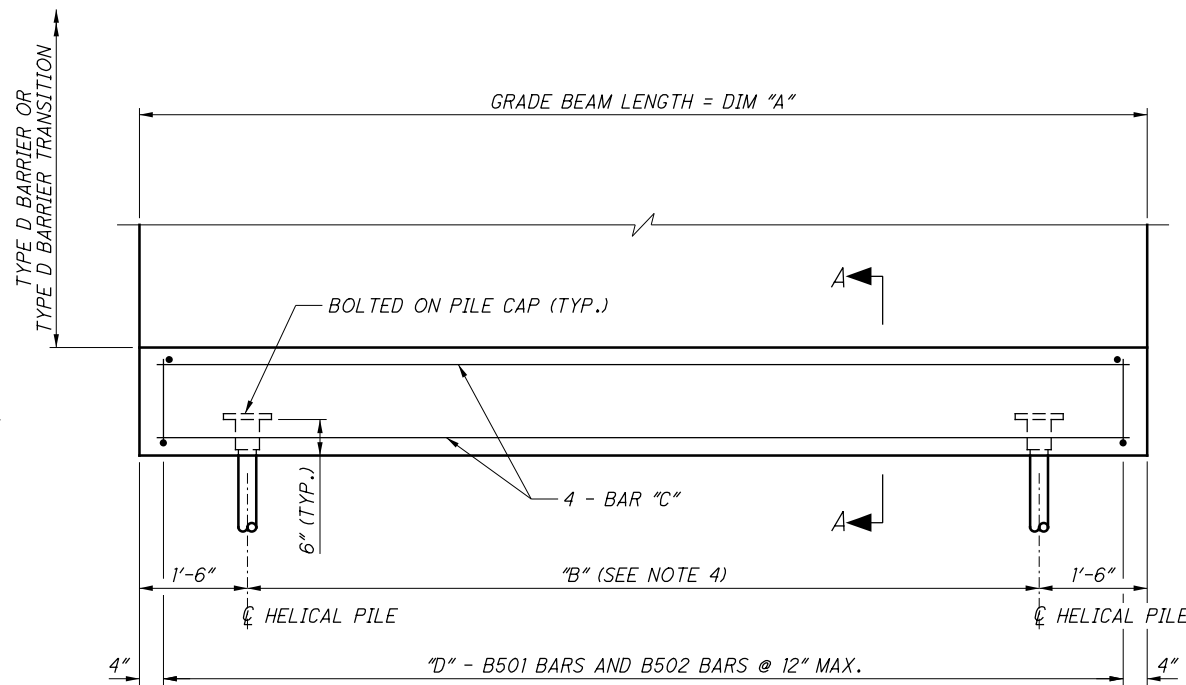


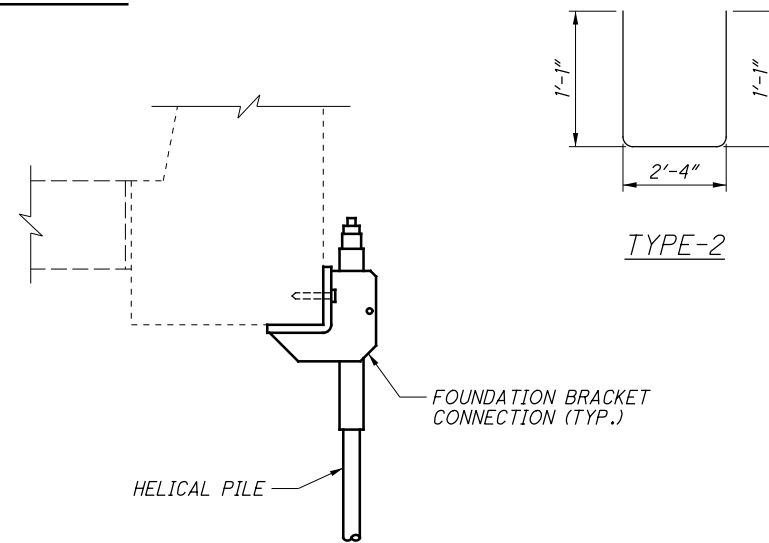
**SECTION A-A**



**GRADE BEAM ELEVATION**

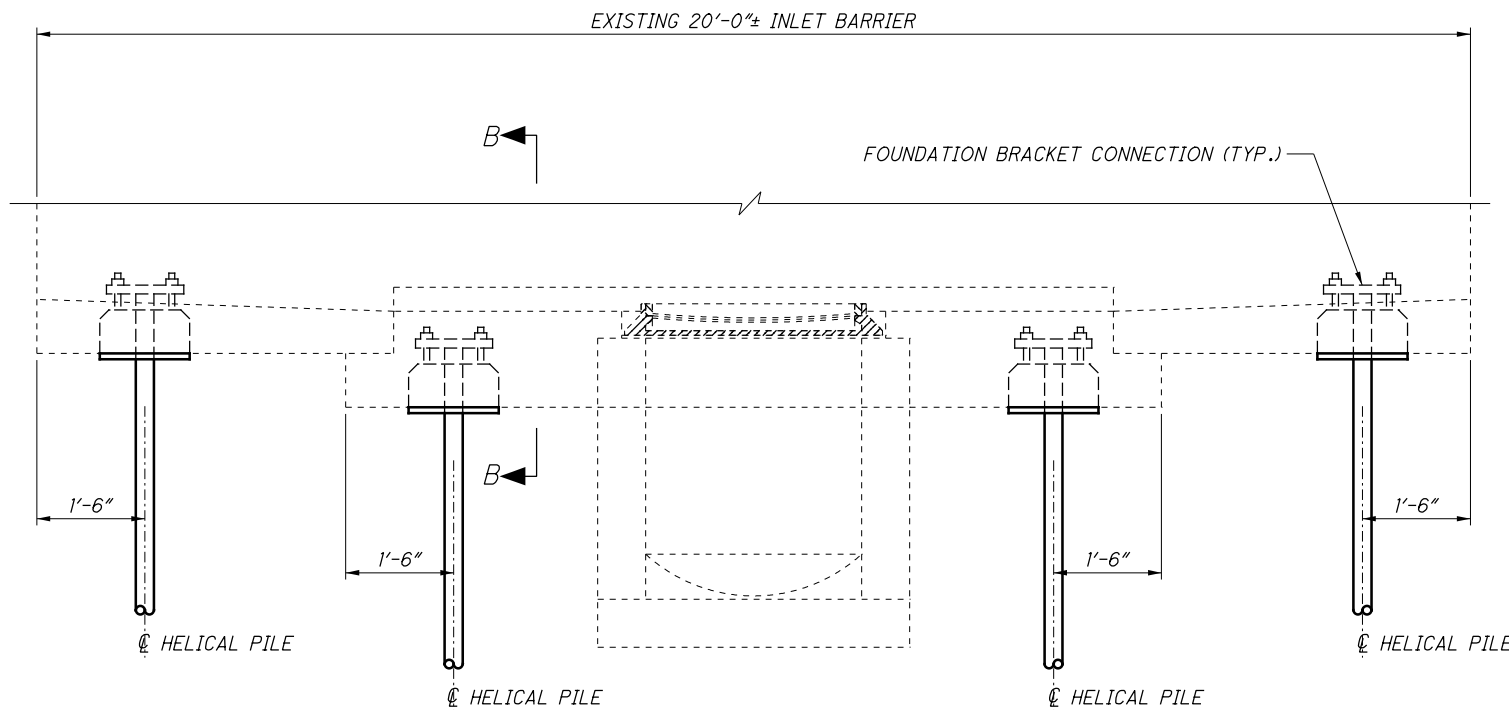
LOCATION	DIM "A"	"B"	BAR "C"	"D"
B7-A	14'-0"	3 PILES @ 5'-6" = 11'-0"	B503	15
B7-C	10'-2"±	3 PILES @ 3'-7"± = 7'-2"±	B504	11
B8-A	14'-0"	3 PILES @ 5'-6" = 11'-0"	B503	15
B8-C	11'-7"±	3 PILES @ 4'-4" MAX. = 8'-7"±	B505	12
B9-A + B9-B	23'-2"	4 PILES @ 6'-9" MAX. = 20'-2"	B506	24
B10-A + B10-B	24'-2"	4 PILES @ 7'-1" MAX. = 21'-2"	B507	25
B11-A	14'-0"	* 3 PILES @ 5'-6" = 11'-0"		
B11-C	10'-9"±	3 PILES @ 3'-11" MAX. = 7'-9"±	B508	12
B12-A	14'-0"	* 3 PILES @ 5'-6" = 11'-0"		
B12-C	12'-1"±	3 PILES @ 4'-7" MAX. = 9'-1"±	B509	13
B13-A	14'-0"	* 3 PILES @ 5'-6" = 11'-0"		
B13-C	10'-11"±	3 PILES @ 4'-0" MAX. = 7'-11"±	B510	12
B14-A	14'-0"	* 3 PILES @ 5'-6" = 11'-0"		
B14-C	10'-7"±	3 PILES @ 3'-10" MAX. = 7'-7"±	B511	11
B15-A	14'-0"	* 3 PILES @ 5'-6" = 11'-0"		
B15-B	3'-3"	* 1 PILE CENTERED		
B15-C	15'-0"±	3 PILES @ 6'-0"± = 12'-0"±	B512	16
B16-A + B16-B	21'-8"	3 PILES @ 9'-4" = 18'-8"	B513	22
B17-A	14'-0"	* 3 PILES @ 5'-6" = 11'-0"		
B17-C	13'-4"±	3 PILES @ 5'-2"± = 10'-4"±	B514	14
B18-A	14'-0"	* 3 PILES @ 6'-6" = 11'-0"		
B18-C	26'-10"±	4 PILES @ 8'-0" MAX. = 23'-10"±	B515	28

\* DENOTES UNDERPINNING WITH HELICAL PILE AND FOUNDATION BRACKET SYSTEM ONLY. NO GRADE BEAM REQUIRED.



**SECTION B-B**

MARK	NUMBER	LENGTH	WEIGHT	TYPE
	TOTAL			
<b>GRADE BEAM REINFORCING</b>				
B501	230	2'-4"	560	STR
B502	230	4'-3"	1020	2
B503	16	13'-6"	225	STR
B504	8	9'-8"	81	STR
B505	8	11'-1"	93	STR
B506	8	22'-8"	189	STR
B507	8	23'-8"	198	STR
B508	8	10'-3"	86	STR
B509	8	11'-7"	97	STR
B510	8	10'-5"	87	STR
B511	8	10'-1"	84	STR
B512	8	14'-6"	121	STR
B513	8	21'-2"	177	STR
B514	8	12'-10"	107	STR
B515	8	26'-4"	220	STR
		<b>TOTAL</b>	<b>3,345</b>	



**INLET BARRIER ELEVATION**

(LOCATIONS B7-B, B8-B, B11-B, B12-B, B13-B, B14-B, B17-B, B18-B)

**NOTES:**

- THE DESIGN LOAD TO BE SUPPORTED BY EACH HELICAL PILE IS 15 KIPS.
- THE HELICAL PILES SHALL BE INSTALLED TO AN ULTIMATE CAPACITY OF 37.5 KIPS TO PROVIDE A FACTOR OF SAFETY OF 2.5 WITH RESPECT TO THE DESIGN LOAD.
- THE HELICAL PILES SHALL HAVE A MINIMUM DIA. OF 2-3/8" AND A MINIMUM WALL THICKNESS OF 1/4". PILES, FOUNDATION BRACKET CONNECTIONS, AND ALL ATTACHMENTS SHALL BE GALVANIZED PER CMS 711.02. ALL PILES SHALL EXTEND A MINIMUM OF 10'-0" BELOW THE BOTTOM OF GRADE BEAM OR EXISTING FOUNDATION ELEVATION. THE CONTRACTOR SHALL PROVIDE LARGER PILE SHAFT DIAMETER AND WALL THICKNESS AS NECESSARY TO INSTALL THE HELICAL PILES TO THE MINIMUM DEPTH SPECIFIED AND TO THE REQUIRED ULTIMATE CAPACITIES.
- STAGER HELICAL PILES AS FOLLOWS :  
WHERE 4 PILES ARE REQUIRED - PLACE THE TWO END PILES AT LOCATION 2 AND THE TWO CENTER PILES AT LOCATION 1.  
WHERE 3 PILES ARE REQUIRED - PLACE THE TWO END PILES AT LOCATION 2 AND THE ONE CENTER PILE AT LOCATION 1.
- CONTRACTOR'S PILE DESIGN PROFESSIONAL IS RESPONSIBLE FOR THE DESIGN OF THE HELICAL PILES, BRACKETS AND PILE CAPS. SEE HELICAL PILE SPECIAL PROVISION.
- ALL MATERIAL AND LABOR REQUIRED FOR PILE INSTALLATION, INCLUDING PILE CAPS AND FOUNDATION BRACKET CONNECTIONS, SHALL BE INCLUDED WITH ITEM 507 - PILING, MISC.: HELICAL PILE WITH ATTACHMENTS.
- ALL REINFORCING STEEL TO BE EPOXY COATED.
- THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE NUMBERS ARE USED INDICATES THE BAR SIZE NUMBER. FOR EXAMPLE A B501 IS A NUMBER 5 BAR. BAR DIMENSIONS ARE OUT TO OUT UNLESS OTHERWISE INDICATED.