

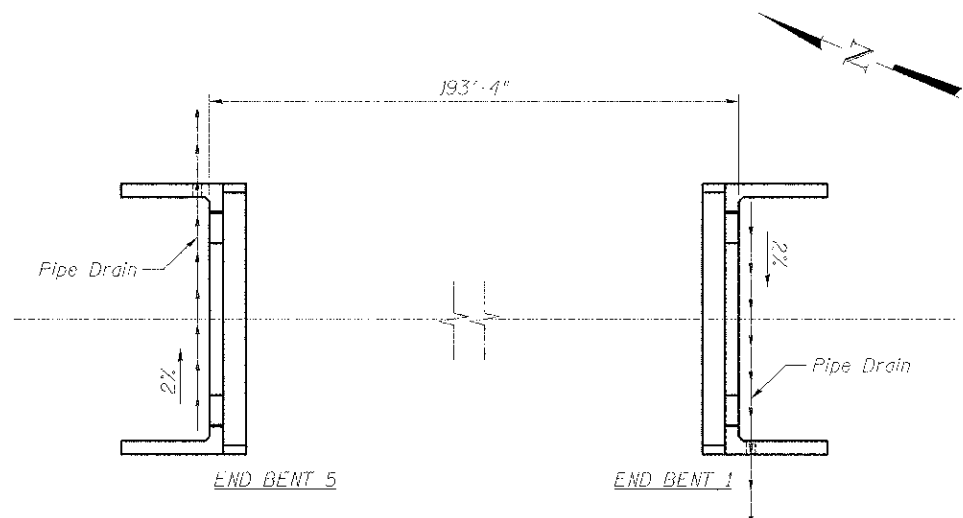
**END BENT
BILL OF BARS**

Bar	No.	Size	Length	Shape
p100(E)	9	#5	29'-6"	
p101(E)	10	#5	29'-6"	
p102(E)	5	#6	14'-8"	
p103(E)	6	#7	13'-3"	
p104(E)	6	#7	13'-3"	
p105(E)	10	#5	4'-0"	
s100(E)	18	#5	16'-6"	
s101(E)	18	#5	15'-4"	
s102(E)	6	#5	14'-6"	
s103(E)	24	#5	9'-2"	
s104(E)	8	#5	13'-4"	
u100(E)	6	#5	3'-10"	
u101(E)	22	#5	2'-11"	
u102(E)	20	#5	3'-1"	
u103(E)	2	#5	4'-4"	
u104(E)	2	#5	5'-4"	
u105(E)	2	#5	6'-6"	
u106(E)	2	#5	7'-10"	
v100(E)	18	#6	10'-1"	
v101(E)	15	#6	17'-1"	
v102(E)	20	#5	10'-4"	
v103(E)	20	#7	11'-5"	
h100(E)	6	#8	13'-3"	
h101(E)	22	#8	12'-2"	
h102(E)	10	#6	6'-6"	
h103(E)	12	#6	6'-9"	
h104(E)	14	#5	10'-10"	
h105(E)	8	#5	29'-8"	
h106(E)	12	#5	6'-3"	
h107(E)	4	#5	2'-10"	
h108(E)	4	#5	3'-4"	
h109(E)	4	#5	2'-8"	
h110(E)	4	#5	2'-0"	
h111(E)	4	#5	1'-4"	
h112(E)	4	#5	3'-6"	
h113(E)	16	#5	1'-6"	
h114(E)	4	#5	13'-3"	
Concrete Structures (Special)	Cu. Yd.		40.9	
Reinforcement Bars, Epoxy Coated	Pound		5,560	
Pipe Underdrains 4" (Modified)	Foot		45	

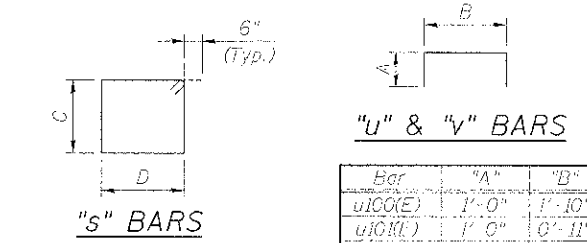
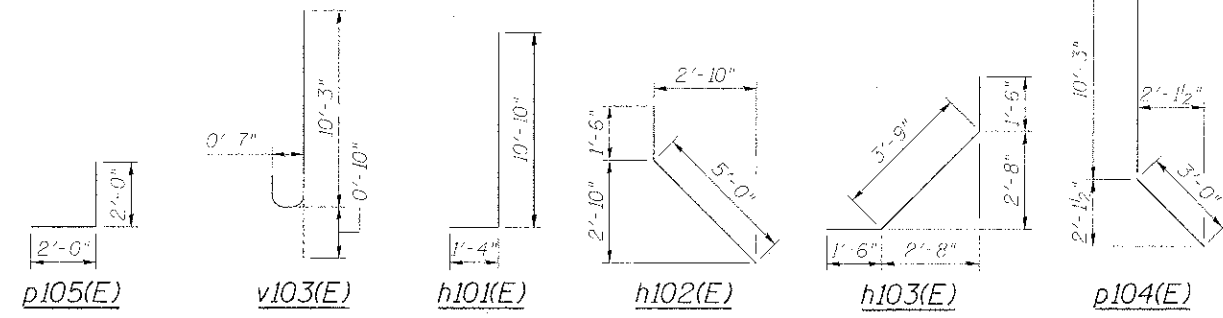
Notes:
1. All bar dimensions are out to out.
2. The quantities provided are for one (1) end bent.

NOTES:

- The centerline of the waterstop should be aligned with the center of the joint. The waterstop must be installed and properly secured prior to concrete placement to ensure proper positioning and concrete consolidation around the waterstop. Thoroughly consolidate the concrete around the waterstop to prevent voids or honeycombing. The waterstop shall not be cut or modified to allow reinforcement to pass through the waterstop.
- Impervious clay layer required to maintain slope of subdrain.
- Adjust reinforcement as required to miss anchor bolts.
- Concrete Sealer shall be applied to all exposed surfaces.
- B.F. = Back Face
F.F. = Front Face
E.F. = Each Face

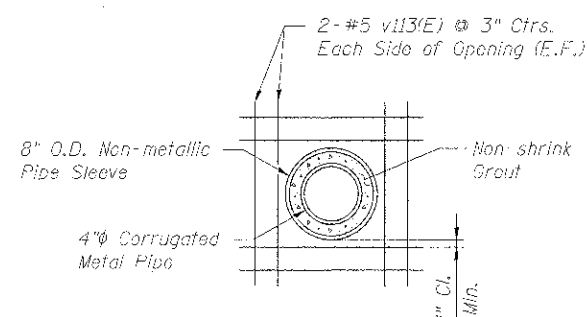


END BENT DRAINAGE PLAN
(End Bent 1 pipe drain shall outlet to the West and End Bent 5 pipe drain shall outlet to the East)

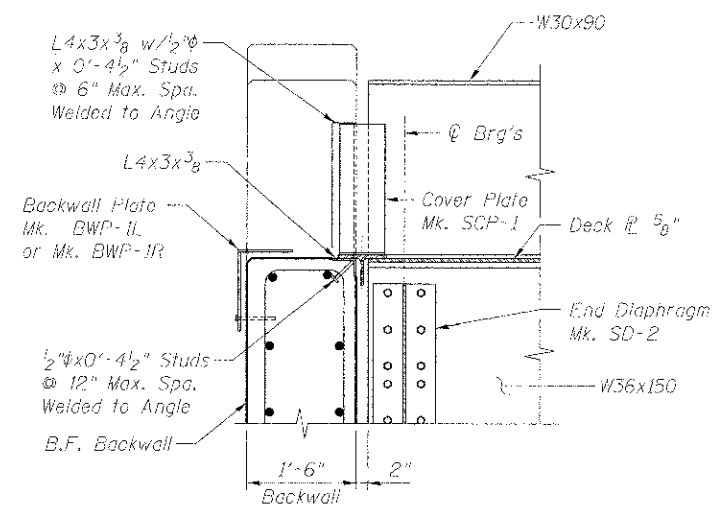


Bar	"C"	"D"
s100(E)	4'-2"	3'-7"
s101(E)	3'-7"	3'-7"
s102(E)	3'-2"	3'-7"
s103(E)	2'-1"	2'-0"
s104(E)	2'-7"	3'-7"

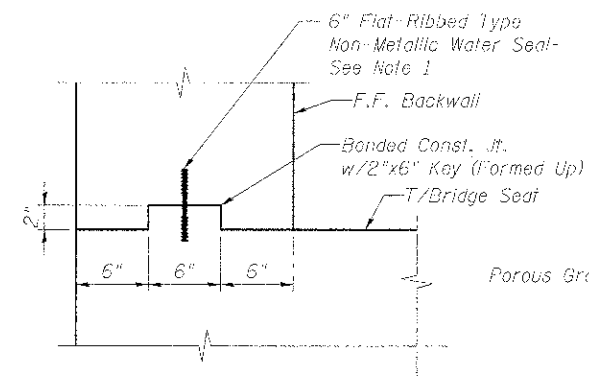
Bar	"A"	"D"
u100(E)	1'-0"	1'-10"
u101(E)	1'-0"	0'-11"
u102(E)	1'-0"	1'-1"
u103(E)	1'-10"	0'-8"
u104(E)	2'-4"	0'-8"
u105(E)	2'-11"	0'-8"
u106(E)	3'-7"	0'-8"
v100(E)	4'-6"	1'-1"
v101(E)	8'-0"	1'-1"



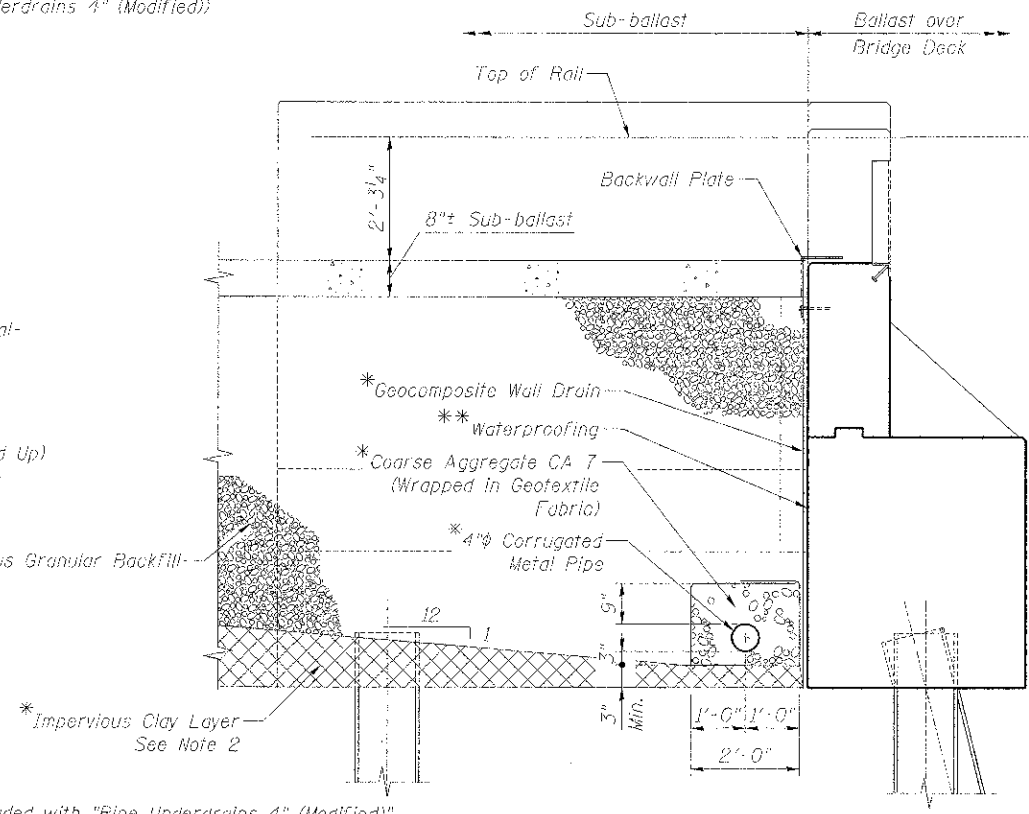
DETAIL 3
(Cost of non-metallic sleeve and non-shrink grout included in Pipe Underdrains 4" (Modified))



DETAIL 2



DETAIL 1
Scale: 1/2" = 1'-0"



SECTION THRU END BENT

* Cost included with "Pipe Underdrains 4" (Modified)"
** Cost included with "Concrete Structures (Special)"

benesch
engineers • scientists • planners
Alfred Benesch & Company
205 North Michigan Avenue, Suite 2400
Chicago, Illinois 60601
312-565-0450 Job No. 10074

FILE NAME	USER NAME	DESIGNED	REVISIONS
Perm.Br.110.End.Bent.Details.2.dgn	mgrimes	RK	
		LRB	
		RK	
		LRB	

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**M.P. 37.71 BELVIDERE SUBDIVISION - STRUCTURE NO. 045-3168
END BENT DETAILS (2 OF 2)**

P.A.P. RTE.	SECTION	COUNTY	TOTAL SHEET NO.
361	06-00214-18-RP	KANE	451 278
			CONTRACT NO. 63598

SHEET NO. UP-18 OF UP-52 SHEETS

ILLINOIS FEB. 450 PROJECT

X:\100000S\100714\Engineering\Documents\Phase_1\11\SN_045-3168\UPRR_Bridge\PLANS\Perm.Br.018.End.Bent.Details.2.dgn 3/12/01 PM 12/13/2012