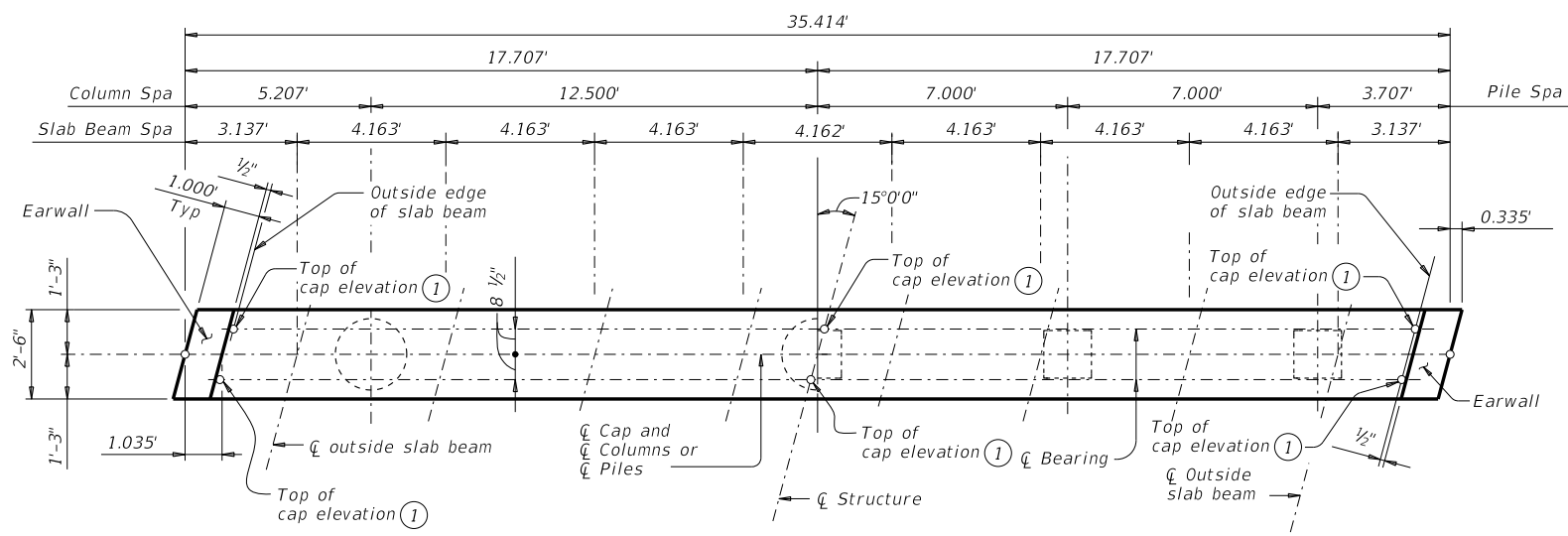


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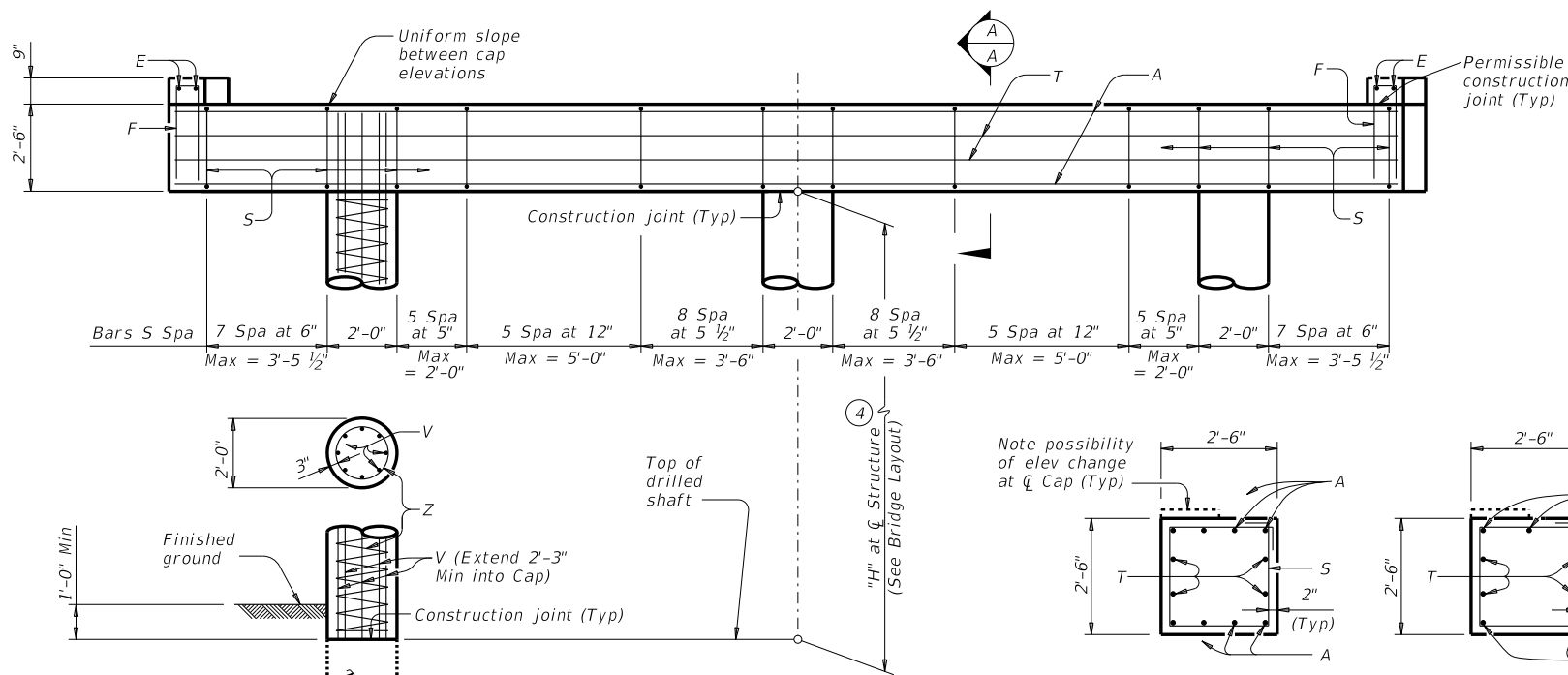
DATE: FILE:



SHOWING COLUMNS

SHOWING PILES

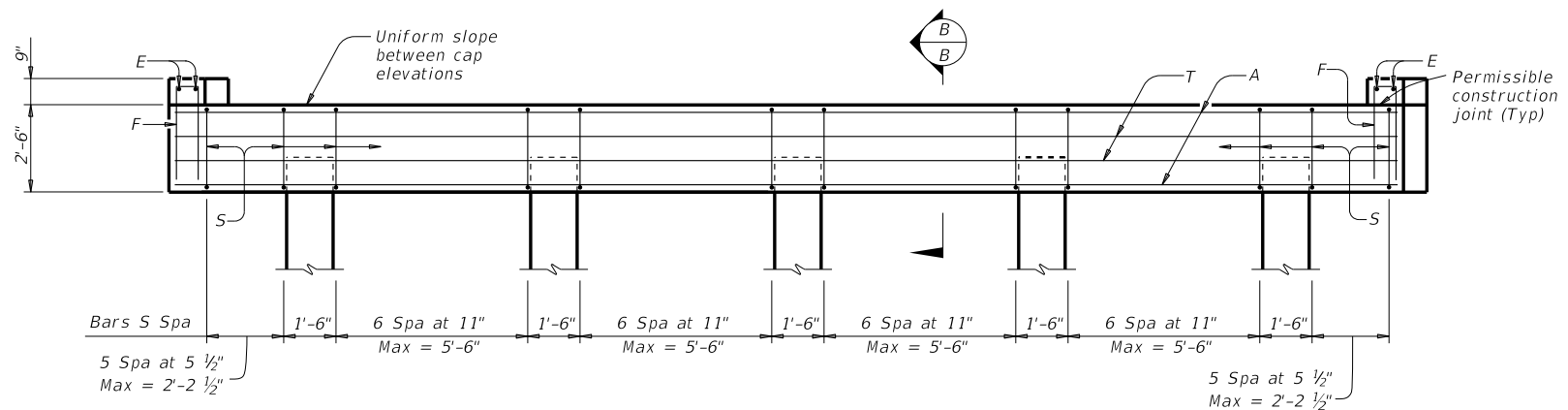
PLAN



ELEVATION ~ 3 COLUMN BENT

SECTION A-A

SECTION B-B



ELEVATION ~ 5 PILE BENT

Note: For piles larger than 16", adjust Bars S spacing as required to avoid piles.

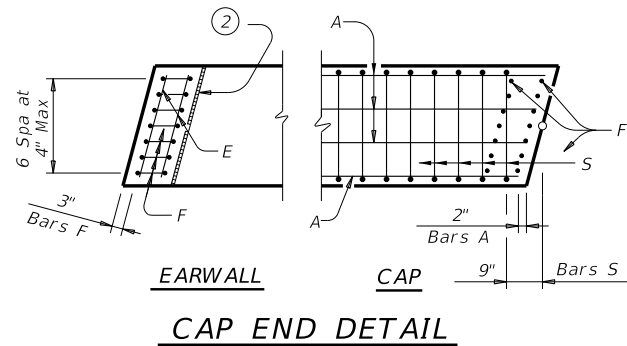
FOUNDATION LOADS				
Average Span Length	Drilled Shaft Loads (5)		Vertical Pile Loads	
	4SB12	4SB15	4SB12	4SB15
Ft	Tons/DS	Tons/Pile	Tons/Pile	Tons/Pile
25	65	70	39	42
30	75	81	45	48
35	83	90	50	54
40	92	99	55	60
45		109		65
50		118		71

TABLE OF ESTIMATED QUANTITIES (3)				
3 COLUMN BENT				
Bar	No.	Size	Length	Weight
A	8	#11	35'-1"	1,491
E	4	#4	2'-3"	6
F	14	#4	6'-6"	61
S	54	#5	9'-8"	545
T	4	#5	35'-1"	146
V	24	#7	26'-3"	1,288
Z	3	#3	242'-2"	273
Reinforcing Steel			Lb	3,810
Cl "C" Conc (Cap)			CY	8.3
Cl "C" Conc (Col)			CY	8.4

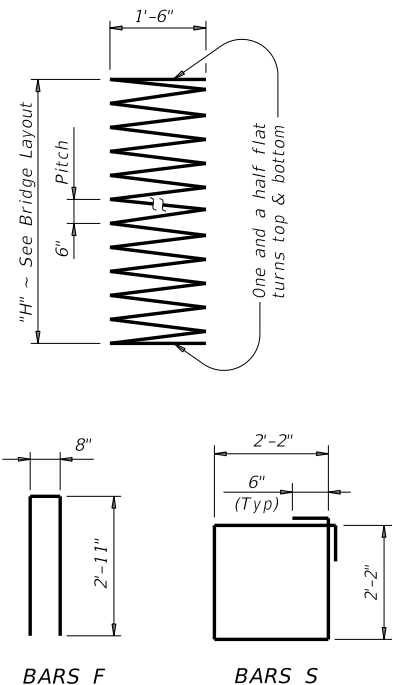
TABLE OF ESTIMATED QUANTITIES				
5 PILE BENT				
Bar	No.	Size	Length	Weight
A	5	#11	35'-1"	932
E	4	#4	2'-3"	6
F	14	#4	6'-6"	61
S	40	#5	9'-8"	404
T	4	#5	35'-1"	146
Reinforcing Steel			Lb	1,549
Cl "C" Conc (Cap)			CY	8.3

TABLE OF MAXIMUM ALLOWABLE EXPOSED PILE HEIGHTS AND PILE LOADS (4)			
Pile Type		Max Ht	Max Load
Concrete	Steel	Ft	Tons/Pile
16" Sq	HP14x73	16	75
18" Sq	HP14x117 (6)	20	90

- Top of cap elevations are based on section depths shown on Span Details.
- 1/2" preformed bituminous fiber material between slab beam and earwall. Bond to earwall with an approved adhesive. Cast inside face of earwall perpendicular to cap. (Typ)
- Quantities shown are based on an "H" value of 24 feet. For each linear foot variation in "H" value, make the following adjustments:  
Bars V length, 1'-0"  
Bars Z length, 9'-6"  
Reinforcing steel, 60 Lb  
Class "C" conc (column), 0.35 CY
- This standard may not be used for "H" heights exceeding 24 feet or exposed pile heights exceeding the values shown in the table. In areas of very soft soil or where scour is anticipated, allowable "H" heights or exposed pile heights must be evaluated by the Engineer prior to the use of this standard.
- Foundation Loads based on "H" = 24 feet.
- When HP14x117 steel piling is specified in the plans, the Contractor has the option of furnishing either HP14x117 or HP16x101 steel piling.



EARWALL CAP END DETAIL



BARS F

BARS S

**GENERAL NOTES:**  
Designed according to AASHTO LRFD Bridge Design Specifications.  
Bent selected must be based on the average span length rounded up to the next 5-foot increment.  
For pile bents supporting unequal spans, the shorter span cannot be less than 80 percent of the longer span.  
See Bridge Layout for foundation type, size, and length.  
See Common Foundation Details (FD) standard sheet for all foundation details and notes.  
These bent details do not support the use of multi-pile footings shown on the FD standard.  
Details are drawn showing right forward skew. See Bridge Layout for actual skew direction.  
These bent details may be used with standard SPSB-30-15 only.

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

**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.

HL93 LOADING

**Texas Department of Transportation** Bridge Division Standard

**INTERIOR BENTS**  
PRESTR CONCRETE SLAB BEAM  
30' ROADWAY 15° SKEW  
**BPSB-30-15**

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