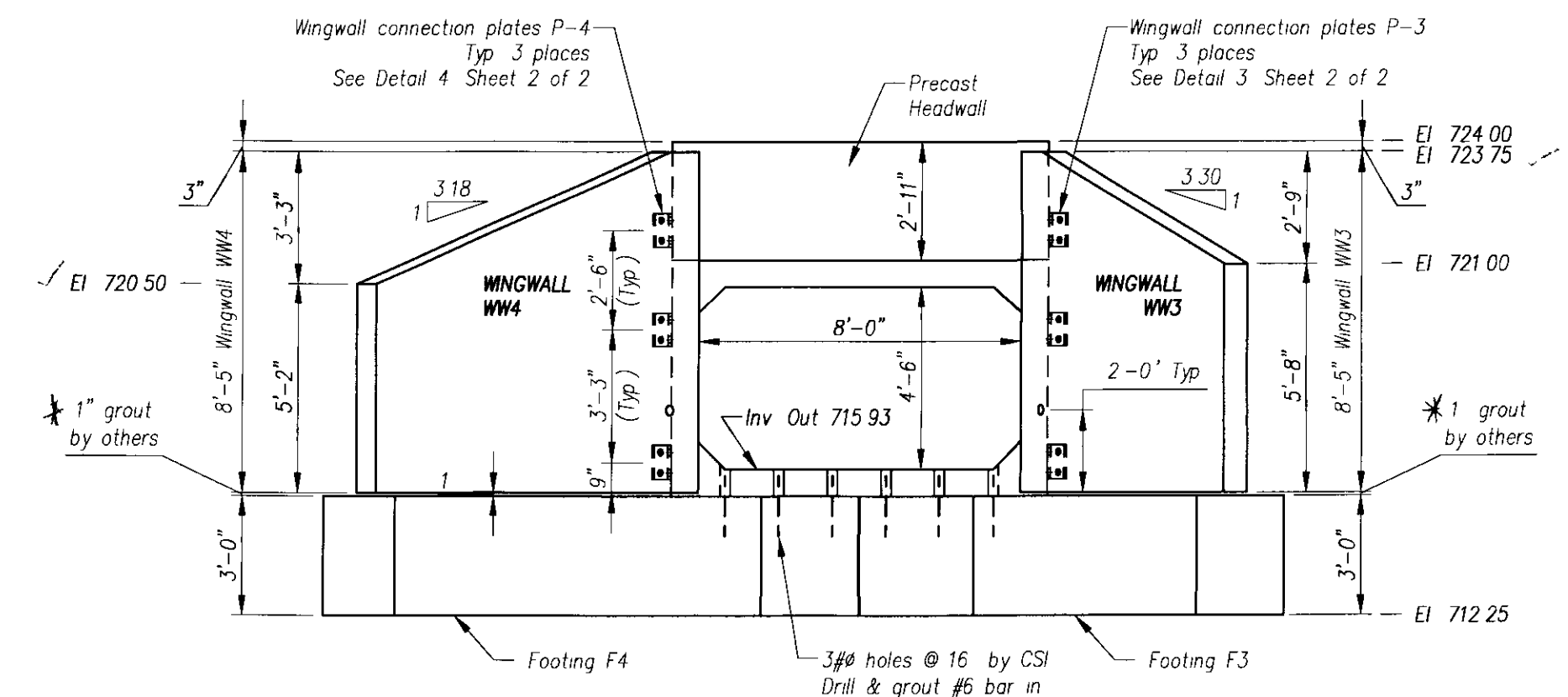
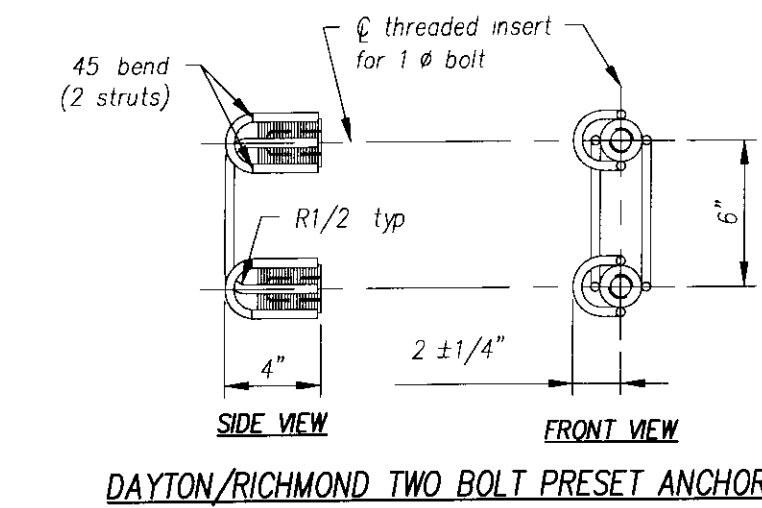


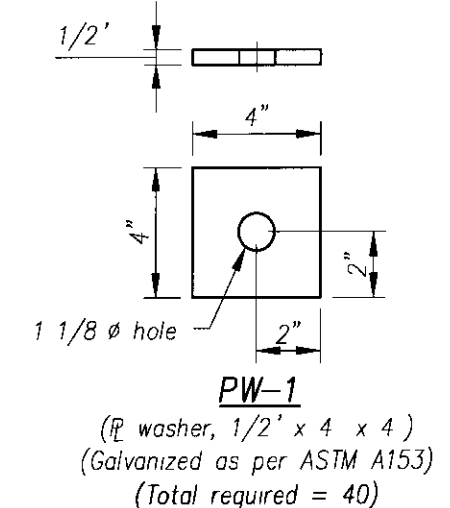
ELEVATION C
1 of 2



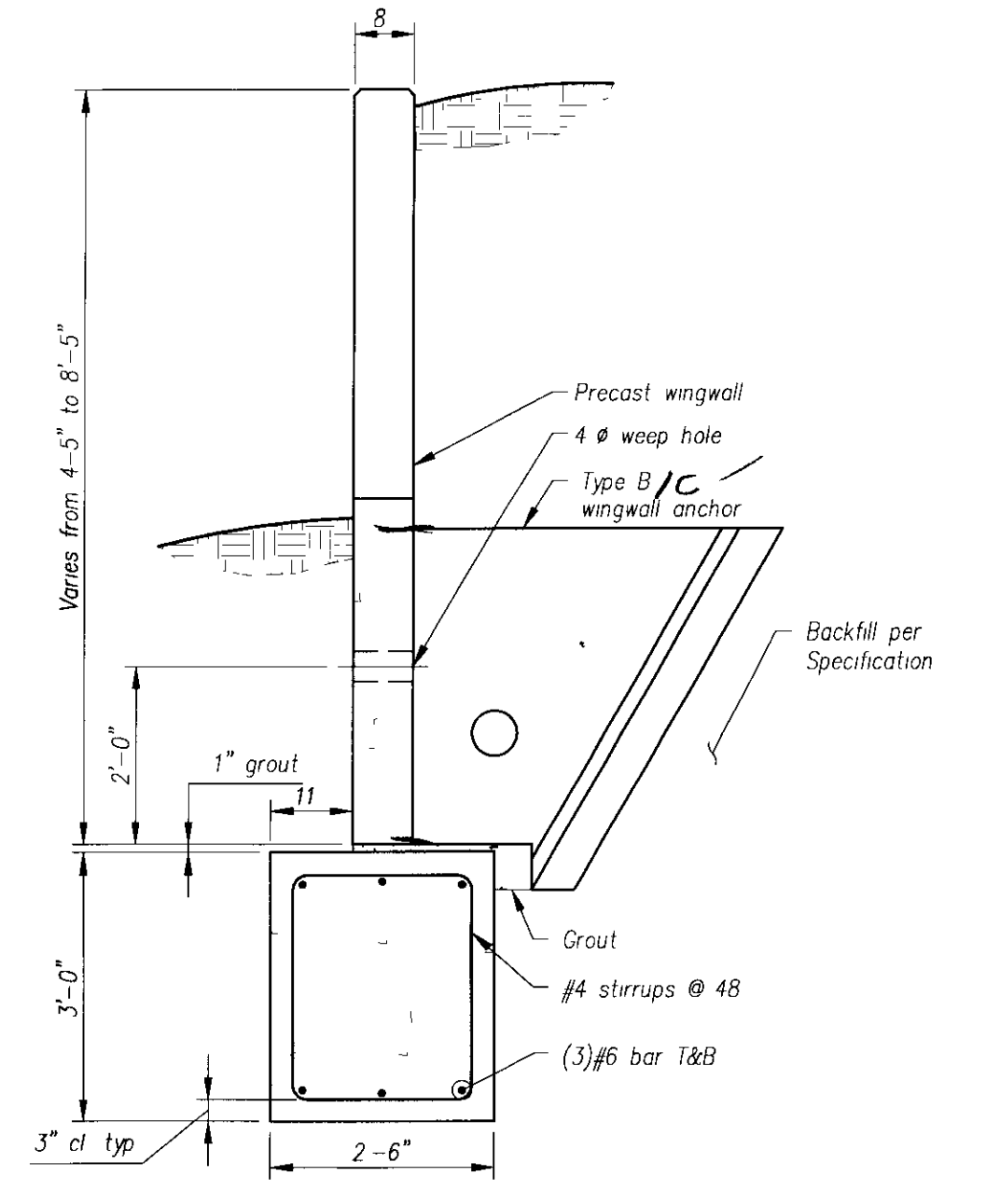
ELEVATION D
1 of 2



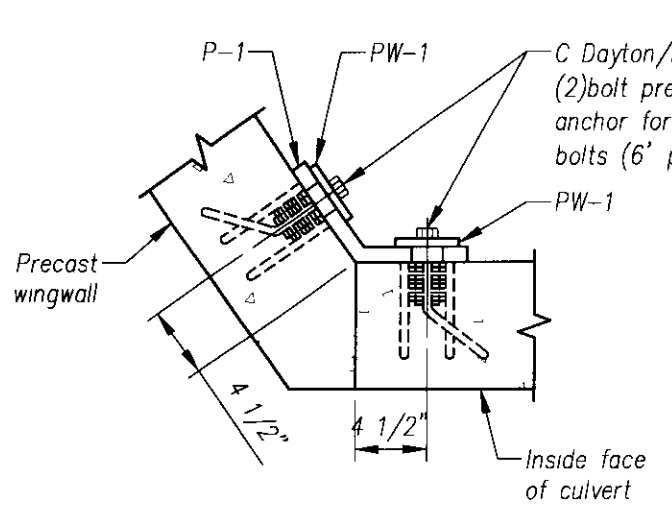
DAYTON/RICHMOND TWO BOLT PRESET ANCHOR



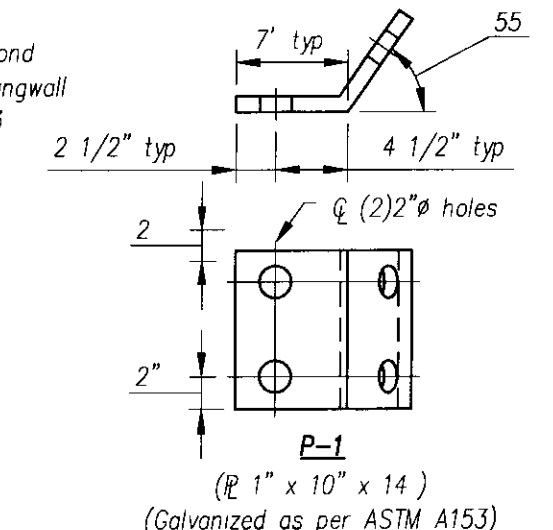
PW-1
(P washer, 1/2" x 4 x 4)
(Galvanized as per ASTM A153)
(Total required = 40)



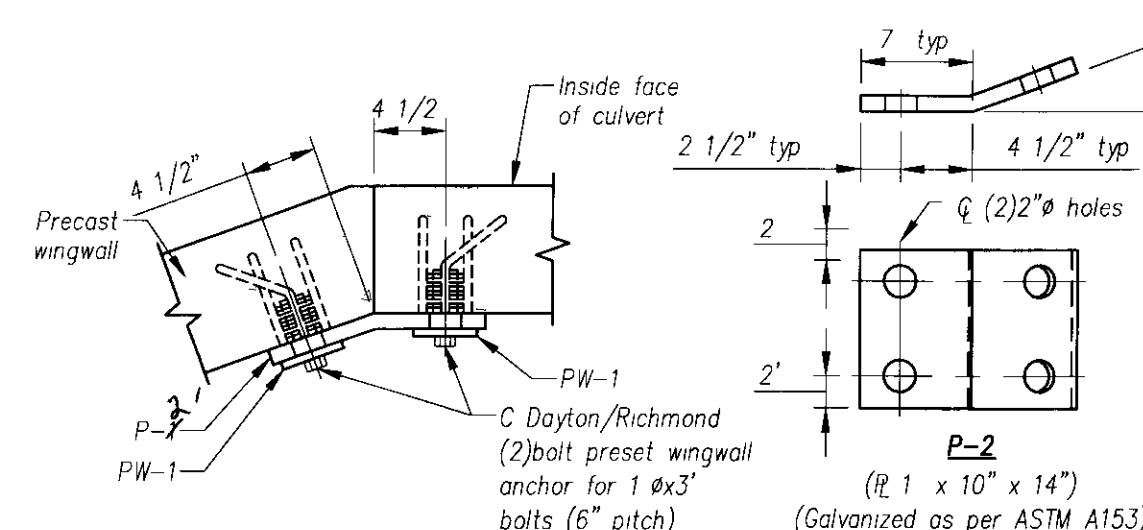
TYPICAL WINGWALL SECTION



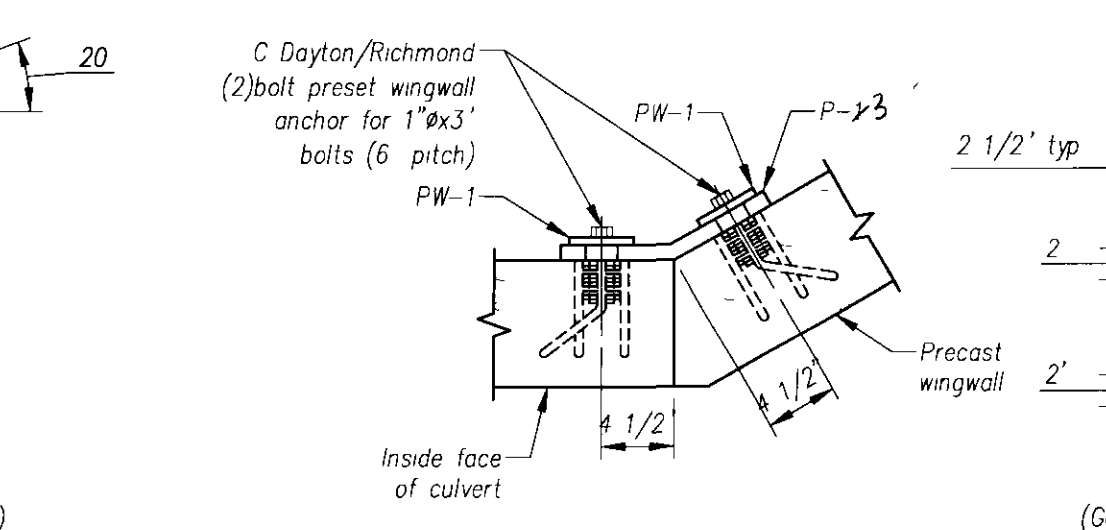
DETAIL 1
1,2 of 2



DETAIL 2
1,2 of 2

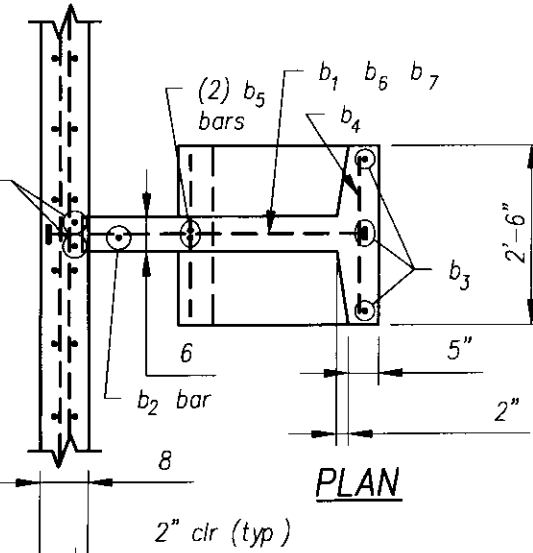


DETAIL 3
1,2 of 2

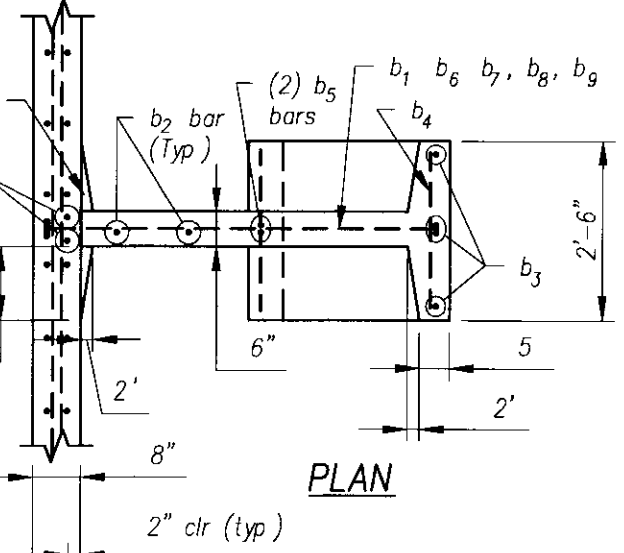
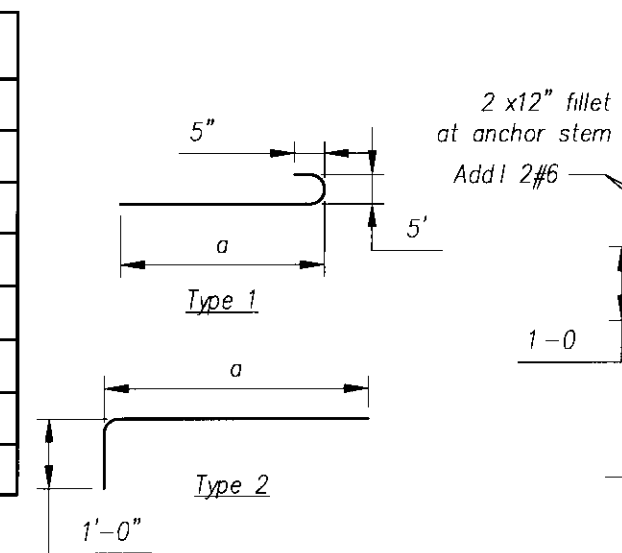


DETAIL 4
1,2 of 2

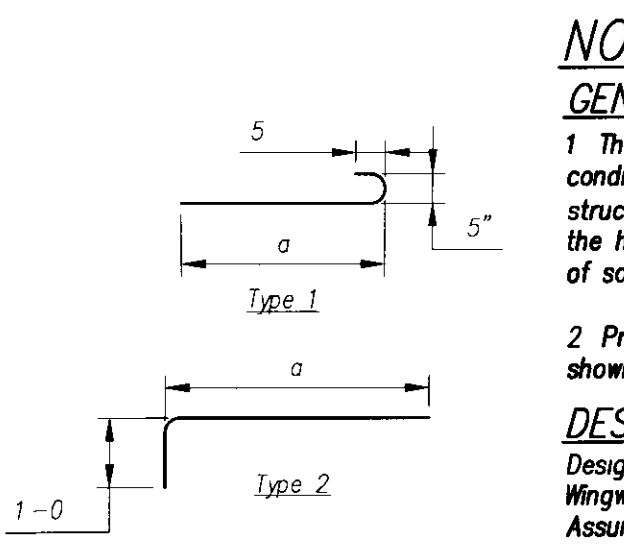
*ALL WORK AVAILABLE TO BE DONE IN THE FIELD



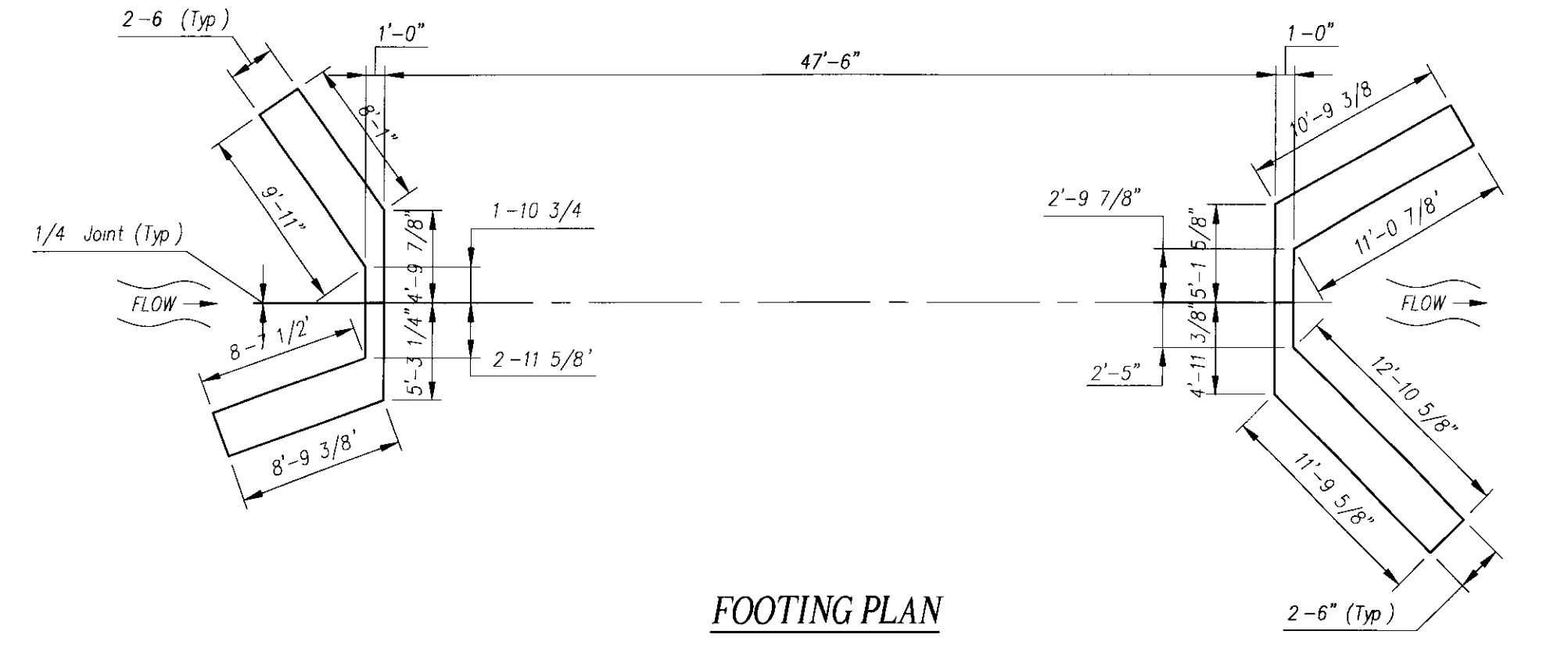
MARK	QTY	SIZE	a	TYPE	LENGTH
b ₁	2	#6	2-7	3	
b ₂	1	#5		Str	3-2
b ₃	4	#5		Str	4-3
b ₄	7	#5		Str	2-2
b ₅	2	#5	3-8	2	
b ₆	1	#5	1'-9"	1	
b ₇	1	#5	3'-2"	1	



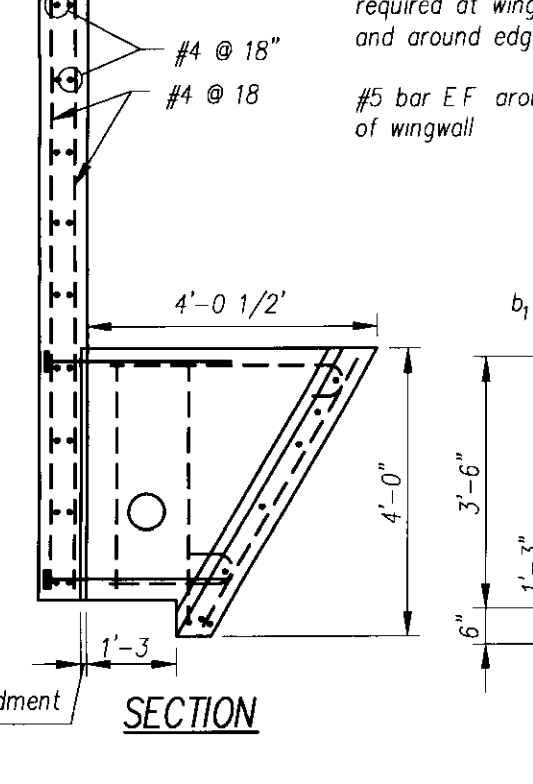
MARK	QTY	SIZE	a	TYPE	LENGTH
b ₁	4	#6	2-7	3	
b ₂	2	#5		Str	3-2
b ₃	4	#5		Str	4-2
b ₄	7	#5		Str	2-2
b ₅	2	#5	3-8	2	
b ₆	1	#5	2'-9"	1	
b ₇	1	#5	3-9	1	
b ₈	1	#5	4-0	1	
b ₉	1	#5	4-3	1	



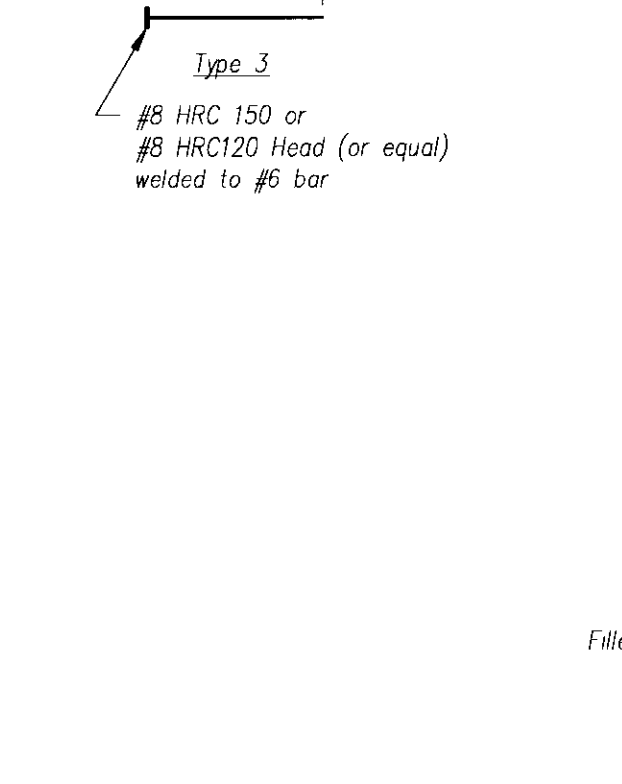
NOTES
GENERAL NOTES:
 1. The wingwalls have been designed for general site conditions. The project engineer shall be responsible for the structure's suitability to the existing site conditions and for the hydraulic evaluation — including scour and confirmation of soil conditions.
 2. Prior to construction, contractor must verify all elevations shown through the engineer.
DESIGN DATA
 Design Method: Load factor per AASHTO Specification
 Wingwalls designed for Earth Pressure + Live Load Surcharge
 Assumed Allowable Soil Bearing: 4,000 PSF
MATERIALS
 - Precast units shall be constructed and installed in accordance with CON/SPAN Specifications
 - Concrete for Wingwalls and Footings shall have a minimum compressive strength of 4,000 psi
 - Reinforcing steel for Wingwalls and Footings shall conform to ASTM A615, A616 or A617-Grade 60



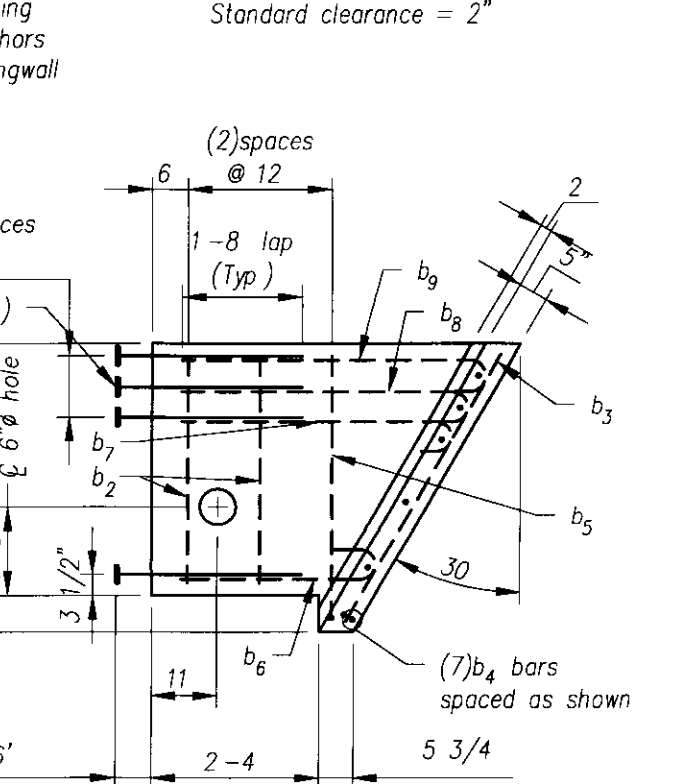
FOOTING PLAN



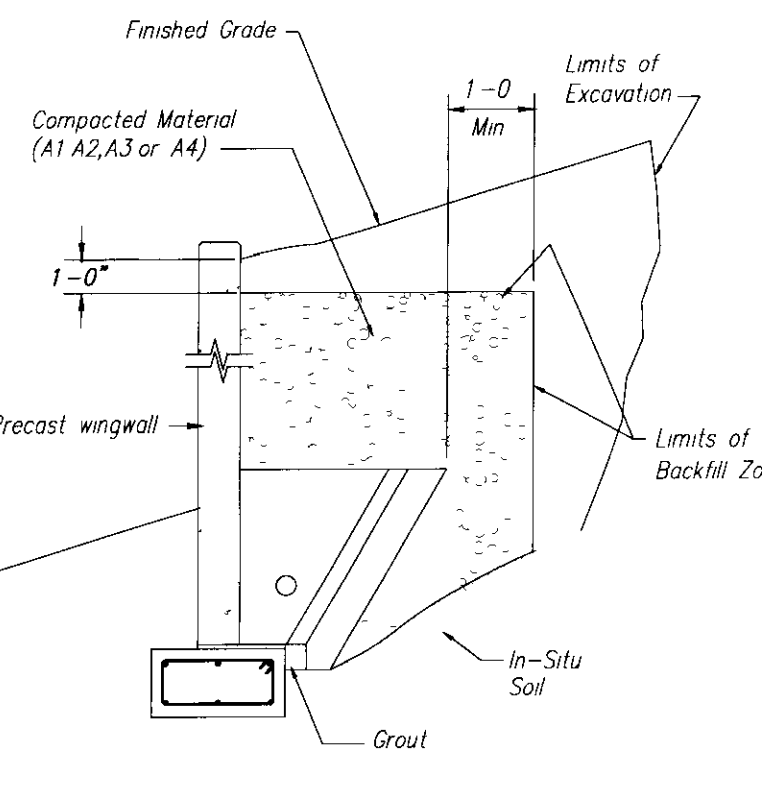
PRECAST ANCHOR TYPE B



PRECAST ANCHOR TYPE C



PRECAST ANCHOR TYPE C



WINGWALL BACKFILL REQUIREMENTS

Group Classification	BACKFILL DESCRIPTION							
	A-1	A-3	A-2		A-4			
	A-1-a	A-1-b	A-2-4	A-2-5	A-2-6	A-2-7		
Sieve Analysis, Percent Passing								
No 10	50 max							
No 40	30 max	50 max	51 min					
No 200	15 max	25 max	10 max	35 max	35 max	35 max	35 max	36 min
Characteristics of Fraction Passing								
No 40								
Liquid Limit				40 max	41 min	40 max	41 min	40 max
Plasticity Index				10 max	10 max	11 min	11 min	10 max
Usual Types of Significant Constituent Materials	6 max	NP		Fine Stone Fragments, Gravel & Sand	Silty Clayey Gravel and Sand	Sand	Silty Soils	
General Rating as Subgrade				Excellent to Good				Fair to Poor

NOTES
 1. BACKFILLING OPERATIONS WITHIN THE CBZ SHALL BE PERFORMED IN LIFTS OF 8" OR LESS (LOOSE DEPTH)
 2. MAXIMUM DRY DENSITY SHALL BE DETERMINED BY AASHTO T-99 OR OTHER APPROVED METHODS
 3. BACKFILL SHALL BE COMPACTED IN LAYERS UNTIL THE DENSITY IS NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY

RECEIVED
 JUN 25 2009
 RESUBMIT APPROVED AS NOTED
 BY CPW DATE 7/2/09

Contractor is to verify that all information shown on drawings has been thoroughly checked, complies with the contract documents and is adequate to meet the field conditions. Some dimensions and details may differ slightly from contract drawings to accommodate the manufacturing or design process. Approval of this drawing indicates that any deviation from the contract documents has been reviewed and found to be acceptable. Production will not commence until receipt of signed, approved shop drawings.

Rev	Date	DESCRIPTION	By
10			
9			
8			
7			
6			
5			
4			
3			
2			
1	06/23/09	Revised piece designations in plan view on sheet 1 of 2	MS

This drawing is based upon information provided from the following documents and/or sources
 Engineer
 Project No
 Drawings
 Specifications
 Other Sources

Concrete Systems Inc
 9 Commercial St Hudson NH 03051
 Phone 603-889-4163
 Fax 603-889-2417

STATE AGENCY
 Drawn By: F. LOPEZ
 Checked By: B. KOLAWOLE
 Approved By:

GW TATRO CONSTRUCTION
 VT/DOT: CULVERT
 FAIRLEE, VT
 BOX CULVERT LAYOUT & DETAILS
 C19768-L01-B
 SHEET 2 OF 2