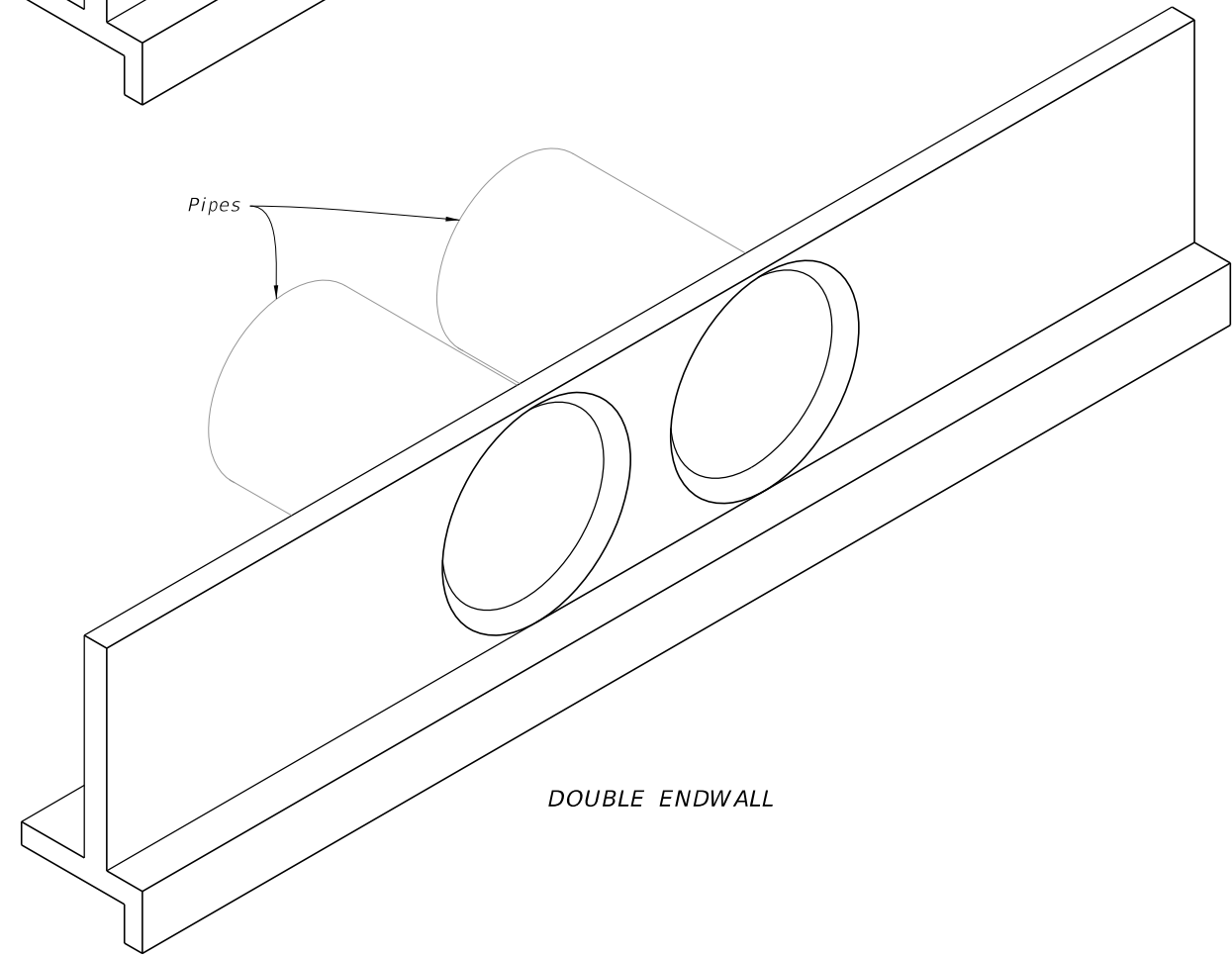
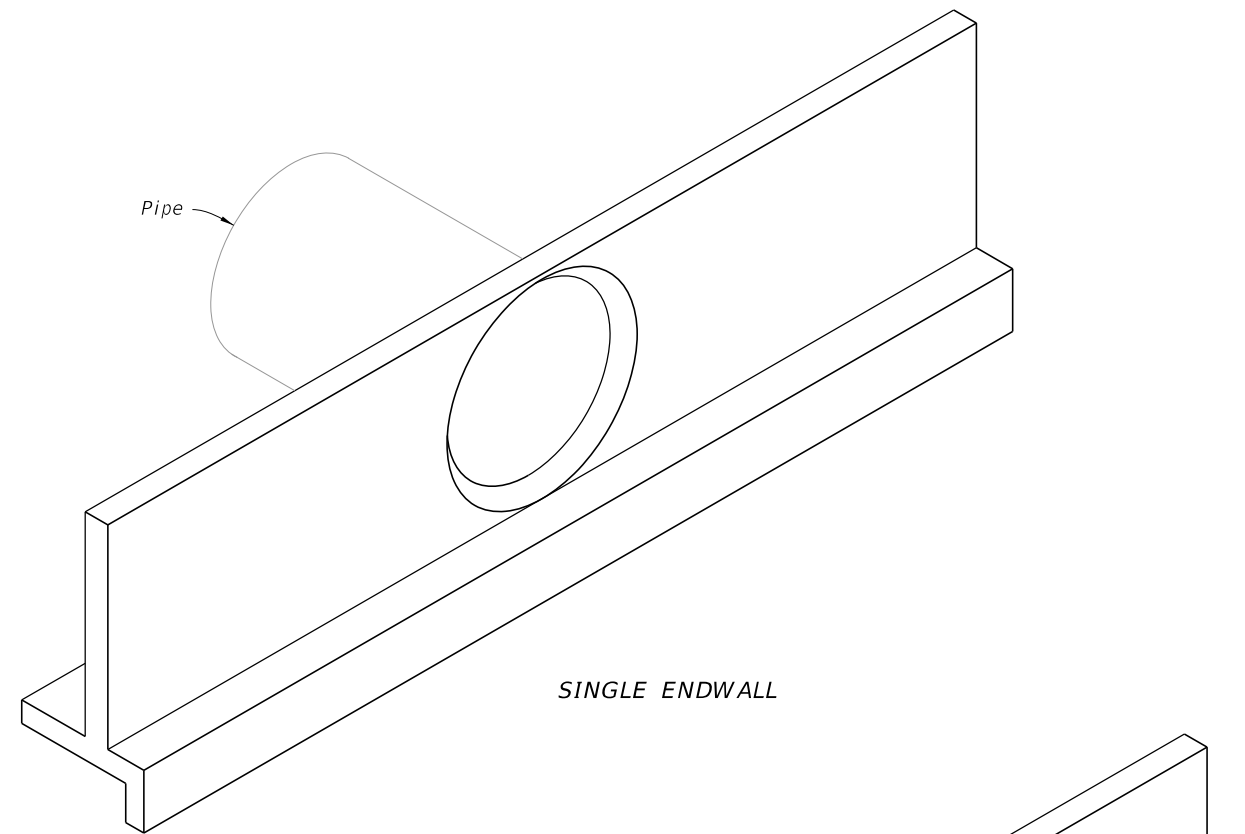


**GENERAL NOTES:**

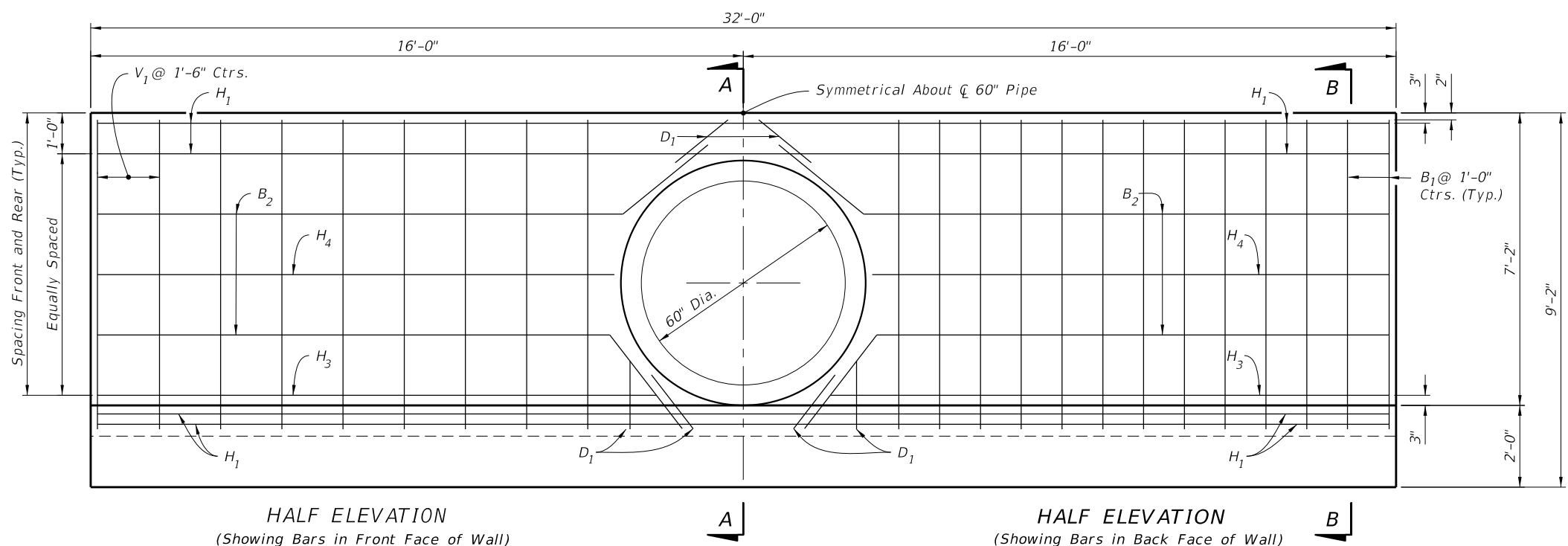
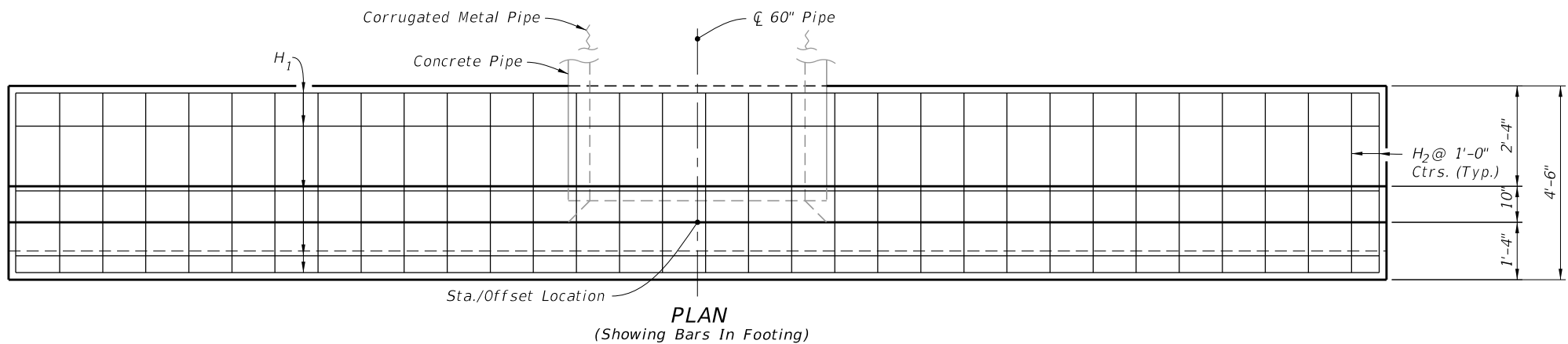
1. Use Class II concrete.
2. Reinforcing steel is either Grade 40 or 60.
3. Endwalls may be cast in place or precast concrete. The Contractor or the Supplier will determine the additional reinforcement necessary for handling precast units.
4. Chamfer all exposed edges and corners  $\frac{3}{4}$ " unless otherwise shown.
5. Quantities shown are for estimating purposes only.

TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Contents
2	Single 60" Pipe Endwall Details
3	Double 60" Pipe Endwall Details



————— STRAIGHT CONCRETE ENDWALLS 60" PIPE —————

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**NOTES:**

- 2" clearance on all reinforcement, unless otherwise shown.
- Cut and bend  $B_2$  and  $B_3$  Bars as shown.
- All bar dimensions are out to out.

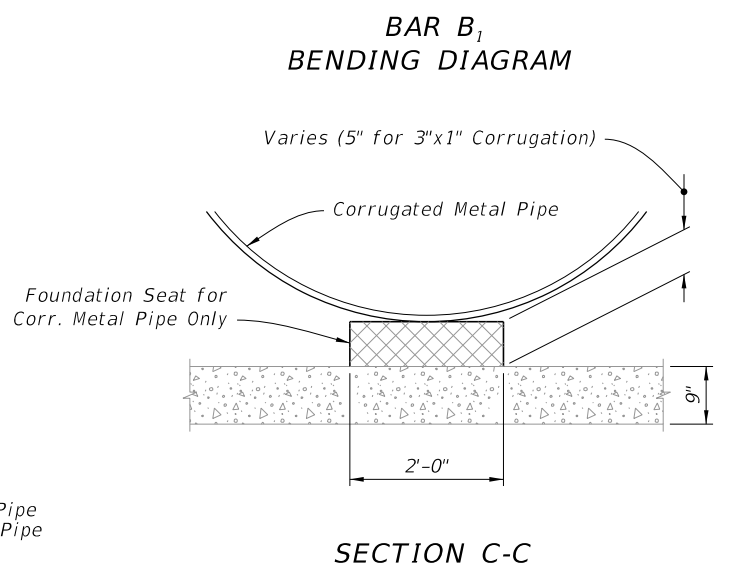
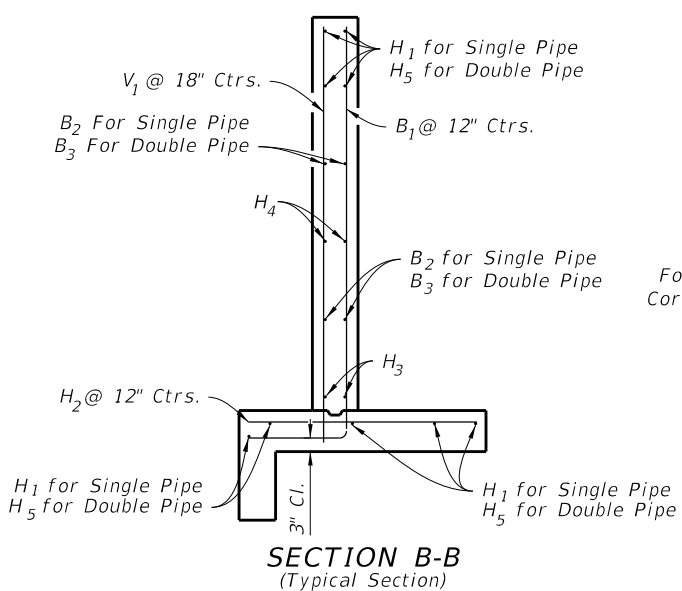
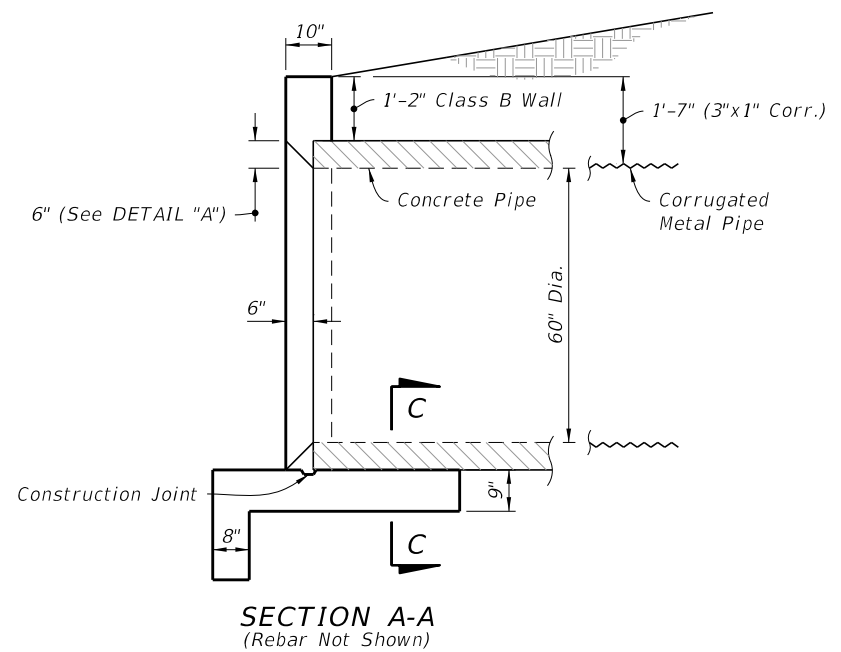
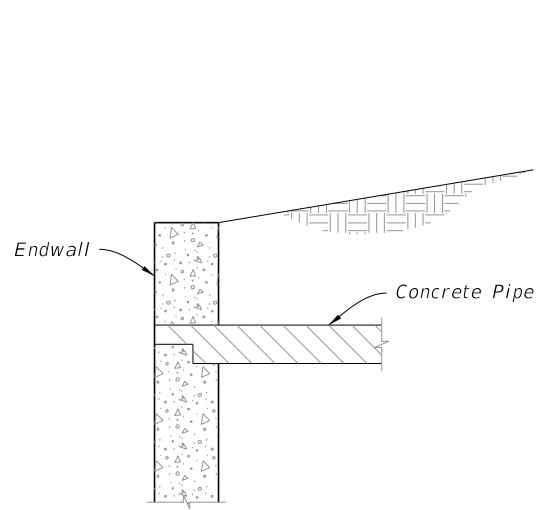
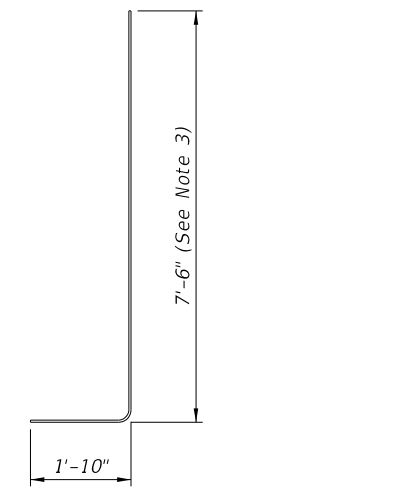
**LEGEND:**

H = Horizontal Bars    B = Bent Bars  
V = Vertical Bars      D = Dowels or Diagonal Bars

SINGLE 60" PIPE ESTIMATED QUANTITIES			
ITEM	UNIT	RCP	CMP
Class II Concrete	Cu. Yd.	11.3	11.4
Reinforcing Steel	Lb.	695	695

BILL OF REINFORCING STEEL			
MARK	SIZE	NO. REQD.	LENGTH
H <sub>1</sub>	4	9	31'-8"
H <sub>2</sub>	4	32	4'-2"
H <sub>3</sub>	4	4	13'-9"
H <sub>4</sub>	4	4	12'-4"
V <sub>1</sub>	4	18	7'-6"
B <sub>1</sub>	4	26	9'-4"
B <sub>2</sub>	4	4	31'-8"
D <sub>1</sub>	4	8	1'-8"



**SINGLE 60" PIPE ENDWALL DETAILS**

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LAST REVISION 11/01/19	DESCRIPTION:	 FY 2021-22 STANDARD PLANS	STRAIGHT CONCRETE ENDWALLS SINGLE AND DOUBLE 60" PIPE	INDEX 430-031	SHEET 2 of 3
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**NOTES:**

- 2" clearance on all reinforcement, unless otherwise shown.
- Cut and bend B<sub>3</sub> Bars as shown.
- All bar dimensions are out to out.

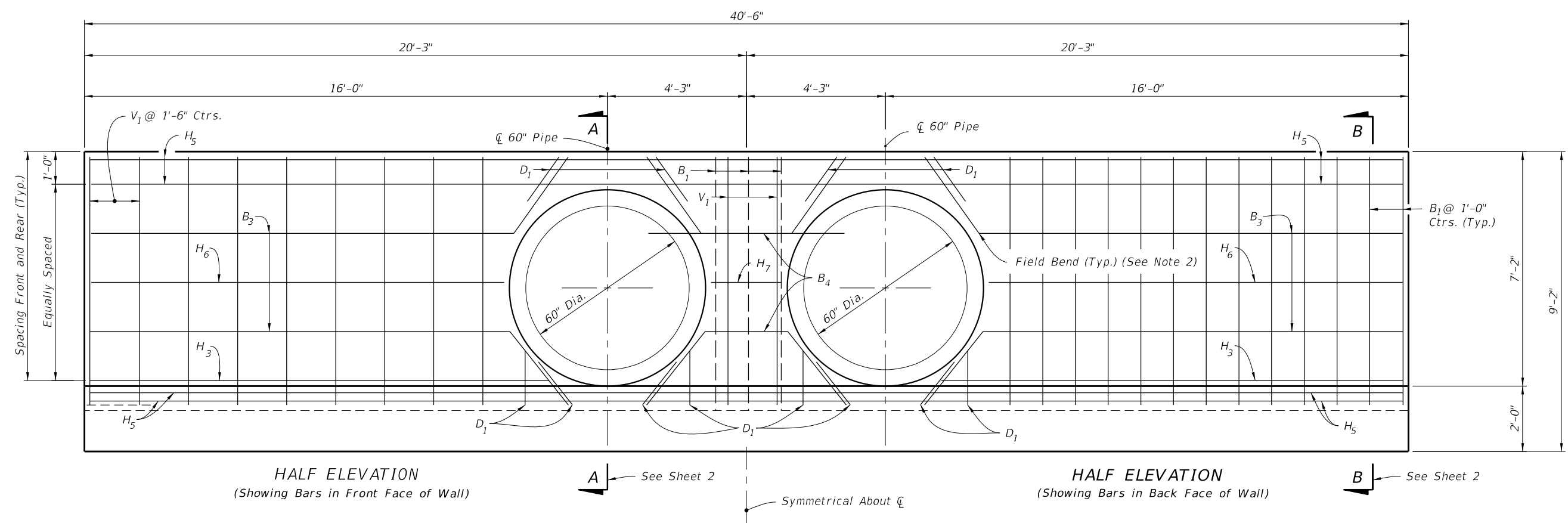
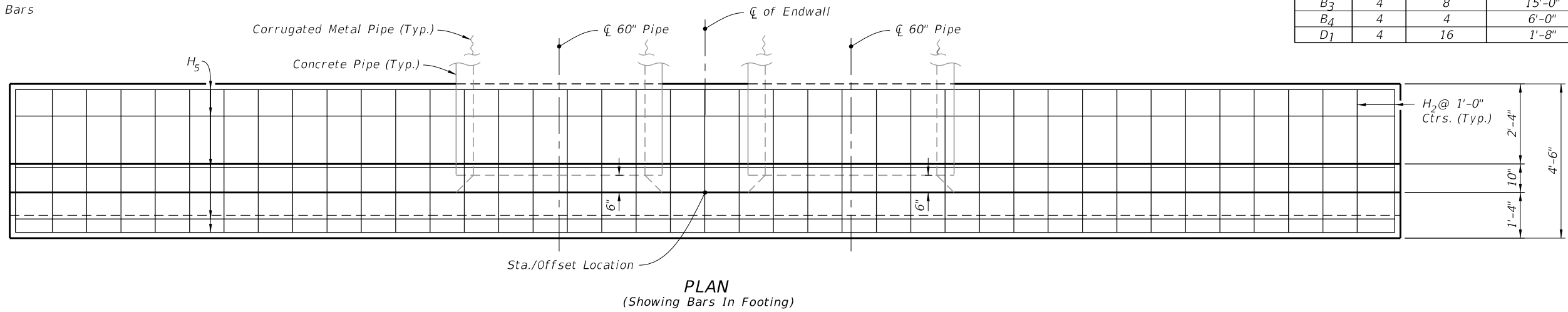
**LEGEND:**

- H = Horizontal Bars
- V = Vertical Bars
- B = Bent Bars
- D = Dowels or Diagonal Bars

DOUBLE 60" PIPE ESTIMATED QUANTITIES			
ITEM	UNIT	RCP	CMP
Class II Concrete	Cu. Yd.	13.7	13.8
Reinforcing Steel	Lb.	824	824

BILL OF REINFORCING STEEL			
MARK	SIZE	NO. REQD.	LENGTH
H <sub>2</sub>	4	41	4'-2"
H <sub>3</sub>	4	4	13'-9"
H <sub>5</sub>	4	9	40'-2"
H <sub>6</sub>	4	4	12'-6"
H <sub>7</sub>	4	2	2'-2"
V <sub>1</sub>	4	20	7'-6"
B <sub>1</sub>	4	29	9'-4"
B <sub>3</sub>	4	8	15'-0"
B <sub>4</sub>	4	4	6'-0"
D <sub>1</sub>	4	16	1'-8"



**DOUBLE 60" PIPE ENDWALL DETAILS**

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LAST REVISION 11/01/19	DESCRIPTION:	 FY 2021-22 STANDARD PLANS	STRAIGHT CONCRETE ENDWALLS SINGLE AND DOUBLE 60" PIPE	INDEX 430-031	SHEET 3 of 3
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