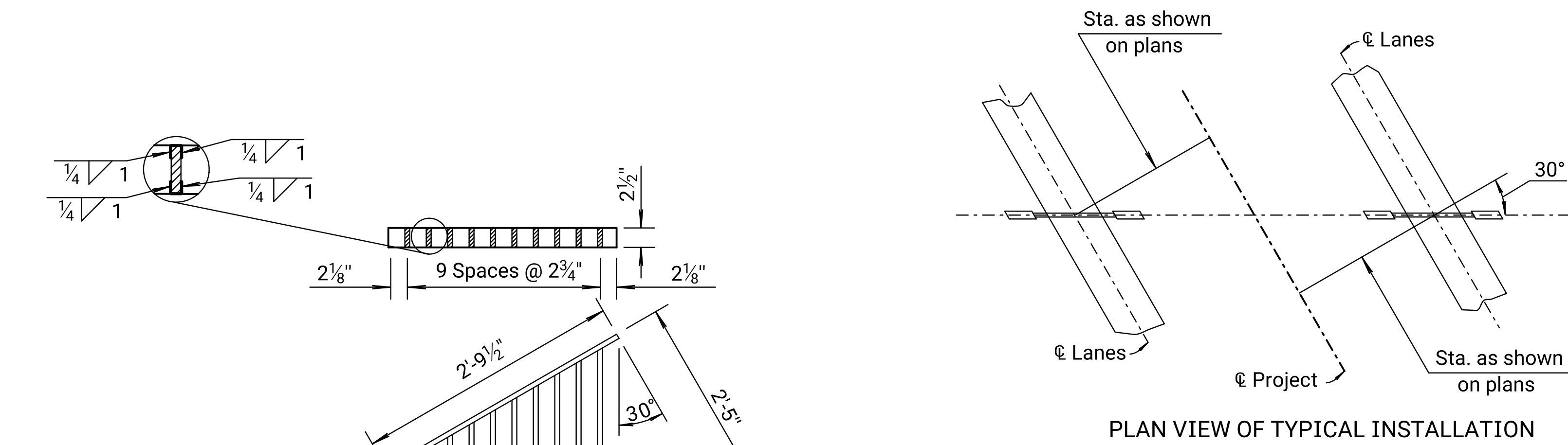
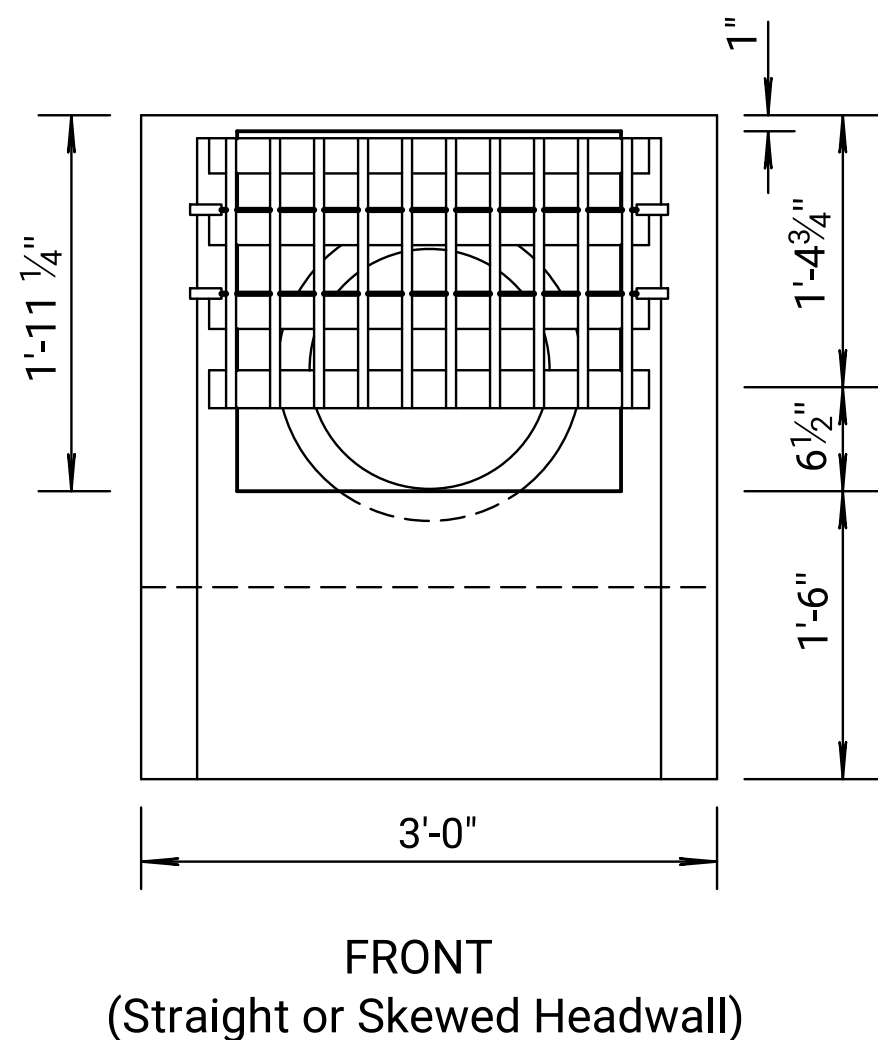
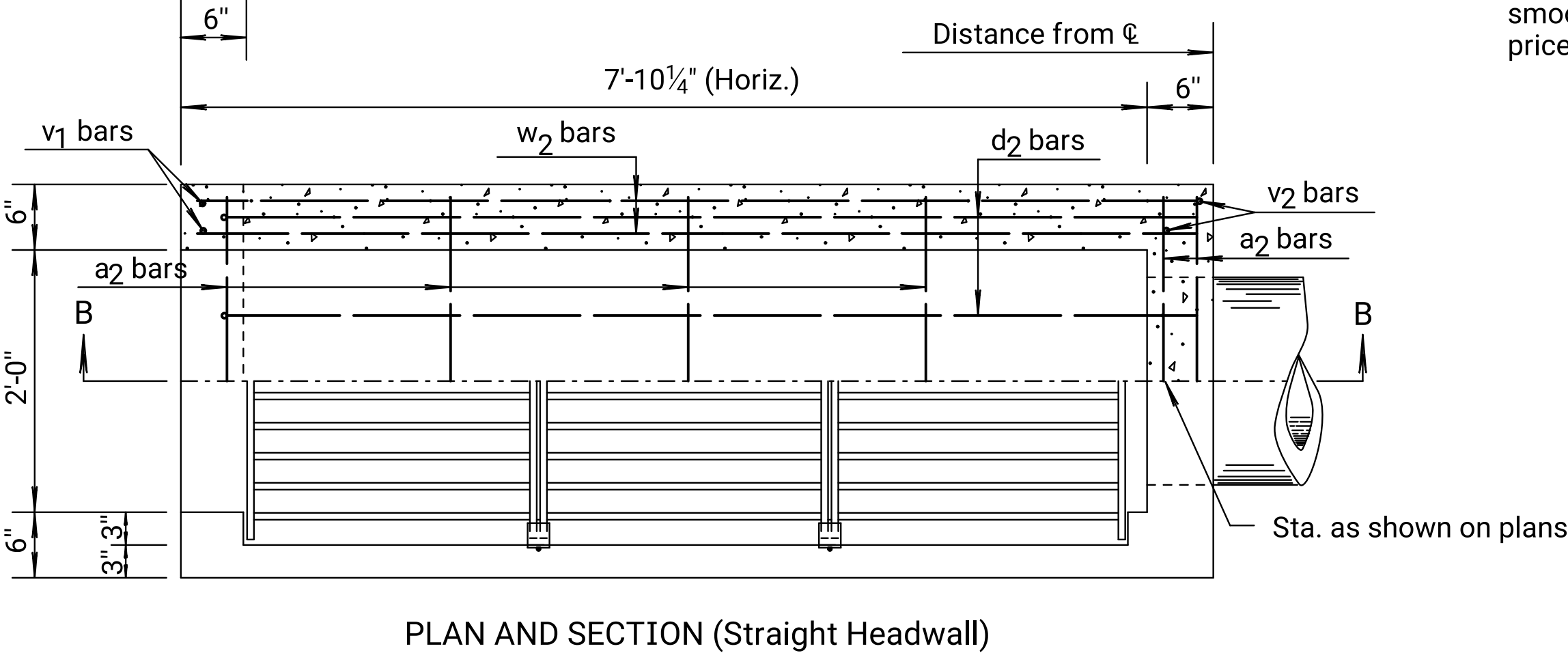
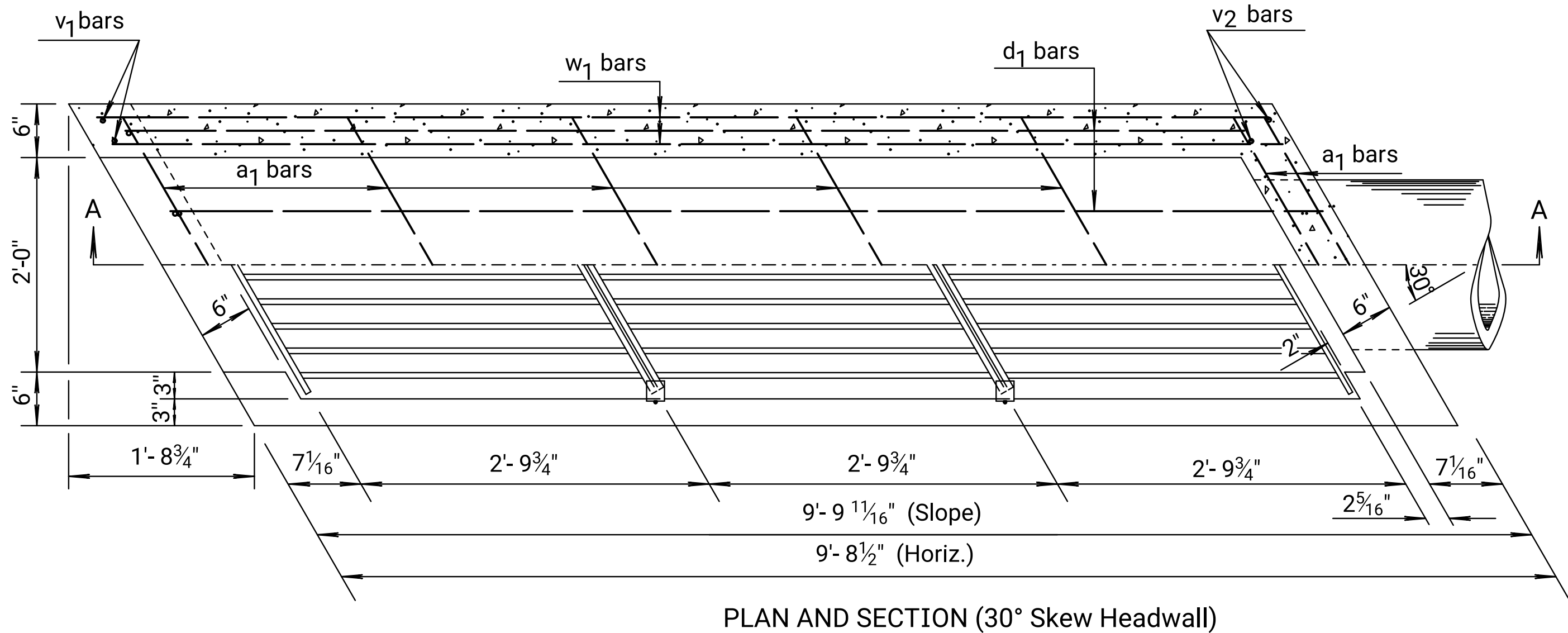
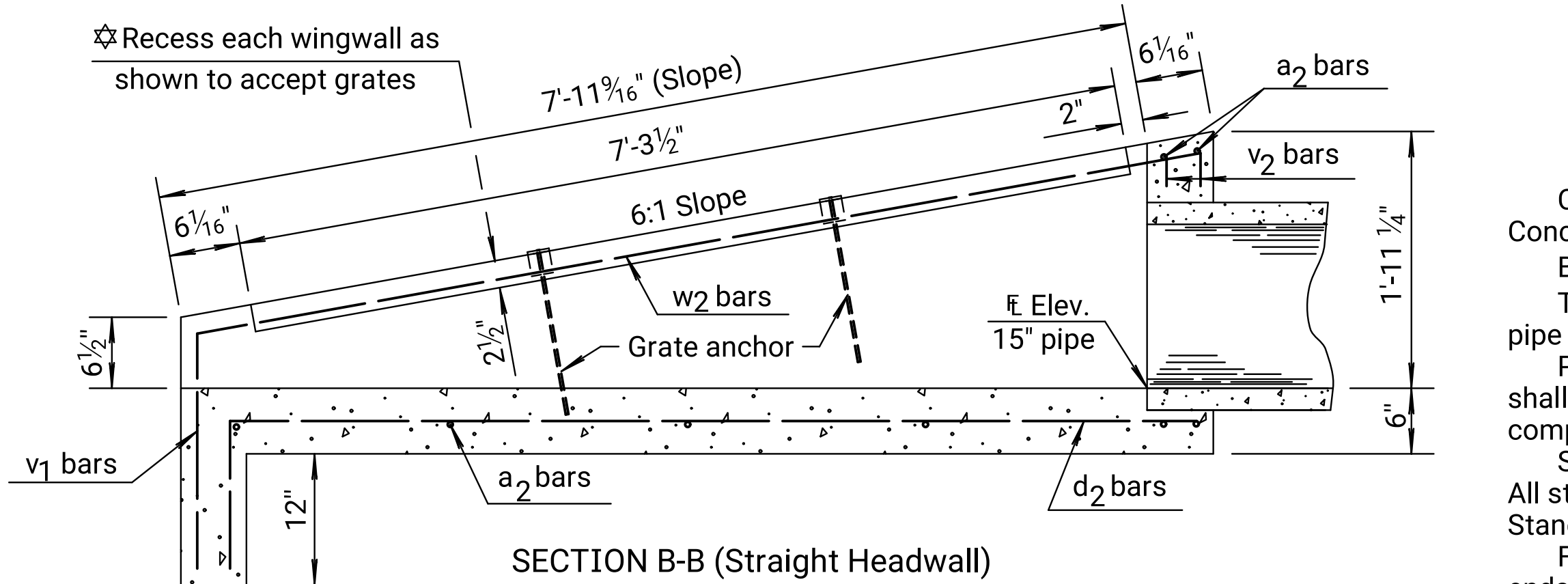
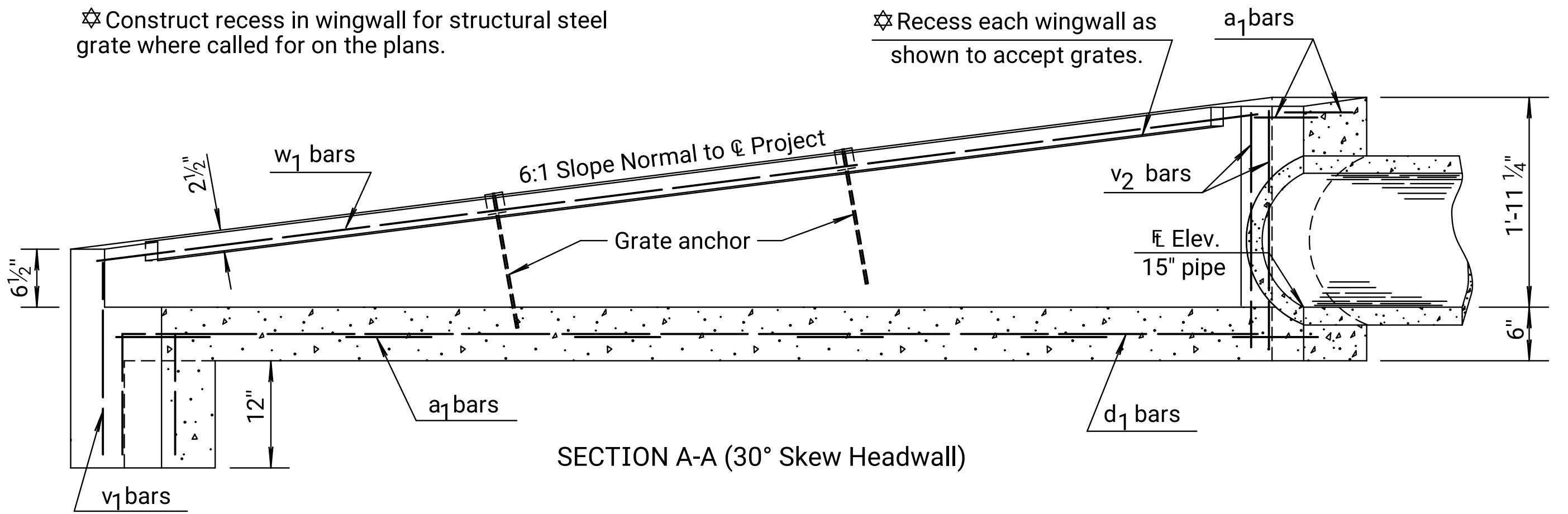
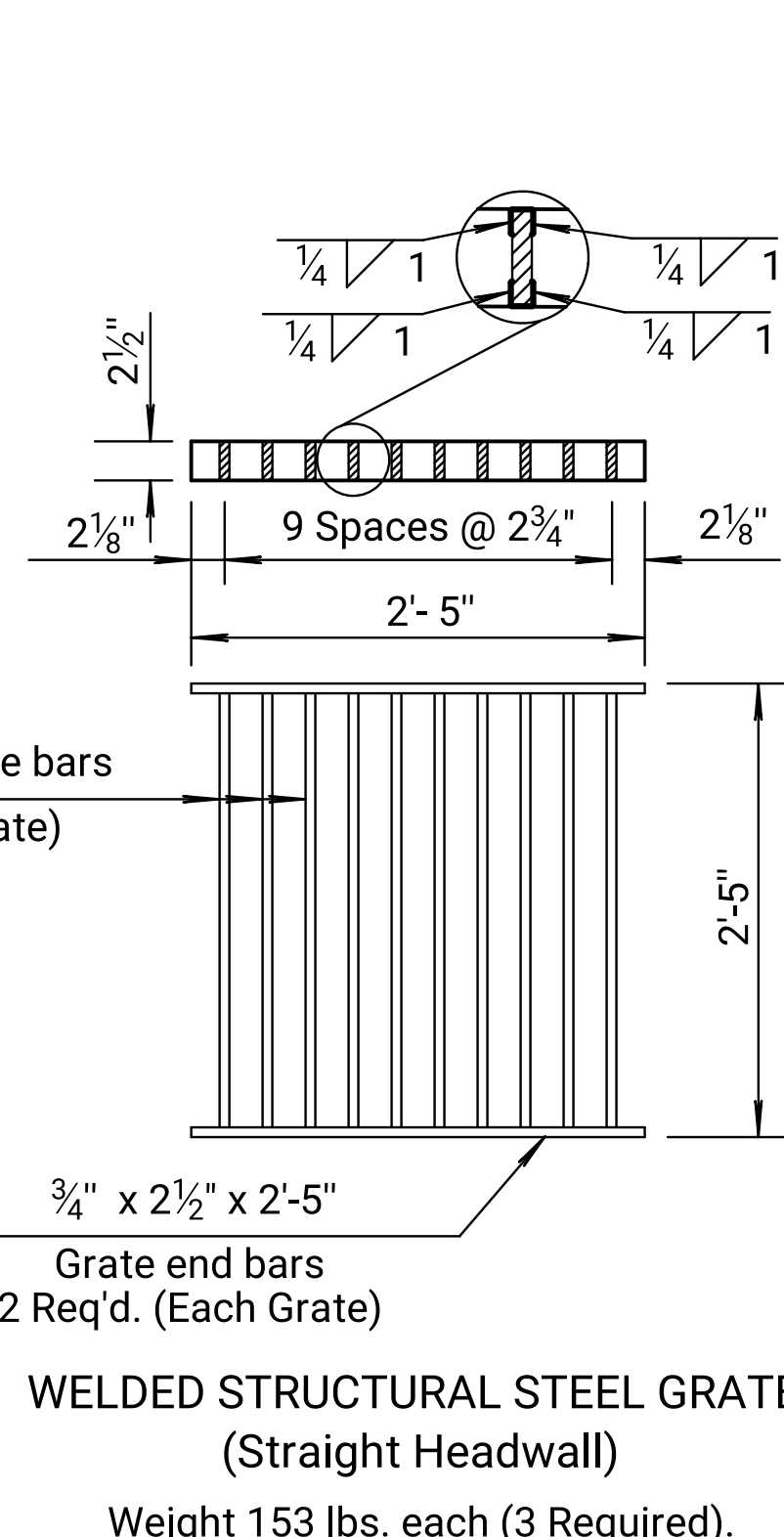
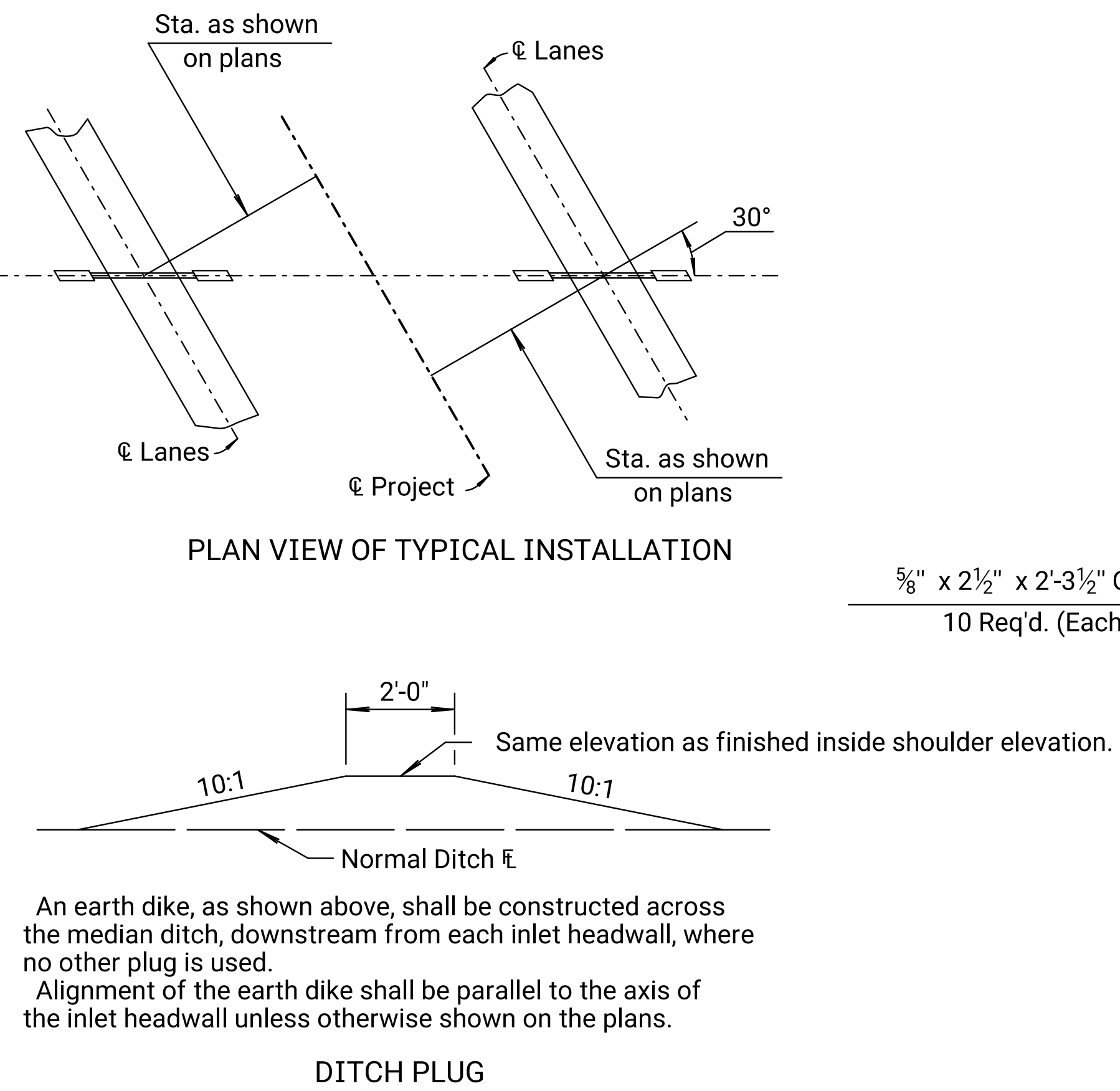
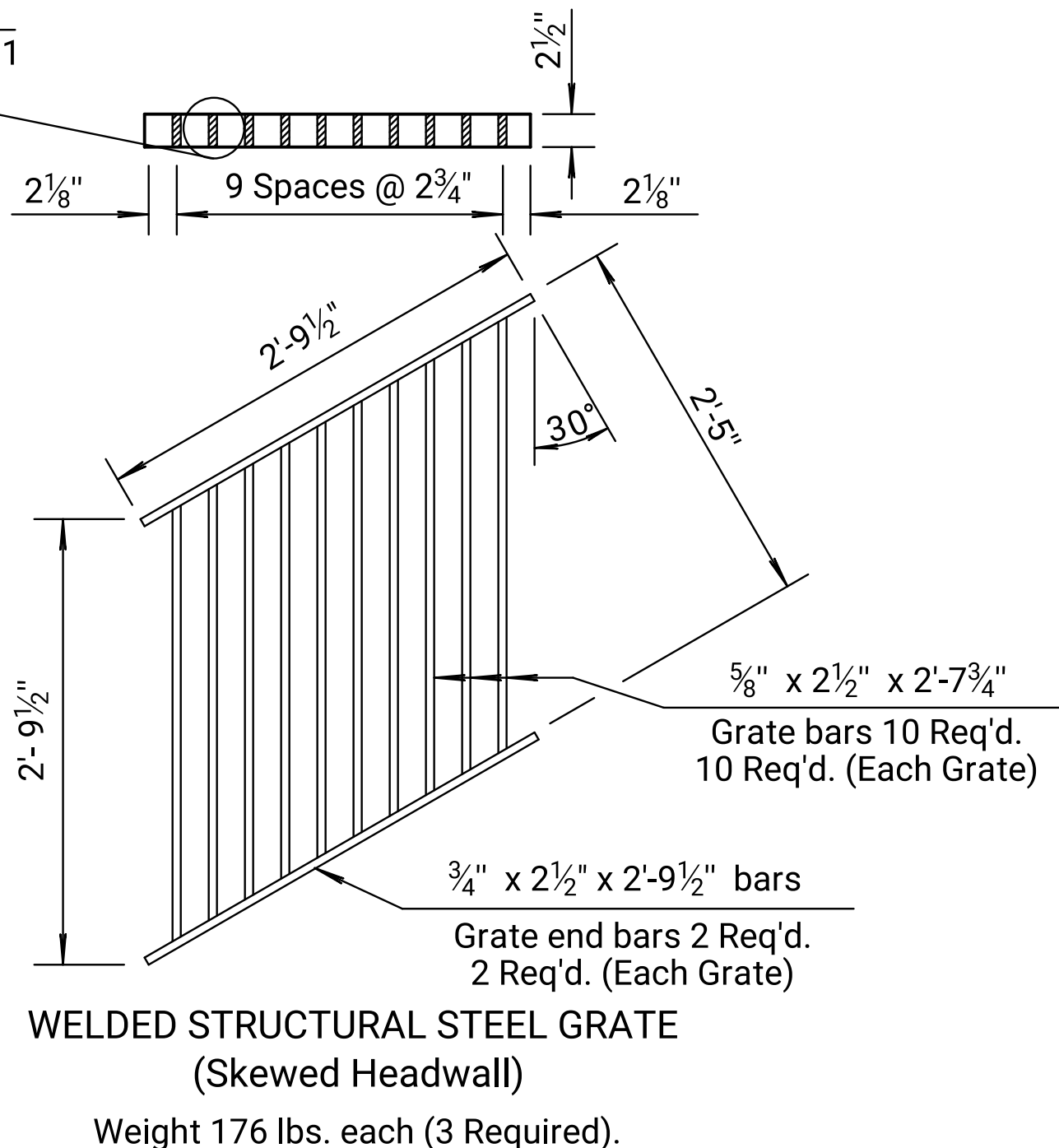


STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		0	0	

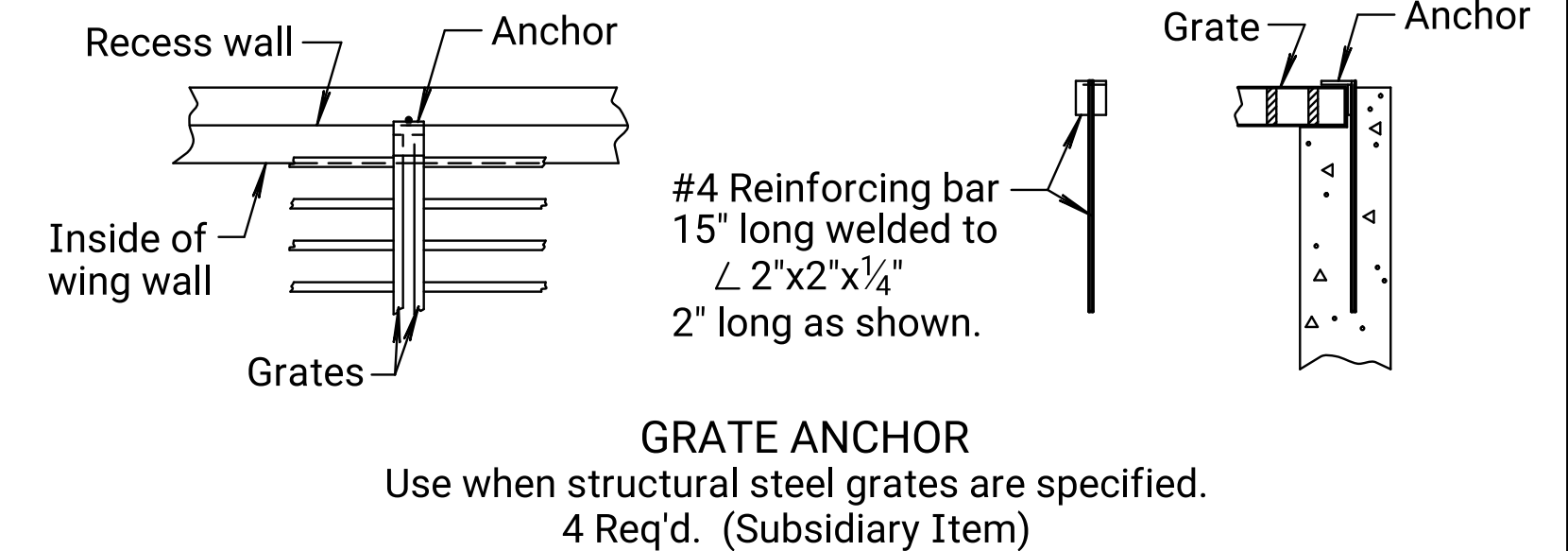
GENERAL NOTE
Concrete Grade 3.0, Concrete Grade 3.0 (AE), or the mix used in Concrete Pavement shall be used throughout.
Bevel all exposed edges with a $\frac{3}{4}$ " triangular moulding.
The pipe shown on this sheet may or may not indicate that the pipe installed will be reinforced concrete, steel, or aluminum.
Payment shall be per each for "Concrete Headwall". This price shall be full compensation for all labor and materials necessary to complete the work.
Steel for grates shall comply with the Standard Specifications.
All structural steel shall be galvanized in accordance with the Standard Specifications.
For skewed headwalls pipe shall be furnished to provide beveled ends to fit flush with headwalls. The beveled ends shall have a smooth finish. These beveled sections shall be paid for at the unit bid price per lineal feet of pipe.



BILL OF MATERIAL (For information only)			
Slope 6:1 Normal to ϕ			
Bar	No.	Size	Length
a1	8	#4	3'-2"
d1	4	#4	10'-4"
v1	4	#4	1'-9"
v2	4	#4	2'-1"
w1	4	#4	9'-6"
Gd. 3.0 Conc. 1.10 C.Y.			
Reinf. Steel 80 Lbs.			
Struct. Steel 528 Lbs.			



BILL OF MATERIAL (For information only)			
Slope 6:1			
Bar	No.	Size	Length
a2	7	#4	2'-9"
d2	4	#4	9'-0"
v1	4	#4	1'-9"
v2	4	#4	2'-1"
w2	4	#4	8'-3"
Conc. Gd. 3.0 0.95 C.Y.			
Reinf. Steel 69 Lbs.			
Struct. Steel 459 Lbs.			



04	01-28-05	Changed Class to Grade Concrete	R.J.S.	J.O.B.
03	08-10-94	Detailed on CADD	R.J.S.	J.O.B.
02	12-22-89	Revised Standard Number	R.J.S.	J.O.B.
NO.	DATE	REVISIONS	BY	APPD
KANSAS DEPARTMENT OF TRANSPORTATION				
CONCRETE HEADWALL STRUCTURAL STEEL GRATE				
RD665				
FHWA APPROVAL 06-10-05 APPD. James O. Brewer				
DESIGNED	DETAIL	QUANTITIES	TRACED	
DESIGN CK.	DETAIL CK.	QUAN. CK.	TRACE CK.	
DOT Graphics Certified 05-16-2022 Sh. No. 0				