EXHIBIT 2

DB CONTRACTOR'S PROPOSAL COMMITMENTS, ATCS AND SCHEMATICS

Appendix 1: **Proposal Commitments**

Appendix 2: **ATCs**

Appendix 3: **Schematics**

APPENDIX 1 TO EXHIBIT 2

PROPOSAL COMMITMENTS

SUBSTANTIAL COMPLETION DEADLINE

Substantial Completion will be achieved 644 days after NTP1.

KEY PERSONNEL

Name of Key Personnel	Key Personnel Position
Kurt Knebel	Project Manager
Jeff Billows, PMP	Construction Manager
Larry Zamora, PE	Design Manager
Robert Austin, PE	Professional Services Quality Control Manager
Floyd Martinez, PE	Design Quality Assurance Manager
Jerry Mayer, PE	Construction Quality Control Manager
Brandy Leighton, PE	Construction Quality Acceptance Manager
Jason Maldonado, CFM	Environmental Compliance Manager
Bruce Fuller	Safety Manager

OTHER PROPOSAL COMMITMENTS

ID #	Proposal Location	Proposal Commitment
2	Section D, 4.1.1.1 (b), pg 2	All existing traffic movements to SH130 and FM973 will be maintained and access to all adjoining properties will be maintained at all times.
3	Section D, 4.1.1.1 (c), pg 2	Prior to a shift of traffic for every phase, the DB Contractor will make repairs to the pavement that will be under traffic in the subsequent phase. If a pavement requires repair after a traffic shift the DB Contractor will be perform the repair during off-peak hours and in accordance with standard TCP or a TCP approved by the Engineer.
4	Section D, 4.1.1.4 (d), pg 4	No additional drainage easements.
5	Section D, 4.1.3 (b), pg 6	In addition to the existing requirements of Section 6.2.2.2, the Utility Owners will be given access to a ProjectWise portal allowing them to share documents and access current design files and schedules.

ID #	Proposal Location	Proposal Commitment
6	Section D, 4.1.3 (c), pg 6	In addition to the existing requirements of Section 6.2.2.2 during the Utility Coordination process, the DB Contractor will implement a conflict resolution protocol, including a conflict resolution matrix outlining items such as schedule, cost and feasibility of alternatives.
7	Section D, 4.2.1 (a), pg 7	In addition to the existing co-location requirements of Section 2.10, the DB Contractor will establish a single project office to house design, preconstruction and TxDOT staff. The project office will serve as a preconstruction office during design, as well as the overall project management administration office throughout construction.
8	Section D, 4.2.1 (a), pg 7	In addition to the existing requirements of Section 2.1.2, the DB Contractor will provide a full-time document control manager for the project.
9	Section D, 4.2.1 (c) pg 8-9	In addition to the existing requirements of Section 5.4, after NTP all third-party stake holders will be invited to a Preconstruction Conference.
10	Section D, 4.2.1 (c) pg 9	In addition to the existing requirements of Sections 2.3 & 5.4 prior to any construction activity, the affected third party and stake holders will be invited to participate in our preparatory and work plan meetings to ensure everyone is aware of what is planned and when it will occur.
11	Section D, 4.2.1 (c) pg 9	In addition to the existing requirements of Sections 2.3 & 5.4, meetings will be held with third-party property owners (such as ABIA) to ensure traffic control and construction traffic has minimal impact to their operations.
12	Section D, 4.2.1 (c) pg 9	Meetings will be held with adjacent property owners prior to any construction activities that may affect the access or operations of the property.
13	Section D, 4.2.1 (d) pg 9	"Task forces" will be developed for specific disciplines, and consist of both design and construction personnel. Weekly task force meetings will be held and attendees will include management, schedulers, and estimators as necessary. During the Project, these meetings will be expanded to include subcontractors, suppliers, the City of Austin, stakeholders, utilities, ABIA, and TxDOT.

ID #	Proposal Location	Proposal Commitment
14	Section D, 4.2.1 (e) pg 9	TxDOT and DB Contractor will meet immediately upon award of the contract for a half day partnering session to establish the "Design-Build Project Charter" outlining agreed upon expectations of both parties (i.e.. Meeting participation, packaging of submittals, review times, communication methods, team goals, and other specific areas of concern).
15	Section D, 4.2.1 (e) pg 10	An Executive Oversight Committee, consisting of TxDOT and DB Contractor, will meet quarterly throughout the project to evaluate the project performance against the Charter objective and to address any issues that are negatively affecting the project team.
16	Section D, 4.2.2 (b), pg 13-14	In addition to the existing Key Personnel requirements in Section 7.4, Key Personnel commitments include the following: • Project Manager (100% committed to ensuring success of the project and will spend time on site as needed) • Construction Manager (100%) • Design Manager (100% during the design phase) • DQAM (100% during the design phase) • CQAM (100% during construction) • Safety Manager (100% during construction)
17	Section D, 4.2.4 (c), pg 16	In addition to the existing requirements in Section 19, the DB Contractor's daily inspections of the corridor will include access to adjacent properties to verify that access is being properly maintained. Daily inspections by the DB Contractor will be completed to ensure the roadway is being properly maintained and to identify and repair any damage. Dust/Erosion crews will circulate the project on a daily basis to ensure compliance with dust control/erosion control policies.
18	Section D, 4.2.4 (d), pg 16	DB Contractor will meet with management of adjacent projects on a monthly basis to coordinate schedules/resolve issues.
19	Section D, 4.2.4 (e), pg 16	In addition to the existing requirements of Section 18.2.1(n), the message signs will broadcast upcoming traffic switches at least 30 days in advance.
20	Section D, 4.2.4 (e), pg 16	In addition to the existing requirements of Section 3.2.7, information for the project website will be provided to TxDOT and will include updated weekly project traffic updates.

ID #	Proposal Location	Proposal Commitment
21	Section D, 4.2.5 (c) pg 18	In addition to the existing monthly Project Status Schedule Updates, DB Contractor's reporting will include a Schedule Performance Index and a Cost Performance Index based on planned costs
22	Section D, 4.2.8 (c), pg 21	In addition to the comprehensive Safety Plan, all subcontractors must submit a Site-Specific Safety Plan.
23	Section D, 4.2.8 (c), pg 21	Additional commitments to the Project Specific Safety Plan will include the following: • Comprehensive job site safety inspections will occur on a regular basis including daily inspections by foremen and safety monitors; • Weekly inspections with written reports by the superintendent and a labor representative; • Unannounced inspections by the Safety Manager at least bi-weekly; and • Monthly Project Director's monthly safety inspection.
24	Section D, 4.2.8 (c), pg 21	All employees, both McCarthy and any subcontractors, will fill out a Task Hazard Analysis for the specific task they are working on that day.
25	Section D, 4.2.8 (e), pg 22	Any work in close proximity to live traffic will be suspended during extremely high traffic periods (such as COTA events) to ensure safety.
26	Section D, 4.2.9, pg 23	DB Contractor will establish a "Heavy Highway Mentoring Program" with the goal of growing DBE firms on the Project. A survey will be conducted/distributed to DBE firms in the region to determine specific needs prior to implementation.
27	Section D, 4.2.9, pg 23	Mentoring Program: Workshop Training- annual 1-day training workshops (two training series) located at the Hilton Hotel at ABIA (three one-hour workshops in the morning and three in the afternoon).
28	Section D, 4.2.10 (a), pg 24	Work that requires a lane closure on Presidential Blvd and Spirit of Texas will be done under single lane closures.
29	Section D, 4.2.10 (a), pg 24	The Presidential Blvd widening will be completed in three months.
30	Section D, 4.2.12 (a), pg 26	DB Contractor's Maintenance Group will travel the corridor on a weekly basis and videotape the condition of traffic control measures and general condition of the corridor. Maintenance group will review and assess tapes on a monthly basis and recommend improvements. All inspections and video tapes will be saved to the web-based document control system.

ID #	Proposal Location	Proposal Commitment
31	Section D, 4.2.12 (b), pg 26	Maintenance Group will spend the final month of the Project working with the Authority's maintenance group to facilitate the transition of maintenance responsibilities.
32	Section D, 4.3.1 (a) 3, pg 27	In addition to the existing requirements of Section 2.1.2.1, TxDOT will have access to all documents within Document Control 24/7.
33	Section D, 4.3.1 (a) 4, pg 27-28	DB Contractor will conduct an internal quality audit within two months from commencement and quarterly thereafter of the Team's processes to identify corrective and preventative actions, non-compliance, repeat non-compliance safety issues, risks, and improvement opportunities.
34	Section D, 4.3.1 (e), pg 28-29	The Quality Management Plan will outline the documentation of construction deficiencies and non-compliance issues on a Non-Compliance Report (NCR). The NCR will be forwarded to the Project Manager for action. The NCR will include at least the following information: 1. A unique NCR# will be assigned from the NCR log 2. Definition and identification of non-conforming condition 3. Classification for required action 4. The person responsible for resolution (assigned by the PM) 5. A description of the resolution 6. The date of resolution (signed & dated by person responsible for resolution) 7. QCM's concurrence (prior to implementation of correction action) 8. QCM will provide follow-up inspections, verification and NCR closure A detailed NCR log will be kept up to date with the status of all NCRs.

APPENDIX 2 TO EXHIBIT 2

The following table contains the DB Contractor's approved alternative technical concepts (ATCs), as well as approved ATCs of unsuccessful Proposers, that the DB Contractor has committed to incorporate into the Project. The Deviations set forth in the ATC submittals are approved by TxDOT subject to satisfaction of any conditions set forth in the letters from TxDOT to DB Contractor or the unsuccessful Proposer. Such Deviations, subject to satisfaction of any listed "conditions," expressly supersede any conflicting provisions in the Technical Provisions, as provided in Section 1.2.2 of the Design-Build Agreement. The ATCs shall otherwise meet all requirements of the Technical Provisions.

ATCs

ID #	Proposal Location	Proposal Commitment
ATC #2	Section D, 4.1, pg 1	Commit to implementing this ATC (Reduce FM973 structure costs)
ATC #3	Section D, 4.1, pg 1	Commit to implementing this ATC (Reduce FM973 structure costs)
ATC #4	Section D, 4.1, pg 1	Commit to implementing this ATC (Reduce FM973 structure costs)
ATC #6	Section D, 4.1, pg 1	Commit to implementing this ATC (Reduce Presidential Blvd. architectural pylon costs)
ATC #7	Section D, 4.1, pg 1	Commit to implementing this ATC (Reduce Presidential Blvd. architectural pylon costs)
Supp ATC#1		Commit to implementing supplemental ATC (MSE wall staggered horizontal joint and aligned vertical joint pattern)
Supp ATC#3		Commit to implementing supplemental ATC (1" TOM for new flexible pavement sections)
Supp ATC#4		Commit to implementing supplemental ATC (Prime coat underseal in lieu of one course surface treatment)
Supp ATC#11		Commit to implementing supplemental ATC (1" TOM for mill and overlay sections)

APPENDIX 3 TO EXHIBIT 2

SCHEMATICS

The attached CD contains DB Contractor's Schematics, which formed the basis of DB Contractor's Proposal.

SH71 Express Project

Texas Department of Transportation

TECHNICAL DRAWINGS, GRAPHS, AND DATA

McCARTHY

PROPOSAL PLAN SHEETS

FED. RD. DIV. NO.	PROJECT NO.		SHEET NO.
6			1
STATE	STATE DIST.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

STATE OF TEXAS
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED
STATE HIGHWAY 71

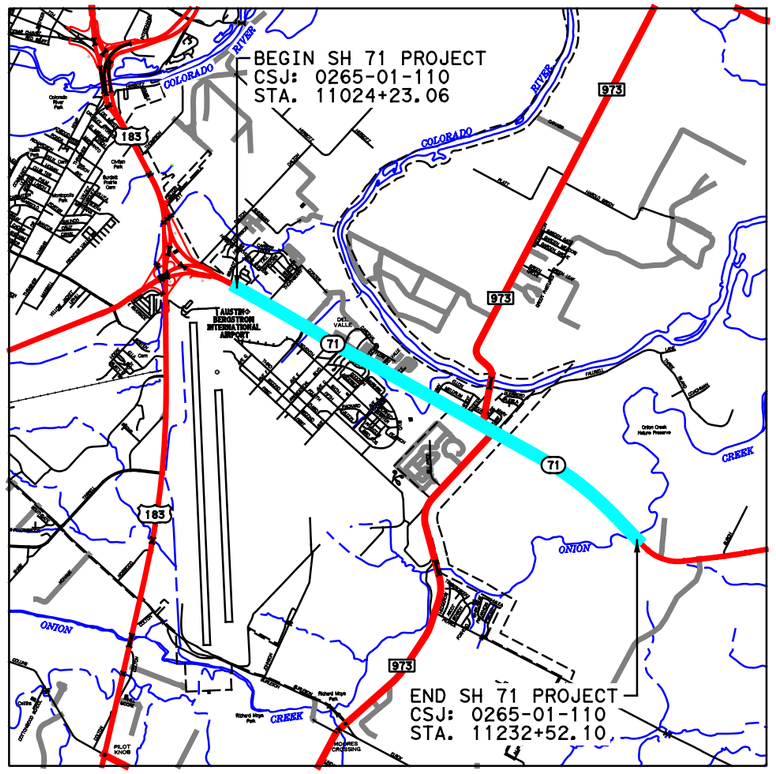
TRAVIS COUNTY

LIMITS
FROM: PRESIDENTIAL BLVD
TO: EAST OF SH 130

LENGTH

ROADWAY	16444.51 FT	= 3.114 MI
BRIDGE	4384.53 FT	= 0.830 MI
TOTAL	20829.04 FT	= 3.944 MI

FOR THE CONSTRUCTION OF:
TOLL LANES, GENERAL PURPOSE LANES, AT-GRADE RAMPS, AND INTERSECTION IMPROVEMENTS.



EXCEPTIONS:
EQUATIONS:
RR X-ING'S:

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
	GENERAL
1	TITLE SHEET AND INDEX OF SHEETS
2 - 9	TYPICAL SECTIONS
	TRAFFIC CONTROL PLAN
10 - 26	TCP TYPICAL SECTIONS
27 - 29	PHASE I TCP LAYOUT
30 - 32	PHASE 2 TCP LAYOUT
33 - 35	PHASE 3 TCP LAYOUT
36 - 38	PHASE 4 TCP LAYOUT
39 - 41	PHASE 5 TCP LAYOUT
	ROADWAY DETAILS
42 - 48	HORIZONTAL ALIGNMENT DATA
49	SUPER ELEVATION TABLE
50 - 58	SH 71 PLAN & PROFILE
59 - 61	FM 973 PLAN
62 - 63	SH 71 EB PROFILE
64 - 65	SH 71 WB PROFILE
66 - 67	FM 973 NB PROFILE
68 - 69	FM 973 SB PROFILE
70	SH 71 FRONTAGE ROAD PROFILES
71	SH 71 TURNAROUND PROFILES
72 - 74	SH 71 RAMP PROFILES
	DRAINAGE DETAILS
75	DRAINAGE AREA MAP
76 - 93	SH 71 DRAINAGE PLAN
94 - 98	FM 973 DRAINAGE PLAN
	BRIDGES
99 - 100	SH 71 SPIRIT OF TEXAS DRIVE - BRIDGE LAYOUT
101	SH 71 PRESIDENTIAL BLVD - BRIDGE WIDENING
102	SH 71 PRESIDENTIAL BLVD - ESTIMATED QUANTITIES
103	SH 71 PRESIDENTIAL BLVD - SOIL NAIL WALL DETAILS
104 - 105	SH 71 FM 973 - BRIDGE LAYOUT
106 - 108	SH 130 FLYOVER - BRIDGE LAYOUT
109	SH 130 FLYOVER - ESTIMATED QUANTITIES
110	SH 130 FLYOVER - AESTHETIC DETAILS
111 - 112	SH 71 ONION CREEK - BRIDGE LAYOUT
	RETAINING WALL

ROADWAY	DESIGN SPEED	FUNCTIONAL CLASSIFICATION
SH 71 GENERAL PURPOSE LANES WEST OF SPIRIT OF TX BLVD. AND BETWEEN PRES. BLVD. AND FM 973	60 MPH[1]	PRINCIPAL ARTERIAL / SUBURBAN
SH 71 GENERAL PURPOSE LANES BETWEEN SPIRIT OF TX BLVD AND PRES. BLVD.	60 MPH[1]	URBAN PRINCIPAL ARTERIAL/ FREEWAY
SH 71 GENERAL PURPOSE LANES WEST OF FM 973 TO EAST OF FM 973	50 MPH	URBAN MINOR ARTERIAL
SH 71 TOLL LANES FROM TERRY LANE TO EAST SH 130	60 MPH	URBAN PRINCIPAL ARTERIAL/ FREEWAY
RAMPS	50 MPH[2]	
SH 71 TOLL LANES EAST TERMINUS TRANSITION	60 MPH	PRINCIPAL ARTERIAL / URBAN FREEWAY
SH 71 GENERAL PURPOSE LANES EAST TERMINUS TRANSITION	50 MPH	URBAN MINOR ARTERIAL
U-TURN PRESIDENTIAL BLVD	15 MPH	URBAN LOW SPEED
FM 973	50 MPH[3]	SUBURBAN MAJOR ARTERIAL

NOTES:

1. VERTICAL ALIGNMENT DESIGN SPEED OF 50 MPH IS ACCEPTABLE FROM STATION 11051+00 TO 11083+00
2. VERTICAL ALIGNMENT DESIGN SPEED OF 45 MPH IS ACCEPTABLE FOR WB PRESIDENTIAL ENTRANCE RAMP
3. 15 ON U-TURNS

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION, JUNE 1, 2004 AND THE SPECIFICATION ITEMS LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT: SPECIAL LABOR PROVISIONS FOR STATE PROJECTS (000--007)

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COUNTY_____ PROJ. NO._____
HWY. NO._____ LETTING DATE_____
DATE ACCEPTED_____

FILE LOCATION AND NAME
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LEVELS DISPLAYED

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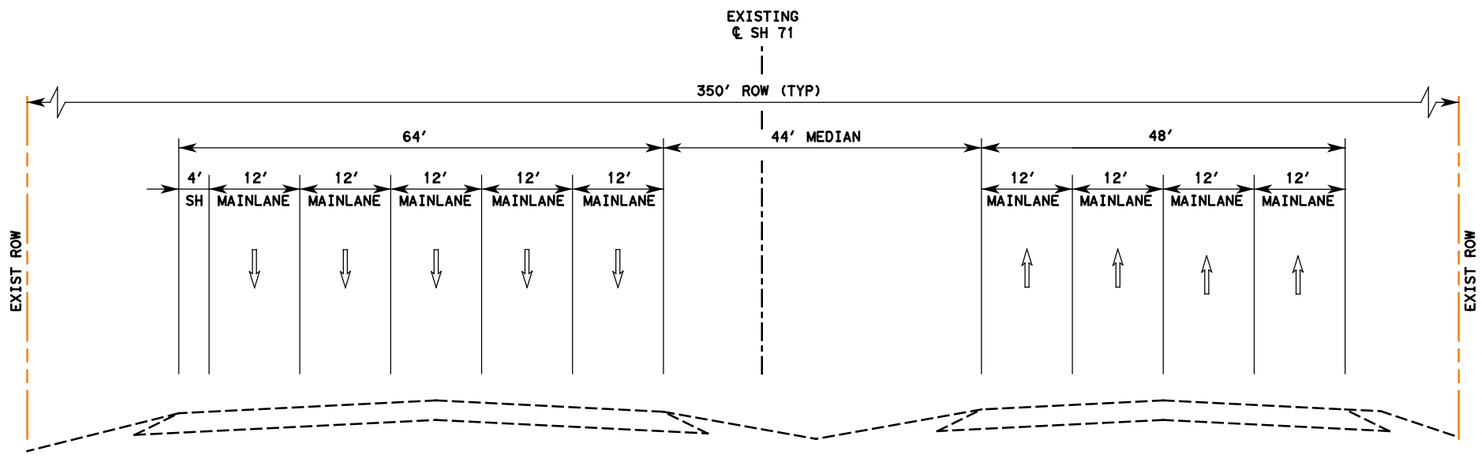
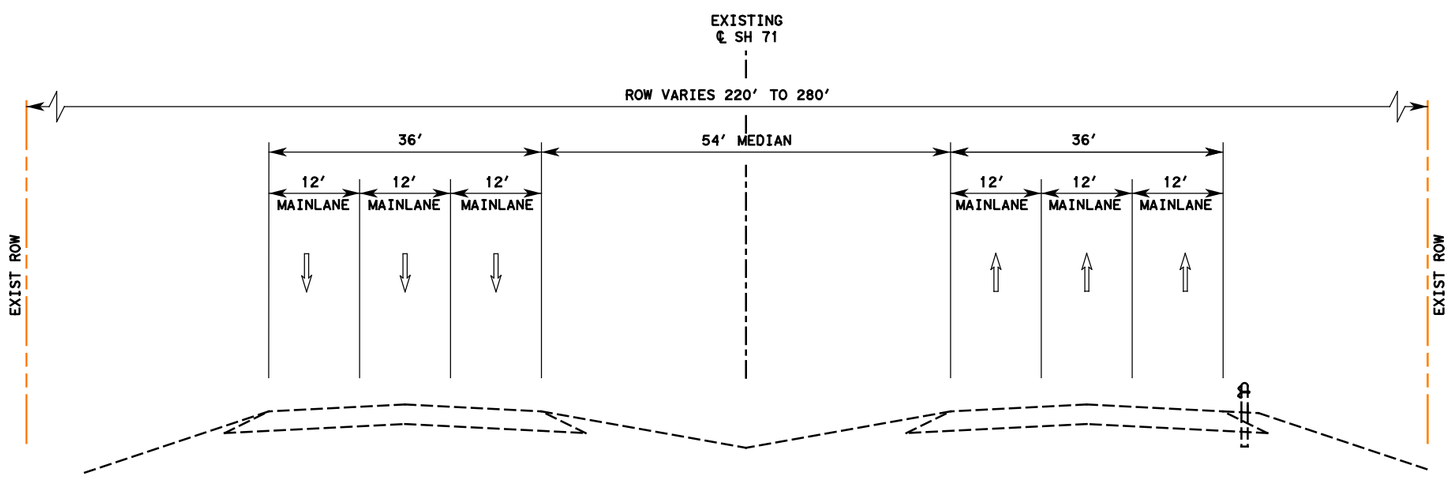


EXISTING TYPICAL SECTION

SH 71 BETWEEN BRANDT DR AND THORNBERRY RD



EXISTING TYPICAL SECTION

SH 71 EAST OF PRESIDENTIAL BLVD

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

TYPICAL SECTIONS

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 1 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		2

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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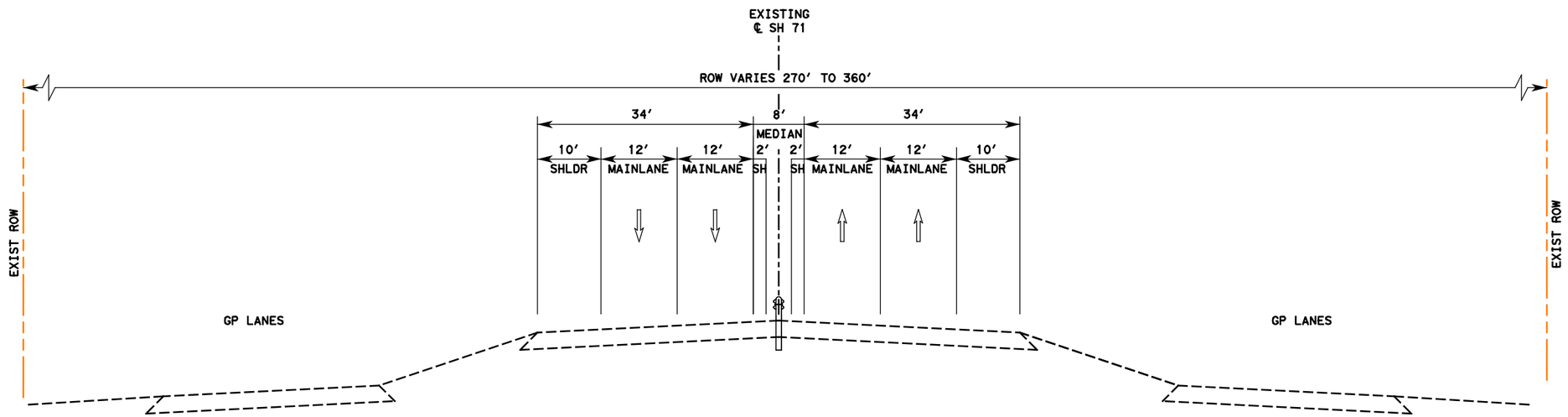

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SH 71 APPROACHING PRESIDENTIAL BLVD

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TYPICAL SECTIONS

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Texas Department of Transportation

SHEET 2 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		3

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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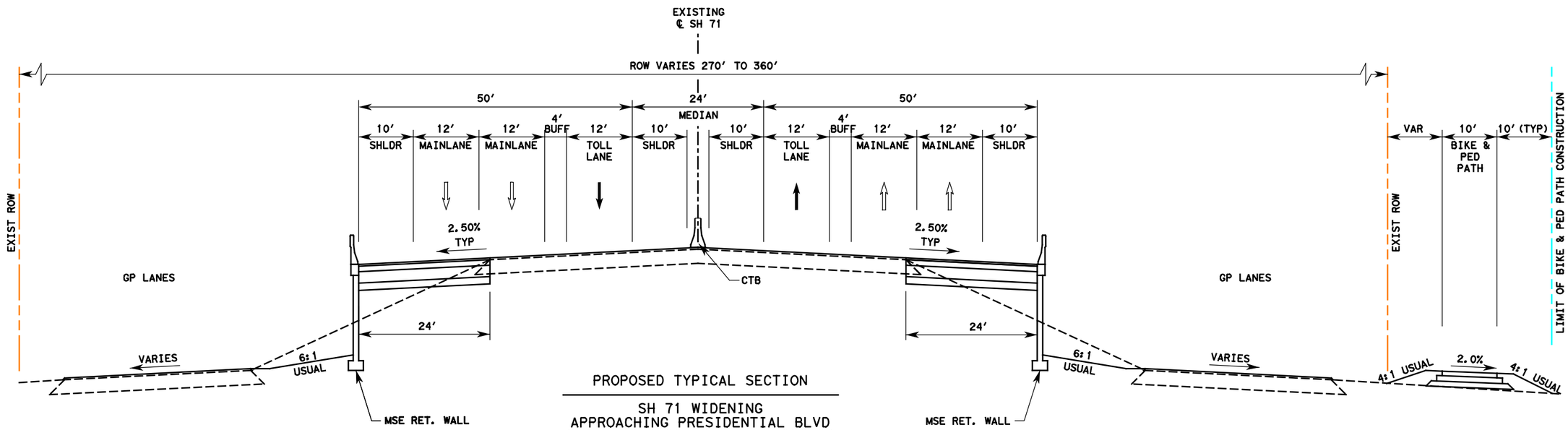

PROPOSED TYPICAL SECTION

SH 71 WIDENING
APPROACHING PRESIDENTIAL BLVD
STA. 11070+00 TO STA. 11086+00

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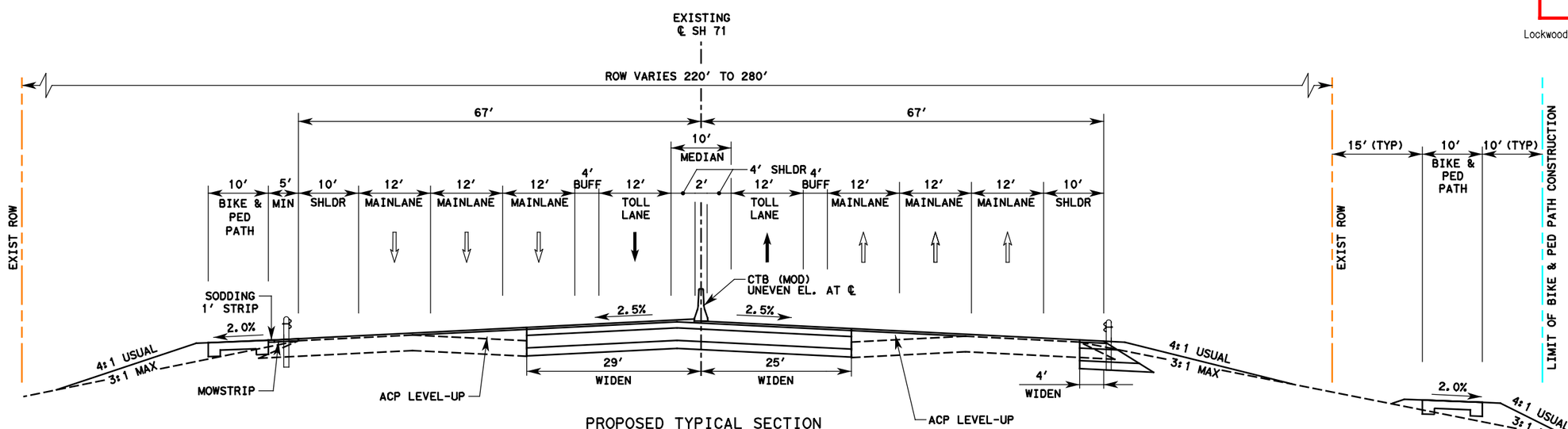

PROPOSED TYPICAL SECTION

SH 71 WIDENING
BETWEEN PRESIDENTIAL BLVD AND FM 973
STA. 11086+00 TO STA. 11124+24
STA. 11216+96 TO STA. 11220+00

4' SHOULDER WIDENING
(STA. 11102+47 TO STA. 11124+24)

SH 71

TYPICAL SECTIONS

McCARTHY

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Texas Department of Transportation

SHEET 3 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		4

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
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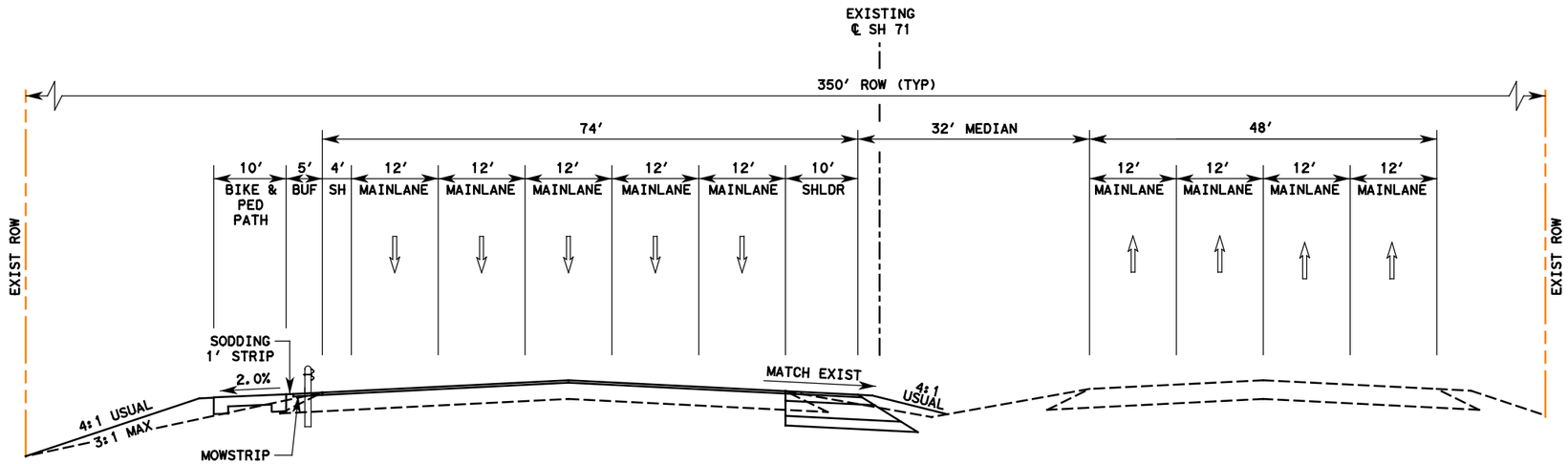
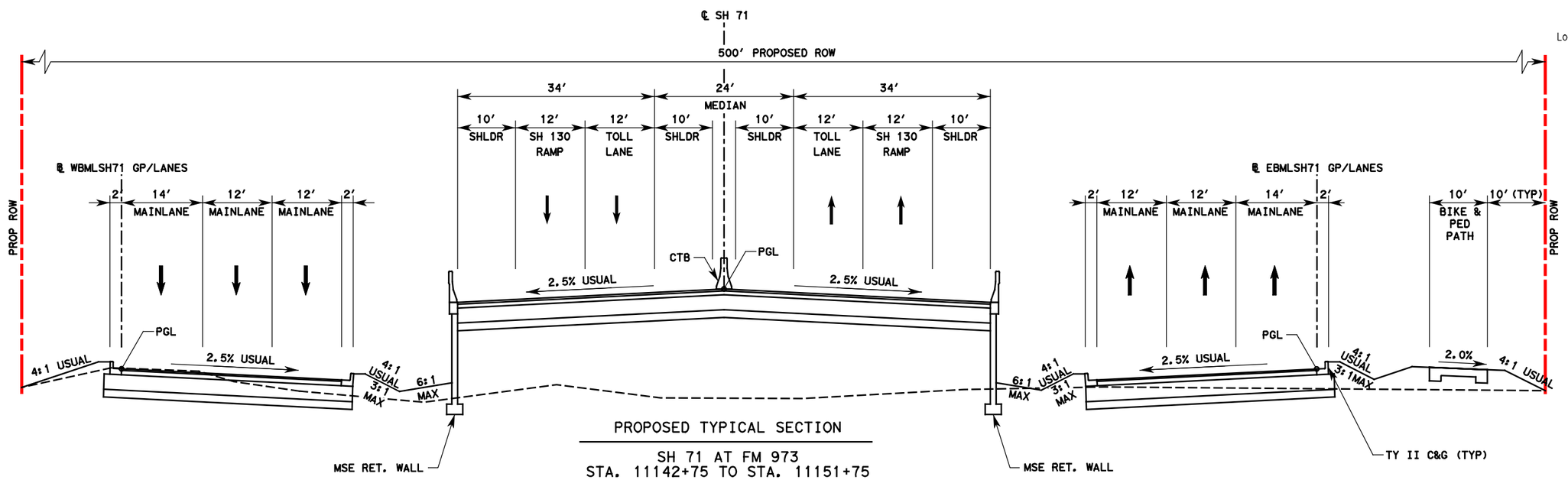


PROPOSED TYPICAL SECTION

SH 71 WIDENING
BETWEEN BRANDT DR AND SPIRIT OF TEXAS
STA. 11024+23 TO STA. 11070+00



PROPOSED TYPICAL SECTION

SH 71 AT FM 973
STA. 11142+75 TO STA. 11151+75

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SHEET 4 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		5

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
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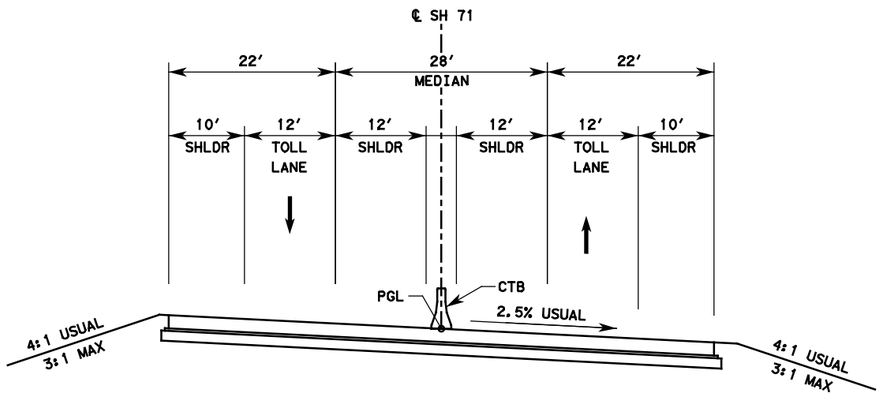
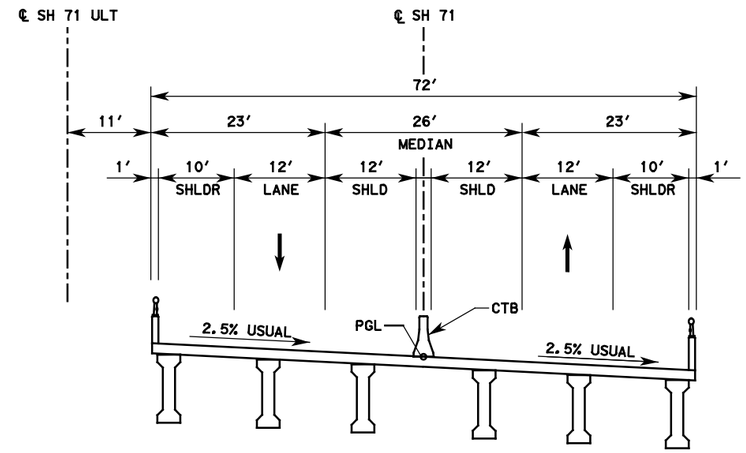


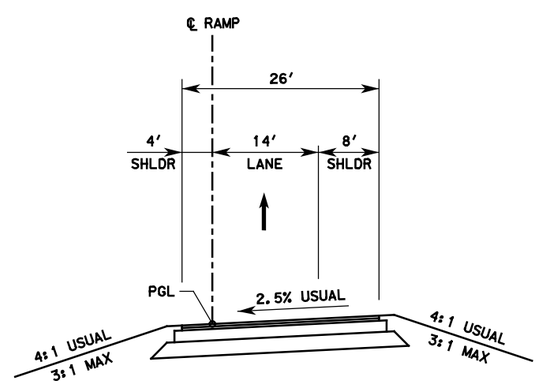
PROPOSED TYPICAL SECTION

SH 71 EAST OF FM 973
STA. 11166+78 TO STA. 11187+97



PROPOSED TYPICAL SECTION

SH 71 AT SH 130
STA. 11187+94 TO STA. 11217+16



PROPOSED TYPICAL SECTION

SINGLE LANE RAMP

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SH 71

TYPICAL SECTIONS

McCARTHY

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TBPE Firm No. 2614

Texas Department of Transportation

SHEET 5 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
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STATE	STATE DIST. NO.	COUNTY	
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CONT.	SECT.	JOB	HIGHWAY NO.
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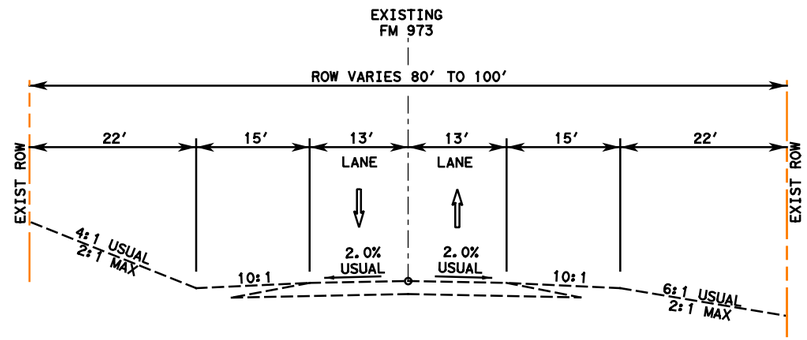
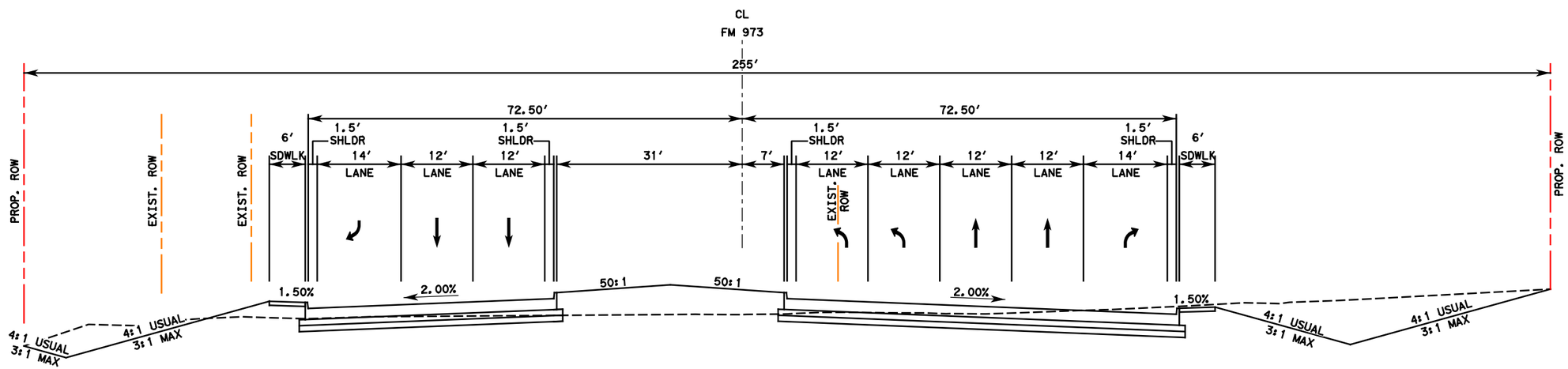


EXISTING TYPICAL SECTION

FM 973



PROPOSED TYPICAL SECTION

STA. 5114+00

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FM 973

TYPICAL SECTIONS

McCARTHY

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TBPE Firm No. 2614

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		7

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
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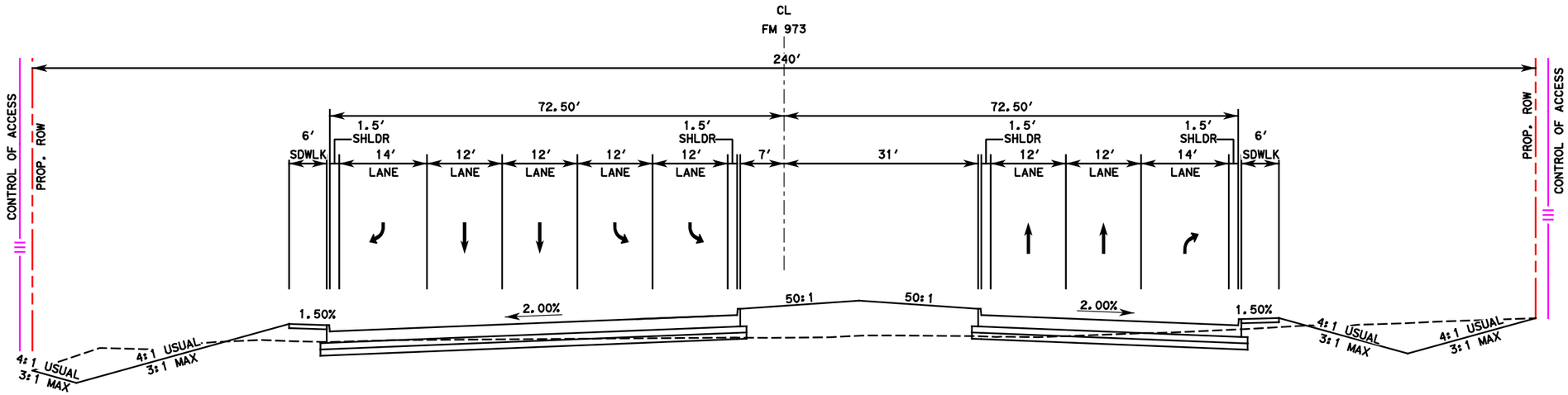
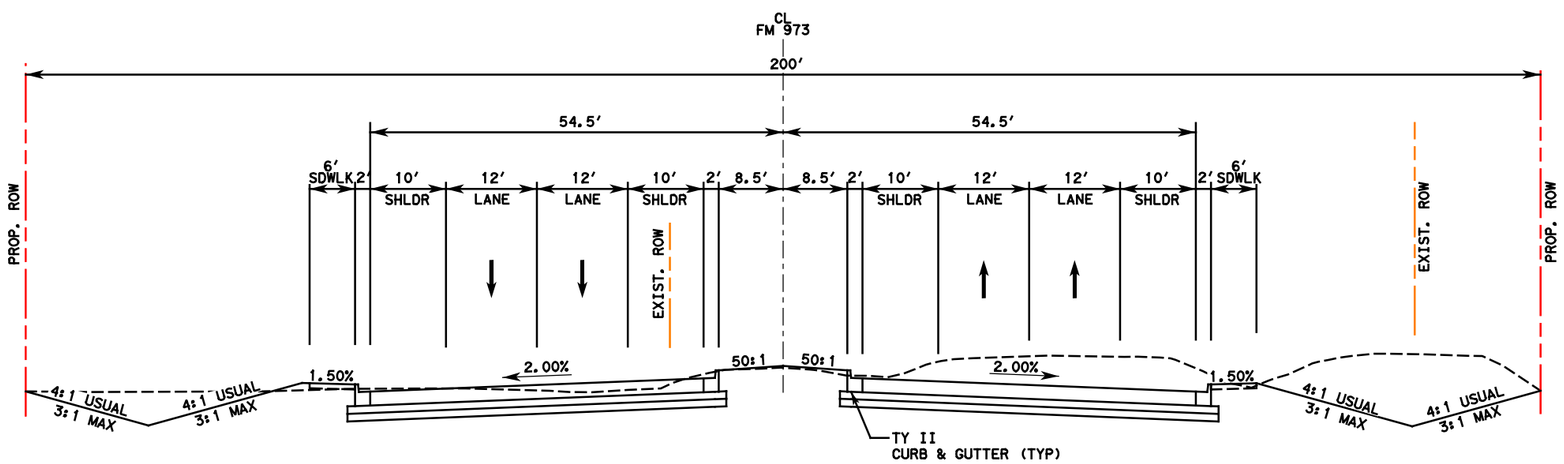


PROPOSED TYPICAL SECTION

STA. 5121+00



PROPOSED TYPICAL SECTION

STA. 5140+00

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

TYPICAL SECTIONS

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		8

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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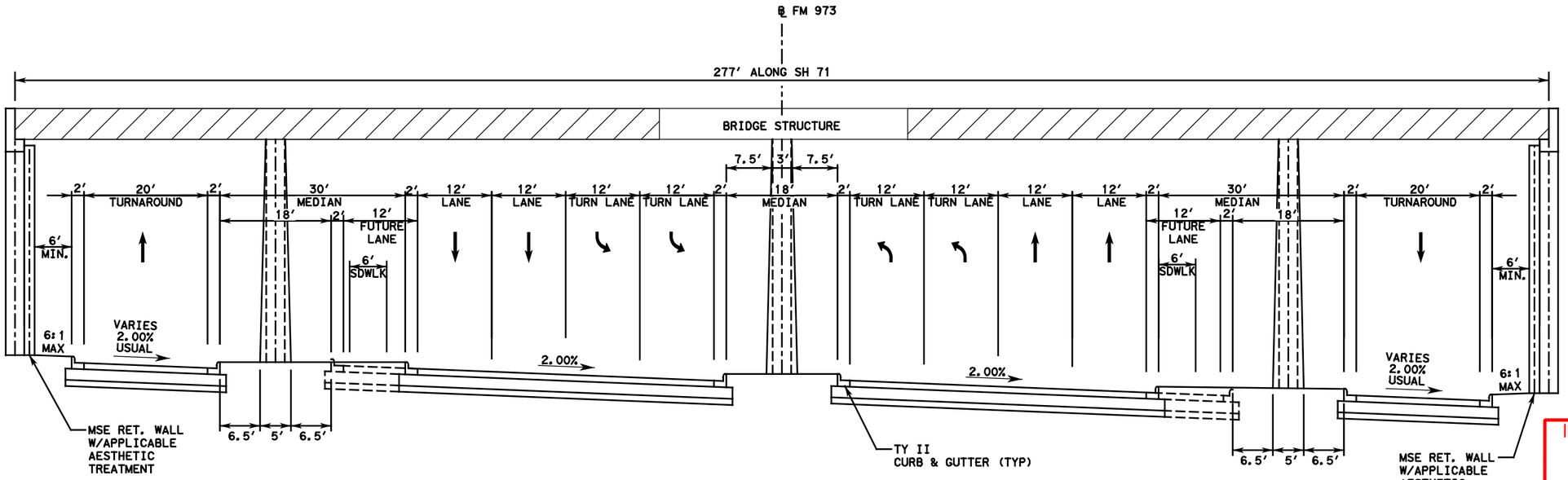

PROPOSED TYPICAL SECTION
FOR SH 71 UNDERPASS

FM 973
LOOKING UPSTATION

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

TYPICAL SECTIONS

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			9
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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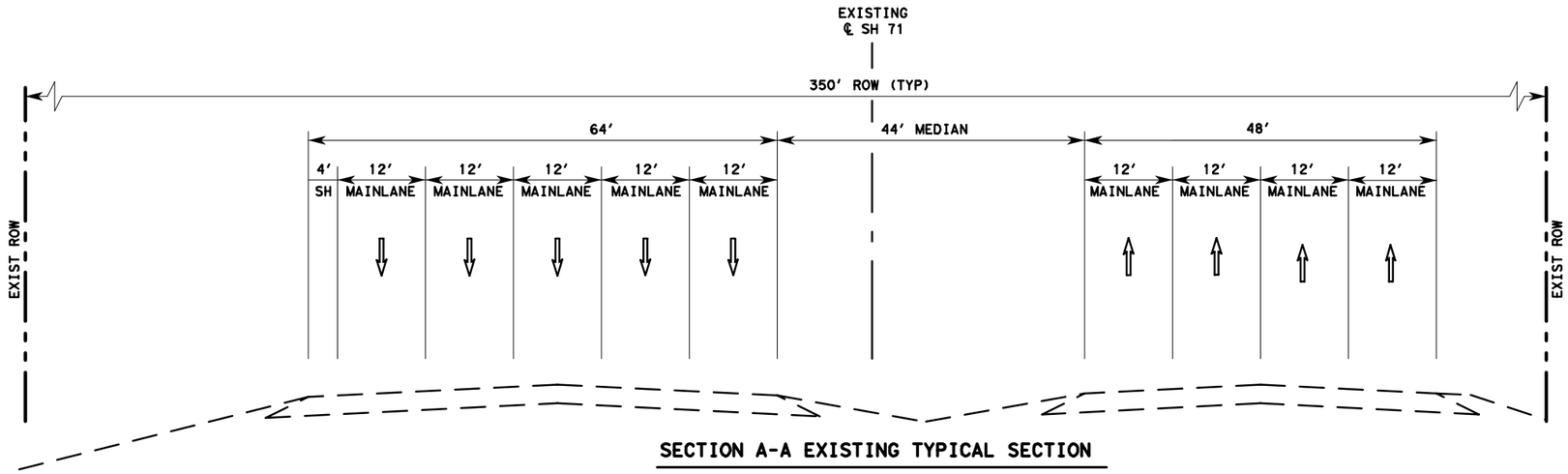

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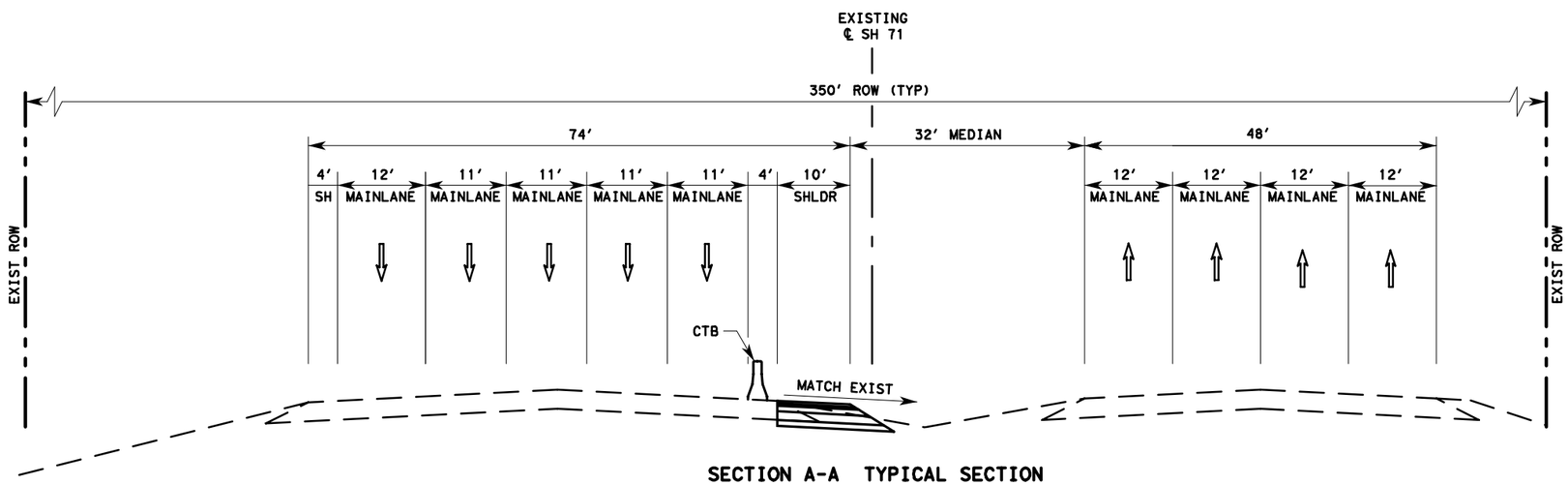

SECTION A-A TYPICAL SECTION

PHASE 1

PRELIMINARY
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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-920

McCARTHY

Texas Department of Transportation

SHEET 1 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		10

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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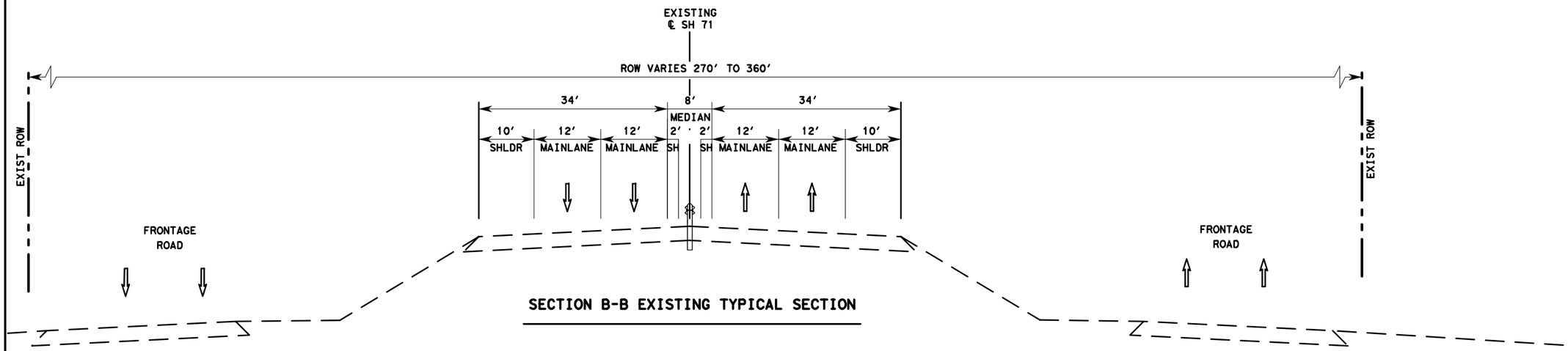

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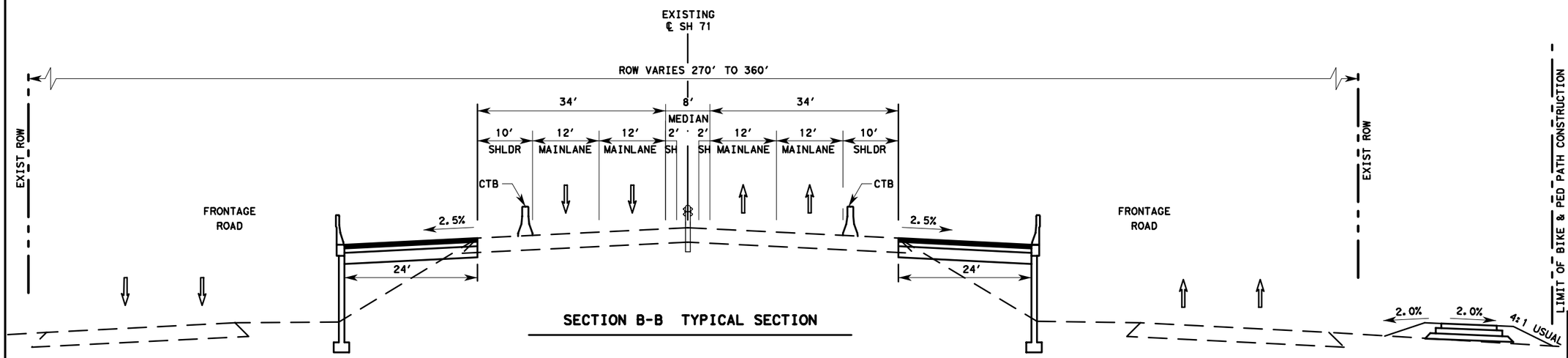

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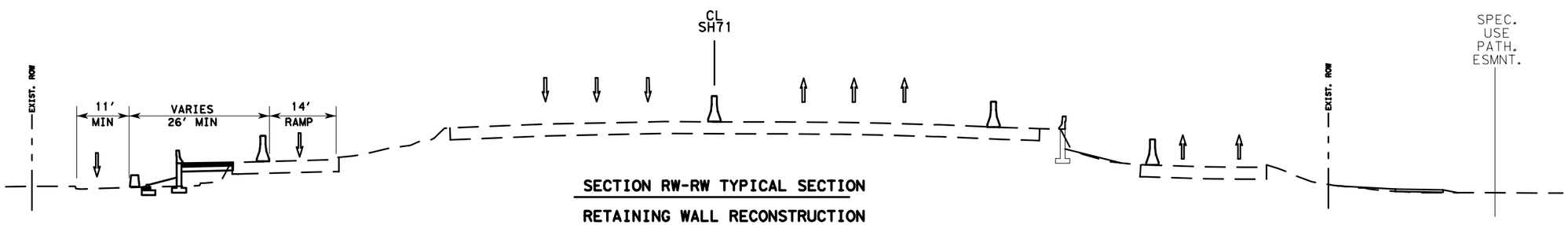

SECTION RW-RW TYPICAL SECTION

RETAINING WALL RECONSTRUCTION

PHASE 1

PRELIMINARY

FOR REVIEW ONLY

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Engineer DENNIS K. SEAL

P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-928

McCARTHY

Texas Department of Transportation

SHEET 2 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		11

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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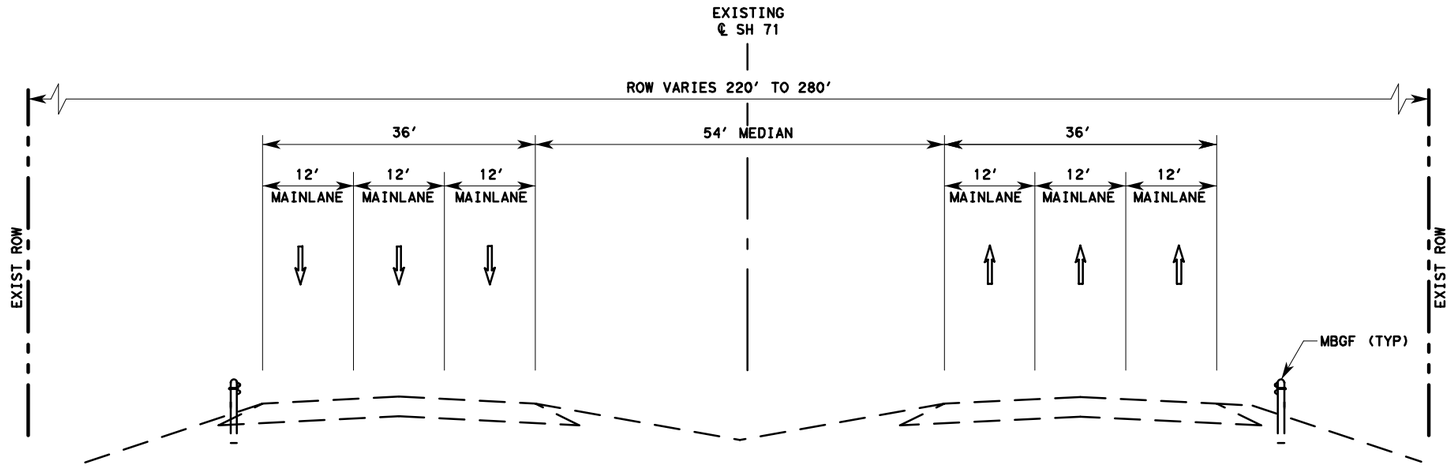

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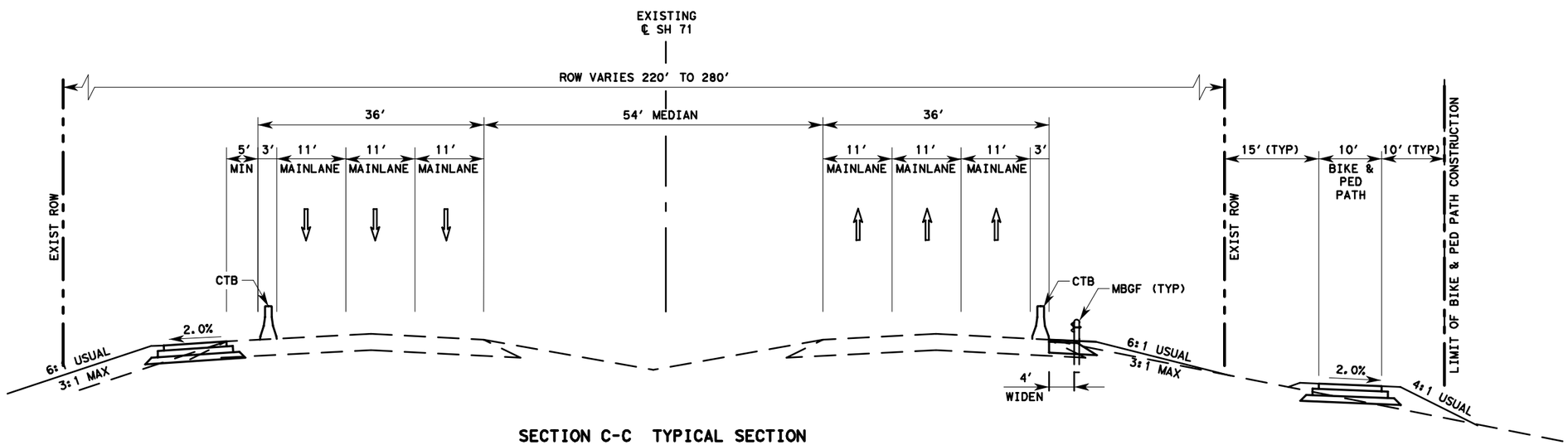

SECTION C-C TYPICAL SECTION

WIDEN TO OUTSIDE

PHASE 1

PRELIMINARY
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Engineer: DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL SECTIONS

F-920

McCARTHY

Texas Department of Transportation

SHEET 3 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		12

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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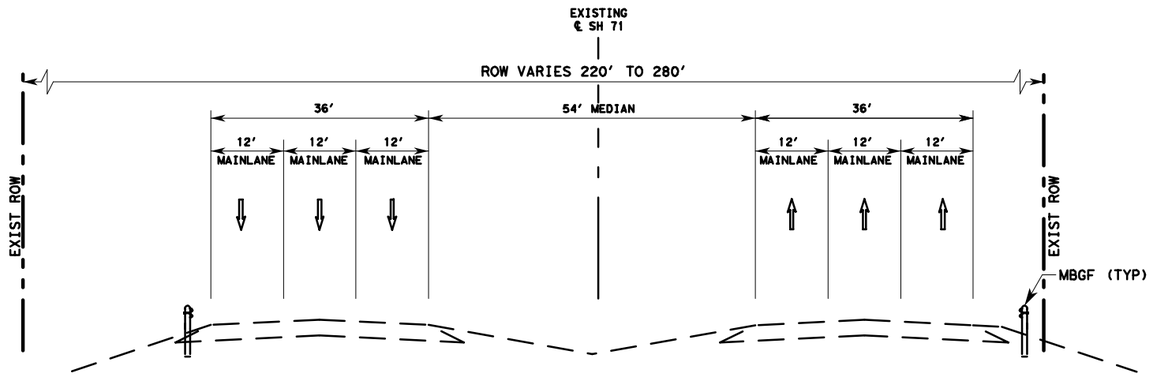

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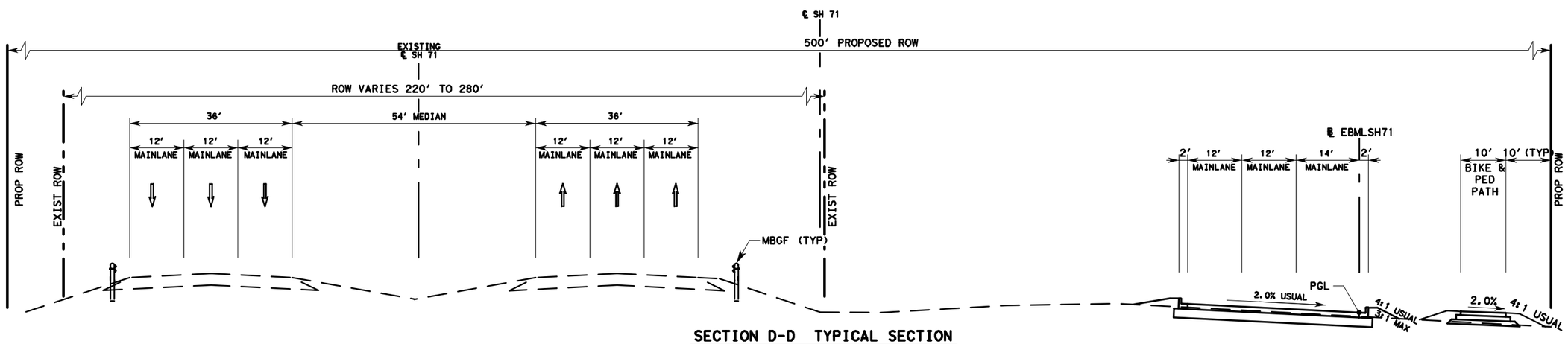

SECTION D-D TYPICAL SECTION

CONSTRUCT EB FRONTAGE ROAD AND
BIKE & PED PATH

PHASE 1

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Engineer: DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-928

McCARTHY

Texas Department of Transportation

SHEET 4 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		13

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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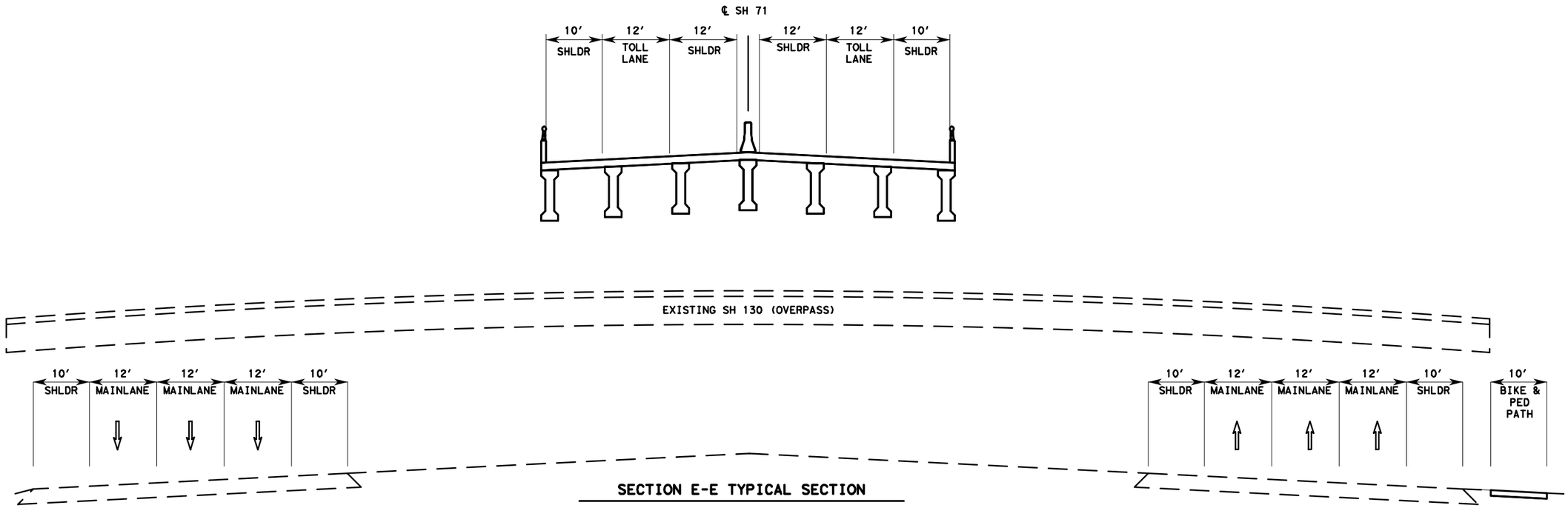
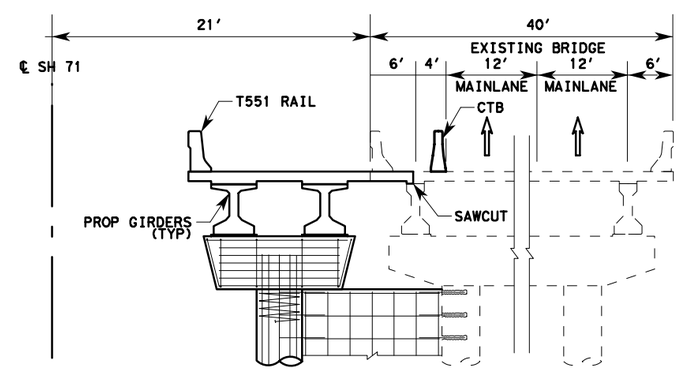


SECTION E-E TYPICAL SECTION

PROPOSED SH 71 AT SH 130
CONSTRUCT TOLL BRIDGE



SECTION F-F TYPICAL SECTION

WIDEN ONION CREEK BRIDGE AND APPROACHES

PHASE I

PRELIMINARY
FOR REVIEW ONLY
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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-920

McCARTHY

Texas Department of Transportation

SHEET 5 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		14

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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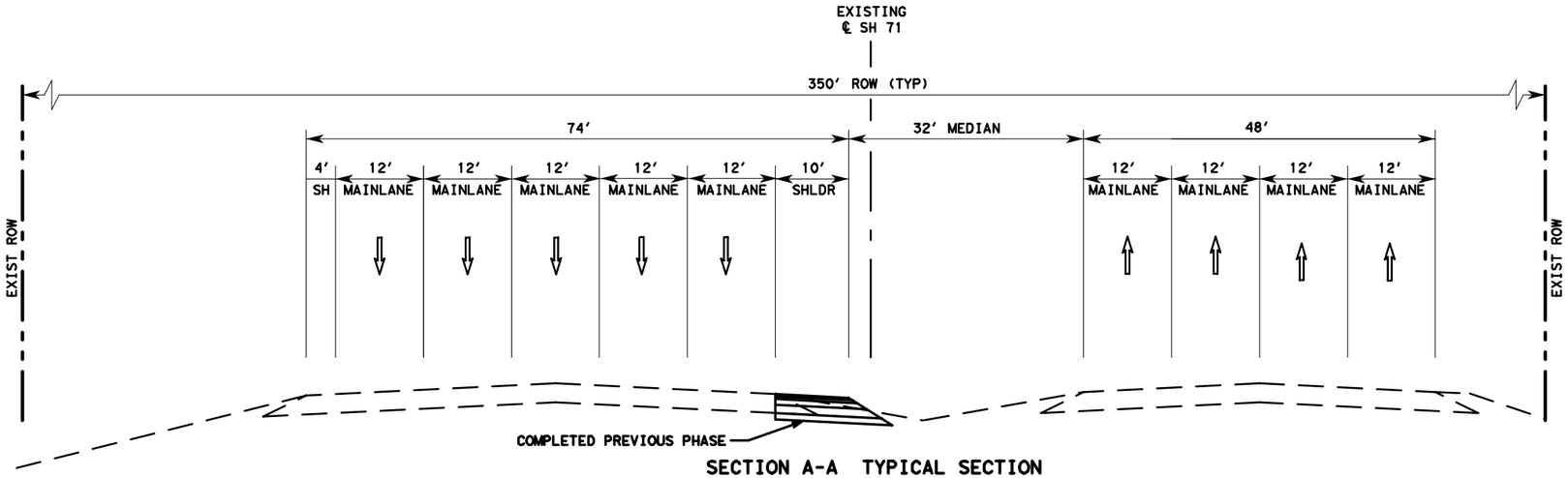

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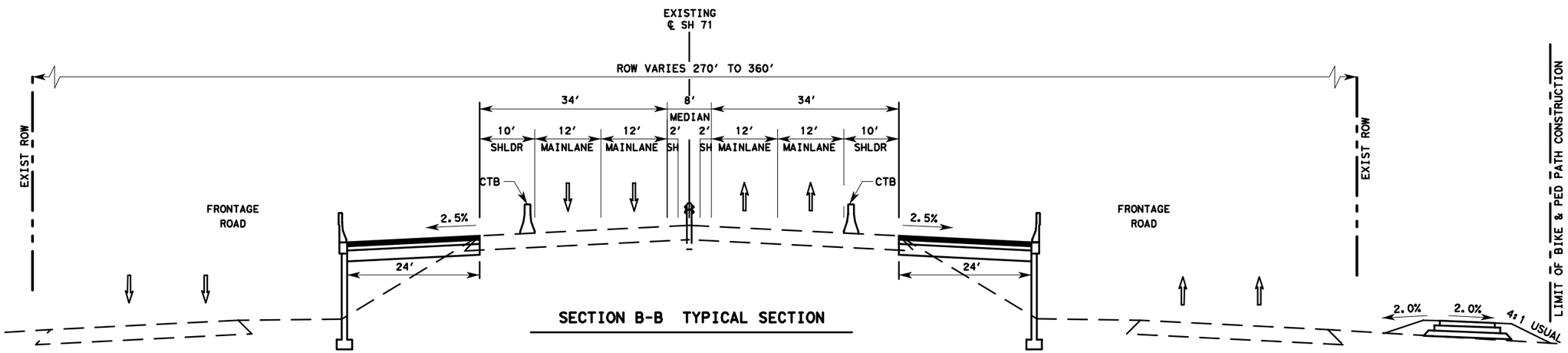

SECTION B-B TYPICAL SECTION

PHASE 2

PRELIMINARY
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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL SECTIONS

F-920

McCARTHY

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		15

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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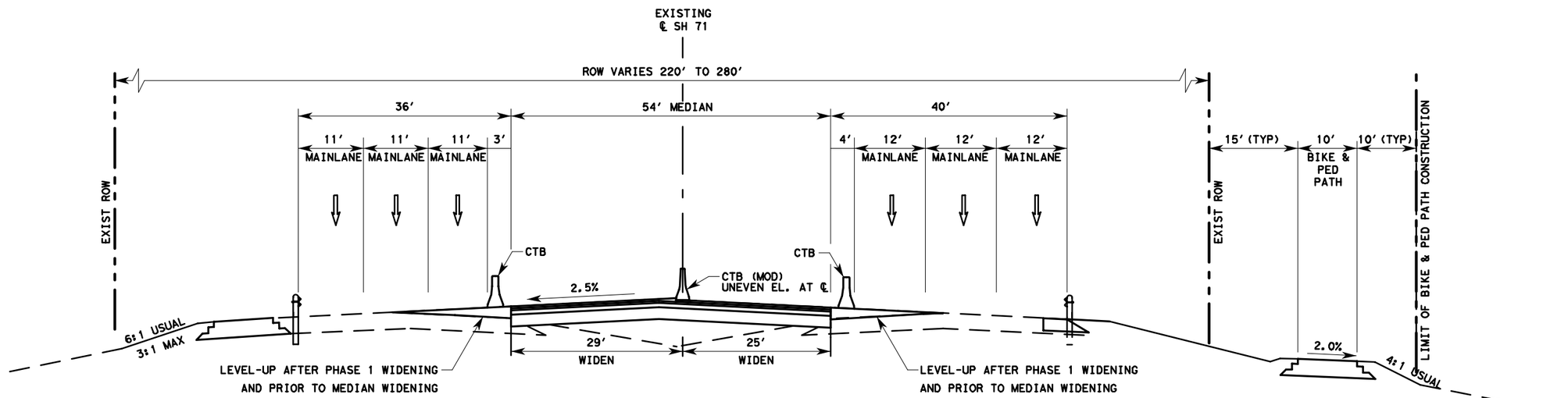
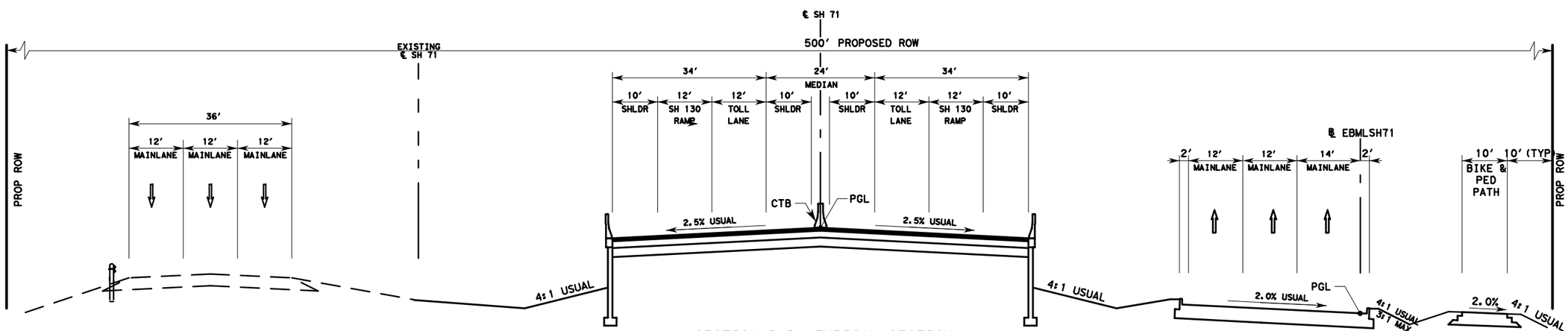


SECTION C-C TYPICAL SECTION

MEDIAN WIDENING



SECTION D-D TYPICAL SECTION

PHASE 2

PRELIMINARY
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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-920

McCARTHY

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		16

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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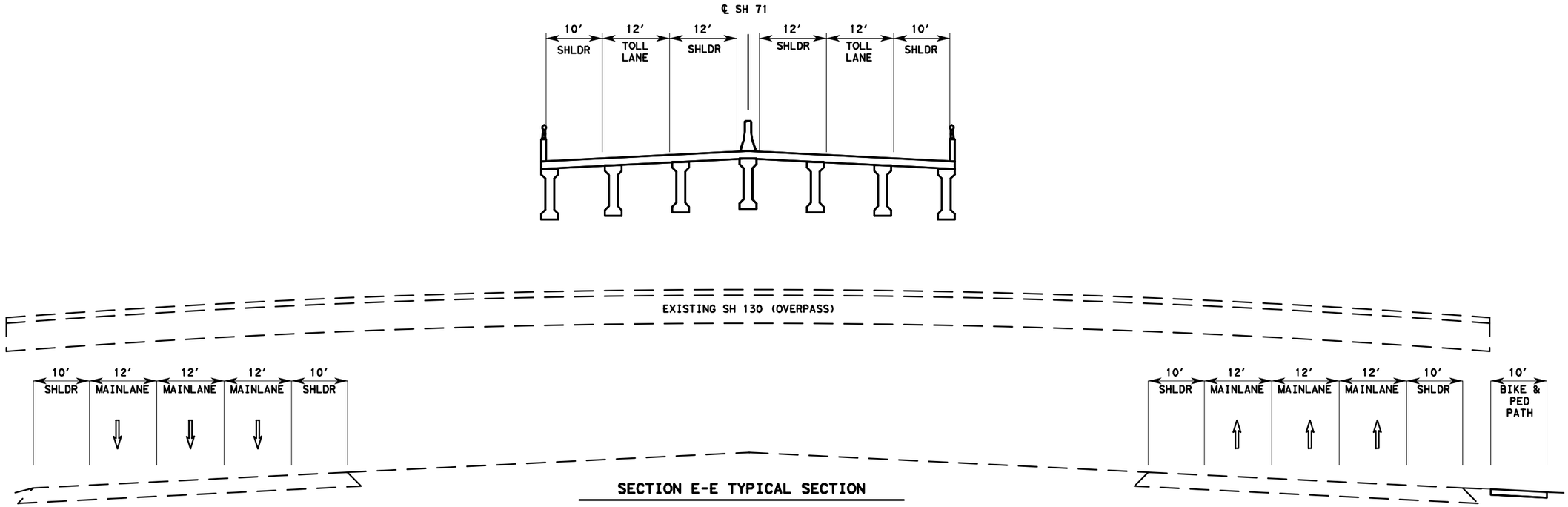
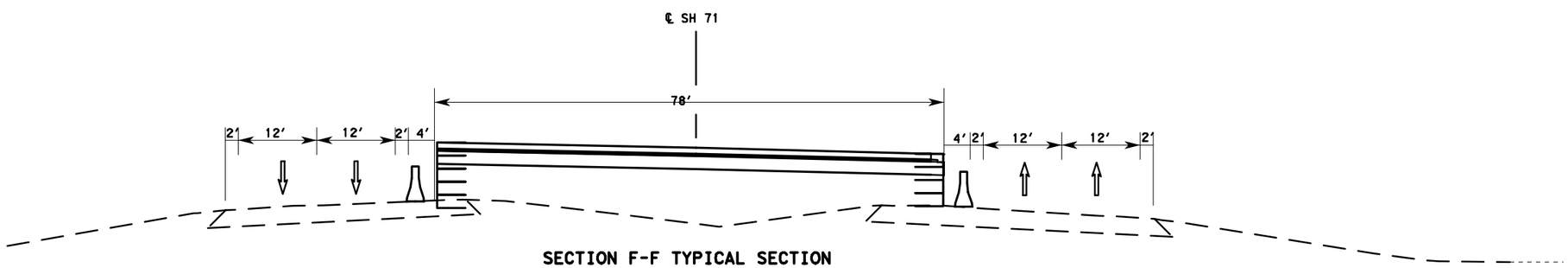


SECTION E-E TYPICAL SECTION

PROPOSED SH 71 AT SH 130
CONSTRUCT TOLL BRIDGE



SECTION F-F TYPICAL SECTION

TRANSITION AT ONION CREEK

PHASE 2

PRELIMINARY
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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-920

McCARTHY

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		17

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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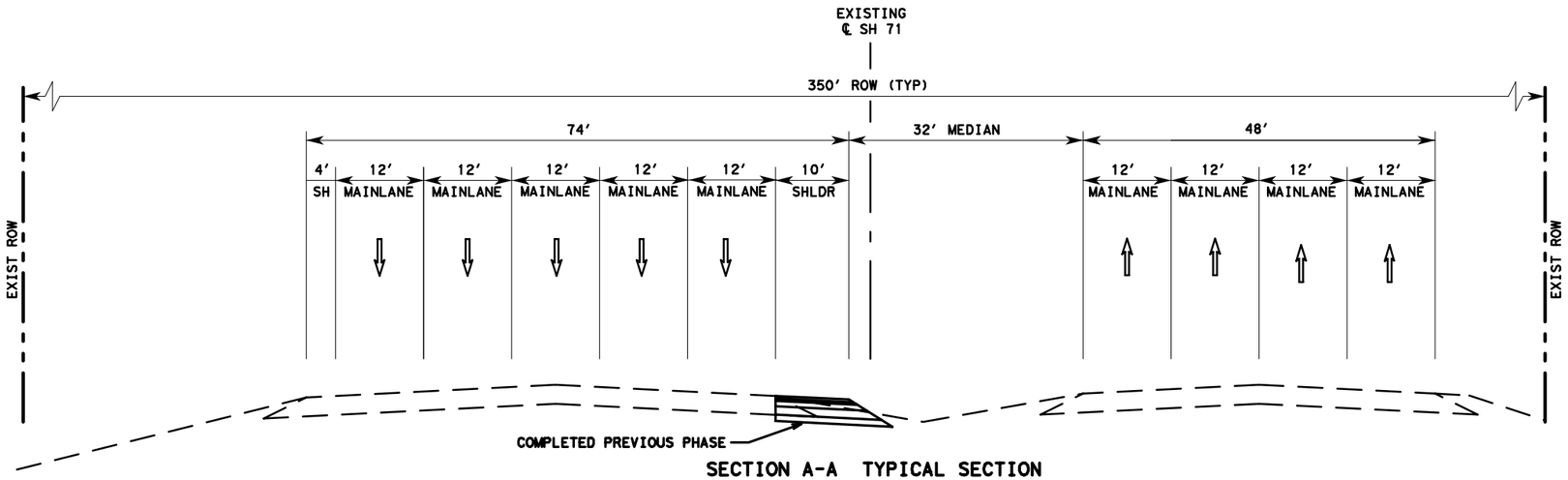

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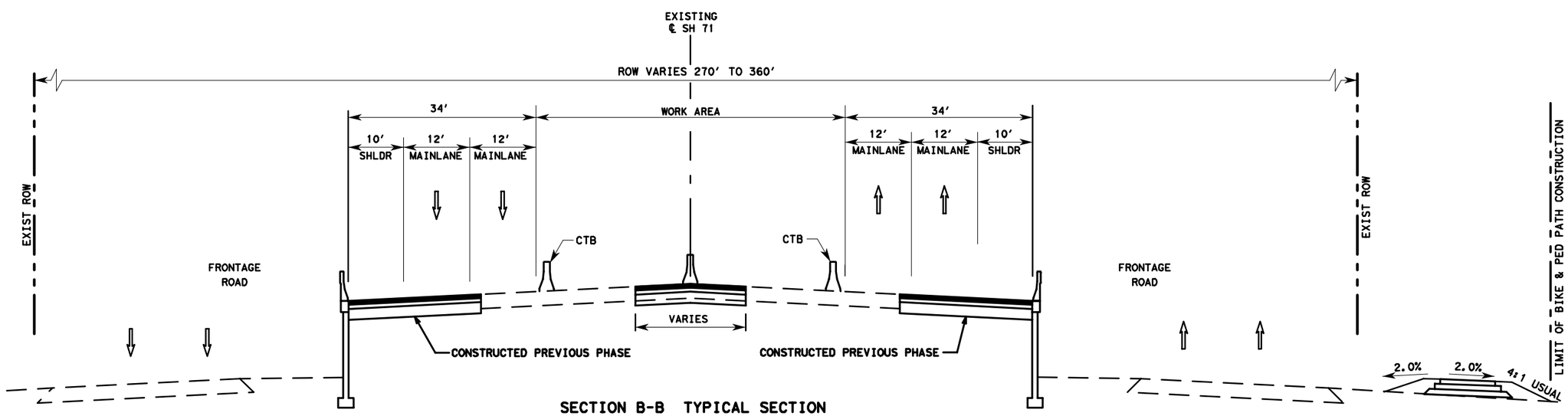

SECTION B-B TYPICAL SECTION

PHASE 3

PRELIMINARY
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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-928

McCARTHY

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		18

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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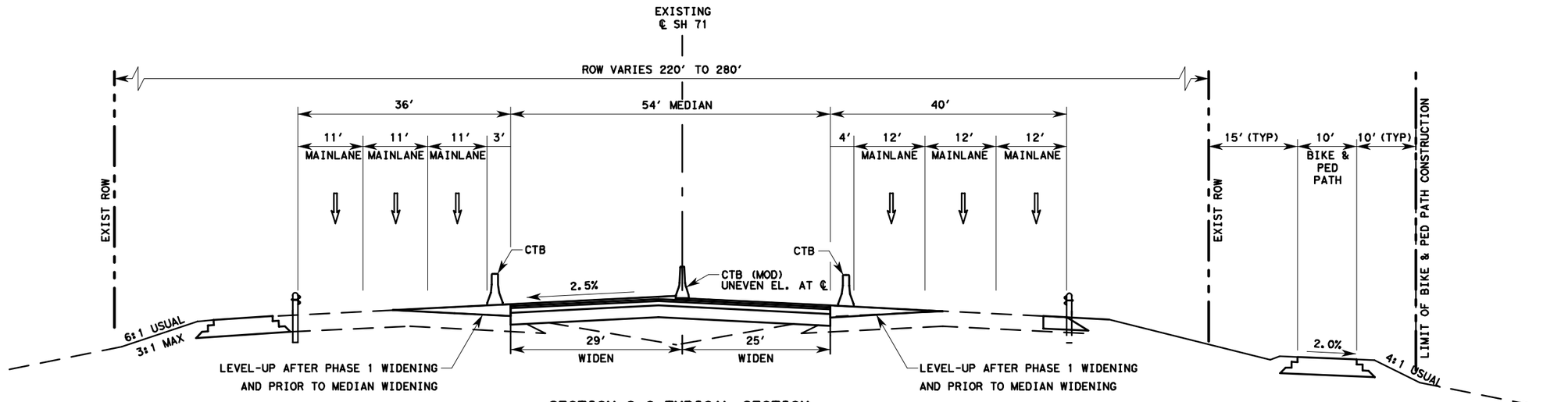
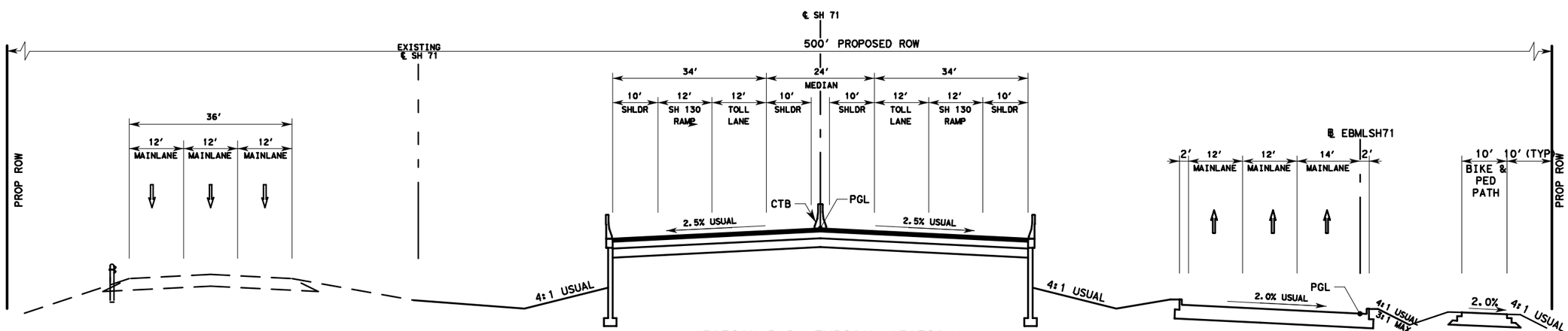


SECTION C-C TYPICAL SECTION

MEDIAN WIDENING



SECTION D-D TYPICAL SECTION

PHASE 3

PRELIMINARY
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Engineer: DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-928

McCARTHY

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		19

STATE	STATE DIST. NO.	COUNTY
TEXAS		TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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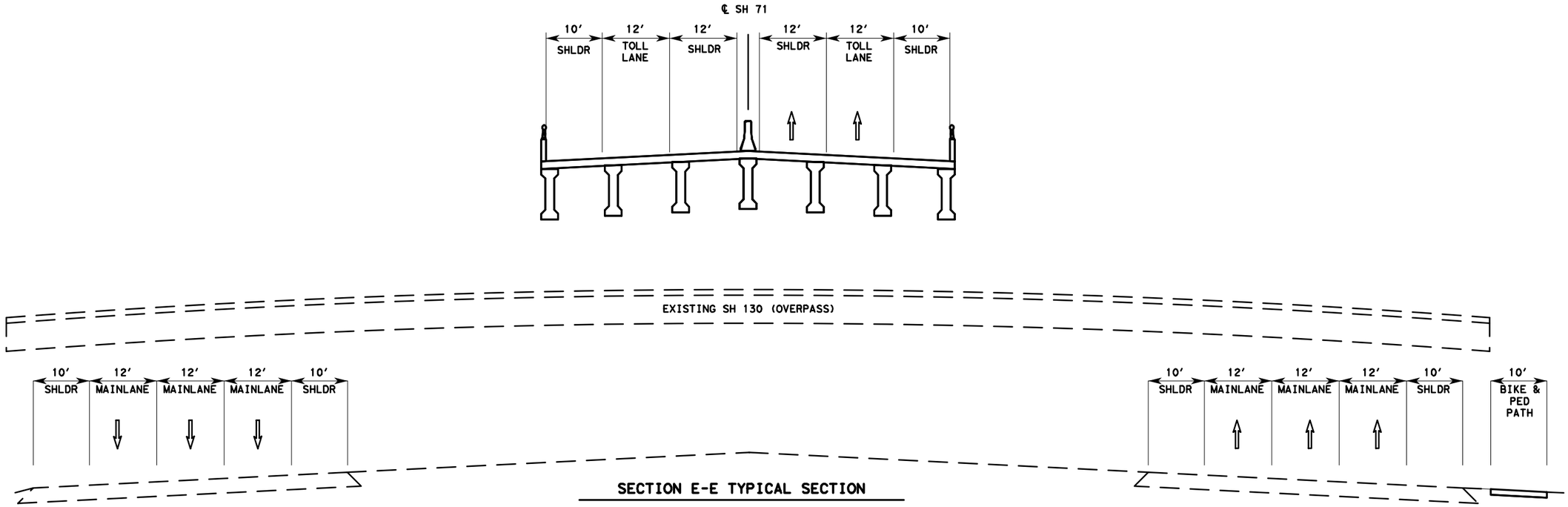
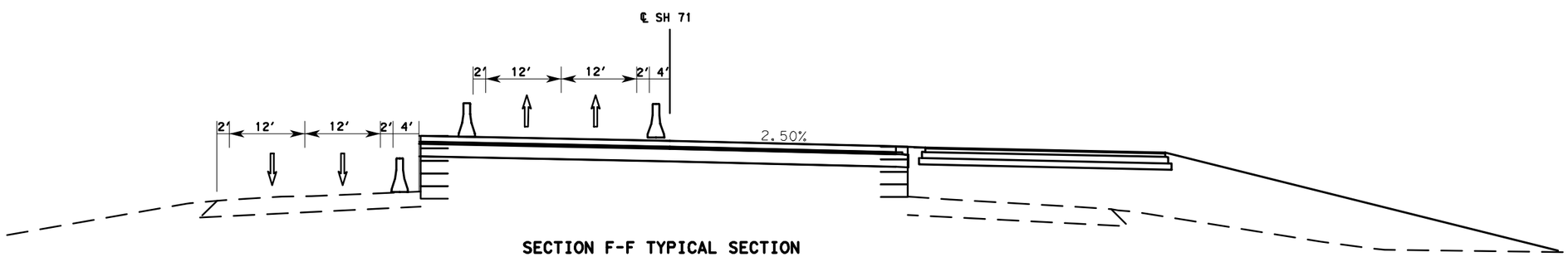


SECTION E-E TYPICAL SECTION

PROPOSED SH 71 AT SH 130
CONSTRUCT TOLL BRIDGE



SECTION F-F TYPICAL SECTION

TRANSITION AT ONION CREEK

PHASE 3

PRELIMINARY
FOR REVIEW ONLY
Not for construction, bidding, or permit purposes.

Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-920

McCARTHY

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		20

STATE	STATE DIST. NO.	COUNTY
TEXAS		TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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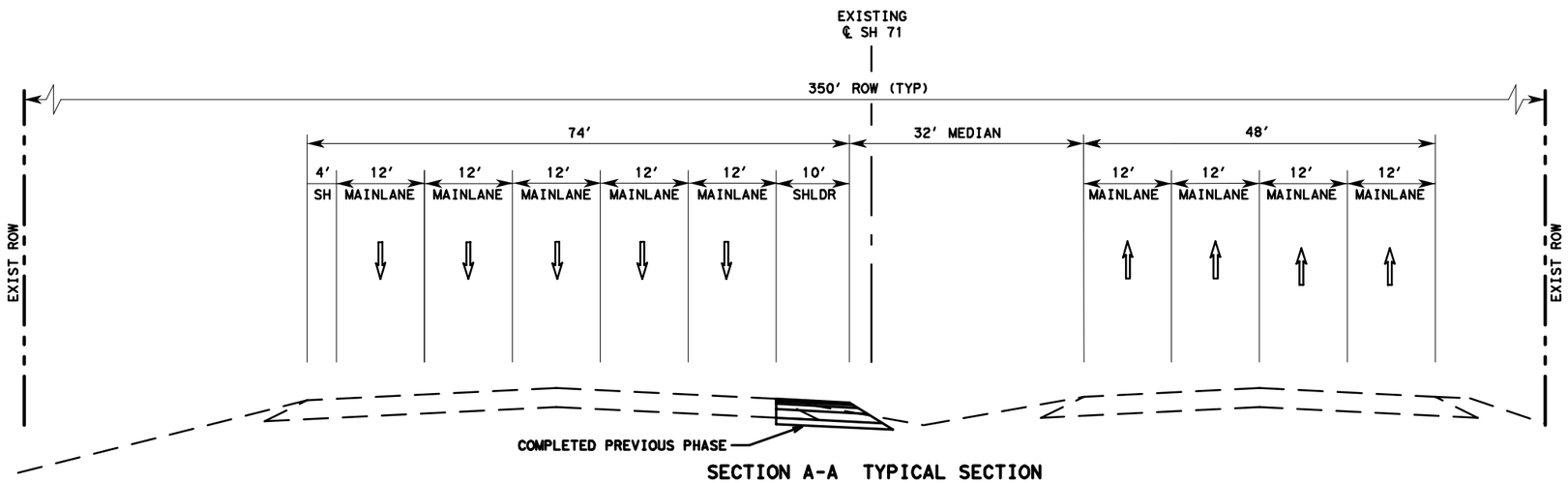
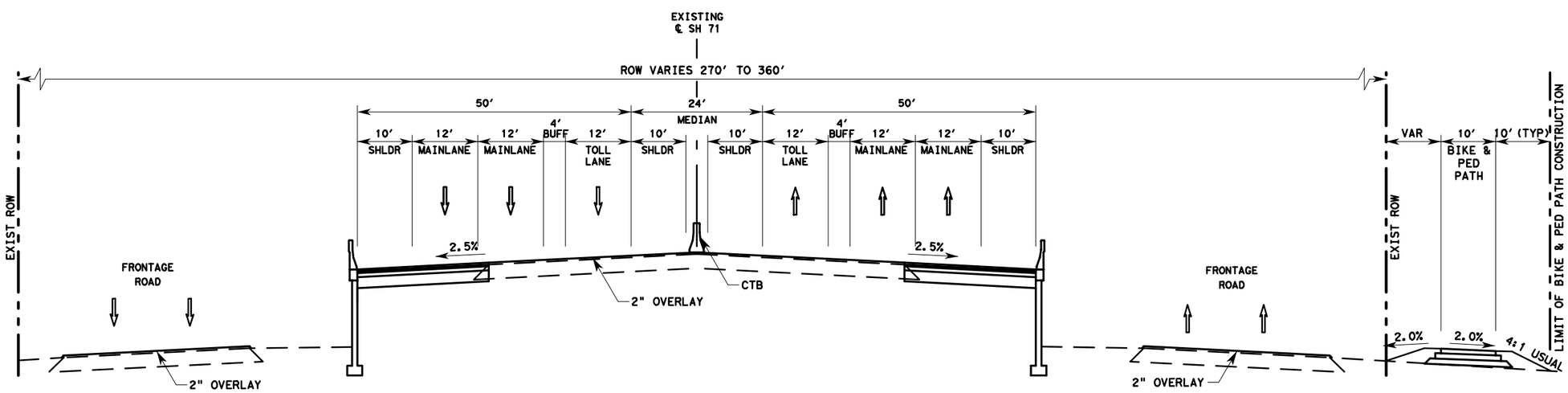


SECTION A-A TYPICAL SECTION



SECTION B-B TYPICAL SECTION

PHASE 4

PRELIMINARY
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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-928

McCARTHY

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		21

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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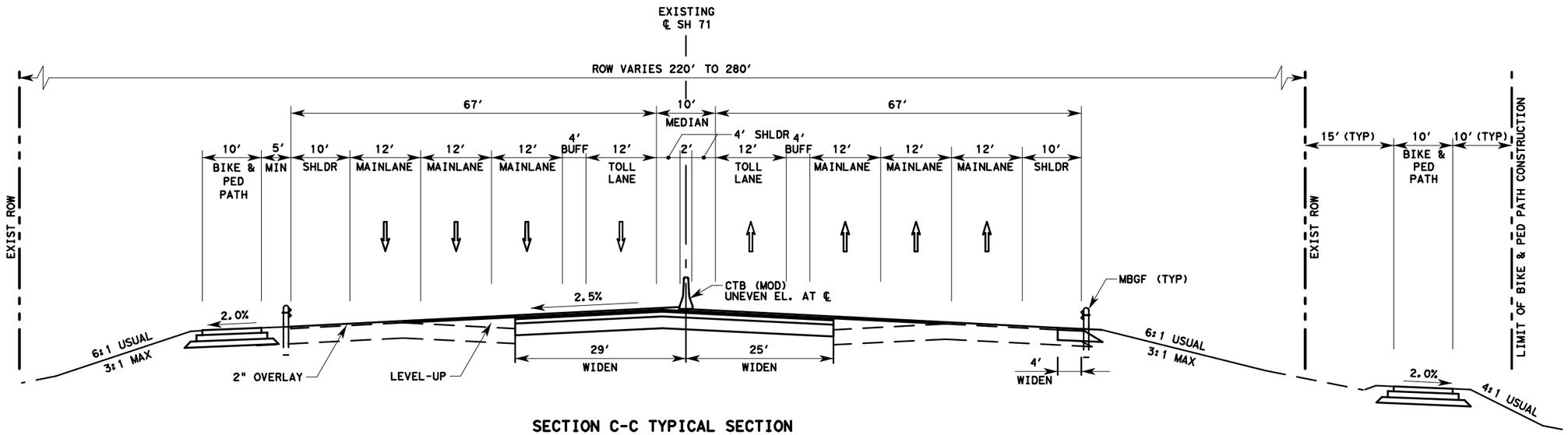
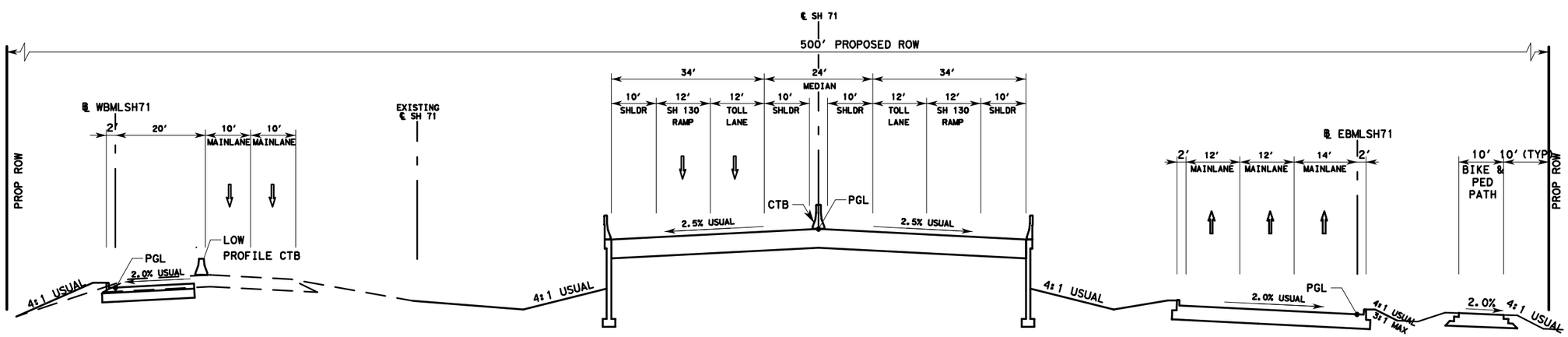


SECTION C-C TYPICAL SECTION



SECTION D-D TYPICAL SECTION

PHASE 4

PRELIMINARY
FOR REVIEW ONLY
Not for construction, bidding, or permit purposes.
Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-928

McCARTHY

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		22

STATE	STATE DIST. NO.	COUNTY
TEXAS		TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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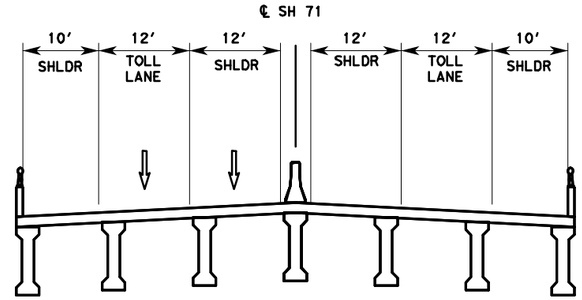
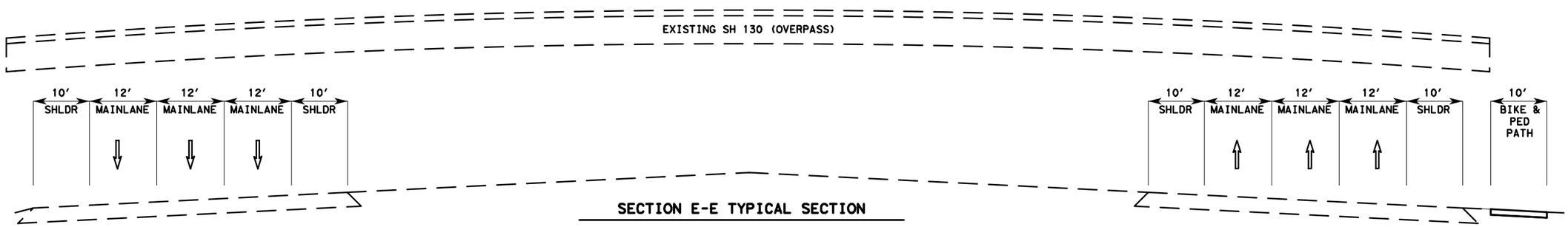
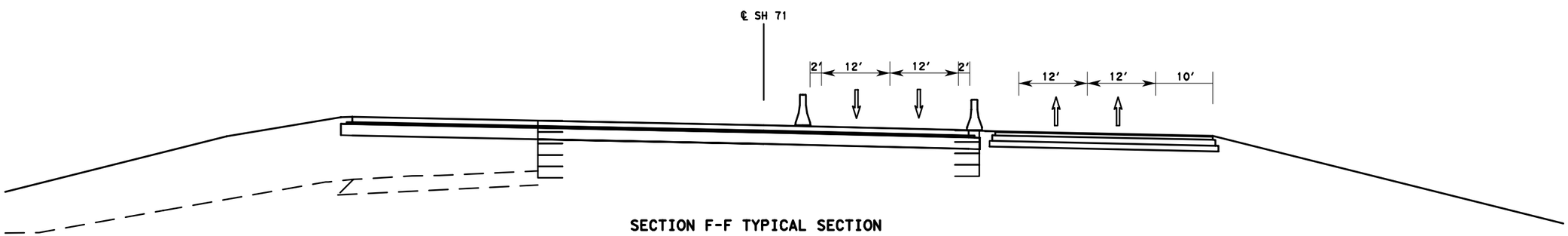




SECTION E-E TYPICAL SECTION

PROPOSED SH 71 AT SH 130
CONSTRUCT TOLL BRIDGE



SECTION F-F TYPICAL SECTION

TRANSITION AT ONION CREEK

PHASE 4

PRELIMINARY
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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-920

McCARTHY

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		23

STATE	STATE DIST. NO.	COUNTY
TEXAS		TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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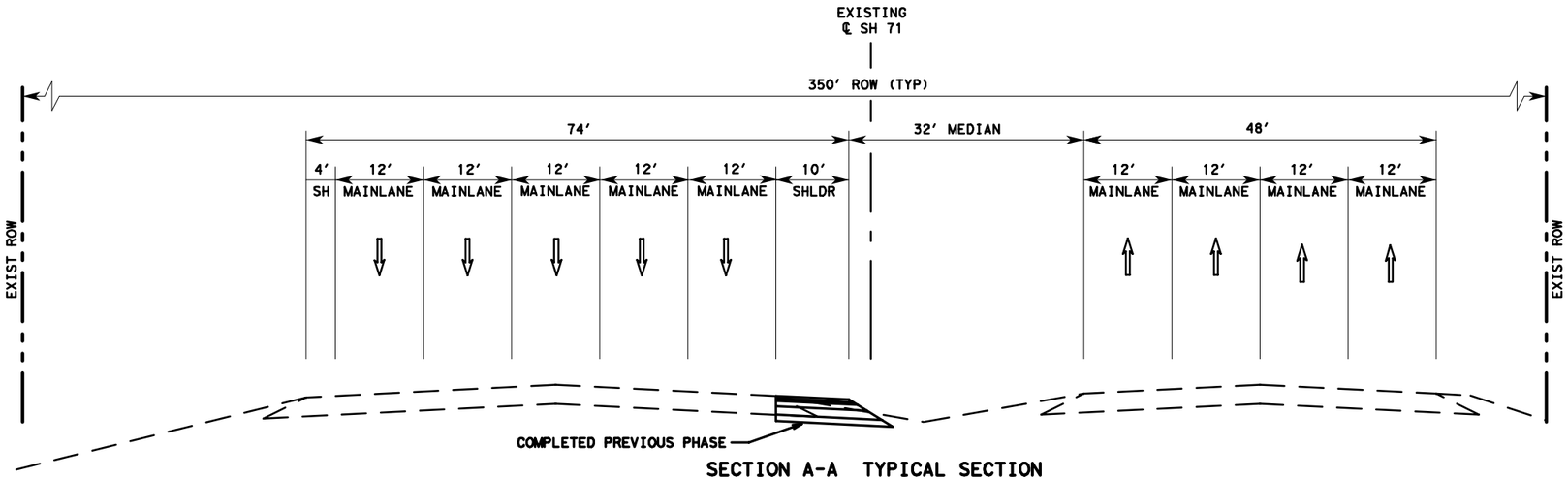
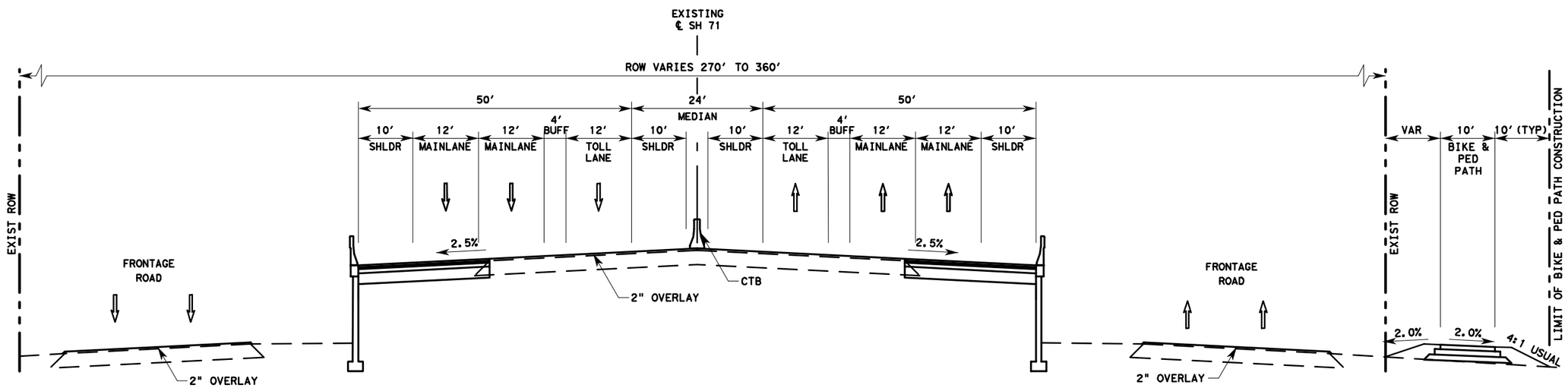


SECTION A-A TYPICAL SECTION



SECTION B-B TYPICAL SECTION

PHASE 5

PRELIMINARY
FOR REVIEW ONLY
Not for construction, bidding, or permit purposes.

Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-928

McCARTHY

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		24

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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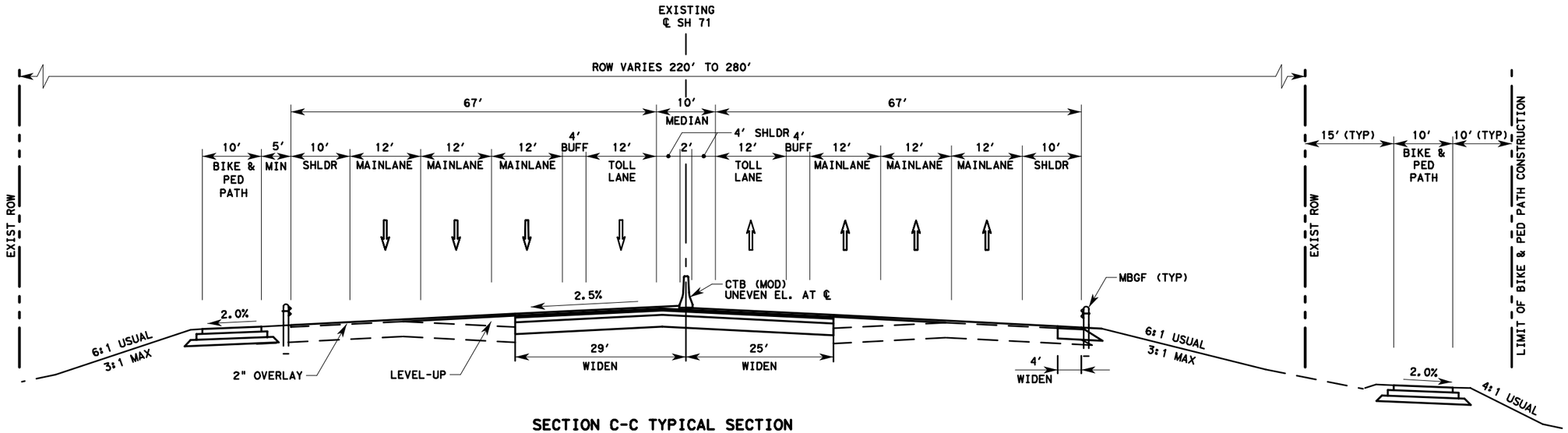

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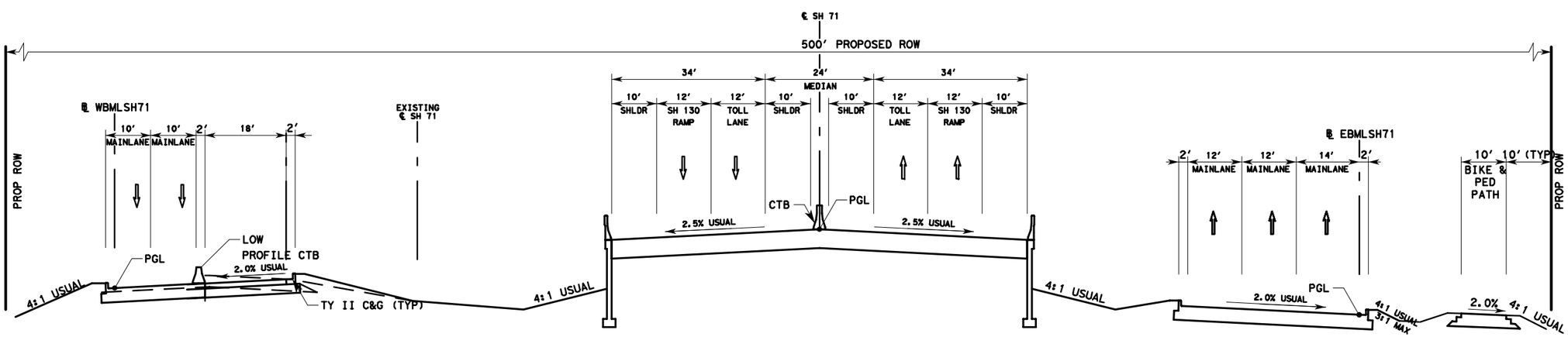

SECTION D-D TYPICAL SECTION

PHASE 5

PRELIMINARY
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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL SECTIONS

F-928

McCARTHY

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		25

STATE	STATE DIST. NO.	COUNTY
TEXAS		TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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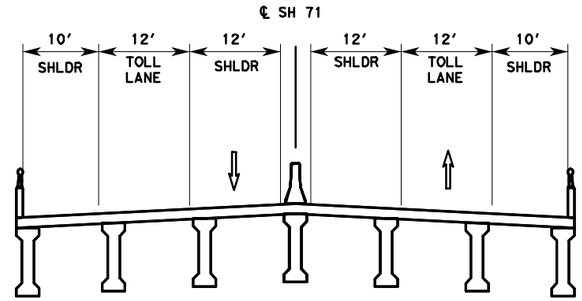
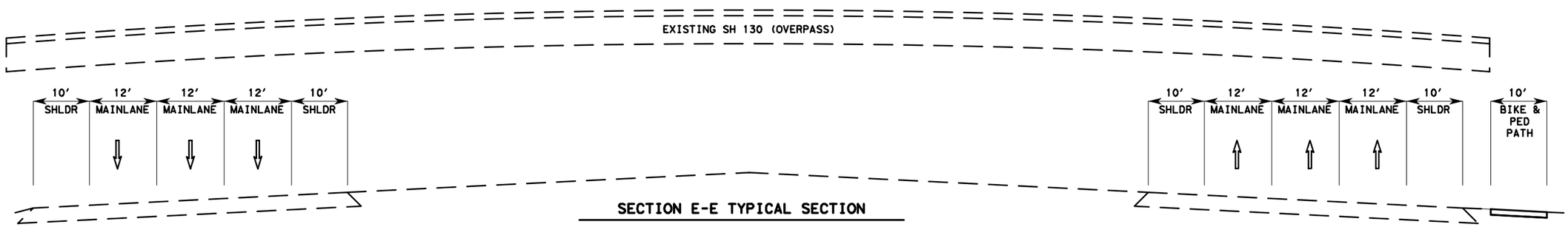
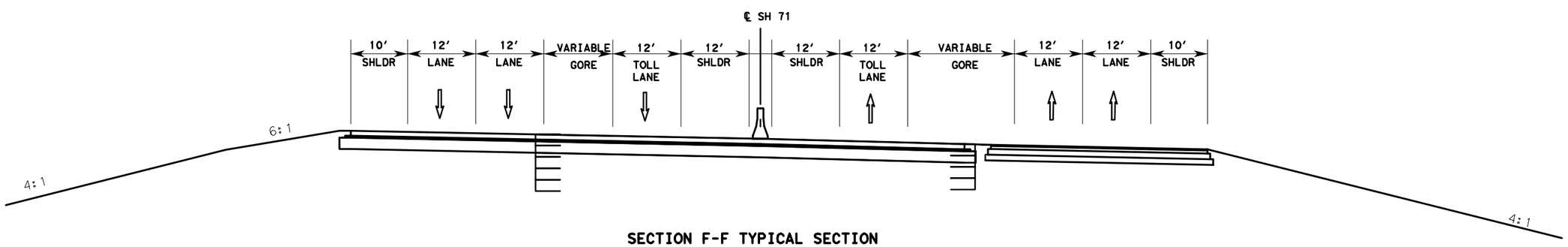




SECTION E-E TYPICAL SECTION

PROPOSED SH 71 AT SH 130
CONSTRUCT TOLL BRIDGE



SECTION F-F TYPICAL SECTION

TRANSITION AT ONION CREEK

PHASE 5

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Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71
TCP TYPICAL
SECTIONS

F-920

McCARTHY

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		26

STATE	STATE DIST. NO.	COUNTY
TEXAS		TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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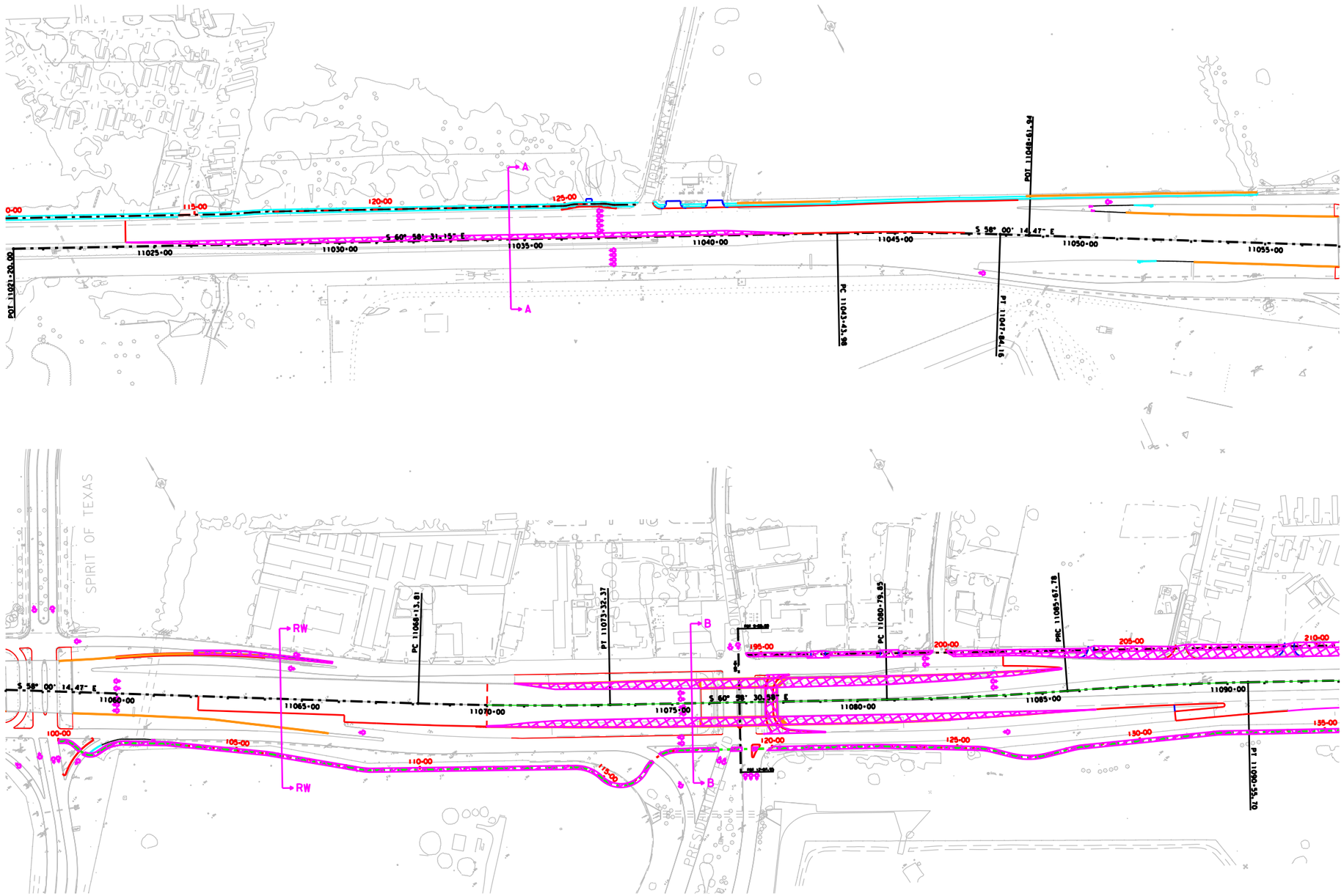

PHASE 1 CONSTRUCTION

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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71 PHASE 1 TCP LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			27
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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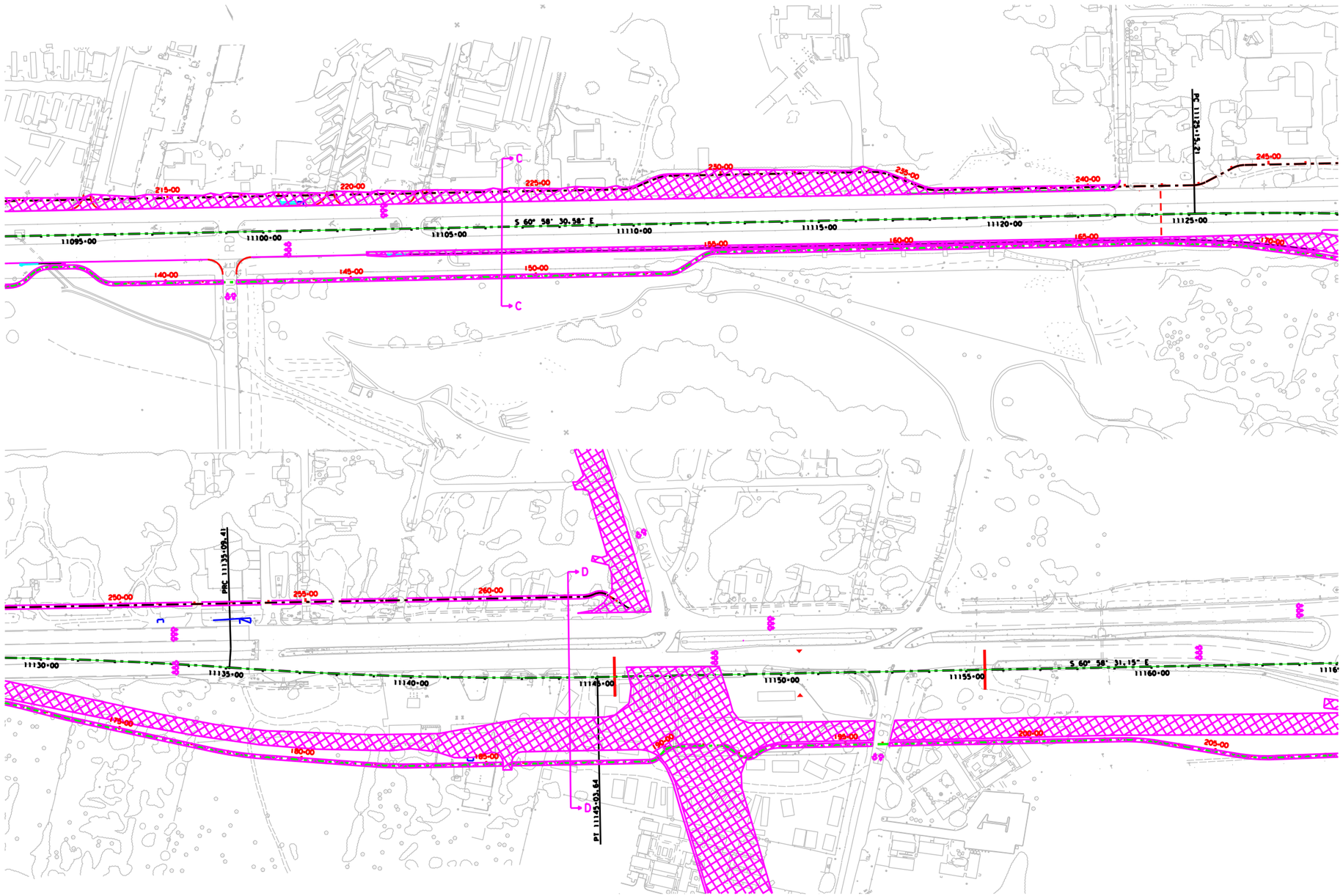

PHASE 1 CONSTRUCTION

PRELIMINARY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 1 TCP
LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		28

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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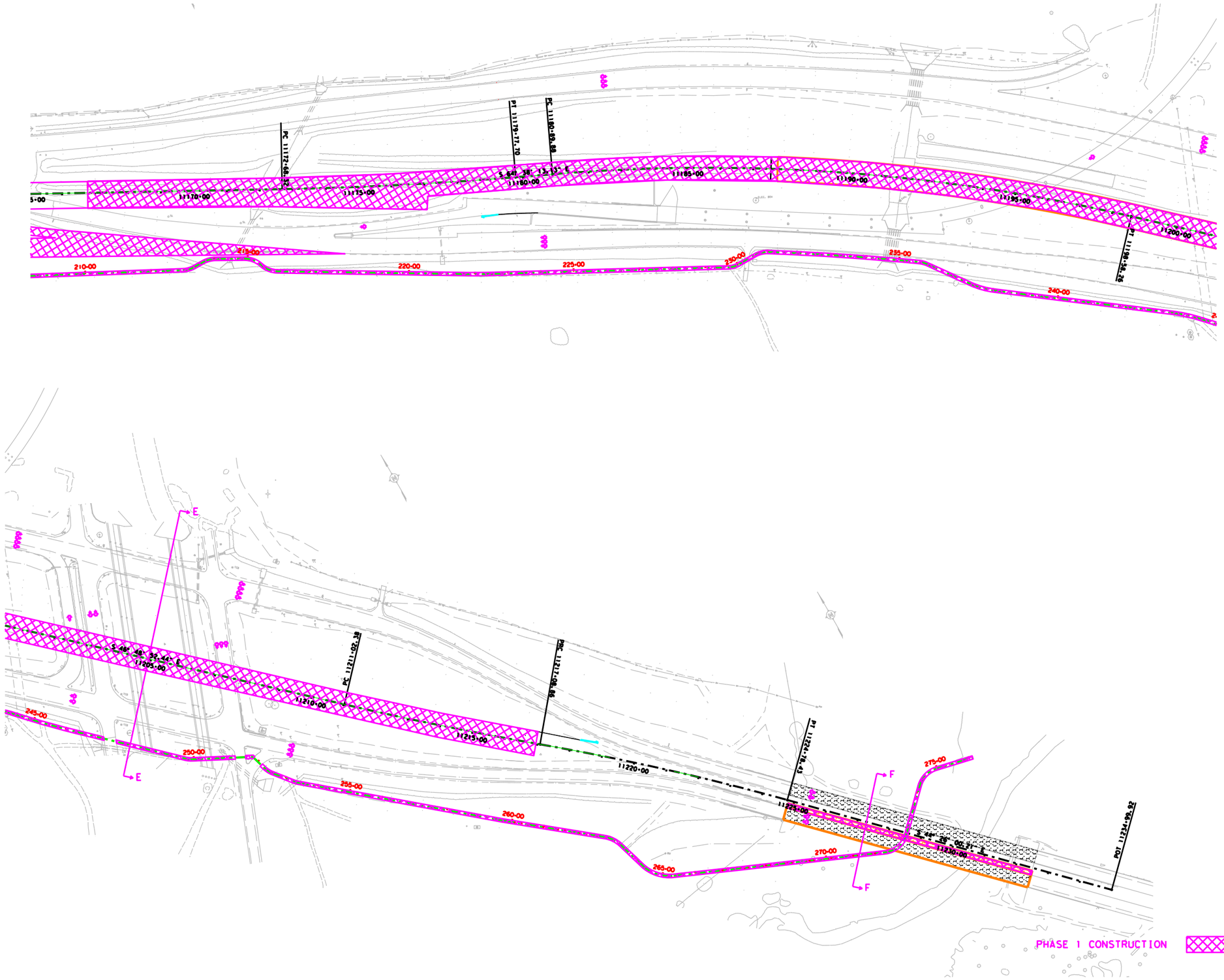

PRELIMINARY
FOR REVIEW ONLY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 1 TCP LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		29

STATE	STATE DIST. NO.	COUNTY
TEXAS		TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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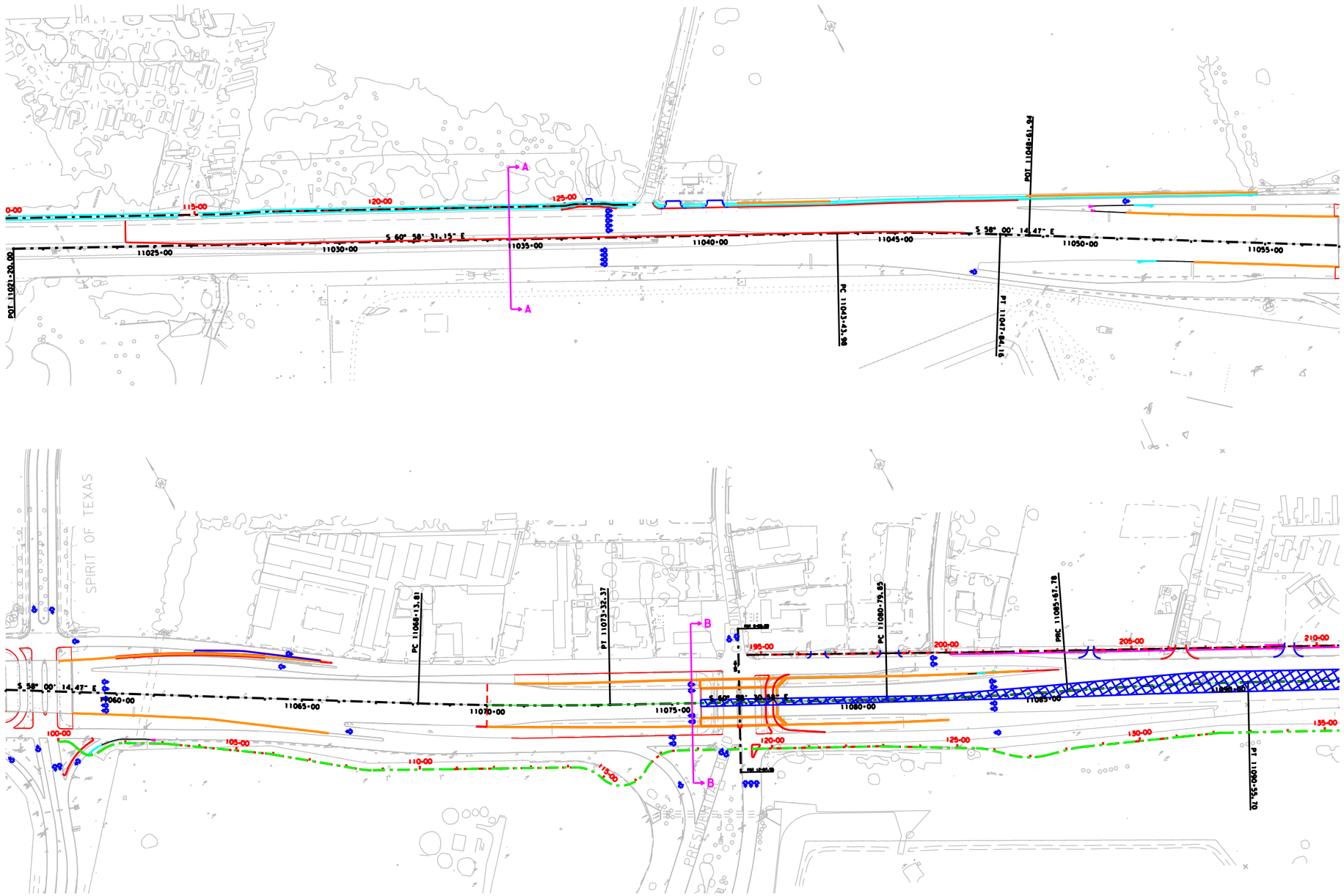

PHASE 2 CONSTRUCTION

PRELIMINARY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71 PHASE 2 TCP LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		30

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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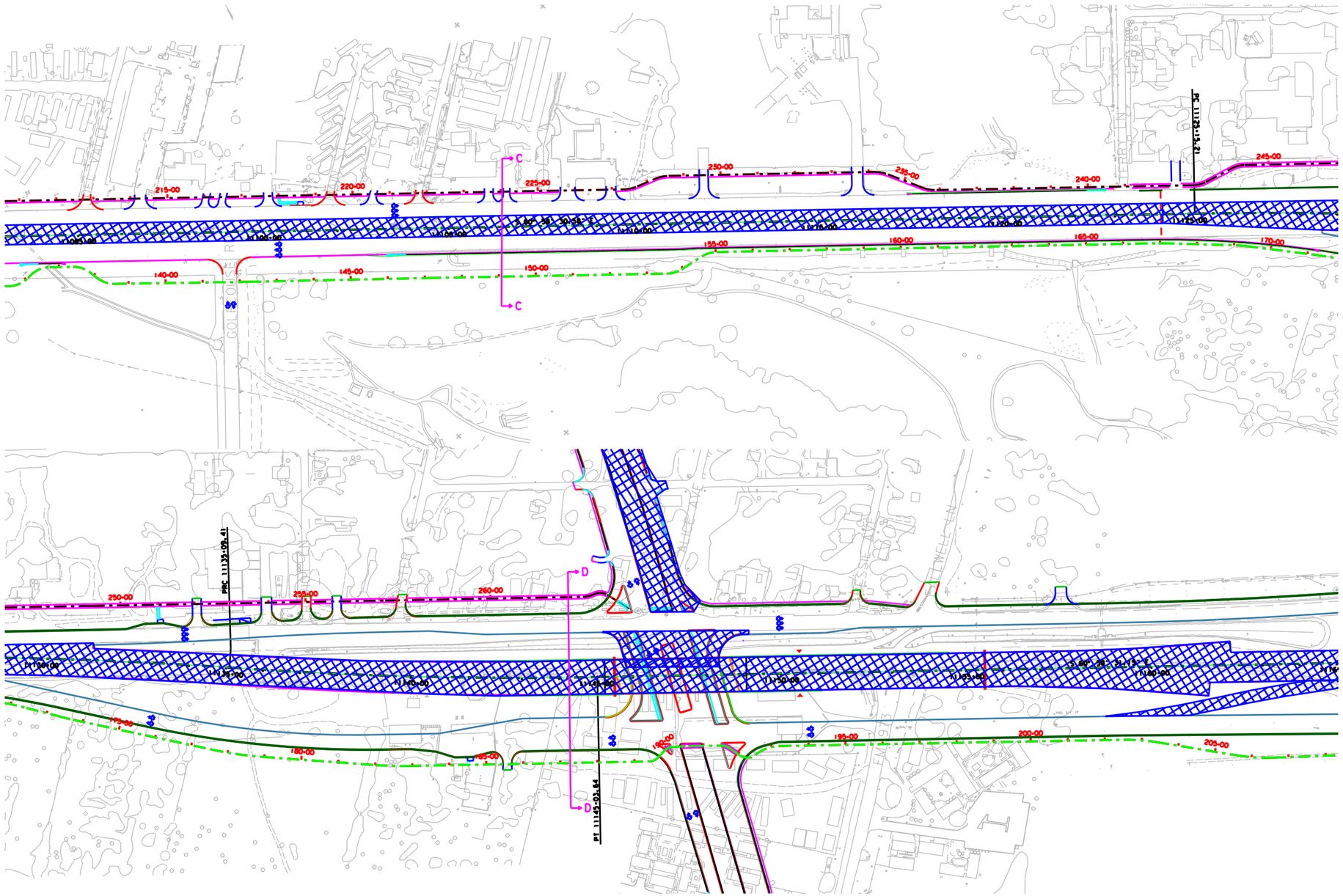

PHASE 2 CONSTRUCTION

PRELIMINARY
FOR REVIEW ONLY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 2 TCP
LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		31

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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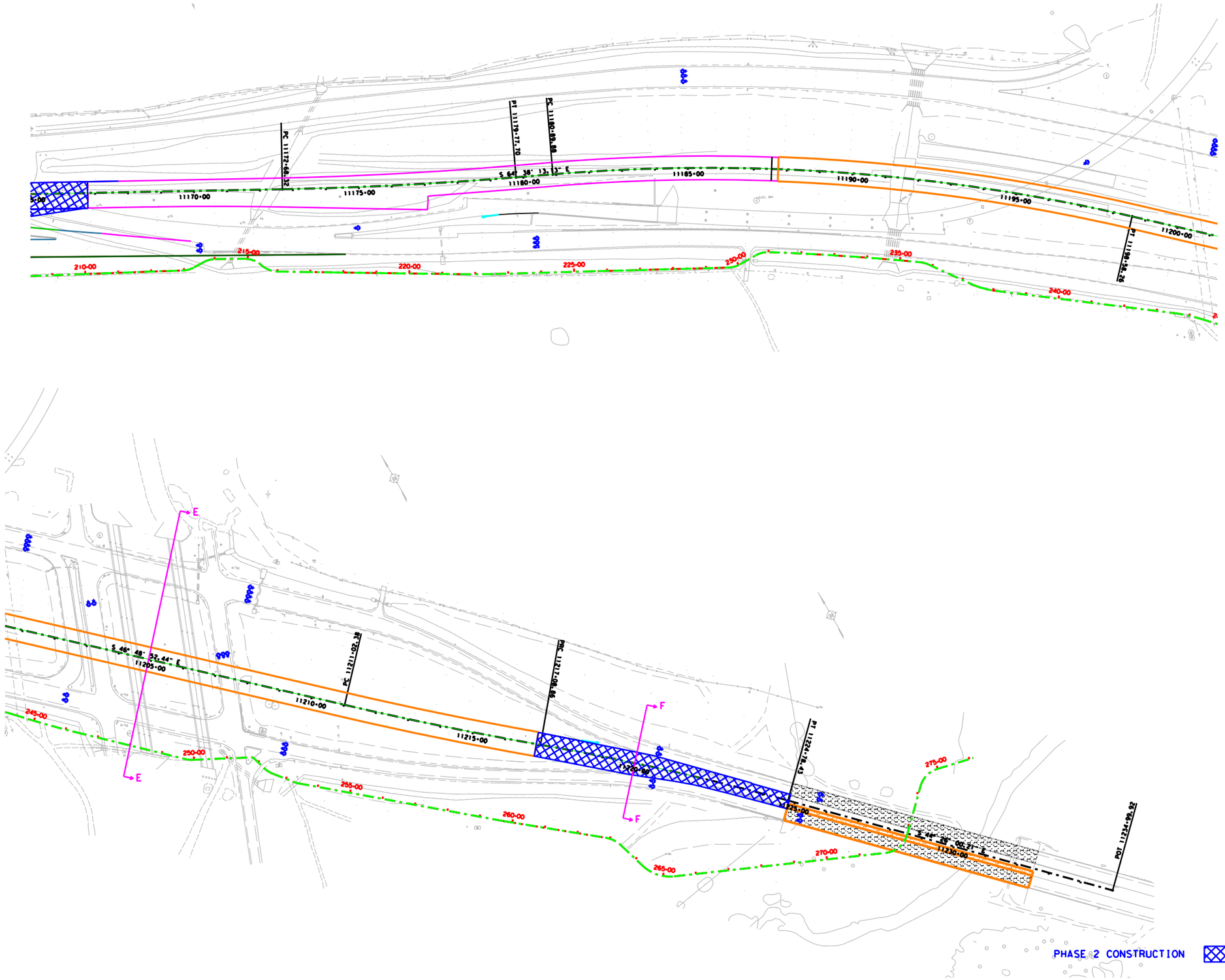

PRELIMINARY
FOR REVIEW ONLY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 2 TCP
LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		32

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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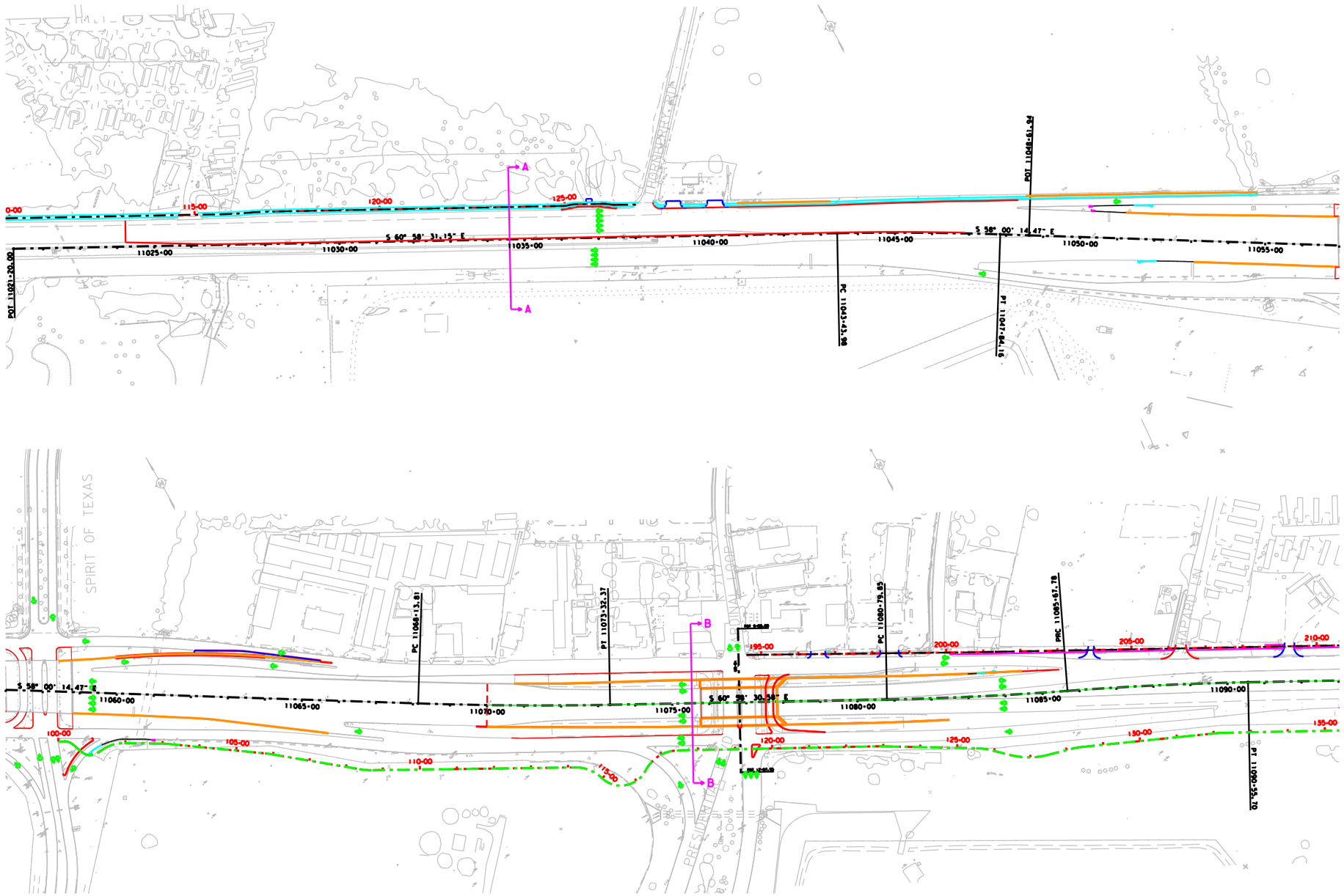

PHASE 3 CONSTRUCTION

PRELIMINARY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 3 TCP LAYOUT

Kimley»Horn
F-928

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Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		33

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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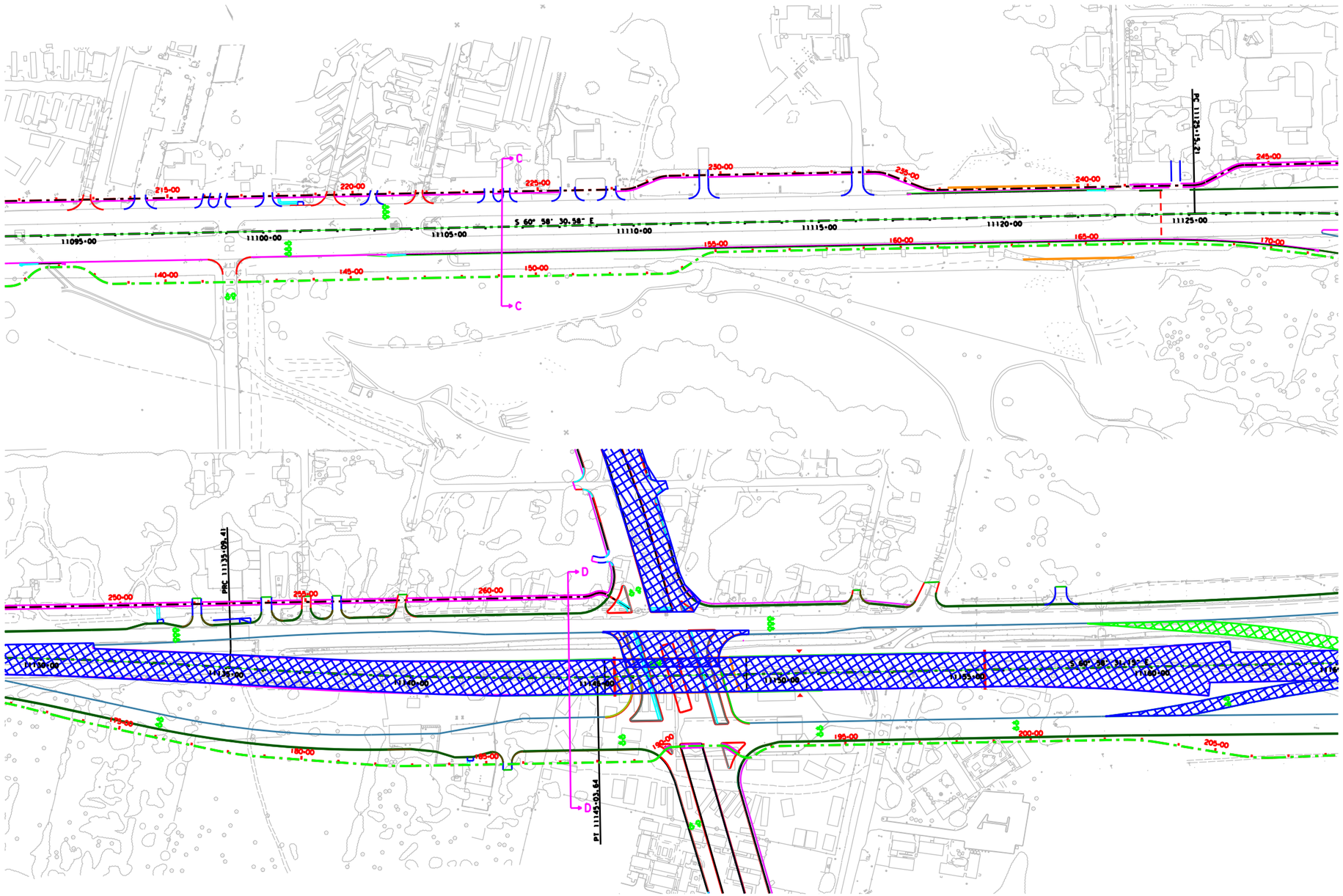

PHASE 3 CONSTRUCTION

PRELIMINARY
FOR REVIEW ONLY
Not for construction, bidding, or permit purposes.
Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 3 TCP
LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		34

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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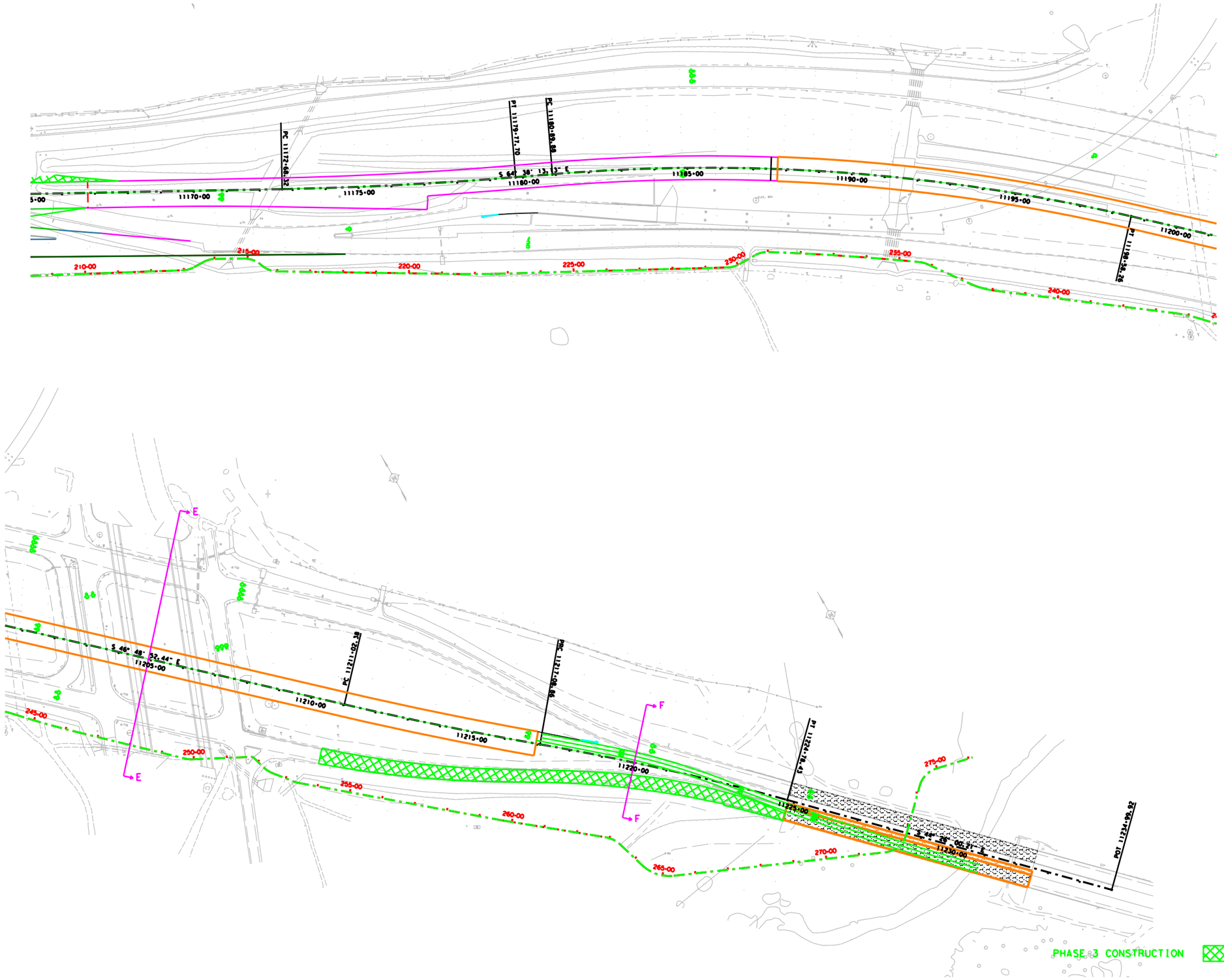

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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71 PHASE 3 TCP LAYOUT

Kimley»Horn
F-928

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Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		35

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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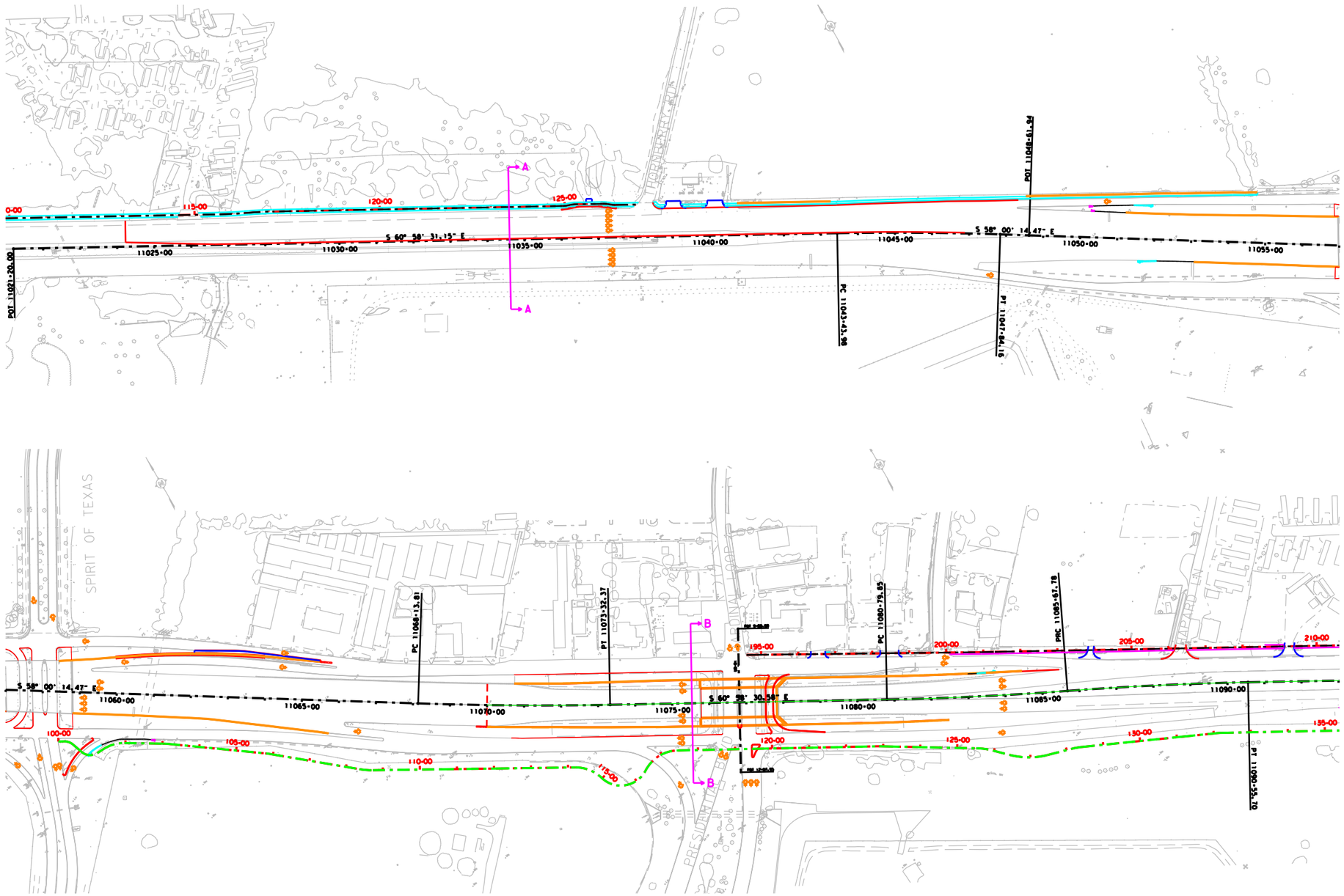

PHASE 4 CONSTRUCTION

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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date 5/16/2014

SH 71 PHASE 4 TCP LAYOUT

Kimley»Horn F-928

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Texas Department of Transportation

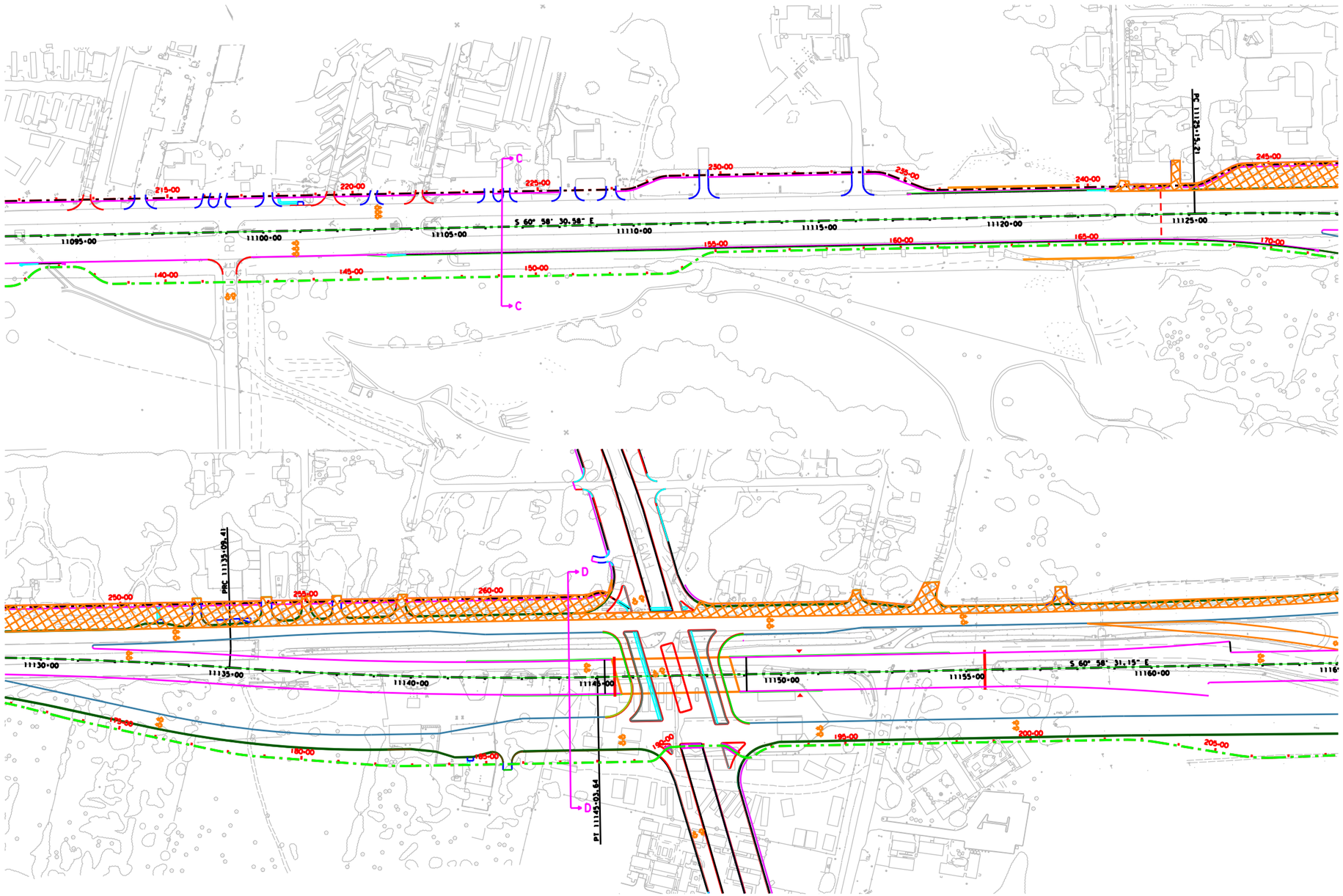
SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		36

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

$TIME$

$DATE$



PHASE 4 CONSTRUCTION

PRELIMINARY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 4 TCP
LAYOUT

Kimley»Horn
F-928

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Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		37

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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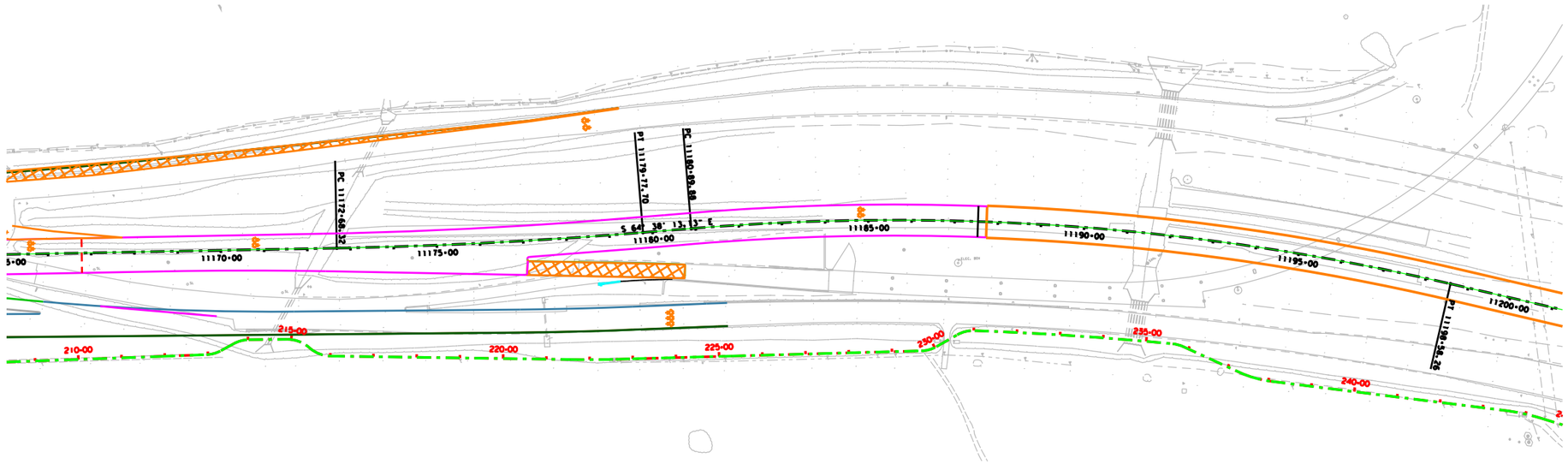

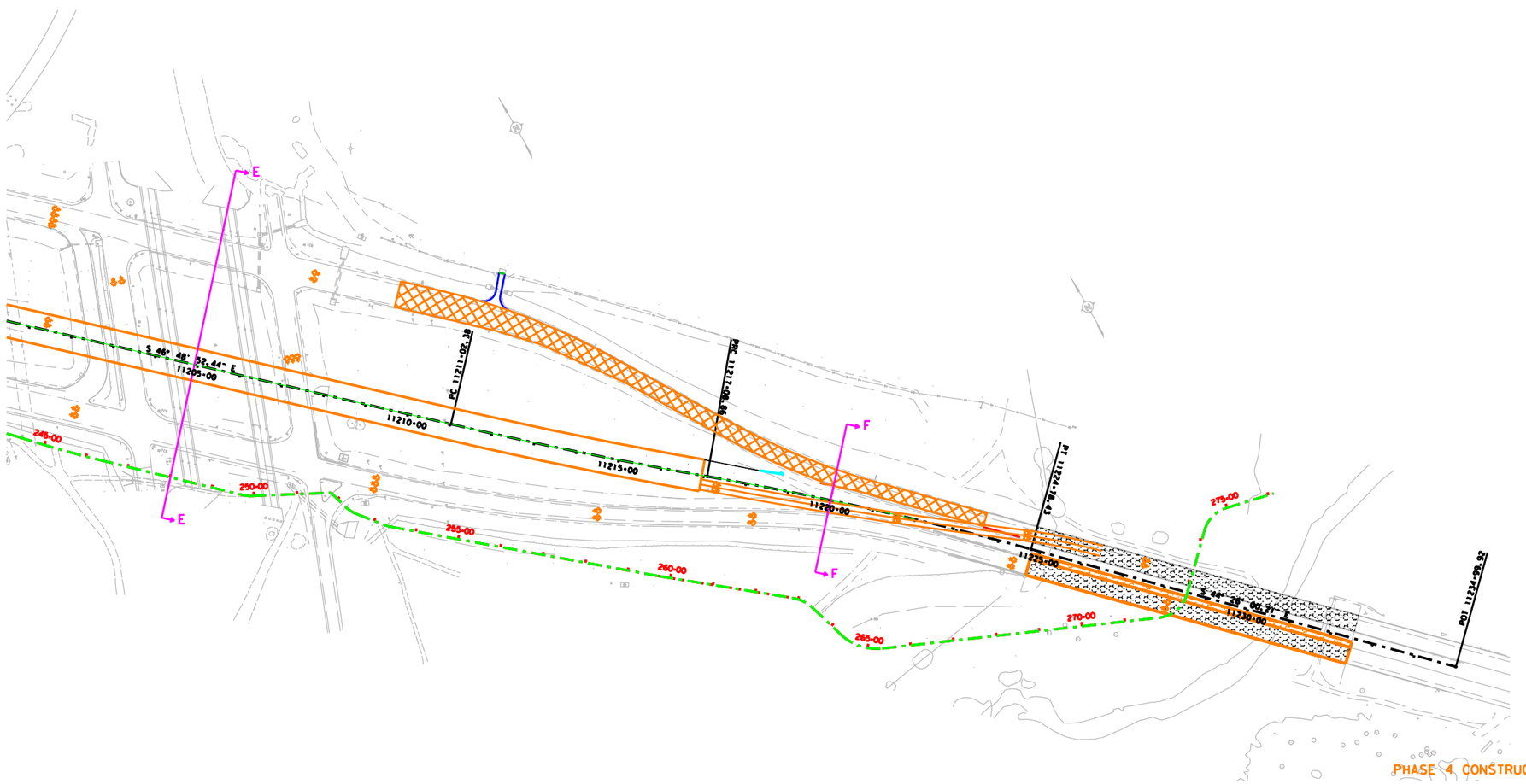

PHASE 4 CONSTRUCTION

PRELIMINARY
FOR REVIEW ONLY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 4 TCP LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		38

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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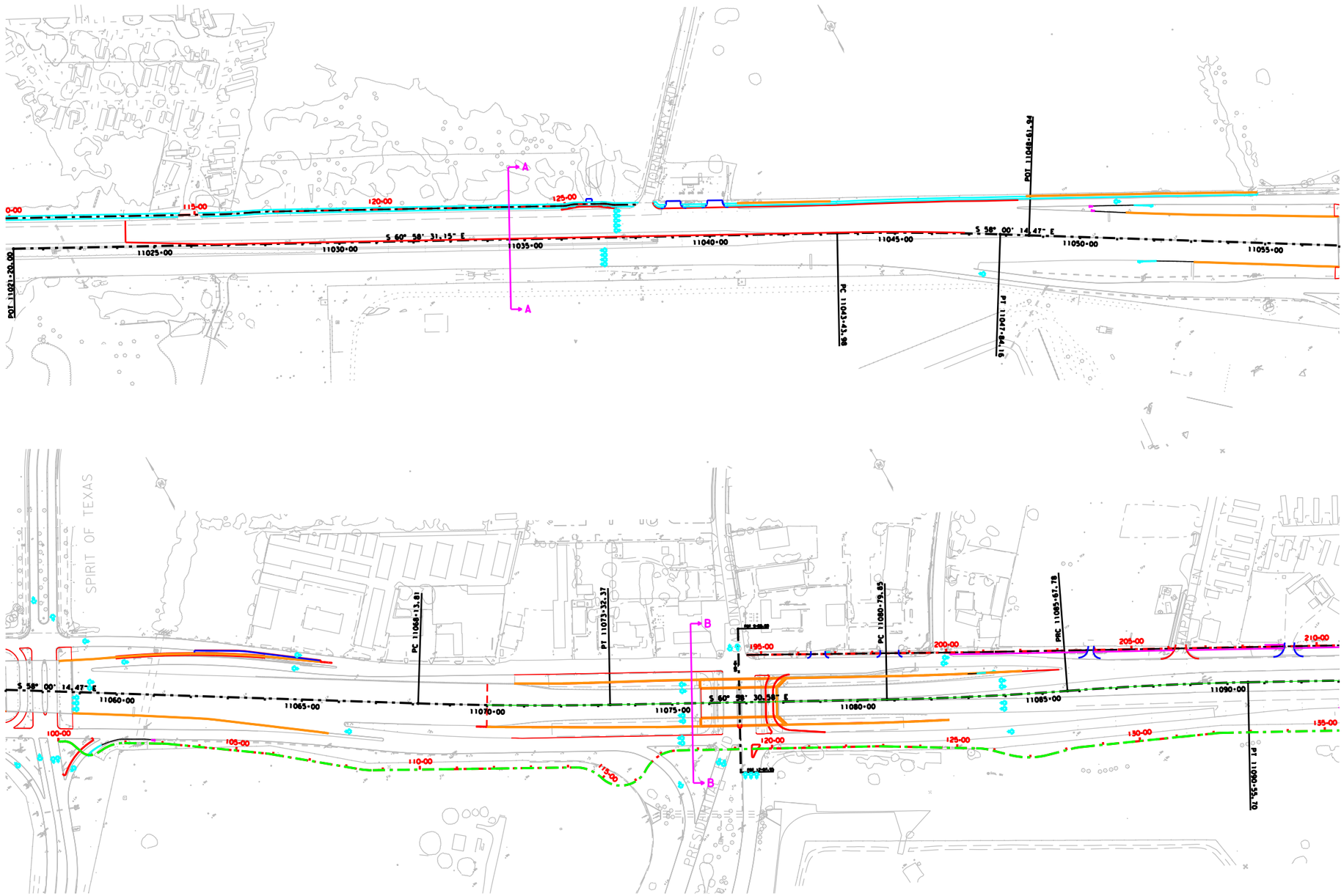

PHASE 5 CONSTRUCTION

PRELIMINARY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71 PHASE 5 TCP LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 1 OF 3

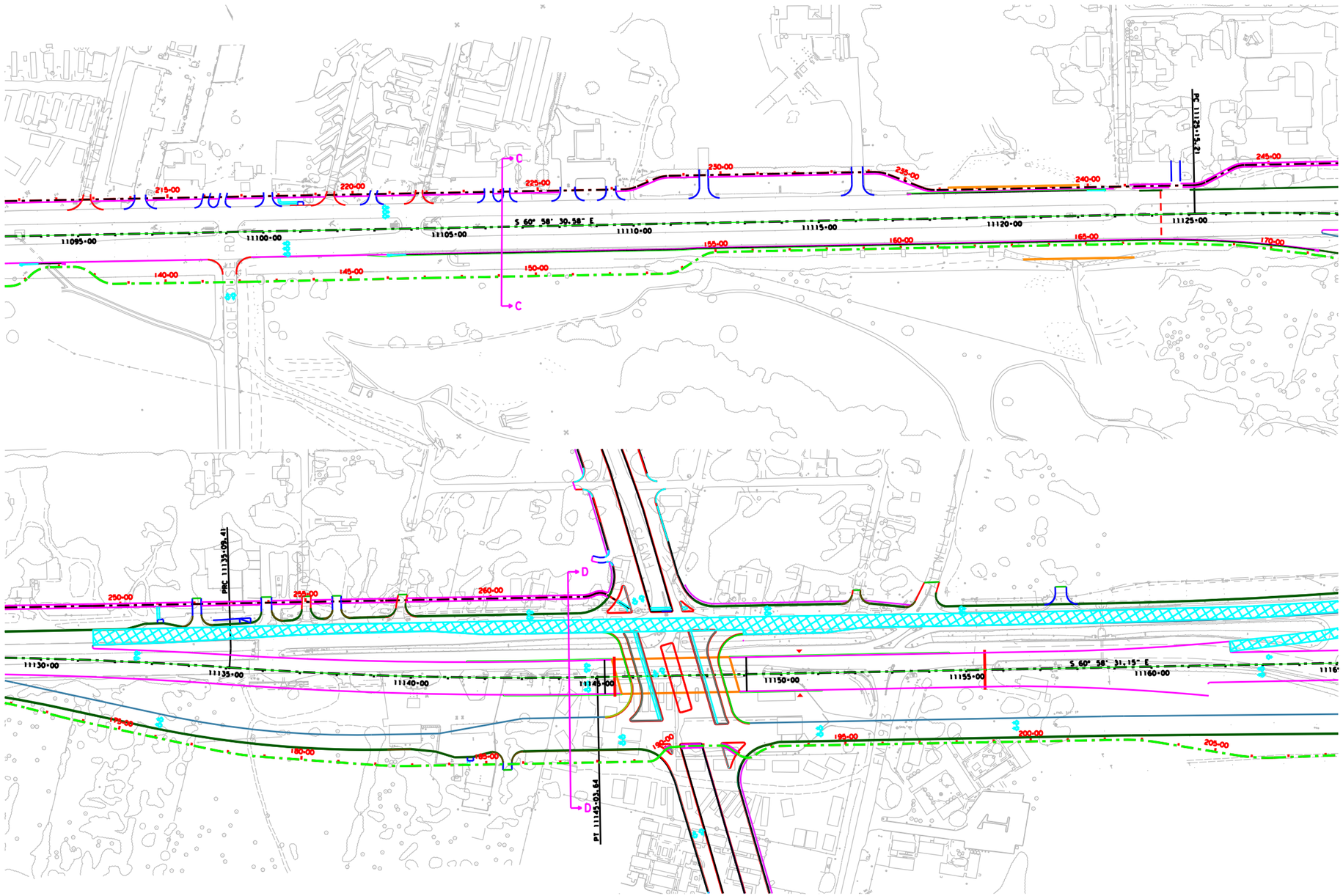
FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		39

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

$FILE$

$TIME$

$DATE$



PHASE 5 CONSTRUCTION

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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 5 TCP
LAYOUT

Kimley»Horn
F-928

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Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		40

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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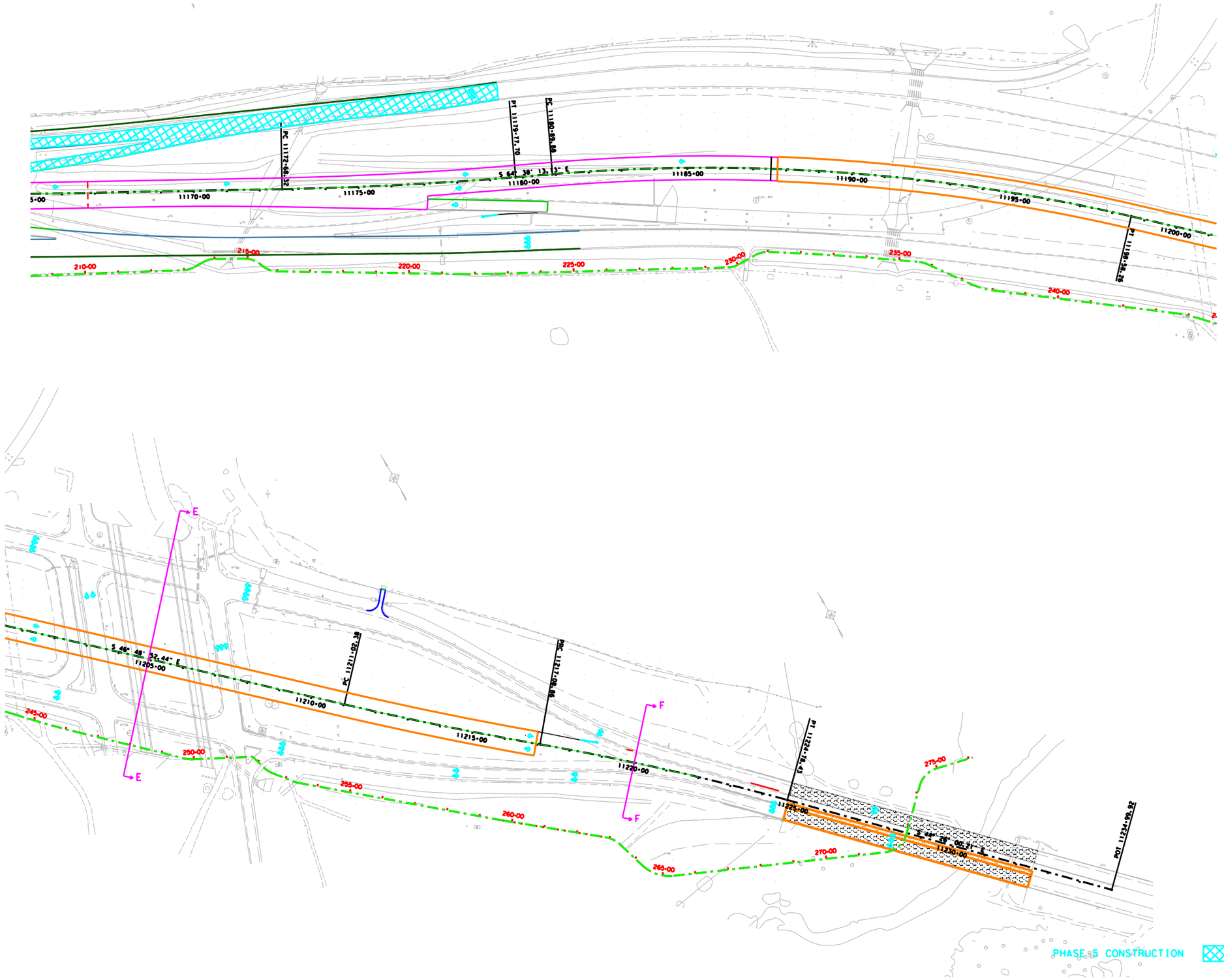

PRELIMINARY
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Kimley»Horn
Engineer DENNIS K. SEAL
P.E. No. 80287 Date $$$DATE$$$

SH 71
PHASE 5 TCP LAYOUT

Kimley»Horn
F-928

McCARTHY

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		41

STATE	STATE DIST. NO.	COUNTY
TEXAS		TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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CL SH 71

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<*        1   Describe Chain SH71-BASE

Chain SH71-BASE contains:
 SH7140 CUR SH71-BASE-1 CUR SH71-BASE-2 SH7141 CUR SH71-BASE-3 CUR SH71-BASE-4 -
CUR SH71-BASE-5 CUR SH71-BASE-6 CUR SH71-BASE-7 CUR SH71-BASE-8 CUR SH71-BASE-9-
 CUR SH71-BASE-10 CUR SH71-BASE-11 SH7142

Beginning chain SH71-BASE description
==============================================================================

Point SH7140          N  10,055,627.7945 E   3,136,058.7698 Sta   11011+92.52

Course from SH7140 to PC SH71-BASE-1 S 68° 01' 41.78" E Dist 64.0299

                                   Curve Data
                                  *----------*
Curve SH71-BASE-1
P.I.  Station          11016+87.94  N     10,055,442.4354  E      3,136,518.2023
Delta        =        7° 03' 10.63" (RT)
Degree       =        0° 49' 06.64"
Tangent      =            431.3852
Length       =            861.6807
Radius       =          7,000.0000
External     =             13.2798
Long Chord   =            861.1368
Mid. Ord.    =             13.2546
P.C.  Station          11012+56.55  N     10,055,603.8378  E      3,136,118.1492
P.T.  Station          11021+18.23  N     10,055,233.1332  E      3,136,895.4101
C.C.                                N     10,049,112.2577  E      3,133,499.1058
Back         = S  68° 01' 41.78" E
Ahead        = S  60° 58' 31.15" E
Chord Bear   = S  64° 30' 06.46" E

Course from PT SH71-BASE-1 to PC SH71-BASE-2 S 60° 58' 31.15" E Dist 2,225.7479

                                   Curve Data
                                  *----------*
Curve SH71-BASE-2
P.I.  Station          11045+64.12  N     10,054,046.4224  E      3,139,034.1198
Delta        =        2° 58' 16.68" (RT)
Degree       =        0° 40' 30.08"
Tangent      =            220.1388
Length       =            440.1788
Radius       =          8,488.0000
External     =              2.8542
Long Chord   =            440.1295
Mid. Ord.    =              2.8532
P.C.  Station          11043+43.98  N     10,054,153.2307  E      3,138,841.6281
P.T.  Station          11047+84.16  N     10,053,929.7798  E      3,139,220.8162
C.C.                                N     10,046,731.2320  E      3,134,723.3665
Back         = S  60° 58' 31.15" E
Ahead        = S  58° 00' 14.47" E
Chord Bear   = S  59° 29' 22.81" E

Course from PT SH71-BASE-2 to SH7141 S 58° 00' 14.47" E Dist 77.7806

Point SH7141          N  10,053,888.5669 E   3,139,286.7808 Sta   11048+61.94

Course from SH7141 to PC SH71-BASE-3 S 58° 00' 14.47" E Dist 1,951.8718

                                   Curve Data
                                  *----------*
Curve SH71-BASE-3
P.I.  Station          11070+73.15  N     10,052,716.9351  E      3,141,162.0763
Delta        =        2° 58' 16.11" (LT)
Degree       =        0° 34' 22.65"
Tangent      =            259.3392
Length       =            518.5622
Radius       =         10,000.0000
External     =              3.3623
Long Chord   =            518.5041
Mid. Ord.    =              3.3611
P.C.  Station          11068+13.81  N     10,052,854.3486  E      3,140,942.1345
P.T.  Station          11073+32.37  N     10,052,591.1067  E      3,141,388.8450
C.C.                                N     10,061,335.2012  E      3,146,240.7323
Back         = S  58° 00' 14.47" E
Ahead        = S  60° 58' 30.58" E
Chord Bear   = S  59° 29' 22.52" E

Course from PT SH71-BASE-3 to PC SH71-BASE-4 S 60° 58' 30.58" E Dist 747.4800

                                   Curve Data
                                  *----------*
Curve SH71-BASE-4
P.I.  Station          11083+23.88  N     10,052,110.0375  E      3,142,255.8301
Delta        =        3° 17' 20.20" (LT)
Degree       =        0° 40' 26.64"
Tangent      =            244.0294
Length       =            487.9247
Radius       =          8,500.0000
External     =              3.5022
Long Chord   =            487.8577
Mid. Ord.    =              3.5008
P.C.  Station          11080+79.85  N     10,052,228.4378  E      3,142,042.4485
P.T.  Station          11085+67.78  N     10,052,004.0742  E      3,142,475.6530
C.C.                                N     10,059,660.9182  E      3,146,166.5528
Back         = S  60° 58' 30.58" E
Ahead        = S  64° 15' 50.78" E
Chord Bear   = S  62° 37' 10.68" E
```

CL SH 71 CONTINUED...

```
                                   Curve Data
                                  *----------*
Curve SH71-BASE-5
P.I.  Station          11088+11.81  N     10,051,898.1109  E      3,142,695.4759
Delta        =        3° 17' 20.20" (RT)
Degree       =        0° 40' 26.64"
Tangent      =            244.0294
Length       =            487.9247
Radius       =          8,500.0000
External     =              3.5022
Long Chord   =            487.8577
Mid. Ord.    =              3.5008
P.C.  Station          11085+67.78  N     10,052,004.0742  E      3,142,475.6530
P.T.  Station          11090+55.70  N     10,051,779.7106  E      3,142,908.8575
C.C.                                N     10,044,347.2303  E      3,138,784.7532
Back         = S  64° 15' 50.78" E
Ahead        = S  60° 58' 30.58" E
Chord Bear   = S  62° 37' 10.68" E

Course from PT SH71-BASE-5 to PC SH71-BASE-6 S 60° 58' 30.58" E Dist 3,459.5037

                                   Curve Data
                                  *----------*
Curve SH71-BASE-6
P.I.  Station          11130+12.64  N     10,049,859.8491  E      3,146,368.8411
Delta        =        5° 07' 54.68" (RT)
Degree       =        0° 30' 58.24"
Tangent      =            497.4338
Length       =            994.2024
Radius       =         11,100.0000
External     =             11.1404
Long Chord   =            993.8701
Mid. Ord.    =             11.1292
P.C.  Station          11125+15.21  N     10,050,101.1984  E      3,145,933.8802
P.T.  Station          11135+09.41  N     10,049,580.5609  E      3,146,780.4701
C.C.                                N     10,040,395.2535  E      3,140,548.2853
Back         = S  60° 58' 30.58" E
Ahead        = S  55° 50' 35.90" E
Chord Bear   = S  58° 24' 33.24" E

                                   Curve Data
                                  *----------*
Curve SH71-BASE-7
P.I.  Station          11140+06.86  N     10,049,301.2641  E      3,147,192.1118
Delta        =        5° 07' 55.25" (LT)
Degree       =        0° 30' 58.24"
Tangent      =            497.4491
Length       =            994.2329
Radius       =         11,100.0000
External     =             11.1411
Long Chord   =            993.9006
Mid. Ord.    =             11.1299
P.C.  Station          11135+09.41  N     10,049,580.5609  E      3,146,780.4701
P.T.  Station          11145+03.64  N     10,049,059.9086  E      3,147,627.0867
C.C.                                N     10,058,765.8683  E      3,153,012.6549
Back         = S  55° 50' 35.90" E
Ahead        = S  60° 58' 31.15" E
Chord Bear   = S  58° 24' 33.52" E

Course from PT SH71-BASE-7 to PC SH71-BASE-8 S 60° 58' 31.15" E Dist 2,764.6804

                                   Curve Data
                                  *----------*
Curve SH71-BASE-8
P.I.  Station          11176+23.13  N     10,047,546.3742  E      3,150,354.8032
Delta        =        3° 39' 41.99" (LT)
Degree       =        0° 30' 58.24"
Tangent      =            354.8106
Length       =            709.3796
Radius       =         11,100.0000
External     =              5.6693
Long Chord   =            709.2589
Mid. Ord.    =              5.6664
P.C.  Station          11172+68.32  N     10,047,718.5234  E      3,150,044.5530
P.T.  Station          11179+77.70  N     10,047,394.3904  E      3,150,675.4143
C.C.                                N     10,057,424.4832  E      3,155,430.1213
Back         = S  60° 58' 31.15" E
Ahead        = S  64° 38' 13.13" E
Chord Bear   = S  62° 48' 22.14" E

Course from PT SH71-BASE-8 to PC SH71-BASE-9 S 64° 38' 13.13" E Dist 112.1805

                                   Curve Data
                                  *----------*
Curve SH71-BASE-9
P.I.  Station          11189+81.27  N     10,046,964.5104  E      3,151,582.2495
Delta        =       17° 49' 20.69" (RT)
Degree       =        1° 00' 28.23"
Tangent      =            891.3866
Length       =          1,768.3751
Radius       =          5,685.0000
External     =             69.4587
Long Chord   =          1,761.2543
Mid. Ord.    =             68.6203
P.C.  Station          11180+89.88  N     10,047,346.3376  E      3,150,776.7820
P.T.  Station          11198+58.26  N     10,046,354.4796  E      3,152,232.1975
C.C.                                N     10,042,209.3036  E      3,148,341.6010
Back         = S  64° 38' 13.13" E
Ahead        = S  46° 48' 52.44" E
Chord Bear   = S  55° 43' 32.79" E

Course from PT SH71-BASE-9 to PC SH71-BASE-10 S 46° 48' 52.44" E Dist 1,244.1183
```

CL SH 71 CONTINUED...

```
                                   Curve Data
                                  *----------*
Curve SH71-BASE-10
P.I.  Station          11214+05.69  N     10,045,295.4749  E      3,153,360.4976
Delta        =        3° 07' 49.87" (LT)
Degree       =        0° 30' 58.24"
Tangent      =            303.3157
Length       =            606.4805
Radius       =         11,100.0000
External     =              4.1434
Long Chord   =            606.4050
Mid. Ord.    =              4.1418
P.C.  Station          11211+02.38  N     10,045,503.0526  E      3,153,139.3372
P.T.  Station          11217+08.86  N     10,045,100.2847  E      3,153,592.6640
C.C.                                N     10,053,596.5359  E      3,160,735.7526
Back         = S  46° 48' 52.44" E
Ahead        = S  49° 56' 42.31" E
Chord Bear   = S  48° 22' 47.38" E

                                   Curve Data
                                  *----------*
Curve SH71-BASE-11
P.I.  Station          11220+93.94  N     10,044,852.4736  E      3,153,887.4196
Delta        =        5° 30' 42.11" (RT)
Degree       =        0° 42' 58.31"
Tangent      =            385.0860
Length       =            769.5780
Radius       =          8,000.0000
External     =              9.2628
Long Chord   =            769.2813
Mid. Ord.    =              9.2521
P.C.  Station          11217+08.86  N     10,045,100.2847  E      3,153,592.6640
P.T.  Station          11224+78.43  N     10,044,577.4972  E      3,154,157.0105
C.C.                                N     10,038,976.8604  E      3,148,444.4920
Back         = S  49° 56' 42.31" E
Ahead        = S  44° 26' 00.21" E
Chord Bear   = S  47° 11' 21.26" E

Course from PT SH71-BASE-11 to SH7142 S 44° 26' 00.21" E Dist 1,021.4867

Point SH7142          N  10,043,848.0895 E   3,154,872.1324 Sta   11234+99.92

==============================================================================
Ending chain SH71-BASE description
```

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

HORIZONTAL ALIGNMENT DATA

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 1 OF 7

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		42

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

5/16/2014 11:16:38 AM

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5/16/2014 11:16:46 AM

BL-A WESTBOUND SH 71

```
<*        1   Describe Chain WBSH71-BASE-A

Chain WBSH71-BASE-A contains:
 WBSH50 CUR WBSH71-BASE-A-1 CUR WBSH71-BASE-A-2 CUR WBSH71-BASE-A-3 CUR WBSH71--
BASE-A-4

Beginning chain WBSH71-BASE-A description
==========================================================================

Point WBSH50          N  10,050,279.4872 E   3,145,742.4137 Sta   21128+79.09

Course from WBSH50 to PC WBSH71-BASE-A-1 S 60° 58′ 30.58" E Dist 877.2532

                                   Curve Data
                                  *----------*
Curve WBSH71-BASE-A-1
P.I.  Station          21139+57.20  N     10,049,756.4022  E      3,146,685.1200
Delta        =        2° 52′ 35.06" (LT)
Degree       =        0° 42′ 58.31"
Tangent      =             200.8531
Length       =             401.6218
Radius       =           8,000.0000
External     =               2.5210
Long Chord   =             401.5796
Mid. Ord.    =               2.5202
P.C.  Station          21137+56.34  N     10,049,853.8538  E      3,146,509.4922
P.T.  Station          21141+57.96  N     10,049,667.8866  E      3,146,865.4169
C.C.                                N     10,056,849.1295  E      3,150,391.0021
Back         = S  60° 58′ 30.58" E
Ahead        = S  63° 51′ 05.64" E
Chord Bear   = S  62° 24′ 48.11" E

                                   Curve Data
                                  *----------*
Curve WBSH71-BASE-A-2
P.I.  Station          21143+55.74  N     10,049,580.7253  E      3,147,042.9552
Delta        =        2° 52′ 34.53" (RT)
Degree       =        0° 43′ 38.24"
Tangent      =             197.7800
Length       =             395.4769
Radius       =           7,878.0000
External     =               2.4823
Long Chord   =             395.4354
Mid. Ord.    =               2.4815
P.C.  Station          21141+57.96  N     10,049,667.8866  E      3,146,865.4169
P.T.  Station          21145+53.44  N     10,049,484.7651  E      3,147,215.8961
C.C.                                N     10,042,596.1577  E      3,143,393.5968
Back         = S  63° 51′ 05.64" E
Ahead        = S  60° 58′ 31.11" E
Chord Bear   = S  62° 24′ 48.37" E

Course from PT WBSH71-BASE-A-2 to PC WBSH71-BASE-A-3 S 60° 58′ 31.11" E Dist 1,967.1205

                                   Curve Data
                                  *----------*
Curve WBSH71-BASE-A-3
P.I.  Station          21170+03.76  N     10,048,295.9015  E      3,149,358.4848
Delta        =        4° 49′ 43.71" (LT)
Degree       =        0° 29′ 59.87"
Tangent      =             483.2025
Length       =             965.8330
Radius       =          11,460.0000
External     =              10.1824
Long Chord   =             965.5472
Mid. Ord.    =              10.1734
P.C.  Station          21165+20.56  N     10,048,530.3448  E      3,148,935.9673
P.T.  Station          21174+86.40  N     10,048,097.8573  E      3,149,799.2378
C.C.                                N     10,058,551.0914  E      3,154,496.2046
Back         = S  60° 58′ 31.11" E
Ahead        = S  65° 48′ 14.82" E
Chord Bear   = S  63° 23′ 22.97" E

Course from PT WBSH71-BASE-A-3 to PC WBSH71-BASE-A-4 S 65° 48′ 14.82" E Dist 1,216.1521

                                   Curve Data
                                  *----------*
Curve WBSH71-BASE-A-4
P.I.  Station          21188+51.32  N     10,047,538.4340  E      3,151,044.2503
Delta        =        3° 16′ 39.04" (RT)
Degree       =        1° 06′ 06.63"
Tangent      =             148.7693
Length       =             297.4575
Radius       =           5,200.0000
External     =               2.1277
Long Chord   =             297.4169
Mid. Ord.    =               2.1268
P.C.  Station          21187+02.55  N     10,047,599.4082  E      3,150,908.5504
P.T.  Station          21190+00.01  N     10,047,469.8013  E      3,151,176.2421
C.C.                                N     10,042,856.2305  E      3,148,777.2915
Back         = S  65° 48′ 14.82" E
Ahead        = S  62° 31′ 35.78" E
Chord Bear   = S  64° 09′ 55.30" E

==========================================================================
Ending chain WBSH71-BASE-A description
```

BL-B WESTBOUND SH 71

```
<*        1   Describe Chain WBSH71-BASE-B

Chain WBSH71-BASE-B contains:
 WBSH100 CUR WBSH71-BASE-B-1 CUR WBSH71-BASE-B-2 WBSH101

Beginning chain WBSH71-BASE-B description
==========================================================================

Point WBSH100         N  10,045,910.9544 E   3,153,124.3696 Sta      20+00.00

Course from WBSH100 to PC WBSH71-BASE-B-1 S 46° 29′ 02.85" E Dist 208.4272

                                   Curve Data
                                  *----------*
Curve WBSH71-BASE-B-1
P.I.  Station             24+11.63  N     10,045,627.5224  E      3,153,422.8789
Delta        =       15° 25′ 47.36" (RT)
Degree       =        3° 49′ 10.99"
Tangent      =             203.2055
Length       =             403.9518
Radius       =           1,500.0000
External     =              13.7016
Long Chord   =             402.7322
Mid. Ord.    =              13.5776
P.C.  Station             22+08.43  N     10,045,767.4407  E      3,153,275.5176
P.T.  Station             26+12.38  N     10,045,453.4406  E      3,153,527.7025
C.C.                                N     10,044,679.6653  E      3,152,242.6843
Back         = S  46° 29′ 02.85" E
Ahead        = S  31° 03′ 15.49" E
Chord Bear   = S  38° 46′ 09.17" E

Course from PT WBSH71-BASE-B-1 to PC WBSH71-BASE-B-2 S 31° 03′ 15.49" E Dist 330.0174

                                   Curve Data
                                  *----------*
Curve WBSH71-BASE-B-2
P.I.  Station             31+30.28  N     10,045,009.7657  E      3,153,794.8619
Delta        =       13° 23′ 41.43" (LT)
Degree       =        3° 34′ 51.55"
Tangent      =             187.8838
Length       =             374.0545
Radius       =           1,600.0000
External     =              10.9936
Long Chord   =             373.2033
Mid. Ord.    =              10.9186
P.C.  Station             29+42.40  N     10,045,170.7217  E      3,153,697.9420
P.T.  Station             33+16.45  N     10,044,875.6406  E      3,153,926.4324
C.C.                                N     10,045,996.0821  E      3,155,068.6281
Back         = S  31° 03′ 15.49" E
Ahead        = S  44° 26′ 56.92" E
Chord Bear   = S  37° 45′ 06.20" E

Course from PT WBSH71-BASE-B-2 to WBSH101 S 44° 26′ 56.92" E Dist 528.9724

Point WBSH101         N  10,044,498.0219 E   3,154,296.8590 Sta      38+45.42

==========================================================================
Ending chain WBSH71-BASE-B description
```

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

HORIZONTAL ALIGNMENT DATA

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 2 OF 7

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		43

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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BL-A EASTBOUND SH 71

```
<*        1   Describe Chain EBSH71-BASE-A

Chain EBSH71-BASE-A contains:
 EBSH50 CUR EBSH71-BASE-A-1 CUR EBSH71-BASE-A-2 CUR EBSH71-BASE-A-3 CUR EBSH71--
BASE-A-4 CUR EBSH71-BASE-A-5

Beginning chain EBSH71-BASE-A description
================================================================================

Point EBSH50          N  10,050,167.5628 E   3,145,680.3095 Sta   31123+22.20

Course from EBSH50 to PC EBSH71-BASE-A-1 S 60° 58′ 30.58" E Dist 122.5132

                                  Curve Data
                                 *----------*
Curve EBSH71-BASE-A-1
P.I.  Station          31127+77.92  N     10,049,946.4528  E      3,146,078.7951
Delta        =       13° 16′ 03.60" (RT)
Degree       =        1° 59′ 59.47"
Tangent      =             333.2064
Length       =             663.4323
Radius       =           2,865.0000
External     =              19.3113
Long Chord   =             661.9510
Mid. Ord.    =              19.1820
P.C.  Station          31124+44.71  N     10,050,108.1208  E      3,145,787.4362
P.T.  Station          31131+08.15  N     10,049,722.2329  E      3,146,325.2742
C.C.                                N     10,047,602.9377  E      3,144,397.3705
Back         = S  60° 58′ 30.58" E
Ahead        = S  47° 42′ 26.98" E
Chord Bear   = S  54° 20′ 28.78" E

Course from PT EBSH71-BASE-A-1 to PC EBSH71-BASE-A-2 S 47° 42′ 26.98" E Dist 237.7800

                                  Curve Data
                                 *----------*
Curve EBSH71-BASE-A-2
P.I.  Station          31136+79.05  N     10,049,338.0608  E      3,146,747.5848
Delta        =       13° 16′ 04.03" (LT)
Degree       =        2° 00′ 01.26"
Tangent      =             333.1267
Length       =             663.2735
Radius       =           2,864.2890
External     =              19.3068
Long Chord   =             661.7925
Mid. Ord.    =              19.1776
P.C.  Station          31133+45.93  N     10,049,562.2270  E      3,146,501.1646
P.T.  Station          31140+09.20  N     10,049,176.4321  E      3,147,038.8743
C.C.                                N     10,051,680.9963  E      3,148,428.5899
Back         = S  47° 42′ 26.98" E
Ahead        = S  60° 58′ 31.00" E
Chord Bear   = S  54° 20′ 28.99" E

Course from PT EBSH71-BASE-A-2 to PC EBSH71-BASE-A-3 S 60° 58′ 31.00" E Dist 1,908.9150

                                  Curve Data
                                 *----------*
Curve EBSH71-BASE-A-3
P.I.  Station          31159+68.23  N     10,048,225.9337  E      3,148,751.8753
Delta        =        0° 34′ 27.60" (RT)
Degree       =        0° 34′ 22.65"
Tangent      =              50.1205
Length       =             100.2401
Radius       =          10,000.0000
External     =               0.1256
Long Chord   =             100.2397
Mid. Ord.    =               0.1256
P.C.  Station          31159+18.11  N     10,048,250.2515  E      3,148,708.0494
P.T.  Station          31160+18.35  N     10,048,201.1778  E      3,148,795.4553
C.C.                                N     10,039,506.1470  E      3,143,856.1800
Back         = S  60° 58′ 31.00" E
Ahead        = S  60° 24′ 03.40" E
Chord Bear   = S  60° 41′ 17.20" E

Course from PT EBSH71-BASE-A-3 to PC EBSH71-BASE-A-4 S 60° 24′ 03.40" E Dist 1,747.1887

                                  Curve Data
                                 *----------*
Curve EBSH71-BASE-A-4
P.I.  Station          31178+96.04  N     10,047,273.7364  E      3,150,428.1100
Delta        =        1° 53′ 59.84" (LT)
Degree       =        0° 43′ 40.90"
Tangent      =             130.4985
Length       =             260.9732
Radius       =           7,870.0000
External     =               1.0819
Long Chord   =             260.9612
Mid. Ord.    =               1.0817
P.C.  Station          31177+65.54  N     10,047,338.1932  E      3,150,314.6412
P.T.  Station          31180+26.52  N     10,047,213.0770  E      3,150,543.6536
C.C.                                N     10,054,181.1824  E      3,154,201.8508
Back         = S  60° 24′ 03.40" E
Ahead        = S  62° 18′ 03.25" E
Chord Bear   = S  61° 21′ 03.32" E

Course from PT EBSH71-BASE-A-4 to PC EBSH71-BASE-A-5 S 62° 03′ 28.40" E Dist 356.2791
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BL-A EASTBOUND SH 71 CONTINUED...

```
                                  Curve Data
                                 *----------*
Curve EBSH71-BASE-A-5
P.I.  Station          31184+41.40  N     10,047,018.6713  E      3,150,910.1703
Delta        =        1° 01′ 59.27" (RT)
Degree       =        0° 52′ 53.30"
Tangent      =              58.6041
Length       =             117.2050
Radius       =           6,500.0000
External     =               0.2642
Long Chord   =             117.2034
Mid. Ord.    =               0.2642
P.C.  Station          31183+82.79  N     10,047,046.1320  E      3,150,858.3982
P.T.  Station          31185+00.00  N     10,046,990.2817  E      3,150,961.4389
C.C.                                N     10,041,303.8925  E      3,147,812.6330
Back         = S  62° 03′ 28.40" E
Ahead        = S  61° 01′ 29.12" E
Chord Bear   = S  61° 32′ 28.76" E

================================================================================
Ending chain EBSH71-BASE-A description
```

BL-B EASTBOUND SH 71

```
<*        1   Describe Chain EBSH71-BASE-B

Chain EBSH71-BASE-B contains:
 EBSH100 CUR EBSH71-BASE-B-1 CUR EBSH71-BASE-B-2 EBSH101

Beginning chain EBSH71-BASE-B description
================================================================================

Point EBSH100         N  10,045,543.5699 E   3,152,820.2766 Sta      30+00.00

Course from EBSH100 to PC EBSH71-BASE-B-1 S 48° 16′ 28.69" E Dist 191.1862

                                  Curve Data
                                 *----------*
Curve EBSH71-BASE-B-1
P.I.  Station              34+74.35  N     10,045,227.8580  E      3,153,174.3083
Delta        =       10° 47′ 03.44" (LT)
Degree       =        1° 54′ 35.49"
Tangent      =             283.1685
Length       =             564.6640
Radius       =           3,000.0000
External     =              13.3344
Long Chord   =             563.8309
Mid. Ord.    =              13.2754
P.C.  Station              31+91.19  N     10,045,416.3238  E      3,152,962.9673
P.T.  Station              37+55.85  N     10,045,082.2651  E      3,153,417.1809
C.C.                                N     10,047,655.3547  E      3,154,959.6498
Back         = S  48° 16′ 28.69" E
Ahead        = S  59° 03′ 32.13" E
Chord Bear   = S  53° 40′ 00.41" E

Course from PT EBSH71-BASE-B-1 to PC EBSH71-BASE-B-2 S 59° 03′ 32.13" E Dist 109.6978

                                  Curve Data
                                 *----------*
Curve EBSH71-BASE-B-2
P.I.  Station              42+50.54  N     10,044,827.9191  E      3,153,841.4715
Delta        =       14° 37′ 31.92" (RT)
Degree       =        1° 54′ 35.49"
Tangent      =             384.9883
Length       =             765.7911
Radius       =           3,000.0000
External     =              24.6018
Long Chord   =             763.7137
Mid. Ord.    =              24.4017
P.C.  Station              38+65.55  N     10,045,025.8633  E      3,153,511.2684
P.T.  Station              46+31.34  N     10,044,553.0125  E      3,154,110.9940
C.C.                                N     10,042,452.7737  E      3,151,968.7995
Back         = S  59° 03′ 32.13" E
Ahead        = S  44° 26′ 00.21" E
Chord Bear   = S  51° 44′ 46.17" E

Course from PT EBSH71-BASE-B-2 to EBSH101 S 44° 26′ 00.21" E Dist 169.4130

Point EBSH101         N  10,044,432.0406 E   3,154,229.5966 Sta      48+00.75

================================================================================
Ending chain EBSH71-BASE-B description
```

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

HORIZONTAL ALIGNMENT DATA

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 3 OF 7

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		44

STATE	STATE DIST. NO.	COUNTY
TEXAS		TRAVIS

CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

5/16/2014 11:16:55 AM

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BL EB ENTRANCE RAMP AT PRESIDENTIAL

```
<*        1   Describe Chain EBENPRES

Chain EBENPRES contains:
 EBENPRES01 CUR EBENPRES-1

Beginning chain EBENPRES description
==============================================================================

Point EBENPRES01       N  10,051,910.7421 E   3,142,453.3727 Sta       10+00.00

Course from EBENPRES01 to PC EBENPRES-1 S 65° 22′ 42.80" E Dist 489.5434

                                   Curve Data
                                  *----------*
Curve EBENPRES-1
P.I.  Station            17+21.83  N     10,051,610.0114  E      3,143,109.5766
Delta       =        4° 24′ 12.21" (RT)
Degree      =        0° 56′ 53.85"
Tangent     =             232.2894
Length      =             464.3501
Radius      =           6,042.0000
External    =               4.4636
Long Chord  =             464.2358
Mid. Ord.   =               4.4603
P.C.  Station            14+89.54  N     10,051,706.7880  E      3,142,898.4069
P.T.  Station            19+53.89  N     10,051,497.3072  E      3,143,312.6927
C.C.                               N     10,046,214.1253  E      3,140,381.1823
Back        = S  65° 22′ 42.80" E
Ahead       = S  60° 58′ 30.58" E
Chord Bear  = S  63° 10′ 36.69" E

==============================================================================
Ending chain EBENPRES description
```

BL EB DIRECT CONNECT EXIT AT SH 130

```
<*        1   Describe Chain EBEXDC130

Chain EBEXDC130 contains:
 CUR EBEXDC130-1 EBEXDC101 CUR EBEXDC130-2 EBEXDC102

Beginning chain EBEXDC130 description
==============================================================================

                                   Curve Data
                                  *----------*
Curve EBEXDC130-1
P.I.  Station            11+87.49  N     10,047,789.0300  E      3,149,839.1644
Delta       =        2° 08′ 47.26" (RT)
Degree      =        0° 34′ 21.00"
Tangent     =             187.4858
Length      =             374.9277
Radius      =          10,008.0000
External    =               1.7560
Long Chord  =             374.9058
Mid. Ord.   =               1.7557
P.C.  Station            10+00.00  N     10,047,879.9956  E      3,149,675.2248
P.T.  Station            13+74.93  N     10,047,691.9881  E      3,149,999.5820
C.C.                               N     10,039,128.8924  E      3,144,819.4800
Back        = S  60° 58′ 31.15" E
Ahead       = S  58° 49′ 43.89" E
Chord Bear  = S  59° 54′ 07.52" E

Course from PT EBEXDC130-1 to EBEXDC101 S 58° 49′ 43.89" E Dist 465.8362

Point EBEXDC101        N  10,047,450.8731 E   3,150,398.1631 Sta       18+40.76

Course from EBEXDC101 to PC EBEXDC130-2 S 58° 49′ 43.89" E Dist 231.6191

                                   Curve Data
                                  *----------*
Curve EBEXDC130-2
P.I.  Station            22+09.73  N     10,047,259.8958  E      3,150,713.8628
Delta       =        1° 34′ 25.76" (RT)
Degree      =        0° 34′ 22.65"
Tangent     =             137.3506
Length      =             274.6839
Radius      =          10,000.0000
External    =               0.9432
Long Chord  =             274.6753
Mid. Ord.   =               0.9431
P.C.  Station            20+72.38  N     10,047,330.9880  E      3,150,596.3422
P.T.  Station            23+47.07  N     10,047,185.6028  E      3,150,829.3866
C.C.                               N     10,038,774.7373  E      3,145,420.3810
Back        = S  58° 49′ 43.89" E
Ahead       = S  57° 15′ 18.13" E
Chord Bear  = S  58° 02′ 31.01" E

Course from PT EBEXDC130-2 to EBEXDC102 S 57° 15′ 18.13" E Dist 192.2562

Point EBEXDC102        N  10,047,081.6113 E   3,150,991.0907 Sta       25+39.32

==============================================================================
Ending chain EBEXDC130 description
```

BL EB EXIT RAMP AT SH 130

```
<*        1   Describe Chain EBEX130

Chain EBEX130 contains:
 CUR EBEX130-1 CUR EBEX130-2

Beginning chain EBEX130 description
==============================================================================

                                   Curve Data
                                  *----------*
Curve EBEX130-1
P.I.  Station            14+31.32  N     10,048,345.3854  E      3,148,840.6150
Delta       =        8° 10′ 57.88" (RT)
Degree      =        0° 57′ 00.64"
Tangent     =             431.3231
Length      =             861.1795
Radius      =           6,030.0000
External    =              15.4065
Long Chord  =             860.4478
Mid. Ord.   =              15.3672
P.C.  Station            10+00.00  N     10,048,554.6575  E      3,148,463.4614
P.T.  Station            18+61.18  N     10,048,084.5633  E      3,149,184.1429
C.C.                               N     10,043,281.9604  E      3,145,537.7878
Back        = S  60° 58′ 31.15" E
Ahead       = S  52° 47′ 33.27" E
Chord Bear  = S  56° 53′ 02.21" E

                                   Curve Data
                                  *----------*
Curve EBEX130-2
P.I.  Station            22+62.13  N     10,047,842.1051  E      3,149,503.4838
Delta       =        7° 36′ 30.14" (LT)
Degree      =        0° 57′ 00.64"
Tangent     =             400.9546
Length      =             800.7305
Radius      =           6,030.0000
External    =              13.3157
Long Chord  =             800.1423
Mid. Ord.   =              13.2864
P.C.  Station            18+61.18  N     10,048,084.5633  E      3,149,184.1429
P.T.  Station            26+61.91  N     10,047,644.0626  E      3,149,852.1151
C.C.                               N     10,052,887.1661  E      3,152,830.4981
Back        = S  52° 47′ 33.27" E
Ahead       = S  60° 24′ 03.40" E
Chord Bear  = S  56° 35′ 48.33" E

==============================================================================
Ending chain EBEX130 description
```

BL WB ENTRANCE RAMP AT SH 130

```
<*        1   Describe Chain WBEN130

Chain WBEN130 contains:
 CUR WBEN130-1 CUR WBEN130-2

Beginning chain WBEN130 description
==============================================================================

                                   Curve Data
                                  *----------*
Curve WBEN130-1
P.I.  Station            15+44.71  N     10,048,223.6409  E      3,149,212.5424
Delta       =       10° 20′ 50.33" (LT)
Degree      =        0° 57′ 08.60"
Tangent     =             544.7101
Length      =           1,086.4577
Radius      =           6,016.0000
External    =              24.6097
Long Chord  =           1,084.9819
Mid. Ord.   =              24.5094
P.C.  Station            10+00.00  N     10,048,487.9268  E      3,148,736.2420
P.T.  Station            20+86.46  N     10,048,049.2036  E      3,149,728.5664
C.C.                               N     10,053,748.3821  E      3,151,655.1230
Back        = S  60° 58′ 31.15" E
Ahead       = S  71° 19′ 21.48" E
Chord Bear  = S  66° 08′ 56.31" E

Course from PT WBEN130-1 to PC WBEN130-2 S 71° 19′ 21.48" E Dist 97.0364

                                   Curve Data
                                  *----------*
Curve WBEN130-2
P.I.  Station            24+74.79  N     10,047,924.8455  E      3,150,096.4451
Delta       =        5° 31′ 06.66" (RT)
Degree      =        0° 56′ 52.72"
Tangent     =             291.2930
Length      =             582.1355
Radius      =           6,044.0000
External    =               7.0154
Long Chord  =             581.9105
Mid. Ord.   =               7.0073
P.C.  Station            21+83.49  N     10,048,018.1288  E      3,149,820.4926
P.T.  Station            27+65.63  N     10,047,805.4568  E      3,150,362.1479
C.C.                               N     10,042,292.4248  E      3,147,884.9692
Back        = S  71° 19′ 21.48" E
Ahead       = S  65° 48′ 14.82" E
Chord Bear  = S  68° 33′ 48.15" E

==============================================================================
Ending chain WBEN130 description
```

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

HORIZONTAL ALIGNMENT DATA

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 4 OF 7

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		45

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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BL NORTHBOUND FM 973

```
<*        1   Describe Chain NBFM973

Chain NBFM973 contains:
 NB97301 CUR NBFM973-1 CUR NBFM973-2 CUR NBFM973-3 CUR NBFM973-4 CUR NBFM973-5 -
CUR NBFM973-6 CUR NBFM973-7 CUR NBFM973-8 NB97302

Beginning chain NBFM973 description

==============================================================================

Point NB97301          N  10,059,773.7801 E   3,151,386.5166 Sta    6000+06.73

Course from NB97301 to PC NBFM973-1 S 28° 14′ 05.16" W Dist 187.5449

                                   Curve Data
                                  *----------*
Curve NBFM973-1
P.I.  Station          6002+60.03  N     10,059,550.6200  E      3,151,266.6848
Delta       =       1° 14′ 58.21" (RT)
Degree      =       0° 57′ 00.64"
Tangent     =              65.7535
Length      =             131.5018
Radius      =           6,030.0000
External    =               0.3585
Long Chord  =             131.4992
Mid. Ord.   =               0.3585
P.C.  Station          6001+94.27  N     10,059,608.5499  E      3,151,297.7918
P.T.  Station          6003+25.78  N     10,059,493.3822  E      3,151,234.3219
C.C.                               N     10,062,461.2552  E      3,145,985.2621
Back        = S  28° 14′ 05.16" W
Ahead       = S  29° 29′ 03.37" W
Chord Bear  = S  28° 51′ 34.27" W

Course from PT NBFM973-1 to PC NBFM973-2 S 29° 29′ 03.37" W Dist 875.7659

                                   Curve Data
                                  *----------*
Curve NBFM973-2
P.I.  Station          6013+16.35  N     10,058,631.0957  E      3,150,746.7762
Delta       =       2° 10′ 53.47" (LT)
Degree      =       0° 57′ 00.64"
Tangent     =             114.8091
Length      =             229.5905
Radius      =           6,030.0000
External    =               1.0929
Long Chord  =             229.5767
Mid. Ord.   =               1.0927
P.C.  Station          6012+01.54  N     10,058,731.0360  E      3,150,803.2835
P.T.  Station          6014+31.13  N     10,058,529.0768  E      3,150,694.1141
C.C.                               N     10,055,763.1630  E      3,156,052.3434
Back        = S  29° 29′ 03.37" W
Ahead       = S  27° 18′ 09.90" W
Chord Bear  = S  28° 23′ 36.63" W

Course from PT NBFM973-2 to PC NBFM973-3 S 27° 18′ 09.90" W Dist 5,703.0248

                                   Curve Data
                                  *----------*
Curve NBFM973-3
P.I.  Station          6075+91.96  N     10,053,054.5982  E      3,147,868.1924
Delta       =      47° 18′ 54.09" (LT)
Degree      =       5° 28′ 58.26"
Tangent     =             457.7990
Length      =             862.9641
Radius      =           1,045.0000
External    =              95.8790
Long Chord  =             838.6515
Mid. Ord.   =              87.8214
P.C.  Station          6071+34.16  N     10,053,461.3962  E      3,148,078.1812
P.T.  Station          6079+97.12  N     10,052,624.4414  E      3,148,024.8611
C.C.                               N     10,052,982.0629  E      3,149,006.7632
Back        = S  27° 18′ 09.90" W
Ahead       = S  20° 00′ 44.20" E
Chord Bear  = S   3° 38′ 42.85" W

Course from PT NBFM973-3 to PC NBFM973-4 S 20° 00′ 44.20" E Dist 621.3207

                                   Curve Data
                                  *----------*
Curve NBFM973-4
P.I.  Station          6088+97.54  N     10,051,778.3903  E      3,148,333.0038
Delta       =      28° 51′ 04.63" (RT)
Degree      =       5° 16′ 50.58"
Tangent     =             279.0983
Length      =             546.3517
Radius      =           1,085.0000
External    =              35.3218
Long Chord  =             540.5977
Mid. Ord.   =              34.2081
P.C.  Station          6086+18.44  N     10,052,040.6365  E      3,148,237.4904
P.T.  Station          6091+64.79  N     10,051,502.6066  E      3,148,290.1179
C.C.                               N     10,051,669.3262  E      3,147,218.0034
Back        = S  20° 00′ 44.20" E
Ahead       = S   8° 50′ 20.43" W
Chord Bear  = S   5° 35′ 11.88" E

Course from PT NBFM973-4 to PC NBFM973-5 S 8° 50′ 20.43" W Dist 1,684.2601
```

BL NORTHBOUND FM 973 CONTINUED...

```
                                   Curve Data
                                  *----------*
Curve NBFM973-5
P.I.  Station          6110+76.38  N     10,049,613.7188  E      3,147,996.3857
Delta       =       5° 11′ 08.57" (RT)
Degree      =       1° 08′ 28.86"
Tangent     =             227.3297
Length      =             454.3490
Radius      =           5,020.0000
External    =               5.1447
Long Chord  =             454.1940
Mid. Ord.   =               5.1394
P.C.  Station          6108+49.05  N     10,049,838.3487  E      3,148,031.3169
P.T.  Station          6113+03.40  N     10,049,393.1655  E      3,147,941.2945
C.C.                               N     10,050,609.7150  E      3,143,070.9344
Back        = S   8° 50′ 20.43" W
Ahead       = S  14° 01′ 29.00" W
Chord Bear  = S  11° 25′ 54.71" W

Course from PT NBFM973-5 to PC NBFM973-6 S 14° 01′ 29.00" W Dist 1,217.0530

                                   Curve Data
                                  *----------*
Curve NBFM973-6
P.I.  Station          6130+36.02  N     10,047,712.2006  E      3,147,521.4124
Delta       =      28° 38′ 07.96" (RT)
Degree      =       2° 50′ 11.13"
Tangent     =             515.5589
Length      =           1,009.5648
Radius      =           2,020.0000
External    =              64.7544
Long Chord  =             999.0903
Mid. Ord.   =              62.7431
P.C.  Station          6125+20.46  N     10,048,212.3913  E      3,147,646.3532
P.T.  Station          6135+30.02  N     10,047,333.0665  E      3,147,172.0440
C.C.                               N     10,048,701.9192  E      3,145,686.5669
Back        = S  14° 01′ 29.00" W
Ahead       = S  42° 39′ 36.96" W
Chord Bear  = S  28° 20′ 32.98" W

Course from PT NBFM973-6 to PC NBFM973-7 S 42° 39′ 36.96" W Dist 718.4184

                                   Curve Data
                                  *----------*
Curve NBFM973-7
P.I.  Station          6145+38.87  N     10,046,591.1773  E      3,146,488.4004
Delta       =       5° 30′ 53.57" (RT)
Degree      =       0° 57′ 00.64"
Tangent     =             290.4266
Length      =             580.4046
Radius      =           6,030.0000
External    =               6.9899
Long Chord  =             580.1806
Mid. Ord.   =               6.9819
P.C.  Station          6142+48.44  N     10,046,804.7526  E      3,146,685.2079
P.T.  Station          6148+28.84  N     10,046,397.5047  E      3,146,271.9783
C.C.                               N     10,050,890.9813  E      3,142,250.8381
Back        = S  42° 39′ 36.96" W
Ahead       = S  48° 10′ 30.53" W
Chord Bear  = S  45° 25′ 03.75" W

                                   Curve Data
                                  *----------*
Curve NBFM973-8
P.I.  Station          6151+19.27  N     10,046,203.8318  E      3,146,055.5559
Delta       =       5° 30′ 53.61" (LT)
Degree      =       0° 57′ 00.64"
Tangent     =             290.4270
Length      =             580.4056
Radius      =           6,030.0000
External    =               6.9900
Long Chord  =             580.1815
Mid. Ord.   =               6.9819
P.C.  Station          6148+28.84  N     10,046,397.5047  E      3,146,271.9783
P.T.  Station          6154+09.25  N     10,045,990.2561  E      3,145,858.7481
C.C.                               N     10,041,904.0281  E      3,150,293.1185
Back        = S  48° 10′ 30.53" W
Ahead       = S  42° 39′ 36.93" W
Chord Bear  = S  45° 25′ 03.73" W

Course from PT NBFM973-8 to NB97302 S 42° 39′ 36.93" W Dist 188.9054

Point NB97302          N  10,045,851.3380 E   3,145,730.7364 Sta    6155+98.16

==============================================================================
Ending chain NBFM973 description
```

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

HORIZONTAL ALIGNMENT DATA

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 5 OF 7

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		46

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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BL SOUTHBOUND FM 973

```
<*        1   Describe Chain SBFM973

Chain SBFM973 contains:
 SB97301 CUR SBFM973-1 CUR SBFM973-2 CUR SBFM973-3 CUR SBFM973-4 CUR SBFM973-5 -
CUR SBFM973-6 CUR SBFM973-7 CUR SBFM973-8 SB97302

Beginning chain SBFM973 description
================================================================================

Point SB97301          N  10,059,774.5097 E   3,151,386.8946 Sta    3999+91.00

Course from SB97301 to PC SBFM973-1 S 27° 30′ 10.87" W Dist 155.7488

                                   Curve Data
                                  *----------*
Curve SBFM973-1
P.I.  Station          4003+69.63  N     10,059,438.6665  E      3,151,212.0432
Delta        =       4° 14′ 01.28" (RT)
Degree       =       0° 57′ 00.64"
Tangent      =            222.8852
Length       =            445.5675
Radius       =          6,030.0000
External     =              4.1178
Long Chord   =            445.4662
Mid. Ord.    =              4.1150
P.C.  Station          4001+46.75  N     10,059,636.3627  E      3,151,314.9705
P.T.  Station          4005+92.32  N     10,059,249.1084  E      3,151,094.8019
C.C.                               N     10,062,420.9887  E      3,145,966.4420
Back         = S  27° 30′ 10.87" W
Ahead        = S  31° 44′ 12.15" W
Chord Bear   = S  29° 37′ 11.51" W

Course from PT SBFM973-1 to PC SBFM973-2 S 31° 44′ 12.15" W Dist 617.3751

                                   Curve Data
                                  *----------*
Curve SBFM973-2
P.I.  Station          4014+43.13  N     10,058,525.5130  E      3,150,647.2596
Delta        =       4° 26′ 02.25" (LT)
Degree       =       0° 57′ 00.64"
Tangent      =            233.4389
Length       =            466.6447
Radius       =          6,030.0000
External     =              4.5169
Long Chord   =            466.5283
Mid. Ord.    =              4.5135
P.C.  Station          4012+09.69  N     10,058,724.0468  E      3,150,770.0523
P.T.  Station          4016+76.34  N     10,058,318.0803  E      3,150,540.1830
C.C.                               N     10,055,552.1665  E      3,155,898.4123
Back         = S  31° 44′ 12.15" W
Ahead        = S  27° 18′ 09.89" W
Chord Bear   = S  29° 31′ 11.02" W

Course from PT SBFM973-2 to PC SBFM973-3 S 27° 18′ 09.89" W Dist 5,444.9273

                                   Curve Data
                                  *----------*
Curve SBFM973-3
P.I.  Station          4075+96.59  N     10,053,057.3747  E      3,147,824.6108
Delta        =      47° 18′ 54.08" (LT)
Degree       =       5° 16′ 50.58"
Tangent      =            475.3224
Length       =            895.9962
Radius       =          1,085.0000
External     =             99.5490
Long Chord   =            870.7530
Mid. Ord.    =             91.1830
P.C.  Station          4071+21.26  N     10,053,479.7439  E      3,148,042.6375
P.T.  Station          4080+17.26  N     10,052,610.7526  E      3,147,987.2763
C.C.                               N     10,052,982.0629  E      3,149,006.7633
Back         = S  27° 18′ 09.89" W
Ahead        = S  20° 00′ 44.19" E
Chord Bear   = S   3° 38′ 42.85" W

Course from PT SBFM973-3 to PC SBFM973-4 S 20° 00′ 44.19" E Dist 621.3208

                                   Curve Data
                                  *----------*
Curve SBFM973-4
P.I.  Station          4089+07.39  N     10,051,774.3695  E      3,148,291.8978
Delta        =      28° 51′ 04.63" (RT)
Degree       =       5° 28′ 58.26"
Tangent      =            268.8090
Length       =            526.2097
Radius       =          1,045.0000
External     =             34.0196
Long Chord   =            520.6678
Mid. Ord.    =             32.9470
P.C.  Station          4086+38.58  N     10,052,026.9476  E      3,148,199.9056
P.T.  Station          4091+64.79  N     10,051,508.7529  E      3,148,250.5930
C.C.                               N     10,051,669.3262  E      3,147,218.0034
Back         = S  20° 00′ 44.19" E
Ahead        = S   8° 50′ 20.44" W
Chord Bear   = S   5° 35′ 11.88" E

Course from PT SBFM973-4 to PC SBFM973-5 S 8° 50′ 20.44" W Dist 1,684.2603
```

BL SOUTHBOUND FM 973 CONTINUED...

```
                                   Curve Data
                                  *----------*
Curve SBFM973-5
P.I.  Station          4110+74.57  N     10,049,621.6550  E      3,147,957.1390
Delta        =       5° 11′ 08.56" (RT)
Degree       =       1° 09′ 01.86"
Tangent      =            225.5182
Length       =            450.7284
Radius       =          4,980.0000
External     =              5.1037
Long Chord   =            450.5746
Mid. Ord.    =              5.0984
P.C.  Station          4108+49.05  N     10,049,844.4949  E      3,147,991.7918
P.T.  Station          4112+99.78  N     10,049,402.8592  E      3,147,902.4868
C.C.                               N     10,050,609.7150  E      3,143,070.9343
Back         = S   8° 50′ 20.44" W
Ahead        = S  14° 01′ 28.99" W
Chord Bear   = S  11° 25′ 54.72" W

Course from PT SBFM973-5 to PC SBFM973-6 S 14° 01′ 28.99" W Dist 1,217.0531

                                   Curve Data
                                  *----------*
Curve SBFM973-6
P.I.  Station          4130+22.18  N     10,047,731.7990  E      3,147,485.0788
Delta        =      28° 38′ 07.97" (RT)
Degree       =       2° 53′ 37.41"
Tangent      =            505.3498
Length       =            989.5735
Radius       =          1,980.0000
External     =             63.4722
Long Chord   =            979.3064
Mid. Ord.    =             61.5007
P.C.  Station          4125+16.83  N     10,048,222.0850  E      3,147,607.5455
P.T.  Station          4135+06.41  N     10,047,360.1725  E      3,147,142.6286
C.C.                               N     10,048,701.9192  E      3,145,686.5669
Back         = S  14° 01′ 28.99" W
Ahead        = S  42° 39′ 36.96" W
Chord Bear   = S  28° 20′ 32.98" W

Course from PT SBFM973-6 to PC SBFM973-7 S 42° 39′ 36.96" W Dist 1,259.8708

                                   Curve Data
                                  *----------*
Curve SBFM973-7
P.I.  Station          4149+20.77  N     10,046,320.0712  E      3,146,184.1854
Delta        =       2° 56′ 06.97" (RT)
Degree       =       0° 57′ 00.64"
Tangent      =            154.4926
Length       =            308.9177
Radius       =          6,030.0000
External     =              1.9788
Long Chord   =            308.8839
Mid. Ord.    =              1.9781
P.C.  Station          4147+66.28  N     10,046,433.6828  E      3,146,288.8773
P.T.  Station          4150+75.19  N     10,046,211.9698  E      3,146,073.8130
C.C.                               N     10,050,519.9115  E      3,141,854.5075
Back         = S  42° 39′ 36.96" W
Ahead        = S  45° 35′ 43.94" W
Chord Bear   = S  44° 07′ 40.45" W

                                   Curve Data
                                  *----------*
Curve SBFM973-8
P.I.  Station          4152+29.69  N     10,046,103.8680  E      3,145,963.4403
Delta        =       2° 56′ 07.01" (LT)
Degree       =       0° 57′ 00.64"
Tangent      =            154.4931
Length       =            308.9187
Radius       =          6,030.0005
External     =              1.9788
Long Chord   =            308.8849
Mid. Ord.    =              1.9781
P.C.  Station          4150+75.19  N     10,046,211.9698  E      3,146,073.8130
P.T.  Station          4153+84.11  N     10,045,990.2561  E      3,145,858.7481
C.C.                               N     10,041,904.0278  E      3,150,293.1188
Back         = S  45° 35′ 43.94" W
Ahead        = S  42° 39′ 36.93" W
Chord Bear   = S  44° 07′ 40.43" W

Course from PT SBFM973-8 to SB97302 S 42° 39′ 36.93" W Dist 188.9054

Point SB97302          N  10,045,851.3380 E   3,145,730.7364 Sta    4155+73.02

================================================================================
Ending chain SBFM973 description
```

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

HORIZONTAL ALIGNMENT DATA

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 6 OF 7

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			47
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

5/16/2014 11:17:20 AM

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BL WB-EB TURNAROUND AT PRESIDENTIAL

```
<*        1   Describe Chain UWEPRES

Chain UWEPRES contains:
 UWEPRES10 CUR UWEPRES-1 CUR UWEPRES-2 UWEPRES02

Beginning chain UWEPRES description
==========================================================================

Point UWEPRES10        N  10,052,370.4742 E   3,141,936.1016 Sta       9+00.00

Course from UWEPRES10 to PC UWEPRES-1 N 60° 58′ 31.15" W Dist 100.0000

                                   Curve Data
                                  *----------*
Curve UWEPRES-1
P.I.  Station            10+46.04  N     10,052,441.3634  E      3,141,808.4229
Delta        =      90° 02′ 51.06" (LT)
Degree       =     124° 33′ 21.75"
Tangent      =              46.0382
Length       =              72.2948
Radius       =              46.0000
External     =              19.0808
Long Chord   =              65.0808
Mid. Ord.    =              13.4866
P.C.  Station            10+00.00  N     10,052,418.9928  E      3,141,848.6606
P.T.  Station            10+72.29  N     10,052,401.1072  E      3,141,786.0857
C.C.                                N     10,052,378.7885  E      3,141,826.3085
Back         = N  60° 55′ 39.50" W
Ahead        = S  29° 01′ 29.44" W
Chord Bear   = S  74° 02′ 54.97" W

Course from PT UWEPRES-1 to PC UWEPRES-2 S 29° 01′ 29.37" W Dist 55.0353

                                   Curve Data
                                  *----------*
Curve UWEPRES-2
P.I.  Station            11+73.54  N     10,052,312.5798  E      3,141,736.9640
Delta        =      85° 29′ 05.20" (LT)
Degree       =     114° 35′ 29.61"
Tangent      =              46.2072
Length       =              74.5995
Radius       =              50.0000
External     =              18.0816
Long Chord   =              67.8703
Mid. Ord.    =              13.2794
P.C.  Station            11+27.33  N     10,052,352.9838  E      3,141,759.3832
P.T.  Station            12+01.93  N     10,052,287.0494  E      3,141,775.4777
C.C.                                N     10,052,328.7244  E      3,141,803.1037
Back         = S  29° 01′ 29.40" W
Ahead        = S  56° 27′ 35.80" E
Chord Bear   = S  13° 43′ 03.20" E

Course from PT UWEPRES-2 to UWEPRES02 S 56° 27′ 35.61" E Dist 94.4182

Point UWEPRES02        N  10,052,234.8814 E   3,141,854.1752 Sta      12+96.35

==========================================================================
Ending chain UWEPRES description
```

BL EB-WB TURNAROUND AT FM 973

```
<*        1   Describe Chain UEWFM973

Chain UEWFM973 contains:
 CUR UEWFM973-1 CUR UEWFM973-2

Beginning chain UEWFM973 description
==========================================================================

                                   Curve Data
                                  *----------*
Curve UEWFM973-1
P.I.  Station            10+95.79  N     10,048,905.9296  E      3,147,680.9571
Delta        =     104° 59′ 59.99" (LT)
Degree       =      77° 57′ 12.39"
Tangent      =              95.7871
Length       =             134.6958
Radius       =              73.5000
External     =              47.2370
Long Chord   =             116.6229
Mid. Ord.    =              28.7560
P.C.  Station            10+00.00  N     10,048,952.4042  E      3,147,597.1999
P.T.  Station            11+34.70  N     10,048,998.8613  E      3,147,704.1702
C.C.                                N     10,049,016.6734  E      3,147,632.8612
Back         = S  60° 58′ 31.00" E
Ahead        = N  14° 01′ 29.00" E
Chord Bear   = N  66° 31′ 29.00" E

Course from PT UEWFM973-1 to PC UEWFM973-2 N 14° 01′ 29.00" E Dist 104.0754

                                   Curve Data
                                  *----------*
Curve UEWFM973-2
P.I.  Station            12+75.99  N     10,049,135.9405  E      3,147,738.4107
Delta        =      75° 00′ 00.45" (LT)
Degree       =     118° 08′ 08.26"
Tangent      =              37.2154
Length       =              63.4865
Radius       =              48.5000
External     =              12.6330
Long Chord   =              59.0499
Mid. Ord.    =              10.0224
P.C.  Station            12+38.77  N     10,049,099.8344  E      3,147,729.3919
P.T.  Station            13+02.26  N     10,049,153.9968  E      3,147,705.8691
C.C.                                N     10,049,111.5879  E      3,147,682.3376
Back         = N  14° 01′ 29.00" E
Ahead        = N  60° 58′ 31.45" W
Chord Bear   = N  23° 28′ 31.22" W

==========================================================================
Ending chain UEWFM973 description
```

BL WB-EB TURNAROUND AT FM 973

```
<*        1   Describe Chain UWEFM973

Chain UWEFM973 contains:
 CUR UWEFM973-1 CUR UWEFM973-2

Beginning chain UWEFM973 description
==========================================================================

                                   Curve Data
                                  *----------*
Curve UWEFM973-1
P.I.  Station            10+89.27  N     10,049,008.3571  E      3,147,942.5781
Delta        =     104° 59′ 59.89" (LT)
Degree       =      83° 38′ 36.51"
Tangent      =              89.2709
Length       =             125.5328
Radius       =              68.5000
External     =              44.0235
Long Chord   =             108.6894
Mid. Ord.    =              26.7998
P.C.  Station            10+00.00  N     10,048,965.0441  E      3,148,020.6375
P.T.  Station            11+25.53  N     10,048,921.7472  E      3,147,920.9441
C.C.                                N     10,048,905.1469  E      3,147,987.4022
Back         = N  60° 58′ 31.11" W
Ahead        = S  14° 01′ 29.00" W
Chord Bear   = S  66° 31′ 28.95" W

Course from PT UWEFM973-1 to PC UWEFM973-2 S 14° 01′ 29.00" W Dist 121.9812

                                   Curve Data
                                  *----------*
Curve UWEFM973-2
P.I.  Station            12+84.73  N     10,048,767.2962  E      3,147,882.3644
Delta        =      74° 59′ 59.90" (LT)
Degree       =     118° 08′ 08.26"
Tangent      =              37.2153
Length       =              63.4863
Radius       =              48.5000
External     =              12.6329
Long Chord   =              59.0498
Mid. Ord.    =              10.0224
P.C.  Station            12+47.51  N     10,048,803.4022  E      3,147,891.3831
P.T.  Station            13+11.00  N     10,048,749.2398  E      3,147,914.9058
C.C.                                N     10,048,791.6487  E      3,147,938.4374
Back         = S  14° 01′ 29.00" W
Ahead        = S  60° 58′ 30.90" E
Chord Bear   = S  23° 28′ 30.95" E

==========================================================================
Ending chain UWEFM973 description
```

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

HORIZONTAL ALIGNMENT DATA

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

Texas Department of Transportation

SHEET 7 OF 7

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		48

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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WESTBOUND SH 71 MANAGED LANES SUPER ELEVATION DATA TABLE

PI STATION	RADIUS OF CURVE (FT)	(FT/FT)	SUPER ELEVATION %	LENGTH OF TRANSITION (FT)	BEGIN TRANSITION STATION	BEGIN FULL SUPER ELEVATION STATION	END FULL SUPER ELEVATION STATION	END TRANSITION STATION	CURVE DIRECTION
11189+81.27	5,685.00	0.06	2.70	282.00	11179+02.00	11181+84.00	11197+65.00	11200+47.00	RT.
11220+93.94	8,000.00	0.06	2.00	240.00	11216+88.00	11219+28.00	11222+40.00	11224+80.58	RT.

EASTBOUND SH 71 MANAGED LANES SUPER ELEVATION DATA TABLE

PI STATION	RADIUS OF CURVE (FT)	(FT/FT)	SUPER ELEVATION %	LENGTH OF TRANSITION (FT)	BEGIN TRANSITION STATION	BEGIN FULL SUPER ELEVATION STATION	END FULL SUPER ELEVATION STATION	END TRANSITION STATION	CURVE DIRECTION
11189+81.27	5,685.00	0.06	2.70	12.00	11180+85.00	11180+97.00	11198+54.00	11198+66.00	RT.

SH 71 WESTBOUND GENERAL PURPOSE LANES SUPER ELEVATION DATA TABLE

PI STATION	RADIUS OF CURVE (FT)	(FT/FT)	SUPER ELEVATION %	LENGTH OF TRANSITION (FT)	BEGIN TRANSITION STATION	BEGIN FULL SUPER ELEVATION STATION	END FULL SUPER ELEVATION STATION	END TRANSITION STATION	CURVE DIRECTION
24+11.63	1,500.00	0.06	5.00	120.00	21+02.00	22+57.00	25+72.00	26+92.00	RT.

SH 71 EASTBOUND GENERAL PURPOSE LANES SUPER ELEVATION DATA TABLE

PI STATION	RADIUS OF CURVE (FT)	(FT/FT)	SUPER ELEVATION %	LENGTH OF TRANSITION (FT)	BEGIN TRANSITION STATION	BEGIN FULL SUPER ELEVATION STATION	END FULL SUPER ELEVATION STATION	END TRANSITION STATION	CURVE DIRECTION
34+74.35	3,000.00	0.06	3.40	285.00	32+25.00	32+45.00	36+61.00	39+46.00	RT.

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SH 71

SUPER ELEVATION DATA

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Texas Department of Transportation

SHEET 1 OF 1

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		49

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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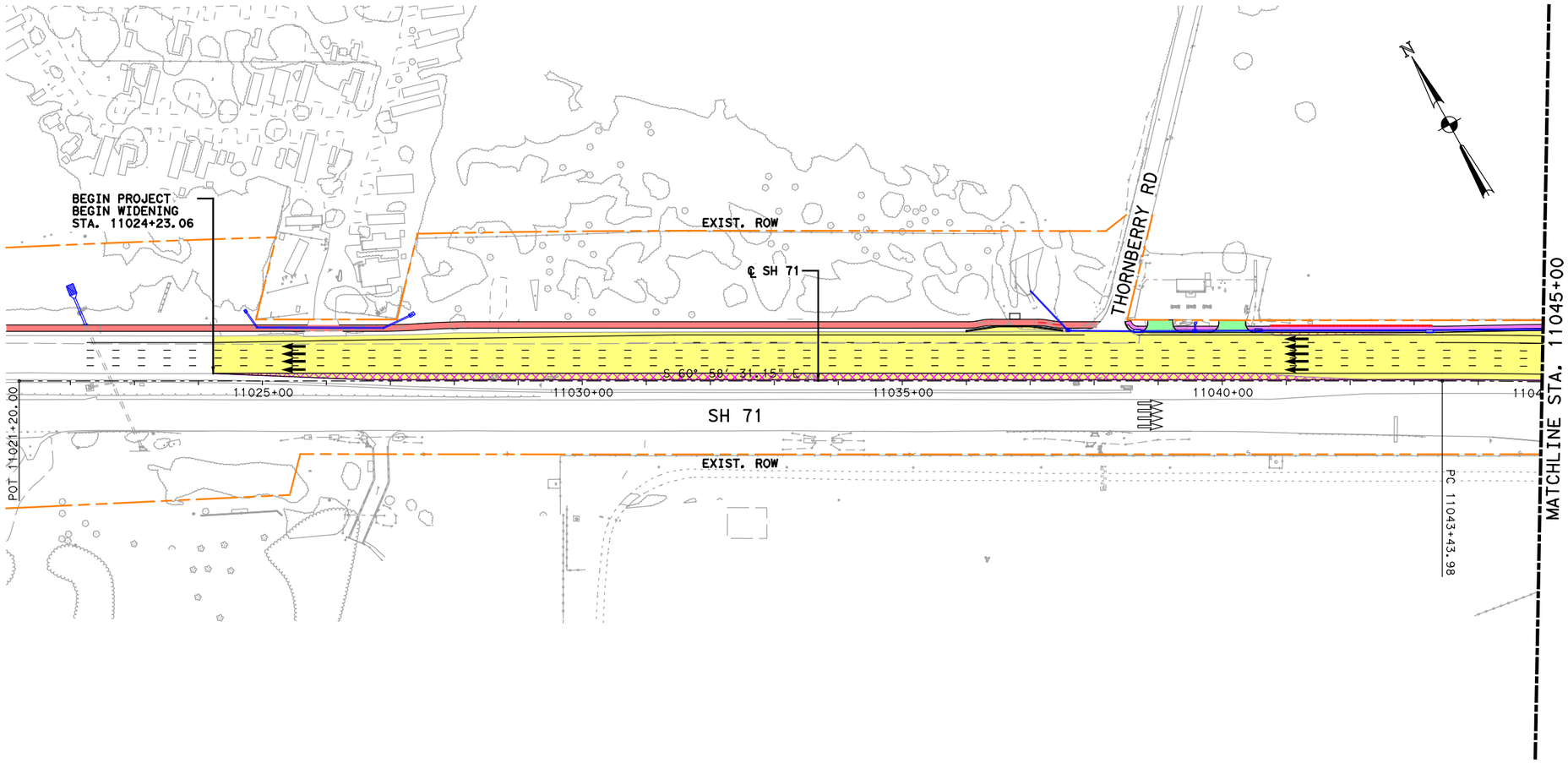

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- PROP DRAINAGE FEATURE
- RETAINING WALL

NOTES:

1. EXISTING PAVEMENT TO REMAIN UNLESS OTHERWISE NOTED.
2. OVERLAY LIMITS AS PER TECHNICAL PROVISIONS ATTACHMENT 11-3 ADDENDUM NO. 3.

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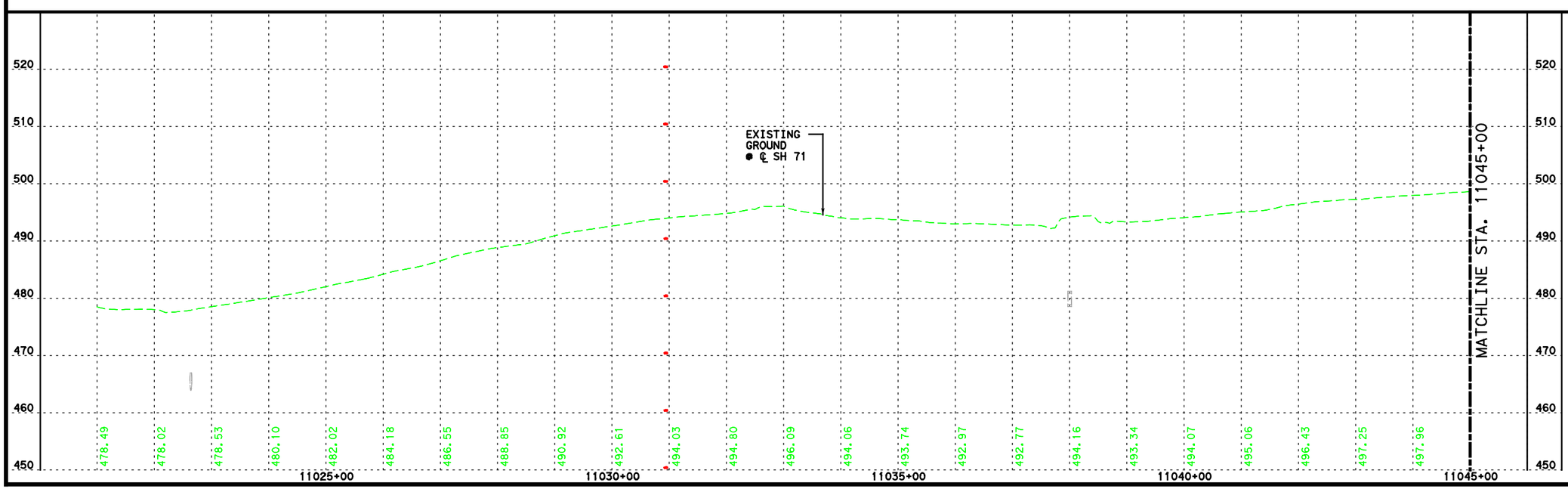

SH 71

P&P

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TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 1 OF 9

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			50
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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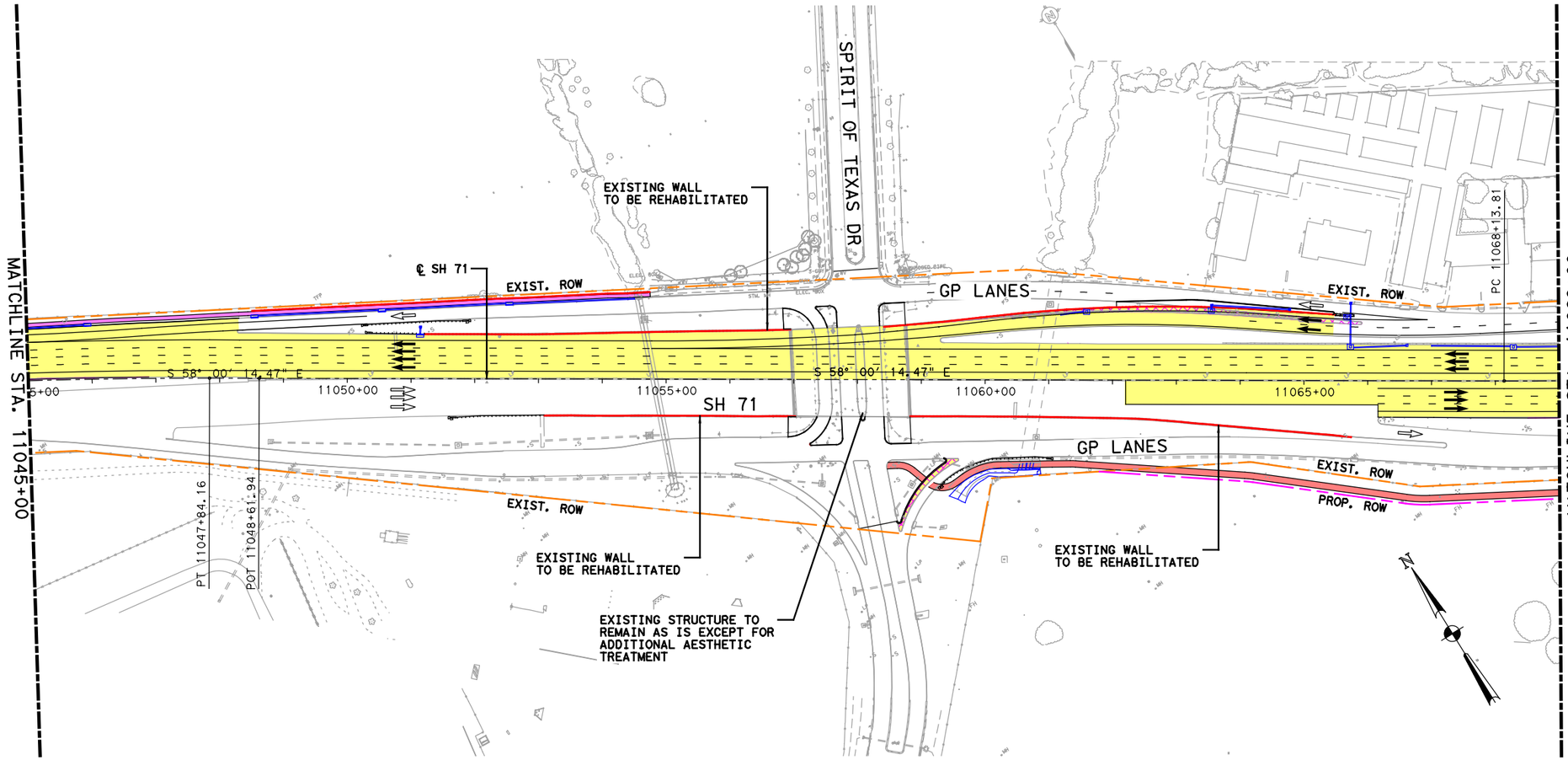

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- PROP DRAINAGE FEATURE
- RETAINING WALL

NOTES:

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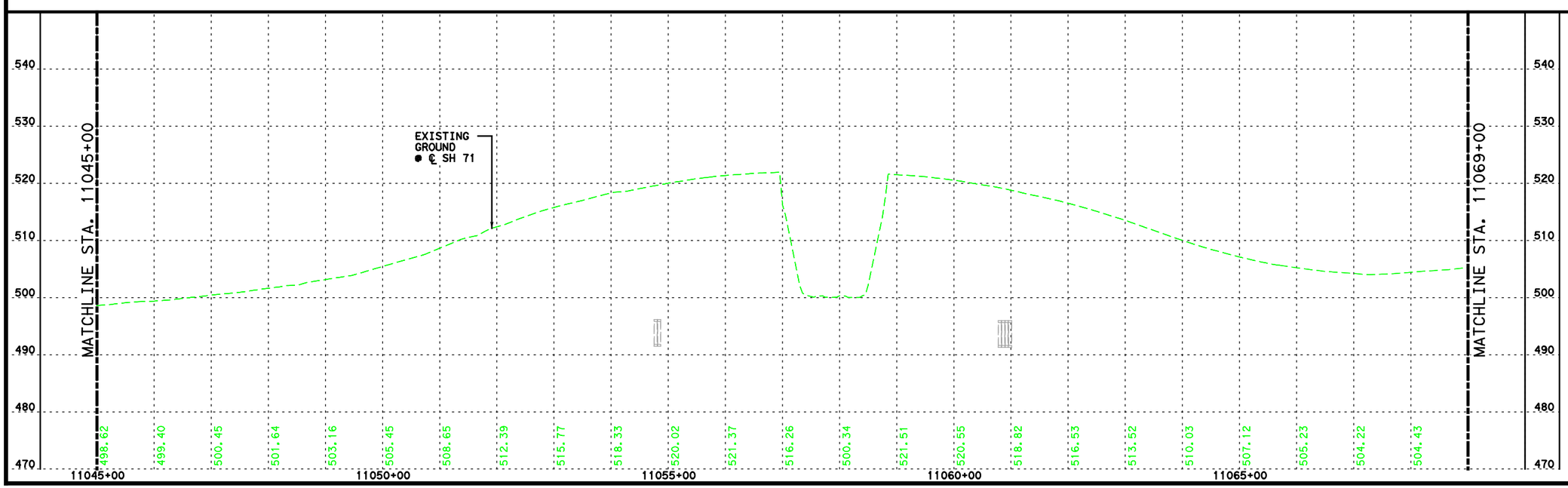

SH 71

P&P

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 2 OF 9

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			51
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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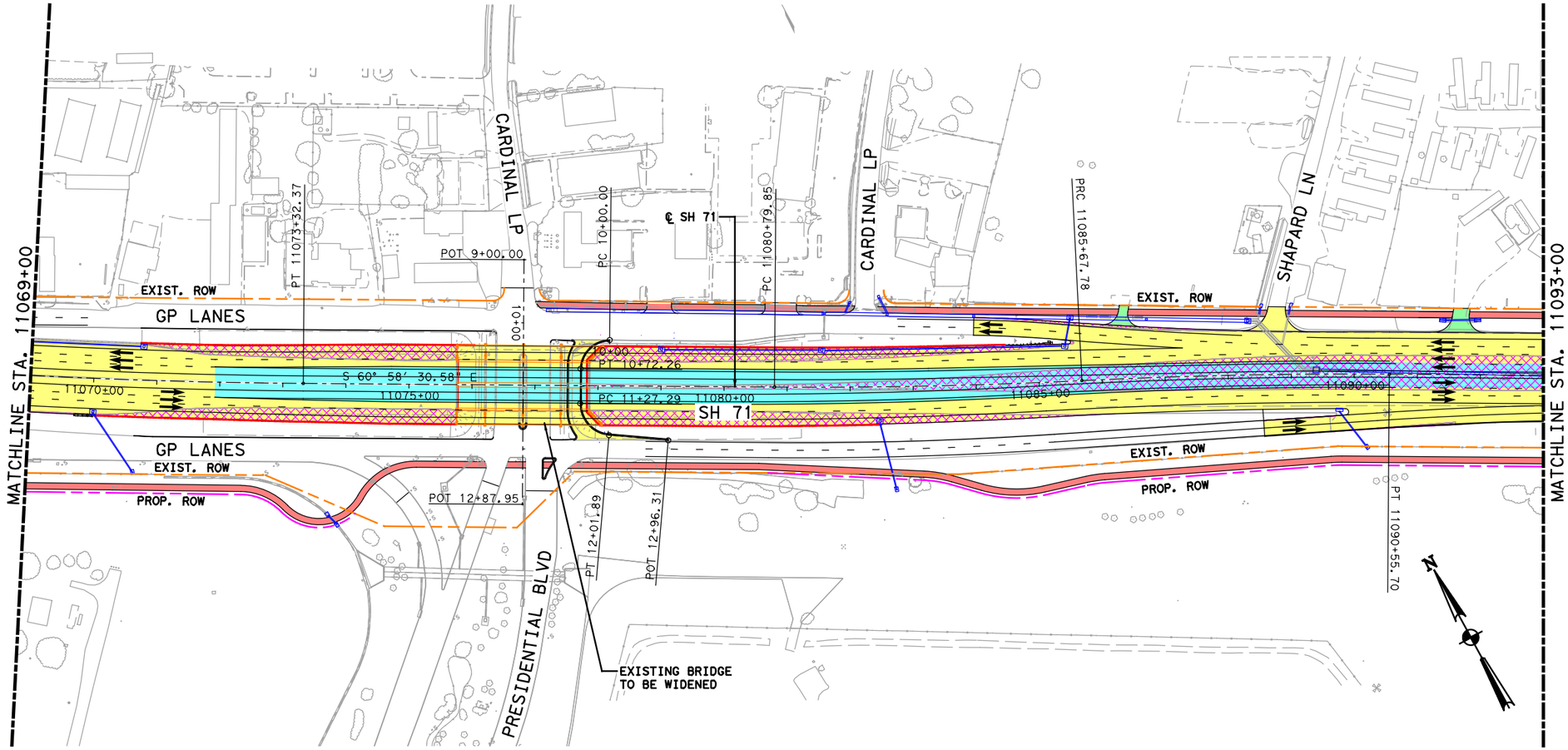

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- PROP DRAINAGE FEATURE
- RETAINING WALL

NOTES:

1. EXISTING PAVEMENT TO REMAIN UNLESS OTHERWISE NOTED.
2. OVERLAY LIMITS AS PER TECHNICAL PROVISIONS ATTACHMENT 11-3 ADDENDUM NO. 3.

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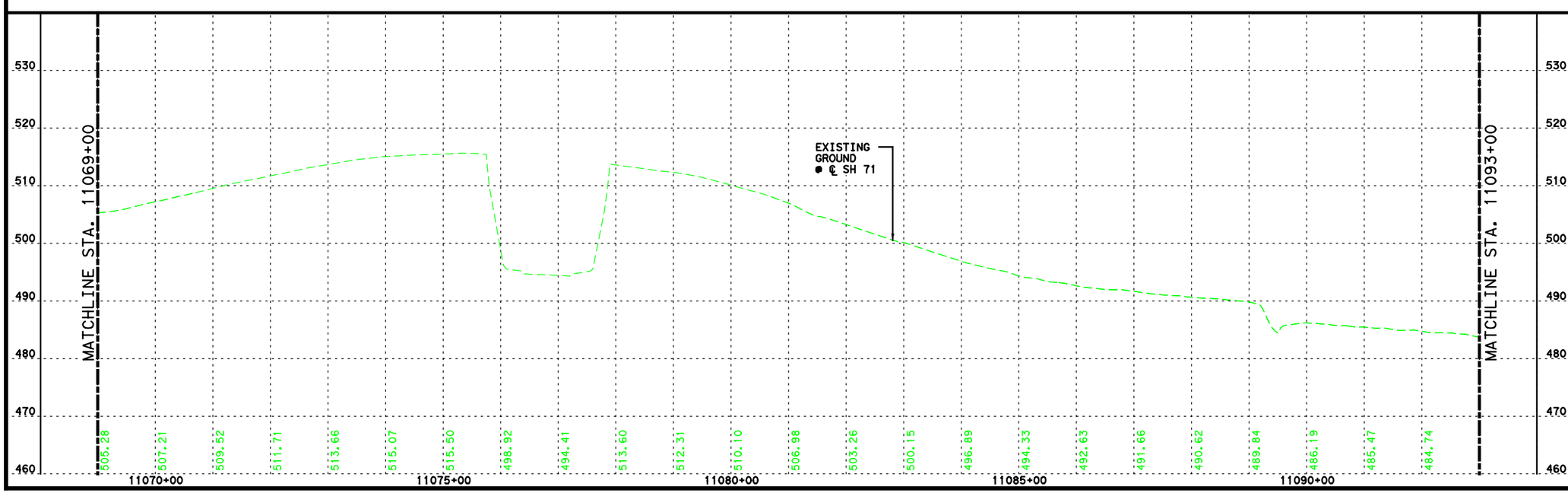

SH 71

P&P

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 3 OF 9

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		52

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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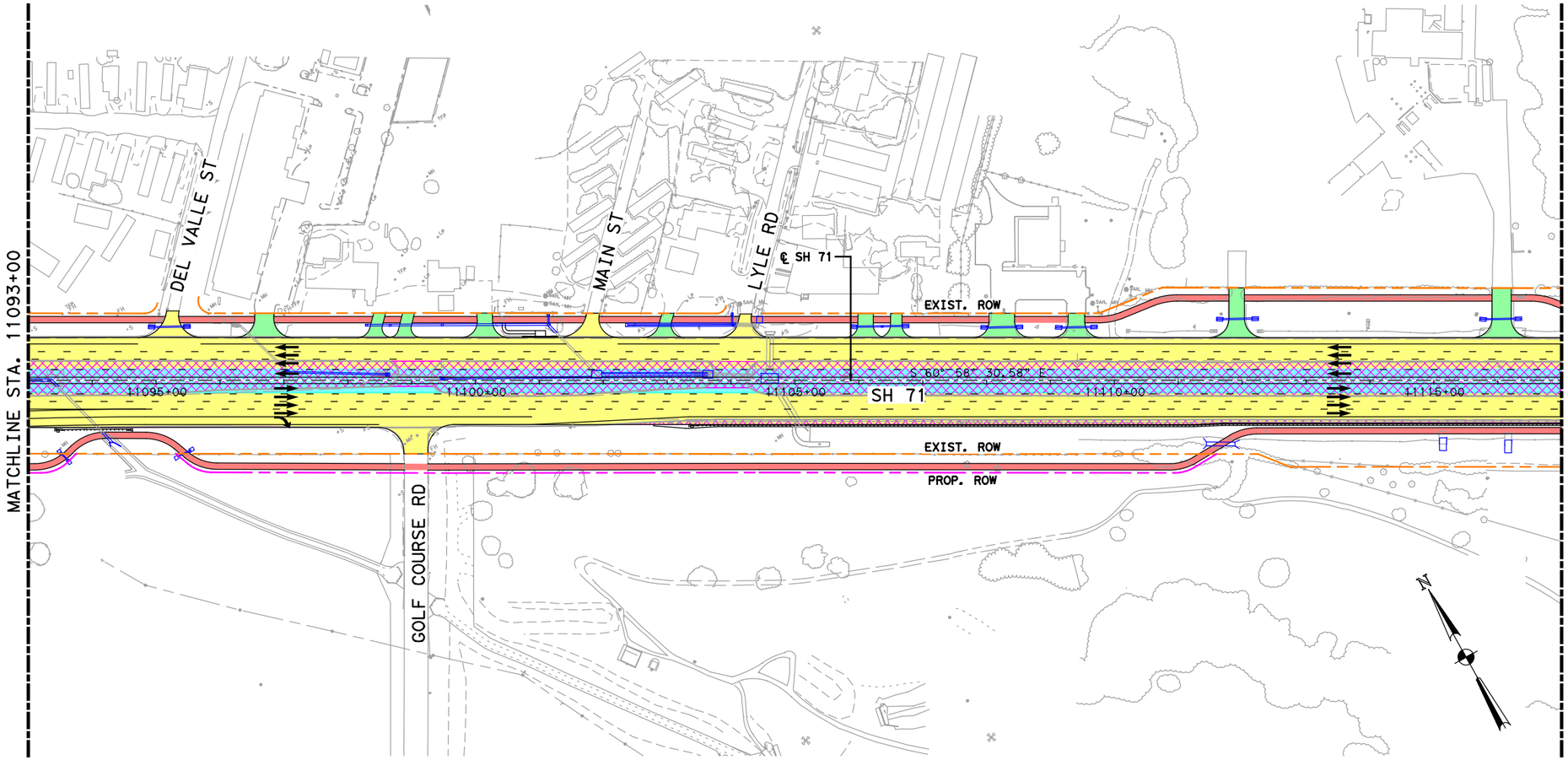

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- PROP DRAINAGE FEATURE
- RETAINING WALL

NOTES:

1. EXISTING PAVEMENT TO REMAIN UNLESS OTHERWISE NOTED.
2. OVERLAY LIMITS AS PER TECHNICAL PROVISIONS ATTACHMENT 11-3 ADDENDUM NO. 3.

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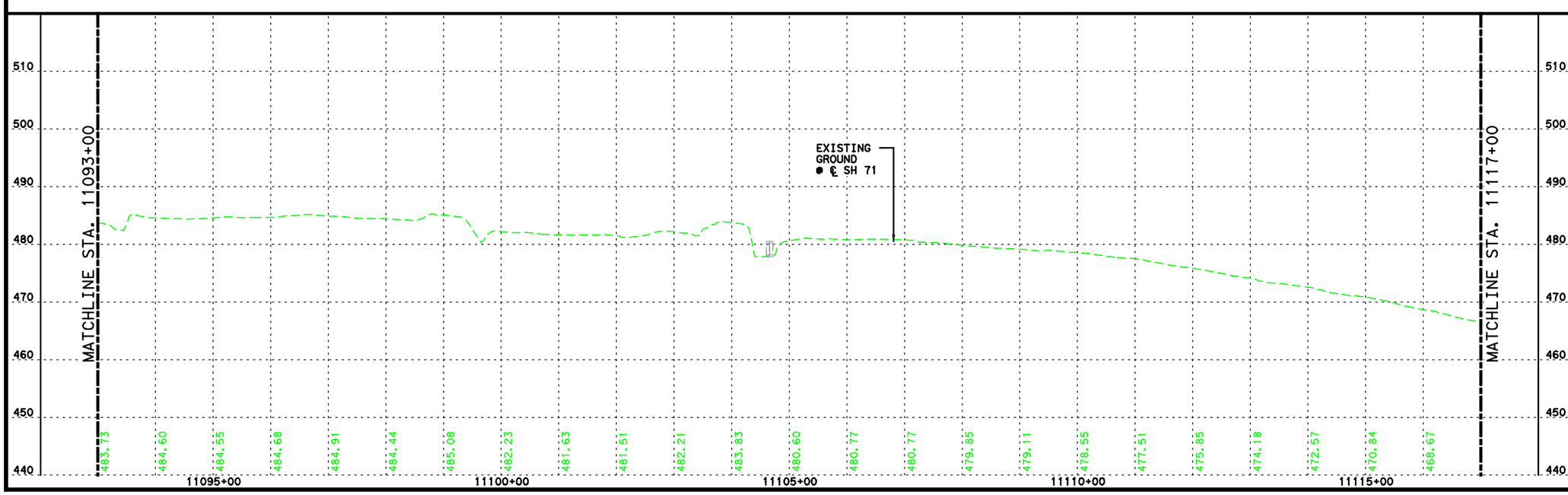
Lockwood, Andrews & Newnam, Inc. ID No. 2614



SH 71

P&P

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 4 OF 9

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		53

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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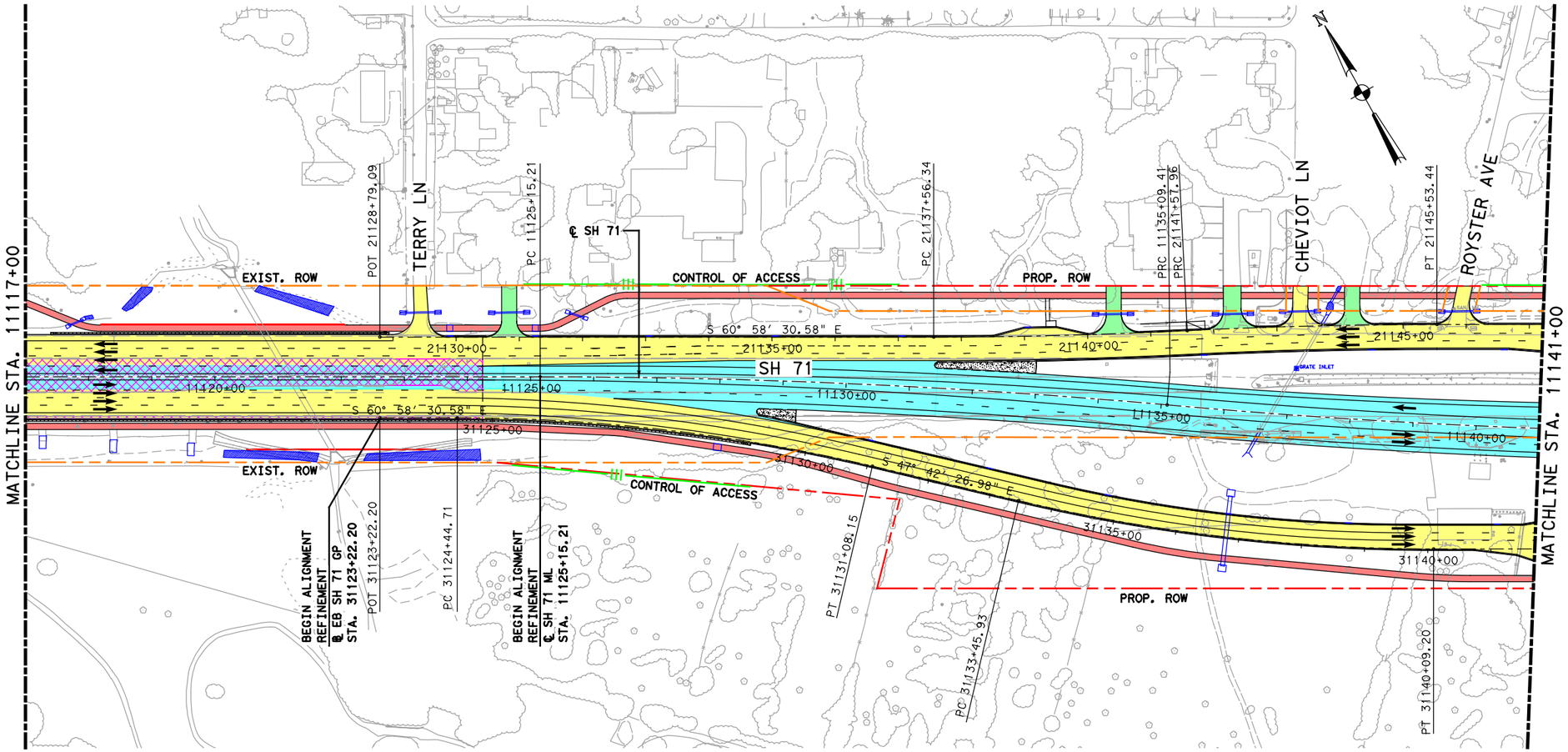

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- PROP DRAINAGE FEATURE
- RETAINING WALL

NOTES:

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2. OVERLAY LIMITS AS PER TECHNICAL PROVISIONS ATTACHMENT 11-3 ADDENDUM NO. 3.

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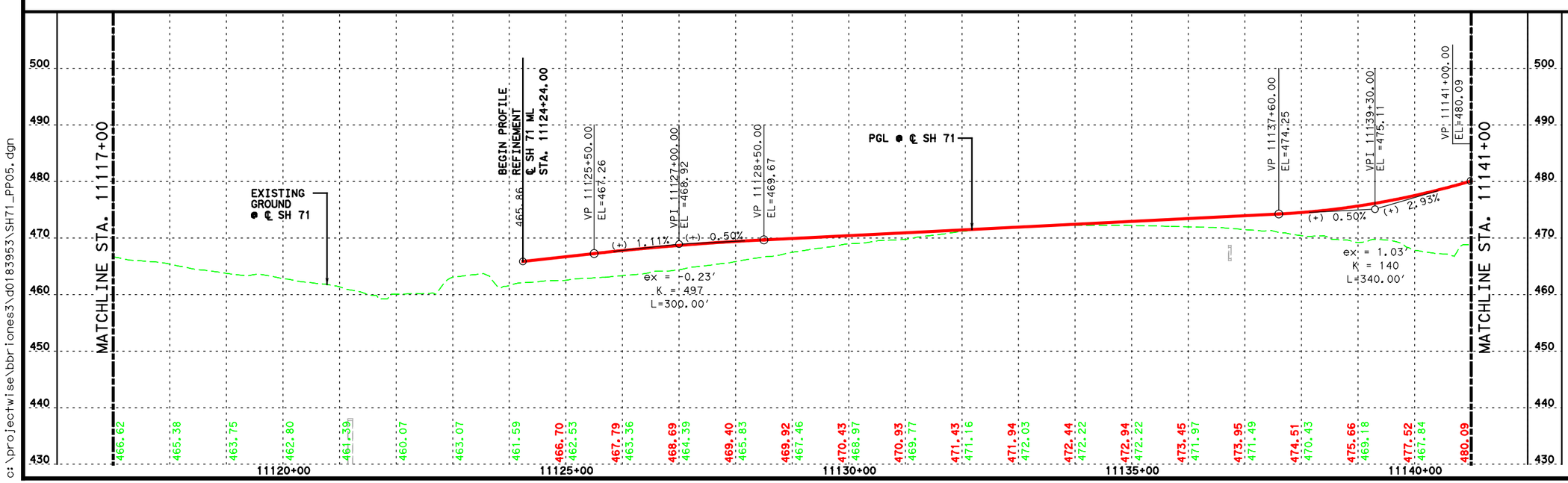

SH 71

P&P

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 5 OF 9

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			54
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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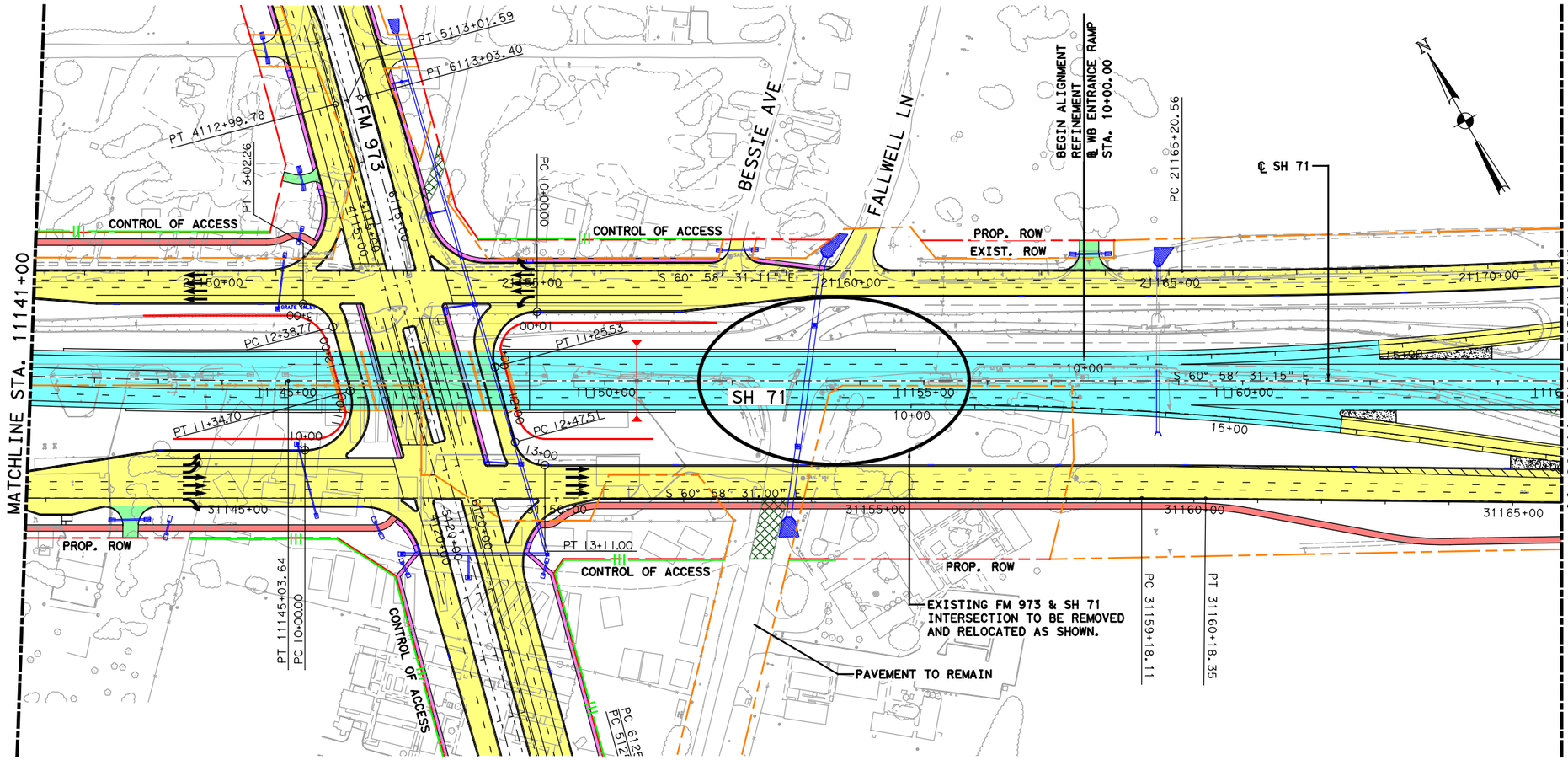

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- PROP DRAINAGE FEATURE
- RETAINING WALL

NOTES:

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2. OVERLAY LIMITS AS PER TECHNICAL PROVISIONS ATTACHMENT 11-3 ADDENDUM NO. 3.

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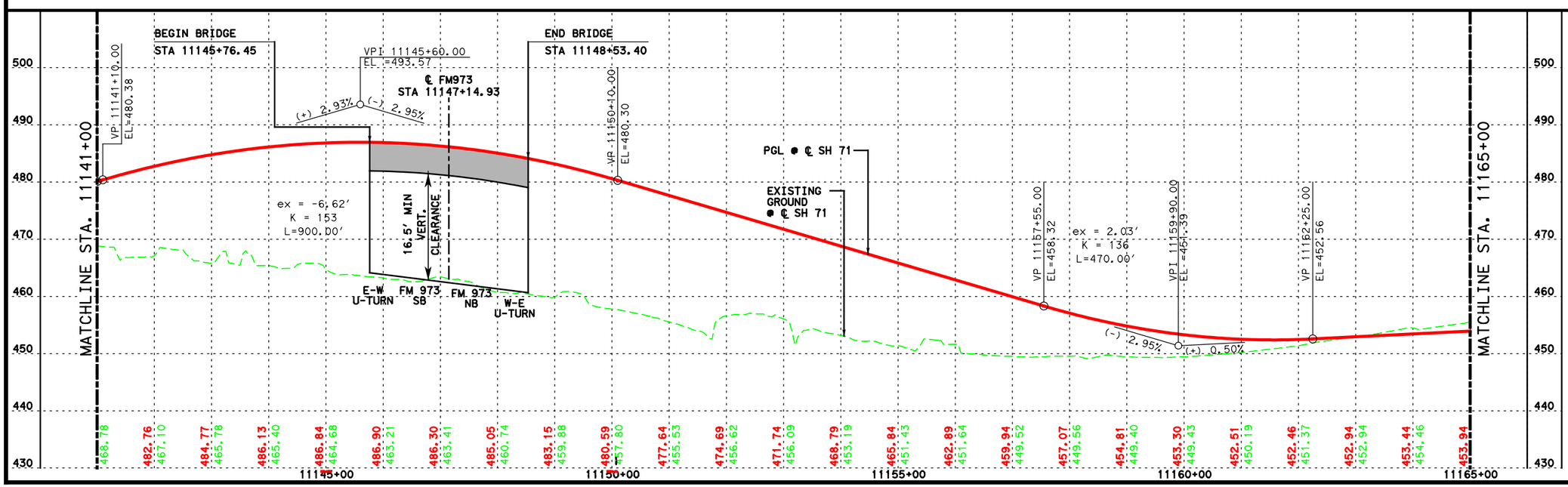

SH 71

P&P

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 6 OF 9

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			55
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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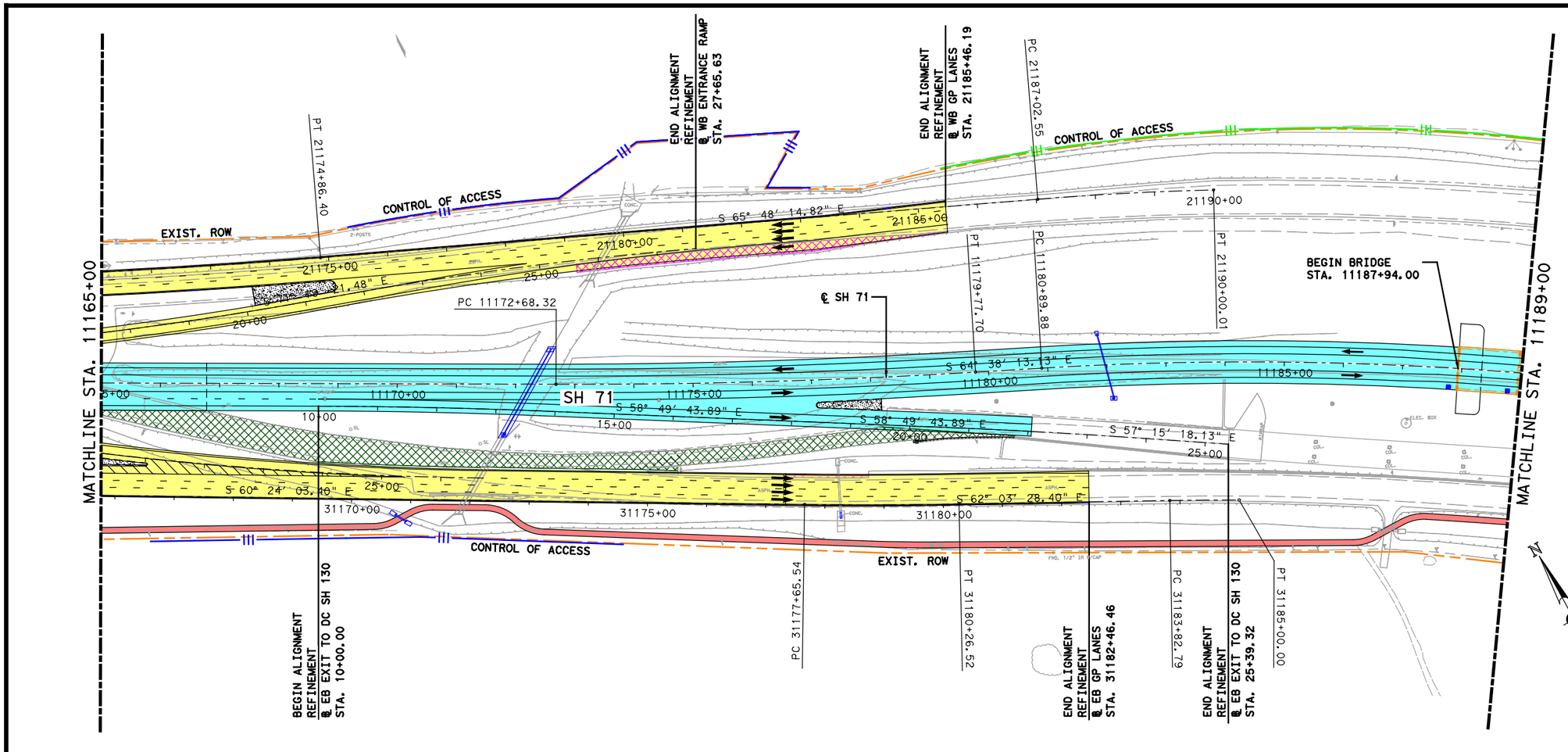

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- PROP DRAINAGE FEATURE
- RETAINING WALL

NOTES:

1. EXISTING PAVEMENT TO REMAIN UNLESS OTHERWISE NOTED.
2. OVERLAY LIMITS AS PER TECHNICAL PROVISIONS ATTACHMENT 11-3 ADDENDUM NO. 3.

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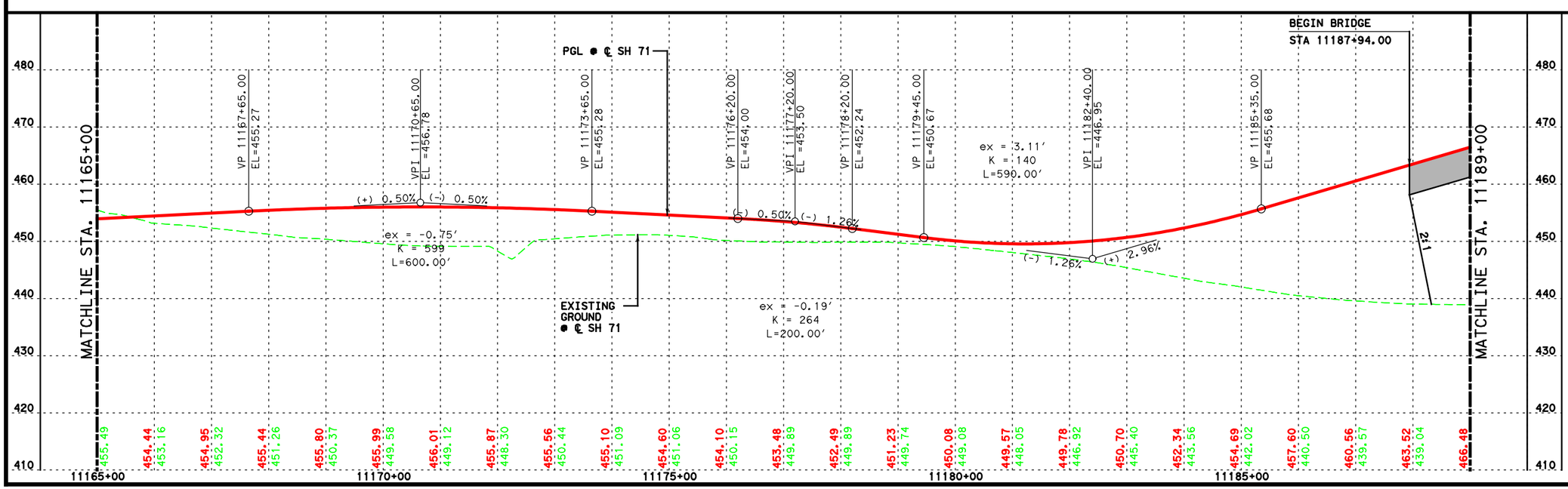
Lockwood, Andrews & Newnam, Inc. ID No. 2614



SH 71

P&P

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 7 OF 9

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		56

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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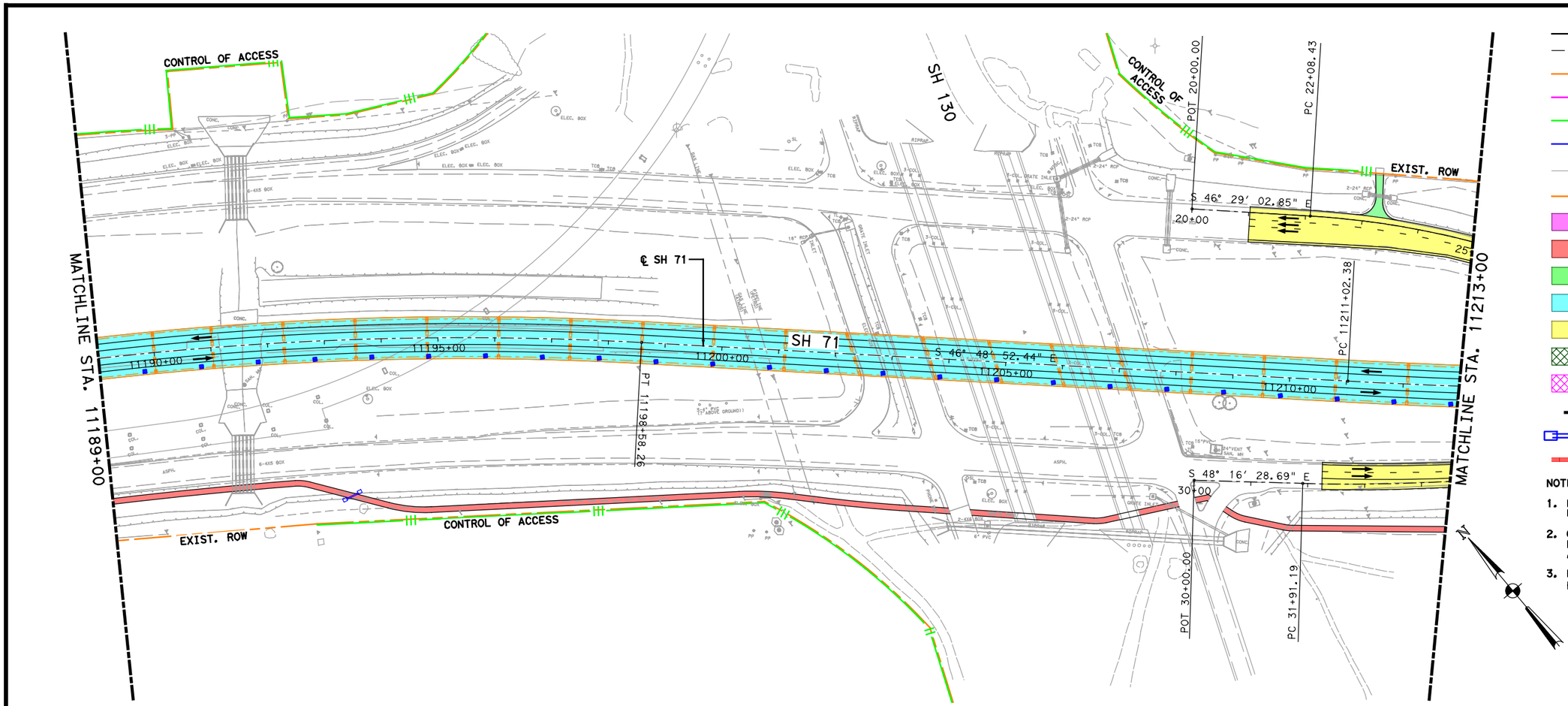

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- PROP DRAINAGE FEATURE
- RETAINING WALL

NOTES:

1. EXISTING PAVEMENT TO REMAIN UNLESS OTHERWISE NOTED.
2. OVERLAY LIMITS AS PER TECHNICAL PROVISIONS ATTACHMENT 11-3 ADDENDUM NO. 3.
3. EXISTING INTERCHANGE TO REMAIN FULLY OPERATIONAL.

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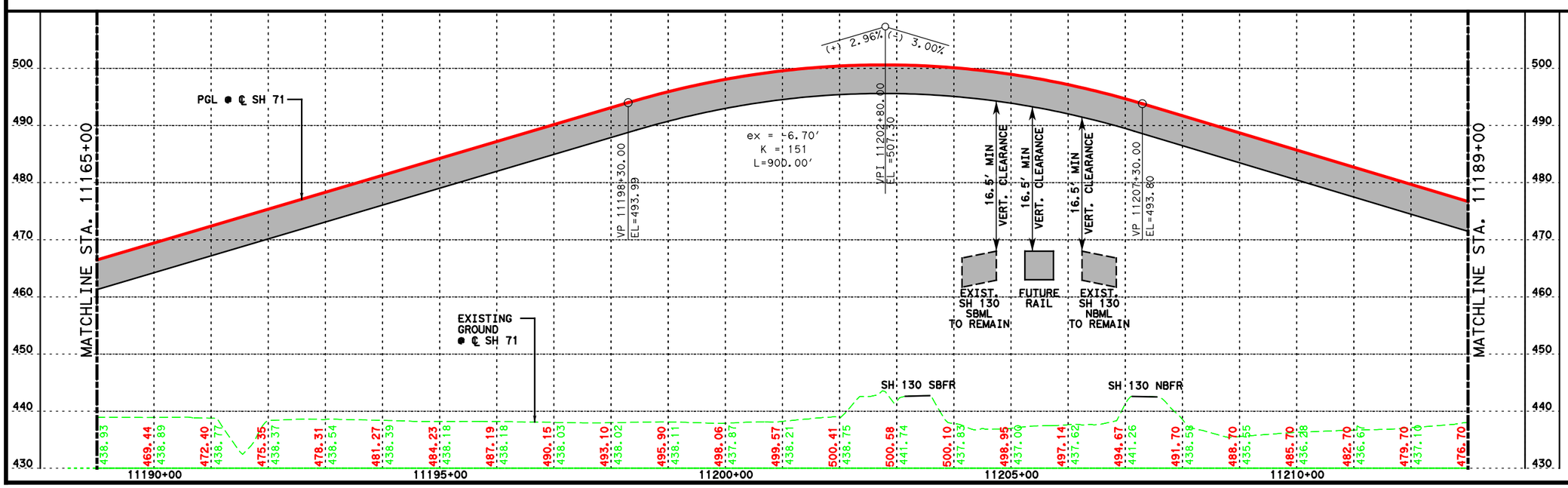

SH 71

P&P

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200′
VERTICAL 1"= 20′

Texas Department of Transportation

SHEET 8 OF 9

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			57
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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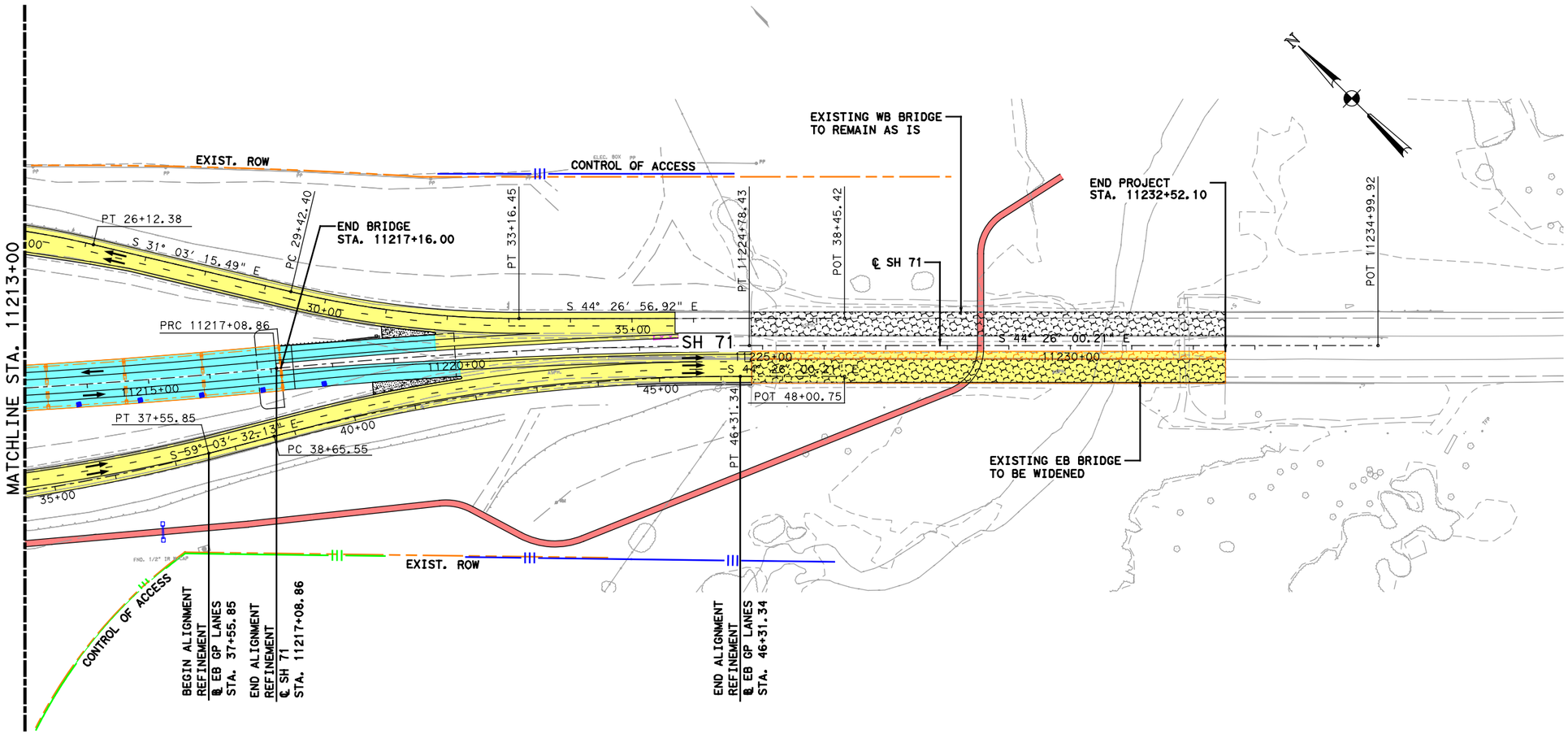

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- PROP DRAINAGE FEATURE
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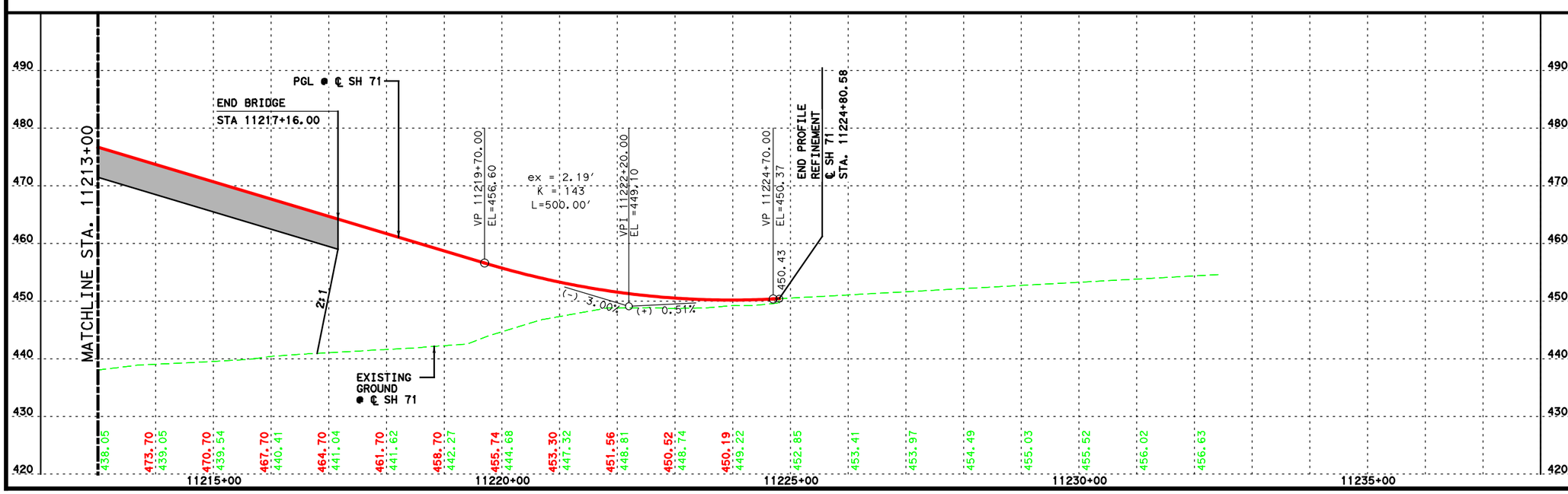

SH 71

P&P

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 9 OF 9

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		58

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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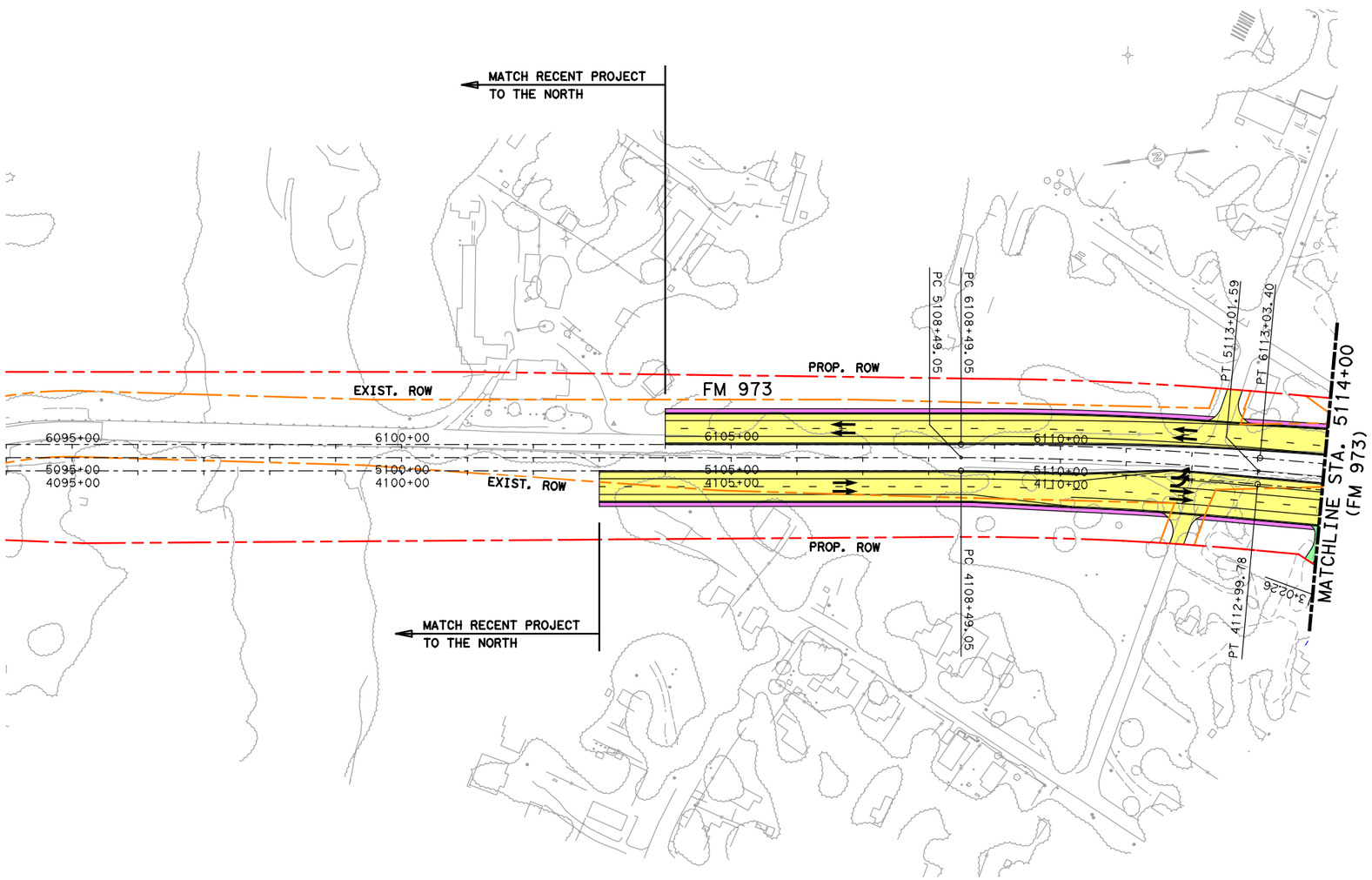

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			59
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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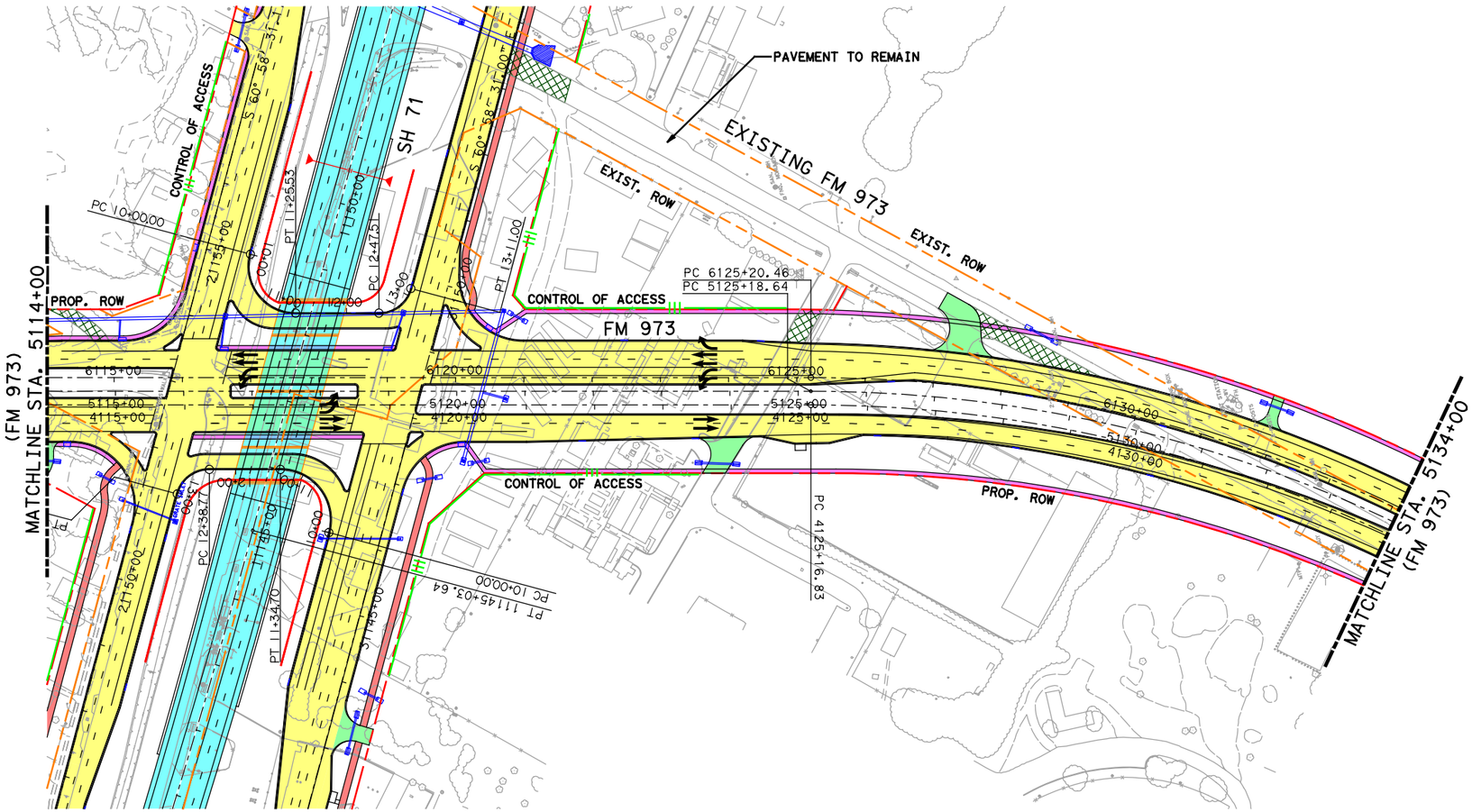

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			60
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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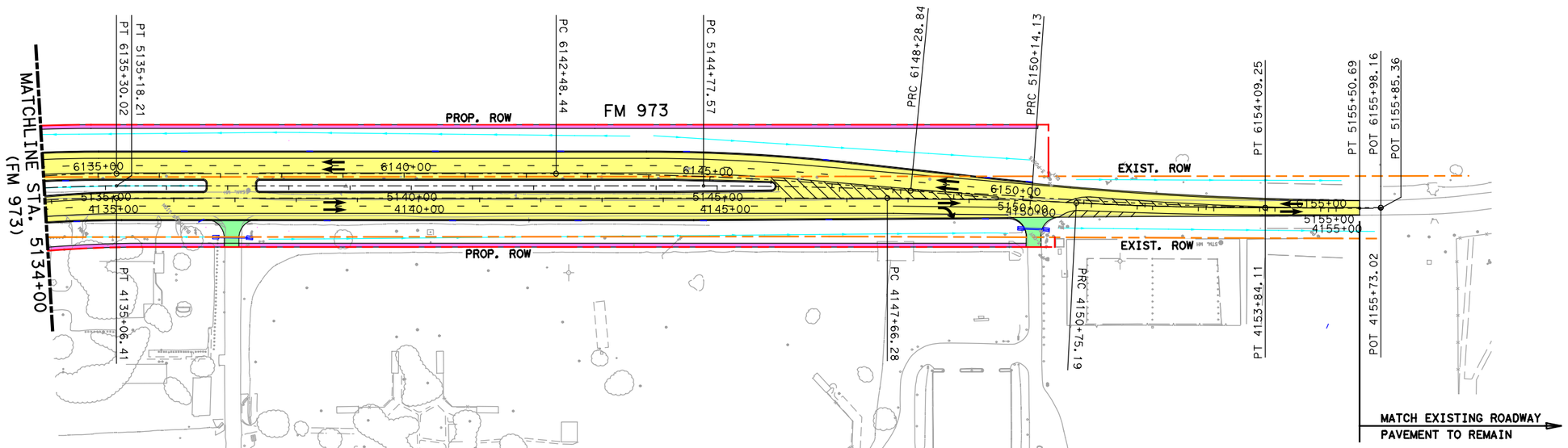

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
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- PAVEMENT TO BE REMOVED
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FM 973

PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			61
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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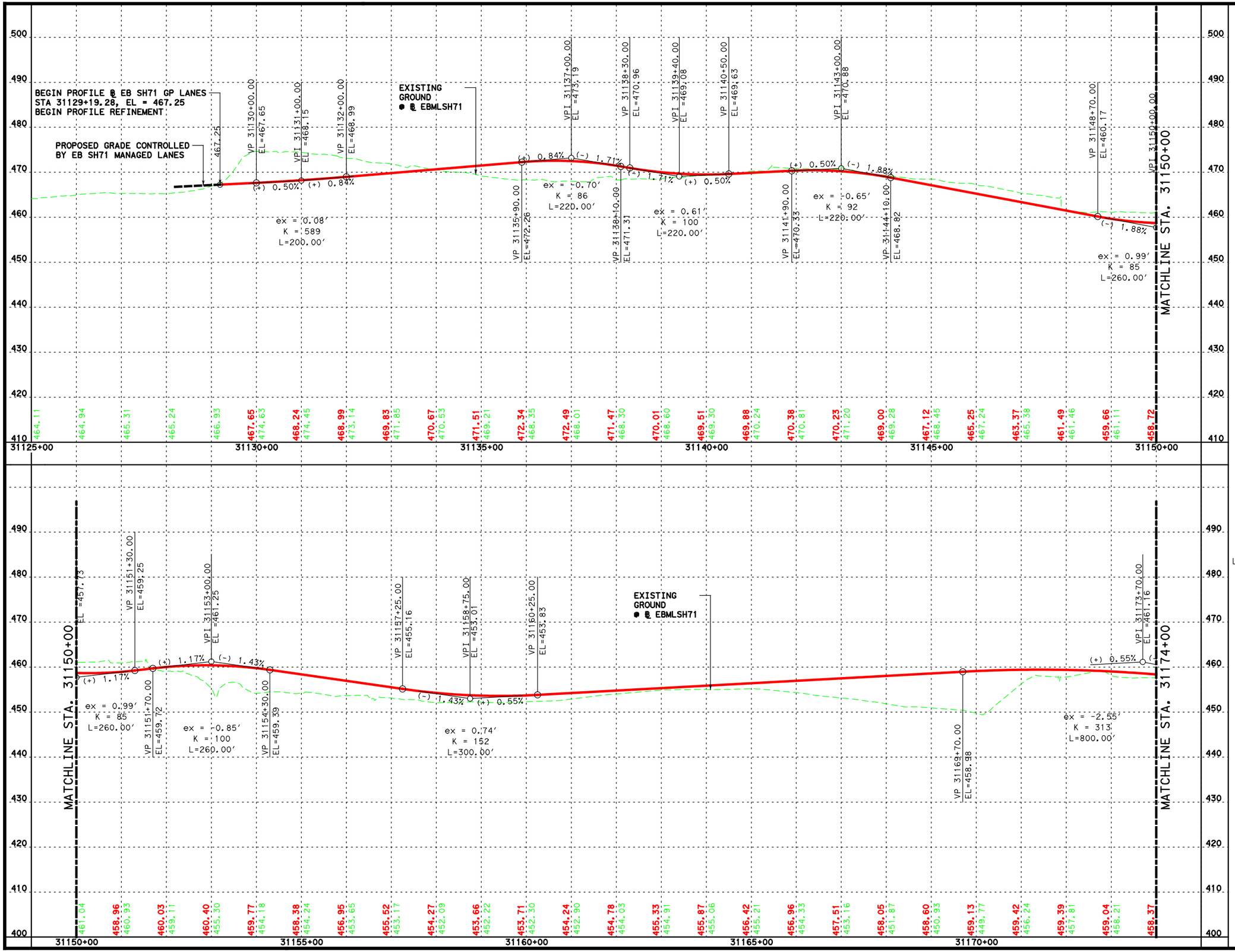

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

EB PROFILE GENERAL PURPOSE

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200′
VERTICAL 1"= 20′

Texas Department of Transportation

SHEET 1 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			62
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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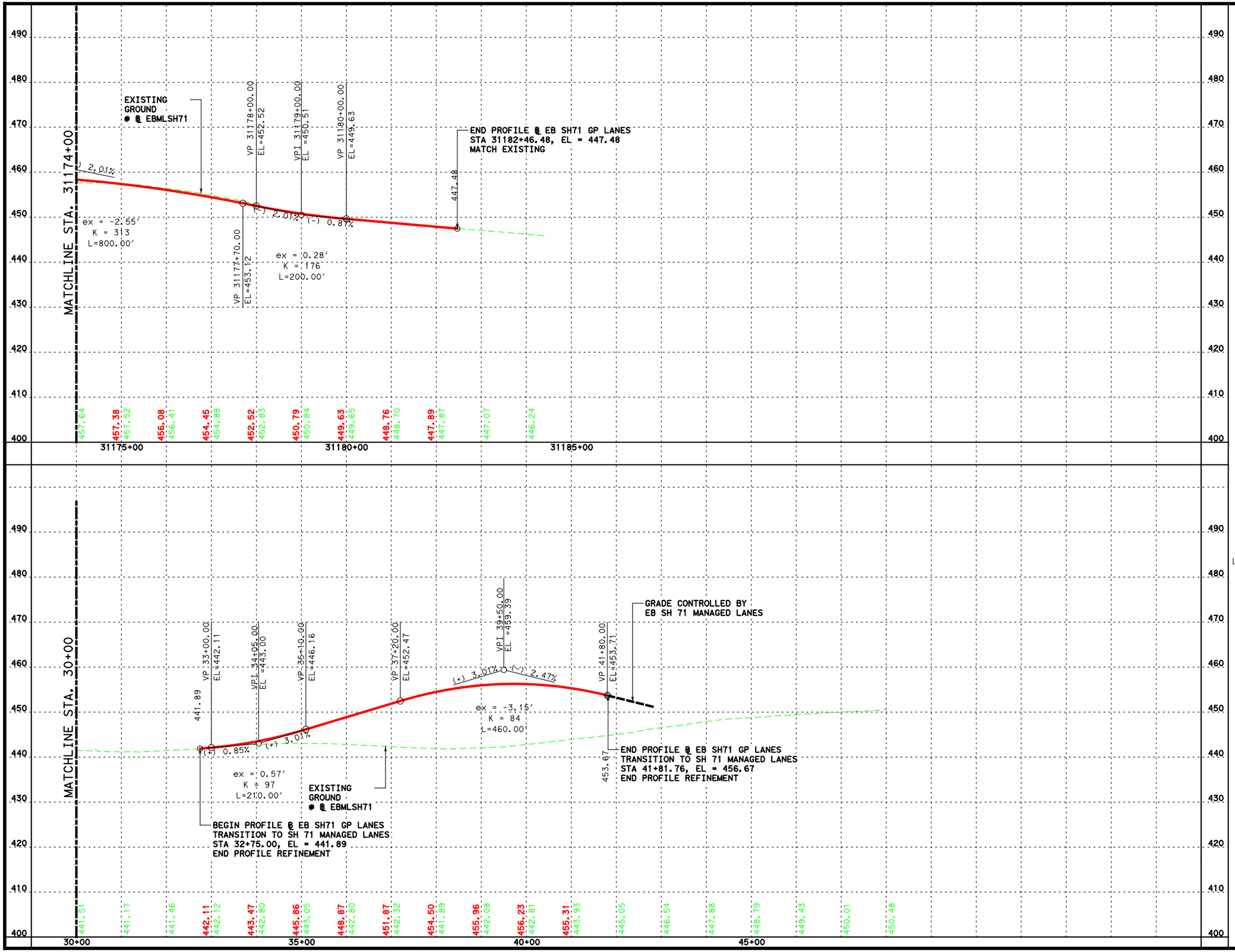

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

EB PROFILE
GENERAL PURPOSE

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 2 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			63
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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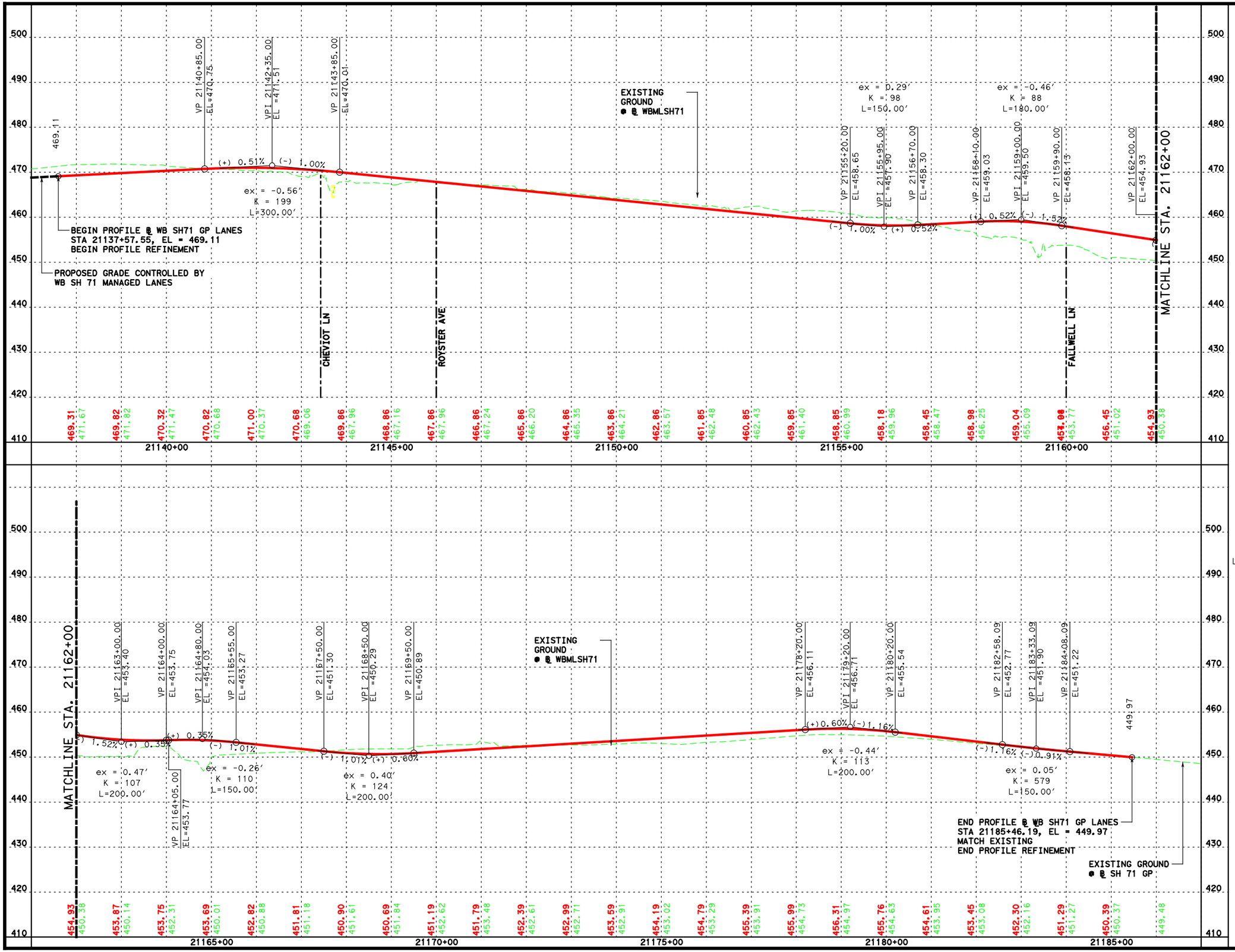

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

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SH 71

WB PROFILE
GENERAL PURPOSE

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200′
VERTICAL 1"= 20′

Texas Department of Transportation

SHEET 1 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			64
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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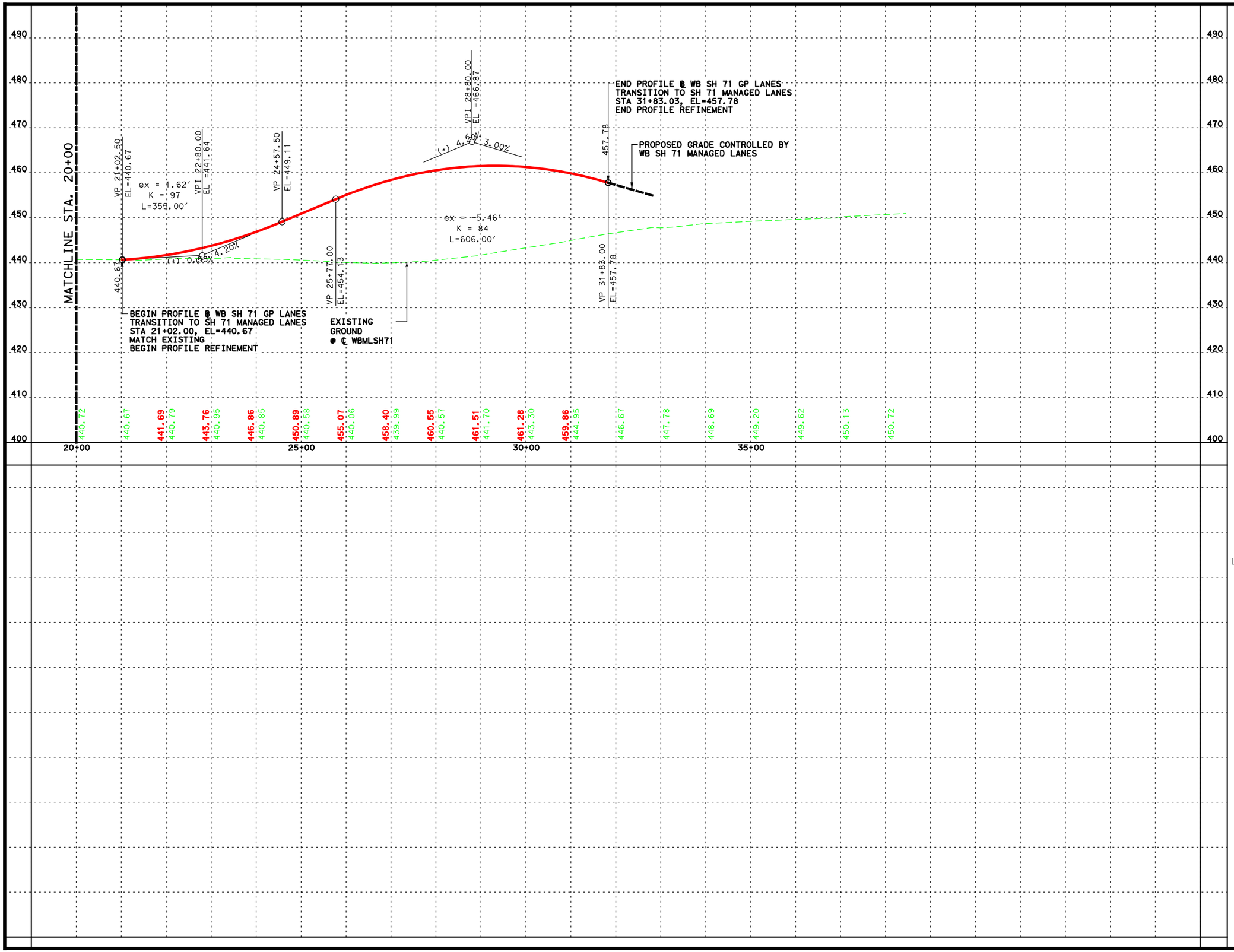

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

WB PROFILE
GENERAL PURPOSE

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 2 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		65

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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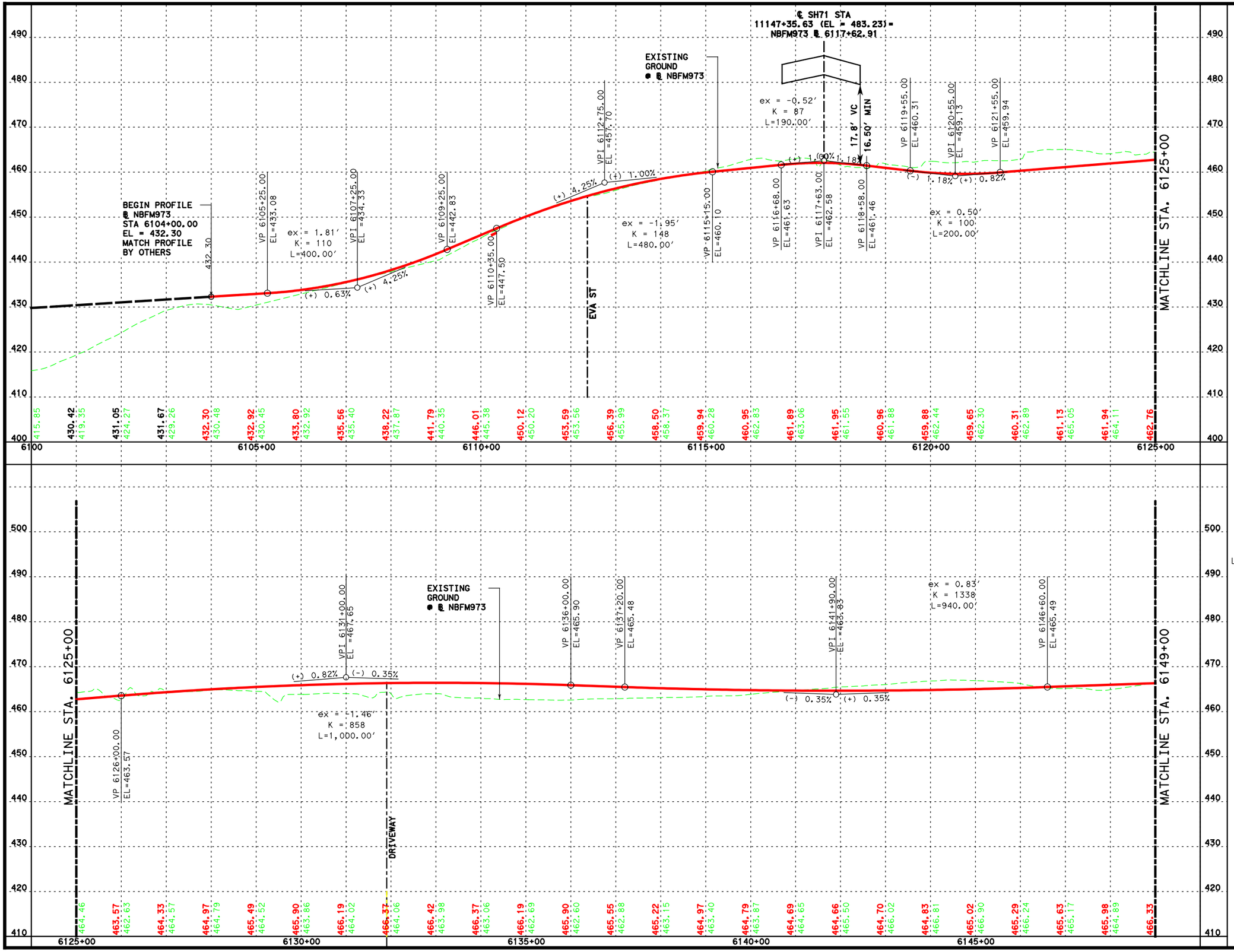

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

NB PROFILE

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200′
VERTICAL 1"= 20′

Texas Department of Transportation

SHEET 1 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			66
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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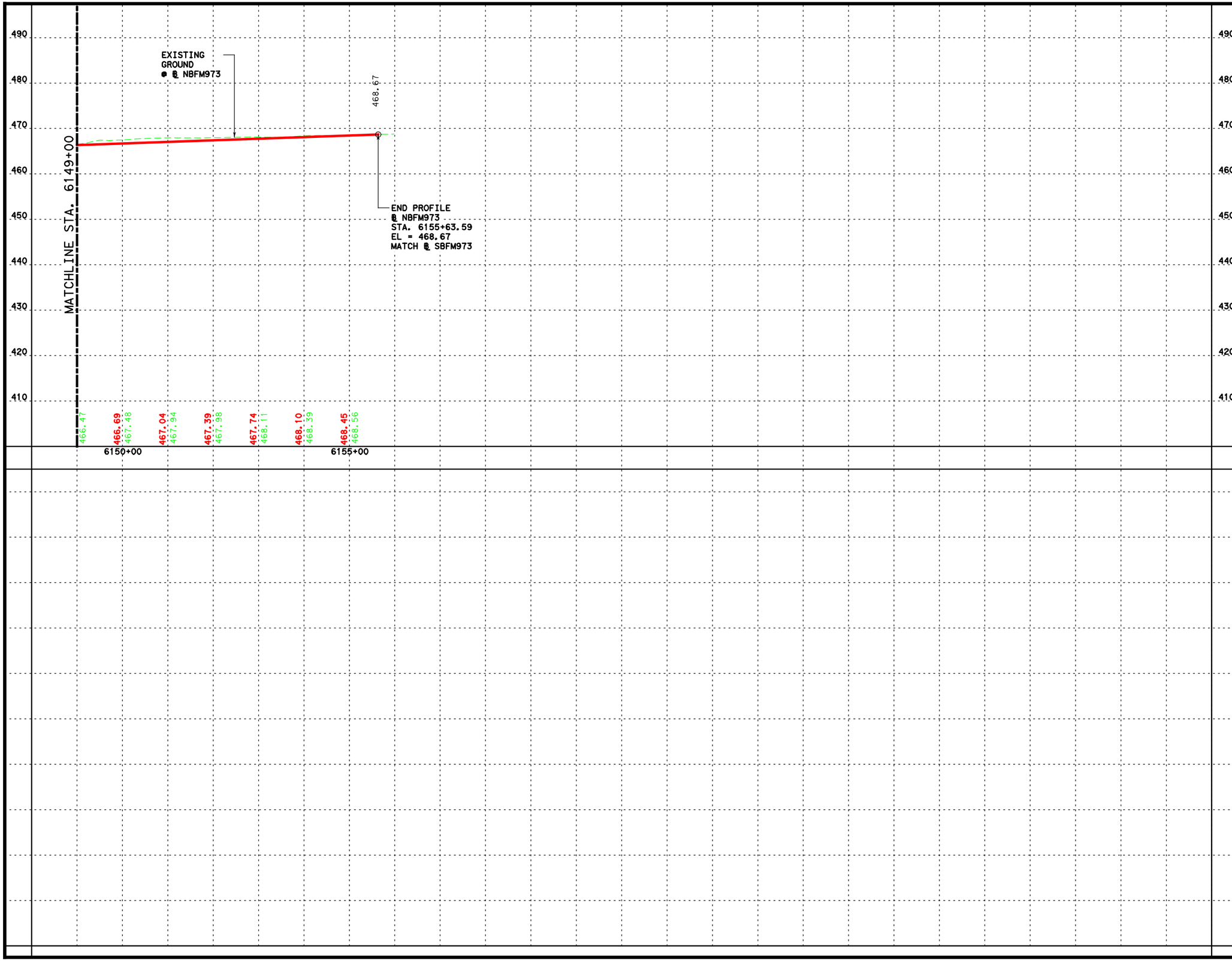

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

NB PROFILE

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 2 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		67

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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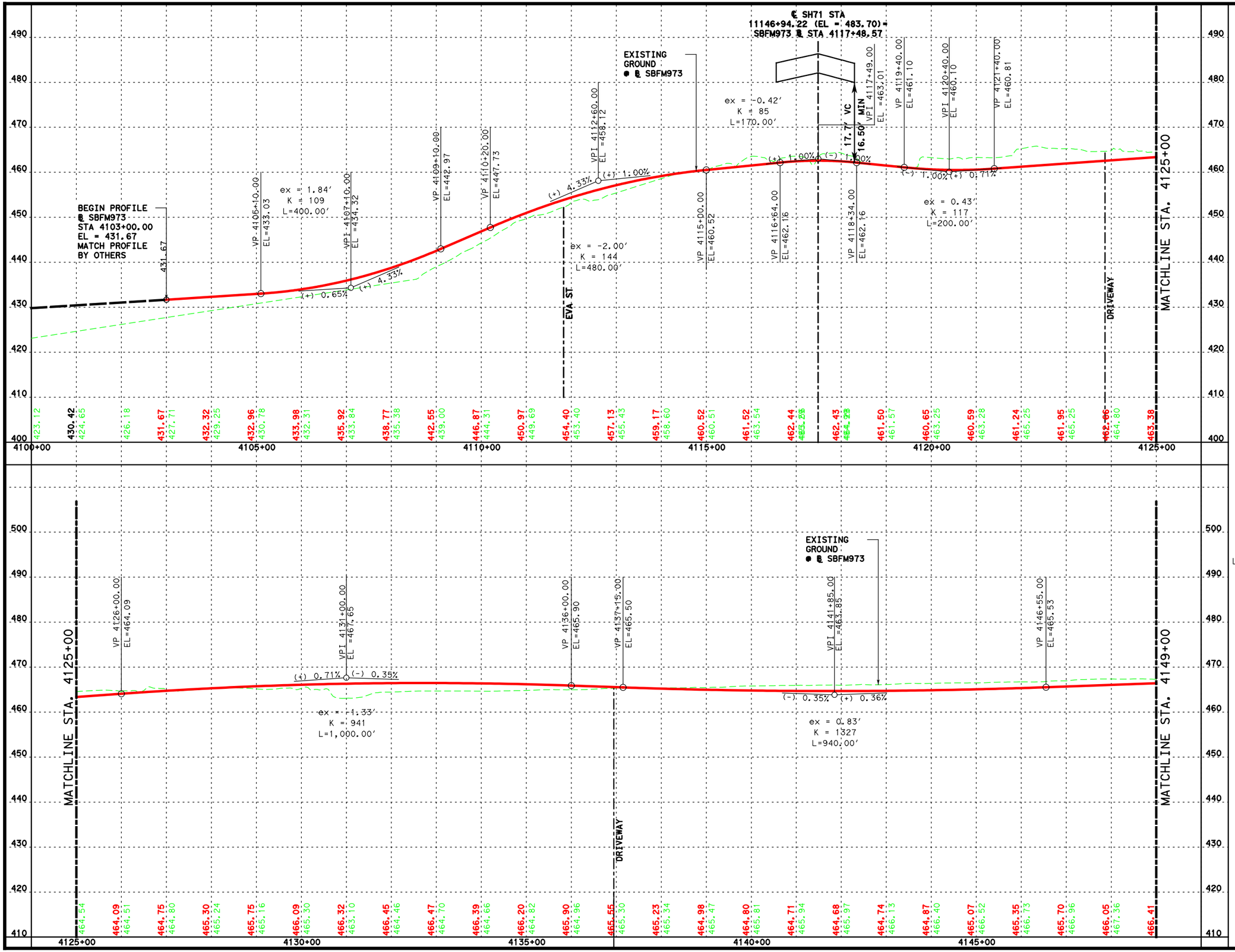

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

SB PROFILE

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 1 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		68

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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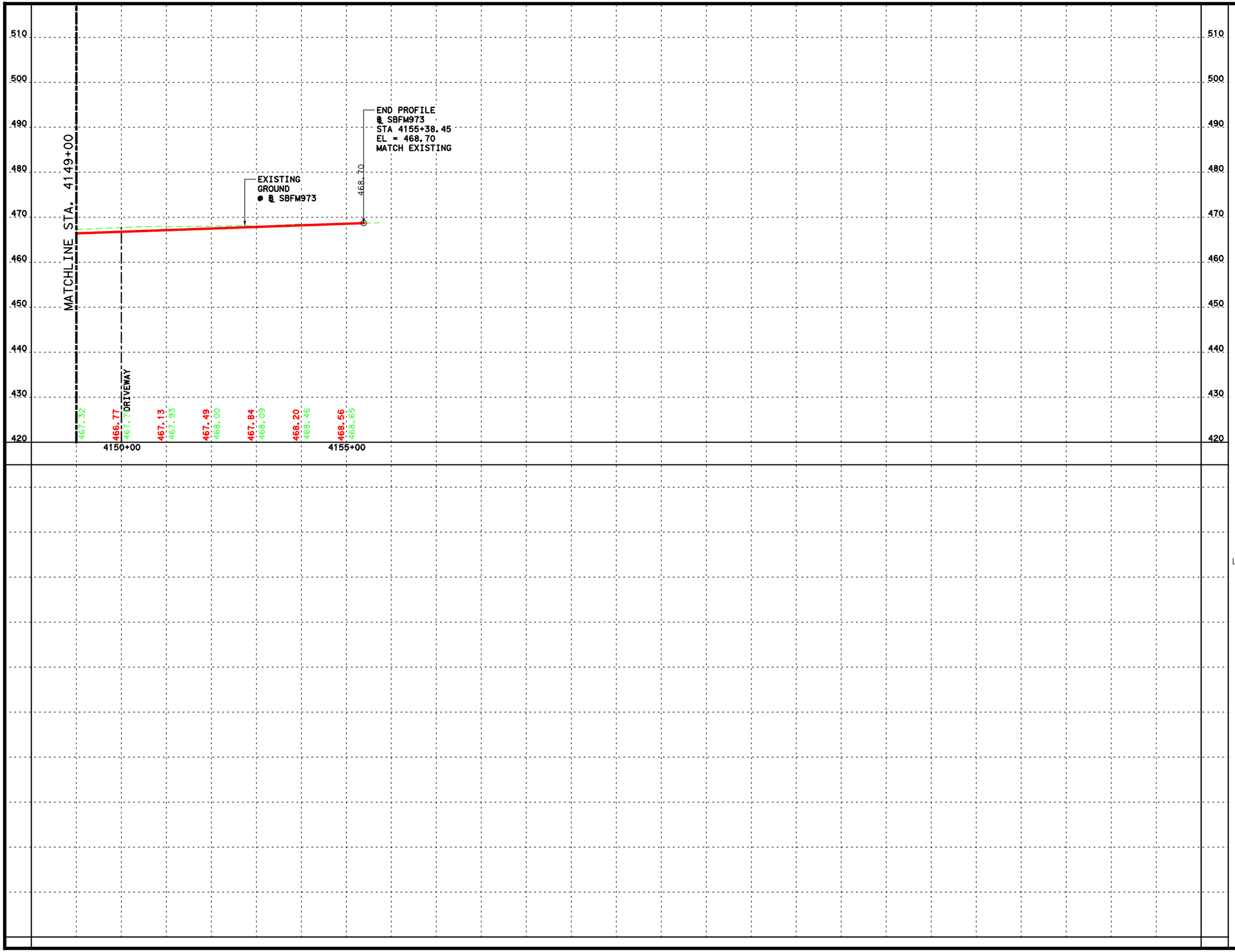

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

SB PROFILE

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 2 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		69

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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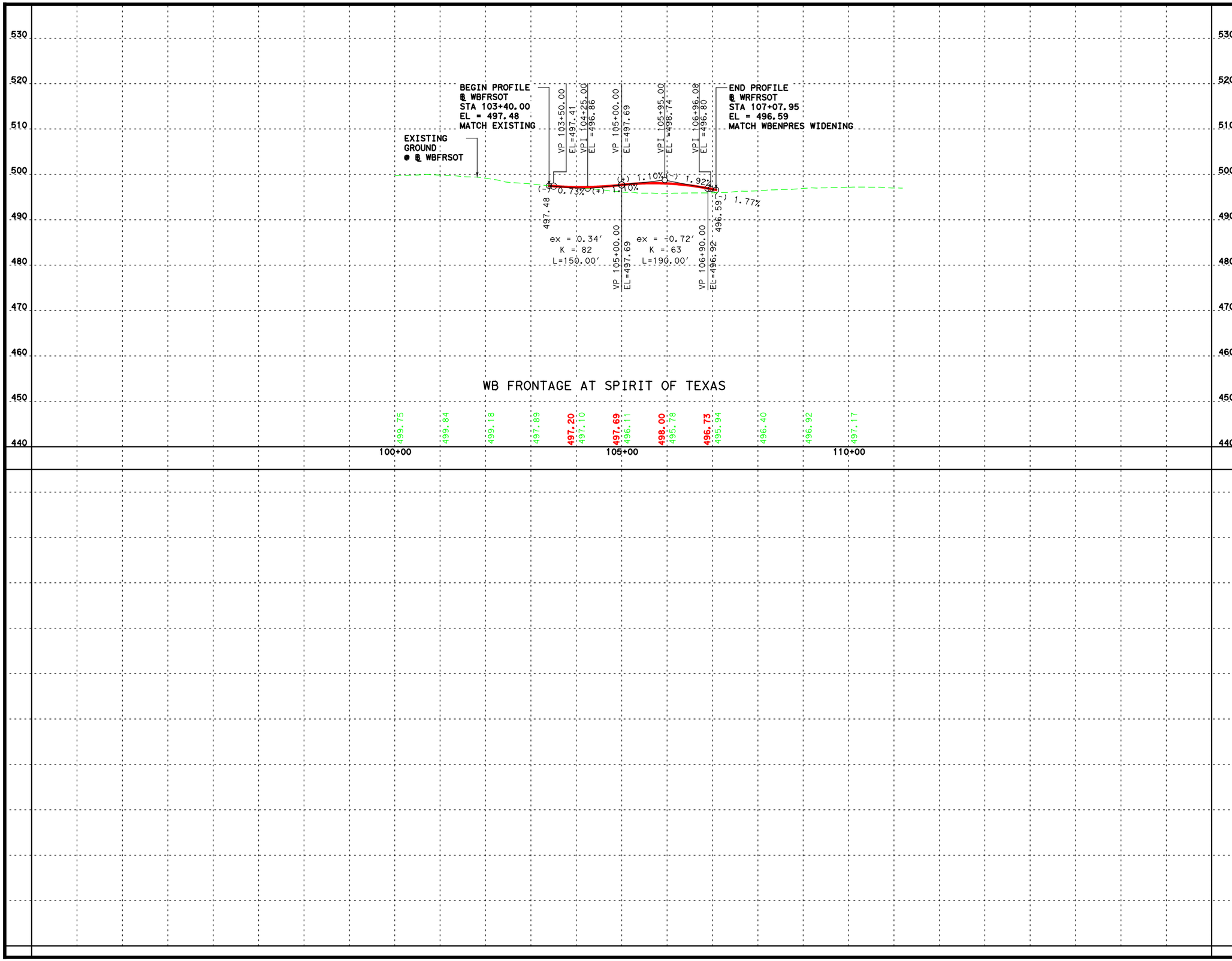

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

FRONTAGE ROAD PROFILES

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200′
VERTICAL 1"= 20′

Texas Department of Transportation

SHEET 1 OF 1

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		70

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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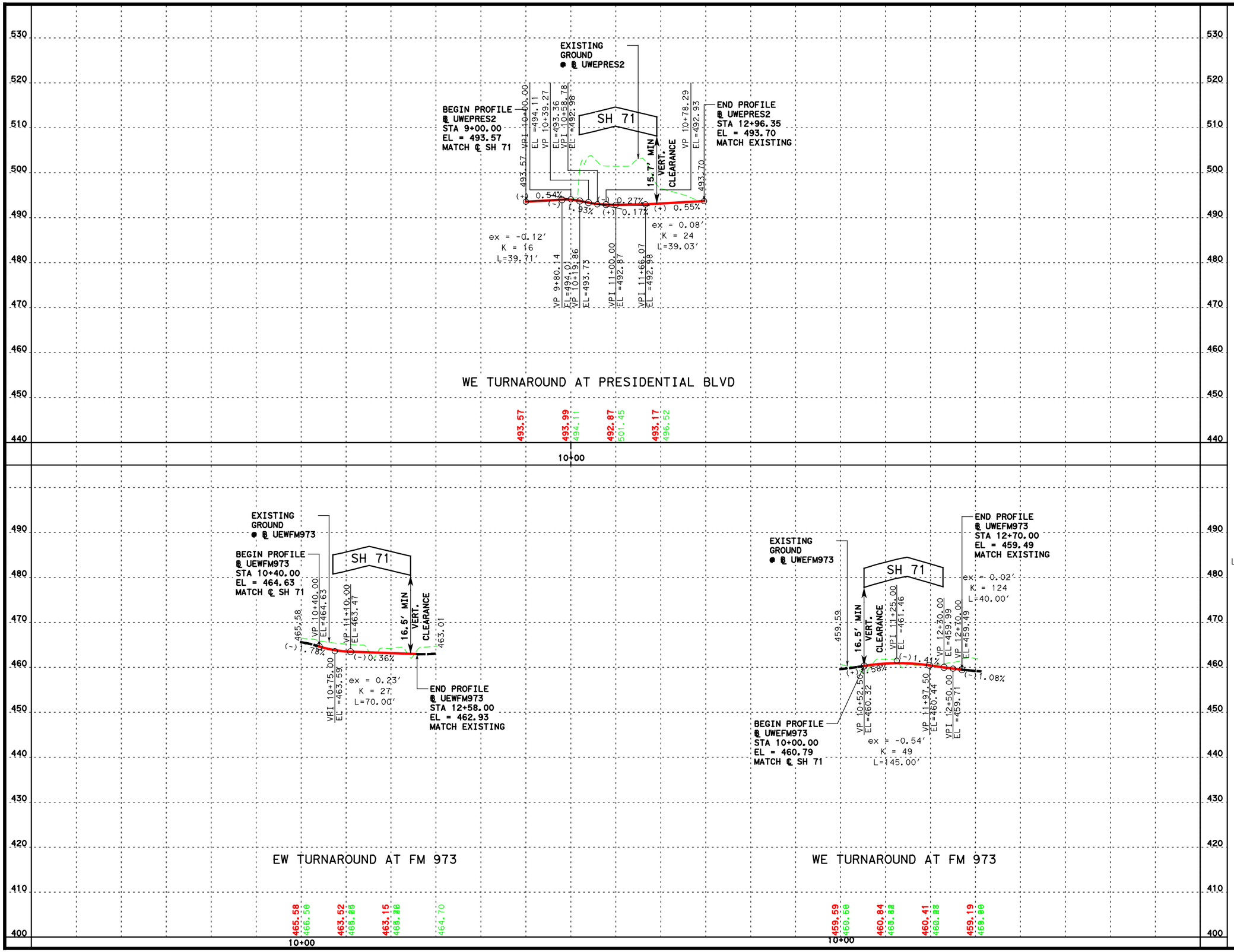

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

TURNAROUND PROFILES

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 1 OF 1

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		71

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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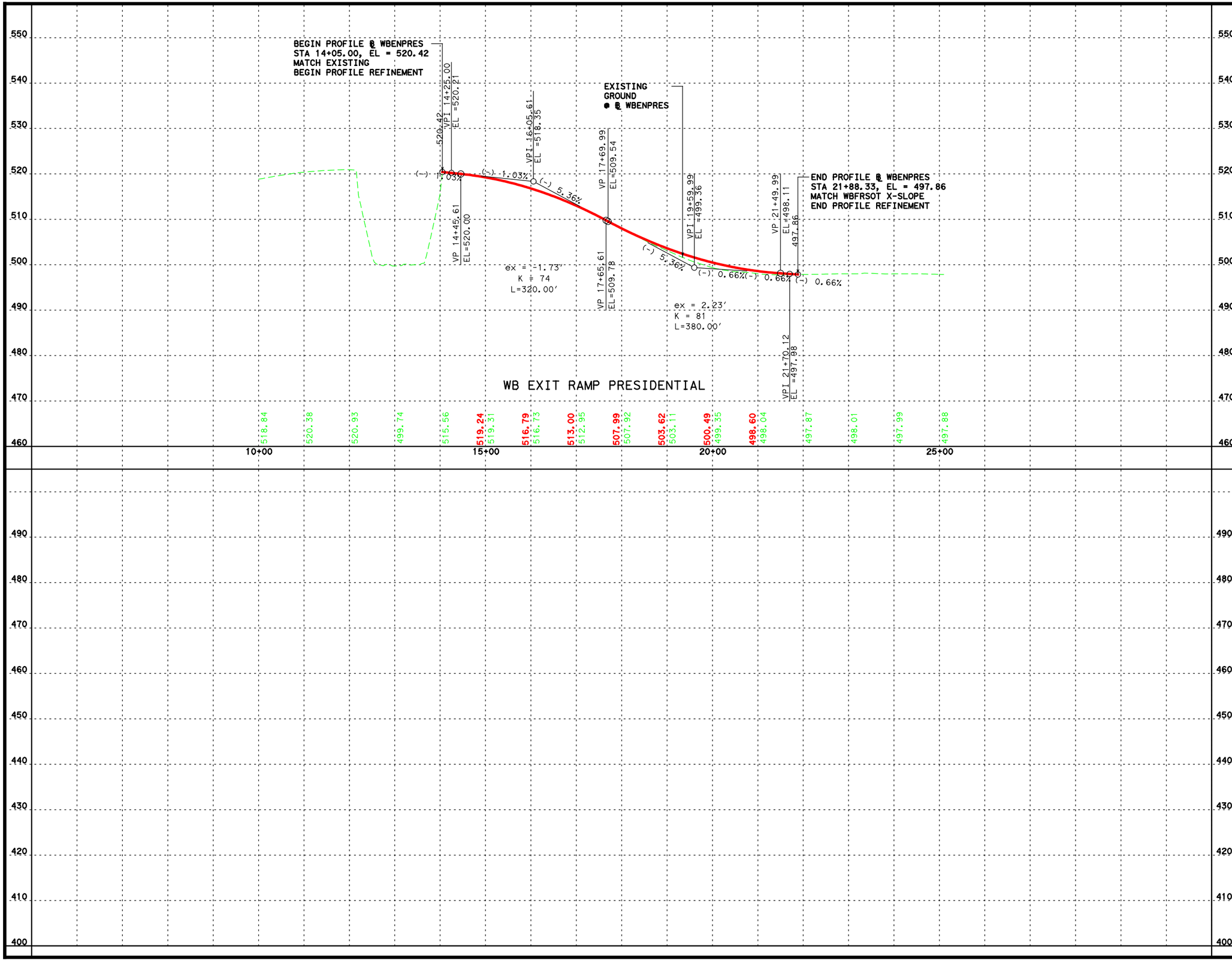

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

RAMP PROFILES

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		72

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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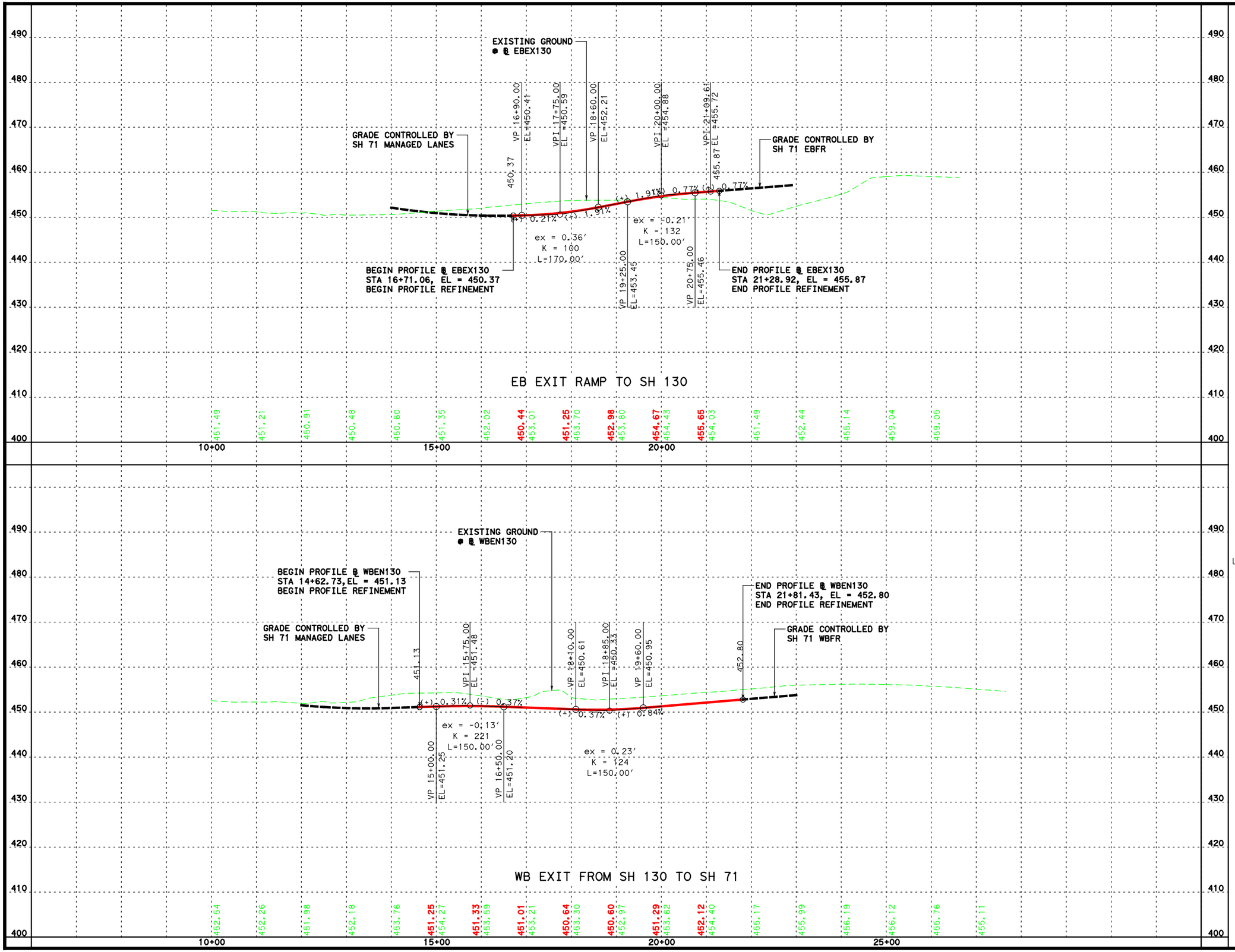

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

RAMP PROFILES

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			73
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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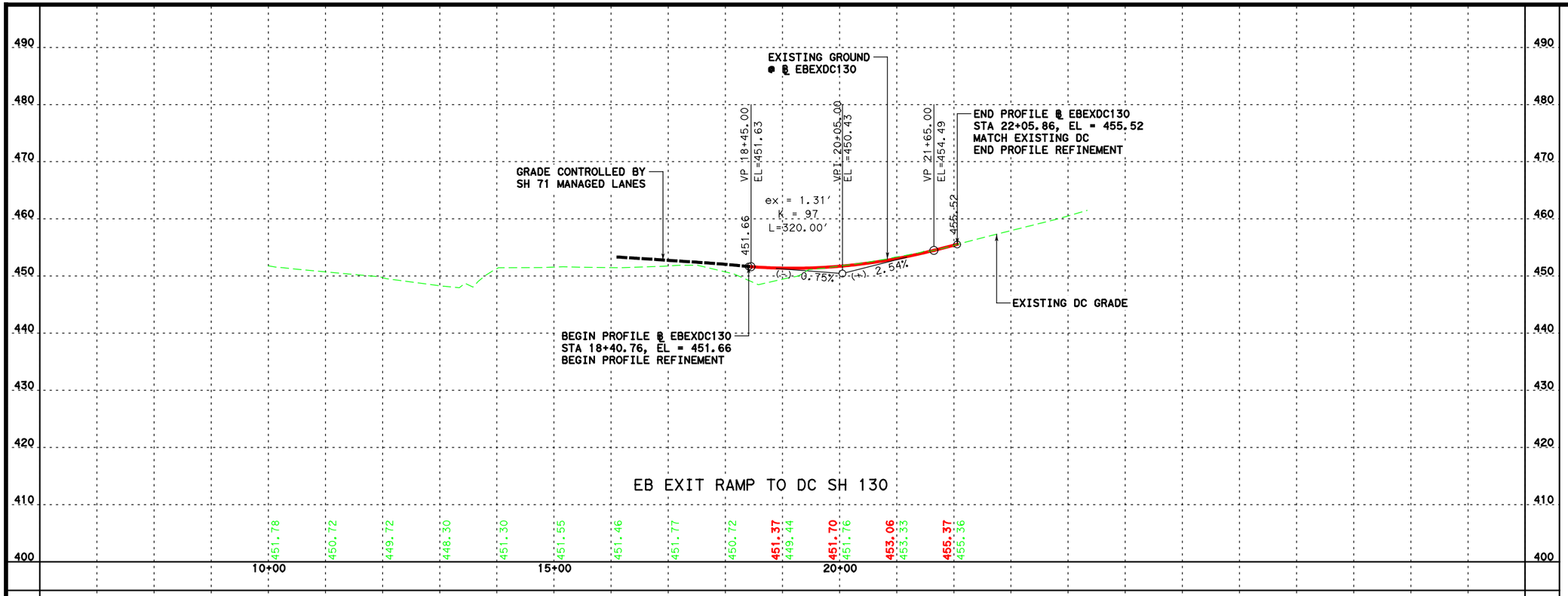

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

RAMP PROFILES

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: HORIZONTAL 1"=200'
VERTICAL 1"= 20'

Texas Department of Transportation

SHEET 2 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		74

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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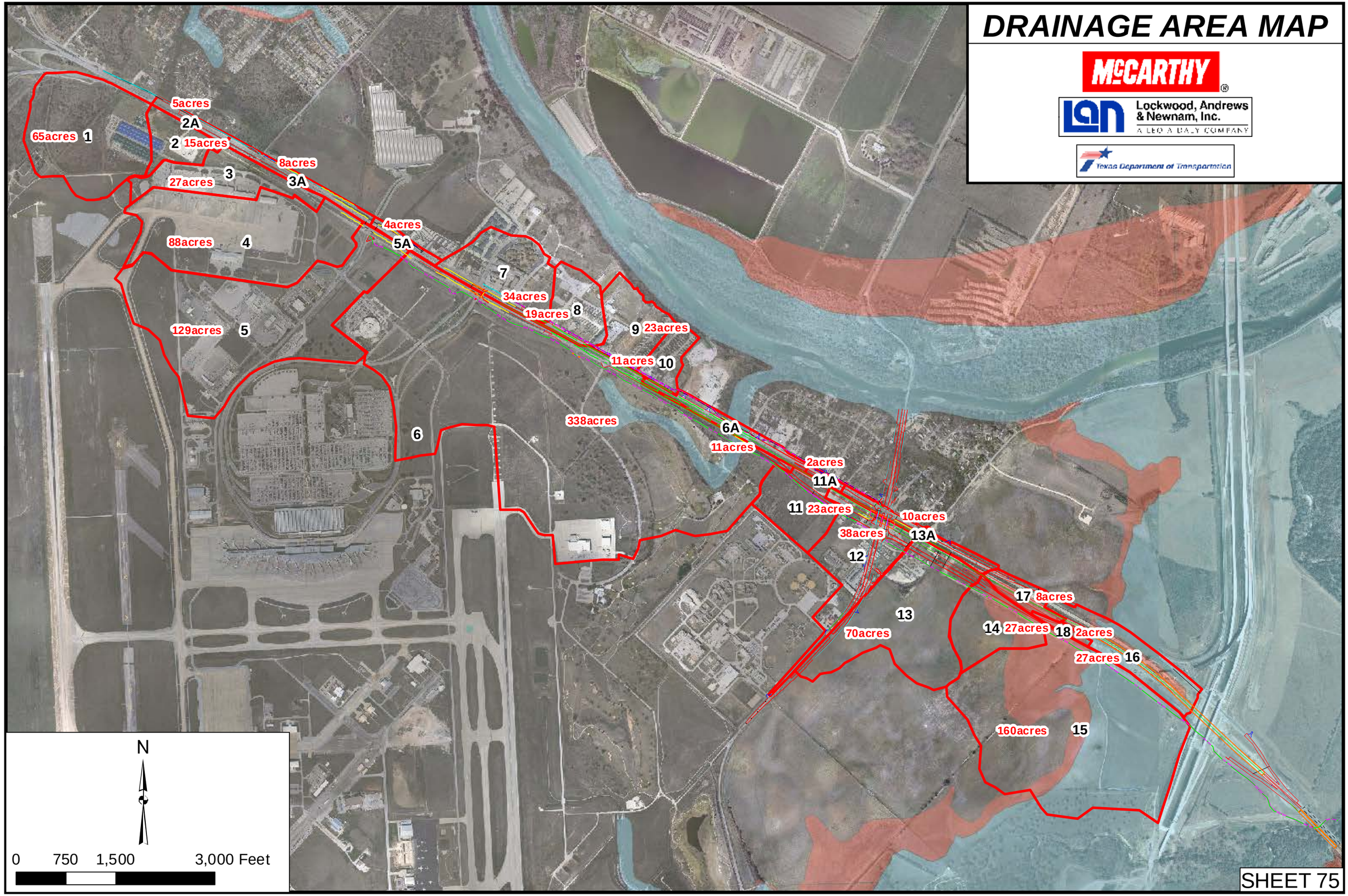
DRAINAGE AREA MAP

McCARTHY®

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY

Texas Department of Transportation



Lockwood, Andrews & Newnam Inc. makes no representations or warranties regarding accuracy or completeness of the information depicted on this map or the data from which it was produced.
This map is NOT suitable for survey purposes and does not purport to depict or establish boundaries between land owners or locations of utility infrastructure where survey data is available and field locations have been established.

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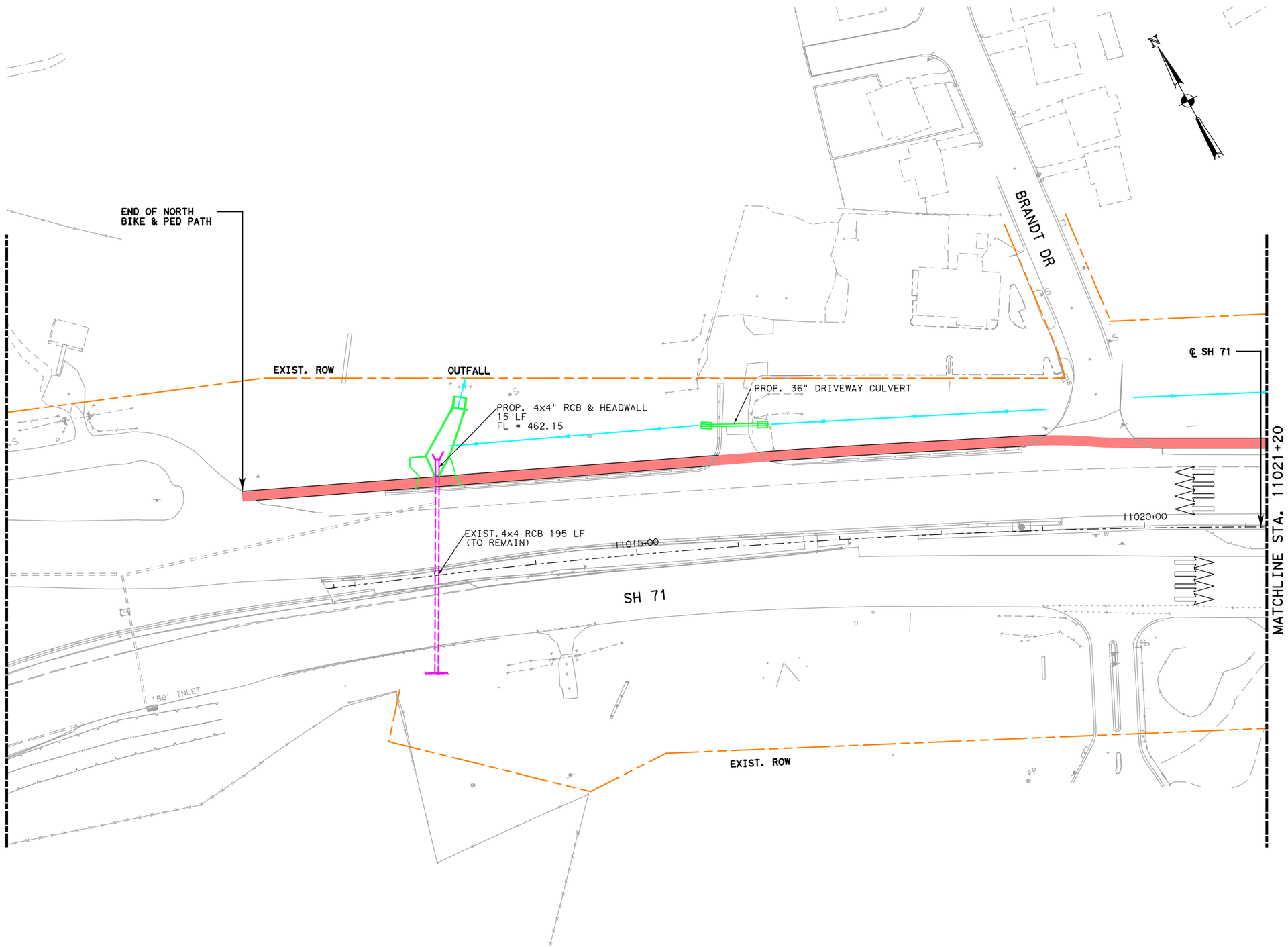

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- RETAINING WALL
- PROP DRAINAGE DITCH
- PROP STORMSEWER SYSTEM
- PROP CROSS CULVERTS
- PROP DRAINAGE FEATURE
- EXIST DRAINAGE FEATURE (SHOWN IN COLOR OF TYPE)
- ACS - ARMOR CURB SLOT
- PROP BRIDGE DECK DRAIN

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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 1 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			76
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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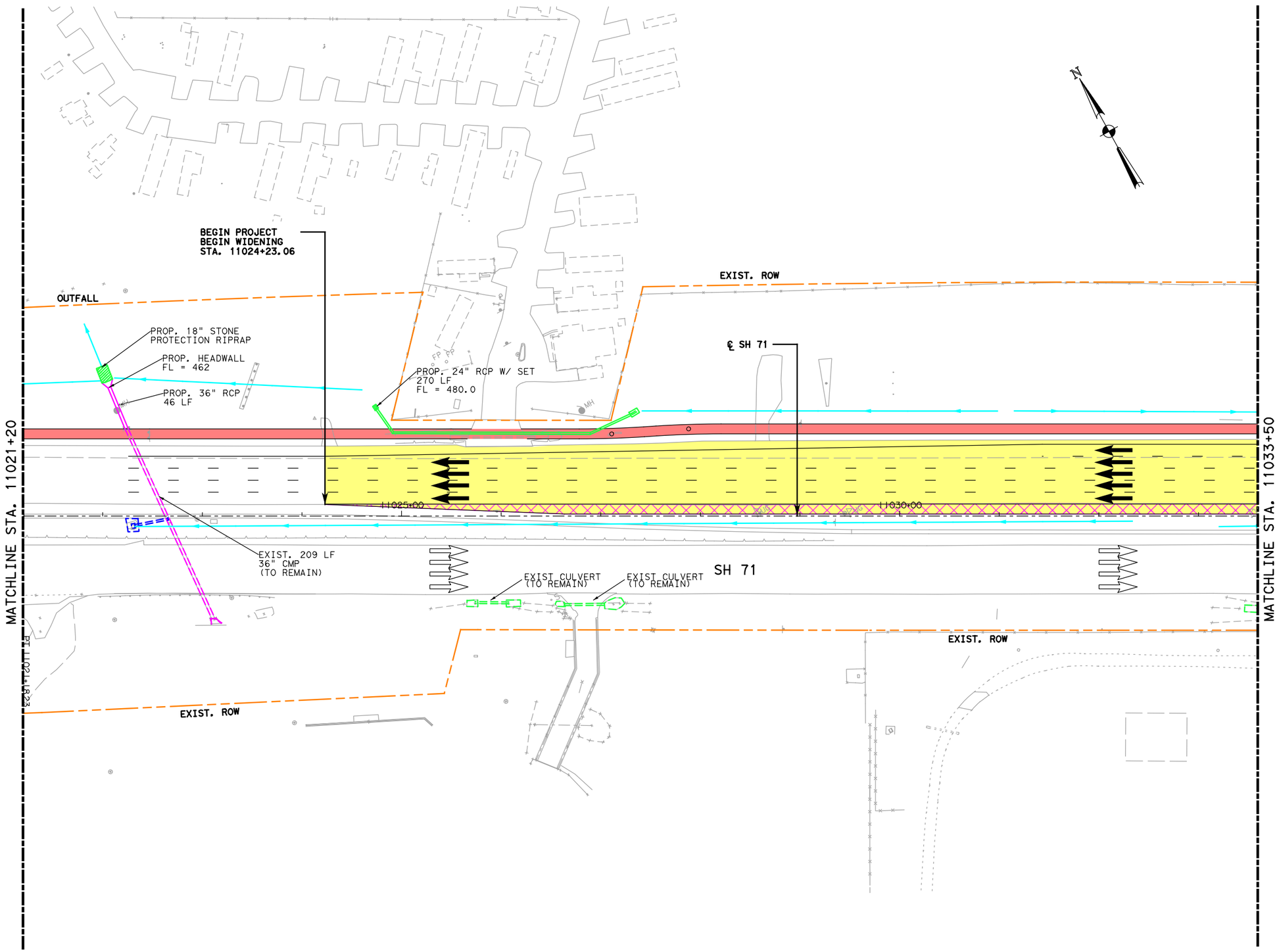

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- RETAINING WALL
- PROP DRAINAGE DITCH
- PROP STORMSEWER SYSTEM
- PROP CROSS CULVERTS
- PROP DRAINAGE FEATURE
- EXIST DRAINAGE FEATURE (SHOWN IN COLOR OF TYPE)
- ACS - ARMOR CURB SLOT
- PROP BRIDGE DECK DRAIN

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 2 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			77
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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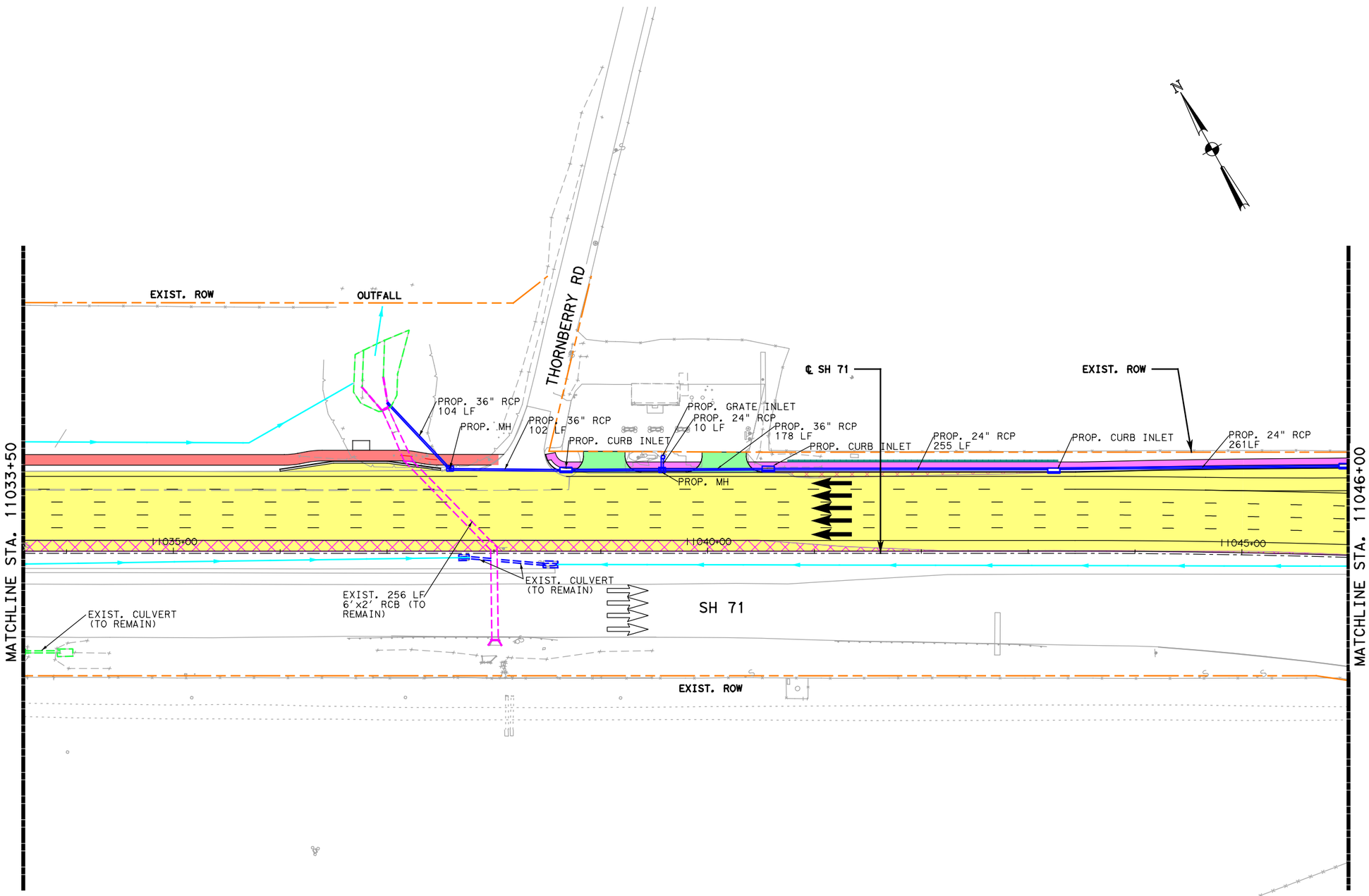

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- RETAINING WALL
- PROP DRAINAGE DITCH
- PROP STORMSEWER SYSTEM
- PROP CROSS CULVERTS
- PROP DRAINAGE FEATURE
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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 3 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			78
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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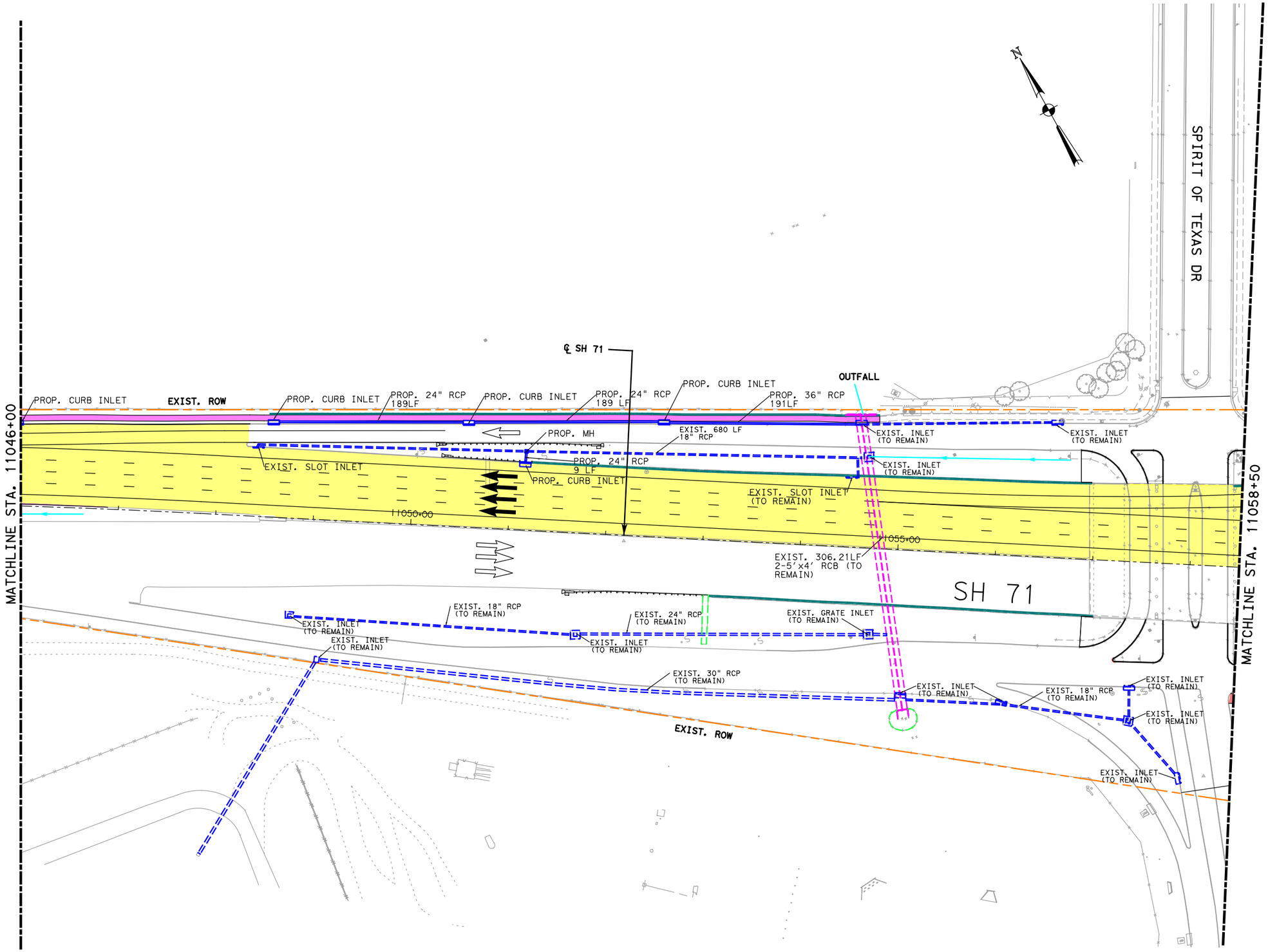

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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- RETAINING WALL
- PROP DRAINAGE DITCH
- PROP STORMSEWER SYSTEM
- PROP CROSS CULVERTS
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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 4 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			79
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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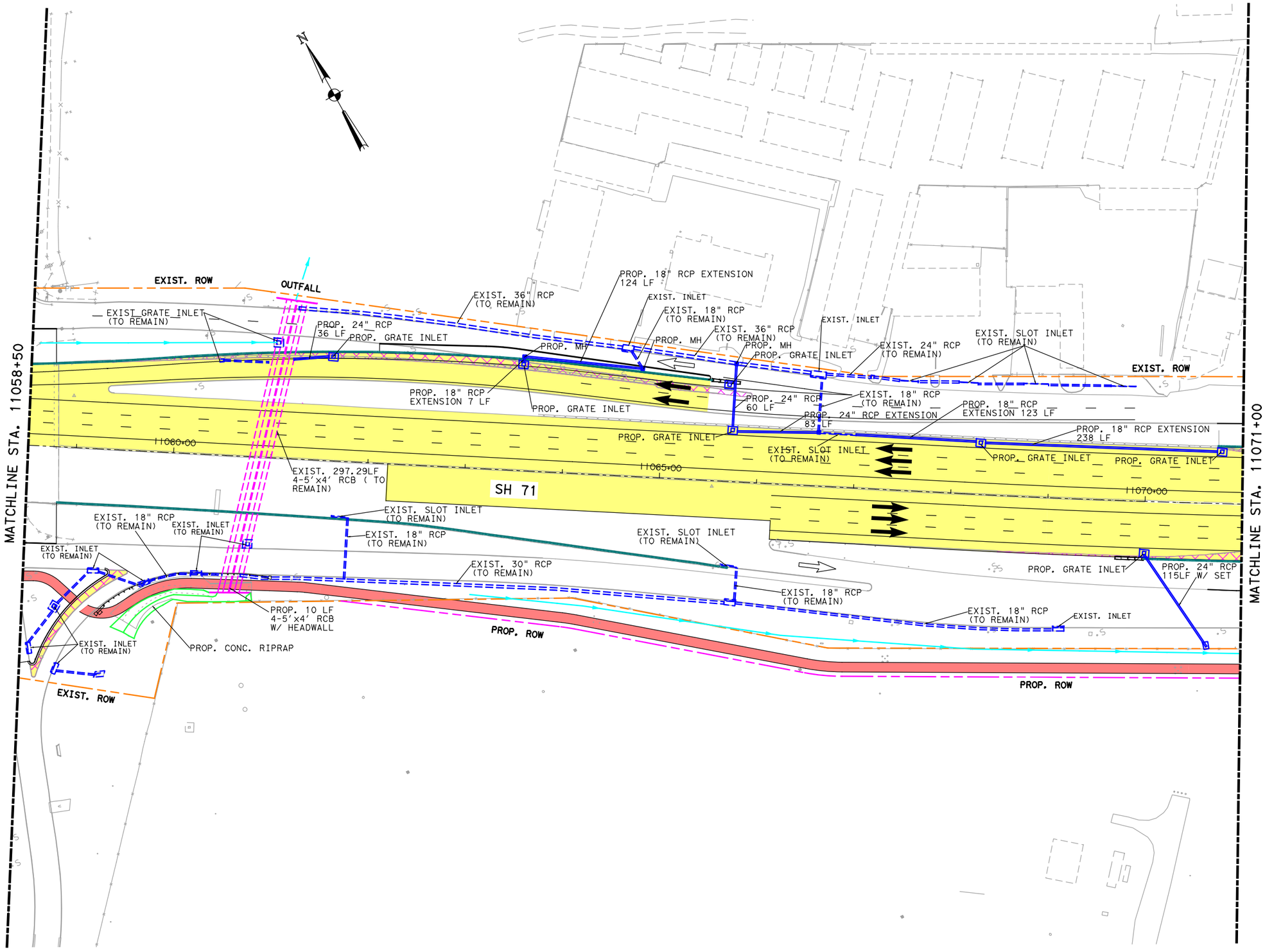

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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- PAVEMENT TO BE REMOVED
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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 5 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			80
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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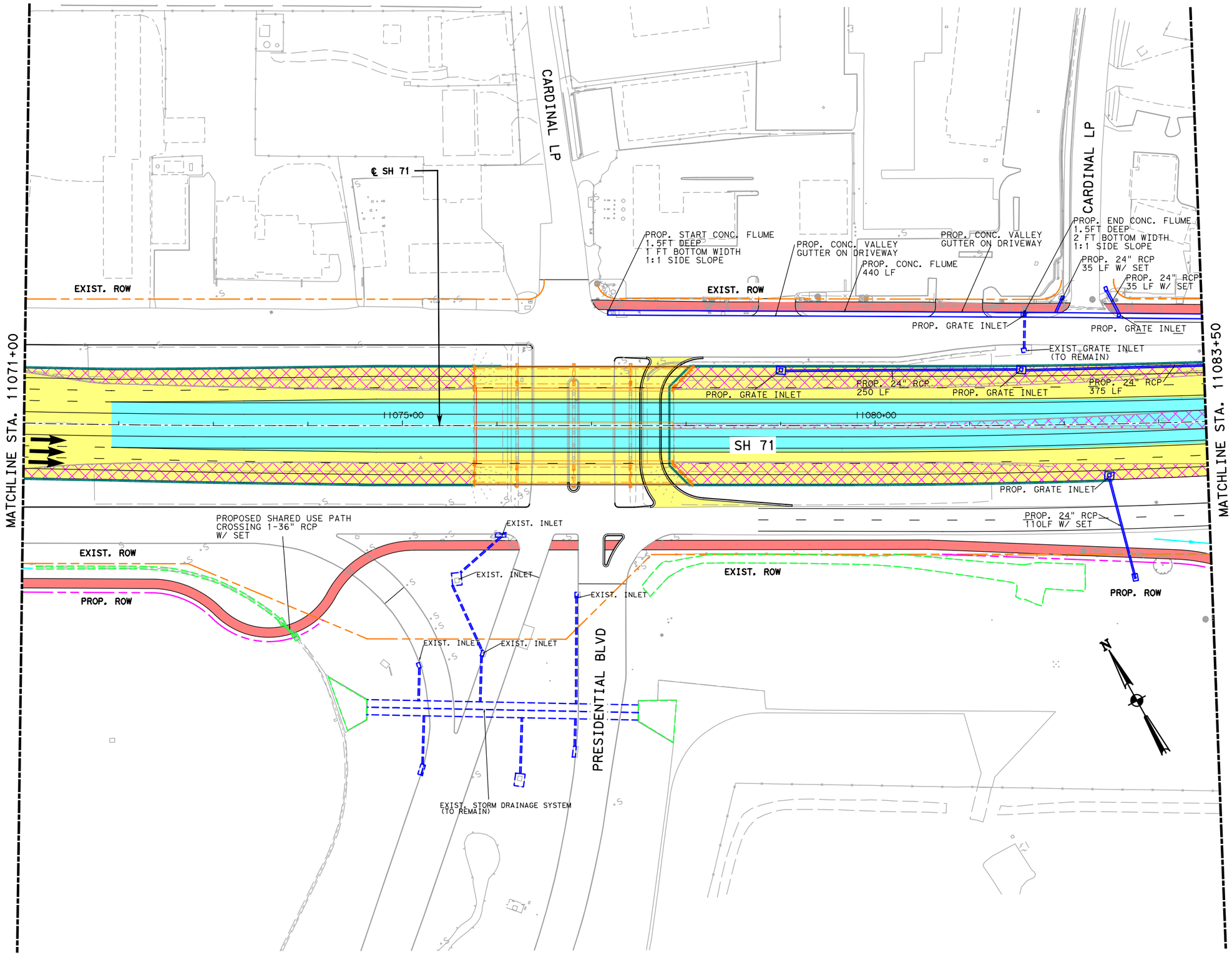

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 6 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		81

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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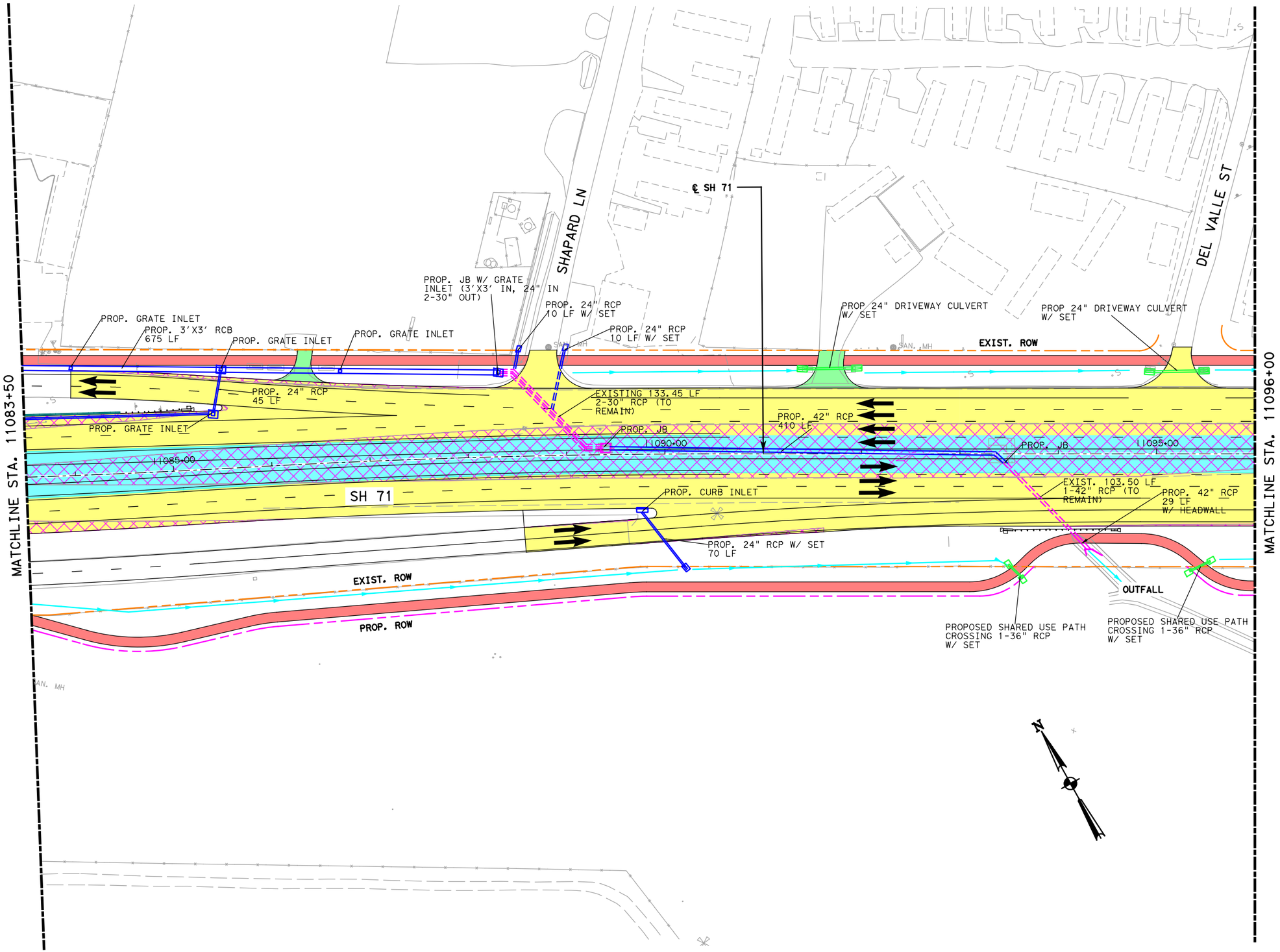

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 7 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		82

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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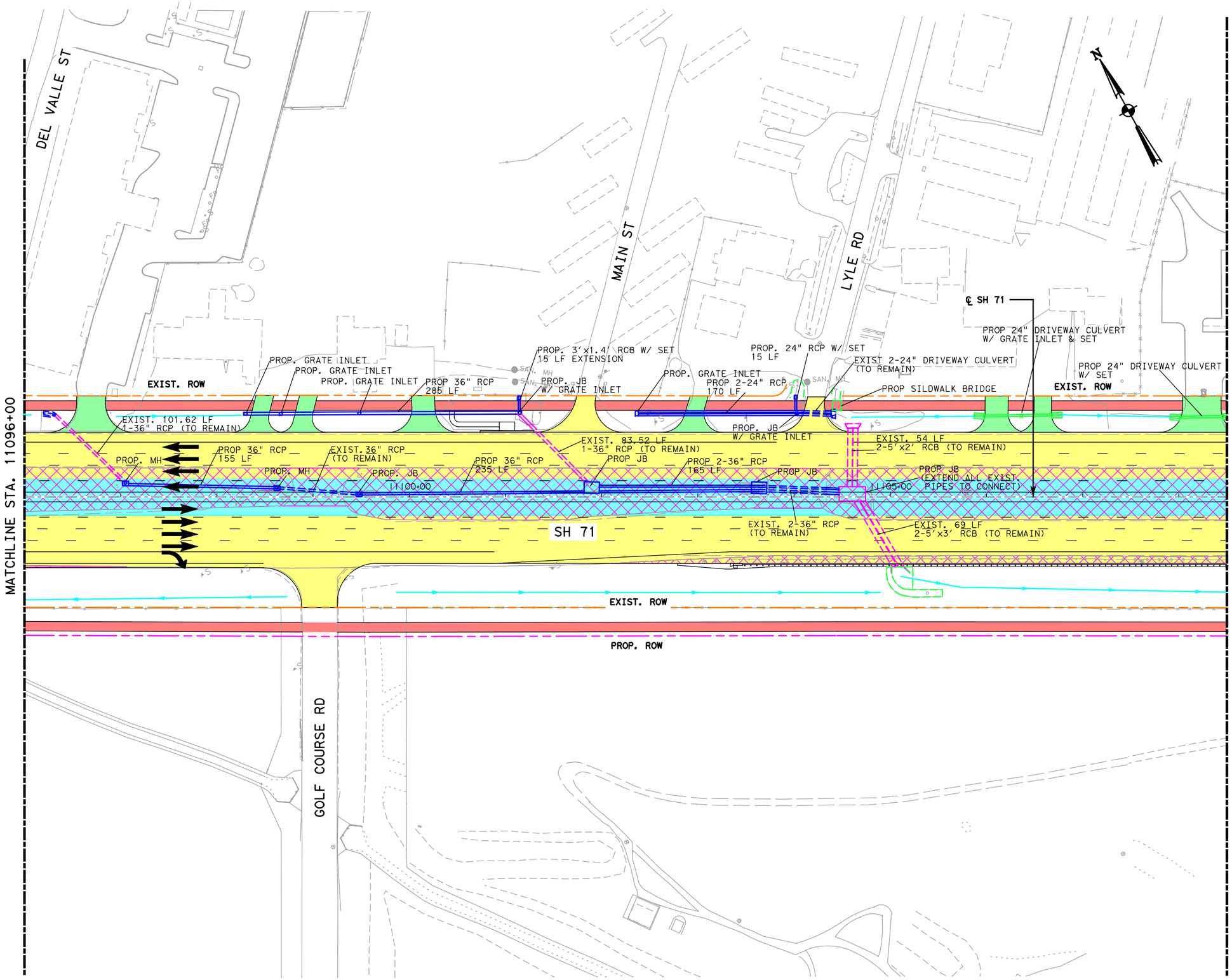

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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- PROP DRIVEWAY
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- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- RETAINING WALL
- PROP DRAINAGE DITCH
- PROP STORMSEWER SYSTEM
- PROP CROSS CULVERTS
- PROP DRAINAGE FEATURE
- EXIST DRAINAGE FEATURE (SHOWN IN COLOR OF TYPE)
- ACS - ARMOR CURB SLOT
- PROP BRIDGE DECK DRAIN

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 8 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		83

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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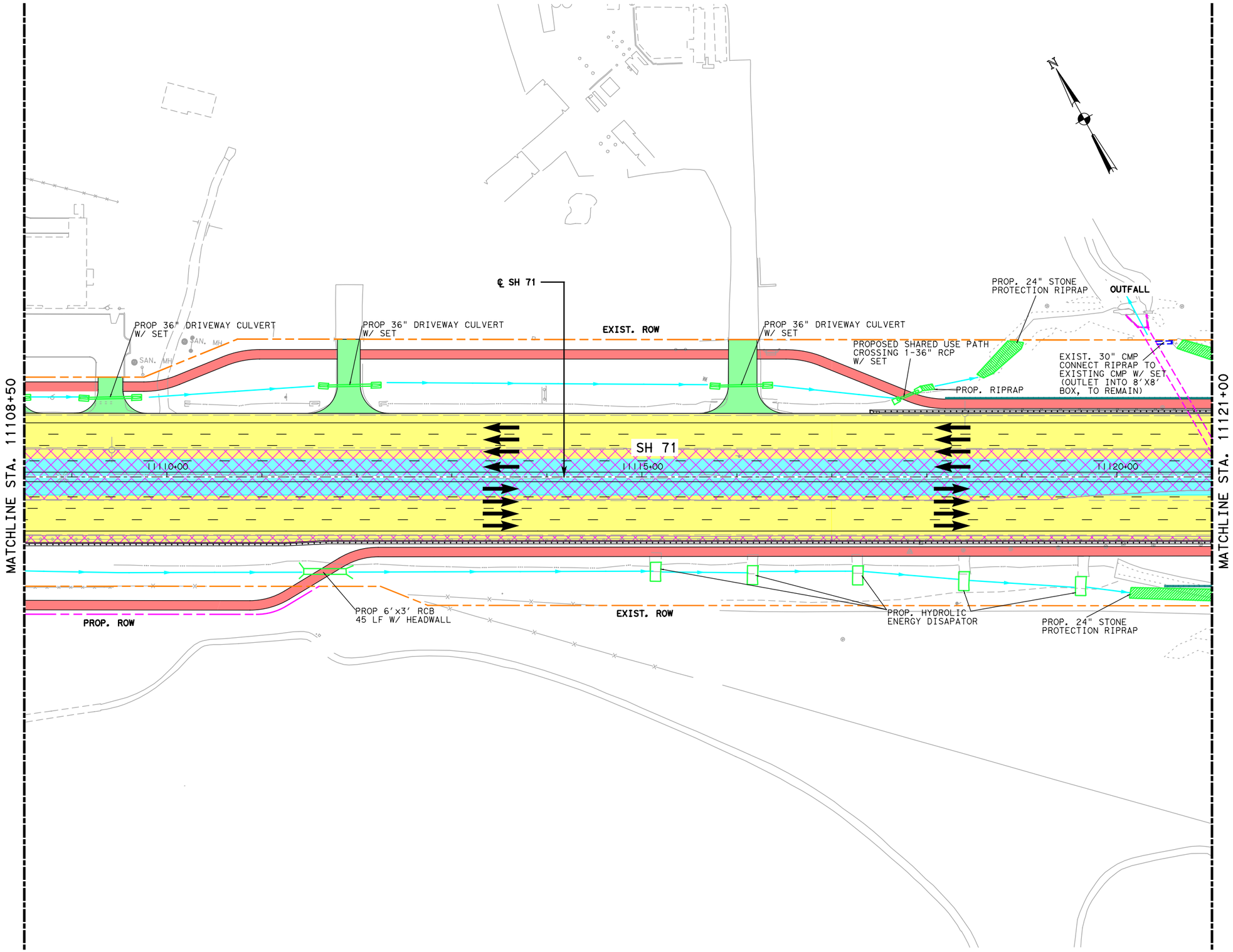

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- RETAINING WALL
- PROP DRAINAGE DITCH
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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 9 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		84

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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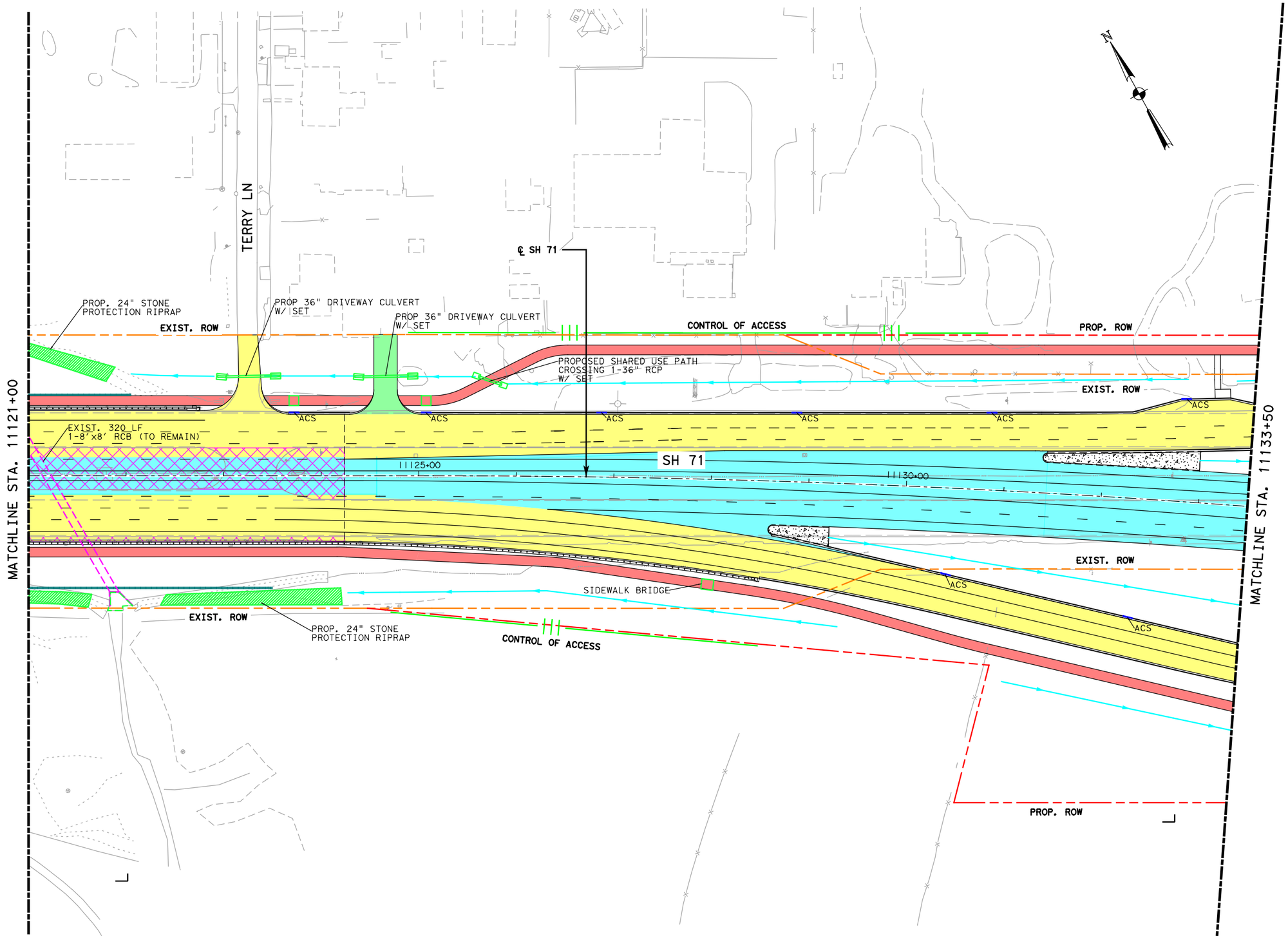

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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- PROP NON-TOLL
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- PROP WIDENING
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- RETAINING WALL
- PROP DRAINAGE DITCH
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- ACS - ARMOR CURB SLOT
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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 10 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT			SHEET NO.
6				85
STATE	STATE DIST. NO.	COUNTY		
TEXAS		TRAVIS		
CONT.	SECT.	JOB	HIGHWAY NO.	
			SH 71	

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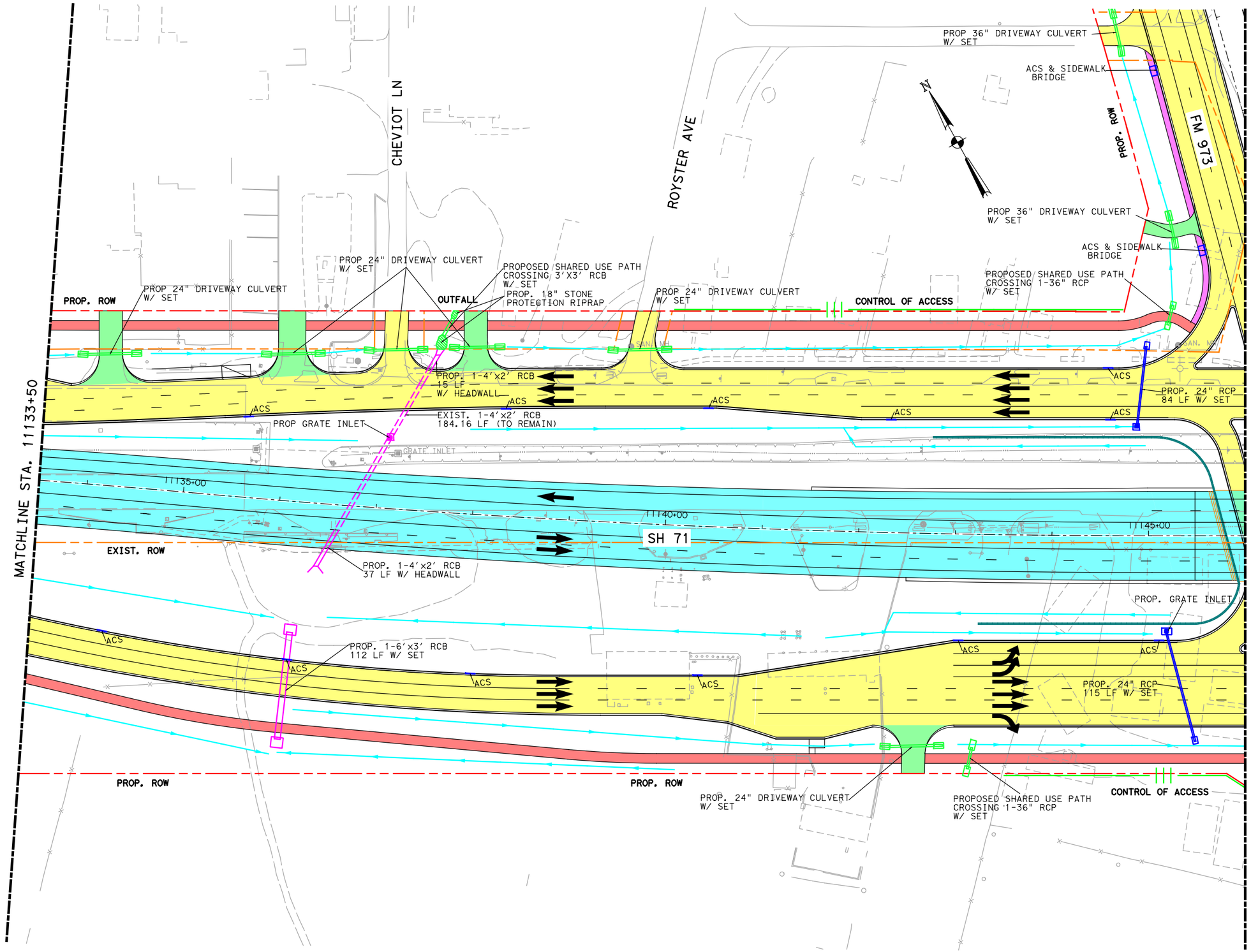

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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- DIRECTIONAL ARROW
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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 11 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		86

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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MATCHLINE STA. 11146+00

MATCHLINE STA. 11158+50

PROP. 24" RCP
25 LF

PROP. GRATE INLET

PROP. CURB INLET

FM 973

5115+00

PROP. CURB INLET

PROP. 24" RCP
25 LF

PROP. 850 LF
1-48" RCP

CONTROL OF ACCESS

℄ SH 71

BESSIE AVE

FALLWELL LN

PROP 24" DRIVEWAY CULVERT
W/ SET

OUTFALL

PROP. 24" STONE
PROTECTION RIPRAP

PROP. ROW

PROP 24" DRIVEWAY CULVERT
W/ SET

ACS & SIDEWALK
BRIDGE

PROP. 24" RCP
43 LF

PROP. CURB INLET

PROP. MH

ACS

PROP. 1-8'X4' RCB
410 LF

PROP. 24" RCP
57 LF

PROP GRATE
INLET

11150+00

11155+00

SH 71

PROP. CURB INLET

PROP. CURB INLET

PROP. CURB INLET

PROP. 24" RCP
56 LF

PROP. MH

PROP DRAIN
INLET

FND. 3/4" IP

PROPOSED SHARED USE PATH
CROSSING 1-36" RCP
W/ SET

PROP GRATE INLET

ACS & SIDEWALK
BRIDGE

ACS & SIDEWALK
BRIDGE

PROP MH
W/ GRATE INLET

PROP. 220 LF
1-48" RCP

PROP. 24" RCP
32 LF

PROP. GRATE INLET

CONTROL OF ACCESS

PROPOSED SIDEWALK
CROSSING 1-36" RCP
W/ SET

PROPOSED SIDEWALK
CROSSING 1-36" RCP
W/ SET

CONTROL OF ACCESS

PROP. 24" STONE
PROTECTION RIPRAP

PROP. ROW

EXIST. ROW

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
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- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
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- RETAINING WALL
- PROP DRAINAGE DITCH
- PROP STORMSEWER SYSTEM
- PROP CROSS CULVERTS
- PROP DRAINAGE FEATURE
- EXIST DRAINAGE FEATURE (SHOWN IN COLOR OF TYPE)
- ACS - ARMOR CURB SLOT
- PROP BRIDGE DECK DRAIN

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 12 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			87
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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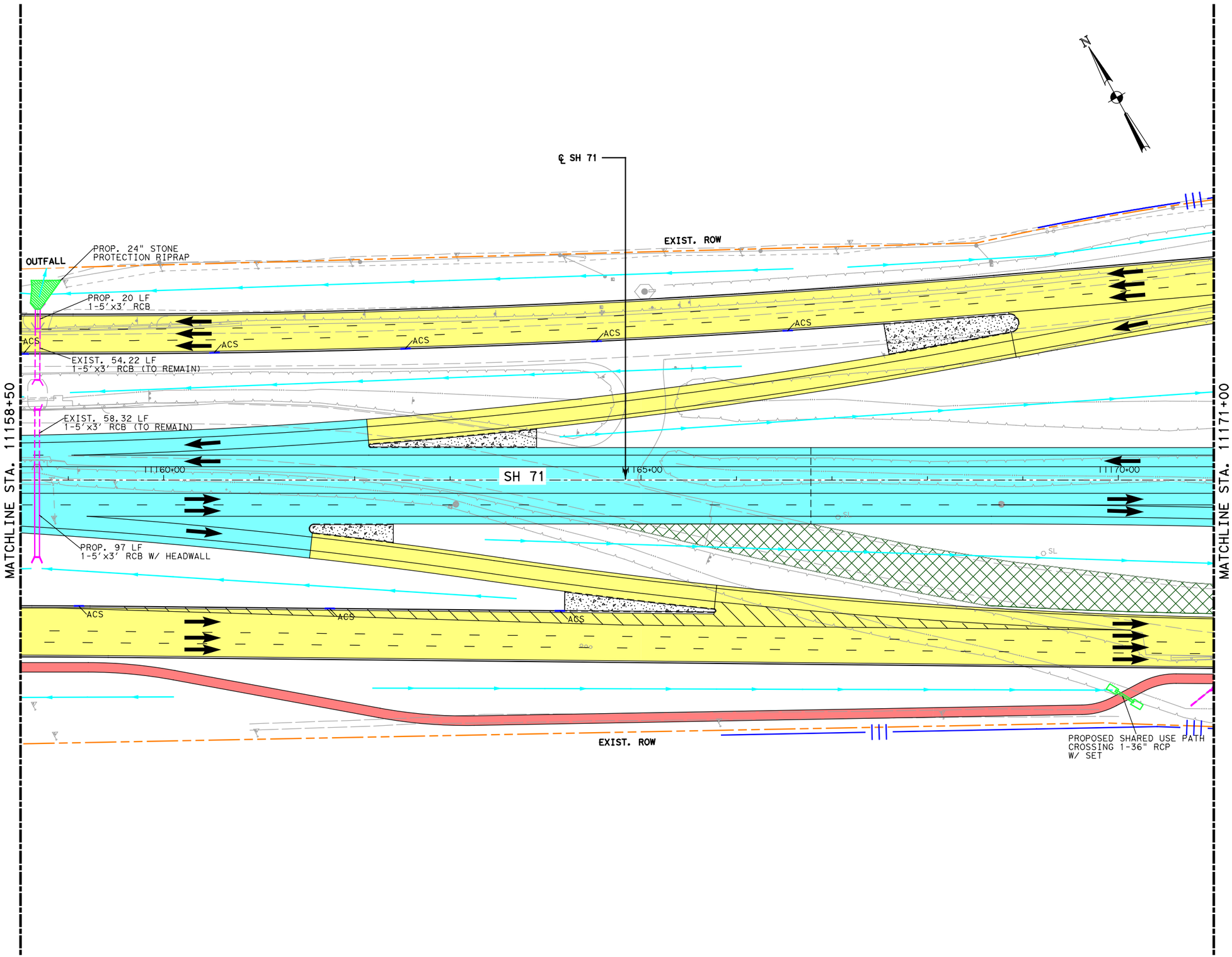

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 13 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			88
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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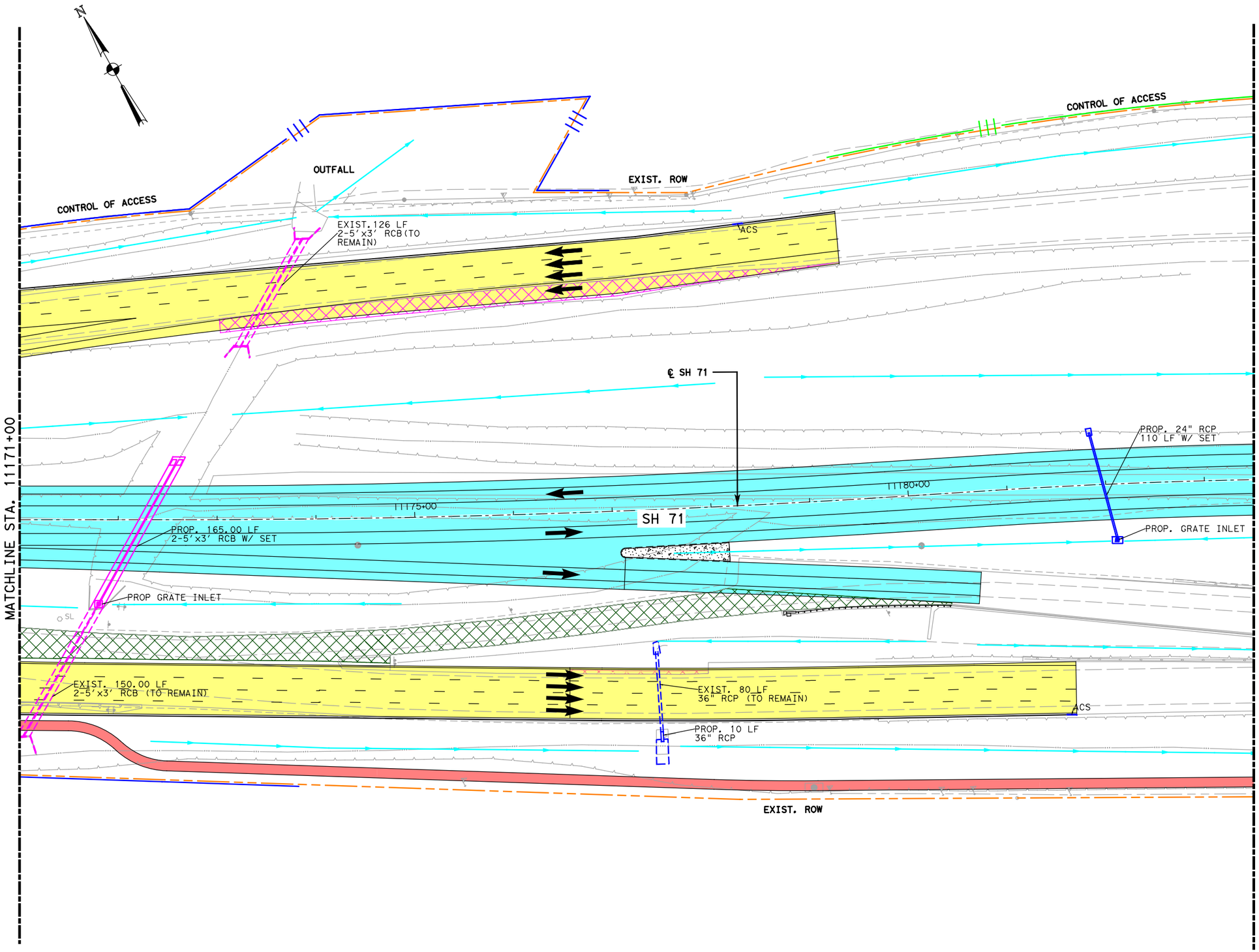

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 14 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		89

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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CONTROL OF ACCESS

CONTROL OF ACCESS

OUTFALL

CONC.

EXIST. 113 LF
6-5'X4' RCB (TO REMAIN)

BEGIN BRIDGE
STA. 11187+94.00

MATCHLINE STA. 11183+50

11185+00

SH 71

11190+00

11195+00

CONC.

ELEC. BOX

SAN. MH

CONC.

MATCHLINE STA. 11196+00

EXIST. 80 LF
36" RCP (TO REMAIN)

EXIST. 102 LF
6-5'X4' RCB (TO REMAIN)

PROPOSED SHARED USE PATH
CROSSING 1-36" RCP
W/ SET

EXIST. ROW

CONTROL OF ACCESS

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
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Lockwood, Andrews & Newnam, Inc. ID No. 2614

SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 15 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		90

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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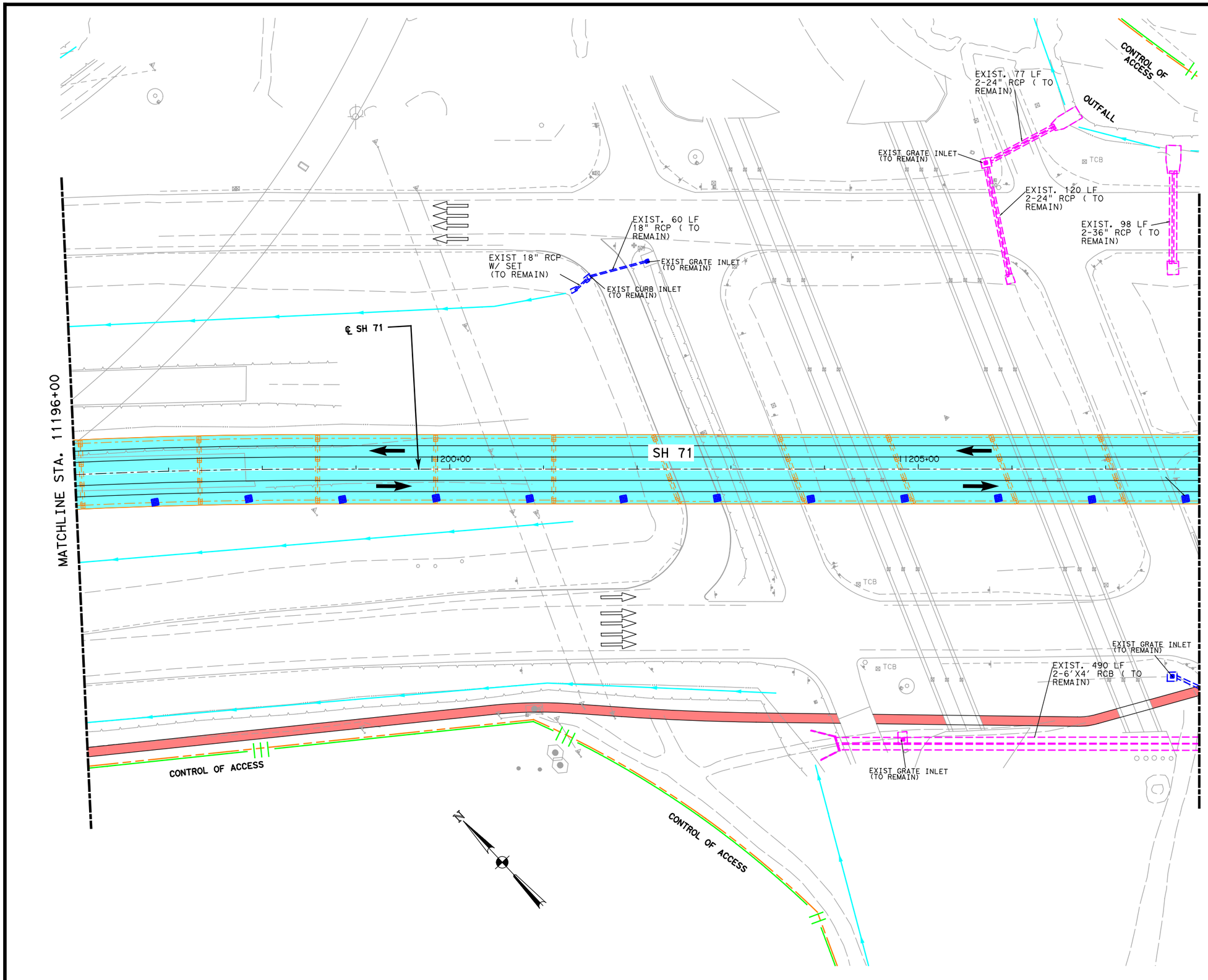

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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SH 71

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 16 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			91
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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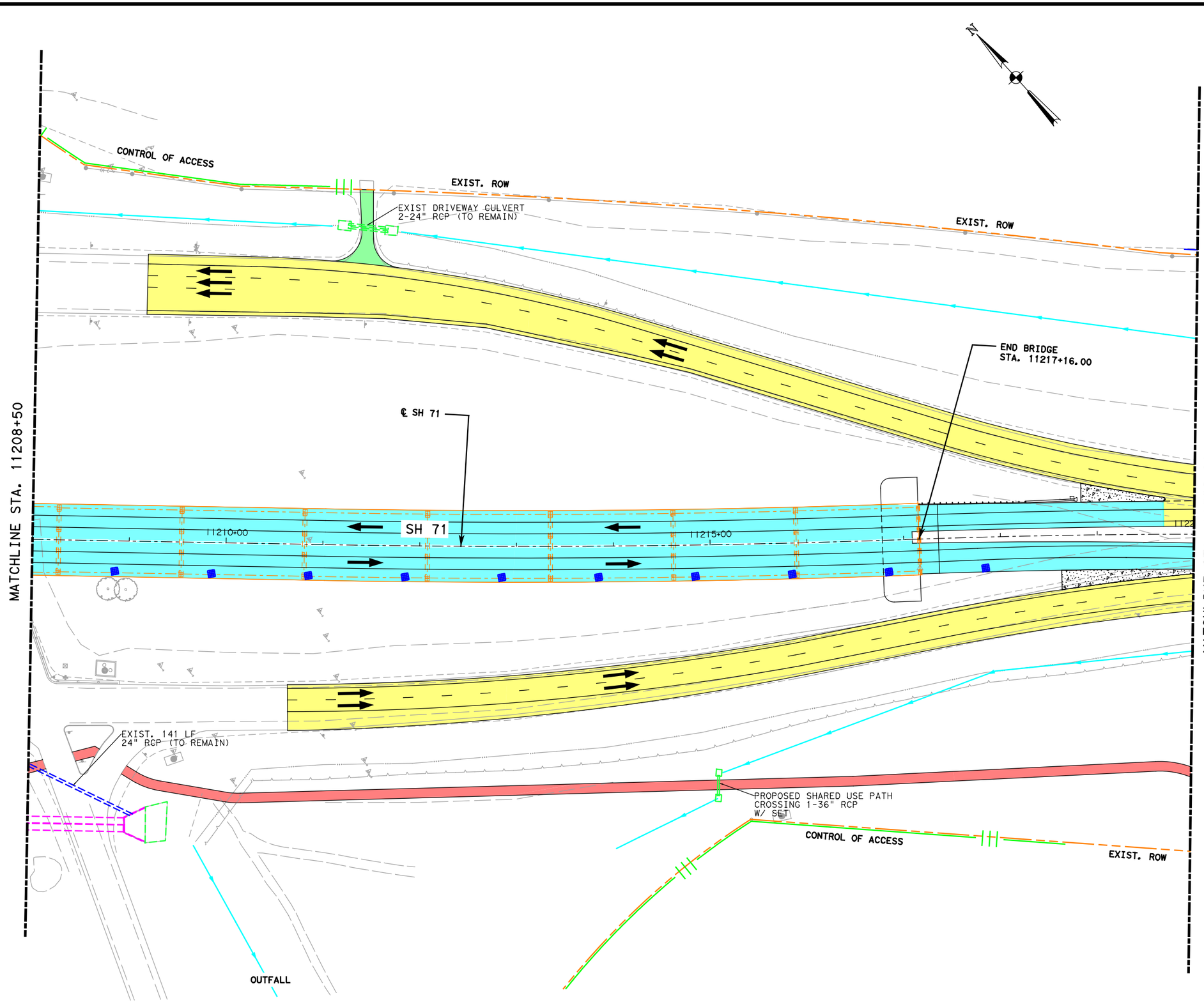

LEGEND

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- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
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SH 71

DRAINAGE PLAN

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Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 17 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		92

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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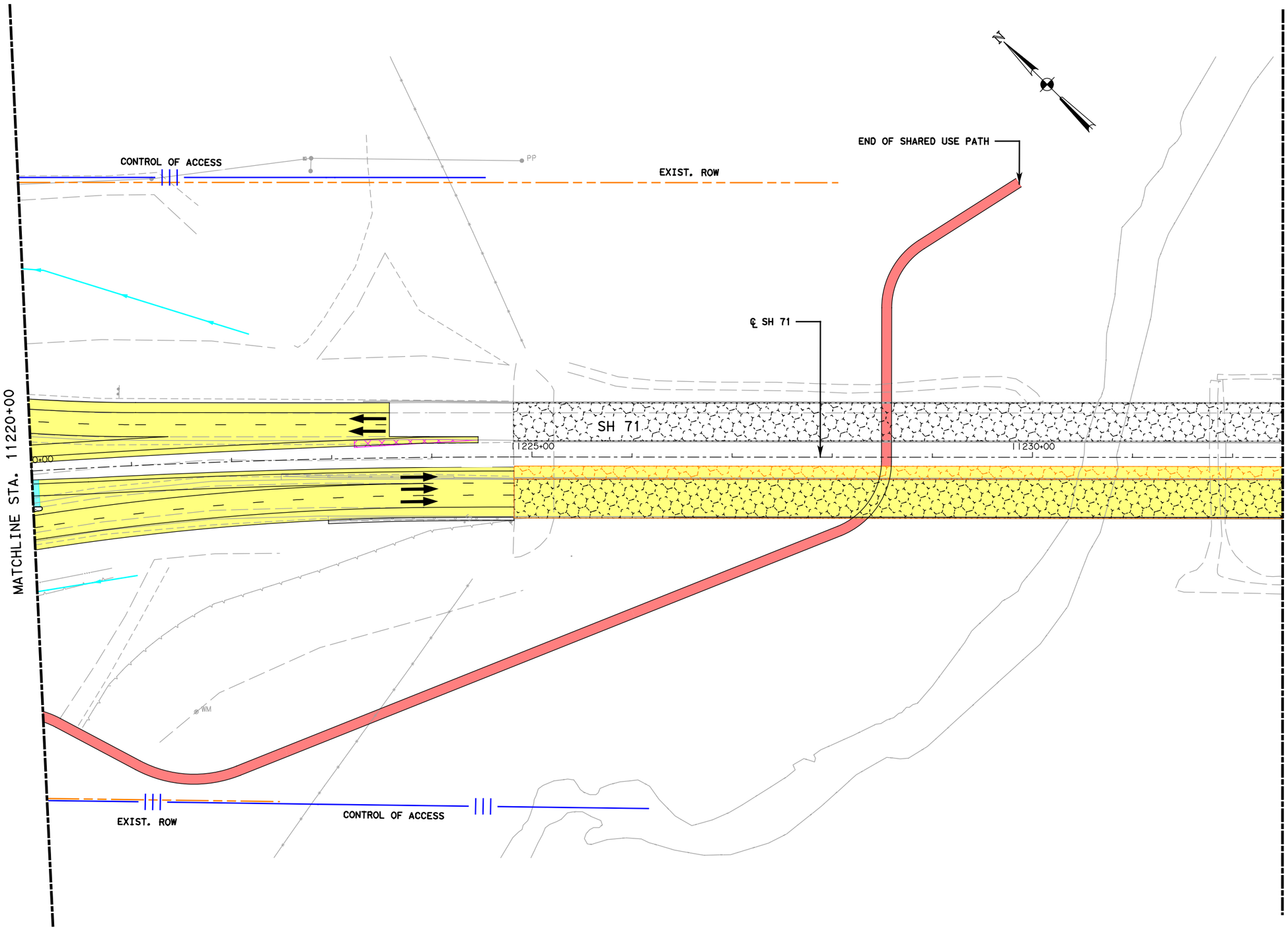

LEGEND

- ALIGNMENT
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DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 18 OF 18

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			93
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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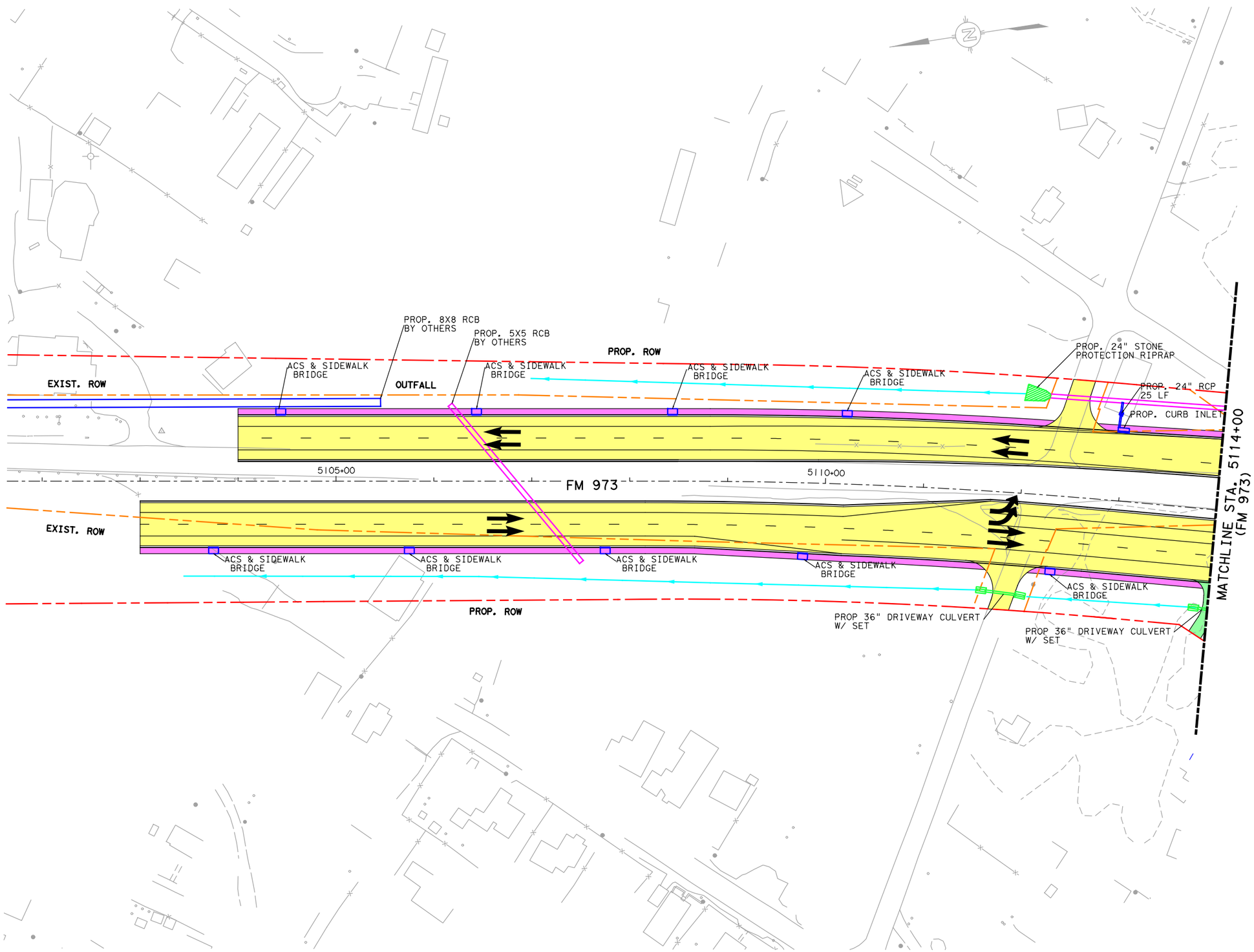

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 1 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			94
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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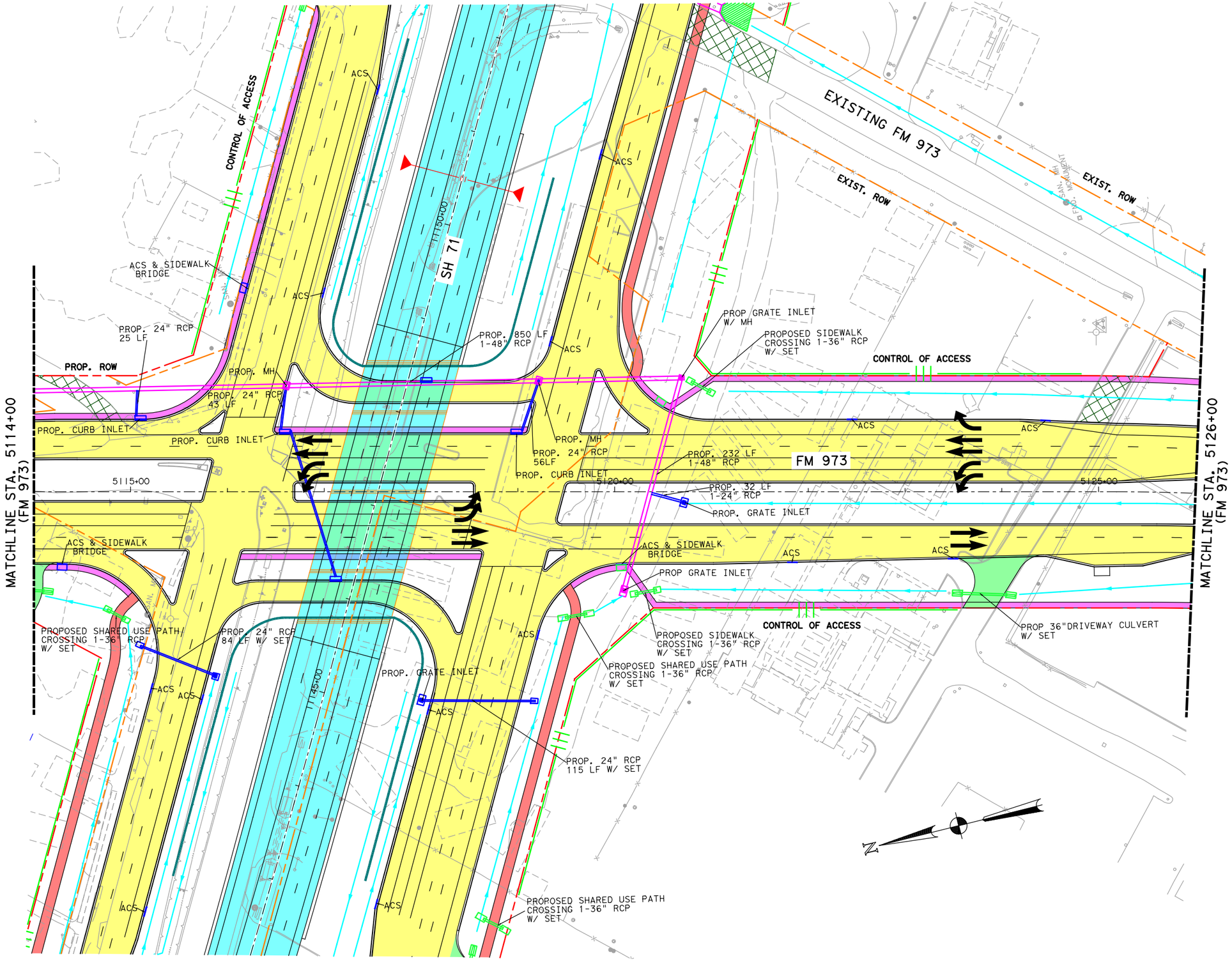

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
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- TOPO
- BRIDGE
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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 2 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		95

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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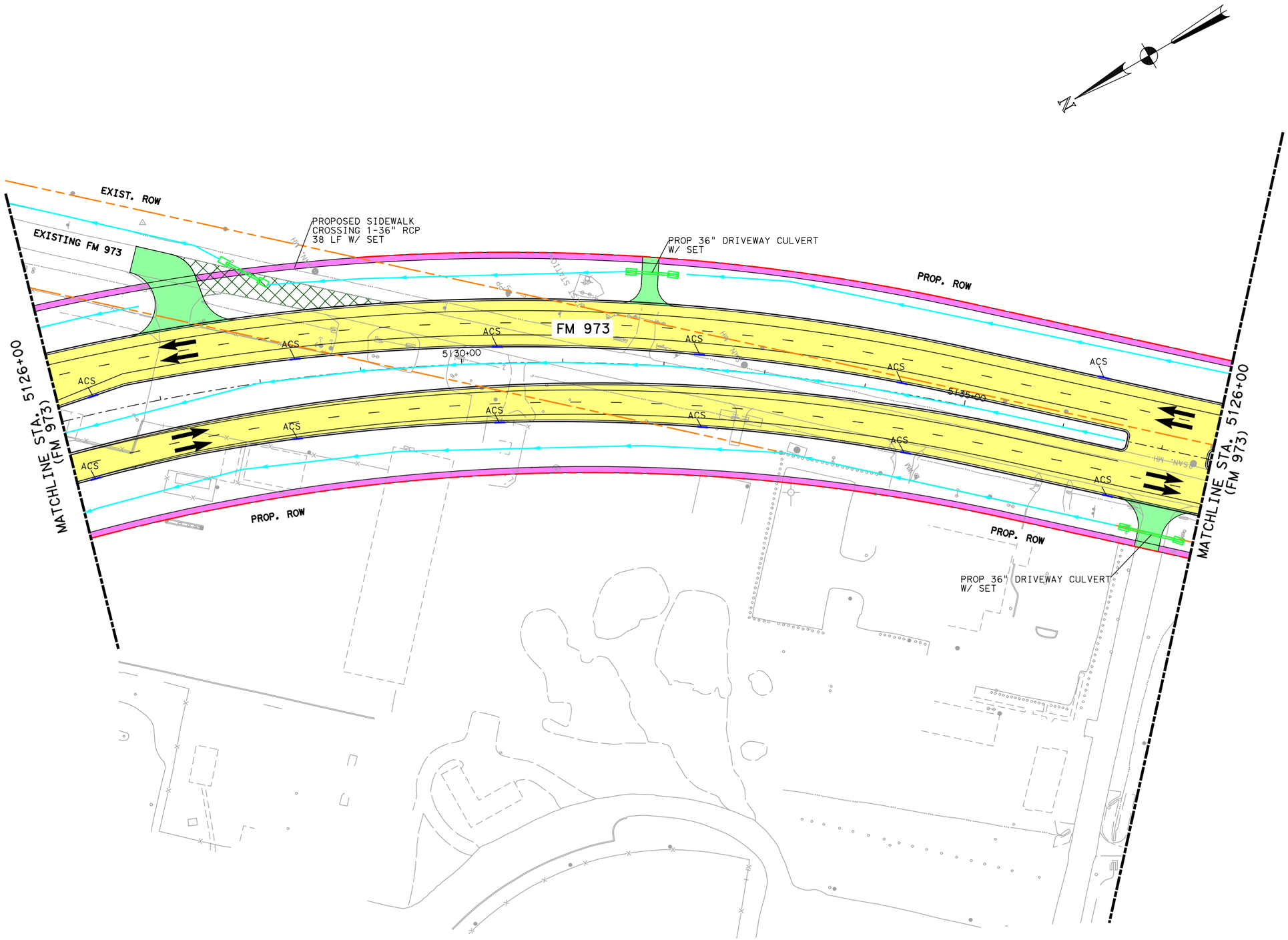

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
- BIKE & PED FACILITY
- PROP DRIVEWAY
- PROP TOLL
- PROP NON-TOLL
- PAVEMENT TO BE REMOVED
- PROP WIDENING
- DIRECTIONAL ARROW
- RETAINING WALL
- PROP DRAINAGE DITCH
- PROP STORMSEWER SYSTEM
- PROP CROSS CULVERTS
- PROP DRAINAGE FEATURE
- EXIST DRAINAGE FEATURE (SHOWN IN COLOR OF TYPE)
- ACS - ARMOR CURB SLOT
- PROP BRIDGE DECK DRAIN

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Lockwood, Andrews & Newnam, Inc. ID No. 2614

FM 973

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 3 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			96
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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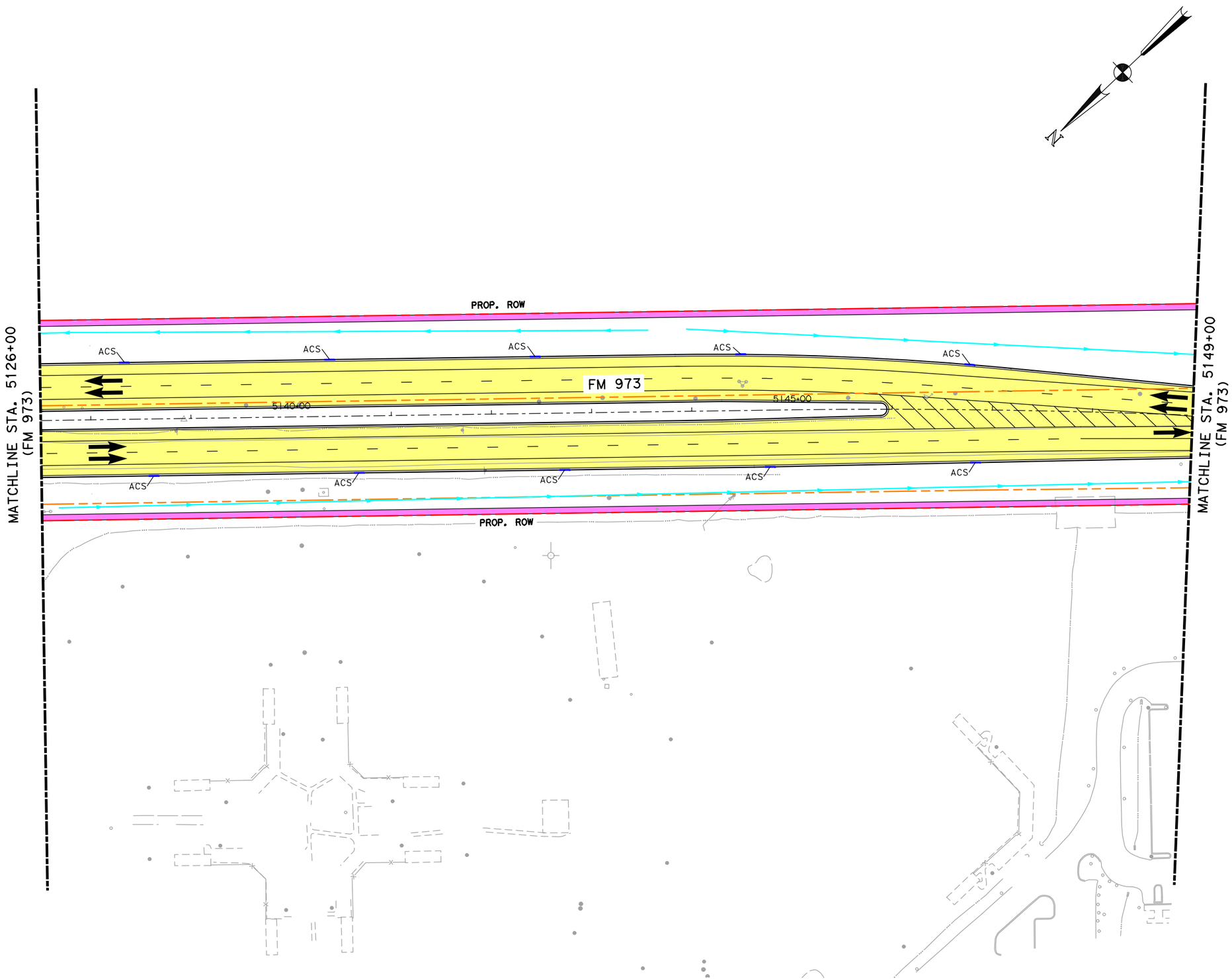

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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FM 973

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 4 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT			SHEET NO.
6				97
STATE	STATE DIST. NO.	COUNTY		
TEXAS		TRAVIS		
CONT.	SECT.	JOB	HIGHWAY NO.	
			SH 71	

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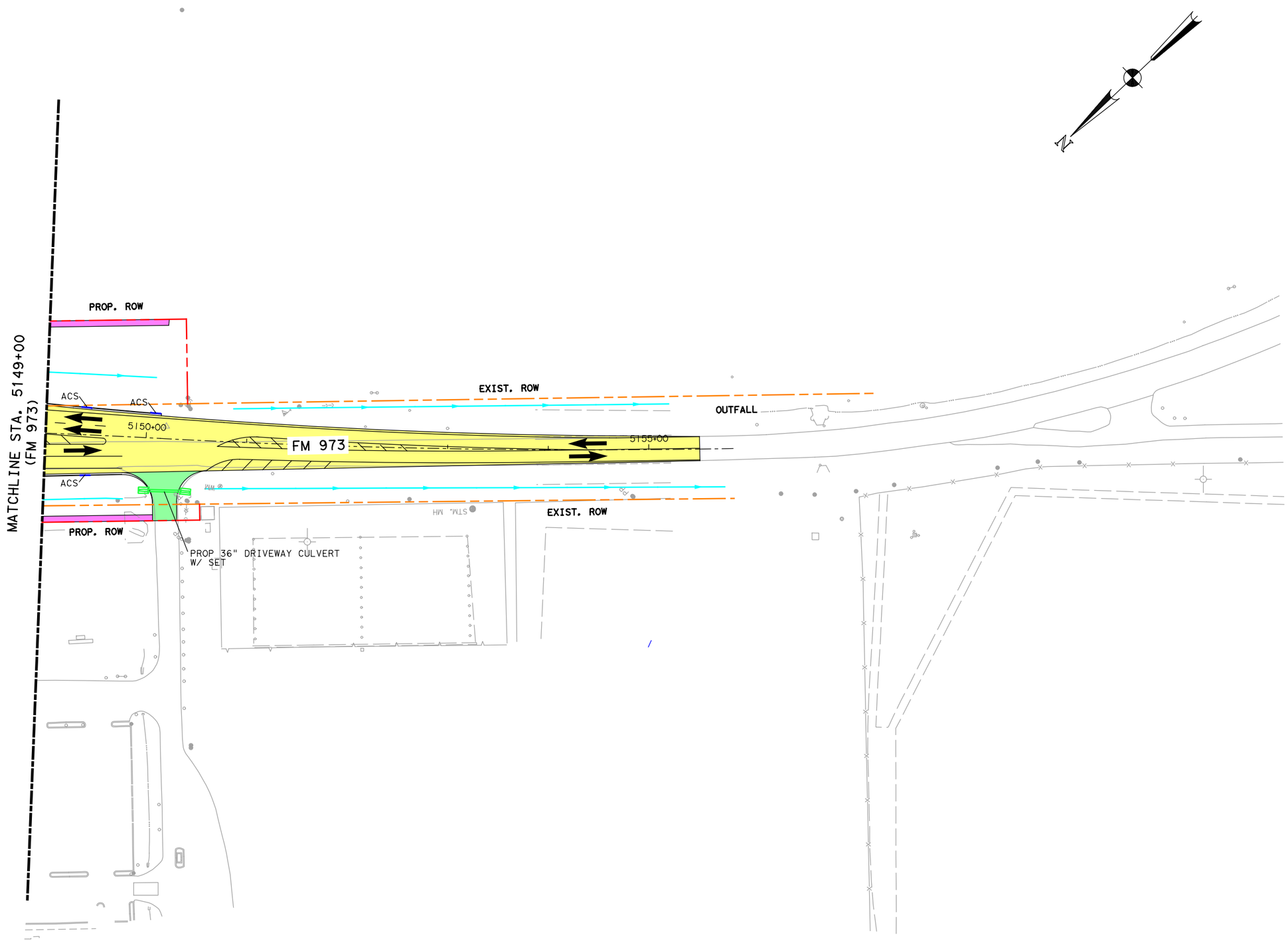

LEGEND

- ALIGNMENT
- EXISTING ROW
- PROPOSED ROW
- CONTROL OF ACCESS
- FUTURE CONTROL OF ACCESS
- TOPO
- BRIDGE
- PROP SIDEWALK
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FM 973

DRAINAGE PLAN

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 5 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			98
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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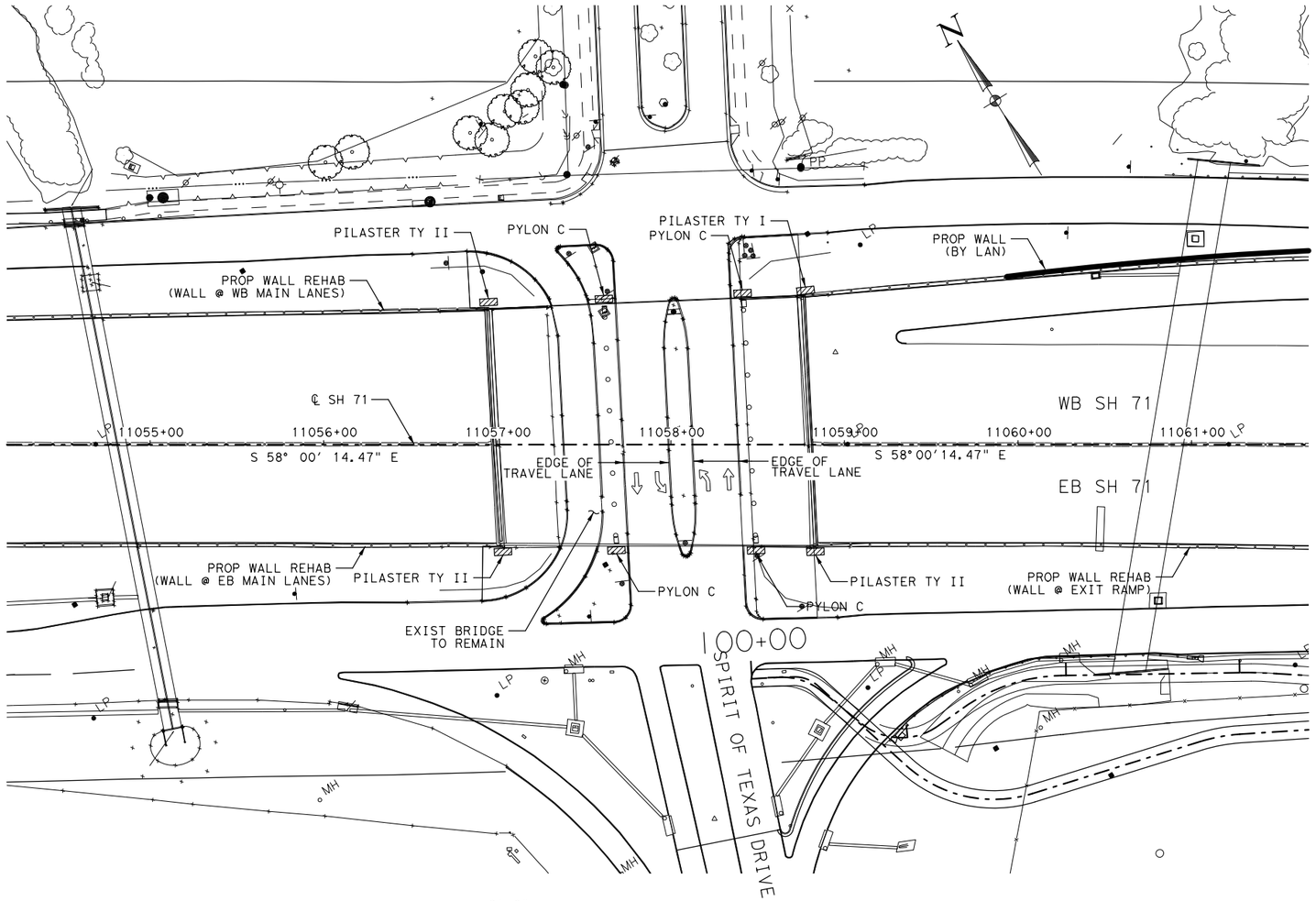
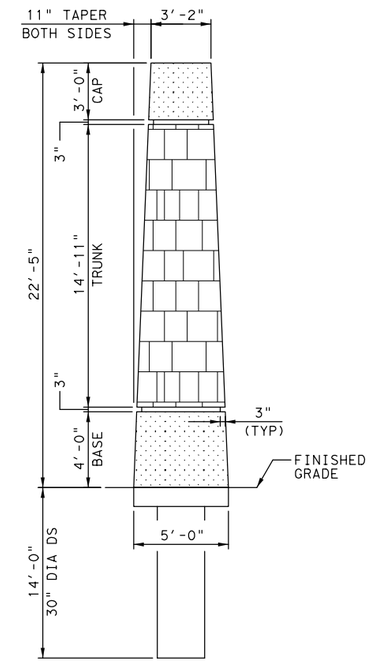


PLAN

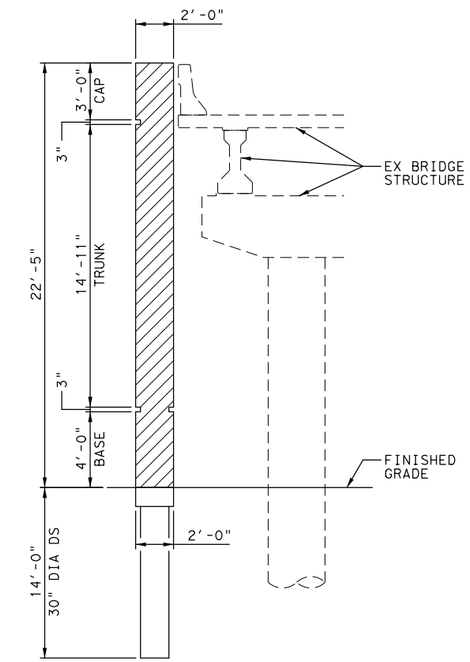
SCALE: 1" = 80'-0"



PYLON C ELEVATION

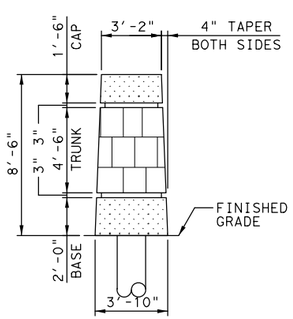
PYLON C QUANTITIES:

NO. OF PYLON C = 4
CONCRETE VOLUME = 6.8 CY/PYLON
TOTAL CONCRETE VOLUME = 27.2 CY
30" DIA SHAFT LENGTH = 56 LF
SCALE: NTS



PYLON C SECTION

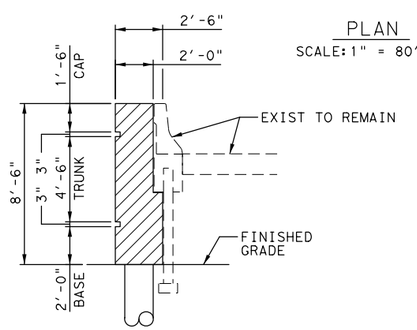
SCALE: NTS



PILASTER TY I ELEVATION

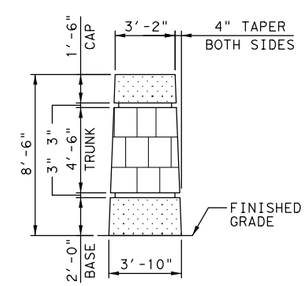
PILASTER QUANTITIES:

NO. OF PILASTERS = 1
TOTAL CONCRETE VOLUME = 2.5 CY
24" DIA SHAFT LENGTH = 20 LF
SCALE: NTS

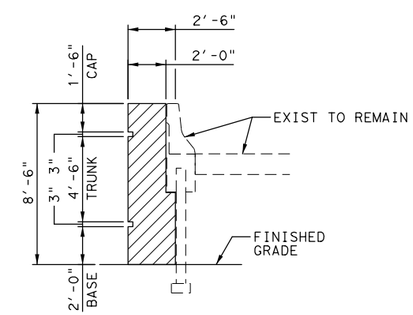


PILASTER TY I SECTION

SCALE: NTS



PILASTER TY II ELEVATION



PILASTER TY II SECTION

NOTE: PILASTERS TO BE CONSTRUCTED AS PART OF WALL REHABILITATION.

PILASTER QUANTITIES:

NO. OF PILASTERS = 3
CONCRETE VOLUME = 2.5 CY/PILASTER
TOTAL CONCRETE VOLUME = 7.5 CY
SCALE: NTS

SCALE: NTS

DESIGN LIFE CONSIDERATIONS:

NEW BRIDGE CONSTRUCTION DESIGNED FOR HL93 VEHICULAR LIVE LOAD UNDER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT WHERE DIRECTED OTHERWISE BY TxDOT LRFD BRIDGE DESIGN MANUAL, TxDOT GEOTECHNICAL MANUAL AND THE TECHNICAL PROVISION REQUIREMENTS.

BRIDGE LIMITS AND SPAN TYPES ARE PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL DESIGN.

PRELIMINARY
FOR REVIEW ONLY
Not for construction, bidding, or permit purposes.
Kimley-Horn and Associates, Inc.
Engineer JONATHON D. SEDDELMEYER
P.E. No. 91651 Date 5/16/2014

SH 71
BRIDGE LAYOUT

Kimley-Horn and Associates, Inc.
TEXAS REGISTERED ENGINEERING FIRM F-928

McCARTHY
SPIRIT OF TEXAS DRIVE

Texas Department of Transportation

SHEET 1 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		99

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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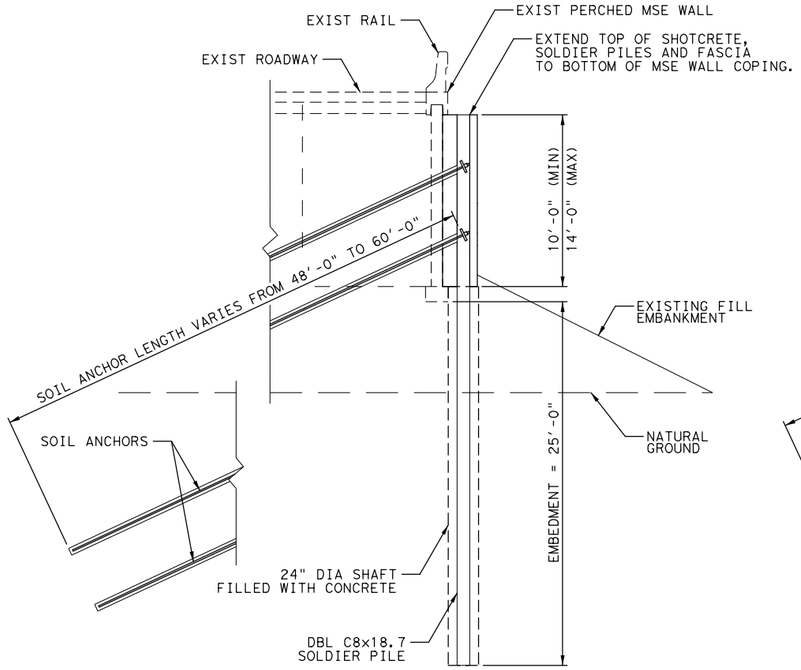
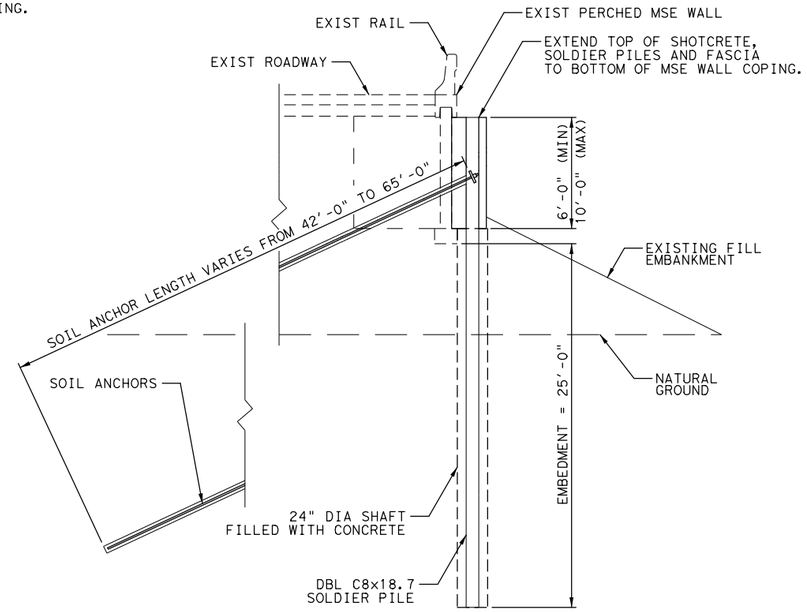
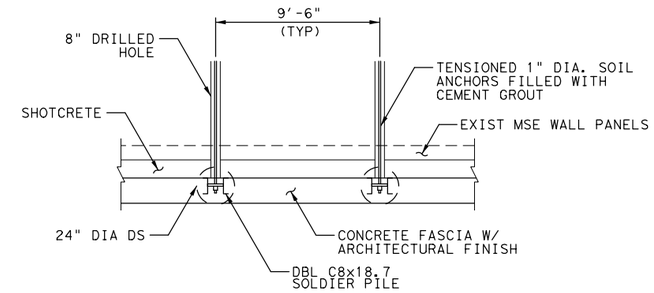


TYPICAL SECTION
(WALL HEIGHT 10'-14')
SCALE: NTS



TYPICAL SECTION
(WALL HEIGHT 6'-10')
SCALE: NTS

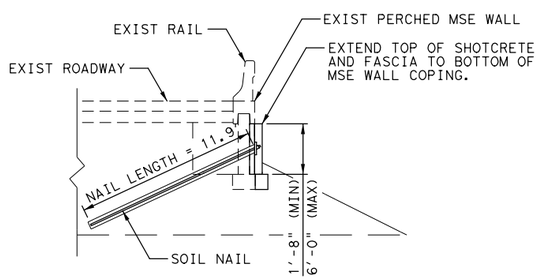


ANCHORED SOLDIER PILE DETAIL
SCALE: NTS

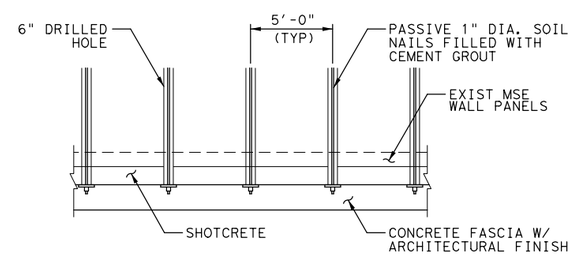
WALL REHABILITATION DESIGN CRITERIA

1. LATERAL EARTH PRESSURE
   - ACTIVE WALL PRESSURE = 50 PCF
   - LIVE LOAD SURCHARGE = 2 FT
2. COHESION
   - ALLOWABLE STRESS = 400 PSF
   - NEGLECT FIRST 25 LF OF ANCHORS
3. DRILLED SHAFT
   - AVERAGE EMBEDMENT = 25 FT
   - ALLOWABLE COHESION = 400 PSF
4. WALLS REQUIRE EXTERNAL BRACING DURING SOIL NAIL INSTALLATION.

HL 93 LOADING



TYPICAL SECTION
(WALL HEIGHT LESS THAN 6')
SCALE: NTS



SOIL NAIL DETAIL
SCALE: NTS

WALL LOCATION	BRIDGE REHABILITATION		SOLDIER PILE WALLS (HEIGHT > 6 FT)							SOIL NAIL WALLS (HEIGHT < 6 FT)			
	EPOXY INJECT	CONC REPAIR	WALL LENGTH	DRILL SHAFT (24")	SOLDIER PILES	PILE LENGTH	SOIL ANCHORS	ANCHOR LENGTH	FASCIA	WALL LENGTH	SOIL NAILS	NAIL LENGTH	FASCIA
	LF	SF	FT	LF	EA	FT	EA	LF	SF	FT	EA	FT	SF
WBML			476.5	1326	51	1775	80	2388	4943	130.0	26	310	526
EBML			363.5	1014	39	1395	65	2139	4164	60.0	12	143	198
EB EXIT RAMP			500.0	1378	53	1795	68	1940	4546	225.5	46	537	1008
TOTAL			1340.0	3718	143	4965	213	6467	13653	415.5	84	990	1732

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Kimley-Horn and Associates, Inc.
Engineer JONATHON D. SEDDELMEYER
P.E. No. 91651 Date 5/16/2014

SH 71
BRIDGE LAYOUT

Kimley-Horn and Associates, Inc.
TEXAS REGISTERED ENGINEERING FIRM F-928

McCARTHY
SPIRIT OF TEXAS DRIVE

Texas Department of Transportation

SHEET 2 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		100

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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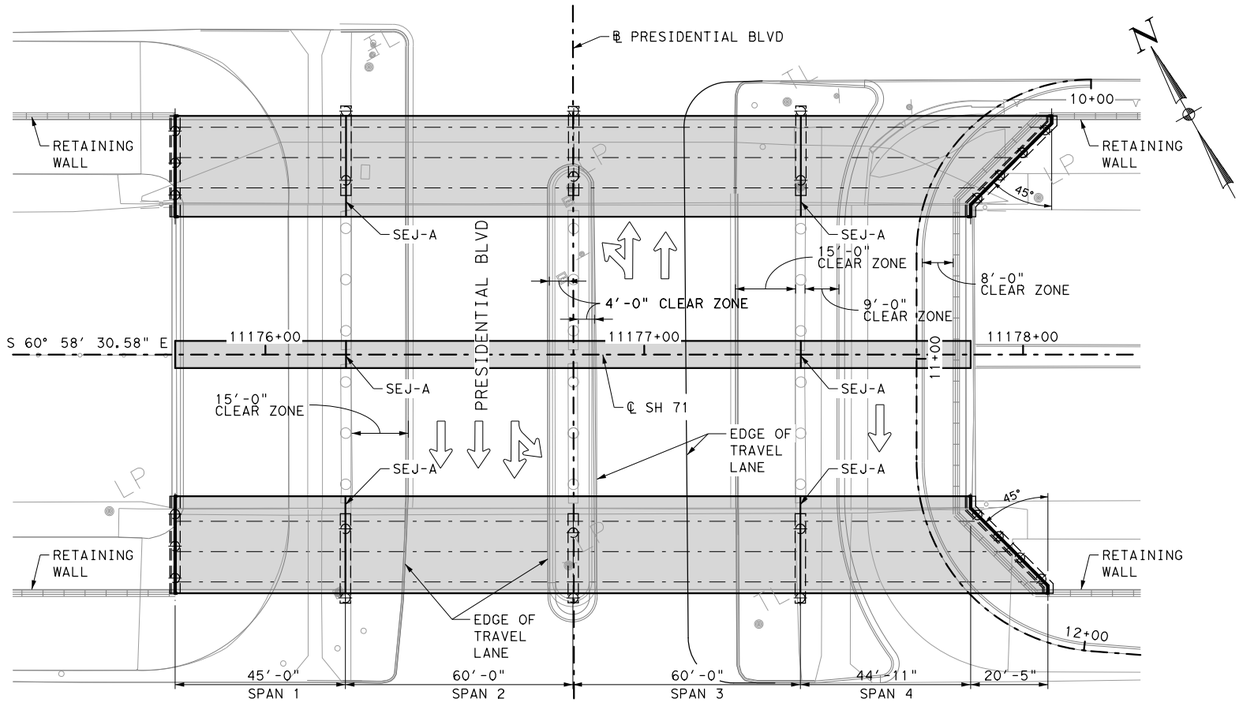
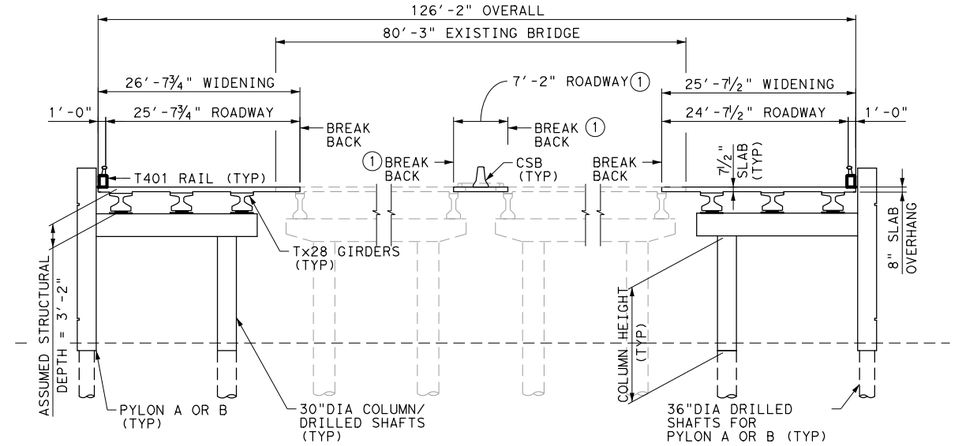


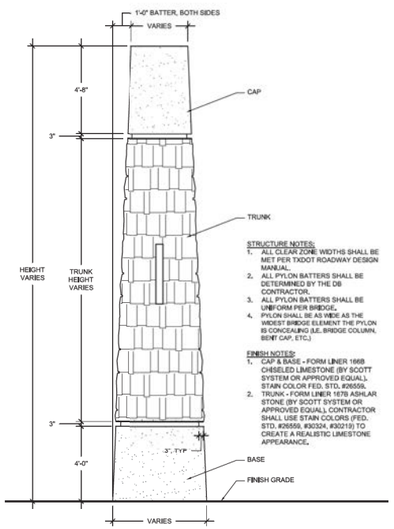
PLAN

SCALE: 1" = 40'-0"



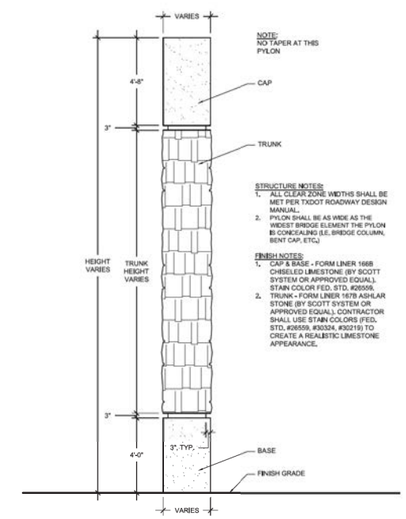
CROSS-SECTION TYPICAL BENT WITH PYLON A OR B

SCALE: NTS



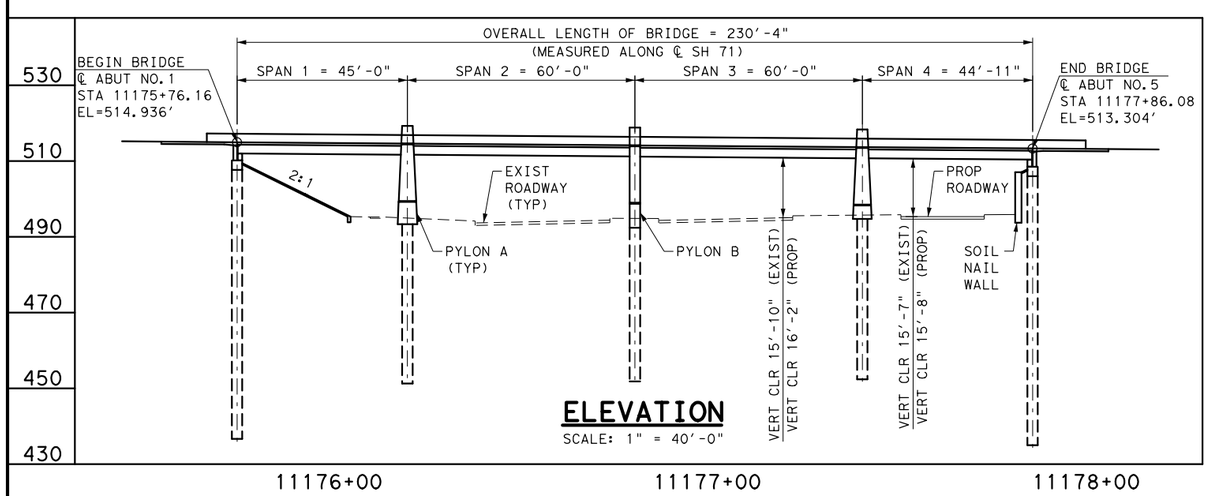
PYLON A ELEVATION

SCALE: NTS



PYLON B ELEVATION

SCALE: NTS



ELEVATION

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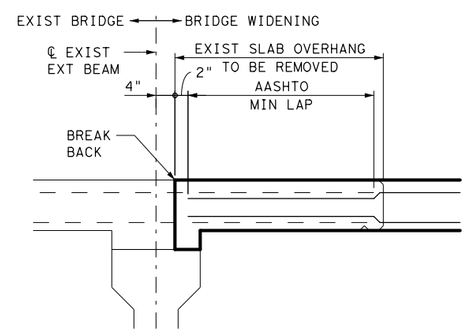

TYPICAL BREAK BACK DETAIL

SCALE: NTS

(1) DRILL AND BOND DOWELING METHOD TO BE USED IN LIEU OF SPLICING EXISTING REBAR.

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PRESIDENTIAL BLVD WIDENING

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=40'

Texas Department of Transportation

SHEET 1 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			101
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

DESIGN LIFE CONSIDERATIONS:

NEW BRIDGE CONSTRUCTION DESIGNED FOR HL93 VEHICULAR LIVE LOAD UNDER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT WHERE DIRECTED OTHERWISE BY TxDOT LRFD BRIDGE DESIGN MANUAL, TxDOT GEOTECHNICAL MANUAL AND THE TECHNICAL PROVISION REQUIREMENTS.

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Span/ Bent or Abut	Span Data									Bent Cap/Abut Data							
	Avg Span Length	New Bridge Deck Width	Slab Deck Area	# of Girders	Girder Type	Total Girder Length	SEJ-A Total Length	T401 Rail*	CSB Rail*	Length	Depth	Width	Volume	Total Primary Rebar	Total Skin Rebar	Stirrups	Abut Rebar
-	FT	FT	SF	EA	-	FT	FT	FT	FT	FT	FT	FT	CY	-	-	-	#/CY
1	45.00	59.4	2,673	6	Tx28	267.0	0.0	90.0	45.0	52.2	2.50	2.75	18.6	-	-	-	220.0
2	60.00	59.4	3,564	6	Tx28	357.0	58.7	120.0	60.0	47.0	3.50	2.75	17.1	10 - #11	10 - #5	2 - #5 at 5"	-
3	60.00	59.4	3,564	6	Tx28	357.0	0.0	120.0	60.0	47.0	3.50	2.75	17.1	10 - #11	10 - #5	2 - #5 at 5"	-
4	56.34	59.4	3,347	6	Tx28	335.0	58.7	130.7	45.0	47.0	3.50	2.75	17.1	10 - #11	10 - #5	2 - #5 at 5"	-
5	-	-	-	-	-	-	-	-	-	69.6	2.50	2.75	24.6	-	-	-	220.0
Total	**221.34**	**-**	**13,148**	**-**	**-**	**1,316.0**	**117.4**	**460.7**	**210.0**	**-**	**-**	**-**	**94.5**	**-**	**-**	**-**	**-**

* Rail lengths measured from face of backwall to face of backwall.

Span/ Bent or Abut	Column Data				Pylon Data				Foundation Data						
	# of 30 IN Dia. Columns	Height of 1 Column	Vert. Rebar (Per Col)	Spiral Rebar (Per Col)	Pylon A Volume**	Pylon B Volume**	Vert. Rebar (Per Col)	Transv. Rebar (Per Col)	# of Drilled Shafts		Length of 1 DS	Total Drilled Shaft Length (30 IN dia.)	Total Drilled Shaft Length (36 IN dia.)	Vert. Rebar (Per DS)	Spiral Rebar (Per DS)
-	EA	FT	-	-	CY	CY	-	-	30" (EA)	36" (EA)	FT	FT	FT	-	-
1	-	-	-	-	0.0	0	-	-	6	0	71	426	0	8 - #9	#3 at 6" Pch
2	2	15.5	10 - #10	#3 at 6" Pch	24.0	0.0	14 - #10	#4 at 12"	2	2	57	114	114	10 - #10	#3 at 6" Pch
3	2	15.5	10 - #10	#3 at 6" Pch	0.0	12.5	12 - #10	#3 at 12"	2	2	56	112	112	10 - #10	#3 at 6" Pch
4	2	15.5	10 - #10	#3 at 6" Pch	24.0	0.0	14 - #10	#4 at 12"	2	2	55	110	110	10 - #10	#3 at 6" Pch
5	-	-	-	-	0.0	0.0	-	-	8	0	71	568	0	8 - #9	#3 at 6" Pch
Total	**-**	**-**	**-**	**-**	**48.0**	**12.5**	**-**	**-**	**-**	**-**	**-**	**1,330**	**336**	**-**	**-**

** Assuming Pylon Height of 27 feet.

(1) SUBJECT TO CHANGE WITH APPROVAL OF ATC #7.

Soil Nail Wall Quantities		
Item	Unit	Quantity
Area	SF	2,270.0
Nails	EA	116.0
Total Nail Length	LF	1,300.0

NOTE: NAIL LENGTH ASSUMES A NAIL BATTER ANGLE OF 10 DEGREES FROM THE HORIZONTAL.

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PRESIDENTIAL BLVD EST QTY's

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

NOT TO SCALE

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FED. RD. DIV. NO.	STATE AID PROJECT			SHEET NO.
6				102
STATE	STATE DIST. NO.	COUNTY		
TEXAS		TRAVIS		
CONT.	SECT.	JOB	HIGHWAY NO.	
			SH 71	

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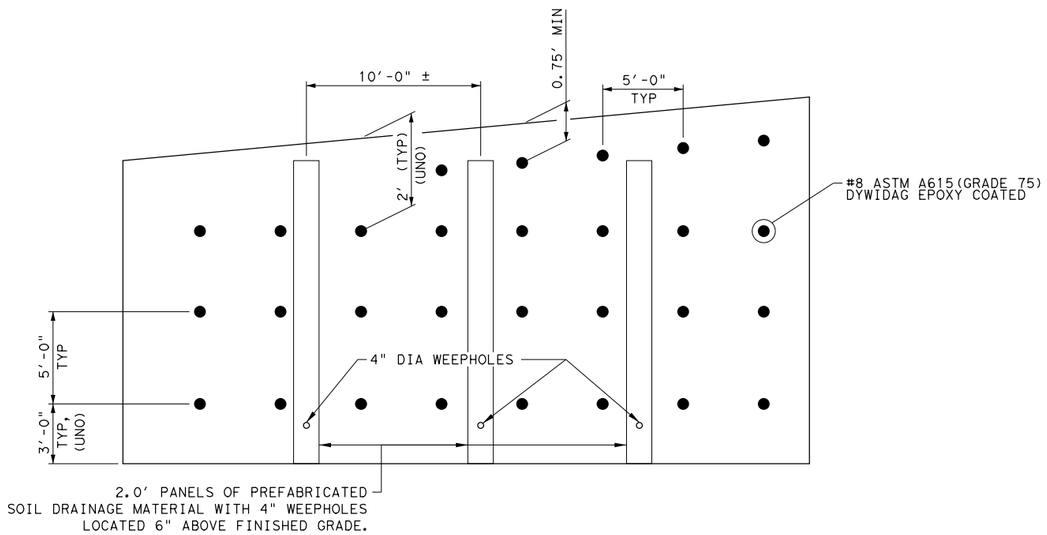
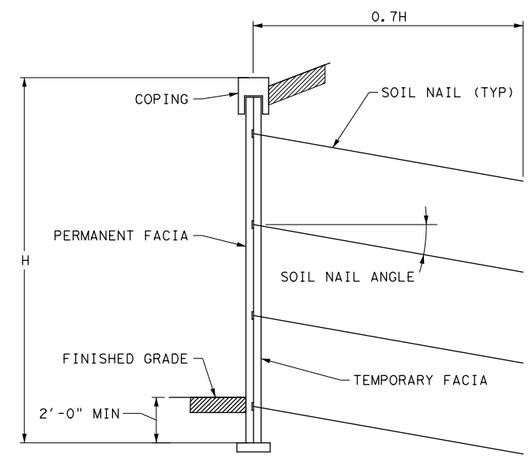


TYPICAL SOIL NAIL SPACING

SCALE: NTS



TYPICAL SOIL NAIL WALL SECTION

SCALE: NTS

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the purpose of interim review
under the authority of
Johnathan Abel Terrazas, P.E. 104821
on 5/16/2014
It is not to be used for permit,
bidding or construction purposes.

BRIDGE LIMITS AND SPAN TYPES
ARE PRELIMINARY AND SUBJECT
TO CHANGE DURING FINAL DESIGN.

PRESIDENTIAL BLVD
SOIL NAIL WALL DETAILS

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

NOT TO SCALE

DESIGN LIFE CONSIDERATIONS:
NEW BRIDGE CONSTRUCTION DESIGNED FOR HL93 VEHICULAR LIVE LOAD UNDER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT WHERE DIRECTED OTHERWISE BY TxDOT LRFD BRIDGE DESIGN MANUAL, TxDOT GEOTECHNICAL MANUAL AND THE TECHNICAL PROVISION REQUIREMENTS.

SHEET 3 OF 3

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			103
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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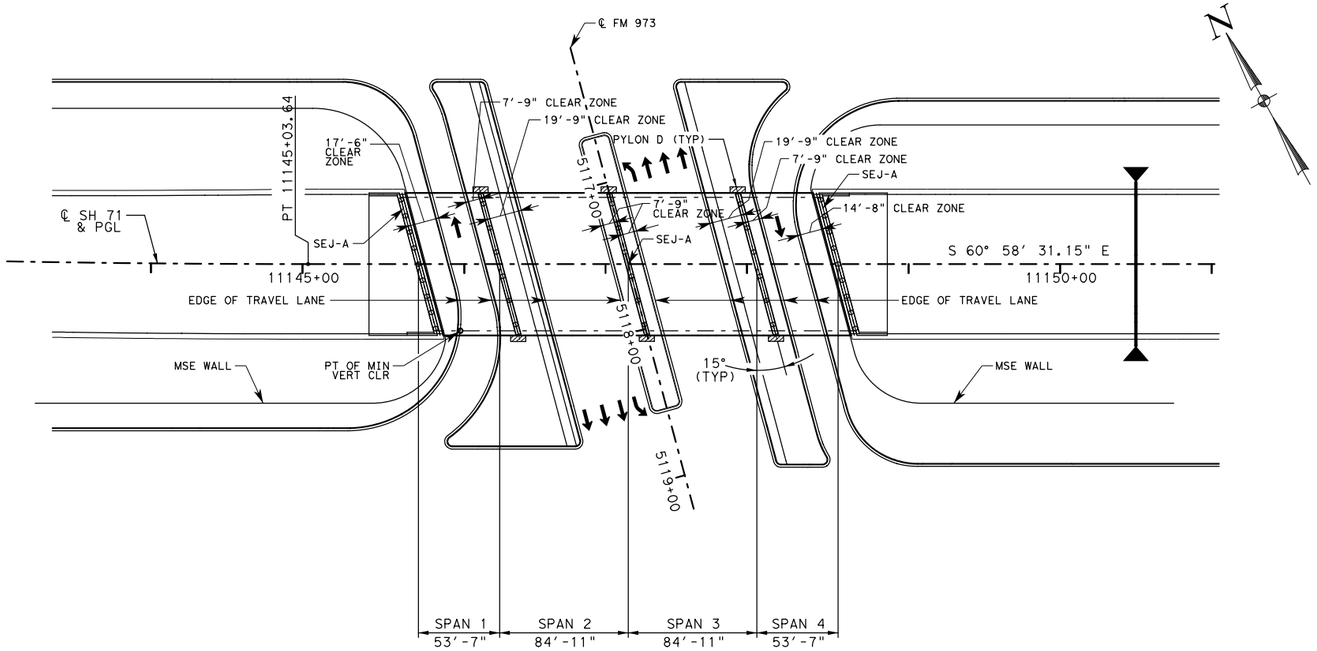

PLAN

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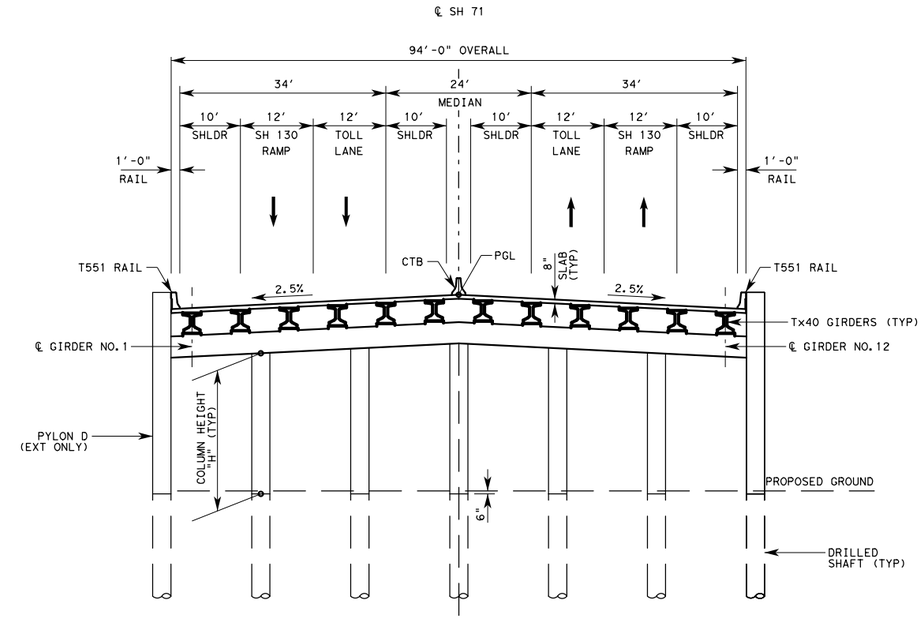


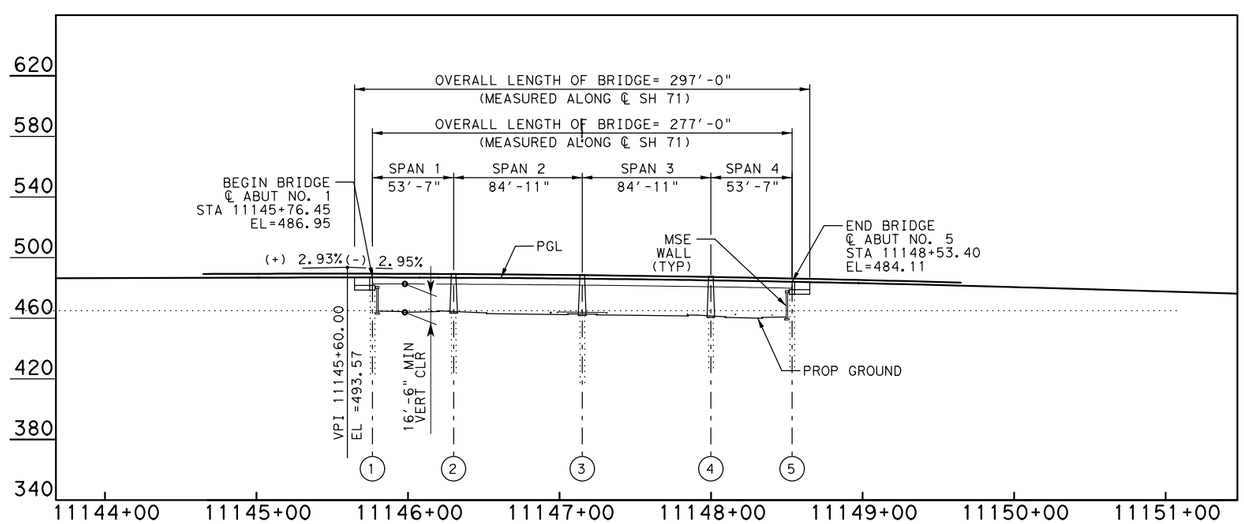
TYPICAL SECTION

SCALE: NTS

DESIGN LIFE CONSIDERATIONS:

NEW BRIDGE CONSTRUCTION DESIGNED FOR HL93 VEHICULAR LIVE LOAD UNDER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT WHERE DIRECTED OTHERWISE BY TxDOT LRFD BRIDGE DESIGN MANUAL, TxDOT GEOTECHNICAL MANUAL AND THE TECHNICAL PROVISION REQUIREMENTS.

BRIDGE LIMITS AND SPAN TYPES ARE PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL DESIGN.



ELEVATION

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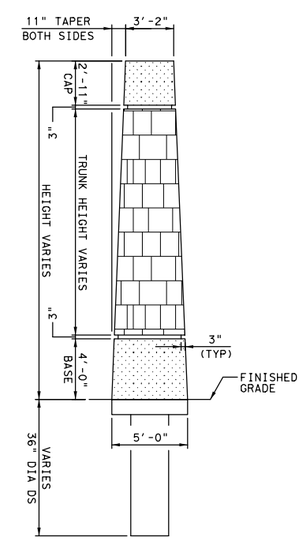
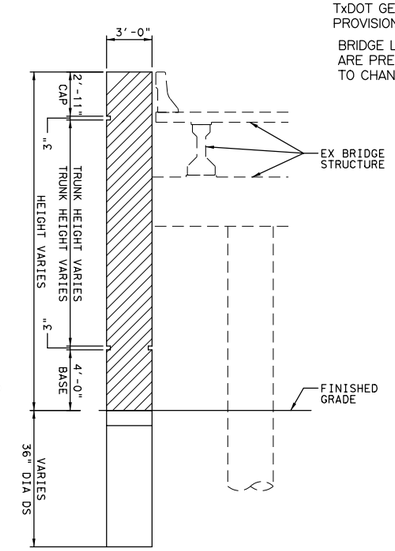


PYLON D ELEVATION

SCALE: NTS



PYLON D SECTION

SCALE: NTS

PRELIMINARY
FOR REVIEW ONLY
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Kimley-Horn and Associates, Inc.
Engineer JONATHON D. SEDDELMEYER
P.E. No. 91651 Date 5/16/2014

SH 71
BRIDGE LAYOUT

Kimley-Horn and Associates, Inc.
TEXAS REGISTERED ENGINEERING FIRM F-928

McCARTHY

SH 973 BRIDGE LAYOUT

Texas Department of Transportation

SHEET 1 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		104

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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SPAN BENT OR ABUT	SPAN DATA									BENT/ABUTMENT CAP DATA							
	SPAN LENGTH	BRIDGE WIDTH	SLAB DECK AREA	# OF GIRDERS	GIRDER TYPE	TOTAL GIRDER LENGTH	SEJ-A TOTAL LENGTH	T551 RAIL	CSB RAIL	LENGTH	DEPTH	WIDTH	VOLUME	PRIMARY REBAR	SKIN REBAR	STIRRUP	ABUT REBAR
-	FT	FT	SF	EA	-	FT	FT	FT	FT	FT	FT	FT	CY	-	-	-	#/CY
1	53.58	94	5037	12	Tx40	637.0	96.5	107.2	53.6	97.3	2.5	3.5	49.9	10 - #11	2 - #11	#5 @ 6"	220.0
2	84.92	94	7982	12	Tx40	1013.0	0.0	169.8	84.9	96.0	3.5	3.5	43.6	12 - #11	10 - #5	#5 @ 8"	-
3	84.92	94	7982	12	Tx40	1013.0	96.5	169.8	84.9	96.0	3.5	3.5	43.6	12 - #11	10 - #5	#5 @ 8"	-
4	53.58	94	5037	12	Tx40	637.0	0.0	107.2	53.6	96.0	3.5	3.5	43.6	12 - #11	10 - #5	#5 @ 8"	-
5							96.5			97.3	2.5	3.5	49.9	10 - #11	2 - #11	#5 @ 6"	220.0
TOTAL	277.00	-	26038	-	-	3300.0	289.5	554.0	277.0	-	-	-	230.6	-	-	-	-

*Rail lengths measured from face of backwall to face of backwall.

SPAN BENT OR ABUT	COLUMN DATA				PYLON DATA			FOUNDATION DATA				
	# OF 36" DIA. COLUMNS	HEIGHT OF 1 COLUMN	VERTICAL REBAR	TRANSV. REBAR	PYLON D VOLUME	VERTICAL REBAR	TRANSV. REBAR	# OF 36" DRILLED SHAFTS	LENGTH OF 1 DS	TOTAL DS LENGTH (36" DIA)	VERTICAL REBAR	SPIRAL REBAR
-	EA	FT	-	-	CY	-	-	EA	FT	FT	-	-
1	-	-	-	-	-	-	-	10	70	700	10 - #9	#3 @ 6" PCH
2	5	16	10 - #9	#3 AT 6" PCH	24.3	18 - #10	#3 @ 12"	7	60	420	10 - #9	#3 @ 6" PCH
3	5	17	10 - #9	#3 AT 6" PCH	25.2	18 - #10	#3 @ 12"	7	60	420	10 - #9	#3 @ 6" PCH
4	5	17	10 - #9	#3 AT 6" PCH	25.2	18 - #10	#3 @ 12"	7	60	420	10 - #9	#3 @ 6" PCH
5	-	-	-	-	-	-	-	10	70	700	10 - #9	#3 @ 6" PCH
TOTAL	-	-	-	-	74.7	-	-	-	-	2660	-	-

PRELIMINARY
FOR REVIEW ONLY
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Kimley-Horn and Associates, Inc.
Engineer JONATHON D. SEDDELMEYER
P.E. No. 91651 Date 5/16/2014

SH 71
BRIDGE LAYOUT

Kimley-Horn and Associates, Inc.
TEXAS REGISTERED ENGINEERING FIRM F-928

McCARTHY

SH 973

Texas Department of Transportation

SHEET 2 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		105

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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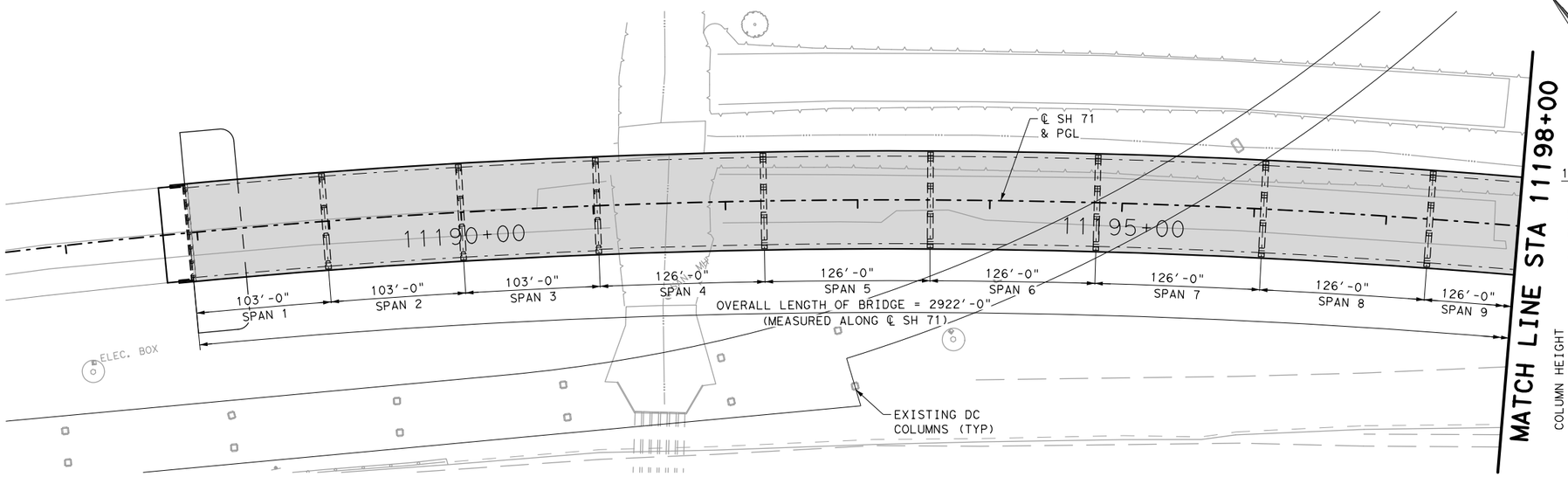
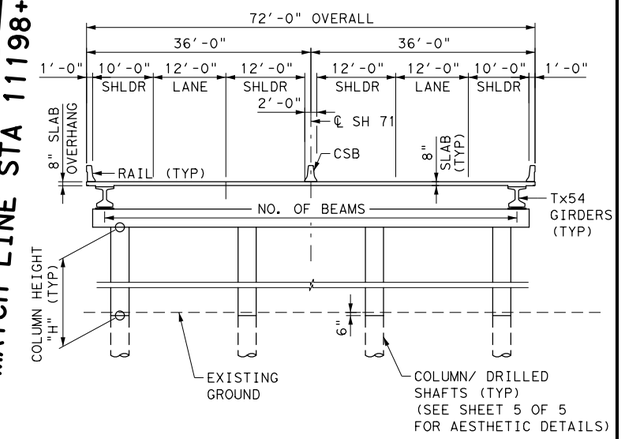


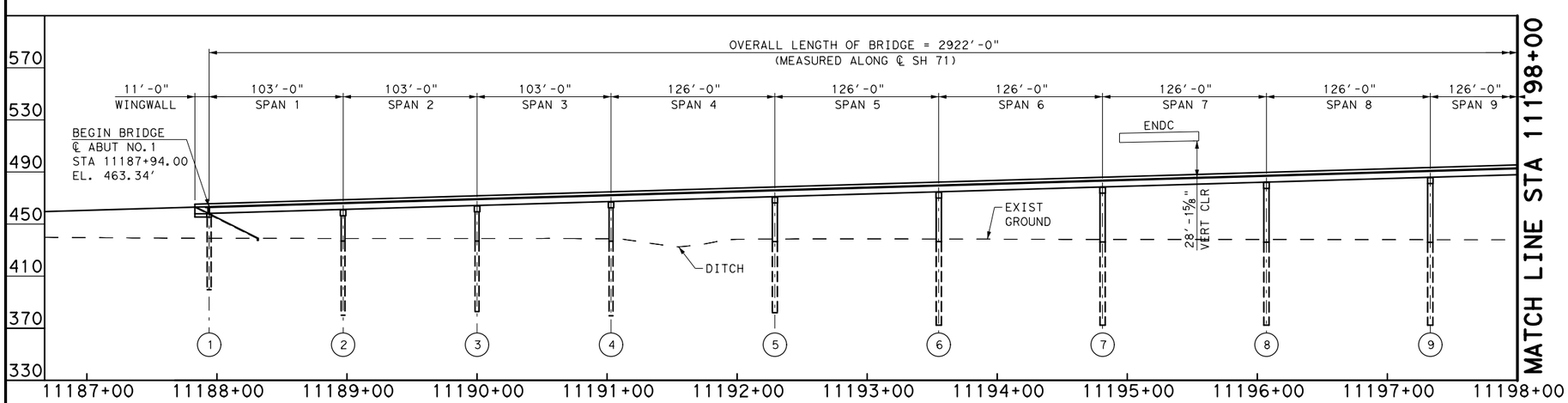
PLAN

SCALE: 1" = 100'-0"



CROSS SECTION TYPICAL BENT

SCALE: NTS



ELEVATION

SCALE: 1" = 100'-0"

DESIGN LIFE CONSIDERATIONS:

NEW BRIDGE CONSTRUCTION DESIGNED FOR HL93 VEHICULAR LIVE LOAD UNDER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT WHERE DIRECTED OTHERWISE BY TxDOT LRFD BRIDGE DESIGN MANUAL, TxDOT GEOTECHNICAL MANUAL AND THE TECHNICAL PROVISION REQUIREMENTS.

INTERIM REVIEW ONLY
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BRIDGE LIMITS AND SPAN TYPES ARE PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL DESIGN.

SH 130 FLYOVER

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 1 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			106
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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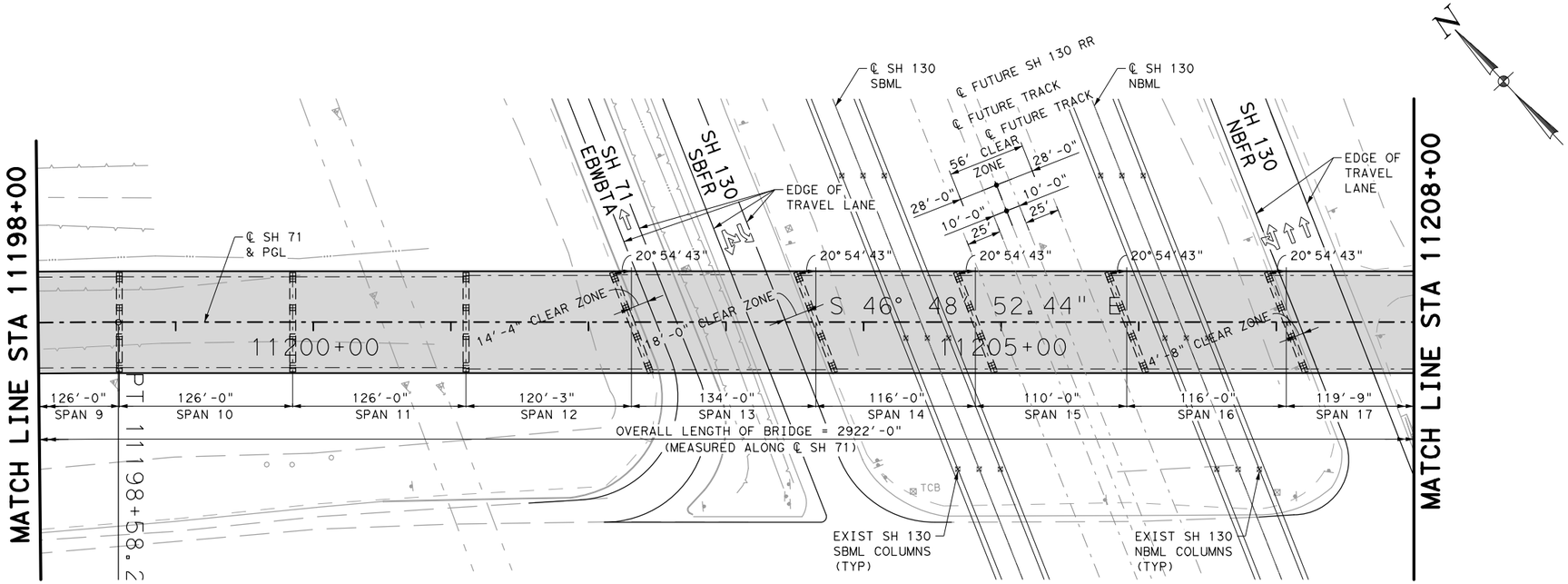
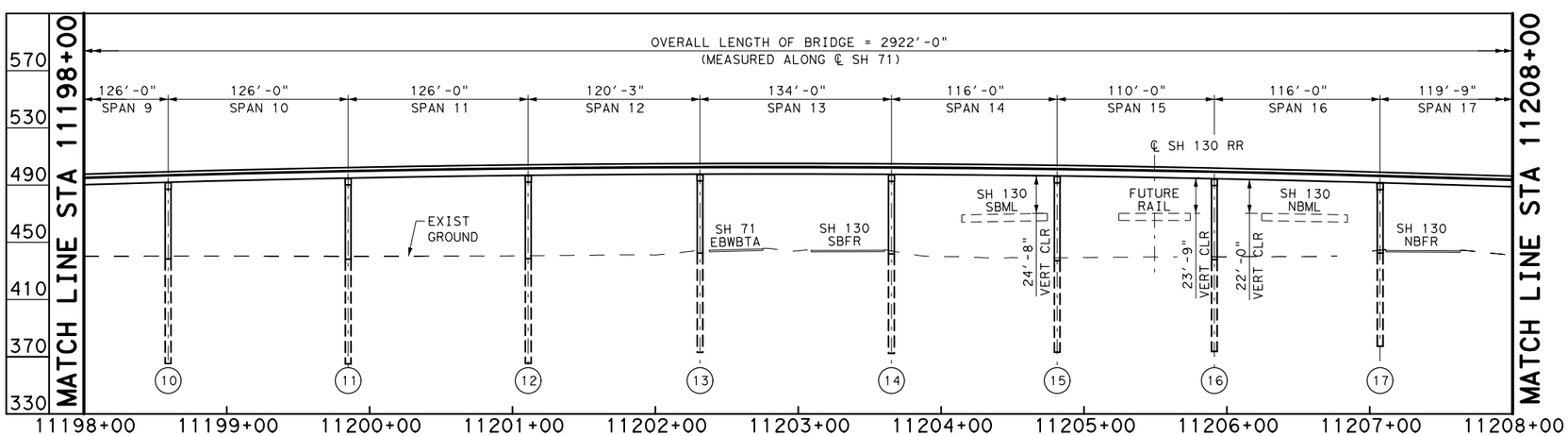


PLAN

SCALE: 1" = 100'-0"



ELEVATION

SCALE: 1" = 100'-0"

DESIGN LIFE CONSIDERATIONS:

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SH 130 FLYOVER

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 2 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			107
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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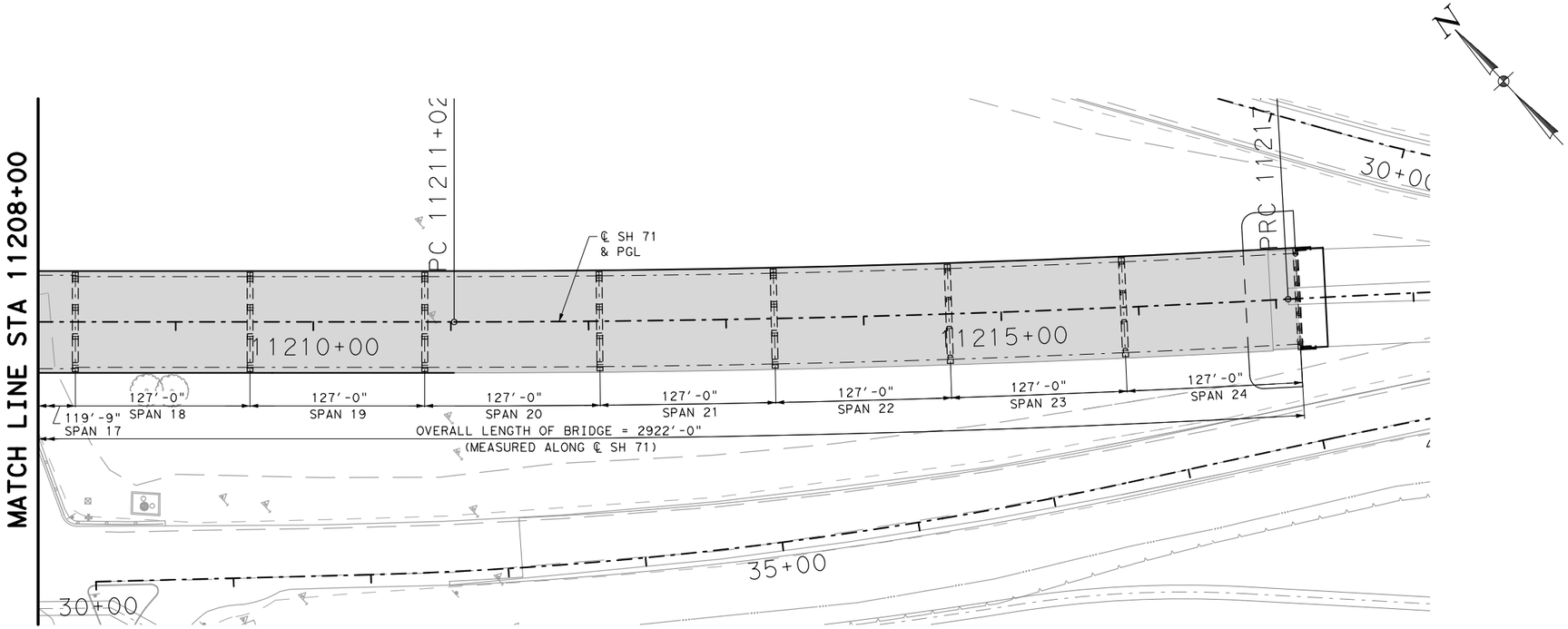
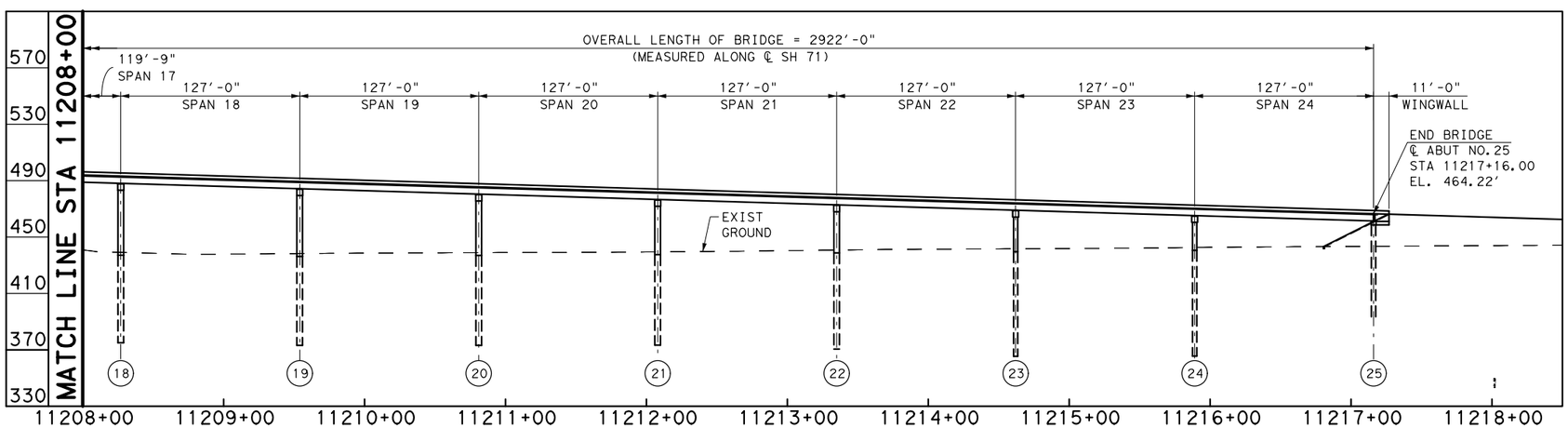


PLAN

SCALE: 1" = 100'-0"



ELEVATION

SCALE: 1" = 100'-0"

DESIGN LIFE CONSIDERATIONS:

NEW BRIDGE CONSTRUCTION DESIGNED FOR HL93 VEHICULAR LIVE LOAD UNDER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT WHERE DIRECTED OTHERWISE BY TxDOT LRFD BRIDGE DESIGN MANUAL, TxDOT GEOTECHNICAL MANUAL AND THE TECHNICAL PROVISION REQUIREMENTS.

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SH 130 FLYOVER

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 3 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			108
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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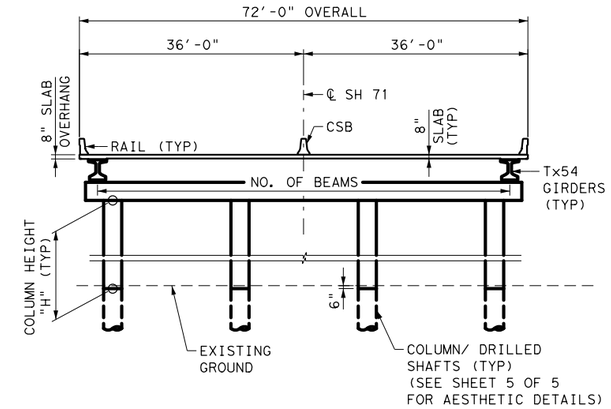
QUANTITIES FOR 72' BRIDGE WIDTH

Span/ Bent or Abut	Span Data										Bent Cap / Abut Data							
	Span Length	Bridge Width	Slab Deck Area	# of Girders	Slab Overhang	Girder Type	Total Girder Length	SEJ-A Total Length	T551 Rail*	CSB Rail**	Length	Depth	Width	Volume	Total Primary Rebar	Total Skin Rebar	Stirrups	Abutment Rebar
-	FT	FT	SF	EA	FT	-	FT	FT	FT	FT	FT	FT	FT	CY	-	-	-	#/CY
1	103.00	72	7,416	7	3.0	Tx54	717.5	71.3	228.0	103.0	72	2.5	3.50	44.5	-	-	-	220.0
2	103.00	72	7,416	7	3.0	Tx54	717.5	0.0	206.0	103.0	70	4.5	4.25	50.0	12 - #11	12 - #5	#6 at 12'	-
3	103.00	72	7,416	7	3.0	Tx54	717.5	0.0	206.0	103.0	70	4.5	4.25	50.0	12 - #11	12 - #5	#6 at 12'	-
4	126.00	72	9,072	9	4.0	Tx54	1,129.5	71.3	252.0	126.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
5	126.00	72	9,072	9	4.0	Tx54	1,129.5	0.0	252.0	126.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
6	126.00	72	9,072	9	4.0	Tx54	1,129.5	71.3	252.0	126.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
7	126.00	72	9,072	9	4.0	Tx54	1,129.5	0.0	252.0	126.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
8	126.00	72	9,072	9	4.0	Tx54	1,129.5	71.3	252.0	126.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
9	126.00	72	9,072	9	4.0	Tx54	1,129.5	0.0	252.0	126.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
10	126.00	72	9,072	9	4.0	Tx54	1,129.5	71.3	252.0	126.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
11	126.00	72	9,072	9	4.0	Tx54	1,129.5	0.0	252.0	126.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
12	120.25	72	8,658	10	3.0	Tx54	1,197.5	71.3	240.5	120.3	70	4.5	4.25	50.2	17 - #11	12 - #5	#6 at 8"	-
13	134.00	72	9,648	12	2.5	Tx54	1,602.0	0.0	268.0	134.0	76	4.5	4.25	54.5	22 - #11	12 - #5	#6 at 5"	-
14	116.00	72	8,352	8	3.0	Tx54	924.0	76.3	232.0	116.0	76	4.5	4.25	54.4	22 - #11	12 - #5	#6 at 5"	-
15	110.00	72	7,920	7	3.0	Tx54	766.5	0.0	220.0	110.0	76	4.5	4.25	54.3	22 - #11	12 - #5	#6 at 5"	-
16	116.00	72	8,352	8	3.0	Tx54	924.0	76.3	232.0	116.0	76	4.5	4.25	54.3	22 - #11	12 - #5	#6 at 5"	-
17	119.75	72	8,622	10	3.0	Tx54	1,192.5	0.0	239.5	119.8	76	4.5	4.25	54.4	22 - #11	12 - #5	#6 at 5"	-
18	127.00	72	9,144	9	4.0	Tx54	1,138.5	71.3	254.0	127.0	70	4.5	4.25	50.2	17 - #11	12 - #5	#6 at 8"	-
19	127.00	72	9,144	9	4.0	Tx54	1,138.5	0.0	254.0	127.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
20	127.00	72	9,144	9	4.0	Tx54	1,138.5	71.3	254.0	127.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
21	127.00	72	9,144	9	4.0	Tx54	1,138.5	0.0	254.0	127.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
22	127.00	72	9,144	9	4.0	Tx54	1,138.5	71.3	254.0	127.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
23	127.00	72	9,144	9	4.0	Tx54	1,138.5	0.0	254.0	127.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
24	127.00	72	9,144	9	4.0	Tx54	1,138.5	71.3	276.0	127.0	70	4.5	4.25	50.1	17 - #11	12 - #5	#6 at 8"	-
25	-	-	-	-	-	-	-	71.3	-	-	72	2.5	3.50	44.5	-	-	-	220.0
Total	**2,922.00**	**-**	**210,384**	**-**	**-**	**-**	**25,764.5**	**936.9**	**5,888.0**	**2,922.1**	**-**	**-**	**-**	**1,262.7**	**-**	**-**	**-**	**-**

* Rail lengths measured from face of end of wingwall to end of wingwall.

** CSB Rail measured from face of backwall to face of backwall.

Span/ Bent or Abut	Column Data							Foundation Data								
	# of Columns	Height of 1 Column	Depth	Width	Volume	Vert. Rebar (Per Col)	Transv. Rebar (Per Col)	# of Drilled Shafts	Drilled Shaft Size	Length of 1 DS	Total Drilled Shaft Length (36 IN dia.)	Total Drilled Shaft Length (42 IN dia.)	Total Drilled Shaft Length (48 IN dia.)	Vert. Rebar (Per DS)	Spiral Rebar (Per DS)	Riprap (RR9)
-	EA	FT	FT	FT	CY	-	-	EA	IN	FT	FT	FT	FT	-	-	CY
1	-	-	-	-	-	-	-	7	36	56	392	0	0	10 - #9	#3 at 6" Pch	92.6
2	4	17.1	3.0	3.0	22.8	16 - #9	#3 at 12"	4	36	53	212	0	0	10 - #9	#3 at 6" Pch	0.0
3	4	20.2	3.0	3.0	26.9	16 - #9	#3 at 12"	4	36	53	212	0	0	10 - #9	#3 at 6" Pch	0.0
4	4	23.2	3.0	3.0	30.9	16 - #9	#3 at 12"	4	36	57	228	0	0	10 - #9	#3 at 6" Pch	0.0
5	4	27.5	3.0	3.0	36.7	16 - #9	#3 at 12"	4	36	62	248	0	0	14 - #9	#3 at 6" Pch	0.0
6	4	31.1	3.0	3.0	41.5	16 - #9	#3 at 12"	4	36	62	248	0	0	14 - #9	#3 at 6" Pch	0.0
7	4	35.2	3.0	3.0	46.9	16 - #9	#3 at 12"	4	36	62	248	0	0	14 - #9	#3 at 6" Pch	0.0
8	4	38.9	4.0	4.0	92.2	20 - #10	#3 at 12"	4	48	53	0	0	212	22 - #10	#3 at 6" Pch	0.0
9	4	42.3	4.0	4.0	100.3	20 - #10	#3 at 12"	4	48	53	0	0	212	22 - #10	#3 at 6" Pch	0.0
10	4	46.5	4.0	4.0	110.2	20 - #10	#3 at 12"	4	48	53	0	0	212	22 - #10	#3 at 6" Pch	0.0
11	4	49.7	4.0	4.0	117.8	20 - #10	#3 at 12"	4	48	53	0	0	212	22 - #10	#3 at 6" Pch	0.0
12	4	51.7	4.0	4.0	122.5	20 - #10	#3 at 12"	4	48	53	0	0	212	22 - #10	#3 at 6" Pch	0.0
13	4	54.9	4.0	4.0	130.1	20 - #10	#3 at 12"	4	48	56	0	0	224	22 - #10	#3 at 6" Pch	0.0
14	4	54.7	4.0	4.0	129.7	20 - #10	#3 at 12"	4	48	57	0	0	228	22 - #10	#3 at 6" Pch	0.0
15	4	52.3	4.0	4.0	124.0	20 - #10	#3 at 12"	4	48	54	0	0	216	22 - #10	#3 at 6" Pch	0.0
16	4	50.5	4.0	4.0	119.7	20 - #10	#3 at 12"	4	48	54	0	0	216	22 - #10	#3 at 6" Pch	0.0
17	4	47.3	4.0	4.0	112.1	20 - #10	#3 at 12"	4	48	54	0	0	216	22 - #10	#3 at 6" Pch	0.0
18	4	46.9	4.0	4.0	111.2	20 - #10	#3 at 12"	4	48	52	0	0	208	22 - #10	#3 at 6" Pch	0.0
19	4	42.2	4.0	4.0	100.0	20 - #10	#3 at 12"	4	48	53	0	0	212	22 - #10	#3 at 6" Pch	0.0
20	4	37.6	4.0	4.0	89.1	20 - #10	#3 at 12"	4	48	54	0	0	216	22 - #10	#3 at 6" Pch	0.0
21	4	33.5	3.0	3.0	44.7	16 - #9	#3 at 12"	4	36	63	252	0	0	14 - #9	#3 at 6" Pch	0.0
22	4	28.3	3.0	3.0	37.7	16 - #9	#3 at 12"	4	36	58	232	0	0	14 - #9	#3 at 6" Pch	0.0
23	4	23.5	3.0	3.0	31.3	16 - #9	#3 at 12"	4	36	56	224	0	0	10 - #9	#3 at 6" Pch	0.0
24	4	19.0	3.0	3.0	25.3	16 - #9	#3 at 12"	4	36	57	228	0	0	10 - #9	#3 at 6" Pch	0.0
25	-	-	-	-	-	-	-	7	36	66	462	0	0	10 - #9	#3 at 6" Pch	74.7
Total	**-**	**-**	**-**	**-**	**1,803.6**	**-**	**-**	**-**	**-**	**-**	**3,186**	**0**	**2,796**	**-**	**-**	**167.3**



CROSS SECTION TYPICAL BENT

SCALE: NTS

INTERIM REVIEW ONLY
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BRIDGE LIMITS AND SPAN TYPES ARE PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL DESIGN.

SH 130 FLYOVER EST QTY's

McCARTHY

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

DESIGN LIFE CONSIDERATIONS:
NEW BRIDGE CONSTRUCTION DESIGNED FOR HL93 VEHICULAR LIVE LOAD UNDER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT WHERE DIRECTED OTHERWISE BY TxDOT LRFD BRIDGE DESIGN MANUAL, TxDOT GEOTECHNICAL MANUAL AND THE TECHNICAL PROVISION REQUIREMENTS.

Texas Department of Transportation

SHEET 4 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		109

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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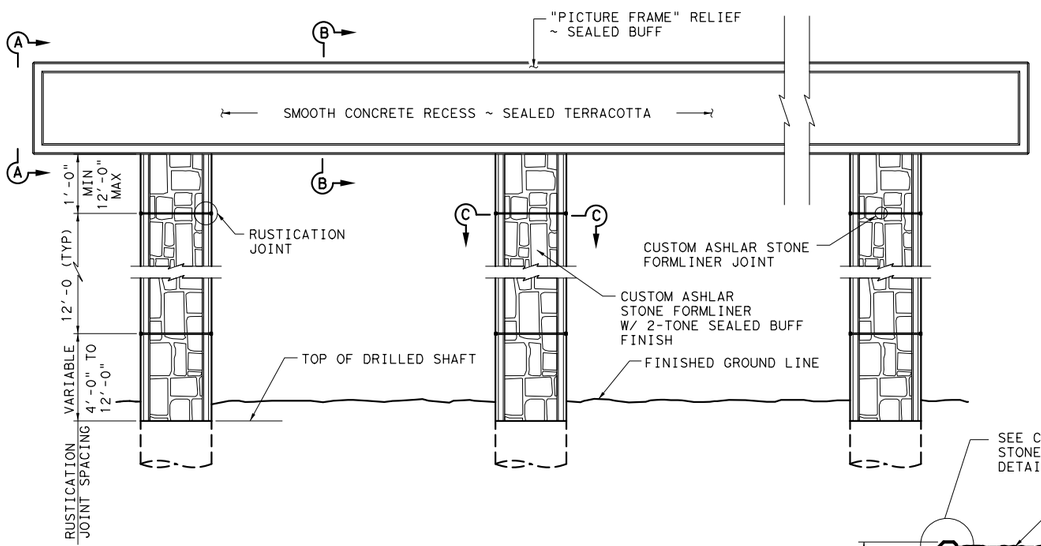
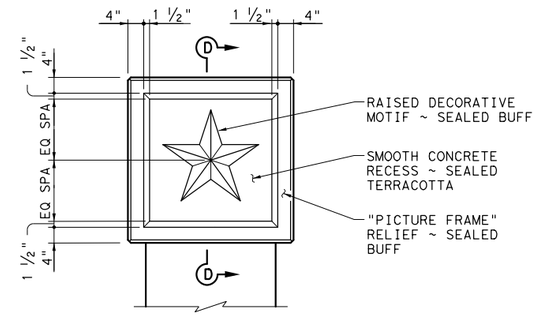
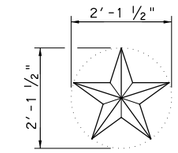


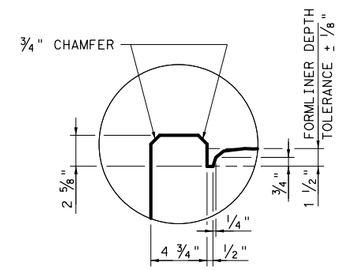
ELEVATION ~ RECTANGULAR COLUMNS



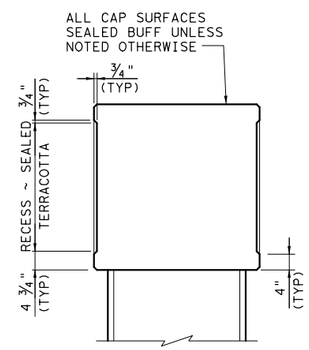
SECTION A-A
SHOWING ROUND COLUMN



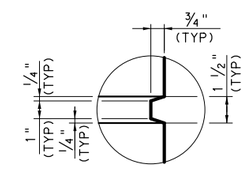
STAR DETAIL
1 ½" RAISED STAR MOTIF INSCRIBED BY A 2'-1 ½" DIAMETER CIRCLE.



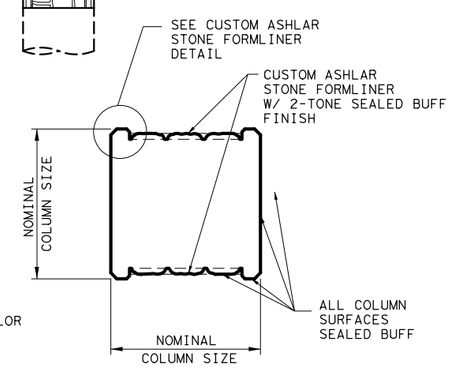
CUSTOM ASHLAR
FORMLINER DETAIL



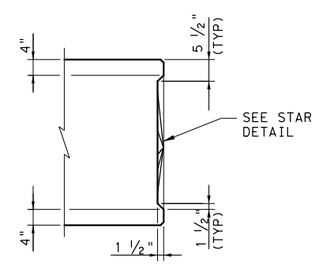
SECTION B-B
SHOWING SQUARE COLUMN



RUSTICATION
JOINT DETAIL



SECTION C-C



SECTION D-D

GENERAL NOTES:
1. CHAMFER ALL EXPOSED CAP EDGES ¾" UNLESS NOTED.
2. THE TERRACOTTA SEALER SHALL CONFORM TO THE FEDERAL STANDARD COLOR I.D. NO. 30252.
3. THE BUFF SEALER SHALL CONFORM TO FEDERAL STANDARD COLOR I.D. NO. 33711.
4. SEALER SHALL NOT BE APPLIED TO THE BEARING SEATS.
5. CLEAR COVER AT RUSTICATION JOINT SHALL BE A MINIMUM OF 2".
6. RUSTICATION JOINT IS NOT REQUIRED WHEN COLUMN HEIGHT IS LESS THAN 12 FEET.

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SH 130 FLYOVER AESTHETIC DETAILS

McCARTHY®

Lockwood, Andrews & Newnam, Inc.
A LEO A DALY COMPANY
TBPE Firm No. 2614

SCALE: 1"=100'

Texas Department of Transportation

SHEET 5 OF 5

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			110
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

DESIGN LIFE CONSIDERATIONS:
NEW BRIDGE CONSTRUCTION DESIGNED FOR HL93 VEHICULAR LIVE LOAD UNDER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EXCEPT WHERE DIRECTED OTHERWISE BY TxDOT LRFD BRIDGE DESIGN MANUAL, TxDOT GEOTECHNICAL MANUAL AND THE TECHNICAL PROVISION REQUIREMENTS.

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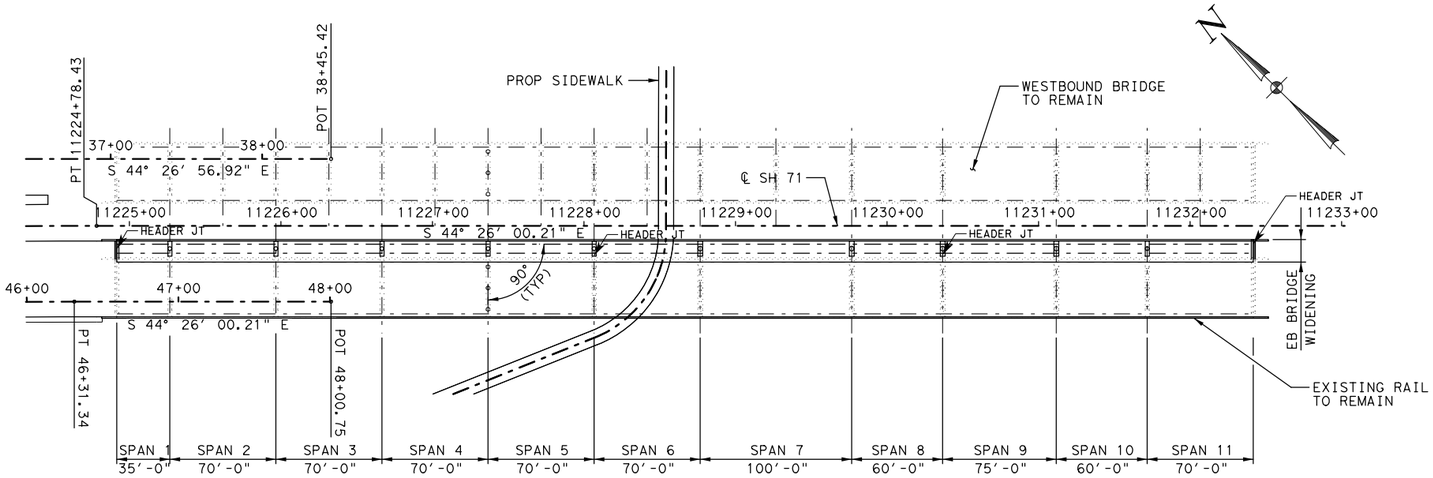
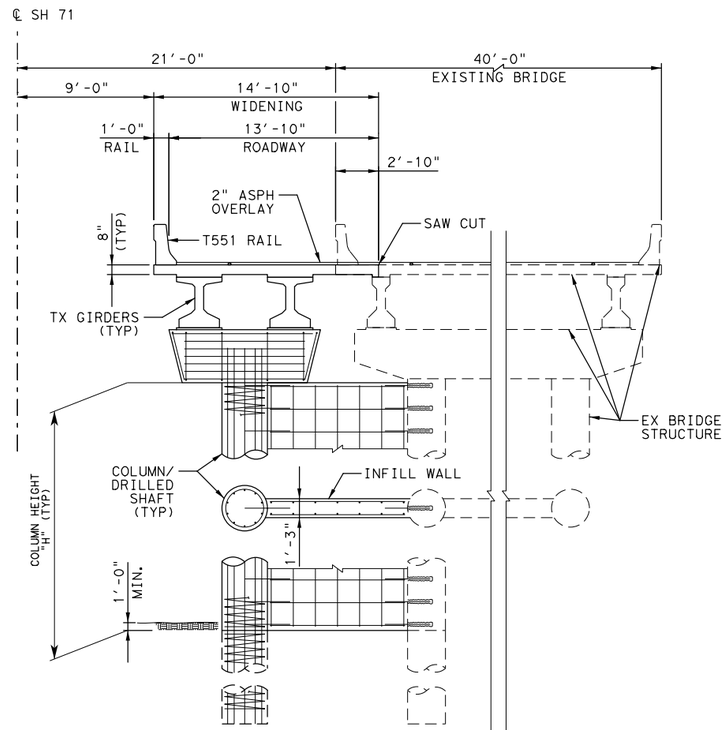
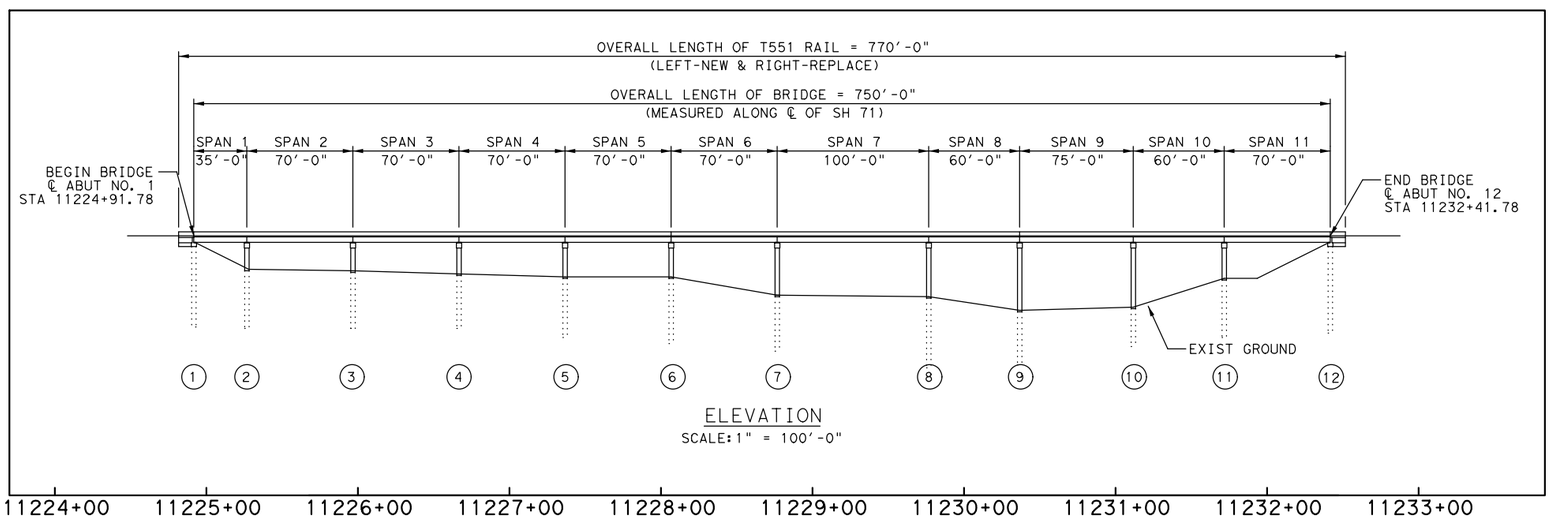


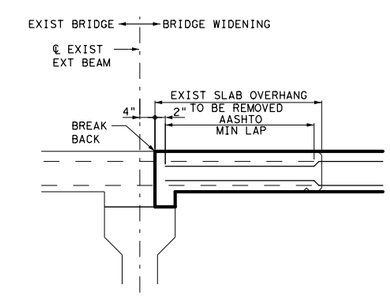
PLAN
SCALE: 1" = 100'-0"



TYPICAL SECTION
SCALE: NTS



ELEVATION
SCALE: 1" = 100'-0"



TYPICAL BREAK BACK DETAIL
SCALE: NTS

DESIGN LIFE CONSIDERATIONS:

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BRIDGE LIMITS AND SPAN TYPES ARE PRELIMINARY AND SUBJECT TO CHANGE DURING FINAL DESIGN.

PRELIMINARY
FOR REVIEW ONLY
Not for construction, bidding, or permit purposes.
Kimley-Horn and Associates, Inc.
Engineer JONATHON D. SEDDELMEYER
P.E. No. 91651 Date 5/16/2014

SH 71
BRIDGE LAYOUT

Kimley-Horn and Associates, Inc.
TEXAS REGISTERED ENGINEERING FIRM F-928

McCARTHY

EB ONION CREEK WIDENING

Texas Department of Transportation

SHEET 1 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT		SHEET NO.
6			111
STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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Abut, Bent, or Span	Span Data								Bent Cap/Abutment Data							
	Avg Span Length	New Bridge Deck Width	Slab Deck Area	# Girders	Girder Type	Total Girder Length	Header Exp Joint	T551 Rail	Length	Depth	Width	Volume	Primary Rebar	Skin Rebar	Stirrups	Abut Rebar
-	FT	FT	SF	EA	-	FT		FT	FT	FT	FT	CY	-	-	-	#/CY
1	35.0	14.8	520	2	Tx40	69.0	50.00	45.0	13.00	2.50	2.75	8.2	-	-	-	220
2	70.0	14.8	1039	2	Tx40	139.0	-	70.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
3	70.0	14.8	1039	2	Tx40	139.0	-	70.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
4	70.0	14.8	1039	2	Tx40	139.0	-	70.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
5	70.0	14.8	1039	2	Tx40	139.0	-	70.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
6	70.0	14.8	1039	2	Tx40	139.0	50.00	70.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
7	100.0	14.8	1484	2	Tx40	199.0	-	100.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
8	60.0	14.8	890	2	Tx40	119.0	-	60.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
9	75.0	14.8	1113	2	Tx40	149.0	50.00	75.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
10	60.0	14.8	890	2	Tx40	119.0	-	60.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
11	70.0	14.8	1039	2	Tx40	139.0	-	80.0	10.00	3.50	3.50	4.2	10-#11	10-#5	#5 at 6"	-
12	-	-	-	-	-	-	50.00	-	13.00	2.50	2.75	8.3	10-#11	10-#5	#5 at 6"	220
Total	750.0	-	11131	22		1489.0	200.00	770.0	-	-	-	58.5	-	-	-	-

Abut, Bent, or Span	Column Data						Foundation Data									
	Dia. Of 1 - Column	Column Height	Vertical Rebar	Spiral Rebar	Infill Wall		# Drilled Shafts			Length of 1 - Dr Shaft	Length of Dr Shafts			Vertical Rebar	Spiral Rebar	Rip Rap
					Volume	Rebar	30"	36"	42"		30"	36"	42"			
-	IN	FT	-	-	CY	#/CY	EA	EA	EA	FT	-	-	-	-	-	CY
1	-	-	-	-	-	-	2	-	-	53	106	-	-	8 - #9	#3 at 6" Pitch	2.0
2	30	15	8 - #9	#3 at 6" Pitch	-	-	1	-	-	38	38	-	-	8 - #9	#3 at 6" Pitch	-
3	30	16	8 - #9	#3 at 6" Pitch	-	-	1	-	-	37	37	-	-	8 - #9	#3 at 6" Pitch	1.5
4	30	18	8 - #9	#3 at 6" Pitch	-	-	1	-	-	35	35	-	-	8 - #9	#3 at 6" Pitch	1.5
5	30	20	8 - #9	#3 at 6" Pitch	-	-	1	-	-	39	39	-	-	8 - #9	#3 at 6" Pitch	1.5
6	30	20	8 - #9	#3 at 6" Pitch	8.9	155	1	-	-	43	43	-	-	8 - #9	#3 at 6" Pitch	1.5
7	36	32	10 - #9	#3 at 6" Pitch	14.2	155	-	1	-	36	-	36	-	10 - #9	#3 at 6" Pitch	1.5
8	36	33	10 - #9	#3 at 6" Pitch	14.7	155	-	1	-	46	-	46	-	10 - #9	#3 at 6" Pitch	1.5
9	42	42	14 - #9	#3 at 6" Pitch	18.7	155	-	-	1	35	-	-	35	14 - #9	#3 at 6" Pitch	-
10	42	40	14 - #9	#3 at 6" Pitch	17.8	155	-	-	1	25	-	-	25	14 - #9	#3 at 6" Pitch	-
11	30	21	8 - #9	#3 at 6" Pitch	9.3	155	1	-	-	38	38	-	-	8 - #9	#3 at 6" Pitch	-
12	-	-	-	-	-	-	2	-	-	57	114	-	-	8 - #9	#3 at 6" Pitch	2.0
Total	-	-	-	-	83.6	-	10	2	-	-	450	82	60	-	-	13.0

NOTES:

1. COLUMN HEIGHT AND DRILLED SHAFTS LENGTH SHOWN PER AS-BUILTS OF EXISTING STRUCTURE.

Existing Bridge Rehabilitation Data						
Replace Bearing Pads	Clean & Blast Bearing Seats	Cap Debris Removal	Concrete Repair	Pin & Text Asph Conc Pav	Pav Jt Underseal	Asph Conc Overlay
EA	SF	LS	SF	SY	LF	CY
95	261.3			3014	304	232

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Engineer JONATHON D. SEDDELMEYER
P.E. No. 91651 Date 5/16/2014

SH 71
BRIDGE LAYOUT

Kimley-Horn and Associates, Inc.
TEXAS REGISTERED ENGINEERING FIRM F-928

McCARTHY

EB ONION CREEK WIDENING

Texas Department of Transportation

SHEET 2 OF 2

FED. RD. DIV. NO.	STATE AID PROJECT	SHEET NO.
6		112

STATE	STATE DIST. NO.	COUNTY	
TEXAS		TRAVIS	
CONT.	SECT.	JOB	HIGHWAY NO.
			SH 71

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