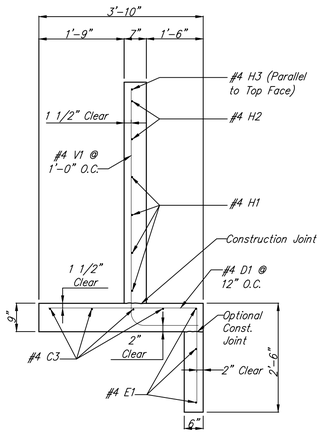
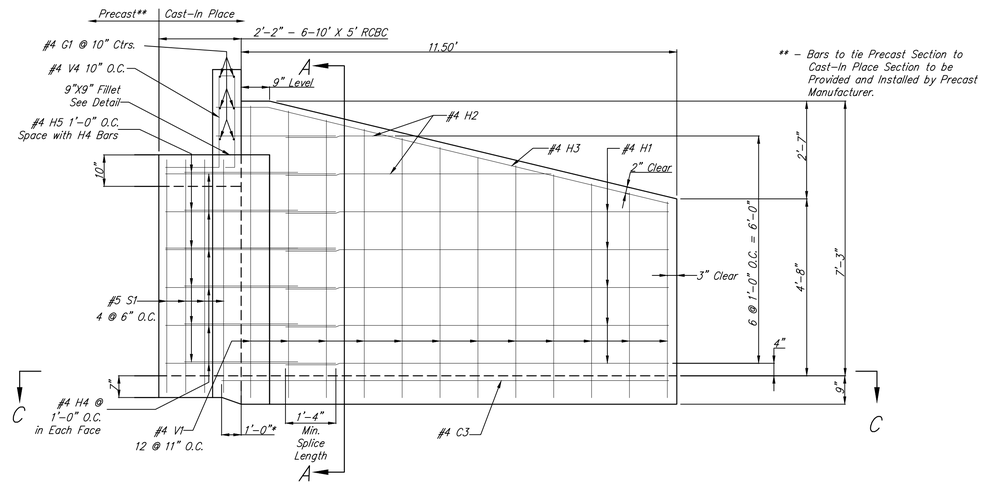


SECTION A–A

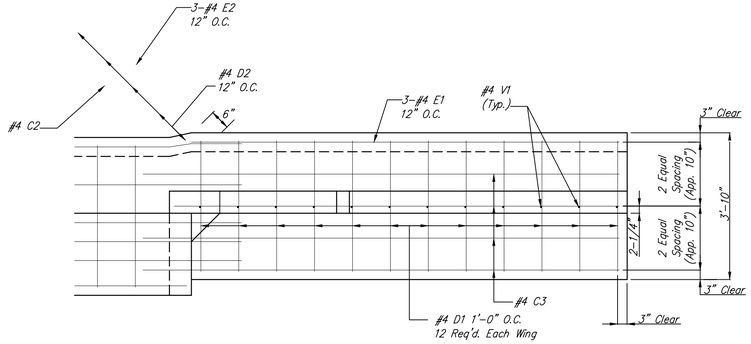


* – Min. Embedment of C1 Bars Into Box Floor

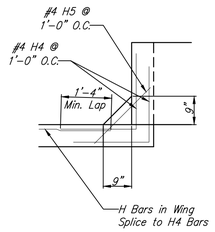
** – Bars to tie Precast Section to Cast-In Place Section to be Provided and Installed by Precast Manufacturer.

ELEVATION OF WINGWALL

Back Face Shown

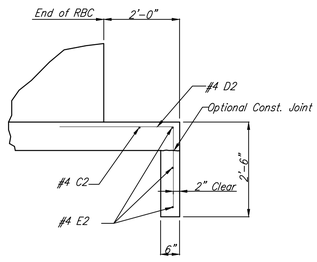


SECTION C–C

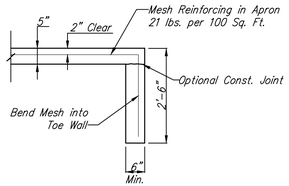


DETAILS OF 9"X9" FILLET

(Plan View)

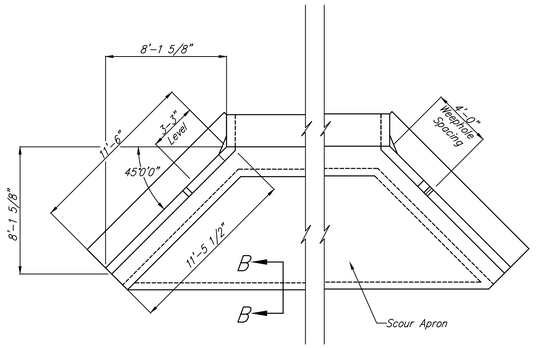


SECTION E–E



SECTION B–B

NOTE: Construction Joint may be used at Contractor's option when approved by the Engineer. D1 bars or mesh may be spliced thus: Minimum overlap shall be 1'-3". No increase in quantities or cost shall be allowed when Contractor elects this option.



WINGWALL DIMENSIONS

GENERAL NOTEPAGE

UNIT STRESSES: Class AAA Concrete; f'c = 4,000 p.s.i.
Reinforcing Steel; fy = 60,000 p.s.i.

CONCRETE: Class AAA Concrete shall be used throughout. Bevel all exposed edges with a 3/4 inch triangular moulding.

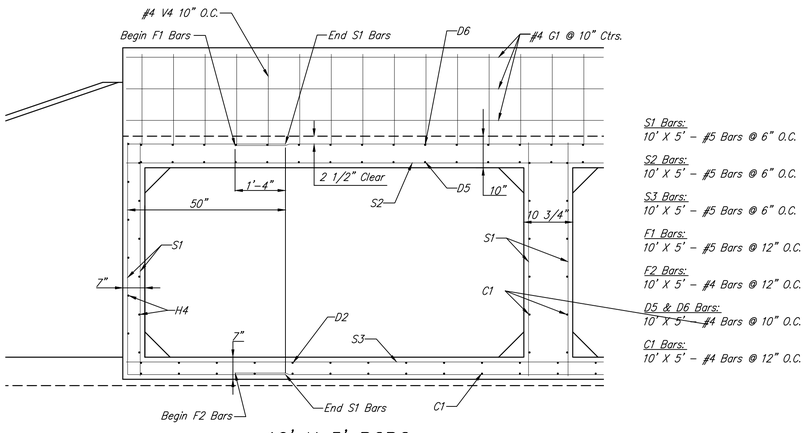
REINFORCING: All reinforcing shall conform to ASTM A615, Grade 60. Welded Wire Fabric shall conform to ASTM A185. All dimensions relative to reinforcing steel shall be to center–line of bar unless otherwise noted.

QUANTITIES: Wingwall Quantities include all quantities outside the neat lines of the box, excluding the hubguard.

APRON: A 5" concrete slab shall be constructed between the downstream wings in locations subject to scour only when specified on the plans or by the Engineer. Wire Reinforcing mesh shall be electrically welded and shall be composed of 6 x 6–W1.4 x W1.4 welded wire fabric.

FOUNDATION AND BACKFILL MATERIAL: Soils judged as high plasticity clays, fat clays, expansive clays, or organic clays are unsuitable for foundation and/or backfill material for wingwalls and will not be used. Where these conditions exist, Foundation Stabilization and/or Granular Backfill (Wingwalls) shall be used as determined by the Engineer. See "RCB Auxiliary Details" sheet for additional details.

All Steel Cover is to be 1 ½" Clear Except for Top Face



S1 Bars:
10' X 5' – #5 Bars @ 6" O.C.

S2 Bars:
10' X 5' – #5 Bars @ 6" O.C.

S3 Bars:
10' X 5' – #5 Bars @ 6" O.C.

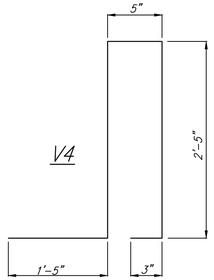
F1 Bars:
10' X 5' – #5 Bars @ 12" O.C.

F2 Bars:
10' X 5' – #4 Bars @ 12" O.C.

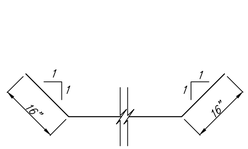
D5 & D6 Bars:
10' X 5' – #4 Bars @ 10" O.C.

C1 Bars:
10' X 5' – #4 Bars @ 12" O.C.

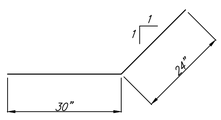
10' X 5' RCBC



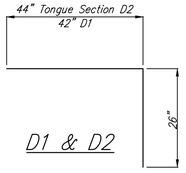
V4



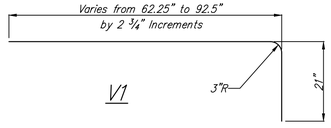
E2



H4

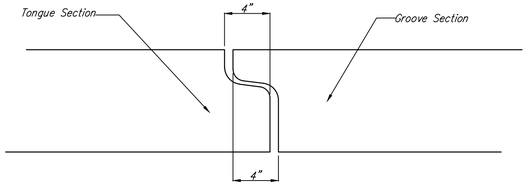


D1 & D2



V1

BENDING DIAGRAM



PRECAST TONGUE & GROOVE JOINT

Due to Precast Ends with Tongue & Groove, Bar Spacings are to be Adjusted. Where Precast Tongue is Present, Cast–in–Place Groove is not Thick Enough for Bars to be Placed Within. On End Where Pre–Cast Groove is Present, Cast–in–Place Tongue is Thick Enough for Bars to Extend into and Provide 1 ½" of Cover.

* See Bending Diagram

		#4C1	#4D5	#4D6	#5S1	#5S1	#5S2	#5S3	#5F1	#4F2	#4H4	#4H5	#4C2	#4C3	#4E1	#4E2	#4D1	#4D2	#4H1	#4H2	#4H2	#4H3	#4V1	#4V4	#4G1
0° Skew 6–10'X5'	No.	81	55	55	40	16	5	5	5	5	24 *	12	1	8	6	3 *	24 *	45 *	10	2	2	2	24	55*	6
	Length	1'–10"	1'–10"	1'–10"	6'–1"	4'–2"	44'–10.5"	44–10.5"	39'–2"	39'–2"	4'–6"	3'–0"	50'–11"	12'–7"	10'–8"	45'–10"	5'–8"	6'–2"	10'–1.5"	2'–10"	7'–0"	12'–3"	*	4'–6"	44'–10.5"
	Note				Vertical	Horizontal																			

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316-262-7271
BaughmanCo.com

GILBERT STREET DRAINAGE IMPROVEMENTS

WINGWALL DETAILS

CAPITOL IMPROVEMENTS PROJECT

PROJECT NUMBER: 468-

DESIGN: NBW DRAWN: JSB

DATE: July 28, 2022

SHEET 7 OF 8

File: E:\Projects\Gilbert Avenue Drainage_19-05-E282\Engineering\Details\Cast In Place Detail.dwg