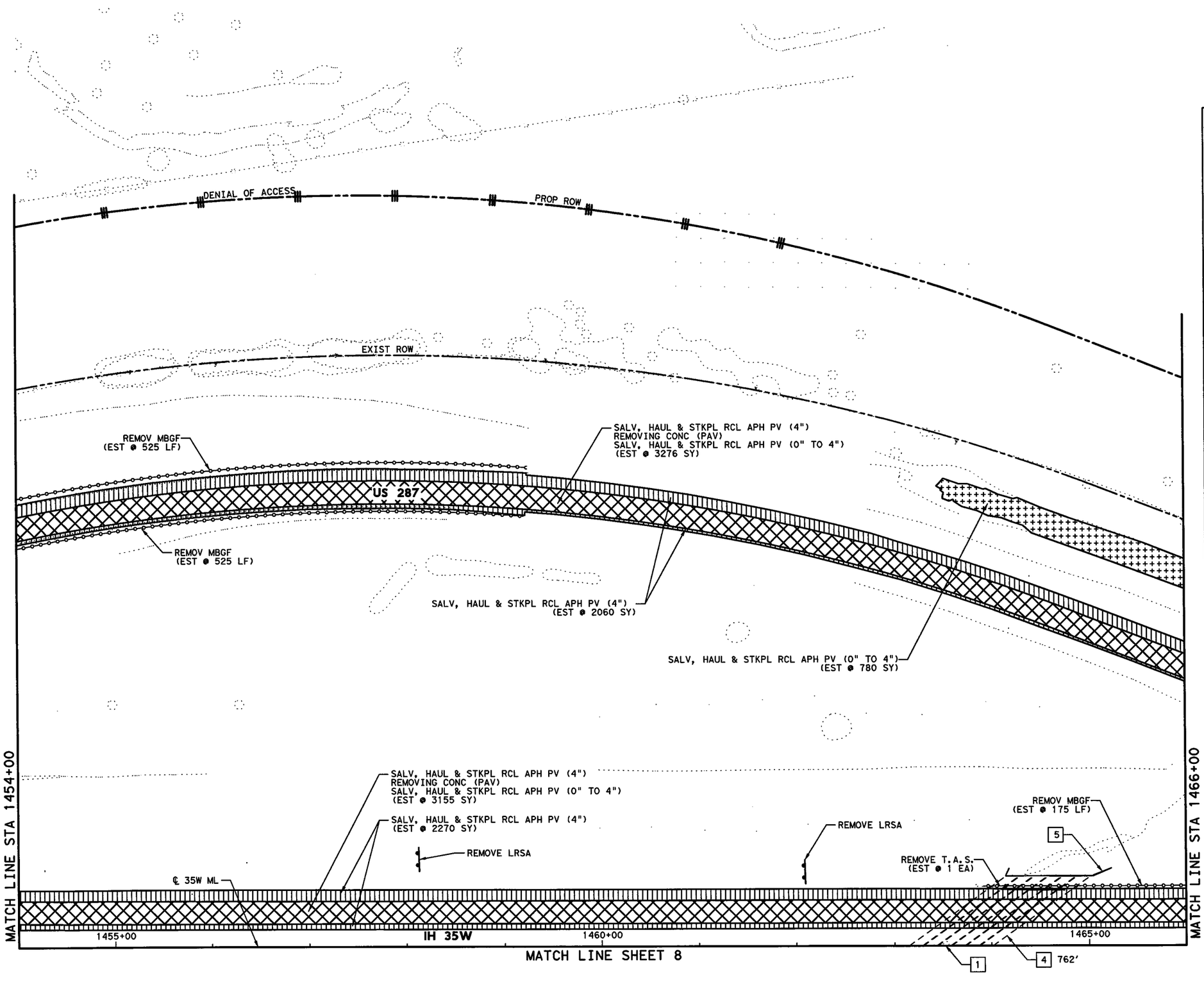

0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- [1] REMOVE STR (INLET)
- [2] REMOVE STR (MANHOLE)
- [3] REMOVE STR (PIPE)
- [4] REMOVE STR (BOX CULVERT)
- [5] REMOVE STR (WINGWALL)
- [6] REMOVE STR (HEADWALL)
- [7] REMOVE STR (SET)
- [8] REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
LICENSED
PROFESSIONAL ENGINEER
7/6/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

STA 1454+00 TO STA 1466+00

SCALE 1" = 100' SHEET 7 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
CPY	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	684
CPY	0014	16	255, ETC.	
CHECK				

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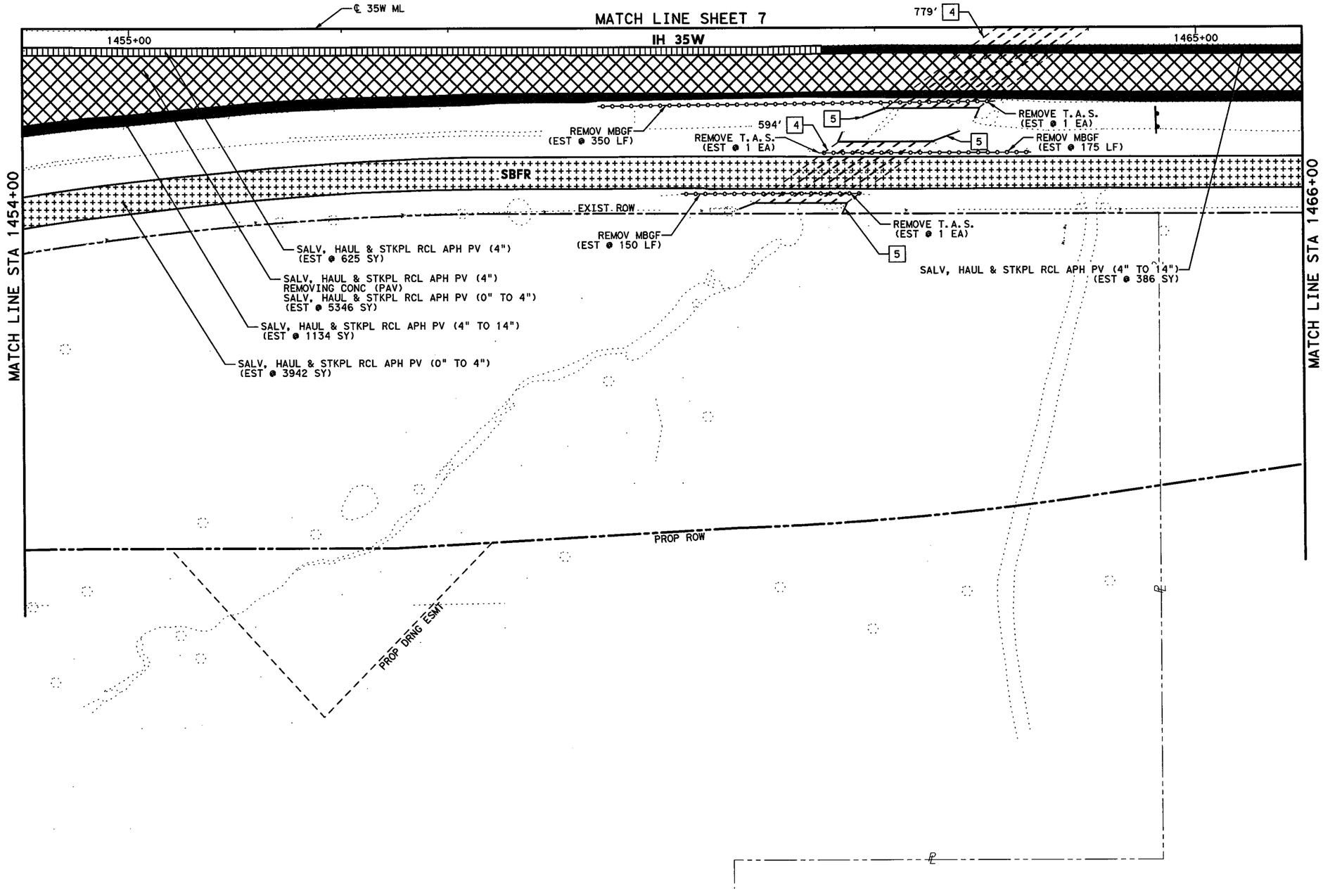

0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4") REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
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- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
LICENSED
PROFESSIONAL ENGINEER
7/6/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

STA 1454+00 TO STA 1466+00

SCALE 1" = 100' SHEET 8 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	685
CHECK CPY	CONTROL	SECTION	JOB	
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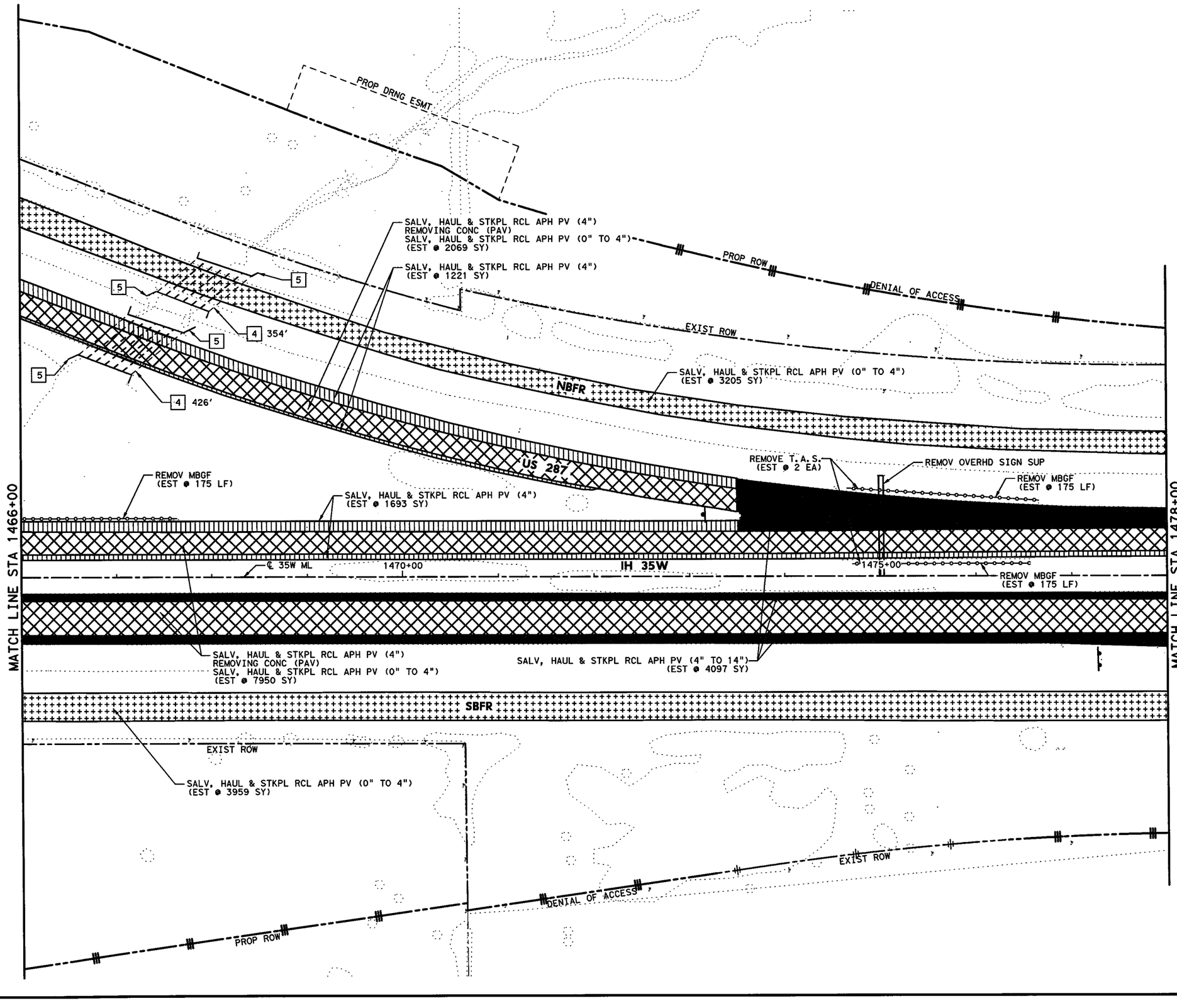

0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
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- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
LICENSED
PROFESSIONAL ENGINEER
7/6/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

STA 1466+00 TO STA 1478+00

SCALE 1" = 100' SHEET 9 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	686
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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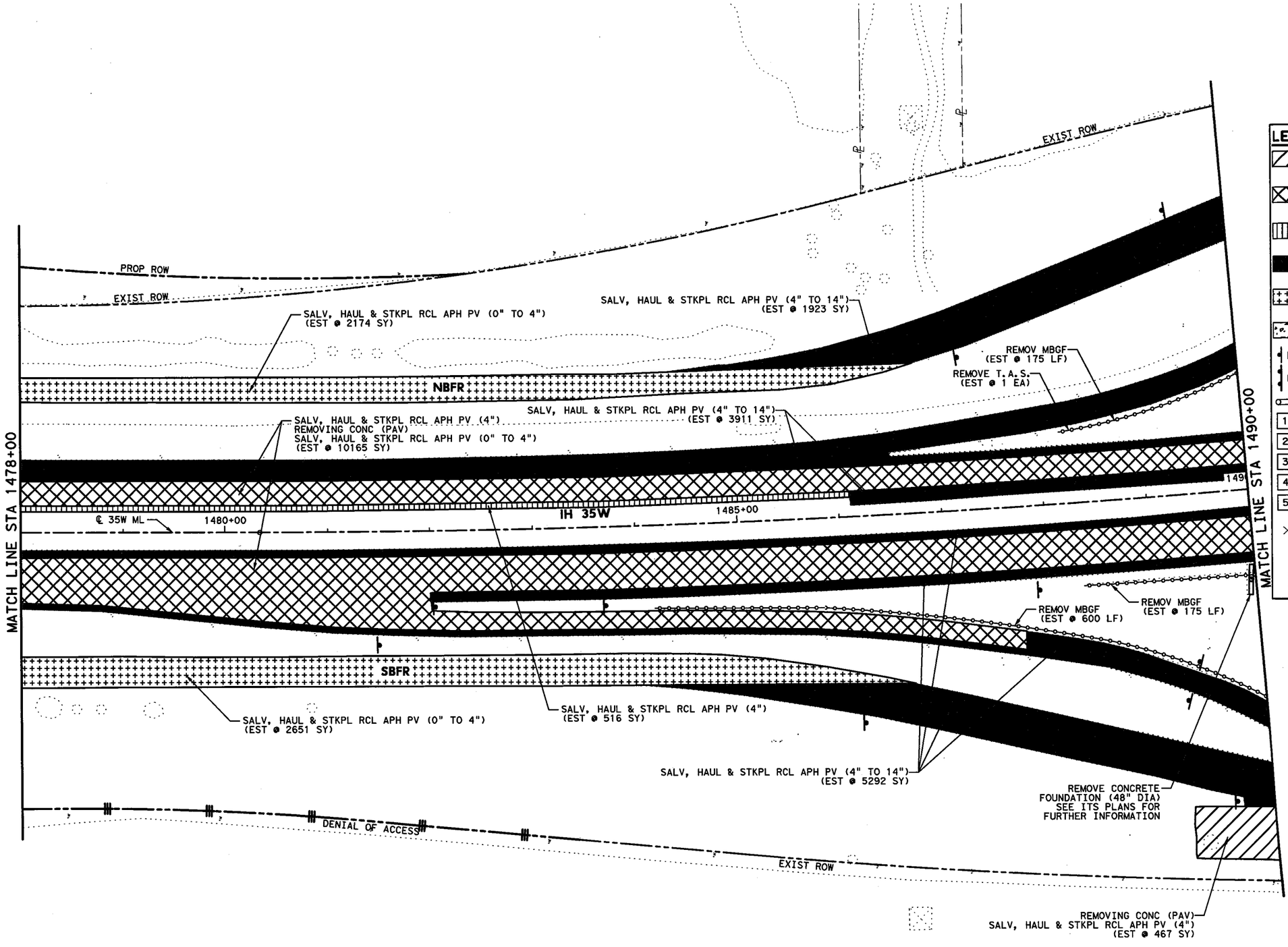
DRAWING DATE: 7/13/2012



0′ 50′ 100′
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
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- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
LICENSED
PROFESSIONAL ENGINEER
7/6/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

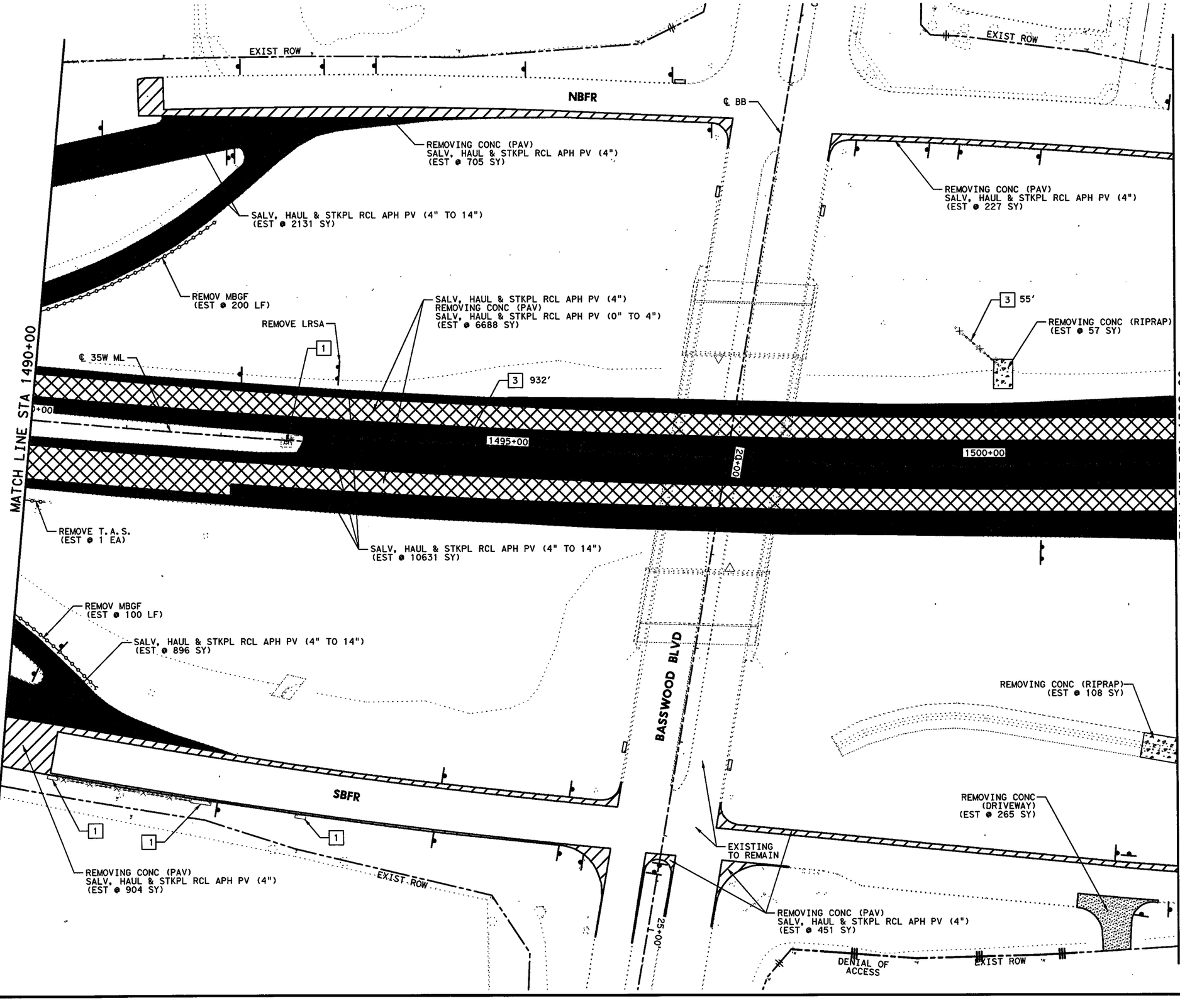
REMOVAL PLANS

STA 1478+00TO STA 1490+00

SCALE 1" = 100′ SHEET 10 OF 23

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
CPY	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	687
CPY	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: 'S3B*REMOVAL10.dgn



0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4") REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

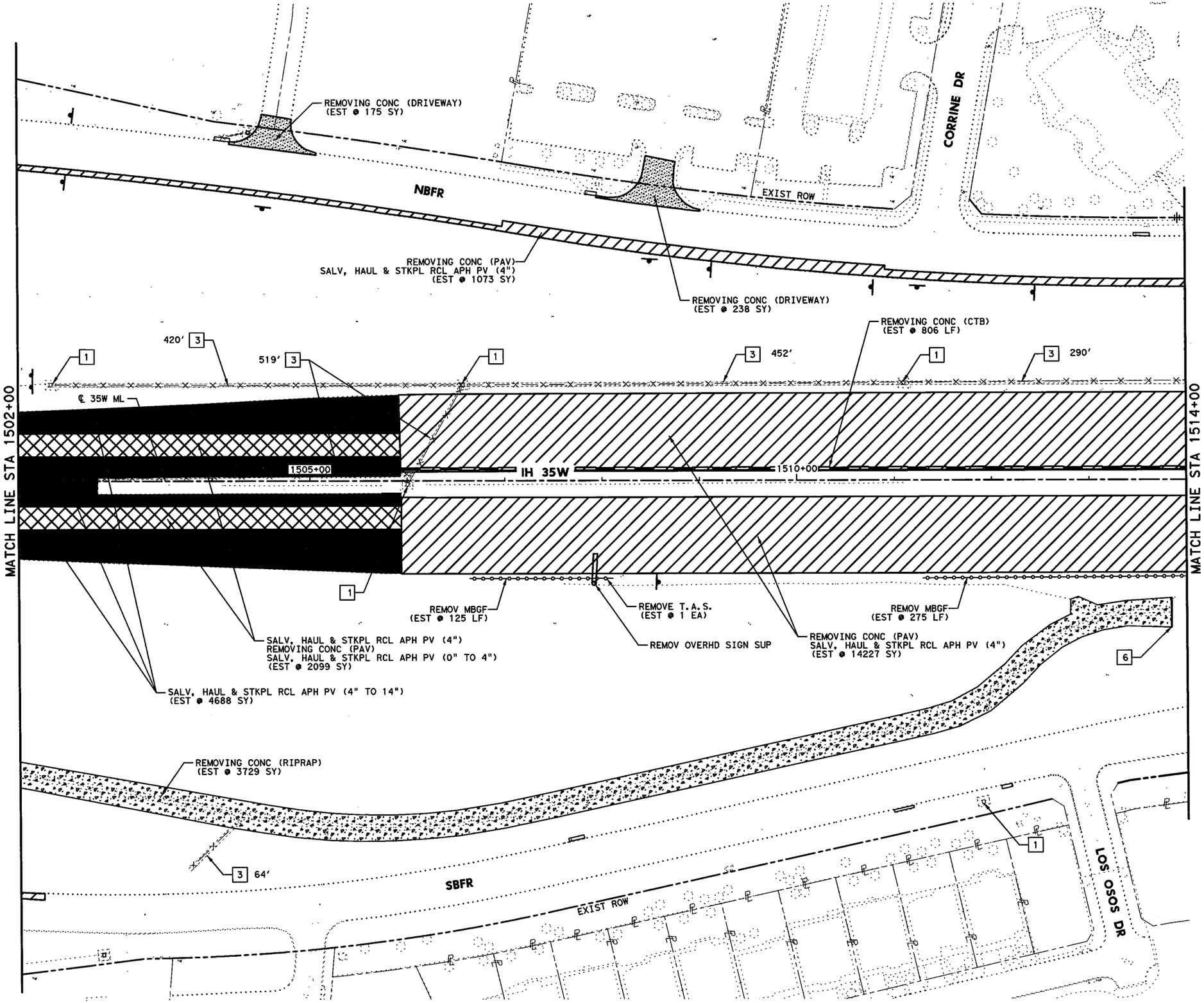
REMOVAL PLANS

STA 1490+00 TO STA 1502+00

SCALE 1" = 100' SHEET 11 OF 23

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
CPY	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	688
CPY	0014	16	255, ETC.	

FILENAME: S3B*REMOVAL11.dgn
DRAWING DATE: 7/13/2012



0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- [1] REMOVE STR (INLET)
- [2] REMOVE STR (MANHOLE)
- [3] REMOVE STR (PIPE)
- [4] REMOVE STR (BOX CULVERT)
- [5] REMOVE STR (WINGWALL)
- [6] REMOVE STR (HEADWALL)
- [7] REMOVE STR (SET)
- [8] REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

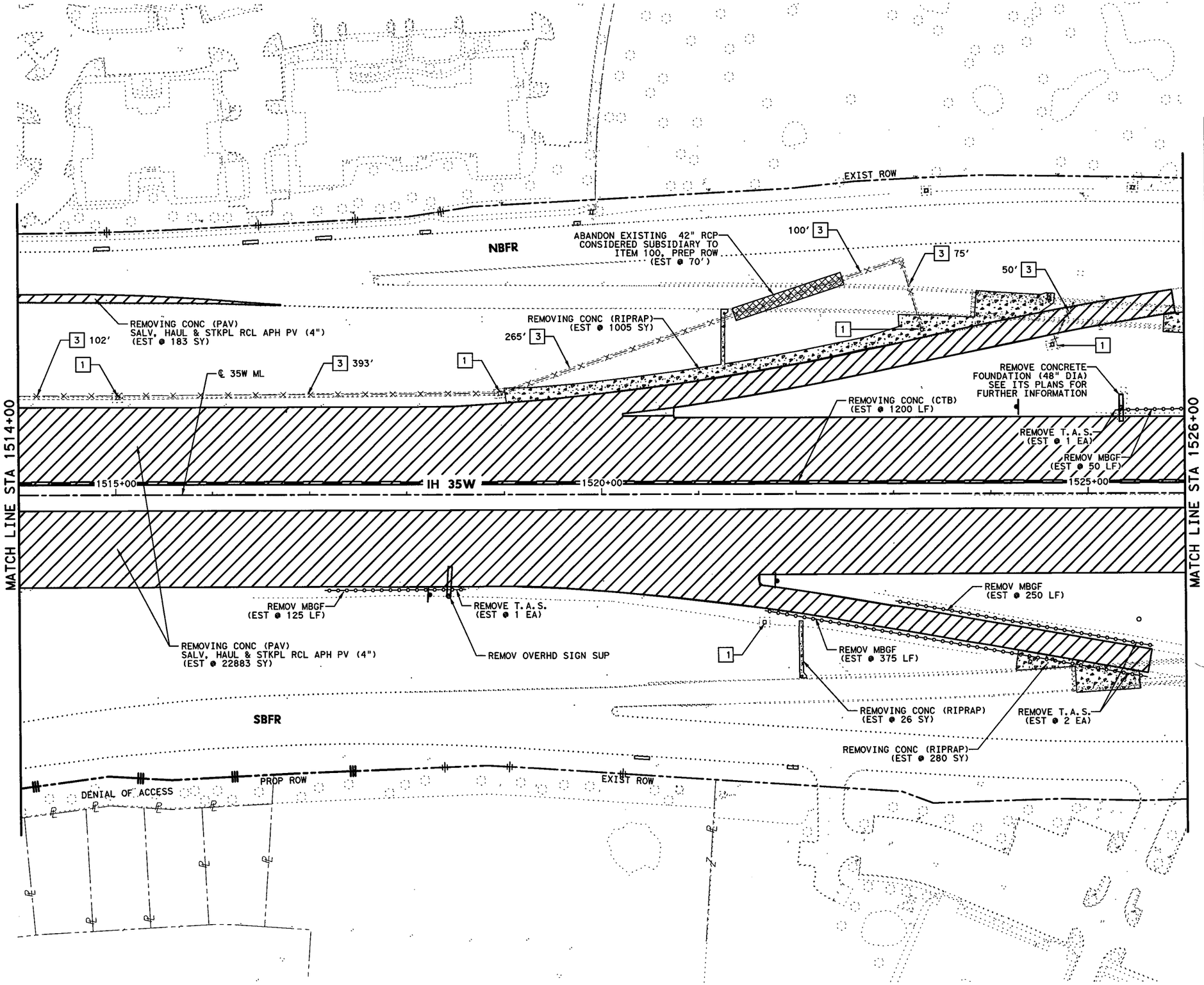
REMOVAL PLANS

STA 1502+00 TO STA 1514+00

SCALE 1" = 100' SHEET 12 OF 23

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	689
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL12.dgn



0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4") REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

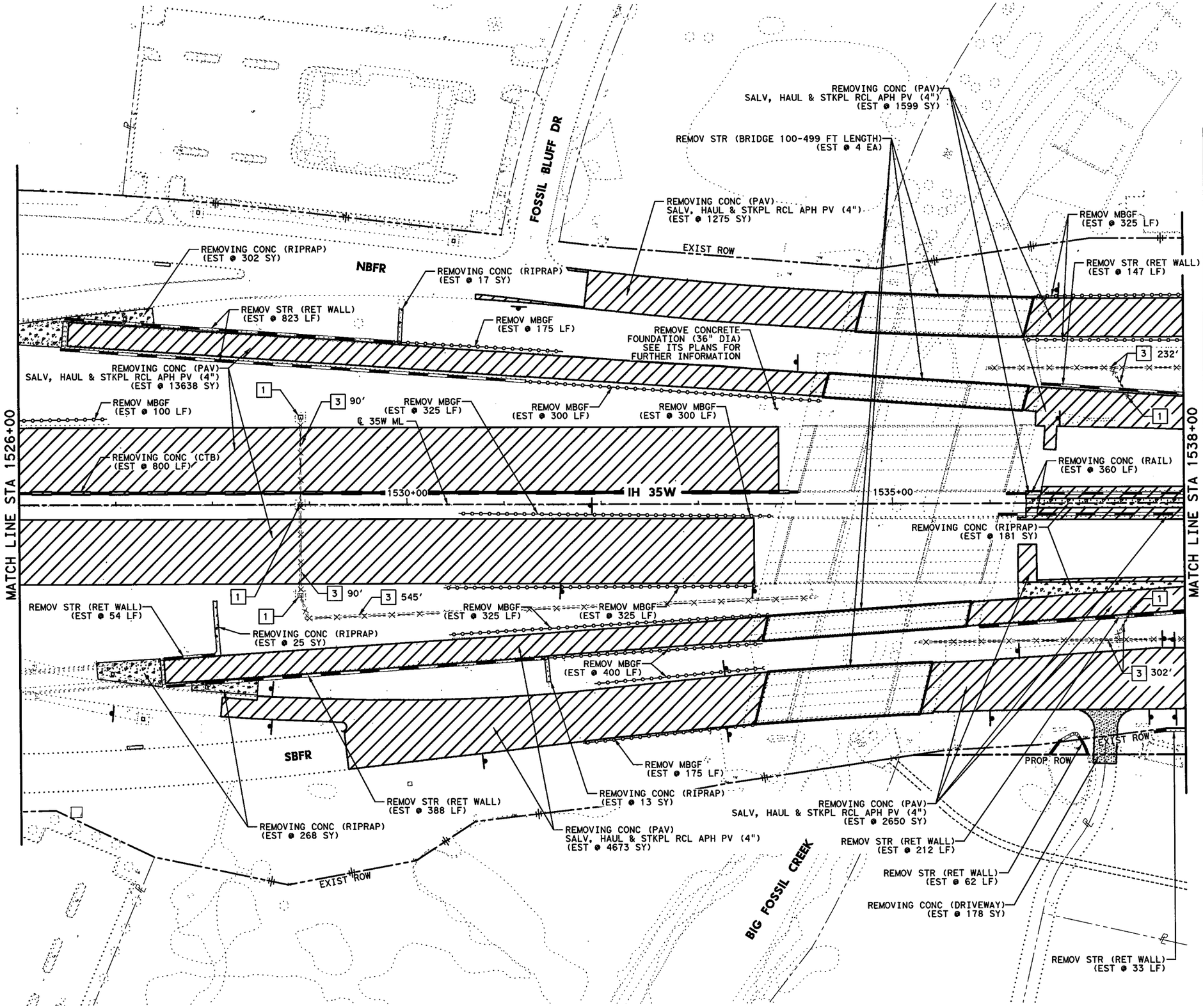
REMOVAL PLANS

STA 1514+00 TO STA 1526+00

SCALE 1" = 100' SHEET 13 OF 23

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
CPY	TEXAS	FTW	TARRANT	690
CHECK	CONTROL	SECTION	JOB	
CPY	0014	16	255, ETC.	
CHECK				
CPY				

FILENAME: S3B*REMOVAL13.dgn
DRAWING DATE: 7/13/2012



0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4") REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

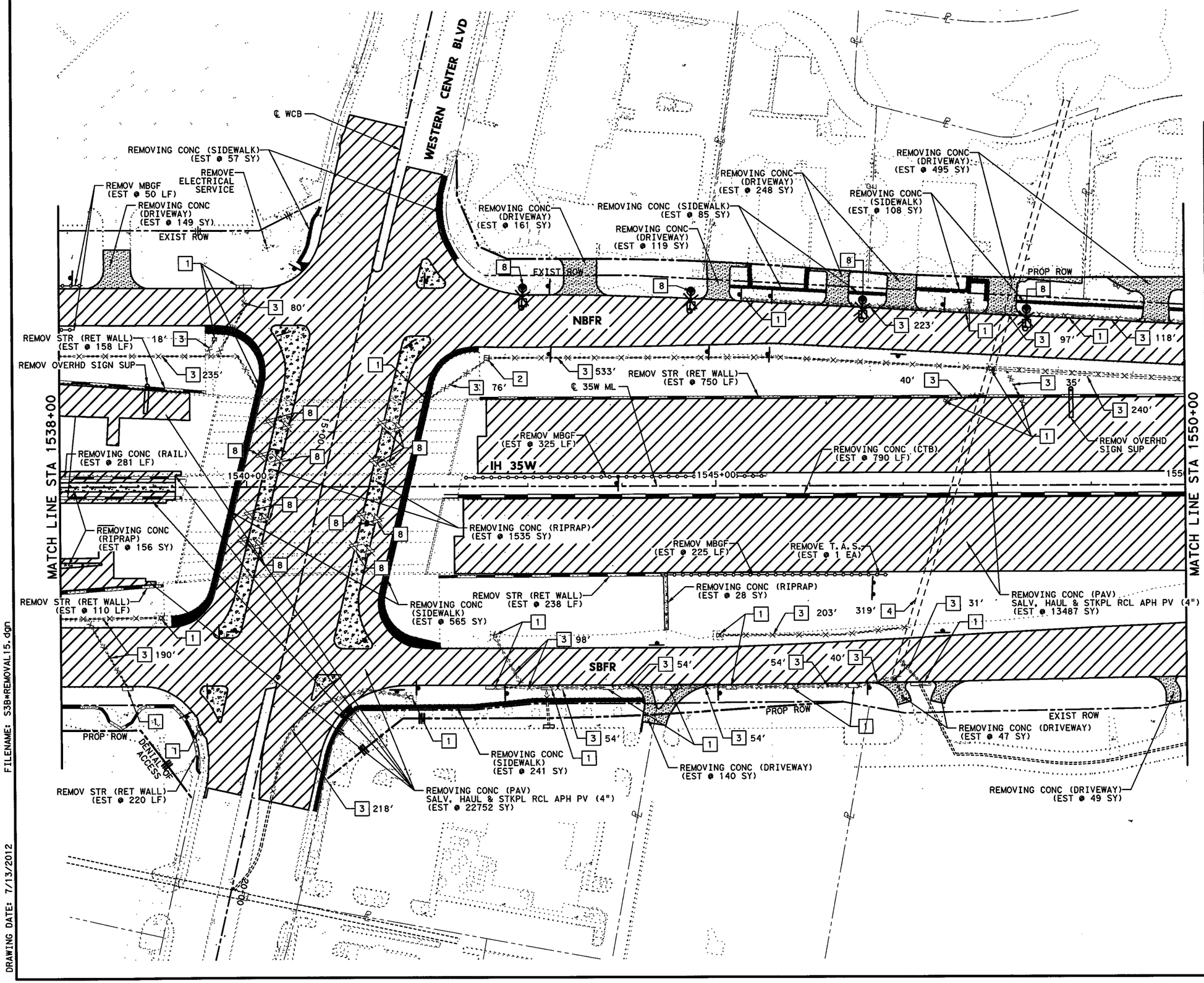
REMOVAL PLANS

STA 1526+00 TO STA 1538+00

SCALE 1" = 100' SHEET 14 OF 23

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	691
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL14.dgn



LEGEND

- REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4") REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

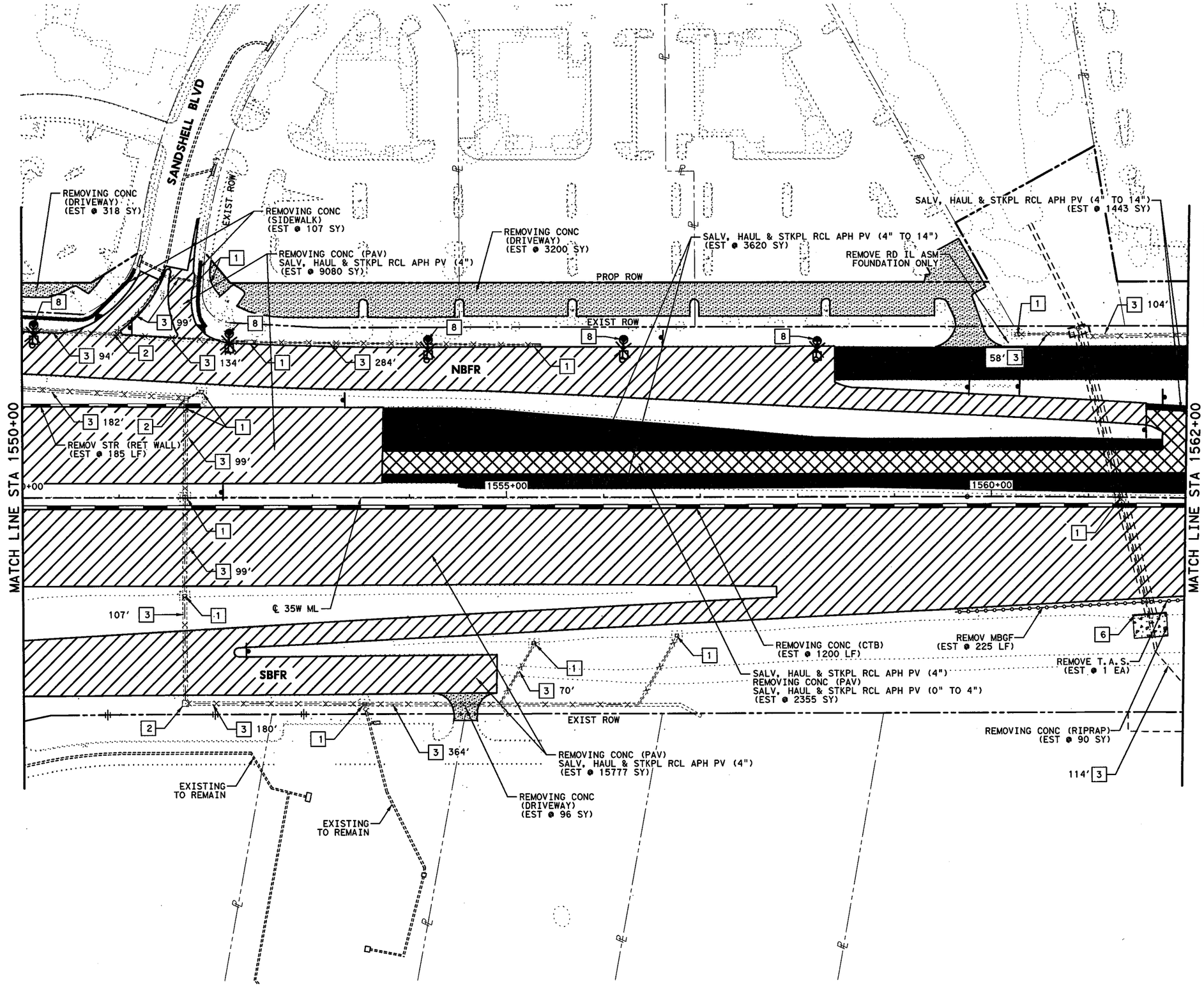
REMOVAL PLANS

STA 1538+00 TO STA 1550+00

SCALE 1" = 100' SHEET 15 OF 23

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
CPY	TEXAS	FTW	TARRANT	692
CHECK	CONTROL	SECTION	JOB	
CPY	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL15.dgn



0′ 50′ 100′
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4") REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

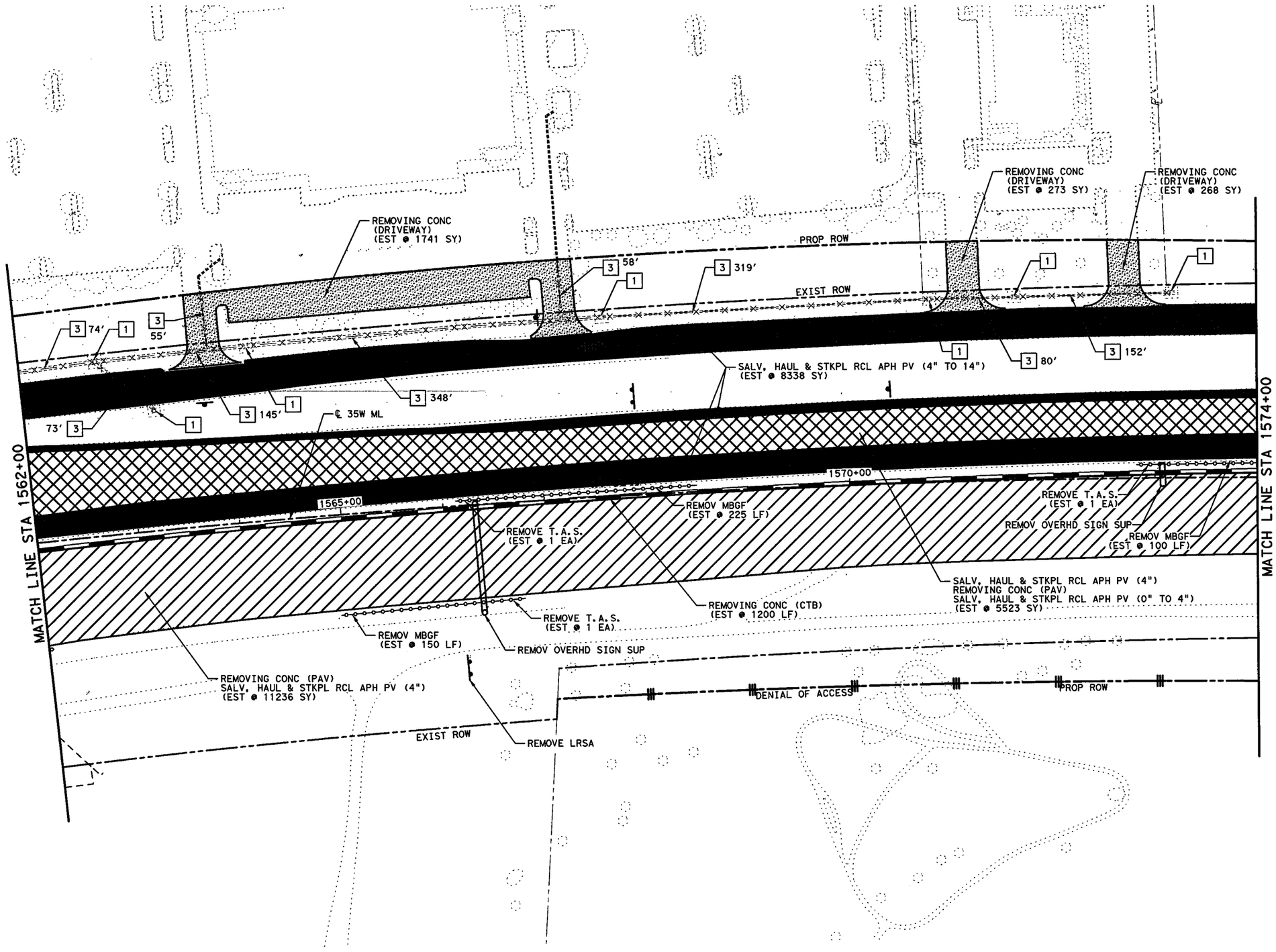
REMOVAL PLANS

STA 1550+00 TO STA 1562+00

SCALE 1" = 100′ SHEET 16 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	693
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL16.dgn



0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV) / SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4") / REMOVING CONC (PAV) / SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

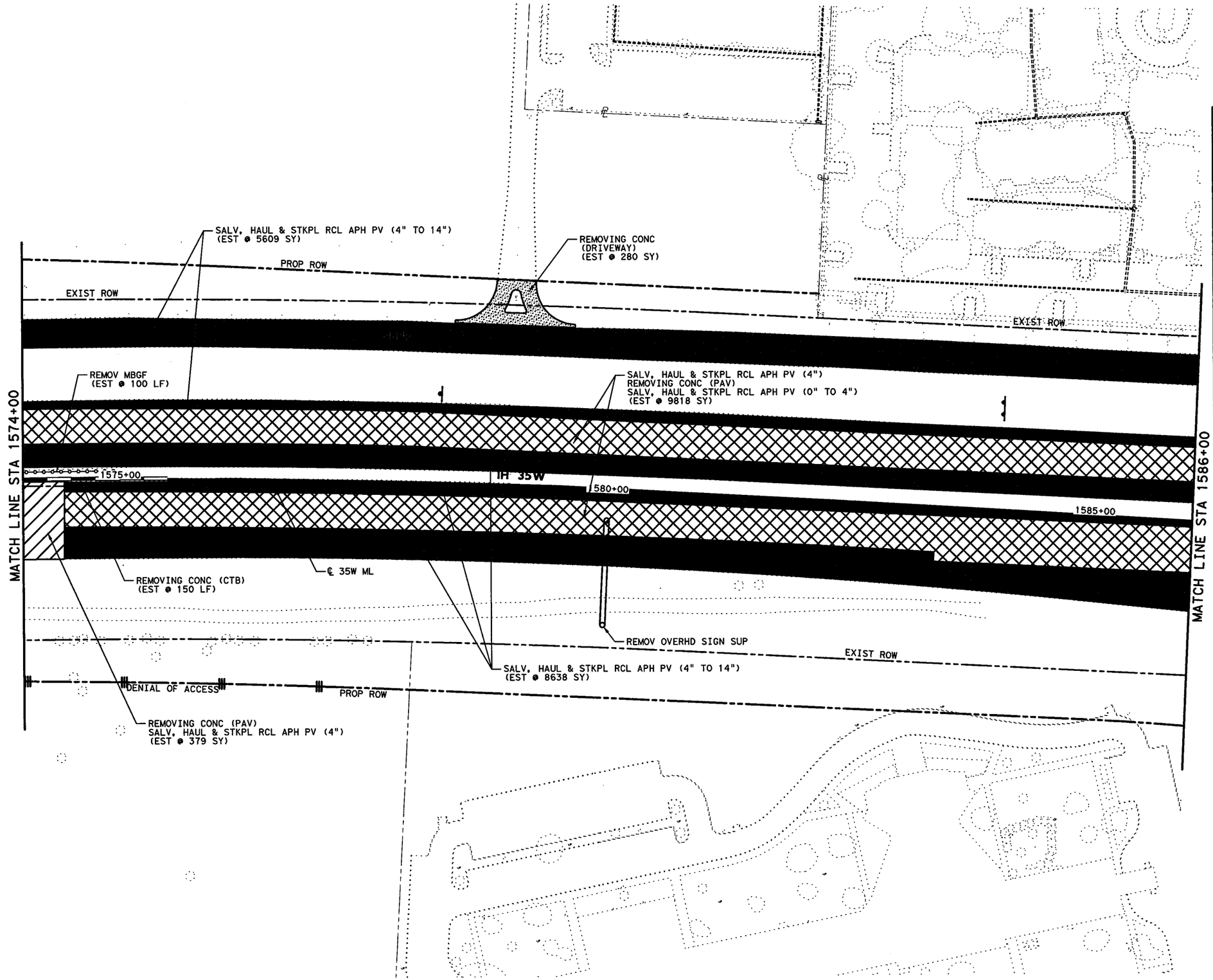
REMOVAL PLANS

STA 1562+00 TO STA 1574+00

SCALE 1" = 100' SHEET 17 OF 23

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
CPY	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	694
CPY	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL17.dgn



0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

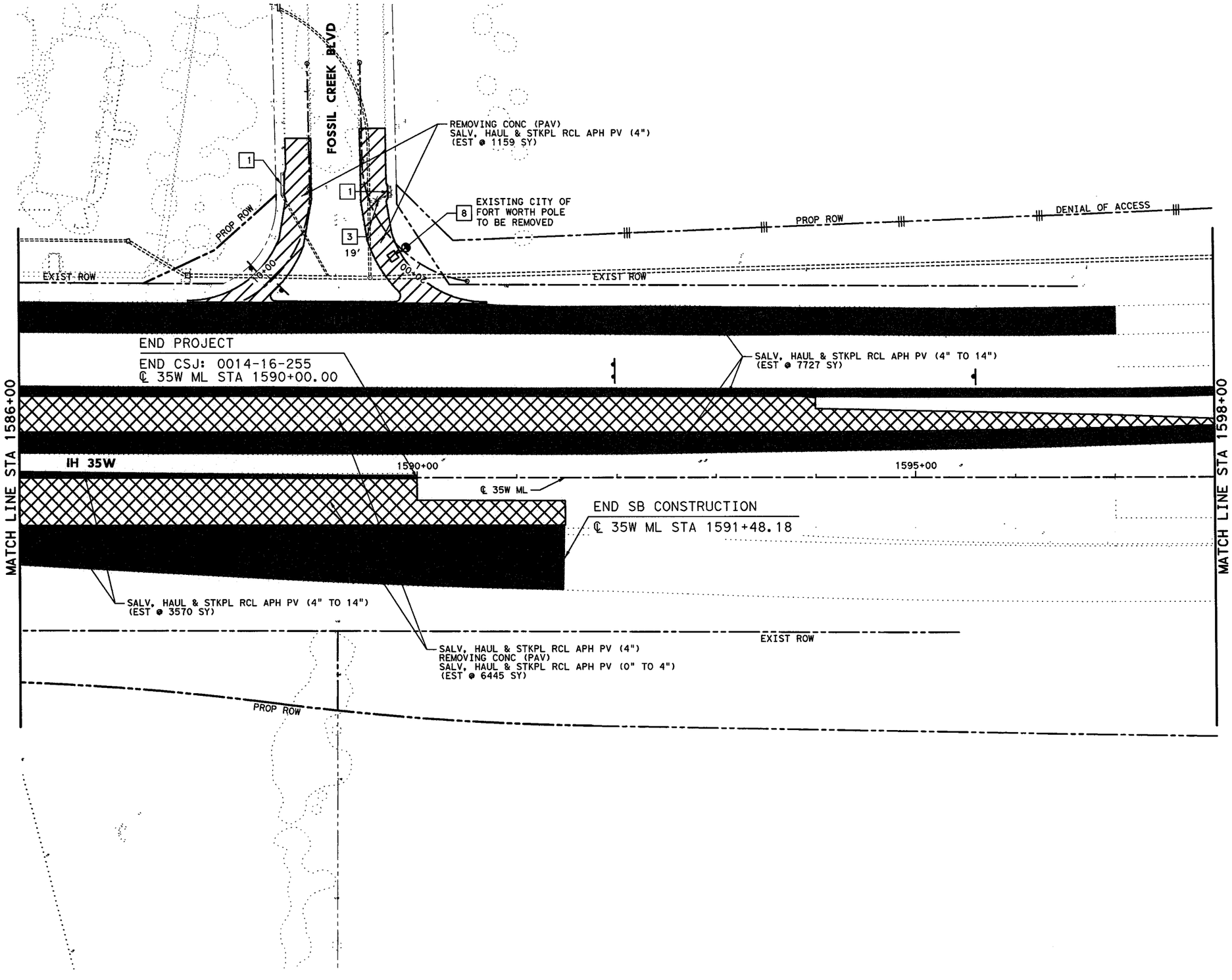
REMOVAL PLANS

STA 1574+00 TO STA 1586+00

SCALE 1" = 100' SHEET 18 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	
CHECK CPY	CONTROL	SECTION	JOB	695
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL18.dgn



LEGEND

- REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4") REMOVING CONC (PAV) SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

STA 1586+00 TO STA 1598+00

SCALE 1" = 100' SHEET 19 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	696
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL19.dgn

END NB CONSTRUCTION
℄ 35W ML STA 1608+76.65

DENIAL OF ACCESS

PROP ROW

REMOVE T.A.S.
(EST @ 1 EA)

5

4 6'

REMOV MBGF
(EST @ 650 LF)

SALV, HAUL & STKPL RCL APH PV (4" TO 14")
(EST @ 1048 SY)

MATCH LINE STA 1598+00

1600+00

IH 35W

1605+00

161

℄ 35W ML

SALV, HAUL & STKPL RCL APH PV (4")
REMOVING CONC (PAV)
SALV, HAUL & STKPL RCL APH PV (0" TO 4")
(EST @ 33 SY)

SALV, HAUL & STKPL RCL APH PV (4" TO 14")
(EST @ 361 SY)

PROP ROW

0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

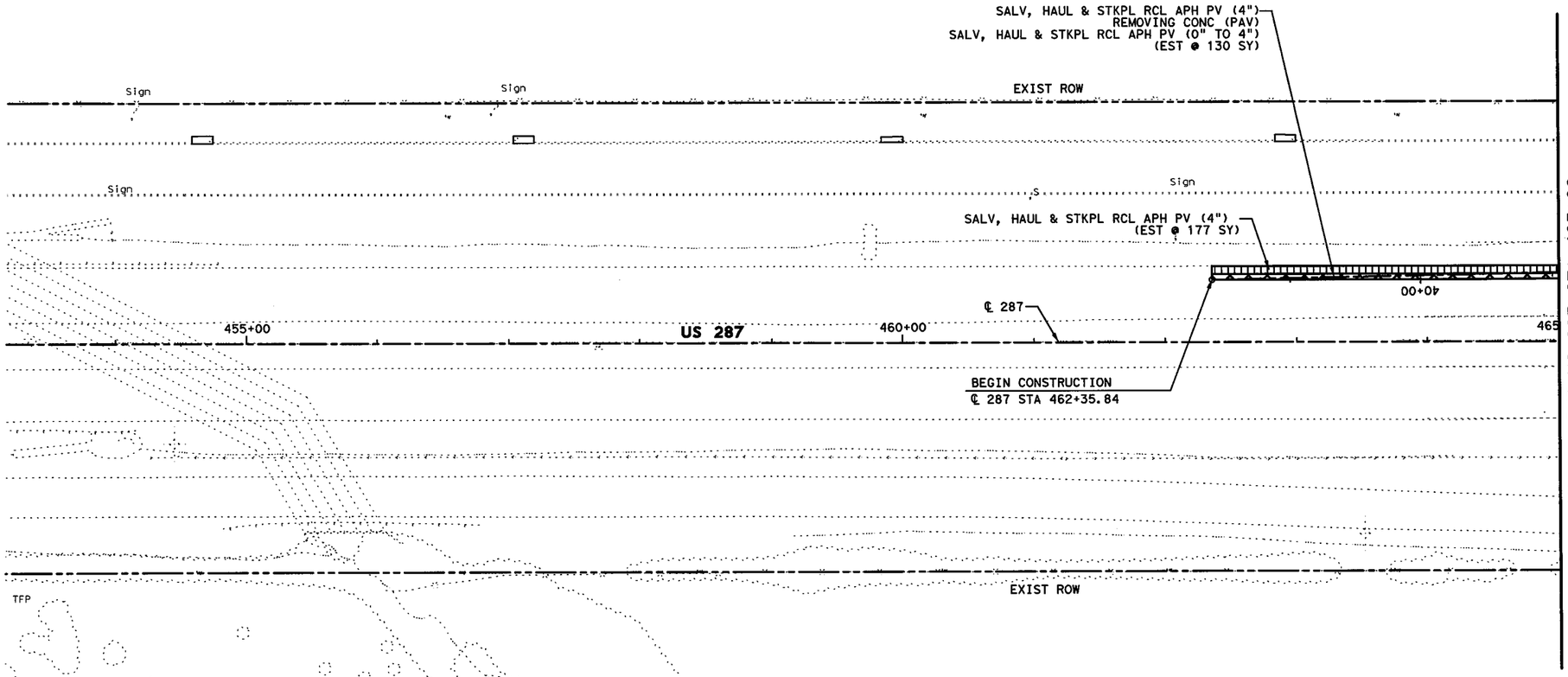
REMOVAL PLANS

STA 1598+00 TO END PROJECT

SCALE 1" = 100' SHEET 20 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	697
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL20.dgn



0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
LICENSED
PROFESSIONAL ENGINEER
7/16/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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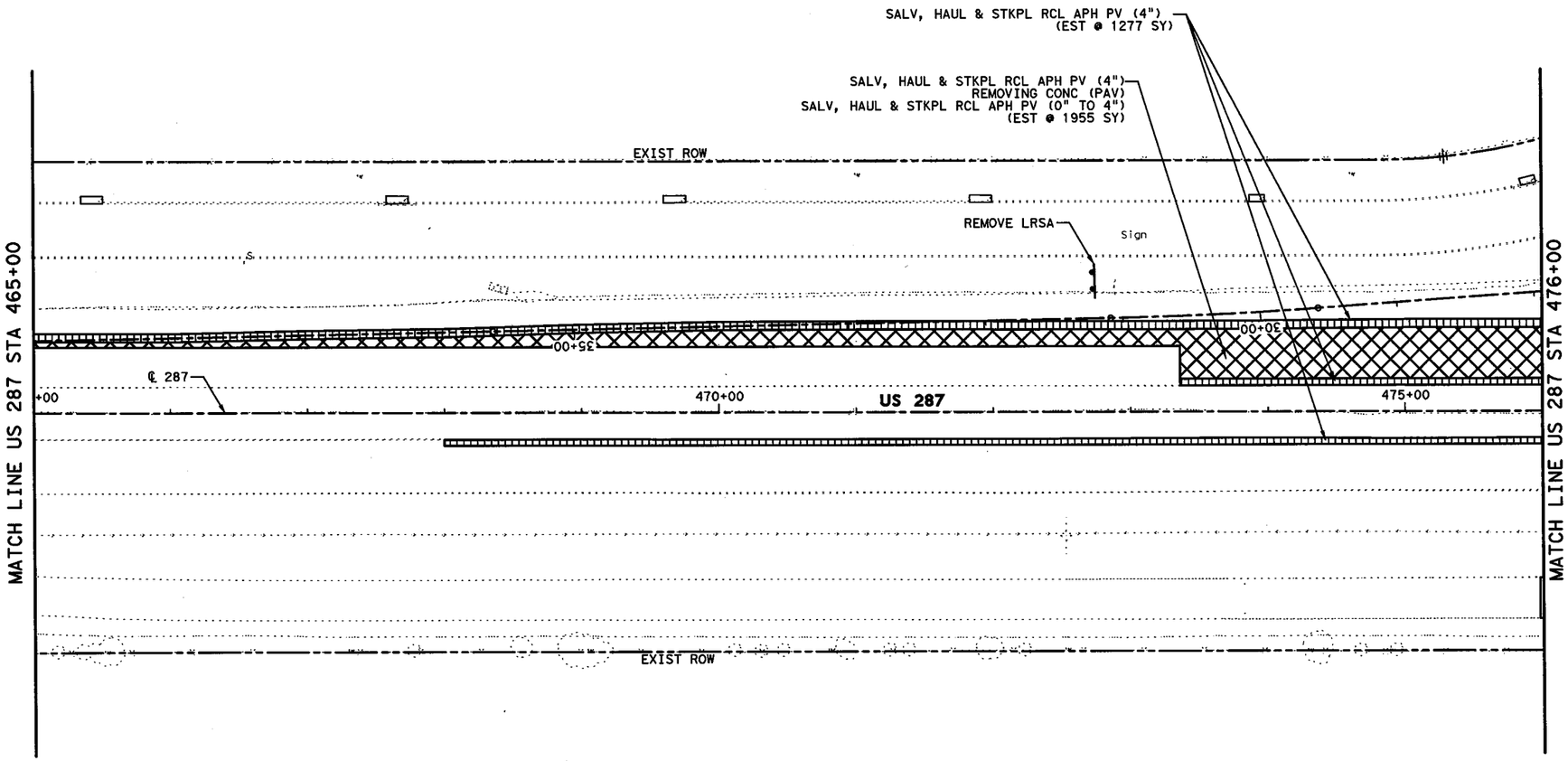
IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS
US 287
BEGIN TO STA 465+00

SCALE 1" = 100' SHEET 21 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	698
CHECK CPY	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL21.dgn



0′ 50′ 100′
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- 1 REMOVE STR (INLET)
- 2 REMOVE STR (MANHOLE)
- 3 REMOVE STR (PIPE)
- 4 REMOVE STR (BOX CULVERT)
- 5 REMOVE STR (WINGWALL)
- 6 REMOVE STR (HEADWALL)
- 7 REMOVE STR (SET)
- 8 REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
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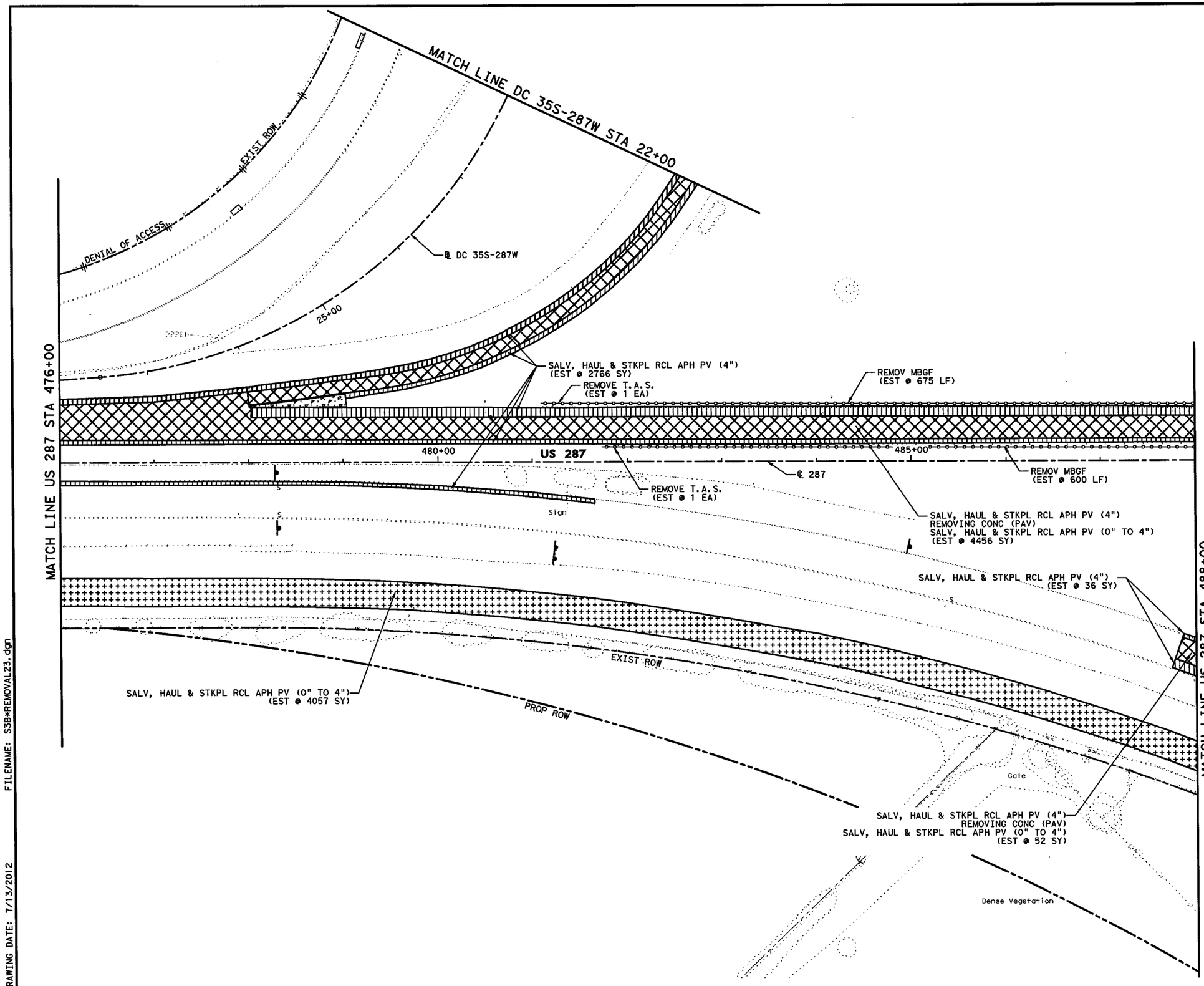
IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS
US 287
STA 465+00 TO STA 476+00

SCALE 1" = 100′ SHEET 22 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS CPY	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK CPY	TEXAS	FTW	TARRANT	699
CHECK CPY	CONTROL 0014	SECTION 16	JOB 255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*REMOVAL22.dgn



0' 50' 100'
SCALE IN FEET

LEGEND

- REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4")
  REMOVING CONC (PAV)
  SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- SALV, HAUL & STKPL RCL APH PV (4")
- SALV, HAUL & STKPL RCL APH PV (4" TO 14")
- SALV, HAUL & STKPL RCL APH PV (0" TO 4")
- REMOVING CONC (RIPRAP)
- REMOVING CONC (DRIVEWAY)
- REMOVE SM RD SN SUP & AM
- RELOCATE LRSA
- REMOVE LRSA
- REMOVE OVHD SIGN SUPPORT
- [1] REMOVE STR (INLET)
- [2] REMOVE STR (MANHOLE)
- [3] REMOVE STR (PIPE)
- [4] REMOVE STR (BOX CULVERT)
- [5] REMOVE STR (WINGWALL)
- [6] REMOVE STR (HEADWALL)
- [7] REMOVE STR (SET)
- [8] REMOVE RD IL ASM
- × — × — × PIPE TO BE REMOVED

NOTE:

SEE DRAINAGE PLANS FOR EXISTING DRAINAGE APPURTENANCES TO REMAIN IN SERVICE.

STATE OF TEXAS
ROBIN R. HANDEL
86931
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7/6/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

REMOVAL PLANS

US 287

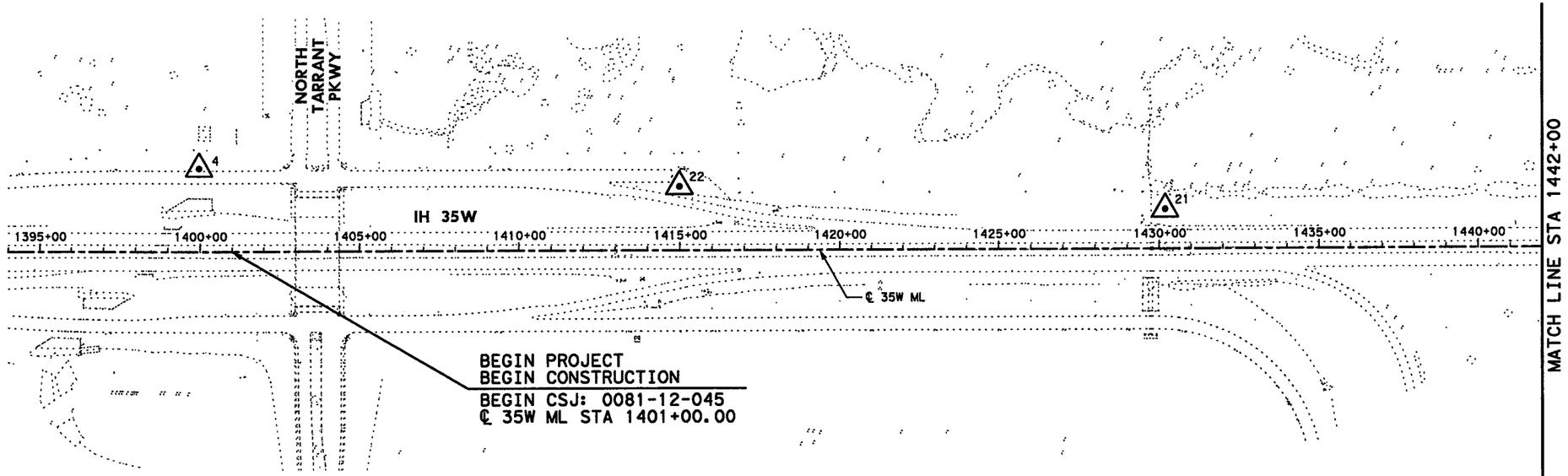
STA 476+00 TO STA 488+00

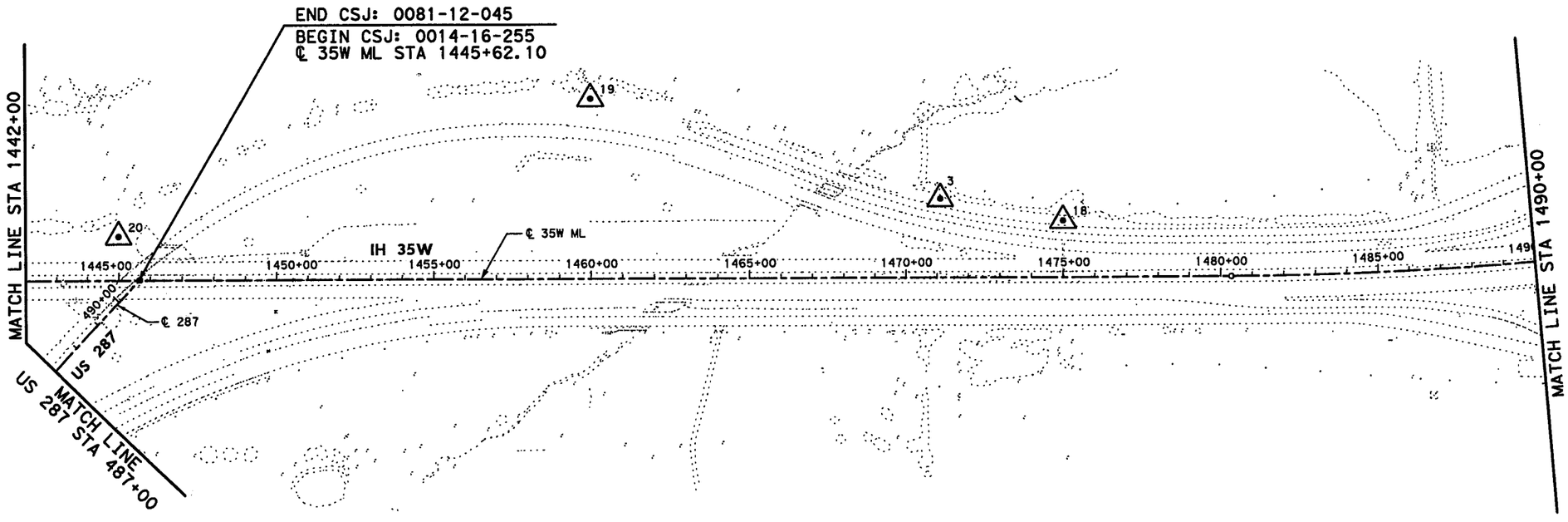
SCALE 1" = 100' SHEET 23 OF 23

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
CPY	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
CPY	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	700
CPY	0014	16	255, ETC.	

CHECK CPY

FILENAME: S3B*REMOVAL23.dgn
DRAWING DATE: 7/13/2012





0' 100' 200' 400'

SCALE IN FEET

LEGEND:

△● HORIZONTAL AND VERTICAL CONTROL POINT

NOTES

1. COORDINATES BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD-83(CORS 2002), TEXAS NORTH CENTRAL ZONE (4202) AND ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.00012. THE ELEVATIONS SHOWN ARE BASED ON THE NAVD-88 (CORS 2002) VERTICAL DATUM AND WERE ESTABLISHED BY USING TXSG CORS STATION. ALL COORDINATES AND ELEVATIONS ARE DISPLAYED IN U.S. SURVEY FEET.

STATE OF TEXAS REGISTERED ALLEN W. KERLEY 5427 PROFESSIONAL LAND SURVEYOR

02/11/12

FOR HORIZONTAL & VERTICAL CONTROL

STATE OF TEXAS SYED S. HAQ 94660 LICENSED PROFESSIONAL ENGINEER

07/10/12

SAM, INC. 1450 EMPIRE CENTRAL DR. SUITE 175 DALLAS, TEXAS 75247 (214) 631-7888 Fax: (214) 631-7103

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL AND VERTICAL CONTROL

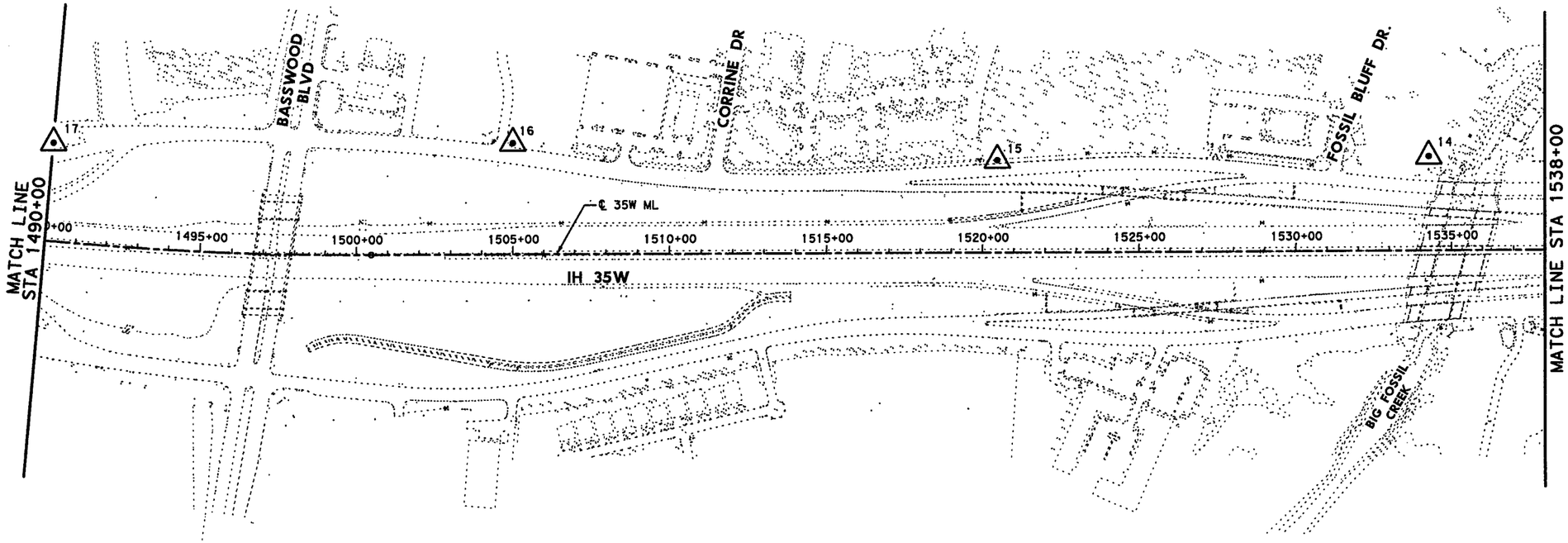
BEGIN PROJECT TO STA 1490+00

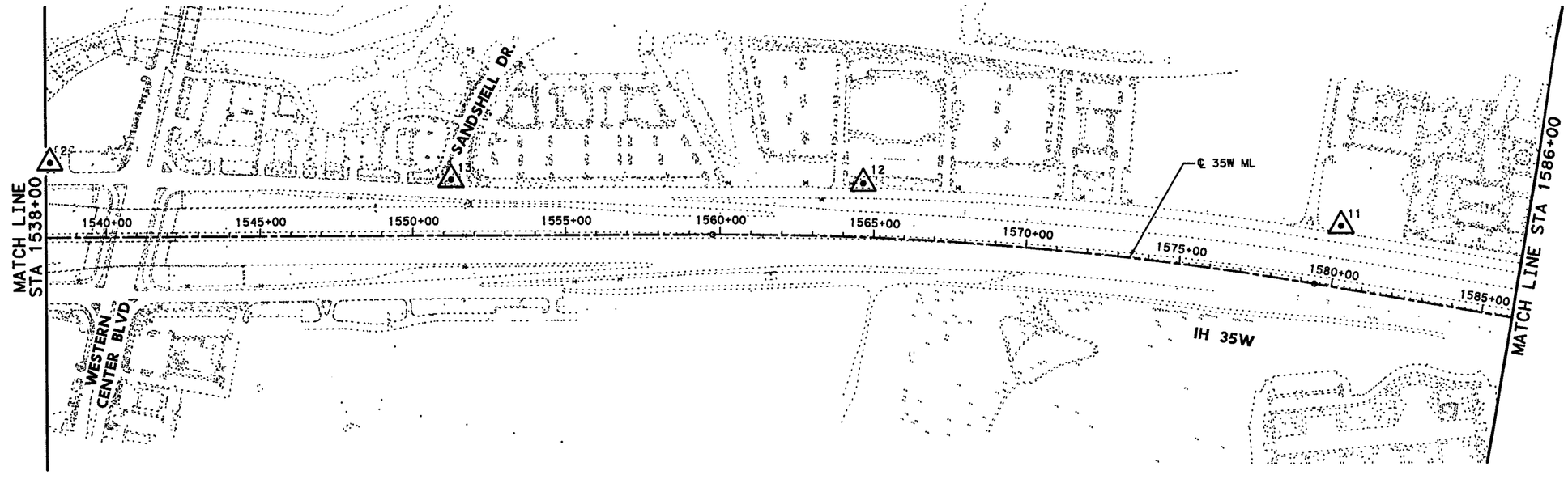
SCALE: 1" = 400' SHEET 1 OF 4

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	701
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BHVCONT01.dgn

DRAWING DATE: 7/13/2012





0' 100' 200' 400'

SCALE IN FEET

LEGEND:

△ HORIZONTAL AND VERTICAL CONTROL POINT

NOTES

1. COORDINATES BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD-83(CORS 2002), TEXAS NORTH CENTRAL ZONE (4202) AND ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.00012. THE ELEVATIONS SHOWN ARE BASED ON THE NAVD-88 (CORS 2002) VERTICAL DATUM AND WERE ESTABLISHED BY USING TXSG CORS STATION. ALL COORDINATES AND ELEVATIONS ARE DISPLAYED IN U.S. SURVEY FEET.

STATE OF TEXAS
REGISTERED
ALLEN W. KERLEY
5427
PROFESSIONAL
LAND SURVEYOR

07/11/12

FOR HORIZONTAL & VERTICAL CONTROL

STATE OF TEXAS
SYED S. HAQ
94660
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07/10/12

SAM, INC.
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

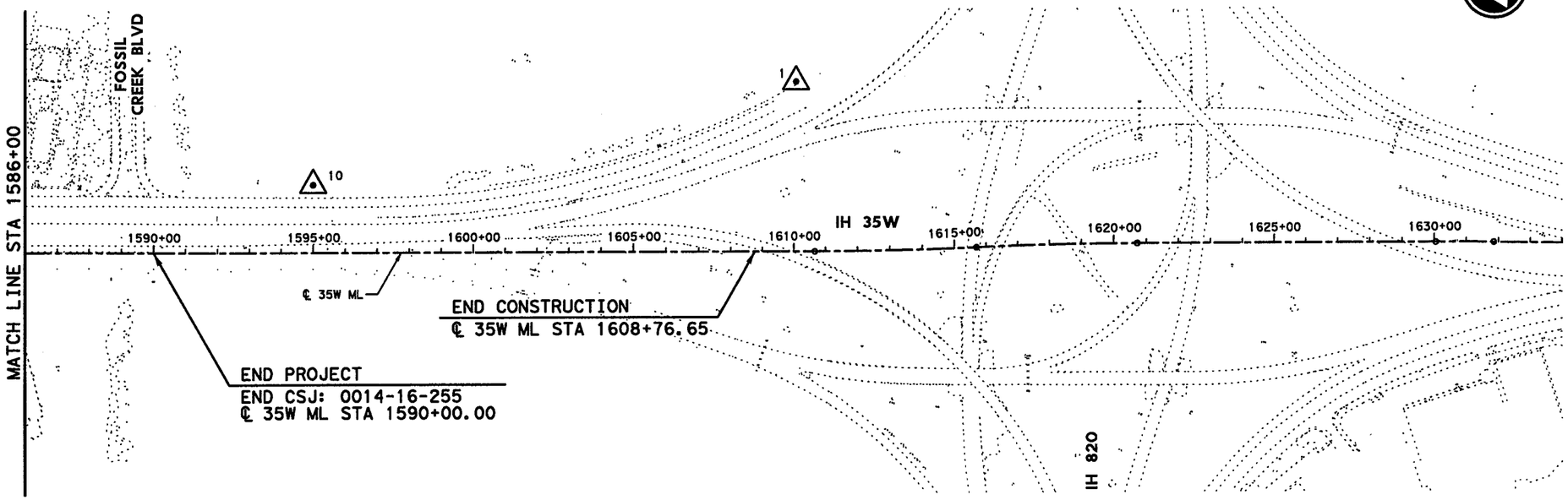
HORIZONTAL AND VERTICAL CONTROL

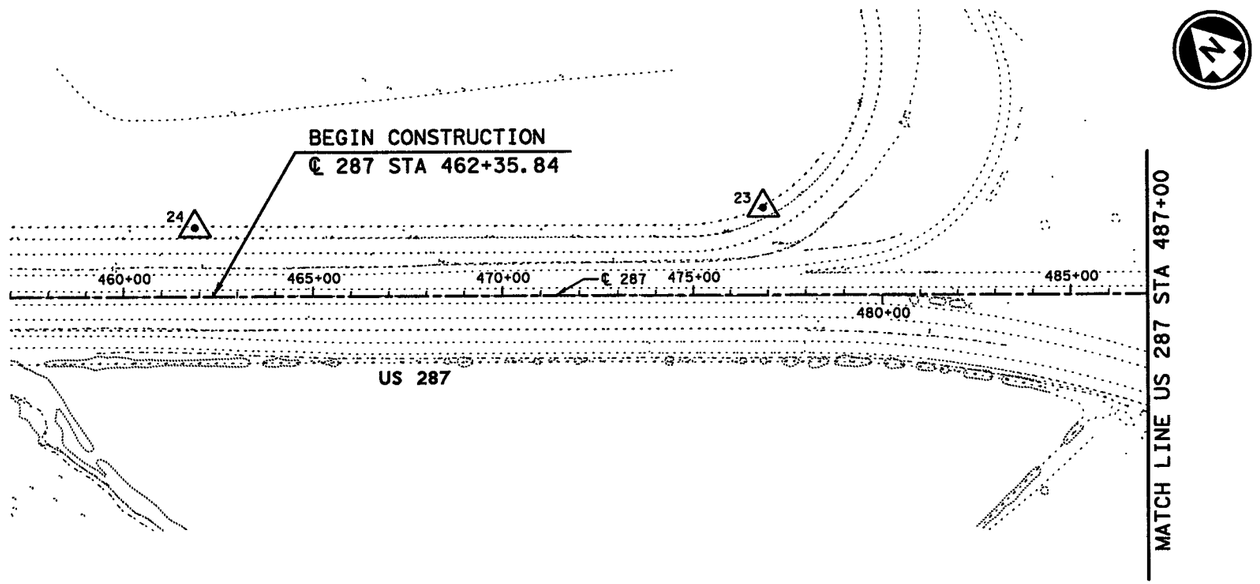
STA 1496+00 TO END

SCALE: 1" = 400' SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	702
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BHVCONT02.dgn





0' 100' 200' 400'

SCALE IN FEET

LEGEND:

HORIZONTAL AND VERTICAL CONTROL POINT

NOTES

1. COORDINATES BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD-83(CORS 2002), TEXAS NORTH CENTRAL ZONE (4202) AND ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.00012. THE ELEVATIONS SHOWN ARE BASED ON THE NAVD-88 (CORS 2002) VERTICAL DATUM AND WERE ESTABLISHED BY USING TXSG CORS STATION. ALL COORDINATES AND ELEVATIONS ARE DISPLAYED IN U.S. SURVEY FEET.

STATE OF TEXAS REGISTERED ALLEN W. KERLEY 5427 PROFESSIONAL LAND SURVEYOR

07/11/12

FOR HORIZONTAL & VERTICAL CONTROL

STATE OF TEXAS SYED S. HAQ 94660 LICENSED PROFESSIONAL ENGINEER

07/10/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL AND VERTICAL CONTROL STA 1586+00 TO END PROJECT US 287

SCALE: 1" = 400' SHEET 3 OF 4

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	703
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BHVCONT03.dgn

HORIZONTAL & VERTICAL CONTROL DATA TABLE

ID NUMBER	NORTHING	EASTING	ELEVATION	CHAIN ID	STATION	OFFSET	LT/RT	DESCRIPTION
1	6992187.40	2333913.38	631.81	℄ IH 35W	1610+08.16	525.26	LT	BRASS CAP TxDOT STAMPED 220 0001
2	6999369.86	2332994.23	609.10	℄ IH 35W	1538+14.30	244.17	LT	BRASS CAP TxDOT STAMPED 220 0002
3	7005953.88	2332105.83	642.06	℄ IH 35W	1471+11.10	249.62	LT	BRASS CAP TxDOT STAMPED 220 0003
4	7013067.81	2332046.86	690.46	℄ IH 35W	1399+96.93	258.44	LT	BRASS CAP TxDOT STAMPED 220 0004
10	6993691.05	2333578.33	637.54	℄ IH 35W	1595+00.17	210.36	LT	5/8" IR W/ SAM ALUM CAP
11	6995190.90	2333548.65	642.27	℄ IH 35W	1580+00.05	200.73	LT	5/8" IR W/ SAM ALUM CAP
12	6996748.29	2333404.94	626.31	℄ IH 35W	1564+59.40	175.42	LT	5/8" IR W/ SAM ALUM CAP
13	6998070.59	2333175.16	610.61	℄ IH 35W	1551+24.67	182.72	LT	5/8" IR W/ SAM ALUM CAP
14	6999760.29	2332976.47	620.76	℄ IH 35W	1534+27.28	298.62	LT	5/8" IR W/ SAM ALUM CAP
15	7001115.10	2332715.75	629.00	℄ IH 35W	1520+47.62	291.88	LT	5/8" IR W/ SAM ALUM CAP
16	7002647.10	2332489.86	652.44	℄ IH 35W	1505+00.23	352.01	LT	5/8" IR W/ SAM ALUM CAP
17	7004092.37	2332224.42	672.71	℄ IH 35W	1490+01.00	310.81	LT	5/8" IR W/ SAM ALUM CAP
18	7005564.31	2332039.95	644.80	℄ IH 35W	1475+00.03	180.03	LT	5/8" IR W/ SAM ALUM CAP
19	7007068.13	2332416.76	644.75	℄ IH 35W	1459+99.86	571.16	LT	5/8" IR W/ SAM ALUM CAP
20	7008564.33	2331970.18	652.85	℄ IH 35W	1444+99.47	138.86	LT	5/8" IR W/ SAM ALUM CAP
21	7010045.10	2331940.58	660.56	℄ IH 35W	1430+18.49	123.37	LT	5/8" IR W/ SAM ALUM CAP
22	7011564.93	2332001.97	669.45	℄ IH 35W	1414+99.32	199.24	LT	5/8" IR W/ SAM ALUM CAP
23	7009625.75	2330964.55	668.04	℄ US 287	476+88.49	230.34	LT	5/8" IR W/ SAM ALUM CAP
24	7010615.42	2329837.22	677.24	℄ US 287	461+89.18	181.49	LT	5/8" IR W/ SAM ALUM CAP

0' 100' 200' 400'

SCALE IN FEET

LEGEND:

HORIZONTAL AND VERTICAL CONTROL POINT

NOTES

1. COORDINATES BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD-83(CORS 2002), TEXAS NORTH CENTRAL ZONE (4202) AND ADJUSTED TO SURFACE USING A COMBINED SCALE FACTOR OF 1.00012. THE ELEVATIONS SHOWN ARE BASED ON THE NAVD-88 (CORS 2002) VERTICAL DATUM AND WERE ESTABLISHED BY USING TXSG CORS STATION. ALL COORDINATES AND ELEVATIONS ARE DISPLAYED IN U.S. SURVEY FEET.

STATE OF TEXAS REGISTERED ALLEN W. KERLEY 5427 PROFESSIONAL LAND SURVEYOR

07/11/12

FOR HORIZONTAL & VERTICAL CONTROL

SAM INC. 1450 EMPIRE CENTRAL DR, SUITE 175 DALLAS, TEXAS 75247 (214) 631-7888 Fax.: (214) 631-7103

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL AND VERTICAL CONTROL DATA SHEET

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	704
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BHVCONT04.dgn

HORIZONTAL ALIGNMENT FOR ℄ 35W ML

Beginning chain 35ML description

Point ML100 N 7,019,062.01 E 2,331,731.27 Sta 1340+00.00

Course from ML100 to PC 35ML-A S 0° 32′ 45.70" E Dist 14,034.24

Curve Data					
Curve 35ML-A					
P.I. Station	1490+43.53	N	7,004,019.16	E	2,331,874.64
Delta =	10° 04′ 00.63"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	1,009.28				
Length =	2,013.37				
Radius =	11,459.16				
External =	44.36				
Long Chord =	2,010.78				
Mid. Ord. =	44.19				
P.C. Station	1480+34.24	N	7,005,028.40	E	2,331,865.02
P.T. Station	1500+47.61	N	7,003,027.15	E	2,332,060.52
C.C.		N	7,005,137.60	E	2,343,323.65
Back = S	0° 32′ 45.70" E				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	5° 34′ 46.01" E				

Course from PT 35ML-A to PC 35ML-B S 10° 36′ 46.33" E Dist 5,927.47

Curve Data					
Curve 35ML-B					
P.I. Station	1569+62.18	N	6,996,230.86	E	2,333,333.99
Delta =	9° 50′ 47.87"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	987.09				
Length =	1,969.33				
Radius =	11,459.16				
External =	42.44				
Long Chord =	1,966.90				
Mid. Ord. =	42.28				
P.C. Station	1559+75.09	N	6,997,201.07	E	2,333,152.19
P.T. Station	1579+44.41	N	6,995,243.85	E	2,333,347.19
C.C.		N	6,995,090.61	E	2,321,889.06
Back = S	10° 36′ 46.33" E				
Ahead = S	0° 45′ 58.46" E				
Chord Bear = S	5° 41′ 22.39" E				

Course from PT 35ML-B to PC 35ML-C S 0° 45′ 58.46" E Dist 3,122.33

Curve Data					
Curve 35ML-C					
P.I. Station	1613+17.85	N	6,991,870.71	E	2,333,392.30
Delta =	2° 30′ 38.47"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	251.11				
Length =	502.14				
Radius =	11,459.16				
External =	2.75				
Long Chord =	502.10				
Mid. Ord. =	2.75				
P.C. Station	1610+66.75	N	6,992,121.80	E	2,333,388.94
P.T. Station	1615+68.88	N	6,991,620.02	E	2,333,406.66
C.C.		N	6,992,275.04	E	2,344,847.07
Back = S	0° 45′ 58.46" E				
Ahead = S	3° 16′ 36.93" E				
Chord Bear = S	2° 01′ 17.69" E				

Curve Data					
Curve 35ML-D					
P.I. Station	1618+19.99	N	6,991,369.32	E	2,333,421.01
Delta =	2° 30′ 38.47"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	251.11				
Length =	502.14				
Radius =	11,459.16				
External =	2.75				
Long Chord =	502.10				
Mid. Ord. =	2.75				
P.C. Station	1615+68.88	N	6,991,620.02	E	2,333,406.66
P.T. Station	1620+71.02	N	6,991,118.23	E	2,333,424.37
C.C.		N	6,990,964.99	E	2,321,966.24
Back = S	3° 16′ 36.93" E				
Ahead = S	0° 45′ 58.46" E				
Chord Bear = S	2° 01′ 17.69" E				

Course from PT 35ML-D to PC 35ML-E S 0° 45′ 58.46" E Dist 933.90

Curve Data					
Curve 35ML-E					
P.I. Station	1630+95.34	N	6,990,094.00	E	2,333,438.07
Delta =	0° 54′ 14.96"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	90.42				
Length =	180.83				
Radius =	11,459.16				
External =	0.36				
Long Chord =	180.83				
Mid. Ord. =	0.36				
P.C. Station	1630+04.92	N	6,990,184.41	E	2,333,436.86
P.T. Station	1631+85.76	N	6,990,003.58	E	2,333,437.85
C.C.		N	6,990,031.17	E	2,321,978.73
Back = S	0° 45′ 58.46" E				
Ahead = S	0° 08′ 16.50" W				
Chord Bear = S	0° 18′ 50.98" E				

Course from PT 35ML-E to ML130 S 0° 08′ 16.50" W Dist 4,814.24

Point ML130 N 6,985,189.35 E 2,333,426.26 Sta 1680+00.00

Ending chain 35ML description

HORIZONTAL ALIGNMENT FOR ℄ 35W - NGP

Beginning chain 35NGP description

Point NGP100 N 7,009,931.53 E 2,331,869.29 Sta 1430+94.37

Course from NGP100 to PC 35NGP-E S 0° 32′ 45.70" E Dist 357.83

Curve Data					
Curve 35NGP-E					
P.I. Station	1438+23.21	N	7,009,202.72	E	2,331,876.24
Delta =	3° 42′ 31.97"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	371.02				
Length =	741.78				
Radius =	11,459.16				
External =	6.00				
Long Chord =	741.65				
Mid. Ord. =	6.00				
P.C. Station	1434+52.19	N	7,009,573.72	E	2,331,872.70
P.T. Station	1441+93.97	N	7,008,832.72	E	2,331,903.76
C.C.		N	7,009,682.92	E	2,343,331.34
Back = S	0° 32′ 45.70" E				
Ahead = S	4° 15′ 17.67" E				
Chord Bear = S	2° 24′ 01.68" E				

Curve Data					
Curve 35NGP-F					
P.I. Station	1445+64.99	N	7,008,462.73	E	2,331,931.29
Delta =	3° 42′ 31.97"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	371.02				
Length =	741.78				
Radius =	11,459.16				
External =	6.00				
Long Chord =	741.65				
Mid. Ord. =	6.00				
P.C. Station	1441+93.97	N	7,008,832.72	E	2,331,903.76
P.T. Station	1449+35.74	N	7,008,091.73	E	2,331,934.83
C.C.		N	7,007,982.52	E	2,320,476.19
Back = S	4° 15′ 17.67" E				
Ahead = S	0° 32′ 45.70" E				
Chord Bear = S	2° 24′ 01.68" E				

Course from PT 35NGP-F to PC 35NGP-G S 0° 32′ 45.70" E Dist 1,157.05

Curve Data					
Curve 35NGP-G					
P.I. Station	1464+63.81	N	7,006,563.73	E	2,331,949.39
Delta =	3° 42′ 31.97"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	371.02				
Length =	741.78				
Radius =	11,459.16				
External =	6.00				
Long Chord =	741.65				
Mid. Ord. =	6.00				
P.C. Station	1460+92.79	N	7,006,934.73	E	2,331,945.85
P.T. Station	1468+34.57	N	7,006,193.28	E	2,331,928.92
C.C.		N	7,006,825.53	E	2,320,487.22
Back = S	0° 32′ 45.70" E				
Ahead = S	3° 09′ 46.27" W				
Chord Bear = S	1° 18′ 30.29" W				

Curve Data					
Curve 35NGP-H					
P.I. Station	1472+05.59	N	7,005,822.83	E	2,331,908.45
Delta =	3° 42′ 31.97"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	371.02				
Length =	741.78				
Radius =	11,459.16				
External =	6.00				
Long Chord =	741.65				
Mid. Ord. =	6.00				
P.C. Station	1468+34.57	N	7,006,193.28	E	2,331,928.92
P.T. Station	1475+76.34	N	7,005,451.83	E	2,331,911.98
C.C.		N	7,005,561.03	E	2,343,370.62
Back = S	3° 09′ 46.27" W				
Ahead = S	0° 32′ 45.70" E				
Chord Bear = S	1° 18′ 30.29" W				

Course from PT 35NGP-H to PC 35NGP-I S 0° 32′ 45.70" E Dist 422.96

Curve Data					
Curve 35NGP-I					
P.I. Station	1490+04.09	N	7,004,024.14	E	2,331,925.59
Delta =	10° 04′ 00.63"	(LT)			
Degree =	0° 30′ 08.05"				
Tangent =	1,004.79				
Length =	2,004.41				
Radius =	11,408.16				
External =	44.16				
Long Chord =	2,001.83				
Mid. Ord. =	43.99				
P.C. Station	1479+99.30	N	7,005,028.89	E	2,331,916.02
P.T. Station	1500+03.71	N	7,003,036.54	E	2,332,110.65
C.C.		N	7,005,137.60	E	2,343,323.65
Back = S	0° 32′ 45.70" E				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	5° 34′ 46.01" E				

Course from PT 35NGP-I to PC 35NGP-J S 10° 36′ 46.33" E Dist 1,489.05

Curve Data					
Curve 35NGP-J					
P.I. Station	1517+76.07	N	7,001,294.50	E	2,332,437.06
Delta =	2° 49′ 56.99"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	283.31				
Length =	566.50				
Radius =	11,459.16				
External =	3.50				
Long Chord =	566.44				
Mid. Ord. =	3.50				
P.C. Station	1514+92.76	N	7,001,572.96	E	2,332,384.89
P.T. Station	1520+59.26	N	7,001,018.95	E	2,332,502.94
C.C.		N	7,003,683.42	E	2,343,648.02
Back = S	10° 36′ 46.33" E				
Ahead = S	13° 26′ 43.32" E				
Chord Bear = S	12° 01′ 44.83" E				

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq 07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SHEET 1 OF 16

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	705
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BHADO1.dgn

HORIZONTAL ALIGNMENT FOR ℄ 35W - NGP (CONT.)

Curve Data					
Curve 35NGP-K					
P.I. Station	1523+42.57	N	7,000,743.41	E	2,332,568.81
Delta =	2° 49′ 56.99"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	283.31				
Length =	566.50				
Radius =	11,459.16				
External =	3.50				
Long Chord =	566.44				
Mid. Ord. =	3.50				
P.C. Station	1520+59.26	N	7,001,018.95	E	2,332,502.94
P.T. Station	1526+25.76	N	7,000,464.95	E	2,332,620.99
C.C.		N	6,998,354.49	E	2,321,357.85
Back = S	13° 26′ 43.32" E				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	12° 01′ 44.83" E				

Course from PT 35NGP-K to PC 35NGP-L S 10° 36′ 46.33" E Dist 778.68

Curve Data					
Curve 35NGP-L					
P.I. Station	1536+18.58	N	6,999,489.12	E	2,332,803.84
Delta =	2° 08′ 27.86"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	214.13				
Length =	428.21				
Radius =	11,459.16				
External =	2.00				
Long Chord =	428.19				
Mid. Ord. =	2.00				
P.C. Station	1534+04.45	N	6,999,699.59	E	2,332,764.40
P.T. Station	1538+32.66	N	6,999,277.32	E	2,332,835.39
C.C.		N	6,997,589.13	E	2,321,501.27
Back = S	10° 36′ 46.33" E				
Ahead = S	8° 28′ 18.47" E				
Chord Bear = S	9° 32′ 32.40" E				

Curve Data					
Curve 35NGP-M					
P.I. Station	1540+46.79	N	6,999,065.53	E	2,332,866.93
Delta =	2° 08′ 27.86"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	214.13				
Length =	428.21				
Radius =	11,459.16				
External =	2.00				
Long Chord =	428.19				
Mid. Ord. =	2.00				
P.C. Station	1538+32.66	N	6,999,277.32	E	2,332,835.39
P.T. Station	1542+60.88	N	6,998,855.06	E	2,332,906.37
C.C.		N	7,000,965.51	E	2,344,169.51
Back = S	8° 28′ 18.47" E				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	9° 32′ 32.40" E				

Course from PT 35NGP-M to PC 35NGP-N S 10° 36′ 46.33" E Dist 1,670.97

Curve Data					
Curve 35NGP-N					
P.I. Station	1569+24.37	N	6,996,237.13	E	2,333,396.91
Delta =	9° 50′ 47.87"	(RT)			
Degree =	0° 29′ 50.16"				
Tangent =	992.52				
Length =	1,980.15				
Radius =	11,522.16				
External =	42.67				
Long Chord =	1,977.72				
Mid. Ord. =	42.51				
P.C. Station	1559+31.84	N	6,997,212.67	E	2,333,214.12
P.T. Station	1579+12.00	N	6,995,244.70	E	2,333,410.18
C.C.		N	6,995,090.61	E	2,321,889.06
Back = S	10° 36′ 46.33" E				
Ahead = S	0° 45′ 58.46" E				
Chord Bear = S	5° 41′ 22.39" E				

Course from PT 35NGP-N to PC 35NGP-O S 0° 45′ 58.46" E Dist 790.90

Curve Data					
Curve 35NGP-O					
P.I. Station	1589+42.32	N	6,994,214.47	E	2,333,423.96
Delta =	2° 23′ 37.78"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	239.42				
Length =	478.77				
Radius =	11,459.16				
External =	2.50				
Long Chord =	478.73				
Mid. Ord. =	2.50				
P.C. Station	1587+02.90	N	6,994,453.87	E	2,333,420.76
P.T. Station	1591+81.66	N	6,993,975.42	E	2,333,437.16
C.C.		N	6,994,607.11	E	2,344,878.89
Back = S	0° 45′ 58.46" E				
Ahead = S	3° 09′ 36.24" E				
Chord Bear = S	1° 57′ 47.35" E				

Curve Data					
Curve 35NGP-P					
P.I. Station	1594+21.08	N	6,993,736.36	E	2,333,450.36
Delta =	2° 23′ 37.78"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	239.42				
Length =	478.77				
Radius =	11,459.16				
External =	2.50				
Long Chord =	478.73				
Mid. Ord. =	2.50				
P.C. Station	1591+81.66	N	6,993,975.42	E	2,333,437.16
P.T. Station	1596+60.43	N	6,993,496.97	E	2,333,453.56
C.C.		N	6,993,343.73	E	2,321,995.43
Back = S	3° 09′ 36.24" E				
Ahead = S	0° 45′ 58.46" E				
Chord Bear = S	1° 57′ 47.35" E				

Course from PT 35NGP-P to NGP185 S 0° 45′ 58.46" E Dist 1,361.80

Point NGP185 N 6,992,135.29 E 2,333,471.77 Sta 1610+22.23

Ending chain 35NGP description

HORIZONTAL ALIGNMENT FOR ℄ 35W - SGP

Beginning chain 35SGP description

Point SGP130 N 7,011,625.41 E 2,331,751.14 Sta 1414+77.31

Course from SGP130 to PC 35SGP-G S 0° 32′ 45.70" E Dist 2,074.78

Curve Data					
Curve 35SGP-G					
P.I. Station	1439+23.10	N	7,009,179.72	E	2,331,774.45
Delta =	3° 42′ 31.97"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	371.02				
Length =	741.78				
Radius =	11,459.16				
External =	6.00				
Long Chord =	741.65				
Mid. Ord. =	6.00				
P.C. Station	1435+52.09	N	7,009,550.72	E	2,331,770.92
P.T. Station	1442+93.86	N	7,008,809.27	E	2,331,753.98
C.C.		N	7,009,441.52	E	2,320,312.28
Back = S	0° 32′ 45.70" E				
Ahead = S	3° 09′ 46.27" W				
Chord Bear = S	1° 18′ 30.29" W				

Curve Data					
Curve 35SGP-H					
P.I. Station	1446+64.88	N	7,008,438.82	E	2,331,733.51
Delta =	3° 42′ 31.97"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	371.02				
Length =	741.78				
Radius =	11,459.16				
External =	6.00				
Long Chord =	741.65				
Mid. Ord. =	6.00				
P.C. Station	1442+93.86	N	7,008,809.27	E	2,331,753.98
P.T. Station	1450+35.64	N	7,008,067.81	E	2,331,737.05
C.C.		N	7,008,177.02	E	2,343,195.68
Back = S	3° 09′ 46.27" W				
Ahead = S	0° 32′ 45.70" E				
Chord Bear = S	1° 18′ 30.29" W				

Course from PT 35SGP-H to PC 35SGP-I S 0° 32′ 45.70" E Dist 962.95

Curve Data					
Curve 35SGP-I					
P.I. Station	1463+19.86	N	7,006,783.65	E	2,331,749.29
Delta =	3° 12′ 42.64"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	321.27				
Length =	642.37				
Radius =	11,459.16				
External =	4.50				
Long Chord =	642.28				
Mid. Ord. =	4.50				
P.C. Station	1459+98.59	N	7,007,104.90	E	2,331,746.22
P.T. Station	1466+40.96	N	7,006,463.07	E	2,331,770.34
C.C.		N	7,007,214.11	E	2,343,204.86
Back = S	0° 32′ 45.70" E				
Ahead = S	3° 45′ 28.34" E				
Chord Bear = S	2° 09′ 07.02" E				

Curve Data					
Curve 35SGP-J					
P.I. Station	1469+62.23	N	7,006,142.50	E	2,331,791.40
Delta =	3° 12′ 42.64"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	321.27				
Length =	642.37				
Radius =	11,459.16				
External =	4.50				
Long Chord =	642.28				
Mid. Ord. =	4.50				
P.C. Station	1466+40.96	N	7,006,463.07	E	2,331,770.34
P.T. Station	1472+83.33	N	7,005,821.24	E	2,331,794.46
C.C.		N	7,005,712.04	E	2,320,335.82
Back = S	3° 45′ 28.34" E				
Ahead = S	0° 32′ 45.70" E				
Chord Bear = S	2° 09′ 07.02" E				

Course from PT 35SGP-J to PC 35SGP-K S 0° 32′ 45.70" E Dist 348.38

Curve Data					
Curve 35SGP-K					
P.I. Station	1478+41.73	N	7,005,262.87	E	2,331,799.78
Delta =	2° 05′ 59.82"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	210.02				
Length =	419.99				
Radius =	11,459.16				
External =	1.92				
Long Chord =	419.97				
Mid. Ord. =	1.92				
P.C. Station	1476+31.71	N	7,005,472.88	E	2,331,797.78
P.T. Station	1480+51.70	N	7,005,053.07	E	2,331,809.48
C.C.		N	7,005,582.08	E	2,343,256.41
Back = S	0° 32′ 45.70" E				
Ahead = S	2° 38′ 45.52" E				
Chord Bear = S	1° 35′ 45.61" E				

Curve Data					
Curve 35SGP-L					
P.I. Station	1481+63.24	N	7,004,941.65	E	2,331,814.62
Delta =	1° 06′ 55.29"	(RT)			
Degree =	0° 30′ 00.00"				
Tangent =	111.54				
Length =	223.07				
Radius =	11,459.16				
External =	0.54				
Long Chord =	223.07				
Mid. Ord. =	0.54				
P.C. Station	1480+51.70	N	7,005,053.07	E	2,331,809.48
P.T. Station	1482+74.77	N	7,004,830.15	E	2,331,817.60
C.C.		N	7,004,524.07	E	2,320,362.54
Back = S	2° 38′ 45.52" E				
Ahead = S	1° 31′ 50.23" E				
Chord Bear = S	2° 05′ 17.88" E				

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq 07/13/12

KENNEDY CONSULTING
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SHEET 2 OF 16

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	706
KCI	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD02.dgn

HORIZONTAL ALIGNMENT FOR ℄ 35W - SGP (CONT.)

Curve Data						
Curve 35SGP-M						
P.I. Station	1491+88.95	N	7,003,916.30	E	2,331,842.02	
Delta =	9° 04′ 56.10"	(LT)				
Degree =	0° 29′ 52.02"					
Tangent =	914.18					
Length =	1,824.53					
Radius =	11,510.16					
External =	36.25					
Long Chord =	1,822.62					
Mid. Ord. =	36.13					
P.C. Station	1482+74.77	N	7,004,830.15	E	2,331,817.60	
P.T. Station	1500+99.30	N	7,003,017.75	E	2,332,010.39	
C.C.		N	7,005,137.60	E	2,343,323.65	
Back = S	1° 31′ 50.23" E					
Ahead = S	10° 36′ 46.33" E					
Chord Bear = S	6° 04′ 18.28" E					

Course from PT 35SGP-M to PC 35SGP-N S 10° 36′ 46.33" E Dist 1,116.55

Curve Data						
Curve 35SGP-N						
P.I. Station	1514+99.16	N	7,001,641.85	E	2,332,268.20	
Delta =	2° 49′ 56.99"	(RT)				
Degree =	0° 30′ 00.00"					
Tangent =	283.31					
Length =	566.50					
Radius =	11,459.16					
External =	3.50					
Long Chord =	566.44					
Mid. Ord. =	3.50					
P.C. Station	1512+15.85	N	7,001,920.31	E	2,332,216.03	
P.T. Station	1517+82.35	N	7,001,361.15	E	2,332,306.56	
C.C.		N	6,999,809.85	E	2,320,952.89	
Back = S	10° 36′ 46.33" E					
Ahead = S	7° 46′ 49.34" E					
Chord Bear = S	9° 11′ 47.84" E					

Curve Data						
Curve 35SGP-O						
P.I. Station	1520+65.66	N	7,001,080.45	E	2,332,344.91	
Delta =	2° 49′ 56.99"	(LT)				
Degree =	0° 30′ 00.00"					
Tangent =	283.31					
Length =	566.50					
Radius =	11,459.16					
External =	3.50					
Long Chord =	566.44					
Mid. Ord. =	3.50					
P.C. Station	1517+82.35	N	7,001,361.15	E	2,332,306.56	
P.T. Station	1523+48.85	N	7,000,801.99	E	2,332,397.09	
C.C.		N	7,002,912.44	E	2,343,660.22	
Back = S	7° 46′ 49.34" E					
Ahead = S	10° 36′ 46.33" E					
Chord Bear = S	9° 11′ 47.84" E					

Course from PT 35SGP-O to PC 35SGP-P S 10° 36′ 46.33" E Dist 811.19

Curve Data						
Curve 35SGP-P						
P.I. Station	1533+74.17	N	6,999,794.20	E	2,332,585.92	
Delta =	2° 08′ 27.86"	(LT)				
Degree =	0° 30′ 00.00"					
Tangent =	214.13					
Length =	428.21					
Radius =	11,459.16					
External =	2.00					
Long Chord =	428.19					
Mid. Ord. =	2.00					
P.C. Station	1531+60.04	N	7,000,004.67	E	2,332,546.49	
P.T. Station	1535+88.26	N	6,999,585.35	E	2,332,633.20	
C.C.		N	7,002,115.13	E	2,343,809.62	
Back = S	10° 36′ 46.33" E					
Ahead = S	12° 45′ 14.20" E					
Chord Bear = S	11° 41′ 00.26" E					

Curve Data						
Curve 35SGP-Q						
P.I. Station	1538+02.39	N	6,999,376.50	E	2,332,680.47	
Delta =	2° 08′ 27.86"	(RT)				
Degree =	0° 30′ 00.00"					
Tangent =	214.13					
Length =	428.21					
Radius =	11,459.16					
External =	2.00					
Long Chord =	428.19					
Mid. Ord. =	2.00					
P.C. Station	1535+88.26	N	6,999,585.35	E	2,332,633.20	
P.T. Station	1540+16.47	N	6,999,166.03	E	2,332,719.91	
C.C.		N	6,997,055.58	E	2,321,456.77	
Back = S	12° 45′ 14.20" E					
Ahead = S	10° 36′ 46.33" E					
Chord Bear = S	11° 41′ 00.26" E					

Course from PT 35SGP-Q to PC 35SGP-R S 10° 36′ 46.33" E Dist 2,010.97

Curve Data						
Curve 35SGP-R						
P.I. Station	1570+09.11	N	6,996,224.59	E	2,333,271.07	
Delta =	9° 50′ 47.87"	(RT)				
Degree =	0° 30′ 09.95"					
Tangent =	981.67					
Length =	1,958.50					
Radius =	11,396.16					
External =	42.20					
Long Chord =	1,956.09					
Mid. Ord. =	42.05					
P.C. Station	1560+27.44	N	6,997,189.47	E	2,333,090.27	
P.T. Station	1579+85.94	N	6,995,243.01	E	2,333,284.19	
C.C.		N	6,995,090.61	E	2,321,889.06	
Back = S	10° 36′ 46.33" E					
Ahead = S	0° 45′ 58.46" E					
Chord Bear = S	5° 41′ 22.39" E					

Course from PT 35SGP-R to PC 35SGP-S S 0° 45′ 58.46" E Dist 899.89

Curve Data						
Curve 35SGP-S						
P.I. Station	1590+99.96	N	6,994,129.09	E	2,333,299.09	
Delta =	2° 08′ 27.86"	(RT)				
Degree =	0° 30′ 00.00"					
Tangent =	214.13					
Length =	428.21					
Radius =	11,459.16					
External =	2.00					
Long Chord =	428.19					
Mid. Ord. =	2.00					
P.C. Station	1588+85.83	N	6,994,343.20	E	2,333,296.23	
P.T. Station	1593+14.04	N	6,993,915.02	E	2,333,293.95	
C.C.		N	6,994,189.96	E	2,321,838.10	
Back = S	0° 45′ 58.46" E					
Ahead = S	1° 22′ 29.41" W					
Chord Bear = S	0° 18′ 15.48" W					

Curve Data						
Curve 35SGP-T						
P.I. Station	1595+28.17	N	6,993,700.95	E	2,333,288.82	
Delta =	2° 08′ 27.86"	(LT)				
Degree =	0° 30′ 00.00"					
Tangent =	214.13					
Length =	428.21					
Radius =	11,459.16					
External =	2.00					
Long Chord =	428.19					
Mid. Ord. =	2.00					
P.C. Station	1593+14.04	N	6,993,915.02	E	2,333,293.95	
P.T. Station	1597+42.26	N	6,993,486.84	E	2,333,291.68	
C.C.		N	6,993,640.08	E	2,344,749.81	
Back = S	1° 22′ 29.41" W					
Ahead = S	0° 45′ 58.46" E					
Chord Bear = S	0° 18′ 15.48" W					

Course from PT 35SGP-T to SGP205 S 0° 45′ 58.46" E Dist 1,300.60

Point SGP205 N 6,992,186.35 E 2,333,309.07 Sta 1610+42.86

Ending chain 35SGP description

HORIZONTAL ALIGNMENT FOR NB FRONTAGE ROAD

Beginning chain NBFRI description

Curve Data						
Curve NBFRI-D						
P.I. Station	1393+89.04	N	7,013,566.48	E	2,332,021.48	
Delta =	5° 12′ 03.57"	(RT)				
Degree =	1° 00′ 00.00"					
Tangent =	260.23					
Length =	520.10					
Radius =	5,729.58					
External =	5.91					
Long Chord =	519.92					
Mid. Ord. =	5.90					
P.C. Station	1391+28.81	N	7,013,825.41	E	2,331,995.54	
P.T. Station	1396+48.91	N	7,013,306.26	E	2,332,023.84	
C.C.		N	7,013,254.29	E	2,326,294.50	
Back = S	5° 43′ 14.60" E					
Ahead = S	0° 31′ 11.02" E					
Chord Bear = S	3° 07′ 12.81" E					

Course from PT NBFRI-D to PC NBFRI-E S 0° 31′ 11.02" E Dist 3,722.76

Curve Data						
Curve NBFRI-E						
P.I. Station	1438+70.37	N	7,009,084.98	E	2,332,062.13	
Delta =	19° 44′ 59.94"	(LT)				
Degree =	2° 00′ 00.00"					
Tangent =	498.70					
Length =	987.50					
Radius =	2,864.79					
External =	43.08					
Long Chord =	982.62					
Mid. Ord. =	42.44					
P.C. Station	1433+71.67	N	7,009,583.65	E	2,332,057.61	
P.T. Station	1443+59.17	N	7,008,617.16	E	2,332,234.90	
C.C.		N	7,009,609.64	E	2,334,922.28	
Back = S	0° 31′ 11.02" E					
Ahead = S	20° 16′ 10.97" E					
Chord Bear = S	10° 23′ 41.00" E					

Course from PT NBFRI-E to PC NBFRI-F S 20° 16′ 10.97" E Dist 699.49

Curve Data						
Curve NBFRI-F						
P.I. Station	1457+77.67	N	7,007,286.51	E	2,332,726.33	
Delta =	41° 15′ 36.75"	(RT)				
Degree =	3° 00′ 00.00"					
Tangent =	719.01					
Length =	1,375.34					
Radius =	1,909.86					
External =	130.86					
Long Chord =	1,345.81					
Mid. Ord. =	122.47					
P.C. Station	1450+58.66	N	7,007,960.99	E	2,332,477.23	
P.T. Station	1464+34.00	N	7,006,615.21	E	2,332,468.77	
C.C.		N	7,007,299.34	E	2,330,685.65	
Back = S	20° 16′ 10.97" E					
Ahead = S	20° 59′ 25.78" W					
Chord Bear = S	0° 21′ 37.41" W					

Course from PT NBFRI-F to PC NBFRI-G S 20° 59′ 25.78" W Dist 445.37

Curve Data						
Curve NBFRI-G						
P.I. Station	1475+83.86	N	7,005,541.65	E	2,332,056.87	
Delta =	24° 17′ 12.64"	(LT)				
Degree =	1° 45′ 00.00"					
Tangent =	704.49					
Length =	1,387.82					
Radius =	3,274.04					
External =	74.94					
Long Chord =	1,377.45					
Mid. Ord. =	73.26					
P.C. Station	1468+79.37	N	7,006,199.39	E	2,332,309.23	
P.T. Station	1482+67.19	N	7,004,838.33	E	2,332,097.38	
C.C.		N	7,005,026.59	E	2,335,366.01	
Back = S	20° 59′ 25.78" W					
Ahead = S	3° 17′ 46.86" E					
Chord Bear = S	8° 50′ 49.46" W					

Course from PT NBFRI-G to PC NBFRI-H S 3° 17′ 46.86" E Dist 163.16

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD03.dgn

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

Syed Sajidul Haq 07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	707
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				

HORIZONTAL ALIGNMENT FOR NB FRONTAGE ROAD (CONT.)

Curve Data

Curve NBFRI-H					
P.I. Station	1485+67.54	N	7,004,538.48	E	2,332,114.65
Delta =	15° 37′ 24.68"	(LT)			
Degree =	5° 43′ 46.48"				
Tangent =	137.19				
Length =	272.68				
Radius =	1,000.00				
External =	9.37				
Long Chord =	271.84				
Mid. Ord. =	9.28				
P.C. Station	1484+30.34	N	7,004,675.44	E	2,332,106.76
P.T. Station	1487+03.03	N	7,004,408.70	E	2,332,159.14
C.C.		N	7,004,732.94	E	2,333,105.11
Back = S	3° 17′ 46.86" E				
Ahead = S	18° 55′ 11.54" E				
Chord Bear = S	11° 06′ 29.20" E				

Course from PT NBFRI-H to PC NBFRI-I S 18° 55′ 11.54" E Dist 299.23

Curve Data

Curve NBFRI-I					
P.I. Station	1490+62.36	N	7,004,068.77	E	2,332,275.65
Delta =	6° 52′ 46.65"	(RT)			
Degree =	5° 43′ 46.48"				
Tangent =	60.11				
Length =	120.07				
Radius =	1,000.00				
External =	1.80				
Long Chord =	120.00				
Mid. Ord. =	1.80				
P.C. Station	1490+02.25	N	7,004,125.64	E	2,332,256.16
P.T. Station	1491+22.33	N	7,004,009.99	E	2,332,288.19
C.C.		N	7,003,801.39	E	2,331,310.19
Back = S	18° 55′ 11.54" E				
Ahead = S	12° 02′ 24.88" E				
Chord Bear = S	15° 28′ 48.21" E				

Course from PT NBFRI-I to PC NBFRI-J S 12° 02′ 24.88" E Dist 53.08

Curve Data

Curve NBFRI-J					
P.I. Station	1493+80.24	N	7,003,757.75	E	2,332,341.99
Delta =	3° 54′ 38.10"	(RT)			
Degree =	0° 57′ 17.75"				
Tangent =	204.84				
Length =	409.52				
Radius =	6,000.00				
External =	3.50				
Long Chord =	409.44				
Mid. Ord. =	3.49				
P.C. Station	1491+75.40	N	7,003,958.08	E	2,332,299.26
P.T. Station	1495+84.92	N	7,003,554.97	E	2,332,370.95
C.C.		N	7,002,706.49	E	2,326,431.25
Back = S	12° 02′ 24.88" E				
Ahead = S	8° 07′ 46.78" E				
Chord Bear = S	10° 05′ 05.83" E				

Course from PT NBFRI-J to NBFRISE1 S 8° 07′ 46.78" E Dist 211.24

Equation: Sta 1497+96.16 (BK) = Sta 1497+85.11 (AH) — End Region 1 / Begin Region 2

Point NBFRISE1 N 7,003,345.85 E 2,332,400.83 Sta 1497+85.11

Course from NBFRISE1 to PC NBFRI-K-1 S 8° 07′ 46.78" E Dist 127.45

Curve Data

Curve NBFRI-K-1					
P.I. Station	1502+37.44	N	7,002,898.06	E	2,332,464.79
Delta =	5° 52′ 25.09"	(RT)			
Degree =	0° 54′ 17.09"				
Tangent =	324.89				
Length =	649.20				
Radius =	6,332.80				
External =	8.33				
Long Chord =	648.92				
Mid. Ord. =	8.32				
P.C. Station	1499+12.56	N	7,003,219.68	E	2,332,418.85
P.T. Station	1505+61.76	N	7,002,573.43	E	2,332,477.58
C.C.		N	7,002,324.14	E	2,326,149.69
Back = S	8° 07′ 46.78" E				
Ahead = S	2° 15′ 21.70" E				
Chord Bear = S	5° 11′ 34.24" E				

Equation: Sta 1505+61.76 (BK) = Sta 4505+61.76 (AH) — End Region 2 / Begin Region 3

Curve Data

Curve NBFRI-K-2					
P.I. Station	4506+19.04	N	7,002,516.19	E	2,332,479.84
Delta =	1° 02′ 11.38"	(RT)			
Degree =	0° 54′ 17.09"				
Tangent =	57.28				
Length =	114.56				
Radius =	6,332.80				
External =	0.26				
Long Chord =	114.56				
Mid. Ord. =	0.26				
P.C. Station	4505+61.76	N	7,002,573.43	E	2,332,477.58
P.T. Station	4506+76.32	N	7,002,458.92	E	2,332,481.06
C.C.		N	7,002,324.14	E	2,326,149.69
Back = S	2° 15′ 21.70" E				
Ahead = S	1° 13′ 10.32" E				
Chord Bear = S	1° 44′ 16.01" E				

Curve Data

Curve NBFRI-L					
P.I. Station	4507+27.15	N	7,002,408.10	E	2,332,482.14
Delta =	0° 53′ 16.40"	(LT)			
Degree =	0° 52′ 24.28"				
Tangent =	50.83				
Length =	101.66				
Radius =	6,560.00				
External =	0.20				
Long Chord =	101.66				
Mid. Ord. =	0.20				
P.C. Station	4506+76.32	N	7,002,458.92	E	2,332,481.06
P.T. Station	4507+77.98	N	7,002,357.31	E	2,332,484.01
C.C.		N	7,002,598.54	E	2,339,039.57
Back = S	1° 13′ 10.32" E				
Ahead = S	2° 06′ 26.72" E				
Chord Bear = S	1° 39′ 48.52" E				

Curve Data

Curve NBFRI-M					
P.I. Station	4511+91.63	N	7,001,943.94	E	2,332,499.22
Delta =	11° 41′ 31.40"	(LT)			
Degree =	1° 25′ 05.56"				
Tangent =	413.65				
Length =	824.42				
Radius =	4,040.00				
External =	21.12				
Long Chord =	822.99				
Mid. Ord. =	21.01				
P.C. Station	4507+77.98	N	7,002,357.31	E	2,332,484.01
P.T. Station	4516+02.40	N	7,001,542.23	E	2,332,597.88
C.C.		N	7,002,505.87	E	2,336,521.28
Back = S	2° 06′ 26.72" E				
Ahead = S	13° 47′ 58.12" E				
Chord Bear = S	7° 57′ 12.42" E				

Equation: Sta 4516+02.40 (BK) = Sta 1516+03.05 (AH) — End Region 3 / Begin Region 4

Point NBFRISE3 N 7,001,542.23 E 2,332,597.88 Sta 1516+03.05

Course from NBFRISE3 to PC NBFRI-N S 13° 47′ 58.12" E Dist 697.89

Curve Data

Curve NBFRI-N					
P.I. Station	1525+78.87	N	7,000,594.57	E	2,332,830.64
Delta =	9° 42′ 15.25"	(RT)			
Degree =	1° 45′ 00.00"				
Tangent =	277.93				
Length =	554.53				
Radius =	3,274.04				
External =	11.78				
Long Chord =	553.87				
Mid. Ord. =	11.73				
P.C. Station	1523+00.94	N	7,000,864.48	E	2,332,764.35
P.T. Station	1528+55.47	N	7,000,317.36	E	2,332,850.49
C.C.		N	7,000,083.54	E	2,329,584.80
Back = S	13° 47′ 58.12" E				
Ahead = S	4° 05′ 42.86" E				
Chord Bear = S	8° 56′ 50.49" E				

Course from PT NBFRI-N to PC NBFRI-O S 4° 05′ 42.86" E Dist 333.68

Curve Data

Curve NBFRI-O					
P.I. Station	1533+52.27	N	6,999,821.83	E	2,332,885.97
Delta =	6° 31′ 03.47"	(LT)			
Degree =	2° 00′ 00.00"				
Tangent =	163.12				
Length =	325.88				
Radius =	2,864.79				
External =	4.64				
Long Chord =	325.71				
Mid. Ord. =	4.63				
P.C. Station	1531+89.15	N	6,999,984.53	E	2,332,874.32
P.T. Station	1535+15.03	N	6,999,661.50	E	2,332,916.01
C.C.		N	7,000,189.12	E	2,335,731.79
Back = S	4° 05′ 42.86" E				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	7° 21′ 14.60" E				

Course from PT NBFRI-O to PC NBFRI-P S 10° 36′ 46.33" E Dist 842.77

Curve Data

Curve NBFRI-P					
P.I. Station	1544+80.55	N	6,998,712.50	E	2,333,093.83
Delta =	4° 54′ 25.31"	(RT)			
Degree =	2° 00′ 00.00"				
Tangent =	122.75				
Length =	245.35				
Radius =	2,864.79				
External =	2.63				
Long Chord =	245.28				
Mid. Ord. =	2.63				
P.C. Station	1543+57.80	N	6,998,833.15	E	2,333,071.22
P.T. Station	1546+03.15	N	6,998,590.36	E	2,333,106.04
C.C.		N	6,998,305.54	E	2,330,255.44
Back = S	10° 36′ 46.33" E				
Ahead = S	5° 42′ 21.02" E				
Chord Bear = S	8° 09′ 33.68" E				

Curve Data

Curve NBFRI-Q					
P.I. Station	1547+25.90	N	6,998,468.21	E	2,333,118.24
Delta =	4° 54′ 25.31"	(LT)			
Degree =	2° 00′ 00.00"				
Tangent =	122.75				
Length =	245.35				
Radius =	2,864.79				
External =	2.63				
Long Chord =	245.28				
Mid. Ord. =	2.63				
P.C. Station	1546+03.15	N	6,998,590.36	E	2,333,106.04
P.T. Station	1548+48.50	N	6,998,347.56	E	2,333,140.85
C.C.		N	6,998,875.18	E	2,335,956.63
Back = S	5° 42′ 21.02" E				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	8° 09′ 33.68" E				

Course from PT NBFRI-Q to PC NBFRI-R S 10° 36′ 46.33" E Dist 1,476.65

Curve Data

Curve NBFRI-R					
P.I. Station	1569+83.21	N	6,996,249.37	E	2,333,534.00
Delta =	9° 50′ 47.91"	(RT)			
Degree =	0° 45′ 00.00"				
Tangent =	658.06				
Length =	1,312.89				
Radius =	7,639.44				
External =	28.29				
Long Chord =	1,311.27				
Mid. Ord. =	28.19				
P.C. Station	1563+25.15	N	6,996,896.18	E	2,333,412.80
P.T. Station	1576+38.03	N	6,995,591.37	E	2,333,542.80
C.C.		N	6,995,489.21	E	2,325,904.05
Back = S	10° 36′ 46.33" E				
Ahead = S	0° 45′ 58.42" E				
Chord Bear = S	5° 41′ 22.37" E				

Course from PT NBFRI-R to PC NBFRI-S S 0° 45′ 58.42" E Dist 361.97

Curve Data

Curve NBFRI-S					
P.I. Station	1580+82.80	N	6,995,146.64	E	2,333,548.75
Delta =	6° 19′ 07.44"	(RT)			
Degree =	3° 49′ 10.99"				
Tangent =	82.80				
Length =	165.42				
Radius =	1,500.00				
External =	2.28				
Long Chord =	165.34				
Mid. Ord. =	2.28				
P.C. Station	1580+00.00	N	6,995,229.43	E	2,333,547.64
P.T. Station	1581+65.43	N	6,995,064.23	E	2,333,540.74
C.C.		N	6,995,209.37	E	2,332,047.78
Back = S	0° 45′ 58.42" E				
Ahead = S	5° 33′ 09.03" W				
Chord Bear = S	2° 23′ 35.31" W				

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/13/12

SHEET 4 OF 16

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	708
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD04.dgn

HORIZONTAL ALIGNMENT FOR NB FRONTAGE ROAD (CONT.)

		Curve Data				
Curve NBFRI-T						
P.I. Station		1582+45.92	N	6,994,984.11	E	2,333,532.95
Delta	=	6° 08′ 36.58"	(LT)			
Degree	=	3° 49′ 10.99"				
Tangent	=	80.50				
Length	=	160.84				
Radius	=	1,500.00				
External	=	2.16				
Long Chord	=	160.76				
Mid. Ord.	=	2.16				
P.C. Station		1581+65.43	N	6,995,064.23	E	2,333,540.74
P.T. Station		1583+26.27	N	6,994,903.62	E	2,333,533.78
C.C.			N	6,994,919.09	E	2,335,033.70
Back	= S	5° 33′ 09.03" W				
Ahead	= S	0° 35′ 27.55" E				
Chord Bear	= S	2° 28′ 50.74" W				

Course from PT NBFRI-T to PC NBFRI-U S 0° 35′ 27.55" E Dist 378.54

		Curve Data				
Curve NBFRI-U						
P.I. Station		1588+00.33	N	6,994,429.58	E	2,333,538.67
Delta	=	10° 54′ 47.44"	(LT)			
Degree	=	5° 43′ 46.48"				
Tangent	=	95.52				
Length	=	190.47				
Radius	=	1,000.00				
External	=	4.55				
Long Chord	=	190.18				
Mid. Ord.	=	4.53				
P.C. Station		1587+04.80	N	6,994,525.10	E	2,333,537.68
P.T. Station		1588+95.28	N	6,994,335.98	E	2,333,557.72
C.C.			N	6,994,535.42	E	2,334,537.63
Back	= S	0° 35′ 27.55" E				
Ahead	= S	11° 30′ 14.99" E				
Chord Bear	= S	6° 02′ 51.27" E				

		Curve Data				
Curve NBFRI-V						
P.I. Station		1589+68.44	N	6,994,264.29	E	2,333,572.31
Delta	=	8° 22′ 07.37"	(RT)			
Degree	=	5° 43′ 46.48"				
Tangent	=	73.16				
Length	=	146.06				
Radius	=	1,000.00				
External	=	2.67				
Long Chord	=	145.93				
Mid. Ord.	=	2.67				
P.C. Station		1588+95.28	N	6,994,335.98	E	2,333,557.72
P.T. Station		1590+41.34	N	6,994,191.24	E	2,333,576.31
C.C.			N	6,994,136.54	E	2,332,577.81
Back	= S	11° 30′ 14.99" E				
Ahead	= S	3° 08′ 07.62" E				
Chord Bear	= S	7° 19′ 11.30" E				

Course from PT NBFRI-V to NBFRI240 S 3° 08′ 07.62" E Dist 75.07

Point NBFRI240 N 6,994,116.28 E 2,333,580.42 Sta 1591+16.40

Ending chain NBFRI description

HORIZONTAL ALIGNMENT FOR SB FRONTAGE ROAD 1

Beginning chain SBFR1 description

		Curve Data				
Curve SBFR1-D						
P.I. Station		1396+70.63	N	7,013,503.09	E	2,331,534.71
Delta	=	5° 13′ 05.01"	(LT)			
Degree	=	1° 00′ 00.00"				
Tangent	=	261.08				
Length	=	521.81				
Radius	=	5,729.58				
External	=	5.95				
Long Chord	=	521.63				
Mid. Ord.	=	5.94				
P.C. Station		1394+09.55	N	7,013,763.33	E	2,331,555.65
P.T. Station		1399+31.35	N	7,013,242.02	E	2,331,537.52
C.C.			N	7,013,303.67	E	2,337,266.76
Back	= S	4° 36′ 05.61" W				
Ahead	= S	0° 36′ 59.40" E				
Chord Bear	= S	1° 59′ 33.11" W				

Course from PT SBFR1-D to SBFR125 S 0° 36′ 59.40" E Dist 1,563.08

Point SBFR125 N 7,011,679.03 E 2,331,554.34 Sta 1414+94.43

Ending chain SBFR1 description

HORIZONTAL ALIGNMENT FOR SB FRONTAGE ROAD I

Beginning chain SBFRI description

Point SBFRI130 N 7,010,886.25 E 2,329,077.87 Sta 9+11.60

Course from SBFRI130 to PC SBFRI-A S 46° 51′ 15.49" E Dist 1,931.68

		Curve Data				
Curve SBFRI-A						
P.I. Station		40+68.37	N	7,008,727.48	E	2,331,381.10
Delta	=	46° 18′ 13.76"	(RT)			
Degree	=	1° 59′ 59.47"				
Tangent	=	1,225.10				
Length	=	2,315.36				
Radius	=	2,865.00				
External	=	250.94				
Long Chord	=	2,252.87				
Mid. Ord.	=	230.73				
P.C. Station		28+43.28	N	7,009,565.27	E	2,330,487.25
P.T. Station		51+58.64	N	7,007,502.44	E	2,331,392.87
C.C.			N	7,007,474.91	E	2,328,528.00
Back	= S	46° 51′ 15.49" E				
Ahead	= S	0° 33′ 01.73" E				
Chord Bear	= S	23° 42′ 08.61" E				

Course from PT SBFRI-A to PC SBFRI-B S 0° 33′ 01.73" E Dist 421.19

		Curve Data				
Curve SBFRI-B						
P.I. Station		57+86.50	N	7,006,874.61	E	2,331,398.90
Delta	=	8° 15′ 09.10"	(LT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	206.67				
Length	=	412.63				
Radius	=	2,864.79				
External	=	7.45				
Long Chord	=	412.27				
Mid. Ord.	=	7.43				
P.C. Station		55+79.83	N	7,007,081.27	E	2,331,396.92
P.T. Station		59+92.45	N	7,006,670.37	E	2,331,430.53
C.C.			N	7,007,108.79	E	2,334,261.57
Back	= S	0° 33′ 01.73" E				
Ahead	= S	8° 48′ 10.84" E				
Chord Bear	= S	4° 40′ 36.28" E				

Course from PT SBFRI-B to PC SBFRI-C S 8° 48′ 10.84" E Dist 1,031.88

		Curve Data				
Curve SBFRI-C						
P.I. Station		73+65.28	N	7,005,313.72	E	2,331,640.62
Delta	=	13° 34′ 26.73"	(RT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	340.95				
Length	=	678.70				
Radius	=	2,864.79				
External	=	20.22				
Long Chord	=	677.12				
Mid. Ord.	=	20.08				
P.C. Station		70+24.33	N	7,005,650.65	E	2,331,588.45
P.T. Station		77+03.04	N	7,004,973.95	E	2,331,612.27
C.C.			N	7,005,212.23	E	2,328,757.40
Back	= S	8° 48′ 10.84" E				
Ahead	= S	4° 46′ 15.89" W				
Chord Bear	= S	2° 00′ 57.47" E				

Course from PT SBFRI-C to PC SBFRI-D S 4° 46′ 15.89" W Dist 604.67

		Curve Data				
Curve SBFRI-D						
P.I. Station		83+83.37	N	7,004,295.97	E	2,331,555.68
Delta	=	4° 19′ 59.10"	(LT)			
Degree	=	2° 51′ 53.24"				
Tangent	=	75.66				
Length	=	151.25				
Radius	=	2,000.00				
External	=	1.43				
Long Chord	=	151.22				
Mid. Ord.	=	1.43				
P.C. Station		83+07.71	N	7,004,371.38	E	2,331,561.97
P.T. Station		84+58.96	N	7,004,220.31	E	2,331,555.10
C.C.			N	7,004,205.03	E	2,333,555.04
Back	= S	4° 46′ 15.89" W				
Ahead	= S	0° 26′ 16.79" W				
Chord Bear	= S	2° 36′ 16.34" W				

Course from PT SBFRI-D to PC SBFRI-E S 0° 26′ 16.79" W Dist 139.91

		Curve Data				
Curve SBFRI-E						
P.I. Station		89+30.89	N	7,003,748.39	E	2,331,551.49
Delta	=	5° 25′ 52.38"	(LT)			
Degree	=	0° 49′ 06.64"				
Tangent	=	332.02				
Length	=	663.55				
Radius	=	7,000.00				
External	=	7.87				
Long Chord	=	663.30				
Mid. Ord.	=	7.86				
P.C. Station		85+98.87	N	7,004,080.41	E	2,331,554.03
P.T. Station		92+62.42	N	7,003,417.63	E	2,331,580.39
C.C.			N	7,004,026.90	E	2,338,553.83
Back	= S	0° 26′ 16.79" W				
Ahead	= S	4° 59′ 35.59" E				
Chord Bear	= S	2° 16′ 39.40" E				

Course from PT SBFRI-E to PC SBFRI-F S 4° 59′ 35.59" E Dist 552.16

		Curve Data				
Curve SBFRI-F						
P.I. Station		101+24.48	N	7,002,558.84	E	2,331,655.42
Delta	=	18° 07′ 26.60"	(LT)			
Degree	=	2° 56′ 55.79"				
Tangent	=	309.90				
Length	=	614.62				
Radius	=	1,943.00				
External	=	24.56				
Long Chord	=	612.06				
Mid. Ord.	=	24.25				
P.C. Station		98+14.58	N	7,002,867.57	E	2,331,628.45
P.T. Station		104+29.20	N	7,002,273.83	E	2,331,777.09
C.C.			N	7,003,036.68	E	2,333,564.08
Back	= S	4° 59′ 35.59" E				
Ahead	= S	23° 07′ 02.19" E				
Chord Bear	= S	14° 03′ 18.89" E				

Course from PT SBFRI-F to PC SBFRI-G S 23° 07′ 02.19" E Dist 434.70

		Curve Data				
Curve SBFRI-G						
P.I. Station		112+82.95	N	7,001,488.63	E	2,332,112.29
Delta	=	16° 38′ 35.34"	(RT)			
Degree	=	1° 59′ 59.47"				
Tangent	=	419.06				
Length	=	832.22				
Radius	=	2,865.00				
External	=	30.49				
Long Chord	=	829.30				
Mid. Ord.	=	30.16				
P.C. Station		108+63.89	N	7,001,874.04	E	2,331,947.76
P.T. Station		116+96.11	N	7,001,072.24	E	2,332,159.54
C.C.			N	7,000,749.20	E	2,329,312.81
Back	= S	23° 07′ 02.19" E				
Ahead	= S	6° 28′ 26.85" E				
Chord Bear	= S	14° 47′ 44.52" E				

Course from PT SBFRI-G to SBFRI168 S 6° 28′ 26.85" E Dist 226.48

Equation: Sta 119+22.59 (BK) = Sta 3119+22.59 (AH) End Region 1 / Begin Region 2

Point SBFRI168 N 7,000,847.21 E 2,332,185.08 Sta 3119+22.59

Course from SBFRI168 to PC SBFRI-G2 S 6° 28′ 26.85" E Dist 100.14

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD05.dgn

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

Syed S. Haq 07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SHEET 5 OF 16

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	709
KCI	0014	16	255, ETC.	
CHECK				
KCI				

HORIZONTAL ALIGNMENT FOR SB FRONTAGE ROAD I (CONT.)

	Curve Data				
Curve SBFRI-G2					
P.I. Station	3123+84.58	N	7,000,388.17	E	2,332,237.17
Delta =	12° 35′ 43.11"	(LT)			
Degree =	1° 44′ 50.79"				
Tangent =	361.85				
Length =	720.79				
Radius =	3,278.84				
External =	19.91				
Long Chord =	719.34				
Mid. Ord. =	19.79				
P.C. Station	3120+22.73	N	7,000,747.71	E	2,332,196.37
P.T. Station	3127+43.51	N	7,000,046.17	E	2,332,355.39
C.C.		N	7,001,117.41	E	2,335,454.30
Back = S	6° 28′ 26.85" E				
Ahead = S	19° 04′ 09.96" E				
Chord Bear = S	12° 46′ 18.40" E				

	Curve Data				
Curve SBFRI-H					
P.I. Station	3128+25.47	N	6,999,968.71	E	2,332,382.17
Delta =	4° 41′ 35.21"	(RT)			
Degree =	2° 51′ 53.24"				
Tangent =	81.96				
Length =	163.82				
Radius =	2,000.00				
External =	1.68				
Long Chord =	163.77				
Mid. Ord. =	1.68				
P.C. Station	3127+43.51	N	7,000,046.17	E	2,332,355.39
P.T. Station	3129+07.33	N	6,999,889.32	E	2,332,402.52
C.C.		N	6,999,392.74	E	2,330,465.15
Back = S	19° 04′ 09.96" E				
Ahead = S	14° 22′ 34.74" E				
Chord Bear = S	16° 43′ 22.35" E				

Equation: Sta 3129+07.33 (BK) = Sta 129+05.72 (AH) — End Region 2 / Begin Region 3

Point SBFRI173 N 6,999,889.32 E 2,332,402.52 Sta 129+05.72

Course from SBFRI173 to PC SBFRI-I S 14° 22′ 34.74" E Dist 145.84

	Curve Data				
Curve SBFRI-I					
P.I. Station	131+45.68	N	6,999,656.87	E	2,332,462.10
Delta =	3° 45′ 48.41"	(RT)			
Degree =	2° 00′ 00.00"				
Tangent =	94.12				
Length =	188.17				
Radius =	2,864.79				
External =	1.55				
Long Chord =	188.14				
Mid. Ord. =	1.54				
P.C. Station	130+51.56	N	6,999,748.05	E	2,332,438.73
P.T. Station	132+39.74	N	6,999,564.36	E	2,332,479.43
C.C.		N	6,999,036.75	E	2,329,663.65
Back = S	14° 22′ 34.74" E				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	12° 29′ 40.54" E				

Course from PT SBFRI-I to PC SBFRI-J S 10° 36′ 46.33" E Dist 758.96

	Curve Data				
Curve SBFRI-J					
P.I. Station	141+22.44	N	6,998,696.76	E	2,332,642.00
Delta =	4° 58′ 02.13"	(LT)			
Degree =	2° 00′ 30.29"				
Tangent =	123.74				
Length =	247.32				
Radius =	2,852.79				
External =	2.68				
Long Chord =	247.25				
Mid. Ord. =	2.68				
P.C. Station	139+98.70	N	6,998,818.38	E	2,332,619.21
P.T. Station	142+46.02	N	6,998,577.57	E	2,332,675.24
C.C.		N	6,999,343.78	E	2,335,423.20
Back = S	10° 36′ 46.33" E				
Ahead = S	15° 34′ 48.46" E				
Chord Bear = S	13° 05′ 47.40" E				

	Curve Data				
Curve SBFRI-K					
P.I. Station	143+61.29	N	6,998,466.53	E	2,332,706.20
Delta =	4° 37′ 39.44"	(RT)			
Degree =	2° 00′ 30.29"				
Tangent =	115.27				
Length =	230.41				
Radius =	2,852.79				
External =	2.33				
Long Chord =	230.35				
Mid. Ord. =	2.33				
P.C. Station	142+46.02	N	6,998,577.57	E	2,332,675.24
P.T. Station	144+76.43	N	6,998,353.36	E	2,332,728.10
C.C.		N	6,997,811.35	E	2,329,927.27
Back = S	15° 34′ 48.46" E				
Ahead = S	10° 57′ 09.02" E				
Chord Bear = S	13° 15′ 58.74" E				

Course from PT SBFRI-K to PC SBFRI-L S 10° 57′ 09.02" E Dist 894.14

	Curve Data				
Curve SBFRI-L					
P.I. Station	154+93.60	N	6,997,354.73	E	2,332,921.35
Delta =	2° 27′ 36.08"	(LT)			
Degree =	1° 00′ 00.00"				
Tangent =	123.02				
Length =	246.00				
Radius =	5,729.58				
External =	1.32				
Long Chord =	245.98				
Mid. Ord. =	1.32				
P.C. Station	153+70.58	N	6,997,475.51	E	2,332,897.98
P.T. Station	156+16.58	N	6,997,235.07	E	2,332,949.89
C.C.		N	6,998,564.10	E	2,338,523.19
Back = S	10° 57′ 09.02" E				
Ahead = S	13° 24′ 45.10" E				
Chord Bear = S	12° 10′ 57.06" E				

Course from PT SBFRI-L to PC SBFRI-M S 13° 24′ 45.10" E Dist 232.89

	Curve Data				
Curve SBFRI-M					
P.I. Station	159+83.10	N	6,996,878.54	E	2,333,034.90
Delta =	5° 20′ 28.18"	(RT)			
Degree =	2° 00′ 00.00"				
Tangent =	133.63				
Length =	267.06				
Radius =	2,864.79				
External =	3.11				
Long Chord =	266.96				
Mid. Ord. =	3.11				
P.C. Station	158+49.47	N	6,997,008.53	E	2,333,003.91
P.T. Station	161+16.53	N	6,996,746.24	E	2,333,053.67
C.C.		N	6,996,344.01	E	2,330,217.26
Back = S	13° 24′ 45.10" E				
Ahead = S	8° 04′ 16.92" E				
Chord Bear = S	10° 44′ 31.01" E				

	Curve Data				
Curve SBFRI-N					
P.I. Station	168+37.34	N	6,996,032.57	E	2,333,154.87
Delta =	7° 18′ 18.47"	(RT)			
Degree =	0° 30′ 26.70"				
Tangent =	720.81				
Length =	1,439.67				
Radius =	11,291.66				
External =	22.98				
Long Chord =	1,438.69				
Mid. Ord. =	22.94				
P.C. Station	161+16.53	N	6,996,746.24	E	2,333,053.67
P.T. Station	175+56.20	N	6,995,311.82	E	2,333,164.51
C.C.		N	6,995,160.82	E	2,321,873.87
Back = S	8° 04′ 16.92" E				
Ahead = S	0° 45′ 58.46" E				
Chord Bear = S	4° 25′ 07.69" E				

Course from PT SBFRI-N to PC SBFRI-O S 0° 45′ 58.46" E Dist 623.73

	Curve Data				
Curve SBFRI-O					
P.I. Station	183+64.59	N	6,994,503.51	E	2,333,175.32
Delta =	7° 22′ 34.54"	(RT)			
Degree =	2° 00′ 00.00"				
Tangent =	184.66				
Length =	368.81				
Radius =	2,864.79				
External =	5.95				
Long Chord =	368.56				
Mid. Ord. =	5.93				
P.C. Station	181+79.92	N	6,994,688.15	E	2,333,172.85
P.T. Station	185+48.74	N	6,994,320.08	E	2,333,154.07
C.C.		N	6,994,649.84	E	2,330,308.32
Back = S	0° 45′ 58.46" E				
Ahead = S	6° 36′ 36.09" W				
Chord Bear = S	2° 55′ 18.82" W				

	Curve Data				
Curve SBFRI-P					
P.I. Station	187+08.31	N	6,994,161.56	E	2,333,135.70
Delta =	6° 22′ 34.54"	(LT)			
Degree =	2° 00′ 00.00"				
Tangent =	159.57				
Length =	318.81				
Radius =	2,864.79				
External =	4.44				
Long Chord =	318.65				
Mid. Ord. =	4.43				
P.C. Station	185+48.74	N	6,994,320.08	E	2,333,154.07
P.T. Station	188+67.55	N	6,994,001.99	E	2,333,135.05
C.C.		N	6,993,990.31	E	2,335,999.81
Back = S	6° 36′ 36.09" W				
Ahead = S	0° 14′ 01.54" W				
Chord Bear = S	3° 25′ 18.82" W				

Course from PT SBFRI-P to PC SBFRI-Q S 0° 14′ 01.54" W Dist 1,040.35

	Curve Data				
Curve SBFRI-Q					
P.I. Station	213+21.19	N	6,991,548.37	E	2,333,125.04
Delta =	89° 13′ 50.70"	(RT)			
Degree =	4° 00′ 00.00"				
Tangent =	1,413.29				
Length =	2,230.77				
Radius =	1,432.39				
External =	579.85				
Long Chord =	2,012.07				
Mid. Ord. =	412.76				
P.C. Station	199+07.90	N	6,992,961.65	E	2,333,130.80
P.T. Station	221+38.67	N	6,991,535.16	E	2,331,711.81
C.C.		N	6,992,967.49	E	2,331,698.42
Back = S	0° 14′ 01.54" W				
Ahead = S	89° 27′ 52.24" W				
Chord Bear = S	44° 50′ 56.89" W				

Course from PT SBFRI-Q to SBFRI220 S 89° 27′ 52.24" W Dist 806.76

Point SBFRI220 N 6,991,527.62 E 2,330,905.08 Sta 229+45.43

Ending chain SBFRI description

HORIZONTAL ALIGNMENT FOR DC CONNECTOR 35S-287W

Beginning chain 35S-287W description

	Curve Data				
Curve 35S-287W-A					
P.I. Station	10+99.93	N	7,010,436.91	E	2,331,714.47
Delta =	3° 59′ 43.97"	(RT)			
Degree =	2° 00′ 00.00"				
Tangent =	99.93				
Length =	199.78				
Radius =	2,864.79				
External =	1.74				
Long Chord =	199.74				
Mid. Ord. =	1.74				
P.C. Station	10+00.00	N	7,010,536.84	E	2,331,713.52
P.T. Station	11+99.78	N	7,010,337.16	E	2,331,708.46
C.C.		N	7,010,509.54	E	2,328,848.86
Back = S	0° 32′ 45.70" E				
Ahead = S	3° 26′ 58.27" W				
Chord Bear = S	1° 27′ 06.28" W				

Course from PT 35S-287W-A to PC 35S-287W-B S 3° 26′ 58.27" W Dist 409.66

	Curve Data				
Curve 35S-287W-B					
P.I. Station	26+21.32	N	7,008,918.19	E	2,331,622.92
Delta =	125° 31′ 32.17"	(RT)			
Degree =	11° 00′ 00.00"				
Tangent =	1,011.89				
Length =	1,141.14				
Radius =	520.87				
External =	617.21				
Long Chord =	926.23				
Mid. Ord. =	282.48				
P.C. Station	16+09.44	N	7,009,928.25	E	2,331,683.81
P.T. Station	27+50.58	N	7,009,554.65	E	2,330,836.26
C.C.		N	7,009,959.59	E	2,331,163.88
Back = S	3° 26′ 58.27" W				
Ahead = N	51° 01′ 29.56" W				
Chord Bear = S	66° 12′ 44.36" W				

Course from PT 35S-287W-B to PC 35S-287W-C N 51° 01′ 29.56" W Dist 207.16

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SHEET 6 OF 16

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	710
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD06.dgn

HORIZONTAL ALIGNMENT FOR DIRECT CONNECTOR 35S-287W (CONT.)

		Curve Data				
Curve 35S-287W-C						
P.I. Station		30+33.38	N	7,009,732.53	E	2,330,616.41
Delta	=	3° 01′ 29.33"	(RT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	75.64				
Length	=	151.24				
Radius	=	2,864.79				
External	=	1.00				
Long Chord	=	151.22				
Mid. Ord.	=	1.00				
P.C. Station		29+57.74	N	7,009,684.96	E	2,330,675.21
P.T. Station		31+08.98	N	7,009,783.14	E	2,330,560.20
C.C.			N	7,011,912.10	E	2,332,477.11
Back	= N	51° 01′ 29.56" W				
Ahead	= N	48° 00′ 00.23" W				
Chord Bear	= N	49° 30′ 44.89" W				

Course from PT 35S-287W-C to SGPUSW120 N 48° 00′ 00.23" W Dist 450.09

Point SGPUSW120 N 7,010,084.31 E 2,330,225.71 Sta 35+59.07

Course from SGPUSW120 to SGPUSW125 N 48° 00′ 03.69" W Dist 600.12

Point SGPUSW125 N 7,010,485.86 E 2,329,779.73 Sta 41+59.19

Ending chain 35S-287W description

HORIZONTAL ALIGNMENT FOR DIRECT CONNECTOR 35N-287W

Beginning chain 35N-287W description

Point NGPUSW100 N 7,009,733.54 E 2,330,582.91 Sta 36+03.19

Course from NGPUSW100 to PC 35N-287W-A S 46° 51′ 15.48" E Dist 42.38

		Curve Data				
Curve 35N-287W-A						
P.I. Station		40+15.44	N	7,009,451.62	E	2,330,883.70
Delta	=	3° 41′ 50.73"	(LT)			
Degree	=	0° 30′ 00.00"				
Tangent	=	369.87				
Length	=	739.48				
Radius	=	11,459.16				
External	=	5.97				
Long Chord	=	739.36				
Mid. Ord.	=	5.96				
P.C. Station		36+45.57	N	7,009,704.56	E	2,330,613.84
P.T. Station		43+85.06	N	7,009,216.61	E	2,331,169.31
C.C.			N	7,018,065.35	E	2,338,450.25
Back	= S	46° 51′ 15.48" E				
Ahead	= S	50° 33′ 06.21" E				
Chord Bear	= S	48° 42′ 10.85" E				

Course from PT 35N-287W-A to PC 35N-287W-B S 50° 33′ 06.21" E Dist 632.66

		Curve Data				
Curve 35N-287W-B						
P.I. Station		63+83.26	N	7,007,946.99	E	2,332,712.33
Delta	=	68° 38′ 53.95"	(RT)			
Degree	=	2° 51′ 53.24"				
Tangent	=	1,365.54				
Length	=	2,396.28				
Radius	=	2,000.00				
External	=	421.72				
Long Chord	=	2,255.50				
Mid. Ord.	=	348.28				
P.C. Station		50+17.72	N	7,008,814.63	E	2,331,657.86
P.T. Station		74+14.00	N	7,006,648.99	E	2,332,288.16
C.C.			N	7,007,270.23	E	2,330,387.09
Back	= S	50° 33′ 06.21" E				
Ahead	= S	18° 05′ 47.74" W				
Chord Bear	= S	16° 13′ 39.24" E				

Course from PT 35N-287W-B to PC 35N-287W-C S 18° 05′ 47.74" W Dist 464.28

		Curve Data				
Curve 35N-287W-C						
P.I. Station		82+46.35	N	7,005,857.82	E	2,332,029.62
Delta	=	14° 38′ 33.44"	(LT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	368.07				
Length	=	732.13				
Radius	=	2,864.79				
External	=	23.55				
Long Chord	=	730.14				
Mid. Ord.	=	23.36				
P.C. Station		78+78.28	N	7,006,207.68	E	2,332,143.95
P.T. Station		86+10.41	N	7,005,490.41	E	2,332,007.44
C.C.			N	7,005,317.82	E	2,334,867.03
Back	= S	18° 05′ 47.74" W				
Ahead	= S	3° 27′ 14.30" W				
Chord Bear	= S	10° 46′ 31.02" W				

Course from PT 35N-287W-C to PC 35N-287W-D S 3° 27′ 14.30" W Dist 365.64

		Curve Data				
Curve 35N-287W-D						
P.I. Station		93+33.71	N	7,004,768.42	E	2,331,963.87
Delta	=	7° 07′ 07.25"	(LT)			
Degree	=	0° 59′ 47.21"				
Tangent	=	357.66				
Length	=	714.41				
Radius	=	5,750.00				
External	=	11.11				
Long Chord	=	713.95				
Mid. Ord.	=	11.09				
P.C. Station		89+76.05	N	7,005,125.43	E	2,331,985.41
P.T. Station		96+90.46	N	7,004,411.49	E	2,331,986.73
C.C.			N	7,004,779.02	E	2,337,724.97
Back	= S	3° 27′ 14.30" W				
Ahead	= S	3° 39′ 52.95" E				
Chord Bear	= S	0° 06′ 19.32" E				

Ending chain 35N-287W description

HORIZONTAL ALIGNMENT FOR DIRECT CONNECTOR 287E-MLS

Beginning chain 287E-MLS description

Point USEMLS100 N 7,009,567.36 E 2,330,654.93 Sta 37+69.13

Course from USEMLS100 to PC 287E-MLS-A S 46° 51′ 15.48" E Dist 857.25

		Curve Data				
Curve 287E-MLS-A						
P.I. Station		52+72.14	N	7,008,539.52	E	2,331,751.55
Delta	=	46° 18′ 29.78"	(RT)			
Degree	=	3° 47′ 39.92"				
Tangent	=	645.76				
Length	=	1,220.43				
Radius	=	1,510.00				
External	=	132.29				
Long Chord	=	1,187.48				
Mid. Ord.	=	121.63				
P.C. Station		46+26.38	N	7,008,981.12	E	2,331,280.40
P.T. Station		58+46.81	N	7,007,893.79	E	2,331,757.71
C.C.			N	7,007,879.40	E	2,330,247.77
Back	= S	46° 51′ 15.48" E				
Ahead	= S	0° 32′ 45.70" E				
Chord Bear	= S	23° 42′ 00.59" E				

Course from PT 287E-MLS-A to PC 287E-MLS-B S 0° 32′ 45.70" E Dist 788.74

		Curve Data				
Curve 287E-MLS-B						
P.I. Station		69+06.62	N	7,006,834.03	E	2,331,767.81
Delta	=	5° 23′ 52.87"	(LT)			
Degree	=	0° 59′ 47.21"				
Tangent	=	271.06				
Length	=	541.73				
Radius	=	5,750.00				
External	=	6.39				
Long Chord	=	541.53				
Mid. Ord.	=	6.38				
P.C. Station		66+35.56	N	7,007,105.09	E	2,331,765.22
P.T. Station		71+77.28	N	7,006,564.43	E	2,331,795.88
C.C.			N	7,007,159.88	E	2,337,514.96
Back	= S	0° 32′ 45.70" E				
Ahead	= S	5° 56′ 38.57" E				
Chord Bear	= S	3° 14′ 42.13" E				

		Curve Data				
Curve 287E-MLS-C						
P.I. Station		74+48.34	N	7,006,294.82	E	2,331,823.95
Delta	=	5° 23′ 52.87"	(RT)			
Degree	=	0° 59′ 47.21"				
Tangent	=	271.06				
Length	=	541.73				
Radius	=	5,750.00				
External	=	6.39				
Long Chord	=	541.53				
Mid. Ord.	=	6.38				
P.C. Station		71+77.28	N	7,006,564.43	E	2,331,795.88
P.T. Station		77+19.01	N	7,006,023.77	E	2,331,826.53
C.C.			N	7,005,968.97	E	2,326,076.79
Back	= S	5° 56′ 38.57" E				
Ahead	= S	0° 32′ 45.70" E				
Chord Bear	= S	3° 14′ 42.13" E				

Ending chain 287E-MLS description

HORIZONTAL ALIGNMENT FOR DIRECT CONNECTOR 287E-35S

Beginning chain 287E-35S description

Point USESGP100 N 7,009,551.72 E 2,330,636.82 Sta 37+68.93

Course from USESGP100 to PC 287E-35S-A S 46° 52′ 17.43" E Dist 322.17

		Curve Data				
Curve 287E-35S-A						
P.I. Station		46+21.89	N	7,008,968.61	E	2,331,259.32
Delta	=	20° 55′ 14.06"	(RT)			
Degree	=	1° 59′ 34.43"				
Tangent	=	530.79				
Length	=	1,049.76				
Radius	=	2,875.00				
External	=	48.59				
Long Chord	=	1,043.94				
Mid. Ord.	=	47.78				
P.C. Station		40+91.10	N	7,009,331.47	E	2,330,871.94
P.T. Station		51+40.85	N	7,008,491.34	E	2,331,491.60
C.C.			N	7,007,233.24	E	2,328,906.49
Back	= S	46° 52′ 17.43" E				
Ahead	= S	25° 57′ 03.37" E				
Chord Bear	= S	36° 24′ 40.40" E				

		Curve Data				
Curve 287E-35S-B						
P.I. Station		55+91.66	N	7,008,085.98	E	2,331,688.87
Delta	=	25° 24′ 17.67"	(RT)			
Degree	=	2° 51′ 53.24"				
Tangent	=	450.81				
Length	=	886.80				
Radius	=	2,000.00				
External	=	50.18				
Long Chord	=	879.55				
Mid. Ord.	=	48.95				
P.C. Station		51+40.85	N	7,008,491.34	E	2,331,491.60
P.T. Station		60+27.65	N	7,007,635.20	E	2,331,693.17
C.C.			N	7,007,616.14	E	2,329,693.26
Back	= S	25° 57′ 03.37" E				
Ahead	= S	0° 32′ 45.70" E				
Chord Bear	= S	13° 14′ 54.53" E				

Course from PT 287E-35S-B to USESGP110 S 0° 32′ 45.70" E Dist 99.35

Point USESGP110 N 7,007,535.85 E 2,331,694.11 Sta 61+27.00

Ending chain 287E-35S description

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SHEET 7 OF 16

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	711
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD07.dgn

HORIZONTAL ALIGNMENT FOR DIRECT CONNECTOR MLN-287W

Beginning chain MLN-287W description

Curve MLN-287W-A			Curve Data			
P.I. Station		53+90.43	N	7,008,575.90	E	2,331,910.21
Delta	=	50° 00′ 20.51"	(RT)			
Degree	=	3° 45′ 25.56"				
Tangent	=	711.21				
Length	=	1,330.97				
Radius	=	1,525.00				
External	=	157.69				
Long Chord	=	1,289.12				
Mid. Ord.	=	142.91				
P.C. Station		46+79.22	N	7,009,027.80	E	2,331,361.02
P.T. Station		60+10.19	N	7,007,864.73	E	2,331,916.99
C.C.			N	7,007,850.19	E	2,330,392.06
Back	= S	50° 33′ 06.21" E				
Ahead	= S	0° 32′ 45.70" E				
Chord Bear	= S	25° 32′ 55.96" E				

Course from PT MLN-287W-A to PC MLN-287W-B S 0° 32′ 45.70" E Dist 930.22

Curve MLN-287W-B			Curve Data			
P.I. Station		72+49.88	N	7,006,625.09	E	2,331,928.80
Delta	=	6° 11′ 00.20"	(RT)			
Degree	=	1° 00′ 00.00"				
Tangent	=	309.47				
Length	=	618.34				
Radius	=	5,729.58				
External	=	8.35				
Long Chord	=	618.04				
Mid. Ord.	=	8.34				
P.C. Station		69+40.41	N	7,006,934.54	E	2,331,925.86
P.T. Station		75+58.75	N	7,006,317.12	E	2,331,898.40
C.C.			N	7,006,879.94	E	2,326,196.54
Back	= S	0° 32′ 45.70" E				
Ahead	= S	5° 38′ 14.50" W				
Chord Bear	= S	2° 32′ 44.40" W				

Curve MLN-287W-C			Curve Data			
P.I. Station		77+13.48	N	7,006,163.13	E	2,331,883.20
Delta	=	6° 11′ 00.19"	(LT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	154.73				
Length	=	309.17				
Radius	=	2,864.79				
External	=	4.18				
Long Chord	=	309.02				
Mid. Ord.	=	4.17				
P.C. Station		75+58.75	N	7,006,317.12	E	2,331,898.40
P.T. Station		78+67.92	N	7,006,008.40	E	2,331,884.68
C.C.			N	7,006,035.70	E	2,334,749.34
Back	= S	5° 38′ 14.50" W				
Ahead	= S	0° 32′ 45.69" E				
Chord Bear	= S	2° 32′ 44.40" W				

Ending chain MLN-287W description

HORIZONTAL ALIGNMENT FOR DIRECT CONNECTOR 35S-820W

Beginning chain 35S-820W description

Curve 35S-820W-A			Curve Data			
P.I. Station		13+58.20	N	6,994,806.43	E	2,333,242.03
Delta	=	4° 00′ 00.00"	(RT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	100.04				
Length	=	200.00				
Radius	=	2,864.79				
External	=	1.75				
Long Chord	=	199.96				
Mid. Ord.	=	1.75				
P.C. Station		12+58.16	N	6,994,906.46	E	2,333,240.69
P.T. Station		14+58.16	N	6,994,706.55	E	2,333,236.39
C.C.			N	6,994,868.15	E	2,330,376.16
Back	= S	0° 45′ 58.46" E				
Ahead	= S	3° 14′ 01.54" W				
Chord Bear	= S	1° 14′ 01.54" W				

Course from PT 35S-820W-A to PC 35S-820W-B S 3° 14′ 01.54" W Dist 67.77

Curve 35S-820W-B			Curve Data			
P.I. Station		16+53.86	N	6,994,511.16	E	2,333,225.35
Delta	=	2° 33′ 29.33"	(LT)			
Degree	=	1° 00′ 00.00"				
Tangent	=	127.93				
Length	=	255.81				
Radius	=	5,729.58				
External	=	1.43				
Long Chord	=	255.79				
Mid. Ord.	=	1.43				
P.C. Station		15+25.93	N	6,994,638.88	E	2,333,232.56
P.T. Station		17+81.75	N	6,994,383.24	E	2,333,223.84
C.C.			N	6,994,315.68	E	2,338,953.02
Back	= S	3° 14′ 01.54" W				
Ahead	= S	0° 40′ 32.21" W				
Chord Bear	= S	1° 57′ 16.88" W				

Course from PT 35S-820W-B to SGP820125 S 0° 40′ 32.21" W Dist 696.76

Point SGP820125 N 6,993,686.53 E 2,333,215.62 Sta 24+78.51

Ending chain 35S-820W description

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP 35N-NTP

Beginning chain 35N-NTP description

Curve 35N-NTP-A			Curve Data			
P.I. Station		12+16.33	N	7,011,846.29	E	2,332,014.56
Delta	=	11° 29′ 28.99"	(RT)			
Degree	=	2° 39′ 53.71"				
Tangent	=	216.33				
Length	=	431.21				
Radius	=	2,150.00				
External	=	10.86				
Long Chord	=	430.49				
Mid. Ord.	=	10.80				
P.C. Station		10+00.00	N	7,012,062.62	E	2,332,013.10
P.T. Station		14+31.21	N	7,011,634.01	E	2,331,972.90
C.C.			N	7,012,048.05	E	2,329,863.15
Back	= S	0° 23′ 18.07" E				
Ahead	= S	11° 06′ 10.92" W				
Chord Bear	= S	5° 21′ 26.42" W				

Course from PT 35N-NTP-A to PC 35N-NTP-B S 11° 06′ 10.92" W Dist 95.23

Curve 35N-NTP-B			Curve Data			
P.I. Station		17+91.76	N	7,011,280.21	E	2,331,903.47
Delta	=	12° 06′ 58.19"	(LT)			
Degree	=	2° 17′ 30.59"				
Tangent	=	265.32				
Length	=	528.67				
Radius	=	2,500.00				
External	=	14.04				
Long Chord	=	527.68				
Mid. Ord.	=	13.96				
P.C. Station		15+26.44	N	7,011,540.57	E	2,331,954.57
P.T. Station		20+55.10	N	7,011,014.93	E	2,331,908.16
C.C.			N	7,011,059.13	E	2,334,407.77
Back	= S	11° 06′ 10.92" W				
Ahead	= S	1° 00′ 47.27" E				
Chord Bear	= S	5° 02′ 41.83" W				

Curve 35N-NTP-C			Curve Data			
P.I. Station		22+96.51	N	7,010,773.56	E	2,331,912.43
Delta	=	2° 24′ 49.32"	(RT)			
Degree	=	0° 30′ 00.00"				
Tangent	=	241.41				
Length	=	482.74				
Radius	=	11,459.16				
External	=	2.54				
Long Chord	=	482.70				
Mid. Ord.	=	2.54				
P.C. Station		20+55.10	N	7,011,014.93	E	2,331,908.16
P.T. Station		25+37.84	N	7,010,532.23	E	2,331,906.53
C.C.			N	7,010,812.31	E	2,320,450.80
Back	= S	1° 00′ 47.27" E				
Ahead	= S	1° 24′ 02.05" W				
Chord Bear	= S	0° 11′ 37.39" W				

Curve 35N-NTP-D			Curve Data			
P.I. Station		26+61.56	N	7,010,408.55	E	2,331,903.51
Delta	=	3° 42′ 36.44"	(LT)			
Degree	=	1° 30′ 00.00"				
Tangent	=	123.71				
Length	=	247.34				
Radius	=	3,819.72				
External	=	2.00				
Long Chord	=	247.30				
Mid. Ord.	=	2.00				
P.C. Station		25+37.84	N	7,010,532.23	E	2,331,906.53
P.T. Station		27+85.19	N	7,010,284.94	E	2,331,908.49
C.C.			N	7,010,438.87	E	2,335,725.11
Back	= S	1° 24′ 02.05" W				
Ahead	= S	2° 18′ 34.39" E				
Chord Bear	= S	0° 27′ 16.17" E				

Ending chain 35N-NTP description

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP BB-35N

Beginning chain BB-35N description

Point BBNGP100 N 7,009,792.92 E 2,331,918.62 Sta 10+00.00

Curve BB-35N-A			Curve Data			
P.I. Station		12+79.45	N	7,009,513.48	E	2,331,921.28
Delta	=	5° 33′ 53.50"	(LT)			
Degree	=	0° 59′ 47.21"				
Tangent	=	279.45				
Length	=	558.47				
Radius	=	5,750.00				
External	=	6.79				
Long Chord	=	558.25				
Mid. Ord.	=	6.78				
P.C. Station		10+00.00	N	7,009,792.92	E	2,331,918.62
P.T. Station		15+58.47	N	7,009,235.61	E	2,331,951.03
C.C.			N	7,009,847.72	E	2,337,668.35
Back	= S	0° 32′ 45.70" E				
Ahead	= S	6° 06′ 39.20" E				
Chord Bear	= S	3° 19′ 42.45" E				

Course from PT BB-35N-A to PC BB-35N-B S 6° 06′ 39.20" E Dist 103.42

DRAWING DATE: 7/13/2012 FILENAME: S3BHA008.dgn

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

Syed Sajidul Haq 07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SHEET 8 OF 16

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	712
KCI	0014	16	255, ETC.	
CHECK				
KCI				

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP BB-35N (CONT.)

				Curve Data			
Curve BB-35N-B							
P.I. Station			18+49.68	N	7,008,946.06	E	2,331,982.03
Delta	=	10° 43′ 40.02"	(LT)				
Degree	=	2° 51′ 53.24"					
Tangent	=		187.78				
Length	=		374.47				
Radius	=		2,000.00				
External	=		8.80				
Long Chord	=		373.92				
Mid. Ord.	=		8.76				
P.C. Station			16+61.89	N	7,009,132.78	E	2,331,962.04
P.T. Station			20+36.36	N	7,008,766.33	E	2,332,036.42
C.C.				N	7,009,345.69	E	2,333,950.67
Back	= S	6° 06′ 39.20"	E				
Ahead	= S	16° 50′ 19.21"	E				
Chord Bear	= S	11° 28′ 29.21"	E				

Course from PT BB-35N-B to BBNGP115 S 16° 50′ 19.21" E Dist 954.18

Point BBNGP115 N 7,007,853.06 E 2,332,312.83 Sta 29+90.54

Ending chain BB-35N description

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP BB-287W

Beginning chain BB-287W description

Point BBUSW100 N 7,006,866.17 E 2,332,358.10 Sta 10+00.00

Course from BBUSW100 to PC BB-287W-A S 11° 32′ 23.33" W Dist 1,109.22

				Curve Data			
Curve BB-287W-A							
P.I. Station			22+05.32	N	7,005,685.21	E	2,332,116.98
Delta	=	7° 11′ 52.51"	(LT)				
Degree	=	3° 45′ 00.00"					
Tangent	=		96.10				
Length	=		191.94				
Radius	=		1,527.89				
External	=		3.02				
Long Chord	=		191.82				
Mid. Ord.	=		3.01				
P.C. Station			21+09.22	N	7,005,779.37	E	2,332,136.20
P.T. Station			23+01.17	N	7,005,589.39	E	2,332,109.70
C.C.				N	7,005,473.72	E	2,333,633.21
Back	= S	11° 32′ 23.33"	W				
Ahead	= S	4° 20′ 30.82"	W				
Chord Bear	= S	7° 56′ 27.08"	W				

				Curve Data			
Curve BB-287W-B							
P.I. Station			23+69.76	N	7,005,520.99	E	2,332,104.51
Delta	=	3° 05′ 10.30"	(RT)				
Degree	=	2° 15′ 00.00"					
Tangent	=		68.60				
Length	=		137.16				
Radius	=		2,546.48				
External	=		0.92				
Long Chord	=		137.15				
Mid. Ord.	=		0.92				
P.C. Station			23+01.17	N	7,005,589.39	E	2,332,109.70
P.T. Station			24+38.33	N	7,005,452.96	E	2,332,095.64
C.C.				N	7,005,782.18	E	2,329,570.53
Back	= S	4° 20′ 30.82"	W				
Ahead	= S	7° 25′ 41.12"	W				
Chord Bear	= S	5° 53′ 05.97"	W				

Ending chain BB-287W description

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP MLN-BB

Beginning chain MLN-BB description

				Curve Data			
Curve MLN-BB-A							
P.I. Station			12+47.99	N	7,002,463.05	E	2,332,449.21
Delta	=	4° 37′ 24.71"	(RT)				
Degree	=	1° 00′ 00.00"					
Tangent	=		231.30				
Length	=		462.35				
Radius	=		5,729.58				
External	=		4.67				
Long Chord	=		462.23				
Mid. Ord.	=		4.66				
P.C. Station			10+16.69	N	7,002,693.96	E	2,332,435.62
P.T. Station			14+79.04	N	7,002,231.81	E	2,332,444.13
C.C.				N	7,002,357.45	E	2,326,715.93
Back	= S	3° 22′ 01.13"	E				
Ahead	= S	1° 15′ 23.58"	W				
Chord Bear	= S	1° 03′ 18.77"	E				

				Curve Data			
Curve MLN-BB-B							
P.I. Station			16+67.12	N	7,002,043.78	E	2,332,440.01
Delta	=	11° 14′ 53.42"	(LT)				
Degree	=	3° 00′ 00.00"					
Tangent	=		188.07				
Length	=		374.94				
Radius	=		1,909.86				
External	=		9.24				
Long Chord	=		374.34				
Mid. Ord.	=		9.19				
P.C. Station			14+79.04	N	7,002,231.81	E	2,332,444.13
P.T. Station			18+53.98	N	7,001,858.56	E	2,332,472.64
C.C.				N	7,002,189.92	E	2,334,353.53
Back	= S	1° 15′ 23.58"	W				
Ahead	= S	9° 59′ 29.84"	E				
Chord Bear	= S	4° 22′ 03.13"	E				

Course from PT MLN-BB-B to PC MLN-BB-C S 9° 59′ 29.84" E Dist 522.01

				Curve Data			
Curve MLN-BB-C							
P.I. Station			26+30.45	N	7,001,093.86	E	2,332,607.36
Delta	=	13° 49′ 04.02"	(RT)				
Degree	=	2° 43′ 42.13"					
Tangent	=		254.46				
Length	=		506.45				
Radius	=		2,100.00				
External	=		15.36				
Long Chord	=		505.22				
Mid. Ord.	=		15.25				
P.C. Station			23+76.00	N	7,001,344.46	E	2,332,563.21
P.T. Station			28+82.44	N	7,000,839.97	E	2,332,590.38
C.C.				N	7,000,980.10	E	2,330,495.06
Back	= S	9° 59′ 29.84"	E				
Ahead	= S	3° 49′ 34.18"	W				
Chord Bear	= S	3° 04′ 57.83"	E				

Course from PT MLN-BB-C to PC MLN-BB-D S 3° 49′ 34.18" W Dist 33.87

				Curve Data			
Curve MLN-BB-D							
P.I. Station			31+19.00	N	7,000,603.94	E	2,332,574.60
Delta	=	14° 26′ 20.51"	(LT)				
Degree	=	3° 34′ 51.55"					
Tangent	=		202.68				
Length	=		403.21				
Radius	=		1,600.00				
External	=		12.79				
Long Chord	=		402.15				
Mid. Ord.	=		12.68				
P.C. Station			29+16.32	N	7,000,806.17	E	2,332,588.12
P.T. Station			33+19.53	N	7,000,404.73	E	2,332,611.93
C.C.				N	7,000,699.41	E	2,334,184.56
Back	= S	3° 49′ 34.18"	W				
Ahead	= S	10° 36′ 46.33"	E				
Chord Bear	= S	3° 23′ 36.08"	E				

Course from PT MLN-BB-D to PC MLN-BB-E S 10° 36′ 46.33" E Dist 721.16

				Curve Data			
Curve MLN-BB-E							
P.I. Station			42+26.20	N	6,999,513.57	E	2,332,778.91
Delta	=	3° 42′ 31.97"	(RT)				
Degree	=	1° 00′ 00.00"					
Tangent	=		185.51				
Length	=		370.89				
Radius	=		5,729.58				
External	=		3.00				
Long Chord	=		370.82				
Mid. Ord.	=		3.00				
P.C. Station			40+40.69	N	6,999,695.90	E	2,332,744.74
P.T. Station			44+11.58	N	6,999,329.40	E	2,332,801.21
C.C.				N	6,998,640.67	E	2,327,113.18
Back	= S	10° 36′ 46.33"	E				
Ahead	= S	6° 54′ 14.36"	E				
Chord Bear	= S	8° 45′ 30.35"	E				

				Curve Data			
Curve MLN-BB-F							
P.I. Station			45+04.34	N	6,999,237.32	E	2,332,812.36
Delta	=	3° 42′ 31.97"	(LT)				
Degree	=	2° 00′ 00.00"					
Tangent	=		92.75				
Length	=		185.44				
Radius	=		2,864.79				
External	=		1.50				
Long Chord	=		185.41				
Mid. Ord.	=		1.50				
P.C. Station			44+11.58	N	6,999,329.40	E	2,332,801.21
P.T. Station			45+97.02	N	6,999,146.15	E	2,332,829.44
C.C.				N	6,999,673.77	E	2,335,645.23
Back	= S	6° 54′ 14.36"	E				
Ahead	= S	10° 36′ 46.33"	E				
Chord Bear	= S	8° 45′ 30.35"	E				

Ending chain MLN-BB description

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP WCB-35N

Beginning chain WCB-35N description

				Curve Data			
Curve WCB-35N-A							
P.I. Station			12+35.18	N	7,001,514.53	E	2,332,444.67
Delta	=	4° 41′ 03.35"	(LT)				
Degree	=	0° 59′ 47.21"					
Tangent	=		235.18				
Length	=		470.10				
Radius	=		5,750.00				
External	=		4.81				
Long Chord	=		469.97				
Mid. Ord.	=		4.80				
P.C. Station			10+00.00	N	7,001,745.68	E	2,332,401.36
P.T. Station			14+70.10	N	7,001,287.68	E	2,332,506.72
C.C.				N	7,002,804.67	E	2,338,053.00
Back	= S	10° 36′ 46.33"	E				
Ahead	= S	15° 17′ 49.68"	E				
Chord Bear	= S	12° 57′ 18.01"	E				

				Curve Data			
Curve WCB-35N-B							
P.I. Station			15+87.45	N	7,001,174.49	E	2,332,537.68
Delta	=	2° 20′ 18.04"	(RT)				
Degree	=	0° 59′ 47.21"					
Tangent	=		117.35				
Length	=		234.67				
Radius	=		5,750.00				
External	=		1.20				
Long Chord	=		234.65				
Mid. Ord.	=		1.20				
P.C. Station			14+70.10	N	7,001,287.68	E	2,332,506.72
P.T. Station			17+04.76	N	7,001,060.12	E	2,332,563.99
C.C.				N	6,999,770.69	E	2,326,960.44
Back	= S	15° 17′ 49.68"	E				
Ahead	= S	12° 57′ 31.64"	E				
Chord Bear	= S	14° 07′ 40.66"	E				

				Curve Data			
Curve WCB-35N-C							
P.I. Station			18+83.44	N	7,000,886.00	E	2,332,604.06
Delta	=	8° 53′ 02.45"	(LT)				
Degree	=	2° 29′ 28.04"					
Tangent	=		178.67				
Length	=		356.63				
Radius	=		2,300.00				
External	=		6.93				
Long Chord	=		356.27				
Mid. Ord.	=		6.91				
P.C. Station			17+04.76	N	7,001,060.12	E	2,332,563.99
P.T. Station			20+61.39	N	7,000,720.16	E	2,332,670.54
C.C.				N	7,001,575.90	E	2,334,805.42
Back	= S	12° 57′ 31.64"	E				
Ahead	= S	21° 50′ 34.09"	E				
Chord Bear	= S	17° 24′ 02.86"	E				

Course from PT WCB-35N-C to PC WCB-35N-D S 21° 50′ 34.09" E Dist 55.11

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD09.dgn

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

Syed Shahid Haq 07/13/12

SHEET 9 OF 16

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	713
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP WCB-35N (CONT.)

Curve WCB-35N-D						
P.I. Station		24+75.26	N	7,000,336.01	E	2,332,824.52
Delta	=	17° 39′ 21.04"	(RT)			
Degree	=	2° 28′ 49.21"				
Tangent	=	358.76				
Length	=	711.83				
Radius	=	2,310.00				
External	=	27.69				
Long Chord	=	709.02				
Mid. Ord.	=	27.36				
P.C. Station		21+16.50	N	7,000,669.01	E	2,332,691.04
P.T. Station		28+28.33	N	6,999,978.20	E	2,332,850.71
C.C.			N	6,999,809.55	E	2,330,546.88
Back	= S	21° 50′ 34.09" E				
Ahead	= S	4° 11′ 13.04" E				
Chord Bear	= S	13° 00′ 53.57" E				

Ending chain WCB-35N description

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP 35N-BB

Beginning chain 35N-BB description

Point NGPBB105 N 7,001,709.67 E 2,332,536.03 Sta 8+91.91

Curve 35N-BB-A						
P.I. Station		9+89.01	N	7,001,614.46	E	2,332,555.05
Delta	=	5° 31′ 11.75"	(RT)			
Degree	=	2° 50′ 41.55"				
Tangent	=	97.09				
Length	=	194.03				
Radius	=	2,014.00				
External	=	2.34				
Long Chord	=	193.96				
Mid. Ord.	=	2.34				
P.C. Station		8+91.91	N	7,001,709.67	E	2,332,536.03
P.T. Station		10+85.95	N	7,001,517.86	E	2,332,564.83
C.C.			N	7,001,315.10	E	2,330,561.06
Back	= S	11° 17′ 53.52" E				
Ahead	= S	5° 46′ 41.77" E				
Chord Bear	= S	8° 32′ 17.64" E				

Curve 35N-BB-B						
P.I. Station		11+64.91	N	7,001,439.30	E	2,332,572.78
Delta	=	4° 33′ 14.48"	(LT)			
Degree	=	2° 53′ 05.94"				
Tangent	=	78.97				
Length	=	157.85				
Radius	=	1,986.00				
External	=	1.57				
Long Chord	=	157.81				
Mid. Ord.	=	1.57				
P.C. Station		10+85.95	N	7,001,517.86	E	2,332,564.83
P.T. Station		12+43.80	N	7,001,361.61	E	2,332,586.94
C.C.			N	7,001,717.81	E	2,334,540.74
Back	= S	5° 46′ 41.77" E				
Ahead	= S	10° 19′ 56.25" E				
Chord Bear	= S	8° 03′ 19.01" E				

Course from PT 35N-BB-B to PC 35N-BB-C S 10° 19′ 56.25" E Dist 412.33

Curve 35N-BB-C						
P.I. Station		17+39.97	N	7,000,873.49	E	2,332,675.93
Delta	=	3° 39′ 33.52"	(RT)			
Degree	=	2° 10′ 58.78"				
Tangent	=	83.84				
Length	=	167.63				
Radius	=	2,624.64				
External	=	1.34				
Long Chord	=	167.60				
Mid. Ord.	=	1.34				
P.C. Station		16+56.13	N	7,000,955.97	E	2,332,660.90
P.T. Station		18+23.75	N	7,000,790.21	E	2,332,685.68
C.C.			N	7,000,485.22	E	2,330,078.82
Back	= S	10° 19′ 56.25" E				
Ahead	= S	6° 40′ 22.73" E				
Chord Bear	= S	8° 30′ 09.49" E				

Course from PT 35N-BB-C to PC 35N-BB-D S 6° 40′ 22.73" E Dist 365.42

Curve 35N-BB-D						
P.I. Station		24+05.04	N	7,000,212.87	E	2,332,753.22
Delta	=	4° 17′ 59.35"	(LT)			
Degree	=	0° 59′ 47.21"				
Tangent	=	215.86				
Length	=	431.51				
Radius	=	5,750.00				
External	=	4.05				
Long Chord	=	431.41				
Mid. Ord.	=	4.05				
P.C. Station		21+89.18	N	7,000,427.26	E	2,332,728.14
P.T. Station		26+20.69	N	7,000,000.96	E	2,332,794.31
C.C.			N	7,001,095.43	E	2,338,439.19
Back	= S	6° 40′ 22.73" E				
Ahead	= S	10° 58′ 22.09" E				
Chord Bear	= S	8° 49′ 22.41" E				

Course from PT 35N-BB-D to PC 35N-BB-E S 10° 58′ 22.09" E Dist 109.83

Curve 35N-BB-E						
P.I. Station		28+02.31	N	6,999,822.66	E	2,332,828.88
Delta	=	1° 25′ 49.69"	(RT)			
Degree	=	0° 59′ 47.21"				
Tangent	=	71.78				
Length	=	143.56				
Radius	=	5,750.00				
External	=	0.45				
Long Chord	=	143.55				
Mid. Ord.	=	0.45				
P.C. Station		27+30.53	N	6,999,893.13	E	2,332,815.22
P.T. Station		28+74.08	N	6,999,751.87	E	2,332,840.78
C.C.			N	6,998,798.66	E	2,327,170.34
Back	= S	10° 58′ 22.09" E				
Ahead	= S	9° 32′ 32.40" E				
Chord Bear	= S	10° 15′ 27.24" E				

Course from PT 35N-BB-E to PC 35N-BB-F S 9° 32′ 32.40" E Dist 467.59

Curve 35N-BB-F						
P.I. Station		36+29.32	N	6,999,007.08	E	2,332,965.98
Delta	=	2° 52′ 33.11"	(RT)			
Degree	=	0° 30′ 00.00"				
Tangent	=	287.65				
Length	=	575.17				
Radius	=	11,459.16				
External	=	3.61				
Long Chord	=	575.11				
Mid. Ord.	=	3.61				
P.C. Station		33+41.67	N	6,999,290.75	E	2,332,918.29
P.T. Station		39+16.84	N	6,998,721.38	E	2,332,999.37
C.C.			N	6,997,391.09	E	2,321,617.69
Back	= S	9° 32′ 32.40" E				
Ahead	= S	6° 39′ 59.29" E				
Chord Bear	= S	8° 06′ 15.84" E				

Curve 35N-BB-G						
P.I. Station		40+15.54	N	6,998,623.35	E	2,333,010.83
Delta	=	3° 56′ 46.96"	(LT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	98.70				
Length	=	197.32				
Radius	=	2,864.79				
External	=	1.70				
Long Chord	=	197.28				
Mid. Ord.	=	1.70				
P.C. Station		39+16.84	N	6,998,721.38	E	2,332,999.37
P.T. Station		41+14.16	N	6,998,526.34	E	2,333,029.01
C.C.			N	6,999,053.95	E	2,335,844.79
Back	= S	6° 39′ 59.29" E				
Ahead	= S	10° 36′ 46.25" E				
Chord Bear	= S	8° 38′ 22.77" E				

Point NGPBB150 N 6,998,526.34 E 2,333,029.01 Sta 41+14.16

Ending chain 35N-BB description

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP 35N-WCB

Beginning chain 35N-WCB description

Point NGPWCB105 N 6,997,706.84 E 2,333,236.49 Sta 10+00.00

Curve 35N-WCB-A						
P.I. Station		11+19.56	N	6,997,589.32	E	2,333,258.51
Delta	=	4° 46′ 47.00"	(RT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	119.56				
Length	=	238.99				
Radius	=	2,864.79				
External	=	2.49				
Long Chord	=	238.92				
Mid. Ord.	=	2.49				
P.C. Station		10+00.00	N	6,997,706.84	E	2,333,236.49
P.T. Station		12+38.99	N	6,997,470.38	E	2,333,270.66
C.C.			N	6,997,179.22	E	2,330,420.70
Back	= S	10° 36′ 46.33" E				
Ahead	= S	5° 49′ 59.33" E				
Chord Bear	= S	8° 13′ 22.83" E				

Curve 35N-WCB-B						
P.I. Station		13+51.73	N	6,997,358.21	E	2,333,282.12
Delta	=	4° 30′ 27.13"	(LT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	112.75				
Length	=	225.38				
Radius	=	2,864.79				
External	=	2.22				
Long Chord	=	225.32				
Mid. Ord.	=	2.22				
P.C. Station		12+38.99	N	6,997,470.38	E	2,333,270.66
P.T. Station		14+64.36	N	6,997,247.30	E	2,333,302.35
C.C.			N	6,997,761.53	E	2,336,120.61
Back	= S	5° 49′ 59.33" E				
Ahead	= S	10° 20′ 26.46" E				
Chord Bear	= S	8° 05′ 12.90" E				

Course from PT 35N-WCB-B to PC 35N-WCB-C S 10° 20′ 26.46" E Dist 494.90

Curve 35N-WCB-C						
P.I. Station		21+79.39	N	6,996,543.88	E	2,333,430.70
Delta	=	8° 47′ 16.91"	(RT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	220.13				
Length	=	439.40				
Radius	=	2,864.79				
External	=	8.45				
Long Chord	=	438.97				
Mid. Ord.	=	8.42				
P.C. Station		19+59.26	N	6,996,760.44	E	2,333,391.19
P.T. Station		23+98.66	N	6,996,323.83	E	2,333,436.67
C.C.			N	6,996,246.20	E	2,330,572.93
Back	= S	10° 20′ 26.46" E				
Ahead	= S	1° 33′ 09.55" E				
Chord Bear	= S	5° 56′ 48.01" E				

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD10.dgn

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

SHEET 10 OF 16

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	714
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

HORIZONTAL ALIGNMENT FOR NORTHBOUND RAMP 35N-WCB (CONT.)

		Curve Data				
Curve 35N-WCB-D						
P.I. Station		25+37.24	N	6,996,185.31	E	2,333,440.42
Delta	=	1° 23′ 08.32"	(RT)			
Degree	=	0° 30′ 00.00"				
Tangent	=	138.57				
Length	=	277.13				
Radius	=	11,459.16				
External	=	0.84				
Long Chord	=	277.12				
Mid. Ord.	=	0.84				
P.C. Station		23+98.66	N	6,996,323.83	E	2,333,436.67
P.T. Station		26+75.79	N	6,996,046.74	E	2,333,440.83
C.C.			N	6,996,013.33	E	2,321,981.72
Back	= S	1° 33′ 09.55" E				
Ahead	= S	0° 10′ 01.23" E				
Chord Bear	= S	0° 51′ 35.39" E				

		Curve Data				
Curve 35N-WCB-E						
P.I. Station		27+90.28	N	6,995,932.25	E	2,333,441.16
Delta	=	3° 26′ 01.01"	(LT)			
Degree	=	1° 30′ 00.00"				
Tangent	=	114.49				
Length	=	228.91				
Radius	=	3,819.72				
External	=	1.72				
Long Chord	=	228.87				
Mid. Ord.	=	1.71				
P.C. Station		26+75.79	N	6,996,046.74	E	2,333,440.83
P.T. Station		29+04.70	N	6,995,817.99	E	2,333,448.35
C.C.			N	6,996,057.87	E	2,337,260.53
Back	= S	0° 10′ 01.23" E				
Ahead	= S	3° 36′ 02.24" E				
Chord Bear	= S	1° 53′ 01.74" E				

Ending chain 35N-WCB description

HORIZONTAL ALIGNMENT FOR SOUTHBOUND RAMP NTP-35S

Beginning chain NTP-35S description

		Curve Data				
Curve NTP-35S-A						
P.I. Station		11+73.85	N	7,012,236.99	E	2,331,584.33
Delta	=	6° 56′ 43.41"	(LT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	173.85				
Length	=	347.27				
Radius	=	2,864.79				
External	=	5.27				
Long Chord	=	347.06				
Mid. Ord.	=	5.26				
P.C. Station		10+00.00	N	7,012,410.82	E	2,331,582.46
P.T. Station		13+47.27	N	7,012,064.65	E	2,331,607.21
C.C.			N	7,012,441.65	E	2,334,447.09
Back	= S	0° 36′ 59.40" E				
Ahead	= S	7° 33′ 42.81" E				
Chord Bear	= S	4° 05′ 21.11" E				

		Curve Data				
Curve NTP-35S-B						
P.I. Station		13+99.17	N	7,012,013.20	E	2,331,614.04
Delta	=	1° 02′ 03.54"	(LT)			
Degree	=	0° 59′ 47.21"				
Tangent	=	51.90				
Length	=	103.80				
Radius	=	5,750.00				
External	=	0.23				
Long Chord	=	103.80				
Mid. Ord.	=	0.23				
P.C. Station		13+47.27	N	7,012,064.65	E	2,331,607.21
P.T. Station		14+51.07	N	7,011,961.88	E	2,331,621.80
C.C.			N	7,012,821.33	E	2,337,307.21
Back	= S	7° 33′ 42.81" E				
Ahead	= S	8° 35′ 46.35" E				
Chord Bear	= S	8° 04′ 44.58" E				

Course from PT NTP-35S-B to PC NTP-35S-C S 8° 35′ 46.35" E Dist 153.32

		Curve Data				
Curve NTP-35S-C						
P.I. Station		20+09.00	N	7,011,410.22	E	2,331,705.19
Delta	=	8° 03′ 00.65"	(RT)			
Degree	=	0° 59′ 47.21"				
Tangent	=	404.61				
Length	=	807.89				
Radius	=	5,750.00				
External	=	14.22				
Long Chord	=	807.22				
Mid. Ord.	=	14.18				
P.C. Station		16+04.39	N	7,011,810.28	E	2,331,644.72
P.T. Station		24+12.28	N	7,011,005.63	E	2,331,709.05
C.C.			N	7,010,950.83	E	2,325,959.31
Back	= S	8° 35′ 46.35" E				
Ahead	= S	0° 32′ 45.70" E				
Chord Bear	= S	4° 34′ 16.02" E				

Ending chain NTP-35S description

HORIZONTAL ALIGNMENT FOR SOUTHBOUND RAMP 35S-BB

Beginning chain 35S-BB description

		Curve Data				
Curve 35S-BB-A						
P.I. Station		9+92.36	N	7,005,820.53	E	2,331,747.04
Delta	=	4° 34′ 22.94"	(RT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	114.39				
Length	=	228.65				
Radius	=	2,864.79				
External	=	2.28				
Long Chord	=	228.59				
Mid. Ord.	=	2.28				
P.C. Station		8+77.97	N	7,005,934.90	E	2,331,744.80
P.T. Station		11+06.62	N	7,005,706.36	E	2,331,740.15
C.C.			N	7,005,878.95	E	2,328,880.56
Back	= S	1° 07′ 08.64" E				
Ahead	= S	3° 27′ 14.30" W				
Chord Bear	= S	1° 10′ 02.83" W				

Course from PT 35S-BB-A to PC 35S-BB-B S 3° 27′ 14.30" W Dist 137.18

		Curve Data				
Curve 35S-BB-B						
P.I. Station		14+20.68	N	7,005,392.87	E	2,331,721.22
Delta	=	3° 31′ 25.95"	(RT)			
Degree	=	0° 59′ 47.21"				
Tangent	=	176.88				
Length	=	353.64				
Radius	=	5,750.00				
External	=	2.72				
Long Chord	=	353.59				
Mid. Ord.	=	2.72				
P.C. Station		12+43.80	N	7,005,569.43	E	2,331,731.88
P.T. Station		15+97.44	N	7,005,217.30	E	2,331,699.74
C.C.			N	7,005,915.84	E	2,325,992.33
Back	= S	3° 27′ 14.30" W				
Ahead	= S	6° 58′ 40.25" W				
Chord Bear	= S	5° 12′ 57.28" W				

Course from PT 35S-BB-B to PC 35S-BB-C S 6° 58′ 40.25" W Dist 888.97

		Curve Data				
Curve 35S-BB-C						
P.I. Station		25+72.11	N	7,004,249.85	E	2,331,581.33
Delta	=	6° 32′ 23.46"	(LT)			
Degree	=	3° 49′ 10.99"				
Tangent	=	85.70				
Length	=	171.21				
Radius	=	1,500.00				
External	=	2.45				
Long Chord	=	171.12				
Mid. Ord.	=	2.44				
P.C. Station		24+86.41	N	7,004,334.92	E	2,331,591.74
P.T. Station		26+57.63	N	7,004,164.16	E	2,331,580.67
C.C.			N	7,004,152.69	E	2,333,080.63
Back	= S	6° 58′ 40.25" W				
Ahead	= S	0° 26′ 16.79" W				
Chord Bear	= S	3° 42′ 28.52" W				

Course from PT 35S-BB-C to SGPBB120 S 0° 26′ 16.79" W Dist 83.95

Point SGPBB120 N 7,004,080.21 E 2,331,580.03 Sta 27+41.58

Ending chain 35S-BB description

HORIZONTAL ALIGNMENT FOR SOUTHBOUND RAMP BB-MLS

Beginning chain BB-MLS description

Point BBMLS100 N 7,003,042.95 E 2,331,637.22 Sta 8+59.26

		Curve Data				
Curve BB-MLS-A						
P.I. Station		10+65.01	N	7,002,837.98	E	2,331,655.13
Delta	=	21° 47′ 19.17"	(LT)			
Degree	=	5° 21′ 35.12"				
Tangent	=	205.75				
Length	=	406.52				
Radius	=	1,069.00				
External	=	19.62				
Long Chord	=	404.08				
Mid. Ord.	=	19.27				
P.C. Station		8+59.26	N	7,003,042.95	E	2,331,637.22
P.T. Station		12+65.78	N	7,002,654.31	E	2,331,747.84
C.C.			N	7,003,135.99	E	2,332,702.16
Back	= S	4° 59′ 35.59" E				
Ahead	= S	26° 46′ 54.76" E				
Chord Bear	= S	15° 53′ 15.17" E				

Course from PT BB-MLS-A to PC BB-MLS-B S 26° 46′ 54.76" E Dist 191.73

		Curve Data				
Curve BB-MLS-B						
P.I. Station		15+46.50	N	7,002,403.71	E	2,331,874.32
Delta	=	9° 38′ 31.76"	(RT)			
Degree	=	5° 25′ 51.17"				
Tangent	=	88.98				
Length	=	177.54				
Radius	=	1,055.00				
External	=	3.75				
Long Chord	=	177.33				
Mid. Ord.	=	3.73				
P.C. Station		14+57.51	N	7,002,483.14	E	2,331,834.23
P.T. Station		16+35.06	N	7,002,318.68	E	2,331,900.55
C.C.			N	7,002,007.77	E	2,330,892.40
Back	= S	26° 46′ 54.76" E				
Ahead	= S	17° 08′ 23.00" E				
Chord Bear	= S	21° 57′ 38.88" E				

Course from PT BB-MLS-B to PC BB-MLS-C S 17° 08′ 23.00" E Dist 856.82

		Curve Data				
Curve BB-MLS-C						
P.I. Station		26+44.64	N	7,001,353.93	E	2,332,198.07
Delta	=	8° 19′ 17.69"	(LT)			
Degree	=	2° 43′ 42.13"				
Tangent	=	152.77				
Length	=	305.00				
Radius	=	2,100.00				
External	=	5.55				
Long Chord	=	304.73				
Mid. Ord.	=	5.53				
P.C. Station		24+91.87	N	7,001,499.91	E	2,332,153.05
P.T. Station		27+96.87	N	7,001,216.00	E	2,332,263.75
C.C.			N	7,002,118.79	E	2,334,159.79
Back	= S	17° 08′ 23.00" E				
Ahead	= S	25° 27′ 40.69" E				
Chord Bear	= S	21° 18′ 01.85" E				

Course from PT BB-MLS-C to PC BB-MLS-D S 25° 27′ 40.69" E Dist 83.42

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD11.dgn

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/13/12

SHEET 11 OF 16

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	715
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

HORIZONTAL ALIGNMENT FOR SOUTHBOUND RAMP BB-MLS (CONT.)

Curve Data

Curve BB-MLS-D					
P.I. Station	30+88.79	N	7,000,952.44	E	2,332,389.24
Delta =	14° 50′ 54.36"	(RT)			
Degree =	3° 34′ 51.55"				
Tangent =	208.49				
Length =	414.65				
Radius =	1,600.00				
External =	13.53				
Long Chord =	413.49				
Mid. Ord. =	13.41				
P.C. Station	28+80.30	N	7,001,140.68	E	2,332,299.61
P.T. Station	32+94.94	N	7,000,747.51	E	2,332,427.64
C.C.		N	7,000,452.84	E	2,330,855.01
Back = S	25° 27′ 40.69" E				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	18° 02′ 13.51" E				

Course from PT BB-MLS-D to PC BB-MLS-E S 10° 36′ 46.33" E Dist 752.02

Curve Data

Curve BB-MLS-E					
P.I. Station	42+07.60	N	6,999,850.47	E	2,332,595.73
Delta =	3° 12′ 42.64"	(LT)			
Degree =	1° 00′ 00.00"				
Tangent =	160.63				
Length =	321.18				
Radius =	5,729.58				
External =	2.25				
Long Chord =	321.14				
Mid. Ord. =	2.25				
P.C. Station	40+46.96	N	7,000,008.35	E	2,332,566.14
P.T. Station	43+68.15	N	6,999,694.49	E	2,332,634.11
C.C.		N	7,001,063.58	E	2,338,197.71
Back = S	10° 36′ 46.33" E				
Ahead = S	13° 49′ 28.97" E				
Chord Bear = S	12° 13′ 07.65" E				

Curve Data

Curve BB-MLS-F					
P.I. Station	45+28.78	N	6,999,538.51	E	2,332,672.50
Delta =	3° 12′ 42.64"	(RT)			
Degree =	1° 00′ 00.00"				
Tangent =	160.63				
Length =	321.18				
Radius =	5,729.58				
External =	2.25				
Long Chord =	321.14				
Mid. Ord. =	2.25				
P.C. Station	43+68.15	N	6,999,694.49	E	2,332,634.11
P.T. Station	46+89.33	N	6,999,380.62	E	2,332,702.08
C.C.		N	6,998,325.39	E	2,327,070.51
Back = S	13° 49′ 28.97" E				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	12° 13′ 07.65" E				

Ending chain BB-MLS description

HORIZONTAL ALIGNMENT FOR SOUTHBOUND RAMP 35S-WCB

Beginning chain 35S-WCB description

Curve Data

Curve 35S-WCB-A					
P.I. Station	7+85.85	N	7,001,283.66	E	2,332,280.81
Delta =	2° 11′ 54.57"	(RT)			
Degree =	1° 30′ 00.00"				
Tangent =	73.29				
Length =	146.57				
Radius =	3,819.72				
External =	0.70				
Long Chord =	146.56				
Mid. Ord. =	0.70				
P.C. Station	7+12.56	N	7,001,356.27	E	2,332,270.89
P.T. Station	8+59.13	N	7,001,210.71	E	2,332,287.94
C.C.		N	7,000,839.17	E	2,328,486.33
Back = S	7° 46′ 49.34" E				
Ahead = S	5° 34′ 54.77" E				
Chord Bear = S	6° 40′ 52.05" E				

Curve Data

Curve 35S-WCB-B					
P.I. Station	10+32.80	N	7,001,037.86	E	2,332,304.83
Delta =	1° 44′ 11.70"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	173.67				
Length =	347.32				
Radius =	11,459.16				
External =	1.32				
Long Chord =	347.30				
Mid. Ord. =	1.32				
P.C. Station	8+59.13	N	7,001,210.71	E	2,332,287.94
P.T. Station	12+06.44	N	7,000,865.61	E	2,332,326.96
C.C.		N	7,002,325.32	E	2,343,692.76
Back = S	5° 34′ 54.77" E				
Ahead = S	7° 19′ 06.47" E				
Chord Bear = S	6° 27′ 00.62" E				

Curve Data

Curve 35S-WCB-C					
P.I. Station	13+50.58	N	7,000,722.64	E	2,332,345.32
Delta =	6° 35′ 58.08"	(RT)			
Degree =	2° 17′ 30.59"				
Tangent =	144.14				
Length =	287.96				
Radius =	2,500.00				
External =	4.15				
Long Chord =	287.80				
Mid. Ord. =	4.14				
P.C. Station	12+06.44	N	7,000,865.61	E	2,332,326.96
P.T. Station	14+94.40	N	7,000,578.52	E	2,332,347.12
C.C.		N	7,000,547.14	E	2,329,847.32
Back = S	7° 19′ 06.47" E				
Ahead = S	0° 43′ 08.39" E				
Chord Bear = S	4° 01′ 07.43" E				

Course from PT 35S-WCB-C to PC 35S-WCB-D S 0° 43′ 08.39" E Dist 119.05

Curve Data

Curve 35S-WCB-D					
P.I. Station	17+05.95	N	7,000,366.99	E	2,332,349.78
Delta =	5° 17′ 45.98"	(LT)			
Degree =	2° 51′ 53.24"				
Tangent =	92.50				
Length =	184.87				
Radius =	2,000.00				
External =	2.14				
Long Chord =	184.80				
Mid. Ord. =	2.14				
P.C. Station	16+13.45	N	7,000,459.48	E	2,332,348.62
P.T. Station	17+98.31	N	7,000,274.99	E	2,332,359.47
C.C.		N	7,000,484.58	E	2,334,348.46
Back = S	0° 43′ 08.39" E				
Ahead = S	6° 00′ 54.37" E				
Chord Bear = S	3° 22′ 01.38" E				

Course from PT 35S-WCB-D to PC 35S-WCB-E S 6° 00′ 54.37" E Dist 60.54

Curve Data

Curve 35S-WCB-E					
P.I. Station	20+05.05	N	7,000,069.40	E	2,332,381.14
Delta =	8° 21′ 40.38"	(LT)			
Degree =	2° 51′ 53.24"				
Tangent =	146.19				
Length =	291.86				
Radius =	2,000.00				
External =	5.34				
Long Chord =	291.60				
Mid. Ord. =	5.32				
P.C. Station	18+58.86	N	7,000,214.78	E	2,332,365.82
P.T. Station	21+50.72	N	6,999,927.79	E	2,332,417.43
C.C.		N	7,000,424.36	E	2,334,354.81
Back = S	6° 00′ 54.37" E				
Ahead = S	14° 22′ 34.74" E				
Chord Bear = S	10° 11′ 44.56" E				

Ending chain 35S-WCB description

HORIZONTAL ALIGNMENT FOR SOUTHBOUND RAMP BB-35S

Beginning chain BB-35S description

Point BBSGP105 N 7,001,407.78 E 2,332,123.69 Sta 7+79.07

Curve Data

Curve BB-35S-A					
P.I. Station	8+51.38	N	7,001,337.38	E	2,332,140.19
Delta =	2° 53′ 30.02"	(LT)			
Degree =	2° 00′ 00.00"				
Tangent =	72.31				
Length =	144.58				
Radius =	2,864.79				
External =	0.91				
Long Chord =	144.57				
Mid. Ord. =	0.91				
P.C. Station	7+79.07	N	7,001,407.78	E	2,332,123.69
P.T. Station	9+23.66	N	7,001,267.90	E	2,332,160.21
C.C.		N	7,002,061.30	E	2,334,912.94
Back = S	13° 11′ 11.26" E				
Ahead = S	16° 04′ 41.28" E				
Chord Bear = S	14° 37′ 56.27" E				

Curve Data

Curve BB-35S-B					
P.I. Station	10+29.30	N	7,001,166.40	E	2,332,189.47
Delta =	4° 13′ 25.22"	(RT)			
Degree =	2° 00′ 00.00"				
Tangent =	105.64				
Length =	211.18				
Radius =	2,864.79				
External =	1.95				
Long Chord =	211.14				
Mid. Ord. =	1.95				
P.C. Station	9+23.66	N	7,001,267.90	E	2,332,160.21
P.T. Station	11+34.84	N	7,001,063.01	E	2,332,211.17
C.C.		N	7,000,474.51	E	2,329,407.48
Back = S	16° 04′ 41.28" E				
Ahead = S	11° 51′ 16.06" E				
Chord Bear = S	13° 57′ 58.67" E				

Course from PT BB-35S-B to PC BB-35S-C S 11° 51′ 16.06" E Dist 273.11

Curve Data

Curve BB-35S-C					
P.I. Station	14+88.53	N	7,000,716.86	E	2,332,283.83
Delta =	2° 48′ 53.45"	(LT)			
Degree =	1° 44′ 48.56"				
Tangent =	80.59				
Length =	161.14				
Radius =	3,280.00				
External =	0.99				
Long Chord =	161.12				
Mid. Ord. =	0.99				
P.C. Station	14+07.95	N	7,000,795.73	E	2,332,267.27
P.T. Station	15+69.09	N	7,000,638.90	E	2,332,304.23
C.C.		N	7,001,469.53	E	2,335,477.32
Back = S	11° 51′ 16.06" E				
Ahead = S	14° 40′ 09.51" E				
Chord Bear = S	13° 15′ 42.78" E				

Course from PT BB-35S-C to PC BB-35S-D S 14° 40′ 09.51" E Dist 371.47

Curve Data

Curve BB-35S-D					
P.I. Station	21+00.95	N	7,000,124.38	E	2,332,438.92
Delta =	3° 11′ 43.75"	(RT)			
Degree =	0° 59′ 47.21"				
Tangent =	160.39				
Length =	320.69				
Radius =	5,750.00				
External =	2.24				
Long Chord =	320.65				
Mid. Ord. =	2.24				
P.C. Station	19+40.56	N	7,000,279.54	E	2,332,398.31
P.T. Station	22+61.25	N	6,999,967.20	E	2,332,470.83
C.C.		N	6,998,823.41	E	2,326,835.74
Back = S	14° 40′ 09.51" E				
Ahead = S	11° 28′ 25.75" E				
Chord Bear = S	13° 04′ 17.63" E				

Course from PT BB-35S-D to PC BB-35S-E S 11° 28′ 25.75" E Dist 368.13

Curve Data

Curve BB-35S-E					
P.I. Station	30+10.00	N	6,999,233.41	E	2,332,619.77
Delta =	3° 48′ 17.54"	(LT)			
Degree =	0° 30′ 00.00"				
Tangent =	380.63				
Length =	760.97				
Radius =	11,459.16				
External =	6.32				
Long Chord =	760.83				
Mid. Ord. =	6.32				
P.C. Station	26+29.38	N	6,999,606.43	E	2,332,544.05
P.T. Station	33+90.35	N	6,998,866.23	E	2,332,720.07
C.C.		N	7,001,885.89	E	2,343,774.21
Back = S	11° 28′ 25.75" E				
Ahead = S	15° 16′ 43.29" E				
Chord Bear = S	13° 22′ 34.52" E				

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

STATE OF TEXAS · SYED S. HAQ · 94660 · LICENSED PROFESSIONAL ENGINEER

Syed Sajidul Haq 07/13/12

SHEET 12 OF 16

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	716
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD12.dgn

HORIZONTAL ALIGNMENT FOR SOUTHBOUND RAMP BB-35S (CONT)

Curve BB-35S-F

P.I. Station	36+24.60	N 6,998,640.26	E 2,332,781.80
Delta =	4° 39′ 56.96"	(RT)	
Degree =	0° 59′ 47.21"		
Tangent =	234.25		
Length =	468.25		
Radius =	5,750.00		
External =	4.77		
Long Chord =	468.12		
Mid. Ord. =	4.77		
P.C. Station	33+90.35	N 6,998,866.23	E 2,332,720.07
P.T. Station	38+58.60	N 6,998,410.02	E 2,332,824.94
C.C.		N 6,997,351.03	E 2,327,173.30
Back = S	15° 16′ 43.29" E		
Ahead = S	10° 36′ 46.33" E		
Chord Bear = S	12° 56′ 44.81" E		

Ending chain BB-35S description

HORIZONTAL ALIGNMENT FOR SOUTHBOUND RAMP WCB-35S

Beginning chain WCB-35S description

Point WCBSGP105 N 6,998,421.21 E 2,332,726.39 Sta 9+41.62

Curve WCB-35S-A

P.I. Station	10+90.28	N 6,998,275.96	E 2,332,758.04
Delta =	5° 56′ 26.99"	(LT)	
Degree =	2° 00′ 00.00"		
Tangent =	148.65		
Length =	297.04		
Radius =	2,864.79		
External =	3.85		
Long Chord =	296.91		
Mid. Ord. =	3.85		
P.C. Station	9+41.62	N 6,998,421.21	E 2,332,726.39
P.T. Station	12+38.67	N 6,998,134.77	E 2,332,804.55
C.C.		N 6,999,031.07	E 2,335,525.52
Back = S	12° 17′ 28.52" E		
Ahead = S	18° 13′ 55.52" E		
Chord Bear = S	15° 15′ 42.02" E		

Curve WCB-35S-B

P.I. Station	13+51.18	N 6,998,027.90	E 2,332,839.75
Delta =	4° 29′ 53.88"	(RT)	
Degree =	2° 00′ 00.00"		
Tangent =	112.52		
Length =	224.91		
Radius =	2,864.79		
External =	2.21		
Long Chord =	224.86		
Mid. Ord. =	2.21		
P.C. Station	12+38.67	N 6,998,134.77	E 2,332,804.55
P.T. Station	14+63.58	N 6,997,918.61	E 2,332,866.46
C.C.		N 6,997,238.47	E 2,330,083.58
Back = S	18° 13′ 55.52" E		
Ahead = S	13° 44′ 01.64" E		
Chord Bear = S	15° 58′ 58.58" E		

Curve WCB-35S-C

P.I. Station	15+66.20	N 6,997,818.92	E 2,332,890.82
Delta =	2° 02′ 41.25"	(RT)	
Degree =	0° 59′ 47.21"		
Tangent =	102.61		
Length =	205.21		
Radius =	5,750.00		
External =	0.92		
Long Chord =	205.20		
Mid. Ord. =	0.92		
P.C. Station	14+63.58	N 6,997,918.61	E 2,332,866.46
P.T. Station	16+68.79	N 6,997,718.44	E 2,332,911.61
C.C.		N 6,996,553.49	E 2,327,280.86
Back = S	13° 44′ 01.64" E		
Ahead = S	11° 41′ 20.39" E		
Chord Bear = S	12° 42′ 41.01" E		

Course from PT WCB-35S-C to PC WCB-35S-D S 11° 41′ 20.39" E Dist 912.58

Curve WCB-35S-D

P.I. Station	27+26.80	N 6,996,682.37	E 2,333,125.96
Delta =	4° 21′ 38.47"	(RT)	
Degree =	1° 30′ 00.00"		
Tangent =	145.43		
Length =	290.71		
Radius =	3,819.72		
External =	2.77		
Long Chord =	290.64		
Mid. Ord. =	2.77		
P.C. Station	25+81.37	N 6,996,824.78	E 2,333,096.50
P.T. Station	28+72.08	N 6,996,538.13	E 2,333,144.51
C.C.		N 6,996,050.91	E 2,329,356.00
Back = S	11° 41′ 20.39" E		
Ahead = S	7° 19′ 41.92" E		
Chord Bear = S	9° 30′ 31.15" E		

Ending chain WCB-35S description

HORIZONTAL ALIGNMENT FOR TRANSITION 35EX-35SGP

Beginning chain 35EX-35SGP description

Curve 35EX-35SGP-A

P.I. Station	3404+35.10	N 7,012,626.97	E 2,331,768.60
Delta =	3° 20′ 34.91"	(RT)	
Degree =	0° 29′ 56.24"		
Tangent =	335.10		
Length =	670.01		
Radius =	11,483.16		
External =	4.89		
Long Chord =	669.91		
Mid. Ord. =	4.89		
P.C. Station	3401+00.00	N 7,012,962.05	E 2,331,765.41
P.T. Station	3407+70.01	N 7,012,292.27	E 2,331,752.25
C.C.		N 7,012,852.62	E 2,320,282.77
Back = S	0° 32′ 45.70" E		
Ahead = S	2° 47′ 49.21" W		
Chord Bear = S	1° 07′ 31.75" W		

Curve 35EX-35SGP-B

P.I. Station	3411+03.70	N 7,011,958.97	E 2,331,735.96
Delta =	3° 20′ 34.91"	(LT)	
Degree =	0° 30′ 03.78"		
Tangent =	333.70		
Length =	667.21		
Radius =	11,435.16		
External =	4.87		
Long Chord =	667.11		
Mid. Ord. =	4.87		
P.C. Station	3407+70.01	N 7,012,292.27	E 2,331,752.25
P.T. Station	3414+37.21	N 7,011,625.29	E 2,331,739.14
C.C.		N 7,011,734.27	E 2,343,173.78
Back = S	2° 47′ 49.21" W		
Ahead = S	0° 32′ 45.70" E		
Chord Bear = S	1° 07′ 31.75" W		

Ending chain 35EX-35SGP description

HORIZONTAL ALIGNMENT FOR TRANSITION 35EX-MLS

Beginning chain 35EX-MLS description

Curve 35EX-MLS-A

P.I. Station	5409+49.45	N 7,012,112.51	E 2,331,744.40
Delta =	5° 13′ 43.92"	(LT)	
Degree =	2° 30′ 00.00"		
Tangent =	104.65		
Length =	209.15		
Radius =	2,291.83		
External =	2.39		
Long Chord =	209.08		
Mid. Ord. =	2.39		
P.C. Station	5408+44.80	N 7,012,217.06	E 2,331,748.82
P.T. Station	5410+53.95	N 7,012,007.98	E 2,331,749.53
C.C.		N 7,012,120.30	E 2,334,038.61
Back = S	2° 25′ 11.17" W		
Ahead = S	2° 48′ 32.75" E		
Chord Bear = S	0° 11′ 40.79" E		

Curve 35EX-MLS-B

P.I. Station	5412+29.67	N 7,011,832.48	E 2,331,758.14
Delta =	1° 45′ 25.32"	(LT)	
Degree =	0° 30′ 00.00"		
Tangent =	175.72		
Length =	351.41		
Radius =	11,459.16		
External =	1.35		
Long Chord =	351.39		
Mid. Ord. =	1.35		
P.C. Station	5410+53.95	N 7,012,007.98	E 2,331,749.53
P.T. Station	5414+05.36	N 7,011,657.32	E 2,331,772.13
C.C.		N 7,012,569.58	E 2,343,194.92
Back = S	2° 48′ 32.75" E		
Ahead = S	4° 33′ 58.07" E		
Chord Bear = S	3° 41′ 15.41" E		

Curve 35EX-MLS-C

P.I. Station	5414+86.79	N 7,011,576.15	E 2,331,778.61
Delta =	4° 01′ 12.37"	(RT)	
Degree =	2° 28′ 10.72"		
Tangent =	81.42		
Length =	162.78		
Radius =	2,320.00		
External =	1.43		
Long Chord =	162.75		
Mid. Ord. =	1.43		
P.C. Station	5414+05.36	N 7,011,657.32	E 2,331,772.13
P.T. Station	5415+68.14	N 7,011,494.73	E 2,331,779.39
C.C.		N 7,011,472.62	E 2,329,459.50
Back = S	4° 33′ 58.07" E		
Ahead = S	0° 32′ 45.70" E		
Chord Bear = S	2° 33′ 21.88" E		

Course from PT 35EX-MLS-C to PC 35EX-MLS-D S 0° 32′ 45.70" E Dist 105.91

Curve 35EX-MLS-D

P.I. Station	5417+23.63	N 7,011,339.25	E 2,331,780.87
Delta =	3° 57′ 52.56"	(LT)	
Degree =	4° 00′ 00.00"		
Tangent =	49.58		
Length =	99.11		
Radius =	1,432.39		
External =	0.86		
Long Chord =	99.10		
Mid. Ord. =	0.86		
P.C. Station	5416+74.05	N 7,011,388.83	E 2,331,780.40
P.T. Station	5417+73.17	N 7,011,289.83	E 2,331,784.77
C.C.		N 7,011,402.48	E 2,333,212.73
Back = S	0° 32′ 45.70" E		
Ahead = S	4° 30′ 38.25" E		
Chord Bear = S	2° 31′ 41.97" E		

Curve 35EX-MLS-E

P.I. Station	5417+94.09	N 7,011,268.96	E 2,331,786.42
Delta =	1° 40′ 26.70"	(RT)	
Degree =	4° 00′ 00.00"		
Tangent =	20.93		
Length =	41.85		
Radius =	1,432.39		
External =	0.15		
Long Chord =	41.85		
Mid. Ord. =	0.15		
P.C. Station	5417+73.17	N 7,011,289.83	E 2,331,784.77
P.T. Station	5418+15.02	N 7,011,248.06	E 2,331,787.45
C.C.		N 7,011,177.18	E 2,330,356.81
Back = S	4° 30′ 38.25" E		
Ahead = S	2° 50′ 11.55" E		
Chord Bear = S	3° 40′ 24.90" E		

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SYED S. HAQ 94660 LICENSED PROFESSIONAL ENGINEER
07/13/12

SHEET 13 OF 16

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	717
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD13.dgn

HORIZONTAL ALIGNMENT FOR TRANSITION 35EX-MLS (CONT.)

			Curve Data			
Curve 35EX-MLS-F						
P.I. Station		5418+72.29	N	7,011,190.86	E	2,331,790.29
Delta	=	2° 17′ 25.85"	(RT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	57.27				
Length	=	114.53				
Radius	=	2,864.79				
External	=	0.57				
Long Chord	=	114.52				
Mid. Ord.	=	0.57				
P.C. Station		5418+15.02	N	7,011,248.06	E	2,331,787.45
P.T. Station		5419+29.54	N	7,011,133.59	E	2,331,790.83
C.C.			N	7,011,106.29	E	2,328,926.17
Back	= S	2° 50′ 11.55" E				
Ahead	= S	0° 32′ 45.70" E				
Chord Bear	= S	1° 41′ 28.63" E				

Course from PT 35EX-MLS-F to PC 35EX-MLS-G S 0° 32′ 45.70" E Dist 200.31

			Curve Data			
Curve 35EX-MLS-G						
P.I. Station		5421+55.42	N	7,010,907.73	E	2,331,792.99
Delta	=	1° 01′ 21.14"	(RT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	25.56				
Length	=	51.13				
Radius	=	2,864.79				
External	=	0.11				
Long Chord	=	51.13				
Mid. Ord.	=	0.11				
P.C. Station		5421+29.85	N	7,010,933.30	E	2,331,792.74
P.T. Station		5421+80.98	N	7,010,882.17	E	2,331,792.77
C.C.			N	7,010,905.99	E	2,328,928.08
Back	= S	0° 32′ 45.70" E				
Ahead	= S	0° 28′ 35.44" W				
Chord Bear	= S	0° 02′ 05.13" E				

Course from PT 35EX-MLS-G to PC 35EX-MLS-H S 0° 28′ 35.44" W Dist 397.16

			Curve Data			
Curve 35EX-MLS-H						
P.I. Station		5426+05.46	N	7,010,457.71	E	2,331,789.24
Delta	=	1° 05′ 34.02"	(LT)			
Degree	=	2° 00′ 00.00"				
Tangent	=	27.32				
Length	=	54.64				
Radius	=	2,864.79				
External	=	0.13				
Long Chord	=	54.64				
Mid. Ord.	=	0.13				
P.C. Station		5425+78.14	N	7,010,485.02	E	2,331,789.47
P.T. Station		5426+32.78	N	7,010,430.39	E	2,331,789.54
C.C.			N	7,010,461.20	E	2,334,654.16
Back	= S	0° 28′ 35.44" W				
Ahead	= S	0° 36′ 58.58" E				
Chord Bear	= S	0° 04′ 11.57" E				

			Curve Data			
Curve 35EX-MLS-I						
P.I. Station		5428+59.14	N	7,010,204.03	E	2,331,791.97
Delta	=	2° 15′ 48.09"	(LT)			
Degree	=	0° 30′ 00.00"				
Tangent	=	226.37				
Length	=	452.67				
Radius	=	11,459.16				
External	=	2.24				
Long Chord	=	452.64				
Mid. Ord.	=	2.24				
P.C. Station		5426+32.78	N	7,010,430.39	E	2,331,789.54
P.T. Station		5430+85.45	N	7,009,977.95	E	2,331,803.34
C.C.			N	7,010,553.64	E	2,343,248.03
Back	= S	0° 36′ 58.58" E				
Ahead	= S	2° 52′ 46.67" E				
Chord Bear	= S	1° 44′ 52.63" E				

			Curve Data			
Curve 35EX-MLS-J						
P.I. Station		5433+18.84	N	7,009,744.86	E	2,331,815.07
Delta	=	2° 20′ 00.97"	(RT)			
Degree	=	0° 30′ 00.00"				
Tangent	=	233.39				
Length	=	466.72				
Radius	=	11,459.16				
External	=	2.38				
Long Chord	=	466.69				
Mid. Ord.	=	2.38				
P.C. Station		5430+85.45	N	7,009,977.95	E	2,331,803.34
P.T. Station		5435+52.17	N	7,009,511.48	E	2,331,817.29
C.C.			N	7,009,402.27	E	2,320,358.66
Back	= S	2° 52′ 46.67" E				
Ahead	= S	0° 32′ 45.70" E				
Chord Bear	= S	1° 42′ 46.18" E				

Ending chain 35EX-MLS description

HORIZONTAL ALIGNMENT FOR TRANSITION MLN-35EX

Beginning chain MLN-35EX description

			Curve Data			
Curve MLN-35EX-A						
P.I. Station		6420+15.63	N	7,011,046.85	E	2,331,819.66
Delta	=	1° 09′ 22.55"	(RT)			
Degree	=	0° 30′ 00.00"				
Tangent	=	115.63				
Length	=	231.25				
Radius	=	11,459.16				
External	=	0.58				
Long Chord	=	231.25				
Mid. Ord.	=	0.58				
P.C. Station		6419+00.00	N	7,011,162.48	E	2,331,818.56
P.T. Station		6421+31.25	N	7,010,931.23	E	2,331,818.43
C.C.			N	7,011,053.28	E	2,320,359.92
Back	= S	0° 32′ 45.70" E				
Ahead	= S	0° 36′ 36.85" W				
Chord Bear	= S	0° 01′ 55.58" W				

			Curve Data			
Curve MLN-35EX-B						
P.I. Station		6423+62.51	N	7,010,699.98	E	2,331,815.97
Delta	=	1° 09′ 22.55"	(LT)			
Degree	=	0° 15′ 00.00"				
Tangent	=	231.26				
Length	=	462.51				
Radius	=	22,918.31				
External	=	1.17				
Long Chord	=	462.50				
Mid. Ord.	=	1.17				
P.C. Station		6421+31.25	N	7,010,931.23	E	2,331,818.43
P.T. Station		6425+93.76	N	7,010,468.73	E	2,331,818.17
C.C.			N	7,010,687.14	E	2,354,735.44
Back	= S	0° 36′ 36.85" W				
Ahead	= S	0° 32′ 45.70" E				
Chord Bear	= S	0° 01′ 55.58" W				

Ending chain MLN-35EX description

HORIZONTAL ALIGNMENT FOR TRANSITION 35NGP-35EX

Beginning chain 35NGP-35EX description

Point NGPEX100 N 7,012,962.51 E 2,331,813.40 Sta 4401+00.00

Course from NGPEX100 to PC 35NGP-35EX-A S 0° 32′ 45.70" E Dist 1,800.00

			Curve Data			
Curve 35NGP-35EX-A						
P.I. Station		4421+54.13	N	7,010,908.47	E	2,331,832.98
Delta	=	3° 37′ 41.20"	(LT)			
Degree	=	0° 42′ 50.60"				
Tangent	=	254.13				
Length	=	508.10				
Radius	=	8,024.00				
External	=	4.02				
Long Chord	=	508.01				
Mid. Ord.	=	4.02				
P.C. Station		4419+00.00	N	7,011,162.59	E	2,331,830.56
P.T. Station		4424+08.10	N	7,010,655.01	E	2,331,851.48
C.C.			N	7,011,239.06	E	2,339,854.19
Back	= S	0° 32′ 45.70" E				
Ahead	= S	4° 10′ 26.90" E				
Chord Bear	= S	2° 21′ 36.30" E				

			Curve Data			
Curve 35NGP-35EX-B						
P.I. Station		4427+70.27	N	7,010,293.80	E	2,331,877.84
Delta	=	3° 37′ 41.20"	(RT)			
Degree	=	0° 30′ 03.78"				
Tangent	=	362.17				
Length	=	724.10				
Radius	=	11,435.16				
External	=	5.73				
Long Chord	=	723.98				
Mid. Ord.	=	5.73				
P.C. Station		4424+08.10	N	7,010,655.01	E	2,331,851.48
P.T. Station		4431+32.20	N	7,009,931.64	E	2,331,881.29
C.C.			N	7,009,822.67	E	2,320,446.65
Back	= S	4° 10′ 26.90" E				
Ahead	= S	0° 32′ 45.70" E				
Chord Bear	= S	2° 21′ 36.30" E				

Ending chain 35NGP-35EX description

HORIZONTAL ALIGNMENT FOR TRANSITION EX-SBFR

Beginning chain EX-SBFR description

Point SBFRTRANS100 N 7,009,411.20 E 2,330,638.94 Sta 330+59.38

Course from SBFRTRANS100 to PC EX-SBFR-A S 46° 48′ 50.41" E Dist 3.80

			Curve Data			
Curve EX-SBFR-A						
P.I. Station		331+12.42	N	7,009,374.91	E	2,330,677.62
Delta	=	8° 20′ 39.35"	(RT)			
Degree	=	8° 29′ 17.75"				
Tangent	=	49.24				
Length	=	98.30				
Radius	=	675.00				
External	=	1.79				
Long Chord	=	98.22				
Mid. Ord.	=	1.79				
P.C. Station		330+63.18	N	7,009,408.61	E	2,330,641.71
P.T. Station		331+61.48	N	7,009,336.36	E	2,330,708.25
C.C.			N	7,008,916.44	E	2,330,179.76
Back	= S	46° 48′ 50.41" E				
Ahead	= S	38° 28′ 11.06" E				
Chord Bear	= S	42° 38′ 30.74" E				

Course from PT EX-SBFR-A to PC EX-SBFR-B S 38° 28′ 11.06" E Dist 101.06

			Curve Data			
Curve EX-SBFR-B						
P.I. Station		332+87.54	N	7,009,237.66	E	2,330,786.67
Delta	=	0° 59′ 59.78"	(RT)			
Degree	=	1° 59′ 59.47"				
Tangent	=	25.00				
Length	=	50.00				
Radius	=	2,865.00				
External	=	0.11				
Long Chord	=	50.00				
Mid. Ord.	=	0.11				
P.C. Station		332+62.54	N	7,009,257.23	E	2,330,771.12
P.T. Station		333+12.54	N	7,009,217.82	E	2,330,801.88
C.C.			N	7,007,474.91	E	2,328,528.00
Back	= S	38° 28′ 11.06" E				
Ahead	= S	37° 28′ 11.28" E				
Chord Bear	= S	37° 58′ 11.17" E				

Ending chain EX-SBFR description

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD14.dgn

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Shidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SHEET 14 OF 16

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	718
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

HORIZONTAL ALIGNMENT FOR TRANSITION 35EX-35NGP

Beginning chain 35EX-35NGP description

				Curve Data				
Curve 35EX-35NGP-A								
P.I. Station			4593+46.85	N	6,993,842.94	E	2,333,464.03	
Delta	=	4° 53′ 09.25"	(RT)					
Degree	=	0° 42′ 17.08"						
Tangent	=		346.85					
Length	=		693.29					
Radius	=		8,130.00					
External	=		7.40					
Long Chord	=		693.08					
Mid. Ord.	=		7.39					
P.C. Station			4590+00.00	N	6,994,189.57	E	2,333,451.36	
P.T. Station			4596+93.29	N	6,993,496.50	E	2,333,447.12	
C.C.				N	6,993,892.71	E	2,325,326.78	
Back	= S	2° 05′ 33.27"	E					
Ahead	= S	2° 47′ 35.98"	W					
Chord Bear	= S	0° 21′ 01.36"	W					

				Curve Data				
Curve 35EX-35NGP-B								
P.I. Station			4601+88.20	N	6,993,002.17	E	2,333,423.00	
Delta	=	22° 23′ 44.45"	(LT)					
Degree	=	2° 17′ 30.59"						
Tangent	=		494.92					
Length	=		977.20					
Radius	=		2,500.00					
External	=		48.52					
Long Chord	=		970.99					
Mid. Ord.	=		47.59					
P.C. Station			4596+93.29	N	6,993,496.50	E	2,333,447.12	
P.T. Station			4606+70.48	N	6,992,535.94	E	2,333,589.04	
C.C.				N	6,993,374.67	E	2,335,944.15	
Back	= S	2° 47′ 35.98"	W					
Ahead	= S	19° 36′ 08.47"	E					
Chord Bear	= S	8° 24′ 16.25"	E					

Course from PT 35EX-35NGP-B to EXNGP115 S 19° 36′ 08.47" E Dist 233.86

Point EXNGP115 N 6,992,315.64 E 2,333,667.50 Sta 4609+04.34

Ending chain 35EX-35NGP description

HORIZONTAL ALIGNMENT FOR TRANSITION EX-NBFR

Beginning chain EX-NBFR description

				Curve Data				
Curve EX-NBFR-A								
P.I. Station			3592+57.02	N	6,993,975.76	E	2,333,586.11	
Delta	=	10° 43′ 32.01"	(RT)					
Degree	=	3° 49′ 29.35"						
Tangent	=		140.62					
Length	=		280.42					
Radius	=		1,498.00					
External	=		6.59					
Long Chord	=		280.01					
Mid. Ord.	=		6.56					
P.C. Station			3591+16.40	N	6,994,116.17	E	2,333,578.42	
P.T. Station			3593+96.82	N	6,993,836.37	E	2,333,567.54	
C.C.				N	6,994,034.24	E	2,332,082.66	
Back	= S	3° 08′ 07.62"	E					
Ahead	= S	7° 15′ 24.39"	W					
Chord Bear	= S	2° 13′ 38.38"	W					

Course from PT EX-NBFR-A to PC EX-NBFR-B S 7° 15′ 24.39" W Dist 106.98

				Curve Data				
Curve EX-NBFR-B								
P.I. Station			3596+25.13	N	6,993,610.06	E	2,333,537.38	
Delta	=	9° 14′ 56.46"	(LT)					
Degree	=	3° 49′ 10.99"						
Tangent	=		121.33					
Length	=		242.14					
Radius	=		1,500.00					
External	=		4.90					
Long Chord	=		241.88					
Mid. Ord.	=		4.88					
P.C. Station			3595+03.80	N	6,993,730.33	E	2,333,553.41	
P.T. Station			3597+45.94	N	6,993,488.78	E	2,333,540.89	
C.C.				N	6,993,532.20	E	2,335,040.27	
Back	= S	7° 15′ 24.39"	W					
Ahead	= S	1° 30′ 32.08"	E					
Chord Bear	= S	2° 57′ 56.15"	W					

Point NBFRTRANS115 N 6,993,488.78 E 2,333,540.89 Sta 3597+45.94

Ending chain EX-NBFR description

HORIZONTAL ALIGNMENT FOR US 287

Beginning chain 287 description

Point US100 N 7,013,347.80 E 2,326,656.61 Sta 420+00.00

Course from US100 to US110 S 46° 51′ 15.48" E Dist 7,095.24

Point US110 N 7,008,495.68 E 2,331,833.42 Sta 490+95.24

Ending chain 287 description

HORIZONTAL ALIGNMENT FOR BASSWOOD BLVD

Beginning chain BB description

Point BB100 N 7,003,354.43 E 2,333,006.33 Sta 10+00.00

Course from BB100 to BB105 S 89° 11′ 22.22" W Dist 2,000.20

Point BB105 N 7,003,326.13 E 2,331,006.33 Sta 30+00.20

Ending chain BB description

HORIZONTAL ALIGNMENT FOR BASSWOOD BLVD SN U-TURN

Beginning chain BBSN description

				Curve Data				
Curve BBSN-A								
P.I. Station			10+95.48	N	7,003,410.01	E	2,332,375.50	
Delta	=	97° 19′ 09.00"	(RT)					
Degree	=	68° 12′ 33.34"						
Tangent	=		95.48					
Length	=		142.68					
Radius	=		84.00					
External	=		43.17					
Long Chord	=		126.13					
Mid. Ord.	=		28.52					
P.C. Station			10+00.00	N	7,003,504.53	E	2,332,362.00	
P.T. Station			11+42.68	N	7,003,408.66	E	2,332,280.03	
C.C.				N	7,003,492.65	E	2,332,278.84	
Back	= S	8° 07′ 46.78"	E					
Ahead	= S	89° 11′ 22.22"	W					
Chord Bear	= S	40° 31′ 47.72"	W					

Course from PT BBSN-A to PC BBSN-B S 89° 11′ 22.22" W Dist 579.64

				Curve Data				
Curve BBSN-B								
P.I. Station			18+01.04	N	7,003,399.35	E	2,331,621.73	
Delta	=	86° 17′ 08.70"	(RT)					
Degree	=	68° 12′ 33.34"						
Tangent	=		78.72					
Length	=		126.50					
Radius	=		84.00					
External	=		31.12					
Long Chord	=		114.88					
Mid. Ord.	=		22.71					
P.C. Station			17+22.32	N	7,003,400.46	E	2,331,700.45	
P.T. Station			18+48.82	N	7,003,477.82	E	2,331,615.52	
C.C.				N	7,003,484.45	E	2,331,699.26	
Back	= S	89° 11′ 22.22"	W					
Ahead	= N	4° 31′ 29.08"	W					
Chord Bear	= N	47° 40′ 03.43"	W					

Ending chain BBSN description

HORIZONTAL ALIGNMENT FOR BASSWOOD BLVD NS U-TURN

Beginning chain BBNS description

				Curve Data				
Curve BBNS-A								
P.I. Station			10+73.98	N	7,003,280.92	E	2,332,369.77	
Delta	=	82° 44′ 21.56"	(LT)					
Degree	=	68° 12′ 33.34"						
Tangent	=		73.98					
Length	=		121.30					
Radius	=		84.00					
External	=		27.93					
Long Chord	=		111.03					
Mid. Ord.	=		20.96					
P.C. Station			10+00.00	N	7,003,207.67	E	2,332,380.16	
P.T. Station			11+21.30	N	7,003,279.87	E	2,332,295.80	
C.C.				N	7,003,195.88	E	2,332,296.99	
Back	= N	8° 04′ 16.22"	W					
Ahead	= S	89° 11′ 22.22"	W					
Chord Bear	= N	49° 26′ 27.00"	W					

Course from PT BBNS-A to PC BBNS-B S 89° 11′ 22.22" W Dist 596.16

				Curve Data				
Curve BBNS-B								
P.I. Station			18+07.83	N	7,003,270.16	E	2,331,609.34	
Delta	=	94° 10′ 57.81"	(LT)					
Degree	=	68° 12′ 33.34"						
Tangent	=		90.37					
Length	=		138.08					
Radius	=		84.00					
External	=		39.38					
Long Chord	=		123.05					
Mid. Ord.	=		26.81					
P.C. Station			17+17.47	N	7,003,271.44	E	2,331,699.70	
P.T. Station			18+55.55	N	7,003,180.13	E	2,331,617.20	
C.C.				N	7,003,187.44	E	2,331,700.88	
Back	= S	89° 11′ 22.22"	W					
Ahead	= S	4° 59′ 35.59"	E					
Chord Bear	= S	42° 05′ 53.32"	W					

Ending chain BBNS description

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD15.dgn

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Shahul Haq 07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SHEET 15 OF 16

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	719
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

HORIZONTAL ALIGNMENT FOR WESTERN CENTER BLVD

Beginning chain WCB description

Point WCB100	N	6,999,036.64	E	2,333,361.75	Sta 10+00.00
Course from WCB100 to WCB105 N 87° 15′ 21.51" W Dist 768.20					
Point WCB105	N	6,999,073.42	E	2,332,594.43	Sta 17+68.20
Course from WCB105 to WCB110 N 87° 56′ 16.00" W Dist 692.46					
Point WCB110	N	6,999,098.34	E	2,331,902.42	Sta 24+60.66

Ending chain WCB description

HORIZONTAL ALIGNMENT FOR WESTERN CENTER BLVD SN U-TURN

Beginning chain WCBSN description

		Curve Data			
Curve WCBSN-A					
P.I. Station	11+06.28	N	6,999,117.98	E	2,333,001.57
Delta =	103° 21′ 24.82"	(RT)			
Degree =	68° 12′ 33.34"				
Tangent =	106.28				
Length =	151.53				
Radius =	84.00				
External =	51.47				
Long Chord =	131.80				
Mid. Ord. =	31.91				
P.C. Station	10+00.00	N	6,999,222.44	E	2,332,982.00
P.T. Station	11+51.53	N	6,999,123.07	E	2,332,895.42
C.C.		N	6,999,206.97	E	2,332,899.44
Back = S	10° 36′ 46.33" E				
Ahead = N	87° 15′ 21.51" W				
Chord Bear = S	41° 03′ 56.08" W				

Course from PT WCBSN-A to PC WCBSN-B N 87° 15′ 21.51" W Dist 241.53

		Curve Data			
Curve WCBSN-B					
P.I. Station	14+59.45	N	6,999,137.81	E	2,332,587.85
Delta =	76° 38′ 35.16"	(RT)			
Degree =	68° 12′ 33.34"				
Tangent =	66.39				
Length =	112.36				
Radius =	84.00				
External =	23.07				
Long Chord =	104.17				
Mid. Ord. =	18.10				
P.C. Station	13+93.06	N	6,999,134.63	E	2,332,654.16
P.T. Station	15+05.43	N	6,999,203.06	E	2,332,575.62
C.C.		N	6,999,218.53	E	2,332,658.18
Back = N	87° 15′ 21.51" W				
Ahead = N	10° 36′ 46.33" W				
Chord Bear = N	48° 56′ 03.92" W				

Ending chain WCBSN description

HORIZONTAL ALIGNMENT FOR WESTERN CENTER BLVD NS U-TURN

Beginning chain WCBNS description

		Curve Data			
Curve WCBNS-A					
P.I. Station	10+66.39	N	6,998,989.85	E	2,333,001.17
Delta =	76° 38′ 35.16"	(LT)			
Degree =	68° 12′ 33.34"				
Tangent =	66.39				
Length =	112.36				
Radius =	84.00				
External =	23.07				
Long Chord =	104.17				
Mid. Ord. =	18.10				
P.C. Station	10+00.00	N	6,998,924.60	E	2,333,013.39
P.T. Station	11+12.36	N	6,998,993.03	E	2,332,934.85
C.C.		N	6,998,909.13	E	2,332,930.83
Back = N	10° 36′ 46.33" W				
Ahead = N	87° 15′ 21.51" W				
Chord Bear = N	48° 56′ 03.92" W				

Course from PT WCBNS-A to PC WCBNS-B N 87° 15′ 21.51" W Dist 241.53

		Curve Data			
Curve WCBNS-B					
P.I. Station	14+60.18	N	6,999,009.68	E	2,332,587.44
Delta =	103° 21′ 24.82"	(LT)			
Degree =	68° 12′ 33.34"				
Tangent =	106.28				
Length =	151.53				
Radius =	84.00				
External =	51.47				
Long Chord =	131.80				
Mid. Ord. =	31.91				
P.C. Station	13+53.90	N	6,999,004.59	E	2,332,693.59
P.T. Station	15+05.43	N	6,998,905.22	E	2,332,607.01
C.C.		N	6,998,920.69	E	2,332,689.57
Back = N	87° 15′ 21.51" W				
Ahead = S	10° 36′ 46.33" E				
Chord Bear = S	41° 03′ 56.08" W				

Ending chain WCBNS description

HORIZONTAL ALIGNMENT FOR FOSSIL CREEK BLVD - LEFT

Beginning chain FCBL description

		Curve Data			
Curve FCBL-A					
P.I. Station	10+36.89	N	6,994,295.19	E	2,333,559.55
Delta =	72° 29′ 39.01"	(LT)			
Degree =	46° 12′ 22.59"				
Tangent =	90.91				
Length =	156.89				
Radius =	124.00				
External =	29.76				
Long Chord =	146.63				
Mid. Ord. =	24.00				
P.C. Station	9+45.98	N	6,994,381.06	E	2,333,529.72
P.T. Station	11+02.87	N	6,994,297.80	E	2,333,650.42
C.C.		N	6,994,421.75	E	2,333,646.85
Back = S	19° 09′ 23.76" E				
Ahead = N	88° 20′ 57.23" E				
Chord Bear = S	55° 24′ 13.27" E				

Course from PT FCBL-A to FCBL110 N 88° 20′ 57.23" E Dist 125.00

Point FCBL110	N	6,994,301.41	E	2,333,775.37	Sta 12+27.87

Ending chain FCBL description

HORIZONTAL ALIGNMENT FOR FOSSIL CREEK BLVD - RIGHT

Beginning chain FCBR description

		Curve Data			
Curve FCBR-A					
P.I. Station	20+53.83	N	6,994,242.59	E	2,333,574.28
Delta =	80° 13′ 47.74"	(RT)			
Degree =	46° 12′ 22.59"				
Tangent =	104.47				
Length =	173.63				
Radius =	124.00				
External =	38.14				
Long Chord =	159.79				
Mid. Ord. =	29.17				
P.C. Station	19+49.35	N	6,994,139.16	E	2,333,559.52
P.T. Station	21+22.99	N	6,994,245.60	E	2,333,678.71
C.C.		N	6,994,121.65	E	2,333,682.28
Back = N	8° 07′ 09.49" E				
Ahead = N	88° 20′ 57.23" E				
Chord Bear = N	48° 14′ 03.36" E				

Course from PT FCBR-A to FCBR110 N 88° 20′ 57.23" E Dist 98.24

Point FCBR110	N	6,994,248.43	E	2,333,776.90	Sta 22+21.22

Ending chain FCBR description

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed S. Haq 07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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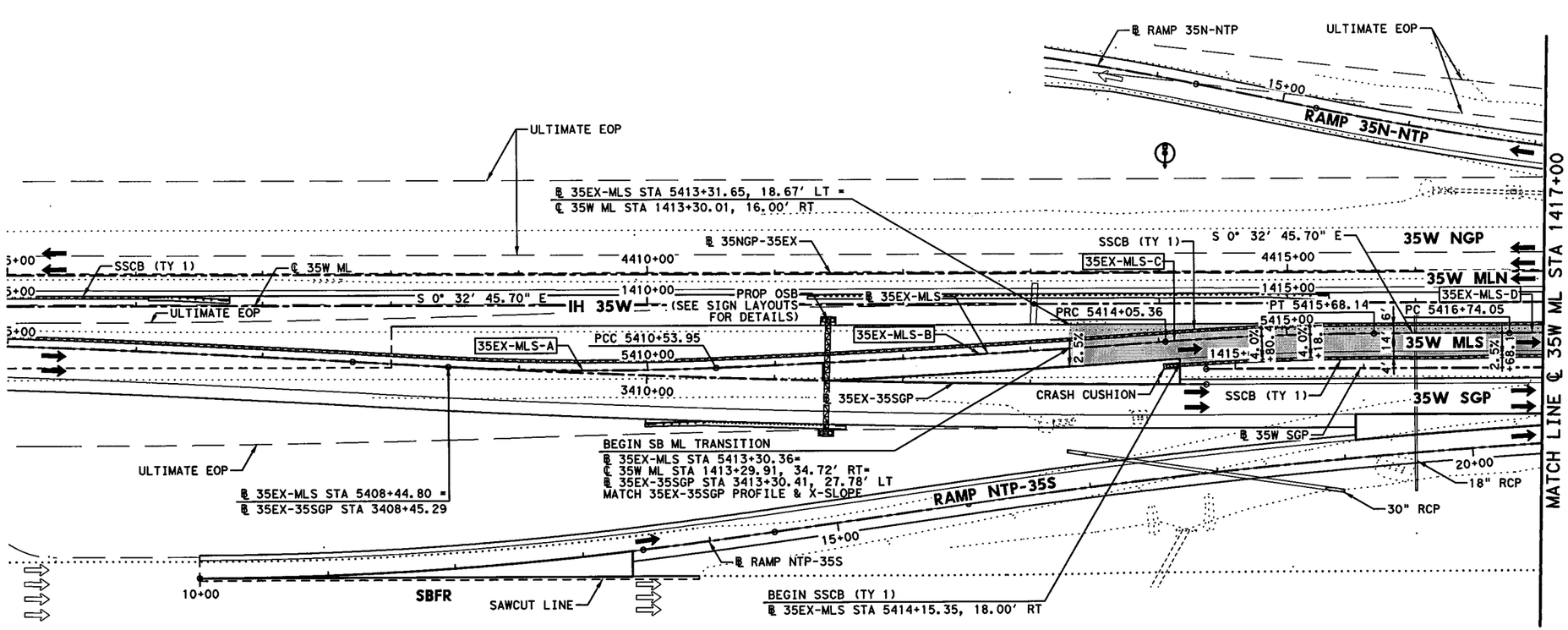
IH 35W FROM NORTH TARRANT PKWY TO IH 820

HORIZONTAL ALIGNMENT DATA

SHEET 16 OF 16

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	720
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BHAD16.dgn



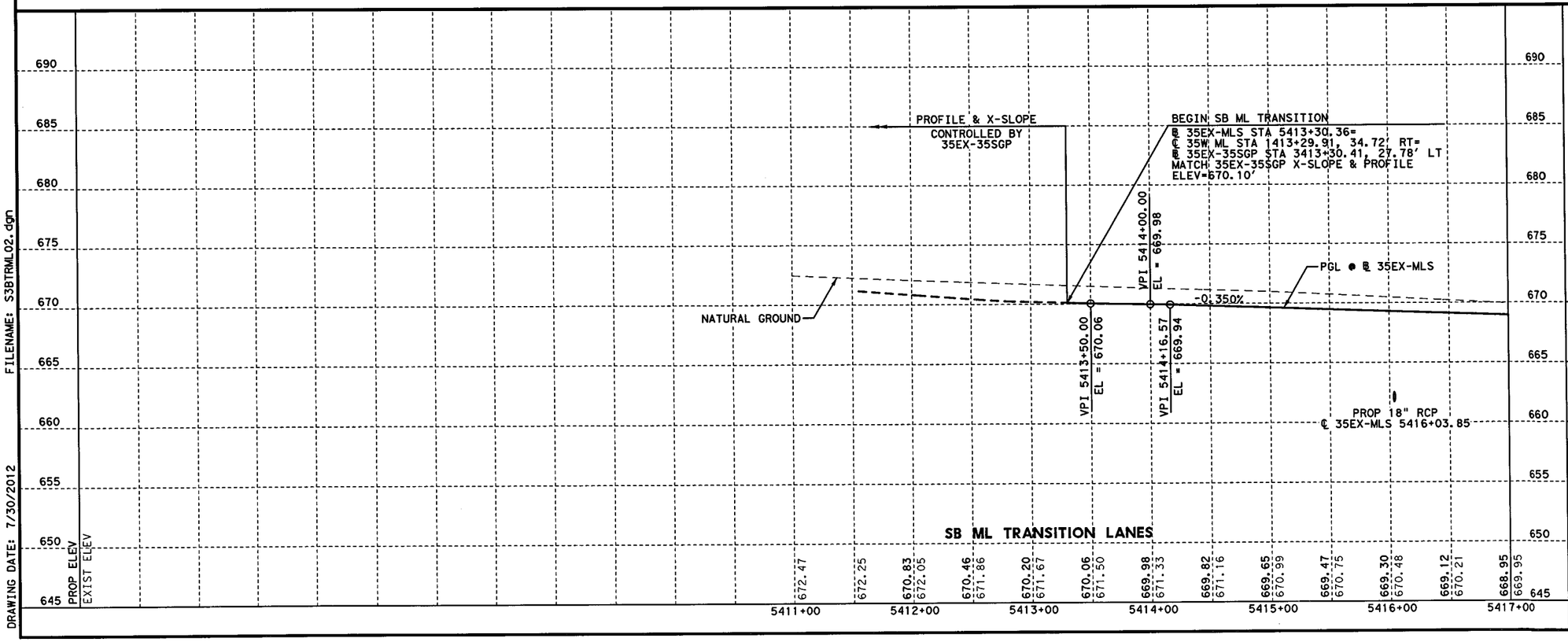
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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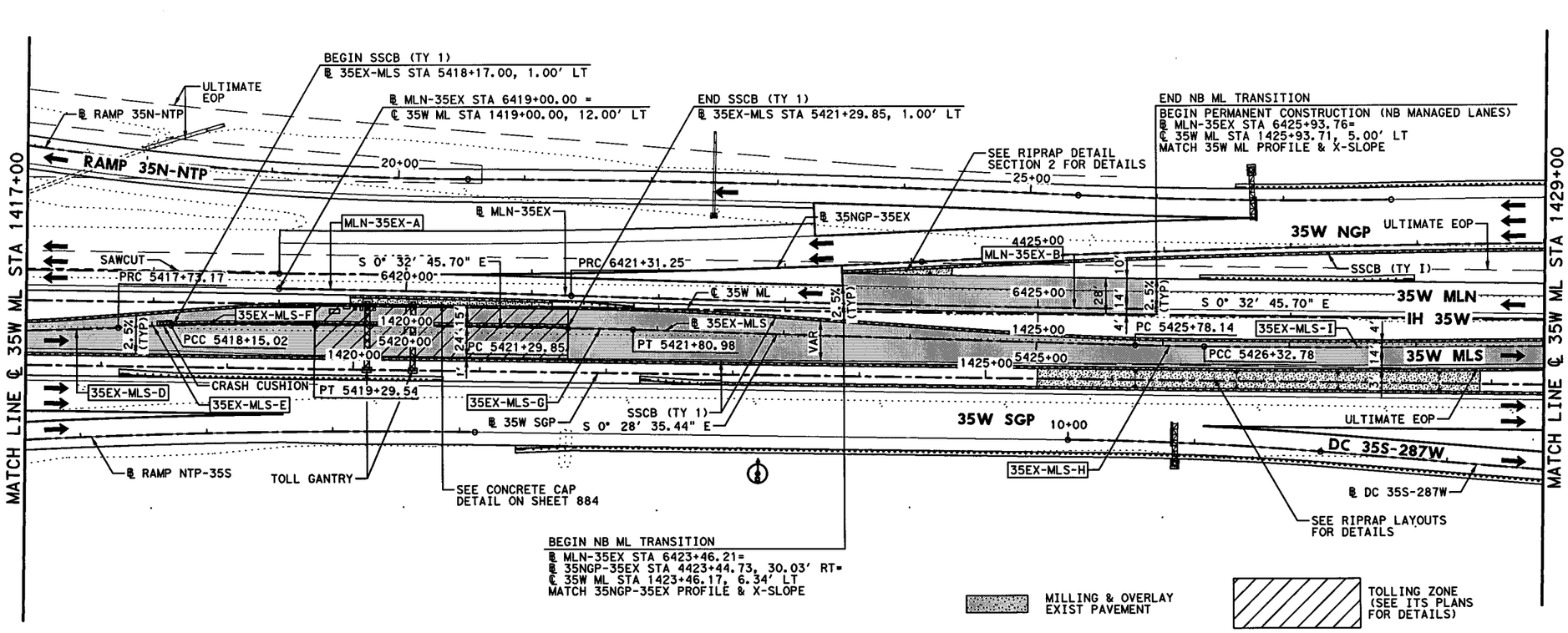
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
MANAGED LANE TRANSITIONS
BEGIN TO ℄ 35W ML STA 1417+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 3

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	721
KCI	0014	16	255, ETC.	

FILENAME: S3BTRML02.dgn
DRAWING DATE: 7/30/2012

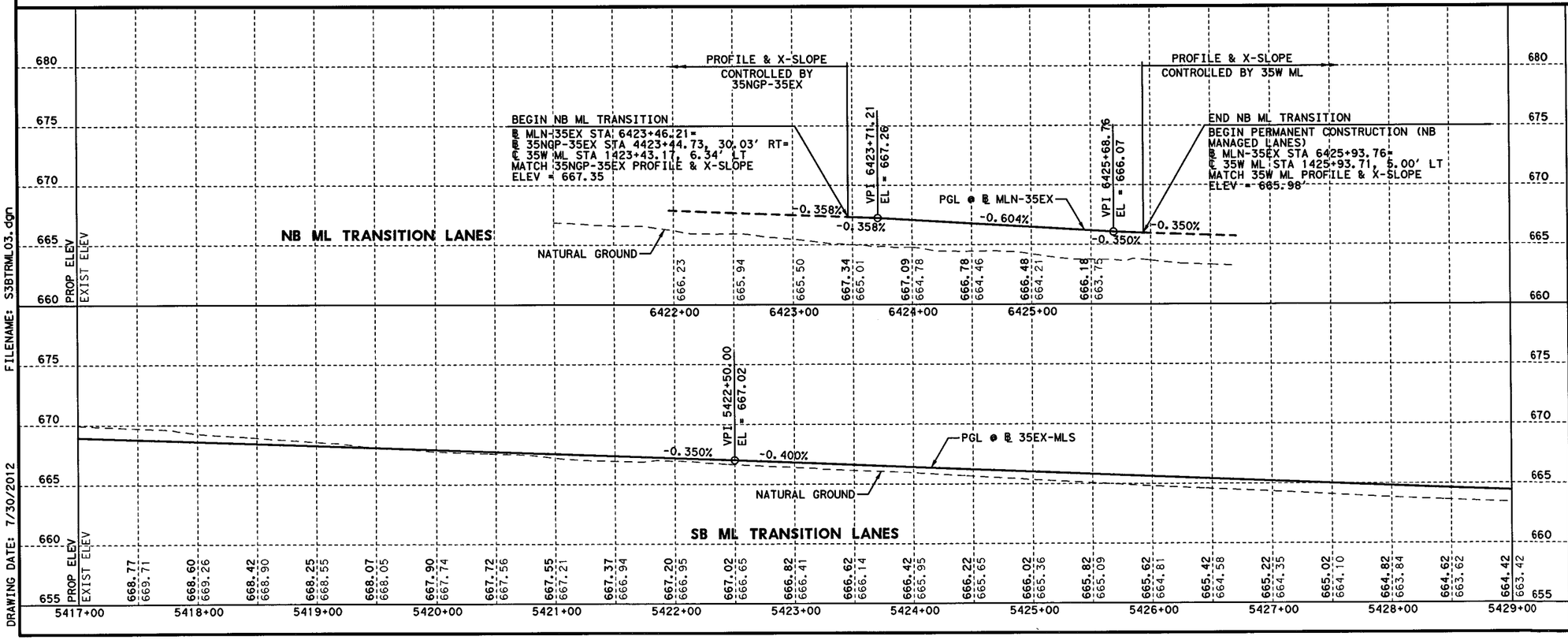


LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BTRML03.dgn
DRAWING DATE: 7/30/2012

KURT W. AUNGST 90848 LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
7/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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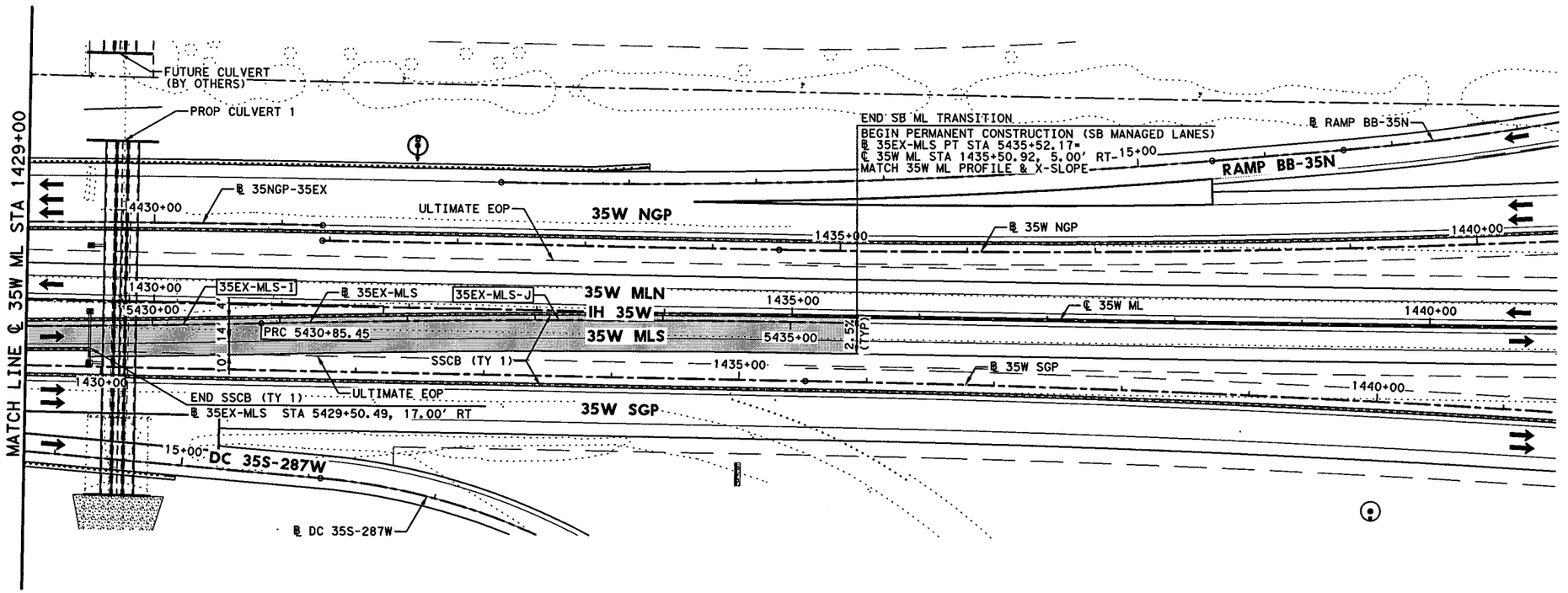
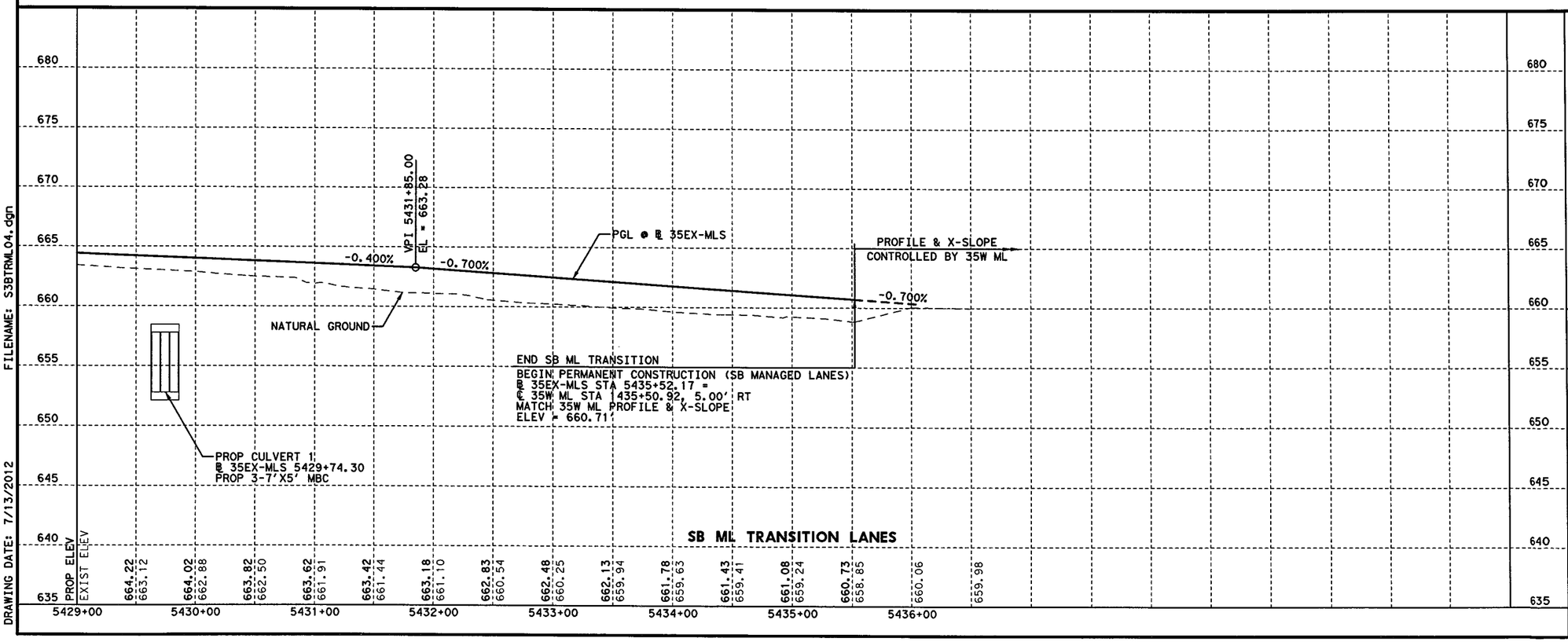
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
MANAGED LANE TRANSITIONS
℄ 35W ML STA 1417+00 TO 1429+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 3

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	722
KCI	0014	16	255, ETC.	
CHECK				





HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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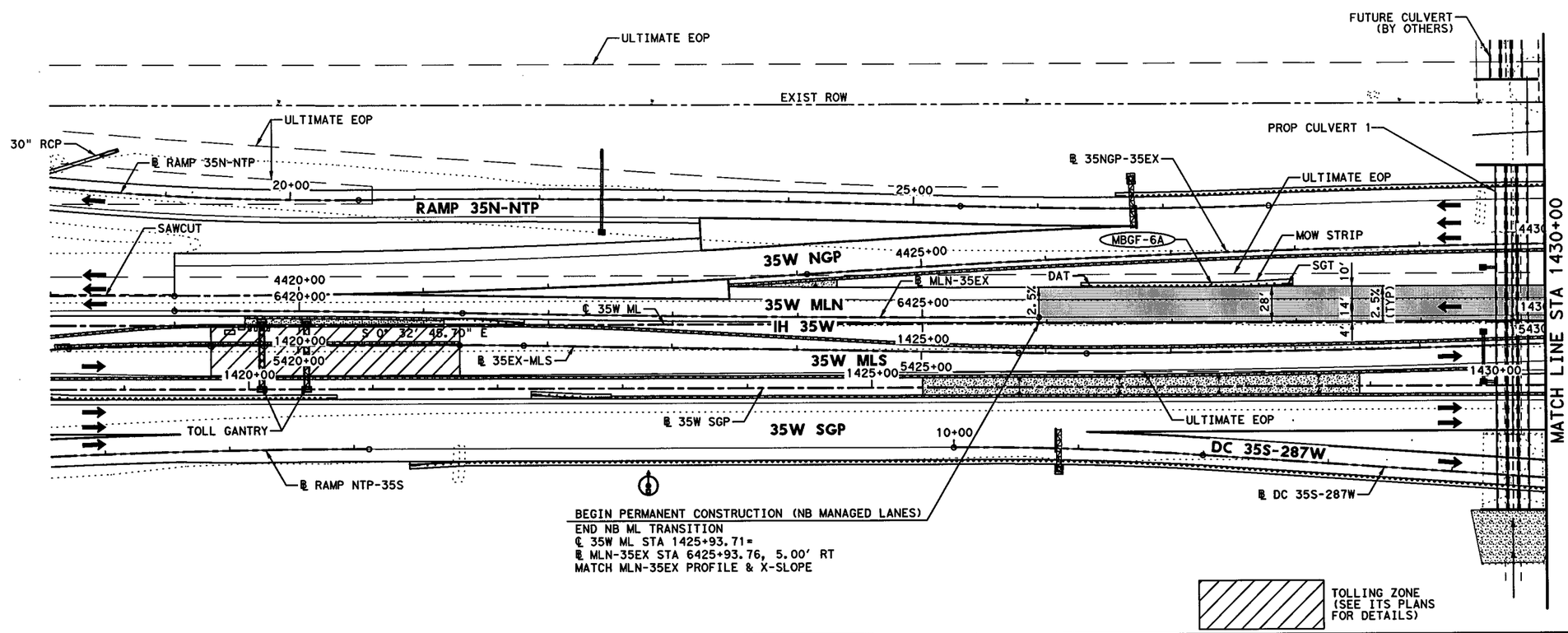
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
MANAGED LANE TRANSITIONS
℄ 35W ML STA 1429+00 TO END TRANSITION

SCALE: 1" = 100' H, 1" = 10' V — SHEET 3 OF 3

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	723
KCI	0014	16	255, ETC.	

FILENAME: S3BTRML04.dgn
DRAWING DATE: 7/13/2012



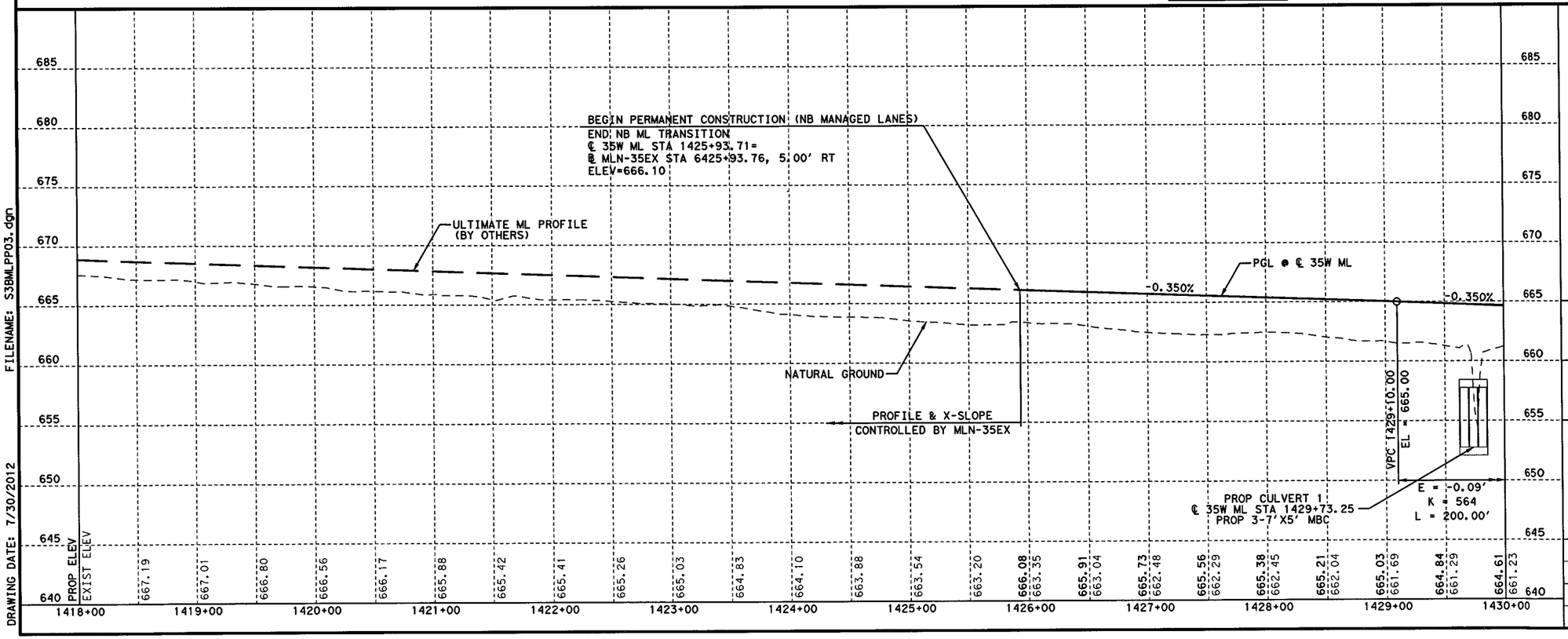
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BMLPP03.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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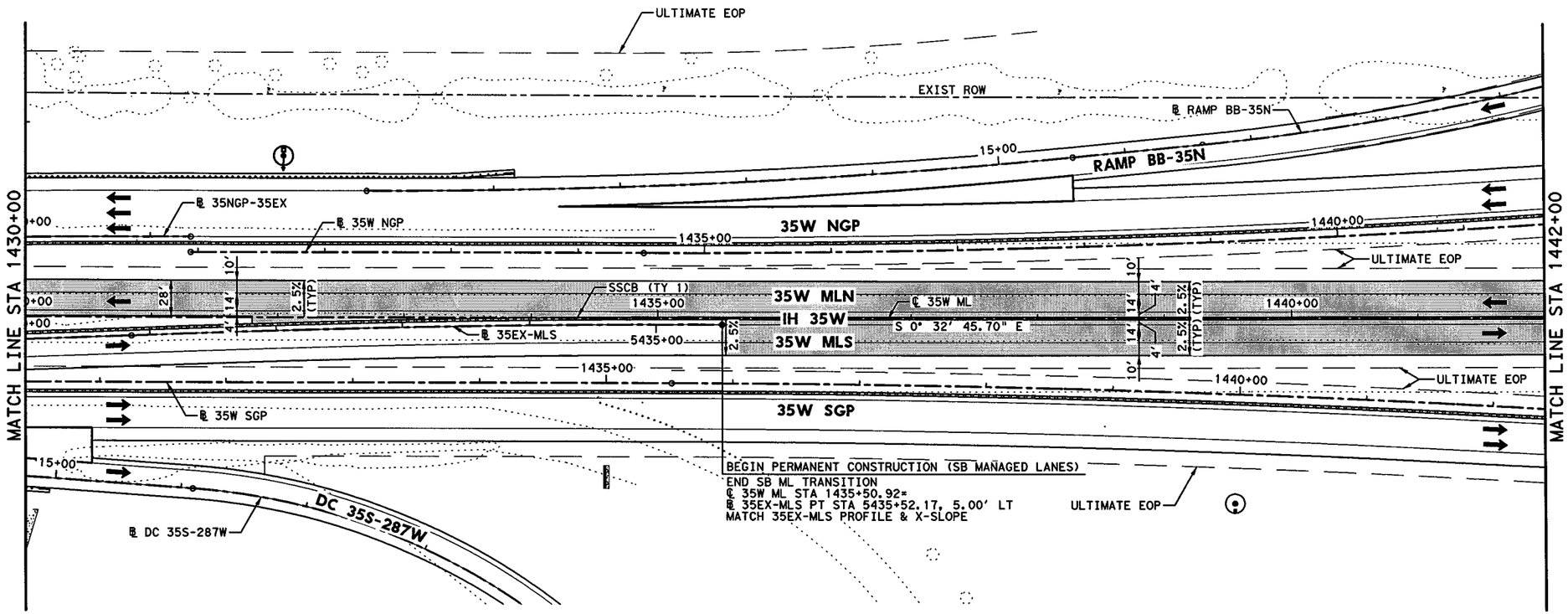
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1418+00 TO STA 1430+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	724
KCI	0014	16	255, ETC.	
CHECK				
KCI				



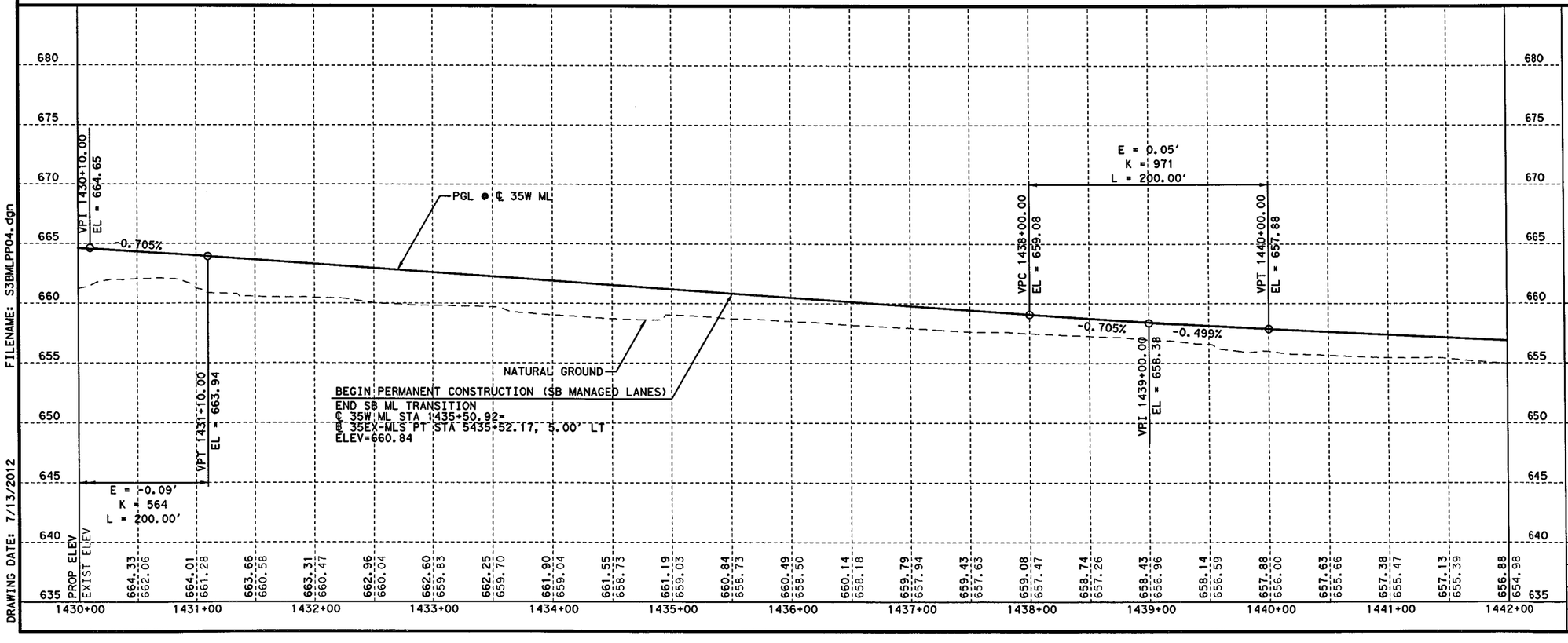
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BMLPP04.dgn
DRAWING DATE: 7/13/2012

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KURT W. AUNGST
90848
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PROFESSIONAL ENGINEER
7/11/12

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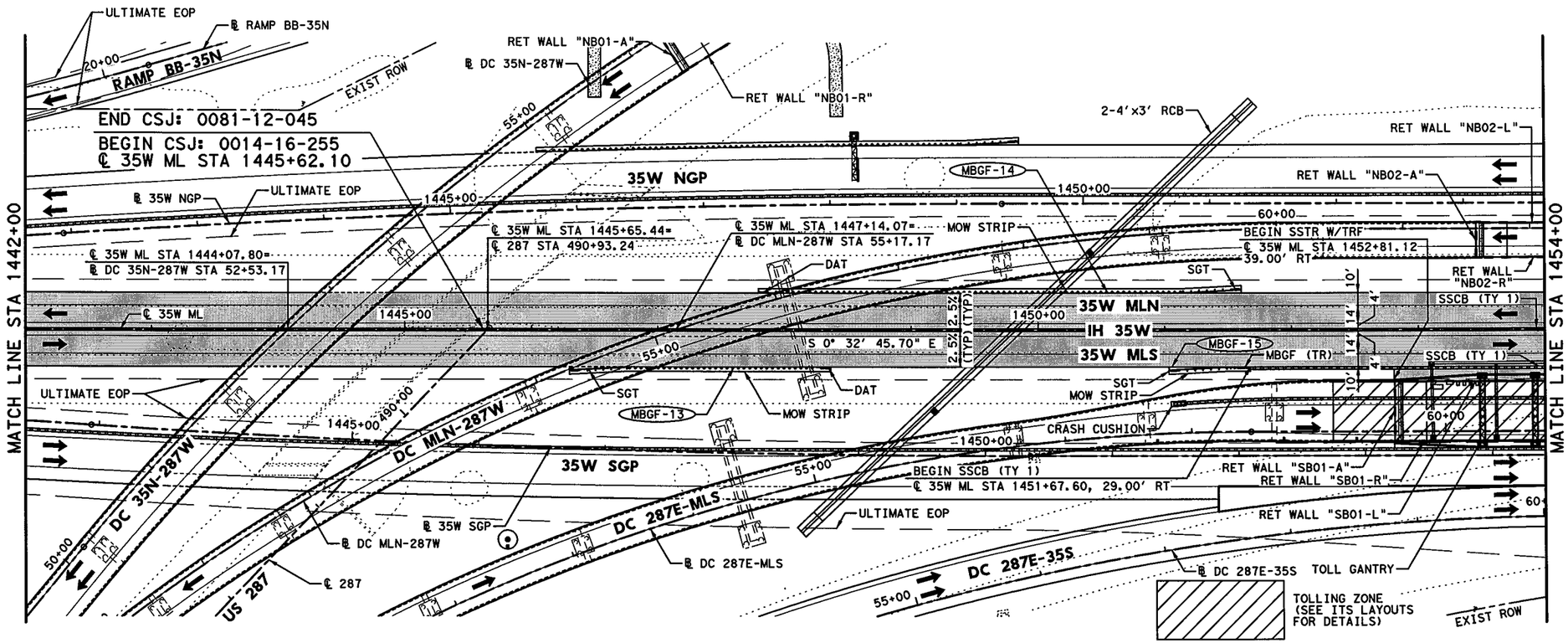
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1430+00 TO STA 1442+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	725
CHECK KCI	CONTROL	SECTION	JOB	
CHECK KCI	0014	16	255, ETC.	



LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
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4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
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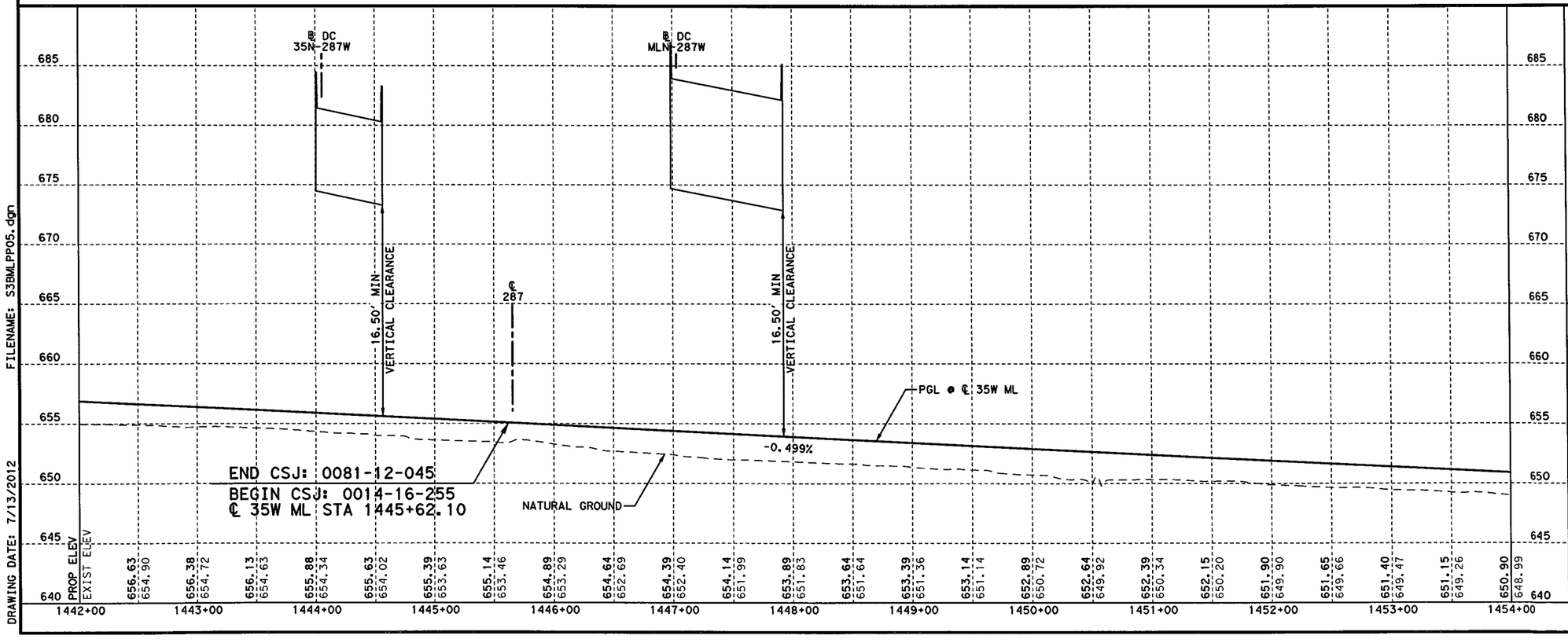
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/11/12

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TBPE REGISTRATION NO. F-926

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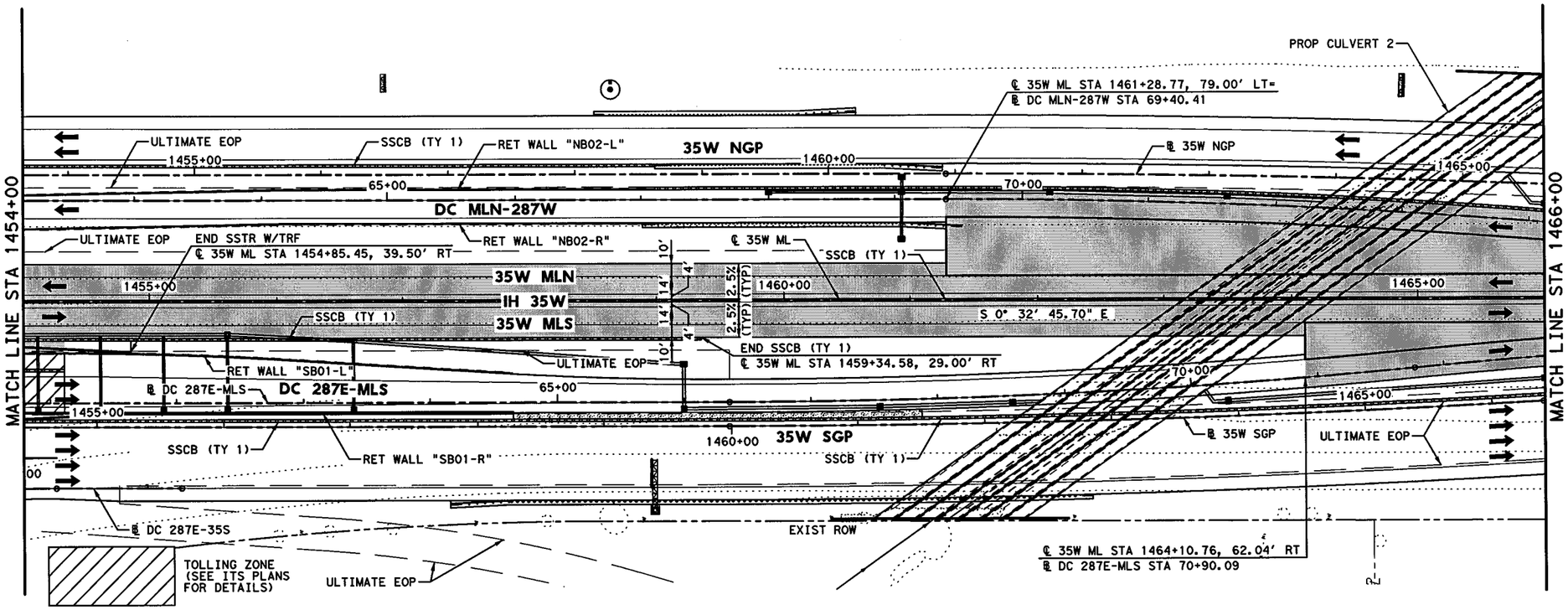
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1442+00 TO STA 1454+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 3 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	726
KCI	0014	16	255, ETC.	

FILENAME: S3BMLPP05.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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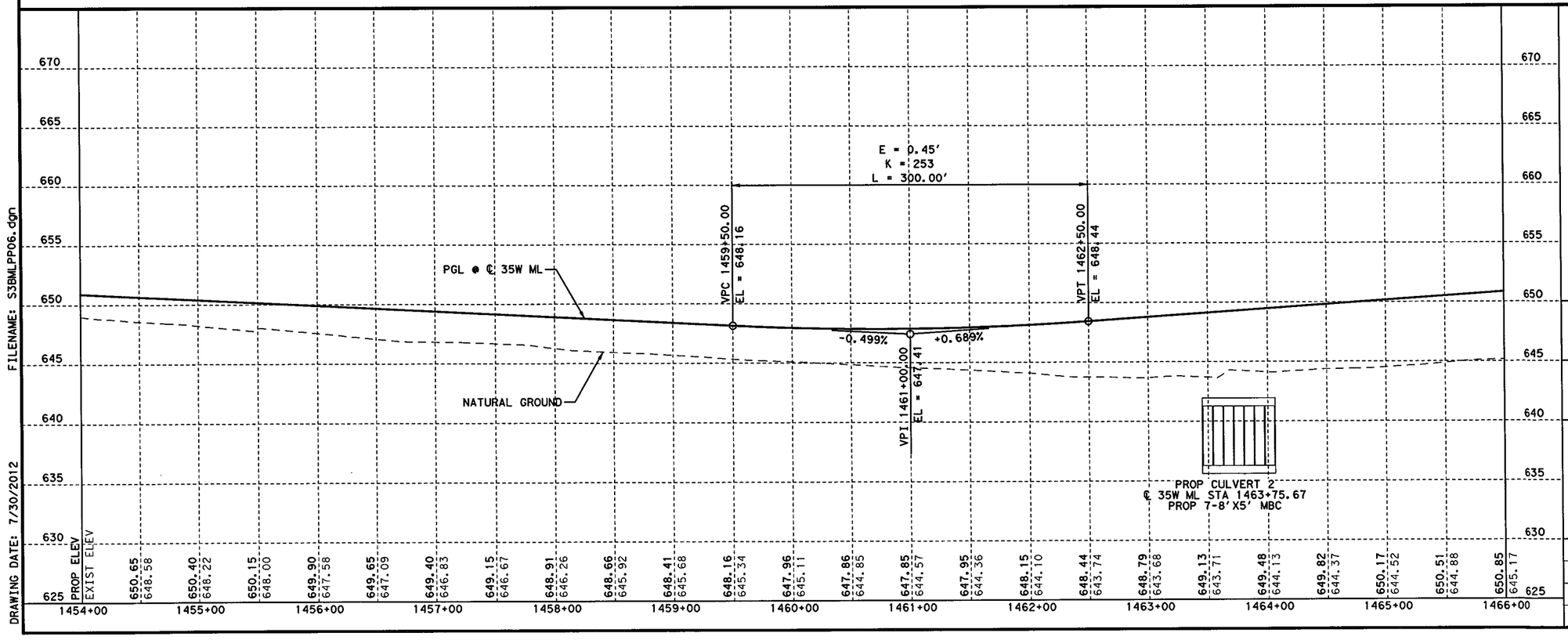
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BMLPP06.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/31/12

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TBPE REGISTRATION NO. F-926

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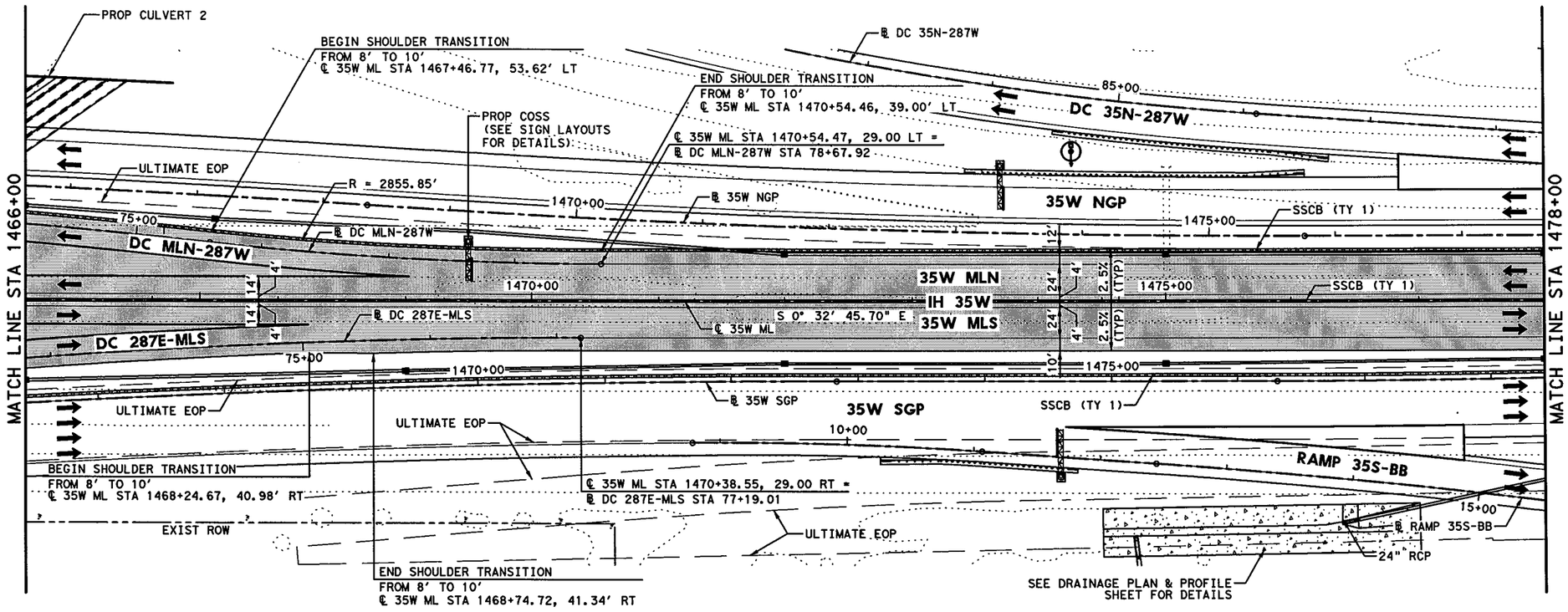
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1454+00 TO STA 1466+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 4 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	727
KCI	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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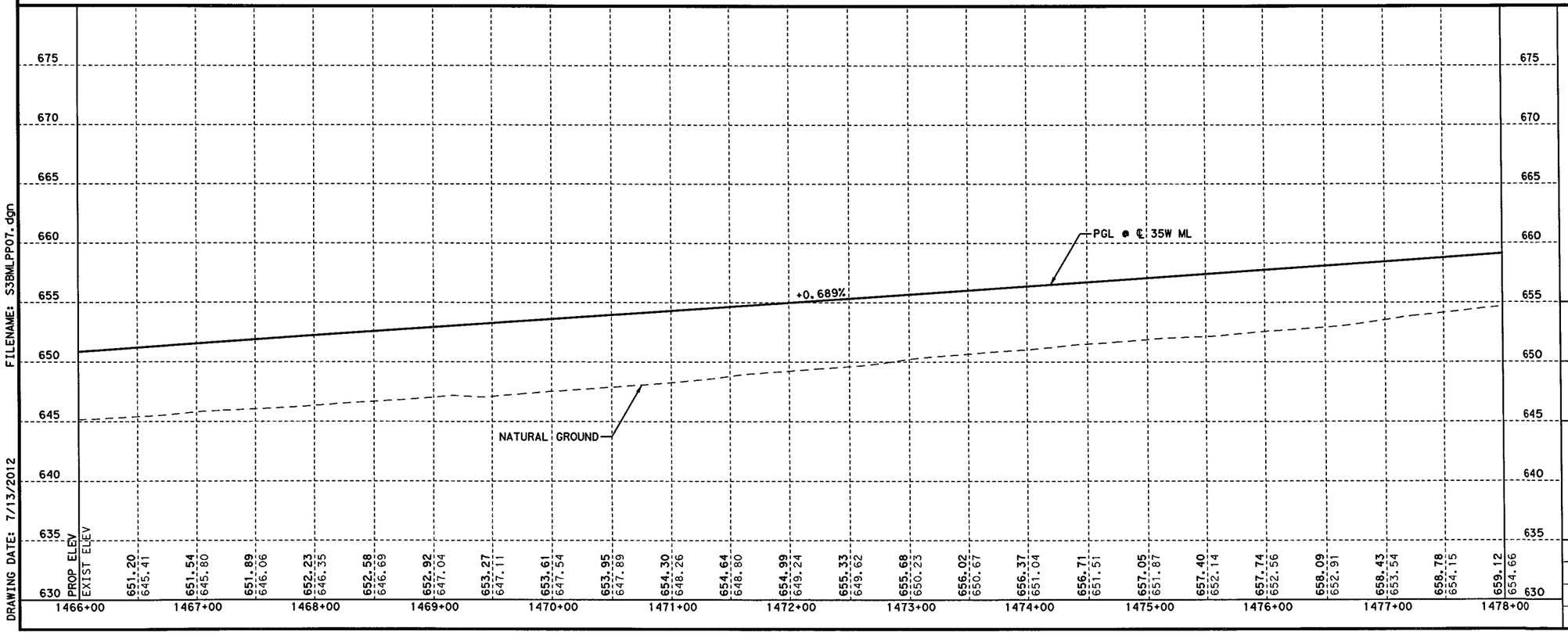

FILENAME: S3BMLPP07.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
90848
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7/11/12

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TBPE REGISTRATION NO. F-926

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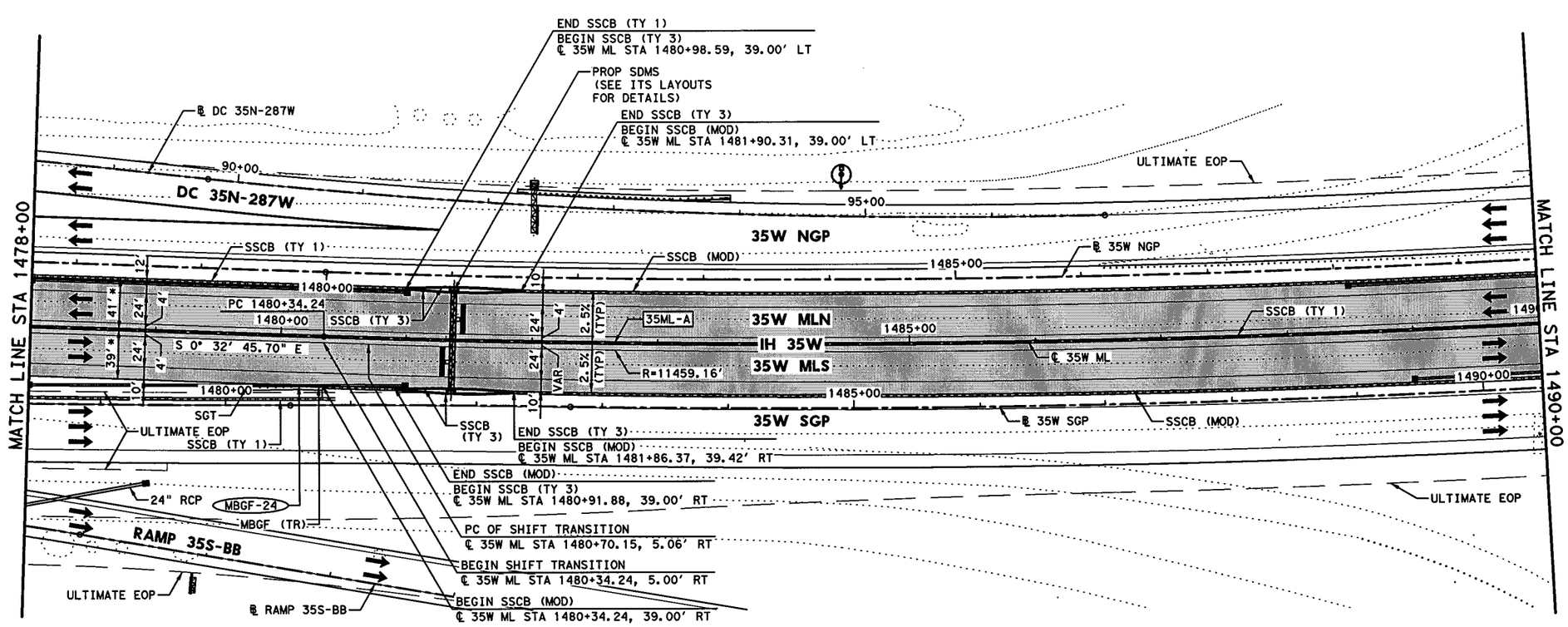
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1466+00 TO STA 1478+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 5 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	728
KCI	0014	16	255, ETC.	
CHECK				
KCI				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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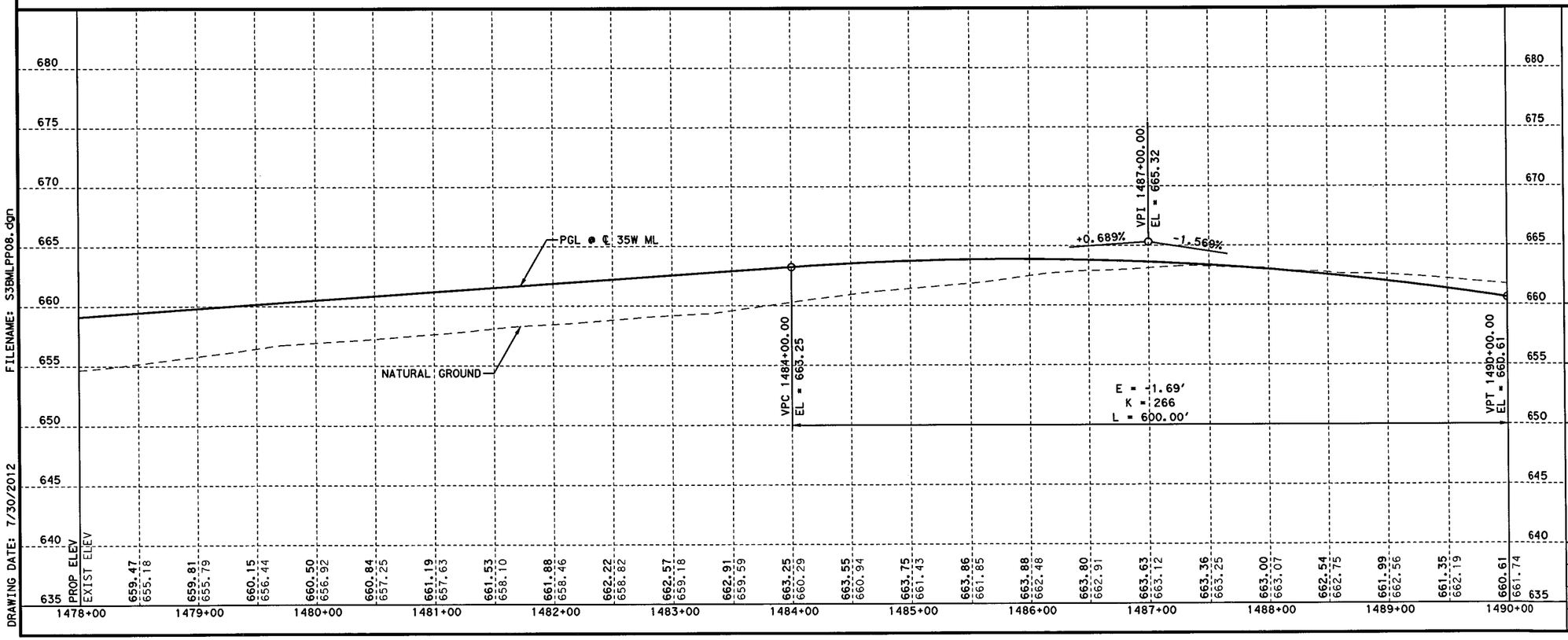

FILENAME: S35MLPP08.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
KURT W. AUNGST
90848
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PROFESSIONAL ENGINEER
7/31/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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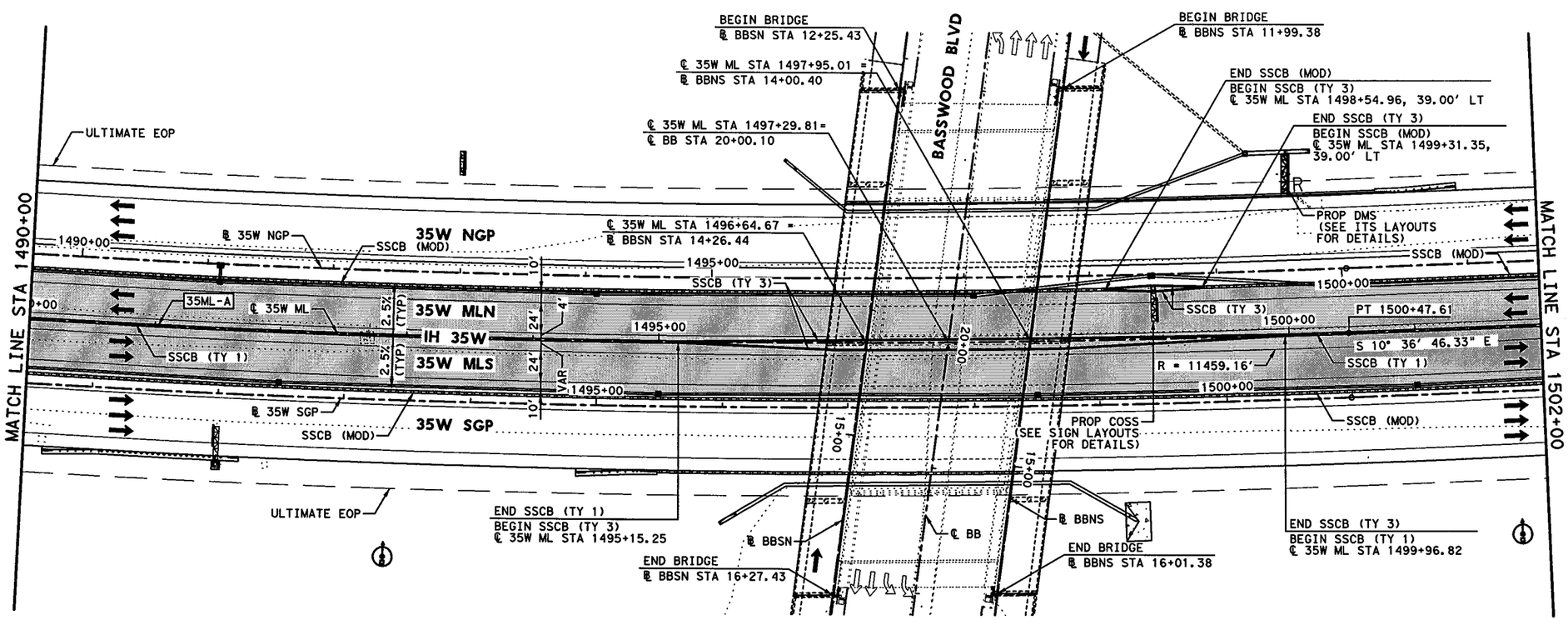
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1478+00 TO STA 1490+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 6 OF 15

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	729
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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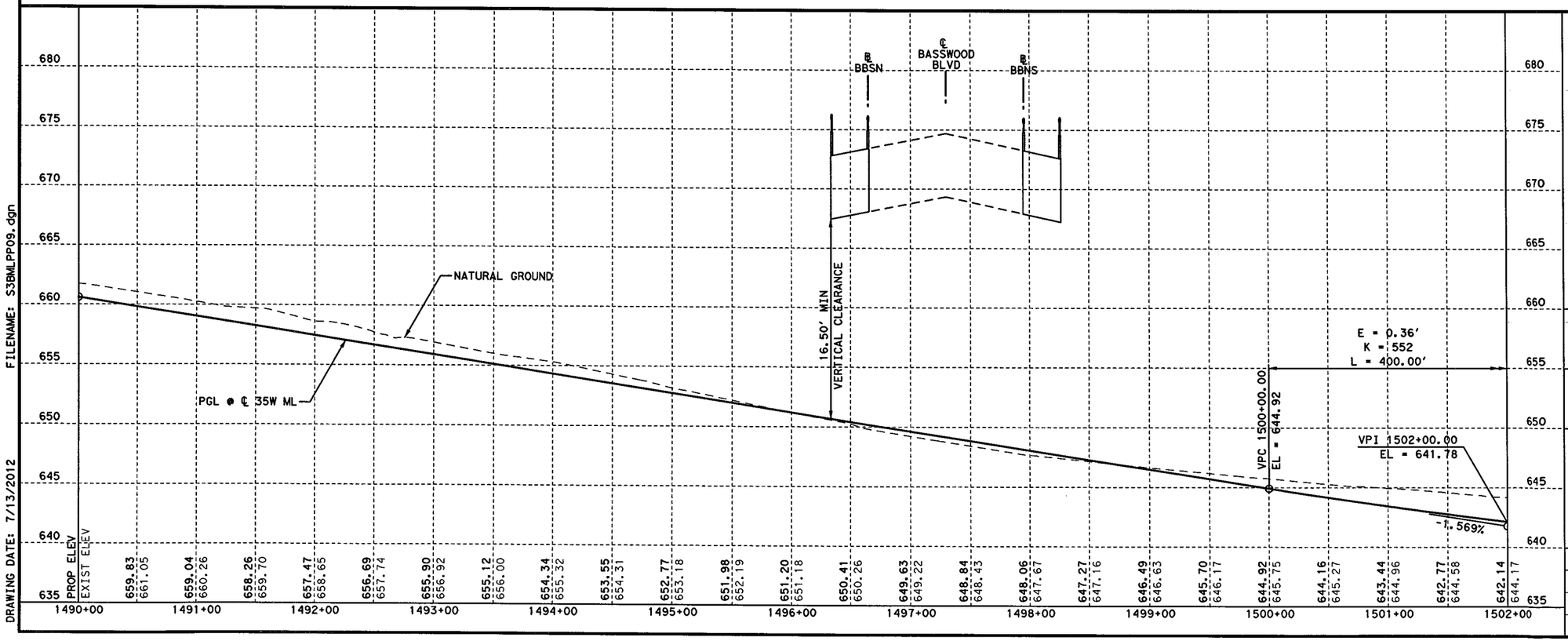

FILENAME: S3BMLPP09.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
90848
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PROFESSIONAL ENGINEER
7/11/12

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TBPE REGISTRATION NO. F-926

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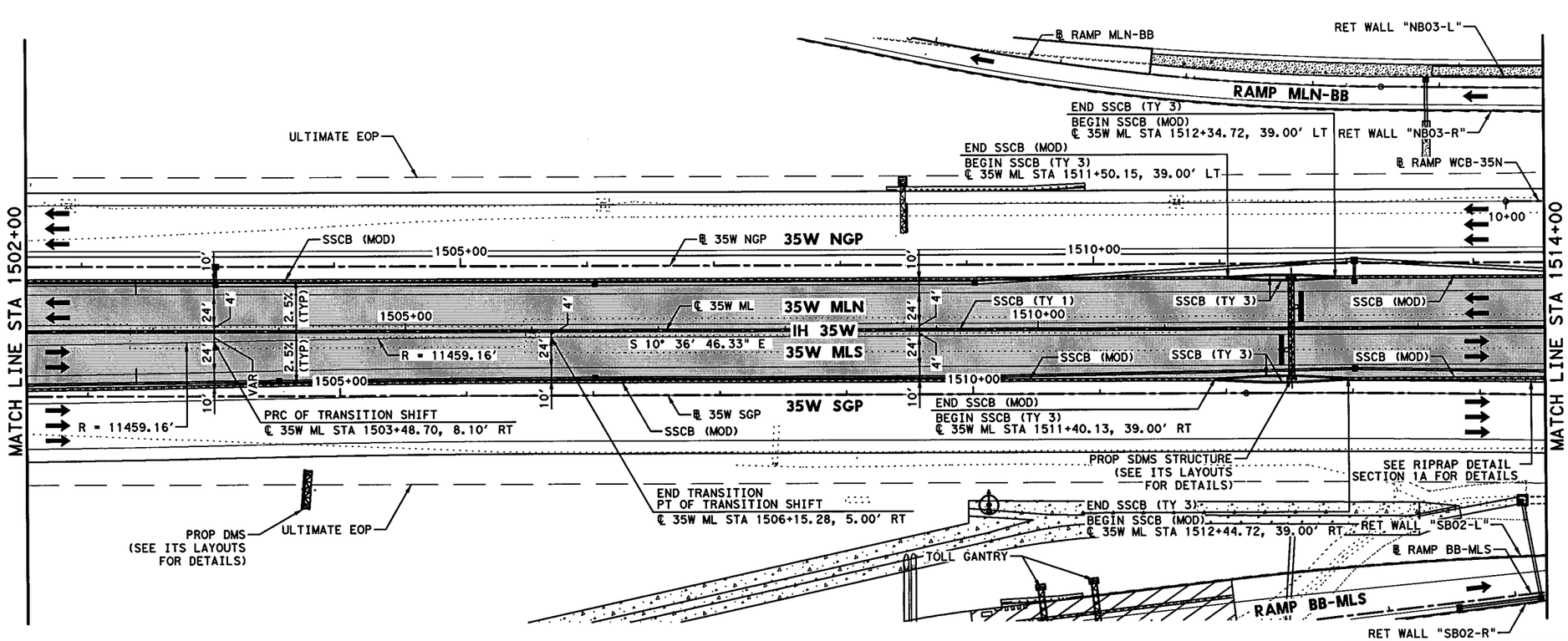
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1490+00 TO STA 1502+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 7 OF 15

DESIGN	FED. NO. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	730
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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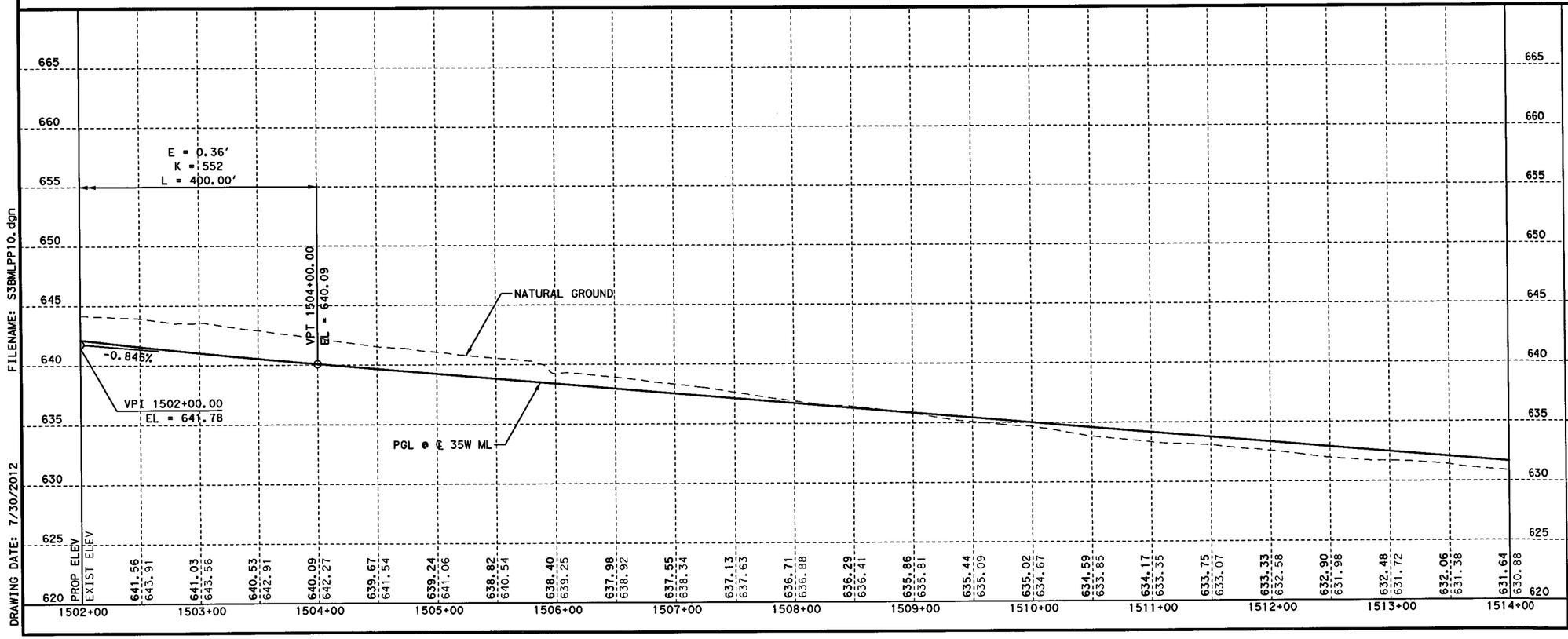

FILENAME: S3BMLPP10.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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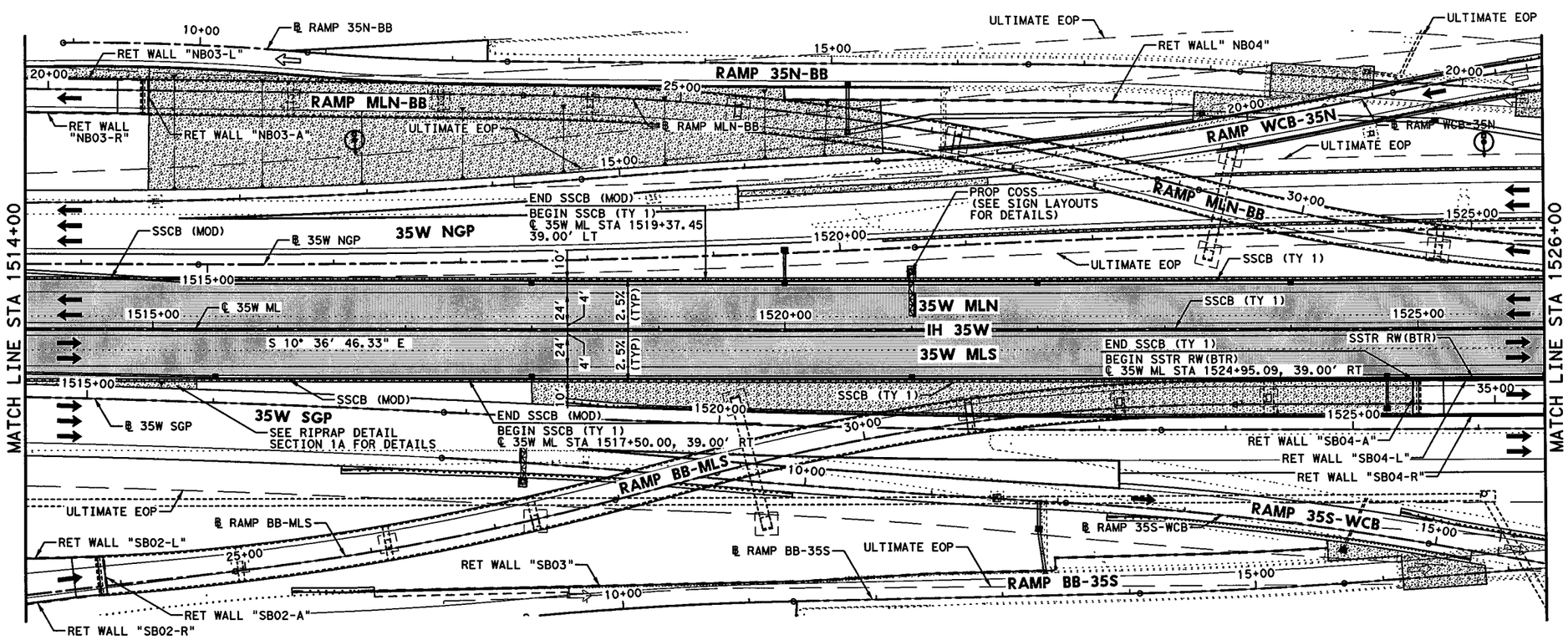
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1502+00 TO STA 1514+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 8 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	731
KCI	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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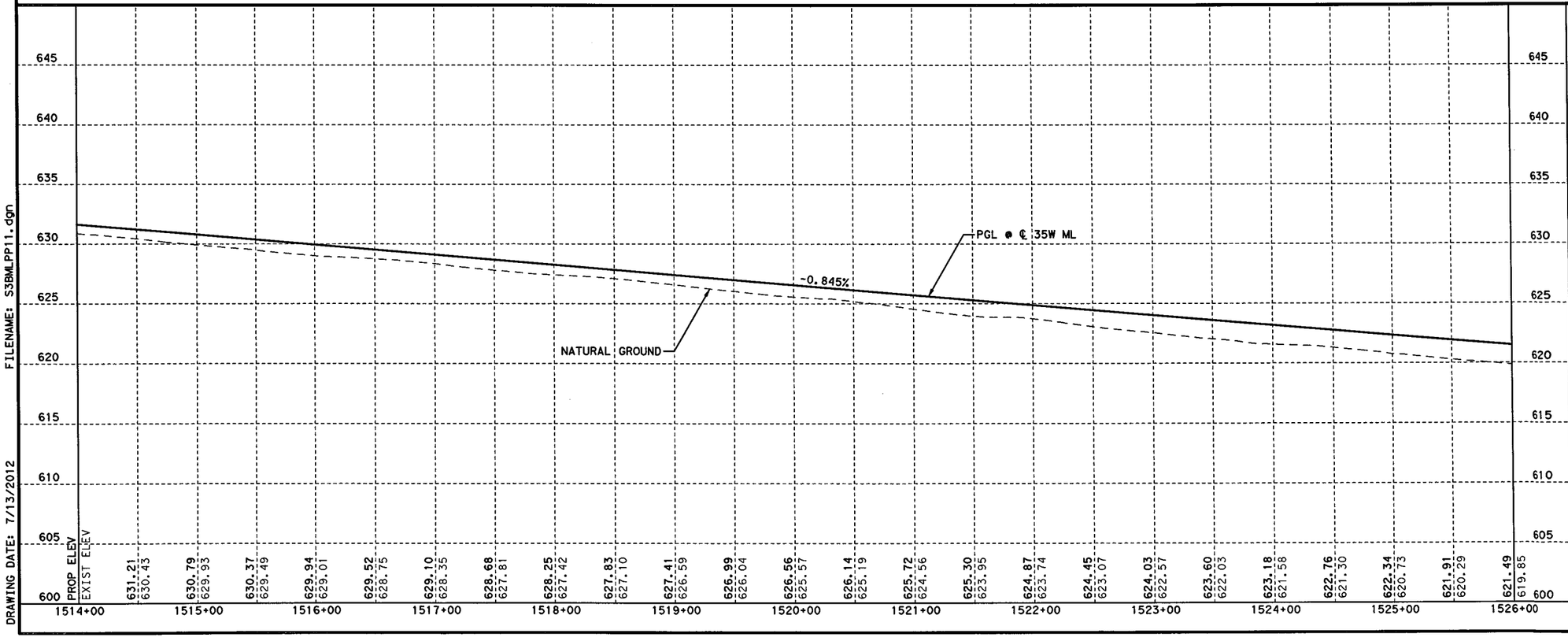

FILENAME: S3BMLPP11.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/11/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

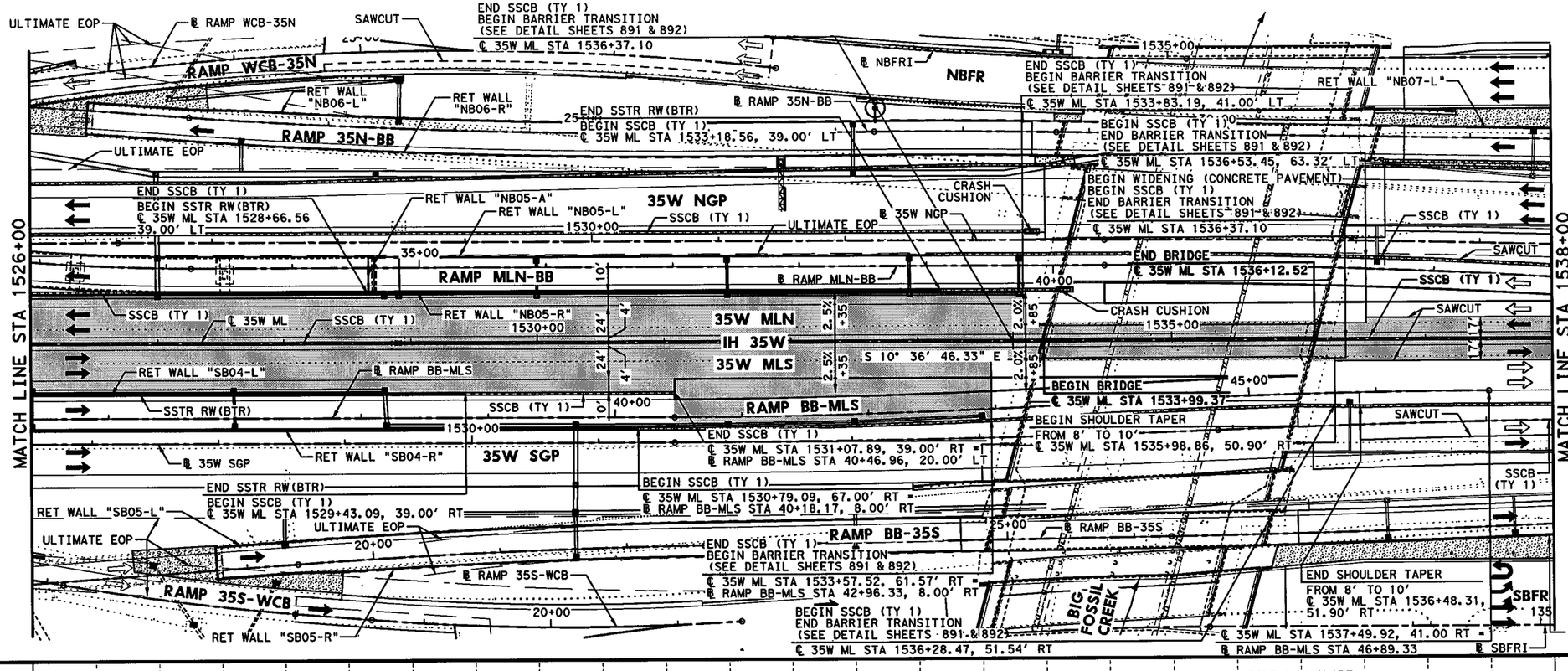
ROADWAY PLAN & PROFILE

IH 35W MANAGED LANES

STA 1514+00 TO STA 1526+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 9 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	732
KCI	0014	16	255, ETC.	
CHECK				
KCI				

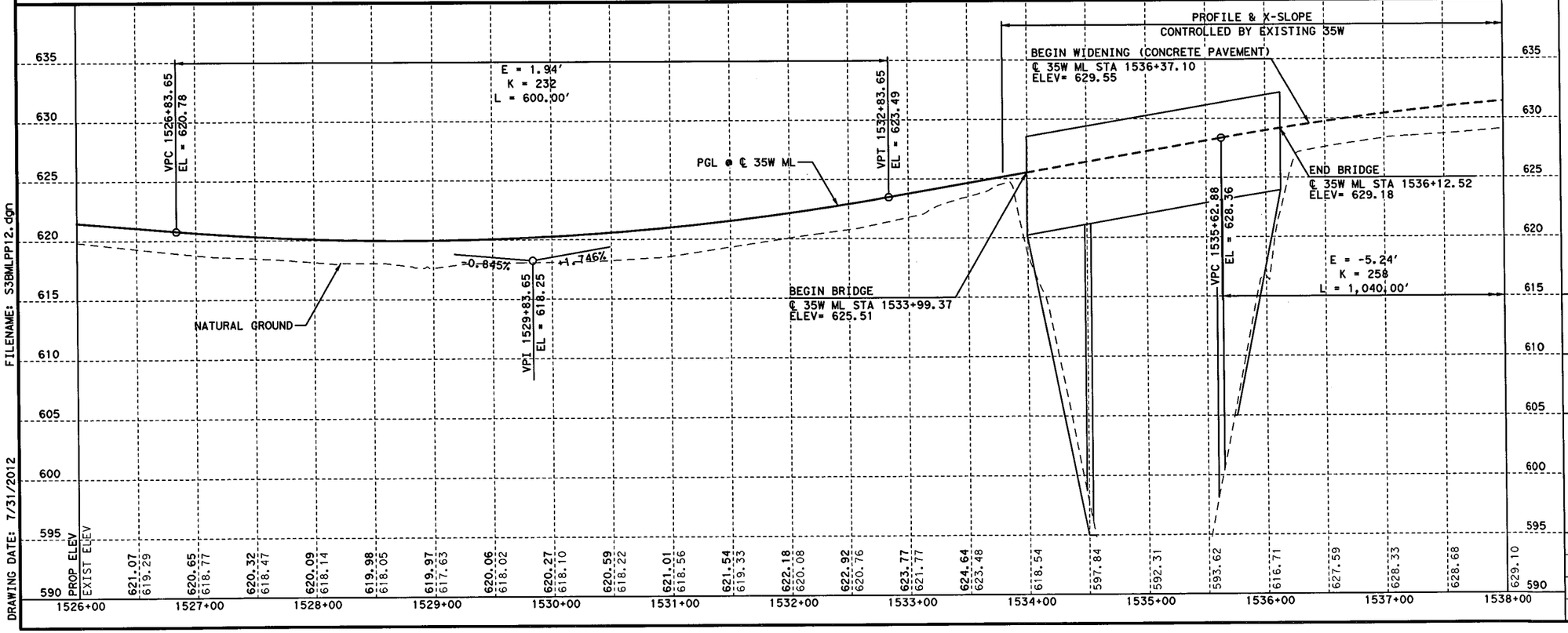


LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BMLPP12.dgn
DRAWING DATE: 7/31/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/31/12

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TBPE REGISTRATION NO. F-926

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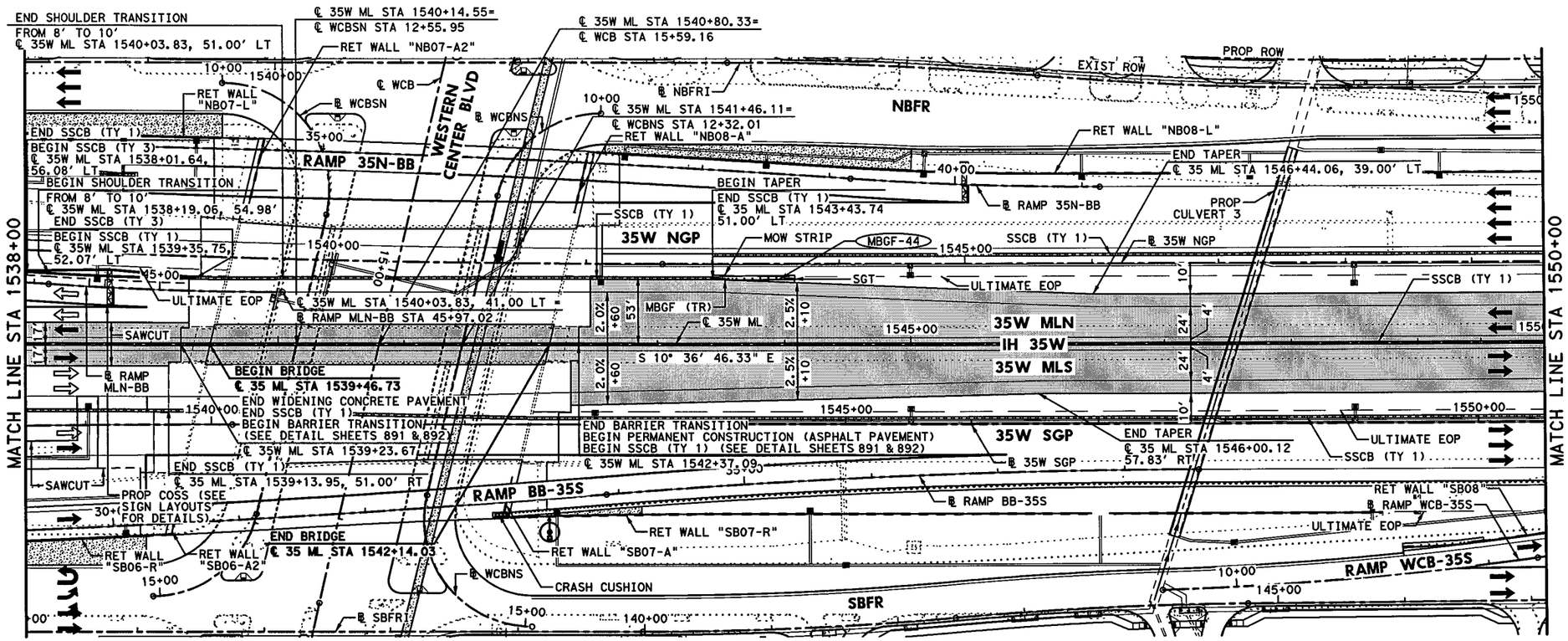
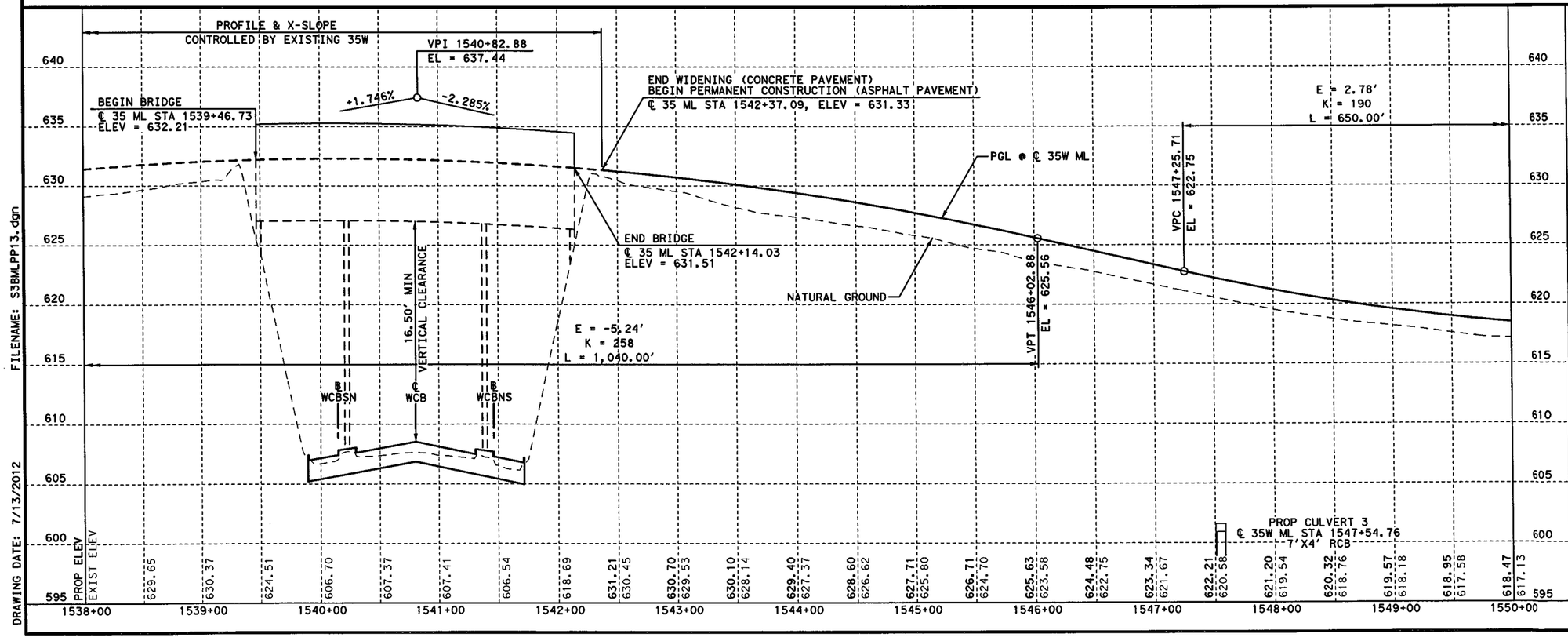
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1526+00 TO STA 1538+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 10 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	733
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				





FILENAME: S3BMLPP13.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/11/12

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TBPE REGISTRATION NO. F-926

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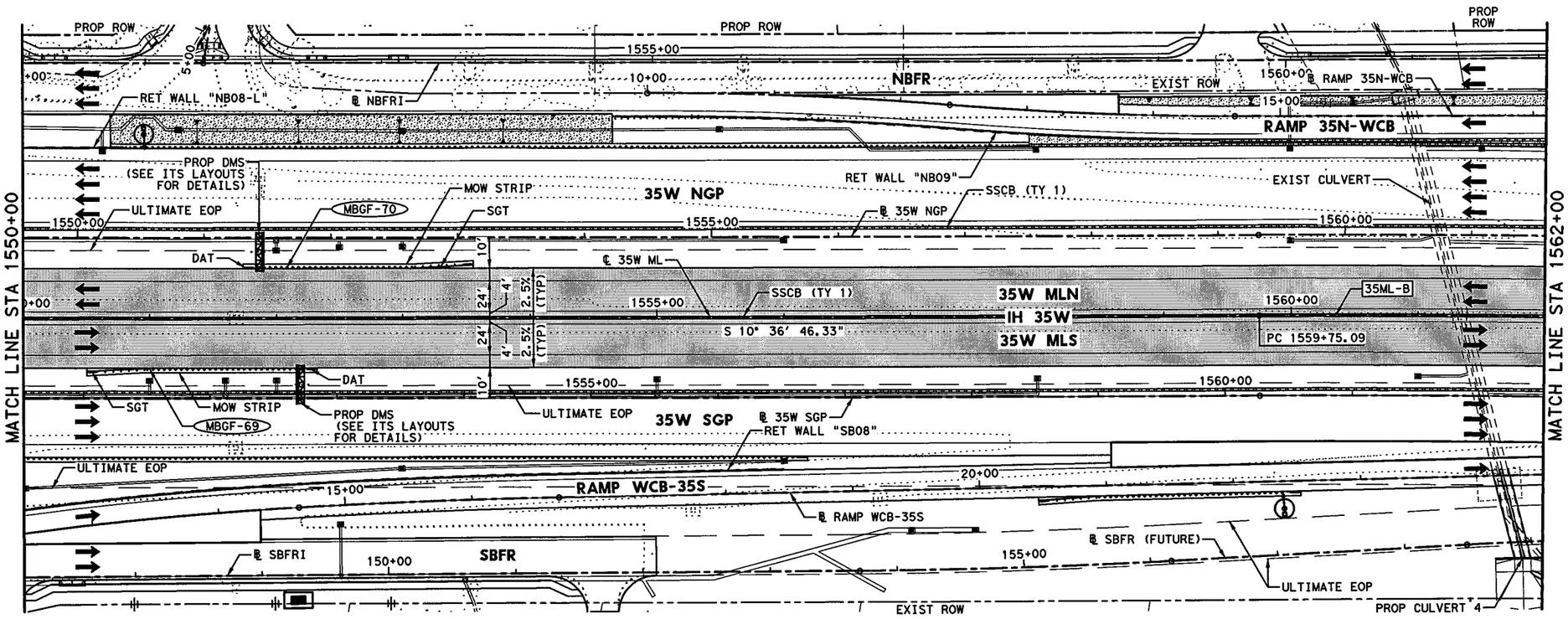
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1538+00 TO STA 1550+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 11 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	734
KCI	0014	16	255, ETC.	
CHECK				
KCI				



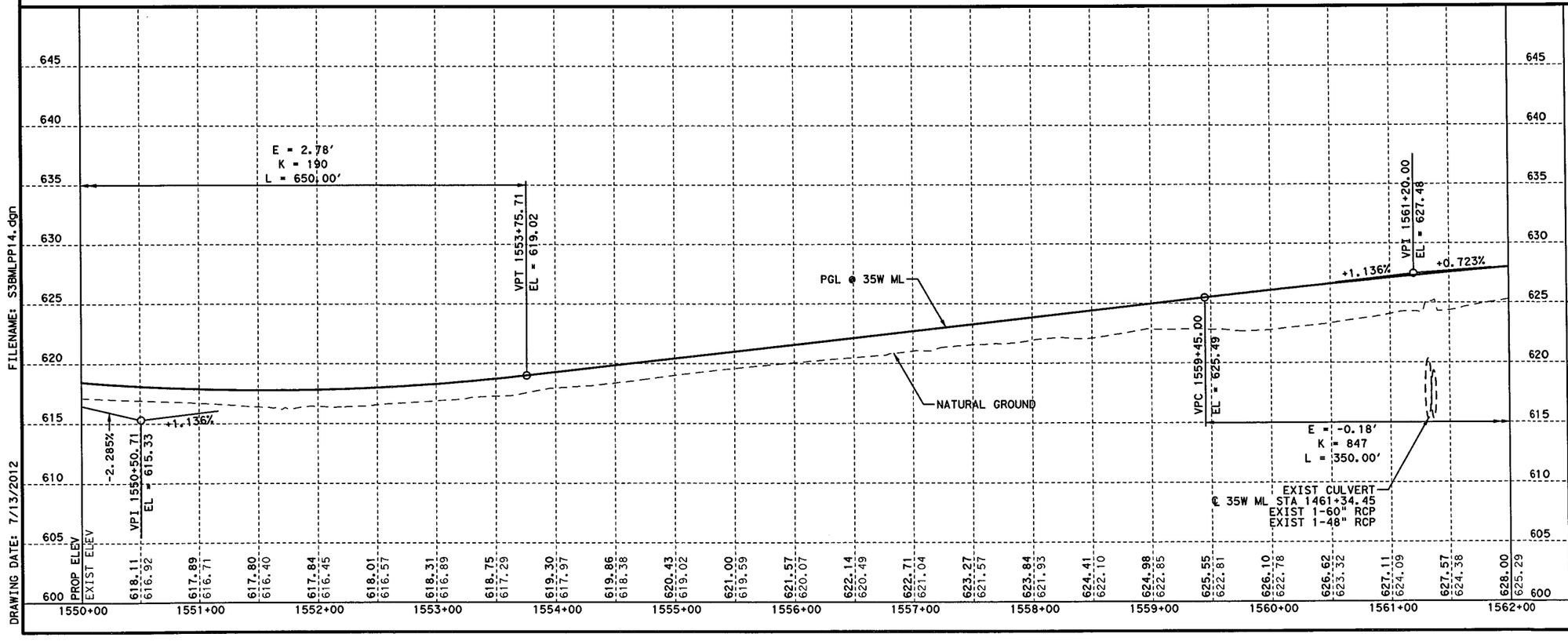
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BMLPP14.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/11/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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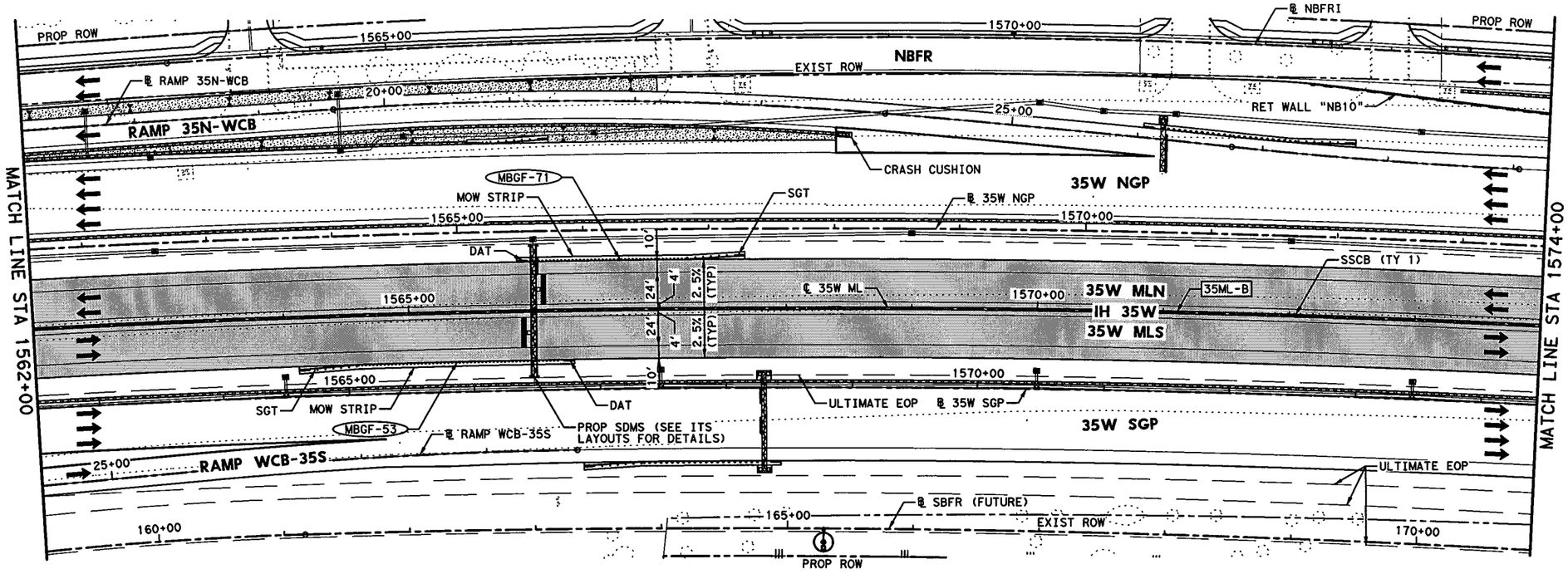
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1550+00 TO STA 1562+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 12 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	735
KCI	0014	16	255, ETC.	
CHECK				
KCI				



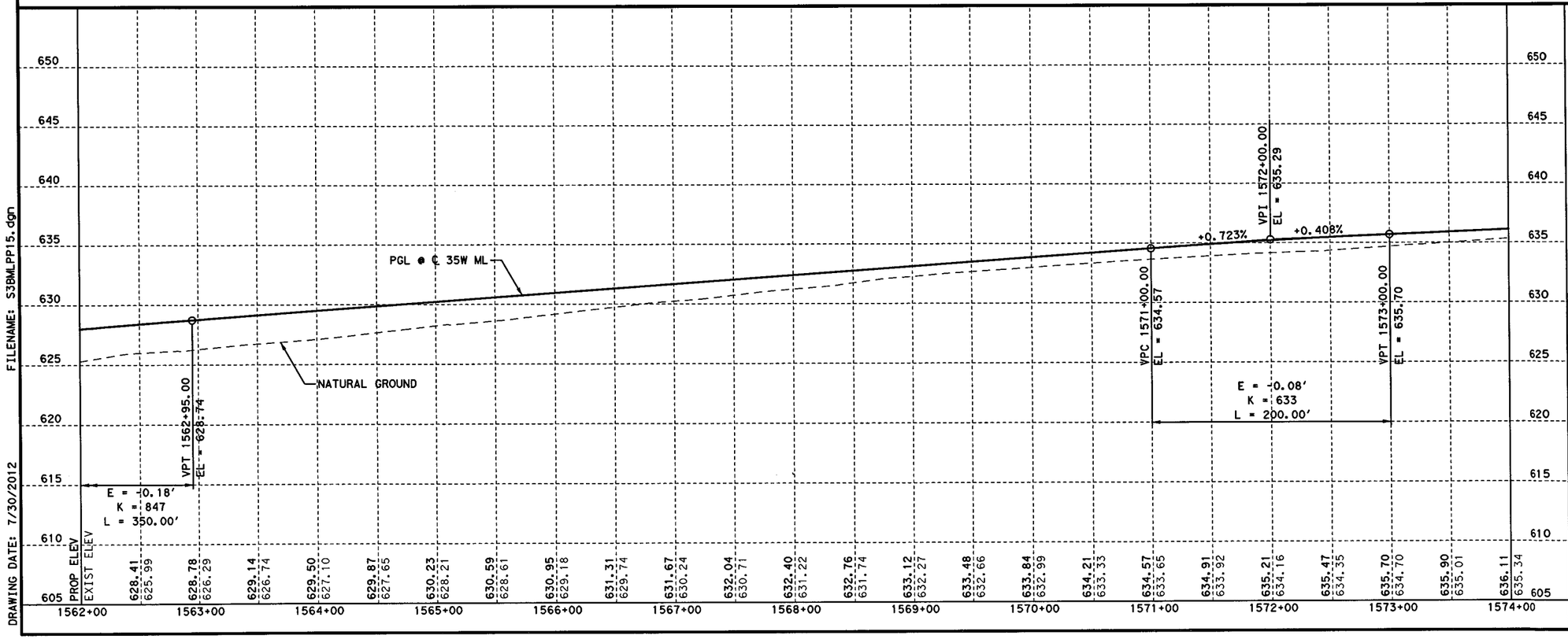
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
7. REFER TO PAVEMENT MARKINGS & DELINEATION PLANS FOR STRIPING CONFIGURATION FROM STA 1572+01.53 TO STA 1590+00.00.



STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER

7/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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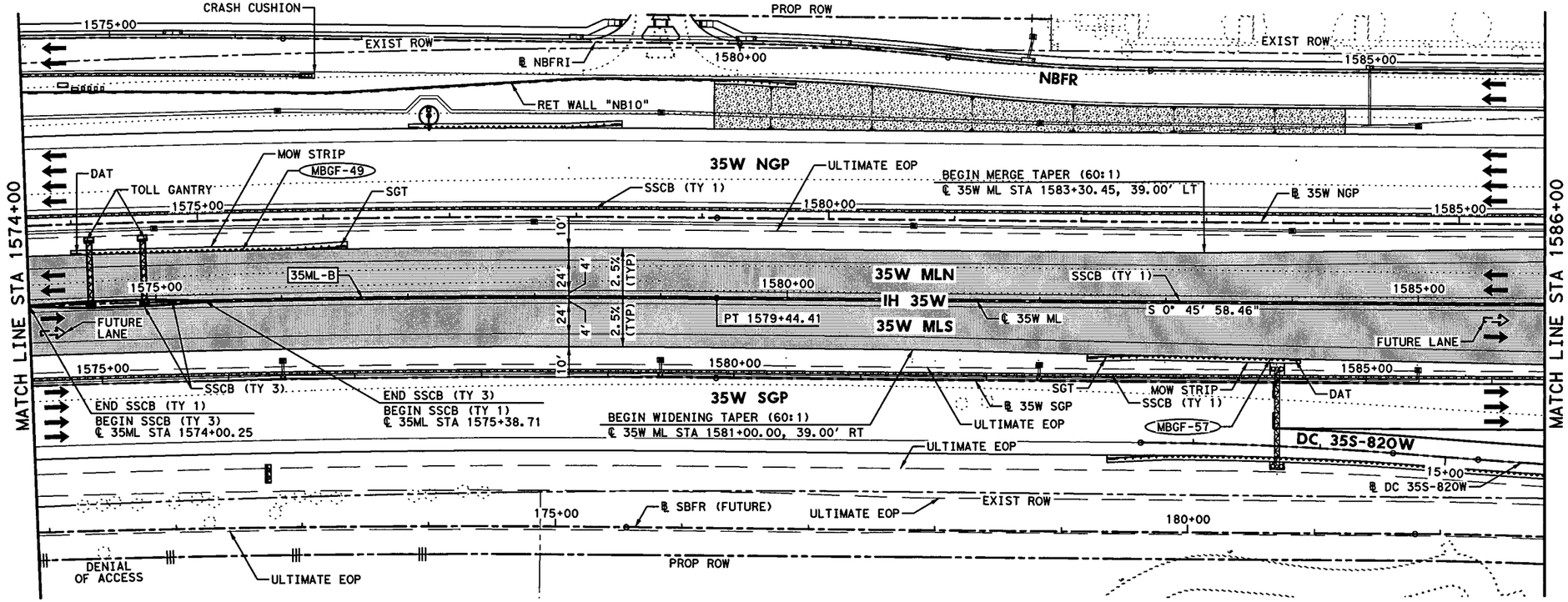
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1562+00 TO STA 1574+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 13 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	736
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BMLPP15.dgn
DRAWING DATE: 7/30/2012



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
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3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
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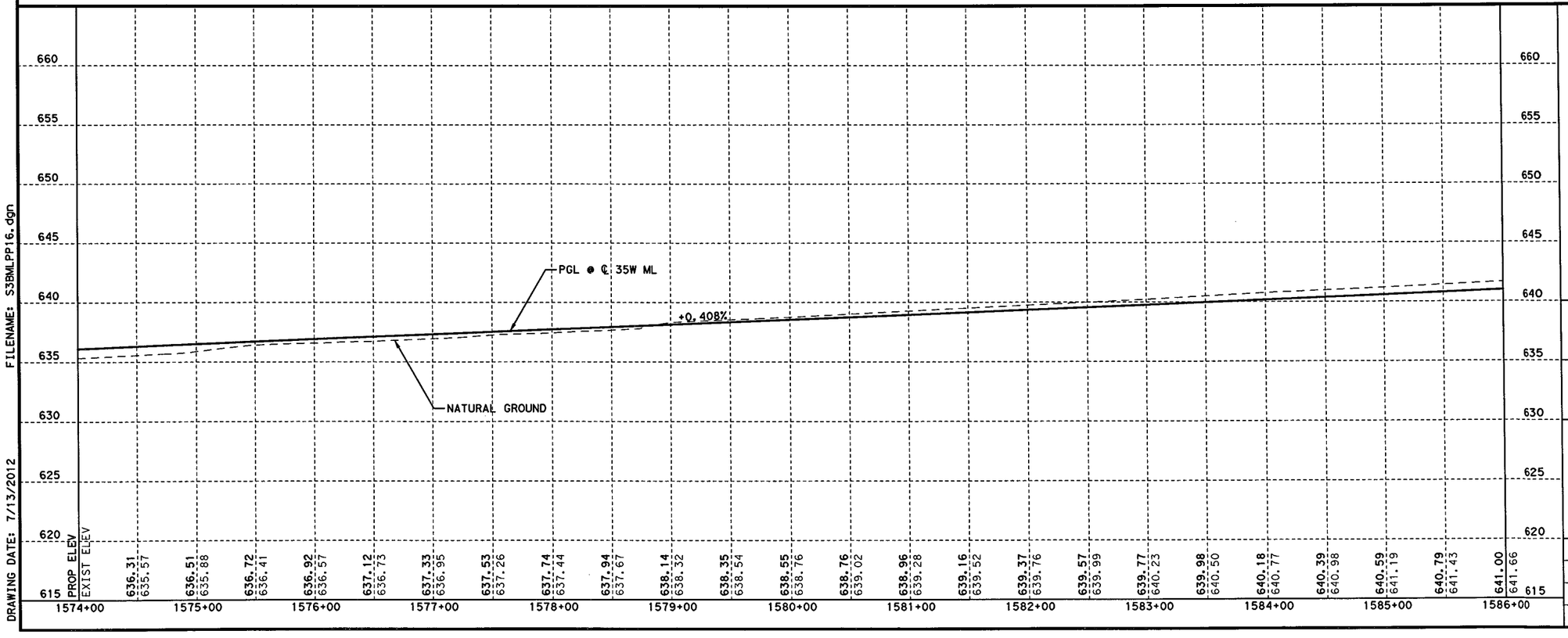
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
7. REFER TO PAVEMENT MARKINGS & DELINEATION PLANS FOR STRIPING CONFIGURATION FROM STA 1572+01.53 TO STA 1590+00.00.



STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/11/12

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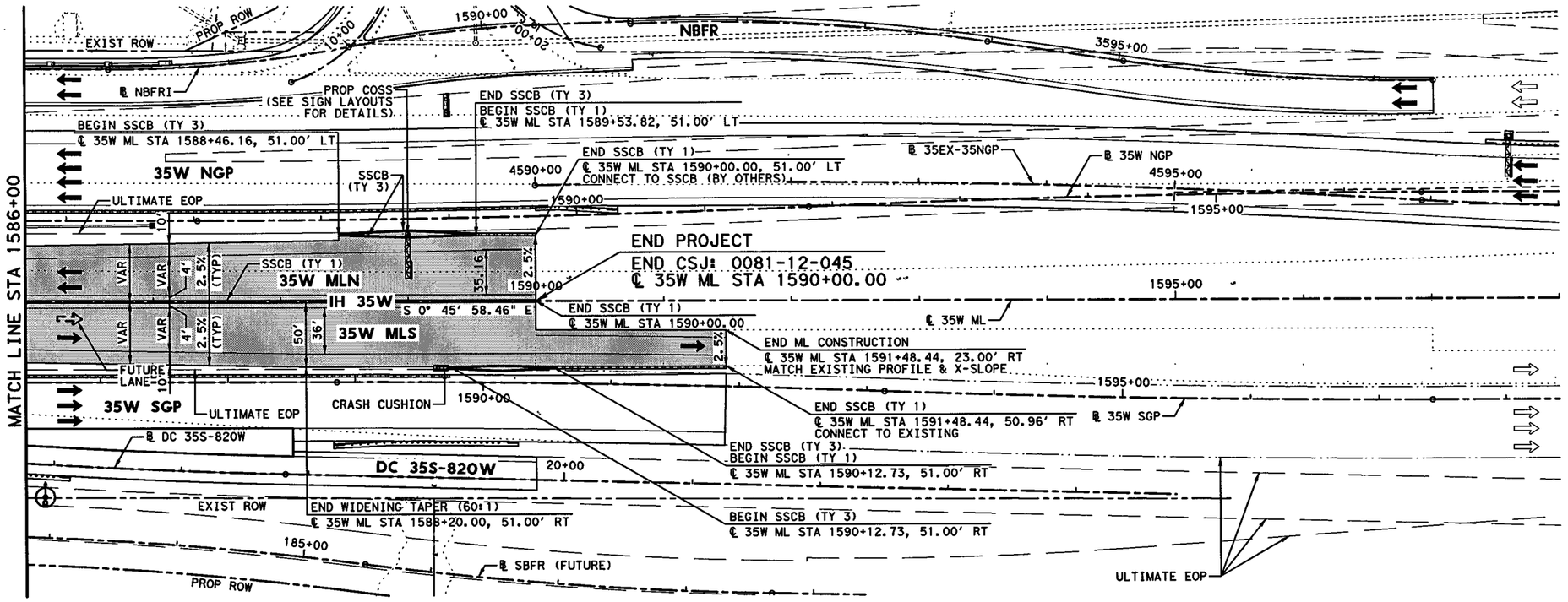
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1574+00 TO STA 1586+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 14 OF 15

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	737
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	

FILENAME: S35MLPP16.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
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3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
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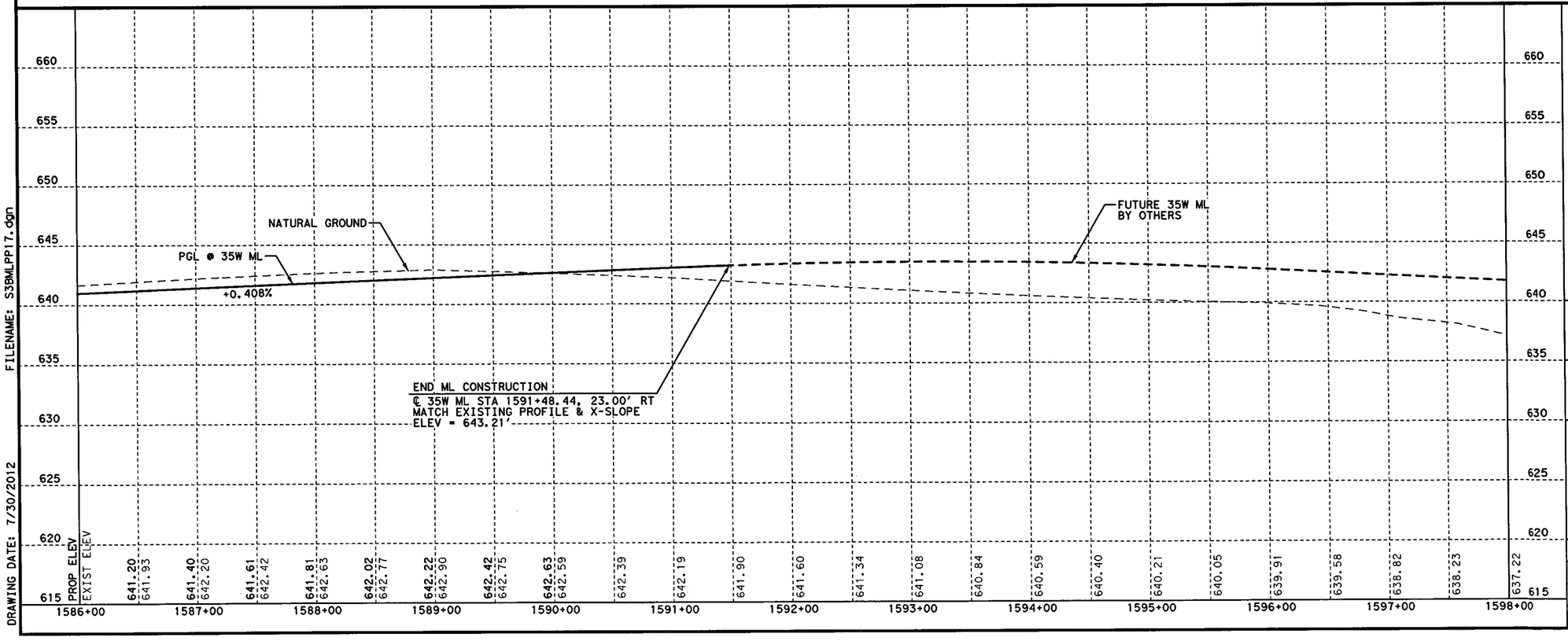
7. REFER TO PAVEMENT MARKINGS & DELINEATION PLANS FOR STRIPING CONFIGURATION FROM STA 1572+01.53 TO STA 1590+00.00.



STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/31/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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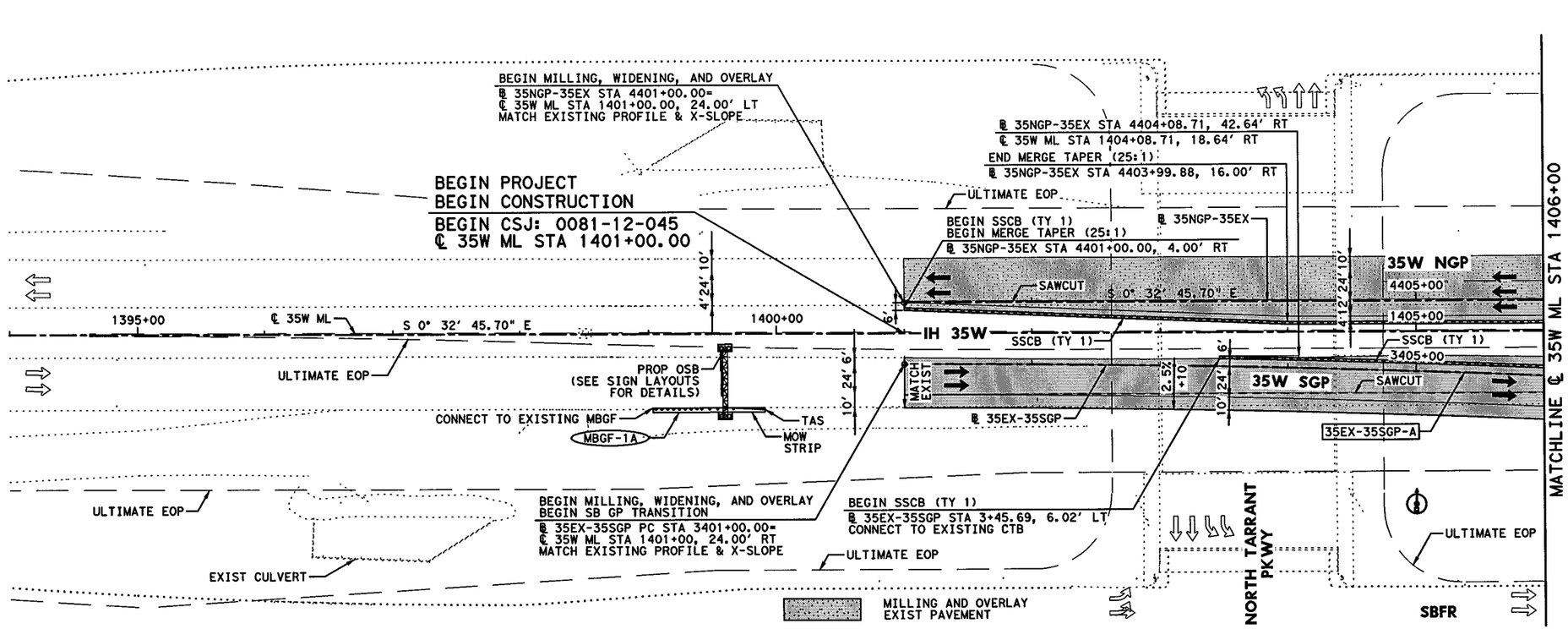
IH 35W FROM NORTH TARRANT PKWY TO IH 820

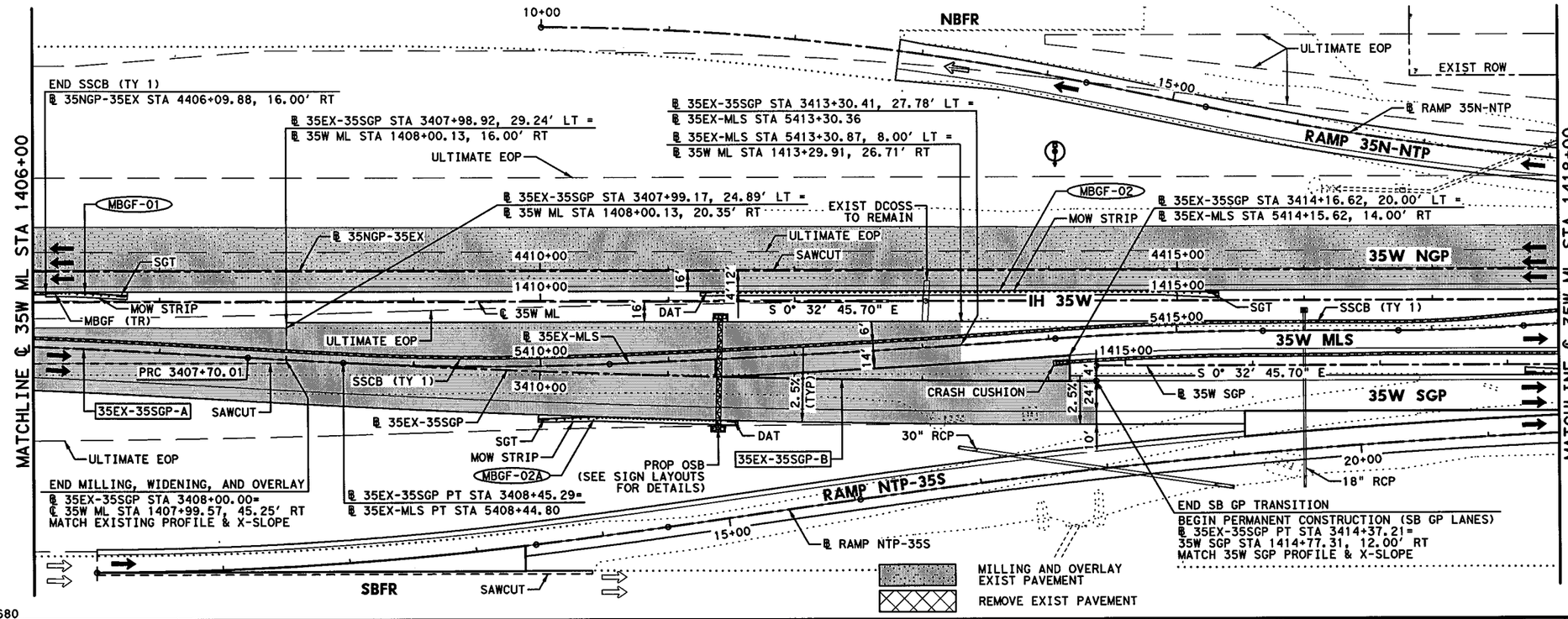
ROADWAY PLAN & PROFILE
IH 35W MANAGED LANES
STA 1586+00 TO END PROJECT

SCALE: 1" = 100' H, 1" = 10' V — SHEET 15 OF 15

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	738
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S35MLPP17.dgn
DRAWING DATE: 7/30/2012


BEGIN MILLING, WIDENING, AND OVERLAY
℄ 35NGP-35EX STA 4401+00.00=
℄ 35W ML STA 1401+00.00, 24.00' LT
MATCH EXISTING PROFILE & X-SLOPE
BEGIN PROJECT
BEGIN CONSTRUCTION
BEGIN CSJ: 0081-12-045
℄ 35W ML STA 1401+00.00
1395+00
℄ 35W ML
S 0° 32' 45.70" E
1400+00
ULTIMATE EOP
PROP OSB
(SEE SIGN LAYOUTS FOR DETAILS)
CONNECT TO EXISTING MBGF
MBGF-1A
TAS
MOW STRIP
4'24' 10'
10' 24' 6'
IH 35W
℄ 35NGP-35EX STA 4404+08.71, 42.64' RT
℄ 35W ML STA 1404+08.71, 18.64' RT
END MERGE TAPER (25:1)
℄ 35NGP-35EX STA 4403+99.88, 16.00' RT
ULTIMATE EOP
BEGIN SSCB (TY 1)
BEGIN MERGE TAPER (25:1)
℄ 35NGP-35EX
℄ 35NGP-35EX STA 4401+00.00, 4.00' RT
SAWCUT
S 0° 32' 45.70" E
35W NGP
4405+00
1405+00
SSCB (TY 1)
3405+00
4'12' 24' 10'
SSCB (TY 1)
MATCH EXIST
2.5%
+10
6'
10' 24'
35W SGP
SAWCUT
℄ 35EX-35SGP
35EX-35SGP-A
MATCHLINE ℄ 35W ML STA 1406+00
BEGIN MILLING, WIDENING, AND OVERLAY
BEGIN SB GP TRANSITION
℄ 35EX-35SGP PC STA 3401+00.00=
℄ 35W ML STA 1401+00, 24.00' RT
MATCH EXISTING PROFILE & X-SLOPE
BEGIN SSCB (TY 1)
℄ 35EX-35SGP STA 3+45.69, 6.02' LT
CONNECT TO EXISTING CTB
ULTIMATE EOP
EXIST CULVERT
ULTIMATE EOP
NORTH TARRANT PKWY
ULTIMATE EOP
SBFR
MILLING AND OVERLAY EXIST PAVEMENT
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET
LEGEND:
XXXX-X CURVE ID LABEL
MBGF-XX METAL BEAM GUARD FENCE ID LABEL
ULTIMATE EDGE OF PAVEMENT
HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
PROPOSED ROADWAY ILLUMINATION ASSEMBLY
NOTES:
1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
NB GP TRANSITION LANES
BEGIN MILLING, WIDENING, AND OVERLAY
℄ 35NGP-35EX STA 4401+00.00=
℄ 35W ML STA 1401+00.00, 24.00' LT
MATCH EXISTING PROFILE & X-SLOPE
NORTH TARRANT PKWY
16.50' MIN VERTICAL CLEARANCE
PROFILE & X-SLOPE CONTROLLED BY EXISTING 35W NGP
EXISTING GROUND @ ℄ 35NGP-35EX
PROP ELEV
EXIST ELEV
685
680
675
670
678.39
678.14
677.88
677.49
677.09
676.83
676.58
676.31
676.05
675.81
675.58
4401+00
4402+00
4403+00
4404+00
4405+00
4406+00
SB GP TRANSITION LANES
BEGIN MILLING, WIDENING, AND OVERLAY
BEGIN SB GP TRANSITION
℄ 35EX-35SGP PC STA 3401+00.00=
℄ 35W ML STA 1401+00, 24.00' RT
MATCH EXISTING PROFILE & X-SLOPE
NORTH TARRANT PKWY
16.50' MIN VERTICAL CLEARANCE
PROFILE & X-SLOPE CONTROLLED BY EXISTING 35W SGP
EXISTING GROUND @ ℄ 35EX-35SGP
PROP ELEV
EXIST ELEV
690
685
680
675
670
665
678.07
677.80
677.52
677.21
676.90
676.65
676.40
676.12
675.82
675.53
675.25
3401+00
3402+00
3403+00
3404+00
3405+00
3406+00
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
7/31/12
KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926
Texas Department of Transportation
© 2012
IH 35W FROM NORTH TARRANT PKWY TO IH 820
ROADWAY PLAN & PROFILE
GENERAL PURPOSE LANE TRANSITIONS
BEGIN TO ℄ 35W ML STA 1406+00
SCALE: 1" = 100' H, 1" = 10' V
SHEET 1 OF 4
DESIGN KCI
GRAPHICS KCI
CHECK KCI
CHECK KCI
FED. RD. DIV. NO. 6
FEDERAL AID PROJECT NO. (SEE TITLE SHEET)
HIGHWAY NO. IH 35W
STATE TEXAS
DISTRICT FTW
COUNTY TARRANT
SHEET NO. 739
CONTROL 0014
SECTION 16
JOB 255, ETC.
FILENAME: S3BTRGP01.dgn
DRAWING DATE: 7/30/2012



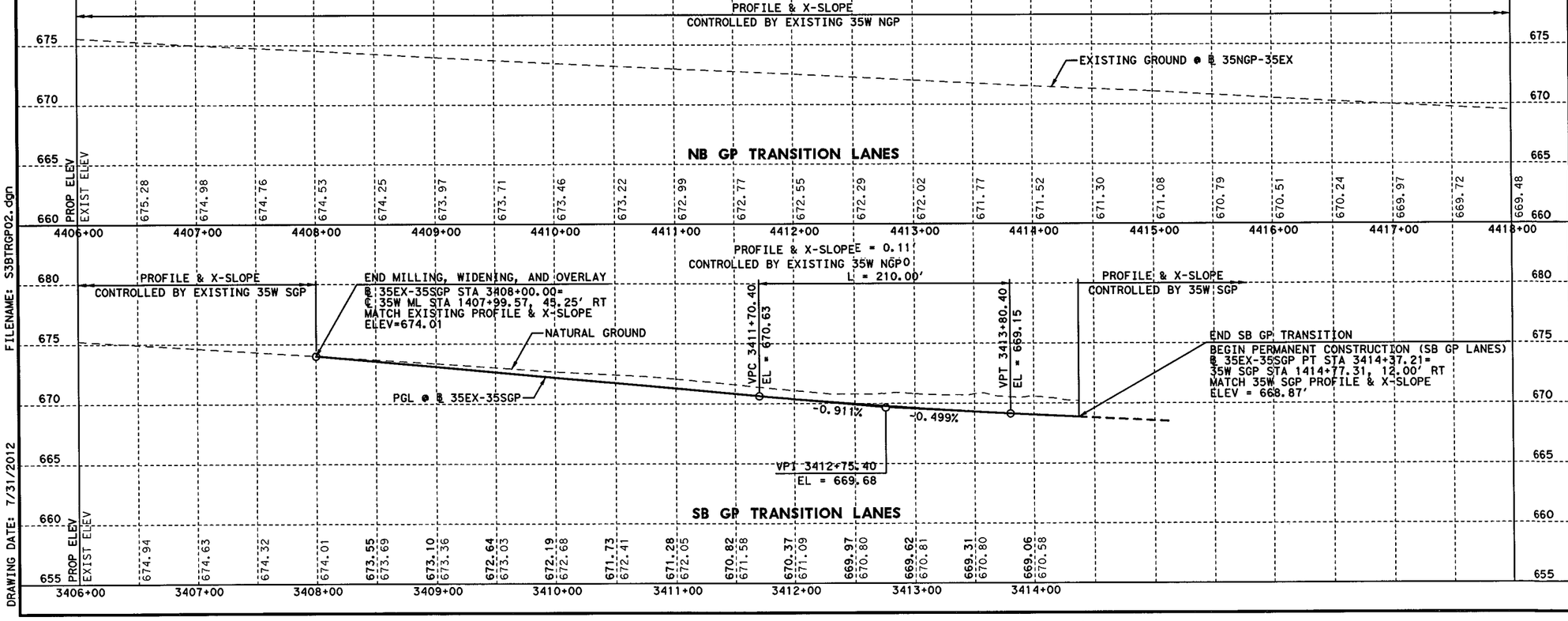
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

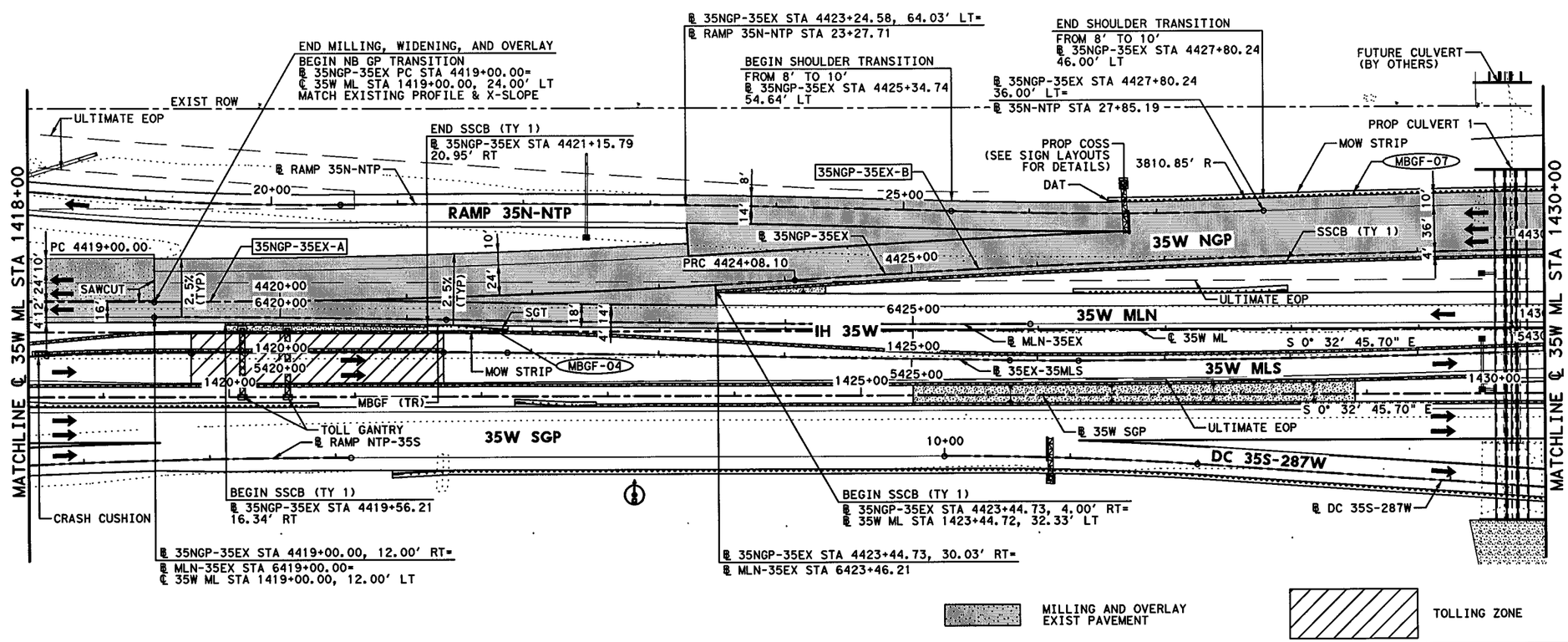
GENERAL PURPOSE LANE TRANSITIONS

℄ 35W ML STA 1406+00 TO STA 1418+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 4

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	740
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BTRGP02.dgn
DRAWING DATE: 7/31/2012



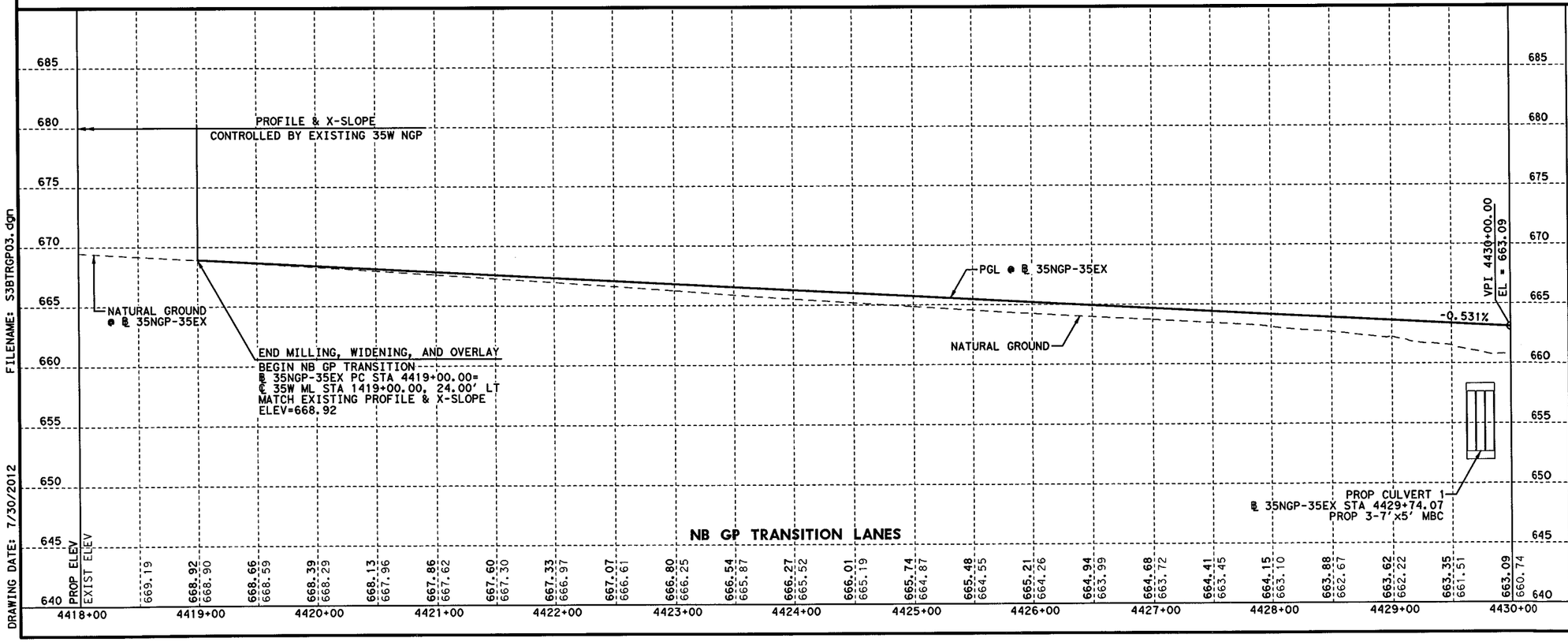
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BTRGP03.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/31/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

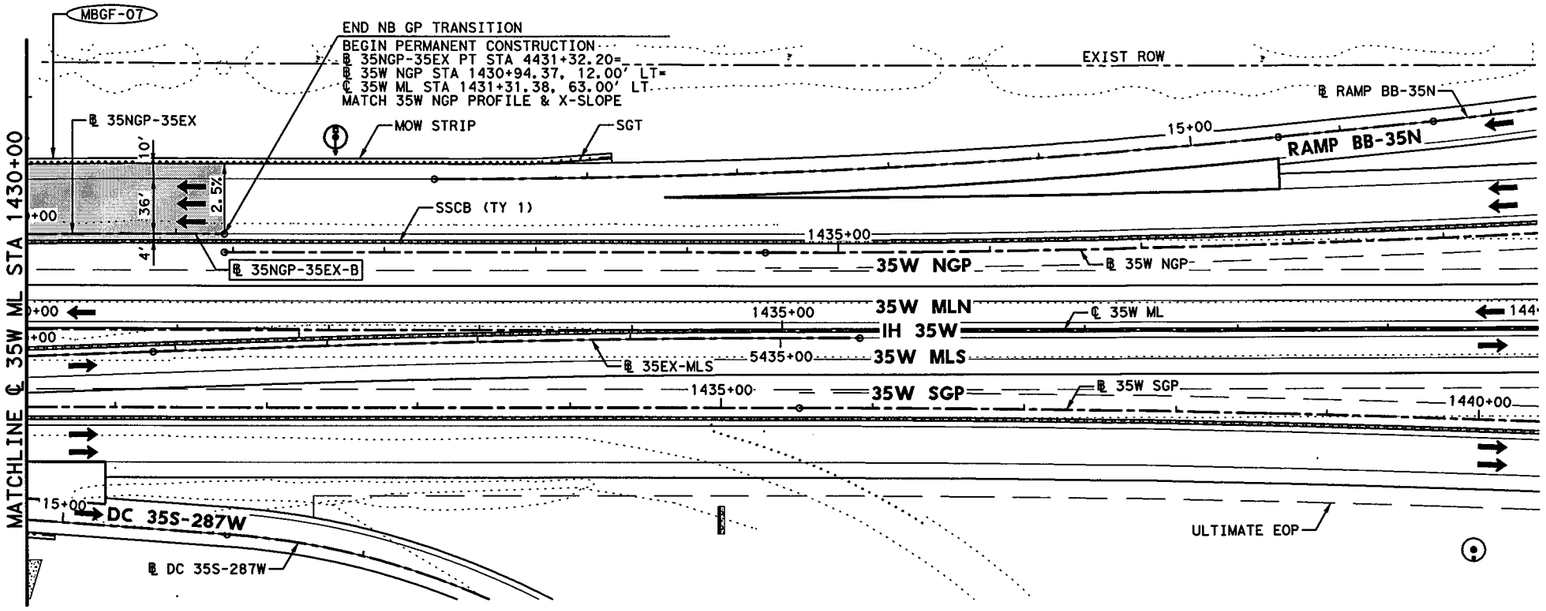
ROADWAY PLAN & PROFILE

GENERAL PURPOSE LANE TRANSITIONS

℄ 35W ML STA 1418+00 TO STA 1430+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 3 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	741
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
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4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
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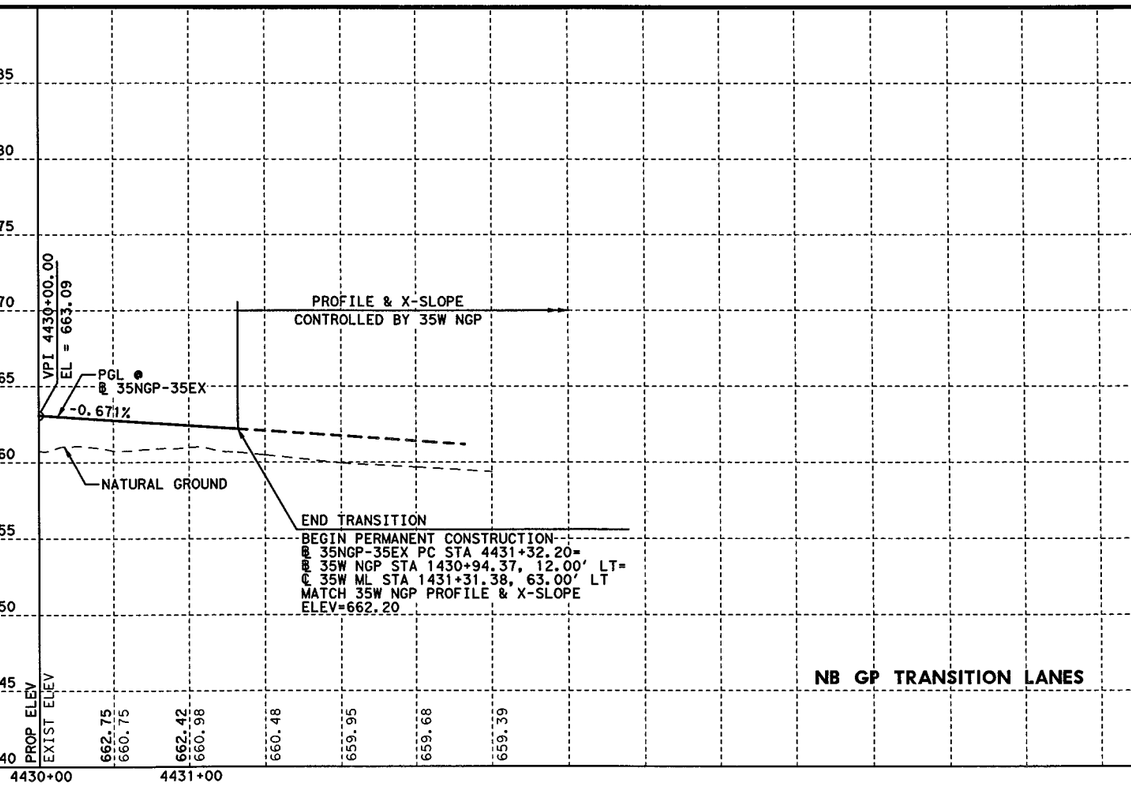

NB GP TRANSITION LANES

STATE OF TEXAS
KURT W. AUNGST
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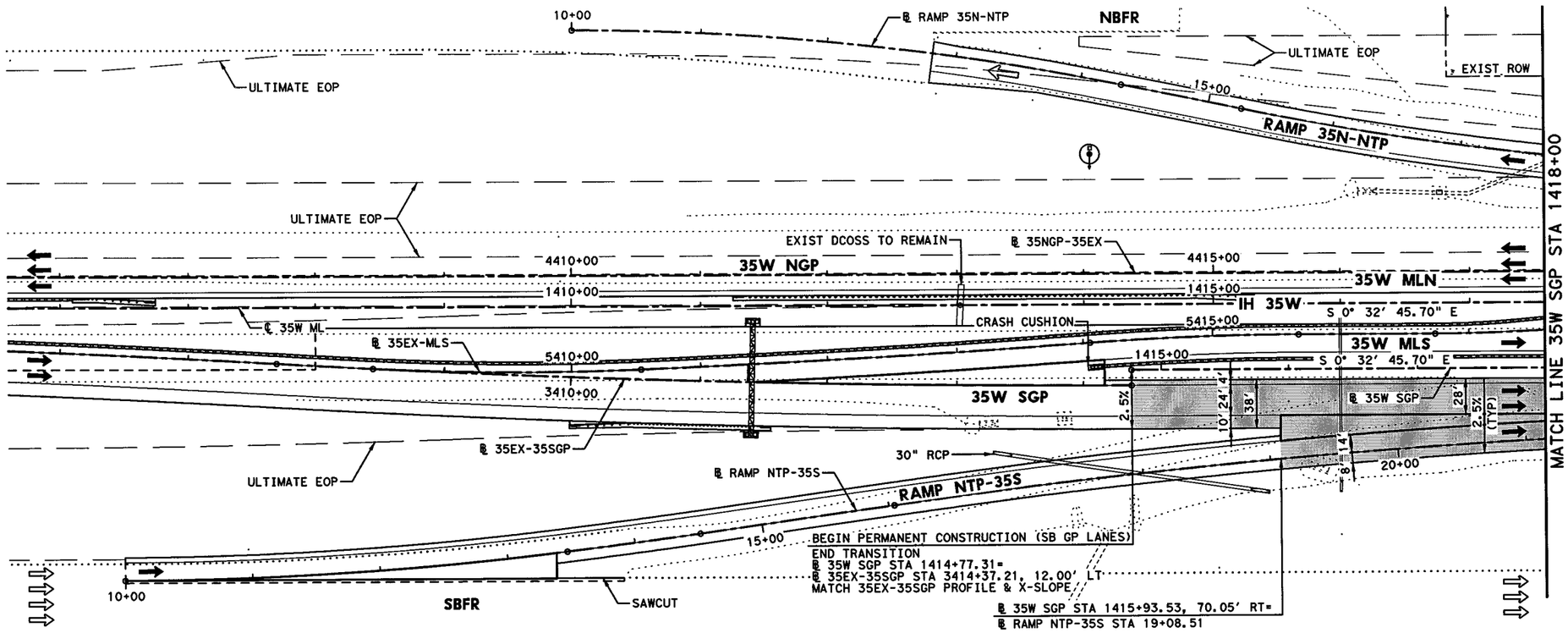
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
GENERAL PURPOSE LANE TRANSITIONS
℄ 35W ML STA 1430+00 TO STA 1440+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 4 OF 4

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	742
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BTRGP04.dgn
DRAWING DATE: 7/13/2012



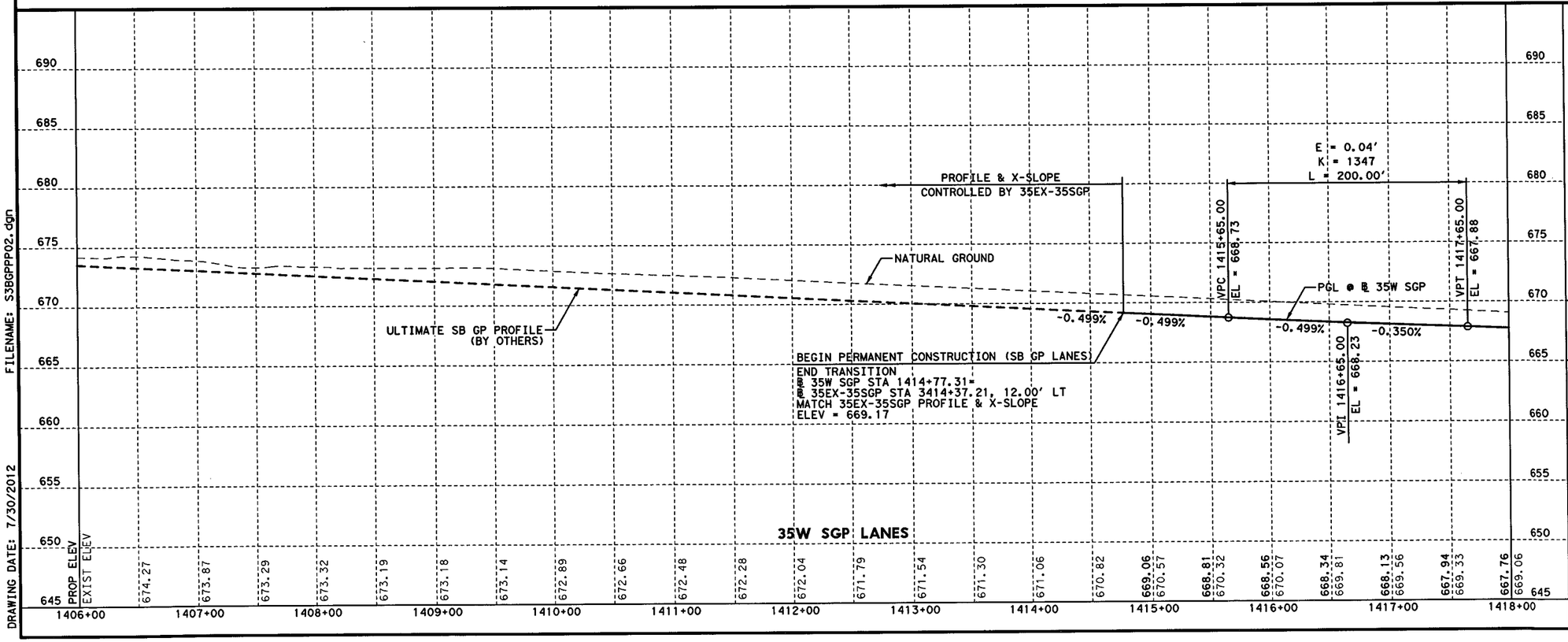
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BGPPP02.dgn
DRAWING DATE: 7/30/2012

KURT W. AUNGST
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LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
7/31/12

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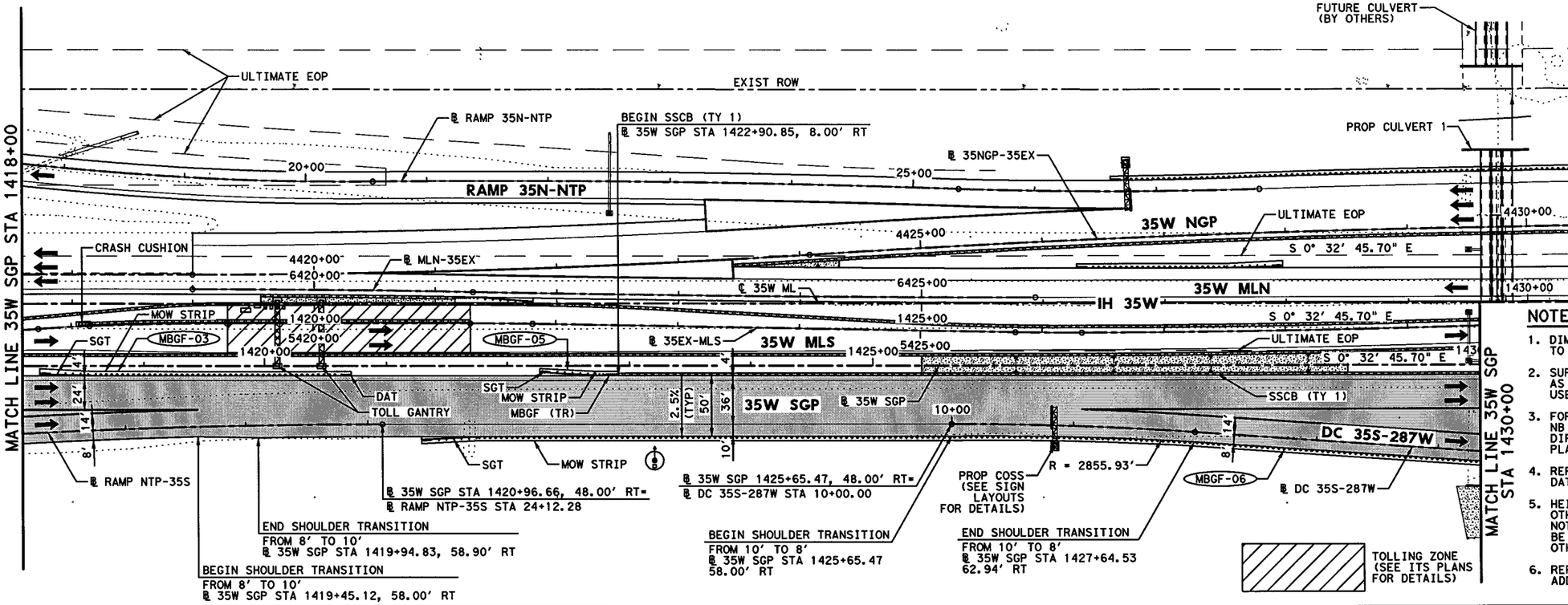
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

IH 35W GENERAL PURPOSE LANES
BEGIN TO STA 1418+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	743
KCI	0014	16	255, ETC.	
CHECK				



NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
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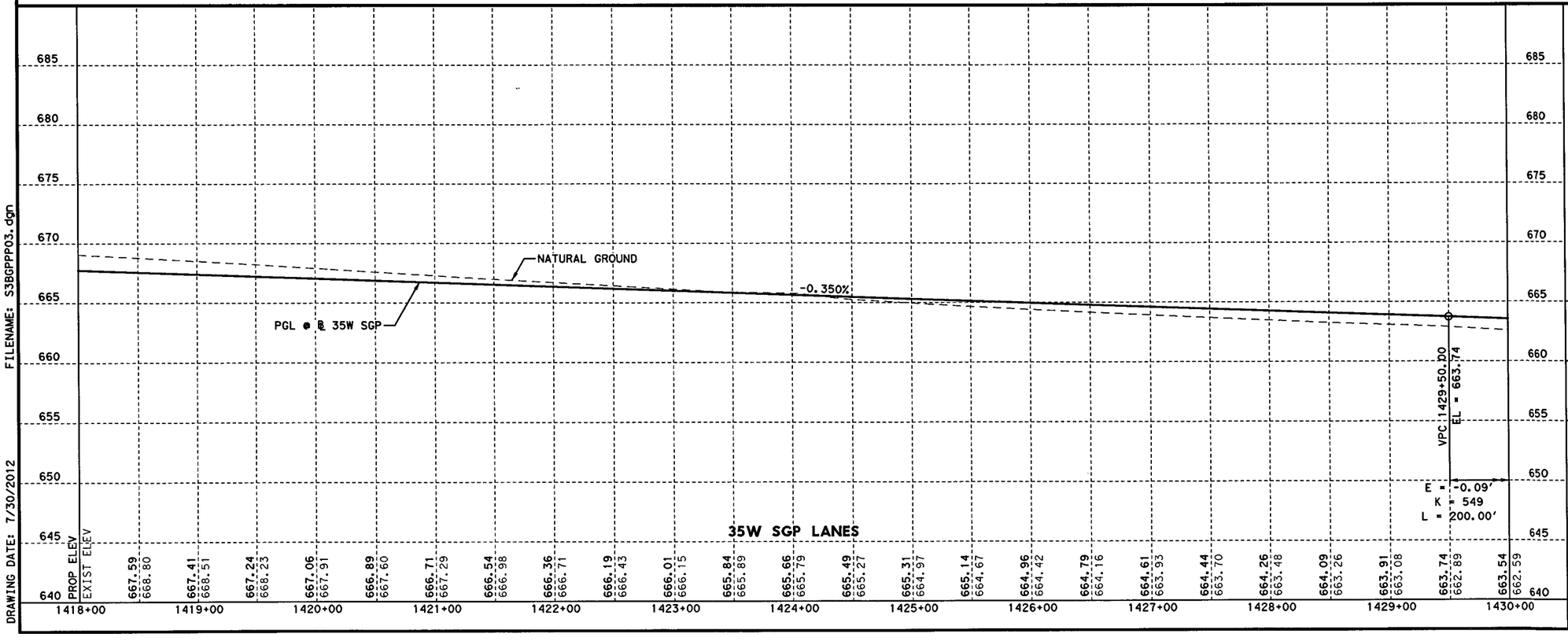

FILENAME: S3BGPPP03.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
KURT W. AUNGST
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

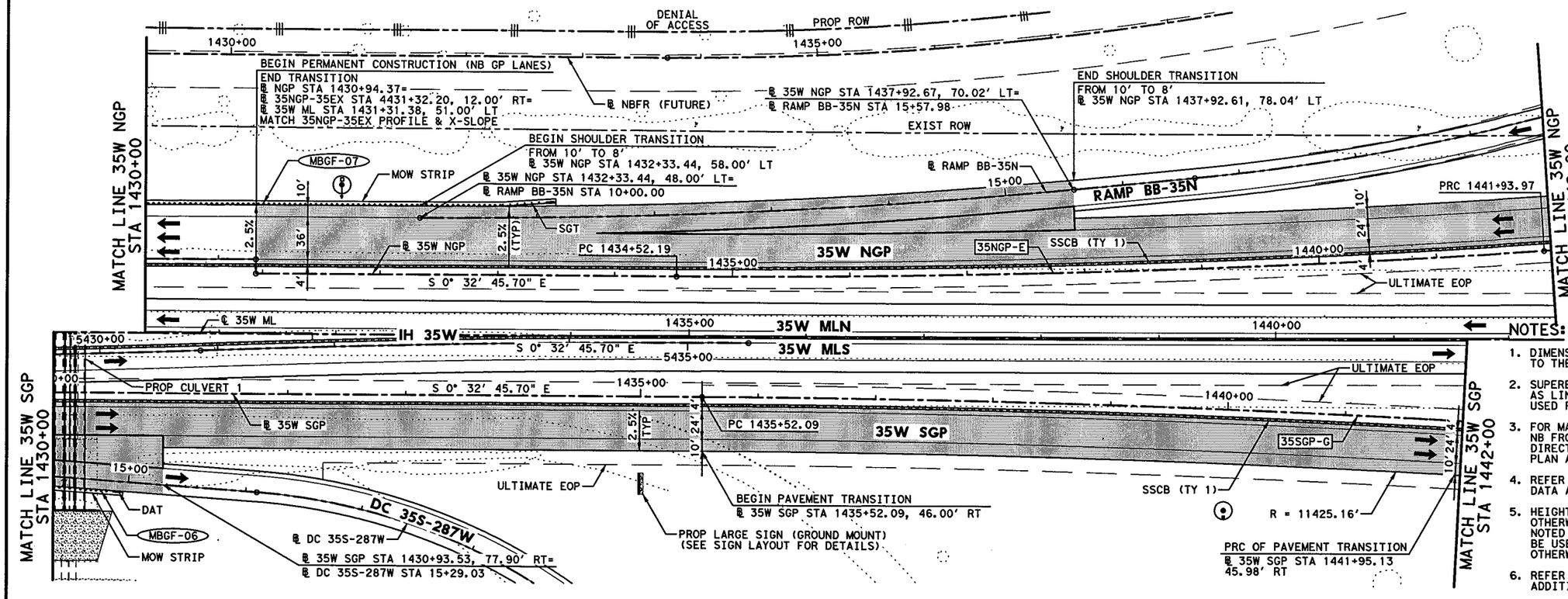
ROADWAY PLAN & PROFILE

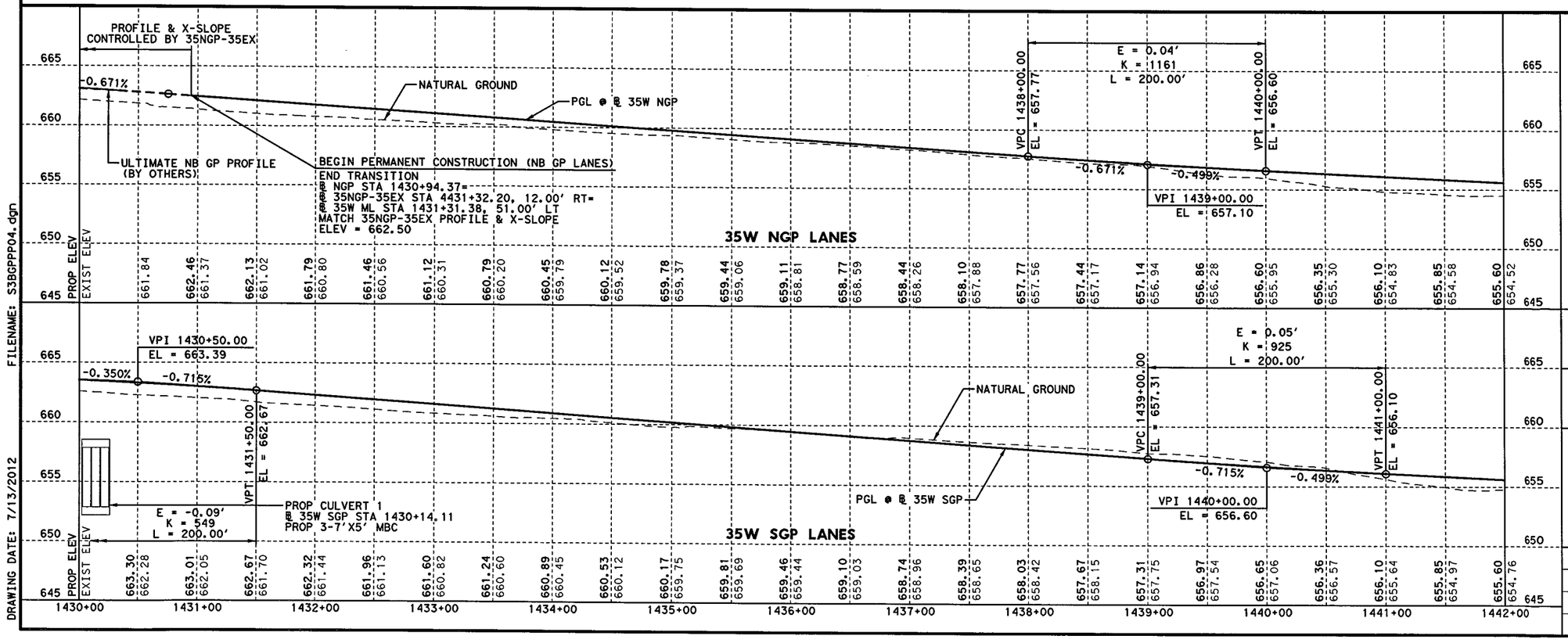
IH 35W GENERAL PURPOSE LANES

STA 1418+00 TO STA 1430+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	744
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	





FILENAME: S3BGPPP04.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

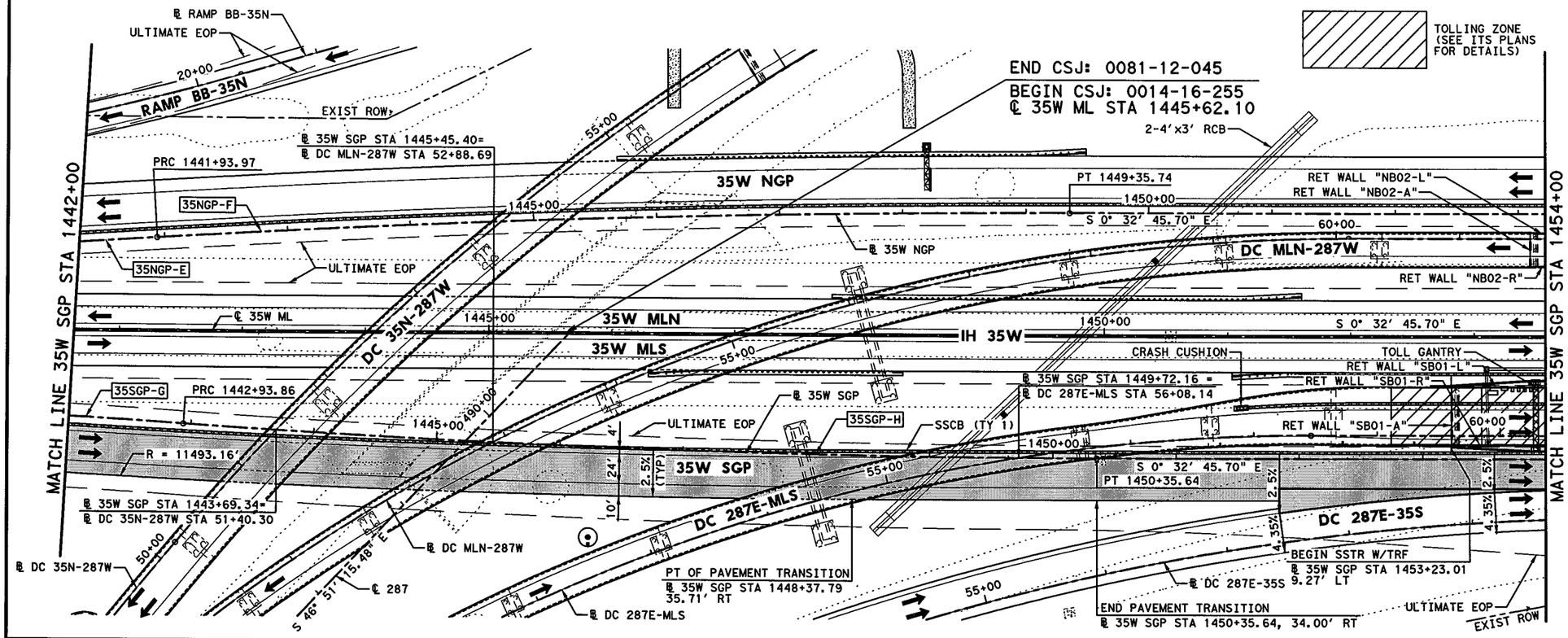
ROADWAY PLAN & PROFILE

IH 35W GENERAL PURPOSE LANES

STA 1430+00 TO STA 1442+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 3 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	745
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
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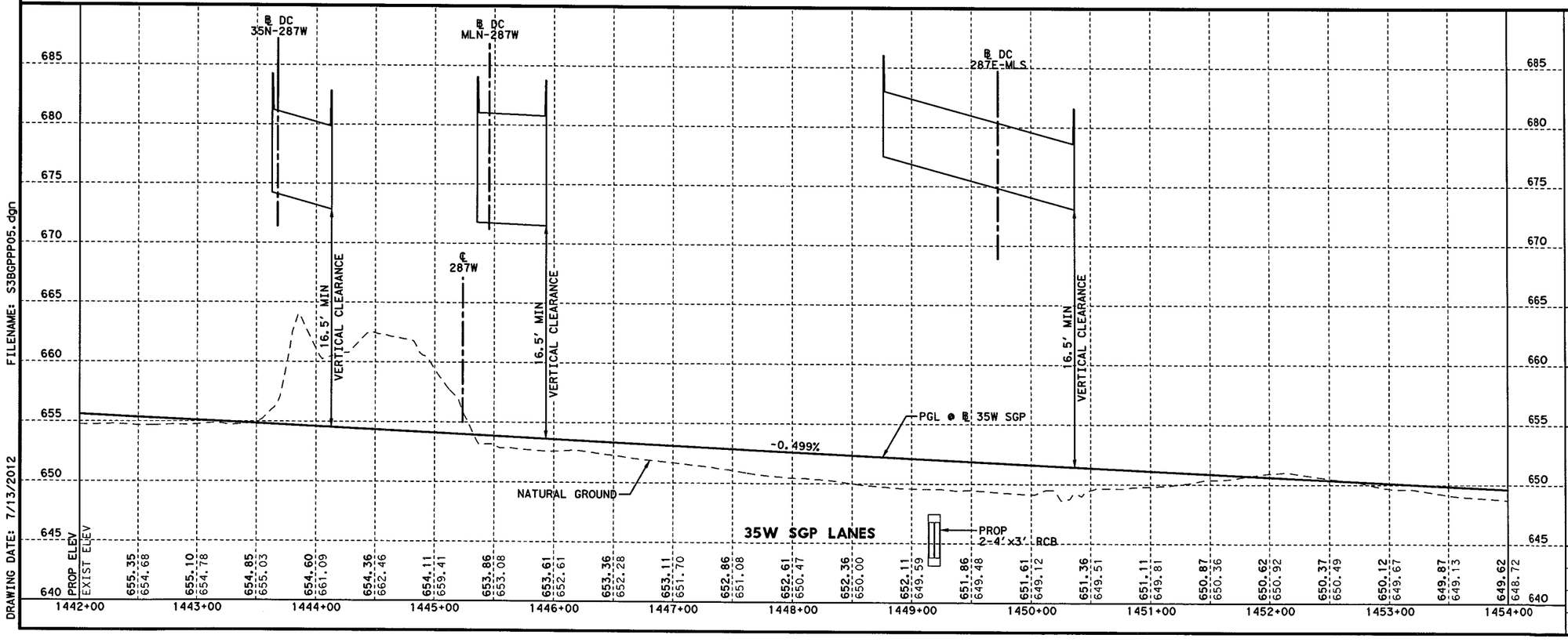

FILENAME: S3BGPPP05.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
90848
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7/11/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

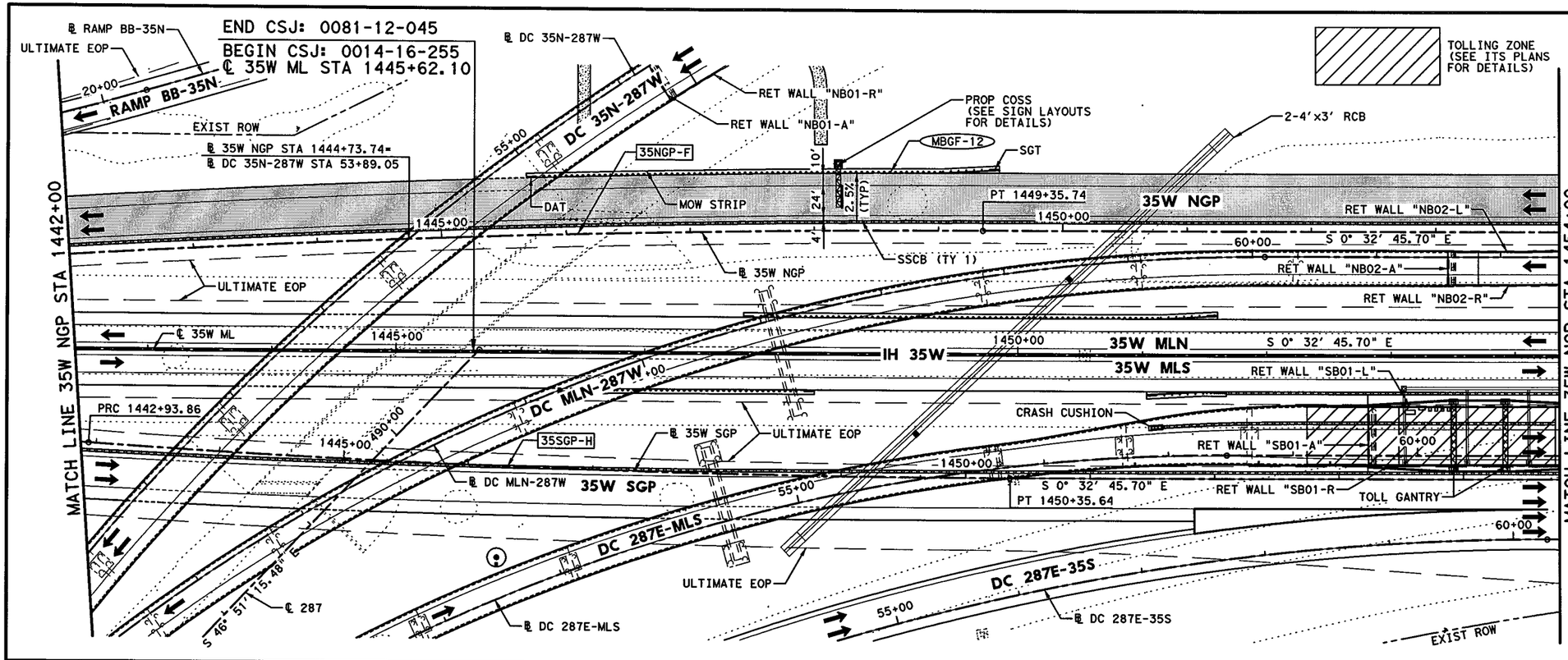
ROADWAY PLAN & PROFILE

IH 35W GENERAL PURPOSE LANES

STA 1442+00 TO STA 1454+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 4 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	746
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				



LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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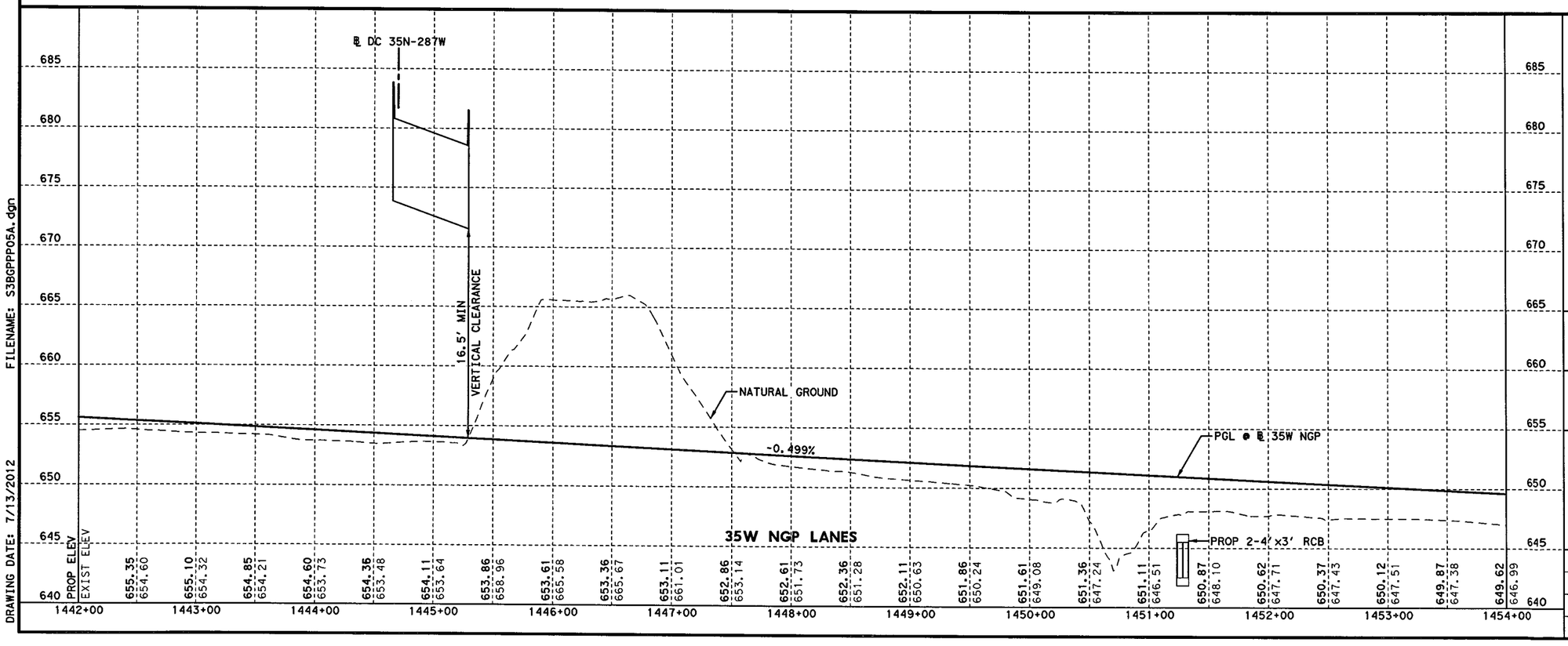

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/11/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

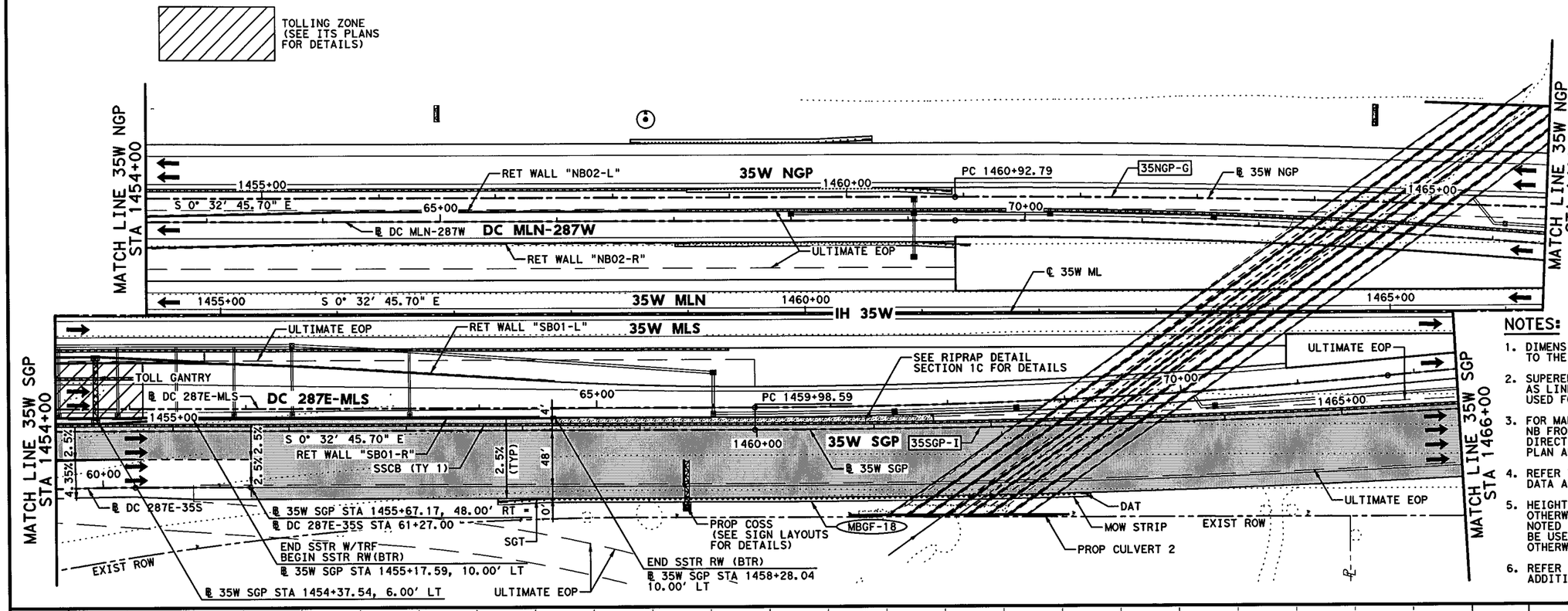
IH 35W GENERAL PURPOSE LANES

STA 1442+00 TO STA 1454+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 5 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	747
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BGPPP05A.dgn
DRAWING DATE: 7/13/2012



NOTES:

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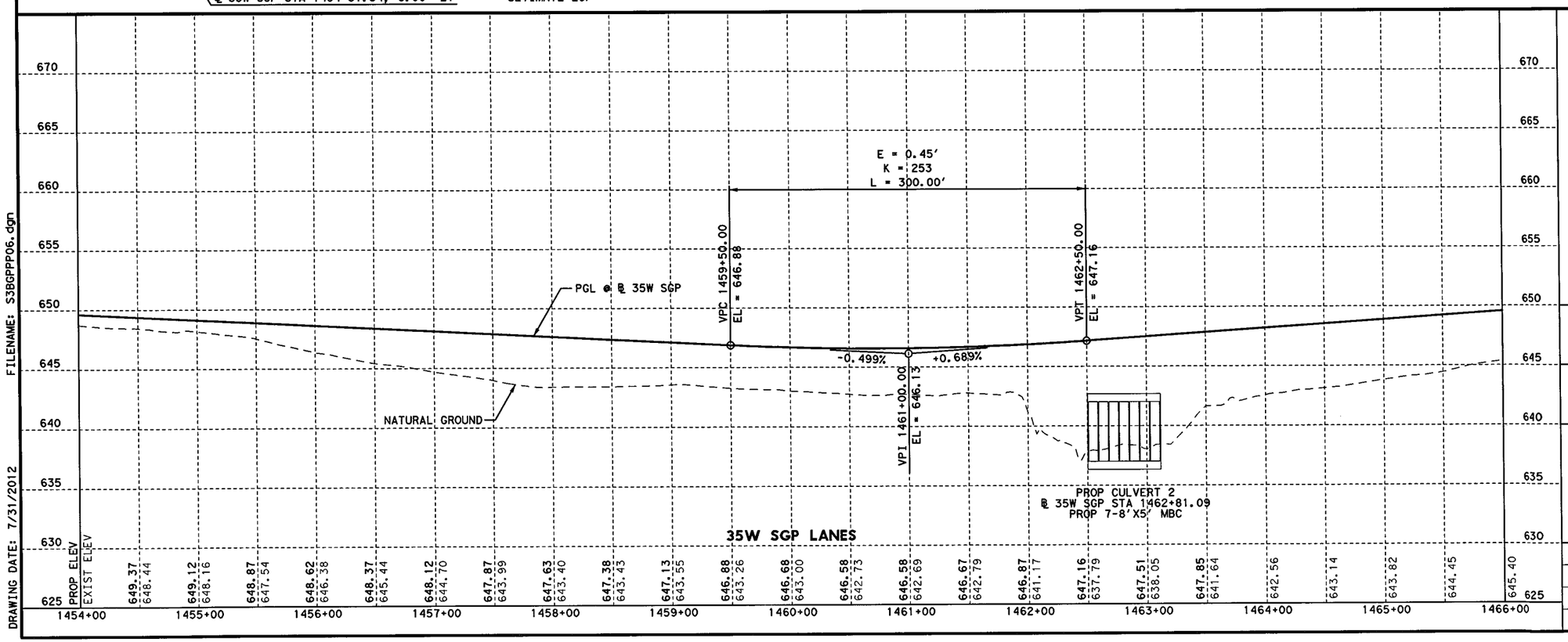

FILENAME: S3BGPPP06.dgn

DRAWING DATE: 7/31/2012

STATE OF TEXAS
KURT W. AUNGST
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PROFESSIONAL ENGINEER

7/31/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

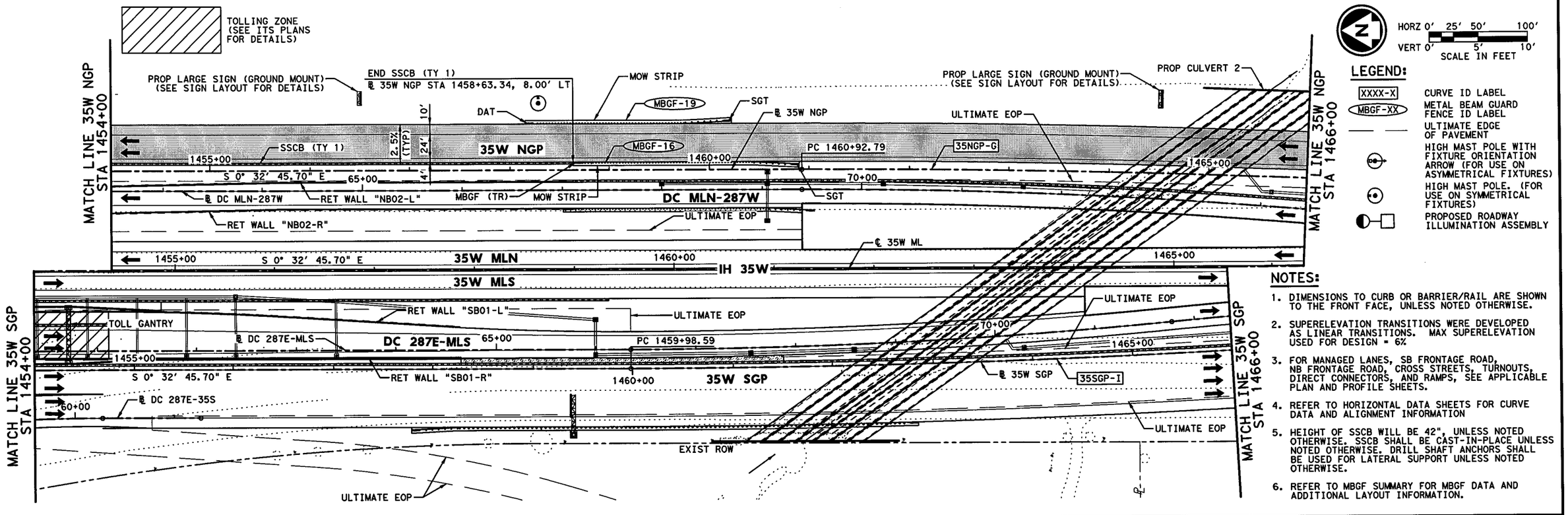
IH 35W GENERAL PURPOSE LANES

STA 1454+00 TO STA 1466+00

SCALE: 1" = 100' H, 1" = 10' V

SHEET 6 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	748
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	



NOTES:

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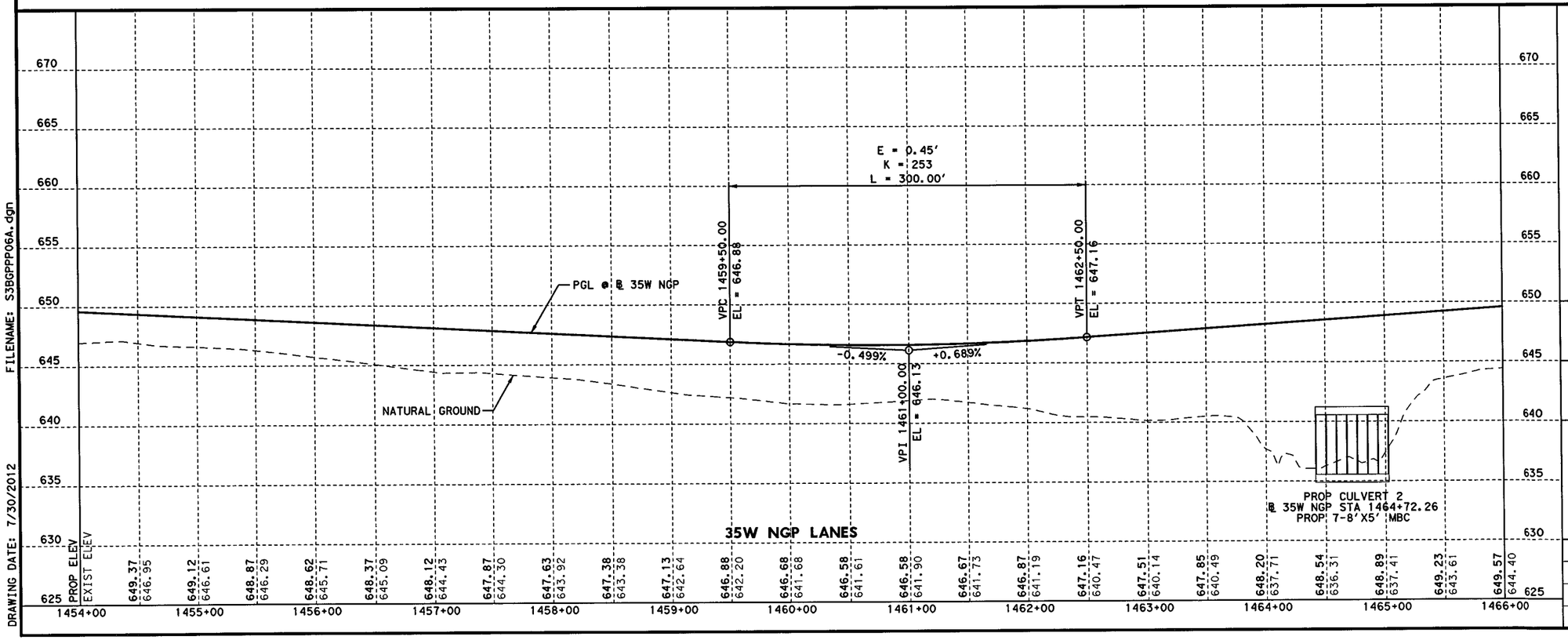

FILENAME: S3BGPPP06A.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

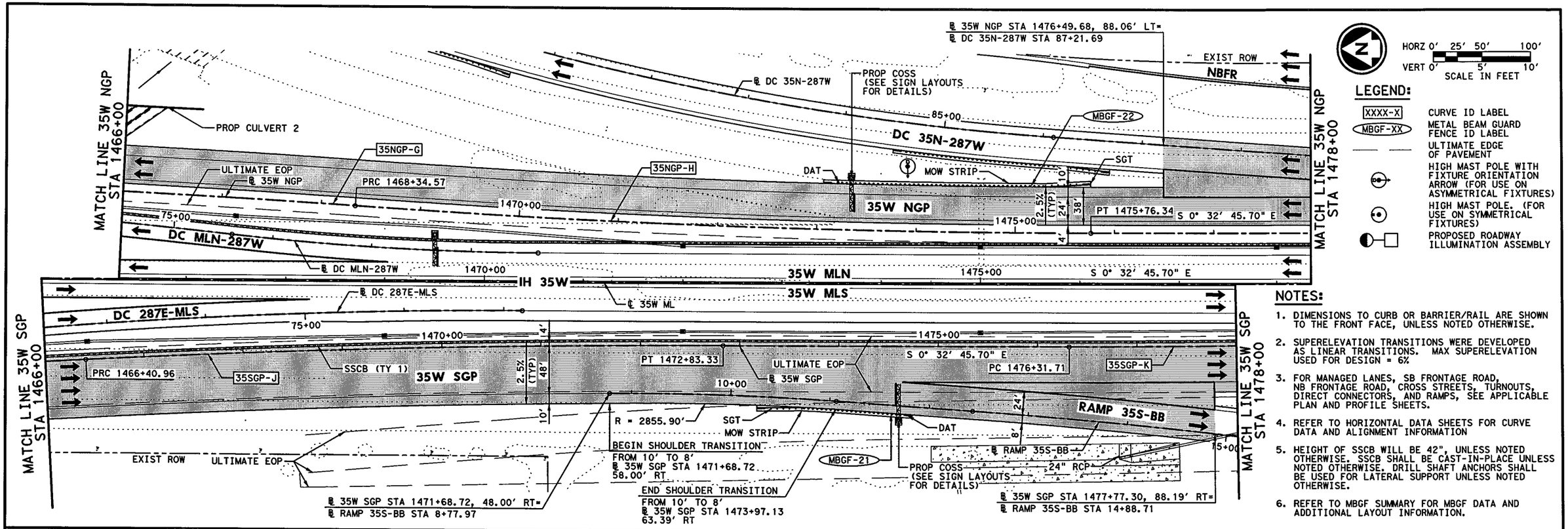
ROADWAY PLAN & PROFILE

IH 35W GENERAL PURPOSE LANES

STA 1454+00 TO STA 1466+00

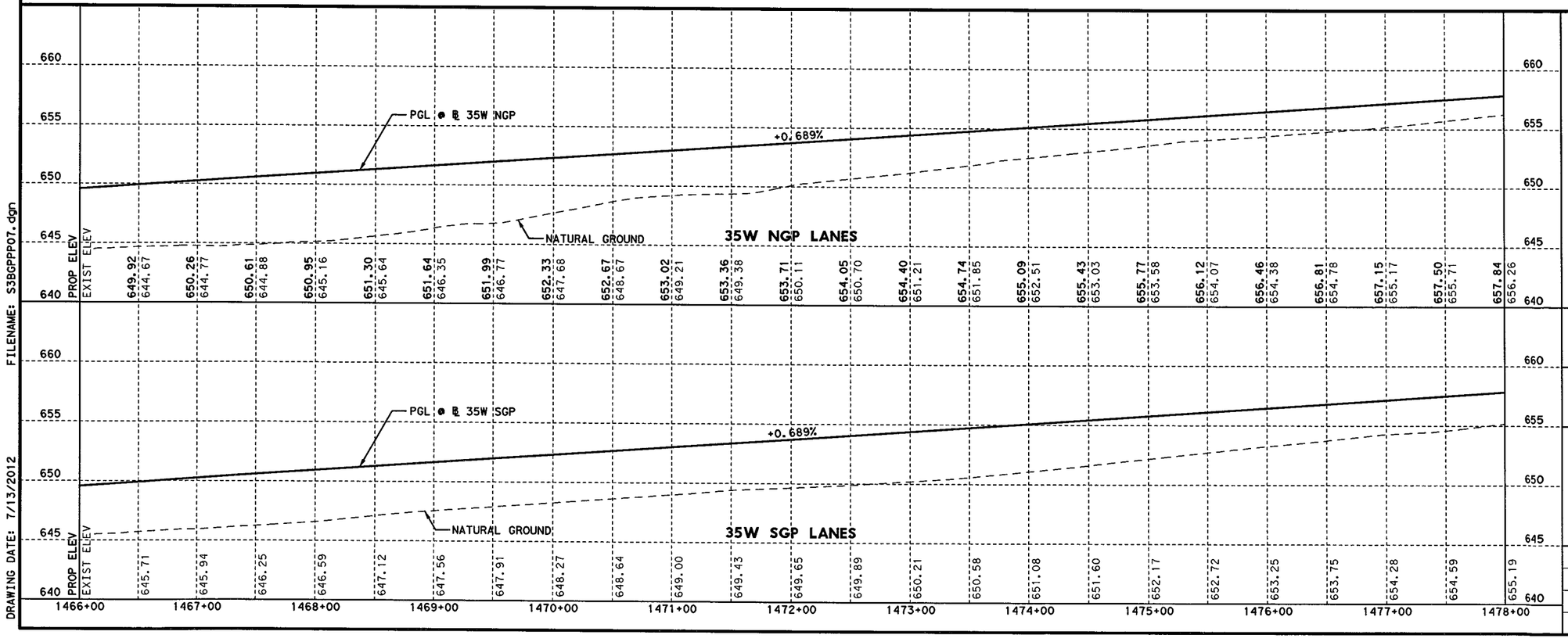
SCALE: 1" = 100' H, 1" = 10' V — SHEET 7 OF 22

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	749
KCI	0014	16	255, ETC.	



NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

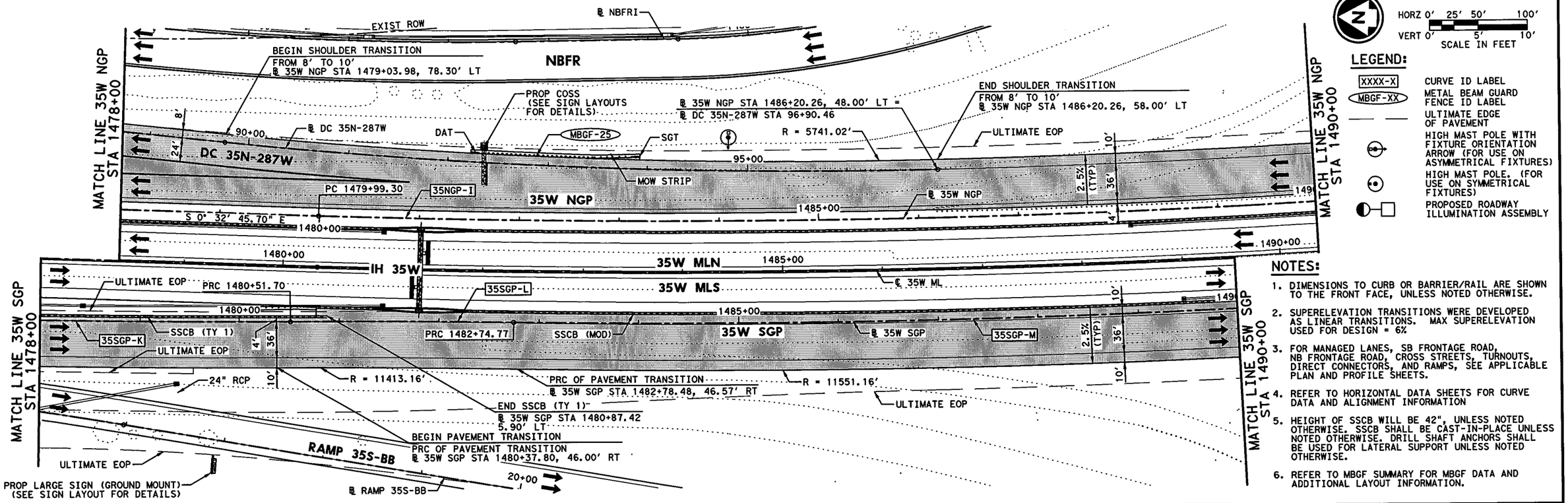
IH 35W GENERAL PURPOSE LANES

STA 1466+00 TO STA 1478+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 8 OF 22

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	750
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BGPPP07.dgn
DRAWING DATE: 7/13/2012



NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
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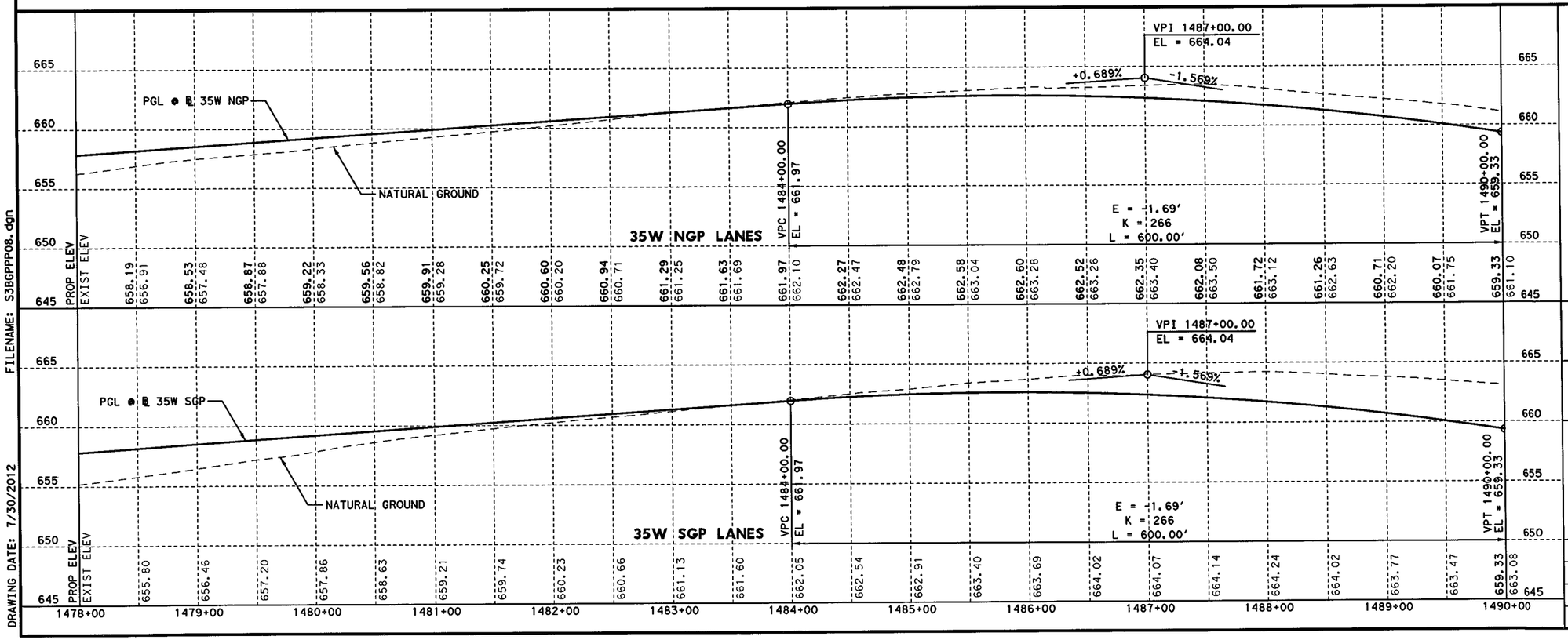

FILENAME: S3BGPPP08.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/31/12

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TBPE REGISTRATION NO. F-926

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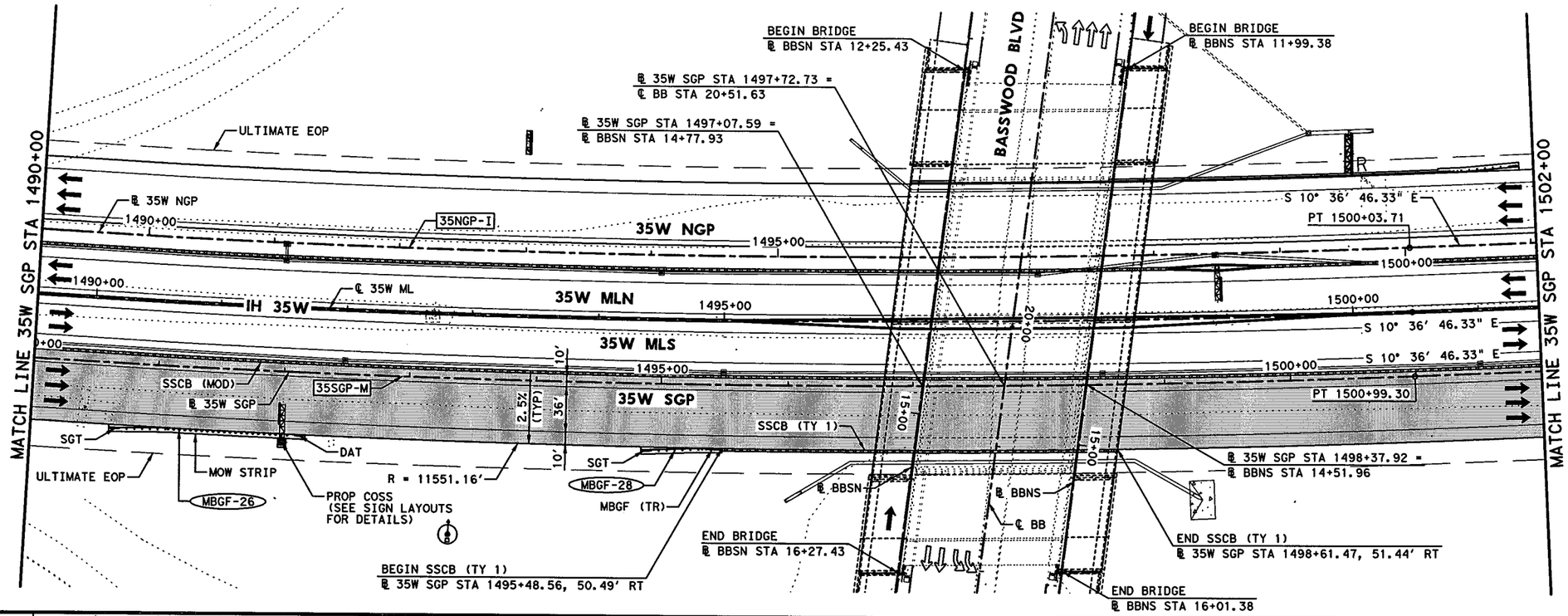
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W GENERAL PURPOSE LANES
STA 1478+00 TO STA 1490+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 9 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	751
KCI	0014	16	255, ETC.	



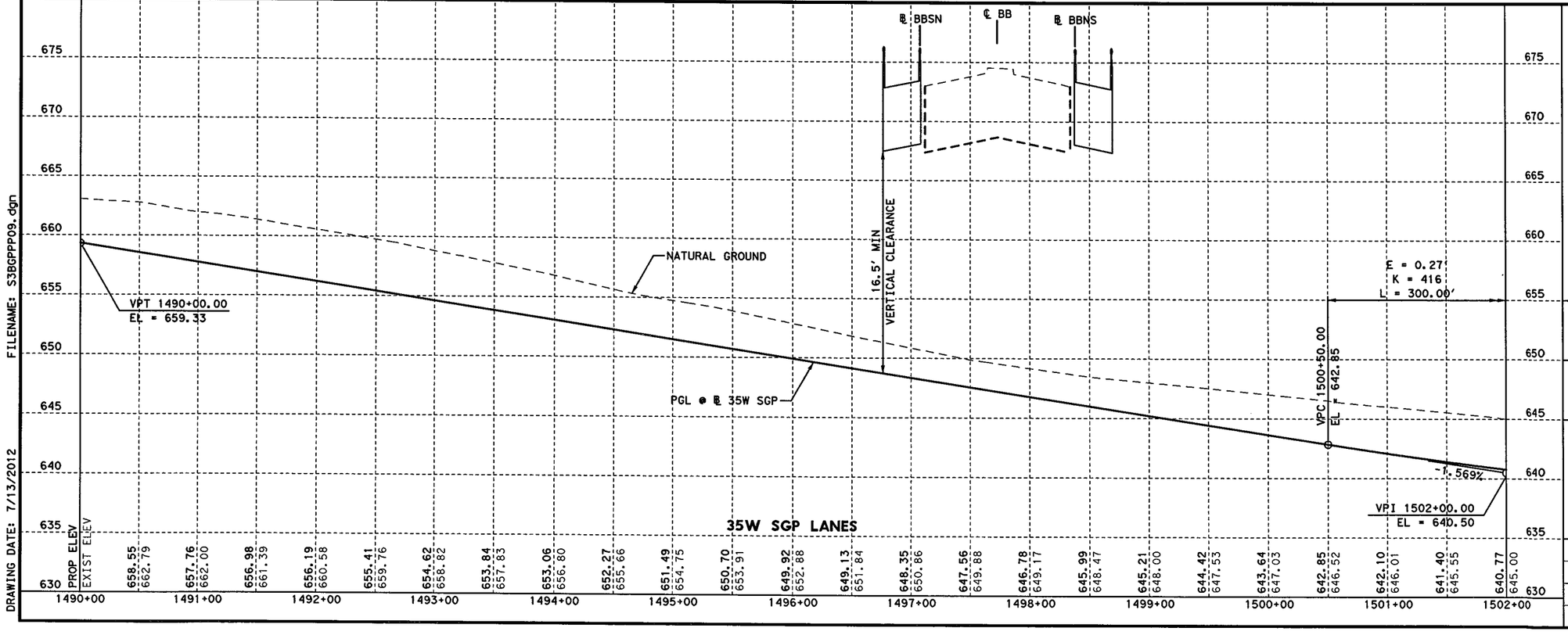
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BGPPP09.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/11/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

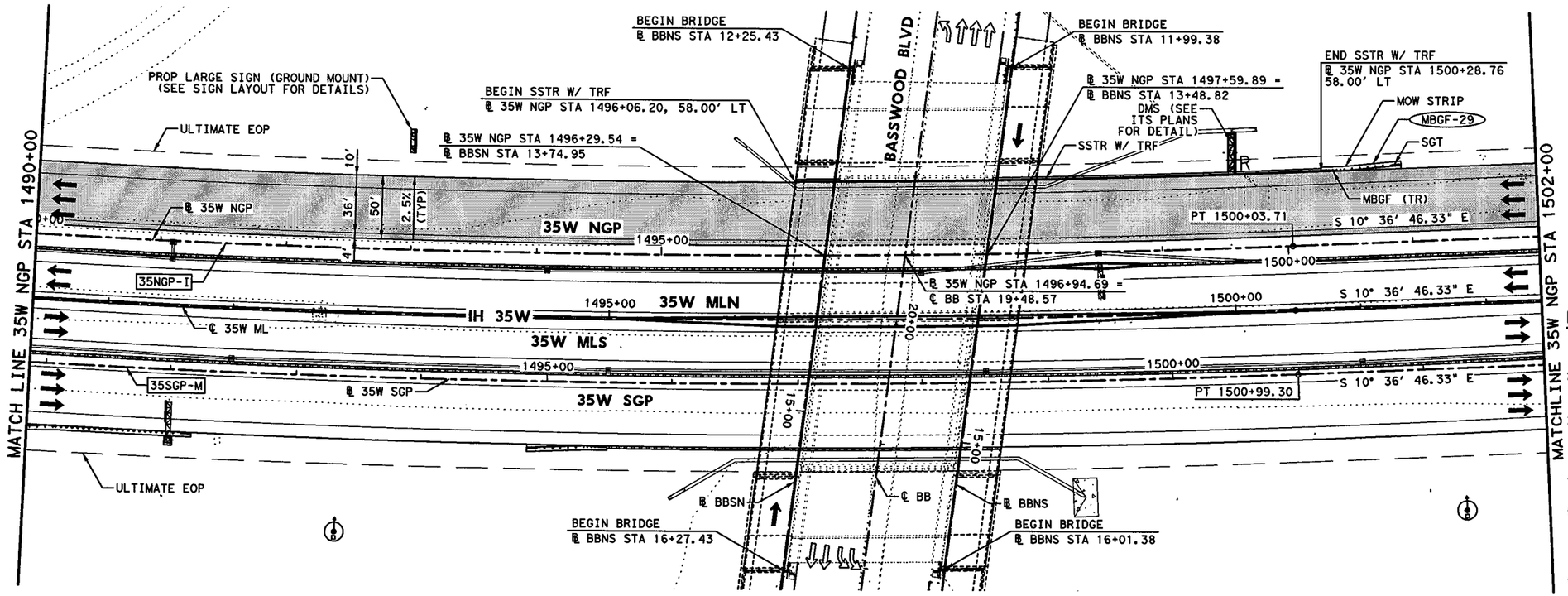
ROADWAY PLAN & PROFILE

IH 35W GENERAL PURPOSE LANES

STA 1490+00 TO STA 1502+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 10 OF 22

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	752
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
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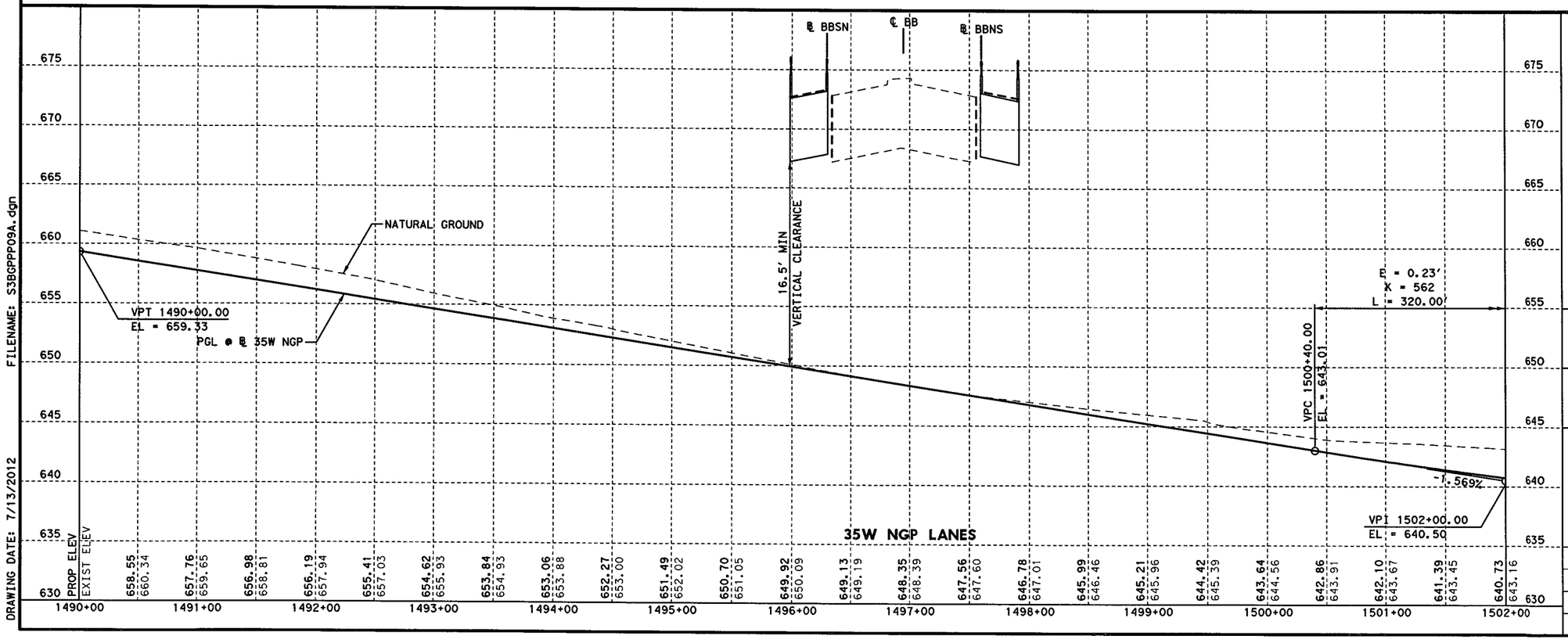

STATE OF TEXAS
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7/11/12

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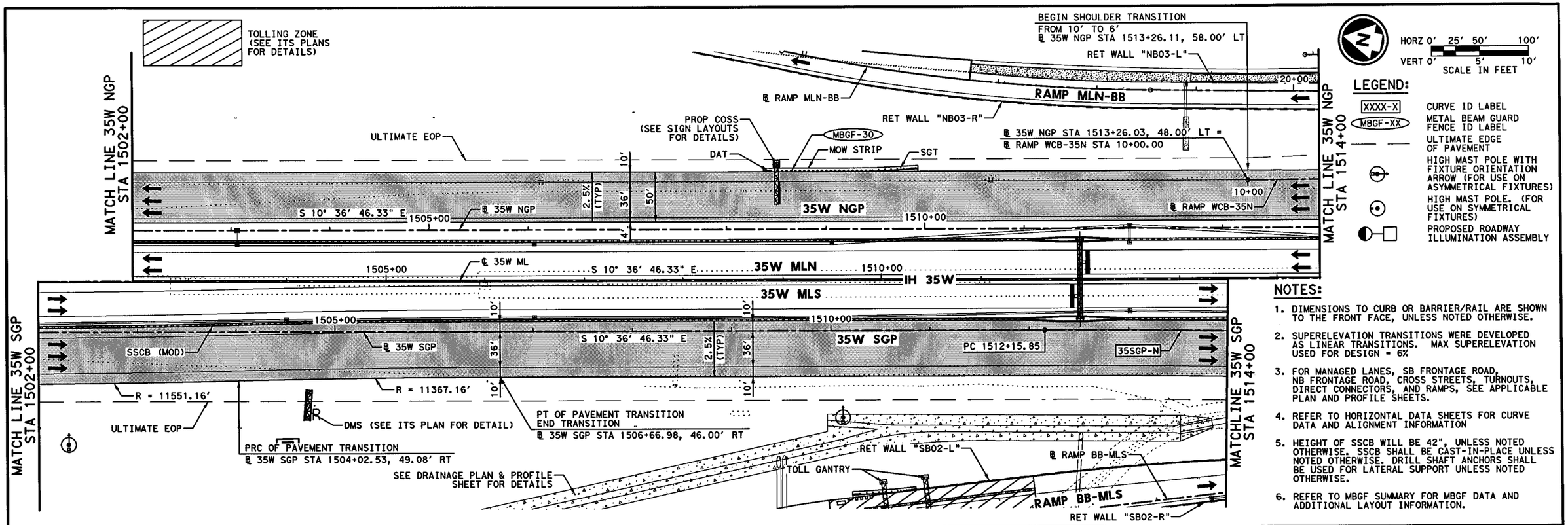
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W GENERAL PURPOSE LANES
STA 1490+00 TO STA 1502+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 11 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	753
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BGPPP09A.dgn
DRAWING DATE: 7/13/2012



NOTES:

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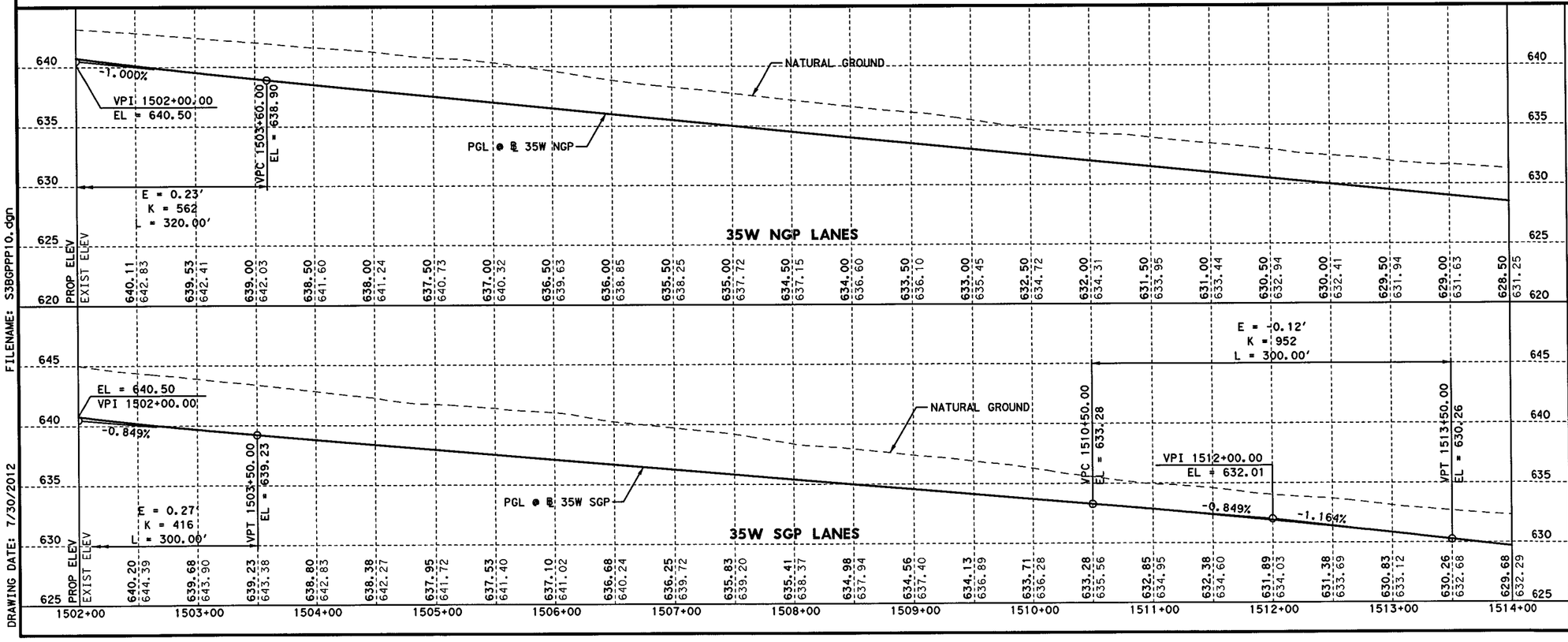

FILENAME: S3BGPPP10.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
KURT W. AUNGST
90848
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PROFESSIONAL ENGINEER
7/31/12

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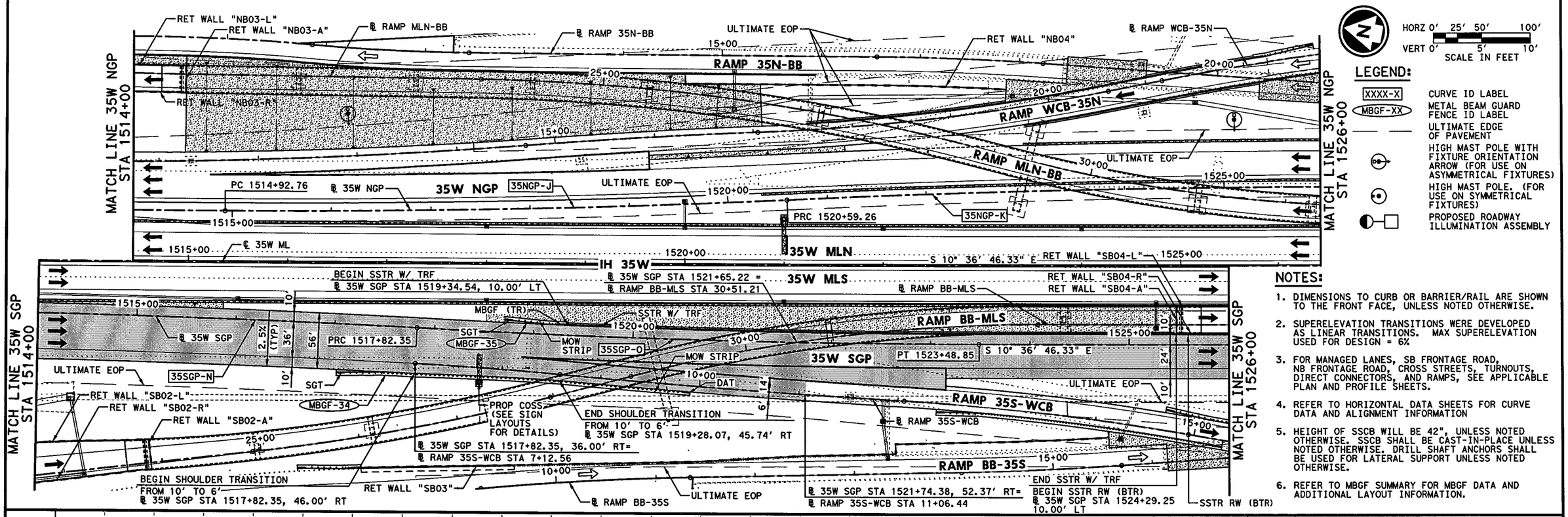
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W GENERAL PURPOSE LANES
STA 1502+00 TO STA 1514+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 12 OF 22

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	754
KCI	0014	16	255, ETC.	
CHECK				



LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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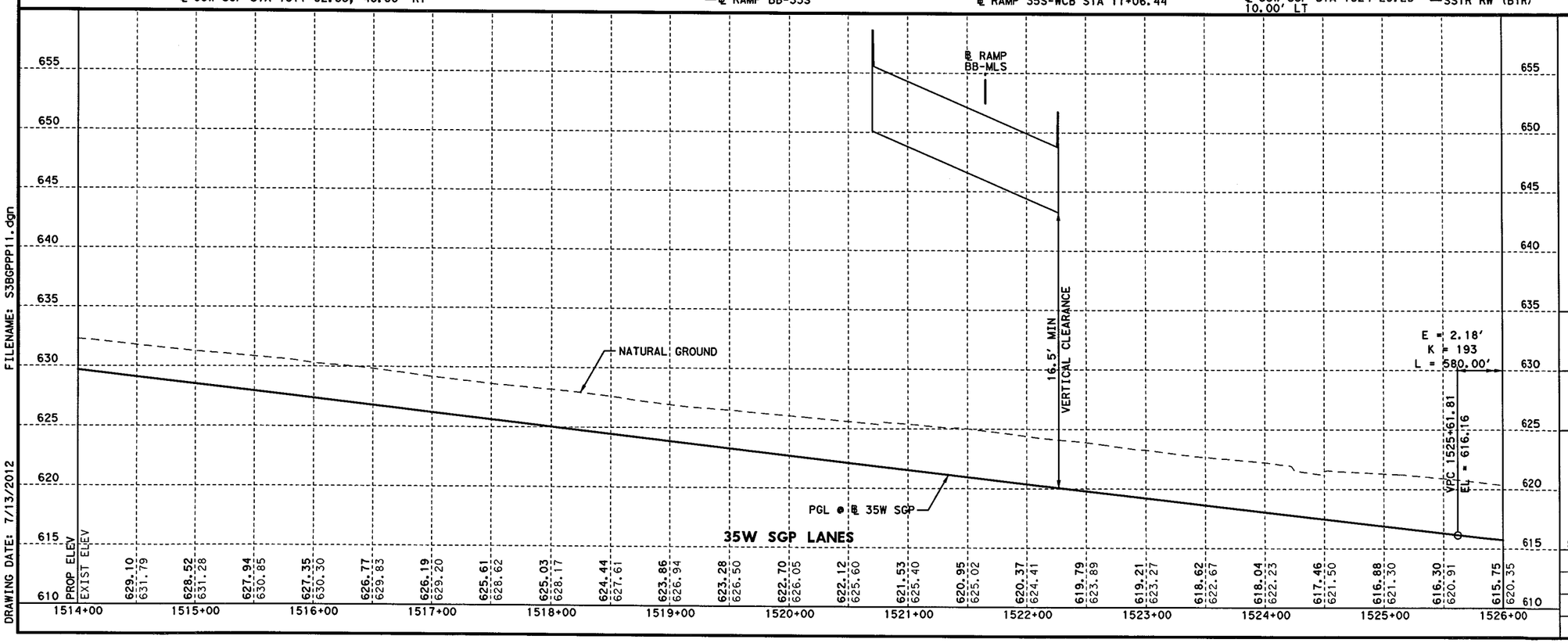

STATE OF TEXAS
KURT W. AUNGST
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LICENSED
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7/11/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

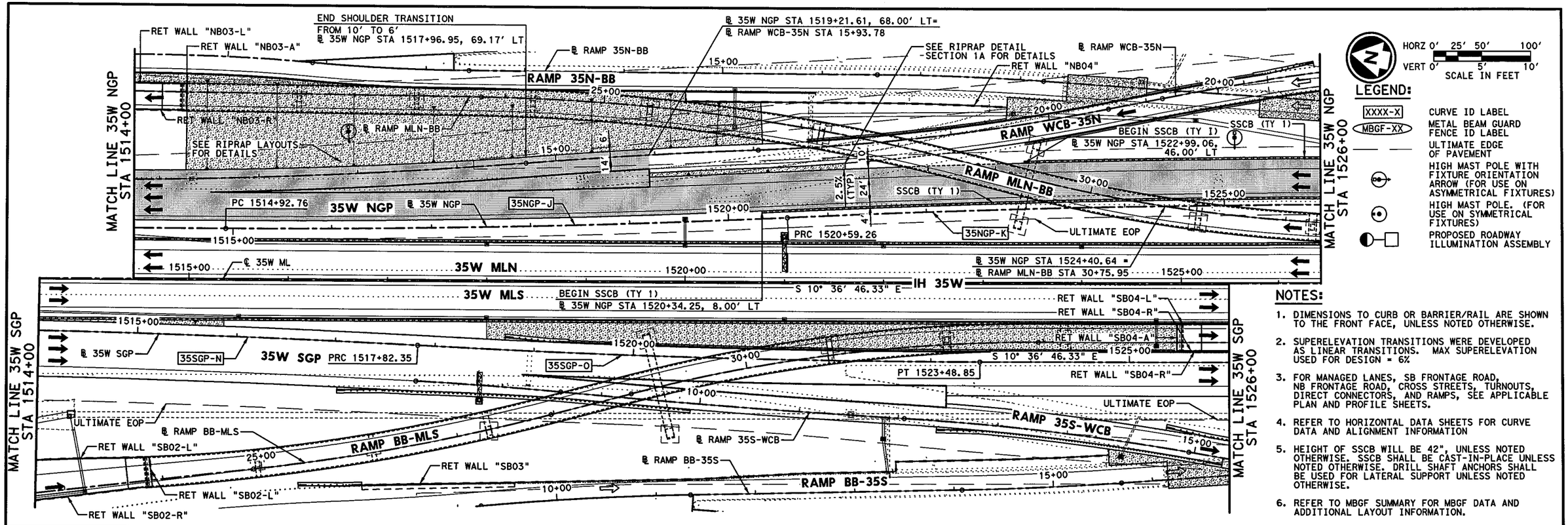
ROADWAY PLAN & PROFILE

IH 35W GENERAL PURPOSE LANES STA 1514+00 TO STA 1526+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 13 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	755
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BGPPP11.dgn
DRAWING DATE: 7/13/2012



NOTES:

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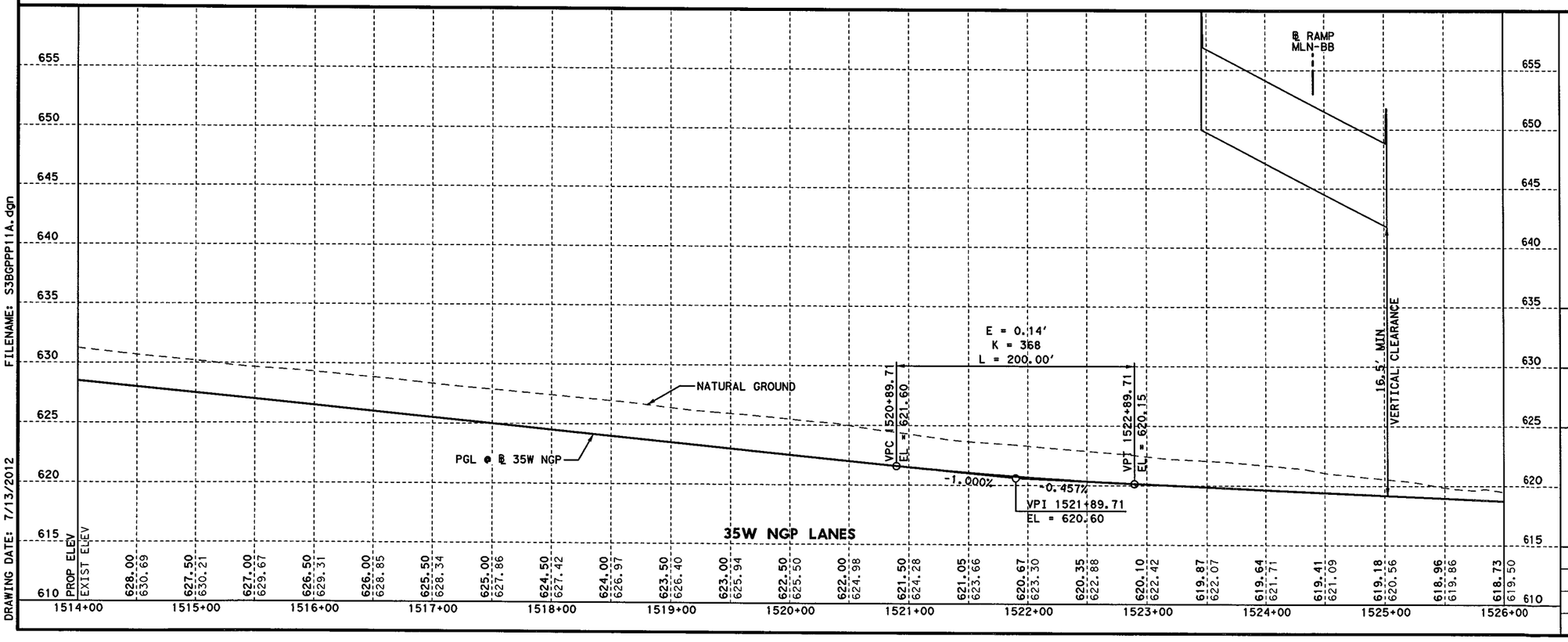

FILENAME: S3BGPPP11A.dgn
DRAWING DATE: 7/13/2012

KURT W. AUNGST 90848 LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
7/11/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

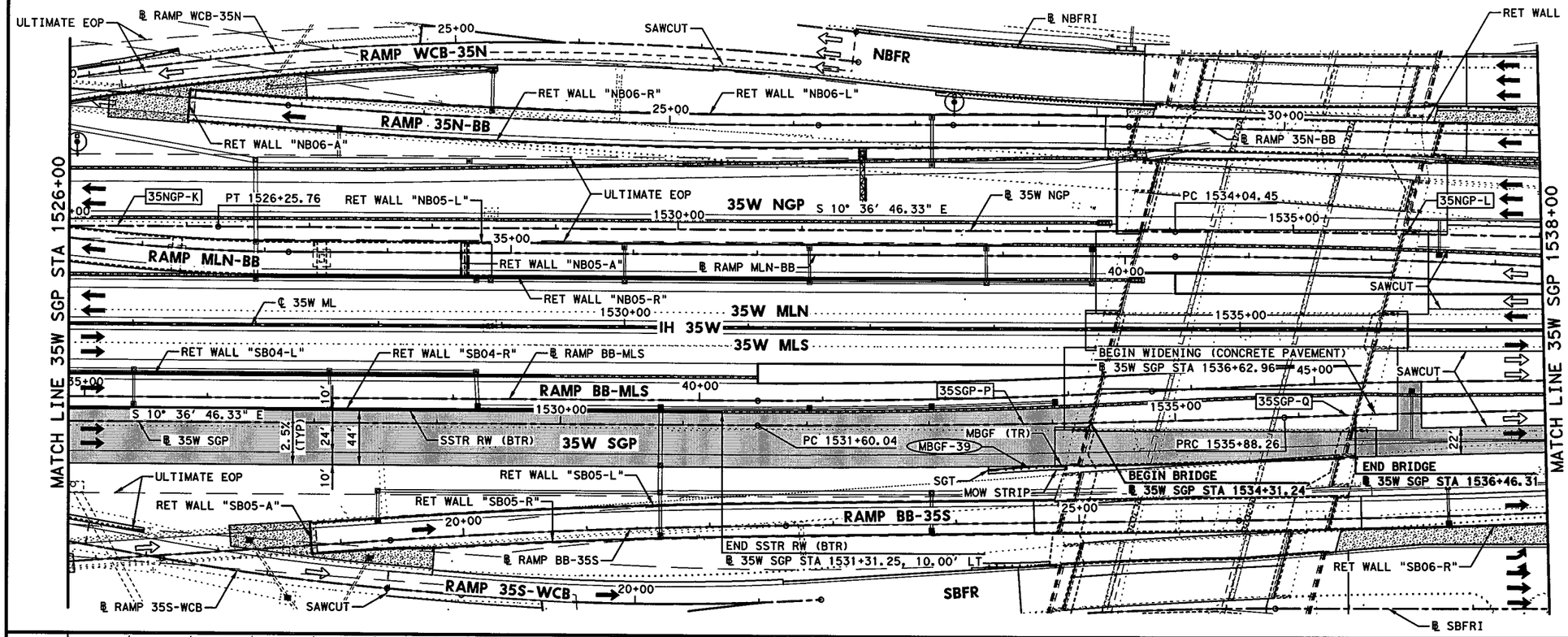
ROADWAY PLAN & PROFILE

IH 35W GENERAL PURPOSE LANES

STA 1514+00 TO STA 1526+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 14 OF 22

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	756
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				



NOTES:

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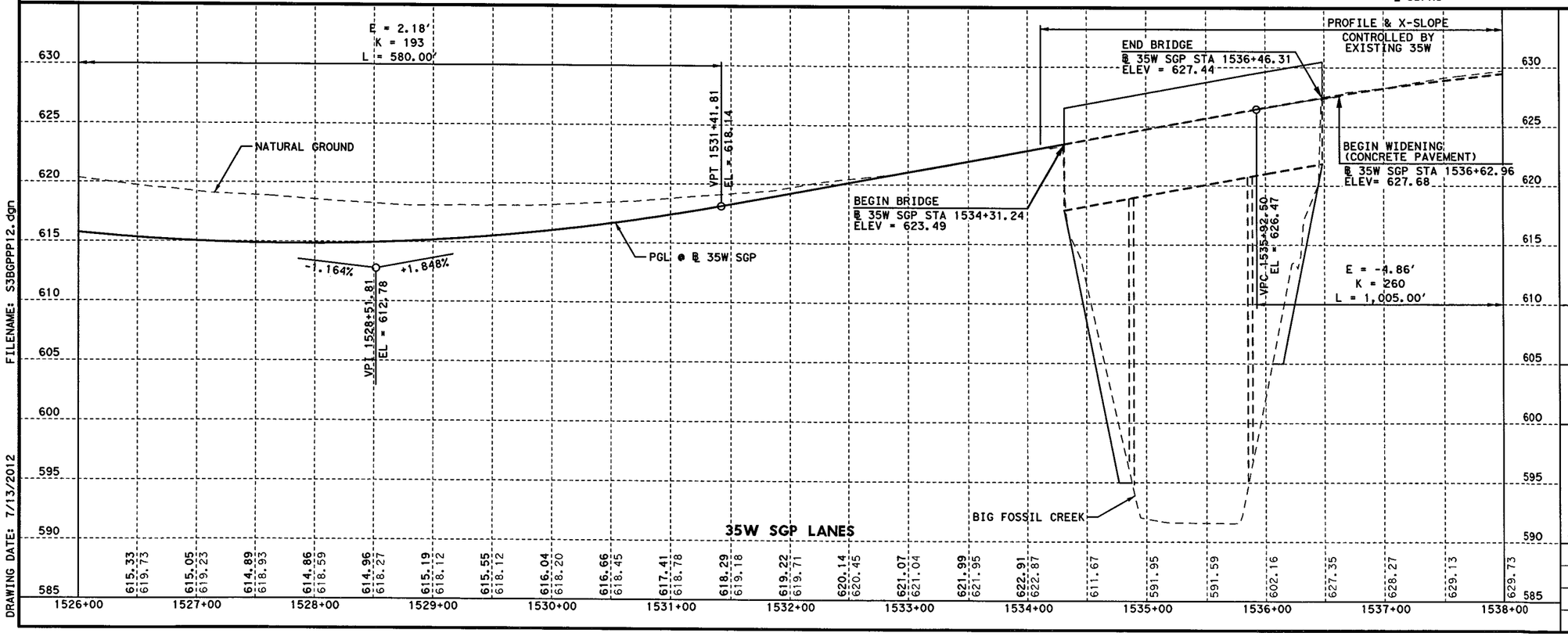

STATE OF TEXAS
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

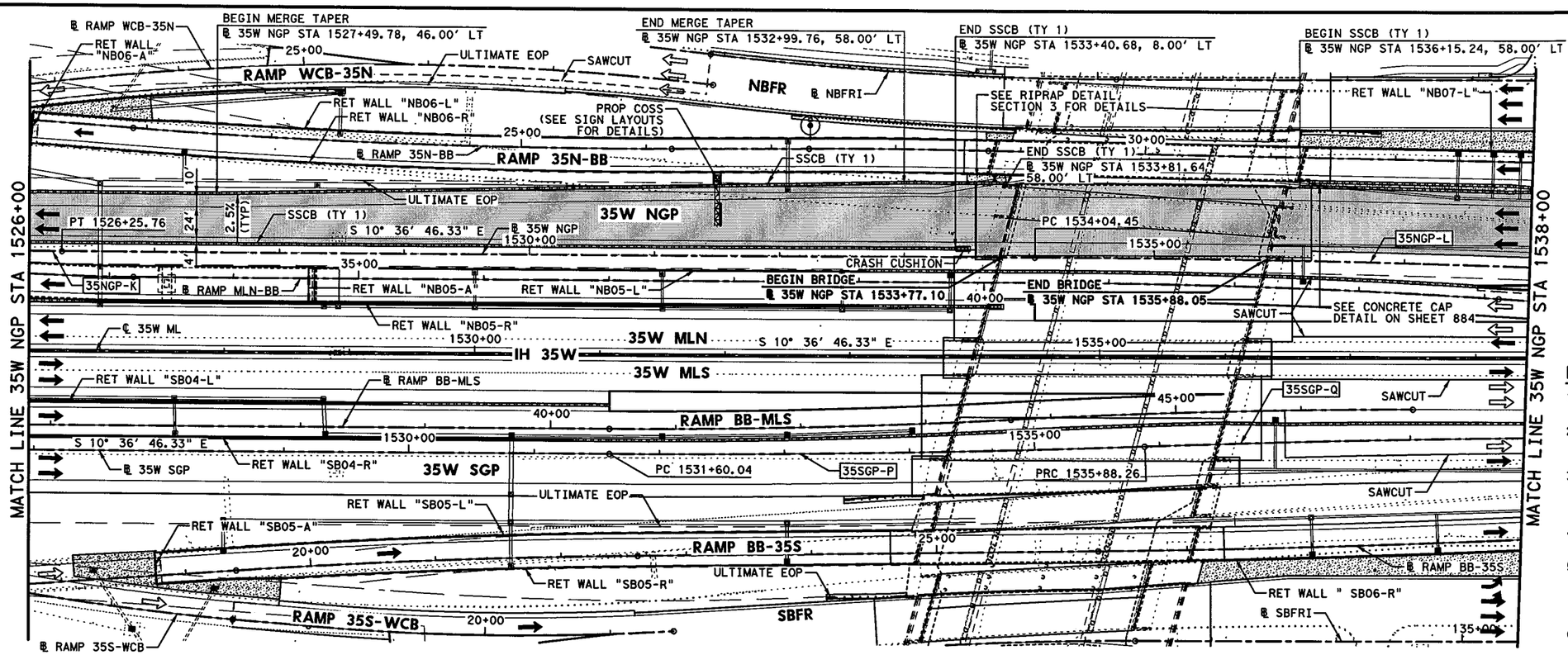
IH 35W GENERAL PURPOSE LANES

STA 1526+00 TO STA 1538+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 15 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	757
KCI	0014	16	255, ETC.	

FILENAME: S3BGPPP12.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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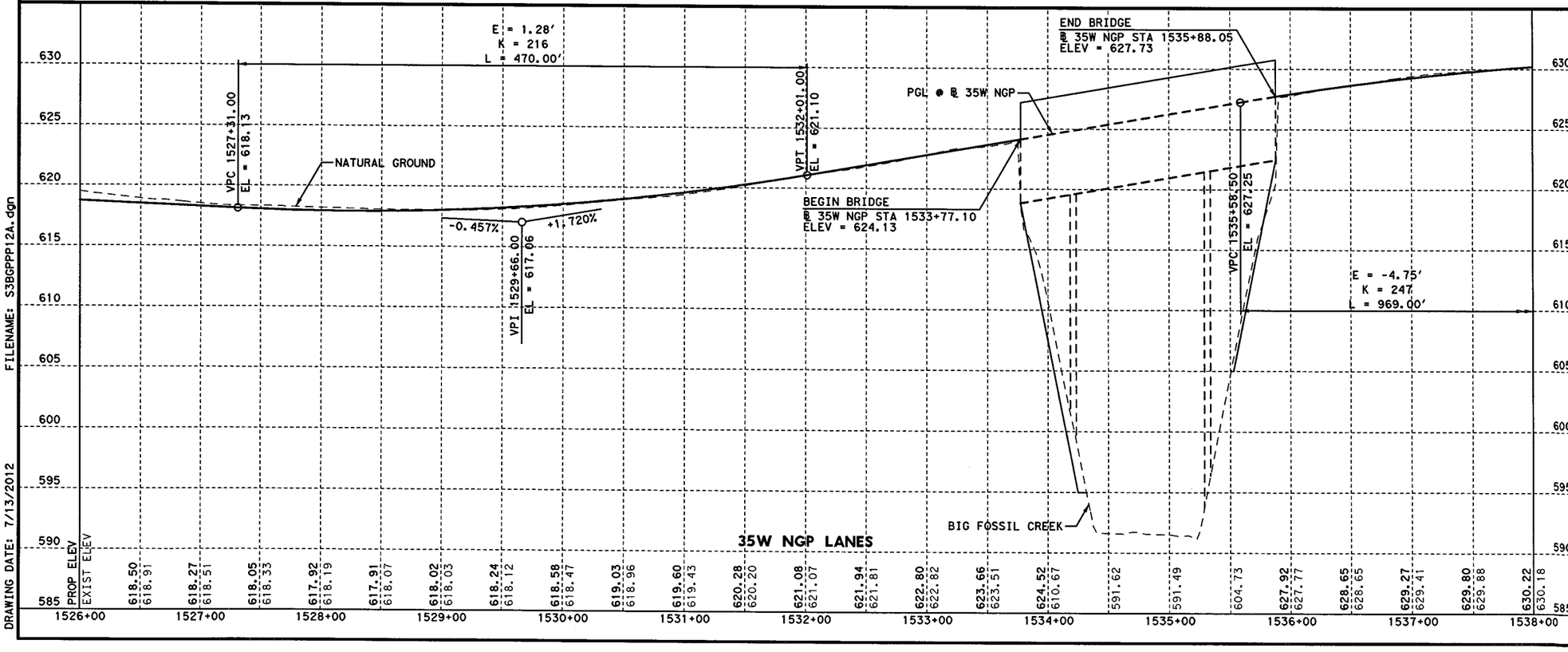

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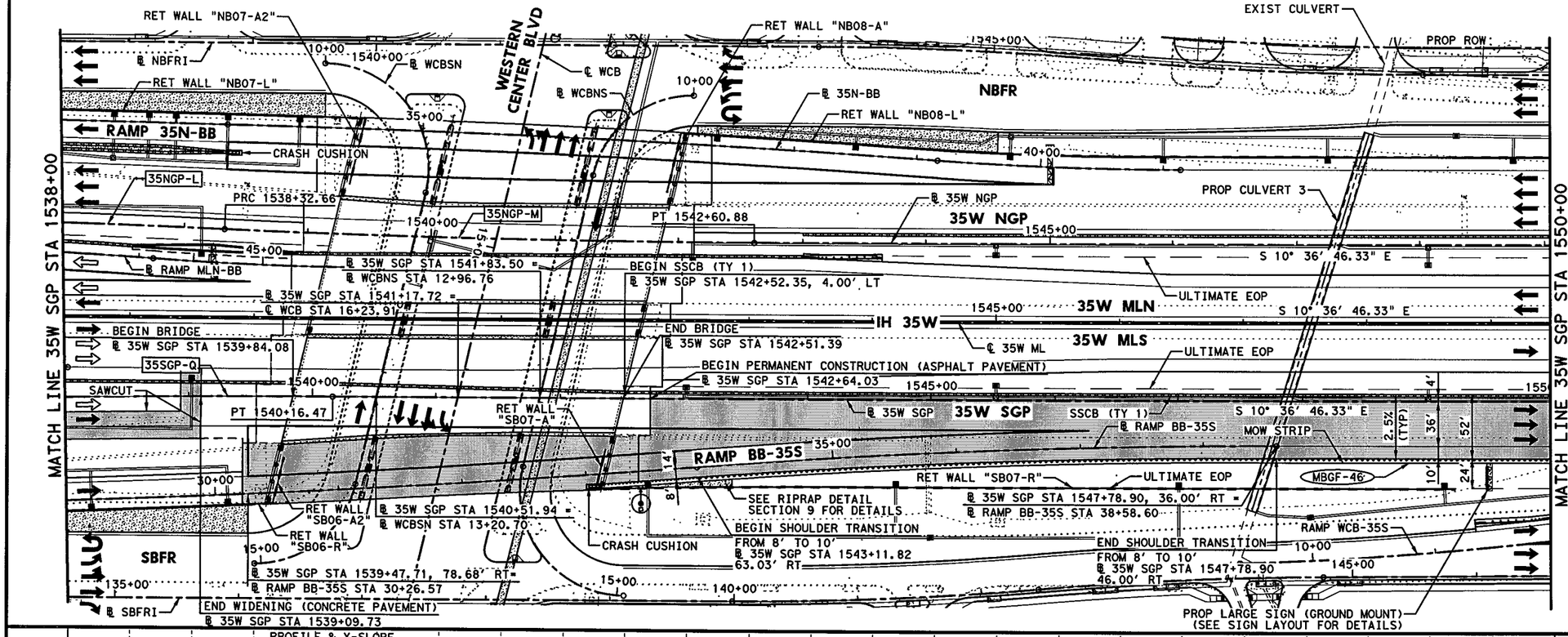
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W GENERAL PURPOSE LANES
STA 1526+00 TO STA 1538+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 16 OF 22

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	758
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BGPPP12A.dgn
DRAWING DATE: 7/13/2012



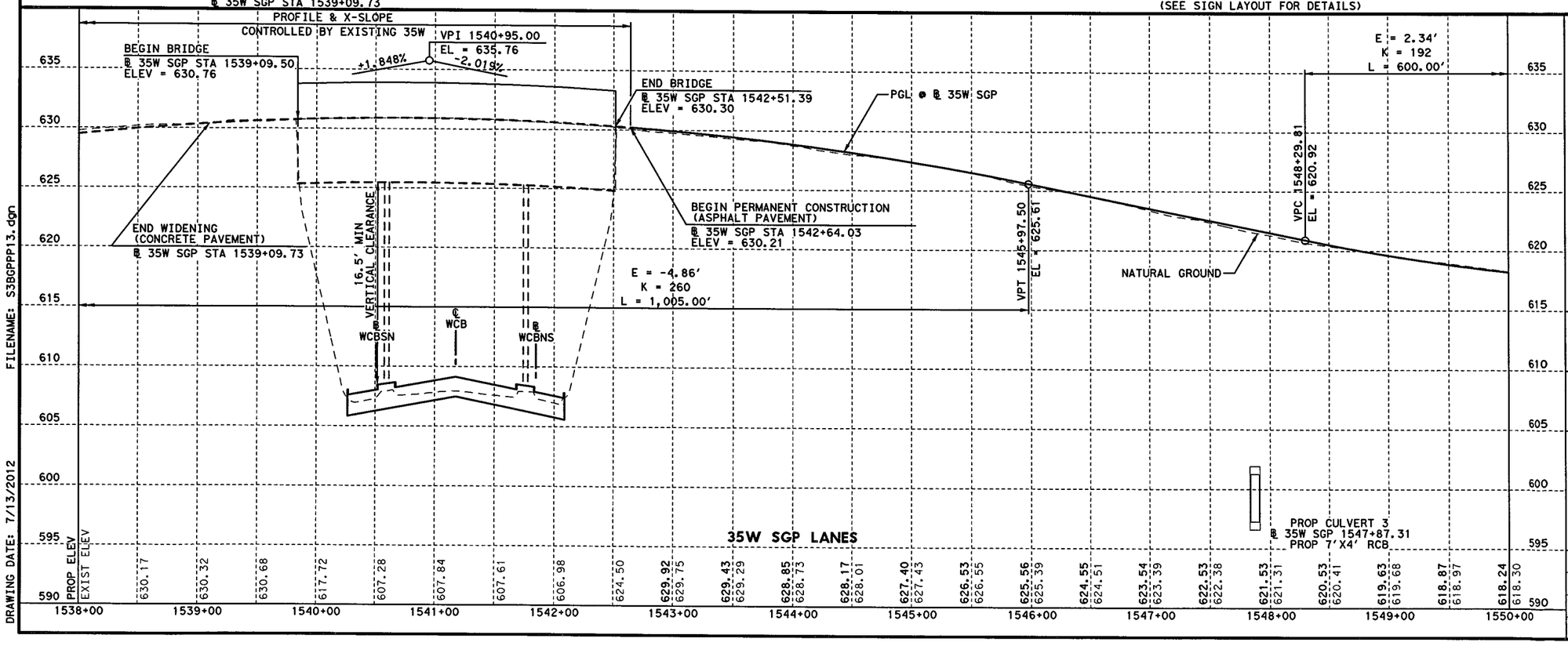
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/11/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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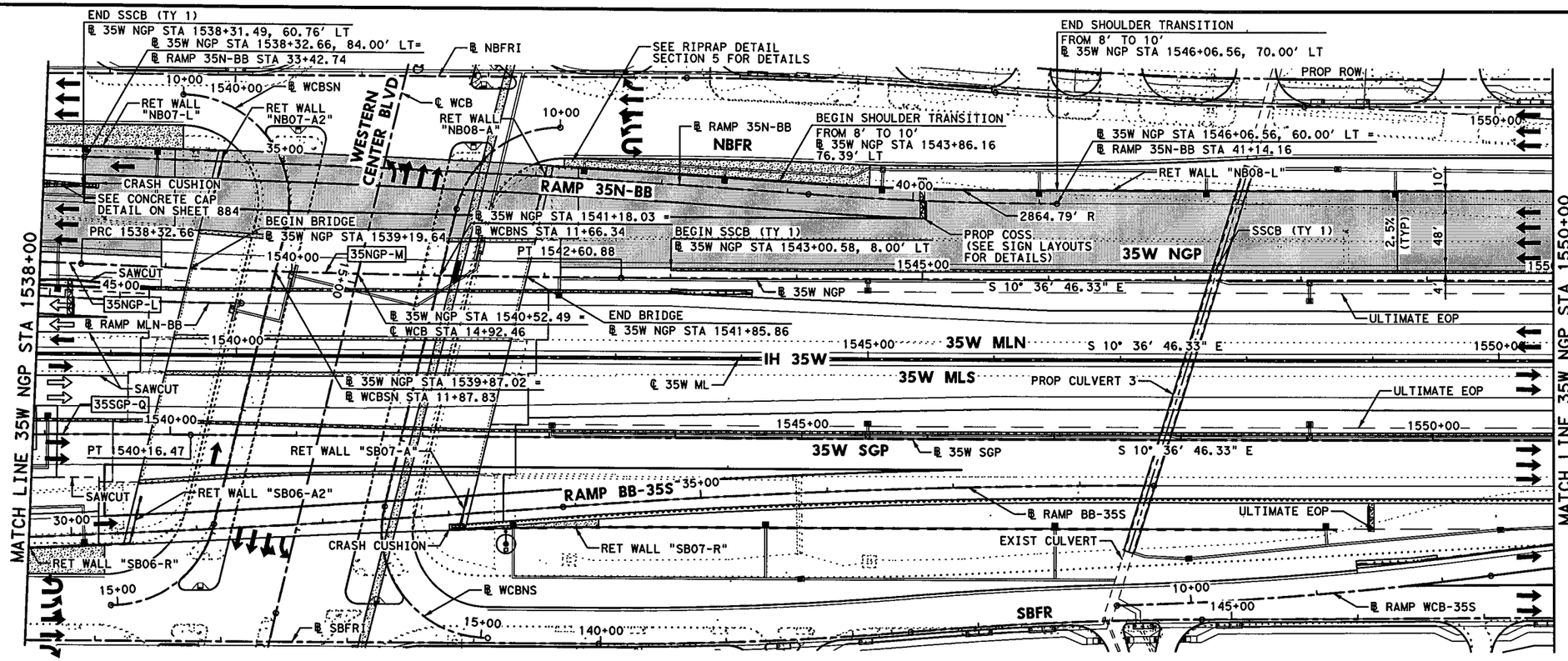
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
IH 35W GENERAL PURPOSE LANES
STA 1538+00 TO STA 1550+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 17 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	759
KCI	0014	16	255, ETC.	

FILENAME: S38GPPP13.dgn
DRAWING DATE: 7/13/2012



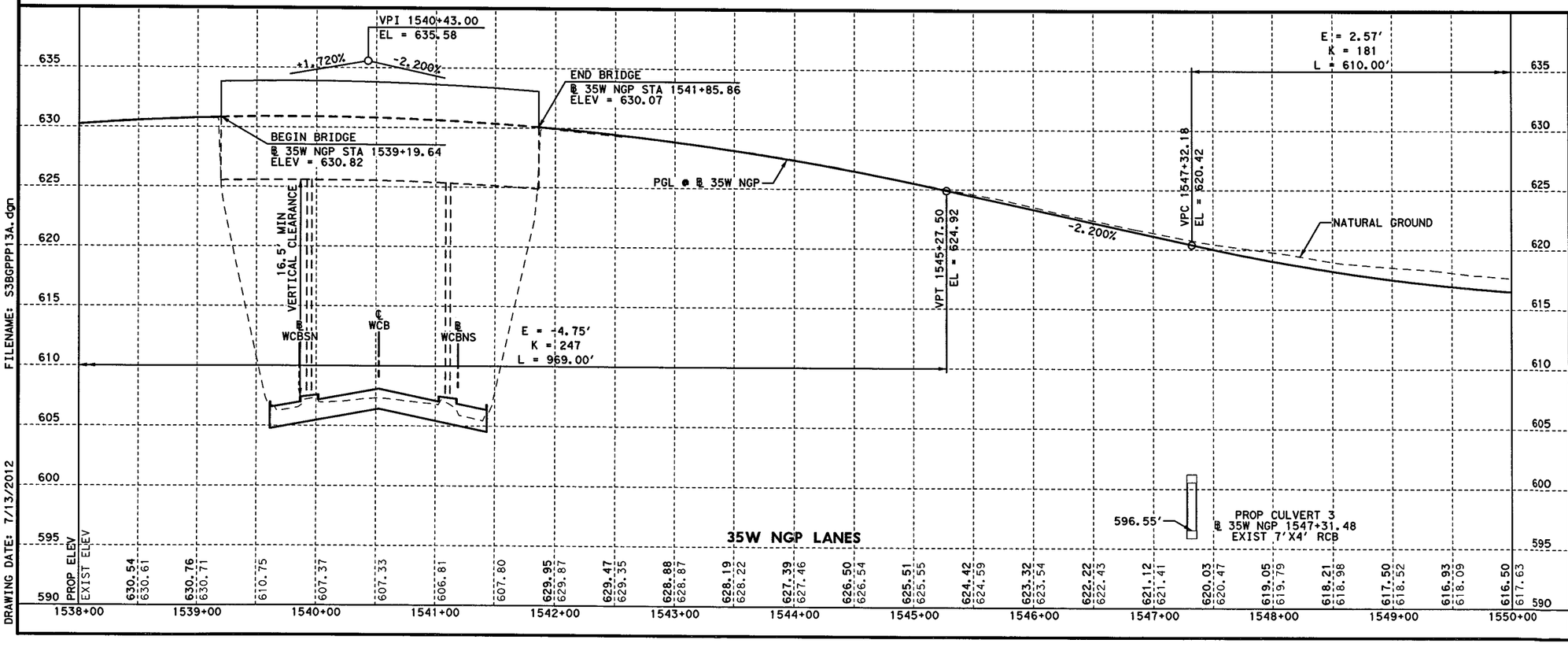
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/11/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

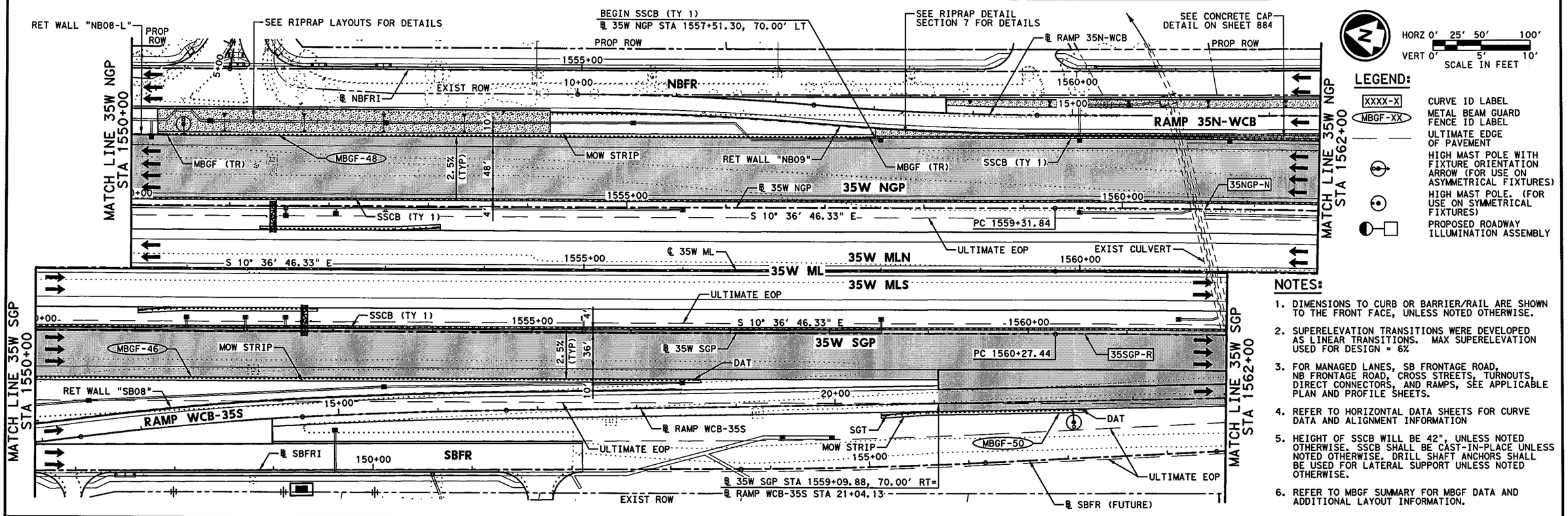
IH 35W GENERAL PURPOSE LANES

STA 1538+00 TO STA 1550+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 18 OF 22

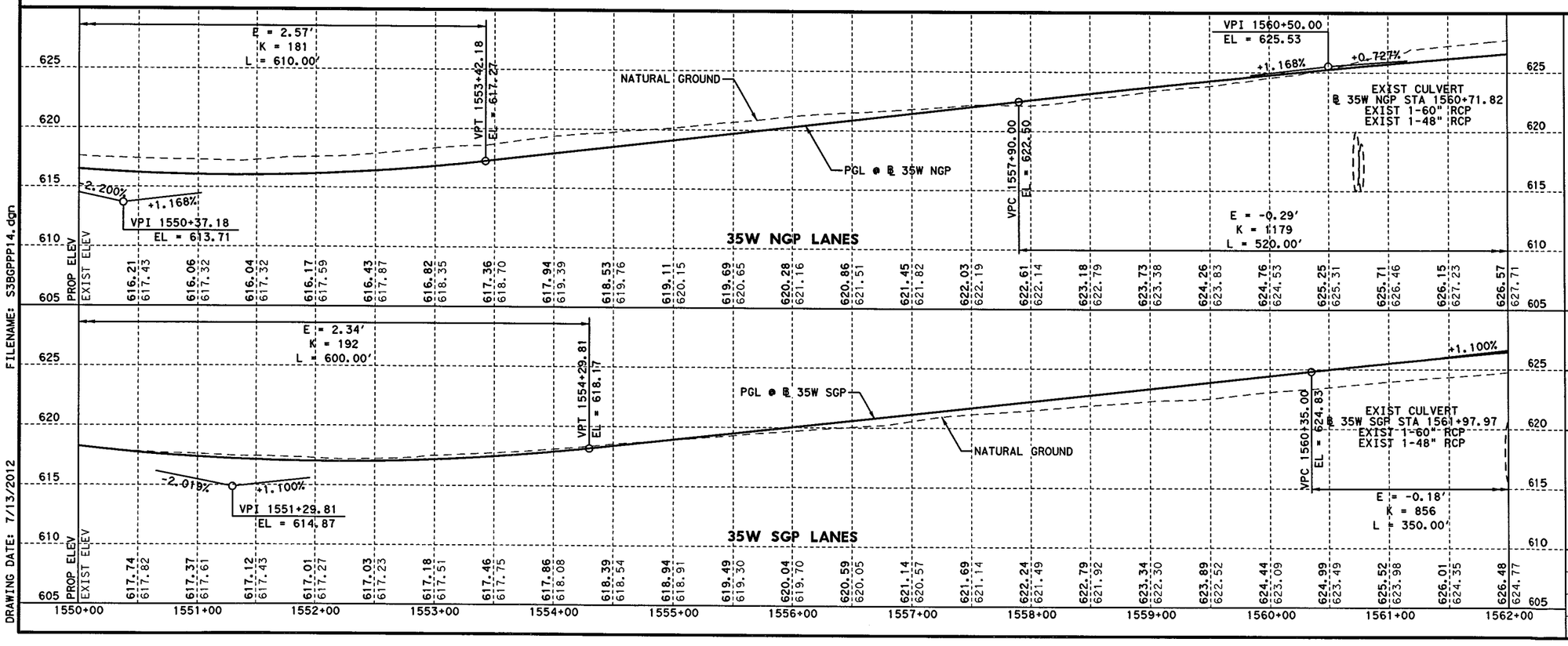
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	760
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BGPPP13A.dgn
DRAWING DATE: 7/13/2012



NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/11/12

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

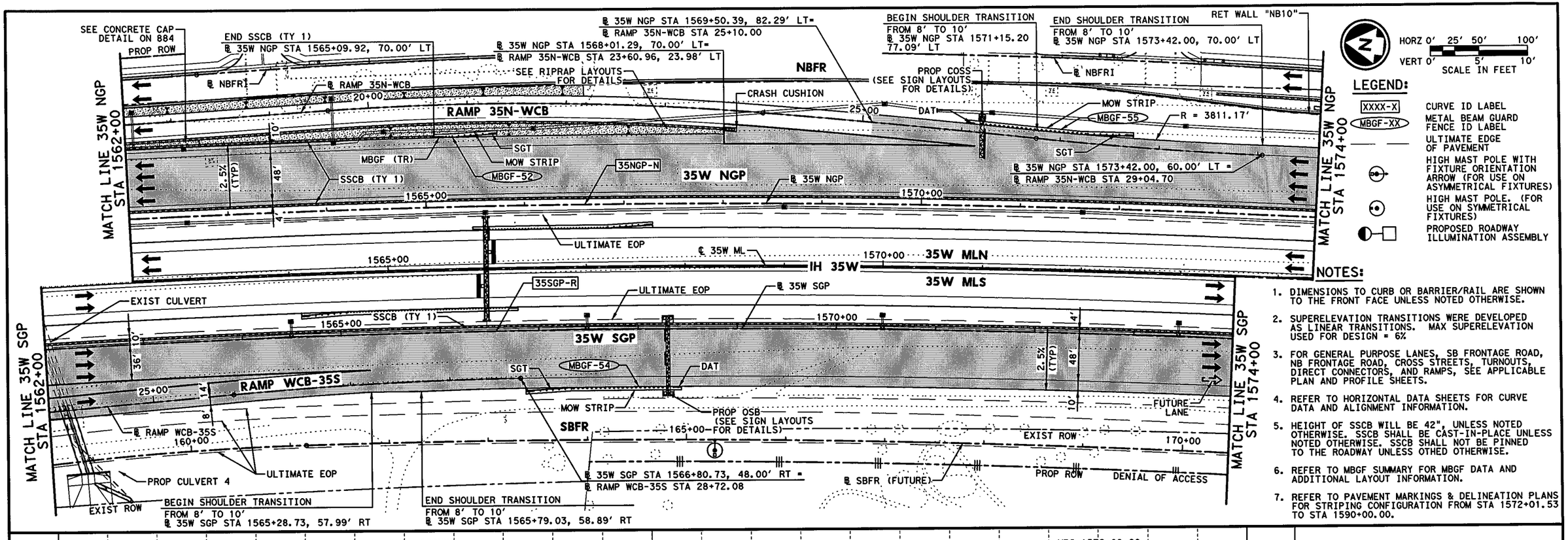
IH 35W GENERAL PURPOSE LANES

STA 1550+00 TO STA 1562+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 19 OF 22

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	761
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: 53BGPPP14.dgn
DRAWING DATE: 7/13/2012



STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED PROFESSIONAL ENGINEER
7/31/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

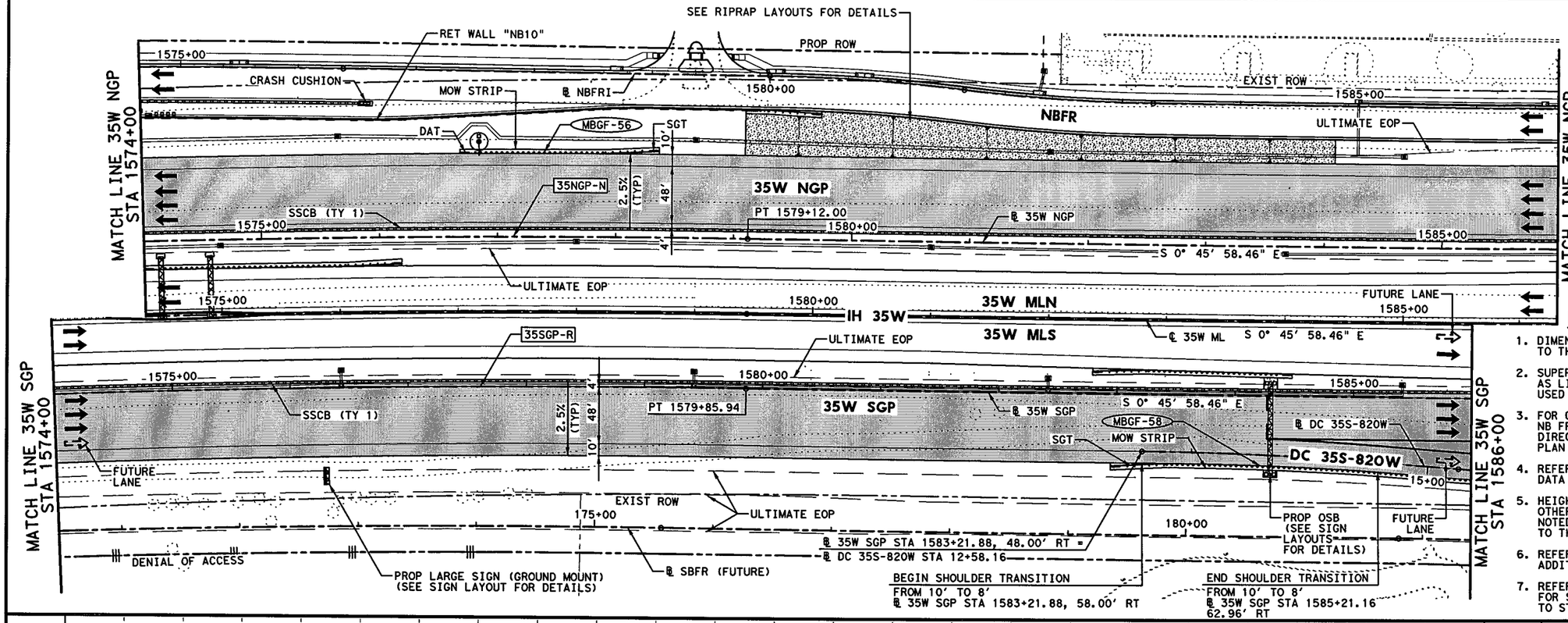
ROADWAY PLAN & PROFILE

IH 35W GENERAL PURPOSE LANES

STA 1562+00 TO STA 1574+00

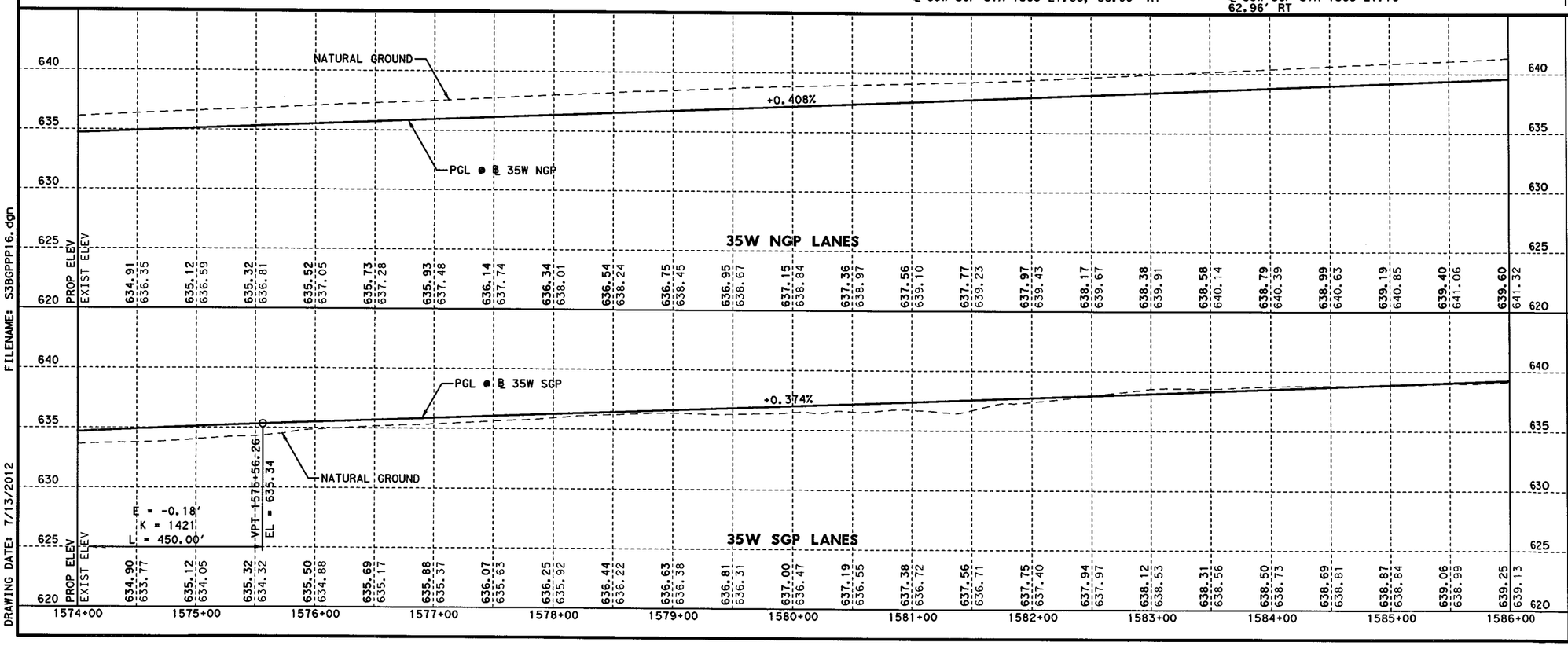
SCALE: 1" = 100' H, 1" = 10' V — SHEET 20 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	762
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	



NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. SSCB SHALL NOT BE PINNED TO THE ROADWAY UNLESS OTHED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
7. REFER TO PAVEMENT MARKINGS & DELINEATION PLANS FOR STRIPING CONFIGURATION FROM STA 1572+01.53 TO STA 1590+00.00.



STATE OF TEXAS
KURT W. AUNGST
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LICENSED
PROFESSIONAL ENGINEER
7/11/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

IH 35W GENERAL PURPOSE LANES

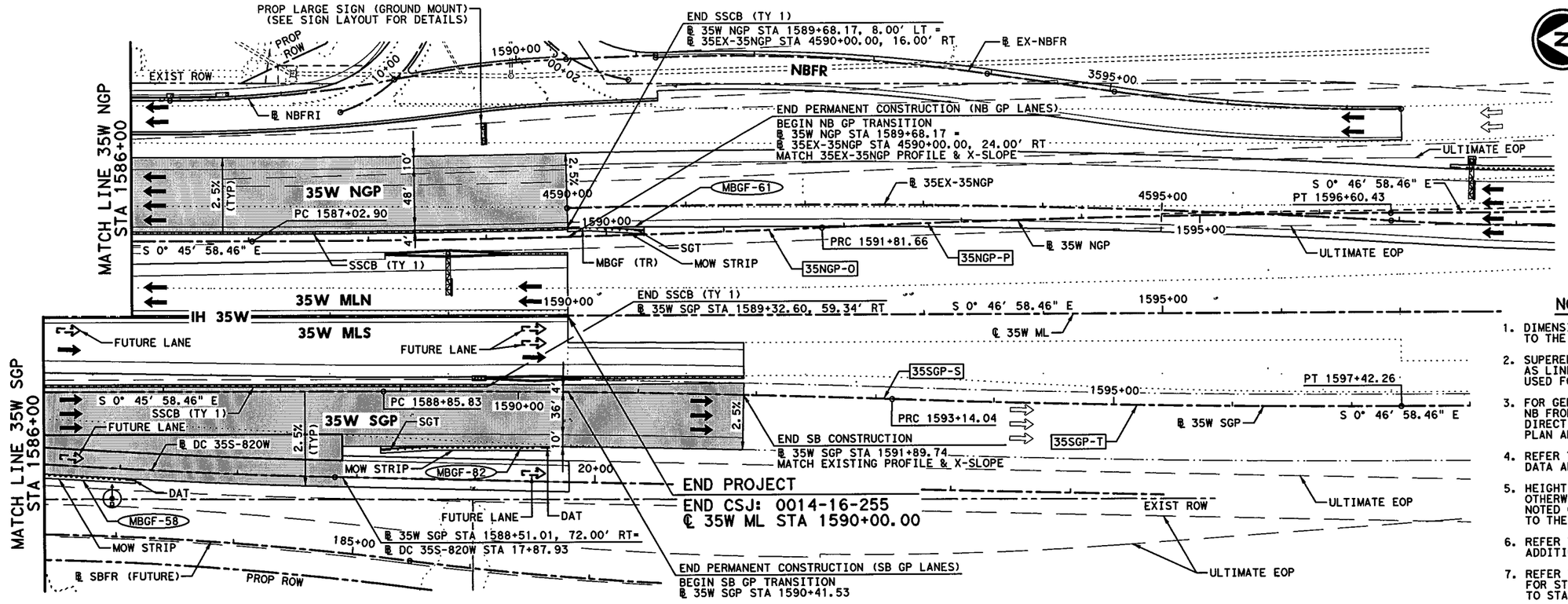
STA 1574+00 TO STA 1586+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 21 OF 22

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	763
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BGPPP16.dgn

DRAWING DATE: 7/13/2012



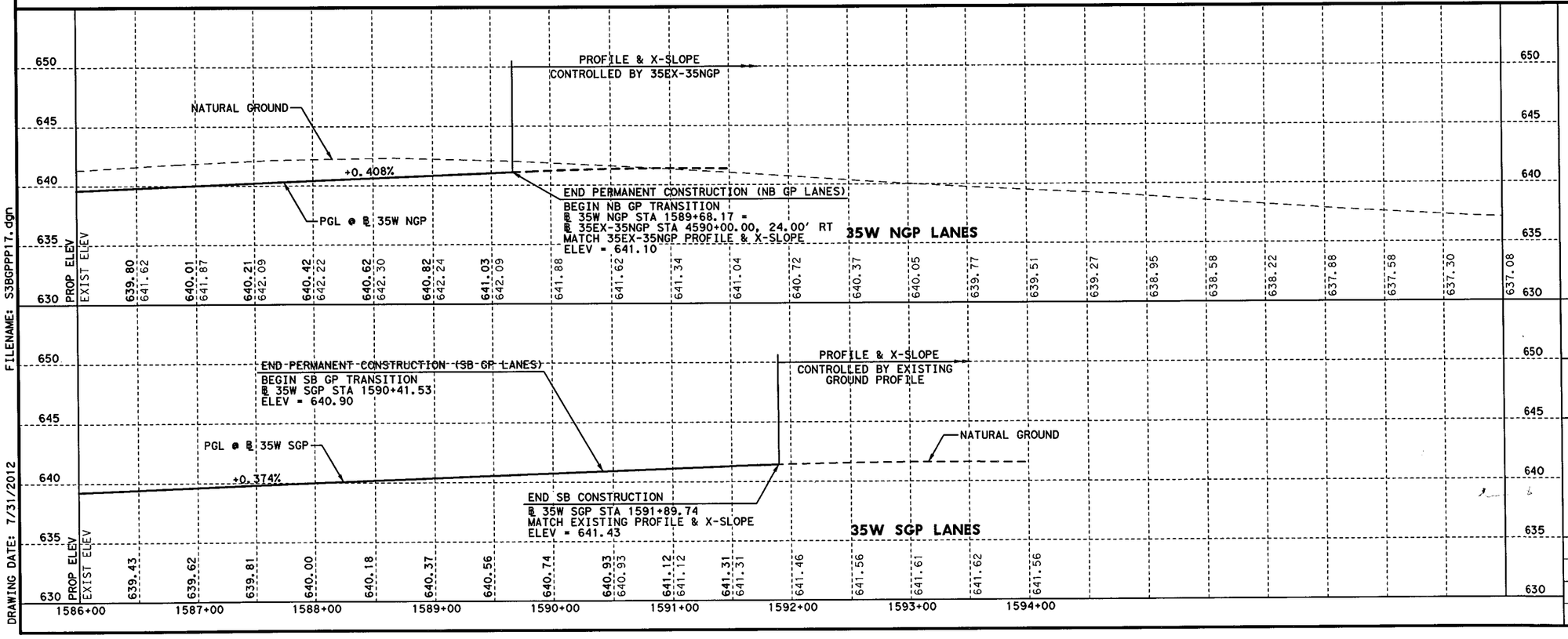
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. SSCB SHALL NOT BE PINNED TO THE ROADWAY UNLESS OTHED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
7. REFER TO PAVEMENT MARKINGS & DELINEATION PLANS FOR STRIPING CONFIGURATION FROM STA 1572+01.53 TO STA 1590+00.00.



FILENAME: S3BGPP17.dgn
DRAWING DATE: 7/31/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/31/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

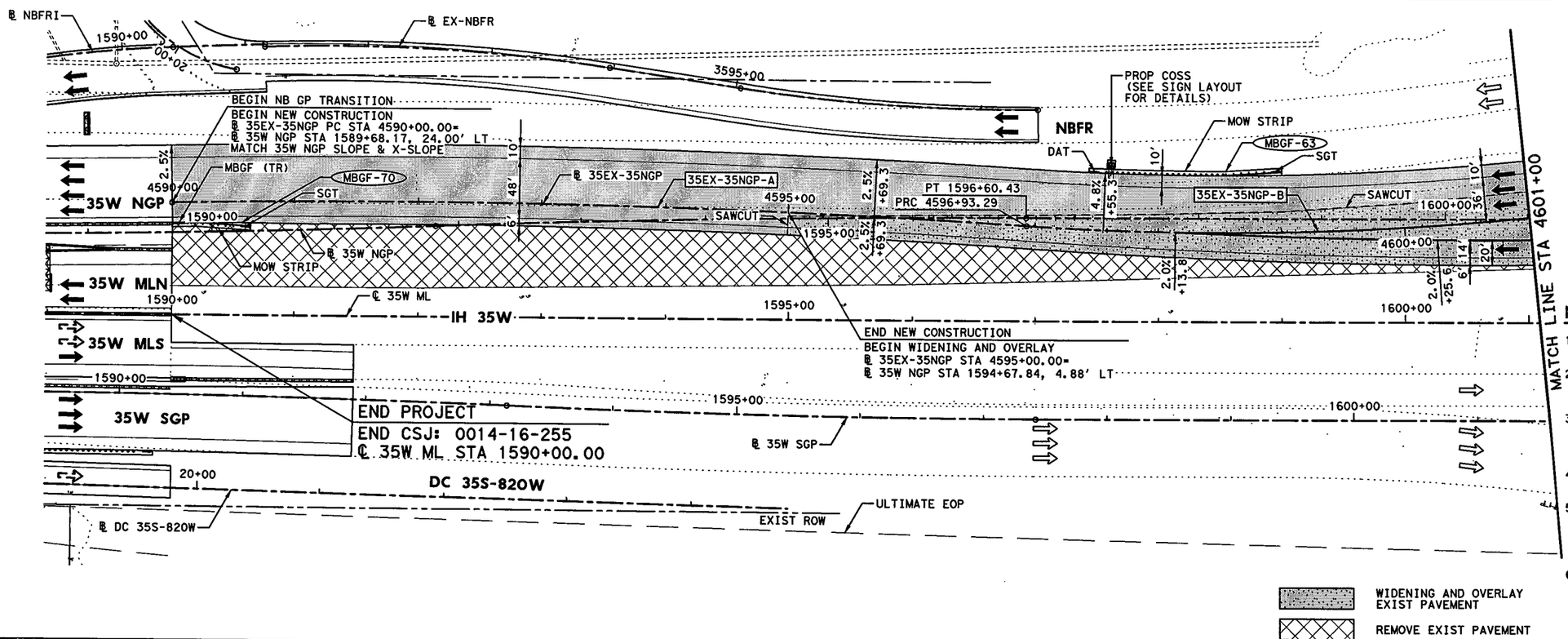
ROADWAY PLAN & PROFILE

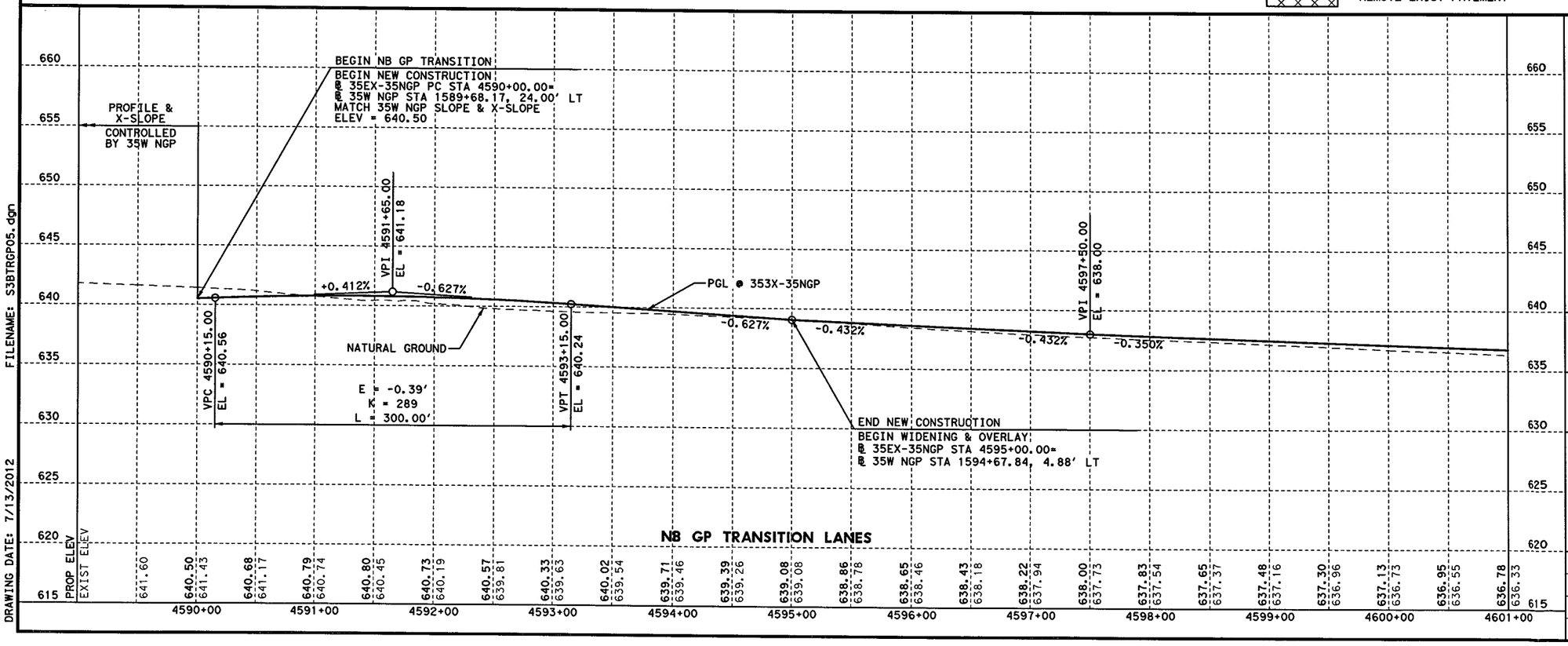
IH 35W GENERAL PURPOSE LANES

STA 1586+00 TO END PROJECT

SCALE: 1" = 100' H, 1" = 10' V — SHEET 22 OF 22

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	764
KCI	0014	16	255, ETC.	
CHECK				
KCI				





FILENAME: S3BTRGP05.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
90848
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PROFESSIONAL ENGINEER
7/11/12

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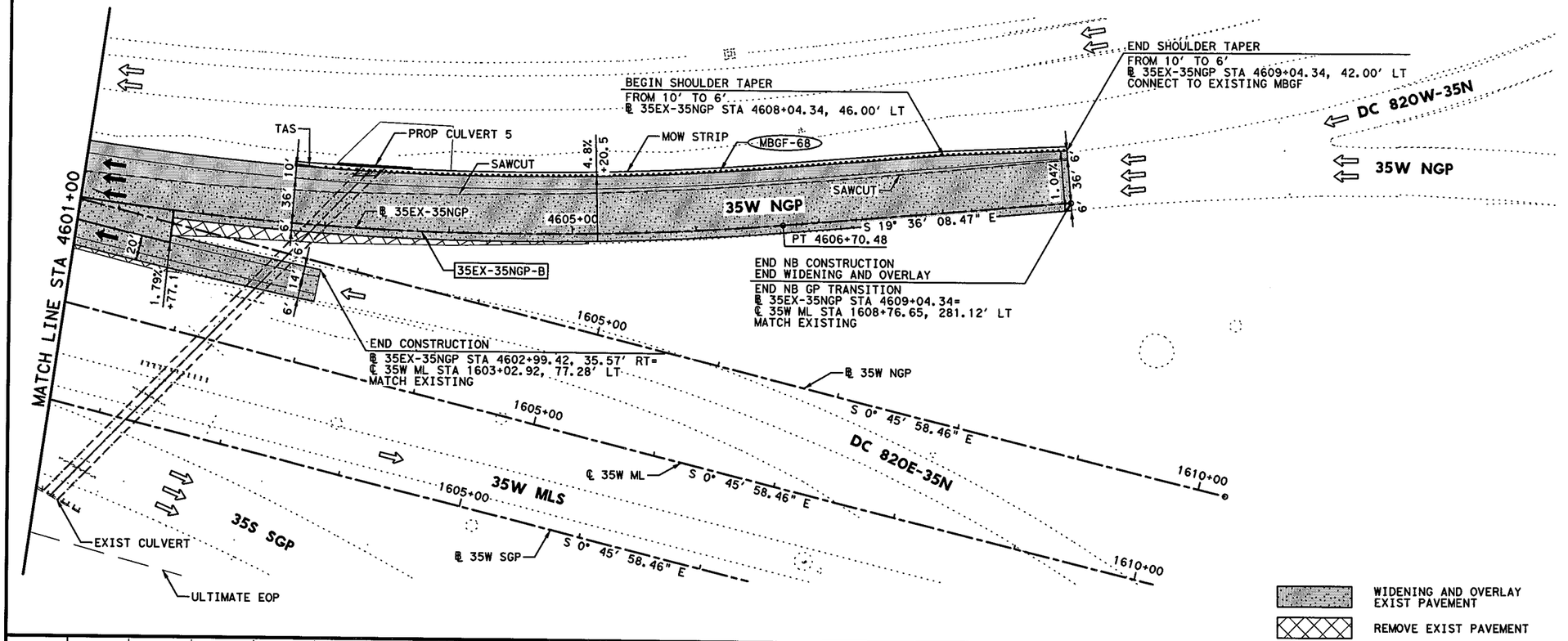
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
GENERAL PURPOSE LANE TRANSITION
STA 4590+00 TO STA 4601+00

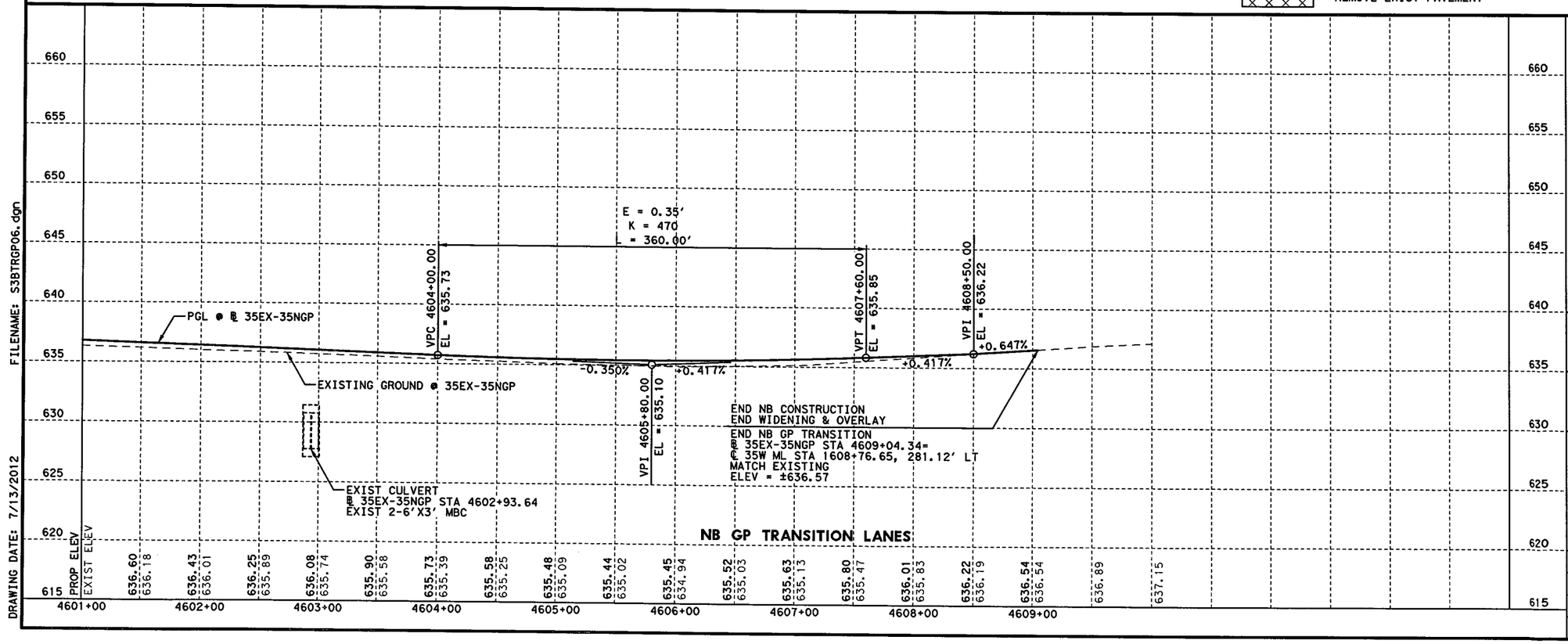
SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	765
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				



NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BTRGP06.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
KURT W. AUNGST
90848
LICENSED
PROFESSIONAL ENGINEER
7/11/12

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TBPE REGISTRATION NO. F-926

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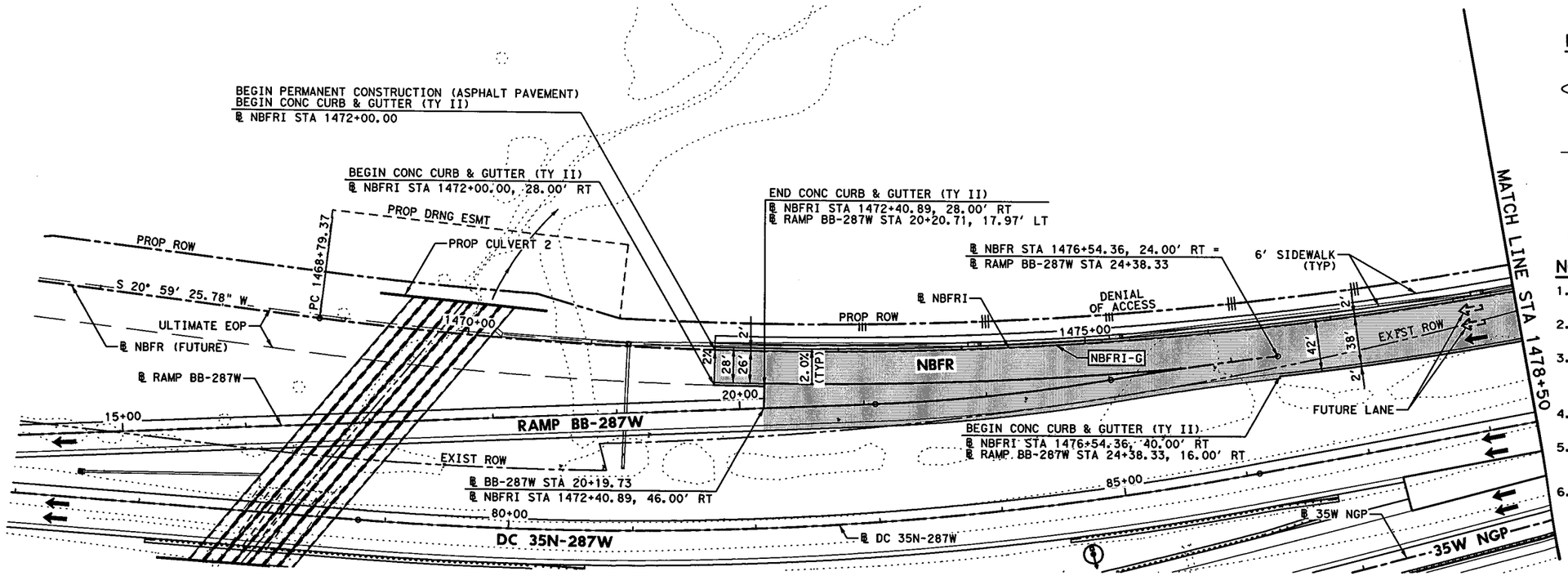
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
GENERAL PURPOSE LANE TRANSITION
STA 4601+00 TO END PROJECT

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	766
KCI	0014	16	255, ETC.	
CHECK				



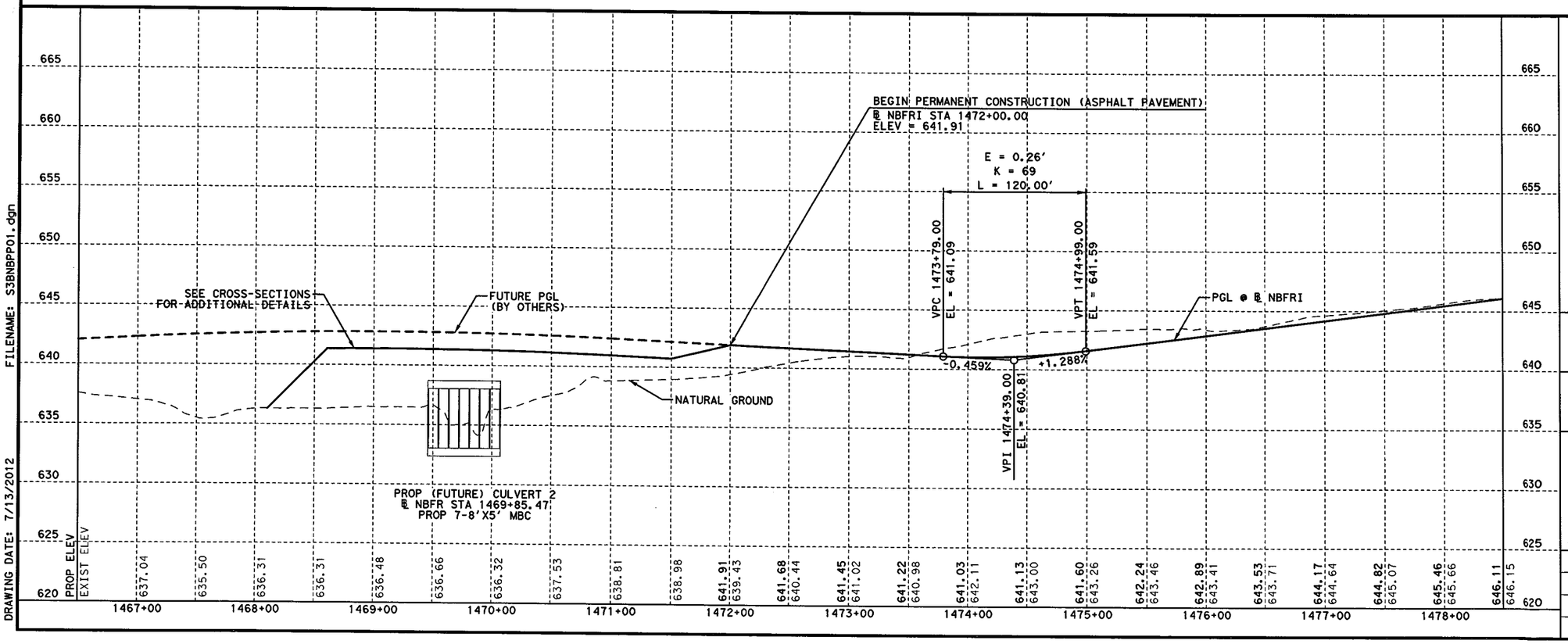
LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. REFER TO PAVEMENT MARKING & DELINEATION PLAN FOR STRIPING CONFIGURATION FROM STA 1472+00 TO STA 1490+02.25.



STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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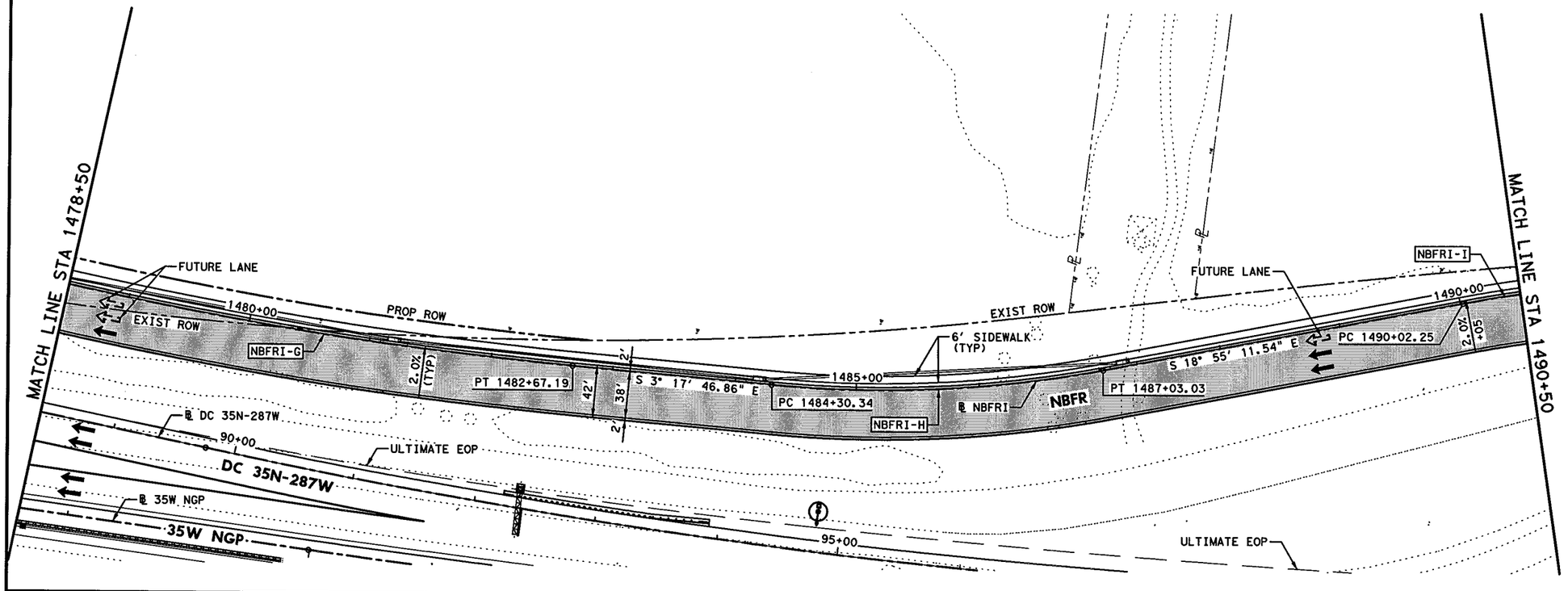
IH 35W FROM NORTH TARRANT PKWY TO IH 820

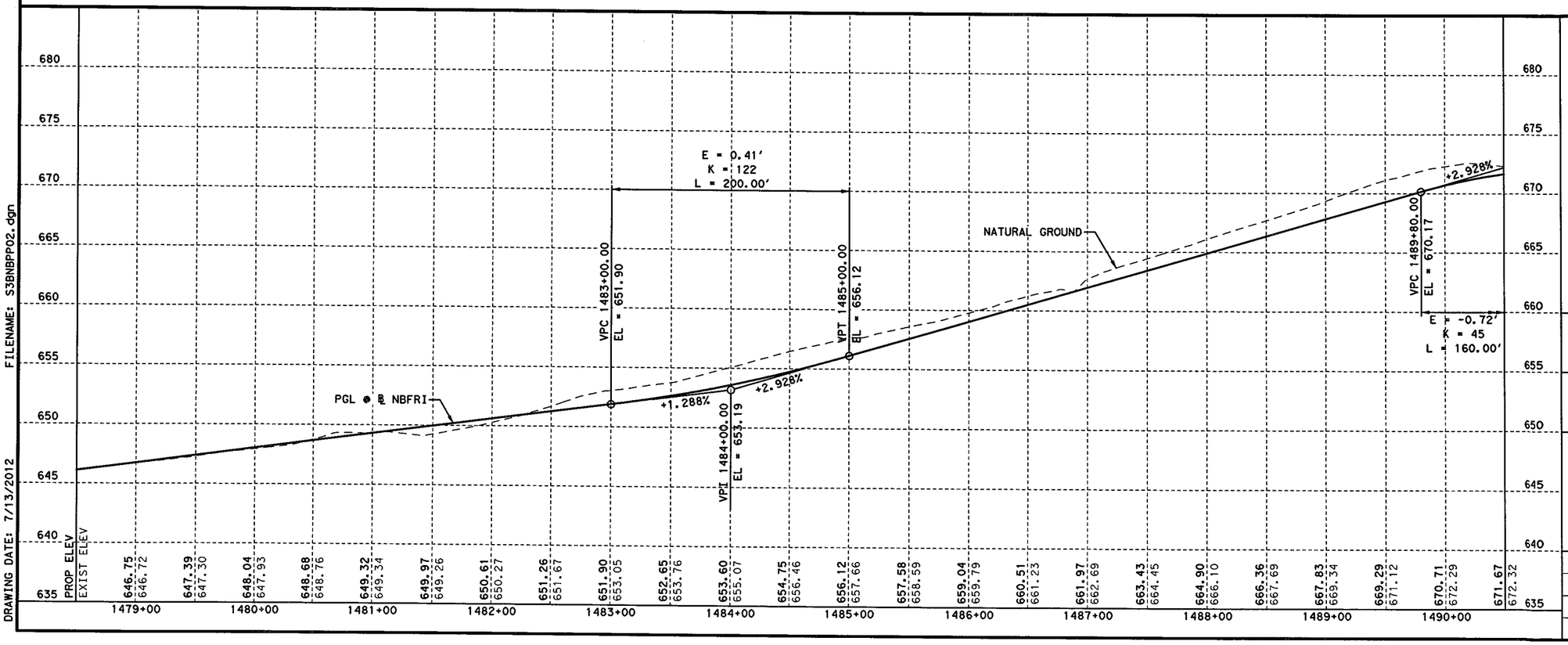
ROADWAY PLAN & PROFILE
NBFR
STA 1466+50 TO STA 1478+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	767
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BNBPP01.dgn
DRAWING DATE: 7/13/2012





LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. REFER TO PAVEMENT MARKING & DELINEATION PLAN FOR STRIPING CONFIGURATION FROM STA 1472+00 TO STA 1490+02.25.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed S. Haq
07/13/12

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TBPE REGISTRATION NO. F-926

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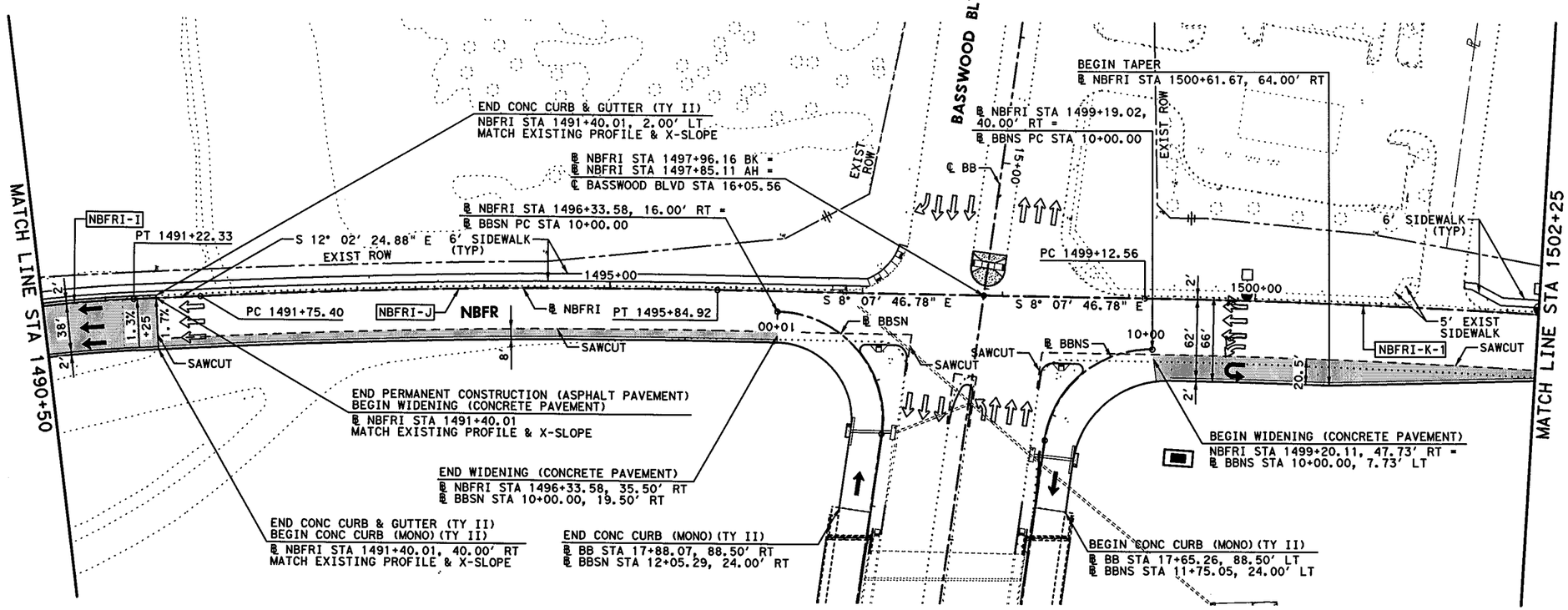
IH 35W FROM NORTH TARRANT PKWY TO IH 820

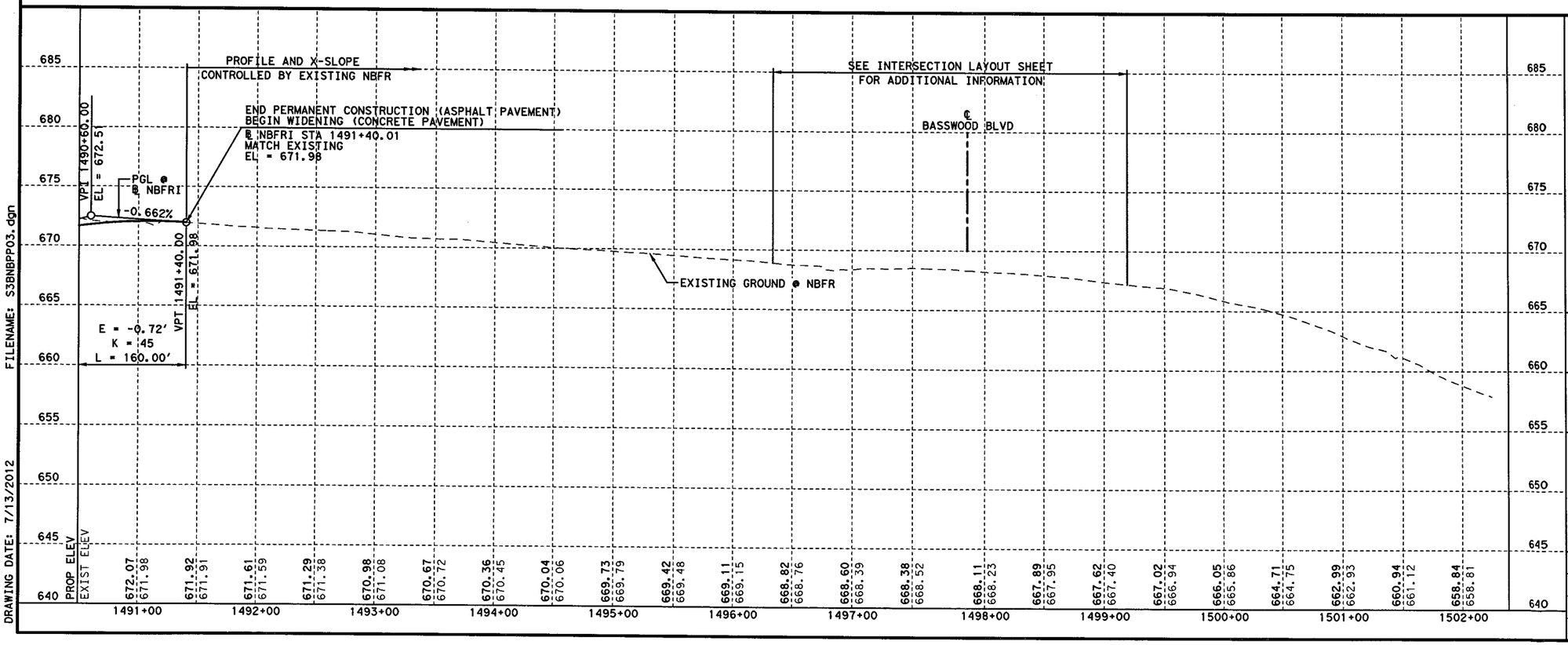
ROADWAY PLAN & PROFILE
NBFR
STA 1478+50 TO STA 1490+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 11

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	768
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BNBPP02.dgn
DRAWING DATE: 7/13/2012





HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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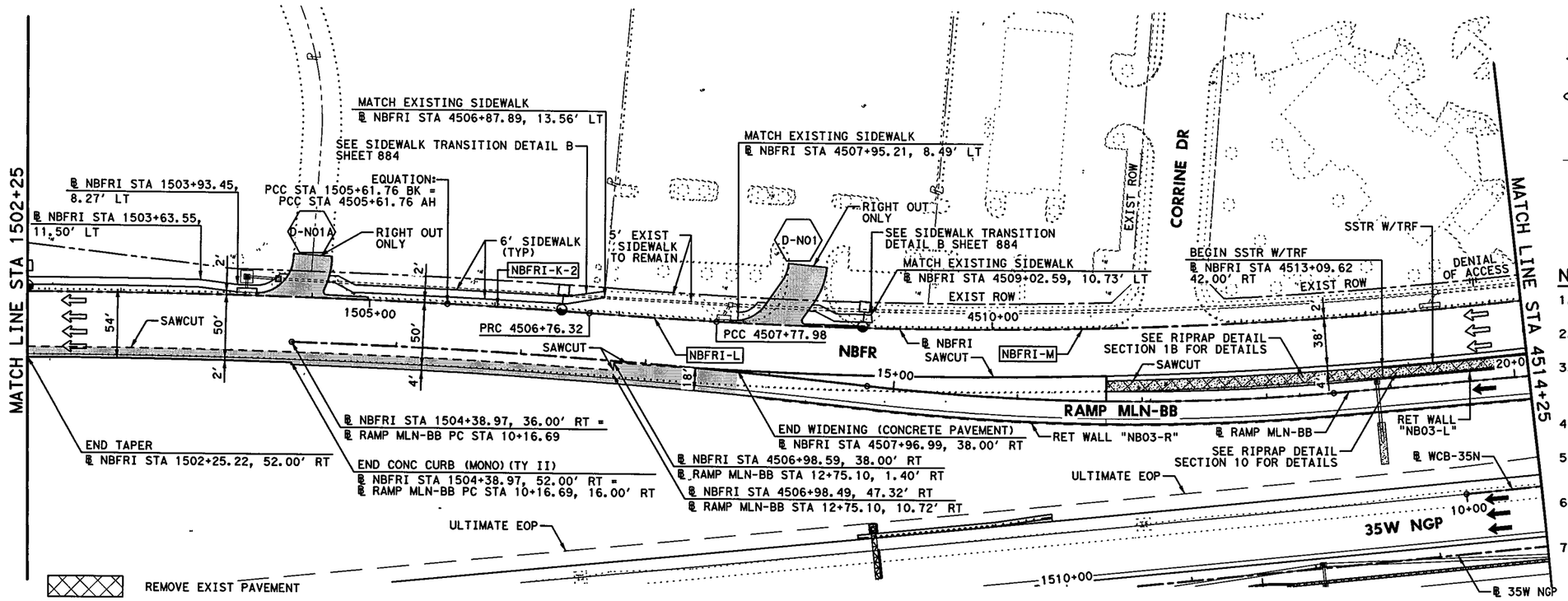
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
NBFR
STA 1490+50 TO STA 1502+25

SCALE: 1" = 100' H, 1" = 10' V — SHEET 3 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	769
CHECK KCI	CONTROL	SECTION	JOB	
CHECK KCI	0014	16	255, ETC.	

FILENAME: S3BNBPP03.dgn
DRAWING DATE: 7/13/2012



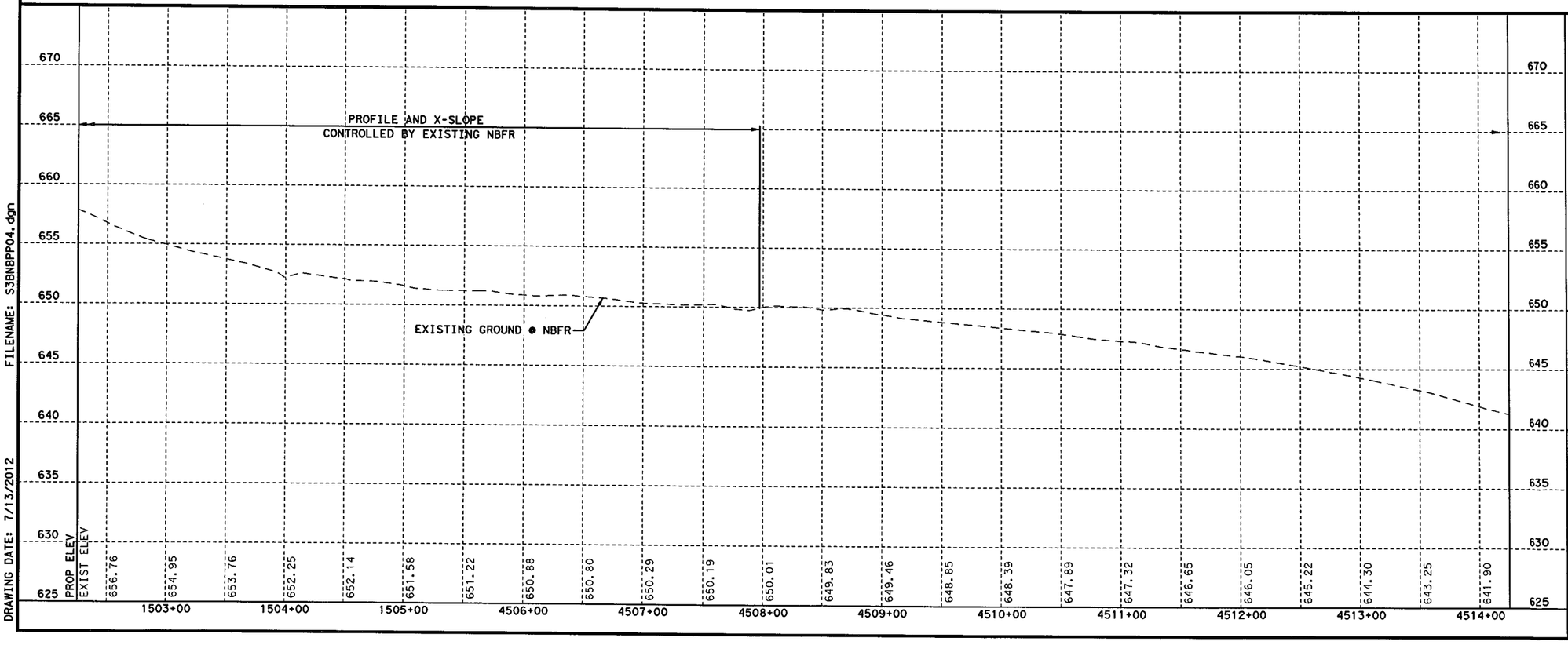
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE.
7. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BNBPP04.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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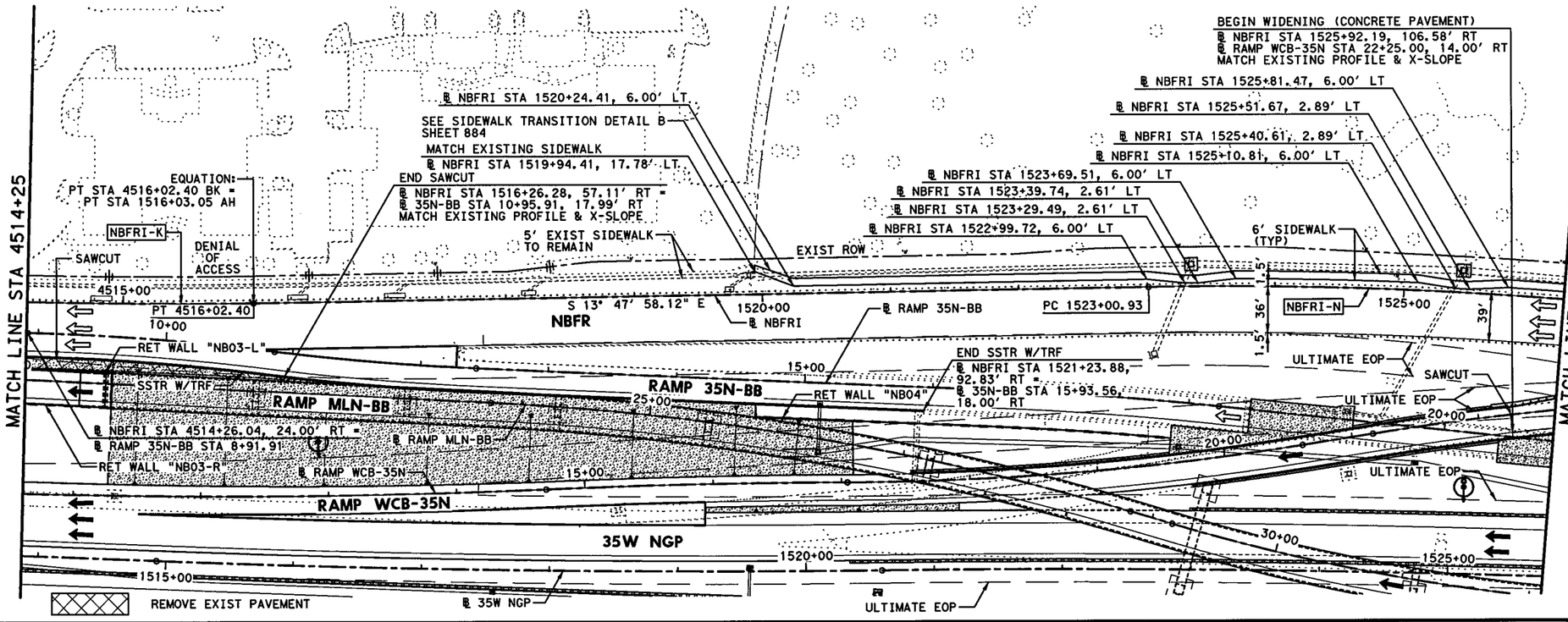
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
NBFR
STA 1502+25 TO STA 4514+25

SCALE: 1" = 100' H, 1" = 10' V — SHEET 4 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	770
KCI	0014	16	255, ETC.	
CHECK				



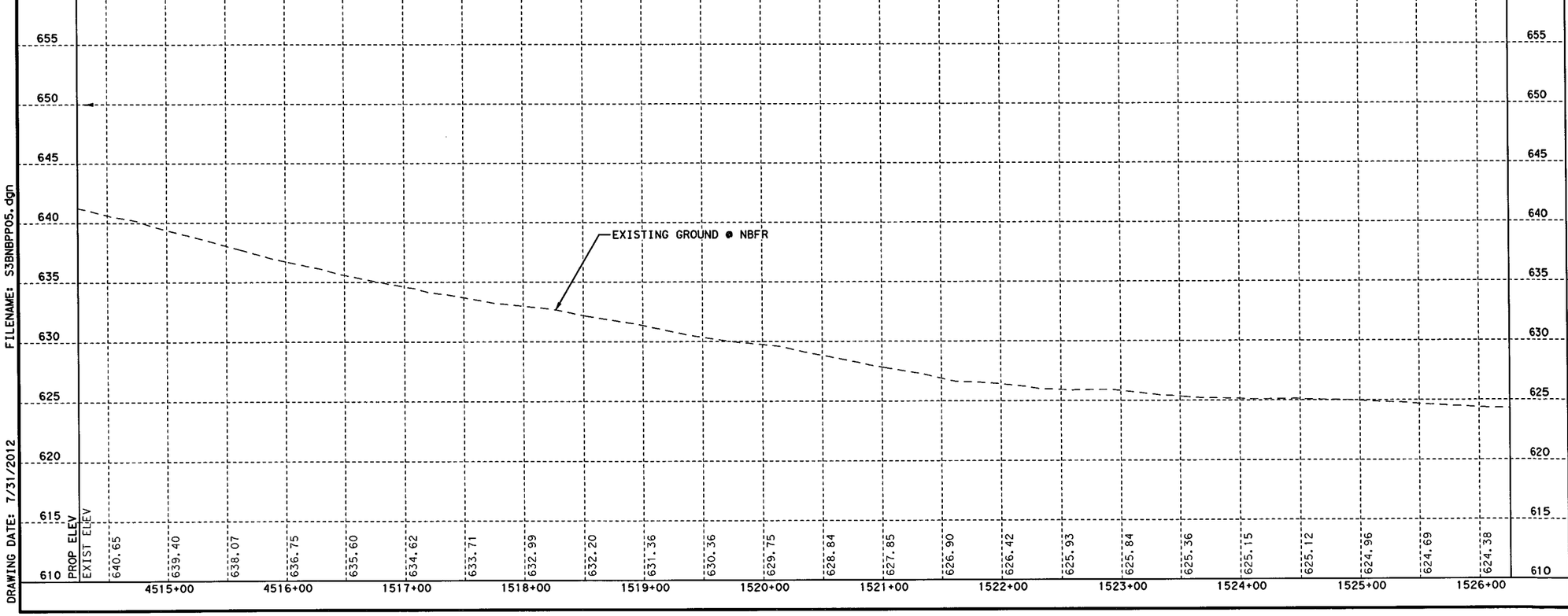
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. SSCB SHALL NOT BE PINNED TO THE ROADWAY UNLESS NOTED OTHERWISE.



FILENAME: S3BNBPP05.dgn
DRAWING DATE: 7/31/2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

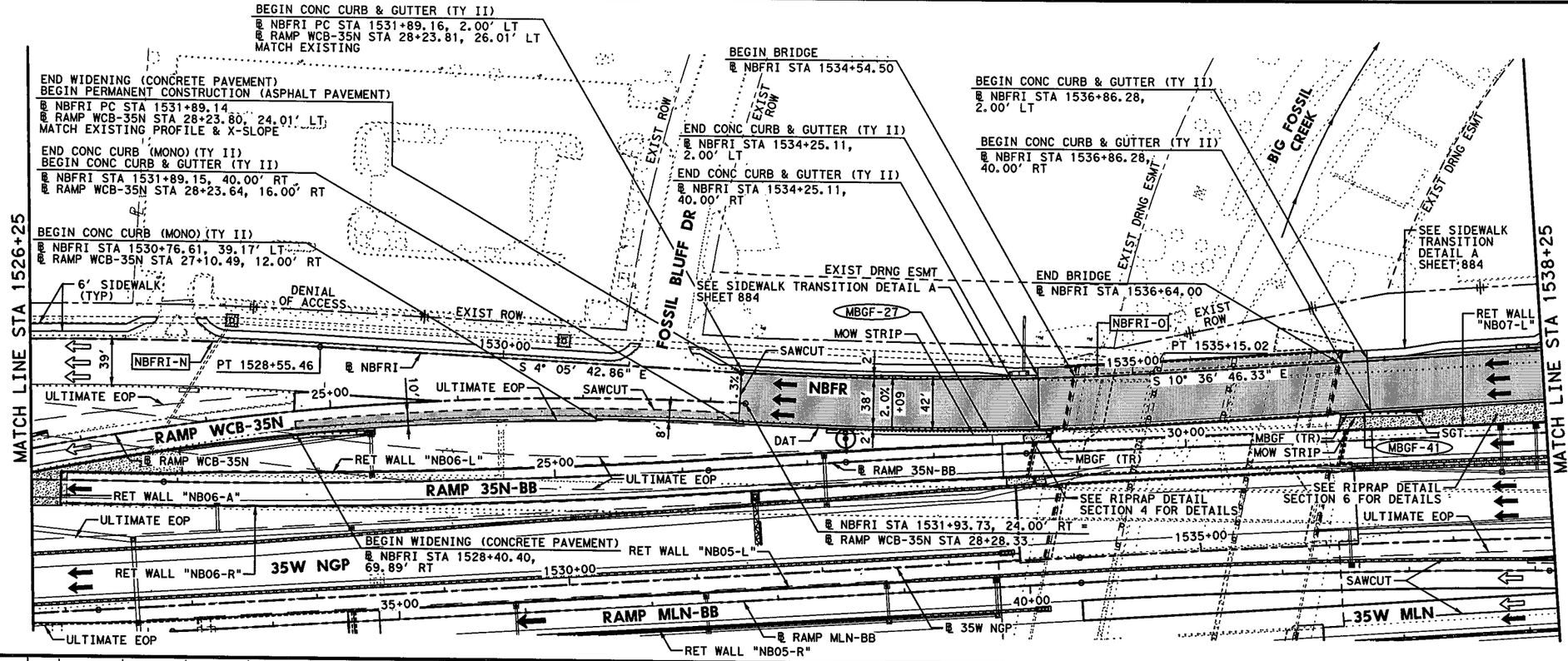
ROADWAY PLAN & PROFILE

NBFR

STA 4514+25 TO STA 1526+25

SCALE: 1" = 100' H, 1" = 10' V — SHEET 5 OF 11

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	771
KCI	0014	16	255, ETC.	



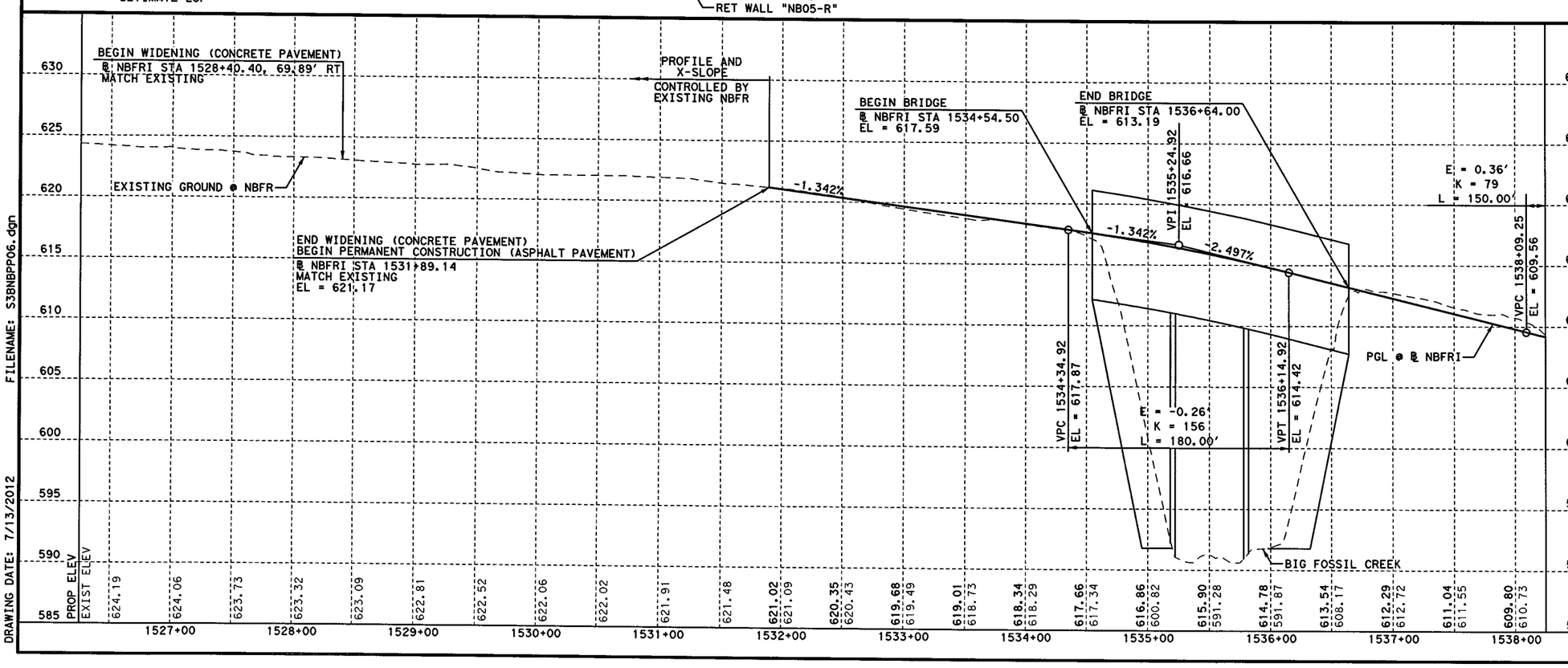
LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
7. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BNBPP06.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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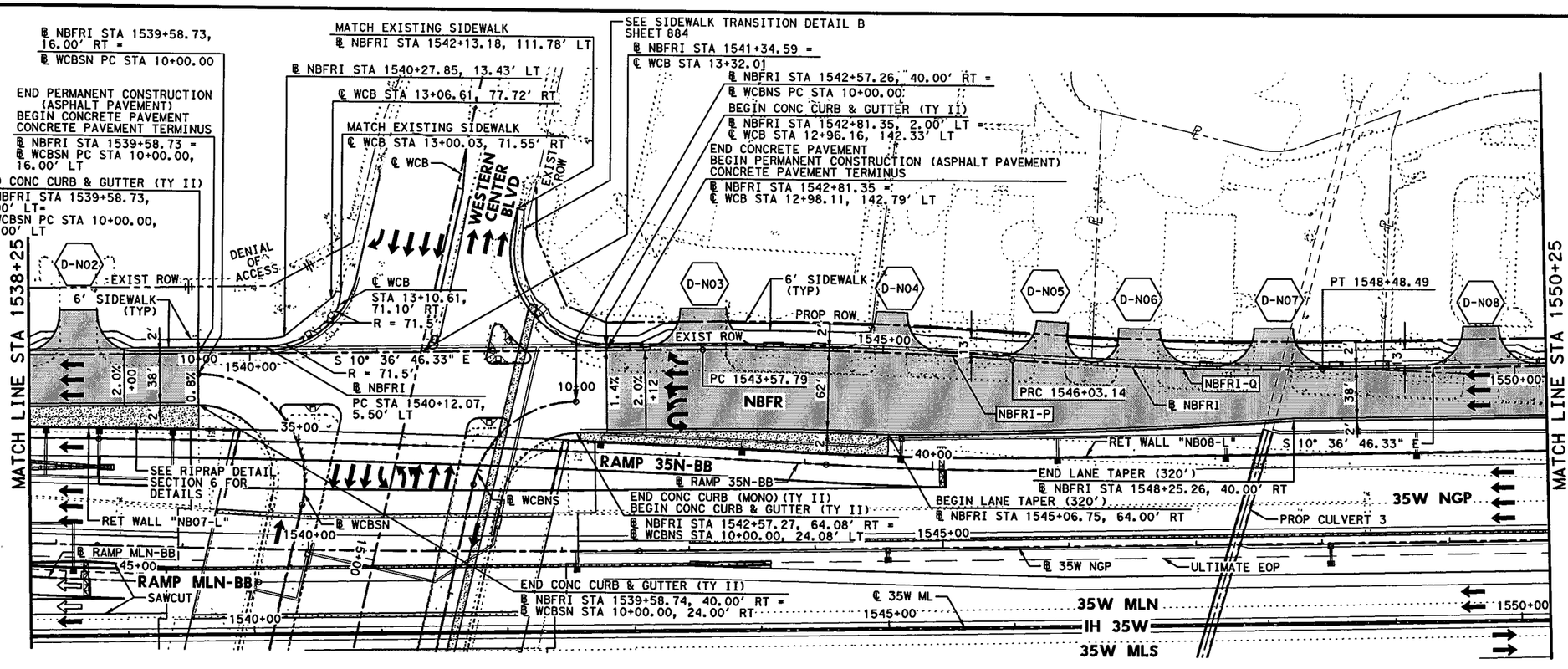
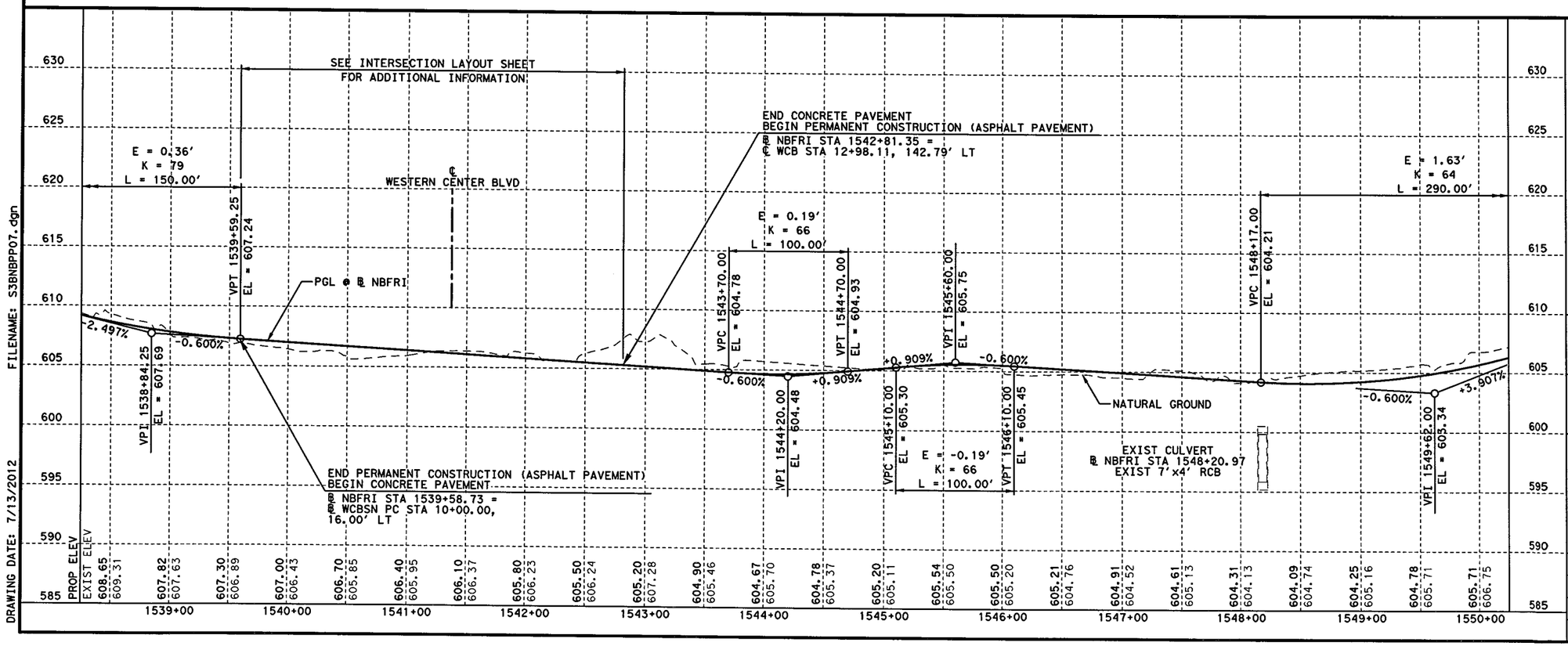
IH 35W FROM NORTH TARRANT PKWY TO IH 820

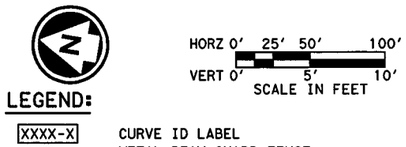
ROADWAY PLAN & PROFILE
NBFR
STA 1526+25 TO STA 1538+25

SCALE: 1" = 100' H, 1" = 10' V — SHEET 6 OF 11

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	772
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	





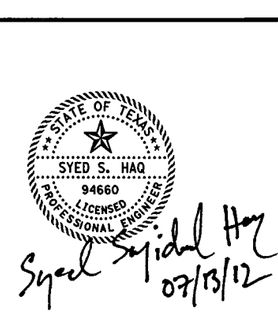


LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

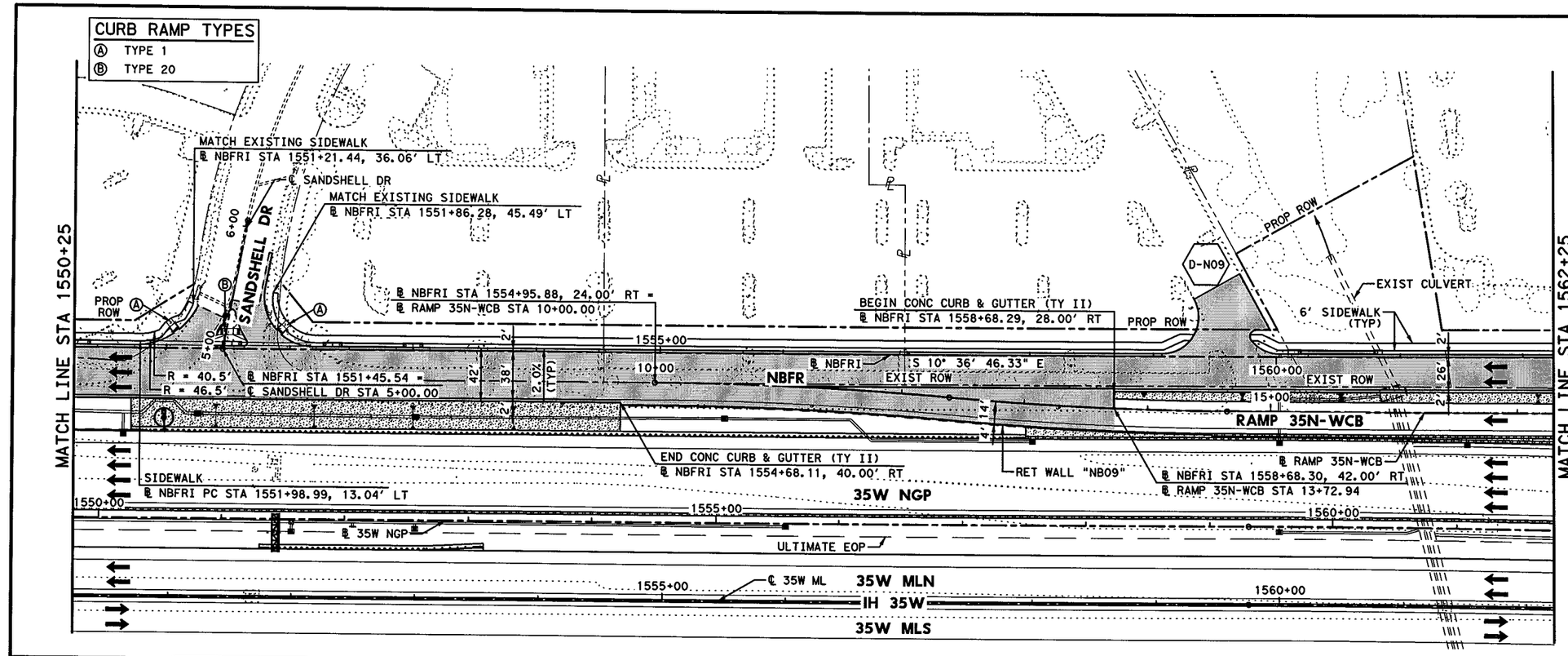
NBFR

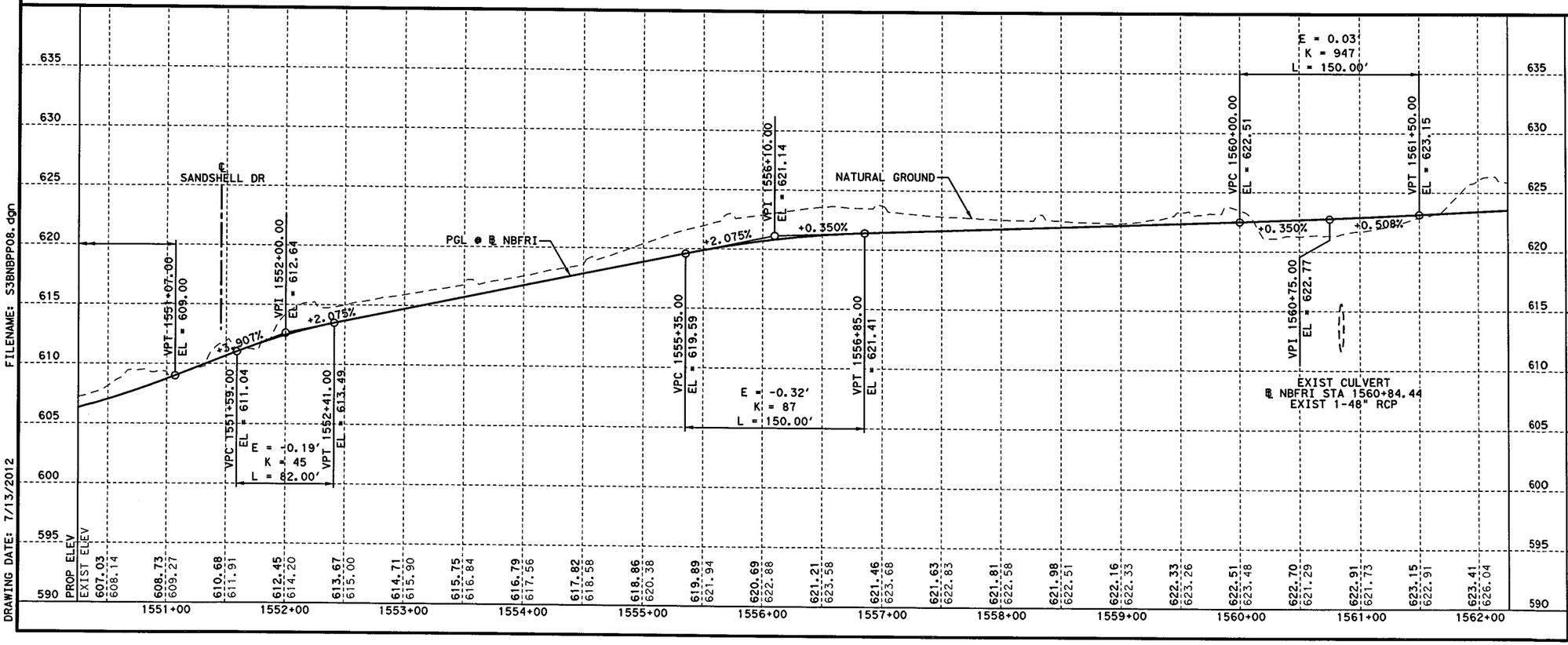
STA 1538+25 TO STA 1550+25

SCALE: 1" = 100' H, 1" = 10' V — SHEET 7 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	773
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BNBPP07.dgn
DRAWING DATE: 7/13/2012





LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

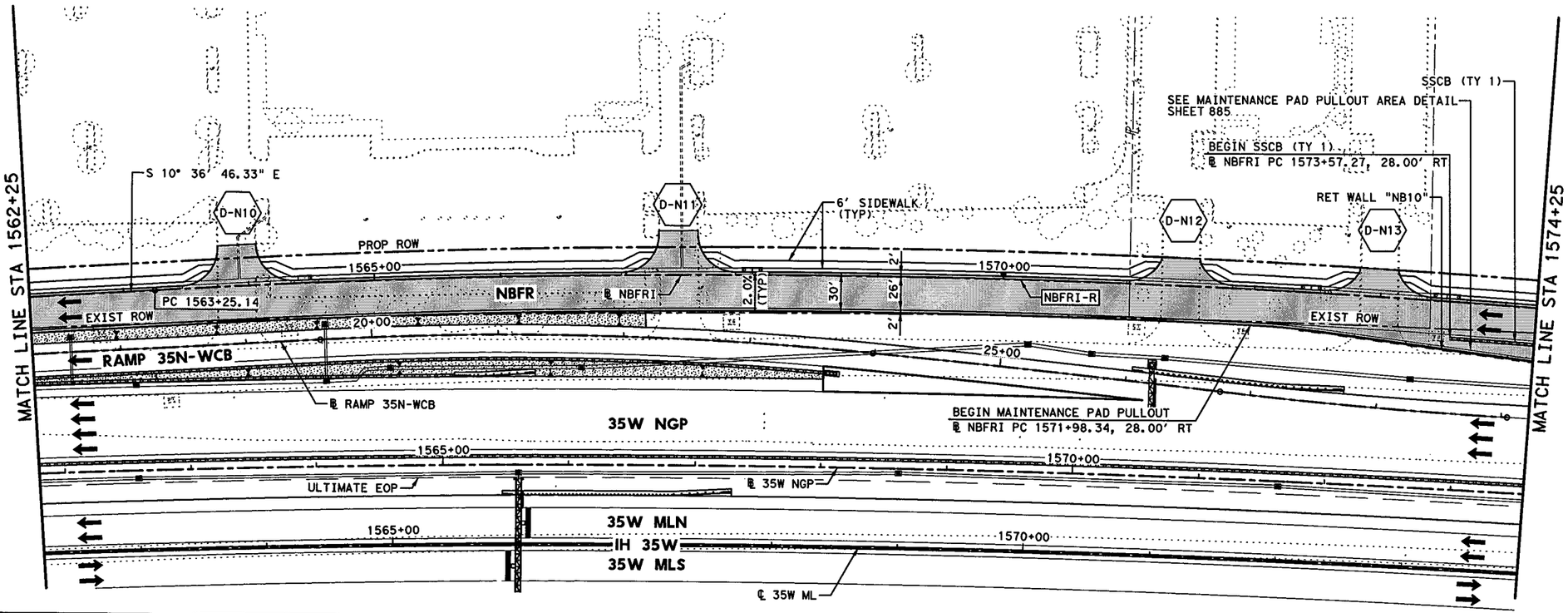
NBFR

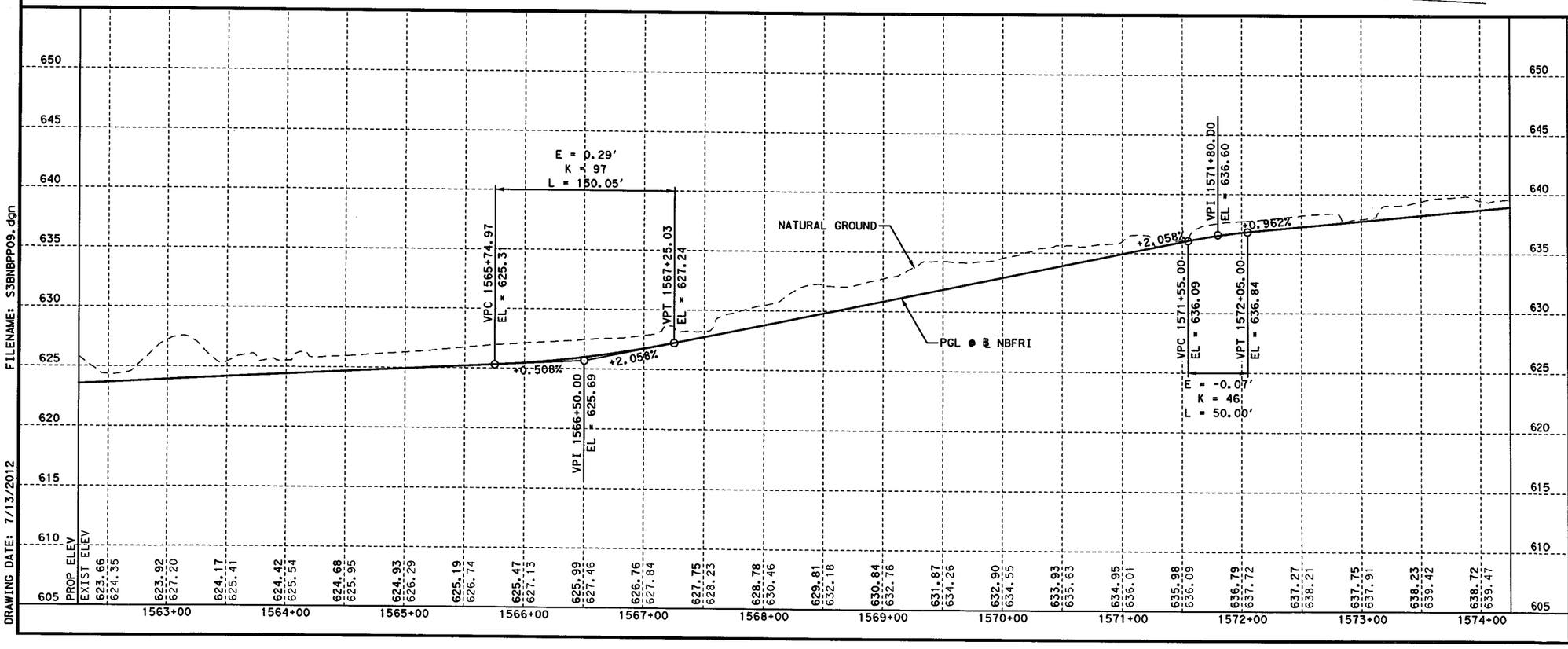
STA 1550+25 TO STA 1562+25

SCALE: 1" = 100' H, 1" = 10' V — SHEET 8 OF 11

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	774
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: 53BNBPP08.dgn
DRAWING DATE: 7/13/2012





HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. SSCB SHALL NOT BE PINNED TO THE ROADWAY UNLESS NOTED OTHERWISE.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Shahid Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

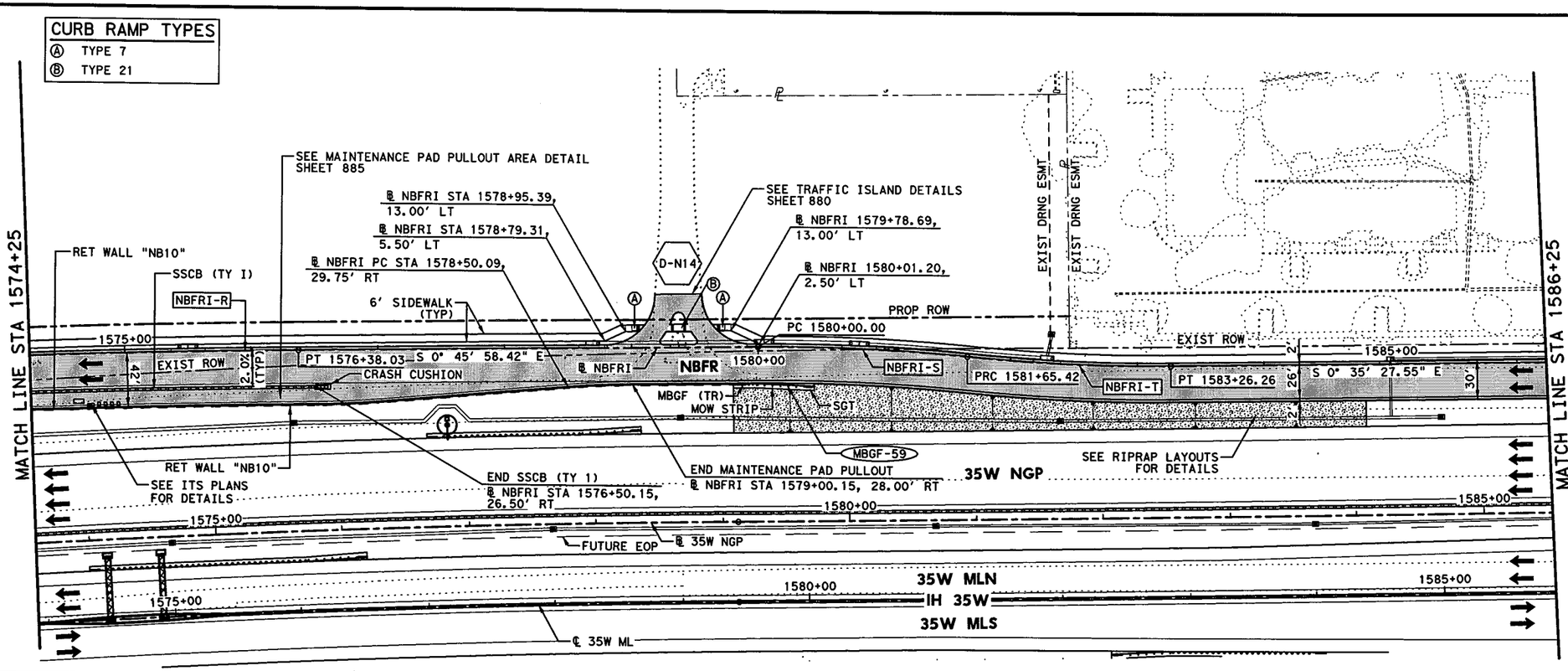
NBFR

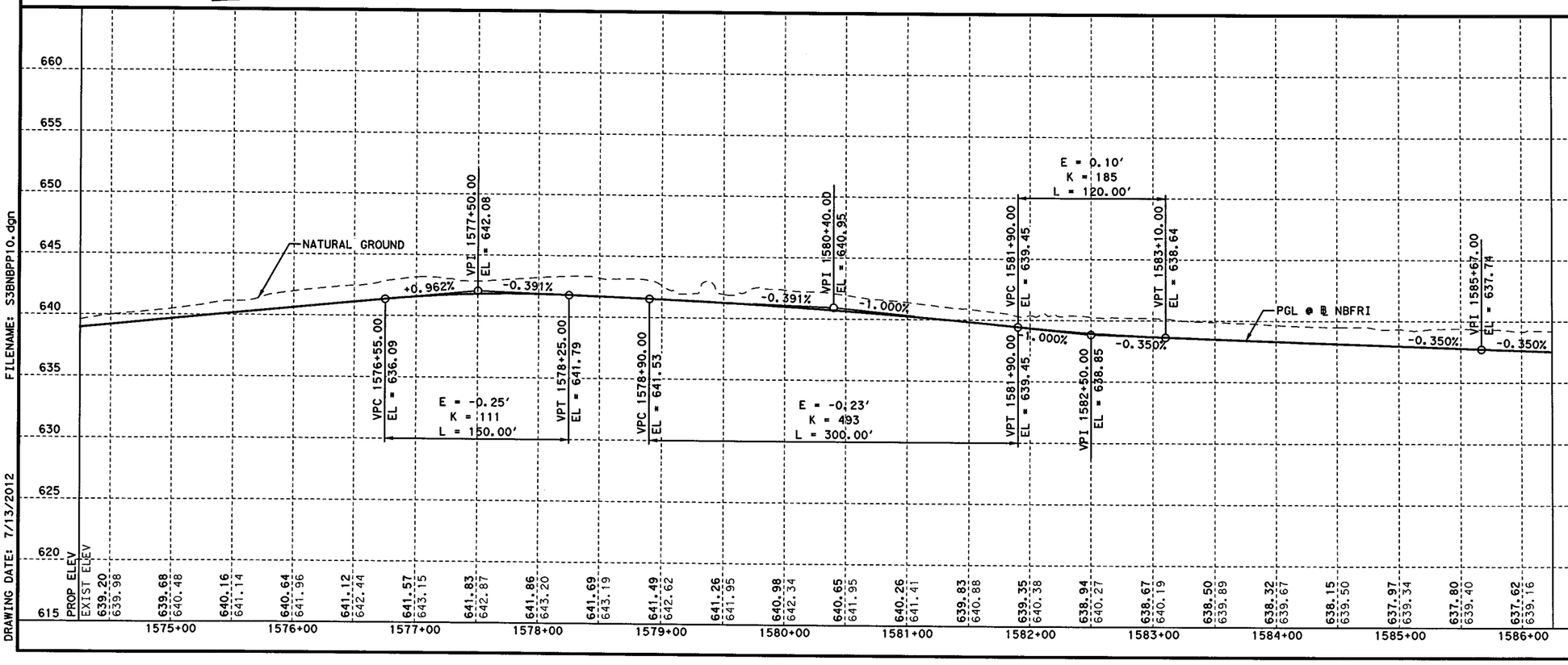
STA 1562+25 TO STA 1574+25

SCALE: 1" = 100' H, 1" = 10' V — SHEET 9 OF 11

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	775
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BNBPP09.dgn
DRAWING DATE: 7/13/2012





HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. HEIGHT OF SSCB SHALL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. SSCB SHALL NOT BE PINNED TO THE ROADWAY UNLESS NOTED OTHERWISE.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

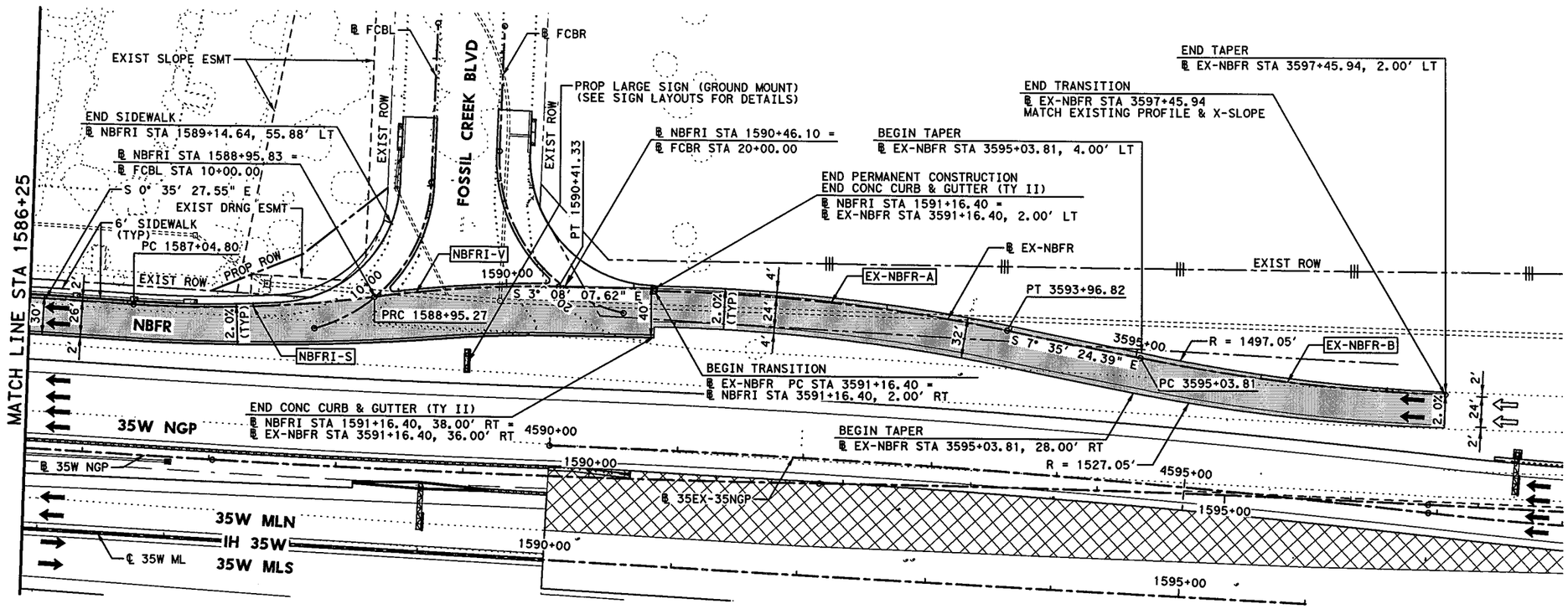
NBFR

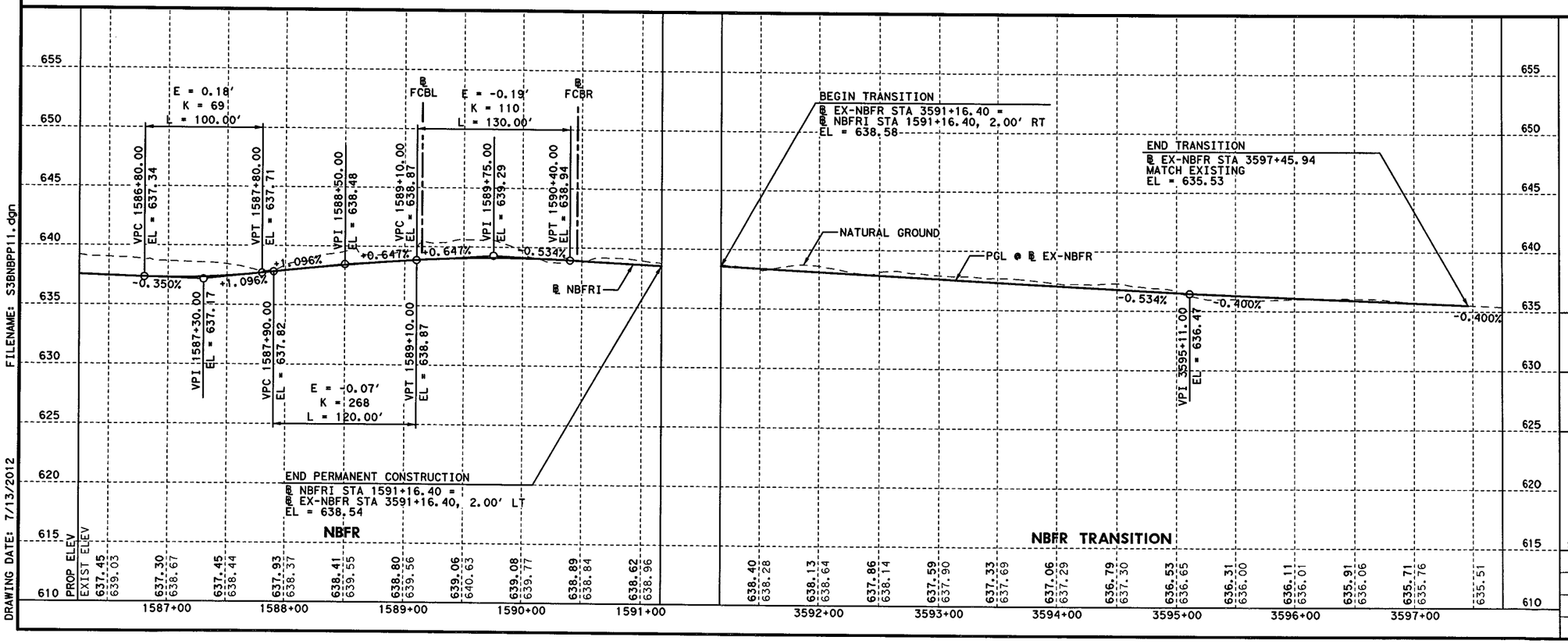
STA 1574+25 TO STA 1586+25

SCALE: 1" = 100' H, 1" = 10' V — SHEET 10 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	776
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BNBPP10.dgn
DRAWING DATE: 7/13/2012





LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR MORE INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

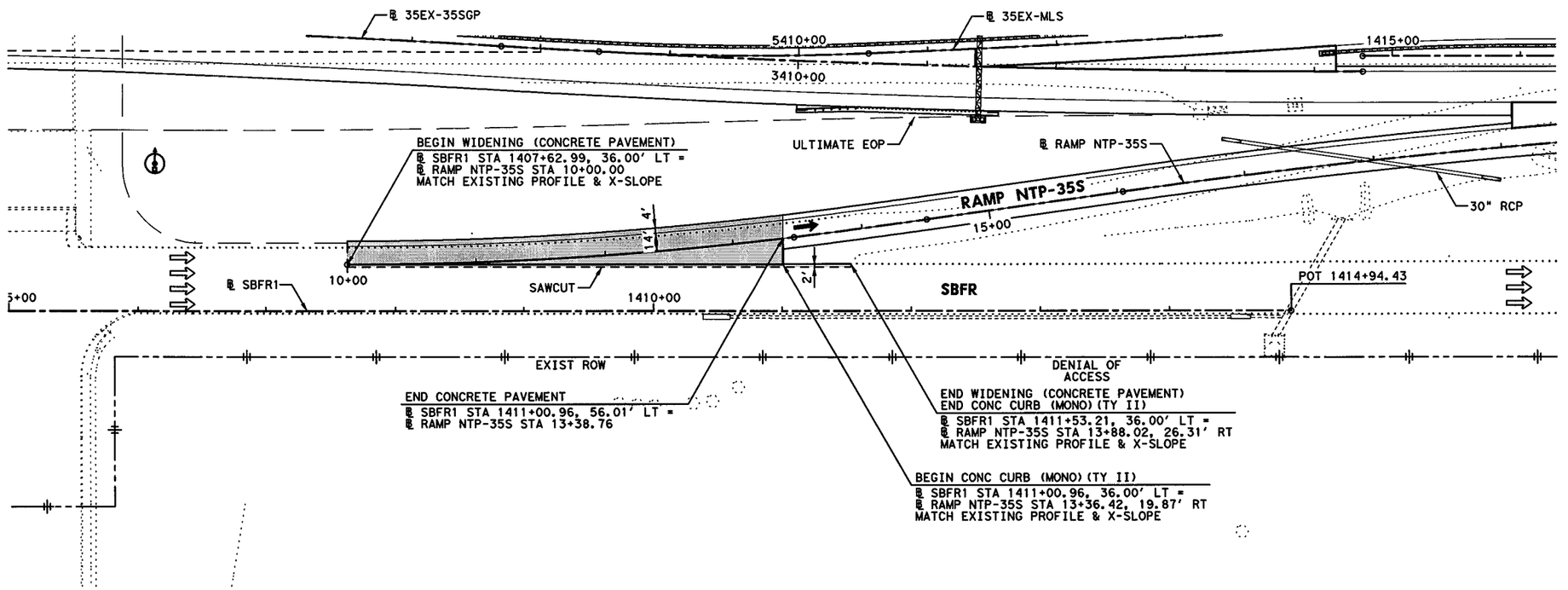
NBFR

STA 1586+25 TO STA END PROJECT

SCALE: 1" = 100' H, 1" = 10' V — SHEET 11 OF 11

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	777
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BNBPP11.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
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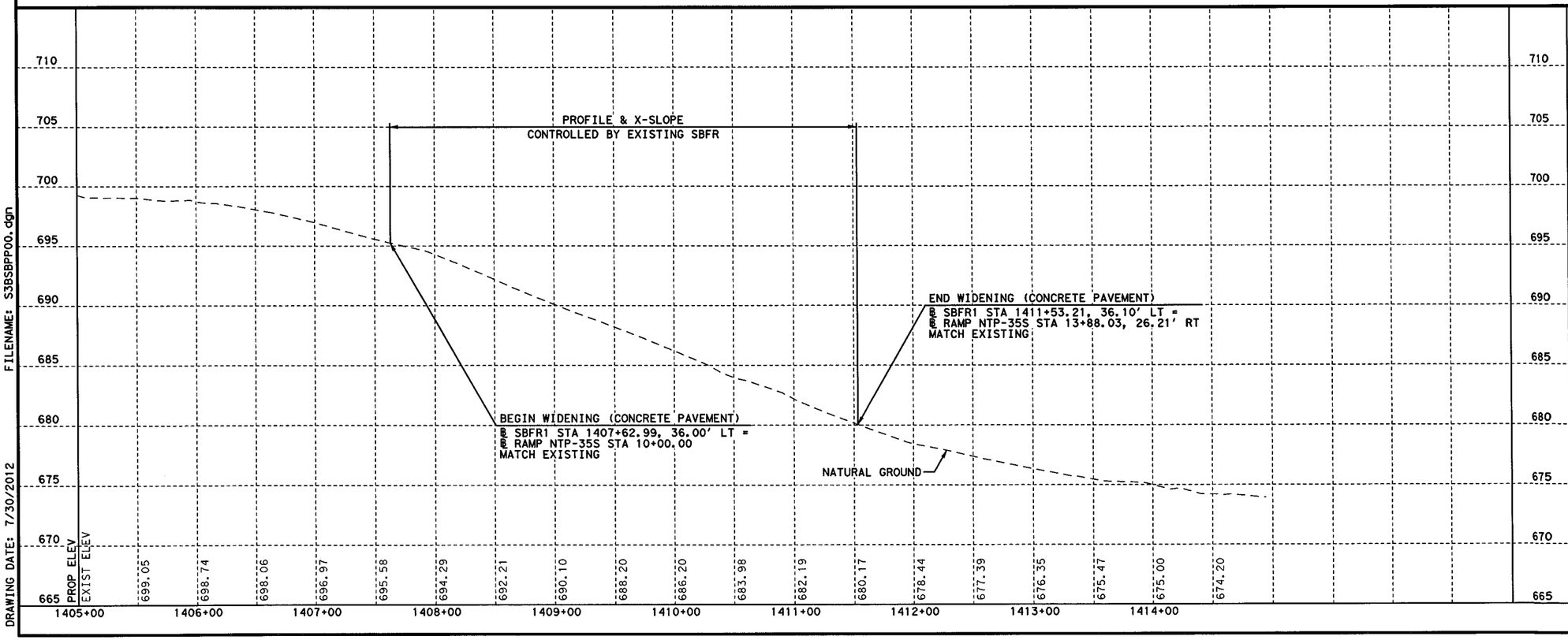
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BSBPP00.dgn
DRAWING DATE: 7/30/2012

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PROFESSIONAL ENGINEER
07/31/12

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

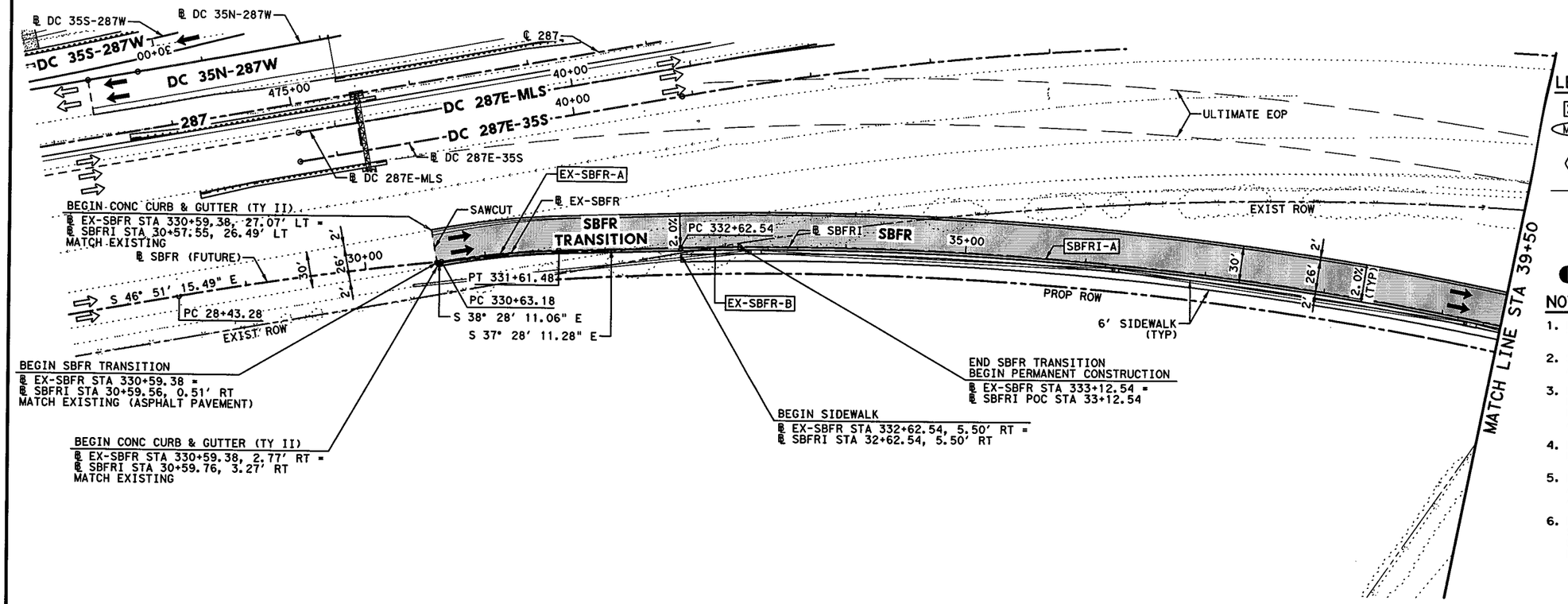
ROADWAY PLAN & PROFILE

SBFR

STA 1405+00 TO STA 1414+94.43

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 12

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	778
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



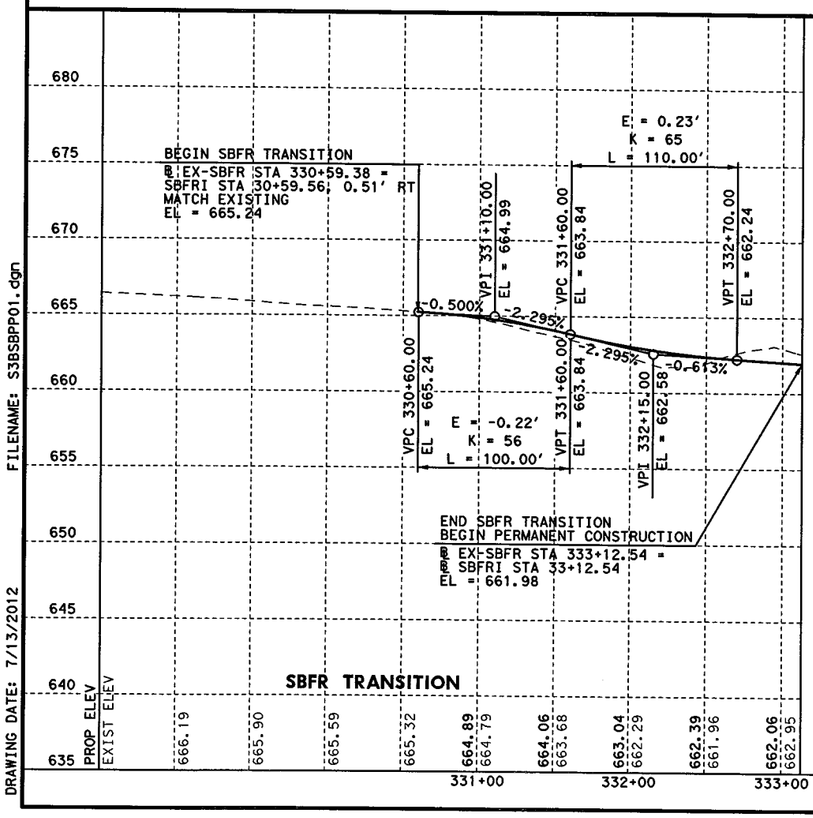
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

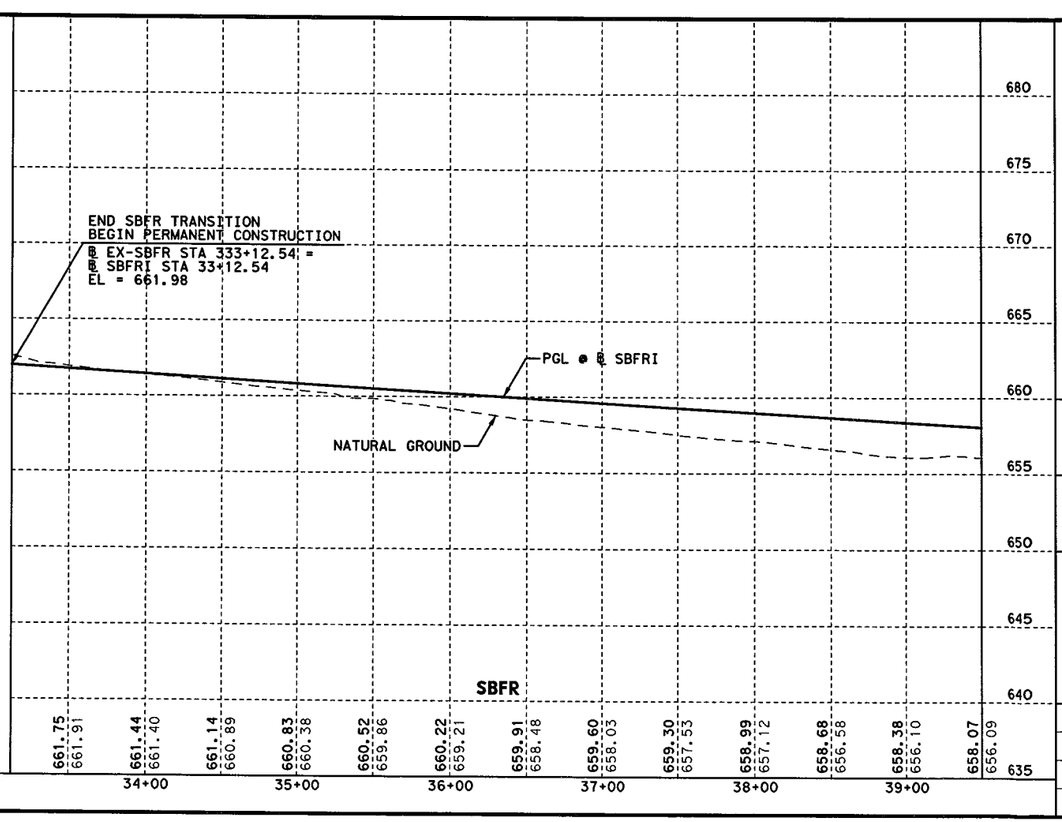
LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.





FILENAME: 53BSBPP01.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
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LICENSED
PROFESSIONAL ENGINEER
07/13/12

KCI KENNEDY CONSULTING
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

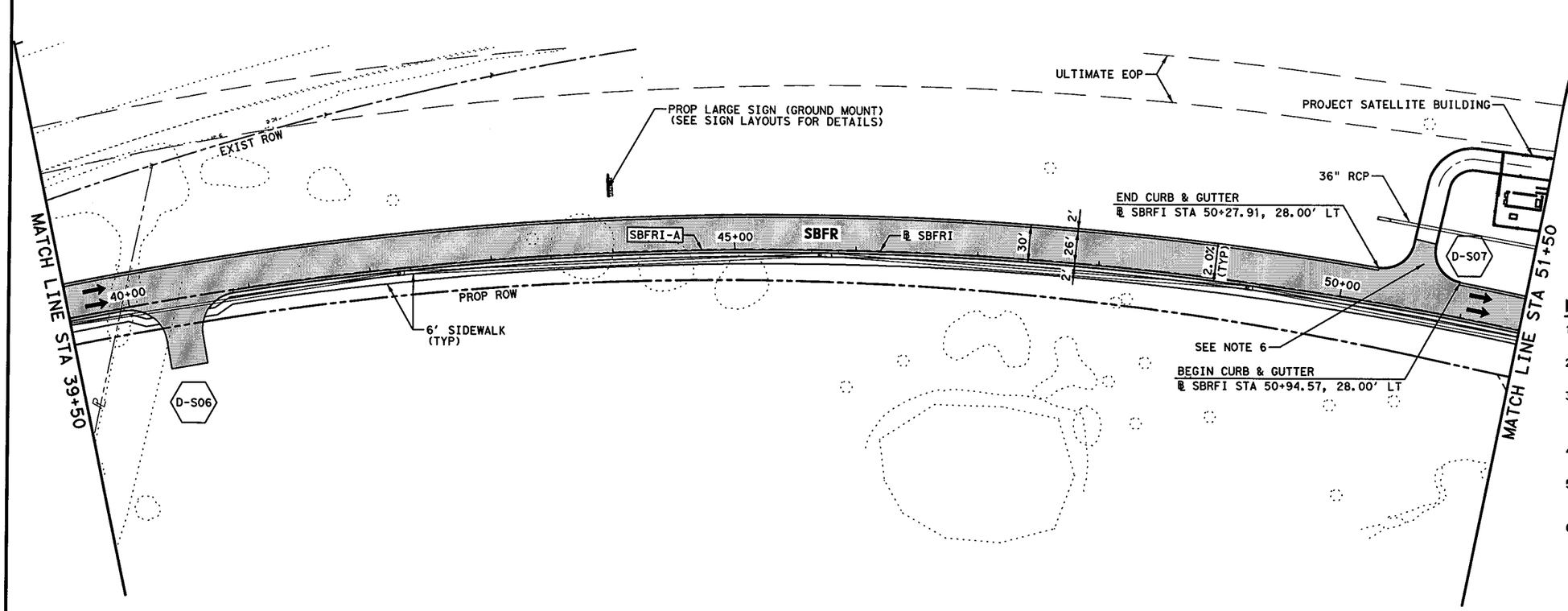
ROADWAY PLAN & PROFILE

SBFR

STA 27+50 TO STA 39+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 12

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	779
KCI	0014	16	255, ETC.	
CHECK				



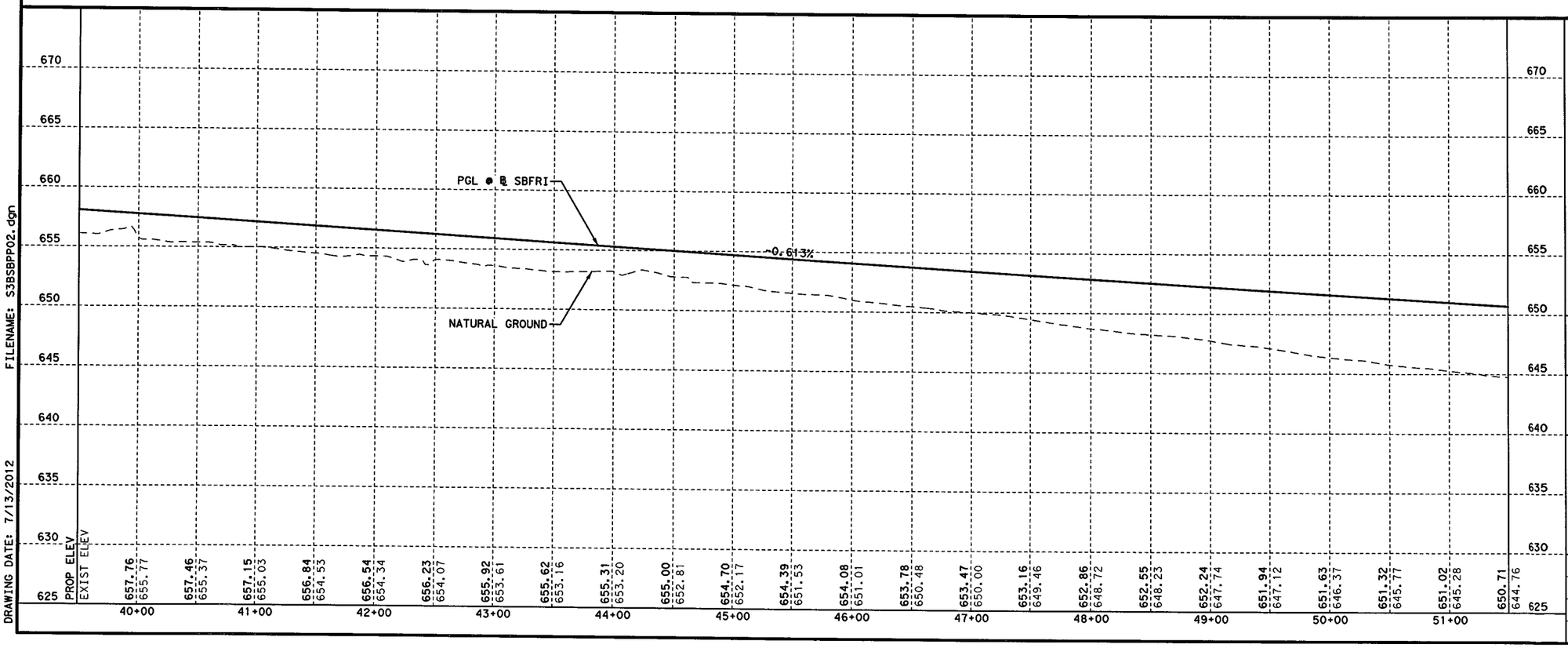
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
6. REFER TO TOLL LAYOUT PROJECT SATELLITE BUILDING SHEET FOR ADDITIONAL INFORMATION ON DRIVEWAY D-S07.



FILENAME: S3BSBPP02.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
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LICENSED
PROFESSIONAL ENGINEER
Syed Shahid Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

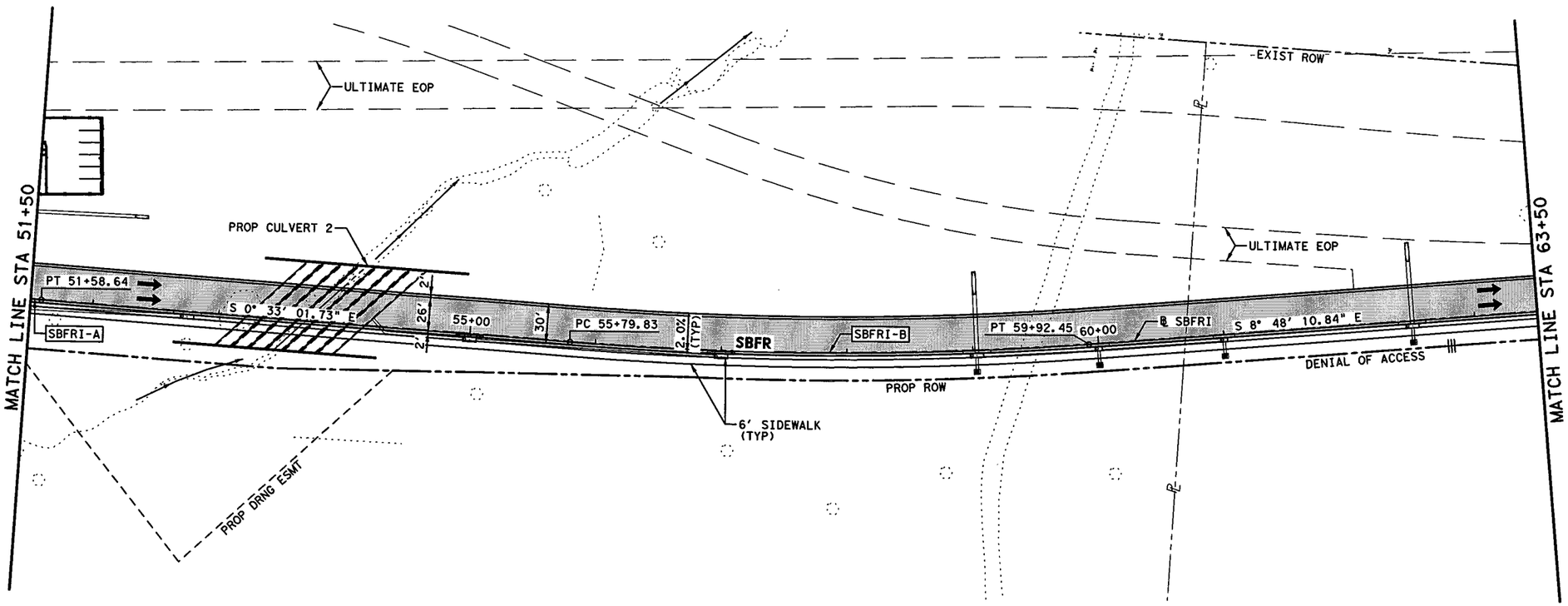
ROADWAY PLAN & PROFILE

SBFR

STA 39+50 TO STA 51+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 3 OF 12

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	780
KCI	0014	16	255, ETC.	
CHECK				
KCI				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
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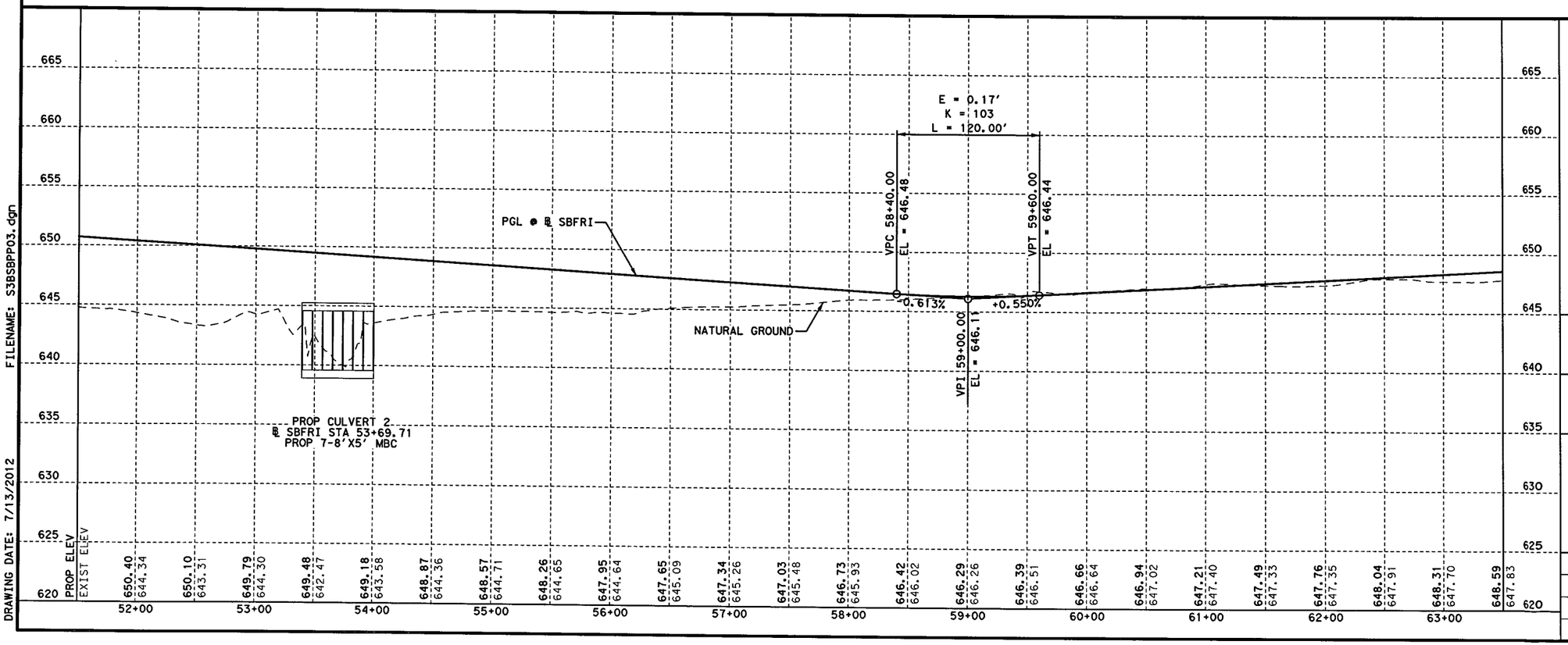
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: 53BSBPP03.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

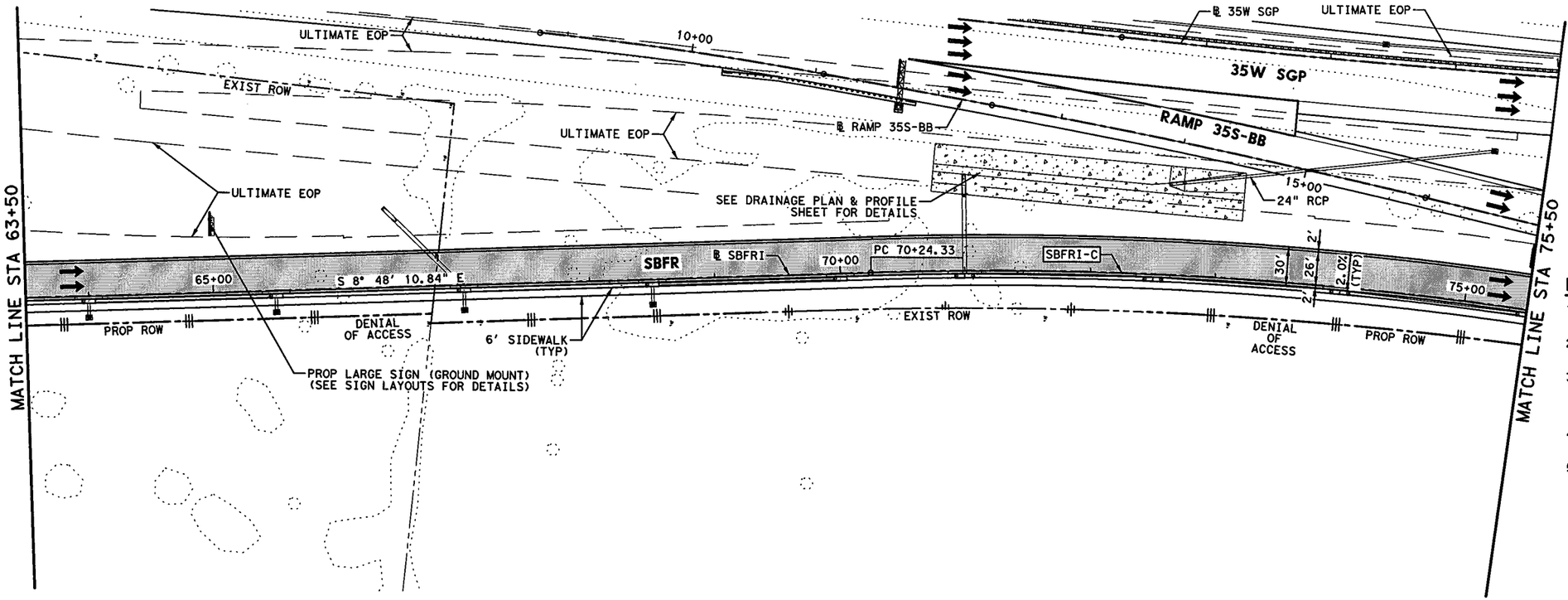
ROADWAY PLAN & PROFILE

SBFR

STA 51+50 TO STA 63+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 4 OF 12

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	781
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
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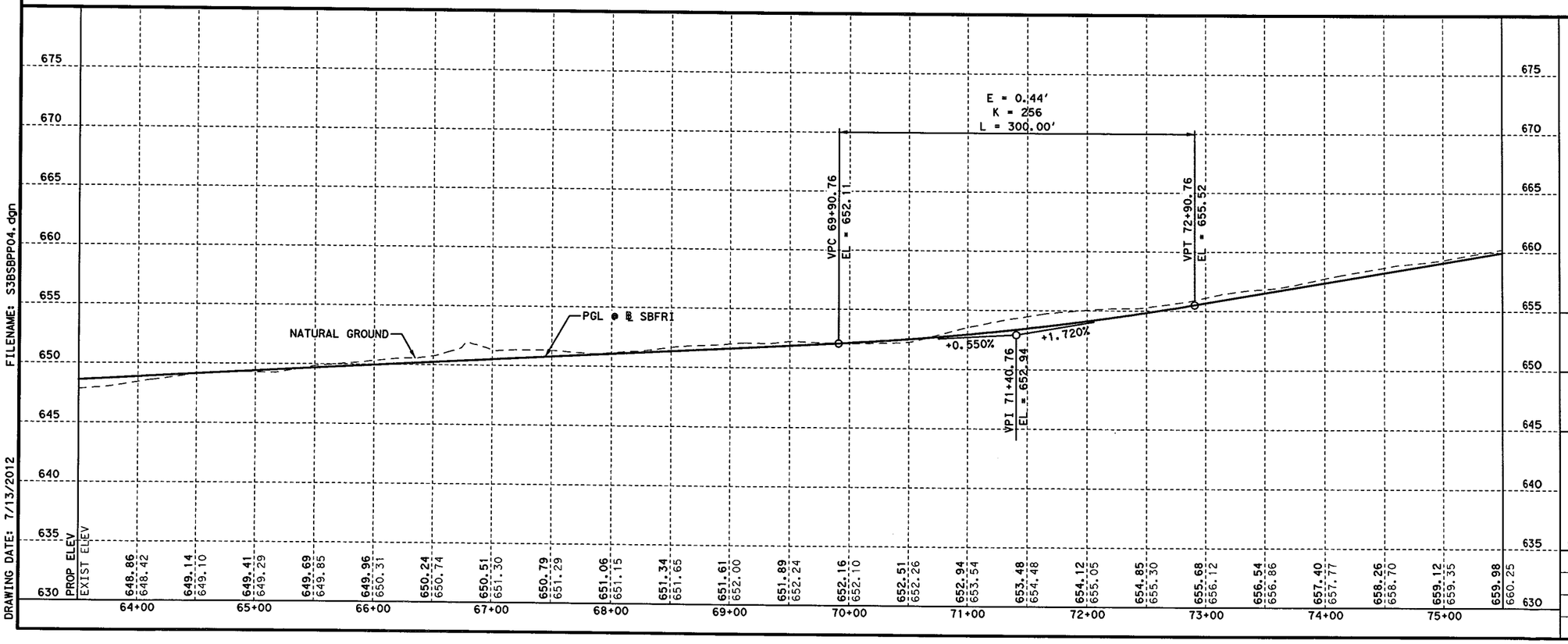
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: S3BSBPP04.dgn
DRAWING DATE: 7/13/2012

SYED S. HAQ
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STATE OF TEXAS
07/13/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

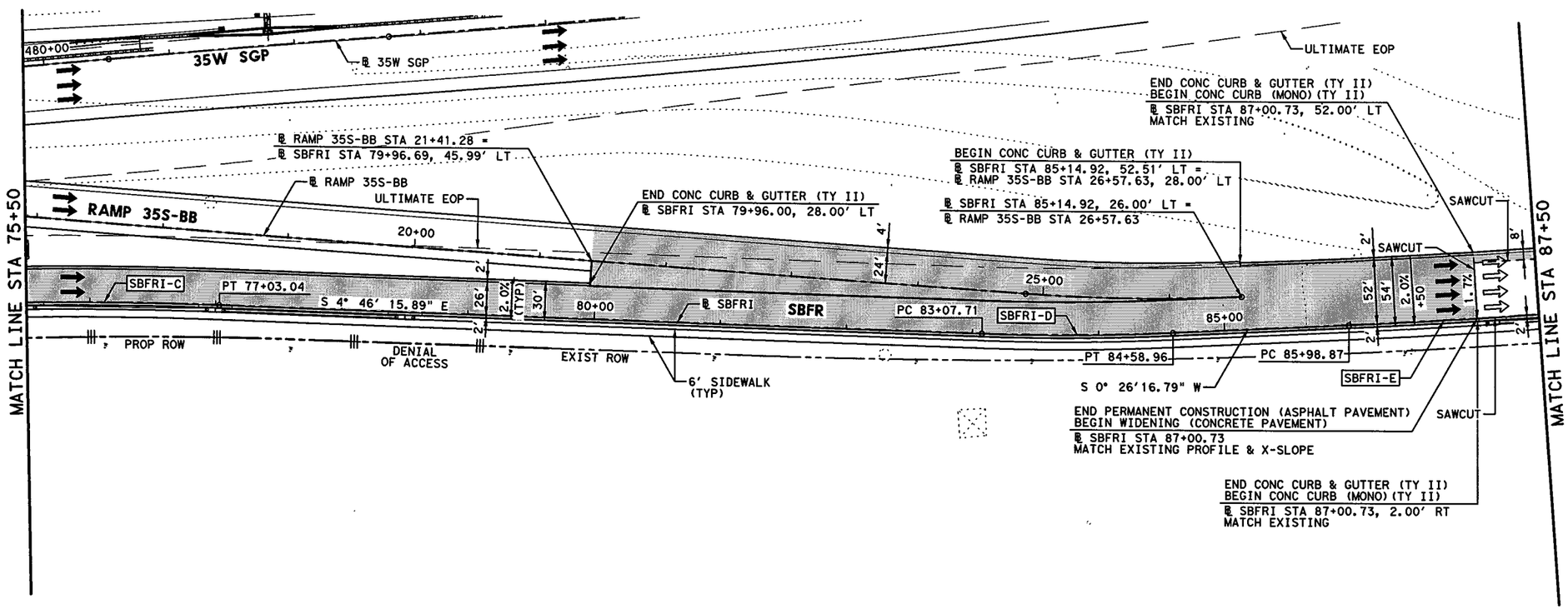
ROADWAY PLAN & PROFILE

SBFR

STA 63+50 TO STA 75+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 5 OF 12

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	782
KCI	0014	16	255, ETC.	
CHECK				
KCI				



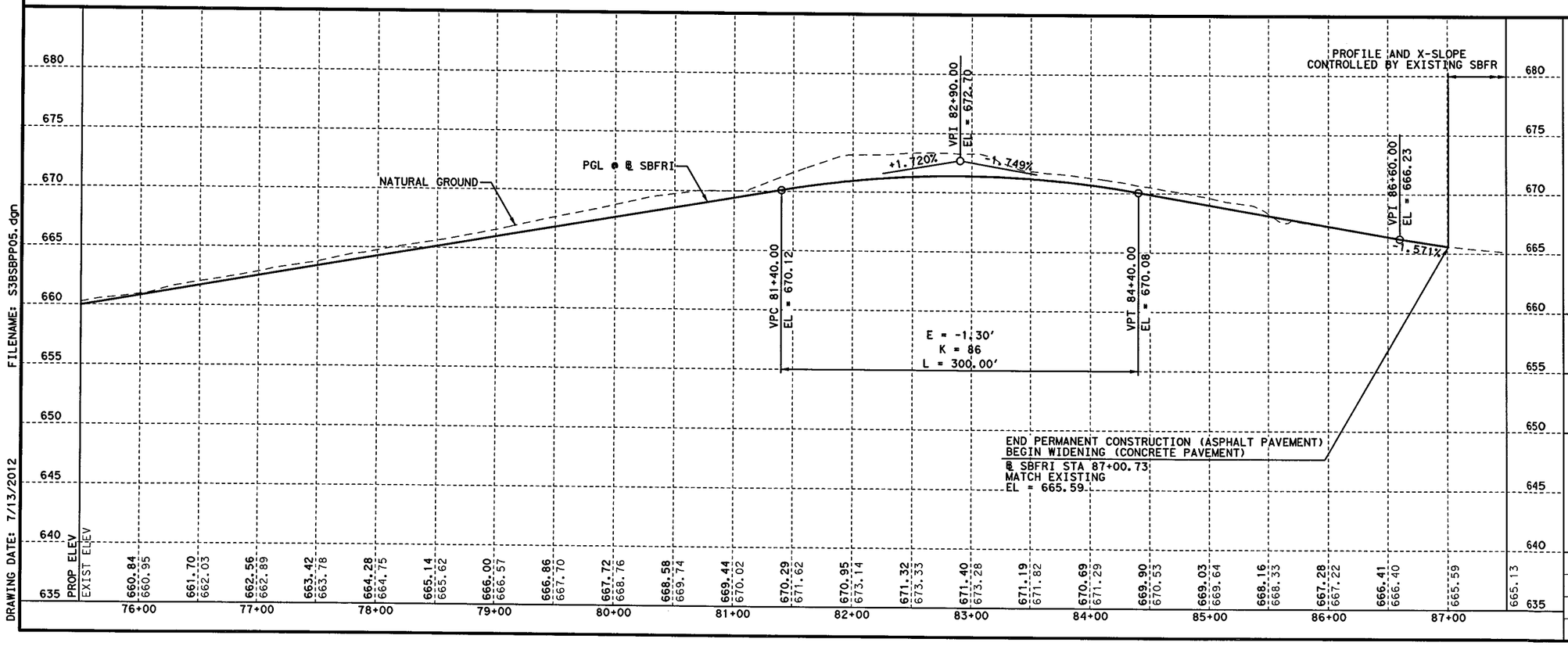
LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BSBPP05.dgn
DRAWING DATE: 7/13/2012

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STATE OF TEXAS
07/13/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

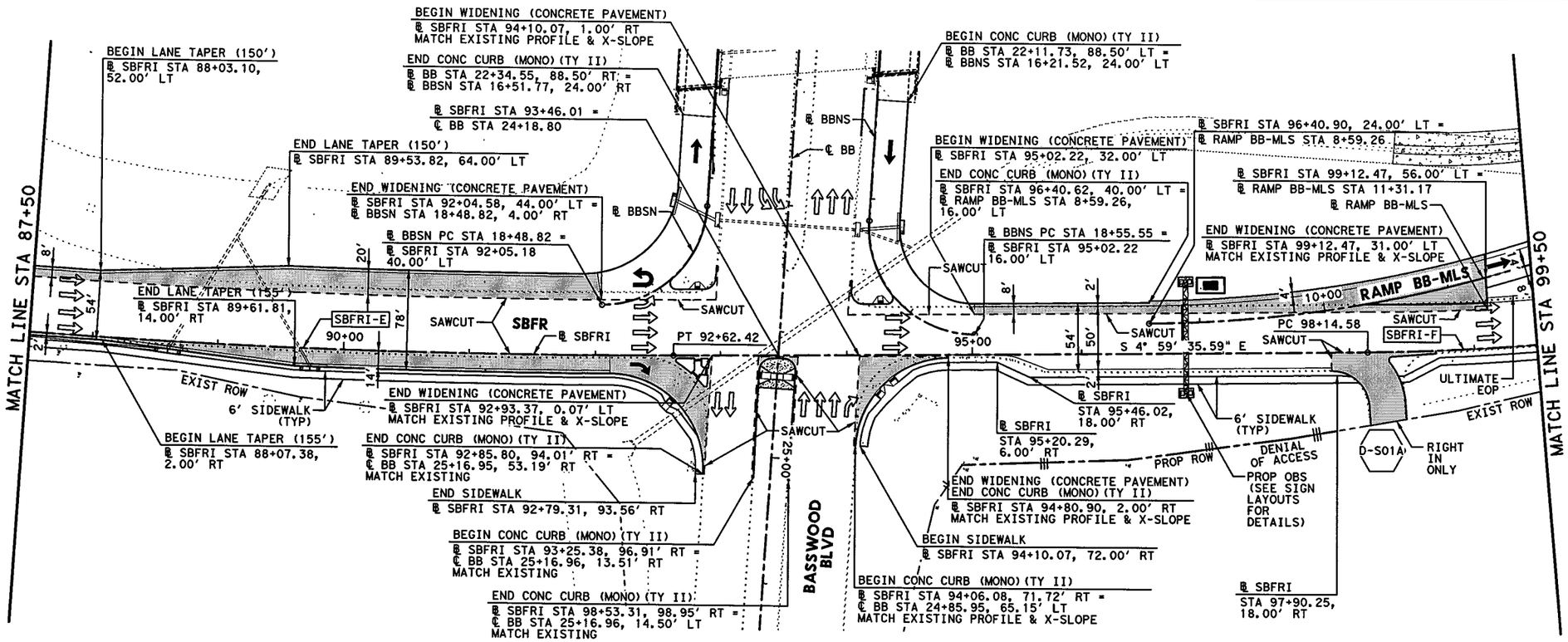
ROADWAY PLAN & PROFILE

SBFR

STA 75+50 TO STA 87+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 6 OF 12

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	783
CHECK KCI	0014	16	255, ETC.	



NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
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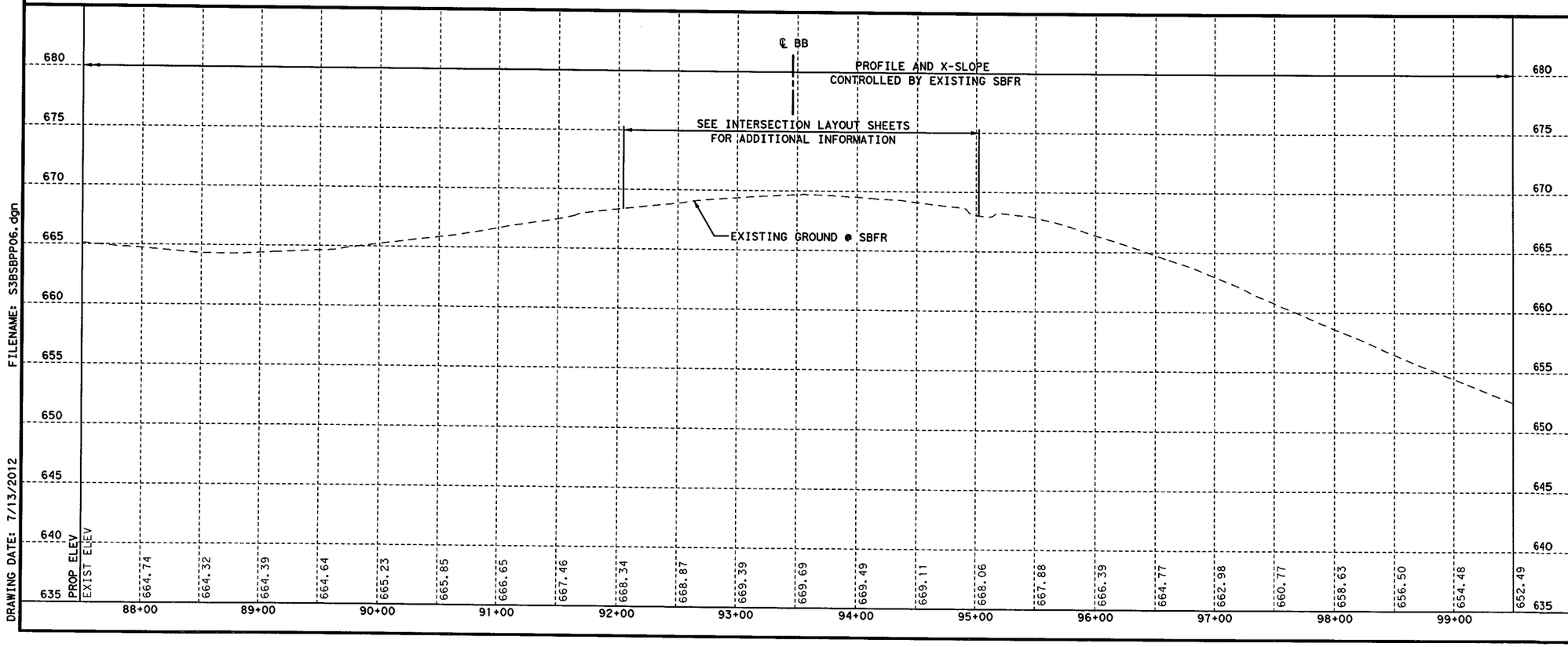
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BSBPP06.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
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94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

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TBPE REGISTRATION NO. F-926

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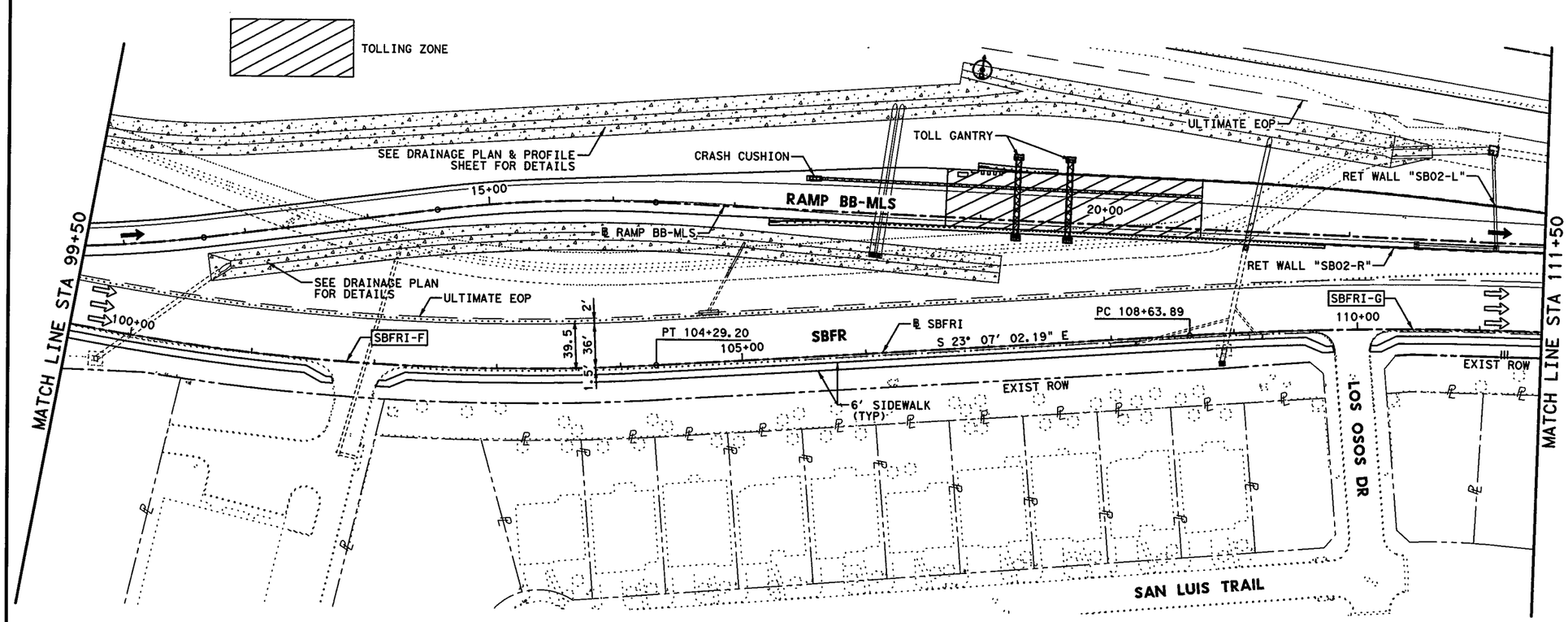
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
SBFR
STA 87+50 TO STA 99+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 7 OF 12

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	784
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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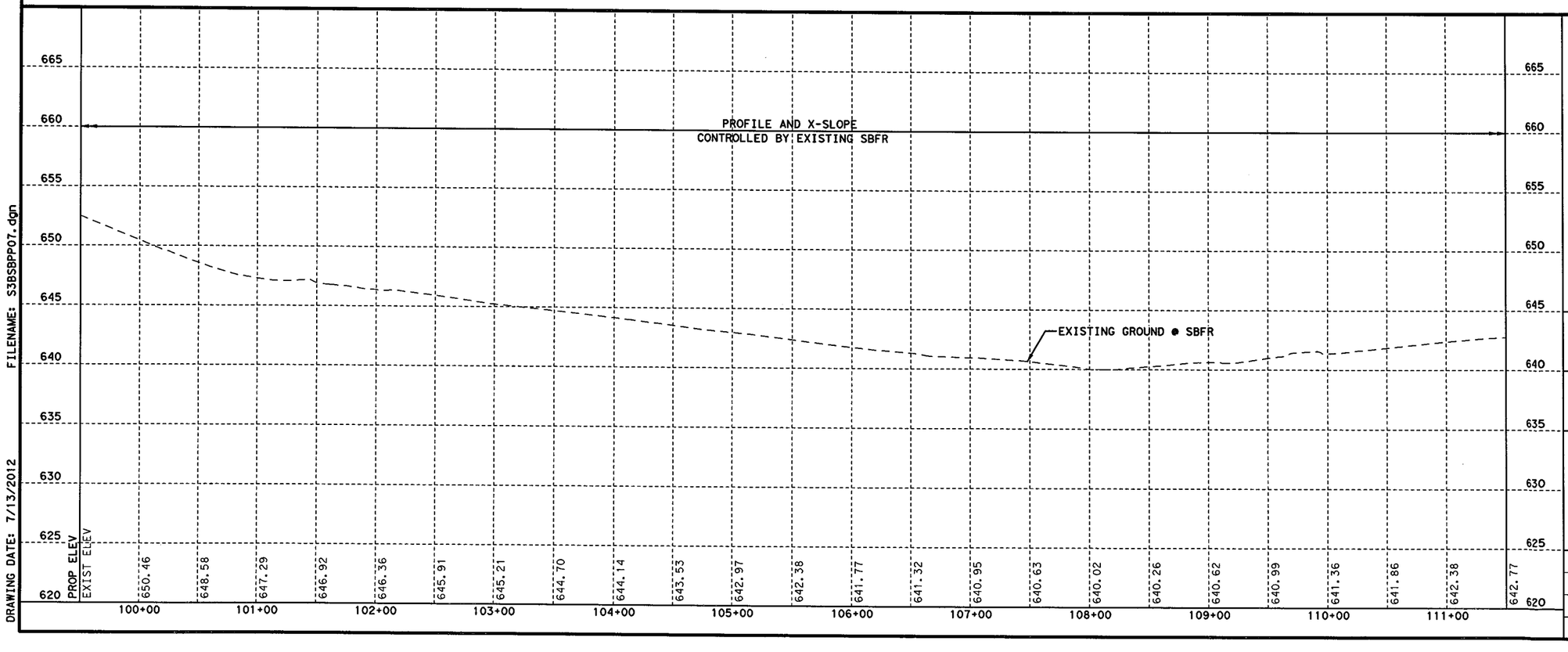
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BSBPP07.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

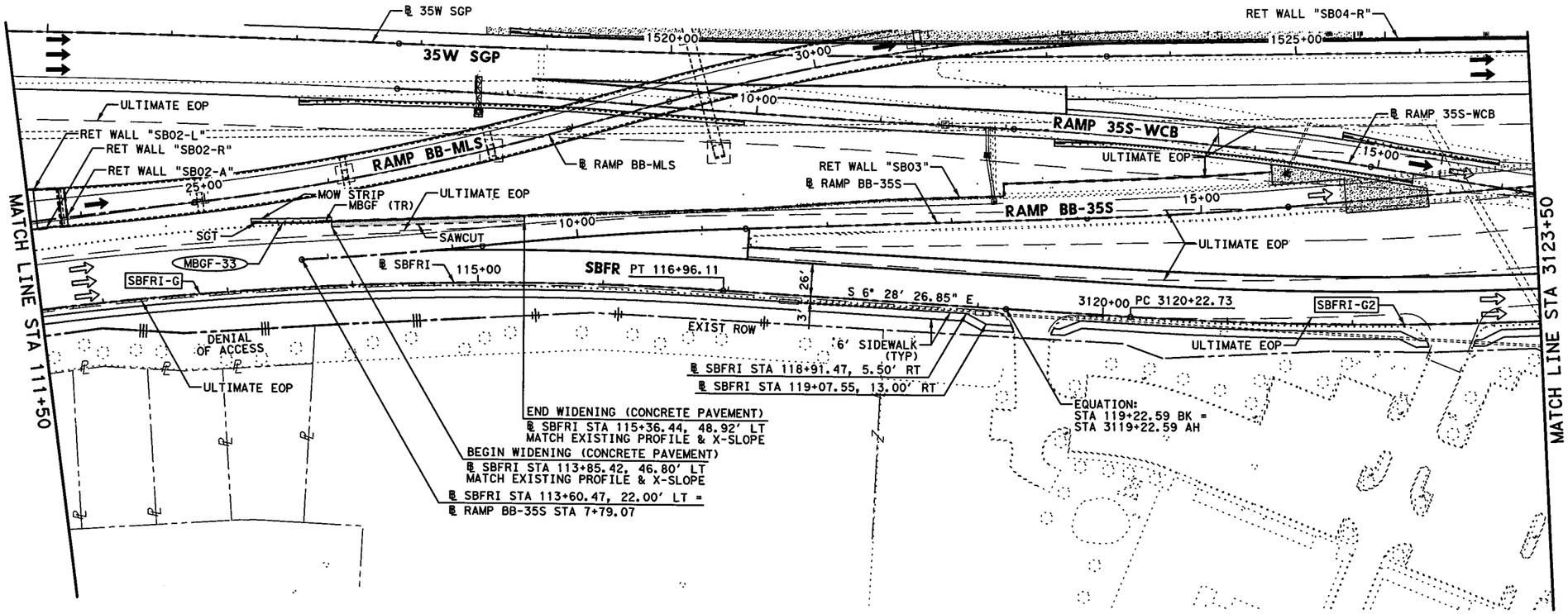
ROADWAY PLAN & PROFILE

SBFR

STA 99+50 TO STA 111+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 8 OF 12

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	785
KCI	0014	16	255, ETC.	
CHECK				



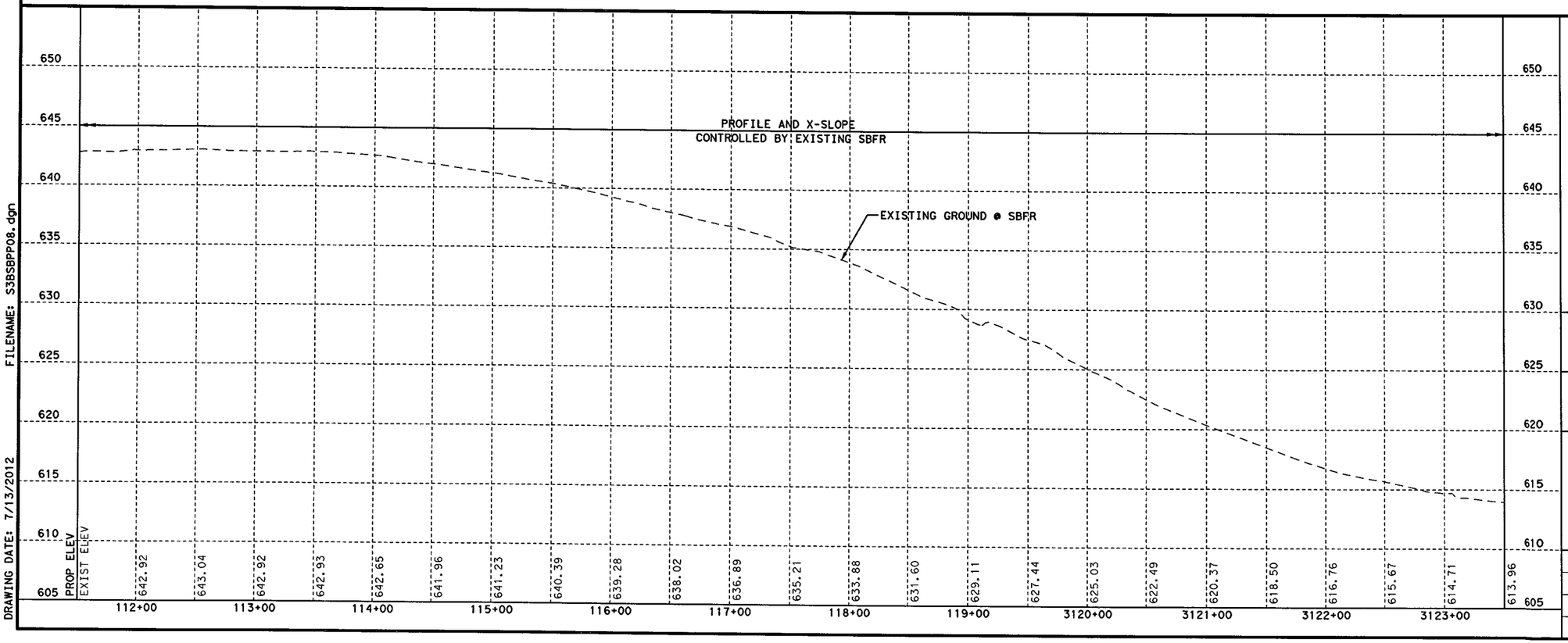
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
7. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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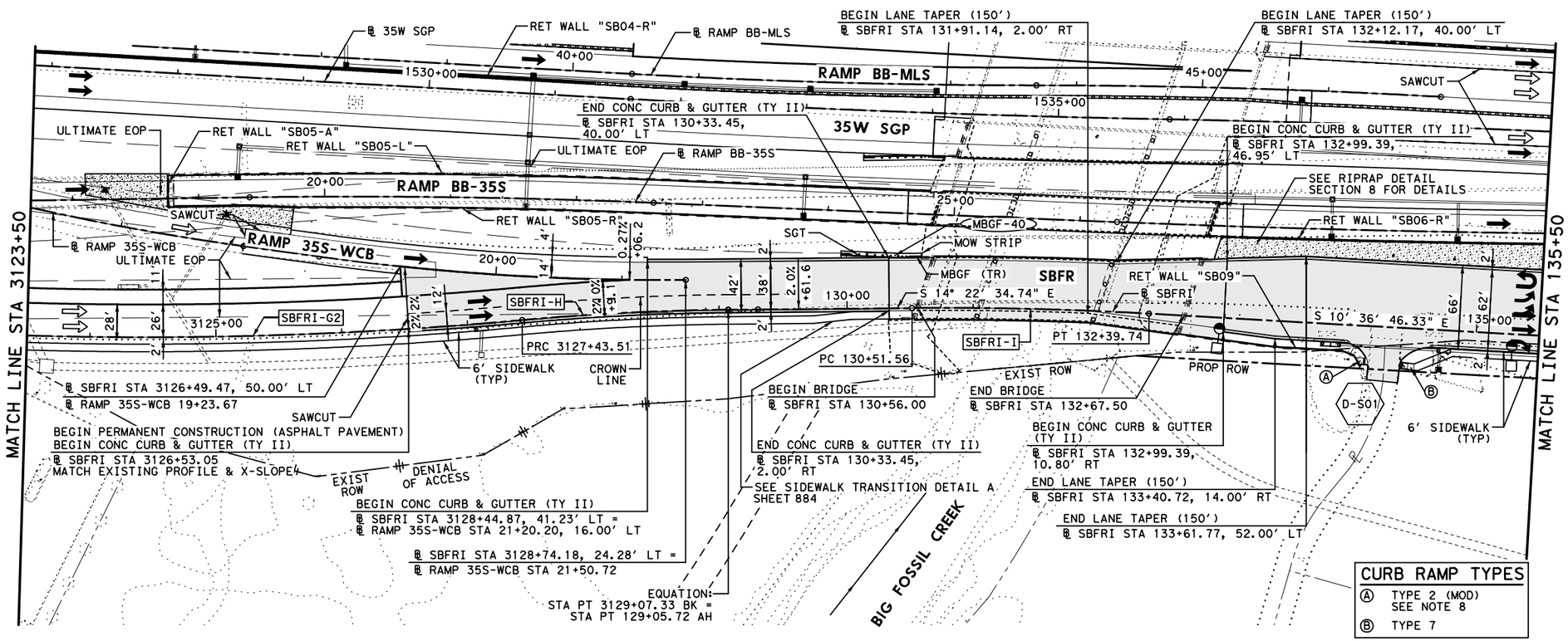
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
SBFR
STA 111+50 TO STA 3123+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 9 OF 12

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	786
KCI	0014	16	255, ETC.	
CHECK				

DRAWING DATE: 7/13/2012 FILENAME: S3BSBPP08.dgn



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
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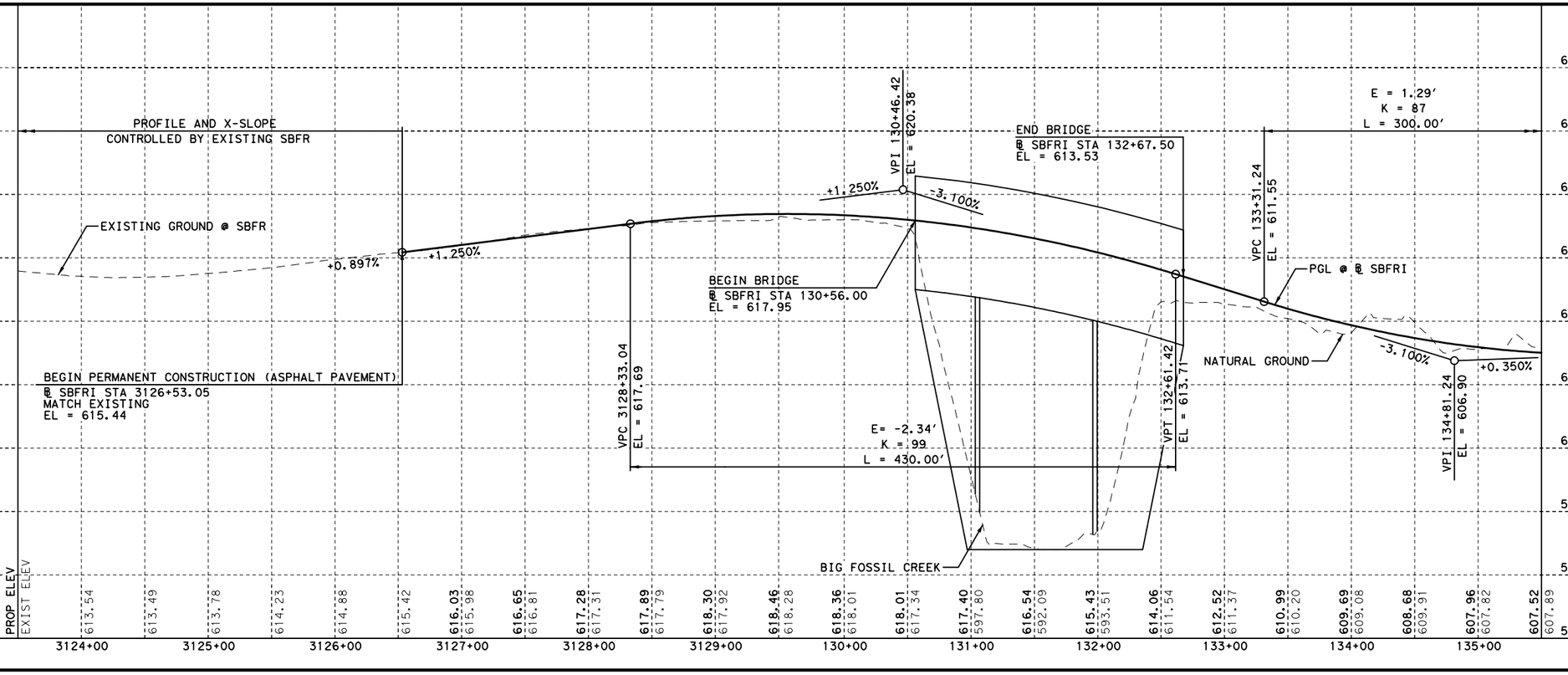
6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
7. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.
8. REFER TO TRAFFIC ISLAND DETAIL FOR ADDITIONAL INFORMATION.



FILENAME: S3BSBPP09.dgn
DRAWING DATE: 8/22/2012

SYED S. HAQ 94660 LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
08/22/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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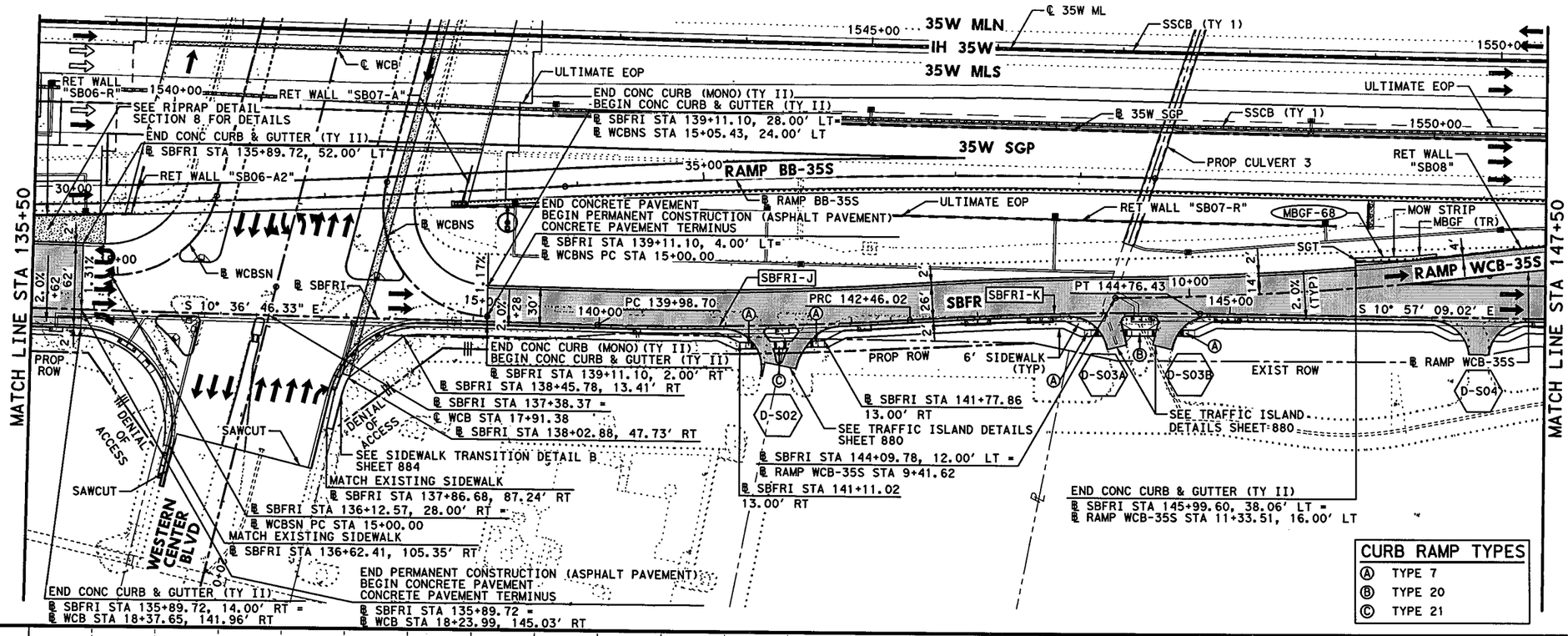
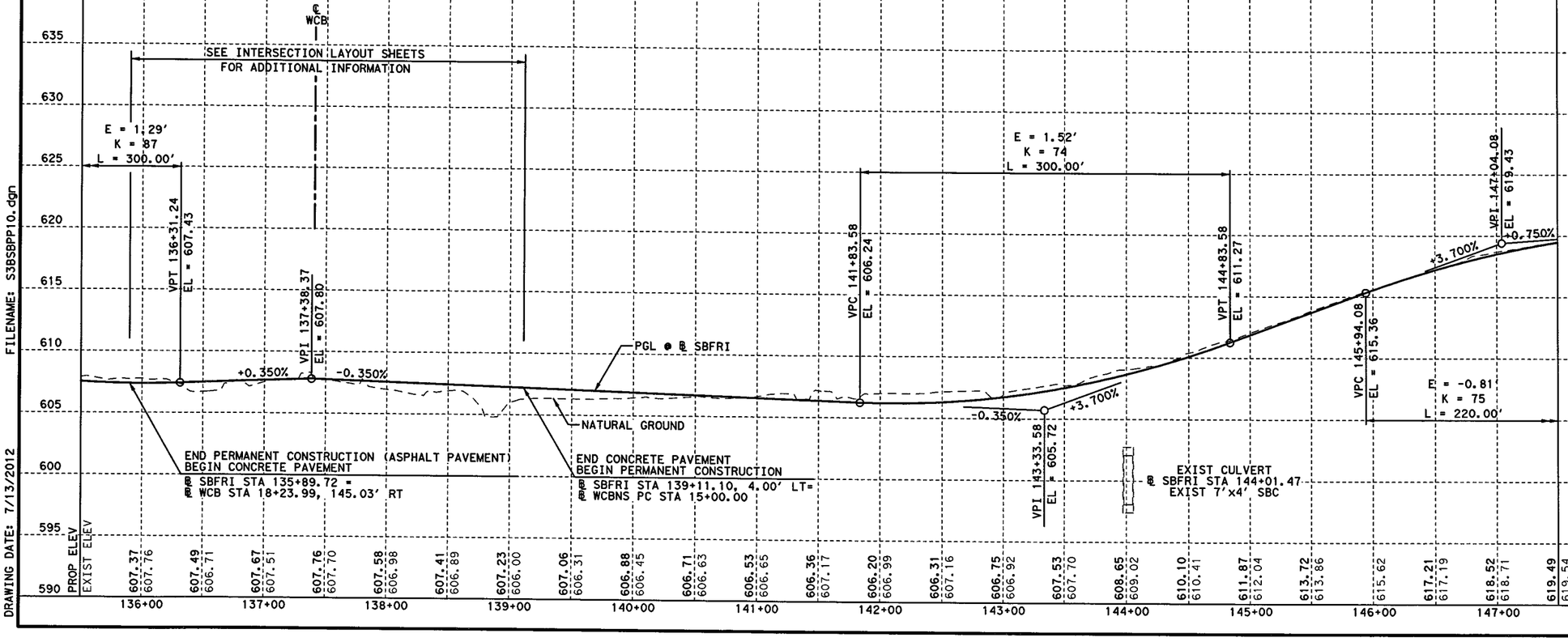
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
SBFR
STA 3123+50 TO STA 135+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 10 OF 12

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	787
KCI	0014	16	255, ETC.	
CHECK				
KCI				





FILENAME: S3BSBPP10.dgn

DRAWING DATE: 7/13/2012

CURB RAMP TYPES

- Ⓐ TYPE 7
- Ⓑ TYPE 20
- Ⓒ TYPE 21

HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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6. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
7. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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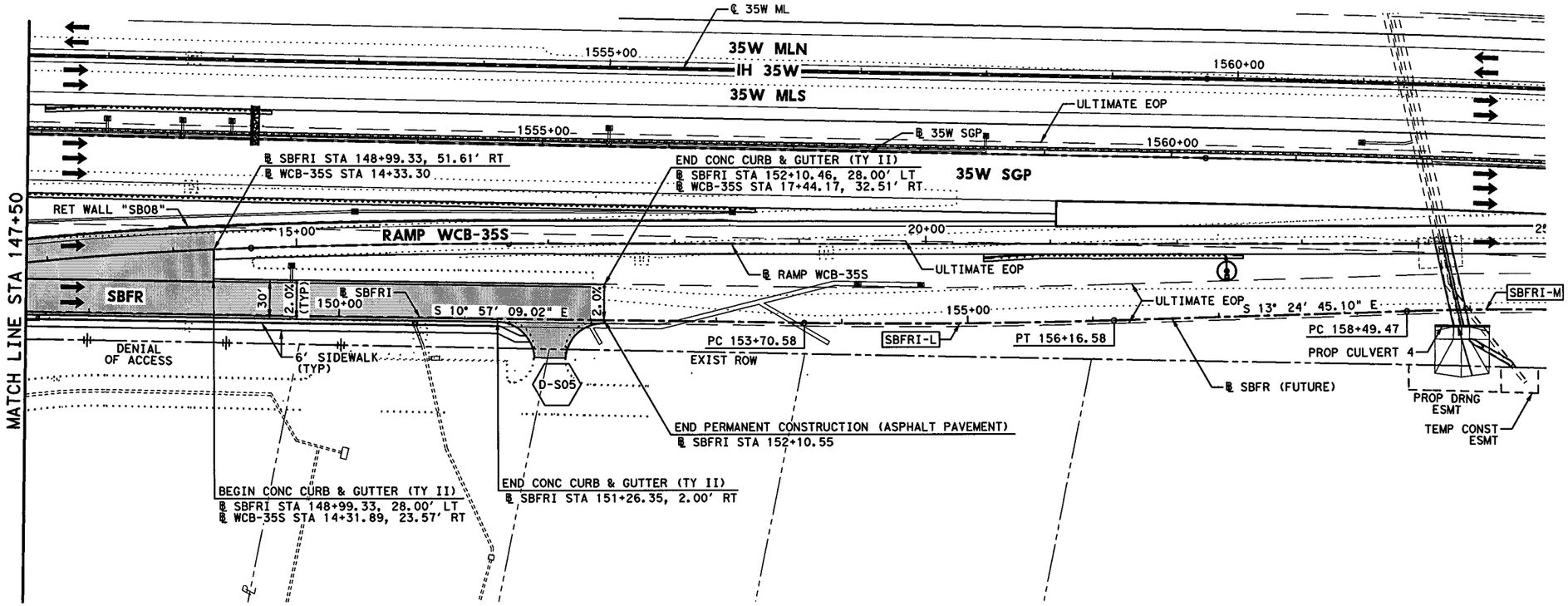
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
SBFR
STA 135+50 TO STA 147+50

SCALE: 1" = 100' H, 1" = 10' V — SHEET 11 OF 12

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	788
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- D-XXX — DRIVEWAY ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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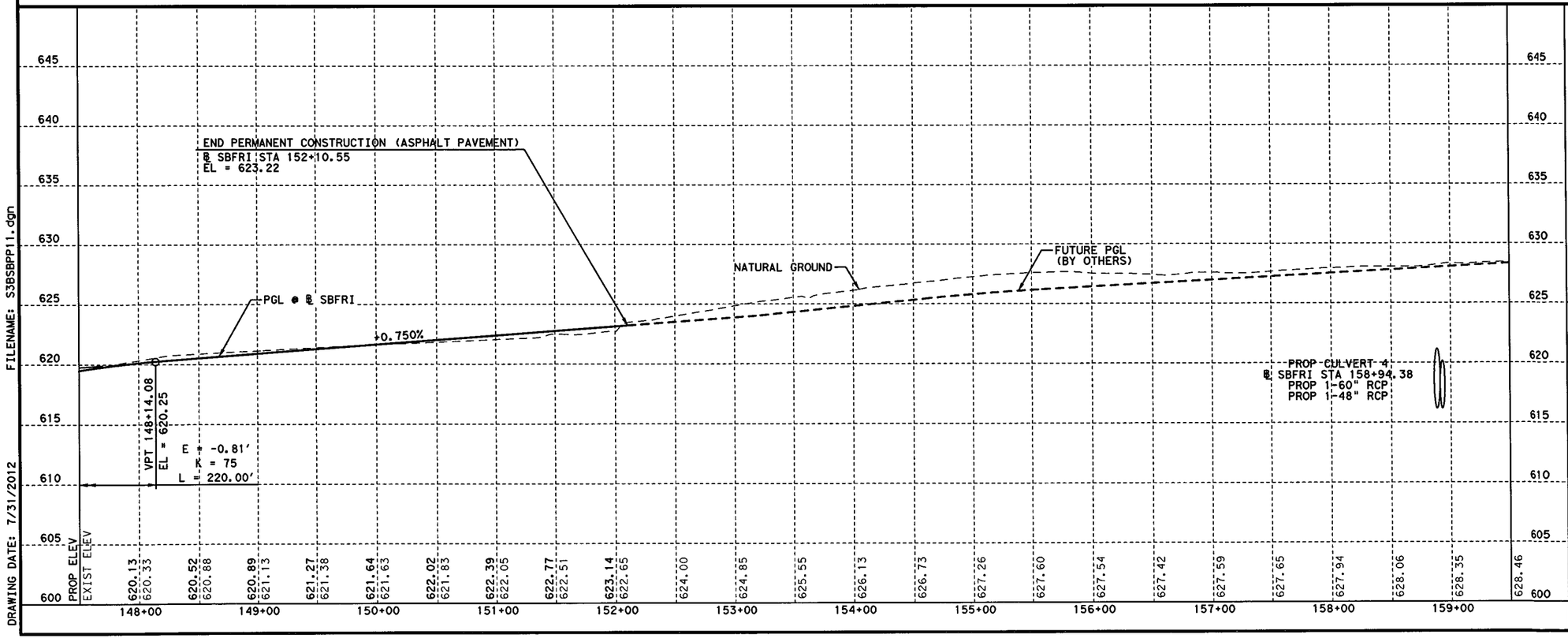
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO DRIVEWAY PROFILES, DRIVEWAY DETAIL, AND INTERSECTION LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BSBPP11.dgn
DRAWING DATE: 7/31/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/31/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

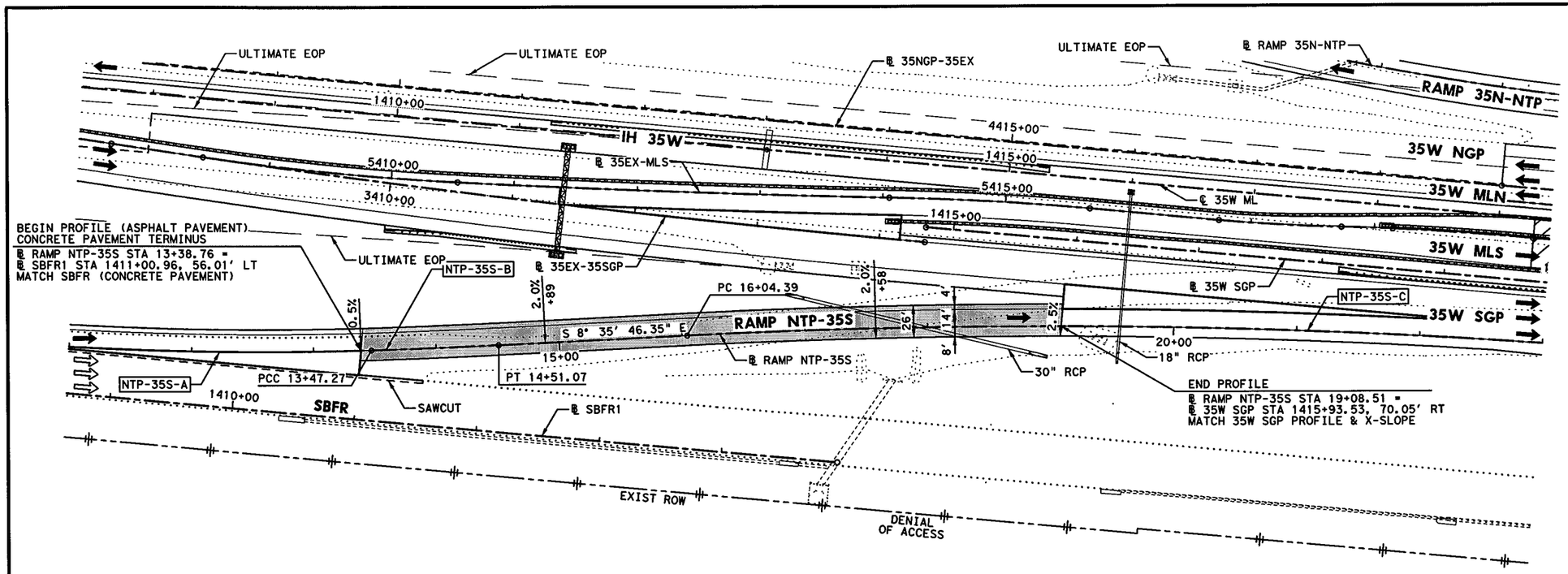
ROADWAY PLAN & PROFILE

SBFR

STA 147+50 TO END PROJECT

SCALE: 1" = 100' H, 1" = 10' V — SHEET 12 OF 12

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	789
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
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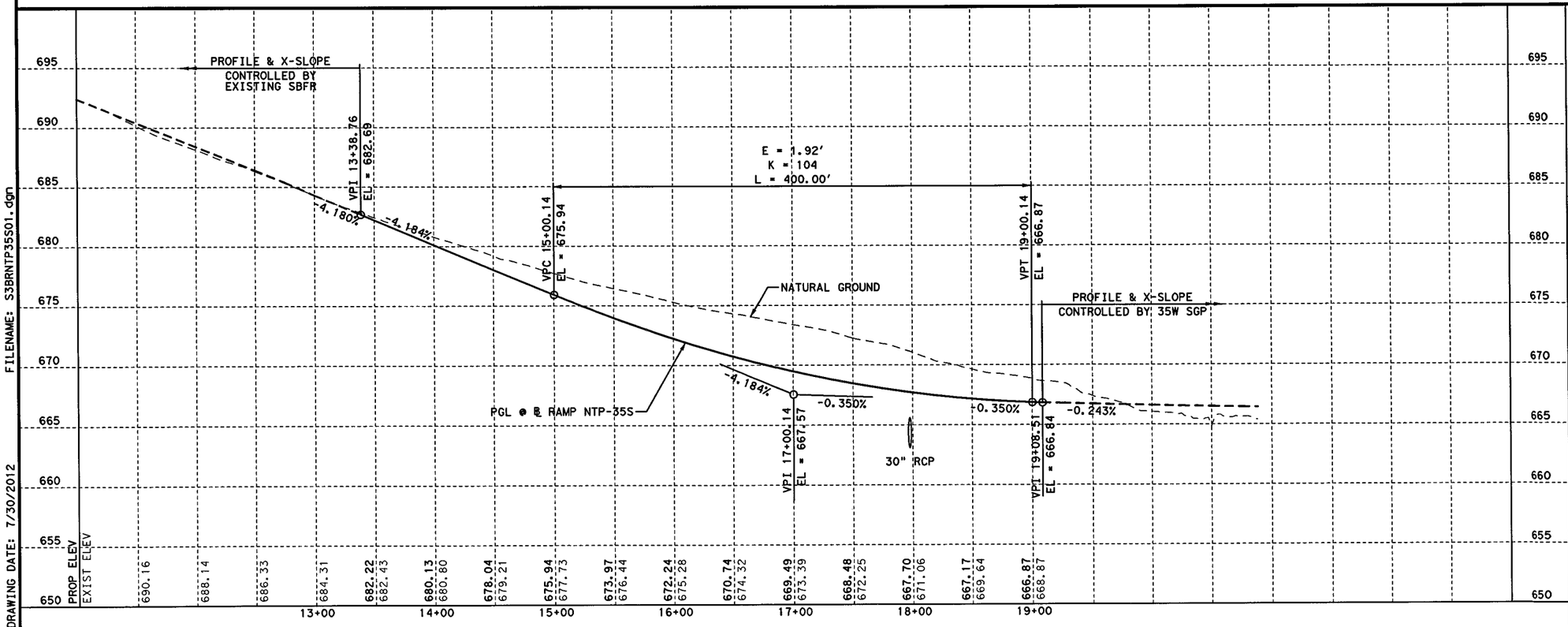
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, AND DIRECT CONNECTORS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BRNTP35S01.dgn
DRAWING DATE: 7/30/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/31/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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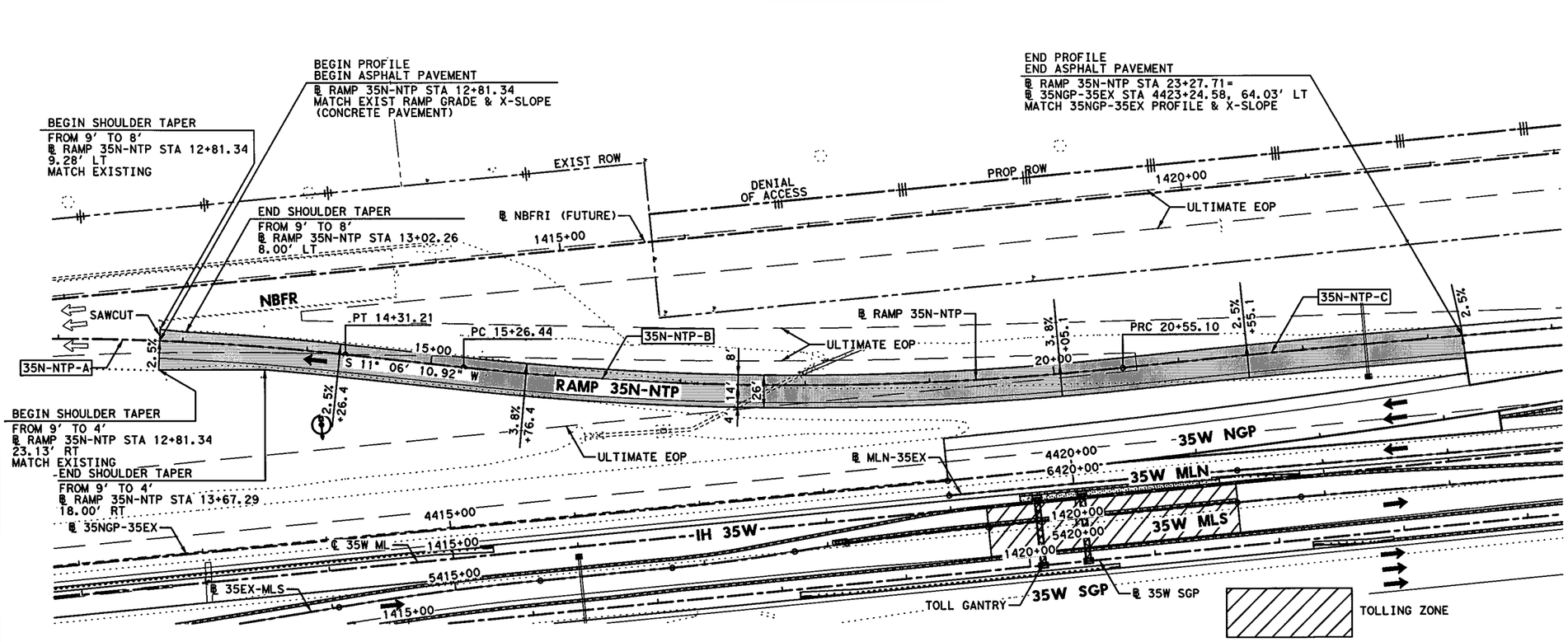
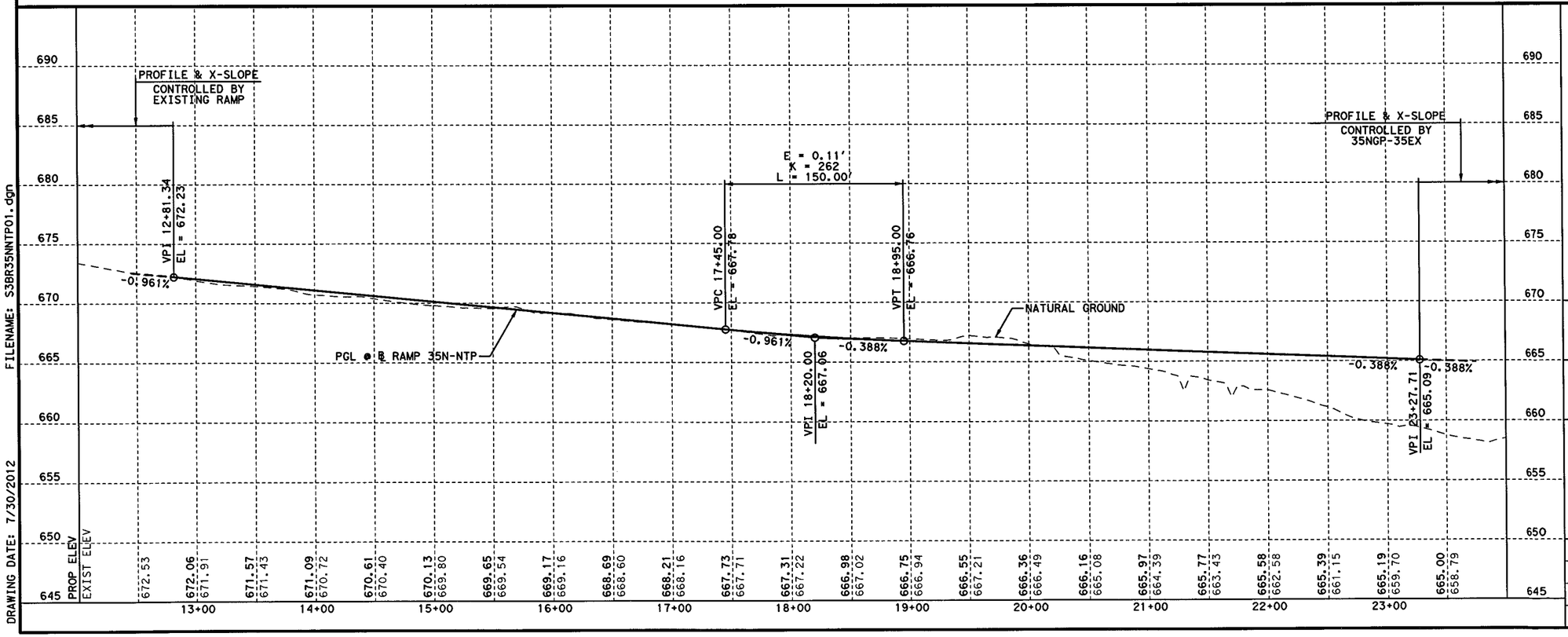
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP NTP-35S

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	790
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	





STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/31/12
KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP 35N-NTP

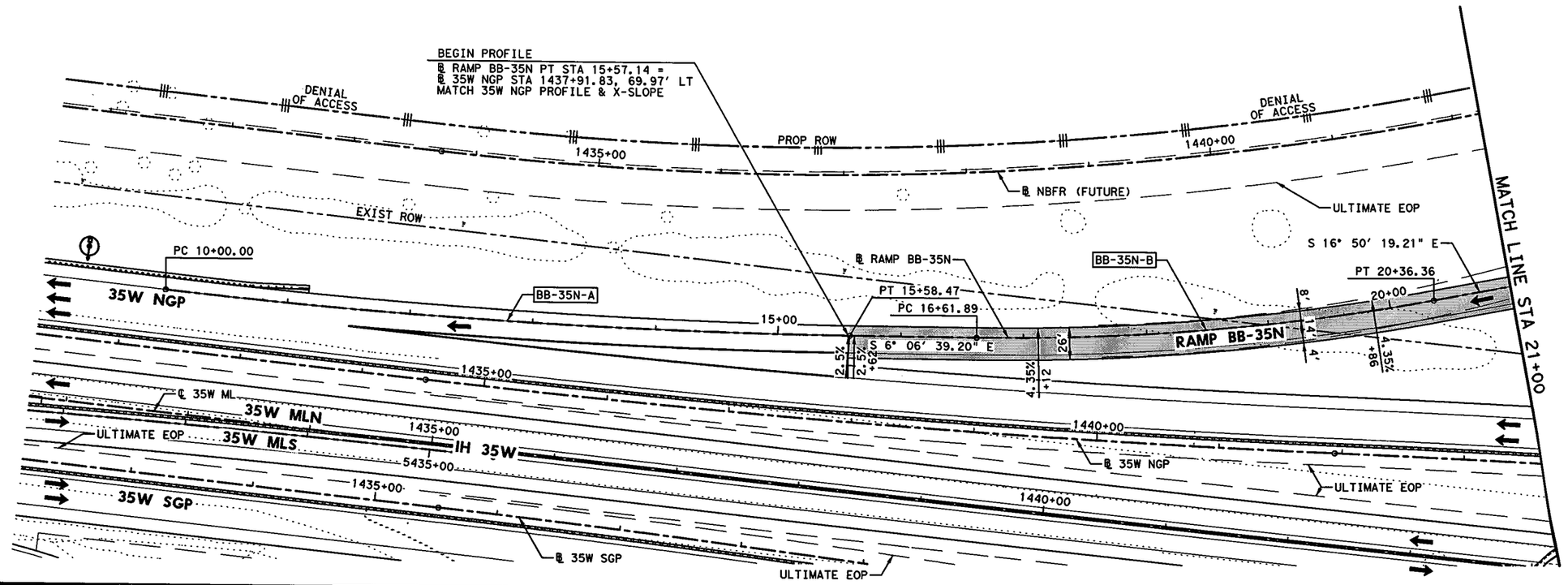
SCALE: 1" = 100' H, 1" = 10' V

SHEET 1 OF 1

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	791
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BR35NNTP01.dgn

DRAWING DATE: 7/30/2012



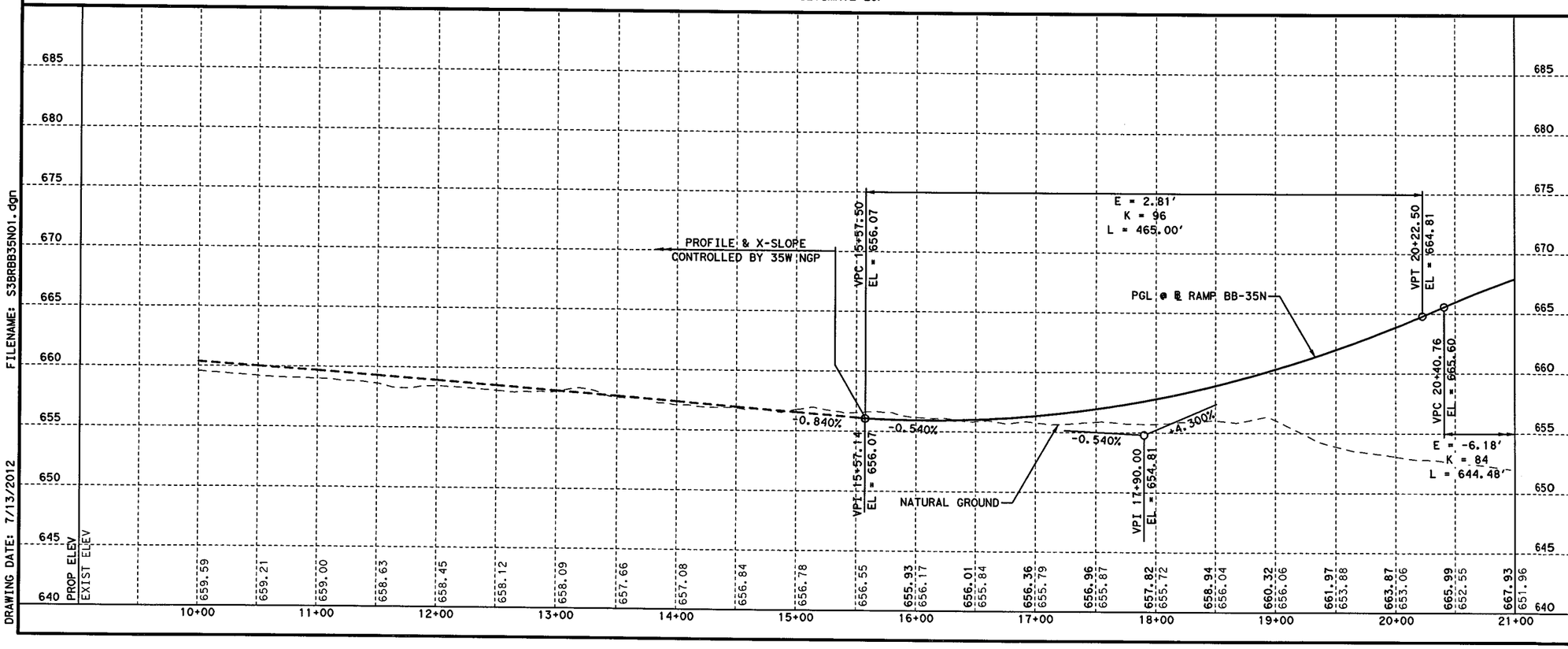
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, AND DIRECT CONNECTORS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.



FILENAME: S3BRBB35N01.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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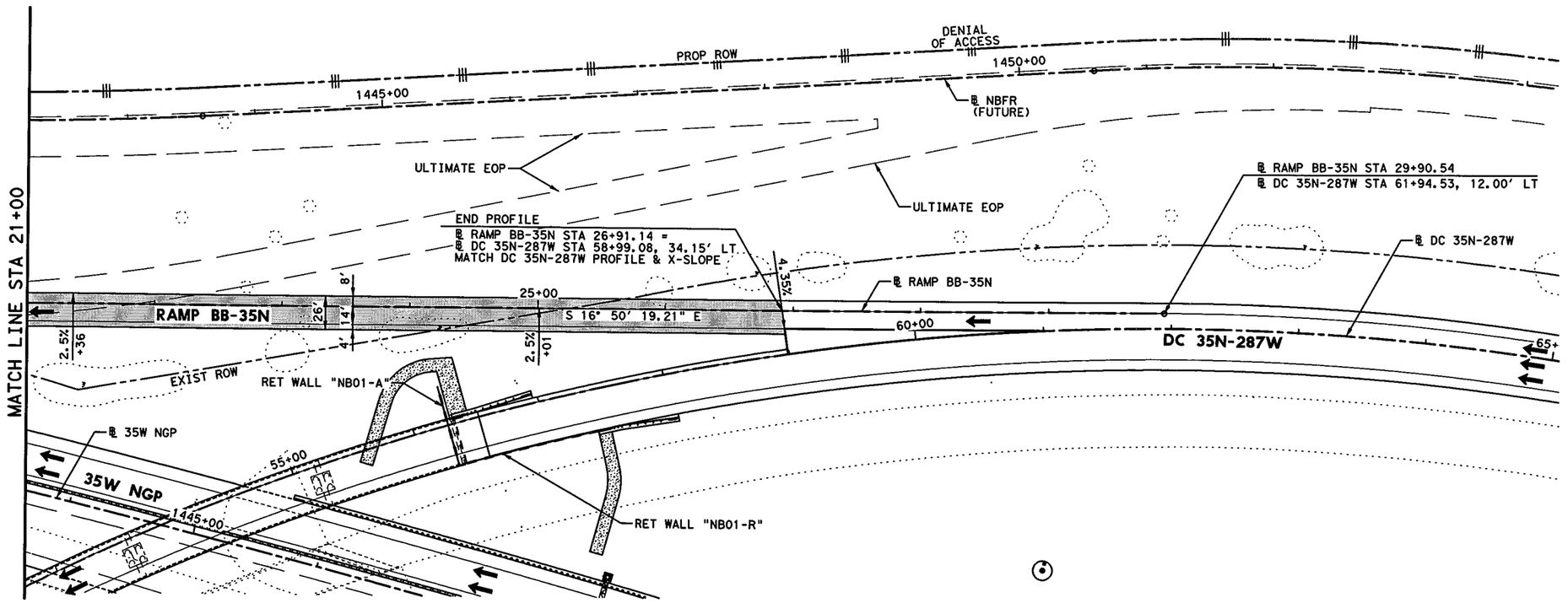
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP BB-35N
BEGIN TO STA 21+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	792
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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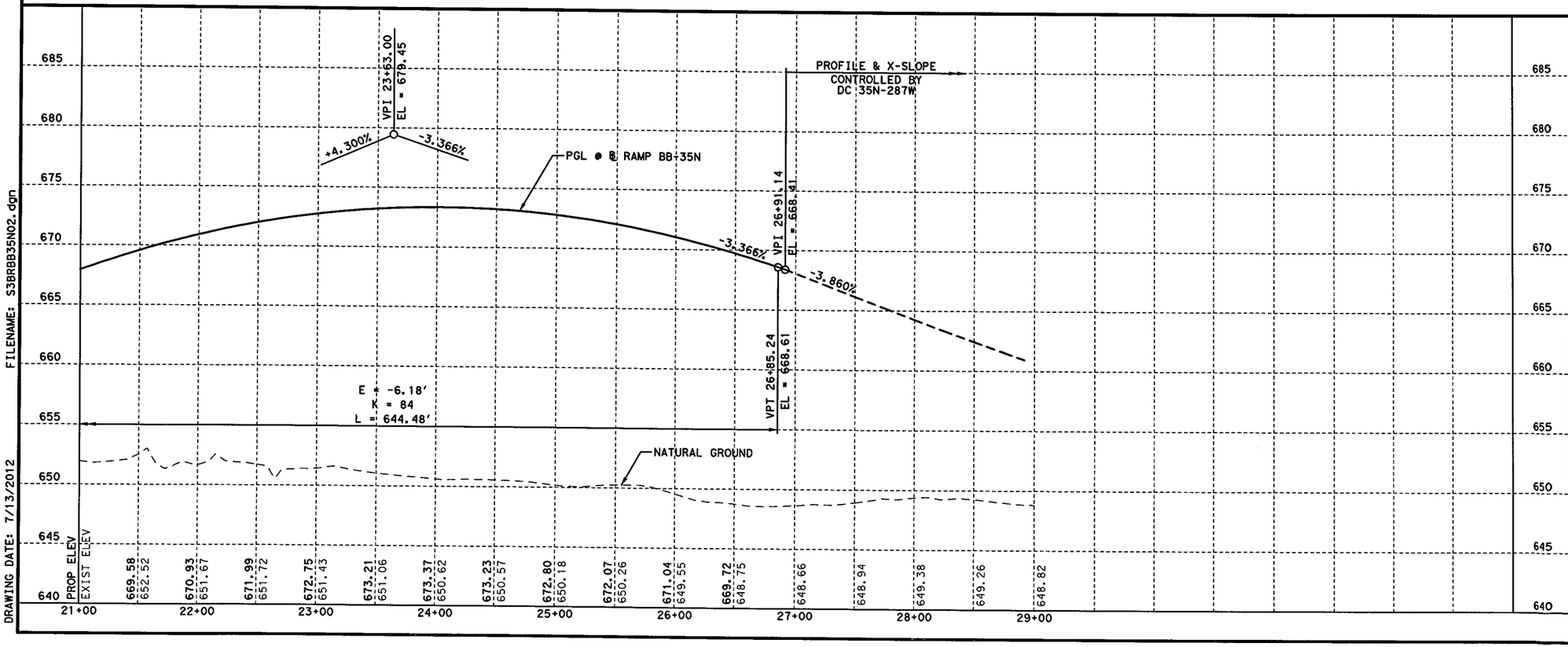
4. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.



FILENAME: S3BRBB35N02.dgn
DRAWING DATE: 7/13/2012

SYED S. HAQ 94660 LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

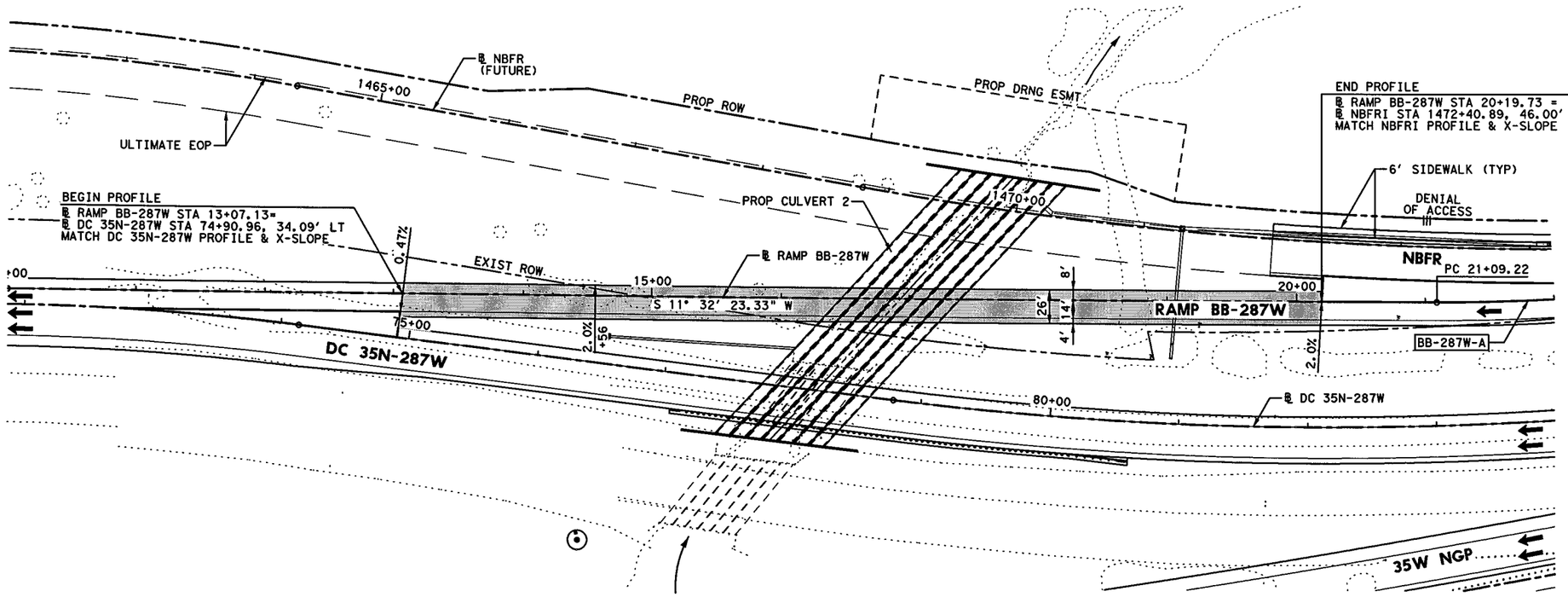
ROADWAY PLAN & PROFILE

RAMP BB-35N

STA 21+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	793
KCI	0014	16	255, ETC.	
CHECK				
KCI				



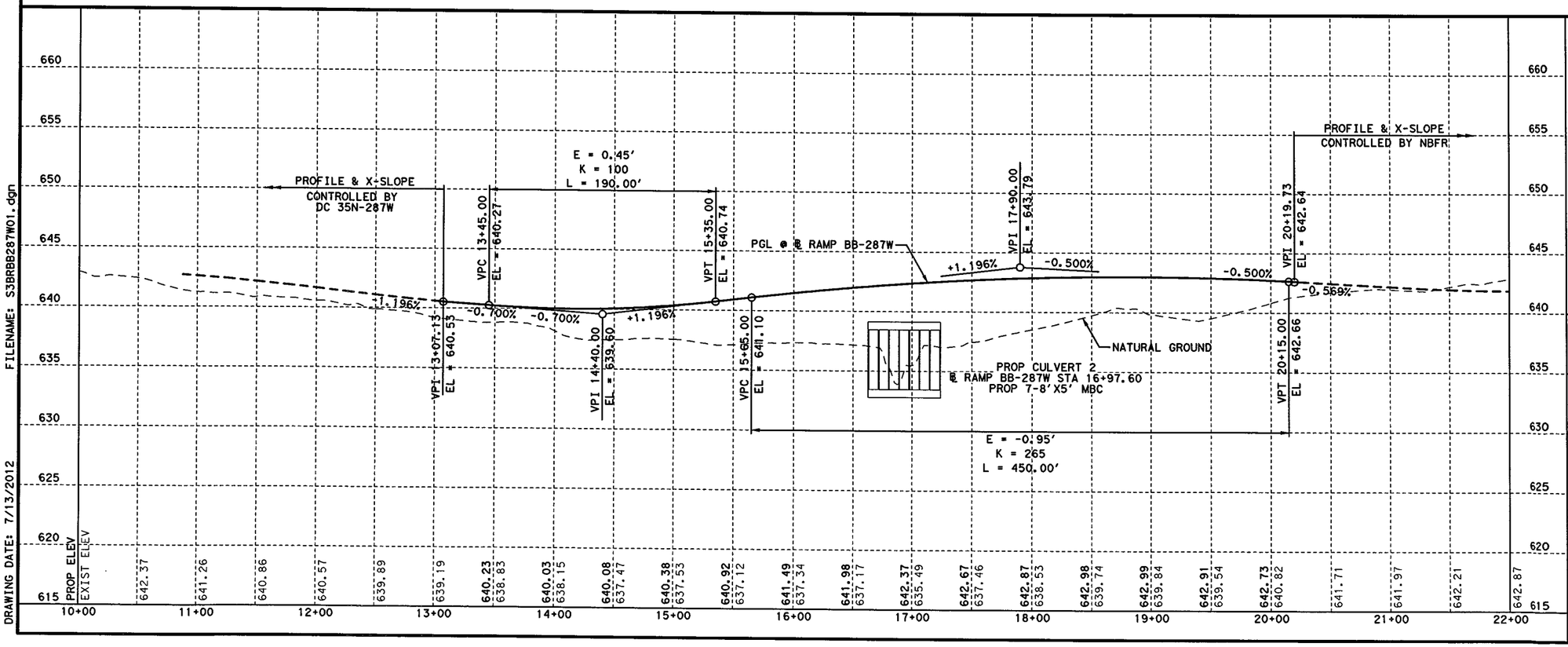
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, AND DIRECT CONNECTORS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.



FILENAME: S3BRBB287W01.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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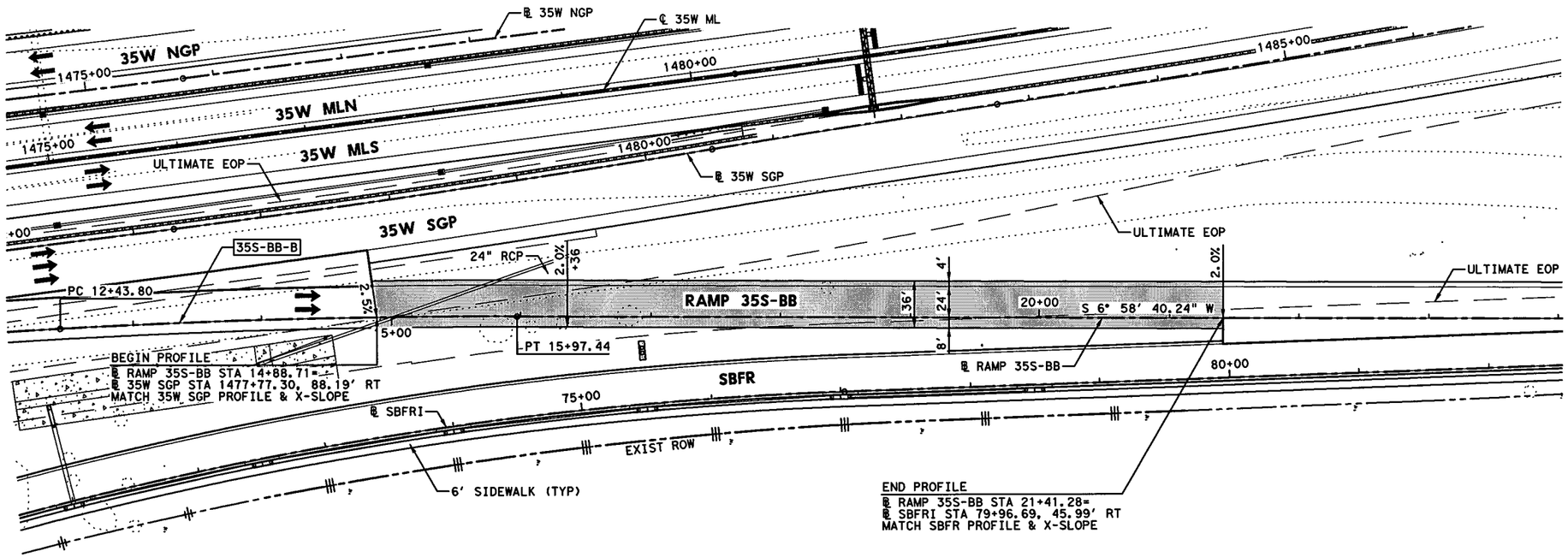
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP BB-287W

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	794
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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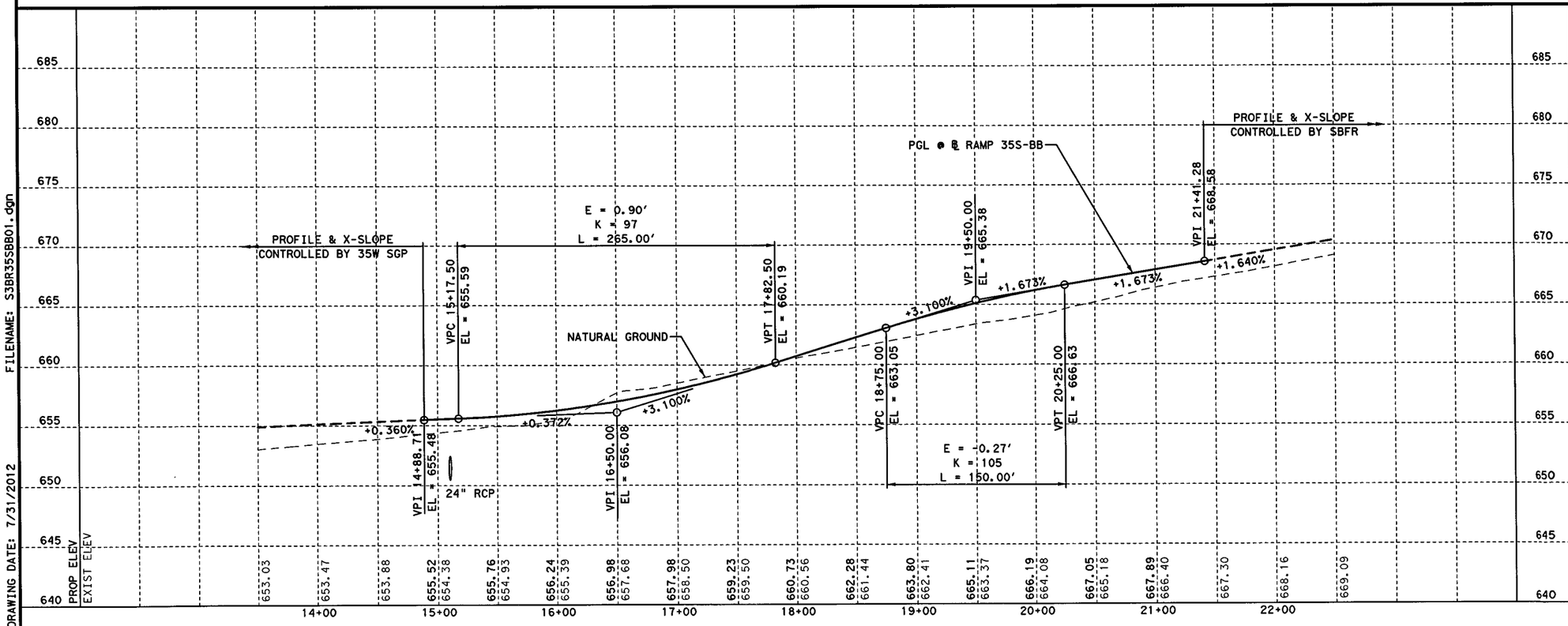

FILENAME: S3BR35SBB01.dgn
DRAWING DATE: 7/31/2012

SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
07/31/12

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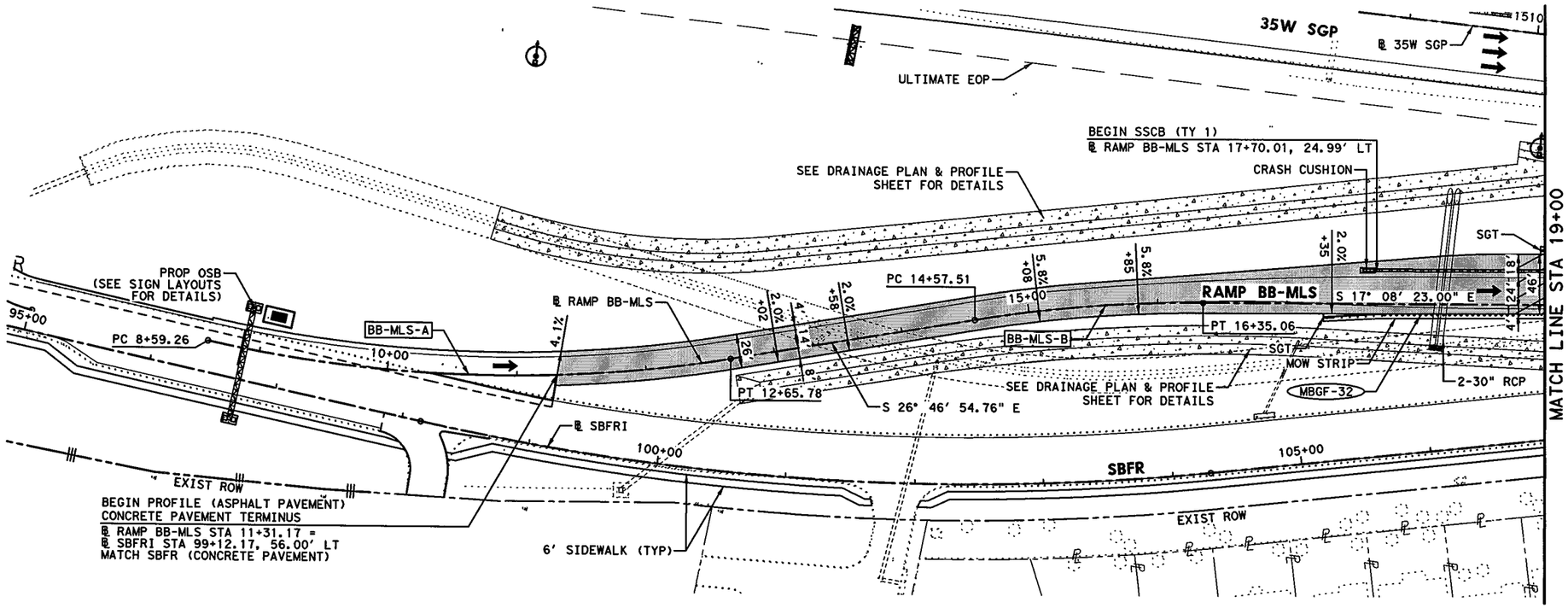
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP 35S-BB

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	795
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
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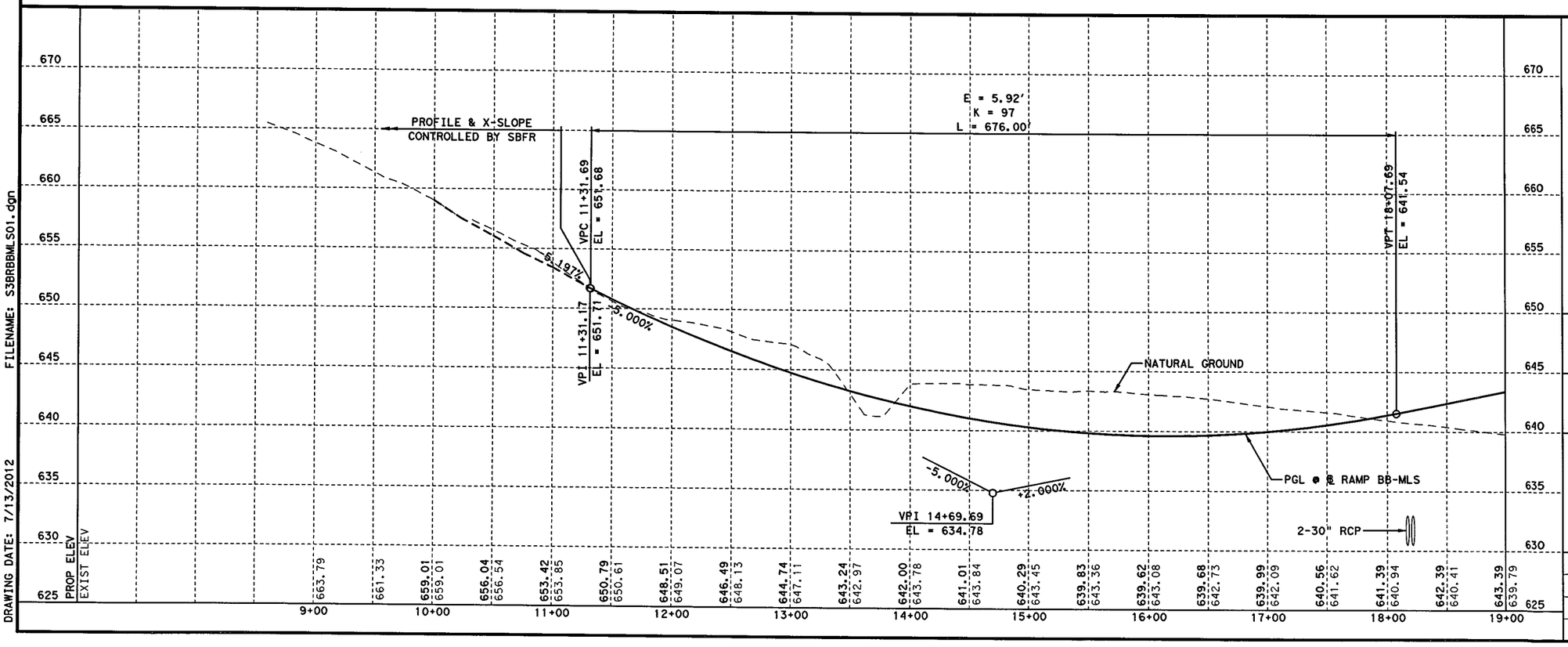
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BRBBMLS01.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Shahid Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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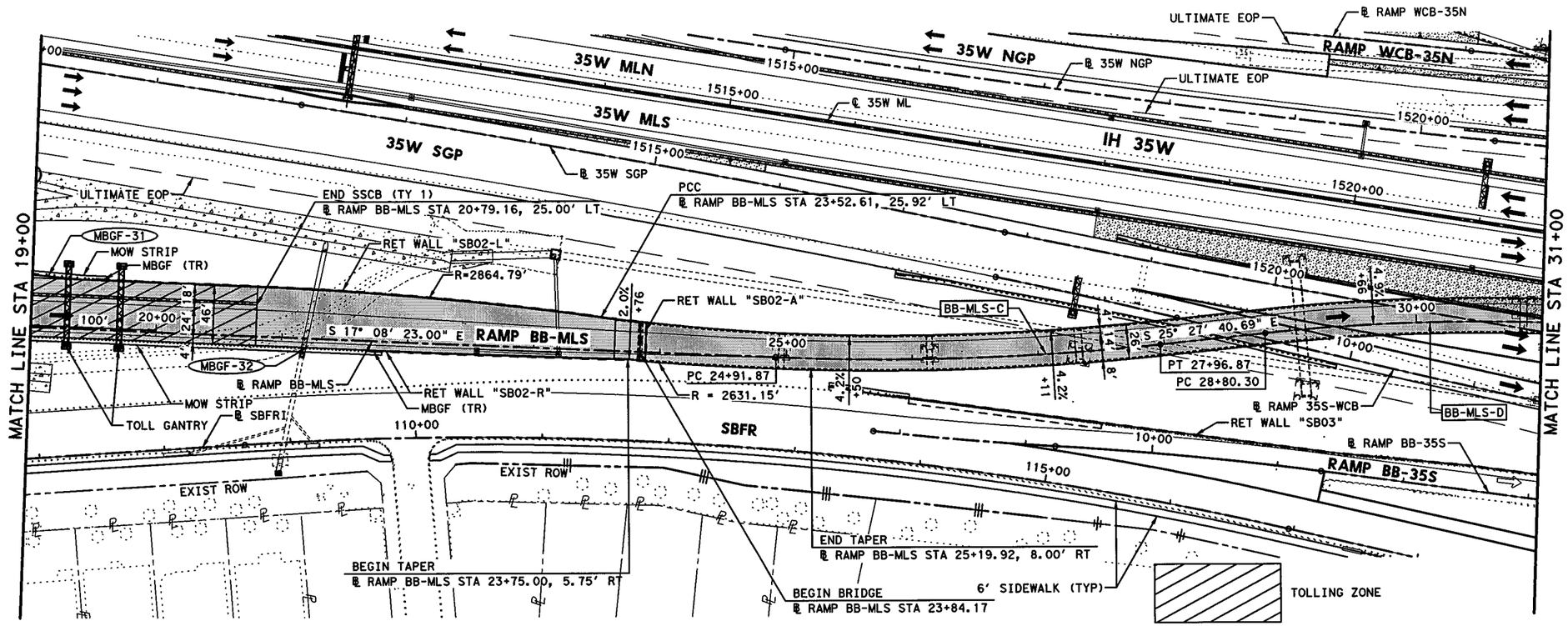
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP BB-MLS
STA 10+00 TO STA 19+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	796
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
XX	RAMP NOSE GORE ID
	ULTIMATE EDGE OF PAVEMENT
	HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
	HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
	PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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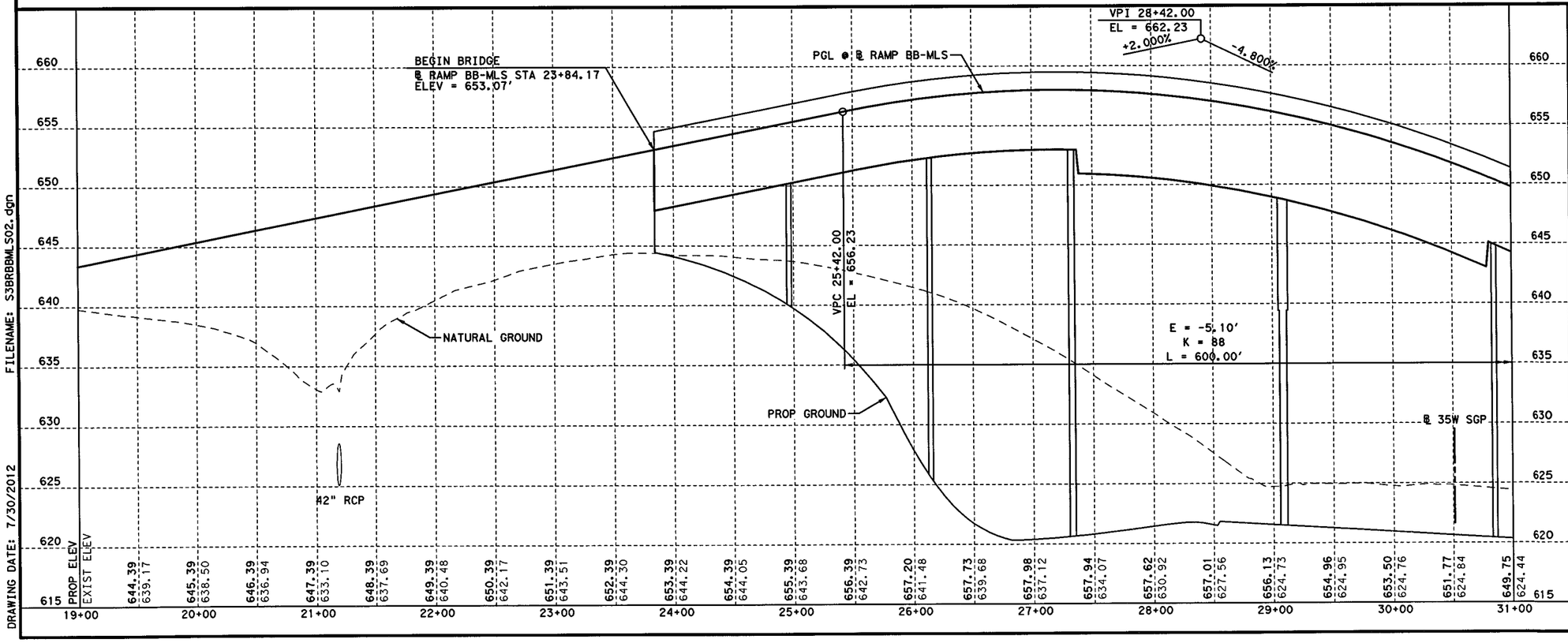

FILENAME: S3BRBBMLS02.dgn
DRAWING DATE: 7/30/2012

SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
07/31/12

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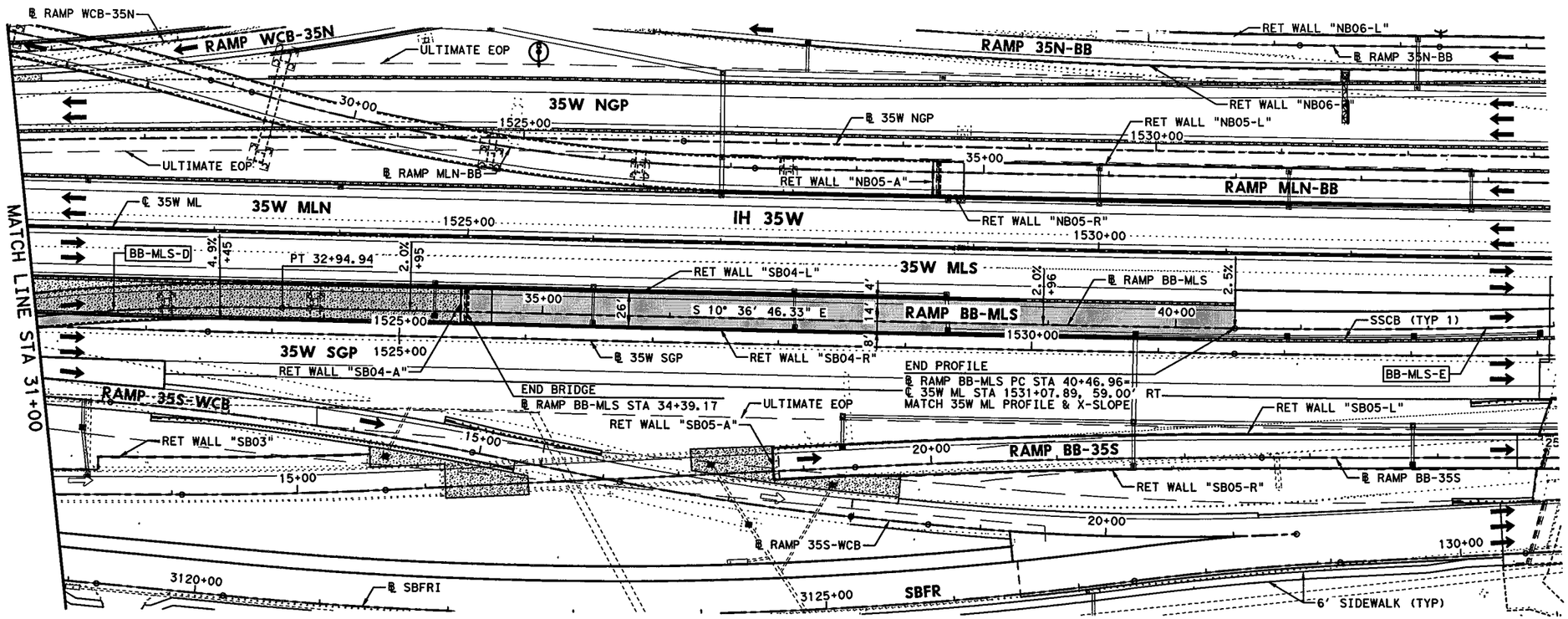
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP BB-MLS
STA 19+00 TO STA 31+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	797
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
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- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

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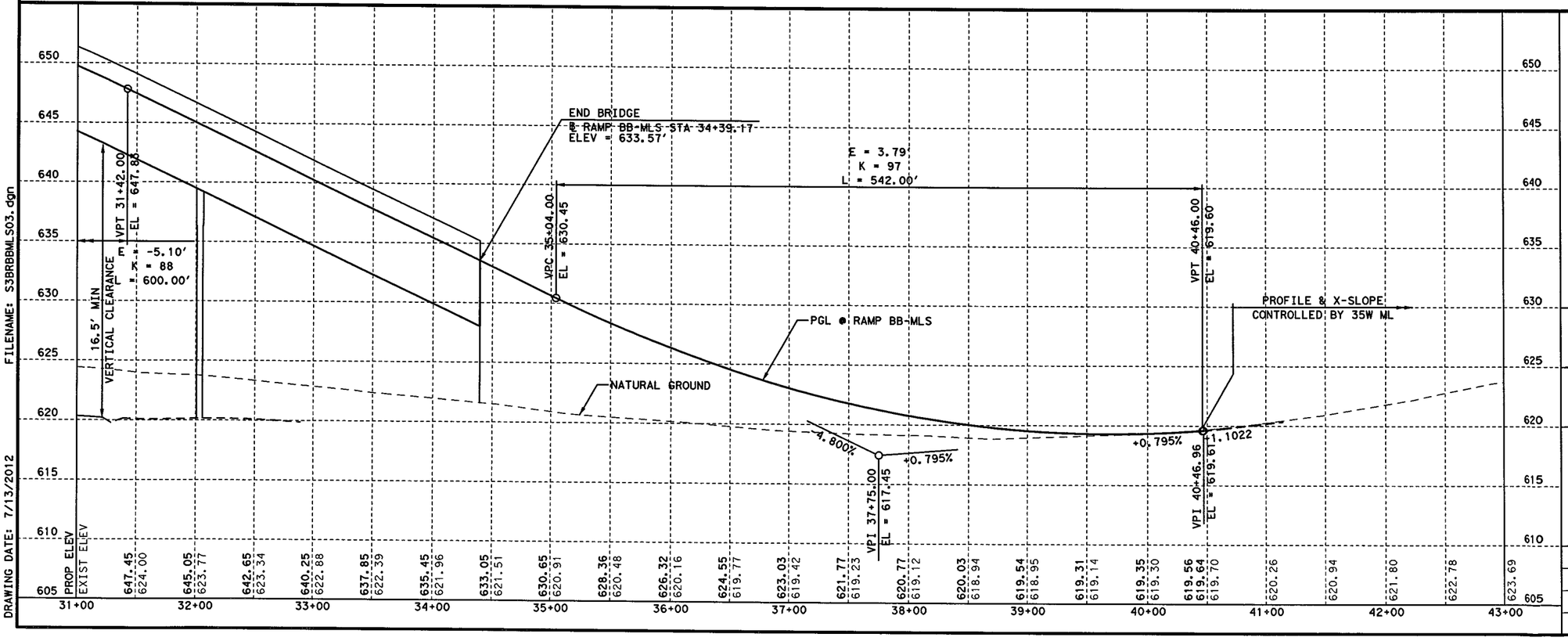

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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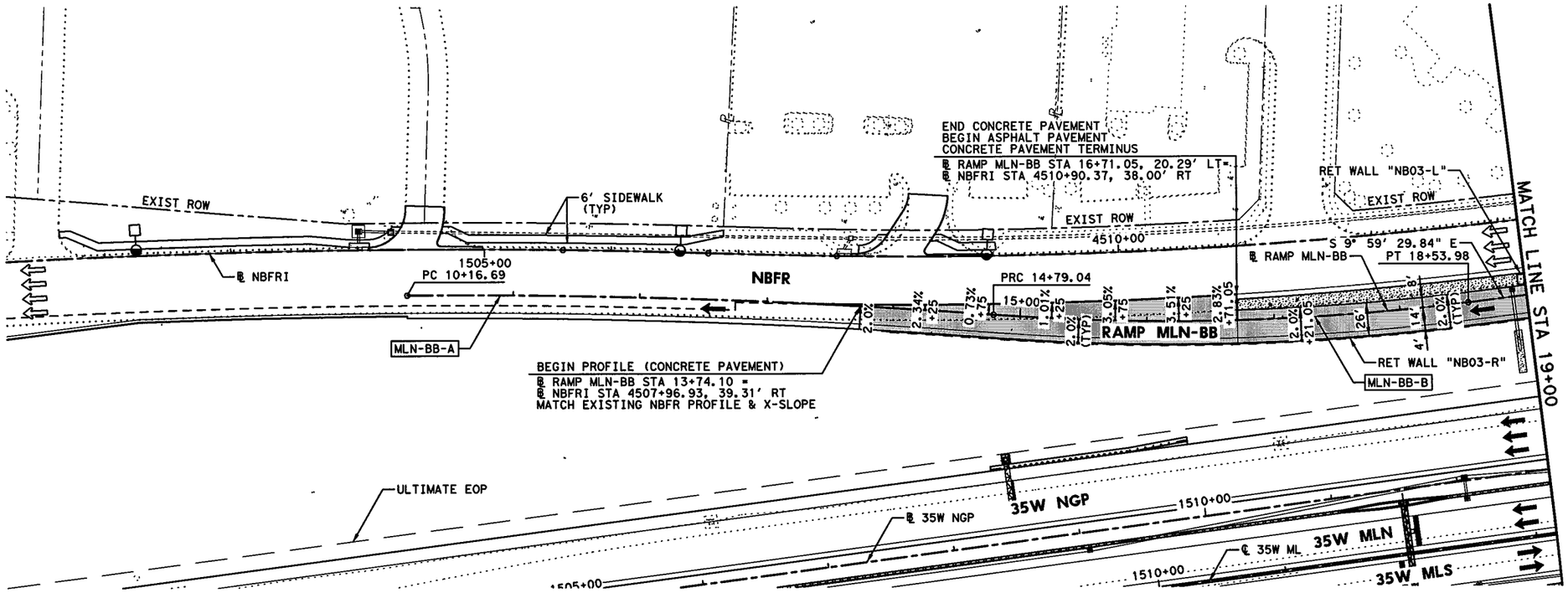
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP BB-MLS
STA 31+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 3 OF 3

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	798
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BRBBMLS03.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
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- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

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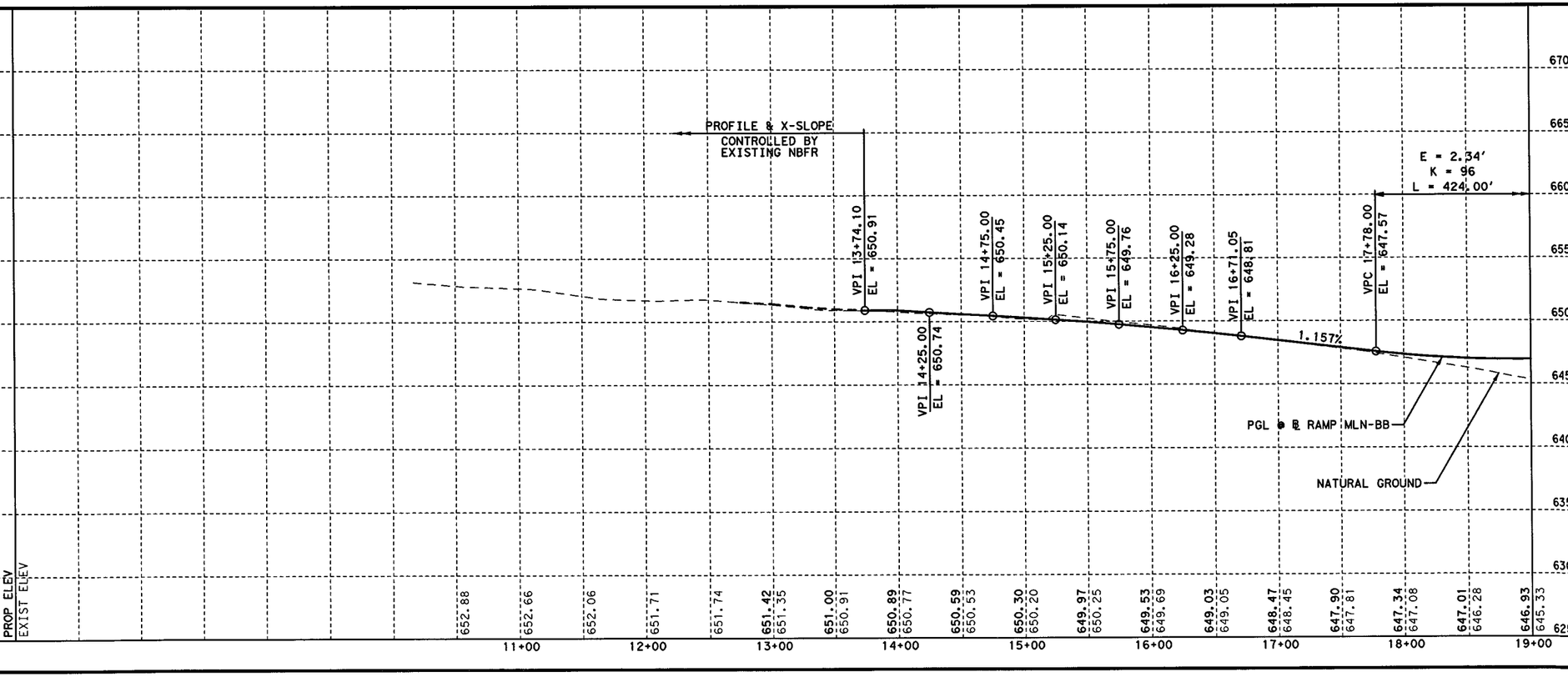

FILENAME: S3BRMLNBB01.dgn
DRAWING DATE: 7/30/2012

SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
07/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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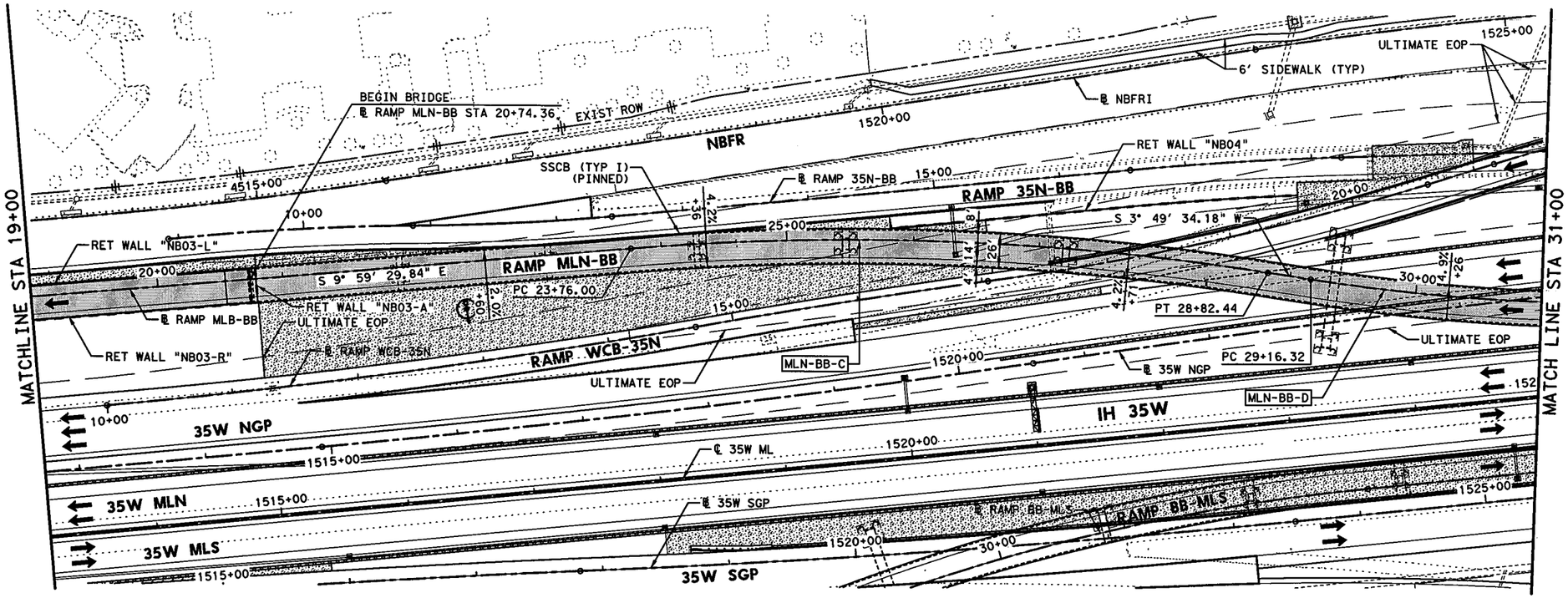
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP MLN-BB
BEGIN TO STA 19+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 3

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	799
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0′ 25′ 50′ 100′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
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- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

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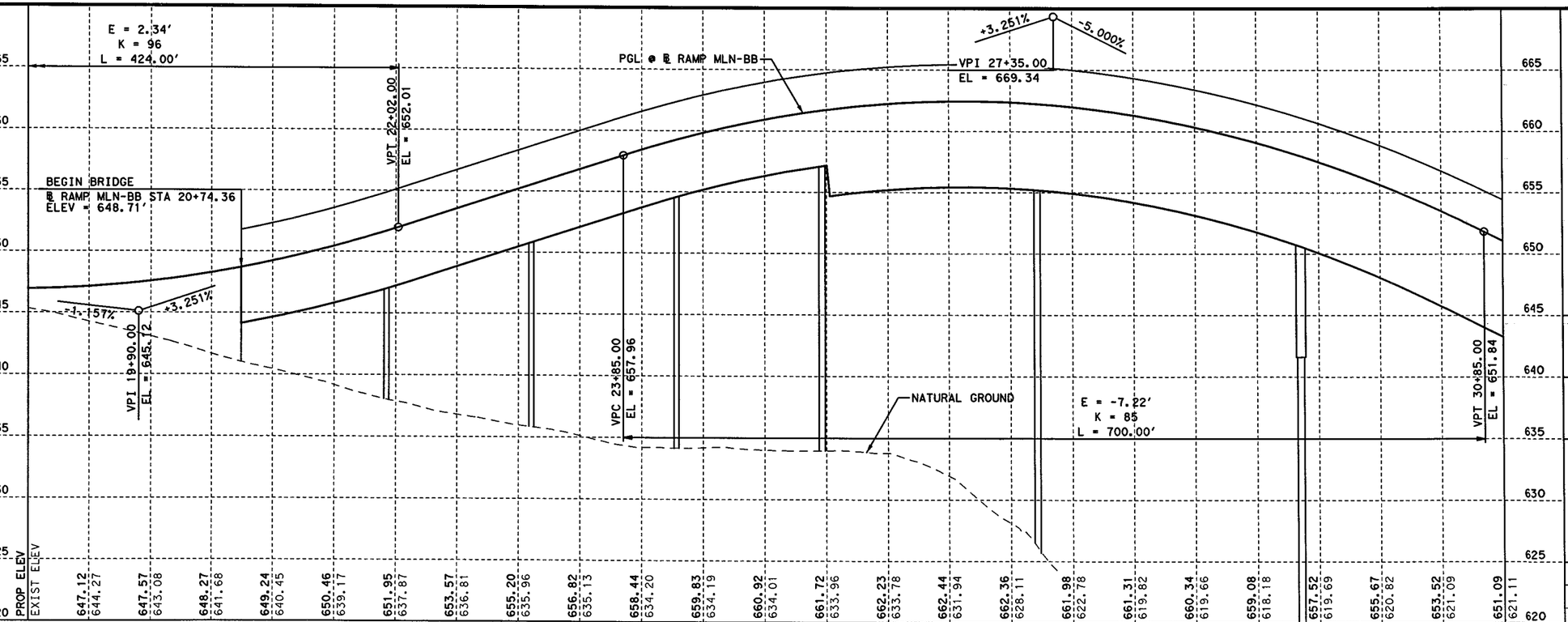

FILENAME: S3BRMLNBB02.dgn
DRAWING DATE: 7/13/2012

SYED S. HAQ
94660
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PROFESSIONAL ENGINEER
STATE OF TEXAS
Syed Sajidul Haq
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TBPE REGISTRATION NO. F-926

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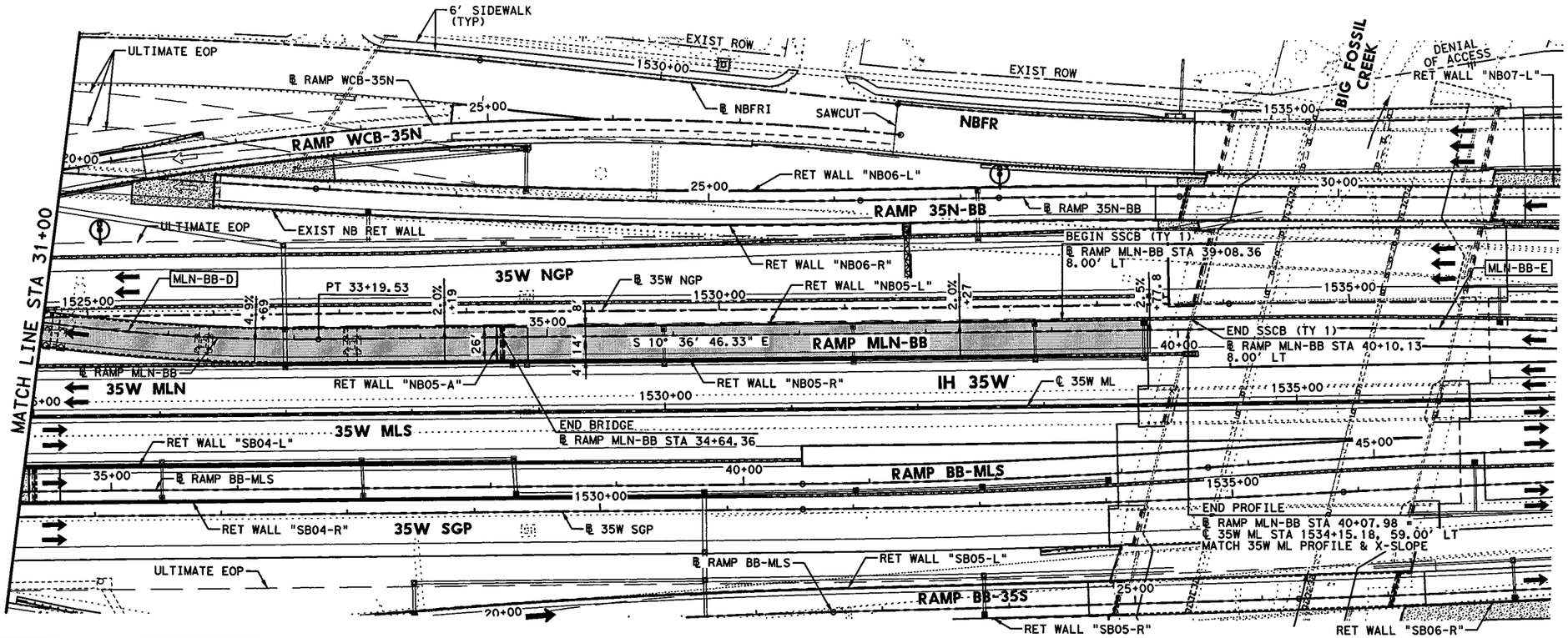
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP MLN-BB
STA 19+00 TO STA 31+00

SCALE: 1" = 100′ H, 1" = 10′ V — SHEET 2 OF 3

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	800
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
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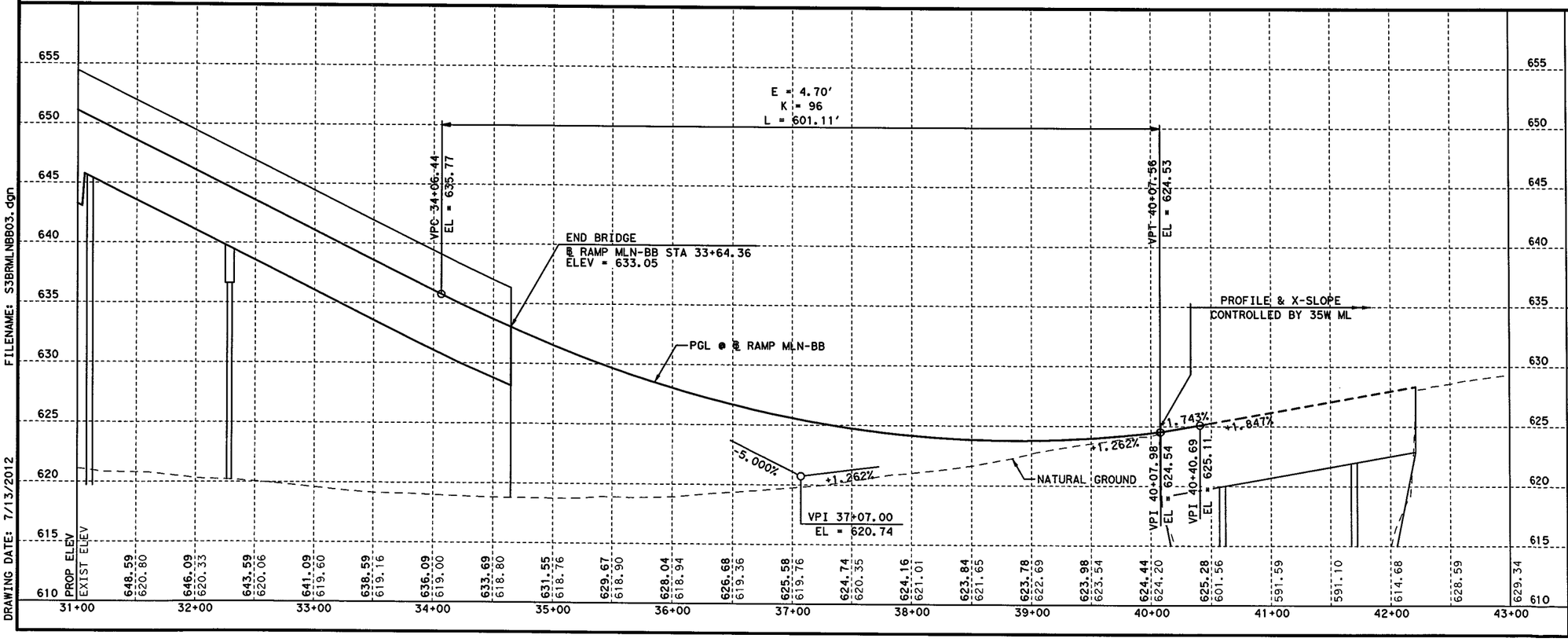

STATE OF TEXAS
SYED S. HAQ
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LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

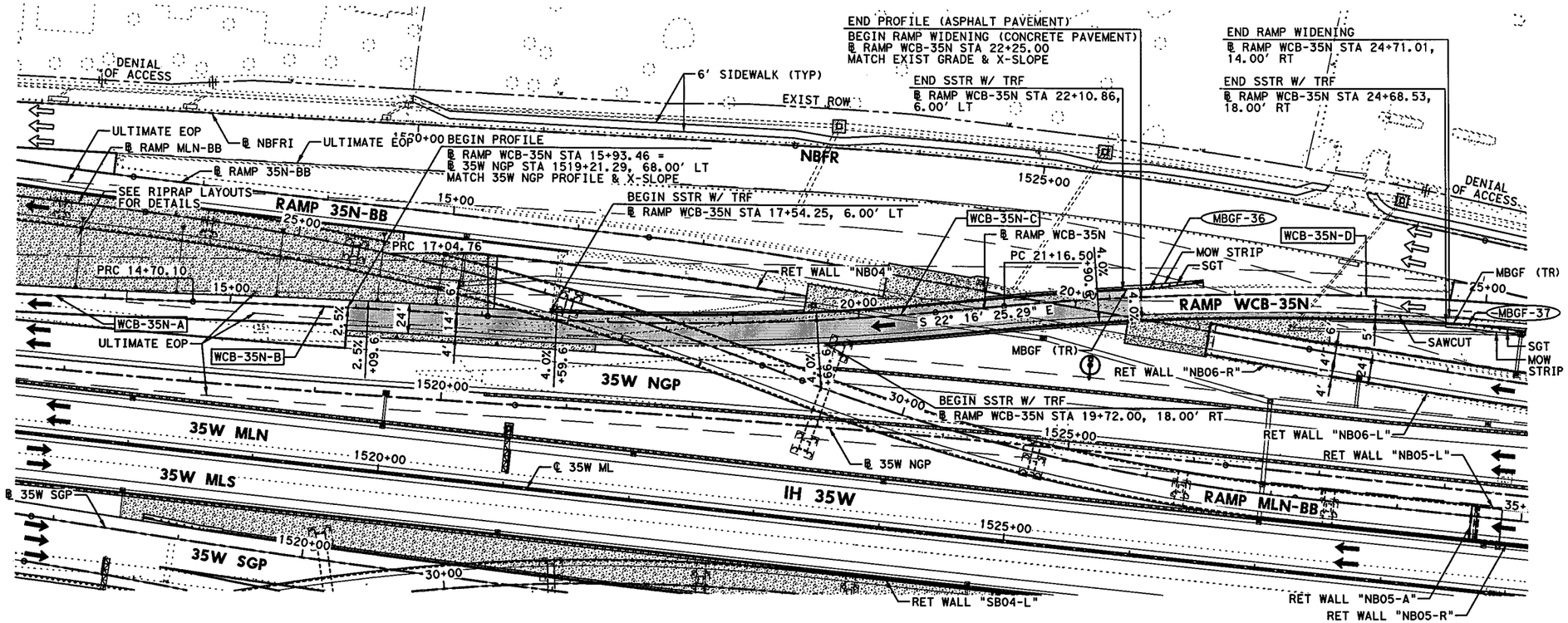
RAMP MLN-BB

31+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 3 OF 3

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	801
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BRMLNBB03.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

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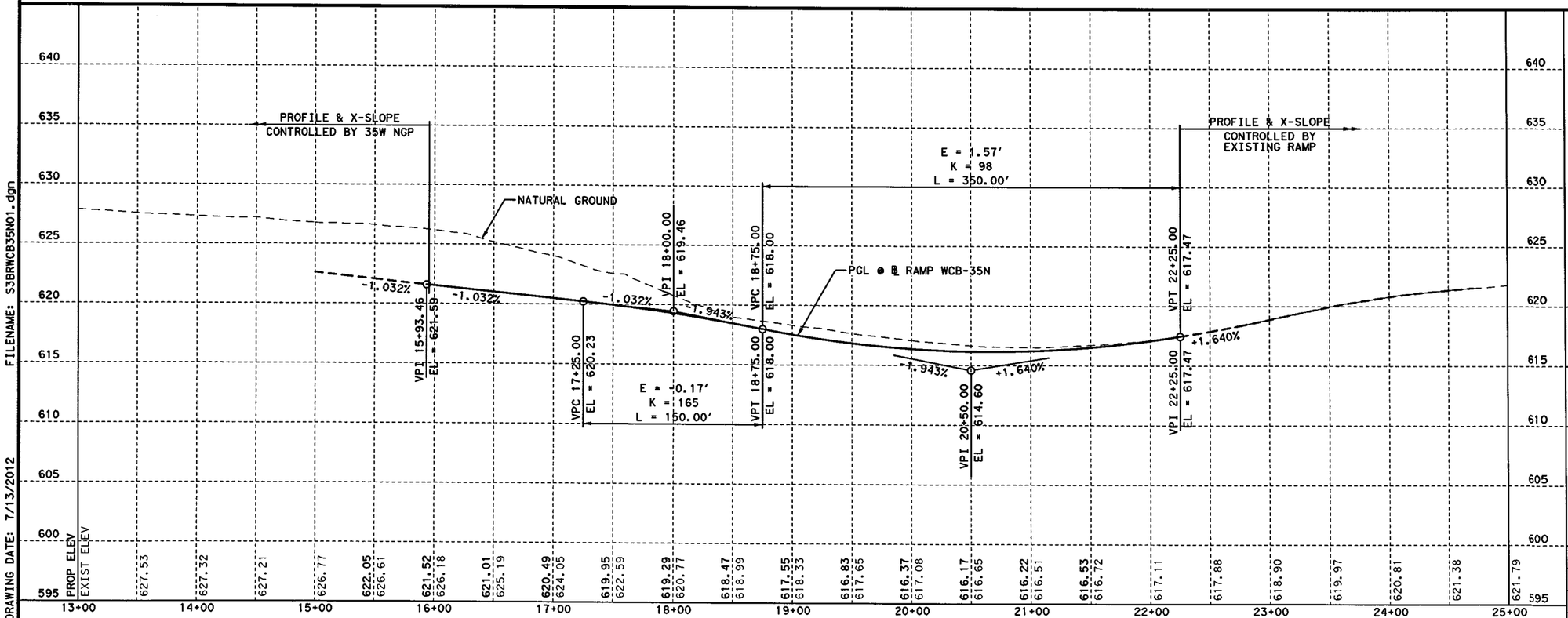

FILENAME: S3BRWCB35NO1.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

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TBPE REGISTRATION NO. F-926

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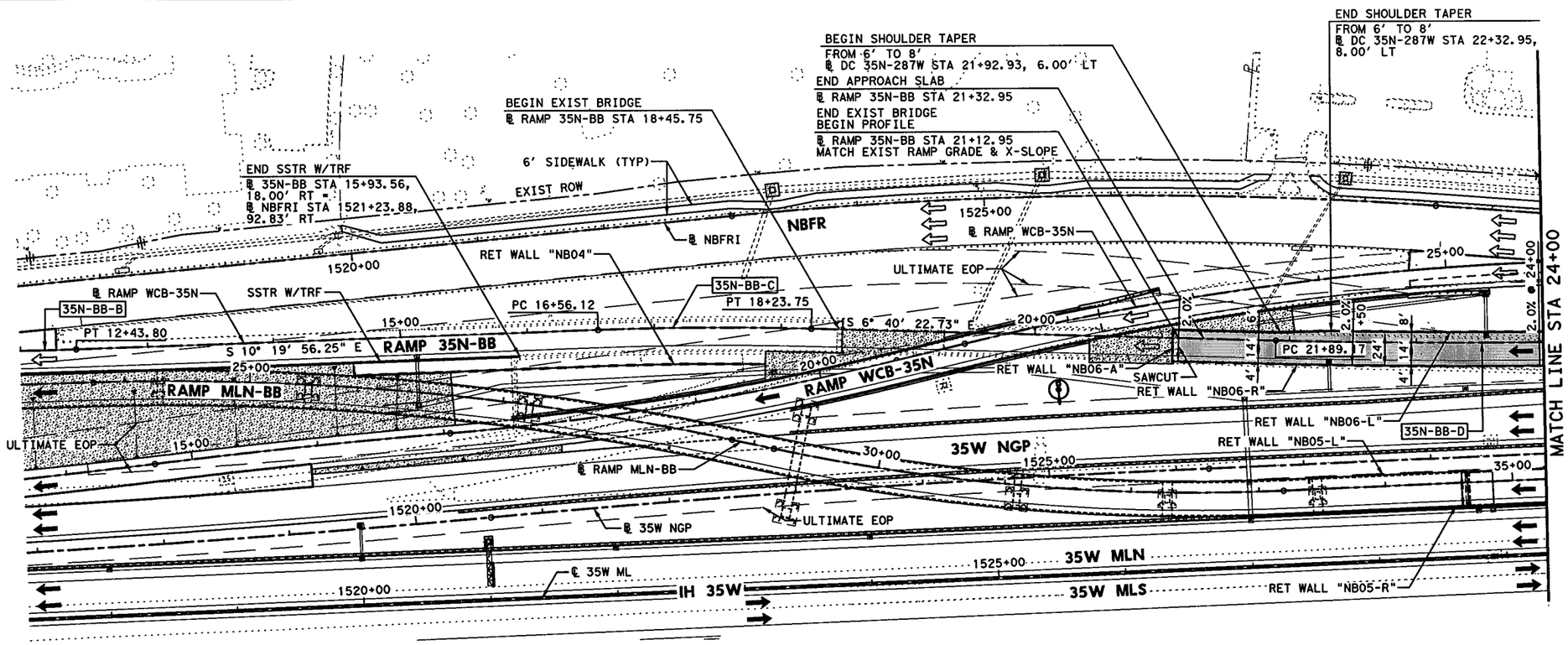
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

RAMP WCB-35N

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	802
KCI	0014	16	255, ETC.	
CHECK				



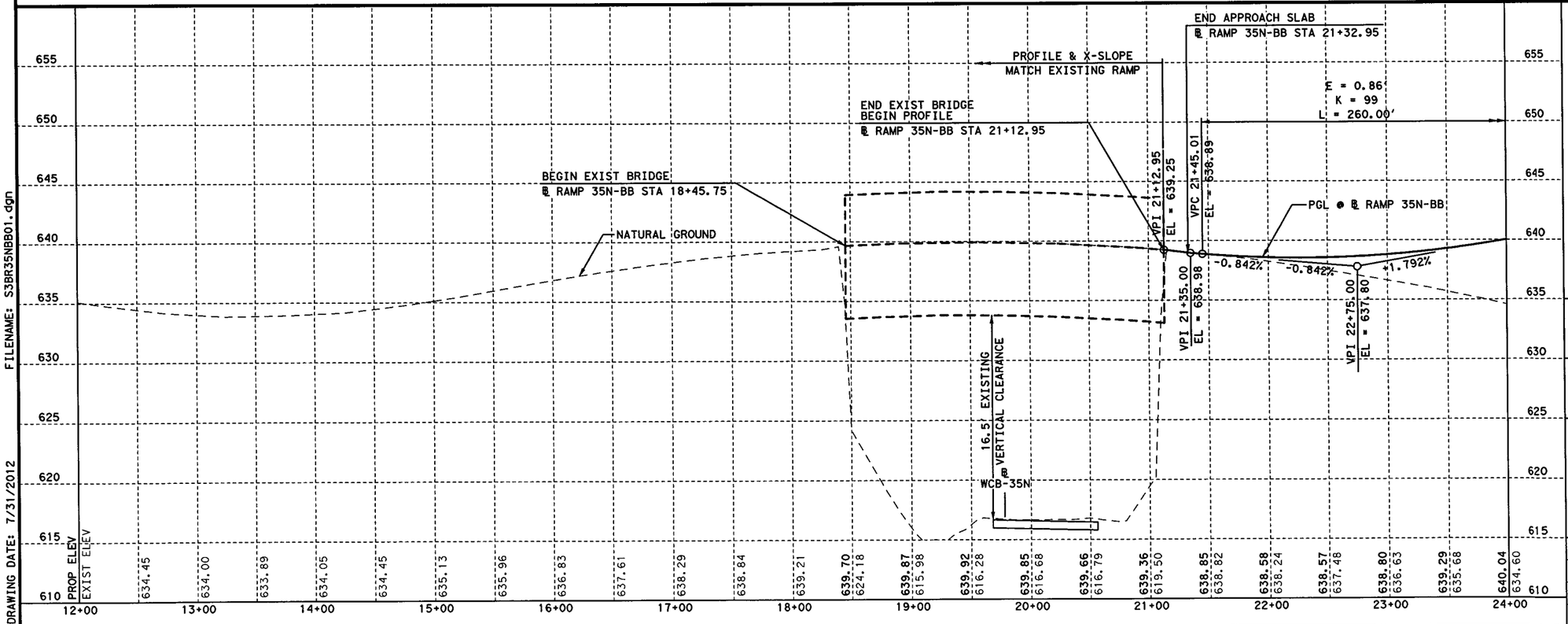
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, AND DIRECT CONNECTORS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.



FILENAME: S3BR35NBB01.dgn
DRAWING DATE: 7/31/2012

SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
07/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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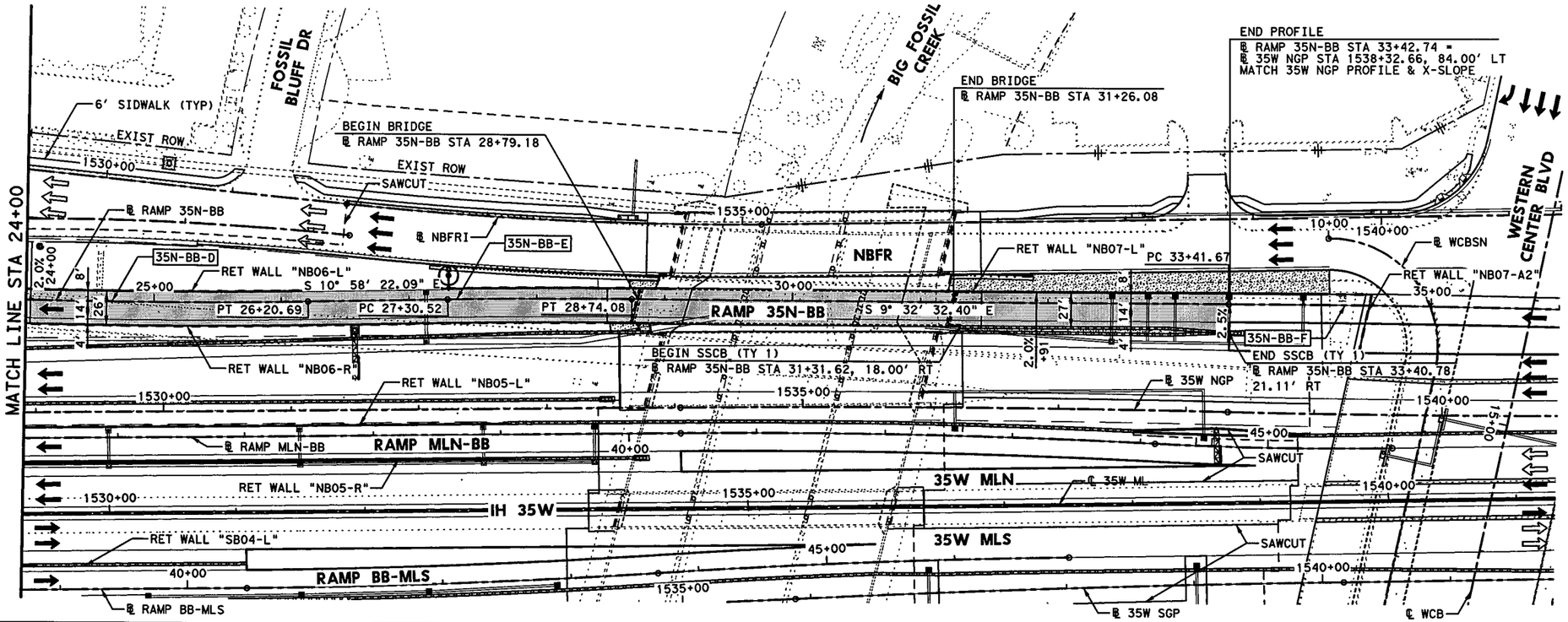
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP 35N-BB
BEGIN TO STA 24+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	803
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
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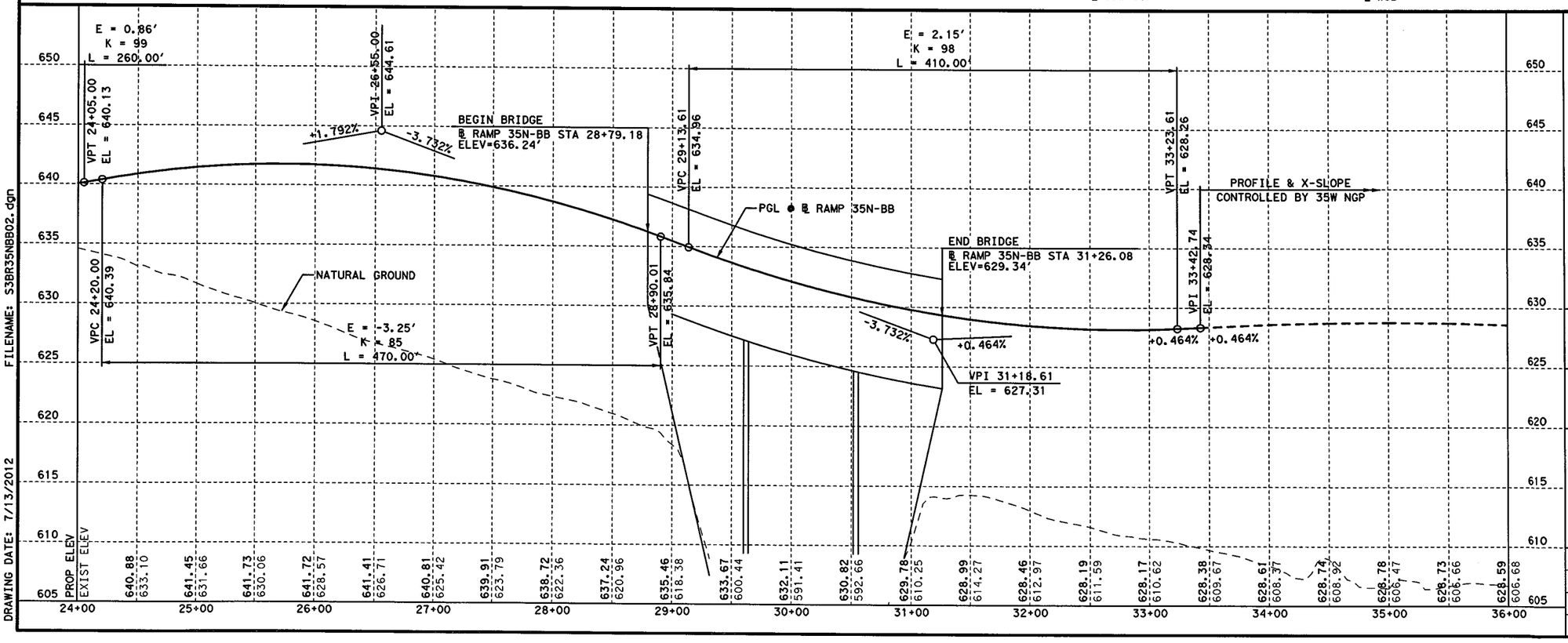
4. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.



FILENAME: S3BR35NBB02.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

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TBPE REGISTRATION NO. F-926

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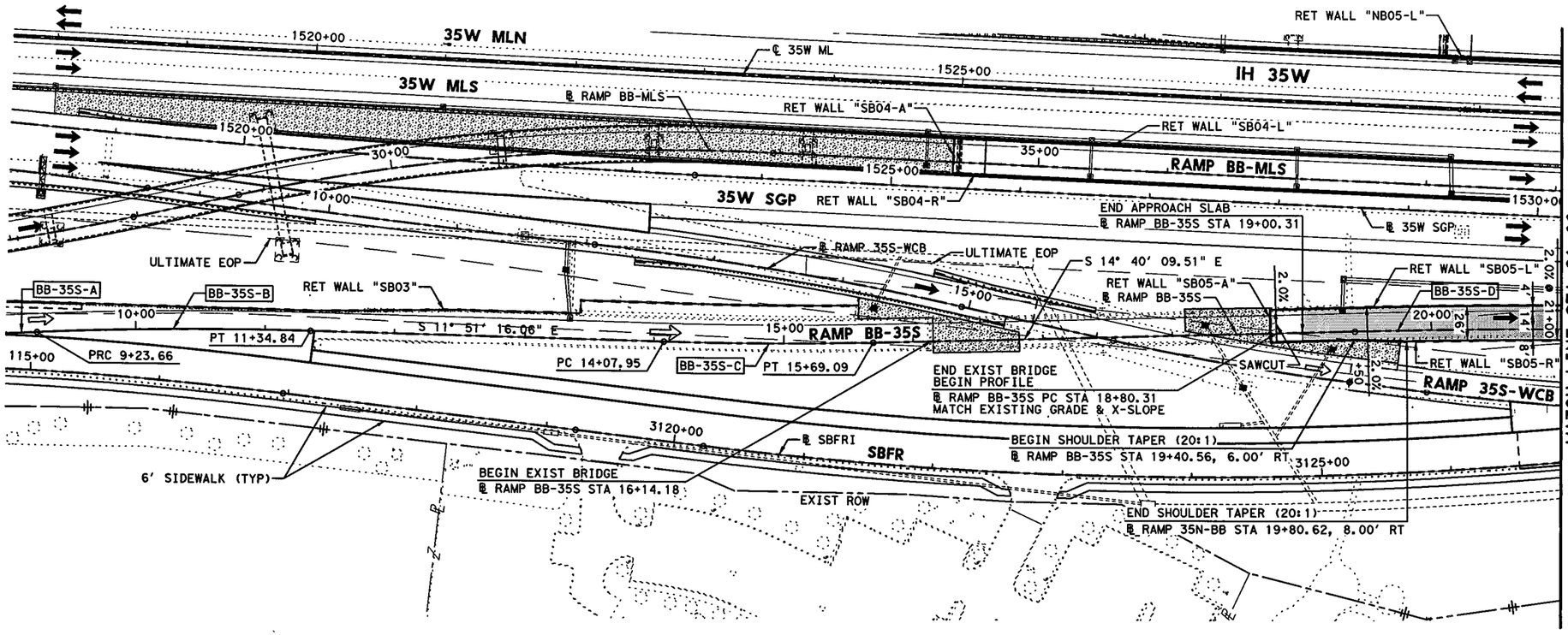
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP 35N-BB
STA 24+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	804
KCI	0014	16	255, ETC.	
CHECK				
KCI				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
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- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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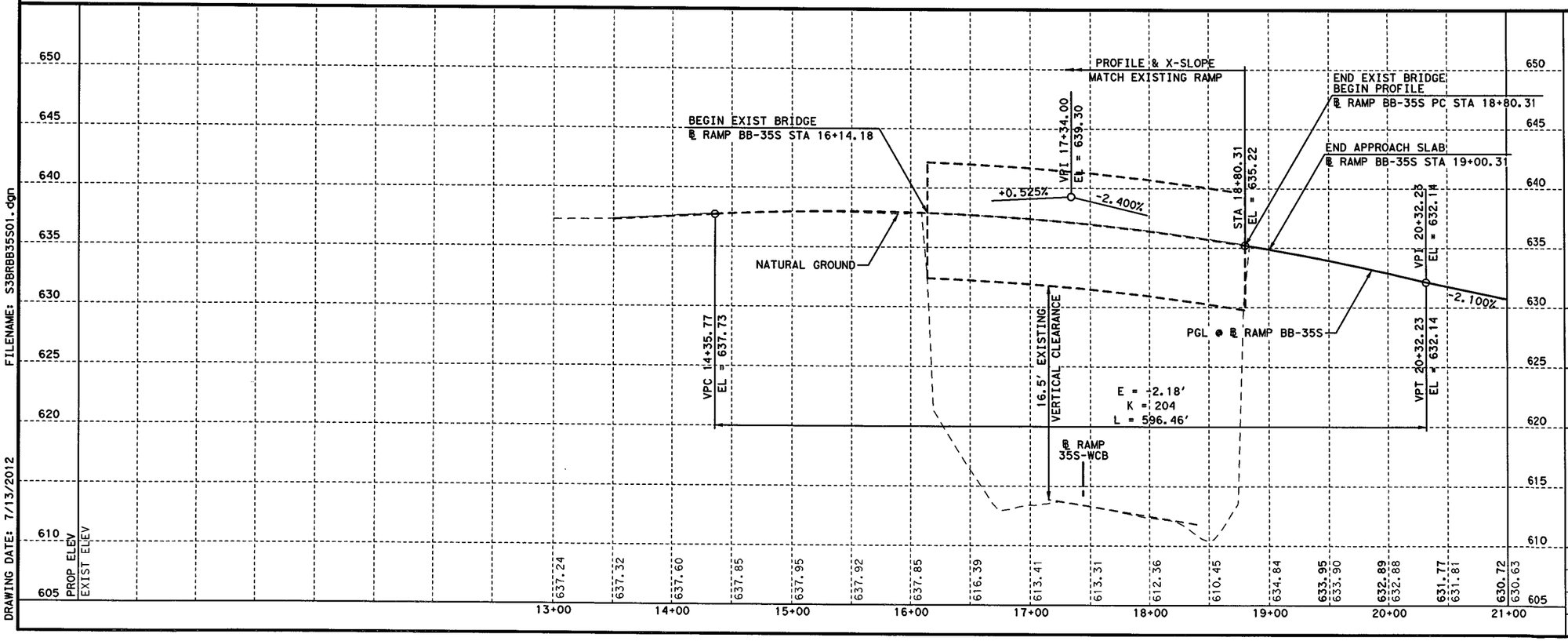
4. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.



FILENAME: S3BRBB35S01.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

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TBPE REGISTRATION NO. F-926

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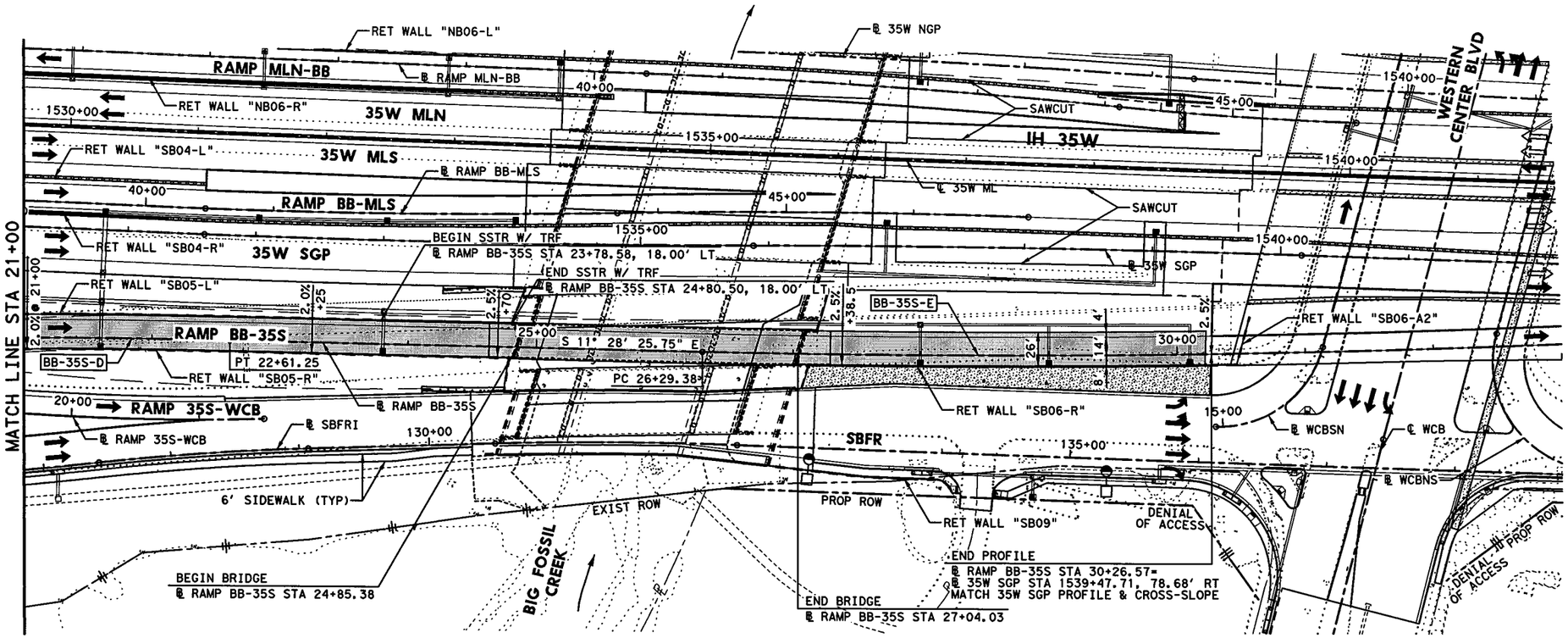
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP BB-35S
BEGIN TO STA 21+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	805
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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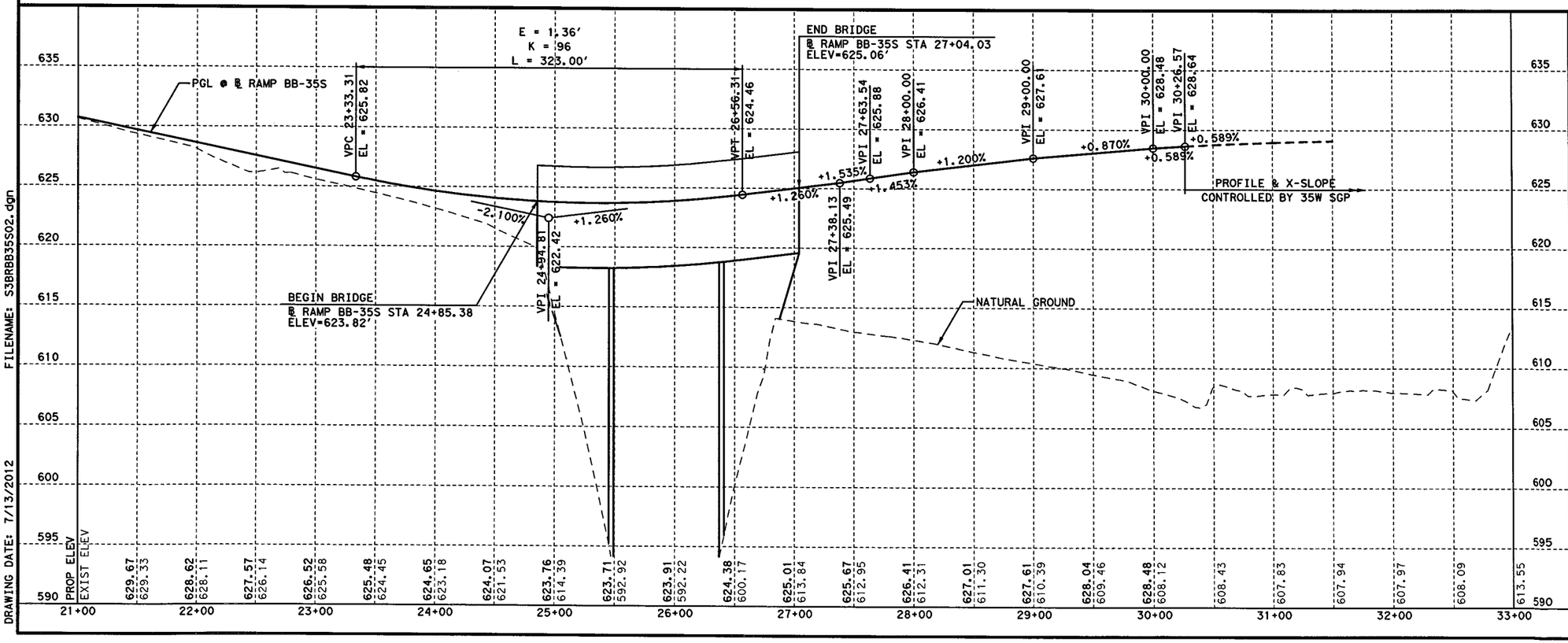
4. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.



FILENAME: S3BRBB35S02.dgn
DRAWING DATE: 7/13/2012

SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
07/13/12

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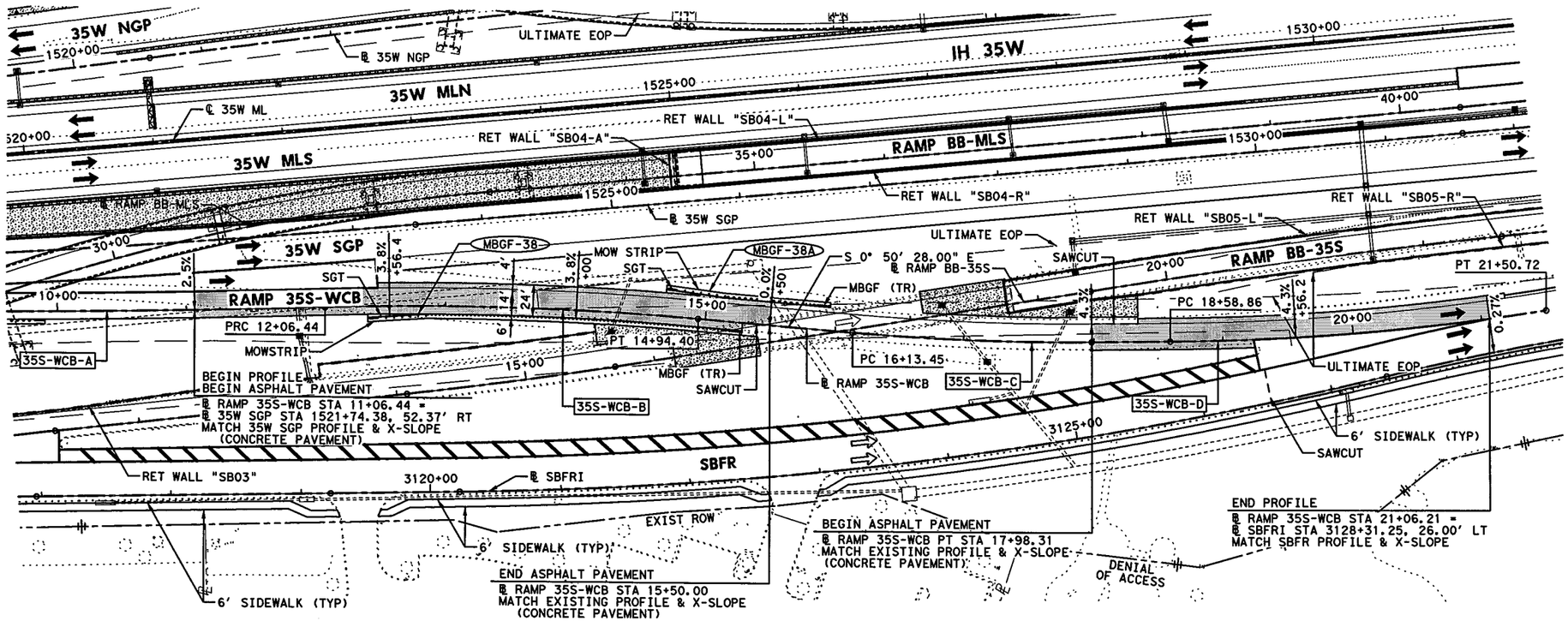
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP BB-35S
STA 21+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	806
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
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- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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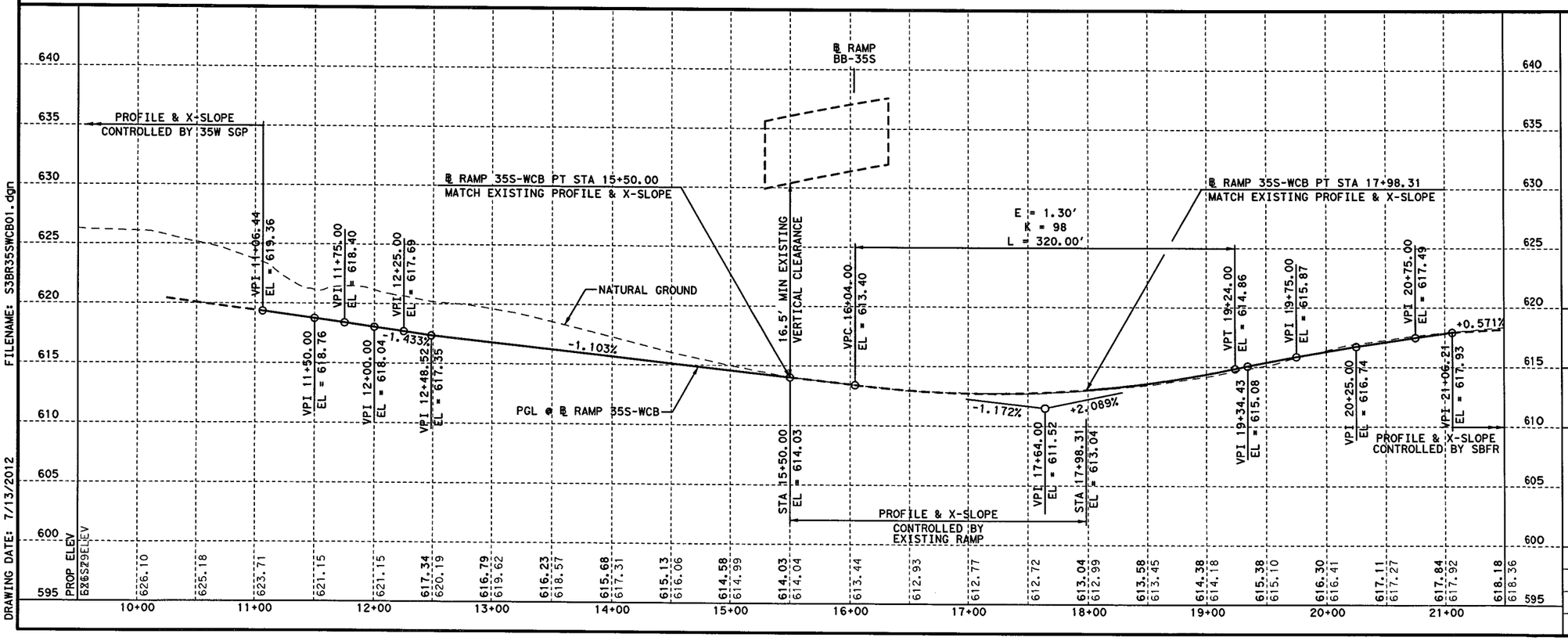
4. REFER TO HORIZONTAL ALIGNMENT DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.



FILENAME: S3BR35SWCB01.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

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TBPE REGISTRATION NO. F-926

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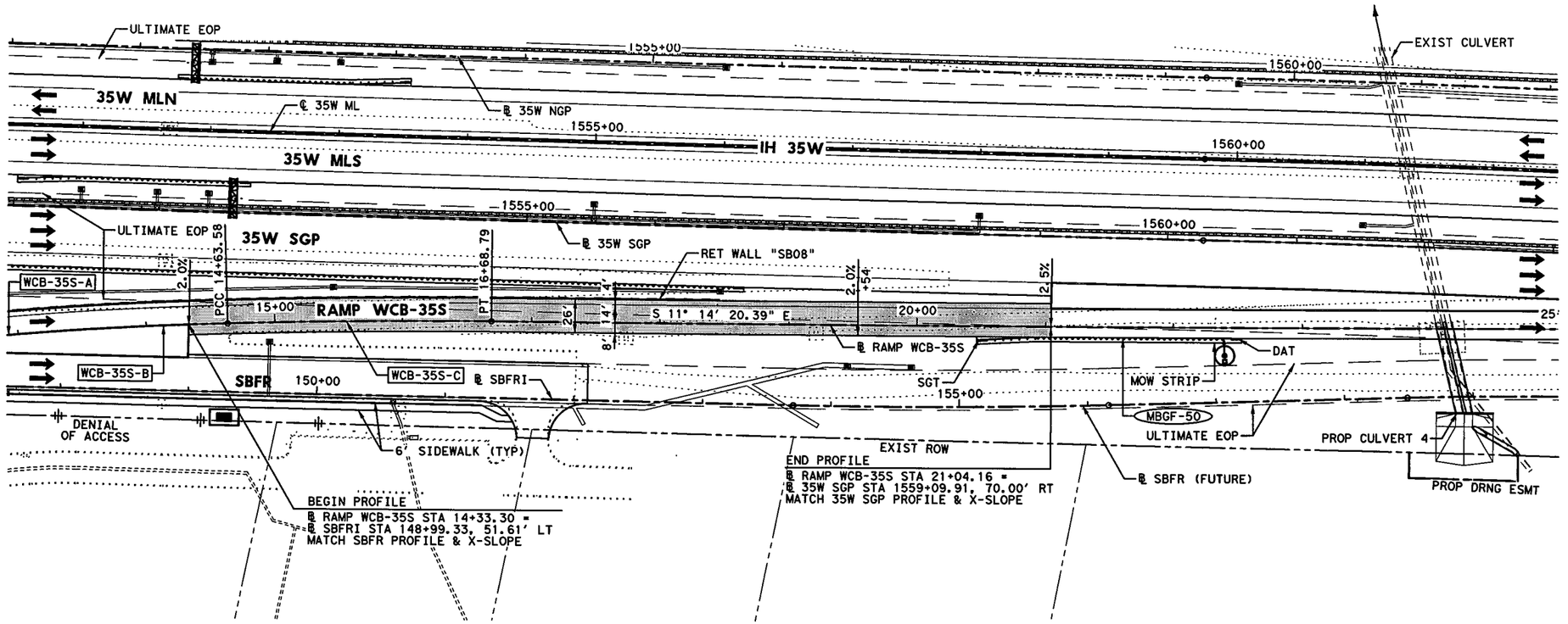
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP 35S-WCB

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	807
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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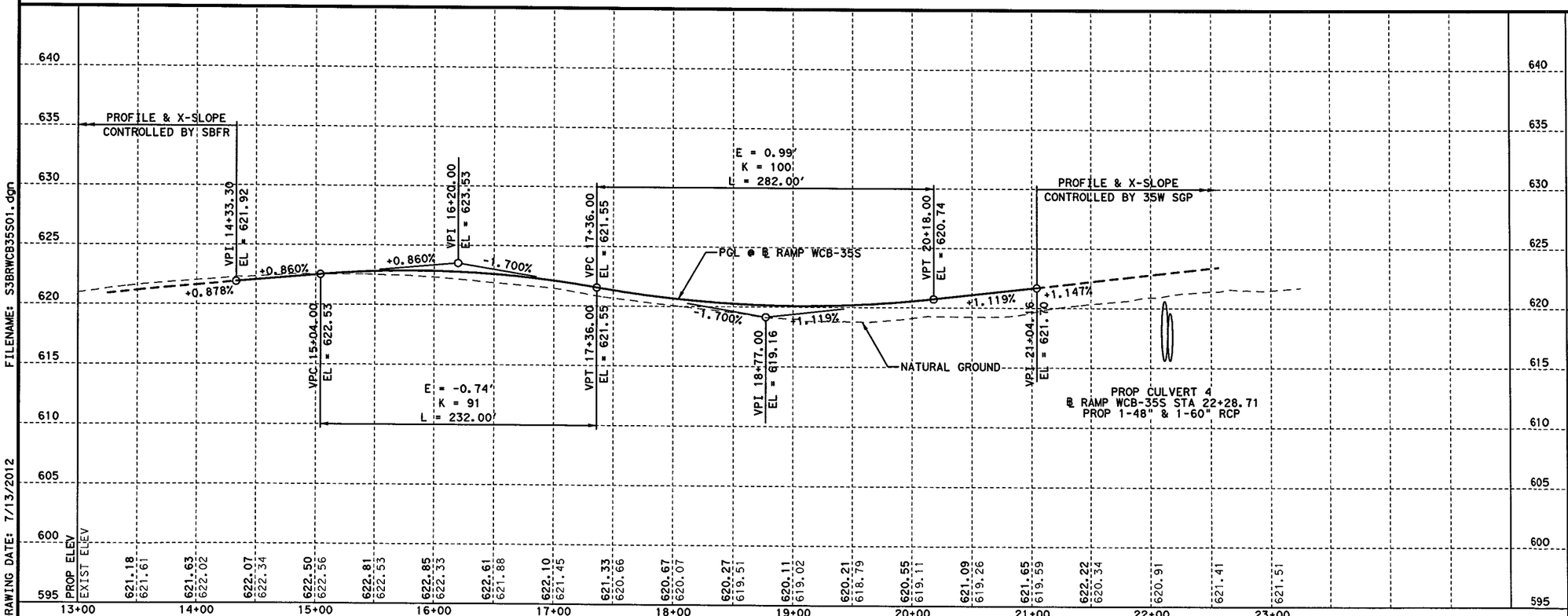
5. REFER TO GORE CONTOUR PLANS FOR ADDITIONAL INFORMATION.



FILENAME: S3BRWCB35S01.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

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TBPE REGISTRATION NO. F-926

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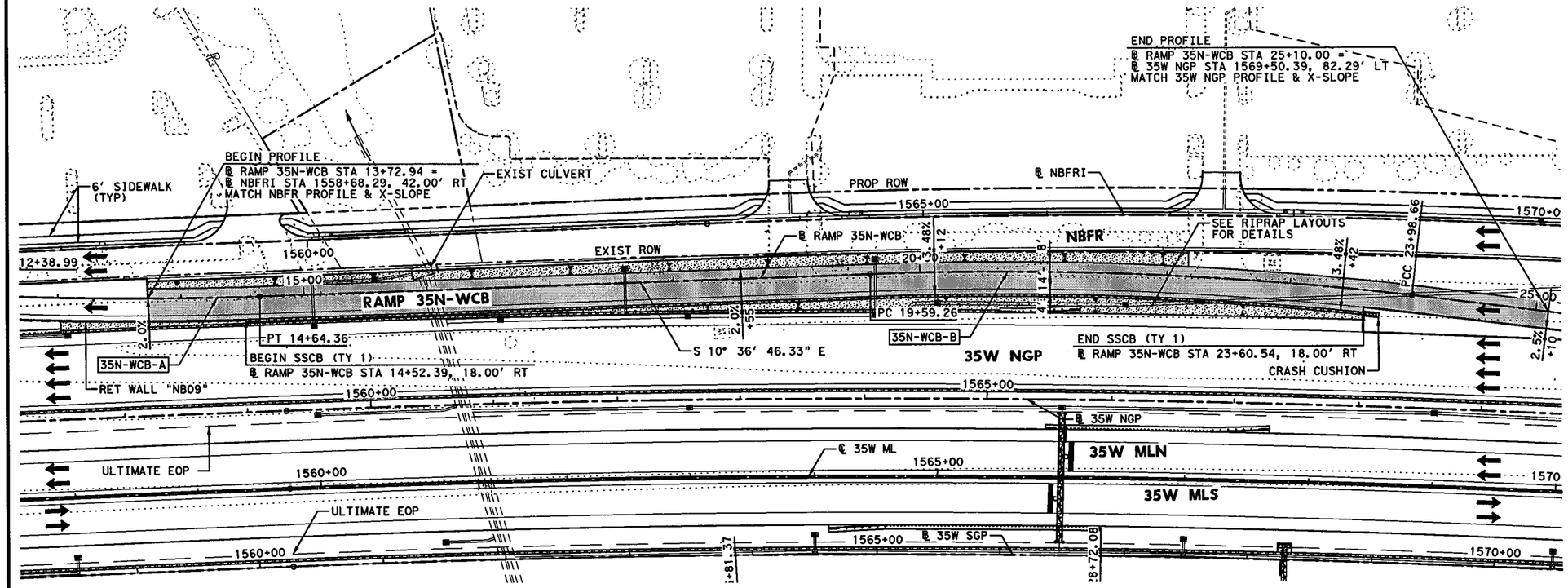
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

RAMP WCB-35S

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	808
KCI	0014	16	255, ETC.	
CHECK				
KCI				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- XX — RAMP NOSE GORE ID
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- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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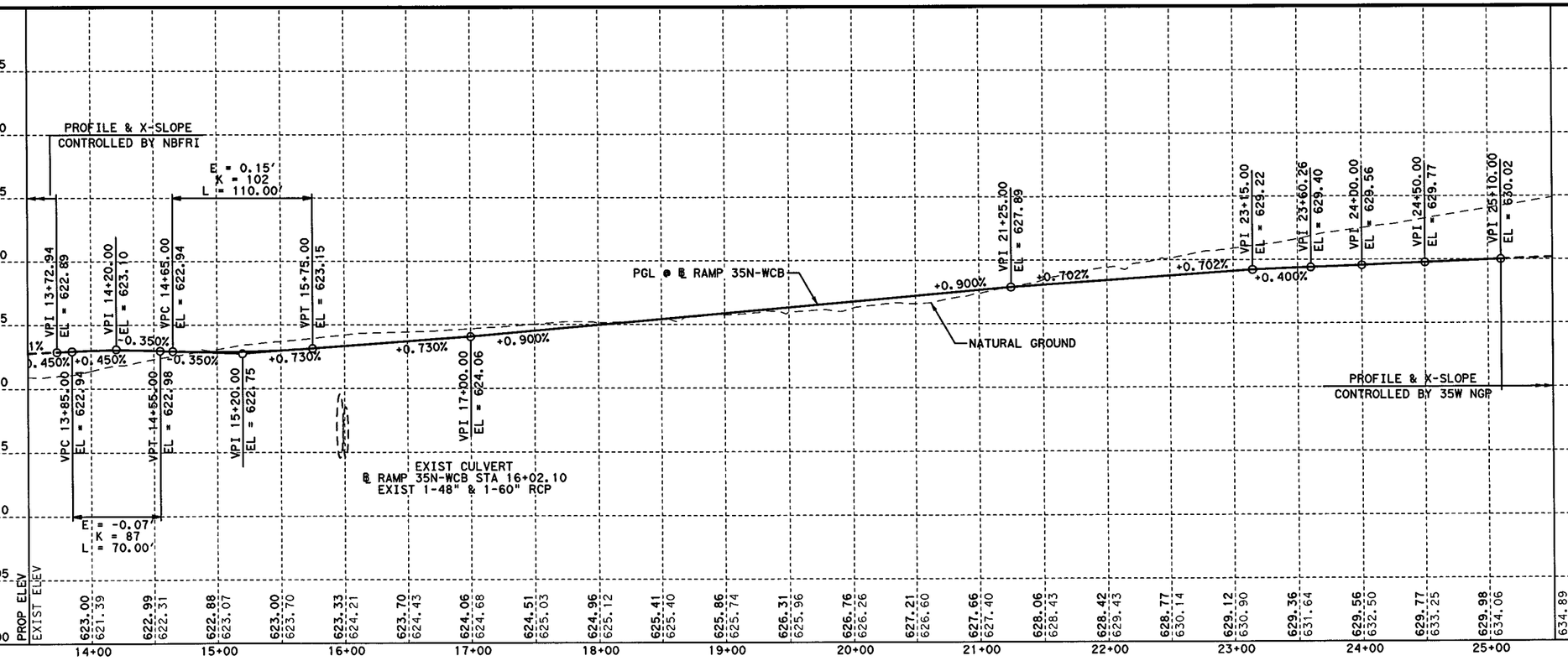

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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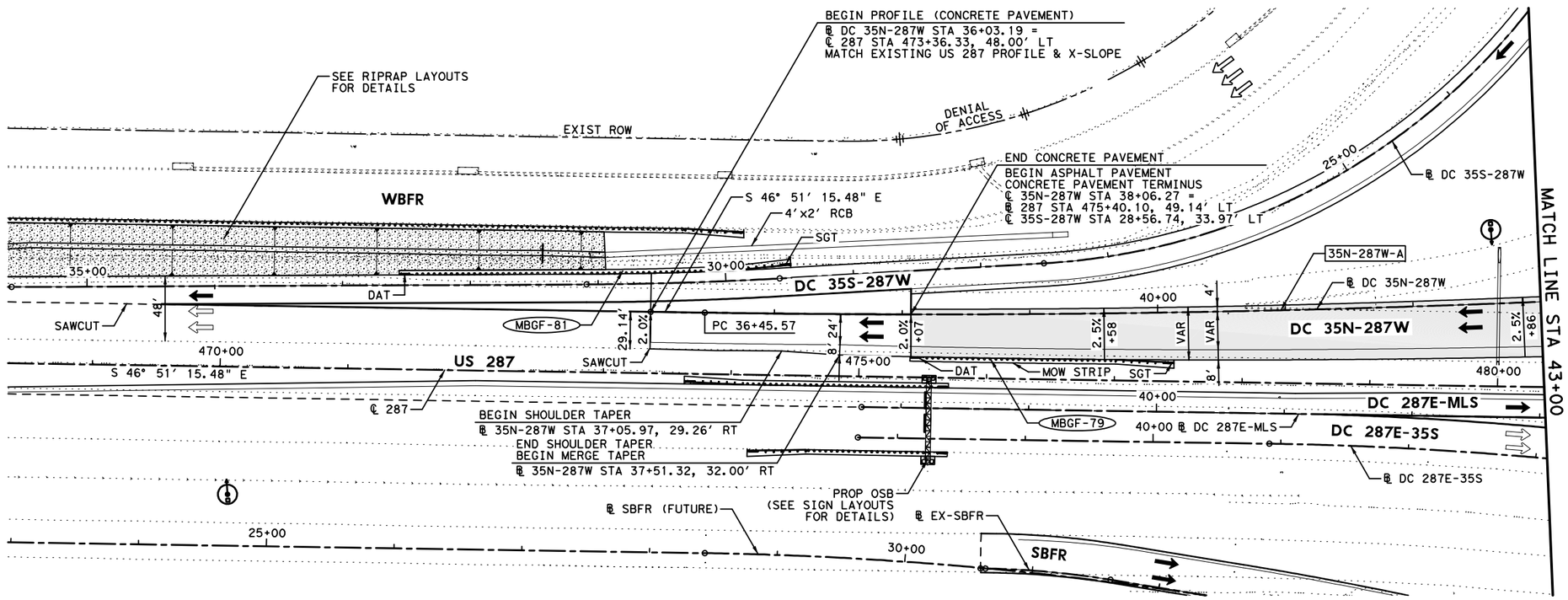
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
RAMP 35N-WCB

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	809
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BR35NWCB01.dgn
DRAWING DATE: 7/30/2012



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
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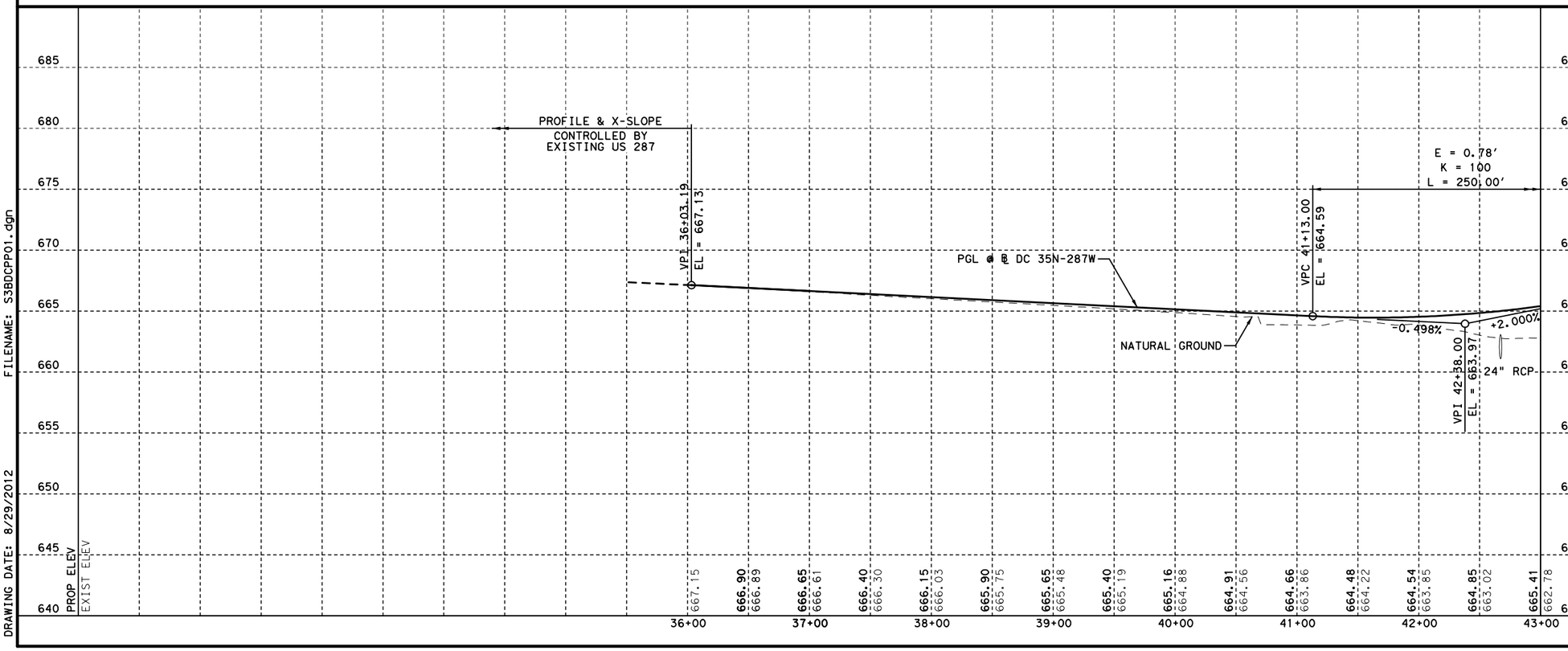
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
8. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6, CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
08/29/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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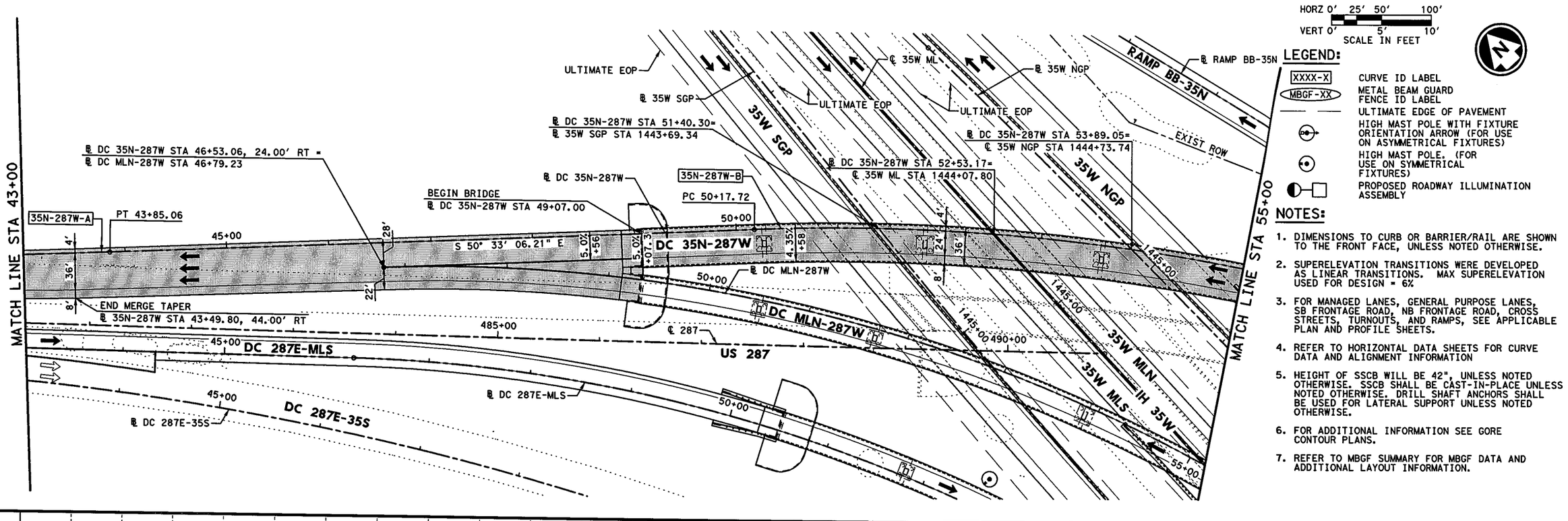
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
35N-287W DIRECT CONNECTOR
BEGIN TO STA 43+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 5

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	810
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BDCPP01.dgn
DRAWING DATE: 8/29/2012



FILENAME: S3BDCPP02.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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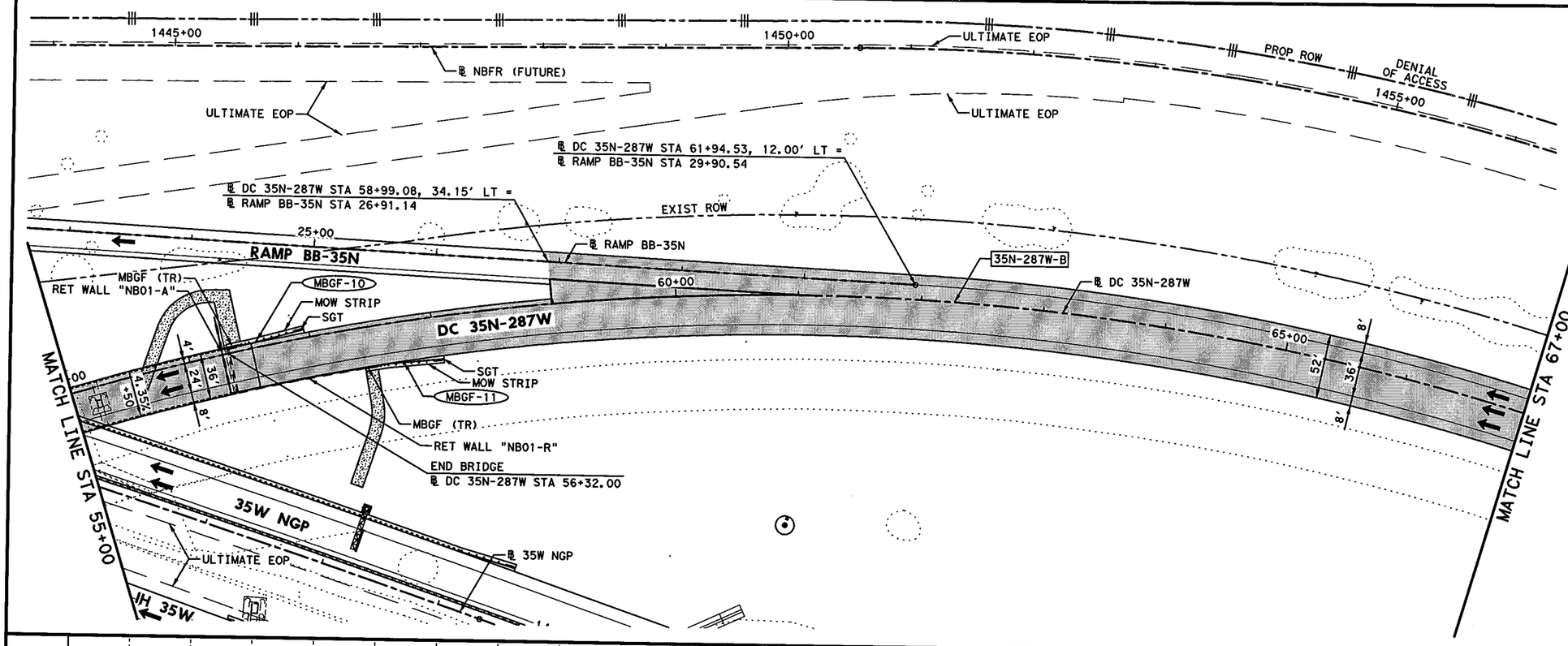
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
35N-287W DIRECT CONNECTOR
STA 43+00 TO STA 55+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 5

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	811
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



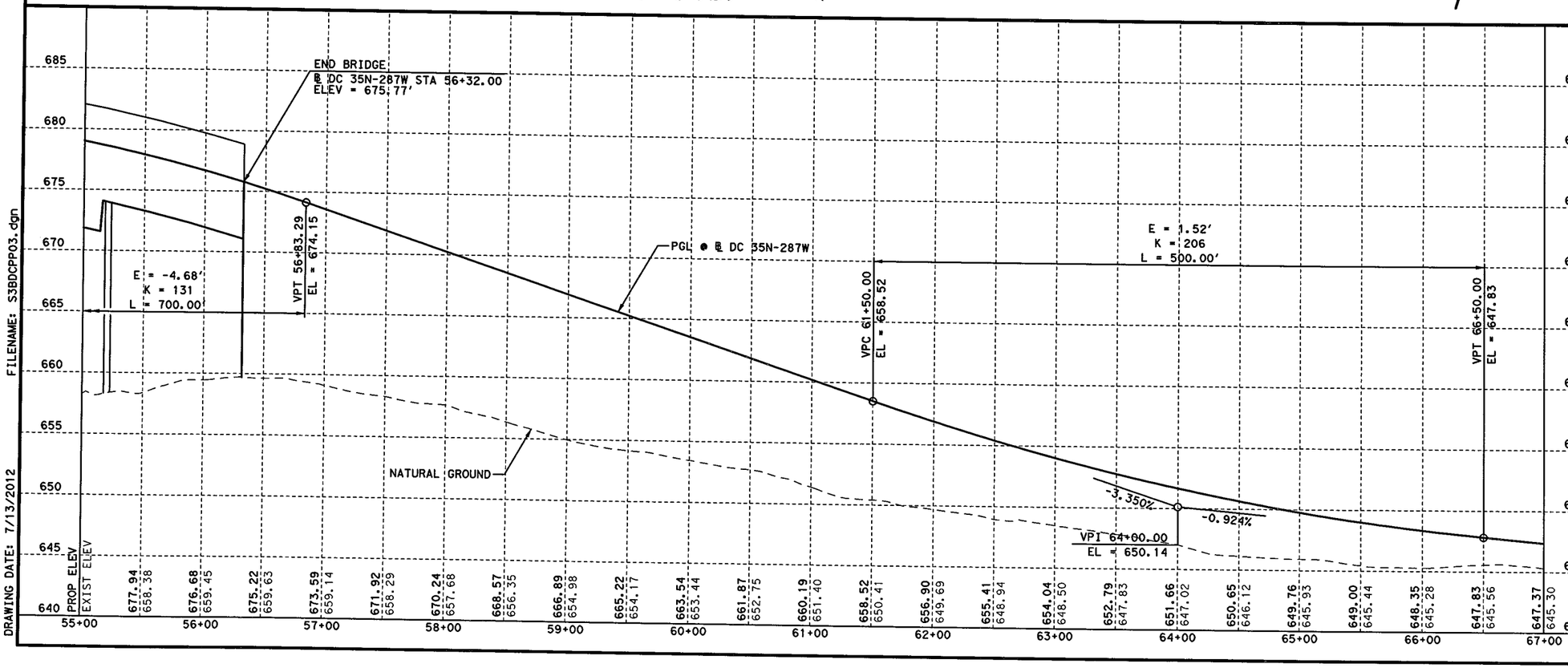
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: 53BDCPP03.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Shahul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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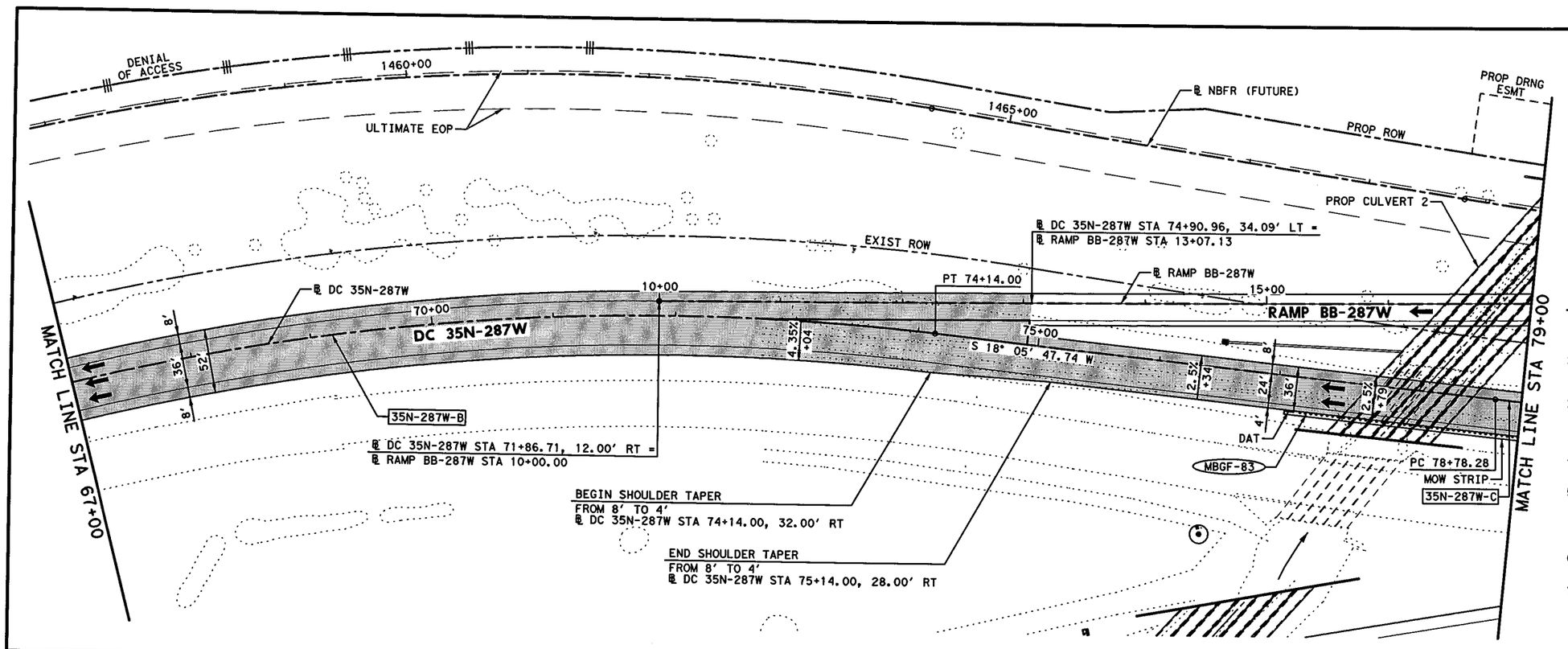
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
35N-287W DIRECT CONNECTOR
STA 55+00 TO STA 67+00

SCALE: 1" = 100' H, 1" = 10' V

SHEET 3 OF 5

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	812
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
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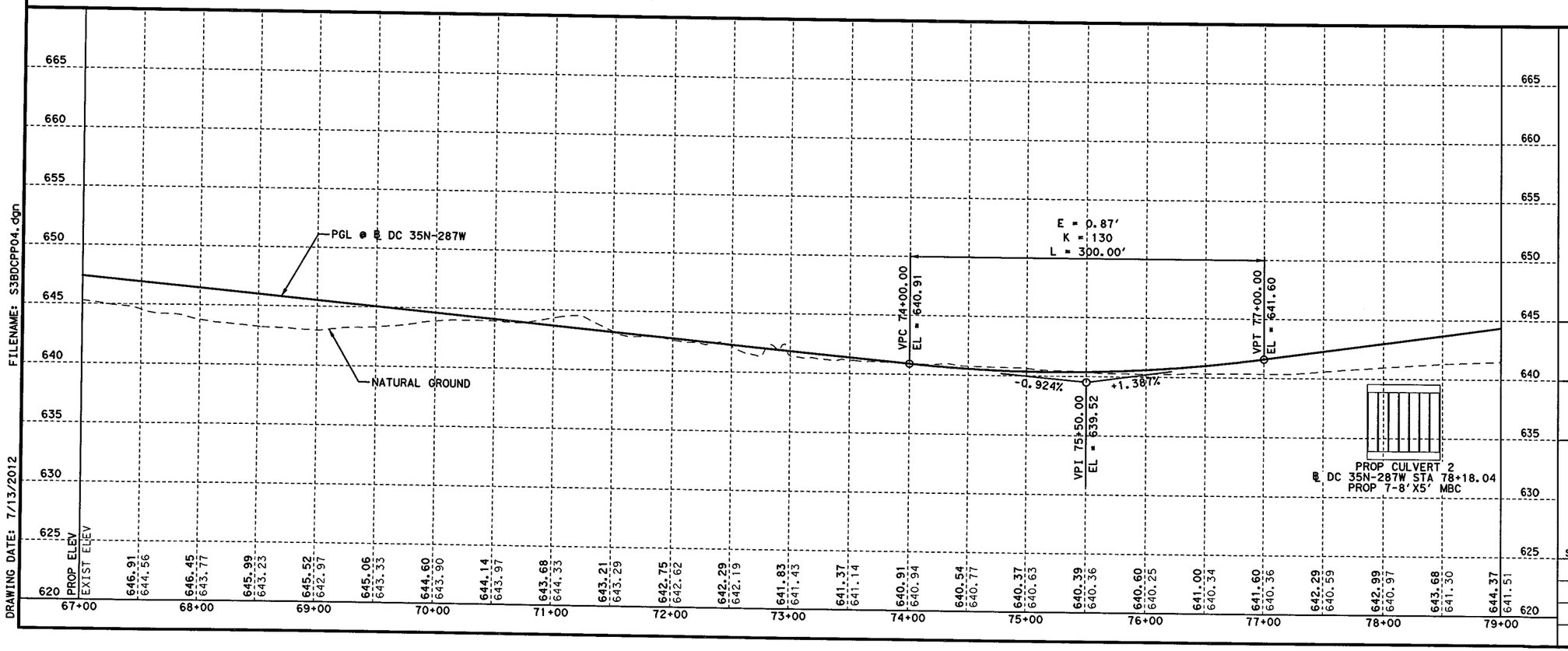
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BDCPP04.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Shahid Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

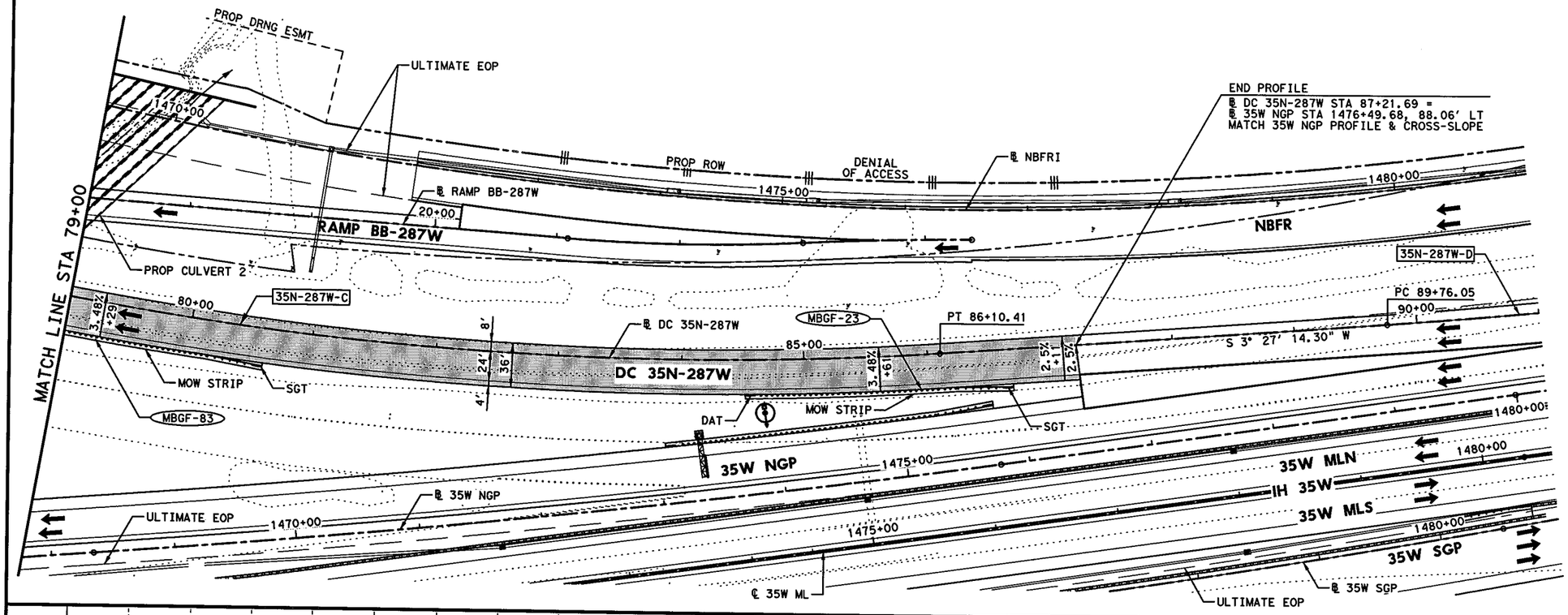
ROADWAY PLAN & PROFILE

35N-287W DIRECT CONNECTOR

STA 67+00 TO STA 79+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 4 OF 5

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	813
KCI	0014	16	255, ETC.	
CHECK				
KCI				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
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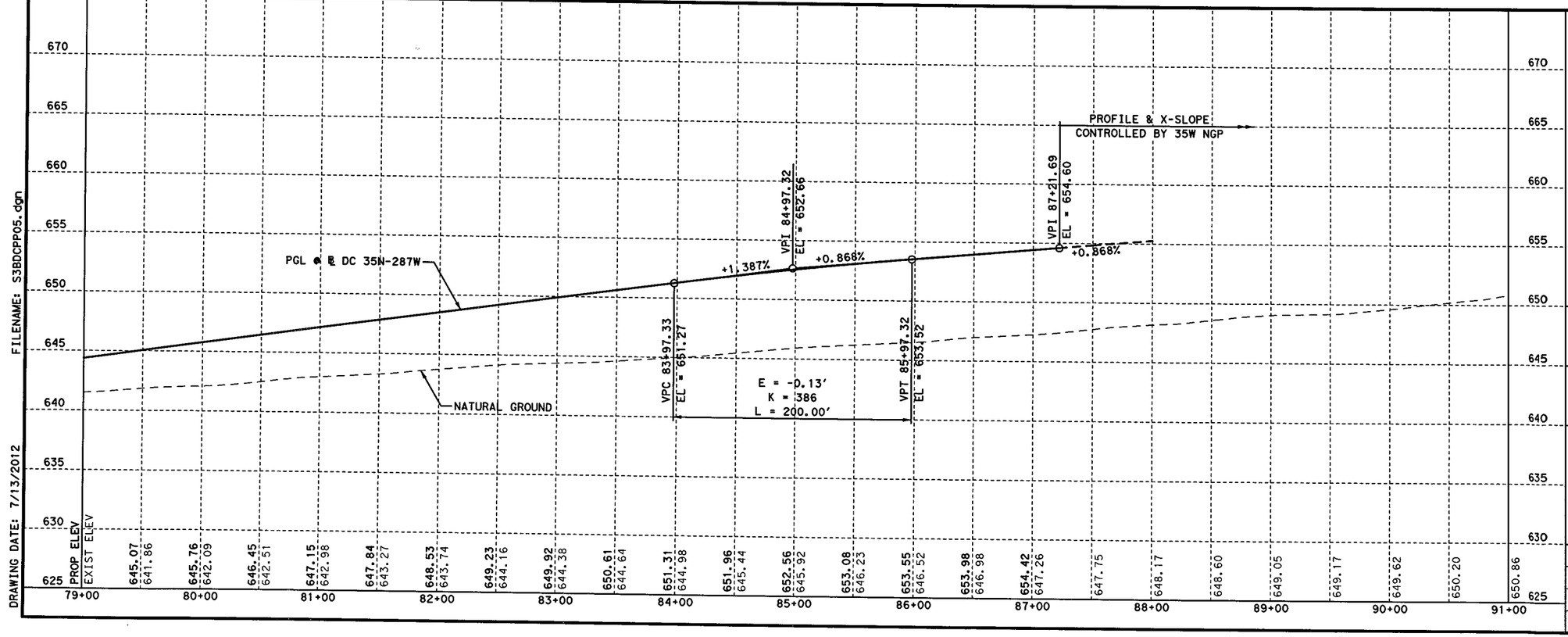
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BDCPP05.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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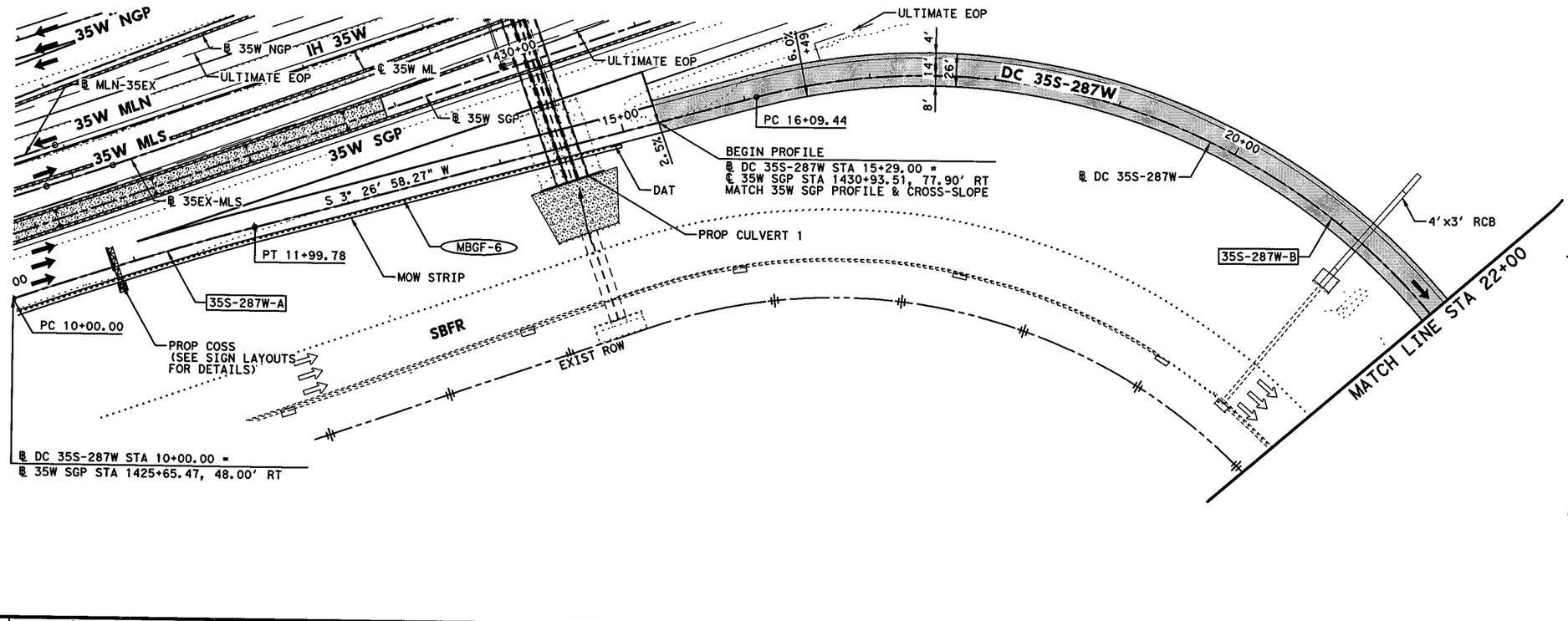
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
35N-287W DIRECT CONNECTOR
STA 79+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 5 OF 5

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	814
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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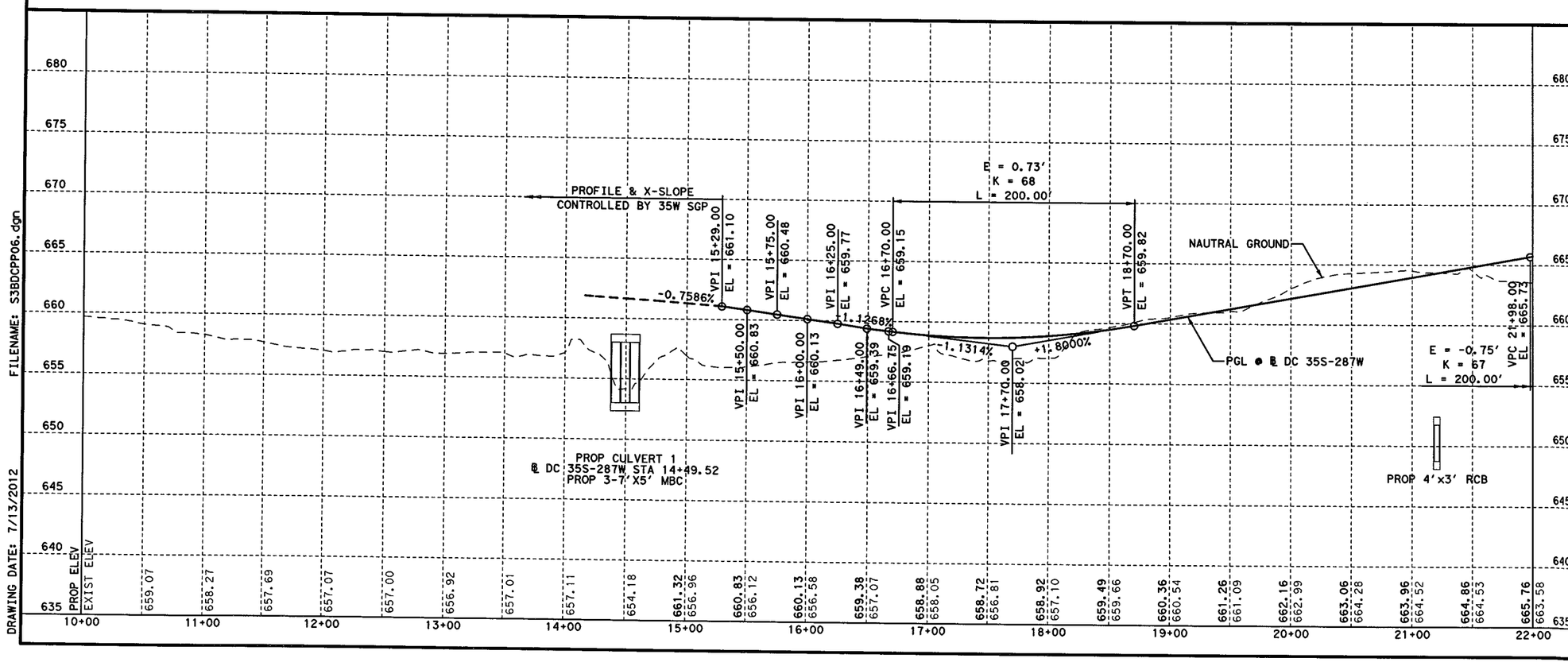
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BDCPP06.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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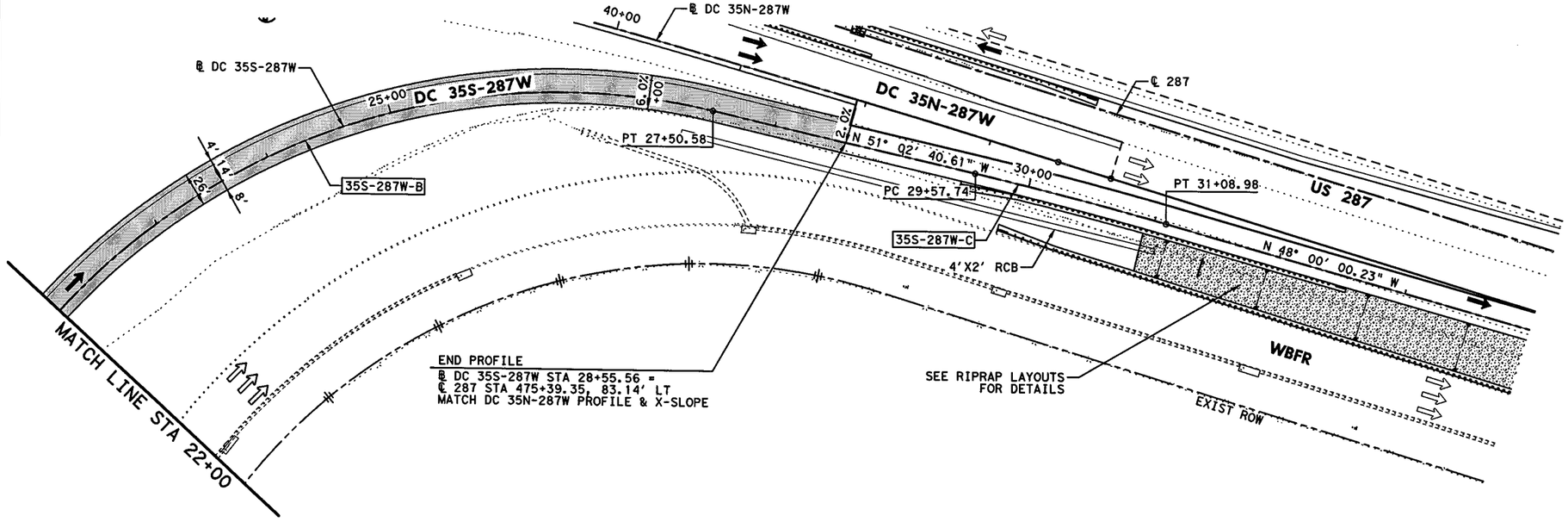
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
35S-287W DIRECT CONNECTOR
BEGIN TO STA 22+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	815
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

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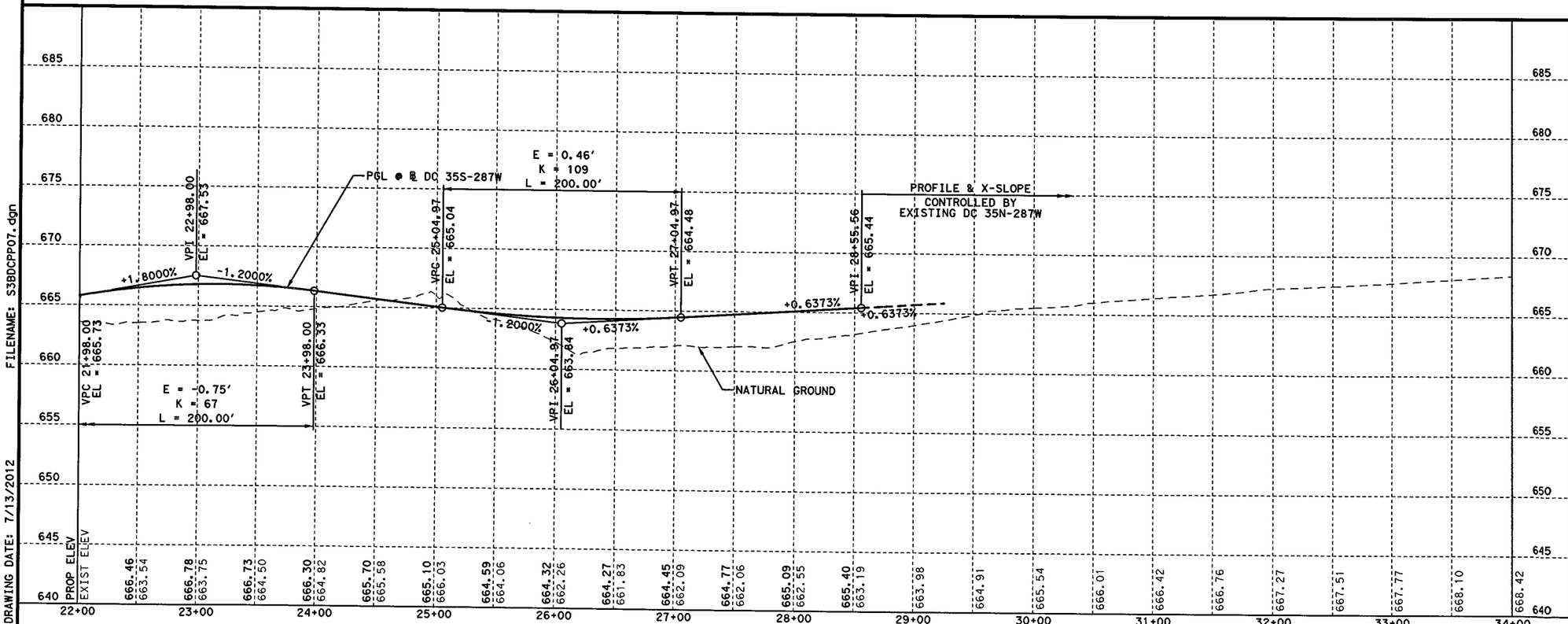
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BDCPP07.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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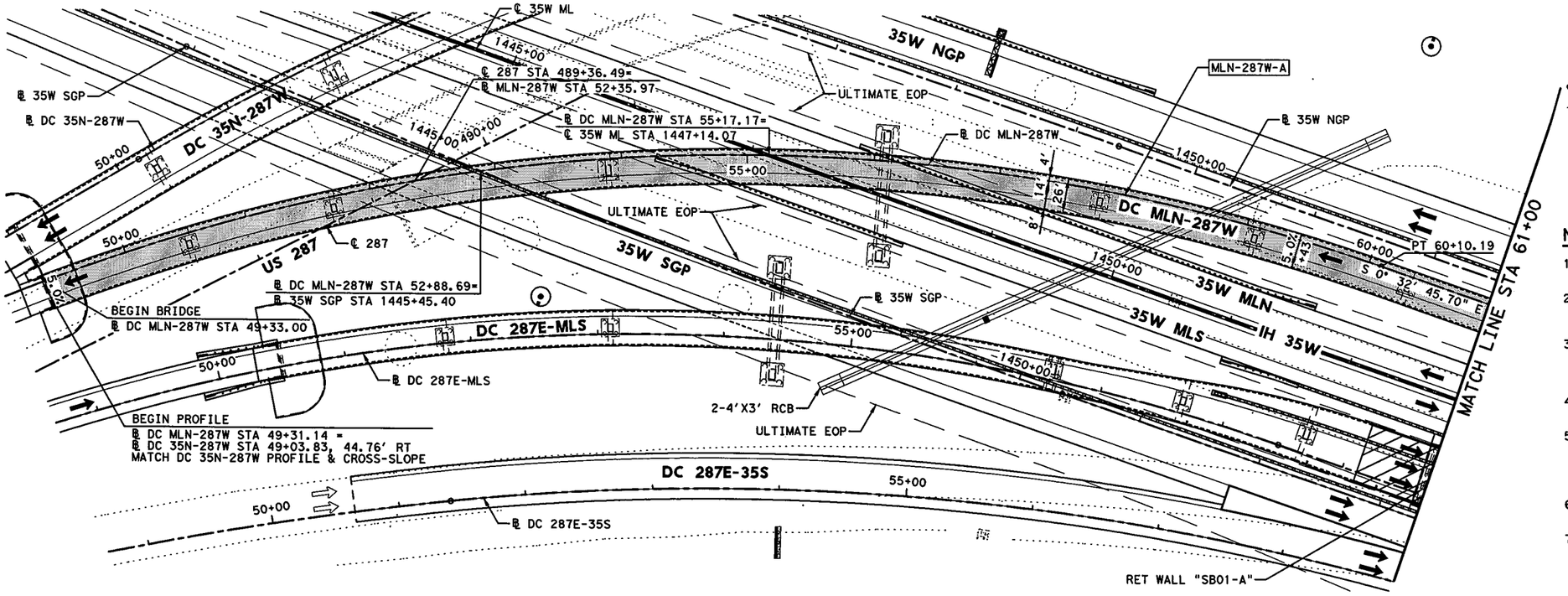
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
35S-287W DIRECT CONNECTOR
STA 22+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	816
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
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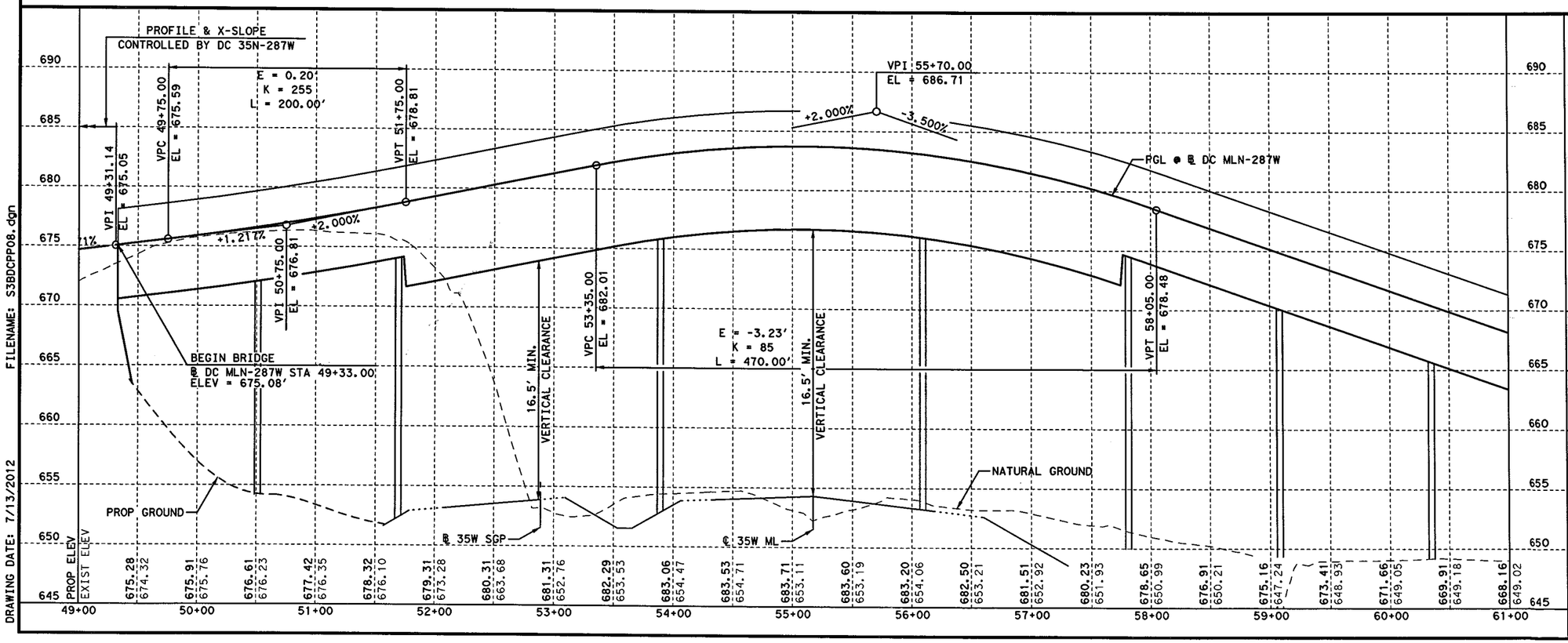

FILENAME: S3BDCPP08.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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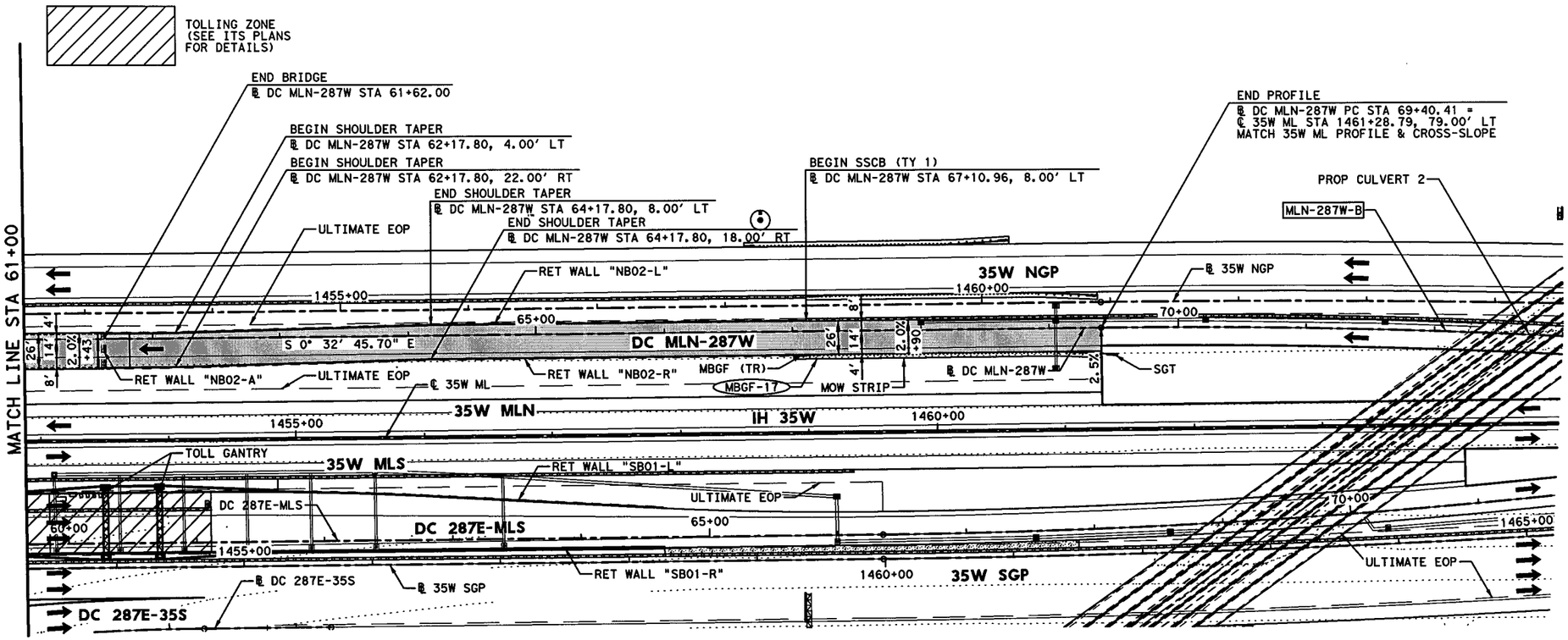
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
MLN-287W DIRECT CONNECTOR
BEGIN TO STA 61+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	817
KCI	0014	16	255, ETC.	
CHECK				



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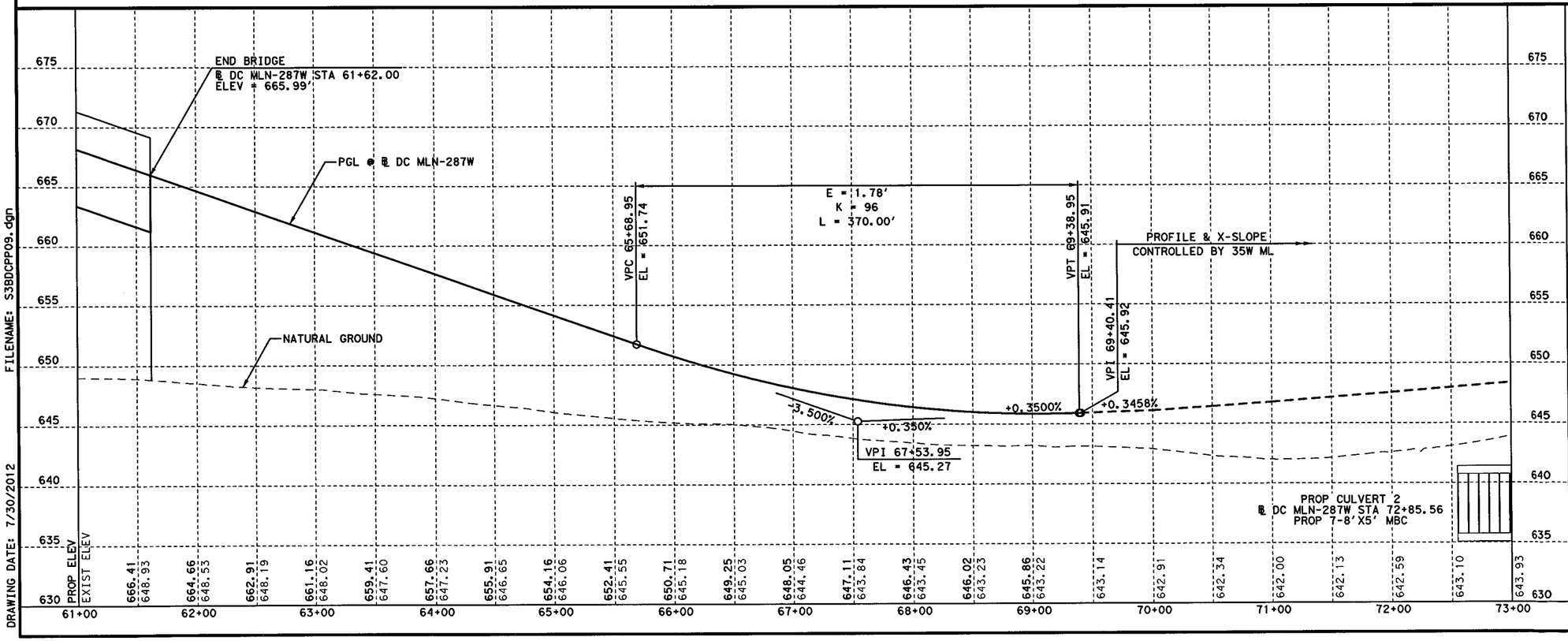

FILENAME: S3BDCPP09.dgn
DRAWING DATE: 7/30/2012

SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
07/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

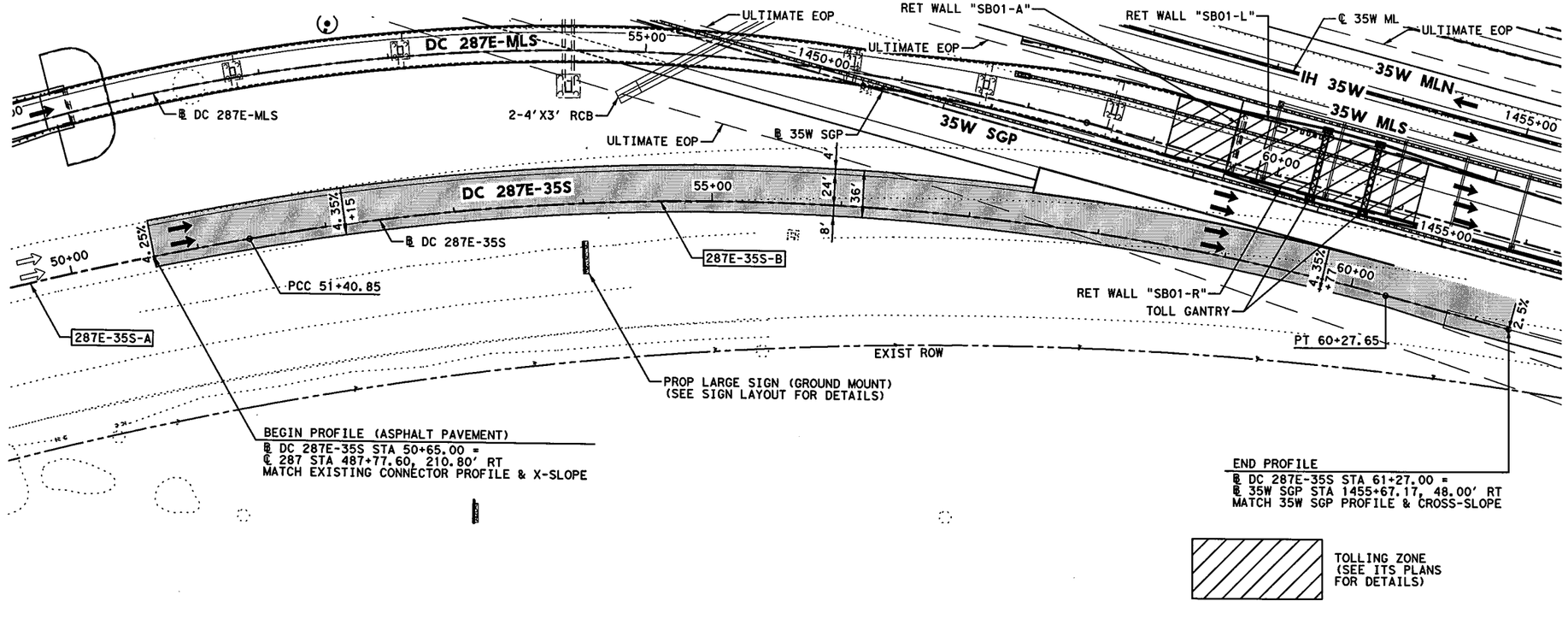
ROADWAY PLAN & PROFILE

MLN-287W DIRECT CONNECTOR

STA 61+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	818
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
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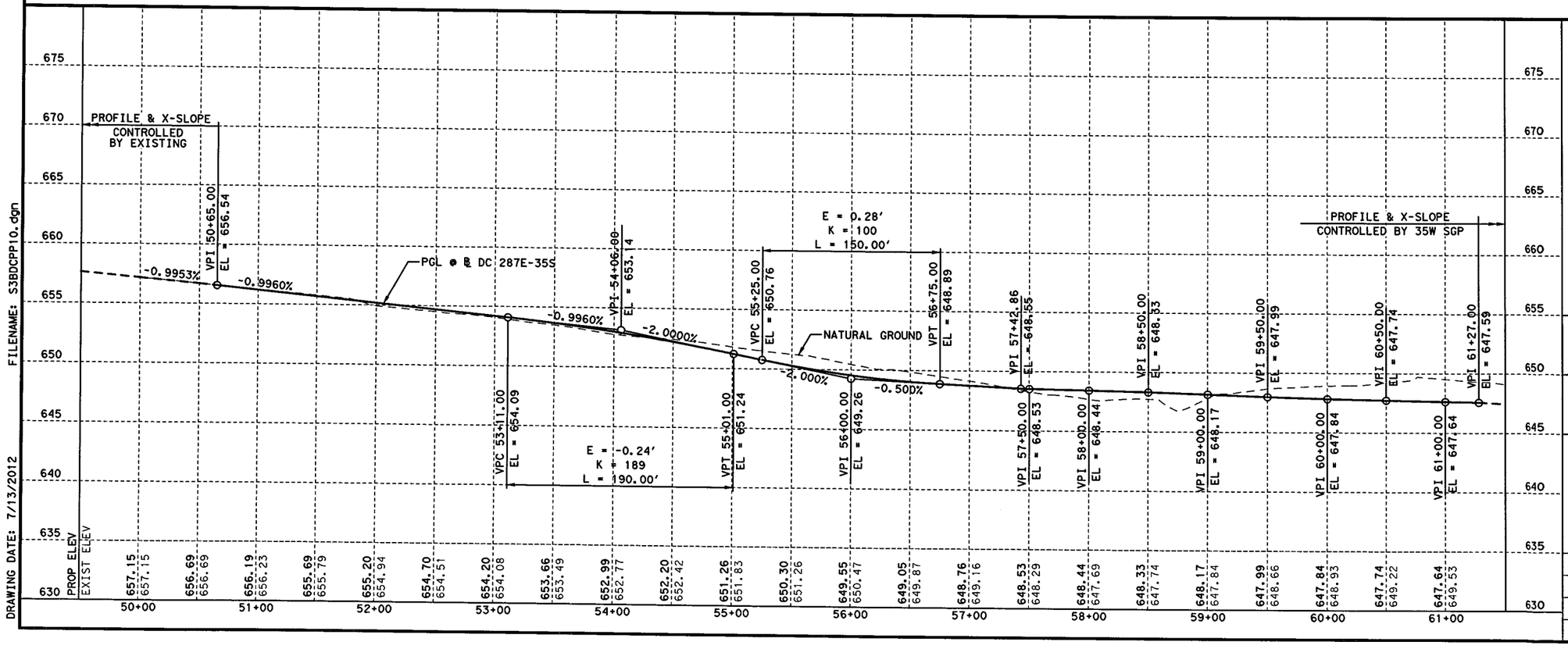
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6, CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BDCPP10.dgn
DRAWING DATE: 7/13/2012

SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
STATE OF TEXAS
Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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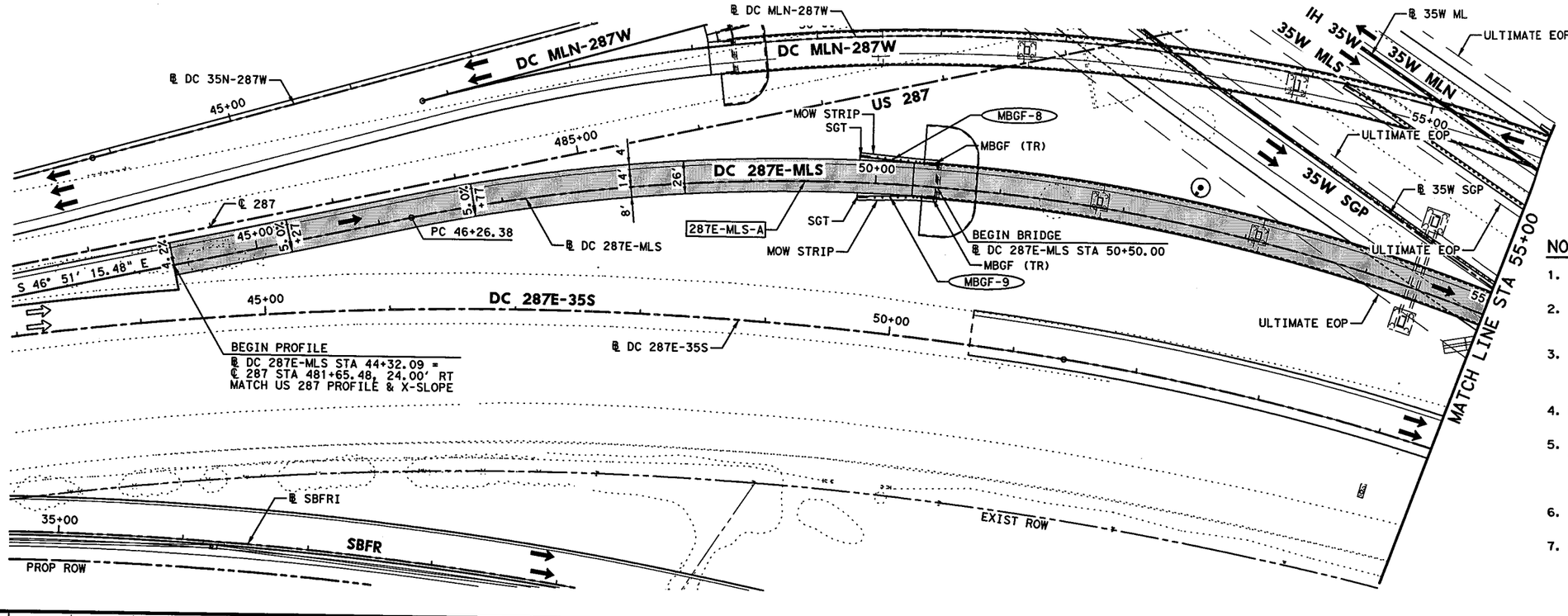
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
287E-35S DIRECT CONNECTOR

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	819
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

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- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
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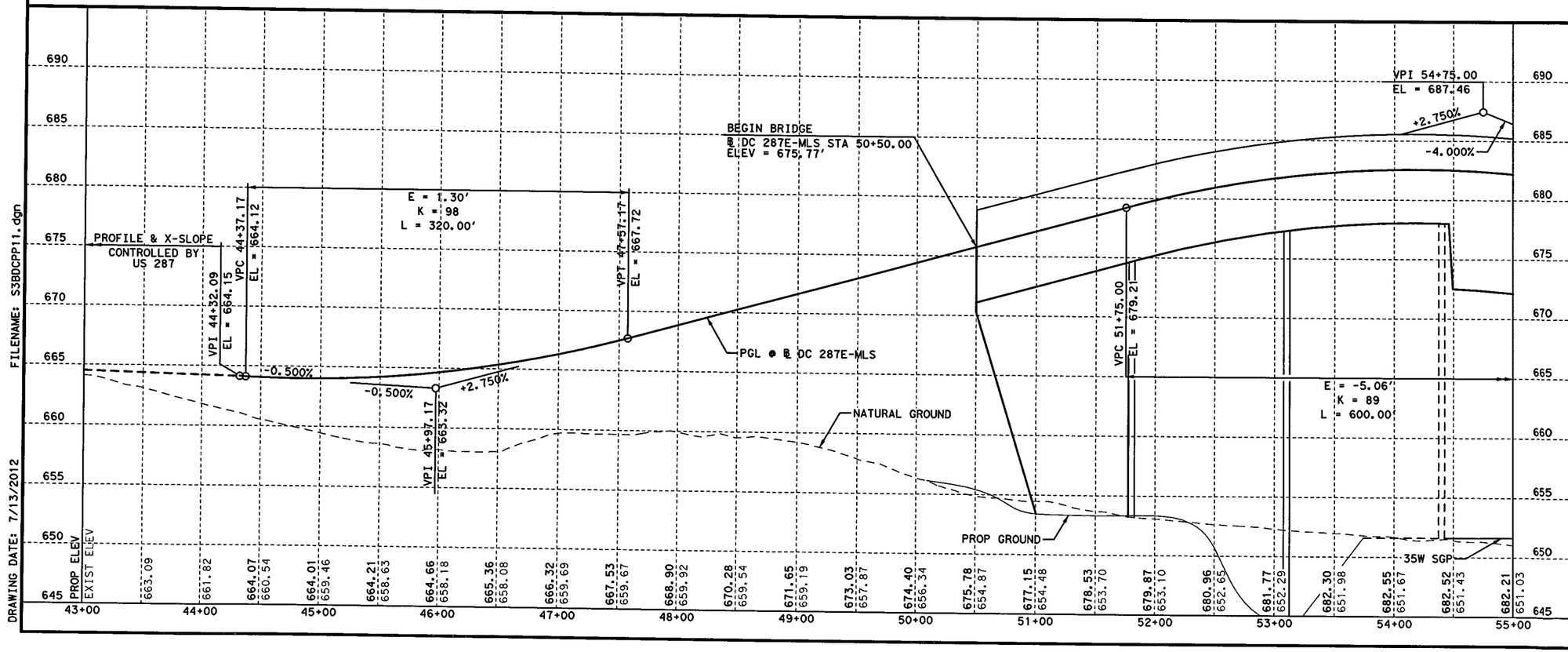
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BDCPP11.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

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TBPE REGISTRATION NO. F-926

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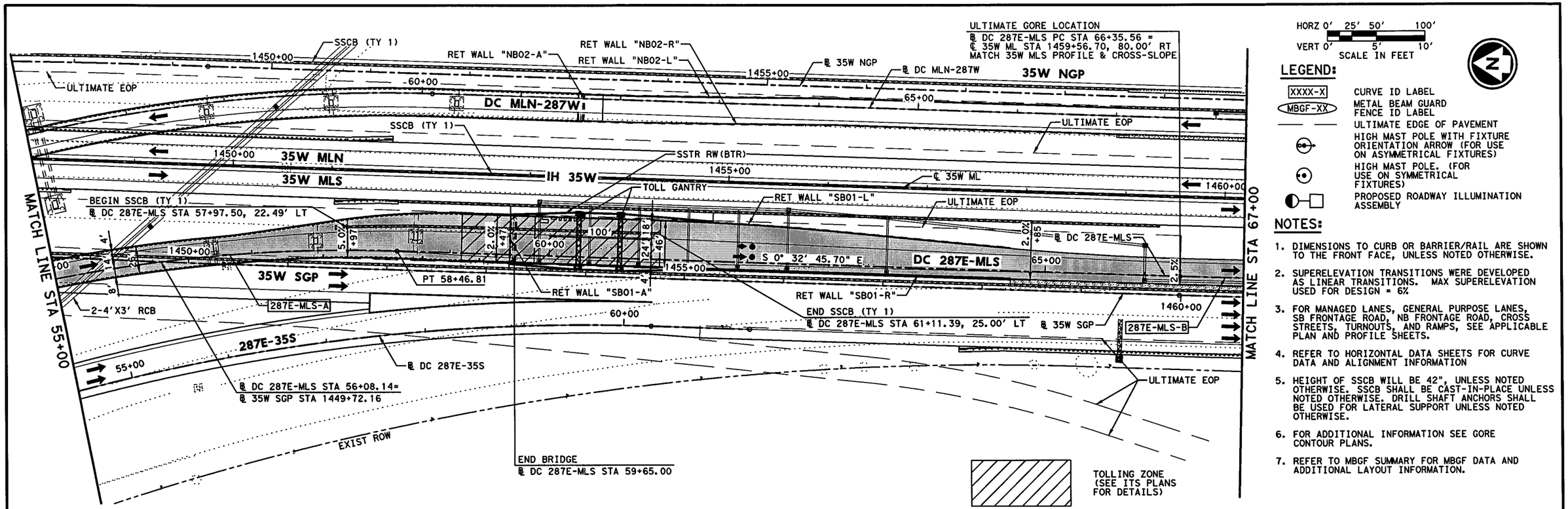
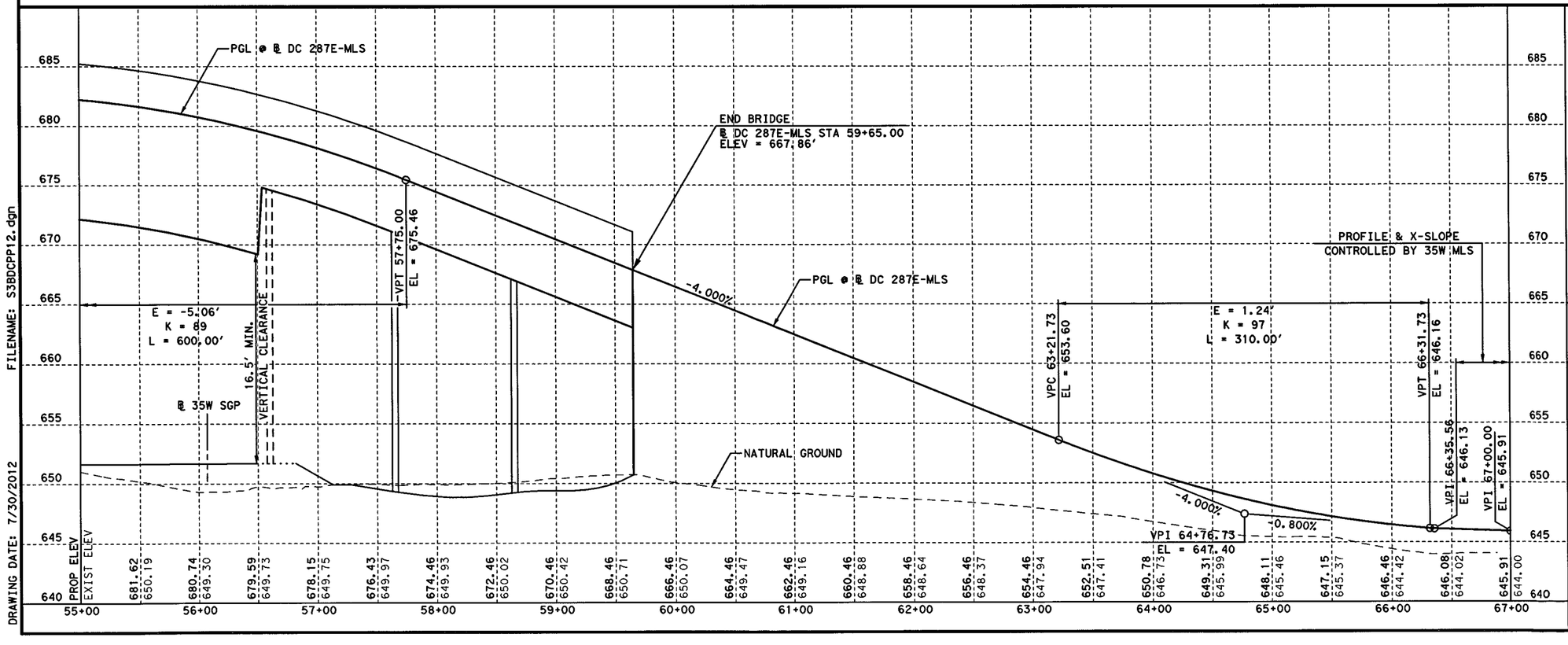
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
287E-MLS DIRECT CONNECTOR
BEGIN TO STA 55+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 3

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	820
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	





STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/31/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

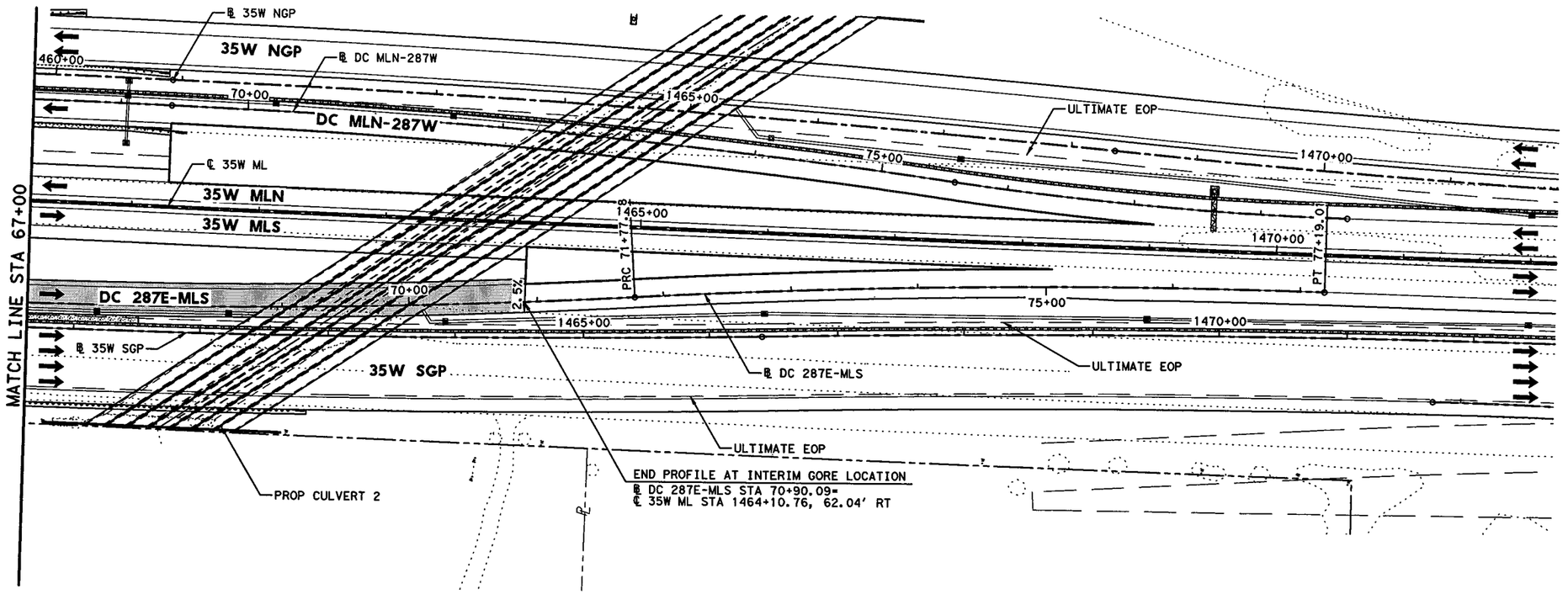
ROADWAY PLAN & PROFILE

287E-MLS DIRECT CONNECTOR

STA 55+00 TO 67+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	821
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



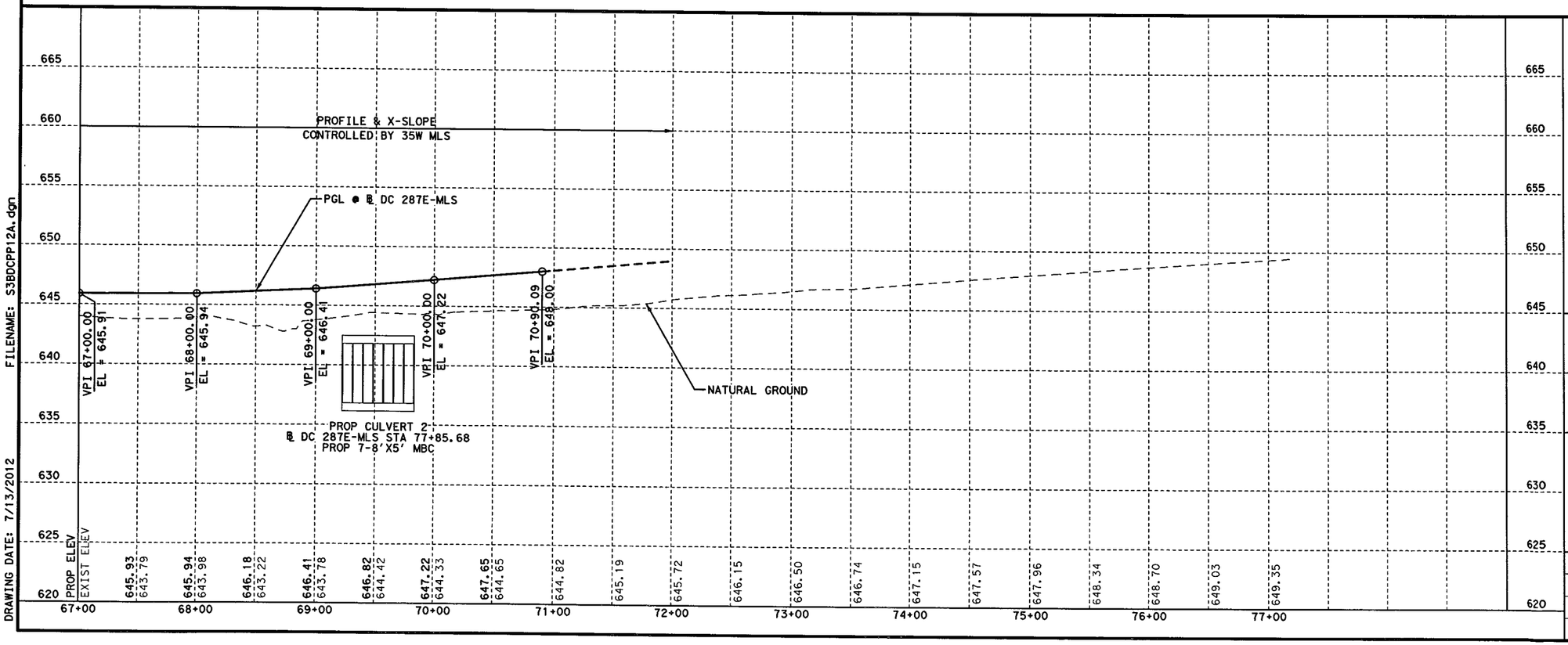
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BDCPP12A.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

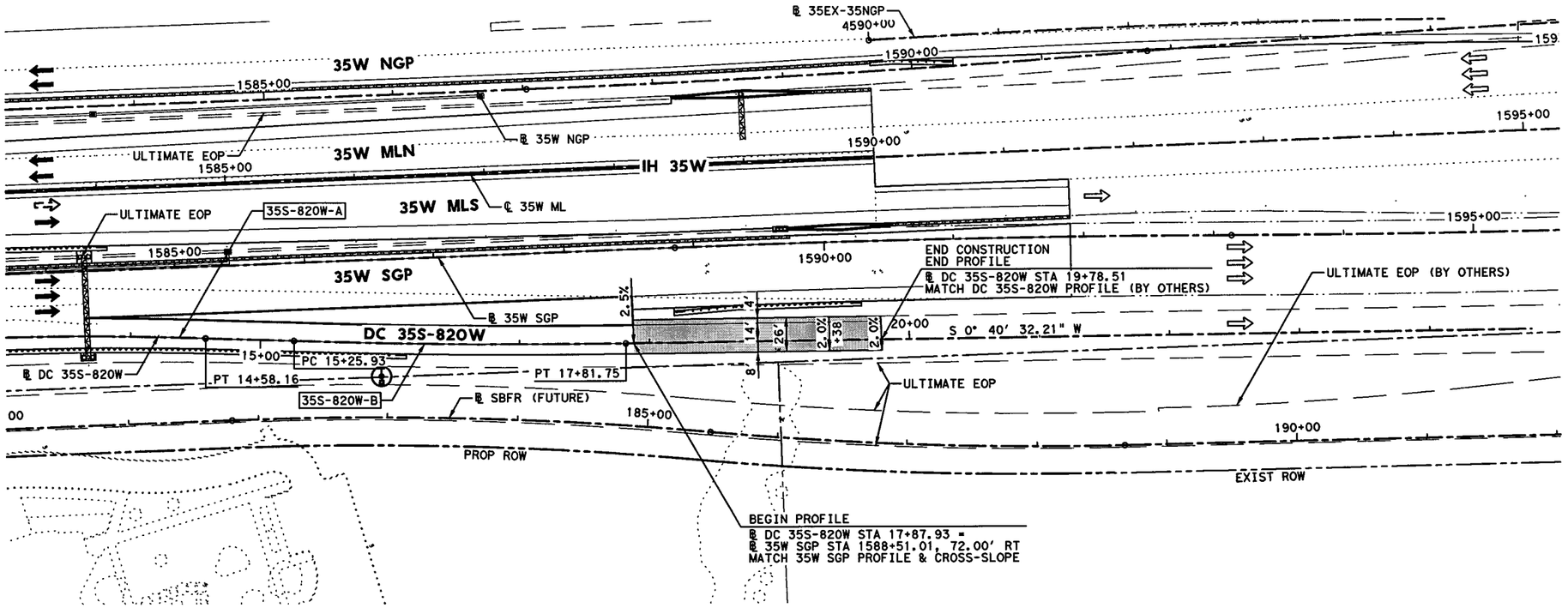
ROADWAY PLAN & PROFILE

287E-MLS DIRECT CONNECTOR

STA 67+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	822
KCI	0014	16	255, ETC.	
CHECK				
KCI				



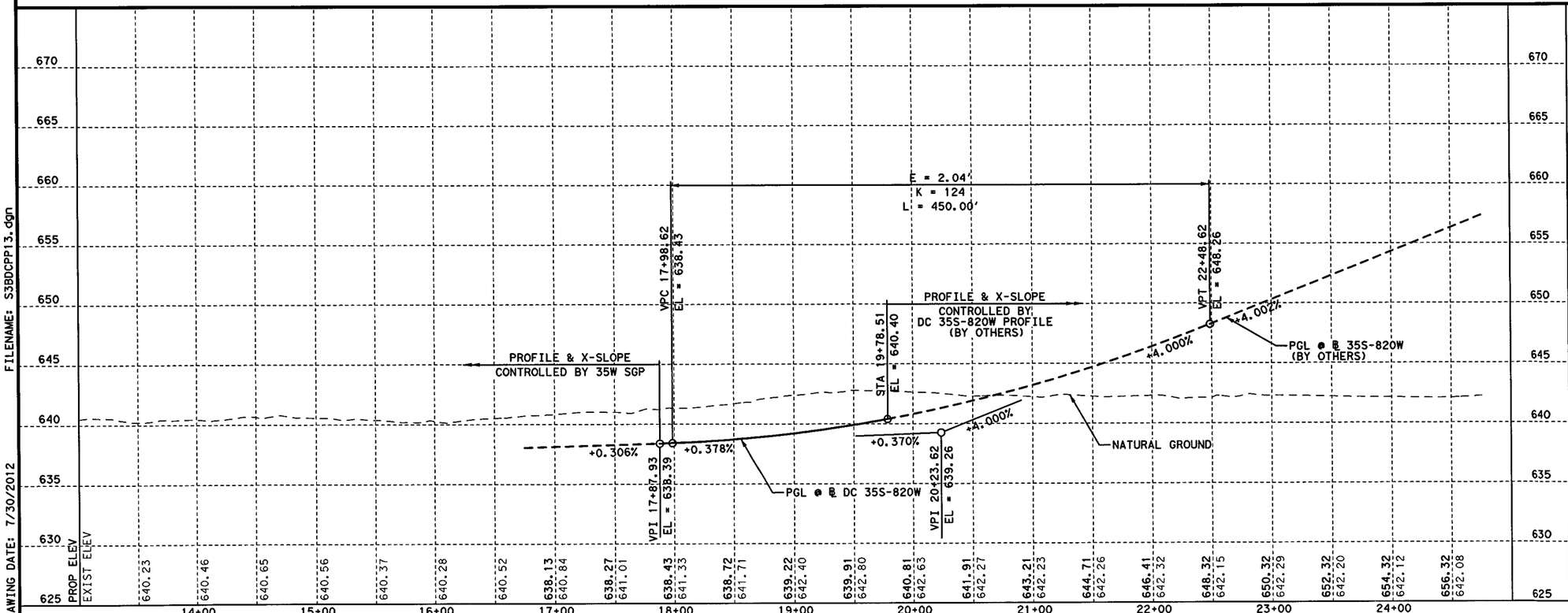
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BDCPP13.dgn
DRAWING DATE: 7/30/2012

SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
07/31/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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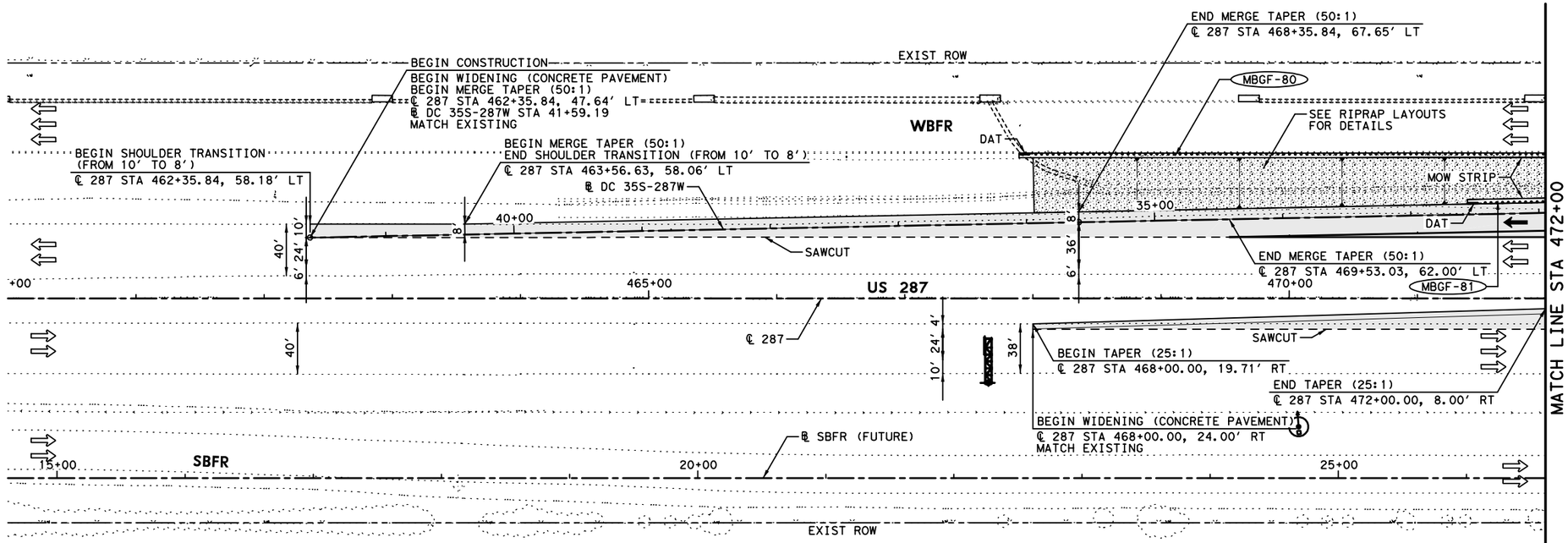
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
35S-820W DIRECT CONNECTOR

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	823
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



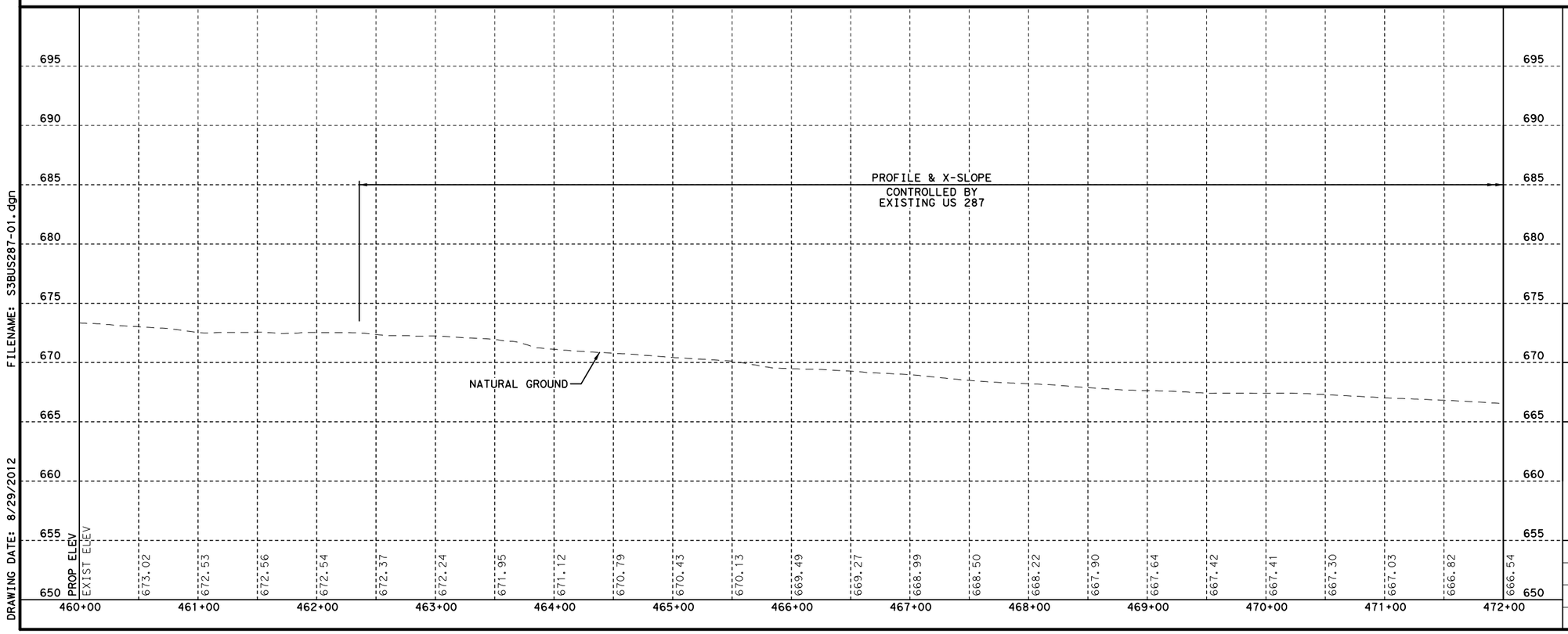
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS. MAX SUPERELEVATION USED FOR DESIGN = 6%
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.



FILENAME: S3BUS287-01.dgn
DRAWING DATE: 8/29/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
08/29/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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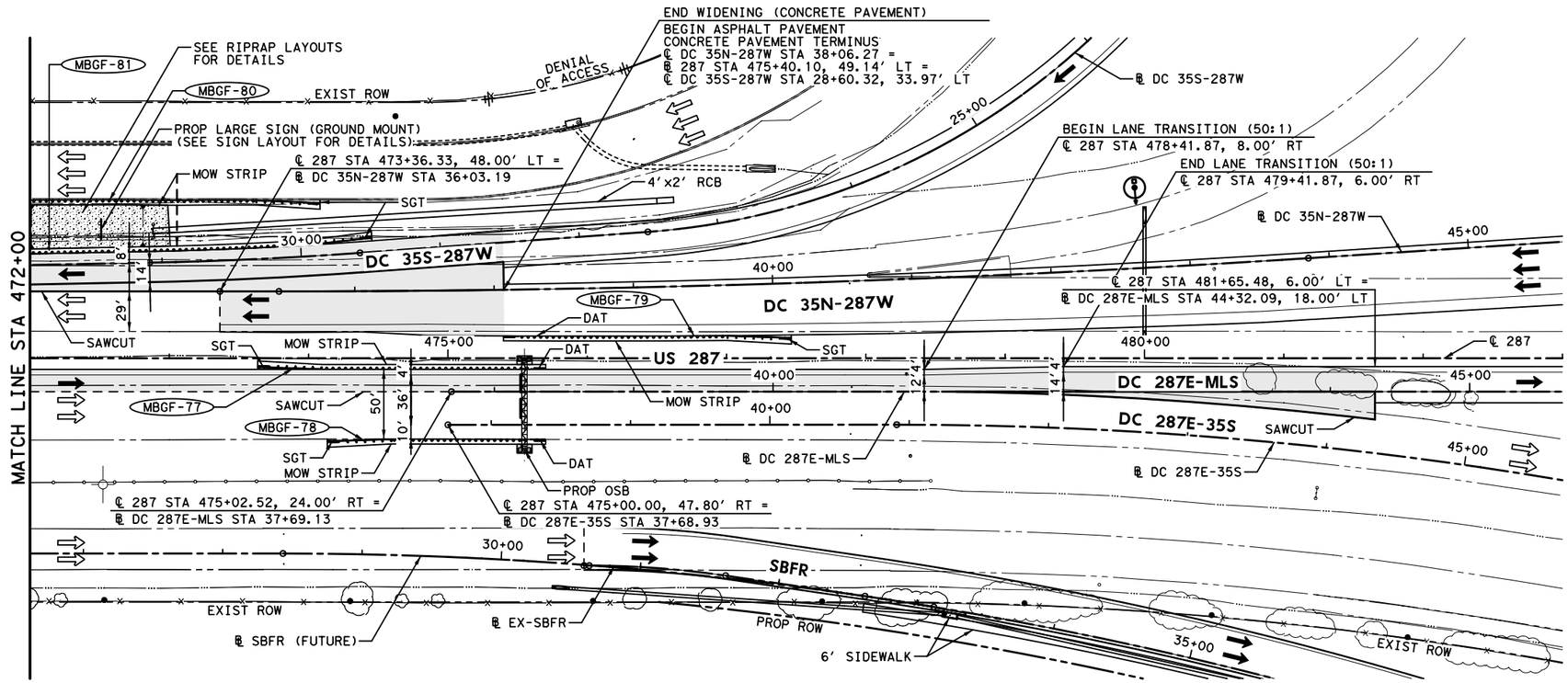
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
US 287
BEGIN TO STA 472+00

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	824
KCI	0014	16	255, ETC.	
CHECK				



HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
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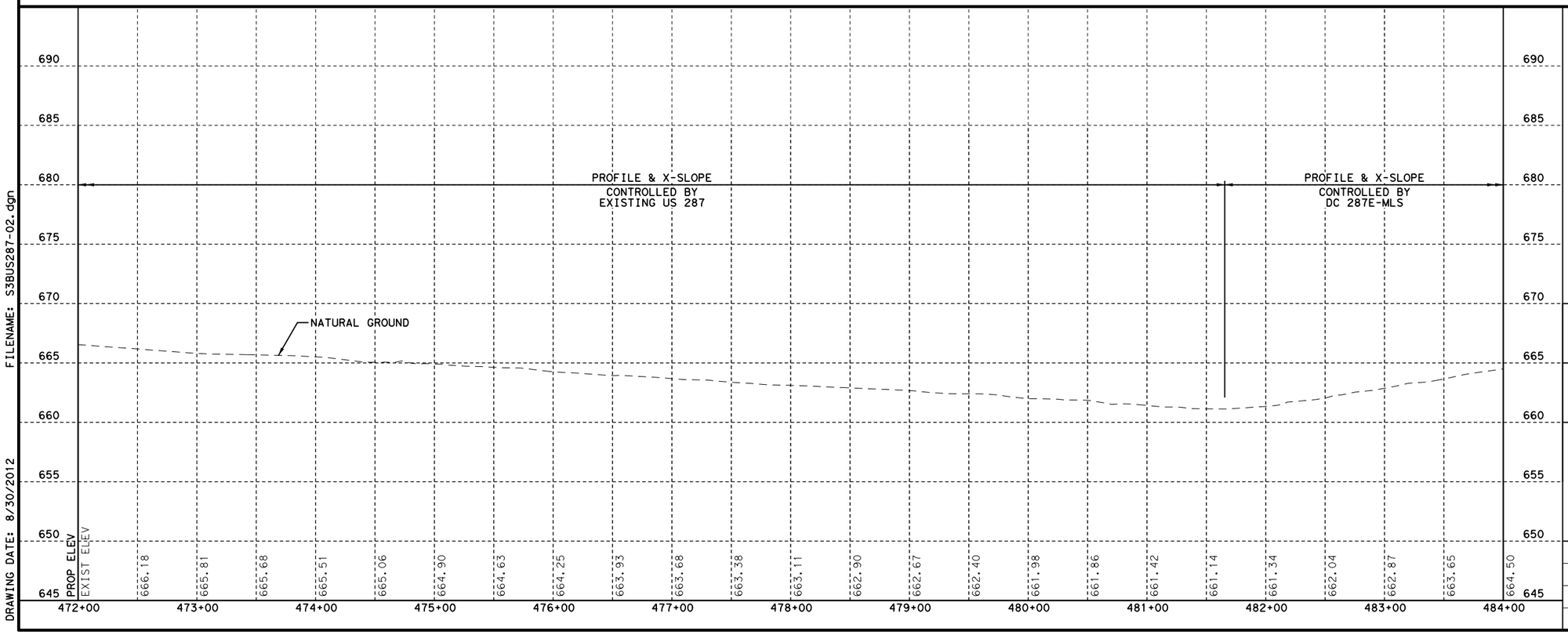
3. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, CROSS STREETS, TURNOUTS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
4. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION
5. HEIGHT OF SSCB WILL BE 42", UNLESS NOTED OTHERWISE. SSCB SHALL BE CAST-IN-PLACE UNLESS NOTED OTHERWISE. DRILL SHAFT ANCHORS SHALL BE USED FOR LATERAL SUPPORT UNLESS NOTED OTHERWISE.
6. FOR ADDITIONAL INFORMATION SEE GORE CONTOUR PLANS.
7. REFER TO MBGF SUMMARY FOR MBGF DATA AND ADDITIONAL LAYOUT INFORMATION.
8. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6, CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.



FILENAME: S3BUS287-02.dgn
DRAWING DATE: 8/30/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
08/29/2012

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TBPE REGISTRATION NO. F-926

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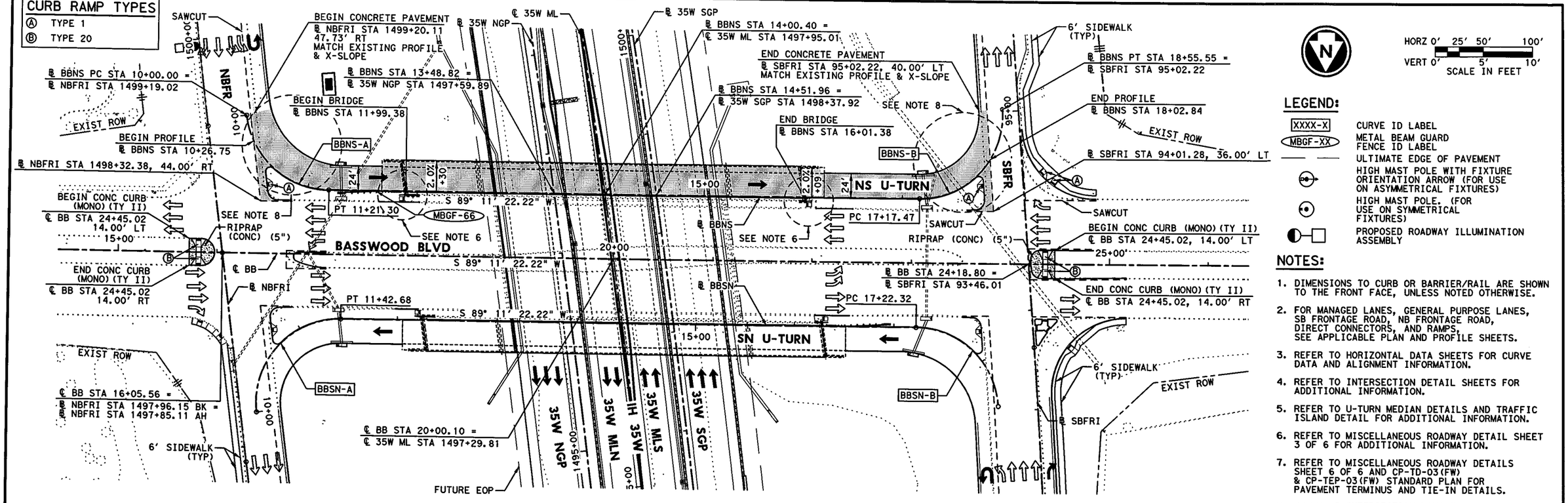
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
US 287
STA 472+00 TO END

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	825
KCI	0014	16	255, ETC.	
CHECK				
KCI				

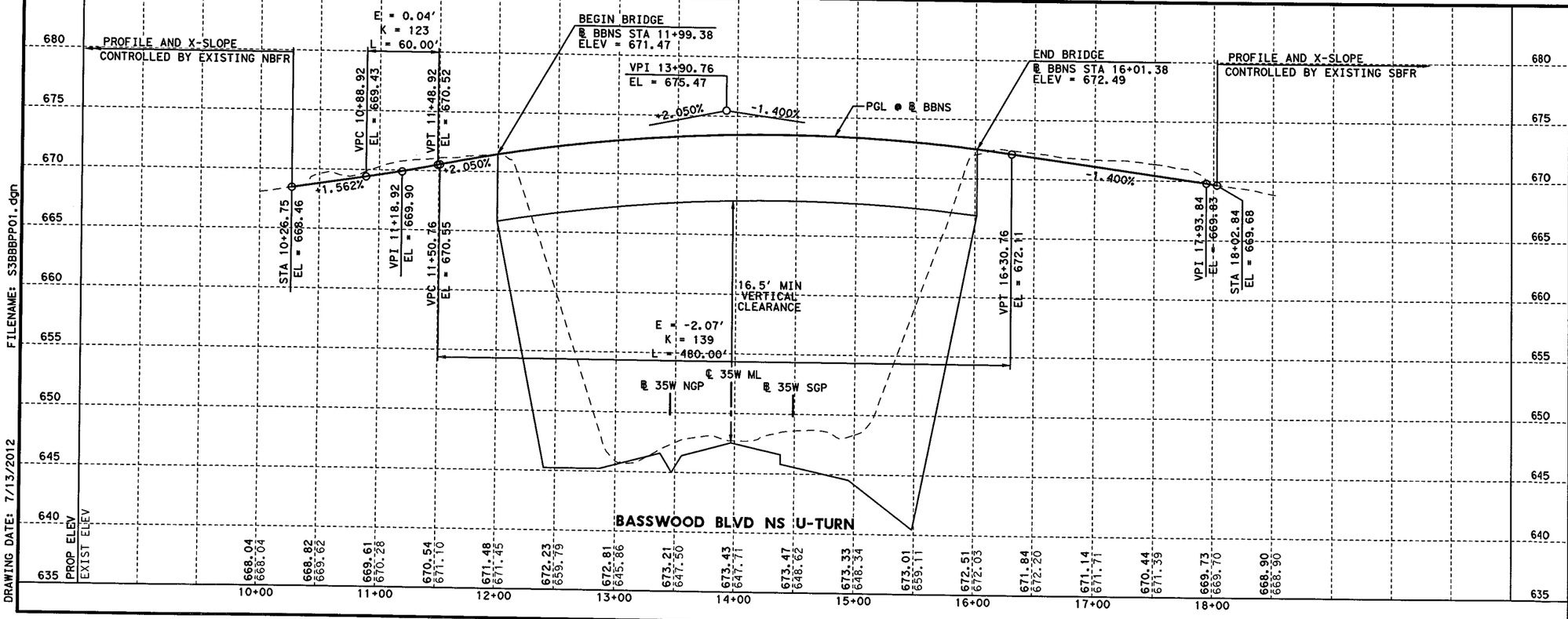


LEGEND:

- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- ULTIMATE EDGE OF PAVEMENT
- HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
- HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
- PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
3. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
4. REFER TO INTERSECTION DETAIL SHEETS FOR ADDITIONAL INFORMATION.
5. REFER TO U-TURN MEDIAN DETAILS AND TRAFFIC ISLAND DETAIL FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAIL SHEET 3 OF 6 FOR ADDITIONAL INFORMATION.
7. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.
8. REFER TO INTERSECTION LAYOUT SHEET FOR CROSS-SLOPE INFORMATION.



FILENAME: S3BBBPP01.dgn
DRAWING DATE: 7/13/2012

SYED S. HAQ
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LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

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TBPE REGISTRATION NO. F-926

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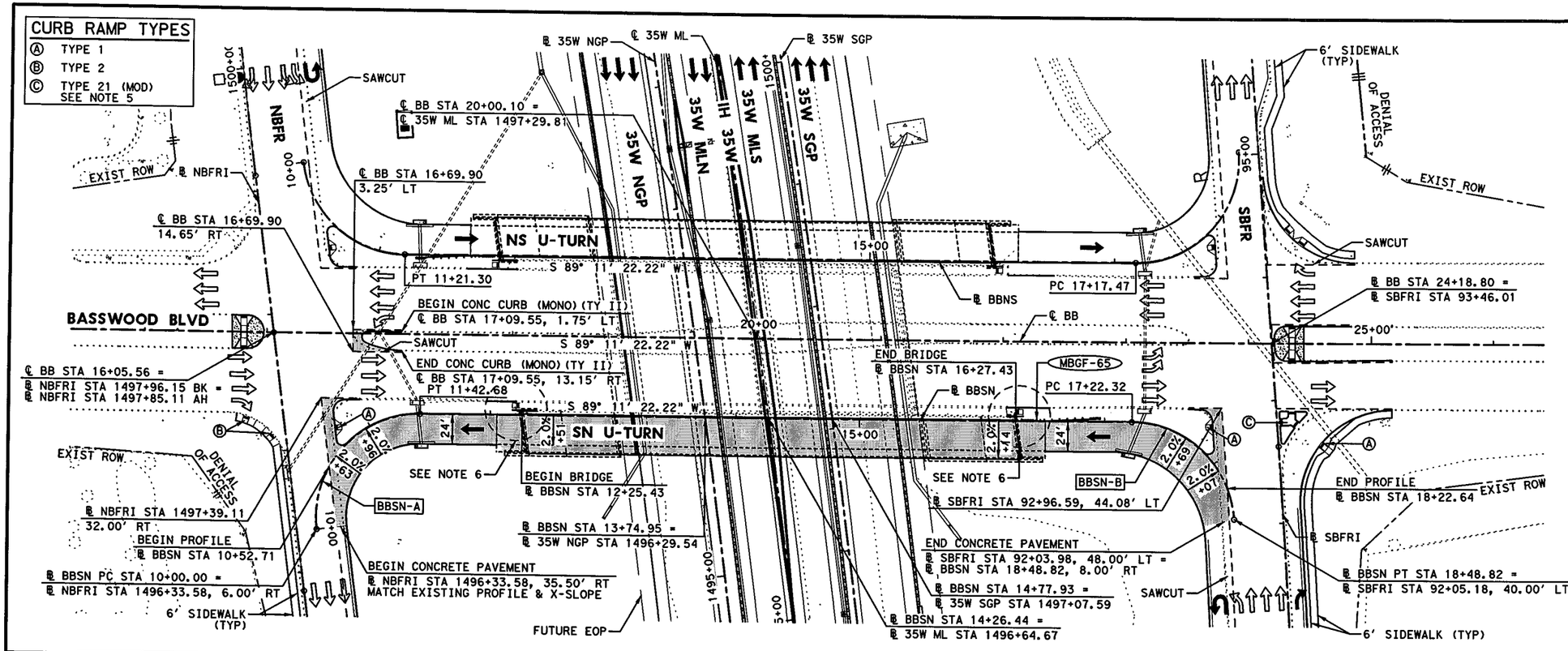
IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
BASSWOOD BLVD
NS U-TURN

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	826
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				



FILENAME: S3BBBPP02.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/13/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

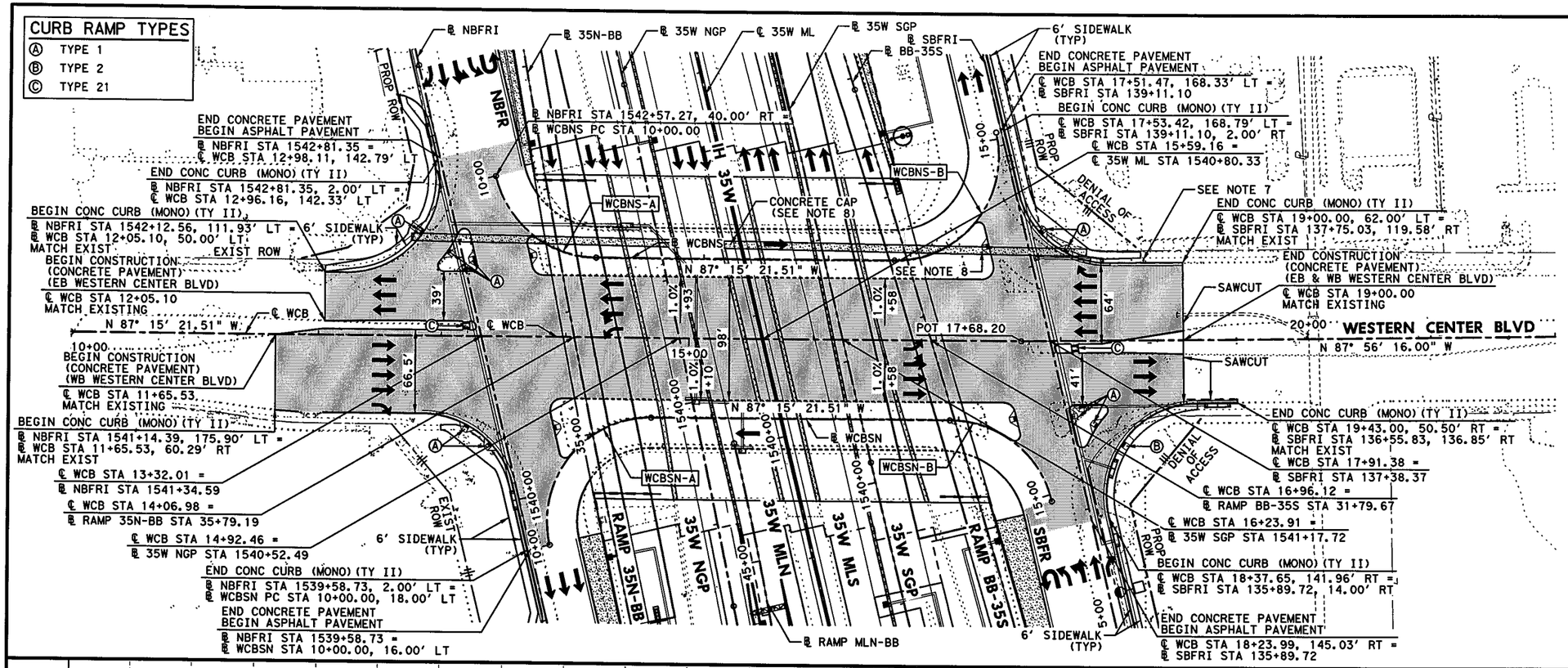
ROADWAY PLAN & PROFILE

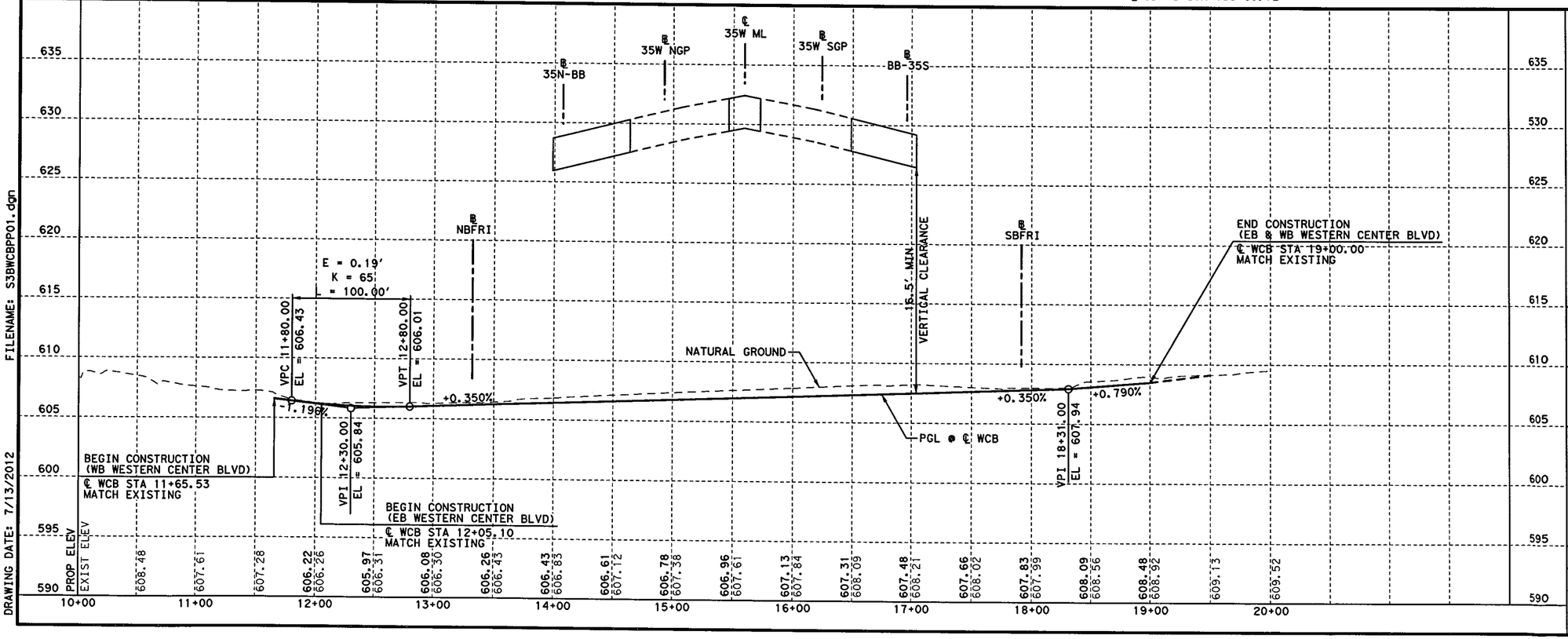
BASSWOOD BLVD

SN U-TURN

SCALE: 1" = 100' H, 1" = 10' V — SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	827
	0014	16	255, ETC.	





FILENAME: S3BWCBPP01.dgn
DRAWING DATE: 7/13/2012

SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
STATE OF TEXAS
07/13/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

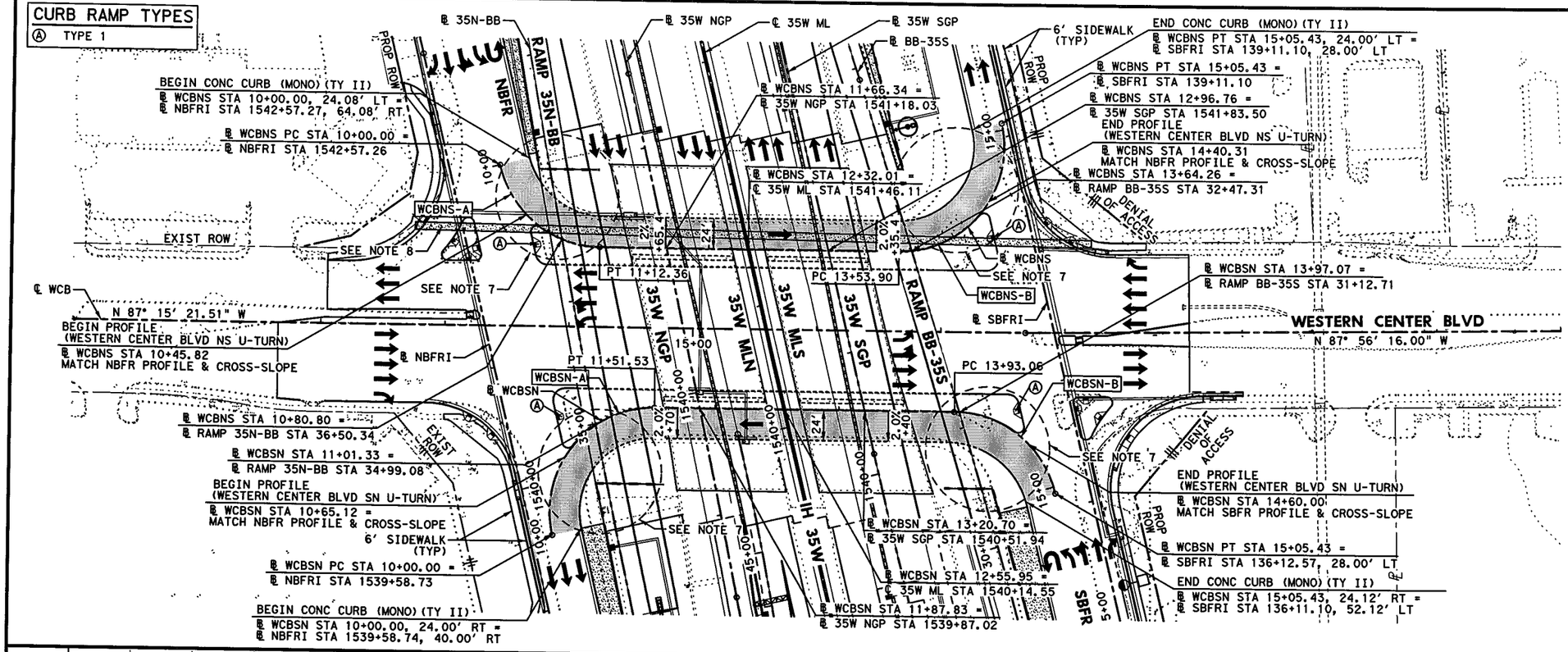
ROADWAY PLAN & PROFILE
WESTERN CENTER BLVD

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	828
CHECK KCI	CONTROL	SECTION	JOB	
CHECK KCI	0014	16	255, ETC.	

CURB RAMP TYPES

Ⓐ TYPE 1

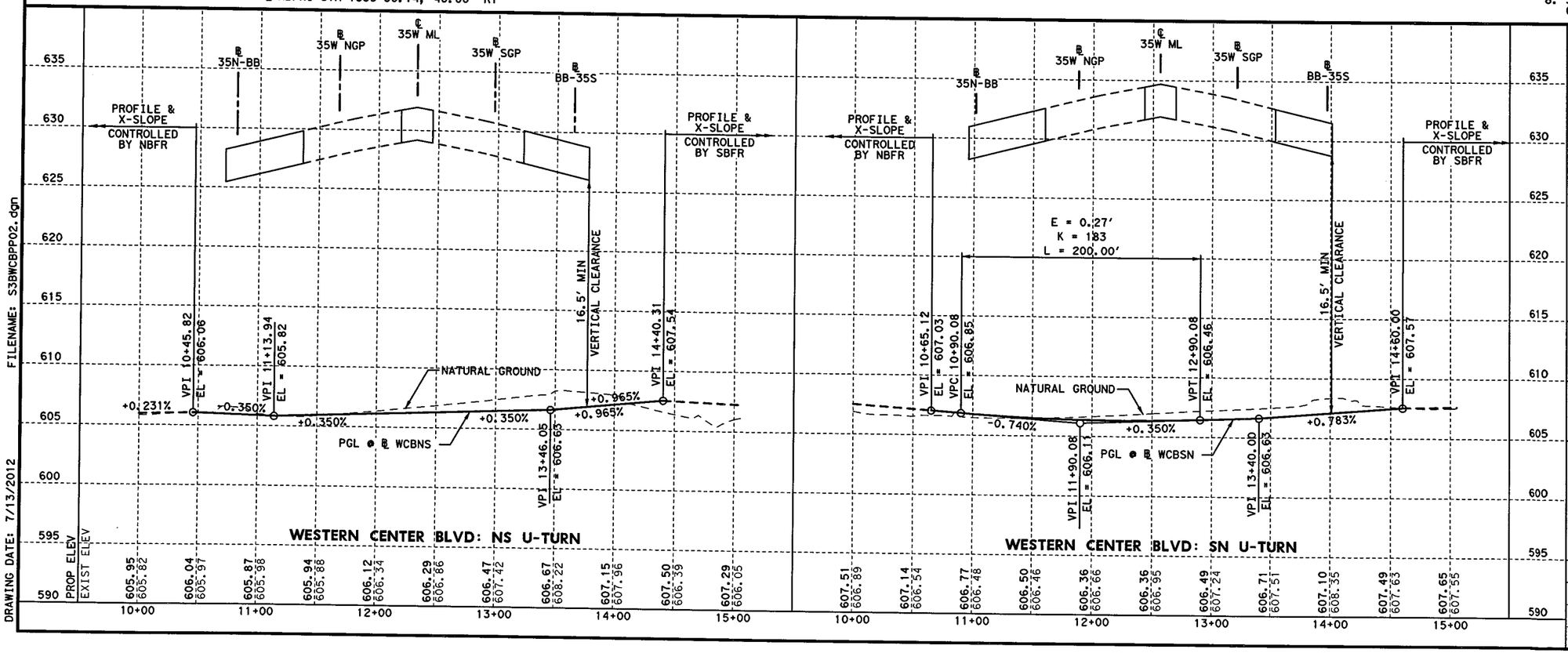


LEGEND:

XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
	ULTIMATE EDGE OF PAVEMENT
	HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
	HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
	PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
3. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
4. REFER TO INTERSECTION DETAIL SHEETS FOR ADDITIONAL INFORMATION.
5. REFER TO U-TURN MEDIAN DETAILS AND TRAFFIC ISLAND DETAILS FOR ADDITIONAL INFORMATION.
6. REFER TO MISCELLANEOUS ROADWAY DETAILS SHEET 6 OF 6 AND CP-TD-03(FW) & CP-TEP-03(FW) STANDARD PLAN FOR PAVEMENT TERMINUS AND TIE-IN DETAILS.
7. REFER TO INTERSECTION LAYOUT SHEET FOR CROSS-SLOPE INFORMATION.
8. SEE MISCELLANEOUS ROADWAY DETAIL FOR CONCRETE CAP - UTILITY PROTECTION DETAIL.



FILENAME: S3BWCBPP02.dgn

DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE

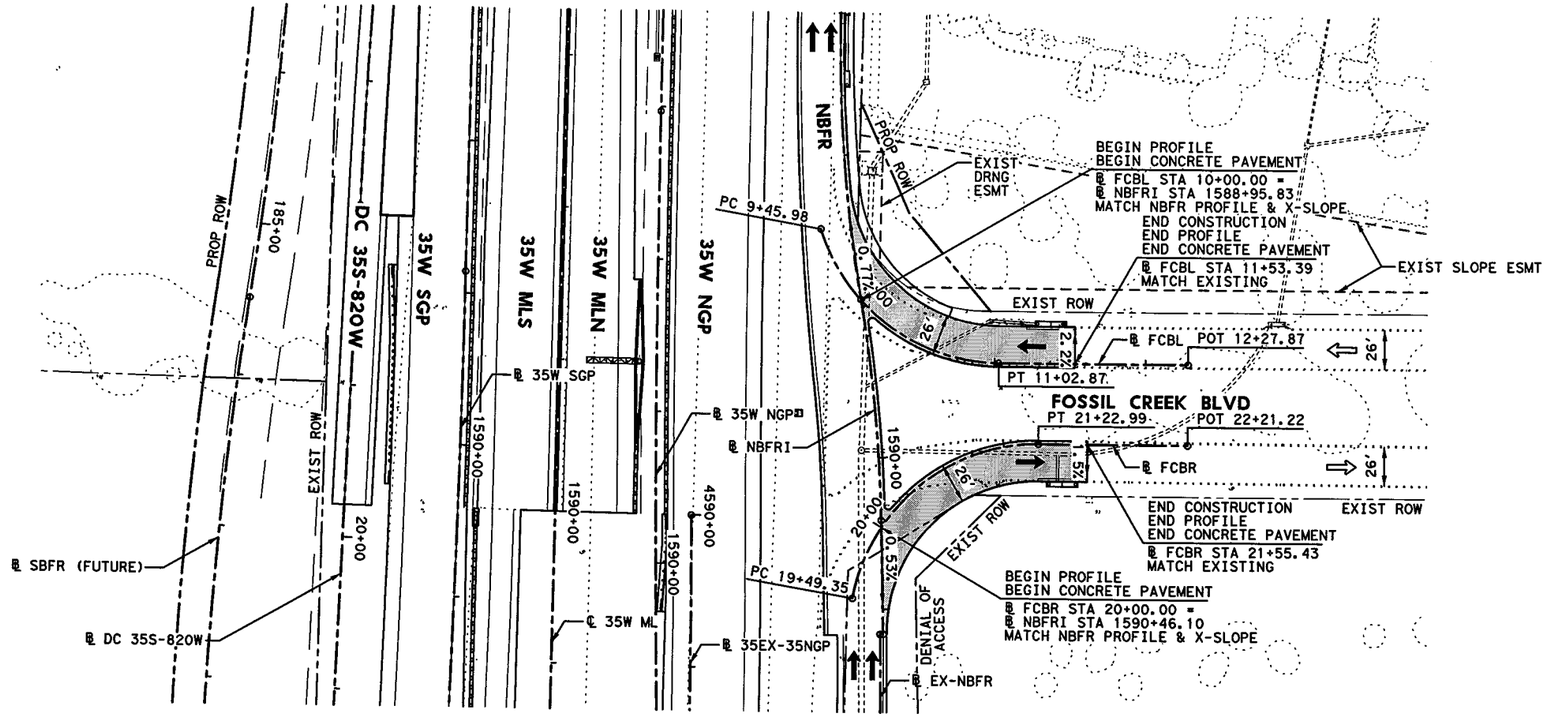
WESTERN CENTER BLVD

NS AND SN U-TURNS

SCALE: 1" = 100' H, 1" = 10' V

SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	829
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



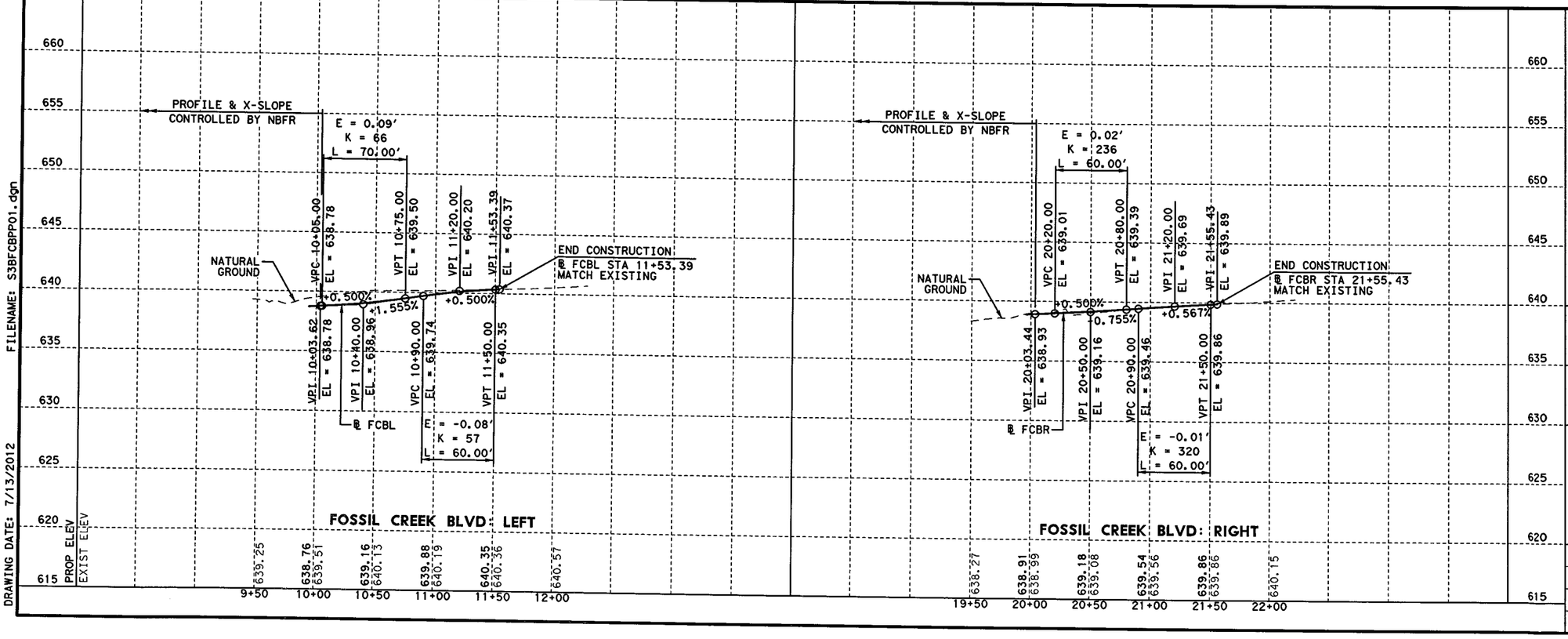
HORZ 0' 25' 50' 100'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
	ULTIMATE EDGE OF PAVEMENT
	HIGH MAST POLE WITH FIXTURE ORIENTATION ARROW (FOR USE ON ASYMMETRICAL FIXTURES)
	HIGH MAST POLE. (FOR USE ON SYMMETRICAL FIXTURES)
	PROPOSED ROADWAY ILLUMINATION ASSEMBLY

NOTES:

1. DIMENSIONS TO CURB OR BARRIER/RAIL ARE SHOWN TO THE FRONT FACE, UNLESS NOTED OTHERWISE.
2. FOR MANAGED LANES, GENERAL PURPOSE LANES, SB FRONTAGE ROAD, NB FRONTAGE ROAD, DIRECT CONNECTORS, AND RAMPS, SEE APPLICABLE PLAN AND PROFILE SHEETS.
3. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
4. REFER TO INTERSECTION DETAIL SHEETS FOR MORE INFORMATION.



FILENAME: S3BFCBPP01.dgn
DRAWING DATE: 7/13/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajjad Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

ROADWAY PLAN & PROFILE
FOSSIL CREEK BLVD

SCALE: 1" = 100' H, 1" = 10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	830
KCI	0014	16	255, ETC.	
CHECK				
KCI				

NOTES

1. ALL SUPERELEVATION TRANSITIONS ARE LINEAR.
2. THE SUPERELEVATION INFORMATION SHOWN ON THESE TABLES IS FOR HORIZONTAL CURVATURE ONLY. OTHER CROSS SLOPE TRANSITIONS MAY BE REQUIRED.
3. MINIMUM SUPERELEVATION TRANSITION LENGTH FOR DESIGN SPEED OF 50 MPH IS 150 FT. MINIMUM SUPERELEVATION TRANSITION LENGTH FOR DESIGN SPEED OF 40 MPH IS 120 FT.

IH 35W TRANSITIONS

TRANSITION 35EX-MLS

CURVE NUMBER	RADIUS (FT)	PRC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
35EX-MLS-C	2320.00	5414+05.36		RT	1	14	-2.50%	-4.00%	150	75	75	5413+30.36*	5414+80.36*
			5415+68.14				-2.50%	-4.00%	150	100	50	5415+18.14	5416+68.14

IH 35W DIRECT CONNECTORS

DIRECT CONNECTOR 35S-287W***

CURVE NUMBER	RADIUS (FT)	PC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
35S-287W-B	520.87	16+09.44		RT	1	14	2.50%	6.00%	120	80.44	39.59	15+29.00	16+49.00
			27+50.58				2.00%	6.00%	154.95	104.37	50.58	27+00.00	28+55.56

DIRECT CONNECTOR 35N-287W

CURVE NUMBER	RADIUS (FT)	PC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
35N-287W-B	2000.00	50+17.72		RT	2	24	-5.00%**	-4.35%	150.7	110.42	40.28	49+07.30**	50+58.00
			74+14.00				2.50%	-4.35%	330	220	110	73+04.00	76+34.00
35N-287W-C	2864.79	78+78.28		LT	2	24	2.50%	3.48%	150	99.28	50.72	77+79.00	79+29.00
			86+10.41				2.50%	3.48%	150	100.59	49.41	85+61.00	87+11.00

DIRECT CONNECTOR MLN-287W

CURVE NUMBER	RADIUS (FT)	PC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
MLN-287W-A	1525.00			RT	1	14	N/A	N/A	N/A	N/A	N/A	N/A	N/A
			60+10.19				2.00%	-5.00%	200	132.81	67.19	59+43.00	61+43.00

DIRECT CONNECTOR 287E-MLS

CURVE NUMBER	RADIUS (FT)	PC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
287E-MLS-A	1510.00	46+26.38		RT	1	12	4.2%**	5.00%	94.91	94.91	0	44+32.09**	45+27.00
			58+46.81				2.00%	5.00%	150	100.19	49.81	57+97.00	59+47.00

DIRECT CONNECTOR 287E-35S

CURVE NUMBER	RADIUS (FT)	PCC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
287E-35S-B	2000.00	51+40.85		RT	2	12	4.25%**	4.35%	150	75.85	74.15	50+65.00**	52+15.00
			60+27.65				2.50%	4.35%	150	99.35	50.65	59+77.00	61+27.00

* REFER TO ROADWAY PLANS FOR SPECIAL LOCATIONS OF OTHER CROSS SLOPE TRANSITION AND FOR ADDITIONAL INFORMATION.

** STATIONS/CROSS SLOPE ADJUSTED TO MATCH BRIDGE BENT CENTERLINES OR PAVEMENT CONSTRUCTION LIMITS.

*** DESIGN SPEED = 40 MPH

DRAWING DATE: 7/13/2012 FILENAME: S3BSED01.dgn

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq 07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

SUPERELEVATION DATA

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	831
	0014	16	255, ETC.	

IH 35W RAMPS

RAMP BB-MLS

CURVE NUMBER	RADIUS (FT)	PC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
BB-MLS-B	1055.00	14+57.51		RT	1	14	2.00%	5.80%	150	99.51	50.49	13+58.00	15+08.00
			16+35.06				2.00%	5.80%	150	99.94	50.06	15+85.00	17+35.00
BB-MLS-C	2100.00	24+91.87		LT	1	14	2.00%	-4.20%	174	115.87	58.13	23+76.00	25+50.00*
			27+96.87				N/A	4.90%	255	N/A	85.97	27+11.00*	N/A
BB-MLS-D	1600.00	28+80.30		RT	1	14	N/A	4.90%	255	N/A	85.7	N/A	29+66.00*
			32+94.94				2.00%	4.90%	150	100.06	49.94	32+45.00	33+95.00

RAMP 35S-WCB

CURVE NUMBER	RADIUS (FT)	PRC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
35S-WCB-C	2500.00	12+06.44		RT	1	14	2.50%	3.80%	150	100	50	11+06.44	12+56.44
			14+94.40				0.00%**	3.80%	150	55.6	94.4	14+00.00	15+50.00**

RAMP 35N-WCB

CURVE NUMBER	RADIUS (FT)	PC STATION	PCC STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
35N-WCB-C	2864.79	19+59.26		LT	1	14	2.00%	-3.48%	157	104.26	52.74	18+55.00	20+12.00
			23+98.66				2.50%	-3.48%	168	111.34	56.66	23+42.00	25+10.00

RAMP WCB-35N

CURVE NUMBER	RADIUS (FT)	PRC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
WCB-35N-C	2300.00	17+04.76		LT	1	14	2.50%	4.00%	150	95.21	54.79	16+09.55	17+59.55
			20+61.39				-4.00%**	4.00%	223.93	129.17	94.76	19+66.63	21+90.56**

RAMP MLN-BB

CURVE NUMBER	RADIUS (FT)	PC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
MLN-BB-C	2100.00	23+76.00		RT	1	14	2.00%	-4.20%	176	116	60	22+60.00	24+36.00
			28+82.44				N/A	-4.20%	255	N/A	111.44	27+71.00*	N/A
MLN-BB-D	1600.00	29+16.32		LT	1	14	N/A	4.90%	255	N/A	109.68	N/A	30+26.00*
			33+19.53				2.00%	4.90%	150	99.47	50.53	32+69.00	34+19.00

RAMP BB-35N

CURVE NUMBER	RADIUS (FT)	PC STATION	PT STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
BB-35N-B	2000.00	16+61.89		LT	1	14	2.50%	4.35%	150	99.89	50.11	15+62.00	17+12.00
			20+36.36				2.50%	4.35%	150	99.64	50.36	19+86.00	21+36.00

RAMP 35N-NTP

CURVE NUMBER	RADIUS (FT)	PC STATION	PRC STATION	CURVE DIRECTION	NUMBER OF LANES	WIDTH OF ROTATION (FT)	NORMAL X-SLOPE	FULL SUPER	LENGTH USED (FT)	LENGTH ON TANGENT (FT)	LENGTH ON CURVE (FT)	BEGIN TRANSITION STATION	END TRANSITION STATION
35N-NTP-B	2500.00	15+26.44		LT	1	14	2.50%	3.80%	150	100	50	14+26.44	15+76.44
			20+55.10				2.50%	3.80%	150	100	50	20+05.10	21+55.10

* REFER TO ROADWAY PLANS FOR SPECIAL LOCATIONS OF OTHER CROSS SLOPE TRANSITION AND FOR ADDITIONAL INFORMATION.

** STATIONS/CROSS SLOPE ADJUSTED TO MATCH BRIDGE BENT CENTERLINES OR PAVEMENT CONSTRUCTION LIMITS.

*** DESIGN SPEED = 40 MPH

NOTES

1. ALL SUPERELEVATION TRANSITIONS ARE LINEAR.
2. THE SUPERELEVATION INFORMATION SHOWN ON THESE TABLES IS FOR HORIZONTAL CURVATURE ONLY. OTHER CROSS SLOPE TRANSITIONS MAY BE REQUIRED.
3. MINIMUM SUPERELEVATION TRANSITION LENGTH FOR DESIGN SPEED OF 50 MPH IS 150 FT. MINIMUM SUPERELEVATION TRANSITION LENGTH FOR DESIGN SPEED OF 40 MPH IS 120 FT.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

SUPERELEVATION DATA

SHEET 2 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	832
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BSED02.dgn

SUMMARY OF METAL BEAM GUARD FENCE

MBGF ID	LOCATION	432 2040 RIPRAP (MOW STRIP) (5 IN)	540 2002 MTL W-BEAM GD FEN (STEEL POST)	540 2005 TERMINAL ANCHOR SECTION	540 2011 MTL BEAM GD FEN TRANS (THRIE-BEAM)	540 2012 MTL BEAM GD FEN TRANS (TL2)	540 2044 DOWNSTREAM ANCHOR TERMINAL (DAT) SECTION	544 2001 GUARDRAIL END TREATMENT (INSTALL)	545 2001 CRASH CUSH ATTEN (INSTL)
		CY	LF	EA	EA	EA	EA	EA	EA
CSJ: 0081-12-045									
	CSJ: 0081-12-045								
MBGF-72	℄ 35W ML STA 1378+30.96 - 1380+12.72 (RT)	11	125				1	1	
MBGF-73	℄ 35W ML STA 1388+30.97 - 1390+12.72 (RT)	11	125				1	1	
MBGF-01	℄ 35NGP-35EX STA 4406+09.88 - 4406+74.16 (RT)	5			1			1	
MBGF-01A	℄ 35W ML STA 1399+03.29 - 1399+90.84 (RT)	5	37.5	1					
MBGF-02	℄ 35NGP-35EX STA 4412+89.45 - 4414+96.50 (RT)	23	350				1	1	
MBGF-02A	℄ 35EX-35SGP STA 3410+00.05 - 3411+56.03 (RT)	10	100				1	1	
MBGF-03	℄ 35W SGP STA 1418+14.12 - 1420+70.88 (LT)	15	200				1	1	
MBGF-04	℄ 35NGP-35EX STA 4421+15.79 - 4421+79.76	5			1			1	
MBGF-05	℄ 35W SGP STA 1422+26.62 - 1422+90.85 (LT)	5			1			1	
MBGF-06	℄ 35W SGP STA 1421+29.02 - 1430+59.71 (RT)	51	875				1	1	
MBGF-06A	℄ 35W ML STA 1426+27.70 - 1427+97.25 (RT)	10	113				1	1	
MBGF-07	℄ 35NGP-35EX STA 4426+58.03 - ℄ 35W NGP STA 1433+49.74 (LT)	41	675				1	1	
	CSJ: 0081-12-045 TOTAL	**192**	**2600.0**	**1**	**3**	**0**	**8**	**11**	**0**
CSJ: 0014-16-255									
	CSJ: 0014-16-255								
MBGF-08	℄ DC 287E-MLS STA 49+86.61 - 50+50.00 (LT)	5			1			1	
MBGF-09	℄ DC 287E-MLS STA 49+85.33 - 50+50.00 (RT)	5			1			1	
MBGF-10	℄ DC 35N-287W STA 56+32.00 - 56+96.04 (LT)	5			1			1	
MBGF-11	℄ DC 35N-287W STA 57+40.79 - 58+06.14 (RT)	5			1			1	
MBGF-12	℄ 35W NGP STA 1445+69.12 - 1449+49.08 (LT)	22	325				1	1	
MBGF-13	℄ 35W ML STA 1446+29.94 - 1448+36.40 (RT)	12	150				1	1	
MBGF-14	℄ 35W ML STA 1447+78.93 - 1451+60.39 (LT)	22	325				1	1	
MBGF-15	℄ 35W ML STA 1451+03.36 - 1451+67.60 (RT)	5			1			1	
MBGF-16	℄ 35W NGP STA 1458+63.34 - 1460+90.08 (RT)	13	162.5		1			1	
MBGF-17	℄ DC MLN-287W STA 67+00.96 - 69+52.80 (RT)	14	187.5		1			1	
MBGF-18	℄ 35W SGP STA 1457+78.51 - 1462+83.50 (RT)	28	450				1	1	
MBGF-19	℄ 35W NGP STA 1458+15.46 - 1460+21.91 (LT)	12	150				1	1	
MBGF-20	NOT USED								
MBGF-21	℄ 35W SGP STA 1473+17.27 - 1474+73.47 (RT)	10	100				1	1	
MBGF-22	℄ 35W NGP STA 1473+06.12 - 1475+76.16 (LT)	16	212.5				1	1	
MBGF-23	℄ DC 35N-287W STA 84+51.63 - 86+69.00 (RT)	13	162.5				1	1	
MBGF-24	℄ 35W ML STA 1479+70.00 - 1480+34.24 (RT)	5			1			1	
MBGF-25	℄ 35W NGP STA 1481+51.00 - 1483+20.91 (LT)	10	112.5				1	1	
MBGF-26	℄ 35W SGP STA 1490+62.35 - 1492+18.12 (RT)	10	100				1	1	
MBGF-27	℄ NBFRI STA 1532+58.35 - 1534+35.55 (RT)	10	150		1		1		
MBGF-28	℄ 35W SGP STA 1494+84.60 - 1495+48.55 (RT)	5			1			1	
MBGF-29	℄ 35W NGP STA 1500+28.76 - 1500+93.02 (LT)	5			1			1	
MBGF-30	℄ 35W NGP STA 1508+37.03 - 1509+93.48 (LT)	10	100				1	1	
MBGF-31	℄ RAMP BB-MLS STA 18+96.60 - 19+60.85 (LT)	5			1			1	
MBGF-32	℄ RAMP BB-MLS STA 17+28.43 - 21+80.17 (RT)	25	387.5		1			1	
MBGF-33	℄ SBFRI STA 113+22.37 - 113+85.46 (LT)	5			1			1	
MBGF-34	℄ 35W SGP STA 1517+03.44 - 1520+58.91 (RT)	20	300				1	1	
MBGF-35	℄ 35W SGP STA 1518+70.22 - 1519+34.54 (LT)	5			1			1	
MBGF-36	℄ RAMP WCB-35N STA 22+10.86 - 22+75.03 (LT)	5			1			1	
MBGF-37	℄ RAMP WCB-35N STA 24+68.53 - 25+33.35 (RT)	5			1			1	

NOTES:

1. ALL PROPOSED POSTS WILL BE STEEL POSTS UNLESS OTHERWISE NOTED IN THE PLANS.
2. REFER TO TXDOT STANDARDS MBGF-11, GF(31)-11, GF(31)LS-11, GF(31)DAT-11, GF(31)TR-11, GF(31)TL2-11, AND SGT(7S)31-11, UNLESS OTHERWISE NOTED.

DRAWING DATE: 7/31/2012 FILENAME: S3BMBGFSUM01.dgn

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

METAL BEAM GUARD FENCE SUMMARY

SHEET 1 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	833
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

SUMMARY OF METAL BEAM GUARD FENCE (CON'T)

SHEET	LOCATION	432 2040 RIPRAP (MOW STRIP) (5 IN)	540 2002 MTL W-BEAM GD FEN (STEEL POST)	540 2005 TERMINAL ANCHOR SECTION	540 2011 MTL BEAM GD FEN TRANS (THRIE-BEAM)	540 2012 MTL BEAM GD FEN TRANS (TL2)	540 2044 DOWNSTREAM ANCHOR TERMINAL (DAT) SECTION	544 2001 GUARDRAIL END TREATMENT (INSTALL)	545 2001 CRASH CUSH ATTEN (INSTL)
		CY	LF	EA	EA	EA	EA	EA	EA
CSJ: 0014-16-255									
	CSJ: 0014-16-255								
MBGF-38	℄ RAMP 35S-WCB STA 12+39.28 - 15+29.19 (RT)	17	225		1			1	
MBGF-38A	℄ RAMP 35S-WCB STA 14+68.43 - 15+94.95 (LT)	8	62.5		1			1	
MBGF-39	℄ 35W SGP STA 1533+46.87 - 1534+10.91 (RT)	5			1			1	
MBGF-40	℄ SBFRI STA 129+95.59 - 130+59.72 (LT)	5			1			1	
MBGF-41	℄ NBFRI STA 1536+62.70 - 1537+27.01 (RT)	5			1			1	
MBGF-42	NOT USED								
MBGF-43	NOT USED								
MBGF-44	℄ 35W ML STA 1543+43.74 - 1544+07.93 (LT)	5			1			1	
MBGF-45	NOT USED								
MBGF-46	℄ 35W SGP STA 1542+34.95 - 1556+70.24 (RT)	78	1,425				1		1
MBGF-47	℄ SBFRI STA 145+99.39 - 146+63.35	5			1			1	
MBGF-48	℄ 35W NGP STA 1550+26.30 - 1557+51.30 (LT)	39	687.5		2				
MBGF-49	℄ 35W ML STA 1574+34.46 - 1576+52.73 (LT)	13	162.5				1	1	
MBGF-50	℄ RAMP WCB-35S STA 20+46.43 - 22+52.88 (RT)	12	150				1	1	
MBGF-51	NOT USED								
MBGF-52	℄ 35W NGP STA 1565+09.92 - 1565+73.76 (LT)	5			1			1	
MBGF-53	℄ 35W ML STA 1564+18.65 - 1566+13.28 (RT)	13	162.5				1	1	
MBGF-54	℄ 35W SGP STA 1566+85.84 - 1568+43.11 (RT)	10	100				1	1	
MBGF-55	℄ 35W NGP STA 1570+44.46 - 1572+11.95 (LT)	10	112.5				1	1	
MBGF-56	℄ 35W NGP STA 1576+68.44 - 1578+36.35 (RT)	10	112.5				1	1	
MBGF-57	℄ 35W ML STA 1582+37.62 - 1584+06.55 (RT)	10	112.5				1	1	
MBGF-58	℄ 35W SGP STA 1582+95.04 - 1586+76.11 (RT)	22	325				1	1	
MBGF-59	℄ NBFRI STA 1579+80.01 - 1580+45.11 (RT)	5			1			1	
MBGF-60	NOT USED								
MBGF-61	℄ 35EX-35NGP STA 4590+00.00 - 4590.63.99 (RT)	5			1			1	
MBGF-62	NOT USED								
MBGF-63	℄ 35EX-35NGP STA 4597+41.68 - 4599+01.12 (LT)	10	100				1	1	
MBGF-64	NOT USED								
MBGF-65	℄ BBSN STA 16+32.29 - 16+96.58 (LT)	0				1		1	
MBGF-66	℄ BBNS STA 11+30.23 - 11+94.52 (RT)	0				1		1	
MBGF-67	NOT USED								
MBGF-68	℄ 35EX-35NGP STA 4602+72.15 - 4609+04.34 (LT)	34	575	1					
MBGF-69	℄ 35W ML STA 1550+50.41 - 1552+31.86 (RT)	11	125				1	1	
MBGF-70	℄ 35W ML STA 1551+73.83 - 1553+55.28 (LT)	11	125				1	1	
MBGF-71	℄ 35W ML STA 1565+86.82 - 1567+67.68 (LT)	11	125				1	1	
MBGF-74	℄ 287 STA 421+05.97 - 423+12.73 (RT)	12	150				1	1	
MBGF-75	℄ 287 STA 442+06.02 - 444+12.77 (RT)	12	150				1	1	
MBGF-76	℄ 287 STA 453+13.49 - 455+32.75 (RT)	13	162.5				1	1	
MBGF-77	℄ 287 STA 473+63.45 - 475+70.21 (RT)	12	150				1	1	
MBGF-78	℄ 287 STA 474+13.45 - 475+70.21 (LT)	9	100				1	1	
MBGF-79	℄ 287 STA 475+39.87 - 477+46.47 (LT)	13	150				1	1	
MBGF-80	℄ 287 STA 467+89.04 - 474+08.20 (LT)	34	562.5				1	1	
MBGF-81	℄ 287 STA 471+39.04 - 474+45.49 (LT)	18	250.0				1	1	
MBGF-82	℄ 35W SGP STA 1588+83.10 - 1590+27.61 (RT)	9	87.5				1	1	
MBGF-83	℄ 35N-287 STA 77+06.98 - 80+61.60 (RT)	20	300.0				1	1	
	CSJ: 0014-16-255 TOTAL	**823**	**10,125.0**	**1**	**29**	**2**	**36**	**62**	**1**
	PROJECT TOTAL	**1,015**	**12,725**	**2**	**32**	**2**	**44**	**73**	**1**

* REFER TO TXDOT STANDARDS MBGF-09 AND GF(31)MS-11 FOR MOWSTRIP DETAILS.
** METAL BEAM GUARD FENCE OUTSIDE OF SHEET LIMITS.

NOTES:

1. ALL PROPOSED POSTS WILL BE STEEL POSTS UNLESS OTHERWISE NOTED IN THE PLANS.
2. REFER TO TXDOT STANDARDS MBGF-11, GF(31)-11, GF(31)LS-11, GF(31)DAT-11, GF(31)TR-11, GF(31)TL2-11, AND SGT(7S)31-11, UNLESS OTHERWISE NOTED.

FILENAME: S3BMBGFSUM02.dgn
DRAWING DATE: 7/31/2012

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed S. Haq 07/31/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

METAL BEAM GUARD FENCE SUMMARY

SHEET 2 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	834
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

* SUMMARY OF CRASH CUSHIONS

LOC. NO.	LOCATION	DIRECTION OF TRAFFIC	DESIGN SPEED (MPH)	FOUNDATION PAD			BACKWALL DIMENSIONS**	
				EXISTING	PROPOSED	PROPOSED THICKNESS	WIDTH	HEIGHT
1	SB - IH35W SB GP ENTRANCE TO MLS (℄ 35ML STA 1414+16)	BIDIRECTIONAL	70	PER ATTENUATOR STANDARD			2'-0"	3'-6"
2	SB - MLS TOLL GANTRY (℄ 35ML STA 1418+16)	UNIDIRECTIONAL	70	PER ATTENUATOR STANDARD			2'-0"	3'-6"
3	SB - MLS AT SOUTH END OF PROJECT (℄ 35ML STA 1589+33)	UNIDIRECTIONAL	70	PER ATTENUATOR STANDARD			2'-0"	3'-6"
4	NB - NB GP NEAR BIG FOSSIL CREEK BRIDGE (℄ 35ML STA 1533+84)	UNIDIRECTIONAL	70	PER ATTENUATOR STANDARD			2'-0"	3'-6"
5	NB - NB GP TO RAMP 35N-BB (℄ 35ML STA 1538+77)	BIDIRECTIONAL	70	PER ATTENUATOR STANDARD			4'-0"	3'-6"
6	NB - NB GP TO RAMP 35N-WCB (℄ 35ML STA 1568+40)	BIDIRECTIONAL	70	PER ATTENUATOR STANDARD			2'-0"	3'-6"
7	SB - RAMP BB-MLS TOLL GANTRY (℄ 35ML STA 1508+46)	UNIDIRECTIONAL	45	PER ATTENUATOR STANDARD			2'-0"	3'-6"
8	NB - NBFR ENTRANCE TO PAD PULL OUT (℄ 35ML STA 1576+17)	BIDIRECTIONAL	40	PER ATTENUATOR STANDARD			2'-0"	3'-6"
9	SB - DC 287E-35S TOLL GANTRY (℄ 35ML STA 1451+18)	UNIDIRECTIONAL	45	PER ATTENUATOR STANDARD			2'-0"	3'-6"
10	NB - NB GP BRIDGE OVER BIG FOSSIL CREEK (℄ 35ML STA 1534+10)	BIDIRECTIONAL	70	PER ATTENUATOR STANDARD			2'-0"	2'-6 1/4"
11	SB - RAMP BB-35S OVER WCB (℄ 35ML STA 1541+82)	UNIDIRECTIONAL	45	PER ATTENUATOR STANDARD			-	-

* SELECTION OF CRASH CUSHION ATTENUATORS TO BE USED AT EACH LOCATION IS LIMITED TO THE TYPES SHOWN IN THE PLANS

** DIMENSIONS SHOWN MAY VARY DEPENDING ON FIELD CONDITION AND TYPE OF ATTENUATOR USED. CONTRACTOR SHALL ADJUST THESE DIMENSIONS AS NECESSARY.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

08/29/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

CRASH CUSHION SUMMARY

SCALE: N.T.S. SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	834A
	0014	16	255, ETC.	

FILENAME: S3BCRCUSHSUM.dgn
DRAWING DATE: 8/30/2012

BB = BASSWOOD
BBNS = BASSWOOD NS U-TURN
BBSN = BASSWOOD SN U-TURN
NBFRI = NORTHBOUND FRONTAGE ROAD

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
A	PC	NBFRI	1499+33.42 R 2	64.00' RT	668.50
B	FOC	BBNS	10+60.54	29.33'LT	669.35
C	PT	BBNS	11+35.41	24.00' LT	669.81
D	PT	BB	17+11.51	64.50' LT	669.98
E	PRC	BB	16+55.83	85.61' LT	668.99
F	PC	BB	16+47.56	81.22' LT	669.14
G	PC	BB	16+50.01	62.16' LT	669.33
H	PT	BB	16+59.96	53.44' LT	669.65
I	FOC	BB	16+71.36	53.48' LT	669.87
J	PC	NBFRI	1496+33.58 R 2	40.00' RT	670.12
K	FOC	BBSN	10+71.34	24.00'RT	670.02
L	PT	BBSN	11+42.68	24.00' RT	669.82
M	PT	BB	17+25.46	64.50' RT	670.25
N	PRC	BB	16+65.56	89.61' RT	669.50
O	PC	BB	16+57.03	86.74' RT	669.40
P	PC	BB	16+54.18	64.51' RT	669.38
Q	PT	BB	16+63.98	53.24' RT	669.68
R	FOC	BB	16+75.84	53.10' RT	669.95

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
1	FOC	BBNS	10+15.29	27.10' LT	668.82
2	FOC	BBNS	10+52.92	29.27' LT	669.25
3	FOC	BBNS	10+91.09	28.32' LT	669.46
4	FOC	BBNS	11+25.51	24.65' LT	669.70
5	FOC	BBNS	10+85.43	0.00' RT	669.38
6	FOC	BBNS	11+10.43	0.00' RT	669.78
7	FOC	BBNS	11+46.30	0.00' RT	670.46
8	FOC	BBNS	11+71.30	0.00' RT	670.96
9	FOC	BBNS	11+75.05	0.00' RT	671.03
10	FOC	BBSN	11+00.99	0.00' LT	669.67
11	FOC	BBSN	11+25.99	0.00' LT	669.98
12	FOC	BBSN	11+67.68	0.00' LT	670.74
13	FOC	BBSN	11+92.68	0.00' LT	671.22
14	FOC	BBSN	12+05.29	0.00' LT	671.44
15	FOC	BBSN	10+35.00	24.00' RT	669.77
16	FOC	BBSN	10+70.00	24.00' RT	670.02
17	FOC	BBSN	11+05.00	24.00' RT	669.71

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
S	PC	BB	16+81.67	2.22' LT	670.22
T	PCC	BB	16+79.67	7.37' RT	670.16
U	PT	BB	17+09.55	13.65' RT	670.69

0' 20' 40'
SCALE IN FEET

LEGEND:

- (A) LETTER - PC, PT, POT, ETC.
- (#) NUMBER - GRADING POINTS
- CONTOURS - PROPOSED MAJOR
- CONTOURS - PROPOSED MINOR
- CONTOURS - EXISTING
- TRAFFIC DIRECTION - PROPOSED
- TRAFFIC DIRECTION - EXISTING

NOTES:

1. ALL POINT LOCATIONS ARE SHOWN AT FACE OF CURB IN CURBED AREAS AND EDGES OF PAVEMENT IN RAIL SECTIONS, UNLESS NOTED OTHERWISE.
2. ALL RADII ARE SHOWN AT FACE OF CURB OR FACE OF RAIL, UNLESS NOTED OTHERWISE.
3. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
4. REFER TO ROADWAY PLAN AND PROFILE, U-TURN MEDIAN DETAILS AND TRAFFIC ISLAND DETAILS FOR MORE INFORMATION.

STATE OF TEXAS
DAVID W. HAMLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/1/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

INTERSECTION LAYOUT
BASSWOOD BLVD

SCALE 1" = 40'

SHEET 1 OF 3

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	835
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

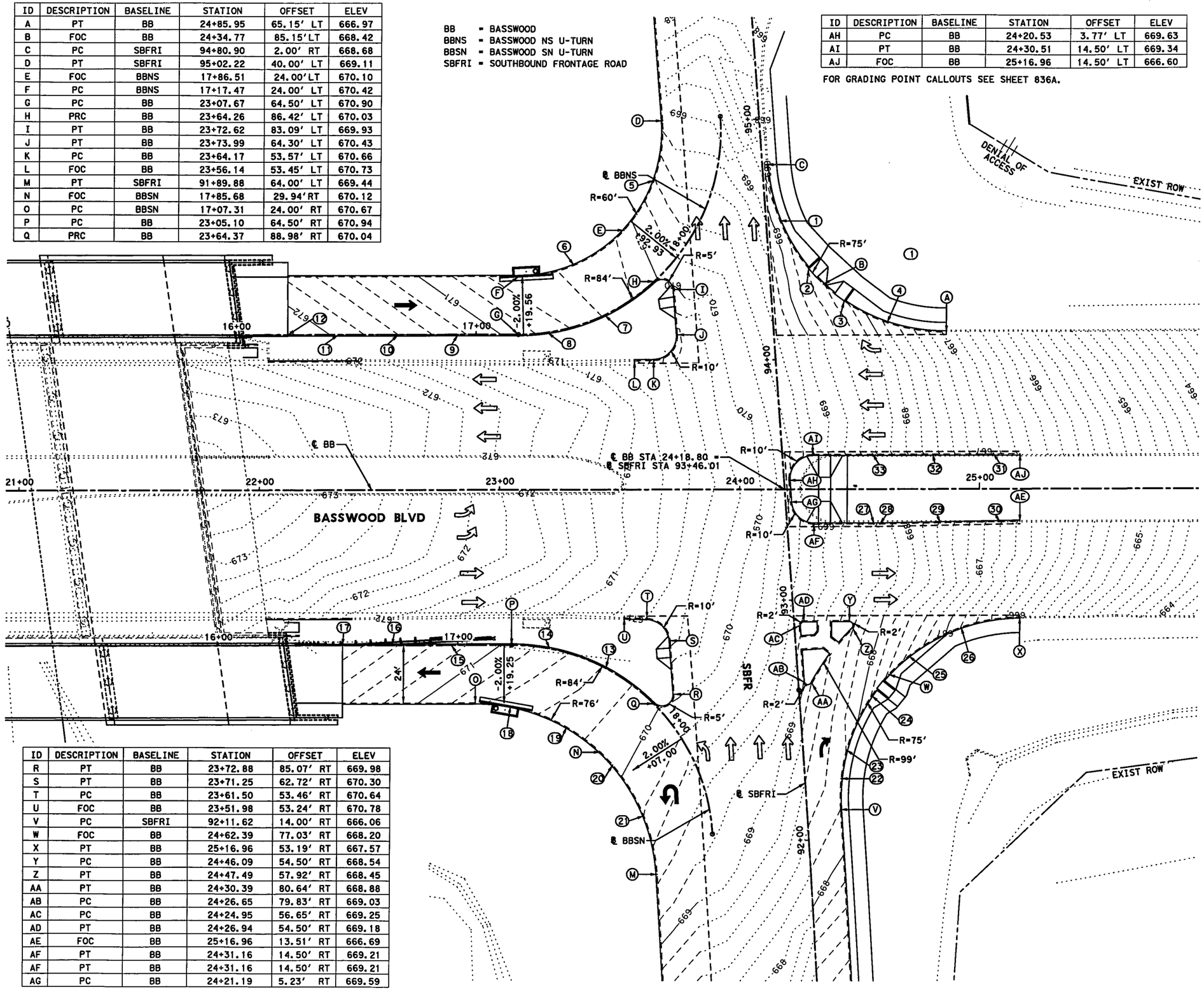
DRAWING DATE: 7/13/2012
FILENAME: S3B*XL01.dgn

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
A	PT	BB	24+85.95	65.15' LT	666.97
B	FOC	BB	24+34.77	85.15'LT	668.42
C	PC	SBFRI	94+80.90	2.00' RT	668.68
D	PT	SBFRI	95+02.22	40.00' LT	669.11
E	FOC	BBNS	17+86.51	24.00'LT	670.10
F	PC	BBNS	17+17.47	24.00' LT	670.42
G	PC	BB	23+07.67	64.50' LT	670.90
H	PRC	BB	23+64.26	86.42' LT	670.03
I	PT	BB	23+72.62	83.09' LT	669.93
J	PT	BB	23+73.99	64.30' LT	670.43
K	PC	BB	23+64.17	53.57' LT	670.66
L	FOC	BB	23+56.14	53.45' LT	670.73
M	PT	SBFRI	91+89.88	64.00' LT	669.44
N	FOC	BBSN	17+85.68	29.94'RT	670.12
O	PC	BBSN	17+07.31	24.00' RT	670.67
P	PC	BB	23+05.10	64.50' RT	670.94
Q	PRC	BB	23+64.37	88.98' RT	670.04

BB = BASSWOOD
BBNS = BASSWOOD NS U-TURN
BBSN = BASSWOOD SN U-TURN
SBFRI = SOUTHBOUND FRONTAGE ROAD

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
AH	PC	BB	24+20.53	3.77' LT	669.63
AI	PT	BB	24+30.51	14.50' LT	669.34
AJ	FOC	BB	25+16.96	14.50' LT	666.60

FOR GRADING POINT CALLOUTS SEE SHEET 836A.



ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
R	PT	BB	23+72.88	85.07' RT	669.98
S	PT	BB	23+71.25	62.72' RT	670.30
T	PC	BB	23+61.50	53.46' RT	670.64
U	FOC	BB	23+51.98	53.24' RT	670.78
V	PC	SBFRI	92+11.62	14.00' RT	666.06
W	FOC	BB	24+62.39	77.03' RT	668.20
X	PT	BB	25+16.96	53.19' RT	667.57
Y	PC	BB	24+46.09	54.50' RT	668.54
Z	PT	BB	24+47.49	57.92' RT	668.45
AA	PT	BB	24+30.39	80.64' RT	668.88
AB	PC	BB	24+26.65	79.83' RT	669.03
AC	PC	BB	24+24.95	56.65' RT	669.25
AD	PT	BB	24+26.94	54.50' RT	669.18
AE	FOC	BB	25+16.96	13.51' RT	666.69
AF	PT	BB	24+31.16	14.50' RT	669.21
AF	PT	BB	24+31.16	14.50' RT	669.21
AG	PC	BB	24+21.19	5.23' RT	669.59

0' 20' 40'
SCALE IN FEET

LEGEND:

- (A) LETTER - PC, PT, POT, ETC.
- (*) NUMBER - GRADING POINTS
- CONTOURS - PROPOSED MAJOR
- CONTOURS - PROPOSED MINOR
- CONTOURS - EXISTING
- TRAFFIC DIRECTION - PROPOSED
- TRAFFIC DIRECTION - EXISTING

NOTES:

1. ALL POINT LOCATIONS ARE SHOWN AT FACE OF CURB IN CURBED AREAS AND EDGES OF PAVEMENT IN RAIL SECTIONS, UNLESS NOTED OTHERWISE.
2. ALL RADII ARE SHOWN AT FACE OF CURB OR FACE OF RAIL, UNLESS NOTED OTHERWISE.
3. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
4. REFER TO ROADWAY PLAN AND PROFILE, U-TURN MEDIAN DETAILS AND TRAFFIC ISLAND DETAILS FOR MORE INFORMATION.

STATE OF TEXAS
DAVID W. HAMLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/1/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

INTERSECTION LAYOUT
BASSWOOD BLVD

SCALE 1" = 40' SHEET 2 OF 3

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	836
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3B*XL02.dgn
DRAWING DATE: 7/13/2012

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
1	FOC	BB	24+16.49	111.39' LT	668.80
2	FOC	BB	24+28.59	91.59' LT	668.57
3	FOC	BB	24+43.50	78.19' LT	668.24
4	FOC	BB	24+61.40	69.21' LT	667.76
5	FOC	BB	23+64.17	128.28' LT	669.61
6	FOC	BB	23+30.70	93.09' LT	670.35
7	FOC	BB	23+43.57	72.56' LT	670.38
8	FOC	BB	23+19.72	65.37' LT	670.73
9	FOC	BB	22+82.67	64.50' LT	671.25
10	FOC	BB	22+57.67	64.50' LT	671.60
11	FOC	BB	22+32.67	64.50' LT	671.95
12	FOC	BB	22+11.73	64.50' LT	672.24
13	FOC	BB	23+44.31	74.21' RT	670.38
14	FOC	BB	23+20.80	65.98' RT	670.71
15	FOC	BB	22+80.10	64.50' RT	671.29
16	FOC	BB	22+55.10	64.50' RT	671.64
17	FOC	BB	22+34.55	64.50' RT	671.92
18	FOC	BB	23+04.62	89.90' RT	670.51
19	FOC	BB	23+27.94	98.60' RT	670.28
20	FOC	BB	23+47.20	114.36' RT	670.06
21	FOC	BB	23+60.34	135.49' RT	669.80
22	FOC	BB	24+42.64	120.33' RT	668.31
23	FOC	BB	24+44.90	108.36' RT	668.19
24	FOC	BB	24+55.37	85.79' RT	667.79
25	FOC	BB	24+70.64	69.42' RT	667.35
26	FOC	BB	24+92.44	57.41' RT	666.79
27	FOC	BB	24+56.16	14.50' RT	668.43
28	FOC	BB	24+58.59	14.50' RT	668.37
29	FOC	BB	24+83.59	14.07' RT	667.59
30	FOC	BB	25+08.59	13.65' RT	666.82
31	FOC	BB	25+05.51	14.50' LT	666.92
32	FOC	BB	24+80.51	14.50' LT	667.69
33	FOC	BB	24+55.51	14.50' LT	668.46

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER

8/1/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

INTERSECTION LAYOUT

BASSWOOD BLVD

SCALE 1" = 40'

SHEET 3 OF 3

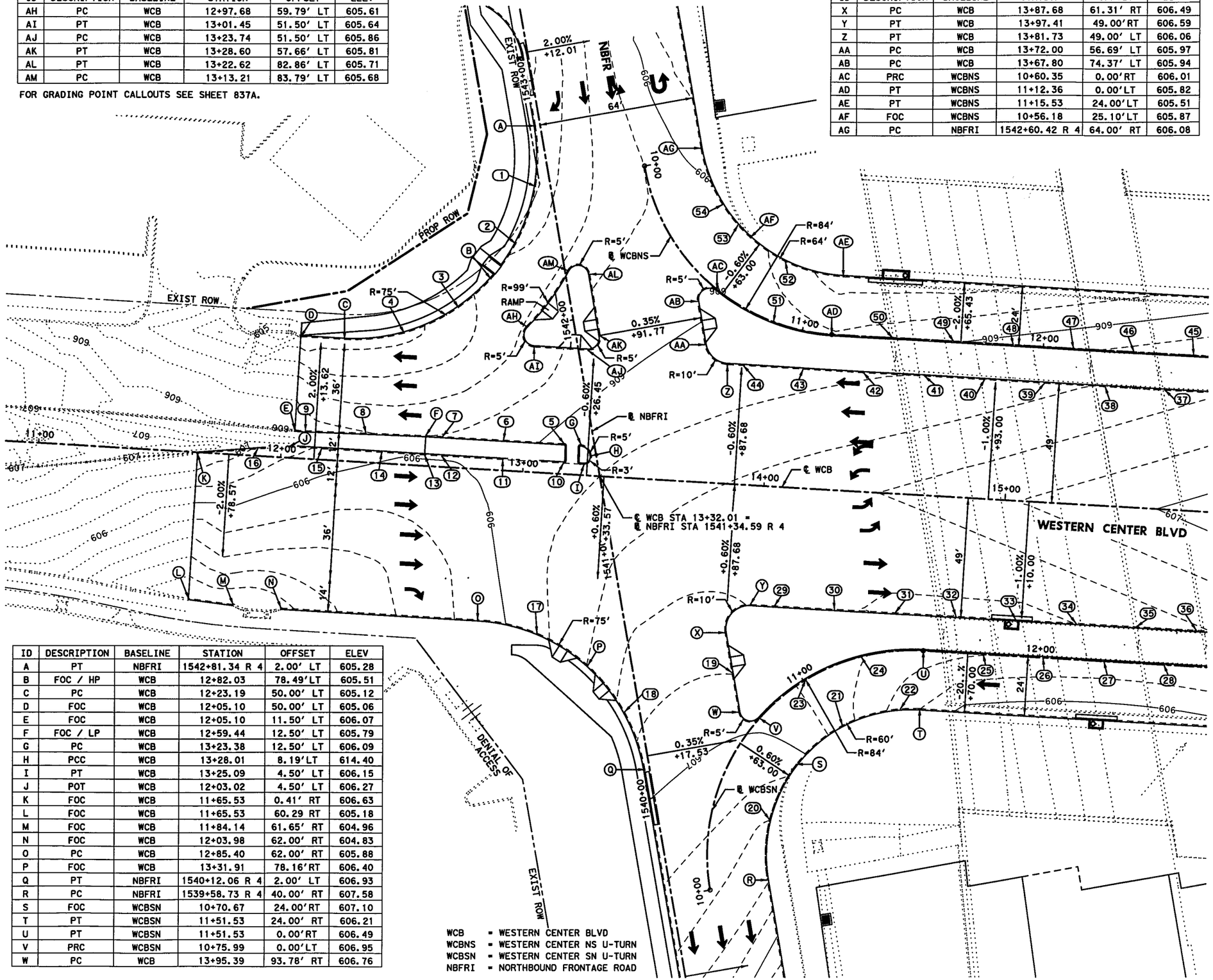
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	836A
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*XL02A.dgn

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
AH	PC	WCB	12+97.68	59.79' LT	605.61
AI	PT	WCB	13+01.45	51.50' LT	605.64
AJ	PC	WCB	13+23.74	51.50' LT	605.86
AK	PT	WCB	13+28.60	57.66' LT	605.81
AL	PT	WCB	13+22.62	82.86' LT	605.71
AM	PC	WCB	13+13.21	83.79' LT	605.68

FOR GRADING POINT CALLOUTS SEE SHEET 837A.

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
X	PC	WCB	13+87.68	61.31' RT	606.49
Y	PT	WCB	13+97.41	49.00'RT	606.59
Z	PT	WCB	13+81.73	49.00' LT	606.06
AA	PC	WCB	13+72.00	56.69' LT	605.97
AB	PC	WCB	13+67.80	74.37' LT	605.94
AC	PRC	WCBNS	10+60.35	0.00'RT	606.01
AD	PT	WCBNS	11+12.36	0.00'LT	605.82
AE	PT	WCBNS	11+15.53	24.00'LT	605.51
AF	FOC	WCBNS	10+56.18	25.10'LT	605.87
AG	PC	NBFRI	1542+60.42 R 4	64.00' RT	606.08



ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
A	PT	NBFRI	1542+81.34 R 4	2.00' LT	605.28
B	FOC / HP	WCB	12+82.03	78.49'LT	605.51
C	PC	WCB	12+23.19	50.00' LT	605.12
D	FOC	WCB	12+05.10	50.00' LT	605.06
E	FOC	WCB	12+05.10	11.50' LT	606.07
F	FOC / LP	WCB	12+59.44	12.50' LT	605.79
G	PC	WCB	13+23.38	12.50' LT	606.09
H	PCC	WCB	13+28.01	8.19'LT	614.40
I	PT	WCB	13+25.09	4.50' LT	606.15
J	POT	WCB	12+03.02	4.50' LT	606.27
K	FOC	WCB	11+65.53	0.41' RT	606.63
L	FOC	WCB	11+65.53	60.29 RT	605.18
M	FOC	WCB	11+84.14	61.65' RT	604.96
N	FOC	WCB	12+03.98	62.00' RT	604.83
O	PC	WCB	12+85.40	62.00' RT	605.88
P	FOC	WCB	13+31.91	78.16'RT	606.40
Q	PT	NBFRI	1540+12.06 R 4	2.00' LT	606.93
R	PC	NBFRI	1539+58.73 R 4	40.00' RT	607.58
S	FOC	WCBSN	10+70.67	24.00'RT	607.10
T	PT	WCBSN	11+51.53	24.00' RT	606.21
U	PT	WCBSN	11+51.53	0.00'RT	606.49
V	PRC	WCBSN	10+75.99	0.00'LT	606.95
W	PC	WCB	13+95.39	93.78' RT	606.76

WCB = WESTERN CENTER BLVD
WCBNS = WESTERN CENTER NS U-TURN
WCBSN = WESTERN CENTER SN U-TURN
NBFRI = NORTHBOUND FRONTAGE ROAD

0' 20' 40'
SCALE IN FEET

LEGEND:

- (A) LETTER - PC, PT, POT, ETC.
- (#) NUMBER - GRADING POINTS
- CONTOURS - PROPOSED MAJOR
- CONTOURS - PROPOSED MINOR
- CONTOURS - EXISTING
- TRAFFIC DIRECTION - PROPOSED
- TRAFFIC DIRECTION - EXISTING

NOTES:

1. ALL POINT LOCATIONS ARE SHOWN AT FACE OF CURB IN CURBED AREAS AND EDGES OF PAVEMENT IN RAIL SECTIONS, UNLESS NOTED OTHERWISE.
2. ALL RADII ARE SHOWN AT FACE OF CURB OR FACE OF RAIL, UNLESS NOTED OTHERWISE.
3. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
4. REFER TO ROADWAY PLAN AND PROFILE, U-TURN MEDIAN DETAILS AND TRAFFIC ISLAND DETAILS FOR MORE INFORMATION.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER

8/1/2012

David W Hawley

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

INTERSECTION LAYOUT
WESTERN CENTER BLVD

SCALE 1" = 40' SHEET 1 OF 4

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	837
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*XL03.dgn

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
1	FOC	WCB	12+97.82	117.50' LT	605.39
2	FOC	WCB	12+91.25	93.49' LT	605.50
3	FOC	WCB	12+69.57	66.06' LT	605.41
4	FOC	WCB	12+47.73	54.13' LT	605.27
5	FOC	WCB	13+16.31	12.50' LT	606.05
6	FOC	WCB	12+91.31	12.50' LT	605.92
7	FOC	WCB	12+66.31	12.50' LT	605.82
8	FOC	WCB	12+34.43	12.00' LT	605.81
9	FOC	WCB	12+09.44	11.50' LT	605.93
10	FOC	WCB	13+16.51	4.50' LT	606.13
11	FOC	WCB	12+91.51	4.50' LT	606.06
12	FOC	WCB	12+66.51	4.50' LT	606.01
13	FOC	WCB	12+59.43	4.50' LT	606.02
14	FOC	WCB	12+41.51	4.50' LT	606.04
15	FOC	WCB	12+16.51	4.50' LT	606.17
16	FOC	WCB	11+90.32	2.84' LT	606.38
17	FOC	WCB	13+09.94	66.13' RT	606.14
18	FOC	WCB	13+48.51	96.48' RT	606.66
19	FOC	WCB	13+91.54	77.55' RT	606.59
20	FOC	WCB	14+10.94	137.05' RT	607.40
21	FOC	WCB	14+38.78	96.72' RT	606.69
22	FOC	WCB	14+62.20	88.50' RT	606.32
23	FOC	WCB	14+22.39	78.75' RT	606.77
24	FOC	WCB	14+44.79	67.85' RT	606.61
25	FOC	WCB	14+94.93	64.00' RT	606.41
26	FOC	WCB	15+19.93	64.00' RT	606.36
27	FOC	WCB	15+44.93	64.00' RT	606.34
28	FOC	WCB	15+69.93	64.00' RT	606.36
29	FOC	WCB	14+07.52	49.00' RT	606.55
30	FOC	WCB	14+32.52	49.00' RT	606.46
31	FOC	WCB	14+57.52	49.00' RT	606.37
32	FOC	WCB	14+82.52	49.00' RT	606.35
33	FOC	WCB	15+07.52	49.00' RT	606.33
34	FOC	WCB	15+32.52	49.00' RT	606.40
35	FOC	WCB	15+57.52	49.00' RT	606.49
36	FOC	WCB	15+82.52	49.00' RT	606.58
37	FOC	WCB	15+63.31	49.00' LT	606.51
38	FOC	WCB	15+38.31	49.00' LT	606.42
39	FOC	WCB	15+13.31	49.00' LT	606.33
40	FOC	WCB	14+88.31	49.00' LT	606.25
41	FOC	WCB	14+63.31	49.00' LT	606.21
42	FOC	WCB	14+38.31	49.00' LT	606.16
43	FOC	WCB	14+13.31	49.00' LT	606.12
44	FOC	WCB	13+88.31	49.00' LT	606.09
45	FOC	WCB	15+74.32	64.00' LT	606.34
46	FOC	WCB	15+49.32	64.00' LT	606.25
47	FOC	WCB	15+24.32	64.00' LT	606.16
48	FOC	WCB	14+99.32	64.00' LT	606.07
49	FOC	WCB	14+74.32	64.00' LT	605.99
50	FOC	WCB	14+49.32	64.00' LT	605.90
51	FOC	WCB	13+99.69	67.69' LT	605.91
52	FOC	WCB	14+03.11	92.82' LT	605.72
53	FOC	WCB	13+82.41	106.56' LT	605.90
54	FOC	WCB	13+75.53	114.62' LT	605.95

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER

8/1/2012

David W Hawley

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

INTERSECTION LAYOUT
WESTERN CENTER BLVD

SCALE 1" = 40'

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	837A
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

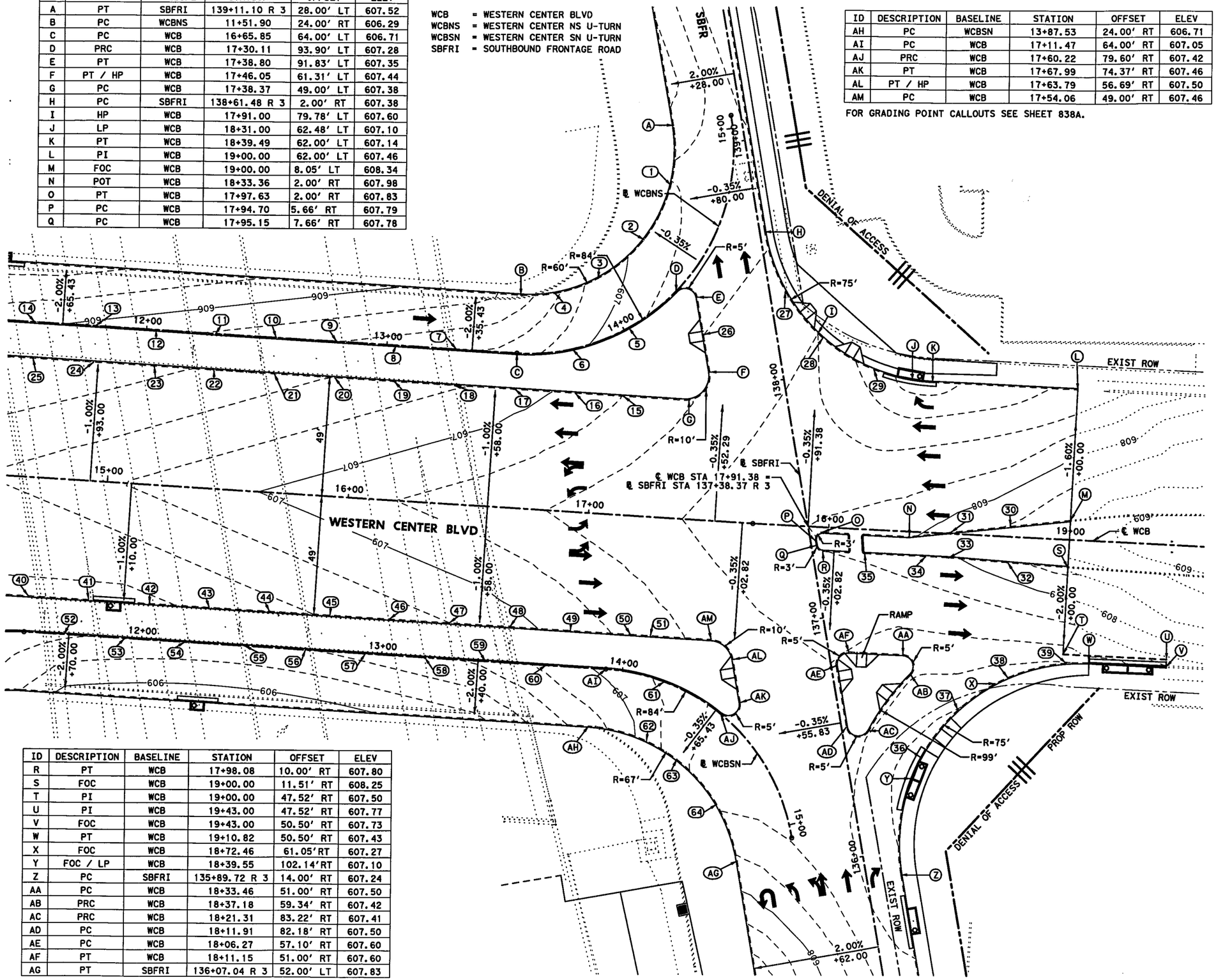
DRAWING DATE: 7/13/2012 FILENAME: S3B*XL03A.dgn

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
A	PT	SBFRI	139+11.10 R 3	28.00' LT	607.52
B	PC	WCBNS	11+51.90	24.00' RT	606.29
C	PC	WCB	16+65.85	64.00' LT	606.71
D	PRC	WCB	17+30.11	93.90' LT	607.28
E	PT	WCB	17+38.80	91.83' LT	607.35
F	PT / HP	WCB	17+46.05	61.31' LT	607.44
G	PC	WCB	17+38.37	49.00' LT	607.38
H	PC	SBFRI	138+61.48 R 3	2.00' RT	607.38
I	HP	WCB	17+91.00	79.78' LT	607.60
J	LP	WCB	18+31.00	62.48' LT	607.10
K	PT	WCB	18+39.49	62.00' LT	607.14
L	PI	WCB	19+00.00	62.00' LT	607.46
M	FOC	WCB	19+00.00	8.05' LT	608.34
N	POT	WCB	18+33.36	2.00' RT	607.98
O	PT	WCB	17+97.63	2.00' RT	607.83
P	PC	WCB	17+94.70	5.66' RT	607.79
Q	PC	WCB	17+95.15	7.66' RT	607.78

WCB = WESTERN CENTER BLVD
WCBNS = WESTERN CENTER NS U-TURN
WCBSN = WESTERN CENTER SN U-TURN
SBFRI = SOUTHBOUND FRONTAGE ROAD

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
AH	PC	WCBSN	13+87.53	24.00' RT	606.71
AI	PC	WCB	17+11.47	64.00' RT	607.05
AJ	PRC	WCB	17+60.22	79.60' RT	607.42
AK	PT	WCB	17+67.99	74.37' RT	607.46
AL	PT / HP	WCB	17+63.79	56.69' RT	607.50
AM	PC	WCB	17+54.06	49.00' RT	607.46

FOR GRADING POINT CALLOUTS SEE SHEET 838A.



ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
R	PT	WCB	17+98.08	10.00' RT	607.80
S	FOC	WCB	19+00.00	11.51' RT	608.25
T	PI	WCB	19+00.00	47.52' RT	607.50
U	PI	WCB	19+43.00	47.52' RT	607.77
V	FOC	WCB	19+43.00	50.50' RT	607.73
W	PT	WCB	19+10.82	50.50' RT	607.43
X	FOC	WCB	18+72.46	61.05'RT	607.27
Y	FOC / LP	WCB	18+39.55	102.14'RT	607.10
Z	PC	SBFRI	135+89.72 R 3	14.00' RT	607.24
AA	PC	WCB	18+33.46	51.00' RT	607.50
AB	PRC	WCB	18+37.18	59.34' RT	607.42
AC	PRC	WCB	18+21.31	83.22' RT	607.41
AD	PC	WCB	18+11.91	82.18' RT	607.50
AE	PC	WCB	18+06.27	57.10' RT	607.60
AF	PT	WCB	18+11.15	51.00' RT	607.60
AG	PT	SBFRI	136+07.04 R 3	52.00' LT	607.83

0' 20' 40'
SCALE IN FEET

LEGEND:

- (A) LETTER - PC, PT, POT, ETC.
- (#) NUMBER - GRADING POINTS
- CONTOURS - PROPOSED MAJOR
- CONTOURS - PROPOSED MINOR
- CONTOURS - EXISTING
- TRAFFIC DIRECTION - PROPOSED
- TRAFFIC DIRECTION - EXISTING

NOTES:

1. ALL POINT LOCATIONS ARE SHOWN AT FACE OF CURB IN CURBED AREAS AND EDGES OF PAVEMENT IN RAIL SECTIONS, UNLESS NOTED OTHERWISE.
2. ALL RADII ARE SHOWN AT FACE OF CURB OR FACE OF RAIL, UNLESS NOTED OTHERWISE.
3. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
4. REFER TO ROADWAY PLAN AND PROFILE, U-TURN MEDIAN DETAILS AND TRAFFIC ISLAND DETAILS FOR MORE INFORMATION.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/1/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

INTERSECTION LAYOUT
WESTERN CENTER BLVD

SCALE 1" = 40'

SHEET 3 OF 4

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	838
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S38wXL04.dgn

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
1	FOC	WCB	17+24.84	137.05' LT	607.50
2	FOC	WCB	17+15.37	114.11' LT	607.38
3	FOC	WCB	16+97.41	96.97' LT	606.92
4	FOC	WCB	16+79.92	89.67' LT	606.56
5	FOC	WCB	17+11.42	77.43' LT	607.17
6	FOC	WCB	16+88.73	67.17' LT	606.93
7	FOC	WCB	16+40.85	64.00' LT	606.57
8	FOC	WCB	16+15.85	64.00' LT	606.48
9	FOC	WCB	15+90.85	64.00' LT	606.39
10	FOC	WCB	15+65.85	64.00' LT	606.31
11	FOC	WCB	15+40.85	64.00' LT	606.22
12	FOC	WCB	15+15.85	64.00' LT	606.13
13	FOC	WCB	14+90.85	64.00' LT	606.04
14	FOC	WCB	14+65.85	64.00' LT	605.96
15	FOC	WCB	17+11.32	49.00' LT	607.21
16	FOC	WCB	16+91.11	49.00' LT	607.07
17	FOC	WCB	16+66.11	49.00' LT	606.89
18	FOC	WCB	16+41.11	49.00' LT	606.78
19	FOC	WCB	16+16.11	49.00' LT	606.69
20	FOC	WCB	15+91.11	49.00' LT	606.61
21	FOC	WCB	15+66.11	49.00' LT	606.52
22	FOC	WCB	15+41.11	49.00' LT	606.43
23	FOC	WCB	15+16.11	49.00' LT	606.34
24	FOC	WCB	14+91.11	49.00' LT	606.26
25	FOC	WCB	14+66.11	49.00' LT	606.21
26	FOC	WCB	17+42.42	76.57' LT	607.38
27	FOC	WCB	17+76.38	96.48' LT	607.48
28	FOC	WCB	17+93.11	78.06' LT	607.58
29	FOC	WCB	18+14.95	66.13' LT	607.68
30	FOC	WCB	18+75.28	4.32' LT	608.21
31	FOC	WCB	18+50.56	0.59' LT	608.08
32	FOC	WCB	18+75.01	10.76' RT	608.12
33	FOC	WCB	18+50.02	10.01' RT	607.97
34	FOC	WCB	18+40.50	10.00' RT	607.92
35	FOC	WCB	18+15.50	10.00' RT	607.82
36	FOC	WCB	18+43.14	93.19' RT	607.12
37	FOC	WCB	18+57.44	72.82' RT	607.19
38	FOC	WCB	18+77.62	58.25' RT	607.29
39	FOC	WCB	19+01.45	51.09' RT	607.39
40	FOC	WCB	14+70.65	49.00' RT	606.36
41	FOC	WCB	14+95.65	49.00' RT	606.34
42	FOC	WCB	15+20.65	49.00' RT	606.36
43	FOC	WCB	15+45.65	49.00' RT	606.45
44	FOC	WCB	15+70.65	49.00' RT	606.54
45	FOC	WCB	15+95.65	49.00' RT	606.62
46	FOC	WCB	16+20.65	49.00' RT	606.71
47	FOC	WCB	16+45.65	49.00' RT	606.80
48	FOC	WCB	16+70.65	49.00' RT	606.93
49	FOC	WCB	16+95.65	49.00' RT	607.09
50	FOC	WCB	17+20.65	49.00' RT	607.25
51	FOC	WCB	17+29.06	49.00' RT	607.31
52	FOC	WCB	14+86.47	64.00' RT	606.43
53	FOC	WCB	15+11.47	64.00' RT	606.37
54	FOC	WCB	15+36.47	64.00' RT	606.35
55	FOC	WCB	15+61.47	64.00' RT	606.35
56	FOC	WCB	15+86.47	64.00' RT	606.39
57	FOC	WCB	16+11.47	64.00' RT	606.47
58	FOC	WCB	16+36.47	64.00' RT	606.55
59	FOC	WCB	16+61.47	64.00' RT	606.65
60	FOC	WCB	16+86.47	64.00' RT	606.85
61	FOC	WCB	17+36.10	67.69' RT	607.24
62	FOC	WCB	17+30.36	92.61' RT	607.08
63	FOC	WCB	17+43.29	99.38' RT	607.33
64	FOC	WCB	17+60.99	116.82' RT	607.57

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER

8/1/2012

David W Hawley

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

INTERSECTION LAYOUT
WESTERN CENTER BLVD

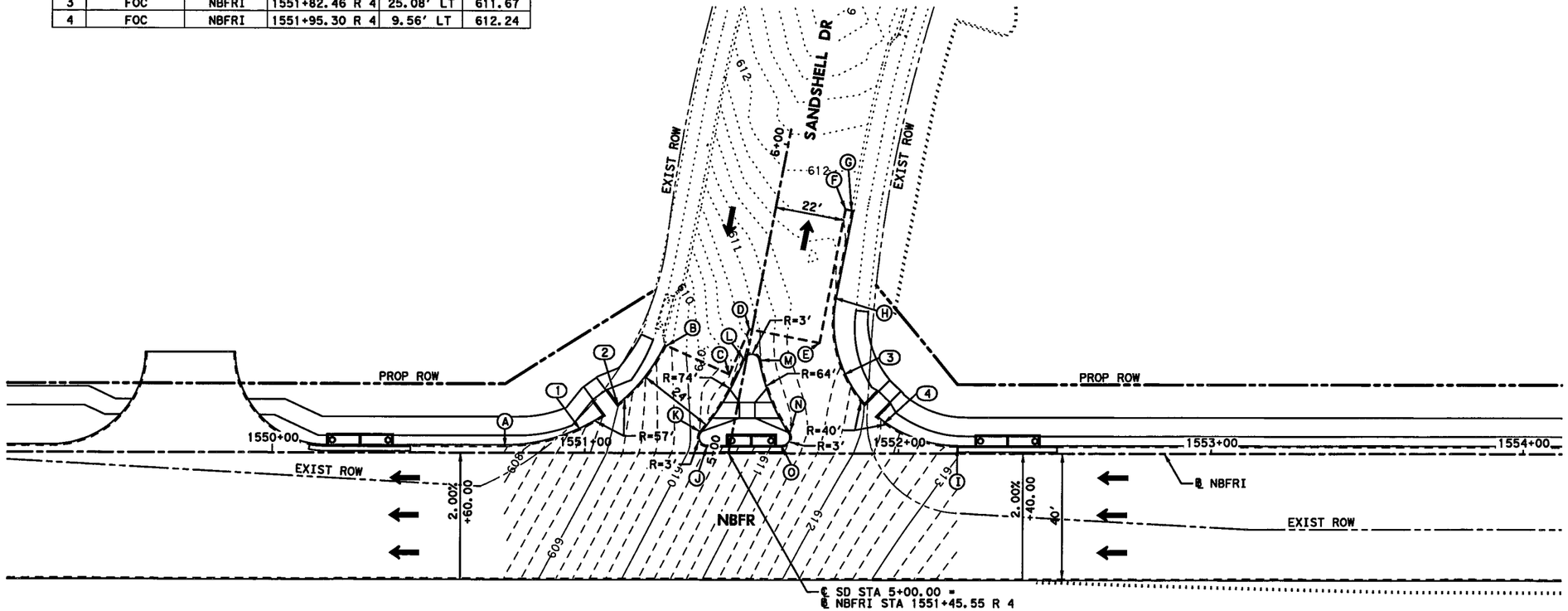
SCALE 1" = 40'

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	838A
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3B#XL04A.dgn

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
A	PC	NBFRI	1550+74.33 R 4	2.00' LT	607.77
B	PT	NBFRI	1551+25.63 R 4	34.15' LT	609.73
C	PI	NBFRI	1551+45.70 R 4	25.12' LT	610.37
D	PI	NBFRI	1551+52.17 R 4	39.43' LT	610.89
E	PI	NBFRI	1551+74.64 R 4	35.15' LT	611.49
F	PI	NBFRI	1551+82.74 R 4	77.62' LT	611.88
G	FOC	NBFRI	1551+84.70 R 4	77.25' LT	611.85
H	PC	NBFRI	1551+79.41 R 4	49.49' LT	611.56
I	PT	NBFRI	1552+18.70 R 4	2.00' LT	612.93
J	PC	NBFRI	1551+38.68 R 4	2.00' LT	610.20
K	PT	NBFRI	1551+36.38 R 4	6.93' LT	610.10
L	PC	NBFRI	1551+50.23 R 4	30.30' LT	610.77
M	PT	NBFRI	1551+55.91 R 4	29.64' LT	611.01
N	PT	NBFRI	1551+65.35 R 4	6.66' LT	611.21
O	PC	NBFRI	1551+62.85 R 4	2.00' LT	611.14
1	FOC	NBFRI	1550+98.54 R 4	7.40' LT	608.54
2	FOC	NBFRI	1551+10.39 R 4	14.85' LT	609.00
3	FOC	NBFRI	1551+82.46 R 4	25.08' LT	611.67
4	FOC	NBFRI	1551+95.30 R 4	9.56' LT	612.24

NBFRI = NORTHBOUND FRONTAGE ROAD



0' 20' 40'

SCALE IN FEET

LEGEND:

- (A) LETTER - PC, PT, POT, ETC.
- (*) NUMBER - GRADING POINTS
- ——— CONTOURS - PROPOSED MAJOR
- – – – – CONTOURS - PROPOSED MINOR
- ····· CONTOURS - EXISTING
- ➡ TRAFFIC DIRECTION - PROPOSED
- ⇨ TRAFFIC DIRECTION - EXISTING

NOTES:

1. ALL POINT LOCATIONS ARE SHOWN AT FACE OF CURB IN CURBED AREAS AND EDGES OF PAVEMENT IN RAIL SECTIONS, UNLESS NOTED OTHERWISE.
2. ALL RADII ARE SHOWN AT FACE OF CURB OR FACE OF RAIL, UNLESS NOTED OTHERWISE.
3. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
4. REFER TO ROADWAY PLAN AND PROFILE, U-TURN MEDIAN DETAILS AND TRAFFIC ISLAND DETAILS FOR MORE INFORMATION.

STATE OF TEXAS
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PROFESSIONAL ENGINEER

8/1/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

INTERSECTION LAYOUT
SANDSHELL DR

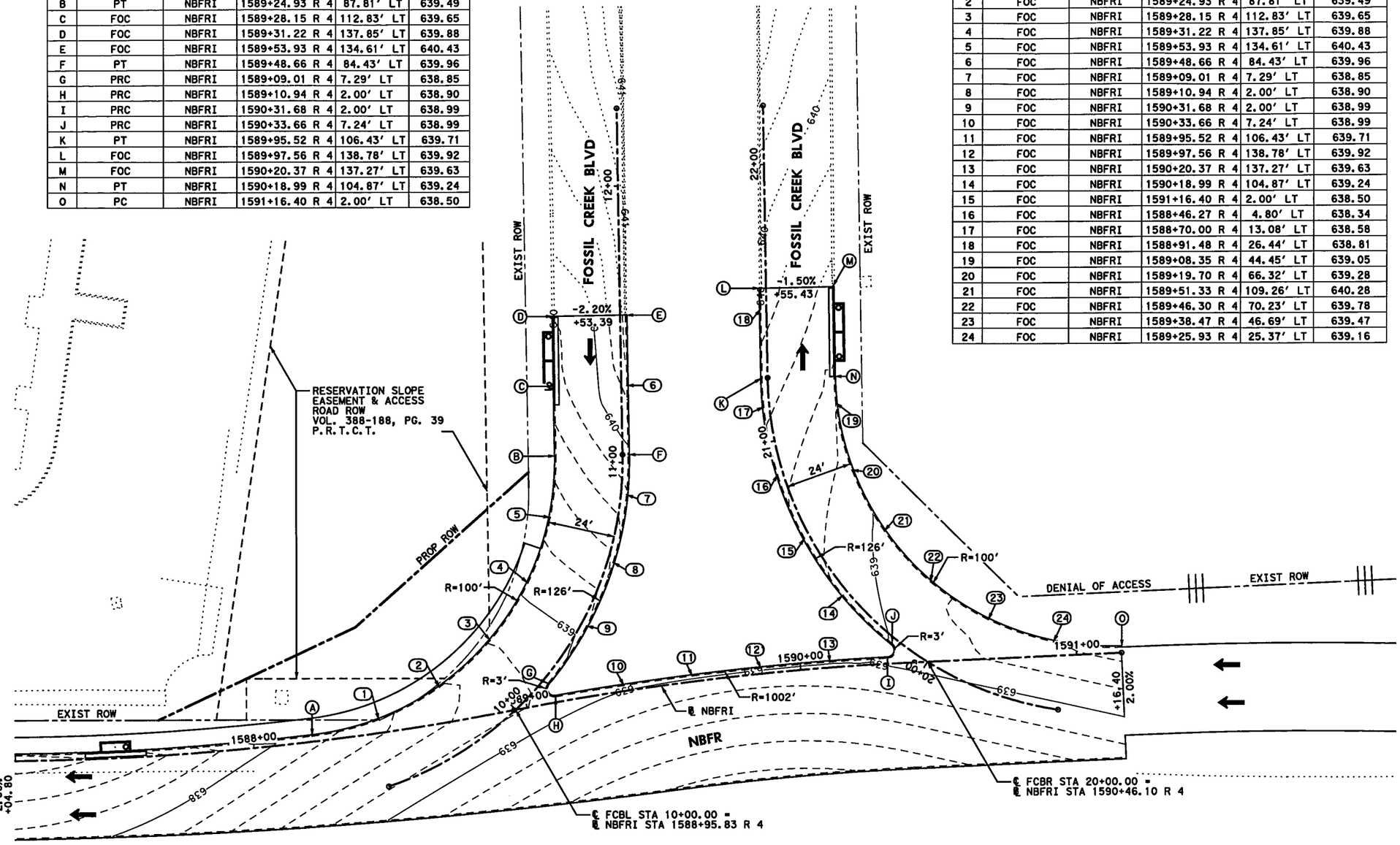
SCALE 1" = 40' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	839
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3B+XL05.dgn

ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
A	PC	NBFRI	1588+21.41 R 4	2.00' LT	638.11
B	PT	NBFRI	1589+24.93 R 4	87.81' LT	639.49
C	FOC	NBFRI	1589+28.15 R 4	112.83' LT	639.65
D	FOC	NBFRI	1589+31.22 R 4	137.85' LT	639.88
E	FOC	NBFRI	1589+53.93 R 4	134.61' LT	640.43
F	PT	NBFRI	1589+48.66 R 4	84.43' LT	639.96
G	PRC	NBFRI	1589+09.01 R 4	7.29' LT	638.85
H	PRC	NBFRI	1589+10.94 R 4	2.00' LT	638.90
I	PRC	NBFRI	1590+31.68 R 4	2.00' LT	638.99
J	PRC	NBFRI	1590+33.66 R 4	7.24' LT	638.99
K	PT	NBFRI	1589+95.52 R 4	106.43' LT	639.71
L	FOC	NBFRI	1589+97.56 R 4	138.78' LT	639.92
M	FOC	NBFRI	1590+20.37 R 4	137.27' LT	639.63
N	PT	NBFRI	1590+18.99 R 4	104.87' LT	639.24
O	PC	NBFRI	1591+16.40 R 4	2.00' LT	638.50

NBFRI = NORTHBOUD FRONTAGE ROAD



ID	DESCRIPTION	BASELINE	STATION	OFFSET	ELEV
1	FOC	NBFRI	1588+21.41 R 4	2.00' LT	638.11
2	FOC	NBFRI	1589+24.93 R 4	87.81' LT	639.49
3	FOC	NBFRI	1589+28.15 R 4	112.83' LT	639.65
4	FOC	NBFRI	1589+31.22 R 4	137.85' LT	639.88
5	FOC	NBFRI	1589+53.93 R 4	134.61' LT	640.43
6	FOC	NBFRI	1589+48.66 R 4	84.43' LT	639.96
7	FOC	NBFRI	1589+09.01 R 4	7.29' LT	638.85
8	FOC	NBFRI	1589+10.94 R 4	2.00' LT	638.90
9	FOC	NBFRI	1590+31.68 R 4	2.00' LT	638.99
10	FOC	NBFRI	1590+33.66 R 4	7.24' LT	638.99
11	FOC	NBFRI	1589+95.52 R 4	106.43' LT	639.71
12	FOC	NBFRI	1589+97.56 R 4	138.78' LT	639.92
13	FOC	NBFRI	1590+20.37 R 4	137.27' LT	639.63
14	FOC	NBFRI	1590+18.99 R 4	104.87' LT	639.24
15	FOC	NBFRI	1591+16.40 R 4	2.00' LT	638.50
16	FOC	NBFRI	1588+46.27 R 4	4.80' LT	638.34
17	FOC	NBFRI	1588+70.00 R 4	13.08' LT	638.58
18	FOC	NBFRI	1588+91.48 R 4	26.44' LT	638.81
19	FOC	NBFRI	1589+08.35 R 4	44.45' LT	639.05
20	FOC	NBFRI	1589+19.70 R 4	66.32' LT	639.28
21	FOC	NBFRI	1589+51.33 R 4	109.26' LT	640.28
22	FOC	NBFRI	1589+46.30 R 4	70.23' LT	639.78
23	FOC	NBFRI	1589+38.47 R 4	46.69' LT	639.47
24	FOC	NBFRI	1589+25.93 R 4	25.37' LT	639.16

0' 20' 40'

SCALE IN FEET

LEGEND:

- (A) LETTER - PC, PT, POT, ETC.
- (*) NUMBER - GRADING POINTS
- CONTOURS - PROPOSED MAJOR
- CONTOURS - PROPOSED MINOR
- CONTOURS - EXISTING
- TRAFFIC DIRECTION - PROPOSED
- TRAFFIC DIRECTION - EXISTING

NOTES:

1. ALL POINT LOCATIONS ARE SHOWN AT FACE OF CURB IN CURBED AREAS AND EDGES OF PAVEMENT IN RAIL SECTIONS, UNLESS NOTED OTHERWISE.
2. ALL RADII ARE SHOWN AT FACE OF CURB OR FACE OF RAIL, UNLESS NOTED OTHERWISE.
3. SUPERELEVATION TRANSITIONS WERE DEVELOPED AS LINEAR TRANSITIONS.
4. REFER TO ROADWAY PLAN AND PROFILE, U-TURN MEDIAN DETAILS AND TRAFFIC ISLAND DETAILS FOR MORE INFORMATION.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER

8/1/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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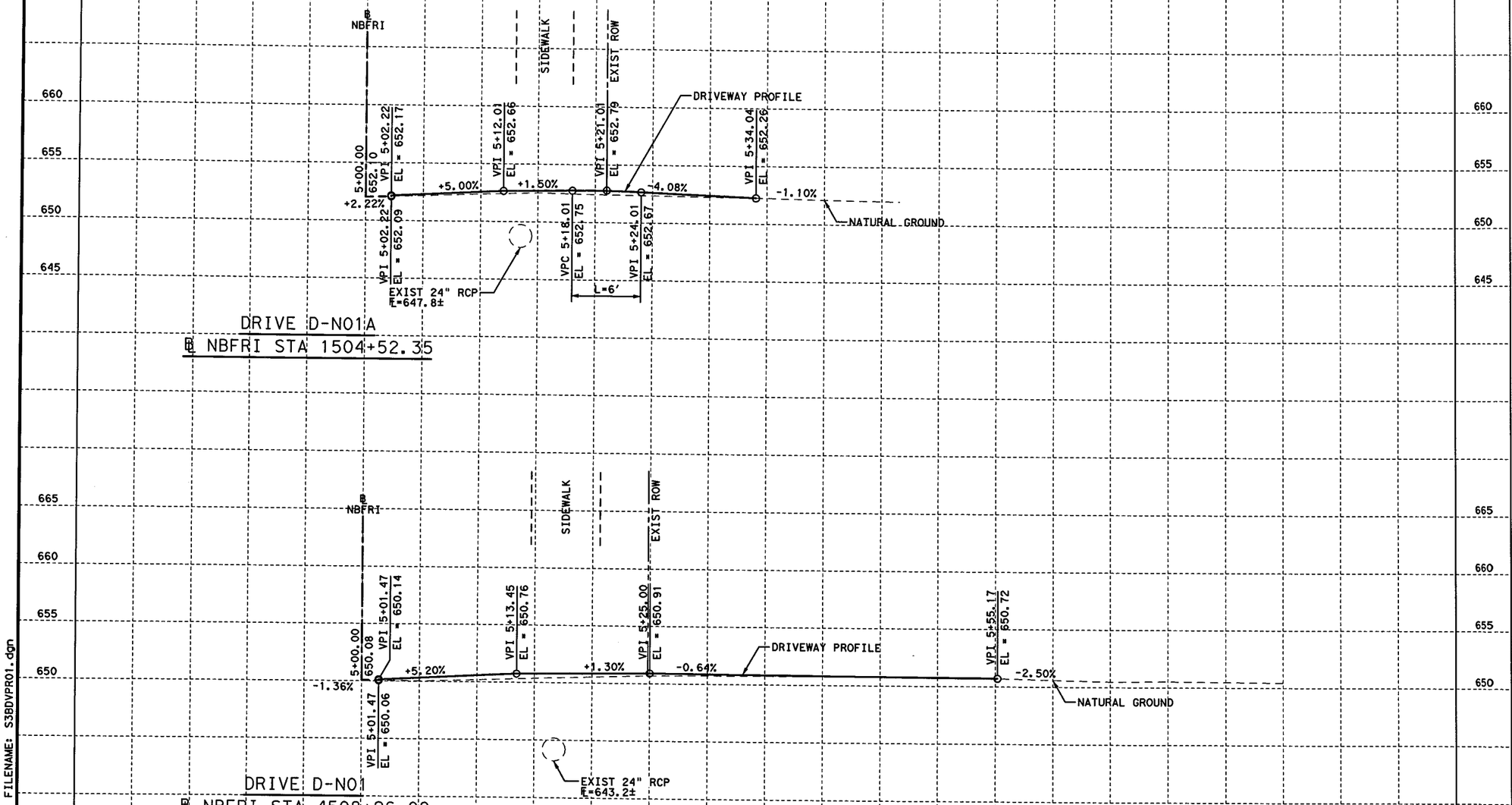
IH 35W FROM NORTH TARRANT PKWY TO IH 820

INTERSECTION LAYOUT
FOSSIL CREEK BLVD

SCALE 1" = 40' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	840
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S38*XL06.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 2.5' 5' 10'
VERT 0' 2.5' 5' 10'
SCALE IN FEET

NOTES:

1. REFER TO DRIVEWAY DETAILS FOR SPECIFIC DRIVEWAY INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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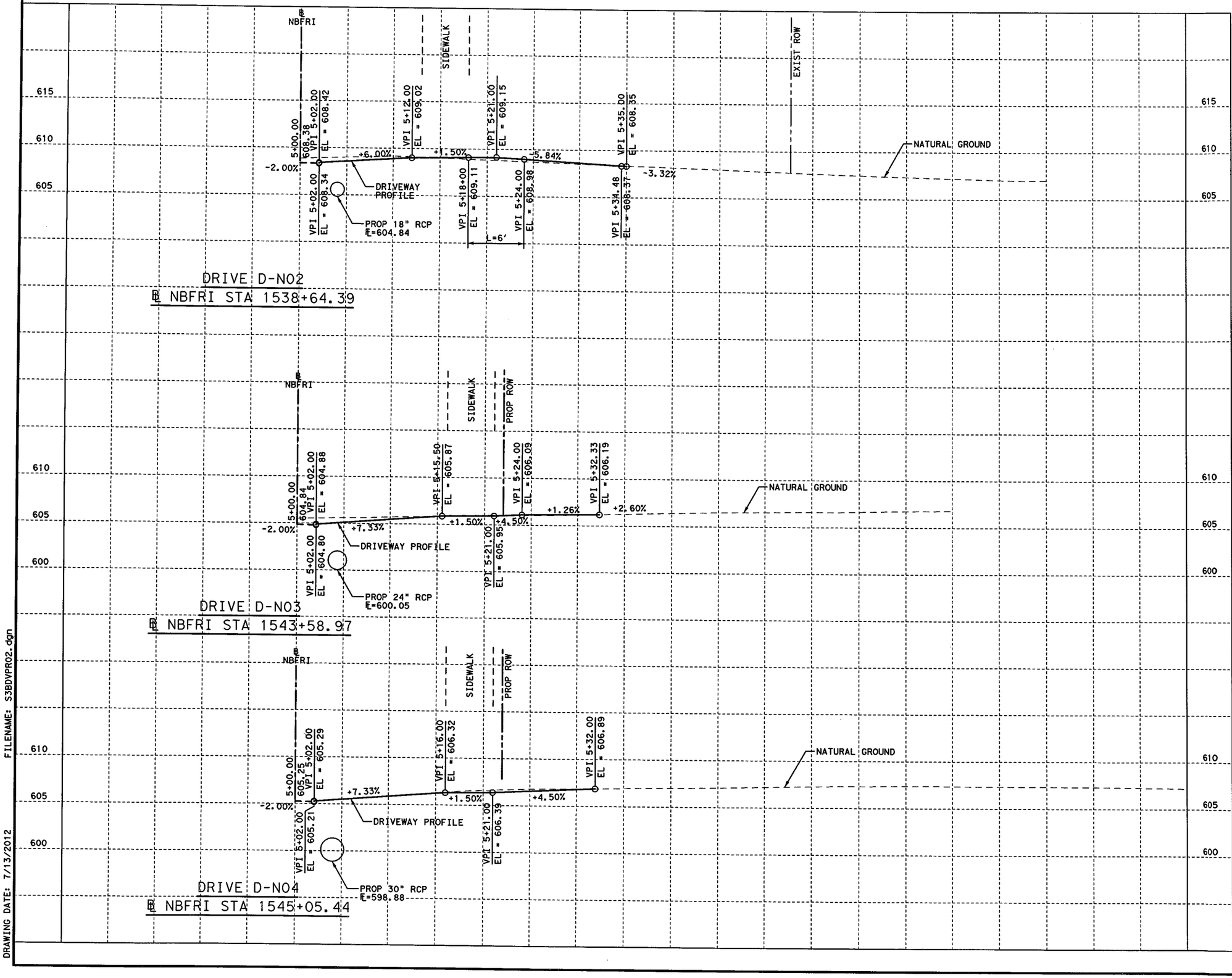
IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY PROFILES

SCALE: 1" = 10' H, 1" = 10' V — SHEET 1 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	841
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S38DVPR01.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 2.5' 5' 10'
VERT 0' 2.5' 5' 10'
SCALE IN FEET

NOTES:

1. REFER TO DRIVEWAY DETAILS FOR SPECIFIC DRIVEWAY INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
07/13/12

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TBPE REGISTRATION NO. F-926

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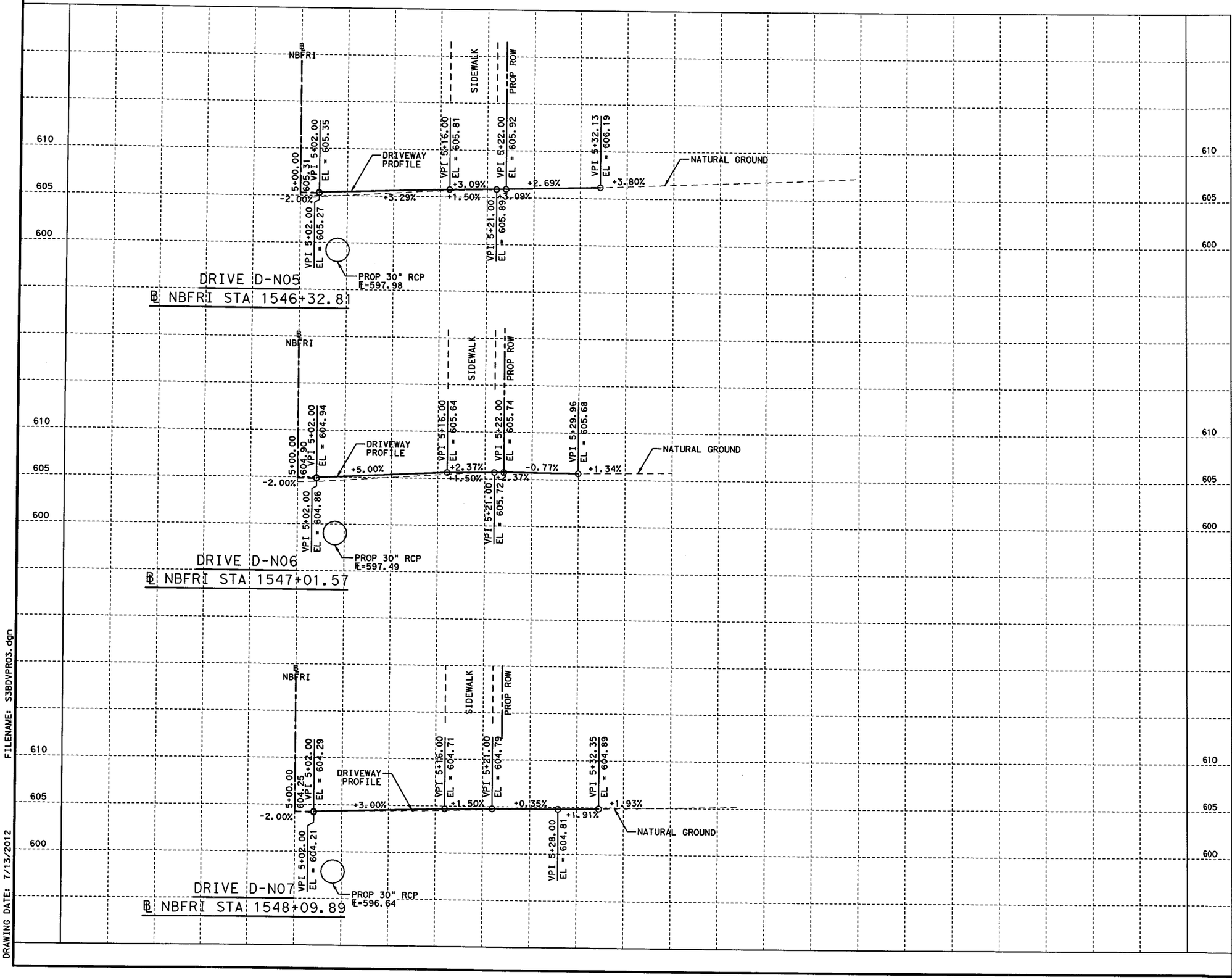
IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY PROFILES

SCALE: 1" = 10' H, 1" = 10' V — SHEET 2 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	842
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BDVPR02.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 2.5' 5' 10'
VERT 0' 2.5' 5' 10'
SCALE IN FEET

NOTES:

1. REFER TO DRIVEWAY DETAILS FOR SPECIFIC DRIVEWAY INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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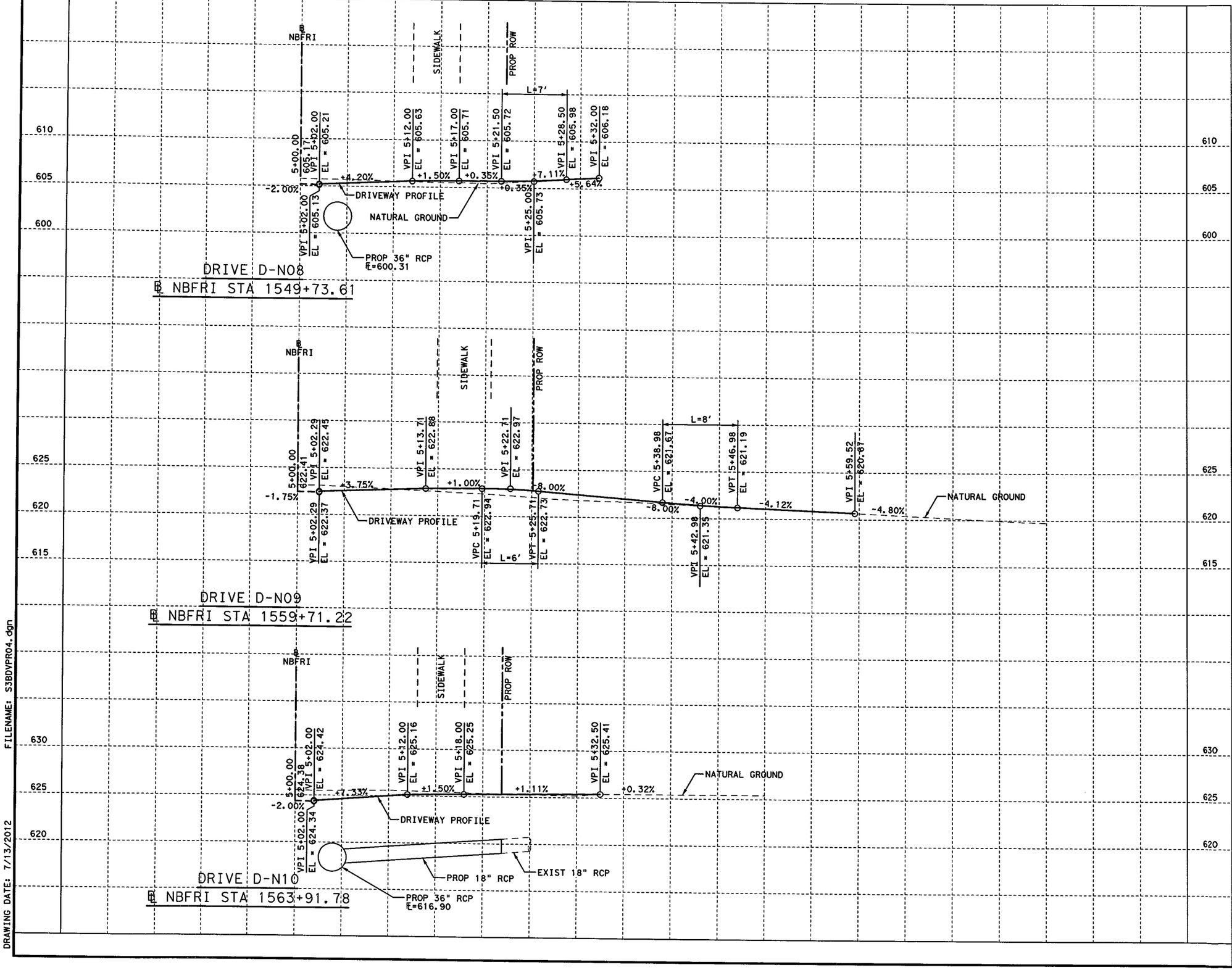
IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY PROFILES

SCALE: 1" = 10' H, 1" = 10' V — SHEET 3 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	843
	0014	16	255, ETC.	

FILENAME: S3BDVPR03.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 2.5' 5' 10'
VERT 0' 2.5' 5' 10'
SCALE IN FEET

NOTES:

1. REFER TO DRIVEWAY DETAILS FOR SPECIFIC DRIVEWAY INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

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TBPE REGISTRATION NO. F-926

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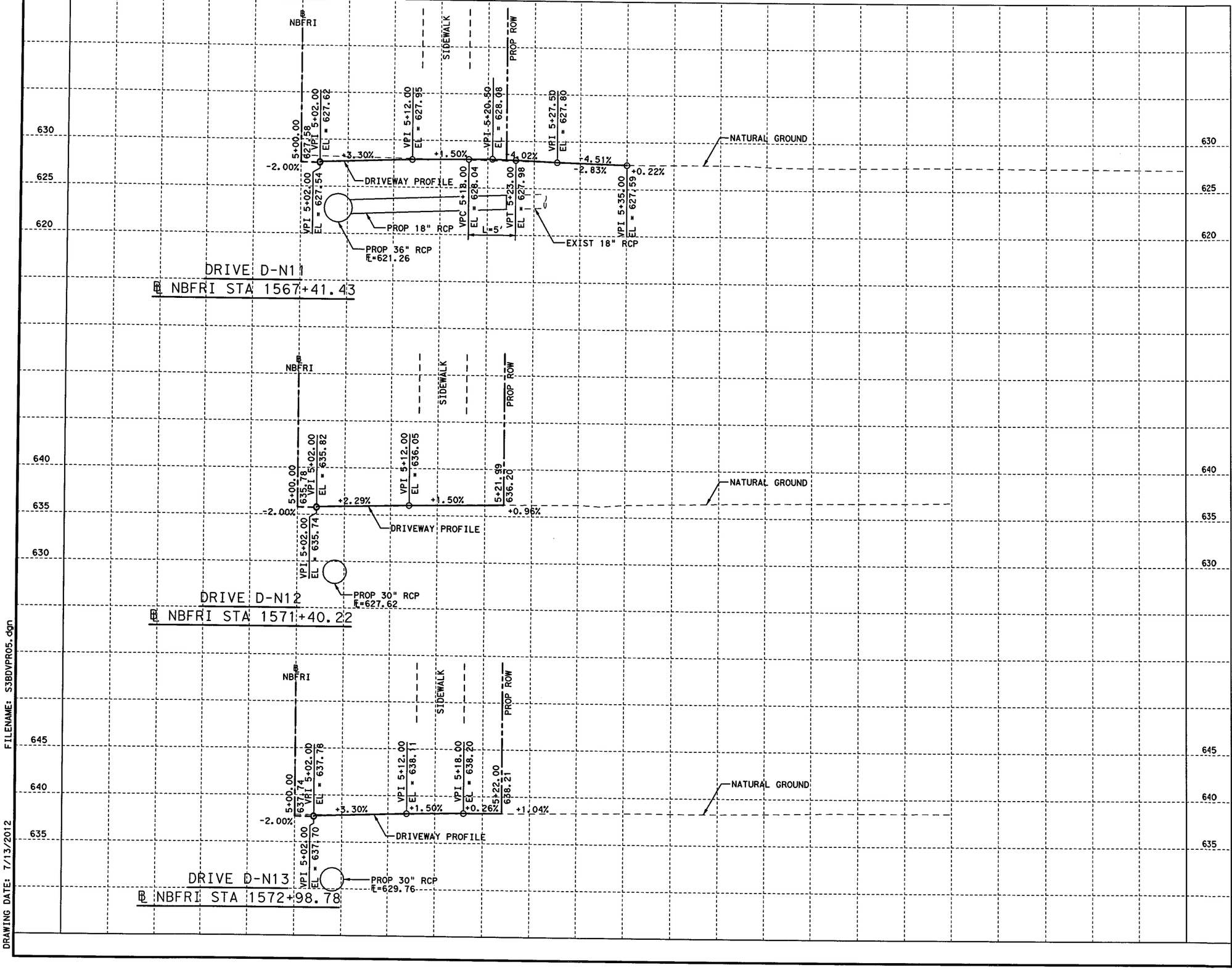
IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY PROFILES

SCALE: 1" = 10' H, 1" = 10' V — SHEET 4 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	844
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BDVPR04.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 2.5' 5' 10'
VERT 0' 2.5' 5' 10'
SCALE IN FEET

NOTES:

1. REFER TO DRIVEWAY DETAILS FOR SPECIFIC DRIVEWAY INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

Syed S. Haq 07/13/12

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TBPE REGISTRATION NO. F-926

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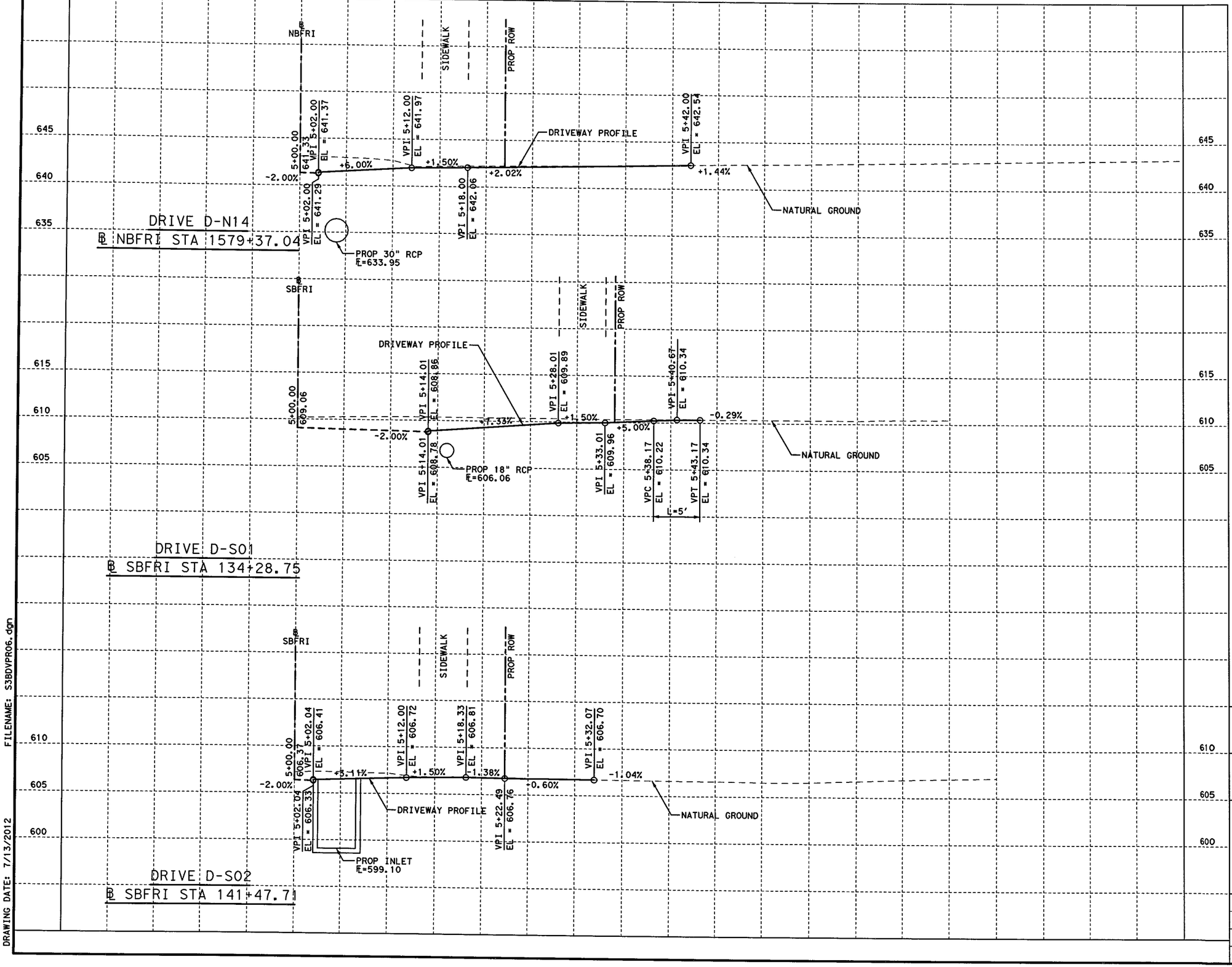
IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY PROFILES

SCALE: 1" = 10' H, 1" = 10' V — SHEET 5 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	845
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				



HORZ 0' 2.5' 5' 10'
VERT 0' 2.5' 5' 10'
SCALE IN FEET

NOTES:

1. REFER TO DRIVEWAY DETAILS FOR SPECIFIC DRIVEWAY INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed S. Haq 07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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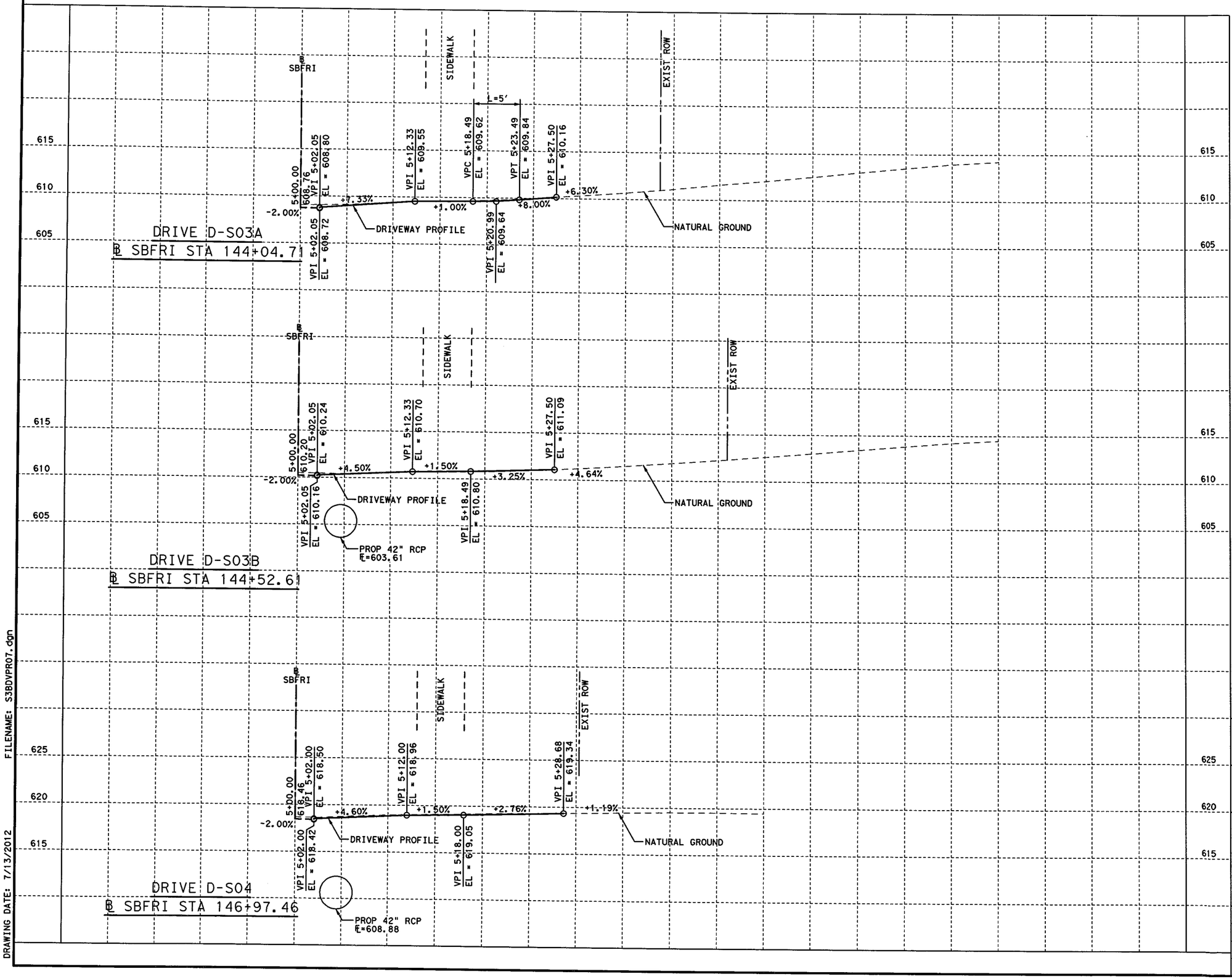
IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY PROFILES

SCALE: 1" = 10' H, 1" = 10' V — SHEET 6 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	846
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BDVPR06.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 2.5' 5' 10'
VERT 0' 2.5' 5' 10'
SCALE IN FEET

NOTES:

1. REFER TO DRIVEWAY DETAILS FOR SPECIFIC DRIVEWAY INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Shahid Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

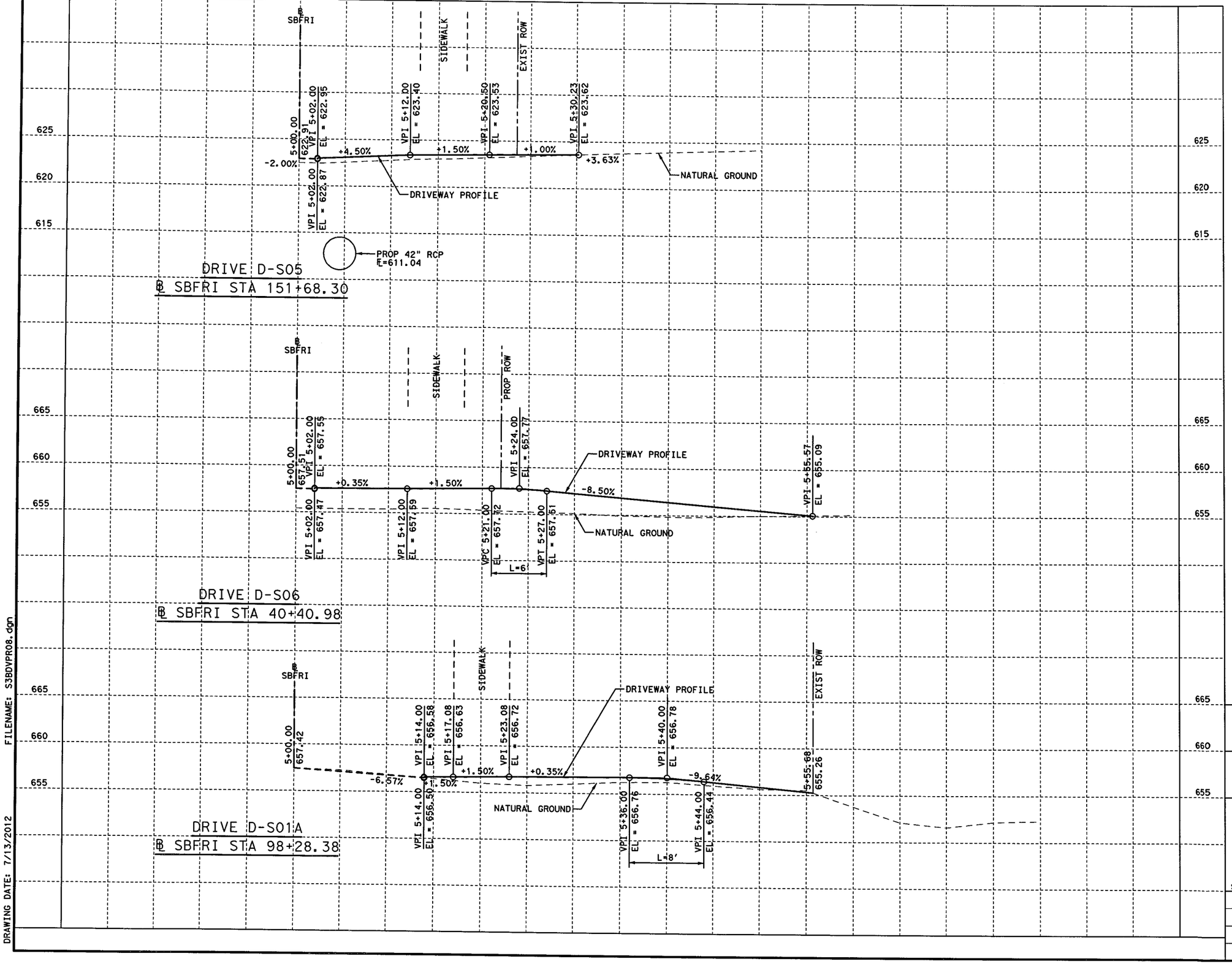
DRIVEWAY PROFILES

SCALE: 1" = 10' H, 1" = 10' V

SHEET 7 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	847
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BDVPR07.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 2.5' 5' 10'
VERT 0' 2.5' 5' 10'
SCALE IN FEET

NOTES:

1. REFER TO DRIVEWAY DETAILS FOR SPECIFIC DRIVEWAY INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER
Syed Shidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY PROFILES

SCALE: 1" = 10' H, 1" = 10' V — SHEET 8 OF 8

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	848
KCI	0014	16	255, ETC.	
CHECK				
KCI				

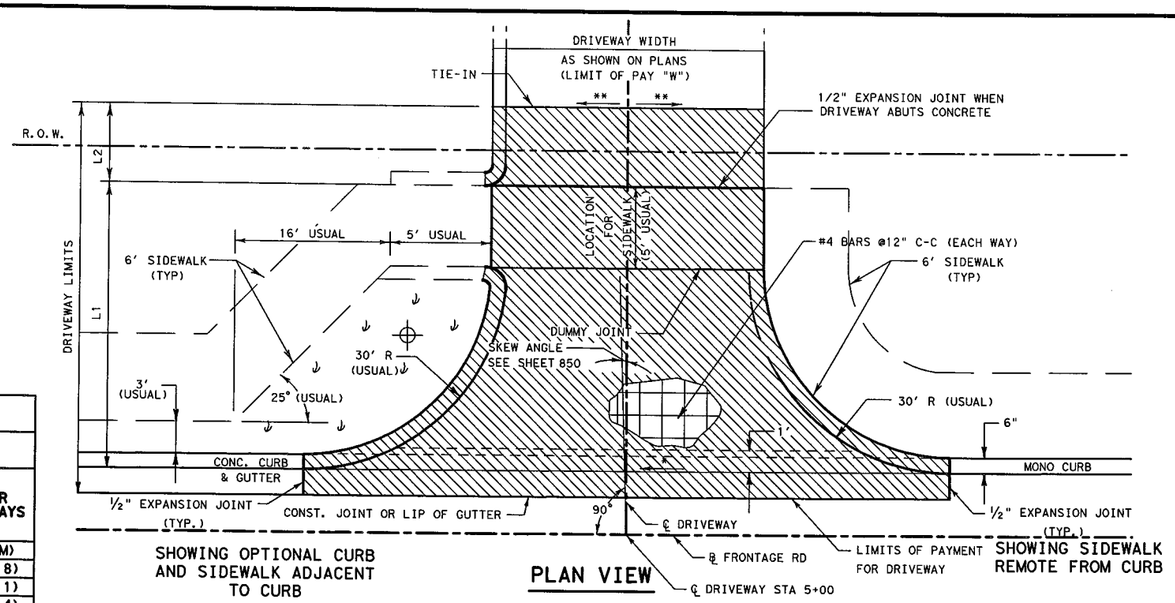
FILENAME: S3BDVPR08.dgn
DRAWING DATE: 7/13/2012

DO NOT PAVE AREA BETWEEN SIDEWALK AND DRIVEWAY CURB. SEED, SOD, OR LANDSCAPE AS DIRECTED.

⏚ - SEEDING OR OTHER SURFACE NOT SUITABLE AS PEDESTRIAN WALKWAY.

TABLE C-6. TYPICAL LENGTH OF VERTICAL CURVE, L, FOR CHANGE IN GRADE IN DRIVEWAY PROFILE

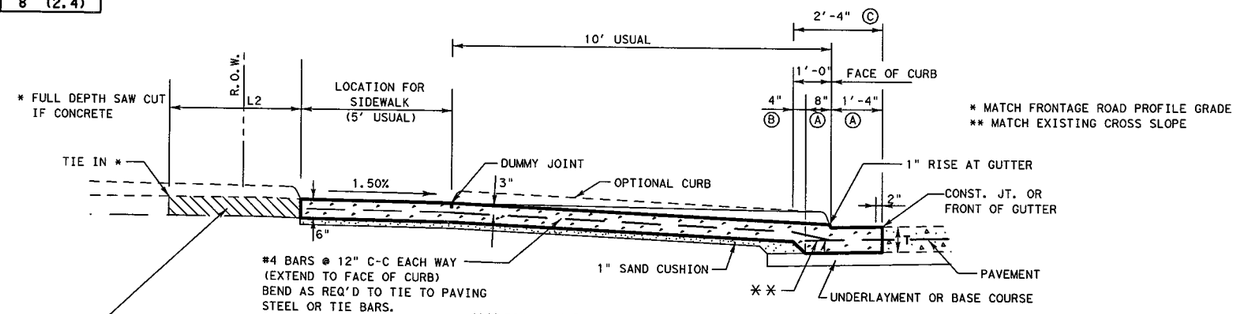
CHANGE IN GRADE A	CREST		SAG	
	PRIVATE RESIDENTIAL DRIVEWAYS	OTHER DRIVEWAYS	PRIVATE RESIDENTIAL DRIVEWAYS	OTHER DRIVEWAYS
%	FT (M)	FT (M)	FT (M)	FT (M)
4 - 5	2 (0.6)	5 (1.5)	3 (0.9)	6 (1.8)
6 - 7	3 (0.9)	5 (1.5)	5 (1.5)	7 (2.1)
8 - 10	4 (1.2)	6 (1.8)	6 (1.8)	8 (2.4)



SHOWING OPTIONAL CURB AND SIDEWALK ADJACENT TO CURB

SHOWING SIDEWALK REMOTE FROM CURB

PLAN VIEW



SECTION VIEW

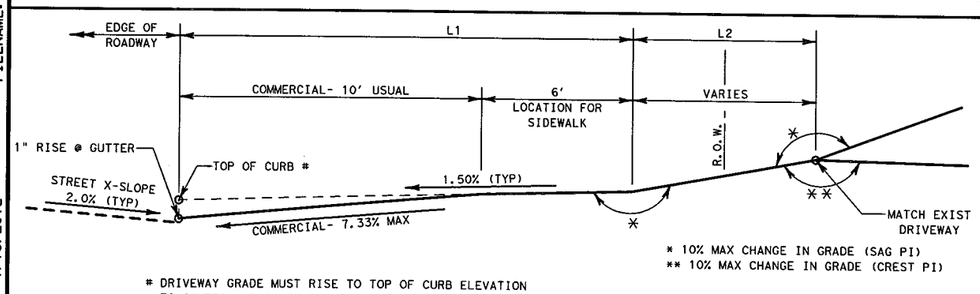
CONCRETE COMMERCIAL DRIVEWAY

NOTES:

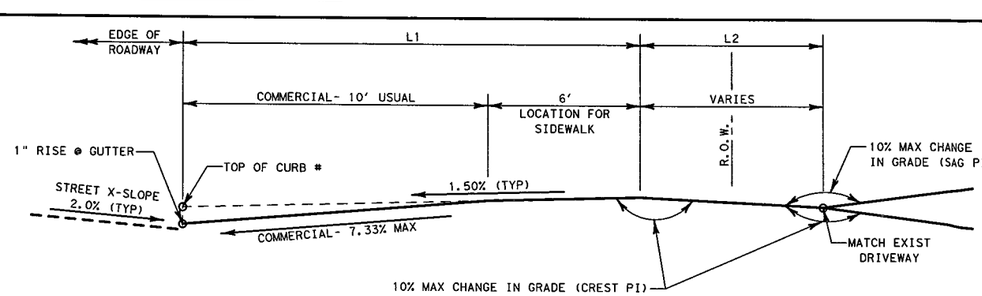
1. REFER TO DRIVEWAY PROFILE SHEET FOR SPECIFIC GRADE INFORMATION.
2. REFER TO NBFR AND SBFR PLAN & PROFILE SHEETS FOR SIDEWALK CONFIGURATIONS.
3. DRIVEWAY VERTICAL CURVES 'L' ARE REQUIRED WHEN 'A' ≥ 4% AND ARE BASED ON THE "TEXAS DEPARTMENT OF TRANSPORTATION ROADWAY DESIGN MANUAL" TABLES C-5 AND C-6.
4. REFER TO DRIVEWAY DETAIL SHEETS 2 OF 3 AND 3 OF 3 FOR SPECIFIC LOCATION, DIMENSIONS, AND OTHER MISCELLANEOUS DETAILS.
5. REFER TO DETAIL CDD-08(FW) FOR ADDITIONAL INFORMATION.

LEGEND:

DRIVEWAY PAY LIMITS



SAG CONDITION



CREST CONDITION

ALLOWABLE DRIVEWAY GRADES

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY DETAILS

SCALE: N.T.S.

SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	849
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BDRDT01.dgn

DRAWING DATE: 7/13/2012

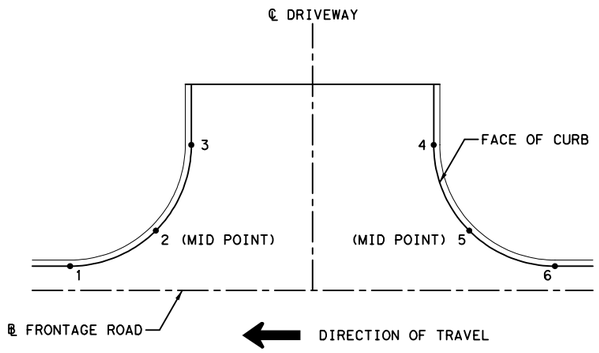
DRIVEWAYS

Name	Location	Description	R	L1	L2	W	SKEW ANGLE	Elevation (ft) **								NOTES
			(FT)	(FT)	(FT)	(FT)	(DEGREES)	1	2	3	4	5	6	7	8	
D-N01A	NBFRI STA 1504+52.35, 2.22' LT	Commercial	30, 3	15.8	16.0	30	2° 2' 3.91" RT	652.47	652.72	652.56	652.26	652.40	652.55	652.30	652.05	ROE REQ'D
D-N01	NBFRI STA 4508+26.08, 1.23' LT	Commercial	30, 3	19.2	34.5	30	33° 21' 04.07" RT	649.91	649.99	650.42	651.15	651.22	651.14	651.08	651.06	ROE REQ'D
D-N02	NBFRI STA 1538+64.39, 2.00' LT	Commercial	30	19.0	14.0	29	-	609.26	609.41	608.76	608.37	608.64	607.68			-
D-N03	NBFRI STA 1543+58.97, 2.00' LT	Commercial	30	19.0	11.3	36	-	605.09	605.67	606.25	606.14	605.43	604.97			ROE REQ'D
D-N04	NBFRI STA 1545+05.44, 2.00' LT	Commercial	30	19.0	11.0	23	-	604.84	605.80	606.88	606.88	606.02	605.48			ROE REQ'D
D-N05	NBFRI STA 1546+32.81, 2.00' LT	Commercial	30, 20	19.0	11.1	24	-	605.51	605.96	606.70	605.91	605.44	605.09			ROE REQ'D
D-N06	NBFRI STA 1547+01.57, 2.00' LT	Commercial	20, 30	19.0	9.0	31	-	605.09	605.27	605.67	605.98	605.37	604.61			ROE REQ'D
D-N07	NBFRI STA 1548+09.89, 2.00' LT	Commercial	30	19.0	11.4	30	-	604.49	604.78	605.21	604.87	604.46	604.06			ROE REQ'D
D-N08	NBFRI STA 1549+73.61, 2.00' LT	Commercial	30	15.0	15.0	28	-	604.48	605.28	606.04	606.45	606.18	606.09			ROE REQ'D
D-N09	NBFRI STA 1559+71.22, 2.00' LT	Commercial	30	18.3	39.0	25	28° 57' 22.02" LT	622.15	622.63	620.60	623.22	623.15	623.03	622.70	622.53	ROE REQ'D
D-N10	NBFRI STA 1563+91.78, 2.00' LT	Commercial	30	16.0	14.5	30	-	624.12	624.86	625.14	625.49	625.19	624.57			ROE REQ'D
D-N11	NBFRI STA 1567+41.43, 2.00' LT	Commercial	30	16.0	17.0	30	-	626.66	627.70	627.93	628.11	628.56	628.46			ROE REQ'D
D-N12	NBFRI STA 1571+40.22, 2.00' LT	Commercial	30	16.0	4.0	30	-	634.87	635.34	635.76	636.29	636.36	636.53			-
D-N13	NBFRI STA 1572+98.78, 2.00' LT	Commercial	30	16.0	4.0	30	2° 21' 21.32" LT	637.40	637.59	637.86	638.36	638.20	638.14			-
D-N14	NBFRI STA 1579+37.04, 2.00' LT	Commercial	40	16.0	24.0	36	-	641.53	642.07	642.51	642.48	641.86	640.97			ROE REQ'D
D-S01A	SBFRI STA 98+28.38, 13.98' RT	Commercial	30, 3	10.0	31.7	28	2° 42' 49.81" LT	658.83	657.66	656.95	656.81	656.96	656.96	657.16	657.27	-
D-S01	SBFRI STA 134+28.75, 14.00' RT	Commercial	20, 30	19.0	10.1	24	2° 31' 7.60" RT	608.06	608.58	609.46	609.67	609.61	609.55			ROE REQ'D
D-S02	SBFRI STA 141+47.71, 2.00' RT	Commercial	30	16.4	13.7	11, 11	1° 58' 31.88" RT	606.18	606.88	606.44	606.73	606.97	606.51			
D-S03A	SBFRI STA 144+04.71, 2.00' RT	Commercial	30, 3	16.4	9.0	15	13° 10' 26.52" LT	607.96	609.00	609.86	610.42	609.81	609.51	609.20	609.16	-
D-S03B	SBFRI STA 144+52.61, 2.00' RT	Commercial	3, 30	16.4	9.0	15	13° 10' 54.92" RT	611.25	611.30	611.35	610.95	610.61	610.36	610.09	609.88	-
D-S04	SBFRI STA 146+97.46, 2.00' RT	Commercial	30	16.0	10.7	15	-	619.19	619.27	619.52	619.23	618.46	617.47			-
D-S05	SBFRI STA 151+68.30, 2.00' RT	Commercial	30	16.0	12.2	24	-	623.19	623.53	623.81	623.53	623.15	622.56			ROE REQ'D
D-S06	SBFRI STA 40+40.98, 2.00' RT	Commercial	30	16.0	37.6	30	-	657.20	657.40	656.95	657.22	657.82	657.74			ROE REQ'D
D-S07	SBFRI STA 151+68.30, 2.00' RT	Access Road to Satellite	-	-	-	-	-	652.03	651.92	651.80	651.70	651.66	651.62			SEE ITS PLAN

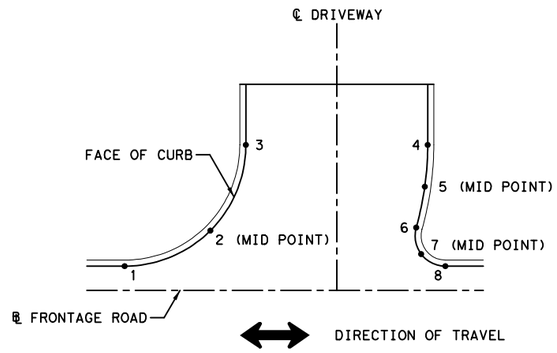
* LOCATION INDICATES BEGIN DRIVEWAY PROFILE
** SEE DETAILS BELOW FOR POINT LOCATIONS

NOTES:

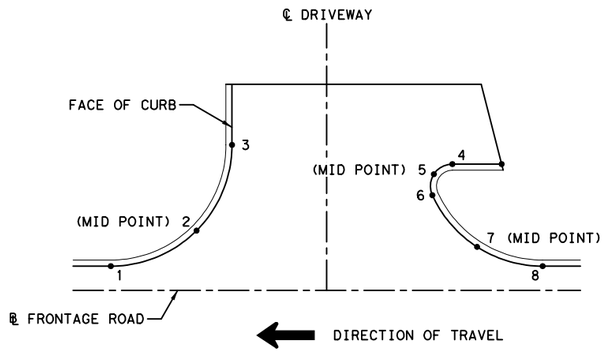
1. THE FINAL DRIVEWAY CONFIGURATIONS AT THE TIE-IN LOCATIONS SHALL BE ADJUSTED AS NECESSARY TO MATCH EXISTING CONDITIONS AT THE TIME OF CONSTRUCTION. THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO OBTAIN THE NECESSARY RIGHT OF ENTRY (ROE) PRIOR TO PERFORMING ANY WORK OUTSIDE OF THE RIGHT OF WAY.
2. ALL POINT LOCATIONS ARE SHOWN AT FACE OF CURB.



IN/OUT DRIVEWAY



IN ONLY/OUT ONLY DRIVEWAY



D-N09

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
08/29/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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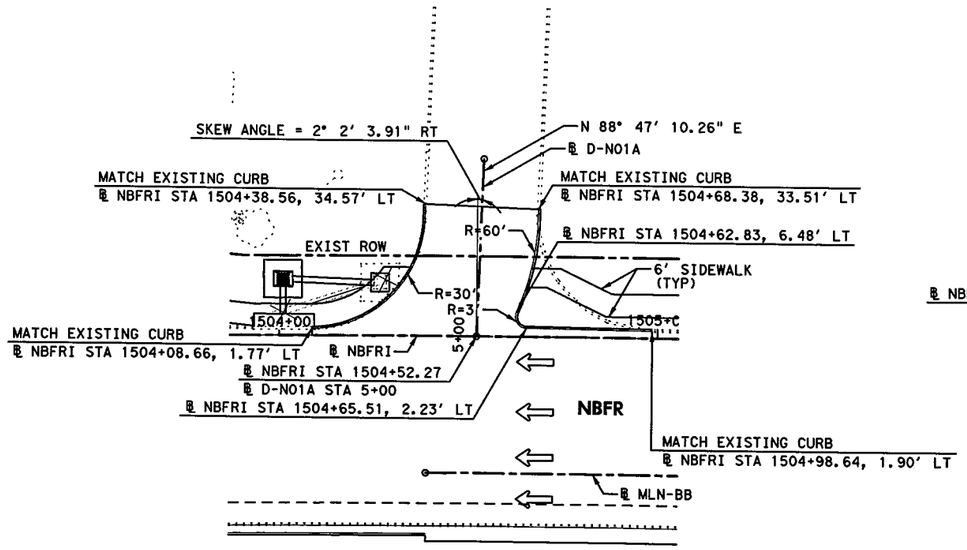
IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY DETAILS

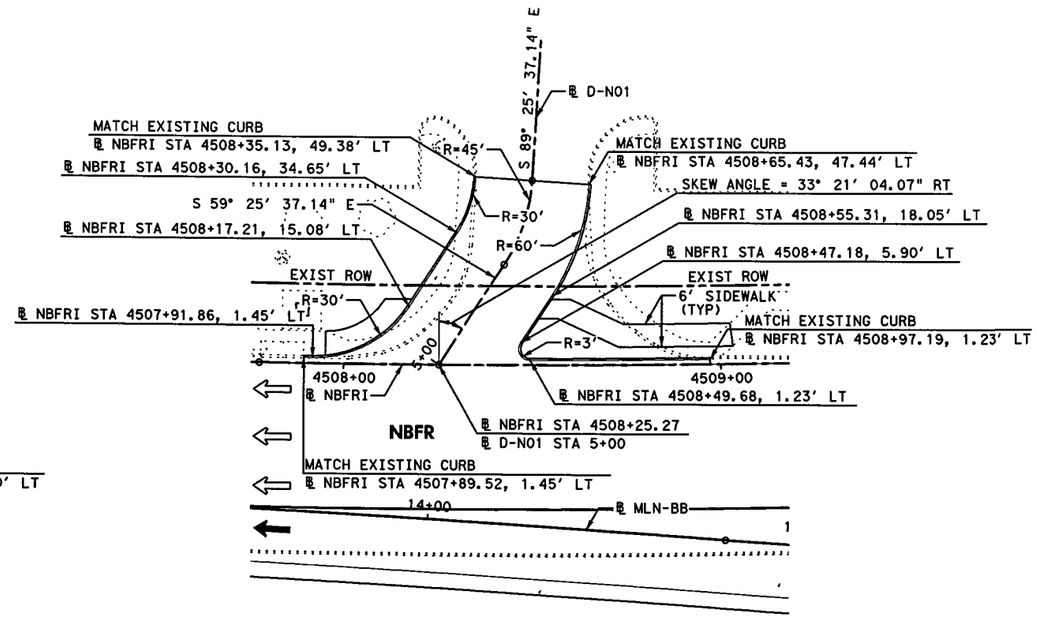
SCALE: N.T.S. SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	850
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BDRDT02.dgn
DRAWING DATE: 8/29/2012



DRIVEWAY D-N01A
(RIGHT OUT ONLY)



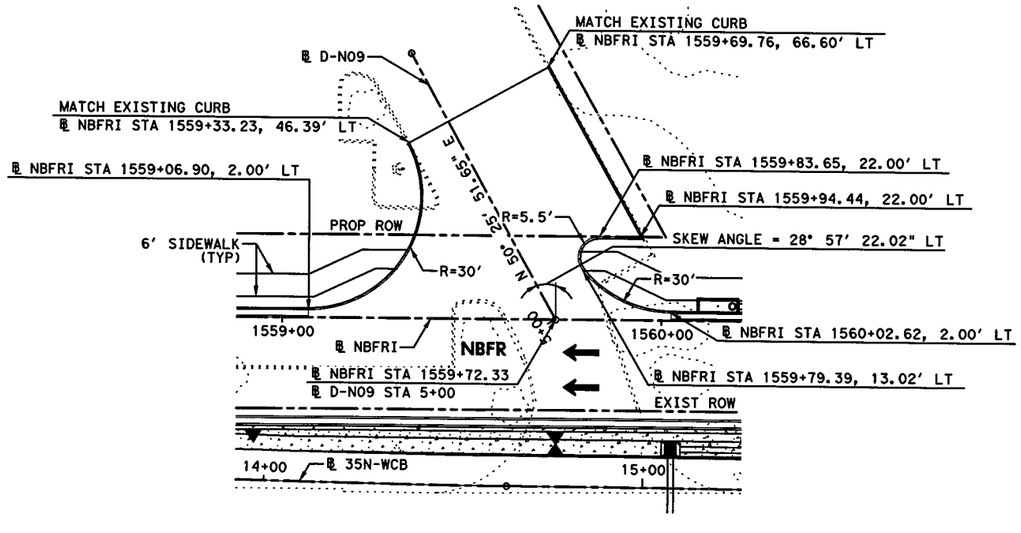
DRIVEWAY D-N01
(RIGHT OUT ONLY)

0' 10' 20' 40'

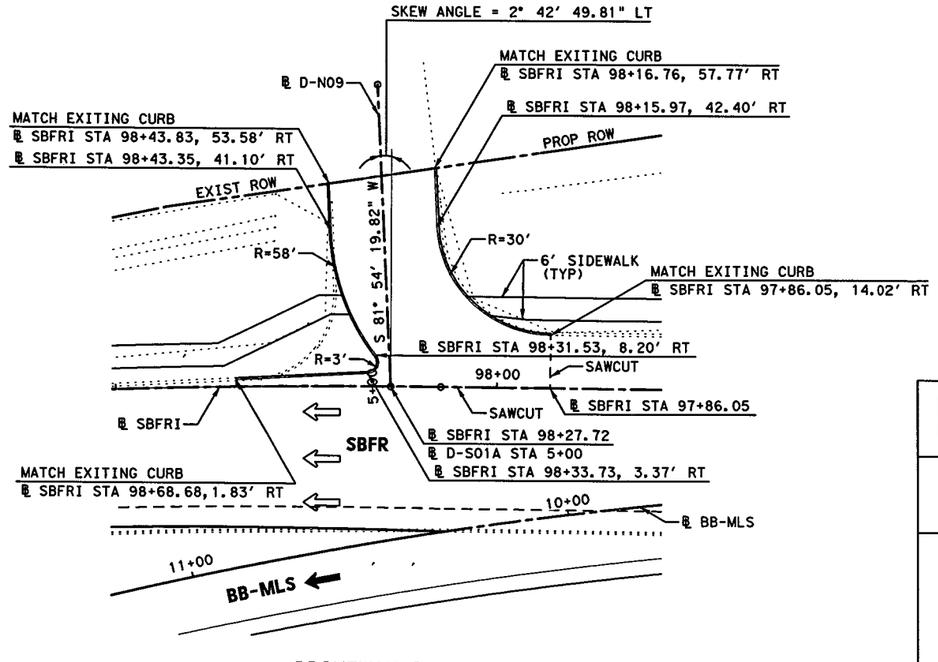
SCALE IN FEET

NOTES:

1. DIMENSIONS TO CURB ARE SHOWN TO THE FRONT FACE, UNLESS OTHERWISE NOTED.
2. REFER TO NBFR AND SBFR PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



DRIVEWAY D-N09



DRIVEWAY D-S01A
(RIGHT IN ONLY)

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

DRIVEWAY DETAILS

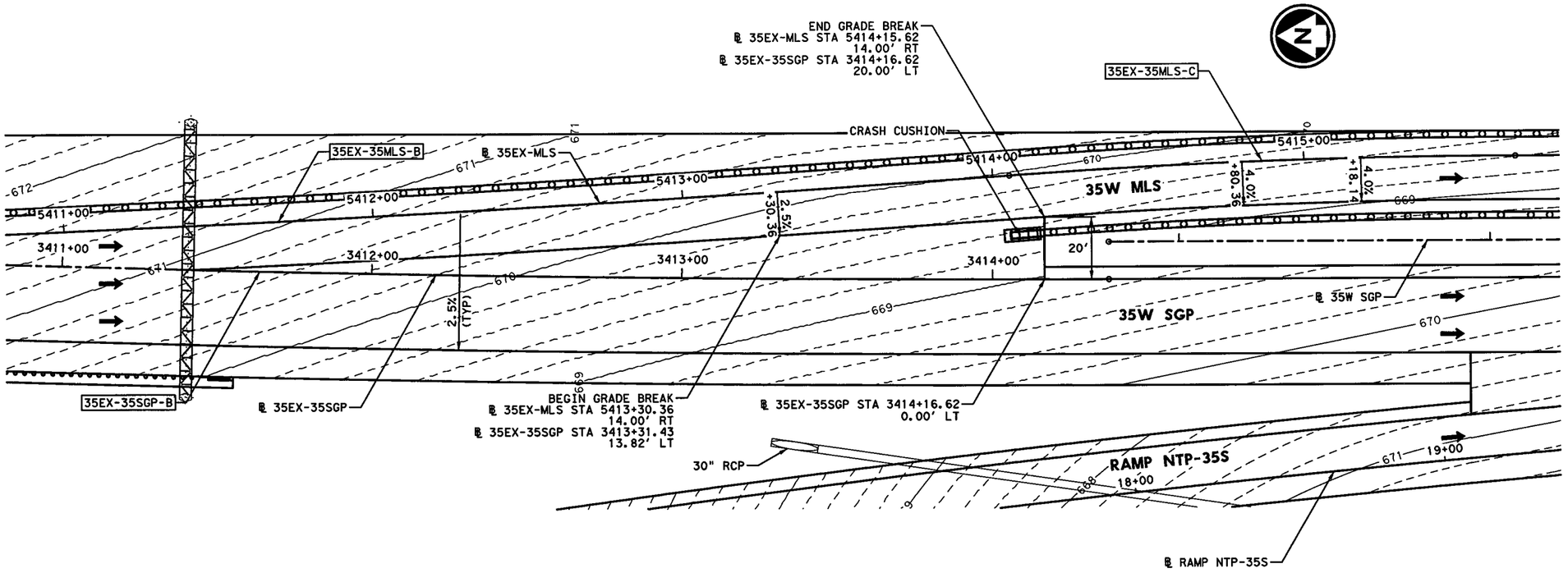
SCALE: 1" = 40'

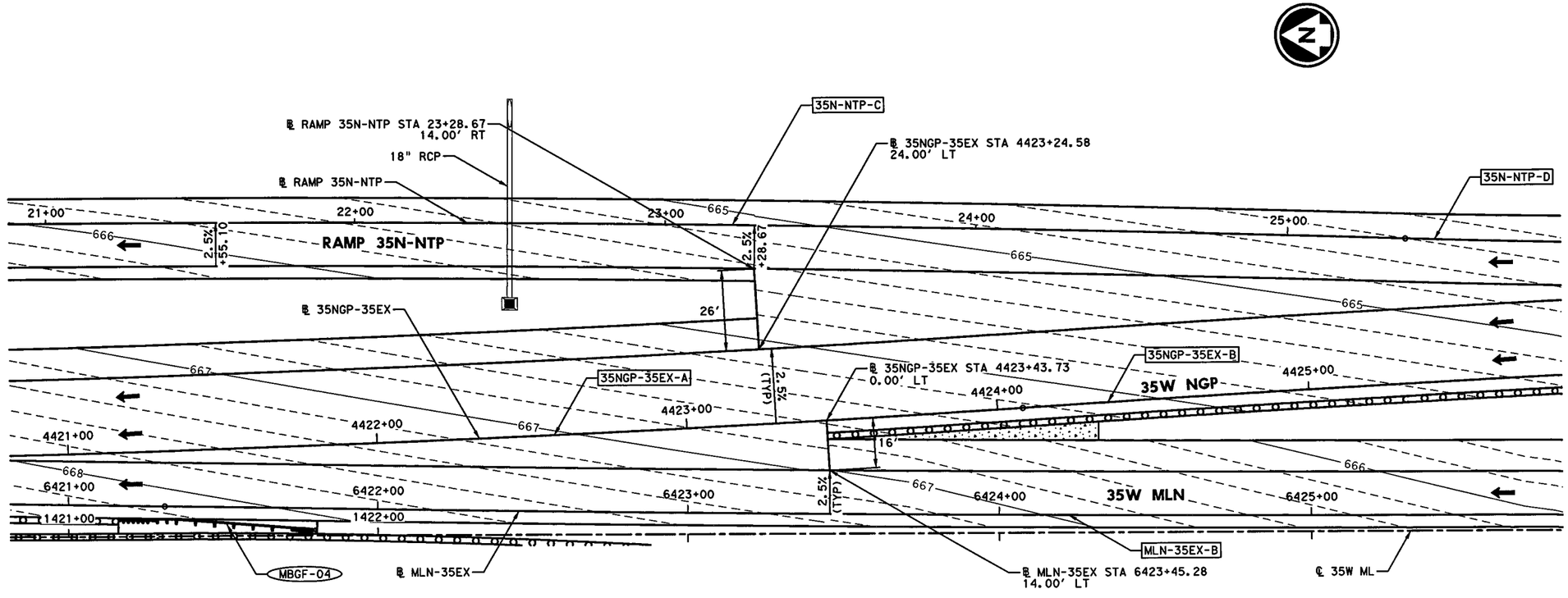
SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	851
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BDRDT03.dgn

DRAWING DATE: 7/13/2012





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

——XXX——	PROP MAJOR CONTOUR (1.0')
– – – – – –	PROP MINOR CONTOUR (0.2')
····XXX····	EXIST MAJOR CONTOUR (1.0')
.....	EXIST MINOR CONTOUR (0.2')
XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
	RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

07/31/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

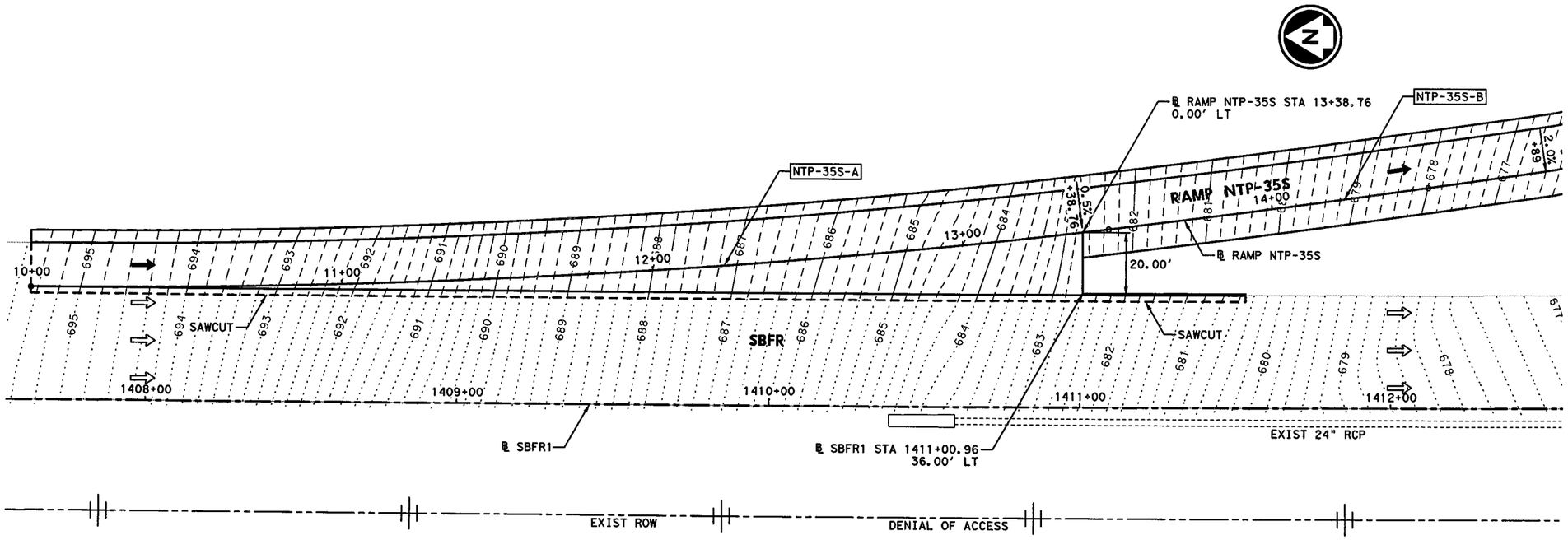
GORE CONTOUR PLANS
35EX-35SGP, 35N-NTP & NGP-35EX

SCALE: 1" = 40' SHEET 1 OF 17

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	852
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BRNDT01.dgn

DRAWING DATE: 7/30/2012



0' 10' 20' 40'

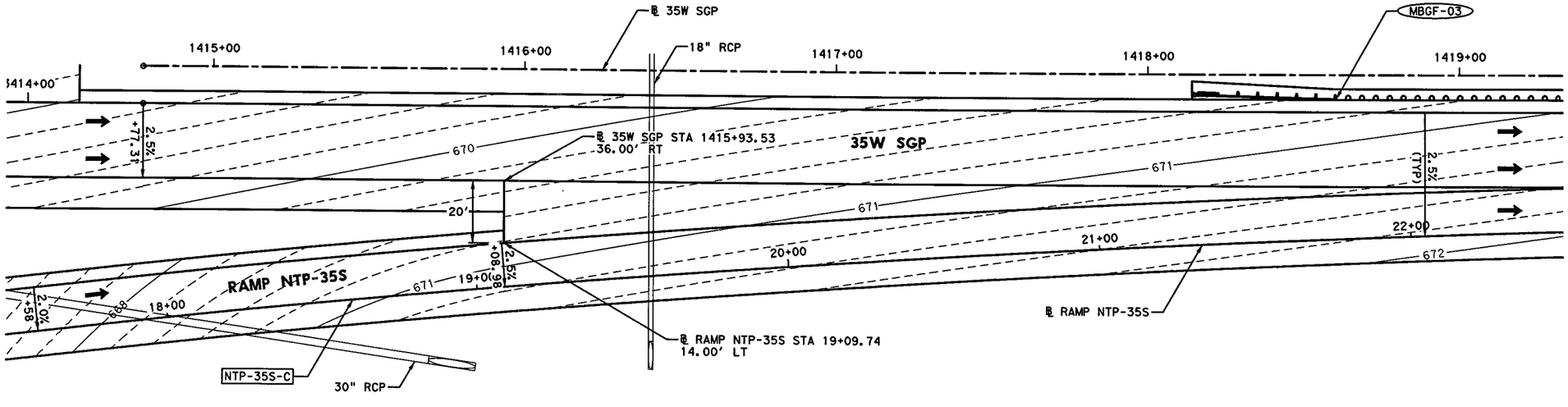
SCALE IN FEET

LEGEND:

- PROP MAJOR CONTOUR (1.0')
- PROP MINOR CONTOUR (0.2')
- EXIST MAJOR CONTOUR (1.0')
- EXIST MINOR CONTOUR (0.2')
- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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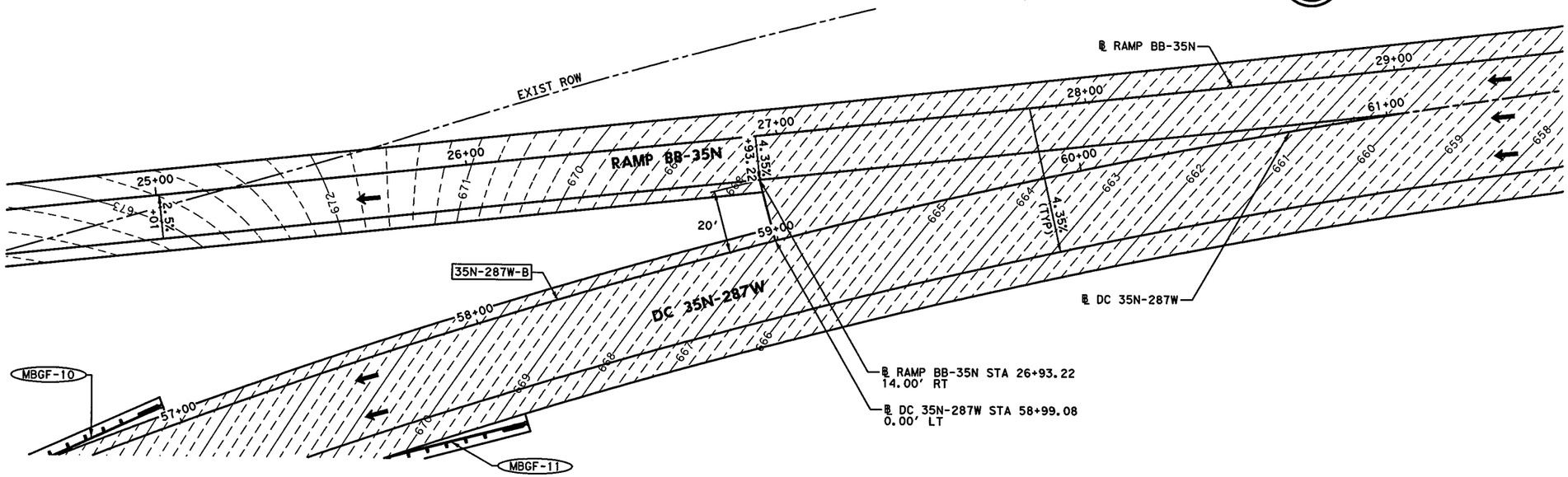
IH 35W FROM NORTH TARRANT PKWY TO IH 820

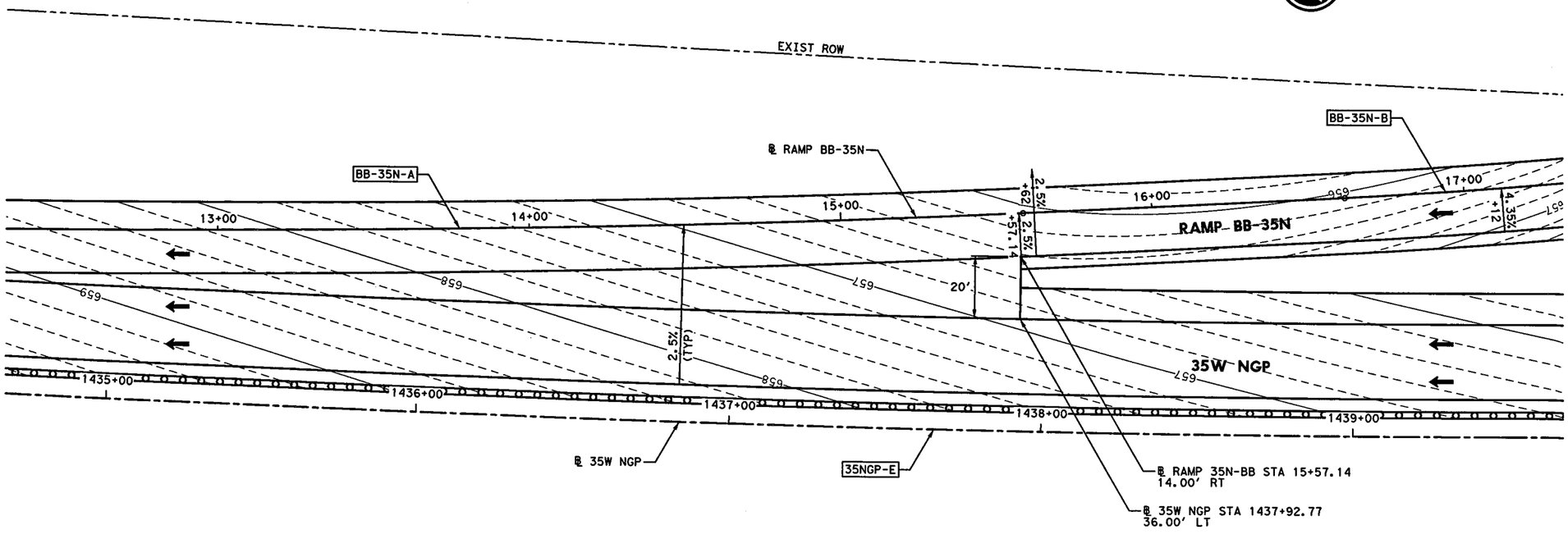
GORE CONTOUR PLANS
RAMP NTP-35S

SCALE: 1" = 40' SHEET 2 OF 17

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	853
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRNDT02.dgn





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

- ——XXX—— PROP MAJOR CONTOUR (1.0')
- – – – – – PROP MINOR CONTOUR (0.2')
- ····XXX···· EXIST MAJOR CONTOUR (1.0')
- ····· EXIST MINOR CONTOUR (0.2')
- XXXX-X CURVE ID LABEL
- MBGF-XX METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

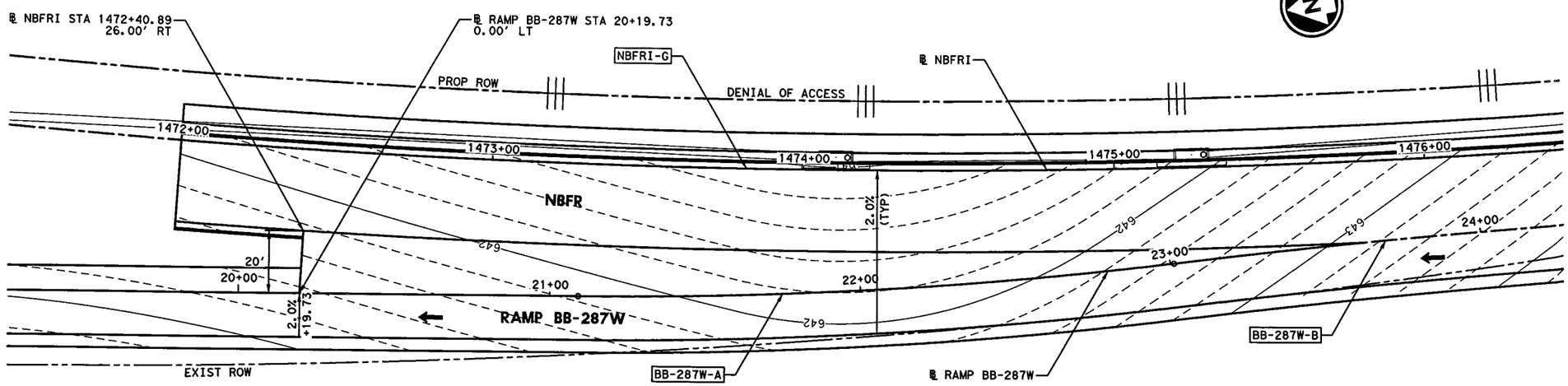
GORE CONTOUR PLANS
RAMP BB-35N

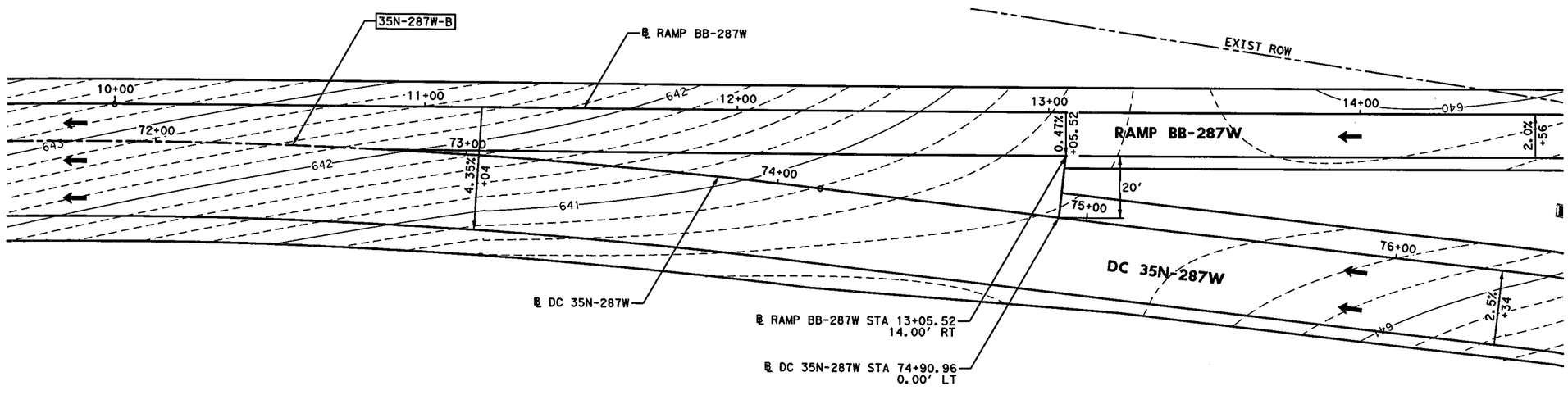
SCALE: 1" = 40'

SHEET 3 OF 17

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	854
KCI	0014	16	255, ETC.	
CHECK				

DRAWING DATE: 7/13/2012 FILENAME: S3BRNDT03.dgn





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

XXX	PROP MAJOR CONTOUR (1.0')
	PROP MINOR CONTOUR (0.2')
XXX	EXIST MAJOR CONTOUR (1.0')
	EXIST MINOR CONTOUR (0.2')
XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
	RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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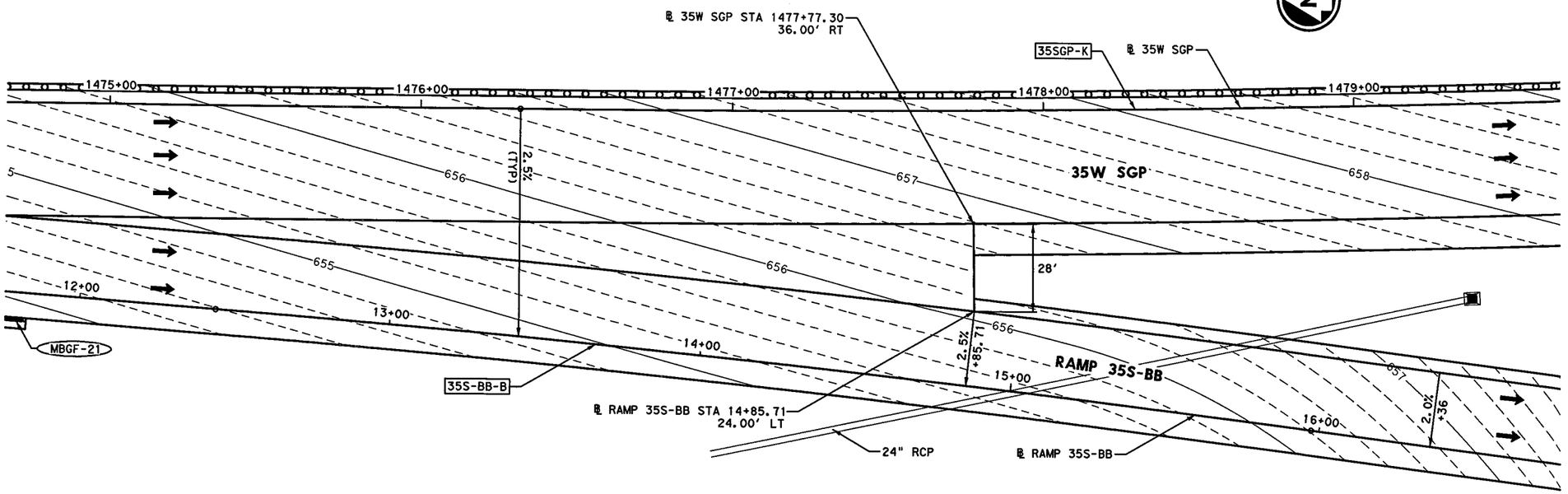
IH 35W FROM NORTH TARRANT PKWY TO IH 820

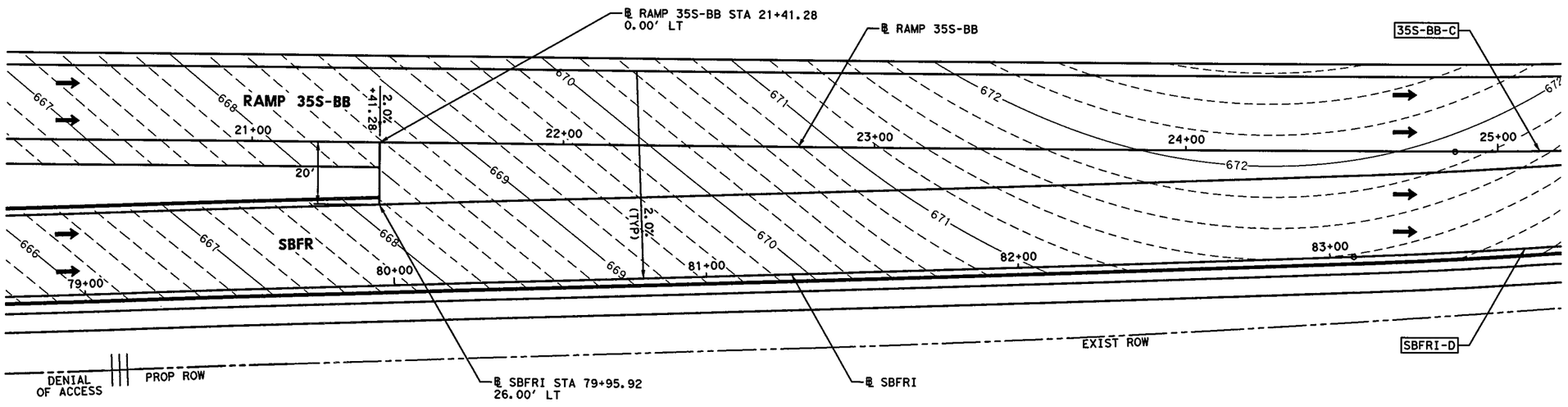
GORE CONTOUR PLANS
RAMP BB-287W

SCALE: 1" = 40' SHEET 4 OF 17

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	855
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRNDT04.dgn





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

——XXX——	PROP MAJOR CONTOUR (1.0')
- - - - - -	PROP MINOR CONTOUR (0.2')
····XXX····	EXIST MAJOR CONTOUR (1.0')
·····XXX·····	EXIST MINOR CONTOUR (0.2')
XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
	RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

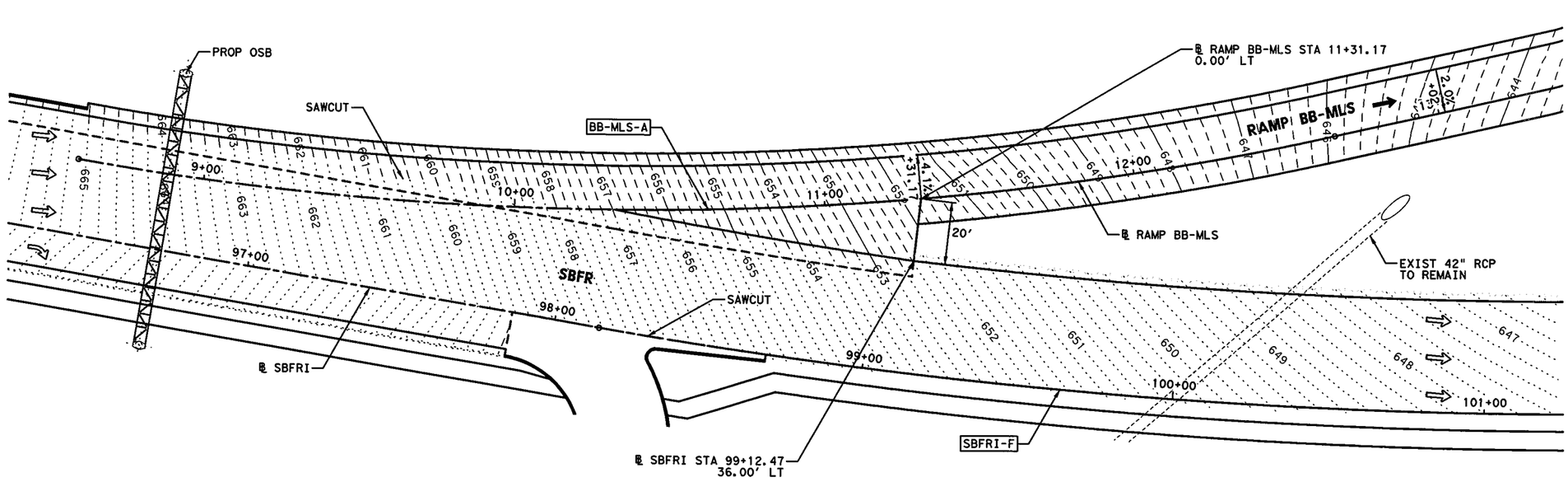
GORE CONTOUR PLANS
RAMP 35S-BB

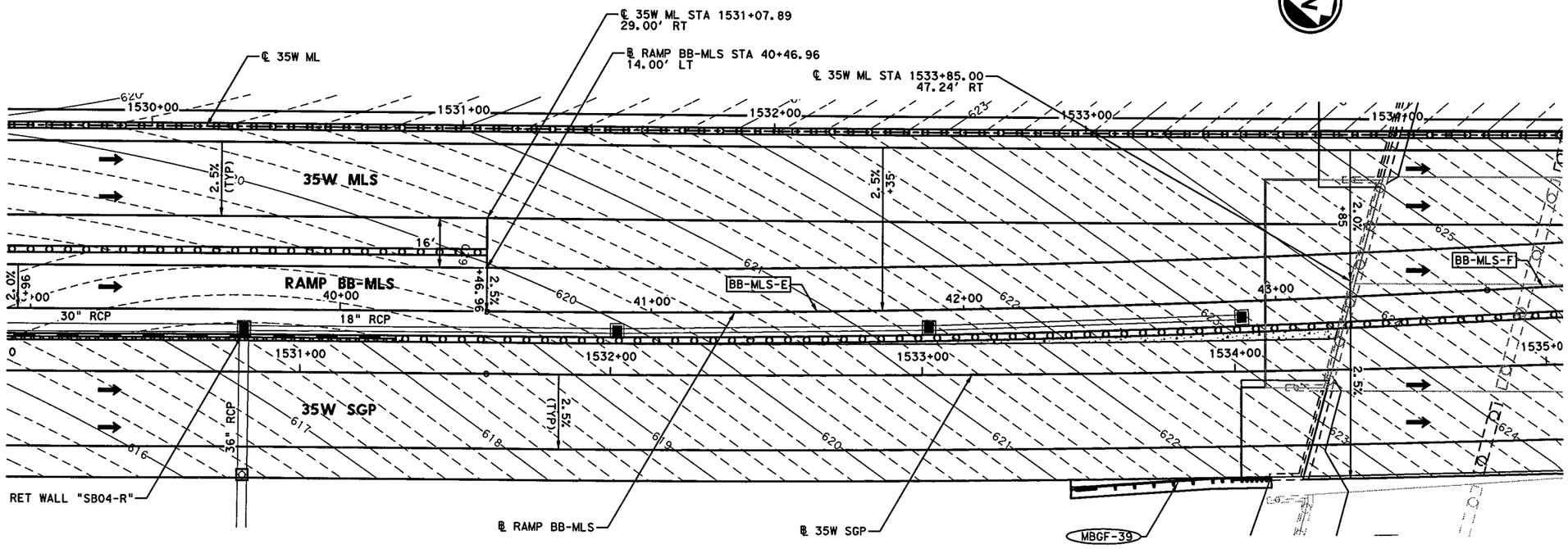
SCALE: 1" = 40'

SHEET 5 OF 17

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	856
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRNDT05.dgn





0′ 10′ 20′ 40′

SCALE IN FEET

LEGEND:

- XXX — PROP MAJOR CONTOUR (1.0′)
- PROP MINOR CONTOUR (0.2′)
- XXX — EXIST MAJOR CONTOUR (1.0′)
- EXIST MINOR CONTOUR (0.2′)
- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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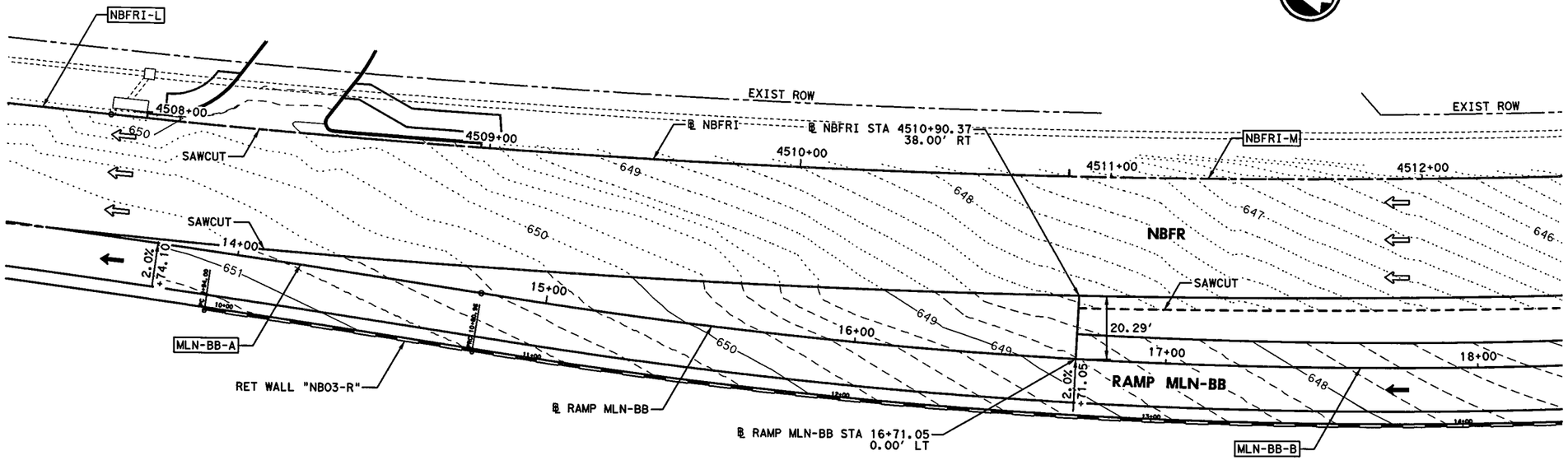
IH 35W FROM NORTH TARRANT PKWY TO IH 820

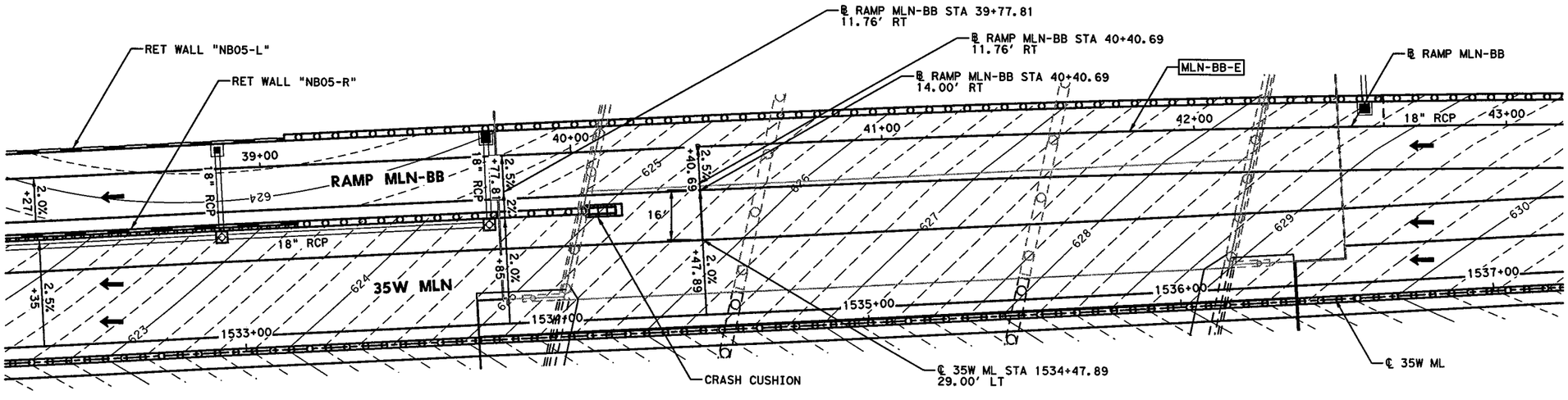
GORE CONTOUR PLANS
RAMP BB-MLS

SCALE: 1" = 40′ SHEET 6 OF 17

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	857
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRNDT06.dgn





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

- XXX — PROP MAJOR CONTOUR (1.0')
- PROP MINOR CONTOUR (0.2')
- XXX EXIST MAJOR CONTOUR (1.0')
- EXIST MINOR CONTOUR (0.2')
- XXXX-X CURVE ID LABEL
- MBGF-XX METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed S. Haq 07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

GORE CONTOUR PLANS
RAMP MLN-BB

SCALE: 1" = 40' SHEET 7 OF 17

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	858
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

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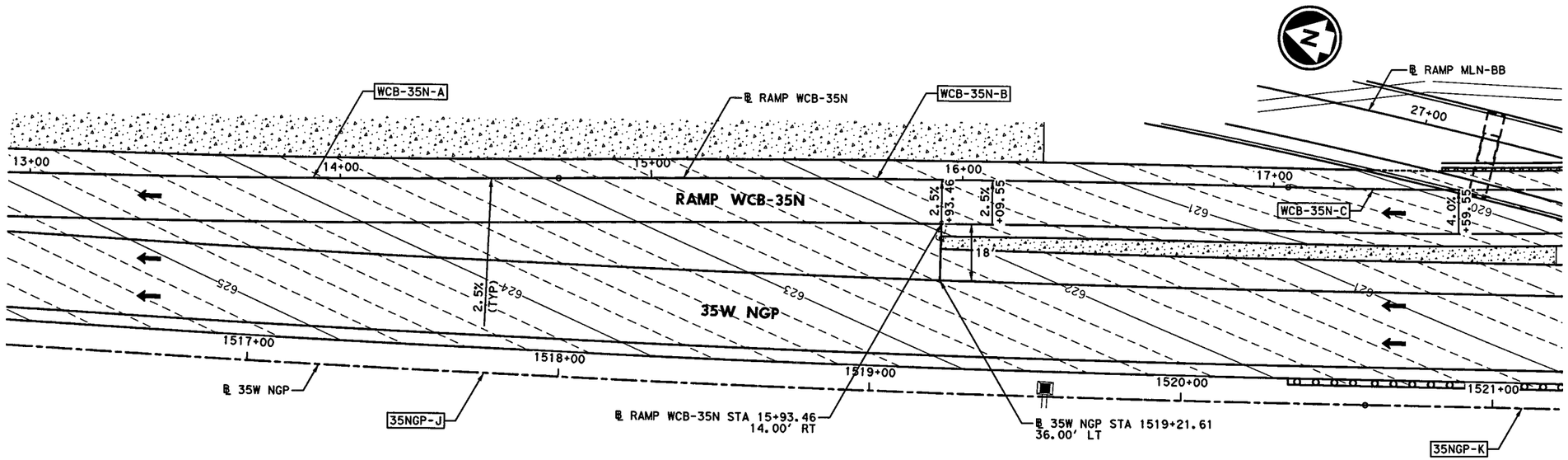
DRAWING DATE: 7/13/2012



0' 10' 20' 40'

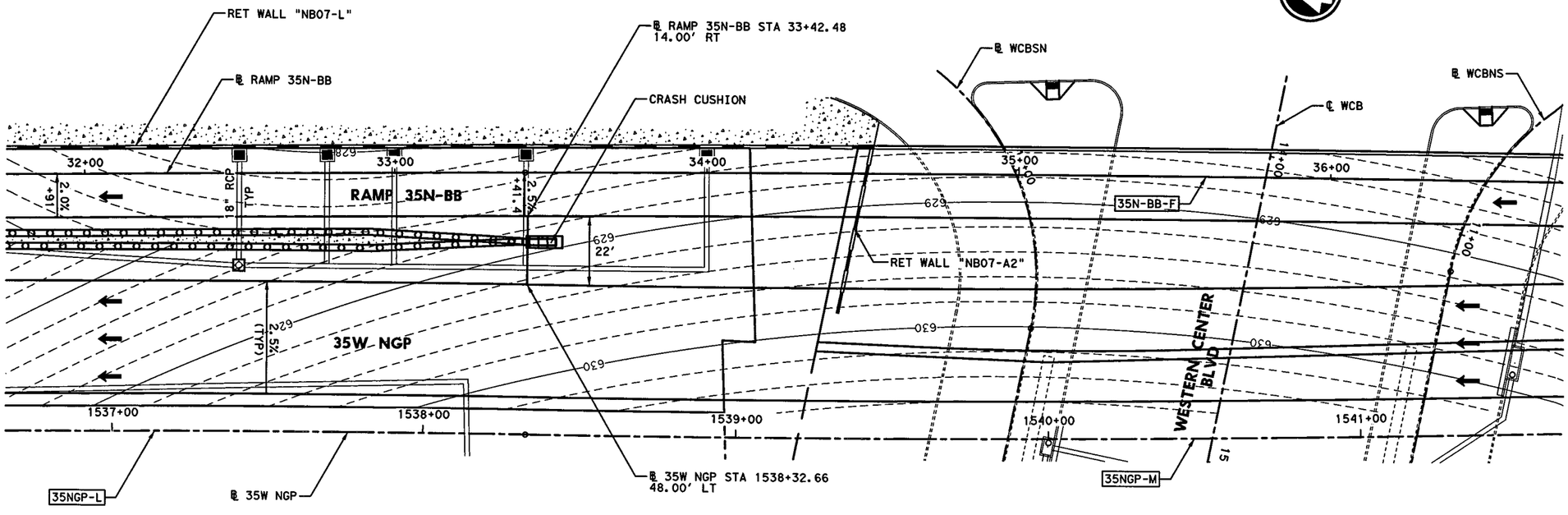
SCALE IN FEET

LEGEND:

- XXX — PROP MAJOR CONTOUR (1.0')
- PROP MINOR CONTOUR (0.2')
- XXX EXIST MAJOR CONTOUR (1.0')
- EXIST MINOR CONTOUR (0.2')
- XXXX-X CURVE ID LABEL
- MBGF-XX METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

GORE CONTOUR PLANS
RAMP WCB-35N & RAMP 35N-BB

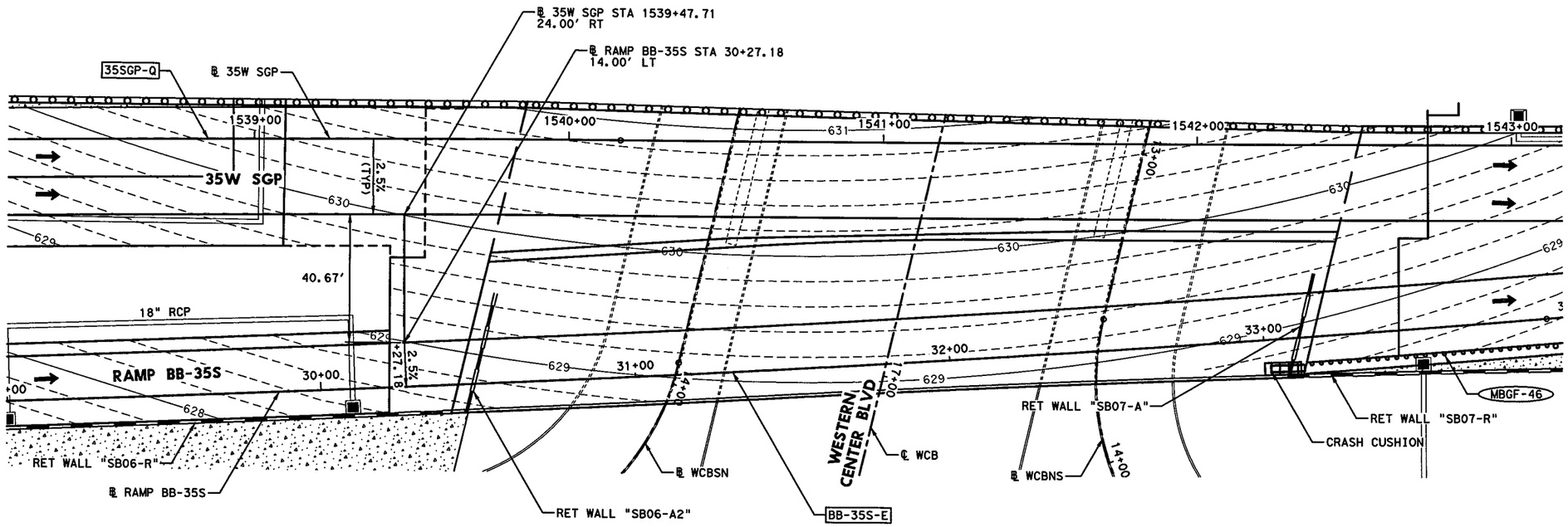
SCALE: 1" = 40'

SHEET 8 OF 17

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	859
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BRNDT08.dgn

DRAWING DATE: 7/13/2012



0' 10' 20' 40'

SCALE IN FEET

LEGEND:

——XXX——	PROP MAJOR CONTOUR (1.0')
– – – – – –	PROP MINOR CONTOUR (0.2')
····XXX····	EXIST MAJOR CONTOUR (1.0')
·····	EXIST MINOR CONTOUR (0.2')
XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
	RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.
3. REFER TO BRIDGE PLANS FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Shahid Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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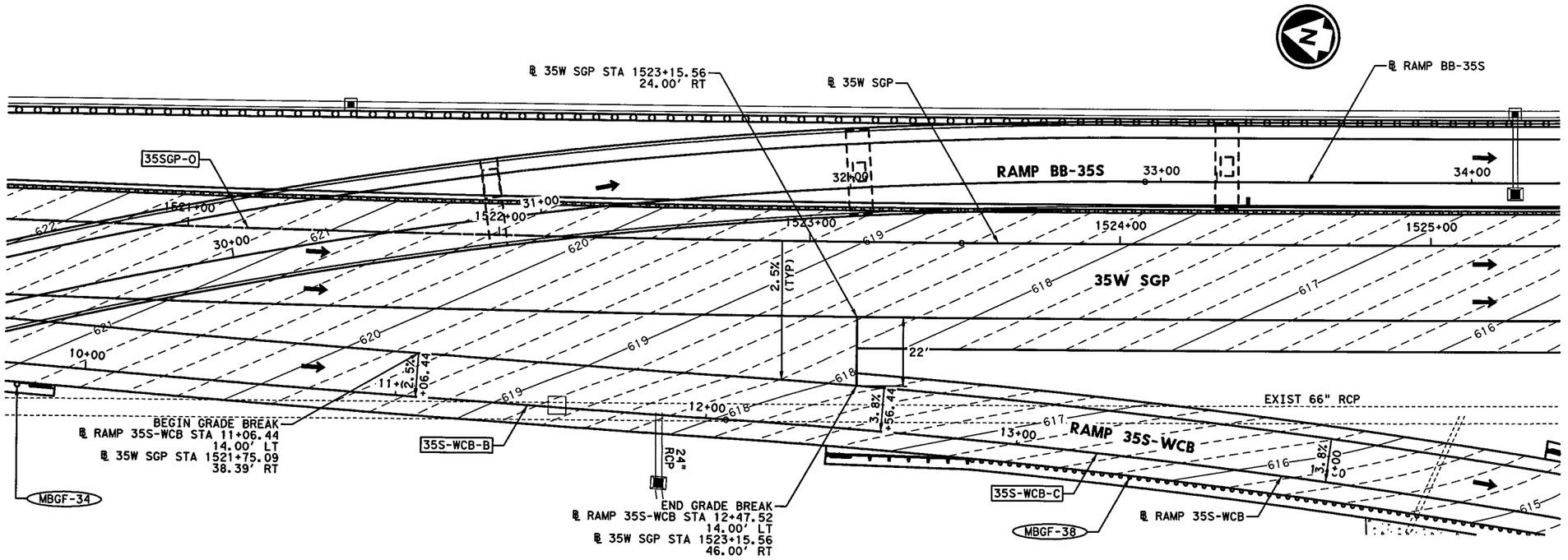
IH 35W FROM NORTH TARRANT PKWY TO IH 820

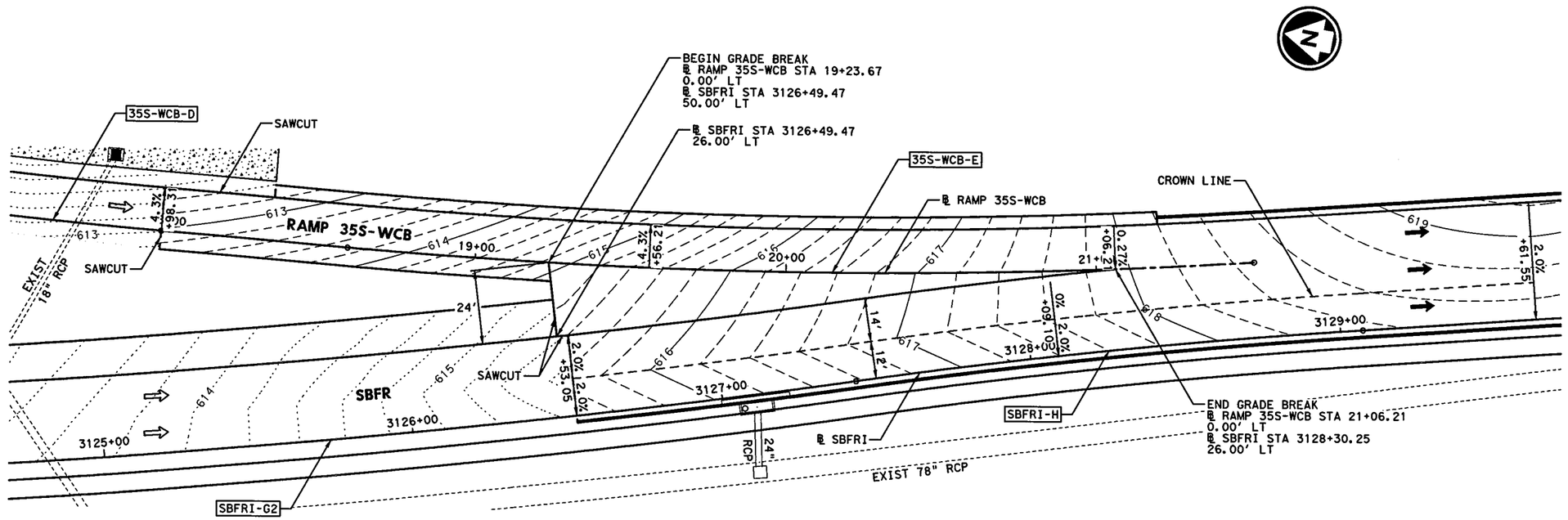
GORE CONTOUR PLANS
RAMP BB-35S

SCALE: 1" = 40' SHEET 9 OF 17

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	860
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRNDT09.dgn





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

- XXX — PROP MAJOR CONTOUR (1.0')
- PROP MINOR CONTOUR (0.2')
- XXX — EXIST MAJOR CONTOUR (1.0')
- EXIST MINOR CONTOUR (0.2')
- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

Syed S. Haq 07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

GORE CONTOUR PLANS
RAMP 35S-WCB

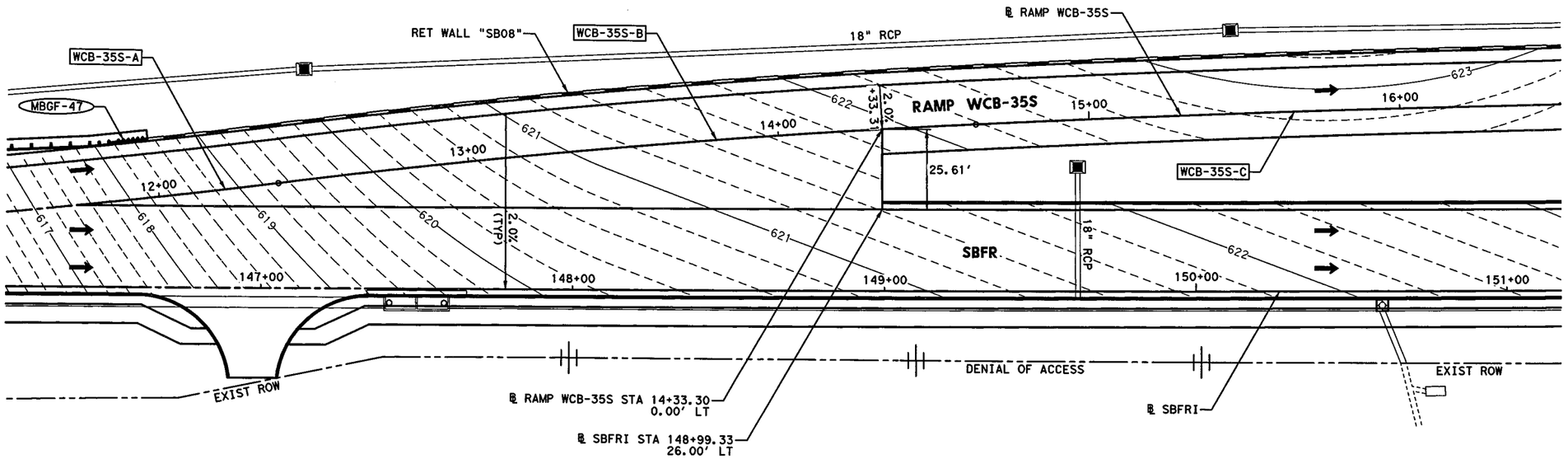
SCALE: 1" = 40'

SHEET 10 OF 17

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	861
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BRNDT10.dgn

DRAWING DATE: 7/13/2012



0' 10' 20' 40'

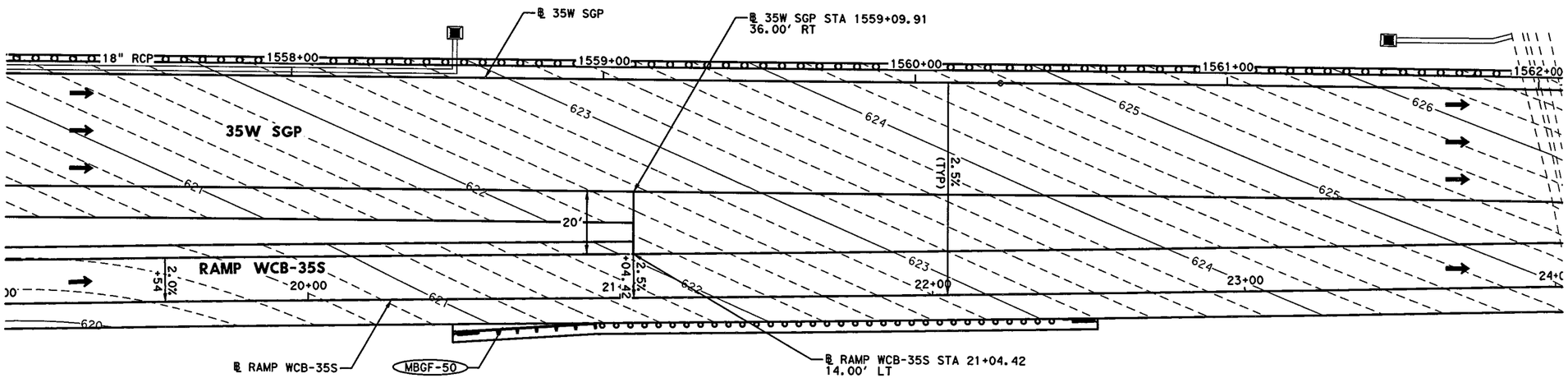
SCALE IN FEET

LEGEND:

- PROP MAJOR CONTOUR (1.0')
- PROP MINOR CONTOUR (0.2')
- EXIST MAJOR CONTOUR (1.0')
- EXIST MINOR CONTOUR (0.2')
- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

Syed Shahul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

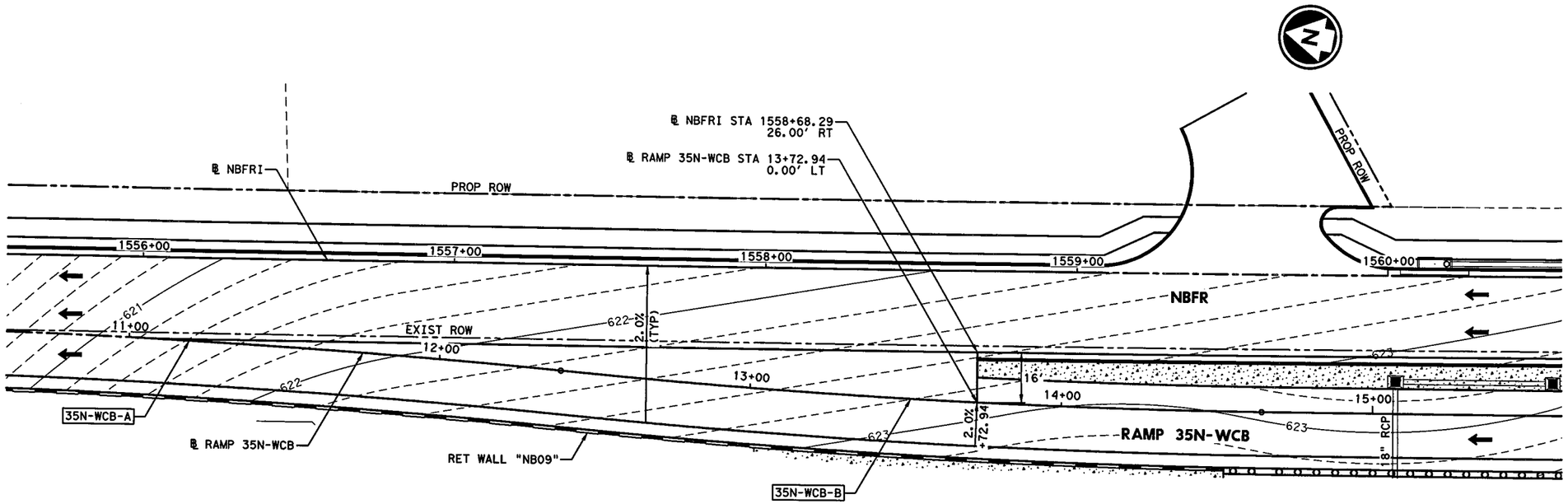
GORE CONTOUR PLANS
RAMP WCB-35S

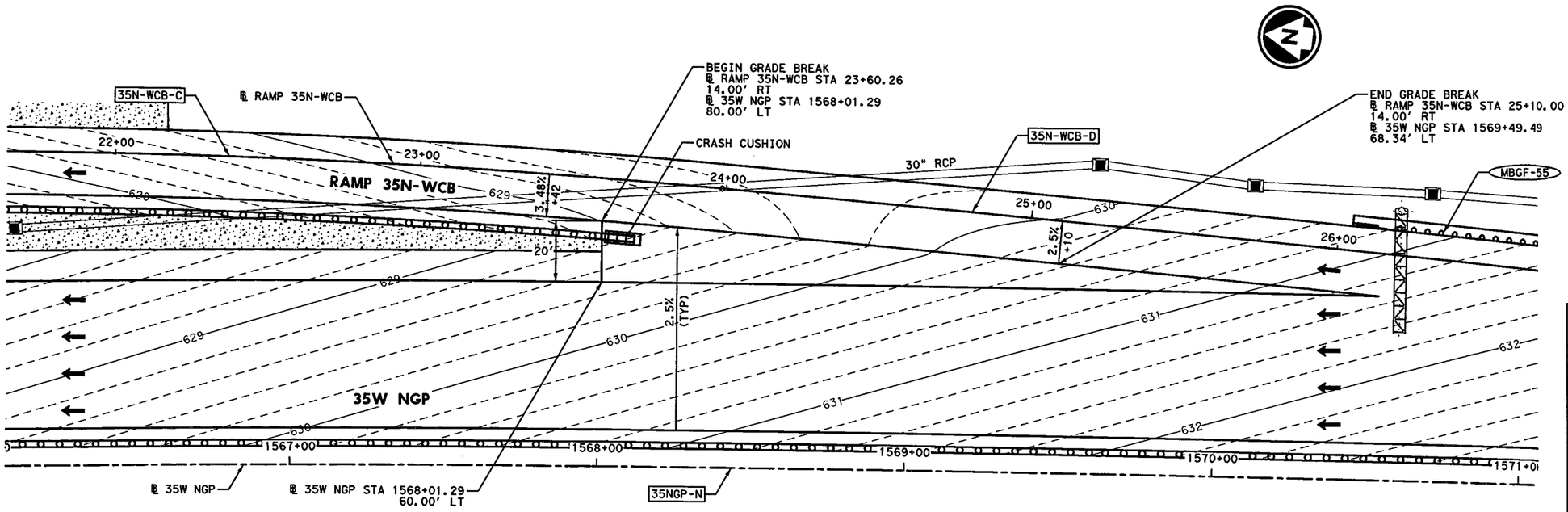
SCALE: 1" = 40' SHEET 11 OF 17

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	862
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3BRNDT11.dgn

DRAWING DATE: 7/13/2012





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

XXX	PROP MAJOR CONTOUR (1.0')
	PROP MINOR CONTOUR (0.2')
XXX	EXIST MAJOR CONTOUR (1.0')
	EXIST MINOR CONTOUR (0.2')
XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
	RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

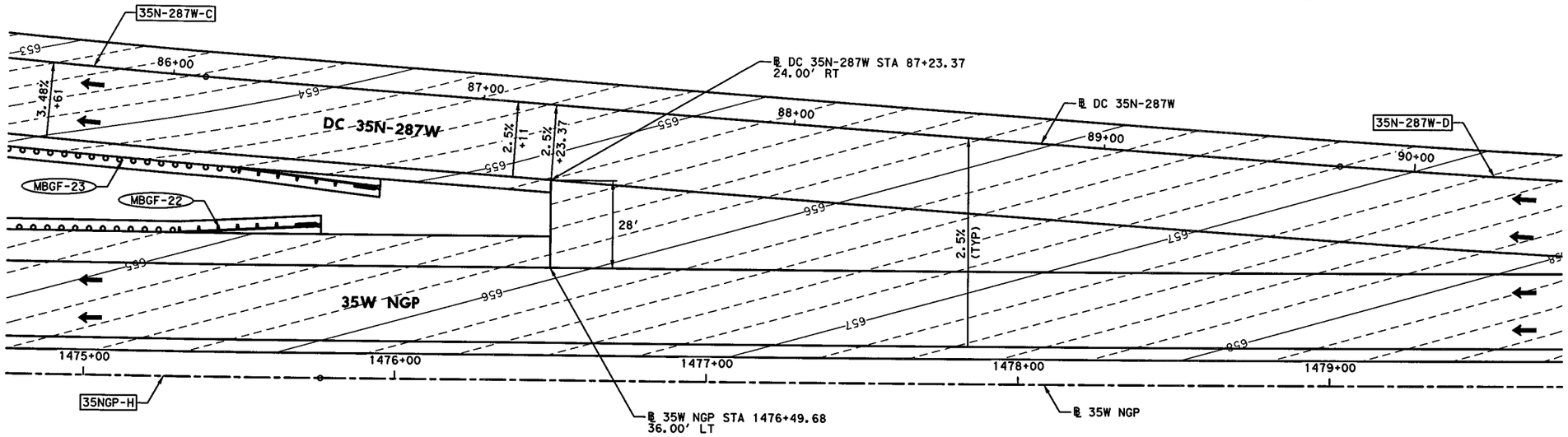
GORE CONTOUR PLANS
RAMP 35N-WCB

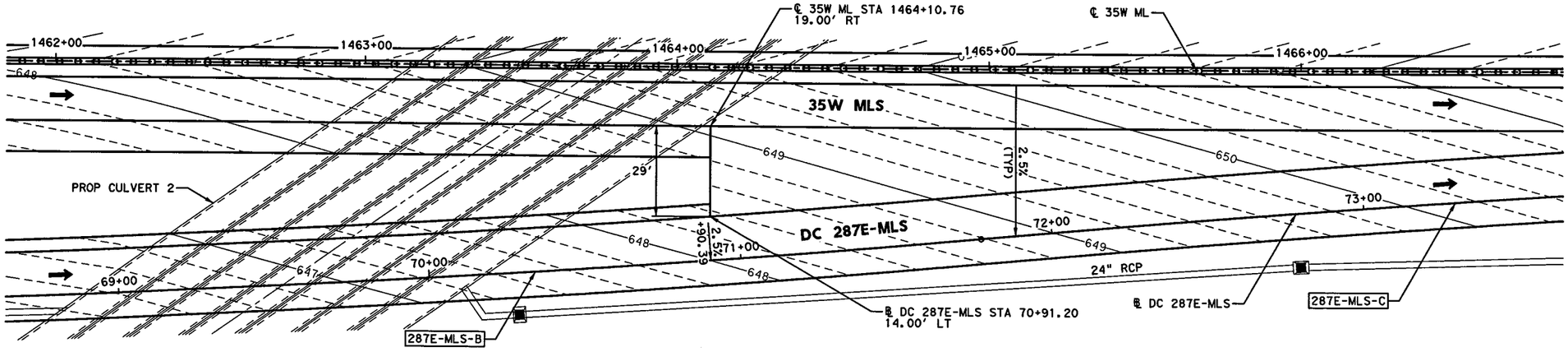
SCALE: 1" = 40'

SHEET 12 OF 17

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	863
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BRNDT12.dgn





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

——XXX——	PROP MAJOR CONTOUR (1.0')
- - - - - -	PROP MINOR CONTOUR (0.2')
····XXX····	EXIST MAJOR CONTOUR (1.0')
··········	EXIST MINOR CONTOUR (0.2')
XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
	RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

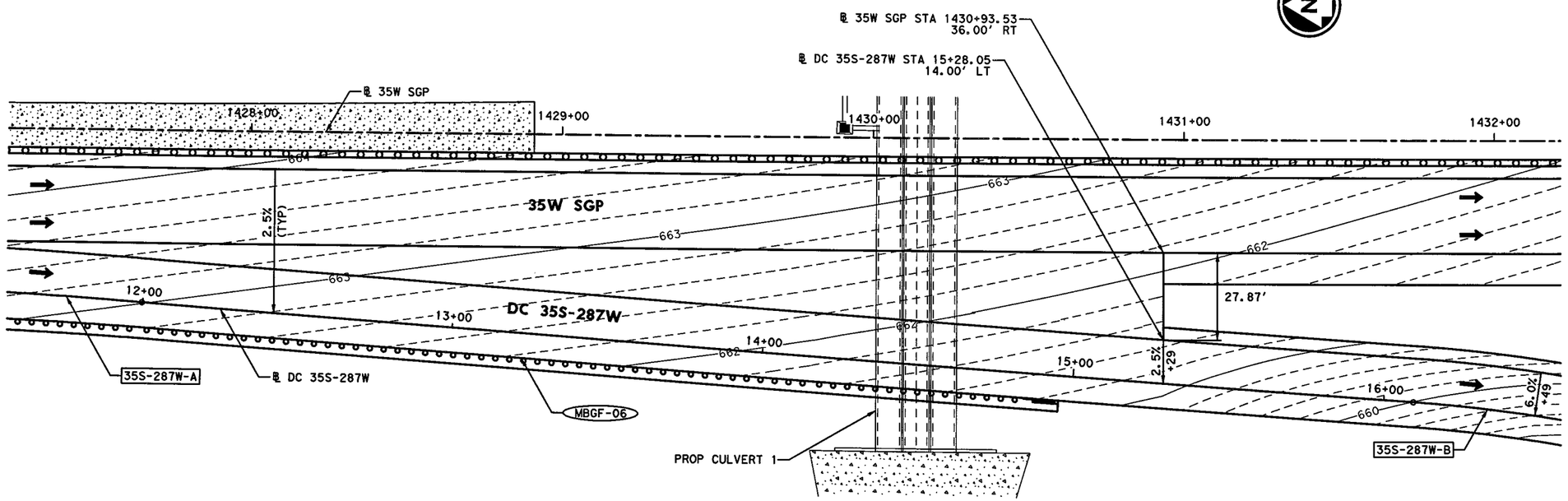
GORE CONTOUR PLANS
DC 35N-287W & DC 287E-MLS

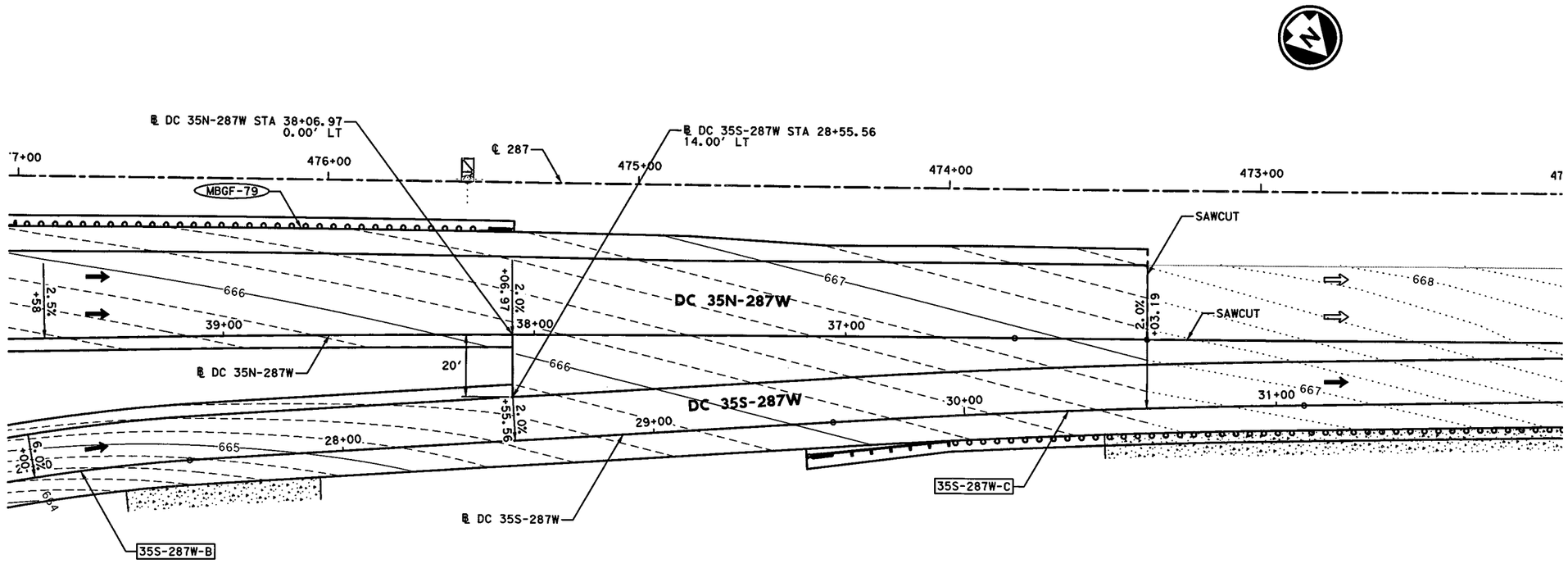
SCALE: 1" = 40'

SHEET 13 OF 17

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	864
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRNOT13.dgn





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

——XXX——	PROP MAJOR CONTOUR (1.0')
– – – – – –	PROP MINOR CONTOUR (0.2')
····XXX····	EXIST MAJOR CONTOUR (1.0')
··········	EXIST MINOR CONTOUR (0.2')
XXXX-X	CURVE ID LABEL
MBGF-XX	METAL BEAM GUARD FENCE ID LABEL
	RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Shahid Haq
07/13/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

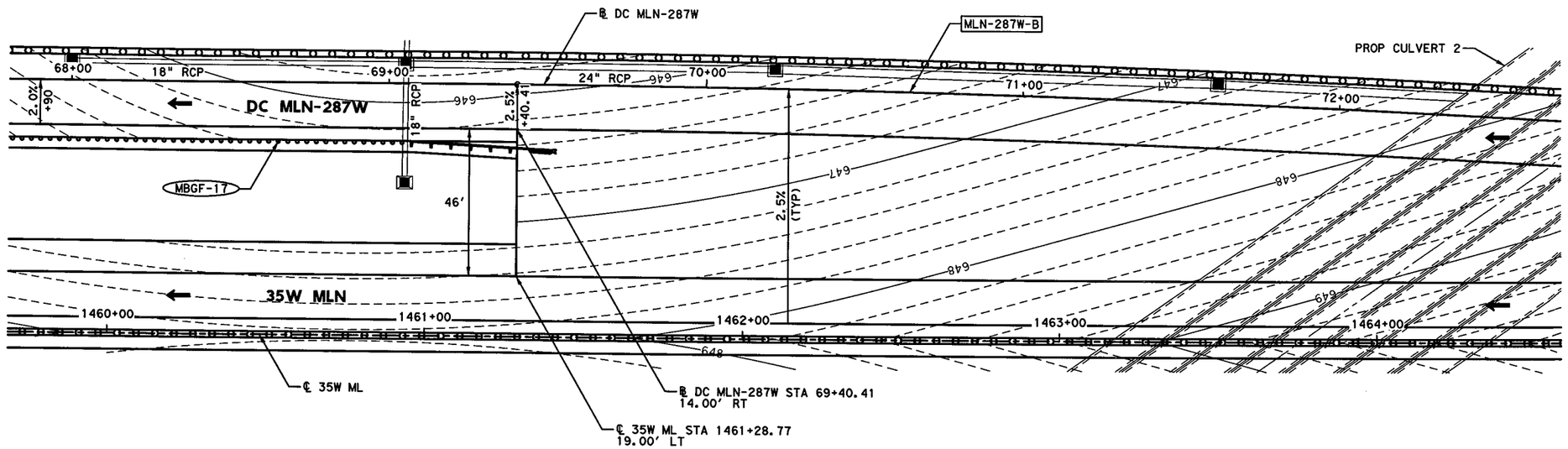
GORE CONTOUR PLANS
DC 35S-287W

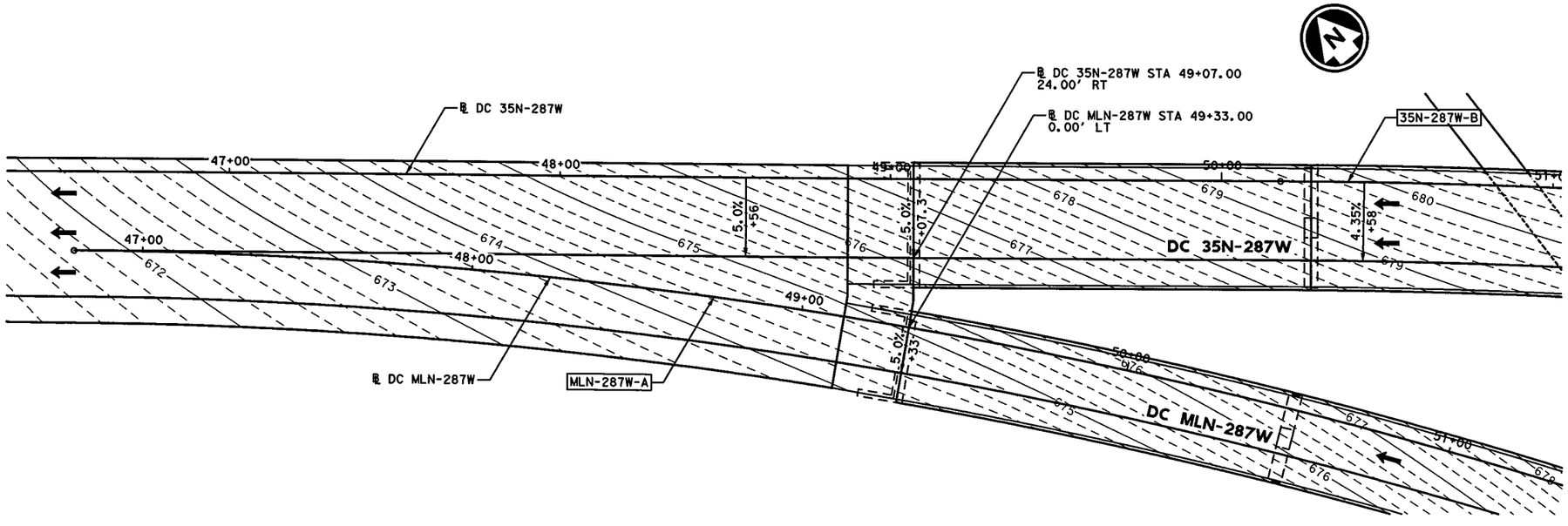
SCALE: 1" = 40' SHEET 14 OF 17

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	865
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BRNDT14.dgn

DRAWING DATE: 7/13/2012





0' 10' 20' 40'

SCALE IN FEET

LEGEND:

- PROP MAJOR CONTOUR (1.0')
- PROP MINOR CONTOUR (0.2')
- EXIST MAJOR CONTOUR (1.0')
- EXIST MINOR CONTOUR (0.2')
- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

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TBPE REGISTRATION NO. F-926

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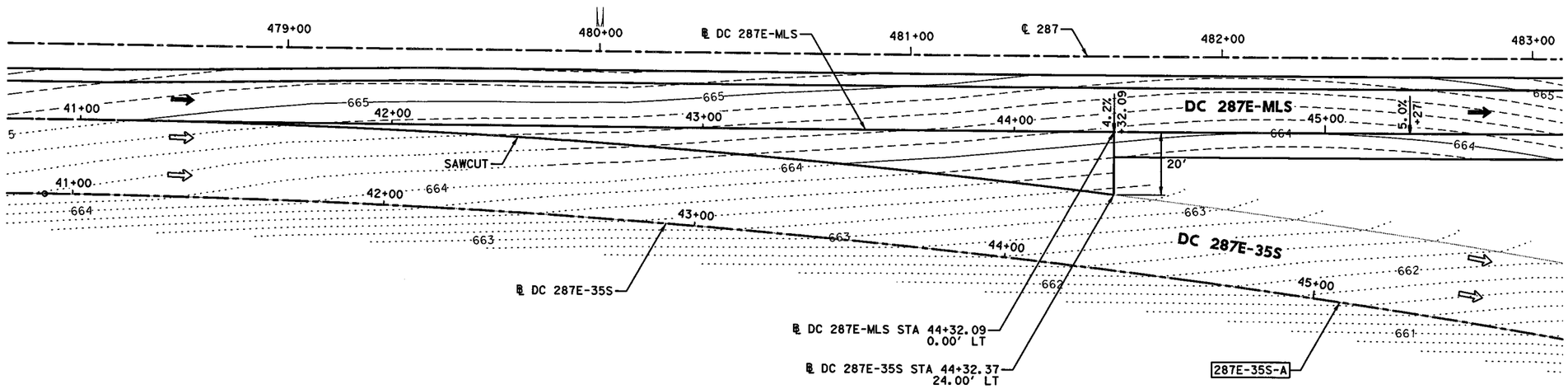
IH 35W FROM NORTH TARRANT PKWY TO IH 820

GORE CONTOUR PLANS
DC MLN-287W

SCALE: 1" = 40' SHEET 15 OF 17

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	866
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRNDT15.dgn



0' 10' 20' 40'

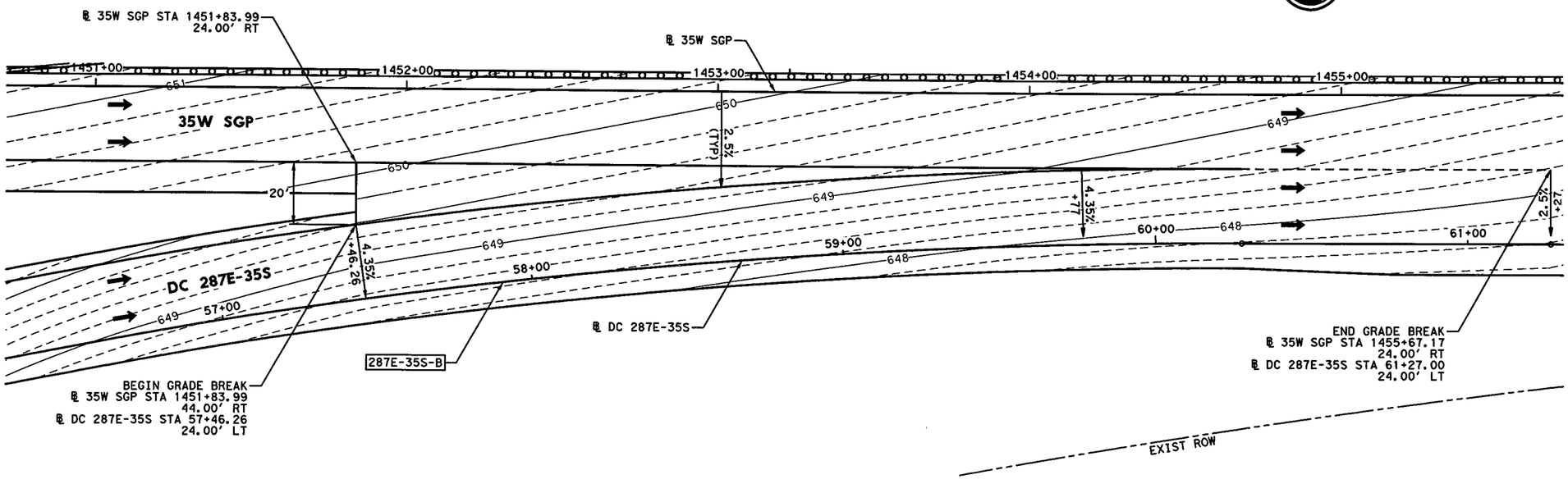
SCALE IN FEET

LEGEND:

- PROP MAJOR CONTOUR (1.0')
- PROP MINOR CONTOUR (0.2')
- EXIST MAJOR CONTOUR (1.0')
- EXIST MINOR CONTOUR (0.2')
- XXXX-X — CURVE ID LABEL
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

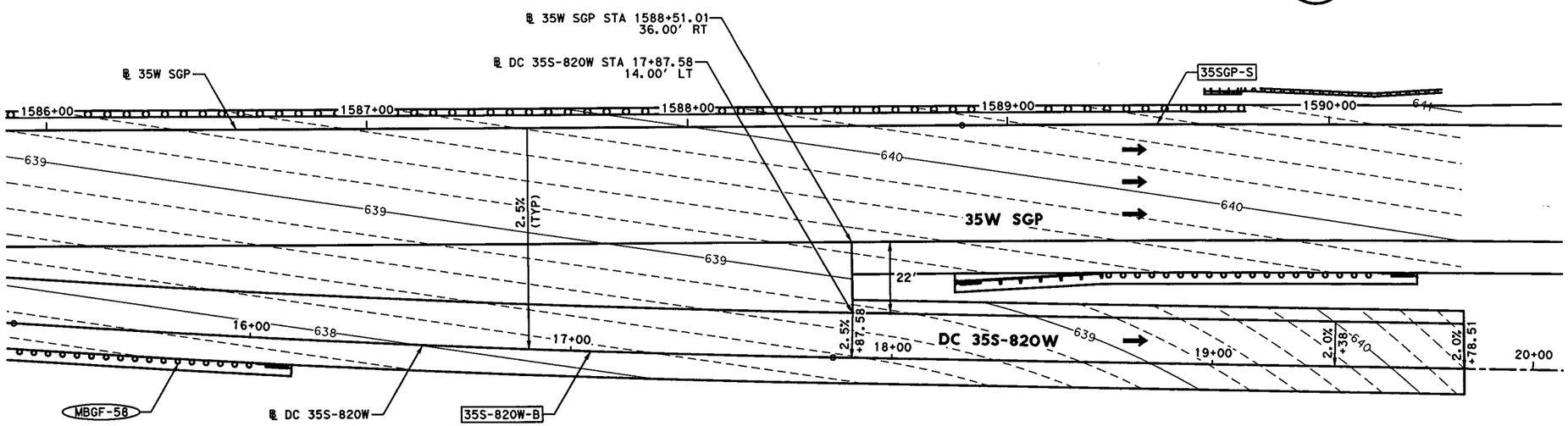
GORE CONTOUR PLANS
DC 287E-35S

SCALE: 1" = 40' SHEET 16 OF 17

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	867
	0014	16	255, ETC.	

FILENAME: S3BRNDT16.dgn

DRAWING DATE: 7/13/2012

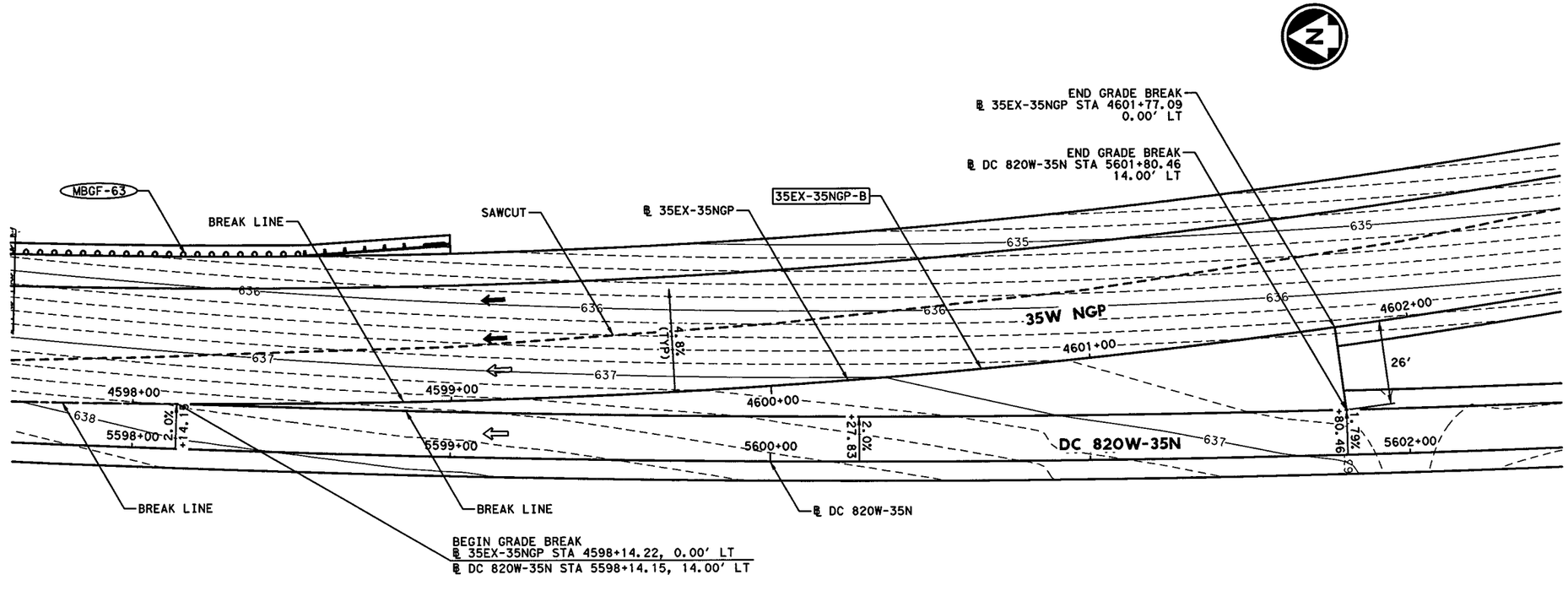


LEGEND:

- XXX — PROP MAJOR CONTOUR (1.0')
- PROP MINOR CONTOUR (0.2')
- XXX EXIST MAJOR CONTOUR (1.0')
- EXIST MINOR CONTOUR (0.2')
- XXXX-X CURVE ID LABEL
- MBGF-XX METAL BEAM GUARD FENCE ID LABEL
- RIPRAP

NOTES:

1. REFER TO HORIZONTAL DATA SHEETS FOR CURVE DATA AND ALIGNMENT INFORMATION.
2. SEE APPLICABLE PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/31/12

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TBPE REGISTRATION NO. F-926

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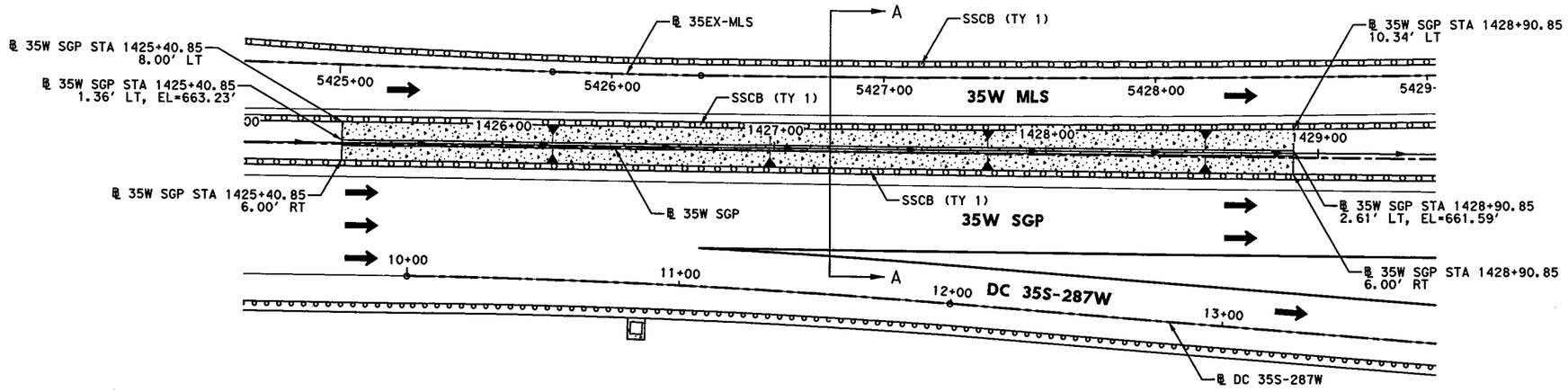
IH 35W FROM NORTH TARRANT PKWY TO IH 820

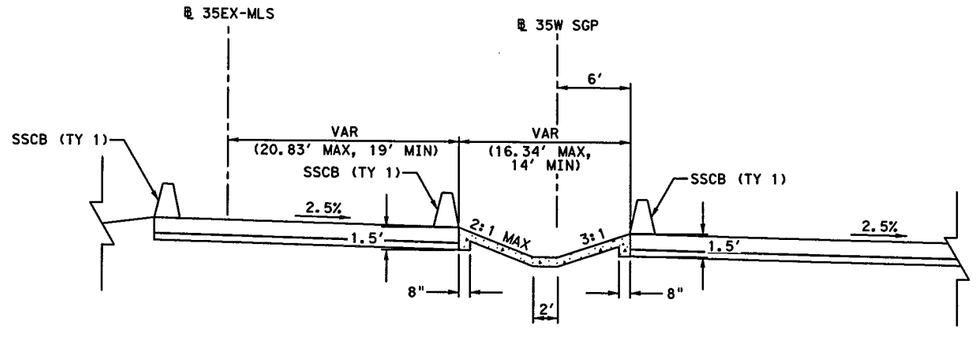
GORE CONTOUR PLANS
DC 35S-820W & DC 820W-35N

SCALE: 1" = 40' SHEET 17 OF 17

DESIGN	FED.RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	868
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BRNDT17.dgn
DRAWING DATE: 7/30/2012





SECTION A-A
NTS
℄ 35W SGP STA 1425+40.85 TO STA 1428+90.85

0' 25' 50'
SCALE IN FEET

LEGEND:

RIPRAP (CONC) (5")

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION.
2. REFER TO ROADWAY PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
RIPRAP (CONC) (5")	CY	78

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

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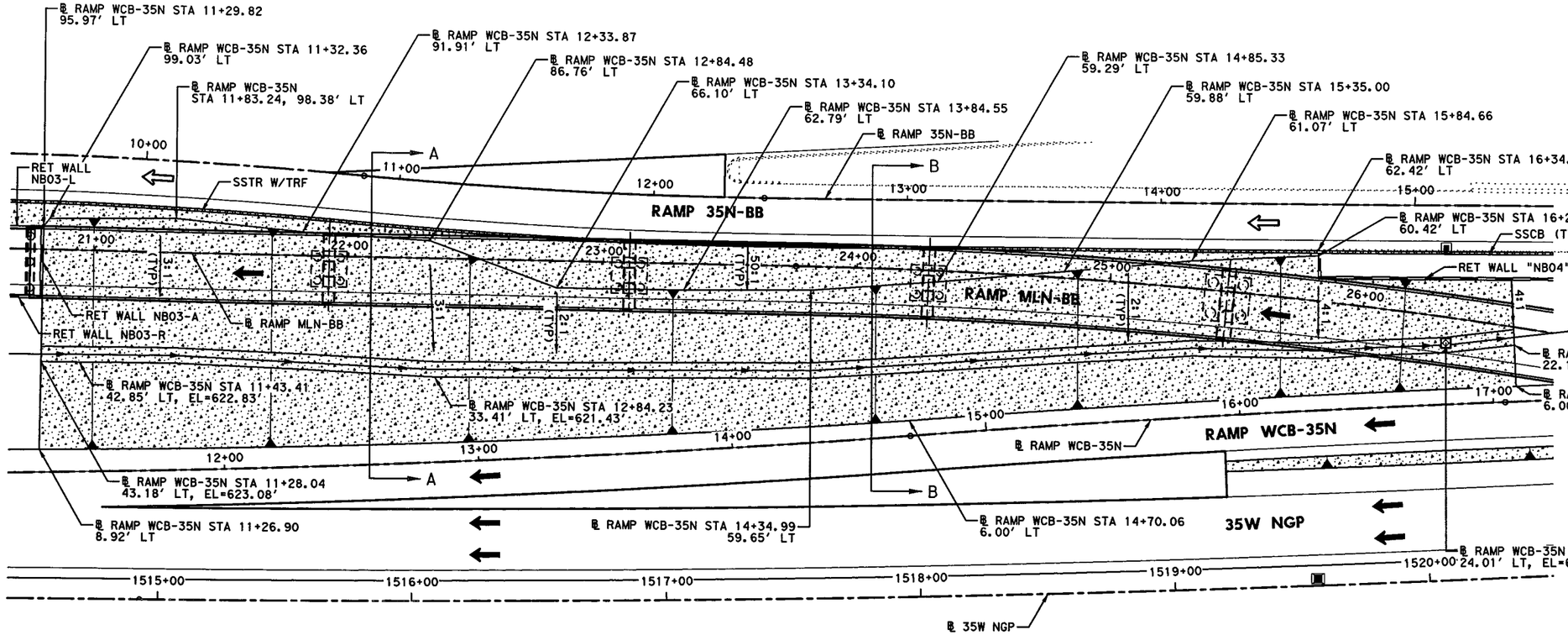
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RIPRAP LAYOUT

SCALE: 1" = 50' SHEET 1 OF 8

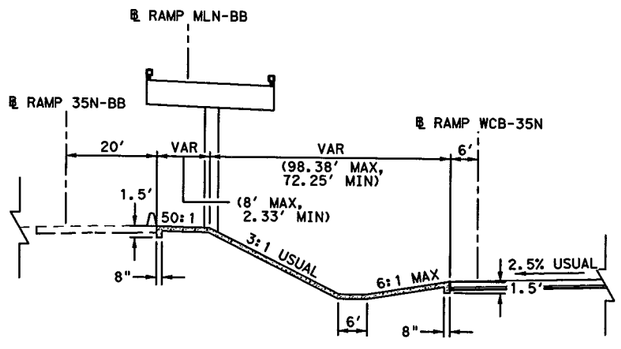
DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	869
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRRL01.dgn

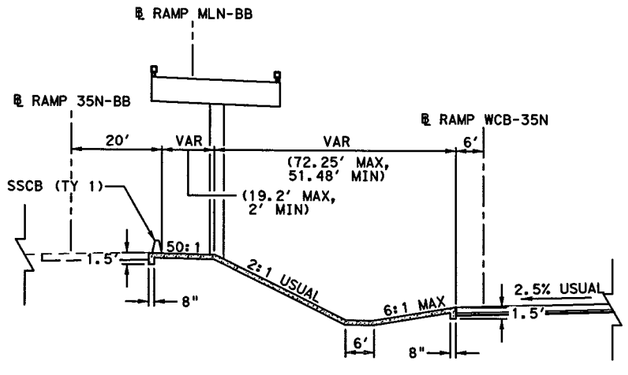


ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
RIPRAP (CONC) (5")	CY	635



SECTION A-A
NTS
℄ RAMP WCB-35N STA 11+26.90 TO STA 12+83.50



SECTION B-B
NTS
℄ RAMP WCB-35N STA 12+83.50 TO STA 16+54.49

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RIPRAP LAYOUT

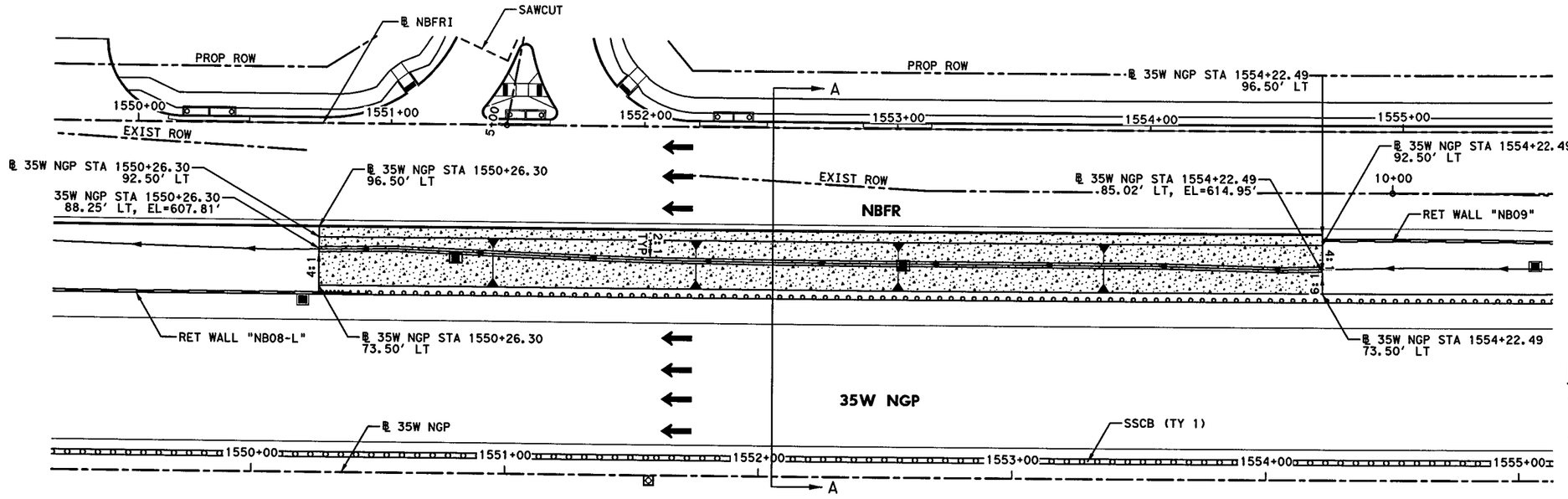
SCALE: 1" = 50'

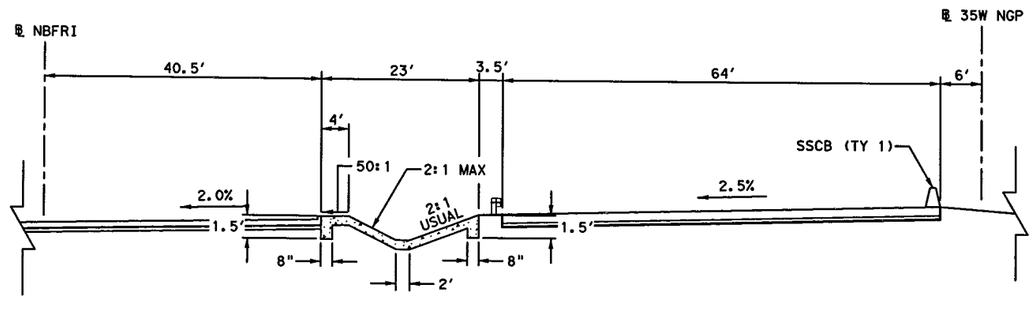
SHEET 2 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	870
KCI	0014	16	255, ETC.	

FILENAME: S3BRRL02.dgn

DRAWING DATE: 7/13/2012





SECTION A-A
NTS
℄ 35NGP STA 1550+26.30 TO STA 1554+22.49

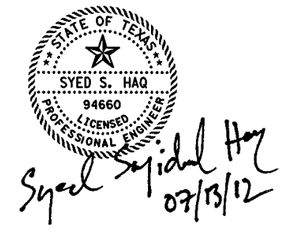
LEGEND:

RIPRAP (CONC) (5")

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION.
2. REFER TO ROADWAY PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
RIPRAP (CONC) (5")	CY	140



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IH 35W FROM NORTH TARRANT PKWY TO IH 820

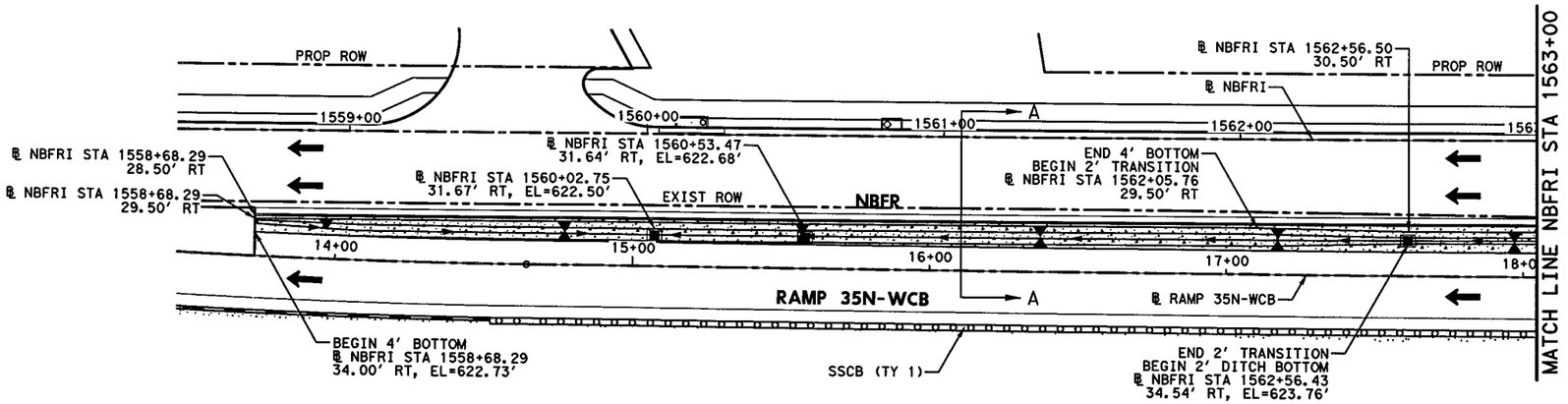
RIPRAP LAYOUT

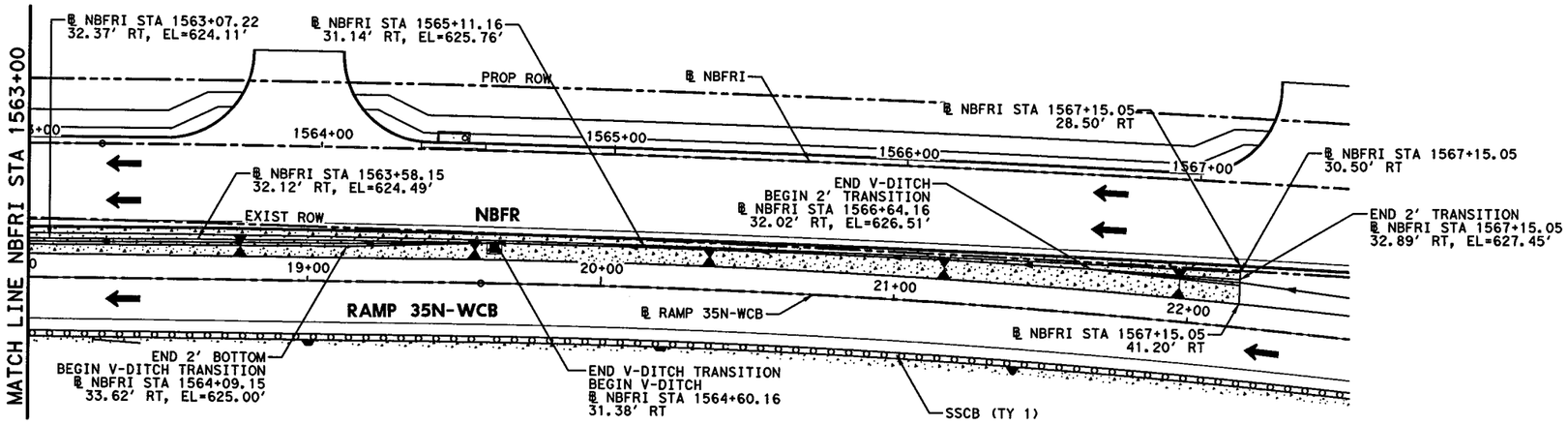
SCALE: 1" = 50'

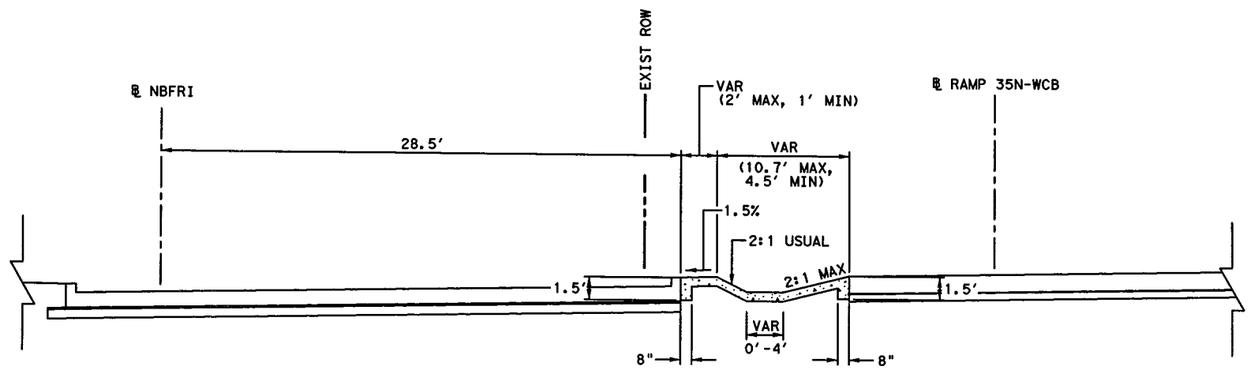
SHEET 3 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	871
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRRL03.dgn







SECTION A-A

NTS

℄ 35NGP STA 1550+26.30 TO STA 1554+22.49

LEGEND:

RIPRAP (CONC) (5")

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION.
2. REFER TO ROADWAY PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
RIPRAP (CONC) (5")	CY	112

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

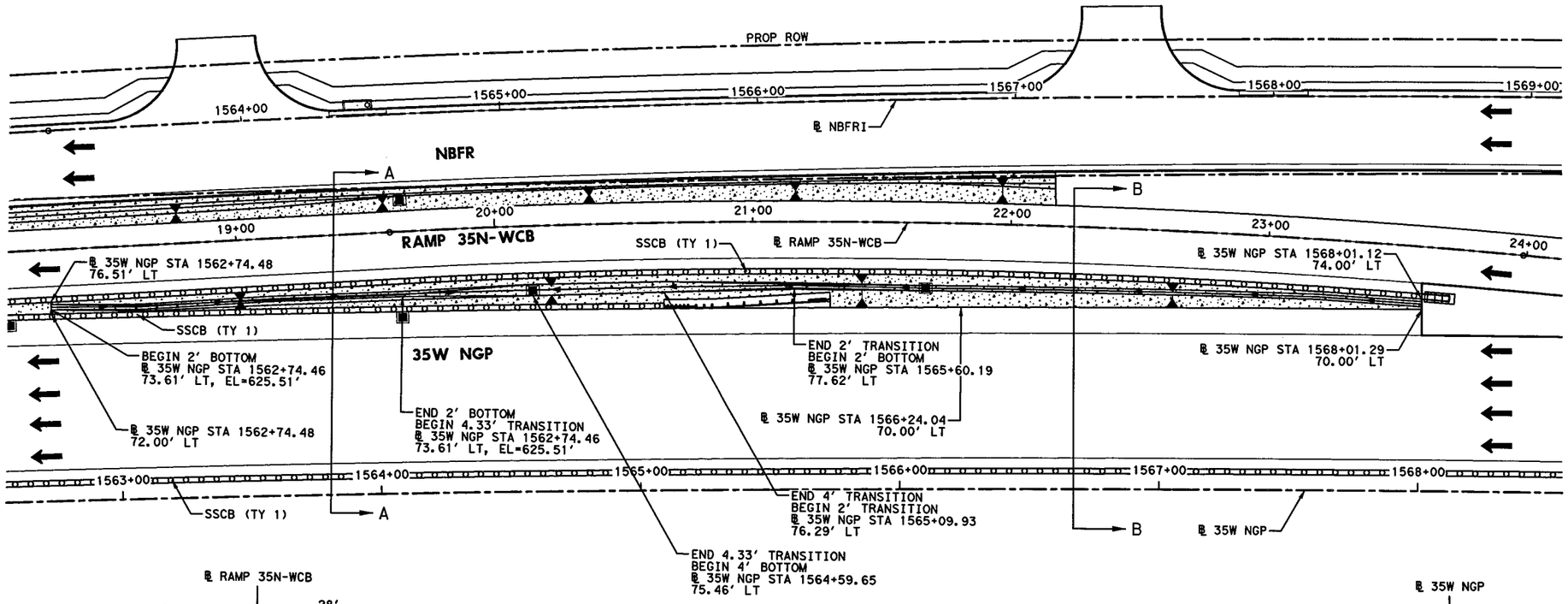
RIPRAP LAYOUT

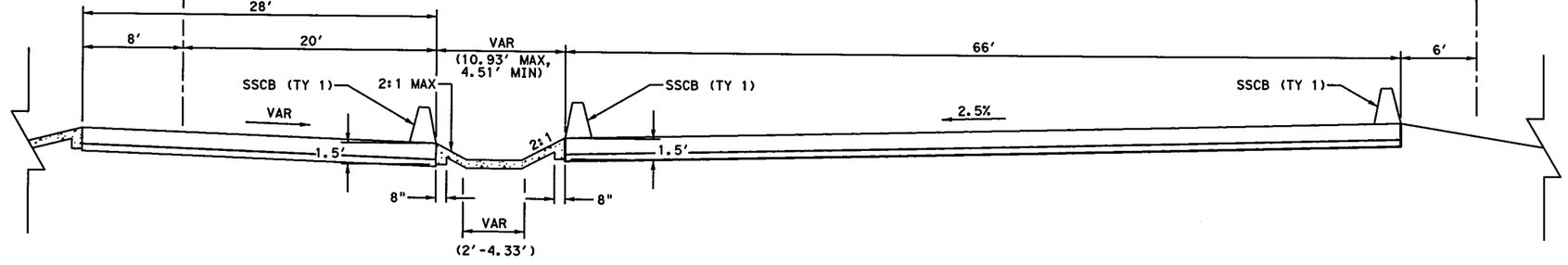
SCALE: 1" = 50'

SHEET 4 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	872
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S38RRL04.dgn

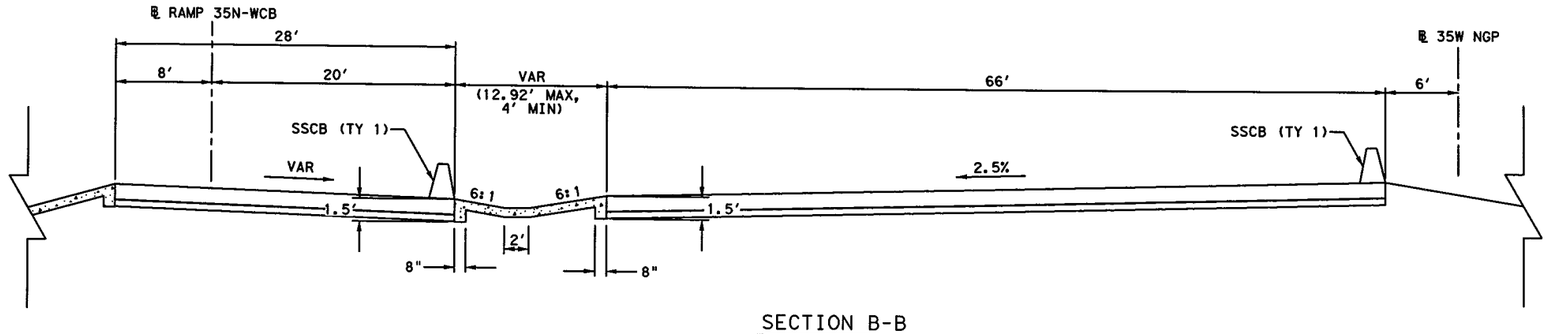




SECTION A-A

NTS

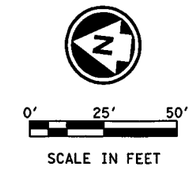
℄ 35W NGP STA 1562+74.48 TO STA 1565+73.76



SECTION B-B

NTS

℄ 35W NGP STA 1565+73.76 TO STA 1568+01.29



LEGEND:

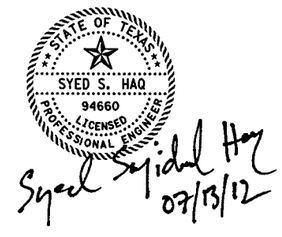
RIPRAP (CONC) (5")

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION.
2. REFER TO ROADWAY PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
RIPRAP (CONC) (5")	CY	72



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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RIPRAP LAYOUT

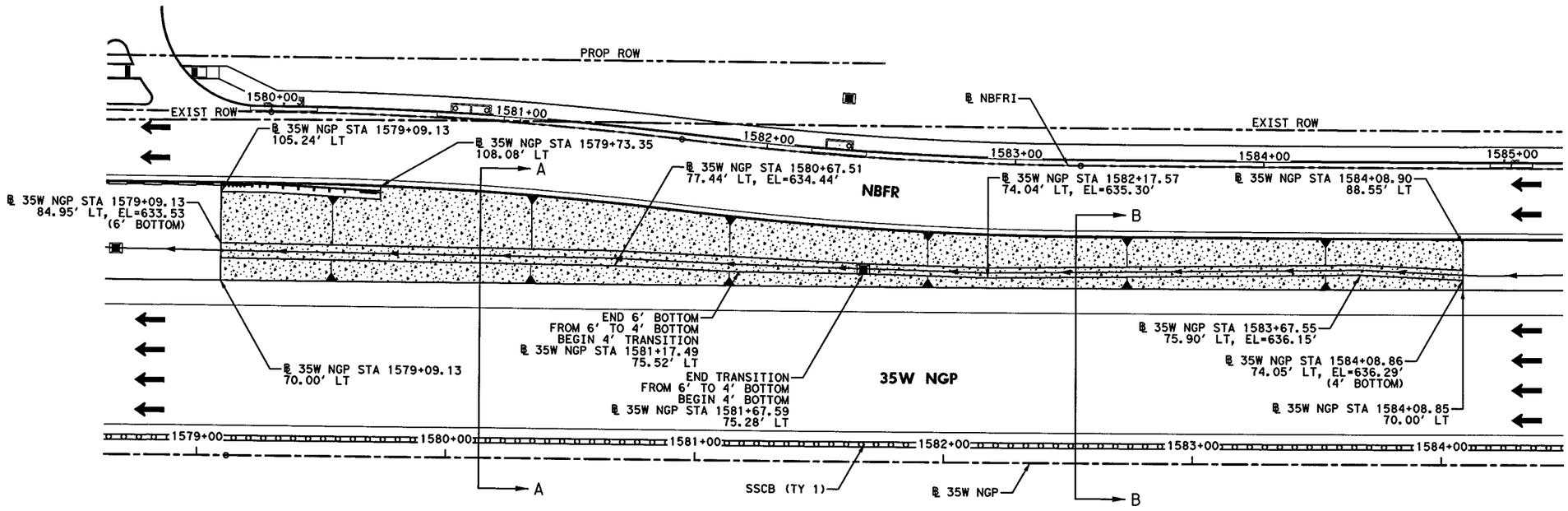
SCALE: 1" = 50'

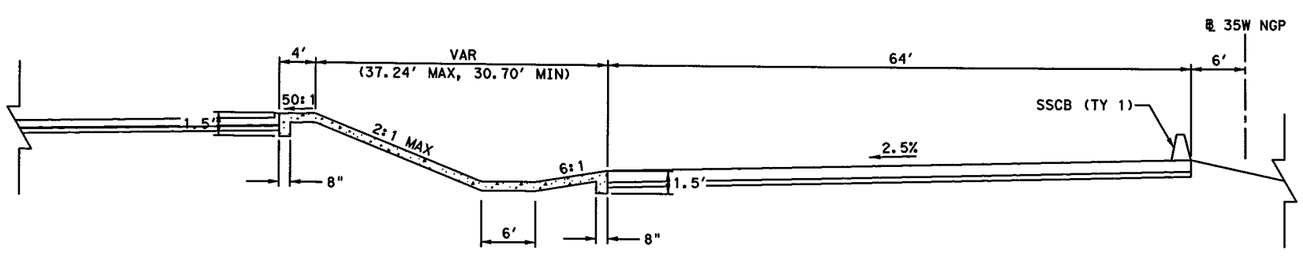
SHEET 5 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	873
KCI	0014	16	255, ETC.	
CHECK				
KCI				

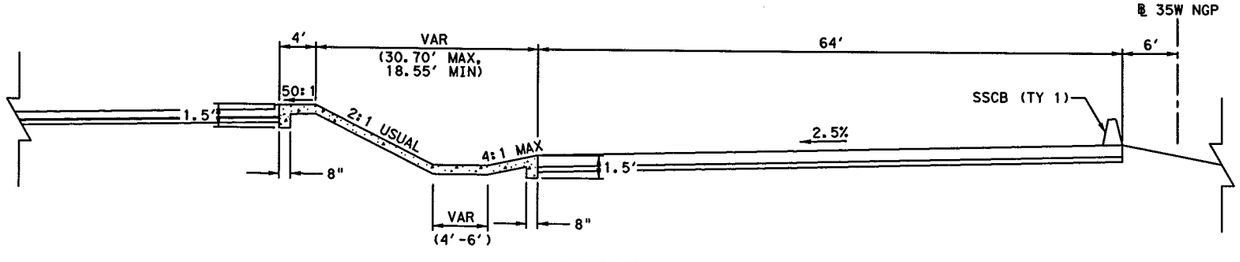
FILENAME: S3BRRL05.dgn

DRAWING DATE: 7/13/2012





SECTION A-A
NTS
℄ 35W NGP STA 1579+08.86 TO STA 1580+67.59



SECTION B-B
NTS
℄ 35W NGP STA 1580+67.59 TO STA 1584+08.90

LEGEND:

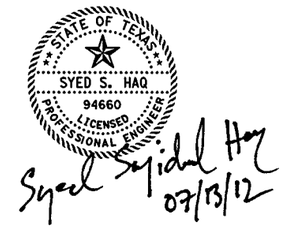
RIPRAP (CONC) (5")

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION.
2. REFER TO ROADWAY PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
RIPRAP (CONC) (5")	CY	205



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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RIPRAP LAYOUT

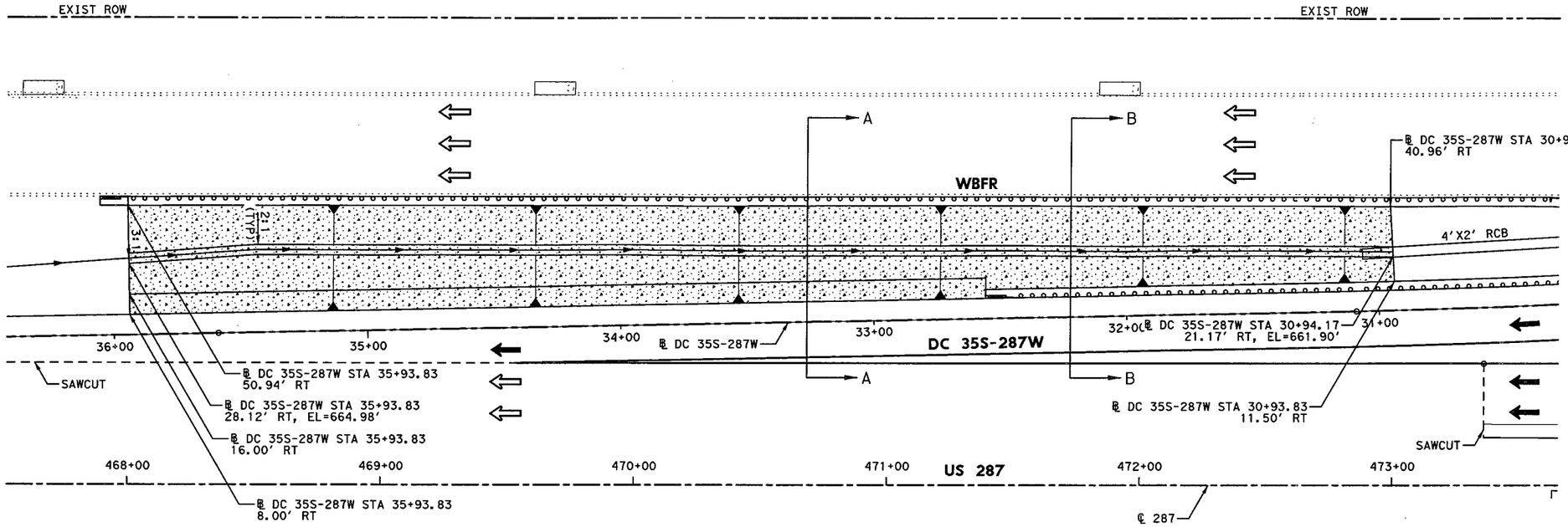
SCALE: 1" = 50'

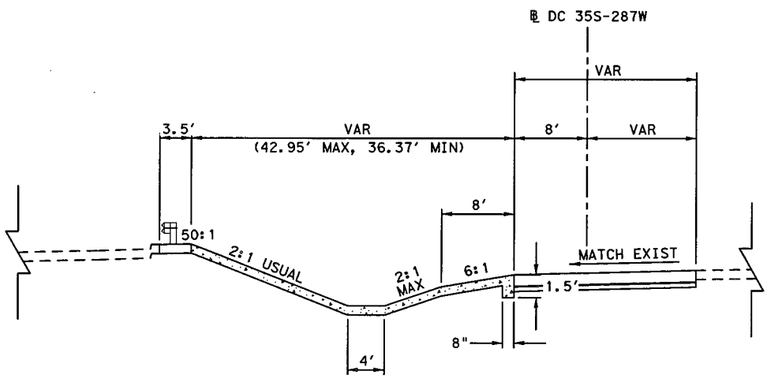
SHEET 6 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	874
KCI	0014	16	255, ETC.	

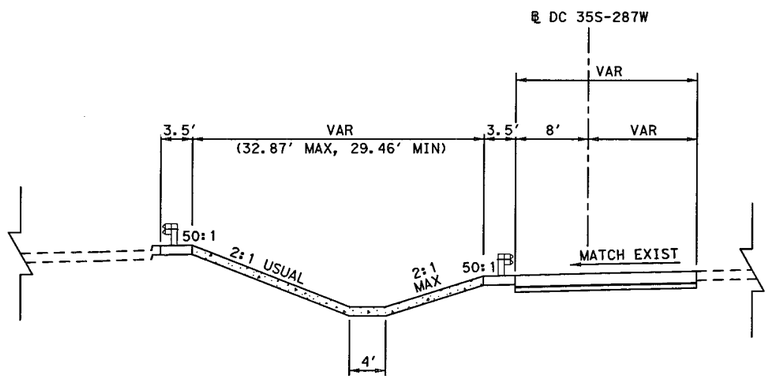
CHECK
KCI

DRAWING DATE: 7/13/2012 FILENAME: S3BRRL06.dgn





SECTION A-A
NTS
℄ DC 35S-287W STA 32+55.65 TO STA 35+93.83



SECTION B-B
NTS
℄ DC 35S-287W STA 30+93.83 TO STA 32+55.65

0' 25' 50'
SCALE IN FEET

LEGEND:

RIPRAP (CONC) (5")

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION.
2. REFER TO ROADWAY PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY
RIPRAP (CONC) (5")	CY	285

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/31/12

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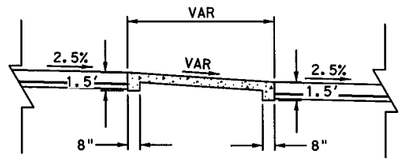
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RIPRAP LAYOUT

SCALE: 1" = 50' SHEET 7 OF 8

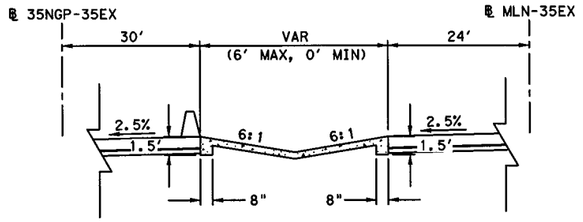
DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	875
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 8/1/2012 FILENAME: S3BRRL07.dgn

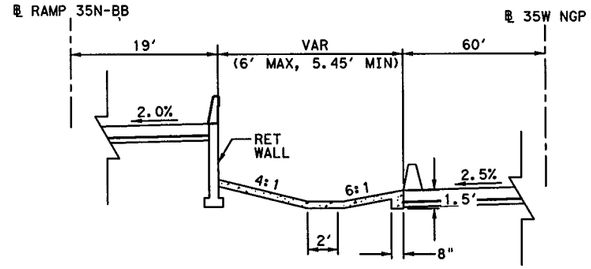


SECTION ①
NTS

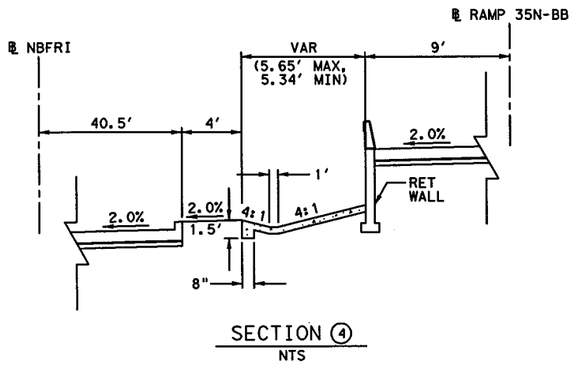
A: 6' MAX, 0.28' MIN
B: 9.61' MAX, 8.28' MIN
C: 6' MAX, 5' MIN



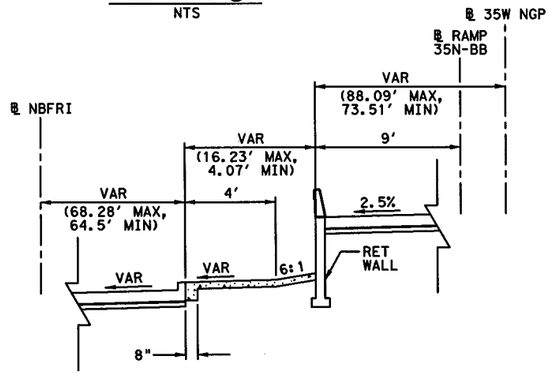
SECTION ②
NTS



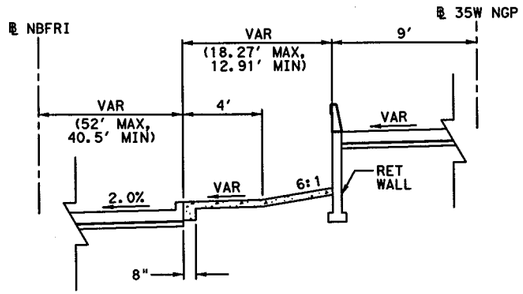
SECTION ③
NTS



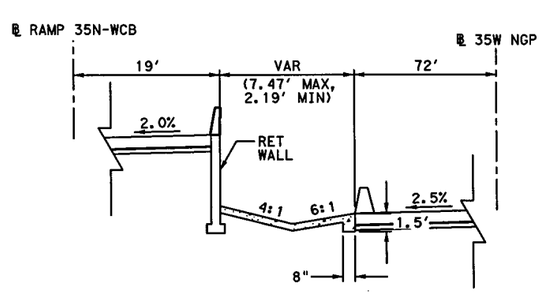
SECTION ④
NTS



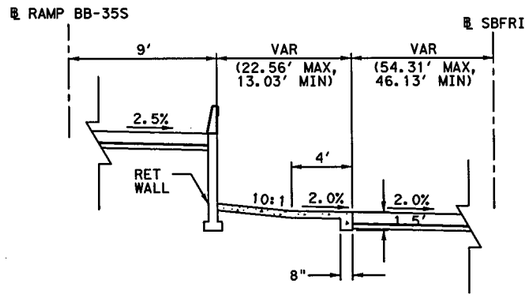
SECTION ⑤
NTS



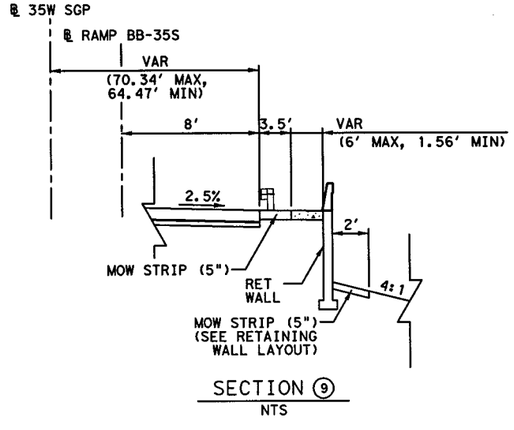
SECTION ⑥
NTS



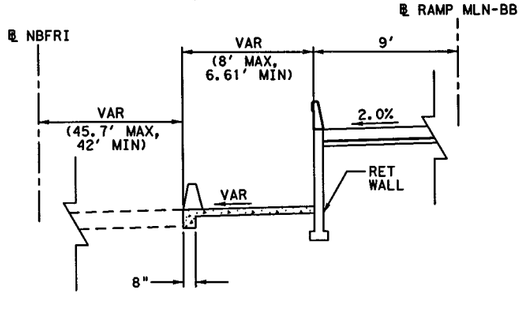
SECTION ⑦
NTS



SECTION ⑧
NTS



SECTION ⑨
NTS



SECTION ⑩
NTS

LEGEND:

RIPRAP (CONC) (5")

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION.
2. REFER TO ROADWAY PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.

ESTIMATED QUANTITIES

RIPRAP (CONC) (5")

SECTION	STATION	UNIT	QUANTITY
1A	℄ 35W ML STA 1512+44.75 TO STA 1515+35.10	CY	12
1A	℄ 35W NGP STA 1519+21.61 TO STA 1521+19.69	CY	15
1B	℄ NBFRI STA 4510+90.23 TO STA 4513+09.63	CY	34
1C	℄ 35W SGP STA 1458+28.04 TO STA 1461+50.99	CY	26
2	℄ MLN-35EX STA 6423+44.95 TO STA 6424+31.73	CY	4
3	℄ 35W NGP STA 1533+49.97 TO STA 1533+81.44	CY	3
4	℄ NBFRI STA 1534+12.21 TO STA 1534+34.14	CY	2
5	℄ 35W NGP STA 1542+15.02 TO STA 1544+58.24	CY	46
6	℄ NBFRI STA 1536+60.09 TO STA 1539+58.74	CY	67
7	℄ 35W NGP STA 1557+51.30 TO STA 1559+01.90	CY	10
8	℄ SBFRI STA 132+89.19 TO STA 136+07.04	CY	82
9	℄ 35W SGP STA 1542+64.03 TO STA 1543+39.17	CY	5
10	℄ NBFRI STA 4513+09.63 TO STA 4514+92.56	CY	21

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/31/12

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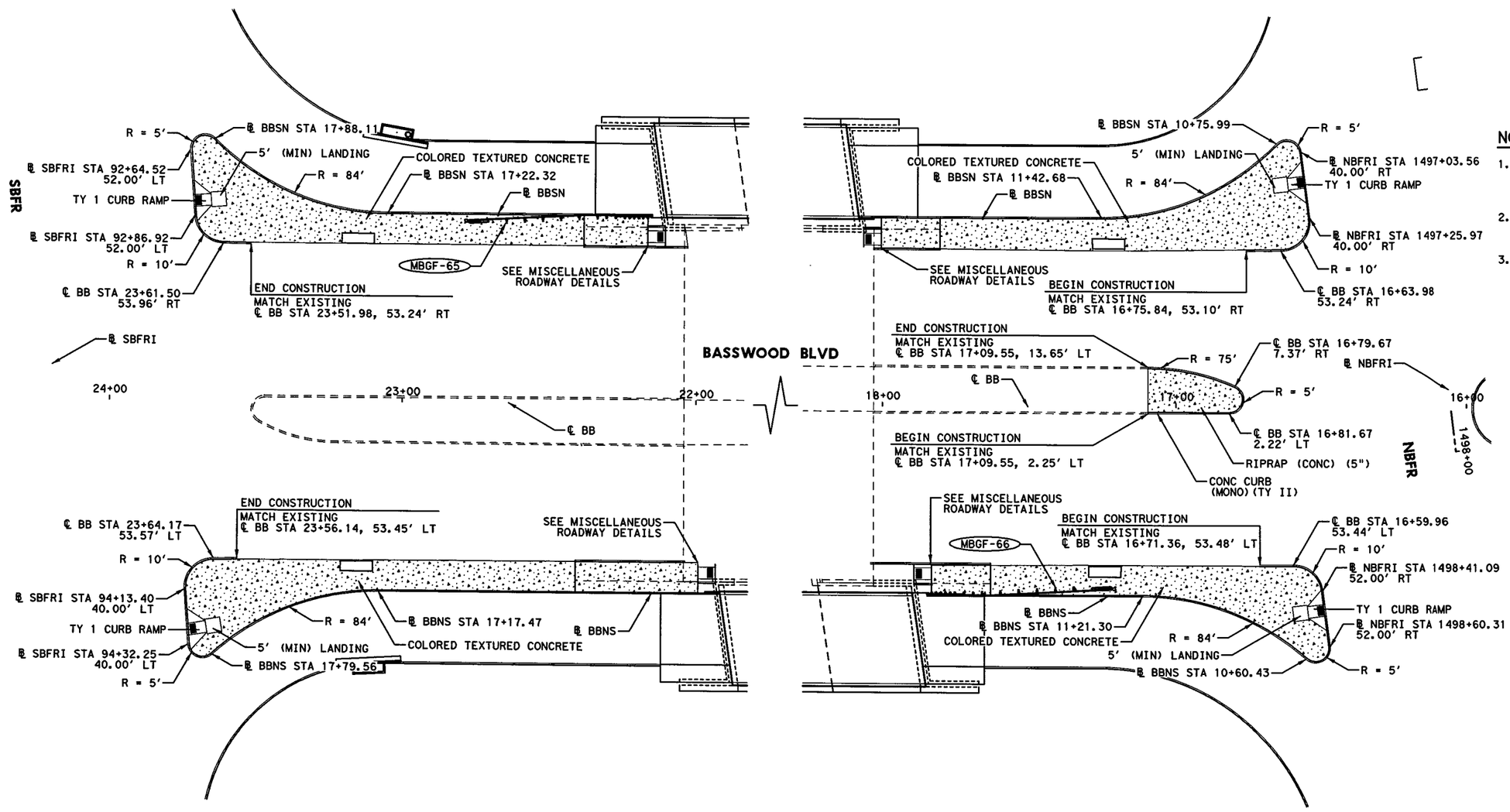
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RIPRAP DETAIL

SHEET 8 OF 8

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	876
KCI	0014	16	255, ETC.	

FILENAME: S3BRRL08.dgn
DRAWING DATE: 7/31/2012



0' 10' 20' 40'

SCALE IN FEET

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION REGARDING COLORED TEXTURED CONCRETE & TY 21 CURB RAMP (MOD).
2. DIMENSIONS AND OFFSET TO CURB ARE SHOWN TO THE FRONT FACE, UNLESS OTHERWISE NOTED.
3. REFER TO TXDOT STANDARD PED-12A FOR ADDITIONAL INFORMATION ON PED RAMPS.

STATE OF TEXAS
SYED S. HAQ
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Syed Shahul Haq
07/13/12

DRAWING DATE: 7/13/2012 FILENAME: S3BRRLD01.dgn

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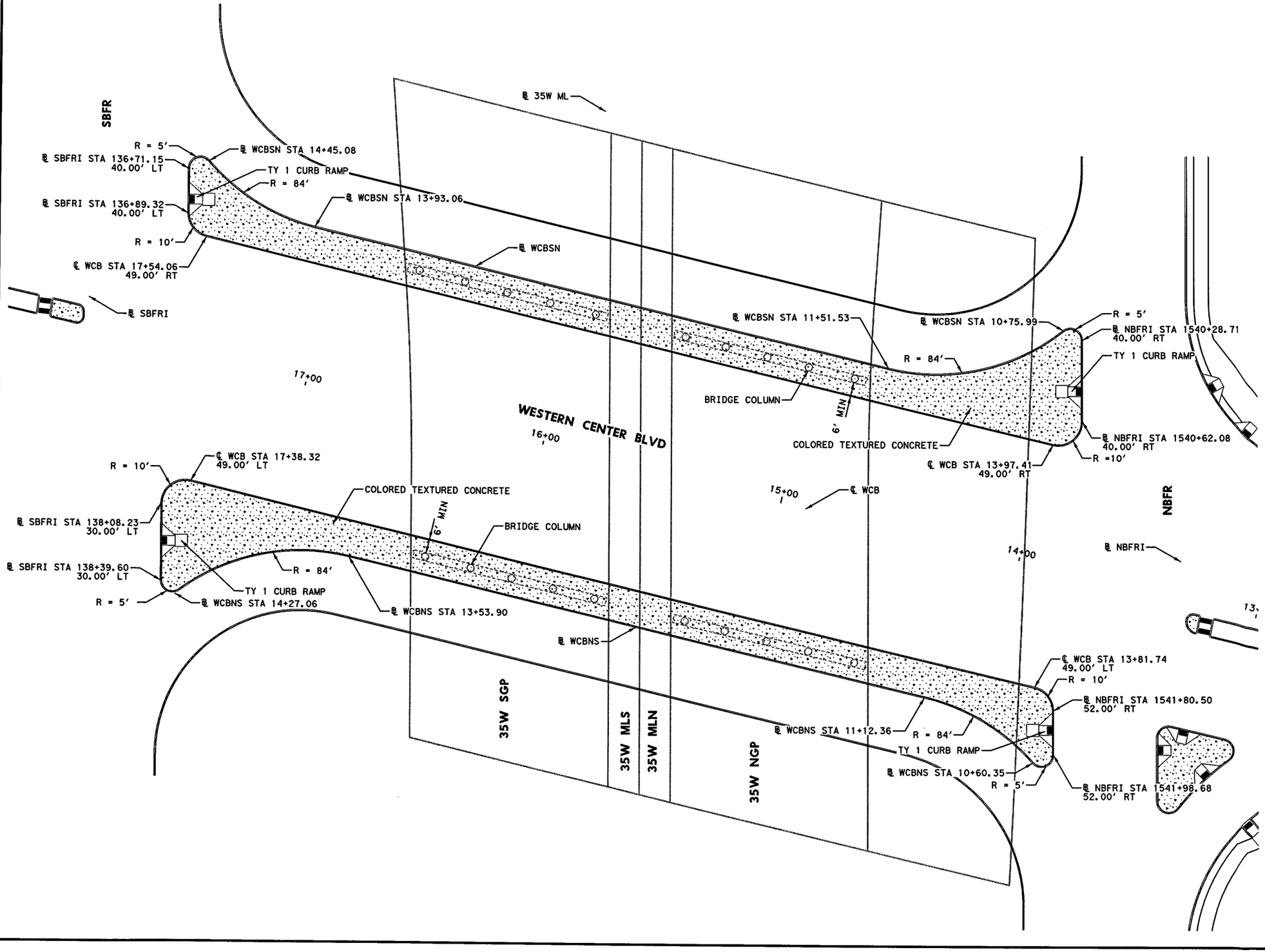
IH 35W FROM NORTH TARRANT PKWY TO IH 820

U-TURN MEDIAN DETAILS
BASSWOOD BLVD

SCALE: 1" = 40' SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	877
	0014	16	255, ETC.	



0′ 10′ 20′ 40′

SCALE IN FEET

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION REGARDING COLORED TEXTURED CONCRETE & TY 21 CURB RAMP (MOD).
2. DIMENSIONS AND OFFSET TO CURB ARE SHOWN TO THE FRONT FACE, UNLESS OTHERWISE NOTED.
3. REFER TO TXDOT STANDARD PED-12A FOR ADDITIONAL INFORMATION ON PED RAMPS.

STATE OF TEXAS
SYED S. HAQ
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PROFESSIONAL ENGINEER

Syed Shahid Haq
07/13/12

FILENAME: S3BRRLD02.dgn

DRAWING DATE: 7/13/2012

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TBPE REGISTRATION NO. F-926

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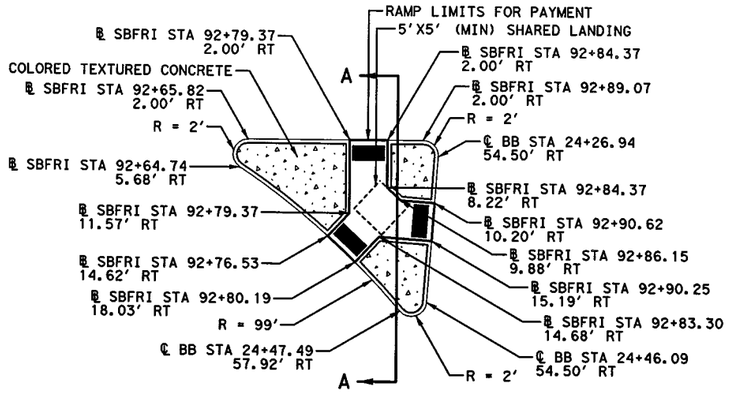
IH 35W FROM NORTH TARRANT PKWY TO IH 820

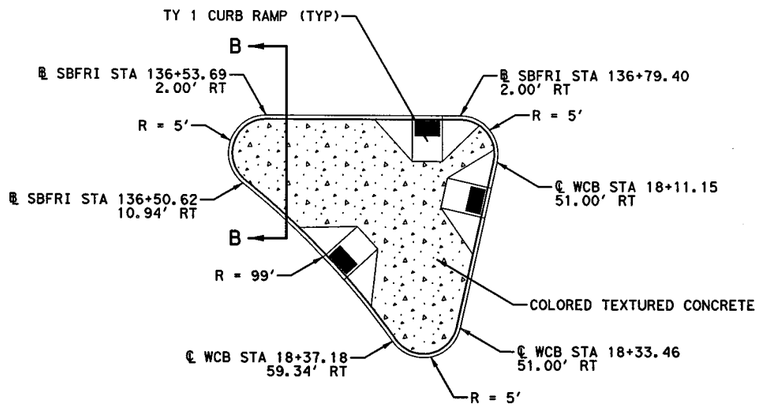
U-TURN MEDIAN DETAILS
WESTERN CENTER BLVD

SCALE: 1" = 40′ SHEET 2 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	878
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



BASSWOOD BLVD NORTHWEST
TY 21 CURB RAMP (MOD)
NTS



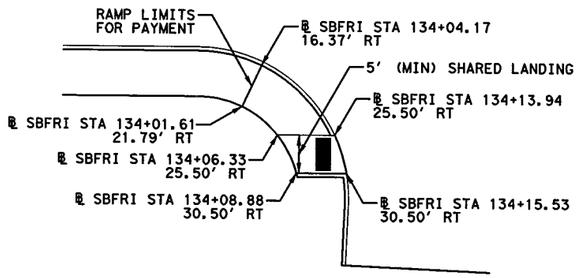
WESTERN CENTER BLVD NORTHWEST

HORZ 0' 5' 10' 20'

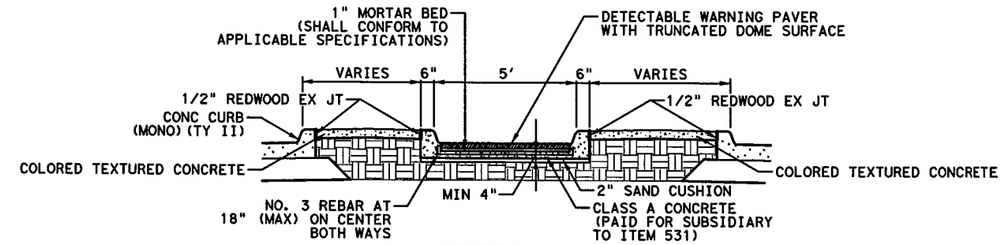
SCALE IN FEET

NOTES:

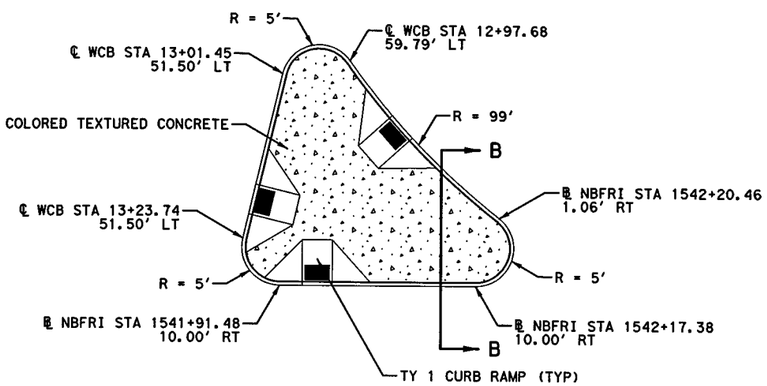
1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION REGARDING COLORED TEXTURED CONCRETE.
2. DIMENSIONS AND OFFSET TO CURB ARE SHOWN TO THE FRONT FACE, UNLESS OTHERWISE NOTED.
3. REFER TO TXDOT STANDARD PED-12A FOR ADDITIONAL INFORMATION ON CURB RAMPS.



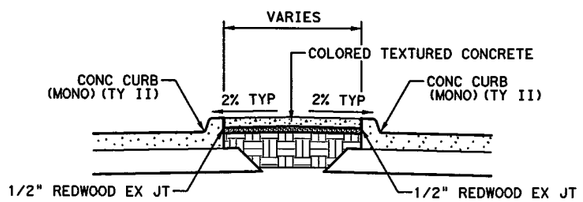
DRIVEWAY D-S01
TY 2 CURB RAMP (MOD)
NTS



SECTION A-A
NTS



WESTERN CENTER BLVD SOUTHEAST



SECTION B-B
NTS

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

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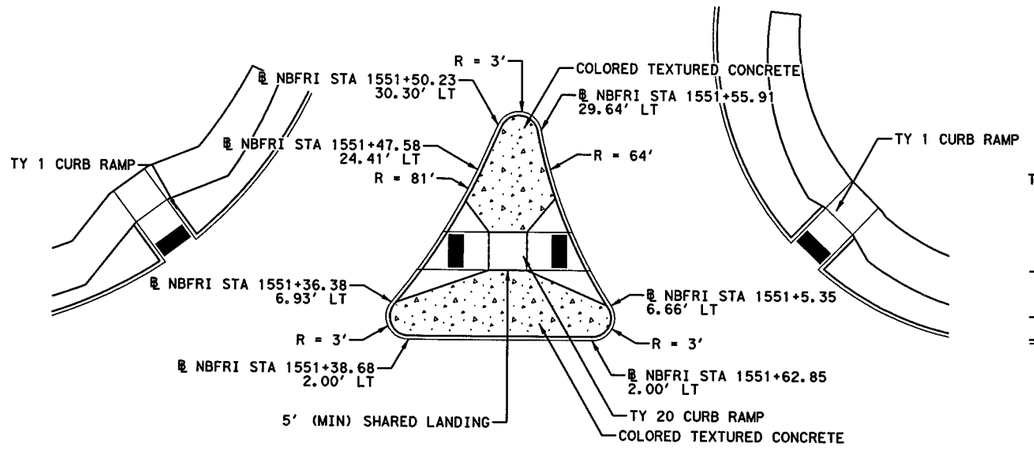
IH 35W FROM NORTH TARRANT PKWY TO IH 820

TRAFFIC ISLAND DETAILS

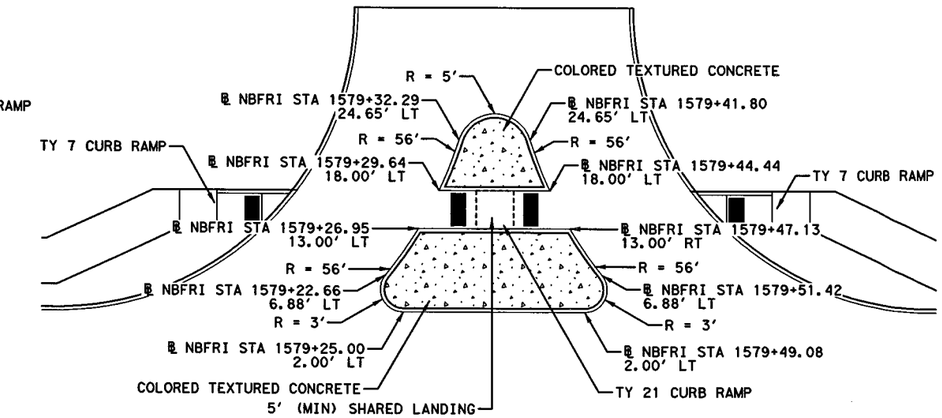
SCALE: 1" = 20' SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	879
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRRLD03.dgn



SANDSHELL DR



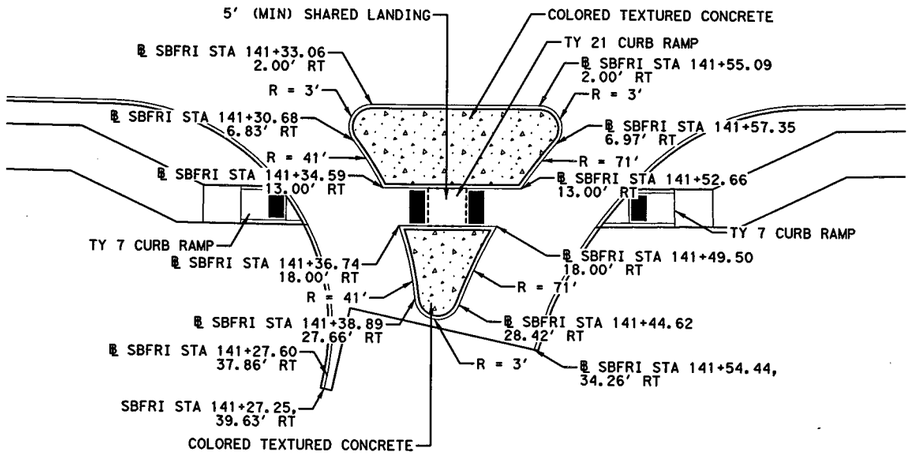
DRIVEWAY N-14

HORZ 0' 5' 10' 20'

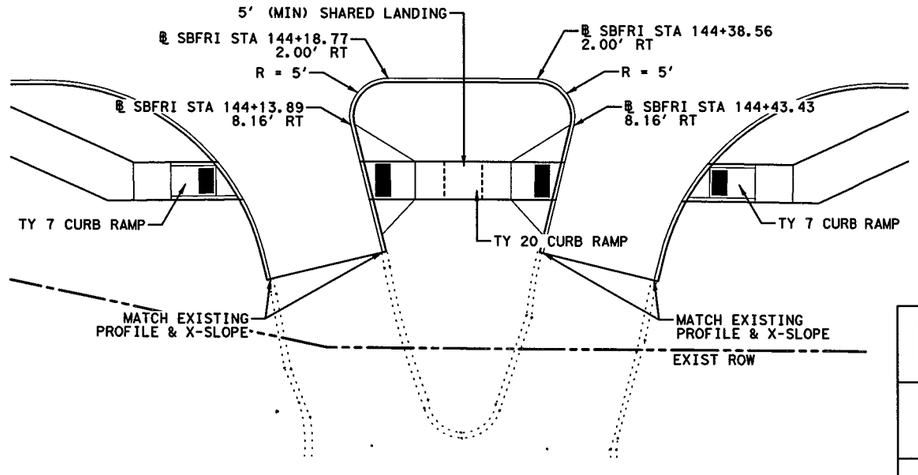
SCALE IN FEET

NOTES:

1. REFER TO MISCELLANEOUS ROADWAY DETAILS FOR ADDITIONAL INFORMATION REGARDING COLORED TEXTURED CONCRETE.
2. DIMENSIONS AND OFFSET TO CURB ARE SHOWN TO THE FRONT FACE, UNLESS OTHERWISE NOTED.
3. REFER TO TXDOT STANDARD PED-12A FOR ADDITIONAL INFORMATION ON CURB RAMPS.



DRIVEWAY S-02



DRIVEWAY S-03A & S-03B

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

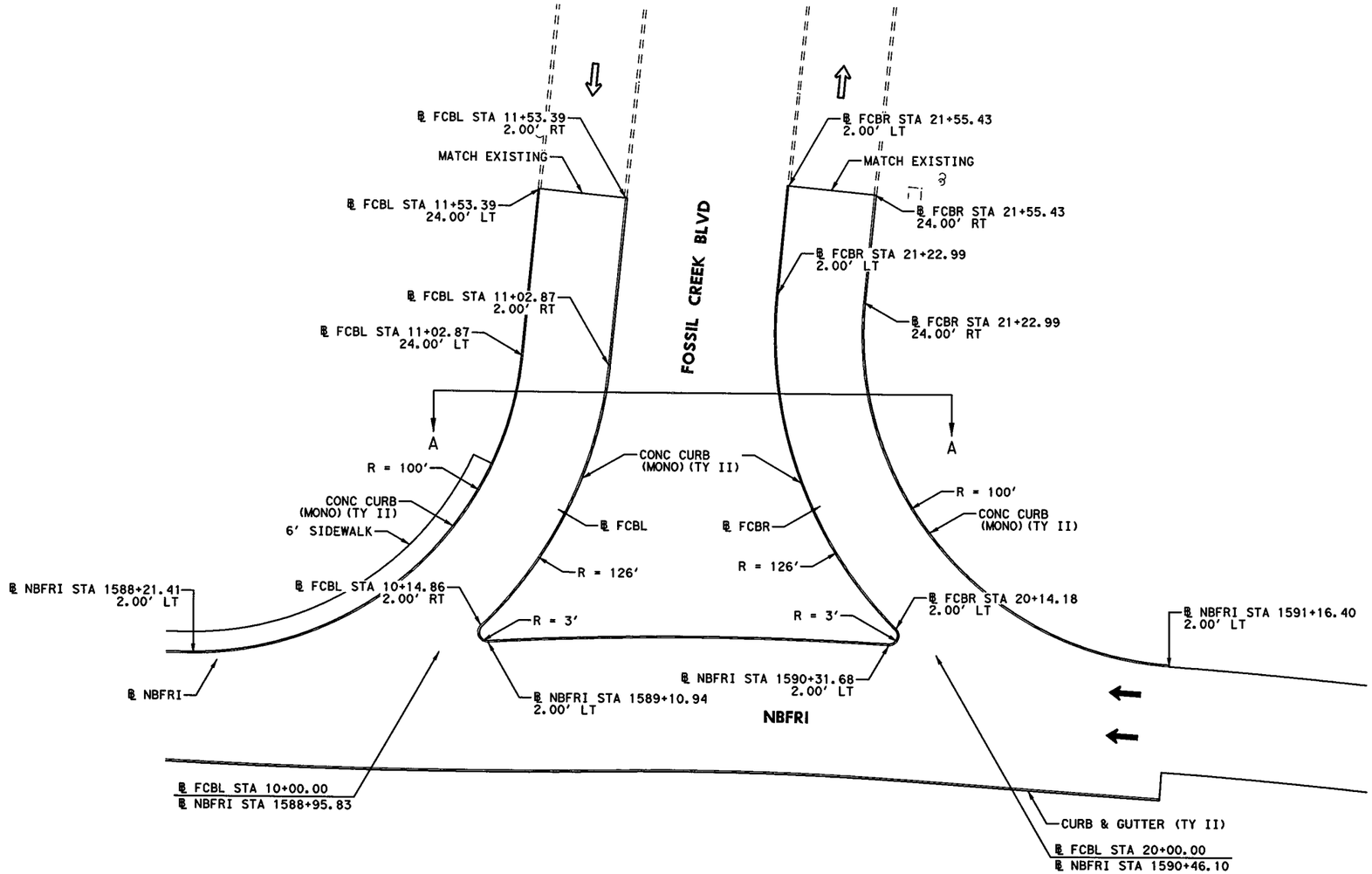
TRAFFIC ISLAND DETAILS

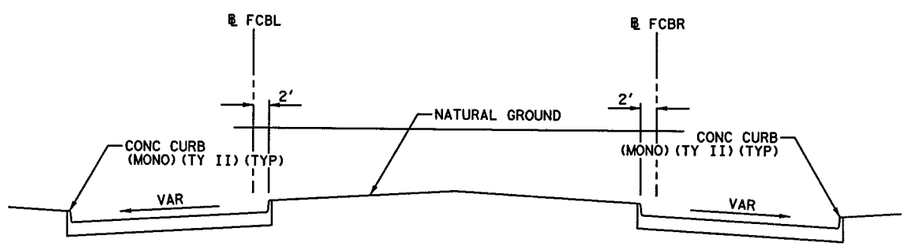
SCALE: 1" = 20'

SHEET 2 OF 3

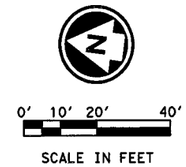
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	880
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRRLD04.dgn





SECTION A-A
NTS



NOTES:

1. DIMENSIONS AND OFFSET TO CURB ARE SHOWN TO THE FRONT FACE, UNLESS OTHERWISE NOTED.
3. REFER TO FOSSIL CREEK BLVD PLAN & PROFILE SHEET FOR ADDITIONAL INFORMATION.

Syed Sajidul Haq
07/13/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

TRAFFIC ISLAND DETAILS

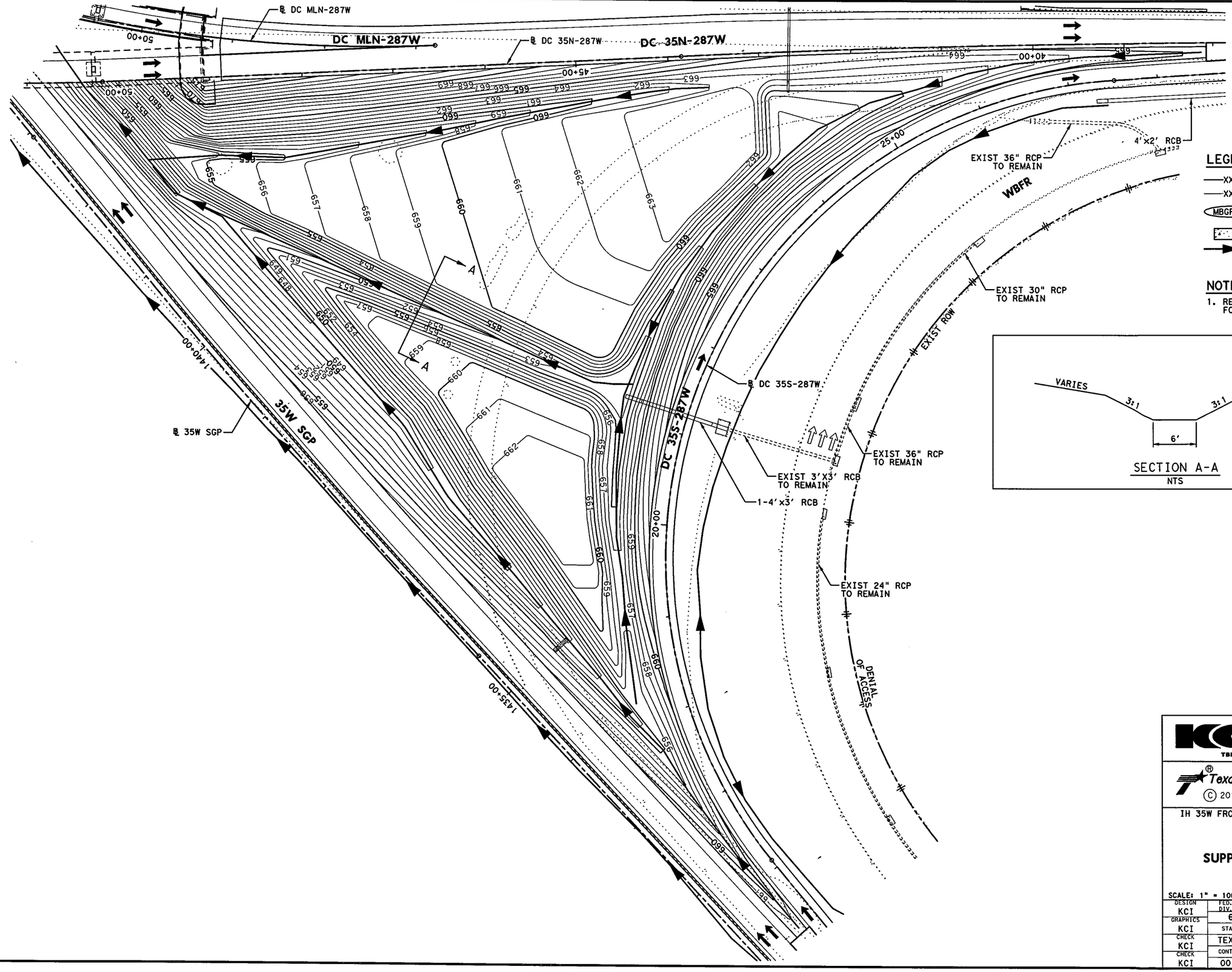
FOSSIL CREEK BLVD

SCALE: 1" = 40'

SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	881
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BRRLD05.dgn



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IH 35W FROM NORTH TARRANT PKWY TO IH 820

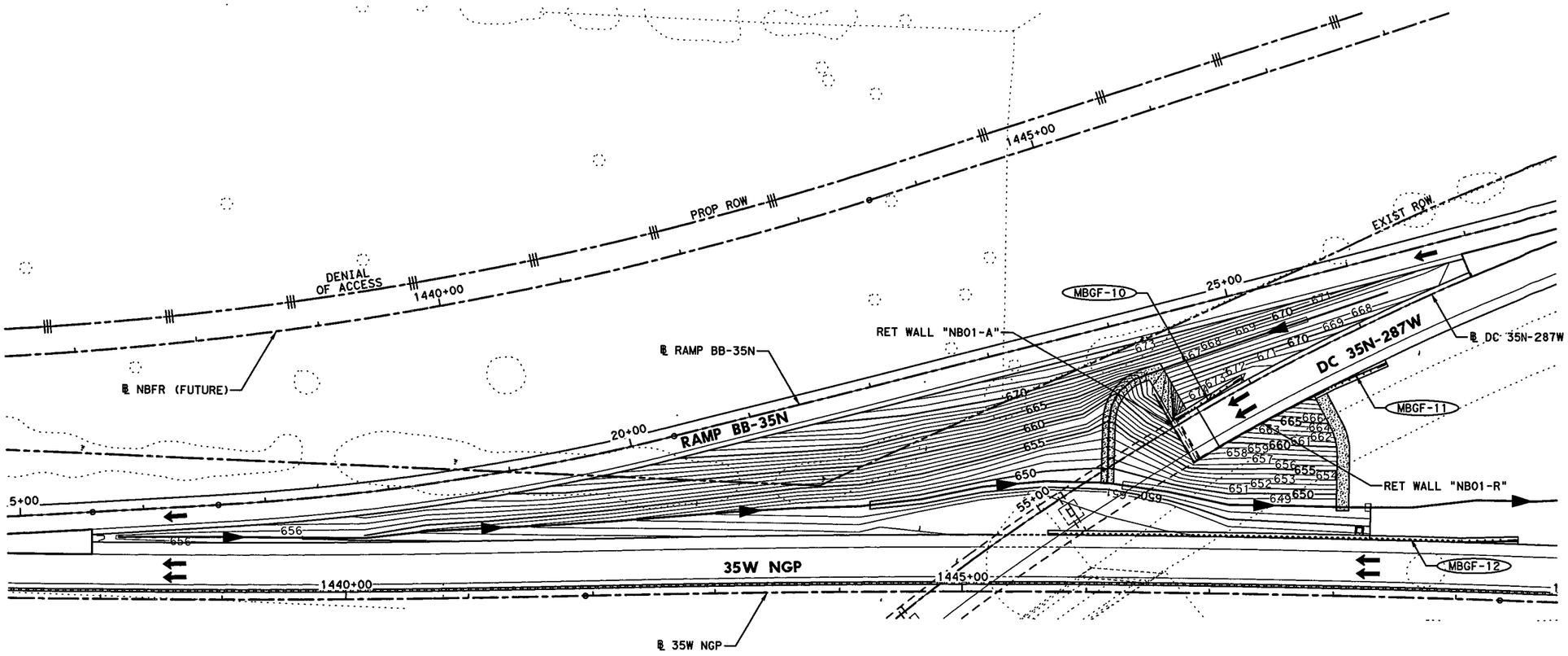
SUPPLEMENTAL GRADING

SCALE: 1" = 100'

SHEET 1 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	882
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BGRAD01.dgn



0′ 25′ 50′ 100′

SCALE IN FEET

LEGEND:

- XXX — MAJOR CONTOUR (5.0′)
- XXX — MINOR CONTOUR (1.0′)
- MBGF-XX — METAL BEAM GUARD FENCE ID LABEL
- RIPRAP (CONC) (5")
- DITCH FLOW LINE

NOTES:

1. REFER TO DRAINAGE SHEETS FOR ADDITIONAL INFORMATION.

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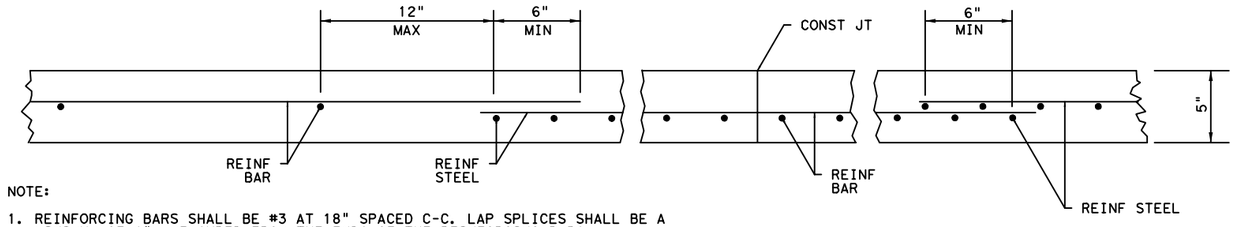
IH 35W FROM NORTH TARRANT PKWY TO IH 820

SUPPLEMENTAL GRADING

SCALE: 1" = 100′ SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	883
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BGRAD02.dgn

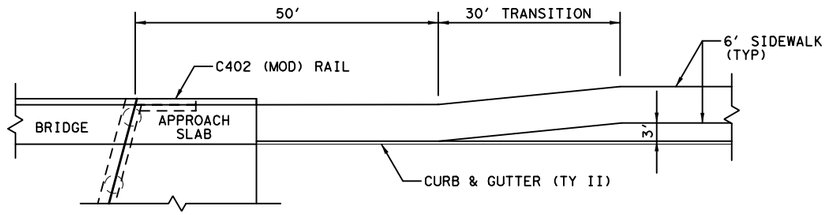


NOTE:

1. REINFORCING BARS SHALL BE #3 AT 18" SPACED C-C. LAP SPLICES SHALL BE A MINIMUM OF 6", MEASURED FROM THE ENDS OF THE REINFORCING BARS.

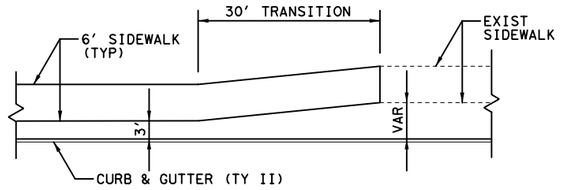
RIPRAP DETAIL OF REINF AND CONST JOINT

NTS



DETAIL A

NTS



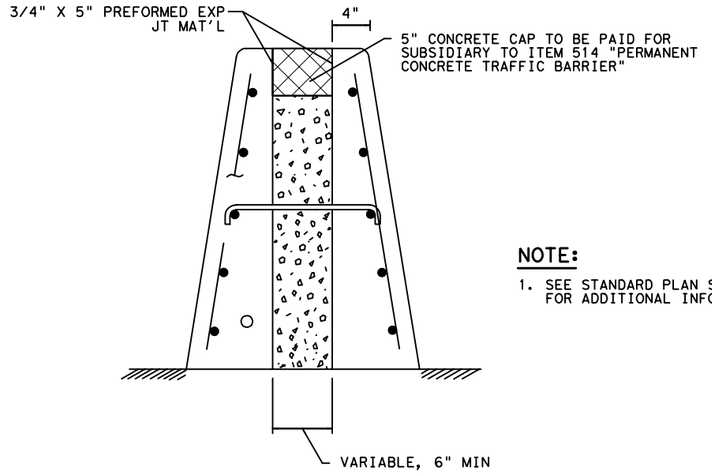
DETAIL B

NTS

SIDEWALK TRANSITION

NOTES ON SIDEWALK TRANSITION:

1. SEE FRONTAGE RD PLAN & PROFILE SHEETS FOR LOCATIONS AND ADDITIONAL INFORMATION.
2. SEE STANDARD PLAN CSWD-08(FW) FOR SIDEWALK DETAIL.

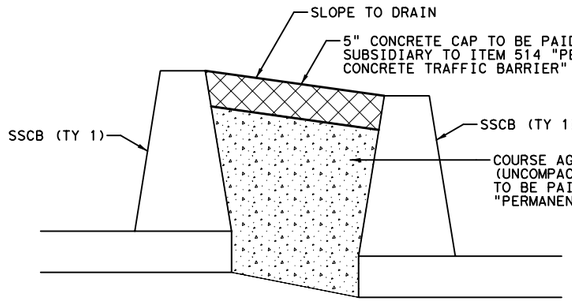


SSCB(TYPE 3) CONCRETE CAP DETAIL

NTS

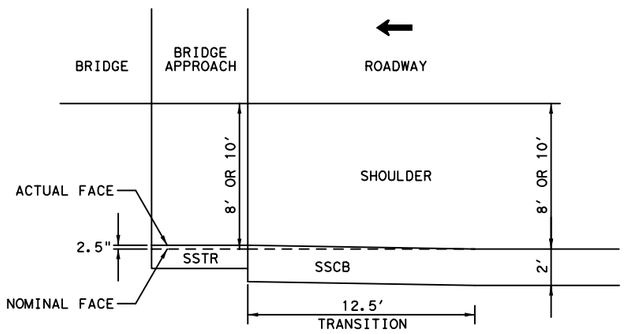
NOTE:

1. SEE STANDARD PLAN SSCB(3)-10 FOR ADDITIONAL INFORMATION.



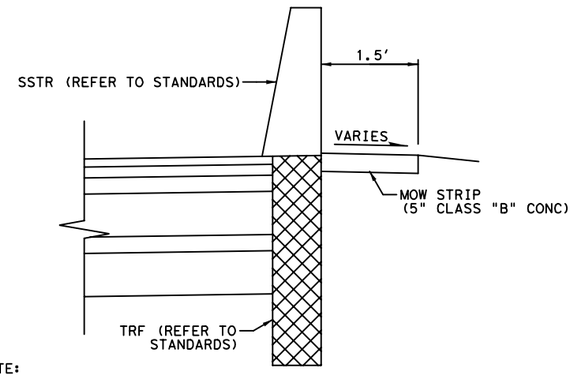
SSCB(TYPE 1) CONCRETE CAP DETAIL

NTS



CONCRETE BARRIER BRIDGE APPROACH PAVEMENT TRANSITION DETAIL

NTS



NOTE:

1. MOW STRIP TO BE PLACED AT BACK OF SSTR.
2. REFER TO TYPICAL SECTIONS FOR PAVING DETAILS.

SSTR WITH TRF MOW STRIP DETAIL

NTS

STATE OF TEXAS
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Syed S. Haq 08/29/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

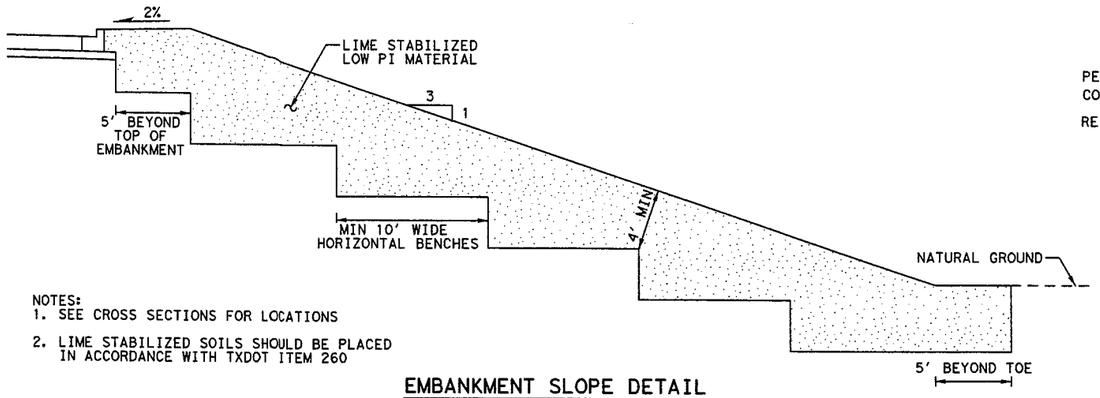
MISCELLANEOUS ROADWAY DETAILS

SHEET 1 OF 6

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	884
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

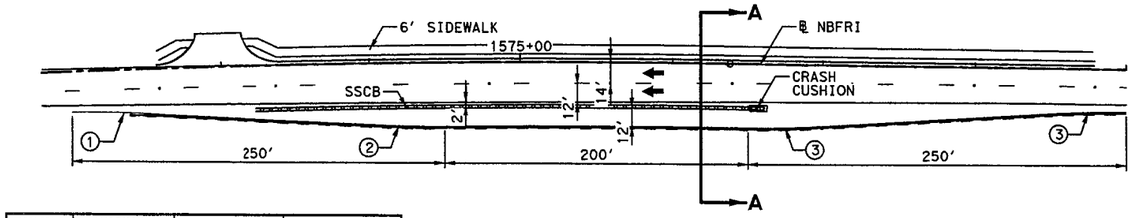
FILENAME: S3BMISDET01.dgn

DRAWING DATE: 8/29/2012



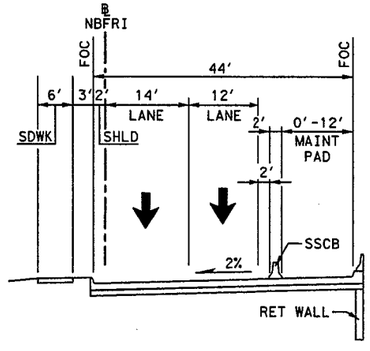
NOTES:
1. SEE CROSS SECTIONS FOR LOCATIONS
2. LIME STABILIZED SOILS SHOULD BE PLACED IN ACCORDANCE WITH TXDOT ITEM 260

EMBANKMENT SLOPE DETAIL
NTS



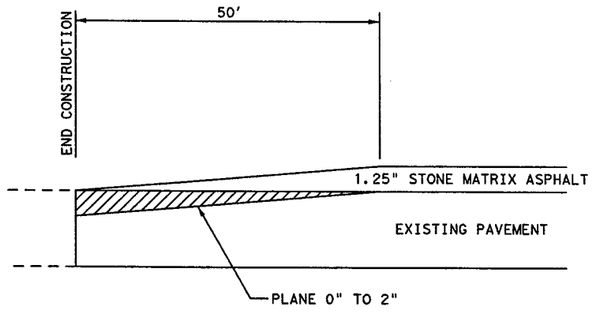
CURVE NO.	DEGREE OF CURVE	DEFLECTION ANGLE	RADIUS
1	8	5 DEG.	716.1972
2	8	3.15 DEG.	716.1972
3	8	4 DEG.	716.1972

NOTE:
REFER TO NBFR PLAN & PROFILE SHEETS FOR ADDITIONAL INFORMATION.



MAINTENANCE PAD PULLOUT AREA SECTION A-A
NTS

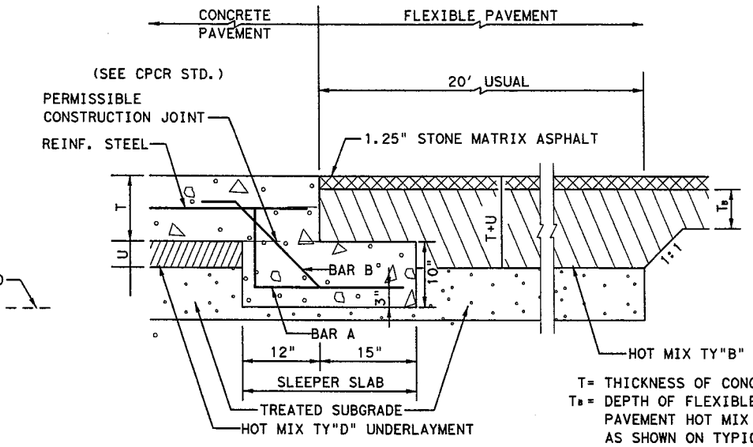
MAINTENANCE PAD PULLOUT AREA
NTS



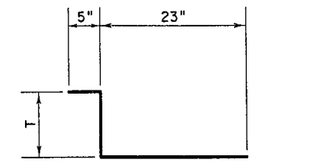
PLANING DETAIL
NTS

NOTES FOR HOT MIX LONGITUDINAL JOINT DETAIL:

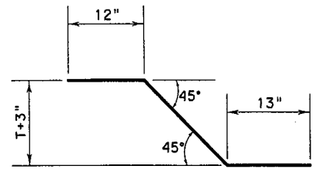
LONGITUDINAL JOINTS SHALL BE CONSTRUCTED BY TAPERING THE BITUMINOUS MAT. THE TAPERED PORTION SHALL EXTEND BEYOND THE NORMAL LANE WIDTH. THE TAPERED PORTION OF THE MAT SHALL BE CONSTRUCTED BY THE USE OF AN APPROVED STRIKE-OFF DEVICE THAT WILL PROVIDE A UNIFORM SLOPE AND WILL NOT RESTRICT THE MAIN SCREED. TACK COAT SHALL BE APPLIED TO THE IN-PLACE TAPER BEFORE THE ADJACENT MAT IS PLACED. FINAL DENSITY REQUIREMENTS FOR THE ENTIRE PAVEMENT, INCLUDING THE TAPER AREA, WILL REMAIN UNCHANGED. COMPACTION OF THE INITIAL TAPER SECTION WILL BE REQUIRED AS NEAR TO FINAL DENSITY AS POSSIBLE.



T= THICKNESS OF CONCRETE PAVEMENT
Te= DEPTH OF FLEXIBLE PAVEMENT HOT MIX BASE AS SHOWN ON TYPICAL SECTIONS
U= THICKNESS OF HOT MIX UNDERLAYMENT

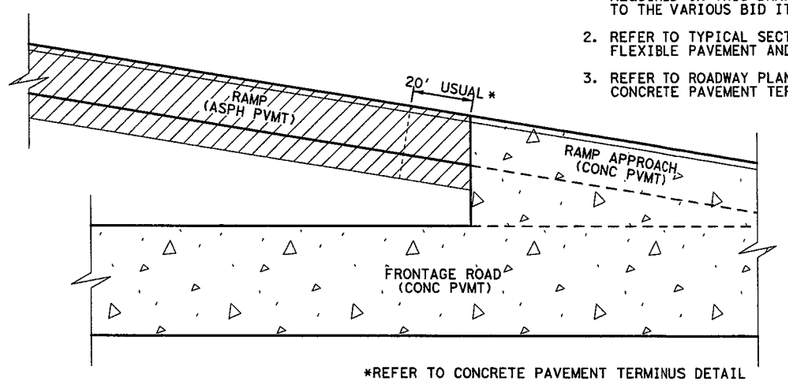


BAR "A" (#5) @ 12" C-C
NTS



BAR "B" (#5) @ 12" C-C
NTS

CONCRETE PAVEMENT TERMINUS
AT HOT MIX PAVEMENT

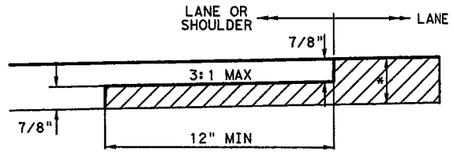


*REFER TO CONCRETE PAVEMENT TERMINUS DETAIL

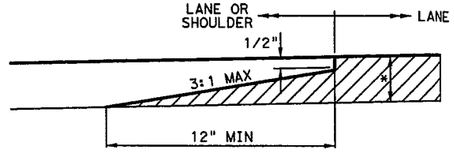
NOTES FOR CONCRETE PAVEMENT TERMINUS:

1. SLEEPER SLAB AND ADDITIONAL REINFORCING REQUIRED ON THIS DRAWING ARE INCIDENTAL TO THE VARIOUS BID ITEM.
2. REFER TO TYPICAL SECTIONS FOR FLEXIBLE PAVEMENT AND CRCP DEPTHS.
3. REFER TO ROADWAY PLAN SHEETS FOR CONCRETE PAVEMENT TERMINUS LOCATIONS.

RAMP APPROACH PAVING TRANSITION
NTS



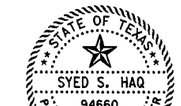
TAPERED JOINT DETAIL



TAPERED JOINT DETAIL
LEVEL-UP

* SEE TYPICAL SECTION FOR DEPTH AND TYPE OF HMA.

HOT MIX LONGITUDINAL JOINT DETAILS
NTS



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07/13/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

MISCELLANEOUS ROADWAY DETAILS

SHEET 2 OF 6

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	885
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BMISDET06.dgn
DRAWING DATE: 7/13/2012

GENERAL CONCRETE NOTES:

1. Reference Item 528, Colored Textured Concrete and Landscape Pavers, of the Texas Standard Specifications for Construction and Maintenance of Highways, Streets and Bridges 2004 for specifications, dimensions, volumes and measurements not shown.
2. Locate and stake all underground conduits and utilities associated with but not limited to: power supply, lighting, signal wires and detectors, gas, electrical, telephone, fiber optics, etc.
3. Locate and stake existing ground boxes, inlets, culverts, manholes, etc. within the project area with a 4' wooden stake, painted orange. Maintain the stakes in place for duration of construction period of the contract. Remove stakes when directed by engineer.
4. Repair and/or replace of any damaged underground conduits or utilities, structures, pavement, riprap, equipment, materials, slopes, vegetation, surfaces, etc. at contractor's expense.
5. If the #3 Rebar is to be placed as a dowel bar afterthe curb is constructed, the dowel bar must be epoxied into a (max) 1/2" diameter drilled hole into the curb.

MATERIALS:

1. Use concrete pattern and color type as shown. Submit sample panel(s) for each finish type for approval by enginner prior to construction with manufacturer's information certifying that concrete pattern and color:
   a) meet the requirements of Item 528.2.A. Colored Textured Concrete Materials.
   b) meet the requirements of Item 528.3.A. Colored Textured Concrete Construction Methods.

CONSTRUCTION METHODS:

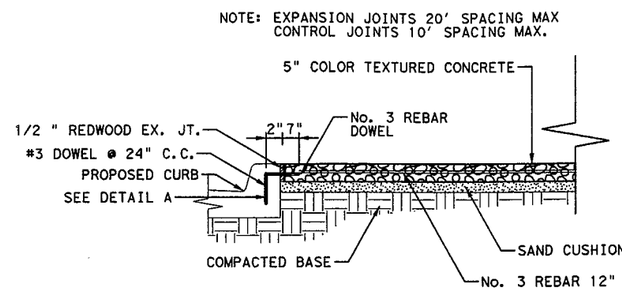
1. Locate and stake all items and/or limits of Colored Textured Concrete and related work in the field. Receive approval from engineer prior to continuing.
2. Immediately remove and replace concrete damaged during installation.

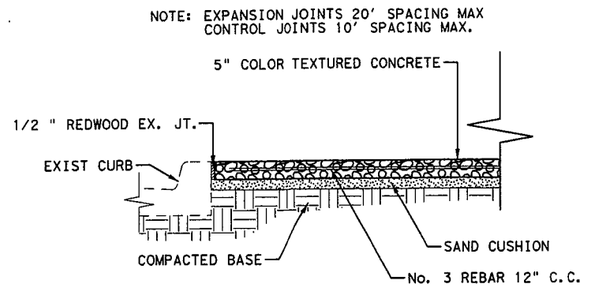
FINISHES

Item 528 - Color Textured Concrete
Concrete shall be colored using Bomanite integral color in "Gunmetal Gray" per manufacturer's specifications. Bomanite color hardeners and release agents shall be applied by the dry shake method in shades of gray to simulate river rock. The concrete pattern shall be "Creek Stone" by Bomacron as supplied by Bomanite Corporation or approved equal. Concrete work shall be sealed with an approved sealer from Bomanite, after the initial curing period, a minimum of 14 days after stamping and coloring occurs. Bomanite Corporation, P.O. Box 599, Madera CA 93639 (209)673-2411.

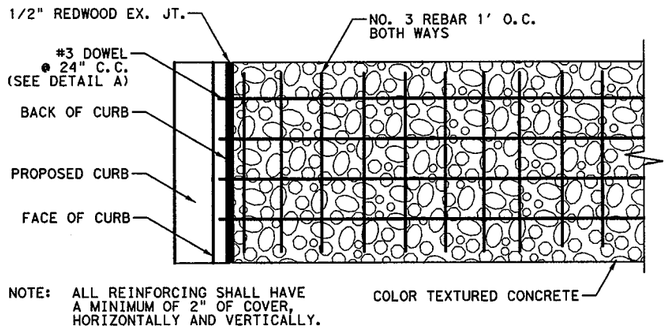
APPROVED EQUAL NOTE:

All materials for consideration as an "approved equal" must be submitted to the Engineer at the preconstruction meeting. Consideration for late submittals will only be for any materials, shown in plans, which become unavailable as required.

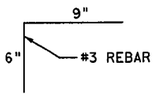




COLORED TEXTURED CONCRETE
NTS

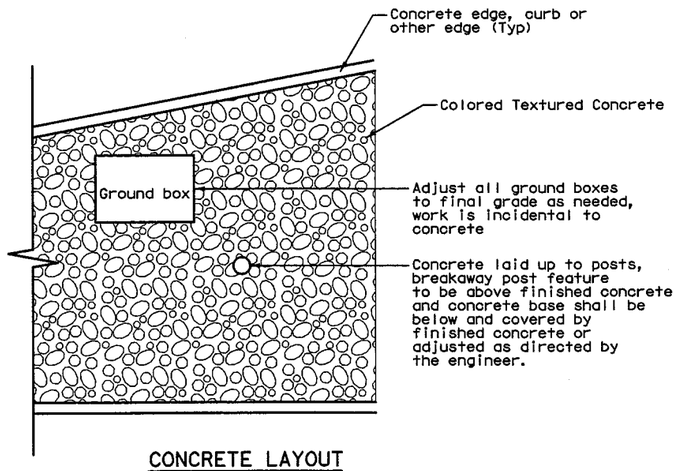


NOTE: ALL REINFORCING SHALL HAVE A MINIMUM OF 2" OF COVER, HORIZONTALLY AND VERTICALLY.

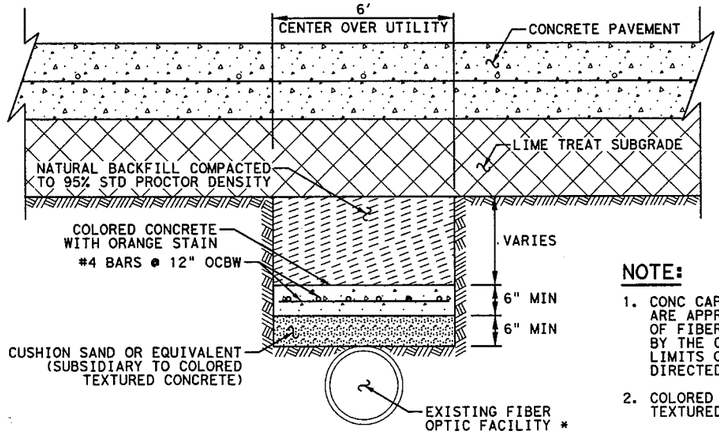


DETAIL A
NTS

PLAN VIEW OF COLORED TEXTURED CONCRETE
NTS



CONCRETE LAYOUT



CONCRETE CAP - UTILITY PROTECTION
NTS

ESTIMATED QUANTITIES (CONCRETE CAP)

ITEM 528-2006	UNIT	QUANTITY
COLOR TEXTURED CONCRETE (5")	CY	364

* PLACE CONCRETE CAP ALONG FIBER LINE FROM APPROXIMATE ℄ WCB STA 12+75 TO ℄ WCB STA 18+22 (3' BEYOND OUTERMOST BACK CURB BOTH ENDS)

NOTE:

1. CONC CAP LIMITS SHOWN IN PLANS ARE APPROXIMATE ONLY. LOCATION OF FIBER LINE TO BE FIELD VERIFIED BY THE CONTRACTOR AND ACTUAL LIMITS OF CONC CAP SHALL BE AS DIRECTED BY THE ENGINEER.
2. COLORED CONCRETE WILL NOT BE TEXTURED.

REQUIRED ITEM:

* ITEM 528-2006 COLOR TEXTURED CONCRETE (5") (SY)

STATE OF TEXAS
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LICENSED PROFESSIONAL ENGINEER
Syed Sajidul Haq
07/13/12

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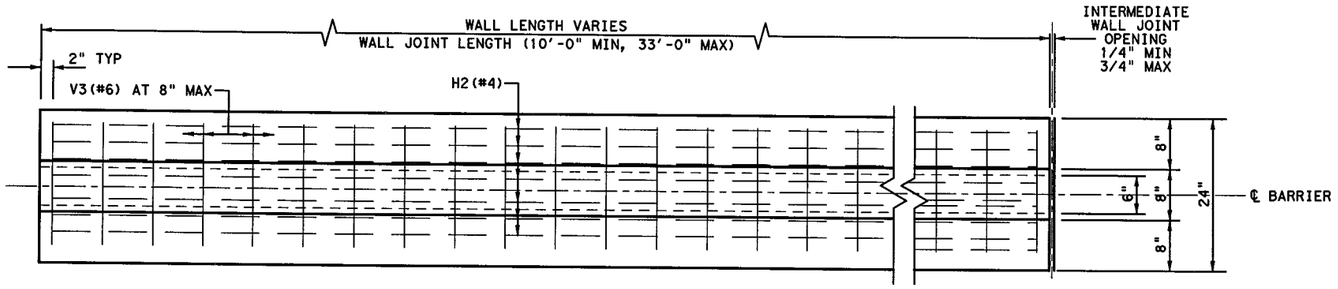
IH 35W FROM NORTH TARRANT PKWY TO IH 820

MISCELLANEOUS ROADWAY DETAILS

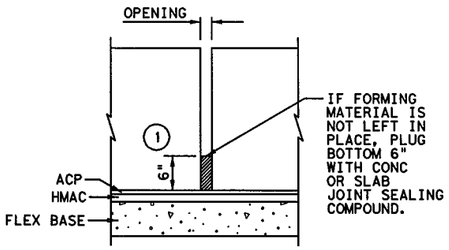
SHEET 3 OF 6

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	886
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3BM1SDET05.dgn
DRAWING DATE: 7/13/2012



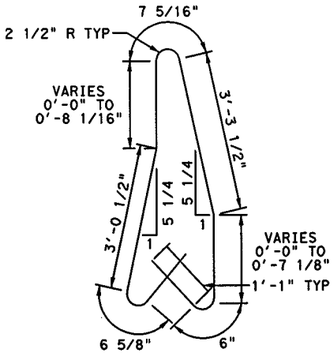
PLAN VIEW



INTERMEDIATE WALL JOINT DETAIL

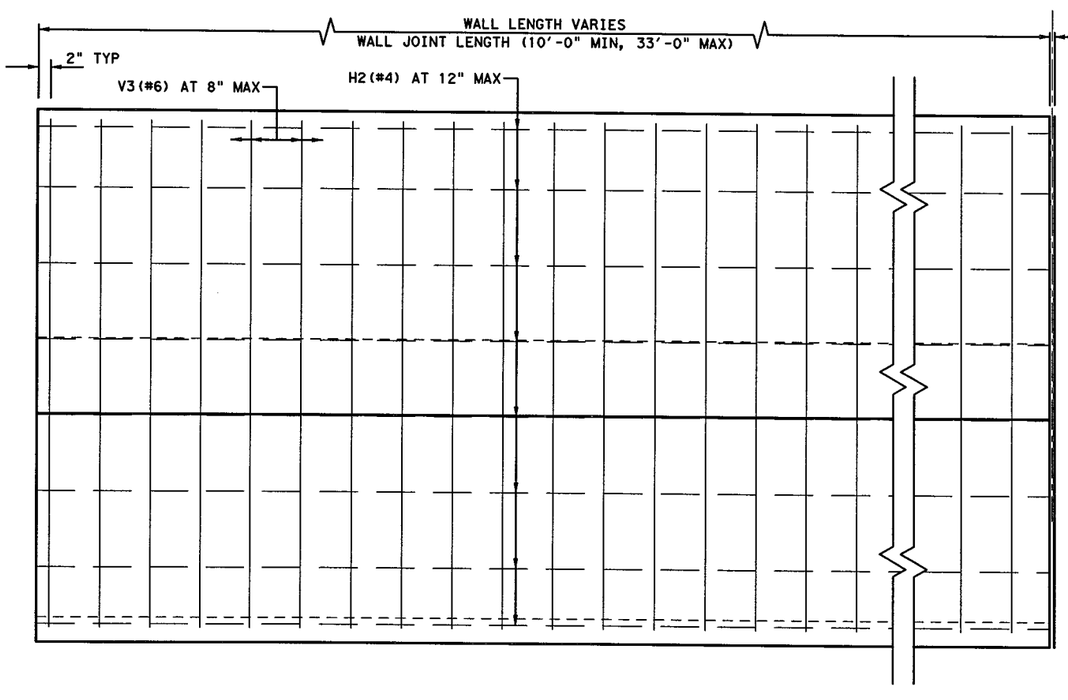
NOTE: PROVIDE INTERMEDIATE WALL JOINTS AT EQUAL INTERVALS IN BETWEEN AS NECESSARY TO MAINTAIN A 33' MAXIMUM LENGTH OF UNBROKEN WALL. MATERIAL USED IN FORMING JOINT MAY BE LEFT IN PLACE IF IT IS COMPRESSIBLE AND LIGHT IN COLOR SUCH AS THE FOLLOWING MATERIALS: POLYSTYRENE, MOLDED CORK GRANULES, SPONGE RUBBER SHEET, ETC.

(1) INCREASE 2" FOR STRUCTURES WITH OVERLAY.

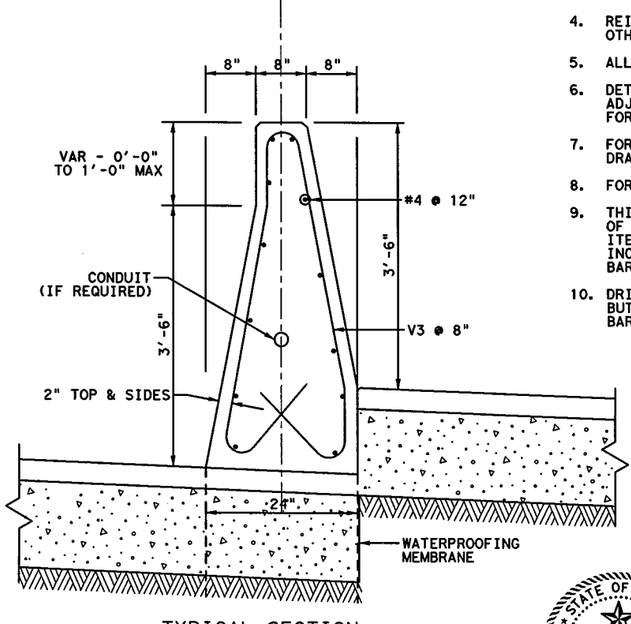


BARS V3 (#6)

BAR BENDING DIAGRAMS



ELEVATION VIEW



TYPICAL SECTION

GENERAL NOTES

1. ALL CONCRETE SHALL BE CLASS "C" AND CONFORM TO ITEM 421, "HYDRAULIC CEMENT CONCRETE".
2. REINFORCING BARS SHALL BE GRADE 60 AND CONFORM TO ASTM A615. ALL REINFORCING SHALL CONFORM TO ITEM 440 "REINFORCING STEEL".
3. DIMENSIONS RELATING TO REINFORCING STEEL ARE TO THE CENTER OF THE BARS.
4. REINFORCING SHALL MAINTAIN 2" COVER AT ALL LOCATIONS, UNLESS OTHERWISE NOTED.
5. ALL EXPOSED CORNERS SHALL BE CHAMFERED 3/4".
6. DETAIL APPLIES WHERE GENERAL PURPOSE LANES CONVERGE WITH ADJACENT MANAGED LANES. SEE APPLICABLE PLAN AND PROFILE SHEETS FOR SPECIFIC LOCATION.
7. FOR SINGLE SLOPE CONCRETE BARRIER DETAILS, SEE SSCB STANDARD DRAWINGS.
8. FOR DETAIL OF DRILLED SHAFT FOUNDATION SEE SSCB(1F)-10.
9. THIS ITEM WILL BE MEASURED BY THE LINEAR FOOT ALONG THE CENTERLINE OF BARRIER. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR ITEM 514 "PERM CONC TRAF BAR (SGL SLP) (TY 1) (MOD)" AND WILL BE INCLUSIVE OF ALL MATERIALS AND LABOR REQUIRED TO CONSTRUCT THE BARRIER AS SHOWN IN THE PLANS.
10. DRILLED SHAFT FOUNDATION SHALL NOT BE PAID FOR DIRECTLY, BUT BE CONSIDERED SUBSIDIARY TO ITEM 514 "PERM CONC TRF BAR(SGL SLP)(TY 1)(MOD)".

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

Syed Sajidul Haq
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

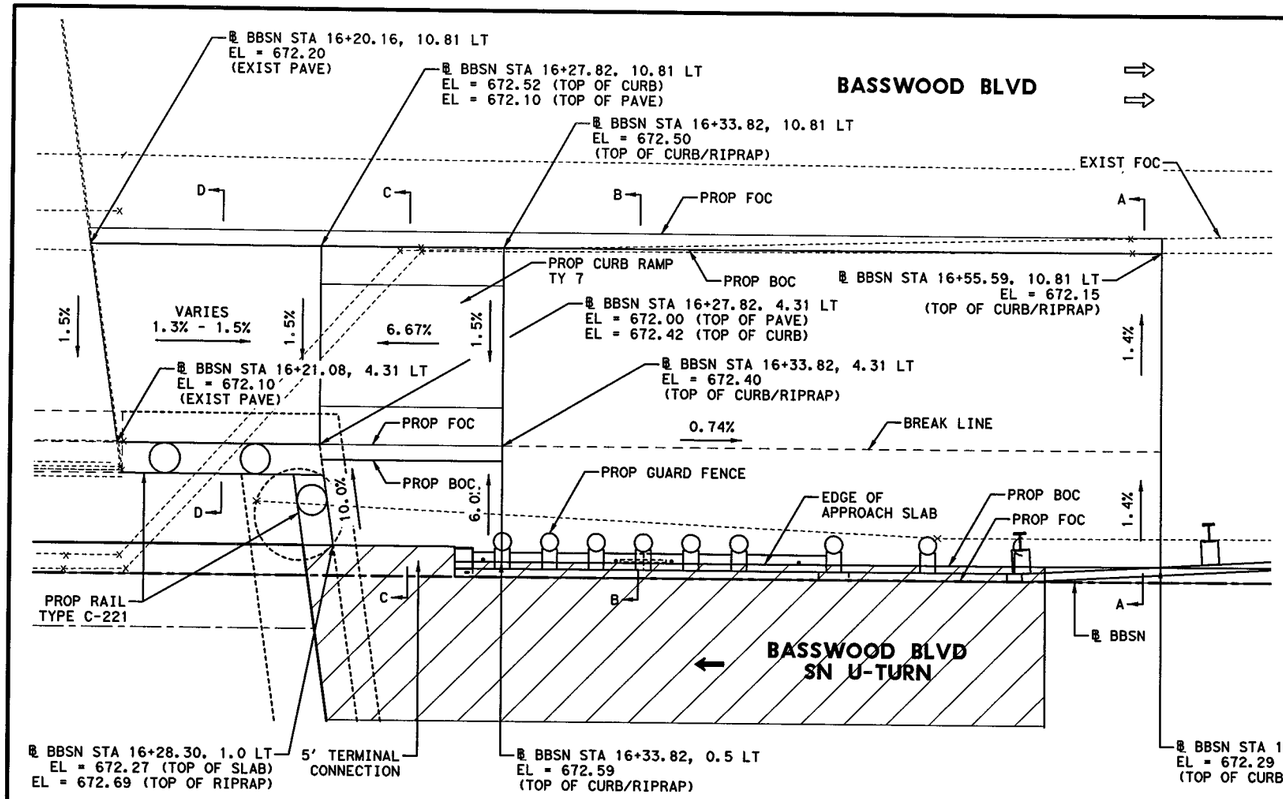
MISCELLANEOUS ROADWAY DETAILS

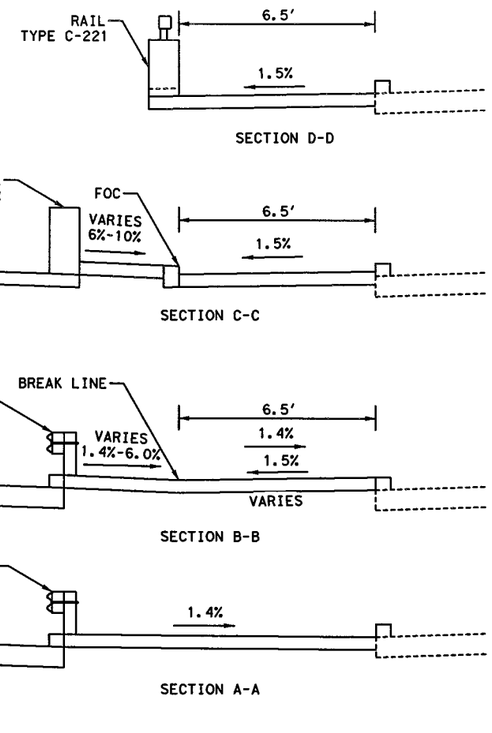
SSCB (MOD) (CAST-IN-PLACE)

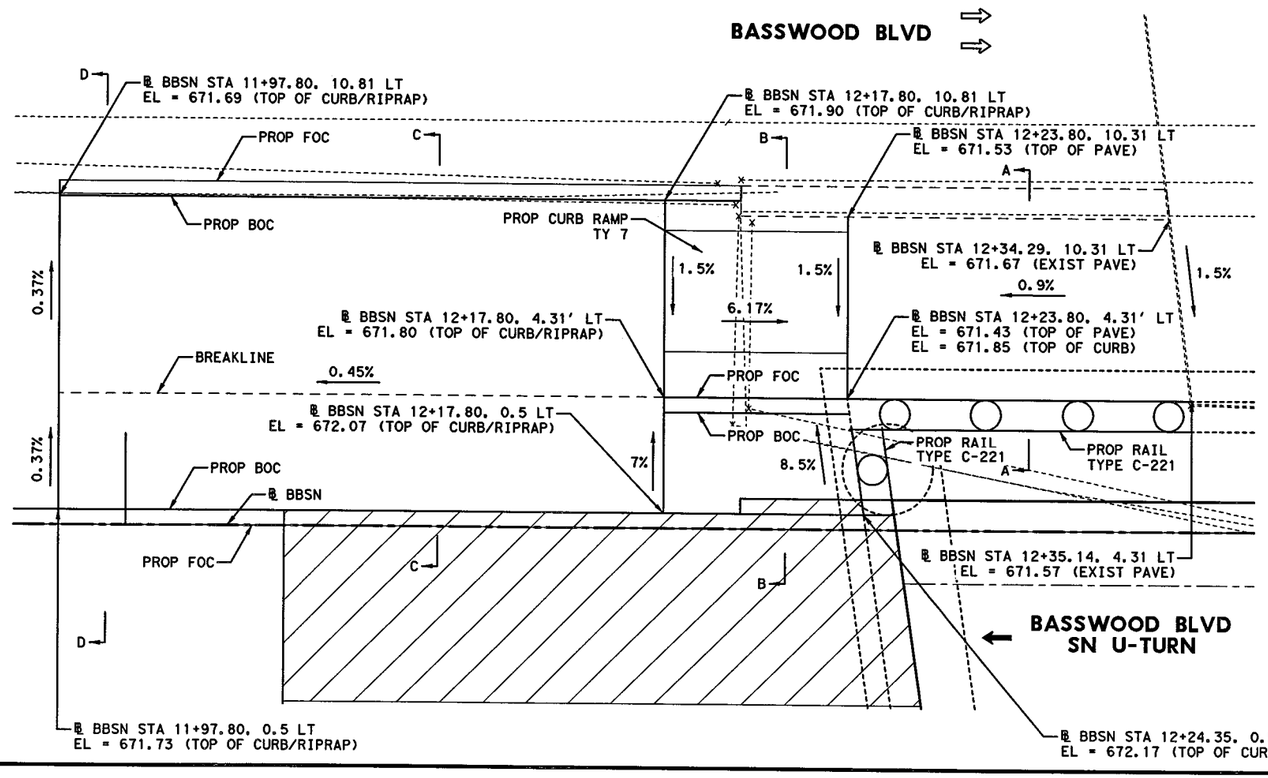
SHEET 4 OF 6

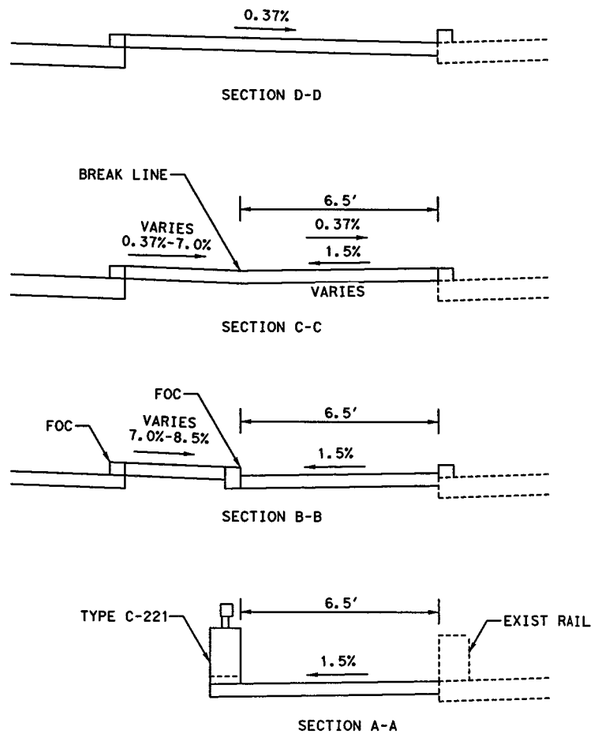
DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	887
KCI	0014	16	255, ETC.	
CHECK				
KCI				

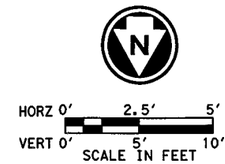
FILENAME: S3BMISDET04.dgn
DRAWING DATE: 7/13/2012











NOTES:

1. FOC - FACE OF CURB
   BOC - BACK OF CURB
2. REFER TO BRIDGE LAYOUTS AND BRIDGE END DETAILS FOR ADDITIONAL INFORMATION.

LEGEND:

APPROACH SLAB

C-221 RAIL

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

MISCELLANEOUS ROADWAY DETAILS

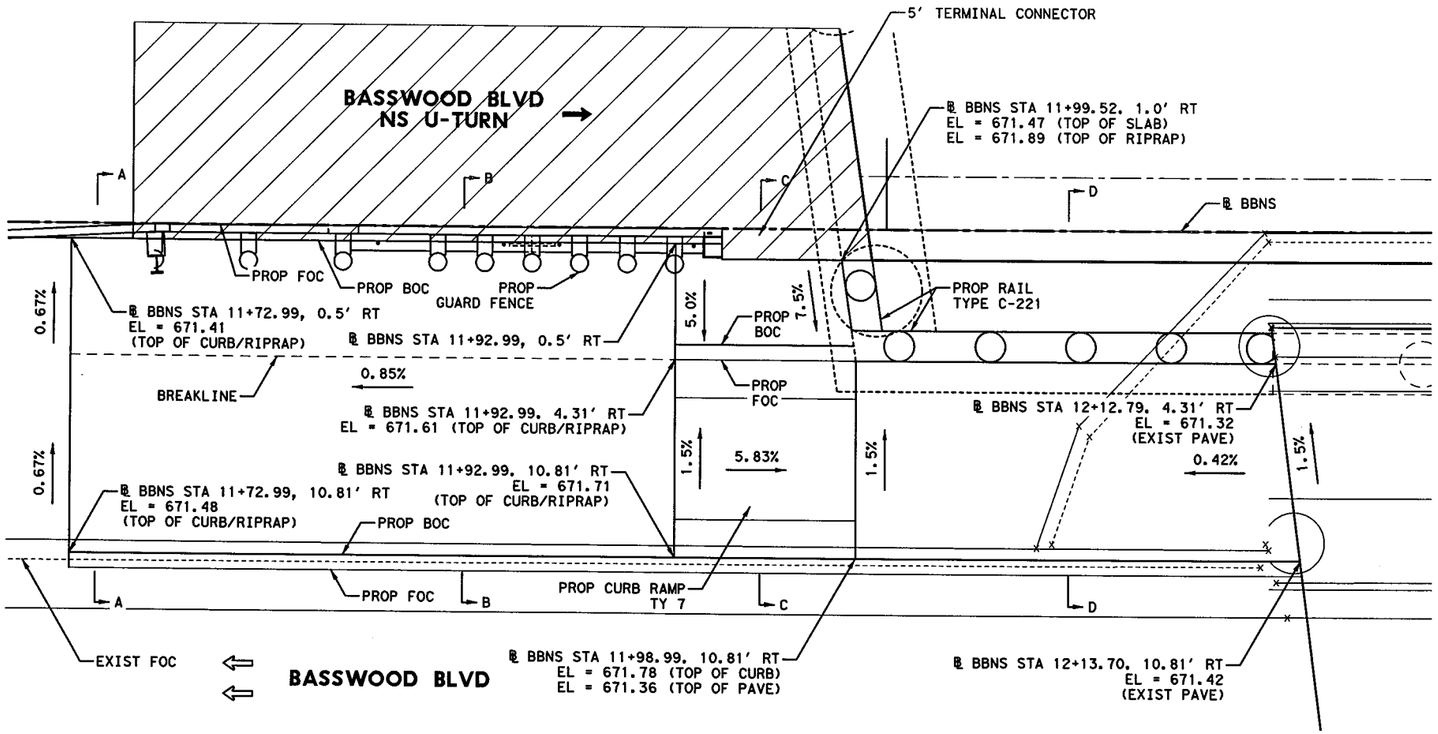
SCALE: 1" = 5'

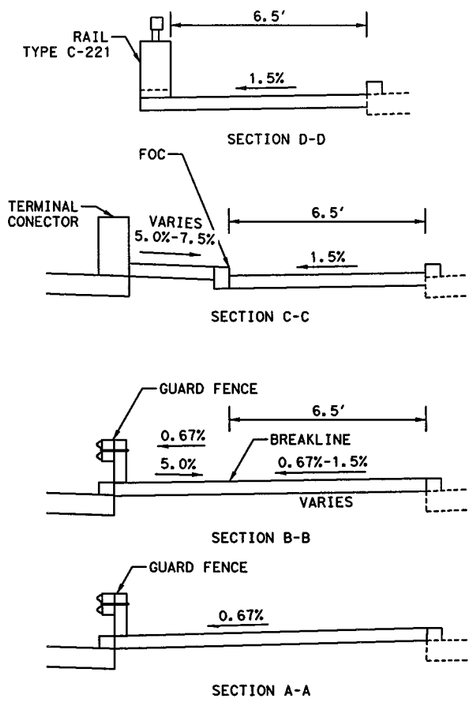
SHEET 5 OF 6

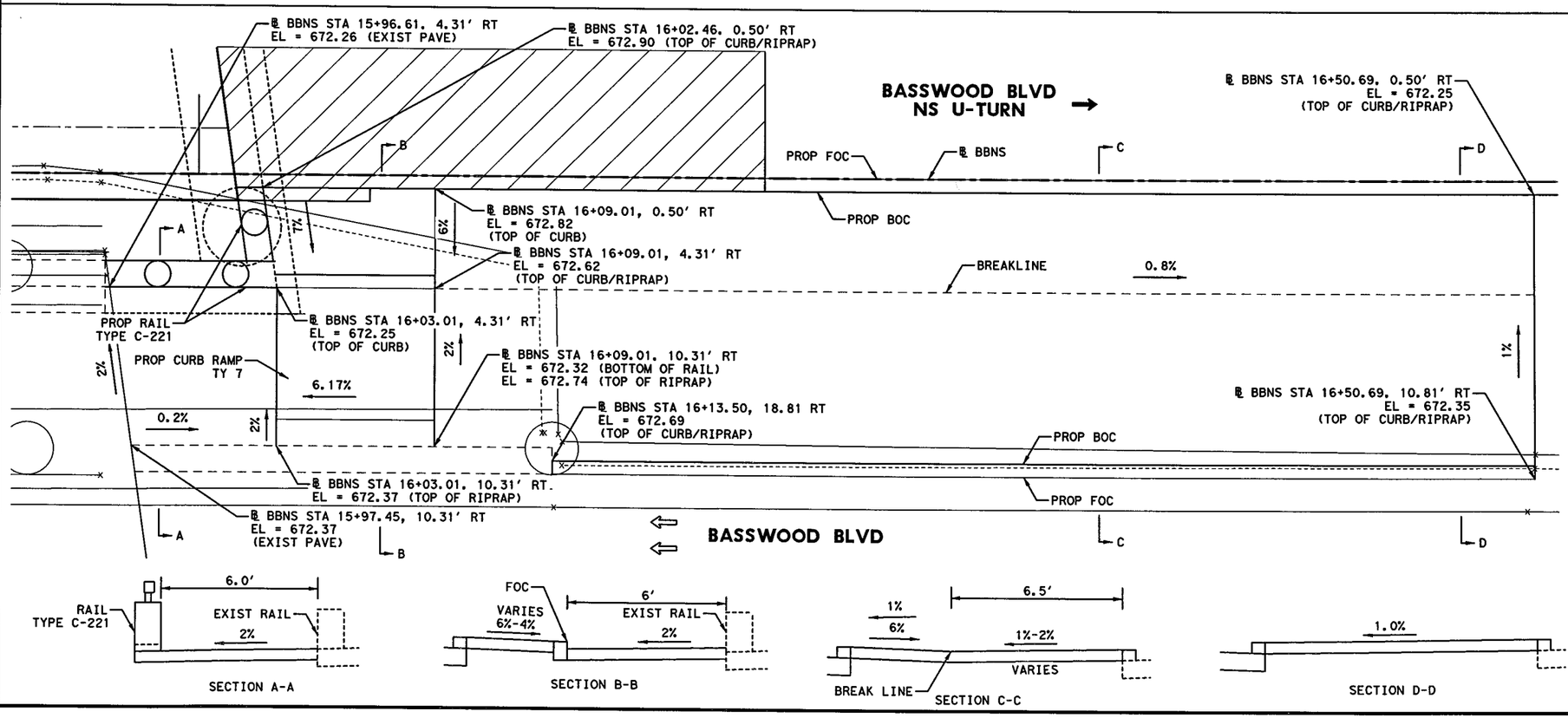
DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	888
KCI	0014	16	255, ETC.	
CHECK				

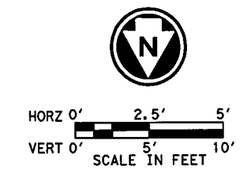
FILENAME: S3BMISDET02.dgn

DRAWING DATE: 7/13/2012









NOTES:

1. FOC - FACE OF CURB
   BOC - BACK OF CURB
2. REFER TO BRIDGE LAYOUTS AND BRIDGE END DETAILS FOR ADDITIONAL INFORMATION.

LEGEND:

APPROACH SLAB

C-221 RAIL

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/13/12

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

MISCELLANEOUS ROADWAY DETAILS

SCALE: 1" = 5'

SHEET 6 OF 6

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	889
KCI	0014	16	255, ETC.	
CHECK				
KCI				

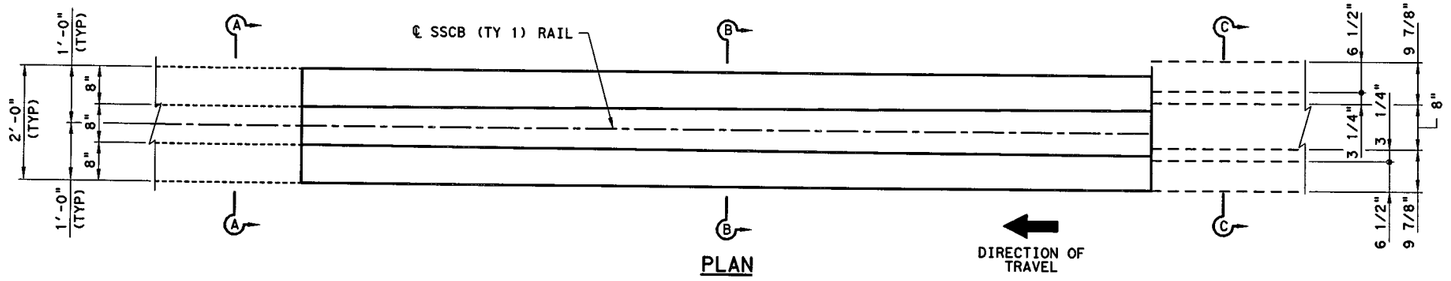
FILENAME: S3BMISDET03.dgn

DRAWING DATE: 7/13/2012

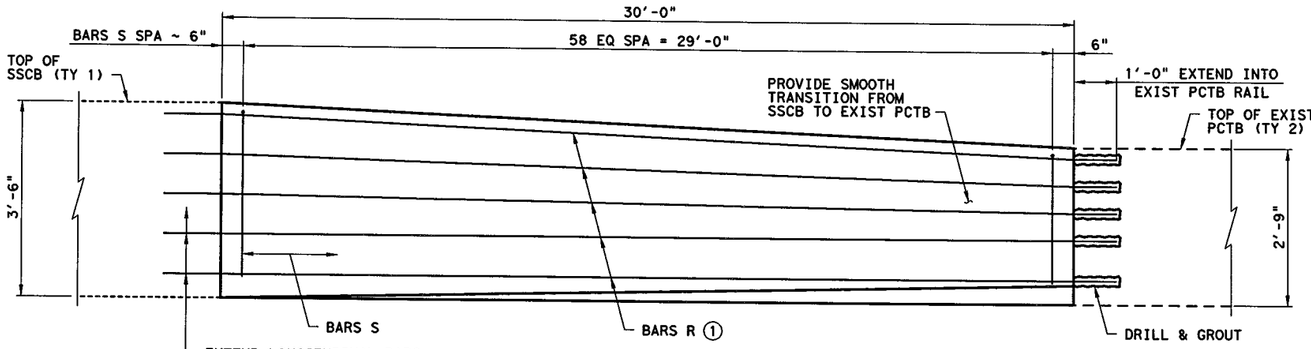
BAR TABLE	
BAR	SIZE
R	#5
S	#5

④ CONCRETE QUANTITY		
CLASS "C" CONCRETE	CY	4.2

④ QUANTITY SHOWN FOR CONTRACTOR INFORMATION ONLY.

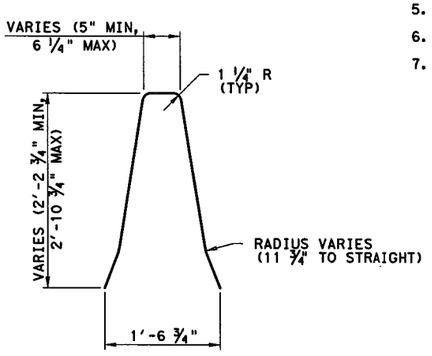


PLAN



ELEVATION

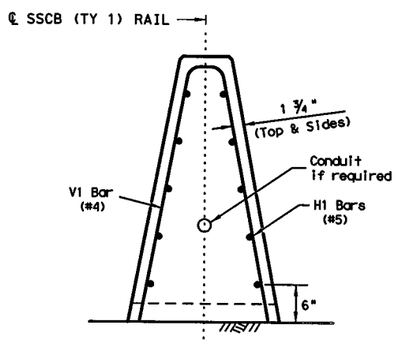
① DRILL AND GROUT BARS R TO EXISTING PCTB (TY 2). FIELD BEND TO AVOID EXISTING BARS. CONTRACTOR TO USE NON-SHRINK GROUT.



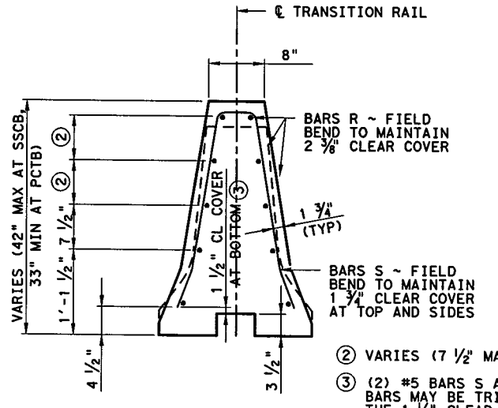
BARS S

GENERAL NOTES:

1. BARRIER TRANSITION DETAIL TO BE SUBSIDIARY TO ITEM 514 SSCB (TY1) CONCRETE TRAFFIC BARRIER.
2. ALL HOLES DRILLED TO INSTALL TRANSITION RAIL TO BE REPAIRED BY THE CONTRACTOR.
3. SEE TxDOT STANDARD SSCB(1F)-10 AND PCTB (1)-04 FOR ADDITIONAL INFORMATION.
4. SEE CONCRETE BARRIER DETAILS FOR TRANSITION RAIL FOUNDATION DETAILS.
5. ALL REINFORCING STEEL TO BE GRADE 60.
6. CONCRETE STRENGTH f'c = 3,600 psi.
7. AT CONTRACTOR'S OPTION, WELDED WIRE FABRIC (WWF) MAY BE USED IN PLACE OF CONVENTIONAL REINFORCING BARS R AND S WITH APPROVAL OF THE ENGINEER. WWF USED IS TO HAVE A MINIMUM REINFORCEMENT ARE EQUAL TO THAT PROVIDED BY BARS R AND S. WWF IS TO CONFORM TO ASTM A-497.



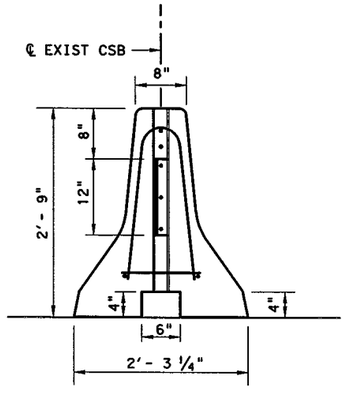
SECTION A-A



② VARIES (7 1/2" MAX)

③ (2) #5 BARS S AT DRAINING SLOTS. BARS MAY BE TRIMMED TO ACHIEVE THE 1 1/2" CLEAR COVER.

SECTION B-B



SECTION C-C

Syed Sajidul Haq 07/13/12

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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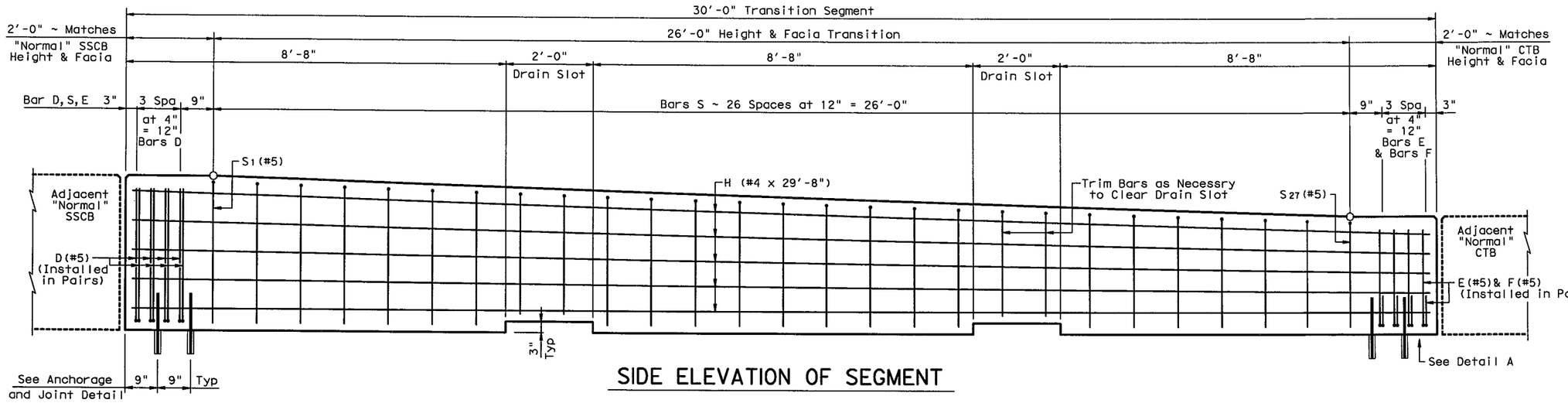
IH 35W FROM NORTH TARRANT PKWY TO IH 820

TRAFFIC BARRIER TRANSITION DETAIL (SSCB TO PCTB)

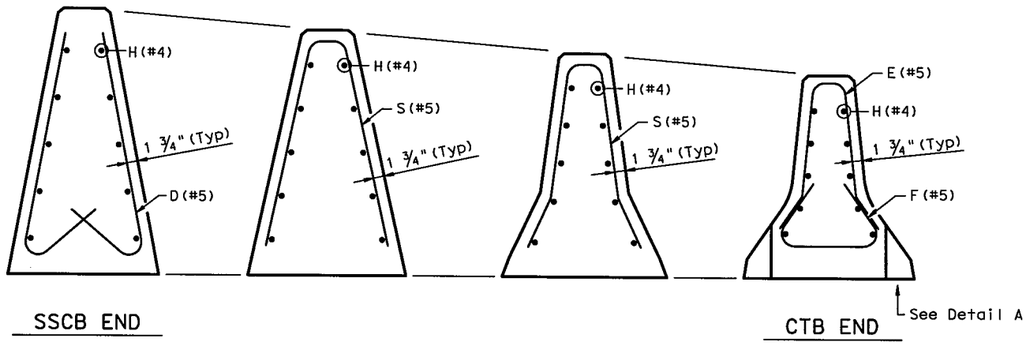
SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	890
KCI	0014	16	255, ETC.	
CHECK				

DRAWING DATE: 7/13/2012 FILENAME: S3BMISDET07.dgn

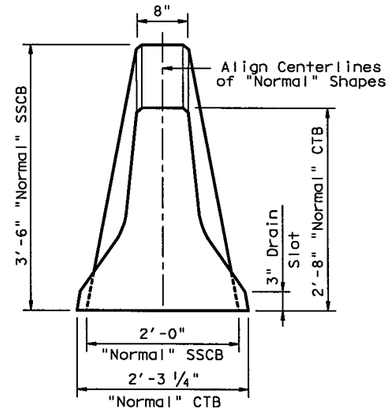


SIDE ELEVATION OF SEGMENT



TYPICAL SECTIONS THRU TRANSITION SEGMENT

Showing Reinforcing and Shape Transitions Only



END ELEVATION OF SEGMENT

Showing Geometry Only

General Notes:

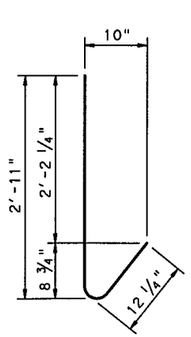
This Concrete Safety Barrier Transition Segment has been evaluated and approved to be of equal strength to barriers with similar geometry, which have been crash tested to meet NCHRP Report 350 TL-3 criteria. This Transition may be used for design speeds of 50 mph and greater.

Reinforcing for the Transition Segment shall be Grade 60. All concrete shall be Class "C". Chamfer all exposed corners 3/4" x 3/4".

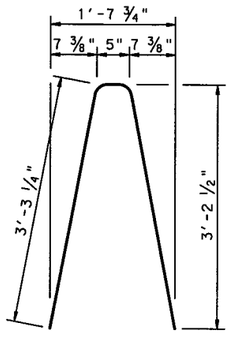
This Transition Segment is cast-in-place. The Transition Segment shall have end faces that are parallel to the adjacent "normal" Barriers.

Height and face profile of the Transition Segment shall be gradually changed, within the limits detailed, so as to match the height and profile of the adjacent "normal" Barriers. Adjust (bend and relocate) the reinforcing within the transition portion of the segment as necessary to conform to the altered barrier shape. Cover and minimum spacing requirements of the reinforcing shall not be violated.

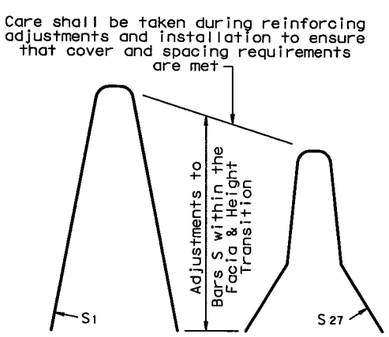
See elsewhere in the plans for barrier dimensions and joint connection details not included herein.



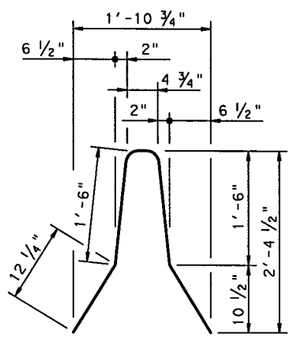
BARS D (#5)
Installed in Pairs
(Lgth = 4'-0 1/4")



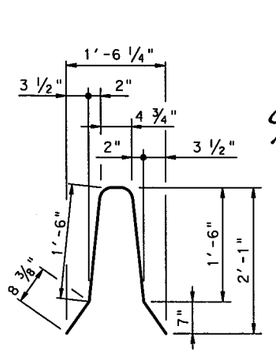
BARS S1 (#5)
(Lgth = 6'-10 1/2")



BARS S1-27 (#5)
Trim lower legs as necessary to clear Drain Slots



BARS S27 (#5)
(Lgth = 5'-4 1/2")



BARS E (#5)
(Lgth = 4'-8 1/2")

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER
07/10/12

SHEET 1 OF 2

Texas Department of Transportation
Houston District

BARRIER TRANSITION DETAILS (SSCB to CTB)

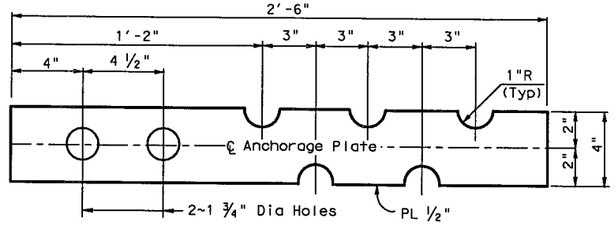
BTD (I)

FILE: STDC5.DGN	DN: TxDot	CK: TxDot	DW: TxDot	CK: TxDot	
© TxDOT MAY 2010	DIST	FED REG	PROJECT NO.		SHEET
REVISIONS	FTW	6	(SEE TITLE SHEET)		891
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	TARRANT		0014	16	255	IH35W

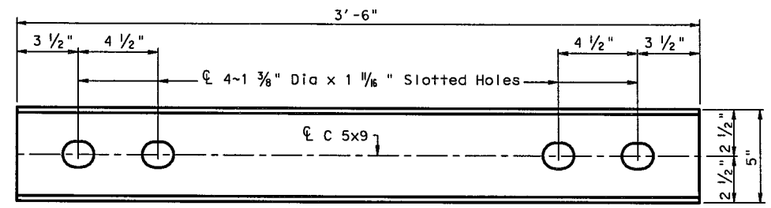
APPROXIMATE QUANTITIES FOR A 30 FT. SECTION		
CONCRETE	CY	3.27
REINFORCING STEEL	LBS	390

Approximate Weight Per Foot is 442 Lbs.
For Contractor's Information Only.

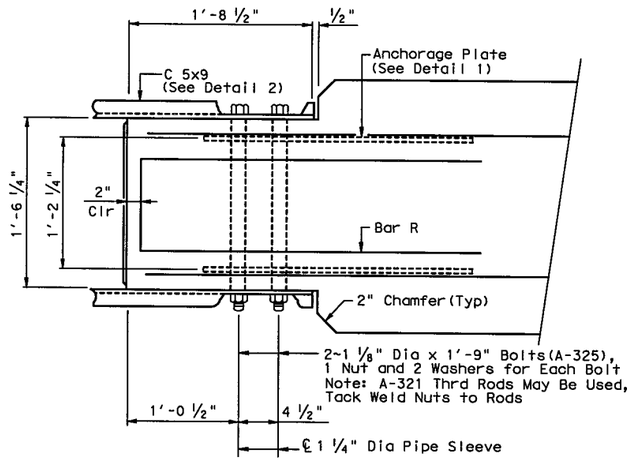
R = Radius
Dia = Diameter



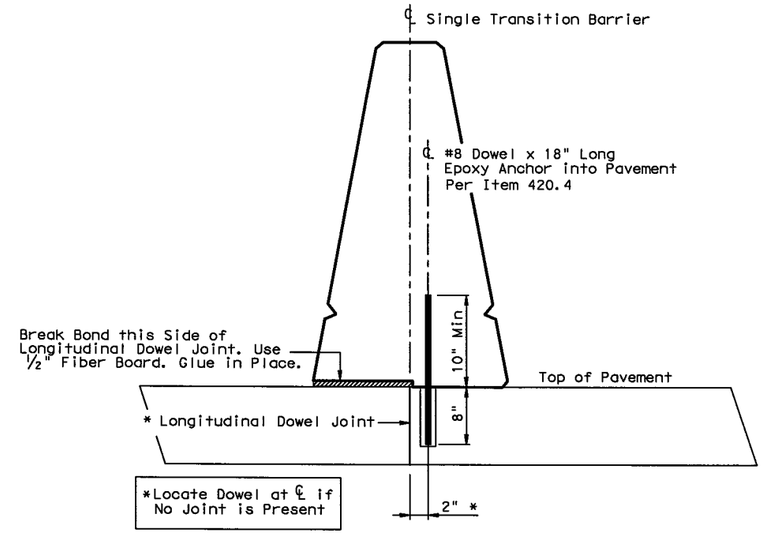
DETAIL 1



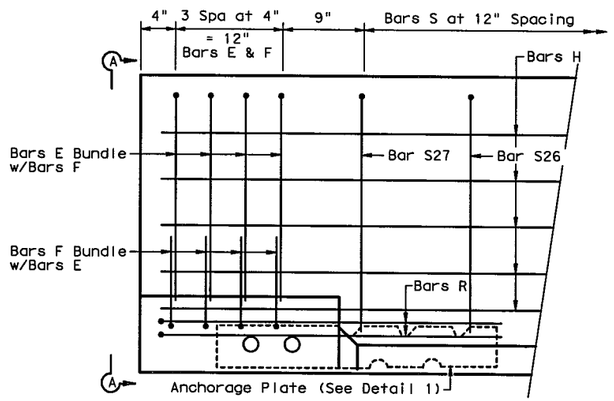
DETAIL 2



PLAN
CTB END
Showing Bolt Anchorage, Rebar & Block-out

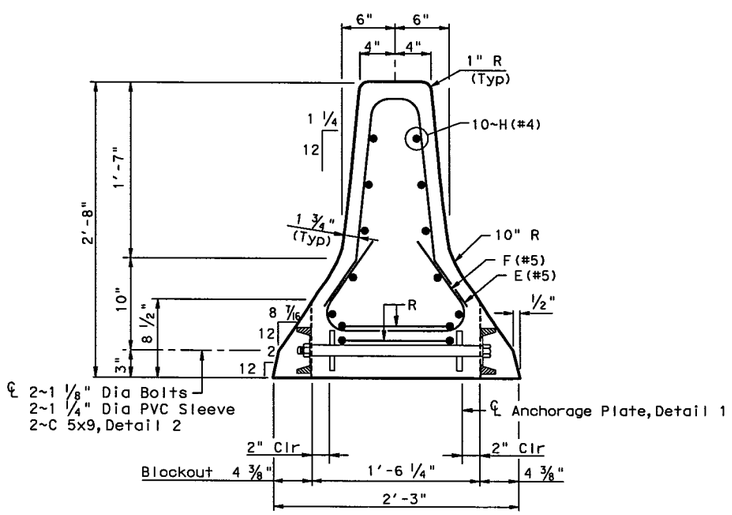


ANCHORAGE AND JOINT DETAIL

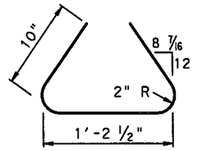


ELEVATION
CTB END

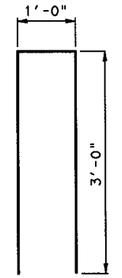
DETAIL A
CTB END



SECTION A-A



BAR F
(#5)



BAR R
(#6)

STATE OF TEXAS
SYED S. HAQ
94660
LICENSED
PROFESSIONAL ENGINEER

07/10/12

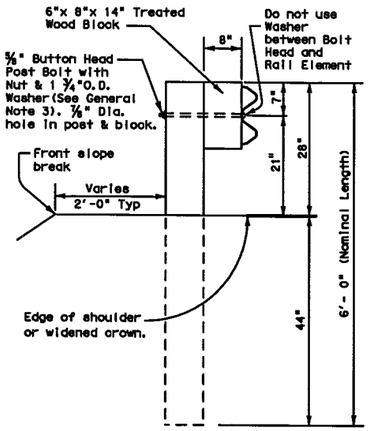
SHEET 2 OF 2

Texas Department of Transportation
Houston District

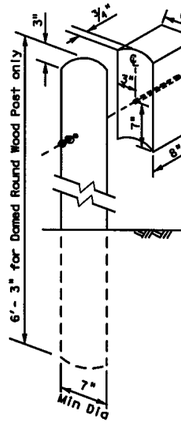
BARRIER TRANSITION DETAILS (SSCB to CTB)

BTD (2)

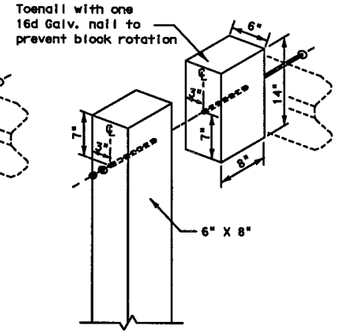
FILE: STDC5.DGN	DN: TxDot	CK: TxDot	DW: TxDot	CK: TxDot	
© TxDOT MAY 2010	DIST	FED REG	PROJECT NO.		SHEET
REVISIONS	FTW	6	(SEE TITLE SHEET)		892
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	TARRANT		0014	16	255	IH35W



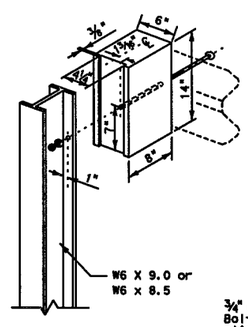
TYPICAL POST



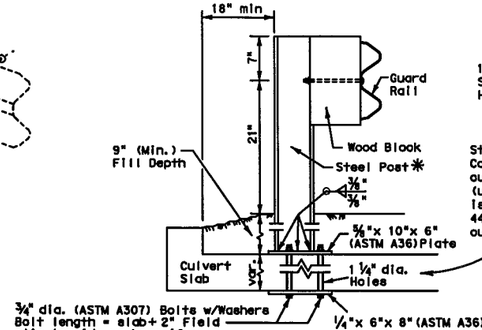
WOOD BLOCK TO ROUND WOOD POST



WOOD BLOCK TO RECTANGULAR WOOD POST

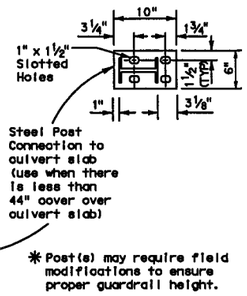


WOOD BLOCK TO STEEL POST

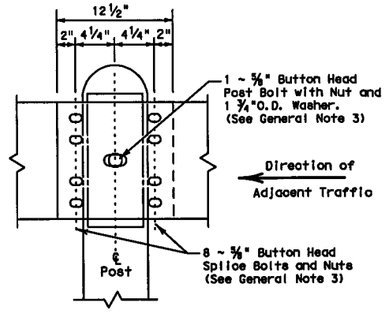


* LOW FILL CULVERT POST

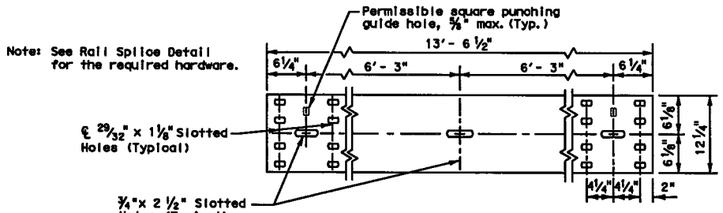
FOR USE ON NON-BRIDGE CLASS CULVERTS ONLY



* Post(s) may require field modifications to ensure proper guardrail height.



RAIL SPLICE DETAIL

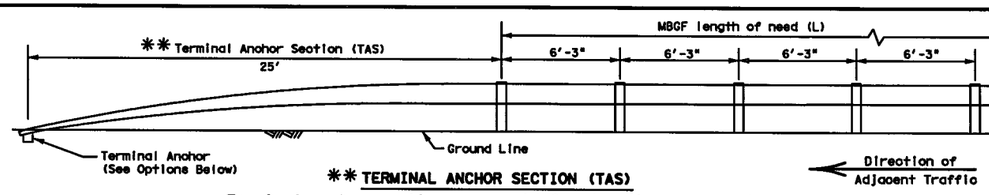


ELEVATION 12 ½' (NOM.) W-BEAM SECTION

25 foot sections may also be supplied (See General Note 2)

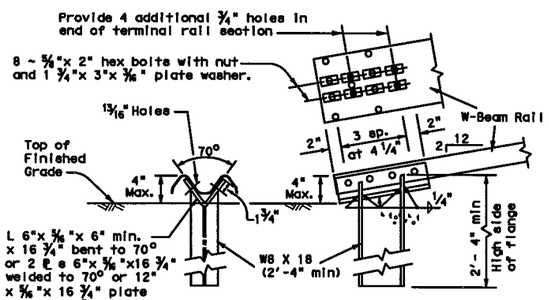
GENERAL NOTES

1. The type of post (round wood post, rectangular wood post, or steel post) will be shown elsewhere in the plans. The exact position of MBGF shall be shown elsewhere in the plans or as directed by the Engineer. Steel posts to be galvanized in accordance with Item 445, "Galvanizing."
2. Rail element shall meet the requirements of Item 540, "Metal Beam Guard Fence" except as modified on the plans. The Contractor may furnish rail elements of 12 ½ or 25 foot nominal lengths.
3. Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and Type A (1 ¾" O.D.) washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) are ⅝" x 1 ¼" (or 2" long at triple rail splices) with a ⅝" double recessed nut (ASTM A563).
4. Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445, "Galvanizing." Fittings shall be subsidiary to the bid item.
5. Crown shall be widened to accommodate the Metal Beam Guard Fence.
6. The lateral approach to the guard fence, shall have a slope rate of not more than 1V:10H.
7. Unless otherwise shown in the plans, guard fence placed in the vicinity of curbs shall be positioned so that the face of curb is located directly below or behind the face of the block. Rail placed over curbs shall be installed so that the post bolt is located approximately 21 inches above the gutter pan or roadway surface.
8. If solid rock is encountered within 0 to 18" of the finished grade, drill a 22" dia. hole, 24" into the rock, or drill two 12" dia. front to back overlapping holes, 24" into the rock. If solid rock is encountered below 18", drill a 12" dia. hole, 12" into the rock or to the standard embedment depth, whichever is less. Any excess post length, after meeting these depths, may be field cut to ensure proper guardrail mounting height. Backfill with a cohesionless material.
9. Posts shall not be set in concrete, of any depth.
10. Special fabrication will be required at installations having a curvature of less than 150 ft. radius.
11. The terminal anchor section (TAS) post shall be set in Class A concrete (unless otherwise shown in the plans) in accordance with Item 421, "Hydraulic Cement Concrete." Concrete shall be subsidiary to the bid item requiring construction of the terminal anchor section (TAS). Terminal anchor post to be galvanized in accordance with Item 445, "Galvanizing."
12. Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210, "Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL can furnish composite material posts and/or blocks.



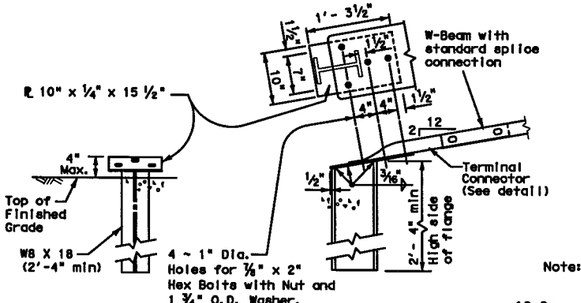
** TERMINAL ANCHOR SECTION (TAS)

Terminal anchor sections are only for downstream use, when located outside the horizontal clearance area of opposing traffic.



OPTION (1)

Note: This anchor post requires four additional ¾" holes (shop or field) in the rail member with eight ⅝" hex bolts with nut and plate washer.

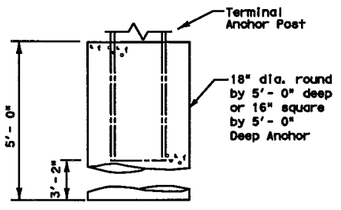


OPTION (2)

Note: This anchor post requires the use of the 10 ga. terminal connector with four ⅞" hex bolts with nut and washer.

TERMINAL ANCHOR POST OPTIONS

(See General Note 11)



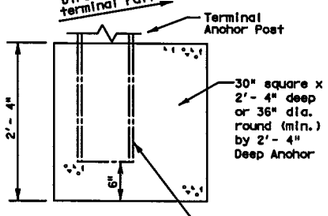
Notes:

Either concrete anchor may be used with either post option above.

No construction joint is allowed in the concrete anchor.

Terminal rail may be bolted to post and in twist position prior to placing concrete anchor.

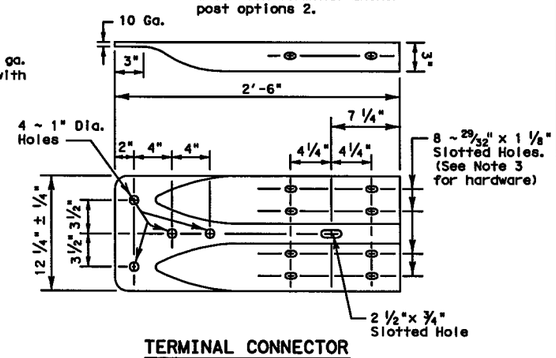
If concrete anchor is precast, the area should be compacted as directed by the Engineer, when placed in the field.



TERMINAL CONCRETE ANCHOR OPTIONS

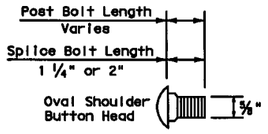
(See General Note 11)

Note: Terminal Connector to be used with terminal anchor post options 2.



TERMINAL CONNECTOR

For connection hardware to concrete rails, see the MBGF transition standards.



BUTTON HEAD BOLT

Post and Splice Bolts (See General Note 3)

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

LEVELS DISPLAYED

Texas Department of Transportation
Design Division (Roadway)

METAL BEAM GUARD FENCE

MBGF-09

FILE: mbgf09.dgn	DN: AM	CK: AM	DW: BD	CK:	
©TxDOT JULY 1994	DIST	FEDERAL AID PROJECT			SHEET
REVISIONS	FTW	(SEE TITLE SHEET)			893
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	TARRANT		0014	1@55, ET		IH35W

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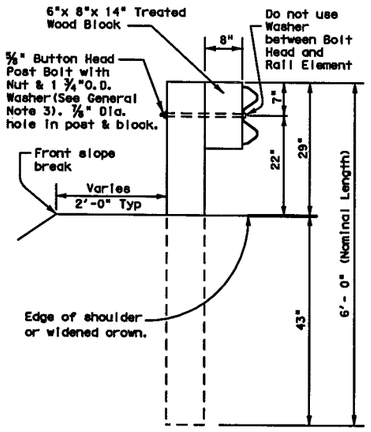
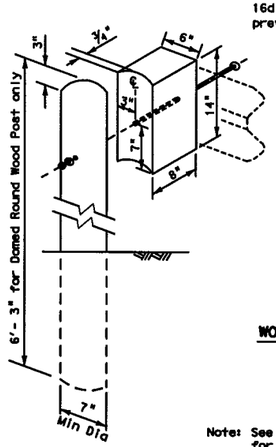
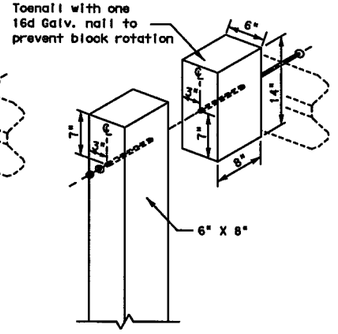


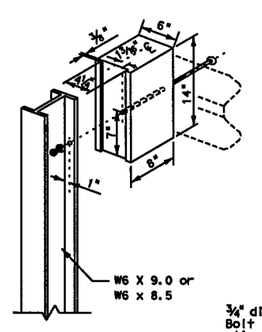
TYPICAL POST



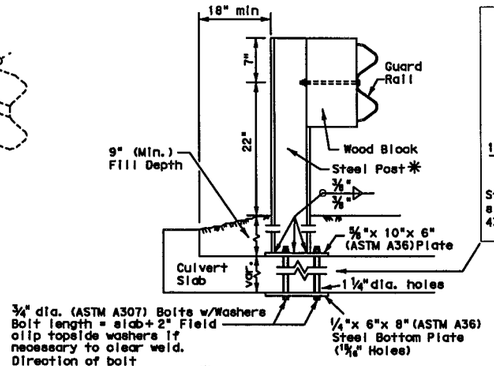
WOOD BLOCK TO ROUND WOOD POST



WOOD BLOCK TO RECTANGULAR WOOD POST

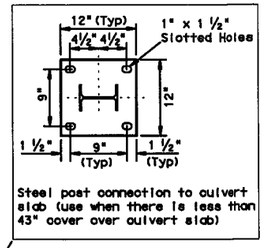


WOOD BLOCK TO STEEL POST

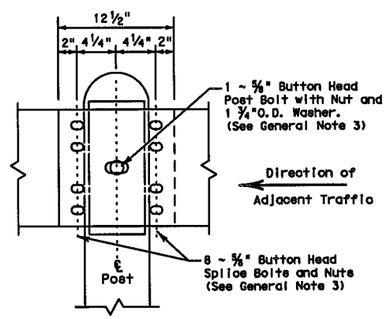


*LOW FILL CULVERT POST

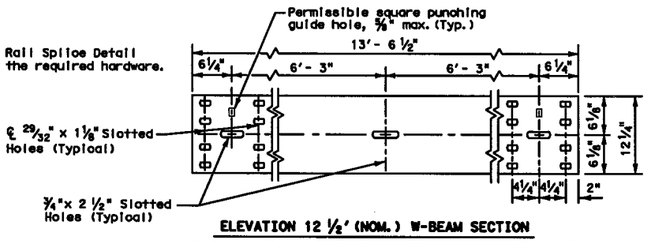
FOR USE ON NON-BRIDGE CLASS CULVERTS ONLY



*Post(s) may require field modifications to ensure proper guardrail height.

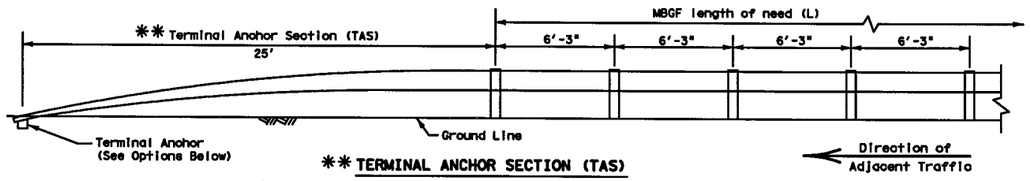


RAIL SPLICE DETAIL



ELEVATION 12 ½' (NOM.) W-BEAM SECTION

25 foot sections may also be supplied (See General Note 2)



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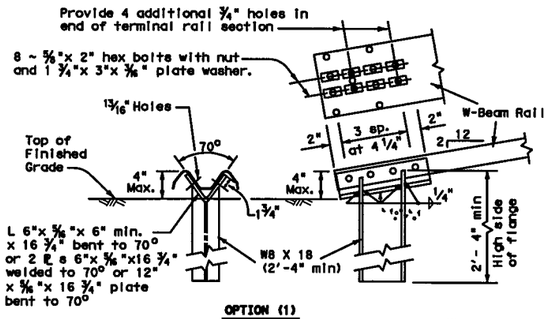

OPTION (1)

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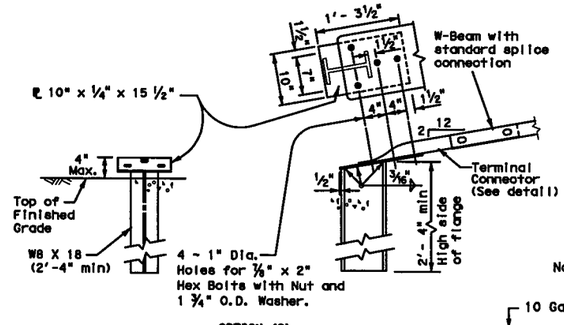
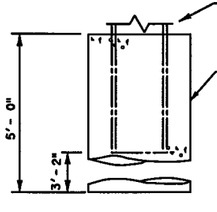


OPTION (2)

Note: This anchor post requires the use of the 10 ga. terminal connector with four ⅞" hex bolts with nut and washer.

TERMINAL ANCHOR POST OPTIONS

(See General Note 11)



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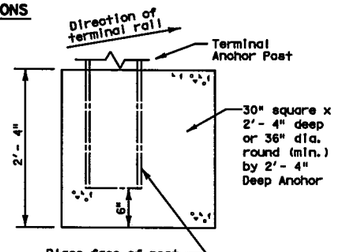
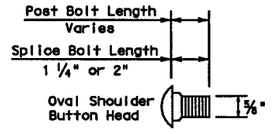


TERMINAL CONCRETE ANCHOR OPTIONS

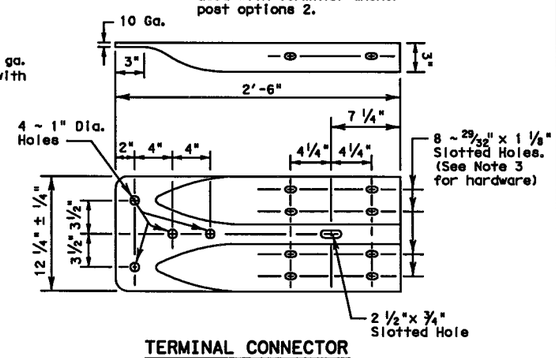
(See General Note 11)



BUTTON HEAD BOLT

Post and Splice Bolts (See General Note 3)

Note: Terminal Connector to be used with terminal anchor post options 2.



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GENERAL NOTES

1. The type of post (round wood post, rectangular wood post, or steel post) will be shown elsewhere in the plans. The exact position of MBGF shall be shown elsewhere in the plans or as directed by the Engineer. Steel posts to be galvanized in accordance with Item 445, "Galvanizing."
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Texas Department of Transportation
Design Division Standard

METAL BEAM GUARD FENCE

MBGF-11

FILE: mbgf11.dgn	DN: TxDOT	CK: AM	DW: BD	CK: VP
©TxDOT July 1994	CONT	SECT	JOB	HIGHWAY
REVISIONS	0014	16	255, ETC.	IH35W
	DIST	COUNTY		SHEET NO.
	FTW	TARRANT		894

DATE: 7/13/2012 10:21:44 PM
FILE: MBGF-11.dgn

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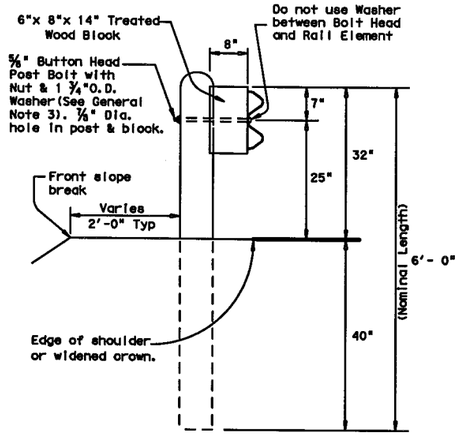
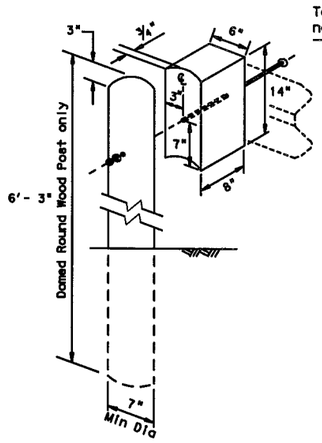
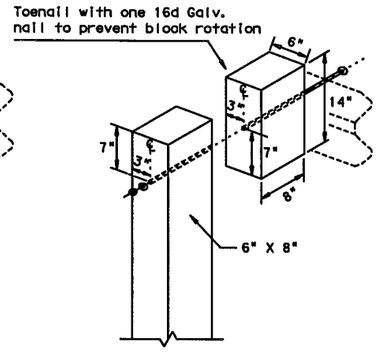


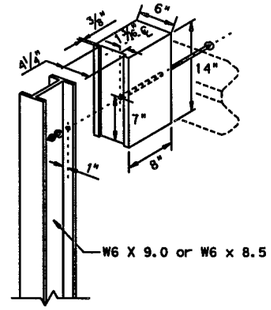
TYPICAL POST



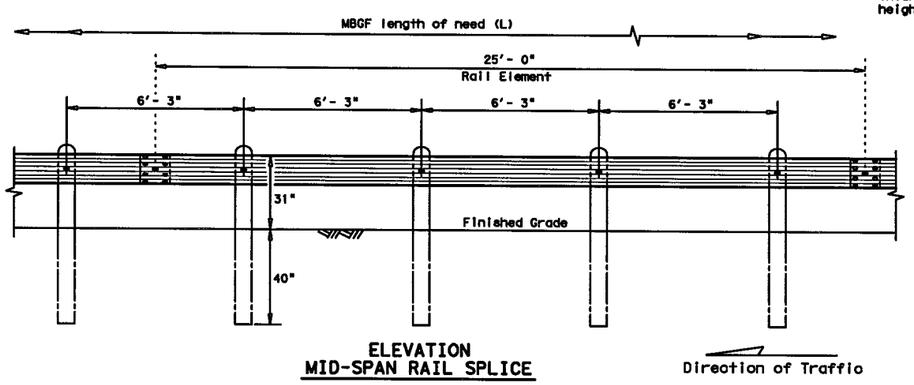
WOOD BLOCK TO ROUND WOOD POST



WOOD BLOCK TO RECTANGULAR WOOD POST

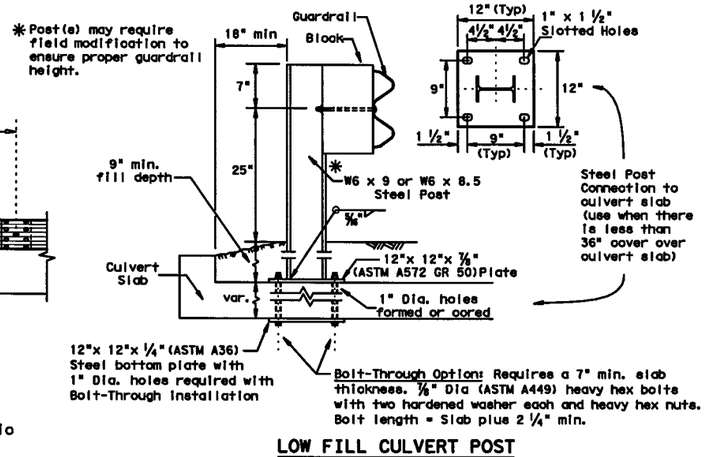


WOOD BLOCK TO STEEL POST



ELEVATION
MID-SPAN RAIL SPLICE

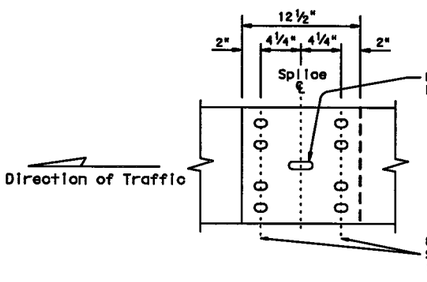
Showing a 25'- 0" section of W-Beam rail, 12'- 6" rail sections may also be supplied (See General Note 2)



LOW FILL CULVERT POST

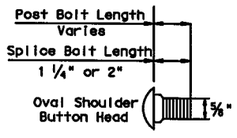
For use on culverts up to 50 ft. in length. Culverts of 25 ft. or less, See GF(31)LS standard for "Long Span" option.

Epoxy Note:
Epoxy Anchor Option: This option may only be used if the culvert slab is 8" min. thick. Threaded anchor rods must be ⅞" Dia. ASTM A449 or A193 Grade B7 with heavy hex nut, and one hardened washer each. Embed anchor rods 6" with Hilti HIT RE 500 epoxy adhesive. Other Type III Class C epoxy adhesives meeting the requirements of DMS-6100, "Epoxies and Adhesives", may be used if it can be demonstrated that they meet or exceed the strength of Hilti HIT RE 500 with the same embedment depth and threaded rod dia. Follow the manufacturer's requirements for installing epoxied threaded rods. Extend rods ¼" min. beyond nut.



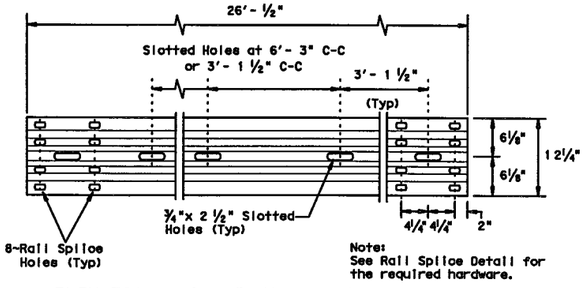
MID-SPAN
RAIL SPLICE DETAIL

GF(31), Mid-Span rail splices are required with 6'-3" post spacings.



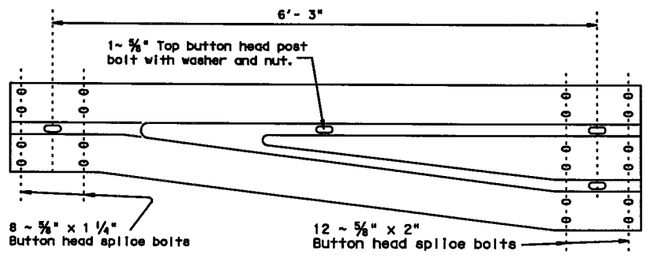
BUTTON HEAD BOLT

Post and Splice Bolts (See General Note 3)



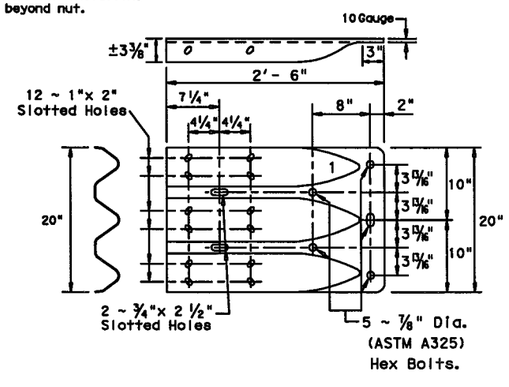
ELEVATION 25'- 0"(NOM.) W-BEAM SECTION

12'- 6" rail sections may also be supplied (See General Note 2)



NON-SYMMETRICAL TRANSITION
FROM W-BEAM TO CONCRETE RAIL (10 GA.)

(See GF(31)DAT for Downstream Connection to Concrete Rail)



THRIE-BEAM TERMINAL CONNECTION (10 GA.)

(See General Note 3 for required hardware)

GENERAL NOTES

1. The type of post (round wood post, rectangular wood post, or steel post) will be as shown in the plans. The exact position of MBGF shall be shown in the plans or as directed by the Engineer. Steel posts to be galvanized in accordance with Item 445, "Galvanizing."
2. Rail element shall meet the requirements of Item 540,"Metal Beam Guard Fence" except as modified in the plans. The Contractor may furnish rail elements of 25'- 0", or 12'- 6" (nom.) lengths. Rail elements may have slotted holes at 3'-1½" C-C or 6'-3" C-C. A special length of rail may be manufactured to accommodate the downstream anchor terminal (DAT) and the transition sections of guardrail.
3. Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and Type A (1 ¾" O.D.)washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) are ⅝" x 1 ¼" (or 2" long at triple rail splices) with a ⅝" double recessed nut (ASTM A563). Thrie beam "connection" ⅞" dia. (ASTM A325) hex bolts shall be of sufficient length to extend through the full thickness of the rail, washers, and nuts.
4. Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445, "Galvanizing." Fittings shall be subsidiary to the bid item.
5. Crown shall be widened to accommodate the Metal Beam Guard Fence.
6. The lateral approach to the guard fence, shall have a maximum slope of 1V:10H.
7. If shown elsewhere in the plans or as directed by the Engineer, the guard fence may be flared at a rate of 25:1 or flatter.
8. Unless otherwise shown in the plans, guard fence placed in the vicinity of curbs shall be positioned so that the face of curb is located directly below or behind the face of the rail. Rail placed over curbs shall be installed so that the post bolt is located approximately 25 inches above the gutter pan or edge of shoulder.
9. If solid rock is encountered within 0 to 18" of the finished grade, drill a 22" dia. hole, or drill two 12" dia. front to back overlapping holes, 24" into the rock. If solid rock is encountered below 18",drill a 12" dia. hole, 12" into the rock or to the standard embedment depth, whichever maybe less. Any excess post length, after meeting these depths, may be field cut to ensure proper guardrail mounting height. Backfill with a cohesionless material.
10. Posts shall not be set in concrete, of any depth.
11. Special fabrication will be required at installations having a curvature of less than 150 ft. radius.
12. Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210,"Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL may furnish composite material posts and/or blocks.
13. For posts located partially or wholly between precast box culvert units, the use of a cast-in-place concrete closure between boxes is required. See Detail "A" on Bridge Standard SCP-MD.

Texas Department of Transportation
Design Division Standard

METAL BEAM GUARD FENCE

GF(31)-11

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REVISIONS	0014	16	255, ETC.	IH35W
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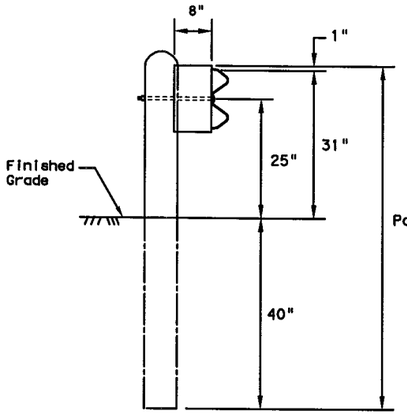
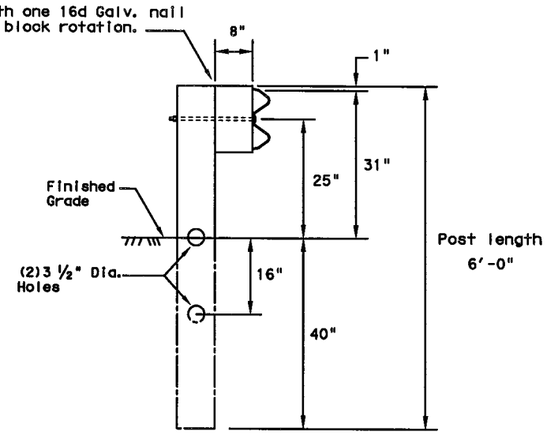
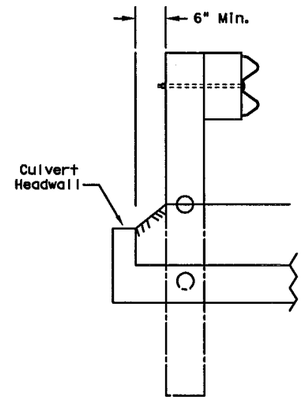


Standard Line Post Installation



Rectangular CRT Post (6"x 8" x 6' Long)

(6) CRT required.
See Elevation Detail for locations.

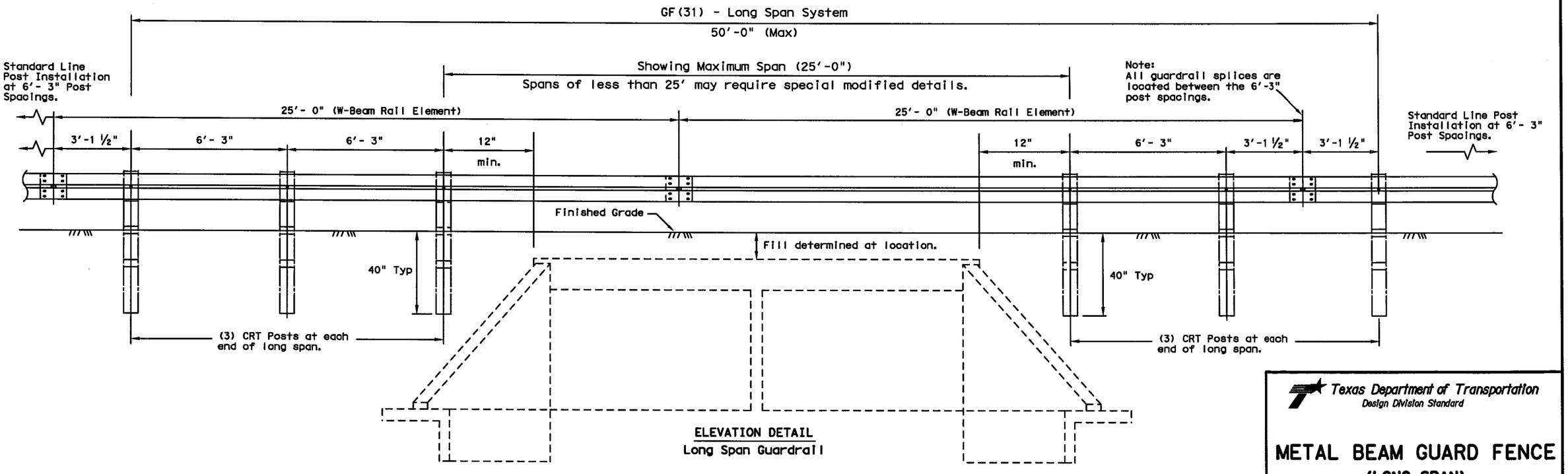


Lateral Offset Between the Guardrail and the Culvert Headwall

GENERAL NOTES

1. The type of line post (round wood post, rectangular wood post, or steel post) will be as shown in the plans. The exact position of the transitions shall be as shown in the plans or as directed by the Engineer. Steel posts to be galvanized in accordance with Item 445, "Galvanizing."
2. Rail element shall meet all requirements of Item 540, "Metal Beam Guard Fence" except as modified on the plans. The Contractor may furnish rail elements of 12 ½ or 25 foot nominal lengths.
3. Rail post holes are offset 3'- 1 ½" from standard guardrail to accommodate the midspan splicing.
4. Button head post bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and no more than ¾" beyond it. Button head splice bolts (ASTM A307) are ⅝" x 1 ¼" with a ⅝" double recessed nut (ASTM A563). Galvanized fittings (bolts, nuts, and washers) shall be in accordance with Item, "Metal For Structures". Fittings shall be subsidiary to the bid item requiring construction of transition.
5. Where solid rock is encountered or where shown on the plans, the diameter of the holes shall be approximantley 12 inches, the backfilling shall be with a cohesionless material, and embedment depth shall be 1' - 6" or more as directed by the Engineer.
6. Posts shall not be set in concrete, of any depth.
7. Refer to GF(31) Standard Sheet for additional details.

NOTE: Field drilled holes shall be repaired in accordance with Item 445, "Galvanizing". Flame cutting of holes in guardrail shall not be permitted.



ELEVATION DETAIL
Long Span Guardrail

Texas Department of Transportation
Design Division Standard

METAL BEAM GUARD FENCE
(LONG SPAN)

GF(31)LS-11

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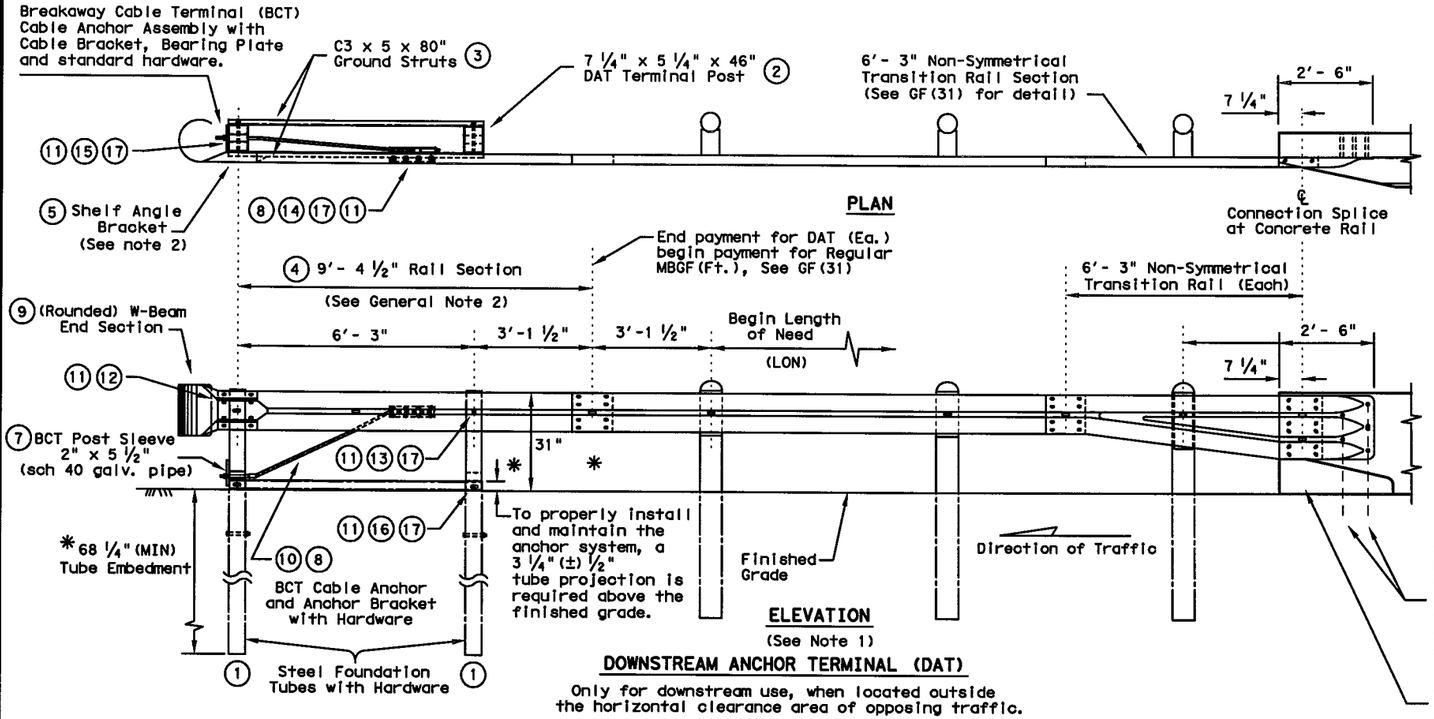
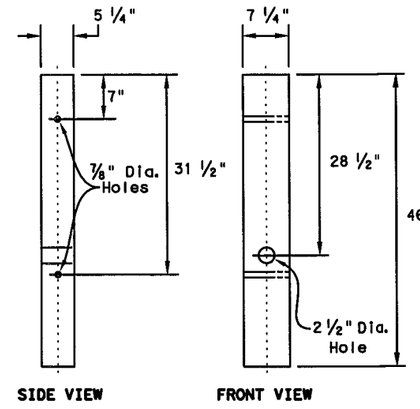


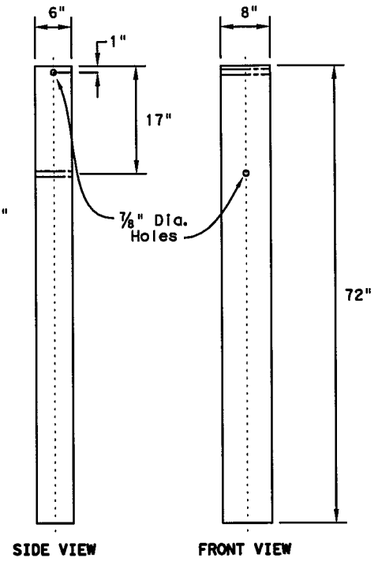
5 ~ 7/8" Dia. (ASTM A325 or A449) Heavy Hex Head Bolts, with two 1 3/4" O.D. washers under each head and nut. Bolts shall be of sufficient length to extend through the full thickness of the rail, washer, and nut. Install with bolt heads on traffic face.

Chamfer required on concrete rails that extend beyond the face of the guardrail transition.



TERMINAL POST

(2) 7 1/4"x 5 1/4"x 46" Wood Post



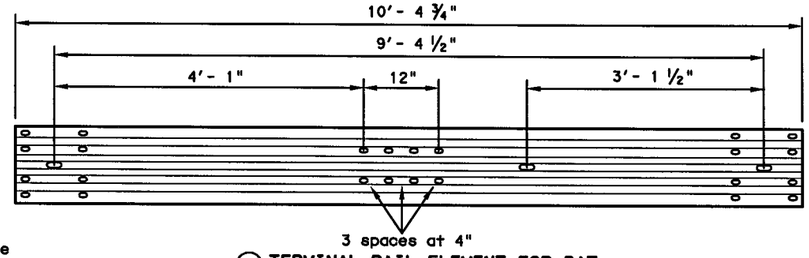
STEEL FOUNDATION TUBE

(1) 6"x 8"x 1/8" x 72" Steel Tube

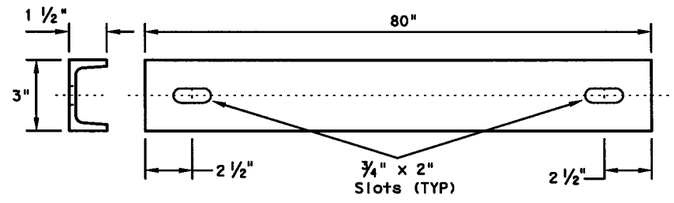
#	(DAT) PARTS LIST	QTY.
(1)	Steel Foundation Tube	2
(2)	DAT Terminal Post	2
(3)	Channel Strut	2
(4)	Terminal Rail Element	1
(5)	Shelf Angle Bracket	1
(6)	BCT Bearing Plate	1
(7)	BCT Post Sleeve	1
(8)	Guardrail Anchor Bracket	1
(9)	(Rounded) W-Beam End Section	1
(10)	BCT Cable Anchor	1
(11)	Recessed Nut, Guardrail	20
(12)	1 1/4" Button Head Bolt	4
(13)	10" Button Head Bolt	2
(14)	5/8" x 2" Hex Head Bolt	8
(15)	5/8" x 8" Hex Head Bolt	4
(16)	5/8" x 10" Hex Head Bolt	2
(17)	5/8" Flat Washer	18

Terminal Connection Note

To ensure a stable connection. (12) Rectangular Washers (FWR03) are required under the recessed nuts at the Terminal Connection splice.

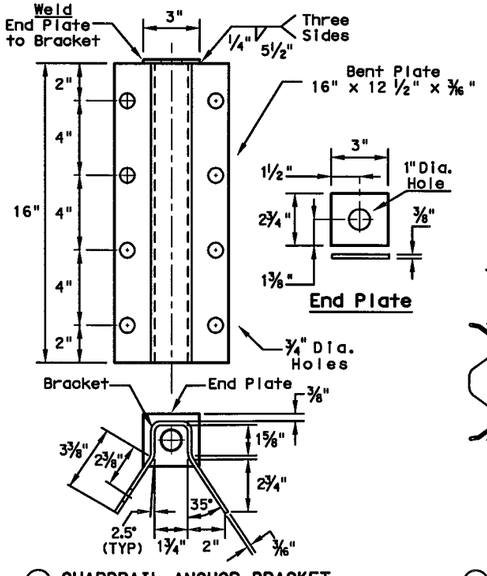


(4) TERMINAL RAIL ELEMENT FOR DAT

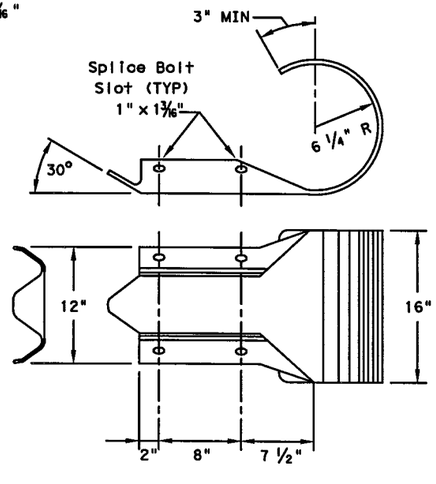


(3) CHANNEL STRUT

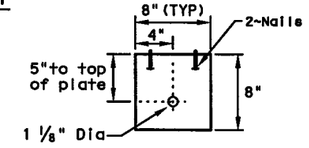
C3 x 5 x 80", Grade A36



(8) GUARDRAIL ANCHOR BRACKET



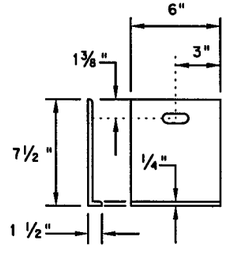
(9) W-BEAM END SECTION (ROUNDED) (12 GA.)



Note: Drive nails and bend over to prevent plate rotation

(6) BEARING PLATE

8"x 8"x 5/8" ℄



(5) SHELF ANGLE BRACKET

GENERAL NOTES

1. The DAT detail shown is the minimum Length of Need (LON) for a DAT connected to a concrete rail.
2. The rail section at the end post is supported by the Shelf Angle Bracket. The rail element is not attached to the end post.
3. The foundation tubes shall not project more than 3 3/4" above the finished grade.
4. All hardware for DAT shall be ASTM A307 unless otherwise shown.
5. Refer to GF(31) sheet for terminal connection details.

MOW STRIP INSTALLATION

If a mow strip is required with the DAT installation the leave-out area around the steel foundation tubes and the two channel struts may be omitted. This will require a full pour at the foundation tubes.

Texas Department of Transportation
Design Division Standard

METAL BEAM GUARD FENCE
(Downstream Anchor Terminal)
GF(31)DAT-11

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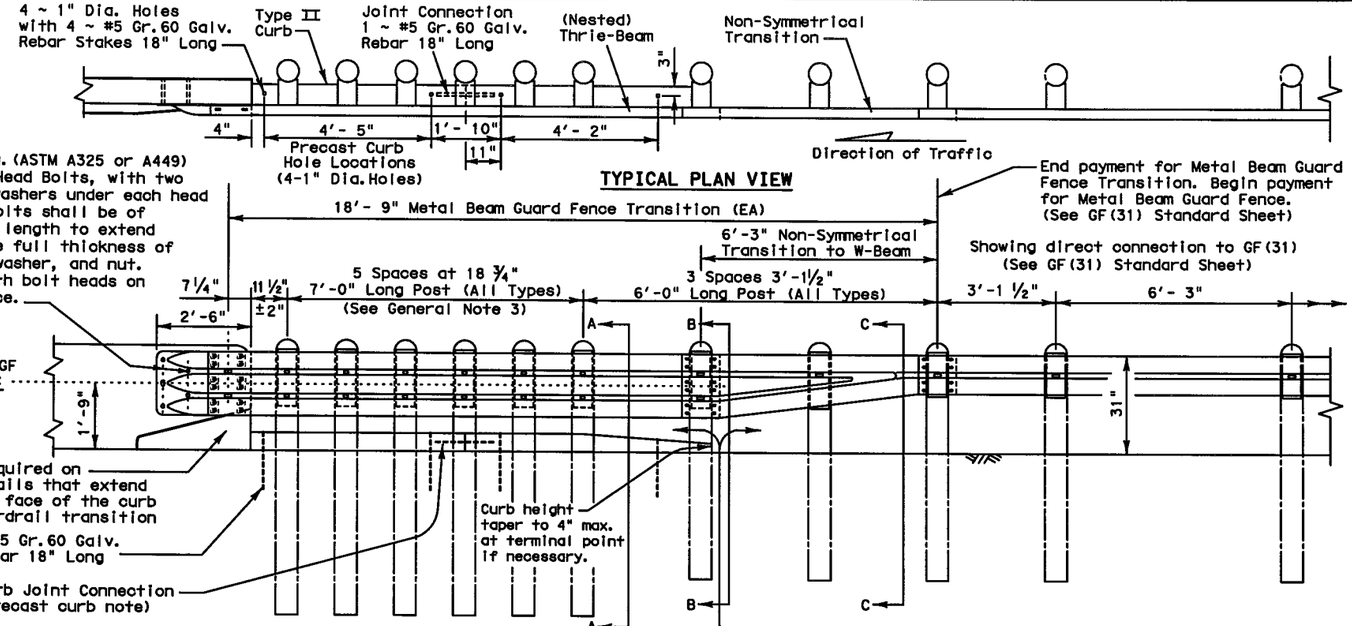
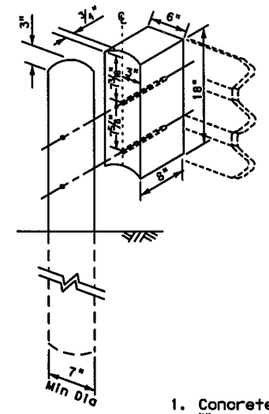
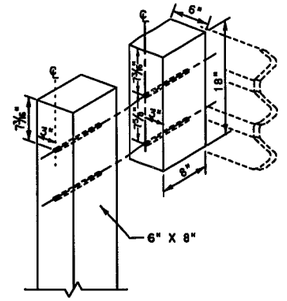
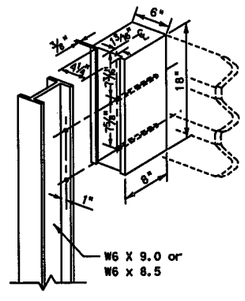




WOOD BLOCK TO ROUND WOOD POST



WOOD BLOCK TO RECTANGULAR WOOD POST



WOOD BLOCK TO STEEL POST

GENERAL NOTES

1. Concrete curb may be cast-in-place or precast as shown on this sheet. When used in conjunction with thrie-beam guard fence transitions, curb shall be Type II (Typically 5 3/4" height above surface; See CCCG standard sheet) unless otherwise shown in the plans. If other curb heights are shown in the plans in conjunction with the transition, the curb height may be from 4" to 8" with a relatively vertical face. Concrete curb shall be continuous to the seventh post.

   Contact the Design Division for drainage cut options needed within the curb section of the transition.

2. The type of post (round wood post, rectangular wood post or steel post) will be as shown in the plans.

3. The post length shall be marked on all 7'- 0" long posts by the Manufacturer. The mark shall be located within the top 1 ft. region of the post, at least 5/8" in height, and visible after installation. Wooden posts shall be marked with a brand, and steel posts with a stencil before galvanizing.

4. Rail element shall meet the requirements of Item 540,"Metal Beam Guard Fence" except as modified on the plans. The thrie-beam terminal connector and the thrie-beam transition to w-beam shall be of the same material, but shall not be less than 10 gauge.

   Contractor shall verify that the locations of bolt holes match those in the thrie-beam terminal connector prior to ordering materials.

5. Unless otherwise shown in the plans, transitions shall be placed with the block face in front of or directly above the curb face.

6. Galvanized washers used with the 5/8" dia. post bolts shall be Type A 1 3/4" O.D. washers. The (12) plate washers (FWR03) required at the terminal connector splice.

7. Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) 5/8" Dia.x 2" (at triple rail splices) with 5/8" double recessed nuts.

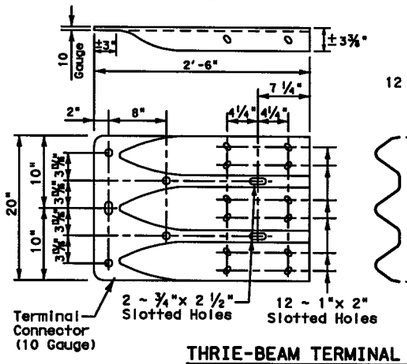
8. Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445,"Galvanizing".Fittings shall be subsidiary to the bid item.

9. Crown shall be widened to accommodate transitions.

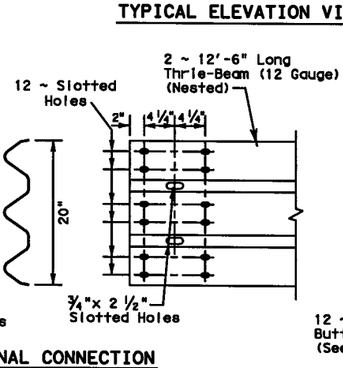
10. If solid rock is encountered. See the MBGF standard sheet for the proper installation guidance.

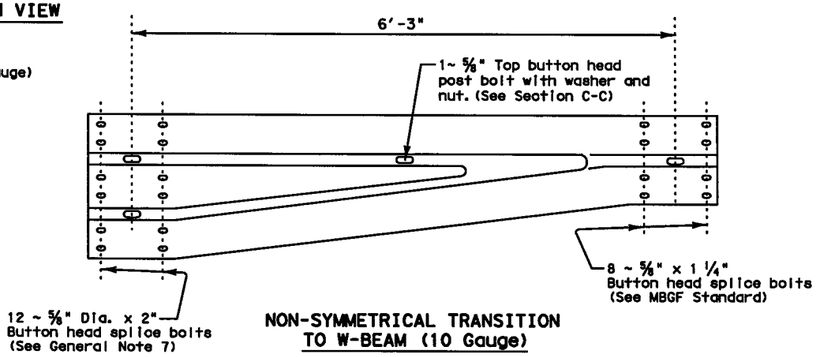
11. Posts shall not be set in concrete.

12. Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210,"Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT, maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL can furnish composite material posts and/or blocks.

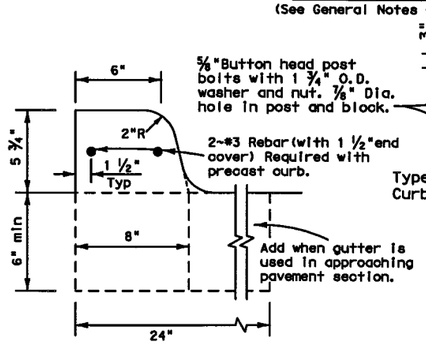


THRIE-BEAM TERMINAL CONNECTION
(See General Notes 6 & 7 for required hardware)



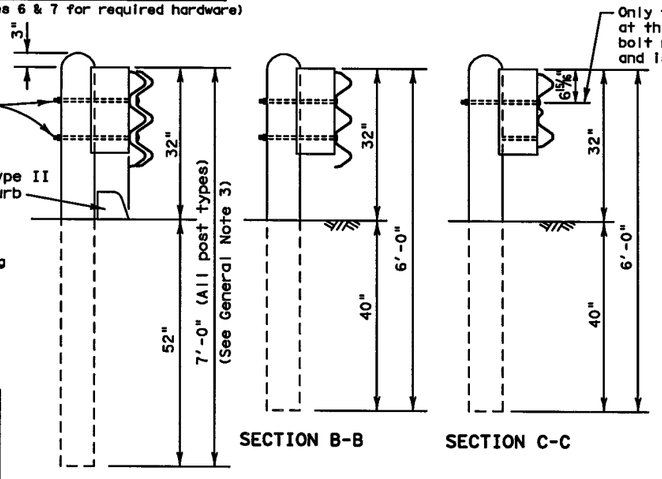


NON-SYMMETRICAL TRANSITION TO W-BEAM (10 Gauge)

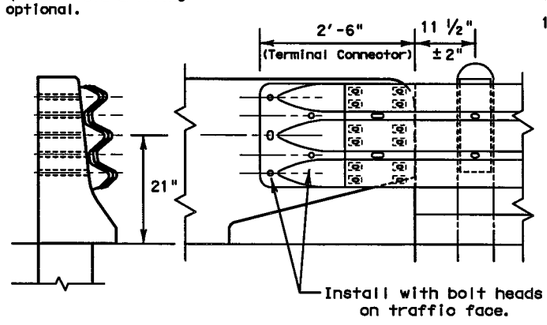


TYPE II CURB
Cast-In-Place or Precast

PRECAST CURB: Type II Precast Curb secured with 4~#5 Gr.60 Galv. Rebar stakes 18" long. The 12'- 2" section of curb may be cast in two sections.
Section ① 5'- 8" long
Section ② 6'- 6" long with the last 3'- 6" of curb tapered to a 4" height.
The Joint Connection is two 9" long 1" dia female ends connected with 1~#5 Gr.60 Galv.Rebar 18" long.



TRANSITION SECTIONS



CONNECTION TO CONCRETE BRIDGE RAIL AND TRAFFIC BARRIERS

(12) Galvanized rectangular washers (FWR03) are required under the recessed nut at the terminal connector splice to nested thrie-beam. (See General Notes 6 & 7)

Texas Department of Transportation
Design Division Standard

METAL BEAM GUARD FENCE TRANSITION
(Thrie-Beam Transition)
GF(31)TR-11

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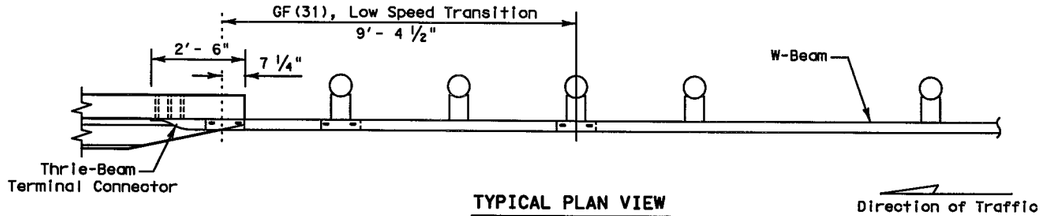
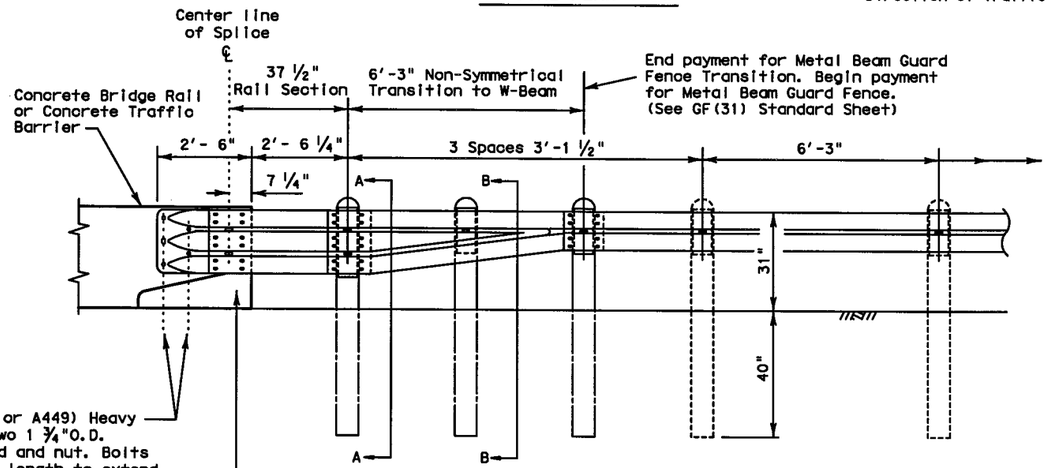


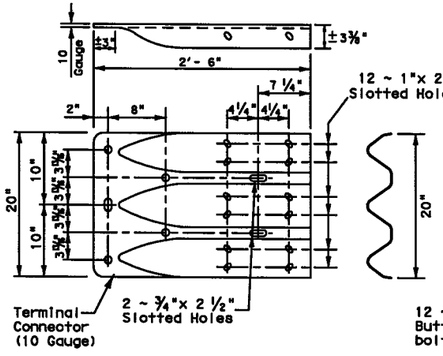
TYPICAL PLAN VIEW



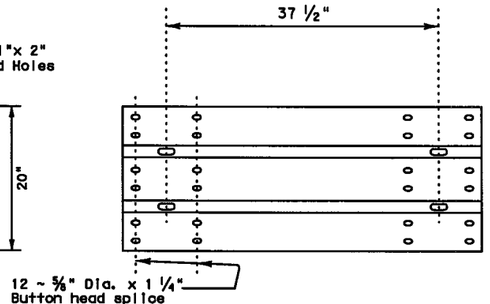
TYPICAL ELEVATION VIEW

TERMINAL CONNECTION NOTE

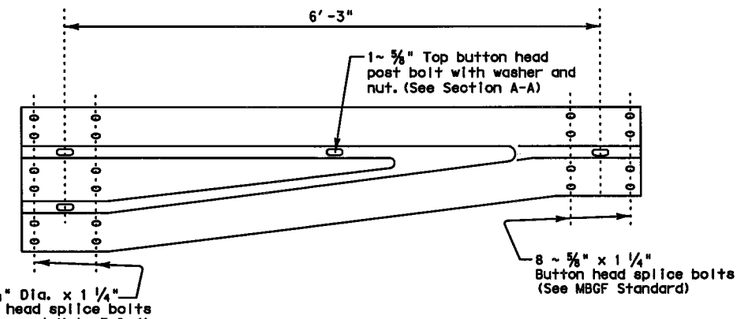
To ensure a stable connection. (12) Rectangular Washers (FWR03) are required under the recessed nuts at the Terminal Connection splice.



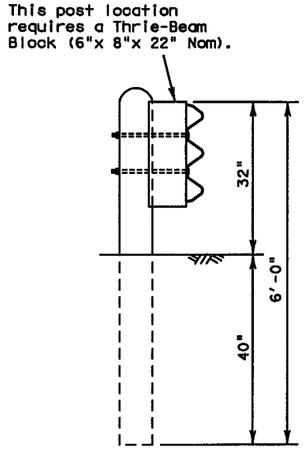
THRIE-BEAM TERMINAL CONNECTION
(See Terminal Connection Note)



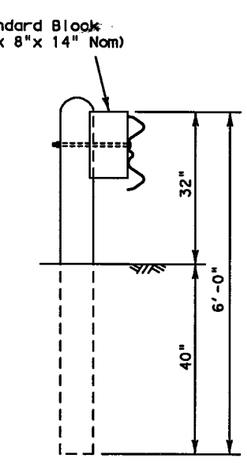
THRIE-BEAM (3'- 1 1/2") (10 GA.) ELEMENT SECTION



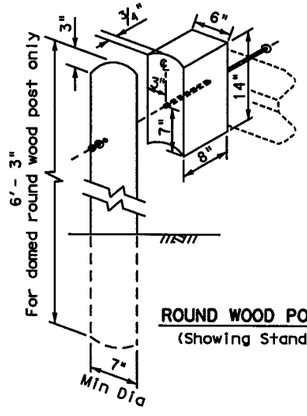
NON-SYMMETRICAL (10 GA.) TRANSITION SECTION



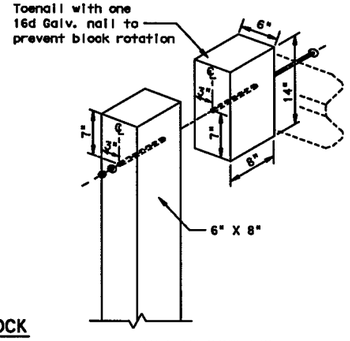
SECTION A-A



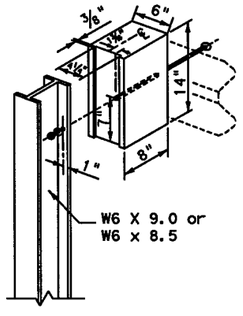
SECTION B-B



ROUND WOOD POST & BLOCK
(Showing Standard Block)



WOOD BLOCK TO RECTANGULAR WOOD POST



STEEL POST & BLOCK
(Showing Standard Block)

GENERAL NOTES

1. The type of post (round wood post, rectangular wood post, or steel post) will be as shown in the plans. The exact position of transitions shall be as shown in the plans or as directed by the Engineer.
2. Rail element shall meet the requirements of Item 540, "Metal Beam Guard Fence" except as modified in the plans.
3. Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut and Type A 1 3/4" O.D. washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) are 5/8" x 1 1/4" with 5/8" double recessed nuts (ASTM A563).
4. Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445, "Galvanizing." Fittings shall be subsidiary to the bid item requiring construction of the transition.
5. Crown will be widened to accommodate transitions.
6. If solid rock is encountered. See the GF(31) standard sheet for the proper installation guidance.
7. Posts shall not be set in concrete, of any depth.
8. Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210, "Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT, maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL can furnish composite material posts and/or blocks.
9. Refer to GF(31) standard sheet for additional details.

Texas Department of Transportation
Design Division Standard

METAL BEAM GUARD FENCE TRANSITION (TL-2)
(Low Speed Transition)
GF(31)TL2-11

FILE: gf31tl211.dgn	DN: TxDOT	CK: AM	DW: BD	CK:
©TxDOT December 2011	CONT	SECT	JOB	HIGHWAY
REVISIONS	0014	16	255, ETC.	IH35W
	DIST	COUNTY		SHEET NO.
	FTW	TARRANT		899

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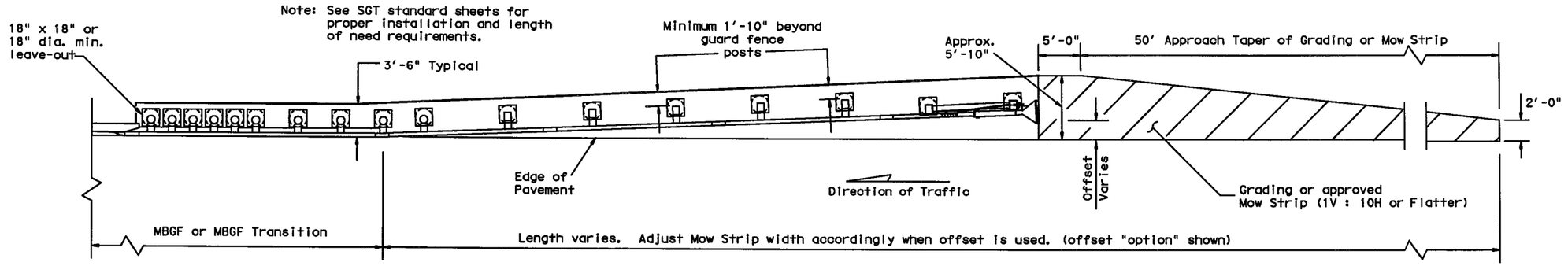
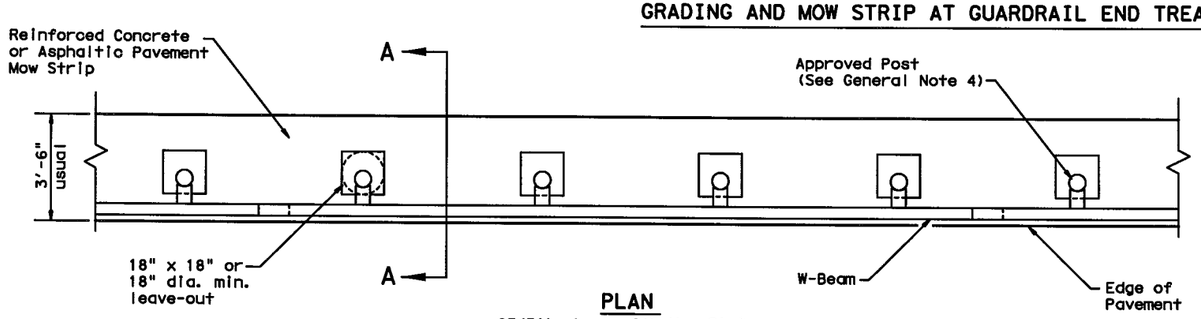
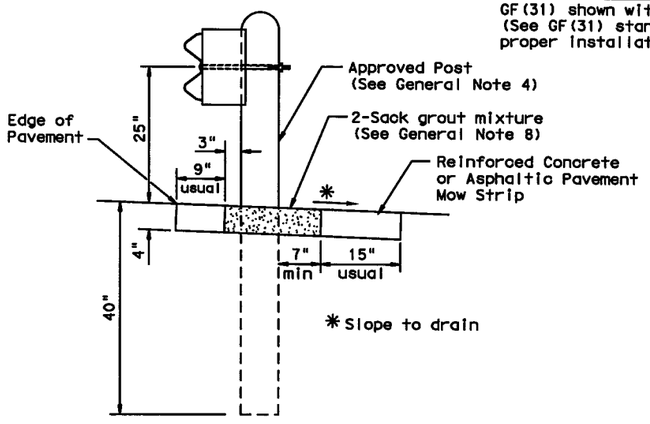


GRADING AND MOW STRIP AT GUARDRAIL END TREATMENTS



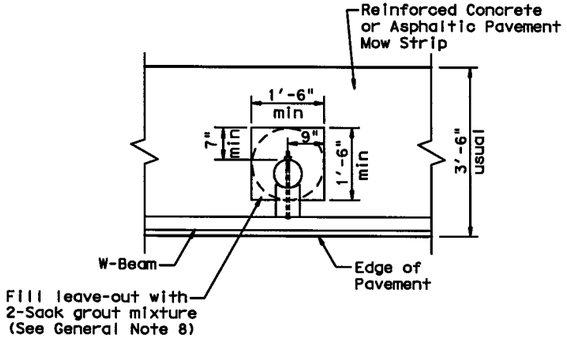
PLAN

GF(31) shown with Mow Strip (See GF(31) standard sheet for proper installation)



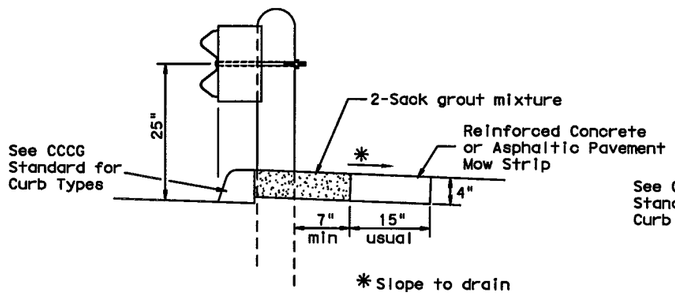
SECTION A-A

Typical



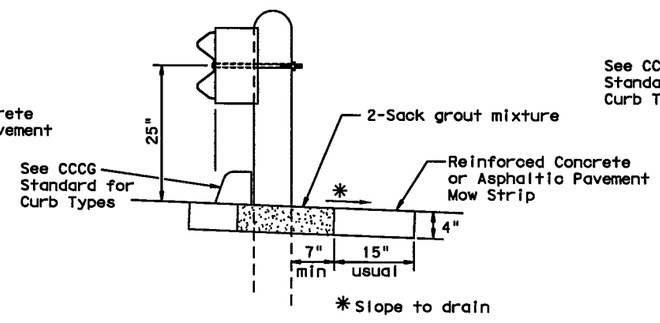
MOW STRIP DETAIL

Reinforced Concrete or Asphaltic Pavement Mow Strip with 18" x 18" or 18" dia. minimum leave-out.



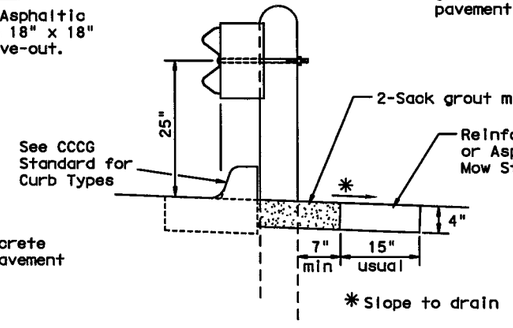
CURB OPTION (1)

This option will increase the post embedment through out the system.



CURB OPTION (2)

Curb shown on top of mow strip



CURB OPTION (3)

Note: Site Condition(s)

Site conditions may exist where grading is required for the proper installation of metal guard fence and end treatments.

Approach grading or mow strip may be decreased or eliminated, as directed by the Engineer.

GENERAL NOTES

1. This mow strip design is for use with metal beam guard fence, guard fence transitions, and guard fence end treatments (See SGT standards for proper SGT installation).
2. Mow strips shall be asphaltic pavement or reinforced concrete (wire mesh or synthetic fiber), as shown on the plans and will be paid for under the pertinent bid item. Asphaltic pavement shall meet the requirements of the item, and be placed in accordance with the pertinent bid item as shown in the plans. Reinforced concrete shall be placed in accordance with Item 432, "Riprap." The use of the synthetic fiber in lieu of steel reinforcing is acceptable, provided the fiber producer is on the Department Material Producer List (MPL), maintained by TxDOT, Construction Division.
3. The leave-out behind the post shall be a minimum of 7".
4. The type of approved post will be as shown in the plans. See the applicable standard sheets for additional details and information.
5. Other curb placement options may be used. Curbs are not considered part of the mow strip and will be paid for under other pertinent bid item.
6. Thickness of the mow strip will be 4".
7. The limits of payment for asphaltic pavement or reinforced concrete will include leave-outs for the posts.
8. The leave-outs shall be filled with no more than a 2-sack grout mixture and placed in accordance with Section 421.2.F, "Mortar and Grout." Payment for furnishing and placing the grout mixture will be subsidiary to the pay item of asphaltic pavement or reinforced concrete.

Texas Department of Transportation
Design Division Standard

METAL BEAM GUARD FENCE
(MOW STRIP)
GF(31)MS-11

FILE: gf31ms11.dgn	DN: TxDOT	CK: AM	DW: BD	CK:
© TxDOT December 2011	CONT	SECT	JOB	HIGHWAY
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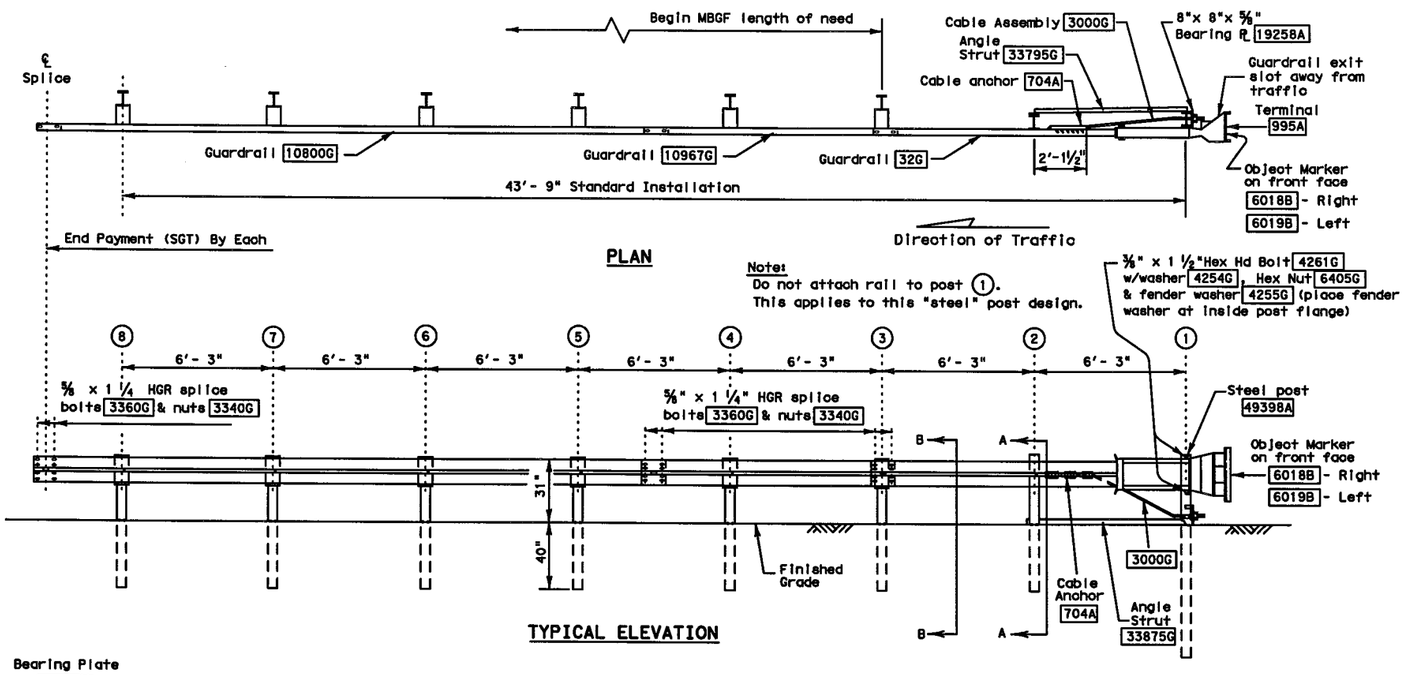
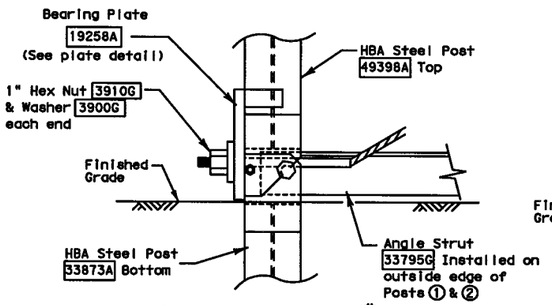
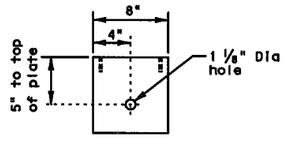
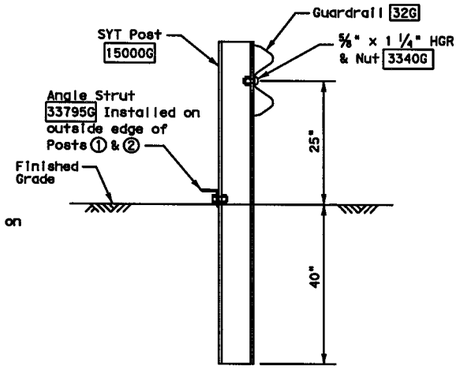




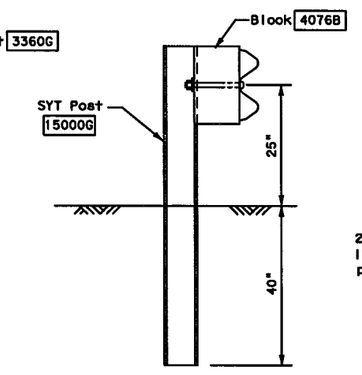
PARTIAL VIEW AT POST #1



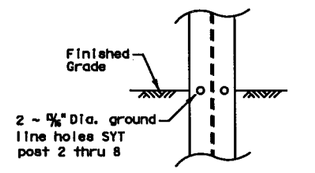
BEARING PLATE
19258A



SECTION A-A
(At Post ②)



SECTION B-B
(Typical at Post ③ Thru ⑧)



SIDE VIEW DETAIL
(Typical at Post ② Thru ⑧)

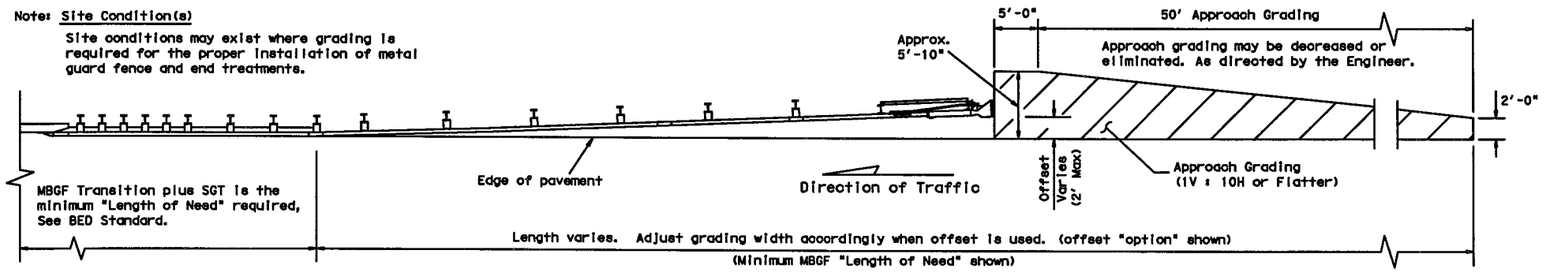
GENERAL NOTES

1. For additional information contact: Trinity Highway Products, 1-800-527-6050.
2. All bolts, nuts, cable assemblies, cable anchors, steel tubes & bearing plates shall be galvanized.
3. SGT's placed within the "minimum" 150 ft. radius, shall be a installed straight. Standard rail elements may be installed within the radius, without special fabrication.
4. A flare rate of 25:1 may be used to prevent the terminal head from encroaching on the shoulder. The flare may be decreased or eliminated for specific installations, if directed by the Engineer.
5. If solid rock is encountered. See the manufacturer's installation manual for the proper installation guidance.
6. The breakaway cable assembly must be taut. A locking device, (vice grips or channel lock pliers) should be used to prevent the cable from twisting when tightening the nuts.
7. Hinge bolts shall not be set below finished grade. At curb locations the posts shall be installed at the proper ground elevation behind the curb. The posts will then require field drilling new holes to accommodate the rail to post connection bolt to maintain the proper height of the rail above the gutter pan. The excess post length above the rail will be removed as directed by the Engineer.
8. An object marker shall be installed on the front of the impact head as detailed on D&OM(VIA).
9. A special site evaluation should be considered, prior to using this end treatment where there is less than 25 feet between the extrusion side of the end treatment and any adjacent driving lane.

BILL OF MATERIAL

#	Qty.	DESCRIPTION
32G	1	Guardrail (12 Ga) at 12'- 6"
10967G	1	Guardrail (12 Ga) at 9'- 4 ½"
10800G	1	Guardrail (12 Ga) at 25'- 0"
49398A	1	HBA Steel Post - Post ① Top
33873A	1	HBA Steel Post - Post ① Bottom
15000G	7	SYT Steel Post - Posts ② thru ⑧
33795G	1	Angle Strut (ET/SYT/HBA)
4076B	6	Block - 14"x 6"x 8"
19258A	1	Bearing Plate - 8"x 8"x ⅝"
704A	1	Cable Anchor
3000G	1	Cable Assembly (¾"x 78")
995A	1	ET-Plus Extruder
6018B	1	Right - Object Marker
6019B	1	Left - Object Marker
3340G	31	⅝" Hex Nut
3360G	25	⅝" x 1 ¼" HGR Splice Bolt
3500G	6	⅝" x 10" Post Bolt
3701G	2	¾" Flat Washer
3704G	2	¾" Hex Nut
3717G	2	¾" x 2 ½" Hex HD Bolt (A325) ~ Post ①
3900G	2	1" Flat Washer
3910G	2	1" Hex Nut
4254G	4	⅜" Flat Washer
4255G	2	⅜" Fender Washer (1 ½" OD)
4258G	2	⅜" Lockwasher
4261G	2	⅜" x 1 ½" Hex HD Bolt (Grade 5)
4389G	2	7/16" Flat Washer
4390G	2	7/16" x 1 ½" Hex HD Bolt ~ Post ②
4393G	2	7/16" Lockwasher
4396G	2	7/16" Hex Nut
4699G	2	¾" Lockwasher
6321G	2	⅜" x 2" Hex HD Bolt (Grade 5) ~ Post ①
6405G	4	⅜" Hex Nut
19948G	2	Plate Washer ~ Post ②

Note: Site Condition(s)
Site conditions may exist where grading is required for the proper installation of metal guard fence and end treatments.



GRADING AT GUARDRAIL END TREATMENTS

Texas Department of Transportation
Design Division Standard

SINGLE GUARDRAIL TERMINAL
(ET-31)
(STEEL POST)
SGT(7S)31-11

FILE: sgt7s311.dgn	DN: TxDOT	CK: AM	DW: BD	CK:
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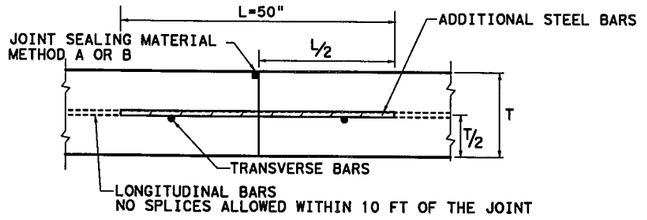
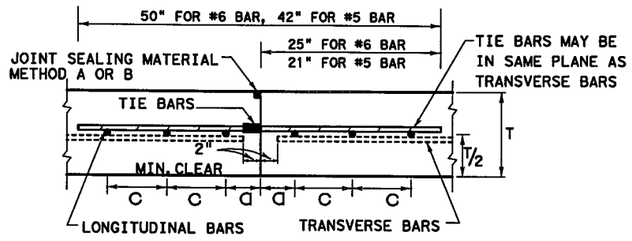
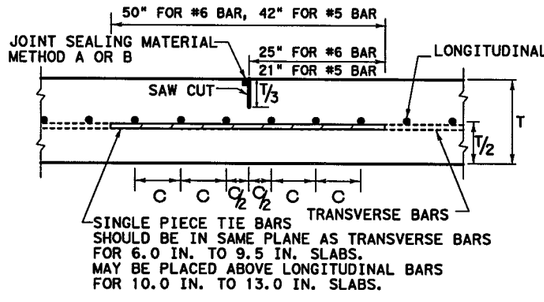


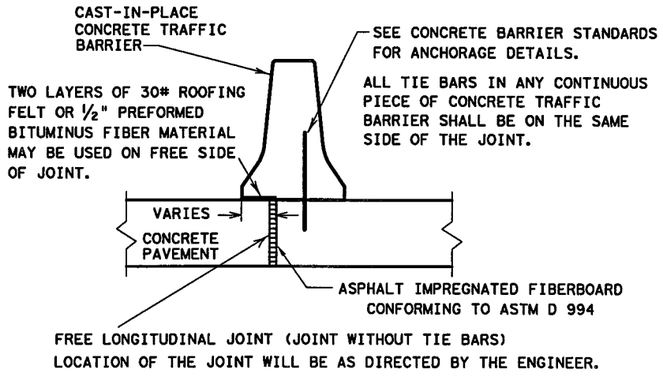
TRANSVERSE CONSTRUCTION JOINT
SECTION X - X



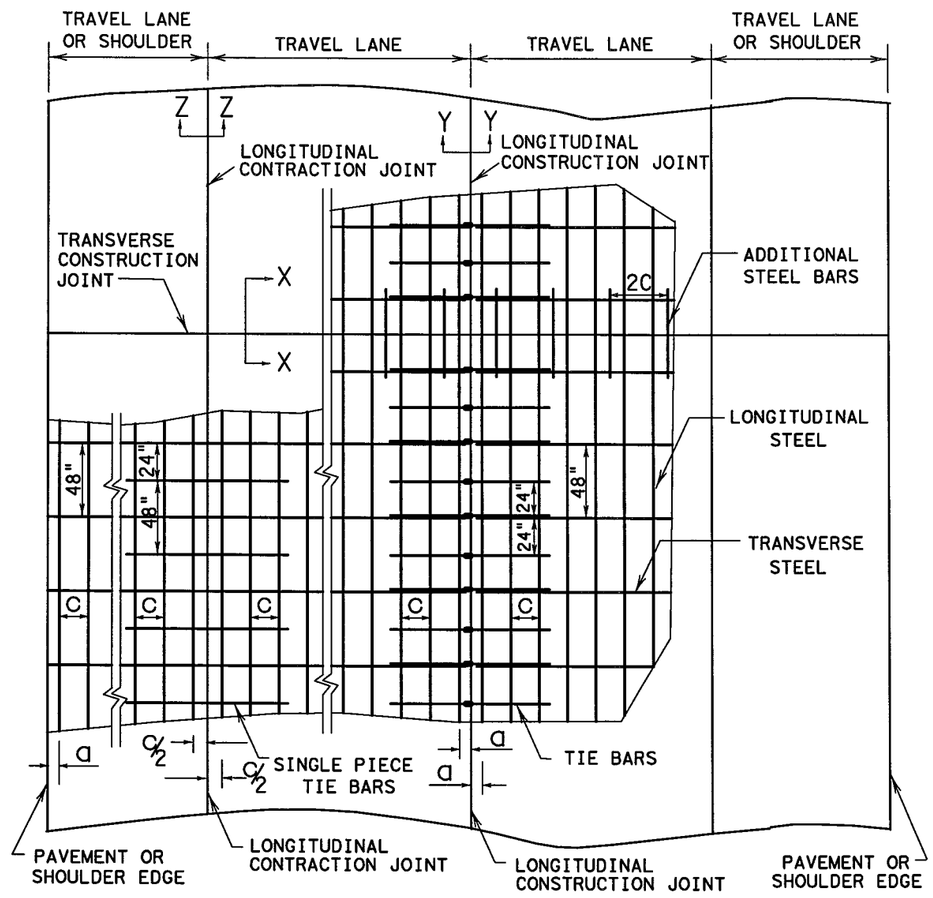
LONGITUDINAL CONSTRUCTION JOINT
SECTION Y - Y



LONGITUDINAL CONTRACTION JOINT
SECTION Z - Z



FREE LONGITUDINAL JOINT DETAIL



TYPICAL PAVEMENT LAYOUT

PLAN VIEW (NOT TO SCALE)

GENERAL NOTES

1. DETAILS FOR PAVEMENT WIDTH, PAVEMENT THICKNESS AND THE CROWN CROSS-SLOPE SHALL BE SHOWN ELSEWHERE IN THE PLANS. PAVEMENTS WIDER THAN 100 FT. WITHOUT A FREE LONGITUDINAL JOINT, ARE NOT COVERED BY THIS STANDARD.
2. THE DETAIL FOR THE JOINT SEALANT AND RESERVOIR IS SHOWN ON STANDARD SHEET "CONCRETE PAVING DETAILS, JOINT SEALS."
3. ALL THE REINFORCING STEEL AND TIE BARS SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM A 615 (GRADE 60) OR ASTM A 996 (GRADE 60). STEEL BAR SIZES SHALL CONFORM TO TABLE NO. 1 & 2.
4. STEEL BAR PLACEMENT TOLERANCE SHALL BE +/- 1 IN. HORIZONTALLY AND +/- 0.5 IN. VERTICALLY. CALCULATED AVERAGE BAR SPACING (CONCRETE PLACEMENT WIDTH / NUMBER OF LONGITUDINAL BARS) SHALL CONFORM TO TABLE NO.1 AND AS SPECIFIED.
5. PAVEMENT WIDTHS OF MORE THAN 15 FT. SHALL HAVE A LONGITUDINAL JOINT (SECTION Z-Z OR SECTION Y-Y). THESE JOINTS SHALL BE LOCATED WITHIN 6 IN. OF THE LANE LINE UNLESS THE JOINT LOCATION IS SHOWN ELSEWHERE ON THE PLANS.
6. THE SAW CUT DEPTH FOR THE LONGITUDINAL CONTRACTION JOINT SHALL BE ONE THIRD OF THE SLAB THICKNESS.
7. WHEN APPROVED BY THE ENGINEER, SINGLE PIECE TIE BARS MAY BE USED BY INSERTING INTO PLASTIC CONCRETE AT LONGITUDINAL CONSTRUCTION JOINTS.
8. WHEN TYING CONCRETE GUTTER AT A LONGITUDINAL JOINT, THE TIE BAR LENGTH OR POSITION MAY BE ADJUSTED. PROVIDE 3 IN. OF CONCRETE COVER FROM THE BACK OF GUTTER TO THE END OF TIE BAR.
9. MISSING OR DAMAGED TIE BARS SHALL BE REPLACED BY DRILLING AND EPOXY GROUTING AT THE CONTRACTOR'S EXPENSE.
10. OMIT TIE BARS LOCATED WITHIN 18 IN. OF THE TRANSVERSE CONSTRUCTION JOINTS. USE HAND-OPERATED IMMERSION VIBRATORS TO CONSOLIDATE THE CONCRETE ADJACENT TO ALL FORMED JOINTS.
11. OBTAIN THE ENGINEER'S WRITTEN APPROVAL, IF THE CONCRETE MIX DESIGN USES MORE THAN 5.5 SACKS/CY.
12. LONGITUDINAL REINFORCING STEEL SPLICES SHALL BE A MINIMUM OF 25 IN.

TABLE NO. 2 TRANSVERSE STEEL AND TIE BARS

SLAB THICKNESS (IN.)	TRANSVERSE STEEL		TIE BARS AT LONGITUDINAL CONTRACTION JOINT		TIE BARS AT LONGITUDINAL CONSTRUCTION JOINT	
	BAR SIZE	SPACING (IN.)	BAR SIZE	SPACING (IN.)	BAR SIZE	SPACING (IN.)
6.0 - 7.5	#5	48	#5	48	#5	24
8.0 - 13.0	#5	48	#6	48	#6	24

TABLE NO. 1 LONGITUDINAL STEEL

SLAB THICKNESS AND BAR SIZE		REGULAR STEEL BARS	FIRST SPACING AT EDGE OR JOINT	ADDITIONAL STEEL BARS AT TRANSVERSE CONSTRUCTION JOINT	
T (IN.)	BAR SIZE	SPACING c (IN.)	SPACING a (IN.)	SPACING 2 x c (IN.)	LENGTH L (IN.)
6.0	#5	7.5	3 TO 4	15	50
6.5	#5	7.0	3 TO 4	14	50
7.0	#5	6.5	3 TO 4	13	50
7.5	#5	6.0	3 TO 4	12	50
8.0	#6	9.0	3 TO 4	18	50
8.5	#6	8.5	3 TO 4	17	50
9.0	#6	8.0	3 TO 4	16	50
9.5	#6	7.5	3 TO 4	15	50

TABLE NO. 1 LONGITUDINAL STEEL (Cont.)

SLAB THICKNESS AND BAR SIZE		REGULAR STEEL BARS	FIRST SPACING AT EDGE OR JOINT	ADDITIONAL STEEL BARS AT TRANSVERSE CONSTRUCTION JOINT	
T (IN.)	BAR SIZE	SPACING c (IN.)	SPACING a (IN.)	SPACING 2 x c (IN.)	LENGTH L (IN.)
10.0	#6	7.0	3 TO 4	14	50
10.5	#6	6.75	3 TO 4	13.5	50
11.0	#6	6.5	3 TO 4	13	50
11.5	#6	6.25	3 TO 4	12.5	50
12.0	#6	6.0	3 TO 4	12	50
12.5	#6	5.75	3 TO 4	11.5	50
13.0	#6	5.5	3 TO 4	11	50

Texas Department of Transportation
Design Division Standard

CONTINUOUSLY REINFORCED CONCRETE PAVEMENT

ONE LAYER STEEL BAR PLACEMENT
T - 6 to 13 INCHES

CRCP(1)-11

FILE: crcp111.dgn	DN: TxDOT	CK: LL	DW: HC	CK:
©TxDOT November 2009	CONT	SECT	JOB	HIGHWAY
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	FTW	TARRANT		902

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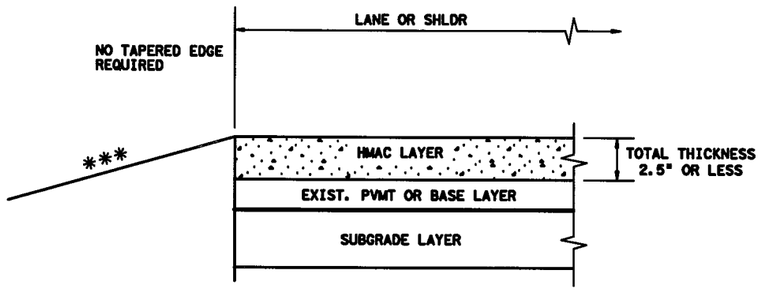
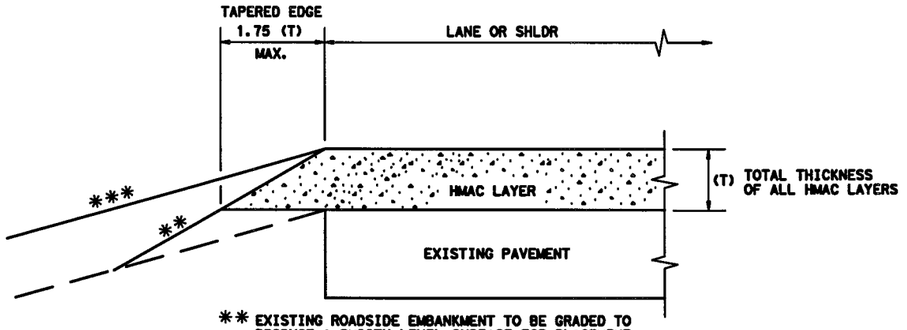


*** SEE TYPICAL SECTION FOR ROADSIDE DETAILS

CONDITION - 1

THIN HMAC SURFACES OR HMAC OVERLAY
WITH THICKNESS OF 2.5" OR LESS

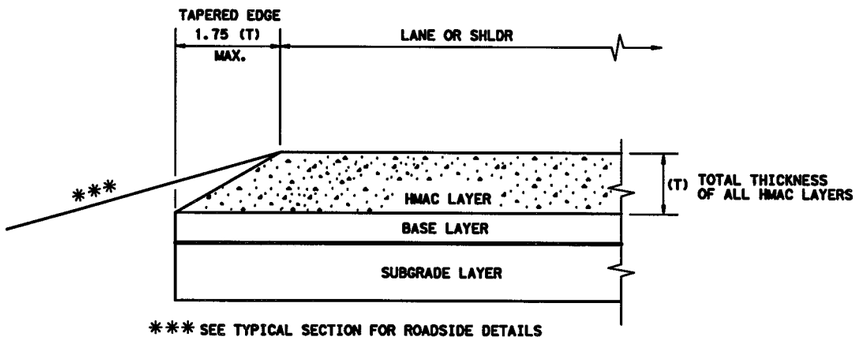


** EXISTING ROADSIDE EMBANKMENT TO BE GRADED TO PRODUCE A SMOOTH LEVEL SURFACE FOR PLACEMENT OF TAPERED EDGE. THIS WORK IS SUBSIDIARY TO THE VARIOUS BID ITEMS.

*** SEE TYPICAL SECTION FOR ROADSIDE DETAILS

CONDITION - 2

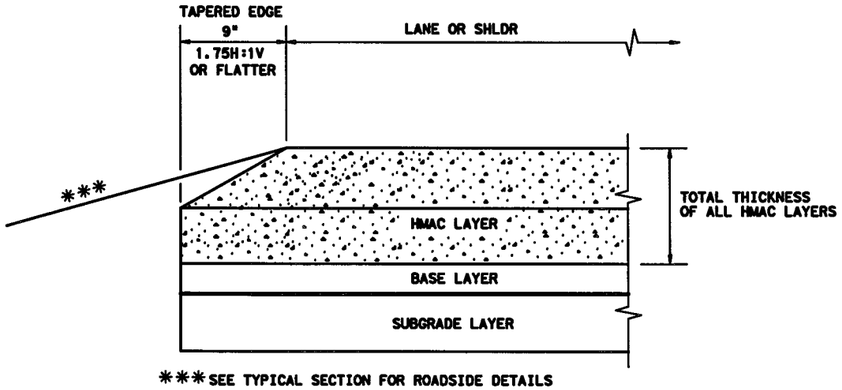
OVERLAY OF EXISTING PAVEMENT
HMAC THICKNESS 2.5" TO 5"



*** SEE TYPICAL SECTION FOR ROADSIDE DETAILS

CONDITION - 3

NEW OR RECONSTRUCTED PAVEMENT
HMAC THICKNESS 2.5" TO 5"



*** SEE TYPICAL SECTION FOR ROADSIDE DETAILS

CONDITION - 4

NEW OR RECONSTRUCTED PAVEMENT
HMAC THICKNESS 5" OR GREATER

GENERAL NOTES

1. UNLESS OTHERWISE SHOWN IN THE PLANS, A VERTICAL EDGE IS PERMISSIBLE FOR HMAC PLACED GREATER THAN 5" BELOW THE EDGE OF PAVEMENT AND FOR THICKNESS OF HMAC LESS THAN 2.5".
2. FOR FURTHER INFORMATION REGARDING THE ROADSIDE AND PAVEMENT DETAILS, SEE TYPICAL SECTIONS.
3. PAYMENT FOR TAPERED EDGE WILL BE IN ACCORDANCE WITH APPLICABLE ITEMS IN THE CONTRACT.
4. THE SLOPE OF THE TAPERED EDGE SHALL BE 1.75H:1V OR FLATTER.
5. THE TAPERED EDGE SHALL BE PRODUCED BY USE OF A SCREED ATTACHMENT CAPABLE OF PRODUCING A SMOOTH COMPACTED SURFACE. ADDITIONAL COMPACTING EFFORT BEHIND THE SCREED IS NOT REQUIRED.

(NOT TO SCALE)

Texas Department of Transportation
Design Division Standard

TAPERED EDGE DETAILS HMAC PAVEMENT

TE(HMAC)-11

FILE: tehmac11.dgn	DN: TxDOT	CK: RL	DW: KB	CK:		
© TxDOT January 2011	CONT	SECT	JOB		HIGHWAY	
REVISIONS	0014	16	255, ETC.		IH35W	
	DIST	COUNTY			SHEET NO.	
	FTW	TARRANT			903	

DATE: 7/13/2012 10:22:04 PM
FILE: TE(HMAC)-11.DGN

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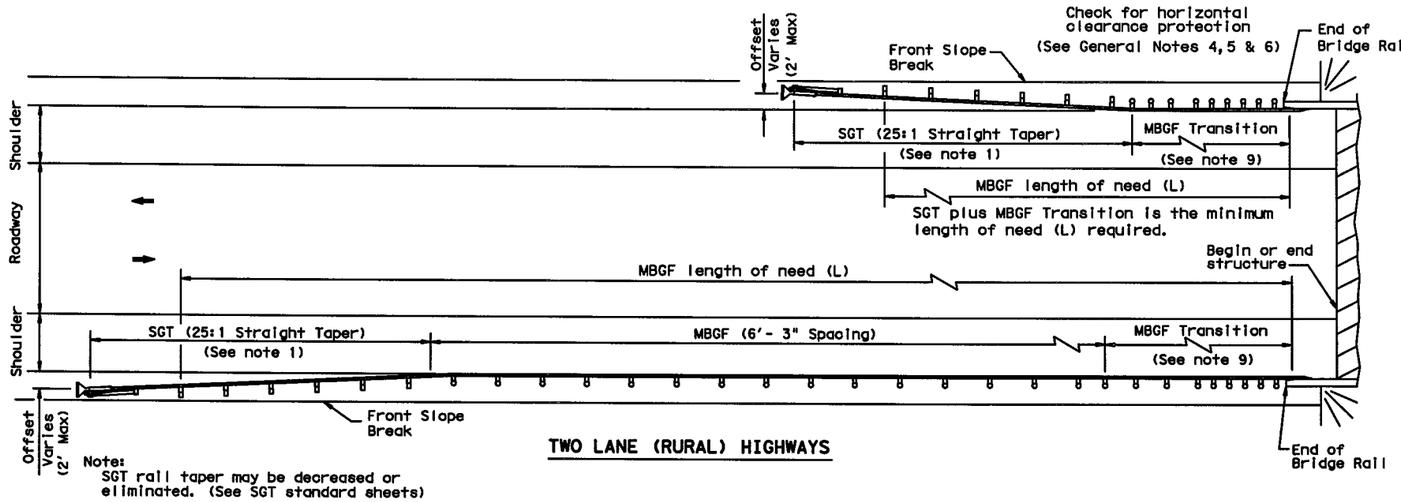
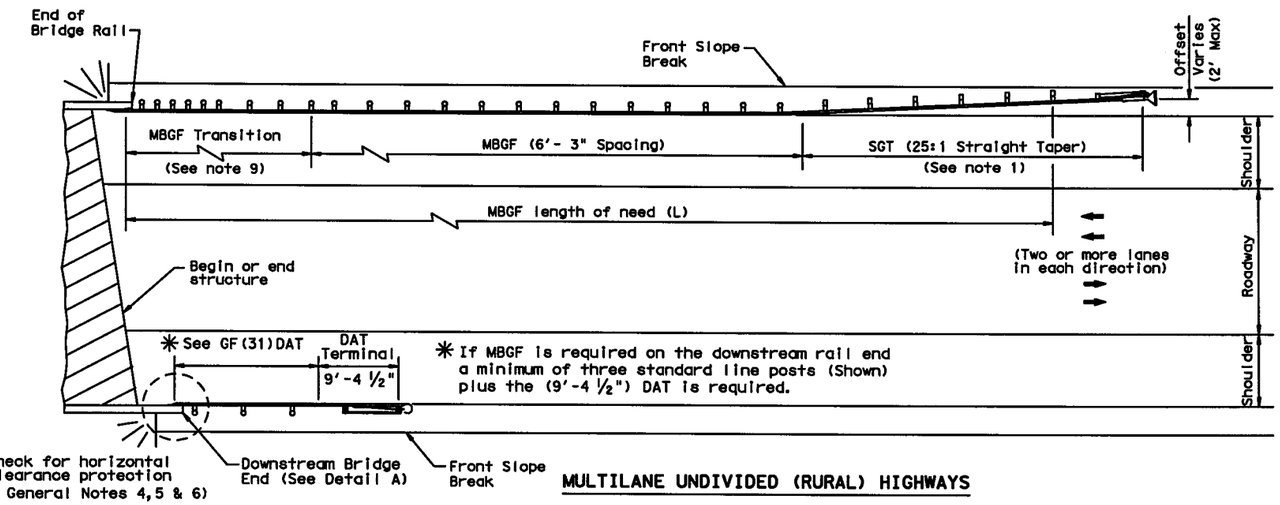
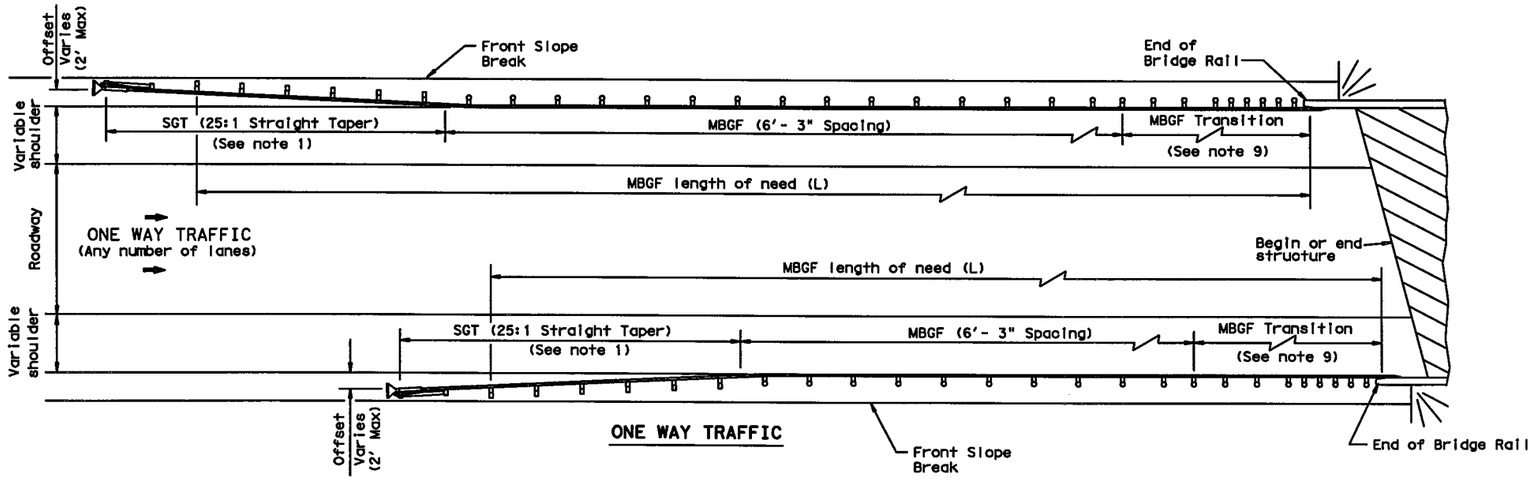


Note:
SGT rail taper may be decreased or eliminated. (See SGT standard sheets)

TWO LANE (RURAL) HIGHWAYS



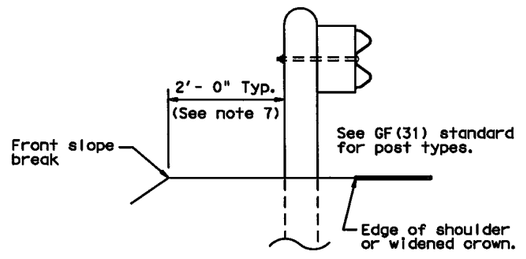
MULTILANE UNDIVIDED (RURAL) HIGHWAYS



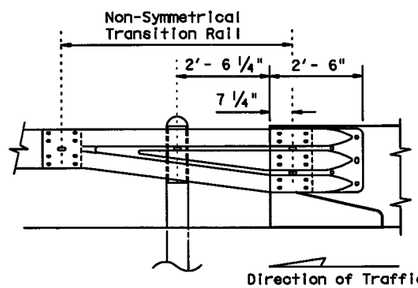
ONE WAY TRAFFIC

GENERAL NOTES

1. For more detail: See GF(31), SGT( )31, GF(31)TR, and GF(31)TL2 standard sheets.
2. Quantities of metal beam guard fence (MBGF) at individual bridge ends are as shown in the plans.
3. Use average daily traffic (ADT) for the current year to determine MBGF length of need in accordance with the Roadway Design Manual unless otherwise specified. Where significant traffic volume growth is anticipated on low volume (0-750 ADT) highways, use length determinations for the higher volume category.
4. MBGF may not be required to shield departure end of bridge unless other obstacles within the horizontal clearance limits or opposing traffic indicate a MBGF consideration.
5. Downstream anchor terminals (DAT) are only for downstream end anchorage use, outside the horizontal clearance area of opposing traffic.
6. Direct connection of MBGF to concrete rails are only for downstream rail connections outside the horizontal clearance area of opposing traffic. (This requires a minimum of three standard line posts plus the DAT terminal, See Detail A)
7. The crown shall be widened to accommodate MBGF. Typically the "front slope" break should be 2'- 0" from the back of the MBGF post. This applies to new construction on new alignment or where existing roadway cross section is to be widened to increase roadway width. This does not apply to rehabilitation work where existing roadway crown width is to be retained (See Typical Cross Section at MBGF).
8. For restrictive bridge widths: The MBGF should be properly transitioned from the existing bridge rail to the adjoining MBGF (See MBGF Transition Standards). Metal beam guard fence at these bridge location(s) shall be flared at the rate of 25:1 or flatter, and be of the length necessary to locate the terminal end at the 2 ft. "maximum" offset from the shoulder edge in the approach direction.
9. Transition length and post spacing will vary depending on the transition type. Transition type will be shown elsewhere in the plans.



TYPICAL CROSS SECTION AT MBGF



Note:
All rail elements shall be lapped in the direction of adjacent traffic.

DETAIL A

Showing Downstream Rail Attachment

Texas Department of Transportation
Design Division Standard

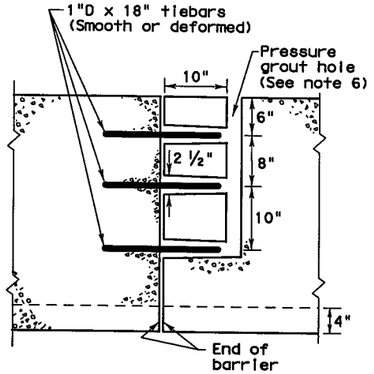
BRIDGE END DETAILS

(Metal Beam Guard Fence Applications to Rigid Rails)

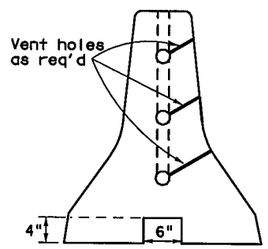
BED-11

FILE: bed11.dgn	DN: TxDOT	CK: AM	DW: BD	CK:
© TxDOT December 2011	CONT	SECT	JOB	HIGHWAY
REVISIONS	0014	16	255, ETC.	IH35W
	DIST	COUNTY		SHEET NO.
	FTW	TARRANT		904

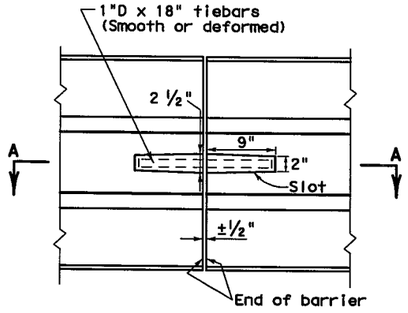
DATE: 7/13/2012 10:22:06 PM
FILE: BED-11.dgn



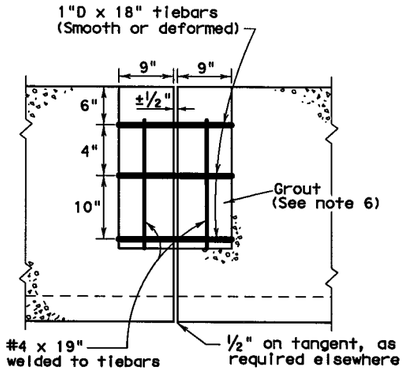
SECTION THROUGH ℄ AT JOINT
MALE-FEMALE DESIGN OPTION



END VIEW
MALE-FEMALE DESIGN OPTION

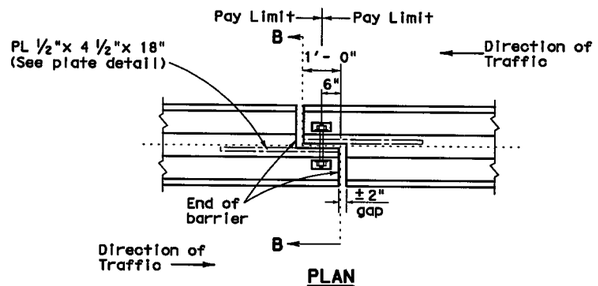


PLAN
SLOTTED DESIGN OPTION

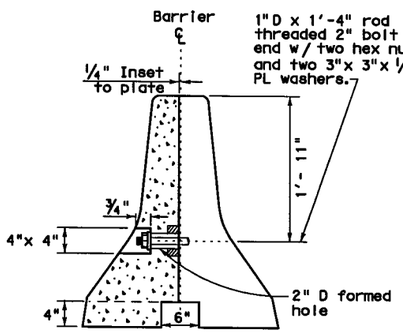


SECTION A-A (THROUGH ℄ AT JOINT)
SLOTTED DESIGN OPTION

JOINT TYPE A



PLAN
END DETAIL



SECTION B-B

JOINT TYPE B

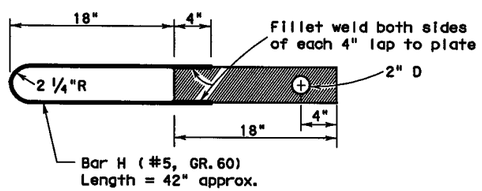
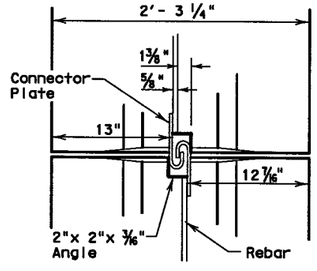


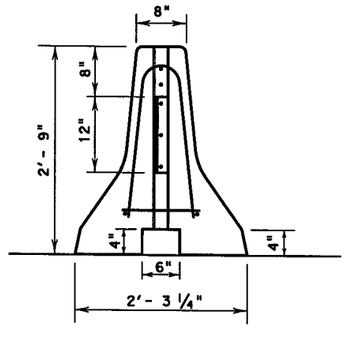
PLATE DETAIL



J-J HOOKS DETAIL

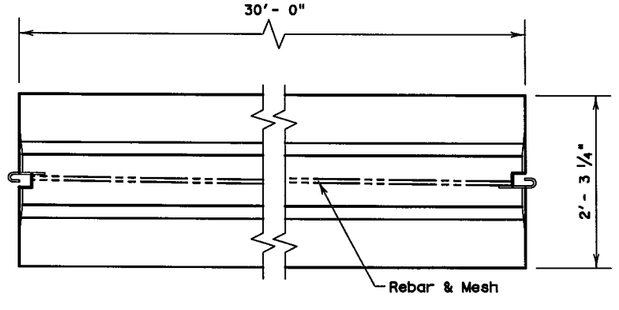
Note: J-J Hooks is a proprietary barrier connection system. This system can be used as an alternate bid item to a different joint type. If this connection system is exclusively specified in the plans, prior approval for sole source use must be obtained.

Details of components for the J-J Hooks connection and reinforcing details will be shown on the manufacturer's shop drawings furnished to the Engineer.



END VIEW

JOINT TYPE J



TOP VIEW
PRECAST (CTB) WITH J-J HOOKS

GENERAL NOTES

1. Where illumination is to be placed on concrete traffic barrier, a 10 ft. cast-in-place section shall be provided at each light pole location as shown on sheet CTBI(3). Pole, anchor bolt, and other illumination details are shown on sheet CTBI(4).
2. Concrete shall be class C or H.
3. Plates shall conform to ASTM A36 steel.
4. Mesh for joint Type J barrier shall conform to ASTM A185.
5. Regardless of the method of handling, barrier section lifting points shall be 6 ¼ feet from the ends of the barrier. Lifting devices and attachments to barrier sections shall be as approved by the Engineer.
6. For joint Type A barrier that is installed in a temporary location, tiebars should be placed in the slot when the slot design option is used or, for the male-female design option, the male-female connections should be mated. For joint Type A, neither of the optional joint designs should be grouted for temporary locations of barrier.
7. When installed in a permanent roadway location, end connections of the joint Type A barrier shall be grouted with a mixture of two parts sand and one part cement with enough water to make the mixture plastic. Grouting shall be done in a manner that will assure a smooth surface at the joint.
8. Surface finishing and grouting (where required) shall be considered subsidiary to the various bid items involved.
9. All steel fittings for joint Type B and Type J barrier shall be galvanized after fabrication in accordance with ASTM 123.
10. Barrier length shall be 30 feet ± 4 inches unless specified elsewhere in the plans.
11. Forms shall be constructed of steel. Edges of barrier shall be rounded or chamfered as shown on sheet PCTB(2).
12. The contractor has the option of placing precast (Joint Type A, B or J) or cast-in-place Type 2 Concrete Traffic Barrier as shown on sheet CTB(2) unless otherwise shown in the plans.

NOTE:
BARRIER FROM EXISTING STOCKPILES THAT SUBSTANTIALLY MEETS THE REQUIREMENTS SHOWN ON THIS SHEET MAY BE USED ON THIS PROJECT.

NEW BARRIER SHALL NOT BE CAST ACCORDING TO THE DETAILS SHOWN ON THIS SHEET.

R = Radius
D = Diameter

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LEVELS DISPLAYED
1

Texas Department of Transportation
Design Division (Roadway)

PRECAST CONCRETE TRAFFIC BARRIER TYPE 2

PCTB(1)-04

FILE: pctb104.dgn	DN: GTH	CK: GTH	DW: BGD	CK: TGM	
©TxDOT December 1990	DIST	FEDERAL AID PROJECT			SHEET
REVISIONS	FTW	(SEE TITLE SHEET)			905
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	TARRANT		0014	16	255	IH35W

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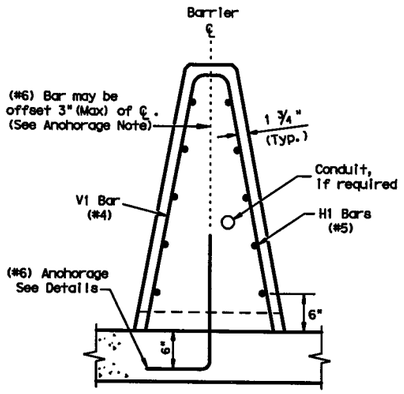
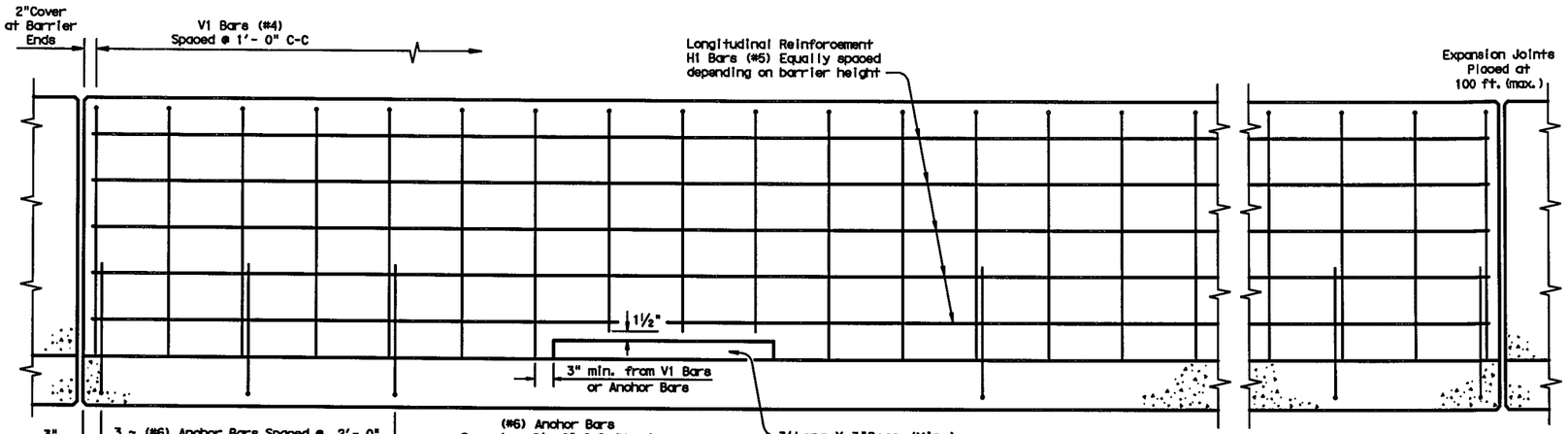


END VIEW

CAST-IN-PLACE (CIP) BARRIER

Barrier is Symmetrical About the Center Line

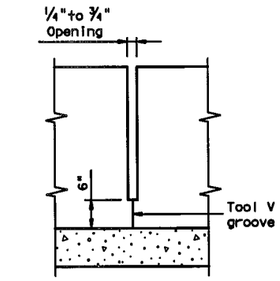


Note:
Reinforcement around the drainage slots may be cut or bent to accommodate the edge and top clearances.

The bottom of the reinforcement cage may rest on the top of the Concrete Bridge Deck or CRCP.

ELEVATION VIEW

Cast-in-Place (SSCB) on Bridge Decks or Continuously Reinforced Concrete Pavement (CRCP) (Showing Reinforcement and Anchor Placement)



INTERMEDIATE JOINT DETAIL

Place at all Bent ℄'s, without expansion joints and spaced at 33 ft. (max), 10 ft. (min).

EXPANSION JOINT PLACEMENT

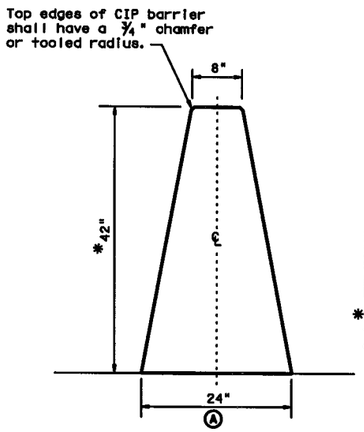
Place at all transverse joints or 100 ft. (max.), 10 ft. (min).

BARRIER PLACEMENT OVER (CRCP) JOINTS

Barrier may be cast over a "Longitudinal" CRCP joint.

CRCP Joints (with or without tiebars): Two layers of 30# roofing felt or ½" preformed bituminous fiber material.

Barrier Anchorage Note: Anchorage must be located at least 3" from a longitudinal joint.

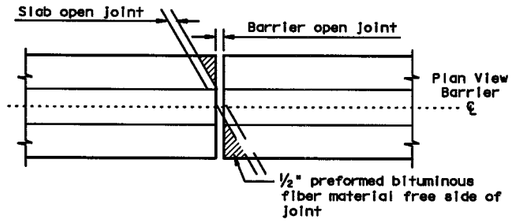


SINGLE SLOPE CONCRETE BARRIER

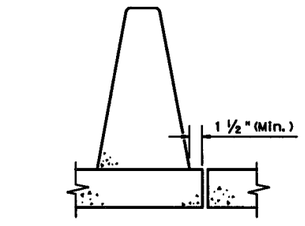
(SSCB)(42")

*Barrier Height (IN.)	Dimensions (IN.)		
	Ⓐ	Ⓑ	Ⓒ
42	24	40 ¼	20 ½
48	26 ¼	46 ¼	22 ¾
54	28 ½	52 ¼	25 ⅛

*(SSCB)(42") Barrier height may be increased to 48" or 54". This would increase the barrier and reinforcement dimensions accordingly.



BARRIER OVER TRANSVERSE OPEN JOINT



MINIMUM EDGE DISTANCE FROM LONGITUDINAL JOINT

Barrier placement over a longitudinal bridge joint is not recommended.

General Notes

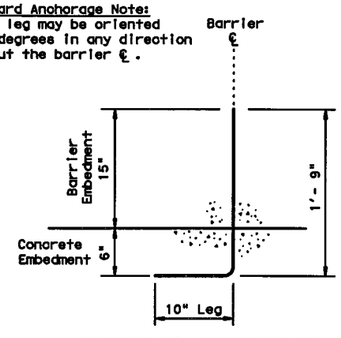
1. Concrete shall be Class C. Unless otherwise specified in the plans.
2. Where used, rebar reinforcement shall be Grade 60 and conform to ASTM A615. If the bridge slab requires epoxy "coated" reinforcement, the barrier and/or anchorage may require the same, if shown elsewhere in the plans.
3. These details cover barrier per Item 514, "Permanent Concrete Traffic Barrier".
4. Anchorage: The "Optional" Epoxy Anchor system shall be embedded 6" with a Type III, Class C Epoxy anchorage system. Follow the manufacturer's directions for installing the epoxied anchor bars. All anchorage shown is the minimum required, and considered subsidiary to the bid item.
5. Top edges of CIP barrier shall have a ¾" chamfer or tooled radius.
6. Drainage slot locations (12'- 0", C-C Min. Spacing) are shown elsewhere, or as directed by the Engineer. Drainage slot heights on the SSCB may be increased to a maximum of 5 inches, without geometric changes to the barrier face.
7. Cast-in-place barrier may be slip formed. Bracing may be tied or tack welded to the reinforcement cage to provide cage stability. Do not weld to anchor bars. The reinforcement cage may rest on the top of the finished grade.
8. For locations where lighting is required, see the SSCB(4) sheet for the proper reinforcement and anchorage.

Cast-In-Place (CIP) or Slip-Formed (SSCB)

Cast-in-Place barrier may be connected to precast SSCB. Joint connection "Types" may be used in Cast-in-Place barrier, to match the precast barrier connection. (See required connection "Type" elsewhere in the plans)

The weight of Cast-in-Place (SSCB)42" is approx. 717 lbs per ft.

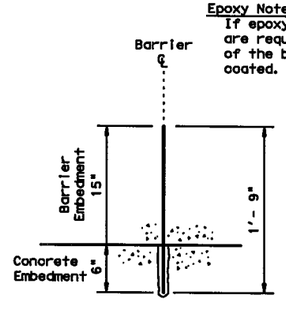
Standard Anchorage Note:
10" leg may be oriented 90 degrees in any direction about the barrier ℄.



STANDARD ANCHORAGE

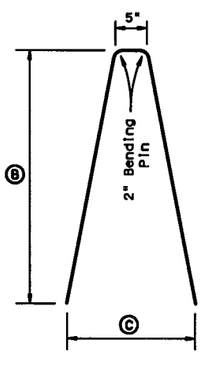
(#6) Bar
Concrete Pavement / Bridge Deck Anchorage:
Cast-in-Place or Slip-Formed Barrier
(See General Notes 2)

Epoxy Note:
If epoxy coated anchor bars are required, the lower 6" of the bars must not be epoxy coated.



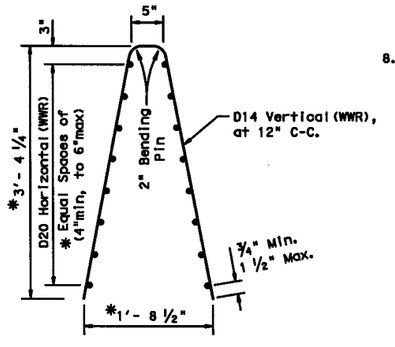
"OPTIONAL" EPOXY ANCHORAGE

(#6) Bar
Type III, Class C Epoxy
Concrete Pavement / Bridge Deck Anchorage:
Cast-in-Place or Slip-Formed Barrier
(See General Notes 2 and 4)



V1 Bar

#4 Bar



Welded Wire Reinforcement (WWR) Option for Bars V1 and H1

(WWR) General Notes

1. Deformed Welded Wire Reinforcement (WWR) shall conform to ASTM A497.
2. Welded wire cage may be cut and bent to accommodate the drainage slots, as directed by the Engineer.
3. Welded wire splice locations shall have a "minimum" splice lap length of 12".
4. Combinations of reinforcing steel and WWR will be permitted, as directed by the Engineer. The dimension from the end of the barrier section to the first wire shall not exceed 3".

Texas Department of Transportation
Design Division Standard

SINGLE SLOPE CONCRETE BARRIER

CAST-IN-PLACE
(TYPE 1)
(BRIDGE DECK or CRCP)

SSCB(1)-10

FILE: sscb110.dgn	DN: TxDOT	CK: AM	DW: BD	CK:
©TxDOT December 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS	0014	16	255, ETC.	IH35W
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	FTW	TARRANT		906

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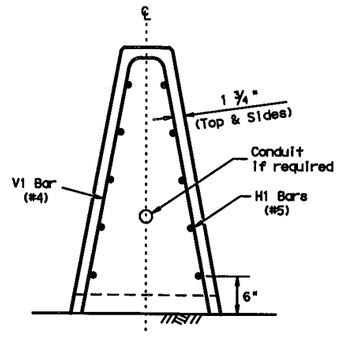
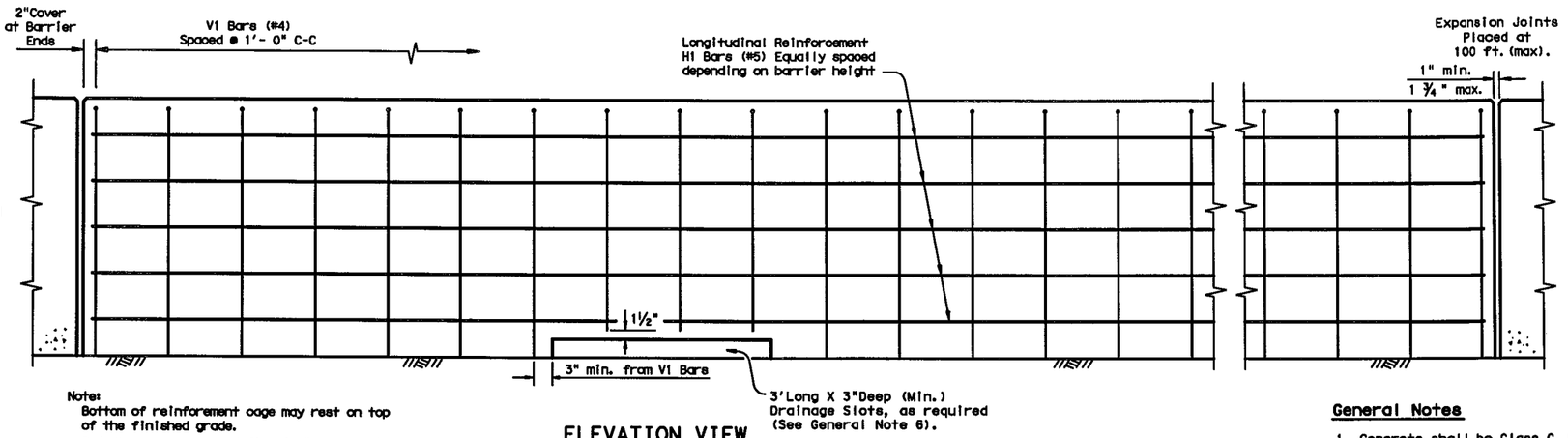


END VIEW

CAST-IN-PLACE (CIP) BARRIER

Barrier is Symmetrical About the Center Line



Note:
Bottom of reinforement cage may rest on top of the finished grade.

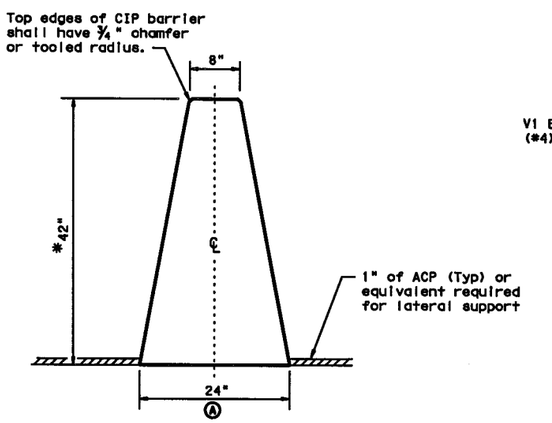
Reinforcement around the drainage slots may be cut or bent to accommodate the edge and top clearances.

ELEVATION VIEW

Cast-In-Place (SSCB)(Type 2)on Roadway

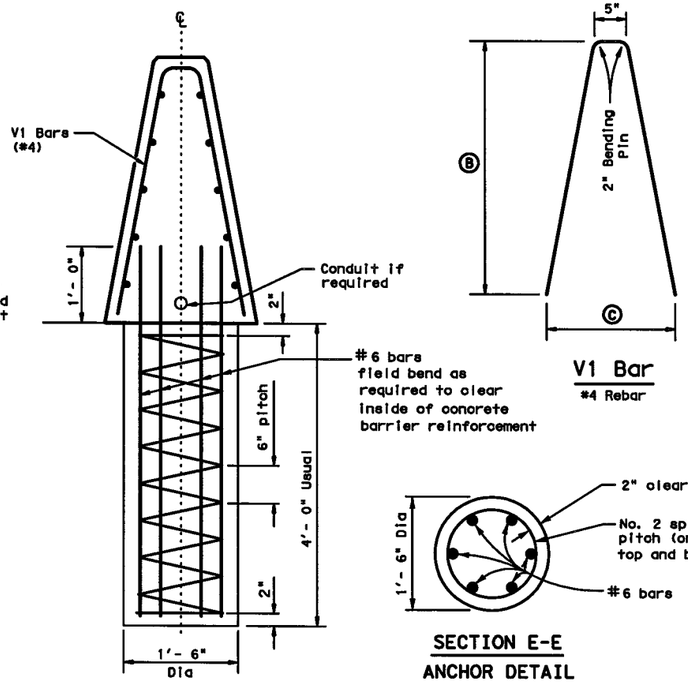
General Notes

1. Concrete shall be Class C. Unless otherwise specified in the plans.
2. Where used, rebar reinforcement shall be Grade 60 and conform to ASTM A615.
3. These details cover barrier per Item 514, "Permanent Concrete Traffic Barrier".
4. The Anchorage shown is considered subsidiary to the bid item.
5. Top edges of CIP barrier shall have a ¾" chamfer or tooled radius.
6. Drainage slot locations (12'- 0", C-C Min. Spacing) are shown elsewhere, or as directed by the Engineer. Drainage slot heights on the SSCB may be increased to a maximum of 5 inches, without geometric changes to the barrier face.
7. Cast-in-place barrier may be slip formed. Bracing may be tied or tack welded to the reinforcement cage to provide cage stability. Do not weld to anchorage.
8. For locations where lighting is required, see the SSCB(4) sheet for the proper reinforcement and anchorage.



SINGLE SLOPE CONCRETE BARRIER

(SSCB)(42")



SECTION D-D

ANCHOR DETAIL

V1 Bar

#4 Rebar

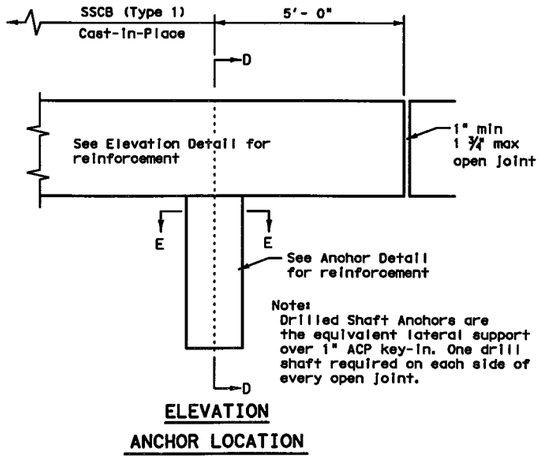
Barrier height (IN.)	* Dimensions (IN.)		
	Ⓐ	Ⓑ	Ⓒ
42	24	40 ¼	20 ½
48	26 ¼	46 ¼	22 ¾
54	28 ½	52 ¼	25 ⅛

*(SSCB)(42") Barrier height may be increased to 48" or 54". This would increase the barrier and reinforcement dimensions accordingly.

Cast-In-Place (CIP) or Slip-Formed (SSCB)

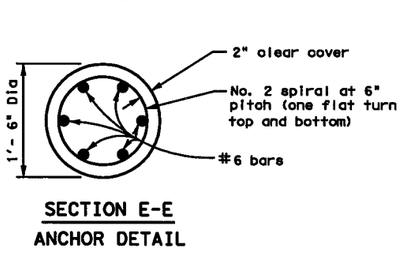
Cast-in-Place barrier may be connected to precast SSCB. Joint connection "Types" may be used in Cast-in-Place barrier, to match the precast barrier connection. (See required connection "Type" elsewhere in the plans)

The weight of Cast-in-Place (SSCB)42" is approx. 717 lbs per ft.



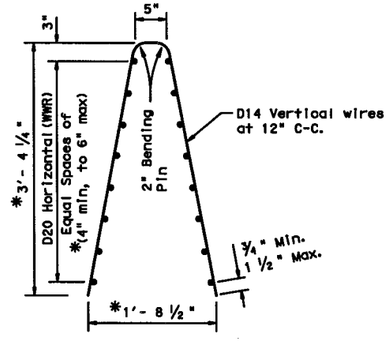
ELEVATION

ANCHOR LOCATION



SECTION E-E

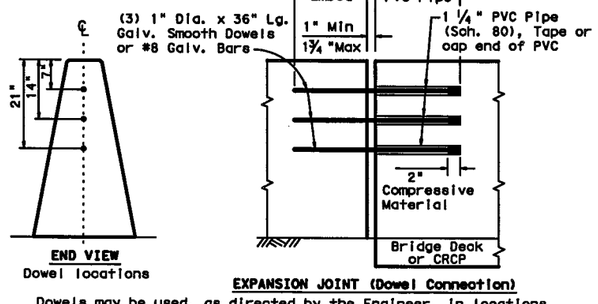
ANCHOR DETAIL



Welded Wire Reinforcement (WWR) Option for Bars V1 and H1

(WWR) General Notes

1. Deformed Welded Wire Reinforcement (WWR) shall conform to ASTM A497.
2. Welded wire cage may be cut and bent to accommodate the drainage slots, as directed by the Engineer.
3. Weled wire splice locations shall have a "minimum" splice lap length of 12".
4. Combinations of reinforcing steel and WWR will be permitted, as directed by the Engineer. The dimension from the end of the barrier section to the first wire shall not exceed 3".



END VIEW
Dowel locations

EXPANSION JOINT (Dowel Connection)

Dowels may be used, as directed by the Engineer, in locations where the barrier could be laterally displaced.

Texas Department of Transportation
Design Division Standard

SINGLE SLOPE CONCRETE BARRIER

CAST-IN-PLACE
(TYPE 1)
(FLEXIBLE PAVEMENT)

SSCB(1F)-10

FILE: sscb1f10.dgn	DN: TxDOT	CK: AM	DW: BD	CK:
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REVISIONS	0014	16	255, ETC.	IH35W
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	FTW	TARRANT		907

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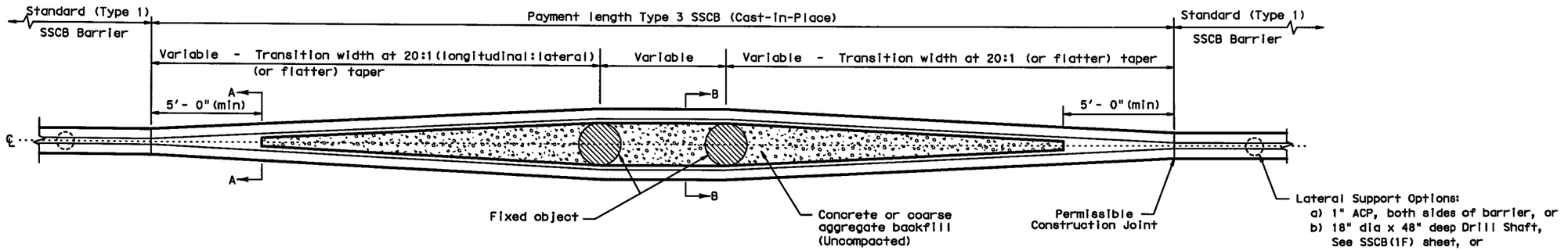
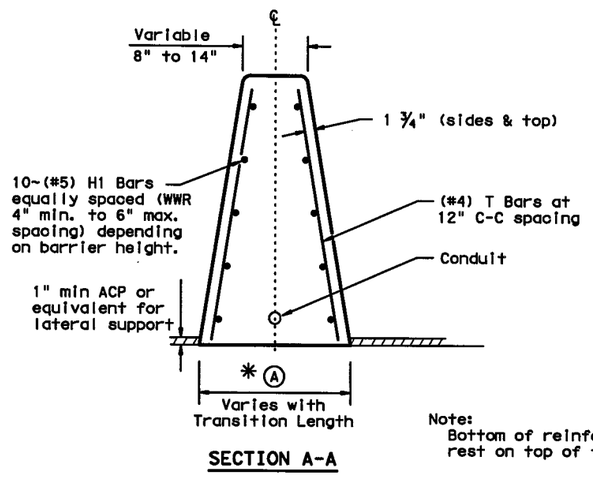
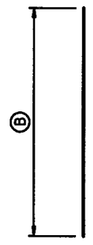


PLAN (TYPE 3) BARRIER

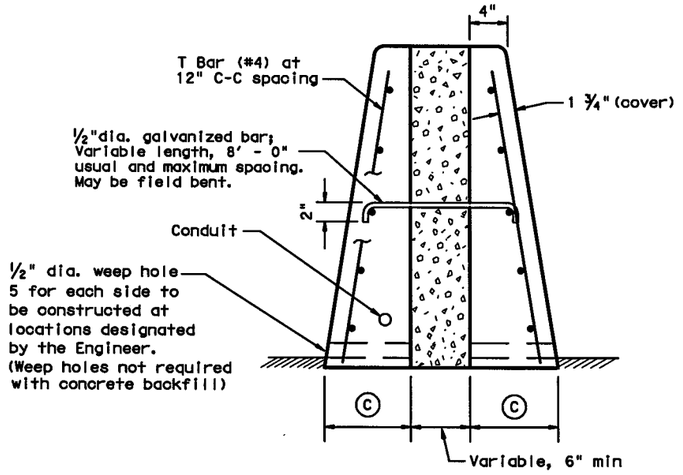


SECTION A-A



T BAR (#4)

Note:
Bottom of reinforcement cage may rest on top of finished grade.



SECTION B-B

Barrier height (IN.)	* Dimensions (IN.)		
	(A)	(B)	(C)
42	24 Plus	40 ¼	12
48	26 ¼ Plus	46 ¼	13 ⅛
54	28 ½ Plus	52 ¼	14 ¼

*(SSCB)(42") Barrier height may be increased to 48" or 54". This would increase the barrier and reinforcement dimensions accordingly.

Welded Wire Reinforcement (WWR) Option for Bars T and H1 (Type 3) Barrier

(WWR) General Notes

1. WWR design required for (Type 3) SSCB barrier: D14 vertical (12" C-C) x D20 horizontal wires spaced (4" min. to 6" max.) as height requires.
2. Deformed Welded Wire Reinforcement (WWR) shall conform to ASTM A497.
3. Welded wire cage may be cut and bent to accommodate the drainage slots, as directed by the Engineer.
4. Welded wire splice locations shall have a "minimum" splice lap length of 12".
5. Combinations of reinforcing steel and WWR will be permitted, as directed by the Engineer. The dimension from the end of the barrier section to the first wire shall not exceed 3".

GENERAL NOTES

1. Axis of concrete barrier shall be vertical, except where roadway is superelevated, then axis shall be normal to roadway surface.
2. All steel that requires galvanizing shall be in accordance with Item 445, "Galvanizing."
3. Bid price per liner foot of (Type 3) SSCB, including anchor sections, shall include all of the concrete, reinforcement, and aggregate backfill.
4. All concrete shall be Class C.
5. Longitudinal and vertical bars for roadway barrier shall conform to ASTM A615 (Grade 60), unless otherwise specified.
6. At construction joints the longitudinal bars shall extend beyond the joint so that bar splices will be a minimum of two feet from the construction joint.
7. Welded wire reinforcement (WWR) may be used as an option to conventional reinforcement and shall meet requirements shown.
8. Any method devised by the contractor and approved by the Engineer that will assure the longitudinal steel for and (Type 3) SSCB will be positioned ± ½ inch as dimensioned will be satisfactory.
9. Conduit to be provided only when called for elsewhere in the plans. Position of conduit may be adjusted to facilitate construction subject to the approval of the Engineer.
10. See SSCB(4) standard for barrier with illumination.

Texas Department of Transportation
Design Division Standard

SINGLE SLOPE CONCRETE BARRIER

CAST-IN-PLACE
(TYPE 3)
AT FIXED OBJECTS

SSCB(3)-10

FILE: sscb310.dgn	DN: TxDOT	CK: AM	DW: BD	CK:
©TxDOT December 2010	CONT	SECT	JOB	HIGHWAY
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	FTW	TARRANT		908

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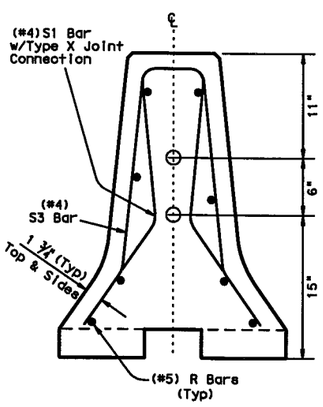
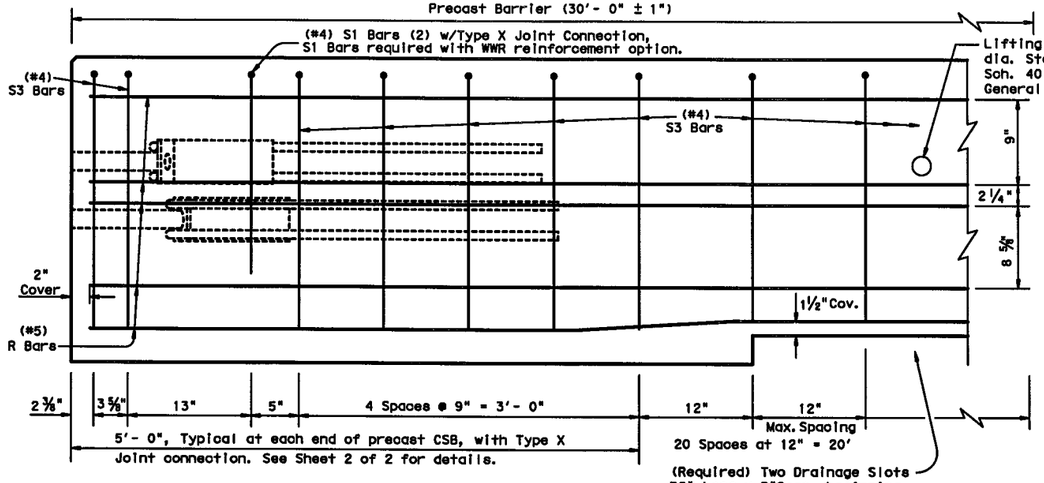


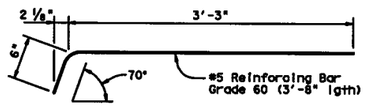
End View Precast Barrier

See sheet 2 of 3 for Joint connection Type X



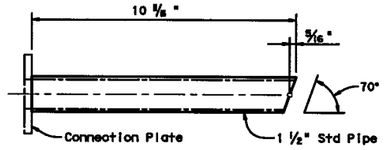
Reinforcement for Precast (CSB) Concrete Safety Barrier (Type 1)

Showing reinforcement for Joint Type X



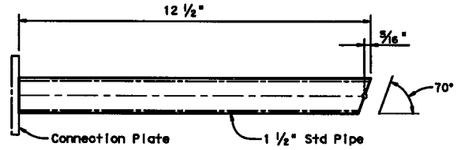
DEFORMED BAR ANCHOR DETAILS

Two (2) Bars required per assembly.
Eight (8) required per Joint.



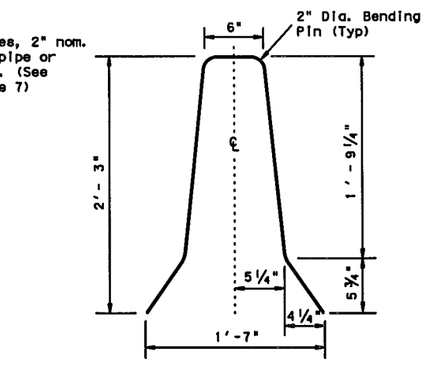
UPPER CONNECTION PIPE DETAILS

One (1) Steel Pipe required per Upper Assembly.
Two (2) required per Joint.



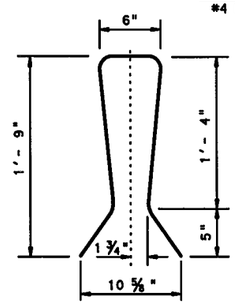
LOWER CONNECTION PIPE DETAILS

One (1) Steel Pipe required per Lower Assembly.
Two (2) required per Joint.



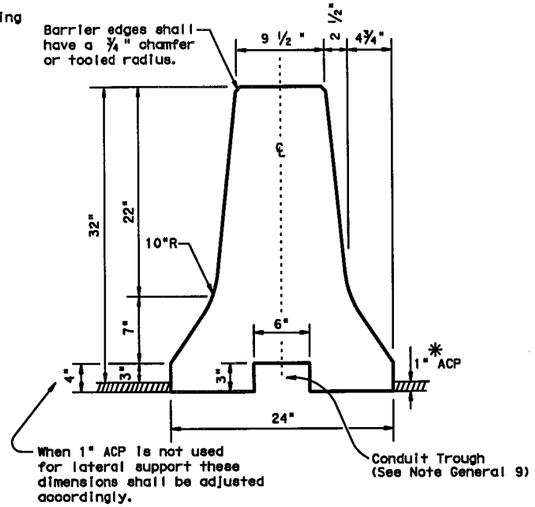
S3 Bar

#4 Bar



S1 Bar

#4 Bar (2)
(Joint Type X)



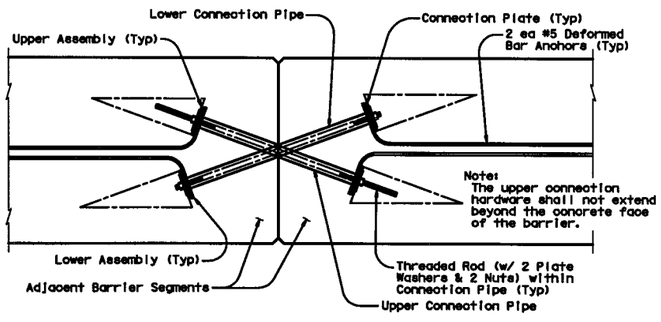
Concrete Safety Barrier

✱ When 1" ACP is "not" used as lateral support for permanent barrier placement. A permissible method of attaining the equivalent lateral support may be used, See CSB(6) sheet.

GENERAL NOTES

1. Concrete shall be Class H with a minimum compressive strength of 3,600 psi.
2. Where used, rebar reinforcement shall be Grade 60 and conform to ASTM A615.
3. Precast barrier length shall be 30 ft. unless otherwise specified on the plans.
4. All precast barrier edges shall have a ¾" chamfer or tooled radius.
5. All concrete, reinforcement, joint connection systems, grout etc. as shown, are considered as part of the barrier payment.
6. All steel assemblies for joint shall be galvanized after fabrication in accordance with Item 445, "Galvanizing."
7. Regardless of the method of handling, barrier lifting points shall be approx. 7.5 feet from the ends of the barrier. Lifting devices and attachments to barrier sections shall be approved by the Engineer.
8. Surface finishing and grouting (where required) shall be two parts sand one part cement with enough water to make the mixture plastic. Grouting shall be done in a manner that will assure a smooth surface. Surface finishing shall be considered subsidiary to the various bid items involved.
9. Conduit trough when required shall be shown elsewhere on the plans, or as directed by the Engineer.

SHEET 1 OF 2



TYPE X JOINT INSTALLATION DETAIL

Barrier reinforcing and Type X Joint Leave-Out dimensions not shown for clarity.

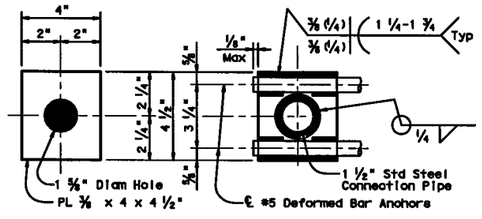
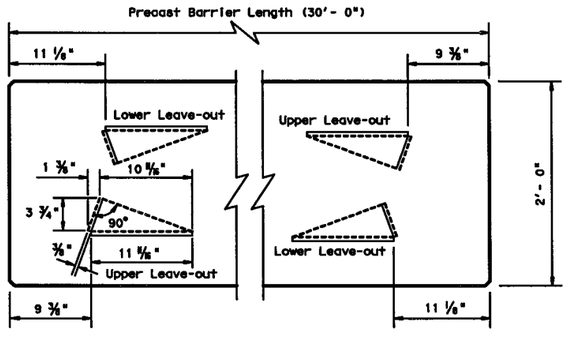


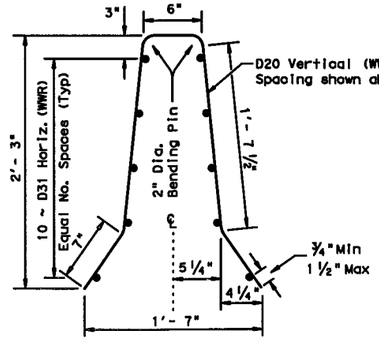
PLATE DIMENSIONS — WELDING DETAILS

CONNECTION PLATE DETAILS

One (1) Plate required per assembly.
Four (4) required per Joint. All steel fittings for joint Type X shall be galvanized after fabrication in accordance with Item 445.



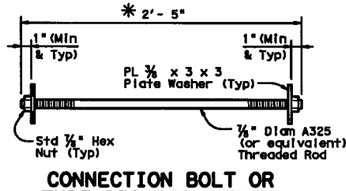
BARRIER PLAN AT END JOINTS



Welded Wire Reinforcement (WWR) Option for Bars R and S3

(WWR) General Notes

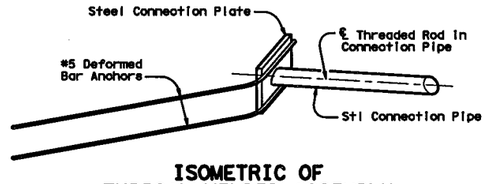
1. Deformed Welded Wire Reinforcement (WWR) shall conform to ASTM A497.
2. Welded wire cage may be cut or bent to accommodate the Type X joint connection and drainage slots, as directed by the Engineer.
3. All reinforcement shall comply with Item 440, "Reinforcing Steel."
4. Combinations of reinforcing steel and WWR will be permitted, as directed by the Engineer. The dimension from the end of the barrier section to the first wire shall not exceed 3".



CONNECTION BOLT OR THREADED ROD DETAIL

Two (2) Threaded Rods (Or Equivalent Hex Hd. Bolts) (w/ Two (2) PL ⅜ x 3 x 3 Plate Washers & Two (2) Std Hex Nuts) required per Joint.

✱ The connection hardware shall not extend beyond the concrete face of the barrier. Hex head bolts may be provided. The proper length of all hardware should be verified.



ISOMETRIC OF TYPICAL WELDED ASSEMBLY

Four (4) [2 Upper & 2 Lower] Assemblies required per Joint.

Weight of one Precast 30 ft. (CSB) segment = Approx. 6.5 Tons or 440 lbs per ft.

Texas Department of Transportation
Design Division Standard

CONCRETE SAFETY BARRIER (F-SHAPE)

PRECAST BARRIER (TYPE 1)

CSB(1)-10

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REVISIONS	0014	16	255, ETC.	IH35W
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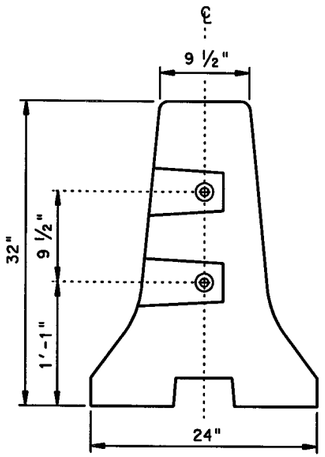
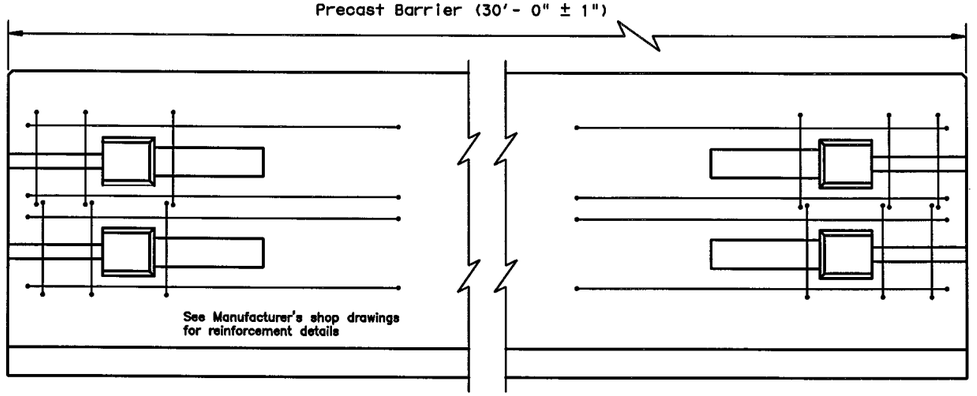


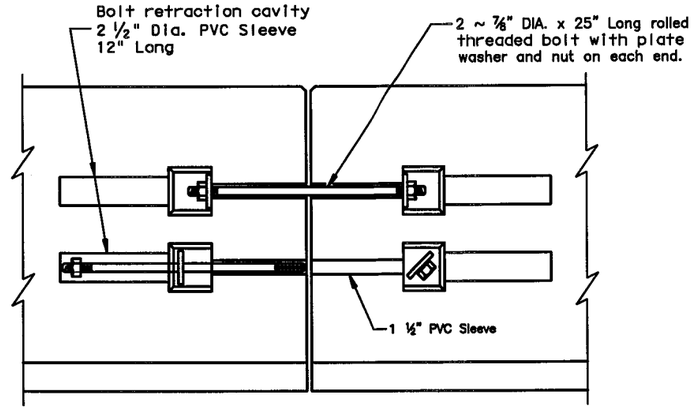
END VIEW (CSB) QUICK-BOLT

QUICK-BOLT POCKET LOCATIONS



ELEVATION (CSB) QUICK-BOLT

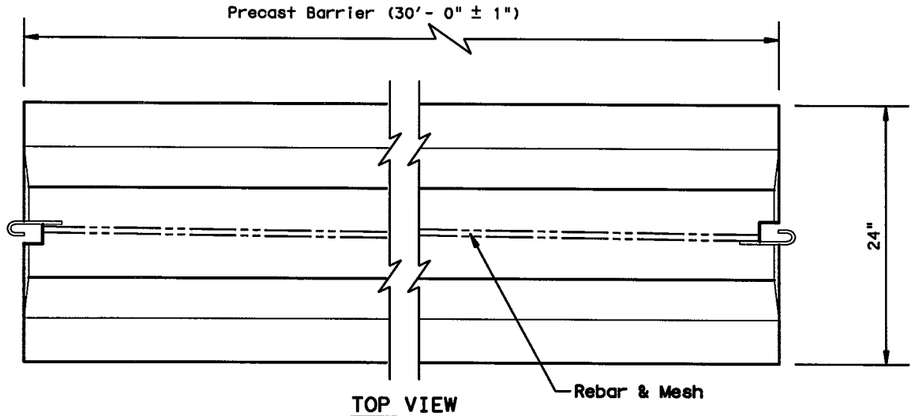
See Manufacturer's shop drawing for additional details



ELEVATION VIEW SHOWING JOINT CONNECTION

"QUICK-BOLT"

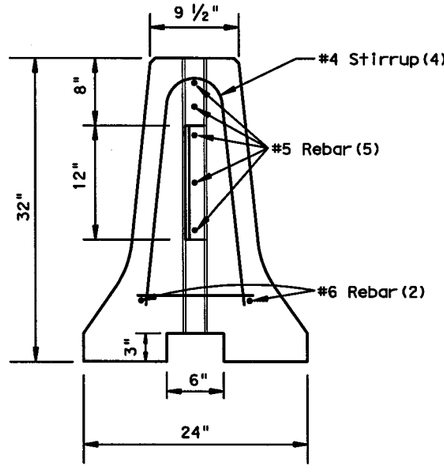
Joint Connection (Type Q)



TOP VIEW

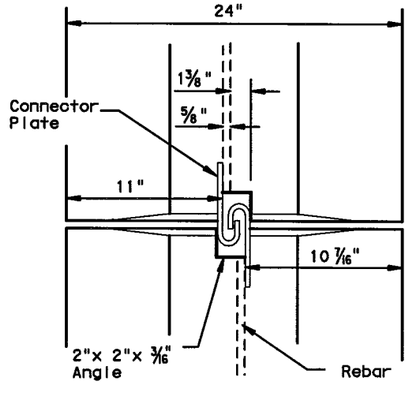
PRECAST (CSB) WITH J-J HOOKS

See Manufacturer's shop drawing for additional details



END VIEW

J-J HOOK CONNECTION



VIEW FROM ABOVE

J-J HOOK CONNECTION

Joint Connection (Type J)

Proprietary Joint Connections (CSB)

Two proprietary joint connections are acceptable as alternates to the (Type X) connection shown, here on. These joint connections types are:

J-J Hooks by Easi-Set Industries, (800)547-4045
Quick-Bolt by Bexar Conorete, (210)497-3773

If one of these connection systems are exclusively specified in the plans, prior approval for sole source use must be obtained. Details of the connection components and barrier reinforcement for these systems, will be shown on the manufacturer's shop drawing(s) furnished to the Engineer.

SHEET 2 OF 2

Texas Department of Transportation
Design Division Standard

CONCRETE SAFETY BARRIER (F-SHAPE)

PRECAST BARRIER
(TYPE 1)

CSB(1)-10

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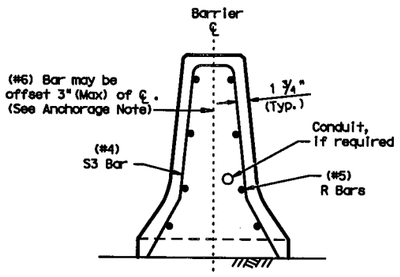
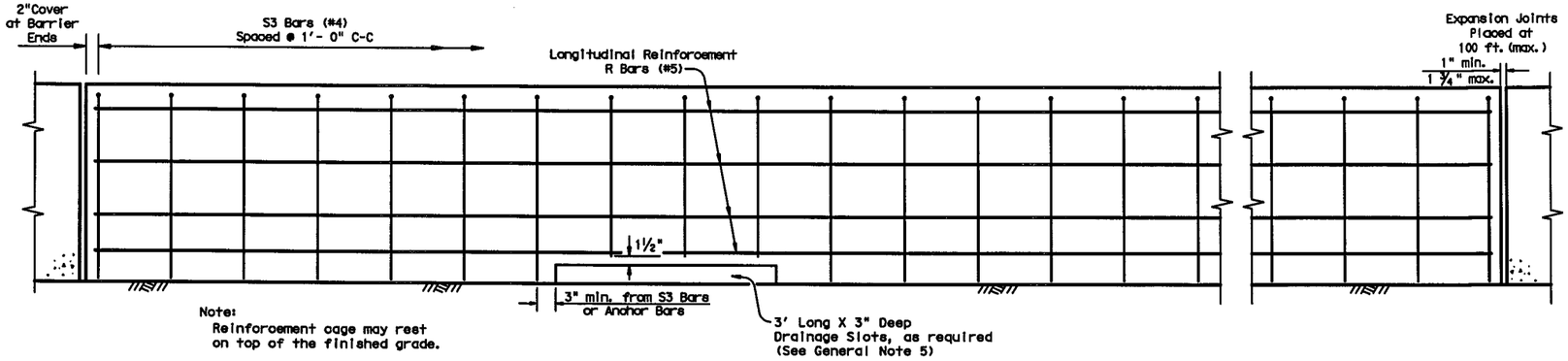
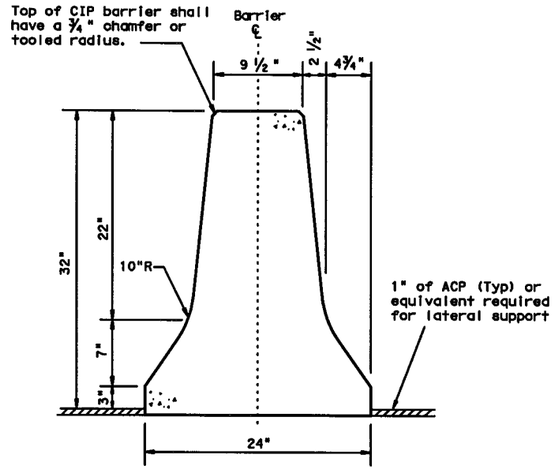


END VIEW
Cast-in-Place (CIP) Barrier
Barrier is Symmetrical About the Center Line

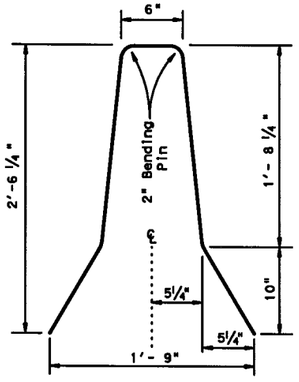


Note:
Reinforcement cage may rest on top of the finished grade.

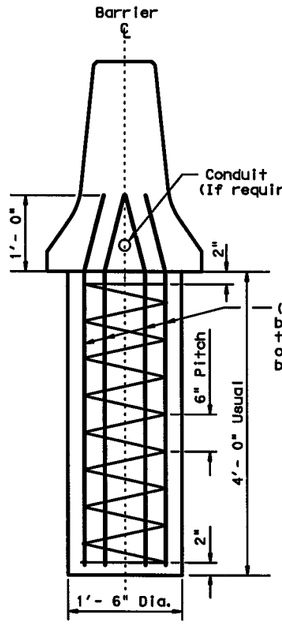
ELEVATION VIEW
Cast-in-Place (CSB) on Flexible Pavement



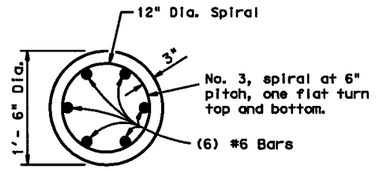
CONCRETE SAFETY BARRIER (CSB)



S3 Bar
(#4) Bar



SECTION D-D
DRILLED SHAFT ANCHOR



SECTION E-E
DRILLED SHAFT ANCHOR
See drilled shaft anchor location detail

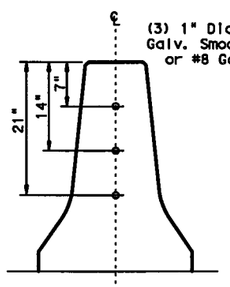
General Notes

1. Concrete shall be Class C, unless otherwise specified in the plans.
2. Where used, rebar reinforcement shall be Grade 60 and conform to ASTM A615.
3. Axis of cast-in-place barrier shall be vertical, except where roadway is superelevated, then axis is normal to roadway surface.
4. Top edges of cast-in-place barrier shall have a ¾" chamfer or tooled radius.
5. Drainage slot depths may be increased 1" to accommodate ACP. Slot locations (12'- 0", C-C Min. Spacing) are shown elsewhere, or as directed by the Engineer.
6. Cast-in-place barrier may be slip formed. Bracing may be tied or took welded to the reinforcement cage to provide cage stability. Do not weld to anchor bars. The reinforcement cage may rest on top of the finished grade.
7. For locations where lighting is required, see the CSB(4) sheet for the proper reinforcement and anchorage.

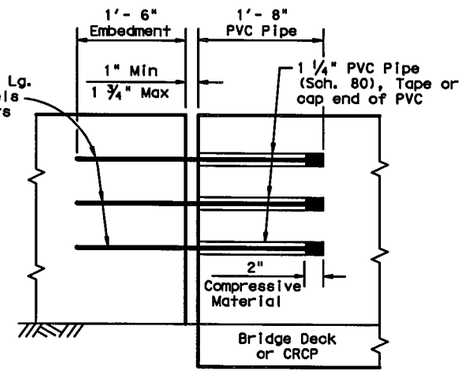
Cast-In-Place or Slip-Formed (CSB)

Cast-in-Place barrier may be connected to precast CSB. Joint connection "Types" may be used in Cast-in-Place barrier, to match the precast barrier connection. (See required connection "Type" elsewhere in the plans)

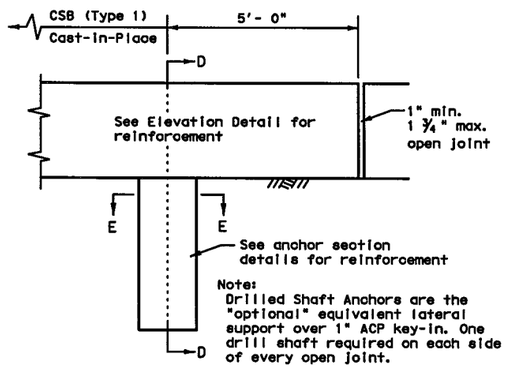
The weight of Cast-in-Place (CSB) (F-Shape) is approx. 440 lbs per ft.



END VIEW
Dowel locations

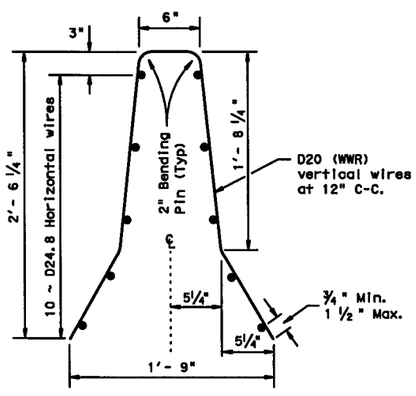


EXPANSION JOINT (Dowel Location)
Dowels may be used, as directed by the Engineer, in locations where the barrier could be laterally displaced.



Note:
Drilled Shaft Anchors are the "optional" equivalent lateral support over 1" ACP key-in. One drill shaft required on each side of every open joint.

DRILLED SHAFT ANCHOR
LOCATION DETAIL



Welded Wire Reinforcement
(WWR) Option for Bars S and R

(WWR) General Notes

1. Deformed Welded Wire Reinforcement (WWR) shall conform to ASTM A497.
2. The welded wire cage at the drainage slots may be cut or bent to accommodate the edge and top clearances, as directed by the Engineer.
3. The welded wire splice locations shall have a "minimum" splice lap length of 12".
4. Combinations of reinforcing steel and WWR will be permitted, as directed by the Engineer. The dimension from the end of the barrier section to the first wire shall not exceed 3".

Texas Department of Transportation
Design Division Standard

CONCRETE SAFETY BARRIER (F-SHAPE)
CAST-IN-PLACE
(TYPE 1)
(FLEXIBLE PAVEMENT)
CSB(2)-10

FILE: csb210.dgn	DN: TxDOT	CK: AM	DW: BD	CK:
©TxDOT December 2010	CONT	SECT	JOB	HIGHWAY
REVISIONS	0014	16	255, ETC.	IH35W
	DIST	COUNTY		SHEET NO.
	FTW	TARRANT		911

DATE: 7/13/2012 10:22:18 PM
FILE: CSB(2)-10.dgn

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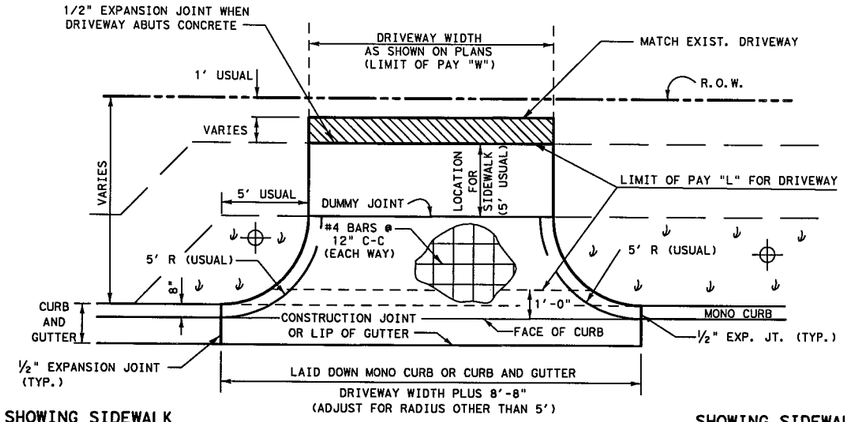


SHOWING SIDEWALK ADJACENT TO CURB

SHOWING SIDEWALK REMOTE FROM CURB

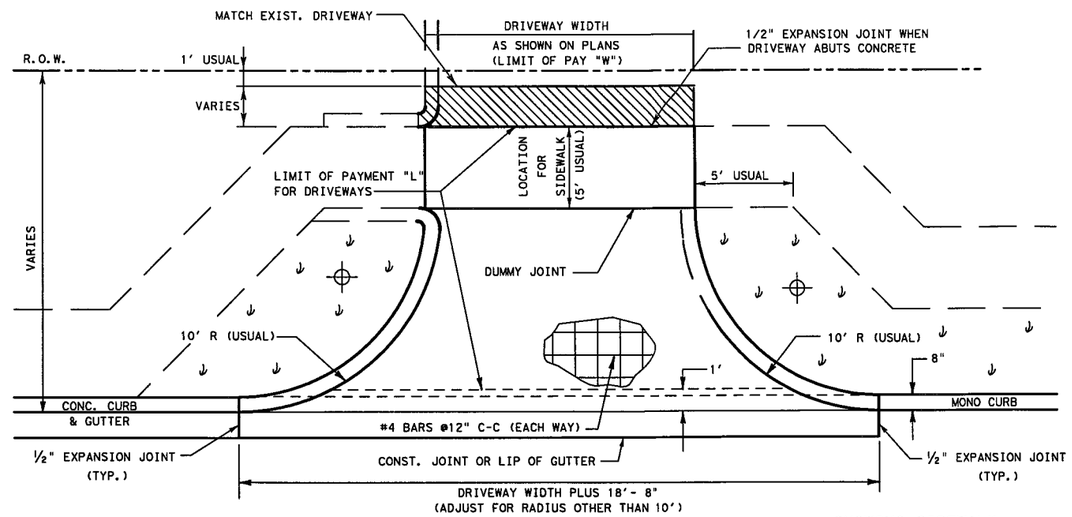
PLAN VIEW

⊕ DO NOT PAVE AREA BETWEEN SIDEWALK AND DRIVEWAY CURB. SEED, SOD, OR LANDSCAPE AS DIRECTED.

⏚ - SEEDING OR OTHER SURFACE NOT SUITABLE AS PEDESTRIAN WALKWAY.

PAY AREA FOR DRIVEWAY SHALL BE THE PRODUCT OF "L" x "W"

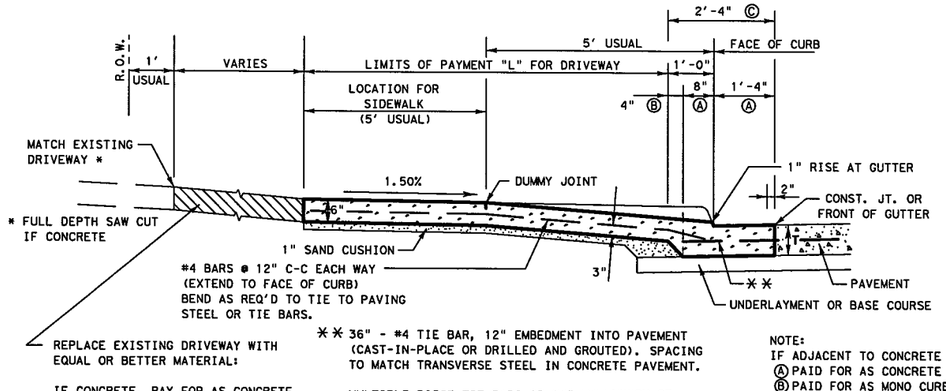
S.Y. NON-PAY CONCRETE IN DRIVEWAY RADIUS	
2-90° RADII (FT)	S.Y. NON-PAY CONC.
5	0.42
10	3.04
20	15.36
30	37.19



SHOWING OPTIONAL CURB AND SIDEWALK ADJACENT TO CURB

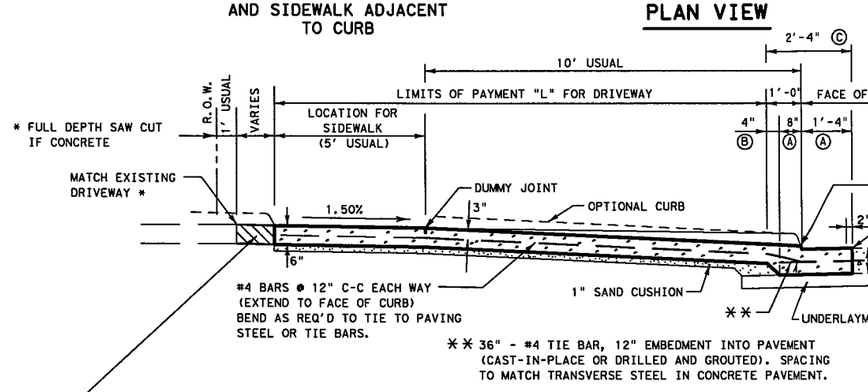
SHOWING SIDEWALK REMOTE FROM CURB

PLAN VIEW



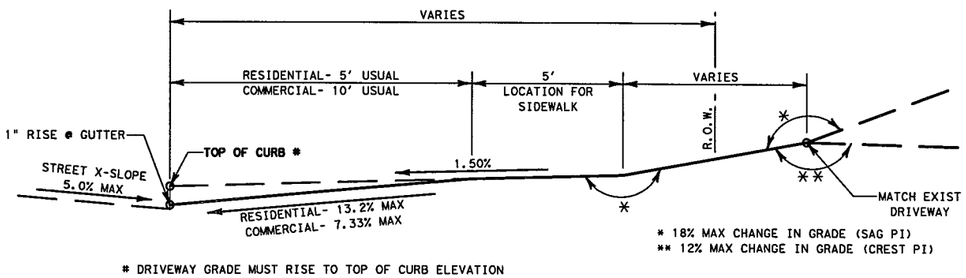
SECTION VIEW

CONCRETE RESIDENTIAL DRIVEWAY

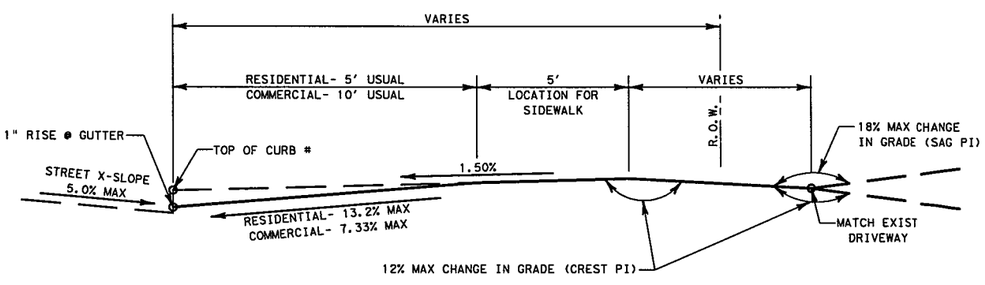


SECTION VIEW

CONCRETE COMMERCIAL DRIVEWAY



SAG CONDITION



CREST CONDITION

ALLOWABLE DRIVEWAY GRADES

Texas Department of Transportation
FORT WORTH DISTRICT

CONCRETE DRIVEWAY DETAILS

CDD-08 (FW)

ORIGINAL DRAWING	FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
JUNE 2008	6	(SEE TITLE SHEET)		912
REVISIONS:	STATE	DIST.	COUNTY	
	TEXAS	FTW	TARRANT	
	CONT.	SECT.	JOB	HIGHWAY NO.
	0014	16	255, ETC.	IH35W

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http://www.dot.state.tx.us/ftw/specinfo/standard.htm cddfw.dgn
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cptdfw.dgn

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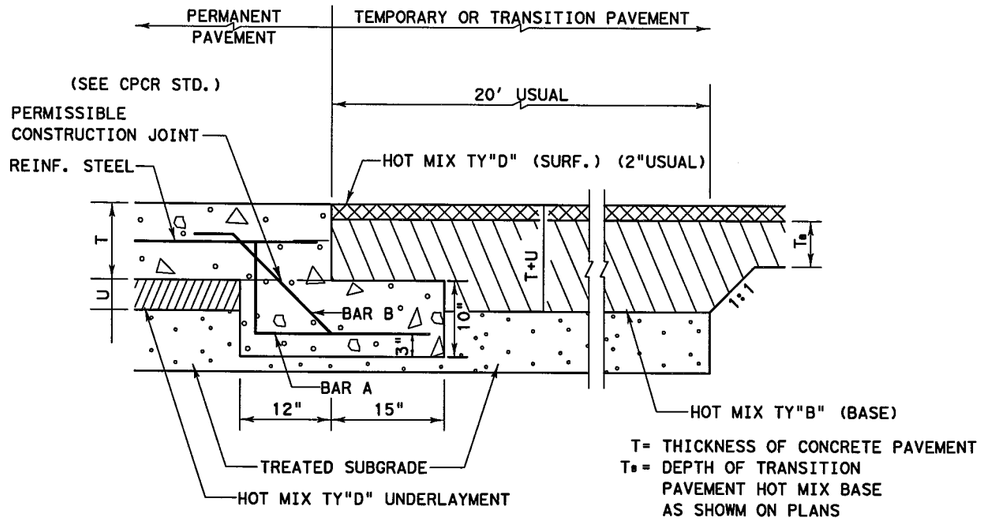
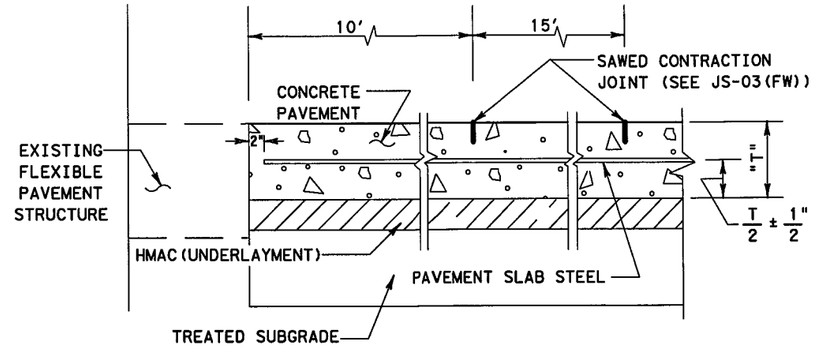


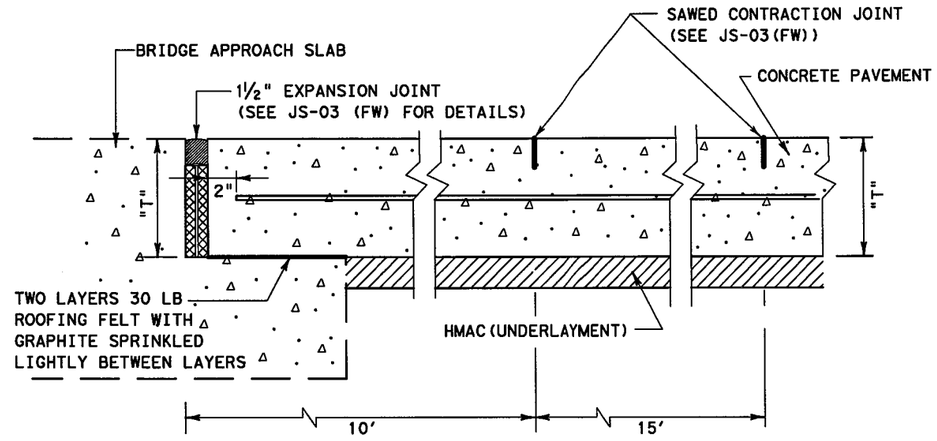
CONCRETE PAVEMENT TERMINUS

AT HOT MIX TRANSITION OR TEMPORARY PAVEMENT



CONCRETE PAVEMENT TERMINUS

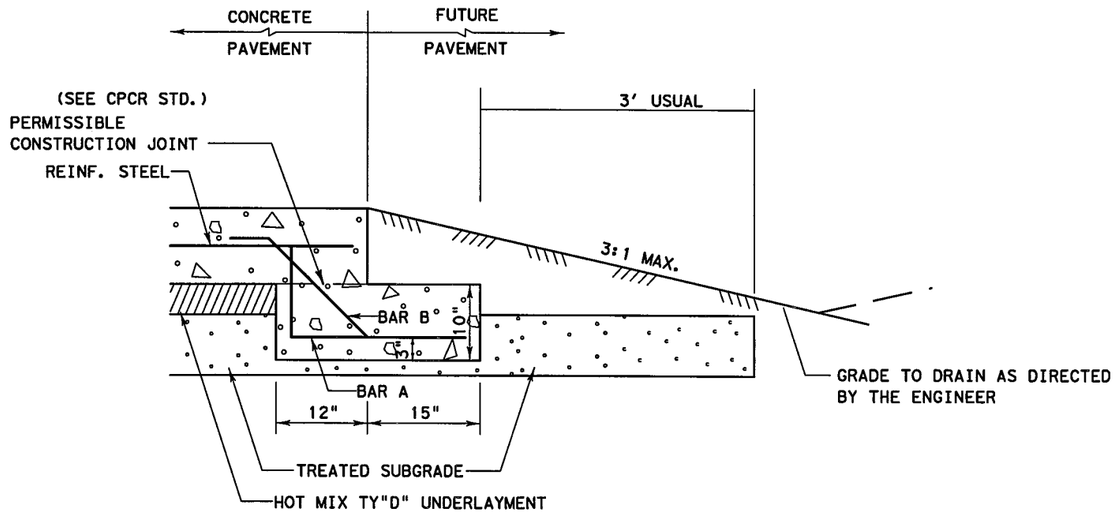
AT FLEXIBLE PAVEMENT



CONCRETE PAVEMENT TERMINUS

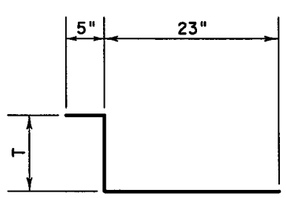
AT BRIDGE APPROACH SLAB

"T" = THICKNESS OF CONCRETE PAVEMENT AND BRIDGE APPROACH SLAB (8" MIN.). THICKNESS TO BE SHOWN ELSEWHERE IN THE PLANS. IF NORMAL PAVEMENT THICKNESS IS LESS THAN 8", 10' ADJACENT TO BRIDGE APPROACH SLAB TO BE 8" THICK, TAPERING TO NORMAL PAVEMENT THICKNESS OVER NEXT 15'. NO ADJUSTMENT IN PAY WILL BE MADE DUE TO INCREASED DEPTH OF CONCRETE PAVEMENT.

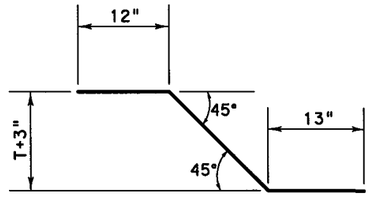


CONCRETE PAVEMENT TERMINUS

W/O HOT MIX TRANSITION OR TEMPORARY PAVEMENT



BAR "A" (#5)
@12" C-C



BAR "B" (#5)
@12" C-C

Texas Department of Transportation
FORT WORTH DISTRICT

CONCRETE PAVEMENT TERMINUS DETAILS

CP-TD-03 (FW)

ORIG DRAW MAY 2003	FED.RD. DIV.NO.	PROJECT NO.		SHEET NO.
REVISIONS: 04/10-Added graphite on sleeper slab 07/10-Updated reference to JS-03(FW)	6	(SEE TITLE SHEET)		913
STATE	STATE DIST.NO.	COUNTY		
TEXAS	FTW	TARRANT		
CONT.	SECT.	JOB	HIGHWAY NO.	
0014	16	255	IH35W	

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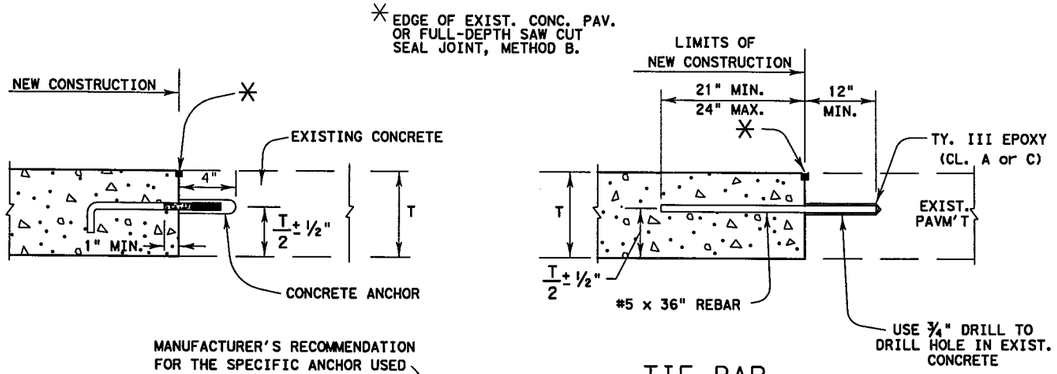
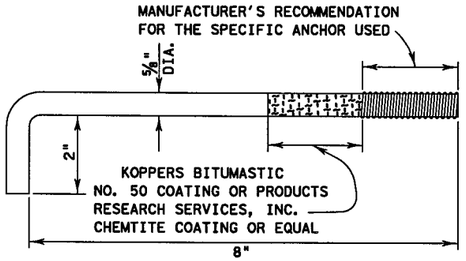


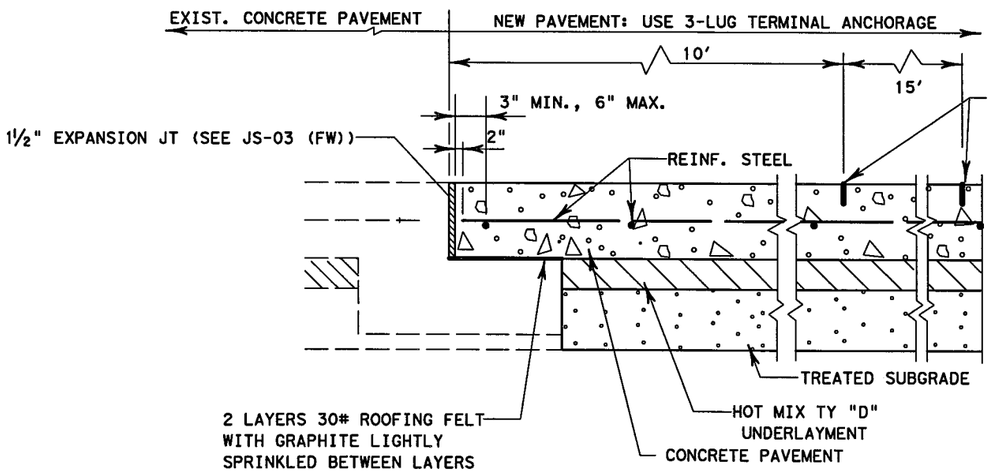
TIE BAR

1. EITHER THE HOOK TIE BOLT OR THE TIE BAR MAY BE USED TO PROVIDE LOAD TRANSFER FOR LONGITUDINAL JOINTS.
2. THE SPACING FOR EITHER TIE BARS OR HOOK TIE BARS BOTH IS 24" C-C.
3. SEE JS-03 (FW), METHOD "B" FOR JOINT SEALING DETAILS.
4. THIS DETAIL DOES NOT APPLY TO NEW CONSTRUCTION, STAGE CONSTRUCTION, OR BLOCKOUT (SEE CPCR STANDARDS)

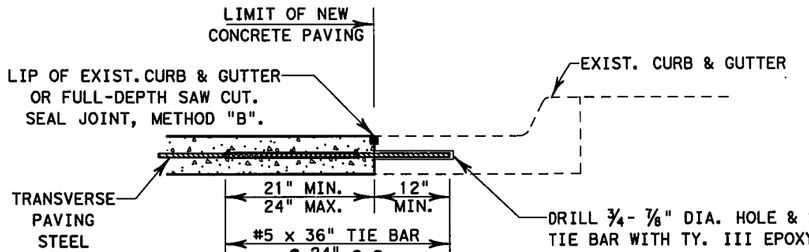


HOOK TIE BOLT

TIE TO EXIST. CONC. PAVEMENT
(LONGITUDINAL JOINTS)



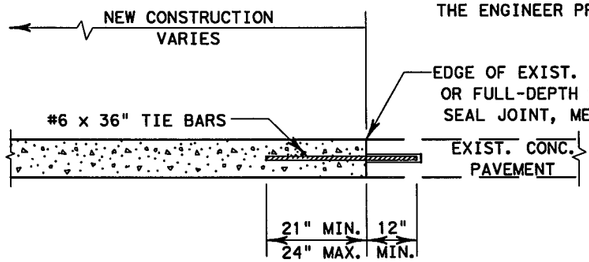
TIE TO EXIST. CONCRETE PAVEMENT
(TRANSVERSE JOINTS W/EXISTING "SLEEPER" SLAB)



TIE TO EXIST. CONC. CURB & GUTTER

NOTE:
SAWING OF PAVEMENT AND REMOVAL OF EXISTING CONC. WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE SUBSIDIARY TO THE VARIOUS BID ITEMS.

DRILL ⅞" DIA. HOLE & SECURE TIE BARS WITH TY. III EPOXY (CL. A or C). TYPE OF EPOXY AND METHODS OF CLEANING AND APPLICATION SHALL BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.



TIE BAR SPACING	
PAVEMENT THICKNESS	BAR SPACING
8"	12"
9"	10"
10"	8.5"
11"	7"
12"	6"
>12"	6"

TIE TO EXIST. CONC. PAVEMENT
(TRANSVERSE JOINTS W/O EXISTING "SLEEPER" SLAB)

NOTE: DETAILS SHOWN APPLY WHEN MULTIPLE-PIECE TIE BARS HAVE NOT BEEN INCLUDED IN THE PREVIOUS CONCRETE PLACEMENT

GENERAL NOTES:

TIE BARS SHALL BE GROUTED INTO THE EXISTING CONCRETE THE MINIMUM LENGTHS SHOWN, AND MUST MEET THE REQUIREMENTS OF THE PULL-OUT TEST SPECIFIED IN ITEM 361, WHEN REQUIRED BY THE ENGINEER.

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Texas Department of Transportation
Fort Worth District

CONCRETE PAVEMENT TIES TO EXISTING PAVEMENT

CP-TEP-03 (FW)

ORIG DRAW APR 2003	FED.RD. DIV.NO.	PROJECT NO.		SHEET NO.
REVISIONS: JAN. 2008-SPECIFY TYPE OF EPOXY 10/09 - UPDATED REFERENCES TO JS-03 (FW) 04/10 - ADDED GRAPHITE ON SLEEPER SLAB 07/10 - UPDATED REFERENCES TO JS-03(FW)	6	(SEE TITLE SHEET)		914
	STATE	STATE DIST.NO.	COUNTY	
	TEXAS	FTW	TARRANT	
	CONT.	SECT.	JOB	HIGHWAY NO.
	0014	16	255	IH35W

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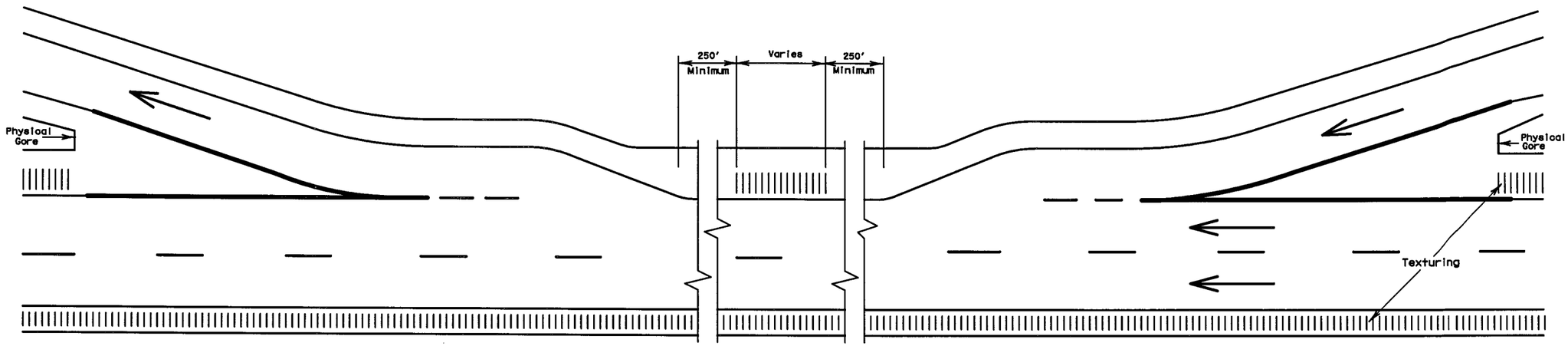
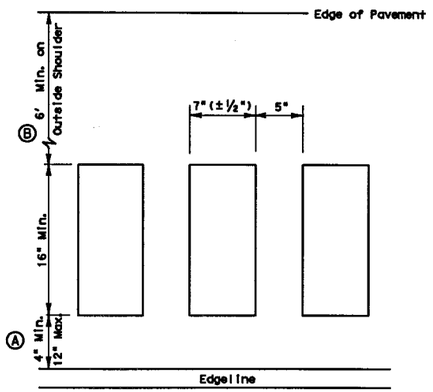


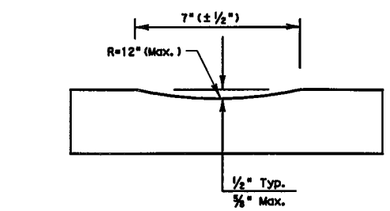
TYPICAL TEXTURING PLACEMENT AT EXIT AND ENTRANCE RAMPS

Ⓐ The minimum distance between the edgeline and the texturing should be used if the shoulder is less than 8 feet in width.

Ⓑ The minimum width on the outside shoulder between the rumble strip and the edge of the pavement may be reduced in special situations, such as narrower shoulders, only as directed by the Engineer.

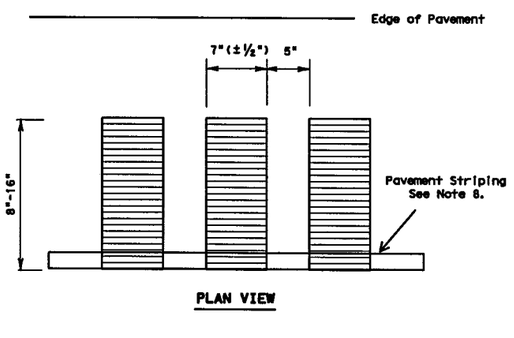


PLAN VIEW

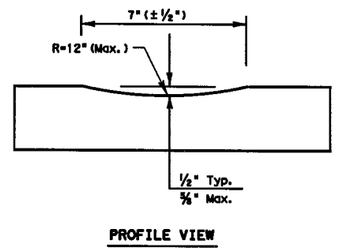


PROFILE VIEW

OPTION 1:
CONTINUOUS MILLED DEPRESSIONS
(Rumble Strips)

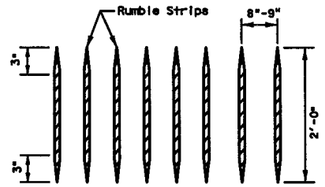


PLAN VIEW

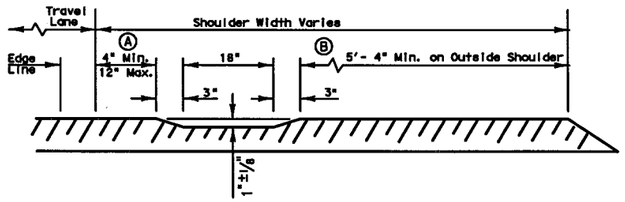


PROFILE VIEW

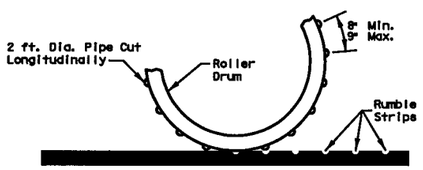
OPTION 2:
CONTINUOUS MILLED DEPRESSIONS
(Rumble Stripes)



PLAN VIEW



TYPICAL SECTION



ROLLER DRUM DETAIL

OPTION 3:
CONTINUOUS ROLLED DEPRESSIONS

GENERAL NOTES:

1. Rumble strips and profile markings shall not be placed on roadways with a posted speed limit of 45 MPH or less.
2. Shoulder rumble strips are primarily intended to alert drivers that they are in the process of or have left their original lane of travel. These types of rumble strips are intended to give a vibratory and auditory warning.
3. Shoulder rumble strips are not designed to physically decrease the speed of a vehicle.
4. Rumble strips should be used along roadways with high incidents related to unintentional lane departures as the result of inattentive drivers or impaired visibility of positive guidance pavement markings from adverse weather.
5. Milled rumble strips are preferred.
6. All milled rumble strips shall be cut to a minimum of 1/2" +/- 1/8" in depth, 7" +/- 1/2" in length, 16" +/- 1/2" width. An 8" +/- 1/2" wide rumble stripe may be used when the shoulder meets the criteria shown in Note 8. Other shapes and dimensions may be used if approved by the Traffic Operations Division.
7. The spacing shall be measured from leading edge to leading edge or on-centers of adjacent rumble strips.
8. Pavement markings can be applied over milled shoulder rumble strips to create an edgeline rumble stripe.
9. Rumble stripes may be placed in lieu of rumble strips. Rumble stripes should not be used when the adjacent lane width is less than 12 feet. Rumble stripes may be used when the shoulder is greater than 18 inches in width. If the shoulder is less than 4 feet in width, the 8 inch rumble stripe shall be used. When the shoulder is 4 feet or greater in width, the 16 inch rumble stripe or strip shall be used.
10. Rumble strips shall not be milled or depressed into bridge decks or into pavement with less than 2 inches of thickness. Rumble strips shall not be placed across exit or entrance ramps, acceleration and deceleration lanes, crossovers, gore areas or intersections with other roadways.
11. Breaks in depressed shoulder texturing shall occur at least 50' and no more than 150' in advance of bridges, intersections and driveways with high usage or large trucks when installed on conventional highways.
12. Consideration should be given to noise levels when centerline and edgeline rumble strips are installed near residential areas, schools, churches, etc. a minimum of 0.375 inches depth of milled rumble strip may be considered in these areas.

Texas Department of Transportation
Traffic Operations Division

DEPRESSED SHOULDER TEXTURING

RS(1)-10

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DN: TXDOT	CK: TXDOT	DW: TXDOT	CK: TXDOT

REVISIONS	CONT	SECT	JOB	HIGHWAY
2-10	0014	16	255, ETC.	IH35W
	DIST	COUNTY		SHEET NO.
	FTW	TARRANT		915

DATE: 7/13/2012 10:22:27 PM
FILE: RS(1)-10.DGN

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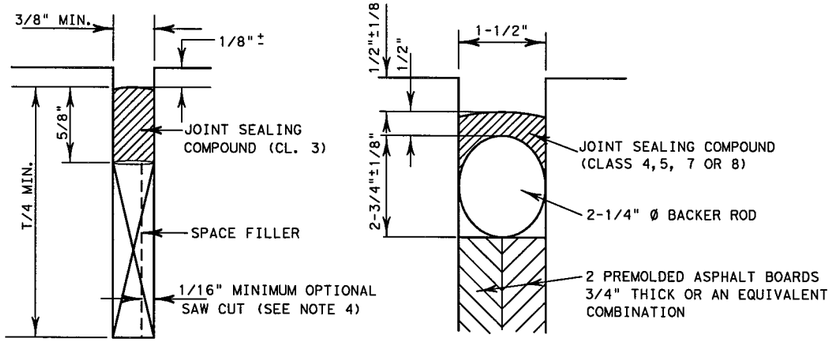
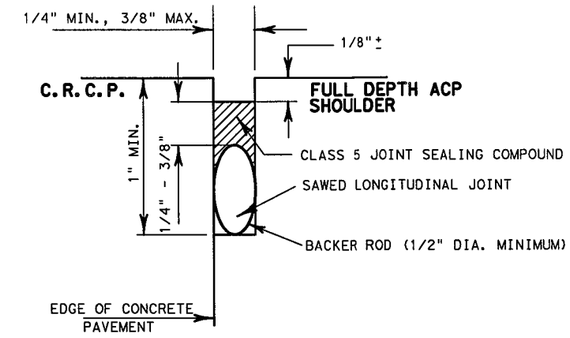


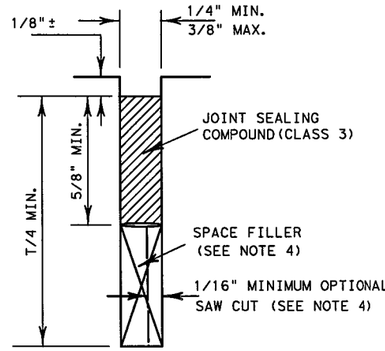
SAWED CONTRACTION JOINT

FORMED EXPANSION JOINT

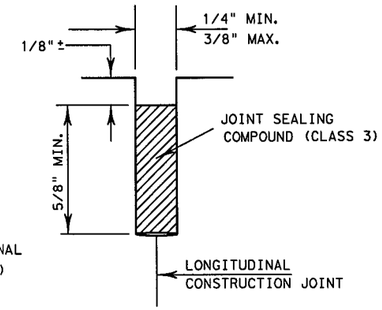
TRANSVERSE JOINT SEALS



LONGITUDINAL SHOULDER JOINT SEAL



SAWED LONGITUDINAL JOINT



SAWED LONGITUDINAL CONSTRUCTION JOINT

LONGITUDINAL JOINT SEALS

METHOD B: JOINT SEALING COMPOUND

GENERAL NOTES:

1. METHOD "A" - PREFORMED COMPRESSION SEALS (CLASS 6 JOINT SEALANT) WILL NOT BE PERMITTED.
2. LONGITUDINAL JOINTS SHALL BE SAWED AS DETAILED IN THE STANDARD SPECIFICATIONS OR AS SHOWN IN THE PLANS.
3. TRANSVERSE JOINTS SHALL BE SAWED AND SHALL BE PLACED AS SHOWN ELESEWHERE IN THE PLANS.
4. A SUITABLE SPACE FILLER SHALL BE USED WHERE SHOWN AND THE JOINT SEAL COMPOUND POURED TO THE DEPTH INDICATED, EXCEPT THAT IF THE MINIMUM SAW CUT IS USED, THE SPACE FILLER MAY BE OMITTED.
5. AT THE CONTRACTOR'S OPTION, THE SPACE FILLER MAY BE OMITTED IN LONGITUDINAL JOINTS ONLY, AND THE JOINT SEALING COMPOUND POURED FULL DEPTH.
6. BACKER RODS SHALL BE COMPATIBLE WITH THE CLASS OF SEALANT USED.
7. CLASS 4 OR 5 JOINT SEALER, OR AS SHOWN IN THE PLANS, MAY BE USED IN SAWED JOINTS IN LIEU OF CLASS 3.
8. BOTH FACES OF ALL JOINTS SHALL BE THOROUGHLY CLEANED BY SANDBLASTING AND AIRBLASTING, LEAVING A CLEAN, NEWLY EXPOSED CONCRETE SURFACE.
9. IF CONCRETE PAVEMENT CONTAINS SILICEOUS RIVER GRAVEL, SAWED DEPTH SHALL BE T/3.

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Texas Department of Transportation
FORT WORTH DISTRICT

CONCRETE PAVING DETAILS
JOINT SEALS
JS-03 (FW)

DRAWING	DATE	FED. AID DIV. NO.	STATE	PROJECT NO.			HIGHWAY
ORIGINAL	July 2003	6	TEXAS	(SEE TITLE SHEET)			IH35W
REVISED		STATE DIST.	COUNTY	CONT.	SECT.	JOB	SHEET NO.
REVISED		FTW	TARRANT	0014	16	255	916
REVISED							

http://www.dot.state.tx.us/ftw/specinfo/standard.htm js03fw.dgn
LEVELS DISPLAYED

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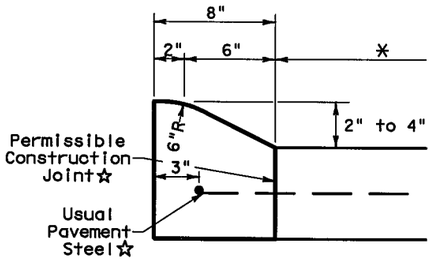
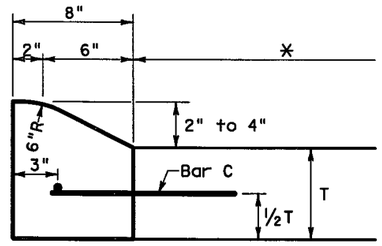


TYPE I CURB (MONOLITHIC)
2" - 4" HEIGHT



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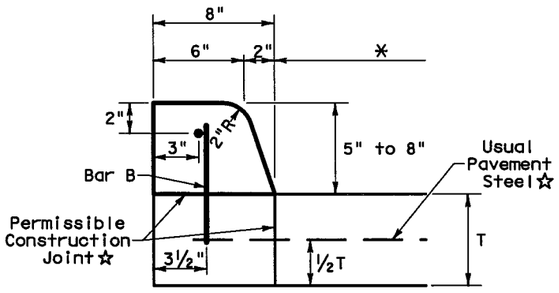
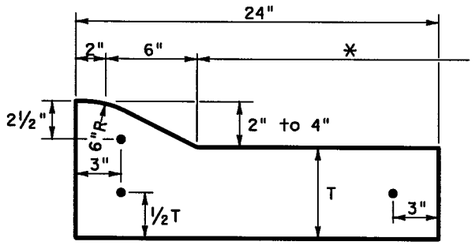
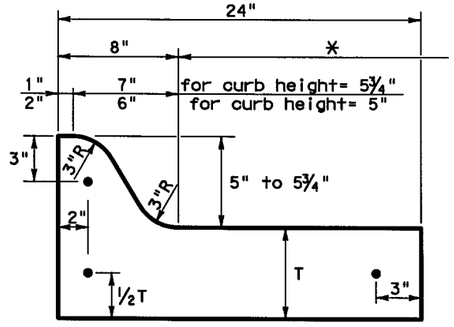


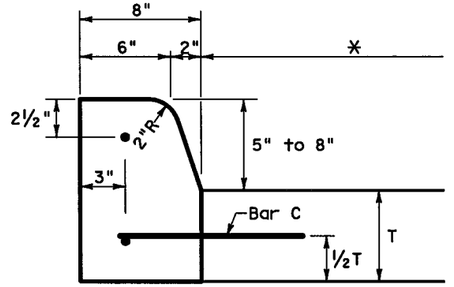
TYPE II CURB (MONOLITHIC)
5" - 8" HEIGHT



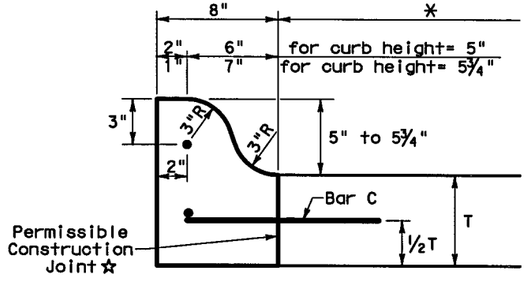
TYPE I CURB AND GUTTER
2" - 4" HEIGHT



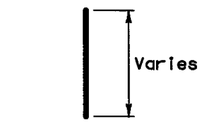
TYPE I CURB AND GUTTER
5" - 5¾" HEIGHT



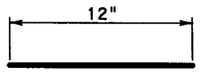
TYPE II CURB
5" - 8" HEIGHT
SHOWING DOWELED VERTICAL JOINT



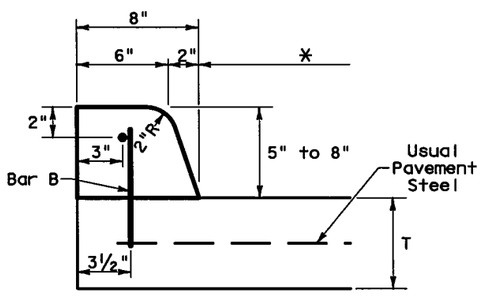
TYPE I CURB
5" - 5¾" HEIGHT



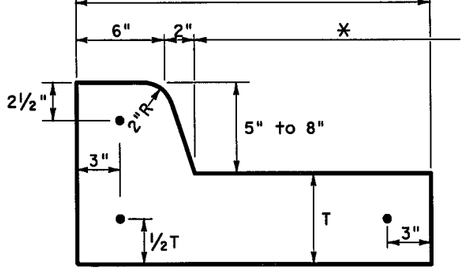
BAR B
L = (T/2) + (H- 1½")



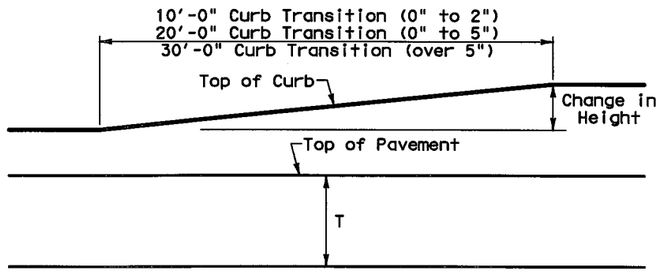
BAR C
Embed 6" into existing concrete pavement



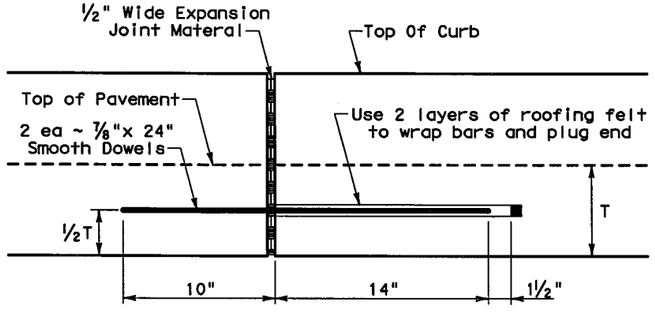
TYPE II CURB
5" - 8" HEIGHT
SHOWING DOWELED HORIZONTAL JOINT



TYPE II CURB AND GUTTER
5" - 8" HEIGHT



CURB TRANSITION
Note: To be paid for as Highest Curb



EXPANSION JOINT DETAIL

General Notes

Maximum height for Type I curb or curb and gutter shall be 5¾".

All existing curbs and driveways to be removed shall be sawed or removed at existing joints.

Where concrete curb is placed on existing concrete pavement, the pavement shall be drilled (5/8" dia.) and the reinforcing bars grouted in place or secured with Epoxy conforming to Departmental Material Specification DMS 6100, "Epoxies and Adhesives", Class III.

Expansion and contraction joints shall be constructed to match pavement joints in all curbs and curb and gutter adjacent to jointed concrete pavement. Where placement of curb or curb and gutter is not adjacent to concrete pavement, expansion joints shall be provided at structures, curb returns at streets, and at locations directed by The Engineer.

All reinforcing bars shall be No. 4 unless otherwise shown.

Vertical and horizontal dowel bars and transverse reinforcing bars shall be placed at four feet C~C.

Dimension 'T' shown above is the thickness of concrete pavement or flexible base and surface (8" maximum).

* Usual profile grade line. Refer to typical sections and plan-profile sheets for exact locations.

One-half inch expansion joint materal shall be provided where curb or curb and gutter is adjacent to sidewalk or riprap.

☆ When vertical permissible construction joints are used, resulting in a longitudinal construction joint in the pavement, the longitudinal pavement steel shall be placed in accordance with pavement details shown elsewhere in the plans for longitudinal construction joints. Reinforcing steel for curb section shall then conform to that required for concrete curb.

TYPE I-A = 2" HEIGHT
TYPE I-B = 3" HEIGHT
TYPE I-C = 4" HEIGHT
TYPE I-D = 5" HEIGHT
TYPE I-E = 5¾" HEIGHT
(See General Notes)

TYPE II-A = 5" - 5¾" HEIGHT
TYPE II-B = 6" - 6¾" HEIGHT
TYPE II-C = 7" - 7¾" HEIGHT
TYPE II-D = > 7¾" HEIGHT

Texas Department of Transportation

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CONCRETE CURB AND CURB AND GUTTER DETAILS
CC-CG (FW)

ORIG DRAW MAR 2000	FED.RD. DIV.NO.	PROJECT NO.		SHEET NO.
REVISIONS: March 2002 - Revised Curb Types to comply with statewide standards. Oct 2003 - Added sub-types for heights, to comply with 2004 Spec Book; clarified construction methods. January 2005 - Epoxy Type	6	(SEE TITLE SHEET)		917
	STATE	STATE DIST. NO.	COUNTY	
	TEXAS	FTW	TARRANT	
	CONT.	SECT.	JOB	HIGHWAY NO.
	0014	16	255	IH35W

http://www.dot.state.tx.us/ftw/specinfo/standard.htm ccogfw.dgn
LEVELS DISPLAYED 1 6

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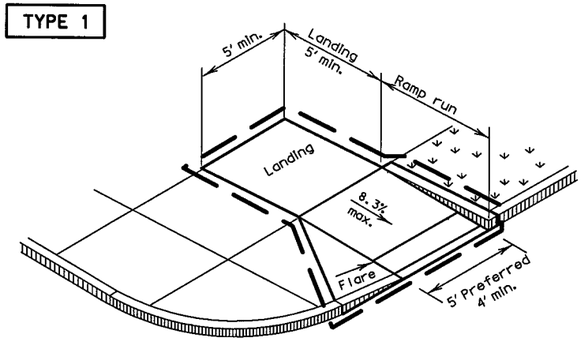
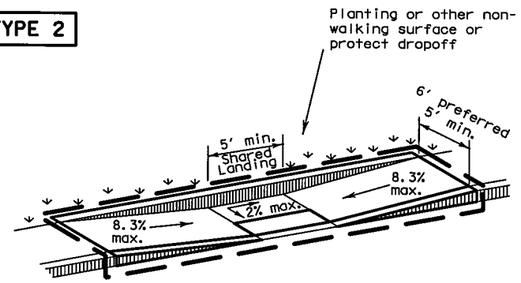
DATE: 7/13/2012 6:23:53 AM
FILE: PED-12a.dgn

TYPE 1



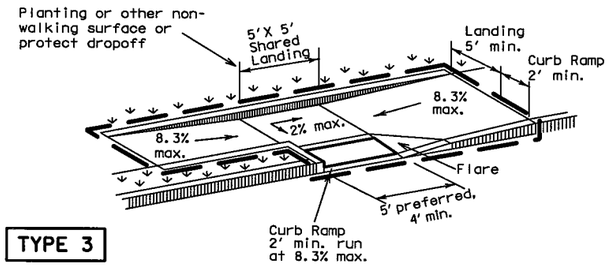
PERPENDICULAR CURB RAMP

TYPE 2

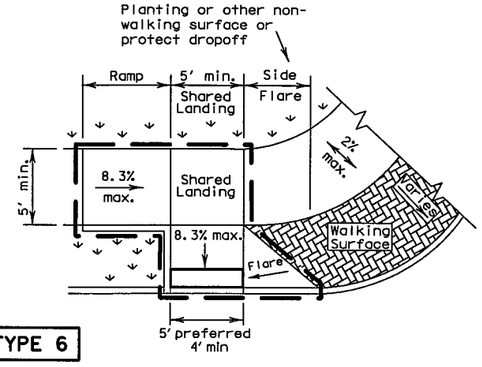


PARALLEL CURB RAMP
(Use only where water will not pond in the landing.)

TYPE 3

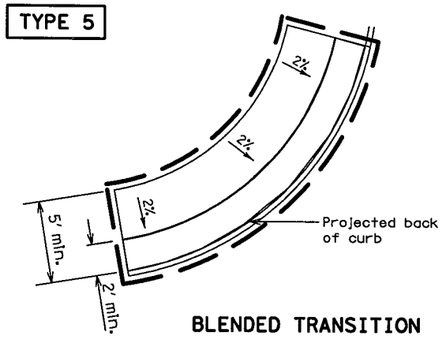


TYPE 6



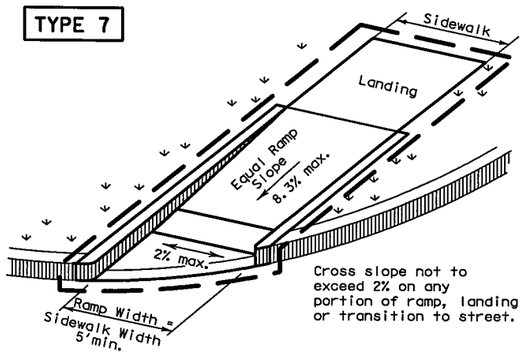
COMBINATION CURB RAMPS

TYPE 5



BLENDED TRANSITION

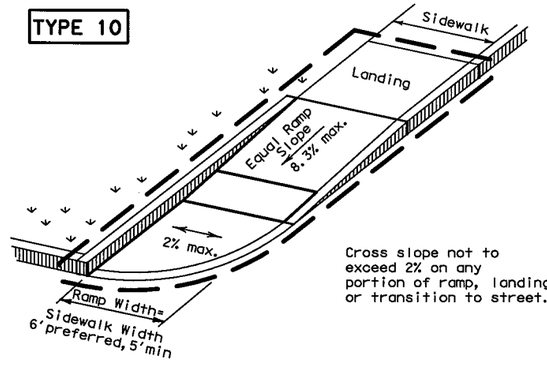
TYPE 7



Cross slope not to exceed 2% on any portion of ramp, landing or transition to street.

(Sidewalk set back from curb)

TYPE 10

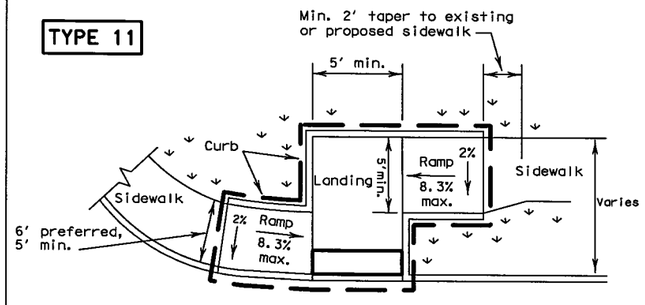


Cross slope not to exceed 2% on any portion of ramp, landing or transition to street.

(Sidewalk adjacent to curb)

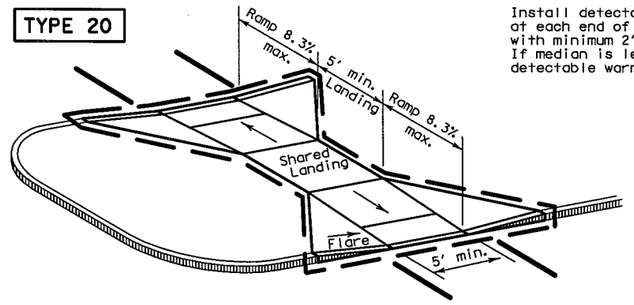
DIRECTIONAL RAMPS WITHIN RADIUS

TYPE 11



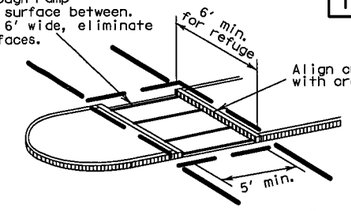
OFFSET PARALLEL CURB RAMP

TYPE 20



Install detectable warning surface at each end of cut-through ramp with minimum 2' smooth surface between. If median is less than 6' wide, eliminate detectable warning surfaces.

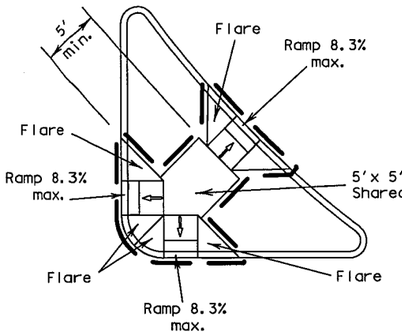
TYPE 21



Curb details are shown elsewhere in the plans.

CURB RAMPS AT MEDIAN ISLANDS

TYPE 22



COMBINATION ISLAND RAMPS

NOTES / LEGEND:

See General Notes on sheet 2 of 4 for more information.

Denotes planting or non-walking surface not part of pedestrian circulation path.

Ramp Limits of Payment

Detectable Warning Surface

SHEET 1 OF 4

Texas Department of Transportation
Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: PK	DW: TxDOT	CK: HD
© TxDOT March 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0014	16	255, ETC.	IH35W
VP June 13, 2012	DIST	COUNTY		SHEET NO.
	FTW	TARRANT		918

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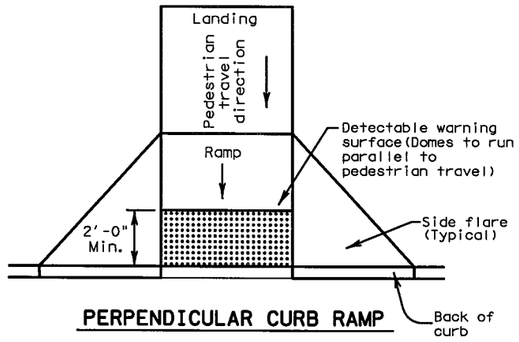
General Notes

Curb Ramps

1. Install a curb ramp or blended transition at each pedestrian street crossing.
2. All slopes shown are maximum allowable. Lesser slopes that will still drain properly should be used. Adjust curb ramp length or grade of approach sidewalks as directed.
3. The minimum sidewalk width is 5'. Where the sidewalk is adjacent to the back of curb, a 6' sidewalk width is desirable. Where a 5' sidewalk cannot be provided due to site constraints, sidewalk width may be reduced to 4' for short distances. 5'x 5' passing areas at intervals not to exceed 200' are required.
4. Landings shall be 5'x 5' minimum with a maximum 2% slope in any direction.
5. Maneuvering space at the bottom of curb ramps shall be a minimum of 4'x 4' wholly contained within the crosswalk and wholly outside the parallel vehicular travel path.
6. Maximum allowable cross slope on sidewalk and curb ramp surfaces is 2%.
7. Provide flared sides where the pedestrian circulation path crosses the curb ramp. Flared sides shall be sloped at 10% maximum, measured parallel to the curb. Returned curbs may be used only where pedestrians would not normally walk across the ramp, either because the adjacent surface is planted, substantially obstructed, or otherwise protected.
8. Additional information on curb ramp location, design, light reflective value and texture may be found in the current edition of the Texas Accessibility Standards (TAS) and 16 TAC 68.102.
9. To serve as a pedestrian refuge area, the median should be a minimum of 6' wide, measured from back of curbs. Medians should be designed to provide accessible passage over or through them.
10. Small channelization islands, which do not provide a minimum 5'x 5' landing at the top of curb ramps, shall be cut through level with the surface of the street.
11. Crosswalk dimensions, crosswalk markings and stop bar locations shall be as shown elsewhere in the plans. At intersections where crosswalk markings are not required, curb ramps shall align with theoretical crosswalks unless otherwise directed.
12. Handrails are not required on curb ramps. Provide curb ramps wherever an accessible route crosses (penetrates) a curb.
13. Curb ramps and landings shall be constructed and paid for in accordance with Item 531 "Sidewalks".
14. Place concrete at a minimum depth of 5" for ramps, flares and landings, unless otherwise directed.
15. Provide a smooth transition where the curb ramps connect to the street.
16. Curbs shown on sheet 1 within the limits of payment are considered part of the curb ramp for payment, whether it is concrete curb, gutter, or combined curb and gutter.
17. Existing features that comply with TAS may remain in place unless otherwise shown on the plans.

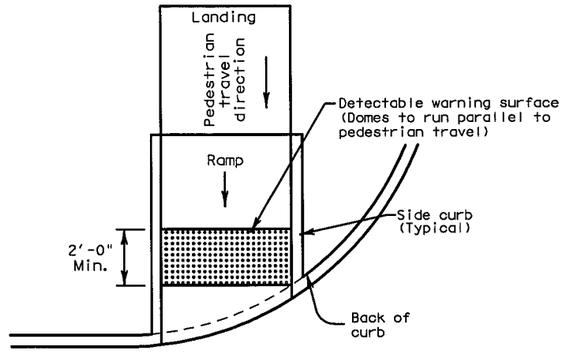
Detectable Warning Material

18. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with Section 705 of the TAS. The surface must contrast visually with adjoining surfaces, including side flares. Furnish and install an approved cast-in-place dark brown or dark red detectable warning surface material adjacent to uncolored concrete, unless specified elsewhere in the plans.
19. Detectable Warning Materials must meet TxDOT Departmental Materials Specification DMS 4350 and be listed on the Material Producer List. Install products in accordance with manufacturer's specifications.
20. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
21. Detectable warning surfaces shall be a minimum of 24" in depth in the direction of pedestrian travel, and extend the full width of the curb ramp or landing where the pedestrian access route enters the street.
22. Detectable warning surfaces shall be located so that the edge nearest the curb line is at the back of curb. Align the rows of domes to be perpendicular to the grade break between the ramp run and the street. Detectable warning surfaces may be curved along the corner radius.
23. Shaded areas on Sheet 1 of 4 indicate the approximate location for the detectable warning surface for each curb ramp type.



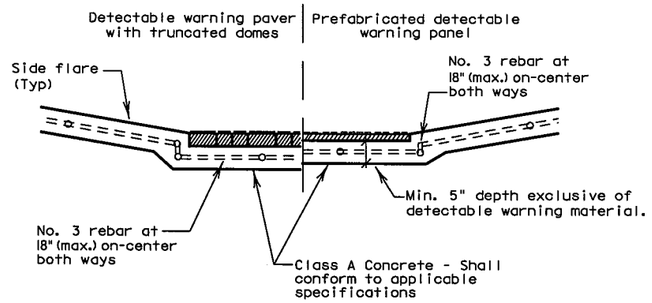
PERPENDICULAR CURB RAMP

Typical placement of detectable warning surface on sloping ramp run.

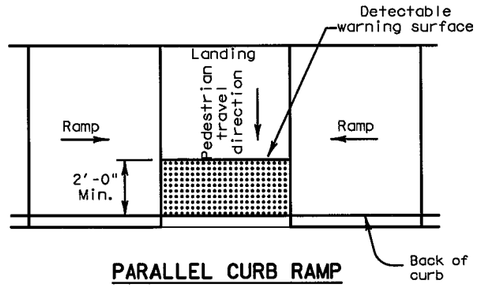


DIRECTIONAL CURB RAMP

Typical placement of detectable warning surface on sloping ramp run.



SECTION: CURB RAMP AT DETECTABLE WARNING



PARALLEL CURB RAMP

Typical placement of detectable warning surface on landing at street edge.

DETECTABLE WARNINGS

Detectable Warning Pavers

24. Furnish detectable warning paver units meeting all requirements of ASTM C-936, C-33. Lay in a two by two unit basket weave pattern or as directed.
25. Lay full-size units first followed by closure units consisting of at least 25 percent of a full unit. Cut detectable warning paver units using a power saw.

Sidewalks

26. Provide clear ground space at operable parts, including pedestrian push buttons. Operable parts shall be placed within one or more reach ranges specified in TAS 308.
27. Place traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items so as not to obstruct the pedestrian access route or clear ground space.
28. Street grades and cross slopes shall be as shown elsewhere in the plans.
29. Changes in level greater than 1/4 inch are not permitted.
30. The least possible grade should be used to maximize accessibility. The running slope of sidewalks and crosswalks within the public right of way may follow the grade of the parallel roadway. Where a continuous grade greater than 5% must be provided, handrails may be desirable to improve accessibility. Handrails may also be needed to protect pedestrians from potentially hazardous conditions. If provided, handrails shall comply with TAS 505.
31. Handrail extensions shall not protrude into the usable landing area or into intersecting pedestrian routes.
32. Driveways and turnouts shall be constructed and paid for in accordance with Item "Intersections, Driveways and Turnouts". Sidewalks shall be constructed and paid for in accordance with Item, "Sidewalks".
33. Sidewalk details are shown elsewhere in the plans.

Texas Department of Transportation
Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: PK	DW: TxDOT	CK: HD		
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REVISIONS	0014	16	255, ETC.		IH35W	
VP June 13, 2012	DIST	COUNTY			SHEET NO.	
	FTW	TARRANT			919	

DATE: 7/13/2012 6:23:54 AM
FILE: PED-12a.dgn

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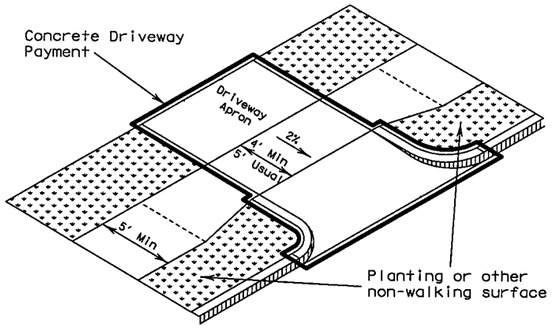
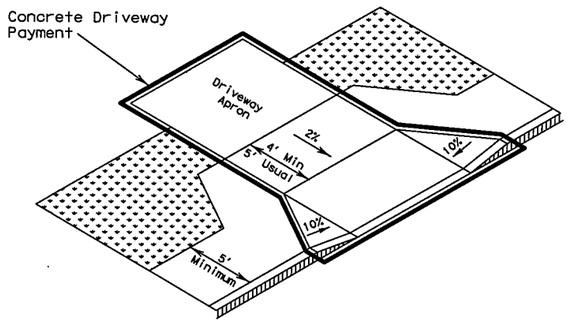
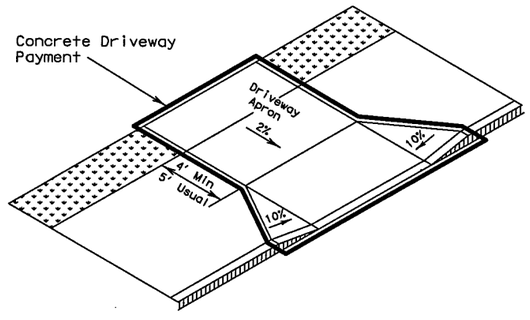


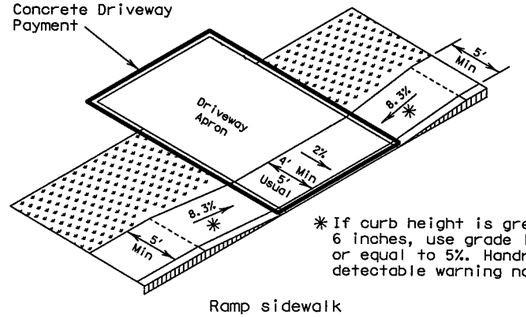
Setback sidewalk



Apron offset sidewalk



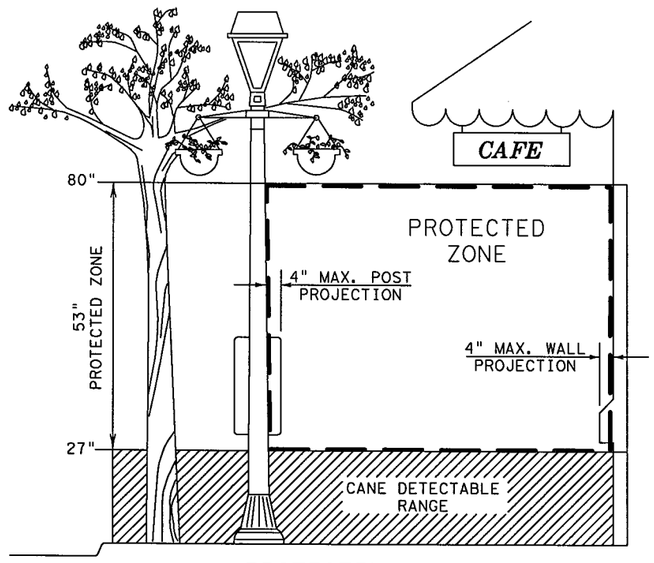
Wide sidewalk



✱ If curb height is greater than 6 inches, use grade less than or equal to 5%. Handrail and detectable warning not required.

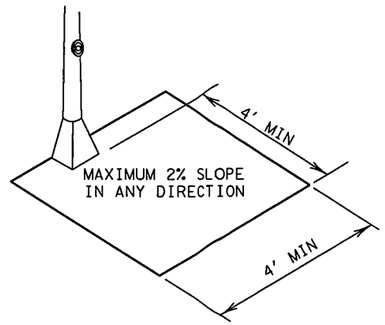
Ramp sidewalk

SIDEWALK TREATMENT AT DRIVEWAYS

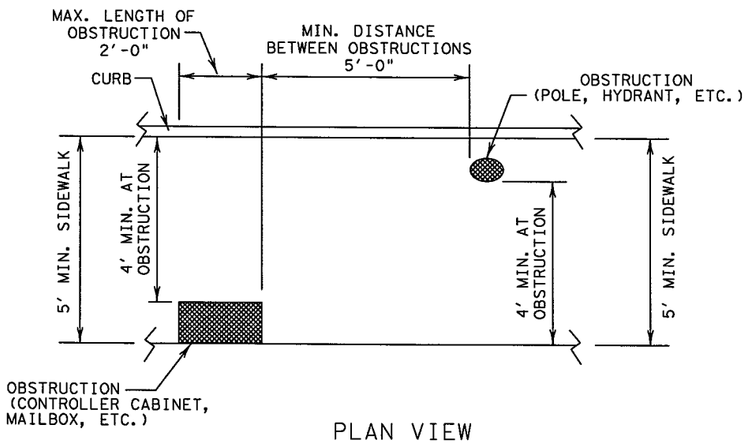


PROTECTED ZONE

In pedestrian circulation area, maximum 4" projection for post or wall mounted objects between 27"and 80" above the surface.



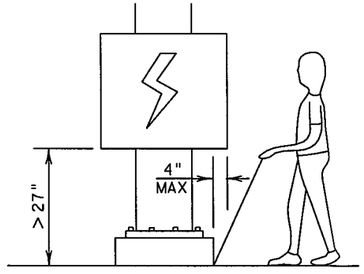
CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON



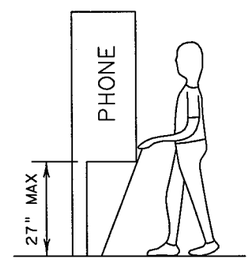
PLAN VIEW

PLACEMENT OF STREET FIXTURES

(ITEMS NOT INTENDED FOR PUBLIC USE. MINIMUM 4' x 4' CLEAR GROUND SPACE REQUIRED AT PUBLIC USE FIXTURES.)



When an obstruction of a height greater than 27" from the surface would create a protrusion of more than 4" into the pedestrian circulation area, construct additional curb or foundation at the bottom to provide a maximum 4" overhang.



Protruding objects of a height ≤ 27" are detectable by cane and do not require additional treatment.

DETECTION BARRIER FOR VERTICAL CLEARANCE < 80"

Texas Department of Transportation
Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: PK	DW: TxDOT	CK: HD		
© TxDOT March 2002	CONT	SECT	JOB		HIGHWAY	
REVISIONS	0014	16	255, ETC.		IH35W	
VP June 13, 2012	DIST	COUNTY			SHEET NO.	
	FTW	TARRANT			920	

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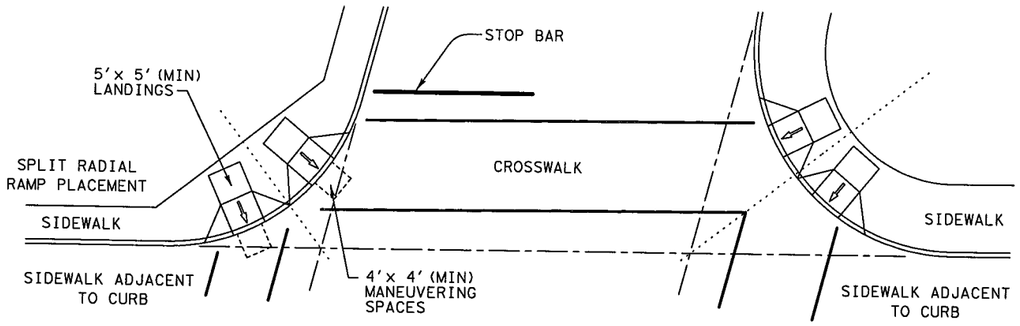
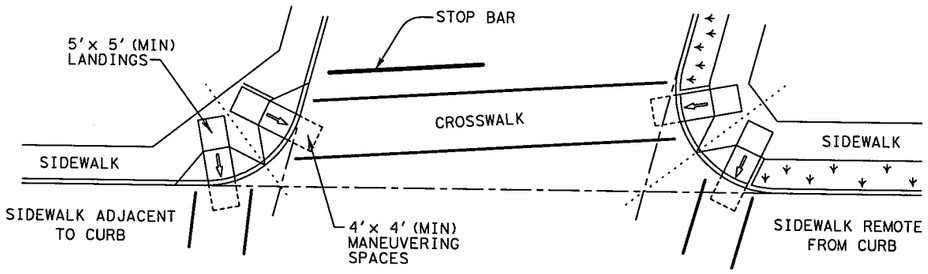
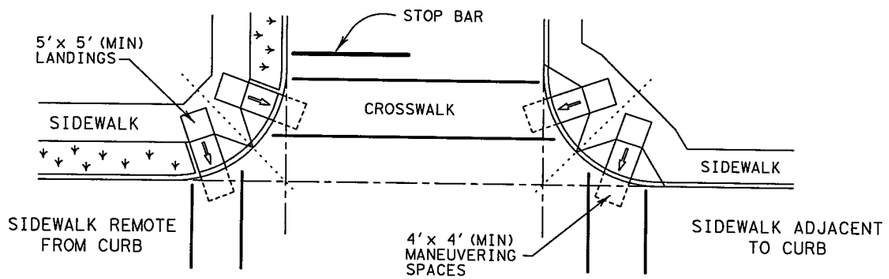


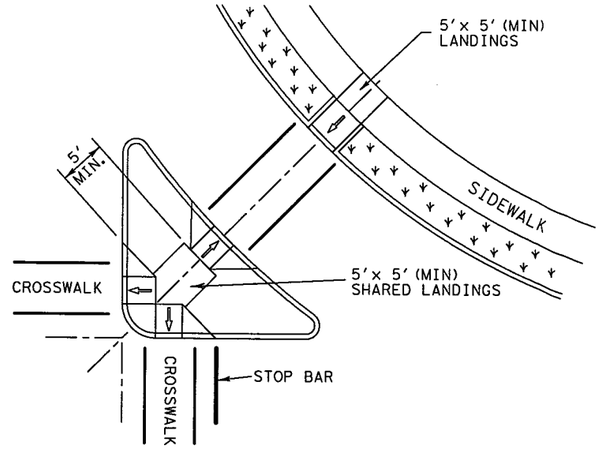
SKEWED INTERSECTION WITH "LARGE" RADIUS



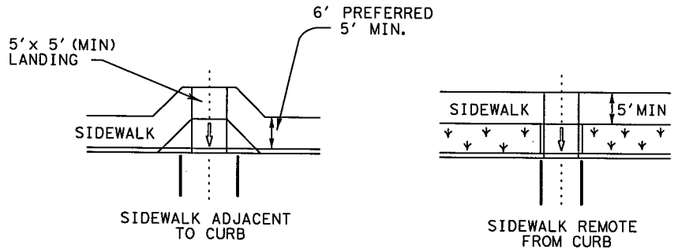
SKEWED INTERSECTION WITH "SMALL" RADIUS



NORMAL INTERSECTION WITH "SMALL" RADIUS



AT INTERSECTION
W/FREE RIGHT TURN & ISLAND



MID-BLOCK PLACEMENT
PERPENDICULAR RAMPS

TYPICAL CROSSING LAYOUTS

SHEET 4 OF 4

Texas Department of Transportation
Design Division Standard

PEDESTRIAN FACILITIES CURB RAMPS

PED-12A

FILE: ped12a.dgn	DN: TxDOT	CK: PK	DW: TxDOT	CK: HD
© TxDOT March 2002	CONT	SECT	JOB	HIGHWAY
REVISIONS	0014	16	255, ETC.	IH35W
VP June 13, 2012	DIST	COUNTY		SHEET NO.
	FTW	TARRANT		921

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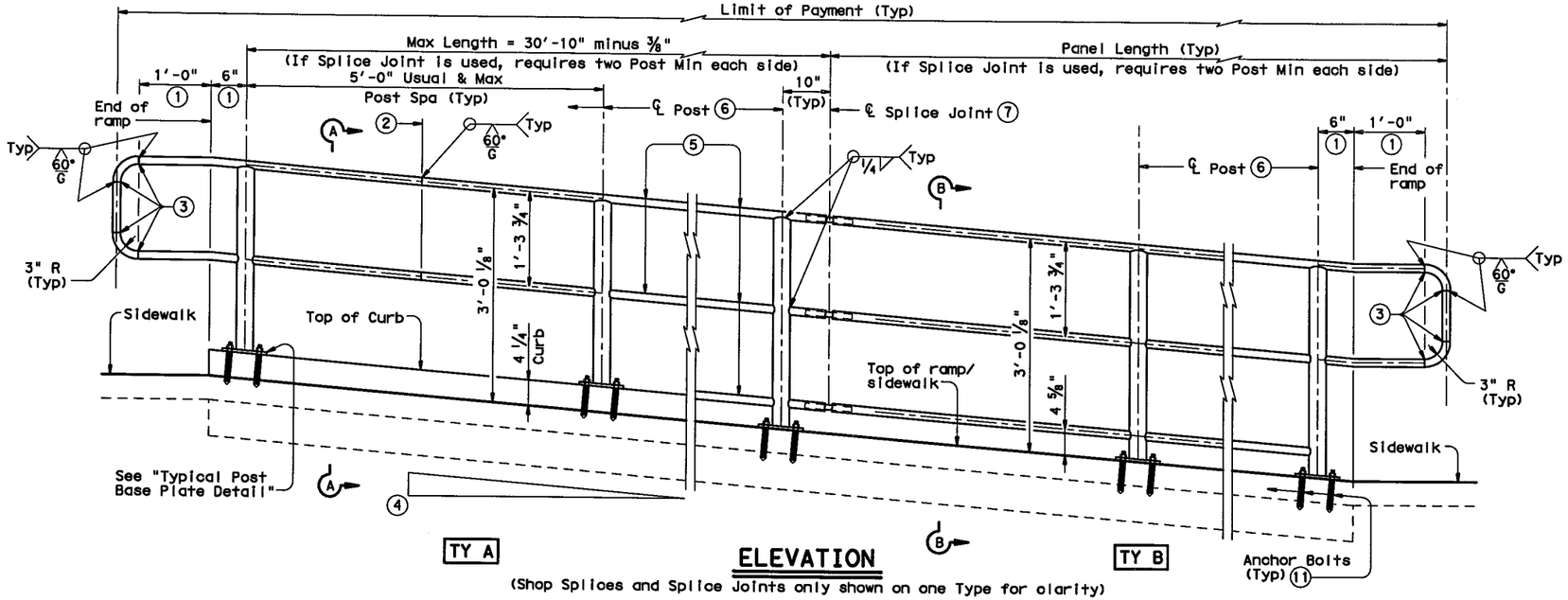
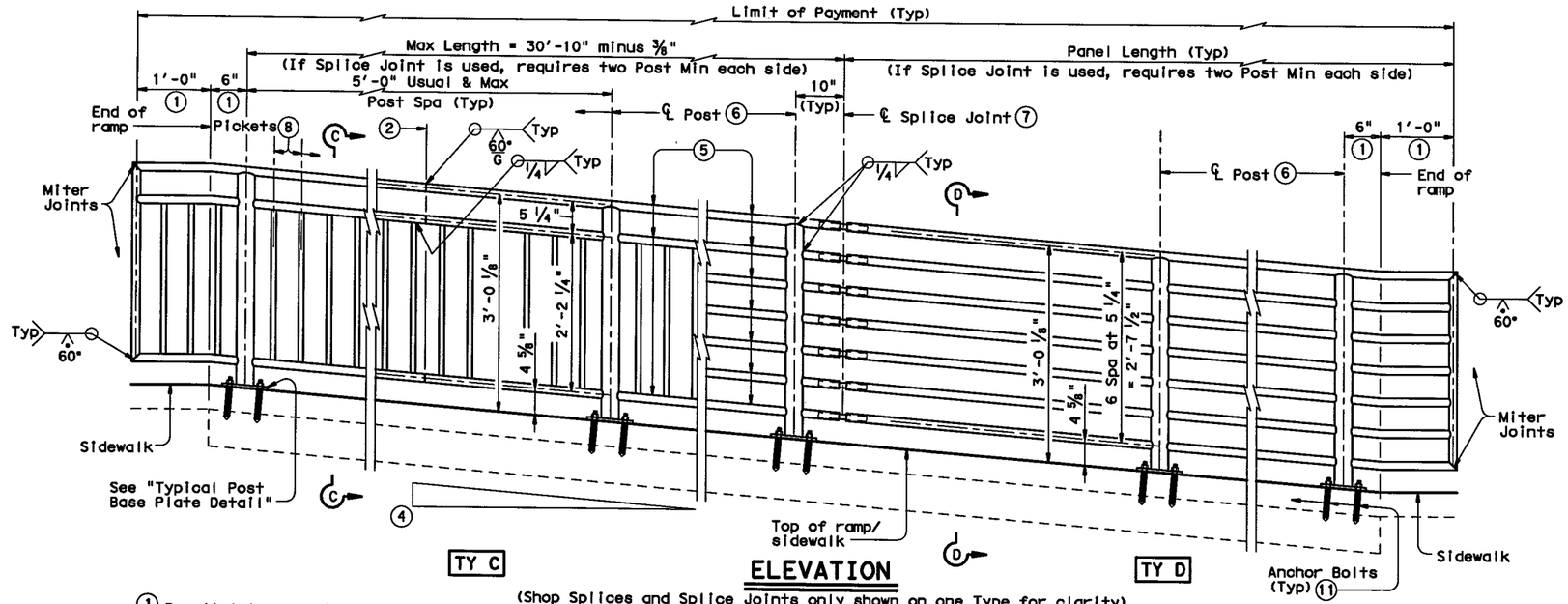


ELEVATION

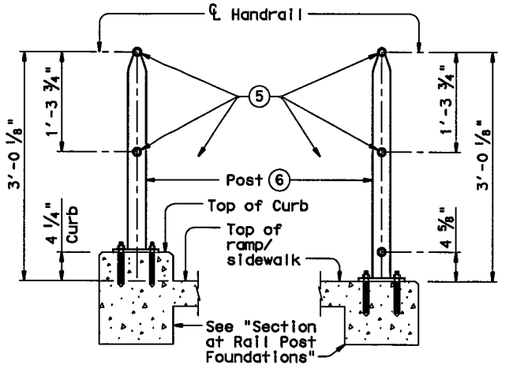
(Shop Splices and Splice Joints only shown on one Type for clarity)



ELEVATION

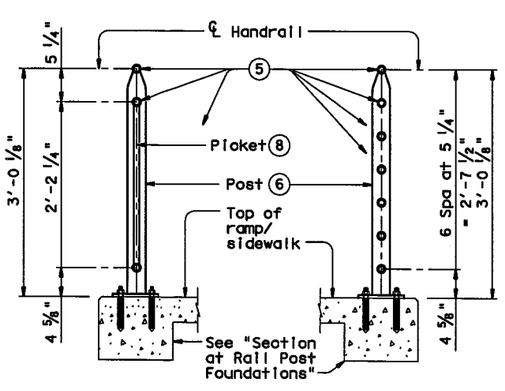
(Shop Splices and Splice Joints only shown on one Type for clarity)

RECOMMENDED USAGE ⑨⑩	
Dropoff Height/ Condition	Recommended Rail Options
<30" dropoff	TY A, TY B, TY C, or TY D
≥ 30" dropoff, or along Bike Path	TY E or TY F



SECTION A-A (Showing Handrail Ty A)

SECTION B-B (Showing Handrail Ty B)



SECTION C-C (Showing Handrail Ty C)

SECTION D-D (Showing Handrail Ty D)

① Parallel to ground.

② One shop splice per panel is permitted with minimum 85 percent penetration. The weld may be square groove or single vee groove. Grind smooth.

③ Shop splice is permitted with minimum 85 percent penetration. The weld may be square groove or single vee groove. Grind smooth.

④ See Ramp Details located elsewhere in plans for ramp slope and dimensions. Maximum ramp slope will not exceed 8.3 percent. Level landing required for each 30" rise if grade exceeds 5 percent.

⑤ 1" Dia Extra Heavy Pipe (1.315" O.D., 0.179" wall thickness). Parallel to ramp/sidewalk. Provide holes as needed in 1" Dia pipe for galvanizing drainage and venting.

⑥ 2 ½" Dia Standard Pipe (2.875" O.D., 0.203" wall thickness). Plumb all posts. See "Post Mount Detail" for crimping and trimming post to fit Dia of top rail. Provide holes as needed in post for galvanizing drainage and venting.

⑦ See "Handrail Fabrication Details" for Splice Joints.

⑧ ℄ ⅝" Dia Round Bar Eq Spa at 4 ½" Max. Plumb all pickets.

⑨ When needed for accessibility (grade > 5 percent) or as needed for pedestrian safety.

⑩ Not to be used on bridges.

⑪ See "General Notes" for anchor bolt information.

SHEET 1 OF 3

Texas Department of Transportation
Design Division Standard

PEDESTRIAN HANDRAIL DETAILS

PRD-06

FILE: prd06.dgn	DN: TxDOT	CK: JMH	DW: JTR	CK:
©TxDOT December 2006	CONT	SECT	JOB	HIGHWAY
REVISIONS	0014	16	255, ETC.	IH35W
	DIST	COUNTY		SHEET NO.
	FTW	TARRANT		922

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FILE: PRD-06.dgn

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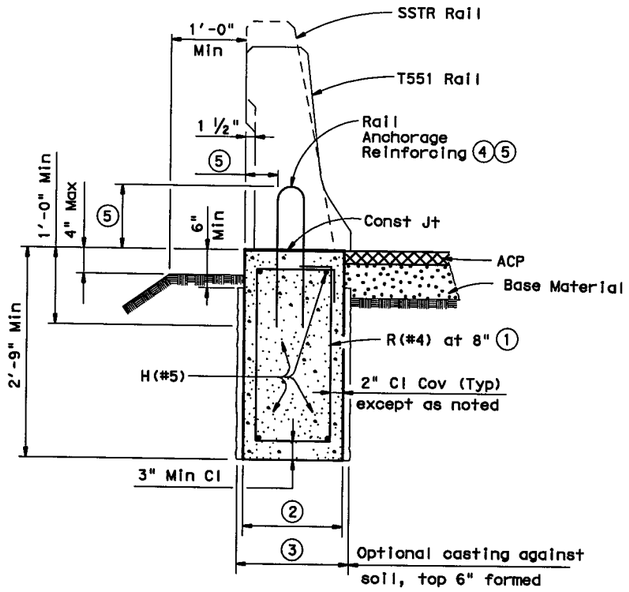
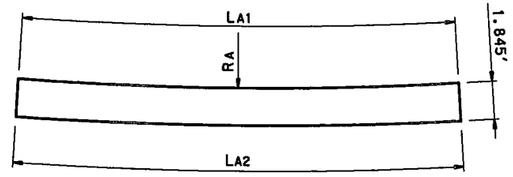


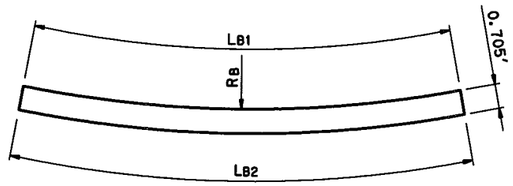
TRAFFIC RAIL FOUNDATION

(Showing T551 & SSTR Rails, other Bridge Rails similar)



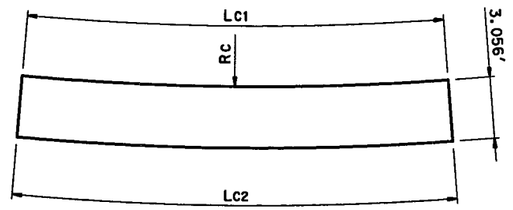
DEVELOPED SURFACE-A

(T551 Type Rail)



DEVELOPED SURFACE-B

(T551 Type Rail)



DEVELOPED SURFACE-C

(SSTR Rail)

TABLE OF DEVELOPED SURFACES

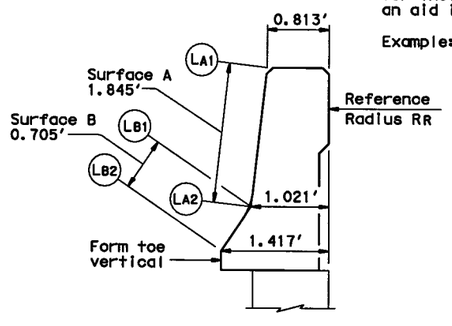
DIMENSIONS FOR Θ = 90°

Reference Radius RR (ft) to back of Rail	T551 TYPE RAILS						SSTR RAIL		
	Radius	Arc Length		Radius	Arc Length		Radius	Arc Length	
	RA ft	LA1 ft	LA2 ft	RB ft	LB1 ft	LB2 ft	RC ft	LC1 ft	LC2 ft
10	95.76	16.99	17.31	19.63	17.31	17.93	55.66	16.69	17.61
15	140.04	24.84	25.17	28.54	25.17	25.79	81.86	24.54	25.46
20	184.32	32.69	33.02	37.44	33.02	33.64	108.05	32.40	33.31
25	228.60	40.55	40.87	46.35	40.87	41.50	134.25	40.25	41.17
30	272.88	48.40	48.73	55.25	48.73	49.35	160.44	48.11	49.02

RA =8.8560(RR+0.813') RB =1.7811(RR+1.021') RC =5.2389(RR+0.625')
LA1=1.5708(RR+0.813') LB1=1.5708(RR+1.021') LC1=1.5708(RR+0.625')
LA2=1.5708(RR+1.021') LB2=1.5708(RR+1.417') LC2=1.5708(RR+1.208')

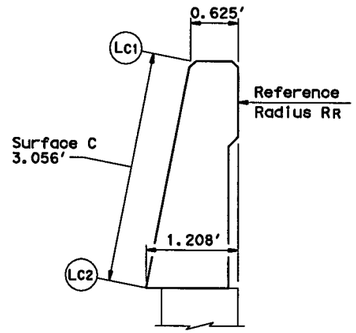
The linear ratio may be used to obtain the above arc length dimensions for included θ angles other than 90°. The dimensions are intended as an aid in constructing forms for curved SSTR & Type T551 Railing.

Example: For RR = 10' & 80° ~ LA1= 16.99(⁸⁄₉)



SECTION A-A

(T551 Type Rails)



SECTION A-A

(SSTR Rail)

DESIGN GUIDANCE:
The use of curved rail sections at bridge ends must be appropriate for the design speed and site conditions.

MATERIAL NOTES:
Use Class "C" concrete. Use Class "C" (HPC) if required elsewhere.
All reinforcing must be Grade 60.

GENERAL NOTES:
The foundations indicated are suitable for mounting typical concrete bridge barrier type railings.
The design resistance is based on the current AASHTO bridge railing requirements with the assumption of fair to good soil support conditions. Poor soil conditions will require suitably deeper foundations.
See Railing standards for details not shown.
The primary use of the curved railing detail is to avoid the necessity of curved MBGF at the ends of bridges adjacent to grade intersections.
This detail is intended for use as a guide to unusual railing anchorage situations but may be included in the plans, modified as necessary to apply to specific installations required on the project.
Payment for railing foundations will be by CY of Class "C" or Class "C" (HPC) concrete.
Reinforcing steel quantities shown are for contractor's information only.
The associated bridge railing will be paid for by the linear foot which includes the concrete and reinforcement.
Excavation will be considered subsidiary to other items.

① Stirrup hook length is 5". (Typ)

② 1'-4" for Bridge Rail Types: All rails except for C412, T80HT and T80SS.
Approximate Footing Concrete = 0.14 CY/LF and Reinforcement = 11.5 LB/LF.

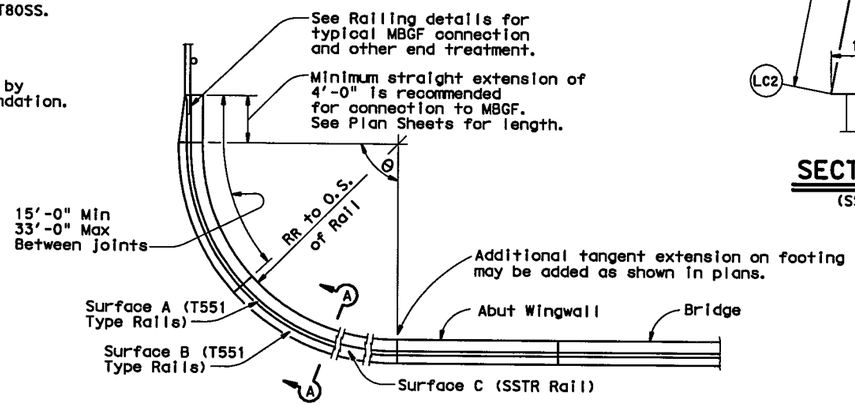
1'-7" for Bridge Rail Types: C412, T80HT and T80SS.
Approximate Footing Concrete = 0.16 CY/LF and Reinforcement = 12.0 LB/LF.

③ 1'-6" for Bridge Rail Types: All rails except for C412, T80HT and T80SS.

1'-9" for Bridge Rail Types: C412, T80HT and T80SS.

④ Modify reinforcement on standard bridge rail anchorage if necessary by extending rail anchorage 12" Min, vertically, into traffic rail foundation.

⑤ See applicable bridge rail standard.



CURVED T551 & SSTR TYPE RAILING AT BRIDGE ENDS

ACC:
LEVELS DISPLAYED
1

Texas Department of Transportation
Bridge Division

TRAFFIC RAIL FOUNDATION AND MISCELLANEOUS DETAILS

TRF

FILE: ristd027.dgn	DN: TxDOT	CK: MPM	DW: JTR	CK: TxDOT
©TxDOT April 2009	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS	FTW	(SEE TITLE SHEET)		923
05-11: TRF width and additional rails.	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	TARRANT	0014	16	255	IH35W

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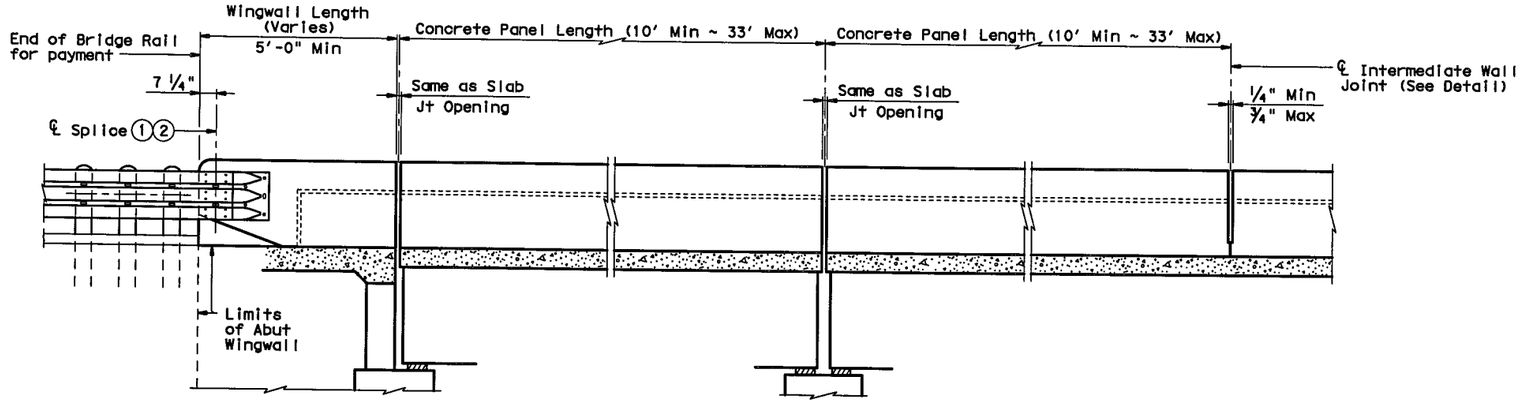
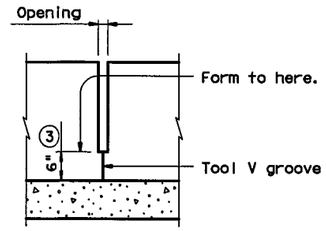




INTERMEDIATE WALL JOINT DETAIL

Provide at all interior bents without slab expansion joints. Space equally in between at 33' Max, 10' Min.

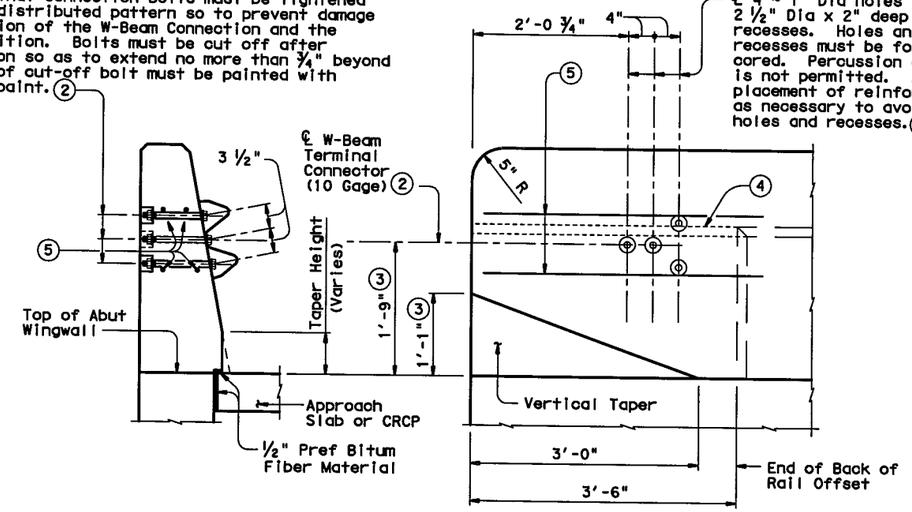
AT ABUTMENT BENTS
Showing TL-3 Transition

AT SLAB EXP JOINTS

ROADWAY ELEVATION OF RAIL

AT INTERMEDIATE WALL JOINTS

℄ 4 ~ 7/8" Dia A325 Bolts with two 1 3/4" O.D. washers. Place washer under each head and nut. The 4 Terminal Connection Bolts must be tightened in a well distributed pattern so to prevent damage or distortion of the W-Beam Connection and the MBGF Transition. Bolts must be cut off after installation so as to extend no more than 3/4" beyond nut. End of cut-off bolt must be painted with Zinc-rich paint. (2)

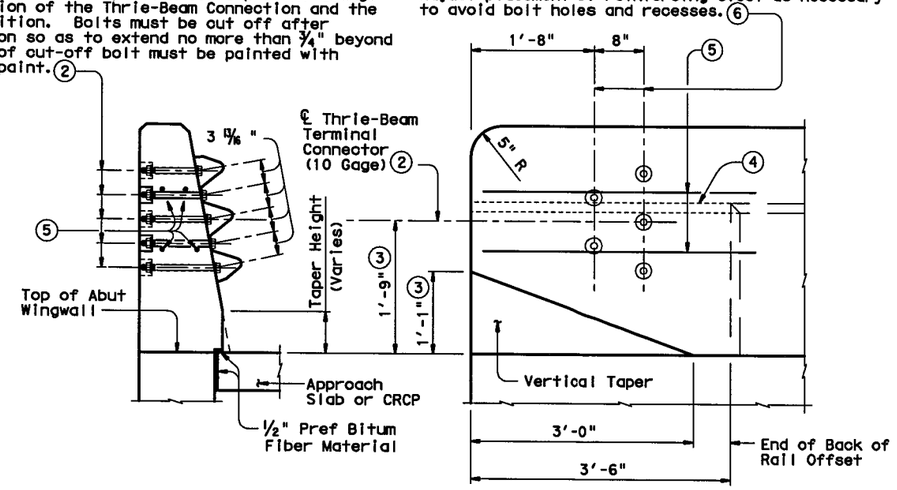


SECTION ELEVATION

TL-2 TERMINAL CONNECTION DETAILS

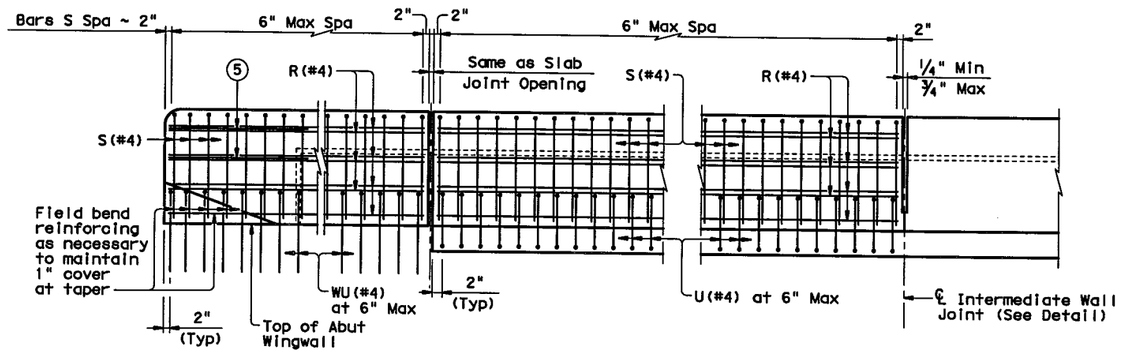
℄ 5 ~ 7/8" Dia A325 Bolts with two 1 3/4" O.D. washers. Place washer under each head and nut. The 5 Terminal Connection Bolts must be tightened in a well distributed pattern so to prevent damage or distortion of the Thrie-Beam Connection and the MBGF Transition. Bolts must be cut off after installation so as to extend no more than 3/4" beyond nut. End of cut-off bolt must be painted with Zinc-rich paint. (2)

℄ 5 ~ 1" Dia holes and 2 1/2" Dia x 2" deep recesses. Holes and recesses must be formed or cored. Percussion drilling is not permitted. Adjust placement of reinforcing steel as necessary to avoid bolt holes and recesses. (6)



SECTION ELEVATION

TL-3 TERMINAL CONNECTION DETAILS



ELEVATION SHOWING TYPICAL REINFORCING PLACEMENT

(1) Metal Beam Guard Fence Transitions must be attached to the bridge rail and extended along the embankment unless otherwise shown in the plans.

(2) Terminal Connectors and associated hardware are to be paid for under the Item "Metal Beam Guard Fence".

(3) Increase 2" for structures with Overlay.

(4) Back of rail offset may, with Engineer's approval be continued to the end of the railing.

(5) 4 additional Bars R(#4) 3'-8" in length must be placed inside Bars S(#4) and centered 2'-0" from end of rail when Terminal Connections are required.

(6) Bolt recesses are only required when pedestrian sidewalks are adjacent to back of rail.

SHEET 1 OF 2

Texas Department of Transportation
Bridge Division

TRAFFIC RAIL SINGLE SLOPE

TYPE SSTR

FILE: rlstd014.dgn	DN: TxDOT	CK: TxDOT	DW: JTR	CK: TxDOT			
©TxDOT April 2009	DISTRICT	FEDERAL AID PROJECT					SHEET
REVISIONS	FTW	(SEE TITLE SHEET)					924
05-11: Gen Notes; Wall Joint Note.	COUNTY			CONTROL	SECT	JOB	HIGHWAY
	TARRANT			0014	16	255	IH35W

PATH:
LEVELS DISPLAYED

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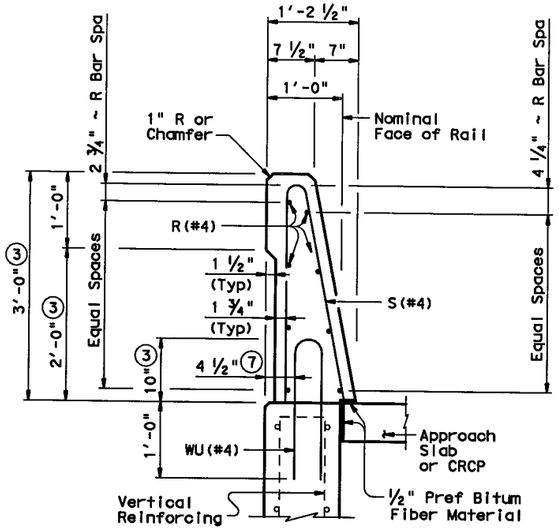
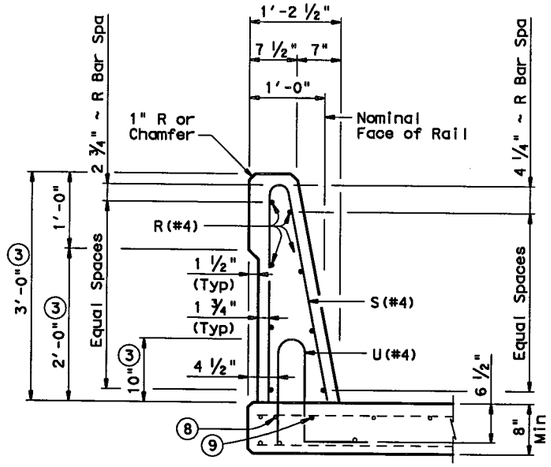
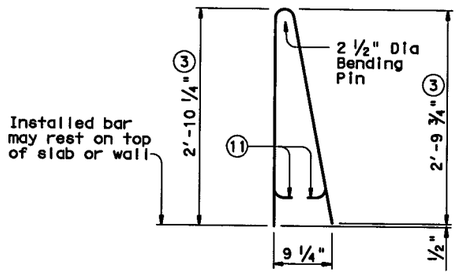


ON ABUTMENT WINGWALLS OR CIP RETAINING WALLS



ON BRIDGE SLAB

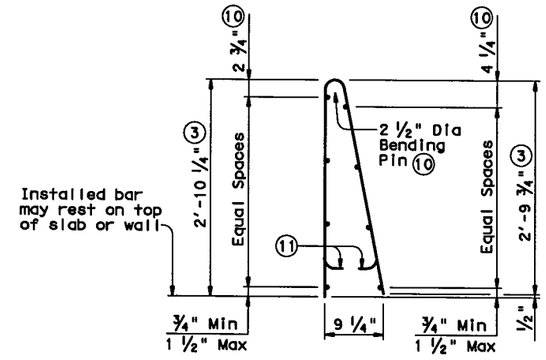
SECTIONS THRU RAIL



BARS S (#4)

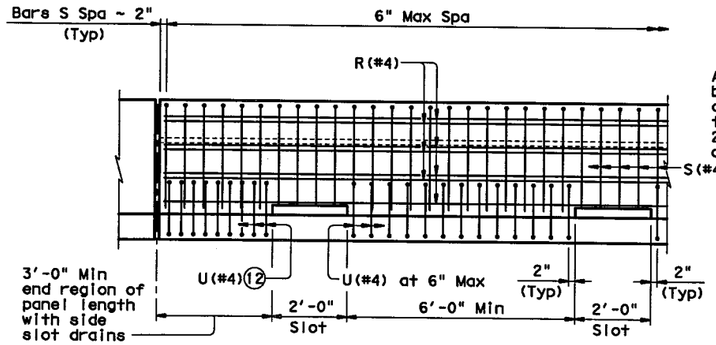
BARS U (#4)

BARS WU (#4)



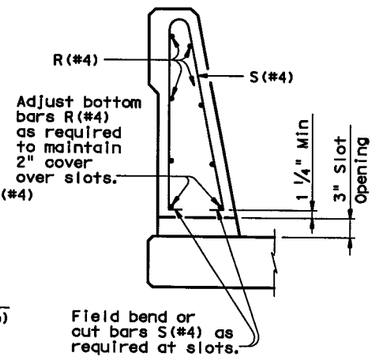
OPTIONAL WELDED WIRE REINFORCEMENT (WWR)

DESCRIPTION	LONGITUDINAL WIRES	VERTICAL WIRES
Minimum (Cumulative Total) Wire Area	1.067 Sq In.	0.267 Sq In. per Ft
	No. of Wires	Spacing
Minimum	8	4"
Maximum	10	8"
Maximum Wire Size Differential	The smaller wire must have an area of 40% or more of the larger wire.	



OPTIONAL SIDE SLOT DRAIN DETAIL

Note: Side Slot Drains may be used where shown elsewhere on the plans or as directed by the Engineer. Drains should not be placed over railroad tracks, lower roadways, or sidewalks. When this rail is used as a separator between a roadway surface and a sidewalk surface, side drain slots will not be permitted.



SECTION THRU OPTIONAL SIDE SLOT DRAIN

③ Increase 2" for structures with Overlay.

⑦ 5 ½" when vertical reinforcing has closer clear cover over horizontal reinforcing in abutment wingwalls or retaining walls on traffic side of wall.

⑧ As an aid in supporting reinforcement, additional longitudinal bars may be used in the slab with the approval of the Engineer. Such bars must be furnished at the Contractors expense.

⑨ Top longitudinal slab bar may be adjusted laterally 3" plus or minus to tie reinforcing.

⑩ No longitudinal wires may be within upper bend.

⑪ Bend or cut as required to clear drain slots.

⑫ Space U(#4) bars at 4" Max when end region of panel length is less than 6'-0" to side slot drain. Space U(#4) bars at 6" Max when end region of panel length is 6'-0" and greator to side slot drain.

CONSTRUCTION NOTES:

This railing may be constructed with slip-forms when approved by the Engineer, with equipment approved by the Engineer. Sensor control for both line and grade must be provided. Tack welding to provide bracing for slip-form operations is acceptable. Welding can be performed at a minimum spacing of 3 ft between the cage and the anchorage. It is permissible to weld to U, WU and S bars at any location on the cage. If increased bracing is needed, additional anchorage devices must be added and welding must be performed in the upper two thirds of the cage.

The back of railing must be vertical unless otherwise shown in the plans or approved by the Engineer.

MATERIAL NOTES:

All steel components except reinforcing must be galvanized unless otherwise shown in plans.

Use Class "C" concrete. Use Class "C" (HPC) if required elsewhere.

All reinforcing steel must be grade 60.

Epoxy coat all rail reinforcement if slab bars are epoxy coated.

Deformed welded wire reinforcement (WWR) may be used as an option to conventional reinforcement and must be made in accordance with ASTM A497 (Deformed Wire). Combinations of Reinforcing Steel and WWR or configurations of WWR other than shown will be permitted when the conditions in the table are satisfied.

GENERAL NOTES:

This rail has been successfully evaluated by full-scale crash test to meet MASH TL-4 criteria. This rail can be used for design speeds of 50 mph and greater when a TL-3 rated guard fence transition is used. When a TL-2 rated guard fence transition is used, this rail can only be used for design speeds of 45 mph and less.

This railing cannot be used on bridges with expansion joints providing more than 5" movement.

Rail anchorage details shown on this standard may require modification for select structure types. See appropriate details elsewhere in plans for these modifications.

Shop drawings will not be required for this rail.

Average weight of railing with no overlay is 376 plf.

Texas Department of Transportation
Bridge Division

TRAFFIC RAIL SINGLE SLOPE

TYPE SSTR

FILE: ristd014.dgn	DN: TxDOT	CK: TxDOT	DW: JTR	CK: TxDOT
© TxDOT April 2009	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS	FTW	(SEE TITLE SHEET)		925
05-11: Gen Notes; Wall Joint Note.	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	TARRANT	0014	16	255	IH35W

PATH:
LEVELS DISPLAYED
1

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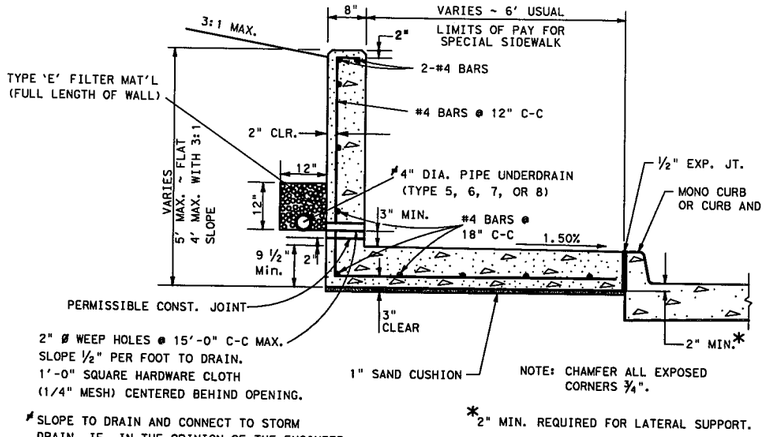
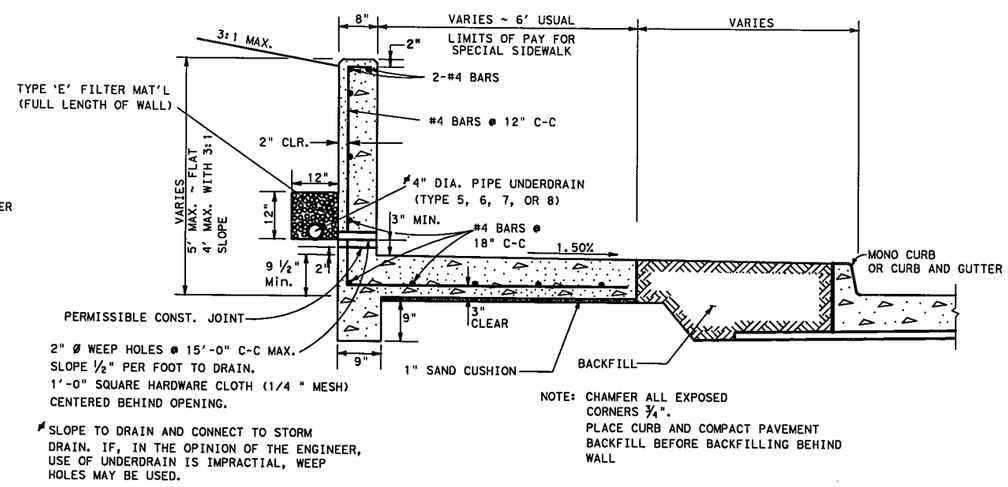
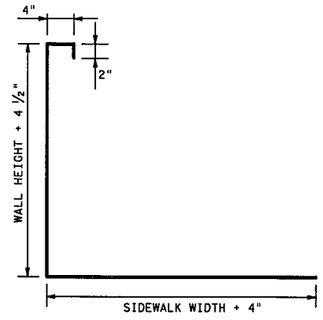


SIDEWALK ADJACENT TO CURB

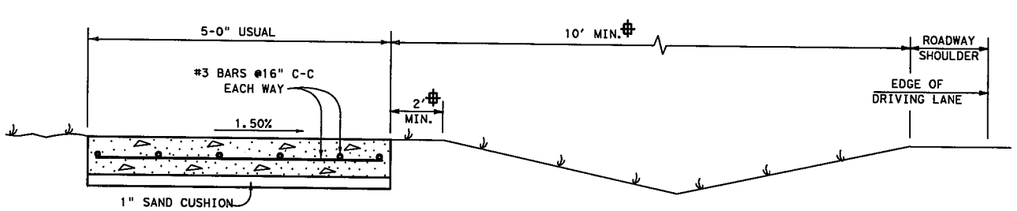


SIDEWALK REMOTE FROM CURB

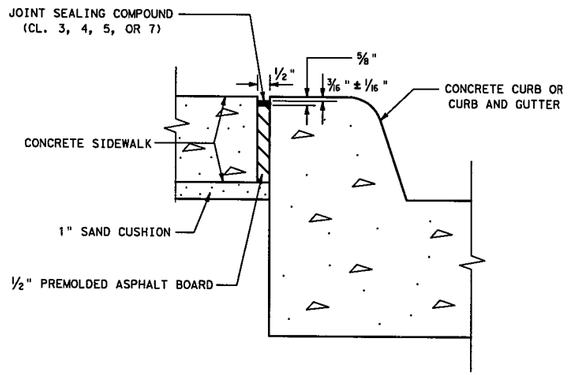


REINFORCING STEEL DETAIL

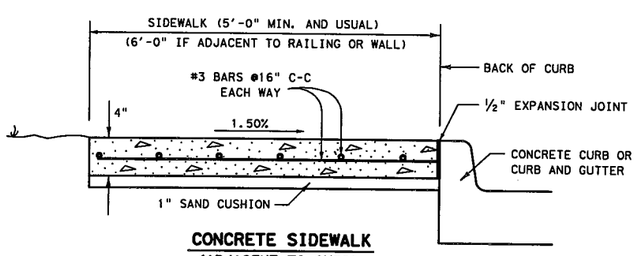
SPECIAL CONCRETE SIDEWALK w/ RETAINING WALL



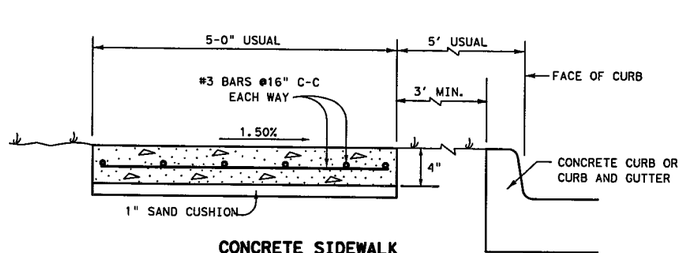
CONCRETE SIDEWALK
(ROADWAY W/O CURB)



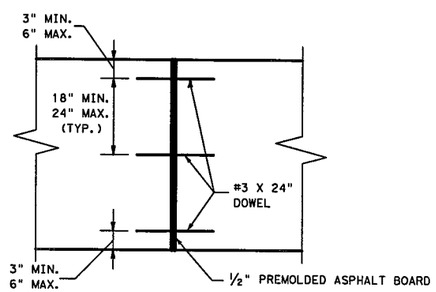
½" EXPANSION JOINT
(SIDEWALK ADJACENT TO CURB)



CONCRETE SIDEWALK
(ADJACENT TO CURB)



CONCRETE SIDEWALK
(REMOTE FROM CURB)



TRANSVERSE EXPANSION JOINT

CONCRETE SIDEWALK DETAILS

SEE PLAN SHEETS FOR LOCATIONS OF SIDEWALKS AND RETAINING WALLS.

LONGITUDINAL SLOPE OF SIDEWALKS SHALL NOT EXCEED 5% EXCEPT IN CASES WHERE THE ADJACENT ROADWAY SLOPE EXCEEDS 5%. IF ROADWAY SLOPE EXCEEDS 5%, LONGITUDINAL SLOPE OF SIDEWALK MAY MATCH THAT OF ROADWAY.

IF SIDEWALK WIDTH IS LESS THAN 5', PROVIDE 5' x 5' PASSING AREAS AT INTERVALS NOT TO EXCEED 200' SPACING.

WHERE SIDEWALK WITH RETAINING WALL IS SPECIFIED, RETAINING WALL WILL BE SUBSIDIARY TO THE ITEM, "CONCRETE SIDEWALK (SPECIAL) (RETAINING WALL)", WITH LIMITS OF PAY AS SHOWN HEREON.

SURFACE TREATMENT OF RETAINING WALL FACE DETAILED ELSEWHERE IN THE PLANS.

Texas Department of Transportation
FORT WORTH DISTRICT

CONCRETE SIDEWALK DETAILS

CSWD-08 (FW)

ORIGINAL DRAWING	FED.RD. DIV.NO.	PROJECT NO.		SHEET NO.
JUNE 2008	6	(SEE TITLE SHEET)		926
REVISIONS:	STATE	DIST.	COUNTY	
	TEXAS	FTW	TARRANT	
	CONT.	SECT.	JOB	HIGHWAY NO.
	0014	16	255, ETC.	IH35W

LEVELS DISPLAYED 1 6

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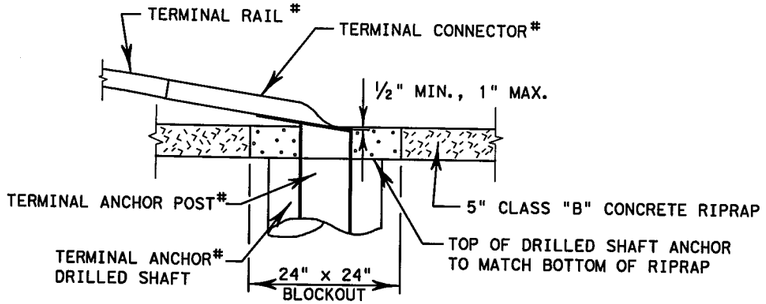
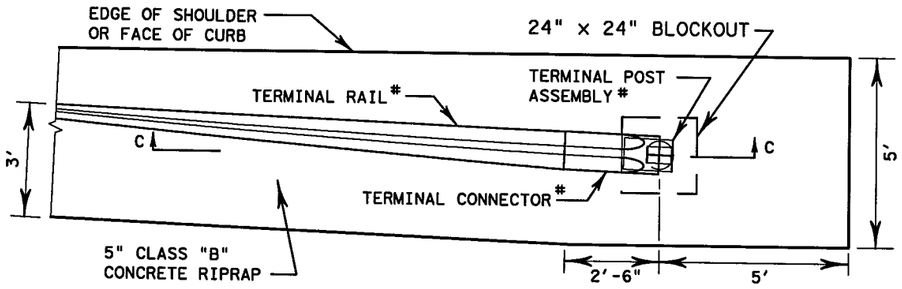
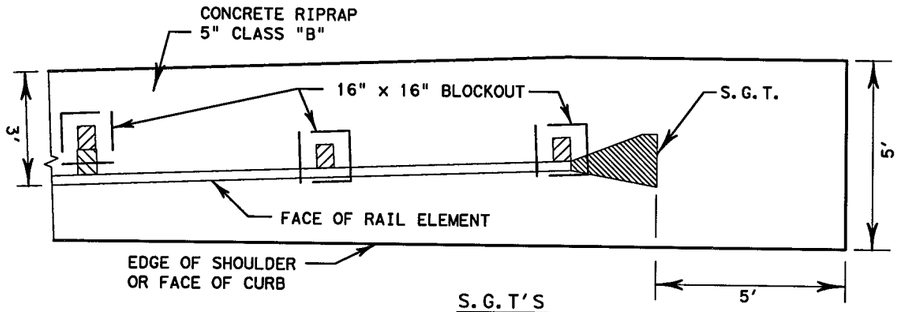


SECTION "C - C"

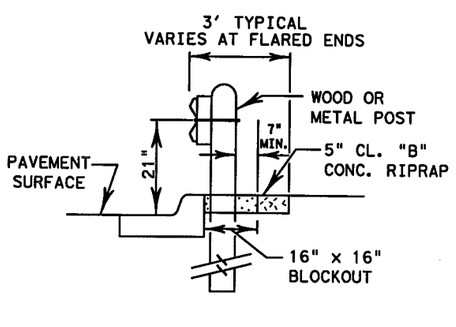


SEE MBGF DETAILS FOR ADDITIONAL INFORMATION

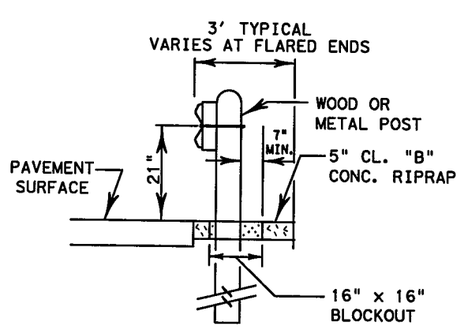
TERMINAL ANCHOR SECTIONS



S.G.T'S

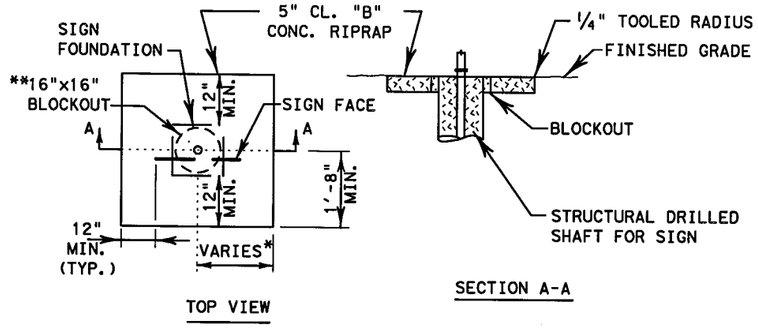


MBGF ADJACENT TO CURB

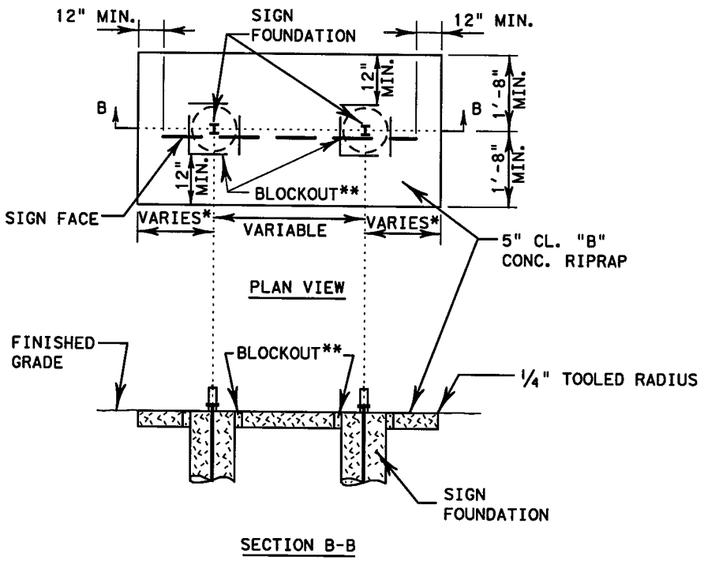


MBGF ADJACENT TO SHOULDER

METAL BEAM GUARD FENCE



SMALL ROADSIDE SIGNS OR CANTILEVER SIGNS



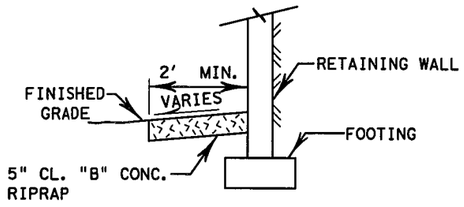
SECTION B-B

LARGE GROUND MOUNTED GUIDE SIGNS OR OVERHEAD SIGN BRIDGES

* FOR LARGE GROUND MOUNTED GUIDE SIGNS AND SMALL ROADSIDE SIGNS, THE RIPRAP SHOULD EXTEND 12" DEYOND THE OUTSIDE LATERAL EDGES OF THE SIGNS. HOWEVER, IN THOSE INSTANCES WHERE THE EDGE OF THE SIGN DOES NOT EXTEND 12" FROM THE POST, A 2' MINIMUM DIMENSION WILL BE UTILIZED.

* FOR OVERHEAD SIGN BRIDGES AND CANTILEVER SIGN MOUNTS THE DIMENSIONS SHALL BE MEASURED FROM OUTSIDE EDGE OF DRILL SHAFTS.

** 16"x 16" FOR 12" DRILLED SHAFT FOUNDATIONS
28"x 28" FOR 24" DRILLED SHAFT FOUNDATIONS
40" x 40" FOR 36" DRILLED SHAFT FOUNDATIONS
52" X 52" FOR 48" DRILLED SHAFT FOUNDATIONS



RETAINING WALL

GENERAL NOTES:

THE TERMINAL CONNECTOR OPTION SHOWN ON THE MBGF STANDARD SHEET SHALL BE USED FOR ALL TERMINAL ANCHORS PLACED WITH CONCRETE RIPRAP FOR VEGETATION CONTROL.

THE THICKNESS OF THE CONCRETE RIPRAP SHALL NOT BE CONSIDERED IN DETERMINING DRILLED SHAFT LENGTHS FOR SIGN FOUNDATIONS.

BLOCKOUTS FOR MBGF POSTS AND SIGN SUPPORTS TO BE FILLED WITH 2-SACK GROUT AFTER RIPRAP HAS BEEN PLACED.

THIS TREATMENT SHALL BE PROVIDED FOR ALL SIGNS, MBGF AND RETAINING WALLS REQUIRING VEGETATION CONTROL, OR AS DIRECTED BY THE ENGINEER.

PAYMENT FOR RIPRAP SHALL BE IN ACCORDANCE WITH ITEM 432, "RIPRAP". GROUT WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED SUBSIDIARY TO THE VARIOUS BID ITEMS.

ALL RIPRAP CONCRETE SHALL BE CLASS "B"

REINFORCEMENT FOR RIPRAP SHALL BE WWF 6x6-W2.9xW2.9 OR EQUIVALENT.

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Texas Department of Transportation
FORT WORTH DISTRICT

CONCRETE RIPRAP FOR VEGETATION CONTROL
CRVC(FW)

ORIGINAL DRAWING: 5/2003	crvcfw.dgn	FED.RD. DIV.NO.	PROJECT NO.		SHEET NO.
DATE	REVISIONS	6	(SEE TITLE SHEET)		927
4/06	7" MIN. FOR MBGF POST DEFLECTION	STATE	STATE DIST.NO.	COUNTY	
		TEXAS	FTW	TARRANT	
		CONT.	SECT.	JOB	HIGHWAY NO.
		0014	16	255	IH35W

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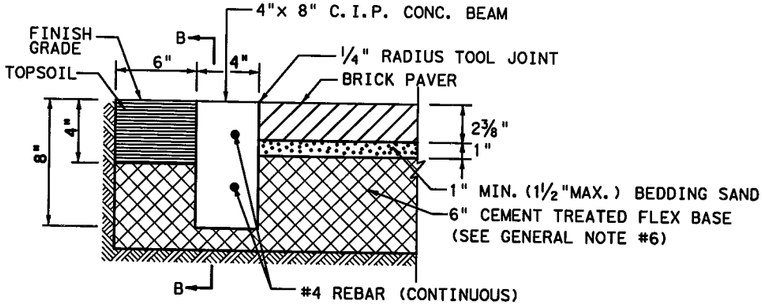
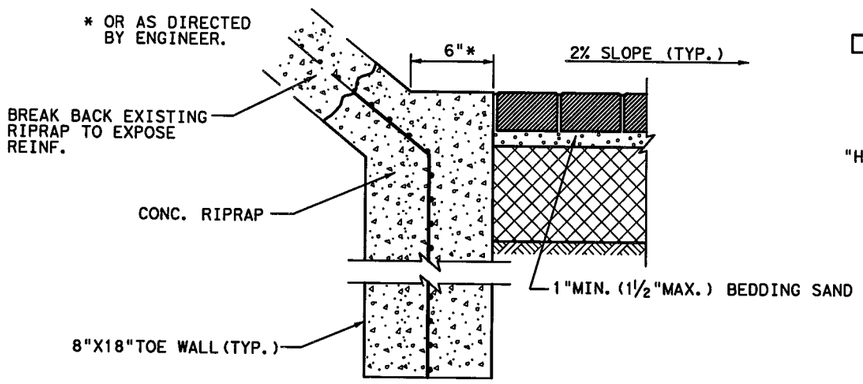
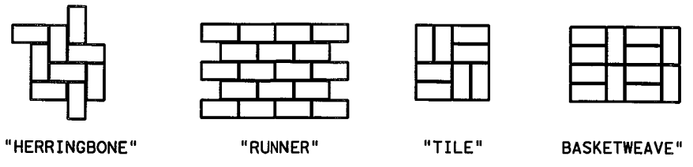


NOTES:
1. EDGE BEAM SHALL BE STRAIGHT, OR FORM A SMOOTH CURVE, SO AS TO COMPLEMENT THE ALIGNMENT OF PAVING STONES.
2. SIDES OF EDGE BEAM SHALL BE VERTICAL.

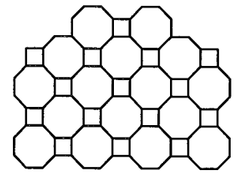
CONC. EDGE & PAVER DETAIL
(SECTION A-A)



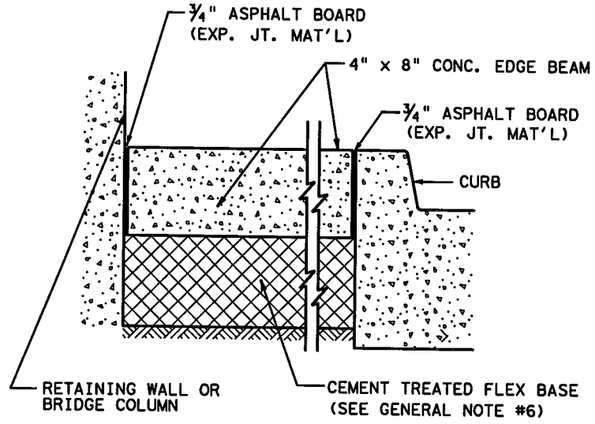
PAVER DETAIL AT RIPRAP SLOPE



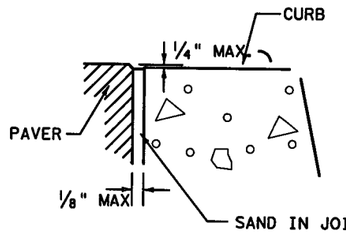
RECTANGULAR
LARGE - PAVESTONE "HOLLAND-STONE" OR SIMILAR (4"±x8"±)
SMALL - PAVESTONE "APPIAN-STONE" (1/2-SQUARE) OR SIMILAR (2¼"±x4½"±)



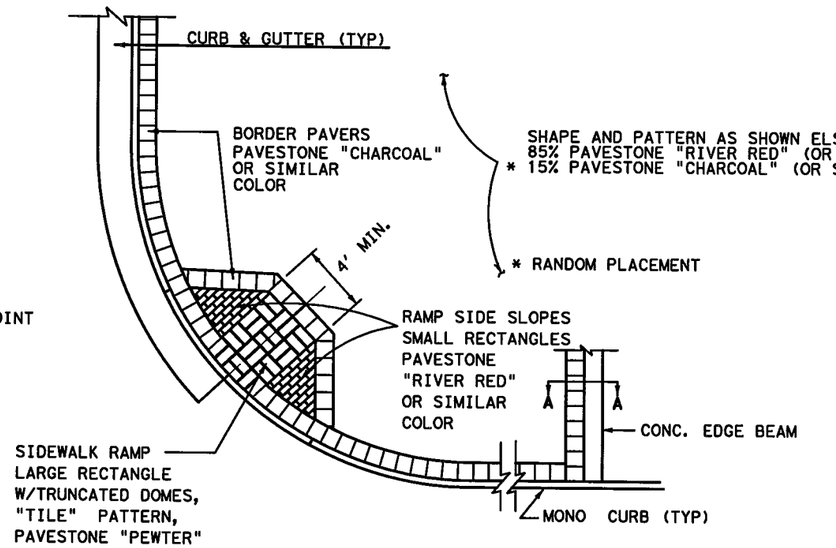
"SQUARE - OCTAGON"
PAVESTONE "UNI-DECOR" OR SIMILAR



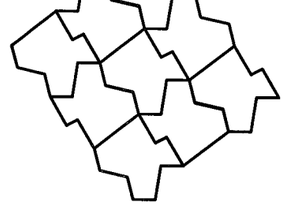
CONC. EDGE BEAM EXPANSION JOINT AT CURB, BRIDGE COLUMN OR RETAINING WALL
(SECTION B-B)



DETAIL AT CURB



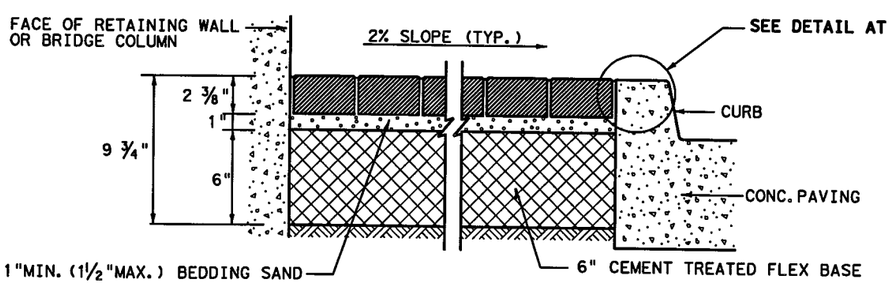
TYPICAL PAVER LAYOUT
NOT TO SCALE



"TEXAS"

PATTERN DETAILS
NOT TO SCALE

NOTE:
Paver shapes are for illustration only. Exact Paver shape and dimensions may differ by manufacturer.



PAVER DETAIL AT CURB & AT BRIDGE COLUMN OR RETAINING WALL

GENERAL NOTES:
1. Prior to placement of Flex Base, the area to be paved shall be rough graded, and clean of all trash, rocks, plants, roots etc. Materials removed shall be disposed of as directed by the Engineer.
2. Locations, shapes and patterns shall be shown elsewhere in the plans.
3. At locations where landscape pavers constitute a pedestrian walking area, slopes shall conform to the requirements of sidewalk and sidewalk ramp details shown elsewhere in the plans
4. Border pavers shall be rectangular in shape. The dimensions shall be as approved by the Engineer.
5. Density requirements for Flex Base may be waived, if approved by the engineer.
6. Ty IP Cement shall be added to the Flex Base in accordance with Item 275 or 276 at a rate of 4% by weight. No strength is specified. 6" Type "B" Hot Mix or 6" Class "B" Concrete may be used in lieu of Cement Treated Flex Base.
7. Furnishing and installation of Flex Base, Cement, Bedding Sand, Expansion Joint Material, Joint Sand, and all other materials or labor necessary to complete the work will not be paid for directly, but will be considered subsidiary to Landscape Pavers.

Revised April 2003
add base options

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Texas Department of Transportation
FORT WORTH DISTRICT
LANDSCAPE PAVER DETAILS
LPD-00 (FW)

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6	(SEE TITLE SHEET)		928
STATE	DIST.	COUNTY	
TEXAS	FTW	TARRANT	
CONT.	SECT.	JOB	HIGHWAY NO.
0014	16	255, ETC.	IH35W

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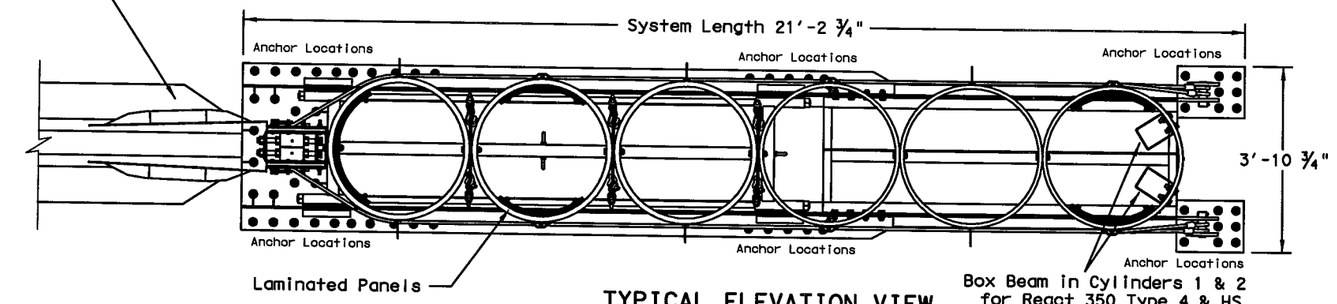
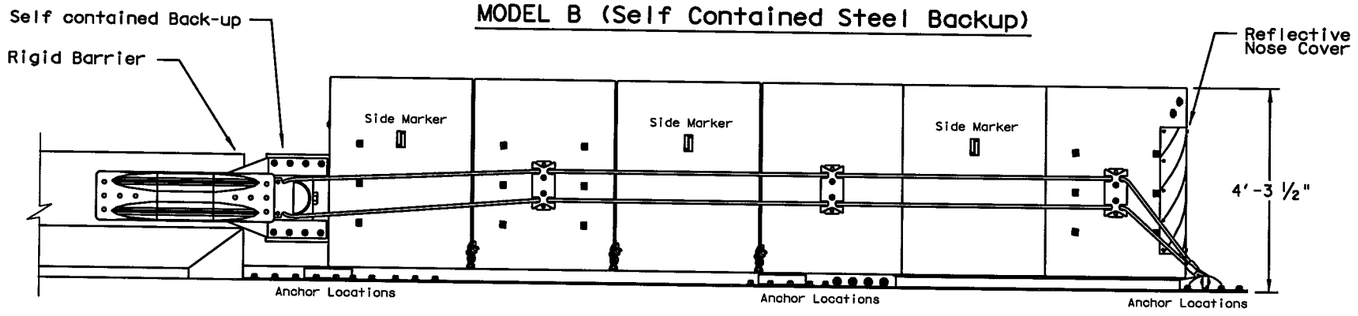
TYPICAL PLAN VIEW

MODEL B (Self Contained Steel Backup)



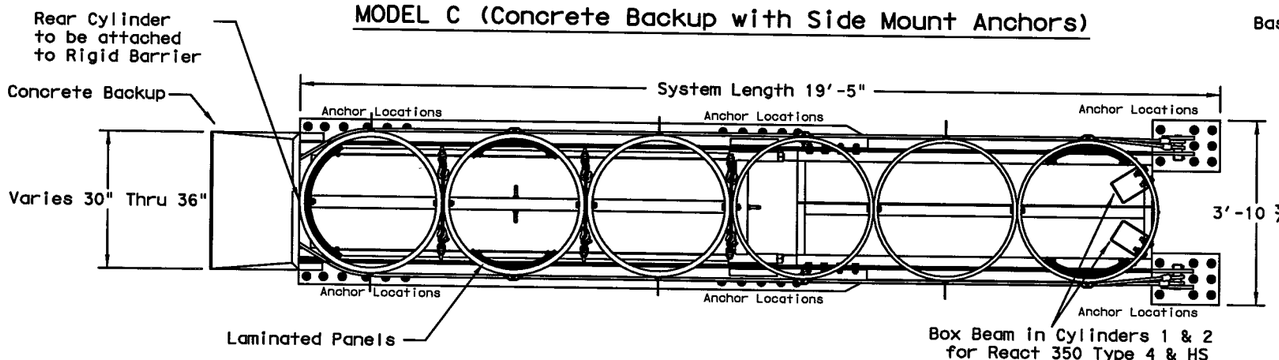
TYPICAL ELEVATION VIEW

MODEL B (Self Contained Steel Backup)



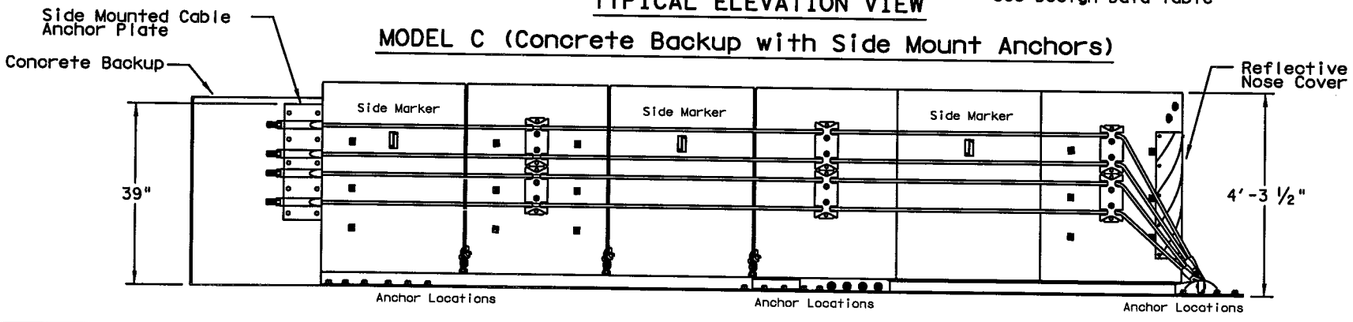
TYPICAL PLAN VIEW

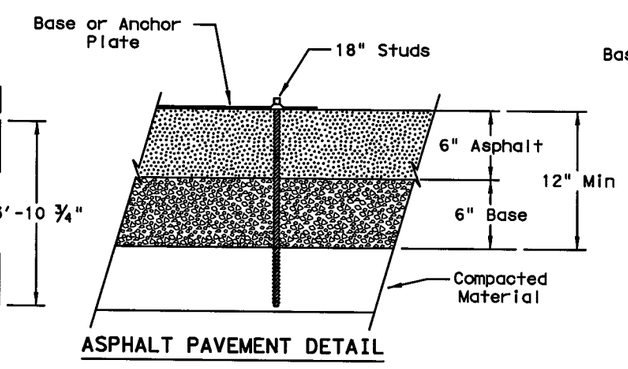
MODEL C (Concrete Backup with Side Mount Anchors)



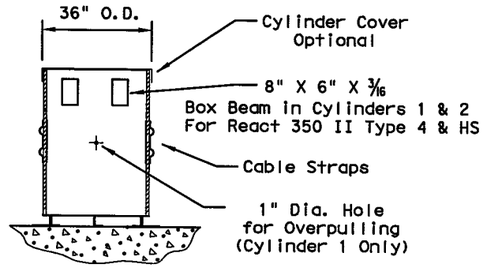
TYPICAL ELEVATION VIEW

MODEL C (Concrete Backup with Side Mount Anchors)

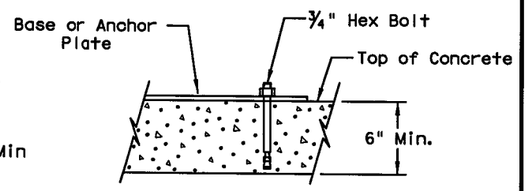




ASPHALT PAVEMENT DETAIL



TYPICAL CYLINDER



CONCRETE PAVEMENT DETAIL

NOTE:
If separate pad is required for REACT, then the pad thickness shall be 6"

GENERAL NOTES

1. For additional information contact: Trinity Highway Products, LLC. 70 W. Madison St. Suite 2350, Chicago, IL 60602. 1(888)323-6374.
2. The nose of the REACT 350 shall be clad with a plastic wrap with standard delineation adhered to the wrap and shall have a series of side marker reflectors on both sides of the unit. See site plan views for marker and plastic wrap color orientation.
3. All steel components to be hot dipped galvanized except stakes, drive spikes, threaded bolts in backup unit, and wedge fittings on cables.
4. The installation area should be free from curbs, elevated objects, or depressions. If the REACT system is to span expansion joints contact the manufacturer.
5. The REACT system should be approximately parallel with the barrier or ℄ of merging barriers. The maximum permissible cross-slope is 8%.
6. REACT 350 II has laminated panels in cylinders 1, 5, & 6.

DESIGN DATA TABLE FOR REACT 350 AND REACT 350 II

TYPE	REACT 350 4-B	REACT 350 4-C	REACT 350 II 6-B	REACT 350 II 6-C	REACT 350 HS-B	REACT 350 HS-C
DESIGN SPEED	45 MPH	45 MPH	62 MPH	62 MPH	70 MPH	70 MPH
OVERALL LENGTH	15'-3"	13'-9"	21'-3"	19'-5"	30'-3"	28'-9"
OVERALL WEIGHT	2580 lb.	2340 lb.	3340 lb.	3100 lb.	4520 lb.	4280 lb.

FOUNDATION AND ANCHORAGE TABLE FOR REACT 350 AND REACT 350 II

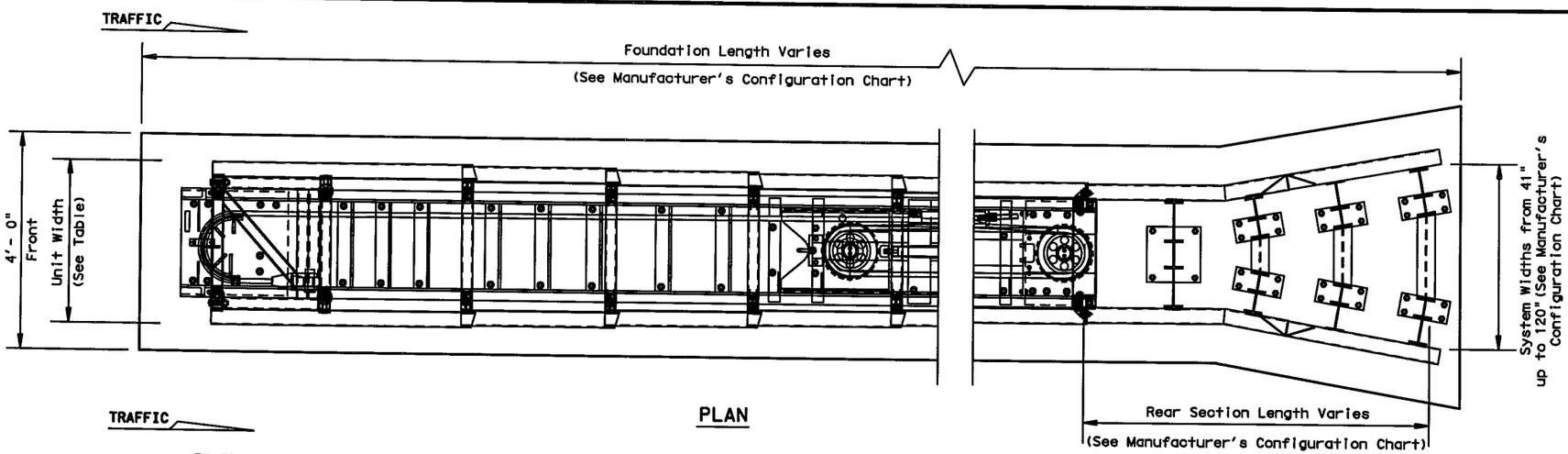
	FOUNDATION TYPE	MINIMUM THICKNESS	ANCHORAGE
A	CONCRETE PAD OR ROADWAY	6"	MP-3 WITH 7" STUDS [5.5" EMBEDMENT]
B	ASPHALT OVER CONCRETE PAVEMENT	6" CONCRETE PAVEMENT	ANCHOR LENGTH REQUIRED IS 7" STUD PLUS ASPHALT THICKNESS
C	ASPHALT OVER BASE	6" ACP + 6" BASE	MP-3 WITH 18" STUDS [16.5" EMBEDMENT]
D	ASPHALT ONLY	8"	MP-3 WITH 18" STUDS [16.5" EMBEDMENT]

Texas Department of Transportation
Design Division Standard

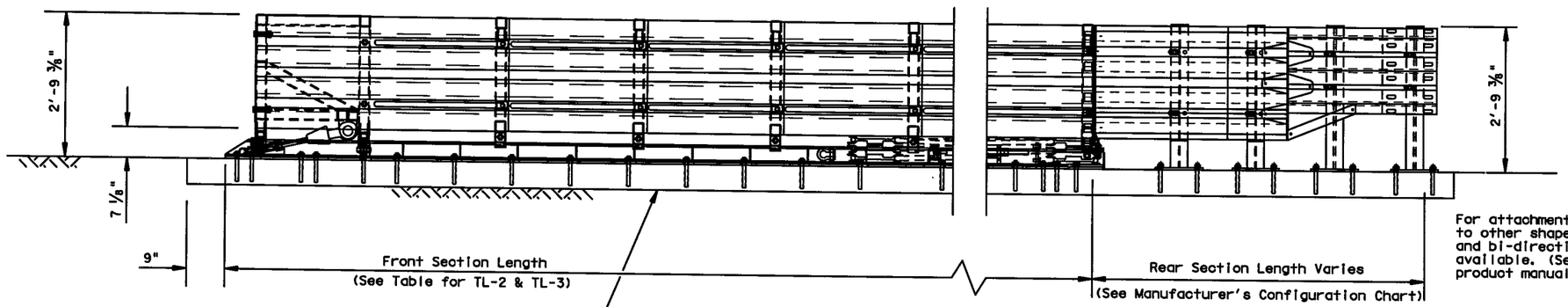
REUSABLE ENERGY ABSORBING CRASH TERMINAL
(REACT 350 NARROW)
(REACT 350 II NARROW)
REACT(N)-12

FILE: reactn12	DN: TxDOT	CK: AM	DW: VP	CK:
©TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS	0014	16	255, ETC.	IH35W
	DIST	COUNTY		SHEET NO.
	FTW	TARRANT		929

DATE: 7/13/2012 10:22:51 PM
FILE: REACT(N)-12.dgn



PLAN



ELEVATION

For steel placement in concrete foundations, See Manufacturer's drawings

For attachment and transitions to other shapes, barriers railings and bi-directional traffic flows are available. (See manufacturer's product manual)

GENERAL NOTES

1. For additional information contact SCI Products Inc. (717)234-3106.
2. For bi-directional traffic, appropriate transition panels will be required.
3. Additional details for the transition options and foundation options will be shown on the manufacturer's shop drawings furnished to the Engineer.
4. Concrete shall be class "S" with a minimum compressive strength of 4,000 p.s.i.
5. Maximum permissible cross-slope is 8%.
6. The installation area should be free from curbs, elevated objects, or depressions.
7. The SCI100GM & SCI70GM systems should be approximately parallel with the barrier or ℄ of merging barriers.

MODEL (WIDE)	DESIGN	FRONT SECTION LENGTH	UNIT WIDTH	FOUNDATION LENGTH	OBSTACLE WIDTH
SCI70GM	TL-2	13'-8 1/4"	Varies	Varies	41" to 120"
SCI100GM	TL-3	21'-8 1/4"	Varies	Varies	41" to 120"

System and pad lengths vary depending on backup type.

FOUNDATION OPTIONS
6" Reinforced Concrete (5 1/2" Anchor Embedment)
8" Unreinforced Concrete (5 1/2" Anchor Embedment)
3" Min. Asphalt over 3" Min. Concrete (16 1/2" Anchor Embed.)
6" Asphalt over 6" Compact Subbase (16 1/2" Anchor Embed.)
8" Minimum Asphalt (16 1/2" Anchor Embedment)

For steel placement in concrete foundations, see manufacturer's product manual.

TRANSITION OPTIONS
Concrete Vertical Wall
Concrete Traffic Barriers
Guardrail (W-Beam)
Guardrail (Thrie-Beam)

Transition types are shown elsewhere on the plans, (i.e. Attenuator location details or in the general notes).

For bi-directional transition panel and end shoe details, see manufacturer's product manual.

NOTE: Side Panels can travel 30" beyond the last terminal brace at the rear of the cushion. All objects that may interfere with this motion can affect performance of and may cause undue damage to the crash cushion.

DISCLAIMER:
The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

LEVELS DISPLAYED
1

Texas Department of Transportation
Design Division (Roadway)

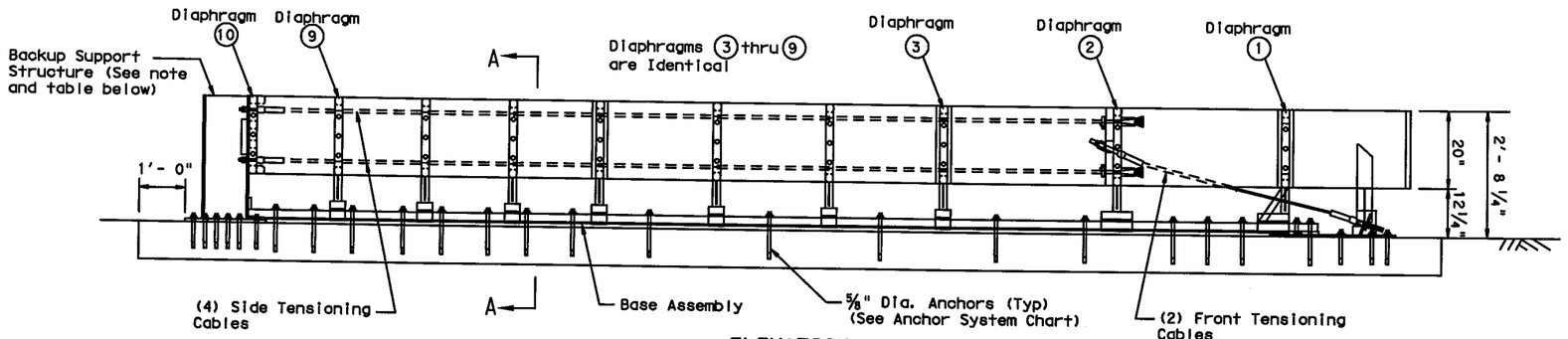
CRASH CUSHION ATTENUATOR

(SMART CUSHION "WIDE")

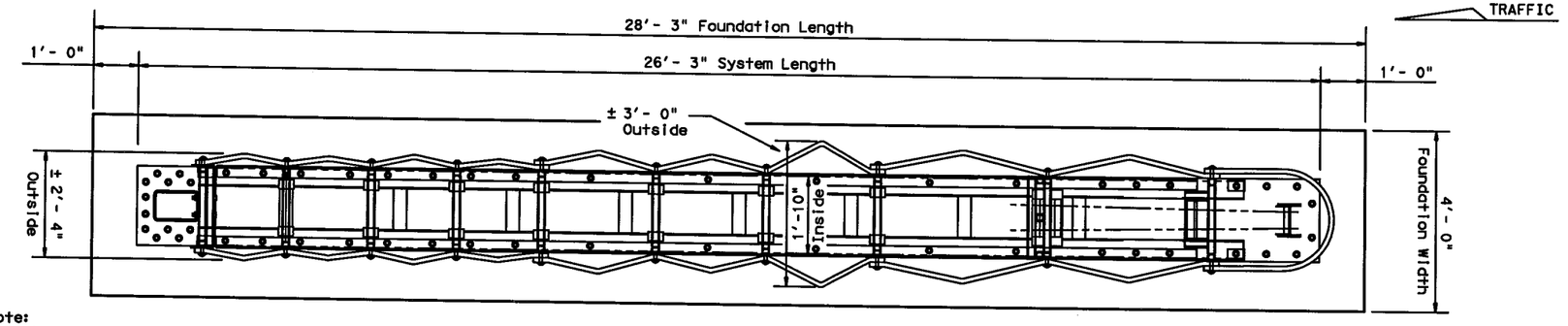
SCI Products Inc.

SMTC(W)-06

FILE: smtcw06.dgn	DN: SCI	CK:	DW: BD	CK:	
©TxDOT February 2006	DISTRICT	FEDERAL AID PROJECT			SHEET
REVISIONS	FTW	(SEE TITLE SHEET)			930
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	TARRANT		0014	16	255	IH35W



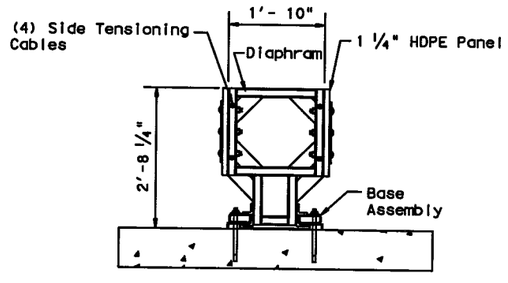
ELEVATION



Note:
Backup support shown is the Steel Post option. The HEART system may be connected with rectangular cross sections such as: Piers, Parapets and Concrete Traffic Barriers.

PLAN

System shown is HEART (TL-3) with uni-directional traffic



SECTION A-A

ANCHOR SYSTEM CHART
On Concrete: 10" Bolts used on base rails, 7 ½" Bolts used on base plates.
On Asphalt: 18" Bolts used on base rails and baseplates.

BACKUP SUPPORT OPTIONS
Steel Post Backup (Shown)
Rectangular Concrete Backup (18" Width Max.)
Concrete Barrier (CTB) Backup
Single Slope Concrete Barrier (SSCB)

TRANSITION OPTIONS
The HEART system is approved for use at bi-directional sites, additional hardware is required. (See Manufacturer's product manual)

Backup and transition types are shown elsewhere on the plans. (I.e. Attenuator location details or in the general notes)

GENERAL NOTES

1. For additional information contact Trinity Industries Inc. at (800) 527-6050 Ext. 8842.
2. For bi-directional traffic, appropriate transition panels will be required.
3. Details of components for the HEART and backups and reinforcing details will be shown on the manufacturer's shop drawings furnished to the Engineer.
4. Concrete shall be class "S" with a minimum compressive strength of 4,000 p.s.i.
5. If the cross-slope varies more than 2% over the length of the system, the concrete pad will require levelling. Maximum permissible cross-slope is 8%.
6. The installation area should be free from curbs, elevated objects, or depressions.
7. The HEART system should be approximately parallel with the barrier or ℄ of merging barriers.

HEART (NARROW) SYSTEM			
TYPE	DESIGN SPEED	SYSTEM LENGTH	PAD LENGTH
HEART (TL-2)	45 OR LESS	13'- 9 ½"	15'- 9 ½"
HEART (TL-3)	50 OR GREATER	26'- 3"	28'- 3"
HEART (70 MPH)	70	28'- 9"	30'- 9"

Concrete pad length on the HEART system depends on backup type. (Minimum length shown)

FOUNDATION OPTIONS
6" Reinforced Concrete
8" Unreinforced Concrete
8" Minimum Asphalt
For asphalt overlays on concrete, contact the manufacturer.

For steel placement in concrete foundations (See Manufacturer's product manual)

DISCLAIMER:
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LEVELS DISPLAYED
1

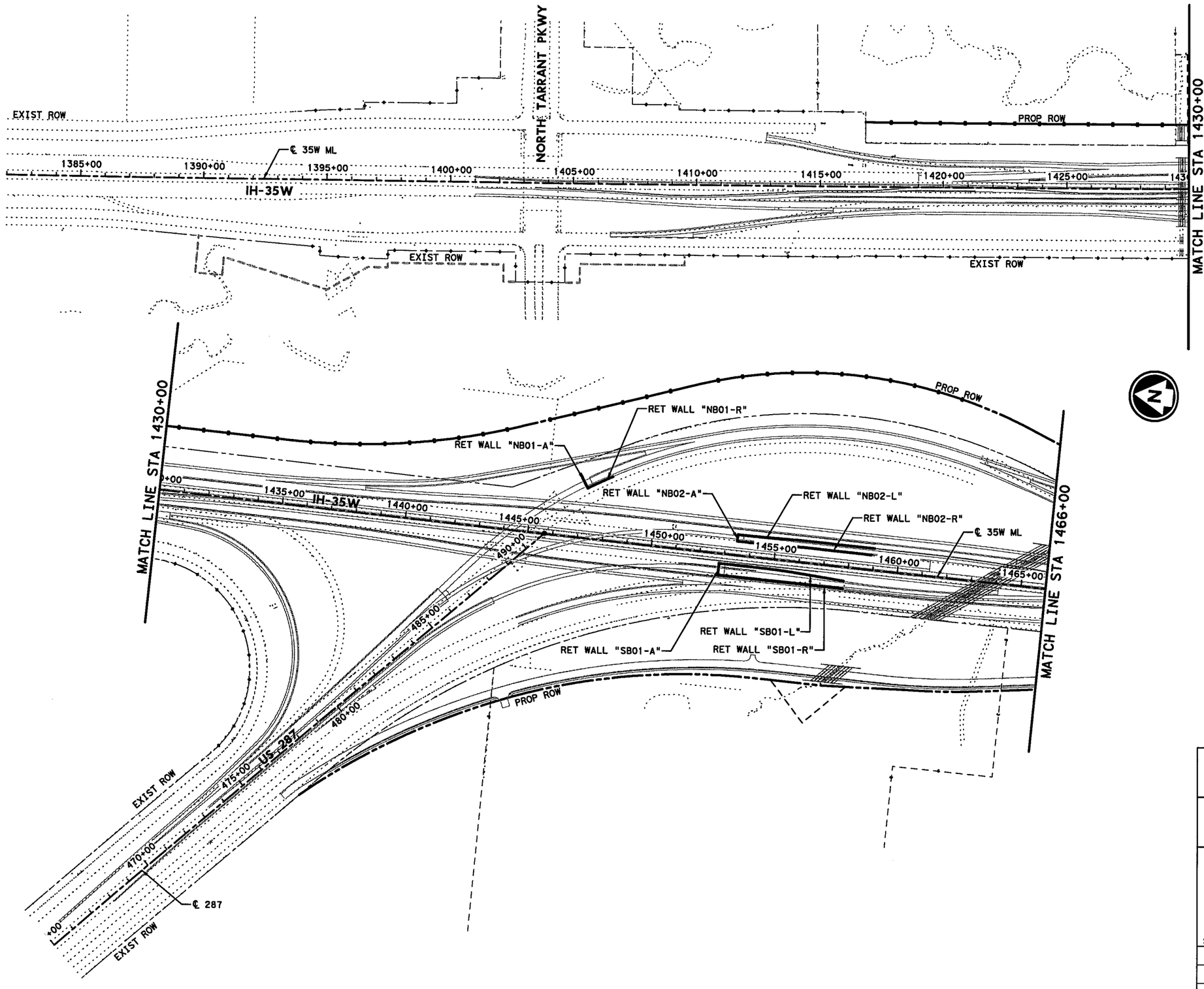
Texas Department of Transportation
Design Division (Roadway)

HEART CRASH CUSHION

HYBRID ENERGY ABSORBING REUSABLE TERMINAL

HEART-10

FILE: heart10.dgn	DN: AM	CK: AM	DW: BGD	CK:	
©TxDOT March 2010	DIST	FEDERAL AID PROJECT			SHEET
REVISIONS	FTW	(SEE TITLE SHEET)			931
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	TARRANT		0014	16	255	IH35W



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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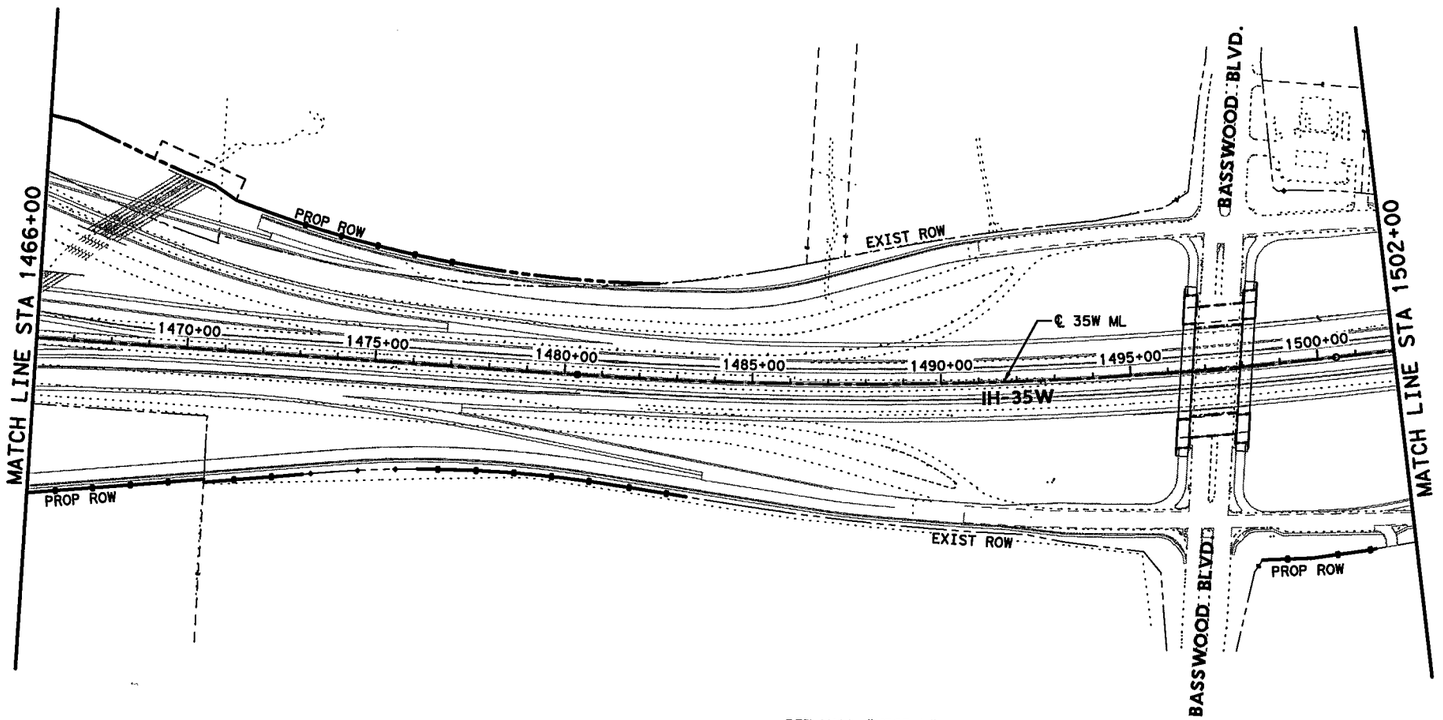
IH 35W FROM NORTH TARRANT PKWY TO IH 820

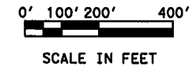
RETAINING WALLS KEYMAP
IH 35 MAINLANES
STA 1382+00 TO STA 1466+00

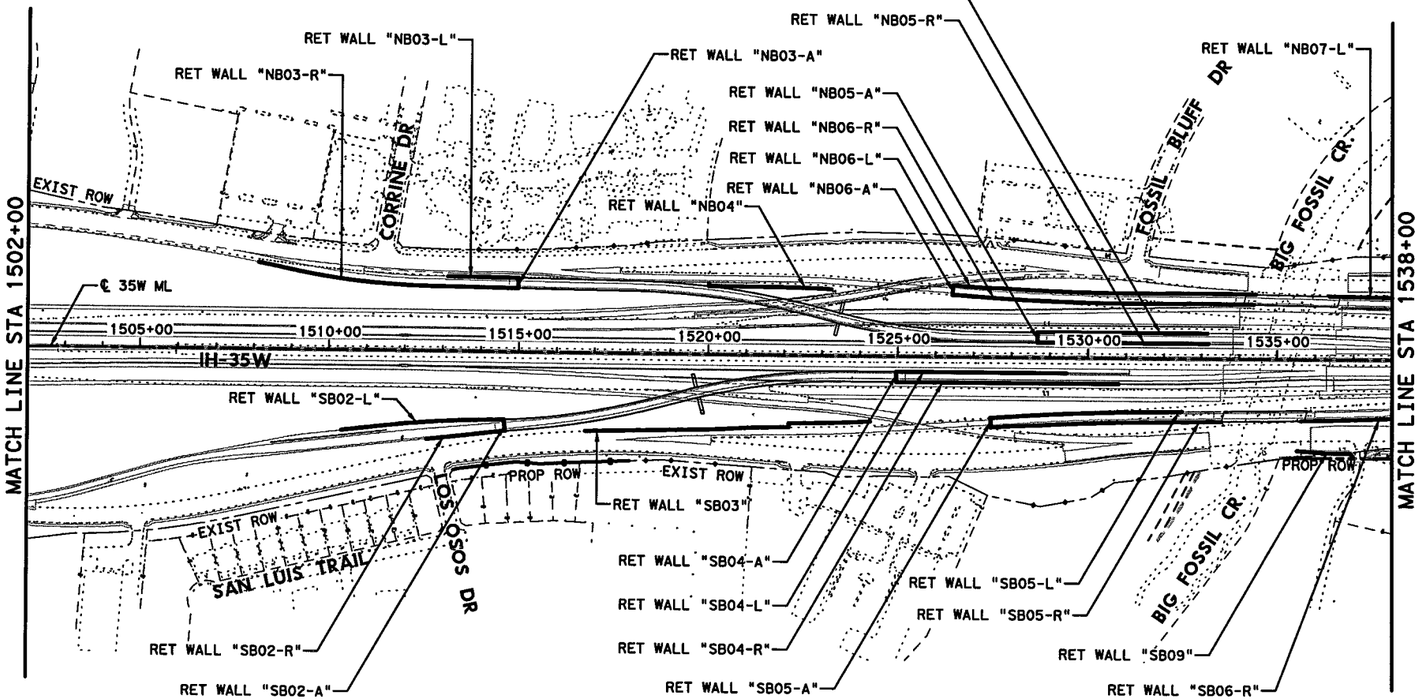
SCALE 1" = 400' SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	932
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B#RWKM-01#GTN.dgn







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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS KEYMAP

IH 35 MAINLANES

STA 1466+00 TO STA 1538+00

SCALE 1" = 400'

SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	933
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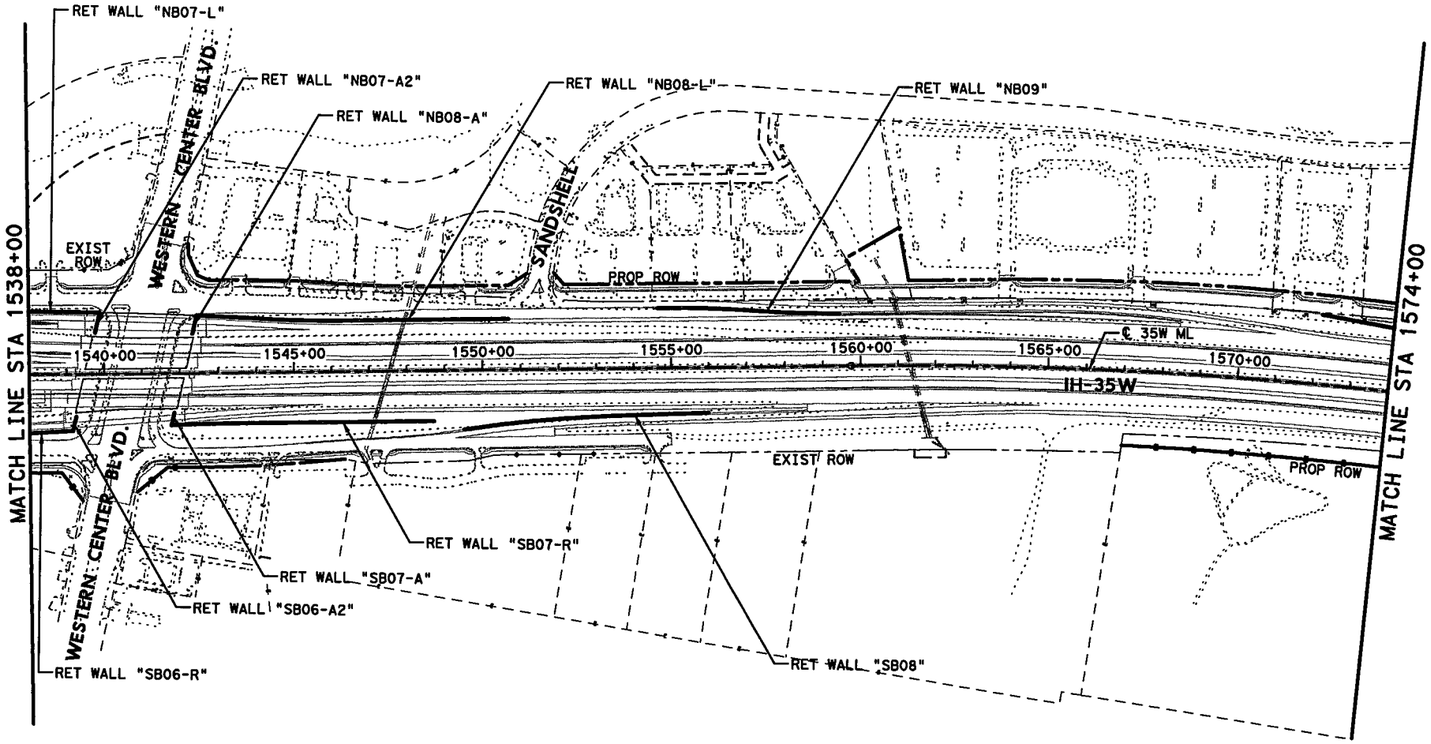
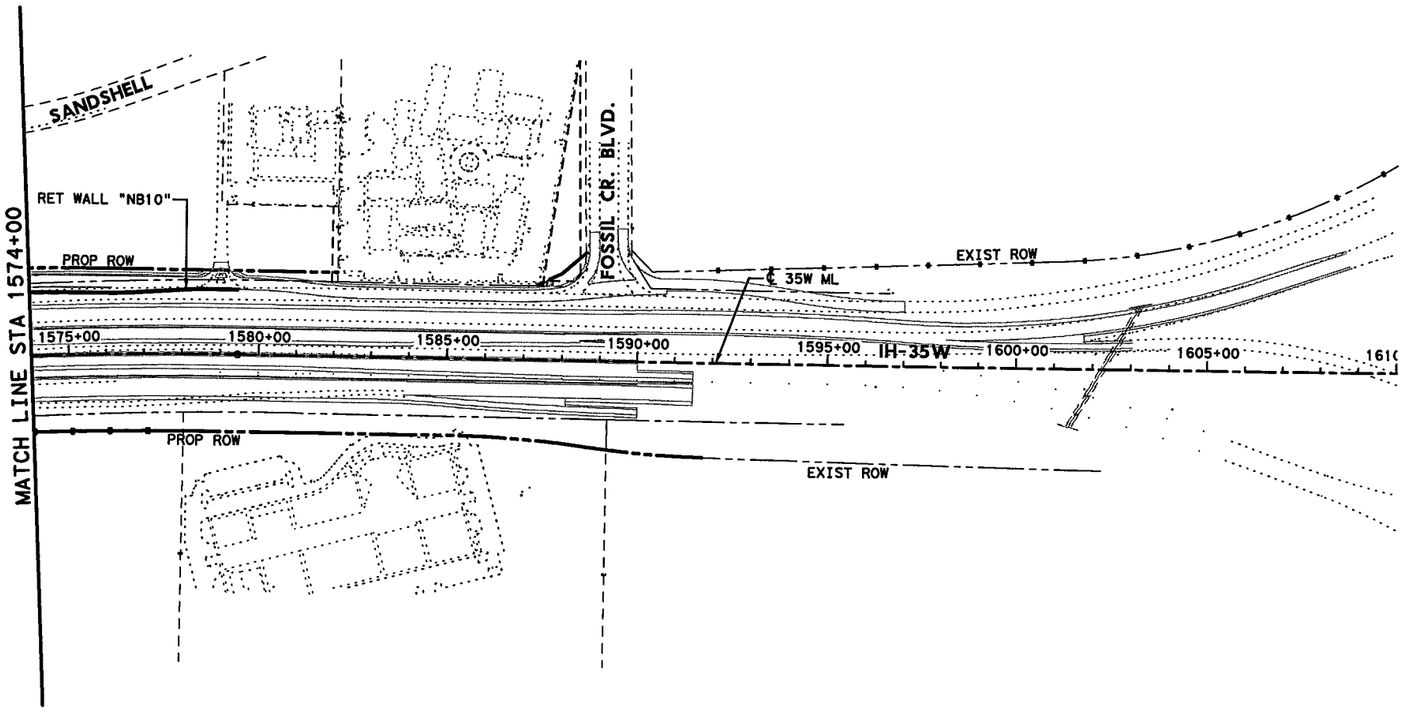
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3B*RWKM-02*GTN.dgn





0' 100' 200' 400'

SCALE IN FEET

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS KEYMAP

IH 35 MAINLANES

STA 1538+00 TO STA 1610+00

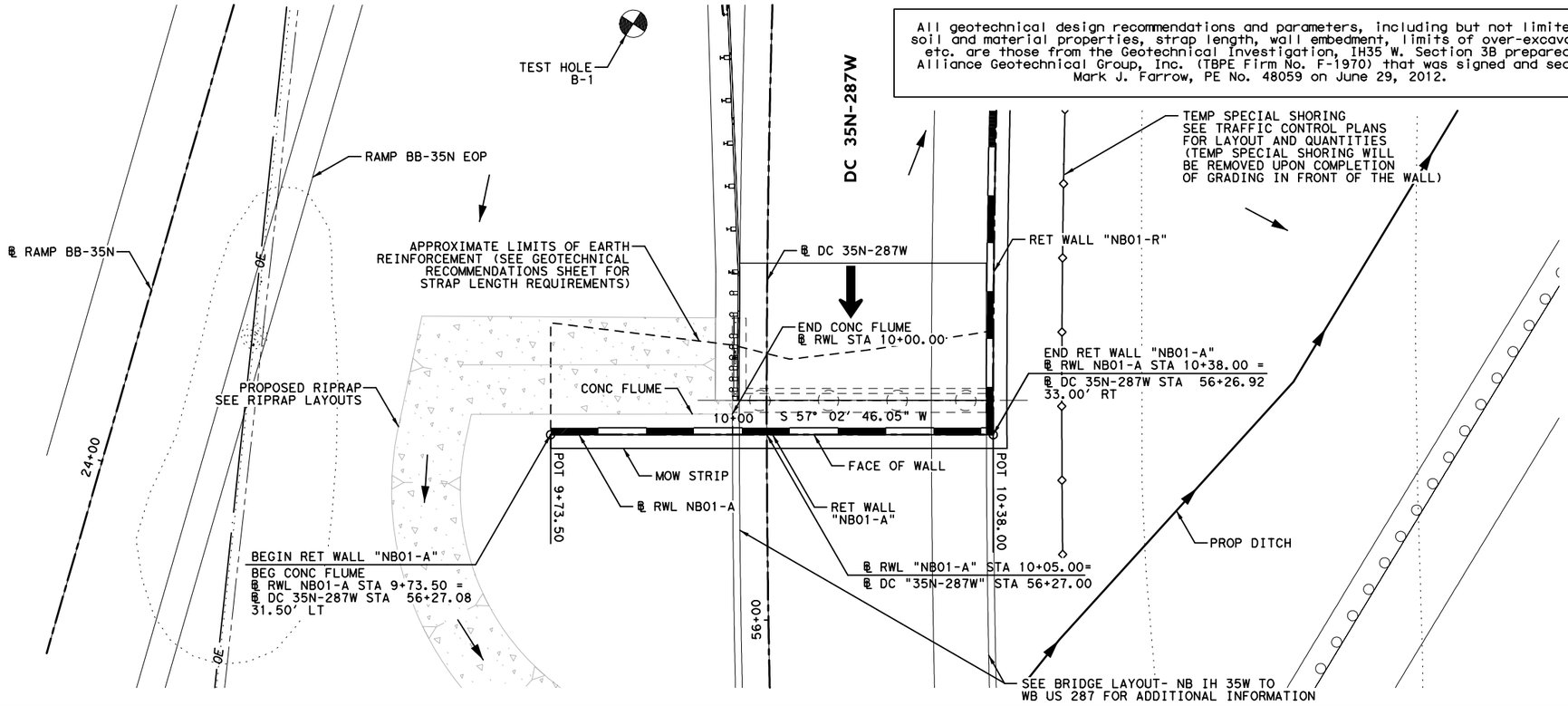
SCALE 1" = 400'

SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	934
KCI	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*RWKM-03*GTN.dgn

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



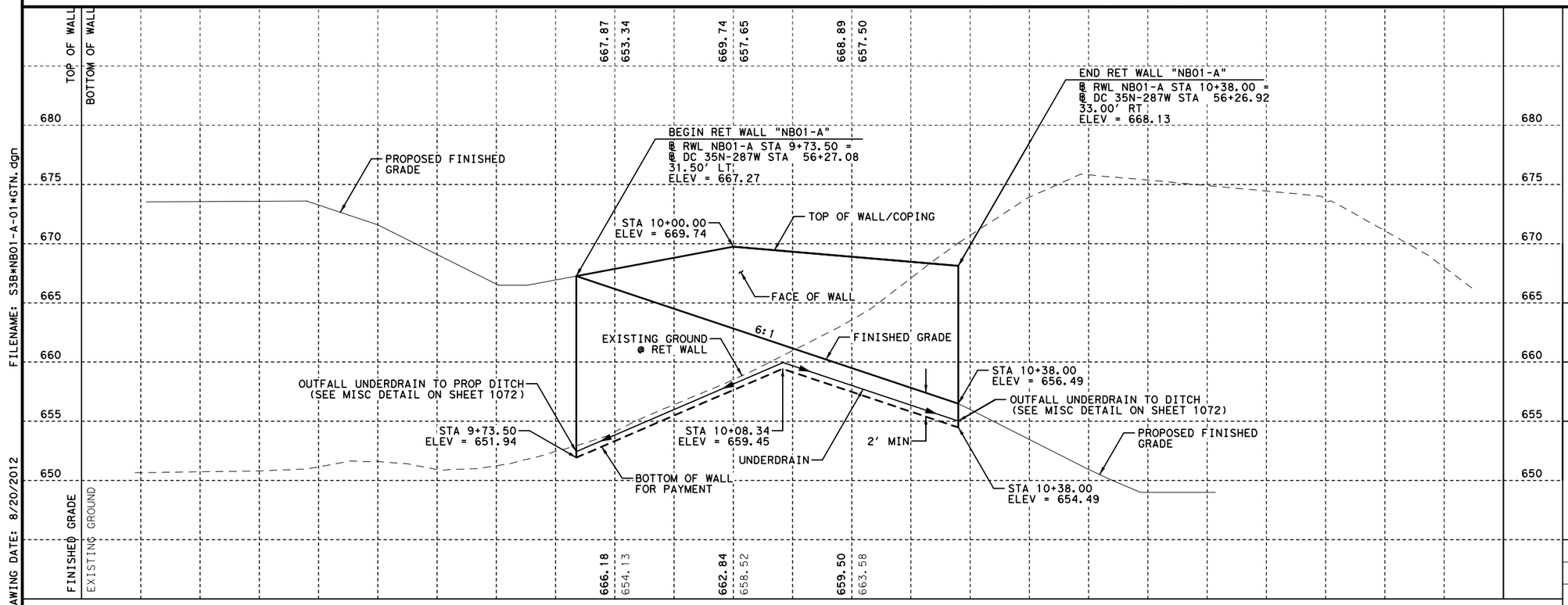
HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

PLAN AND PROFILE NB01-A

SCALE 1"= 20′ H, 1"=10′ V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	935
CHECK KCI	CONTROL	SECTION	JOB	
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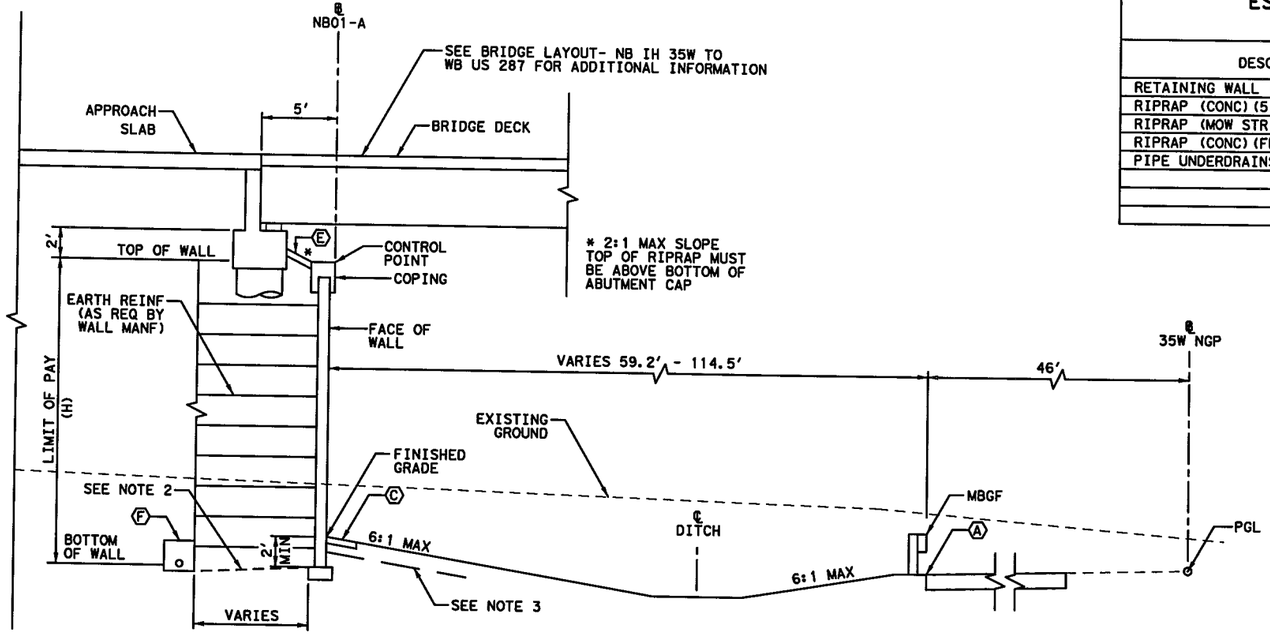
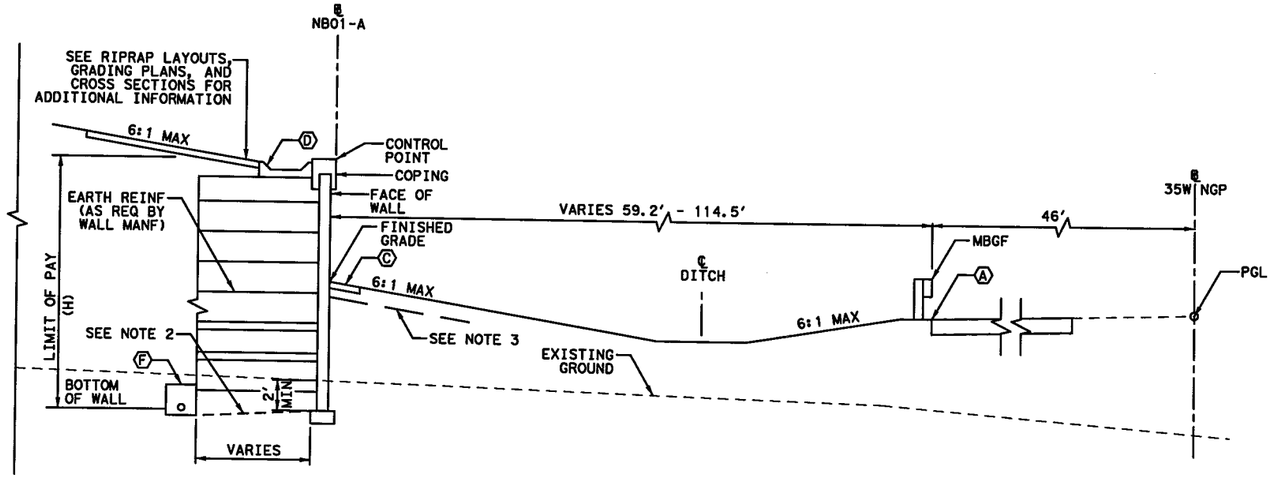


PROPOSED WALL "NB01-A" TYPICAL SECTION

℄ NB01-A 10+00.00 TO STA 10+38.00



PROPOSED WALL "NB01-A" TYPICAL SECTION

℄ NB01-A 9+73.50 TO STA 10+00.00

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	805
RIPRAP (CONC) (5 IN)	CY	1
RIPRAP (MOW STRIP) (5 IN)	CY	2
RIPRAP (CONC) (FLUME)	CY	2
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	91

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB01-A

SCALE 1" = 10'

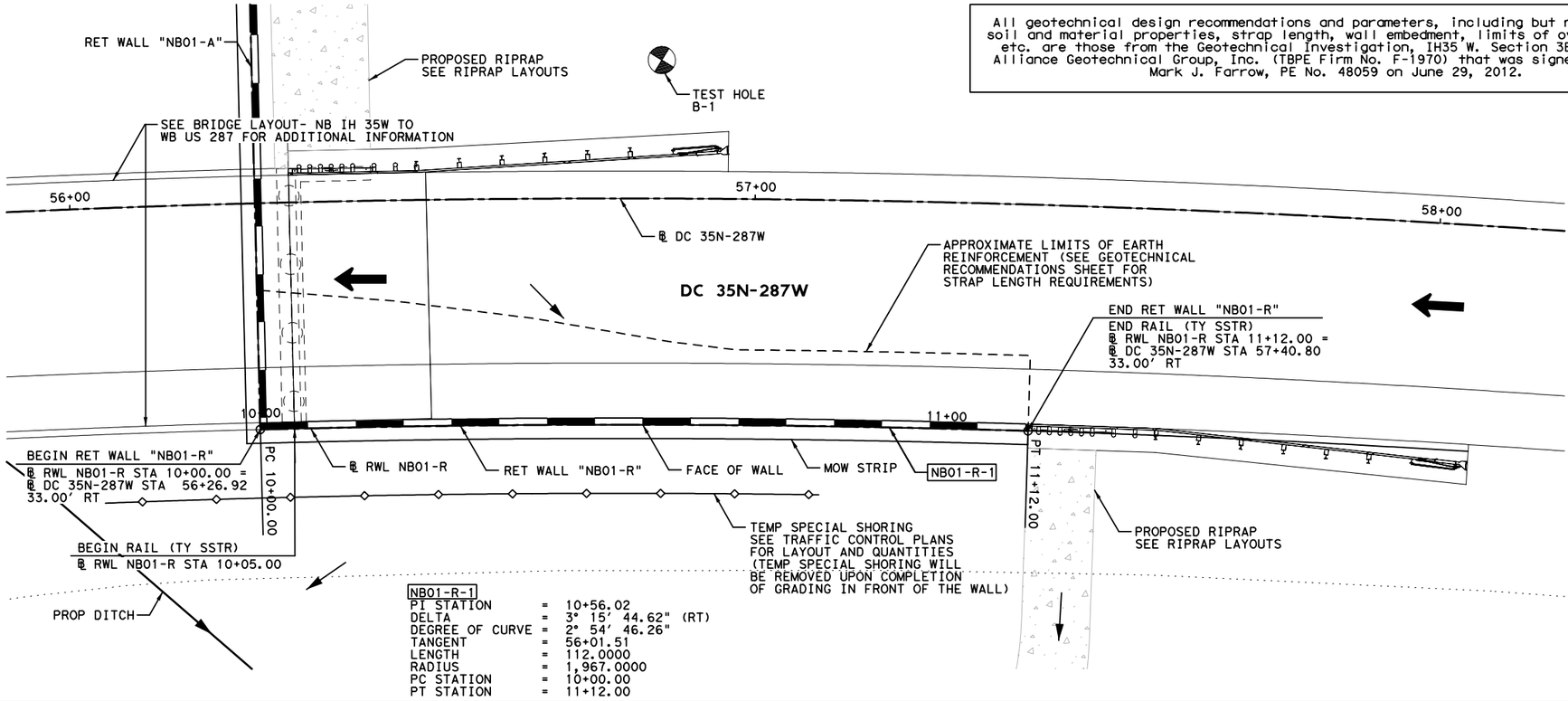
SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	936
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*TYPNB01-A*GTN.dgn

DRAWING DATE: 7/13/2012

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35W, Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



NB01-R-1

PI STATION	=	10+56.02
DELTA	=	3° 15' 44.62" (RT)
DEGREE OF CURVE	=	2° 54' 46.26"
TANGENT	=	56+01.51
LENGTH	=	112.0000
RADIUS	=	1,967.0000
PC STATION	=	10+00.00
PT STATION	=	11+12.00

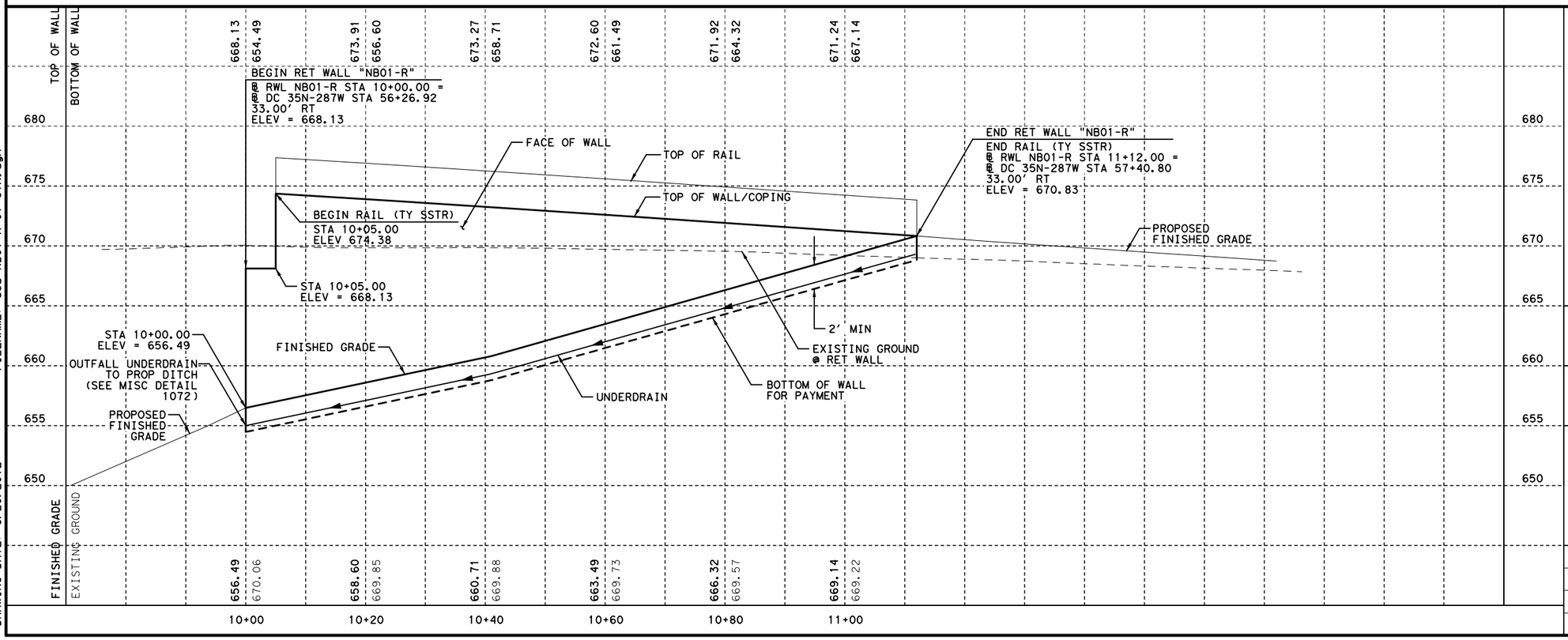
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: S3B*NB01-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

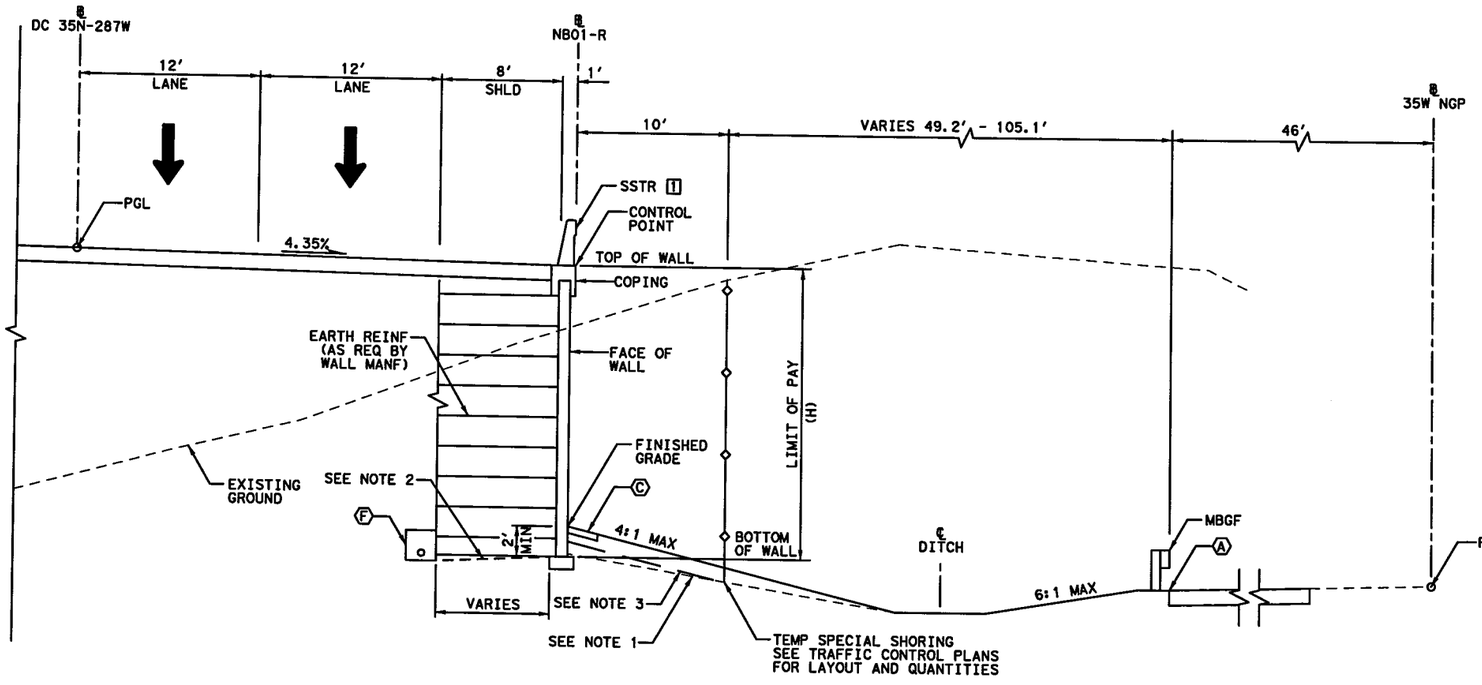
RETAINING WALLS
PLAN AND PROFILE
NB01-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	937
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	1,259
RIPRAP (MOW STRIP) (5 IN)	CY	4
RAIL (SSTR)	LF	107
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	138



[1] LIMITS OF RAIL
STA 10+05.00 TO 11+12.00

PROPOSED WALL "NB01-R" TYPICAL SECTION

℄ NB01-R 10+00.00 TO STA 11+12.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- (A) EDGE OF PROPOSED PAVEMENT
- (B) EDGE OF ULTIMATE PAVEMENT
- (C) 2' RIPRAP (MOW STRIP) (5 IN)
- (D) RIPRAP (CONC) (FLUME)
- (E) RIPRAP (CONC) (5 IN)
- (F) PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB01-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	938
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*TYPNB01-R*GTN.dgn
DRAWING DATE: 7/13/2012

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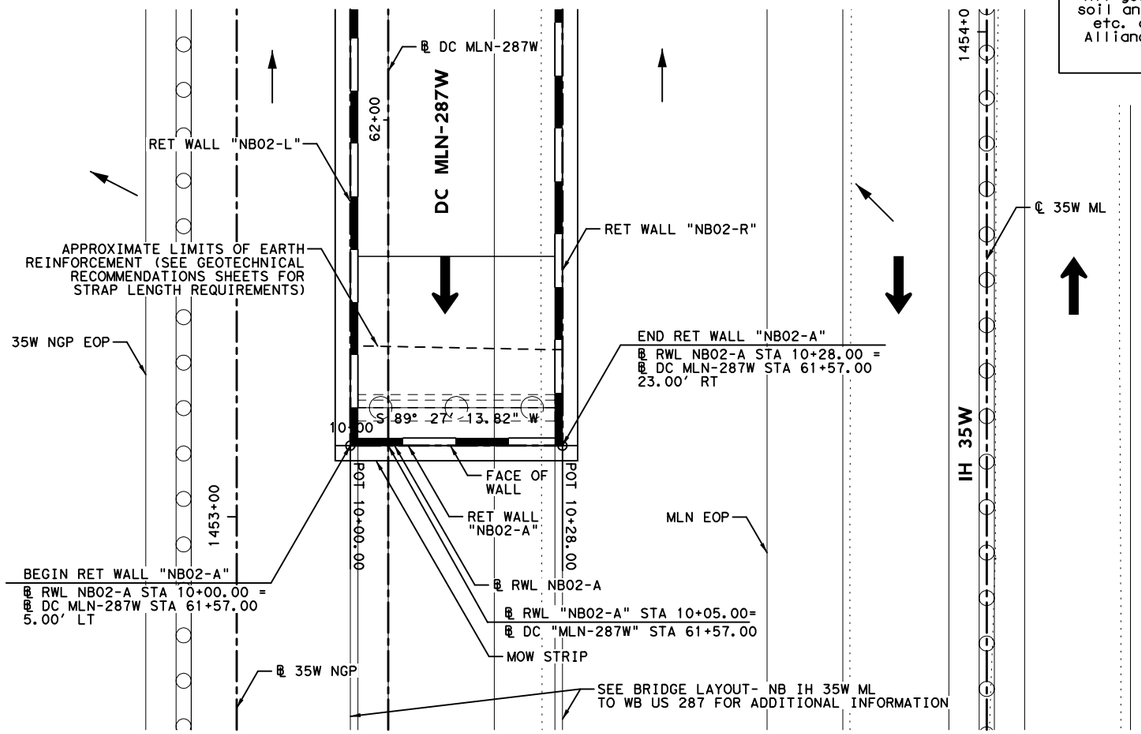

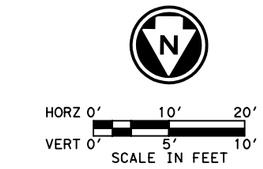

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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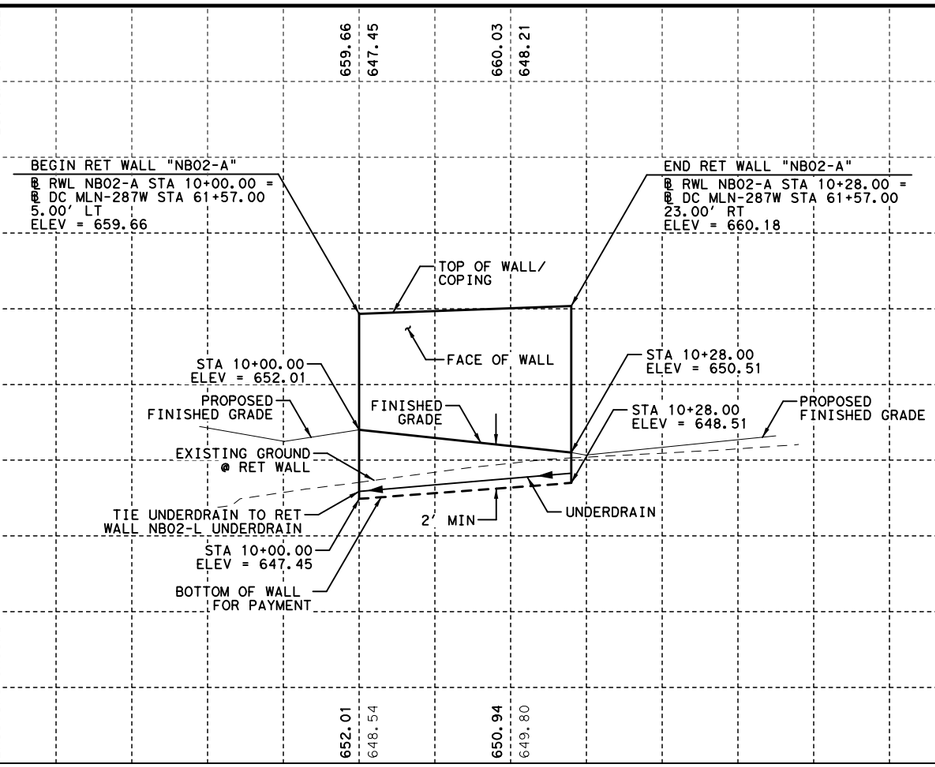
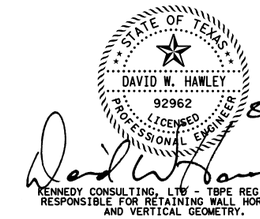


FILENAME: S3B*NB02-A-01*GTN.dgn
DRAWING DATE: 8/20/2012



KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

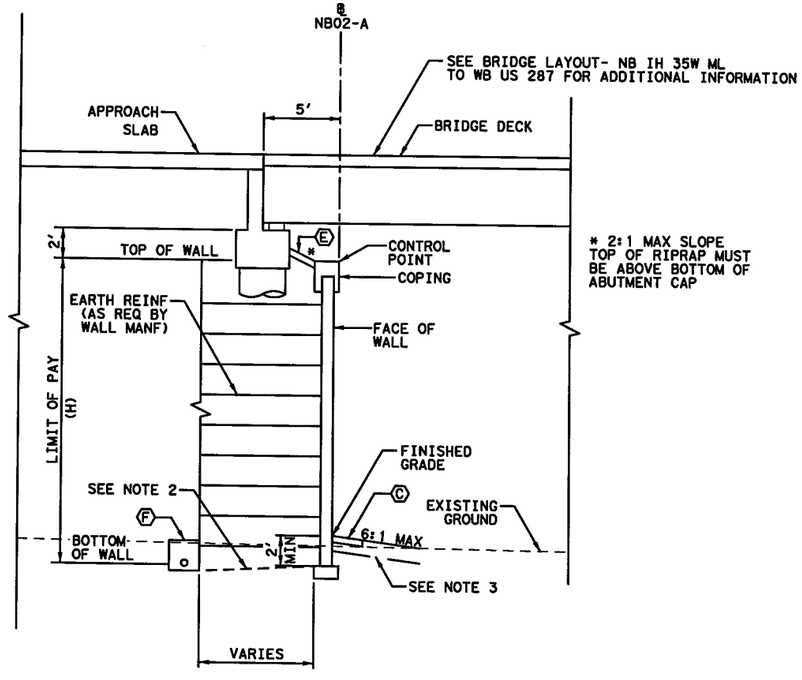
RETAINING WALLS
PLAN AND PROFILE
NB02-A

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	939
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	334
RIPRAP (CONC) (5 IN)	CY	1
RIPRAP (MOW STRIP) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	29



PROPOSED WALL "NB02-A" TYPICAL SECTION

℄ NB02-A 10+00.00 TO STA 10+28.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- (A) EDGE OF PROPOSED PAVEMENT
- (B) EDGE OF ULTIMATE PAVEMENT
- (C) 2' RIPRAP (MOW STRIP) (5 IN)
- (D) RIPRAP (CONC) (FLUME)
- (E) RIPRAP (CONC) (5 IN)
- (F) PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
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3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

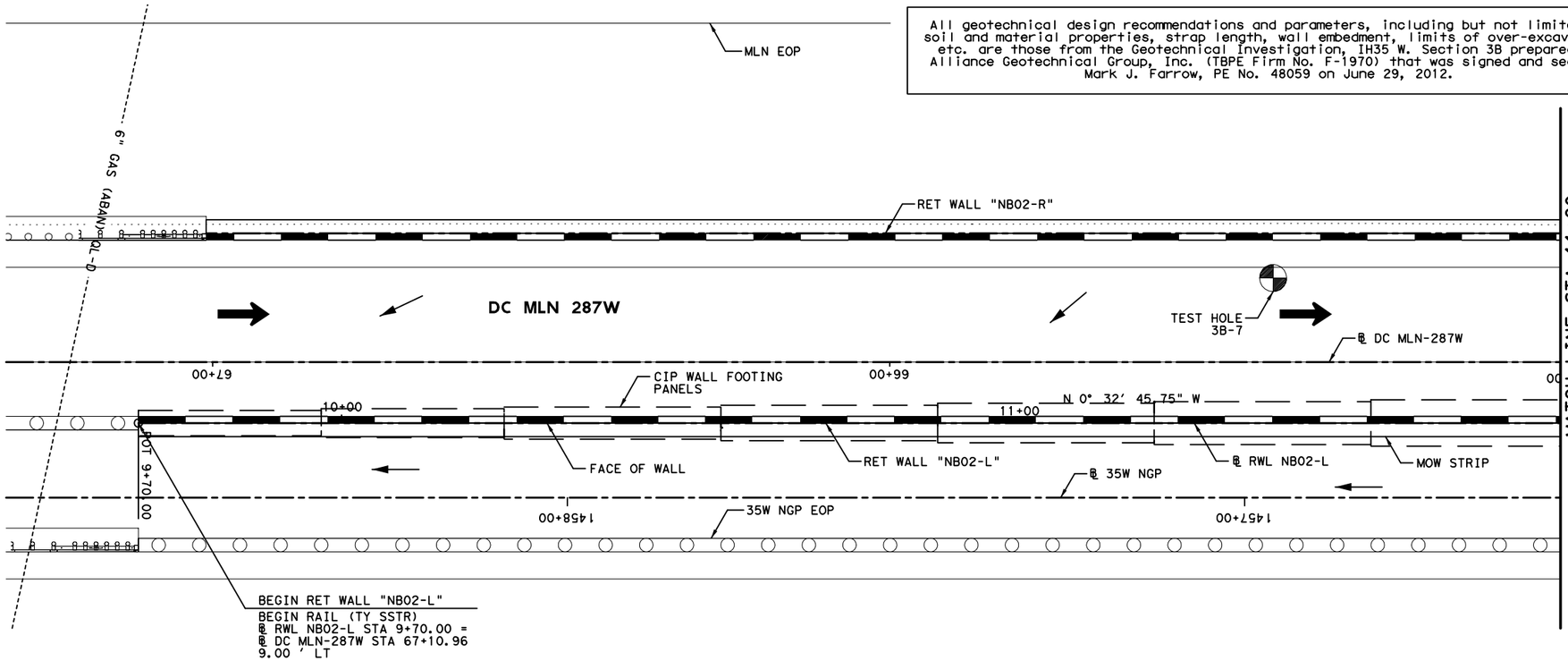
NB02-A

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	940
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB02-A*GTN.dgn

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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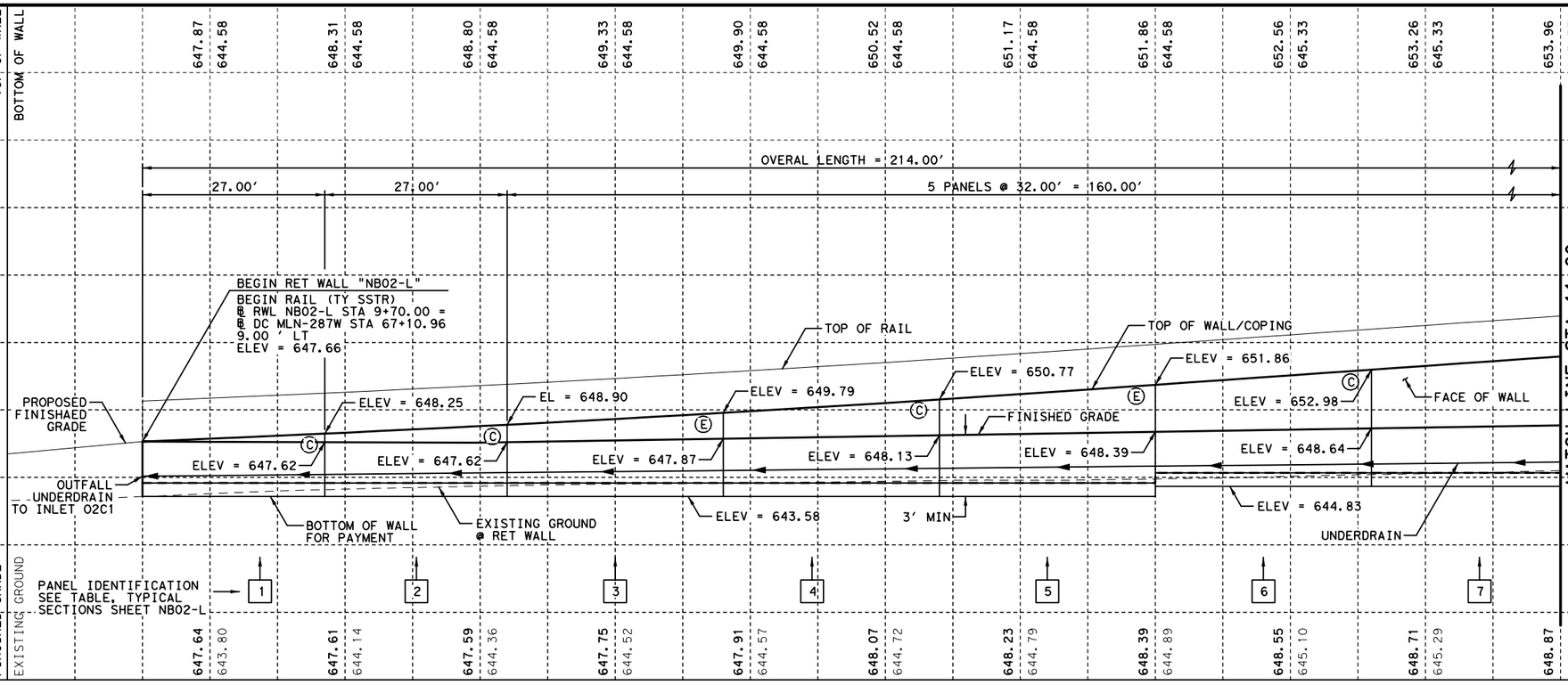

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB02-L

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	941
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB02-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

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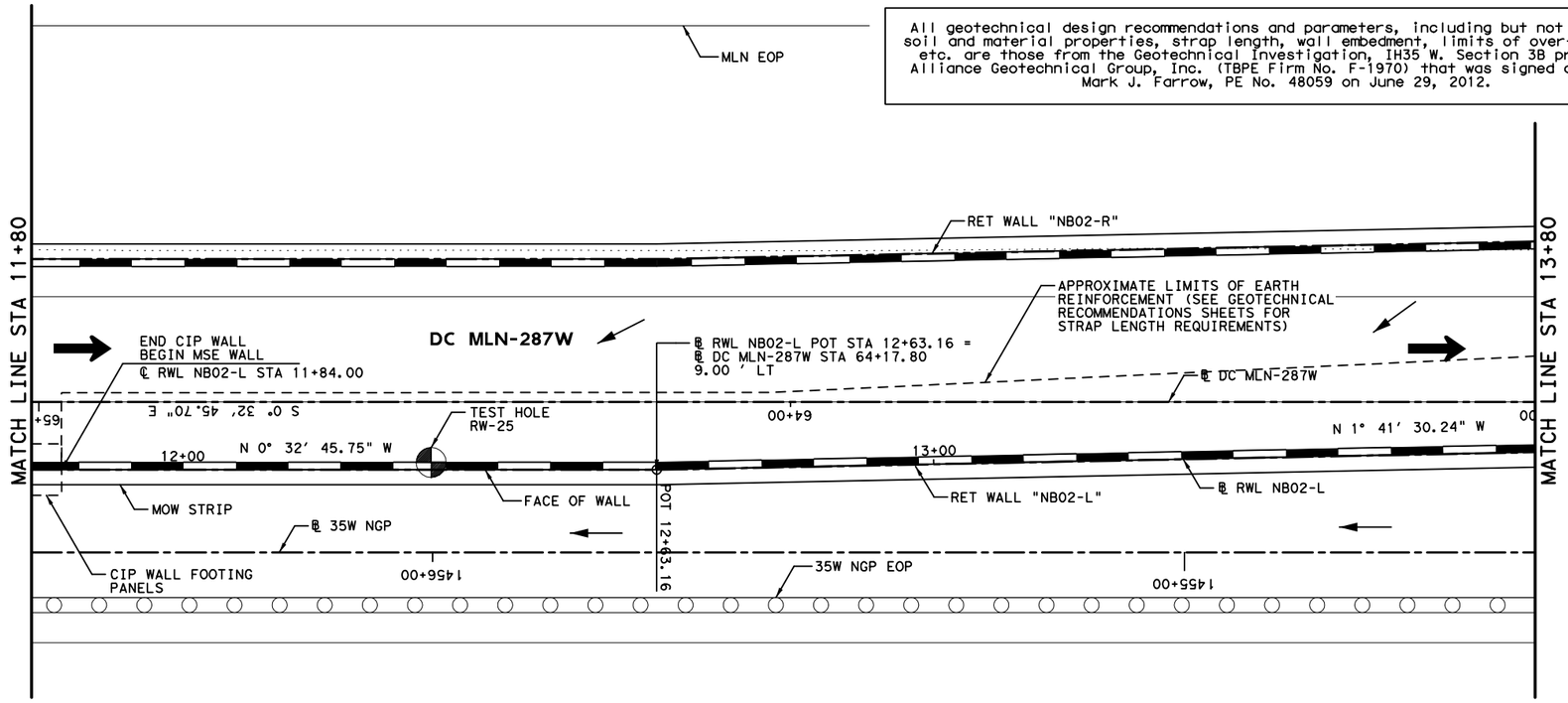

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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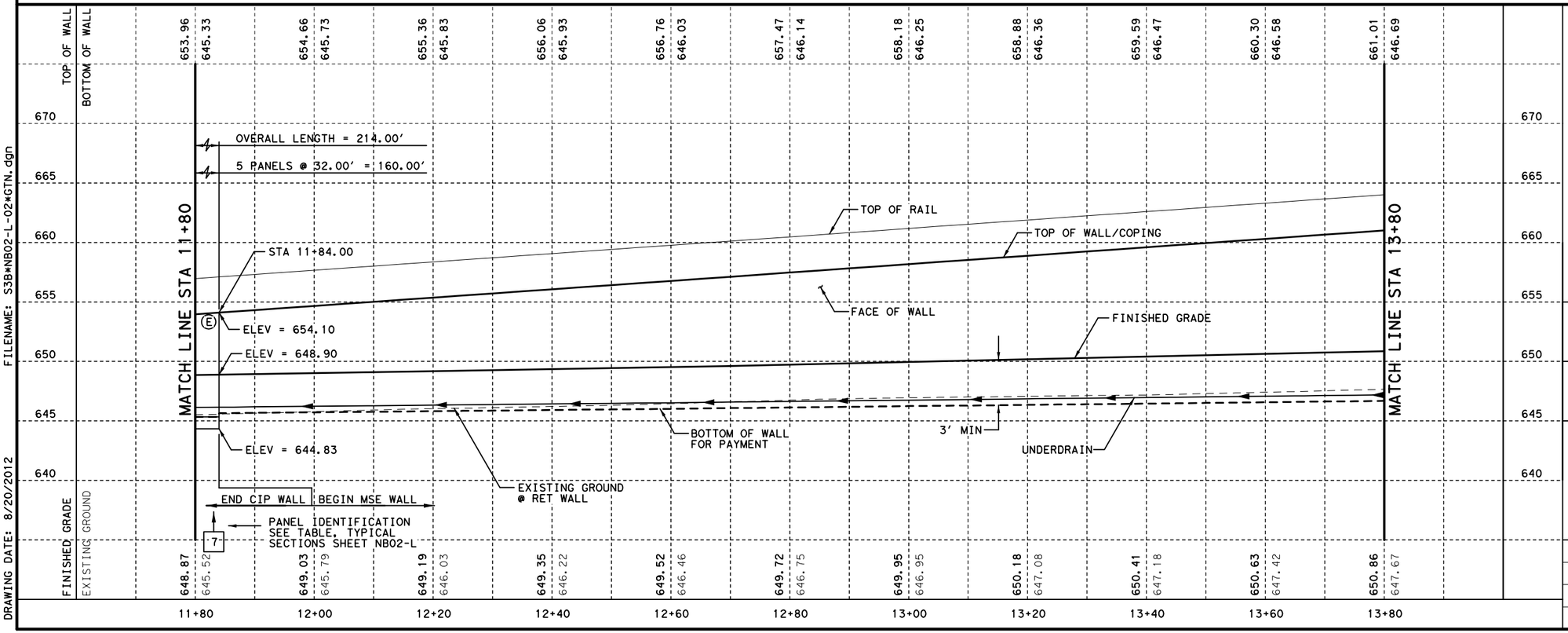

FILENAME: S3B*NB02-L-02*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB02-L

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	942
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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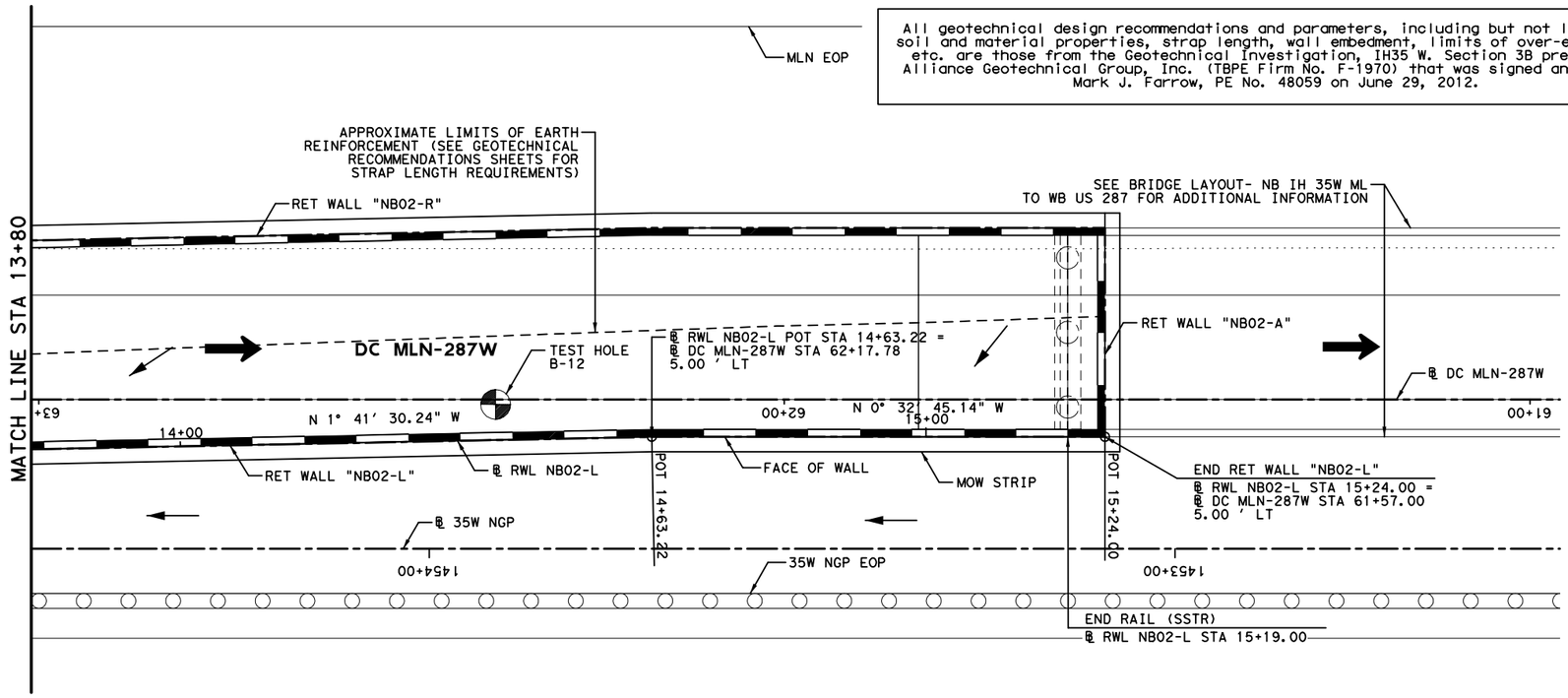

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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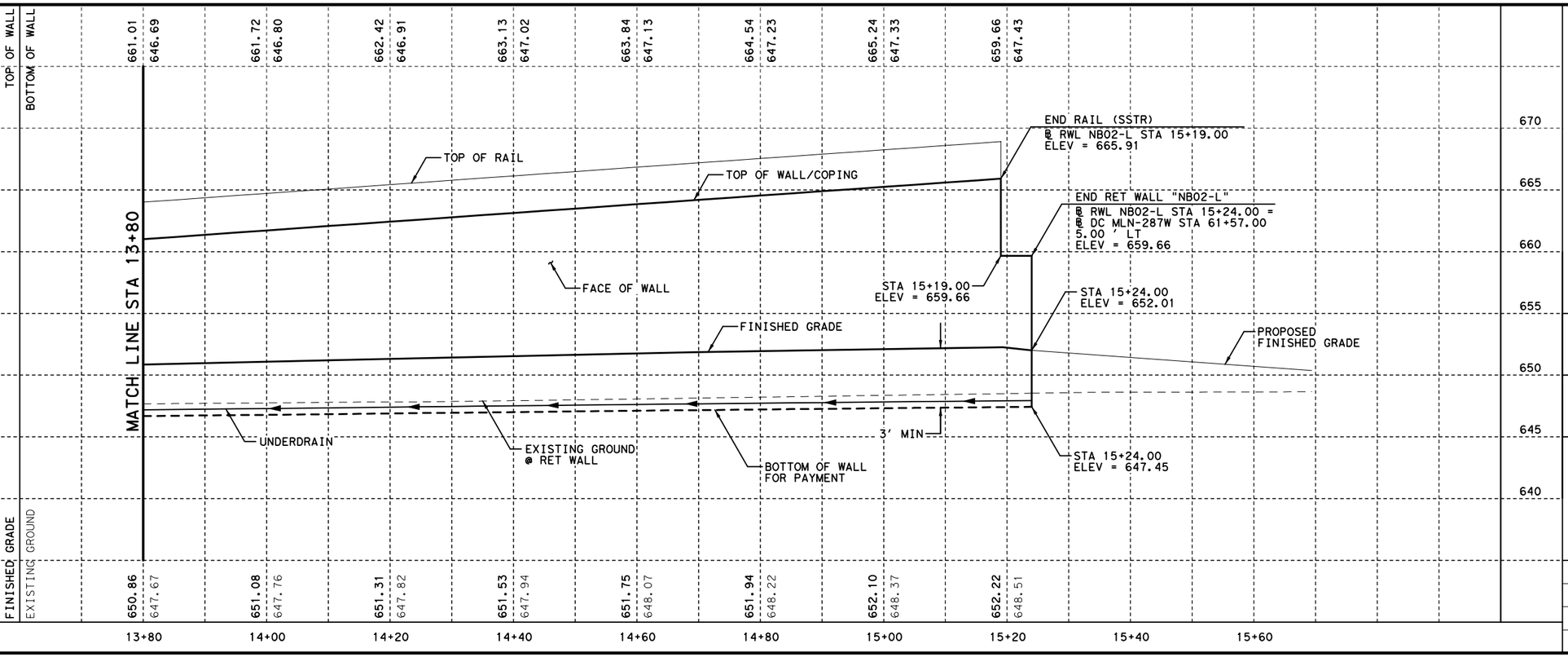

STATE OF TEXAS
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8/22/2012

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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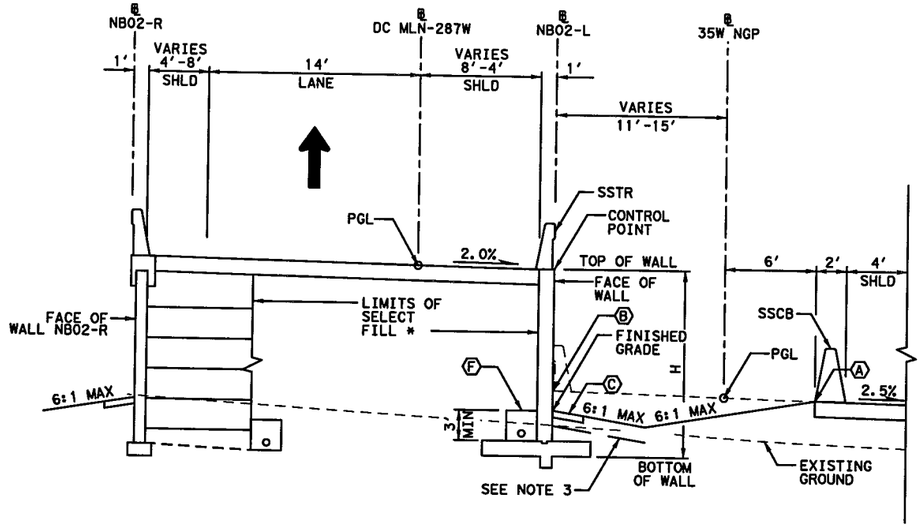
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB02-L

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	943
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB02-L-03*GTN.dgn
DRAWING DATE: 8/20/2012



PROPOSED WALL "NB02-L" TYPICAL SECTION

℄ NB02-L 9+70.00 TO STA 11+84.00

TABLE OF PANEL IDENTIFICATION		
PANEL NO.	TYPE OF PANEL	PANEL AREA (SF)
1	LC-06-27	162
2	LC-06-27	162
3	LC-07-32	224
4	LC-08-32	256
5	LC-09-32	288
6	LC-10-32	320
7	LC-11-32	352

DESCRIPTION OF TYPE OF PANEL
PANEL AREA = AVERAGE HEIGHT x LENGTH OF PANEL

AVERAGE HT. OF PANEL — LC-01-10 — LENGTH OF PANEL
TYPE OF PANEL

ESTIMATED QUANTITIES		
DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	4,573
RETAINING WALL (CIP)	SF	1,764
RIPRAP (MOW STRIP)(5 IN)	CY	17
RAIL (SSTR)	LF	549
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	749

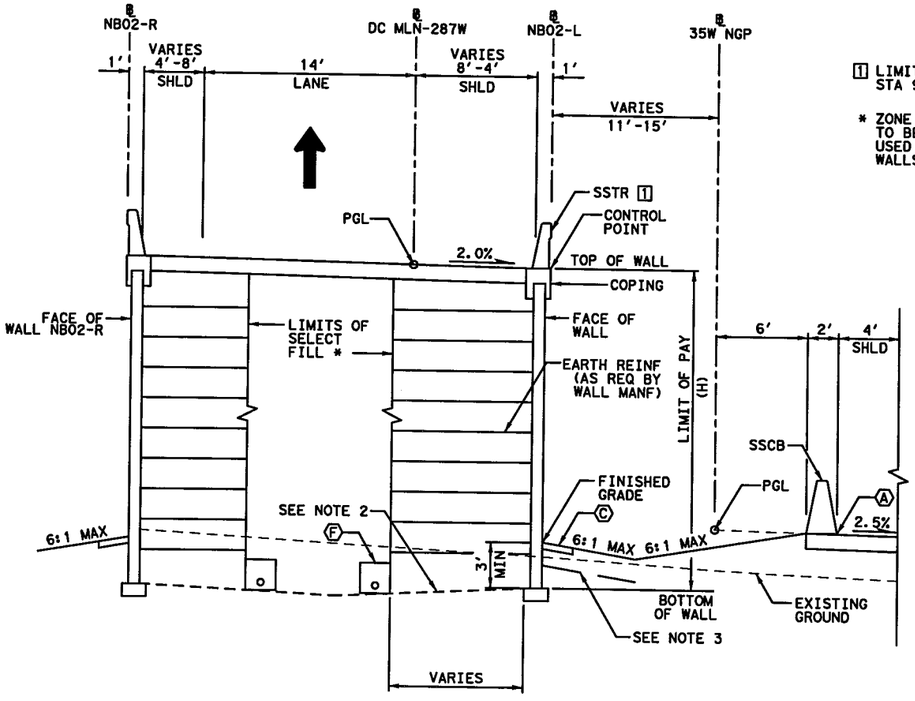
0' 5' 10'
SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
- Ⓓ RIPRAP (CONC)(FLUME)
- Ⓔ RIPRAP (CONC)(5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.



PROPOSED WALL "NB02-L" TYPICAL SECTION

℄ NB02-L 11+84.00 TO STA 15+24.00

[1] LIMITS OF RAIL
STA 9+70.00 TO STA 15+19.00

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB02-L

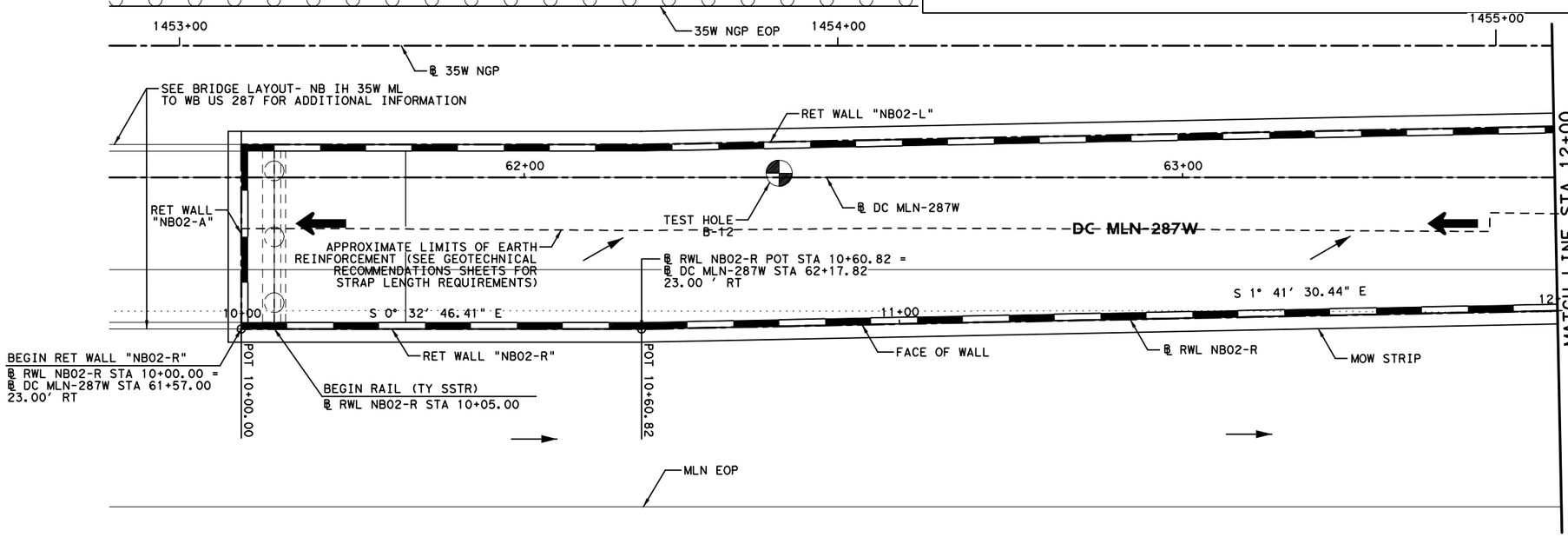
SCALE 1" = 10'

SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	944
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*TYPNB02-L*GTN.dgn
DRAWING DATE: 7/13/2012

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



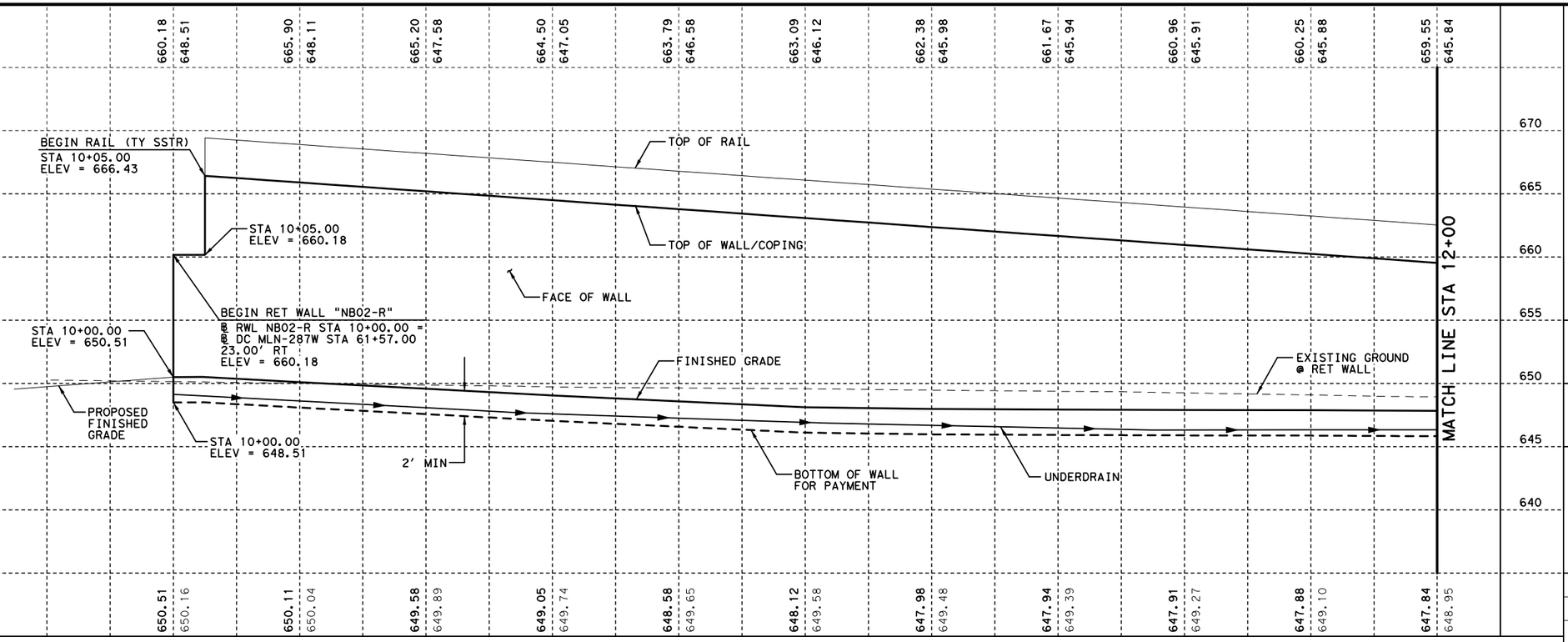
HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: S3B*NB02-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB02-R

SCALE 1"= 20′ H, 1"=10′ V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	945
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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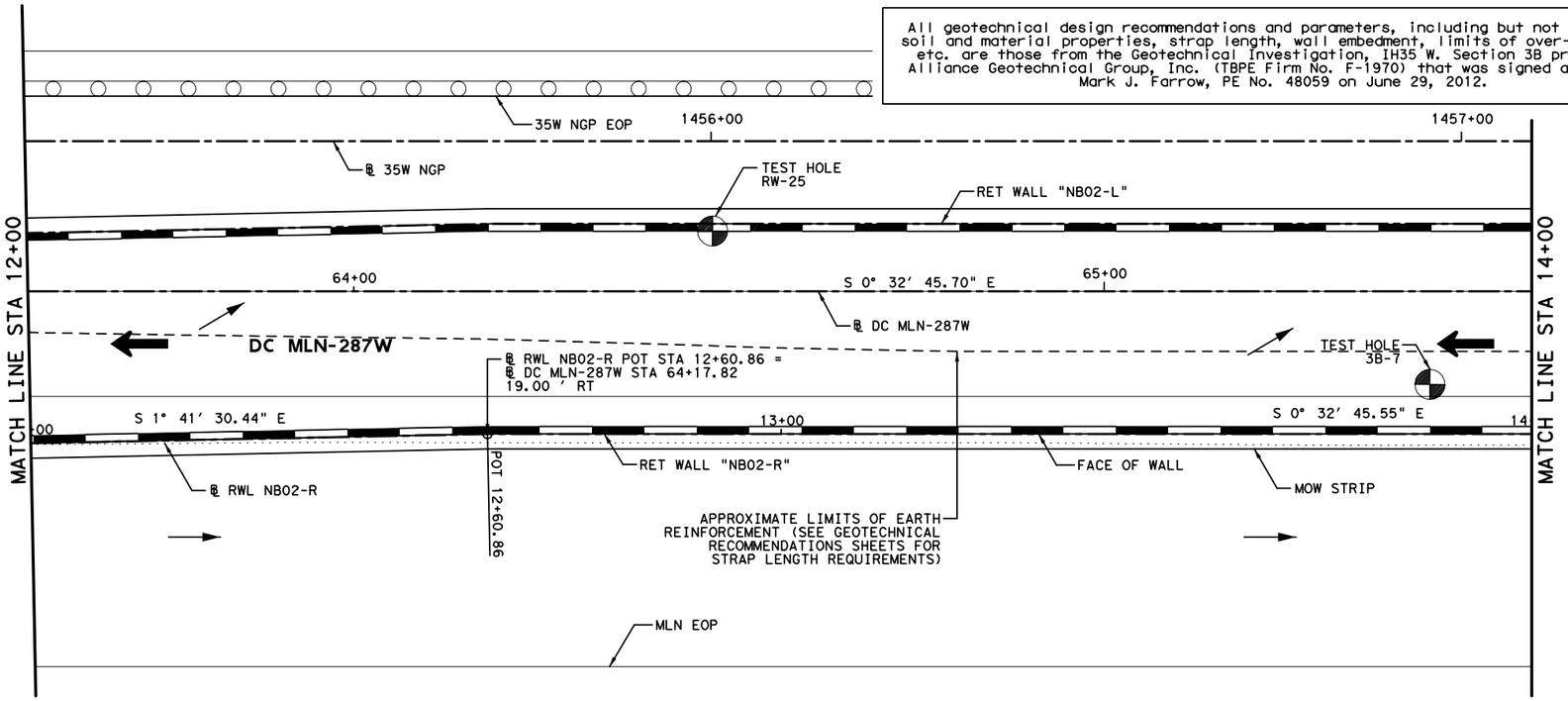

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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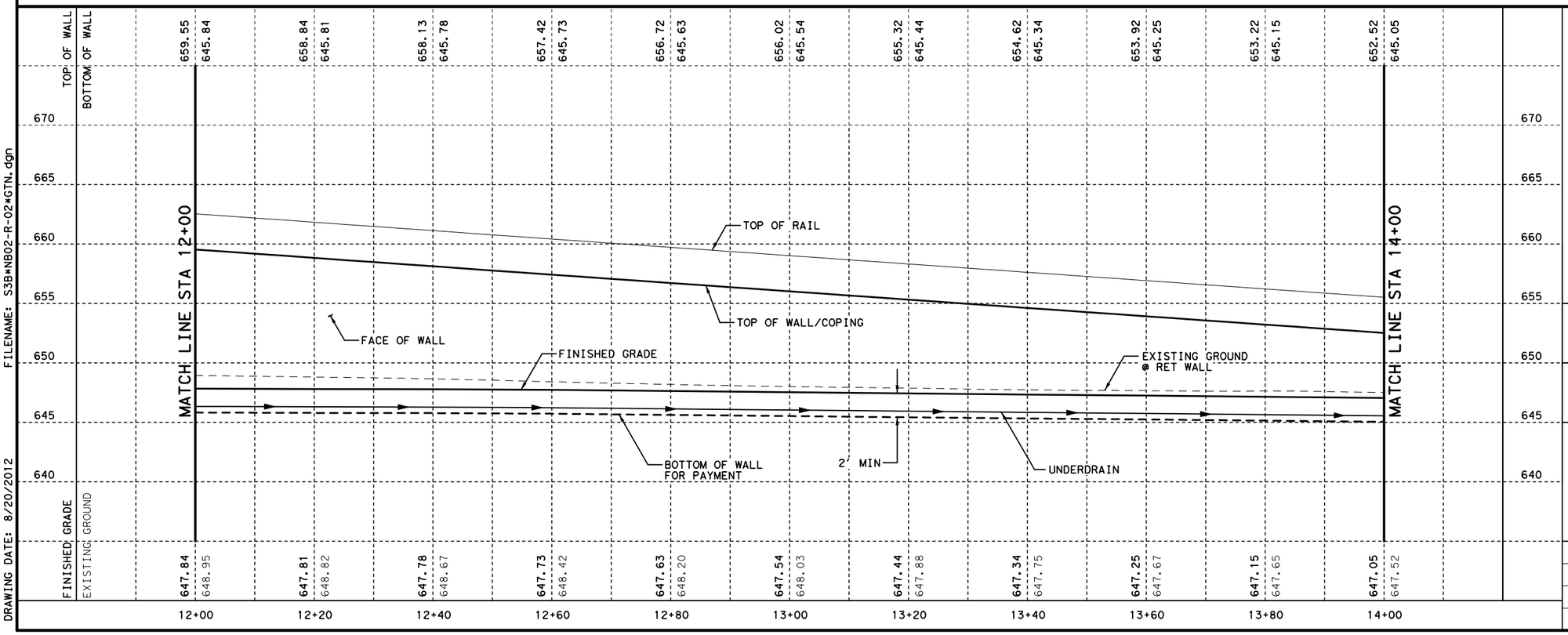

FILENAME: S3B*NB02-R-02*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
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8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB02-R

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	946
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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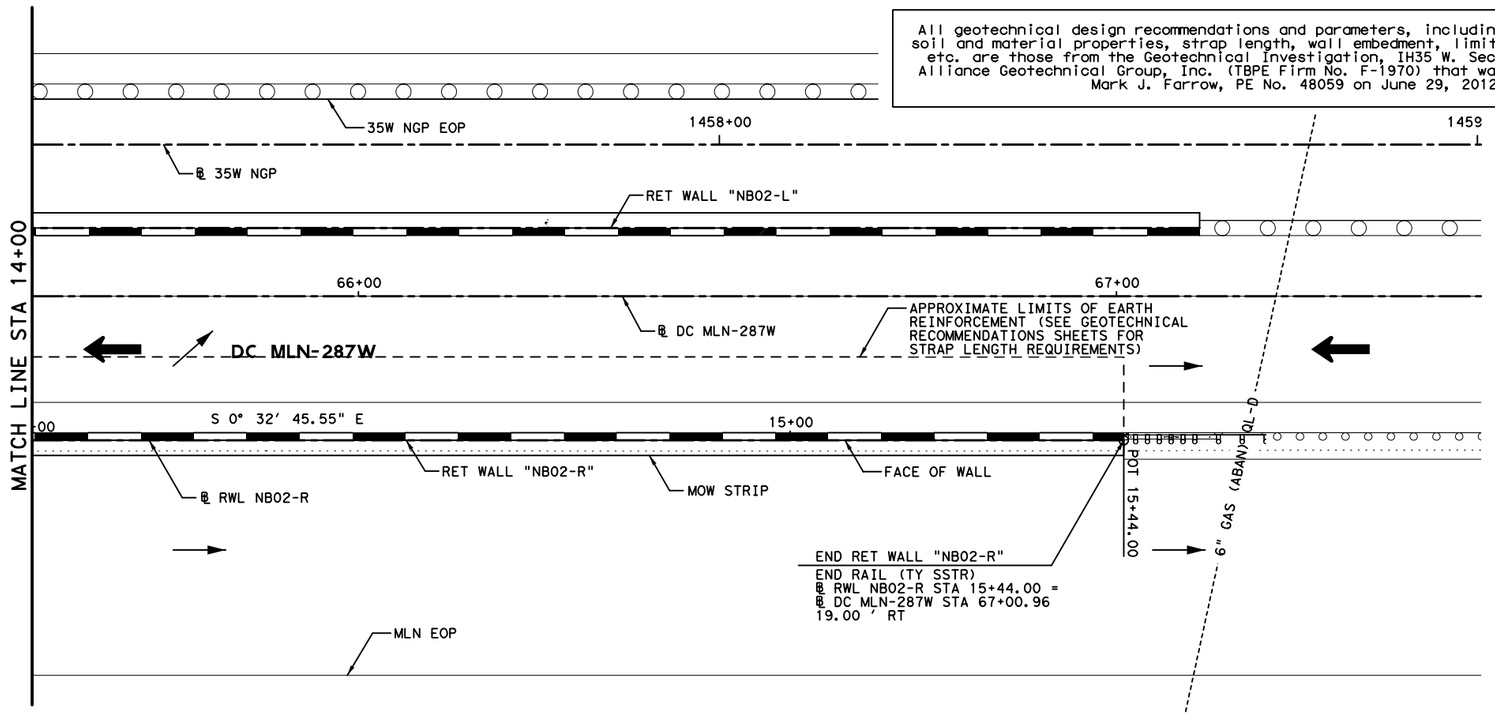

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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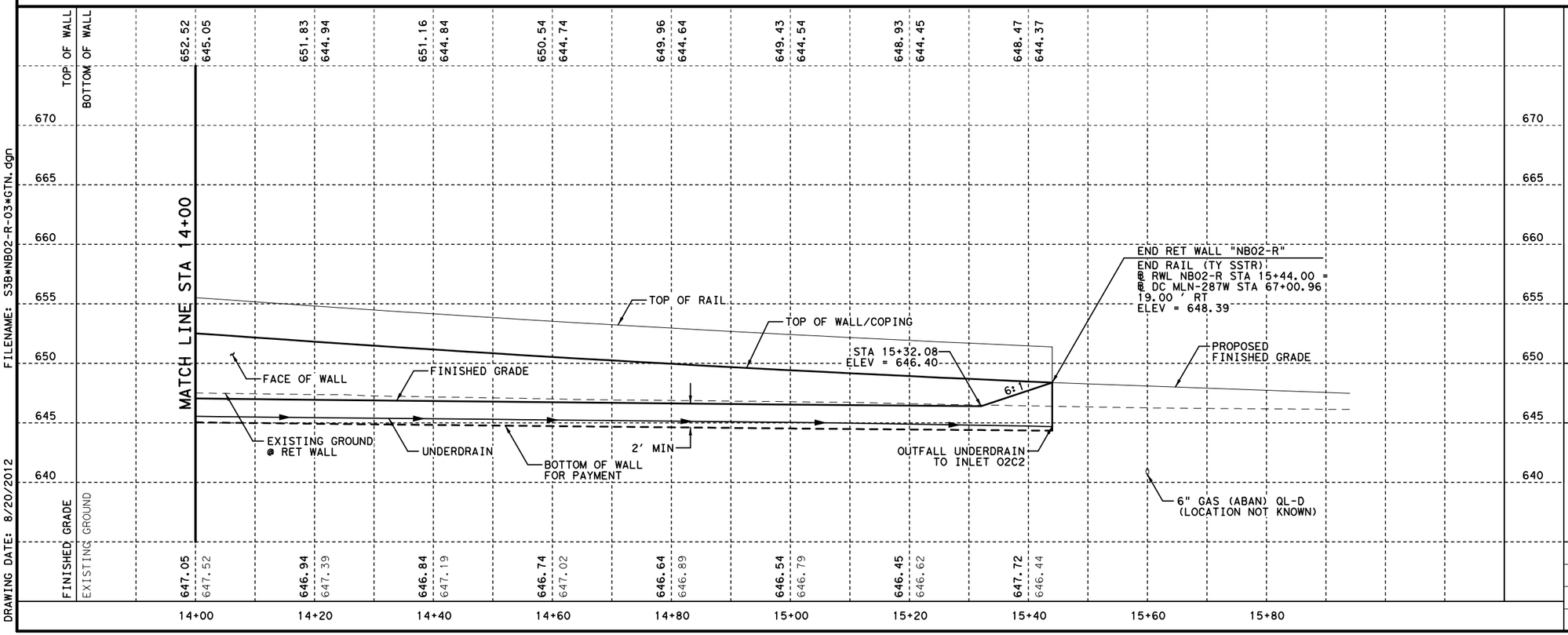

STATE OF TEXAS
DAVID W. HAWLEY
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LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB02-R

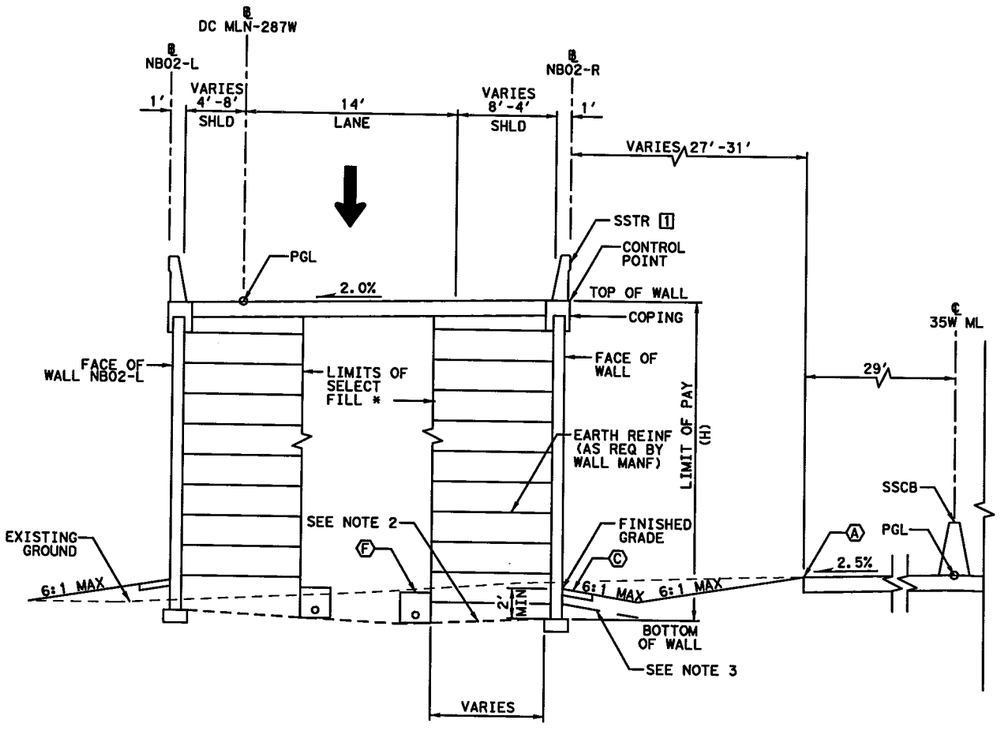
SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	947
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB02-R-03*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	6,166
RIPRAP (MOW STRIP) (5 IN)	CY	17
RAIL (SSTR)	LF	539
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	748



PROPOSED WALL "NB02-R" TYPICAL SECTION

℄ NB02-R 10+00.00 TO STA 15+44.00

[1] LIMITS OF RAIL
STA 10+05.00 TO STA 15+44.00

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB02-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	948
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB02-R*GTN.dgn

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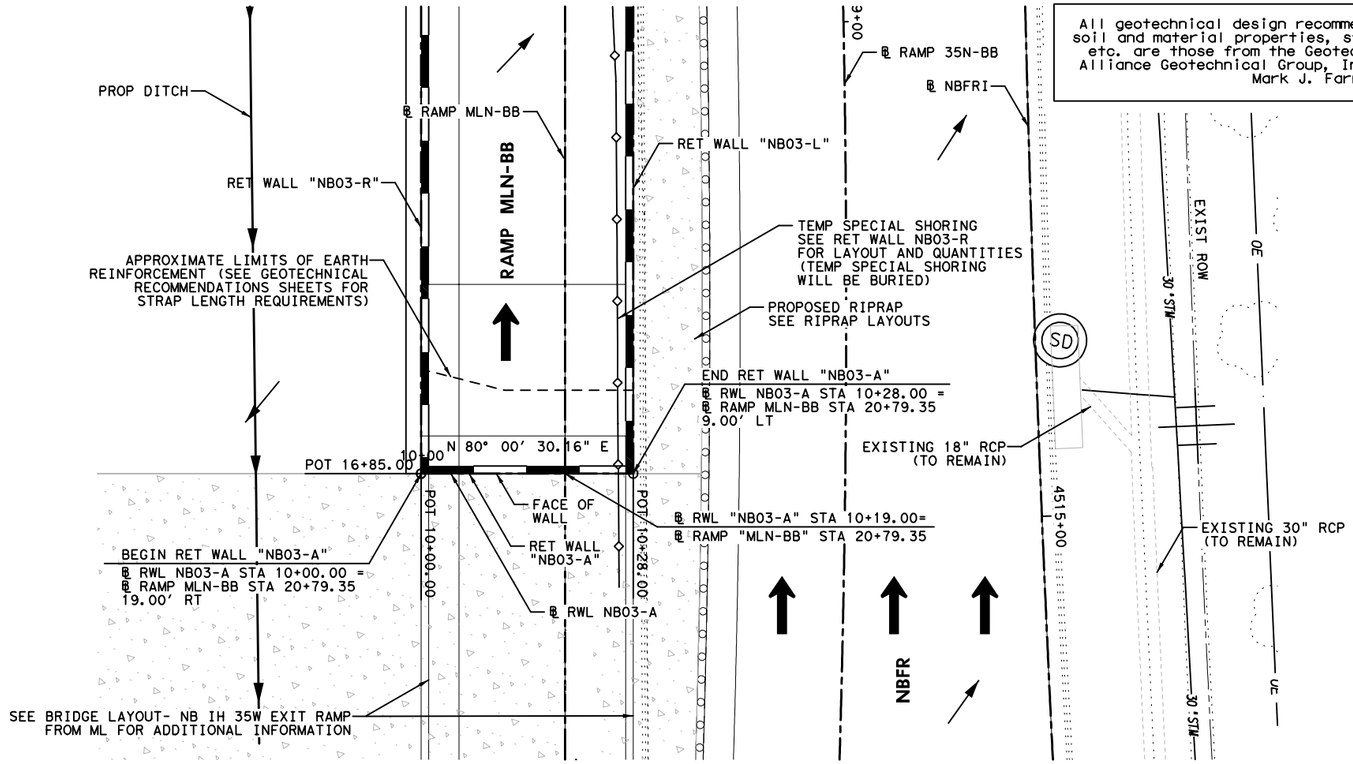

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
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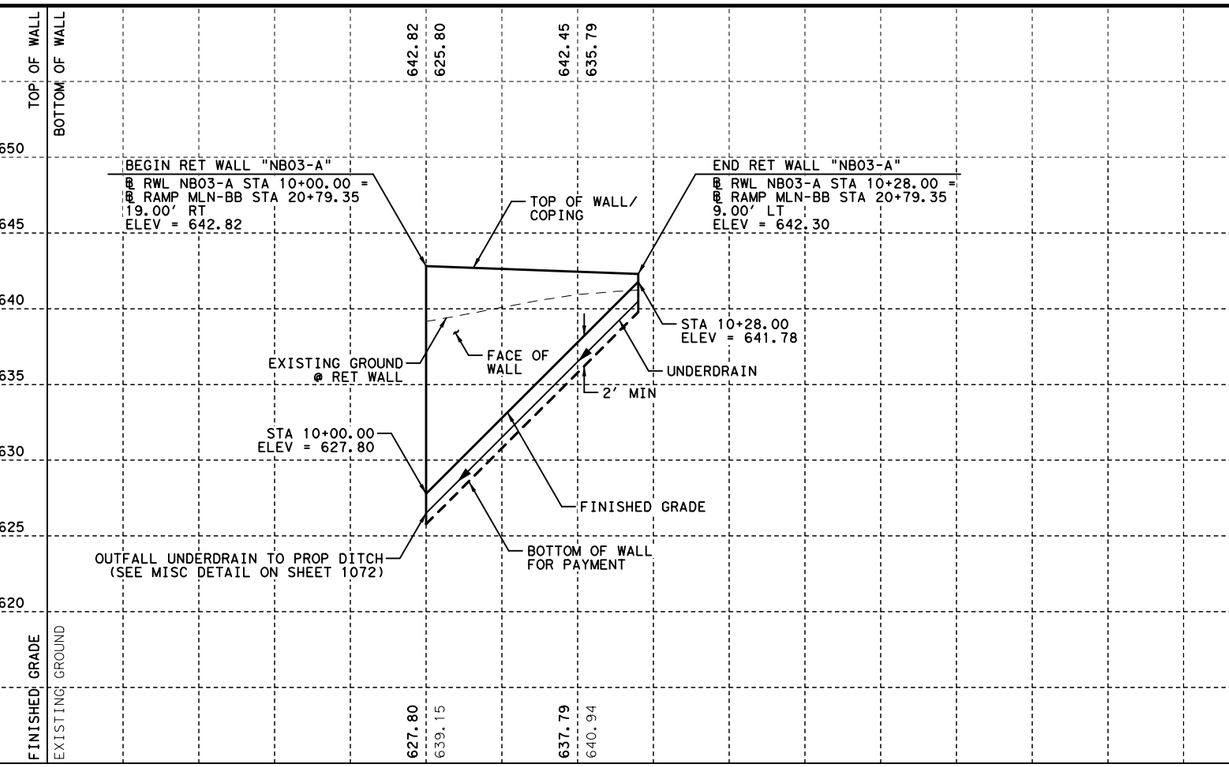

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB03-A

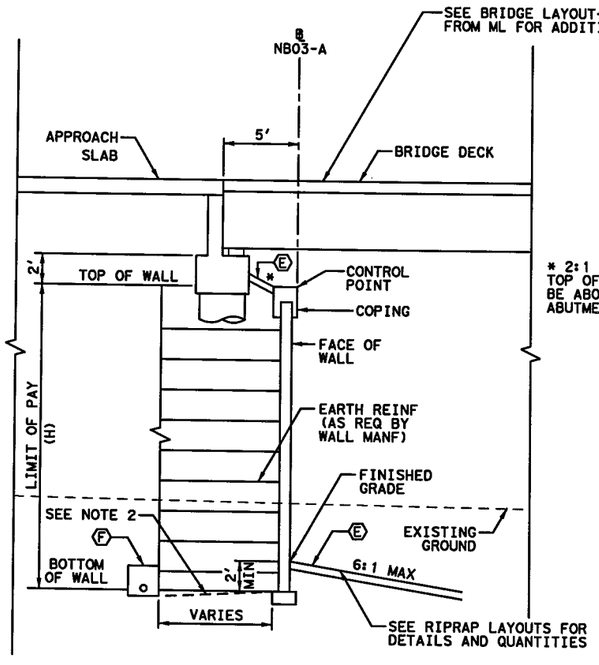
SCALE 1"= 20′ H, 1"=10′ V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	949
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*NB03-A-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	274
RIPRAP (CONC) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	32



PROPOSED WALL "NB03-A" TYPICAL SECTION

℄ NB03-A STA 10+00.00 TO STA 10+28.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER

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7/10/2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB03-A

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	950
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB03-A*GTN.dgn

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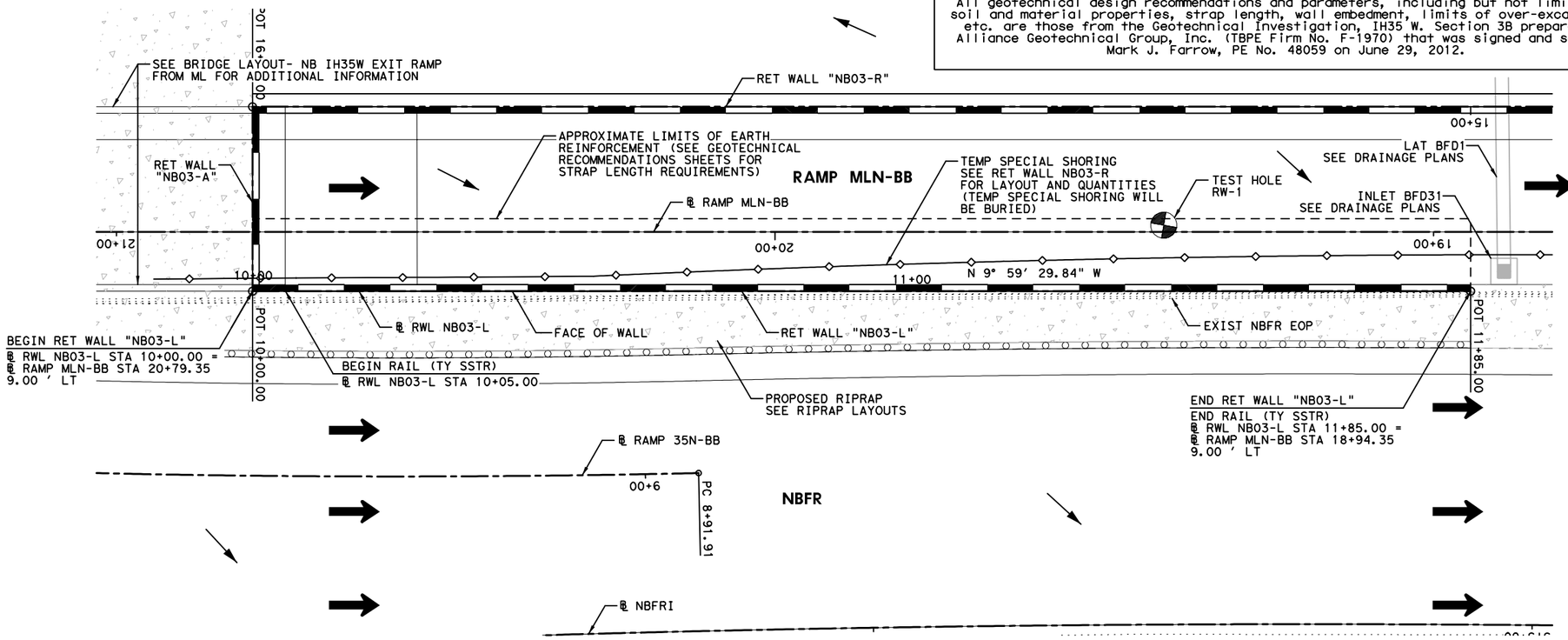

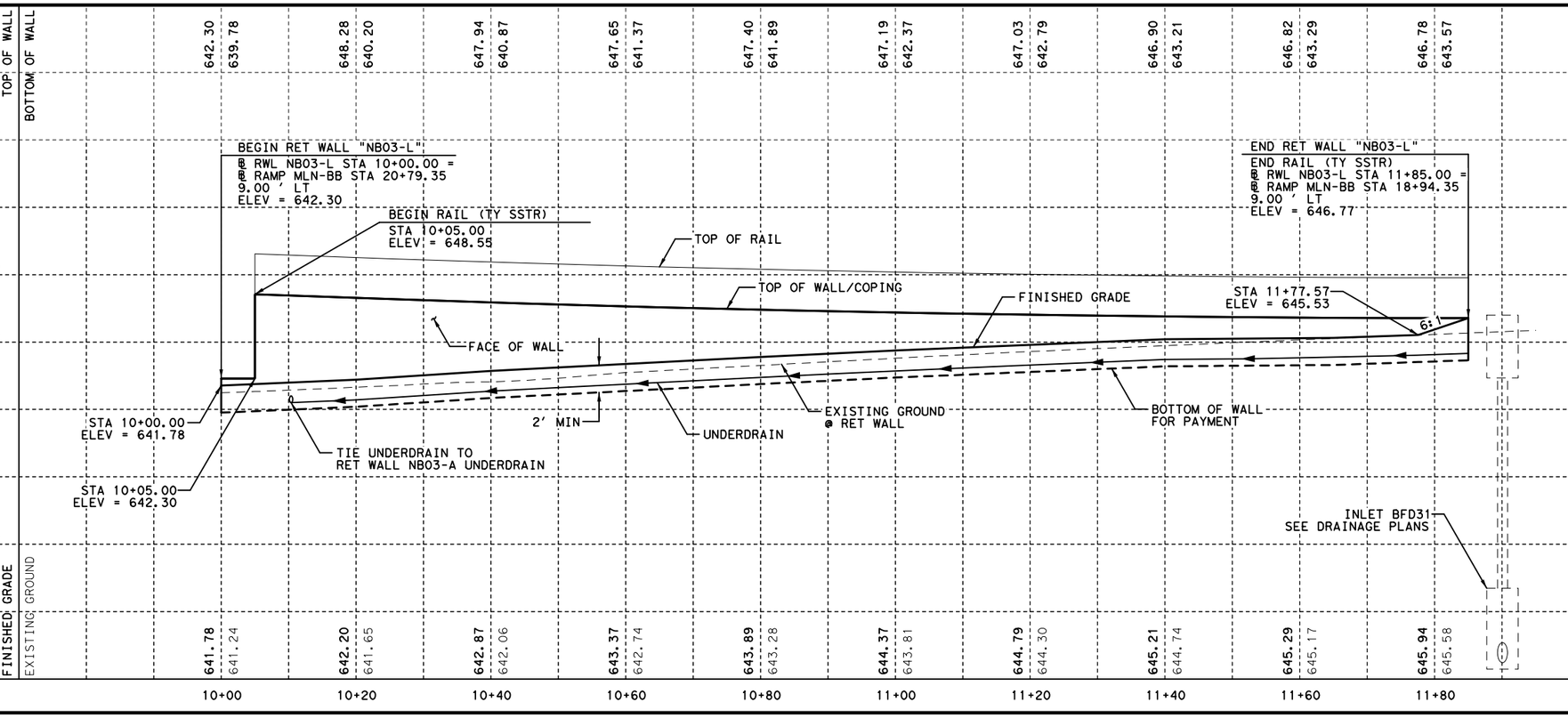

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- CURVE XX — HORIZONTAL CURVE
- Ⓒ — CONSTRUCTION JOINT
- Ⓔ — EXPANSION JOINT
- ← — DRAINAGE FLOW ARROWS
- ⬅ — TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.
8. TEMPORARY SHORING DESIGN SHALL TAKE INTO ACCOUNT ALL EXTERNAL LOADING CONDITIONS INCLUDING TEMPORARY EARTH WALL, TRAFFIC SURCHARGE, ETC.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

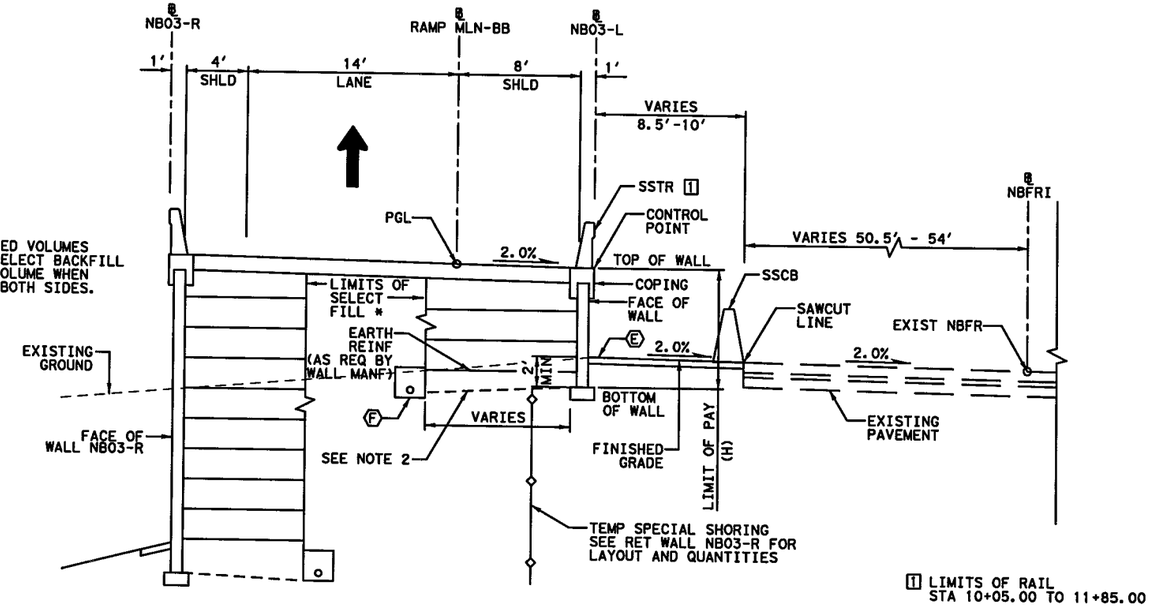
RETAINING WALLS
PLAN AND PROFILE
NB03-L

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	951
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB03-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES		
DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	969
RAIL (SSTR)	LF	180
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	175



* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

[1] LIMITS OF RAIL STA 10+05.00 TO 11+85.00

PROPOSED WALL "NB03-L" TYPICAL SECTION

℄ NB03-L STA 10+00.00 TO STA 11+85.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
- Ⓓ RIPRAP (CONC)(FLUME)
- Ⓔ RIPRAP (CONC)(5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB03-L

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	952
KCI	0014	16	255, ETC.	
CHECK				

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB03-L*GTN.dgn

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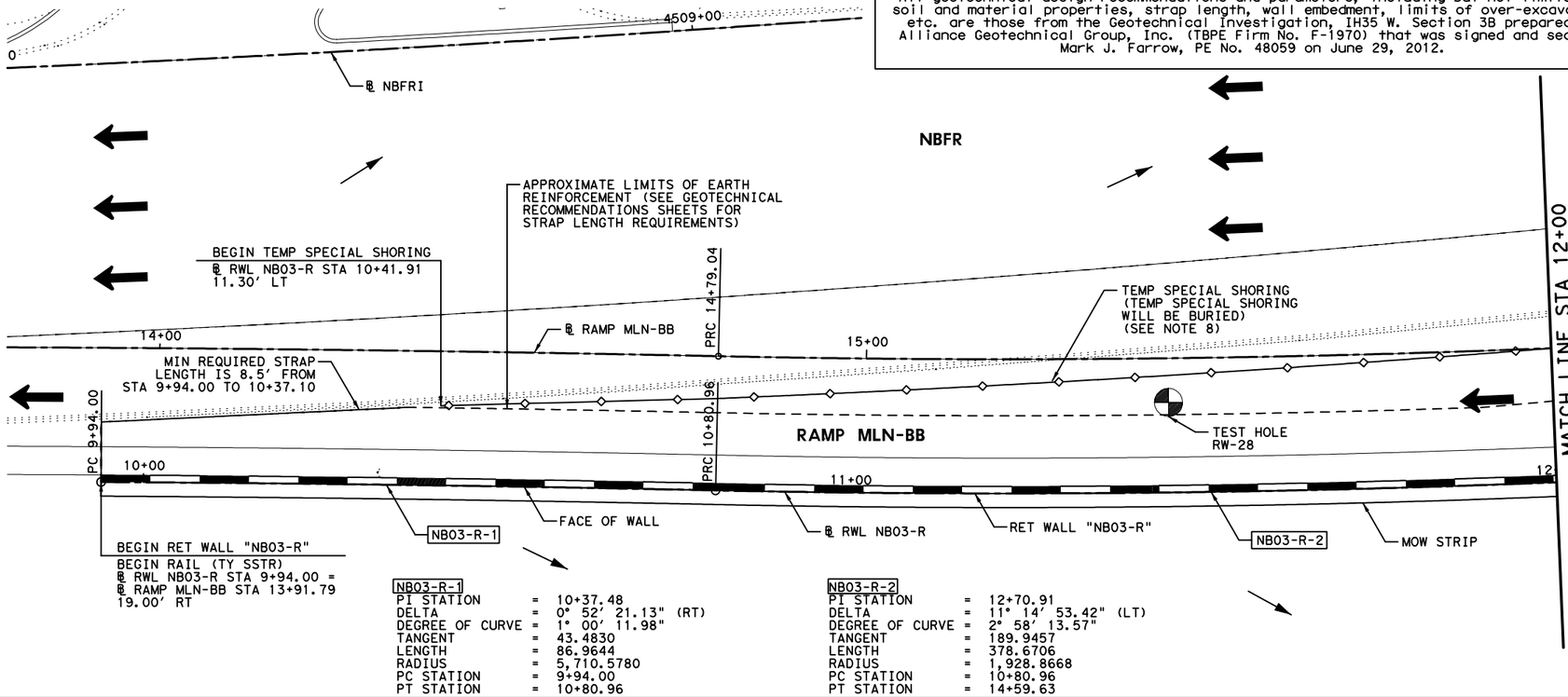

NB03-R-1		
PI STATION	=	10+37.48
DELTA	=	0° 52' 21.13" (RT)
DEGREE OF CURVE	=	1° 00' 11.98"
TANGENT	=	43.4830
LENGTH	=	86.9644
RADIUS	=	5,710.5780
PC STATION	=	9+94.00
PT STATION	=	10+80.96

NB03-R-2		
PI STATION	=	12+70.91
DELTA	=	11° 14' 53.42" (LT)
DEGREE OF CURVE	=	2° 58' 13.57"
TANGENT	=	189.9457
LENGTH	=	378.6706
RADIUS	=	1,928.8668
PC STATION	=	10+80.96
PT STATION	=	14+59.63

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
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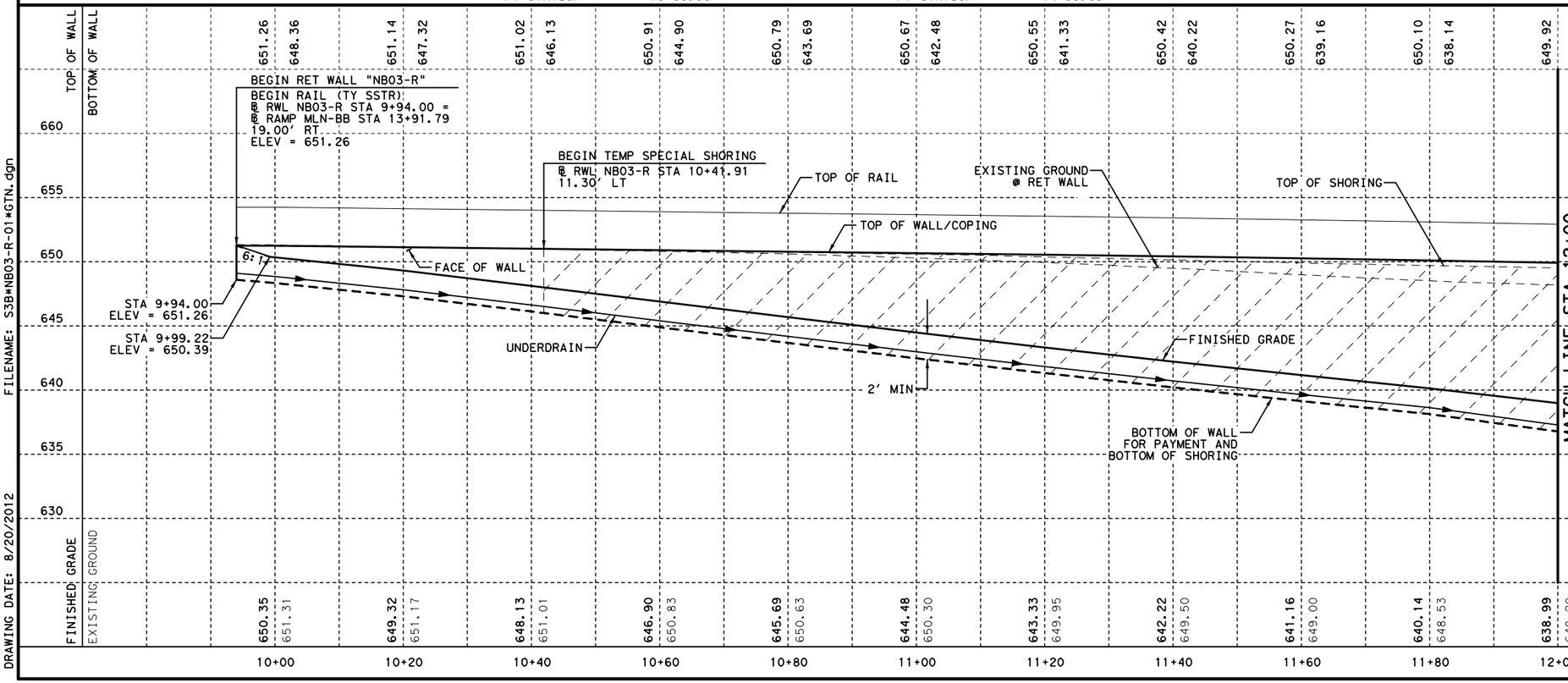

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB03-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	953
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB03-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

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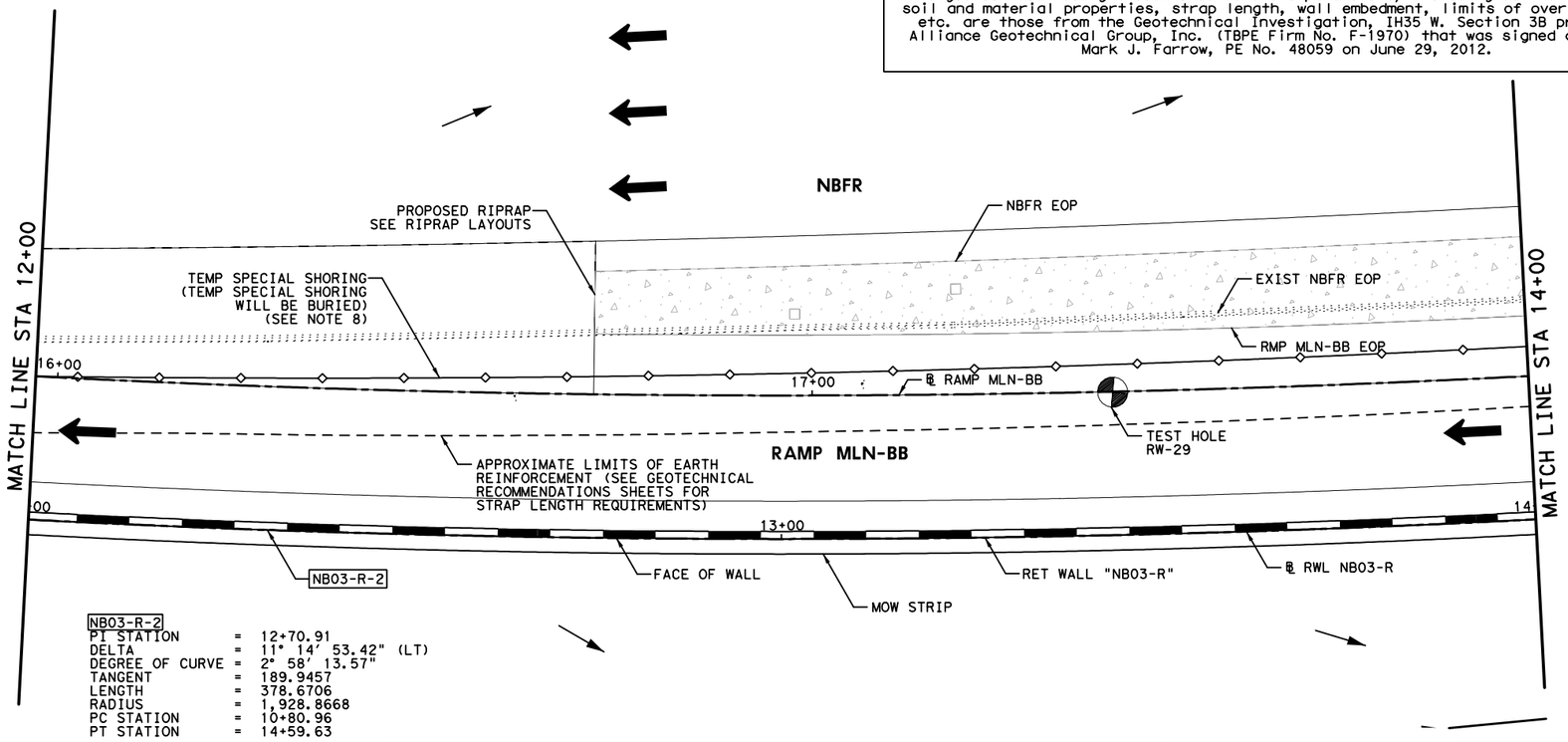

NB03-R-2
PI STATION = 12+70.91
DELTA = 11° 14' 53.42" (LT)
DEGREE OF CURVE = 2° 58' 13.57"
TANGENT = 189.9457
LENGTH = 378.6706
RADIUS = 1,928.8668
PC STATION = 10+80.96
PT STATION = 14+59.63

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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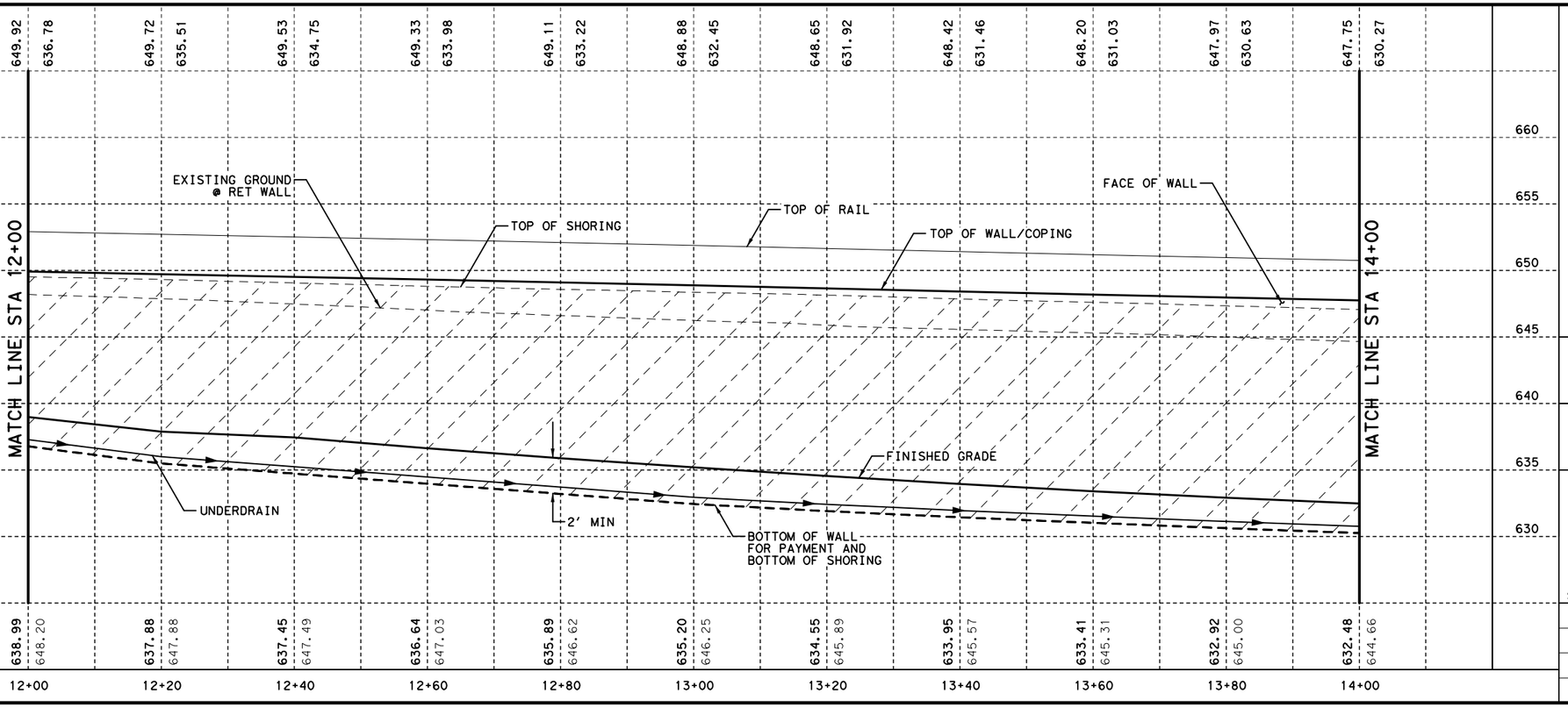

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB03-R

SCALE 1"= 20' H, 1"=10' V — SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	954
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3B*NB03-R-02*GTN.dgn
DRAWING DATE: 8/20/2012

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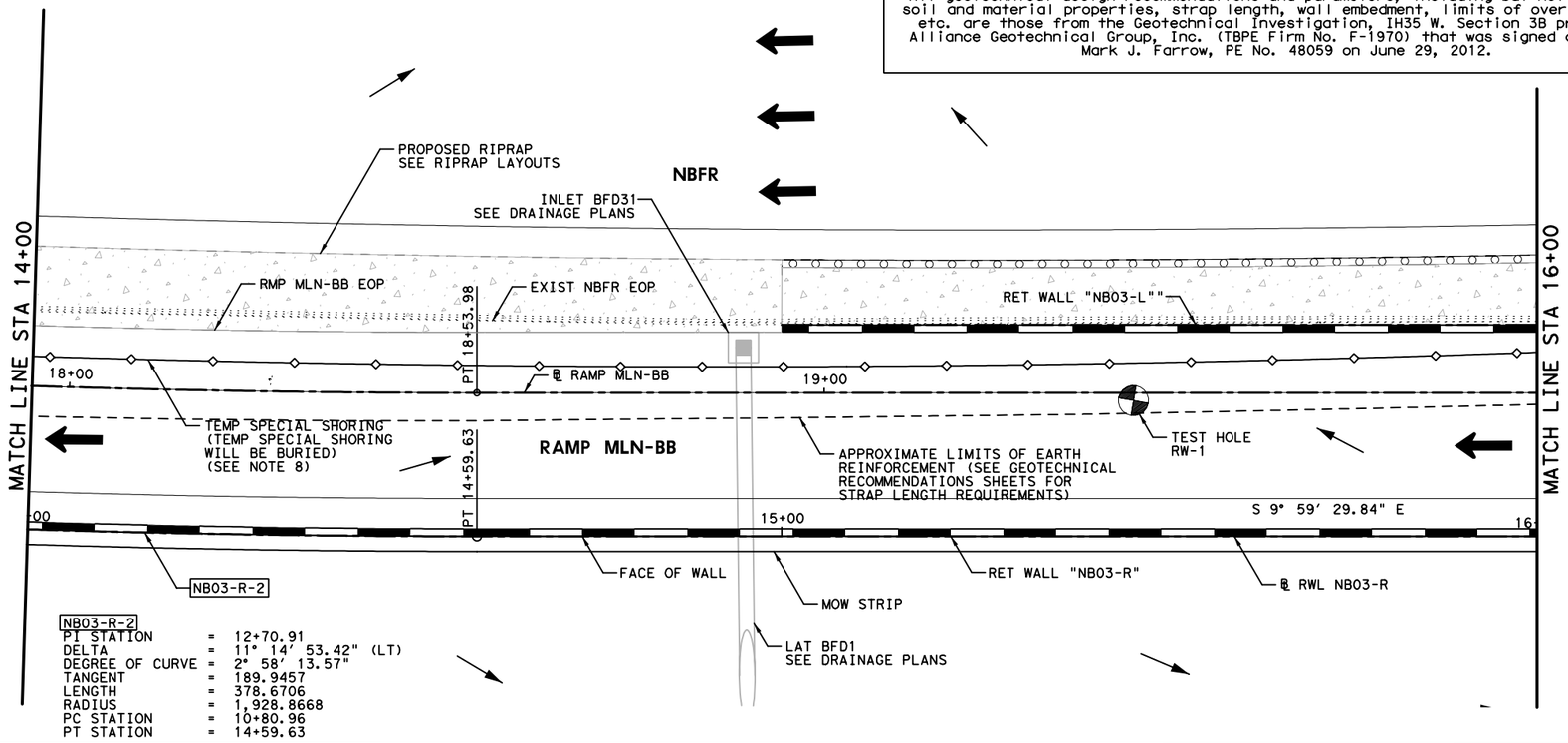

NB03-R-2
PI STATION = 12+70.91
DELTA = 11° 14' 53.42" (LT)
DEGREE OF CURVE = 2° 58' 13.57"
TANGENT = 189.9457
LENGTH = 378.6706
RADIUS = 1,928.8668
PC STATION = 10+80.96
PT STATION = 14+59.63

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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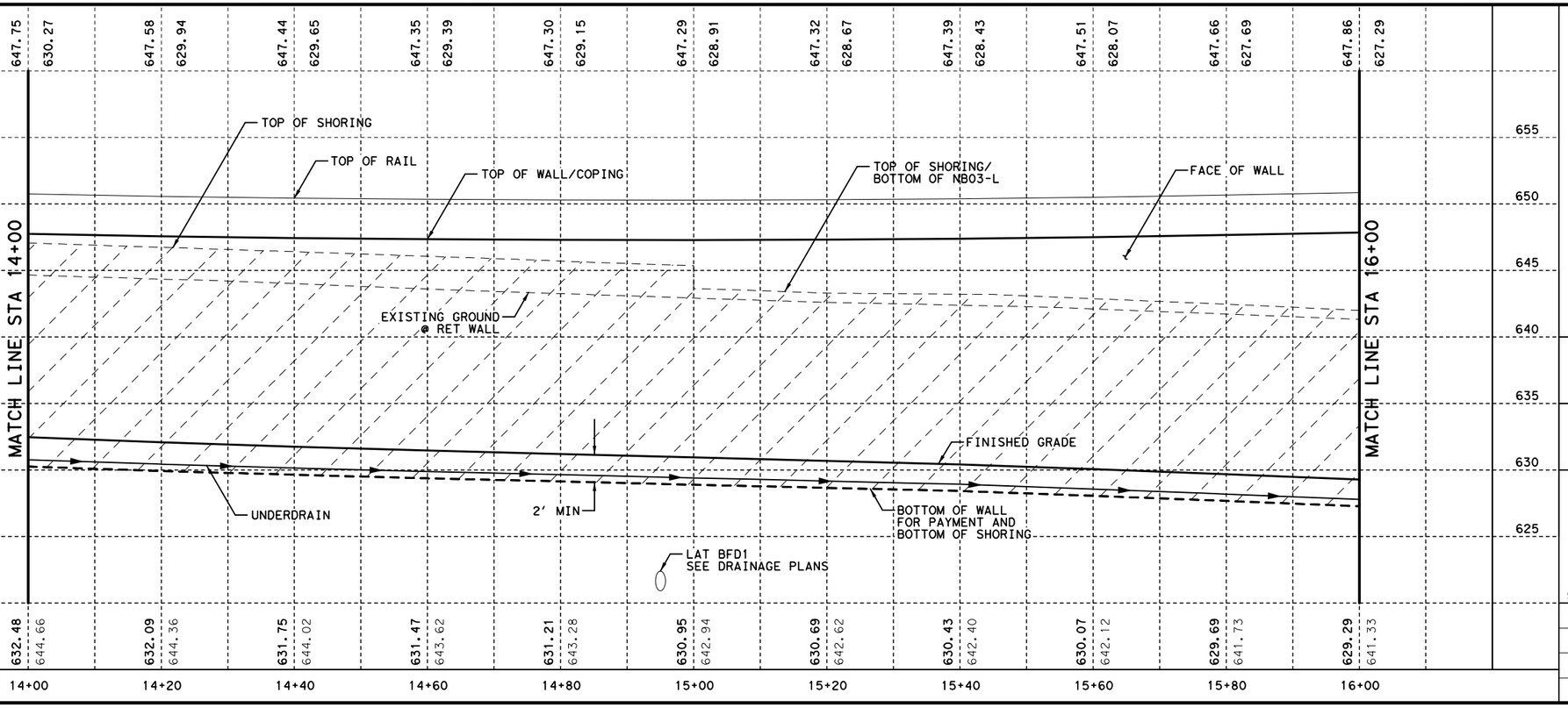

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB03-R

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	955
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB03-R-03*GTN.dgn
DRAWING DATE: 8/20/2012

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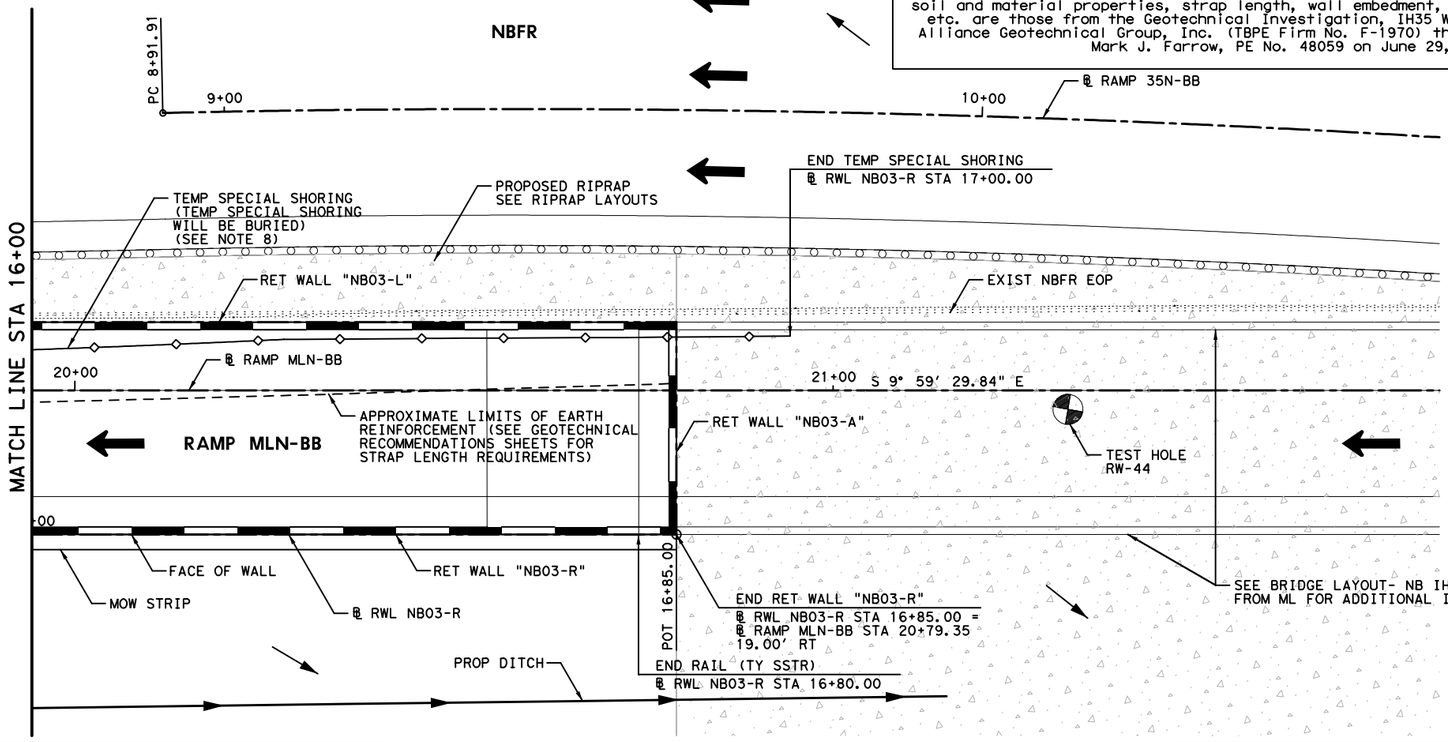

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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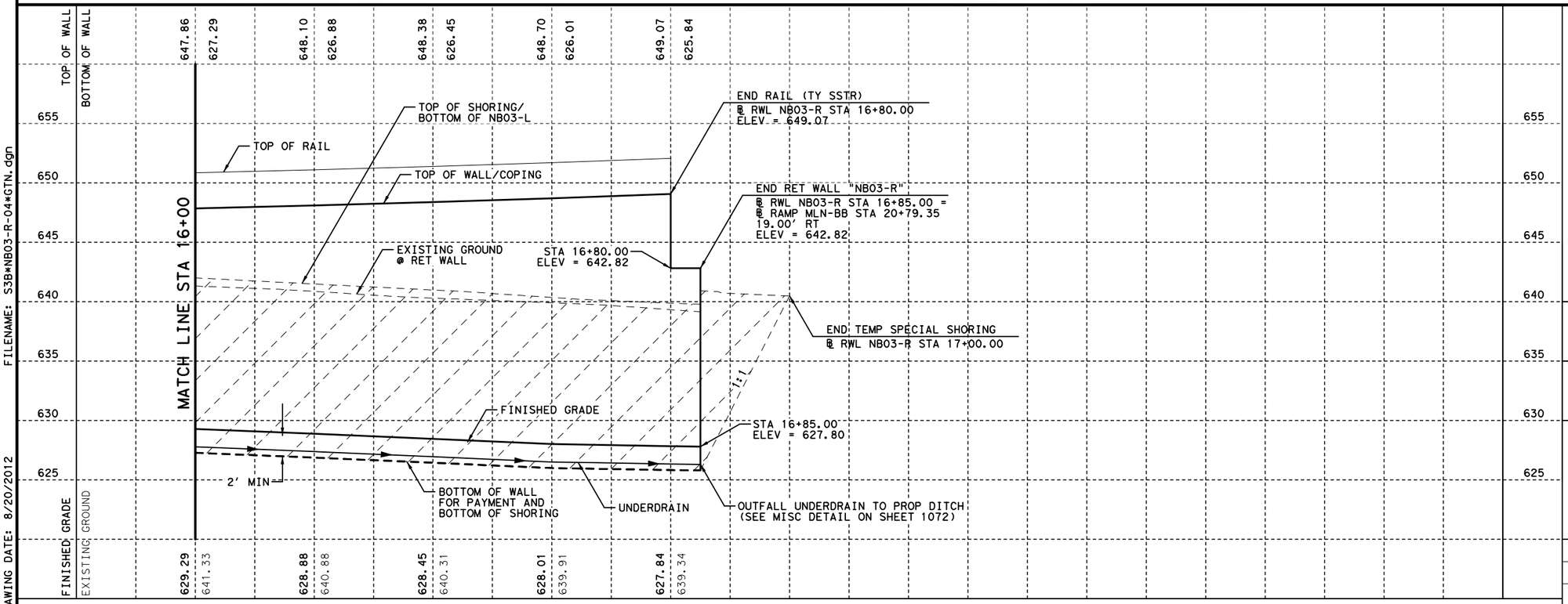

FILENAME: S3B*NB03-R-04*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
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TBPE REGISTRATION NO. F-926

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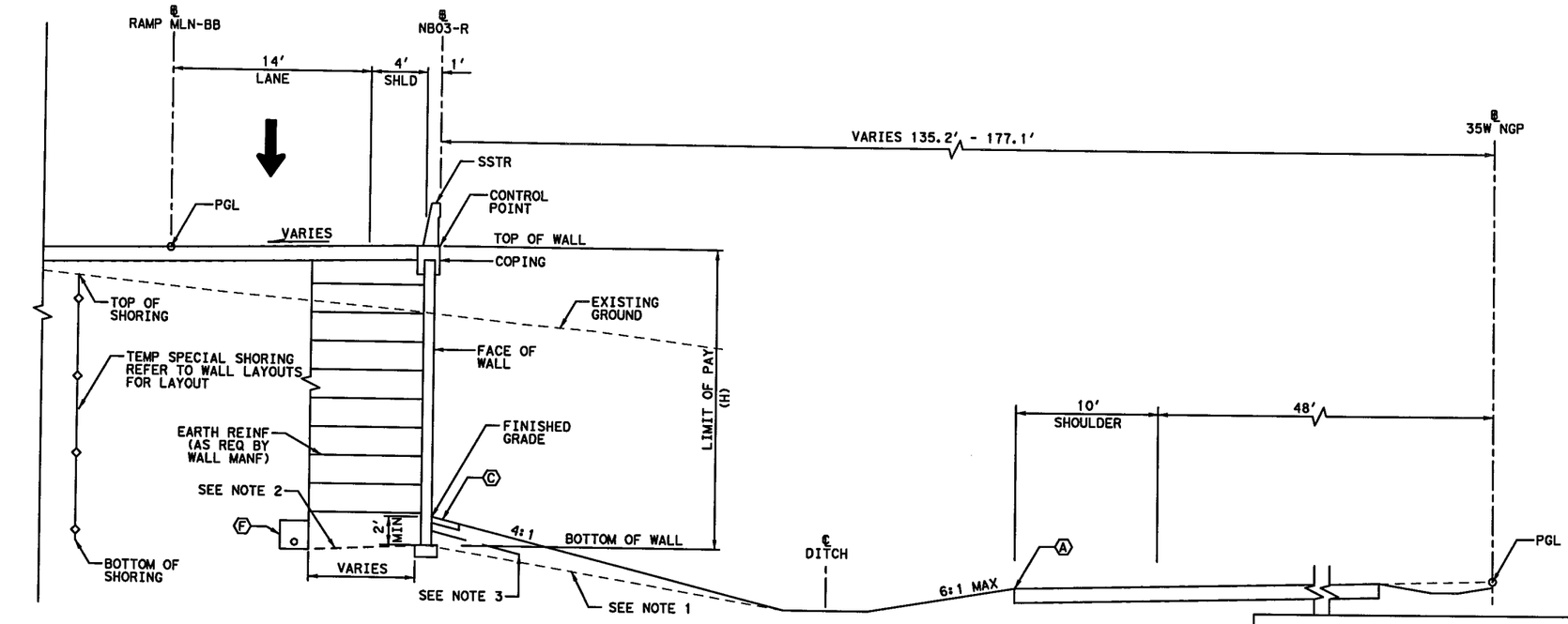
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB03-R

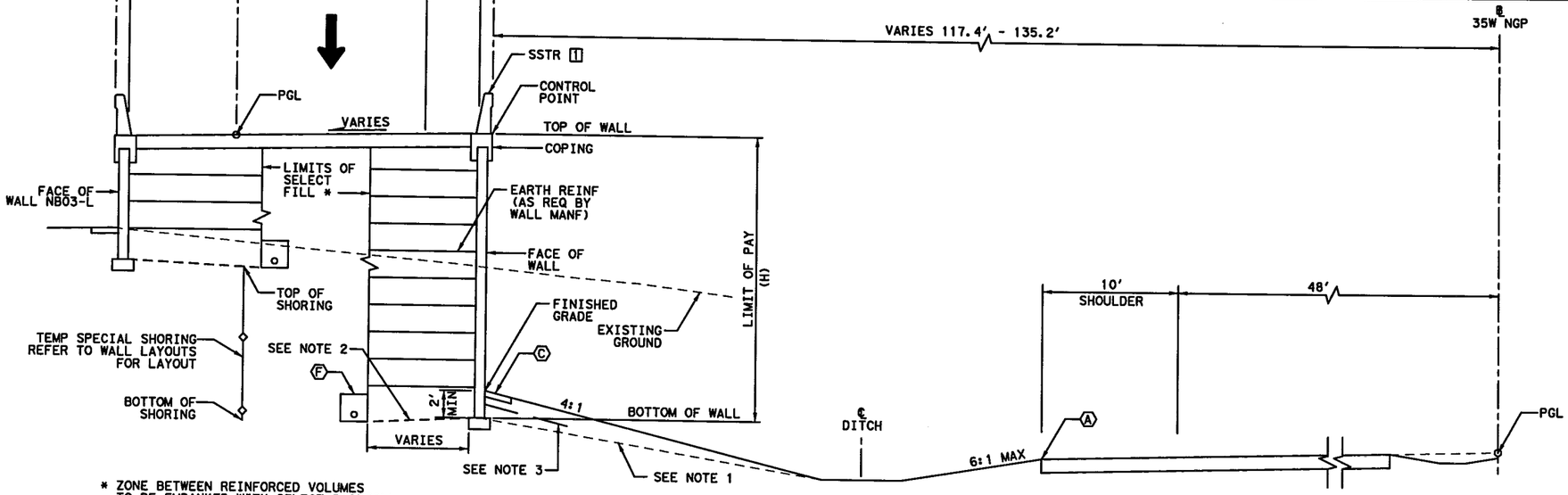
SCALE 1"= 20' H, 1"=10' V — SHEET 4 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	956
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



PROPOSED WALL "NB03-R" TYPICAL SECTION

℄ NB03-R STA 9+94.00 TO STA 15+00.00



* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

PROPOSED WALL "NB03-R" TYPICAL SECTION

℄ NB03-R STA 15+00.00 TO STA 16+85.00

[1] LIMITS OF RAIL
STA 15+00.00 TO 16+80.00

0' 5' 10'
SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	10,391
RIPRAP (MOW STRIP) (5 IN)	CY	22
RAIL (SSTR)	LF	691
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	692
TEMP SPECIAL SHORING	SF	9,166

STATE OF TEXAS
DAVID W. HANLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
TYPICAL SECTIONS
NB03-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	957
KCI	0014	16	255, ETC.	

FILENAME: S3B*TYPNB03-R*GTN.dgn
DRAWING DATE: 7/13/2012

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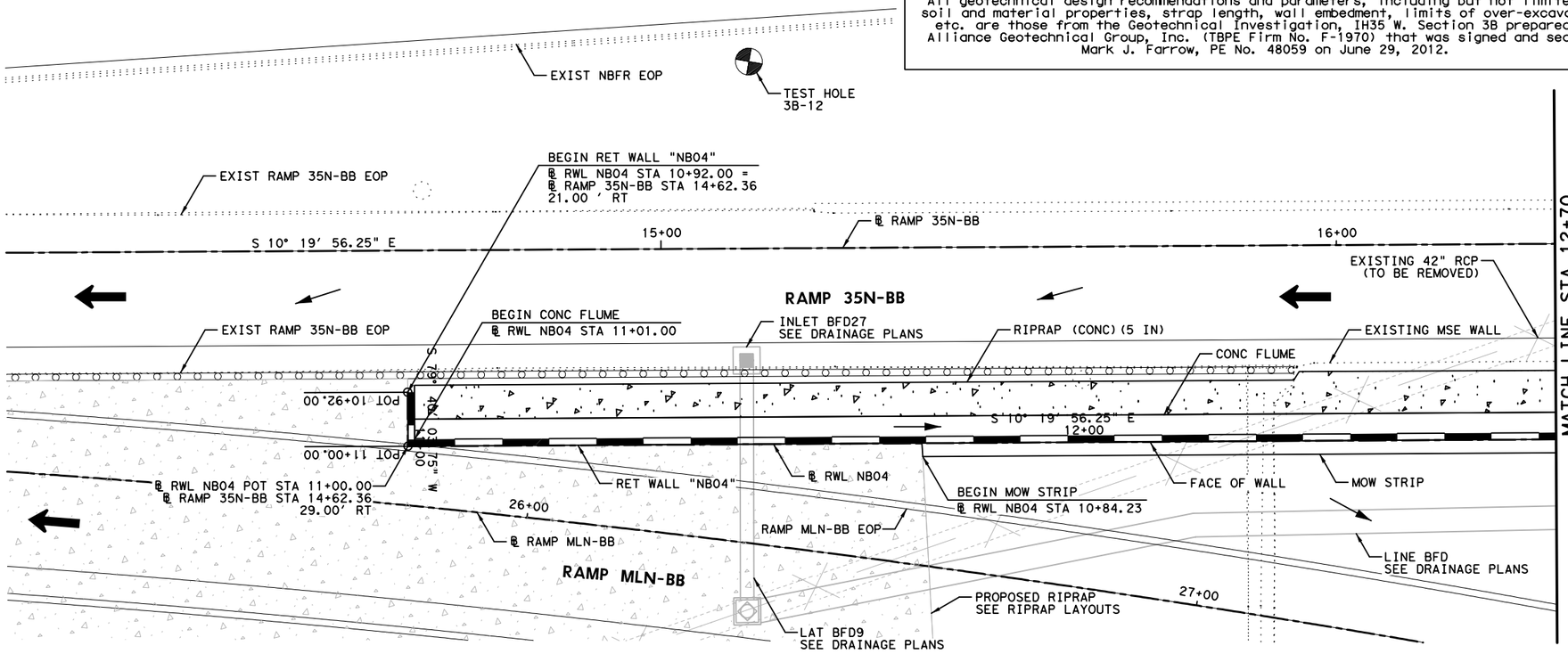


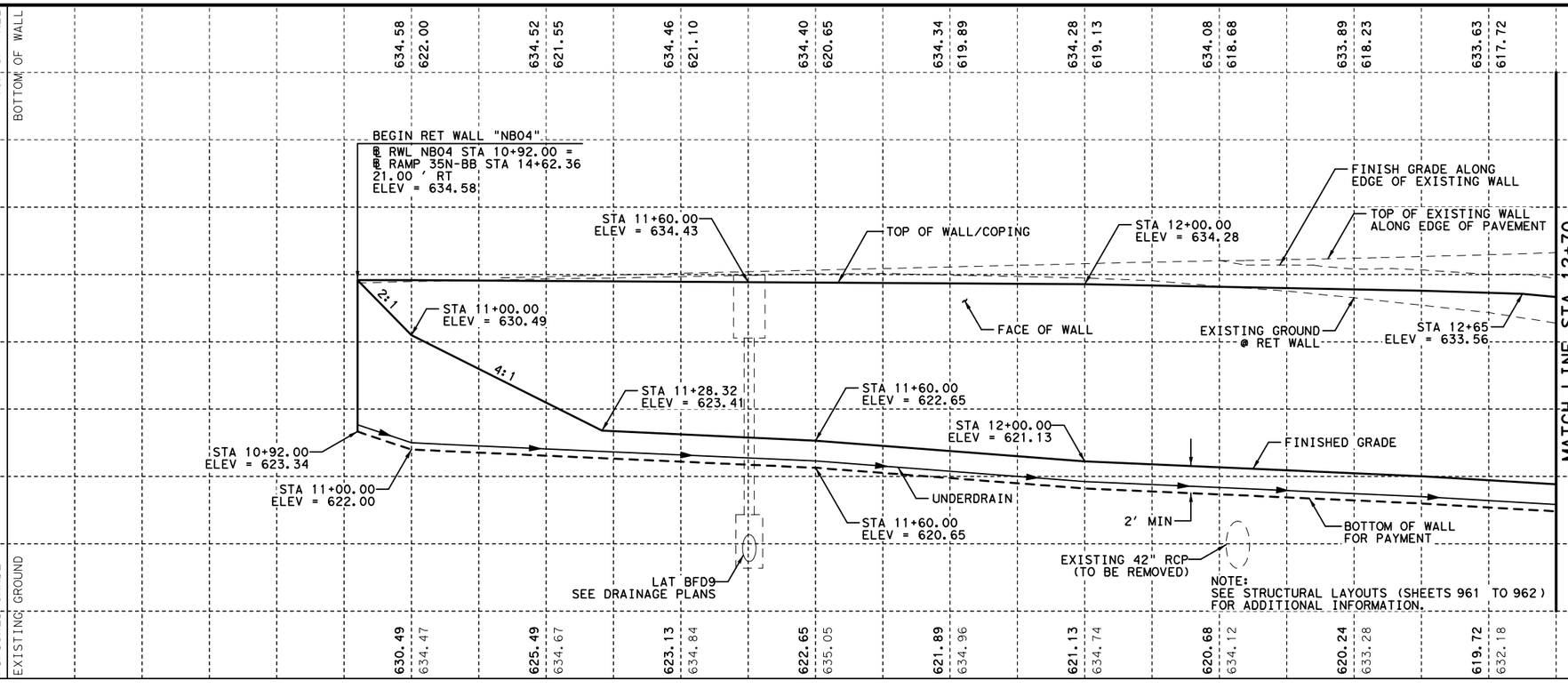
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

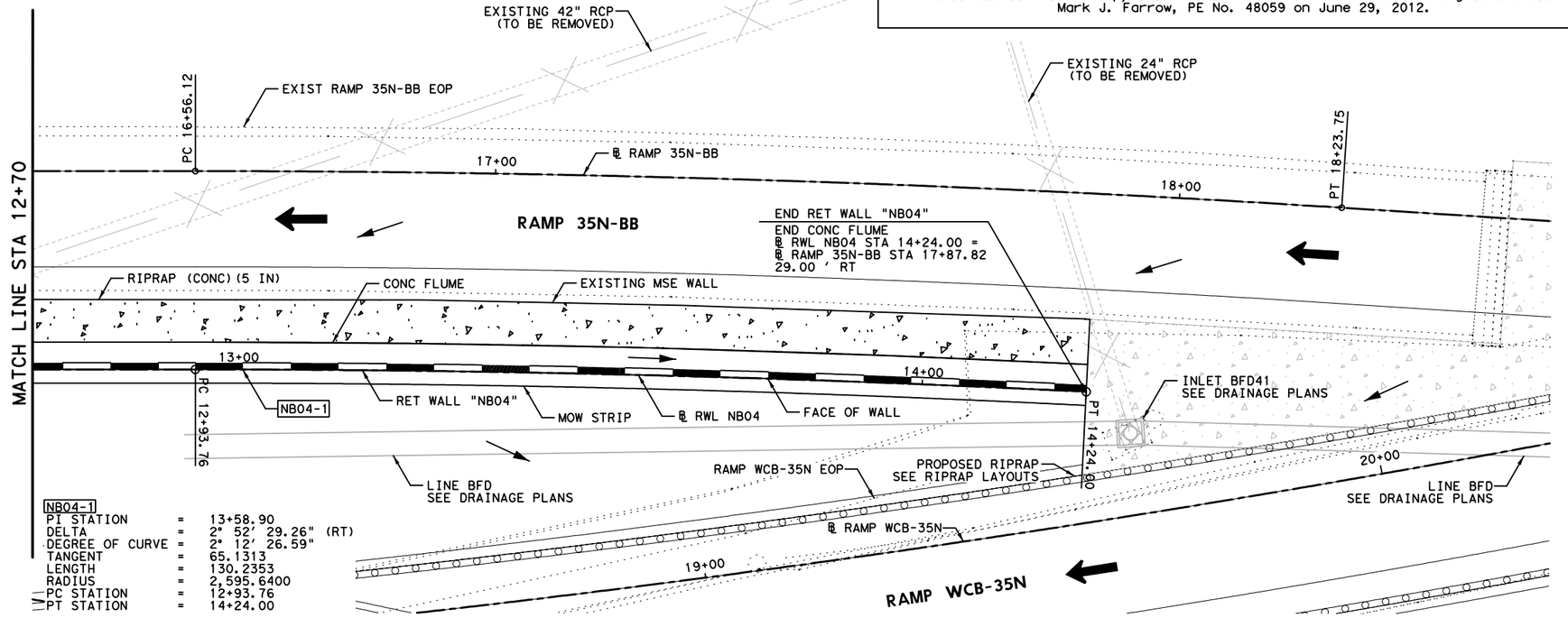
RETAINING WALLS
PLAN AND PROFILE
NB04

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	958
	0014	16	255, ETC.	

FILENAME: S3B*NB04-01*GTN.dgn
DRAWING DATE: 8/20/2012

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



NB04-1

PI STATION	=	13+58.90
DELTA	=	2° 52' 29.26" (RT)
DEGREE OF CURVE	=	2° 12' 26.59"
TANGENT	=	65.1313
LENGTH	=	130.2353
RADIUS	=	2,595.6400
PC STATION	=	12+93.76
PT STATION	=	14+24.00

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
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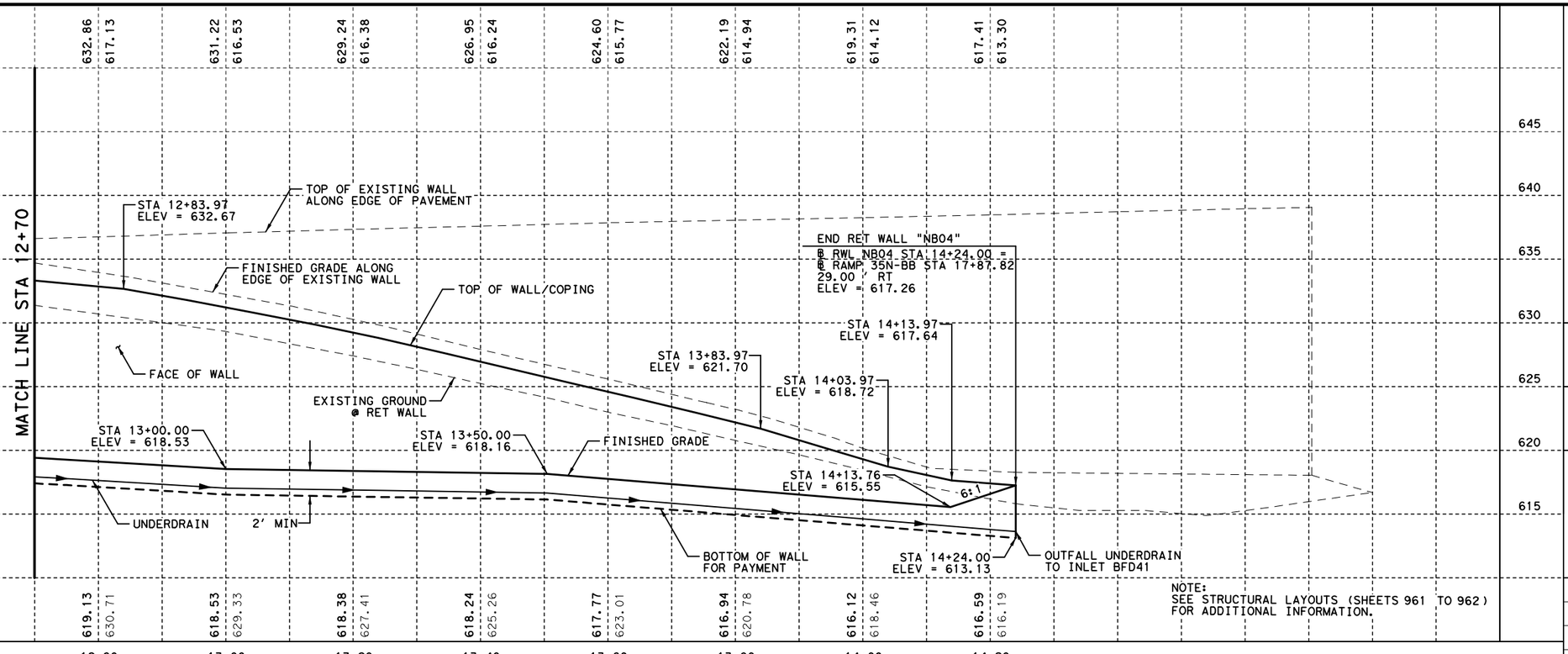

NOTE:
SEE STRUCTURAL LAYOUTS (SHEETS 961 TO 962) FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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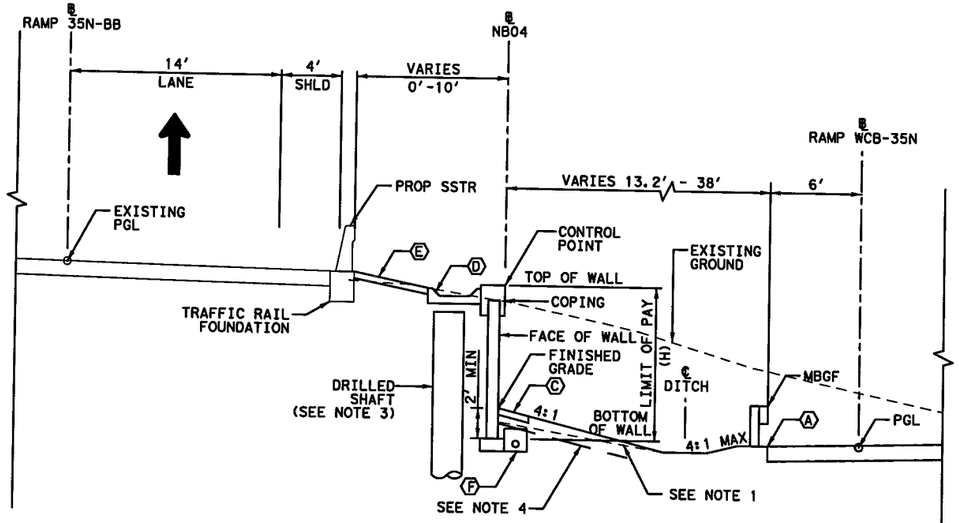
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB04

SCALE 1"= 20' H, 1"=10' V — SHEET 2 OF 2

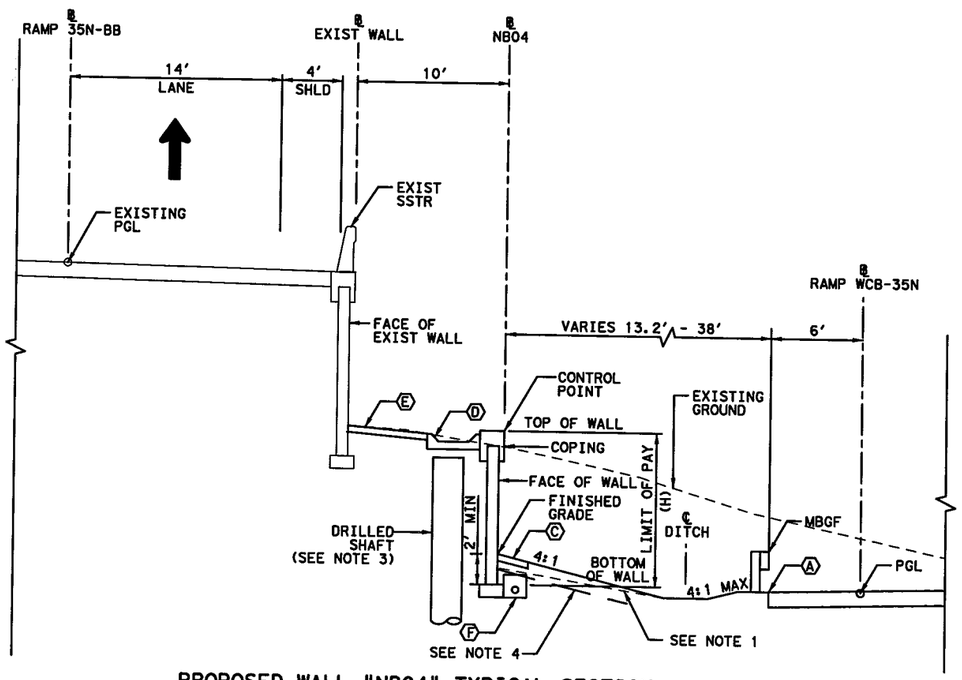
DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	959
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3B*NB04-02*GTN.dgn
DRAWING DATE: 8/20/2012



PROPOSED WALL "NB04" TYPICAL SECTION

℄ NB04 STA 10+92.00 TO STA 12+31.23



PROPOSED WALL "NB04" TYPICAL SECTION

℄ NB04 STA 12+31.23 TO STA 14+24.00

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (DRILL SHAFT) (FACIA)	SF	4,116
RIPRAP (CONC) (5 IN)	CY	29
RIPRAP (MOW STRIP) (5 IN)	CY	8
RIPRAP (CONC) (FLUME)	CY	56
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	343
DRILL SHAFT (30 IN)	LF	*
DRILL SHAFT (36 IN)	LF	*

* REFER TO STRUCTURAL RETAINING WALL SHEETS FOR ADDITIONAL QUANTITIES.

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. REFER TO STRUCTURAL LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
4. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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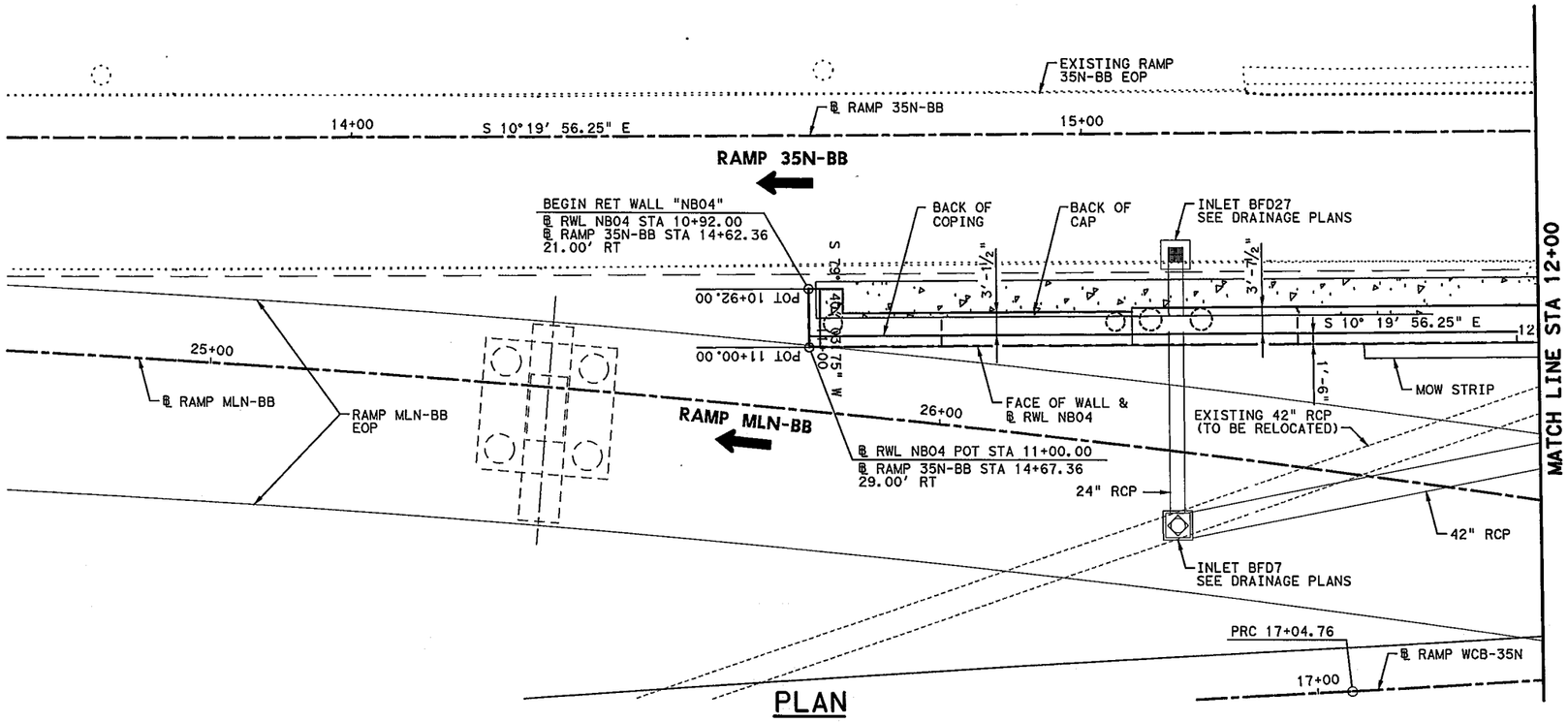
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
TYPICAL SECTIONS
NB04

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	960
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB04*GTN.dgn



PLAN

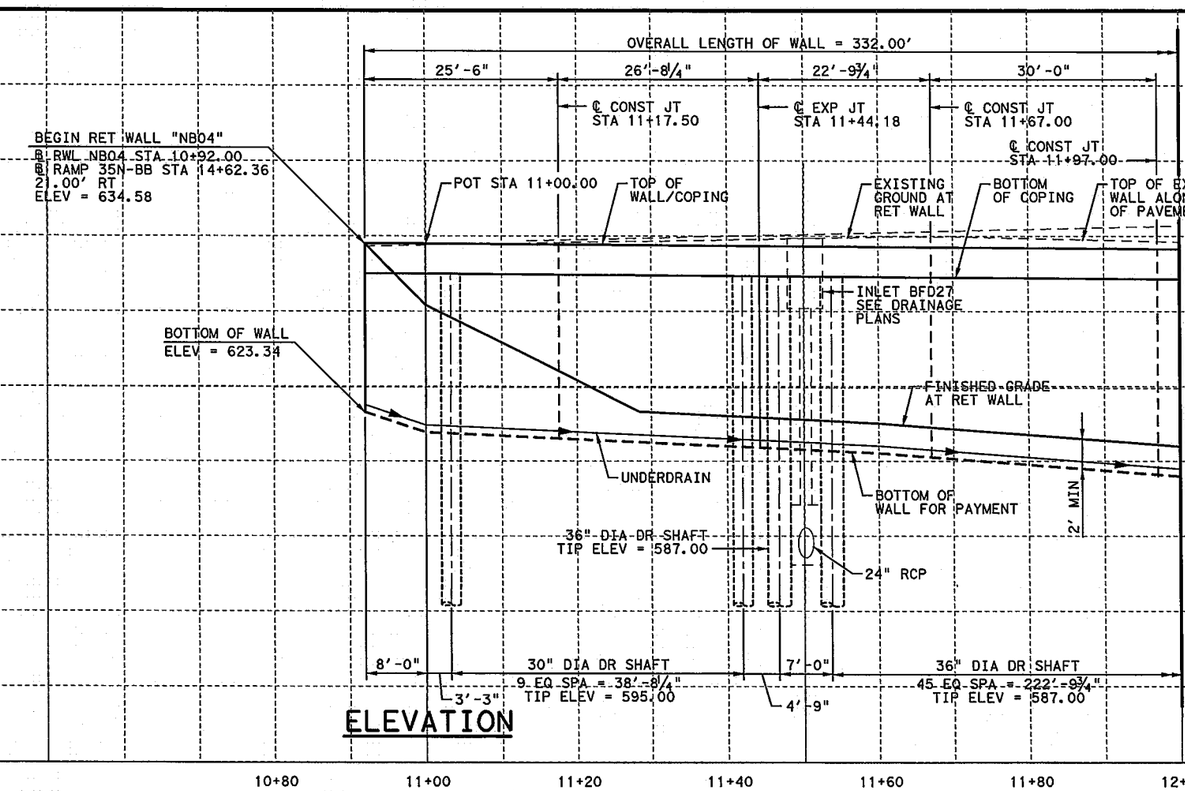
HORIZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND

CURVE XX HORIZONTAL CURVE

NOTES:

1. DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION (2010).
2. FOR COMPLETE WALL GEOMETRY, SEE RETAINING WALLS PLAN AND PROFILE (SHEETS 958 TO 959).
3. FOR WALL DETAILS, SEE RETAINING WALLS DRILLED SHAFT DETAILS (SHEETS 1081 TO 1085).
4. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
5. DENOTES TEST HOLE LOCATION.
6. SEE "BORING LOGS - RETAINING WALLS" SHEETS FOR GEOTECHNICAL INFORMATION.
7. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.



ELEVATION

HL 93 LOADING

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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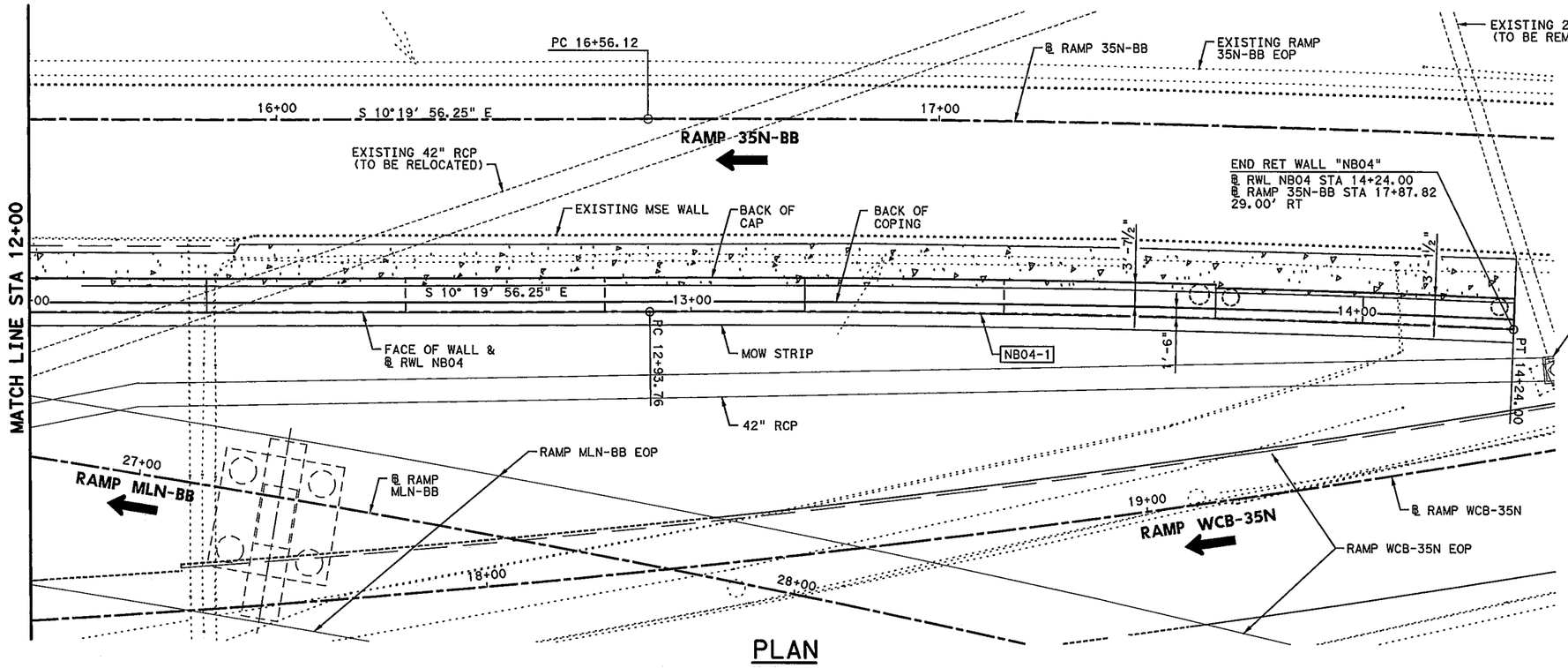
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALL
STRUCTURAL LAYOUT
NB04

SCALE: 1"=20' H, 1"=10' V — SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS GWS	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	
CHECK TGA	CONTROL	SECTION	JOB	961
	0014	16	255, ETC.	

FILENAME: S3BRW_NB04_SL_01.dgn
DRAWING DATE: 7/13/2012



PLAN

HORIZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND

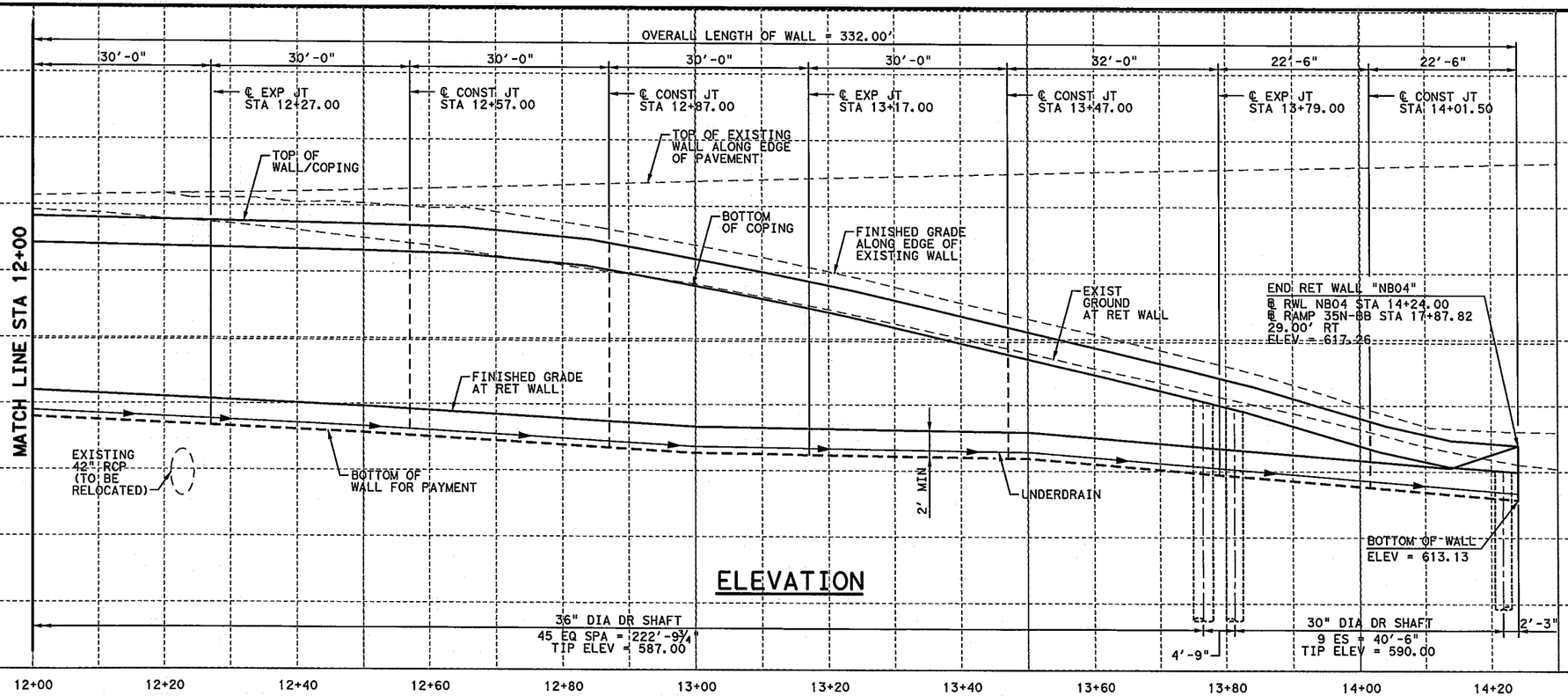
CURVE XX HORIZONTAL CURVE

NB04-1

PI STATION	= 13+58.90
DELTA	= 02°52'29.26" (RT)
DEGREE OF CURVE	= 02°12'26.59"
TANGENT	= 65.1313
LENGTH	= 130.2353
RADIUS	= 2,595.64
PC STATION	= 12+93.76
PT STATION	= 14+24.00

ESTIMATED QUANTITIES

DESCRIPTION	UNIT	QUANTITY
30" DIA DRILLED SHAFT	LF	648
36" DIA DRILLED SHAFT	LF	1,972



ELEVATION

HL 93 LOADING

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TBPE REGISTRATION NO. F-1741

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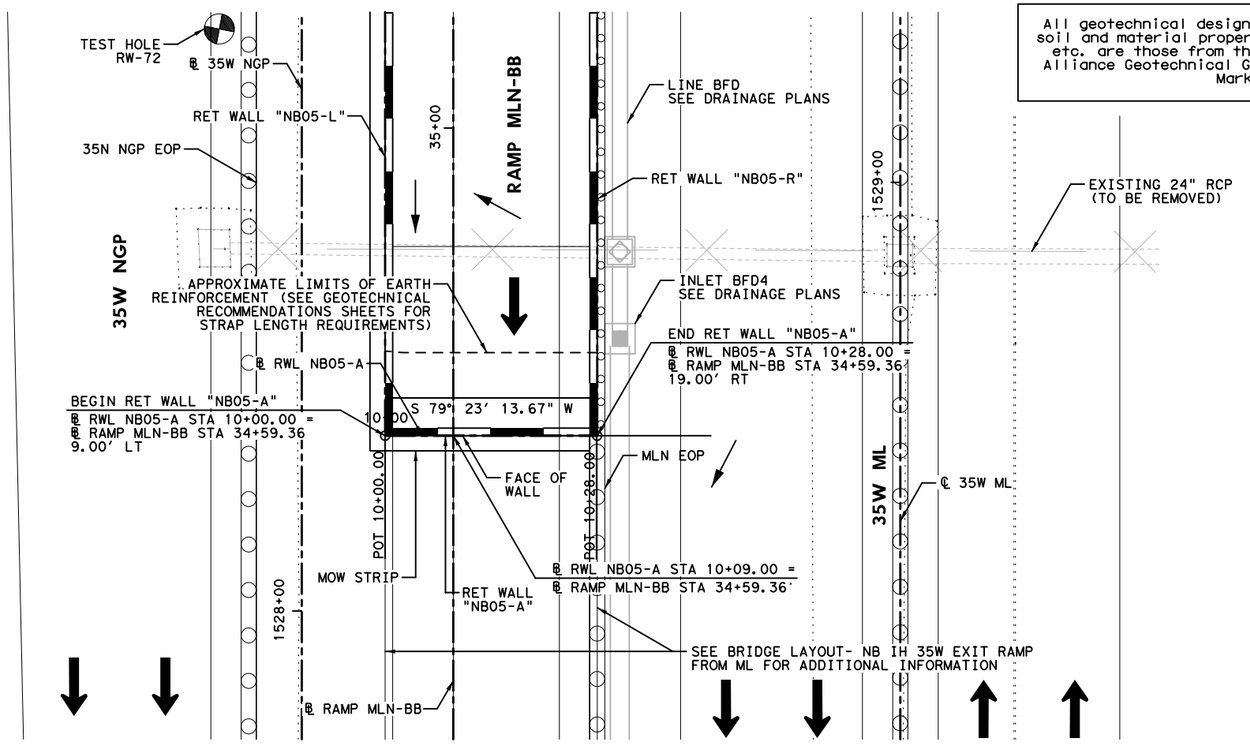
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALL STRUCTURAL LAYOUT NB04

SCALE: 1"=20' H, 1"=10' V — SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
GWS	TEXAS	FTW	TARRANT	962
CHECK	CONTROL	SECTION	JOB	
LVA	0014	16	255, ETC.	
CHECK				
TGA				

FILENAME: S3BRW_NB04_SL_02.dgn
DRAWING DATE: 7/13/2012



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HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
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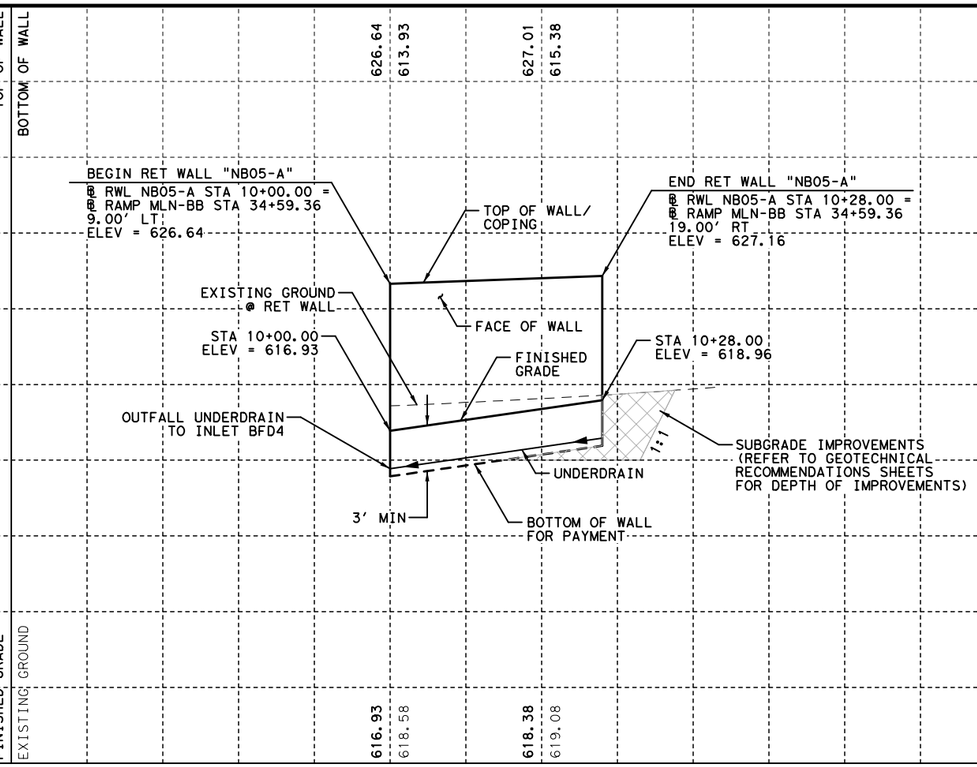

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB05-A

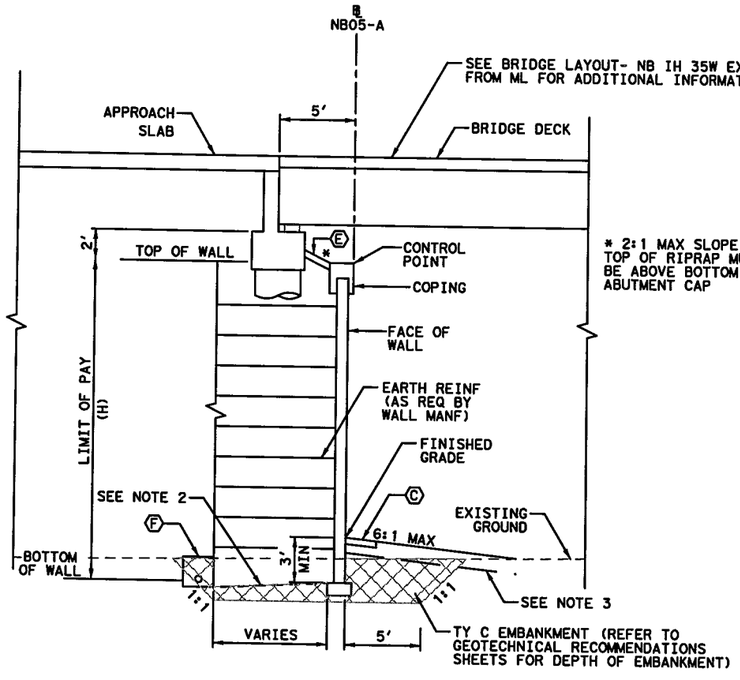
SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	963
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*NB05-A-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	335
RIPRAP (CONC) (5 IN)	CY	1
RIPRAP (MOW STRIP) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	60



PROPOSED WALL "NB05-A" TYPICAL SECTION

℄ NB05-A STA 10+00.00 TO STA 10+28.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

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TBPE REGISTRATION NO. F-926

Texas Department of Transportation

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB05-A

SCALE 1" = 10'

SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	964
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B#TYPNB05-A#GTN.dgn

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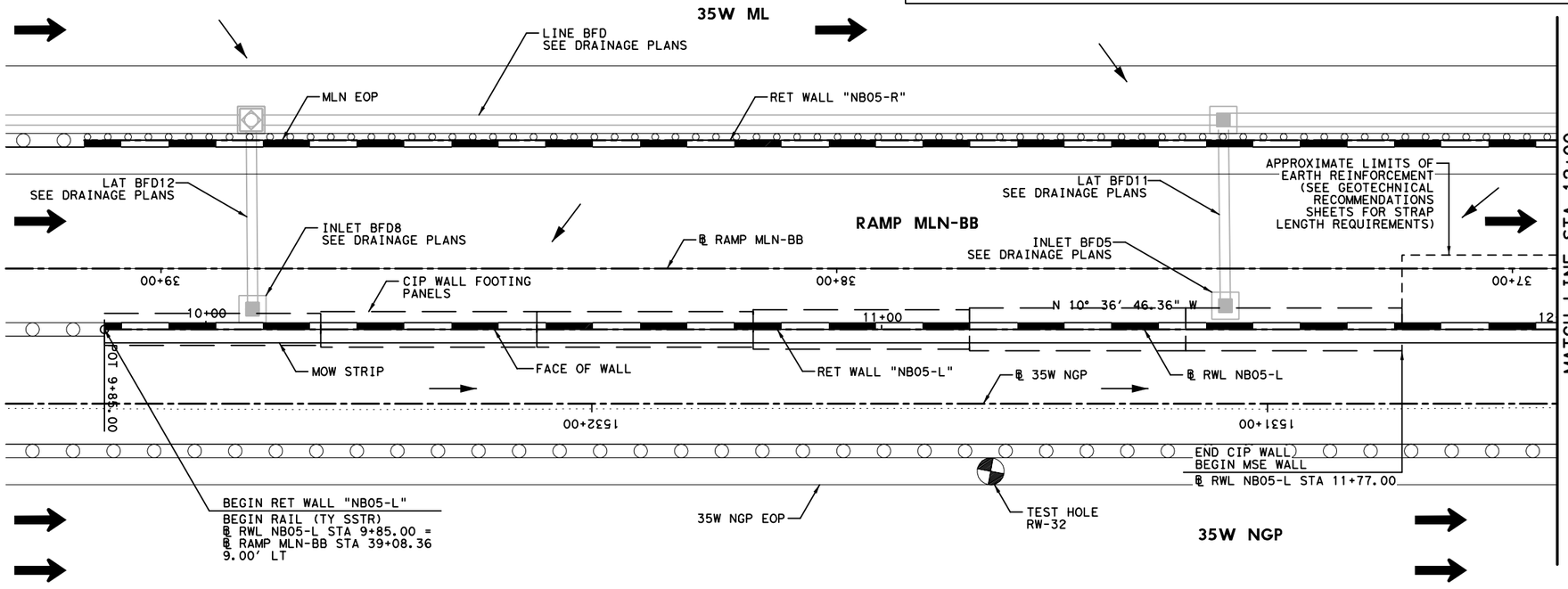

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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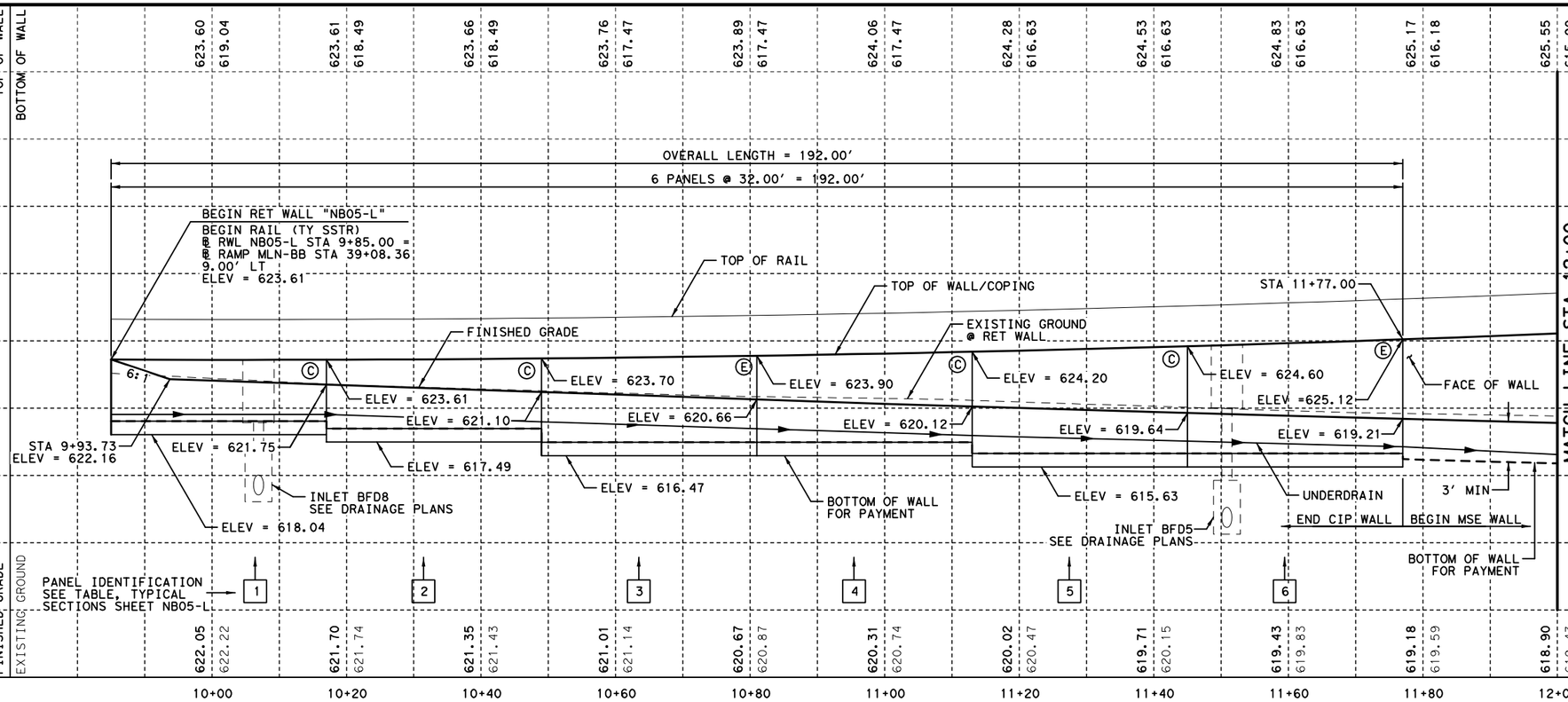

STATE OF TEXAS
DAVID W. HAWLEY
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LICENSED
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8/22/2012

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RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB05-L

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	965
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB05-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

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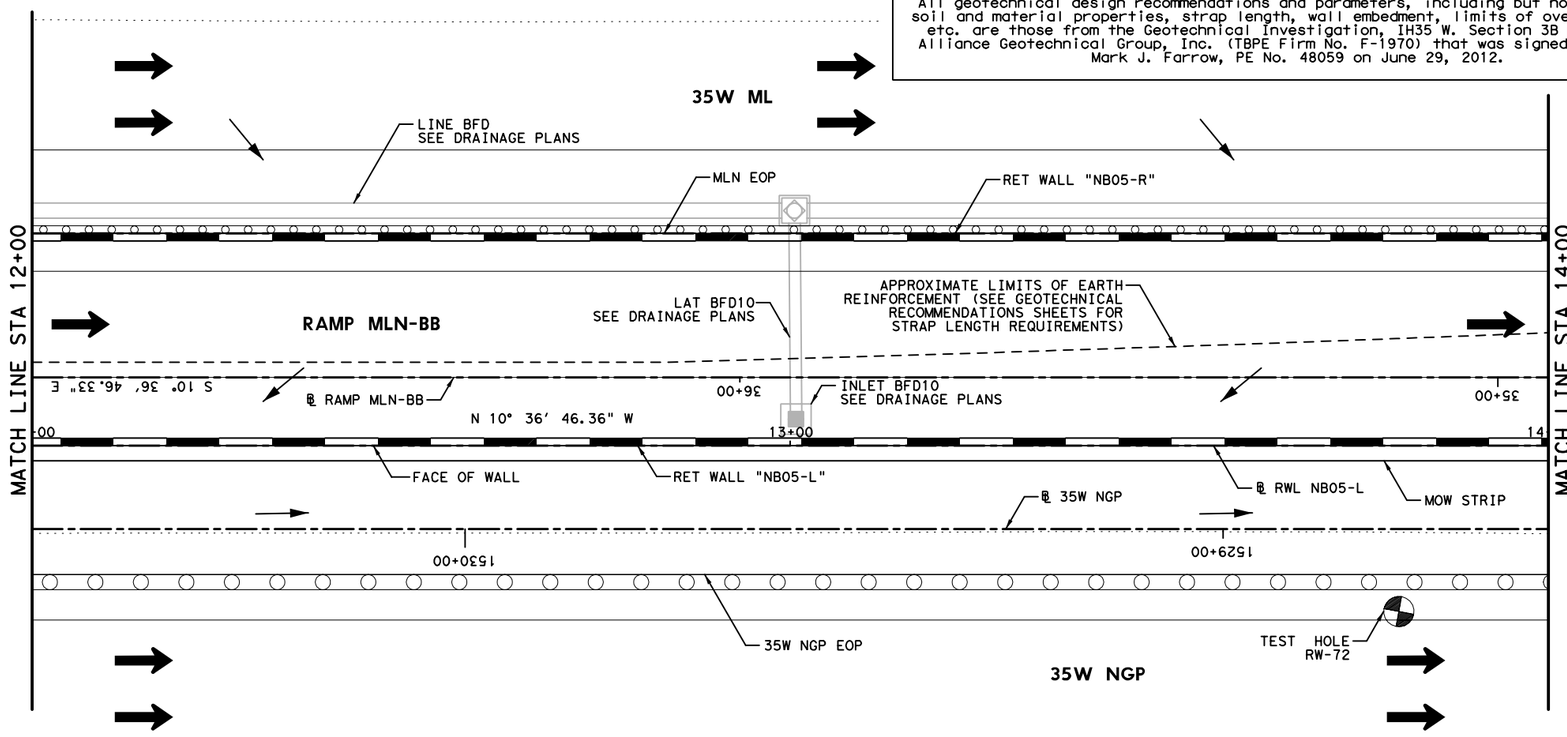

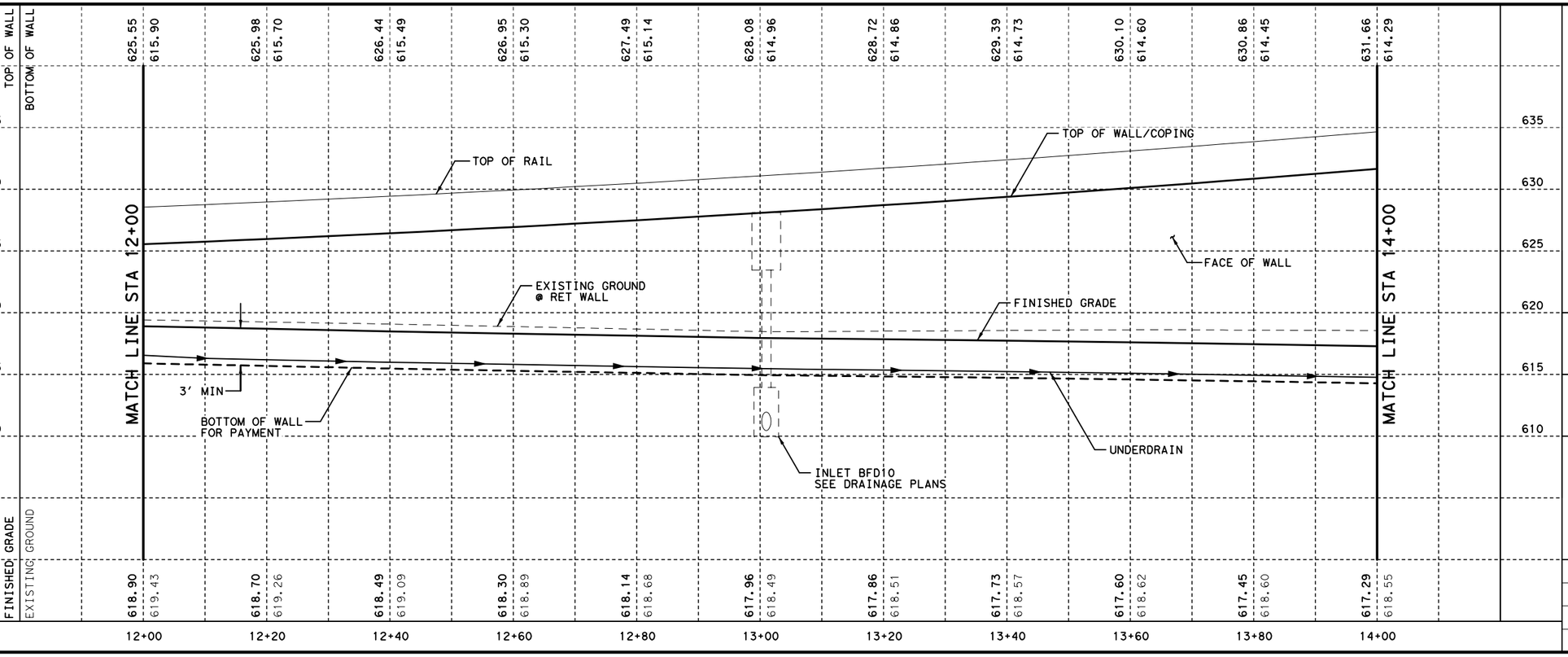

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB05-L

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	966
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB05-L-02*GTN.dgn
DRAWING DATE: 8/20/2012

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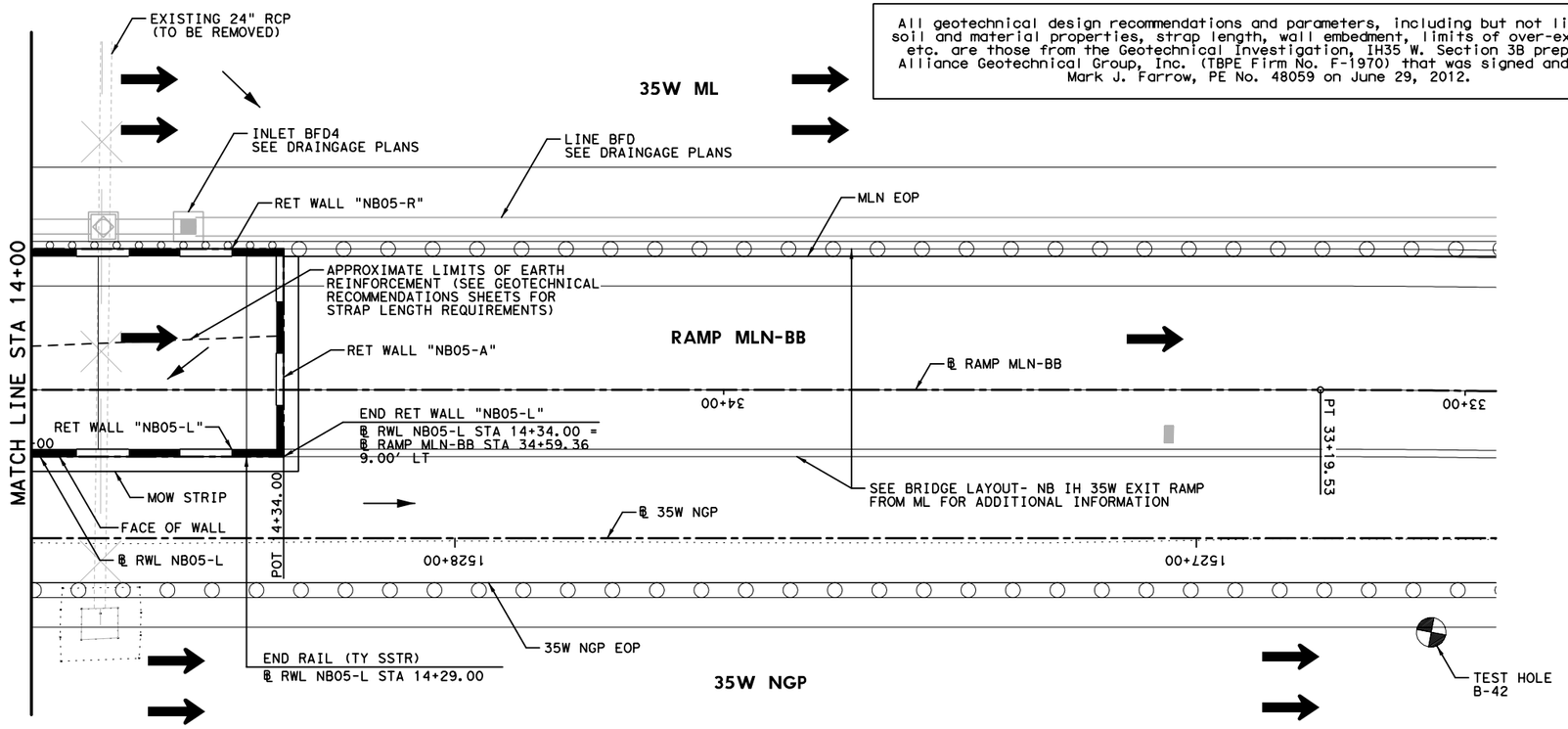

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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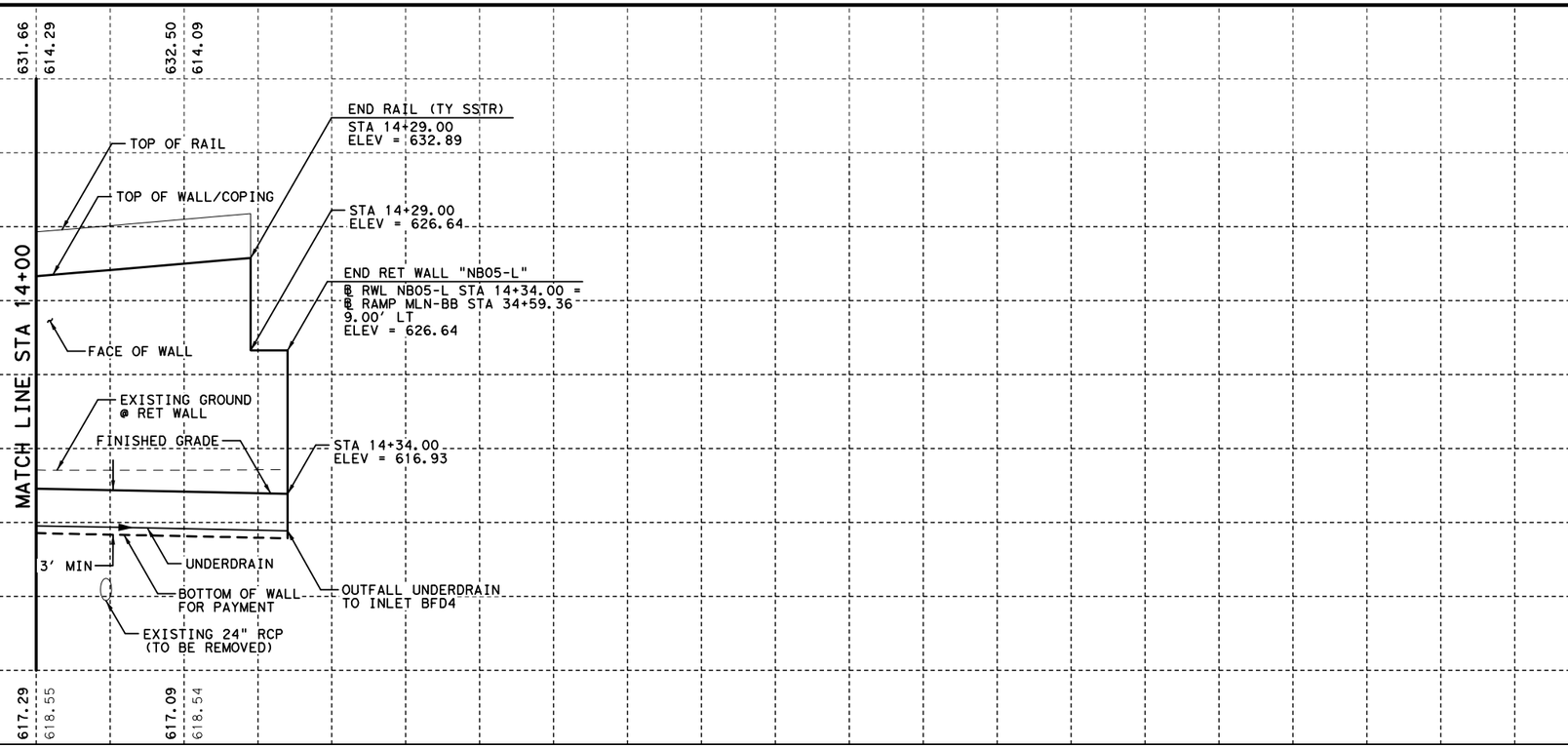
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



DRAWING DATE: 8/20/2012
FILENAME: S3B*NB05-L-03*GTN.dgn

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
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TBPE REGISTRATION NO. F-926

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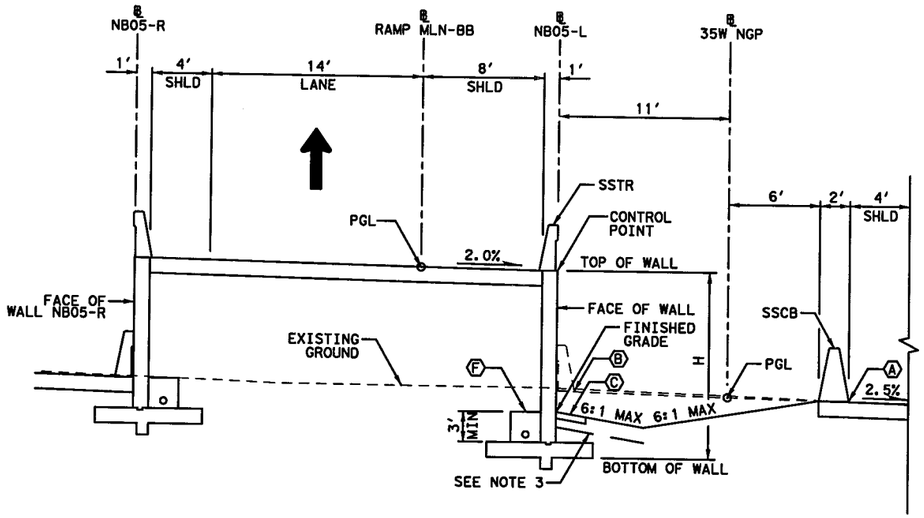
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB05-L

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	967
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



PROPOSED WALL "NB05-L" TYPICAL SECTION

℄ NB05-L STA 9+85.00 TO STA 11+77.00

TABLE OF PANEL IDENTIFICATION

PANEL NO.	TYPE OF PANEL	PANEL AREA (SF)
1	LC-06-32	192
2	LC-07-32	224
3	LC-08-32	256
4	LC-09-32	288
5	LC-09-32	288
6	LC-10-32	320

DESCRIPTION OF TYPE OF PANEL
PANEL AREA = AVERAGE HEIGHT x LENGTH OF PANEL

AVERAGE HT. OF PANEL — LC-01-10 — LENGTH OF PANEL
TYPE OF PANEL

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	3,448
RETAINING WALL (CIP)	SF	1,568
RIPRAP (MOW STRIP) (5 IN)	CY	18
RAIL (SSTR)	LF	444
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	481

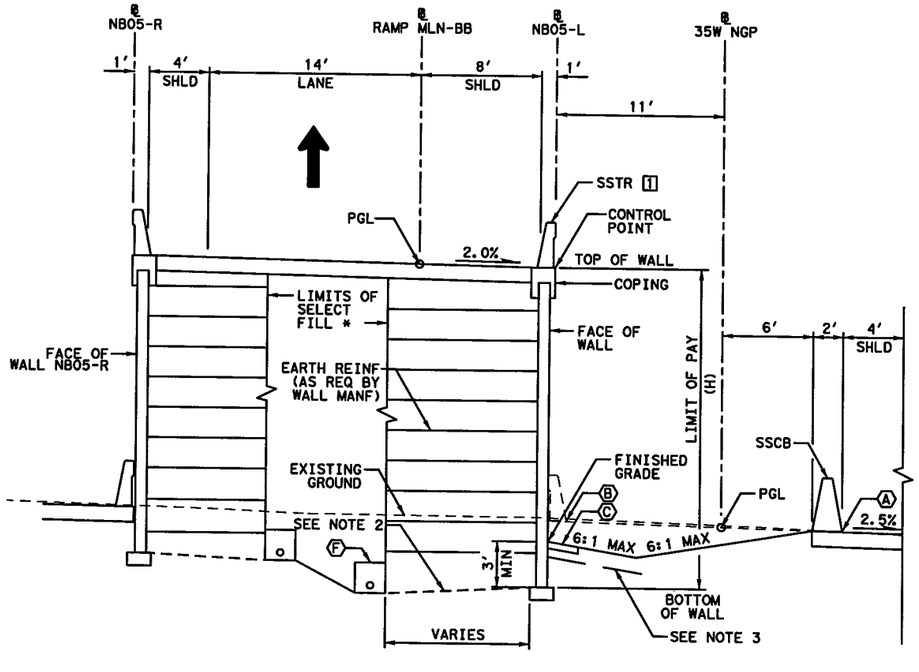
0' 5' 10'
SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.



PROPOSED WALL "NB05-L" TYPICAL SECTION

℄ NB05-L STA 11+77.00 TO STA 14+34.00

[1] LIMITS OF RAIL
STA 11+77.00 TO STA 14+29.00

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

STATE OF TEXAS
DAVID W. HARLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
TYPICAL SECTIONS
NB05-L

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	968
KCI	0014	16	255, ETC.	

CHECK KCI

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB05-L*GTN.dgn

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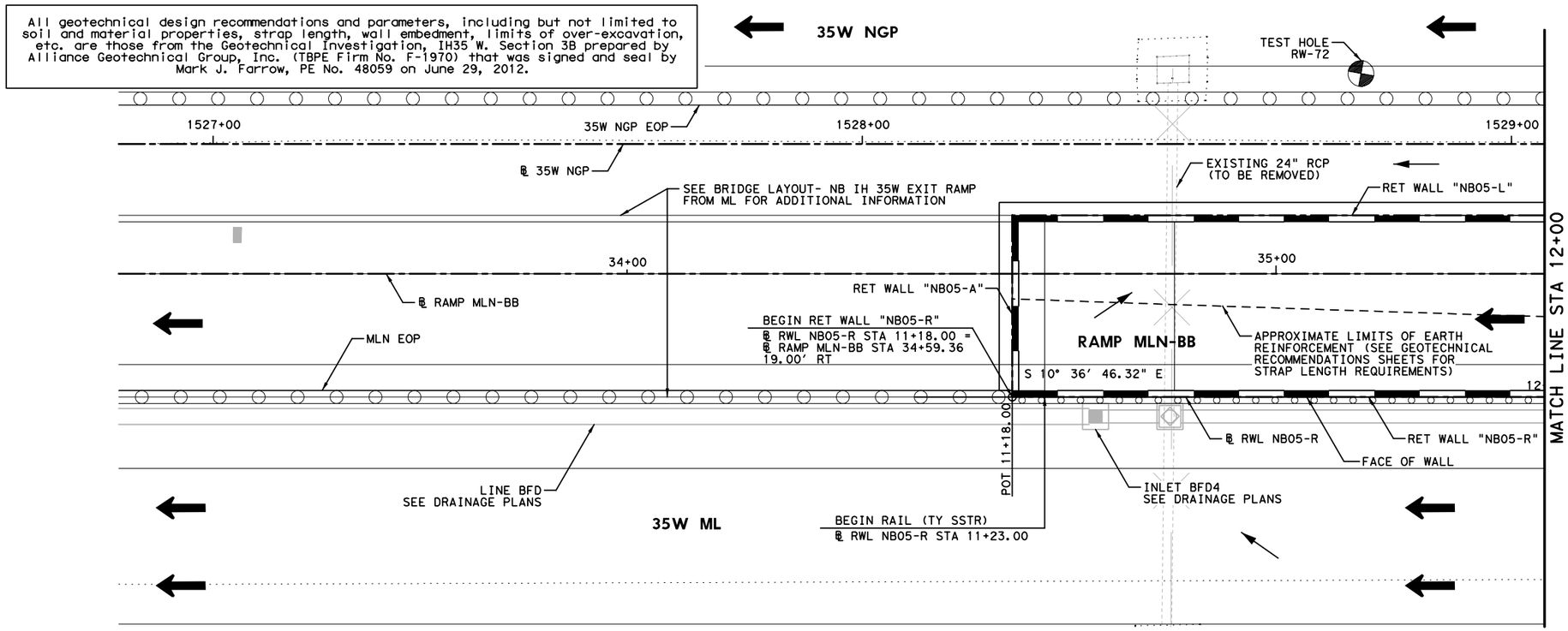

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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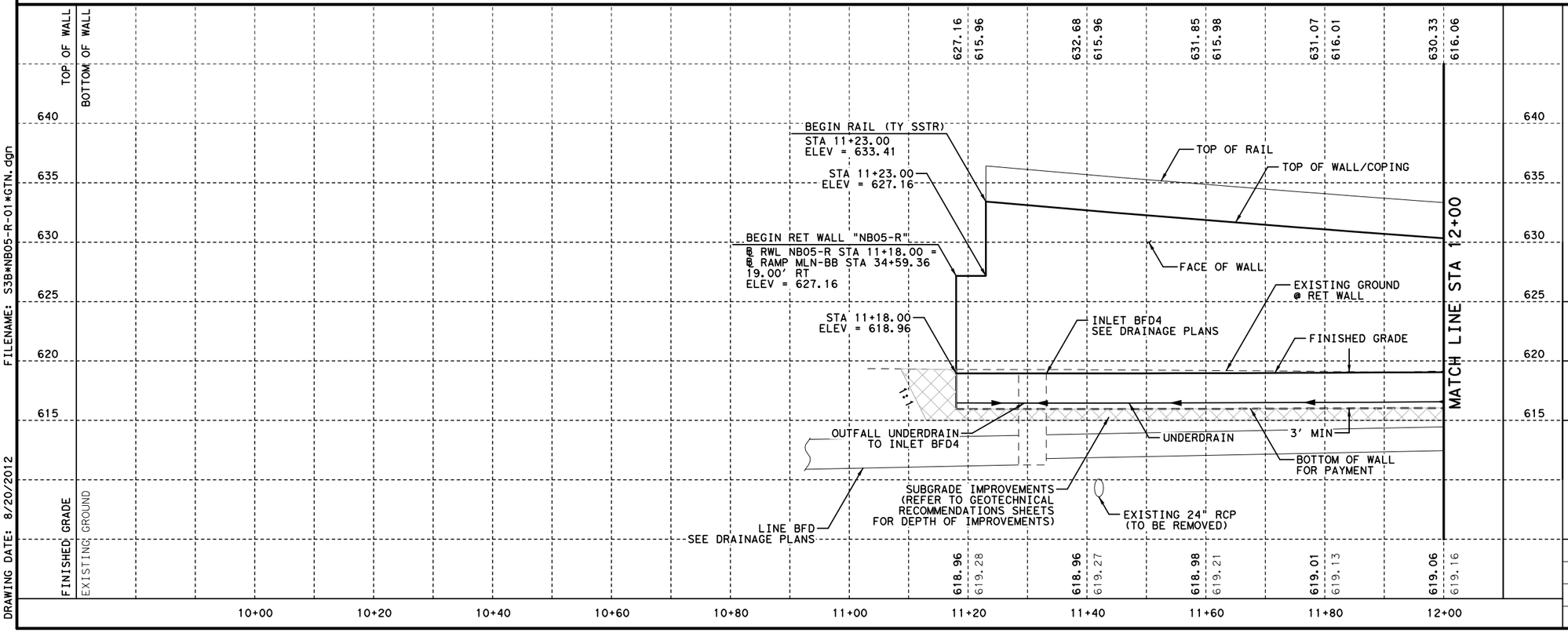

STATE OF TEXAS
DAVID W. HAWLEY
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8/22/2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB05-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	969
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB05-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

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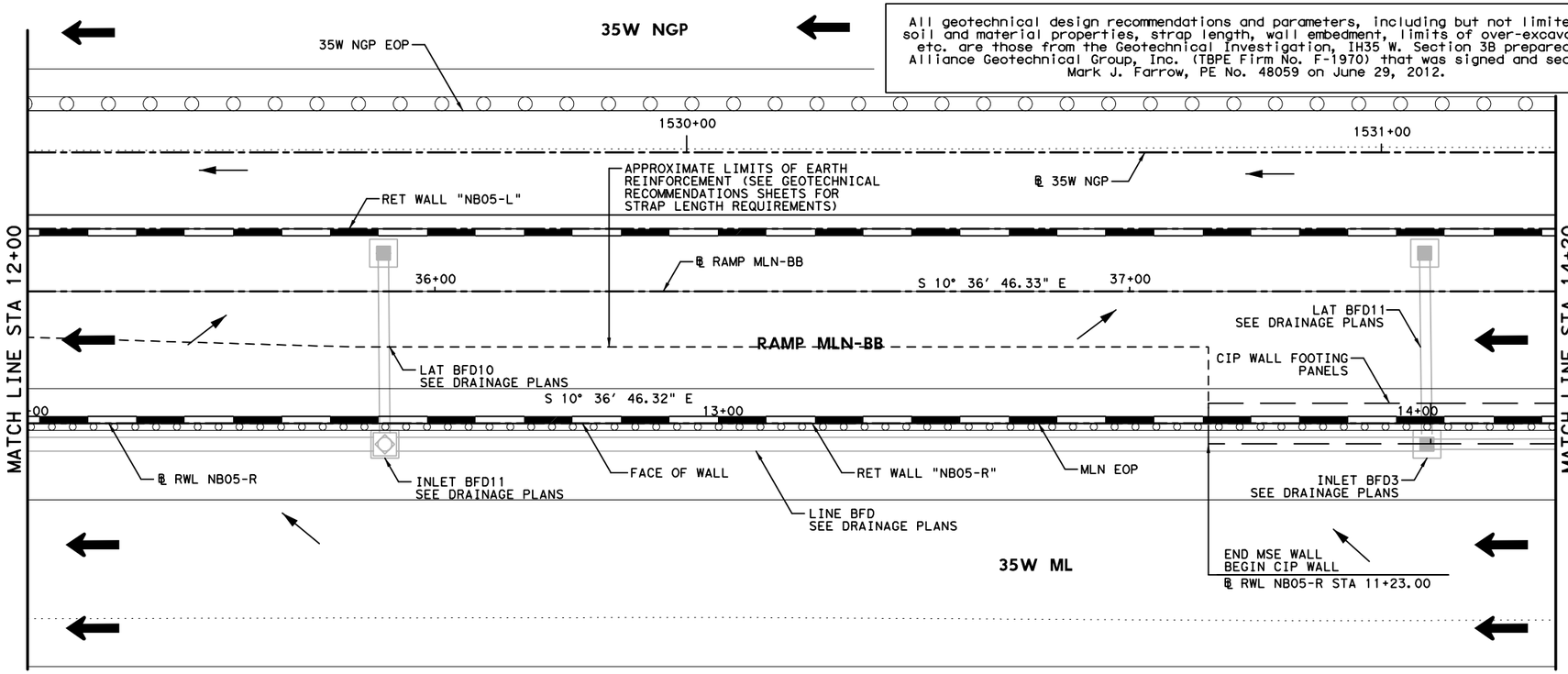

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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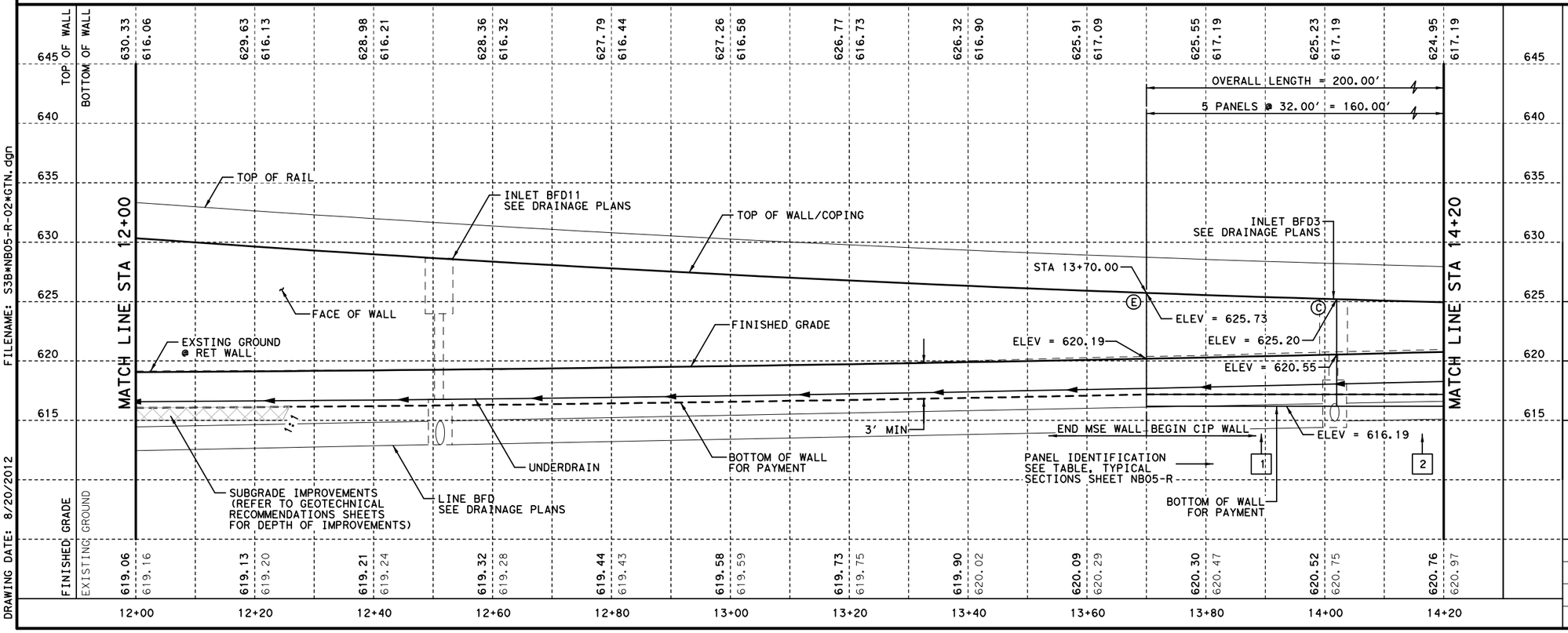

STATE OF TEXAS
DAVID W. HAWLEY
92962
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RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB05-R

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	970
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB05-R-02*GTN.dgn
DRAWING DATE: 8/20/2012

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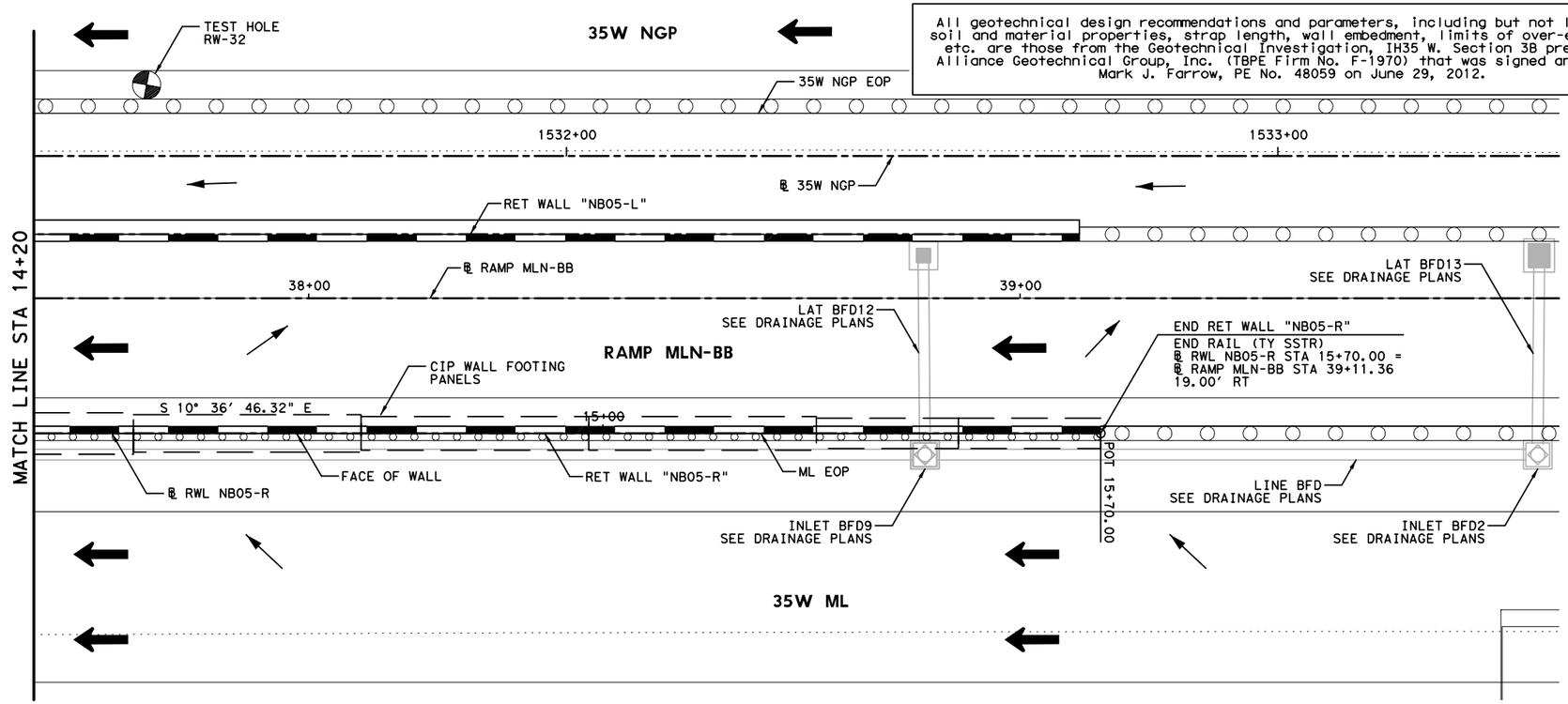

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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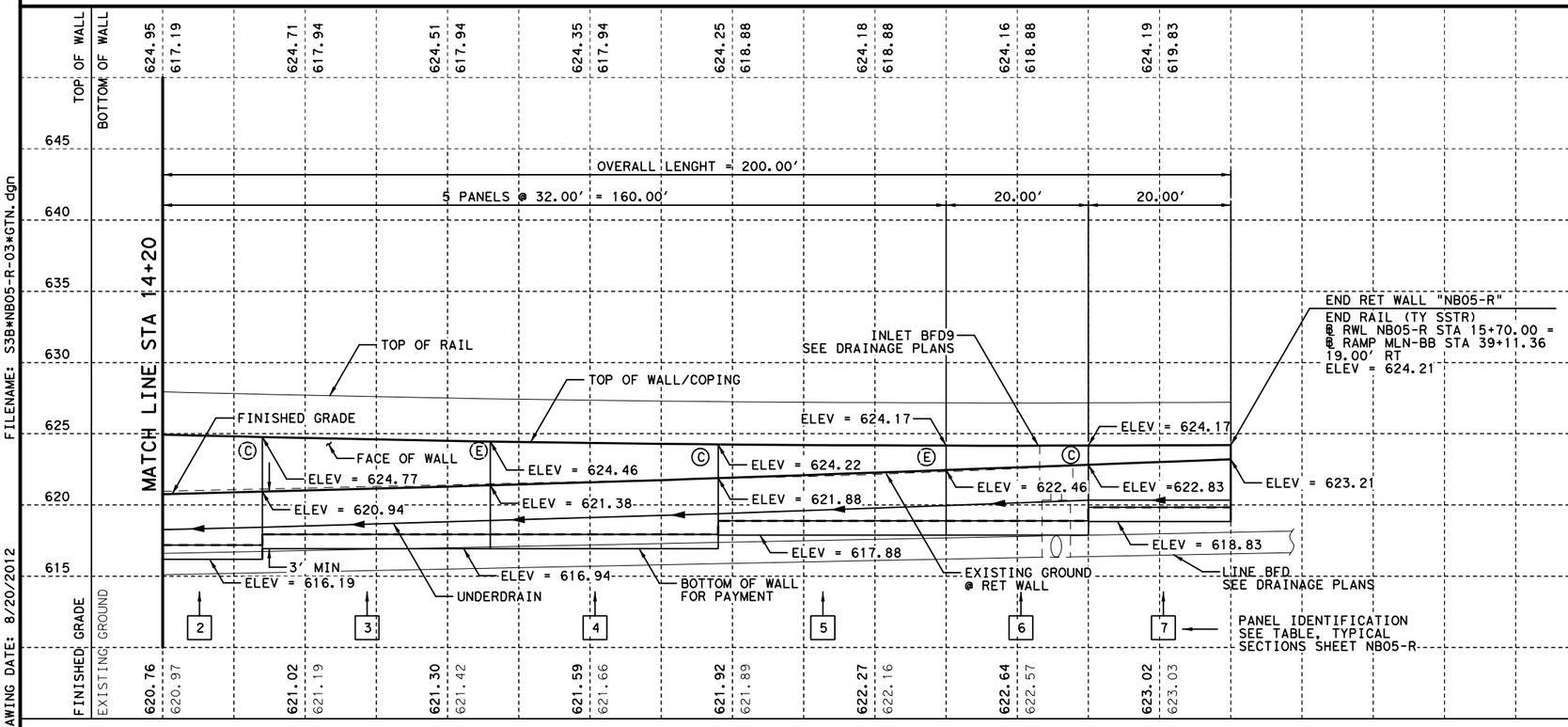

FILENAME: S3B*NB05-R-03*GTN.dgn
DRAWING DATE: 8/20/2012

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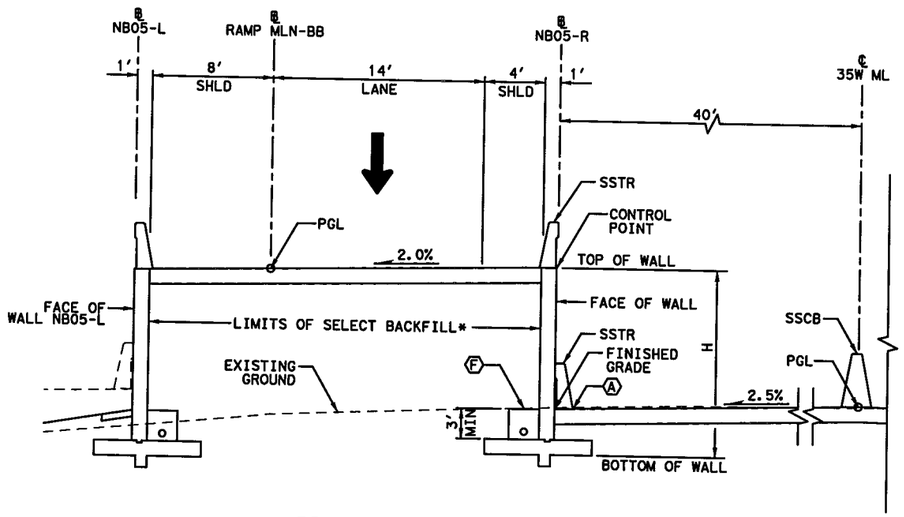
RETAINING WALLS
PLAN AND PROFILE
NB05-R

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	971
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



PROPOSED WALL "NB05-R" TYPICAL SECTION

℄ NB05-R STA 13+70.00 TO STA 15+70.00

TABLE OF PANEL IDENTIFICATION

PANEL NO.	TYPE OF PANEL	PANEL AREA (SF)
1	LC-10-32	320
2	LC-09-32	288
3	LC-08-32	256
4	LC-08-32	256
5	LC-07-32	224
6	LC-07-20	140
7	LC-06-20	120

DESCRIPTION OF TYPE OF PANEL
PANLEL AREA =
AVERAGE HEIGHT x LENGTH OF PANEL

AVERAGE HT. OF PANEL — LC-01-10 — LENGTH OF PANEL
TYPE OF PANEL

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	3,189
RETAINING WALL (CIP)	SF	1,604
RAIL (SSTR)	LF	447
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	455

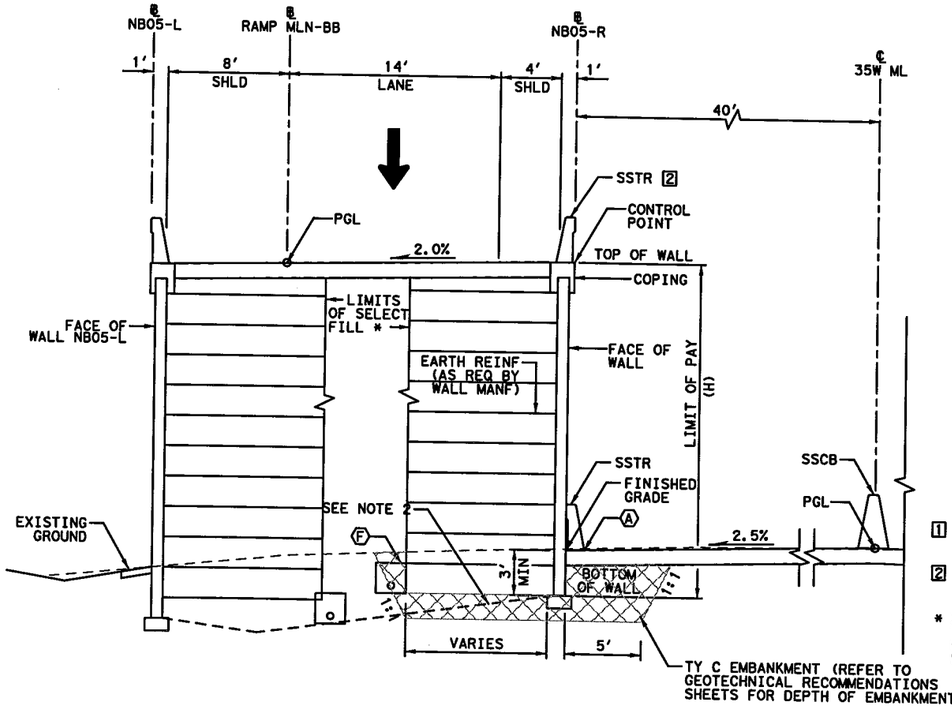
0' 5' 10'
SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.



PROPOSED WALL "NB05-R" TYPICAL SECTION

℄ NB05-R STA 11+18.00 TO STA 13+70.00

[1] LIMITS OF TY C EMBANKMENT
STA 11+18.00 TO STA 12+24.69

[2] LIMITS OF RAIL
STA 11+23.00 TO STA 13+70.00

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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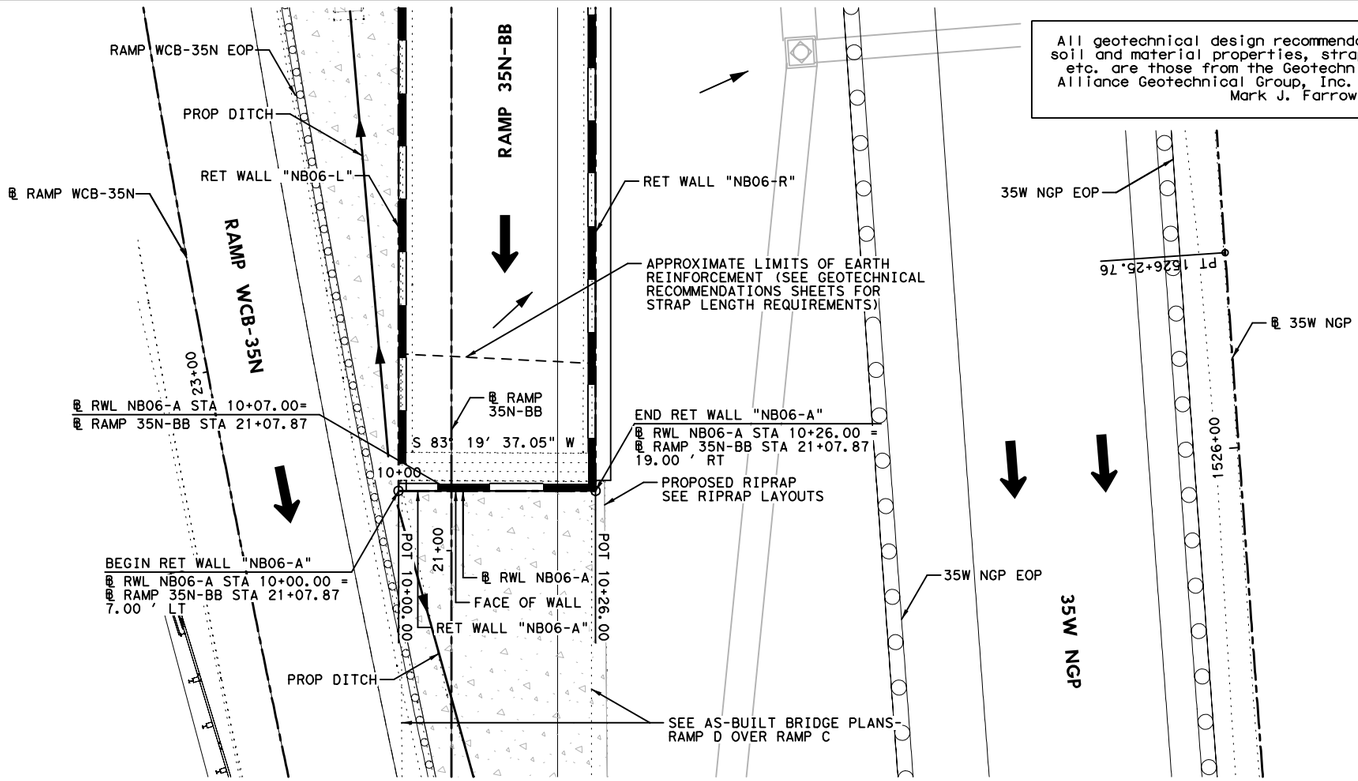
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
TYPICAL SECTIONS
NB05-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	972
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB05-R*GTN.dgn



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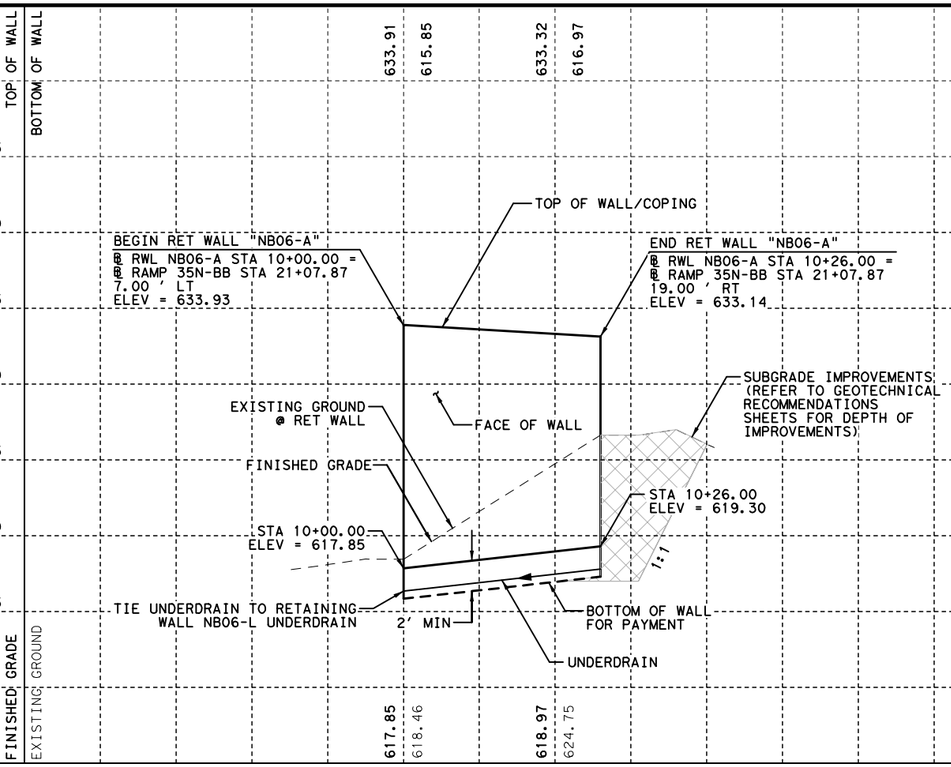
HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB06-A

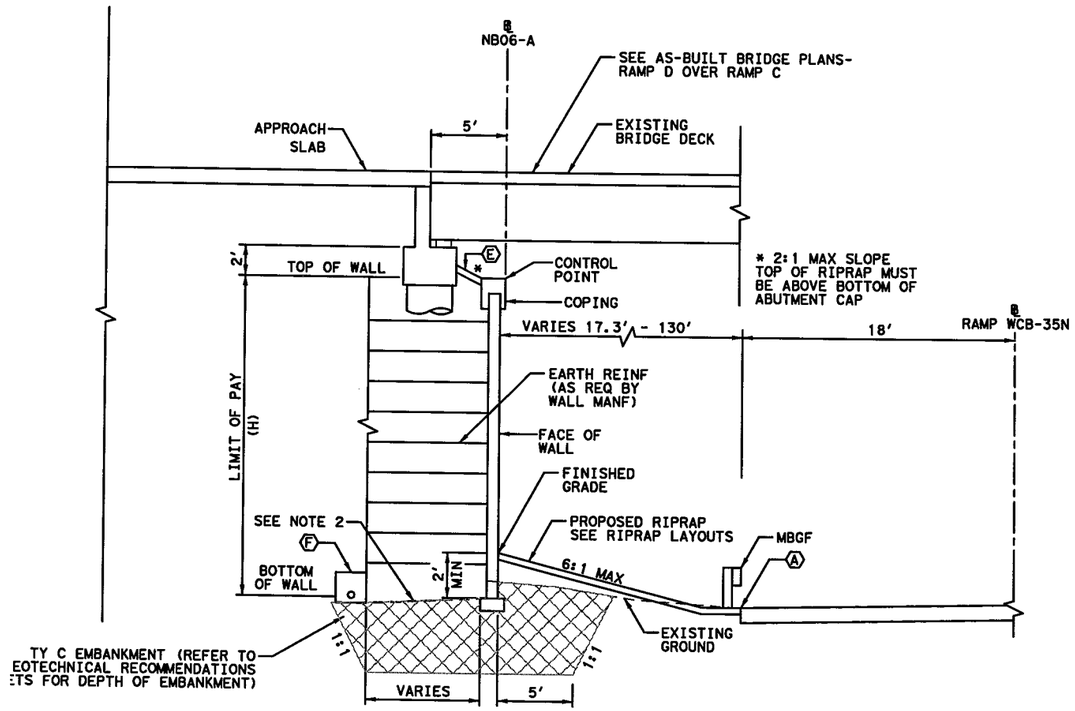
SCALE 1"= 20′ H, 1"=10′ V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	973
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB06-A-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	428
RIPRAP (CONC) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	26



PROPOSED WALL "NB06-A" TYPICAL SECTION

℄ NB06-A STA 10+00.00 TO STA 10+26.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

STATE OF TEXAS
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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB06-A

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	974
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B#TYPNB06-A#GTN.dgn

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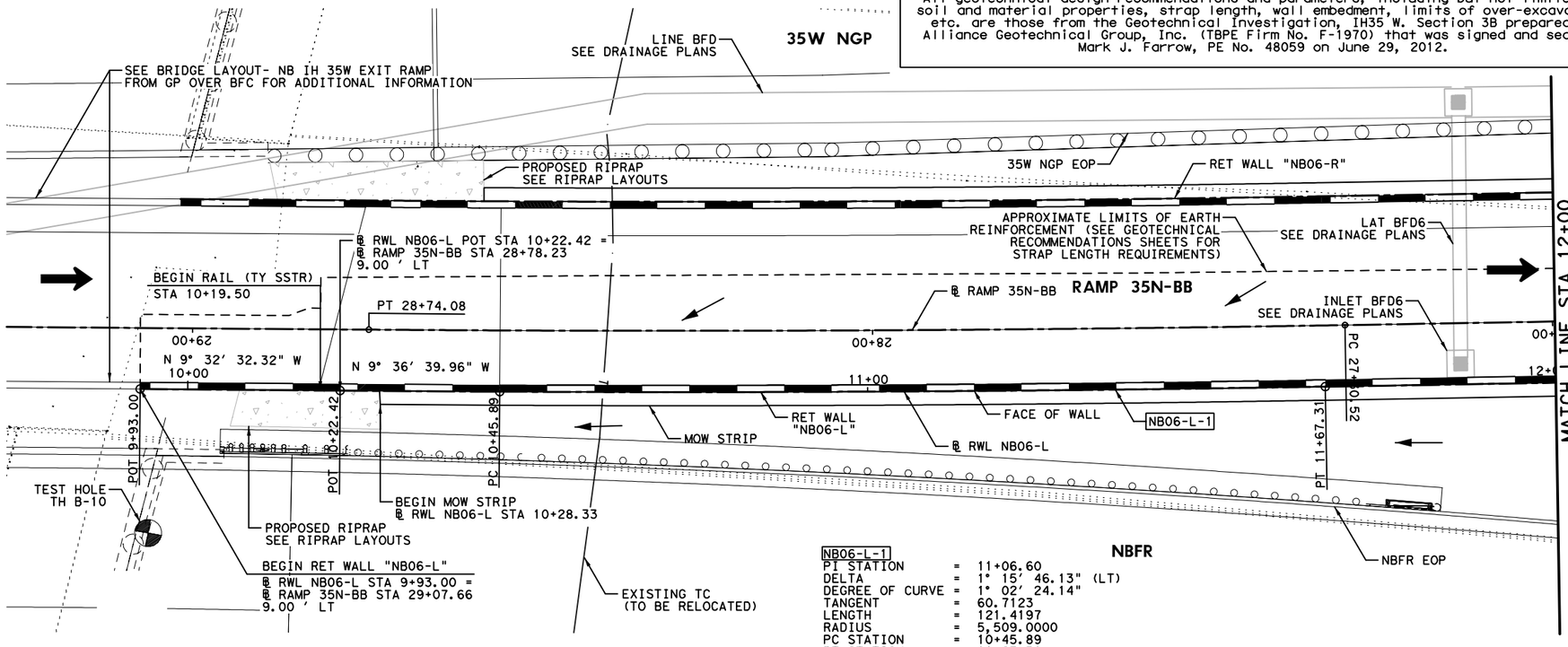

NB06-L-1

PI STATION	=	11+06.60
DELTA	=	1° 15' 46.13" (LT)
DEGREE OF CURVE	=	1° 02' 24.14"
TANGENT	=	60.7123
LENGTH	=	121.4197
RADIUS	=	5,509.0000
PC STATION	=	10+45.89
PT STATION	=	11+67.31

NBFR

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
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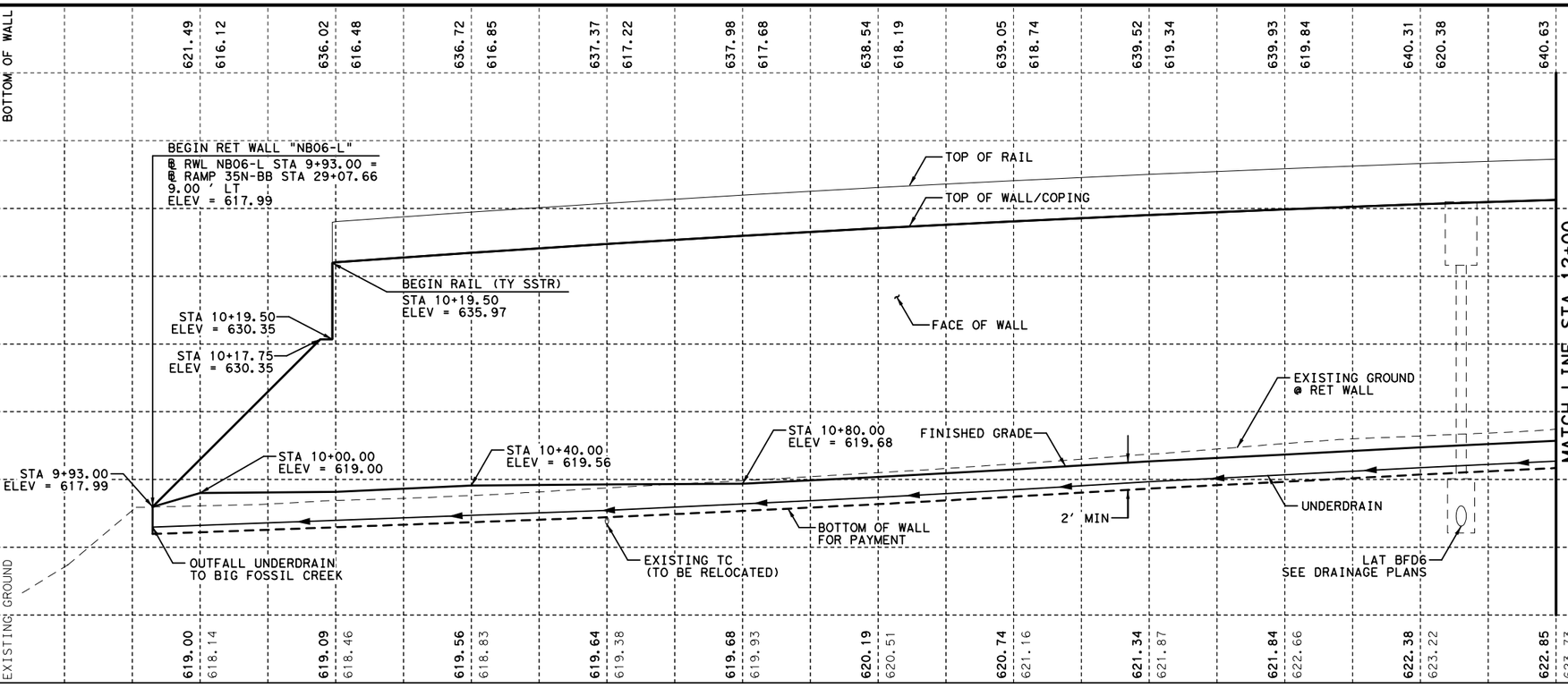

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

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RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB06-L

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	975
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB06-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

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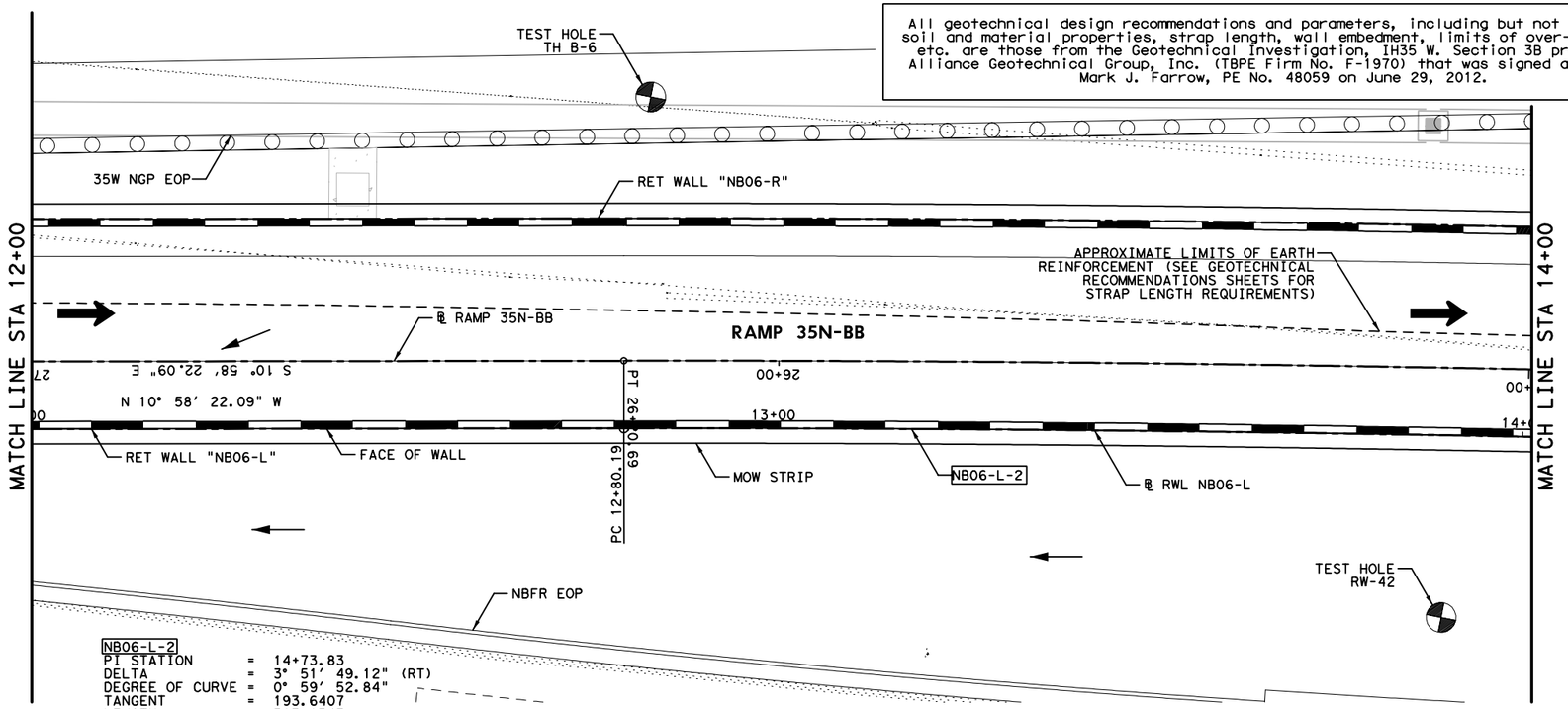

NB06-L-2

PI STATION	=	14+73.83
DELTA	=	3° 51' 49.12" (RT)
DEGREE OF CURVE	=	0° 59' 52.84"
TANGENT	=	193.6407
LENGTH	=	387.1347
RADIUS	=	5,741.0000
PC STATION	=	12+80.19
PT STATION	=	16+67.33

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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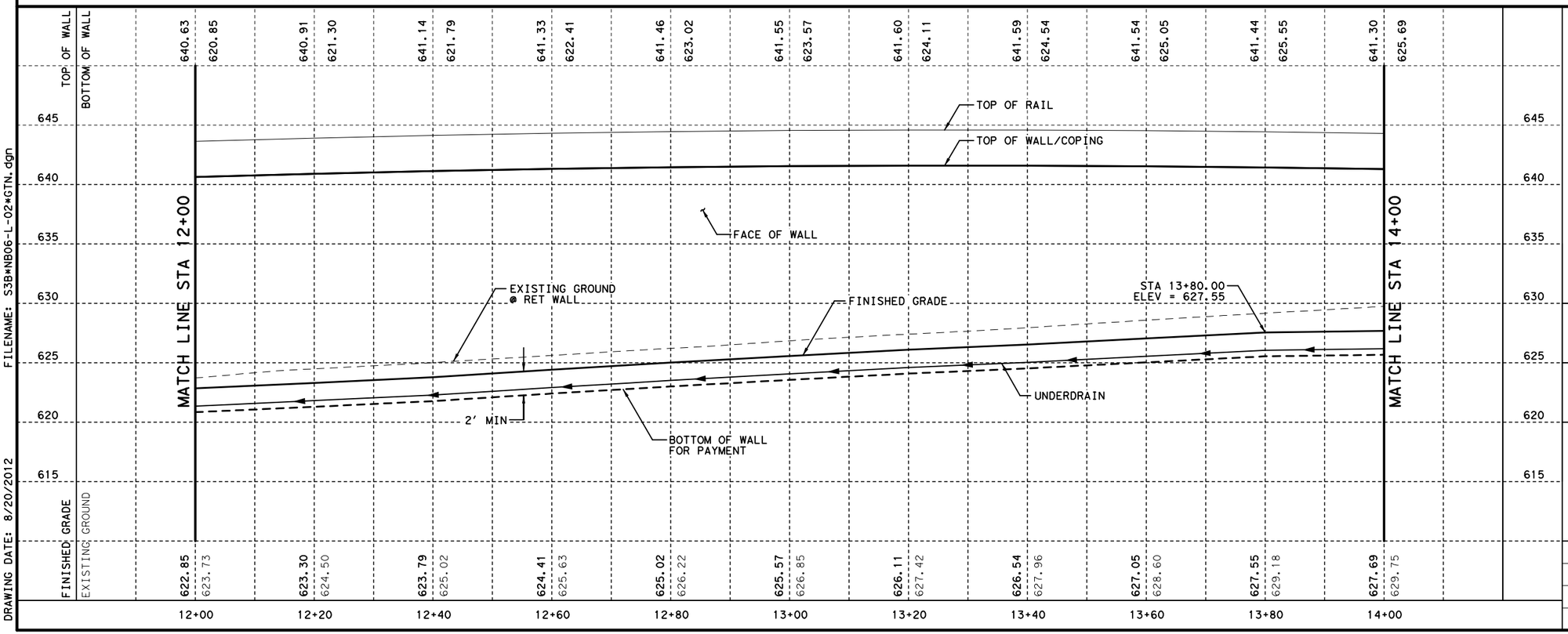

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB06-L

SCALE 1"= 20' H, 1"=10' V — SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	976
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB06-L-02*GTN.dgn
DRAWING DATE: 8/20/2012

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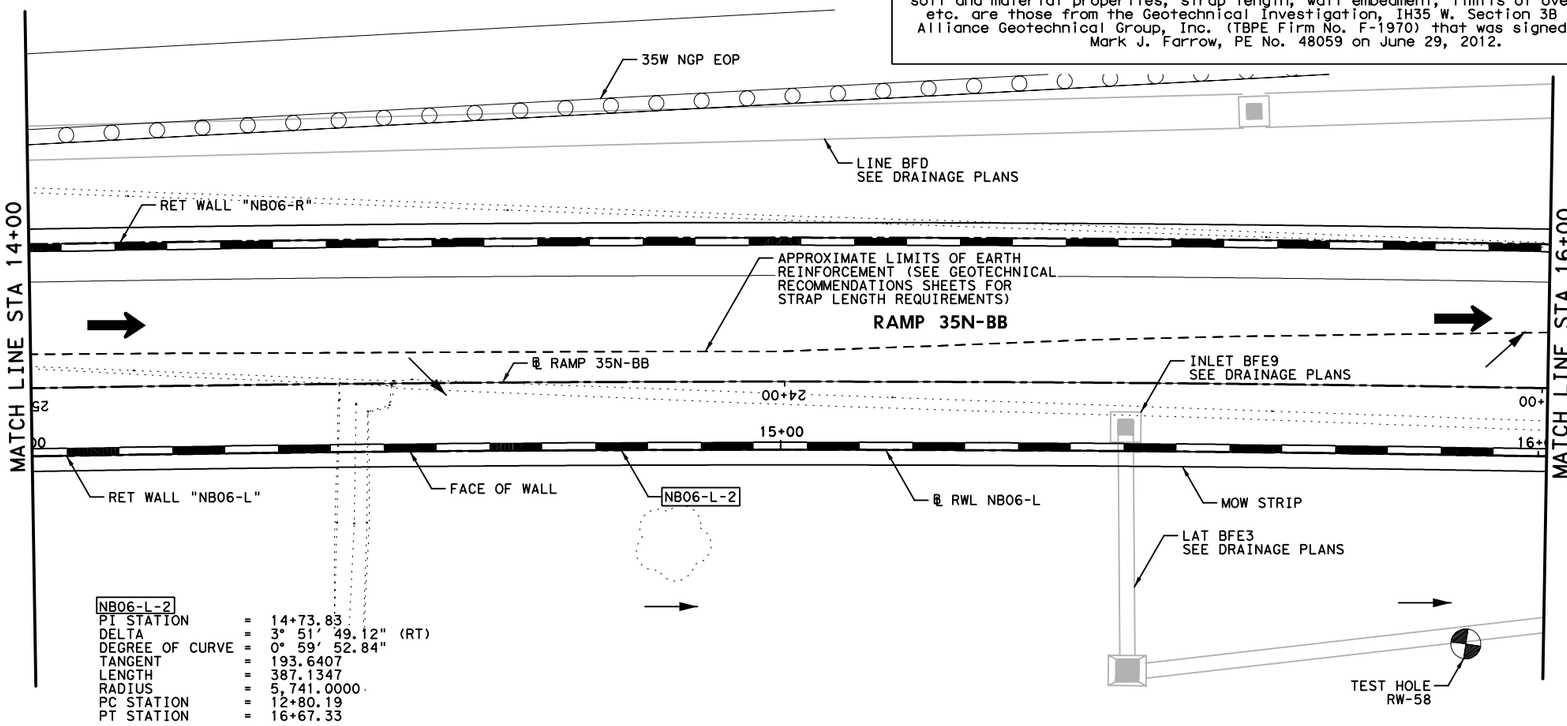

NB06-L-2

PI STATION	=	14+73.83
DELTA	=	3° 51' 49.12" (RT)
DEGREE OF CURVE	=	0° 59' 52.84"
TANGENT	=	193.6407
LENGTH	=	387.1347
RADIUS	=	5,741.0000
PC STATION	=	12+80.19
PT STATION	=	16+67.33

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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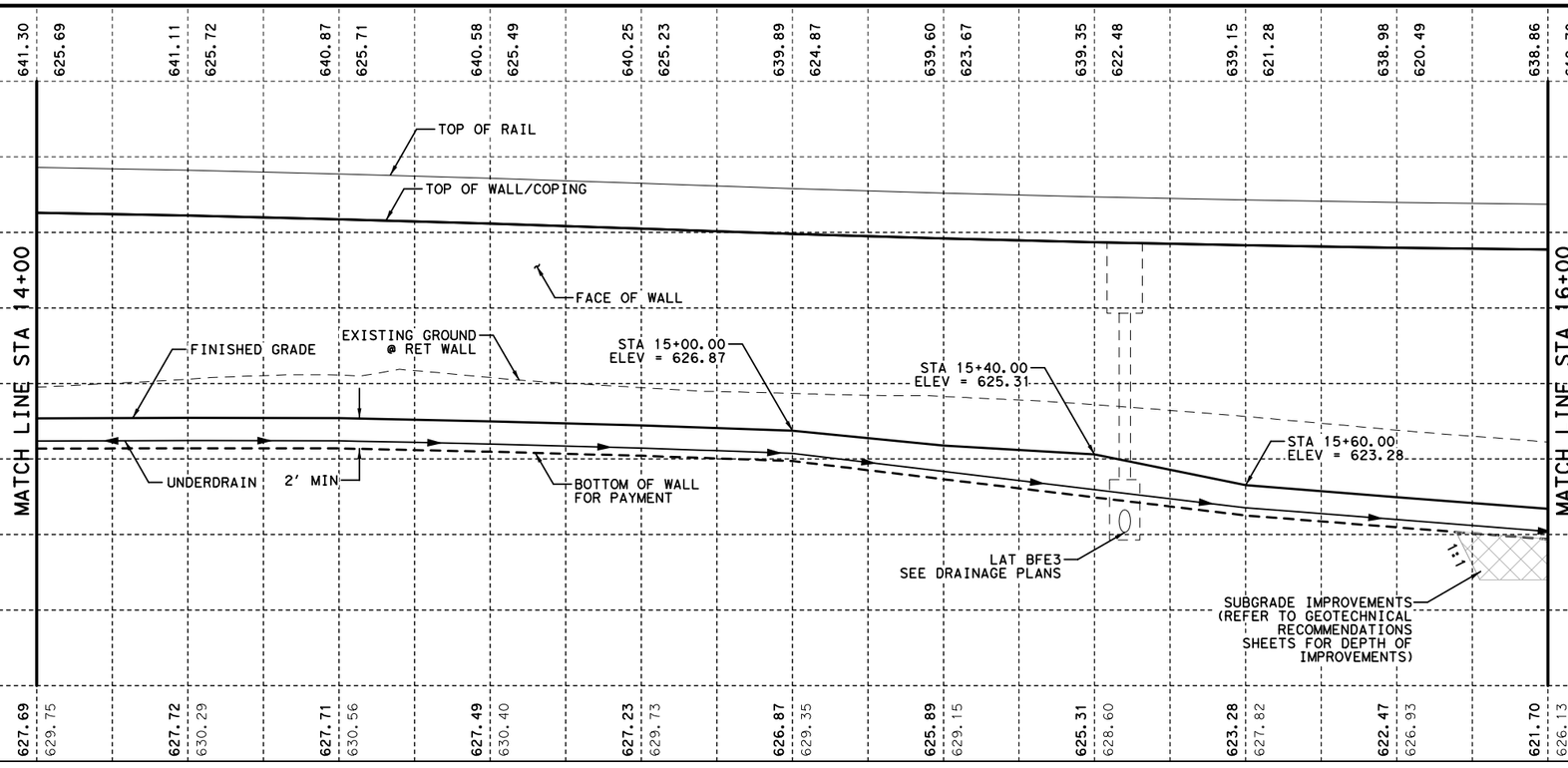

FILENAME: S3B*NB06-L-03*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB06-L

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	977
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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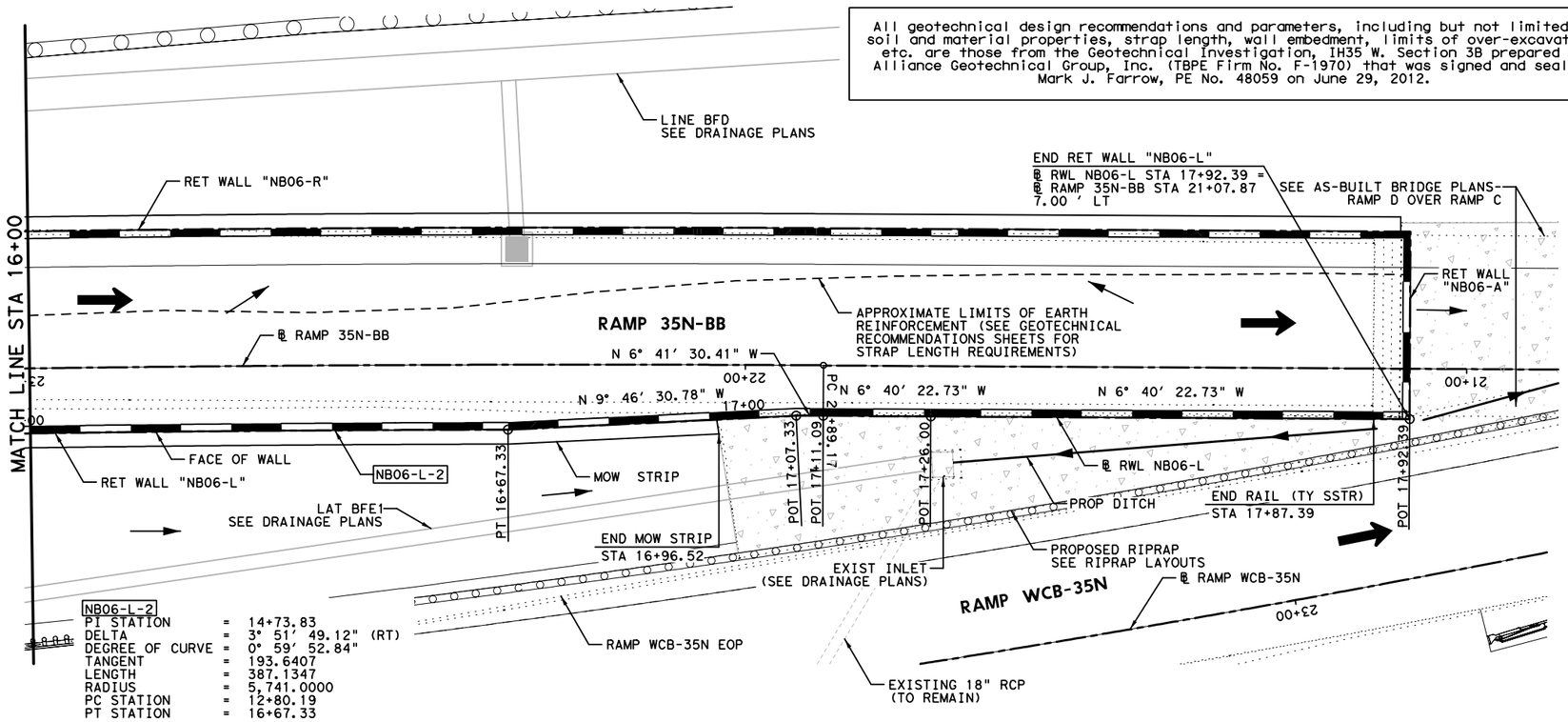

NB06-L-2
PI STATION = 14+73.83
DELTA = 3° 51' 49.12" (RT)
DEGREE OF CURVE = 0° 59' 52.84"
TANGENT = 193.6407
LENGTH = 387.1347
RADIUS = 5,741.0000
PC STATION = 12+80.19
PT STATION = 16+67.33

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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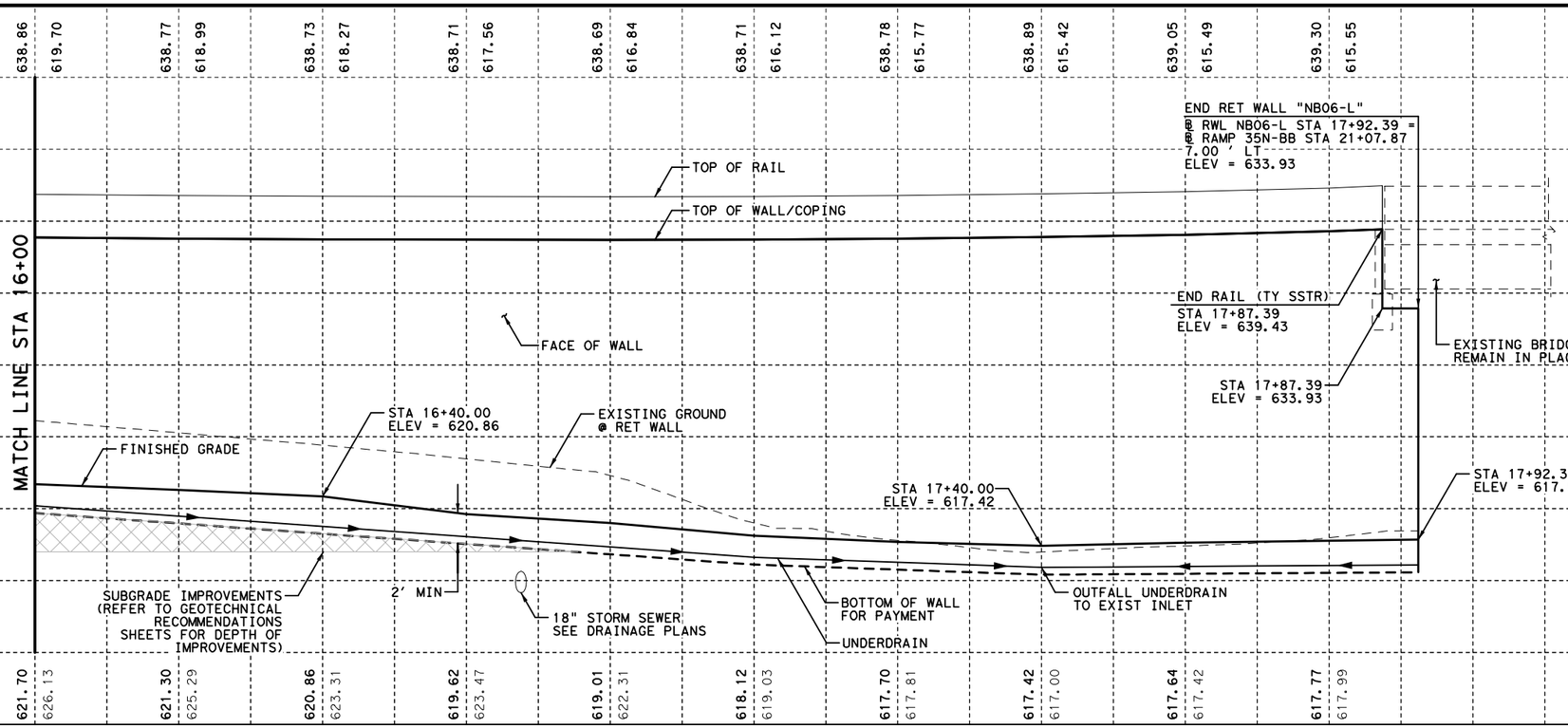

STATE OF TEXAS
DAVID W. HAWLEY
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LICENSED
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8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
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TBPE REGISTRATION NO. F-926

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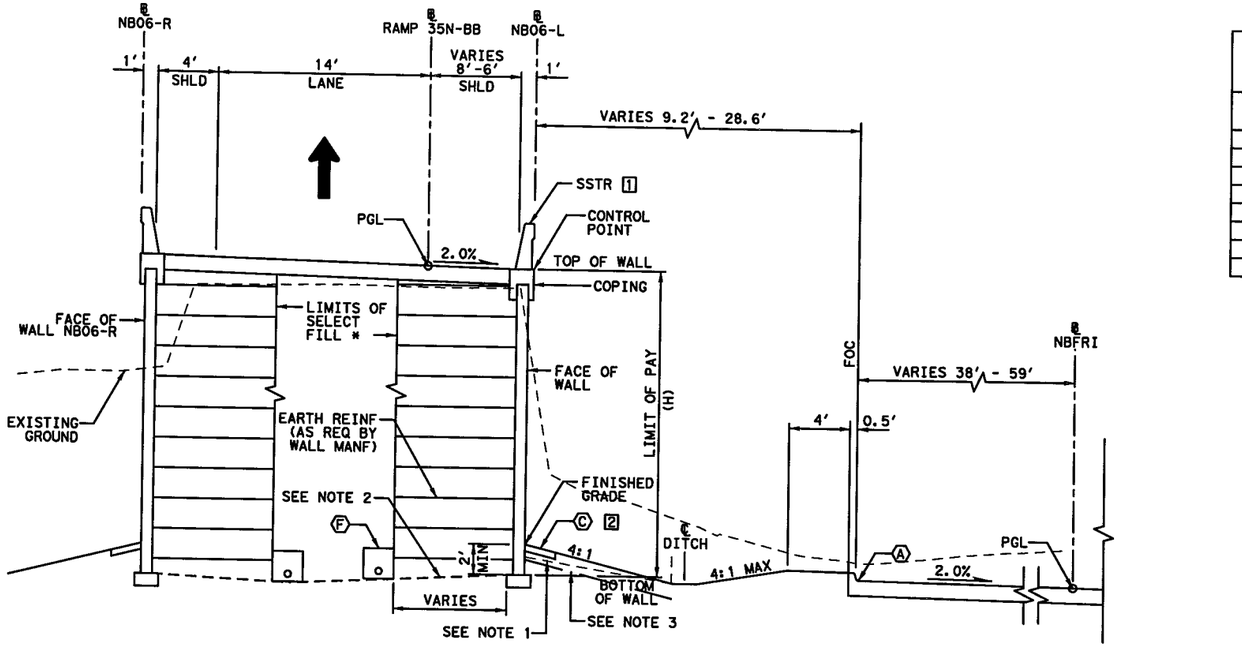
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB06-L

SCALE 1"= 20' H, 1"=10' V — SHEET 4 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	978
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB06-L-04*GTN.dgn
DRAWING DATE: 8/20/2012

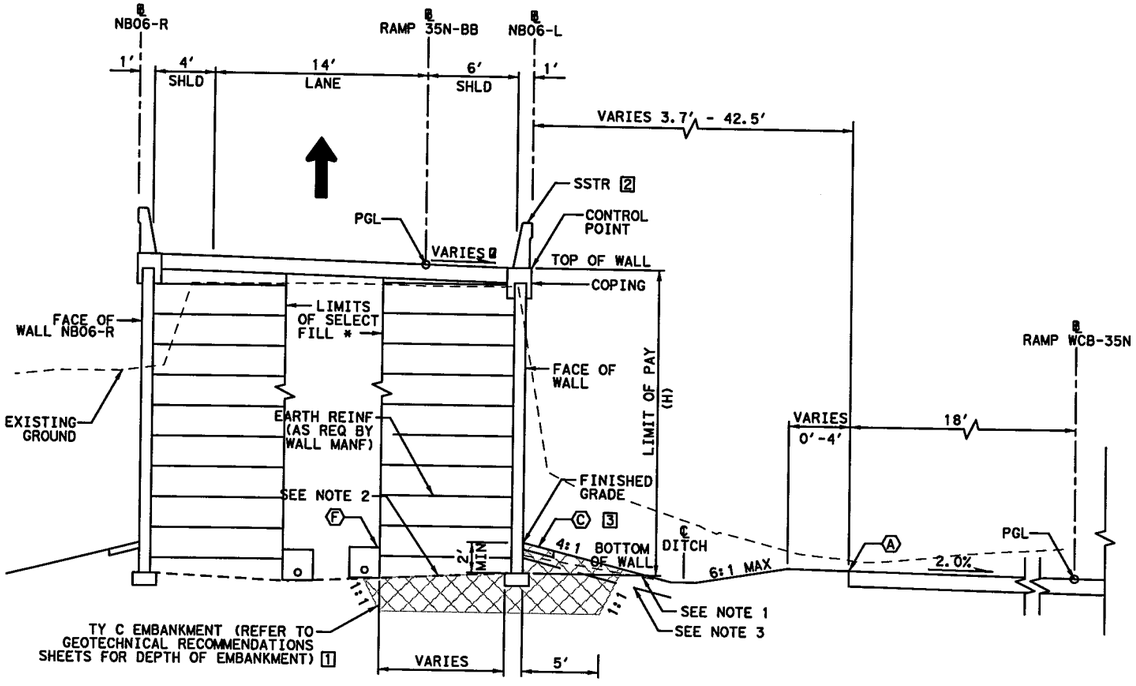


PROPOSED WALL "NB06-L" TYPICAL SECTION

℄ NB06-L STA 9+93.00 TO STA 12+52.00

[1] LIMITS OF RAIL
STA 10+19.50 TO STA 12+52.00

[2] LIMITS OF MOW STRIP
STA 10+28.33 TO STA 12+52.00



PROPOSED WALL "NB06-L" TYPICAL SECTION

℄ NB06-L STA 12+52.00 TO STA 17+92.39

[1] LIMITS OF TY C EMBANKMENT
STA 15+91.00 TO STA 16+76.00

[2] LIMITS OF RAIL
STA 12+52.00 TO STA 16+76.00

[3] LIMITS OF MOW STRIP
STA 12+52.00 TO STA 16+96.52

ℊ SUPER ELEVATION TRANSITION
℄ RWL NB06-L 14+99.38, 2.00%
℄ RWL NB06-L 16+49.20, -2.00%

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	14,885
RIPRAP (MOW STRIP) (5 IN)	CY	21
RAIL (SSTR)	LF	768
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	835

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

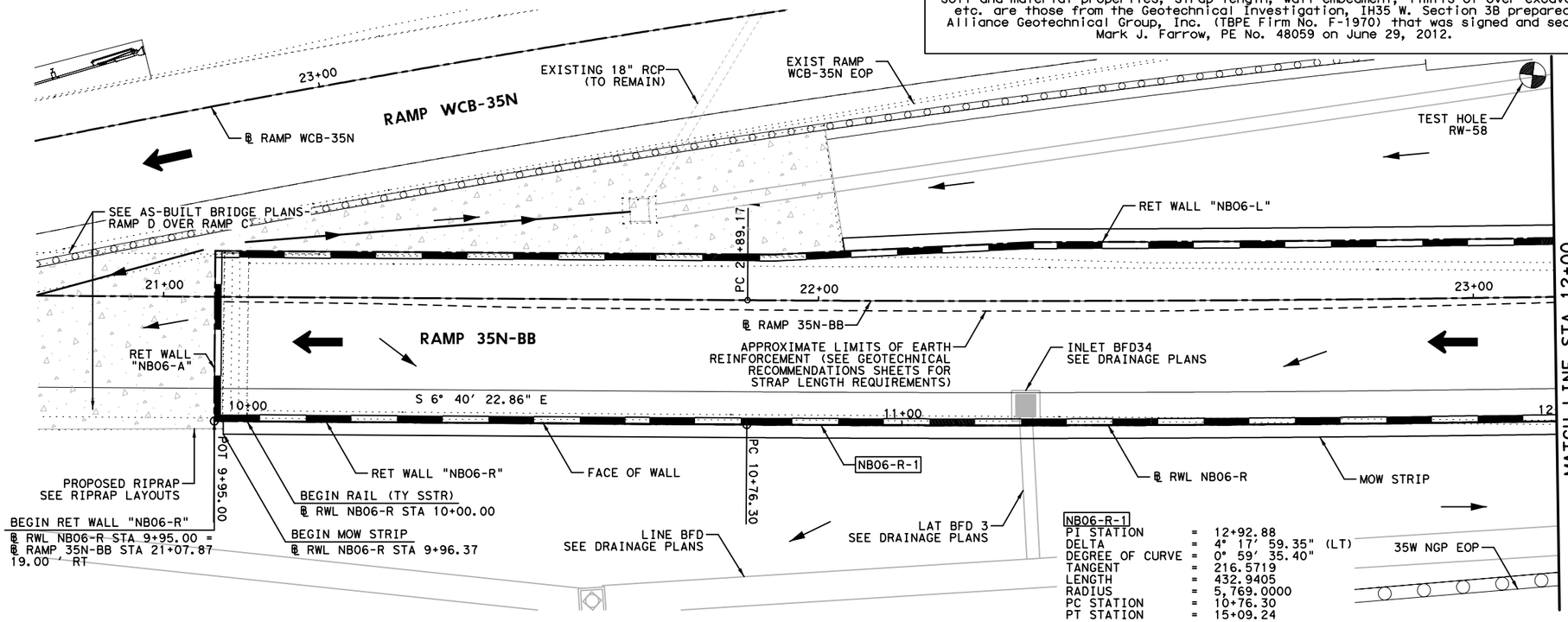
NB06-L

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	979
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB06-L*GTN.dgn

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



NB06-R-1

PI STATION	=	12+92.88
DELTA	=	4° 17' 59.35" (LT)
DEGREE OF CURVE	=	0° 59' 35.40"
TANGENT	=	216.5719
LENGTH	=	432.9405
RADIUS	=	5,769.0000
PC STATION	=	10+76.30
PT STATION	=	15+09.24

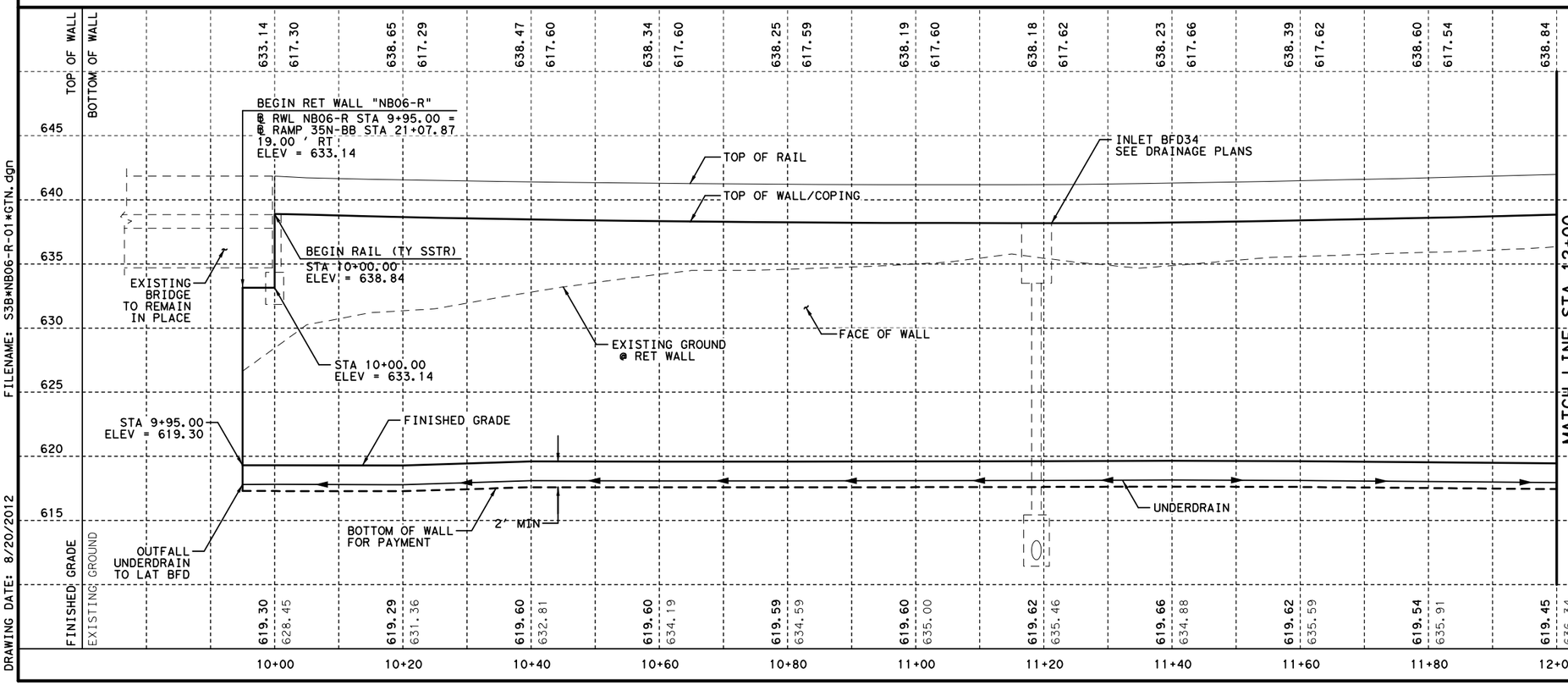
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- CURVE XX — HORIZONTAL CURVE
- Ⓒ — CONSTRUCTION JOINT
- Ⓔ — EXPANSION JOINT
- ← — DRAINAGE FLOW ARROWS
- ⬅ — TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: S3B*NB06-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB06-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	980
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

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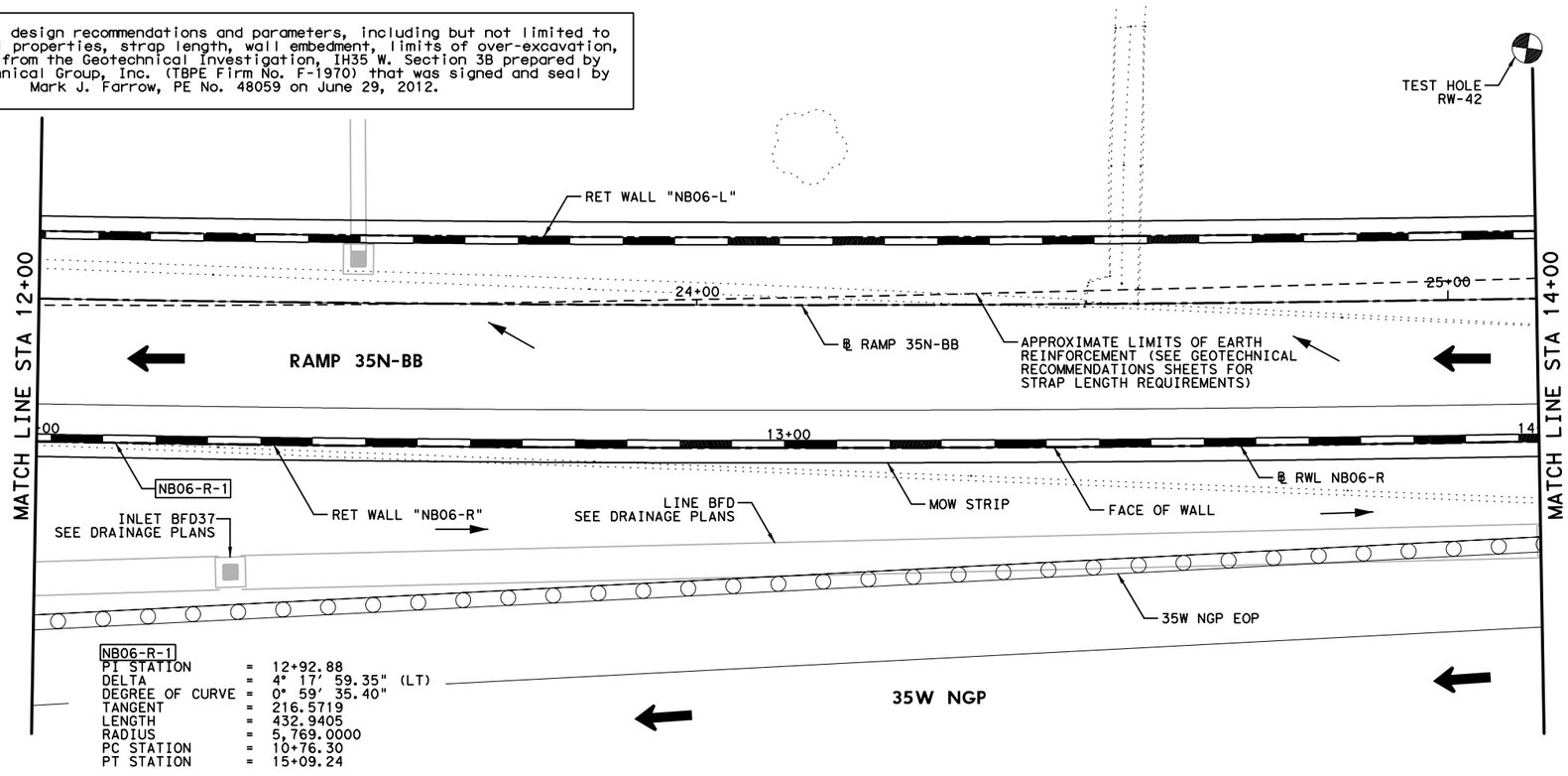

NB06-R-1
PI STATION = 12+92.88
DELTA = 4° 17' 59.35" (LT)
DEGREE OF CURVE = 0° 59' 35.40"
TANGENT = 216.5719
LENGTH = 432.9405
RADIUS = 5,769.0000
PC STATION = 10+76.30
PT STATION = 15+09.24

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
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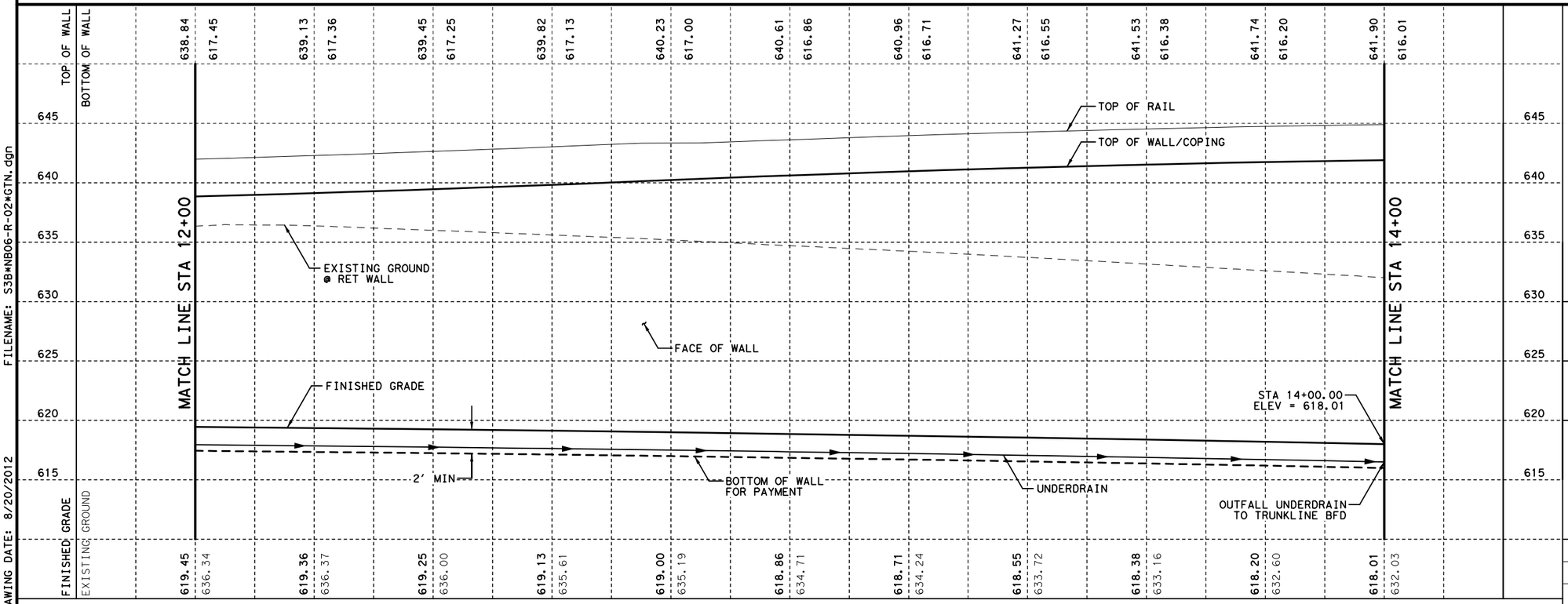
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: S3B*NB06-R-02*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB06-R

SCALE 1"= 20' H, 1"=10' V — SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	981
KCI	0014	16	255, ETC.	
CHECK				
KCI				

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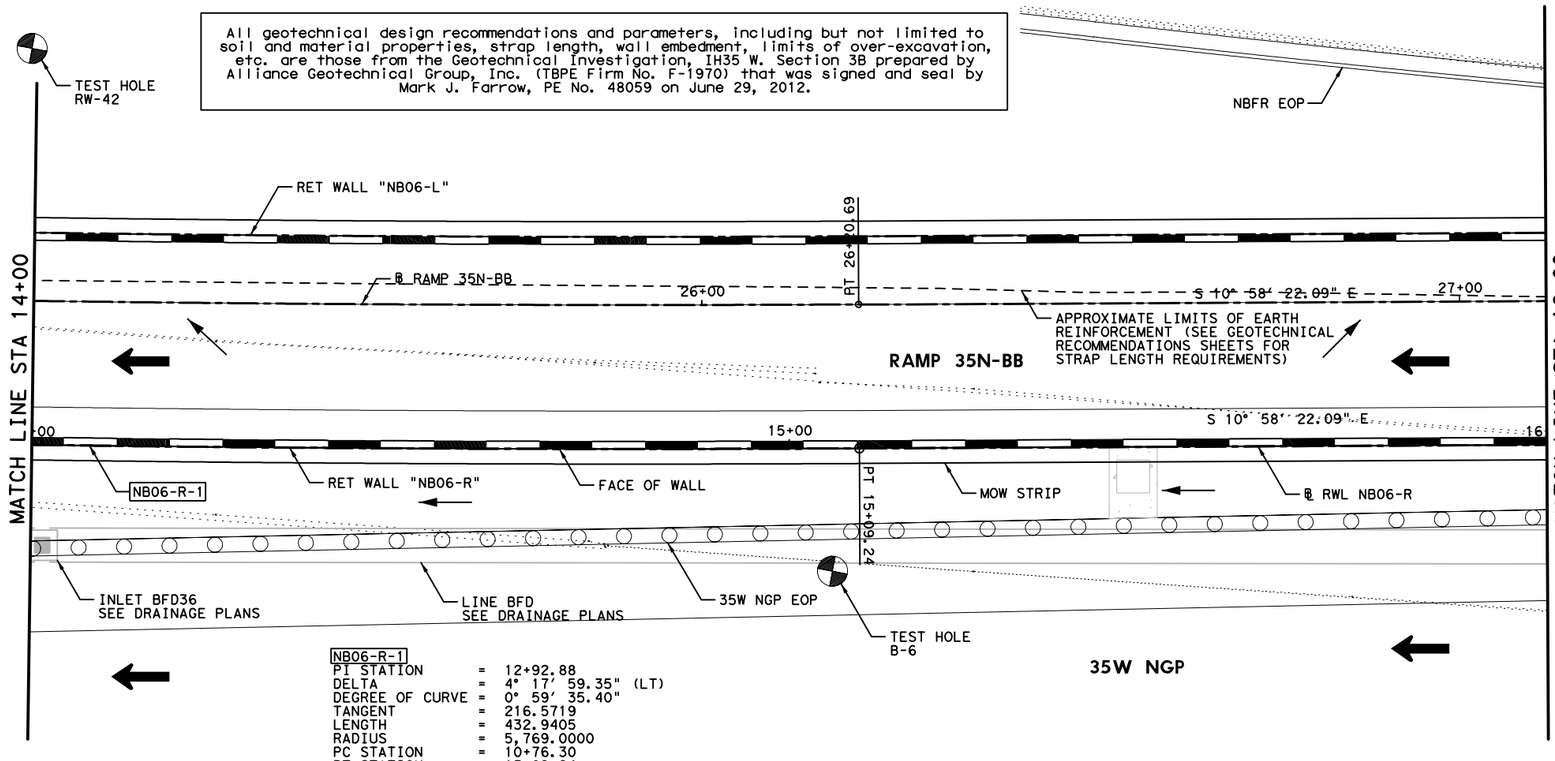

NB06-R-1
PI STATION = 12+92.88
DELTA = 4° 17' 59.35" (LT)
DEGREE OF CURVE = 0° 59' 35.40"
TANGENT = 216.5719
LENGTH = 432.9405
RADIUS = 5,769.0000
PC STATION = 10+76.30
PT STATION = 15+09.24

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
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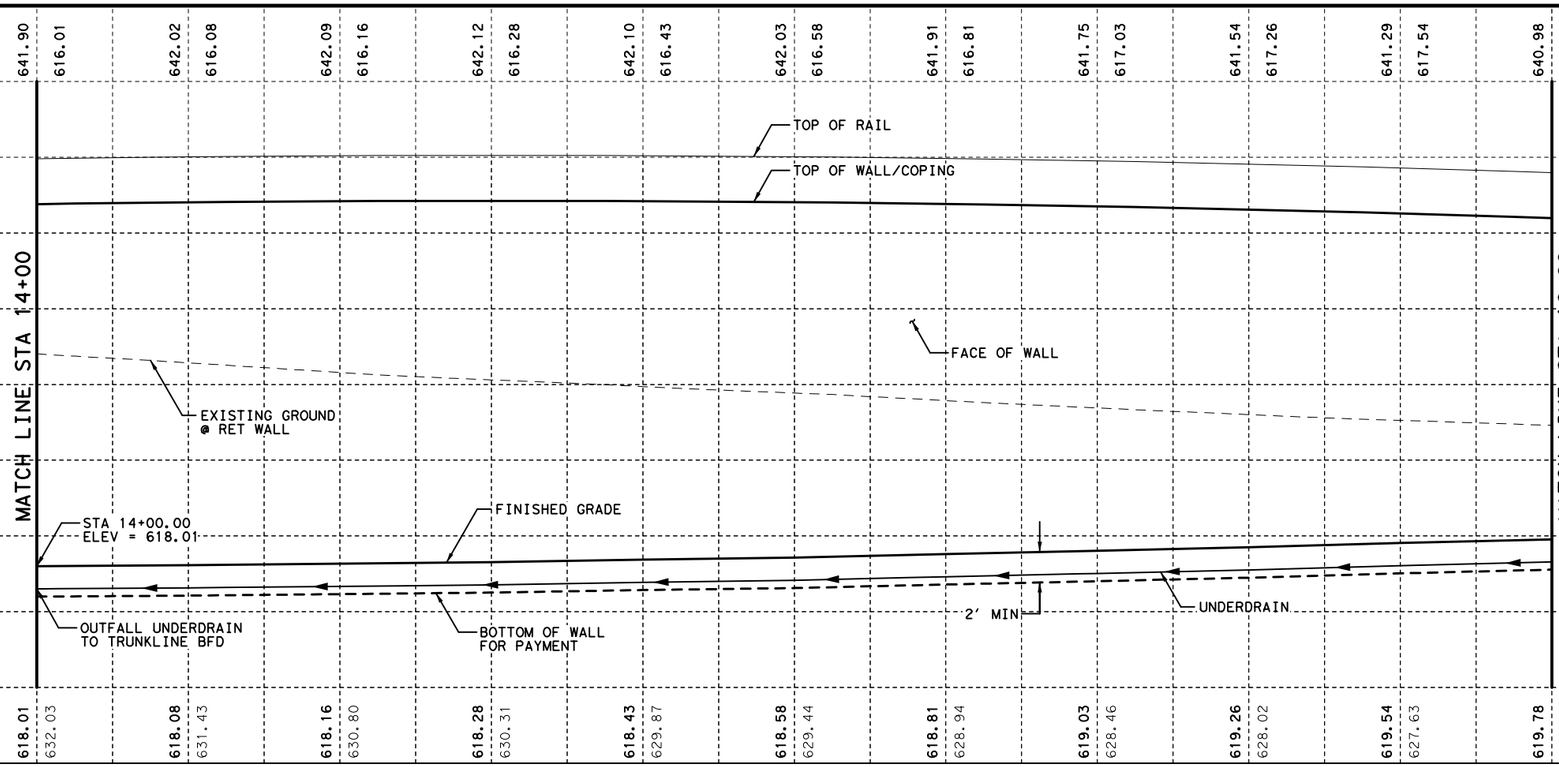

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB06-R

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	982
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB06-R-03*GTN.dgn
DRAWING DATE: 8/20/2012

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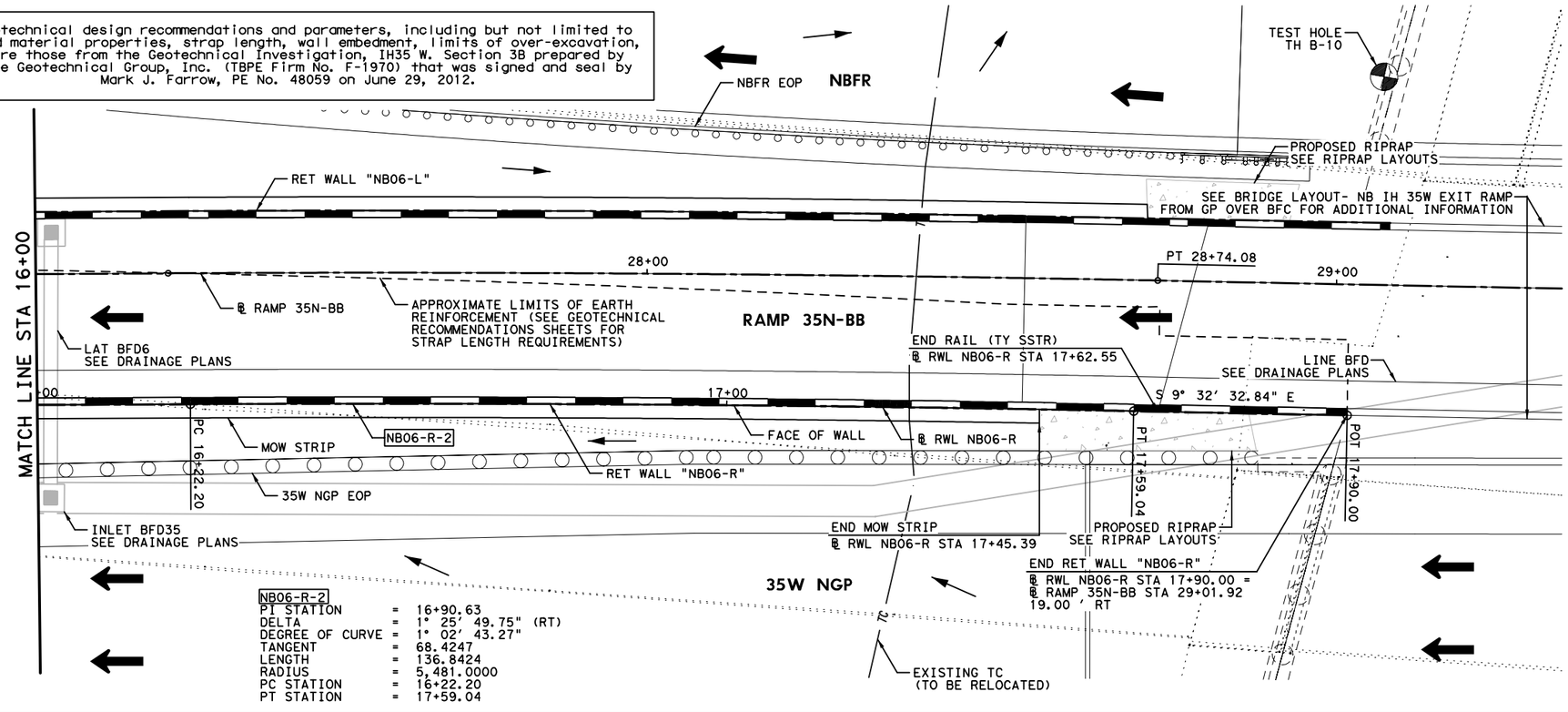

NB06-R-2
PI STATION = 16+90.63
DELTA = 1° 25' 49.75" (RT)
DEGREE OF CURVE = 1° 02' 43.27"
TANGENT = 68.4247
LENGTH = 136.8424
RADIUS = 5,481.0000
PC STATION = 16+22.20
PT STATION = 17+59.04

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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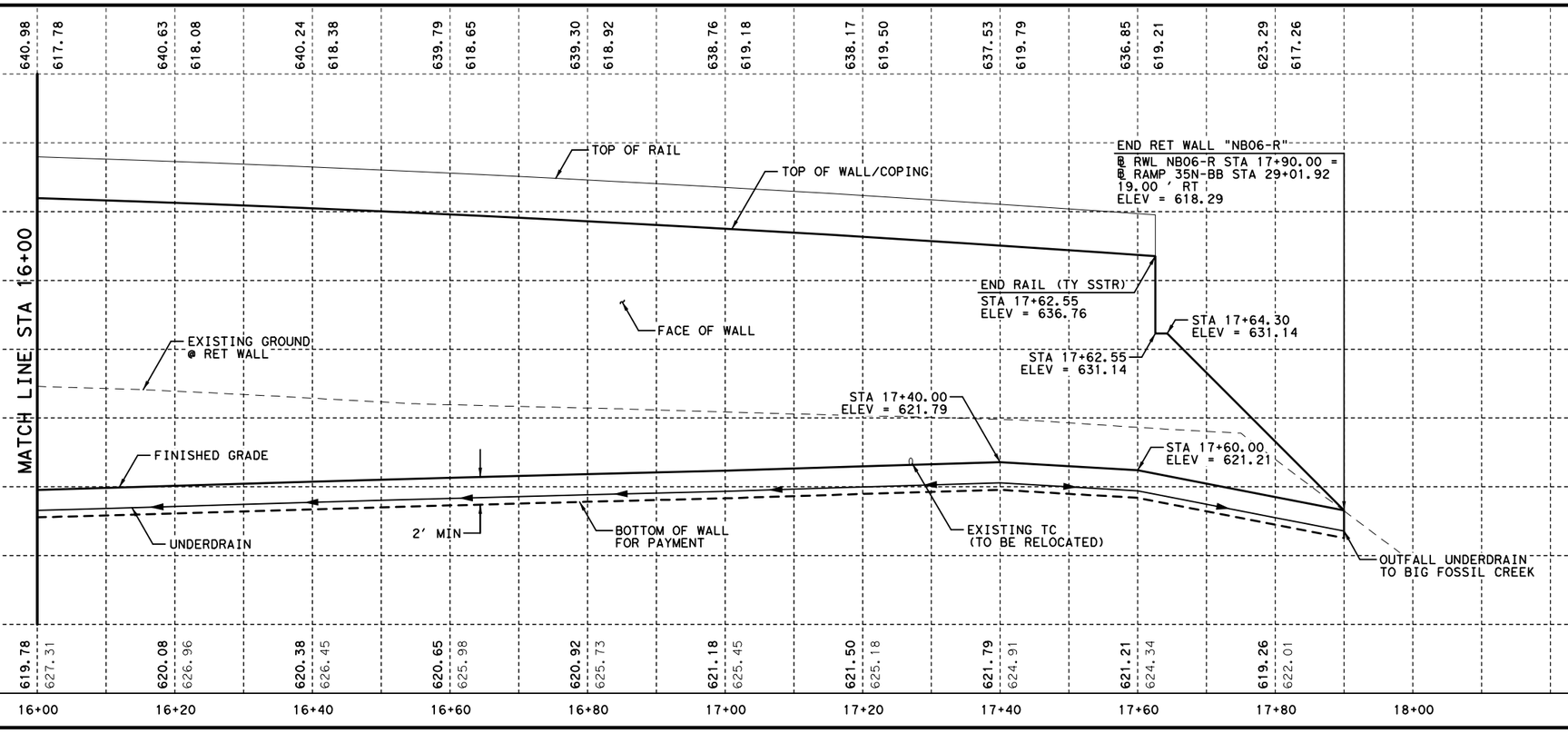
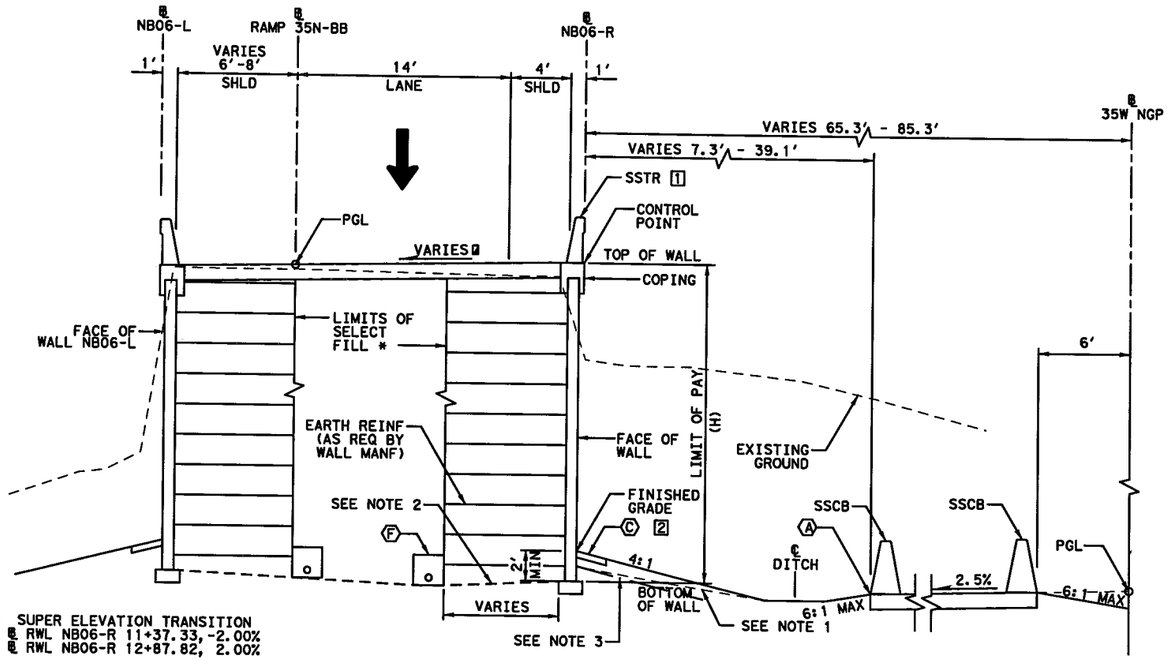
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



| | | |

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	17,515
RIPRAP (MOW STRIP)(5 IN)	CY	23
RAIL (SSTR)	LF	763
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	874



@ SUPER ELEVATION TRANSITION
@@ RWL NB06-R 11+37.33, -2.00%
@@ RWL NB06-R 12+87.82, 2.00%

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

[1] LIMITS OF RAIL
STA 10+00.00 TO STA 17+62.55

[2] LIMITS OF MOW STRIP
STA 9+96.37 TO STA 17+45.39

PROPOSED WALL "NB06-R" TYPICAL SECTION

℄ NB06-R STA 9+95.00 TO STA 17+90.00

0' 5' 10'
SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
- Ⓓ RIPRAP (CONC)(FLUME)
- Ⓔ RIPRAP (CONC)(5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

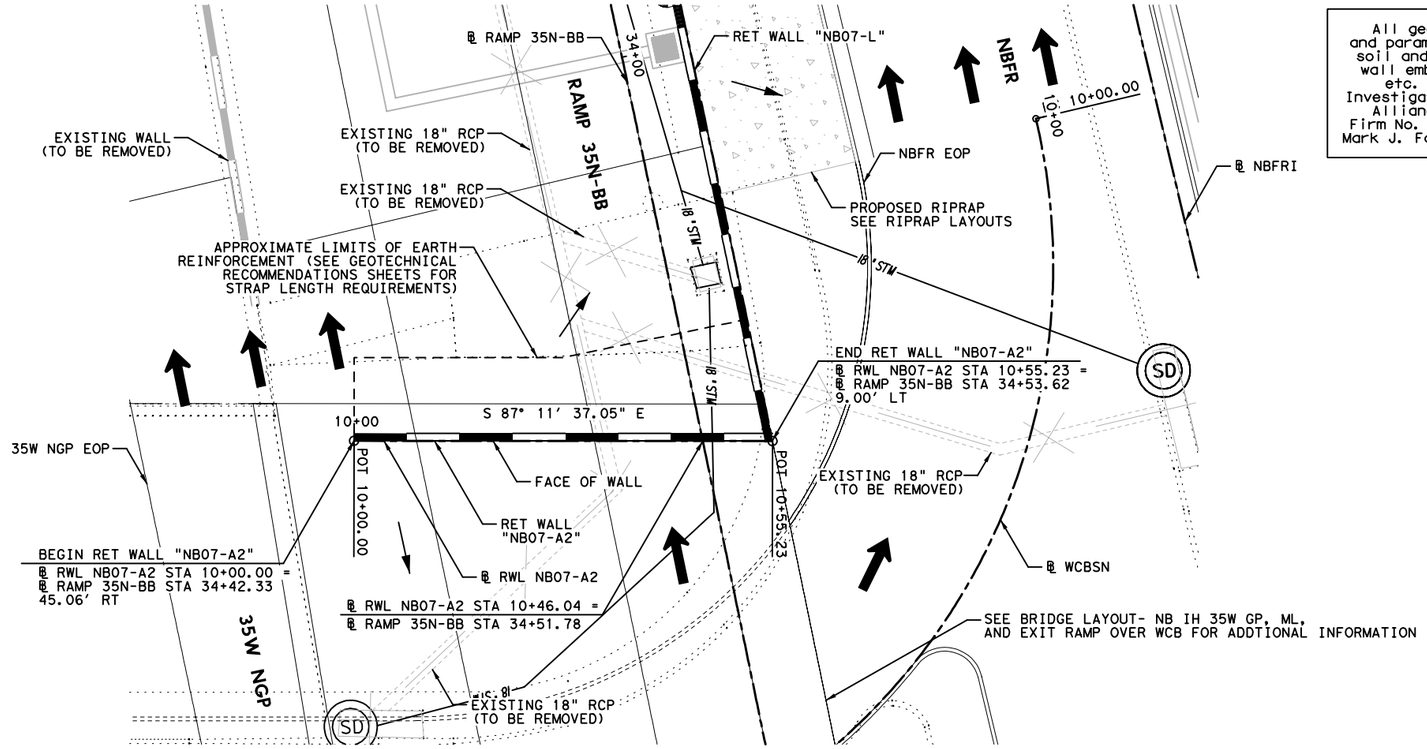
NB06-R

SCALE 1" = 10'

SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	984
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB06-R*GTN.dgn



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HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
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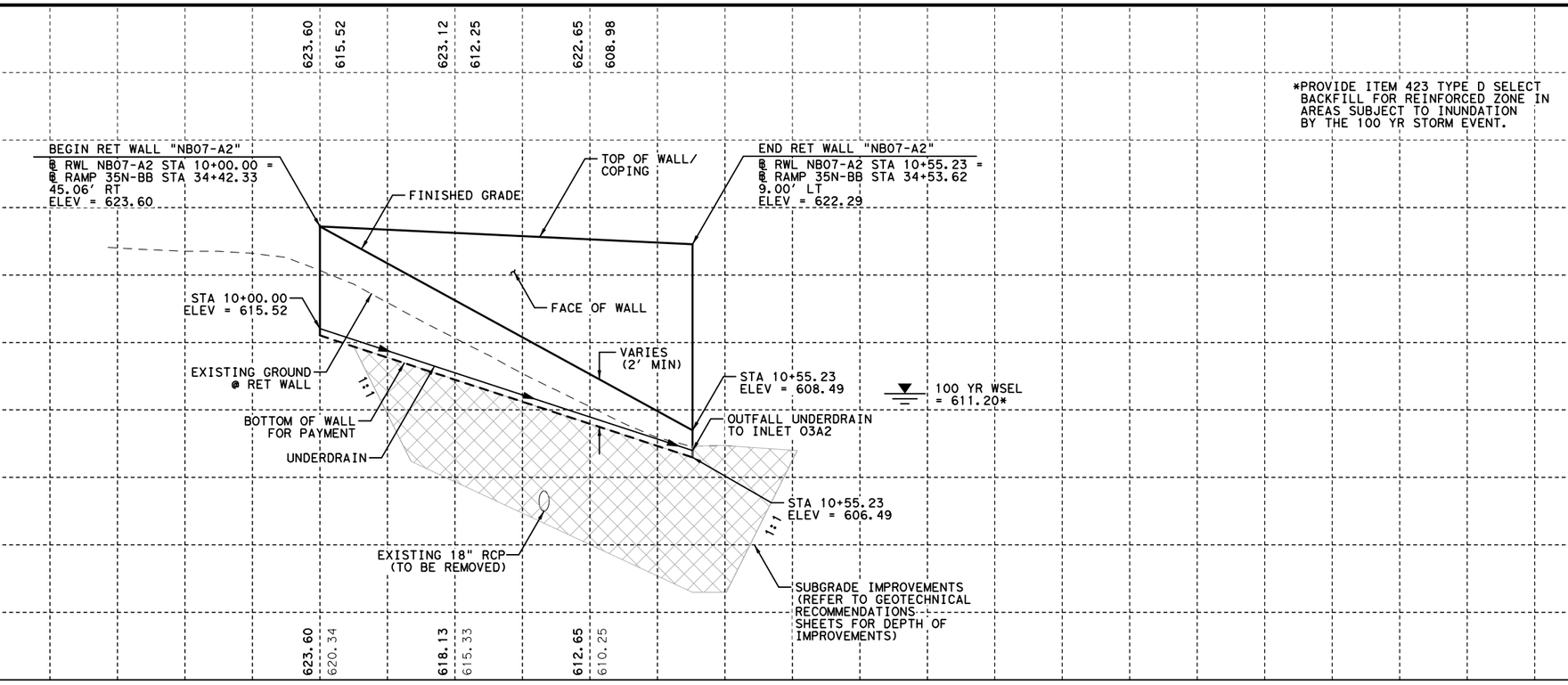

*PROVIDE ITEM 423 TYPE D SELECT BACKFILL FOR REINFORCED ZONE IN AREAS SUBJECT TO INUNDATION BY THE 100 YR STORM EVENT.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB07-A2

SCALE 1"= 20′ H, 1"=10′ V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	985
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*NB07-A2-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	660
RIPRAP (CONC) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	79

0′ 5′ 10′

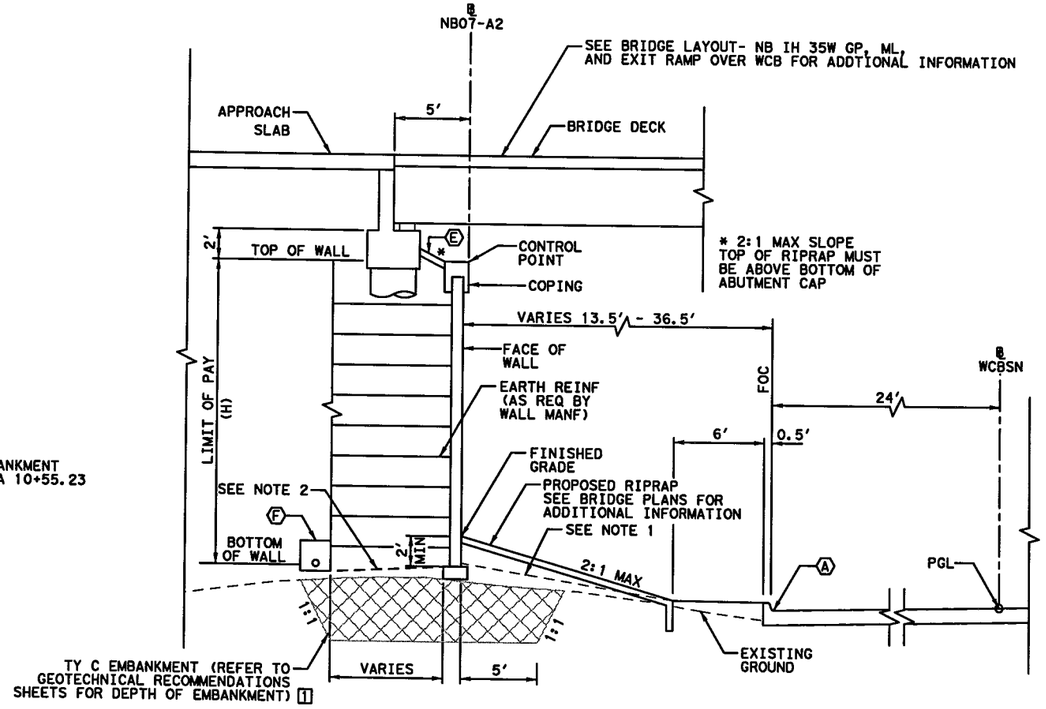
SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2′ RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.



[1] LIMITS OF TY C EMBANKMENT STA 10+13.51 TO STA 10+55.23

PROPOSED WALL "NB07-A2" TYPICAL SECTION

℄ NB07-A2 STA 10+00.00 TO STA 10+55.23

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

STATE OF TEXAS
DAVID W. HANLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

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KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB07-A2

SCALE 1" = 10′ SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	986
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*TYPNB07-A2*GTN.dgn

DRAWING DATE: 7/13/2012

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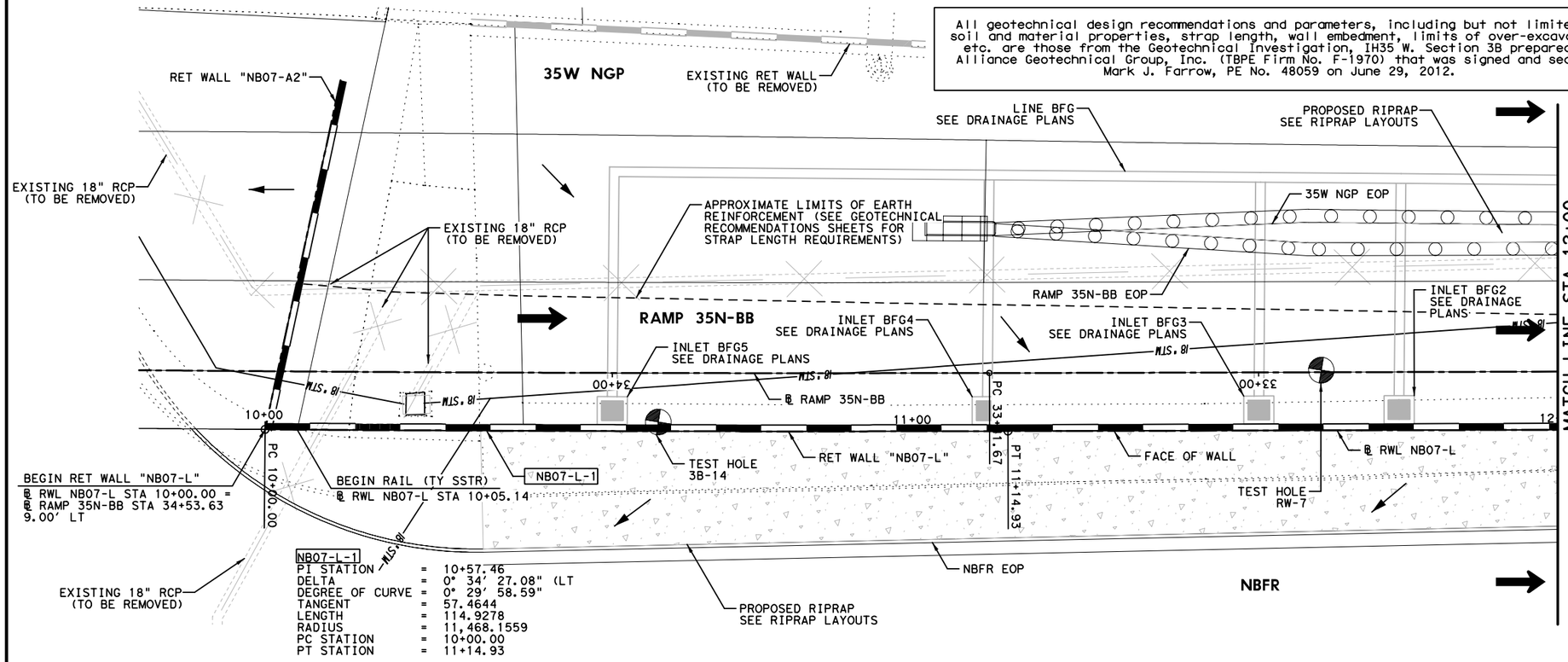


NB07-L-1

PI STATION	=	10+57.46
DELTA	=	0° 34' 27.08" (LT
DEGREE OF CURVE	=	0° 29' 58.59"
TANGENT	=	57.4644
LENGTH	=	114.9278
RADIUS	=	11,468.1559
PC STATION	=	10+00.00
PT STATION	=	11+14.93

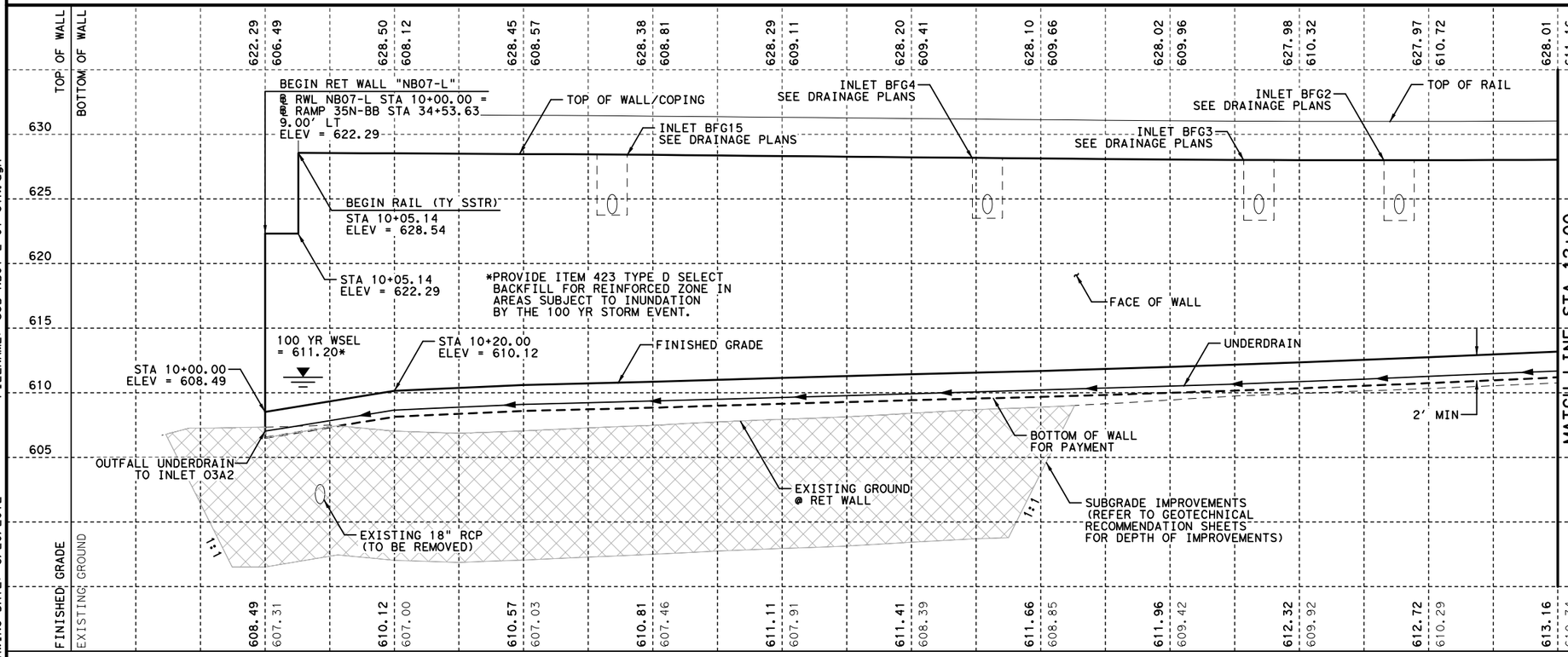
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB07-L

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	987
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB07-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

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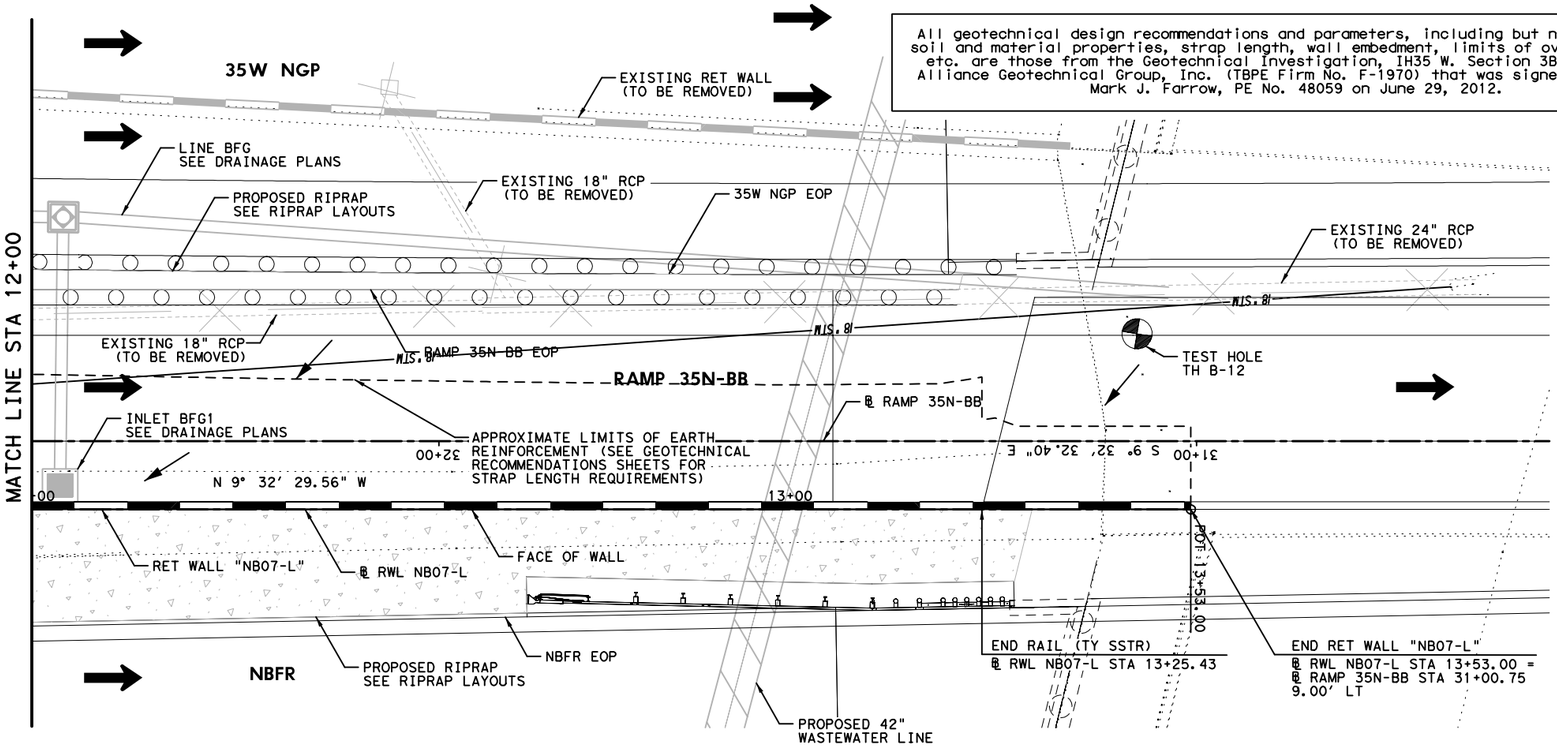

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
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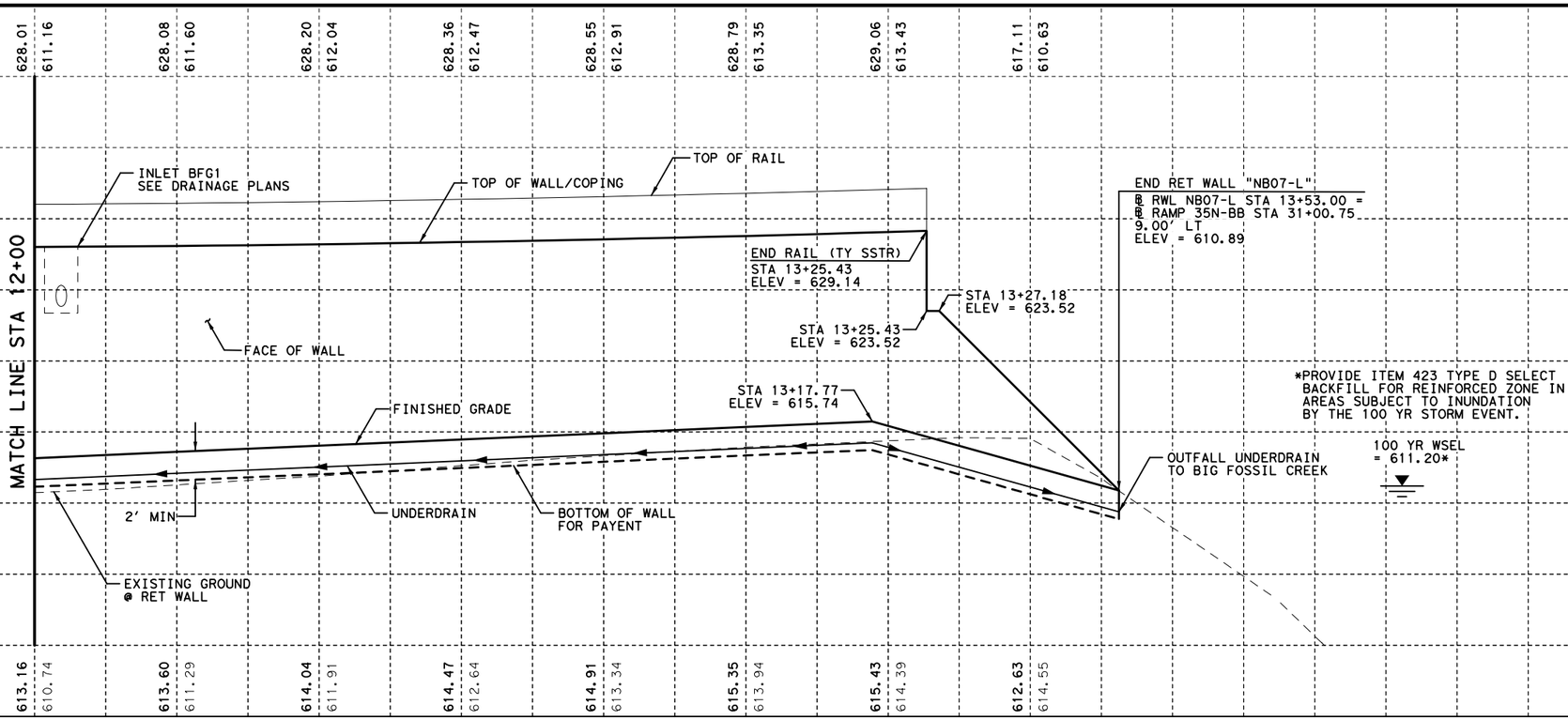

STATE OF TEXAS
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KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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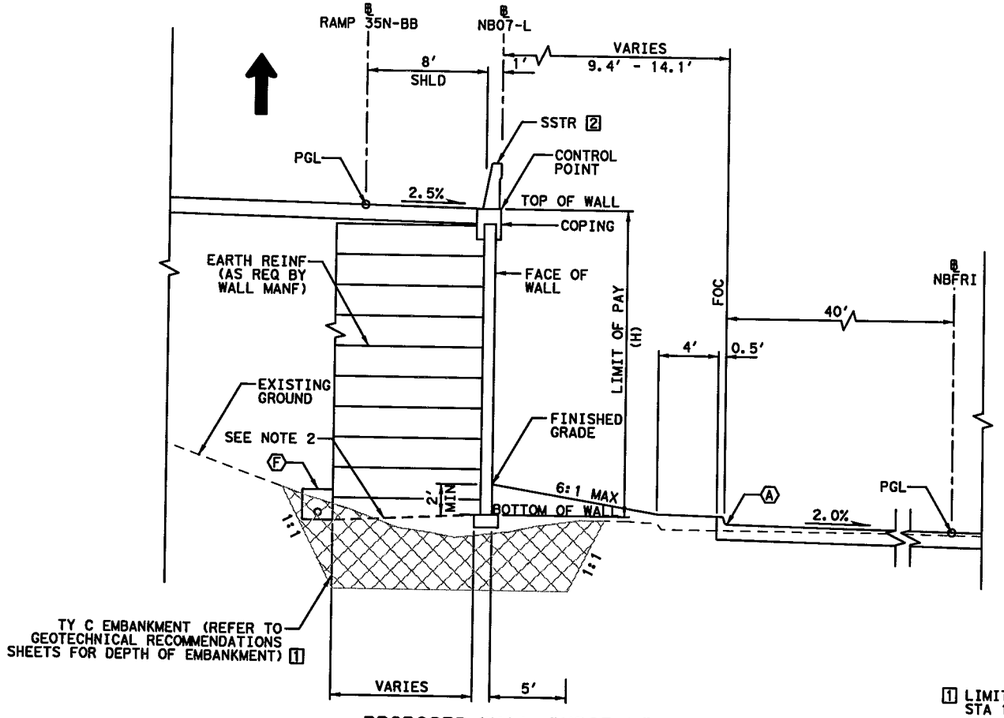
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB07-L

SCALE 1"= 20' H, 1"=10' V — SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	988
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*NB07-L-02*GTN.dgn
DRAWING DATE: 8/20/2012

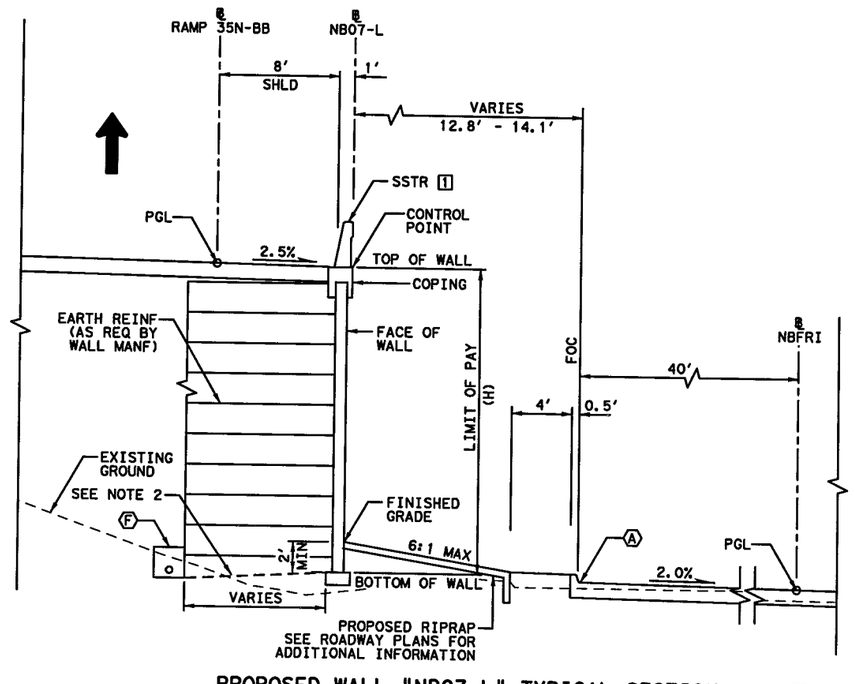


PROPOSED WALL "NB07-L" TYPICAL SECTION

@ NB07-L STA 10+00.00 TO STA 11+15.00

[1] LIMITS OF TY C EMBANKMENT
STA 10+00.00 TO STA 11+15.00

[2] LIMITS OF RAIL
STA 10+05.14 TO STA 11+15.00



PROPOSED WALL "NB07-L" TYPICAL SECTION

@ NB07-L STA 11+15.00 TO STA 13+52.44

[1] LIMITS OF RAIL
STA 11+15.00 TO STA 13+25.43

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	5,925
RAIL (SSTR)	LF	320
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	375

0' 5' 10'

SCALE IN FEET

LEGEND:

- (A) EDGE OF PROPOSED PAVEMENT
- (B) EDGE OF ULTIMATE PAVEMENT
- (C) 2' RIPRAP (MOW STRIP) (5 IN)
- (D) RIPRAP (CONC) (FLUME)
- (E) RIPRAP (CONC) (5 IN)
- (F) PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

STATE OF TEXAS
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92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
TYPICAL SECTIONS
NB07-L

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	989
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B#TYPNB07-L#GTN.dgn

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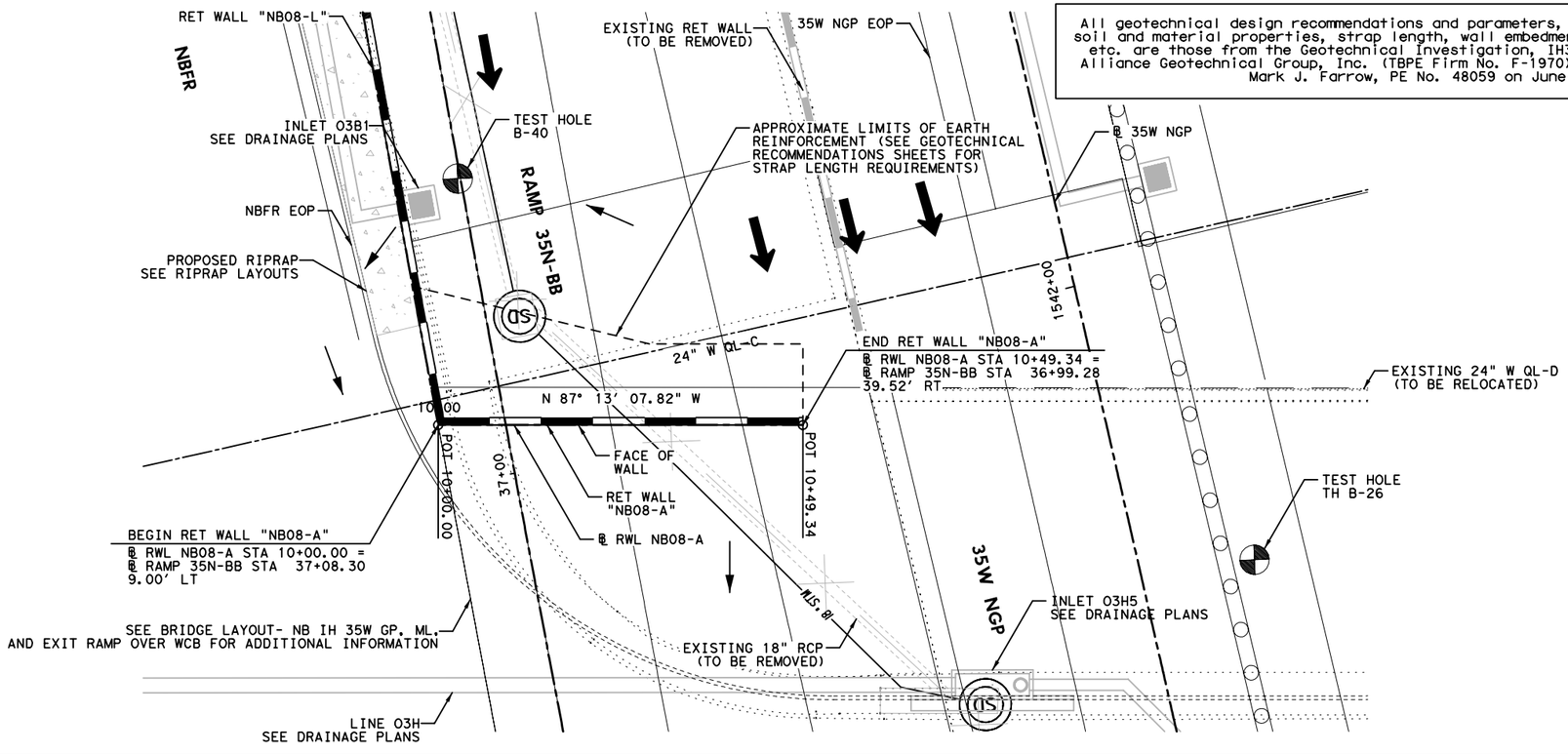

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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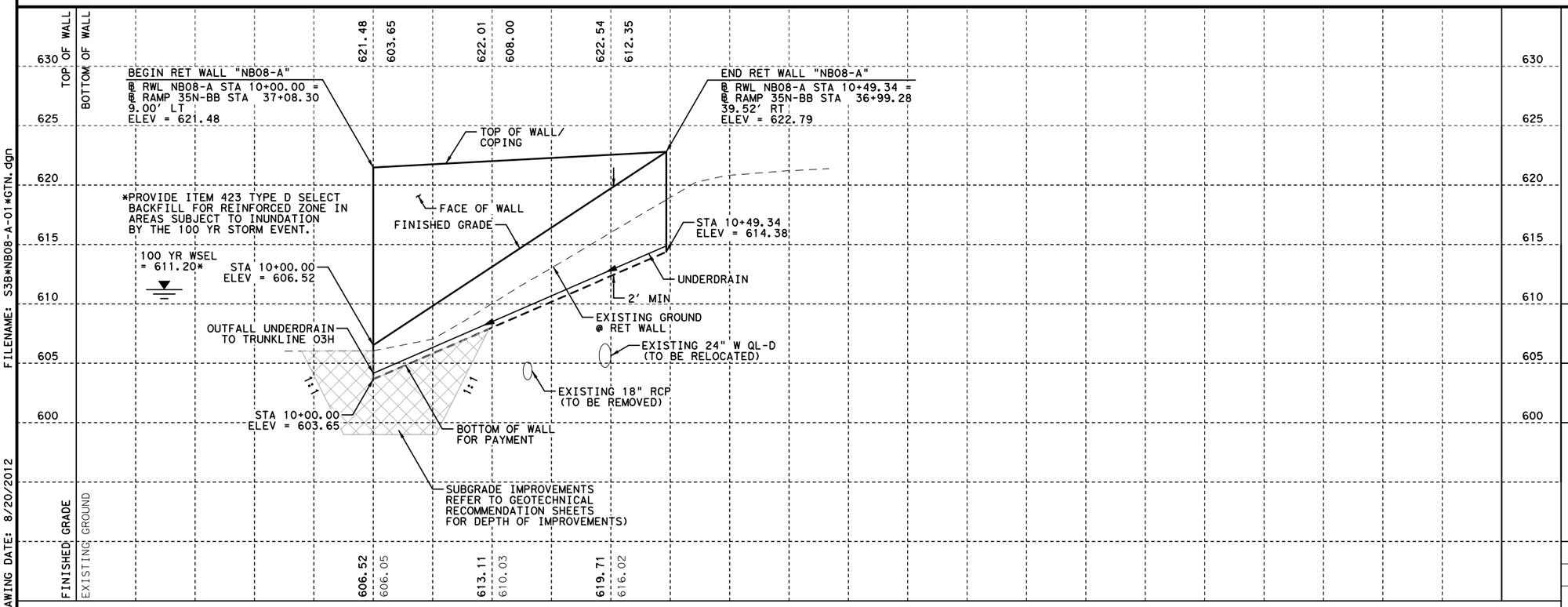

STATE OF TEXAS
DAVID W. HAWLEY
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8/22/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB08-A

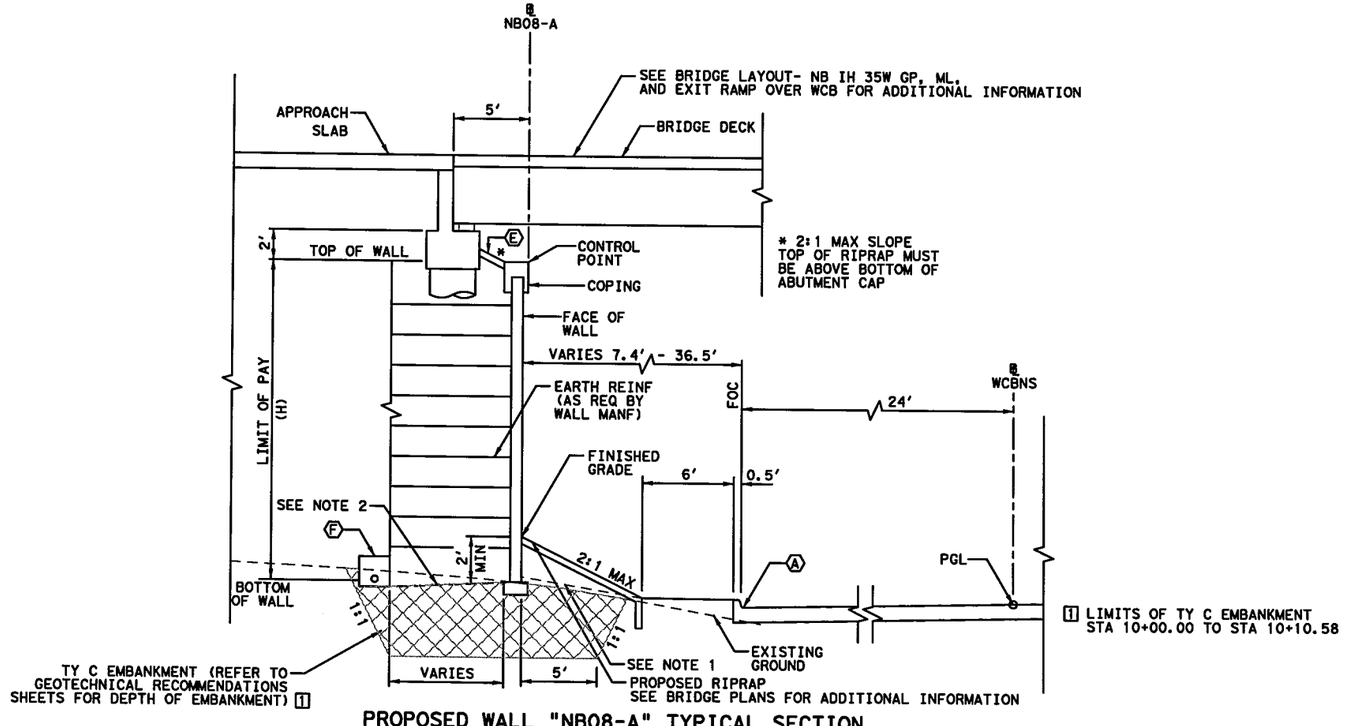
SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	990
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*NB08-A-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	648
RIPRAP (CONC) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	87



PROPOSED WALL "NB08-A" TYPICAL SECTION

℄ NB08-A STA 10+00.00 TO STA 10+49.34

0' 5' 10'

SCALE IN FEET

LEGEND:

- (A) EDGE OF PROPOSED PAVEMENT
- (B) EDGE OF ULTIMATE PAVEMENT
- (C) 2' RIPRAP (MOW STRIP) (5 IN)
- (D) RIPRAP (CONC) (FLUME)
- (E) RIPRAP (CONC) (5 IN)
- (F) PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

STATE OF TEXAS
DAVID W. HAWLEY
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LICENSED PROFESSIONAL ENGINEER

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7/10/2012

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TBPE REGISTRATION NO. F-926

Texas Department of Transportation

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB08-A

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	991
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB08-A*GTN.dgn

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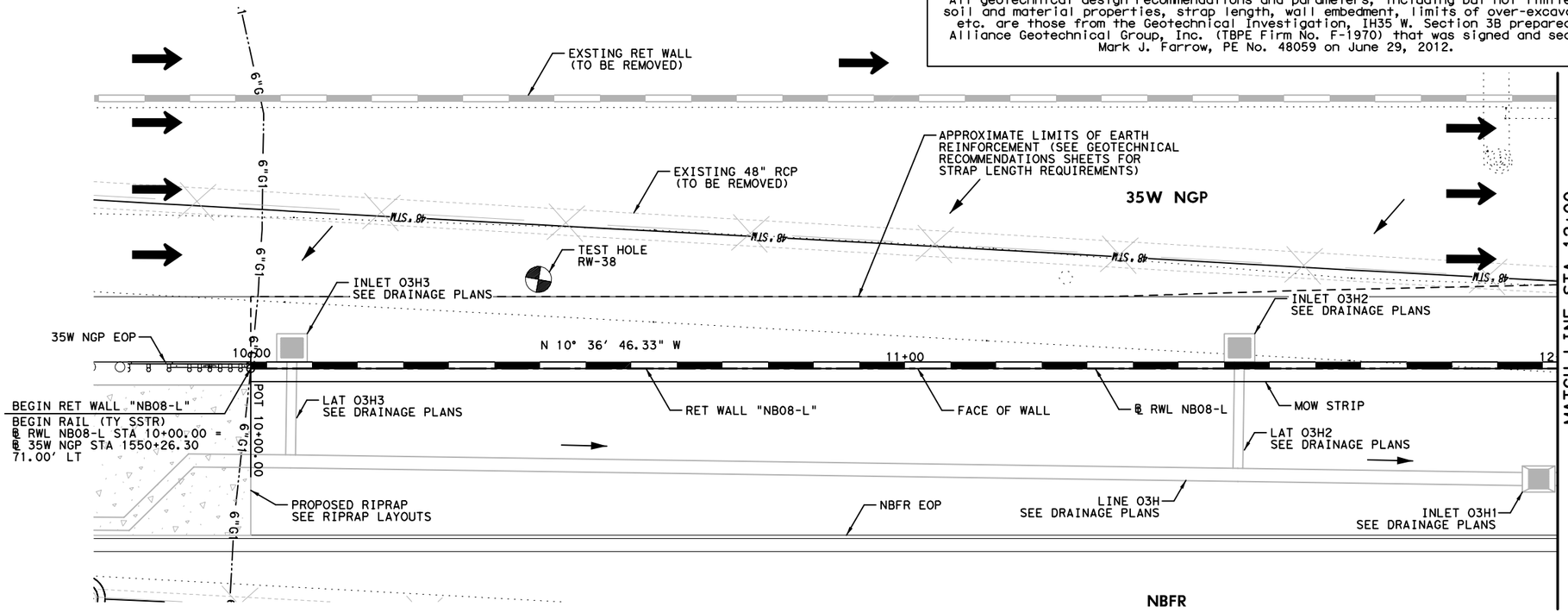

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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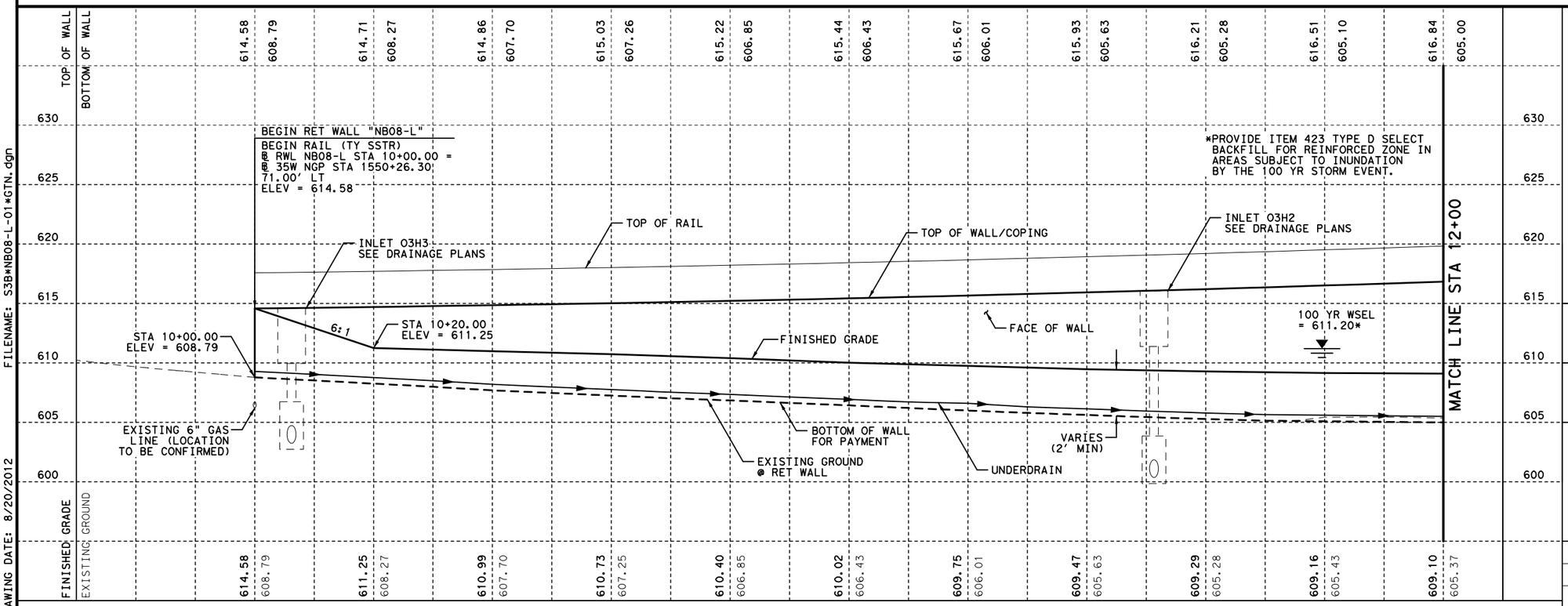

FILENAME: S3B*NB08-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB08-L

SCALE 1"= 20′ H, 1"=10′ V — SHEET 1 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	992
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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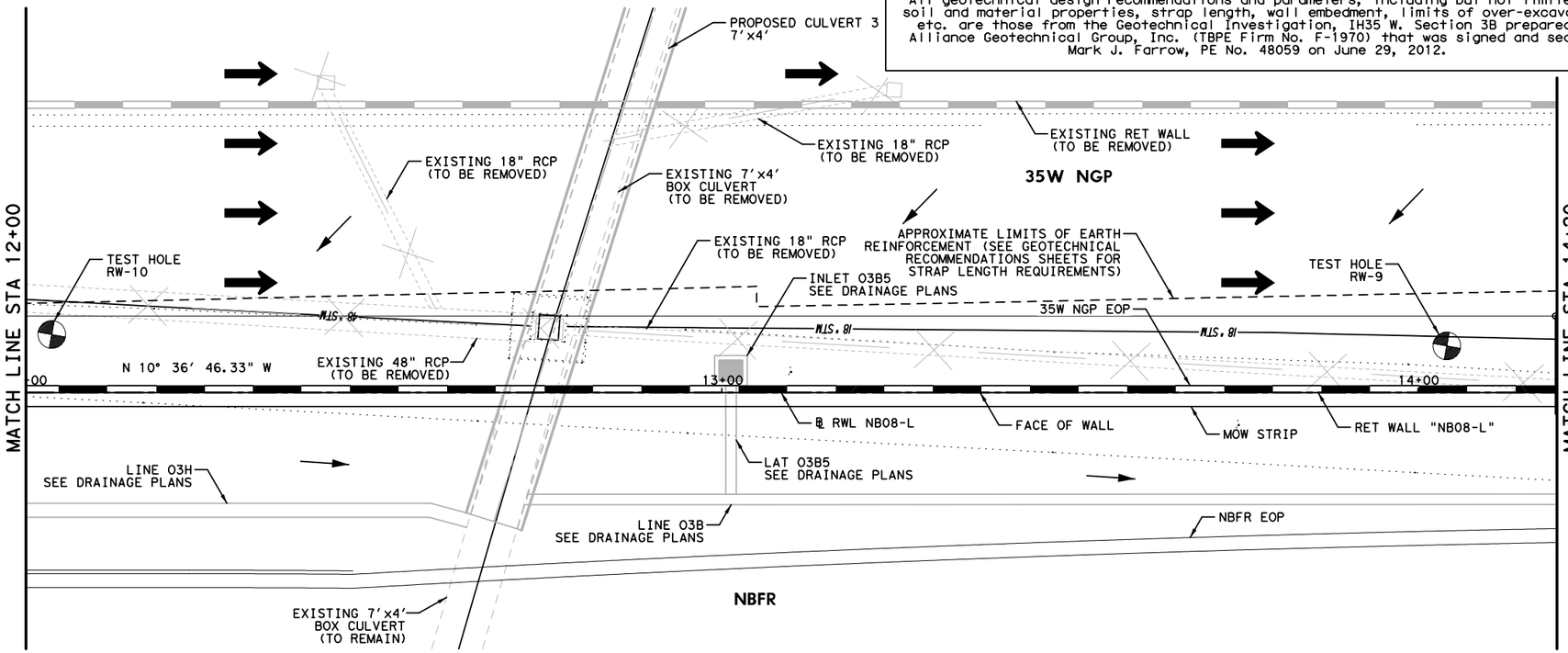

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
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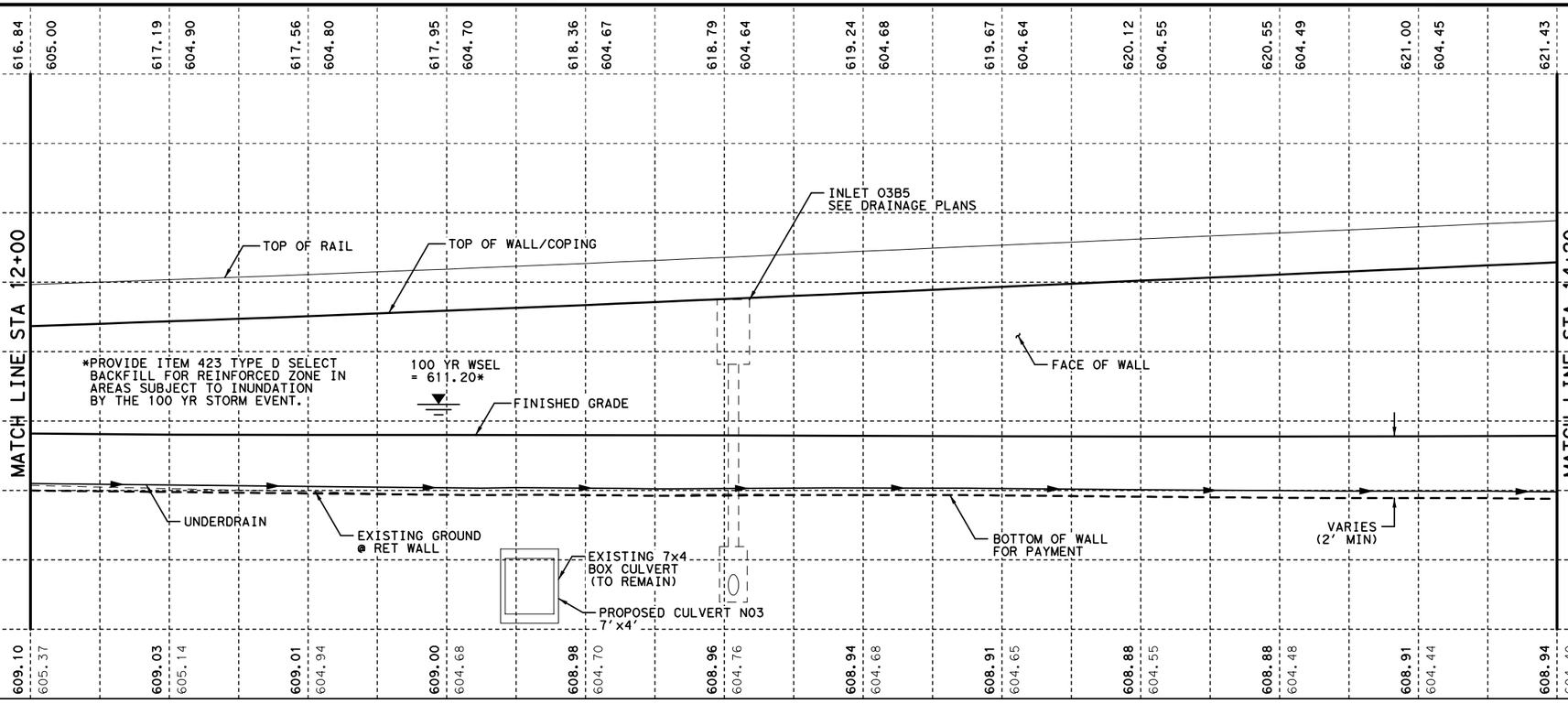

FILENAME: S3B*NB08-L-02*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB08-L

SCALE 1"= 20' H, 1"=10' V — SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	993
KCI	0014	16	255, ETC.	
CHECK				
KCI				

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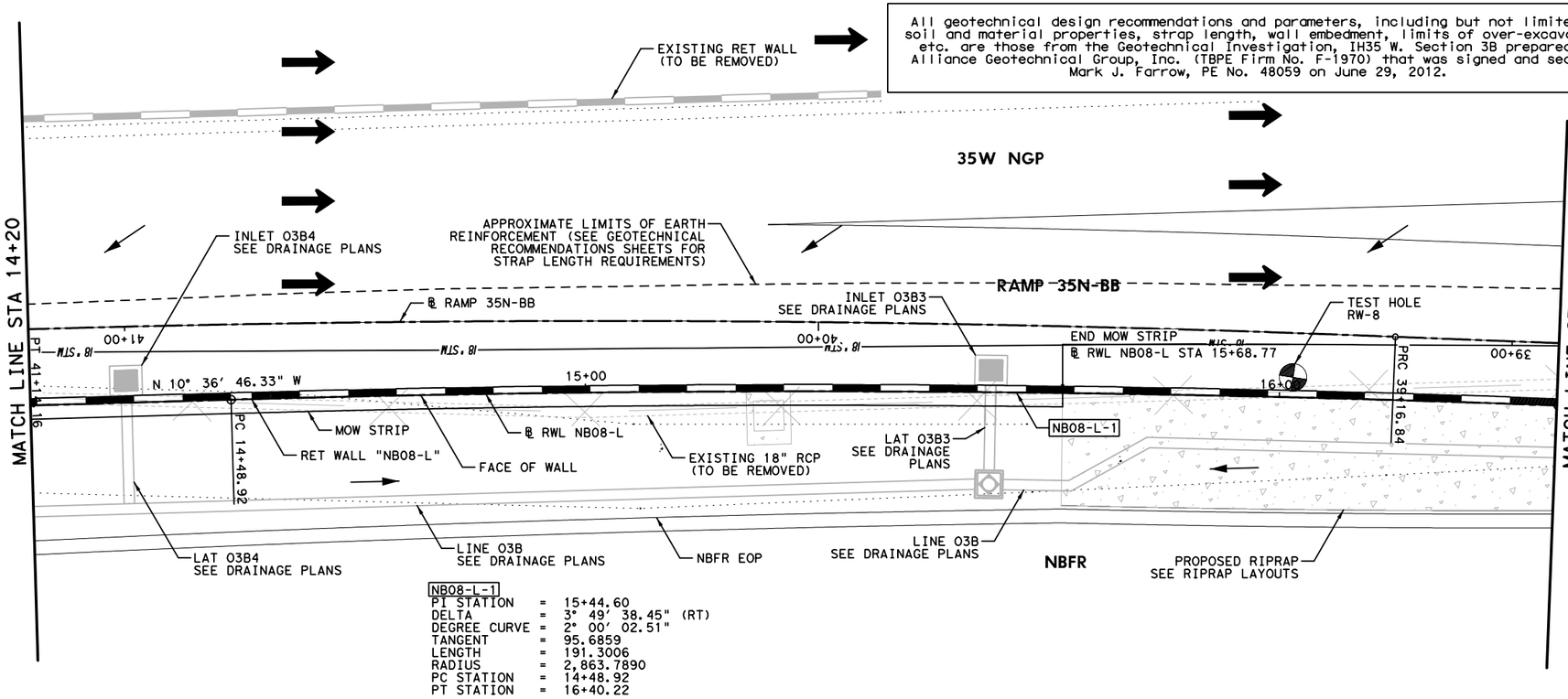

NB08-L-1
PI STATION = 15+44.60
DELTA = 3° 49' 38.45" (RT)
DEGREE CURVE = 2° 00' 02.51"
TANGENT = 95.6859
LENGTH = 191.3006
RADIUS = 2,863.7890
PC STATION = 14+48.92
PT STATION = 16+40.22

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⟵	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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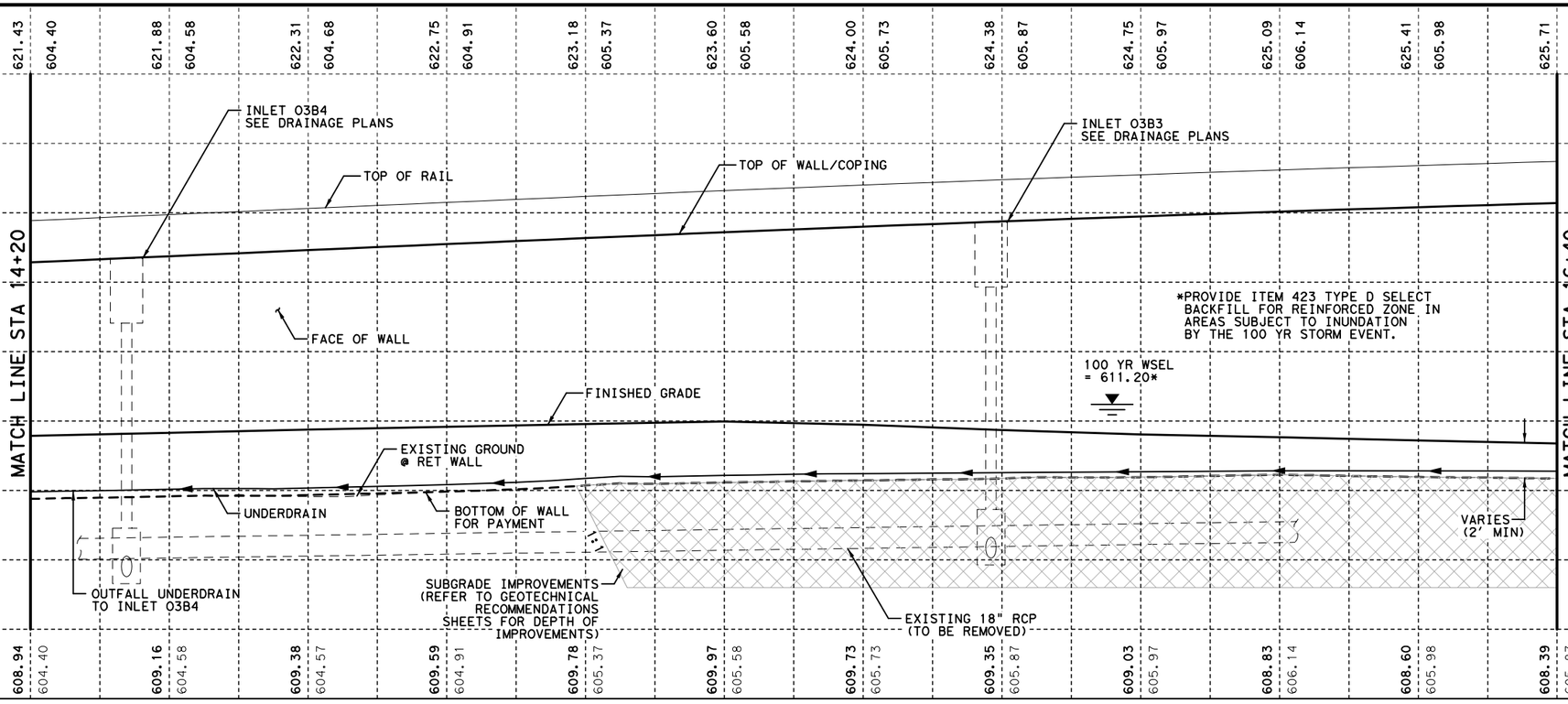
	TOP OF WALL	BOTTOM OF WALL	14+20	14+40	14+60	14+80	15+00	15+20	15+40	15+60	15+80	16+00	16+20	16+40
	621.43	604.40		621.88	622.31	622.75	623.18	623.60	624.00	624.38	624.75	625.09	625.41	625.71
	604.40	604.58		604.58	604.68	604.91	605.37	605.58	605.73	605.87	605.97	606.14	605.98	605.87
FINISHED GRADE	608.94			609.16	609.38	609.59	609.78	609.97	609.73	609.35	609.03	608.83	608.60	608.39
EXISTING GROUND	604.40			604.58	604.57	604.91	605.37	605.58	605.73	605.87	605.97	606.14	605.98	605.87



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB08-L

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	994
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3B*NB08-L-03*GTN.dgn
DRAWING DATE: 8/20/2012

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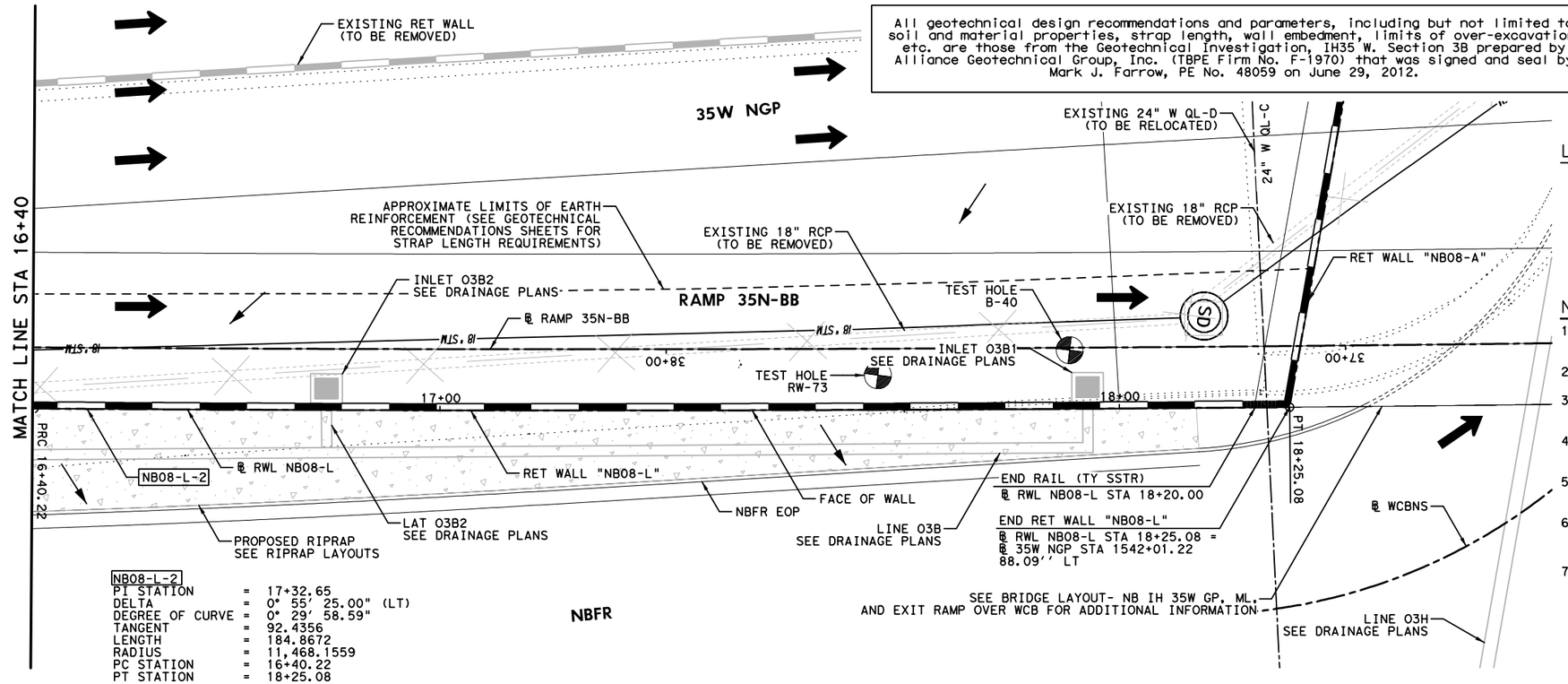

NB08-L-2
PI STATION = 17+32.65
DELTA = 0° 55' 25.00" (LT)
DEGREE OF CURVE = 0° 29' 58.59"
TANGENT = 92.4356
LENGTH = 184.8672
RADIUS = 11,468.1559
PC STATION = 16+40.22
PT STATION = 18+25.08

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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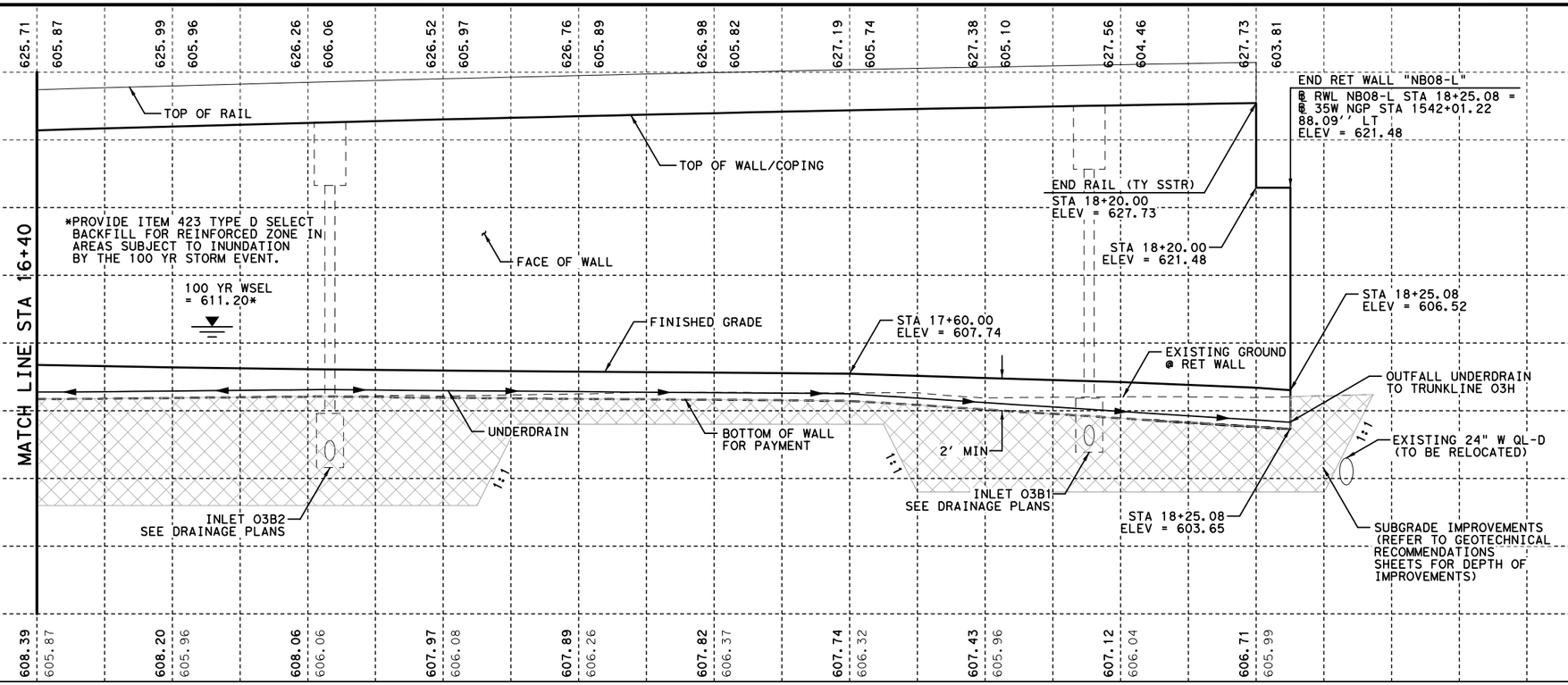

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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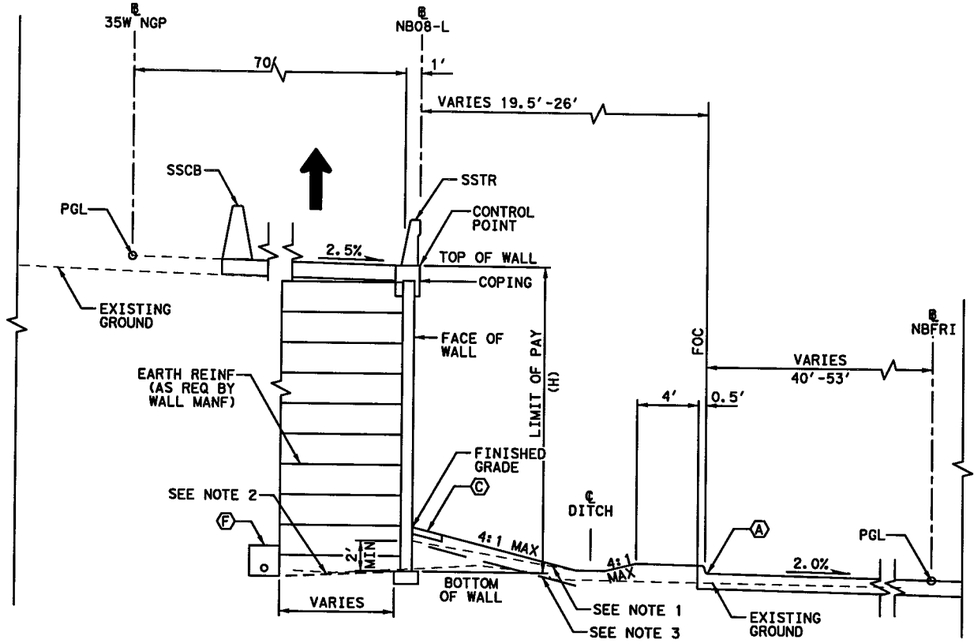
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB08-L

SCALE 1"= 20' H, 1"=10' V — SHEET 4 OF 4

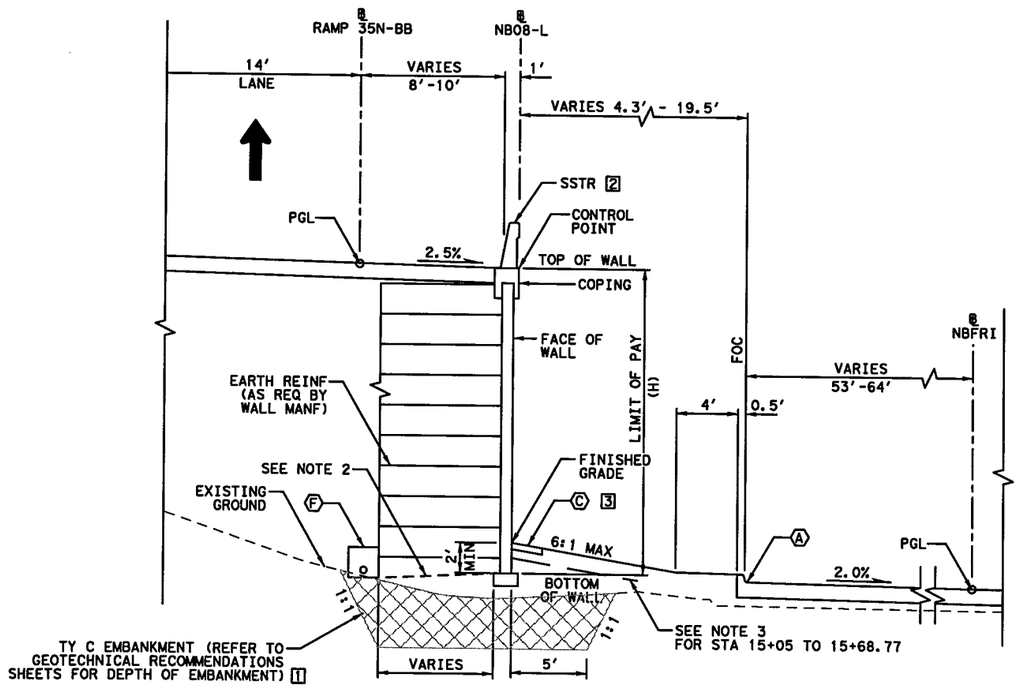
DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	995
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB08-L-04*GTN.dgn
DRAWING DATE: 8/20/2012



PROPOSED WALL "NB08-L" TYPICAL SECTION

℄ NB08-L STA 10+00.00 TO STA 15+05.00



PROPOSED WALL "NB08-L" TYPICAL SECTION

℄ NB08-L STA 15+05.00 TO STA 18+25.08

[1] LIMITS OF TY C EMBANKMENT STA 15+05.00 TO STA 18+25.08

[2] LIMITS OF RAIL STA 15+05.00 TO STA 18+20.00

[3] LIMITS OF MOW STRIP STA 15+05.00 TO STA 15+68.77

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	12,904
RIPRAP (MOW STRIP)(5 IN)	CY	18
RAIL (SSTR)	LF	500
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	863

0' 5' 10'

SCALE IN FEET

LEGEND:

Ⓐ EDGE OF PROPOSED PAVEMENT
Ⓑ EDGE OF ULTIMATE PAVEMENT
Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
Ⓓ RIPRAP (CONC)(FLUME)
Ⓔ RIPRAP (CONC)(5 IN)
Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAMLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
TYPICAL SECTIONS
NB08-L

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	996
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPNB08-L*GTN.dgn

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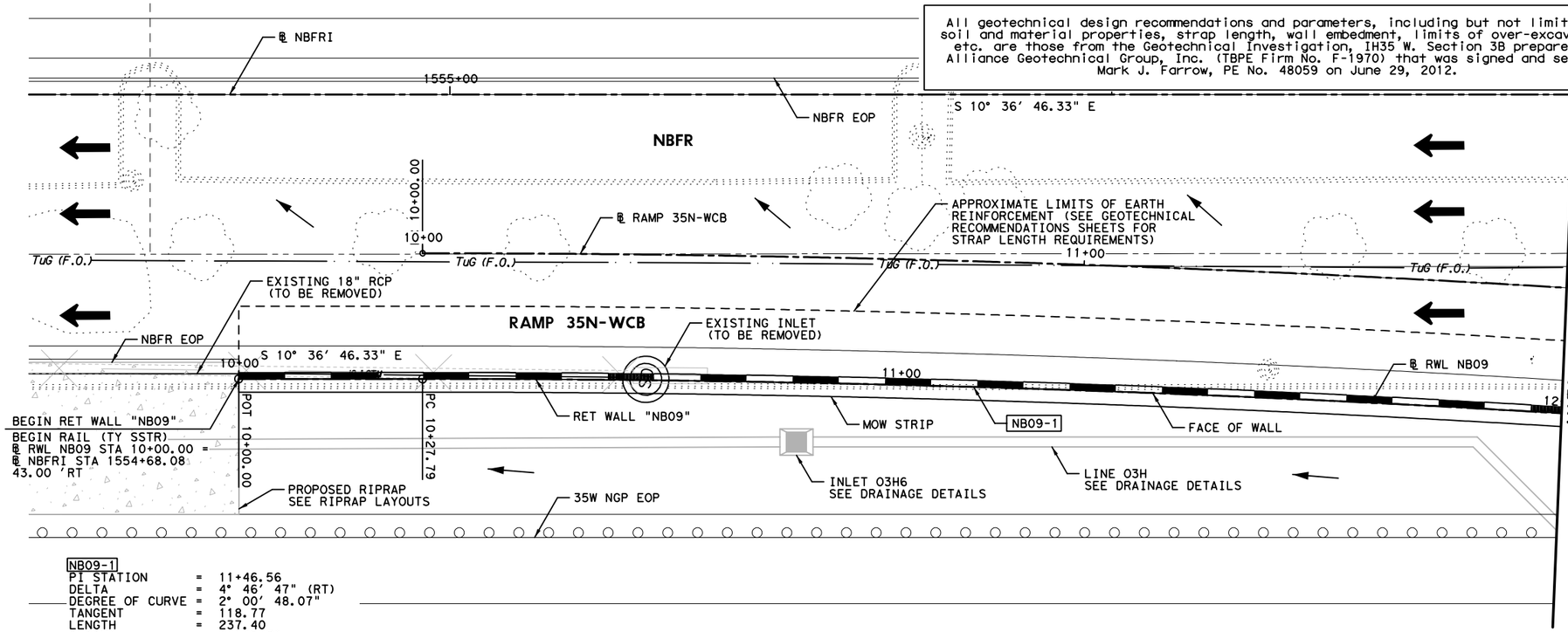

NB09-1
PI STATION = 11+46.56
DELTA = 4° 46' 47" (RT)
DEGREE OF CURVE = 2° 00' 48.07"
TANGENT = 118.77
LENGTH = 237.40
RADIUS = 2,845.79
PC STATION = 10+27.79
PT STATION = 12+65.20

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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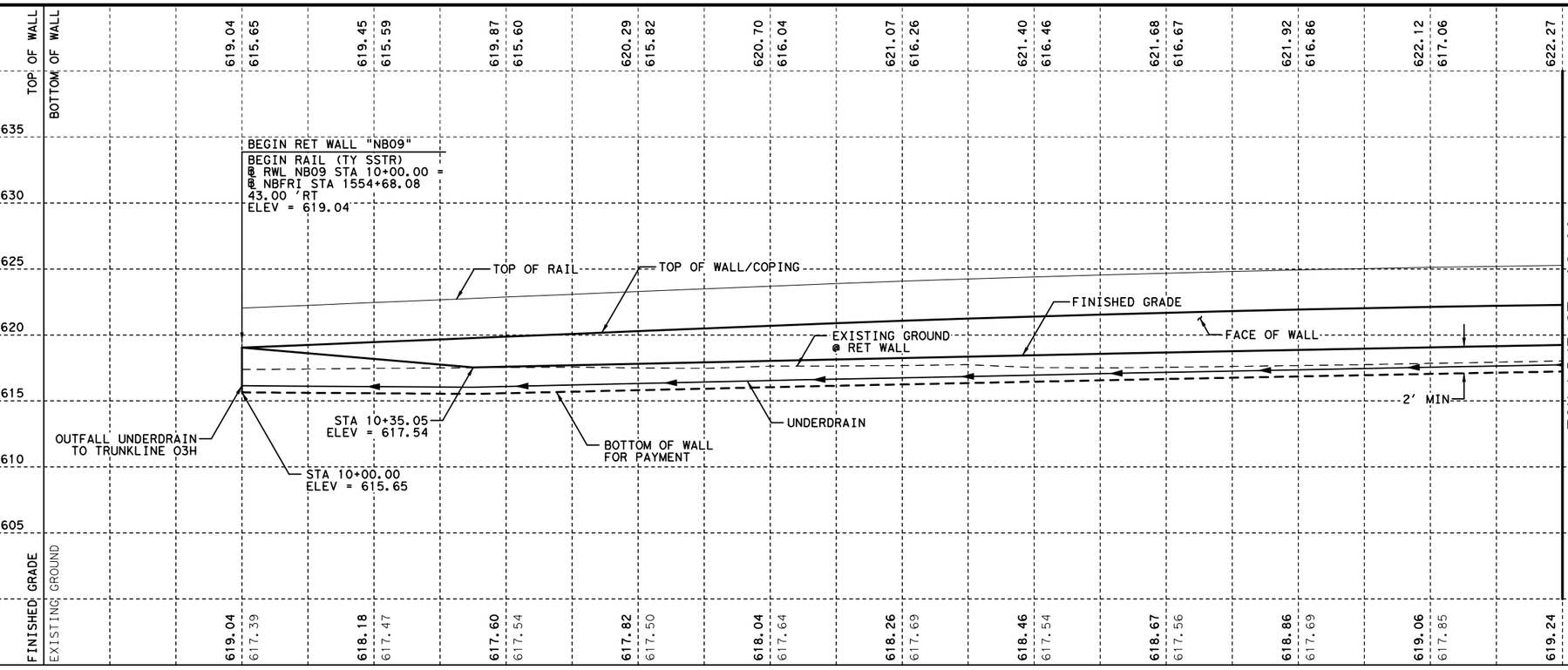

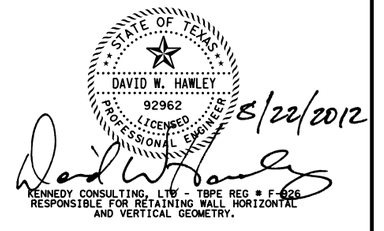

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB09

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	997
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB09-01*GTN.dgn
DRAWING DATE: 8/20/2012

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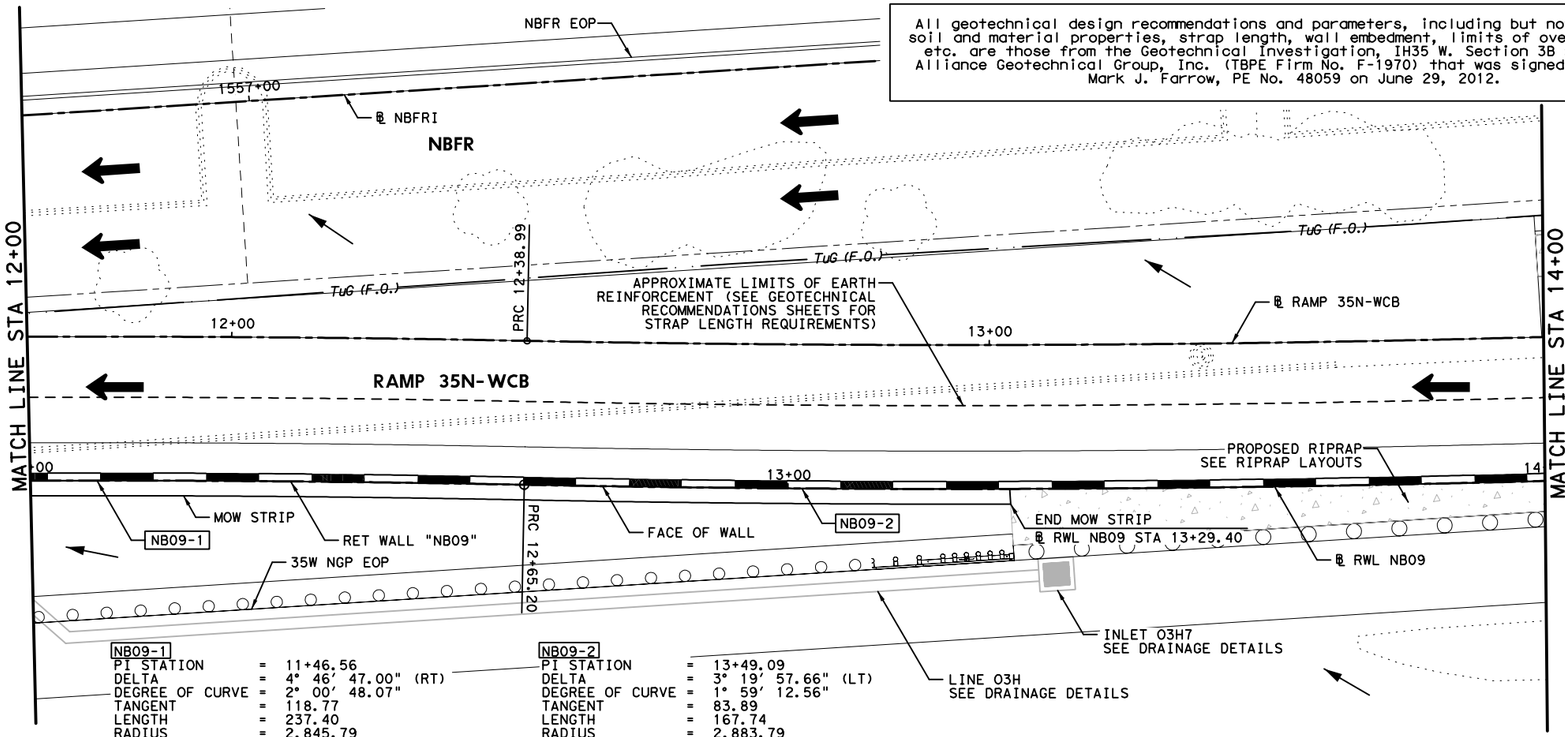

NB09-1
PI STATION = 11+46.56
DELTA = 4° 46′ 47.00" (RT)
DEGREE OF CURVE = 2° 00′ 48.07"
TANGENT = 118.77
LENGTH = 237.40
RADIUS = 2,845.79
PC STATION = 10+27.79
PT STATION = 12+65.20

NB09-2
PI STATION = 13+49.09
DELTA = 3° 19′ 57.66" (LT)
DEGREE OF CURVE = 1° 59′ 12.56"
TANGENT = 83.89
LENGTH = 167.74
RADIUS = 2,883.79
PC STATION = 12+65.20
PT STATION = 14+32.93

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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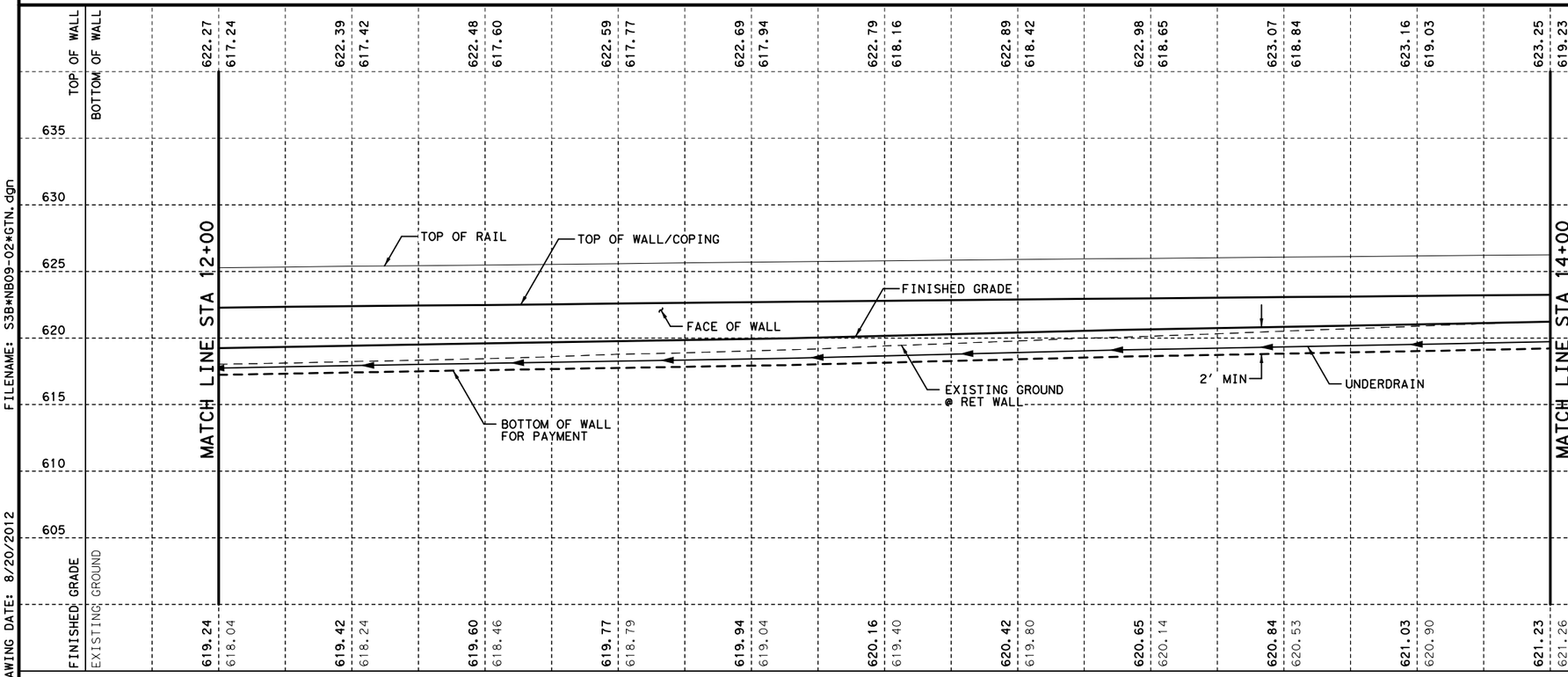

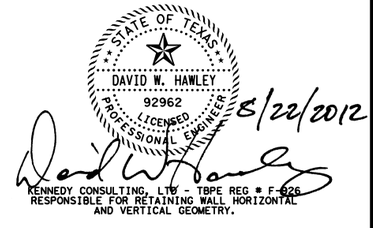

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB09

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	998
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB09-02*GTN.dgn
DRAWING DATE: 8/20/2012

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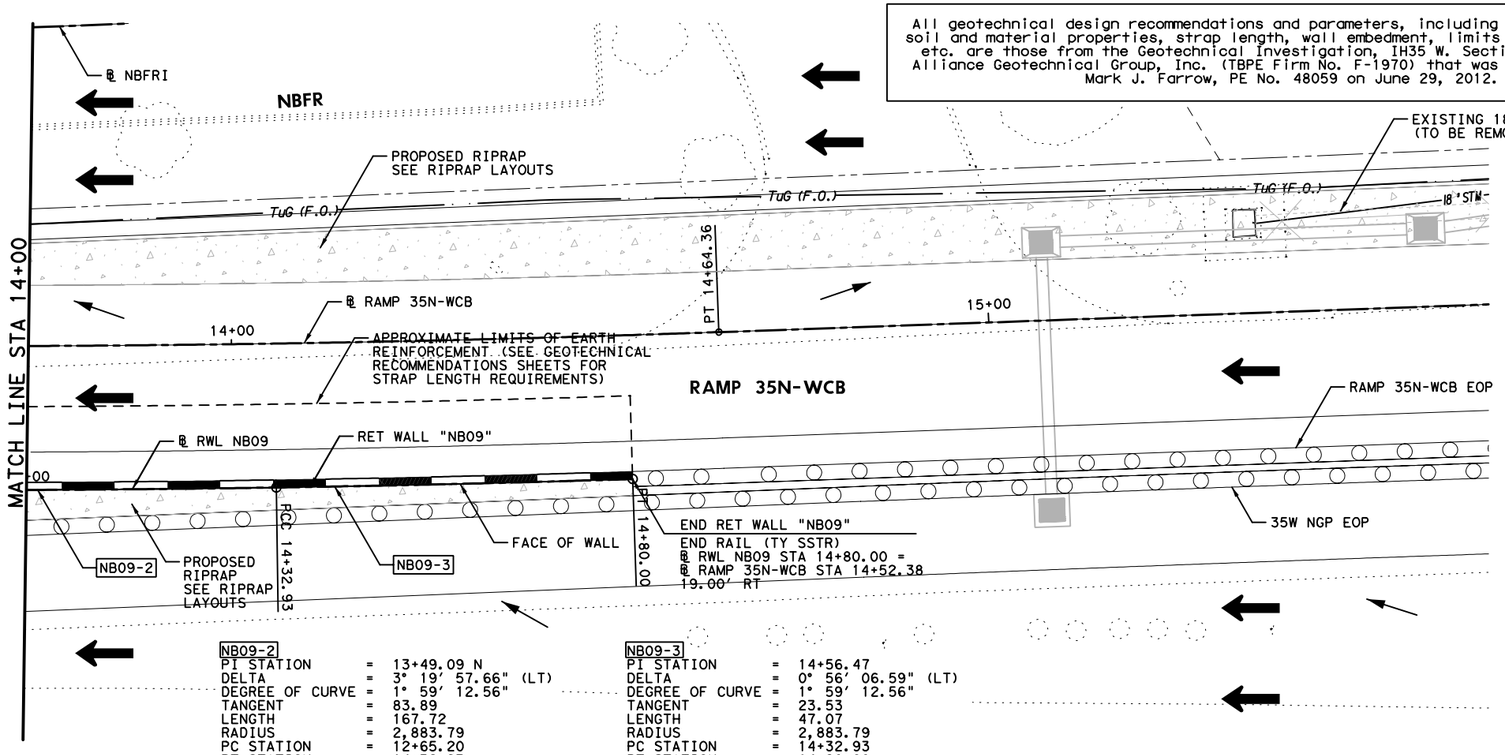


NB09-2	
PI STATION	= 13+49.09 N
DELTA	= 3° 19' 57.66" (LT)
DEGREE OF CURVE	= 1° 59' 12.56"
TANGENT	= 83.89
LENGTH	= 167.72
RADIUS	= 2,883.79
PC STATION	= 12+65.20
PT STATION	= 14+32.93

NB09-3	
PI STATION	= 14+56.47
DELTA	= 0° 56' 06.59" (LT)
DEGREE OF CURVE	= 1° 59' 12.56"
TANGENT	= 23.53
LENGTH	= 47.07
RADIUS	= 2,883.79
PC STATION	= 14+32.93
PT STATION	= 14+80.00

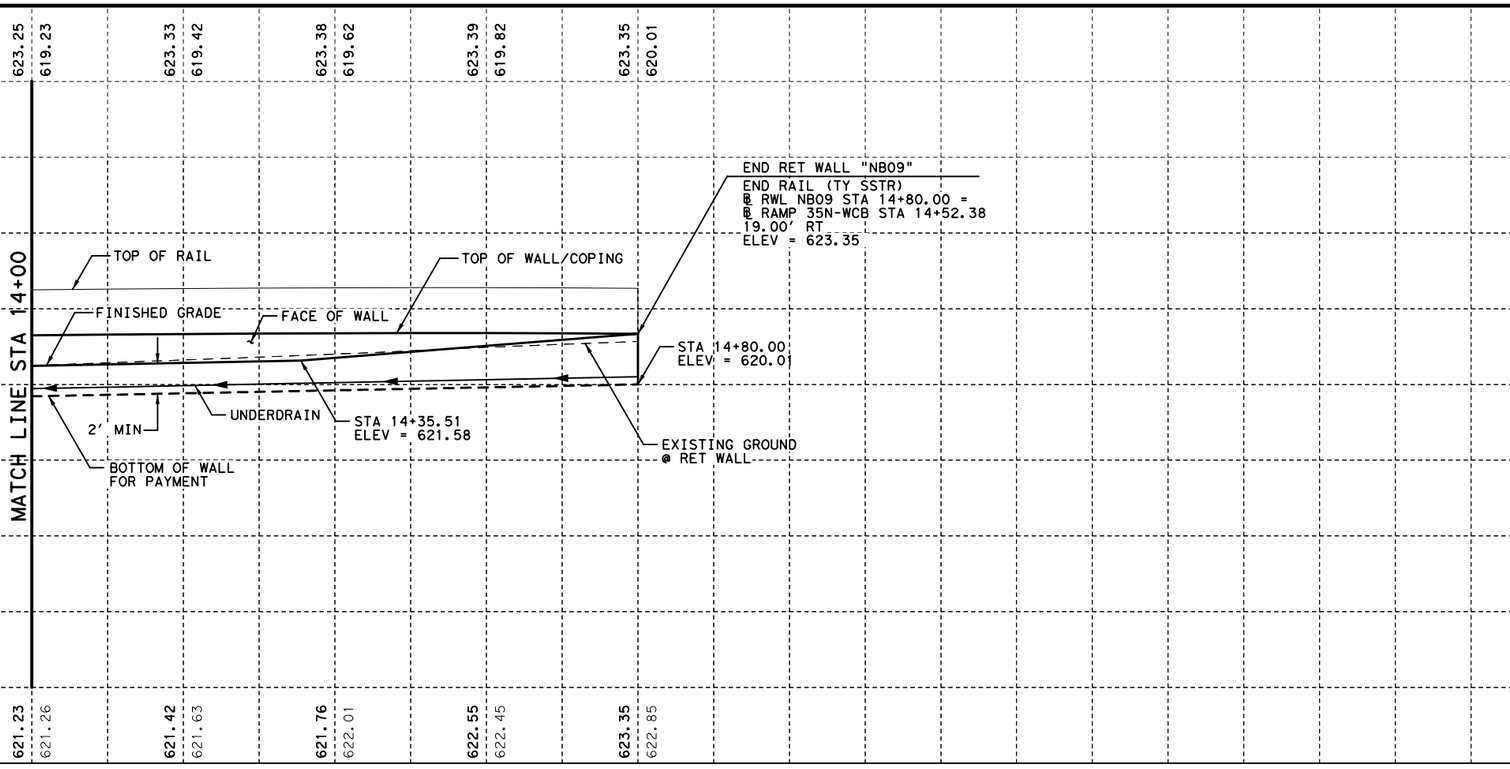
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB09

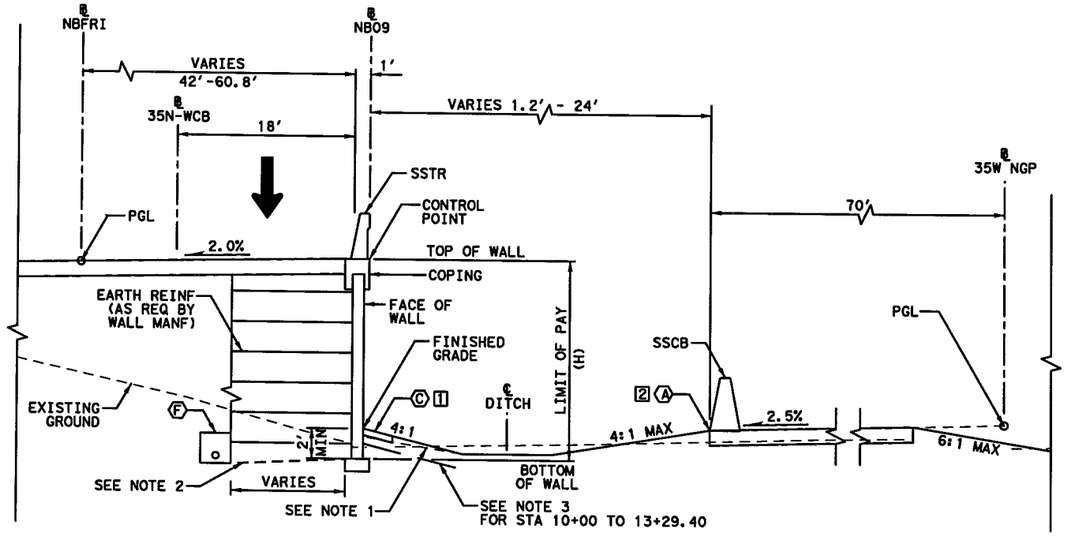
SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	999
	0014	16	255, ETC.	

FILENAME: S3B*NB09-03*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	2,141
RIPRAP (MOW STRIP) (5 IN)	CY	10
RAIL (SSTR)	LF	480
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	491



PROPOSED WALL "NB09" TYPICAL SECTION

℄ NB09 STA 10+00.00 TO STA 14+80.00

1 LIMITS OF MOW STRIP
STA 10+00.00 TO STA 13+29.40

2 LIMITS OF SSCB
STA 13+29.80 TO STA 14+80.00
(MBGF OTHERWISE)

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB09

SCALE 1" = 10'

SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1000
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*TYPNB09*GTN.dgn

DRAWING DATE: 7/13/2012

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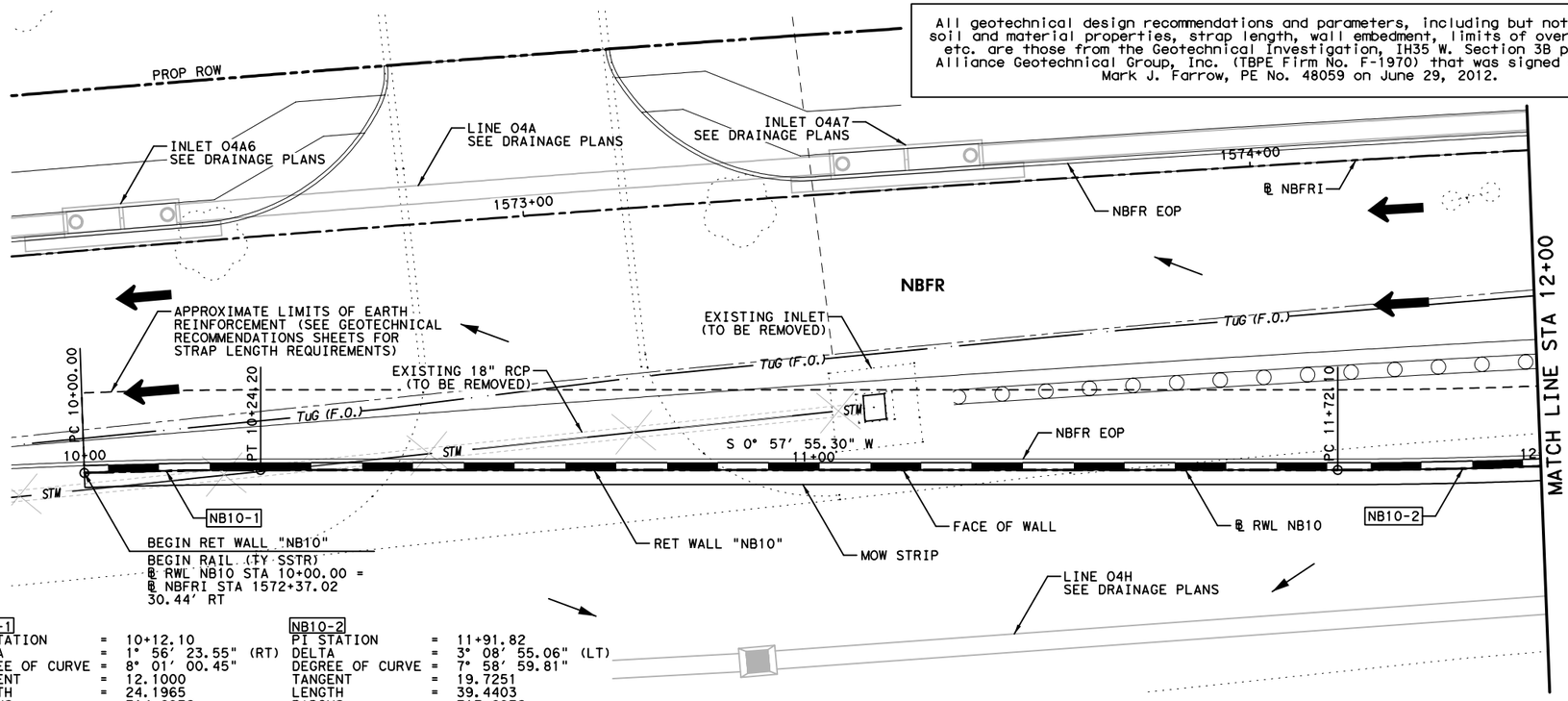

NB10-1

PI STATION	=	10+12.10
DELTA	=	1° 56' 23.55" (RT)
DEGREE OF CURVE	=	8° 01' 00.45"
TANGENT	=	12.1000
LENGTH	=	24.1965
RADIUS	=	714.6972
PC STATION	=	10+00.00
PT STATION	=	10+24.20

NB10-2

PI STATION	=	11+91.82
DELTA	=	3° 08' 55.06" (LT)
DEGREE OF CURVE	=	7° 58' 59.81"
TANGENT	=	19.7251
LENGTH	=	39.4403
RADIUS	=	717.6972
PC STATION	=	11+72.10
PT STATION	=	12+11.54

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- CURVE XX — HORIZONTAL CURVE
- Ⓒ — CONSTRUCTION JOINT
- Ⓔ — EXPANSION JOINT
- ← — DRAINAGE FLOW ARROWS
- ⬅ — TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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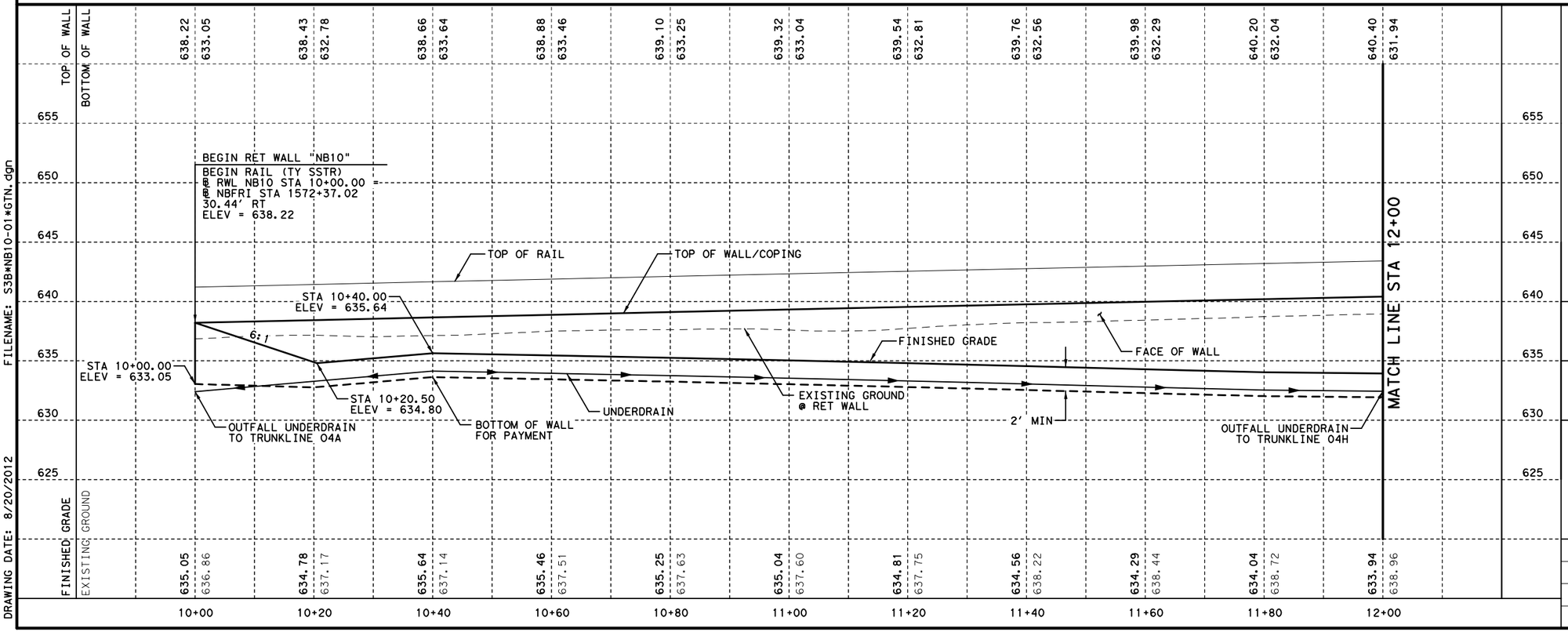

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB10

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1001
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*NB10-01*GTN.dgn
DRAWING DATE: 8/20/2012

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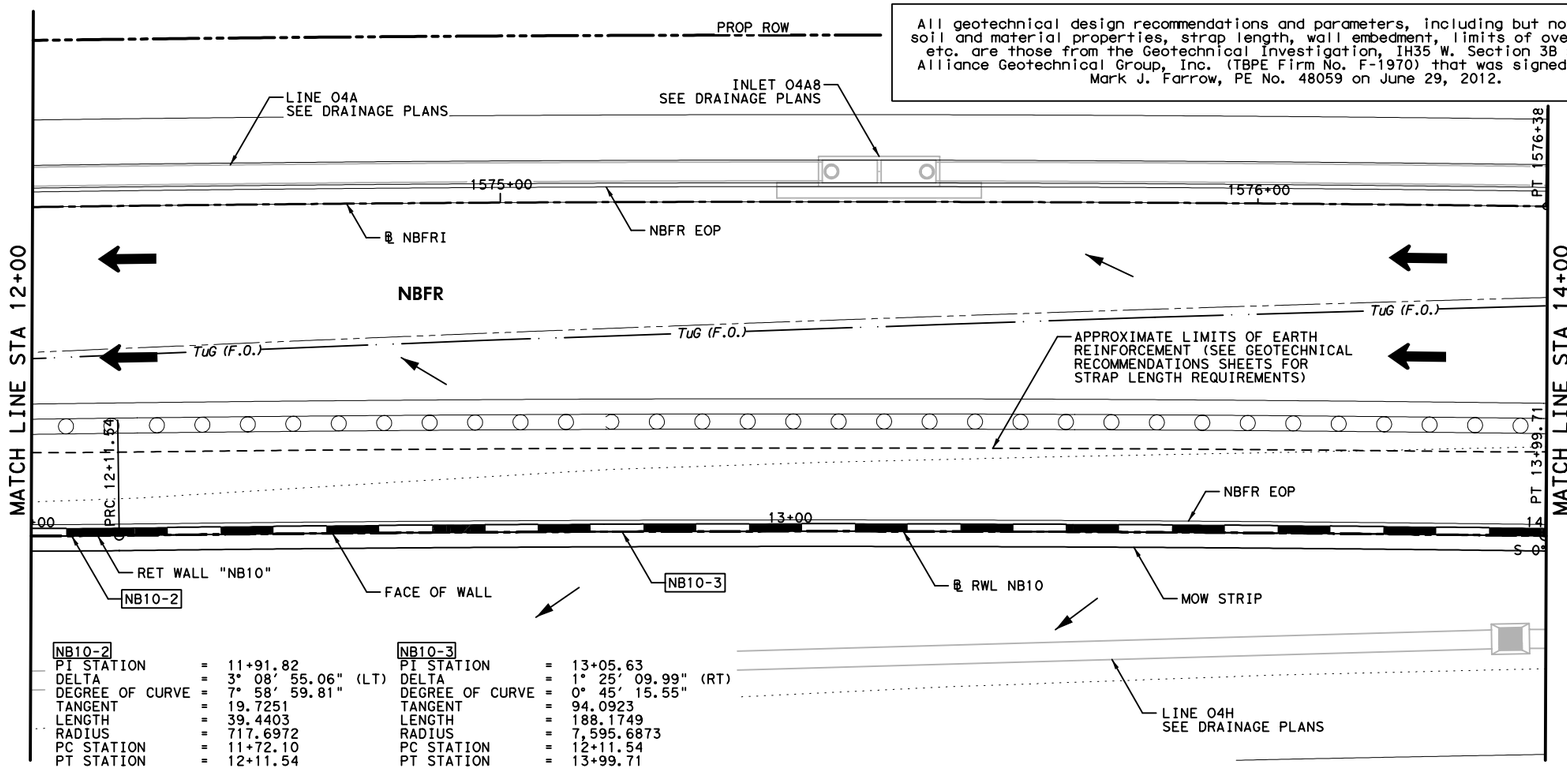

NB10-2			NB10-3		
PI STATION	=	11+91.82	PI STATION	=	13+05.63
DELTA	=	3° 08′ 55.06" (LT)	DELTA	=	1° 25′ 09.99" (RT)
DEGREE OF CURVE	=	7° 58′ 59.81"	DEGREE OF CURVE	=	0° 45′ 15.55"
TANGENT	=	19.7251	TANGENT	=	94.0923
LENGTH	=	39.4403	LENGTH	=	188.1749
RADIUS	=	717.6972	RADIUS	=	7,595.6873
PC STATION	=	11+72.10	PC STATION	=	12+11.54
PT STATION	=	12+11.54	PT STATION	=	13+99.71

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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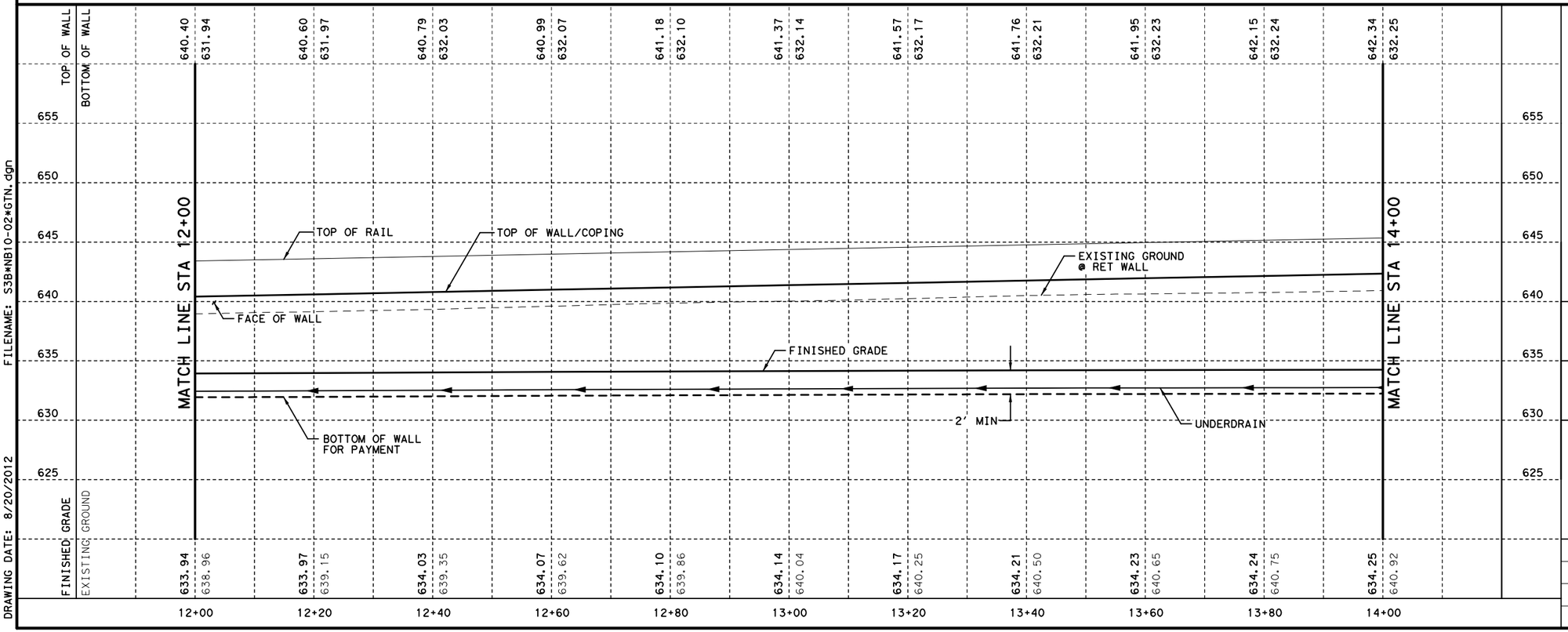

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB10

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1002
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3B*NB10-02*GTN.dgn
DRAWING DATE: 8/20/2012

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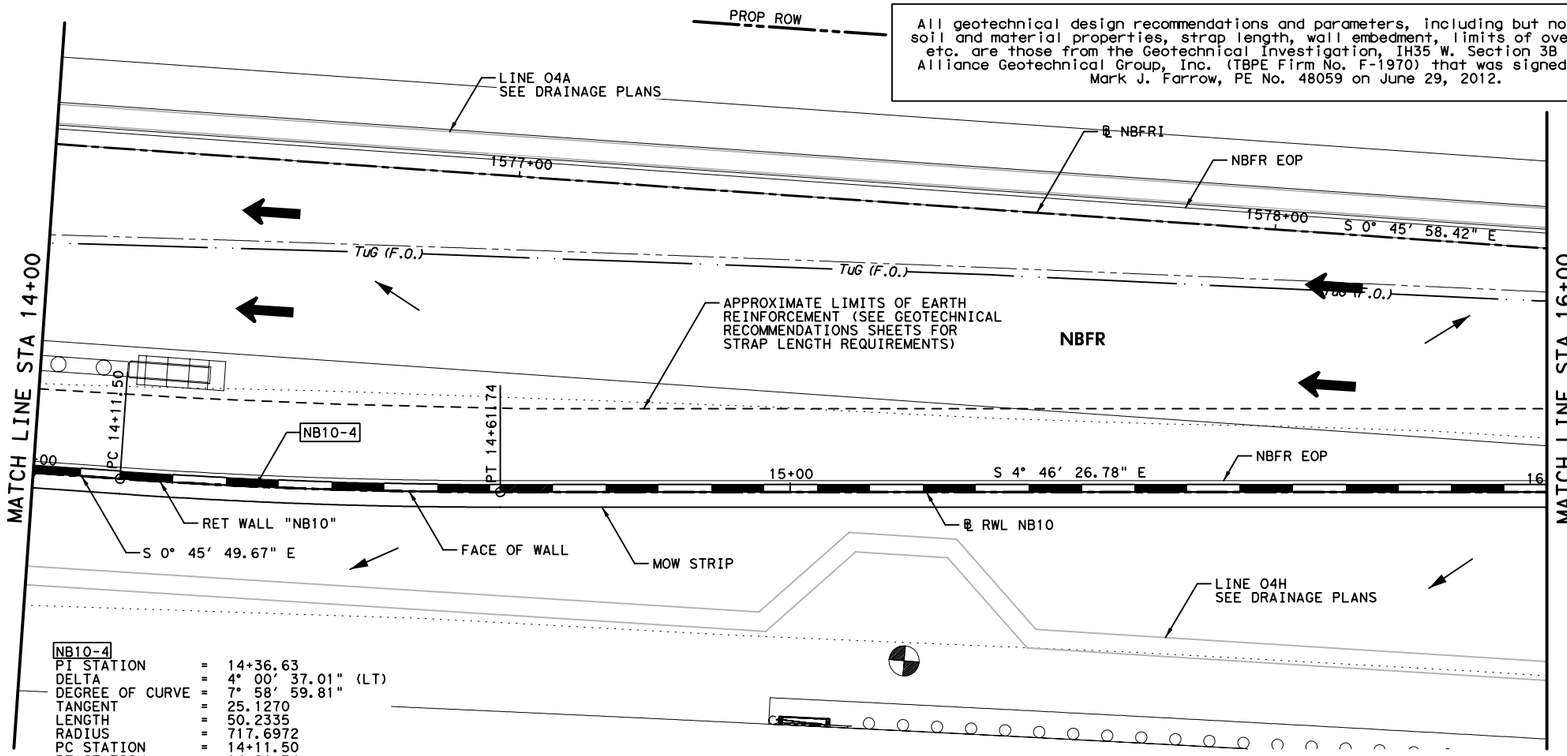

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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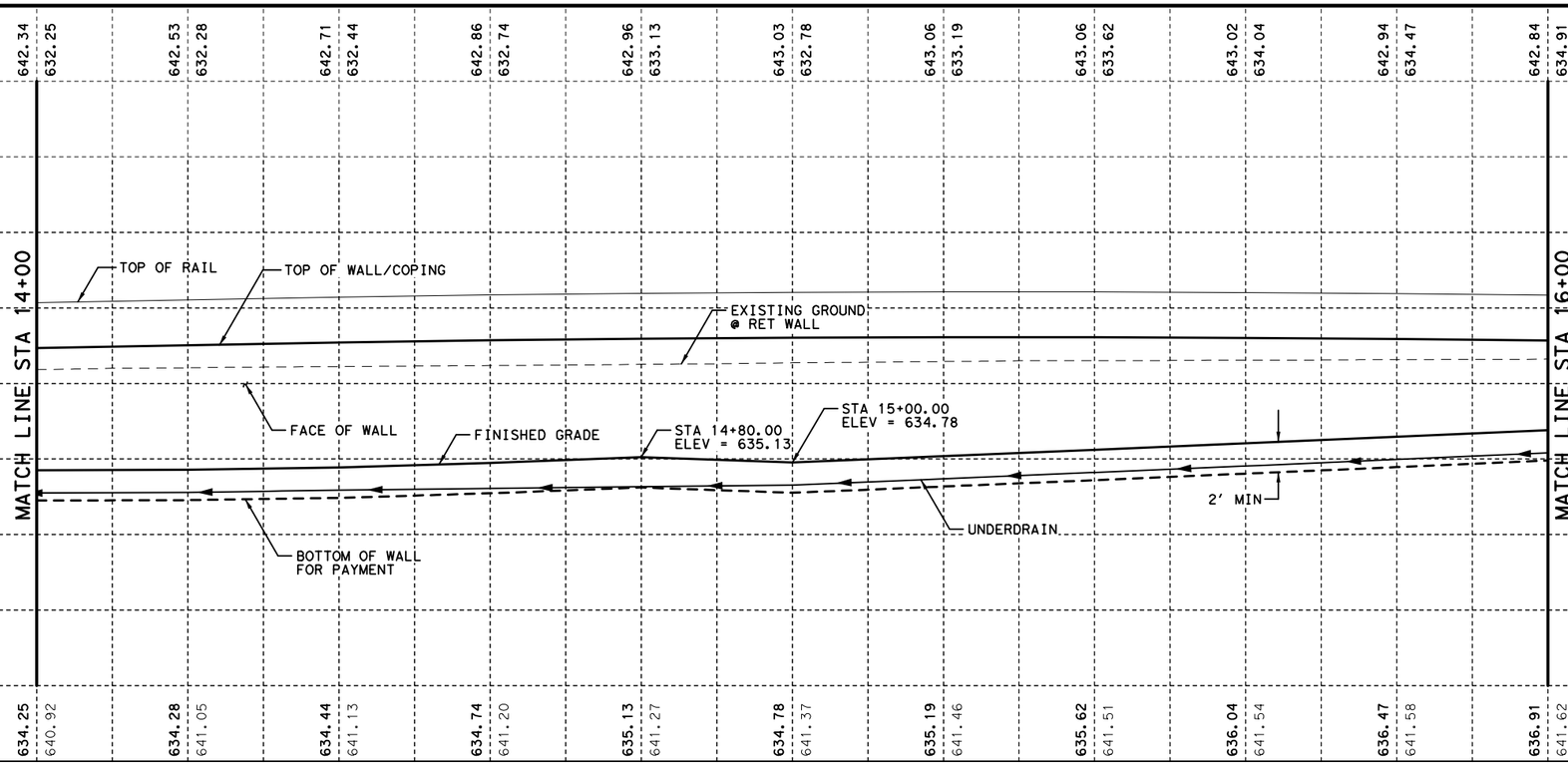

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
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8/22/2012

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RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB10

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1003
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB10-03*GTN.dgn
DRAWING DATE: 8/20/2012

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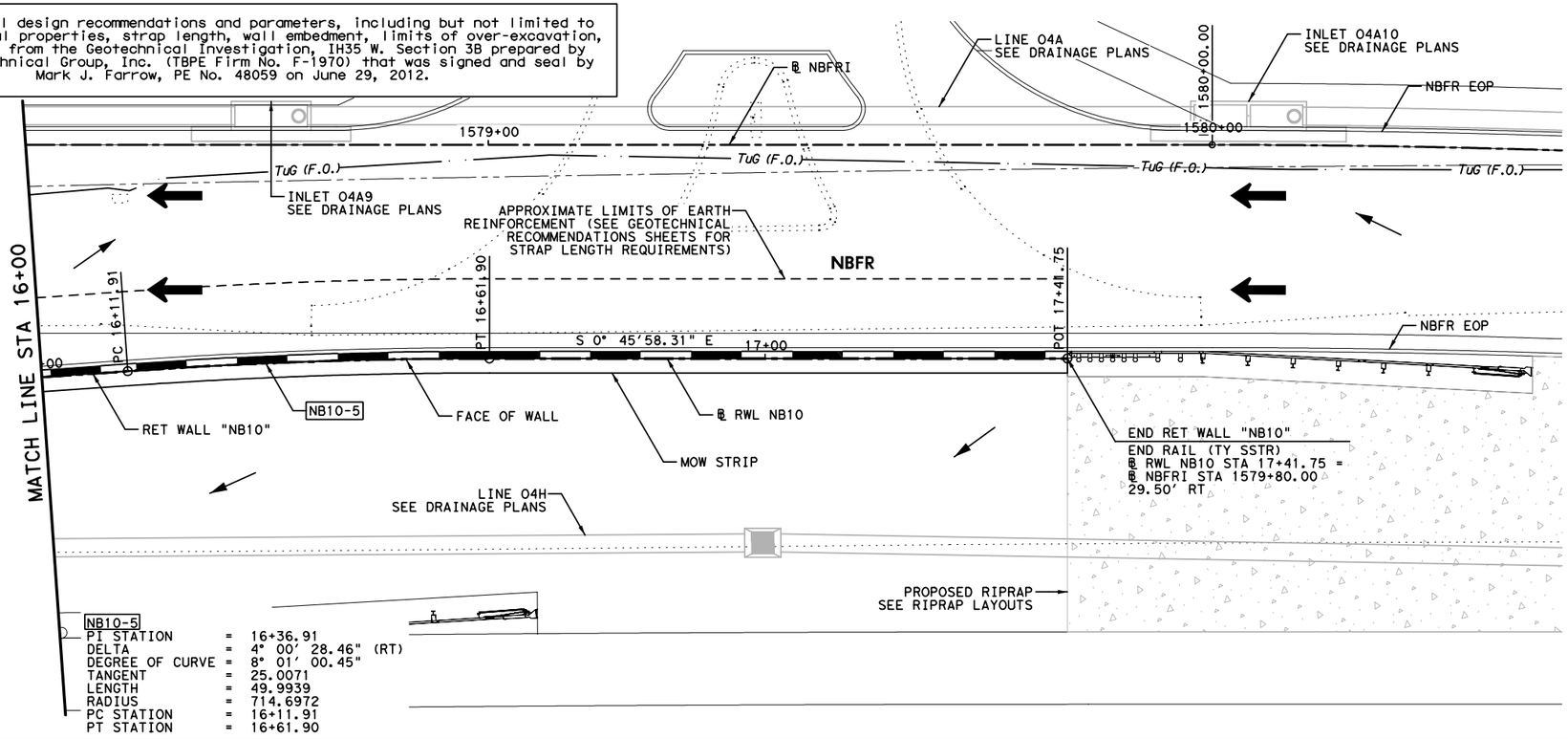

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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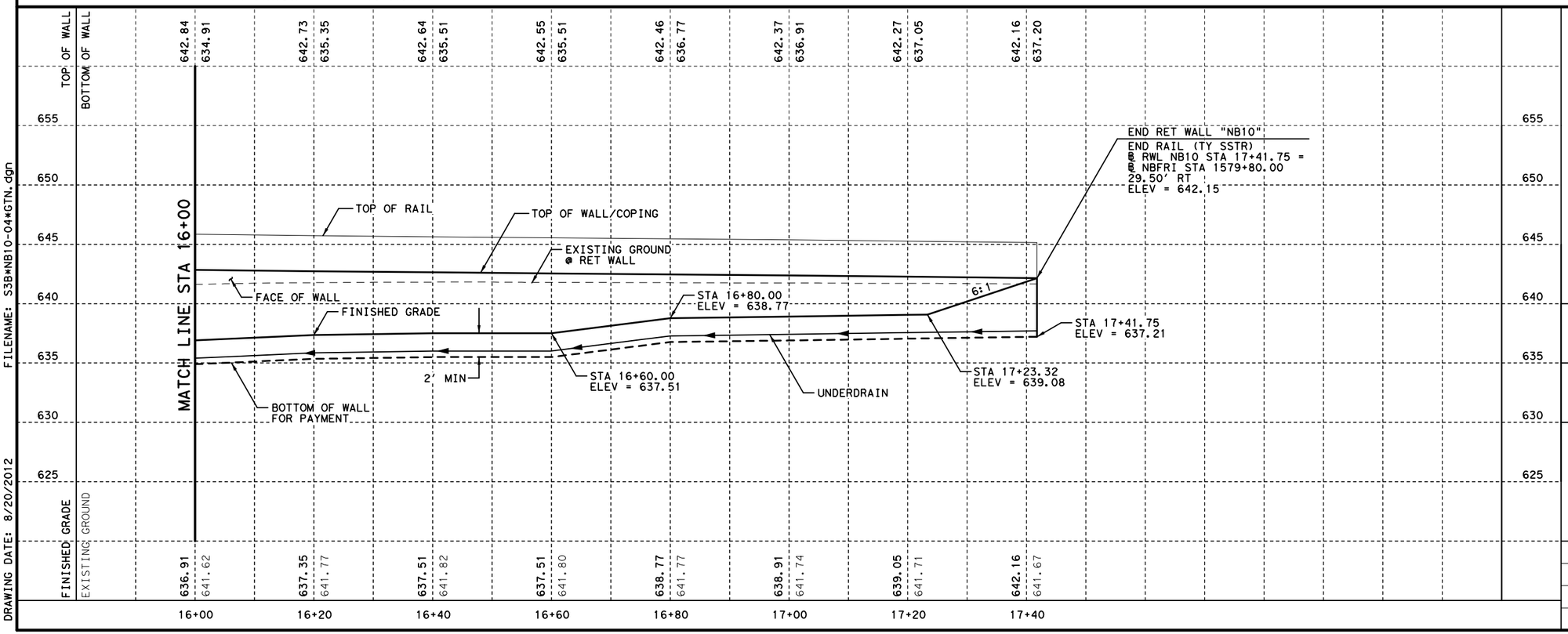

STATE OF TEXAS
DAVID W. HAWLEY
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LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
NB10

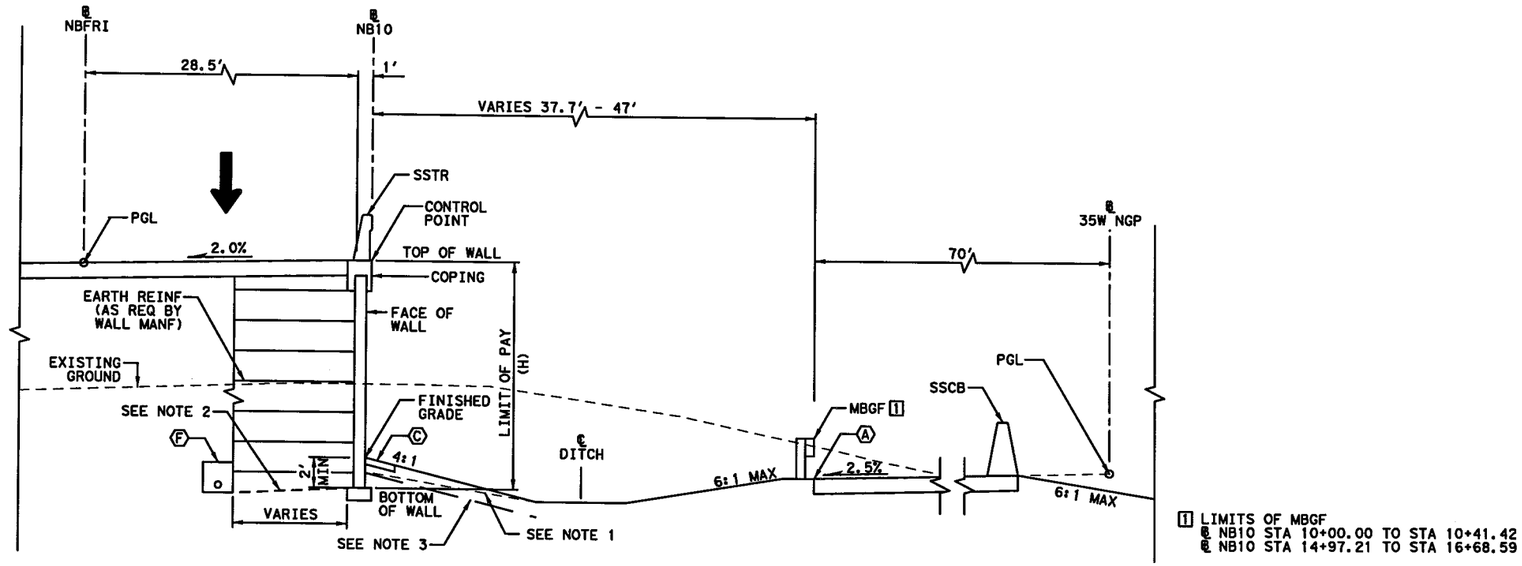
SCALE 1"= 20' H, 1"=10' V

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1004
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*NB10-04*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	5,971
RIPRAP (MOW STRIP)(5 IN)	CY	23
RAIL (SSTR)	LF	742
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	832



PROPOSED WALL "NB10" TYPICAL SECTION
℄ NB10 STA 10+00.00 TO STA 17+41.75

1 LIMITS OF MBGF
℄ NB10 STA 10+00.00 TO STA 10+41.42
℄ NB10 STA 14+97.21 TO STA 16+68.59

0' 5' 10'
SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
- Ⓓ RIPRAP (CONC)(FLUME)
- Ⓔ RIPRAP (CONC)(5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
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7/10/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

NB10

SCALE 1" = 10'

SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1005
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*TYPNB10*GTN.dgn
DRAWING DATE: 7/13/2012

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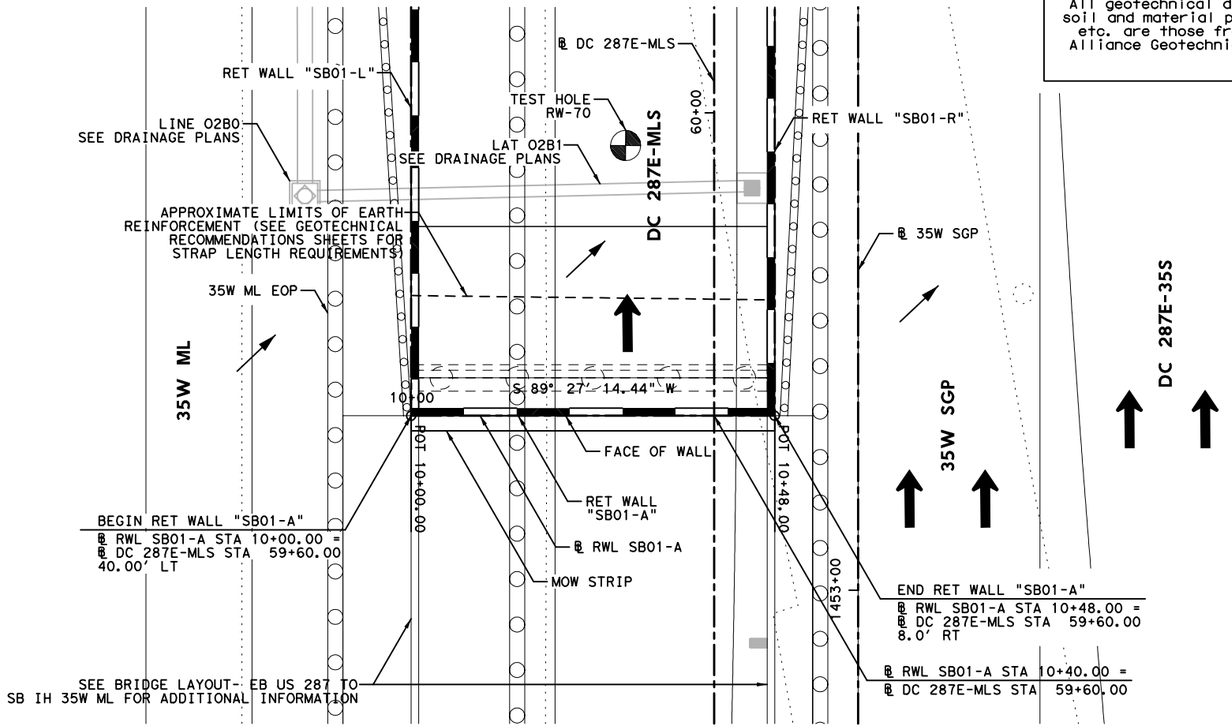
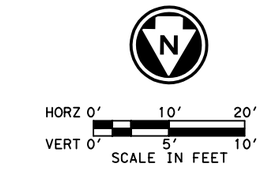


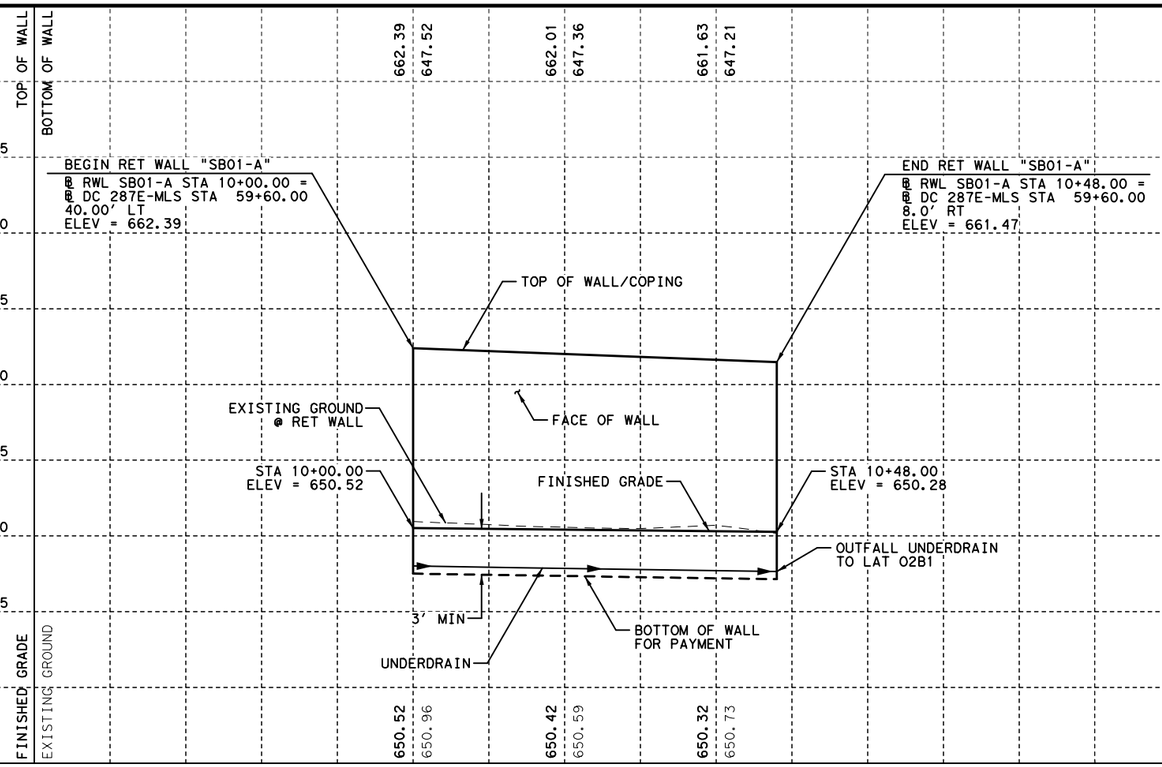


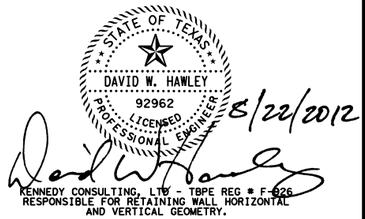
LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.





KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB01-A

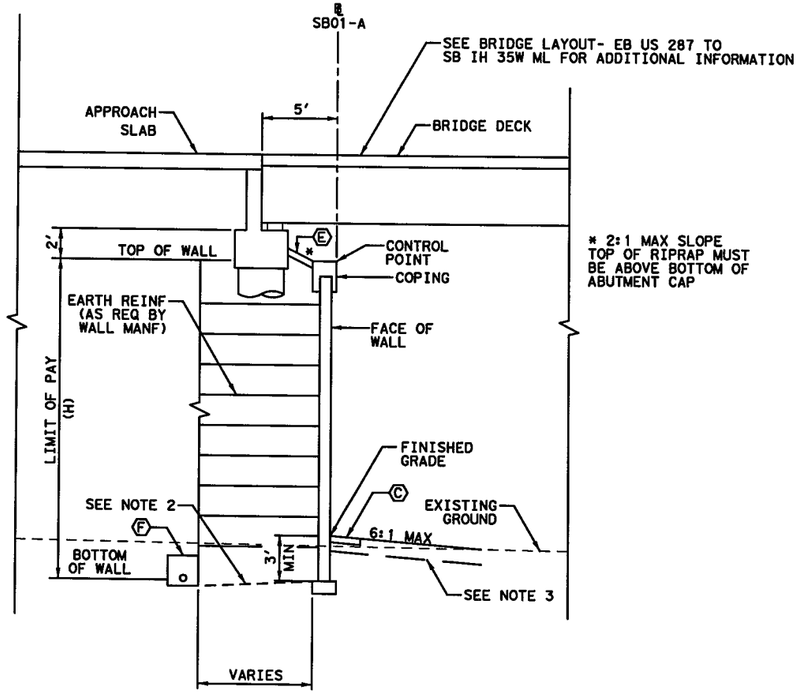
SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1006
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*SB01-A-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	701
RIPRAP (CONC) (5 IN)	CY	2
RIPRAP (MOW STRIP) (5 IN)	CY	2
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	78



PROPOSED WALL "SB01-A" TYPICAL SECTION

℄ SB01-A 10+00.00 TO STA 10+48.00

0' 5' 10'

SCALE IN FEET

LEGEND:

Ⓐ EDGE OF PROPOSED PAVEMENT
Ⓑ EDGE OF ULTIMATE PAVEMENT
Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
Ⓓ RIPRAP (CONC) (FLUME)
Ⓔ RIPRAP (CONC) (5 IN)
Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB01-A

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1007
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPSB01-A*GTN.dgn

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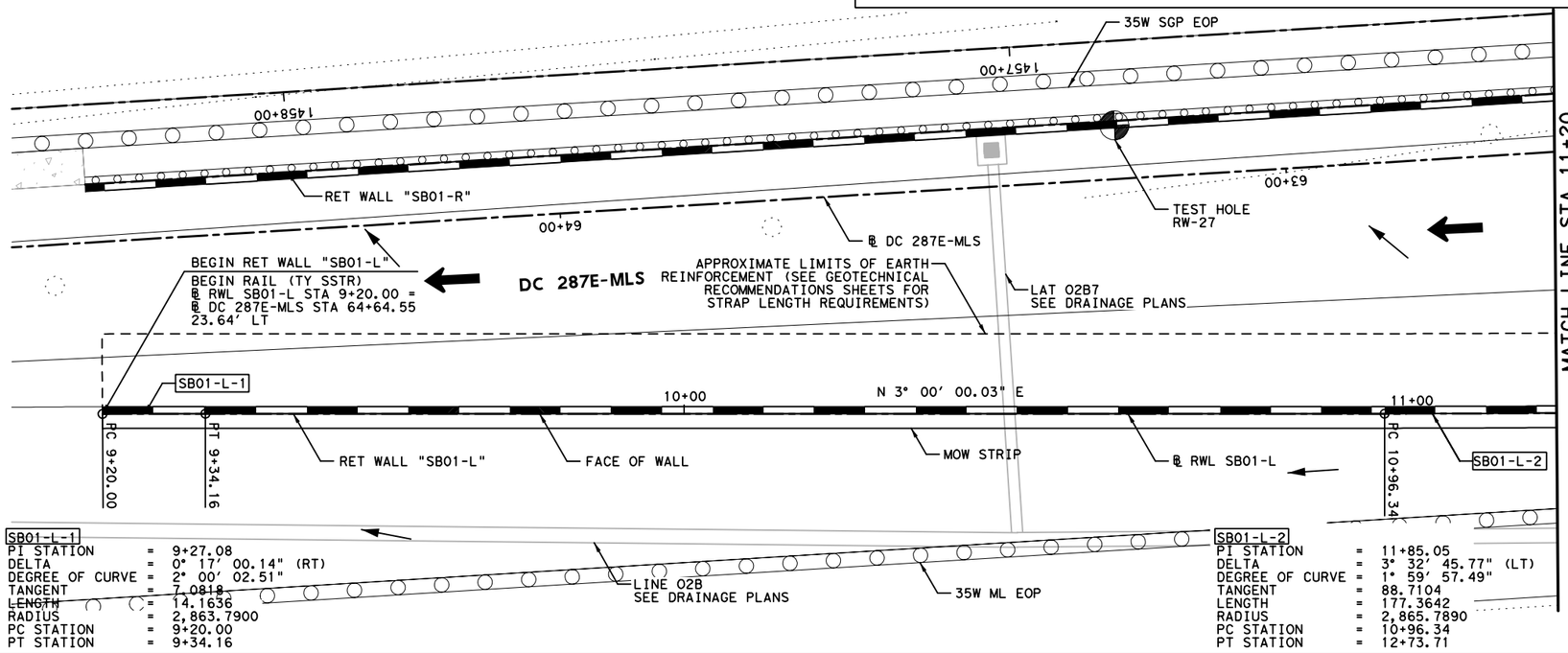

SB01-L-1
PI STATION = 9+27.08
DELTA = 0° 17' 00.14" (RT)
DEGREE OF CURVE = 2° 00' 02.51"
TANGENT = 7.0818
~~LENGTH~~ = 14.1636
RADIUS = 2,863.7900
PC STATION = 9+20.00
PT STATION = 9+34.16

SB01-L-2
PI STATION = 11+85.05
DELTA = 3° 32' 45.77" (LT)
DEGREE OF CURVE = 1° 59' 57.49"
TANGENT = 88.7104
LENGTH = 177.3642
RADIUS = 2,865.7890
PC STATION = 10+96.34
PT STATION = 12+73.71

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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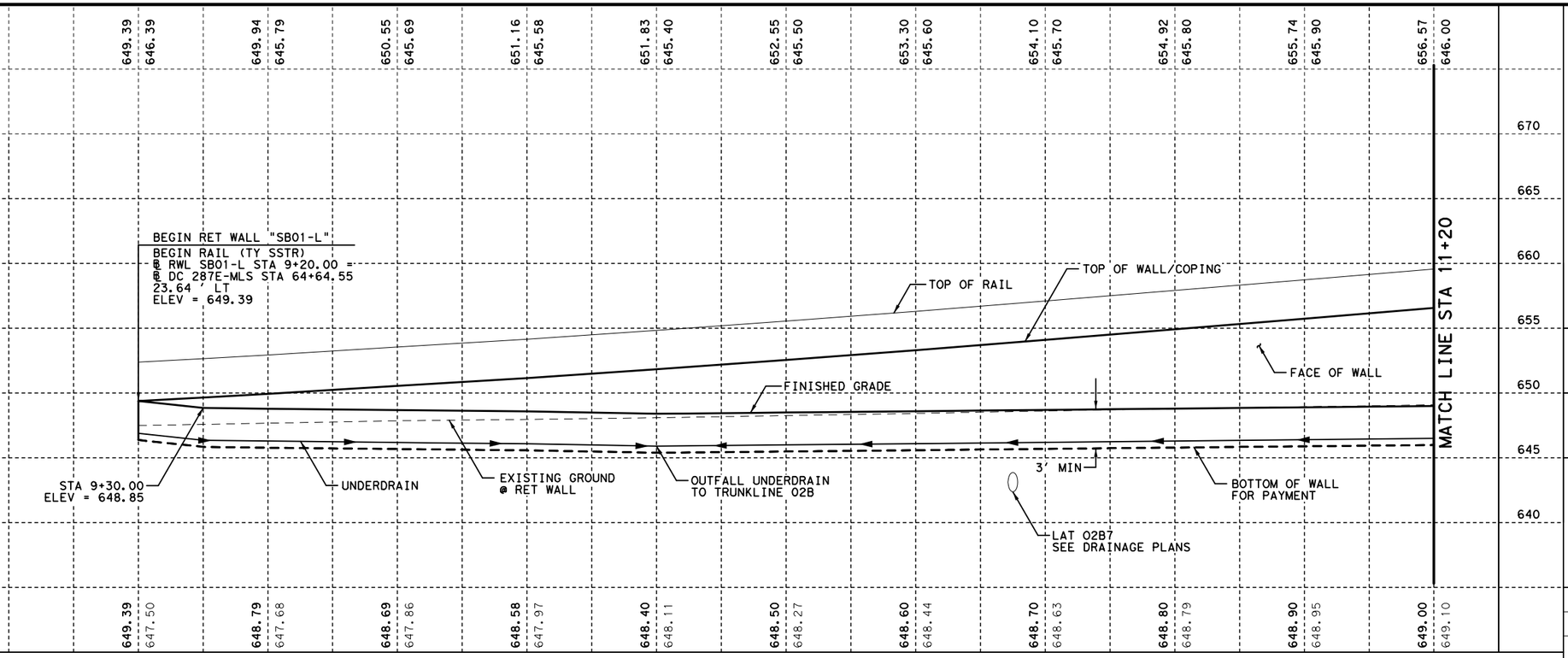

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB01-L

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1008
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB01-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

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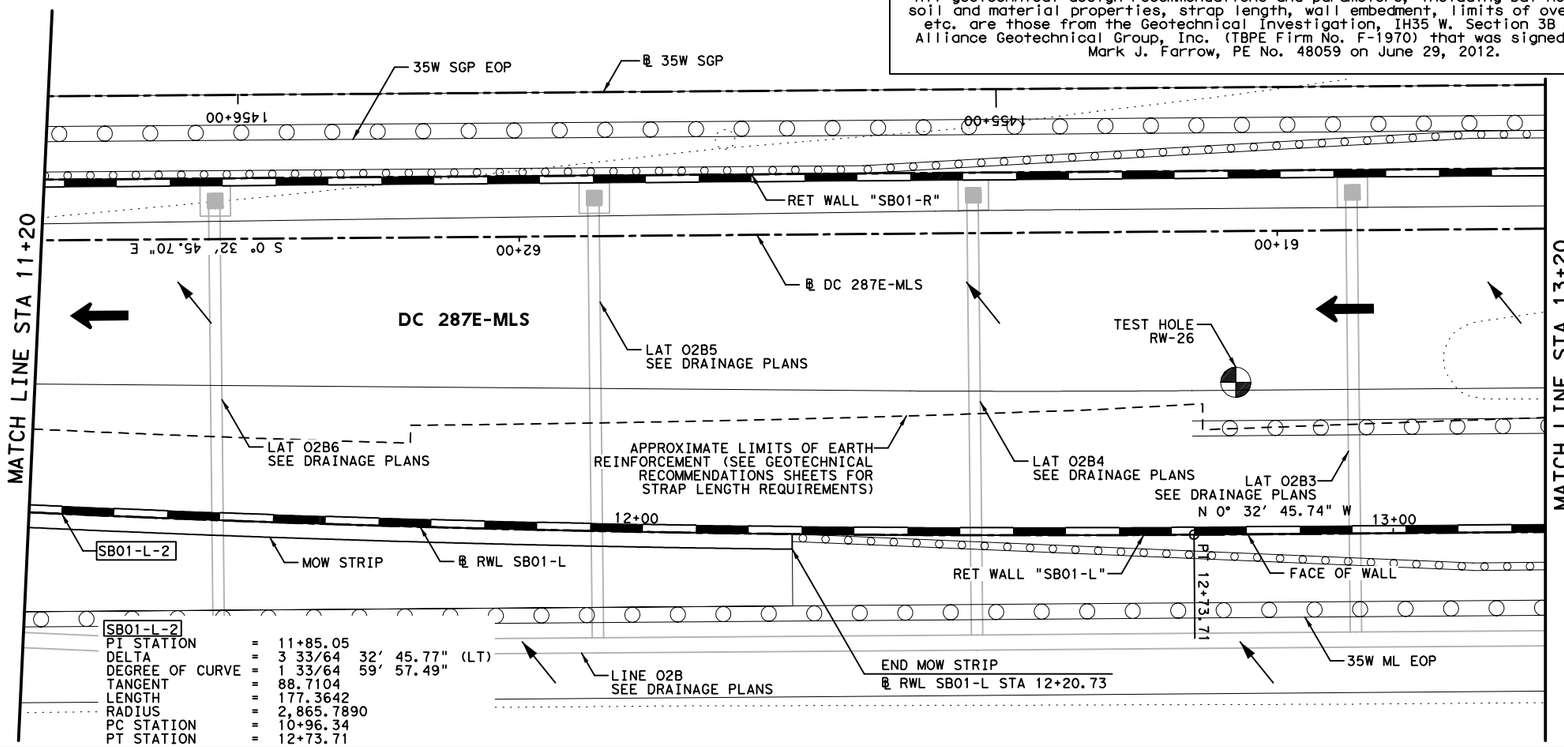

SB01-L-2

PI STATION	=	11+85.05
DELTA	=	3 33/64 32' 45.77" (LT)
DEGREE OF CURVE	=	1 33/64 59' 57.49"
TANGENT	=	88.7104
LENGTH	=	177.3642
RADIUS	=	2,865.7890
PC STATION	=	10+96.34
PT STATION	=	12+73.71

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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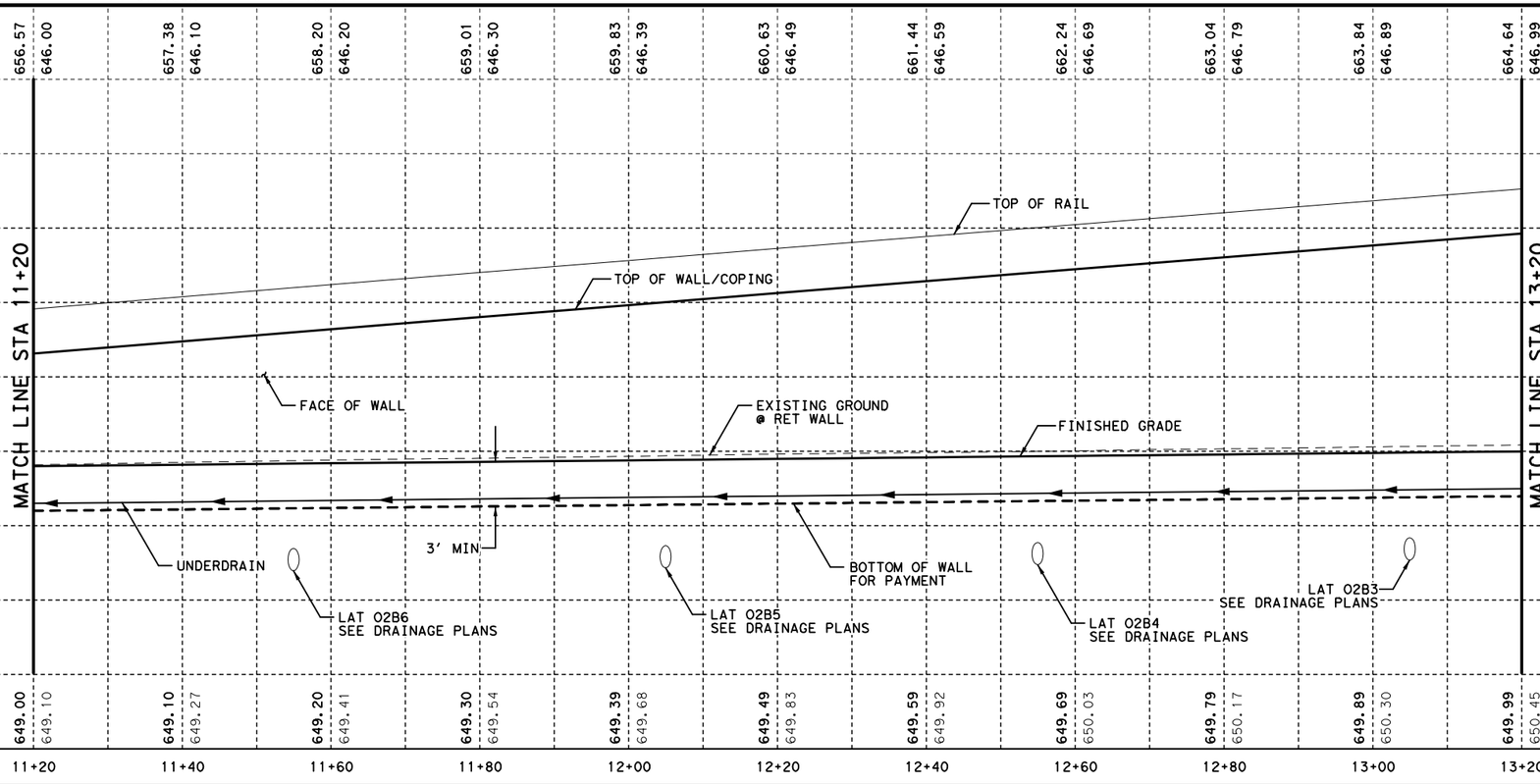

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

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RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB01-L

SCALE 1"= 20' H, 1"=10' V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1009
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB01-L-02*GTN.dgn
DRAWING DATE: 8/20/2012

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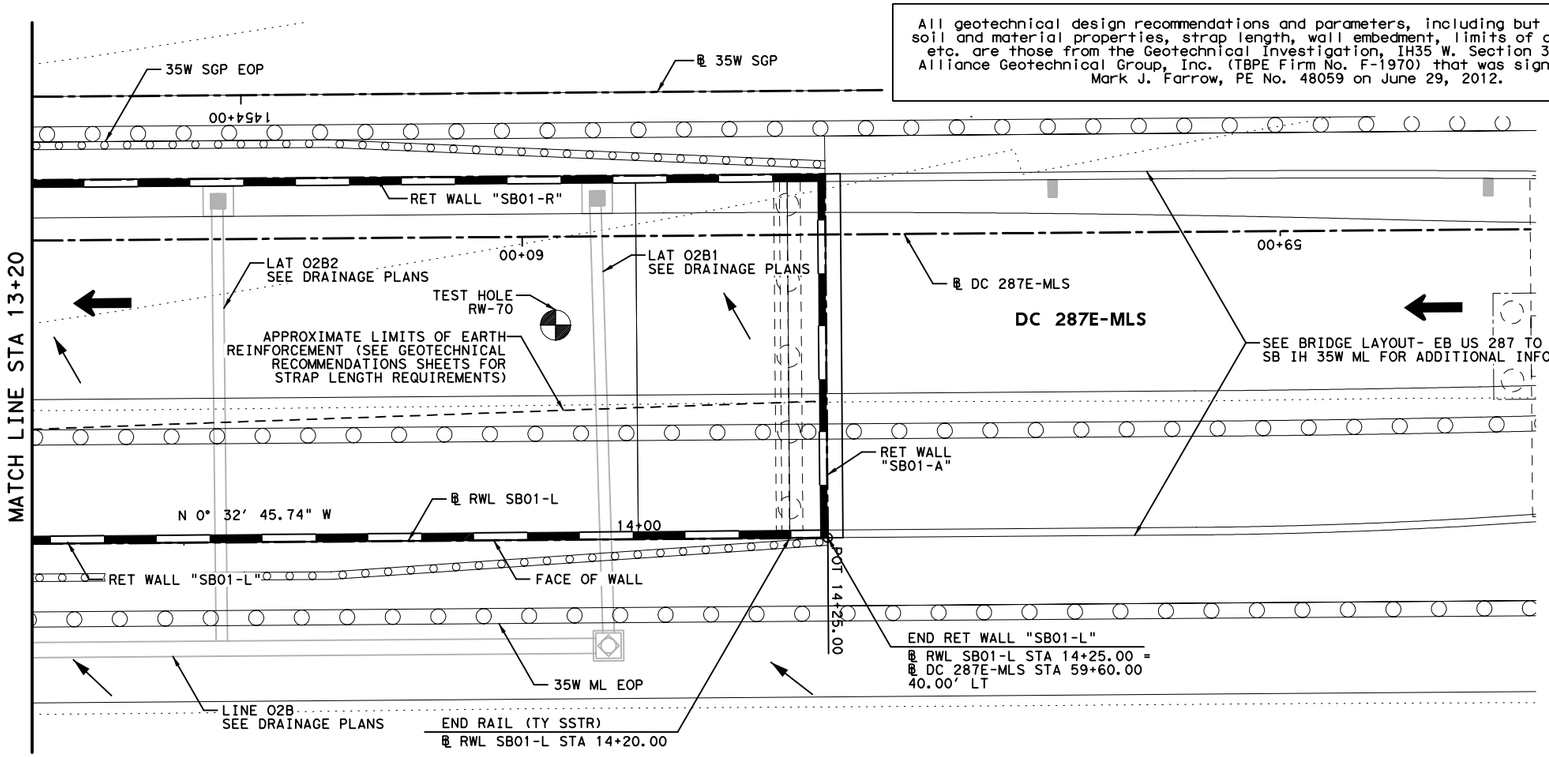

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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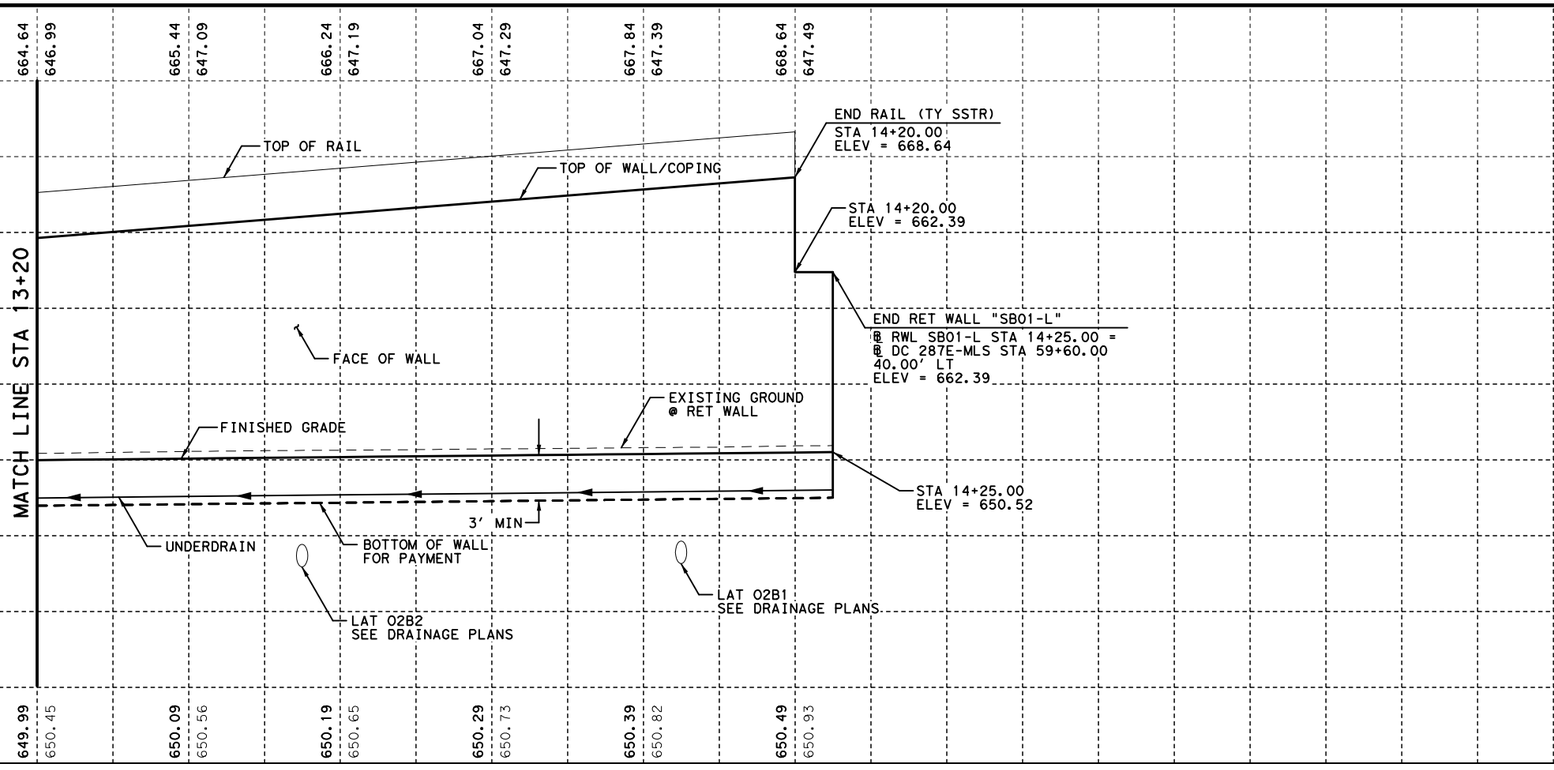

FILENAME: S3B*SB01-L-03*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
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8/22/2012

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RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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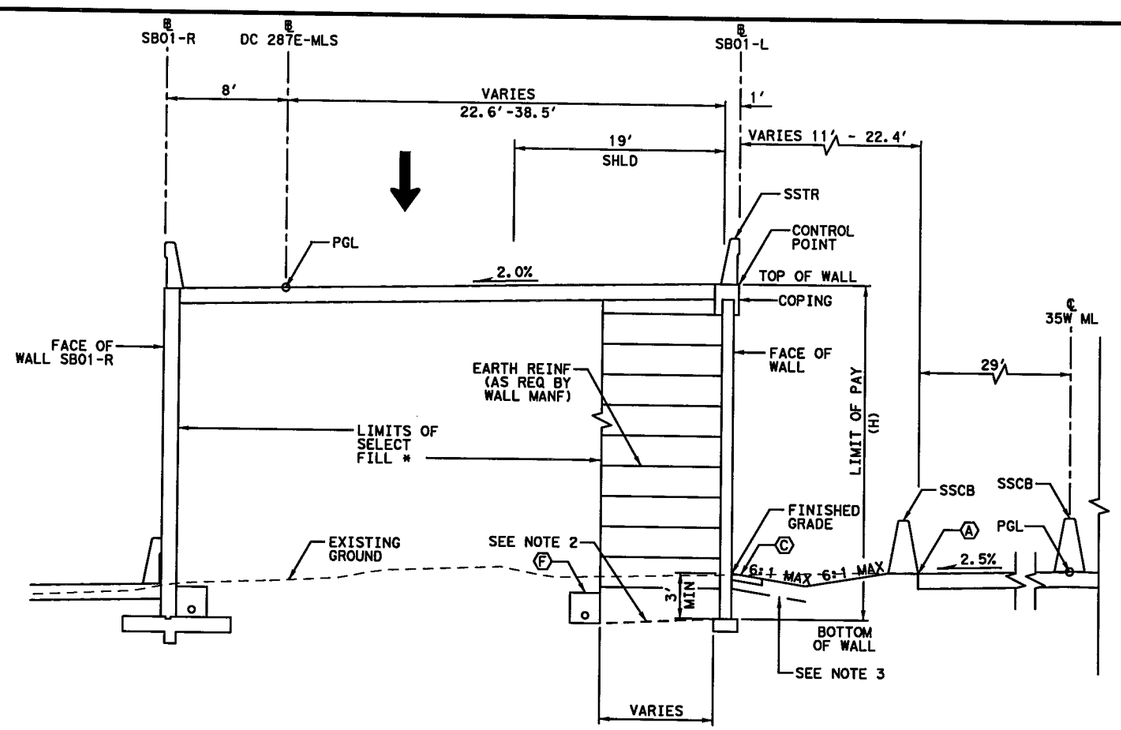
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB01-L

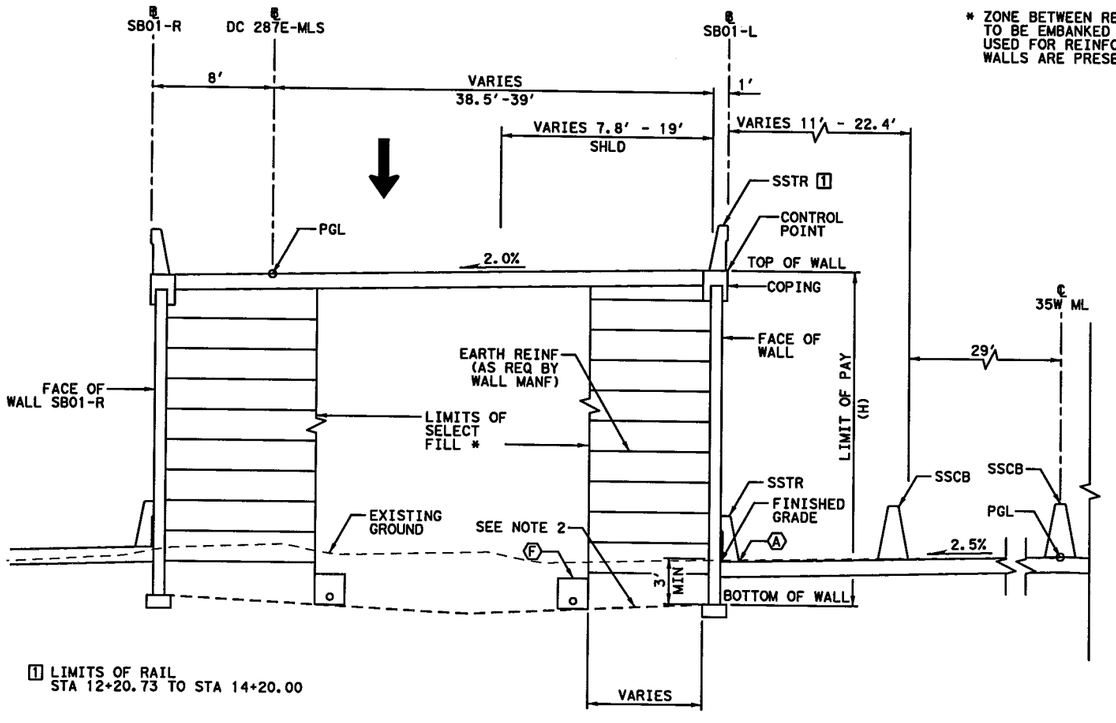
SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1010
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



PROPOSED WALL "SB01-L" TYPICAL SECTION

℄ SB01-L STA 9+20.00 TO STA 12+20.73



[1] LIMITS OF RAIL
STA 12+20.73 TO STA 14+20.00

PROPOSED WALL "SB01-L" TYPICAL SECTION

℄ SB01-L STA 12+20.73 TO STA 14+25.00

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	6,241
RIPRAP (MOW STRIP) (5 IN)	CY	10
RAIL (SSTR)	LF	500
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	522

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB01-L

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1011
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3B*TYPSB01-L*GTN.dgn
DRAWING DATE: 7/13/2012

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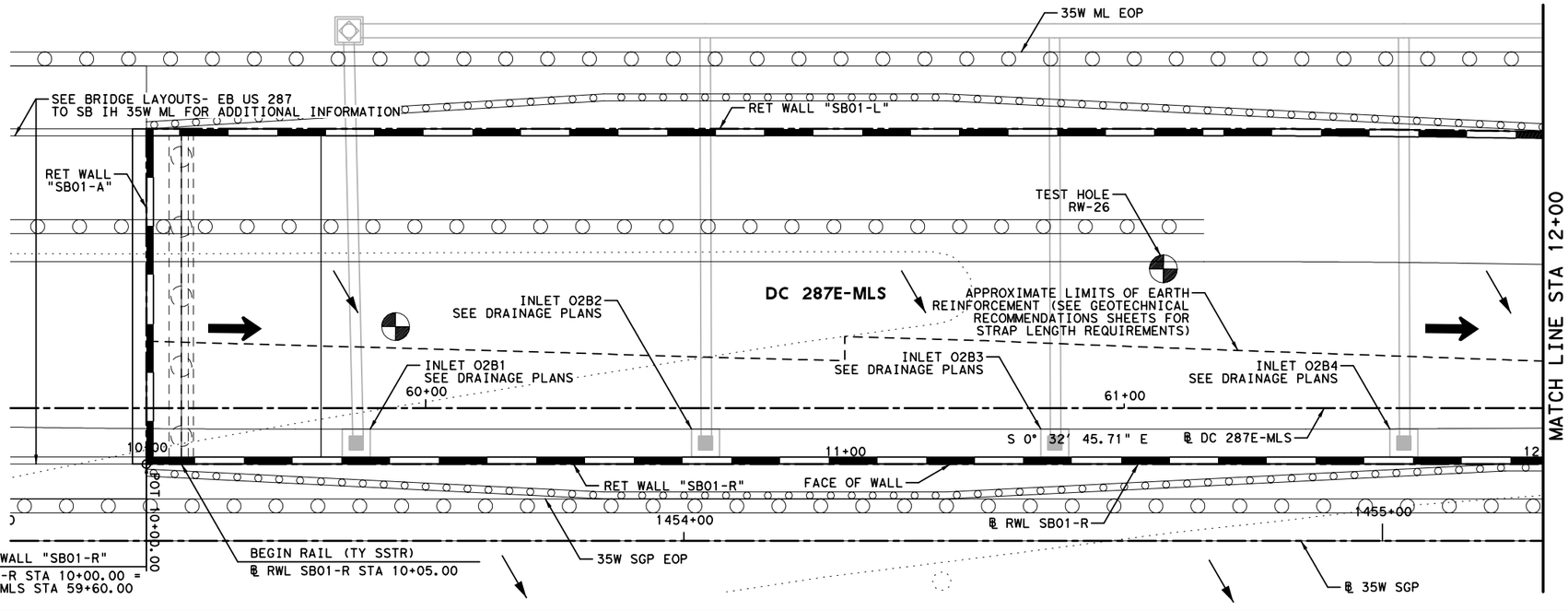

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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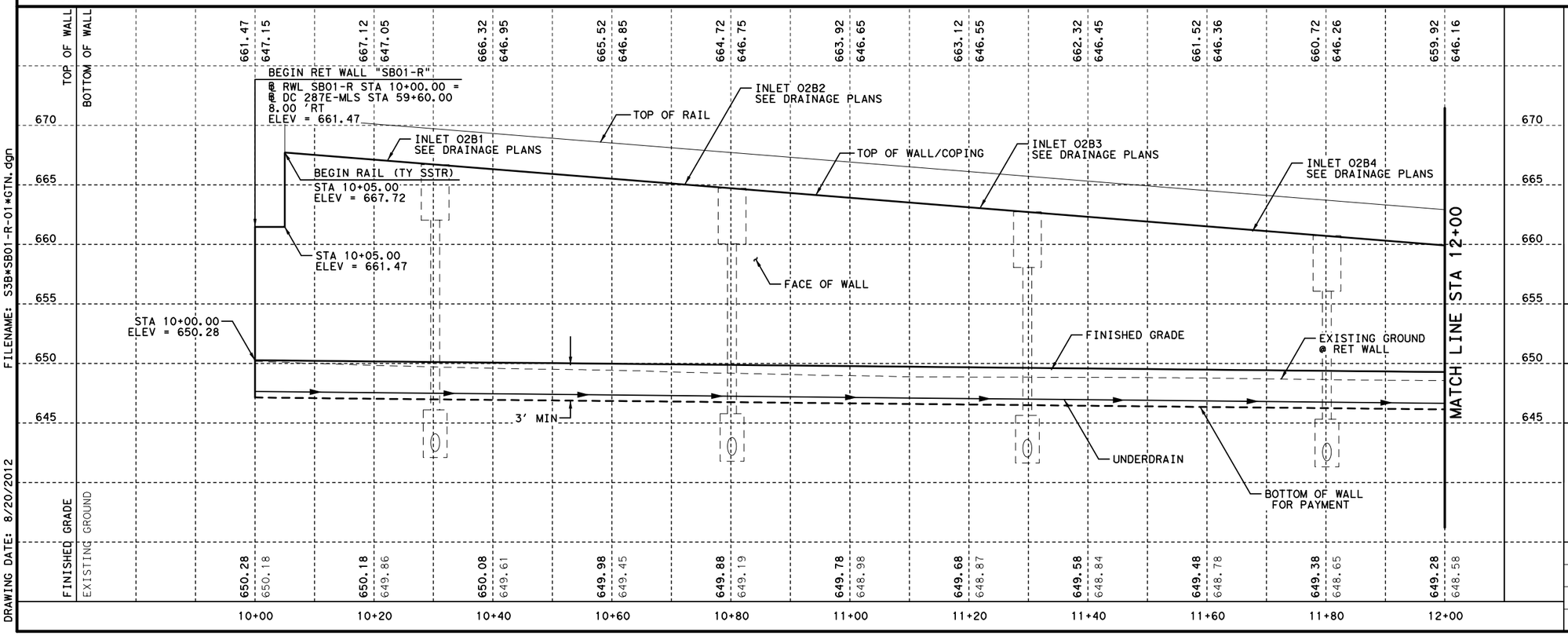

STATE OF TEXAS
DAVID W. HAWLEY
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PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

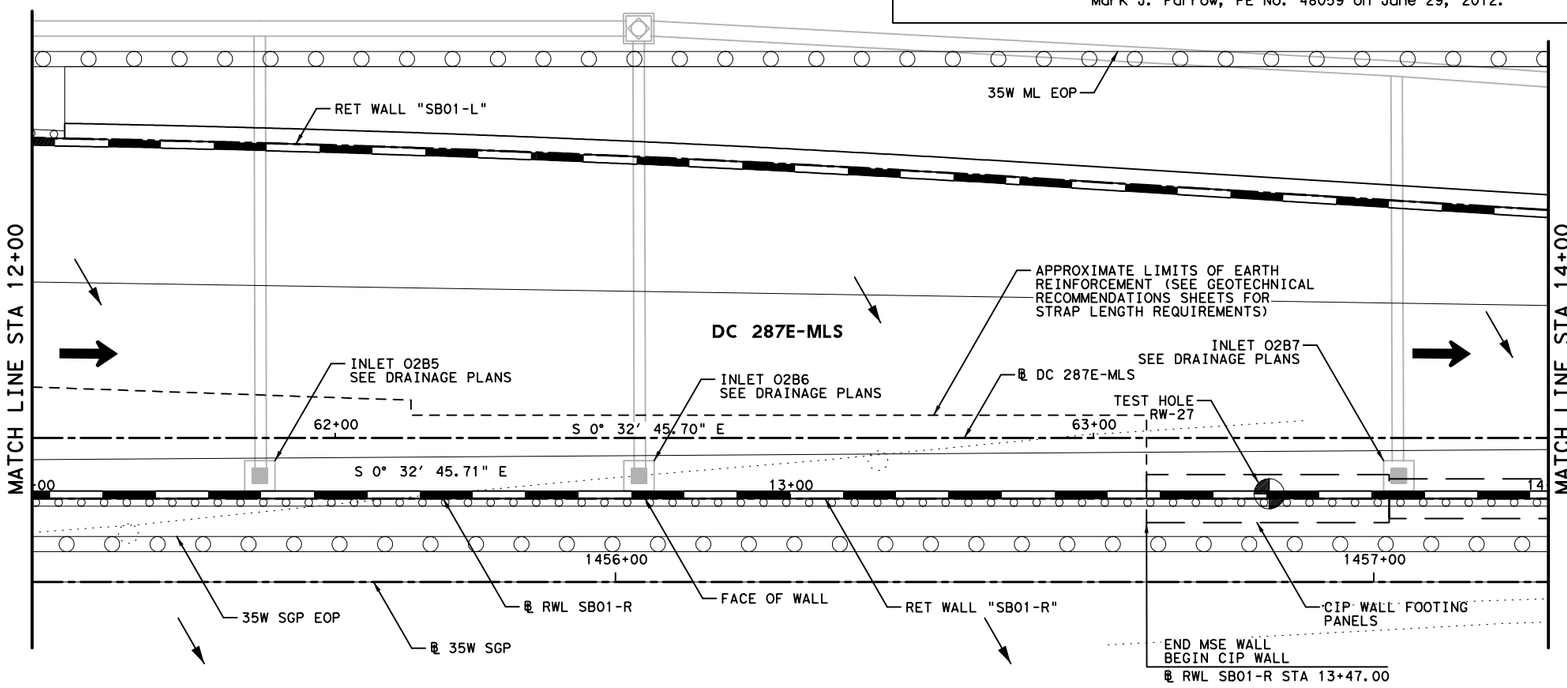
RETAINING WALLS
PLAN AND PROFILE
SB01-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1012
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB01-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



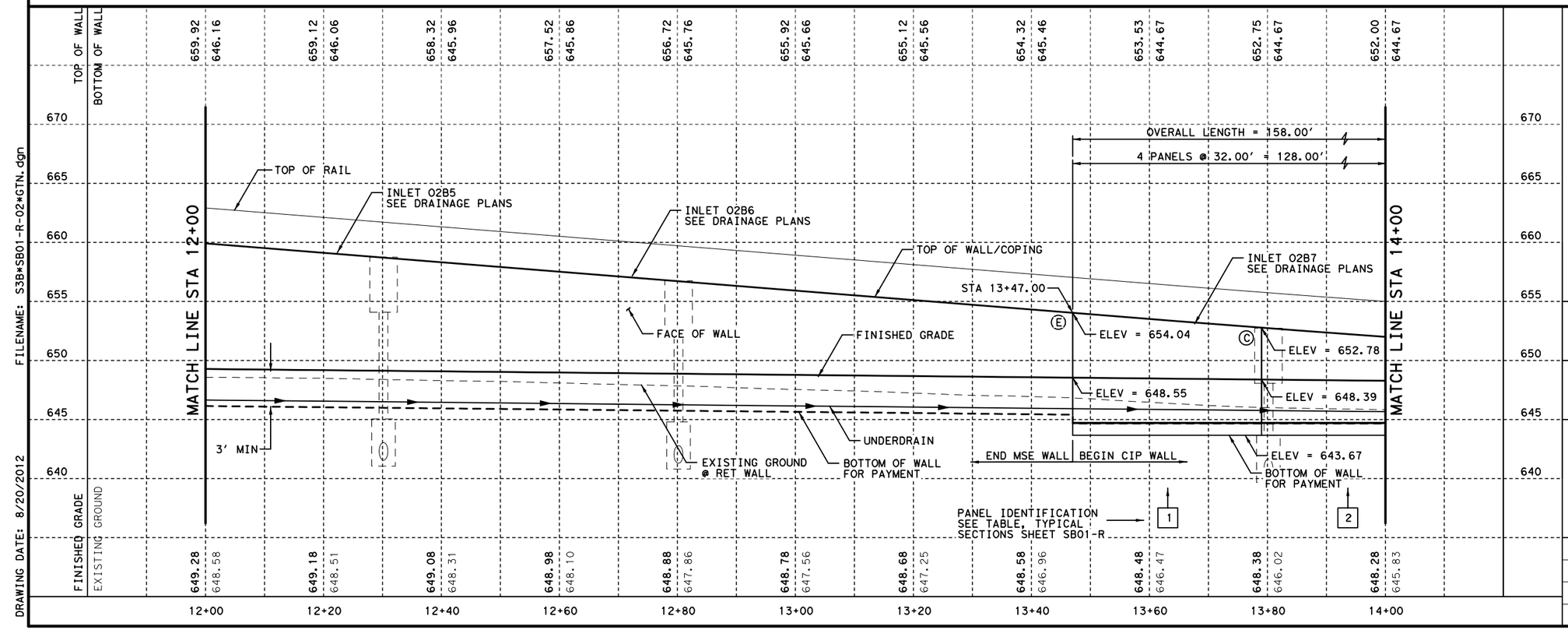
HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: S3B*SB01-R-02*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB01-R

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1013
KCI	0014	16	255, ETC.	
CHECK				
KCI				

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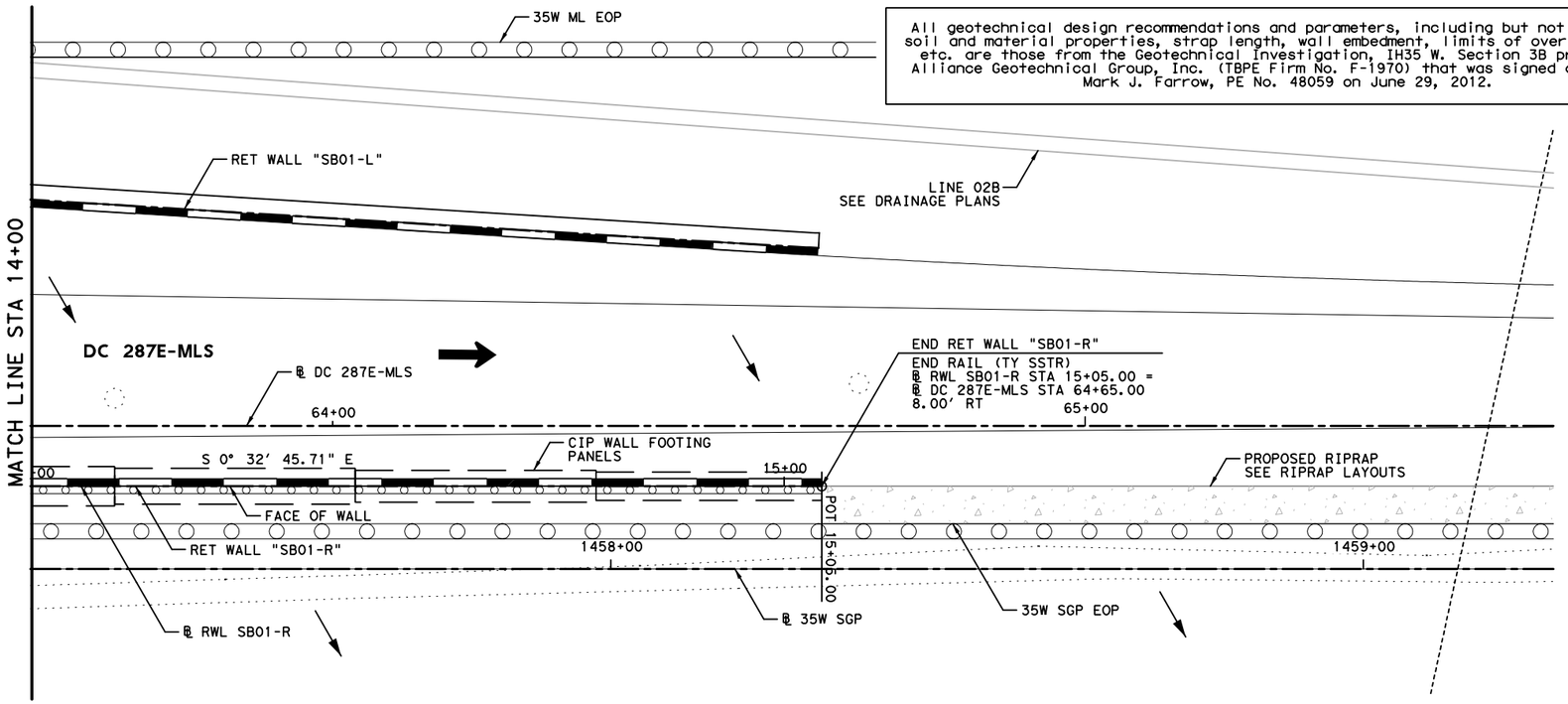

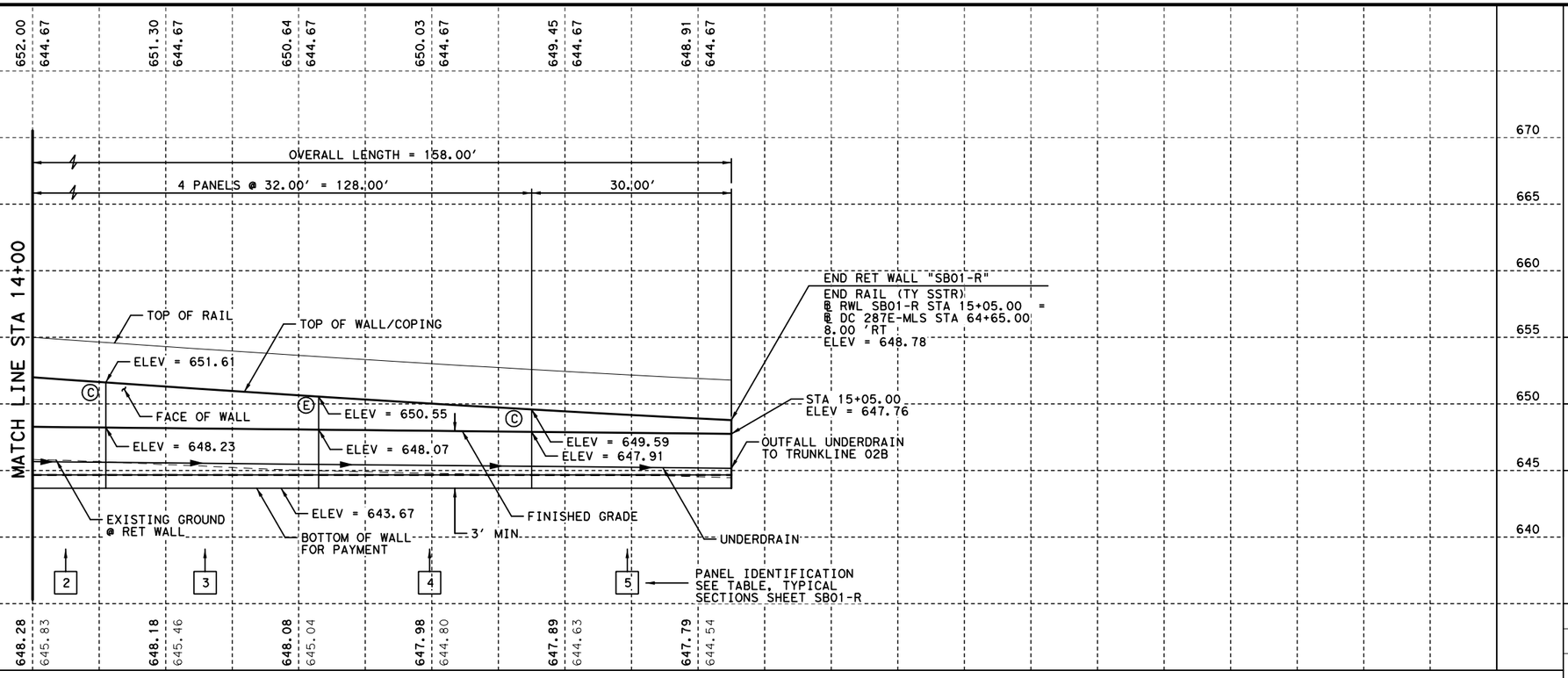

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
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6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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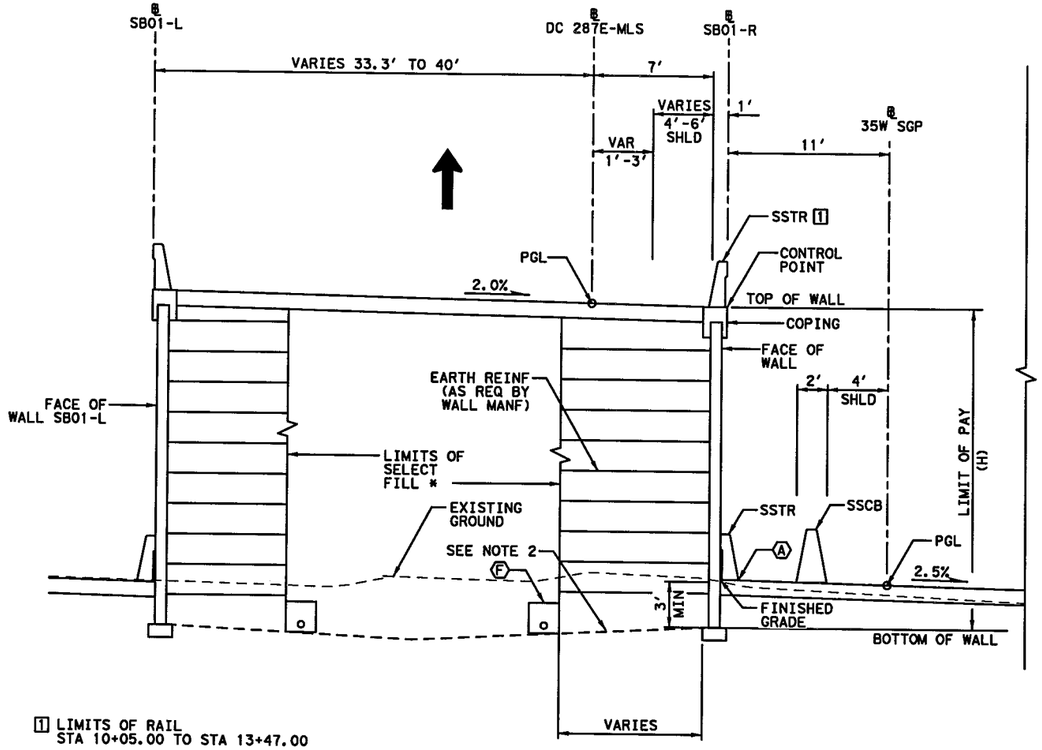
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB01-R

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1014
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB01-R-03*GTN.dgn
DRAWING DATE: 8/20/2012

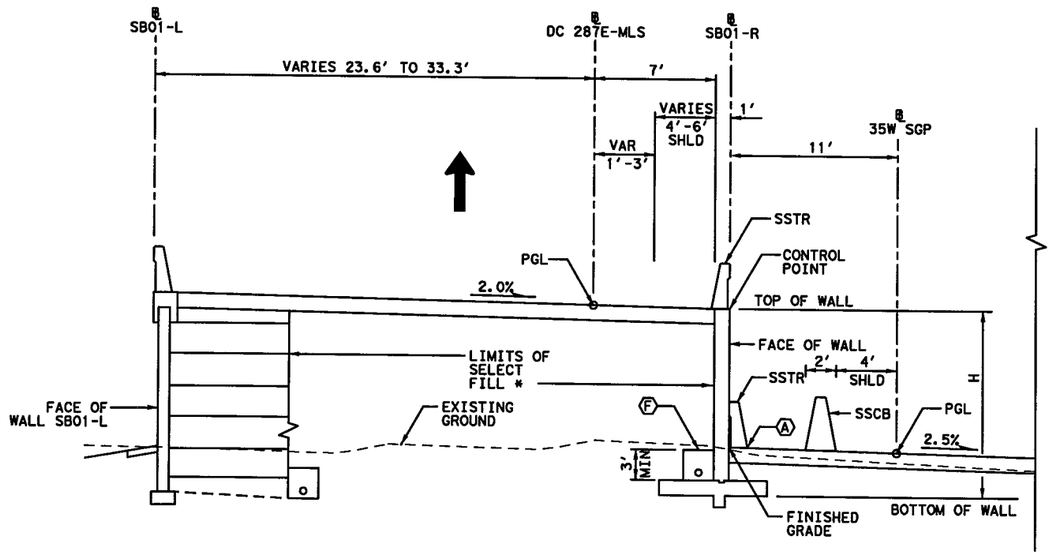


[1] LIMITS OF RAIL
STA 10+05.00 TO STA 13+47.00

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

PROPOSED WALL "SB01-R" TYPICAL SECTION

℄ SB01-R STA 10+00.00 TO STA 13+47.00



PROPOSED WALL "SB01-R" TYPICAL SECTION

℄ SB01-R STA 13+47.00 TO STA 15+05.00

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	5,068
RETAINING WALL (CIP)	SF	1,268
RAIL (SSTR)	LF	500
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	555

TABLE OF PANEL IDENTIFICATION

PANEL NO.	TYPE OF PANEL	PANEL AREA (SF)
1	LC-10-32	320
2	LC-09-32	288
3	LC-08-32	256
4	LC-07-32	224
5	LC-06-30	180

DESCRIPTION OF TYPE OF PANEL
PANEL AREA =
AVERAGE HEIGHT x LENGTH OF PANEL

AVERAGE HT. OF PANEL — LC-01-10 — LENGTH OF PANEL
TYPE OF PANEL

0' 5' 10'
SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
- Ⓓ RIPRAP (CONC)(FLUME)
- Ⓔ RIPRAP (CONC)(5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

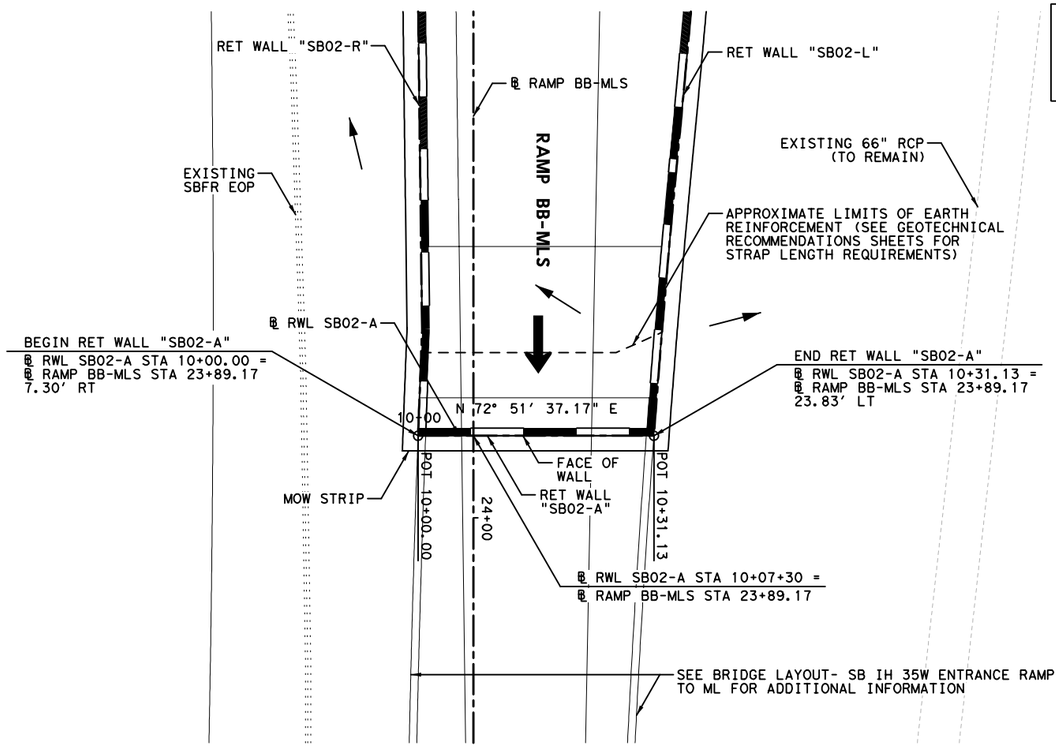
TYPICAL SECTIONS

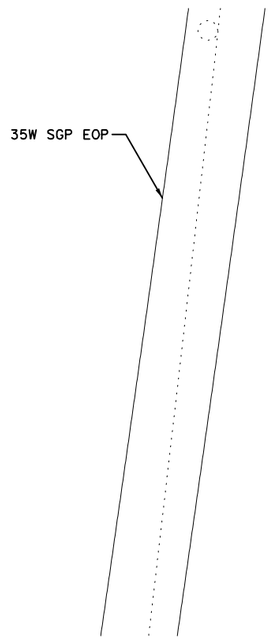
SB01-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1015
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B#TYPSB01-R#GTN.dgn
DRAWING DATE: 7/13/2012





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HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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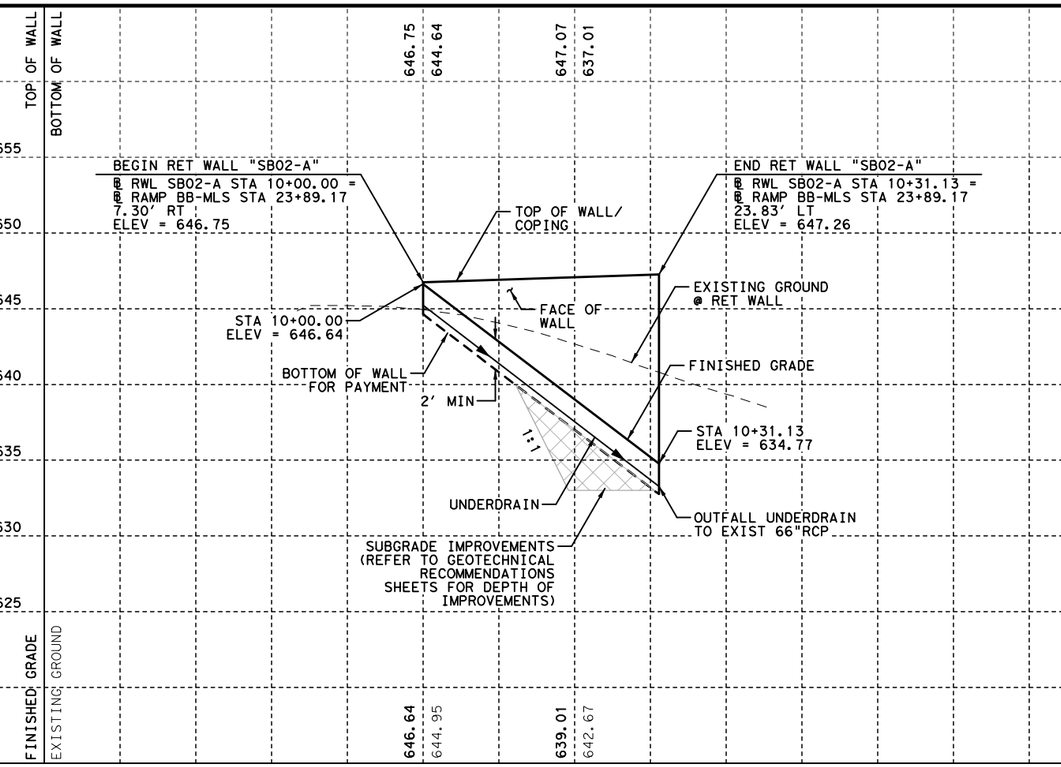

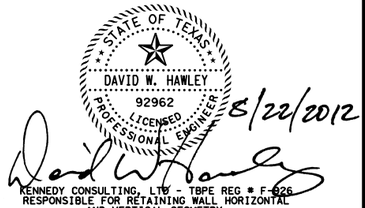

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB02-A

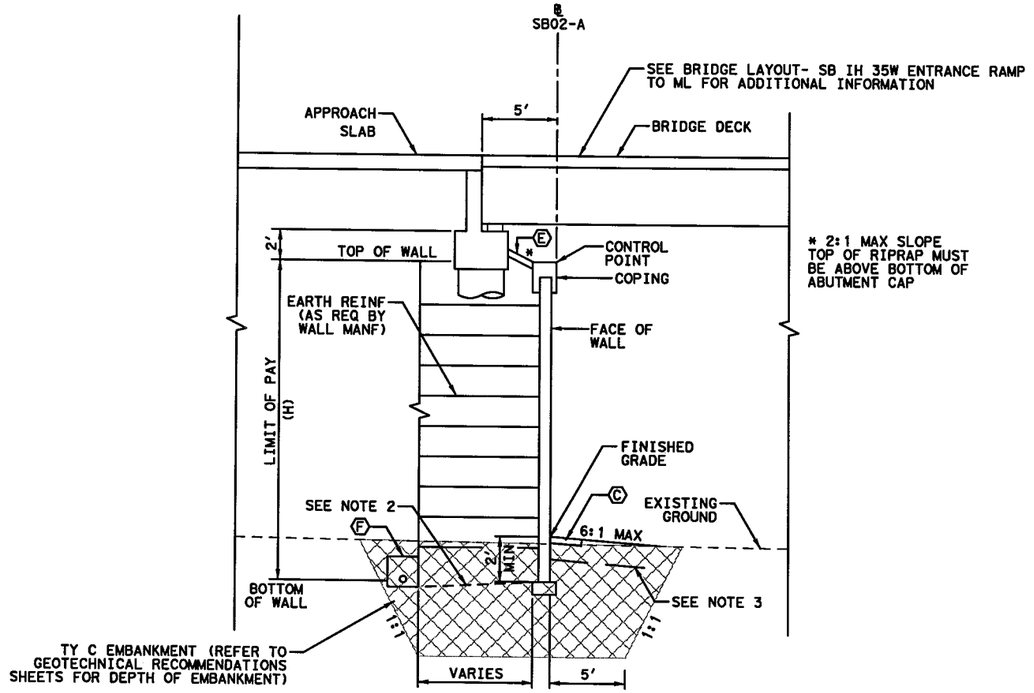
SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1016
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*SB02-A-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	258
RIPRAP (CONC) (5 IN)	CY	1
RIPRAP (MOW STRIP) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	74



PROPOSED WALL "SB02-A" TYPICAL SECTION

℄ SB02-A 10+00.00 TO STA 10+31.13

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB02-A

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1017
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPSB02-A*GTN.dgn

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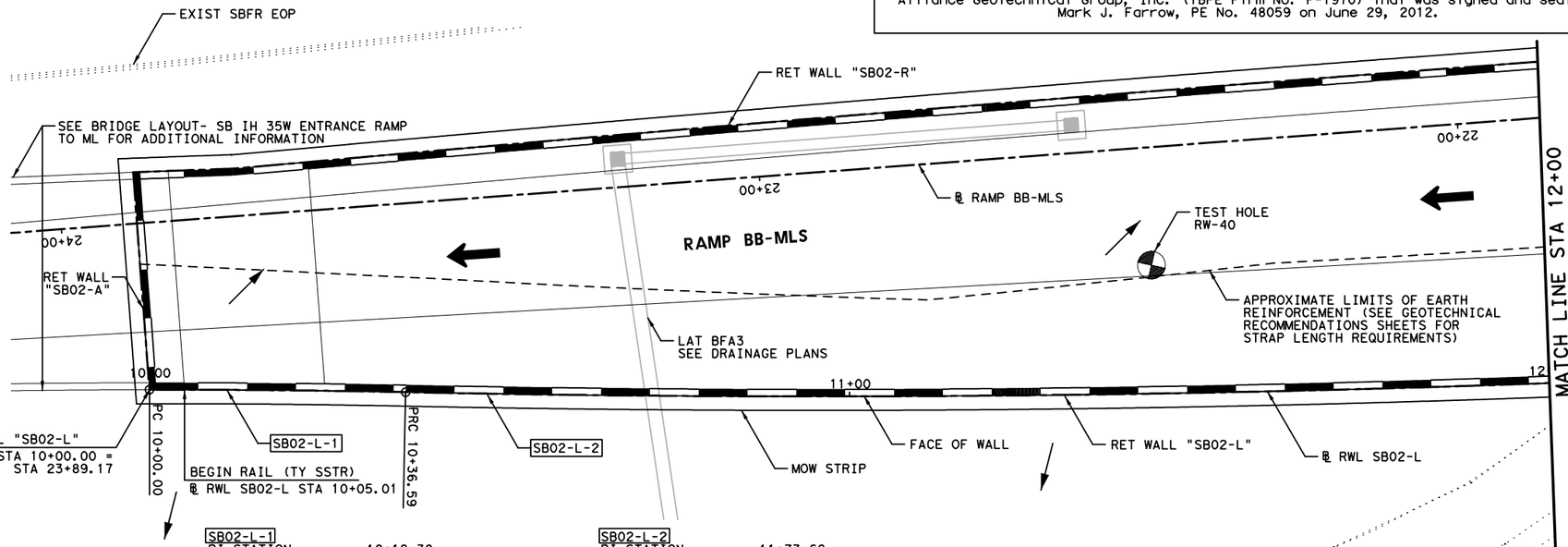

SB02-L-1		SB02-L-2	
PI STATION	= 10+18.30	PI STATION	= 11+73.68
DELTA	= 1° 16' 17.33" (RT)	DELTA	= 5° 28' 38.66" (LT)
DEGREE OF CURVE	= 3° 28' 28.48"	DEGREE OF CURVE	= 1° 59' 57.49"
TANGENT	= 18.2977	TANGENT	= 137.0873
LENGTH	= 36.5939	LENGTH	= 273.9658
RADIUS	= 1,649.0000	RADIUS	= 2,865.7890
PC STATION	= 10+00.00	PC STATION	= 10+36.59
PT STATION	= 10+36.59	PT STATION	= 13+10.56

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
←	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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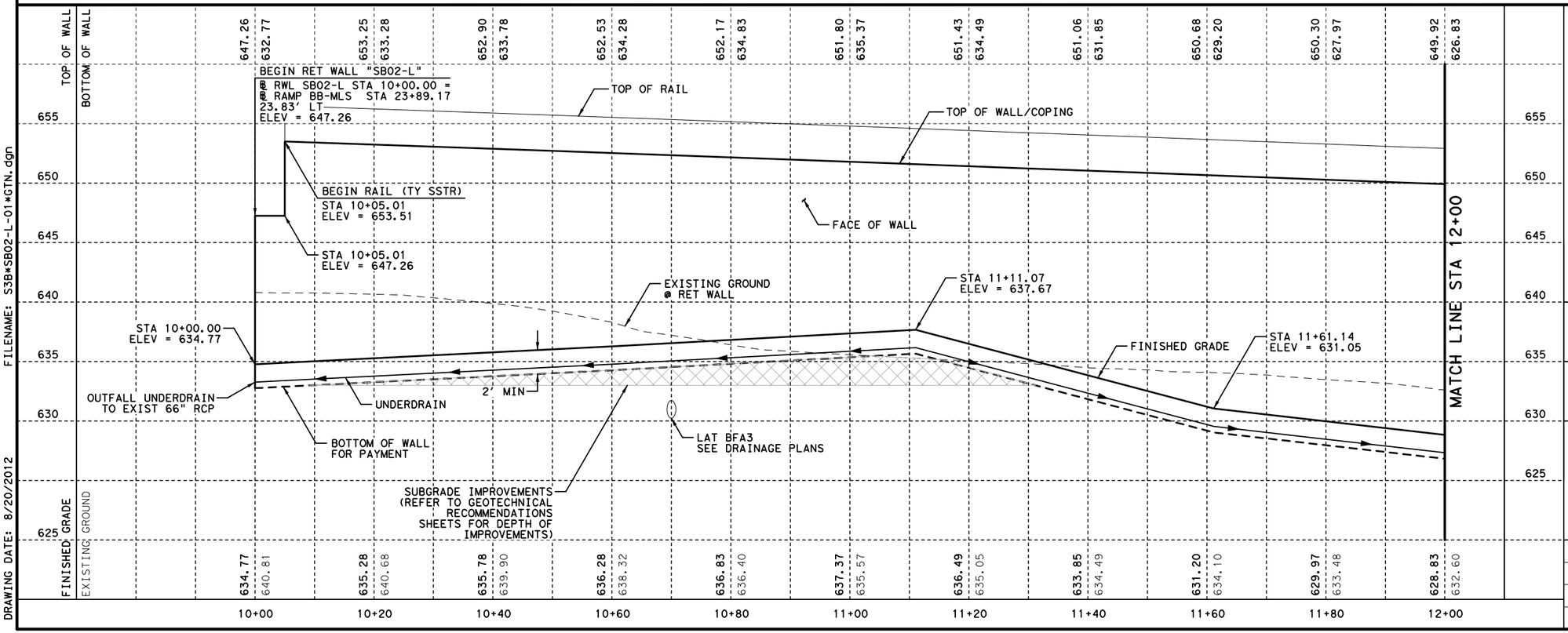

FILENAME: S3B*SB02-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

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RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB02-L

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1018
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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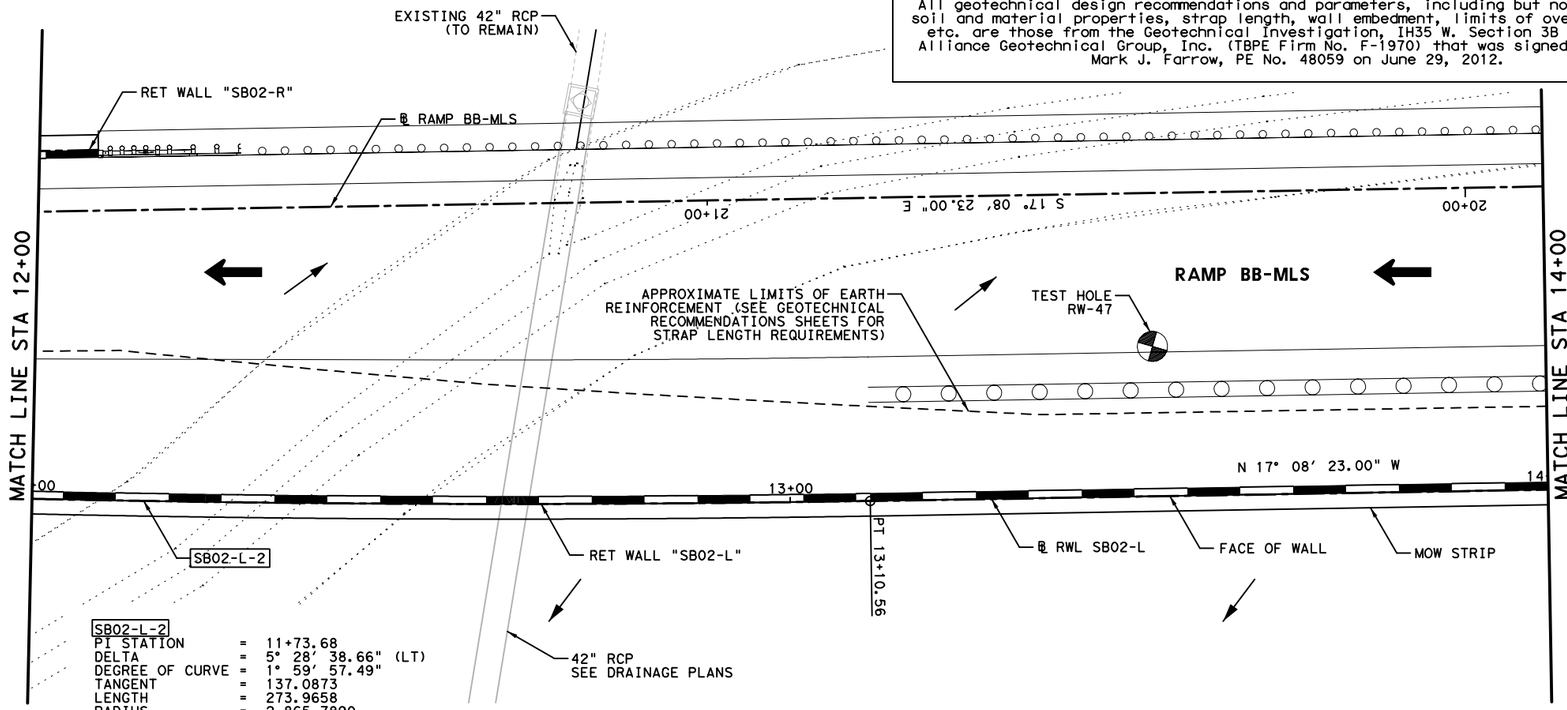


SB02-L-2

PI STATION	=	11+73.68
DELTA	=	5° 28' 38.66" (LT)
DEGREE OF CURVE	=	1° 59' 57.49"
TANGENT	=	137.0873
LENGTH	=	273.9658
RADIUS	=	2,865.7890
PC STATION	=	10+36.59
PT STATION	=	13+10.56

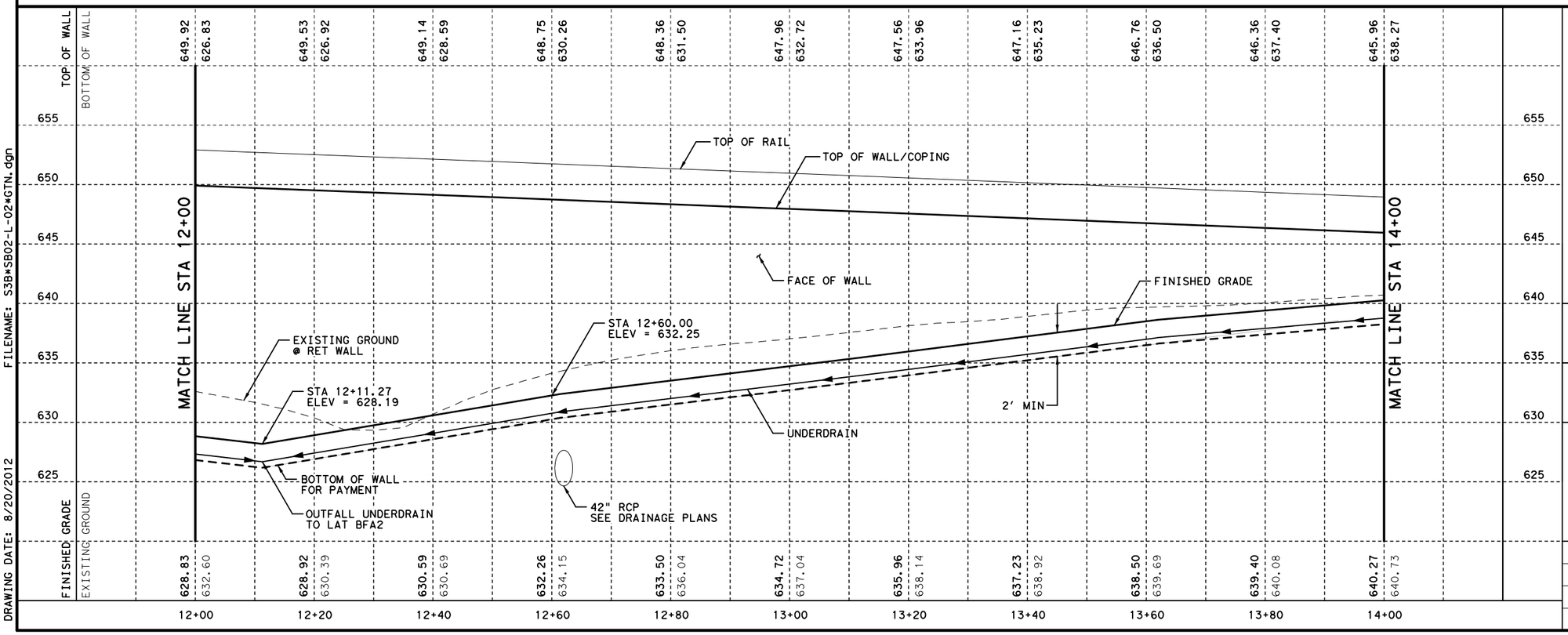
HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
←	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: S3B*SB02-L-02*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB02-L

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1019
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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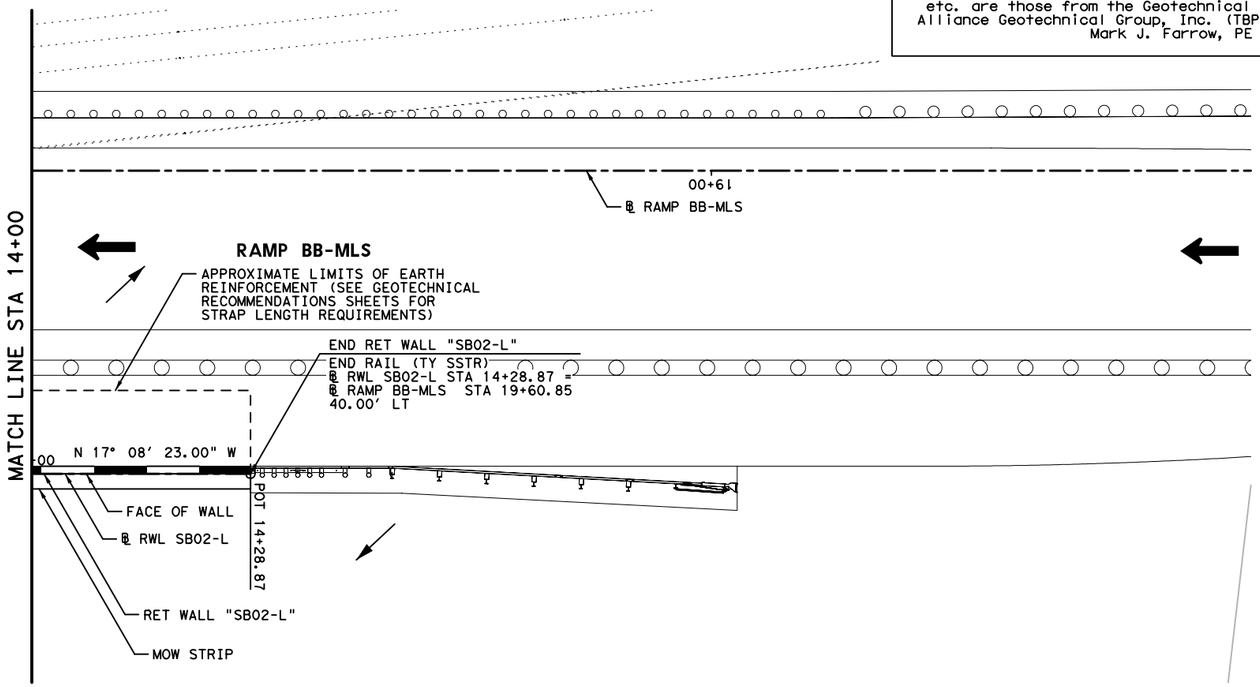

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
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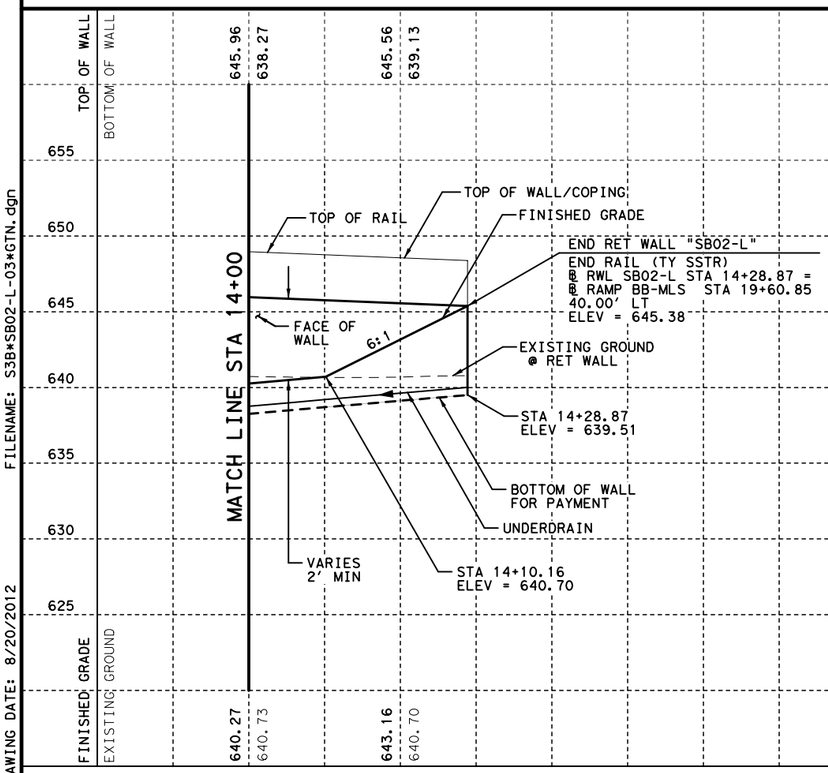

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB02-L

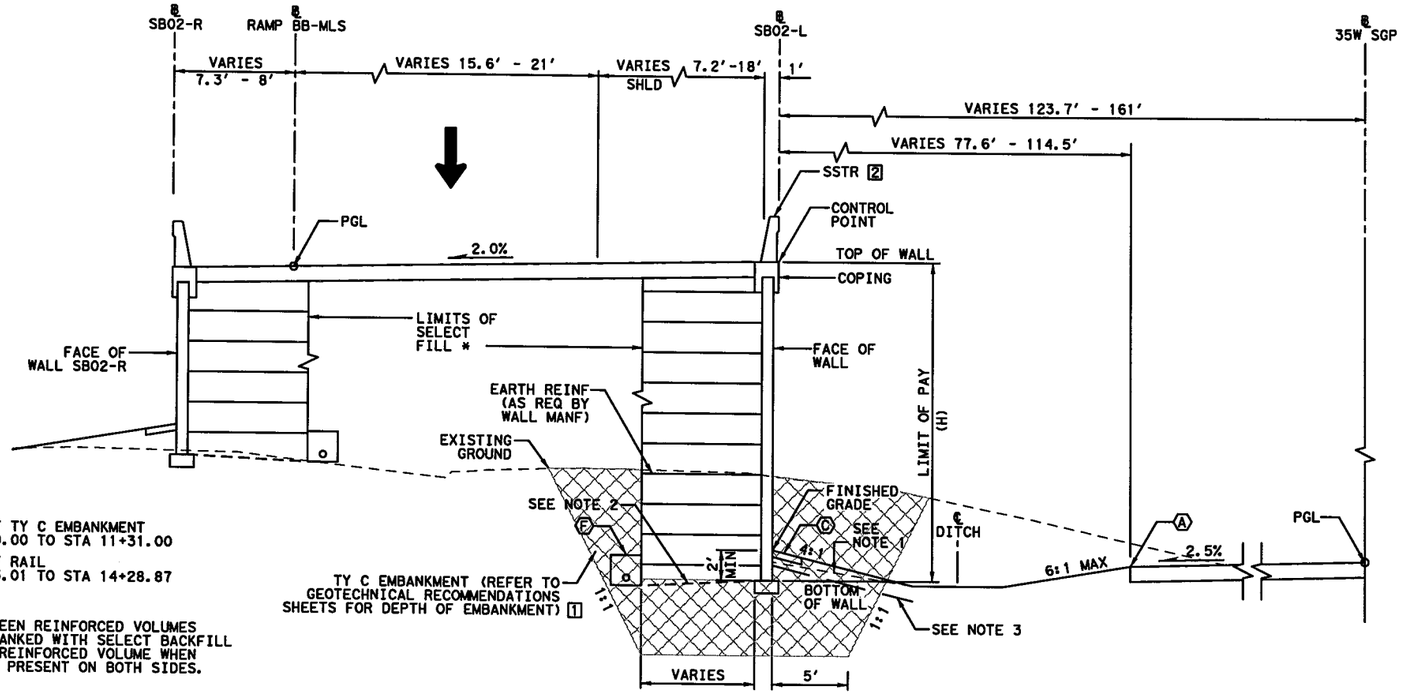
SCALE 1"= 20′ H, 1"=10′ V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1020
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB02-L-03*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	7,102
RIPRAP (MOW STRIP)(5 IN)	CY	14
RAIL (SSTR)	LF	424
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	510



[1] LIMITS OF TY C EMBANKMENT
STA 10+09.00 TO STA 11+31.00

[2] LIMITS OF RAIL
STA 10+05.01 TO STA 14+28.87

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

PROPOSED WALL "SB02-L" TYPICAL SECTION

℄ SB02-L STA 10+00.00 TO STA 14+28.87

0' 5' 10'

SCALE IN FEET

LEGEND:

Ⓐ EDGE OF PROPOSED PAVEMENT
Ⓑ EDGE OF ULTIMATE PAVEMENT
Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
Ⓓ RIPRAP (CONC)(FLUME)
Ⓔ RIPRAP (CONC)(5 IN)
Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

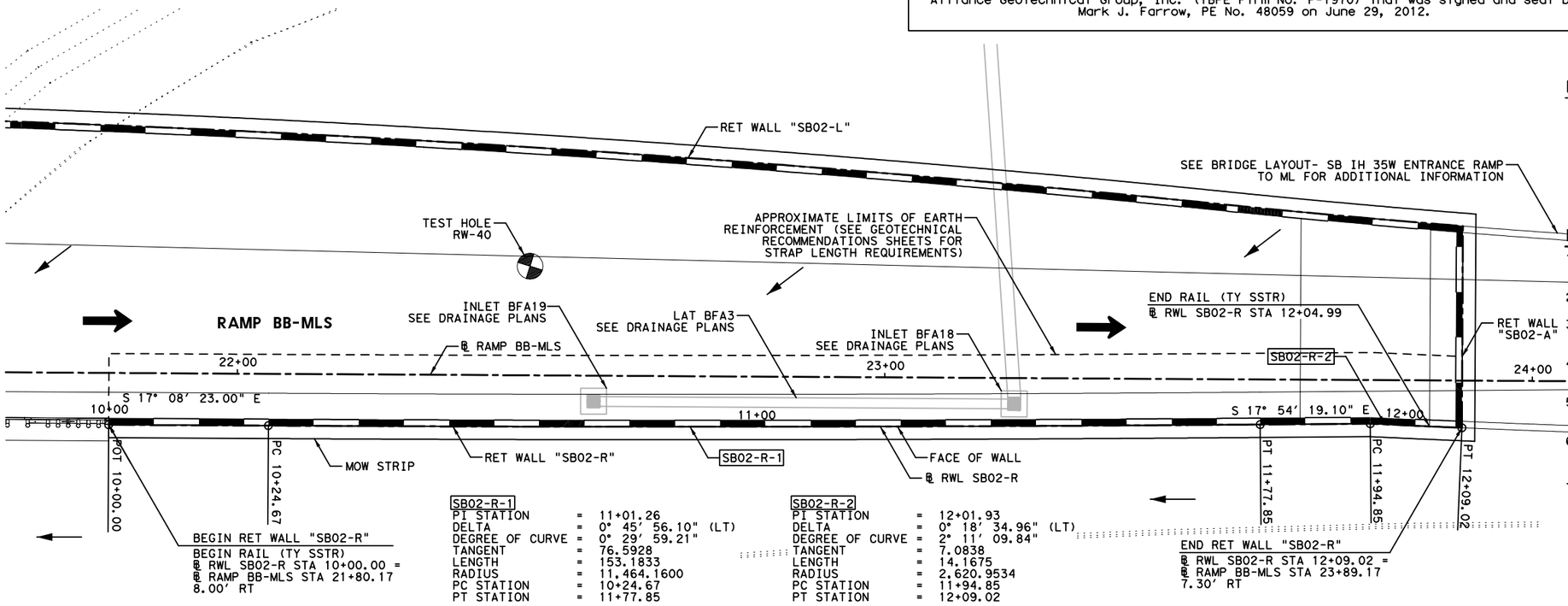
SB02-L

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1021
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPSB02-L*GTN.dgn

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



SB02-R-1

PI STATION	=	11+01.26
DELTA	=	0° 45' 56.10" (LT)
DEGREE OF CURVE	=	0° 29' 59.21"
TANGENT	=	76.5928
LENGTH	=	153.1833
RADIUS	=	11,464.1600
PC STATION	=	10+24.67
PT STATION	=	11+77.85

SB02-R-2

PI STATION	=	12+01.93
DELTA	=	0° 18' 34.96" (LT)
DEGREE OF CURVE	=	2° 11' 09.84"
TANGENT	=	7.0838
LENGTH	=	14.1675
RADIUS	=	2,620.9534
PC STATION	=	11+94.85
PT STATION	=	12+09.02

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- CURVE XX — HORIZONTAL CURVE
- Ⓒ — CONSTRUCTION JOINT
- Ⓔ — EXPANSION JOINT
- ← — DRAINAGE FLOW ARROWS
- ⬅ — TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
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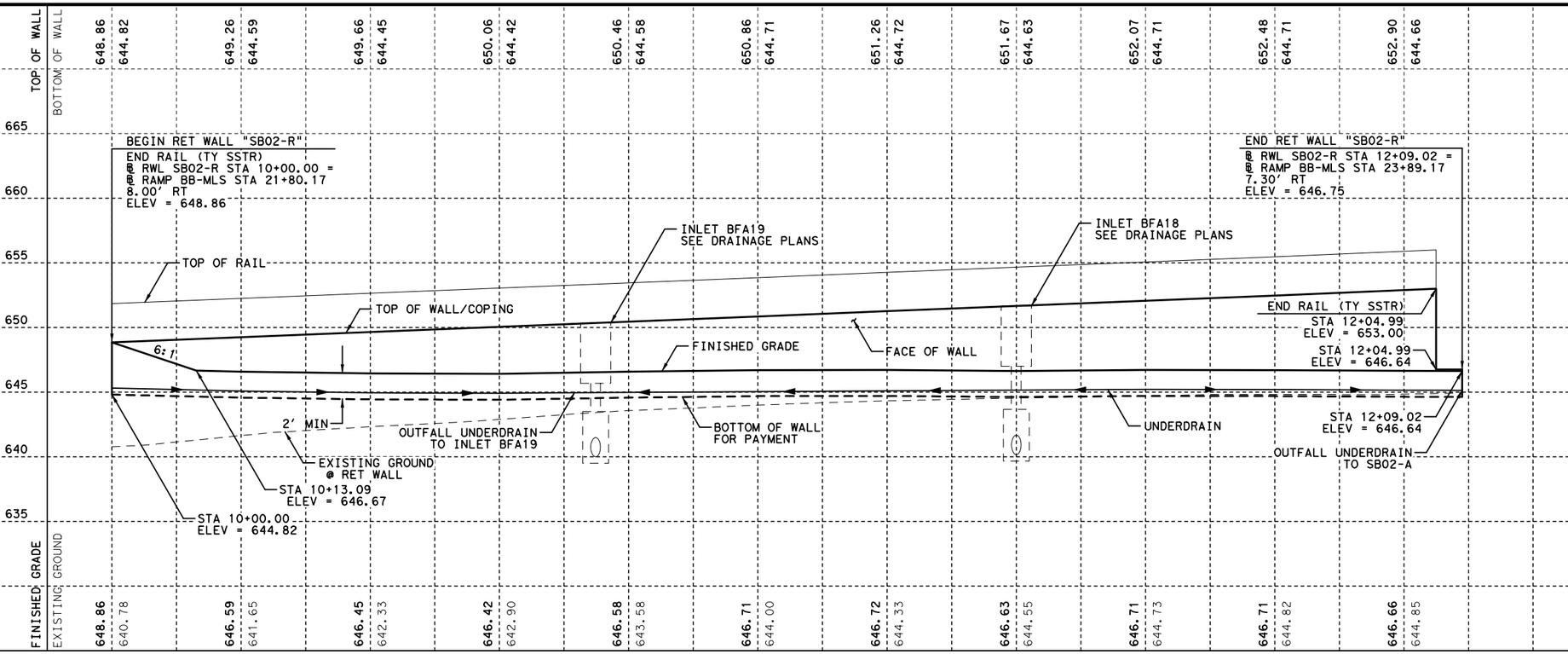
	TOP OF WALL	BOTTOM OF WALL	FINISHED GRADE	EXISTING GROUND
10+00	648.86	644.82	648.86	640.78
10+20	649.26	644.59	646.59	641.65
10+40	649.66	644.45	646.45	642.33
10+60	650.06	644.42	646.42	642.90
10+80	650.46	644.58	646.58	643.58
11+00	650.86	644.71	646.71	644.00
11+20	651.26	644.72	646.72	644.33
11+40	651.67	644.63	646.63	644.55
11+60	652.07	644.71	646.71	644.73
11+80	652.48	644.71	646.71	644.82
12+00	652.90	644.66	646.66	644.85



FILENAME: S3B*SB02-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

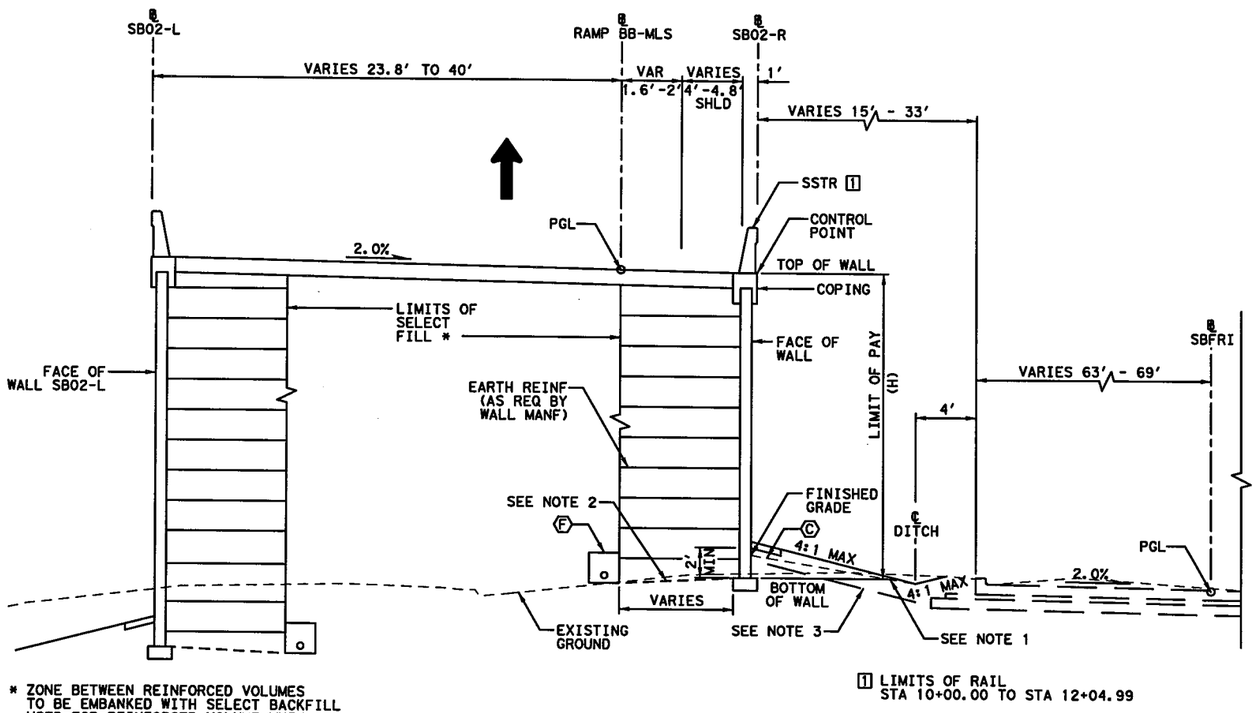
RETAINING WALLS
PLAN AND PROFILE
SB02-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1022
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	1,297
RIPRAP (MOW STRIP)(5 IN)	CY	7
RAIL (SSTR)	LF	204
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	215



* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

[1] LIMITS OF RAIL STA 10+00.00 TO STA 12+04.99

PROPOSED WALL "SB02-R" TYPICAL SECTION

℄ SB02-R STA 10+00.00 TO STA 12+09.02

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
- Ⓓ RIPRAP (CONC)(FLUME)
- Ⓔ RIPRAP (CONC)(5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB02-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1023
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B#TYPSB02-R#GTN.dgn
DRAWING DATE: 7/13/2012

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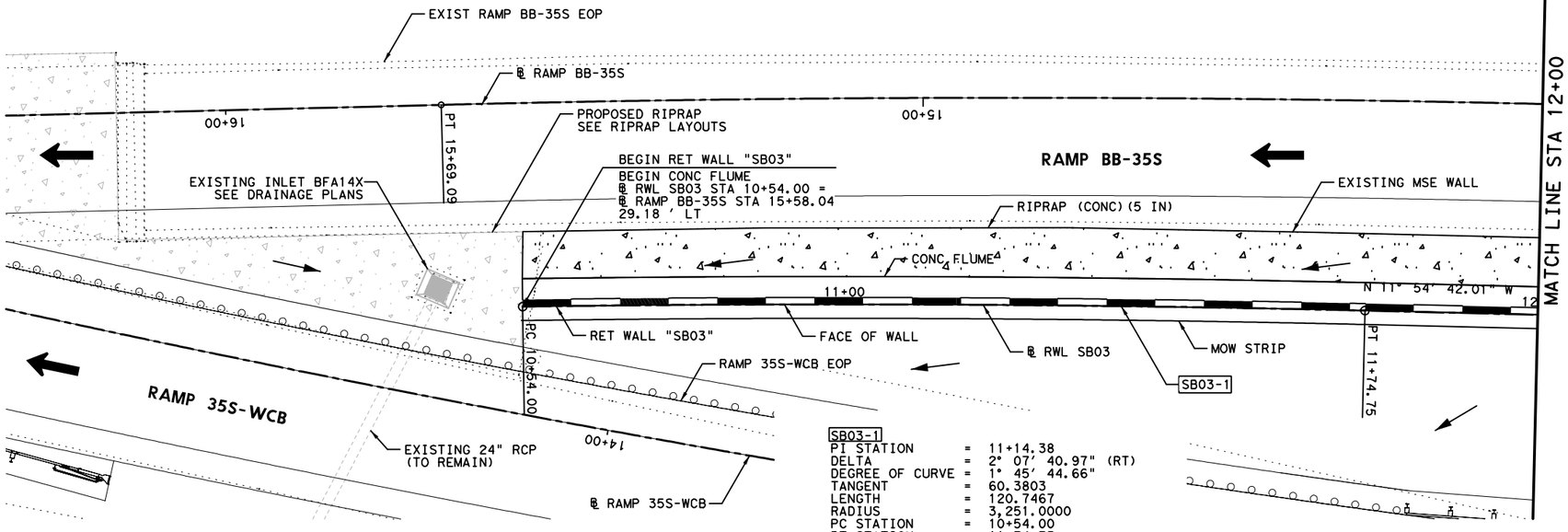

SB03-1

PI STATION	=	11+14.38
DELTA	=	2° 07' 40.97" (RT)
DEGREE OF CURVE	=	1° 45' 44.66"
TANGENT	=	60.3803
LENGTH	=	120.7467
RADIUS	=	3,251.0000
PC STATION	=	10+54.00
PT STATION	=	11+74.75

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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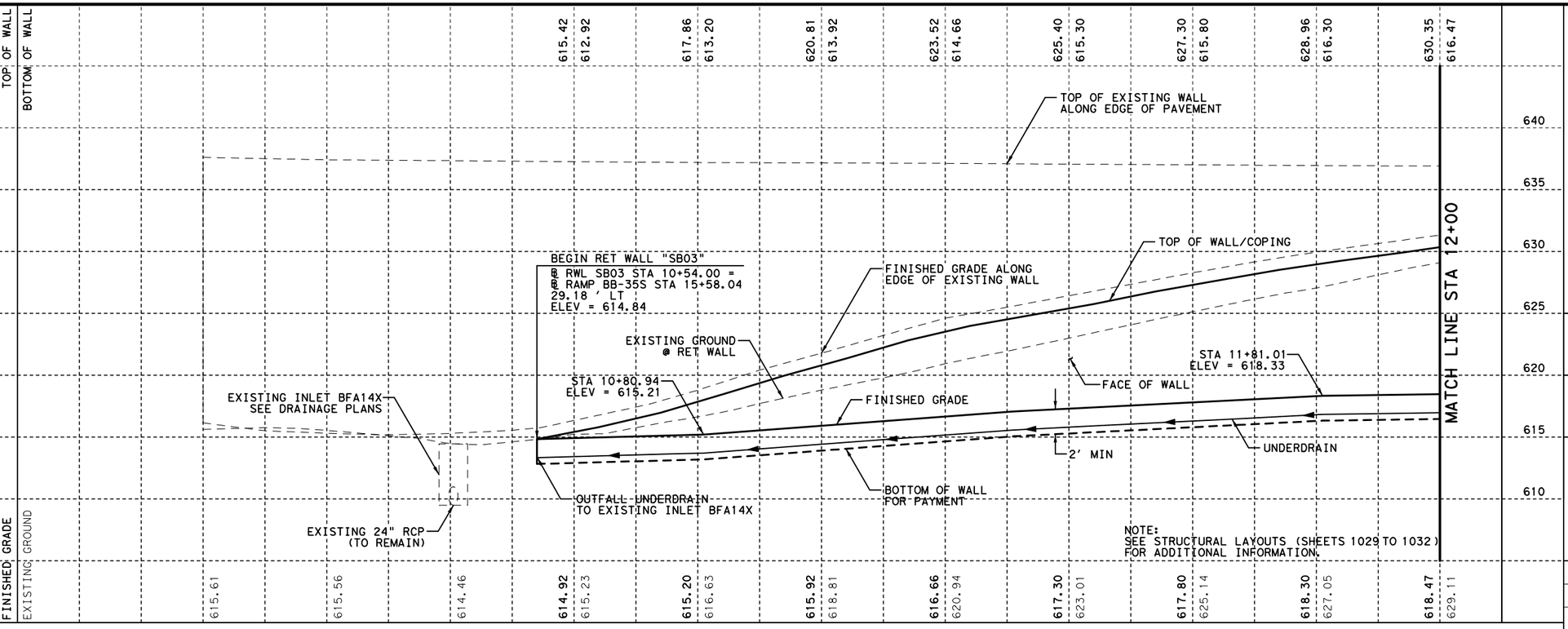

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB03

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1024
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB03-01*GTN.dgn
DRAWING DATE: 8/20/2012

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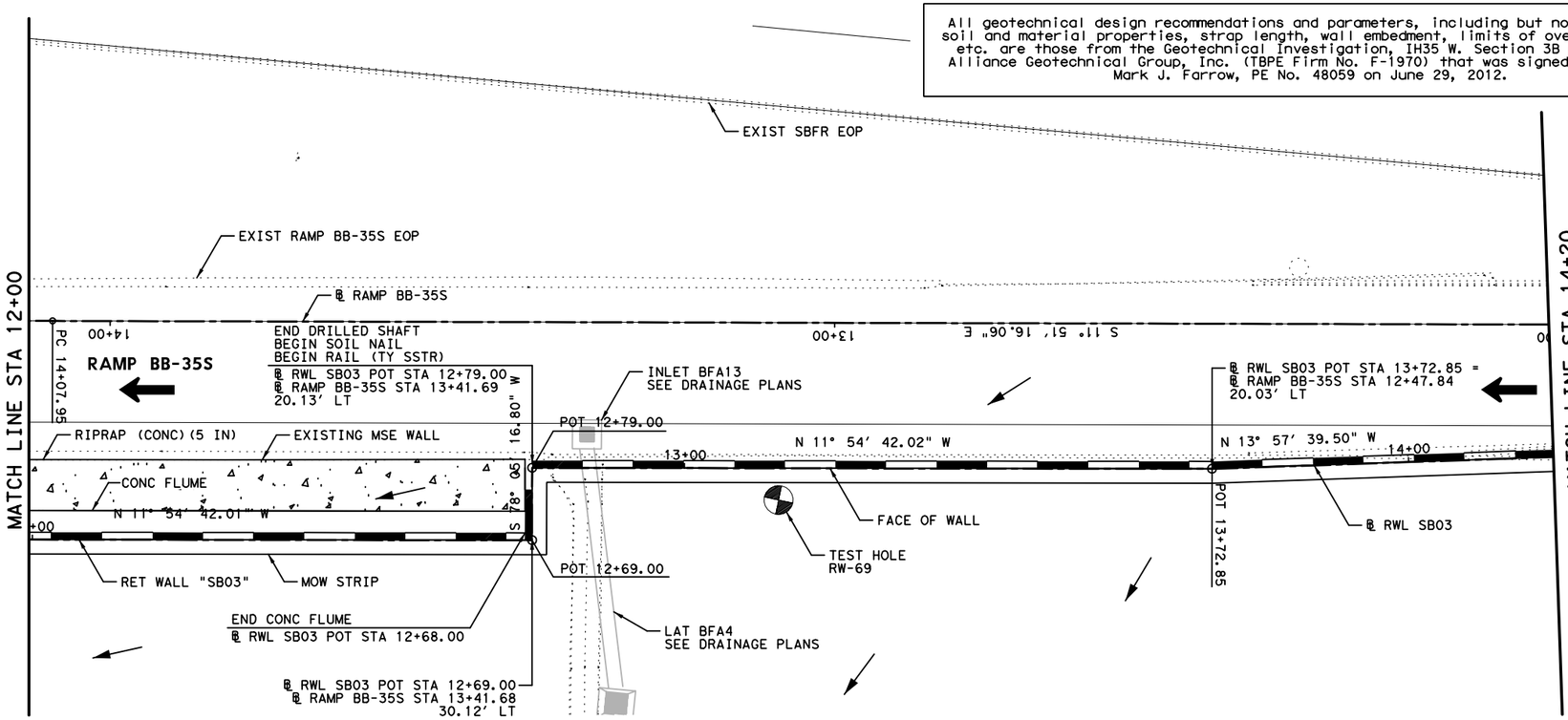

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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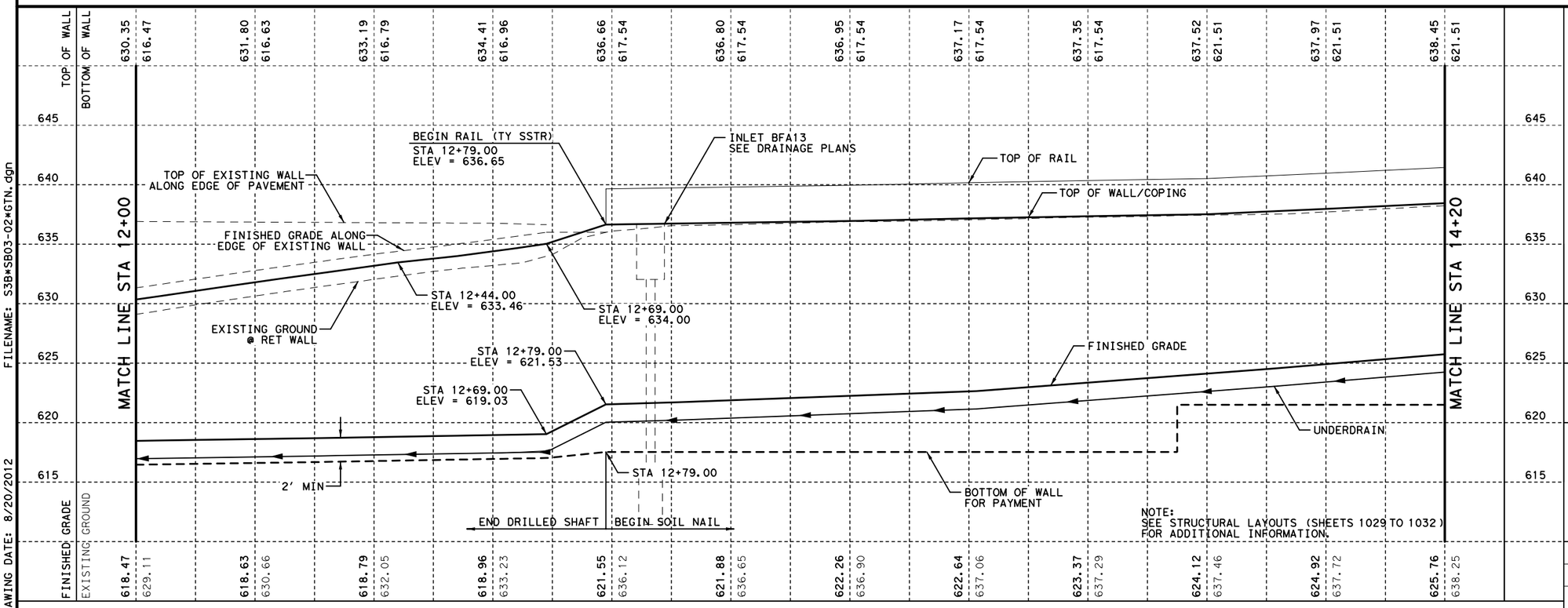

NOTE:
SEE STRUCTURAL LAYOUTS (SHEETS 1029 TO 1032) FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
DAVID W. HAWLEY
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LICENSED
PROFESSIONAL ENGINEER
8/22/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB03

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	1025
	0014	16	255, ETC.	

FILENAME: S3B*SB03-02*GTN.dgn
DRAWING DATE: 8/20/2012

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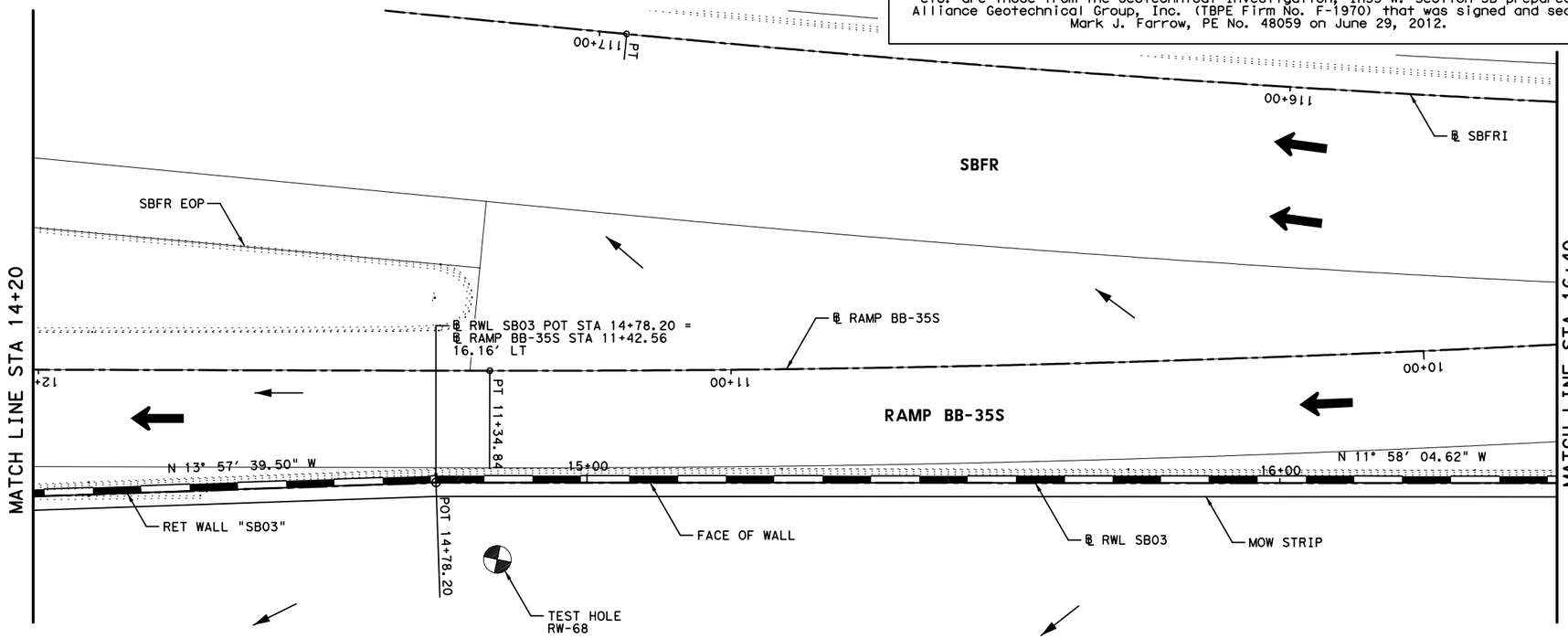


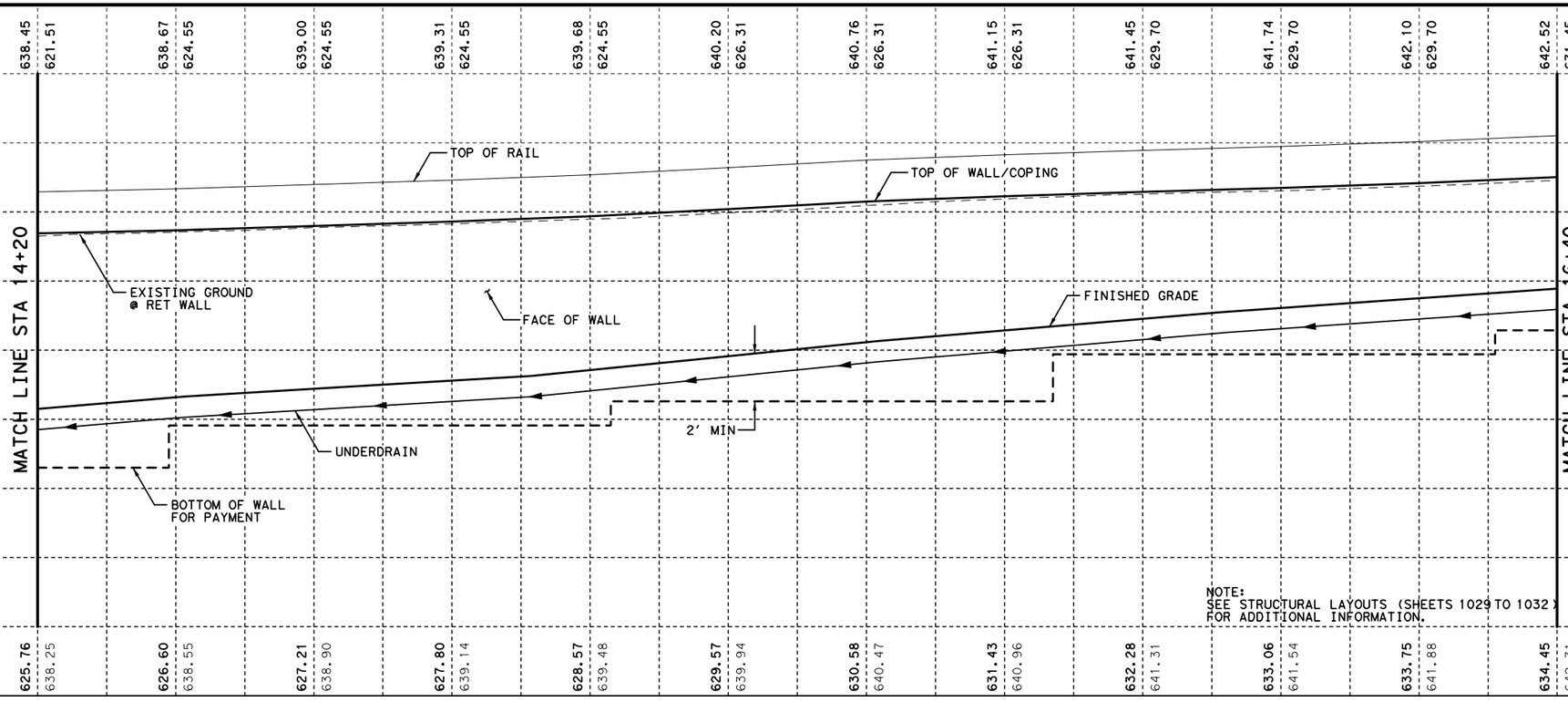
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



NOTE:
SEE STRUCTURAL LAYOUTS (SHEETS 1029 TO 1032) FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB03

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1026
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB03-03*GTN.dgn
DRAWING DATE: 8/20/2012

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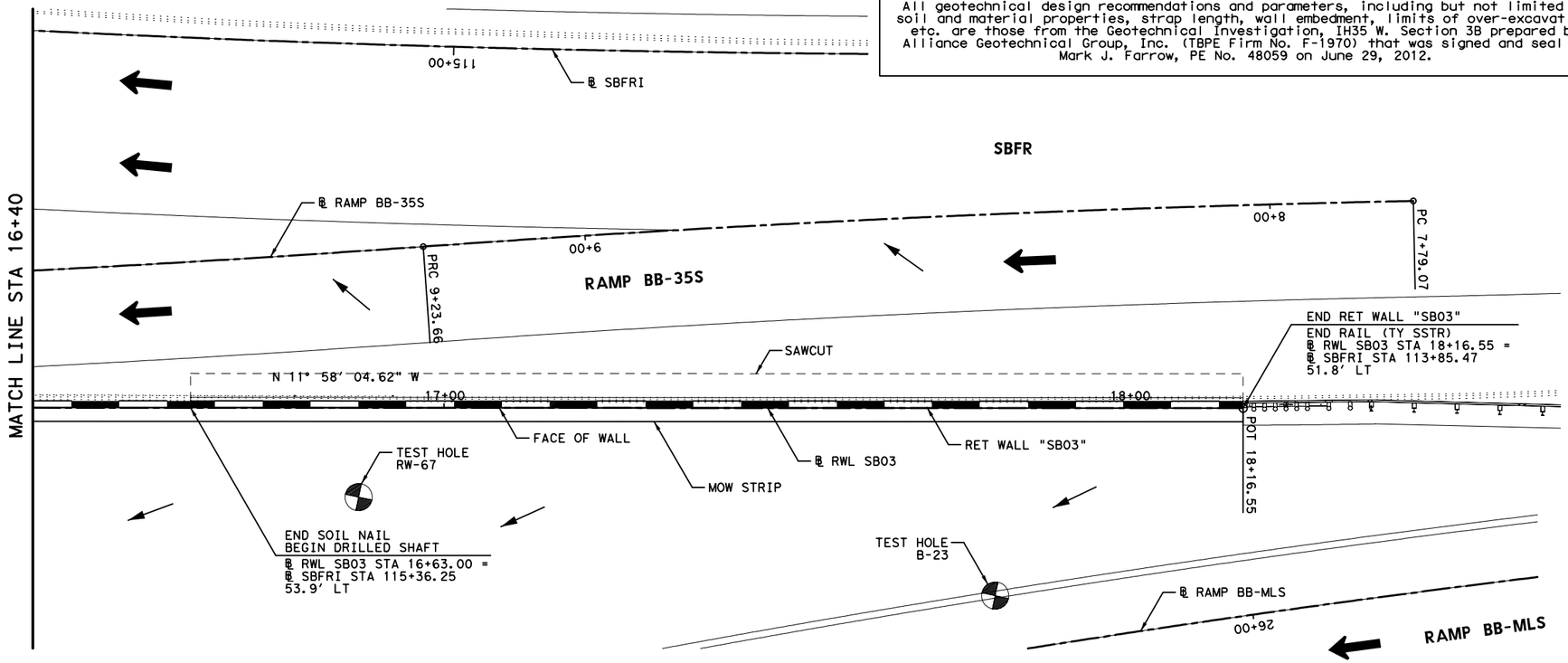

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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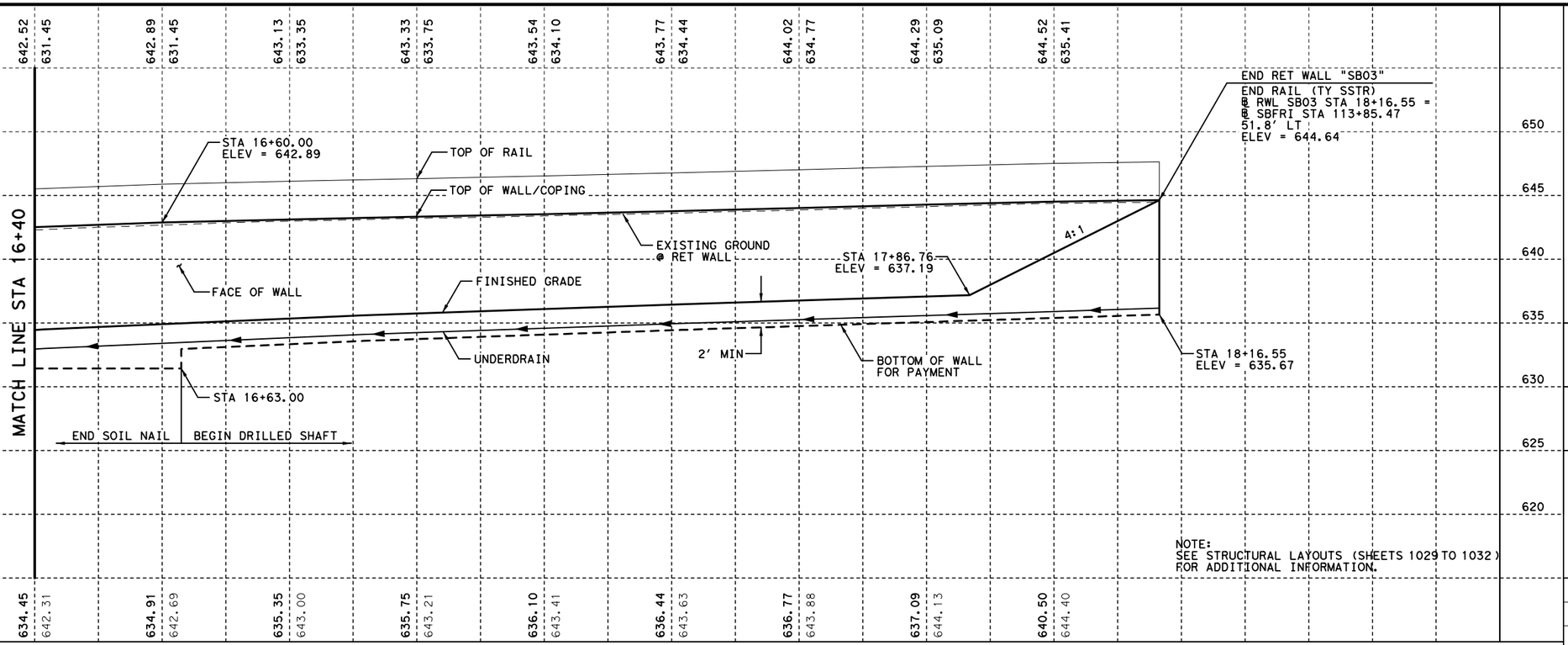

NOTE:
SEE STRUCTURAL LAYOUTS (SHEETS 1029 TO 1032) FOR ADDITIONAL INFORMATION.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

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RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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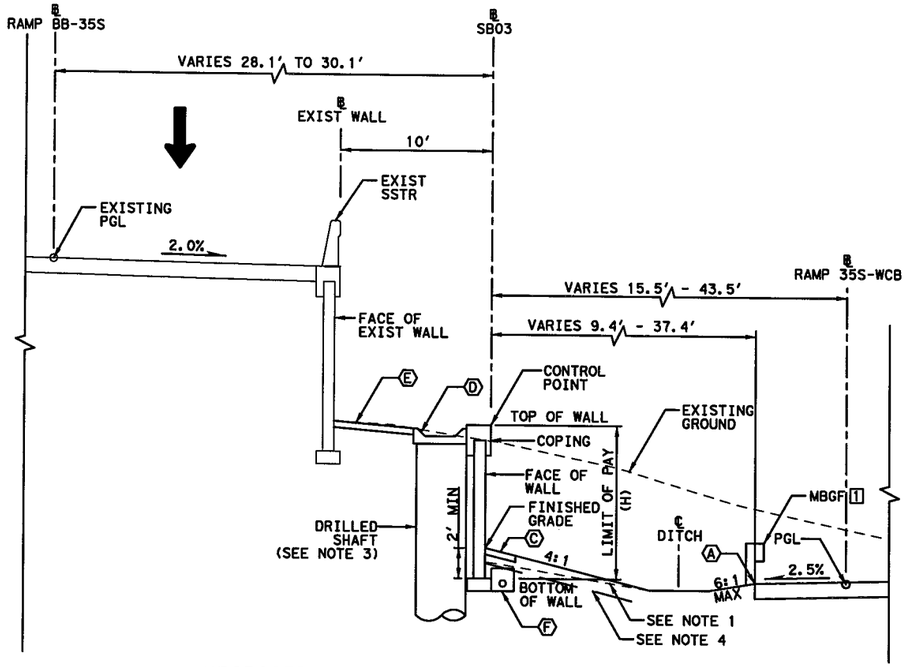
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB03

SCALE 1"= 20' H, 1"=10' V — SHEET 4 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1027
KCI	0014	16	255, ETC.	
CHECK				

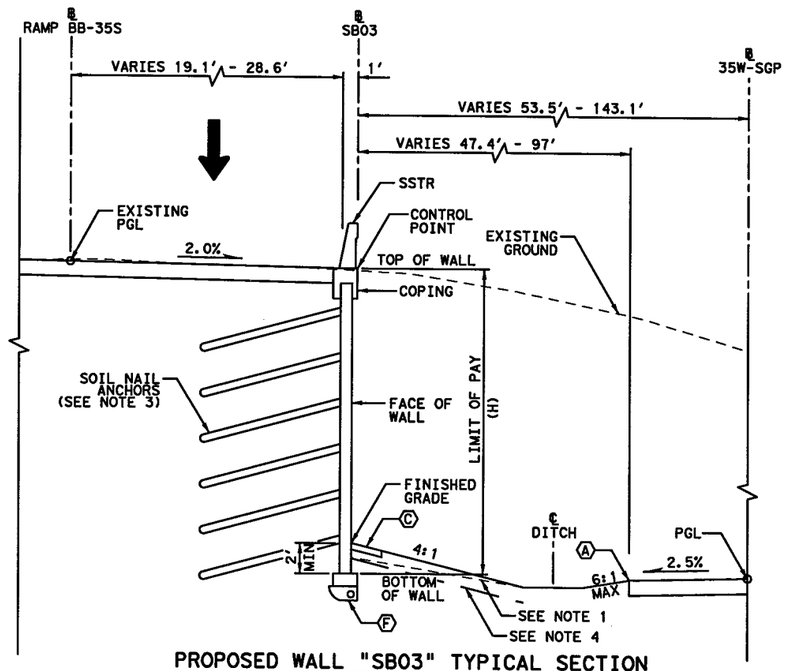
FILENAME: S3B*SB03-04*GTN.dgn
DRAWING DATE: 8/20/2012



PROPOSED WALL "SB03" TYPICAL SECTION

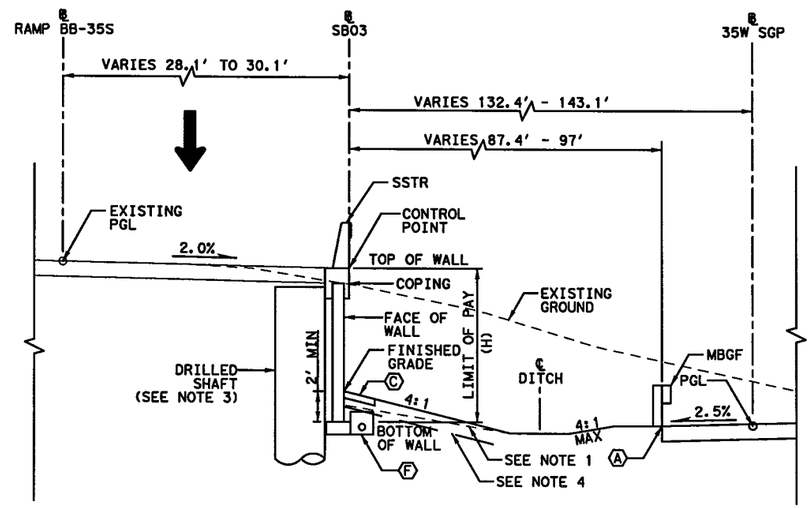
℄ SB03 STA 10+54.00 TO STA 12+79.00

[1] LIMITS OF MBGF
℄ NB03 STA 10+54.00 TO STA 12+26.66



PROPOSED WALL "SB03" TYPICAL SECTION

℄ SB03 STA 12+79.00 TO STA 16+63.00



PROPOSED WALL "SB03" TYPICAL SECTION

℄ SB03 STA 16+63.00 TO STA 18+16.55

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (SOIL NAIL) (FACIA)	SF	5,915
RETAINING WALL (DRILL SHAFT) (FACIA)	SF	4,004
RIPRAP (CONC) (5 IN)	CY	24
RIPRAP (MOW STRIP) (5 IN)	CY	23
RIPRAP (CONC) (FLUME)	CY	38
RAIL (SSTR)	LF	538
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	775
SOIL NAIL ANCHOR	LF	*
DRILL SHAFT (24 IN)	LF	*
DRILL SHAFT (36 IN)	LF	*
DRILL SHAFT (42 IN)	LF	*

* REFER TO STRUCTURAL RETAINING WALL SHEETS FOR ADDITIONAL QUANTITIES.

0' 5' 10'

SCALE IN FEET

LEGEND:

- (A) EDGE OF PROPOSED PAVEMENT
- (B) EDGE OF ULTIMATE PAVEMENT
- (C) 2' RIPRAP (MOW STRIP) (5 IN)
- (D) RIPRAP (CONC) (FLUME)
- (E) RIPRAP (CONC) (5 IN)
- (F) PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. REFER TO STRUCTURAL LAYOUT SHEETS FOR ADDITIONAL INFORMATION.
4. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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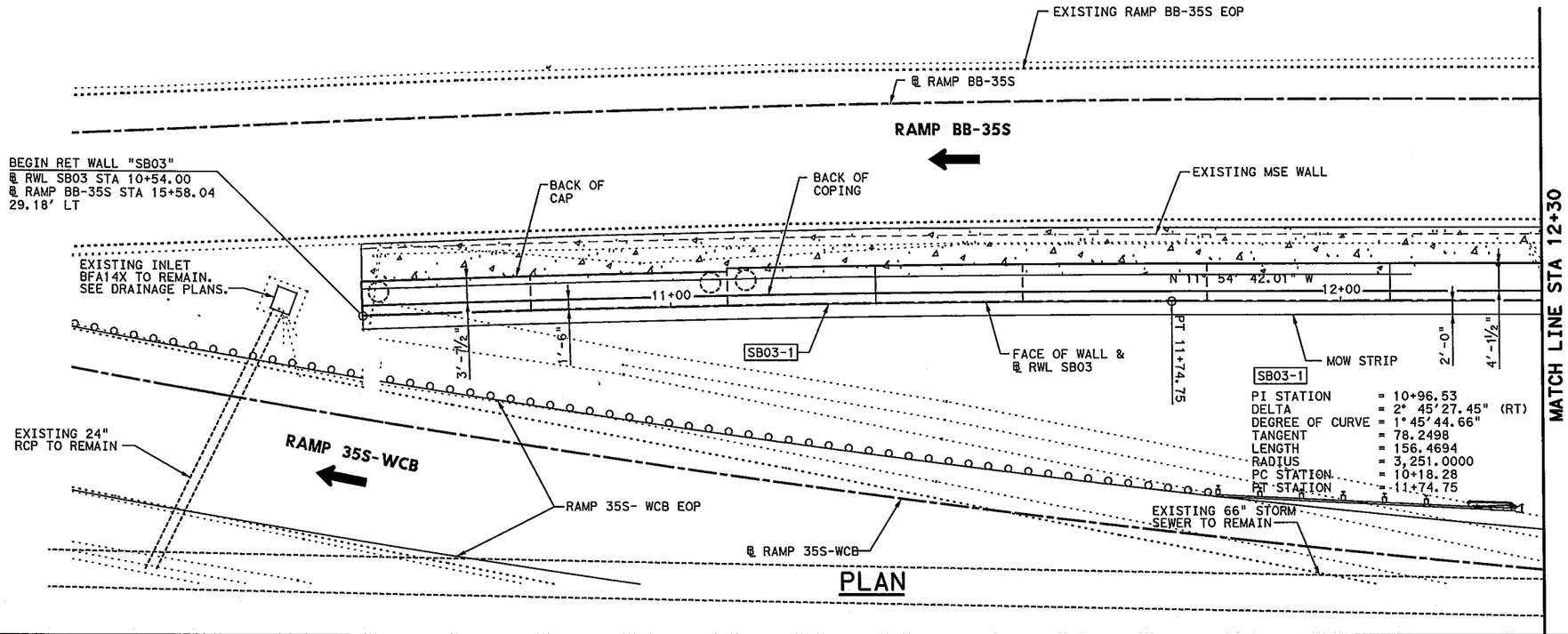
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
TYPICAL SECTIONS
SB03

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1028
KCI	0014	16	255, ETC.	
CHECK				

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPSB03*GTN.dgn



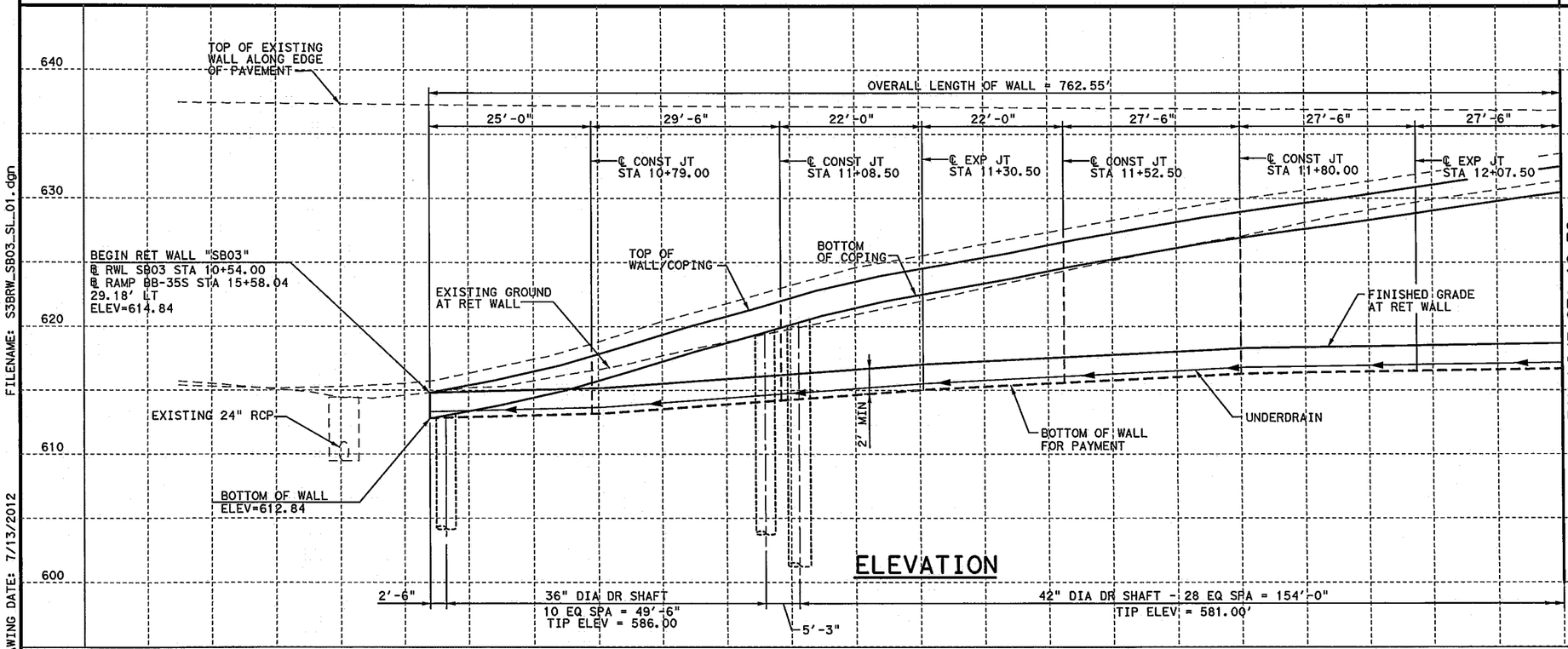
HORIZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND

CURVE XX HORIZONTAL CURVE

NOTES:

1. DESIGNED ACCORDING TO AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 5TH EDITION (2010).
2. FOR COMPLETE WALL GEOMETRY, SEE RETAINING WALL PLAN AND PROFILE SHEETS (SHEETS 1024 TO 1027).
3. FOR WALL DETAILS, SEE RETAINING WALLS DRILLED SHAFT DETAILS (SHEETS 1081 TO 1085) & SOIL NAIL DETAILS (SHEETS 1077 TO 1080).
4. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
5. DENOTES TEST HOLE LOCATION.
6. SEE "BORING LOGS - RETAINING WALLS" SHEETS FOR GEOTECHNICAL INFORMATION.
7. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.



ELEVATION

HL 93 LOADING

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

Texas Department of Transportation
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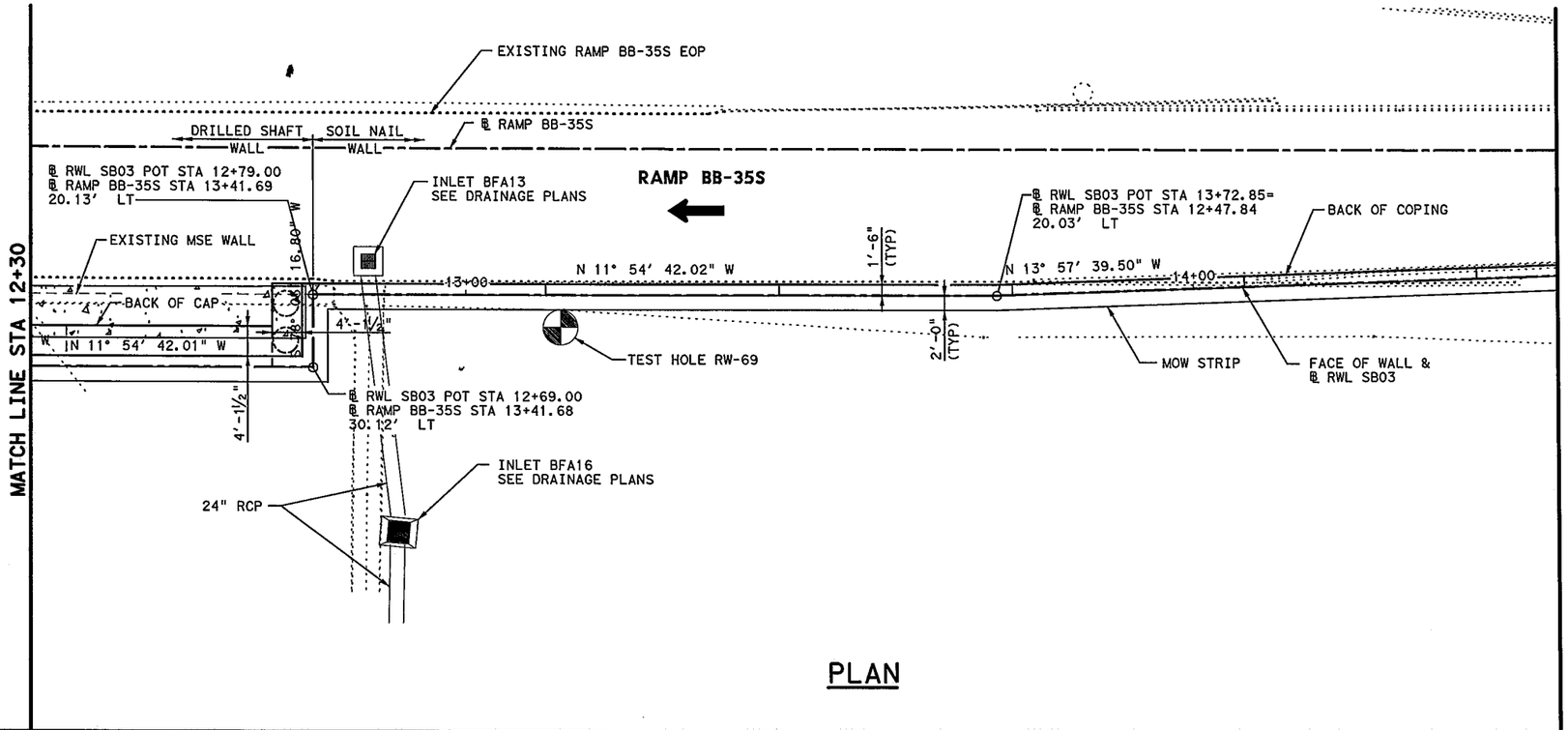
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALL
STRUCTURAL LAYOUT
SB03

SCALE: 1"-20' H, 1"=10' V — SHEET 1 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	
CHECK TGA	CONTROL	SECTION	JOB	1029
	0014	16	255, ETC.	

FILENAME: S3BRW_SB03_SL_01.dgn
DRAWING DATE: 7/13/2012



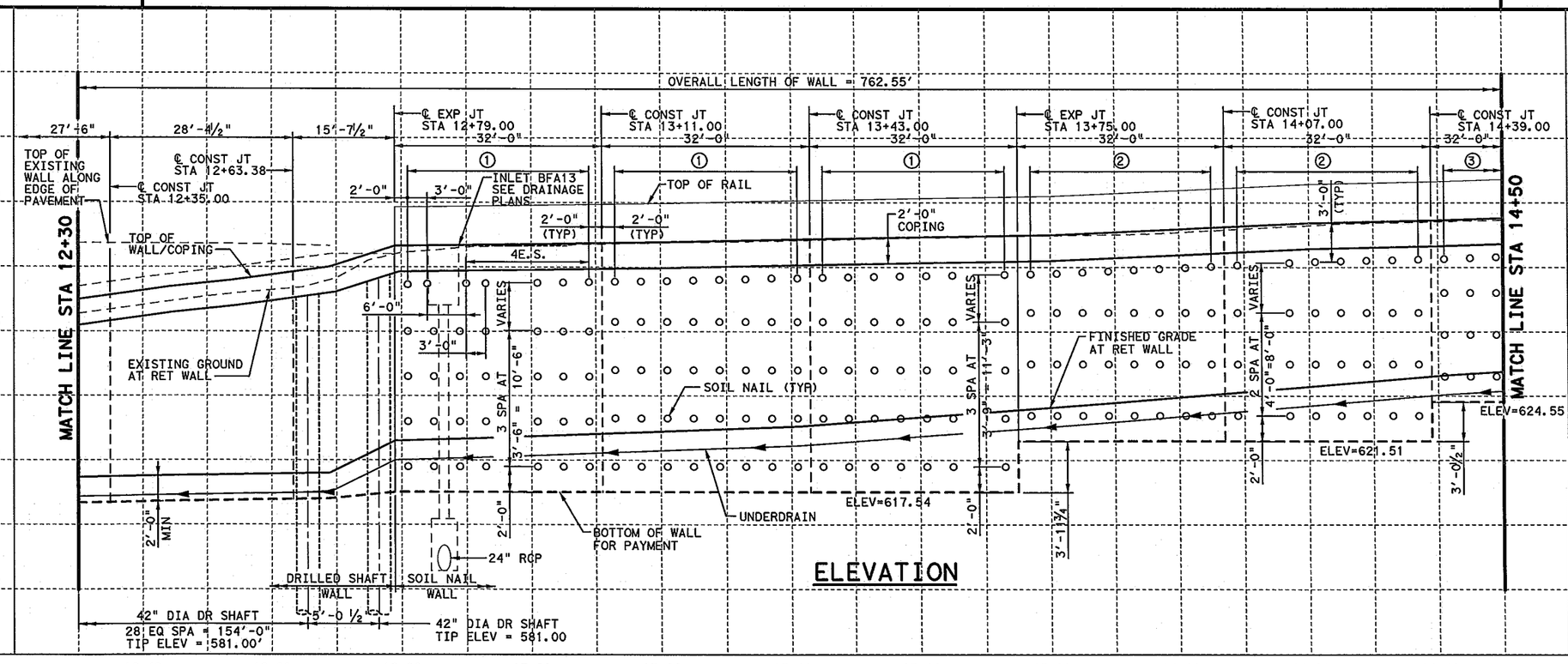
PLAN

HORIZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

① 7 EQ SPA AT 4'-0" = 28'-0"
(TYP U.N.O.)
SOIL NAIL LENGTH = 24'-0"

② 7 EQ SPA AT 4'-0" = 28'-0"
SOIL NAIL LENGTH = 18'-0"

③ 7 EQ SPA AT 4'-0" = 28'-0"
SOIL NAIL LENGTH = 20'-0"



ELEVATION

HL 93 LOADING

STATE OF TEXAS
THOMAS G. ASHCRAFT
81411
REGISTERED
PROFESSIONAL ENGINEER
7/5/12

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

Texas Department of Transportation
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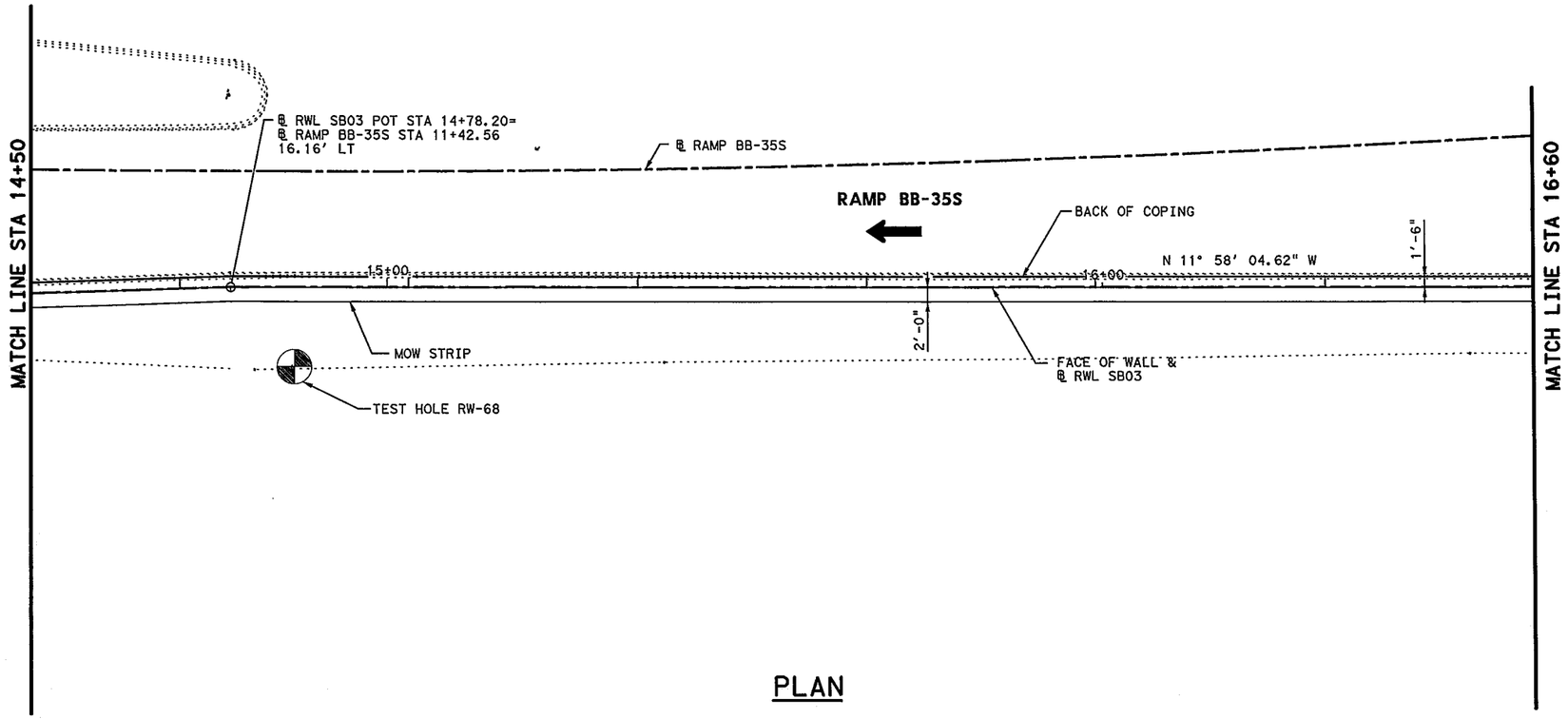
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALL
STRUCTURAL LAYOUT
SB03

SCALE: 1"-20' H, 1"=10' V — SHEET 2 OF 4

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	1030
CHECK TGA	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BRW_SB03_SL_02.dgn
DRAWING DATE: 7/13/2012



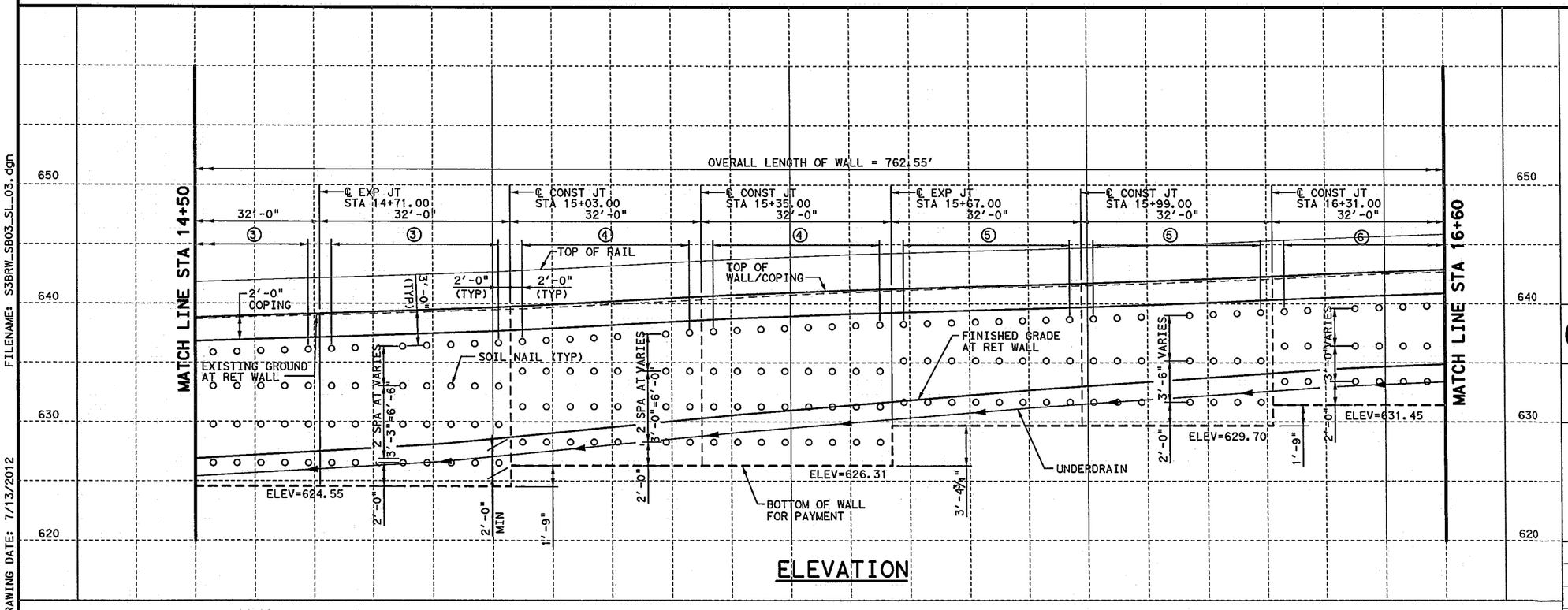
PLAN

③ 7 EQ SPA AT 4'-0" = 28'-0"
SOIL NAIL LENGTH = 20'-0"

④ 7 EQ SPA AT 4'-0" = 28'-0"
SOIL NAIL LENGTH = 22'-0"

⑤ 7 EQ SPA AT 4'-0" = 28'-0"
SOIL NAIL LENGTH = 14'-0"

⑥ 7 EQ SPA AT 4'-0" = 28'-0"
SOIL NAIL LENGTH = 16'-0"



ELEVATION

HL 93 LOADING

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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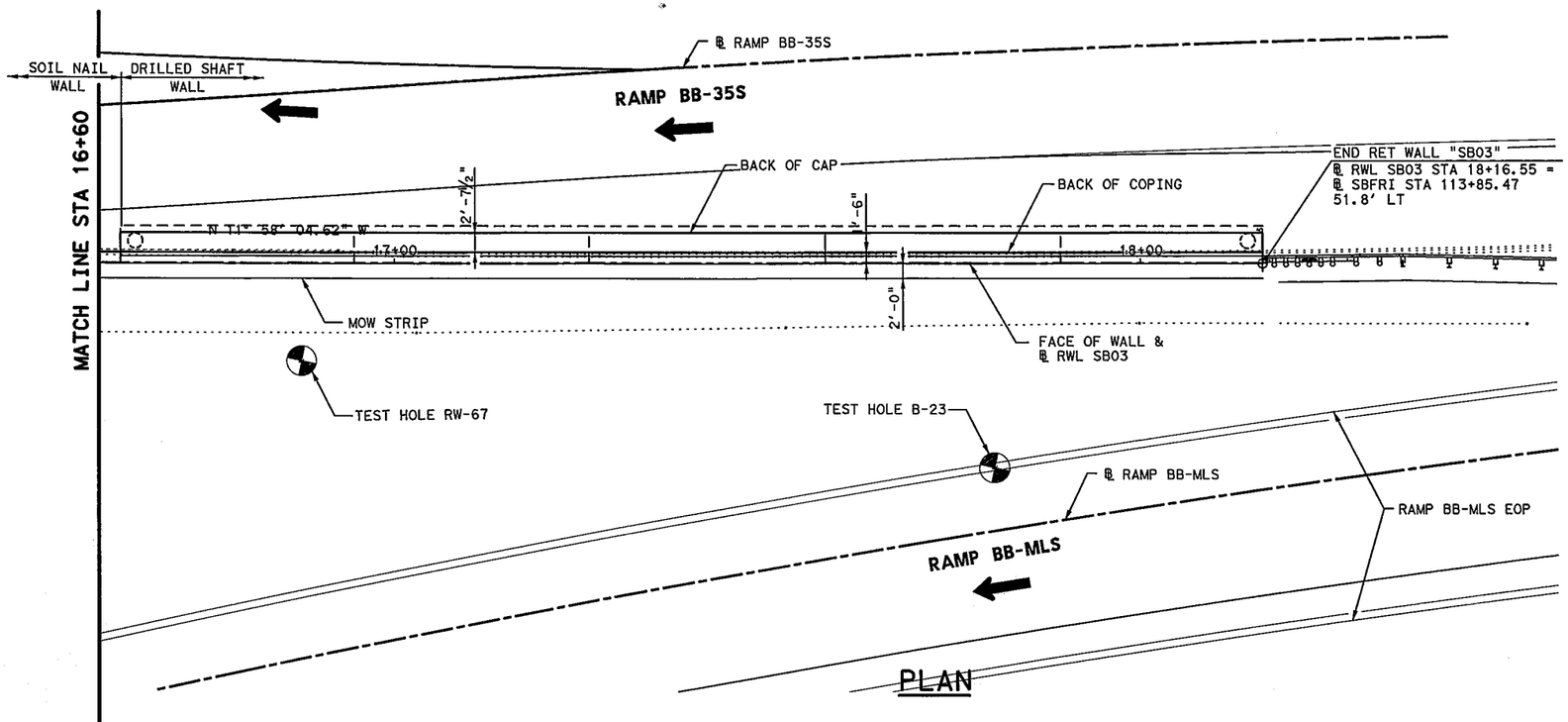
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALL
STRUCTURAL LAYOUT
SB03

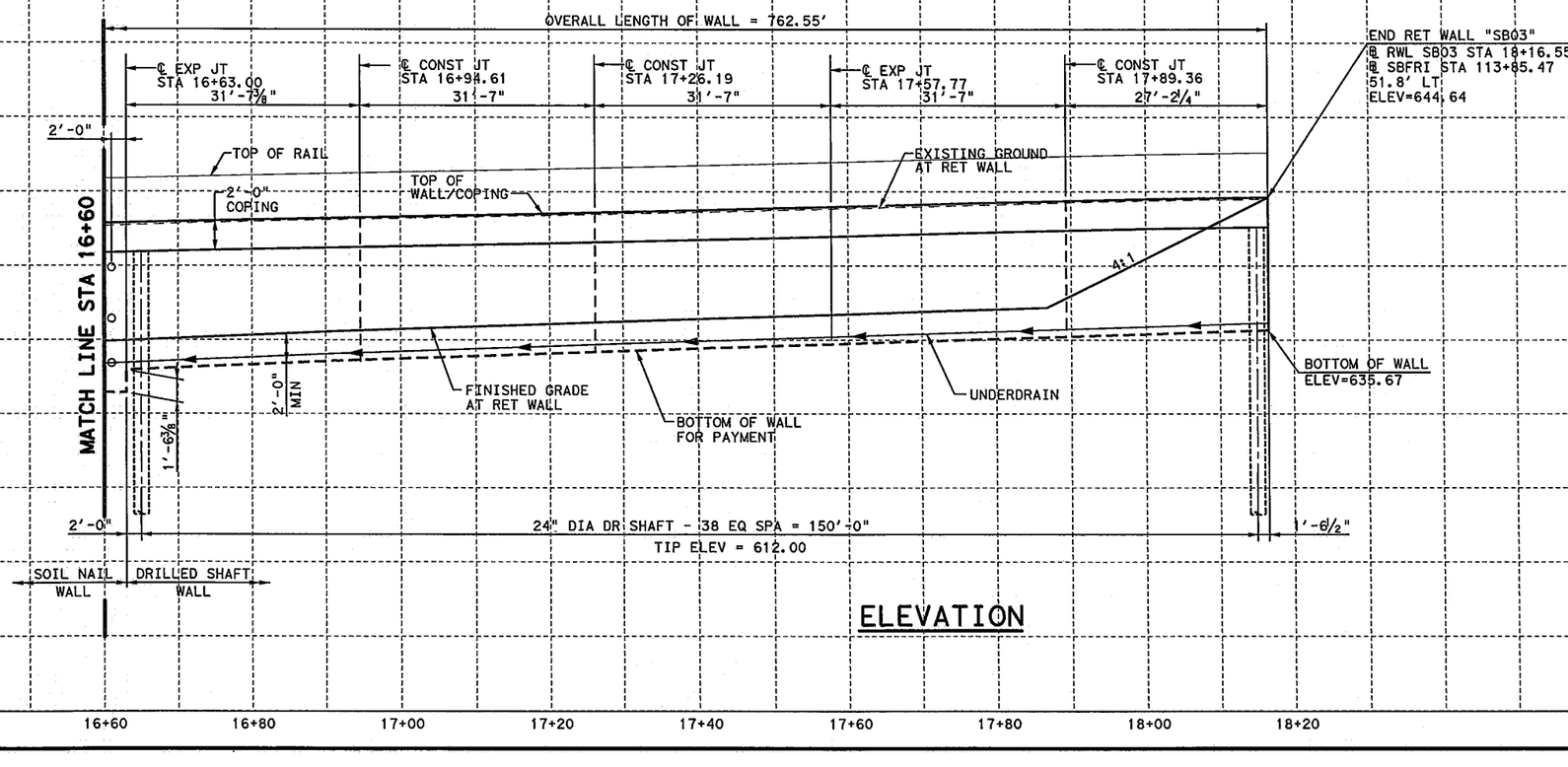
SCALE: 1"-20' H, 1"=10' V — SHEET 3 OF 4

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
PMB	TEXAS	FTW	TARRANT	1031
CHECK LVA	CONTROL	SECTION	JOB	
CHECK TGA	0014	16	255, ETC.	

FILENAME: S3BRW_SB03_SL_03.dgn
DRAWING DATE: 7/13/2012



PLAN



ELEVATION

HORIZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

ESTIMATED QUANTITIES

DESCRIPTION	UNIT	QUANTITY
24" DIA DRILLED SHAFT	LF	1,151
36" DIA DRILLED SHAFT	LF	334
42" DIA DRILLED SHAFT	LF	1,386
SOIL NAIL ANCHOR	LF	7,776

STATE OF TEXAS
THOMAS G. ASHCRAFT
81411
REGISTERED
PROFESSIONAL ENGINEER

Thomas G. Ashcraft
7/5/12

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CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
STRUCTURAL LAYOUT
SB03

SCALE: 1"-20' H, 1"=10' V — SHEET 4 OF 4

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	1032
CHECK TGA	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BRW_SB03_SL_04.dgn
DRAWING DATE: 7/13/2012

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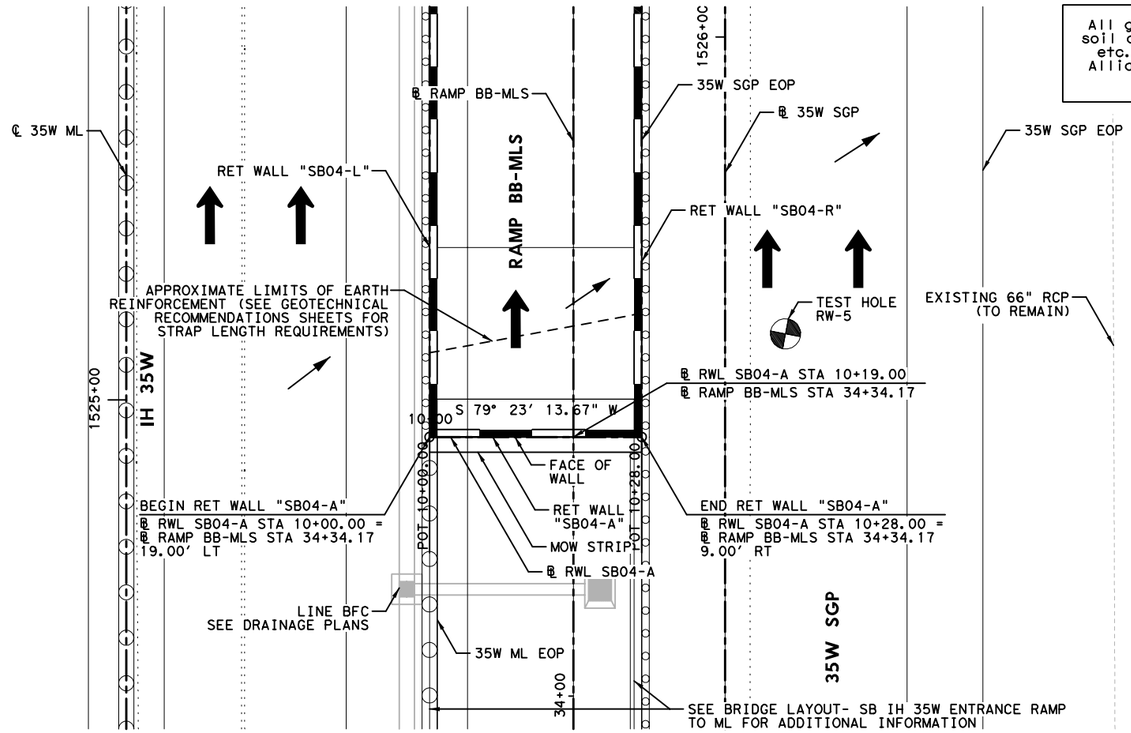

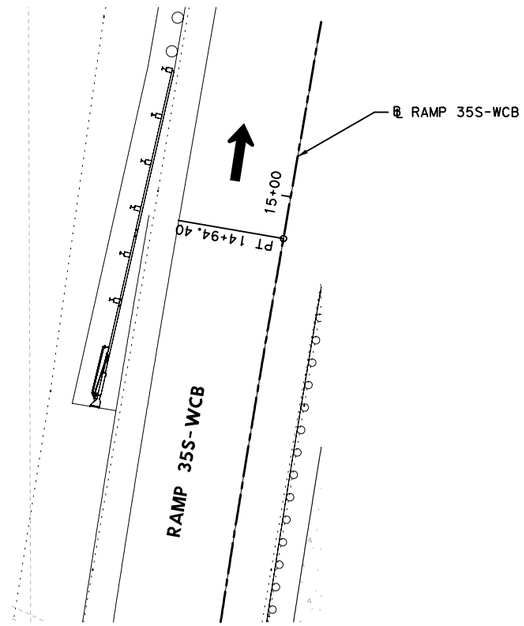

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
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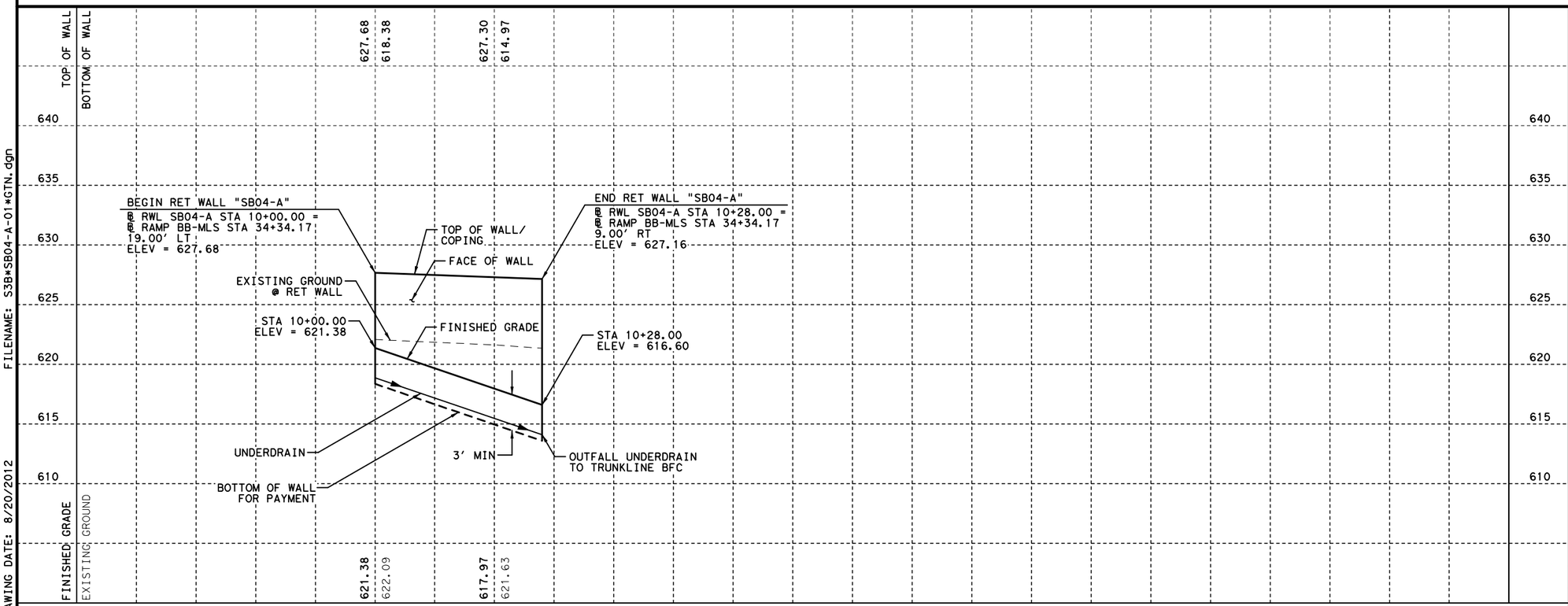

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB04-A

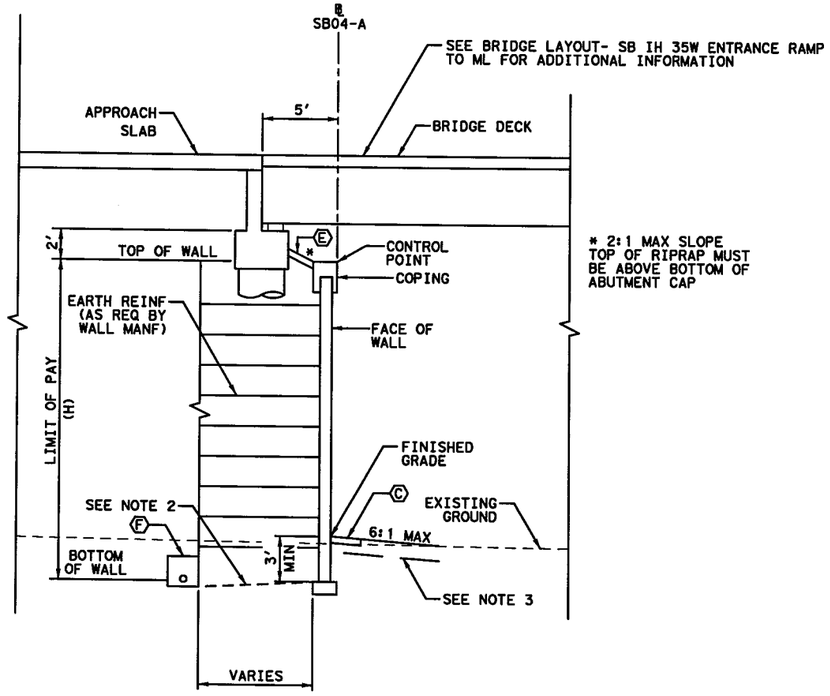
SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1033
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB04-A-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	320
RIPRAP (CONC) (5 IN)	CY	1
RIPRAP (MOW STRIP) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	34



PROPOSED WALL "SB04-A" TYPICAL SECTION

@ SB04-A 10+00.00 TO STA 10+28.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- (A) EDGE OF PROPOSED PAVEMENT
- (B) EDGE OF ULTIMATE PAVEMENT
- (C) 2' RIPRAP (MOW STRIP) (5 IN)
- (D) RIPRAP (CONC) (FLUME)
- (E) RIPRAP (CONC) (5 IN)
- (F) PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB04-A

SCALE 1" = 10'

SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS: KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK: KCI	TEXAS	FTW	TARRANT	1034
CHECK: KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*TYPSB04-A*GTN.dgn

DRAWING DATE: 7/13/2012

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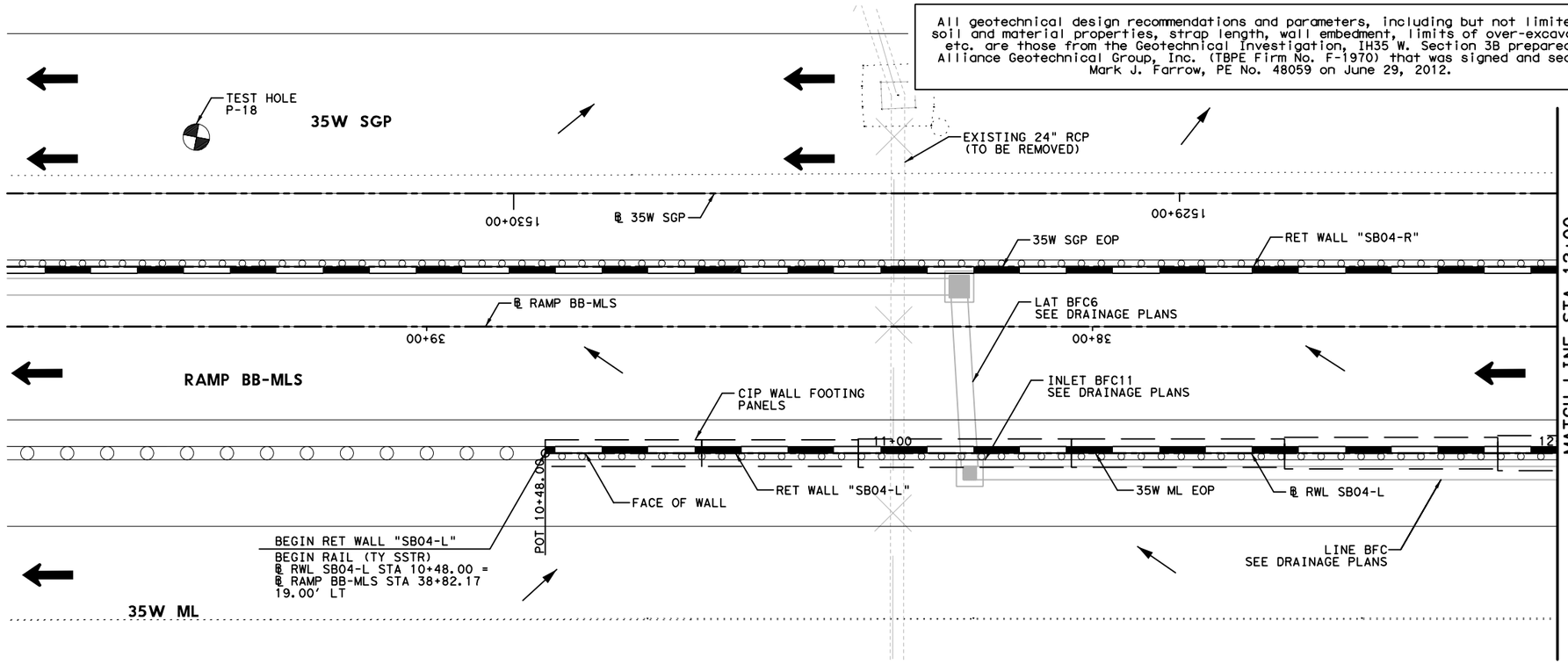


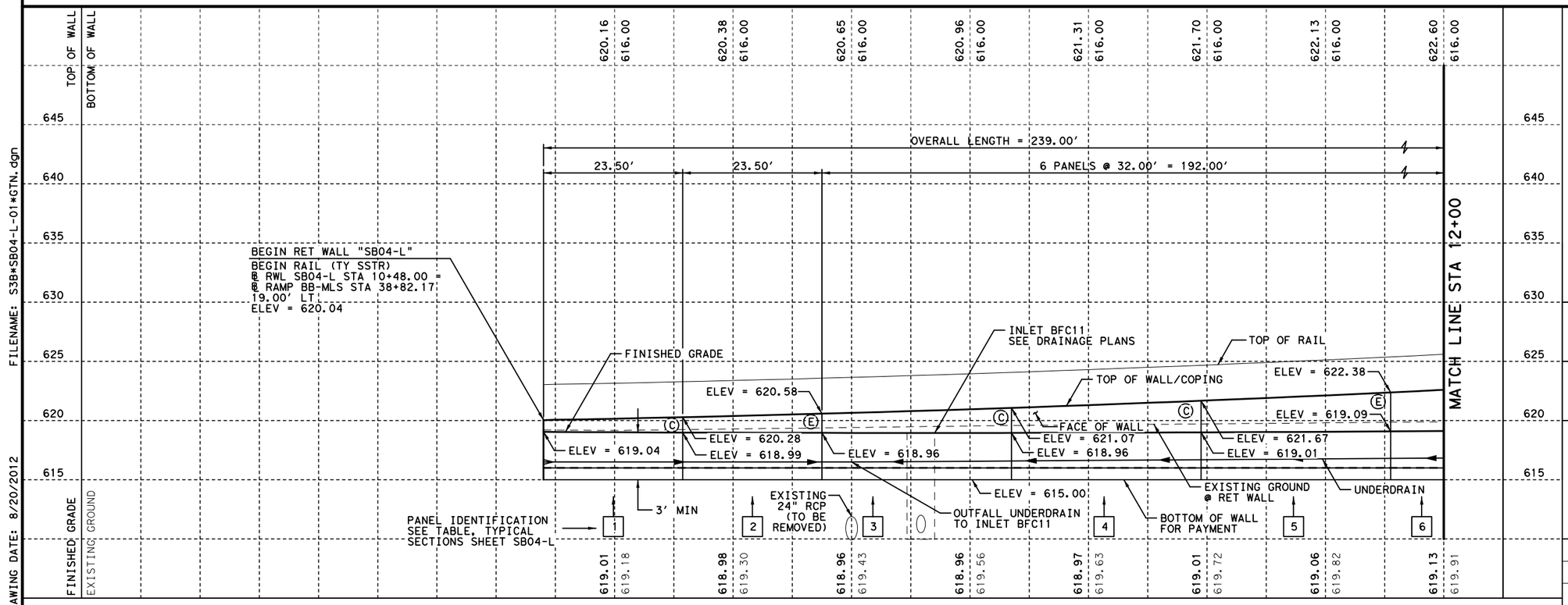
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: S3B*SB04-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB04-L

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1035
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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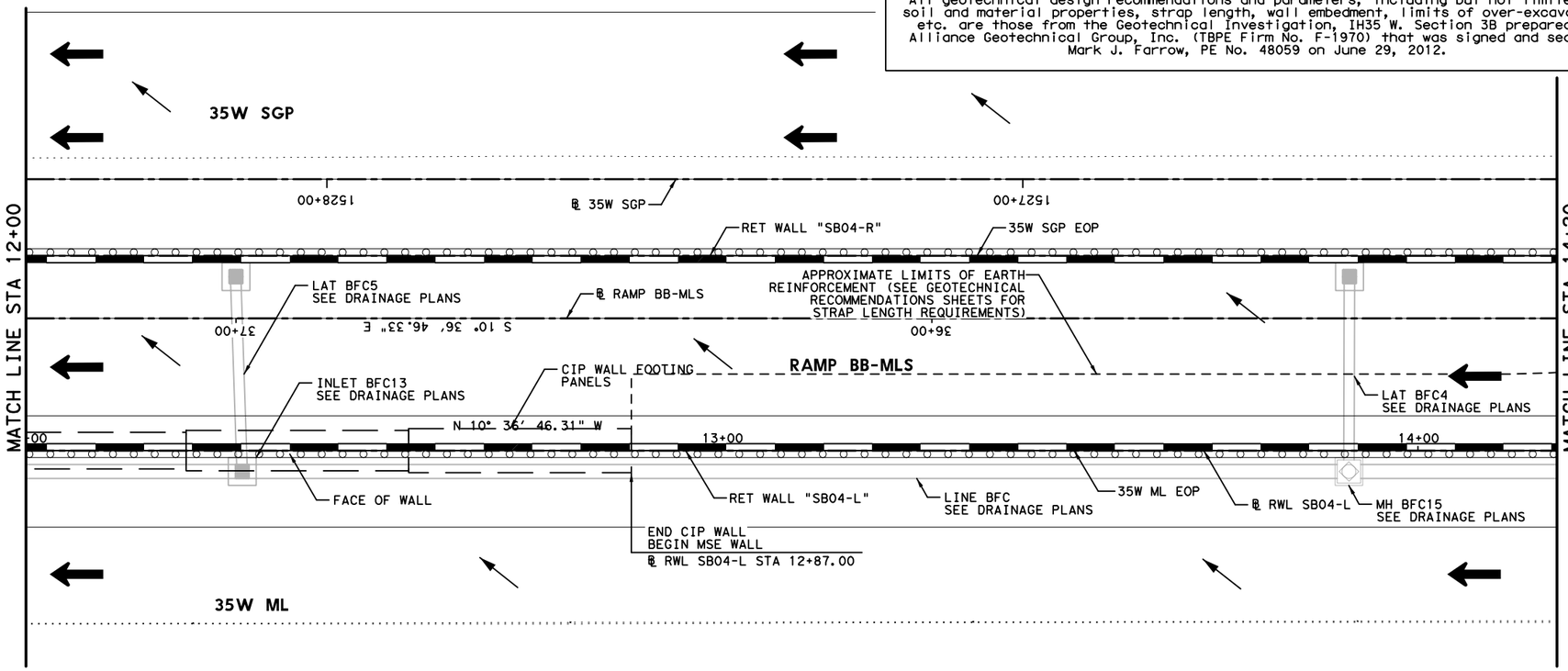

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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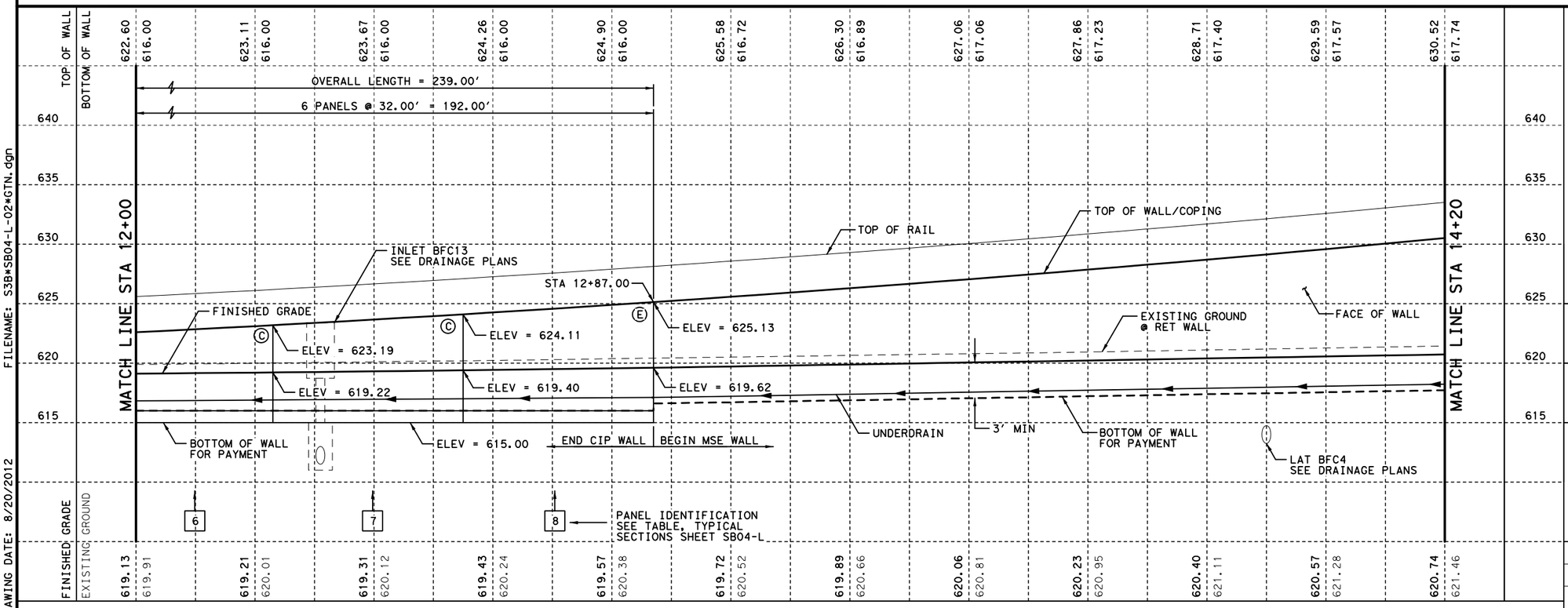

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB04-L

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1036
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB04-L-02*GTN.dgn
DRAWING DATE: 8/20/2012

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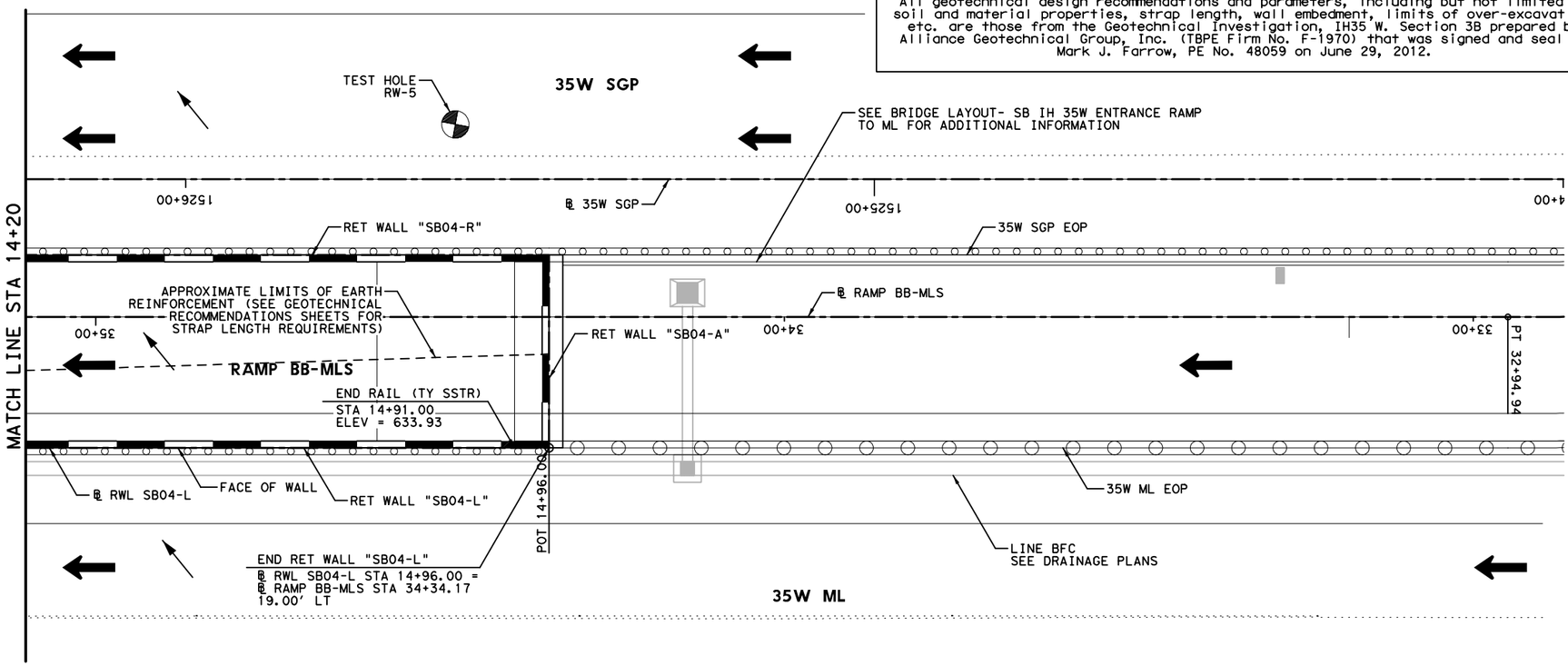

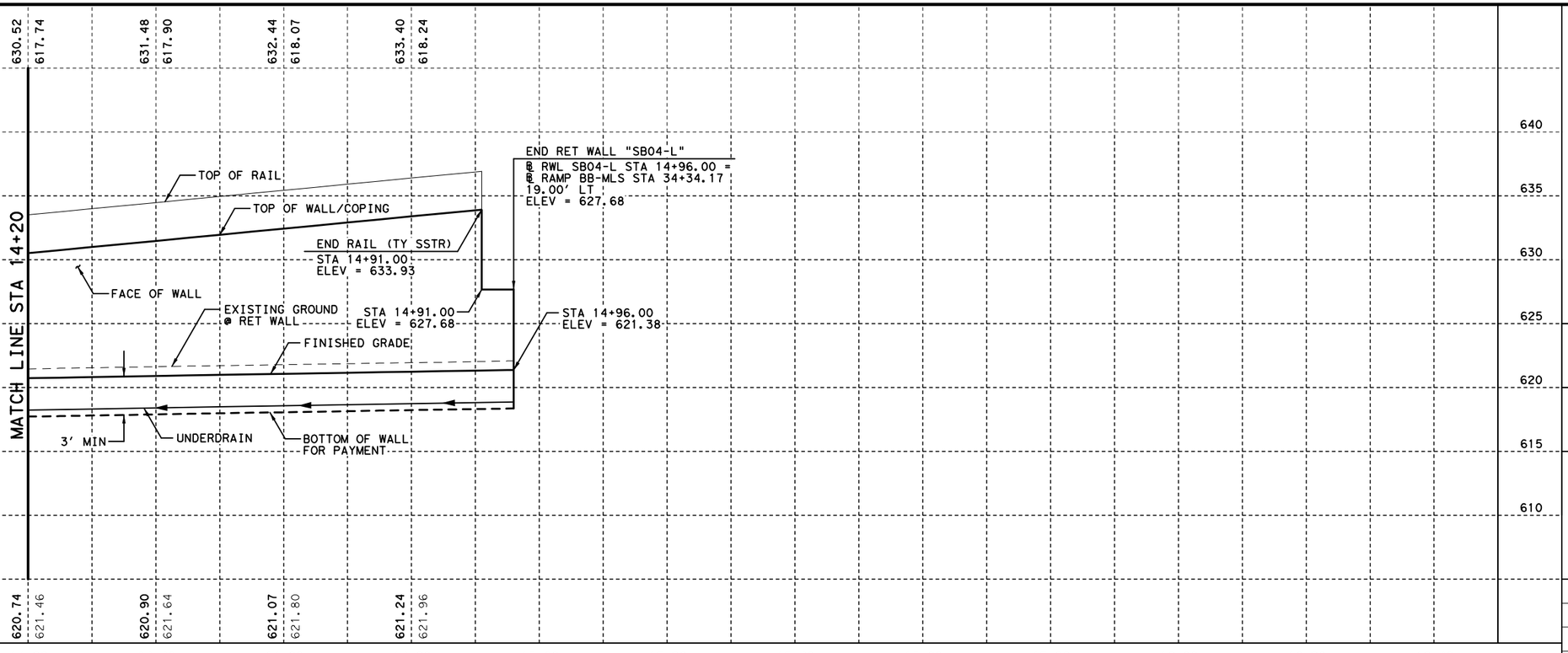

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB04-L

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1037
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB04-L-03*GTN.dgn
DRAWING DATE: 8/20/2012

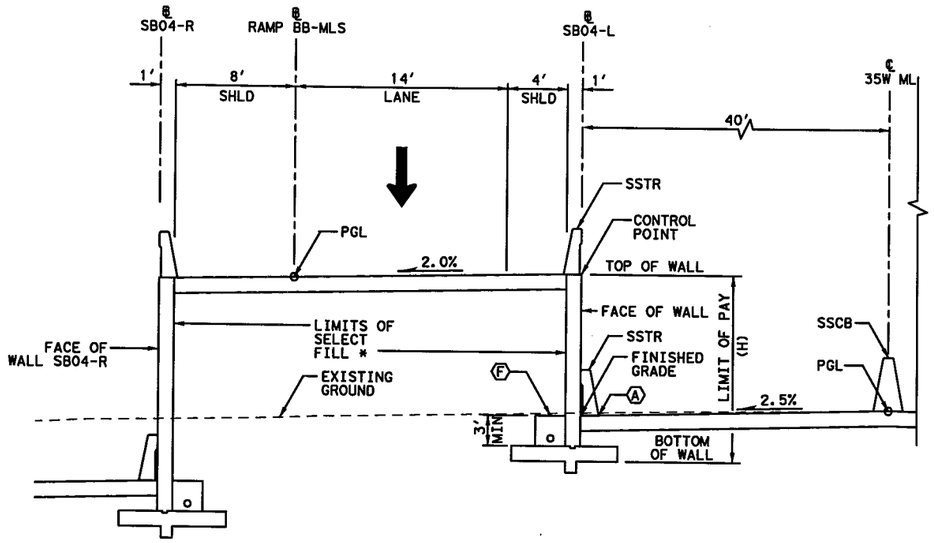


TABLE OF PANEL IDENTIFICATION

PANEL NO.	TYPE OF PANEL	PANEL AREA (SF)
1	LC-05-23.5	118
2	LC-05-23.5	118
3	LC-06-32	192
4	LC-06-32	192
5	LC-07-32	224
6	LC-08-32	256
7	LC-09-32	288
8	LC-10-32	320

DESCRIPTION OF TYPE OF PANEL
PANLEL AREA =
AVERAGE HEIGHT x LENGTH OF PANEL

AVERAGE HT. OF PANEL — LC-01-10 — LENGTH OF PANEL
TYPE OF PANEL

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	2,451
RETAINING WALL (CIP)	SF	1,708
RAIL (SSTR)	LF	443
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	407

0' 5' 10'
SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

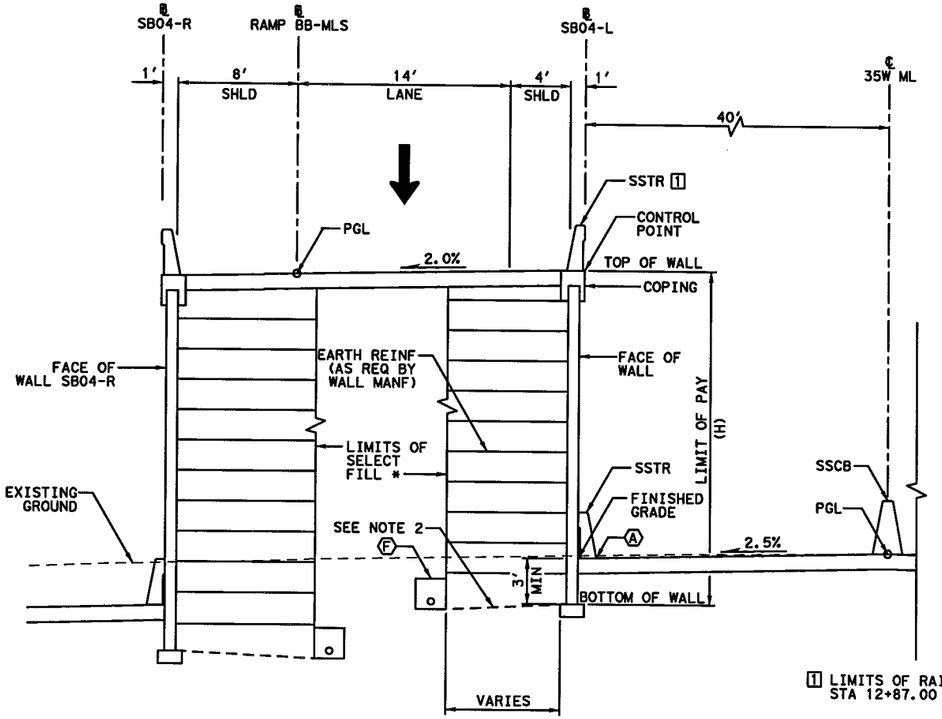
NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

PROPOSED WALL "SB04-L" TYPICAL SECTION

℄ SB04-L STA 10+48.00 TO STA 12+87.00

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.



[1] LIMITS OF RAIL
STA 12+87.00 TO STA 14+91.00

PROPOSED WALL "SB04-L" TYPICAL SECTION

℄ SB04-L STA 12+87.00 TO STA 14+96.00

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

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KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB04-L

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1038
KCI	0014	16	255, ETC.	
CHECK				

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPSB04-L*GTN.dgn

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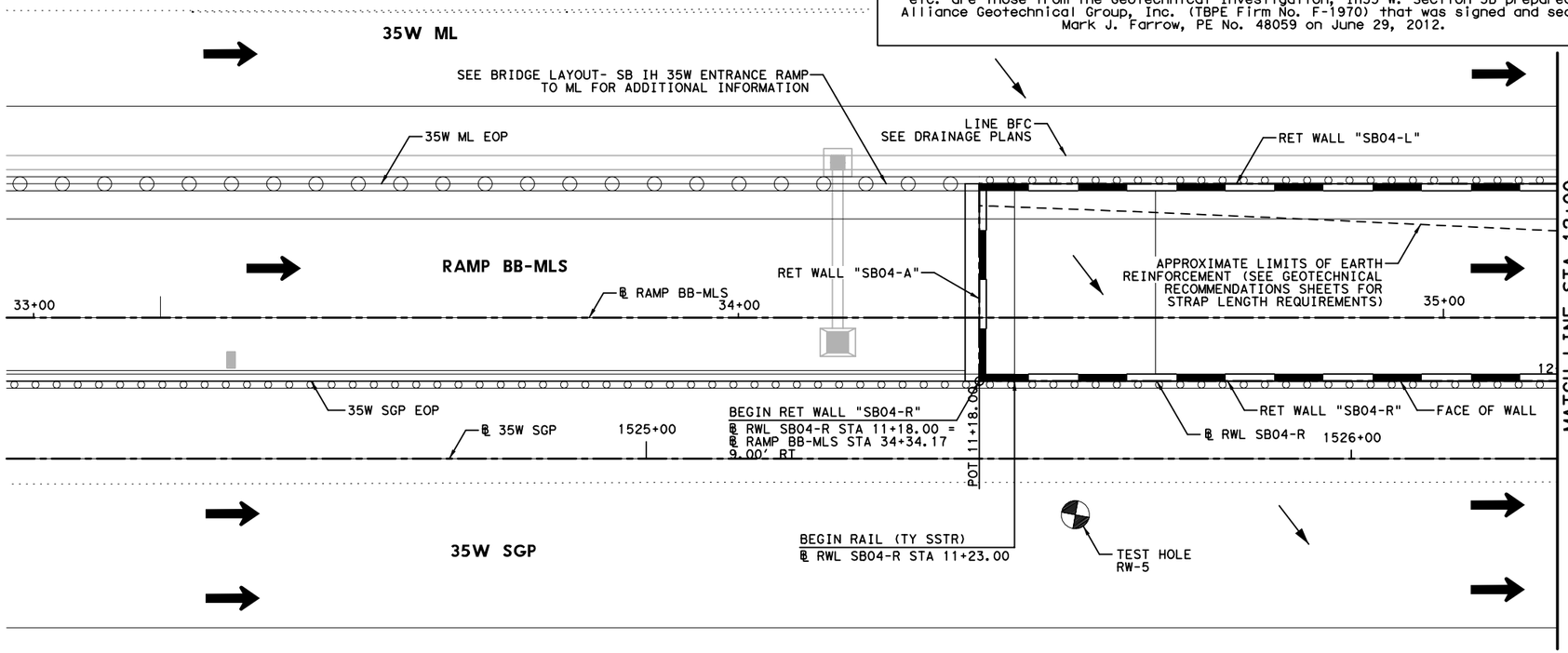

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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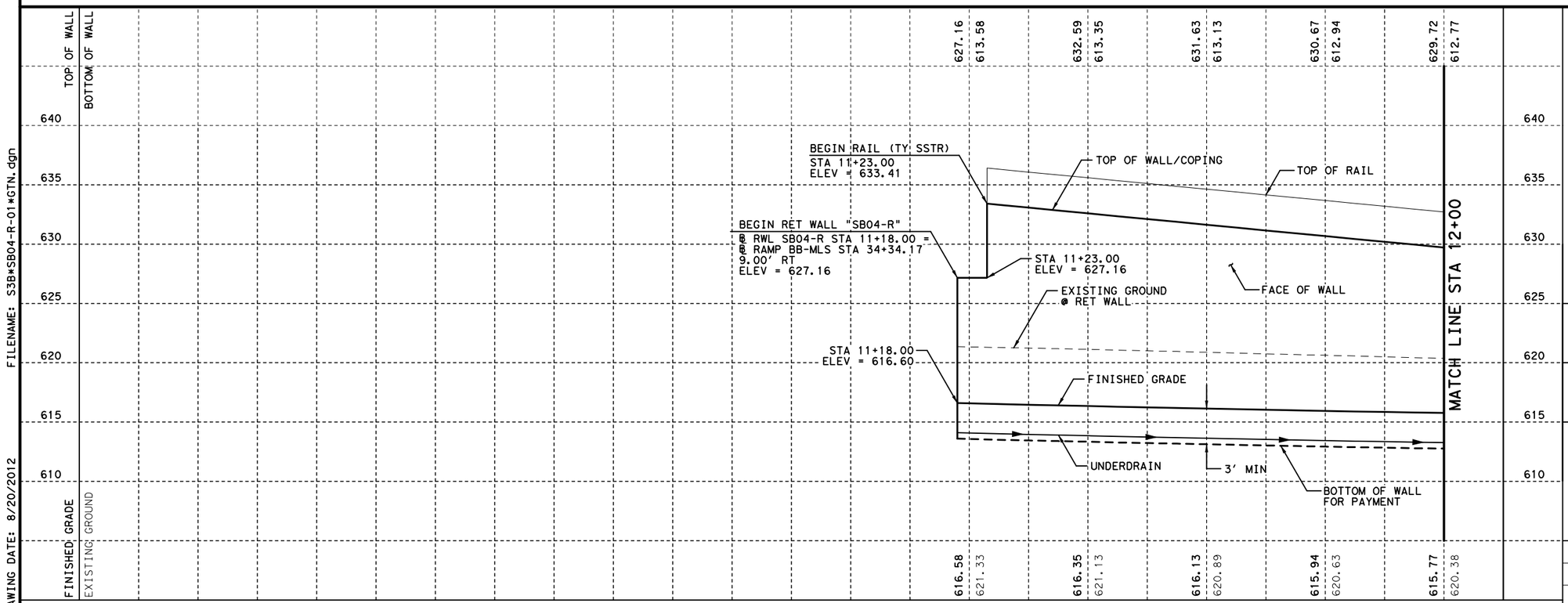

FILENAME: S3B*SB04-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB04-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1039
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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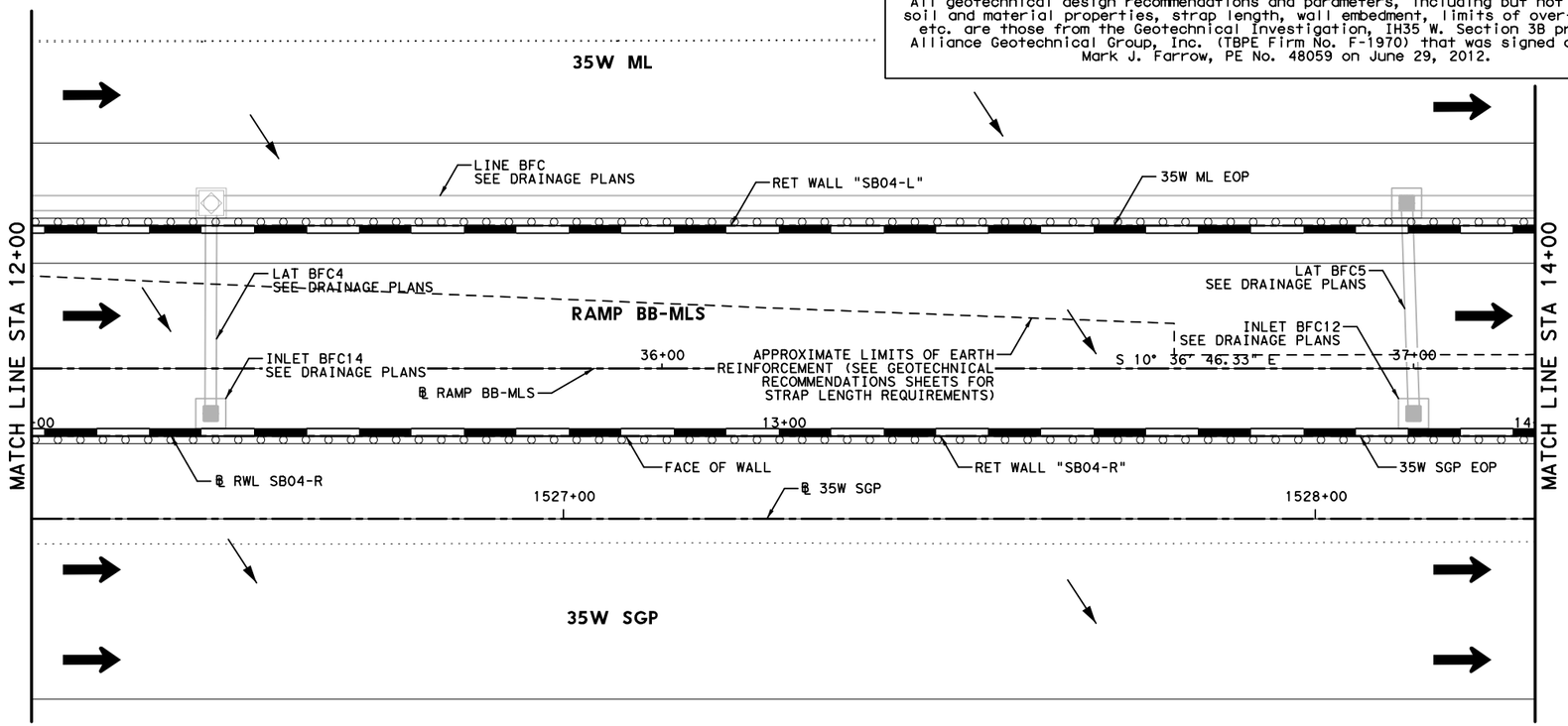

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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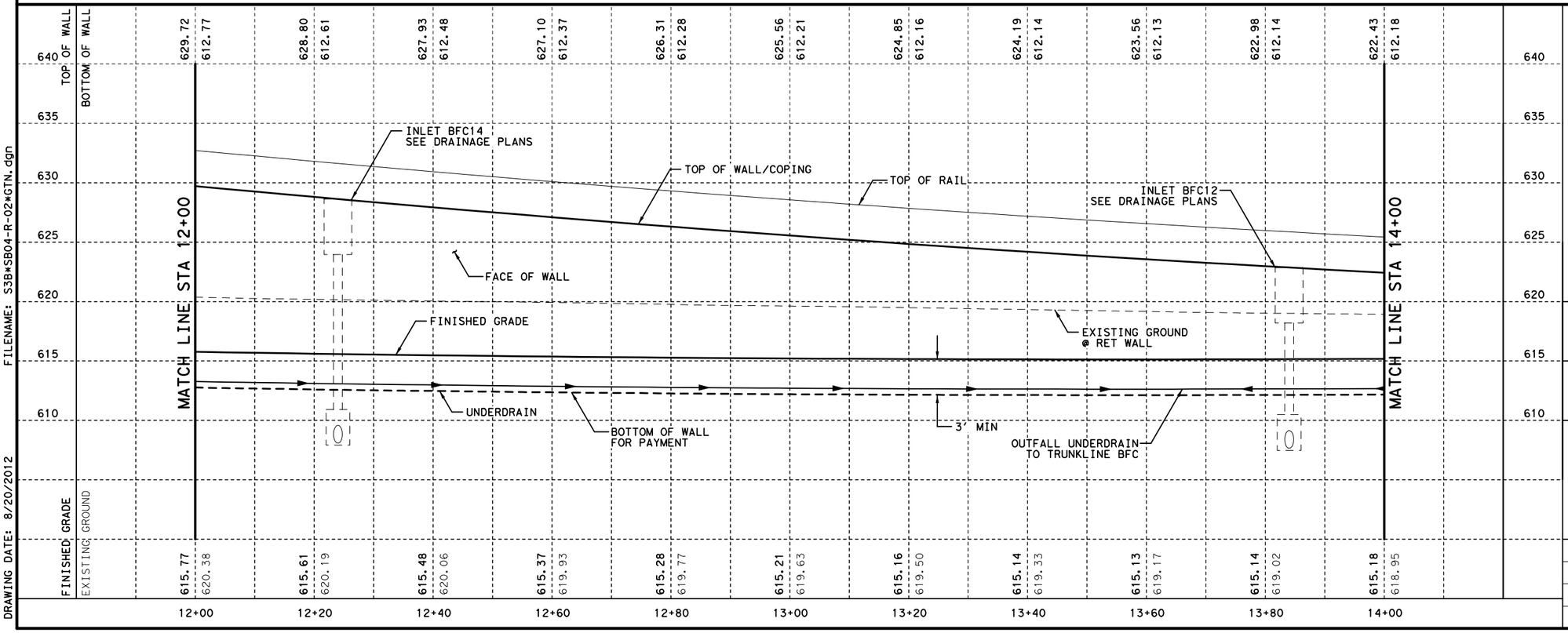

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB04-R

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1040
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB04-R-02*GTN.dgn
DRAWING DATE: 8/20/2012

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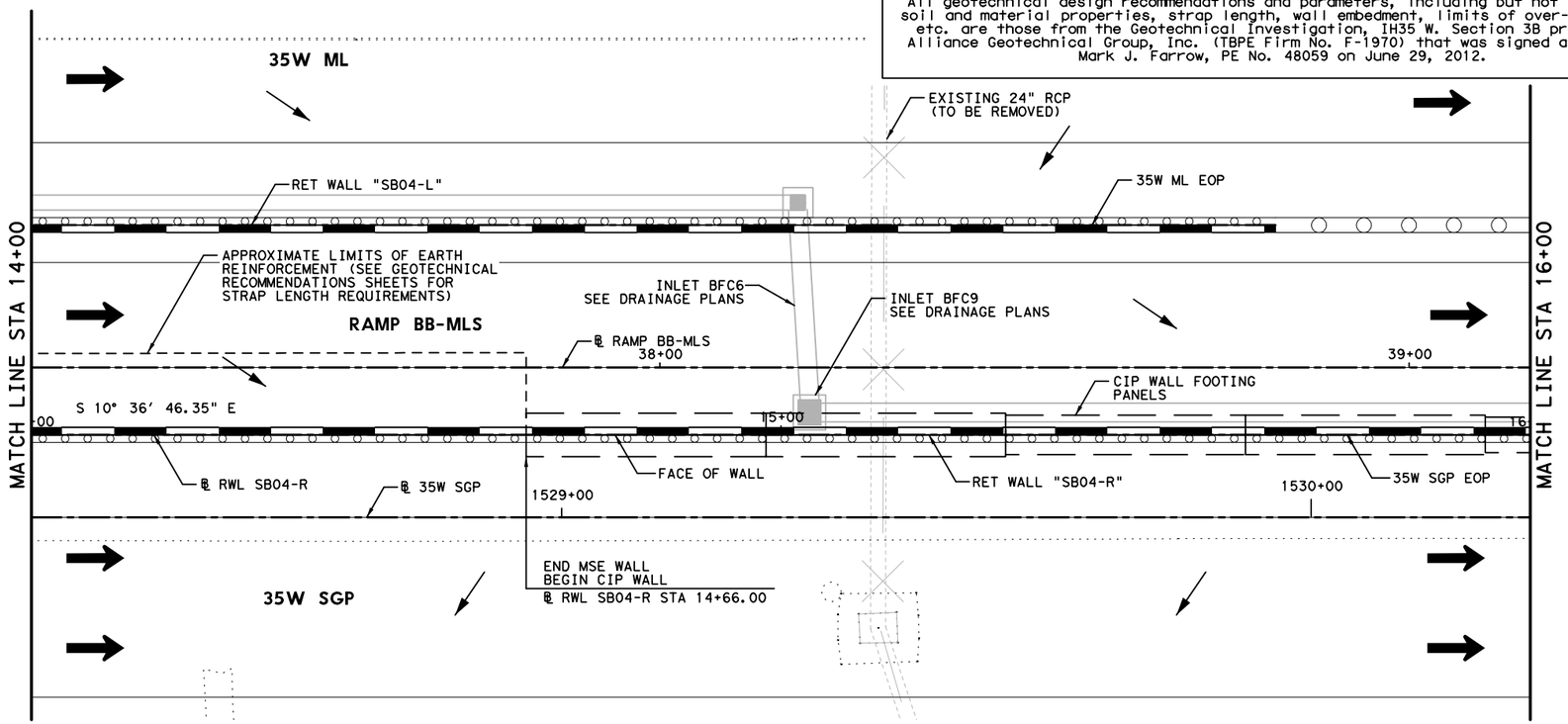

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
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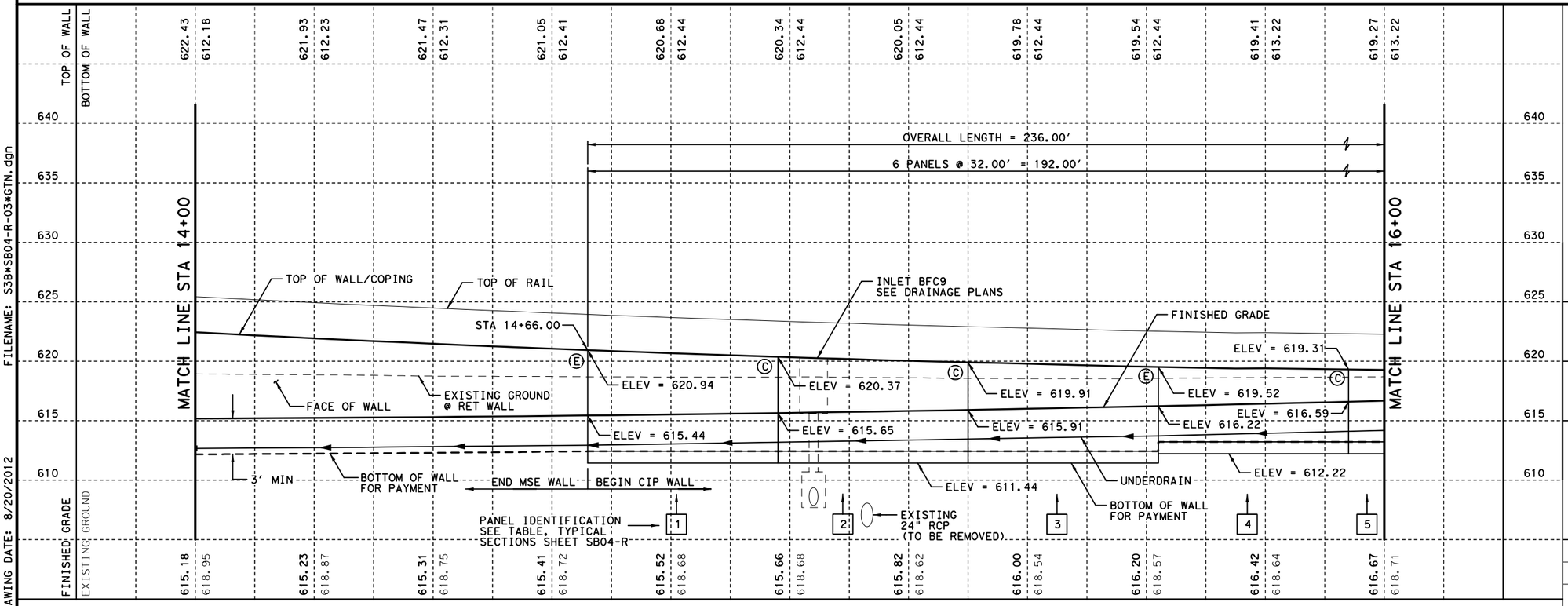

FILENAME: S3B*SB04-R-03*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

PLAN AND PROFILE

SB04-R

SCALE 1"= 20′ H, 1"=10′ V — SHEET 3 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1041
KCI	0014	16	255, ETC.	
CHECK				
KCI				

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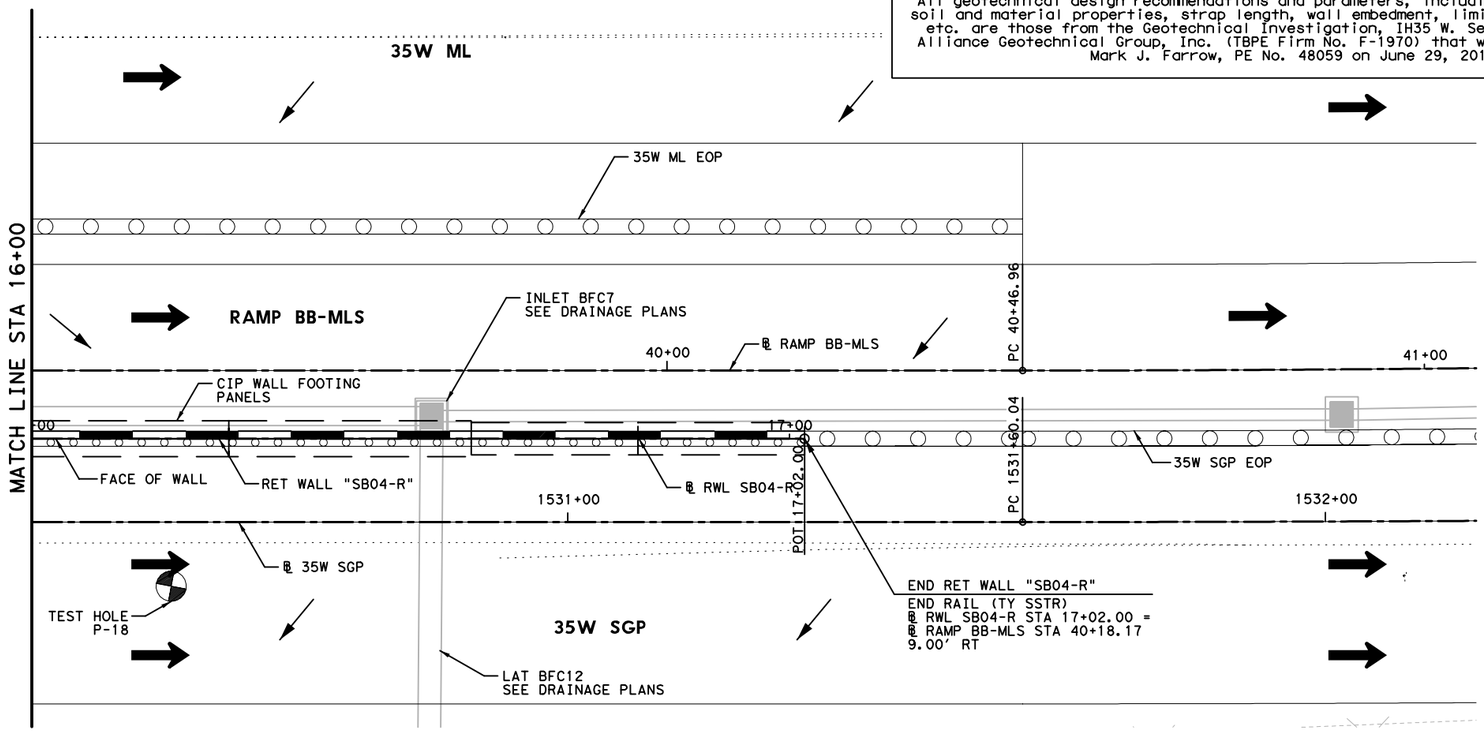

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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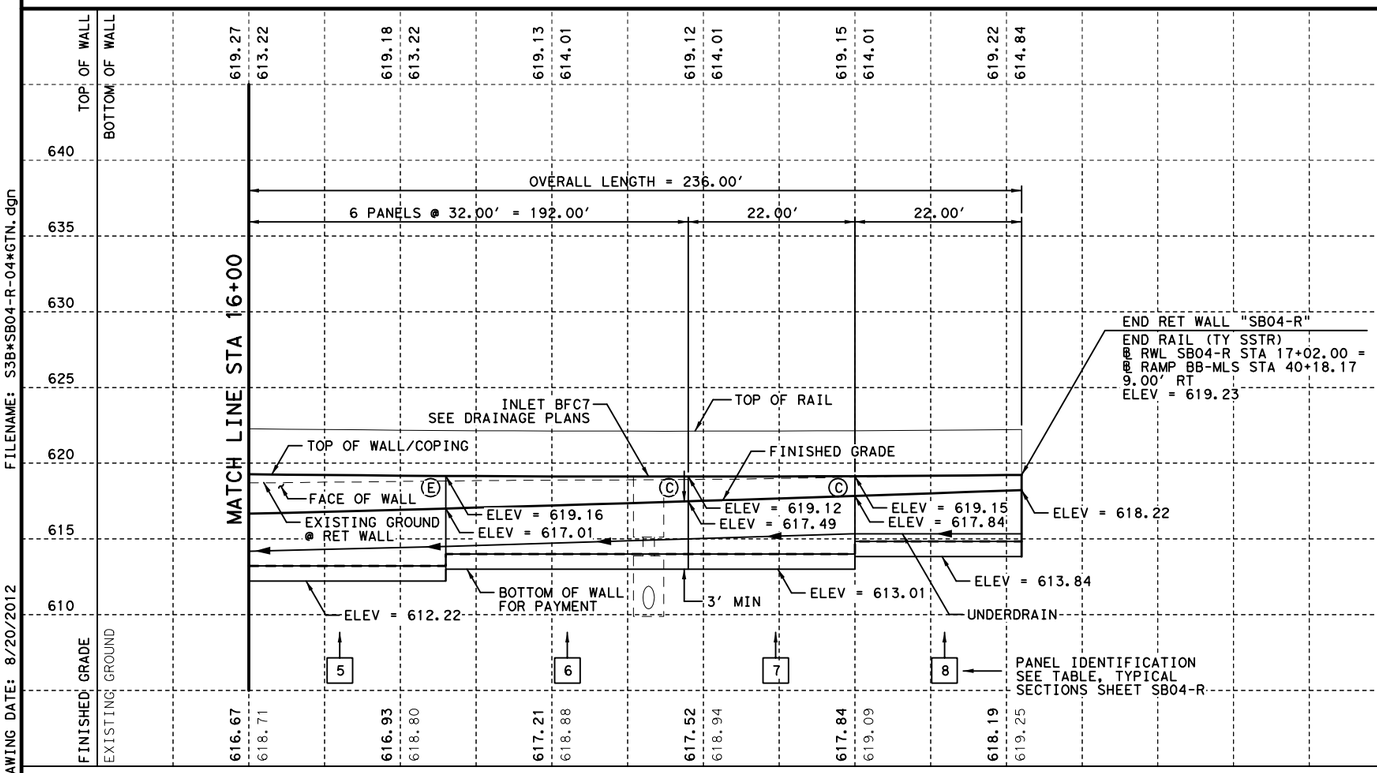

FILENAME: S3B*SB04-R-04*GTN.dgn
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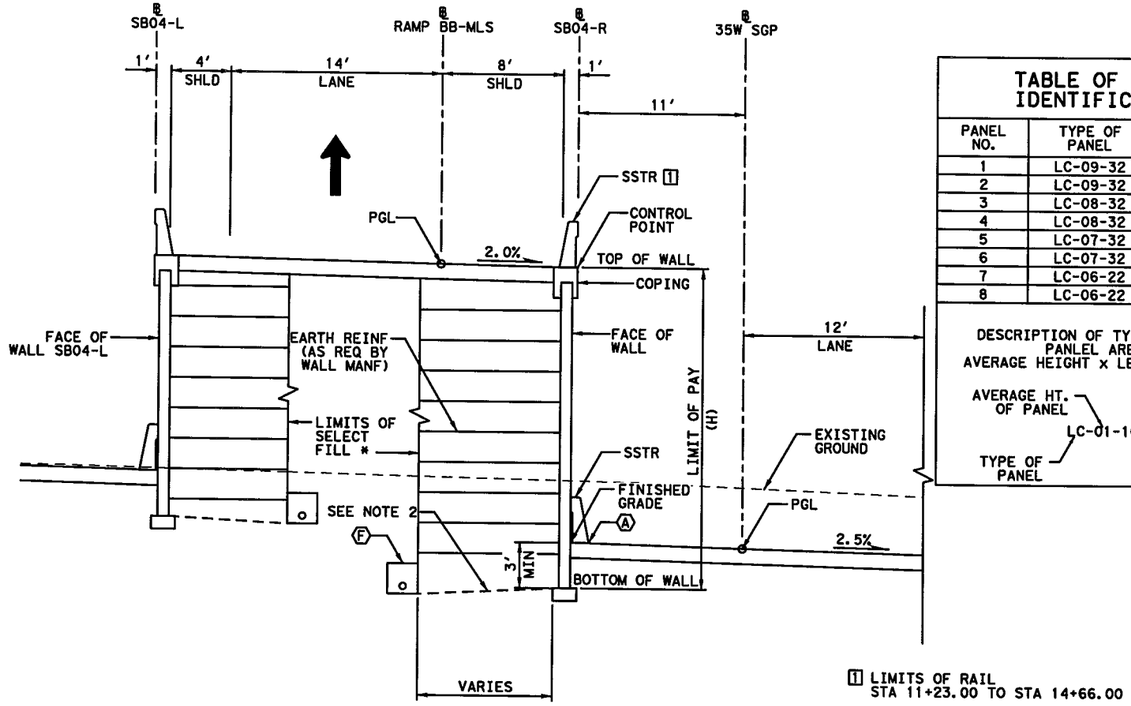
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB04-R

SCALE 1"= 20' H, 1"=10' V — SHEET 4 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1042
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	



[1] LIMITS OF RAIL
STA 11+23.00 TO STA 14+66.00

PROPOSED WALL "SB04-R" TYPICAL SECTION

℄ SB04-R STA 11+18.00 TO STA 14+66.00

TABLE OF PANEL IDENTIFICATION

PANEL NO.	TYPE OF PANEL	PANEL AREA (SF)
1	LC-09-32	288
2	LC-09-32	288
3	LC-08-32	256
4	LC-08-32	256
5	LC-07-32	224
6	LC-07-32	224
7	LC-06-22	132
8	LC-06-22	132

DESCRIPTION OF TYPE OF PANEL
PANLEL AREA =
AVERAGE HEIGHT x LENGTH OF PANEL

AVERAGE HT. OF PANEL — LC-01-10 — LENGTH OF PANEL
TYPE OF PANEL

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	4,791
RETAINING WALL (CIP)	SF	1,800
RAIL (SSTR)	LF	579
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	617

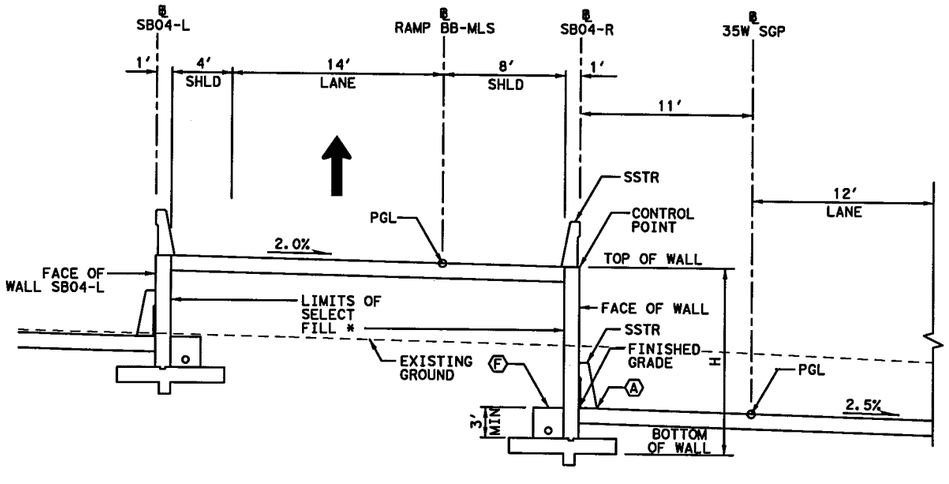
0' 5' 10'
SCALE IN FEET

LEGEND:

Ⓐ EDGE OF PROPOSED PAVEMENT
Ⓑ EDGE OF ULTIMATE PAVEMENT
Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
Ⓓ RIPRAP (CONC) (FLUME)
Ⓔ RIPRAP (CONC) (5 IN)
Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.



* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

PROPOSED WALL "SB04-R" TYPICAL SECTION

℄ SB04-R STA 14+66.00 TO STA 17+02.00

STATE OF TEXAS
DAVID W. HAWLEY
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LICENSED PROFESSIONAL ENGINEER
7/10/2012

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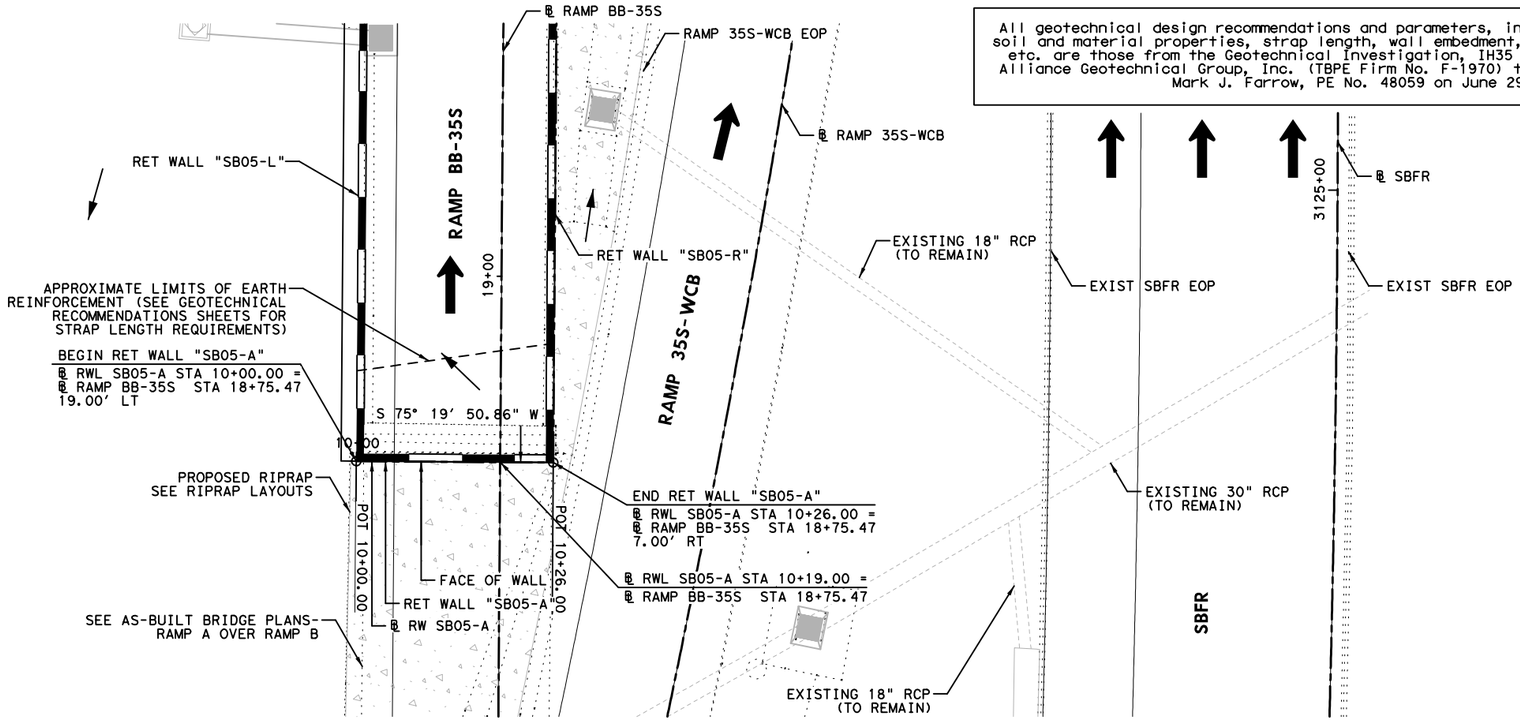
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
TYPICAL SECTIONS
SB04-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1043
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPSB04-R*GTN.dgn



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HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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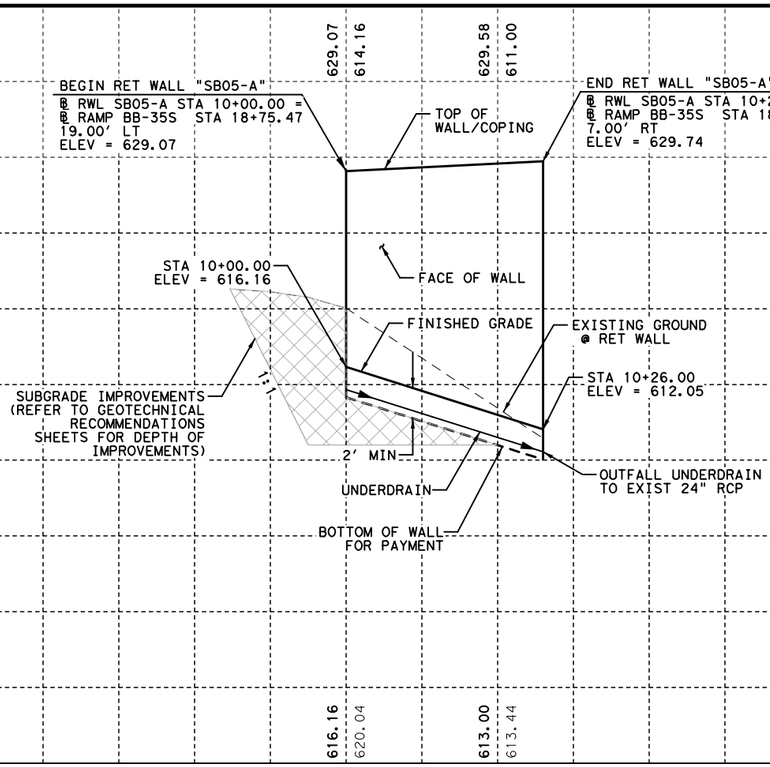

FILENAME: S3B*SB05-A-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
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LICENSED
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KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

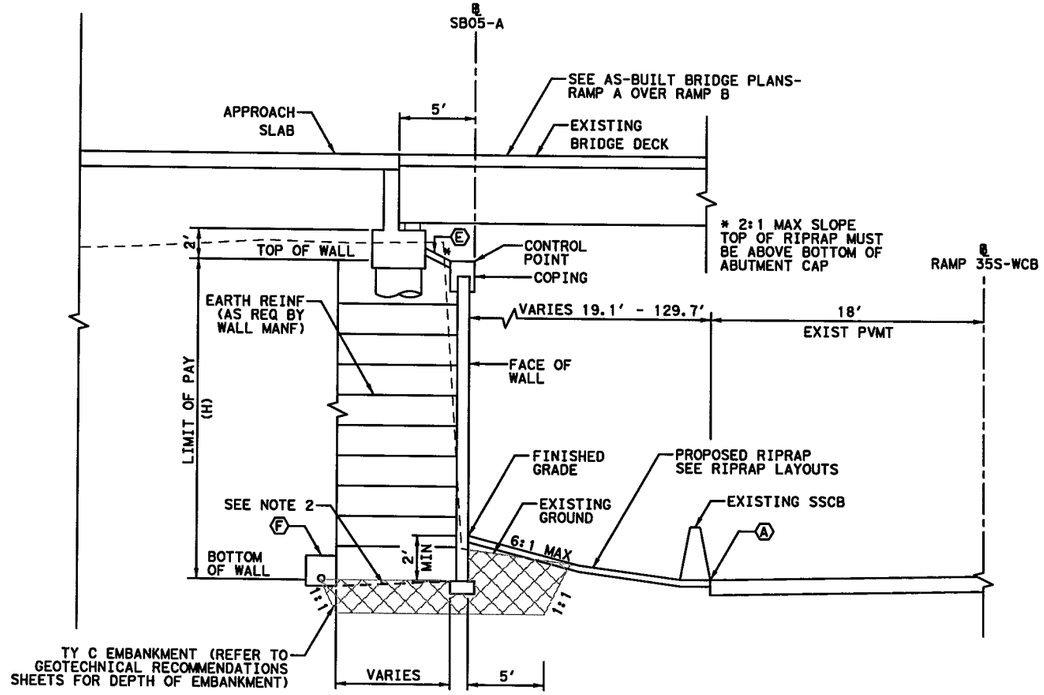
RETAINING WALLS
PLAN AND PROFILE
SB05-A

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1044
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	450
RIPRAP (CONC) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	77



PROPOSED WALL "SB05-A" TYPICAL SECTION

℄ SB05-A 10+00.00 TO STA 10+26.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
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STATE OF TEXAS
DAVID W. HANLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB05-A

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	1045
	0014	16	255, ETC.	

FILENAME: S3B#TYPSB05-A#GTN.dgn

DRAWING DATE: 7/13/2012

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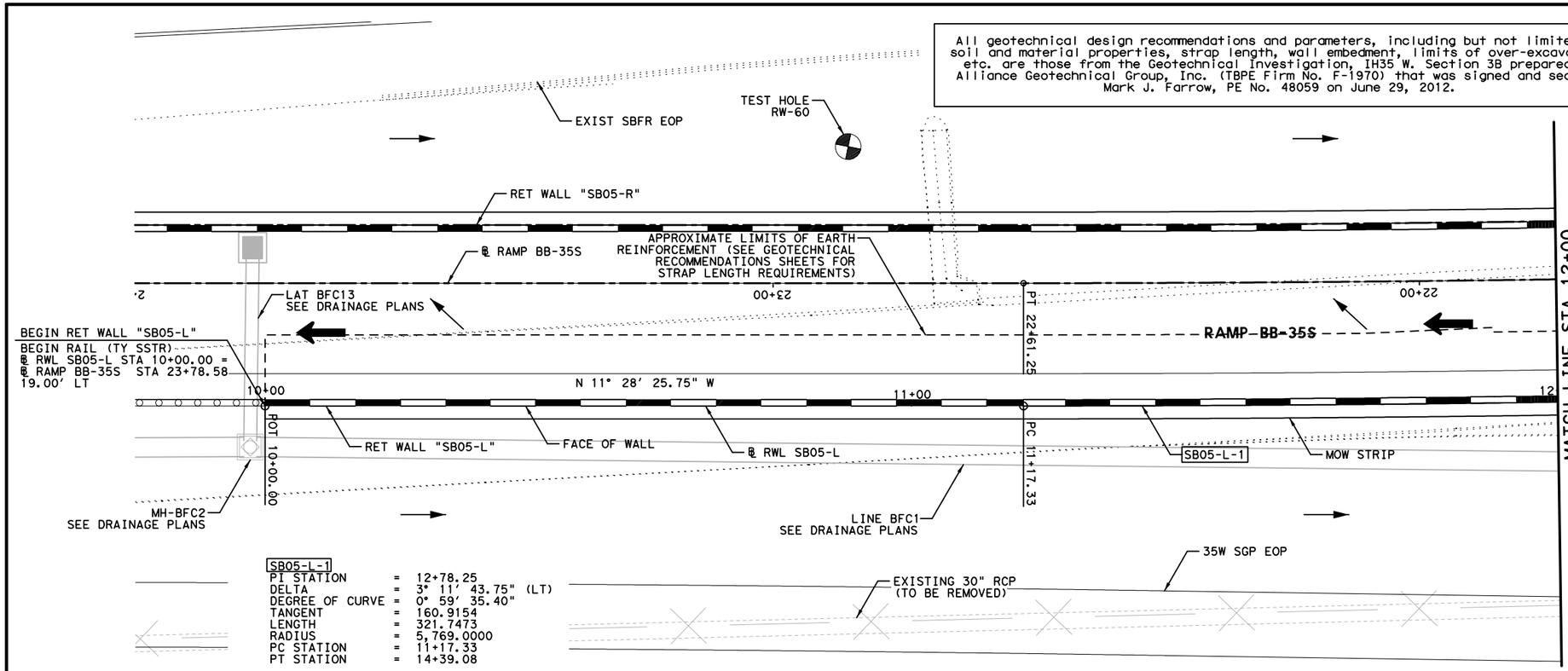

SB05-L-1

PI STATION	=	12+78.25
DELTA	=	3° 11' 43.75" (LT)
DEGREE OF CURVE	=	0° 59' 35.40"
TANGENT	=	160.9154
LENGTH	=	321.7473
RADIUS	=	5,769.0000
PC STATION	=	11+17.33
PT STATION	=	14+39.08

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- CURVE XX — HORIZONTAL CURVE
- Ⓒ — CONSTRUCTION JOINT
- Ⓔ — EXPANSION JOINT
- ← — DRAINAGE FLOW ARROWS
- ⬅ — TRAFFIC DIRECTION

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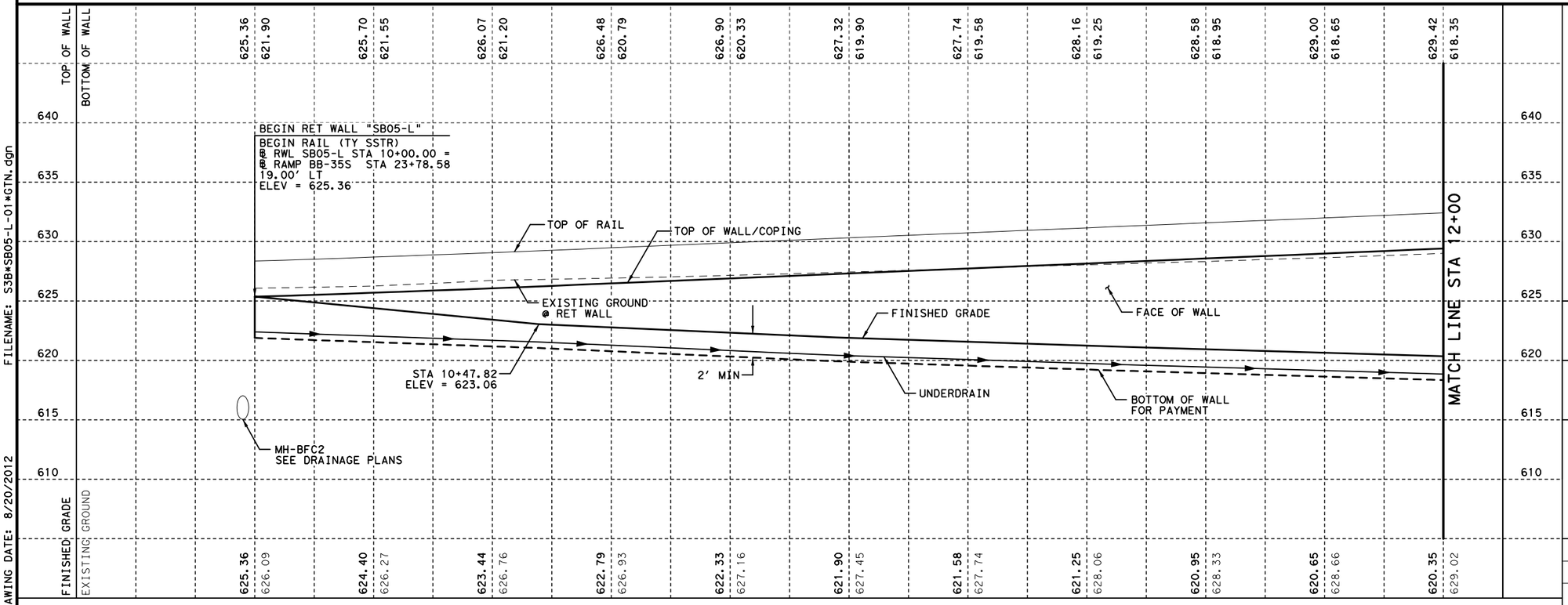

STATE OF TEXAS
DAVID W. HAWLEY
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8/22/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB05-L

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1046
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB05-L-01*GTN.dgn
DRAWING DATE: 8/20/2012

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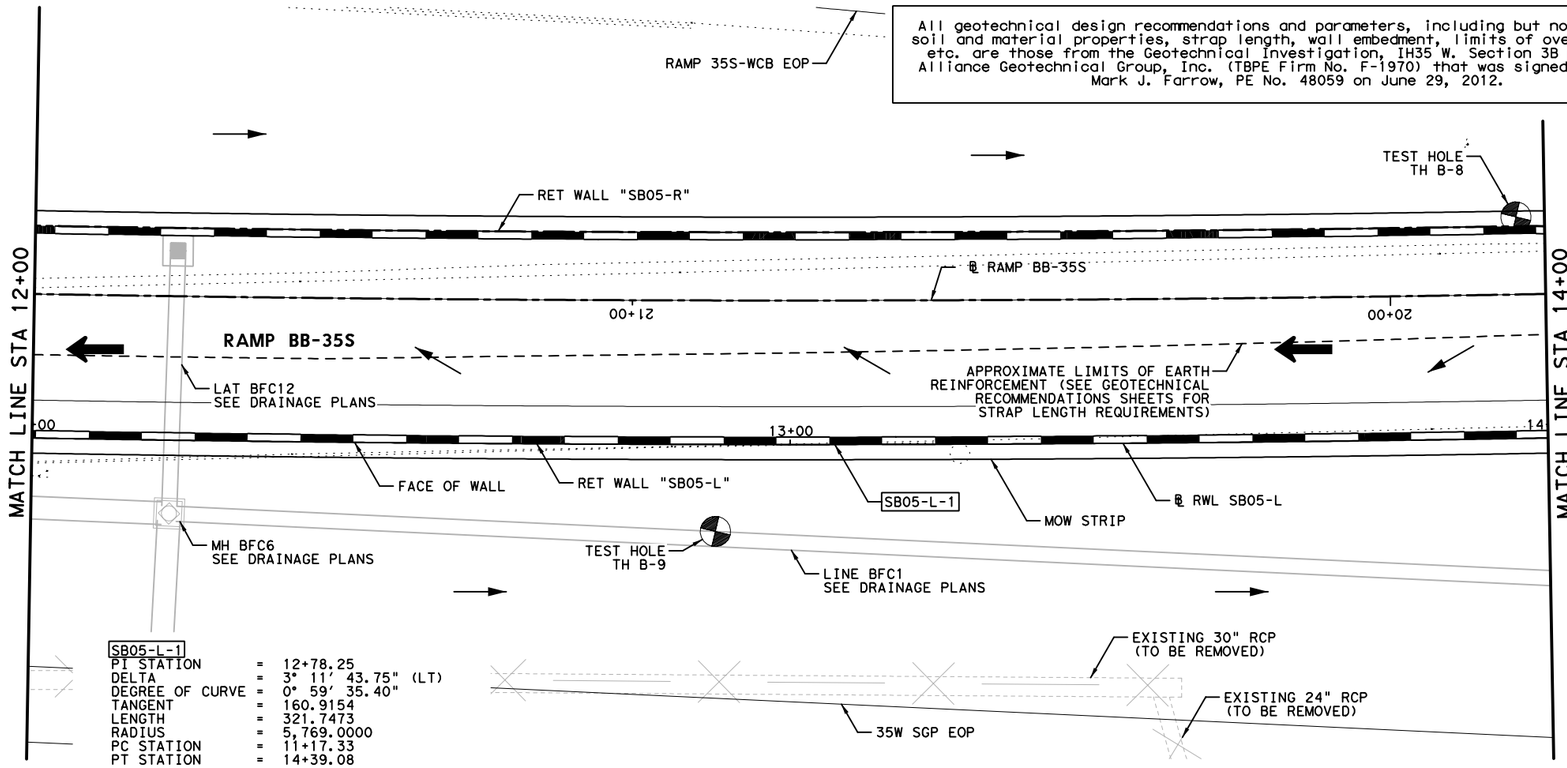

SB05-L-1

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DELTA	=	3° 11' 43.75" (LT)
DEGREE OF CURVE	=	0° 59' 35.40"
TANGENT	=	160.9154
LENGTH	=	321.7473
RADIUS	=	5,769.0000
PC STATION	=	11+17.33
PT STATION	=	14+39.08

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
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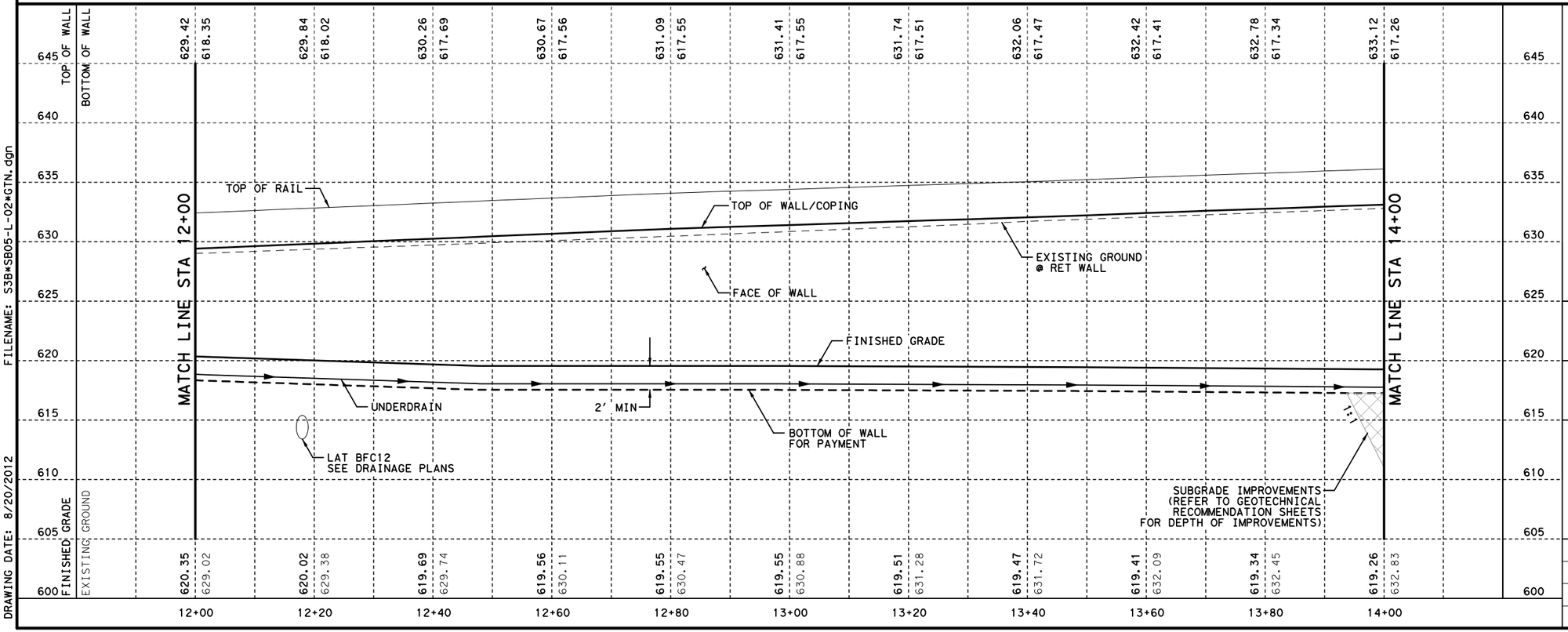

STATE OF TEXAS
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8/22/2012

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KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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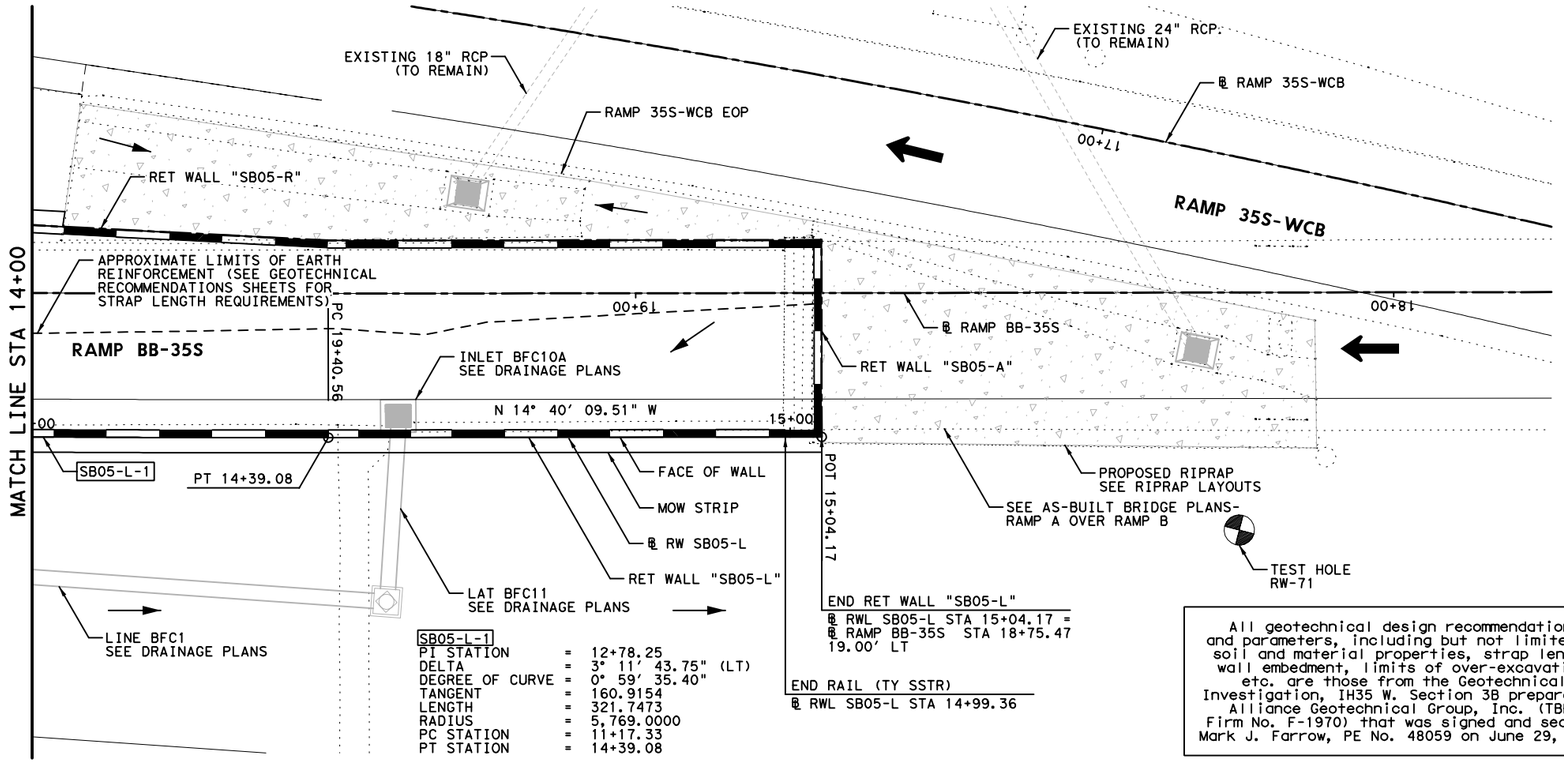
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB05-L

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1047
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB05-L-02*GTN.dgn
DRAWING DATE: 8/20/2012



SB05-L-1

PI STATION	=	12+78.25
DELTA	=	3° 11' 43.75" (LT)
DEGREE OF CURVE	=	0° 59' 35.40"
TANGENT	=	160.9154
LENGTH	=	321.7473
RADIUS	=	5,769.0000
PC STATION	=	11+17.33
PT STATION	=	14+39.08

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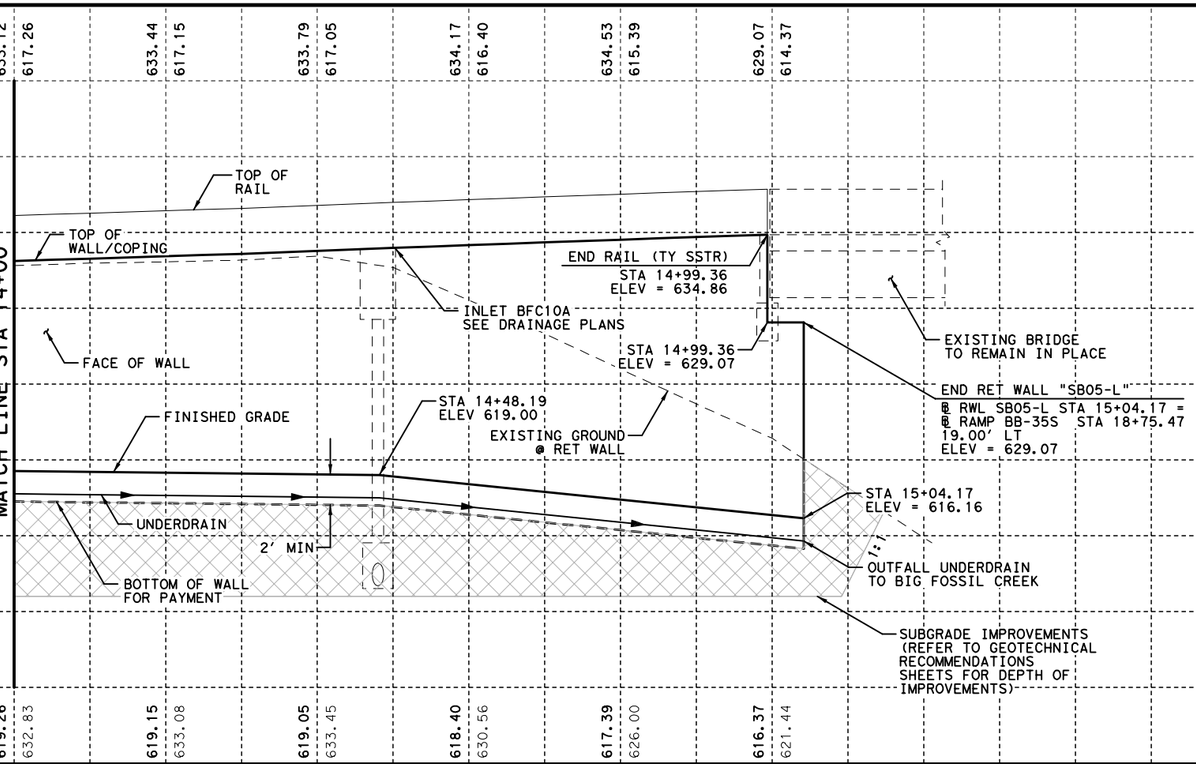
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



FILENAME: S3B*SB05-L-03*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

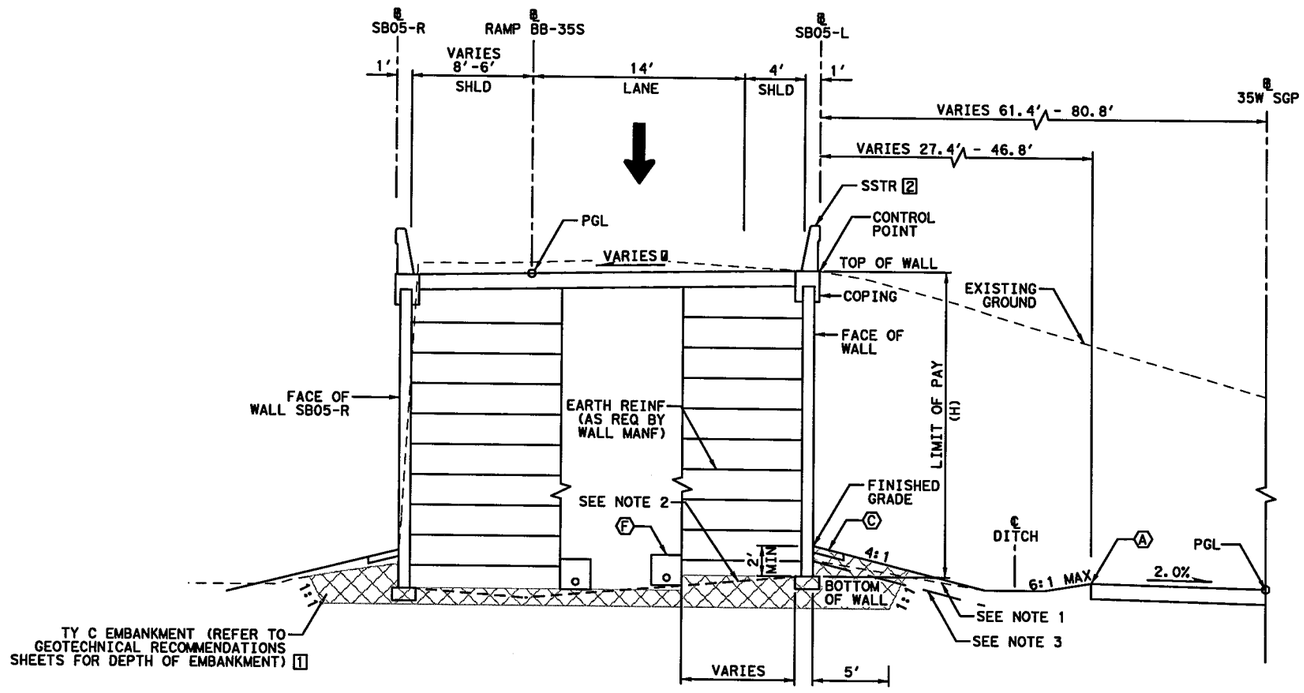
RETAINING WALLS
PLAN AND PROFILE
SB05-L

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1048
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	6,032
RIPRAP (MOW STRIP)(5 IN)	CY	16
RAIL (SSTR)	LF	499
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	505



PROPOSED WALL "SB05-L" TYPICAL SECTION

℄ SB05-L STA 10+00.00 TO STA 15+04.17

[1] LIMITS OF TY C EMBANKMENT
STA 14+00.00 TO STA 15+04.17

[2] LIMITS OF RAIL
STA 10+00.00 TO STA 14+99.36

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.

℄ SUPER ELEVATION TRANSITION
℄ RWL SB05-L 10+53.58, 2.00%
℄ RWL SB05-L 14+29.61, -2.00%

0' 5' 10'
SCALE IN FEET

LEGEND:

Ⓐ EDGE OF PROPOSED PAVEMENT
Ⓑ EDGE OF ULTIMATE PAVEMENT
Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
Ⓓ RIPRAP (CONC)(FLUME)
Ⓔ RIPRAP (CONC)(5 IN)
Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

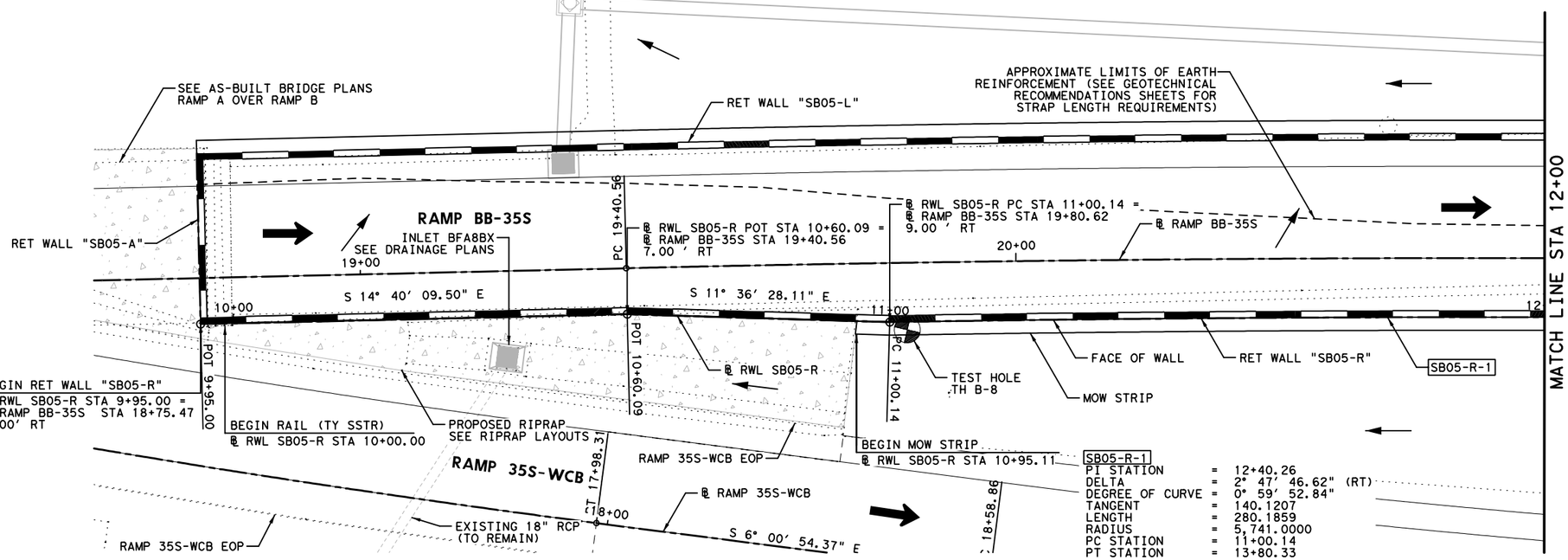
SB05-L

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1049
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*TYPSB05-L*GTN.dgn
DRAWING DATE: 7/13/2012

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



SB05-R-1

PI STATION	=	12+40.26
DELTA	=	2° 47' 46.62" (RT)
DEGREE OF CURVE	=	0° 59' 52.84"
TANGENT	=	140.1207
LENGTH	=	280.1859
RADIUS	=	5,741.0000
PC STATION	=	11+00.14
PT STATION	=	13+80.33

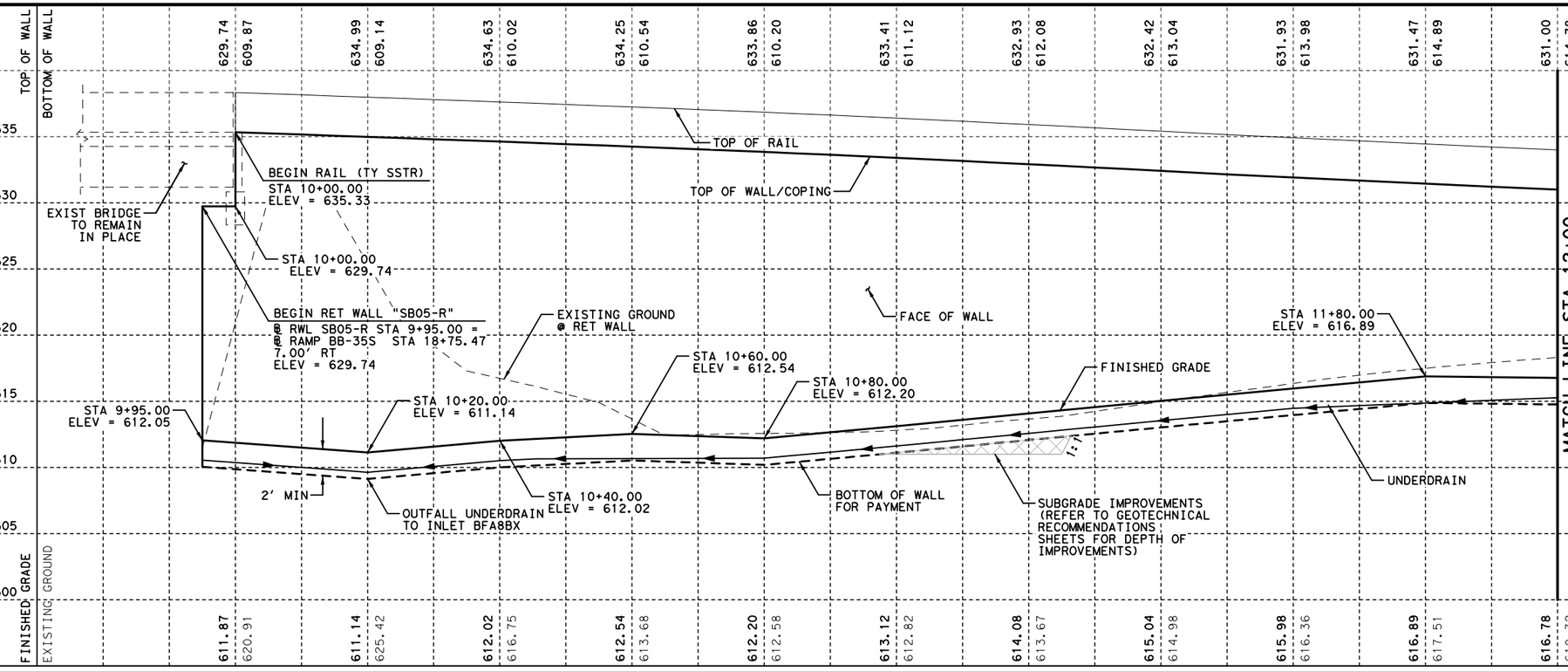
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- CURVE XX — HORIZONTAL CURVE
- Ⓒ — CONSTRUCTION JOINT
- Ⓔ — EXPANSION JOINT
- ← — DRAINAGE FLOW ARROWS
- ⬅ — TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB05-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1050
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB05-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

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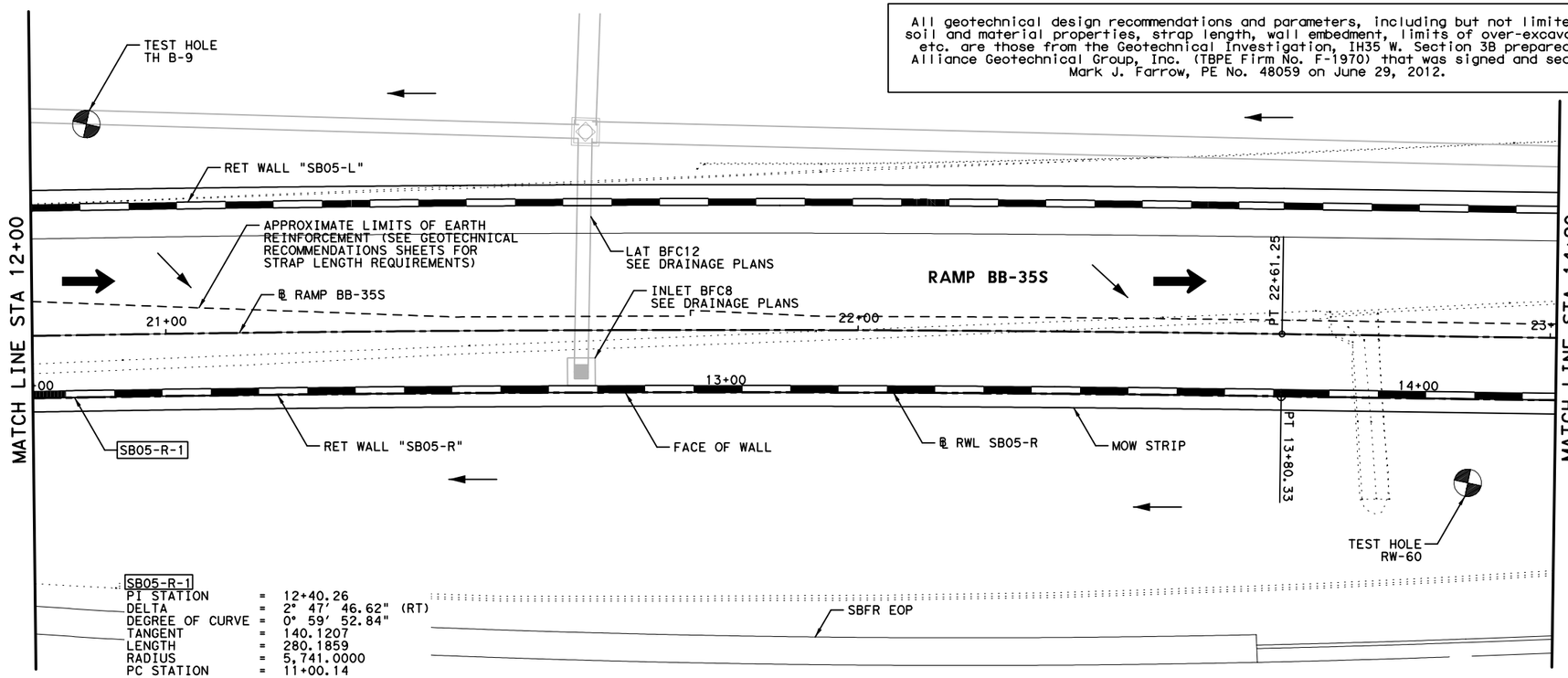

SB05-R-1

PI STATION	=	12+40.26
DELTA	=	2° 47′ 46.62" (RT)
DEGREE OF CURVE	=	0° 59′ 52.84"
TANGENT	=	140.1207
LENGTH	=	280.1859
RADIUS	=	5,741.0000
PC STATION	=	11+00.14
PT STATION	=	13+80.33

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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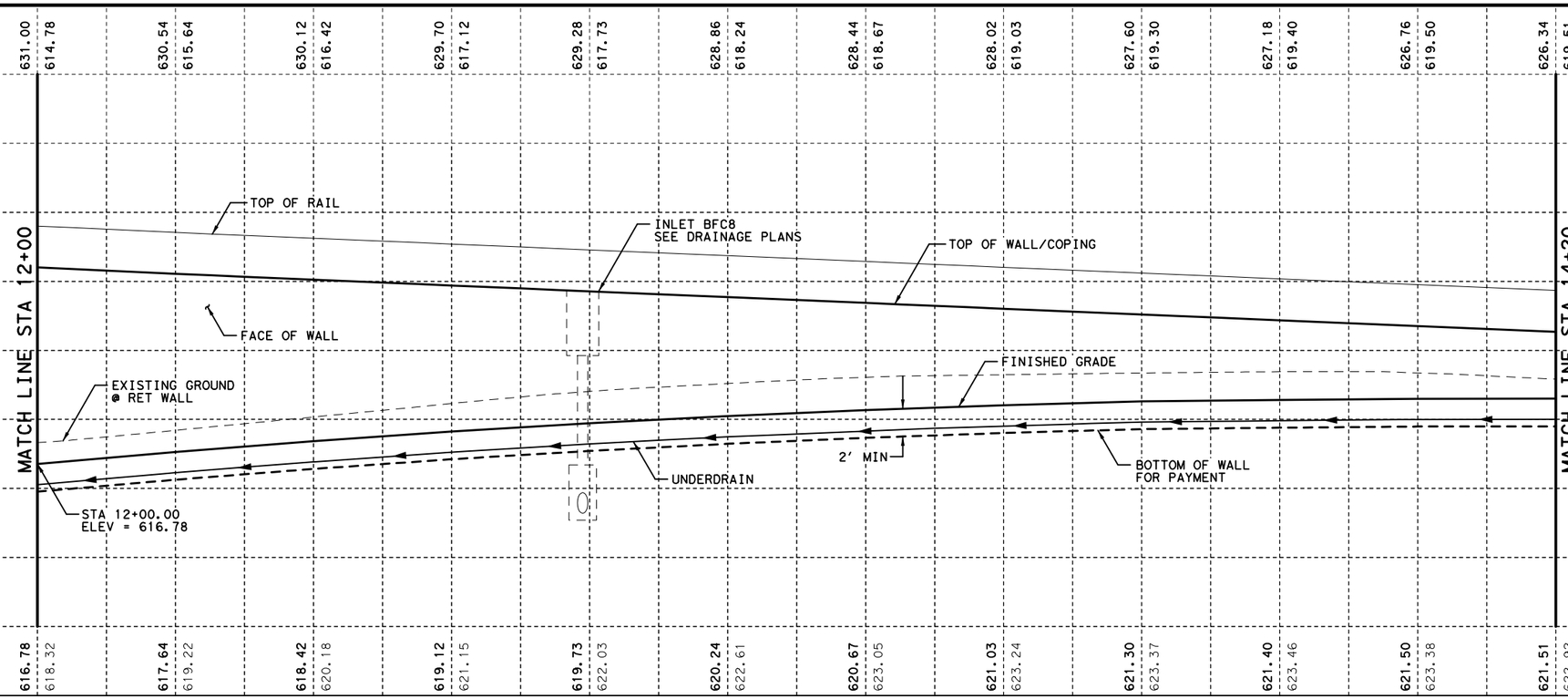
	TOP OF WALL	BOTTOM OF WALL
12+00	631.00	614.78
12+20	630.54	615.64
12+40	630.12	616.42
12+60	629.70	617.12
12+80	629.28	617.73
13+00	628.86	618.24
13+20	628.44	618.67
13+40	628.02	619.03
13+60	627.60	619.30
13+80	627.18	619.40
14+00	626.76	619.50
14+20	626.34	619.51

	EXISTING GROUND	SHEET GRADE
12+00	616.78	618.32
12+20	617.64	619.22
12+40	618.42	620.18
12+60	619.12	621.15
12+80	619.73	622.03
13+00	620.24	622.61
13+20	620.67	623.05
13+40	621.03	623.24
13+60	621.30	623.37
13+80	621.40	623.46
14+00	621.50	623.38
14+20	621.51	622.92



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB05-R

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1051
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB05-R-02*GTN.dgn
DRAWING SHEET GRADED 8/20/2012

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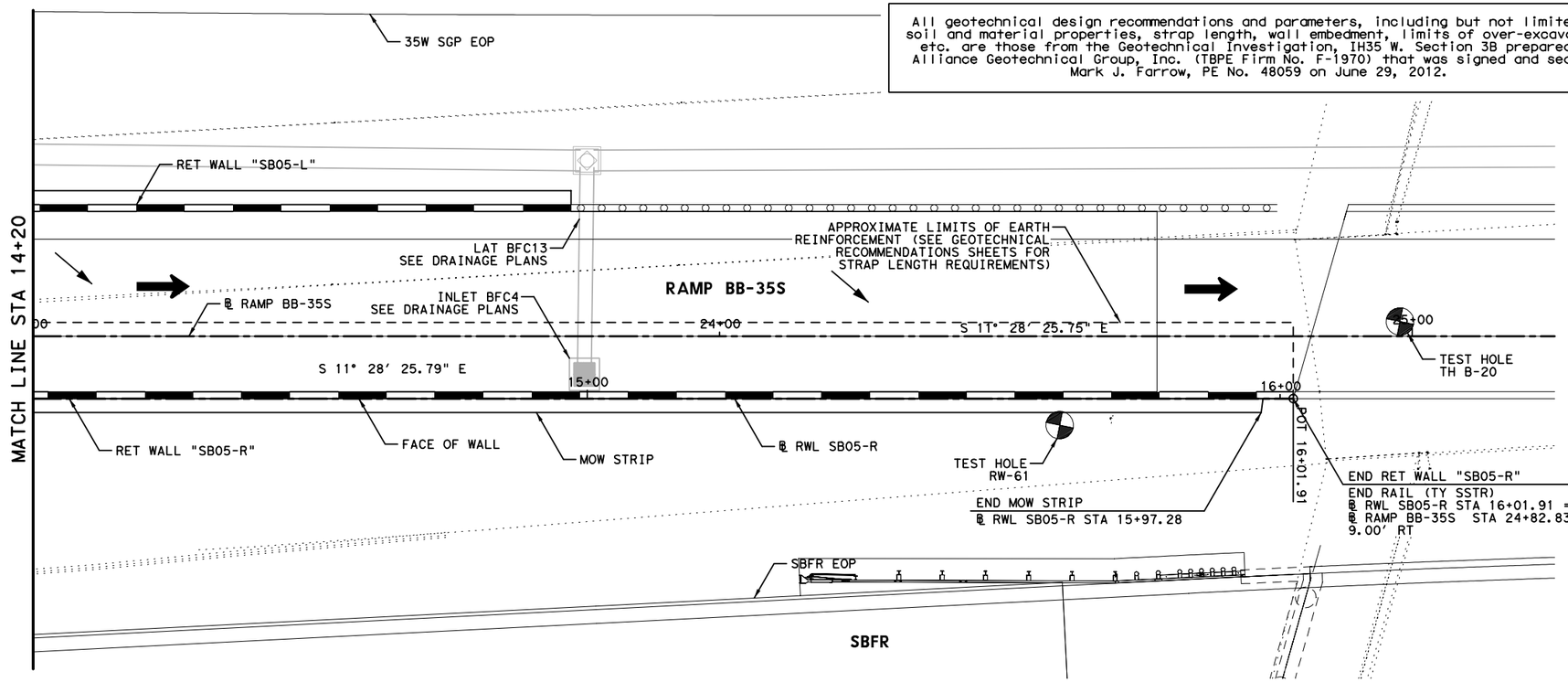

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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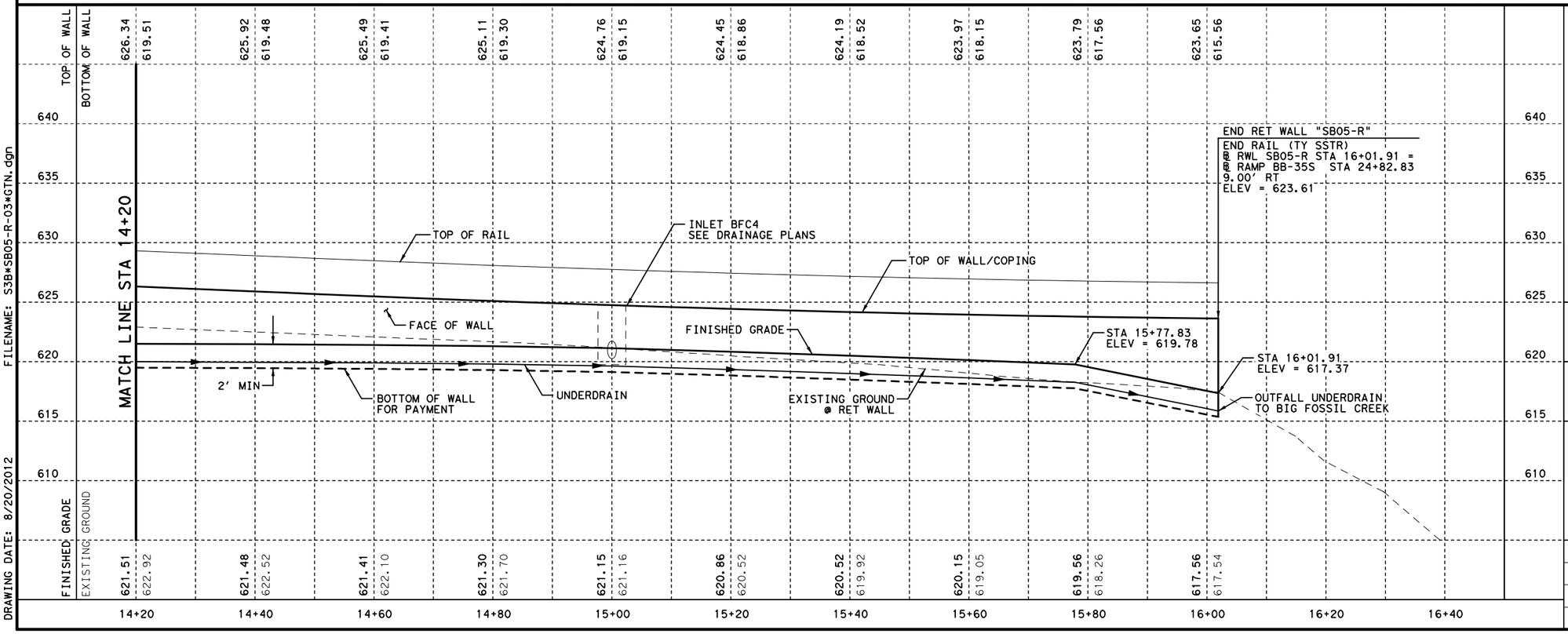
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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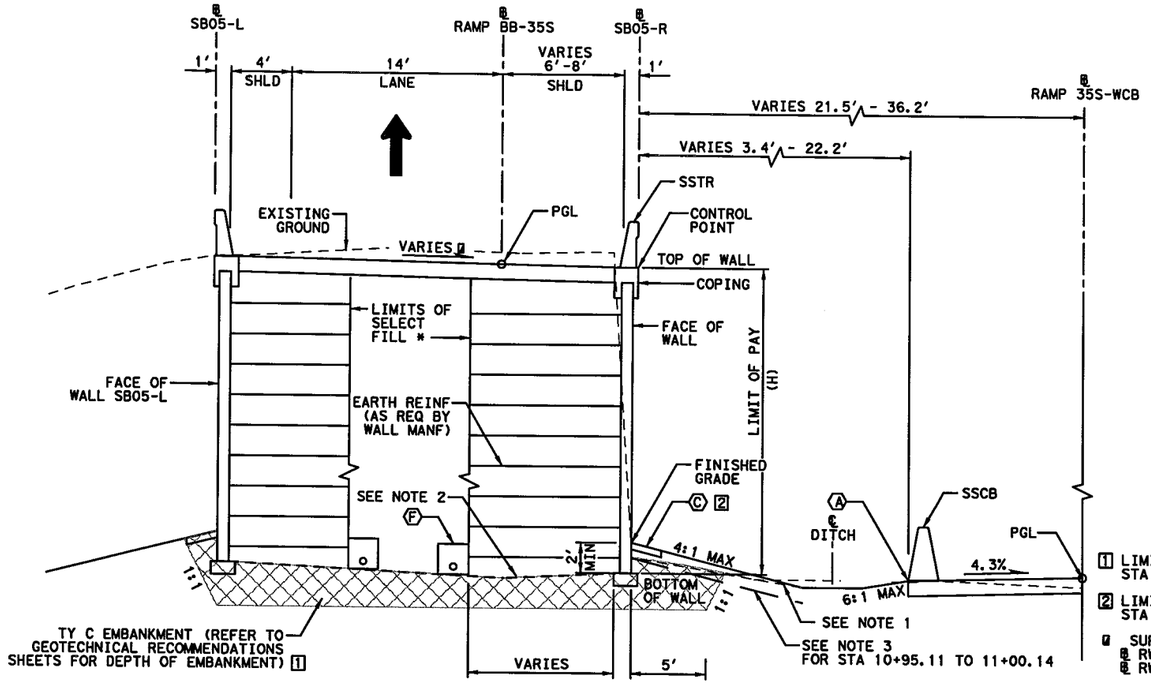
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB05-R

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1052
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB05-R-03*GTN.dgn
DRAWING DATE: 8/20/2012



PROPOSED WALL "SB05-R" TYPICAL SECTION

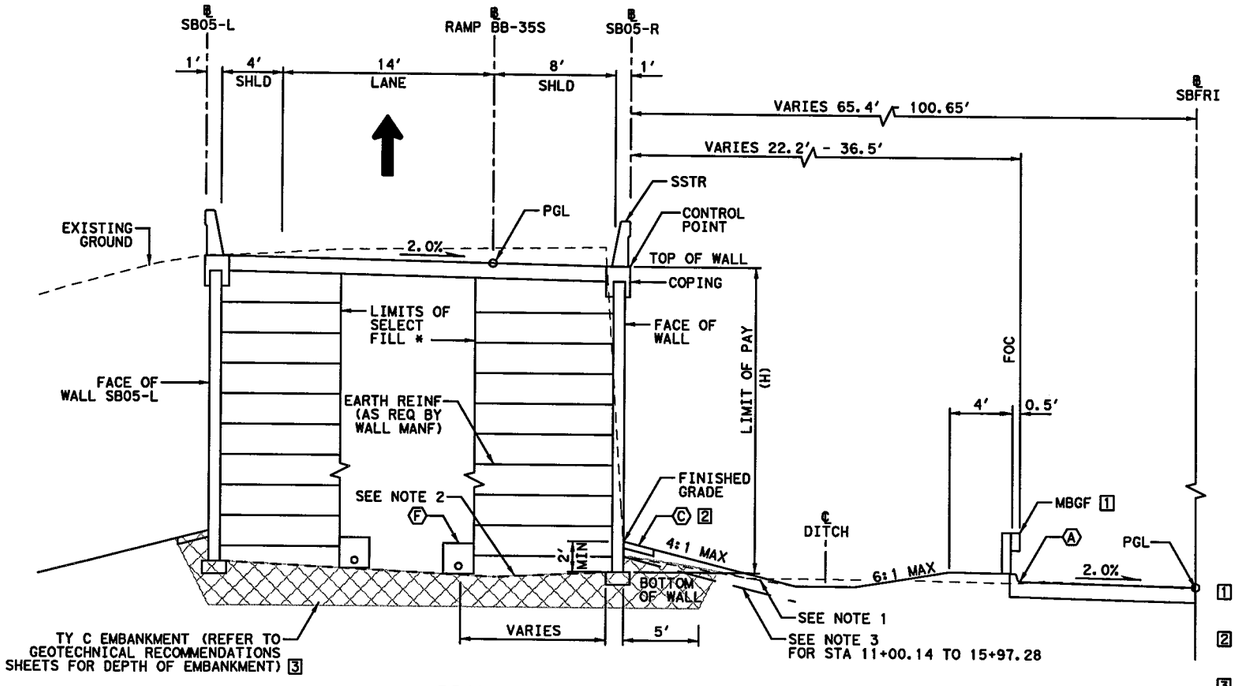
℄ SB05-R STA 9+95.00 TO STA 11+00.14

1 LIMITS OF TY C EMBANKMENT STA 10+97.00 TO STA 11+00.14

2 LIMITS OF MOW STRIP STA 10+95.11 TO STA 11+00.14

ø SUPER ELEVATION TRANSITION
℄ RWL SB05-R 10+69.14, -2.00%
℄ RWL SB05-R 12+19.33, 2.00%

* ZONE BETWEEN REINFORCED VOLUMES TO BE EMBANKED WITH SELECT BACKFILL USED FOR REINFORCED VOLUME WHEN WALLS ARE PRESENT ON BOTH SIDES.



PROPOSED WALL "SB05-R" TYPICAL SECTION

℄ SB05-R STA 11+00.14 TO STA 16+01.91

1 LIMITS OF MBGF STA 15+39.89 TO STA 16+01.91

2 LIMITS OF MOW STRIP STA 11+00.14 TO STA 15+97.28

3 LIMITS OF TY C EMBANKMENT STA 11+00.14 TO STA 11+25.00

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	7,860
RIPRAP (MOW STRIP) (5 IN)	CY	16
RAIL (SSTR)	LF	602
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	668

0' 5' 10'

SCALE IN FEET

LEGEND:

Ⓐ EDGE OF PROPOSED PAVEMENT
Ⓑ EDGE OF ULTIMATE PAVEMENT
Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
Ⓓ RIPRAP (CONC) (FLUME)
Ⓔ RIPRAP (CONC) (5 IN)
Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HANLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

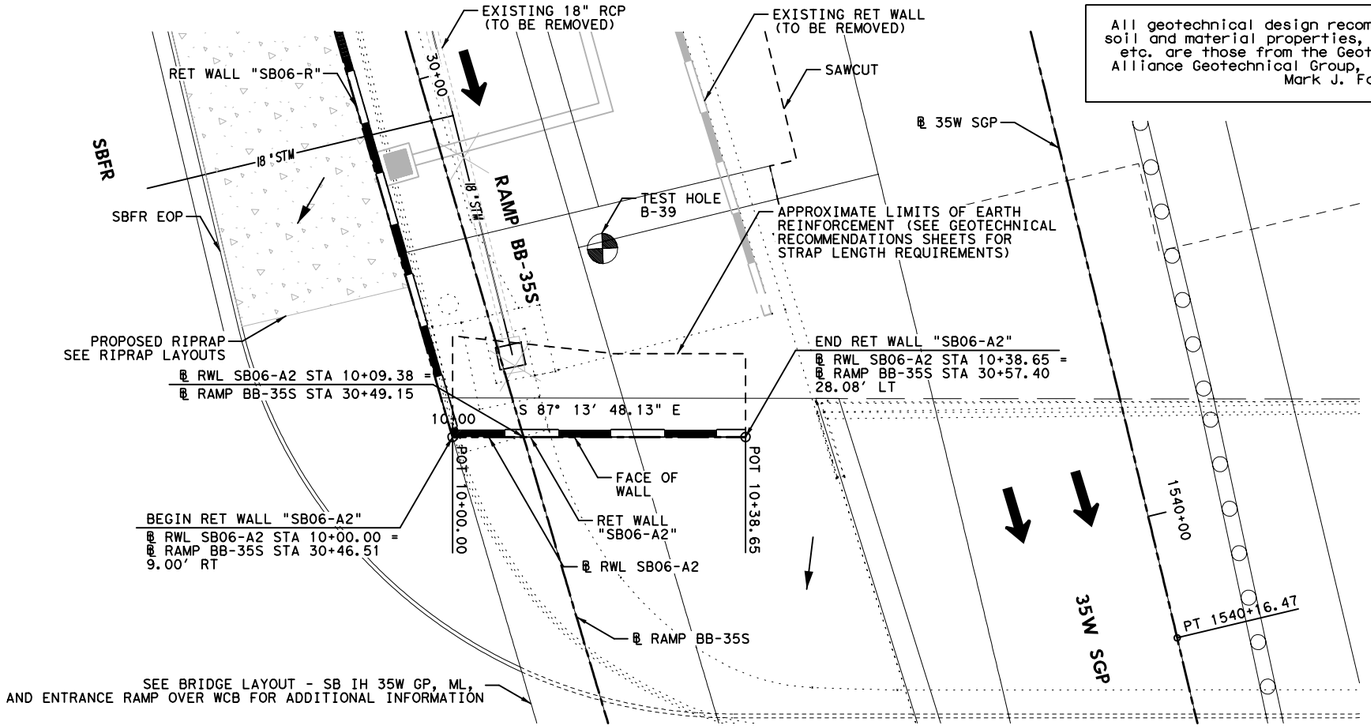
SB05-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1053
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3B*TYPSB05-R*GTN.dgn

DRAWING DATE: 7/13/2012



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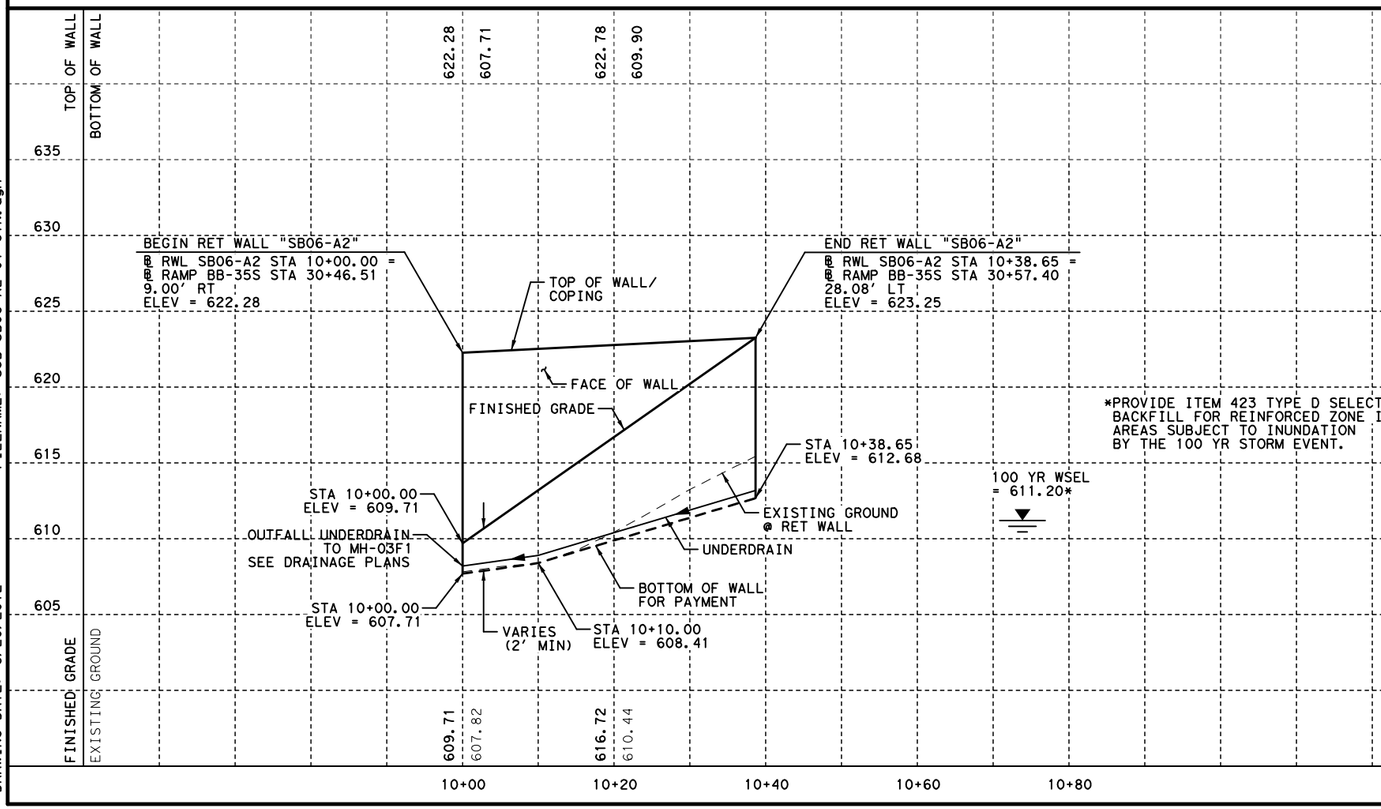
HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2′ BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



*PROVIDE ITEM 423 TYPE D SELECT BACKFILL FOR REINFORCED ZONE IN AREAS SUBJECT TO INUNDATION BY THE 100 YR STORM EVENT.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB06-A2

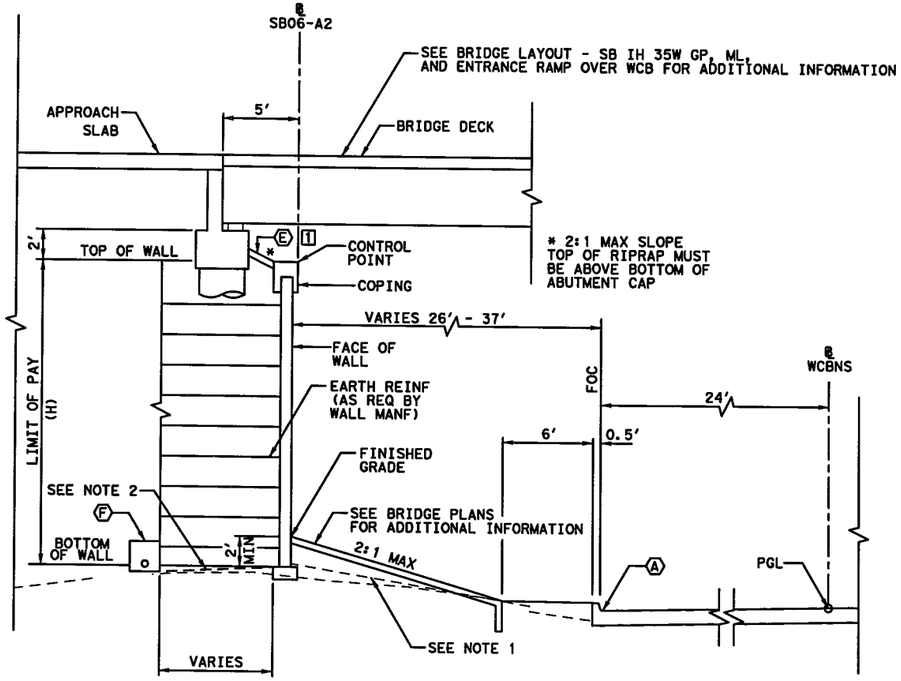
SCALE 1"= 20′ H, 1"=10′ V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1054
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB06-A2-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	498
RIPRAP (CONC) (5IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	75



PROPOSED WALL "SB06-A2" TYPICAL SECTION

℄ SB06-A2 STA 10+00.00 TO STA 10+38.65

1 RIPRAP LIMITS
STA 10+00.00 TO STA 10+38.65

0' 5' 10'

SCALE IN FEET

LEGEND:

- A EDGE OF PROPOSED PAVEMENT
- B EDGE OF ULTIMATE PAVEMENT
- C 2' RIPRAP (MOW STRIP) (5 IN)
- D RIPRAP (CONC) (FLUME)
- E RIPRAP (CONC) (5 IN)
- F PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB06-A2

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1055
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*TYPSB06-A2*GTN.dgn
DRAWING DATE: 7/13/2012

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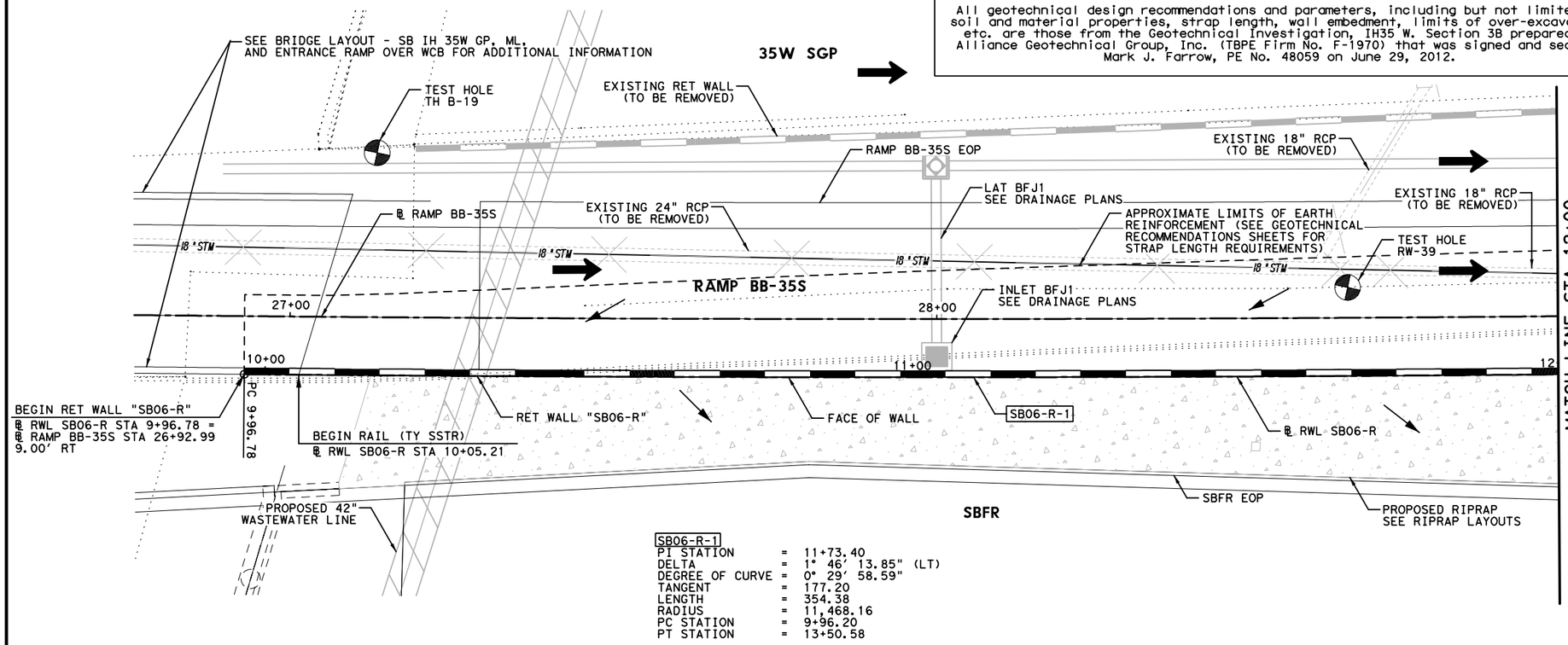

SB06-R-1

PI STATION	=	11+73.40
DELTA	=	1° 46' 13.85" (LT)
DEGREE OF CURVE	=	0° 29' 58.59"
TANGENT	=	177.20
LENGTH	=	354.38
RADIUS	=	11,468.16
PC STATION	=	9+96.20
PT STATION	=	13+50.58

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- CURVE XX — HORIZONTAL CURVE
- Ⓒ — CONSTRUCTION JOINT
- Ⓔ — EXPANSION JOINT
- ← — DRAINAGE FLOW ARROWS
- ⬅ — TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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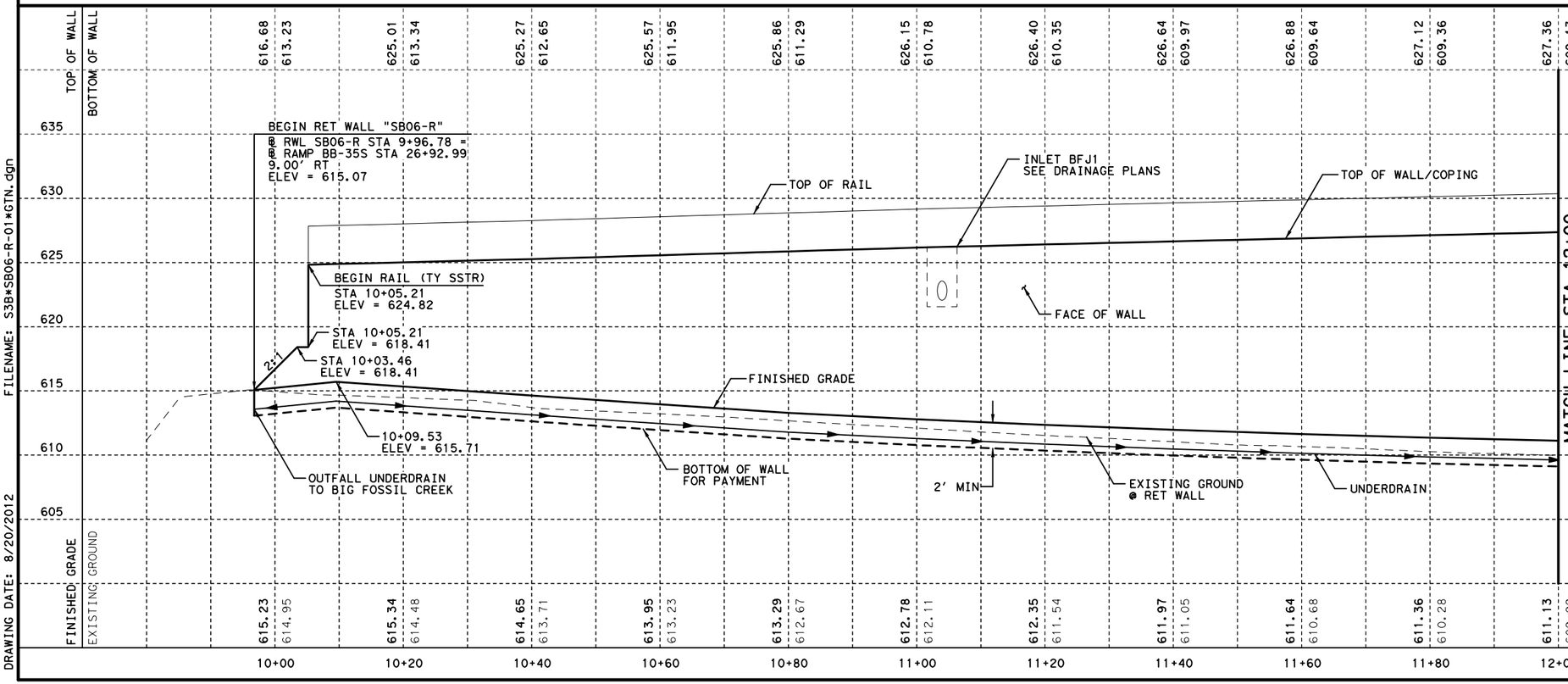

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB06-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1056
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB06-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

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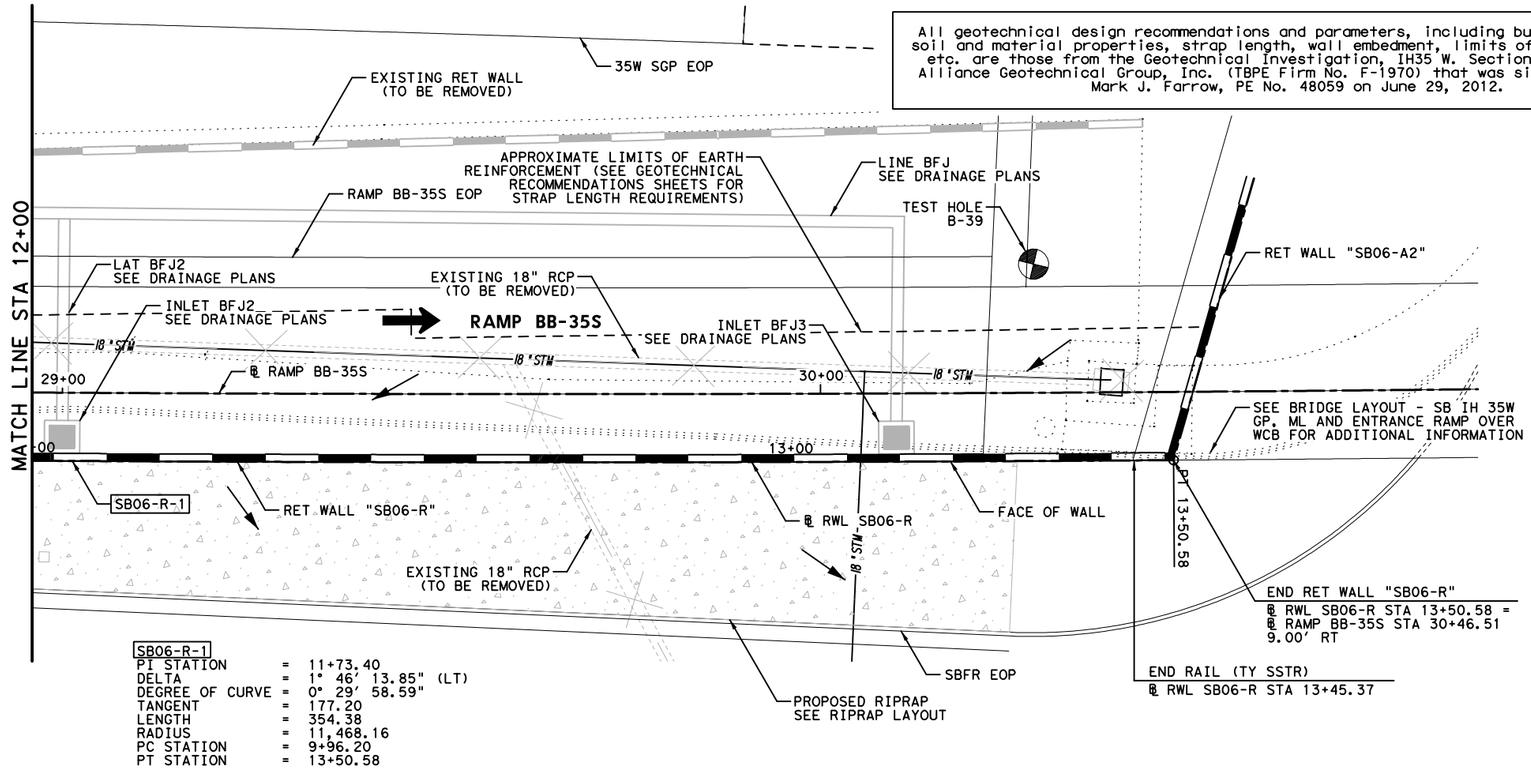

SB06-R-1

PI STATION	=	11+73.40
DELTA	=	1° 46' 13.85" (LT)
DEGREE OF CURVE	=	0° 29' 58.59"
TANGENT	=	177.20
LENGTH	=	354.38
RADIUS	=	11,468.16
PC STATION	=	9+96.20
PT STATION	=	13+50.58

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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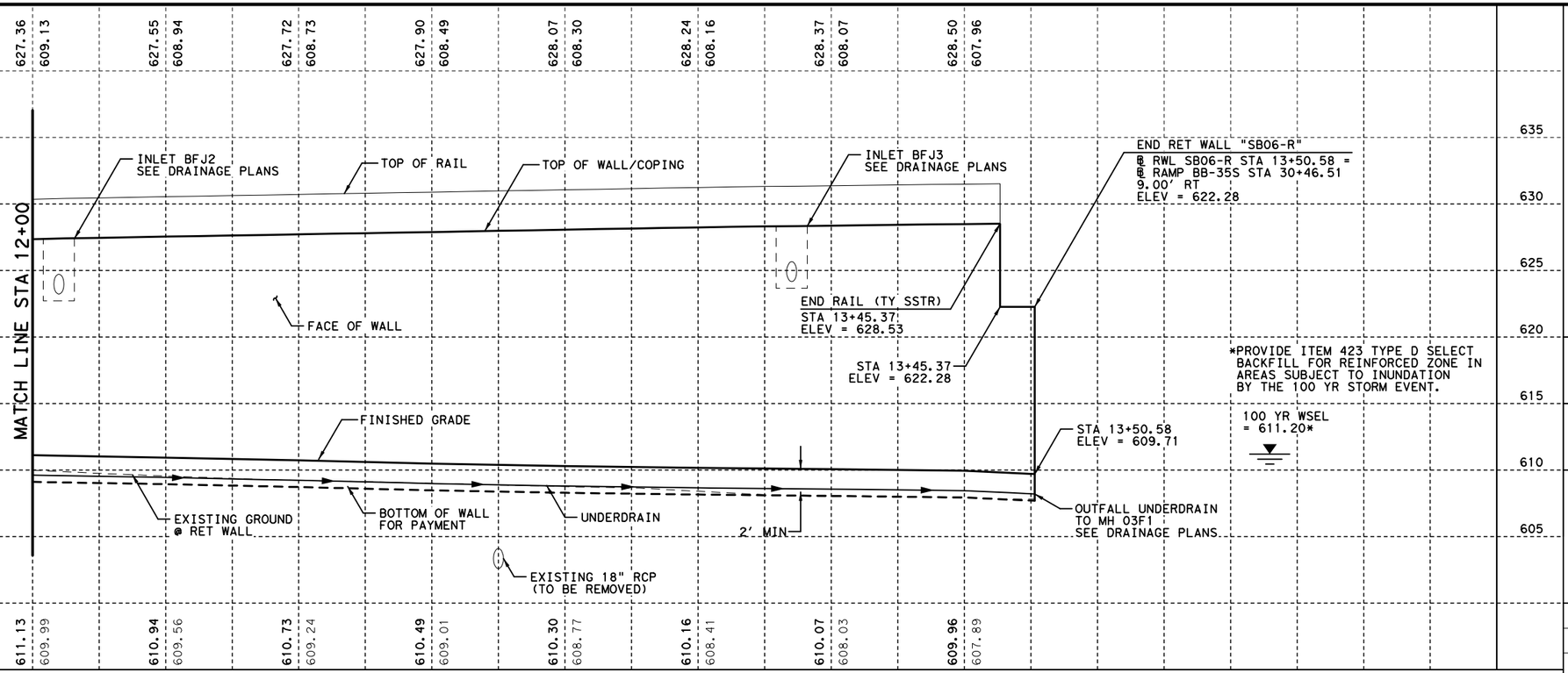

FILENAME: S3B*SB06-R-02*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
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PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

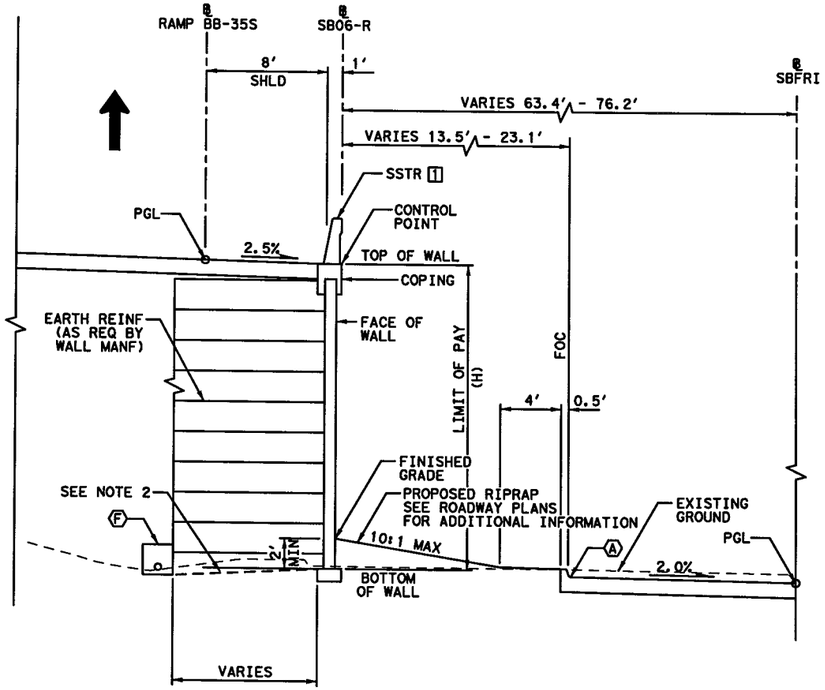
RETAINING WALLS
PLAN AND PROFILE
SB06-R

SCALE 1"= 20' H, 1"=10' V — SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1057
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	5,895
RAIL (SSTR)	LF	340
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	399



PROPOSED WALL "SB06-R" TYPICAL SECTION

℄ SB06-R STA 9+96.78 TO STA 13+50.58

[1] LIMITS OF RAIL
STA 10+05.21 TO STA 13+45.37

0' 5' 10'

SCALE IN FEET

LEGEND:

- (A) EDGE OF PROPOSED PAVEMENT
- (B) EDGE OF ULTIMATE PAVEMENT
- (C) 2' RIPRAP (MOW STRIP) (5 IN)
- (D) RIPRAP (CONC) (FLUME)
- (E) RIPRAP (CONC) (5 IN)
- (F) PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB06-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	1058
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3B#TYPSB06-R#GTN.dgn
DRAWING DATE: 7/13/2012

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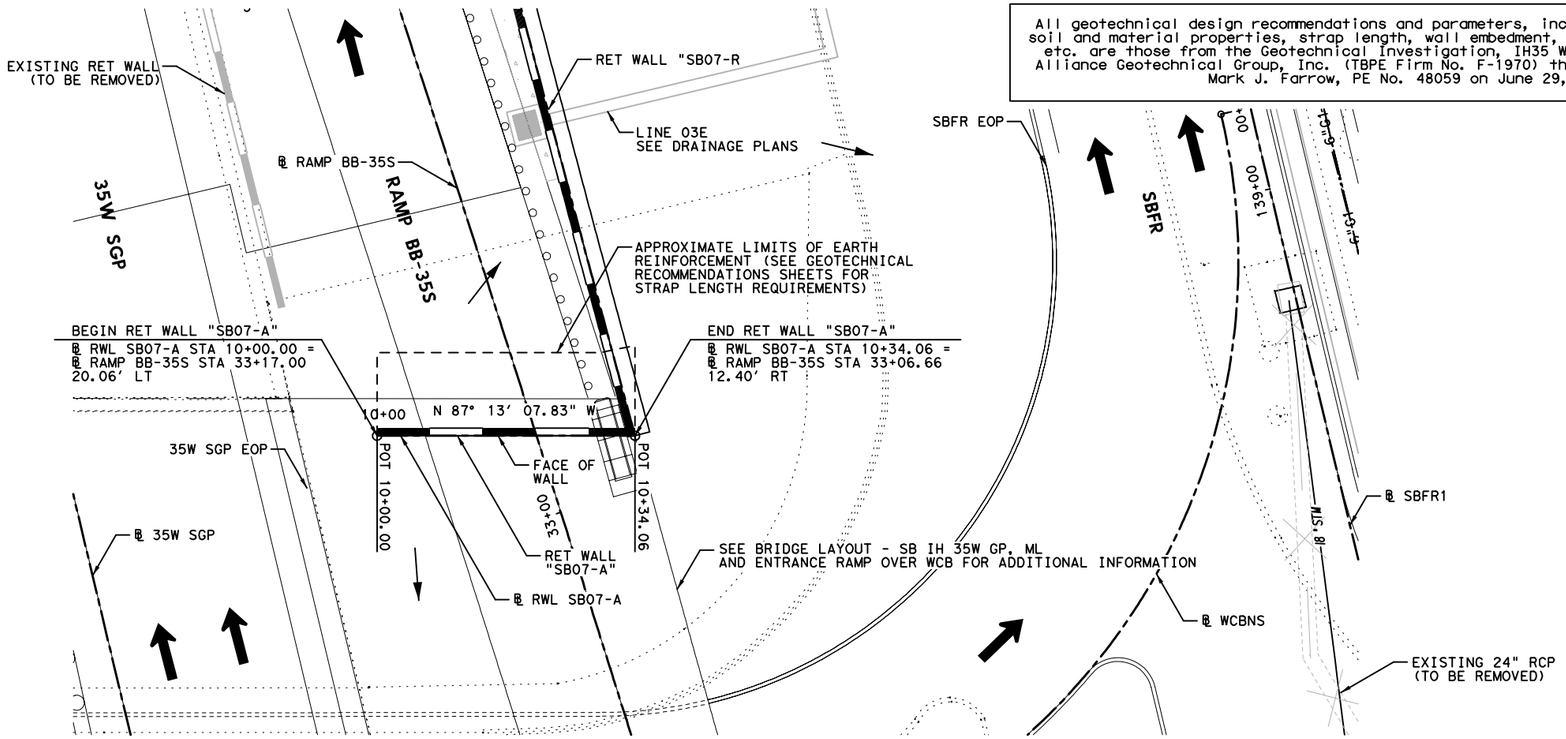

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
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4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
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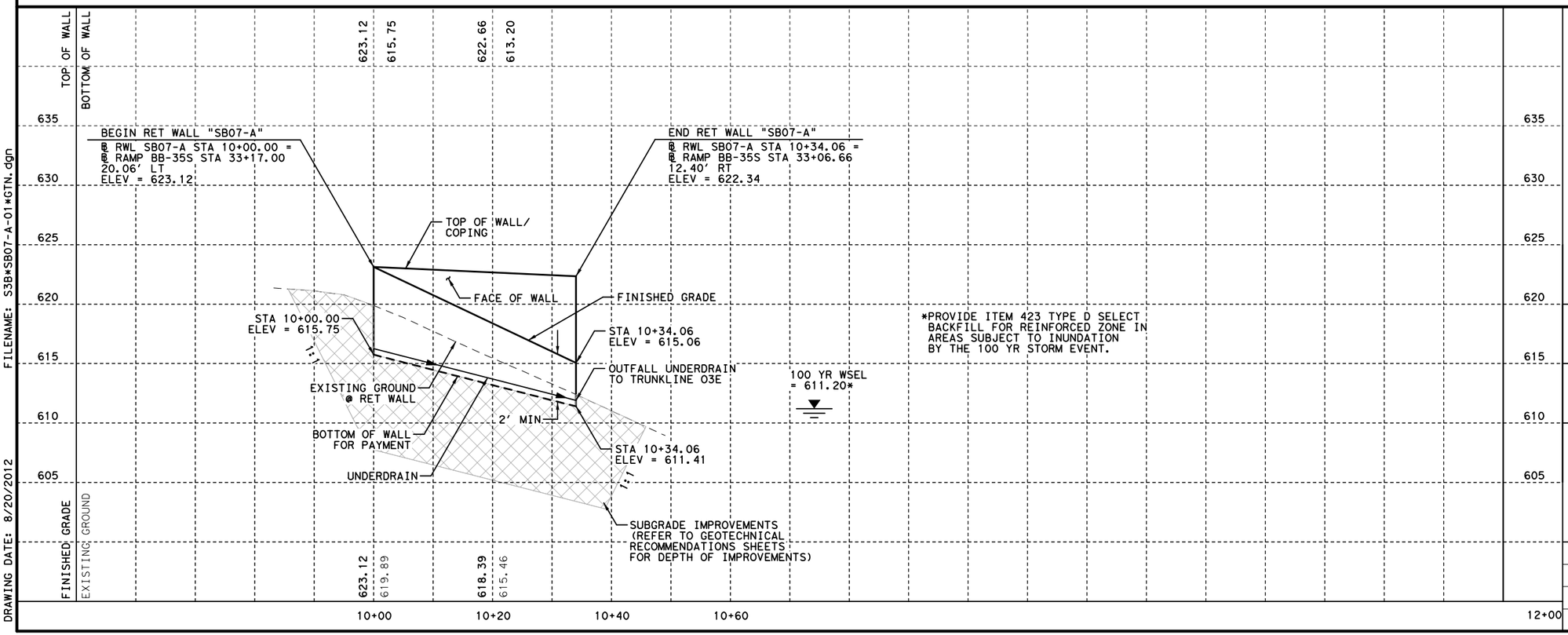

*PROVIDE ITEM 423 TYPE D SELECT BACKFILL FOR REINFORCED ZONE IN AREAS SUBJECT TO INUNDATION BY THE 100 YR STORM EVENT.

STATE OF TEXAS
DAVID W. HAWLEY
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LICENSED
PROFESSIONAL ENGINEER
8/22/2012

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB07-A

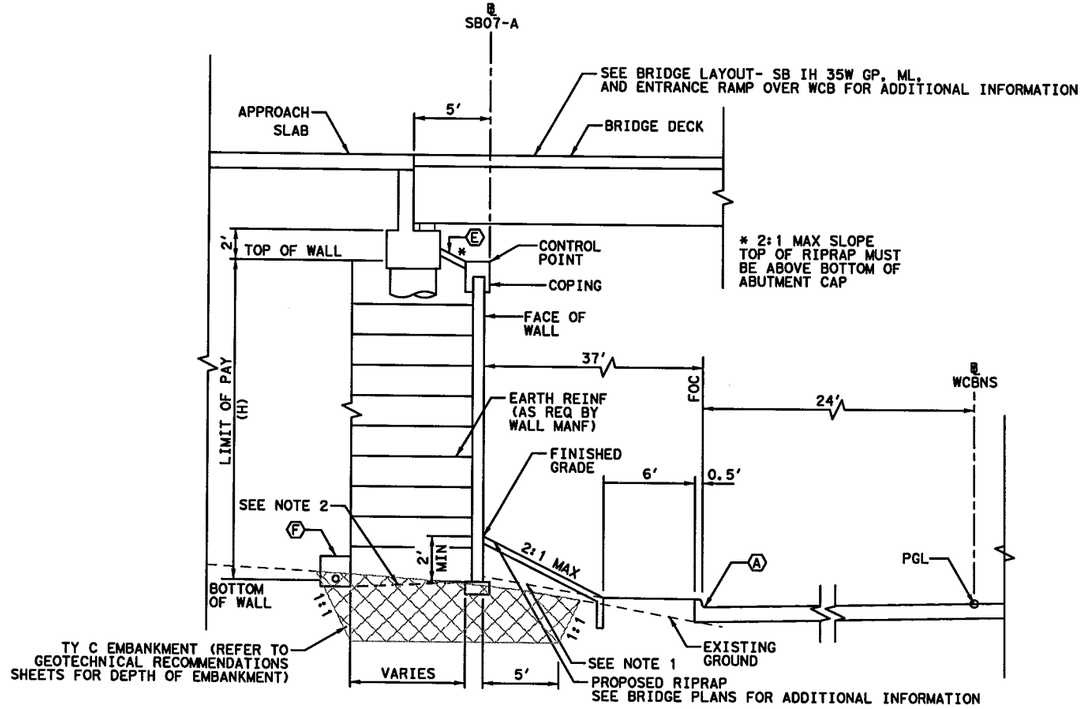
SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1059
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*SB07-A-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	312
RIPRAP (CONC) (5 IN)	CY	1
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	80



PROPOSED WALL "SB07-A" TYPICAL SECTION

℄ SB07-A STA 10+00.00 TO STA 10+34.06

0' 5' 10'

SCALE IN FEET

LEGEND:

- Ⓐ EDGE OF PROPOSED PAVEMENT
- Ⓑ EDGE OF ULTIMATE PAVEMENT
- Ⓒ 2' RIPRAP (MOW STRIP) (5 IN)
- Ⓓ RIPRAP (CONC) (FLUME)
- Ⓔ RIPRAP (CONC) (5 IN)
- Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
7/10/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB07-A

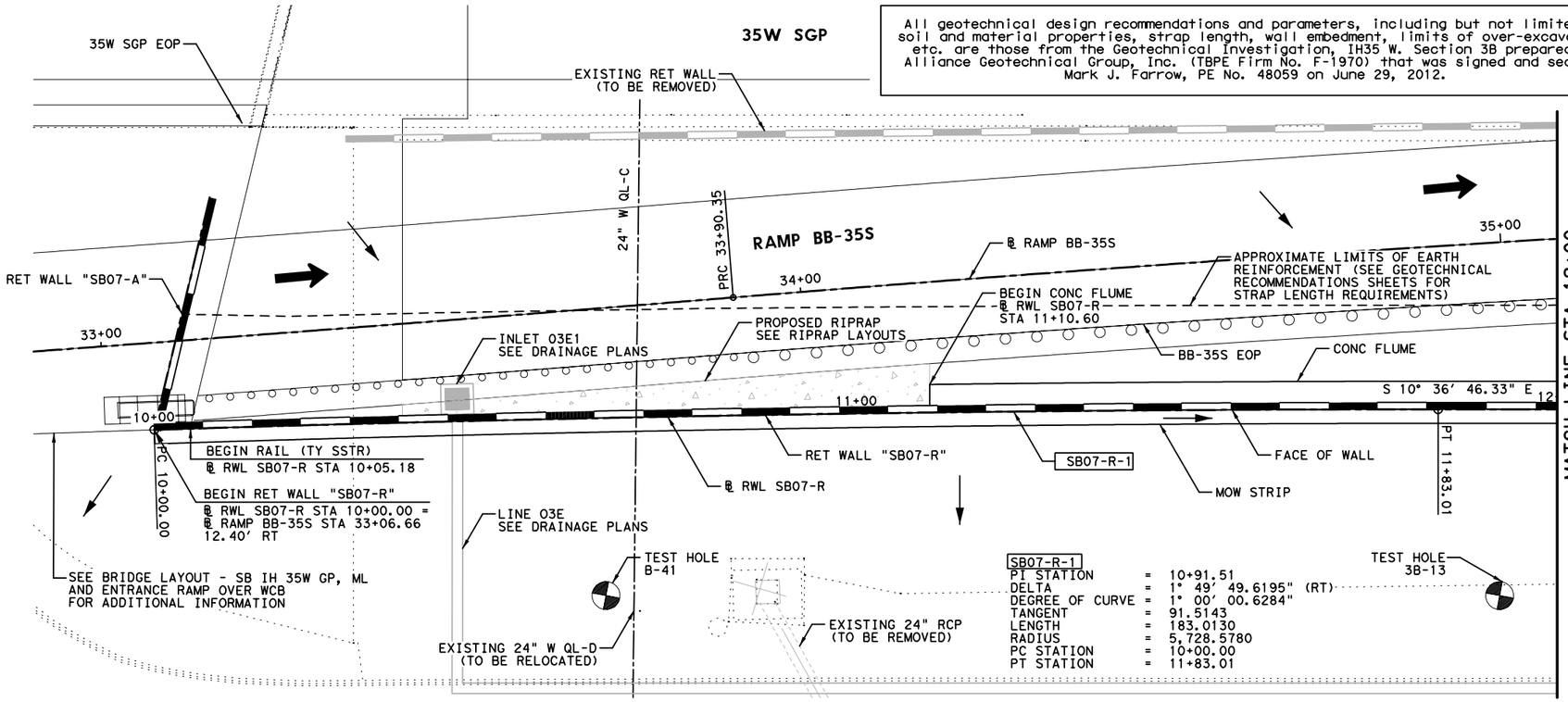
SCALE 1" = 10'

SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1060
KCI	0014	16	255, ETC.	
CHECK				

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPSB07-A*GTN.dgn

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



SB07-R-1

PI STATION	=	10+91.51
DELTA	=	1° 49' 49.6195" (RT)
DEGREE OF CURVE	=	1° 00' 00.6284"
TANGENT	=	91.5143
LENGTH	=	183.0130
RADIUS	=	5,728.5780
PC STATION	=	10+00.00
PT STATION	=	11+83.01

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

- CURVE XX — HORIZONTAL CURVE
- Ⓒ — CONSTRUCTION JOINT
- Ⓔ — EXPANSION JOINT
- ← — DRAINAGE FLOW ARROWS
- ⬅ — TRAFFIC DIRECTION

NOTES:

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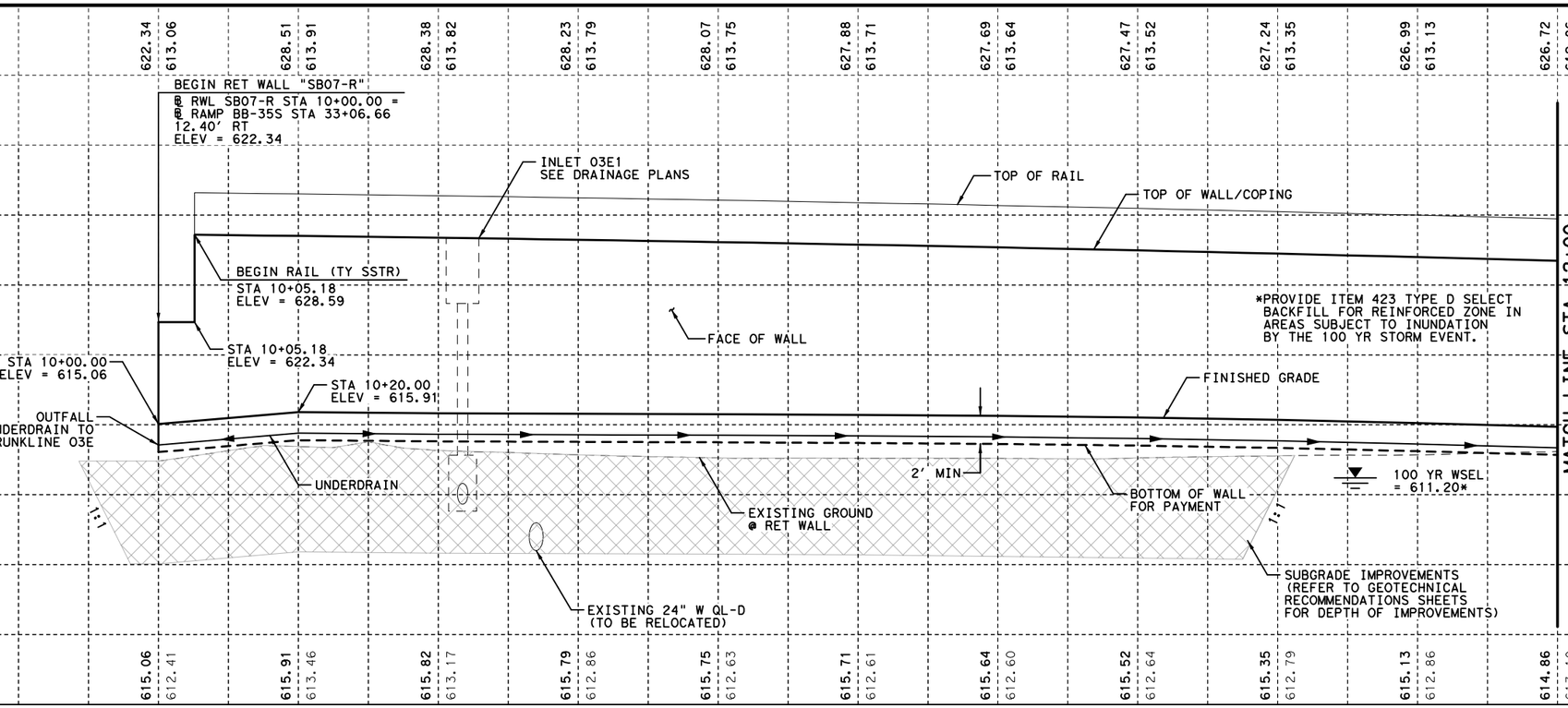

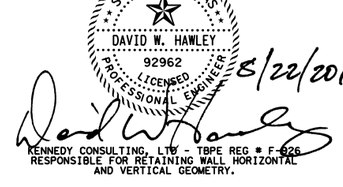

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB07-R

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1061
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB07-R-01*GTN.dgn
DRAWING DATE: 8/20/2012

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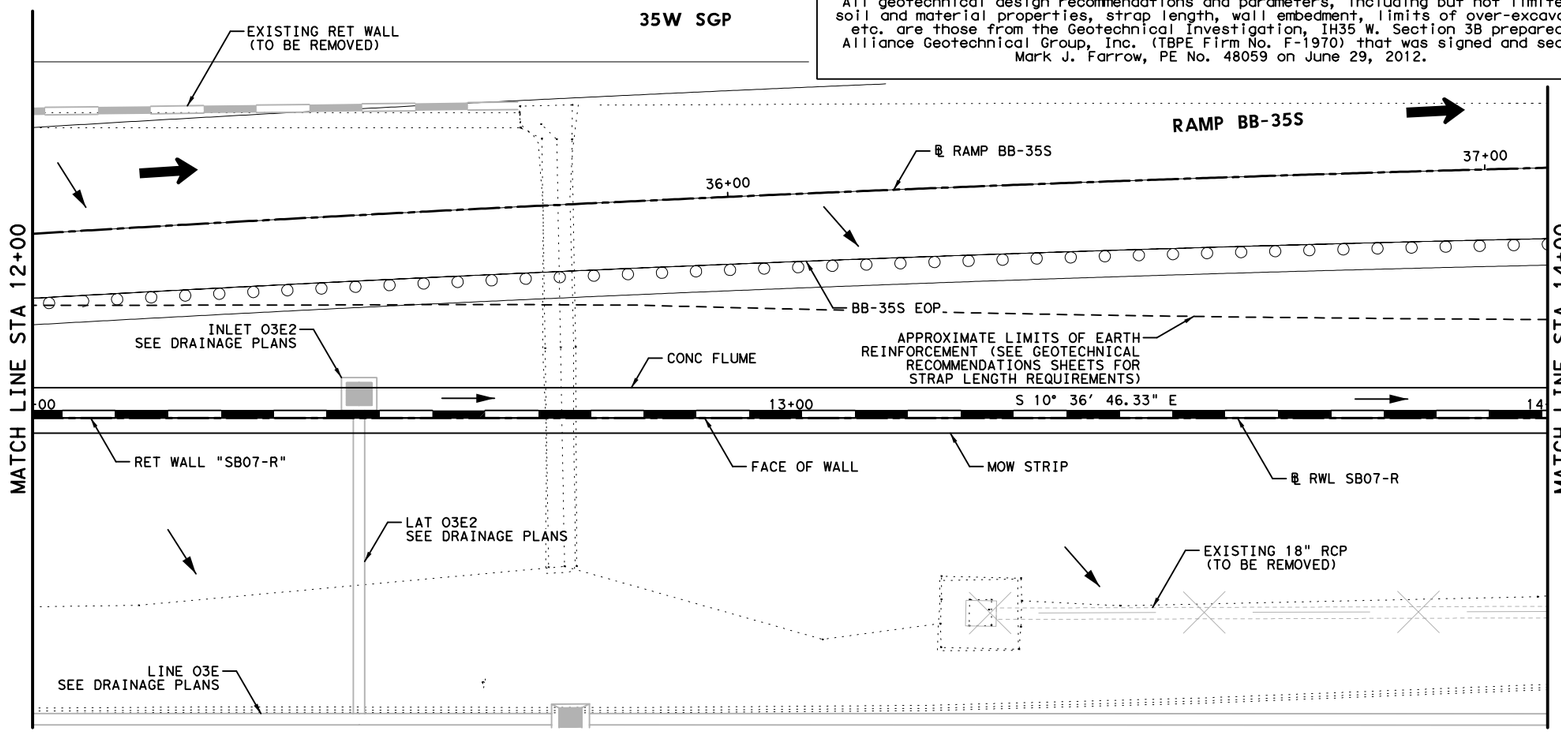

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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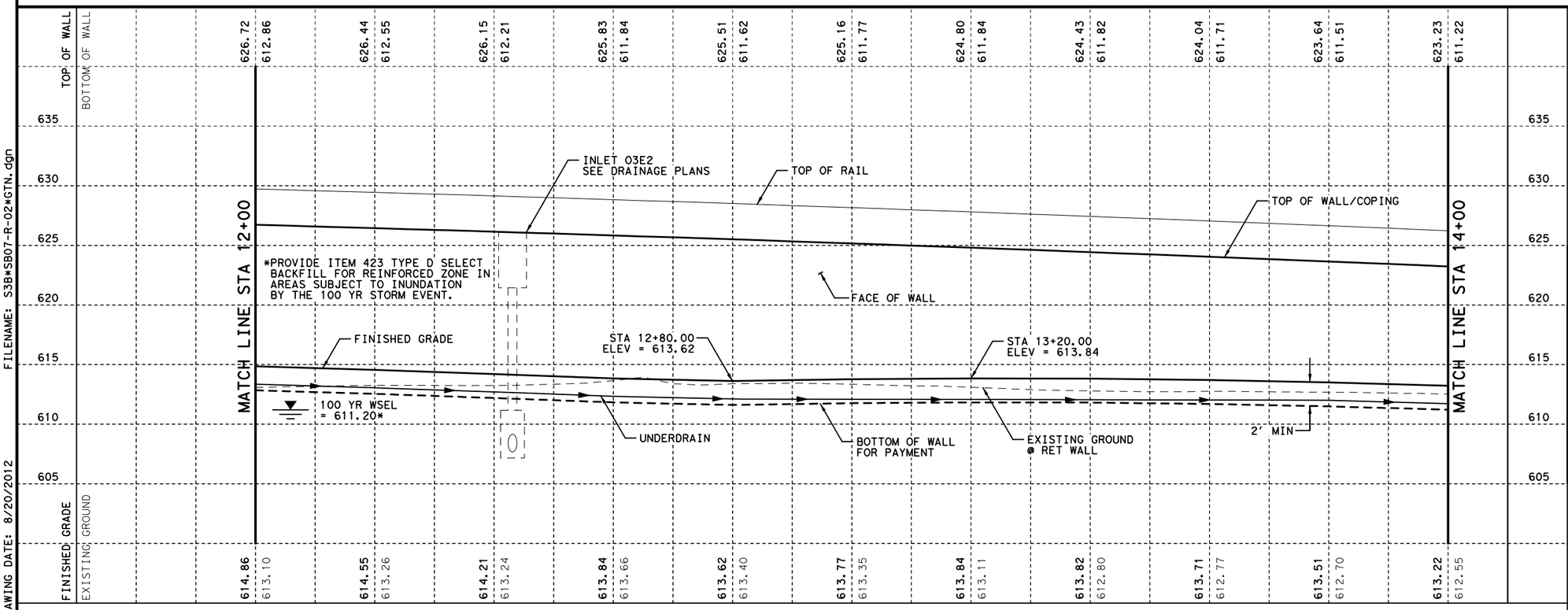

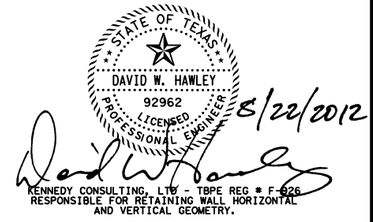

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB07-R

SCALE 1"= 20' H, 1"=10' V — SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1062
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB07-R-02*GTN.dgn
DRAWING DATE: 8/20/2012

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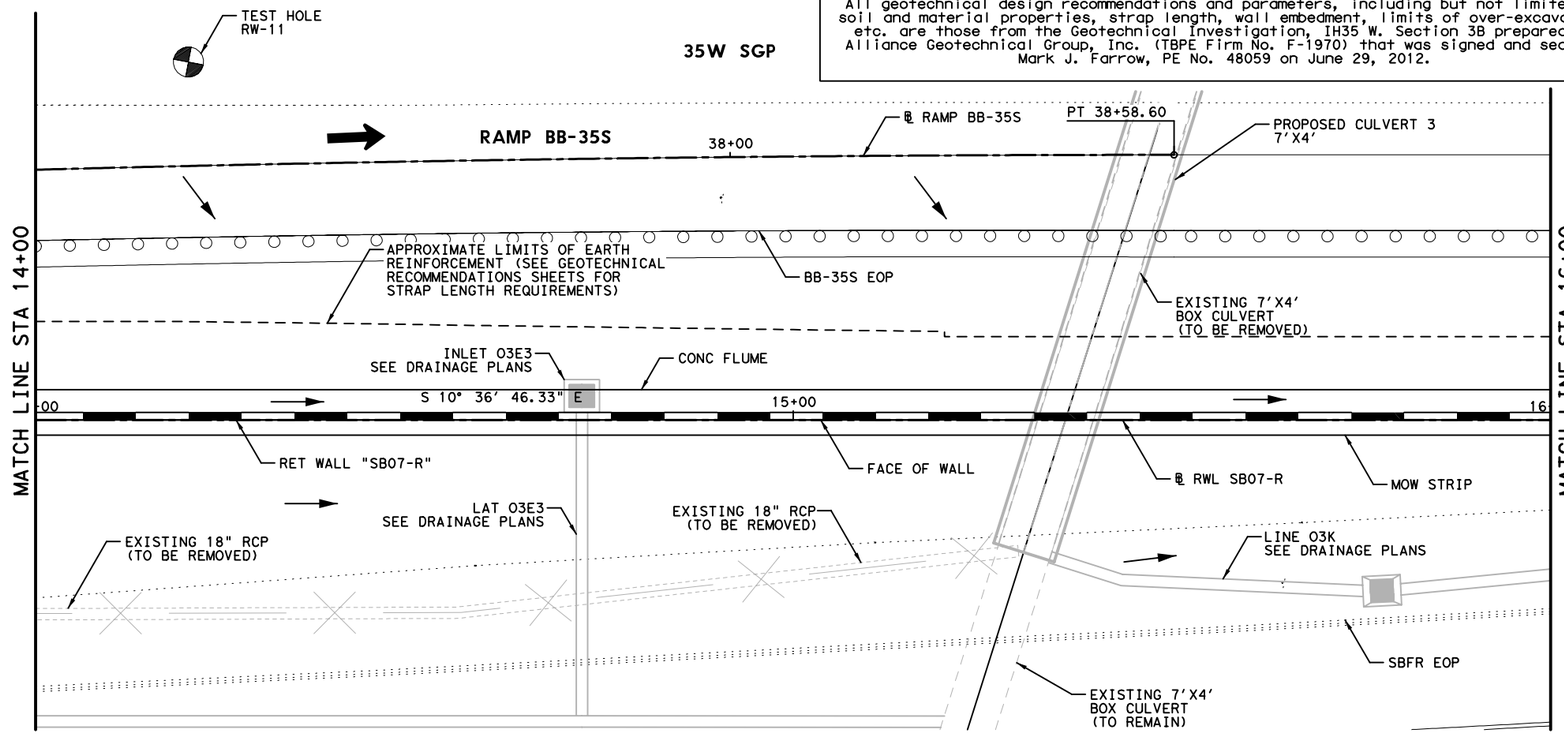

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

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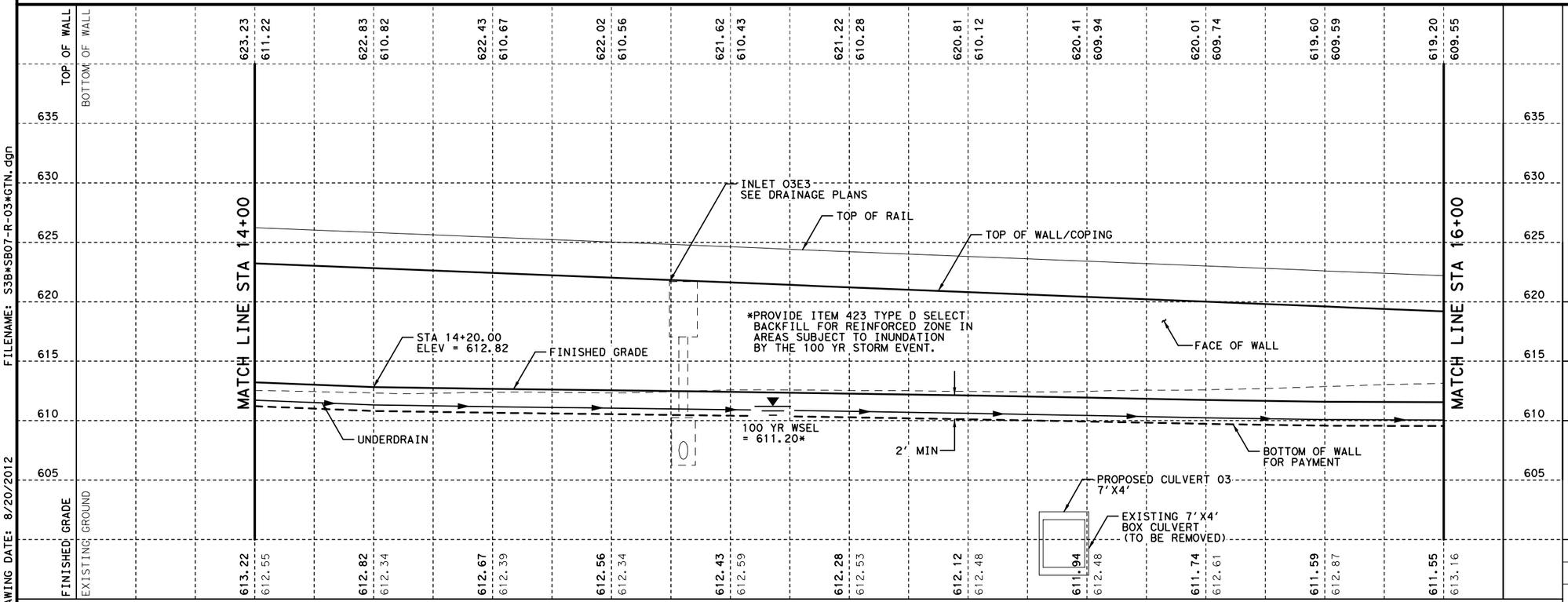

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

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RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB07-R

SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1063
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB07-R-03*GTN.dgn
DRAWING DATE: 8/20/2012

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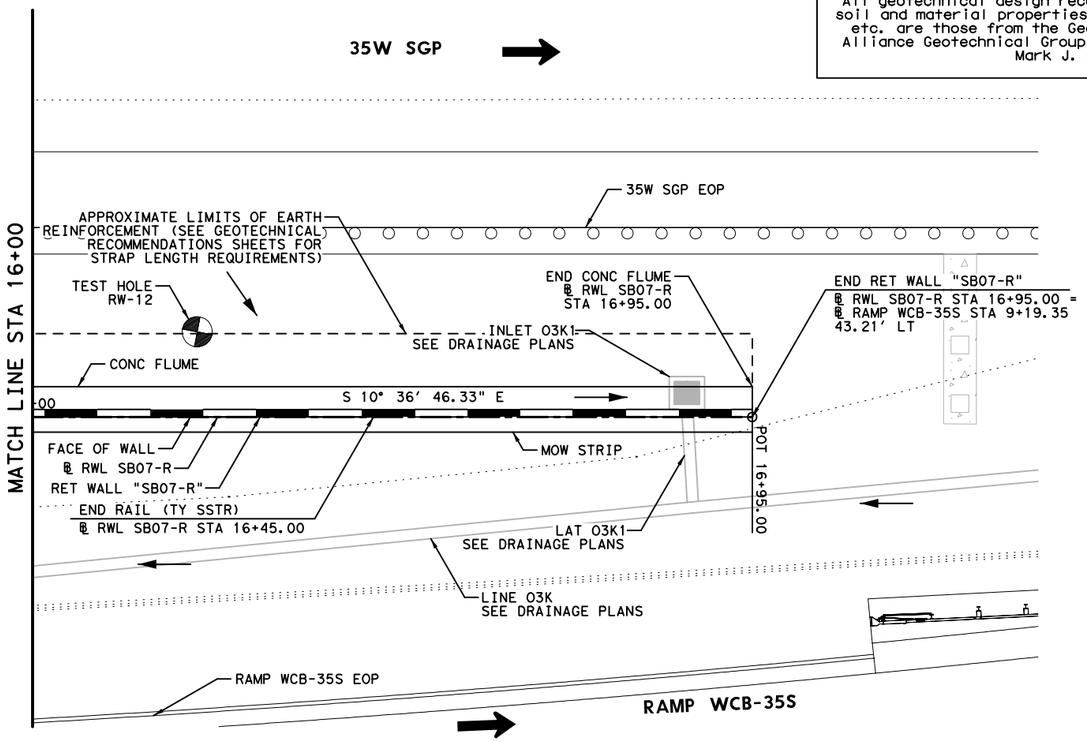

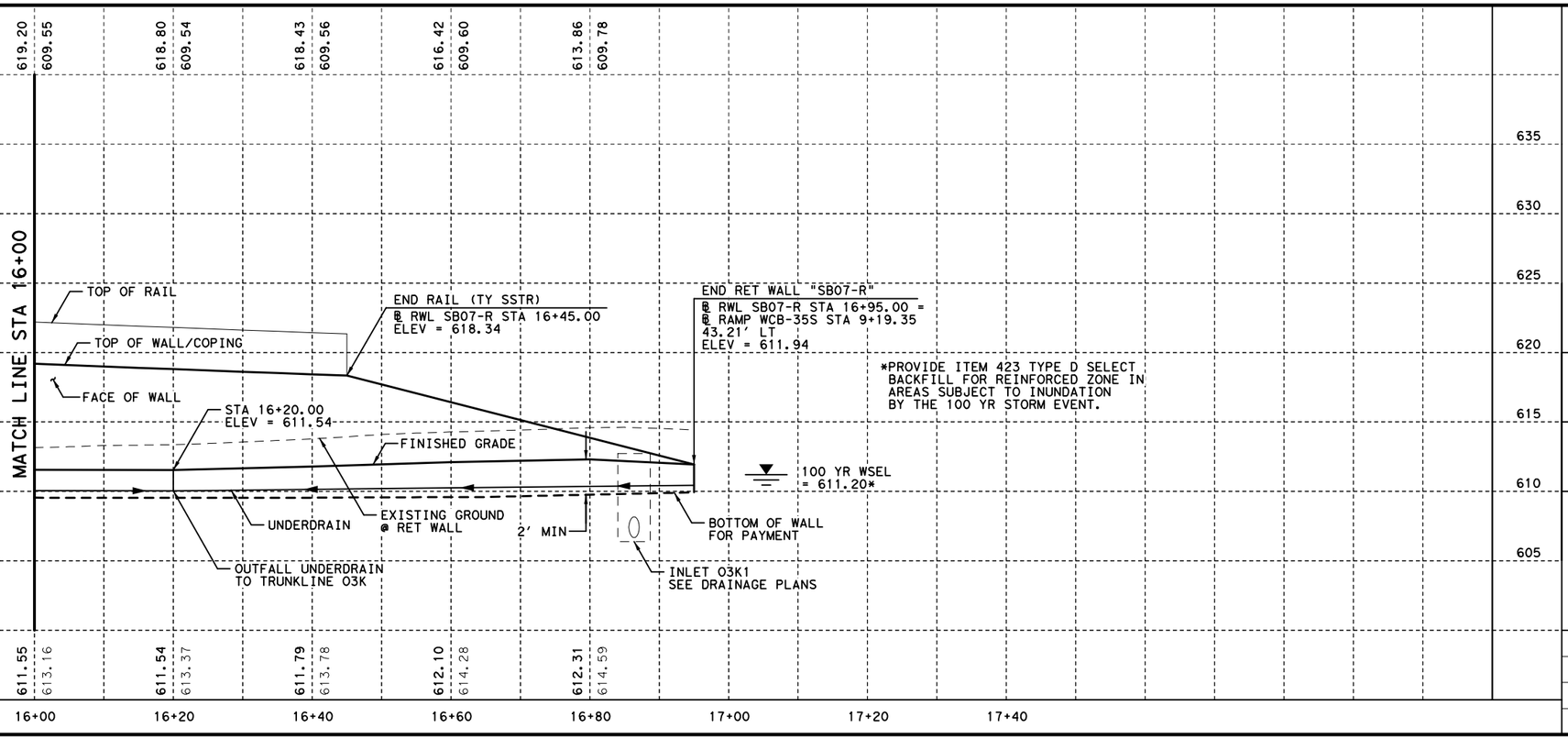

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

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STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB07-R

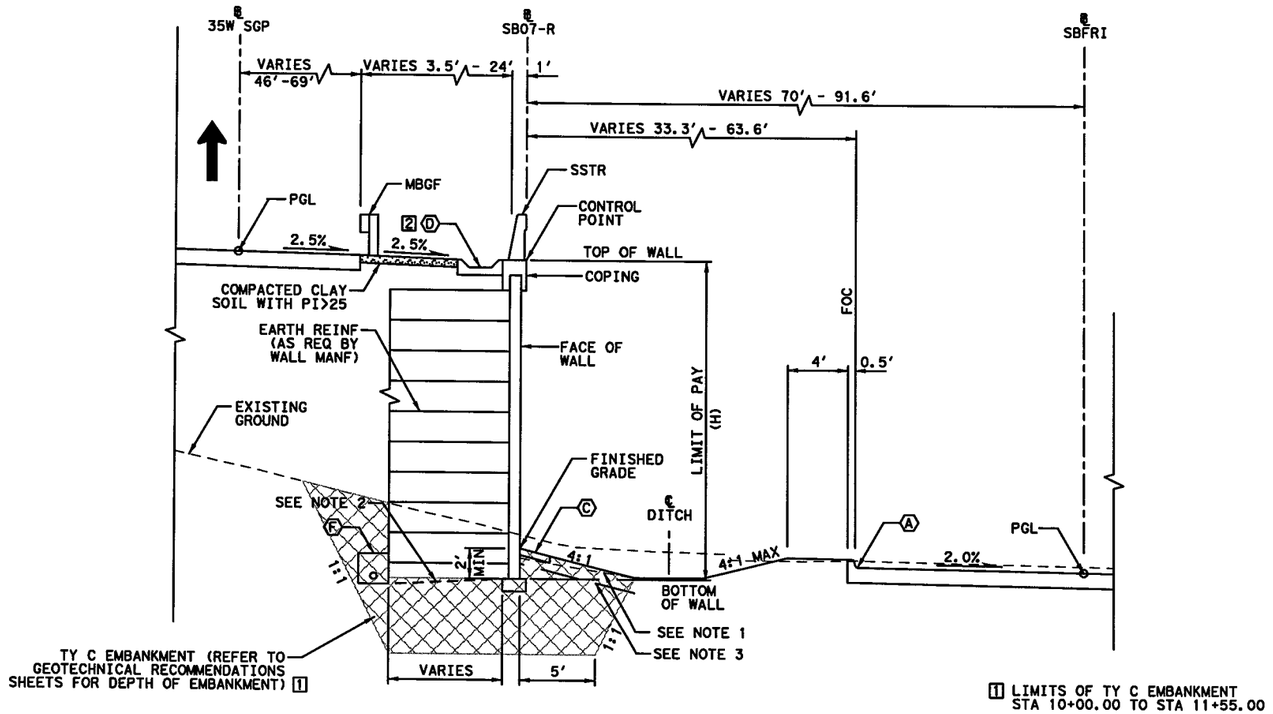
SCALE 1"= 20' H, 1"=10' V — SHEET 4 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1064
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*SB07-R-04*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	8,339
RIPRAP (MOW STRIP) (5 IN)	CY	22
RIPRAP (CONC) (FLUME)	CY	51
RAIL (SSTR)	LF	640
PIPE UNDERDRAINS (TY 8) (6 IN)	LF	756



PROPOSED WALL "SB07-R" TYPICAL SECTION

℄ SB07-R STA 10+00.00 TO STA 16+95.00

1 LIMITS OF TY C EMBANKMENT STA 10+00.00 TO STA 11+55.00

2 LIMITS OF FLUME STA 11+10.60 TO STA 16+95.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- (A) EDGE OF PROPOSED PAVEMENT
- (B) EDGE OF ULTIMATE PAVEMENT
- (C) 2' RIPRAP (MOW STRIP) (5 IN)
- (D) RIPRAP (CONC) (FLUME)
- (E) RIPRAP (CONC) (5 IN)
- (F) PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
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7/10/2012

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TBPE REGISTRATION NO. F-926

Texas Department of Transportation

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB07-R

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1065
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B*TYPSB07-R*GTN.dgn

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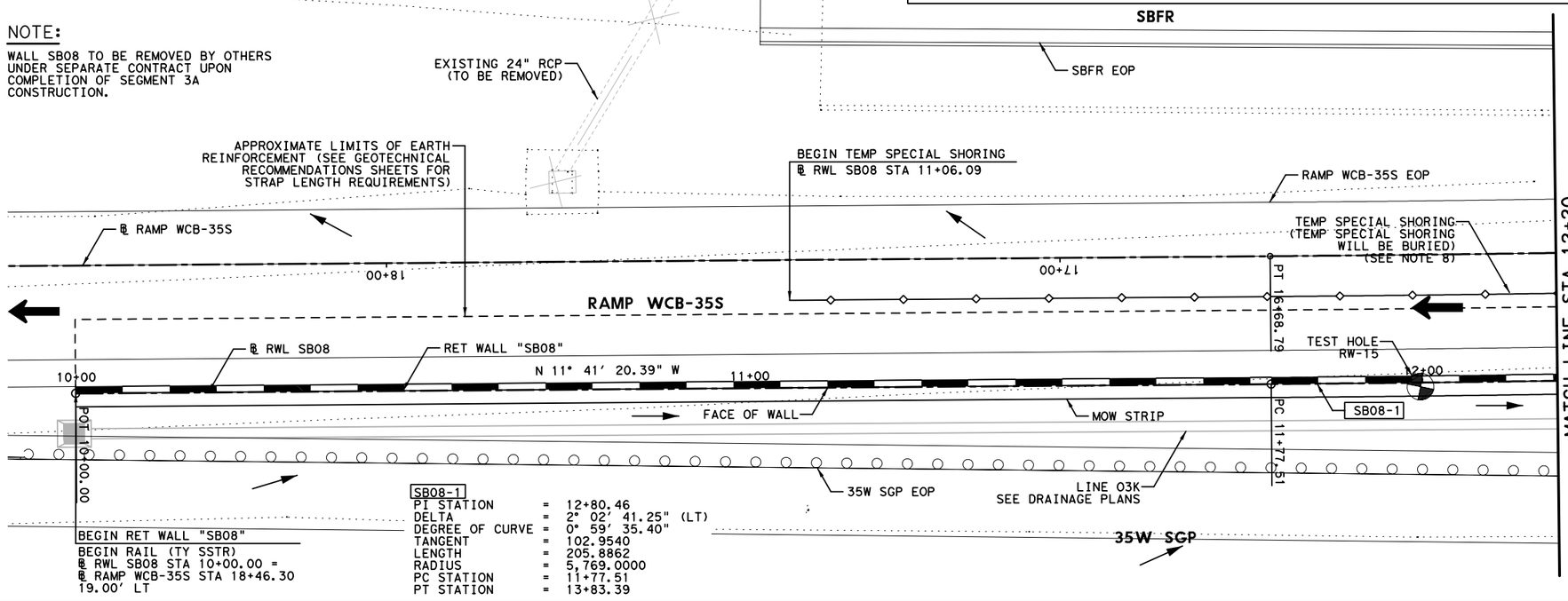
NOTE:

WALL SB08 TO BE REMOVED BY OTHERS UNDER SEPARATE CONTRACT UPON COMPLETION OF SEGMENT 3A CONSTRUCTION.



SB08-1

PI STATION	=	12+80.46
DELTA	=	2° 02' 41.25" (LT)
DEGREE OF CURVE	=	0° 59' 35.40"
TANGENT	=	102.9540
LENGTH	=	205.8862
RADIUS	=	5,769.0000
PC STATION	=	11+77.51
PT STATION	=	13+83.39

HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

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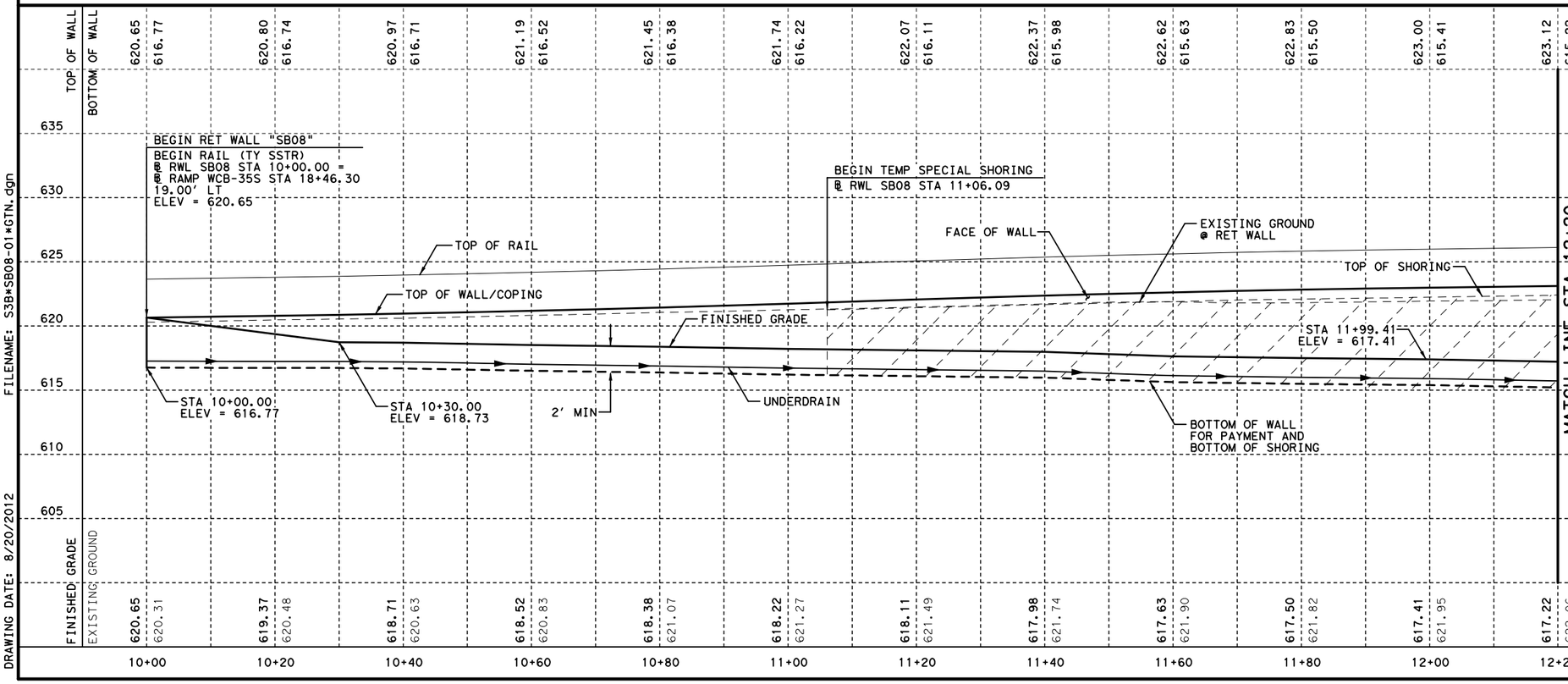

FILENAME: S3B*SB08-01*GTN.dgn
DRAWING DATE: 8/20/2012

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB08

SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
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CHECK KCI	CONTROL	SECTION	JOB	
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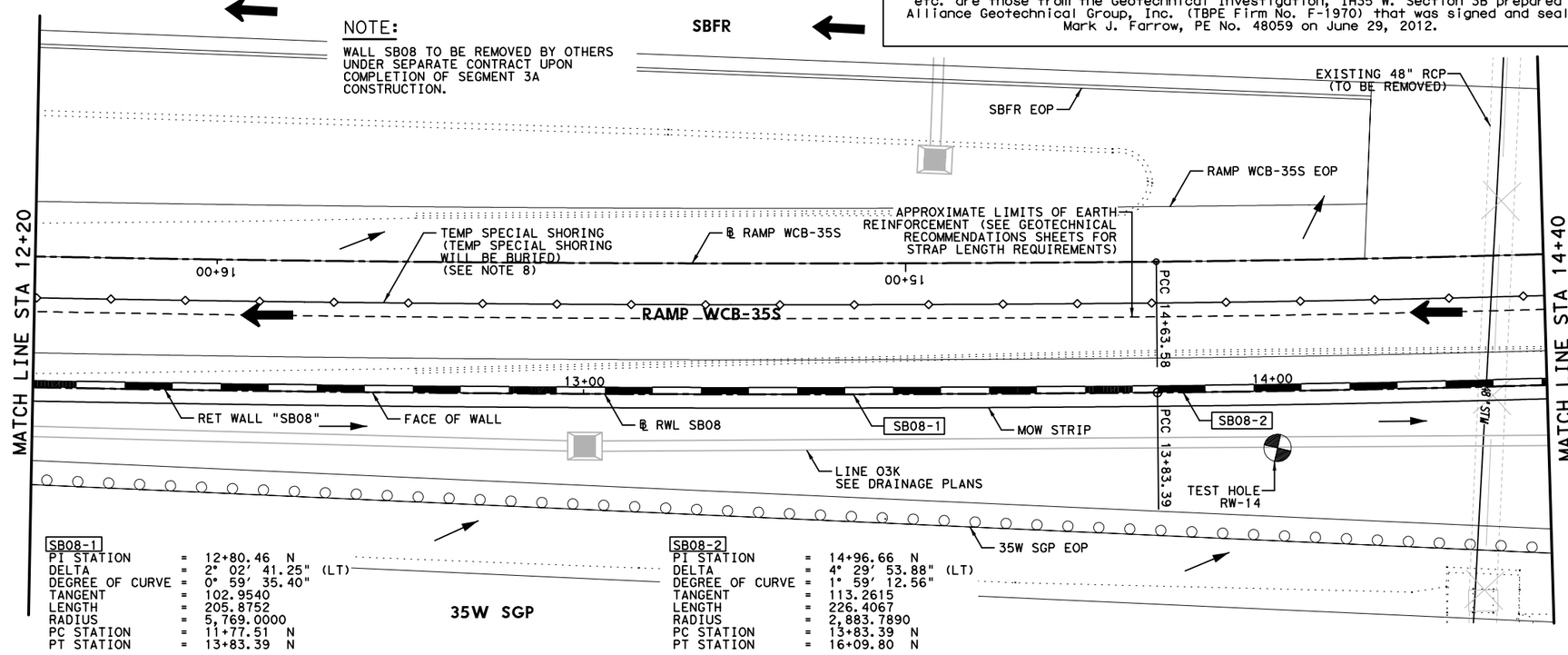

SB08-1		
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TANGENT	=	102.9540
LENGTH	=	205.8752
RADIUS	=	5,769.0000
PC STATION	=	11+77.51 N
PT STATION	=	13+83.39 N

SB08-2		
PI STATION	=	14+96.66 N
DELTA	=	4° 29′ 53.88" (LT)
DEGREE OF CURVE	=	1° 59′ 12.56"
TANGENT	=	113.2615
LENGTH	=	226.4067
RADIUS	=	2,883.7890
PC STATION	=	13+83.39 N
PT STATION	=	16+09.80 N

HORZ 0′ 10′ 20′
VERT 0′ 5′ 10′
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

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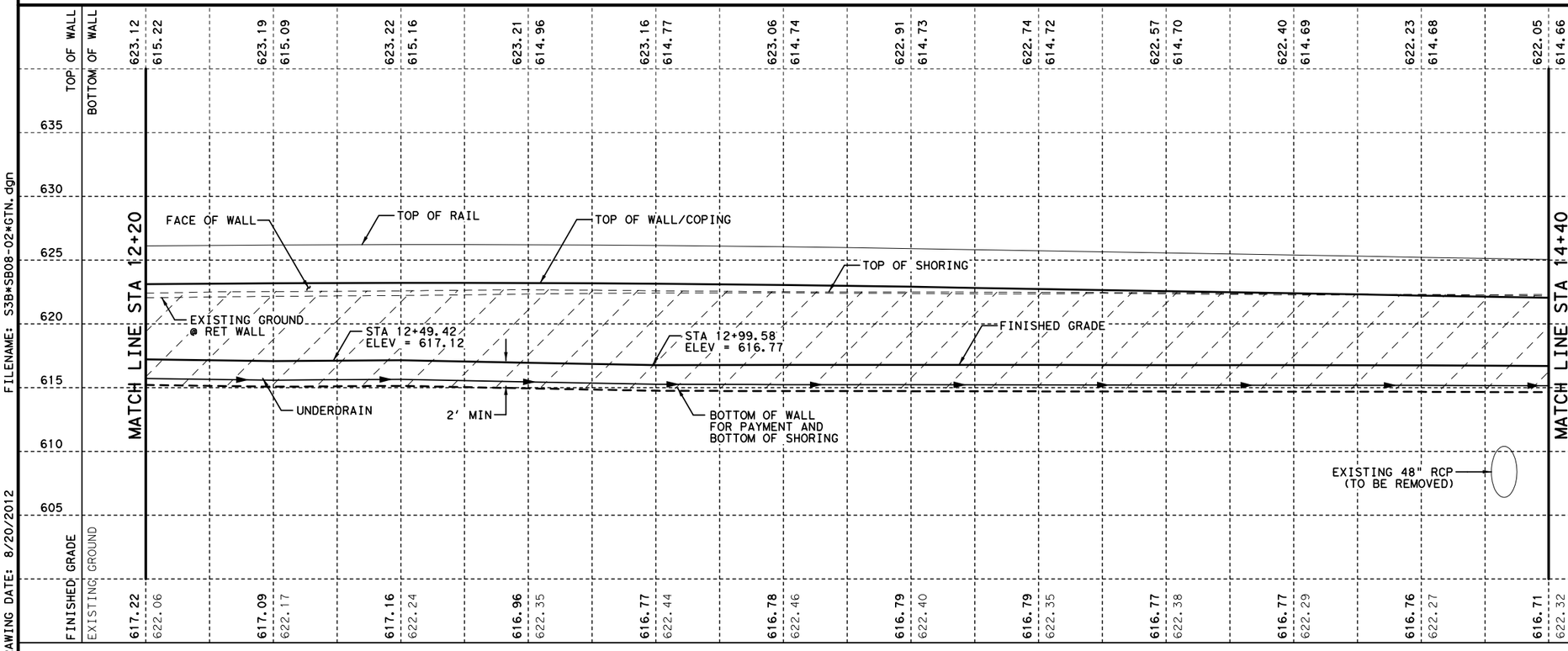

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8/22/2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB08

SCALE 1"= 20′ H, 1"=10′ V — SHEET 2 OF 3

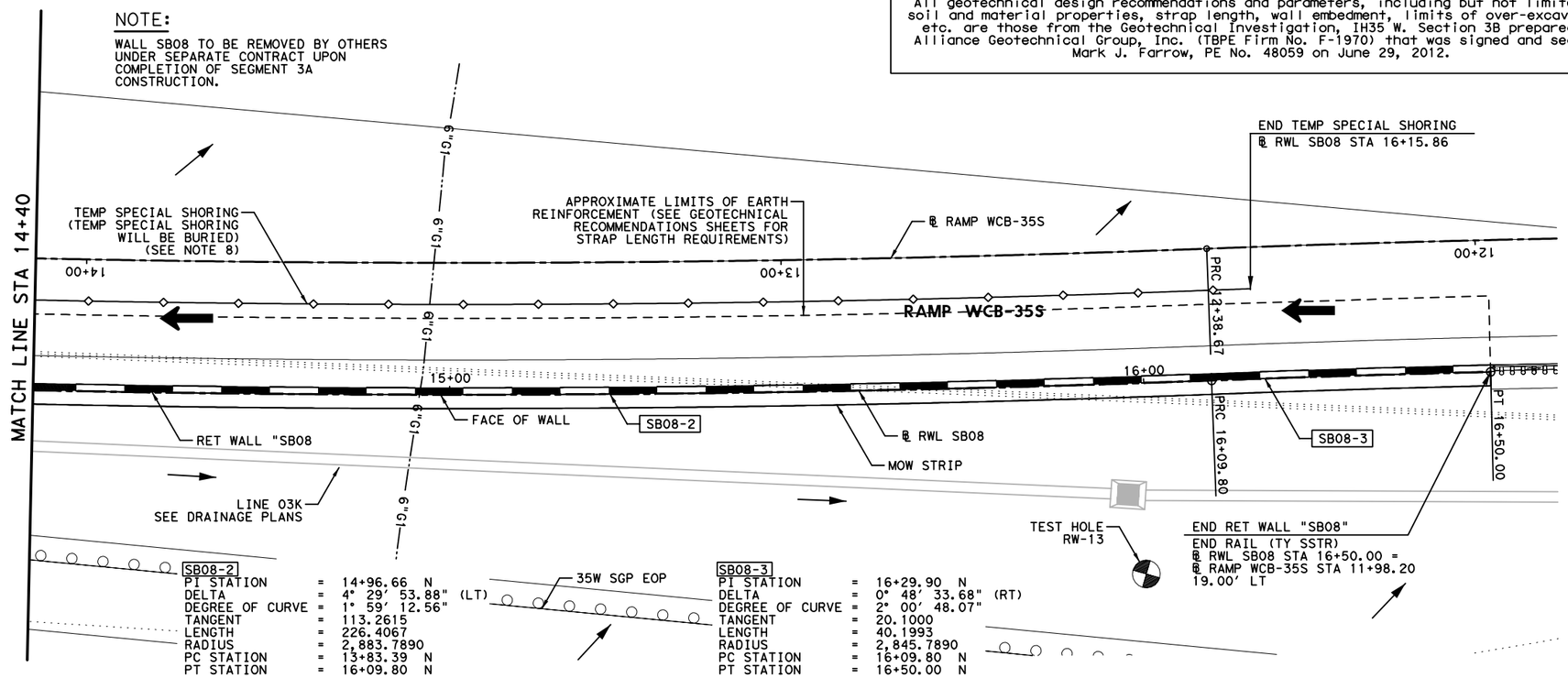
DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1067
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*SB08-02*GTN.dgn
DRAWING DATE: 8/20/2012

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.

NOTE:

WALL SB08 TO BE REMOVED BY OTHERS UNDER SEPARATE CONTRACT UPON COMPLETION OF SEGMENT 3A CONSTRUCTION.



SB08-2

PI STATION	=	14+96.66 N
DELTA	=	4° 29' 53.88" (LT)
DEGREE OF CURVE	=	1° 59' 12.56"
TANGENT	=	113.2615
LENGTH	=	226.4067
RADIUS	=	2,883.7890
PC STATION	=	13+83.39 N
PT STATION	=	16+09.80 N

SB08-3

PI STATION	=	16+29.90 N
DELTA	=	0° 48' 33.68" (RT)
DEGREE OF CURVE	=	2° 00' 48.07"
TANGENT	=	20.1000
LENGTH	=	40.1993
RADIUS	=	2,845.7890
PC STATION	=	16+09.80 N
PT STATION	=	16+50.00 N

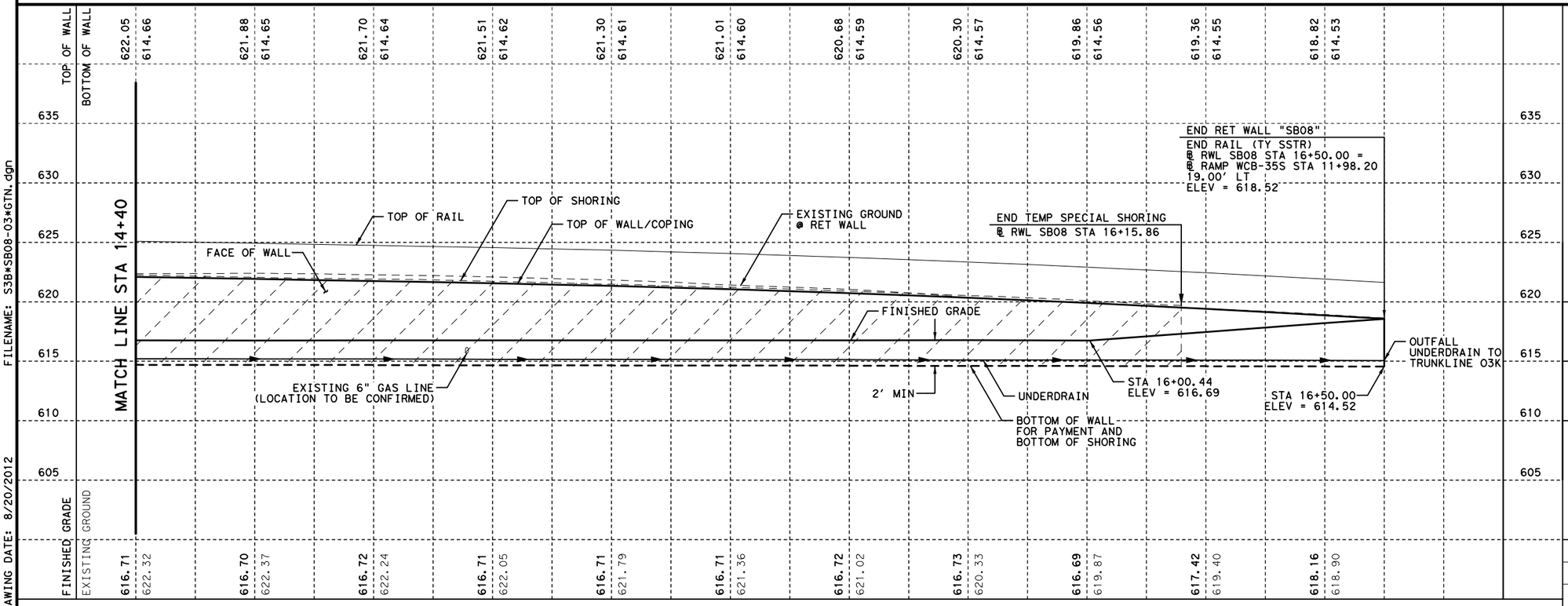
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.
8. TEMPORARY SHORING DESIGN SHALL TAKE INTO ACCOUNT ALL EXTERNAL LOADING CONDITIONS INCLUDING TEMPORARY EARTH WALL, TRAFFIC SURCHARGE, ETC.



STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926
RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB08

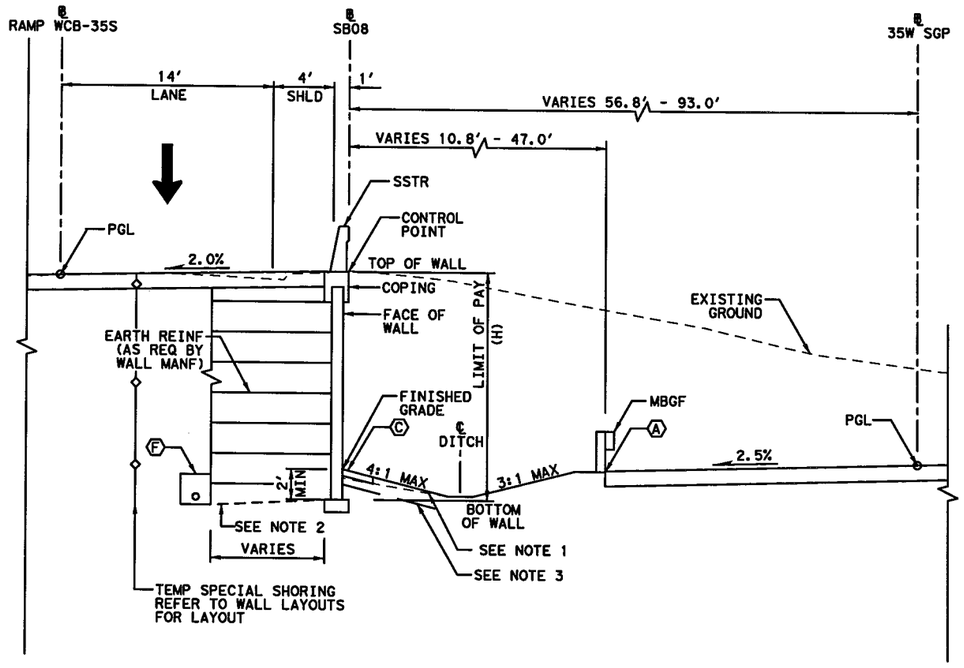
SCALE 1"= 20' H, 1"=10' V — SHEET 3 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1068
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*SB08-03*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	4,319
RIPRAP (MOW STRIP)(5 IN)	CY	20
RAIL (SSTR)	LF	650
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	670
TEMP SPECIAL SHORING	SF	3,477



PROPOSED WALL "SB08" TYPICAL SECTION

@ SB08 STA 10+00.00 TO STA 16+50.00

0' 5' 10'

SCALE IN FEET

LEGEND:

- (A) EDGE OF PROPOSED PAVEMENT
- (B) EDGE OF ULTIMATE PAVEMENT
- (C) 2' RIPRAP (MOW STRIP)(5 IN)
- (D) RIPRAP (CONC)(FLUME)
- (E) RIPRAP (CONC)(5 IN)
- (F) PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

7/10/2012

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

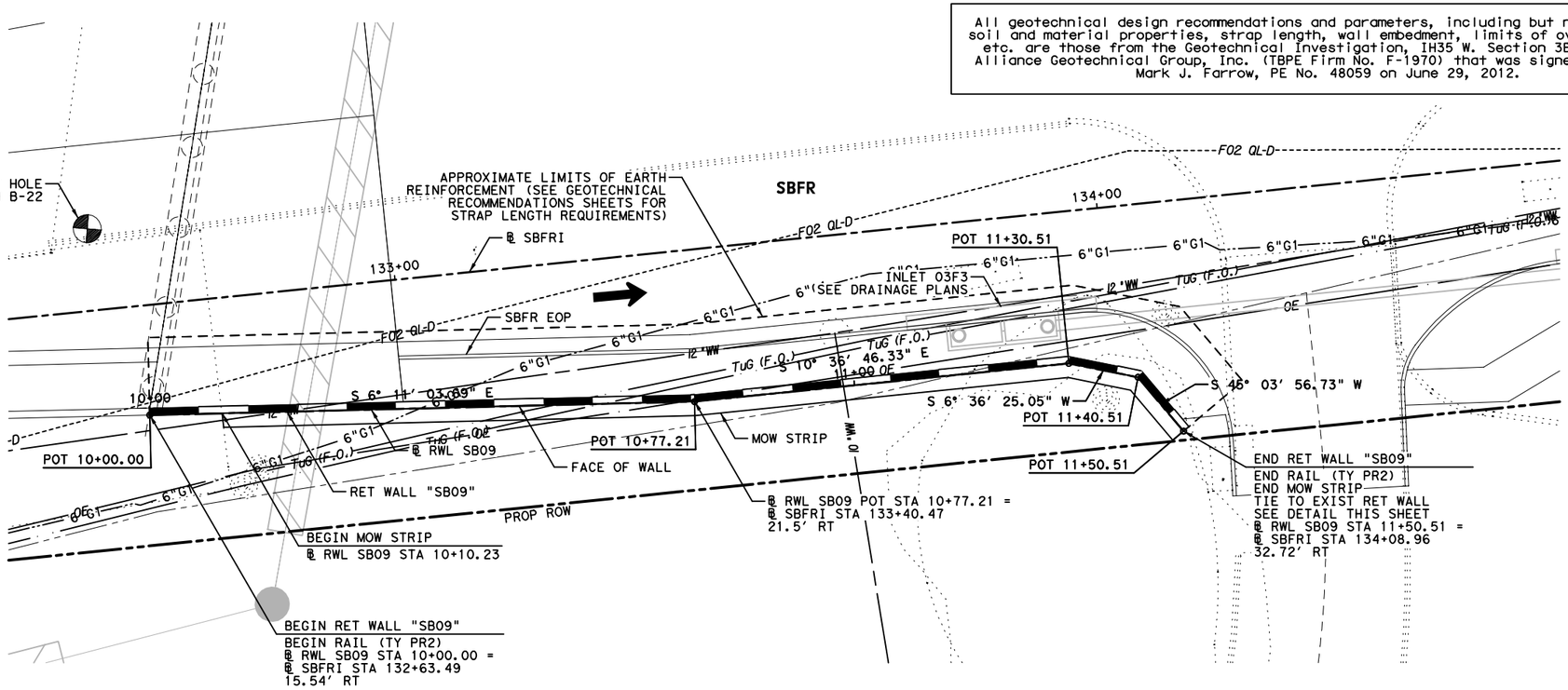
SB08

SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1069
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3B#TYPSB08#GTN.dgn

All geotechnical design recommendations and parameters, including but not limited to soil and material properties, strap length, wall embedment, limits of over-excavation, etc. are those from the Geotechnical Investigation, IH35 W. Section 3B prepared by Alliance Geotechnical Group, Inc. (TBPE Firm No. F-1970) that was signed and seal by Mark J. Farrow, PE No. 48059 on June 29, 2012.



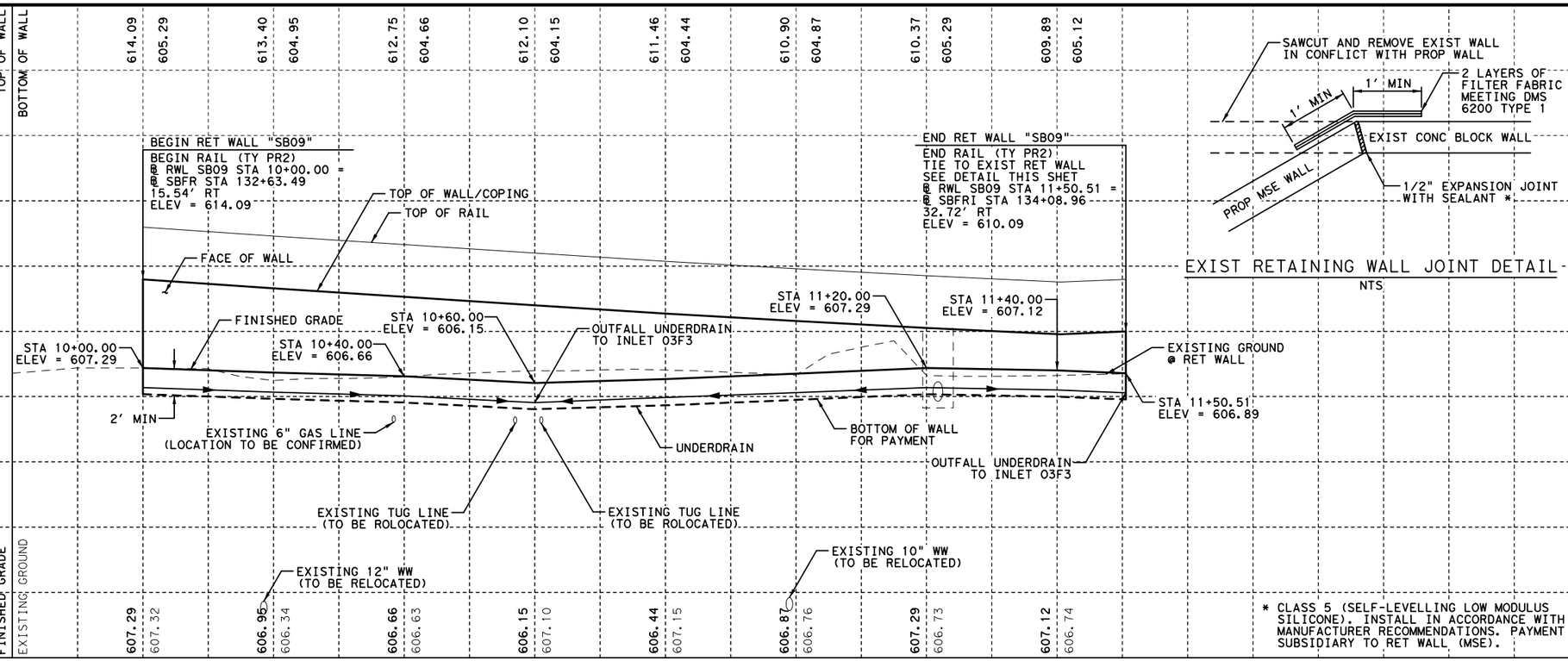
HORZ 0' 10' 20'
VERT 0' 5' 10'
SCALE IN FEET

LEGEND:

CURVE XX	HORIZONTAL CURVE
Ⓒ	CONSTRUCTION JOINT
Ⓔ	EXPANSION JOINT
←	DRAINAGE FLOW ARROWS
⬅	TRAFFIC DIRECTION

NOTES:

1. SEE ROADWAY PLAN AND PROFILE, BRIDGE DETAILS, RETAINING WALL TYPICAL SECTIONS AND MISC. DETAILS, DRAINAGE PLAN, AND BORING PLAN AND LOGS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ WALL UNLESS NOTED OTHERWISE.
3. PAYMENT AREA OF RETAINING WALL IS MEASURED BETWEEN THE TOP OF WALL AND 2' BELOW FINISHED GRADE, UNLESS NOTED OTHERWISE.
4. FOR ADDITIONAL DETAILS NOT SHOWN SEE TXDOT STANDARD DRAWINGS: RW(EW),RW(TRF), RW(BTR), RW(MSE), RW1(L)C AND RW(2).
5. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.
6. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM WALL AT ALL TIMES DURING CONSTRUCTION AND POST CONSTRUCTION.
7. GEOTECH RECOMMENDATIONS AND DESIGN PARAMETERS ARE BASED ON SOIL CONDITIONS AT THE TIME OF BORINGS. SUITABILITY OF FOUNDATION SOILS SHALL BE VERIFIED IN ACCORDANCE WITH ITEM 423 PRIOR TO CONSTRUCTION OF EACH WALL. SEE GEOTECHNICAL RECOMMENDATION SHEETS FOR ADDITIONAL INFORMATION.



EXIST RETAINING WALL JOINT DETAIL
NTS

* CLASS 5 (SELF-LEVELLING LOW MODULUS SILICONE). INSTALL IN ACCORDANCE WITH MANUFACTURER RECOMMENDATIONS. PAYMENT SUBSIDIARY TO RET WALL (MSE).

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
PLAN AND PROFILE
SB09

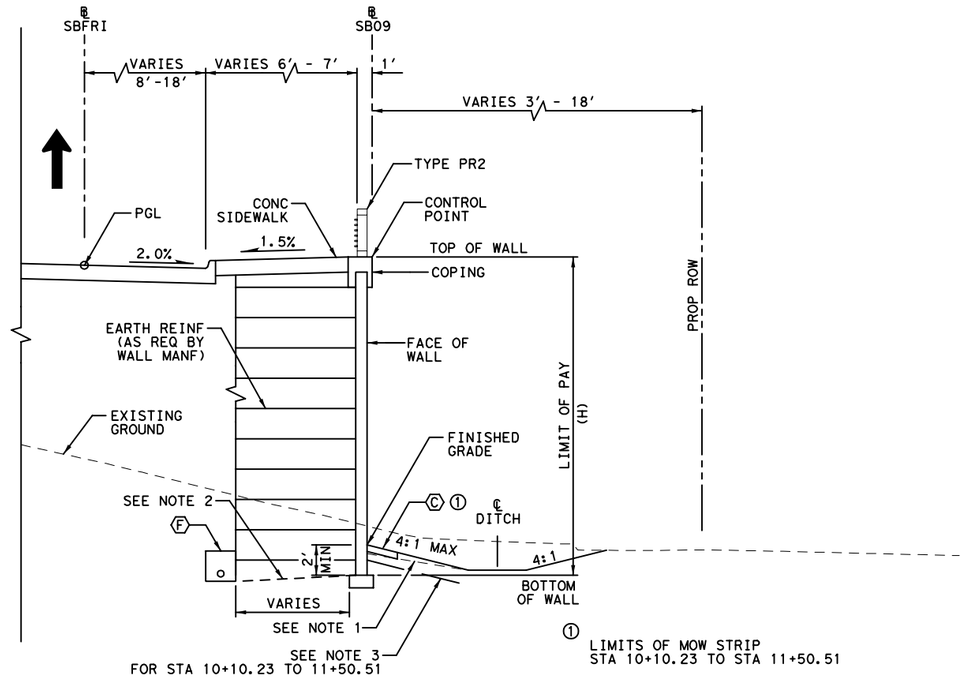
SCALE 1"= 20' H, 1"=10' V — SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1070
CHECK KCI	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3B*SB09-01*GTN.dgn
DRAWING DATE: 8/20/2012

ESTIMATED QUANTITIES

DESCRIPTION		QUANTITIES
RETAINING WALL (MSE)	SF	1,041
RIPRAP (MOW STRIP)(5 IN)	CY	5
RAIL (PR2)	LF	147
PIPE UNDERDRAINS (TY 8)(6 IN)	LF	179



PROPOSED WALL "SB09" TYPICAL SECTION

℄ SB09 STA 10+00.00 TO STA 11+50.51

0' 5' 10'

SCALE IN FEET

LEGEND:

Ⓐ EDGE OF PROPOSED PAVEMENT
Ⓑ EDGE OF ULTIMATE PAVEMENT
Ⓒ 2' RIPRAP (MOW STRIP)(5 IN)
Ⓓ RIPRAP (CONC)(FLUME)
Ⓔ RIPRAP (CONC)(5 IN)
Ⓕ PIPE UNDERDRAINS (TY 8) (6 IN)

NOTES:

1. BOTTOM OF WALL MUST BE BELOW 6:1 SLOPE PROJECTION FROM TOE OF SLOPE OR FROM A DISTANCE OF 2H IN FRONT OF WALL, WHICHEVER IS LESS.
2. COMPACT TOP OF RETAINING WALL SUBGRADE TO FORM 5% GRADE AWAY FROM FACE OF WALL.
3. PROVIDE MOISTURE BARRIER IN ACCORDANCE WITH DETAIL ON SHEET 1076.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER

KENNEDY CONSULTING, LTD - TBPE REG # F-926 RESPONSIBLE FOR RETAINING WALL HORIZONTAL AND VERTICAL GEOMETRY.

8/22/2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

TYPICAL SECTIONS

SB09

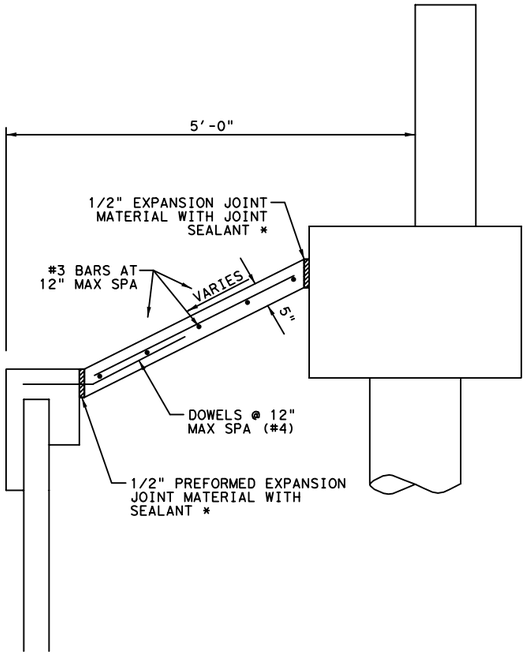
SCALE 1" = 10' SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1071
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

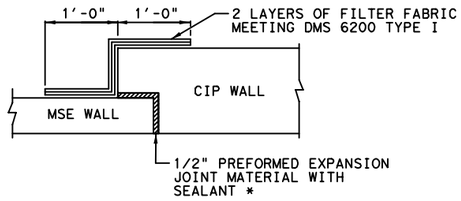
FILENAME: S3B*TYPSB09*GTN.dgn

DRAWING DATE: 8/20/2012

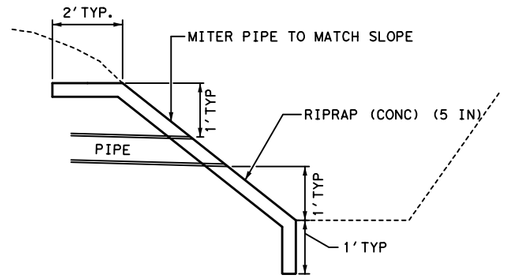
* CLASS 5 (SELF-LEVELING LOW MODULUS SILICONE). INSTALL IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION. PAYMENT SUBSIDIARY TO RET WALL (MSE)



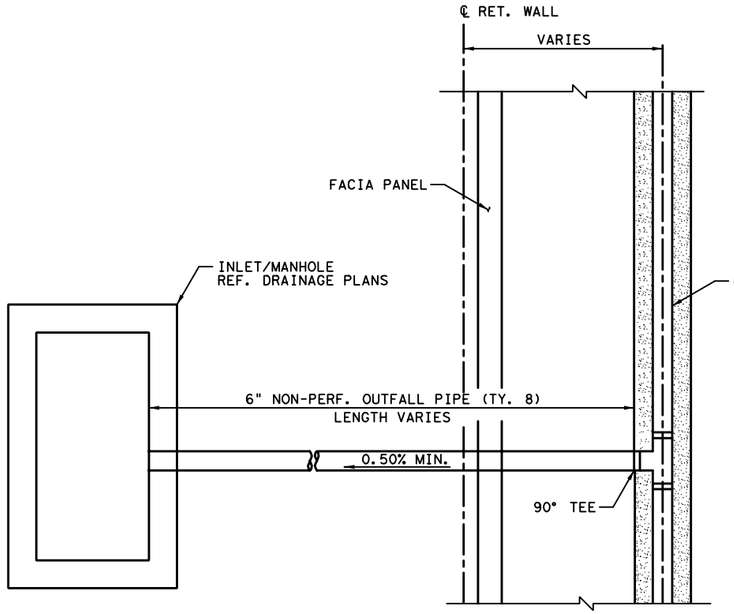
RIPRAP DETAILS AT ABUTMENT
NTS



MSE / CIP WALL JOINT DETAIL
NTS

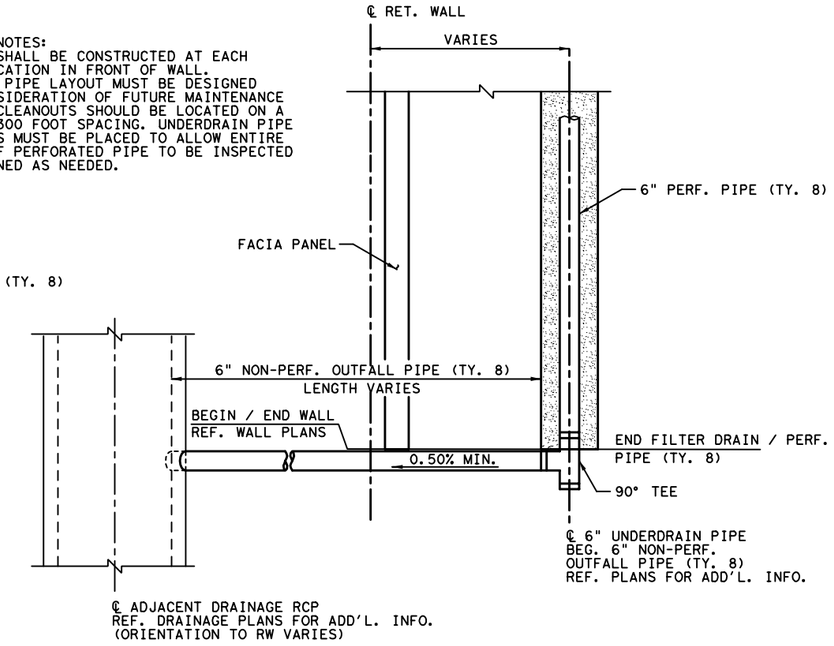


FILTER DRAIN OUTFALL
@ WALL W/ DITCH
NTS



FILTER DRAIN OUTFALL PLAN
@ WALL W/ INLET
NTS

UNDERDRAIN NOTES:
1. OUTFALL SHALL BE CONSTRUCTED AT EACH INLET LOCATION IN FRONT OF WALL.
2. DRAINAGE PIPE LAYOUT MUST BE DESIGNED WITH CONSIDERATION OF FUTURE MAINTENANCE ACCESS. CLEANOUTS SHOULD BE LOCATED ON A MAXIMUM 300 FOOT SPACING. UNDERDRAIN PIPE CLEANOUTS MUST BE PLACED TO ALLOW ENTIRE LENGTH OF PERFORATED PIPE TO BE INSPECTED AND CLEANED AS NEEDED.



FILTER DRAIN OUTFALL PLAN
@ WALL W/O INLET
NTS

STATE OF TEXAS
DAVID W. HAWLEY
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8/29/2012

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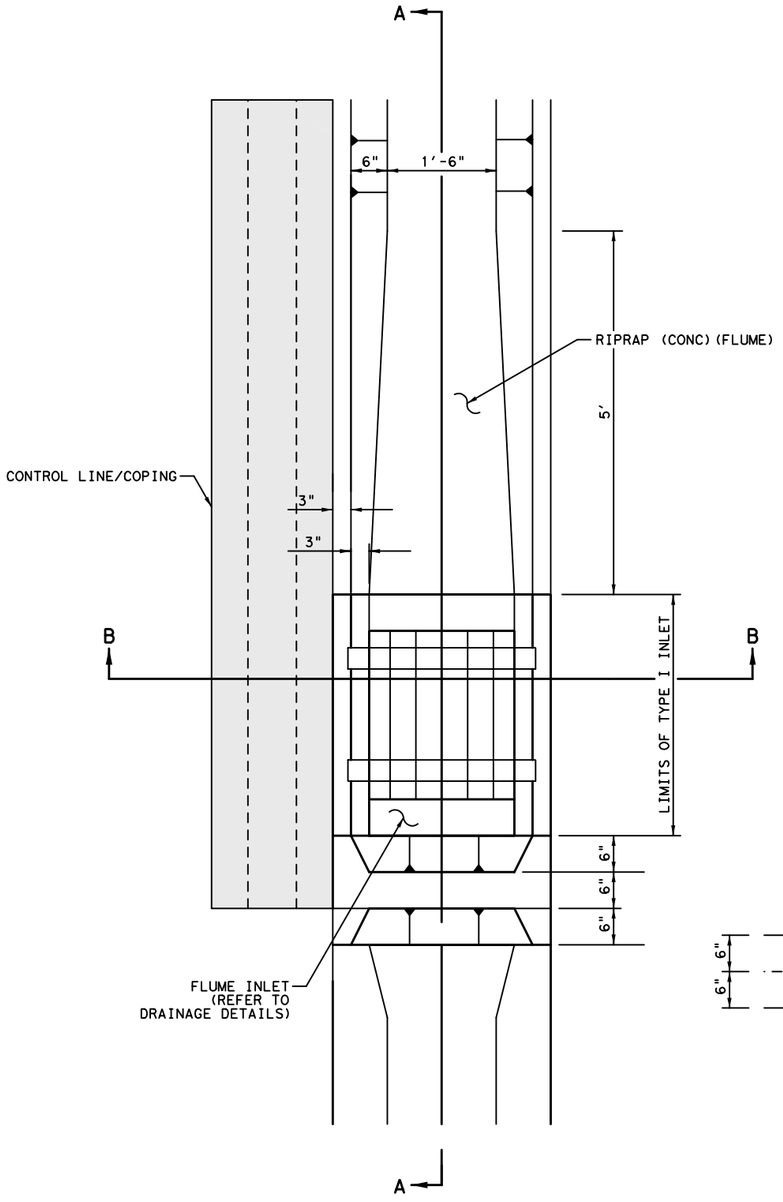
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
MISCELLANEOUS DETAILS

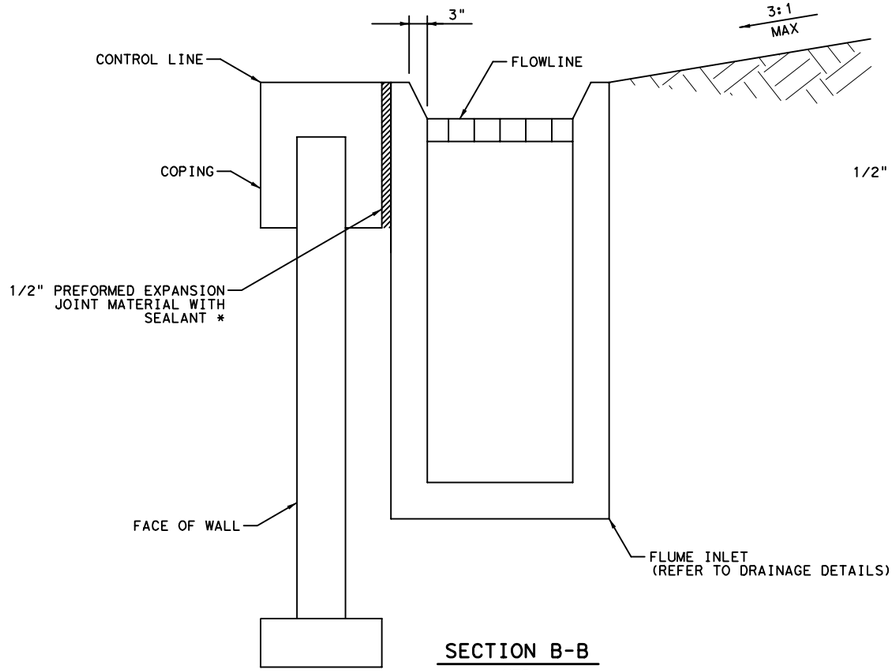
SHEET 1 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1072
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*MISC*DET*1*GTN.dgn
DRAWING DATE: 8/29/2012

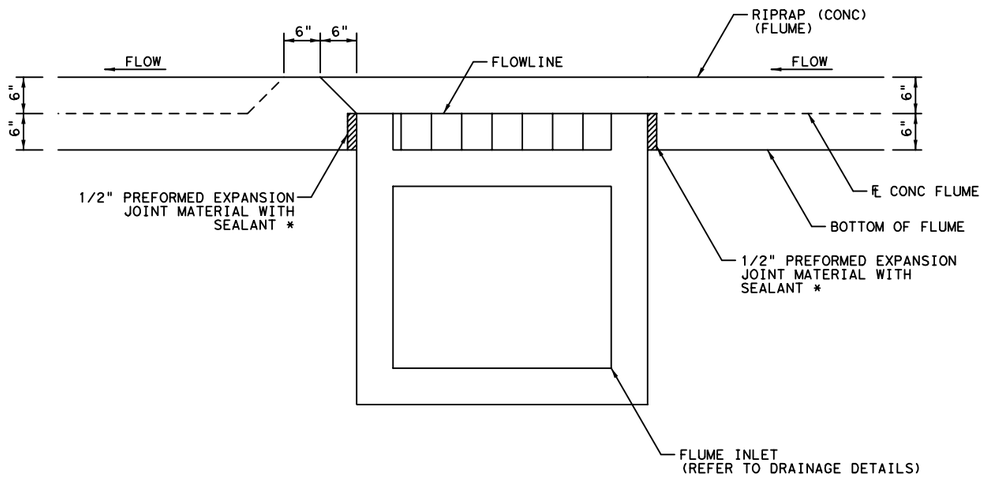


FLUME END DETAIL
(BEHIND RETAINING WALL)
NTS



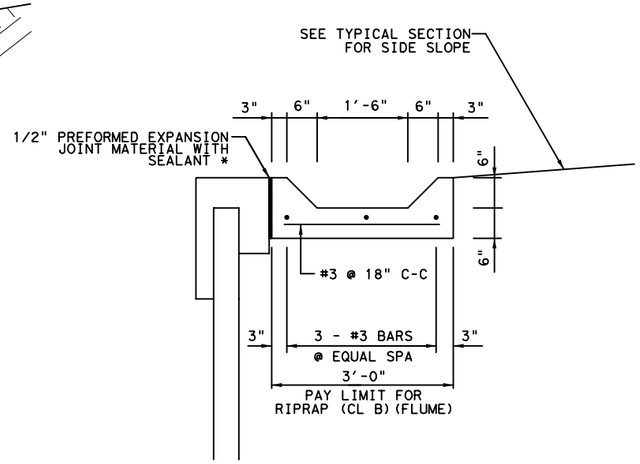
SECTION B-B
NTS

* CLASS 5 (SELF-LEVELING LOW MODULUS SILICONE). INSTALL IN ACCORDANCE WITH MANUFACTURER RECOMMENDATION. PAYMENT SUBSIDIARY TO RET WALL (MSE)



SECTION A-A
NTS

NOTE: RIPRAP (FLUME) IS CALCULATED USING AN APPROXIMATE FACTOR OF 0.074 CY/LF



CONCRETE FLUME DETAIL
NTS

STATE OF TEXAS
DAVID W. HAWLEY
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PROFESSIONAL ENGINEER
8/22/2012

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TBPE REGISTRATION NO. F-926

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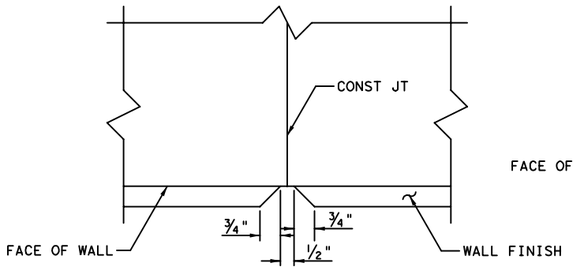
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
MISCELLANEOUS DETAILS

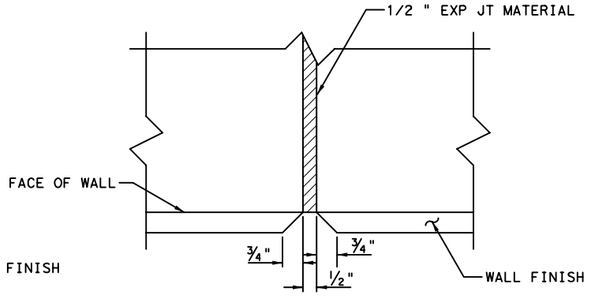
SHEET 2 OF 2

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1073
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

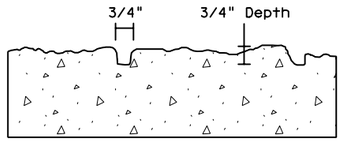
FILENAME: S3B*MISC*DET*2*GTN.dgn
DRAWING DATE: 8/20/2012



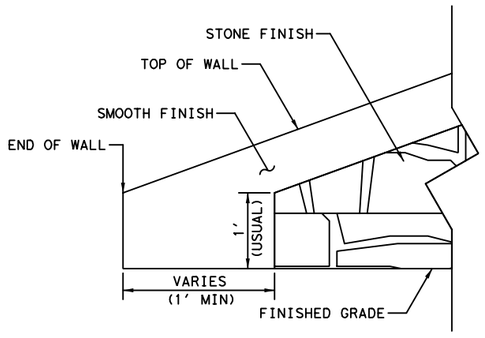
TYPICAL VERTICAL REVEAL DETAIL
@ CONST JT
NTS



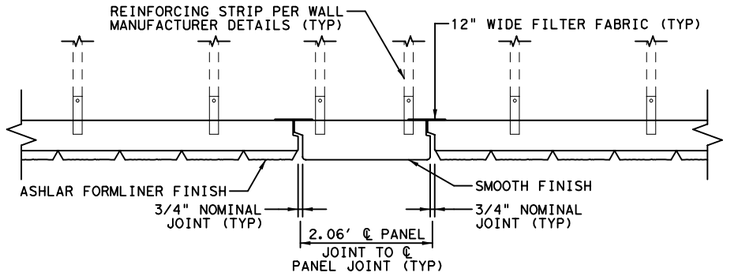
TYPICAL VERTICAL REVEAL DETAIL
@ EXP JT
NTS



Ashlar Stone
(SEE NOTE 11)



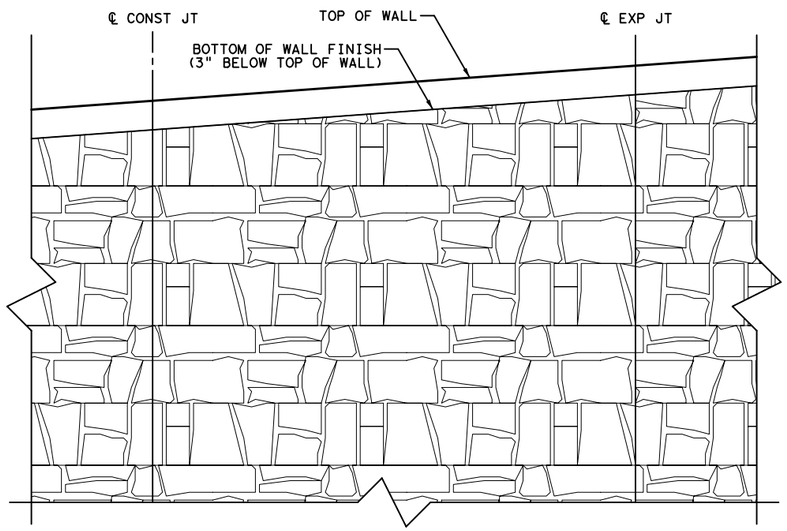
WALL END DETAIL



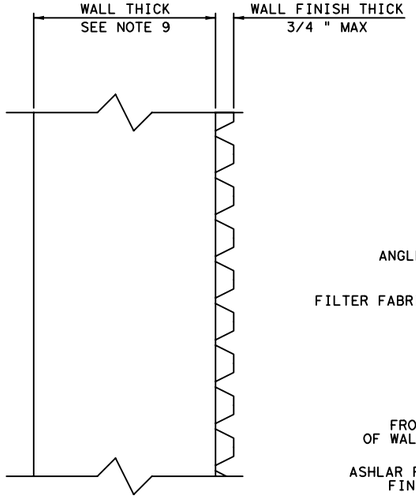
PILASTER DETAILS

NOTES:

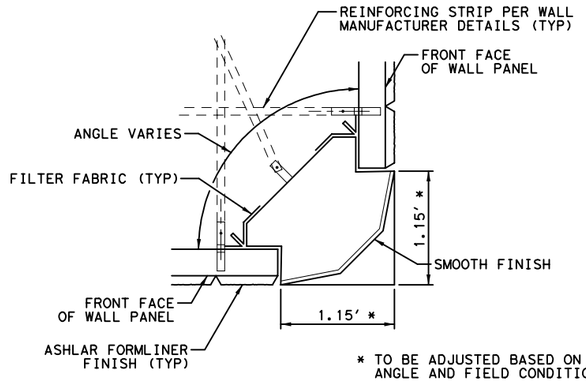
1. ARCHITECTURAL CONCRETE TREATMENT SHALL BE PLACED AS SHOWN AND SHALL BE SUBSIDIARY TO THE BID ITEM.
2. STONE FINISH SHALL BE CONTINUOUS WITH NO APPARENT CURVES OR DISCONTINUITIES. VARIATIONS OF THE STONES FROM TRUE VERTICAL SHALL NOT EXCEED 1/4" FOR EACH 4'-0" OF PANEL HEIGHT. SMOOTH FINISH PILASTERS SHALL BE SPACED EVERY 100.46' ALONG THE FACE OF ALL RETAINING WALLS.
3. STAIN AND/OR PAINT COLORS WILL BE PROVIDED BY THE ENGINEER PRIOR TO RETAINING WALL CONSTRUCTION. STAIN AND/OR PAINT FINISH SHALL BE CONSIDERED SUBSIDIARY TO ITEM 423.
4. THE FORM LINERS SHALL RELEASE WITHOUT LEAVING PIECES OF LINER MATERIAL ON THE CONCRETE AND WITHOUT PULLING OR BREAKING CONCRETE FROM THE TEXTURED SURFACE. FORM RELEASE AGENTS SHALL BE AS RECOMMENDED BY THE MANUFACTURER. FORM LINERS THAT HAVE, IN THE OPINION OF THE ENGINEER, BECOME DAMAGED OR WORN SHALL BE REPLACED BY THE CONTRACTOR. REPLACEMENT OF FORM LINERS SHALL BE CONSIDERED INCIDENTAL TO THE WORK AND SHALL NOT ENTITLE THE CONTRACTOR TO ADDITIONAL COMPENSATION.
5. VERTICAL SPLICES IN THE FORM LINER SHALL NOT BE PERMITTED EXCEPT AT JOINTS OR WHERE APPROVED BY THE ENGINEER. HORIZONTAL SPLICES SHALL OCCUR ONLY IN VALLEY BETWEEN STONES.
6. AT LEAST TEN DAYS IN ADVANCE OF STARTING CONSTRUCTION OF THE TEXTURED CONCRETE SURFACES, THE CONTRACTOR SHALL CONSTRUCT A TEST PANEL USING EACH TYPE OF FORM LINER AS APPROVED BY THE ENGINEER. THE PANELS SHALL MEET WITH REQUIREMENTS OF THE PLANS AND SPECIFICATIONS AND SHALL BE APPROVED BY THE ENGINEER BEFORE ANY CONSTRUCTION FORMS LINERS MAY BE ORDERED, OBTAINED OR USED. THE TEXTURED PORTION OF THE PANEL SHALL BE AT LEAST 5'-0" BY 5'-0" WITH A REPRESENTATIVE UNTEXTURED SURROUNDING SURFACE. IF ORDERED BY THE ENGINEER, ADDITIONAL TEST PANELS SHALL BE CONSTRUCTED AND FINISHED UNTIL A SATISFACTORY CONCRETE SURFACE TEXTURE IS OBTAINED.
7. THE TEST PANEL SHALL THEN BE THE STANDARD OF COMPARISON FOR THE PRODUCTION CONCRETE SURFACE TEXTURE. IF REQUIRED BY THE ENGINEER, A NEW TEST PANEL WILL BE BUILT TO DEMONSTRATE ACCEPTABILITY OF ANY PROPOSED CHANGE IN CONSTRUCTION METHOD.
8. AREAS SHOWN TO RECEIVE SURFACE TEXTURE THAT DO NOT EXHIBIT THE SURFACE SPECIFIED SHALL BE TOOLED OR REPLACED AT THE CONTRACTOR'S EXPENSE SO AS TO EXHIBIT THE SPECIFIED FINISH.
9. SEE APPLICABLE STANDARD SHEETS FOR DIMENSION.
10. FORM LINERS FOR CIP RETAINING WALLS SHALL PRODUCE A WALL FACE MATCHING THE APPEARANCE OF PRECAST MSE WALL PANELS, INCLUDING STONE MODULE SIZE, TEXTURE, PILASTER SIZE AND SPACING, ETC. SAMPLE CIP CASTINGS SHALL BE PROVIDED ALONG WITH MSE SAMPLE PANELS FOR APPROVAL BY THE ENGINEER PRIOR TO WALL CONSTRUCTION. ALL RETAINING WALL FACE FINISH SAMPLES SHALL BE CONSIDERED SUBSIDIARY TO ITEM 423.
11. FINAL WALL FACE APPEARANCE WILL BE DETERMINED BY THE ENGINEER, INCLUDING STONE MODULE SIZE, SPACING AND DEPTH, PILASTER SIZE AND SPACING, CORNER DETAILS, ETC. ADDITIONAL DETAILS REQUIRED WILL BE PROVIDED BY THE WALL MANUFACTURER, INCLUDING CORNER DETAILS, COPING DETAILS, PILASTER DETAILS, PRECAST WALL PANEL DETAILS, ETC.



PARTIAL PANEL FINISH
STONE FINISH
NTS



TYPICAL SECTION
NTS



* TO BE ADJUSTED BASED ON ANGLE AND FIELD CONDITIONS

CORNER DETAIL
NTS

8/29/2012

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TBPE REGISTRATION NO. F-926

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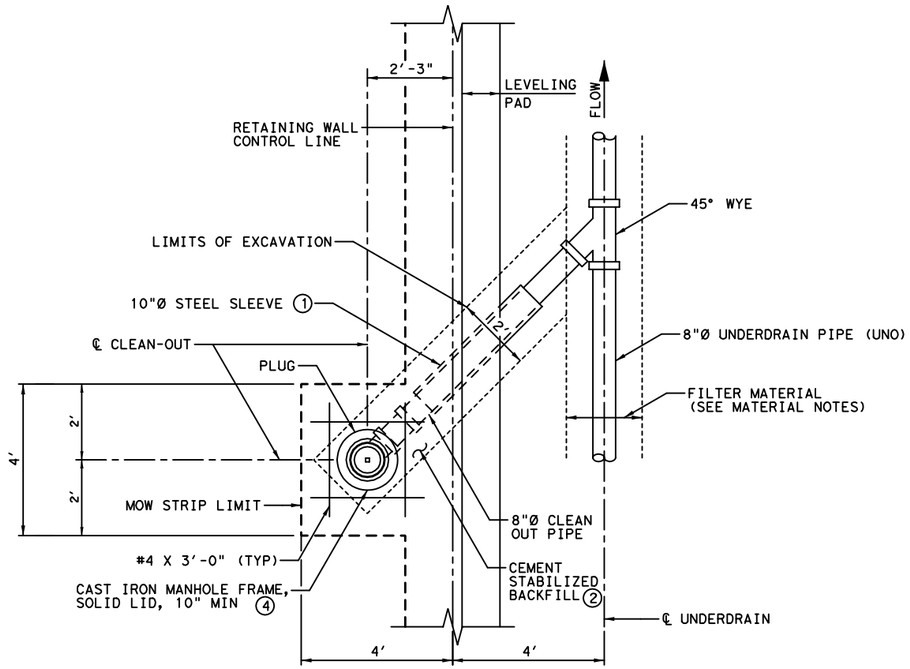
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
WALL FINISH DETAIL

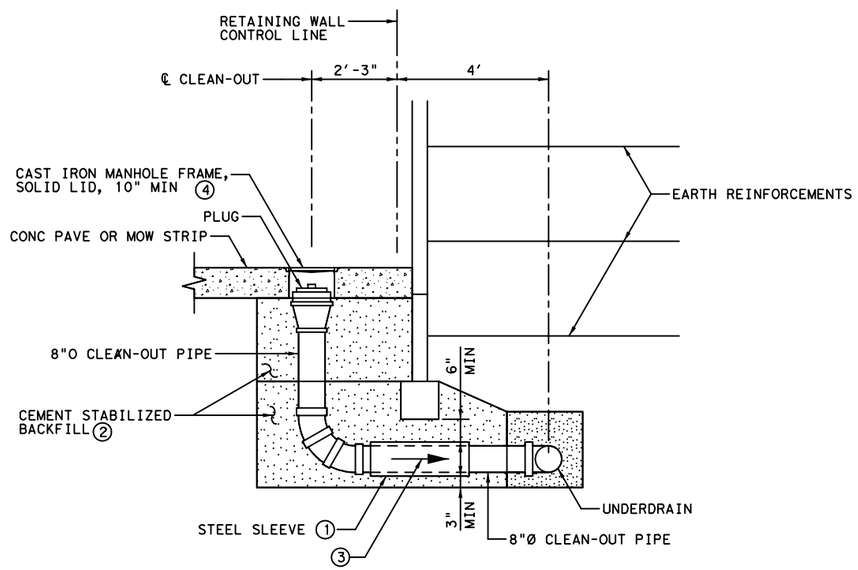
SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	1073A
	0014	16	255, ETC.	

FILENAME: S3B*MISC*DET*5*GTN.dgn
DRAWING DATE: 8/29/2012



PLAN



ELEVATION

CLEAN-OUT

GENERAL NOTES

1. INCLUDE UNDERDRAIN LAYOUT AND DETAILS IN RETAINING WALL SHOP DRAWINGS.
2. DRAINAGE PIPE LAYOUT MUST BE DESIGNED WITH CONSIDERATION OF FUTURE MAINTENANCE ACCESS. CLEANOUTS SHOULD BE LOCATED ON A MAXIMUM 300 FOOT SPACING. UNDERDRAIN PIPE CLEANOUTS MUST BE PLACED TO ALLOW ENTIRE LENGTH OF PERFORATED PIPE TO BE INSPECTED AND CLEANED AS NEEDED.
3. UNDERDRAINS AND UNDERDRAIN CLEAN-OUTS WILL BE CONSIDERED SUBSIDIARY TO ITEM 423.

MATERIAL NOTES

1. USE PERFORATED PIPE FOR UNDERDRAINS AND NON-PERFORATED PIPE FOR THE CLEAN-OUTS. ALL PIPES MUST BE TYPE 8 PER ITEM 556.
2. STEEL SLEEVE SHALL BE STANDARD WEIGHT PIPE CONFORMING TO ASTM A53, SUBSIDIARY TO ITEM 423.
3. PROVIDE CAST IRON FRAME AND COVER CONFORMING TO THE REQUIREMENTS OF ITEM 471, SUBSIDIARY TO ITEM 423.
4. PROVIDE TYPE C FILTER MATERIAL FOR PIPES WITH SLOTTED PERFORATIONS.
5. PROVIDE DRAINAGE AGGREGATE CONSISTING OF CLEAN CRUSHED STONE MEETING THE GRADATION IN ACCORDANCE WITH THE TxDOT ITEM 421 NO. 4 COARSE CONCRETE AGGREGATE WITH NO FINES PASSING THE NO. 200 SIEVE FOR PIPES WITH ROUND PERFORATIONS.

(1) CENTER 4 FT LENGTH OF STEEL SLEEVE UNDER LEVELING PAD

(2) BACKFILL CLEAN-OUT PIPE TRENCH WITH CEMENT STABILIZED BACKFILL. BACKFILL MAY BE PLACED IN LIFTS.

(3) SLOPE CLEAN-OUT PIPE DOWNWARDS TOWARD UNDERDRAIN.

(4) CENTER CAST IRON FRAME OVER PLUG FOR CLEAN-OUT.

(5) FOR MOW STRIP INSTALLATIONS, PROVIDE STANDARD MOW STRIP REINFORCEMENT (NOT SHOWN) THROUGHOUT AS WELL AS ADDITIONAL REINFORCEMENT (SHOWN) AROUND CLEAN-OUT.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED PROFESSIONAL ENGINEER
8/22/2012

KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
UNDERDRAIN DETAILS

SHEET 1 OF 1

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1073B
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3B*MISC*DET*6*GTN.dgn
DRAWING DATE: 8/20/2012

TABLE 3 - ALLOWABLE BEARING CAPACITY

Wall	Boring No.	Cut (C) / Fill (F) to Bottom of Wall (ft)	Station Number	Wall Height (Ft)	Allowable Bearing Capacity (psf)	Improved Bearing Capacity (psf)	Remarks	Minimum Strap Length Requirements*
NB01-R	E19	C15.3 to CO	10+00-11+12	19.7	3800	N/A	I (6)	H
NB02-L	RW25	CO to C1	9+70-13+35	13	2800	N/A	I (1)	0.8H
	B12	CO to C1	13+35-15+24	18.5	4000	N/A	I (1)	0.8H
NB02-R	B12	C1.5 to C3	10+00-11+90	17.9	4000	N/A	I (1)	0.8H
	RW25	C3 to C1.3	11+90-15+44	13.9	2800	N/A	I (1)	H
SB01-L	RW70	C3.5	12+75-14+25	21.5	4400	N/A	I (1)	0.8H
	RW26	C3	11+70-12+75	17	3300	N/A	I (6), C	H
	RW27	C1 to 3	9+20-11+70	12.75	2800	N/A	I (5)	0.8H
SB01-R	RW70	C3	10+00-11+00	20.5	4400	N/A	I (1)	0.8H
	RW26	C3	11+00-12+50	18	3300	N/A	I (6), C	H
	RW27	C3 to CO.5	12+50-15+05	12.1	2800	N/A	I (5)	0.8H
NB03-L	RW1	C2	10+50-11+85	6.75	2000	N/A	I (5)	0.8H
	RW44	C1	10+00-10+50	8.75	2000	N/A	I (5)	H
NB03-R	E37	C3 to C8.5	10+00-11+00	8.75	2000	N/A	I (5)	H
	RW28	C8.5 to C12.5	11+00-12+50	15	4500	N/A	I (1)	0.8H
	RW29	C12.5 to C15	12+50-14+50	18.5	5000	N/A	I (2)	0.8H
	RW1	C15 to 14.5	14+50-16+40	22.5	10000	N/A	I (3)	0.8H
	RW44	C14.5 to 14	16+40-16+85	23.75	5000	N/A	I (4)	0.8H
SB02-L	RW47	C4.3 to C1.3	12+98.87-14+28.87	15.3	3500	N/A	I (2)	0.8H
	RW40	F1 to C7	10+00-12+98.87	23.5	3800	5000	J (2)	0.8H
SB02-R	RW40	F4 to CO.5	10+00-12+09.92	8.5	2000	N/A	I (5)	H
SB03	B23	C9 to C8.5	17+40-18+16.55	9.4	5000	N/A	I (4)	0.8H
	RW67	C9 to C12	15+90-17+40	11.75	4000	N/A	I (2)	0.8H
	RW68	C16 to C12	13+90-15+90	16	5000	N/A	I (4)	0.8H
	RW69	C18.5 to C16	11+90-13+90	19.5	4000	N/A	I (4)	0.8H
	E40	C2.5 to C14	10+54-11+90	16	3200	N/A	I (5)	H
NB04	B26	C9 to 10.5	10+00-10+80	10.9	4000	N/A	I (2)	0.8H
	B27	C10.5 to 2.5	10+80-13+13.53	13.6	3000	N/A	I (2)	0.8H
NB06-L	RW58	F1 to C5	15+91-17+91	23.5	3500	5000	J (1)	0.8H
	RW42	C5 to C2	14+41-15+91	15	4000	N/A	I (1)	0.8H
	THB6	C2 to C3	12+41-14+41	19	4500	N/A	I (4)	0.8H
	THB10	C3 to C2.5	9+91.5-12+41	19.75	4500	N/A	I (2)	0.8H
	B46	C3 to C2.5	9+91.5-12+41	19.75	4500	N/A	I (2)	0.8H
NB06-R	RW58	C11.5 to C20.5	9+95-12+40	25.5	5000	N/A	I (4)	0.8H
	THB6	C14.5 to C9.5	12+40-13+90	25.5	5000	N/A	I (4)	0.8H
	THB10	C9.5 to C3	13+90-15+90	25.5	5000	N/A	I (4)	0.8H
	B46	C9.5 to C3	15+90-17+90	23.5	4500	N/A	I (1)	0.8H
NB05-L	RW72	C5	12+50-14+34	19	2500	4000	O (1)	0.8H
	RW32	C4.5	10+50-12+50	11.25	2500	N/A	I (5)	0.8H
	RW37	C4.5	9+85-10+50	5.4	1500	N/A	I (5)	0.8H
NB05-R	RW72	C4.5	11+18-12+75	18	2500	4000	O (1)	0.8H
	RW32	C4.5	12+75-15+15	12	2500	N/A	I (5)	0.8H
	TH B17	C4.5	15+15-15+70	5.5	1500	N/A	I (5)	0.8H
SB04-L	RW5	C4.5	12+24-14+96	16	3500	N/A	I (5)	0.8H
	THB9 RW 71	C4.5	10+48-12+24	7.5	2500	N/A	I (5)	0.8H
SB04-R	RW5	C6.5 to C8	11+20-13+52	20	3600	N/A	E	1.2H
	THB9 RW 71	C8 to C5	13+52-17+02	11.7	2500	N/A	I (5)	0.8H
SB05-L	RW71	C17 to C6	14+00-15+04.17	20.5	2500	4950	O (2)	0.8H
	THB9 RW 71	C10 to C17	11+90-14+00	17	3500	N/A	I (1)	0.8H
	RW60	C5.5 to 10	10+50-11+90	10.7	2250	N/A	I (5)	H
	RW61	C4-5.5	10+00-10+50	5.3	1500	N/A	I (5)	0.8H
SB05-R	RW71	C21.5 to C2	9+95-11+25	26	2500	4950	O (2)	0.8H
	THB9 RW 71	C2 to C4.5	11+25-12+95	21	4000	N/A	I (1)	0.8H
	RW60	C4.5 to 2.5	12+95-14+45	11	2300	N/A	I (5)	H
	RW61	C1 to C2.5	14+45-16+01.91	8.5	1900	N/A	I (5)	H
SB06-R	THB19	C2.5 to C1.5	9+96.78-10+95	15	2850	N/A	I (6)	H
	RW39	C1.5	10+95-12+50	19.5	3800	N/A	I (1)	H
	B39	C1 to CO	12+50-13+50.58	20.5	4100	N/A	I (1)	0.8H
NB07-L	THB12	C1 to F2	11+15-13+47	18.5	3600	N/A	I (1)	H
	RW7	F1 to C3	10+00-11+15	22	2500	4200	N	H
SB07-R	B41	F1.5 to CO	10+00-11+55	15.75	1800	3000	M	H
	3B13	F1 to C2.5	11+55-13+25	14	2800	N/A	I (5)	H
	RW11	C2.5	13+25-15+20	12.5	2600	N/A	I (5)	H
	RW12	C2 to C5	15+20-16+95	11	2500	N/A	I (5)	0.8H
SB08	RW13	C4 to C7.5	15+00-16+50	6.75	1500	N/A	I (5)	H
	RW14	C7.5	13+00-15+00	8.5	3000	N/A	I (2)	0.8H
	RW15	C7.5 to C4.5	10+00-13+00	8.5	3000	N/A	I (2)	0.8H
NB08-L	B40	C1 to C2.5	17+70-18+25.08	24.5	4000	5000	L (1)	0.8H
	RW73	C1	17+05-17+70	23	2500	4500	O (3)	0.8H
	RW8	C1	15+05-17+05	21.75	1500	5000	L (2)	0.8H
	RW9	C1	13+05-15+05	19.75	4000	N/A	I (1)	0.8H
	RW10	C1	11+20-13+05	15.25	3000	N/A	I (1)	H
	RW38	C1	10+00-11+20	10.75	2500	N/A	I (5)	0.8H
NB09	S11	C.5 to C2.5	10+00-14+80	4.7	1500	N/A	I (5)	0.8H
SB09	B22	C2 to C4.5	10+00-11+48.45	9.1	2000	N/A	I (5)	H
NB10	No Boring	C5 to C8	10+00-17+42	10	2100	N/A	I (5)	H

TABLE 3 - ALLOWABLE BEARING CAPACITY

Wall	Boring No.	Cut (C) / Fill (F) to Bottom of Wall (ft)	Station Number	Wall Height (Ft)	Allowable Bearing Capacity (psf)	Allowable Bearing Capacity (psf)	Remarks	Minimum Strap Length Requirements*
NB01-A	B1	C1 to C15.5	9+73-10+38	13.6	2950	N/A	I (6), A	H
SB01-A	RW70	C3.5	10+00-10+48	15	4400	N/A	I (1), A	H
NB02-A	B12	C1 to C1.3	10+00-10+28	12.2	4000	N/A	I (1), A	0.8H
SB02-A	RW40	C0 to C6	10+00-10+31.13	14.5	3000	5000	J (2), A	0.8H
NB03-A	RW44	C14 to C1.5	10+00-10+28	17	3500	N/A	I (5), A	0.8H
SB04-A	RW5	C4.5 to C7.5	10+00-10+28	13	3500	N/A	E, A	1.2H
NB05-A	RW72	C7 to C4	10+00-10+28	14	2500	4000	O (1), A	0.8H
SB05-A	RW1	C4.5 to C1.5	10+00-10+26	19.8	2500	4950	O (2), A	0.8H
NB06-A	RW58	C1.5 to C11.5	10+00-10+26	17	3500	5000	J (1), A	0.8H
SB06-A2	B39	C1.5 to F1	10+00-10+38.65	15.6	4100	N/A	I (1), A	0.8H
NB07-A2	RW7	C1	10+00-10+55.22	16	2500	4200	N, A	H
SB07-A	B41	C1	10+00-10+34.06	10.9	1800	3000	M, A	H
NB08-A	B40	C1 to C2.5	10+00-10+49.34	18.1	4000	5000	L (1), A	H

* H is wall height plus additional soil surcharge height, if any, such as at abutment walls. Minimum strap length is 10.0', unless noted otherwise. For back-to-back walls taller than 15', the top three levels of earth reinforcement shall be lengthened as necessary to overlap a minimum of 3'.

Remarks

A. The surcharge loads above the abutment walls were considered in determining bearing pressures below these walls and the excavation depths required to achieve the required bearing capacity.

B. To increase allowable bearing capacity to 5,000 psf, excavate (1) to El 604 and verify by the Engineer that excavation terminates in (1) stiff brown sandy gravelly clay as encountered in the geotechnical borings.

C. We understand that excavation is not possible without extensive shoring. Therefore, we recommend that the bearing pressures of these walls are kept to 3,300 psf or less by increasing strap lengths and by using the actual tested unit weight of the Type D backfill within the reinforced zone.

D. Not Used.

E. In lieu of performing relatively deep excavation to improve bearing capacity as specified in B(1) above, keep the bearing pressures for this wall to 3,600 psf or less by increasing strap lengths and by using the actual tested unit weight of the Type D backfill within the reinforced zone.

F. Not Used.

G. Not Used.

H. Not Used

I. Excavation is required by design to achieve foundation subgrade. After excavation to bottom of wall, verification tests pits are required by the Contractor to verify that supporting soil conditions are similar to conditions anticipated in the geotechnical borings after dry conditions. The Engineer will verify that excavation terminates in the following material prior to beginning wall construction.

1) hard to very stiff in-situ clay and calcareous clay
2) hard in-situ tan calcareous clay or severely weathered limestone
3) very hard gray limestone
4) competent hard tan weathered limestone or hard gray limestone
5) stiff to very stiff in-situ clay
6) very stiff clay (assumed after dry conditions)

J. To increase allowable bearing capacity to 5000 psf, excavate to (1) El 617; (2) El 633 and verify excavation terminates in very stiff yellowish brown to tan clay, as anticipated in the geotechnical borings after dry conditions. Where required excavation depths to achieve the foundation subgrade extends (1) below El 617; or (2) below EL 633, no over-excavation is required if it is verified by the Engineer that the supporting soil consists of very stiff yellowish brown to tan clay, as anticipated in the geotechnical borings after dry conditions.

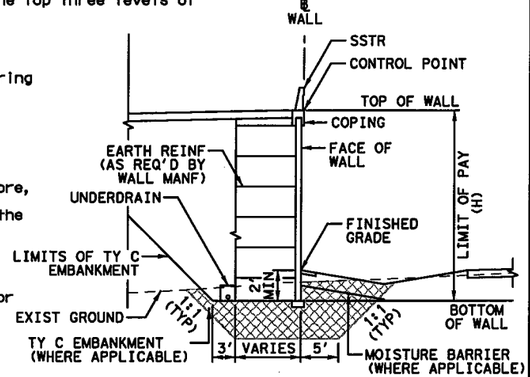
K. Not Used.

L. To increase allowable bearing capacity to 5000 psf, excavate (1) to El 599; (2) to El 598; and verify by the Engineer that excavation terminates in very stiff to hard calcareous clay or severely weathered limestone, as encountered in the geotechnical borings.

M. To increase allowable bearing capacity to 3000 psf, excavate (1) to depth of 8 feet below bottom of wall and verify excavation terminates in stiff clay as encountered in the geotechnical borings. Then proofroll and compact subgrade per specification requirements.

N. To increase allowable bearing capacity to 4,200 psf, excavate to depth of 10 feet below the existing ground surface or to depth of 10 feet below the bottom of wall, whichever is deeper. Then, proofroll and compact subgrade per specification requirements.

O. Excavate to (1) El 615; (2) El 611; (3) El 604; (4) El 646 and verify by the Engineer that supporting soil is very stiff to hard clay as encountered in the borings to increase allowable bearing capacity to (1) 4,000 psf; (2) 4,950 psf; (3) 4,500 psf; (4) 4,000 psf.



MSE WALL TYPICAL SECTION

N. T. S.

NOTES:

1. REFER TO RETAINING WALL PLAN AND PROFILE SHEETS AND RETAINING WALL TYPICAL SECTION SHEETS FOR ADDITIONAL INFORMATION.
2. REFER TO BORING PLAN SHEETS AND BORING LOG SHEETS FOR ADDITIONAL INFORMATION.

NOTE:
TABLE NUMBERS AND REFERENCES ARE BASED ON A GEOTECHNICAL REPORT ISSUED BY ALLIANCE GEOTECHNICAL GROUP SIGNED AND SEALED BY MARK J. FARROW, P.E. ON JUNE 29, 2012.

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

ALLIANCE GEOTECHNICAL GROUP INC
TBPE Reg. No. F-1970

8-22-12

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS GEOTECHNICAL RECOMMENDATIONS

SCALE 1" = 200' SHEET 1 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS AGG	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1074
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3B*MISC*DET*3*GTN.dgn
DRAWING DATE: 8/23/2012

Design Notes

Note 1: After excavation to the depths specified in Table 3, the subgrade must be proofrolled under the direction of an inspector under the direction of the Engineer and then compacted to specification requirements.

Note 2: All required over-excavation depths required to achieve the recommended allowable bearing capacity indicated above must be performed beneath the entire reinforced zone. At the back of the reinforced zone, excavation should extend along a 1:1 slope up to the ground surface. At the front of the wall, excavation should extend 5 feet beyond the wall face and then transitioned along a 1:1 slope up to the ground surface. At the ends of the walls, excavation should extend 1 foot beyond the wall and then up to the ground surface along a 1:1 slope. If required excavation terminates beneath a wall or if required excavation depths vary beneath a wall, excavations should transition along a 1:1 slope. After excavation, proofroll under direction of the Engineer. Then, compact upper 8 inches at base of cut to 98% TEX 114E. This 1:1 slope up to the ground surface is a geotechnical requirement that is independent of temporary special shoring (TSS) requirement. The earthwork volume required for 1:1 slope is quantified and paid for under Item 110 and 132.

Note 3: Excavated soil free of rock larger than 6 inches may be used as fill below the walls after excavation is approved by the Engineer. Compact in 8 inch lifts at -2% to +2% of optimum and compact to minimum of 98% TEX 114E. Where wall heights exceed 20 feet, the required compaction level should be increased to 100% TEX 114E.

Note 4: In areas where fill soil is required below the bottom of the wall to elevate the foundation subgrade to the required grade, test pits will be performed by the Contractor to depths of 6 feet below the existing ground surface along a spacing not to exceed 200 feet to verify that compaction levels exceed 98% TEX 114E prior to any fill placement. Where wall heights exceed 20 feet, the required compaction level should be increased to 100% TEX 114E. This spacing should be decreased to 100 feet wherever existing fill soils are present. All results will be presented to the Engineer for verification. See Note 6 below.

Note 5: Where retaining walls or additional fill will be constructed over existing fill soils, a compaction level of at least 98% TEX 114E within the upper 6 feet of fill and verified by an inspector under the direction of the Engineer prior to any fill placement or prior to any wall construction. Where wall heights exceed 20 feet, the required compaction level should be increased to 100% TEX 114E. Where deep existing fill is present, the deeper fill (below 6 foot depths) could be evaluated by TxDOT Core Penetration Testing on the deeper fill to provide assurance that deeper non compact fill is not present. If this assurance is desired, the TxDOT Core Penetration Testing borings should be performed on a spacing not to exceed 100 feet. There would be a risk of excessive settlement or possibly a wall failure in the event non-compact fill is present and not detected and remediated.

Note 6: Due to the presence of deep fill in some areas and the anticipation of wet soft surficial layers of high plasticity clay in all areas after extended periods of rainy weather, it is recommended that bearing capacity verifications be performed by the Contractor along all retaining wall alignments prior to wall construction. These verifications will be made by shallow borings along each entire wall alignment. Verifications should be made by performing field TxDOT Core Penetration Testing tests to depths of 10 feet below the bottom of the reinforced zone or to a depth of 3 feet below any existing fill, whichever is deeper. These verifications should be made every 100 feet. Testing on closer spacings would be required if existing backfill is visually detected in between test locations based on visual inspection by the Engineer after excavation for the retaining wall foundation. These verifications should be made after excavation to the required foundation subgrade. In areas where additional fill is required below the bottom of the walls, the borings should be performed prior to any fill placement. All results will be presented to the Engineer for verification.

Note 7: Where wall foundation verification inspections are required by the Engineer as specified above, proofrolling of the foundation subgrade in combination with identification of specified soil strata along with actual soil shear strength verifications within test pits are required. Required shear strength values must be evaluated by the Engineer based on actual wall heights and actual bearing pressures below the walls.

SLIDING RESISTANCE

After excavation to the required reinforced zone subgrade, a suitable foundation subgrade must be verified as described above. The reinforced zone subgrade should be battered back (sloping down away from the face of the wall along the battered slope) along a 20(H):1(V) (5%) slope (and no less than a 50(H):1(V) (2%) slope) to achieve the required sliding resistance and to reduce long term creep. The following design parameters may be used for sliding resistance calculations.

FOUNDATION SOIL:

Soil Unit Weight: 125 pcf
Cohesion (psf): 0
Friction Angle:* 24 degrees for 20(H):1(V) (5%) battered subgrade
Friction Angle:* 21 degrees for 50(H):1(V) (2%) battered subgrade

MSE REINFORCED ZONE PROPERTIES

PARAMETER	PROPERTY
Material Type	TxDOT Item 423, Type B
Unit Weight	100 to 125 pcf
Cohesion	0
Friction Angle	34 degrees

Compact in 8 inch horizontal lifts to 100% TEX 114E. If granular materials are used, and laboratory compaction tests cannot be performed, a rolling pattern test should be performed on each fill material to determine the optimum number of passes required to achieve the maximum relative density. This relative density should then be required for acceptance of fill compaction of each lift.

Note: Appropriate triaxial testing must be performed on actual backfill materials materials submitted for approval to verify a friction angle of at least 34 degrees. The actual unit weight and soil properties of the compacted fill should also be determined and should be used by the Contractor's wall designer during final design.

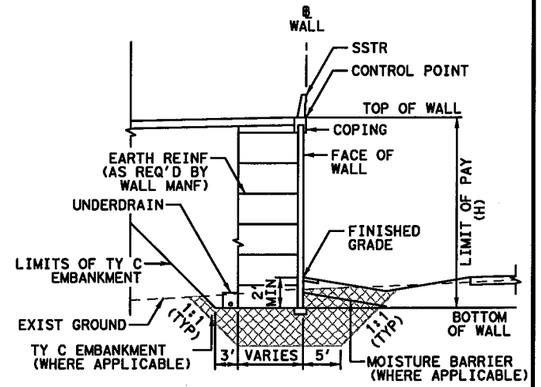
MSE WALL DESIGN PARAMETERS FOR LATERAL LOAD CALCULATION AND RETAINED ZONE REQUIREMENTS

PARAMETER	PROPERTY
Material Type	TxDOT Item 132 Type C with PI of 10 to 25, TxDOT Item 423, Type B, Crushed Austin Chalk Limestone
Unit Weight	100 to 125 pcf
Cohesion	0
Friction Angle	30 degrees *

Retained Zone is the active pressure zone bounded by the reinforced zone and a 1:1 outward slope beginning 3' horizontally from the end of the reinforced zone at the base of the wall.

Compact in 8 inch horizontal benched lifts to 98% TEX 114E at -2% to +2% of optimum. Common fill placed beyond 1:1 retained fill zone should also be placed in 8 inch horizontal benched lifts and compacted to 98% TEX 114E at -2% to +2% of optimum unless specified otherwise.

NOTE: * For sandy clay having PI of 10 to 25, an LL of less than 42, and with a minimum of 25% retained on No. 40 Sieve. Appropriate triaxial testing must be performed on actual backfill materials submitted for approval to verify a friction angle of at least 30 degrees.



MSE WALL TYPICAL SECTION

N. T. S.

NOTE:
TABLE NUMBERS AND REFERENCES ARE BASED ON A GEOTECHNICAL REPORT ISSUED BY ALLIANCE GEOTECHNICAL GROUP SIGNED AND SEALED BY MARK J. FARROW, P.E. ON JUNE 29, 2012.

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

ALLIANCE GEOTECHNICAL GROUP INC
TBPE Reg. No. F-1970

8-22-12

Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
GEOTECHNICAL RECOMMENDATIONS

SCALE 1" = 200' SHEET 2 OF 3

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS AGG	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1075
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 8/23/2012 FILENAME: S3B#MISC#DET*3#GTN.dgn

MSE WALL DESIGN FACTORS OF SAFETY

FAILURE CRITERIA	FACTOR SAFETY
Bearing Capacity	2
Sliding Resistance	1.5
Overturning	2
Global Stability, Critical Walls	1.5
Global Stability, Non-Critical Walls	1.3

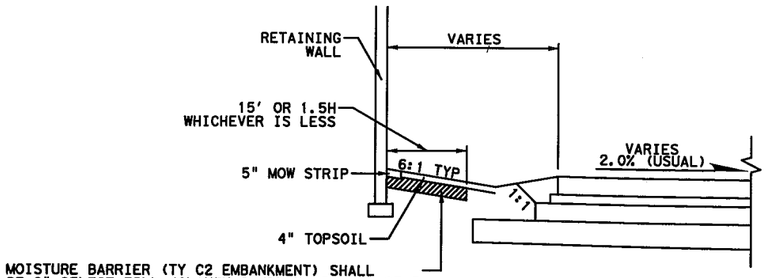
Excavation may terminate at the surface of the native hard tan calcareous clay or native tan weathered limestone if encountered at shallower depths as verified by the Engineer. The soil and rock fill (having a maximum crushed rock size of 6 inches) should be replaced in 8 inch lifts and compacted at -2% to +2% of optimum to a minimum of 98% TEX 114E. Where wall heights exceed 20 feet, the required compaction level should be increased to 100% TEX 114E.

During filling below wall, all fill should be compacted in horizontal benched lifts (benching into excavated slope to create saw tooth effect and to eliminate potential plane of weakness). Particular attention must be given to achieving compaction at the benched excavation interface to achieve adhesion between the new fill and the benched excavation slope to eliminate potential plane of weakness.

If the subgrade is excavated and recompacted in lifts as specified above, the factor of safety for allowable bearing capacity will be on the order of 2.0 based on wall heights and slope geometry indicated in Table 3. The factor of safety for global stability will be 1.3.

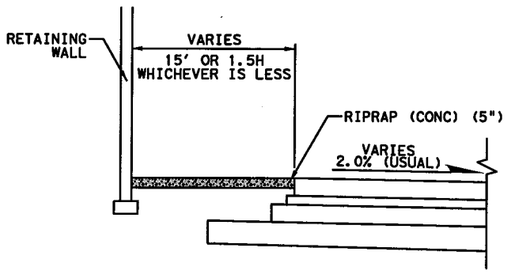
Note: The following requirements apply to MSE wall design and construction.

1. In areas where required excavation for new walls will impact existing MSE walls, existing pavements and/or existing pier foundations, this will require shoring of existing structures or the use of alternative systems such as drilled shaft walls or soil nail walls unless structured ramps supported by piers are used in lieu of retaining walls.
2. A permanent moisture barrier graded to drain must be placed adjacent to the base of the wall for a distance of at least 15 feet from the wall face or to the edge of pavement or 1.5H, whichever is less. Moisture barriers should consist of either concrete rip rap, or 8 inches of select fill (clayey sand) having a PI of 5 to 14 compacted at -2% to +2% of optimum to 98% TEX 114-E.
3. All fill should be placed and compacted in horizontal benched lifts. Compaction of fill along sloped grades must not be allowed.
4. If new walls must be constructed across or within 15 feet of existing utility trench backfill, the Engineer should be contacted for additional recommendations required to reduce differential settlement and to provide global stability. This will require TxDOT Cone Penetration Testing borings on the existing backfill to evaluate the relative density of the backfill and the need for any excavation.
5. All common fill or utility trench backfill placed below the MSE walls, or within 30 feet of the MSE wall face should be compacted in 8 inch lifts to 98% TEX 114E. Prior to placement of fill in any open ditches near the walls, all soft soil should be excavated from the ditches under the direction of the Engineer.
6. It should be anticipated that dewatering will be required in areas where cuts are required to achieve the foundation subgrade.
7. Wall designers must verify during their final design that the actual maximum bearing pressures below the walls are less than the allowable bearing capapolties summarized in Table 3.
8. Minimum wall embedment of 2 feet is required. In some locations, the embedment depths will have to be deepened to insure that a 6H:1V or flatter imaginery line extends from the bottom of the wall to the toe of slope or for a distance of 2H from the wall face (where H is wall height); whichever is closer.

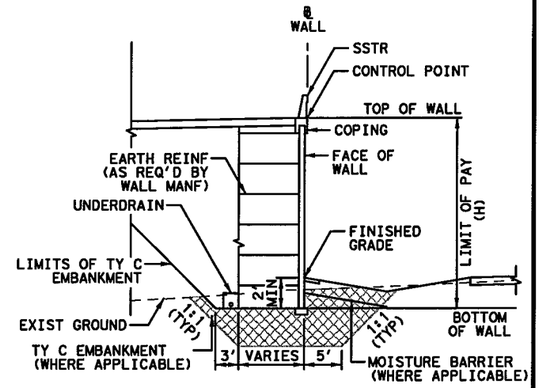


MOISTURE BARRIER (TY C2 EMBANKMENT) SHALL BE 8" SELECT FILL (CLAYEY SAND) HAVING PI OF 5 TO 14, COMPACTED AT -2% TO +2% OF OPTIMUM TO 98% TEX 114-E. TY C2 EMBANKMENT SHALL BE SUBSIDIARY TO RETAINING WALLS.

TY C2 EMBANKMENT (MOISTURE BARRIER)
NTS



RIPRAP (MOISTURE BARRIER)
NTS



MSE WALL TYPICAL SECTION
N.T.S.

NOTE:
TABLE NUMBERS AND REFERENCES ARE BASED ON A GEOTECHNICAL REPORT ISSUED BY ALLIANCE GEOTECHNICAL GROUP SIGNED AND SEALED BY MARK J. FARROW, P.E. ON JUNE 29, 2012.

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

ALLIANCE GEOTECHNICAL GROUP INC
TBPE Reg. No. F-1970

8-22-12

Texas Department of Transportation
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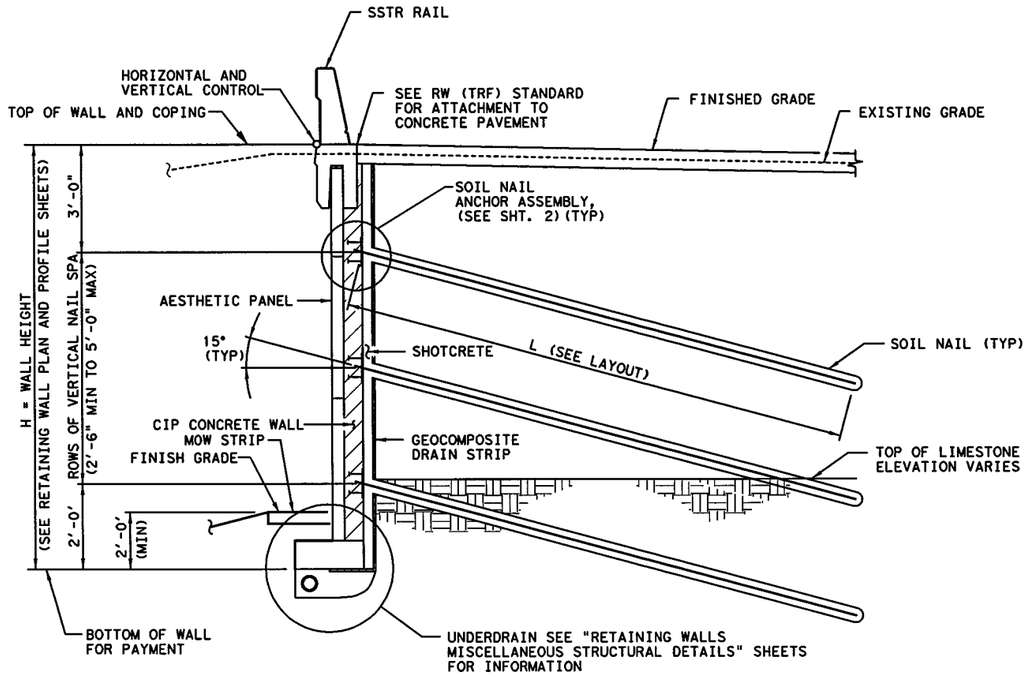
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
GEOTECHNICAL RECOMMENDATIONS

SCALE 1" = 200'

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS AGG	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1076
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 8/23/2012 FILENAME: S3B*MISC*DET*3*GTN.dgn



TYPICAL SECTION

GENERAL NOTES:

1. DESIGNED ACCORDING TO 2010 AASHTO LRFD SPECIFICATIONS, AND WITH FHWA GEOTECHNICAL ENGINEERING CIRCULAR NO. 7, SOIL NAIL WALLS, REPORT FHWAO-IF-03-017, MARCH 2003.
2. ALL CONCRETE SHALL BE CLASS "C" UNLESS OTHERWISE NOTED.
3. ALL REINFORCING STEEL SHALL BE GRADE 60.
4. SOIL NAIL TEST ANCHORS WILL BE REQUIRED ON THIS PROJECT. THE LOCATION OF THE ANCHORS SHALL BE APPROVED BY THE ENGINEER. TEST ANCHORS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "SOIL NAIL ANCHORS". SEE SHEET 4 OF 4 FOR ADDITIONAL INFORMATION ON TEST ANCHORS.
5. SHOTCRETE SHALL COMPLY WITH REQUIREMENTS OF THE ITEM "PNEUMATICALLY PLACED CONCRETE" (CLASS III), EXCEPT THAT IT WILL NOT BE PAID FOR DIRECTLY AND STRENGTH TESTING WILL NOT BE REQUIRED.
6. DRAINAGE SYSTEM SHALL CONSIST OF PREFABRICATED GEOCOMPOSITE DRAIN STRIP OR SOIL DRAINAGE MATS EMPTYING INTO AN UNDERDRAIN. FILTER FABRIC SHALL MEET THE REQUIREMENTS OF DMS-6200. THE DRAINAGE SYSTEM WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM "RETAINING WALL (SOIL NAILED) (FASCIA)".
7. THE PRICE BID PER SQUARE FOOT OF RETAINING WALL (SOIL NAILED) (FASCIA) SHALL INCLUDE ALL CAST-IN PLACE CONCRETE, REINFORCING STEEL, PNEUMATICALLY PLACED CONCRETE, AESTHETIC PANEL, LEVELING PAD, UNDERDRAIN, DRAINAGE MATERIAL, AND ANY OTHER MATERIALS NECESSARY TO COMPLETE THE WALL.
8. THE PRICE BID PER LINEAR FOOT OF SOIL NAIL ANCHORS SHALL INCLUDE ALL DRILLING, NAIL REINFORCEMENT, GROUT, AND TEST NAILS. NAIL LENGTH EMBEDED IN SHOTCRETE AND CAST-IN-PLACE CONCRETE IS SUBSIDIARY TO SOIL NAIL PAY ITEM AT NO ADDITIONAL COST TO THE OWNER.
9. CONTRACTOR SHALL VERIFY UTILITY LOCATIONS PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED OF ANY CONFLICTS IMMEDIATELY.

STATE OF TEXAS
THOMAS G. ASHCRAFT
81411
REGISTERED
PROFESSIONAL ENGINEER
Thomas G. Ashcraft
7/31/12

HL 93 LOADING

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

Texas Department of Transportation
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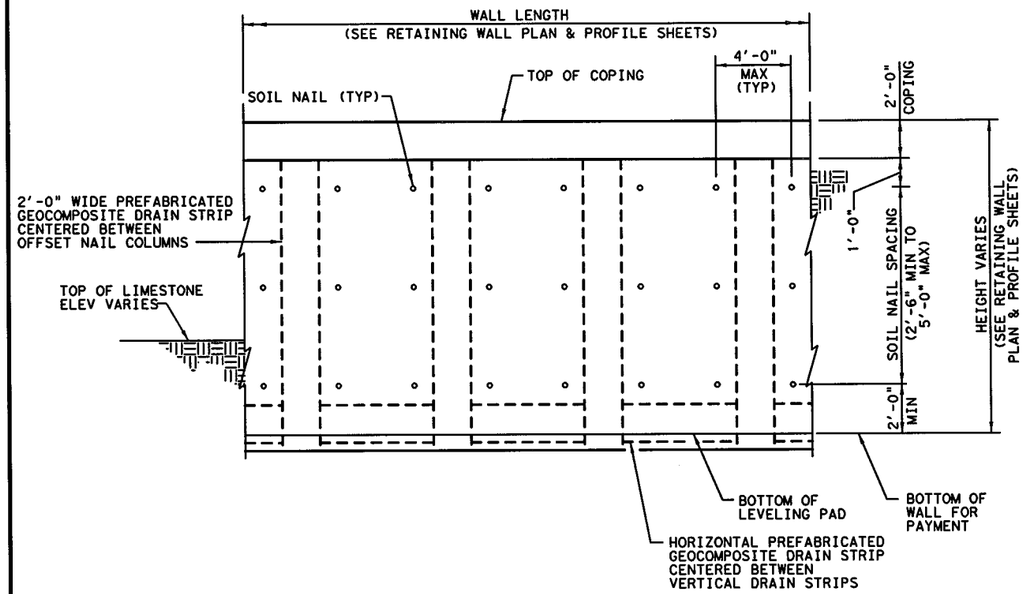
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
SOIL NAIL DETAILS

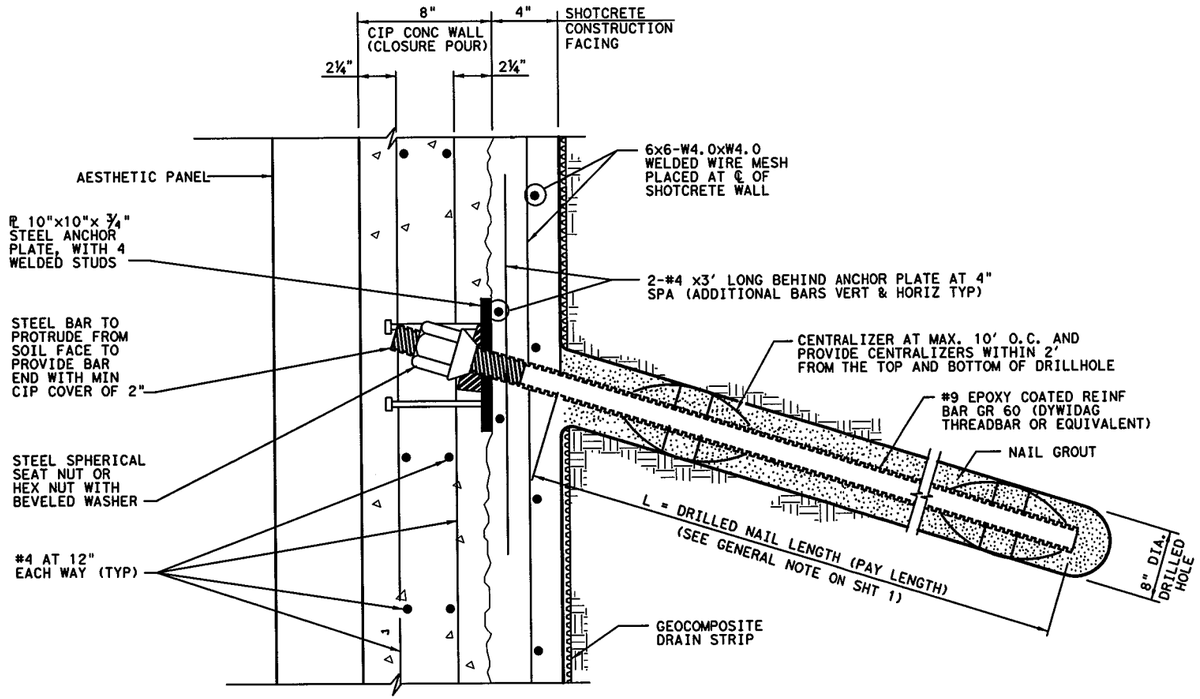
SCALE: NTS

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	1077
CHECK TGA	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

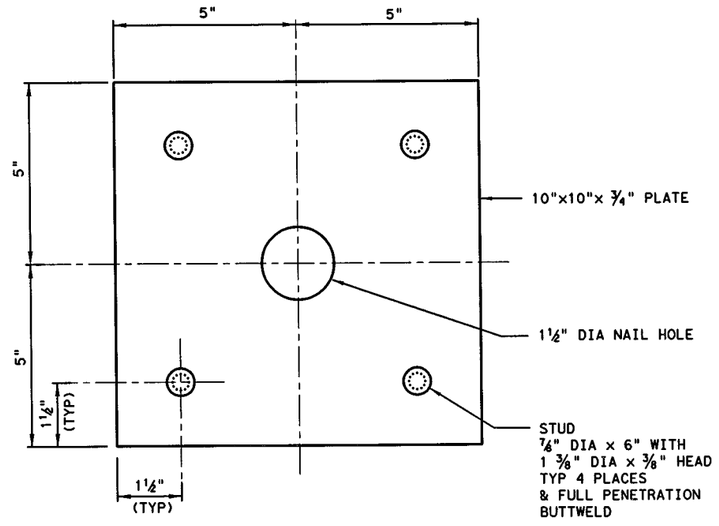
DRAWING DATE: 7/13/2012 FILENAME: S3BRW_SN_01.DGN



TYPICAL SOIL NAIL WALL ELEVATION



SOIL NAIL ANCHOR ASSEMBLY
(NOT TO SCALE)



ANCHOR PLATE WITH STUDS DETAIL
(NOT TO SCALE)

STATE OF TEXAS
THOMAS G. ASHCRAFT
81411
REGISTERED
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Thomas G. Ashcraft
7/31/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
SOIL NAIL DETAILS

SCALE: NTS — SHEET 2 OF 4

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	1078
CHECK TGA	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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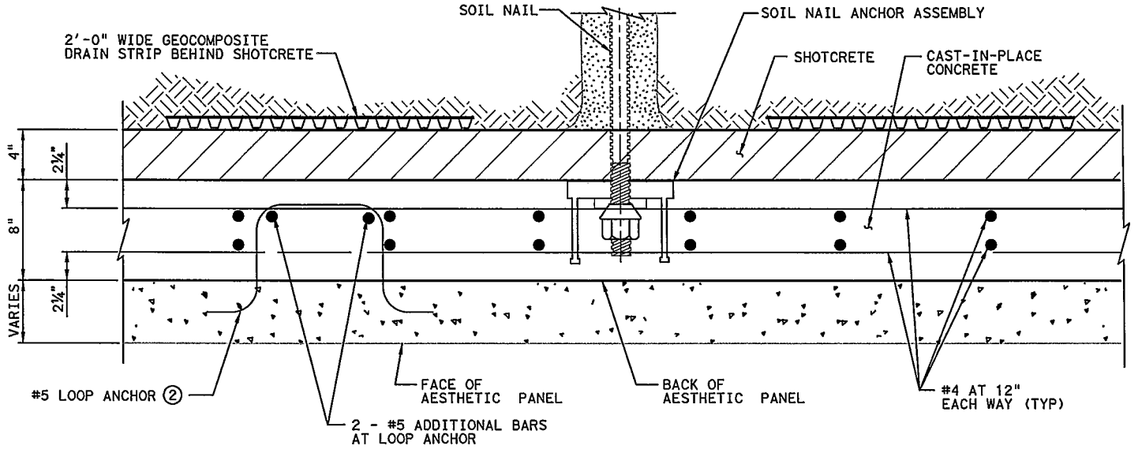
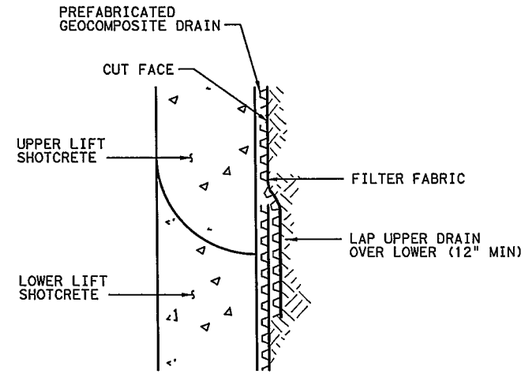
DRAWING DATE: 7/13/2012



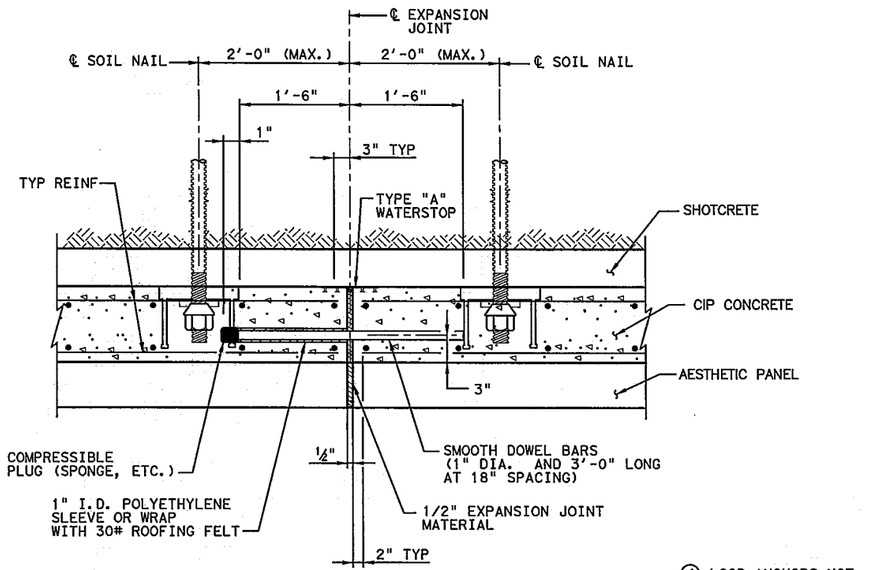
② SEE "RETAINING WALLS MISCELLANEOUS STRUCTURAL DETAILS" SHEETS FOR LOOP ANCHOR SPACING.

AESTHETIC PANEL CONNECTION DETAIL



GEOCOMPOSITE DRAINAGE OVERLAP DETAIL

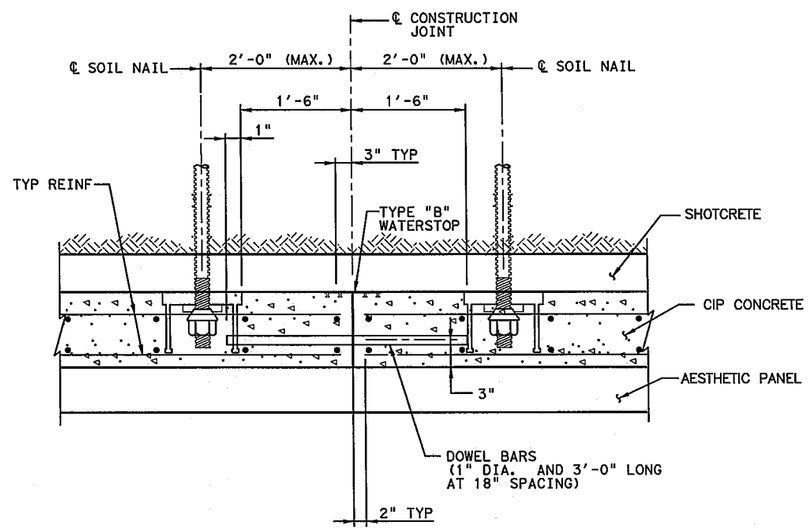
NOT TO SCALE



① LOOP ANCHORS NOT SHOWN FOR CLARITY

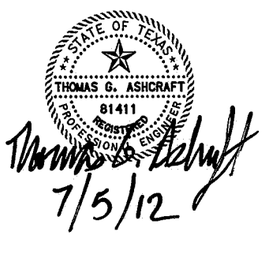
EXPANSION JOINT ①

NOTE:
EXPANSION JOINTS IN WALL TO BE LOCATED AT A MAXIMUM SPACING OF 96 FEET CENTER TO CENTER, CENTERED BETWEEN NAILS. EXPANSION JOINTS NOT REQUIRED THROUGH SHOTCRETE CONSTRUCTION FACING.



CONSTRUCTION JOINT ①

NOTE:
CONSTRUCTION JOINTS IN WALL TO BE LOCATED A MAXIMUM SPACING OF 32 FEET CENTER TO CENTER. CONTRACTOR TO LAYOUT ADDITIONAL CONSTRUCTION JOINTS AS NEEDED IN SHOP DRAWING SUBMITTAL FOR ENGINEER'S APPROVAL. CONSTRUCTION JOINTS NOT REQUIRED THROUGH SHOTCRETE CONSTRUCTION FACING.



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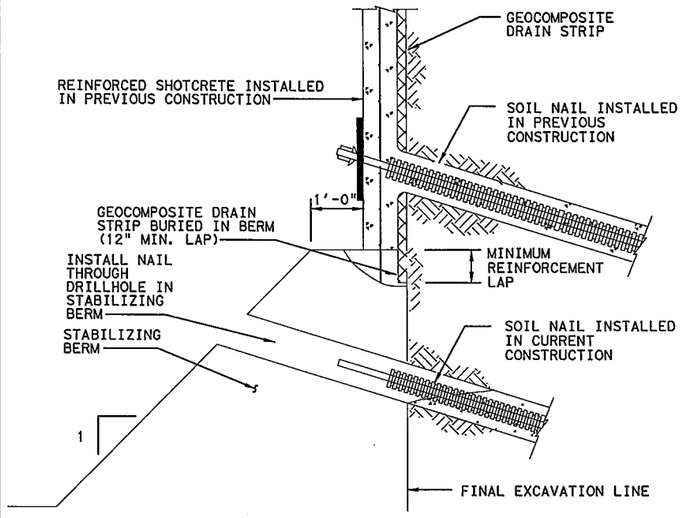
IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS
SOIL NAIL DETAILS

SCALE: NTS — SHEET 3 OF 4

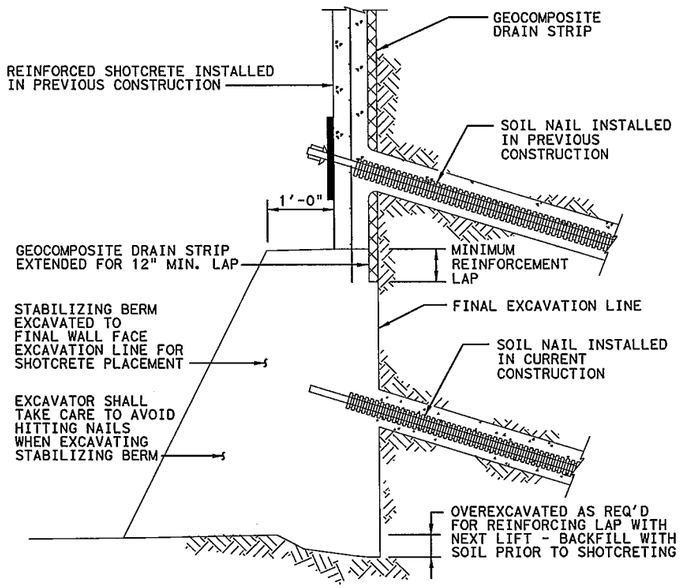
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	1079
CHECK TGA	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRW_SN_03.DGN



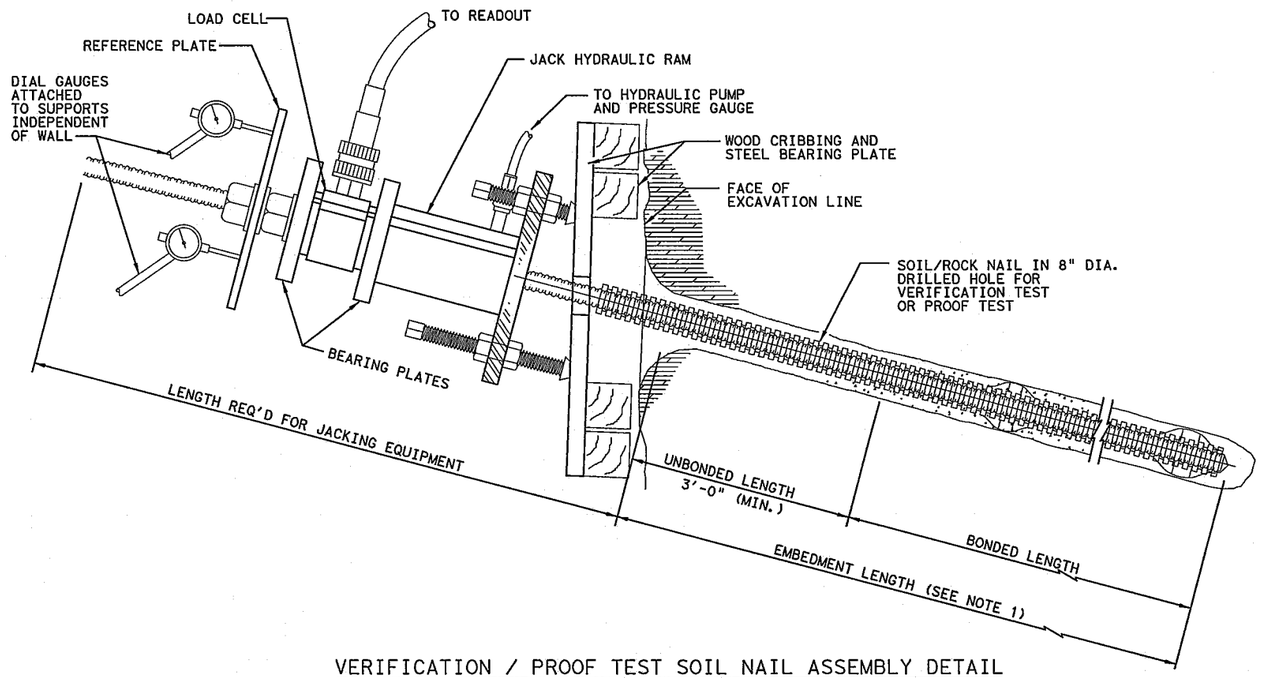
NAIL INSTALLATION THROUGH TEMPORARY STABILIZING BERM (CONTRACTOR OPTION)

NOT TO SCALE



EXCAVATION OF TEMPORARY STABILIZING BERM FOR SHOTCRETE PLACEMENT (CONTRACTOR OPTION)

NOT TO SCALE



VERIFICATION / PROOF TEST SOIL NAIL ASSEMBLY DETAIL

NOT TO SCALE

CONSTRUCTION PROCEDURE:

THE SLOPE IN FRONT OF THE RETAINING WALL SHALL BE REMOVED IN LIFTS. THE DEPTH OF EACH LIFT SHALL BE LIMITED TO THE AMOUNT NECESSARY TO INSTALL A SINGLE HORIZONTAL ROW OF SOIL NAILS. AT NO TIME SHALL MORE THAN 5' OF UNNAILED VERTICAL SOIL BE EXPOSED. THE LENGTH OF EACH LIFT REMOVED SHALL BE LIMITED TO THE AMOUNT THAT CAN BE NAILED IN ONE DAY. AT NO TIME SHALL ANY UNNAILED CUT FACE BE EXPOSED FOR OVER 48 HOURS.

UPON COMPLETION OF EACH DAY'S INSTALLATION OF NAILS, A MINIMUM OF 2" PNEUMATICALLY PLACED CONCRETE SHALL BE APPLIED TO THE CUT FACE. THE CONCRETE SHALL BE REINFORCED AS SHOWN IN THE DESIGN DRAWINGS. ANCHOR PLATES AND NUTS SHALL BE TIGHTENED UP TO THE FACE OF THE PNEUMATICALLY PLACED CONCRETE UNTIL THE CONCRETE FACIA IS INSTALLED.

THE PERMANENT CAST-IN-PLACE CONCRETE AND AESTHETIC PANELS SHALL BE INSTALLED WITHIN 45 WORKING DAYS OF THE COMPLETION OF SOIL NAILING.

TESTING BOND LENGTHS AND LOADS TABLE

NAILING ANCHOR STRATA CLASSIFICATION	PROOF LOAD TEST				VERIFICATION LOAD TEST			
	BONDED LENGTH	DESIGN LOAD	MAX TEST LOAD	BAR SIZE	BONDED LENGTH	DESIGN LOAD	MAX TEST LOAD	BAR SIZE
	FT	KIPS	KIPS		FT	KIPS	KIPS	
Soft Clay	10	2.1	3.2	#9	10	2.1	6.3	#9
Stiff Clay	10	4.2	6.3	#9	10	4.2	12.3	#9
Very Stiff to Hard Clay	10	7.4	11.1	#9	10	7.4	22.2	#9
Weathered Rock	10	15.8	23.7	#9	10	15.8	47.4	#9
Unweathered Shale	10	21.0	31.5	#9	10	21.0	63.0	#11
Unweathered Limestone	7	36.7	55.1	#9	7	36.7	110.1	#14

NOTES:

1. TEST NAIL TOTAL LENGTH TO INCLUDE THE EMBEDMENT LENGTH AND REQUIRED LENGTH FOR JACKING EQUIPMENT.
2. REFER TO "TESTING BOND LENGTH AND LOADS TABLE" FOR REQUIRED BOND LENGTHS AND LOADS.
3. TEST SOIL NAIL ASSEMBLY DETAIL IS FOR INFORMATION ONLY CONTRACTOR TO SUBMIT DETAILED EQUIPMENT ASSEMBLY FOR ENGINEERS REVIEW.
4. A MINIMUM OF TWO VERIFICATION TESTS PER SOIL STRATUM AND FOR EACH DIFFERENT DRILLING OR GROUTING METHOD PROPOSED FOR USE SHALL BE PERFORMED AND ACCEPTED PRIOR TO THE INSTALLATION OF ANY PRODUCTION NAILS. VERIFICATION TESTS ARE TO TEST THE ULTIMATE LOAD OF THE NAIL AND VERIFY PULLOUT CAPACITY OF THE NAILS. VERIFICATION TESTS ARE PERFORMED ON SACRIFICIAL TEST NAILS THAT SHOULD NOT BE A PART OF THE FINAL WALL. THE ENGINEER SHALL EVALUATE THE RESULTS OF ALL TESTS. ADDITIONAL TESTS REQUIRED AS A RESULT OF REJECTED TESTS SHALL BE DONE AT CONTRACTOR EXPENSE.
5. 5% TO 10% OF THE NAILS, BUT NO LESS THAN 20, SHALL BE PROOF TESTED. A MINIMUM OF ONE NAIL PER LAYER OF NAILS SHALL BE TESTED ON EACH WALL. PROOF TESTS ARE INTENDED TO VERIFY CONSTRUCTION PROCEDURE THROUGHOUT THE LENGTH OF THE WALL AND SHOULD BE PERFORMED ON PRODUCTION NAILS. THE ENGINEER SHALL EVALUATE THE RESULTS OF ALL TESTS. ADDITIONAL TESTS REQUIRED AS A RESULT OF REJECTED TESTS SHALL BE DONE AT CONTRACTOR EXPENSE.
6. IF EXCAVATION EXPOSES SOILS NOT COVERED IN THE "TESTING BOND LENGTHS AND LOADS TABLE", THE ENGINEER SHALL BE NOTIFIED. ADDITIONAL VERIFICATION TESTS IN EACH OF THESE SOIL TYPES SHALL BE PERFORMED PRIOR TO PLACING ADDITIONAL PRODUCTION NAILS IN THE NEW SOILS.
7. A TEST NAIL SHALL BE CONSIDERED ACCEPTABLE UPON PASSING THE FOLLOWING CRITERIA. IF A TEST NAIL FAILS, THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

   A. VERIFICATION TESTS:
      I. TOTAL CREEP MOVEMENT IS LESS THAN 0.08 INCHES BETWEEN THE 6- AND 60-MINUTE READINGS AND THE CREEP RATE IS LINEAR OR DECREASING THROUGHOUT THE CREEP TEST LOAD HOLD PERIOD.
      II. TOTAL MEASURED MOVEMENT AT THE MAXIMUM TEST LOAD EXCEEDS 80% OF THE THEORETICAL ELASTIC ELONGATION OF THE TEST NAIL UNBONDED LENGTH.
      III. A PULLOUT FAILURE DOES NOT OCCUR AT 2.0* DESIGN TEST LOAD.

   B. PROOF TESTS:
      I. TOTAL CREEP MOVEMENT IS LESS THAN 0.04 INCHES DURING THE 10-MINUTE READINGS OR THE TOTAL CREEP MOVEMENT IS LESS THAN 0.08 INCHES DURING THE 60-MINUTE READINGS AND THE CREEP RATE IS LINEAR OR DECREASING THROUGHOUT THE CREEP TEST LOAD HOLD PERIOD.
      II. TOTAL MEASURED MOVEMENT AT THE MAXIMUM TEST LOAD EXCEEDS 80% OF THE THEORETICAL ELASTIC ELONGATION OF THE TEST NAIL UNBONDED LENGTH.
      III. A PULLOUT FAILURE DOES NOT OCCUR AT 1.5* DESIGN TEST LOAD.

STATE OF TEXAS
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81411
REGISTERED PROFESSIONAL ENGINEER

Thomas G. Ashcraft
7/5/12

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

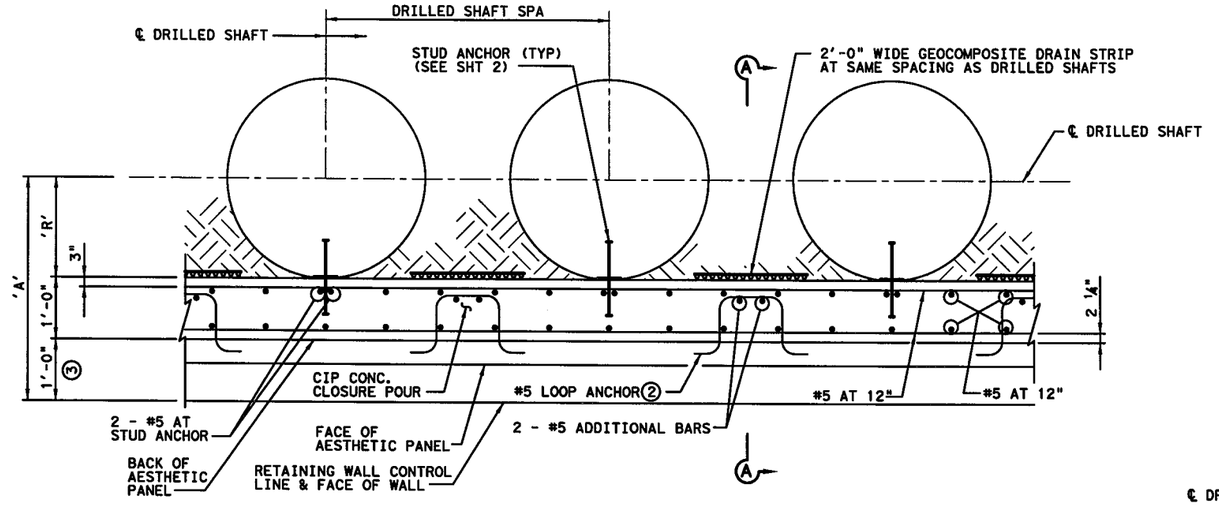
RETAINING WALLS

SOIL NAIL DETAILS

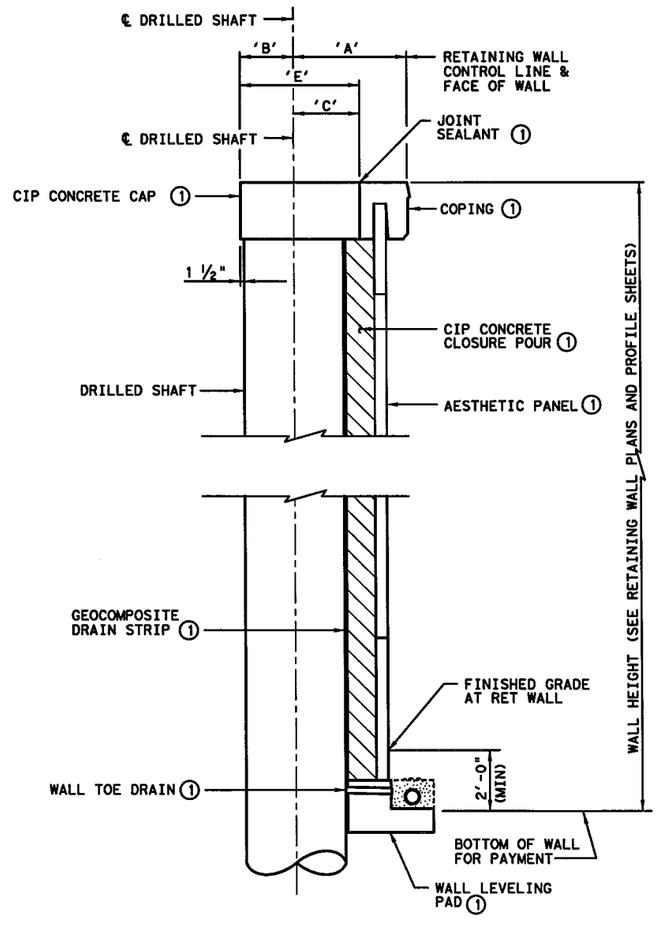
SCALE: NTS — SHEET 4 OF 4

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
PMB	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1080
LVA	0014	16	255, ETC.	
CHECK				
TGA				

DRAWING DATE: 7/13/2012 FILENAME: S3BRW_SN_04.DGN



PARTIAL PLAN



SECTION A-A

TABLE OF DRILLED SHAFT CAP DIMENSIONS					
DRILLED SHAFT DIA	'A'	'B'	'C'	'R'	'E'
24"	3'-0"	1'-1 1/2"	1'-6"	1'-0"	2'-7 1/2"
30"	3'-3"	1'-4 1/2"	1'-9"	1'-3"	3'-1 1/2"
36"	3'-6"	1'-7 1/2"	2'-0"	1'-6"	3'-7 1/2"
42"	3'-9"	1'-10 1/2"	2'-3"	1'-9"	4'-1 1/2"

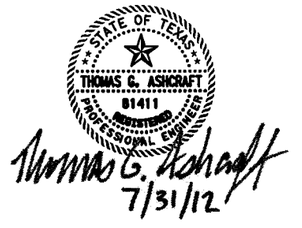
GENERAL NOTES:

1. DESIGNED ACCORDING TO 2010 AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
2. SEE "RETAINING WALLS MISCELLANEOUS STRUCTURAL DETAILS" FOR TOE DRAIN INFORMATION.
3. ALL REINFORCING STEEL TO BE GRADE 60.
4. STUD ANCHOR PLATE TO BE GRADE 36 AND STUD ANCHORS TO BE GRADE 60.
5. CONCRETE STRENGTH TO BE 3,600 PSI.
6. JOINT SEALANTS TO BE PREPARED AND PLACED IN ACCORDANCE WITH ITEM 438 AND DMS-6310.

① COST IS SUBSIDIARY TO RETAINING WALL PAY ITEM.

② LOOP ANCHORS TO BE CAST IN AESTHETIC PANELS. SEE "RETAINING WALLS MISCELLANEOUS STRUCTURAL DETAILS" SHEETS FOR LOOP ANCHOR SPACING.

③ ASSUMED DIMENSIONS. CONTRACTOR TO ADJUST BASED ON ACTUAL COPING DIMENSIONS.



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IH 35W FROM NORTH TARRANT PKWY TO IH 820

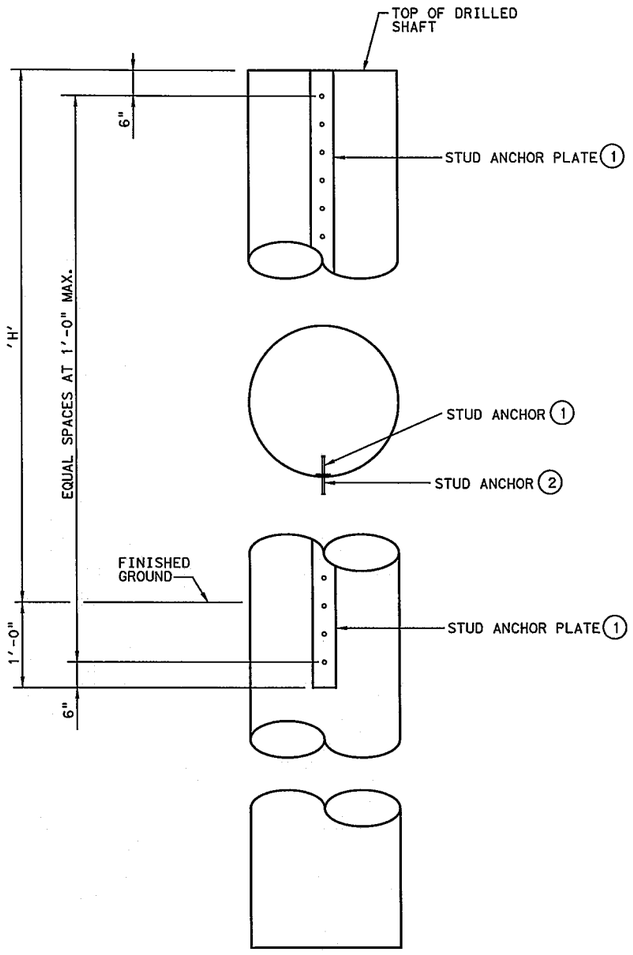
RETAINING WALLS

DRILLED SHAFT DETAILS

SCALE: NTS — SHEET 1 OF 5

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	1081
CHECK TGA	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

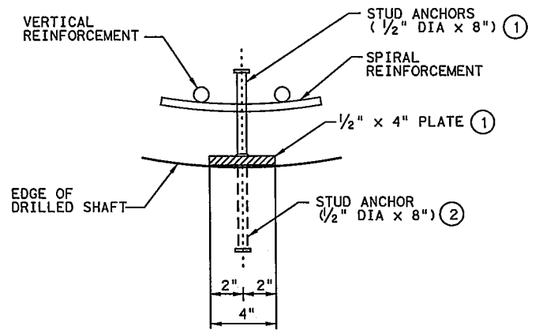
DRAWING DATE: 7/13/2012 FILENAME: S3BRW_DS_01.DGN



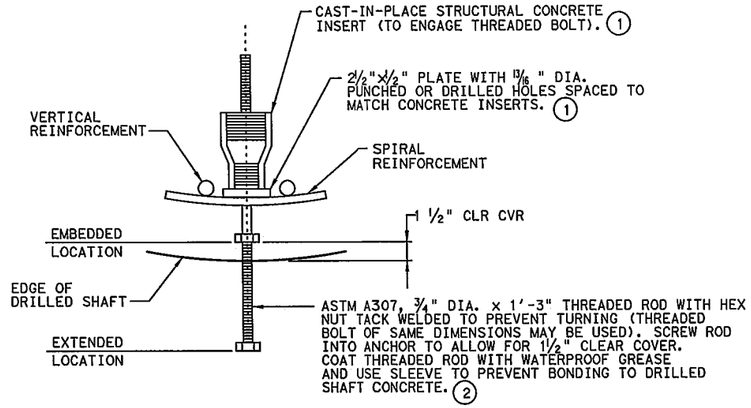
DRILLED SHAFT ELEVATION

(1) INCLUDED IN PRICE BID FOR DRILLED SHAFT

(2) TO BE PLACED AFTER EXCAVATION IN FRONT OF WALL



STUD ANCHOR DETAIL



OPTIONAL CONCRETE ANCHOR DETAIL

CONTRACTOR MAY USE CONCRETE ANCHOR SYSTEM IN LIEU OF STUD ANCHOR SYSTEM. CONCRETE ANCHORS SHALL MATCH STUD ANCHOR SPACING. LENGTH OF PLATE SHALL MATCH LENGTH OF STUD ANCHOR PLATE.

STATE OF TEXAS
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

DRILLED SHAFT DETAILS

SCALE: NTS

SHEET 2 OF 5

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	
CHECK TGA	CONTROL	SECTION	JOB	1082
	0014	16	255, ETC.	

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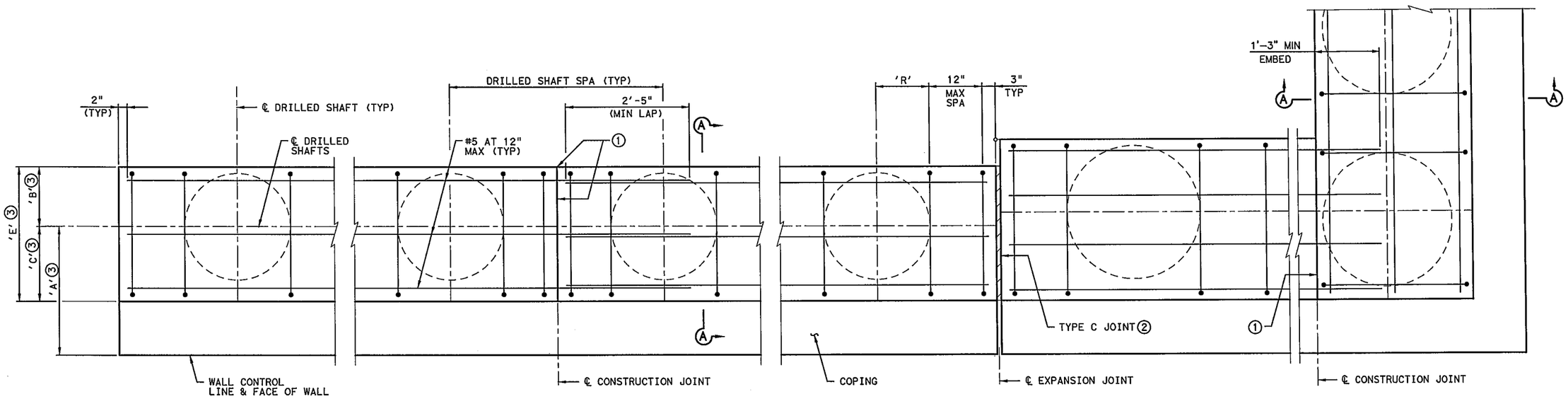
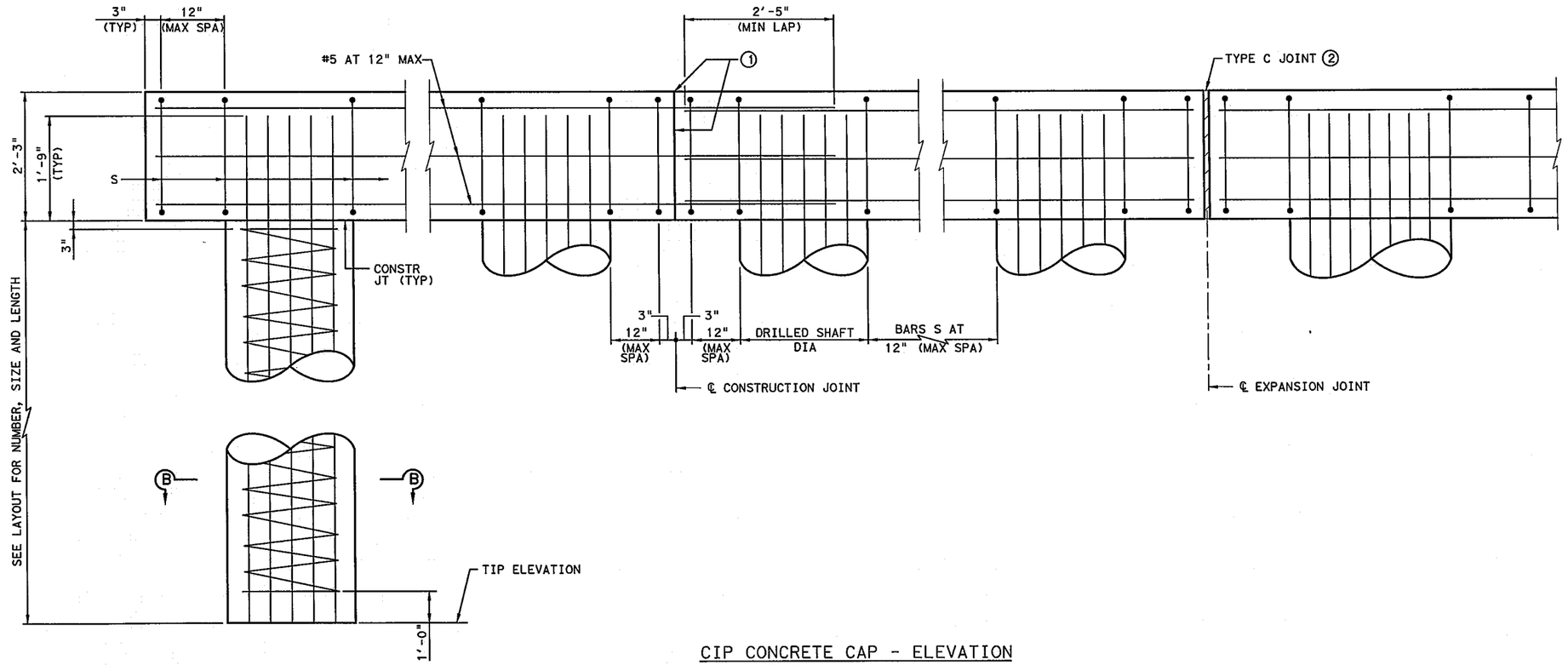
DRAWING DATE: 7/13/2012



CIP CONCRETE CAP - PARTIAL PLAN

(SHOWING TYPICAL REINFORCING AND JOINT TYPES)



CIP CONCRETE CAP - ELEVATION

(SHOWING TYPICAL REINFORCING AND JOINT TYPES)

STATE OF TEXAS
THOMAS G. ASHCRAFT
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

DRILLED SHAFT DETAILS

SCALE: NTS

SHEET 3 OF 5

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	
CHECK TGA	CONTROL	SECTION	JOB	1083
	0014	16	255, ETC.	

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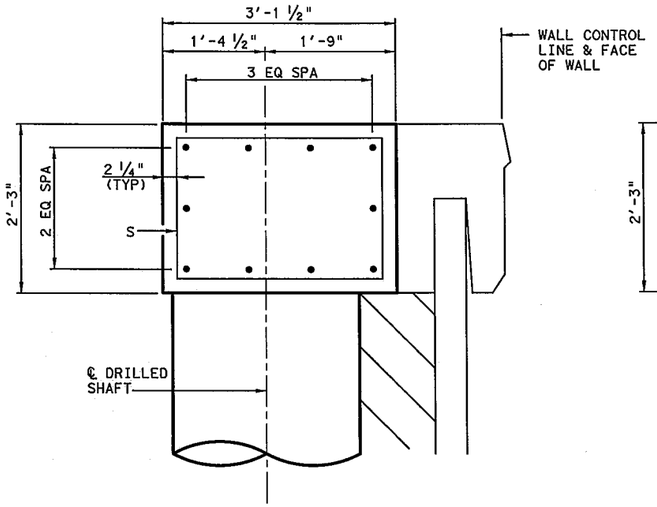
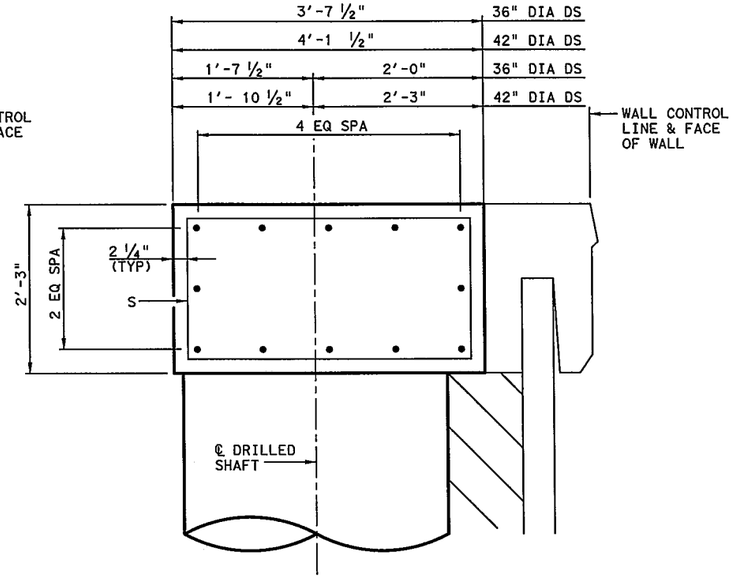
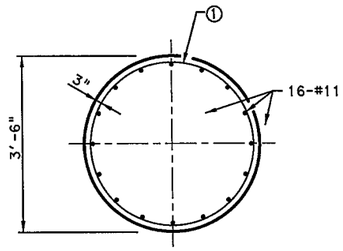
DRAWING DATE: 7/13/2012



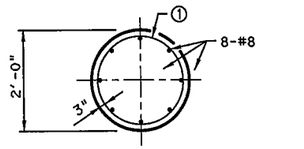
30" DIA D.S.



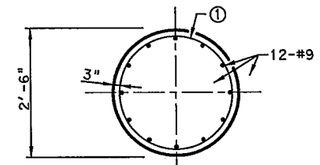
36" & 42" DIA D.S.



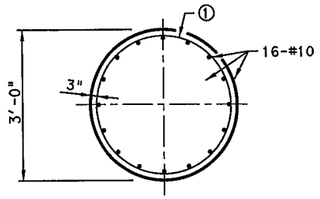
42" DIA D.S.



24" DIA D.S.



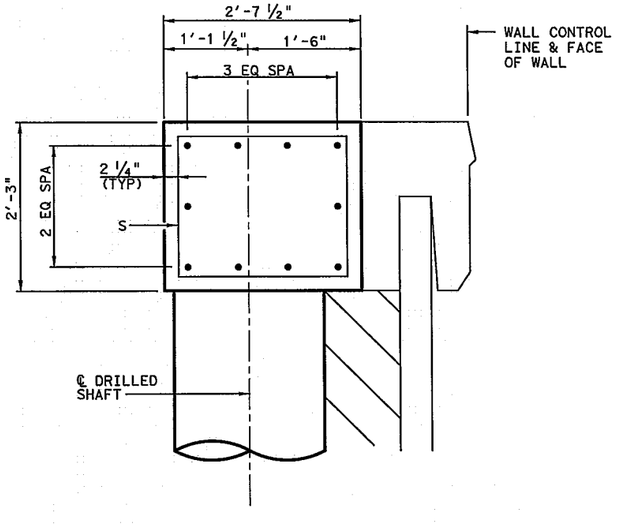
30" DIA D.S.



36" DIA D.S.

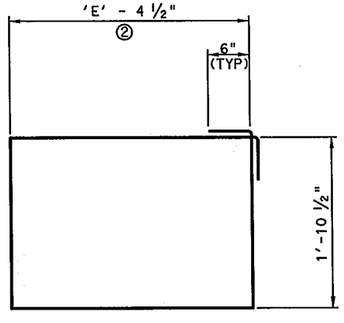
SECTION B-B

① #3 SPIRAL AT 6" PITCH (ONE FLAT TURN TOP, BOTTOM AND SPLICES).



24" DIA D.S.

SECTION A-A



BARS S
(#5 BAR)

② SEE TABLE OF DRILLED SHAFT CAP DIMENSIONS ON SHEET 1 OF 5 FOR DIMENSIONS.

STATE OF TEXAS
THOMAS G. ASHCRAFT
81411
REGISTERED
PROFESSIONAL ENGINEER

Thomas G. Ashcraft
7/5/12

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CP&Y, INC.
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

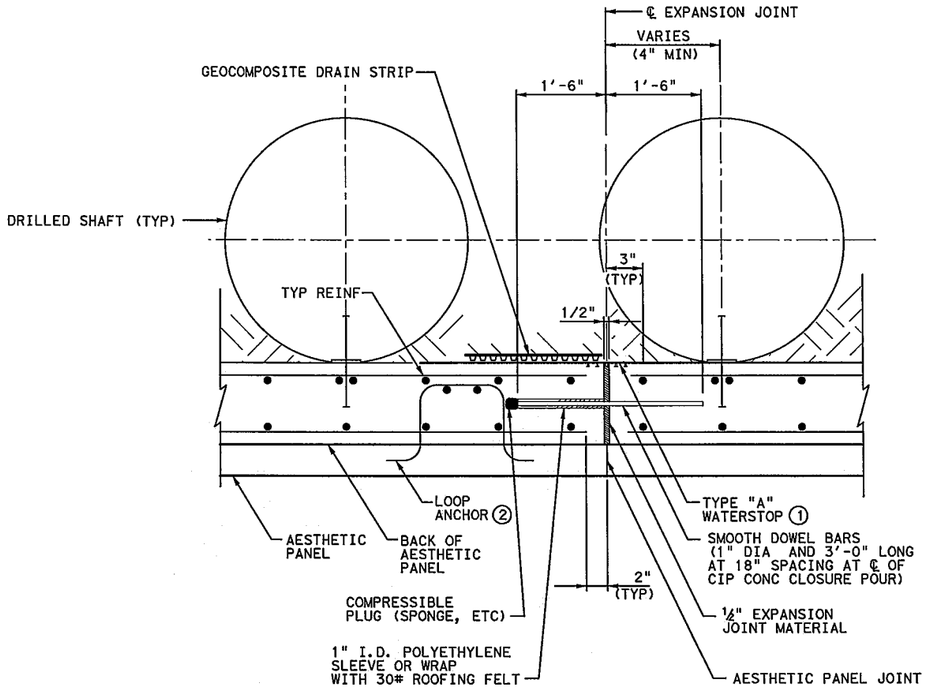
RETAINING WALLS
DRILLED SHAFT DETAILS

SCALE: NTS

SHEET 4 OF 5

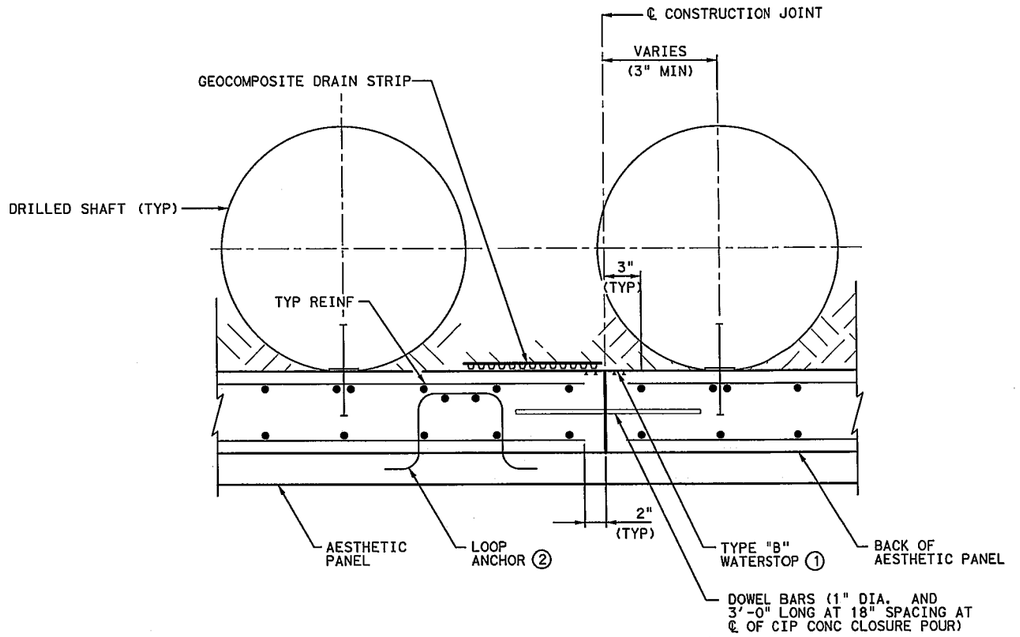
DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	1084
CHECK TGA	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BRW_DS_04.DGN



EXPANSION JOINT

NOTE:
EXPANSION JOINTS IN WALL TO BE LOCATED AT A MAXIMUM SPACING OF 96 FEET CENTER TO CENTER.



CONSTRUCTION JOINT

NOTE:
CONSTRUCTION JOINTS IN WALL TO BE LOCATED AT A MAXIMUM SPACING OF 32 FEET CENTER TO CENTER.

① SEE "RETAINING WALLS MISCELLANEOUS STRUCTURAL DETAILS" FOR WATERSTOP DETAILS.

② LOOP ANCHORS TO BE CAST IN AESTHETIC PANELS. SEE "RETAINING WALLS MISCELLANEOUS STRUCTURAL DETAILS" SHEETS FOR LOOP ANCHOR SPACING.

STATE OF TEXAS
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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

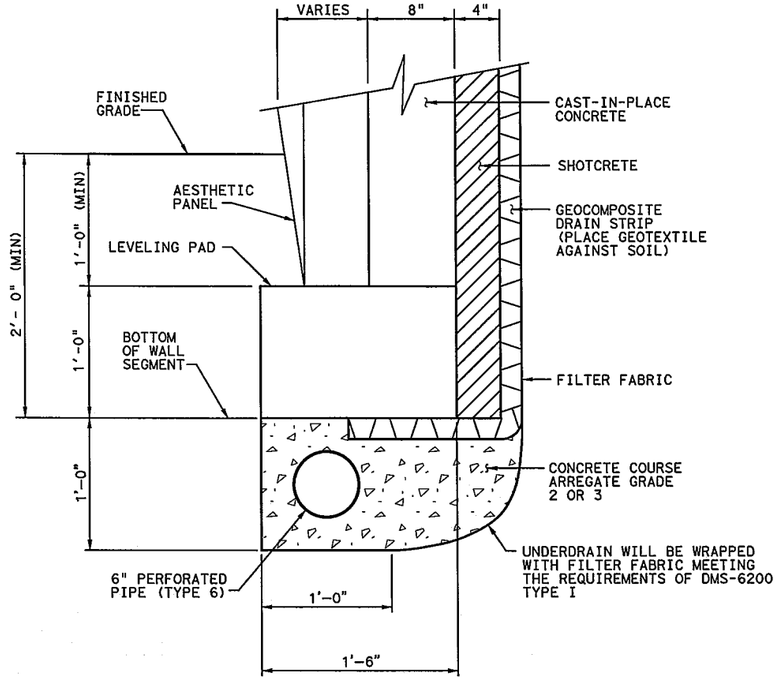
DRILLED SHAFT DETAILS

SCALE: NTS

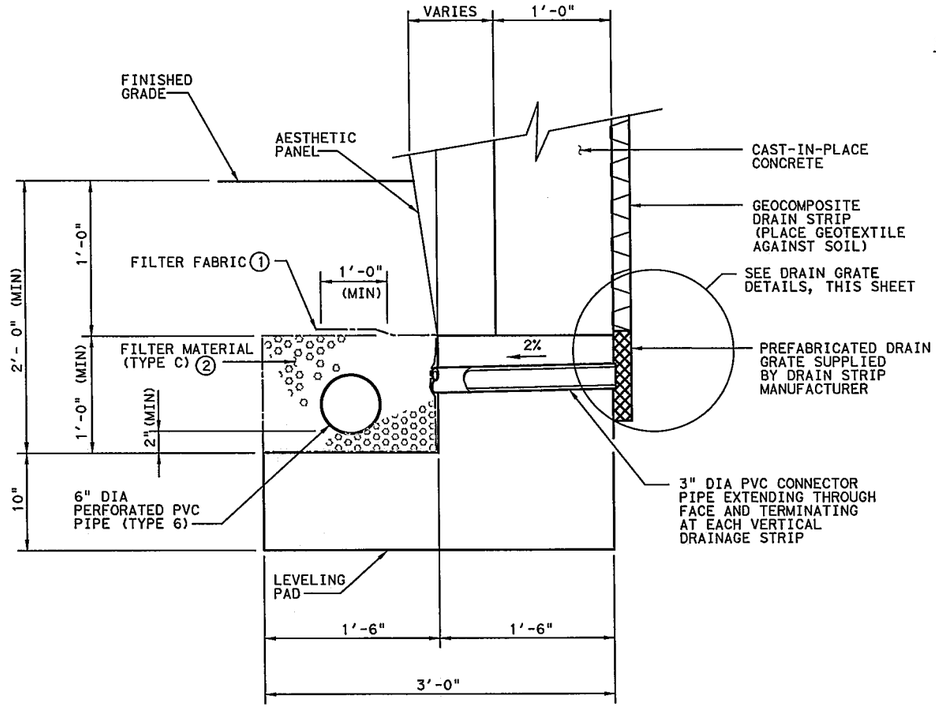
SHEET 5 OF 5

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
PMB	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1085
LVA	0014	16	255, ETC.	
CHECK				
TGA				

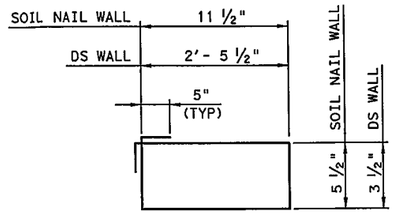
DRAWING DATE: 7/13/2012 FILENAME: S3BRW_DS_05.DGN



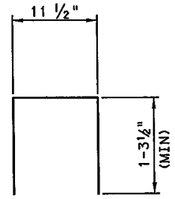
UNDERDRAIN DETAIL



DRILLED SHAFT WALL TOE DRAIN DETAIL



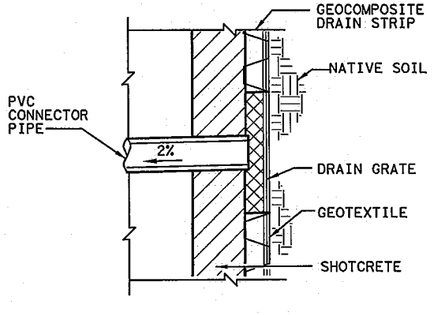
BARS S
(#4 BAR)



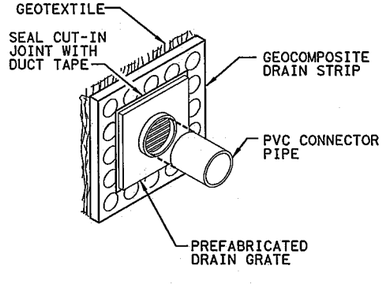
BARS U
(#4 BAR)

① FILTER MATERIAL SHALL BE WRAPPED WITH FILTER FABRIC MEETING THE REQUIREMENTS OF DMS-6200 TYPE 1.

② PROVIDE DRAINAGE AGGREGATE CONSISTING OF CLEAN CRUSHED STONE MEETING THE GRADATION IN ACCORDANCE WITH TxDOT ITEM 421 NO. 4 COARSE AGGREGATE WITH NO FINES PASSING THE NO. 200 SIEVE FOR PIPES WITH ROUND PERFORATIONS.



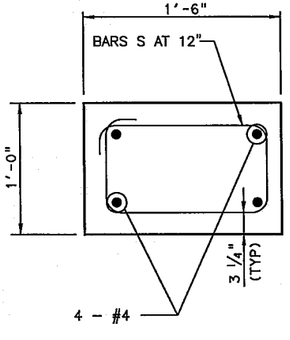
SECTIONAL VIEW
(SHOWING SOIL NAIL WALL)



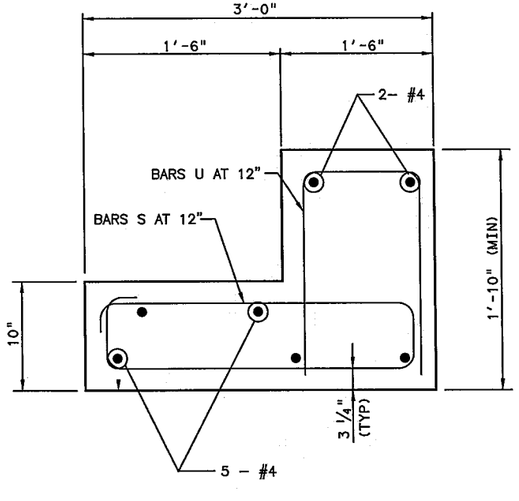
ISOMETRIC VIEW

DRAIN GRATE DETAILS

NOTE: DRAIN GRATE INSTALLATION SHALL NOT DISRUPT GEOTEXTILE

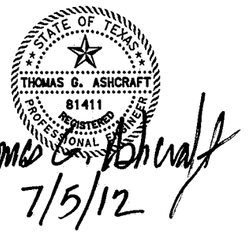


SOIL NAIL WALL



DRILLED SHAFT WALL

LEVELING PAD REINFORCEMENT



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7/5/12

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TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

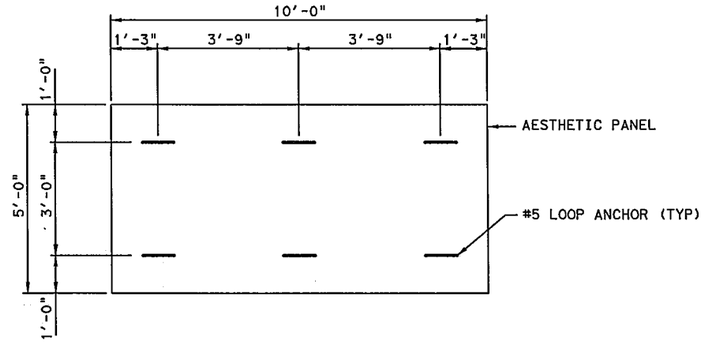
MISCELLANEOUS STRUCTURAL DETAILS

SCALE: NTS — SHEET 1 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	1086
CHECK TGA	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

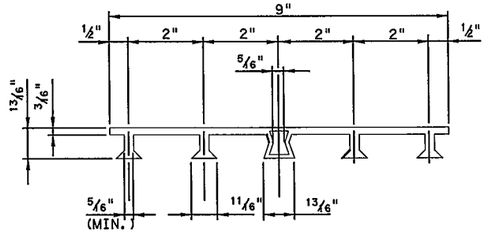
FILENAME: S3BRW_MD_01.DGN

DRAWING DATE: 7/13/2012



TYPICAL AESTHETIC PANEL LOOP ANCHOR LAYOUT

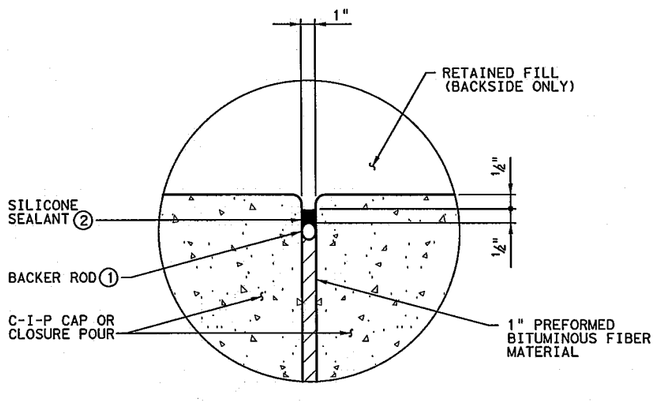
NOTE: LOOP ANCHOR LOCATION FOR INFORMATION ONLY. CONTRACTOR HAS CHOICE FOR OPTIONAL ANCHOR DESIGN AND LAYOUT.



TYPE "A" WATERSTOP

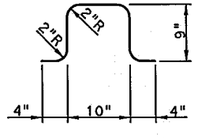
NOTE: DIMENSIONS AND SHAPES MAY VARY SLIGHTLY DEPENDING ON MANUFACTURER.

1. BACKER ROD SHALL BE 25% LARGER THAN JOINT OPENING AND SHALL BE COMPATIBLE WIITH THE SEALANT; NO REACTION SHALL OCCUR BETWEEN THE ROD AND THE SEALANT.
2. SEALANT SHALL BE CLASS 7 SILICONE SEALANT. INSTALL WHEN AMBIENT TEMPERATURE IS BETWEEN 55°F AND 85°F AND RISING. ENGINEER TO DETERMINE ALLOWABLE HOURS FOR SEALANT APPLICATION.
3. TYPE C JOINT TO BE IN ACCORDANCE WITH ITEM 438 AND DMS-6310.

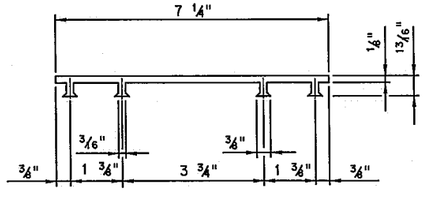


TYPE C JOINT DETAIL (3)

(SECTION APPLIES TO BACKSIDE OF WALL OR TOP OF CAP)



LOOP ANCHOR



TYPE "B" WATERSTOP

NOTE: DIMENSIONS AND SHAPES MAY VARY SLIGHTLY DEPENDING ON MANUFACTURER.

Thomas G. Ashcraft
7/5/12

HL 93 LOADING

CP&Y, INC.
TBPE REGISTRATION NO. F-1741

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

RETAINING WALLS

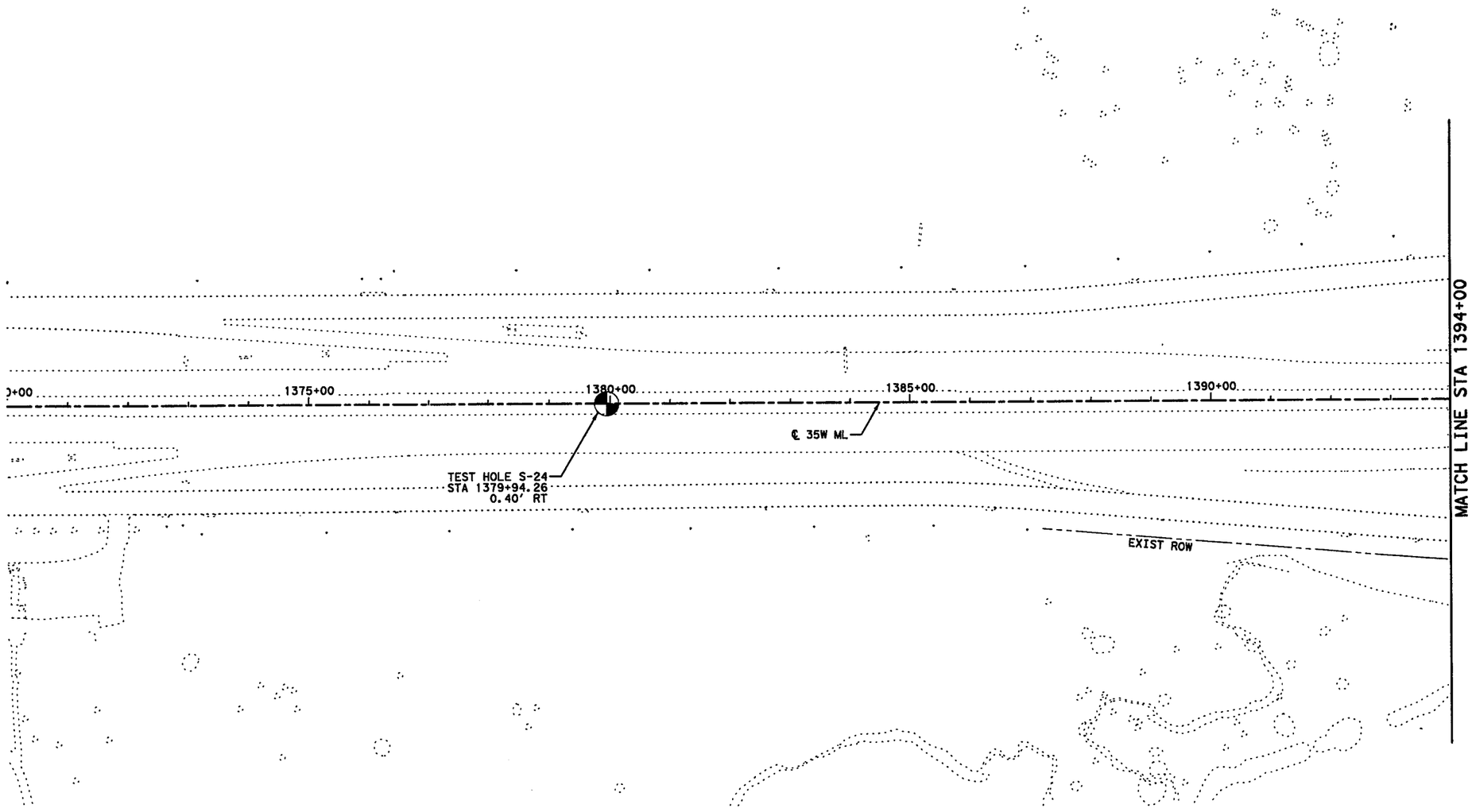
MISCELLANEOUS STRUCTURAL DETAILS

SCALE: NTS — SHEET 2 OF 2

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
LVA	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS PMB	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK LVA	TEXAS	FTW	TARRANT	1087
CHECK TGA	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BRW_MD_02.DGN

DRAWING DATE: 7/13/2012



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
7/10/2012

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

FIRM # F-1970
RESPONSIBLE FOR RETAINING WALL DESIGN PARAMETERS AND GEOTECHNICAL RECOMMENDATIONS.

7-11-2012

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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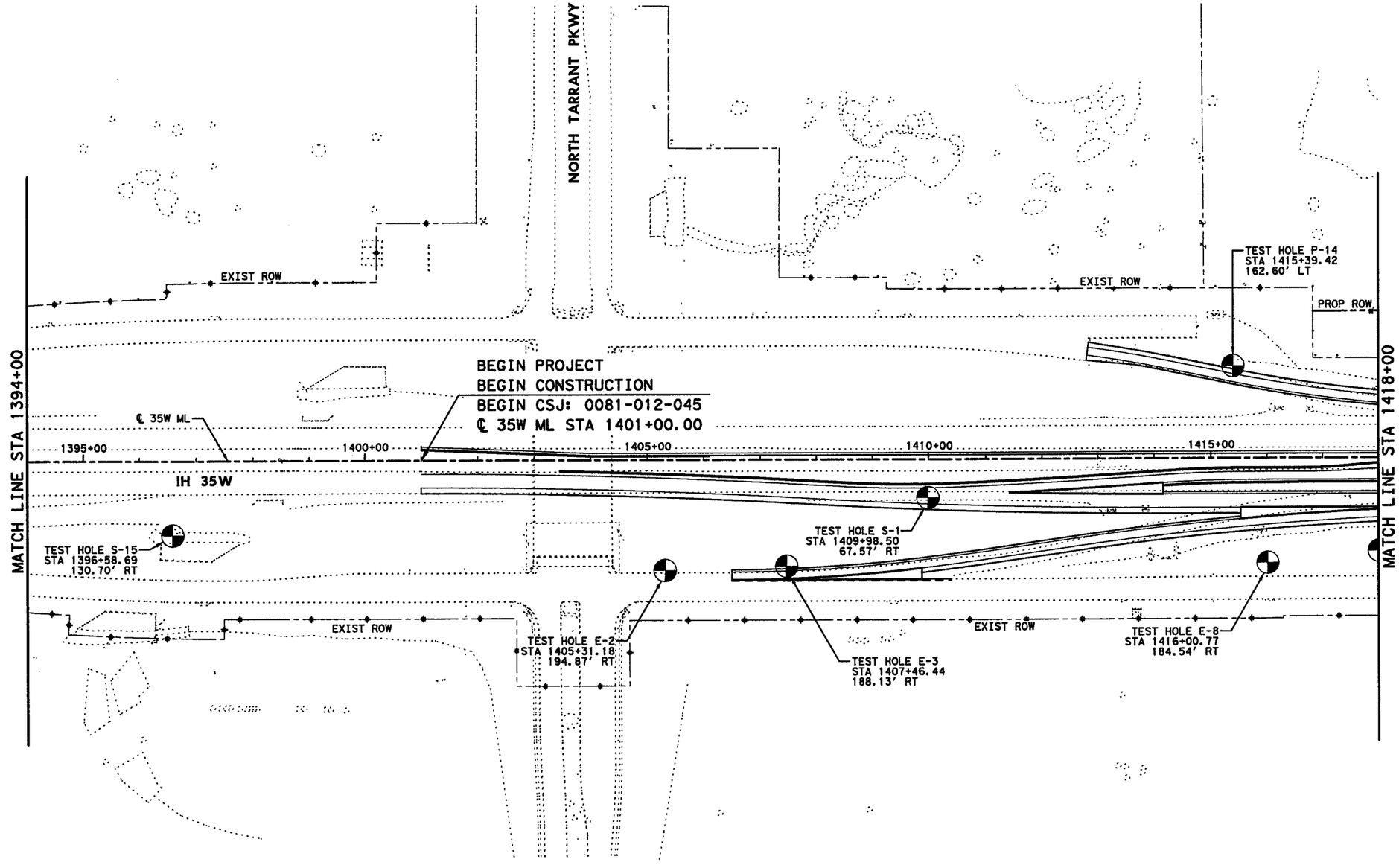
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
BEGIN PROJECT TO STA 1394+00

SCALE 1" = 200' SHEET 1 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1088
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BBORE00A.dgn



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
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STATE OF TEXAS
DAVID W. HAWLEY
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STATE OF TEXAS
MARK J. FARROW
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LICENSED PROFESSIONAL ENGINEER

FIRM # F-1970
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7-11-2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

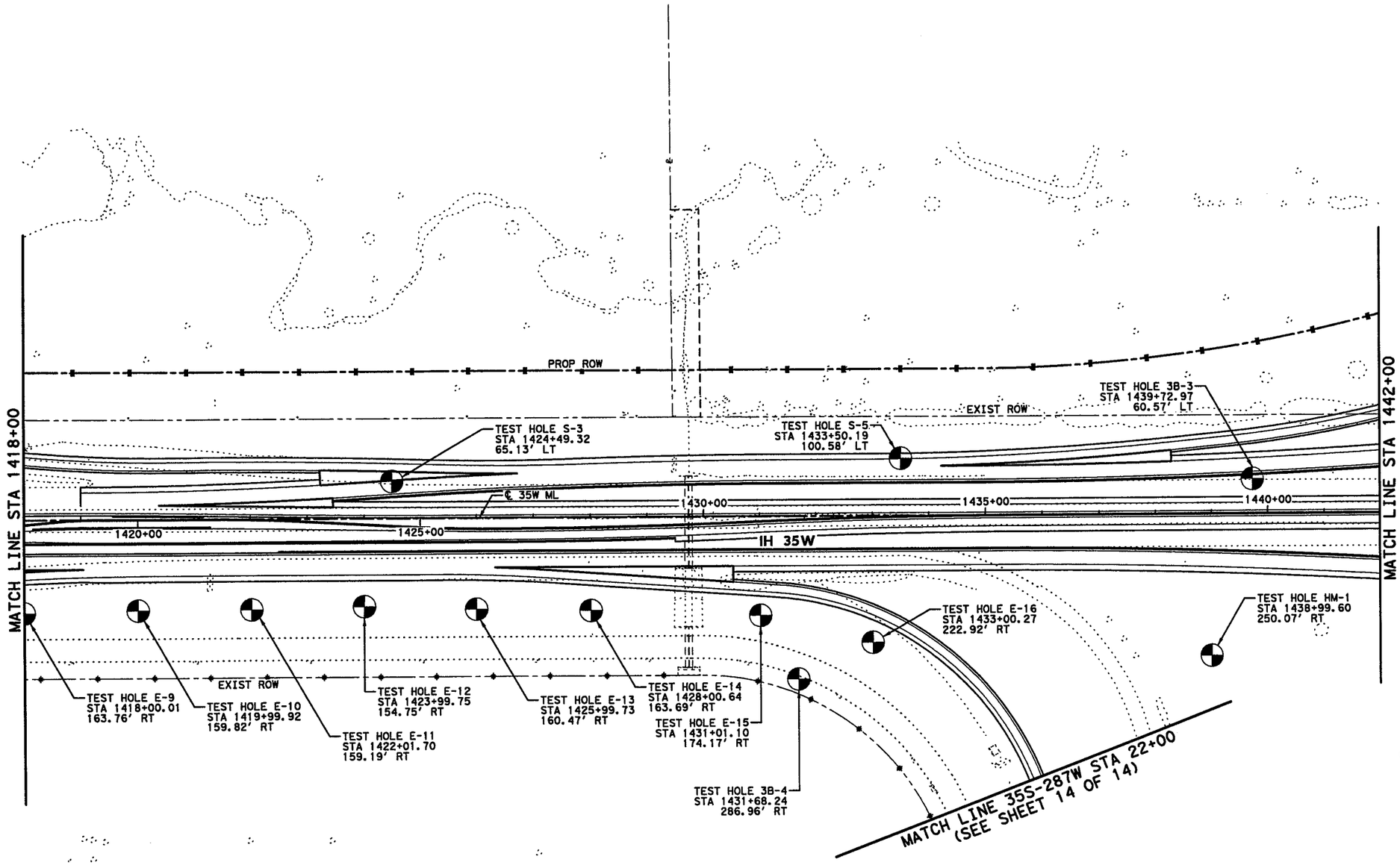
BORING PLAN
STA 1394+00 TO STA 1418+00

SCALE 1" = 200' SHEET 2 OF 14

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1089
KCI	0014	16	255, ETC.	
CHECK				

FILENAME: S3BBORE01.dgn

DRAWING DATE: 7/13/2012



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
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STATE OF TEXAS
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FIRM # F-1970
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7-11-2012

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TBPE REGISTRATION NO. F-926

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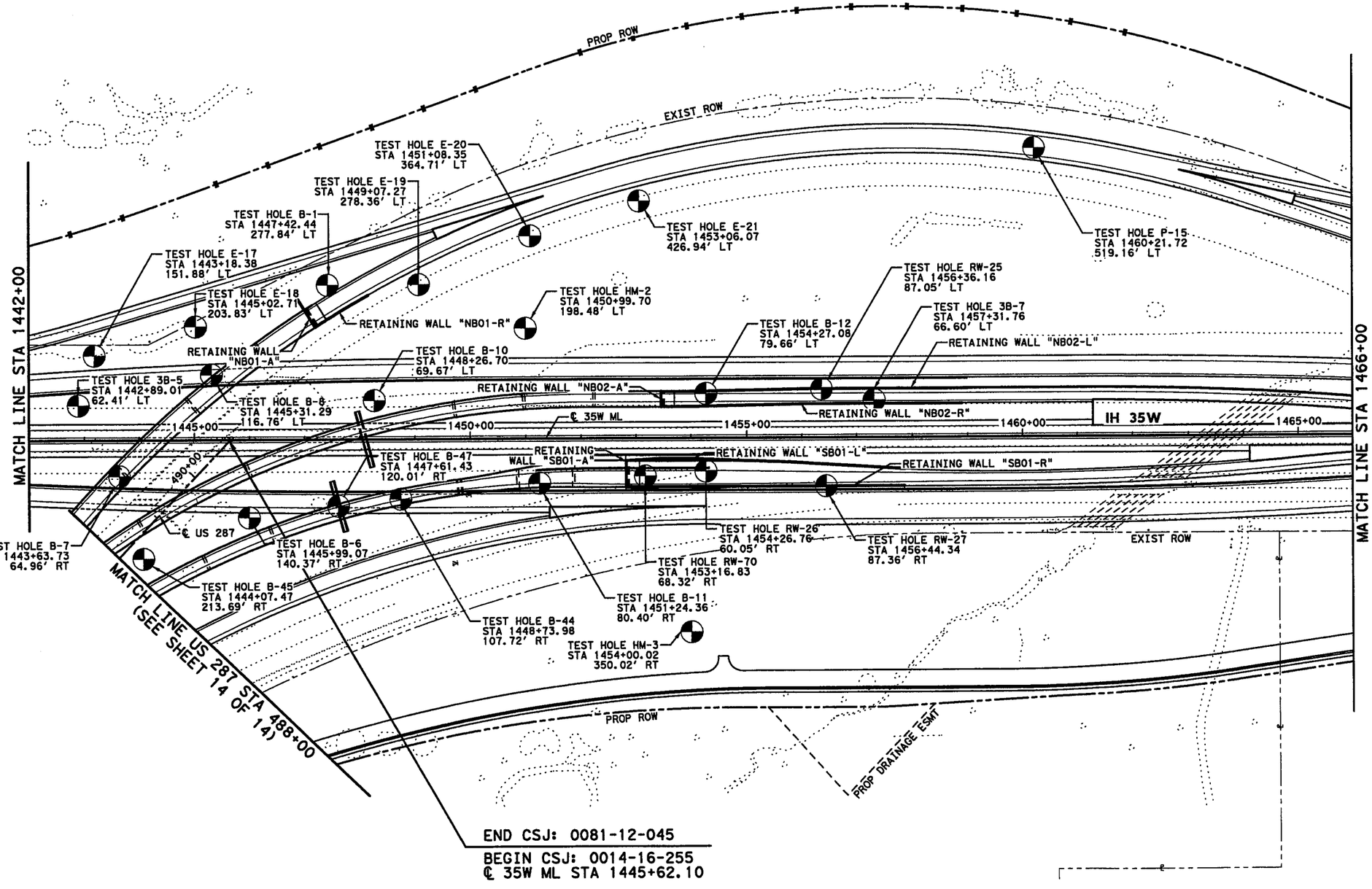
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
STA 1418+00 TO STA 1442+00

SCALE 1" = 200' SHEET 3 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1090
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BBORE02.dgn
DRAWING DATE: 7/13/2012



NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

STATE OF TEXAS
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MARK J. FARROW
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LICENSED
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FIRM # F-1970
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7-11-2012

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TBPE REGISTRATION NO. F-926

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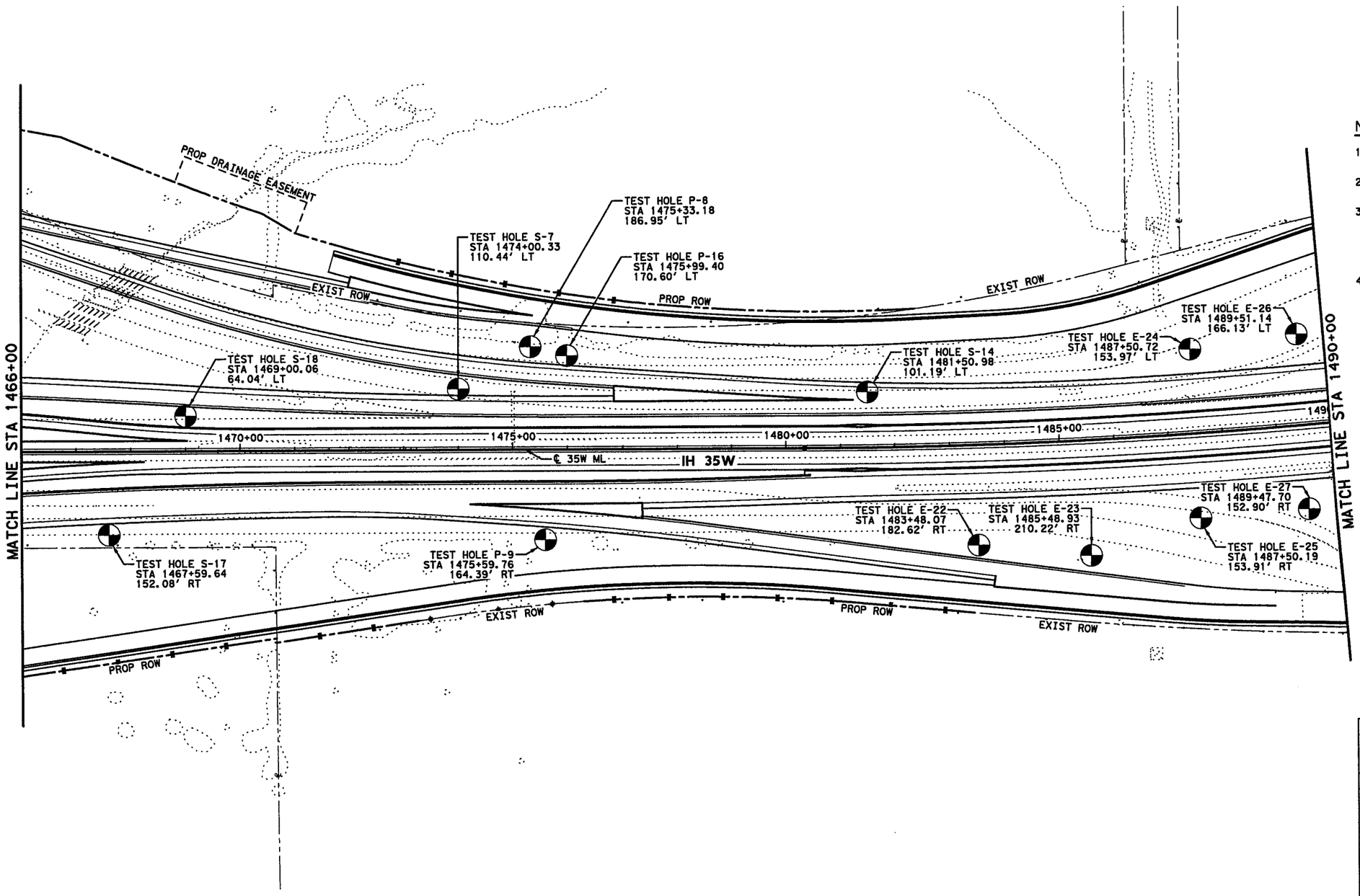
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
STA 1442+00 TO STA 1460+00

SCALE 1" = 200' SHEET 4 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	
CHECK KCI	CONTROL	SECTION	JOB	1091
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BBORE03.dgn



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

STATE OF TEXAS
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STATE OF TEXAS
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FIRM # F-1970
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7-11-2012

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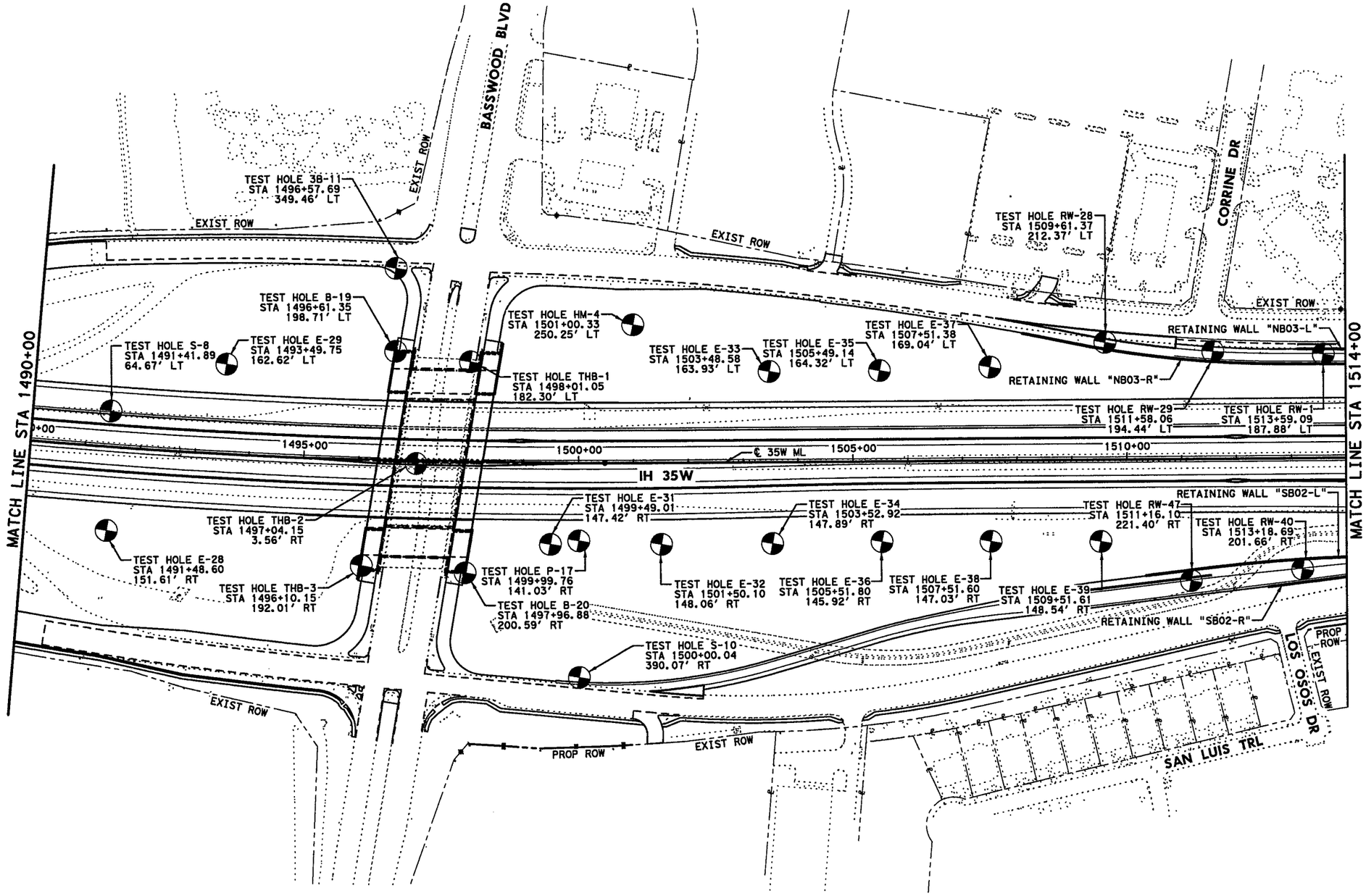
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
STA 1466+00 TO STA 1490+00

SCALE 1" = 200' SHEET 5 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	1092
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BBORE04.dgn



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

STATE OF TEXAS
DAVID W. HAWLEY
92962
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7/10/2012

STATE OF TEXAS
MARK J. FARROW
48059
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FIRM # F-1970
RESPONSIBLE FOR RETAINING WALL DESIGN PARAMETERS AND GEOTECHNICAL RECOMMENDATIONS.

7-11-2012

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TBPE REGISTRATION NO. F-926

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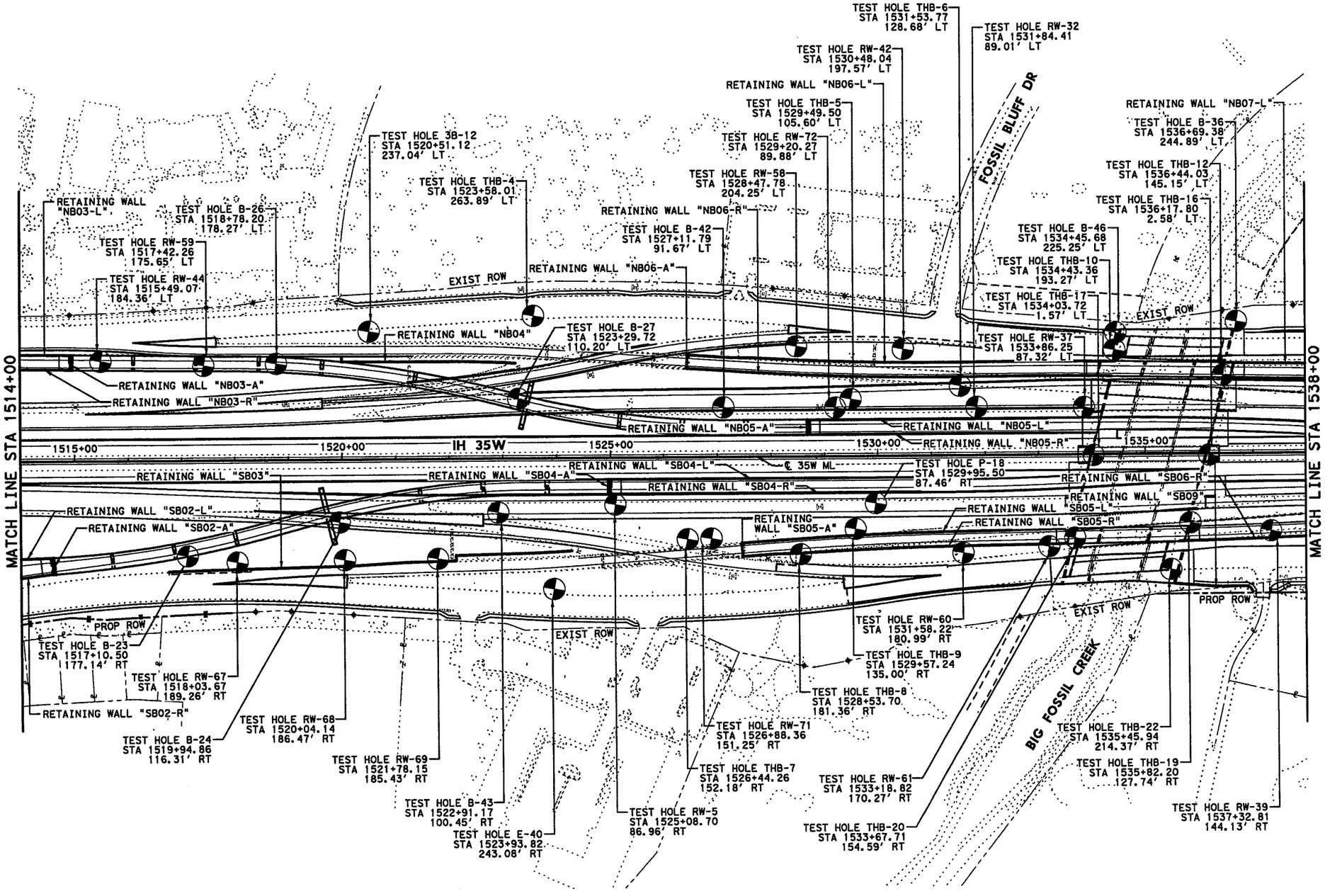
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
STA 1490+00 TO STA 1514+00

SCALE 1" = 200' SHEET 6 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1093
KCI	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BBORE05.dgn



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 38-3 THRU 38-7, 38-11 AND 38-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

STATE OF TEXAS
DAVID W. HAWLEY
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7/10/2012

STATE OF TEXAS
MARK J. FARROW
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FIRM # F-1970
RESPONSIBLE FOR RETAINING WALL DESIGN PARAMETERS AND GEOTECHNICAL RECOMMENDATIONS.

7-11-2012

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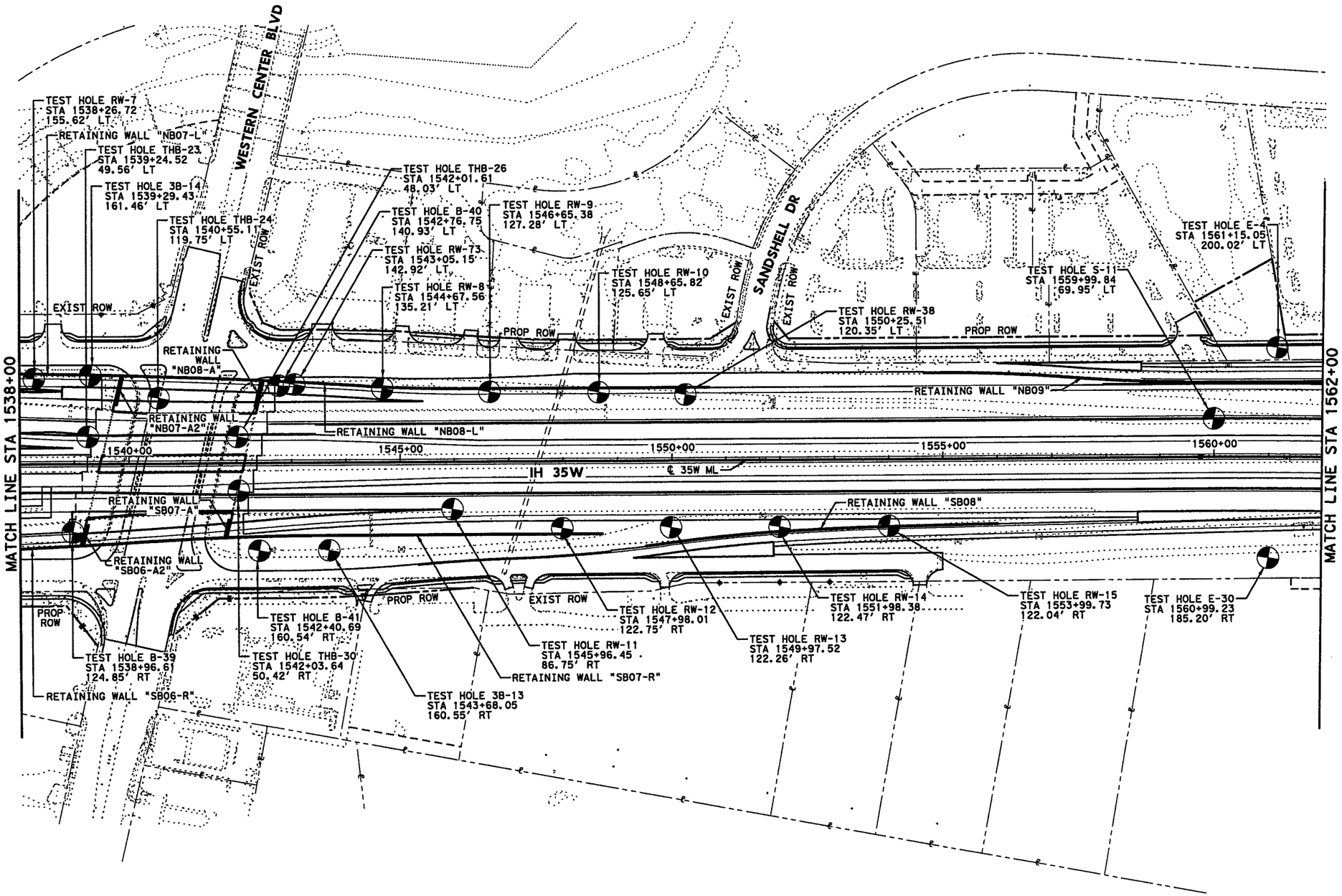
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
STA 1514+00 TO STA 1538+00

SCALE 1" = 200' SHEET 7 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	1094
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	

FILENAME: S3BBOREO6.dgn
DRAWING DATE: 7/13/2012



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

STATE OF TEXAS
DAVID W. HAWLEY
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7/10/2012

STATE OF TEXAS
MARK J. FARROW
48059
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FIRM # F-1970
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7-11-2012

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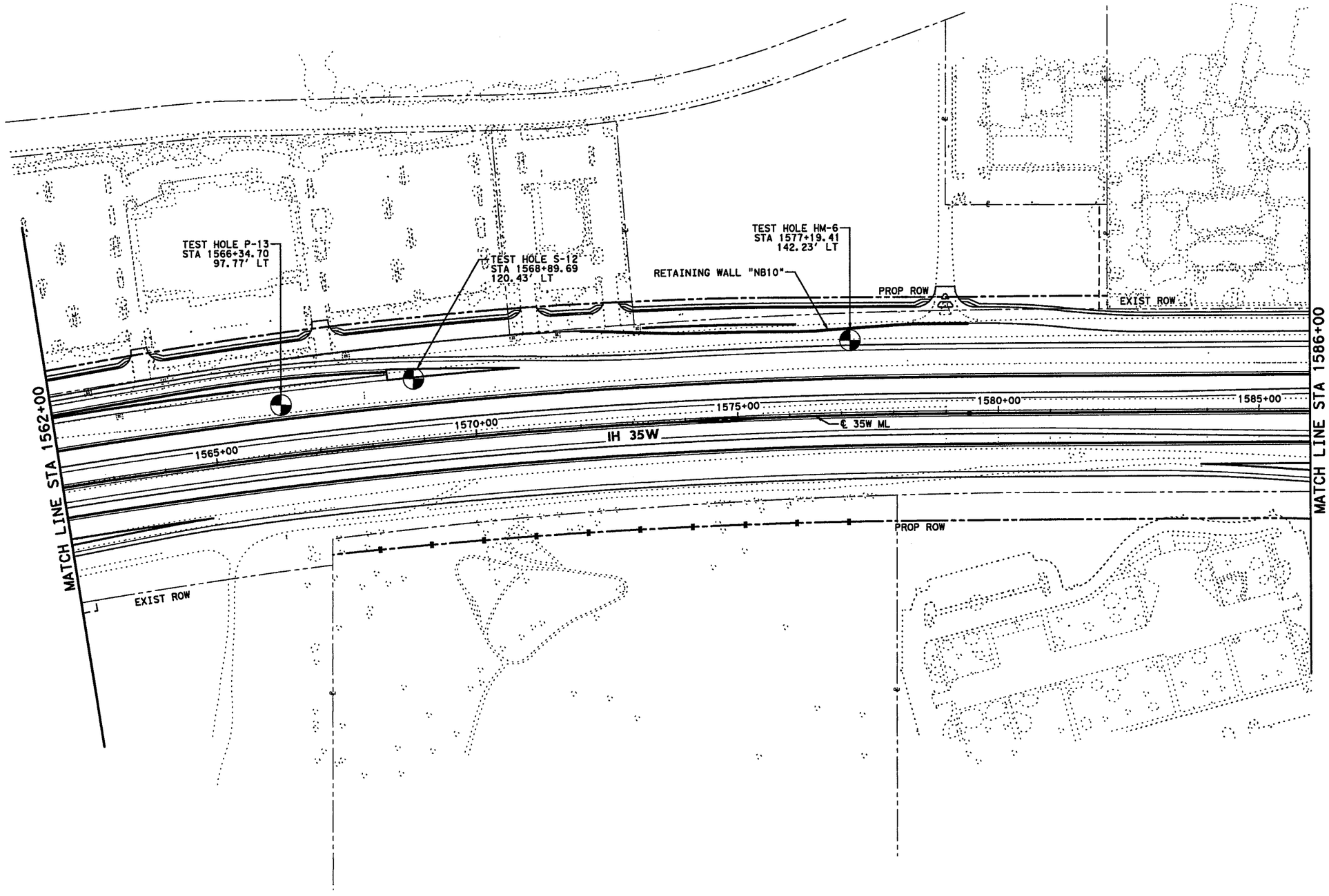
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
STA 1538+00 TO STA 1562+00

SCALE 1" = 200' SHEET 8 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	1095
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BBORE07.dgn
DRAWING DATE: 7/13/2012



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 38-3 THRU 38-7, 38-11 AND 38-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

STATE OF TEXAS
DAVID W. HAWLEY
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7/10/2012

STATE OF TEXAS
MARK J. FARROW
48059
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FIRM # F-1970
RESPONSIBLE FOR RETAINING WALL DESIGN PARAMETERS AND GEOTECHNICAL RECOMMENDATIONS.

7-11-2012

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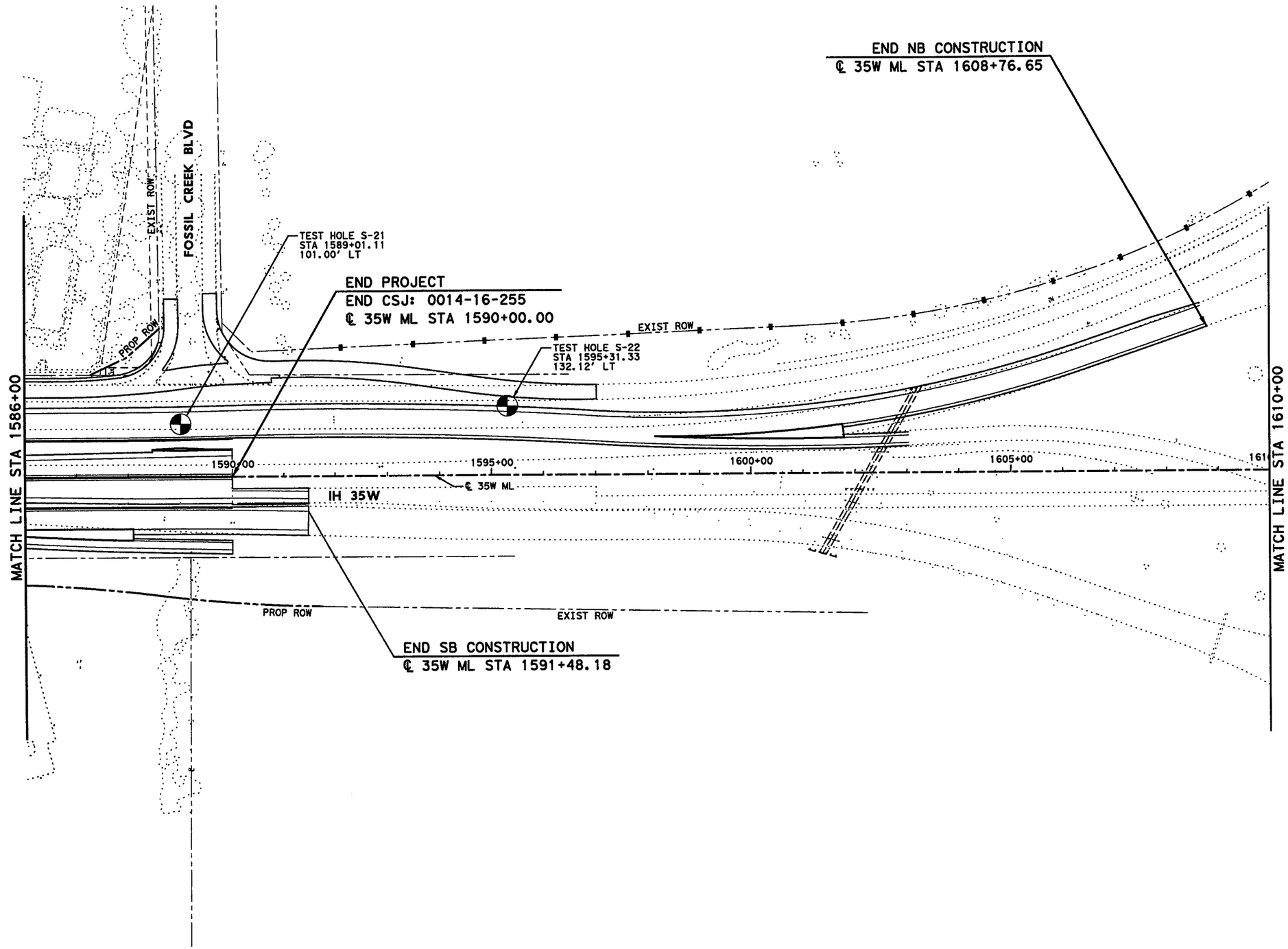
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
STA 1562+00 TO STA 1586+00

SCALE 1" = 200' SHEET 9 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	1096
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

FILENAME: S3BBORE08.dgn
DRAWING DATE: 7/13/2012



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 38-3 THRU 38-7, 38-11 AND 38-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

STATE OF TEXAS
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7/10/2012

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RESPONSIBLE FOR RETAINING WALL DESIGN PARAMETERS AND GEOTECHNICAL RECOMMENDATIONS.
7-11-2012

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TBPE REGISTRATION NO. F-926

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
STA 1586+00 TO STA 1610+00

SCALE 1" = 200' SHEET 10 OF 14

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1097
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

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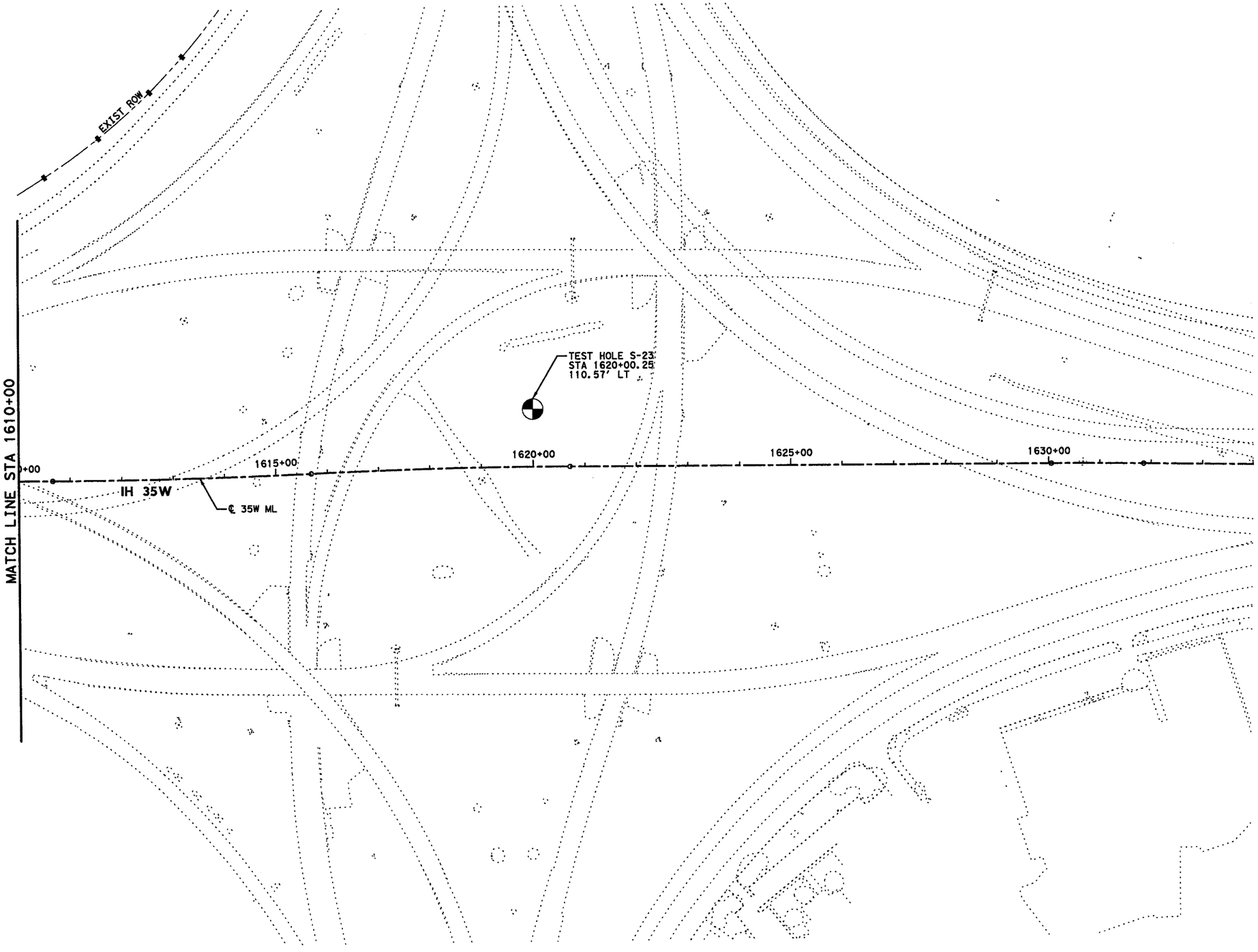
DRAWING DATE: 7/13/2012



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 38-3 THRU 38-7, 38-11 AND 38-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

STATE OF TEXAS
DAVID W. HAWLEY
92962
LICENSED
PROFESSIONAL ENGINEER
7/10/2012

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

FIRM # F-1970
RESPONSIBLE FOR RETAINING WALL DESIGN PARAMETERS AND GEOTECHNICAL RECOMMENDATIONS.

7-11-2012

KCI KENNEDY CONSULTING
TBPE REGISTRATION NO. F-926

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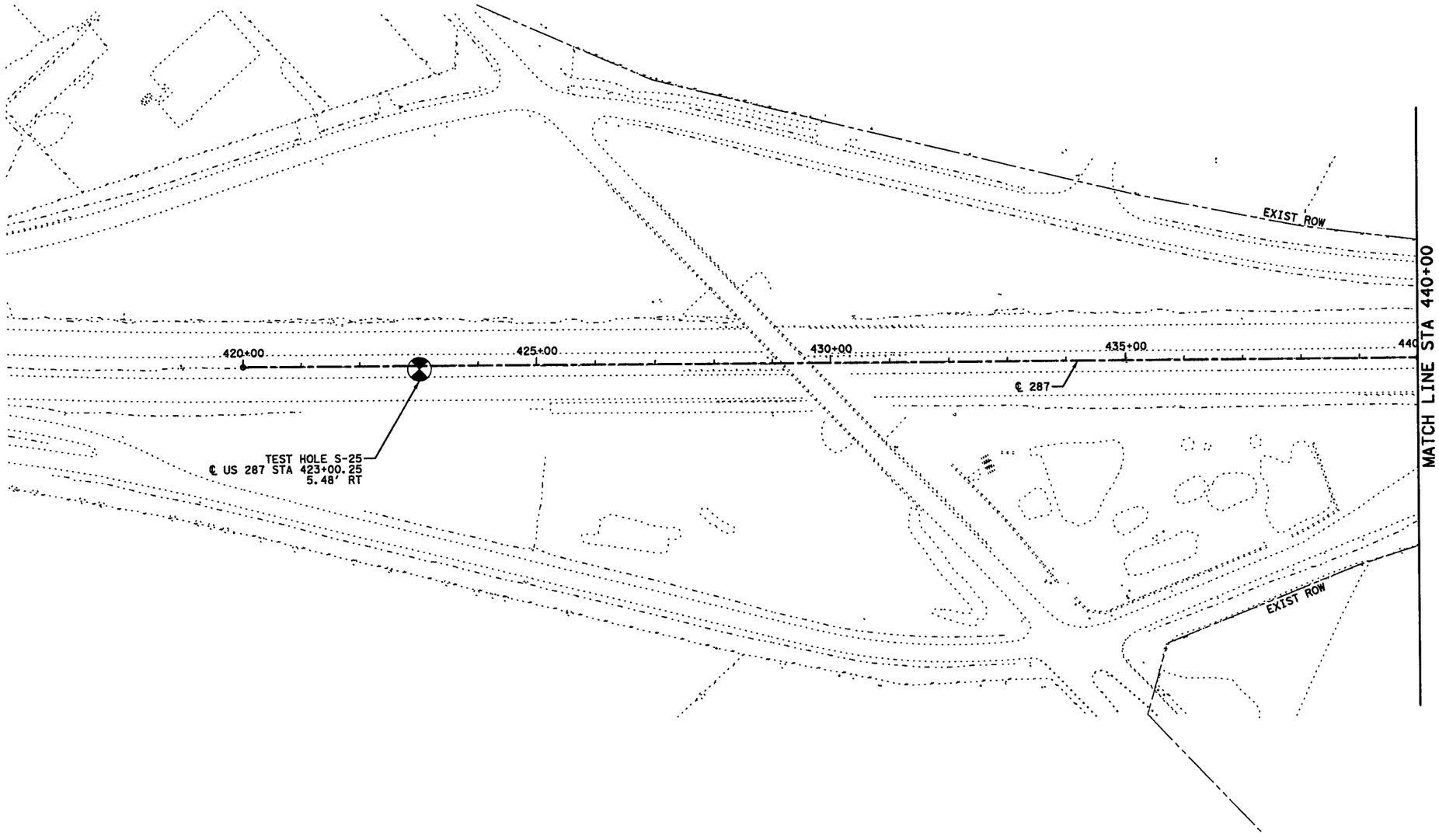
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
STA 1610+00 TO STA 1634+00

SCALE 1" = 200' SHEET 11 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK KCI	TEXAS	FTW	TARRANT	1098
CHECK KCI	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BBORE10.dgn



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

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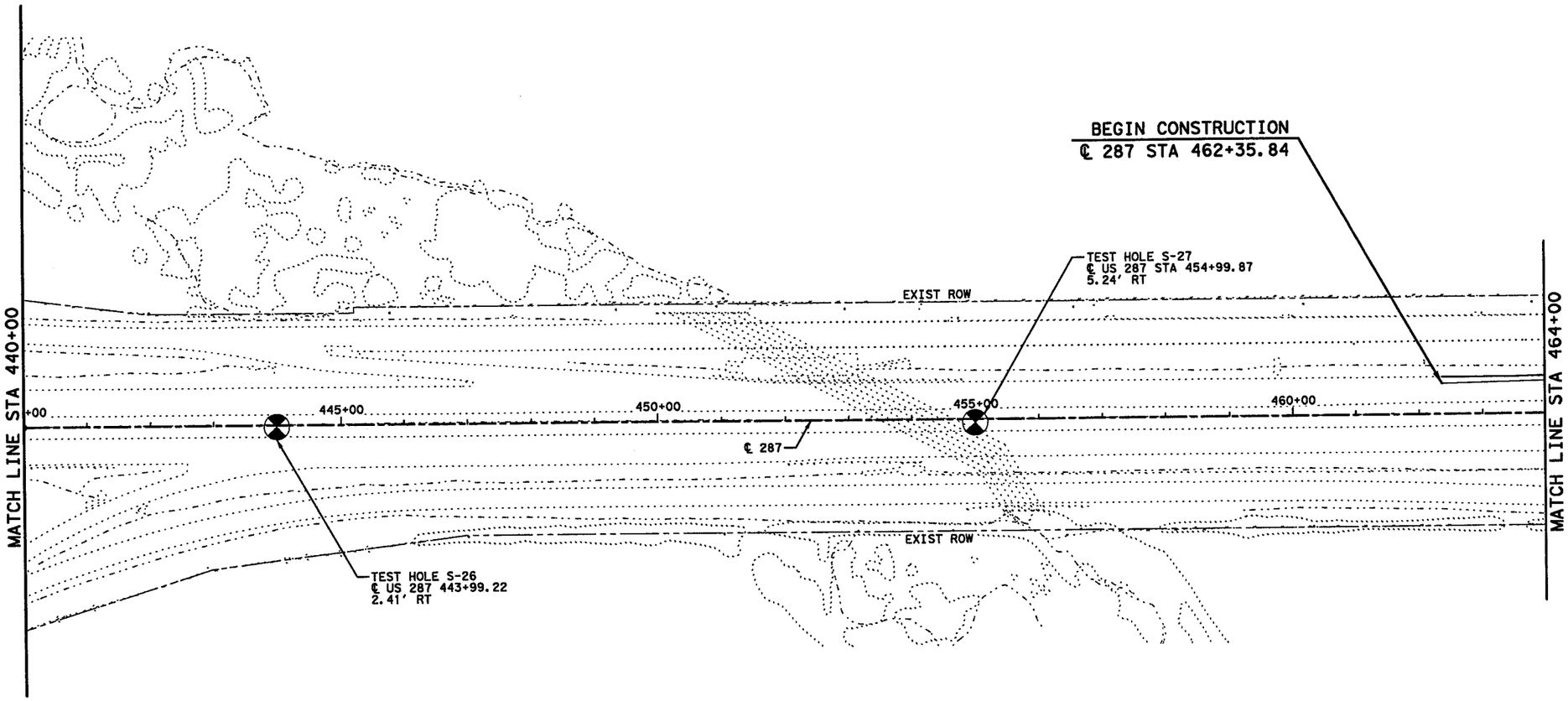
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
US 287 BEGIN PROJECT TO STA 440+00

SCALE 1" = 200' SHEET 12 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	1099
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	
CHECK				
KCI				

DRAWING DATE: 7/13/2012 FILENAME: S3BBORE10A.dgn



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

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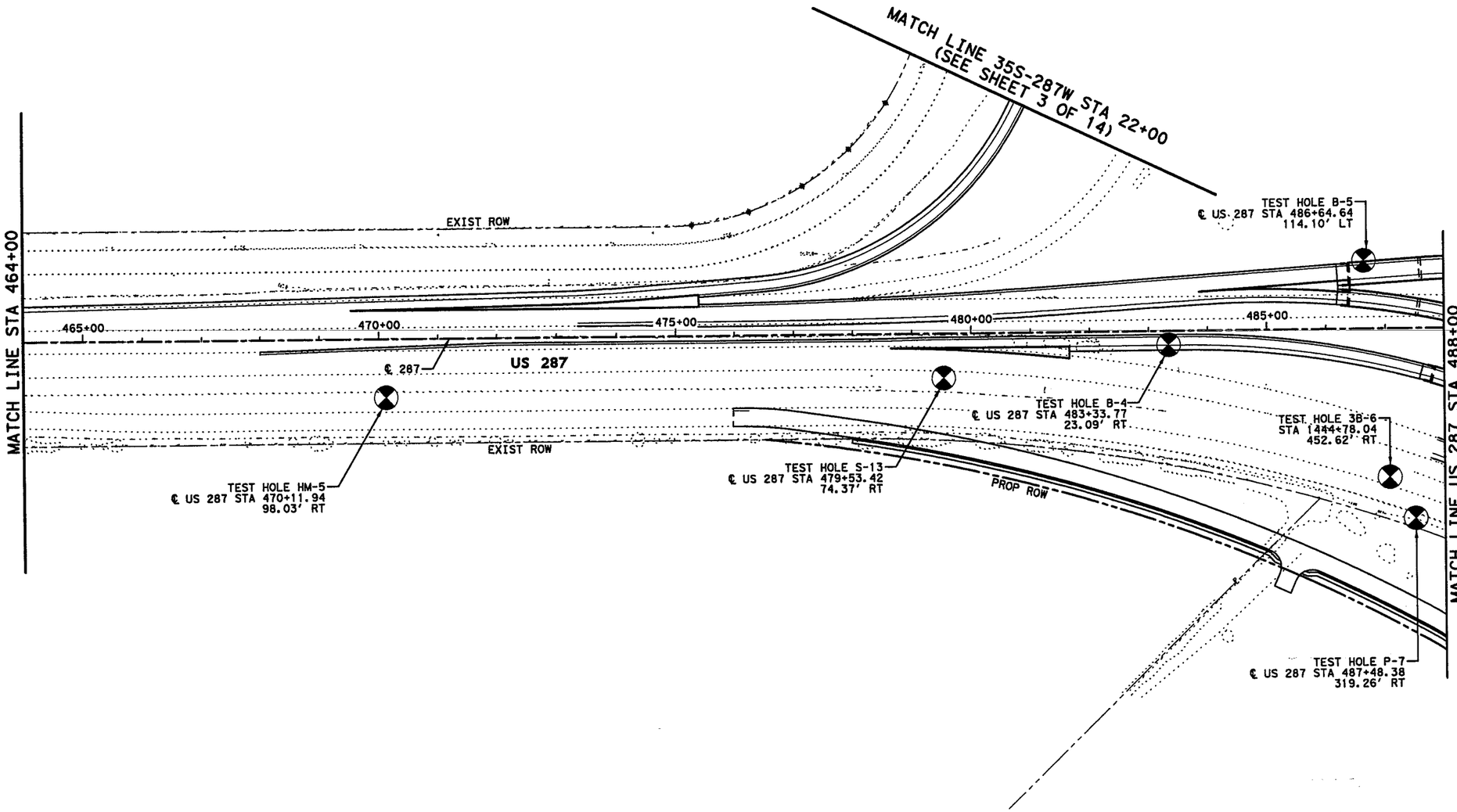
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
US 287 STA 440+00 TO STA 464+00

SCALE 1" = 200' SHEET 13 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	1100
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BBORE108.dgn



0' 100' 200'

SCALE IN FEET

NOTES:

1. SEE BORING LOG SHEETS FOR ADDITIONAL INFORMATION.
2. ALL STATION AND OFFSET INFORMATION IS BASED ON ℄ 35W ML, UNLESS NOTED OTHERWISE.
3. FOR DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11 AND 3B-13, REFERENCE "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.
4. FOR DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30, REFERENCE DESIGN PLANS FOR CSJ 0014-16-211 DATED FEBRUARY 1995.

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7-11-2012

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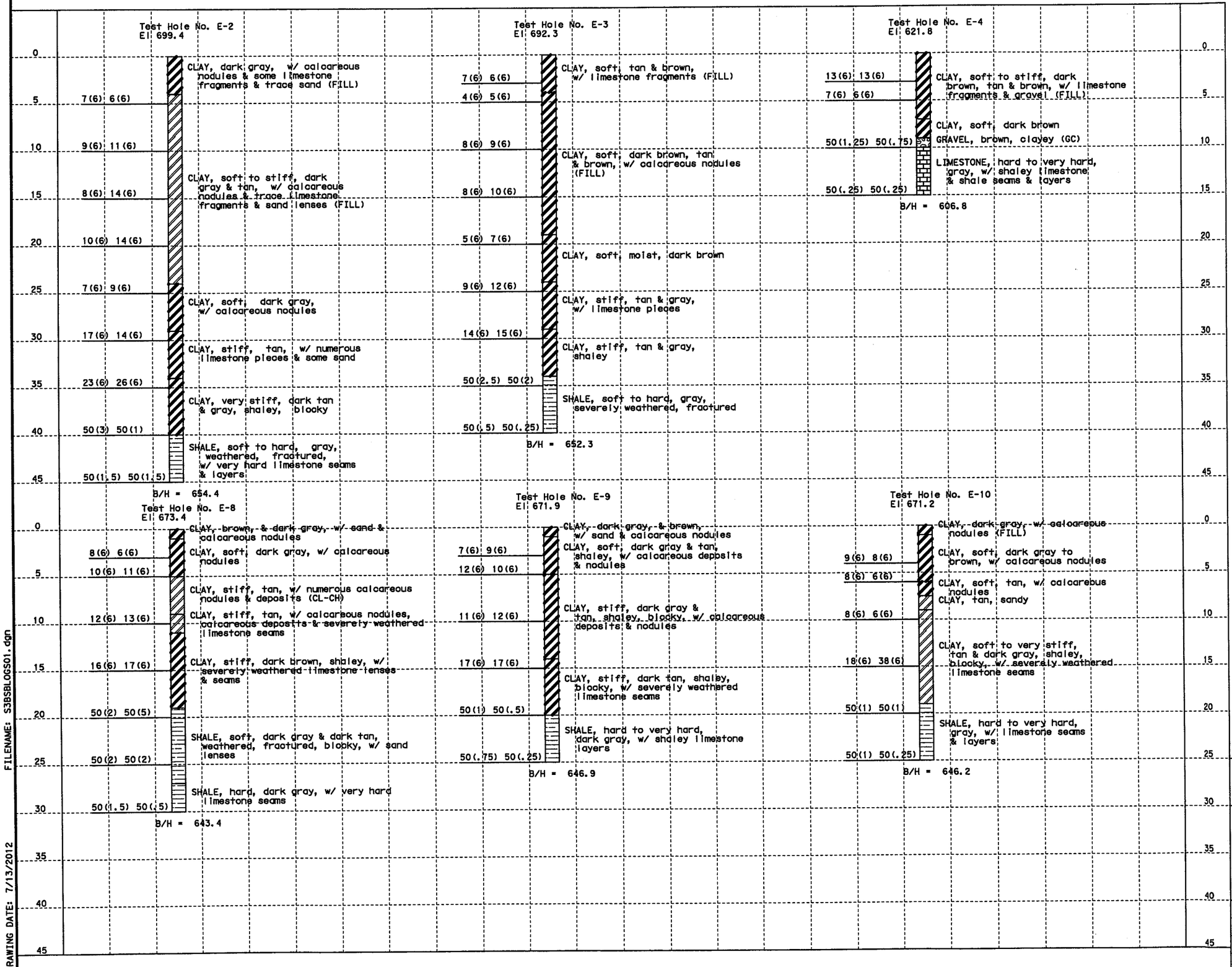
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING PLAN
US 287 STA 464+00 TO STA 488+00

SCALE 1" = 200' SHEET 14 OF 14

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
KCI	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	1101
CHECK	CONTROL	SECTION	JOB	
KCI	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BBORE11.dgn



HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

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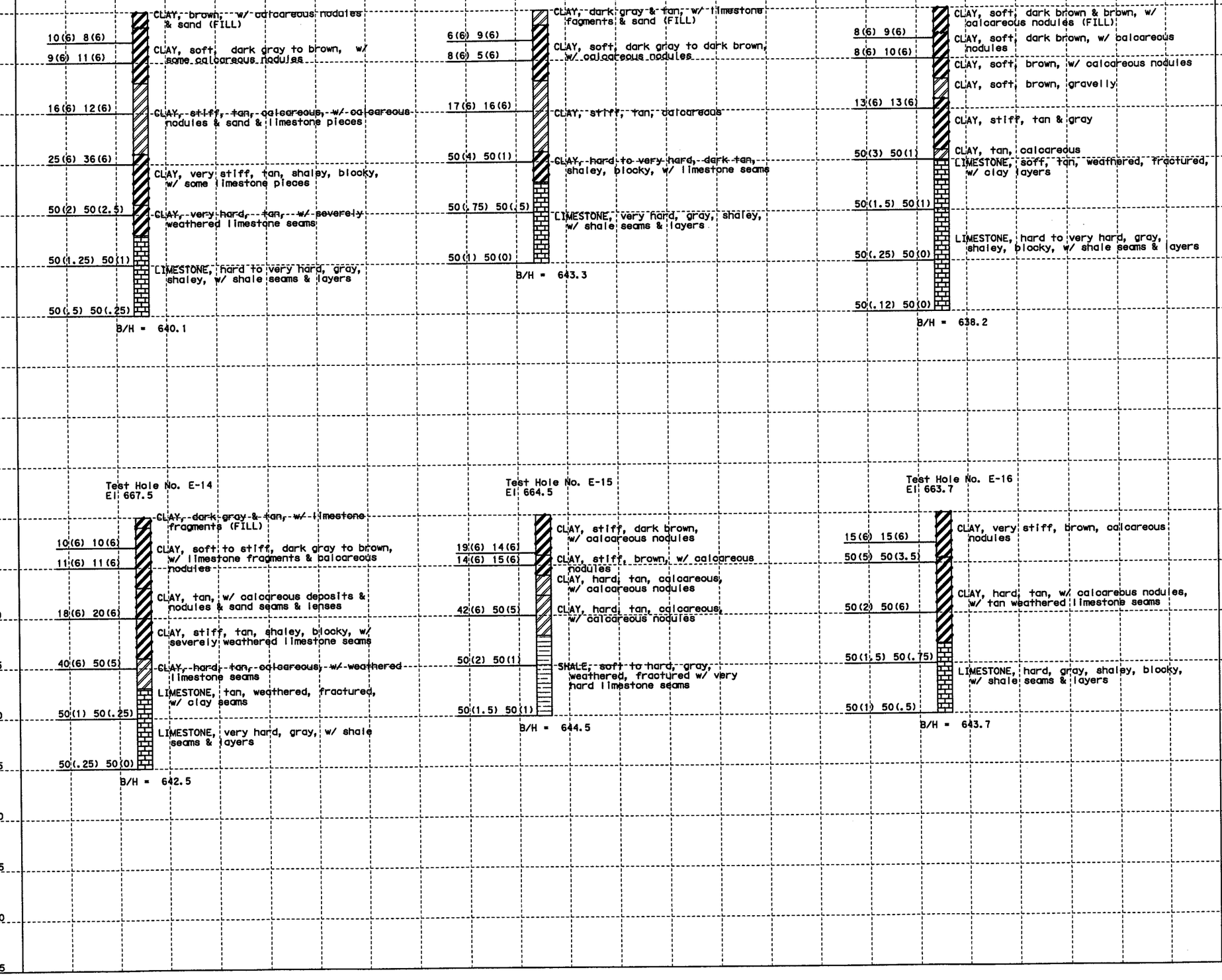
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS
EMBANKMENT

SHEET 1 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1102
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012



HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

EMBANKMENT

SHEET 2 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1103
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012

Test Hole No. E-19
El. 672.4

8(6) 20(6)
ASPHALT, 6 inch over 6 inch gravel base
CLAY, stiff, light brown & tan w/ limestone fragments & gravel (FILL)

10(6) 16(6)
CLAY, stiff, dark gray & tan, w/ gravel & limestone fragments (FILL)

26(6) 29(6)
CLAY, soft to very stiff, tan, limestone fragments, gravel & layers of broken limestone (FILL)

7(6) 10(6)

11(6) 10(6)

CLAY, stiff, dark gray, w/ calcareous nodules

16(6) 10(6)

CLAY, tan, calcareous w/ limestone pieces & calcareous deposits

50(3) 50(4)
LIMESTONE, soft, tan, severely weathered, highly fractured, w/ clay seams & layers

50(1) 50(0)
LIMESTONE, very hard, gray, shaley, w/ shale seams

50(.5) 50(.12)

B/H = 632.4

Test Hole No. E-20
El. 666.6

8(6) 11(6)
ASPHALT, 6 inch over 6 inch gravel base

8(6) 9(6)
CLAY, soft, tan & light gray, w/ limestone fragments, calcareous deposits & some sand lenses (FILL)

8(6) 11(6)

CLAY, soft, tan, w/ limestone fragments, gravel & calcareous nodules (FILL)

9(6) 12(6)

10(6) 25(6)
CLAY, stiff, dark gray, w/ trace calcareous nodules

50(5.25) 50(1.5)
CLAY, hard, tan, calcareous, w/ numerous limestone fragments & calcareous deposits

50(1.75) 50(.5)
LIMESTONE, soft to hard, tan, severely weathered to weathered, highly fractured, w/ clay seams & layers

B/H = 636.6

Test Hole No. E-21
El. 660.6

12(6) 16(6)
ASPHALT, 2 inch over 10 inch base

10(6) 11(6)
CLAY, stiff, tan, w/ limestone fragments & calcareous nodules (FILL)

7(6) 8(6)

CLAY, soft to stiff, dark gray & tan, w/ limestone fragments (FILL)

13(6) 16(6)

50(1.75) 50(.25)
GRAVEL, very dense, brown, clayey, sandy (GP)

B/H = 640.6

Test Hole No. E-22
El. 664.6

50(5.5) 48(6)
CLAY, dark brown, w/ calcareous nodules

18(6) 16(6)
CLAY, stiff to hard, tan, calcareous, w/ calcareous nodules

20(6) 25(6)
CLAY, stiff, brown & gray, shaley, blocky, w/ calcareous nodules

50(4) 50(2.75)
SHALE, soft, gray & tan, weathered, fractured, w/ clay seams

50(.5) 50(.25)
LIMESTONE, hard to very hard, gray, w/ shale layers
SHALE, very hard, gray

50(0) 50(0)

50(0) 50(0)
LIMESTONE, very hard, gray, w/ shaley limestone layers & shale seams & layers

50(0) 50(0)

B/H = 629.6

HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

Mark Farrow
7-11-2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS
EMBANKMENT

SHEET 3 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1104
CHECK AGG	CONTROL	SECTION	JOB	
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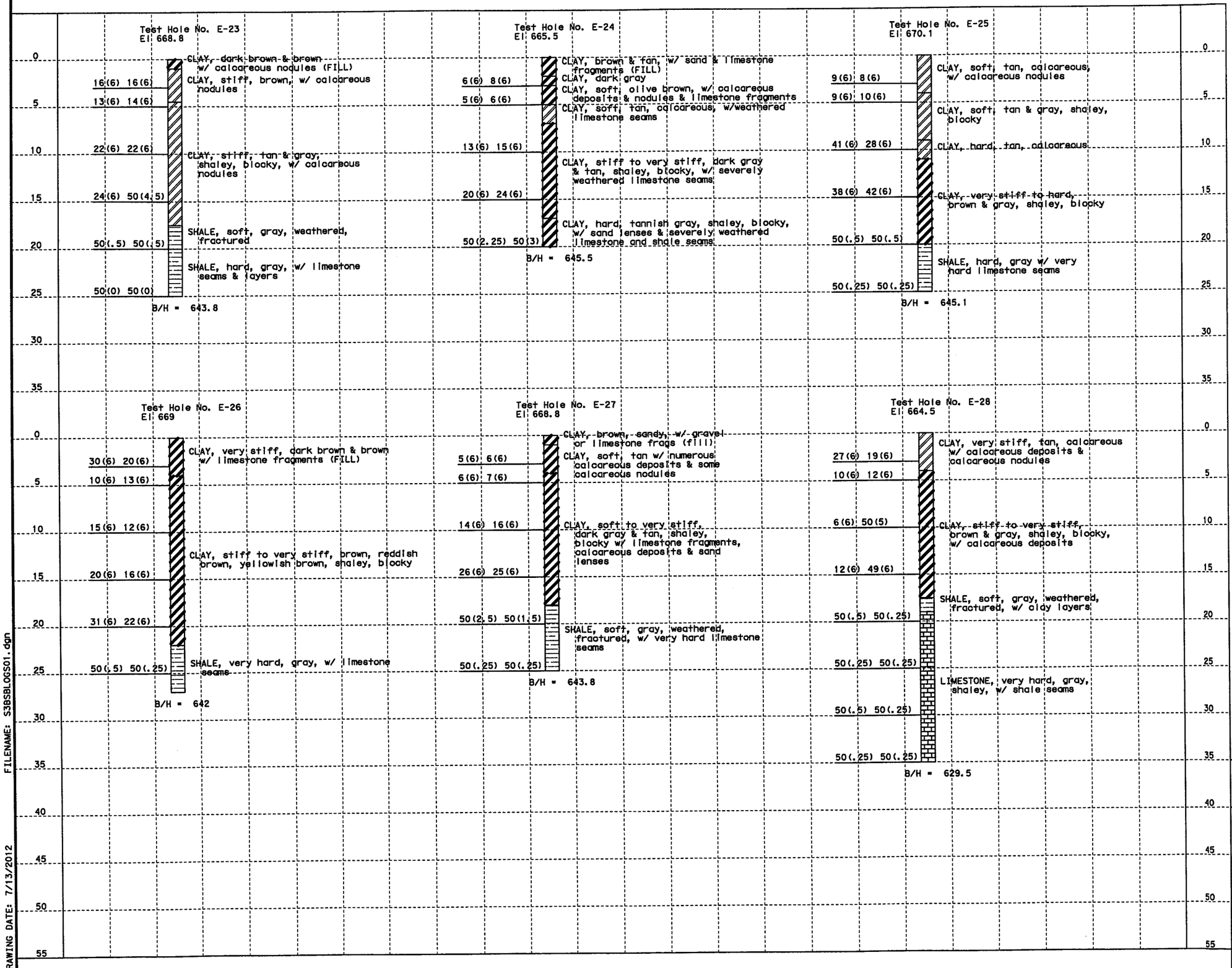
DRAWING DATE: 7/13/2012



HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

STATE OF TEXAS
MARK J. FARROW
48059
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Mark Farrow
7-11-2012

FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS
EMBANKMENT

SHEET 4 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1105
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

Test Hole No. E-29
El 665.1

14(6) 12(6)
9(6) 9(6)
12(6) 13(6)
7(6) 20(6)
50(4) 50(1.5)
50(.5) 50(0)

CLAY, soft to stiff, brown, calcareous w/ limestone fragments
CLAY, stiff, tan, brown & light gray, shaley, blocky, w/ calcareous clay layers
CLAY, stiff, tan, calcareous
CLAY, stiff, tan, brown & light gray, shaley, blocky, w/ calcareous clay layers
CLAY, hard, gray, marly
SHALE, soft, dark gray, weathered
SHALE, hard to very hard, dark gray, w/ very hard limestone seams & layers

B/H = 640.1

Test Hole No. E-30
El 628

33(6) 23(6)
31(6) 33(6)
20(6) 50(2)
50(.25) 50(.25)
50(.5) 50(.25)

CLAY, dark gray, w/ calcareous nodules
CLAY, gray, w/ calcareous nodules
CLAY, very stiff, tan & light gray, w/ calcareous nodules & deposits
LIMESTONE, soft to hard, tan, weathered, fractured, w/ clay seams
LIMESTONE, very hard, gray, w/ shaley limestone layers & shale seams & layers

B/H = 608

Test Hole No. E-31
El 649.3

32(6) 26(6)
7(6) 9(6)
50(1) 50(.5)
50(.75) 50(.5)

CLAY, dark gray & brown, w/ broken limestone (FILL)
CLAY, soft to very stiff, brown, marly, w/ calcareous deposits (CH-CL)
CLAY, tan & gray, calcareous (CH-CL)
LIMESTONE, hard to very hard, gray, shaley, w/ shale seams

B/H = 634.3

Test Hole No. E-32
El 646.4

11(6) 12(6)
11(6) 12(6)
50(1.5) 50(1)
50(.25) 50(.25)

CLAY, tan & brown, calcareous (FILL)
CLAY, brown & light gray, shaley, w/ calcareous deposits
CLAY, stiff, brown, marly
CLAY, tan, calcareous, w/ hard tan weathered limestone seams & layers
LIMESTONE, very hard, gray, shaley, w/ shale seams

B/H = 629.4

Test Hole No. E-33
El 649

16(6) 13(6)
17(6) 20(6)
41(6) 39(6)
50(1.5) 50(1)

CLAY, tan, gravelly, w/ sand & limestone fragments (FILL)
CLAY, stiff, tan w/ numerous calcareous deposits & some limestone fragments
CLAY, stiff to very stiff, tan, shaley, blocky, w/ calcareous deposits & weathered limestone seams
LIMESTONE, hard, gray, w/ shale seams & layers

B/H = 631

Test Hole No. E-34
El 643.9

24(6) 19(6)
50(2) 50(1)
50(.5) 50(.25)
50(.25) 50(.25)

CLAY, tan & brown, calcareous
CLAY, stiff, tan & gray, calcareous, w/ calcareous nodules
LIMESTONE, hard to very hard, gray, w/ shaley limestone layers & shale seams & layers

B/H = 628.9

HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

STATE OF TEXAS
MARK J. FARRON
48059
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PROFESSIONAL ENGINEER

7-11-2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS
EMBANKMENT

SHEET 5 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1106
CHECK AGG	CONTROL	SECTION	JOB	
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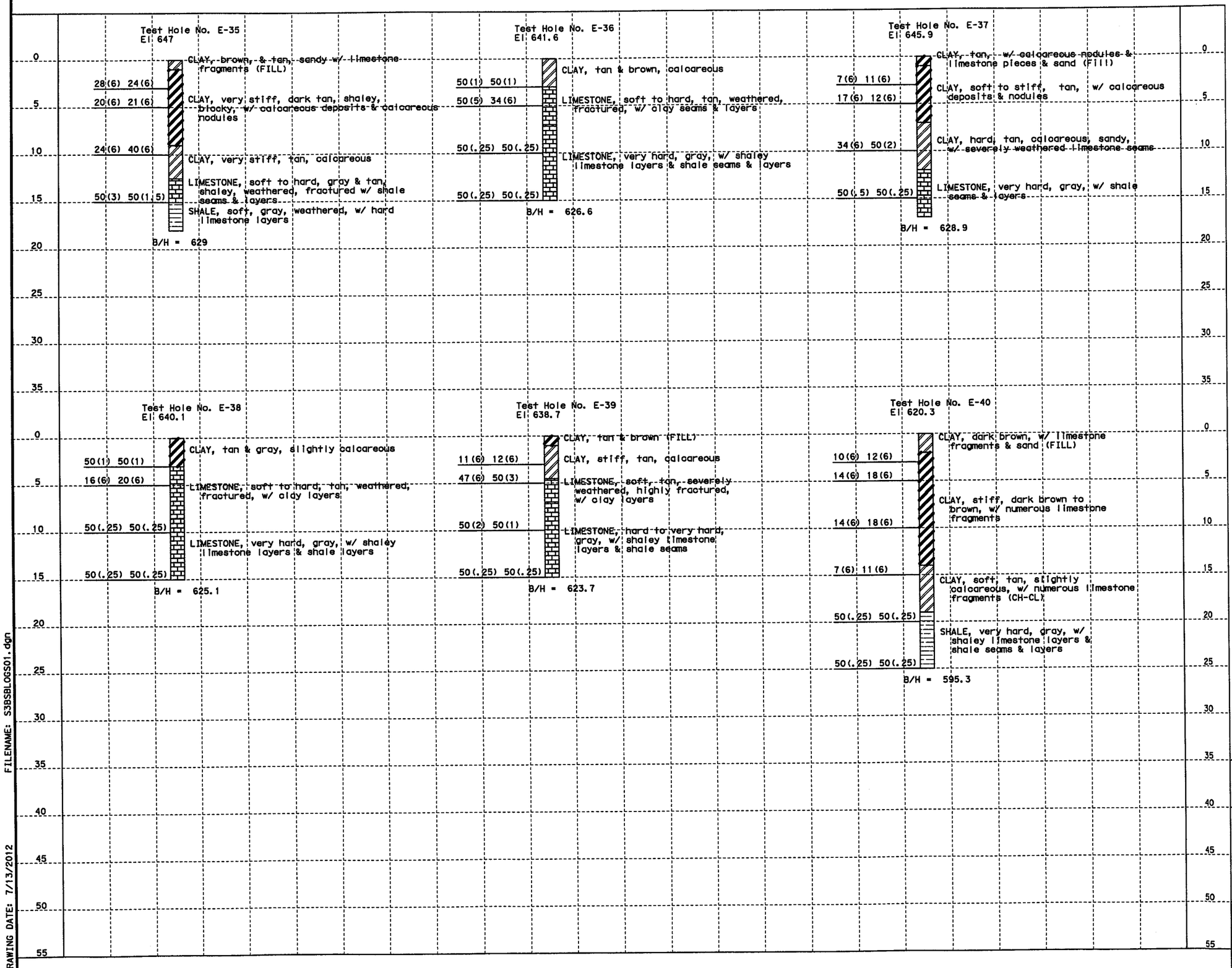
DRAWING DATE: 7/13/2012



FILENAME: S3BSBLOGS01.dgn

DRAWING DATE: 7/13/2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

EMBANKMENT

SHEET 6 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1107
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

Test Hole No. B-1
El 654.1

7(6) 7(6)	CLAY, brown, w/ numerous gravel pieces, asphalt debris & sand (FILL)
	CLAY, soft, dark gray & tan, w/ numerous calcareous nodules (FILL)
	CLAY, soft, olive to tan w/ numerous calcareous nodules
27(6) 10(6)	CLAY, stiff, tan, calcareous, sandy, w/ severely weathered limestone seams & lenses
50(2.5) 50(1.25)	
50(2.25) 50(1)	LIMESTONE, soft , tan, weathered, fractured, w/ clay seams & layers
50(2.25) 50(1.5)	LIMESTONE, soft to very hard, tan & gray, weathered, fractured, shaley, w/ shale layers
50(1.25) 50(.75)	
50(1) 50(.5)	LIMESTONE, hard to very hard, gray, w/ shaley limestone layers and shale seams and layers
50(.75) 50(.5)	
50(.25) 50(0)	

B/H = 614.1

Test Hole No. B-4
El 657.9

	ASPHALT, 18 inches
7(6) 8(6)	CLAY, soft, dark gray to dark brown, w/ calcareous nodules
6(6) 8(6)	CLAY, soft, grayish brown, w/ calcareous nodules & some limestone fragments
	CLAY, tan & gray, w/ calcareous deposits, calcareous nodules & limestone fragments
50(2) 50(1.5)	LIMESTONE, soft to hard, tan, weathered fractured, w/ clay seams & layers
50(1) 50(.5)	
50(.25) 50(.12)	LIMESTONE, very hard, gray, w/ shale seams & layers
50(2.25) 50(.25)	
50(.25) 50(.12)	

B/H = 627.9

Test Hole No. B-5
El 656.2

9(6) 8(6)	CLAY, soft, dark gray to brown, w/ calcareous nodules
6(6) 6(6)	
11(6) 10(6)	CLAY, stiff, tan, gravelly w/ sand& limestone pieces
50(.75) 50(.2)	LIMESTONE, hard to very hard, tan, weathered, fractured w/ clay seams
50(1.25) 50(.5)	
50(.25) 50(0)	LIMESTONE, hard to very hard, gray w/ shaley limestone layers and shale seams & layers
50(1) 50(.5)	

B/H = 626.2

Test Hole No. B-6
El 652.3

	CLAY, dark brown, w/ calcareous nodules & some limestone fragmentsd
18(6) 16(6)	SAND, light brown, clayey w/ numerous limestone fragments
	CLAY, stiff, tan, calcareous, w/ severely weathered limestone seams & layers
50(4) 50(.75)	
50(4.75) 50(2)	LIMESTONE, soft, tan, weathered, fractured, w/ clay seams and layers
50(3) 50(2.75)	LIMESTONE, hard, gray SHALE, soft, gray, weathered, w/ hard to very hard limestone seams
50(3) 50(1.75)	LIMESTONE, hard, gray SHALE, soft, gray, weathered, w/ hard to very hard limestone seams
50(1.75) 50(.25)	
50(1) 50(.25)	LIMESTONE, hard to very hard, gray, shaley w/ shale seams and layers
50(1.5) 50(.5)	
50(2.25) 50(.5)	

B/H = 607.3

Test Hole No. B-7
El 653.8

6(6) 6(6)	CLAY, dark gray, w/ calcareous nodules
17(6) 24(6)	CLAY, soft to very stiff, tan w/ numerous gravel and limestone pieces
	CLAY, tan, calcareous, w/ calcareous deposits and limestone fragments
50(2.5) 50(1)	LIMESTONE, soft to hard, tan, weathered, fractured, w/ clay seams & layers
50(2) 50(1)	
50(.25) 50(0)	LIMESTONE, hard to very hard, gray w/ shaley limestone layers & shale seams and layers
50(.12) 50(0)	
50(.5) 50(0)	

B/H = 623.8

Test Hole No. B-8
El 653

	CLAY, dark brown, w/ embedded limestone fragments & calcareous deposits (FILL)
	CLAY, stiff, dark brown w/ calcareous nodules
13(6) 12(6)	
	CLAY, tan & light gray, calcareous, w/ weathered limestone seams
50(4.5) 50(1)	LIMESTONE, soft, tan & gray, weatherd, fractured, w/ clay seams & layers
50(.25) 50(.25)	
50(.5) 50(.25)	LIMESTONE, very hard, gray, w/ shale seams & layers
50(.25) 50(.25)	
50(.5) 50(.25)	

B/H = 623

HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

7-11-2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

BRIDGE

SHEET 7 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1108
CHECK AGG	CONTROL	SECTION	JOB	
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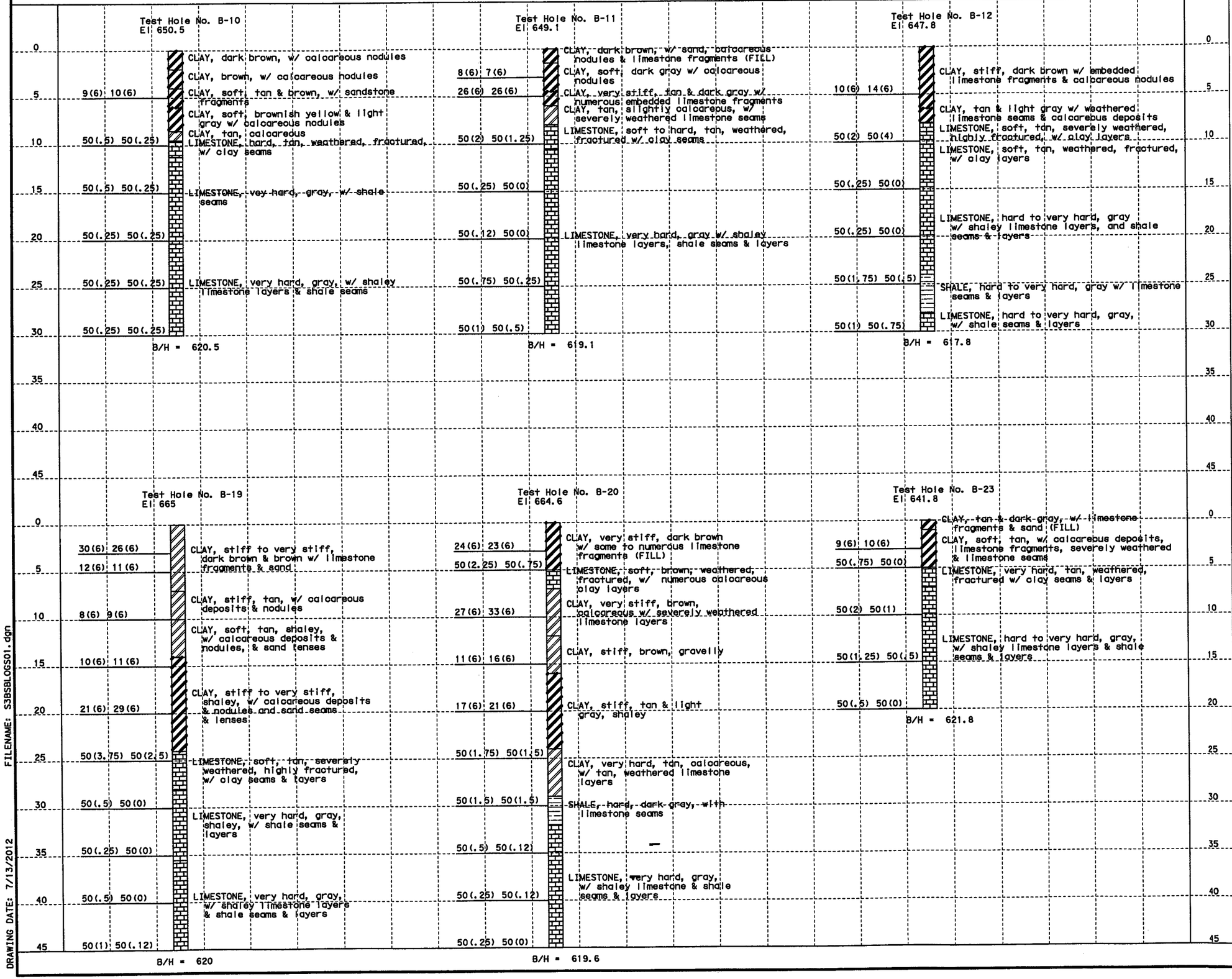
FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012



FILENAME: S3BSBLOGS01.dgn

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

BRIDGE

SHEET 8 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1109
CHECK AGG	CONTROL	SECTION	JOB	
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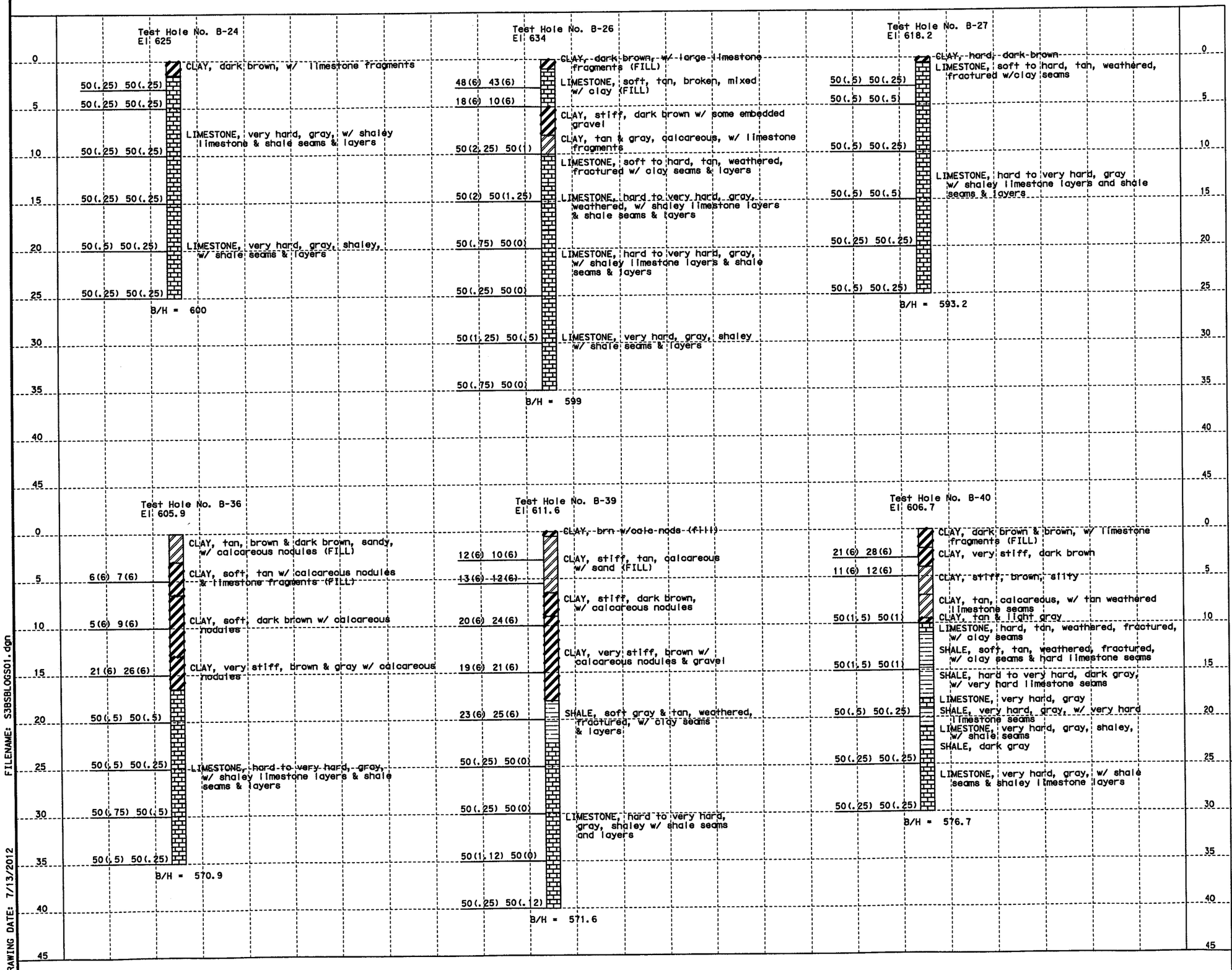

HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

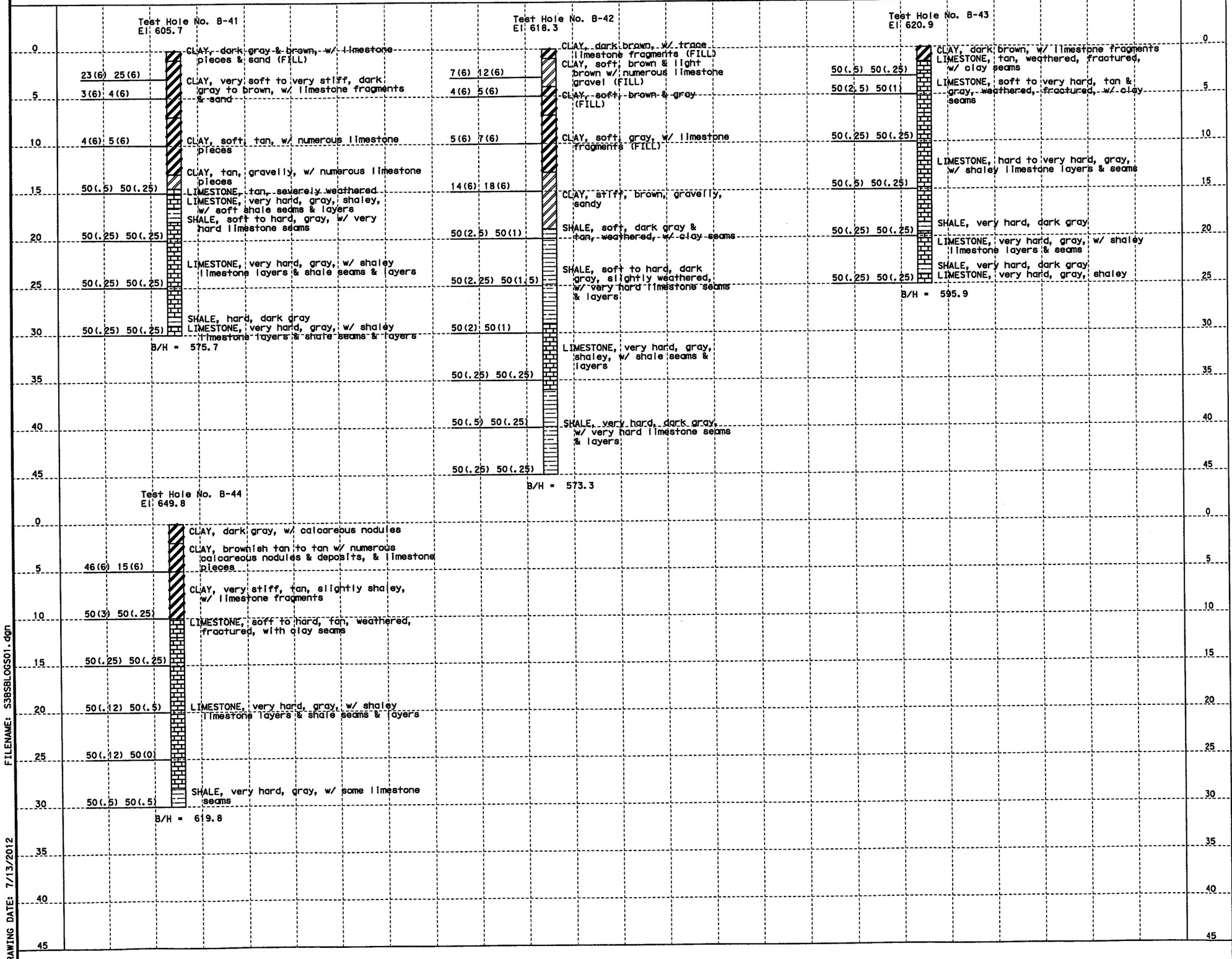
BRIDGE

SHEET 9 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1110
CHECK AGG	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3BSBLOGS01.dgn

DRAWING DATE: 7/13/2012



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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS
BRIDGE

SHEET 10 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1111
CHECK AGG	CONTROL	SECTION	JOB	
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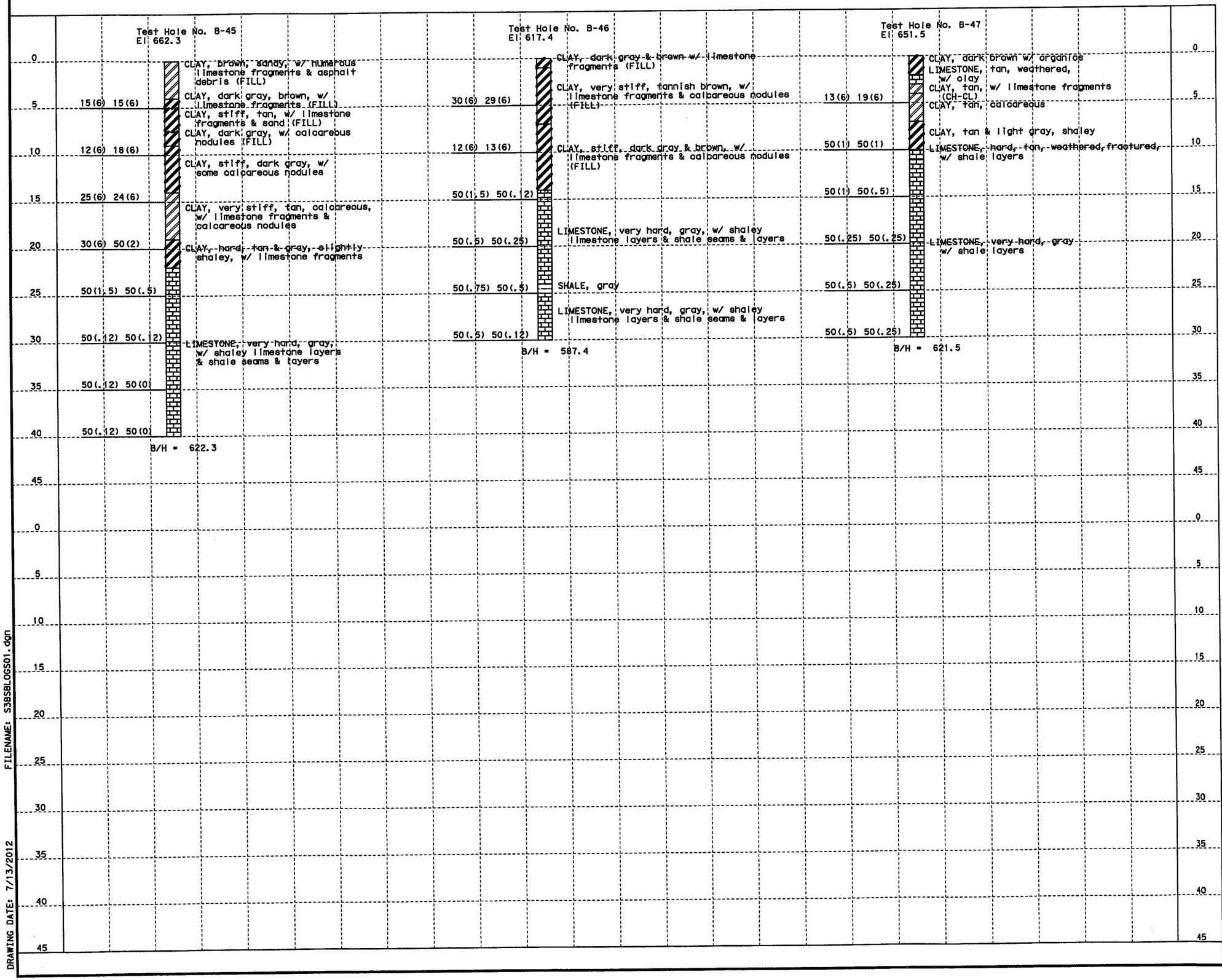
DRAWING DATE: 7/13/2012



HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

BRIDGE

SHEET 11 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1112
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012

Test Hole No. P-7
El 652.6

- CLAY, dark gray
- CLAY, dark brown, tan & brown, sandy, w/ calcareous nodules
- CLAY, yellowish brown & light brown, w/ sand & numerous calcareous nodules
- GRAVEL, brown, sandy, clayey (GP)
- CLAY, tan & gray, calcareous, w/ weathered limestone layers
- LIMESTONE, tan & gray, weathered, fractured

B/H = 637.6

Test Hole No. P-8
El 644.6

39(6) 17(6)

- CLAY, dark brown, w/ limestone fragments, calcareous nodules & gypsum crystals
- CLAY, brown, w/ sand & limestone pieces
- CLAY, tan, calcareous
- LIMESTONE, tan, severely weathered, highly fractured, w/ clay layers & seams
- CLAY, tan & gray, shaley, w/ calcareous deposits
- LIMESTONE, tan, weathered, fractured, w/ clay seams & layers
- LIMESTONE, gray, w/ shale seams & layers

B/H = 629.6

Test Hole No. P-9
El 651.4

- CLAY, dark brown, w/ calcareous nodules & roots
- SAND, tan & brown, clayey, w/ limestone fragments & nodules
- CLAY, tan & gray, w/ calcareous nodules
- LIMESTONE, tan, weathered, fractured, w/ clay seams
- LIMESTONE, gray

B/H = 635.4

Test Hole No. P-13
El 628.7

- BROKEN LIMESTONE, brown, tan & dark brown, mixed w/ clay (Fill)
- CLAY, tan & gray, shaley, w/ limestone fragments
- LIMESTONE, tan, weathered, fractured w/ clay layers
- LIMESTONE, gray, w/ occasional shale layers at 10'

B/H = 615.7

Test Hole No. P-14
El 668.5

9(6) 10(6)

19(6) 30(6)

23(6) 40(6)

31(6) 35(6)

- CLAY, dark gray
- CLAY, soft, dark grayish brown
- CLAY, very stiff, tan & light gray, shaley
- CLAY, reddish brown & tan, marly (CL-CH)
- CLAY, very stiff, tan
- CLAY, very stiff, brown, shaley

B/H = 647.5

Test Hole No. P-15
El 642.8

- CLAY, dark brown, w/ limestone pieces
- CLAY, brown, w/ limestone fragments
- SAND, brown, clayey, w/ fine gravel
- LIMESTONE, tan, weathered, fractured, w/ calcareous clay seams

B/H = 632.8

Test Hole No. P-16
El 645.9

- CLAY, dark brown w/ calcareous nodules
- CLAY, brown & medium brown
- CLAY, tan & gray, calcareous, w/ sand
- LIMESTONE, tan
- LIMESTONE, gray w/ shale layers

B/H = 630.9

Test Hole No. P-17
El 648.7

- CLAY, dark brown, w/ limestone fragments & gravel (Fill)
- CLAY, tan & light gray, shaley w/ trace of calcareous deposits
- CLAY, tan, slightly calcareous
- SHALE, gray, weathered
- LIMESTONE, gray w/ shale seams

B/H = 634.7

Test Hole No. P-18
El 618.1

- ASPHALT, 1.75 inches on surface
- CLAY, brown, silty w/ asphalt pieces (Fill)
- CLAY, brown, silty w/ limestone pieces (Fill)
- CLAY, tan & brown
- CLAY, tan & brown, silty w/ limestone pieces (Fill)
- CLAY, dark brown, silty w/ gravel

B/H = 598.1

HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

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7-11-2012

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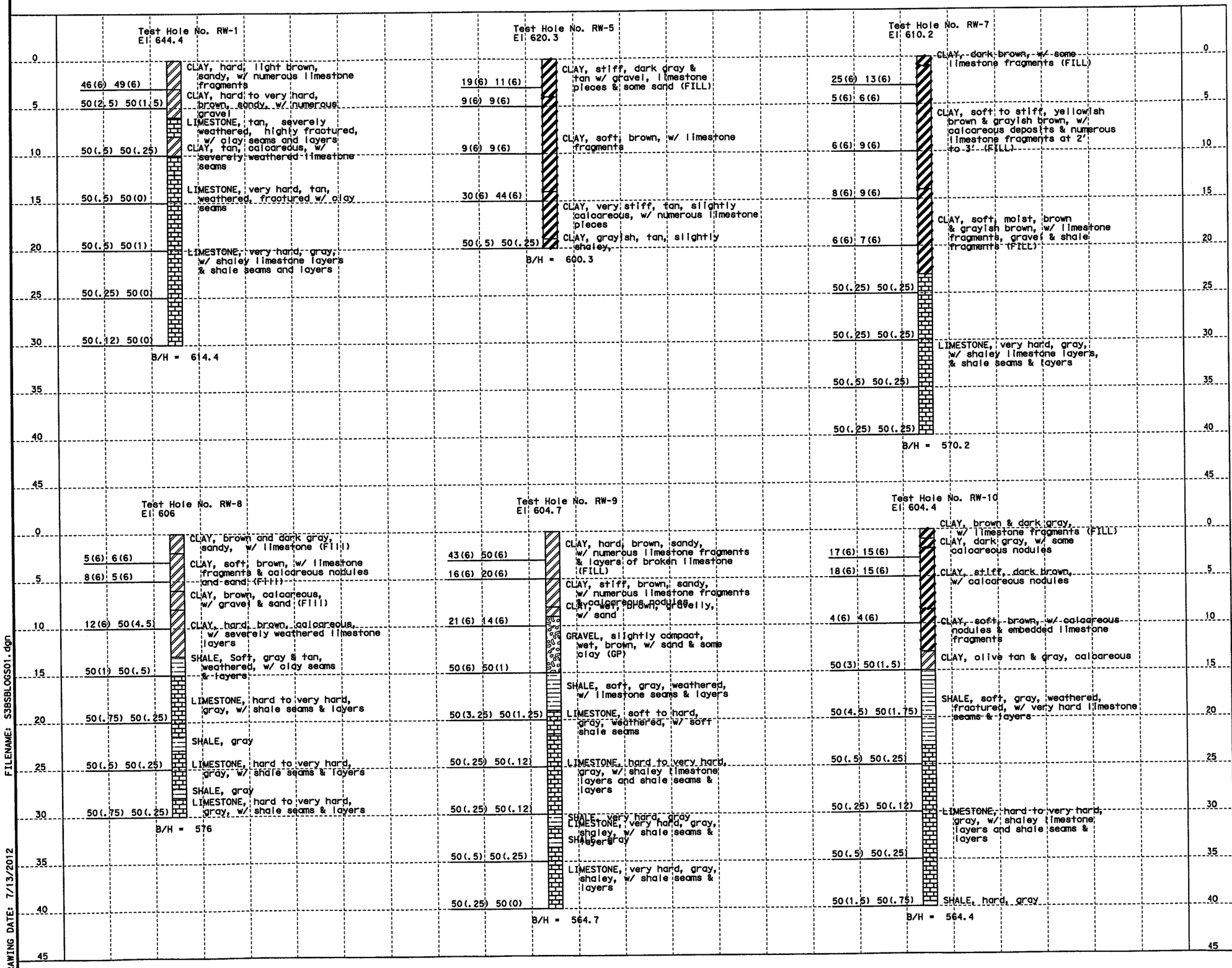
BORING LOGS
PAVEMENT

SHEET 12 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1113
CHECK AGG	CONTROL 0014	SECTION 16	JOB 255, ETC.	

FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012



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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

RETAINING WALL

SHEET 13 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1114
CHECK AGG	CONTROL	SECTION	JOB	
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DRAWING DATE: 7/13/2012
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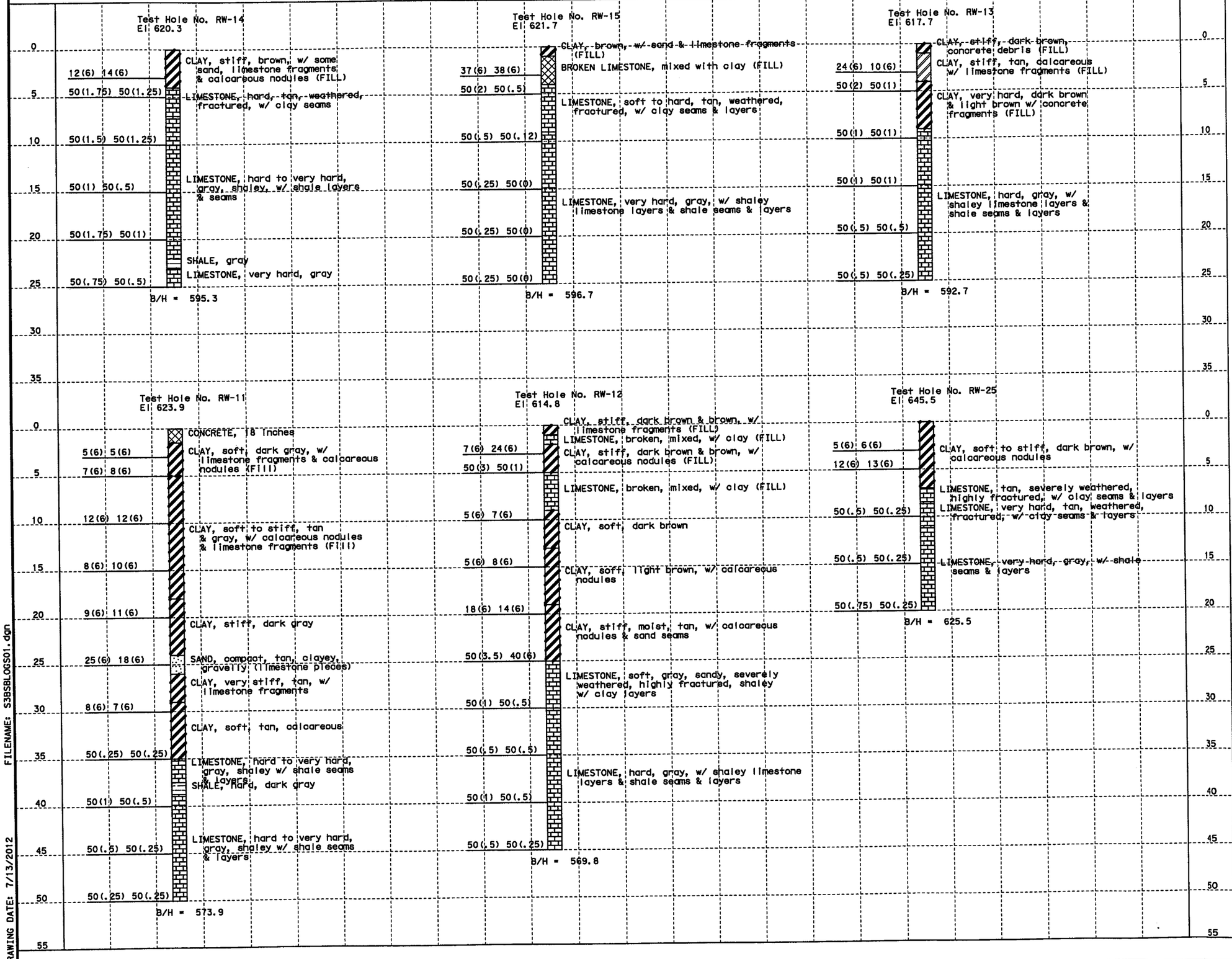
Test Hole No. RW-14
El 620.3
12(6) 14(6)
CLAY, stiff, brown, w/ some sand, limestone fragments & calcareous nodules (FILL)
50(1.75) 50(1.25)
LIMESTONE, hard, tan, weathered, fractured, w/ clay seams
50(1.5) 50(1.25)
50(1) 50(.5)
LIMESTONE, hard to very hard, gray, shaley, w/ shale layers & seams
50(1.75) 50(1)
SHALE, gray
50(.75) 50(.5)
LIMESTONE, very hard, gray
B/H = 595.3
Test Hole No. RW-15
El 621.7
37(6) 38(6)
CLAY, brown, w/ sand & limestone fragments (FILL)
50(2) 50(.5)
BROKEN LIMESTONE, mixed with clay (FILL)
50(.5) 50(.12)
LIMESTONE, soft to hard, tan, weathered, fractured, w/ clay seams & layers
50(.25) 50(0)
LIMESTONE, very hard, gray, w/ shaley limestone layers & shale seams & layers
50(.25) 50(0)
50(.25) 50(0)
B/H = 596.7
Test Hole No. RW-13
El 617.7
24(6) 10(6)
CLAY, stiff, dark brown, concrete debris (FILL)
50(2) 50(1)
CLAY, stiff, tan, calcareous w/ limestone fragments (FILL)
50(1) 50(1)
CLAY, very hard, dark brown & light brown w/ concrete fragments (FILL)
50(1) 50(1)
LIMESTONE, hard, gray, w/ shaley limestone layers & shale seams & layers
50(.5) 50(.5)
50(.5) 50(.25)
B/H = 592.7
Test Hole No. RW-11
El 623.9
CONCRETE, 18 inches
5(6) 5(6)
CLAY, soft, dark gray, w/ limestone fragments & calcareous nodules (Fill)
7(6) 8(6)
12(6) 12(6)
CLAY, soft to stiff, tan & gray, w/ calcareous nodules & limestone fragments (Fill)
8(6) 10(6)
9(6) 11(6)
CLAY, stiff, dark gray
25(6) 18(6)
SAND, compact, tan, clayey, gravelly (limestone pieces)
CLAY, very stiff, tan, w/ limestone fragments
8(6) 7(6)
CLAY, soft, tan, calcareous
50(.25) 50(.25)
LIMESTONE, hard to very hard, gray, shaley w/ shale seams & layers
SHALE, hard, dark gray
50(1) 50(.5)
50(.5) 50(.25)
LIMESTONE, hard to very hard, gray, shaley w/ shale seams & layers
50(.25) 50(.25)
B/H = 573.9
Test Hole No. RW-12
El 614.8
CLAY, stiff, dark brown & brown, w/ limestone fragments (FILL)
7(6) 24(6)
LIMESTONE, broken, mixed, w/ clay (FILL)
50(3) 50(1)
CLAY, stiff, dark brown & brown, w/ calcareous nodules (FILL)
LIMESTONE, broken, mixed, w/ clay (FILL)
5(6) 7(6)
CLAY, soft, dark brown
5(6) 8(6)
CLAY, soft, light brown, w/ calcareous nodules
18(6) 14(6)
CLAY, stiff, moist, tan, w/ calcareous nodules & sand seams
50(3.5) 40(6)
LIMESTONE, soft, gray, sandy, severely weathered, highly fractured, shaley w/ clay layers
50(1) 50(.5)
LIMESTONE, hard, gray, w/ shaley limestone layers & shale seams & layers
50(1) 50(.5)
50(.5) 50(.5)
50(.5) 50(.25)
B/H = 569.8
Test Hole No. RW-25
El 645.5
5(6) 6(6)
CLAY, soft to stiff, dark brown, w/ calcareous nodules
12(6) 13(6)
LIMESTONE, tan, severely weathered, highly fractured, w/ clay seams & layers
LIMESTONE, very hard, tan, weathered, fractured, w/ clay seams & layers
50(.5) 50(.25)
LIMESTONE, very hard, gray, w/ shale seams & layers
50(.5) 50(.25)
50(.75) 50(.25)
B/H = 625.5
HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET
STATE OF TEXAS
MARK J. FARROW
48059
LICENSED PROFESSIONAL ENGINEER
7-11-2012
Texas Department of Transportation
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IH 35W FROM NORTH TARRANT PKWY TO IH 820
BORING LOGS
RETAINING WALL
SHEET 14 OF 40
DESIGN AGG
GRAPHICS KCI
CHECK AGG
CHECK AGG
FED.RD. DIV.NO. 6
FEDERAL AID PROJECT NO. (SEE TITLE SHEET)
HIGHWAY NO. IH 35W
STATE TEXAS
DISTRICT FTW
COUNTY TARRANT
SHEET NO. 1115
CONTROL 0014
SECTION 16
JOB 255, ETC.
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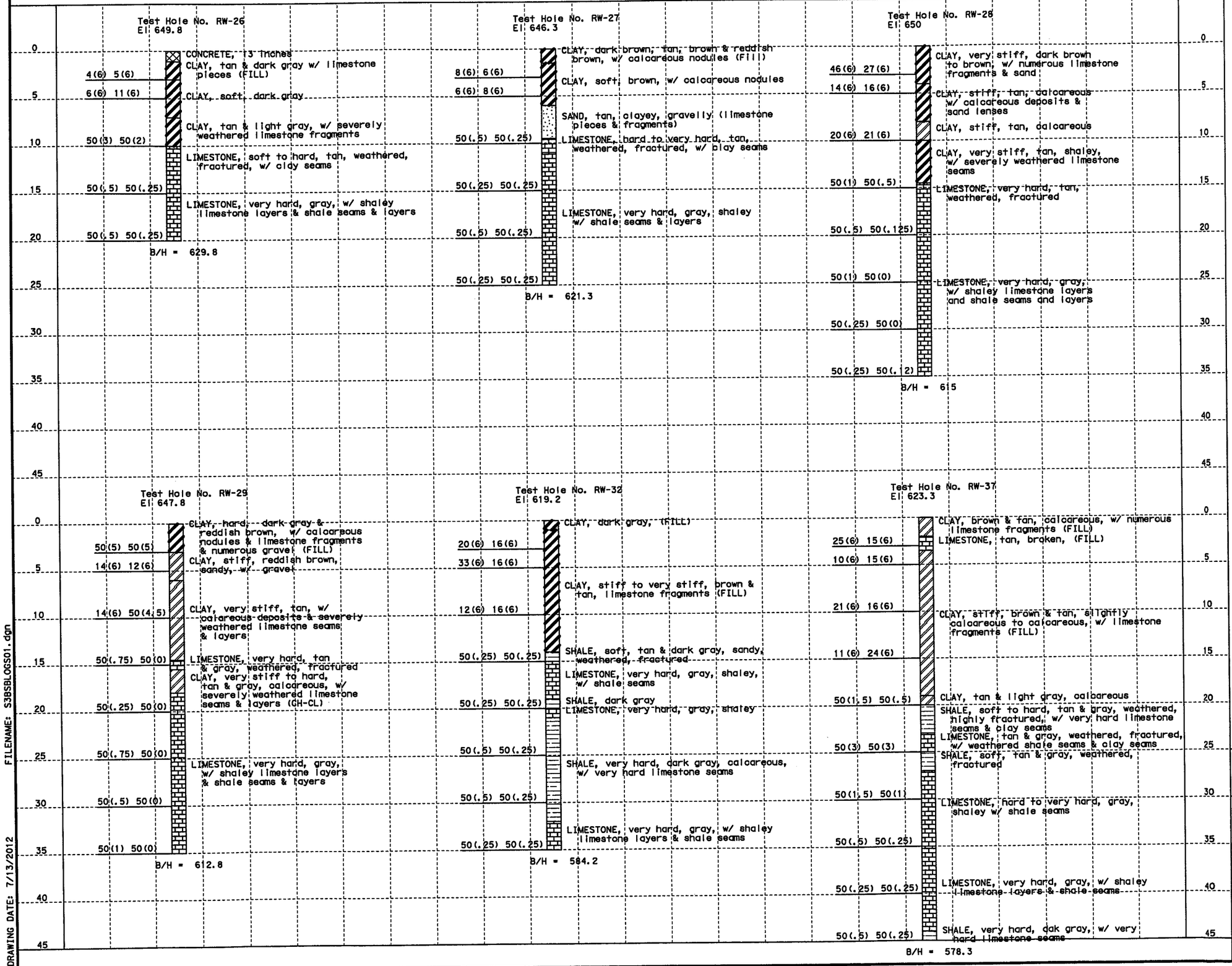
DRAWING DATE: 7/13/2012



FILENAME: S3BSBLOGS01.dgn

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

RETAINING WALL

SHEET 15 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1116
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

Test Hole No. RW-38
El 608.2

4(6)	21(6)
12(6)	14(6)
50(3)	50(2)
50(2.25)	50(1.25)
50(2.25)	50(1)
50(.25)	50(0)
50(.25)	50(.125)
50(.125)	50(0)
50(.25)	50(.125)

SAND, brown, clayey, w/ numerous limestone fragments (FILL)
CLAY, stiff, tan, calcareous, w/ limestone seams & layers
CLAY, stiff, tan, calcareous, w/ limestone fragments & severely weathered limestone seams & layers
CLAY, olive tan, w/ some severely weathered limestone seams
LIMESTONE, soft, gray & tan, weathered, fractured, shaley, w/ soft shale seams & layers
SHALE, soft to hard, weathered, gray, w/ very hard limestone seams & layers
LIMESTONE, very hard, shaley, w/ shale seams & layers

B/H = 568.2

Test Hole No. RW-39
El 610.5

50(2)	50(5)
10(6)	14(6)
10(6)	10(6)
9(6)	22(6)
50(.5)	50(.25)
50(.5)	50(.25)
50(.25)	50(.25)
50(.25)	50(.25)

CLAY, hard, dark brown & light brown, calcareous, w/ calcareous nodules, limestone fragments & layers of broken rock (FILL)
CLAY, stiff, dark gray
CLAY, stiff, light brown, w/ calcareous nodules
CLAY, stiff, moist, tan & gray, slightly calcareous, silty (CH-CL)
LIMESTONE, hard, gray, w/ shaley limestone layers & shale seams & layers

B/H = 575.5

Test Hole No. RW-40
El 638.5

9(6)	11(6)
13(6)	18(6)
50(.5)	50(.5)
50(.5)	50(.25)
50(.5)	50(.25)
50(.5)	50(.25)

CLAY, dark brown w/ numerous limestone pieces (FILL)
CLAY, tan, calcareous, w/ numerous limestone fragments (FILL)
CLAY, stiff, dark brown, w/ sand
CLAY, very stiff, yellowish brown & grayish brown, w/ numerous calcareous nodules & deposits
CLAY, yellowish brown, grayish brown, shaley, w/ severely weathered limestone layers
LIMESTONE, very hard, tan, weathered fractured
LIMESTONE, very hard, gray, w/ shaley limestone layers & shale seams & layers

B/H = 613.5

Test Hole No. RW-42
El 623.5

25(6)	27(6)
24(6)	35(6)
50(.75)	50(.25)
50(.25)	50(.12)

CLAY, dark brown & brown w/ fine gravel & limestone fragments (FILL)
CLAY, very stiff, grayish brown, calcareous, w/ calcareous nodules & limestone fragments
CLAY, very stiff, tan, calcareous
LIMESTONE, hard, tan, weathered, fractured, w/ clay seams
LIMESTONE, hard to very hard, gray, shaley w/ sandstone & shale seams

B/H = 608.5

Test Hole No. RW-44
El 639.4

21(6)	19(6)
11(6)	12(6)
50(.25)	50(.25)
50(2.5)	50(2)
50(.25)	50(.25)
50(.25)	50(0)
50(.25)	50(.25)
50(.25)	50(.25)

CLAY, dark brown, brown, tan, calcareous, w/ numerous limestone pieces (FILL)
CLAY, very stiff, dark brown to brown
CLAY, stiff, yellowish brown, calcareous, w/ calcareous deposits & weathered limestone layers
LIMESTONE, soft to hard, tan, weathered, fractured, w/ clay layers & very hard limestone layers
LIMESTONE, soft to hard, gray & tan, weathered, fractured w/ shale layers
LIMESTONE, very hard, gray, w/ shaley limestone layers & shale seams & layers

B/H = 604.4

Test Hole No. RW-47
El 638.2

7(6)	11(6)
50(5)	50(4)
50(.5)	50(.25)
50(.25)	50(.25)
50(.25)	50(.25)

CLAY, dark brown to brown, w/ some to numerous limestone fragments & calcaresous nodules
CLAY, soft, yellowish brown & gray, calcareous, w/ some calcareous deposits & severely weathered limestone layers
LIMESTONE, soft, tan weathered, fractured, w/ clay layers
LIMESTONE, very hard to hard, gray, w/ shaley limestone layers & shale seams & layers

B/H = 618.2

HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS
RETAINING WALL

SHEET 16 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1117
CHECK AGG	CONTROL	SECTION	JOB	
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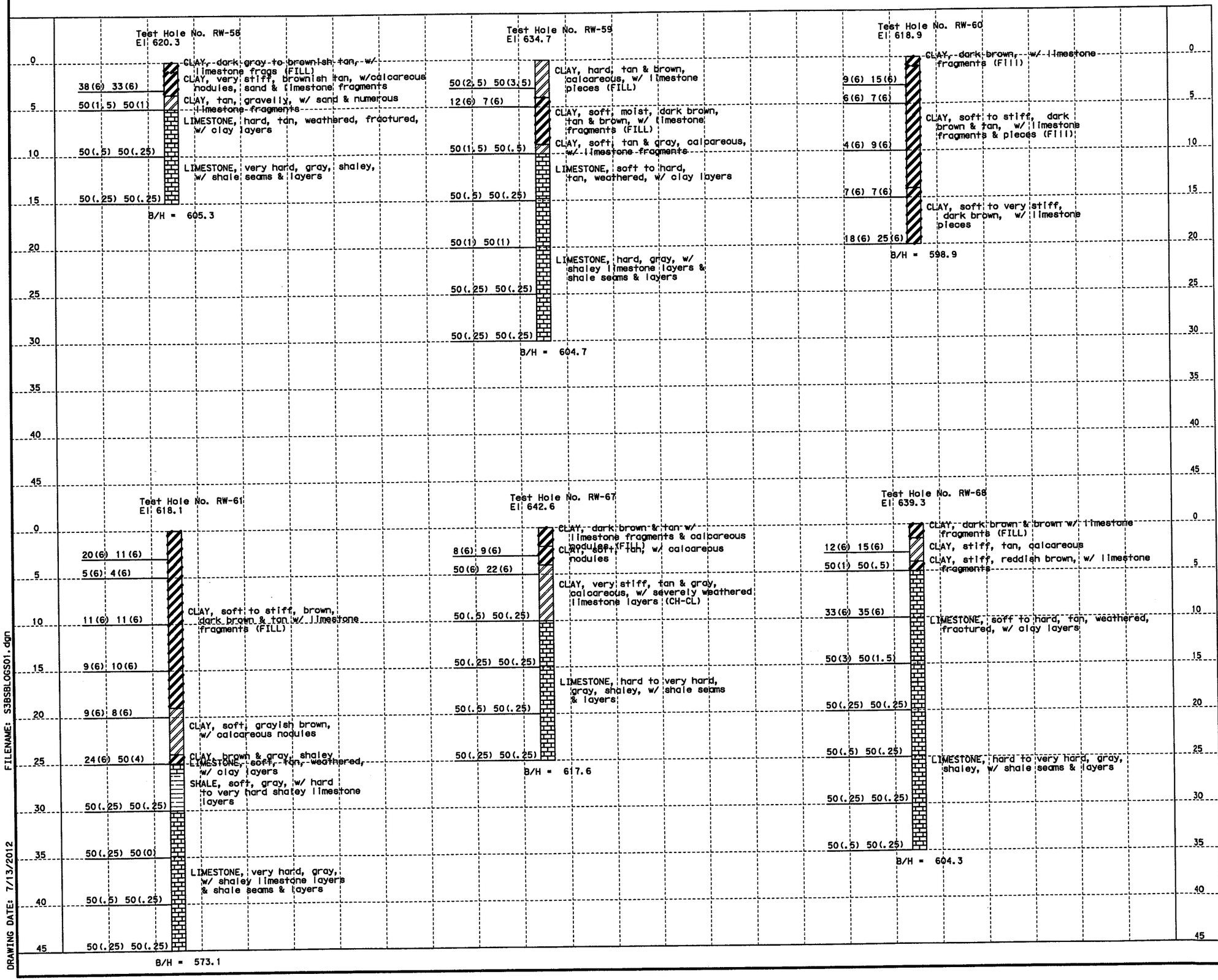
FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012



FILENAME: S3BSBLOGS01.dgn

DRAWING DATE: 7/13/2012

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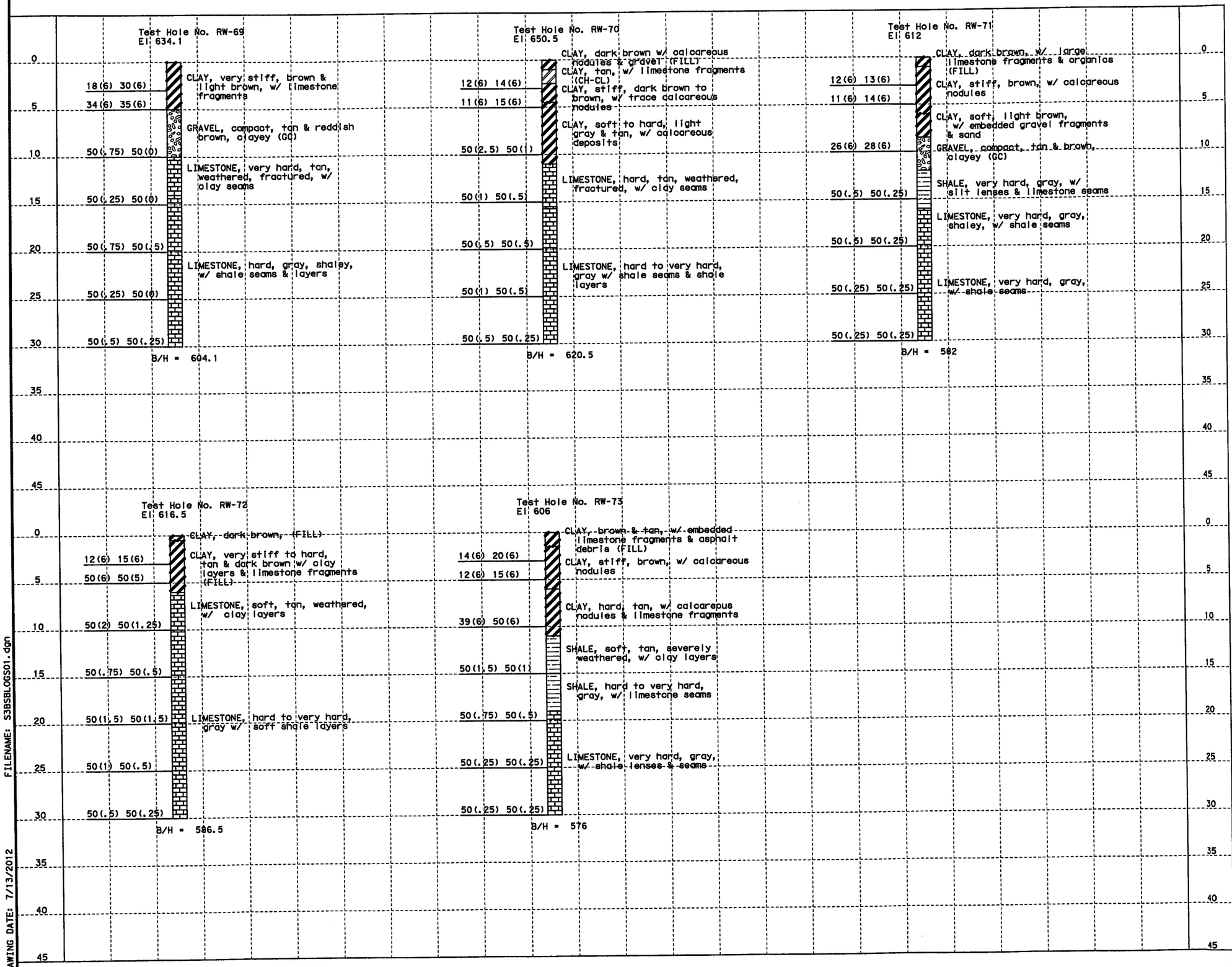
BORING LOGS
RETAINING WALL

SHEET 17 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1118
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

STATE OF TEXAS
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BORING LOGS
RETAINING WALL

SHEET 18 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	1119
CHECK AGG	CONTROL	SECTION	JOB	
CHECK AGG	0014	16	255, ETC.	

FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012

Test Hole No. S-1
El 670.4

	CLAY, brown & dark brown w/ calcareous nodules & fine gravel (Fill)
	CLAY, brown & tan w/ calcareous nodules (Fill)
16(6) 21(6)	GRAVEL, slightly compact, tan, clayey (GC)
45(6) 26(6)	CLAY, very stiff, tan & gray, shaley, blocky
50(6) 50(4)	SHALE, soft, gray, weathered, fractured w/ shaley clay layers
50(.75) 50(.5)	
50(.25) 50(0)	LIMESTONE, hard to very hard, shaley, w/ shale seams & layers
50(.5) 50(0)	
50(.25) 50(0)	

B/H = 635.4

Test Hole No. S-3
El 664.3

	CLAY, dark gray w/ limestone fragments (Fill)
	CLAY, dark gray
	CLAY, dark grayish brown
19(6) 31(6)	CLAY, very stiff, brown, sandy, w/ fine gravel
12(6) 12(6)	CLAY, stiff, brown, marly
50(3) 50(1.5)	CLAY, tan & gray, calcareous
	SHALE, soft, gray weathered
50(1.5) 50(1)	SHALE, hard to very hard, gray, w/ several very hard limestone seams & layers
50(.5) 50(0)	
50(1) 50(.25)	LIMESTONE, very hard, w/ shaley limestone layers and shale seams
	SHALE, very hard, dark gray
50(.5) 50(0)	LIMESTONE, very hard, gray, w/ shaley limestone layers and shale seams

B/H = 629.3

Test Hole No. S-5
El 658.6

5(6) 9(6)	CLAY, soft, brown, w/ limestone pieces & fragments
7(6) 10(6)	GRAVEL, Loose, brown, sandy, clayey (limestone fragments) (GP)
	CLAY, tan, calcareous, w/ weathered limestone seams
50(1.5) 50(1.25)	LIMESTONE, soft to hard, tan, weathered, fractured, w/ clay seams
50(4) 50(5)	LIMESTONE, tan and gray weathered, fractured w/ shale seams
50(.25) 50(0)	
50(.12) 50(0)	LIMESTONE, very hard, gray, w/ shaley limestone layers & shale layers
50(0) 50(0)	SHALE, dark gray
50(1) 50(.5)	LIMESTONE, very hard, gray, w/ shaley limestone layers & shale layers

B/H = 623.6

Test Hole No. S-7
El 648

	CLAY, brown, dark brown & tan. w/ calcareous nodules (Fill)
	CLAY, stiff, brown, w/ calcareous nodules
21(6) 10(6)	CLAY, stiff, tan, w/ gravel & limestone seams
50(1.75) 50(.75)	LIMESTONE, hard to very hard, tan, weathered, fractured, w/ clay layers
50(1.75) 50(1)	LIMESTONE, hard, gray, shaley, w/ shale seams & layers
50(.25) 50(0)	
50(.25) 50(1)	LIMESTONE, very hard, gray, shaley, w/ shale seams & layers
50(.25) 50(.25)	

B/H = 618

Test Hole No. S-8
El 658.6

	CLAY, dark brown
17(6) 18(6)	CLAY, stiff, brown, shaley, w/ limestone fragments
40(6) 50(5)	CLAY, hard, brown, marly, calcareous
50(.75) 50(0)	CLAY, hard, dark gray, shaley
50(1.5) 50(1.25)	LIMESTONE, hard to very hard, gray, w/ shale seams & layers
50(.25) 50(0)	
50(.25) 50(.25)	

B/H = 628.6

Test Hole No. S-10
El 663.4

	CLAY, tan & dark gray, sandy (Fill)
	CLAY, dark gray, w/ large limestone fragments & calcareous nodules (Fill)
7(6) 7(6)	CLAY, soft, dark gray & tan, w/ calcareous nodules & asphalt debris (Fill)
9(6) 11(6)	CLAY, soft, brown & tan, w/ calcareous nodules (Fill)
	BROKEN LIMESTONE, tan, mixed w/ clay (Fill)
5(6) 7(6)	CLAY, soft, dark gray, w/ calcareous nodules
6(6) 12(6)	CLAY, soft, tan & light gray, w/ calcareous nodules & some calcareous deposits
50(.5) 50(.25)	CLAY, tan, calcareous, w/ severely weathered limestone seams
	LIMESTONE, soft to very hard, tan, weathered to severely weathered, fractured to highly fractured, w/ calcareous clay layers
50(.25) 50(.25)	
50(.25) 50(.25)	LIMESTONE, very hard, gray, w/ shaley limestone layers and shale seams & layers
50(.25) 50(.25)	
50(.25) 50(.25)	

B/H = 618.4

HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

Mark J Farrow
7-11-2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

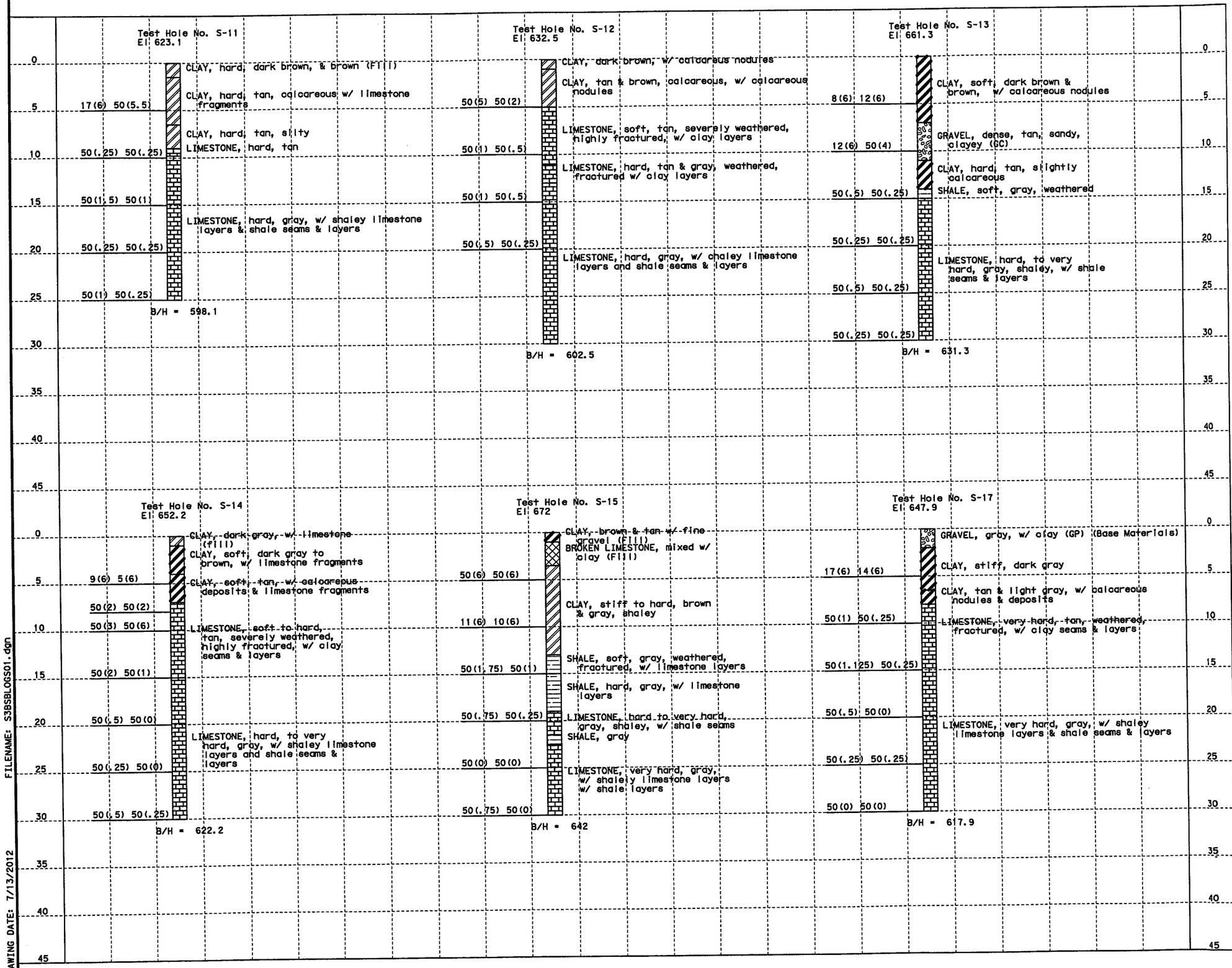
BORING LOGS

SIGNING

SHEET 19 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1120
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012



FILENAME: S3BSBLOGS01.dgn

DRAWING DATE: 7/13/2012

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

7-11-2012

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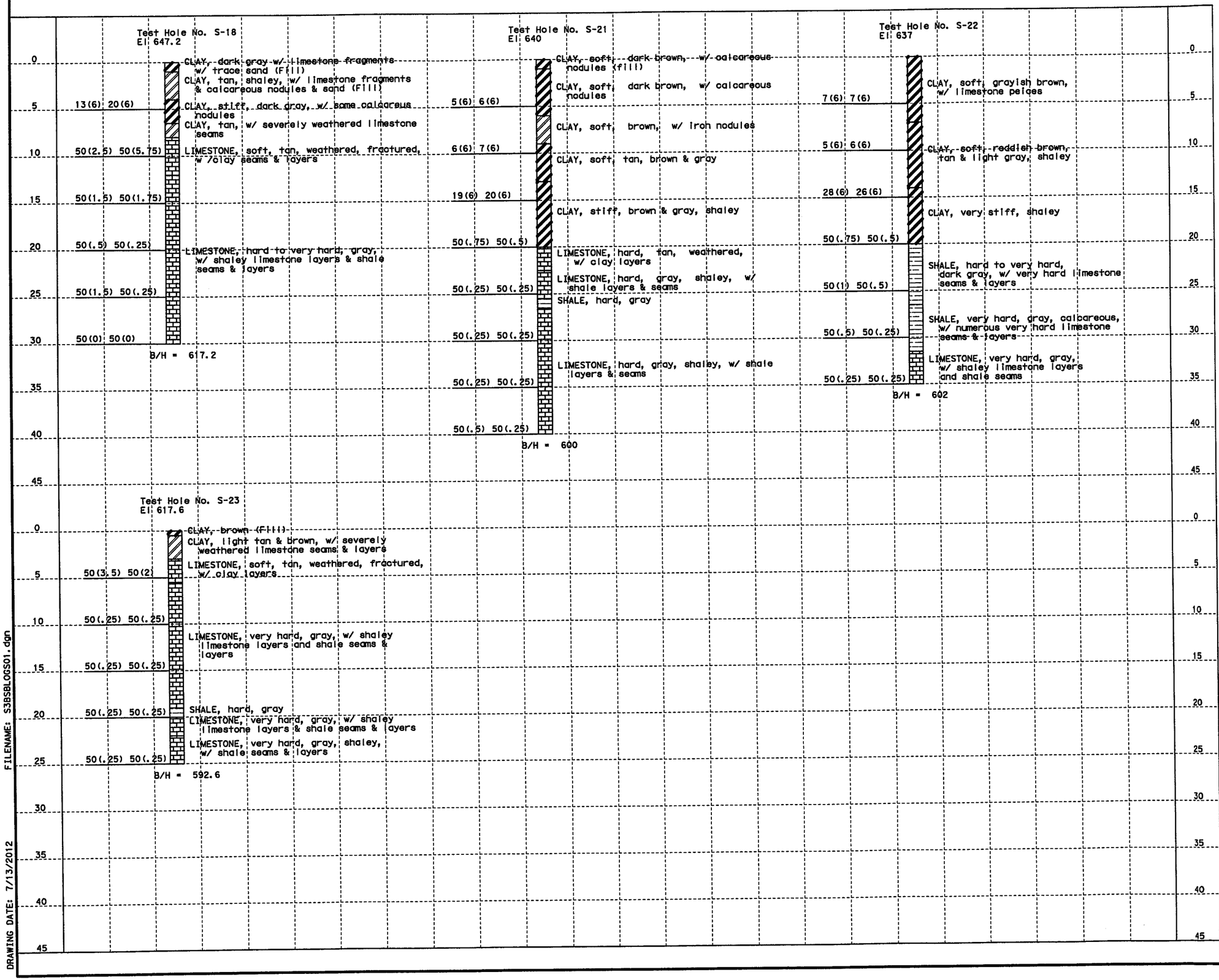
IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SIGNING

SHEET 20 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1121
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	



HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

STATE OF TEXAS
MARK J. FARROW
48059
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PROFESSIONAL ENGINEER

7-11-2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SIGNING

SHEET 21 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1122
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012

Test Hole No. S-24
El 697.3

CLAY, dark brown w/ calcareous nodules & limestone pieces

8(6) 7(6)

CLAY, brown w/ calcareous nodules

CLAY, tan, silty w/ limestone seams

50(2.5) 50(1)

LIMESTONE, hard, tan, weathered w/ clay seams

50(2) 50(.75)

LIMESTONE, hard to very hard, gray, w/ shale layers

50(.5) 50(.25)

50(2) 50(2.5)

SHALE, soft, gray w/ hard limestone layers

50(2.5) 50(2)

50(1.25) 50(.5)

50(1.5) 50(1.5)

SHALE, hard, gray w/ limestone seams

50(.5) 50(.5)

50(.5) 50(.25)

B/H = 647.3

Test Hole No. S-25
El 693.8

CLAY, tan & brown, sandy (Fill)

CLAY, brown

38(6) 32(6)

CLAY, very stiff, brown, shaley w/ gypsum crystals

CLAY, gray, shaley w/ gypsum crystals

50(.25) 50(.25)

SHALE, very hard, gray w/ limestone layers

50(.25) 50(.25)

50(.25) 50(.25)

LIMESTONE, very hard, gray w/ shale layers

50(.25) 50(.25)

B/H = 668.8

Test Hole No. S-26
El 681.7

CLAY, moist, brown & tan, w/ calcareous nodules & limestone fragments (Fill)

CLAY, moist, dark brown w/ trace of calcareous nodules

4(6) 4(6)

CLAY, very soft, moist, brown w/ trace of calcareous nodules

CLAY, moist, tan & brown

19(6) 50(4.5)

LIMESTONE, tan, severely weathered, fractured w/ clay seams & layers

LIMESTONE, hard, tan, weathered

50(.25) 50(.25)

50(.25) 50(.25)

LIMESTONE, very hard, gray, w/ shale layers

50(.25) 50(.25)

50(.25) 50(.25)

B/H = 651.7

Test Hole No. S-27
El 675.5

CLAY, soft, moist, dark brown & tan, w/ limestone fragments & gravels (Fill)

5(6) 6(6)

CLAY, moist, dark brown

50(3.5) 50(1)

CLAY, very hard, moist, tan & brown, sandy w/ numerous gravels

LIMESTONE, tan, weathered, fractured w/ clay layers

50(1) 50(1)

50(.25) 50(.25)

LIMESTONE, very hard, gray w/ shale layers

50(.25) 50(.25)

50(.5) 50(.25)

B/H = 645.5

HORZ 0' 10' 20'
VERT 0' 10' 20'
SCALE IN FEET

STATE OF TEXAS
MARK J. FARROW
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7-11-2012

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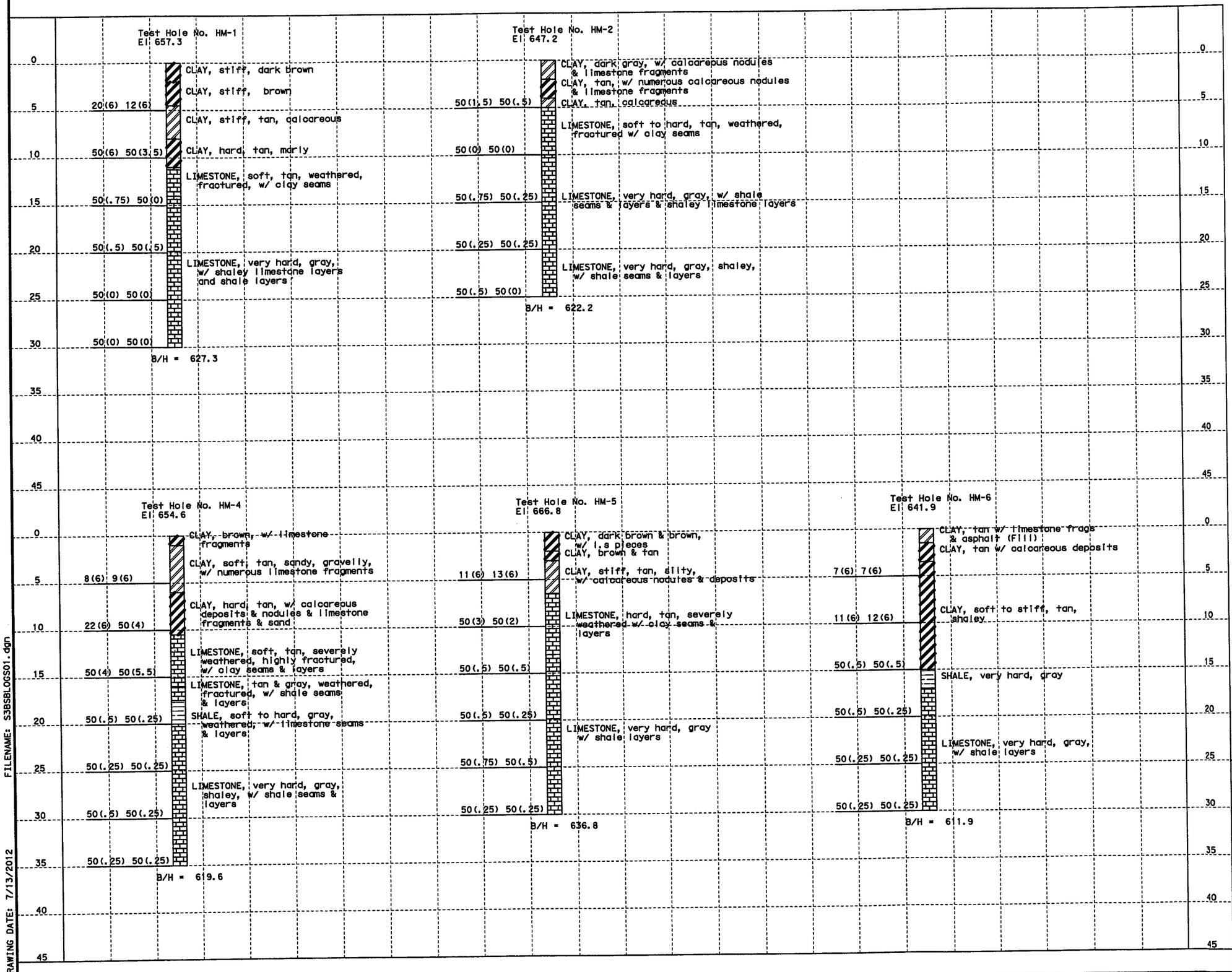
BORING LOGS

SIGNING

SHEET 22 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS KCI	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK AGG	TEXAS	FTW	TARRANT	1123
CHECK AGG	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS01.dgn
DRAWING DATE: 7/13/2012



STATE OF TEXAS
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48059
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7-11-2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS
HIGH MASS

SHEET 23 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
AGG	6	(SEE TITLE SHEET)		IH 35W
GRAPHICS	STATE	DISTRICT	COUNTY	SHEET NO.
KCI	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1124
AGG	0014	16	255, ETC.	
CHECK				
AGG				

FILENAME: S3BSBLOGS01.dgn

DRAWING DATE: 7/13/2012

Form 513
Rev. 12-70

Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B- 1
Station 77+50
Loc. from Centerline Rt. Lt. 70'

District No. 2
Date 2/3/95
Grd. Elev. 660.00
Grd. Water Elev.

ELEV. (FT.)	†LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING*
657.0	0			CLAY, very stiff, dark brown (CH)	PUSH BBL
		19	23	CLAY, very stiff, yellowish orange with embedded calcareous fragments (CH)	
651.0		24	25		
647.0	10	50/3.0"	50/1.75"	CLAY, very stiff, orange and gray with embedded calcareous fragments (CH)	
641.0		50/0.5"	50/0.25"	CLAY, very hard, shaly, yellowish brown and gray (CH)	
638.5	20	50/0"	50/.13"	SHALE, very hard, orange	CORE BBL
		50/0.13"	50/0"	LIMESTONE, very hard, gray with interbedded shale layers	
625.0	30	50/0.13"	50/0"		
	40				
	50				
	60			(See back MAP for Location of core holes)	
	70				

*REMARKS: Drilled by Huntingdon/SwL. N 438787.1143; E 2056761.0944

Driller R.L. Dixon Logger M. Stone Title Driller

†Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

Texas Highway Department
Form 513
Rev. 12-70

Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B- 2
Station 79+50
Loc. from Centerline Rt. Lt.

District No. 2
Date 2/6/95
Grd. Elev. 647.75
Grd. Water Elev.

ELEV. (FT.)	†LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
646.8	0			CLAY, stiff, dark brown (CH)	PUSH BBL
642.8		50/3.0"	50/2.25"	CLAY, stiff to very stiff, shaly, orange and gray with embedded calcareous fragments (CH)	
640.3				LIMESTONE, very hard, yellowish brown	CORE BBL
	10	50/0.75"	50/0.13"	LIMESTONE, very hard, gray with interbedded shale layers 1" to 5" thick	
		50/0.25"	50/0.25"		
	20	50/0"	50/0"		
622.8		50/0.12"	50/0"		
	30				
	40				
	50				
	60				
	70				

*REMARKS: Drilled by Huntingdon/SwL. N 438855.5258; E 2056560.5454

Driller R.L. Dixon Logger M. Stone Title Driller

†Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 24 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1124A
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BSBLOGS02.dgn

Texas Highway Department
Form 513
Rev. 12-70

Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B- 3
Station 81+50
Loc. from Centerline Rt. 70' Lt.

District No. 2
Date 2/3/95
Grd. Elev. 656.38
Grd. Water Elev.

ELEV. (FT.)	†	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING *
654.4	0				CLAY, very stiff, brown (CH)	0 PUSH BBL
			17	27	CLAY, very stiff, yellowish orange with embedded calcareous fragments (CH)	
650.4					CLAY, hard, shaly, orange-brown (CH)	
	10		50/5.0"	50/4.5"		10
644.4					LIMESTONE, hard, yellowish brown with interbedded clay layers	CORE BBL
641.4			50/2.25"	50/0.25"	LIMESTONE, very hard, gray with interbedded shale layers	
	20		50/0.5"	50/0.25"		20
			50/0.25"	50/0.25"		
626.4	30		50/0.25"	50/0"		30
	40					40
	50					50
	60					60
	70					70

*REMARKS: Drilled by Huntingdon/SwL. N 438923.9373; E 2056359.9965

Driller R.L. Dixon Logger M. Stone Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

Form 513
Rev. 12-70

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B- 4
Station 527+50
Loc. from Centerline Rt. Lt. 180'

District No. 2
Date 2/9/95
Grd. Elev. 656.38
Grd. Water Elev.

ELEV. (FT.)	†	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING *
656.2	0				2.5" ASPHALT	0 PUSH BBL
652.4			11	13	CLAY, stiff, yellowish orange with embedded limestone fragments (CH)	
					CLAY, stiff, dark brown with embedded limestone fragments (CH)	
646.4	10		18	22		10
642.4			14	13	CLAY, stiff, brown and orange with embedded limestone fragments (CH)	
640.4					CLAY, stiff, orange and gray with embedded limestone fragment (CH)	
638.4					SHALE, hard, yellowish brown	
	20		50/2.0"	50/1.5"	LIMESTONE, hard to very hard, gray with interbedded shale layers 1" to 6" thick	20 CORE BBL
			50/1.0"	50/0.75"		
	30		50/0.25"	50/0"		30
			50/0.13"	50/0"		
618.4	40		50/0.5"	50/0"		40
	50					50
	60					60
	70					70

*REMARKS: Drilled by Huntingdon/SwL. N 435883.6165; E 2057267.6165; Boring offset 75' west

Driller R.L. Dixon Logger M. Stone Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 25 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	1124B
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn
DRAWING DATE: 7/13/2012

Texas Highway Department
Form 513
Rev. 12-78

Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B- 5
Station 525+50
Loc. from Centerline Rt. Lt. 130'

District No. 2
Date 2/1/95
Grd. Elev. 616.13
Grd. Water Elev.

ELEV. (FT.)	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
615.9	0			CLAY, very soft, brown-FILL	0 PUSH BBL
613.1		1	2	CLAY, very soft, grayish pink and very dark orange-brown, with embedded calcareous fragments- FILL	
609.1		50/1.5"	50/1.25"	CLAY, very soft, dark yellowish orange to grayish orange, embedded gravels and broken limestone-FILL	CORE BBL
	10	50/1.0"	50/0.13"	LIMESTONE, hard, shaly, gray	10
	20	50/0.25"	50/0.25"		20
591.1		50/0.25"	50/0.13"		
	30				30
	40				40
	50				50
	60				60
	70				70

*REMARKS: Drilled by Huntingdon/SwL. N 435677.9250; E 2057253.5405; Boring drilled 24' west

Driller R.L. Dixon Logger M. Stone Title Driller

†Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

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Form 513
Rev. 12-78

Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B- 6
Station 531+50
Loc. from Centerline Rt. Lt. 130'

District No. 2
Date 1/27/95
Grd. Elev. 612.21
Grd. Water Elev.

ELEV. (FT.)	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
611.2	0			CLAY, hard, brown to light yellow (CH)	0 PUSH BBL
609.2		50/0.75"	50/0.5"	CLAY, stiff, yellowish grey with interbedded weathered limestone seams (CH)	
608.2		50/0.5"	50/0.25"	LIMESTONE, hard, weathered, yellow and gray with interbedded clay seams	CORE BBL
	10	50/0.5"	50/0"	LIMESTONE, hard, gray with interbedded shale layers	10
	20	50/1.0"	50/0.25"		20
		50/0.25"	50/0"		
582.2	30	50/0.25"	50/0.13"		30
	40				40
	50				50
	60				60
	70				70

*REMARKS: Drilled by Huntingdon/SwL. N 435481.0373; E 2057288.6864

Driller R.L. Dixon Logger T. Barrix Title Driller

†Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	1124C
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn
DRAWING DATE: 7/13/2012

Form 513
Rev. 12-70

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B- 7
Station 526+40
Loc. from Centerline Rt. 150' Lt.

District No. 2
Date 1/31/95
Grd. Elev. 614.04
Grd. Water Elev.

ELEV. (FT.)	† LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING *
610.0		11	12	CLAY, stiff, brownish gray (CH)	PUSH BBL
605.0		42	40	CLAY, very stiff to hard, light brownish gray with embedded gravel and calcareous fragments (CH)	
599.0		50/4.0"	50/0.5"	CLAY, hard, olive gray and orange brown with interbedded limestone layers (CH)	
594.0		50/1.13"	50/0.5"	SHALE, hard, dark gray with thin interbedded limestone seams	CORE BBL
		50/0.5"	50/0.25"	LIMESTONE, hard, gray with thin interbedded shale seams	
		50/0.5"	50/0.25"		
579.0		50/0.5"	50/0"		

*REMARKS: Drilled by Huntingdon/SwL. N 435933.8967; E 2056923.4216

Driller R.L. Dixon Logger T. Barritt Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

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Rev. 12-70

Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B- 8
Station 528+50
Loc. from Centerline Rt. 180' Lt.

District No. 2
Date 1/30/95
Grd. Elev. 606.76
Grd. Water Elev.

ELEV. (FT.)	† LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING *
604.8		50/5"	50/6"	CLAY, hard, light brown and yellow with embedded limestone gravel (FILL)	PUSH BBL
600.8				CLAY, hard, brown and yellowish orange (CH)	
598.8		8	5	CLAY, soft, greenish yellow to brown, with embedded calcareous fragments (CH)	
592.8		50/0.5"	50/0.25"	CLAY, soft, yellowish gray with embedded gravel (CH)	
		50/1.25"	50/1.0"	LIMESTONE, hard, gray with interbedded shale seams	CORE BBL
		50/1.25"	50/0.25"		
576.8		50/0.25"	50/0.25"		

*REMARKS: Drilled by Huntingdon/SwL. N 435721.8928; E 2056930.7916

Driller R.L. Dixon Logger T. Barritt Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 27 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
	TEXAS	FTW	TARRANT	1124D
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn
DRAWING DATE: 7/13/2012

Texas Highway Department
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Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B- 9
Station 529+50
Loc. from Centerline Rt. 160' Lt.

District No. 2
Date 2/6/95
Grd. Elev. 608.44
Grd. Water Elev.

ELEV. (FT.)	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
606.4	0			CLAY, stiff, brown (CH)	0 PUSH BBL
		12	10	CLAY, stiff, orangish brown with embedded limestone fragments (CH)	
602.4					
		18	26	CLAY, very stiff, black with interbedded sand layers (CH-CL)	
598.4	10				10
595.4				CLAY, stiff to very stiff, orange and gray with interbedded sand and fine gravel layers (CH-CL)	
		50/1.5"	50/0.25"	LIMESTONE, hard to very hard, gray with interbedded shale layers 1" to 4" thick	CORE BBL
	20	50/0.5"	50/0.13"		20
		50/0.5"	50/0.25"		
578.4	30	50/0.25"	50/0"		30
	40				40
	50				50
	60				60
	70				70

*REMARKS: Drilled by Huntingdon/SwL. N 435626.9635; E 2056968.0533

Driller R.L. Dixon Logger M. Stone Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

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DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-10
Station 534+50
Loc. from Centerline Rt. Lt. 220'

District No. 2
Date 2/8/95
Grd. Elev. 614.46
Grd. Water Elev.

ELEV. (FT.)	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
613.5	0			CLAY, soft, brown and orange (CH)	0 PUSH BBL
611.5				LIMESTONE, hard, yellowish brown and light grey	
		50/0.5"	50/0"	LIMESTONE, hard to very hard, grey with interbeddad shale layers 1" to 6" thick	
	10	50/0.75"	50/0"		10 CORE BBL
		50/2.0"	50/0.5"		
	20	50/0.5"	50/0.13"		20
		50/0.5"	50/0"		
584.5	30	50/0.25"	50/0"		30
	40				40
	50				50
	60				60
	70				70

*REMARKS: Drilled by Huntingdon/SwL. N 435201.5214; E 2057430.0047; Boring offset 24' west and 12' north

Driller R.L. Dixon Logger M. Stone Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 28 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	1124E
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn
DRAWING DATE: 7/13/2012

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Rev. 12-70

Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-12
Station 536+20
Loc. from Centerline Rt. Lt. 150' Grd. Water Elev.

District No. 2
Date 1/28/95
Grd. Elev. 606.44

ELEV. (FT.)	† LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
606.4	0			CLAY, stiff, dark brown (CH)	PUSH BBL
601.4		11	9	CLAY, stiff, yellowish orange with traces of calcareous fragments (CH)	
	10	15	14	CLAY, stiff, orange and brown with sand and gravel and interbeddad sand layers (CH-CL)	
		13	12		
589.4					
	20	50/0.5"	50/0.25"	LIMESTONE, very hard, gray with interbedded shale layers	CORE BBL
		50/0"	50/0"		
	30	50/0.25"	50/0"		
571.4		50/0.13"	50/0"		
	40				
	50				
	60				
	70				

*REMARKS: Drilled by Huntingdon/SwL.. N 435021.8658; E 2057390.9680; Boring offset 21' south

Driller R.L. Dixon Logger T. Barritt Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

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Rev. 12-70

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DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-16
Station 536+00
Loc. from Centerline Rt. Lt. 30' Grd. Water Elev.

District No. 2
Date 2/7/95
Grd. Elev. 617.39

ELEV. (FT.)	† LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
613.4	0	13	12	CLAY, stiff, olive gray and yellowish gray - FILL	PUSH BBL
	10	12	14	CLAY, stiff, yellowish gray (CH)	
602.4		16	18		
600.4				CLAY, stiff, olive gray (CH)	
	20	30	26	CLAY, very stiff, yellowish gray and light gray (CH)	
		33	33		
589.4					
	30	30	30	CLAY, very stiff, dusky yellow, traces of iron-oxide (CH)	
		20	28		
580.4					
	40	50/0.25"	50/0.25"	LIMESTONE, very hard, gray with interbedded shale layers	CORE BBL
		50/0.25"	50/0.25"		
	50	50/0"	50/0.25"		
562.4		50/0"	50/0"		
	60				
	70				

*REMARKS: Drilled by Huntingdon/SwL. N 435020.4671; E 2057269.3208; Boring offset 28' west and 22' south

Driller R.L. Dixon Logger R.L. Dixon Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 29 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	1124F
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn
DRAWING DATE: 7/13/2012

Rev. 12-70

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-17
Station 534+00
Loc. from Centerline Rt. Lt.

District No. 2
Date 2/8/95
Grd. Elev. 620.54
Grd. Water Elev.

ELEV. (FT.)	† LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING *
618.5	0			CLAY, stiff, dark brown (CH)	PUSH BBL
		15	16	CLAY, stiff, yellowish orange with embedded calcareous fragments (CH)	
613.5					
	10	33	26	CLAY, very stiff, brown with embedded limestone fragments (CH)	
606.5		45	23		
603.5				CLAY, very stiff, shaly, orange and yellowish brown with embedded calcareous fragments (CH)	
	20	28	50	CLAY, very stiff to hard, shaly, gray with embedded limestone fragments (CH)	
		21	15		
	30	15	50/5.0"		
588.5				LIMESTONE, very hard, gray with interbedded shale layer 1" to 4" thick	CORE BBL
		50/0.25"	50/0"		
	40	50/0.25"	50/0.13"		
		50/0.13"	50/0"		
570.5	50	50/0.25"	50/0.13"		
	60				
	70				

*REMARKS: Drilled by Huntingdon/SwL. N 435212.0829; E 2057204.6417

Driller R.L. Dixon Logger M. Stone Title Driller

†Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

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Rev. 12-70

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DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-19
Station 535+80
Loc. from Centerline Rt. 120' Lt.

District No. 2
Date 2/1/95
Grd. Elev. 599.49
Grd. Water Elev.

ELEV. (FT.)	† LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING *
	0			CLAY, soft, yellowish gray to grayish yellow with calcareous deposits (CH)	PUSH BBL
594.5		4	5		
592.5				CLAY, stiff, grayish yellow and yellow with embedded gravel (CH)	
589.5	10	50/0.75"	50/0.5"	CLAY, stiff, shaly, light olive gray and olive brown (CH)	
				LIMESTONE, very hard, shaly, gray with interbedded limestone seams	CORE BBL
585.5		50/0.25"	50/0.13"	LIMESTONE, gray with interbedded shale seams	
	20	50/0.5"	50/0"		
574.5		50/0.5"	50/0"		
	30				
	40				
	50				
	60				
	70				

*REMARKS: Drilled by Huntingdon/SwL. N 435013.7964; E 2057118.1404

Driller R.L. Dixon Logger T. Barritt Title Driller

†Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 30 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
	TEXAS	FTW	TARRANT	11246
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn
DRAWING DATE: 7/13/2012

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Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-20
Station 533+80
Loc. from Centerline Rt. 160' Lt.

District No. 2
Date 1/31/95
Grd. Elev. 607.22
Grd. Water Elev.

ELEV. (FT.)	† LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
606.2	0			CLAY, stiff, brownish yellow with calcareous deposits (FILL)	0 PUSH BBL
		10	11	CLAY, stiff, yellowish brown with calcareous deposits (FILL)	
601.2					
		19	19	CLAY, stiff, light brownish gray (CH)	
597.2	10				10
595.2				CLAY, stiff, grayish orange to yellowish brown with embedded gravel (CH)	
592.2		50/0.75"	50/0.5"	CLAY, stiff, shaly, olive gray to orange (CH)	
				LIMESTONE, hard, shaly, gray with interbedded shale seams	CORE BBL
	20	50/0.5"	50/0.25"		20
		50/0.5"	50/0.13"		
577.2	30	50/0.5"	50/0.25"		30
	40				40
	50				50
	60				60
	70				70

*REMARKS: Drilled by Huntingdon/SwL. N 435203.6549; E 2057043.6170; Boring offset 16' north

Driller R.L. Dixon Logger T. Barritt Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

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DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-22
Station 535+20
Loc. from Centerline Rt. 220' Lt.

District No. 2
Date 1/31/95
Grd. Elev. 604.03
Grd. Water Elev.

ELEV. (FT.)	† LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
603.0	0			CLAY, soft, brown and yellowish brown (CH)	0 PUSH BBL
602.0				CLAY, soft, brown with calcareous nodules (CH)	
		5	7	CLAY, soft, yellowish gray with embedded gravel (CH)	
595.0					
593.0	10	16	50/2.5"	CLAY, hard, shaly, olive gray to gray (CH)	10
				LIMESTONE, hard to very hard, shaly, gray with interbedded shale seams	CORE BBL
		50/1.75"	50/0.75"		
	20	50/0.5"	50/0.13"		20
		50/0.5"	50/0"		
574.0	30	50/0.5"	50/0.25"		30
	40				40
	50				50
	60				60
	70				70

*REMARKS: Drilled by Huntingdon/SwL. N 435055.2898; E 2057009.1528; Boring offset 20' south and 10' east

Driller R.L. Dixon Logger T. Barritt Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 31 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	1124H
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn
DRAWING DATE: 7/13/2012

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DRILLING LOG

County TARRANT
Highway No. I-35
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-23
Station 539+20
Loc. from Centerline Rt. Lt. 75'

District No. 2
Date 3/7/95
Grd. Elev. 622.09
Grd. Water Elev.

ELEV. (FT.)	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
621.8	0			3" ASPHALT	PUSH BBL
		7	9	CLAY, soft to stiff, brown, orange, red and gray with embedded limestone fragments and fine gravel - FILL	
	10	12	14		
609.1		11	14	CLAY, stiff, yellowish orange with embedded limestone rocks and gravel - FILL	
	20	14	19		
600.1		22	30	CLAY, very stiff, brown with embedded limestone fragments (CH)	
595.1		21	29	CLAY, very stiff to hard, yellowish orange with embedded gravel and broken limestone (CH)	
	30	50/3.75"	50/0.5"		
587.1				LIMESTONE, hard, gray	CORE BBL
	40	50/1.25"	50/1.0"		
		50/0.75"	50/1.0"		
	50	50/0.5"	50/0		
567.1		50/0	50/0.13"		
	60				
	70				

*REMARKS: Drilled by Huntingdon/SwL. N 434713.3546; E 2057369.8539; Boring offset 25' east

Driller R.L. Dixon Logger M. Stone Title Driller

†Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

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Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-24
Station 540+40
Loc. from Centerline Rt. Lt. 100'

District No. 2
Date 1/27/95
Grd. Elev. 608.53
Grd. Water Elev.

ELEV. (FT.)	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
608.5	0			CLAY, stiff, dark brown with embedded limestone gravel (CH)	PUSH BBL
605.5				CLAY, stiff, orangish brown (CH)	
603.5		9	11	CLAY, stiff, light brown and gray with embedded limestone gravel (CH)	
	10	3	8	CLAY, soft, light gray with embedded gravel (CH)	
597.5				LIMESTONE, soft, gray with interbedded gray shale layers	CORE BBL
		50/4.75"	50/2.5"		
590.5	20	50/2.75"	50/0.5"	LIMESTONE, hard, gray with interbedded gray shale layers	
		50/0.25"	50/0.25"		
	30	50/1.0"	50/0.5"		
		50/0.5"	50/0.13"		
568.5	40	50/0.5"	50/0.25"		
	50				
	60				
	70				

*REMARKS: Drilled by Huntingdon/SwL. N 434599.6152; E 2057415.5524; Boring offset 23' east

Driller M. Stone Logger T. Barrit Title Driller

†Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 32 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	11241
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BSBLOGS02.dgn

Form 513
Rev. 12-79

Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35 @ BASSWOOD
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-26
Station 542+30
Loc. from Centerline Rt. Lt. 60'

District No. 2
Date 3/6/95
Grd. Elev. 625.56
Grd. Water Elev.

ELEV. (FT.)	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
624.8	0			ASPHALT, 2" thick, over 7" base	0 PUSH BBL
		6	8	CLAY, soft, brownish black with embedded limestone gravel - FILL	
617.6					
	10	15	13	CLAY, stiff, black and light gray with embedded limestone fragments (CH)	10
613.6				CLAY, stiff, orangish brown with embedded gravel (CH)	
611.6		22	37	CLAY, very stiff, shaly, grey with interbedded limestone seams (CH)	
607.6					
604.6	20	16	23	CLAY, stiff, yellowish orange with embedded gravel (CH)	20
		13	14	CLAY, stiff, orangish brown and gray with gravel (CH)	
598.6					
594.6	30	21	37	CLAY, very stiff, yellowish orange with interbedded gray limestone seams (CH)	30
592.6				CLAY, very stiff, shaly, brown and gray (CH)	
		50/4.0"	50/1.25"	LIMESTONE, stiff to hard, gray, with interbedded shale layers 1"- 6" thick	CORE BBL
	40	50/0.25"	50/0"		40
		50/0"	50/0"		
	50	50/0"	50/0"		50
570.6		50/0.25"	50/0"		
	60				60
	70				70

*REMARKS: Drilled by Huntingdon/SwL. N 434435.0787; E 2057404.2911; Boring offset 12' west

Driller M. Stone Logger R.L. Dixon Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

Texas Highway Department
Form 513
Rev. 12-79

Sheet 1 of 1

DRILLING LOG

County TARRANT
Highway No. I-35
Control 0014-16-211
IPE

Structure BRIDGE
Hole No. TH B-30
Station 542+30
Loc. from Centerline Rt. 50' Lt.

District No. 2
Date 3/8/95
Grd. Elev. 626.21
Grd. Water Elev.

ELEV. (FT.)	LOG	THD PEN. TEST NO. OF BLOWS 1st 6"	2nd 6"	DESCRIPTION OF MATERIAL	METHOD OF CORING
625.2	0			1" ASPHALT, 11" CONCRETE	0 PUSH BBL
		6	8	CLAY, soft, brown, orange, yellow and gray (FILL)	
620.2					
616.2	10	14	16	CLAY, stiff, brownish black (CH)	10
		18	15	CLAY, stiff, orangish brown with embedded limestone fragments (CH)	
610.2					
606.2	20	20	25	CLAY, very stiff, brown and gray with interbedded limestone layers (CH)	20
603.2		17	18	CLAY, very stiff, black (CH)	
599.2				CLAY, stiff, orangish brown with embedded gravel (CH)	
	30	29	37	CLAY, very stiff, yellowish orange with embedded gravel (CH)	30
593.2					
591.2		50/0.13"	50/0	CLAY, very stiff, shaly, orange and gray with embedded limestone fragments	
		50/0.5"	50/0.13"	LIMESTONE, very hard, gray with interbedded shale layers	CORE BBL
	40	50/0.5"	50/0		40
576.2	50	50/0.25"	50/0		50
	60				60
	70				70

*REMARKS: Drilled by Huntingdon/SwL. N 434415.7484; E 2057296.0029

Driller R.L. Dixon Logger M. Stone Title Driller

† Indicate each foot by shading for core recovery, leaving blank for no core recovery, and crossing (X) for undisturbed laboratory samples taken.

NOTE: Refer to Foundation Exploration and Design Manual for directions in filling out this form. For distribution forward one copy to the Bridge Division (D-5) and one copy to the Materials and Tests Division (D-9) if samples are submitted and make a note of same on D-5 copy.

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS THB-1 THRU THB-10, THB-12, THB-16, THB-17, THB-19, THB-20, THB-22, THB-23, THB-24, THB-26, AND THB-30 ARE FROM CSJ 0014-16-211 DATED FEBRUARY 1995.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 33 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	1124J
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRAWING DATE: 7/13/2012 FILENAME: S3BSBLOGS02.dgn

DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-3	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	11/2/09
CSJ	NTE 3B - CDA	Station	1440+09.13	Grnd. Elev.	656.77 ft
		Offset	120.78 LT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			FILL, gravel, brown and tan, clayey, w/sand. (Fill)			10.0	29	13		% Passing No. 4 Sieve: 53
										% Passing No. 200 Sieve: 23
										PP = 3.0 tsf
652.8						27.0	59	39		% Passing No. 4 Sieve: 99
5		3 (6) 5 (6)	CLAY, soft to hard, dark brown to tan, sandy, w/gravel and calcareous particles. (Alluvium) (CH)							% Passing No. 200 Sieve: 95
										PP = 1.5 tsf
						28.0	73	53		% Passing No. 4 Sieve: 100
										% Passing No. 200 Sieve: 88
10		12 (6) 50 (3.25)								
645.5			LIMESTONE, hard, tan, slightly weathered, w/discontinuities. (Weno)	0	83	9.0			146	REC = 94%, RQD = 58%
643.3			LIMESTONE, very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							
15		50 (0.125) 50 (0.125)								REC = 95%, RQD = 73%
636.7		50 (0.5) 50 (0.125)								
20										
25										
30										
35										
40										

Remarks: Boring was advanced to the 11 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 11 ft, the boring was advanced to the 20.1 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 2.7 ft depth. Northing: 7009085.46, Easting: 2331886.83

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing **Logger:** Fugro Consultants, Inc. **Organization:** Fugro Consultants, Inc.

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NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11, AND 3B-13, ARE FROM "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 34 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	1124K
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn

DRAWING DATE: 7/13/2012

DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-4	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	10/31/09
CSJ	NTE 3B - CDA	Station	1432+09.09	Grnd. Elev.	666.33 ft
		Offset	235.96 RT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			FILL, clay, brown and tan, sandy, w/gravel. (Fill)			24.0	68	49		PP = 1.5 tsf % Passing No. 4 Sieve: 100 % Passing No. 200 Sieve: 94
5		7 (6) 9 (6)								PP = 3.5 tsf % Passing No. 4 Sieve: 96
						23.0	48	31		% Passing No. 200 Sieve: 94
10		17 (6) 18 (6)								SPT = 15 bpf
653.8			CLAY, hard, dark brown, w/gravel and calcareous particles. (Alluvium) (CH)			17.0	60	41		SPT = 38 bpf % Passing No. 4 Sieve: 100
15		50 (4.5) 50 (2.25)								% Passing No. 200 Sieve: 96
648.8			LIMESTONE, hard to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							SPT = 50/1"
20		50 (2) 50 (0.25)								REC = 90%, RQD = 83%
						13.0				
25		50 (0.5) 50 (0.125)								REC = 96%, RQD = 90%
30		50 (0.5) 50 (0.25)								REC = 97%, RQD = 63%
				0	5611	5.0			163	
35		50 (0.5) 50 (0)								REC = 98%, RQD = 83%
40		50 (0.5) 50 (0.25)								

Remarks: Boring was advanced to the 20 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 20 ft, the boring was advanced to the 40.1 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 11.4 ft depth. Northing: 7009886.85, Easting: 2331531.64

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

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DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-4	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	10/31/09
CSJ	NTE 3B - CDA	Station	1432+09.09	Grnd. Elev.	666.33 ft
		Offset	235.96 RT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	LL	PI	Wet Den. (pcf)	Additional Remarks
626.2			LIMESTONE, hard to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							
45										
50										
55										
60										
65										
70										
75										
80										

Remarks: Boring was advanced to the 20 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 20 ft, the boring was advanced to the 40.1 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 11.4 ft depth. Northing: 7009886.85, Easting: 2331531.64

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

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NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11, AND 3B-13, ARE FROM "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 35 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1124L
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn

DRAWING DATE: 7/13/2012

DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-5	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	11/2/09
CSJ	NTE 3B - CDA	Station	1443+21.76	Grnd. Elev.	654.99 ft
		Offset	139.45 LT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
			FILL, clay, brown and tan, gravelly, w/sand. (Fill)			30.0	51	31		% Passing No. 4 Sieve: 78 % Passing No. 200 Sieve: 52 PP = 1.25 tsf
		2 (6) 3 (6)				28.0	62	38		% Passing No. 4 Sieve: 98 % Passing No. 200 Sieve: 91 PP = 1.0 tsf
647.			SAND, dense, brown, clayey, w/gravel. (Alluvium) (SC)			12.0	36	21		% Passing No. 4 Sieve: 69 % Passing No. 200 Sieve: 31
645.		50 (5.5) 50 (0.5)	LIMESTONE, soft, tan, slightly weathered, w/discontinuities. (Weno)							REC = 97%, RQD = 72%
641.2		50 (0.75) 50 (0.25)	LIMESTONE, hard to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)	0	708	8.0			166	REC = 97%, RQD = 60%
		50 (0.75) 50 (0.25)		0	5542	5.0			159	REC = 98%, RQD = 72%
		50 (0.125) 50 (0)								REC = 98%, RQD = 62%
		50 (0.25) 50 (0.125)		0	583	10.0			162	REC = 99%, RQD = 96%
		50 (0.25) 50 (0)								REC = 97%, RQD = 93%

Remarks: Boring was advanced to the 10.5 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 10.5 ft, the boring was advanced to the 40.6 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 3.6 ft depth. Northing: 7008769.45, Easting: 2331891.68

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

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DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-5	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	11/2/09
CSJ	NTE 3B - CDA	Station	1443+21.76	Grnd. Elev.	654.99 ft
		Offset	139.45 LT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test Lateral Press. (psi)	Triaxial Test Deviator Stress (psi)	Properties MC	Properties LL	Properties PI	Properties Wet Den. (pcf)	Additional Remarks
614.4		50 (0.25) 50 (0.25)	LIMESTONE, hard to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							

Remarks: Boring was advanced to the 10.5 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 10.5 ft, the boring was advanced to the 40.6 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 3.6 ft depth. Northing: 7008769.45, Easting: 2331891.68

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

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NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11, AND 3B-13, ARE FROM "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 36 OF 40

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1124M
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn
DRAWING DATE: 7/13/2012

DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-6	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	10/31/09
CSJ	NTE 3B - CDA	Station	1445+35.69	Grnd. Elev.	654.88 ft
		Offset	364.87 RT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			FILL, clay, brown and tan, sandy, w/gravel. (Fill)			30.0	81	60		PP = 2.5 tsf % Passing No. 4 Sieve: 98
651.9										% Passing No. 200 Sieve: 83
			CLAY, soft, dark brown, sandy, w/gravel and calcareous particles. (Alluvium) (CH)			27.0	70	50		% Passing No. 4 Sieve: 98
5		8 (6) 7 (6)								% Passing No. 200 Sieve: 81 PP = 2.5 tsf
						19.0	74	51		% Passing No. 4 Sieve: 80
644.9										% Passing No: 200 Sieve: 53
10		50 (3.5) 50 (1.5)	LIMESTONE, soft, tan, slightly weathered, w/intermixed clay seams and discontinuities. (Weno)							REC = 70%, RQD = 22%
641.9			LIMESTONE, hard to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							
15		50 (0.5) 50 (0.5)								REC = 78%, RQD = 50%
20		50 (0.5) 50 (0.5)								REC = 80%, RQD = 50%
25		50 (0.75) 50 (0.25)				14.0				REC = 70%, RQD = 37%
30		50 (0.75) 50 (0.25)		0	1458	7.0			154	REC = 62%, RQD = 52%
35		50 (0.75) 50 (0.25)								REC = 80%, RQD = 50%
40		50 (0) 50 (0.25)								

Remarks: Boring was advanced to the 10 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 10 ft, the boring was advanced to the 40.1 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 1.3 ft depth. Northing: 7008575.52, Easting: 2331378.48

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

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DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-6	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	10/31/09
CSJ	NTE 3B - CDA	Station	1445+35.69	Grnd. Elev.	654.88 ft
		Offset	364.87 RT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
614.8			LIMESTONE, hard to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							
45										
50										
55										
60										
65										
70										
75										
80										

Remarks: Boring was advanced to the 10 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 10 ft, the boring was advanced to the 40.1 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 1.3 ft depth. Northing: 7008575.52, Easting: 2331378.48

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

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NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11, AND 3B-13, ARE FROM "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 37 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	1124N
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn

DRAWING DATE: 7/13/2012

DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-7	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	11/1/09
CSJ	NTE 3B - CDA	Station	1457+73.65	Grnd. Elev.	646.70 ft
		Offset	165.60 LT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			FILL, clay, brown and tan, sandy, w/gravel. (Fill)			29.0	72	50		PP = 2.75 tsf % Passing No. 4 Sieve: 85 % Passing No. 200 Sieve: 79
		6 (6) 6 (6)				29.0	78	56		% Passing No. 4 Sieve: 92 % Passing No. 200 Sieve: 85
5										PP = 2.0 tsf
638.7			SAND, dense, tan, clayey, w/limestone fragments. (Completely Weathered Limestone) (SC)			19.0	32	18		% Passing No. 4 Sieve: 84 % Passing No. 200 Sieve: 31
636.7		50 (2) 50 (0.5)	LIMESTONE, hard to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							REC = 80%, RQD = 57%
10				0	167	12.0			153	
15		50 (1) 50 (0.5)								REC = 98%, RQD = 92%
20		50 (0.5) 50 (0.125)								REC = 98%, RQD = 75%
25		50 (0.5) 50 (0.125)		0	222	12.0			152	REC = 98%, RQD = 79%
30		50 (0.25) 50 (0)								REC = 95%, RQD = 72%
35		50 (0.125) 50 (0)								REC = 99%, RQD = 67%
40		50 (1) 50 (0.5)								

Remarks: Boring was advanced to the 10 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 10 ft, the boring was advanced to the 40.2 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 6.7 ft depth. Northing: 7007326.81, Easting: 2331909.62

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing **Logger:** Fugro Consultants, Inc. **Organization:** Fugro Consultants, Inc.

C:\Documents and Settings\JohnsonA\My Documents\NTE\Segment 3B Wincore and PDF Logs\NTE, Segment 3B.clg

DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-7	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	11/1/09
CSJ	NTE 3B - CDA	Station	1457+73.65	Grnd. Elev.	646.70 ft
		Offset	165.60 LT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
606.5			LIMESTONE, hard to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							
45										
50										
55										
60										
65										
70										
75										
80										

Remarks: Boring was advanced to the 10 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 10 ft, the boring was advanced to the 40.2 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 6.7 ft depth. Northing: 7007326.81, Easting: 2331909.62

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing **Logger:** Fugro Consultants, Inc. **Organization:** Fugro Consultants, Inc.

C:\Documents and Settings\JohnsonA\My Documents\NTE\Segment 3B Wincore and PDF Logs\NTE, Segment 3B.clg

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11, AND 3B-13, ARE FROM "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.

Texas Department of Transportation © 2012

IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

DESIGN	FED. RD. DIV. NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	11240
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn

DRAWING DATE: 7/13/2012

DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-11	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	11/1/09
CSJ	NTE 3B - CDA	Station	1497+07.65	Grnd. Elev.	670.23 ft
		Offset	400.46 LT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			FILL, clay, brown and tan, sandy, w/gravel, calcareous particles, and intermixed limestone fragments. (Fill)							PP = 1.5 tsf
						31.0	50	31		% Passing No. 4 Sieve: 88
5		9 (6) 11 (6)								% Passing No. 200 Sieve: 57
						20.0	58	40		% Passing No. 4 Sieve: 96
										% Passing No. 200 Sieve: 87
10		7 (6) 7 (6)								PP = 4.5+ tsf
652.2			CLAY, stiff to hard, brown to yellowish brown, gravelly, w/intermixed gravel seams, sand, and calcareous particles. (Fluviatile Terrace Deposits) (CH)							PP = 3.5 tsf
15		37 (6) 50 (2.5)								
						23.0	59	39		% Passing No. 4 Sieve: 100
20		14 (6) 17 (6)								% Passing No. 200 Sieve: 97
25		50 (5) 50 (3.5)								PP = 4.5+ tsf
30		45 (6) 50 (3.25)								SPT = 24 bpf
636.1			LIMESTONE, very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							SPT = 50/1.5"
35		50 (0.25) 50 (0.125)								REC = 80%, RQD = 53%
40		50 (0.5) 50 (0.25)								

Remarks: Boring was advanced to the 35 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 35 ft, the boring was advanced to the 55.1 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 12.4 ft depth. Northing: 7003459.57, Easting: 2332340.66

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

C:\Documents and Settings\JohnsonA\My Documents\NTE\Segment 3B Wincore and PDF Logs\NTE, Segment 3B.clg

DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-11	District	Fort Worth
Highway	IH 35W	Structure	North Tarrant Express	Date	11/1/09
CSJ	NTE 3B - CDA	Station	1497+07.65	Grnd. Elev.	670.23 ft
		Offset	400.46 LT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			LIMESTONE, very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							REC = 98%, RQD = 72%
45		50 (0.25) 50 (0.125)								
				0	4958	6.0			152	REC = 98%, RQD = 97%
50		50 (0.25) 50 (0)								
										REC = 98%, RQD = 80%
615.1 55		50 (0.25) 50 (0.125)								
60										
65										
70										
75										
80										

Remarks: Boring was advanced to the 35 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 35 ft, the boring was advanced to the 55.1 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 12.4 ft depth. Northing: 7003459.57, Easting: 2332340.66

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

C:\Documents and Settings\JohnsonA\My Documents\NTE\Segment 3B Wincore and PDF Logs\NTE, Segment 3B.clg

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11, AND 3B-13, ARE FROM "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.

FILENAME: S3BSBLOGS02.dgn

DRAWING DATE: 7/13/2012

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 39 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
CHECK	STATE	DISTRICT	COUNTY	SHEET NO.
	TEXAS	FTW	TARRANT	1124P
CHECK	CONTROL	SECTION	JOB	
	0014	16	255, ETC.	

DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-13	District	Fort Worth
Highway	IH 35W	*Structure	North Tarrant Express	Date	11/9/09
CSJ	NTE 3B - CDA	Station	1544+20.40	Grnd. Elev.	605.98 ft
		Offset	97.55 RT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
			FILL, clay, brown and tan, sandy, w/gravel, calcareous particles, and intermixed limestone fragments. (Fill)			22.0	55	35		PP = 3.0 tsf % Passing No. 4 Sieve: 100 % Passing No. 200 Sieve: 91
601. 5		6 (6) 7 (6)								PP = 4.0 tsf
			CLAY, soft, brown to yellowish brown, gravelly, w/intermixed gravel seams, sand, and calcareous particles. (Fluviatile Terrace Deposits) (CL)			15.0	29	15		% Passing No. 4 Sieve: 80 % Passing No. 200 Sieve: 51
10		7 (6) 9 (6)								
594.			GRAVEL, dense, yellowish brown, clayey, w/intermixed clay seams. (Fluviatile Terrace Deposits)			17.0	36	22		% Passing No. 4 Sieve: 55 % Passing No. 200 Sieve: 27
15		50 (4.25) 50 (1)								
588.			LIMESTONE, soft to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							SPT = 50/1"
20		50 (3.25) 50 (1.75)								REC = 88%, RQD = 40%
25		50 (0.25) 50 (0.125)								REC = 98%, RQD = 63%
30		50 (2) 50 (1)								REC = 95%, RQD = 83%
35		50 (0.5) 50 (0.25)		0	181	8.0			161	REC = 97%, RQD = 73%
40		50 (0.25) 50 (0.125)								

Remarks: Boring was advanced to the 20 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 20 ft, the boring was advanced to the 40.1 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 6.7 ft depth. Northing: 6998746.43, Easting: 2332698.37

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

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DRILLING LOG

WinCore Version 3.1

County	Tarrant	Hole	3B-13	District	Fort Worth
Highway	IH 35W	*Structure	North Tarrant Express	Date	11/9/09
CSJ	NTE 3B - CDA	Station	1544+20.40	Grnd. Elev.	605.98 ft
		Offset	97.55 RT	GW Elev.	N/A

Elev. (ft)	LOG	Texas Cone Penetrometer	Strata Description	Triaxial Test: Lateral Press. (psi)	Triaxial Test: Deviator Stress (psi)	Properties: MC	LL	PI	Wet Den. (pcf)	Additional Remarks
565.9			LIMESTONE, soft to very hard, dark gray, w/fossils, intermixed shale seams and layers, and discontinuities. (Weno)							
45										
50										
55										
60										
65										
70										
75										
80										

Remarks: Boring was advanced to the 20 ft depth using dry drilling procedures and groundwater was not encountered above that depth. Below 20 ft, the boring was advanced to the 40.1 ft depth using wet drilling procedures. 24 hours after completion of the borehole, the waterlevel (drilling fluid) was measured at the 6.7 ft depth. Northing: 6998746.43, Easting: 2332698.37

The ground water elevation was not determined during the course of this boring.

Driller: Terra Testing Logger: Fugro Consultants, Inc. Organization: Fugro Consultants, Inc.

C:\Documents and Settings\JohnsonA\My Documents\NTE\Segment 3B Wincore and PDF Logs\NTE. Segment 3B.clg

NOTES:

1. THE DRILLING LOG INFORMATION RELATED TO BORINGS 3B-3 THRU 3B-7, 3B-11, AND 3B-13, ARE FROM "GEOTECHNICAL INVESTIGATION FOR MASTER PLAN DEVELOPMENT EFFORT" BY FUGRO CONSULTANTS, INC., DATED DECEMBER 2009.

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IH 35W FROM NORTH TARRANT PKWY TO IH 820

BORING LOGS

SHEET 40 OF 40

DESIGN	FED.RD. DIV.NO.	FEDERAL AID PROJECT NO.		HIGHWAY NO.
GRAPHICS	6	(SEE TITLE SHEET)		IH 35W
	STATE	DISTRICT	COUNTY	SHEET NO.
CHECK	TEXAS	FTW	TARRANT	
CHECK	CONTROL	SECTION	JOB	1124Q
	0014	16	255, ETC.	

FILENAME: S3BSBLOGS02.dgn

DRAWING DATE: 7/13/2012

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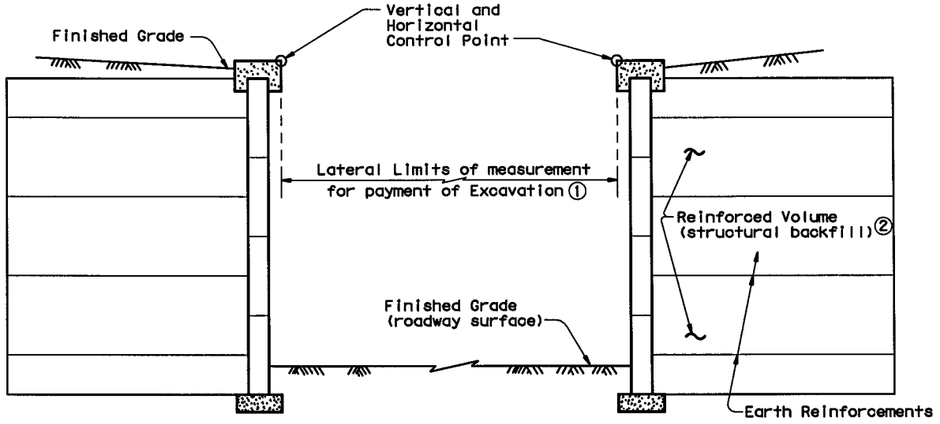
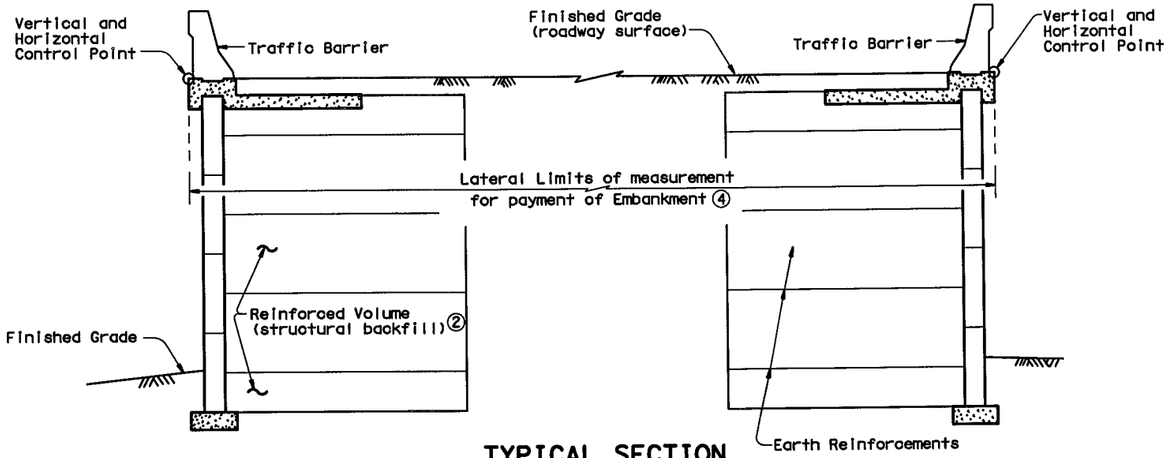
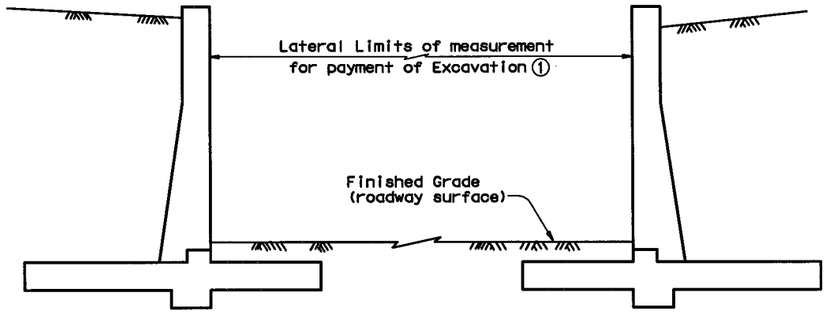


TYPICAL SECTION
Excavation Between MSE Retaining Walls ③



TYPICAL SECTION
Embankment Between MSE Retaining Walls ③



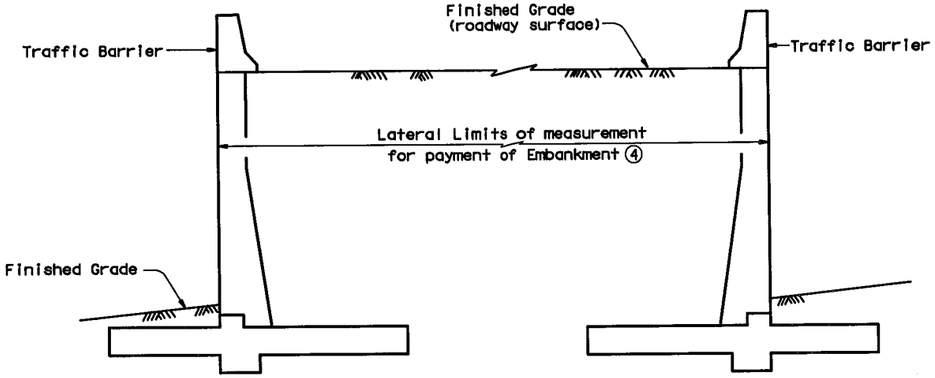
TYPICAL SECTION
Excavation Between Conventional Retaining Walls

① Only the Excavation above the proposed subgrade elevation will be measured for payment.

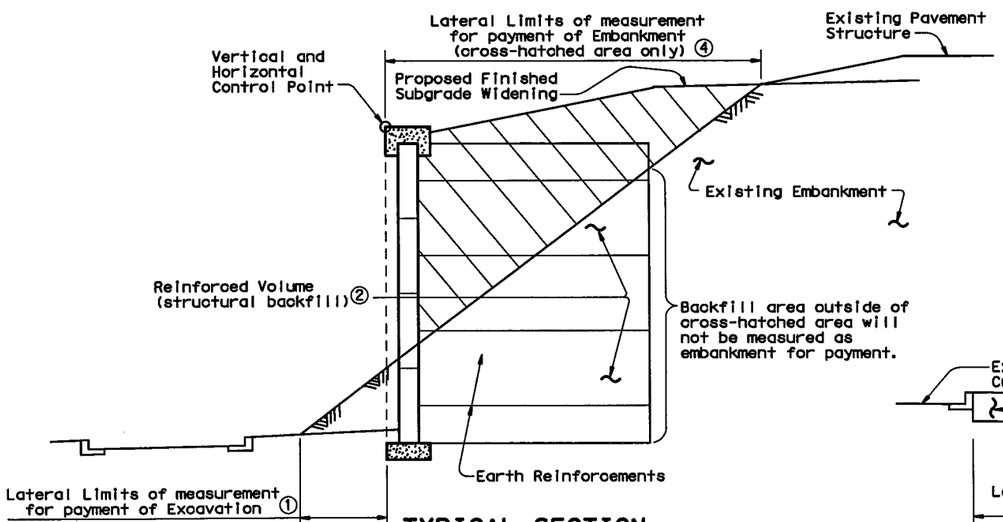
② Meeting requirements of Retaining-Wall Item.

③ Earthwork measurement with other designs of retaining walls will be made to the outside finished face in the same manner.

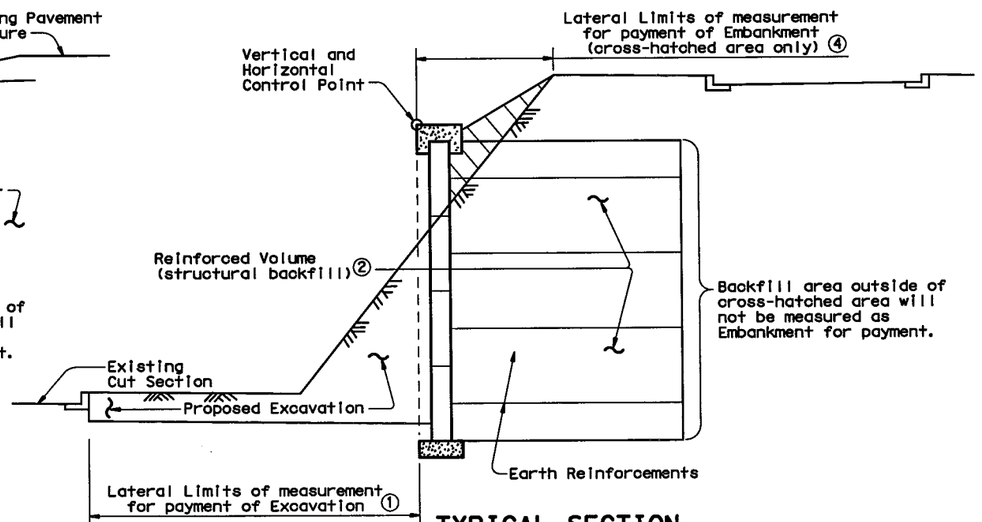
④ Only the Embankment above the existing ground line will be measured for payment.



TYPICAL SECTION
Embankment Between Conventional Retaining Walls



TYPICAL SECTION
Widening Embankment with MSE Retaining Walls ③



TYPICAL SECTION
Widening Cut Section with MSE Retaining Walls ③

Texas Department of Transportation
Bridge Division

EARTHWORK MEASUREMENT AT RETAINING WALLS

RW(EM)

FILE: rwstdel2.dgn	DN: TxDOT	CK: TxDOT	DW: BWH		CK: JMH		
©TxDOT March 2010	DISTRICT	FEDERAL AID PROJECT				SHEET	
REVISIONS	FTW	(SEE TITLE SHEET)				1125	
	COUNTY		CONTROL	SECT	JOB	HIGHWAY	
	TARRANT		0014	16	255	IH35W	

LEVELS DISPLAYED
PATH:

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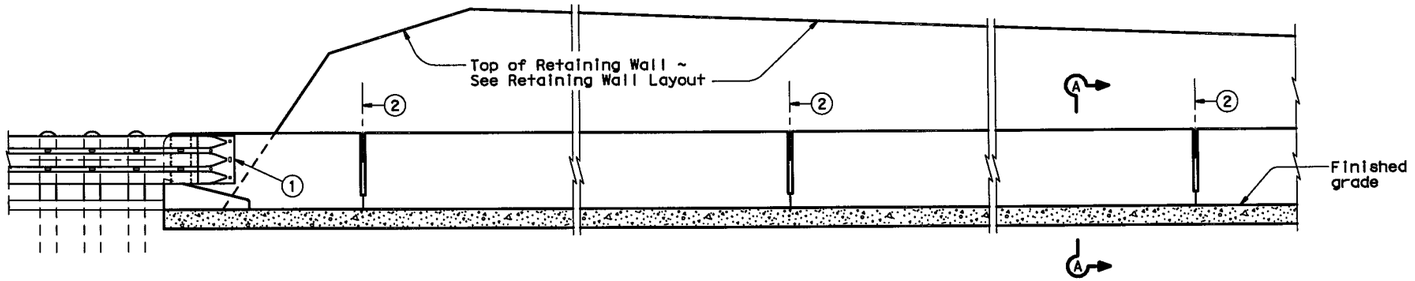
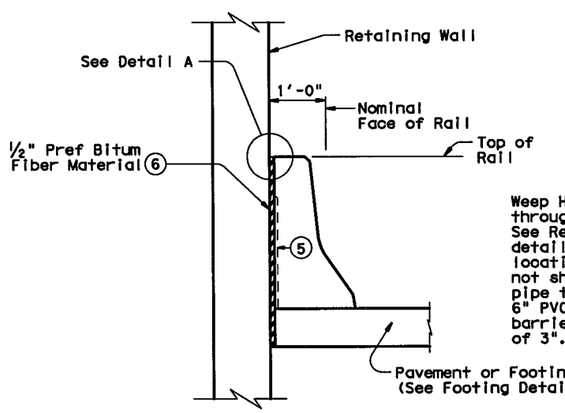
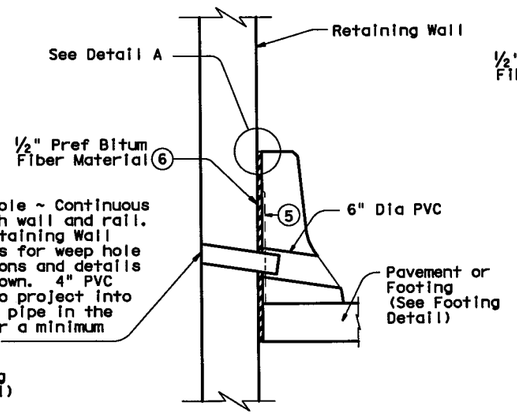


ELEVATION

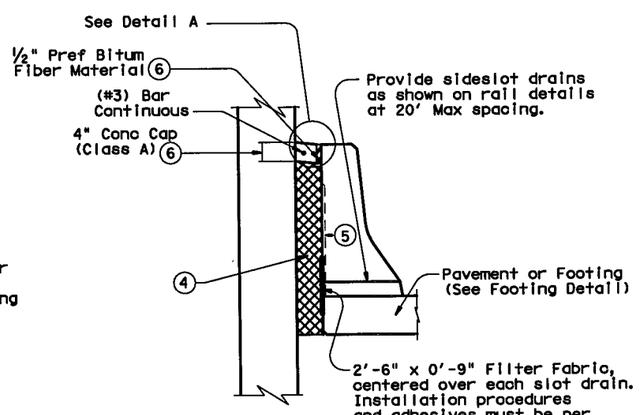


TYPICAL SECTION



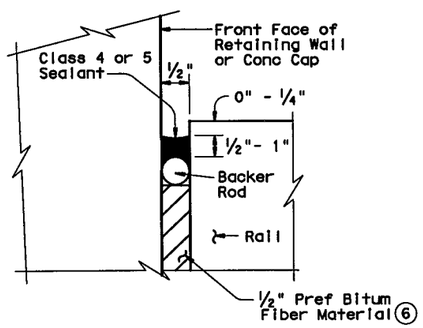
SECTION AT WEEP HOLES

Note: Weep holes must not be placed within 1'-4" of Intermediate Rail Joints. Adjust bar spacing or field bend bars in rail as required to clear weep holes by 1" Min.



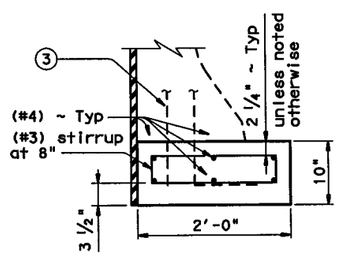
SECTION AT MSE WALLS WITHOUT DRAINAGE SYSTEM

SECTIONS A-A



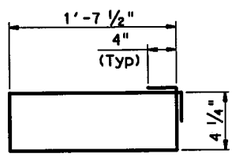
DETAIL A

Place in accordance with Item 438 "Cleaning and/or Sealing Joints and Cracks"



FOOTING DETAIL

Footing for traffic rail required when concrete pavement is not present. This footing is adequate only when back of rail is fully supported by the retaining wall. Use Traffic Rail Foundation standard TRF for other cases.



(#3) STIRRUP

1. See details elsewhere in plans for rail end treatment.
2. Provide intermediate rail wall joints at intervals not exceeding the requirements shown on the rail details.
3. See rail details for anchorage reinforcement. Use anchorage reinforcement required for bridge decks unless noted otherwise.
4. Clean gravel (¼" - ½").
   Example: Concrete Course Aggregate Grades 6, 7, 8. The width of the backfill will be dependent upon the width of the coping leg (3 ½" Min). Minimum backfill width = Width of front leg of MSE wall coping.
5. Do not recess back of rail as shown on rail details.
6. Place ½" Bituminous Fiber Material and concrete cap continuously behind rail expansion joints and rail intermediate wall joints.

GENERAL NOTES:

These details are for constructing a concrete barrier-type rail against a retaining wall.

All reinforcing steel, concrete, expansion joint material, etc. shown is to be included in unit price of the rail type used.

All concrete for rail footing shall be Class "C".

All reinforcing steel shall be Grade 60.

Texas Department of Transportation
Bridge Division

RETAINING WALL TRAFFIC RAIL AT BASE

RW(BTR)

FILE: rwstde13.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT			
©TxDOT March 2010	DISTRICT	FEDERAL AID PROJECT					SHEET
REVISIONS	FTW	(SEE TITLE SHEET)					1126
	COUNTY			CONTROL	SECT	JOB	HIGHWAY
	TARRANT			0014	16	255	IH35W

LEVELS DISPLAYED
1
PATH:

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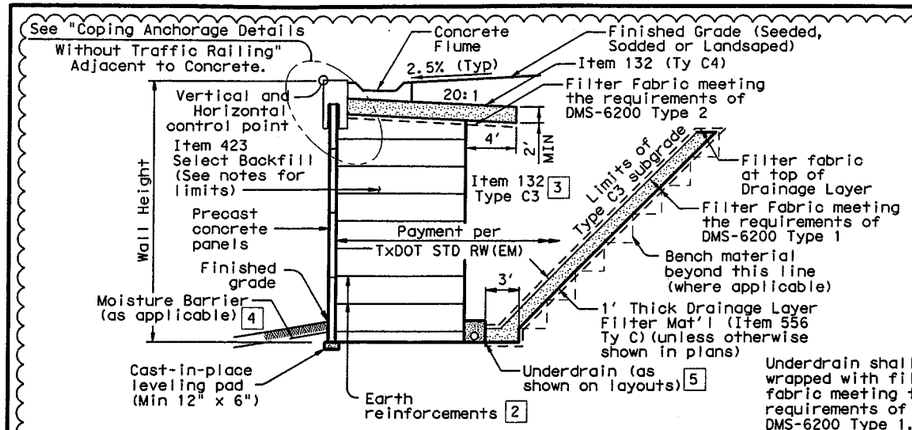
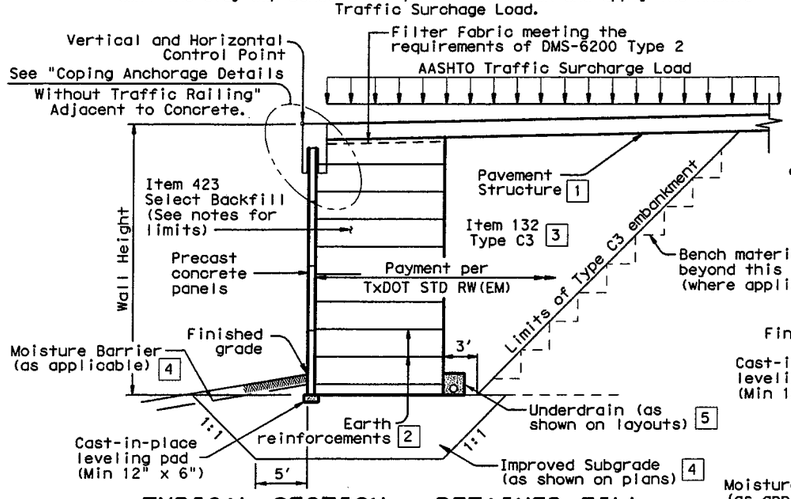
LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48
49 50 51 52 53 54 55 56 57 58 59 60 61 62 63

PATH:



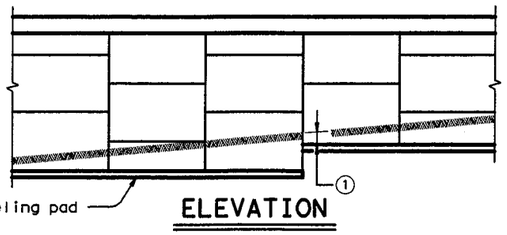
TYPICAL SECTION RETAINED CUT SOIL

Note: In areas with pavement structure within the reinforced zone, omit the clay cap beneath the pavement section and apply the AASHTO Traffic Surchage Load.



TYPICAL SECTION - RETAINED FILL

Showing pavement within reinforced zone



ELEVATION

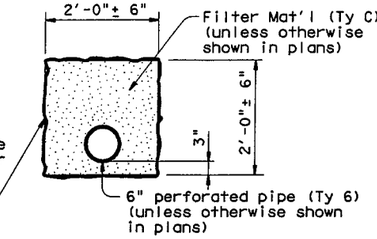
1. Unless noted elsewhere in the plans, 2' minimum cover shall be provided from the top of leveling pad to finish grade.
2. Map of Texas emblem shall be formed into a wall panel next to each bridge abutment. The exact location of each emblem shall be approved by the Engineer. The cost of forming the emblems will not be paid for directly, but shall be incidental to the Item "Retaining Wall". The map of Texas shall be inset a minimum of ¾" into the face of the panel, and shall receive a smooth finish. The inset area shall be finished in a contrasting color as approved by the Engineer.
3. Precast coping shall be anchored to prevent rotation or displacement. Use these details to develop custom anchorage for precast copings. Details shall include coping reinforcement. Concrete flume (if required) shall be paid for separately from Item 423.

DESIGN PARAMETERS:

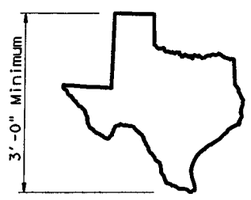
Stress in steel and concrete shall be in accordance with current AASHTO Standard and Interim Specifications.

The minimum length of earth reinforcements shall be 10'-0" or 80% of the wall design height, whichever is greater (for global stability). Longer strap lengths of 100% of wall design height are required for some walls for sliding resistance and bearing capacity. Wall height and wall design height may differ depending on project geometry and loading conditions.

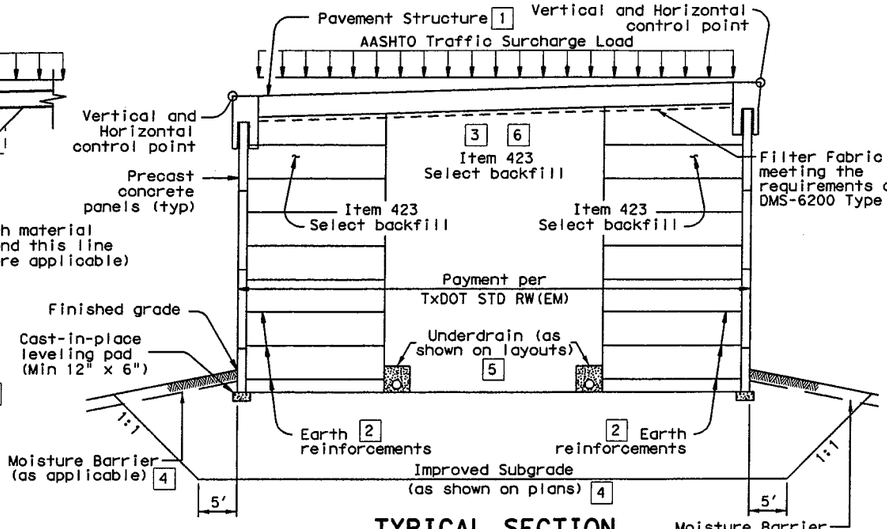
See geotechnical recommendation sheets for additional design parameters and geotechnical recommendations.



UNDERDRAIN DETAIL 5

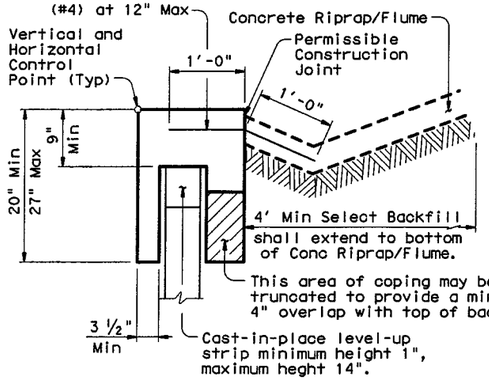


MAP OF TEXAS EMBLEM 2

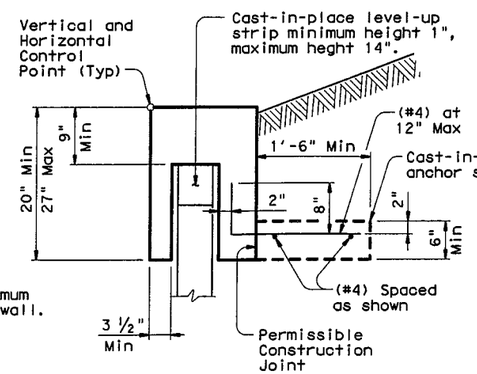


TYPICAL SECTION

Embankment Detail for back-to-back walls



ADJACENT TO CONCRETE
(Excluding Concrete Pavement)



ADJACENT TO SOIL

COPING ANCHORAGE DETAILS WITHOUT TRAFFIC RAILING 3

STABILITY CRITERIA:

Factor of safety in sliding along the base of the structure shall be greater than or equal to 1.5.

Factor of safety in overturning shall be greater than or equal to 2.0.

The base pressure resultant shall fall within the middle third of the retaining wall.

The factor of safety against pullout of the earth reinforcements shall be greater than or equal to 1.5 at each level. Pullout resistance shall be determined from test data evaluated at ¾ inch strain.

CORROSION CRITERIA:

The earth reinforcement elements shall be designed to have a minimum design life of 75 years.

Stress calculations (rupture) shall be done on the calculated earth reinforcement section remaining after 75 years. Pullout calculations may be based on non corroded section.

GENERAL NOTES:

Section and elevation shown is for informational purposes only. Specific geometry is to be determined based on wall layouts and other plan information.

The select backfill specified for use within the mechanically stabilized earth volume shall extend horizontally from the back of the panels to the end of the earth reinforcements. The select backfill shall extend vertically from the top of the leveling pad or 4" below the lowest earth reinforcement, whichever is lower, to the top of panels.

The uppermost earth reinforcements shall be no more than 3.0' below the top of wall.

The lowest level of earth reinforcements shall be no more than 2.0' above the top of the leveling pad.

Minimum wire size for earth reinforcements shall be W7.0. If different longitudinal and cross wires are used in an earth reinforcement mesh, the smaller wire shall have at least 50% of the cross sectional area of the larger wire.

A maximum of four wire mesh configurations (wire sizes) will be allowed on a project. Each mesh configuration shall have a unique transverse bar spacing, differing from other configurations by a minimum of 3". Earth reinforcement lengths shall be stepped in increments no finer than 12".

Standard precast concrete panels shall have a maximum height of 6', and a maximum surface area of 50 sq ft. Top and bottom panels may exceed these limitations as necessary to achieve required wall grades. Maximum height of any panel shall be 7'-6". Minimum panel thickness shall be 5". Panels shall be arranged to provide offset horizontal joints.

An open joint shall be provided around the perimeter of the concrete panels. The nominal joint opening shall be between ⅜" and ¾". The joint configuration shall be such that the filter fabric or pad materials are not exposed at the wall face.

A one-piece corner panel shall be provided for wall angle changes of greater than 30 degrees. Butting of chamfered panels will be allowed for angle changes of 30 degrees or less.

Concrete coping shall be provided along the top of wall, at the vertical steps at bridge backwalls, and at other vertical steps along the top of wall. The joints between all coping segments shall be sealed to prevent infiltration of water into the retaining wall backfill. Sealing shall be in accordance with the DMS-6310 "Joint Sealants and Fillers", using Class 4 joint sealant.

Concrete must be Class "C".

All reinforcing steel must be Grade 60.

Coping and anchor slabs must be considered subsidiary to the Item "Retaining Wall".

NOTES:

1. Pavement Structure - See Typical Sections for details and requirements.
2. Earth Reinforcement - See geotechnical recommendation sheets for minimum strap lengths and bearing capacity requirements.
3. Refer to earthwork measurement sheet, TxDOT std. RW(EM) for clarification of limits.
4. Improved subgrade and moisture barrier are shown for illustrative purposes only. See retaining wall layouts and geotechnical recommendations sheets for limits of of Improved Subgrade. The 1:1 over-excavation slope shown for improved subgrade is a geotechnical requirement that is independent of temporary special shorinh (TSS) requirement. The earthwork volume required for 1:1 slope is quantified and paid for under item 110 and 132.
5. The drainage pipe layout must be designed with consideration of future maintenance access. Clean-outs should be located on a maximum 300 foot spacing. Underdrain pipe cleanouts must be placed to allow the entire length of perforated pipe to be inspected and cleaned as needed.
6. Zone between reinforced volumes to be embanked with select backfill Ty D as shown on the applicable retaining wall typical sections.

STATE OF TEXAS
MARK J. FARROW
48059
LICENSED
PROFESSIONAL ENGINEER

ALLIANCE GEOTECHNICAL GROUP INC
TBPE Reg. No. F-1970 8-22-12

⚠ Revised for use on IH35W Segment 3B project.

Texas Department of Transportation
Bridge Division

MECHANICALLY STABILIZED EARTH RETAINING WALL

RW(MSE)-MOD

FILE: rwstde01.dgn	DN: TxDOT	CK: TxDOT	DW: JGD	CK: MJG
©TxDOT March 2010	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS	FTW	(SEE TITLE SHEET)		1127
⚠ JULY 2012	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	TARRANT	0014	16	255	IH35W

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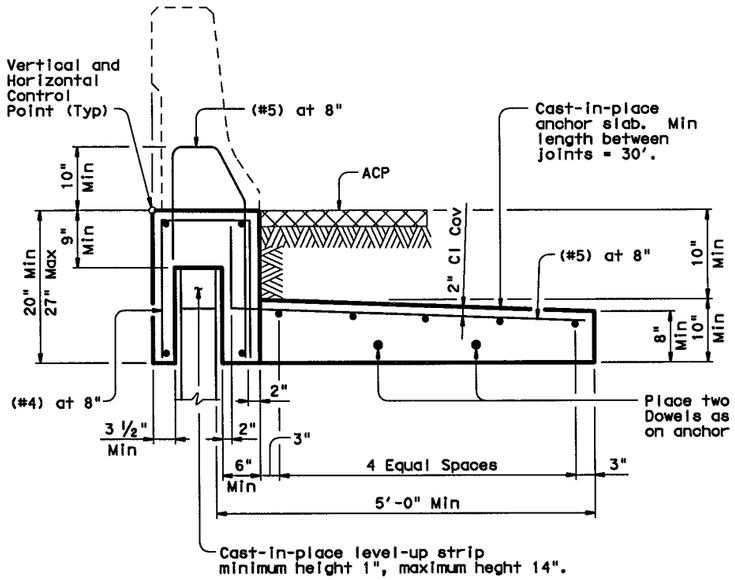
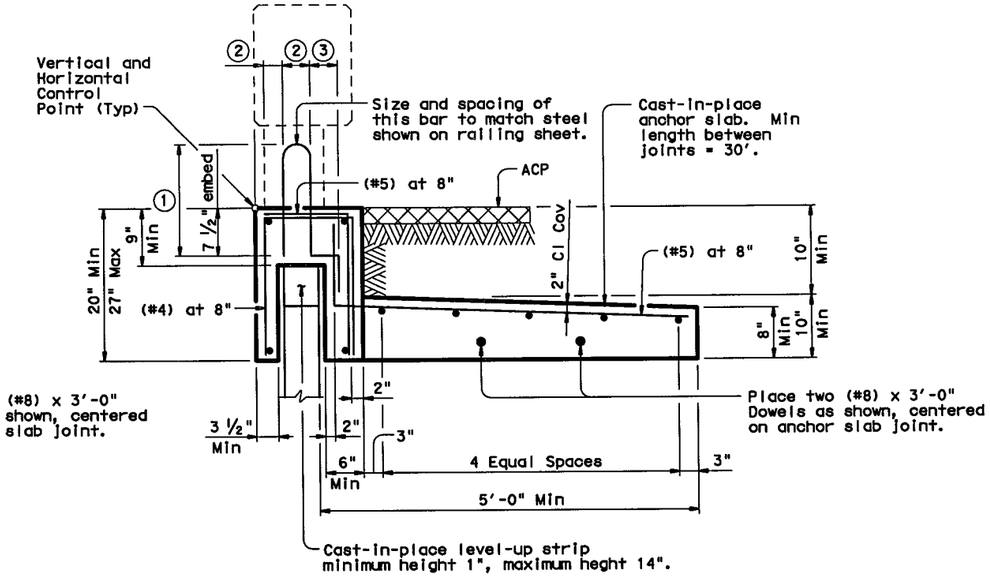


"WIDE BASED" RAILING T551, T552 & SSTR ADJACENT TO ACP

(Showing T551 Rail, other rails listed similar)



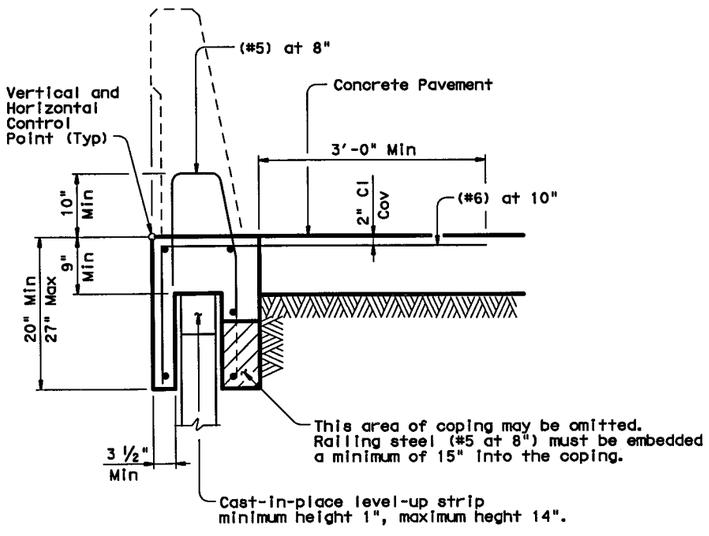
"NARROW BASED" RAILING T1F, T1W, T221, T223, T401, T402, T411, C1W, C221, C223, C402, C411 ADJACENT TO ACP

(Showing T223 Rail, other rails listed similar)

① Reinforcement length equal to length shown on the appropriate Rail standard plus 1".

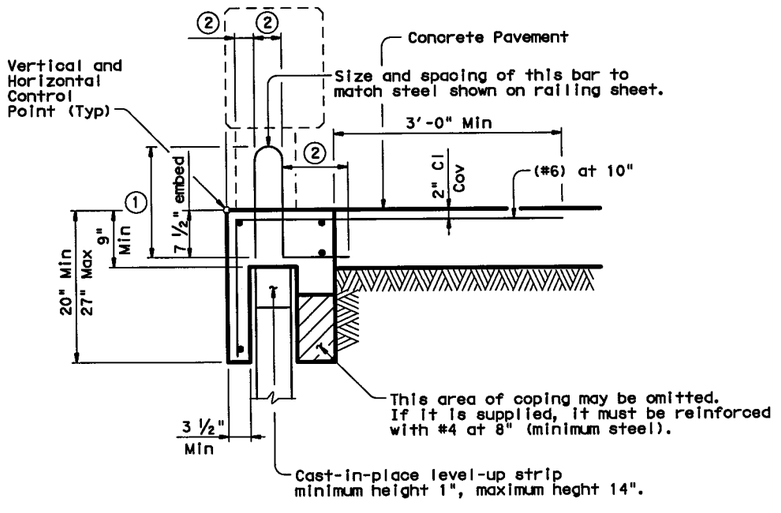
② Match dimension on the appropriate Rail standard.

③ Match dimension on the appropriate Rail standard. Bend end of rail anchorage reinforcing as shown as required to maintain Clear Cover.



"WIDE BASED" RAILING T551, T552 & SSTR ADJACENT TO CONCRETE PAVEMENT

(Showing SSTR Rail, other rails listed similar)



"NARROW BASED" RAILING T1F, T1W, T221, T223, T401, T402, T411, C1W, C221, C223, C402, C411 ADJACENT TO CONCRETE PAVEMENT

(Showing T223 Rail, other rails listed similar)

CAST-IN-PLACE COPINGS:

Casting of the coping directly against the precast panel sides will not be permitted, as this may result in panel cracking. The contractor must use a 1/4"(Min) compressible material on both sides of the panel to isolate the coping from the precast panel.

When cast-in-place coping is anchored to reinforced concrete pavement, a smooth level-up strip must be provided on the top of the precast panels. The purpose of the level-up is to allow the pavement and coping to move longitudinally relative to the wall without causing damage.

Railing and coping joints must be provided at 33' maximum spacing. Railing and coping joints must be placed to coincide with precast panel joints.

PRECAST COPINGS:

A smooth level-up strip must be provided on top of the precast panels prior to installation of the coping. Shims may be used on top of the level-up strip to facilitate alignment. Total shim thickness not to exceed 1".

Precast coping must be provided in 10' minimum lengths.

JOINTED CONCRETE PAVEMENT:

When coping is adjacent to and anchored into jointed concrete pavement, the coping joints must coincide with the pavement joints.

JOINT SEALER:

The joints between coping segments must be sealed in accordance with the DMS-6310 "Joint Sealant's and Fillers", Joint sealing material, Class 4. The joint must be sealed 3" below and 6" above the adjoining pavement surface, or as directed by the Engineer. The purpose of the joint sealing is to contain surface drainage and prevent infiltration into the retaining wall backfill.

GENERAL NOTES:

Details on this sheet are to be used in development of specific details for mounting traffic railing on mechanically stabilized earth (MSE) walls.

The specific details proposed must have strengths equivalent to those shown on this sheet. Areas of particular importance are the connection of the coping to the railing, the strength of the vertical coping leg connecting the railing to the anchor slab, and the connection of the coping to the anchor slab or concrete pavement.

Shop drawings for the traffic railing foundations must be submitted to the Engineer in accordance with the Item "Retaining Wall". The shop drawings must include bar bending details.

Precasting of the coping or coping and railing will be allowed. The anchor slab, when required, must be cast-in-place.

The Contractor's attention is directed to the fact that various configurations of precast coping/railing combinations are covered by patent. The contractor must provide for use of these systems in accordance with Article 7.3.

Concrete must be Class "C".

All reinforcing steel must be Grade 60.

Longitudinal bars must be (#4), unless otherwise shown.

Coping and anchor slabs must be considered subsidiary to the Item "Retaining Wall". The traffic railing will be paid for by the linear foot for the appropriate railing type.

Texas Department of Transportation
Bridge Division

RETAINING WALL TRAFFIC RAILING FOUNDATIONS

RW(TRF)

FILE: rwstde03.dgn	DN: TxDOT	CK: TxDOT	DW: JTR	CK: MPM	
©TxDOT March 2010	DISTRICT	FEDERAL AID PROJECT			SHEET
REVISIONS	FTW	(SEE TITLE SHEET)			1128
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	TARRANT		0014	16	255	IH35W

LEVELS DISPLAYED
PATH:
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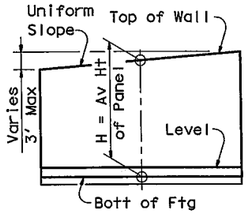
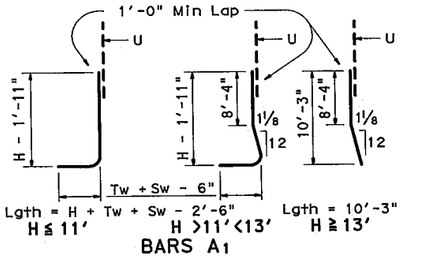
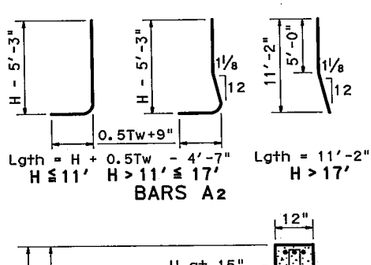


H DEFINITION

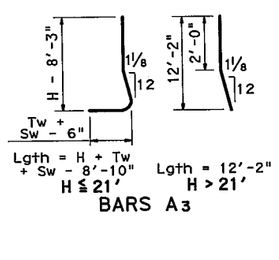
Wall Height "H"	PROPERTIES						Max Soil Press	REINFORCING STEEL FOR ONE 32' PANEL (DESIGN C)																										QUANTITY FOR ONE 32' PANEL		Wall Height "H"
	WALL DIMENSIONS							A1 ~ 26 #5 at 15" c-c		A2 ~ 25 #6 at 15" c-c		A3 ~ 25 #7 at 15" c-c		A4 ~ 26 #8 at 15" c-c		A5 ~ 25 #9 at 15" c-c		A6 ~ 25 #11 at 15" c-c		A7 ~ 26 #11 at 15" c-c		B ~ 26 #5 at 15" c-c		C						D (#5) at 12" c-c		Dowel F at 12" c-c		H (#5) at 12" c-c		T (#5) at 12" c-c		U ~ 26 #5 at 15" c-c		CONC (CY)	REINF (LB)	
(Ft)	Fw	Tw	Sw	Hw	Ft	Kw	T/SF	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Lgth	Wt	Size	No	Spa	Lgth	Wt	No	Wt	No	Wt	No	Wt	No	Wt	Lgth	Wt			(Ft)
2	3'-6"	1'-9"	1'-0"	9"	1'-0"	9"	0.14																	#4	26	15"	2'-3"	39	4	131	4	32	2	66	3	99	3'-4"	90	6.0	458	2
3	4'-3"	2'-2"	1'-0"	1'-1"	1'-0"	9"	0.17																	#4	26	15"	2'-8"	46	6	197	5	40	3	99	3	99	5'-4"	145	8.1	626	3
4	5'-0"	2'-6"	1'-0"	1'-6"	1'-0"	9"	0.20	5'-0"	136													3'-6"	95	#4	26	15"	3'-0"	52	8	263	6	48	3	99	3	99	7'-4"	199	10.1	991	4
5	5'-8"	2'-10"	1'-0"	1'-10"	1'-0"	9"	0.24	6'-4"	172													4'-6"	122	#4	26	15"	3'-4"	58	10	329	7	56	3	99	4	131	8'-4"	226	12.1	1193	5
6	6'-4"	3'-2"	1'-0"	2'-2"	1'-0"	9"	0.28	7'-8"	208													5'-6"	149	#4	26	15"	3'-8"	64	12	394	8	64	3	99	4	131	8'-4"	226	14.1	1336	6
7	7'-0"	3'-6"	1'-0"	2'-6"	1'-0"	9"	0.32	9'-0"	244	4'-2"	156											6'-6"	176	#4	38	10"	4'-0"	102	14	460	9	72	4	131	4	131	8'-4"	226	16.1	1698	7
8	7'-9"	3'-10"	1'-0"	2'-11"	1'-0"	9"	0.35	10'-4"	280	5'-4"	200											7'-6"	203	#6	38	10"	4'-4"	247	16	526	10	80	4	131	5	164	8'-4"	226	18.1	2056	8
9	9'-0"	4'-3"	1'-0"	3'-9"	1'-0"	9"	0.37	11'-9"	319	6'-7"	247											8'-6"	231	#6	38	10"	5'-3"	300	18	591	11	88	5	165	5	164	8'-4"	226	20.8	2331	9
10	10'-5"	4'-7"	1'-0"	4'-10"	1'-0"	9"	0.41	13'-1"	355	7'-8"	288	6'-9"	345									9'-6"	258	#7	38	10"	6'-4"	492	20	657	12	96	7	231	6	197	8'-4"	226	23.7	3145	10
11	11'-2"	4'-11"	1'-0"	5'-3"	1'-0"	1'-0"	0.44	14'-5"	391	8'-11"	335	8'-1"	413									10'-6"	285	#8	38	10"	6'-9"	685	22	723	13	104	7	231	6	197	8'-4"	226	26.3	3584	11



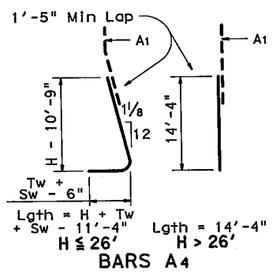
BARS A1



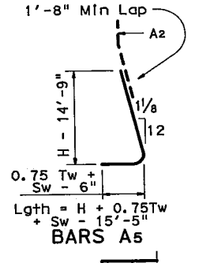
BARS A2



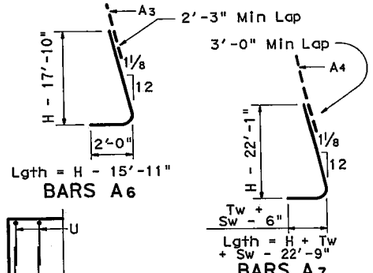
BARS A3



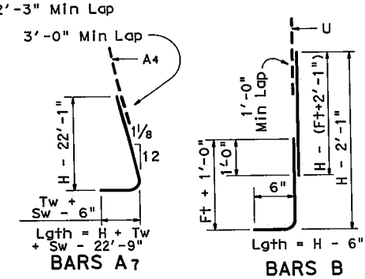
BARS A4



BARS A5

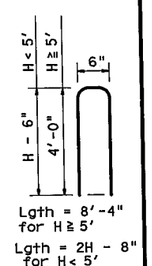


BARS A6



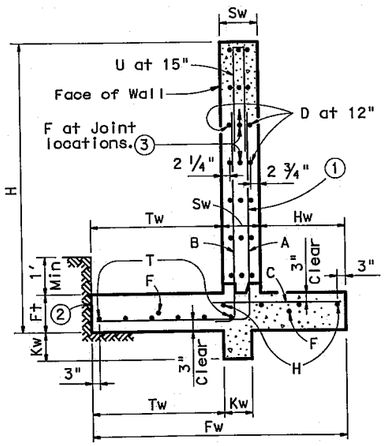
BARS A7

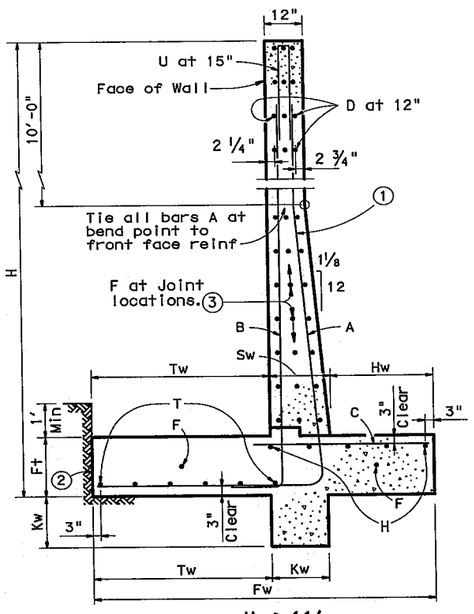
BARS B



BARS U

1. Place vertical bars inside of horizontal bars (Typ both faces).
2. Place footing toe against undisturbed soil.
3. See standard RW 2 for size.





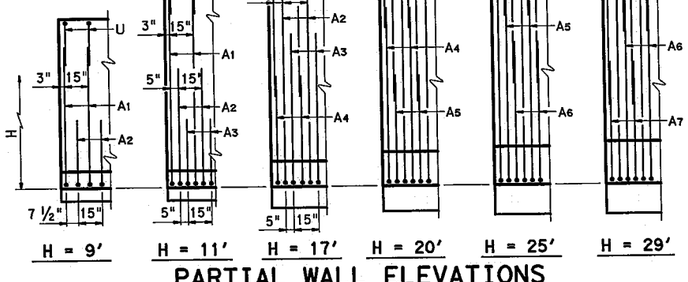
SECTIONS

Panel Length minus 6"

BARS D, H, T

3'-0"

BARS F ③



PARTIAL WALL ELEVATIONS

(Showing vertical reinforcing pattern in back face)

GENERAL NOTES:
All concrete to be Class "C".
All reinforcing steel to be Grade 60.
For notes and details not shown on this sheet see sheet RW2.
Quantities are based on "H" being average height of panel.
Retaining Walls are designed to be coded as follows on Retaining Wall Layout Sheets.

HC - 21 - 28
LA - 28 - 32
- Panel Length ~ 32' is standard; 28' requires special quantities
- Average Height "H" of panel
- Design - A = no surcharge or slope above wall; B = slopes up to 4:1; C = traffic surcharge and/or slopes up to 2.5:1
- Footing pressure design ~ L = low, H = high

STATE OF TEXAS
THOMAS G. ASHCRAFT
81411
REGISTERED PROFESSIONAL ENGINEER
7/5/12

Texas Department of Transportation
Bridge Division

RETAINING WALLS

RW 1 (L) C (MOD)

FILE: rwstde07.dgn	DN: TxDOT	CK: TxDOT	DW: CHO	CK: MPM
© TxDOT March 2010	DISTRICT	FEDERAL AID PROJECT		SHEET
REVISIONS REVISED DESIGNS FOR HEIGHTS 9'-11' REMOVED HEIGHTS > 12'	FTW			1129
	COUNTY	CONTROL	SECT	JOB	HIGHWAY
	TARRANT	0014	16	255	IH35W

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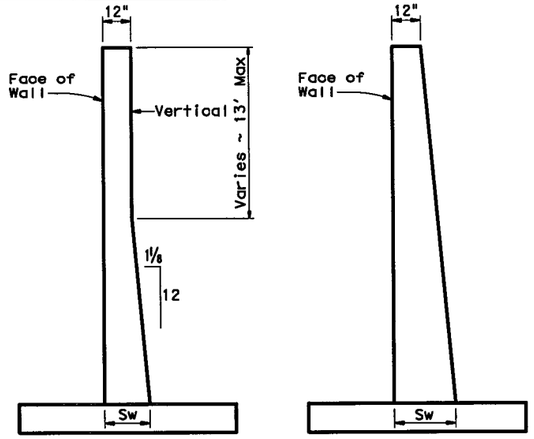
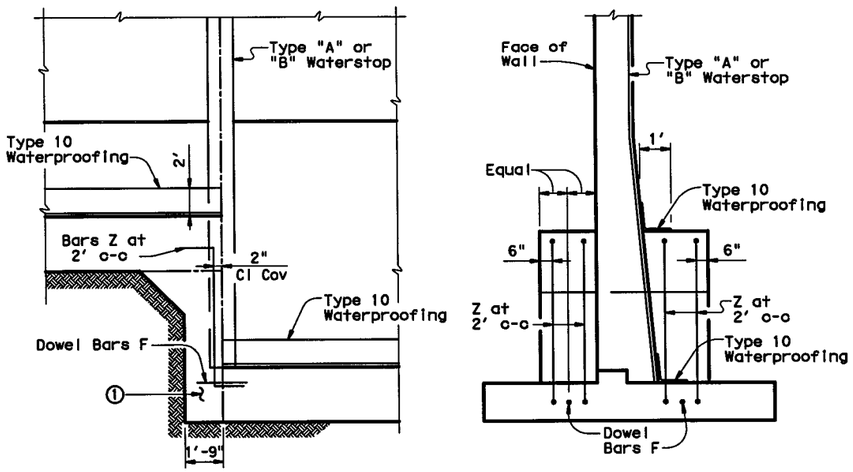


AS DETAILED ALL HEIGHTS
(Basis for payment)

FRONT FACE VERTICAL BACK FACE SLOPED

ALTERNATE STEM SLOPE DETAILS

Walls with slopes other than those shown may be used after approval by the Engineer. Sw shall not be less than shown in Table on Sheet 1. No payment will be made for excess concrete due to changing of slope of wall stem.

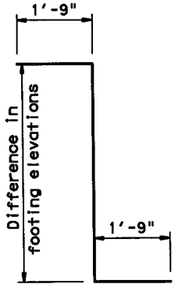


PARTIAL ELEVATION

PARTIAL SECTION

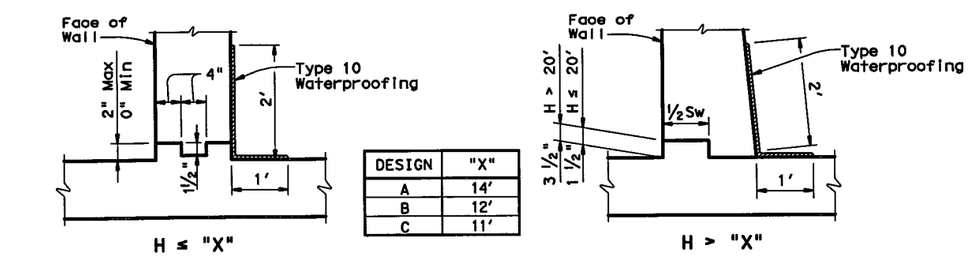
SHOWING WATERSTOP AT FOOTING JOINT

① Unreinforced Class "C" Concrete when difference in top of footing elevations is less than 6'. Omit when Dowel Bars F can be placed between adjacent footings with 4" cover top and bottom.



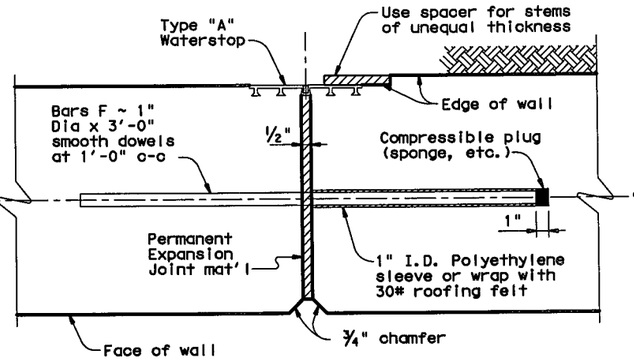
BARS Z (#5)

Omit Bars Z when difference in top of footing elevations is less than 6'.

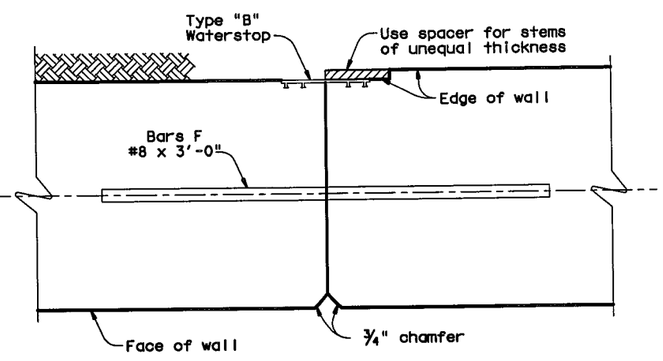


DESIGN	"X"
A	14'
B	12'
C	11'

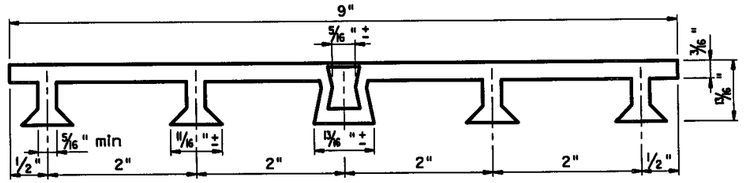
JOINT AND WATERSTOP DETAILS



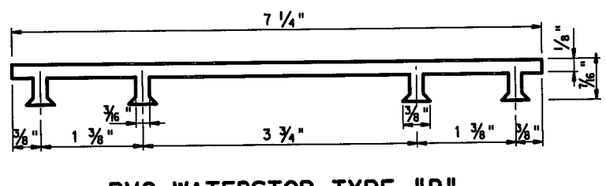
EXPANSION JOINT



CONSTRUCTION JOINT

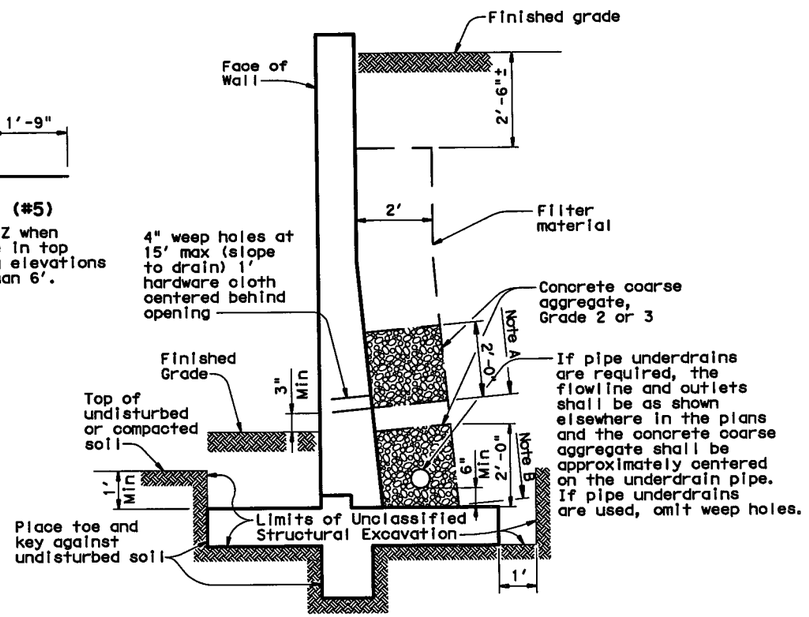


PVC WATERSTOP TYPE "A"



PVC WATERSTOP TYPE "B"

Note: Dimensions and shapes may vary slightly depending on manufacturer.



DRAINAGE DETAILS AND EXCAVATION DIAGRAM

Note A: Stop coarse aggregate at this level when weep holes are used.

Note B: Use coarse aggregate to here with filter material above when underdrains are used.

GENERAL NOTES:

Walls are designed assuming unit weight of soil = 120 pcf, and coefficient of horizontal earth pressure = 0.33.

Walls are designed to provide a minimum factor of safety against sliding of 1.5. The undisturbed or compacted soil depth in front of walls, from bottom of Key up, shall not be less than Kw + Ft + 1'.

Retaining walls are detailed to be placed on grades up thru 10% with footing level, with no changes in reinforcing steel. Steeper grades can be accommodated by shortening Bars A1 and B and increasing length of legs of Bars U by the same amount. No change in Quantities will be involved

Retaining walls may be placed on Horizontal Curves by adjusting lengths of footing Bars T and H. Minor revisions of Concrete Quantities may be required.

Designed in accordance with current AASHTO Standard and Interim Specifications.

All concrete to be Class "C".

All reinforcing steel to be Grade 60.

Texas Department of Transportation
Bridge Division

RETAINING WALL MISCELLANEOUS DETAILS

RW 2

FILE: rwstdet1.dgn	DN: TxDOT	CK: TxDOT	DW: GHO	CK: MPM	
©TxDOT March 2010	DISTRICT	FEDERAL AID PROJECT			SHEET
REVISIONS	FTW	(SEE TITLE SHEET)			1130
	COUNTY		CONTROL	SECT	JOB	HIGHWAY
	TARRANT		0014	16	255	IH35W

PATH:

LEVELS DISPLAYED