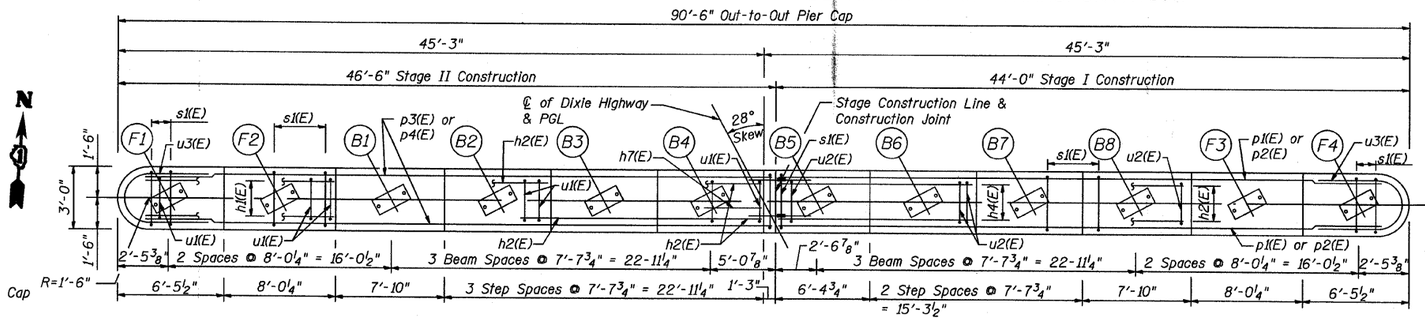
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

F.A.RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
2843	3249B-R	COOK	64	40
FED.ROAD DIST.NO.	ILLINOIS	FED.AID PROJECT-		

Sheet 16 of 22 Contract No. 62539



PLAN

Notes:

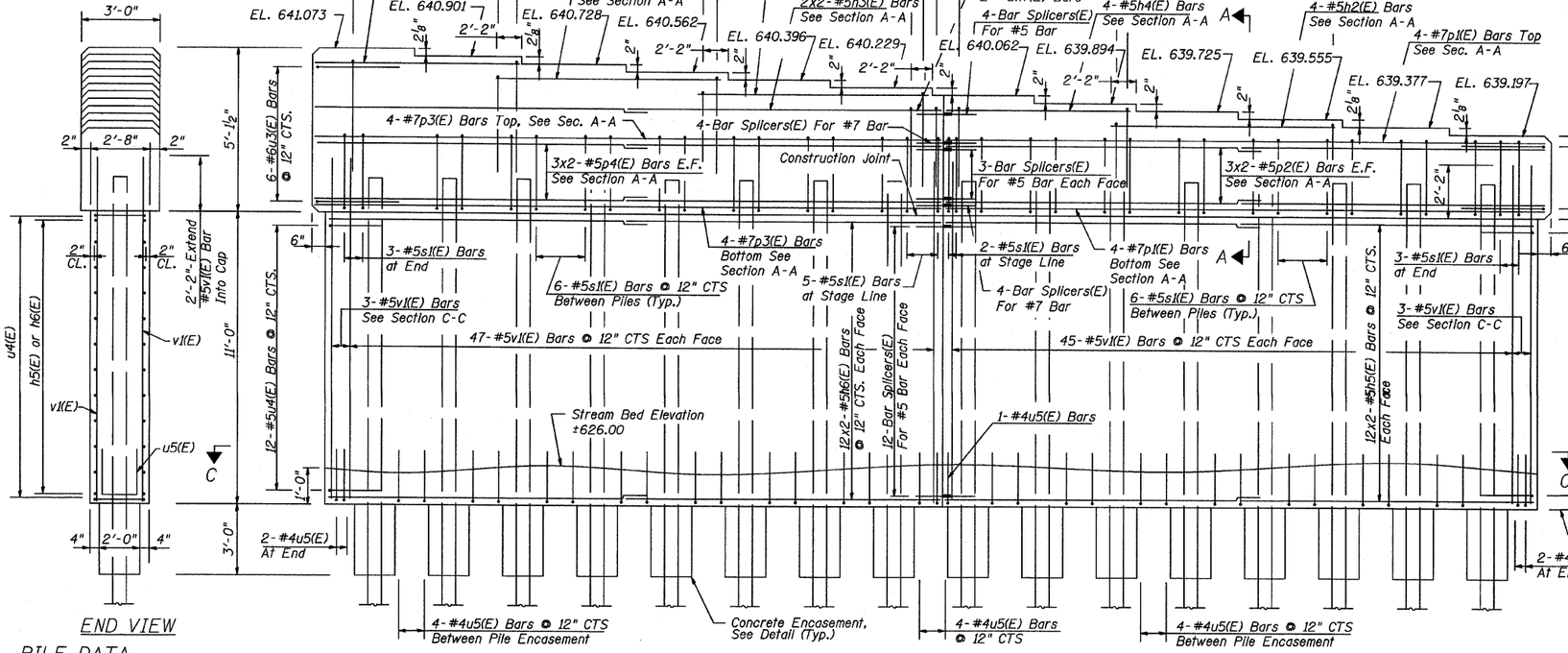
Space Reinforcement in Cap to Miss Anchor Bolts.

Pour steps Monolithically With Cap.

Bars Indicated Thus 4 x 2-#5 etc. Indicates 4 Lines of Bars With 2 Lengths Per Line

All Edges Shall Have Standard 3/4" Chamfers.

Apply Concrete Sealer to all exposed concrete surfaces of Pier located to the outside of Beams B1 & B8.



END VIEW

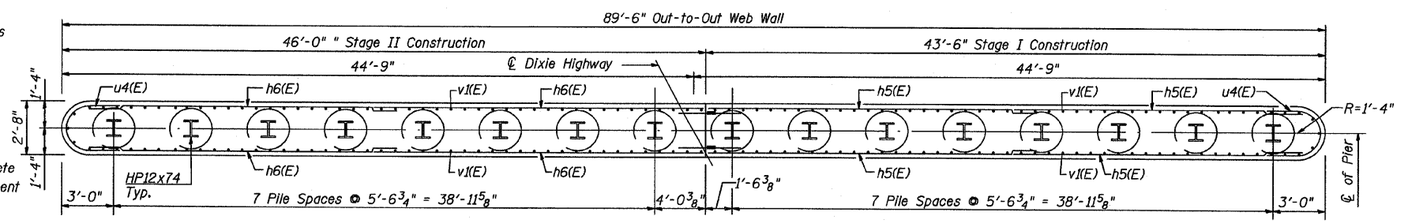
ELEVATION

PILE DATA

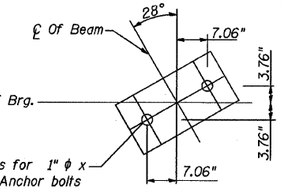
Type: HP12x74
Nominal Required Bearing: 589 Kips
Allowable Resistance Available: 196 Kips
Est. Total Length: 45'-0"
No. Required: 15 + 1 Test Pile
Negative Skin Friction: 30 Kips/Pile
Provide Pile Shoes for all Piles

Note:

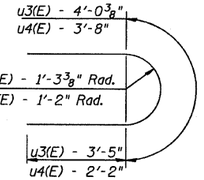
If a portion of the pier wall or concrete encasement is under water, reinforcement may be placed underwater into forms. Concrete shall be tremied according to Article 503.08 of the Standard Specifications to an elevation of 1'-0" above the water line at the time of construction.



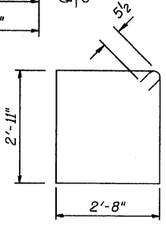
SECTION C-C



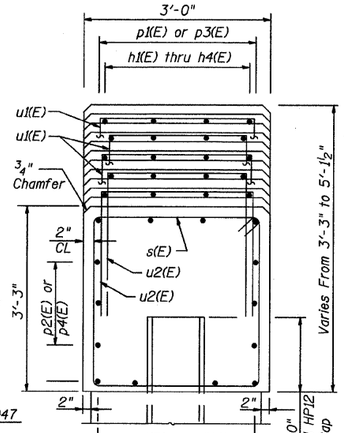
ANCHOR BOLT LAYOUT



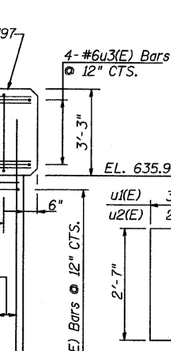
BARS u3(E) & u4(E)



BAR s1(E)



SECTION A-A

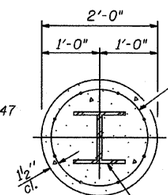


BAR u1(E) & u2(E)

BAR u5(E)

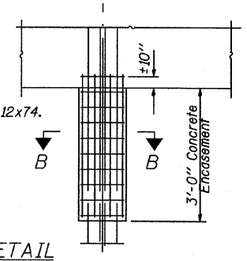
SOUTH PIER
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h1(E)	4	#5	12'-10"	
h2(E)	12	#5	17'-9"	
h3(E)	4	#5	23'-7"	
h4(E)	4	#5	13'-10"	
h5(E)	48	#5	22'-9"	
h6(E)	48	#5	24'-0"	
h7(E)	2	#5	4'-0"	
p1(E)	8	#7	42'-5"	
p2(E)	12	#5	22'-4"	
p3(E)	8	#7	44'-11"	
p4(E)	12	#5	23'-7"	
s1(E)	97	#5	12'-1"	
u1(E)	52	#4	8'-11"	
u2(E)	39	#4	6'-11"	
u3(E)	10	#6	10'-10"	
u4(E)	24	#5	8'-0"	
u5(E)	65	#4	5'-7"	
v1(E)	190	#5	13'-2"	
Reinforcement Bars, Epoxy Coated		Pound	9,720	
Concrete Structures		Cu. Yd.	140	
Bar Splicers		Each	42	
Furnishing Steel Piles HP12x74		Foot	680	
Driving Piles		Foot	680	
Test Pile Steel, HP12x74		Each	1	
Pile Shoes		Each	15	
Structure Excavation		Cu. Yd.	25	
Concrete Encasement		Cu. Yd.	5	
Concrete Sealer		Sq. Ft.	1,240	



Welded wire fabric 6 x 6-W4.0 x W4.0 weighing 58#/100 sq. ft. The cost of Excavation and Reinforcement is included with Furnishing Steel Piles HP 12x74. Forms for Encasement may be omitted when soil conditions permit.

SECTION B-B



PILE ENCASEMENT DETAIL

REVISIONS	
NAME	DATE

SOUTH PIER

DIXIE HIGHWAY OVER
BUTTERFIELD CREEK
F.A.U. ROUTE 2843 SECTION 3249B-R
STA. 78+55.00
COOK COUNTY
STRUCTURE NUMBER 016-7946

SCALE: NOT-TO-SCALE
DATE 6-30-09

DRAWN BY BV
DESIGNED BY BS
CHECKED BY PK

RME Rubinos & Mesia Engineers, Inc.

$PENTBLS$
$PLTDRVS$

$FILES$
$DATE$
$TIME$