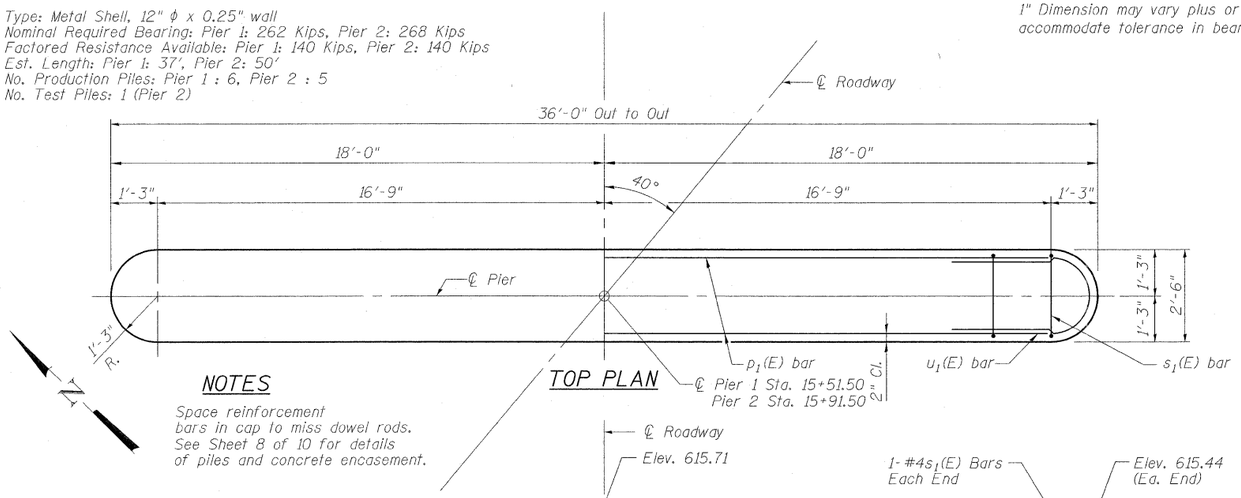
PILE DATA

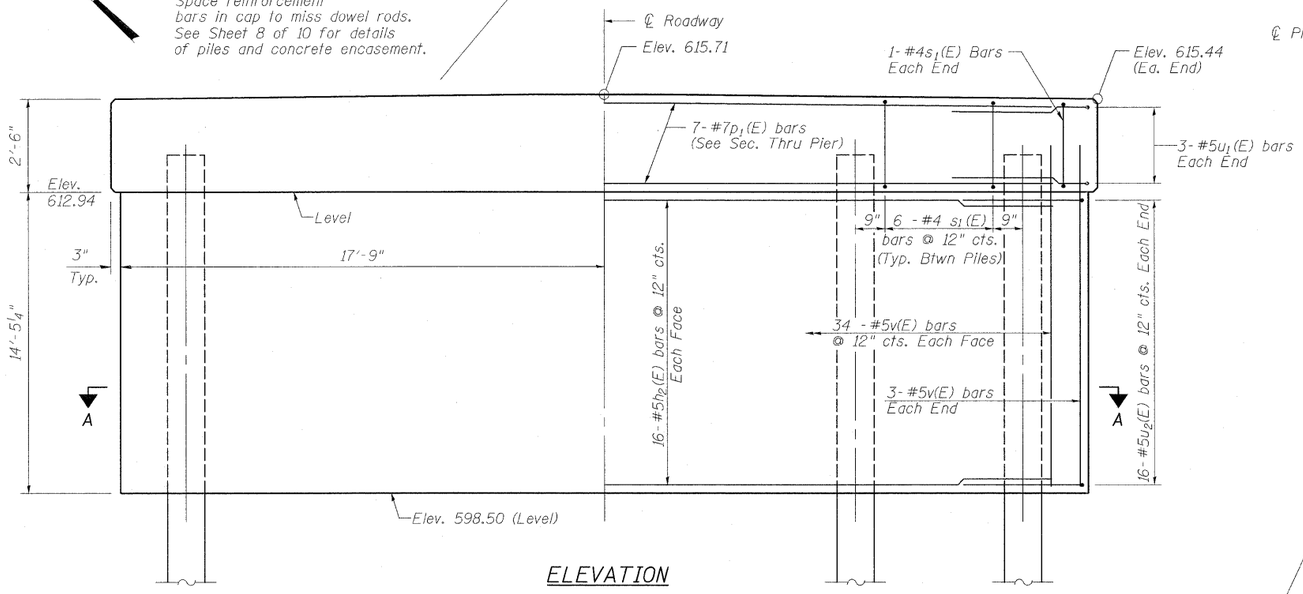
Type: Metal Shell, 12" ϕ x 0.25" wall
Nominal Required Bearing: Pier 1: 262 Kips, Pier 2: 268 Kips
Factored Resistance Available: Pier 1: 140 Kips, Pier 2: 140 Kips
Est. Length: Pier 1: 37', Pier 2: 50'
No. Production Piles: Pier 1 : 6, Pier 2 : 5
No. Test Piles: 1 (Pier 2)



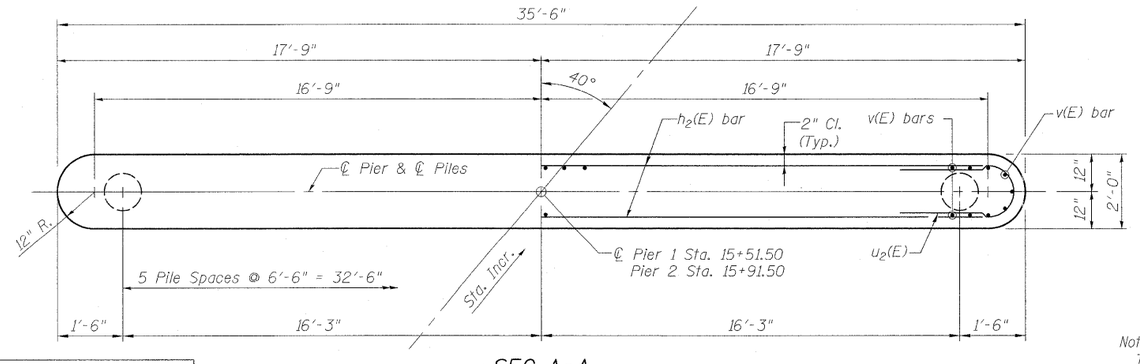
TOP PLAN

NOTES

Space reinforcement bars in cap to miss dowel rods. See Sheet 8 of 10 for details of piles and concrete encasement.

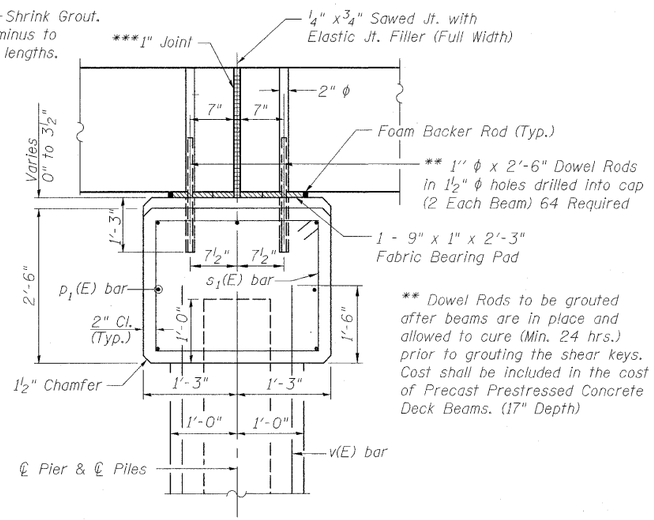


ELEVATION



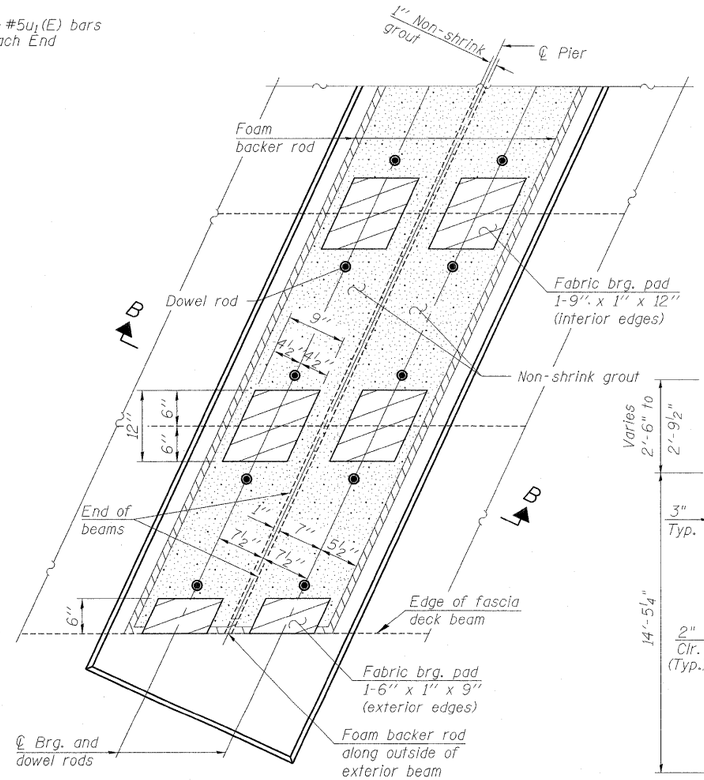
SEC A-A

*** 1" Joint shall be filled with Non-Shrink Grout. 1" Dimension may vary plus or minus to accommodate tolerance in beam lengths.



** Dowel Rods to be grouted after beams are in place and allowed to cure (Min. 24 hrs.) prior to grouting the shear keys. Cost shall be included in the cost of Precast Prestressed Concrete Deck Beams. (17" Depth)

SECTION THRU PIER



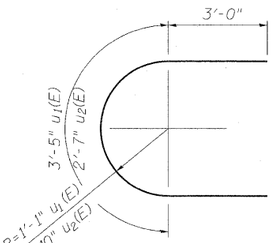
PLAN

Notes:
The bearing seat surfaces shall be adjusted by shimming the bearing to assure firm and even bearing prior to placement of grout. 2-⅛" fabric adjusting shims of the dimensions of the exterior bearing pad shown shall be provided for each bearing.

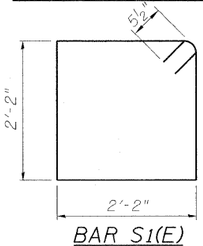
TWO PIERS BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
h_2(E)	64	#5	33'-6"	
p_1(E)	14	#7	33'-6"	
s_1(E)	64	#4	9'-7"	
u_1(E)	12	#5	9'-5"	
u_2(E)	64	#5	8'-7"	
v(E)	148	#5	15'-10"	

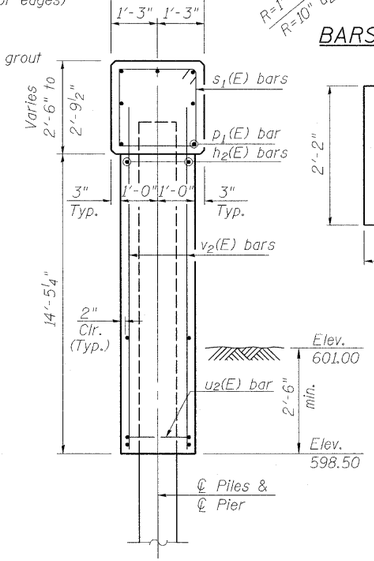
Concrete Structures	Cu. Yd.	92.4
Reinforcement Bars, Epoxy Coated	Pound	6,740
Furnishing Metal Shell Piles 12" x 0.25"	Foot	472
Driving Piles	Foot	472
Test Pile, Metal Shells	Each	1
Cofferdam Excavation	Cu. Yd.	81
Cofferdam (Type 1) (Location-1)	Each	1
Cofferdam (Type 1) (Location-2)	Each	1



BARS u_1(E) & u_2(E)



BAR S1(E)



SEC THRU PIER

GREENE & BRADFORD, INC. OF SPRINGFIELD
CONSULTING ENGINEERS
3004 CONSTITUTION DRIVE
SPRINGFIELD, ILLINOIS 62711-7002
PROFESSIONAL DESIGN FIRM NO. 184-000713
PROFESSIONAL & STRUCTURAL ENGINEERING CORPORATION
(217) 793-8844, (217) 793-8227 (FAX) E-MAIL - mail@greeneandbradford.com

FILE NAME = J:\09029\CADD\CADsheets\SN 011-3417\08-04118-09029-Sht-Piers.dgn	USER NAME = amandah	DESIGNED - NIEWINSKI	REVISED - AH 4/20/11
		CHECKED - TRELLO	REVISED - AH 9/09/11
	PLOT SCALE = 0.1 '/ in.	DRAWN - VERENSKI	REVISED -
	PLOT DATE = 12/15/2011	CHECKED - TRELLO	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIERS 1 & 2
STRUCTURE NO. 011-3417
SHEET NO. 7 OF 10 SHEETS

T.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
307A	08-04118-00-BR	CHRISTIAN	26	15
		CONTRACT NO. 93567		
	ILLINOIS	FED. AID PROJECT: BROS-0021 (178)		

PLOT DRIVER = V8i_PDF.pltcfg