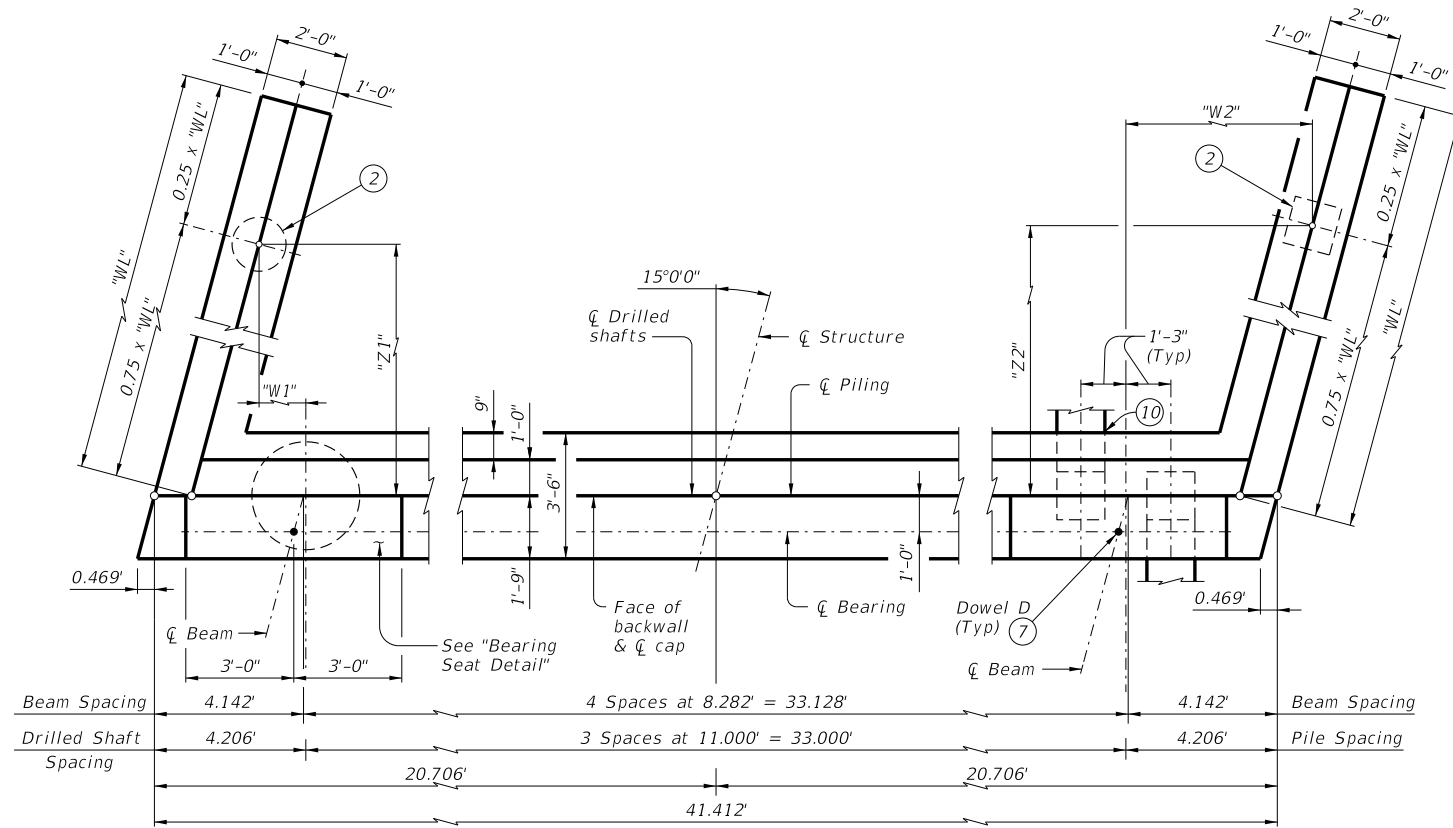


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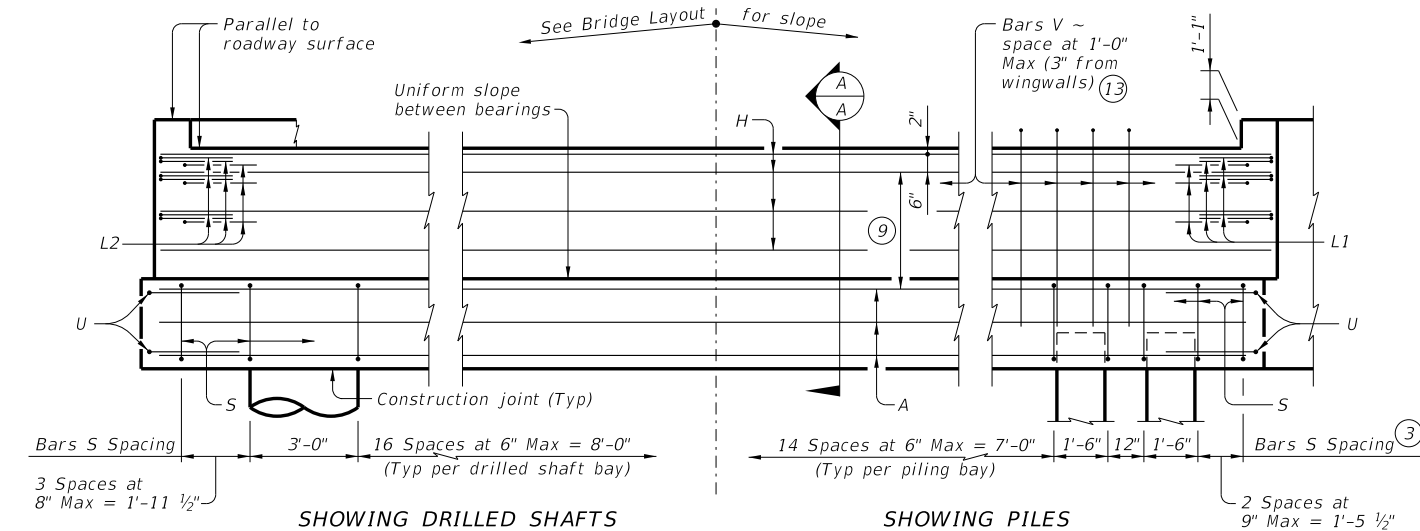
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SHOWING DRILLED SHAFTS

SHOWING PILES

PLAN 1

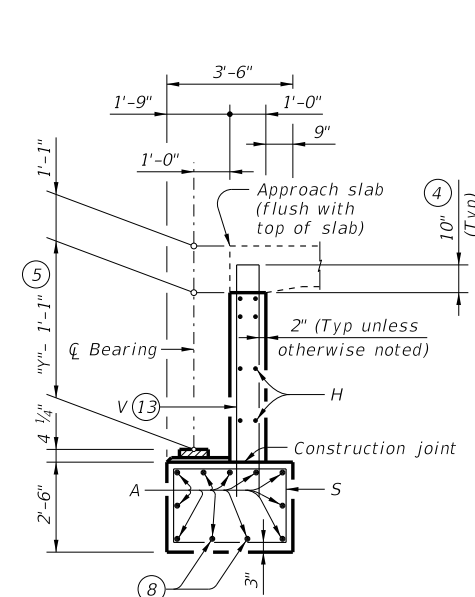


SHOWING DRILLED SHAFTS

SHOWING PILES

ELEVATION

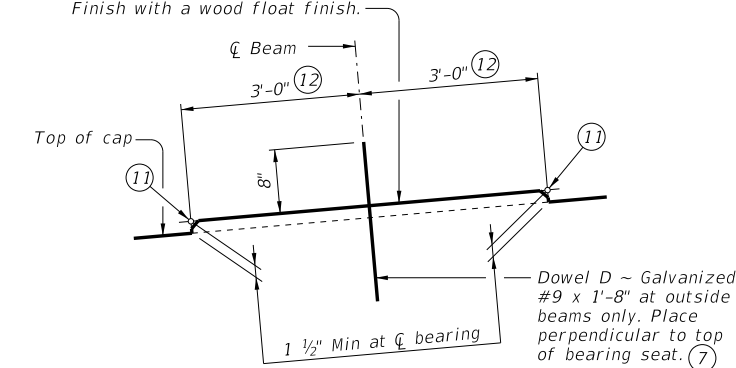
Header Slope	Beam Type	Wingwall Type	Wingwall Length "WL"	"W1"	"Z1"	"W2"	"Z2"				
2:1	XB20	Cantilevered	7.000'	Not Applicable							
	XB28	Cantilevered	8.000'								
	XB34	Cantilevered	9.000'								
	XB40	Cantilevered	10.000'								
3:1	XB20	Cantilevered	10.000'	Not Applicable							
	XB28	Cantilevered	12.000'								
	XB34	Founded	14.000'					0.453'	10.142'	5.888'	10.142'
	XB40	Founded	15.000'					0.259'	10.867'	6.082'	10.867'



SECTION A-A

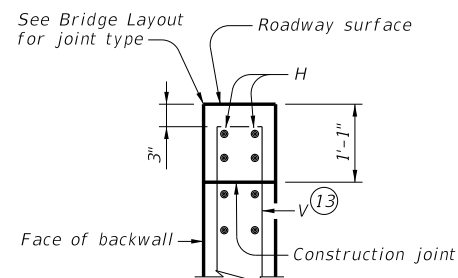
(With approach slab) 6

Level along a line perpendicular to backwall. Uniform slope between left and right bearing seat elevations. Finish with a wood float finish.



BEARING SEAT DETAIL

(Remove all loose material and clean bearing surface before placing the bearing pad.)



BACKWALL DETAIL

(Without approach slab) 6

- See Table A for variable dimensions based on header slope and beam type.
- See Table A to determine if wingwall foundations are required.
- For piling larger than 16" adjust Bars S spacing as required to avoid piling.
- Increase as required to maintain 3" from finished grade.
- See Span Details for "Y" value.
- See Bridge Layout to determine if approach slab is present.
- Omit Dowels D at end of multi-span unit. Adjust reinforcing steel total accordingly.
- With pile foundations, move Bars A shown to clear piles.
- Spacing based on beam type:
XB20 ~ 2 spaces at 1'-0" Max
XB28 ~ 3 spaces at 1'-0" Max
XB34 ~ 3 spaces at 1'-0" Max
XB40 ~ 3 spaces at 1'-0" Max
- See Detail A on Common Foundation Details (FD) standard.
- Right and left elevations and locations are provided elsewhere.
- Measured along ϕ of bearing.
- Field bend as needed to clear piles.

Span Length	Foundation Load		
	Drilled Shaft Load	Battered Pile Load	
	Ft	Tons/DS	Tons/Pile
40	68		52
45	73		55
50	78		57
55	83		59
60	87		62
65	92		64
70	96		67
75	101		69
80	105		71
85	110		74
90	114		76
95	119		78
100	123		80
105	128		83

MATERIAL NOTES:

- Provide Class C concrete ($f'c = 3,600$ psi.)
- Provide Class C (HPC) concrete if shown elsewhere in the plans.
- Provide Grade 60 reinforcing steel.
- Galvanize dowel bars D.

GENERAL NOTES:

- Designed according to AASHTO LRFD Bridge Design Specifications.
- See Bridge Layout for header slope and foundation type, size and length.
- See Common Foundation Details (FD) standard for all foundation details and notes.
- See Concrete Riprap (CRR) standard sheet or Stone Riprap (SRR) standard sheet for riprap attachment details, if applicable.
- See Shear Key Details (XBSK) standard sheet for all shear key details and notes if applicable.
- See applicable rail details for rail anchorage details in wingwalls.
- Details are drawn showing right forward skew. See Bridge Layout for actual skew direction.
- These abutment details may be used with standard SXB-38-15 only.

Cover dimensions are clear dimensions, unless noted otherwise. Reinforcing bar dimensions shown are out-to-out of bar.

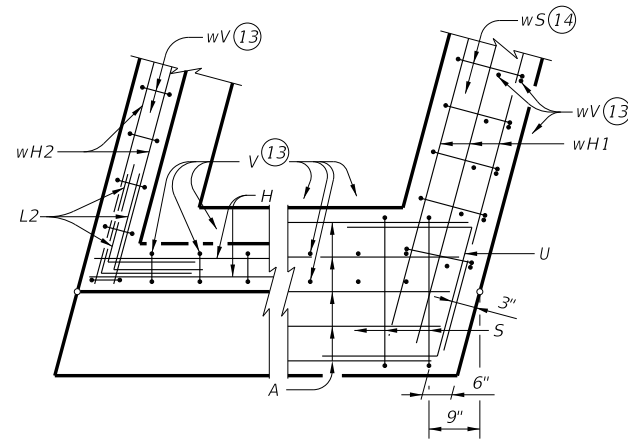


ABUTMENTS
PRESTR CONC X-BEAMS
(TYPE 5XB20 THROUGH 5XB40)
38' ROADWAY 15° SKEW
AXB-38-15

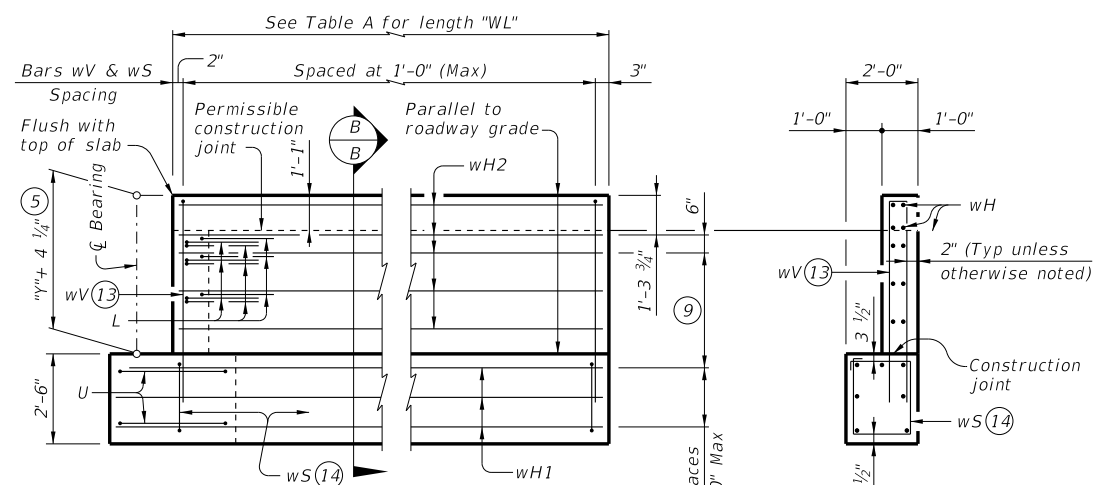
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REVISIONS				
	DIST	COUNTY		SHEET NO.

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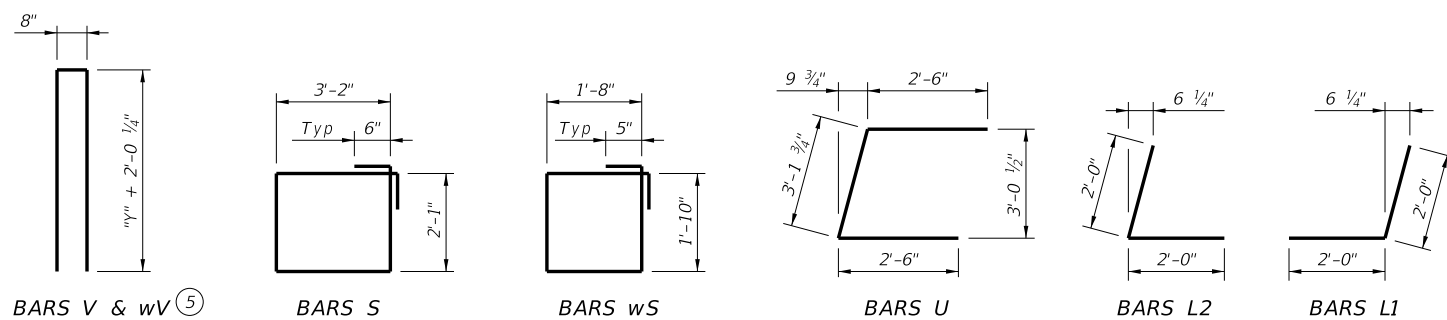


BACKWALL CAP
CORNER DETAILS



WINGWALL ELEVATION

SECTION B-B



BARS V & wV (5)

BARS S

BARS wS

BARS U

BARS L2

BARS L1

TABLES OF ESTIMATED QUANTITIES WITH 2:1 HEADER SLOPE (15)

TYPE 5XB20 BEAMS				
Bar	No.	Size	Length	Weight
A	11	#11	40'-5"	2,362
D(7)	2	#9	1'-8"	11
H	6	#6	41'-1"	370
L1	9	#6	4'-0"	54
L2	9	#6	4'-0"	54
S	59	#5	11'-6"	708
U	4	#6	8'-2"	49
V	40	#5	10'-0"	417
wH1	14	#6	8'-5"	177
wH2	16	#6	6'-8"	160
wS	16	#4	7'-10"	84
wV	16	#5	10'-0"	167
Reinforcing Steel				Lb 4,613
Class "C" Concrete				CY 19.9

TYPE 5XB28 BEAMS				
Bar	No.	Size	Length	Weight
A	11	#11	40'-5"	2,362
D(7)	2	#9	1'-8"	11
H	8	#6	41'-1"	494
L1	9	#6	4'-0"	54
L2	9	#6	4'-0"	54
S	59	#5	11'-6"	708
U	4	#6	8'-2"	49
V	40	#5	11'-5"	476
wH1	14	#6	9'-5"	198
wH2	20	#6	7'-8"	230
wS	18	#4	7'-10"	94
wV	18	#5	11'-5"	214
Reinforcing Steel				Lb 4,944
Class "C" Concrete				CY 22.0

TYPE 5XB34 BEAMS				
Bar	No.	Size	Length	Weight
A	11	#11	40'-5"	2,362
D(7)	2	#9	1'-8"	11
H	8	#6	41'-1"	494
L1	9	#6	4'-0"	54
L2	9	#6	4'-0"	54
S	59	#5	11'-6"	708
U	4	#6	8'-2"	49
V	40	#5	12'-5"	518
wH1	14	#6	10'-5"	219
wH2	20	#6	8'-8"	260
wS	20	#4	7'-10"	105
wV	20	#5	12'-5"	259
Reinforcing Steel				Lb 5,093
Class "C" Concrete				CY 23.6

TYPE 5XB40 BEAMS				
Bar	No.	Size	Length	Weight
A	11	#11	40'-5"	2,362
D(7)	2	#9	1'-8"	11
H	8	#6	41'-1"	494
L1	9	#6	4'-0"	54
L2	9	#6	4'-0"	54
S	59	#5	11'-6"	708
U	4	#6	8'-2"	49
V	40	#5	13'-5"	560
wH1	14	#6	11'-5"	240
wH2	20	#6	9'-8"	290
wS	22	#4	7'-10"	115
wV	22	#5	13'-5"	308
Reinforcing Steel				Lb 5,245
Class "C" Concrete				CY 25.4

TABLES OF ESTIMATED QUANTITIES WITH 3:1 HEADER SLOPE (15)

TYPE 5XB20 BEAMS				
Bar	No.	Size	Length	Weight
A	11	#11	40'-5"	2,362
D(7)	2	#9	1'-8"	11
H	6	#6	41'-1"	370
L1	9	#6	4'-0"	54
L2	9	#6	4'-0"	54
S	59	#5	11'-6"	708
U	4	#6	8'-2"	49
V	40	#5	10'-0"	417
wH1	14	#6	11'-5"	240
wH2	16	#6	9'-8"	232
wS	22	#4	7'-10"	115
wV	22	#5	10'-0"	229
Reinforcing Steel				Lb 4,841
Class "C" Concrete				CY 21.7

TYPE 5XB28 BEAMS				
Bar	No.	Size	Length	Weight
A	11	#11	40'-5"	2,362
D(7)	2	#9	1'-8"	11
H	8	#6	41'-1"	494
L1	9	#6	4'-0"	54
L2	9	#6	4'-0"	54
S	59	#5	11'-6"	708
U	4	#6	8'-2"	49
V	40	#5	11'-5"	476
wH1	14	#6	13'-5"	282
wH2	20	#6	11'-8"	350
wS	26	#4	7'-10"	136
wV	26	#5	11'-5"	310
Reinforcing Steel				Lb 5,286
Class "C" Concrete				CY 24.6

TYPE 5XB34 BEAMS				
Bar	No.	Size	Length	Weight
A	11	#11	40'-5"	2,362
D(7)	2	#9	1'-8"	11
H	8	#6	41'-1"	494
L1	9	#6	4'-0"	54
L2	9	#6	4'-0"	54
S	59	#5	11'-6"	708
U	4	#6	8'-2"	49
V	40	#5	12'-5"	518
wH1	14	#6	15'-5"	324
wH2	20	#6	13'-8"	411
wS	30	#4	7'-10"	157
wV	30	#5	12'-5"	389
Reinforcing Steel				Lb 5,531
Class "C" Concrete				CY 27.0

TYPE 5XB40 BEAMS				
Bar	No.	Size	Length	Weight
A	11	#11	40'-5"	2,362
D(7)	2	#9	1'-8"	11
H	8	#6	41'-1"	494
L1	9	#6	4'-0"	54
L2	9	#6	4'-0"	54
S	59	#5	11'-6"	708
U	4	#6	8'-2"	49
V	40	#5	13'-5"	560
wH1	14	#6	16'-5"	345
wH2	20	#6	14'-8"	441
wS	32	#4	7'-10"	167
wV	32	#5	13'-5"	448
Reinforcing Steel				Lb 5,693
Class "C" Concrete				CY 29.1

- (5) See Span Details for "Y" value.
- (7) Omit Dowels D at end of multi-span unit. Adjust reinforcing steel total accordingly.
- (9) Spacing based on beam type:
XB20 ~ 2 spaces at 1'-0" Max
XB28 ~ 3 spaces at 1'-0" Max
XB34 ~ 3 spaces at 1'-0" Max
XB40 ~ 3 spaces at 1'-0" Max
- (13) Field bend as needed to clear piles.
- (14) Adjust as required to avoid piling.
- (15) Quantities shown are for one abutment only (with approach slab.) With no approach slab, add 1.6 CY Class C concrete and 247 lbs of reinforcing steel for 4 additional H bars.

HL93 LOADING

SHEET 2 OF 2



ABUTMENTS
PRESTR CONC X-BEAMS
(TYPE 5XB20 THROUGH 5XB40)
38' ROADWAY 15° SKEW
AXB-38-15

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