

Note - Built to Plan Dimensions & Stds.

Bench Mark: Chisled square on NW wingwall Bridge 037-0024 N.B. Elev. 617.44  
 Existing Structure: #037-0023 and #037-0024 is 131'-3 3/4" bk. to bk. of abutments, with a varying out to out width of 49'-11 5/8" to 45'-5 5/8" (N.B.) and 53'-1 1/8" to 51'-3" (S.B.). Built as F.A.I. 80, Section 37-1HB at Sta. 403+14.67 in 1964. The traffic shall be maintained during the rehabilitation of the existing structure utilizing stage construction. Existing Aluminum Railing shall be salvaged and delivered to District Maintenance Storage yard. Cost is incidental to "Removal of Existing Concrete Deck".

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

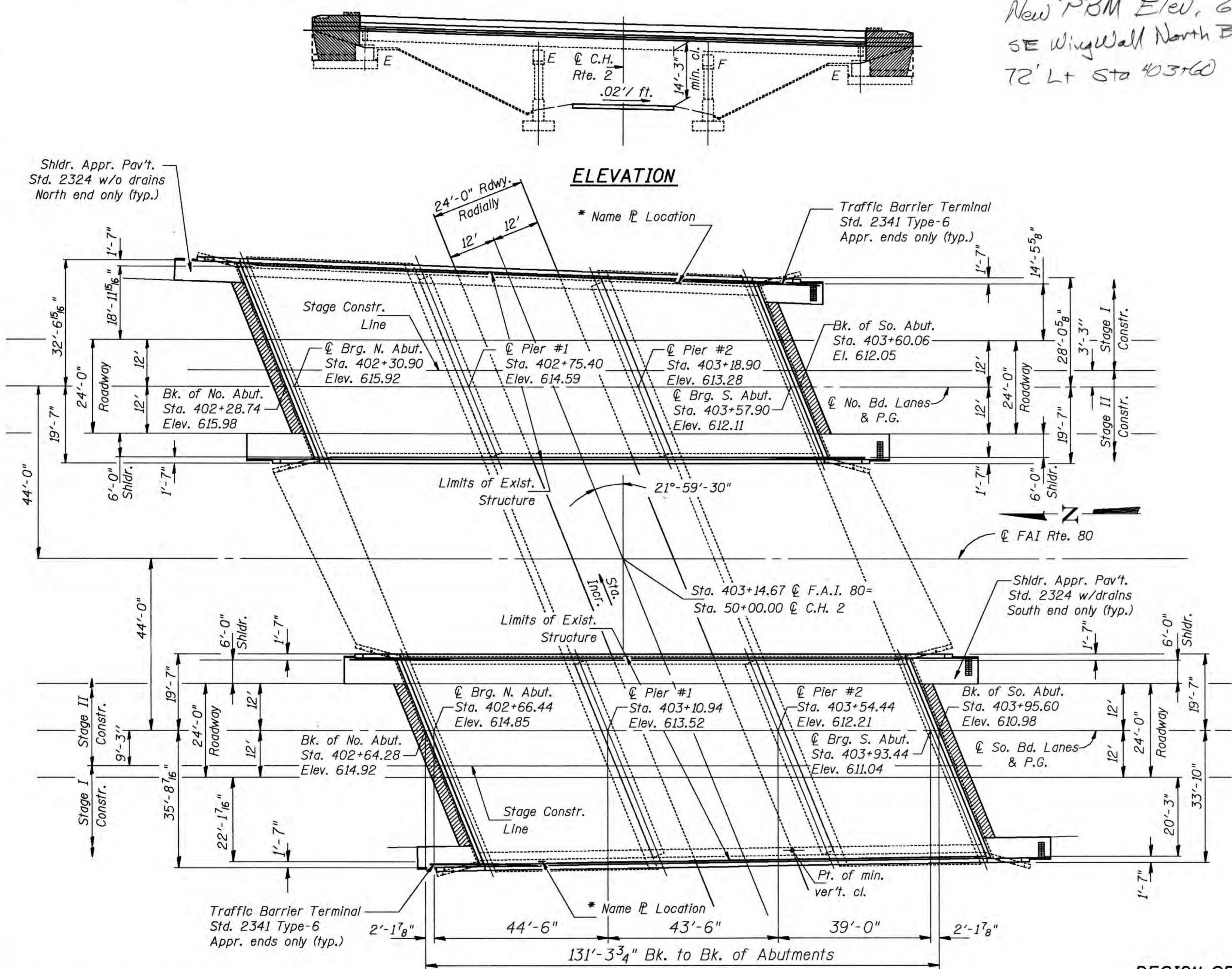
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80	37-1HBY	HENRY	33	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1  
24 SHEETS

GENERAL NOTES

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.  
 Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.  
 Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.  
 All contact surface areas of new and existing structural steel shall be free of paint or lacquer.  
 The three coat lead and chromate free alkyd paint system shall be used for shop and field painting of New Structural Steel. The color of the final finish coat shall be Munshell Standard 7.5G 4/8 Interstate Green.  
 All Existing Structural Steel within 2'-0" from the beam ends at the Abutments and embedded portions of the top flanges of the beams shall be cleaned by Method A. The three coat lead and chromate free alkyd paint system shall be applied over all cleaned areas, except the embedded portions of the top flanges of the beams which shall receive only one coat of the primer of this paint system. Paint shall not be applied to those areas which are to receive shear studs. The color of the final finish coat shall be Munsell Standard 7.5G 4/8 Interstate Green. This work will be paid for in accordance with Article 109.04 of the Standard Specifications.  
 Expansion bolts shall consist of approved expansion anchors, providing minimum certified proof load = 4,080 lbs., and 3/4" x 12" hooked bolts.  
 The Contractor will be required to mark, on top of the concrete deck, the locations of the top flange of all the steel beams, prior to any removal of the bridge concrete deck. Saw cutting directly over the top of the beam flanges is not permitted.  
 All top surfaces of Abutments shall receive "Bridge Seat Sealer". Estimated quantity = 50 Sq. Ft.  
 Two 1/8" adjusting shims, of the dimensions of the bottom steel extension plate, shall be provided for each new bearing in addition to all other plates or shims.

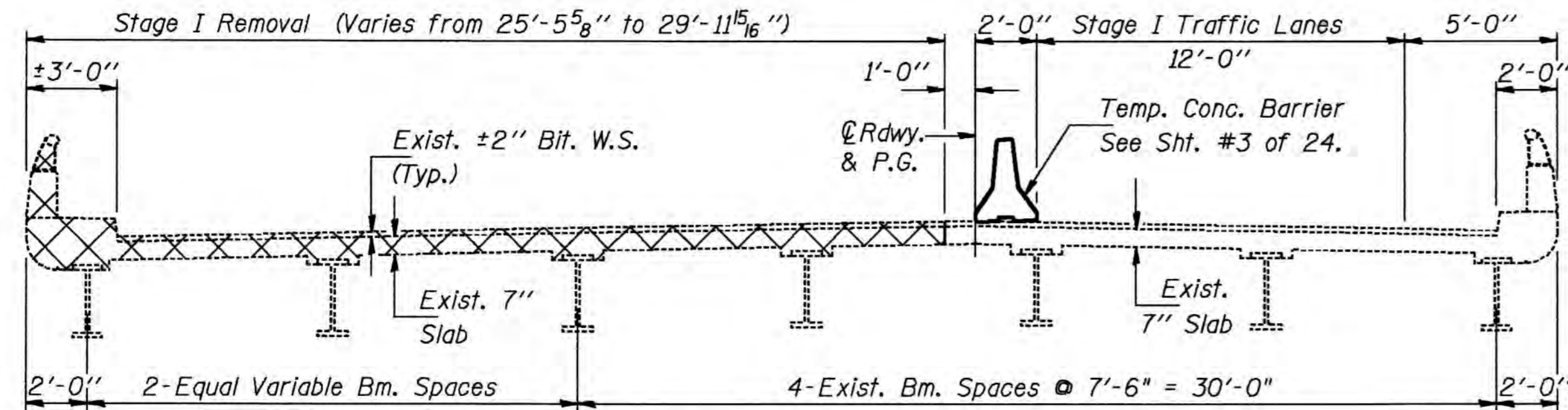
New PBM Elev. 614.66  
 SE Wingwall North Bound Str. #0024  
 72' Lt Sta 403+60



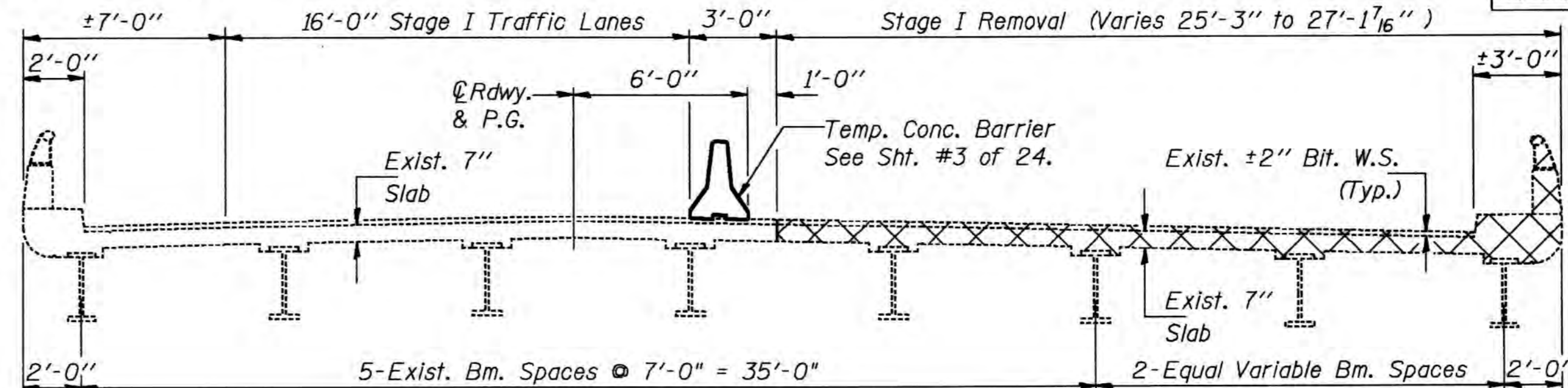
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.I. 80	37- 1HBY	HENRY	33	7
FED. ROAD DIST. NO. 7	ILL. ROAD PROJECT			

24 SHEETS

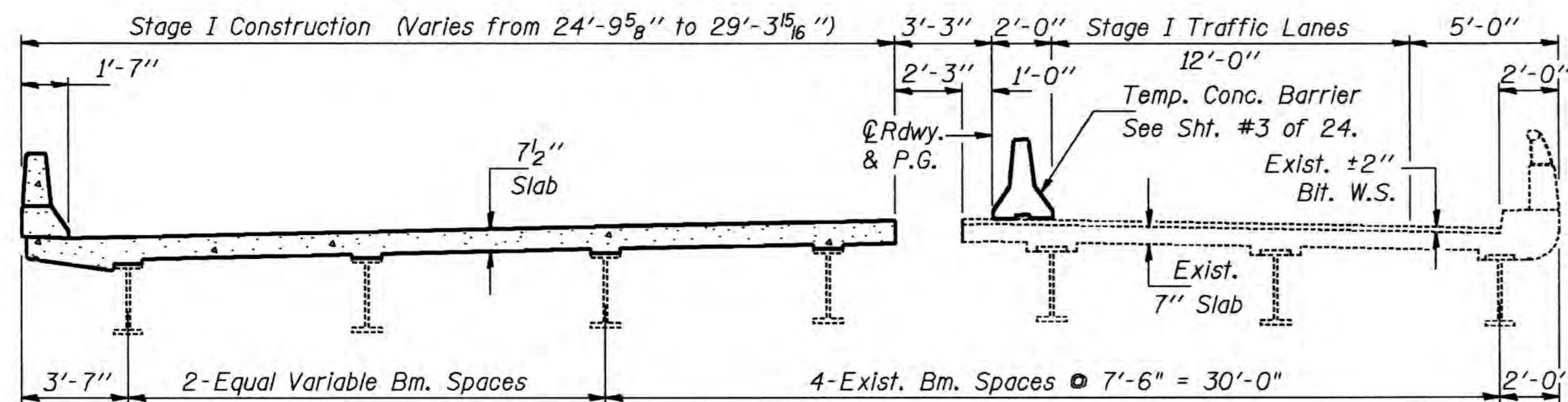


**STAGE I REMOVAL**  
(Looking South)

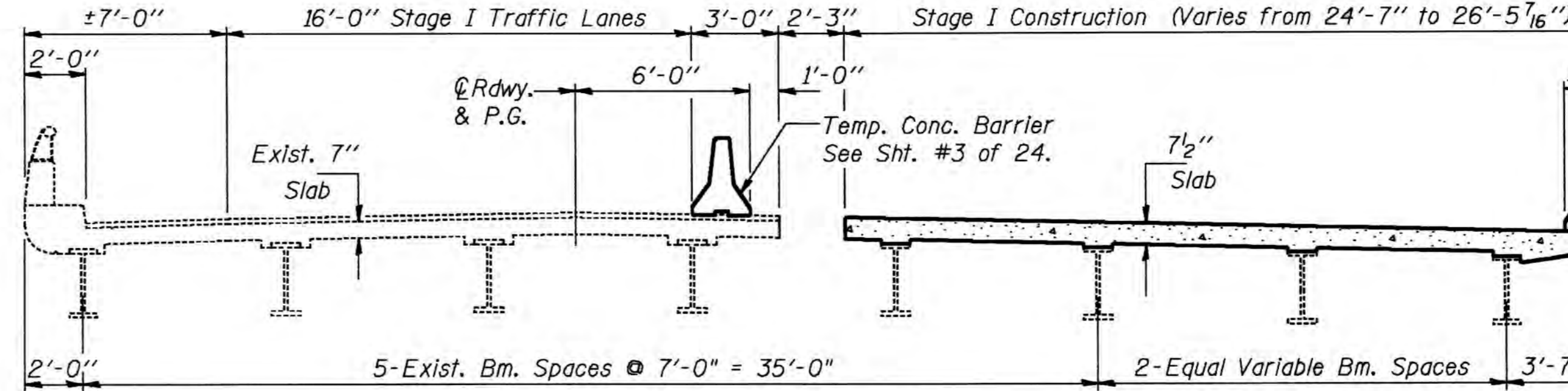


**STAGE I REMOVAL**  
(Looking South)

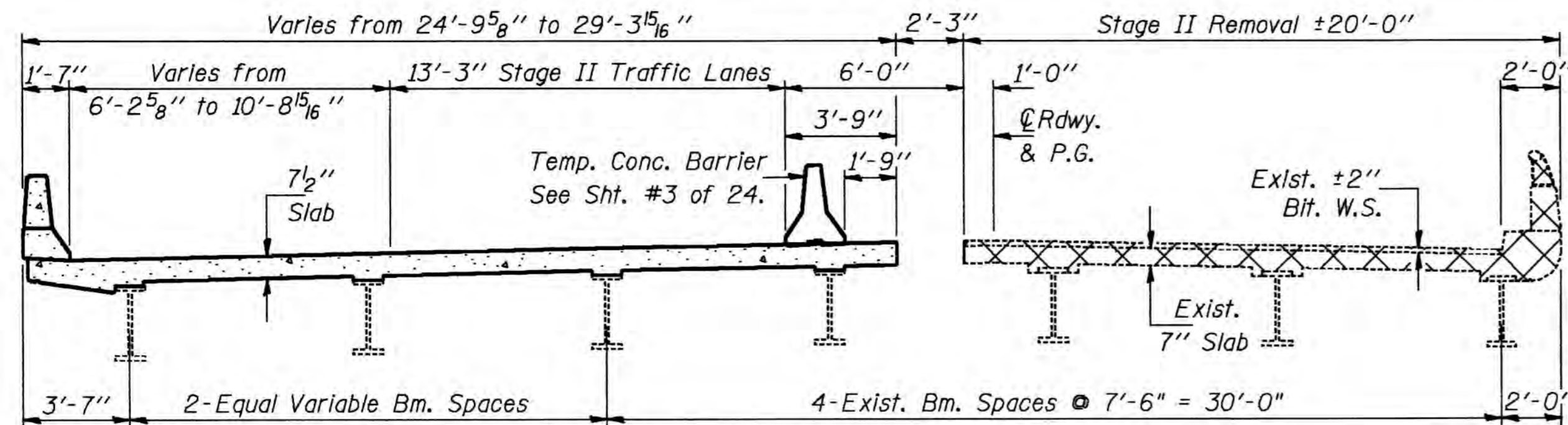
Notes:  
Cross Hatched area indicates "Removal of Existing Concrete Deck".  
For quantity of "Temporary Concrete Barrier" see Roadway Plans.  
Cost of removal and delivery of existing Handrail to the District shall be incidental to "Removal of Existing Concrete Deck."  
Removal of existing Bit. W.S. in the cross hatched area shall be incidental to "Removal of Existing Concrete Deck."  
All dimensions are at Rt. L's to  $\text{\O}$  of Roadway.



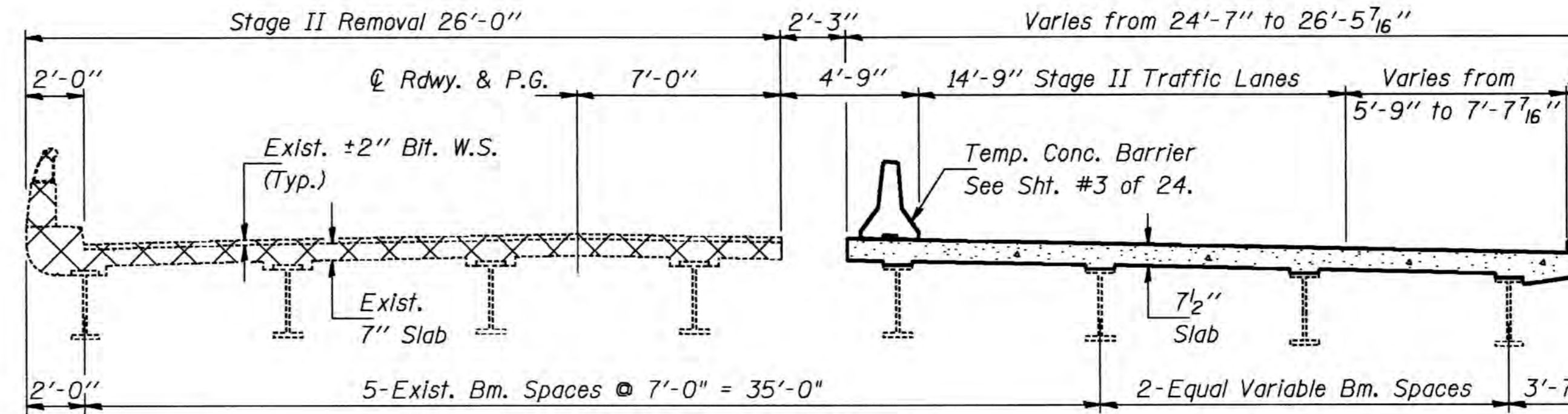
**STAGE I CONSTRUCTION**  
(Looking South)



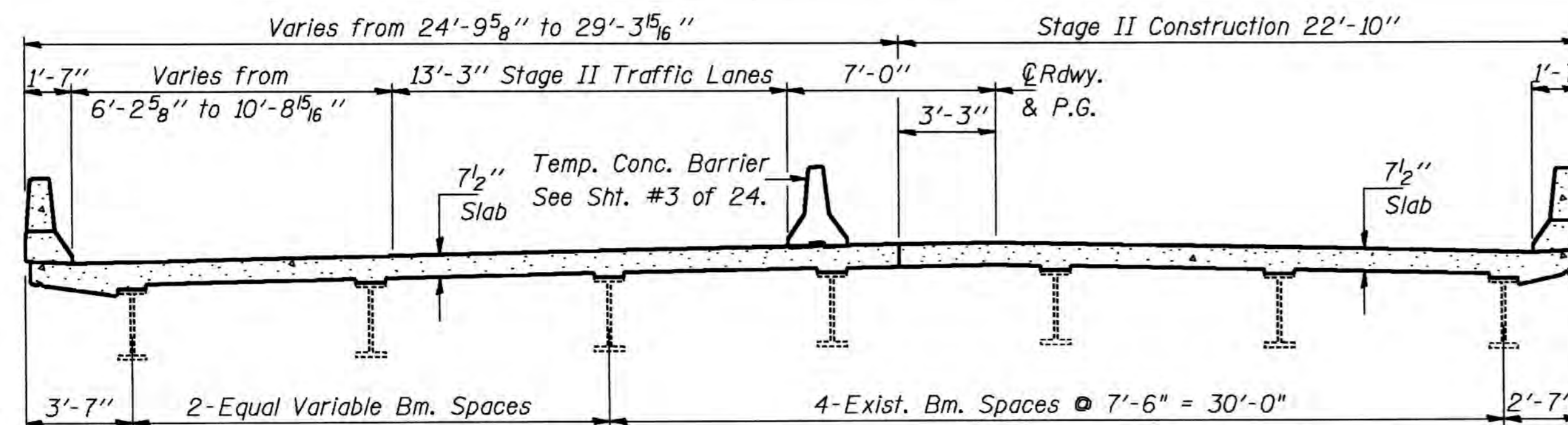
**STAGE I CONSTRUCTION**  
(Looking South)



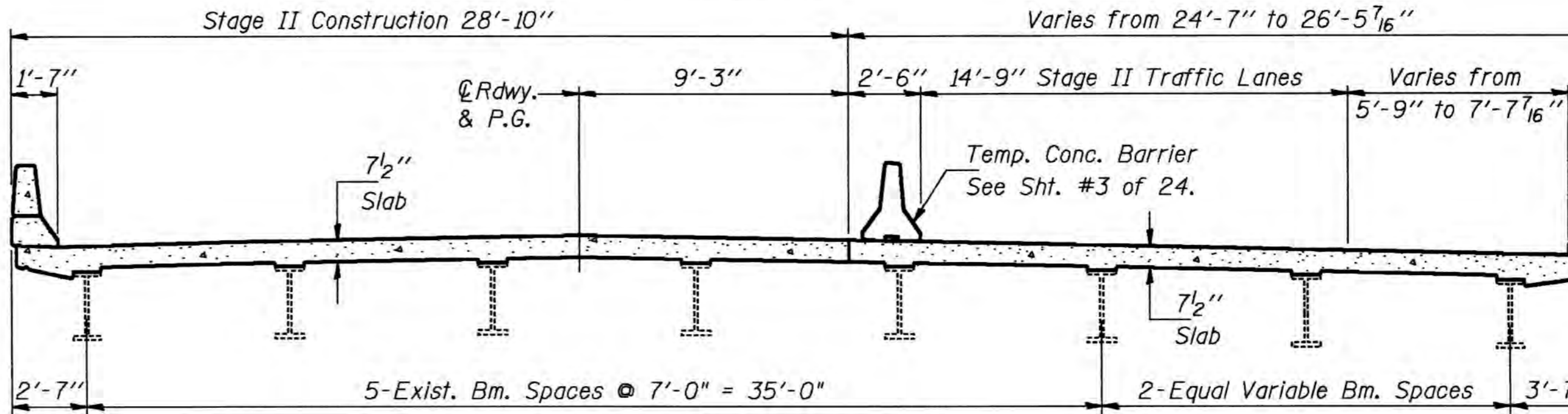
**STAGE II REMOVAL**  
(Looking South)



**STAGE II REMOVAL**  
(Looking South)



**STAGE II CONSTRUCTION**  
(Looking South)



**STAGE II CONSTRUCTION**  
(Looking South)

DESIGNED	Shaker Astour
CHECKED	Michael A. Cain
DRAWN	Rita Williams
CHECKED	SA, MDC

EXAMINED	Aug 30 1971	Dr. J. J. Kaspar
PASSED		Ralph E. Anderson
APPROVED		

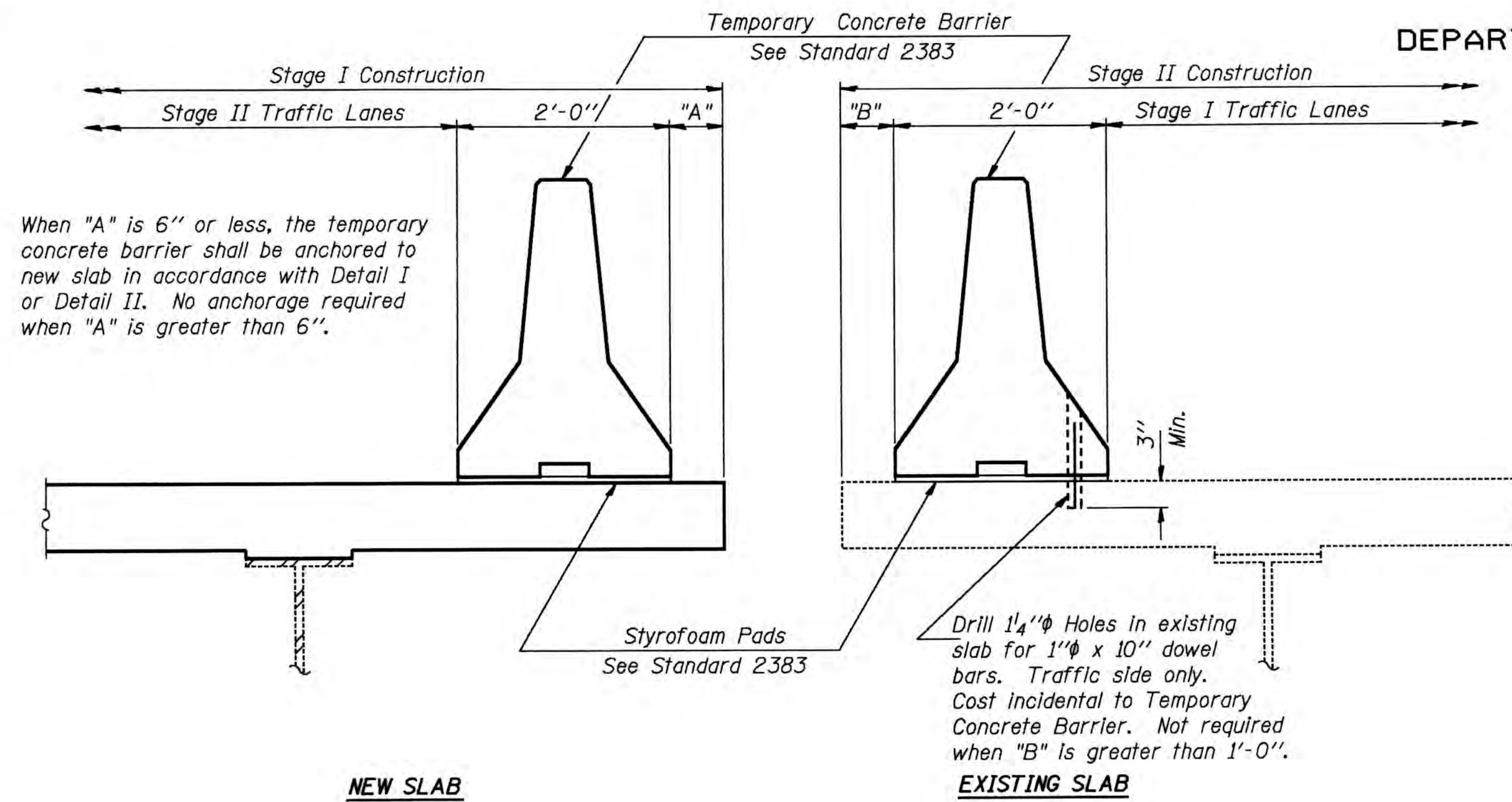
**NORTH BOUND STRUCTURE**

**SOUTH BOUND STRUCTURE**

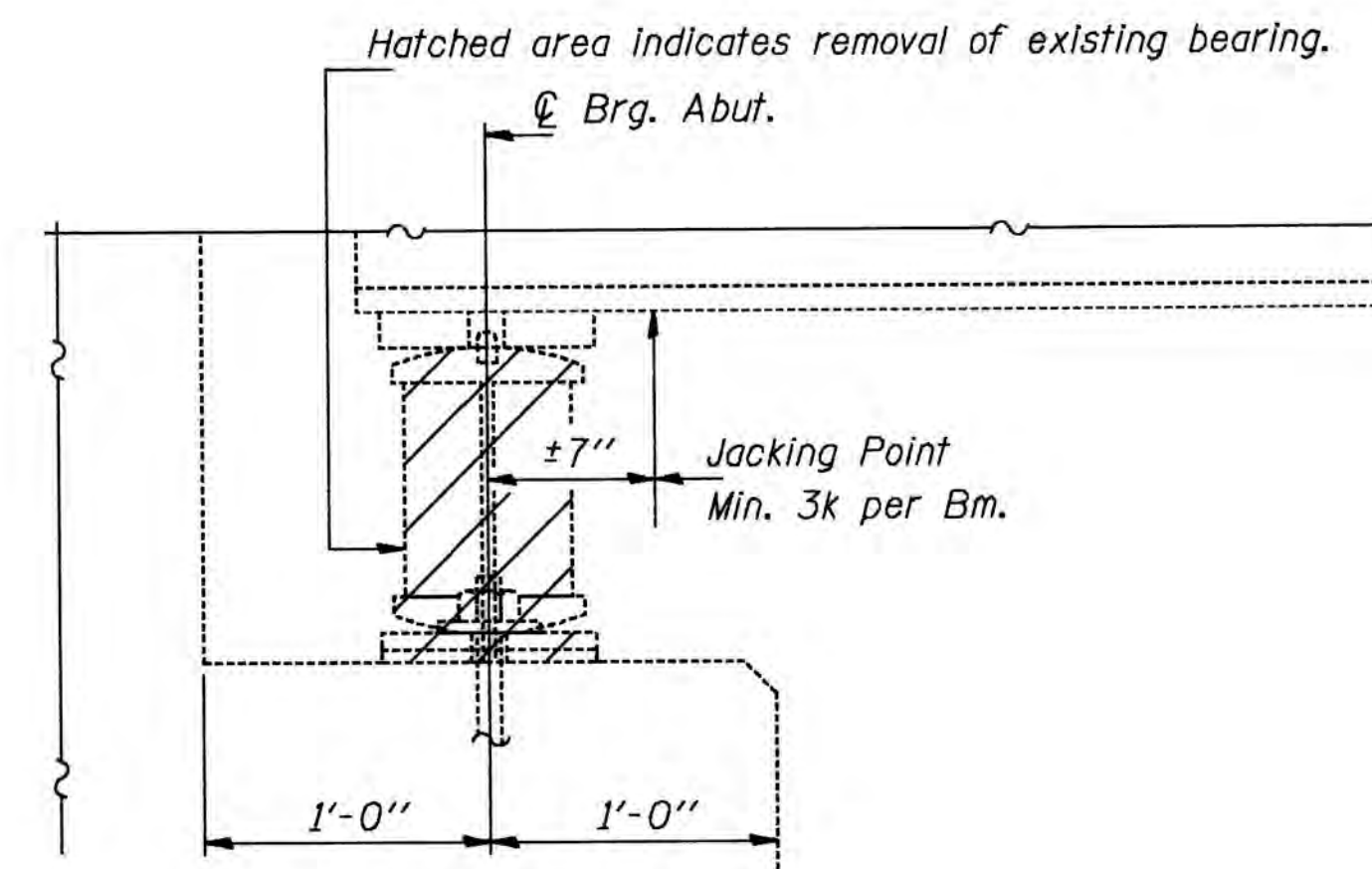
**STAGE CONSTRUCTION DETAILS**  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 3
F.A.I. 80	37-1HBY	HENRY	33	8	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



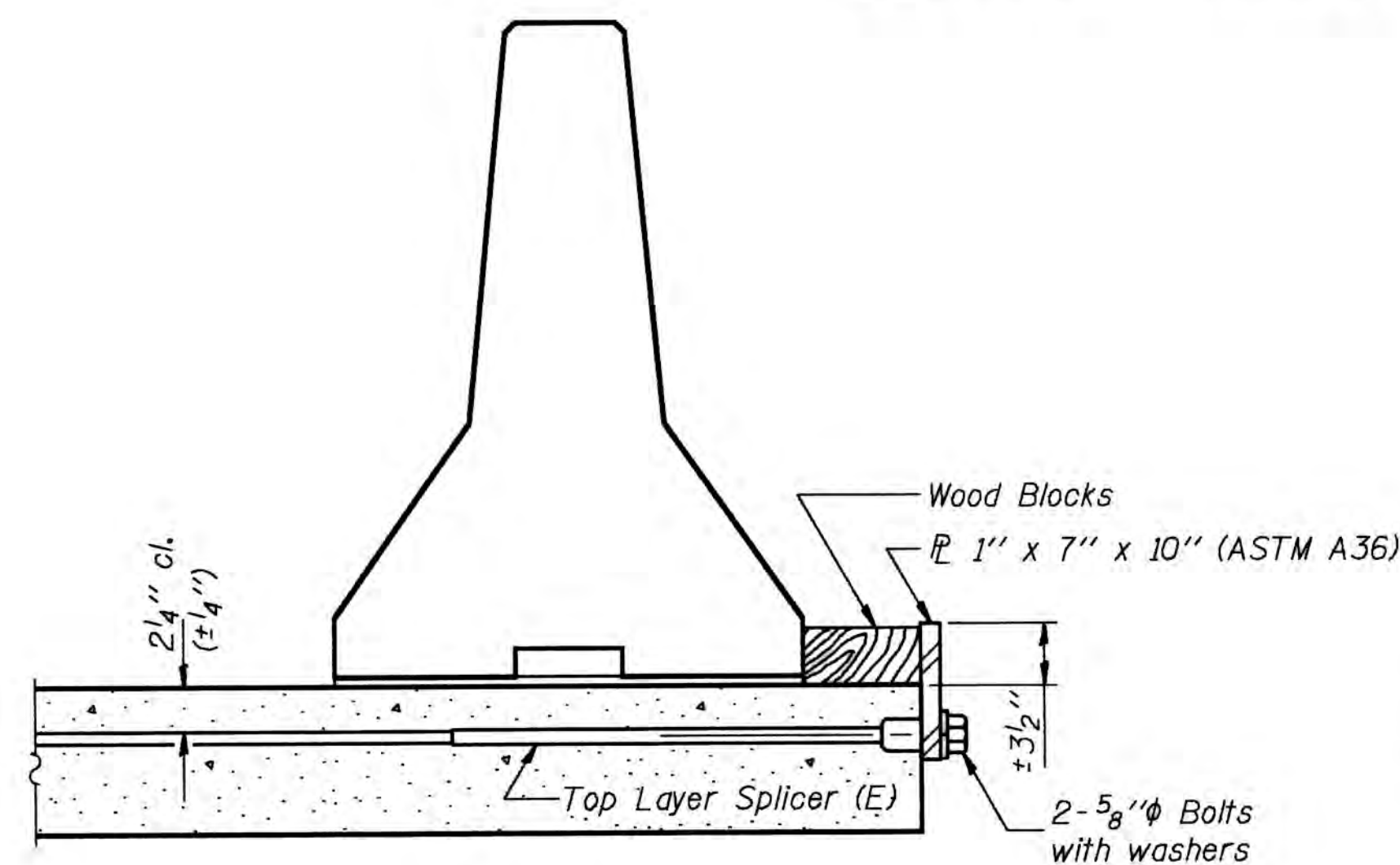
When "A" is 6" or less, the temporary concrete barrier shall be anchored to new slab in accordance with Detail I or Detail II. No anchorage required when "A" is greater than 6".



**JACK AND REMOVE EXISTING BEARINGS**  
(Dimensions are at Rt. L's)

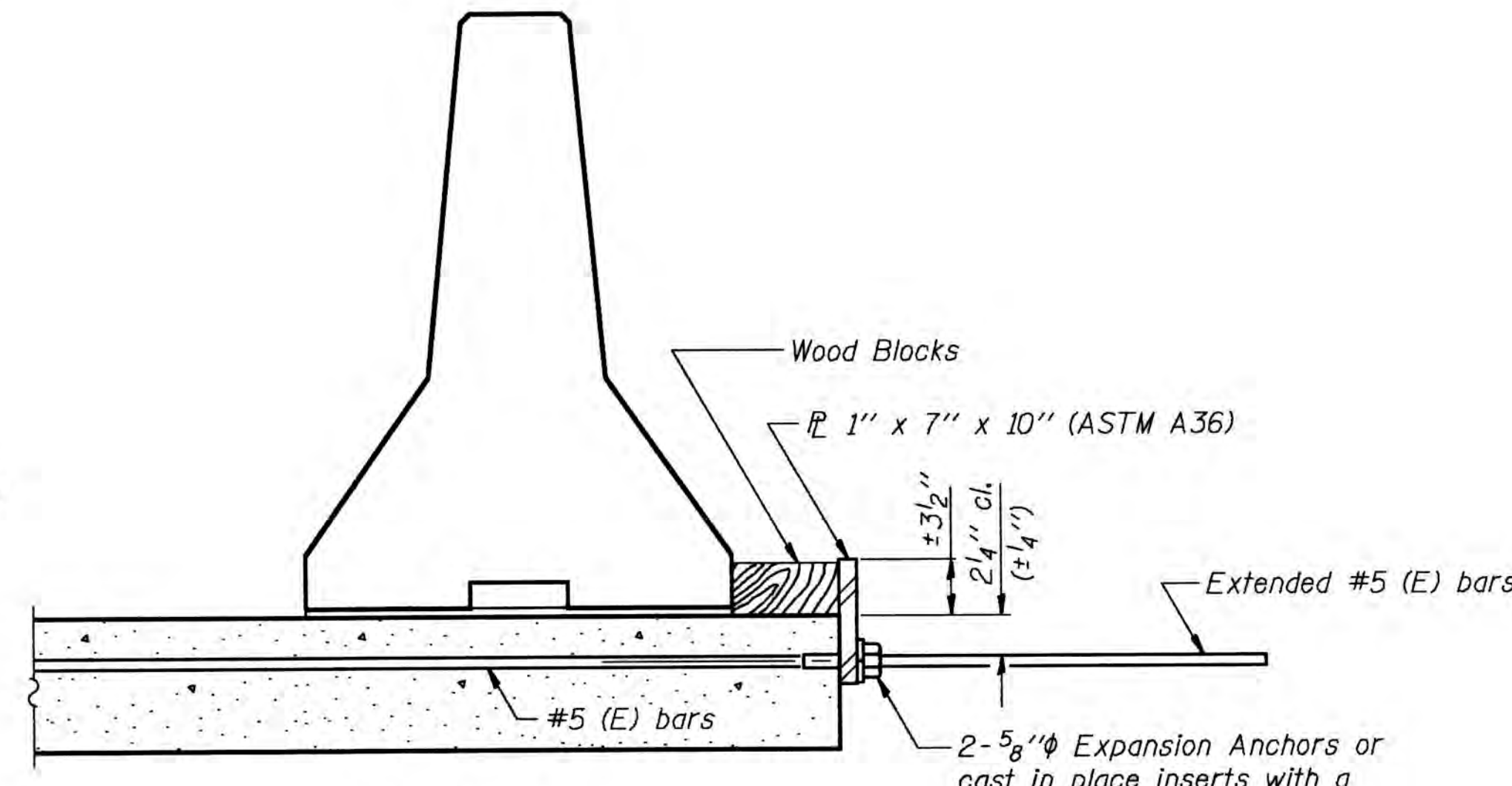
Notes: Jacking, cribbing, and bearing replacement shall occur under Stage Construction. The maximum dead load reaction with the deck removed per bearing at each abutment is 3 kips. Bearing removal and replacement shall be completed before new deck is poured. See sheet #13 & #14 of 24 for Jack and Remove procedure.

**SECTIONS THRU SLAB**



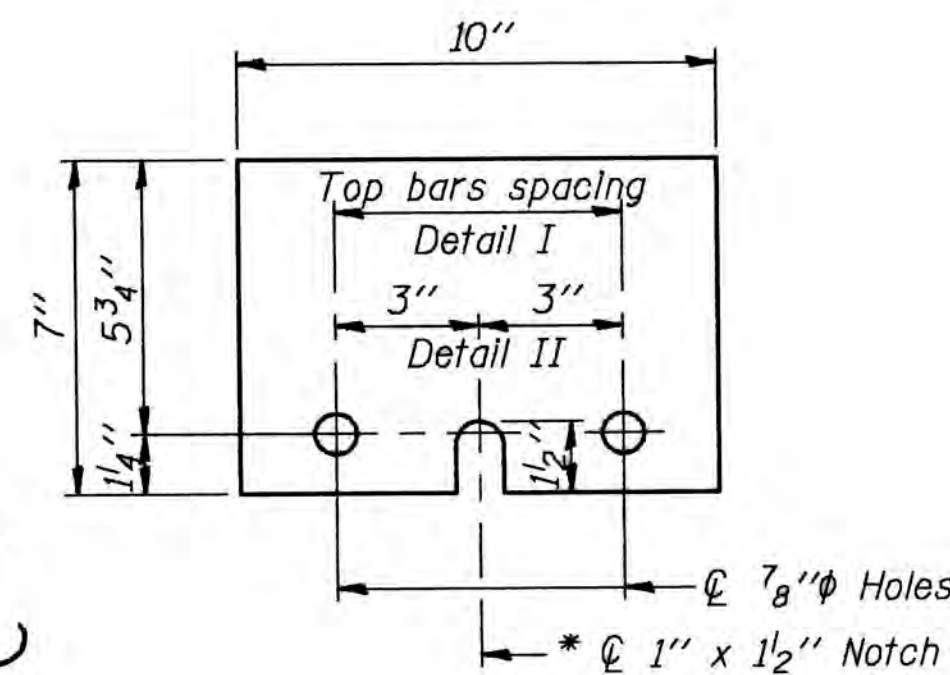
**DETAIL I**

The 1" x 7" x 10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



**DETAIL II**

The 1" x 7" x 10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



**1" x 7" x 10"**

\* Required only with Detail II

**NOTES**

Note: For full depth replacement only.  
Detail I - With Bar Splicer or Couplers: Connect one (1) 1" x 7" x 10" Steel PL to the top layer of couplers with 2-5/8" bolts screwed to coupler at approximate CL of each 10'-0" barrier panel.  
Detail II - With Extended Reinforcement Bars: Connect one (1) 1" x 7" x 10" Steel PL to the concrete slab with 2-5/8" Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate CL of each 10'-0" barrier panel.  
Cost of anchorage is incidental to Temporary Concrete Barrier.

DESIGNED	Shaker Asfour
CHECKED	Michael D. Cina
DRAWN	Rita Williams
CHECKED	SA, MDC

R-27 6-15-83

EXAMINED	Aug. 20 1970	Ernst J. Kaspar
PASSED		Ralph E. Anderson
APPROVED		

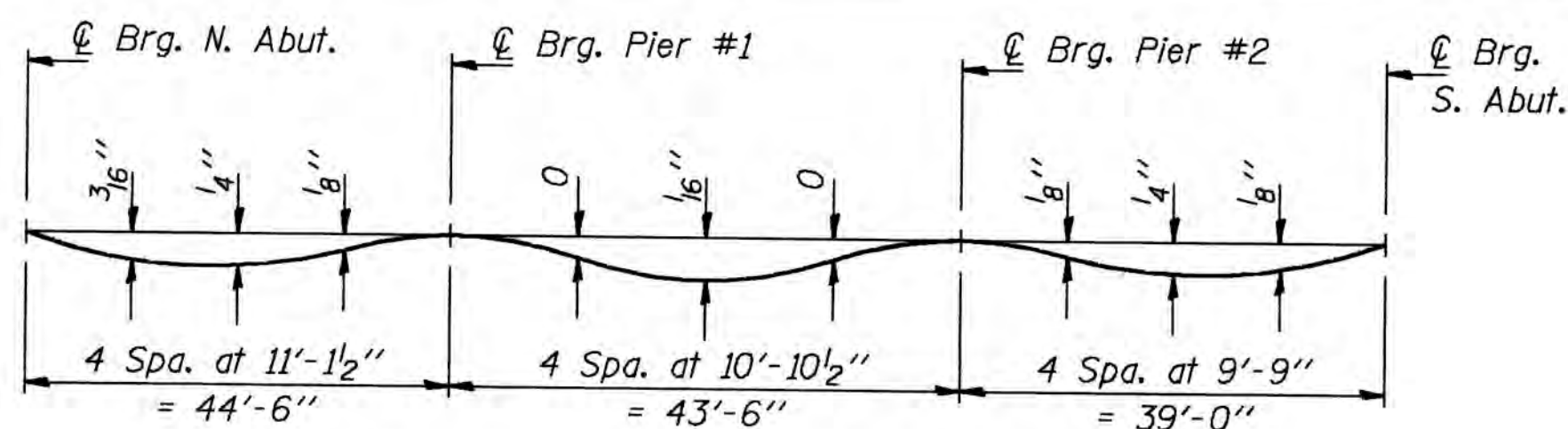
DIRECTOR OF HIGHWAYS

**TEMPORARY CONCRETE BARRIER  
FOR STAGE CONSTRUCTION  
& JACKING DETAILS  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80	37-1HBY	HENRY	33	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

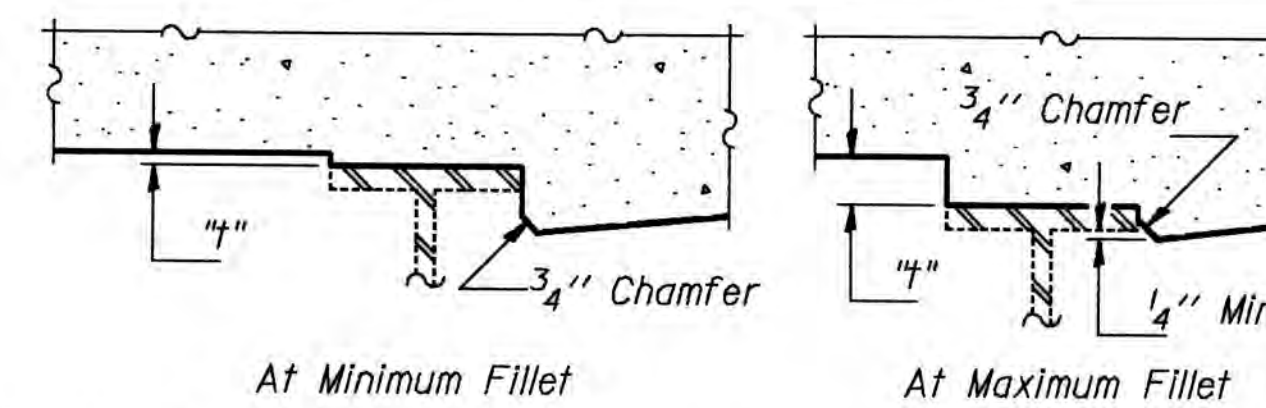
SHEET NO. 4  
24 SHEETS



**DEAD LOAD DEFLECTION DIAGRAM**

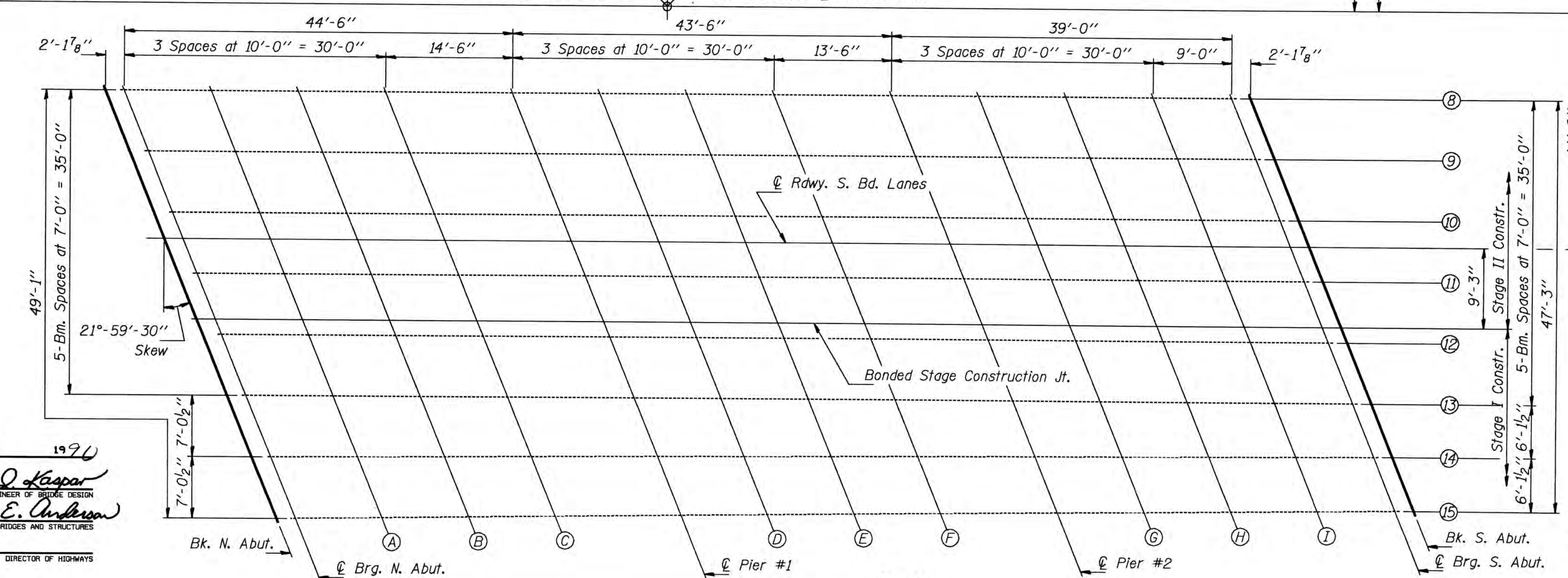
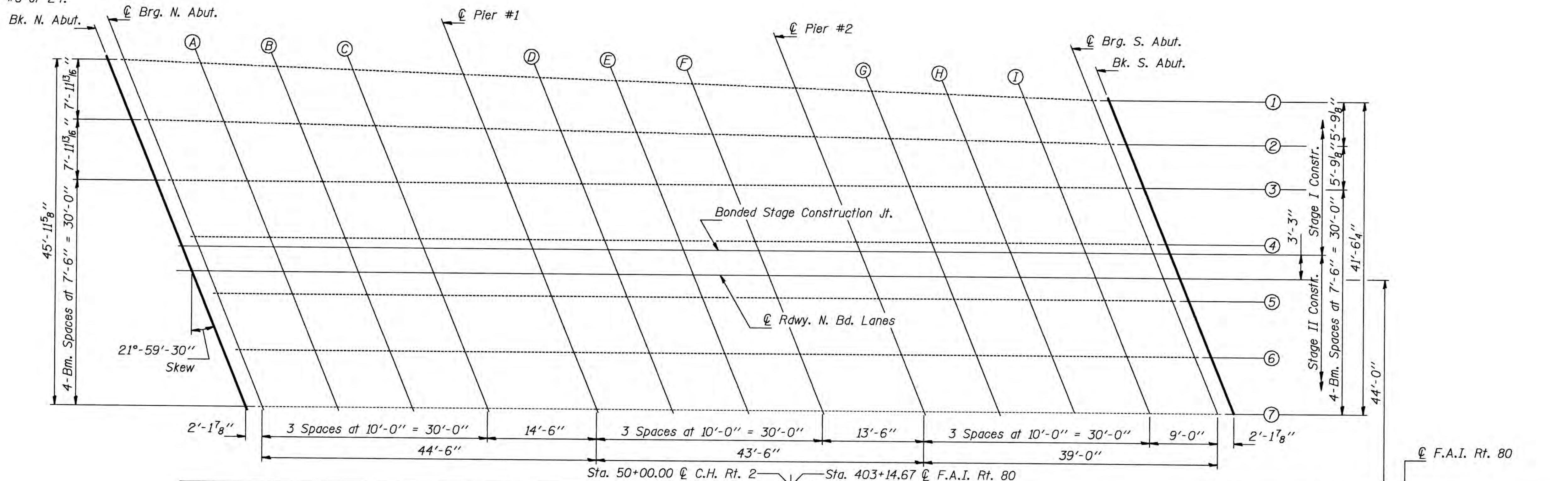
(Includes weight of concrete only)

Note: The above deflections are not to be used in the field if the engineer is working from the grade elevations adjusted for dead load deflections as shown on sheets #5 or #6 of 24.



**FILLET HEIGHTS**

To determine "t": After the existing concrete deck has been removed, elevations of the top flanges of the existing beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on sheet #5 & #6 of 24, minus slab thickness, equals the fillet heights "t" above top flange of beams.



**PLAN**

DESIGNED *Shaker Astour*  
CHECKED *Michael D. Cina*  
DRAWN *John F. Schneller Jr.*  
CHECKED SA, MDC

EXAMINED *Aug 20 1970*  
*Orsi J. Kaspar*  
ENGINEER OF BRIDGE DESIGN  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES  
APPROVED  
DIRECTOR OF HIGHWAYS

**TOP OF SLAB ELEVATION**  
**F.A.I. RT. 80 SEC. 37-1HBY**  
**HENRY COUNTY**  
**STA. 403+14.67**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	PROJECT	SHEET NO. 5 24 SHEETS
F.A.I. 80	37- 1HBY	HENRY	33	10	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

**BEAM #1**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40217.013	-29.044	615.797	615.797
€ Brg. N. Abut.	40219.200	-28.969	615.732	615.732
A	40229.200	-28.624	615.436	615.450
B	40239.200	-28.278	615.139	615.159
C	40249.200	-27.933	614.841	614.856
€ Pier 1	40264.330	-27.411	614.411	614.411
D	40274.330	-27.065	614.114	614.114
E	40284.330	-26.720	613.818	613.822
F	40294.330	-26.374	613.520	613.523
€ Pier 2	40308.445	-25.887	613.120	613.120
G	40318.445	-25.542	612.823	612.834
H	40328.445	-25.196	612.525	612.547
I	40338.445	-24.850	612.229	612.239
€ Brg. S. Abut.	40347.996	-24.521	611.962	611.962
Bk. S. Abut.	40350.183	-24.445	611.898	611.898

**BEAM #2**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40220.273	-21.020	615.867	615.867
€ Brg. N. Abut.	40222.430	-20.984	615.802	615.802
A	40232.430	-20.809	615.504	615.518
B	40242.430	-20.635	615.205	615.225
C	40252.430	-20.460	614.907	614.921
€ Pier 1	40267.240	-20.204	614.474	614.474
D	40277.240	-20.030	614.176	614.176
E	40287.240	-19.855	613.877	613.882
F	40297.240	-19.681	613.578	613.580
€ Pier 2	40311.050	-19.443	613.176	613.176
G	40321.050	-19.270	612.877	612.888
H	40331.050	-19.093	612.580	612.600
I	40341.050	-18.918	612.280	612.291
€ Brg. S. Abut.	40350.322	-18.760	612.015	612.015
Bk. S. Abut.	40352.360	-18.723	611.998	611.998

**BEAM #3**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40223.490	-13.000	615.937	615.937
€ Brg. N. Abut.	40225.646	-13.000	615.872	615.872
A	40235.646	-13.000	615.572	615.586
B	40245.646	-13.000	615.272	615.292
C	40255.646	-13.000	614.972	614.986
€ Pier 1	40270.146	-13.000	614.537	614.537
D	40280.146	-13.000	614.237	614.237
E	40290.146	-13.000	613.937	613.942
F	40300.146	-13.000	613.637	613.639
€ Pier 2	40313.646	-13.000	613.232	613.232
G	40323.646	-13.000	612.932	612.943
H	40333.646	-13.000	612.632	612.653
I	40343.646	-13.000	612.332	612.342
€ Brg. S. Abut.	40352.646	-13.000	612.062	612.062
Bk. S. Abut.	40354.802	-13.000	611.998	611.998

**BEAM #4**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40226.519	-5.500	615.969	615.969
€ Brg. N. Abut.	40228.675	-5.500	615.904	615.904
A	40238.675	-5.500	615.604	615.618
B	40248.675	-5.500	615.304	615.324
C	40258.675	-5.500	615.004	615.017
€ Pier 1	40273.175	-5.500	614.569	614.569
D	40283.175	-5.500	614.269	614.269
E	40293.175	-5.500	613.969	613.973
F	40303.175	-5.500	613.669	613.670
€ Pier 2	40316.675	-5.500	613.264	613.264
G	40326.675	-5.500	612.964	612.975
H	40336.675	-5.500	612.664	612.684
I	40346.675	-5.500	612.364	612.374
€ Brg. S. Abut.	40355.675	-5.500	612.094	612.094
Bk. S. Abut.	40357.831	-5.500	612.029	612.029

**BONDED STAGE CONSTRUCTION JT.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40227.427	-3.250	615.976	615.976
€ Brg. N. Abut.	40229.584	-3.250	615.912	615.912
A	40239.584	-3.250	615.612	615.626
B	40249.584	-3.250	615.312	615.332
C	40259.584	-3.250	615.012	615.025
€ Pier 1	40274.084	-3.250	614.577	614.577
D	40284.084	-3.250	614.277	614.277
E	40294.084	-3.250	613.977	613.981
F	40304.084	-3.250	613.677	613.678
€ Pier 2	40317.584	-3.250	613.272	613.272
G	40327.584	-3.250	612.972	612.982
H	40337.584	-3.250	612.672	612.692
I	40347.584	-3.250	612.372	612.381
€ Brg. S. Abut.	40356.584	-3.250	612.102	612.102
Bk. S. Abut.	40358.740	-3.250	612.037	612.037

**€ RDWY.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40228.740	0.000	615.988	615.988
€ Brg. N. Abut.	40230.896	0.000	615.923	615.923
A	40240.896	0.000	615.623	615.637
B	40250.896	0.000	615.323	615.343
C	40260.896	0.000	615.023	615.037
€ Pier 1	40275.396	0.000	614.588	614.588
D	40285.396	0.000	614.288	614.288
E	40295.396	0.000	613.988	613.993
F	40305.396	0.000	613.688	613.689
€ Pier 2	40318.896	0.000	613.283	613.283
G	40328.896	0.000	612.983	612.994
H	40338.896	0.000	612.683	612.704
I	40348.896	0.000	612.383	612.393
€ Brg. S. Abut.	40357.896	0.000	612.113	612.113
Bk. S. Abut.	40360.053	0.000	612.049	612.049

**BEAM #5**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40229.548	2.000	615.932	615.932
€ Brg. N. Abut.	40231.704	2.000	615.868	615.868
A	40241.704	2.000	615.568	615.582
B	40251.704	2.000	615.268	615.288
C	40261.704	2.000	614.968	614.981
€ Pier 1	40276.204	2.000	614.533	614.533
D	40286.204	2.000	614.233	614.233
E	40296.204	2.000	613.933	613.937
F	40306.204	2.000	613.633	613.634
€ Pier 2	40319.704	2.000	613.228	613.228
G	40329.704	2.000	612.928	612.938
H	40339.704	2.000	612.628	612.648
I	40349.704	2.000	612.328	612.337
€ Brg. S. Abut.	40358.704	2.000	612.058	612.058
Bk. S. Abut.	40360.860	2.000	611.993	611.993

**BEAM #6**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40232.577	9.500	615.724	615.724
€ Brg. N. Abut.	40234.733	9.500	615.660	615.660
A	40244.733	9.500	615.360	615.374
B	40254.733	9.500	615.060	615.079
C	40264.733	9.500	614.760	614.773
€ Pier 1	40279.233	9.500	614.325	614.325
D	40289.233	9.500	614.025	614.025
E	40299.233	9.500	613.725	613.729
F	40309.233	9.500	613.425	613.426
€ Pier 2	40322.733	9.500	613.020	613.020
G	40332.733	9.500	612.720	612.730
H	40342.733	9.500	612.420	612.440
I	40352.733	9.500	612.120	612.129
€ Brg. S. Abut.	40361.733	9.500	611.850	611.850
Bk. S. Abut.	40363.889	9.500	611.785	611.785

**BEAM #7**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40235.606	17.000	615.490	615.490
€ Brg. N. Abut.	40237.762	17.000	615.426	615.426
A	40247.762	17.000	615.126	615.140
B	40257.762	17.000	614.826	614.846
C	40267.762	17.000	614.526	614.539
€ Pier 1	40282.262	17.000	614.091	614.091
D	40292.262	17.000	613.791	613.791
E	40302.262	17.000	613.491	613.495
F	40312.262	17.000	613.191	613.192
€ Pier 2	40325.762	17.000	612.786	612.786
G	40335.762	17.000	612.486	612.496
H	40345.762	17.000	612.186	612.206
I	40355.762	17.000	611.886	611.895
€ Brg. S. Abut.	40364.762	17.000	611.616	611.616
Bk. S. Abut.	40366.918	17.000	611.551	611.551

DESIGNED	Shaker Asfour
CHECKED	Michael D. Coia
DRAWN	John F. Schneller Jr.
CHECKED	SA, MDC

EXAMINED	<i>[Signature]</i> ENGINEER OF BRIDGE DESIGN
PASSED	<i>[Signature]</i> ENGINEER OF BRIDGES AND STRUCTURES
APPROVED	<i>[Signature]</i> DIRECTOR OF HIGHWAYS

E-S 1-6-82

TOP OF SLAB ELEVATION  
NORTH BOUND LANES  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 6 24 SHEETS
F.A.I. 80	37- IHBV	HENRY	33	11	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-		

**BEAM #8**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40257.414	-17.000	614.836	614.836
€ Brg. N. Abut.	40259.571	-17.000	614.771	614.771
A	40269.571	-17.000	614.471	614.486
B	40279.571	-17.000	614.171	614.191
C	40289.571	-17.000	613.871	613.885
€ Pier 1	40304.071	-17.000	613.436	613.436
D	40314.071	-17.000	613.136	613.136
E	40324.071	-17.000	612.836	612.841
F	40334.071	-17.000	612.536	612.538
€ Pier 2	40347.571	-17.000	612.131	612.131
G	40357.571	-17.000	611.831	611.842
H	40367.571	-17.000	611.531	611.552
I	40377.571	-17.000	611.231	611.241
€ Brg. S. Abut.	40386.571	-17.000	610.961	610.961
Bk. S. Abut.	40388.727	-17.000	610.897	610.897

**BEAM #9**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40260.241	-10.000	614.887	614.887
€ Brg. N. Abut.	40262.398	-10.000	614.822	614.822
A	40272.398	-10.000	614.522	614.536
B	40282.398	-10.000	614.222	614.242
C	40292.398	-10.000	613.922	613.935
€ Pier 1	40306.898	-10.000	613.487	613.487
D	40316.898	-10.000	613.187	613.187
E	40326.898	-10.000	612.887	612.891
F	40336.898	-10.000	612.587	612.588
€ Pier 2	40350.398	-10.000	612.182	612.182
G	40360.398	-10.000	611.882	611.893
H	40370.398	-10.000	611.582	611.602
I	40380.398	-10.000	611.282	611.292
€ Brg. S. Abut.	40389.398	-10.000	611.012	611.012
Bk. S. Abut.	40391.554	-10.000	610.947	610.947

**BEAM #10**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40263.068	-3.000	614.911	614.911
€ Brg. N. Abut.	40265.225	-3.000	614.846	614.846
A	40275.225	-3.000	614.546	614.561
B	40285.225	-3.000	614.246	614.266
C	40295.225	-3.000	613.946	613.960
€ Pier 1	40309.725	-3.000	613.511	613.511
D	40319.725	-3.000	613.211	613.211
E	40329.725	-3.000	612.911	612.916
F	40339.725	-3.000	612.611	612.613
€ Pier 2	40353.225	-3.000	612.206	612.206
G	40363.225	-3.000	611.906	611.917
H	40373.225	-3.000	611.606	611.627
I	40383.225	-3.000	611.306	611.316
€ Brg. S. Abut.	40392.225	-3.000	611.036	611.036
Bk. S. Abut.	40394.381	-3.000	610.972	610.972

**€ RDWY.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40264.280	0.000	614.922	614.922
€ Brg. N. Abut.	40266.436	0.000	614.857	614.857
A	40276.436	0.000	614.557	614.571
B	40286.436	0.000	614.257	614.277
C	40296.436	0.000	613.957	613.971
€ Pier 1	40310.936	0.000	613.522	613.522
D	40320.936	0.000	613.222	613.222
E	40330.936	0.000	612.922	612.926
F	40340.936	0.000	612.622	612.623
€ Pier 2	40354.436	0.000	612.217	612.217
G	40364.436	0.000	611.917	611.928
H	40374.436	0.000	611.617	611.637
I	40384.436	0.000	611.317	611.327
€ Brg. S. Abut.	40393.436	0.000	611.047	611.047
Bk. S. Abut.	40395.593	0.000	610.982	610.982

**BEAM #11**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40265.895	4.000	614.811	614.811
€ Brg. N. Abut.	40268.052	4.000	614.746	614.746
A	40278.052	4.000	614.446	614.460
B	40288.052	4.000	614.146	614.166
C	40298.052	4.000	613.846	613.860
€ Pier 1	40312.552	4.000	613.411	613.411
D	40322.552	4.000	613.111	613.111
E	40332.552	4.000	612.811	612.815
F	40342.552	4.000	612.511	612.512
€ Pier 2	40356.052	4.000	612.106	612.106
G	40366.052	4.000	611.806	611.817
H	40376.052	4.000	611.506	611.526
I	40386.052	4.000	611.206	611.216
€ Brg. S. Abut.	40395.052	4.000	610.936	610.936
Bk. S. Abut.	40397.208	4.000	610.871	610.871

**BONDED STAGE CONSTRUCTION JT.**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40268.016	9.250	614.665	614.665
€ Brg. N. Abut.	40270.172	9.250	614.600	614.600
A	40280.172	9.250	614.300	614.314
B	40290.172	9.250	614.000	614.020
C	40300.172	9.250	613.700	613.714
€ Pier 1	40314.672	9.250	613.265	613.265
D	40324.672	9.250	612.965	612.965
E	40334.672	9.250	612.665	612.670
F	40344.672	9.250	612.365	612.367
€ Pier 2	40358.172	9.250	611.960	611.960
G	40368.172	9.250	611.660	611.671
H	40378.172	9.250	611.360	611.381
I	40388.172	9.250	611.060	611.070
€ Brg. S. Abut.	40397.172	9.250	610.790	610.790
Bk. S. Abut.	40399.328	9.250	610.726	610.726

**BEAM #12**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40268.722	11.000	614.617	614.617
€ Brg. N. Abut.	40270.879	11.000	614.552	614.552
A	40280.879	11.000	614.252	614.266
B	40290.879	11.000	613.952	613.972
C	40300.879	11.000	613.652	613.665
€ Pier 1	40315.379	11.000	613.217	613.217
D	40325.379	11.000	612.917	612.917
E	40335.379	11.000	612.617	612.621
F	40345.379	11.000	612.317	612.318
€ Pier 2	40358.879	11.000	611.912	611.912
G	40368.879	11.000	611.612	611.623
H	40378.879	11.000	611.312	611.332
I	40388.879	11.000	611.012	611.021
€ Brg. S. Abut.	40397.879	11.000	610.742	610.742
Bk. S. Abut.	40400.035	11.000	610.677	610.677

**BEAM #13**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40271.549	18.000	614.391	614.391
€ Brg. N. Abut.	40273.706	18.000	614.327	614.327
A	40283.706	18.000	614.027	614.041
B	40293.706	18.000	613.727	613.746
C	40303.706	18.000	613.427	613.440
€ Pier 1	40318.206	18.000	612.992	612.992
D	40328.206	18.000	612.692	612.692
E	40338.206	18.000	612.392	612.396
F	40348.206	18.000	612.092	612.093
€ Pier 2	40361.706	18.000	611.687	611.687
G	40371.706	18.000	611.387	611.397
H	40381.706	18.000	611.087	611.107
I	40391.706	18.000	610.787	610.796
€ Brg. S. Abut.	40400.706	18.000	610.517	610.517
Bk. S. Abut.	40402.862	18.000	610.452	610.452

**BEAM #14**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40274.394	25.058	614.158	614.158
€ Brg. N. Abut.	40276.550	25.042	614.095	614.095
A	40286.550	24.970	613.797	613.810
B	40296.550	24.897	613.500	613.520
C	40306.550	24.825	613.202	613.215
€ Pier 1	40320.920	24.720	612.771	612.771
D	40330.920	24.646	612.474	612.474
E	40340.920	24.575	612.175	612.180
F	40350.920	24.503	611.880	611.880
€ Pier 2	40364.290	24.403	611.476	611.476
G	40374.290	24.333	611.178	611.188
H	40384.290	24.261	610.880	610.900
I	40394.290	24.189	610.583	610.592
€ Brg. S. Abut.	40403.180	24.125	610.315	610.315
Bk. S. Abut.	40405.284	24.109	610.250	610.250

**BEAM #15**

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Bk. N. Abut.	40277.238	32.115	613.926	613.925
€ Brg. N. Abut.	40279.394	32.083	613.863	613.863
A	40289.394	31.938	613.568	613.582
B	40299.394	31.792	613.270	613.291
C	40309.394	31.647	612.977	612.980
€ Pier 1	40323.634	31.439	612.550	612.550
D	40333.634	31.293	612.254	612.254
E	40343.634	31.148	611.959	611.963
F	40353.634	31.000	611.664	611.665
€ Pier 2	40366.879	30.810	611.265	611.265
G	40376.879	30.664	610.969	610.980
H	40386.879	30.518	610.675	610.699
I	40396.879	30.373	610.379	610.388
€ Brg. S. Abut.	40405.651	30.245	610.113	610.113
Bk. S. Abut.	40407.807	30.214	610.055	610.055

DESIGNED *Shaker Asfour*  
CHECKED *Michael A. Cune*  
DRAWN *John F. Schneller Jr.*  
CHECKED *SA J MDC*

EXAMINED *Aug 20 1970*  
*Orji J. Kaspar*  
ENGINEER OF BRIDGE DESIGN  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES  
APPROVED \_\_\_\_\_  
DIRECTOR OF HIGHWAYS

E-S 1-6-82

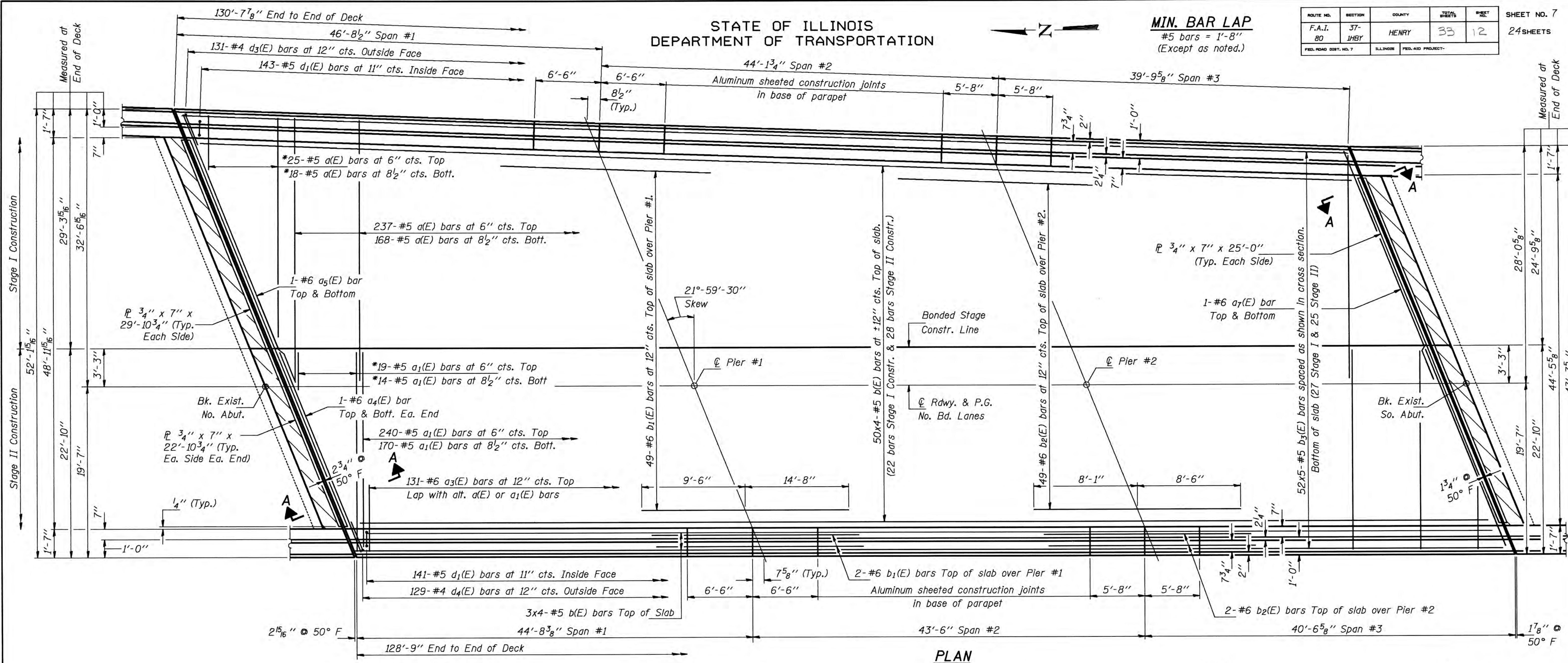
TOP OF SLAB ELEVATION  
SOUTH BOUND LANES  
F.A.I. RT. 80 SEC. 37-IHBV  
HENRY COUNTY  
STA. 403+14.67

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MIN. BAR LAP  
#5 bars = 1'-8"  
(Except as noted.)

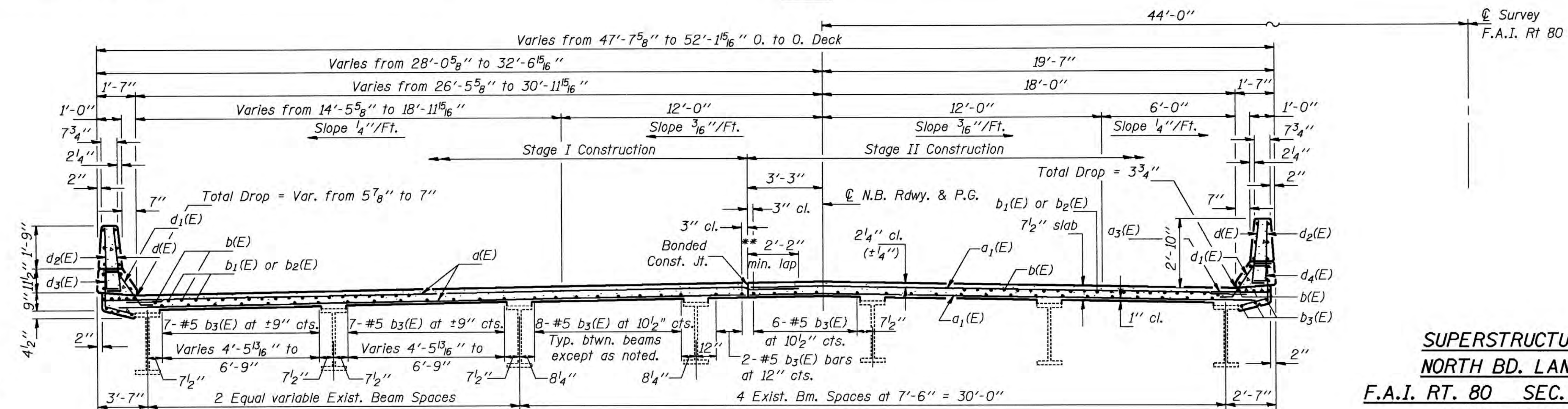
ROUTE NO.	SECTION	COUNTY	STATION	SHEET
F.A.I. 80	37- 1HBY	HENRY	33	12

SHEET NO. 7  
24 SHEETS



PLAN

Notes: See sheet #9, #10 & #11 of 24 for superstructure details and Bill of Material.  
Reinforcement bars designated (E) shall be epoxy coated.  
Hatched area to be poured after superstructure forms have been removed. Quantity shall be billed as "Class X Concrete Superstructure".  
\*Order a(E) & a1(E) bars full length. Cut to fit skew and use remainder of bars in opposite end.  
\*\* Lapped bars at this location shall be tied with double the number of ties normally used.



CROSS SECTION  
(Looking South)

DESIGNED	Shaker Asfour
CHECKED	Michael D. Cava
DRAWN	Rita Williams
CHECKED	SA, MDC

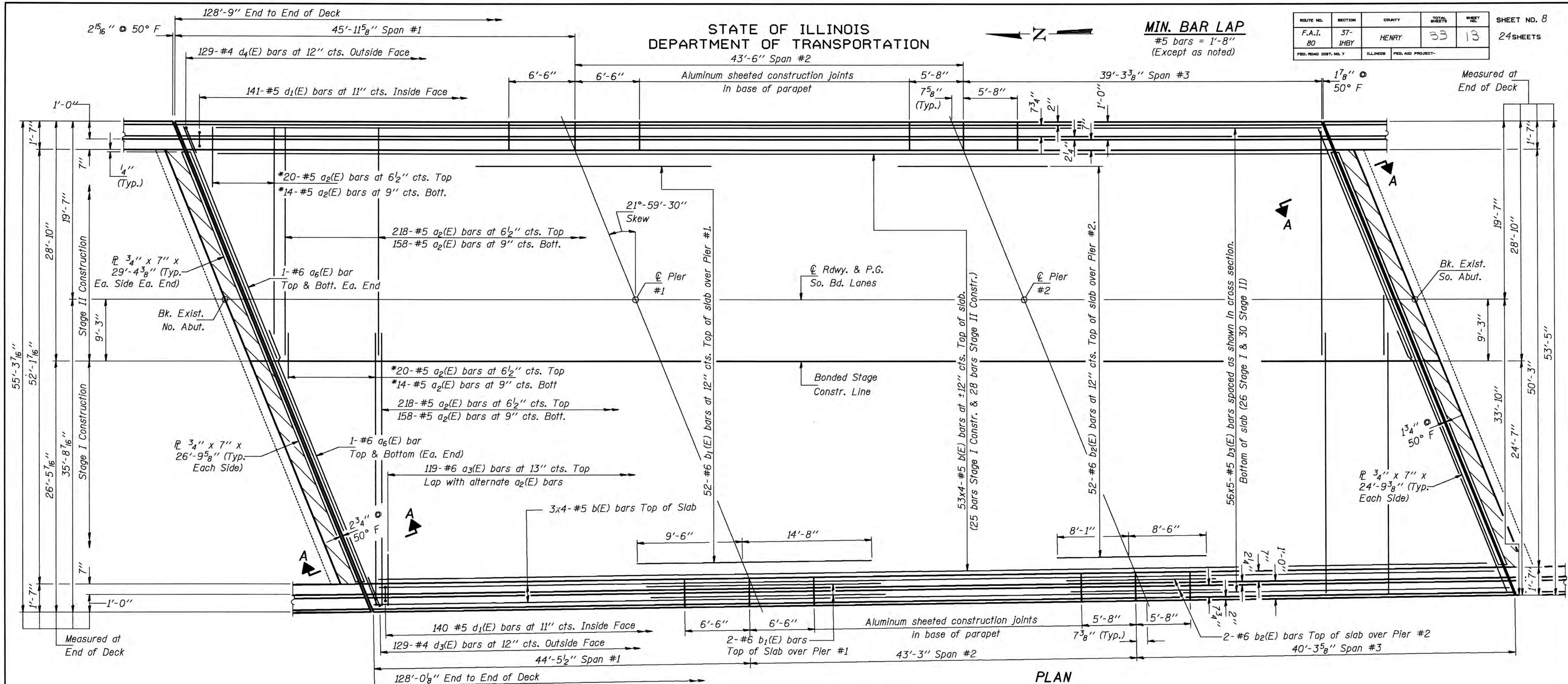
Aug. 20 1970  
EXAMINED *[Signature]*  
PASSED *[Signature]*  
APPROVED  
DIRECTOR OF HIGHWAYS

SUPERSTRUCTURE  
NORTH BD. LANES  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

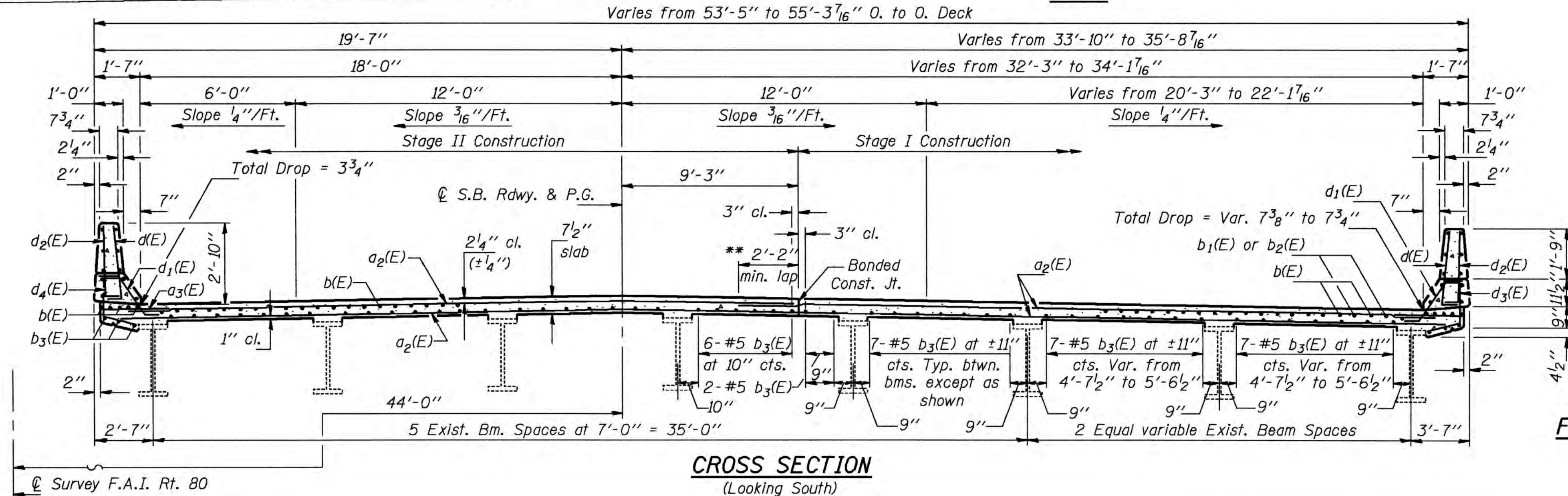
MIN. BAR LAP  
#5 bars = 1'-8"  
(Except as noted)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 8
F.A.I. 80	37-1HBY	HENRY	33	13	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



PLAN

Notes: See sheet #9, #10 & #11 of 24 for superstructure details and Bill of Material.  
Reinforcement bars designated (E) shall be epoxy coated.  
Hatched area to be poured after superstructure forms have been removed. Quantity shall be billed as "Class X Concrete Superstructure".  
\*Order  $a_2(E)$  bars full length. Cut to fit skew and use remainder of bars in opposite end.  
\*\* Lapped bars at this location shall be tied with double the number of ties normally used.



CROSS SECTION  
(Looking South)

DESIGNED <i>Shaker Asfour</i>	EXAMINED <i>Aug. 20 1970</i>
CHECKED <i>Michael D. Caira</i>	APPROVED <i>Ralph E. Anderson</i>
DRAWN <i>Rita Williams</i>	APPROVED <i>[Signature]</i>
CHECKED <i>SA, MDC</i>	DIRECTOR OF HIGHWAYS

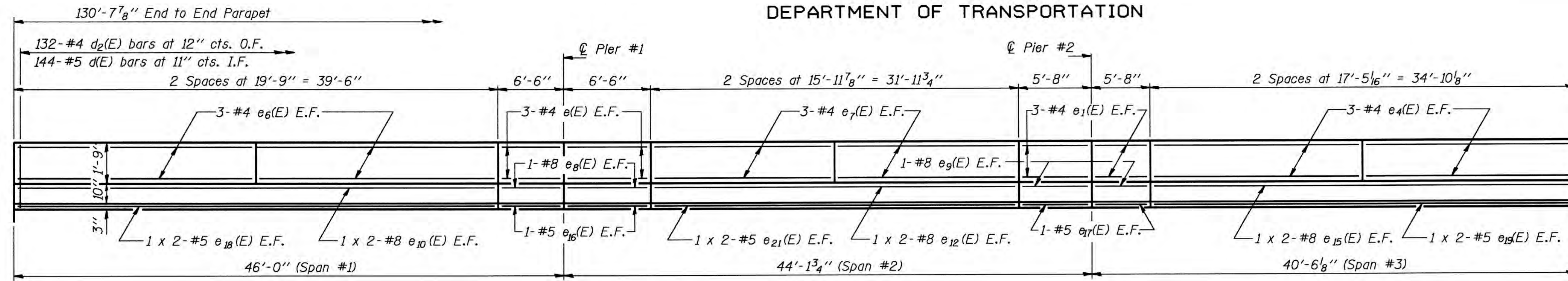
**SUPERSTRUCTURE**  
**SOUTH BD. LANES**  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67





STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

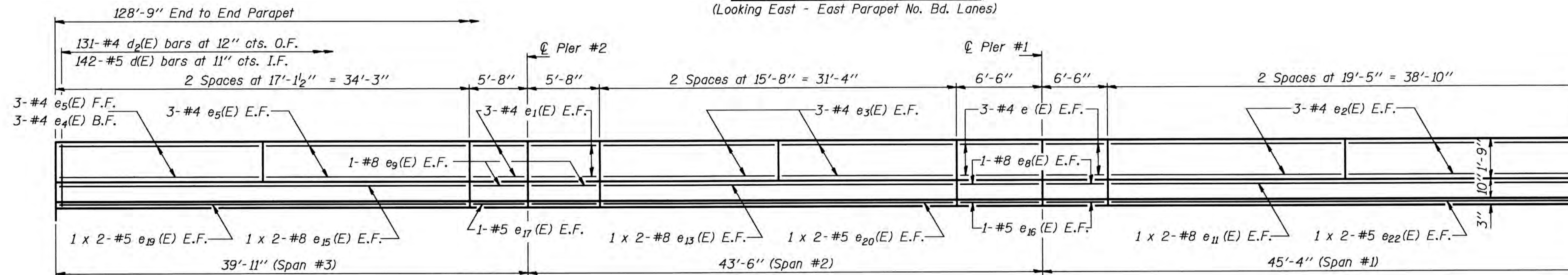
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10 24 SHEETS
F.A.I. 80	37- 1HBY	HENRY	33	15	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



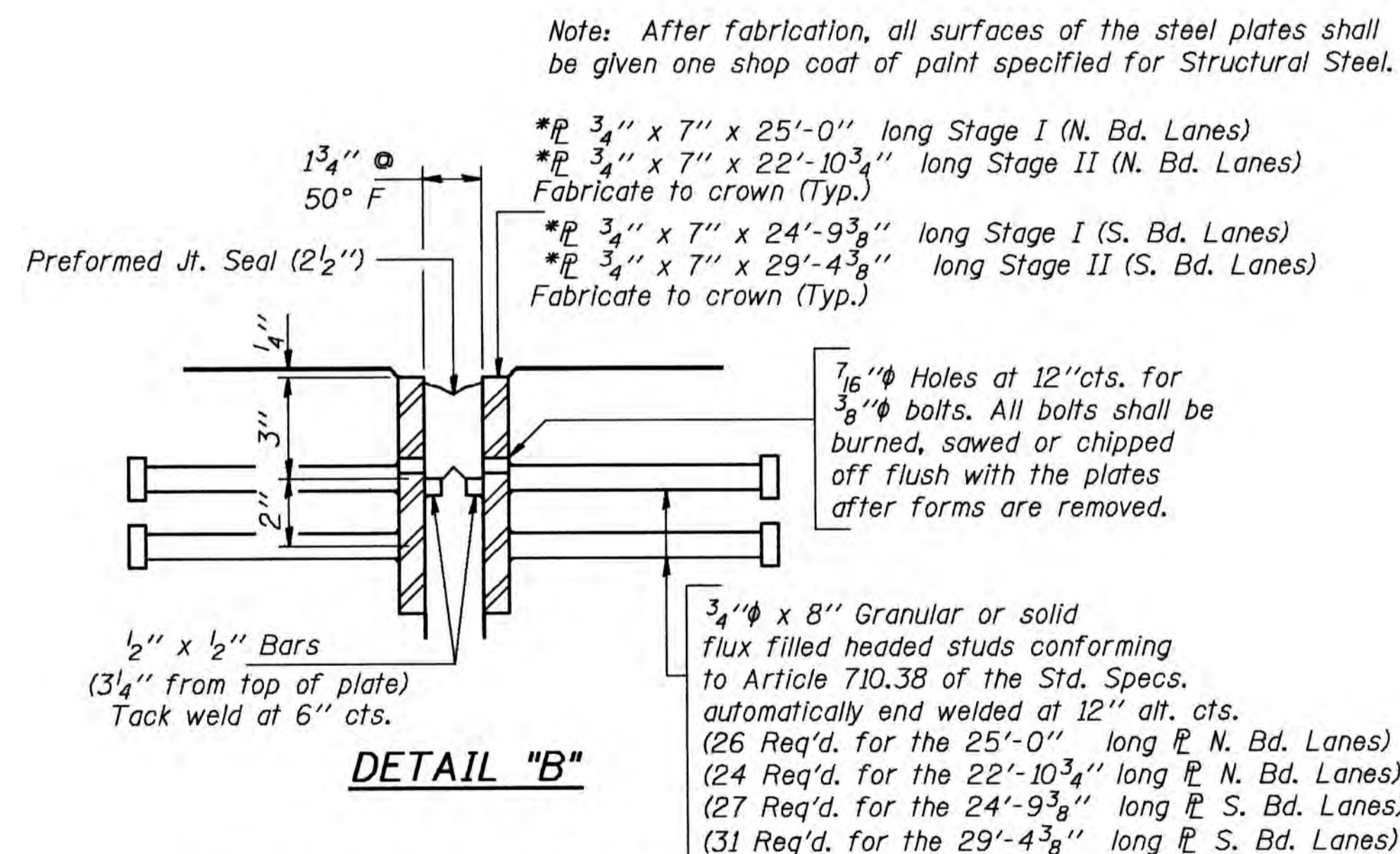
**MIN. BAR LAPS**  
#5 bars = 2'-2"  
#8 bars = 4'-6"

Notes:  
Reinforcement bars designated (E) shall be epoxy coated.  
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.  
Field bend e2(E), e4(E) and e5(E) if necessary.

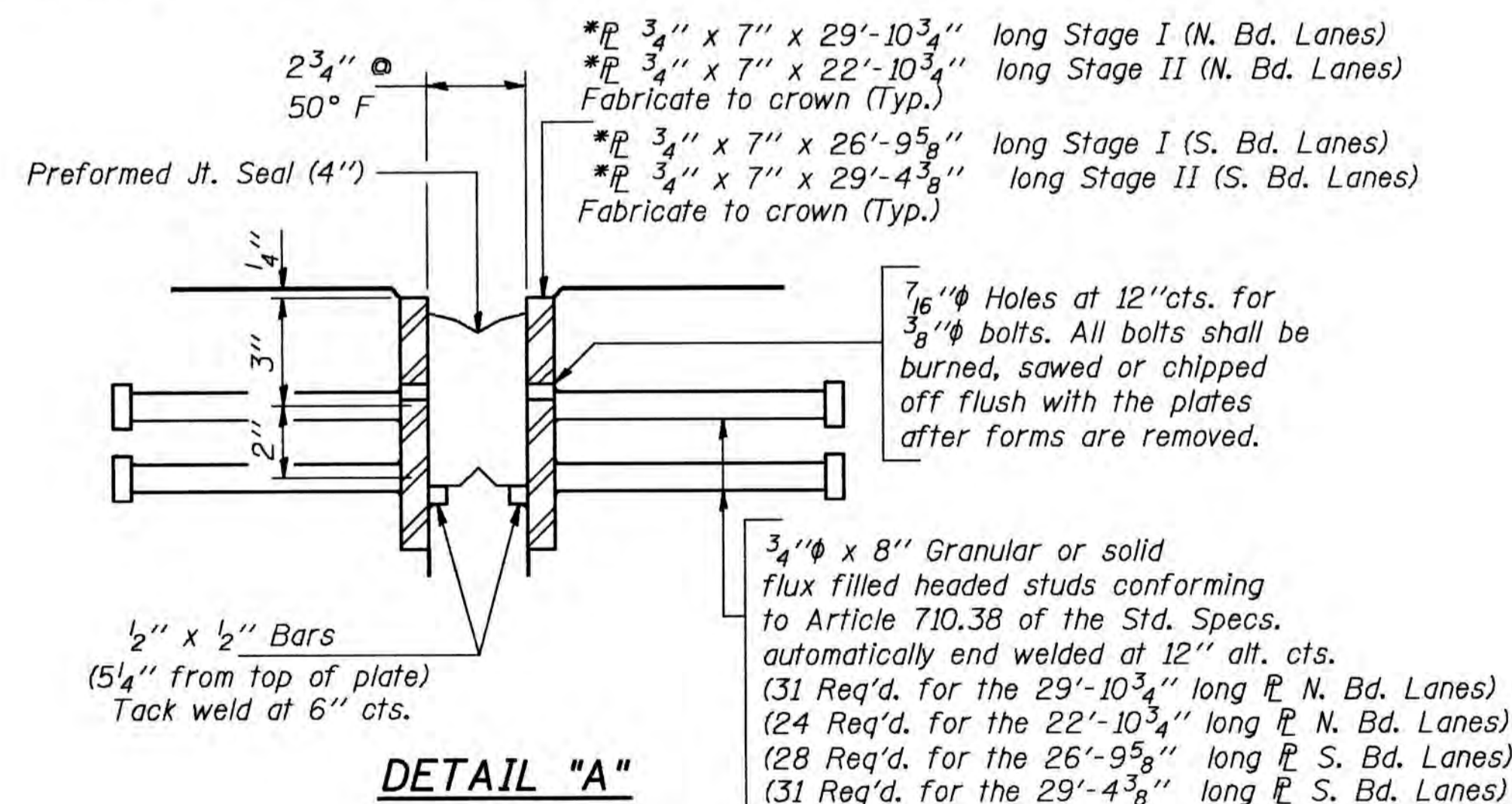
**INSIDE FACE OF PARAPET**  
(Looking East - East Parapet No. Bd. Lanes)



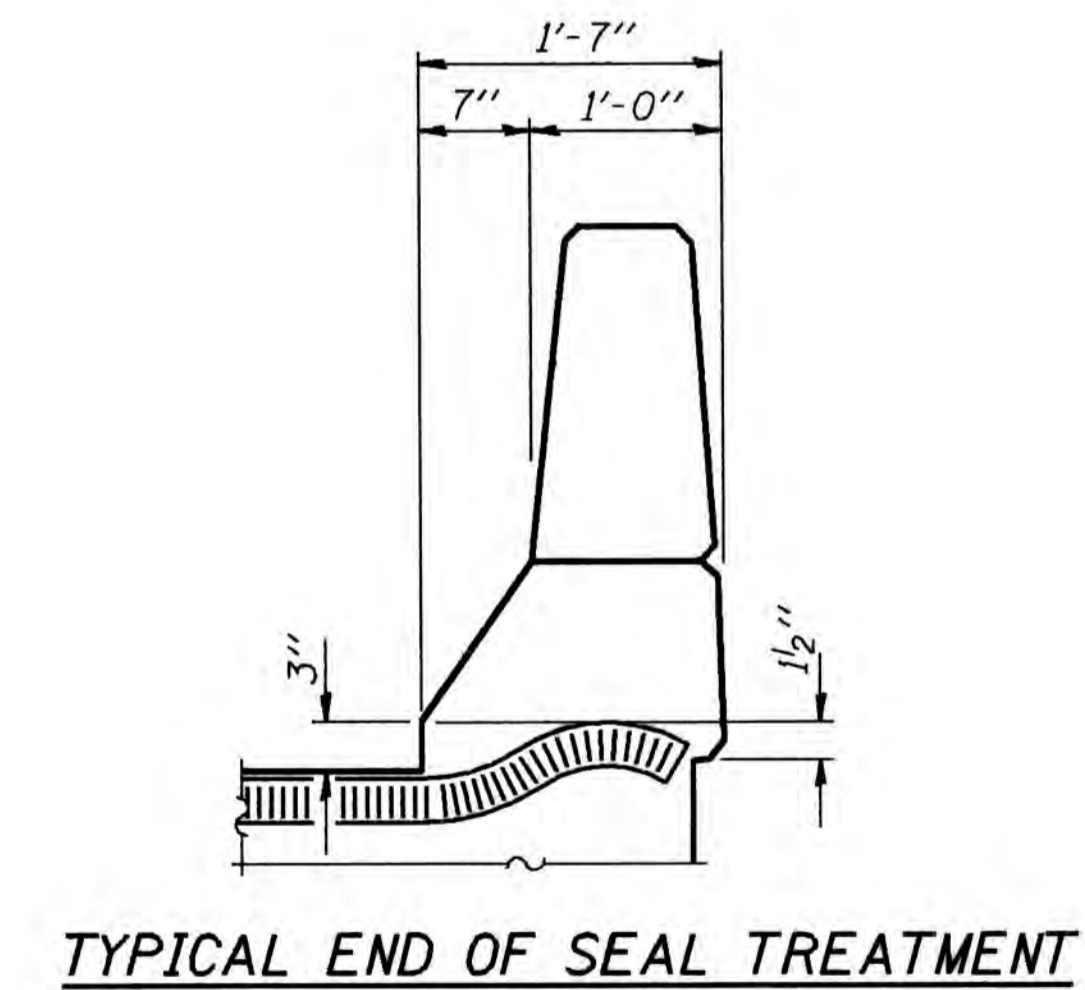
**INSIDE FACE OF PARAPET**  
(Looking West - West Parapet No. Bd. Lanes)



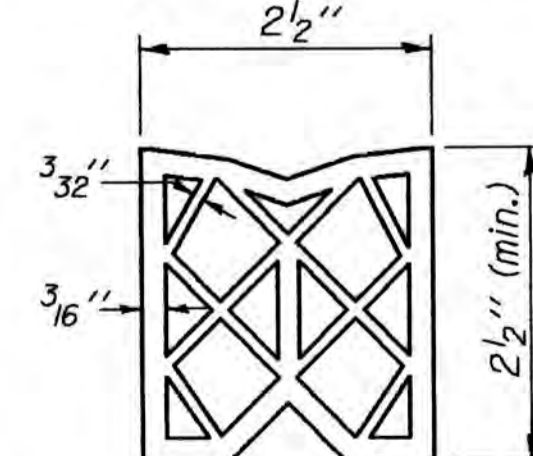
**DETAIL "B"**



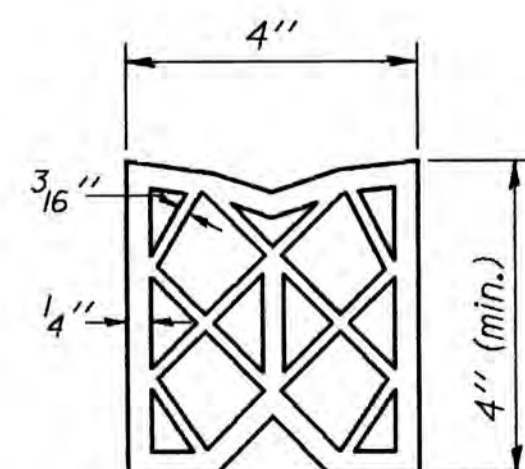
**DETAIL "A"**



\* Maximum space between installed segments shall be 3/16". Seal space with Silicone Sealant suitable for Structural Steel. Furnish in segments of 20'-0" Max. length.



**PREFORMED JOINT SEAL (2 1/2")**



**PREFORMED JOINT SEAL (4")**

DESIGNED	Shaker Asfour
CHECKED	Michael D. Coia
DRAWN	Rita Williams
CHECKED	SA, MDC

EXAMINED	Aug 20 1990	Dr. J. Q. Kaspar
PASSED		Ralph E. Anderson
APPROVED		

DIRECTOR OF HIGHWAYS

**SUPERSTRUCTURE DETAILS**  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

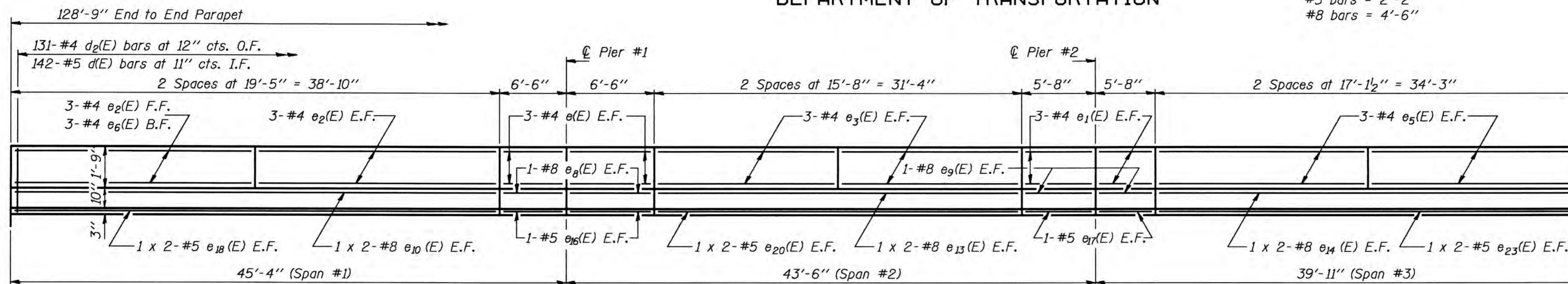
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MIN. BAR LAPS

#5 bars = 2'-2"  
#8 bars = 4'-6"

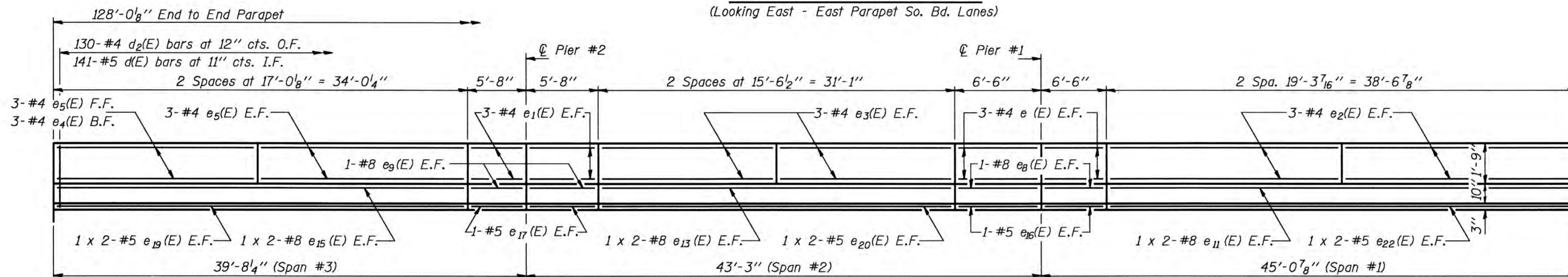
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 80	37-1HBY	HENRY	33	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 11  
24 SHEETS



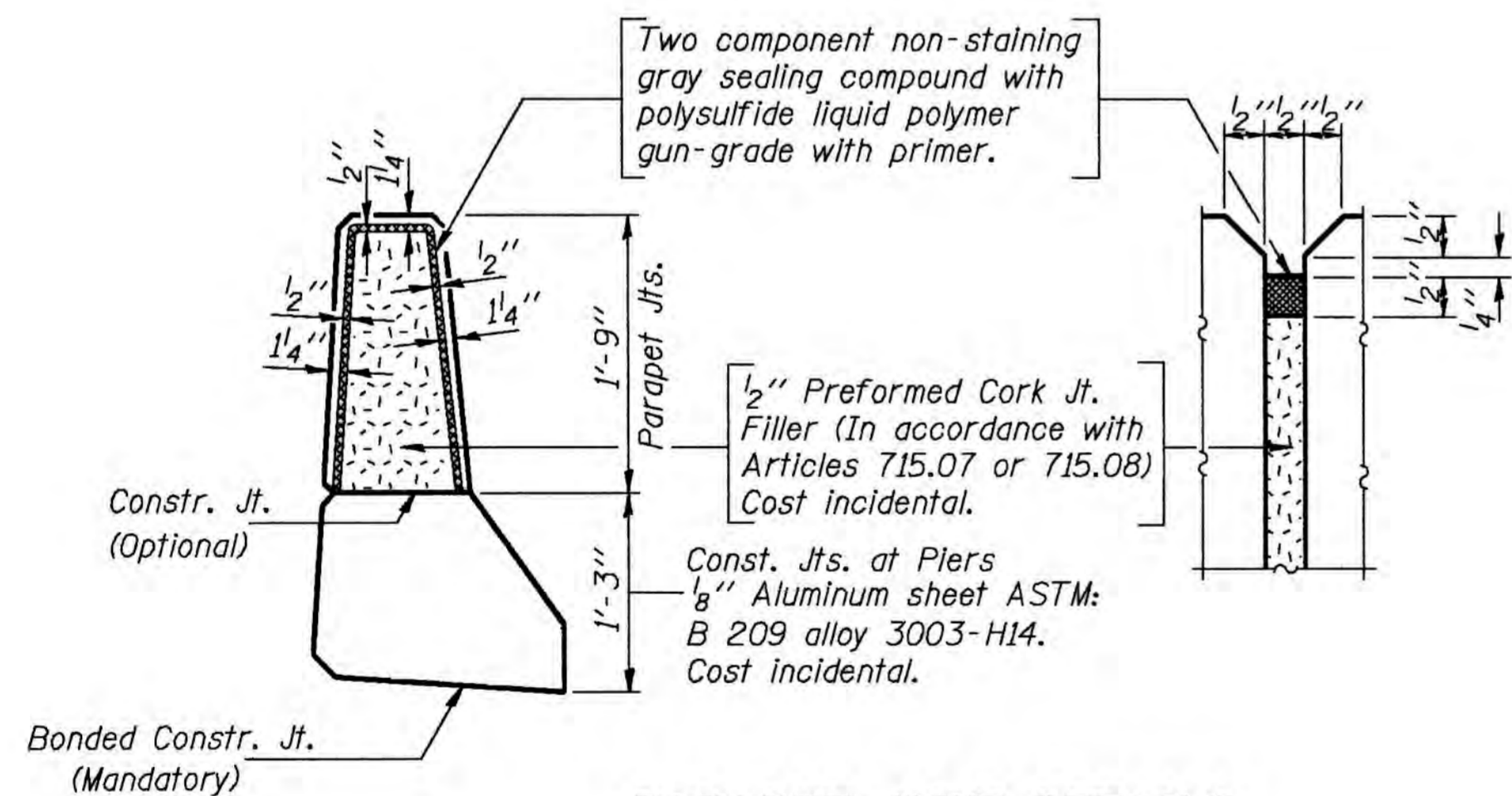
INSIDE FACE OF PARAPET

(Looking East - East Parapet So. Bd. Lanes)

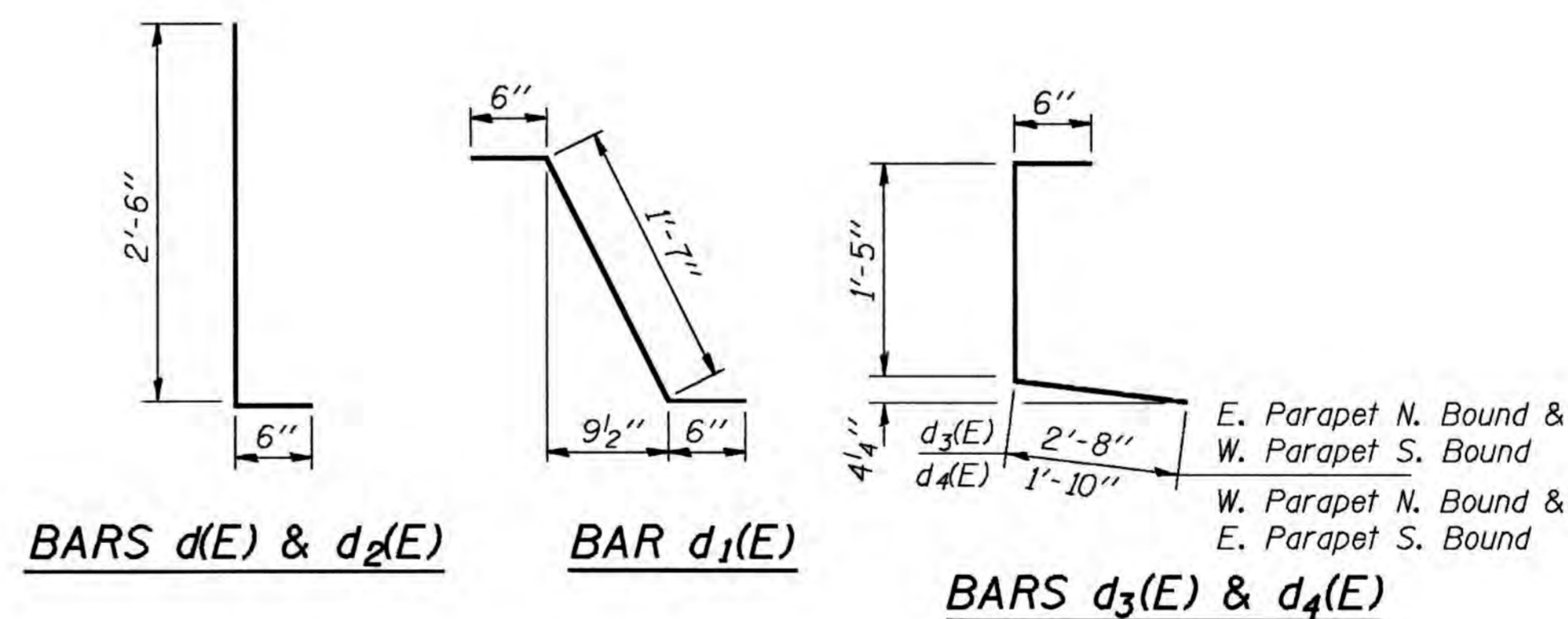


INSIDE FACE OF PARAPET

(Looking West - West Parapet So. Bd. Lanes)



PARAPET JOINT DETAILS



TWO SUPERSTRUCTURES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$d_1(E)$	448	#5	29'-8"	—
$d_1(E)$	443	#5	21'-10"	—
$d_2(E)$	820	#5	27'-10"	—
$d_3(E)$	500	#6	4'-9"	—
$d_4(E)$	4	#6	23'-7"	—
$d_5(E)$	2	#6	32'-8"	—
$d_6(E)$	8	#6	29'-8"	—
$d_7(E)$	2	#6	27'-11"	—
$b(E)$	460	#5	33'-10"	—
$b_1(E)$	109	#6	24'-2"	—
$b_2(E)$	109	#6	16'-7"	—
$b_3(E)$	540	#5	27'-5"	—
$d(E)$	569	#5	3'-0"	L
$d_1(E)$	565	#5	2'-7"	L
$d_2(E)$	524	#4	3'-0"	L
$d_3(E)$	260	#4	4'-7"	L
$d_4(E)$	258	#4	3'-9"	L
$e(E)$	48	#4	6'-3"	—
$e_1(E)$	48	#4	5'-5"	—
$e_2(E)$	33	#4	19'-0"	—
$e_3(E)$	36	#4	15'-4"	—
$e_4(E)$	18	#4	17'-0"	—
$e_5(E)$	30	#4	16'-8"	—
$e_6(E)$	15	#4	19'-6"	—
$e_7(E)$	12	#4	15'-9"	—
$e_8(E)$	16	#8	6'-3"	—
$e_9(E)$	16	#8	5'-5"	—
$e_{10}(E)$	8	#8	22'-1"	—
$e_{11}(E)$	8	#8	21'-4"	—
$e_{12}(E)$	4	#8	18'-1"	—
$e_{13}(E)$	12	#8	17'-9"	—
$e_{14}(E)$	4	#8	19'-0"	—
$e_{15}(E)$	12	#8	19'-5"	—
$e_{16}(E)$	16	#5	6'-3"	—
$e_{17}(E)$	16	#5	5'-5"	—
$e_{18}(E)$	8	#5	20'-11"	—
$e_{19}(E)$	12	#5	18'-3"	—
$e_{20}(E)$	12	#5	16'-7"	—
$e_{21}(E)$	4	#5	16'-11"	—
$e_{22}(E)$	8	#5	20'-2"	—
$e_{23}(E)$	4	#5	17'-10"	—
Reinforcement Bars (Epoxy Coated)		Lbs.	102,300	
Class X Concrete Superstructures		Cu. Yd.	405.5	

Reinforcement bars designated (E) shall be epoxy coated.  
Bars indicated thus 1 x 2-#5 etc. indicates 1 line of bars with 2 lengths per line.

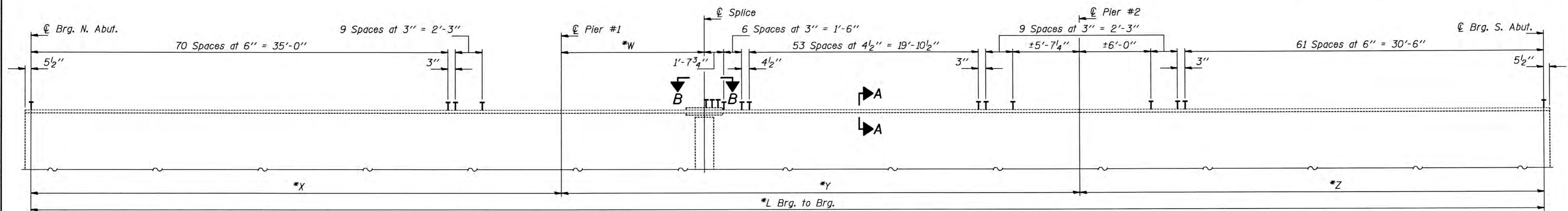
SUPERSTRUCTURE DETAILS  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

DESIGNED	Shaker Astor
CHECKED	Michael D. Coia
DRAWN	Rita Williams
CHECKED	SA / MDC

EXAMINED	Aug. 20 1990
PASSED	Ralph E. Anderson
APPROVED	DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET	SHEET NO. 12 24 SHEETS
F.A.I. 80	37- IHBV	HENRY	33	17	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			



**BEAM ELEVATION**

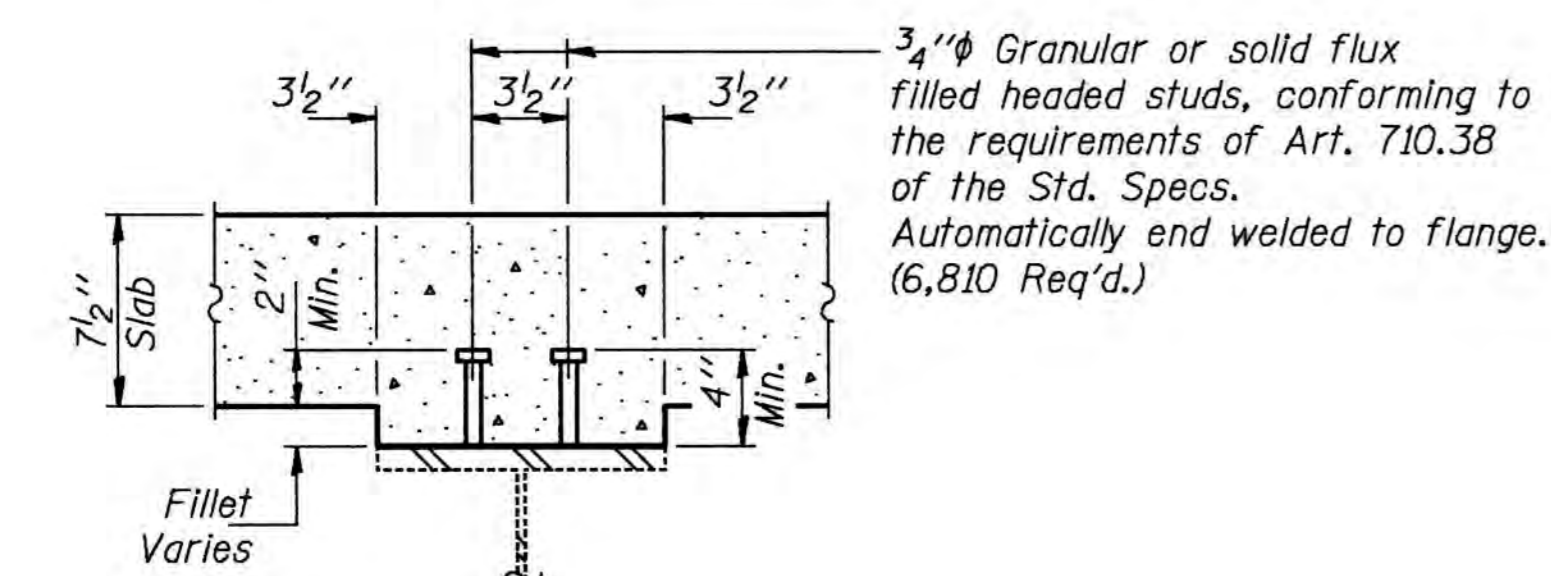
(Typ. Stud Shear Connector Spacing for all Beams)

**\* DIMENSIONS W, X, Y, Z & L**

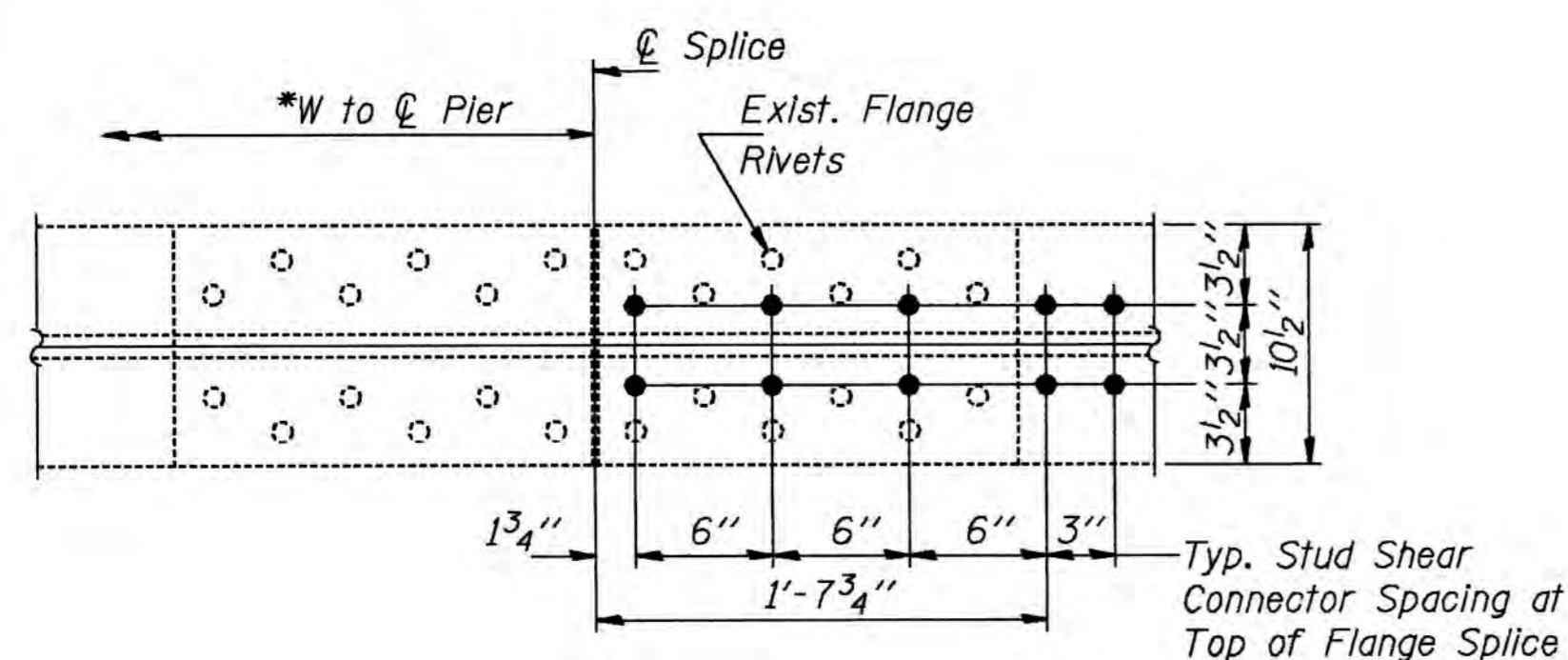
Bm.	Dim.	W	X	Y	Z	L
Beam #1		12'-2 1/8"	45'-1 7/8"	44'-1 1/8"	39'-6 7/8"	128'-10 1/8"
Beam #2		12'-1 1/8"	44'-9 7/8"	43'-9 3/4"	39'-3 3/8"	127'-11"
Beams #3 thru #13		12'-0"	44'-6"	43'-6"	39'-0"	127'-0"
Beam #14		11'-11 9/16"	44'-4 7/16"	43'-4 1/2"	38'-10 5/8"	126'-7 9/16"
Beam #15		11'-11 3/16"	44'-2 5/16"	43'-3"	38'-9 5/16"	126'-3 1/4"

INTERIOR BEAM MOMENT TABLE (NORTH BD. LANES)						
		0.4 Sp. #1	Pier #1	.5 Sp. #2	Pier #2	.6 Sp. #3
<i>I</i> <sub>s</sub>	(in <sup>4</sup> )	5347	5347	4461	4461	4461
<i>I</i> <sub>c</sub>	(in <sup>4</sup> )	17,403	—	15,290	—	15,290
<i>S</i> <sub>s</sub>	(in <sup>3</sup> )	355	355	299	299	299
<i>S</i> <sub>c</sub>	(in <sup>3</sup> )	584	—	507	—	507
<i>l</i>	(K/ft.)	.855	1.180	.866	1.171	.866
<i>M</i> <sub>ℓ</sub>	(K)	139	224	46	176	102
<i>f</i> <sub>sℓ non-comp</sub>	(k.s.i.)	4.7	7.6	1.9	7.1	4.1
<i>s</i> <sub>ℓ</sub>	(K/ft.)	.305	—	.305	—	.305
<i>M</i> <sub>sℓ</sub>	(K)	54	—	31	—	41
<i>M</i> <sub>ℓ</sub>	(K)	312	140	245	120	255
<i>M</i> (Imp)	(K)	92	41	73	36	77
<i>M</i> (Total)	(K)	458	181	349	156	373
<i>f</i> <sub>s (comp)</sub>	(k.s.i.)	9.4	6.1	8.3	6.2	8.8
<i>f</i> <sub>s (Total)</sub>	(k.s.i.)	14.1	13.7	10.2	13.3	12.9
<i>VR</i>	(K)	52	—	54	—	51

INTERIOR BEAM MOMENT TABLE (SOUTH BD. LANES)						
		0.4 Sp. #1	Pier #1	.5 Sp. #2	Pier #2	.6 Sp. #3
<i>I</i> <sub>s</sub>	(in <sup>4</sup> )	4919	4919	4461	4461	4461
<i>I</i> <sub>c</sub>	(in <sup>4</sup> )	16,377	—	15,290	—	15,290
<i>S</i> <sub>s</sub>	(in <sup>3</sup> )	328	328	299	299	299
<i>S</i> <sub>c</sub>	(in <sup>3</sup> )	546	—	507	—	507
<i>l</i>	(K/ft.)	.885	1.181	.866	1.171	.866
<i>M</i> <sub>ℓ</sub>	(K)	130	210	44	165	97
<i>f</i> <sub>sℓ non-comp</sub>	(k.s.i.)	4.8	7.7	1.8	6.6	4.0
<i>s</i> <sub>ℓ</sub>	(K/ft.)	.305	—	.305	—	.305
<i>M</i> <sub>sℓ</sub>	(K)	50	—	28	—	37
<i>M</i> <sub>ℓ</sub>	(K)	291	130	228	112	238
<i>M</i> (Imp)	(K)	86	39	68	34	72
<i>M</i> (Total)	(K)	427	169	324	146	347
<i>f</i> <sub>s (comp)</sub>	(k.s.i.)	9.4	6.2	7.7	5.9	8.2
<i>f</i> <sub>s (Total)</sub>	(k.s.i.)	14.2	13.9	9.5	12.5	12.2
<i>VR</i>	(K)	48.5	—	50.4	—	47.8



**SECTION A-A**



**VIEW B-B**

(Typ. All Beams)

INTERIOR BEAM REACTION TABLE (NORTH BD. LANES)					
	No. Abut.	Pier #1	Pier #2	So. Abut.	
<i>R</i> <sub>ℓ</sub>	(K)	21.5	58.1	51.7	18.3
<i>R</i> <sub>ℓ</sub>	(K)	29.0	34.4	33.7	27.7
<i>Imp.</i>	(K)	8.6	10.1	10.1	8.5
<i>R</i> (Total)	(K)	59.1	102.6	95.5	54.5

INTERIOR BEAM REACTION TABLE (SOUTH BD. LANES)					
	No. Abut.	Pier #1	Pier #2	So. Abut.	
<i>R</i> <sub>ℓ</sub>	(K)	20.0	54.2	48.4	17.2
<i>R</i> <sub>ℓ</sub>	(K)	27.0	32.1	31.4	25.8
<i>Imp.</i>	(K)	8.0	9.5	9.4	7.9
<i>R</i> (Total)	(K)	55.0	95.8	89.2	50.9

*I*<sub>s</sub> and *S*<sub>s</sub> are the moment of inertia and section modulus of the steel section used in computing *f*<sub>s</sub> (Total).

*I*<sub>c</sub> and *S*<sub>c</sub> are the moment of inertia and section modulus of the composite section used in computing *f*<sub>s</sub> (Total).

*VR* is the maximum Live Load + Impact shear range in span.

$M$  (Total) =  $M_{sℓ} + (M_{ℓ} + I)$ .

*f*<sub>s</sub> (Total) is the sum of the stresses due to  $[M_{ℓ} + M_{sℓ} + (M_{ℓ} + I)]$ .

*M*<sub>ℓ</sub> - Moment due to dead loads on non-composite section.

*M*<sub>sℓ</sub> - Moment due to dead loads on composite section.

*M*<sub>ℓ</sub> - Moment due to live loads on non-composite or composite section.

*I* - Live load impact.

DESIGNED <i>Shaker Asfour</i>	EXAMINED <i>Aug. 20 1990</i>
CHECKED <i>Michael A. Caira</i>	PASSED <i>Raj. J. Kaspar</i>
DRAWN <i>John F. Schneller Jr.</i>	APPROVED <i>Ralph E. Anderson</i>
CHECKED <i>SA, MDC</i>	DIRECTOR OF HIGHWAYS

**STRUCTURAL STEEL**  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

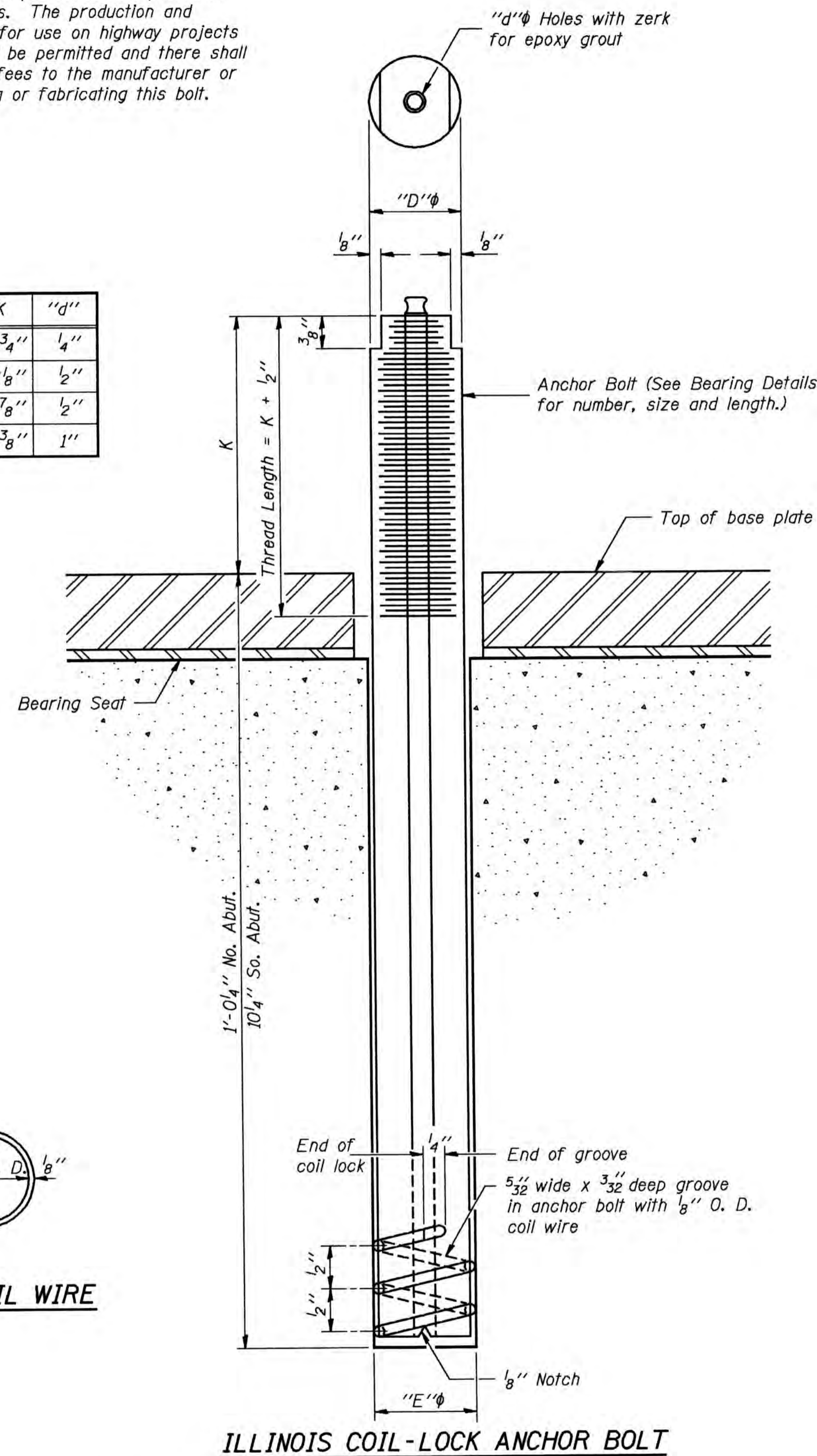




STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

The Illinois Coil-Lock Anchor Bolt is a proprietary item which is the property of the Illinois Department of Transportation. Use, reproduction or disclosure without express written permission is prohibited and protected under Federal copyright laws. The production and the fabrication of this bolt for use on highway projects in the State of Illinois shall be permitted and there shall be no incurred charges or fees to the manufacturer or the fabricator for producing or fabricating this bolt.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

The anchor bolt shall be fabricated from cold drawn or hot finished seamless carbon steel mechanical tubing conforming to ASTM A519, Grade 1026 and supplied with hexagonal nuts and cut washers.

The coil wire shall be made of any suitable soft steel wire.

The finished anchor bolt shall be cleaned of rust and other foreign materials and wrapped or packaged to prevent contamination until they are installed.

The epoxy grout shall be a two-component, epoxy resin bonding system conforming to ASTM C881, Type I, Grade 1 and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT

1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. After pumping is discontinued, excess epoxy shall be immediately wiped off.

ALTERNATE ANCHOR BOLTS

The Contractor may use, at his option, the capsule or the adhesive cartridge type anchor rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer conforming to ASTM A307.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with the manufacturer's recommendation after beams or girders have been erected and adjusted.

Prior to setting the bolts, the holes shall be dry and all dust and loose particles shall be removed by the use of compressed air or vacuuming.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnishing and Erecting Structural Steel".

DESIGNED *Shaker Asfour*  
CHECKED *Michael D. Cina*  
DRAWN *John F. Schneller Jr.*  
CHECKED *SA, MDC*

Aug 20 1990  
EXAMINED *Raj D. Kasper*  
PASSED *Ralph E. Anderson*  
APPROVED \_\_\_\_\_  
DIRECTOR OF HIGHWAYS

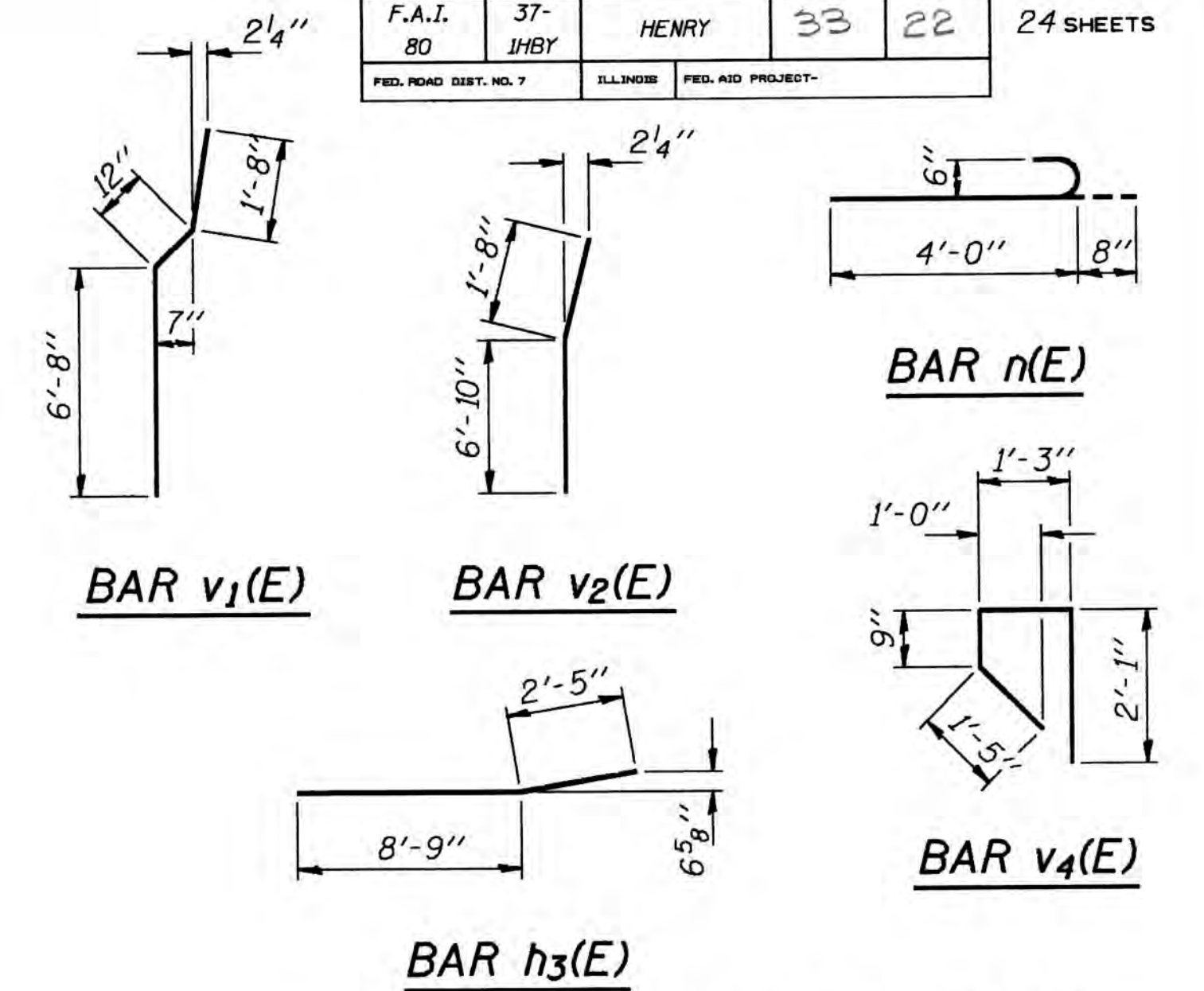
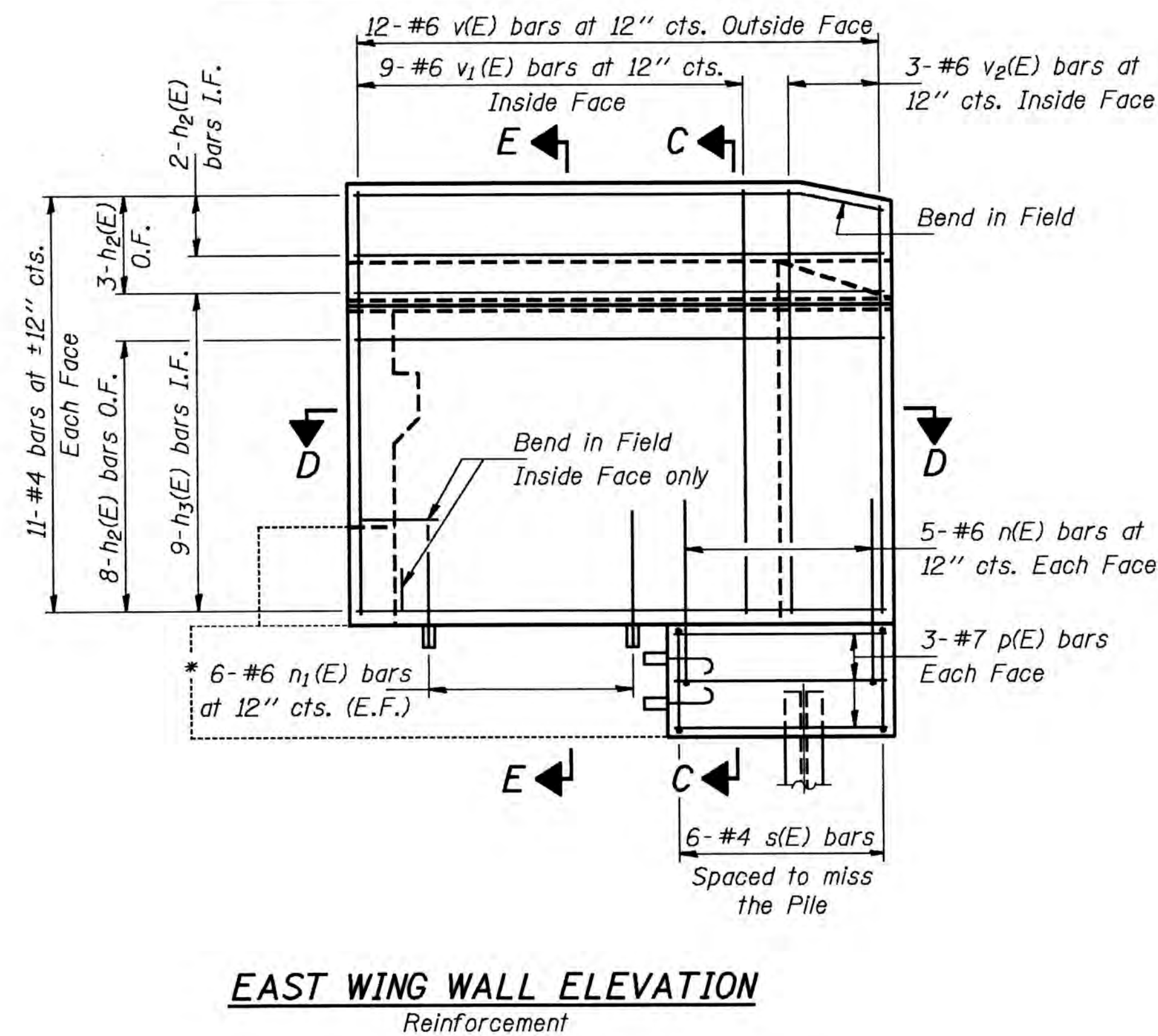
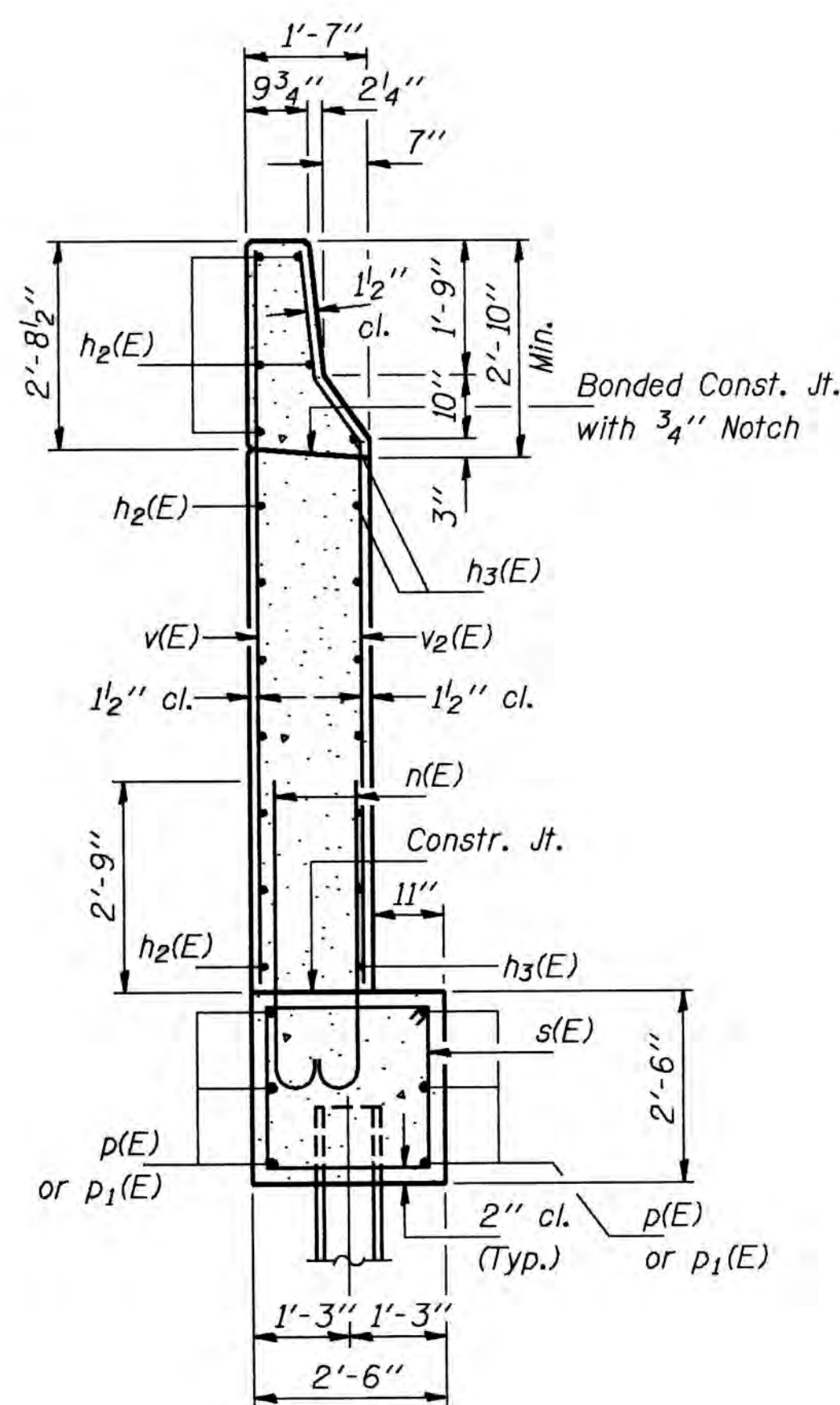
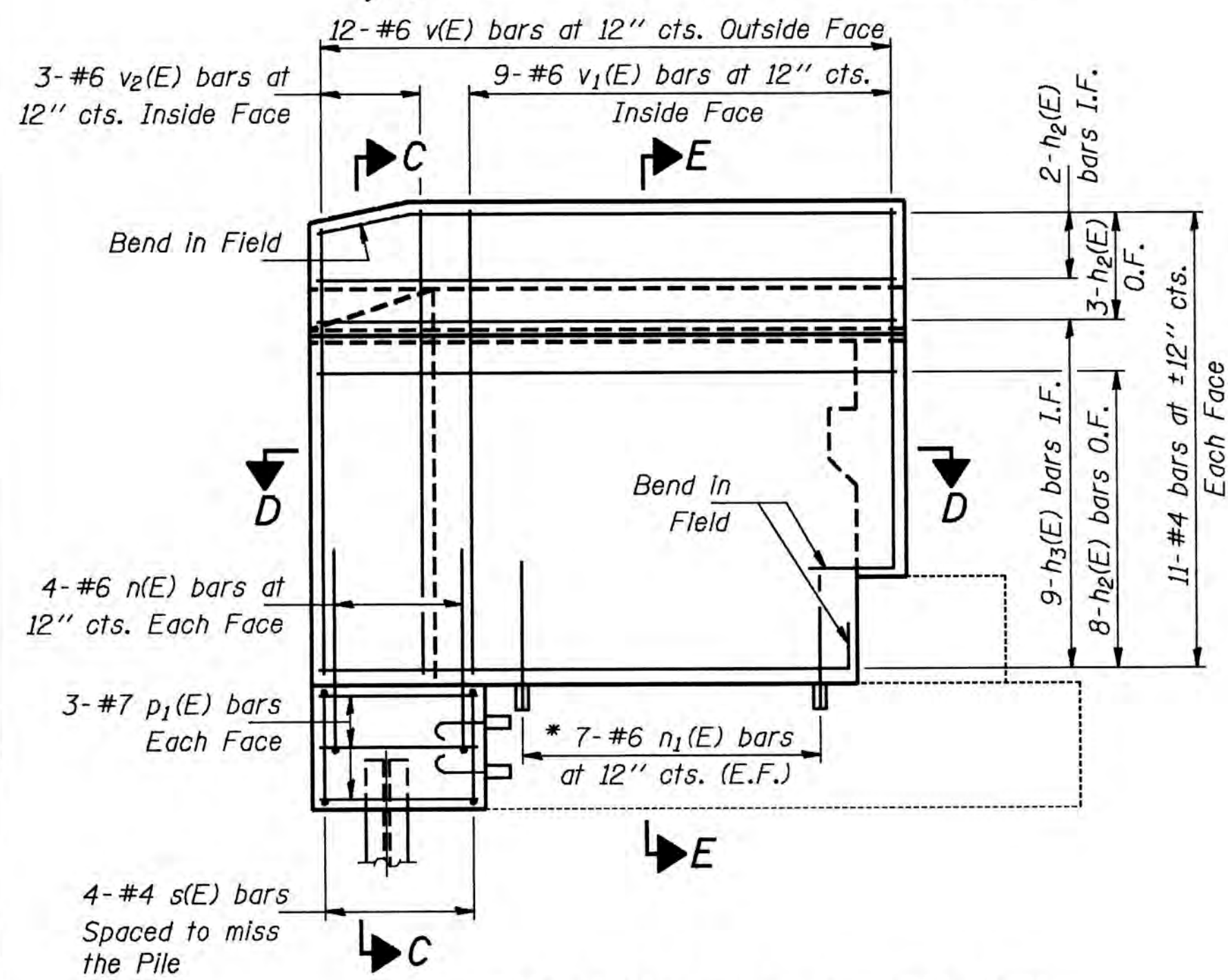
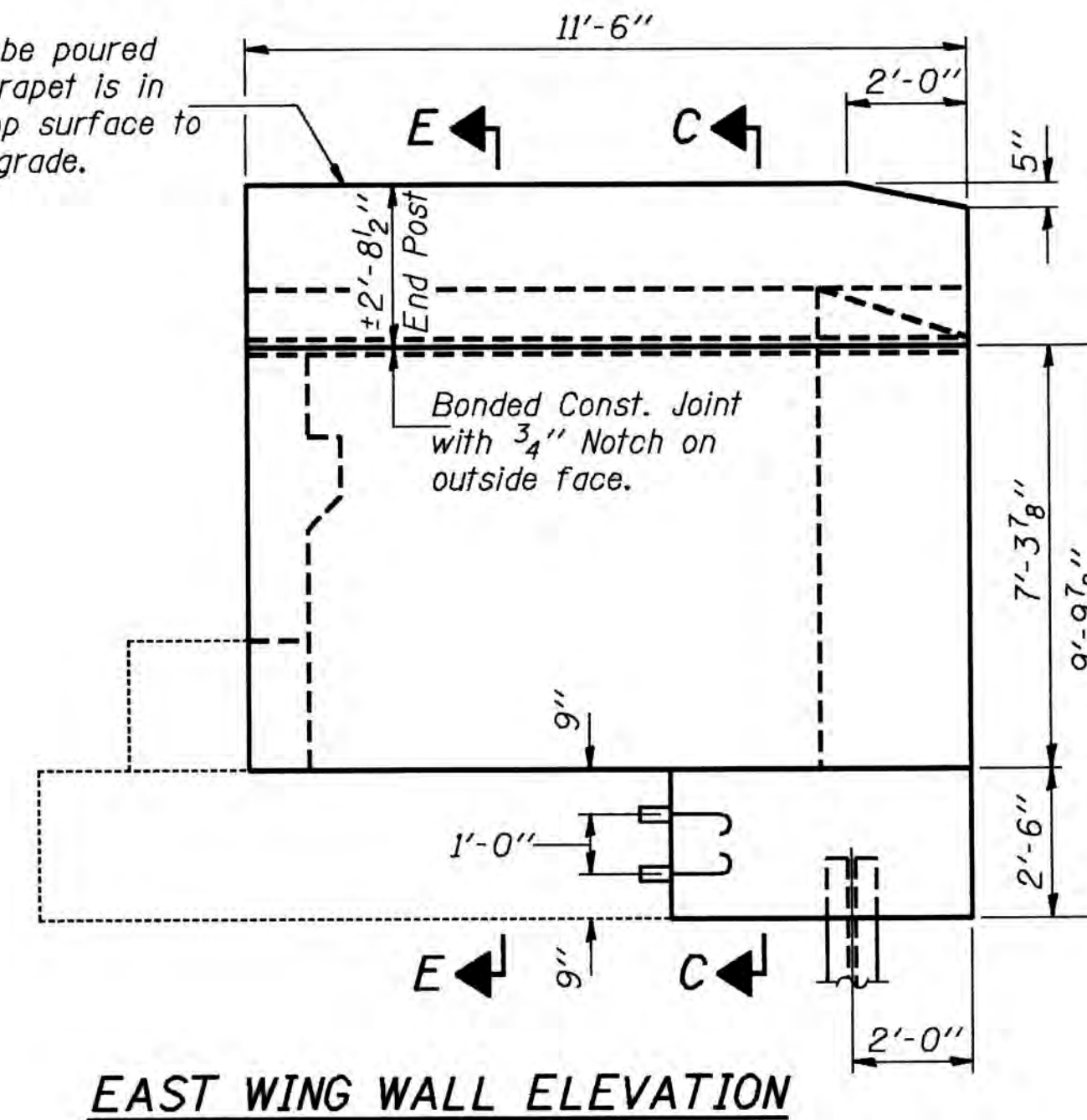
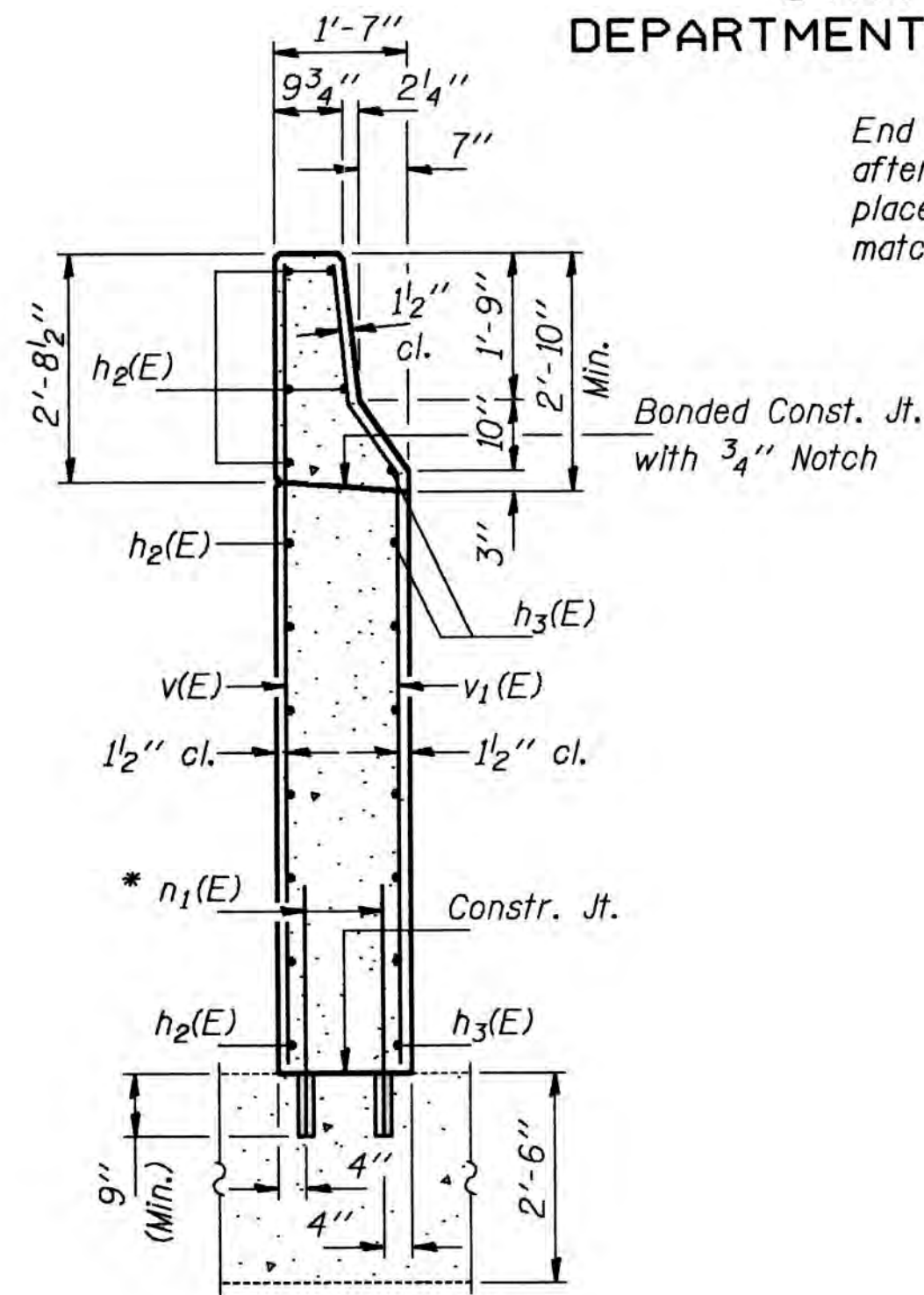
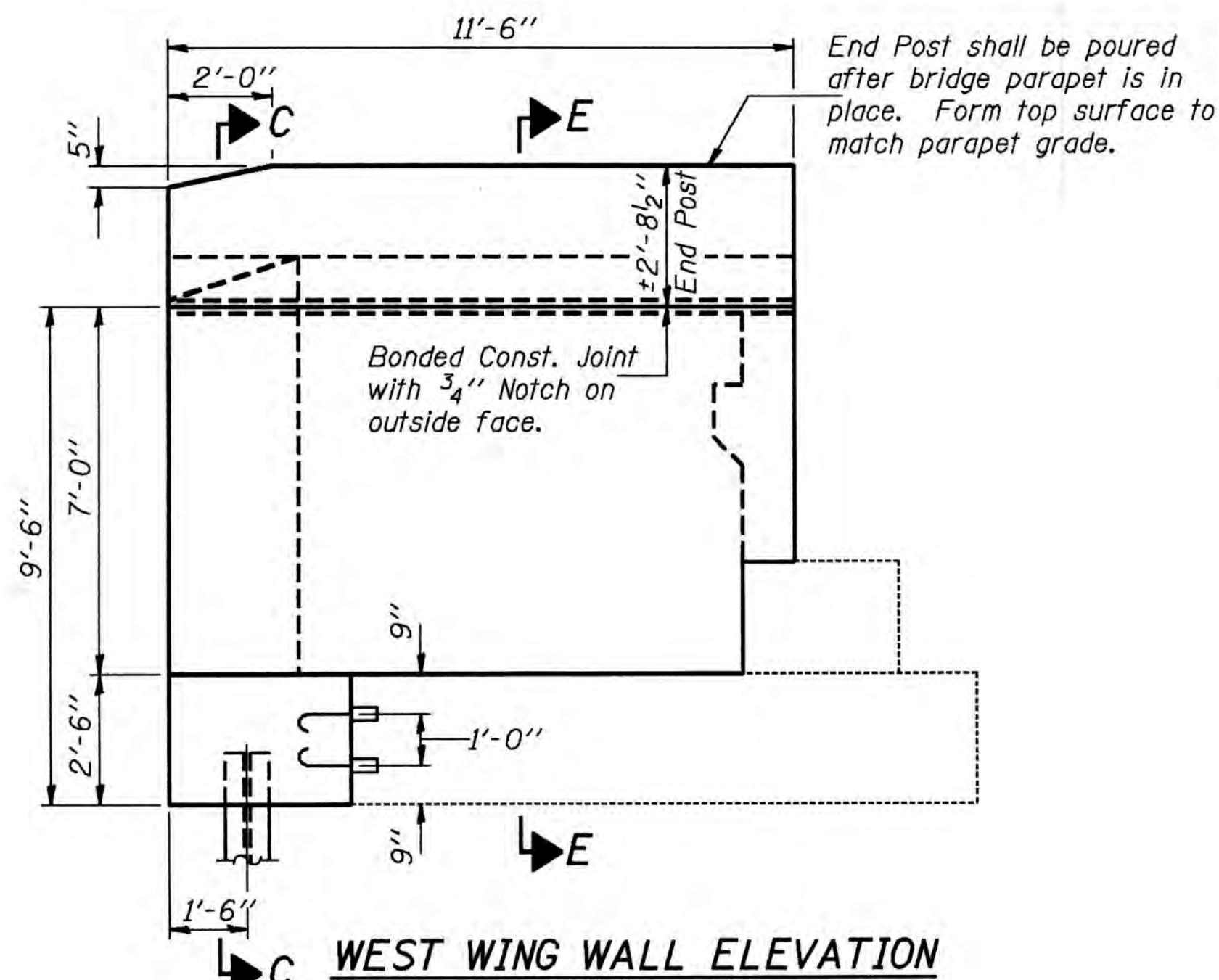
ANCHOR BOLT DETAILS  
FOR BEARINGS  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67





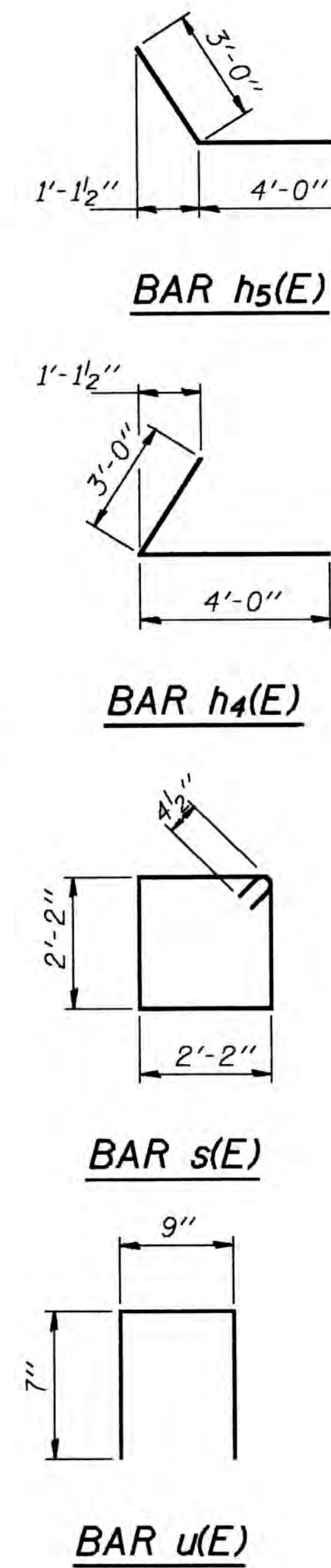
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SPANS	SHEET	SHEET NO. 17 24 SHEETS
F.A.I. 80	37- 1HBY	HENRY	33	22	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	4	#5	31'-8"	
h1(E)	4	#5	22'-10"	
h2(E)	26	#4	11'-2"	
h3(E)	18	#4	11'-2"	
h4(E)	9	#5	7'-0"	
h5(E)	9	#5	7'-0"	
n(E)	18	#6	4'-8"	
n1(E)	26	#6	3'-0"	
p(E)	6	#7	4'-3"	
p1(E)	6	#7	2'-10"	
s(E)	10	#4	9'-5"	
u(E)	54	#5	1'-11"	
v(E)	24	#6	9'-4"	
v1(E)	18	#6	9'-4"	
v2(E)	6	#6	8'-6"	
v3(E)	8	#5	1'-9"	
v4(E)	8	#5	5'-6"	
v5(E)	8	#5	4'-1"	
Class X Concrete		Cu. Yds.	14.5	
Reinforcement Bars (Epoxy Coated)		Lbs.	1,950	
Steel Piles HP10x42		Lin. Ft.	35	
Test Piles Steel HP10x42		Each	1	
Structure Excavation		Cu. Yds.	21	
Expansion Bolts 3/4"φ		Each	117	



SECTION D-D

DESIGNED Shaker Astour  
CHECKED Michael D. Coia  
DRAWN John F. Schneller Jr.  
CHECKED SA, MDC

Aug 20 1970  
EXAMINED Raji D. Kaspar  
PASSED Ralph E. Anderson  
APPROVED [Signature]  
DIRECTOR OF HIGHWAYS

\* Drill 1"φ Hole & epoxy grout n1(E) bars 9" Min. See Special Provisions. Cost shall be incidental to "Reinforcement Bars (Epoxy Coated)".

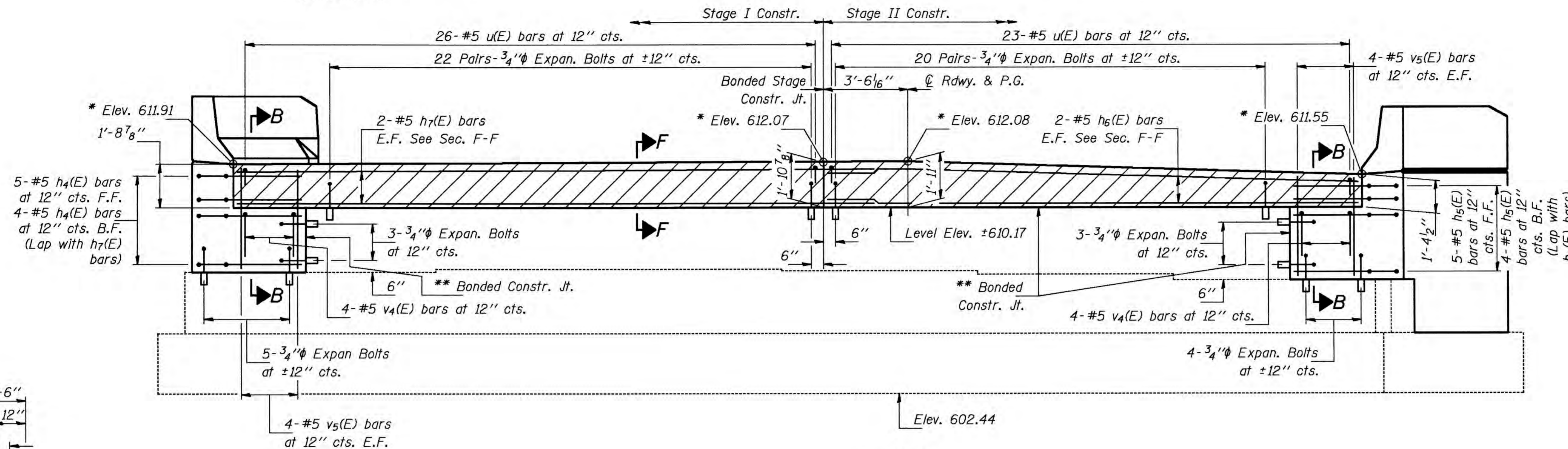
NORTH ABUTMENT DETAILS  
NORTH BOUND LANES  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

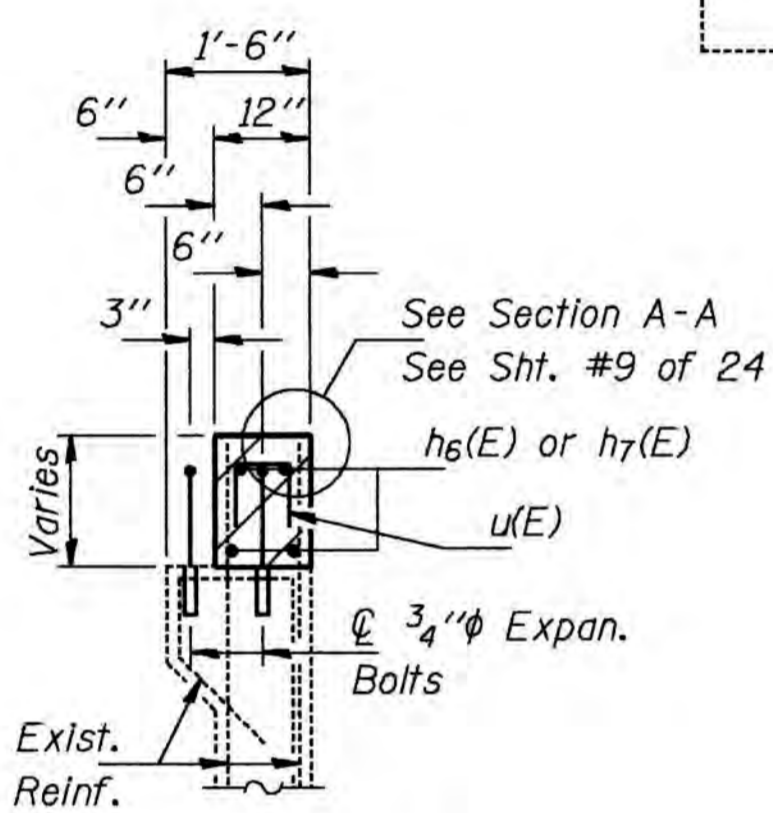
\*\* Bonded Construction Joint  
in accordance with Article  
504.13(a)(2) of the Standard  
Specifications.

\* Elevations are given at front  
face of hatched block.

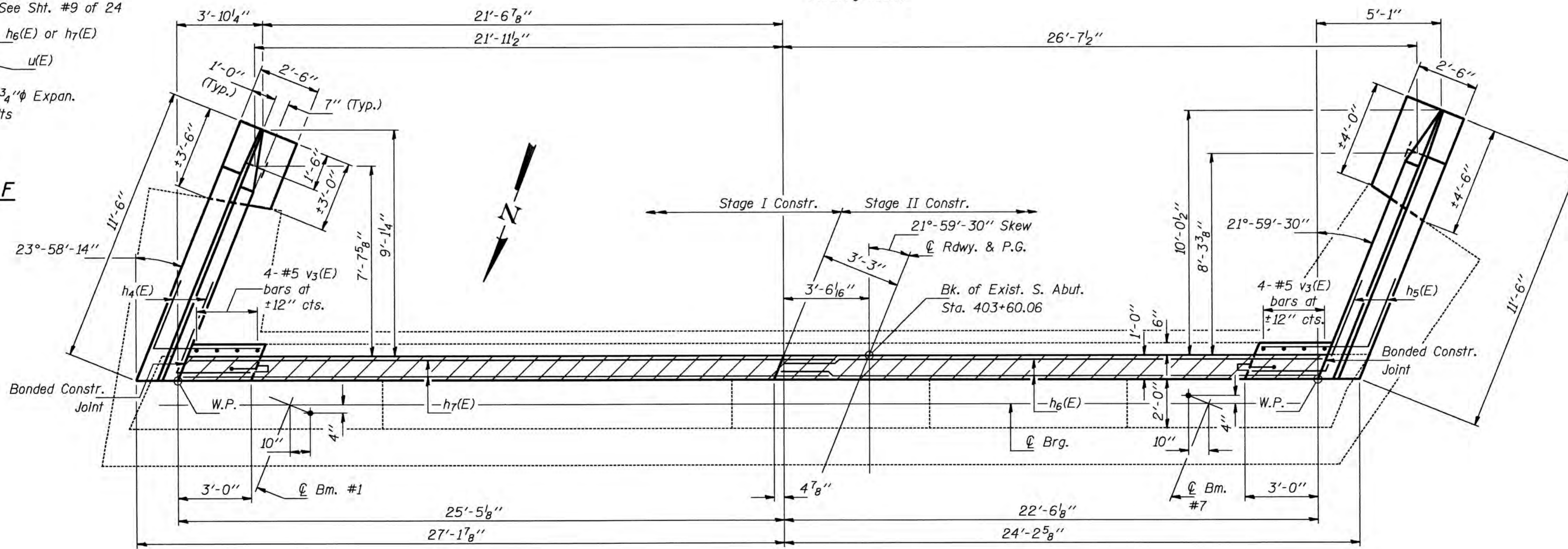
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 18 24 SHEETS
F.A.I. 80	37- IHBY	HENRY	33	23	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



ELEVATION  
(Looking South)



SECTION F-F



PLAN

Notes:

Hatched area to be poured after Superstructure forms have been removed. Form top surface to match superstructure. Concrete quantity is billed with "Class X Concrete Superstructure" see sheet #11 of 24.

Existing reinforcement extending into new construction shall be cleaned, straightened, and incorporated into new construction. Cost incidental to "Concrete Removal".

Existing reinforcement not extending into new construction shall be cut off and covered with a 2" layer of cement grout cost incidental to "Concrete Removal".

Notes:

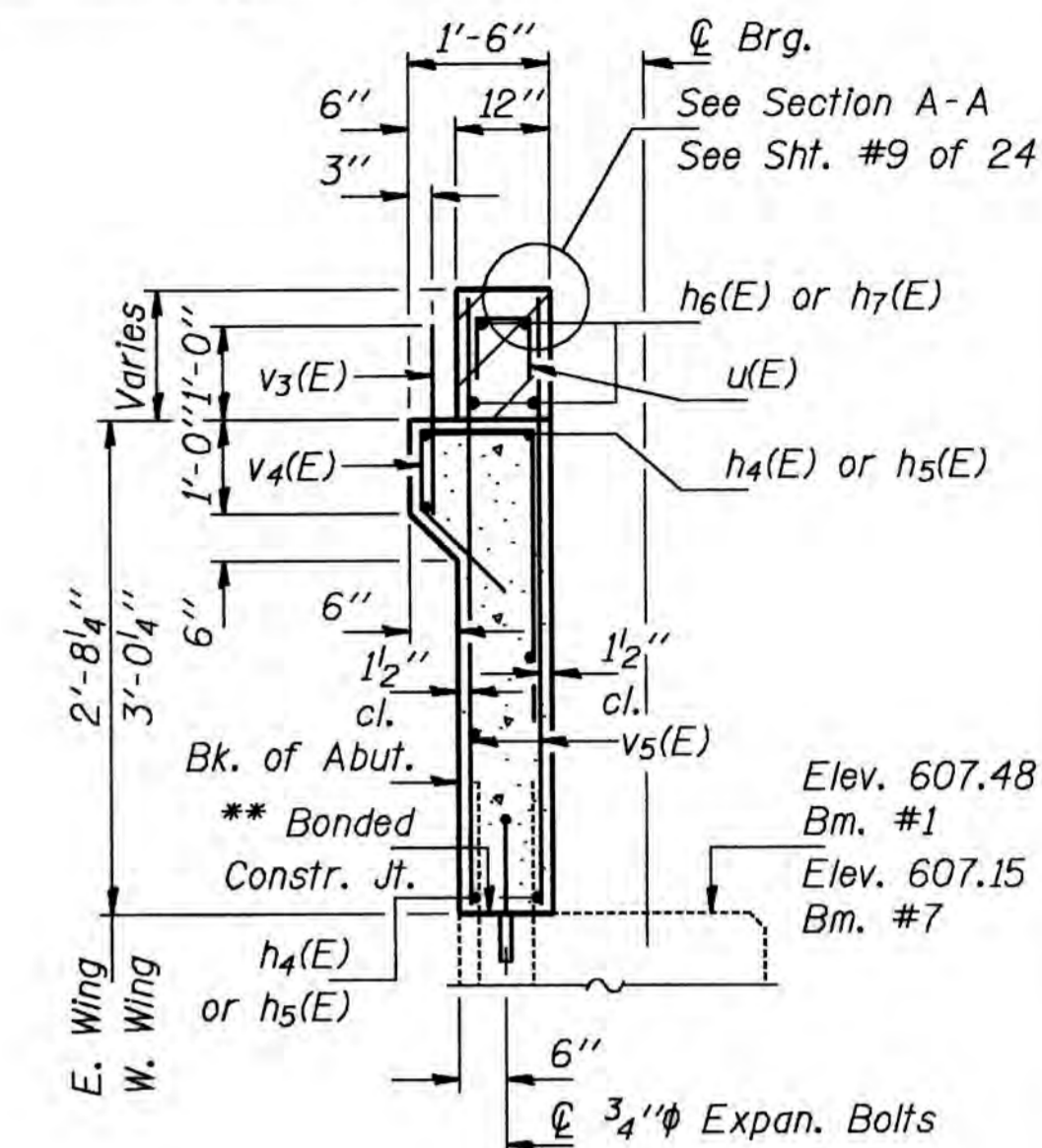
Reinforcement bars designated (E) shall be epoxy coated. For Wingwall Details and Bill of Material see sheet #19 of 24. For Anchor Bolt installation details see sheet #15 of 24. All edges shall have standard 3/4" chamfer except as noted. See sheet #24 of 24 for locations of Concrete Removal.

PILE DATA

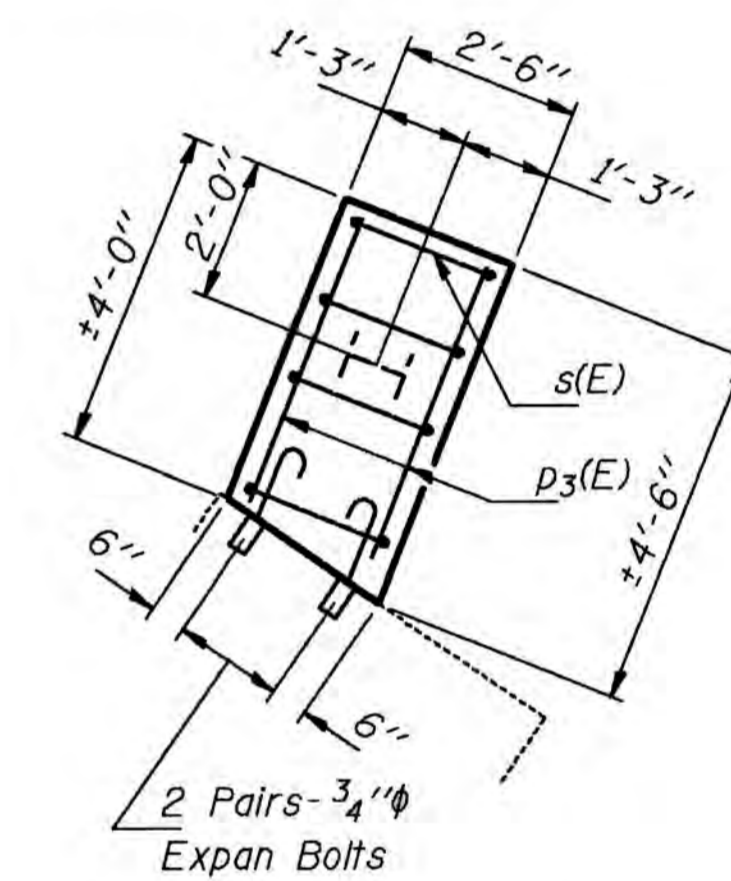
Type: Steel HP10x42  
Capacity: Drive to Refusal  
Est. Length: 24 Ft.  
No. Required: 2

MIN. BAR LAPS

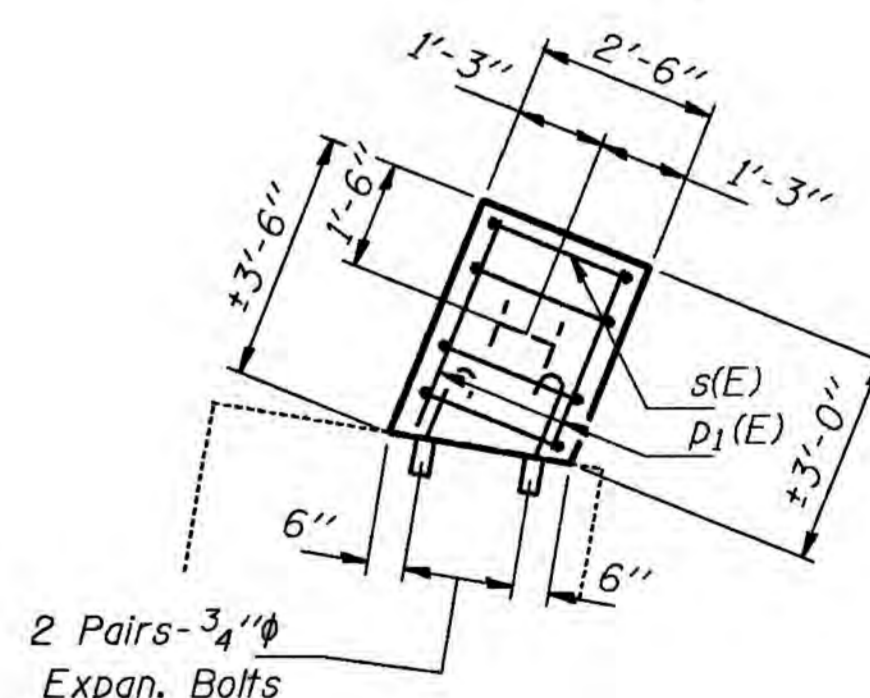
#5 (E) bars = 2'-2"



SECTION B-B



FOOTING PLAN  
(West Wing)



FOOTING PLAN  
(East Wing)

SOUTH ABUTMENT - NO. BD. LANES

F.A.I. RT. 80 SEC. 37-IHBY

HENRY COUNTY

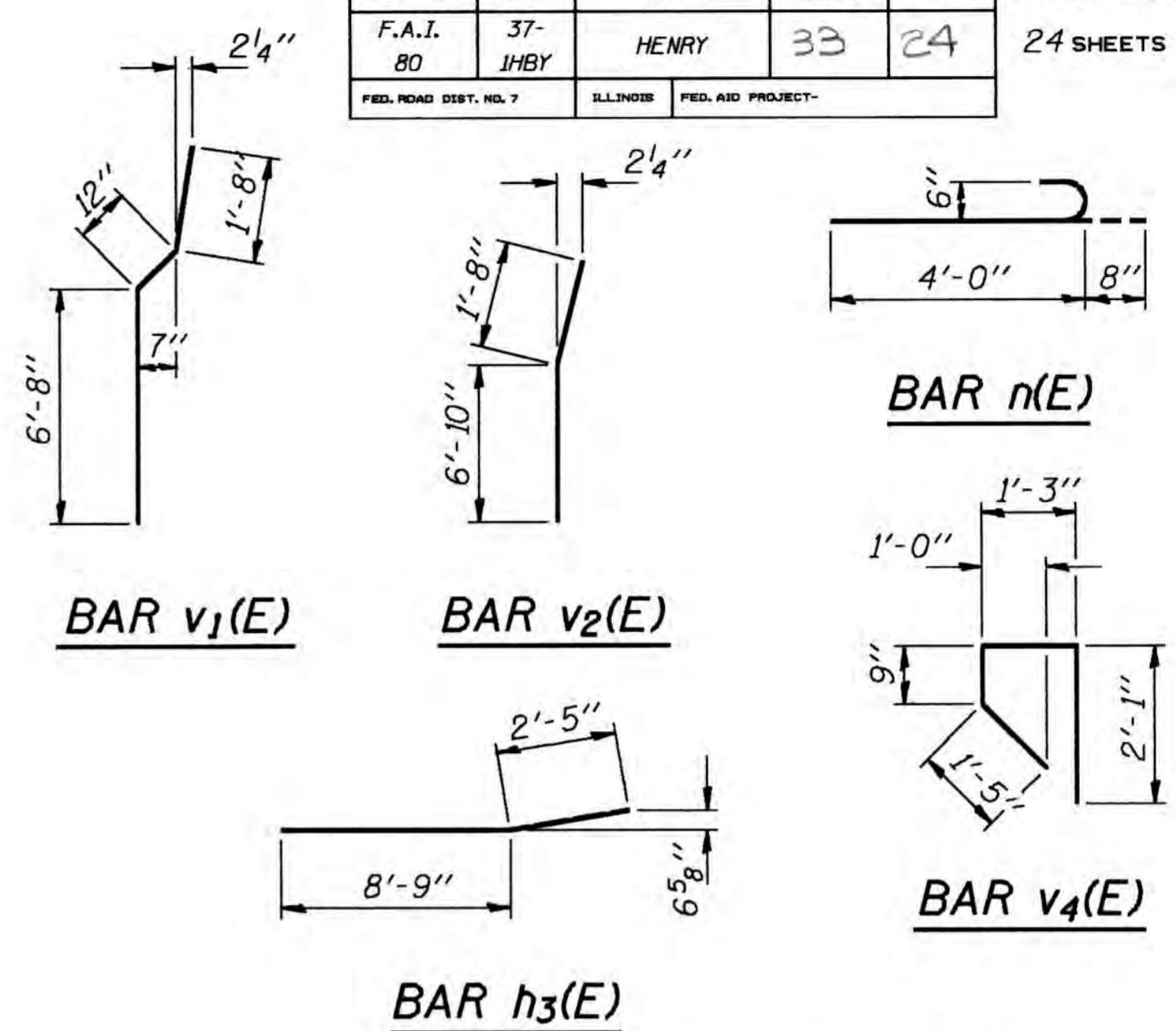
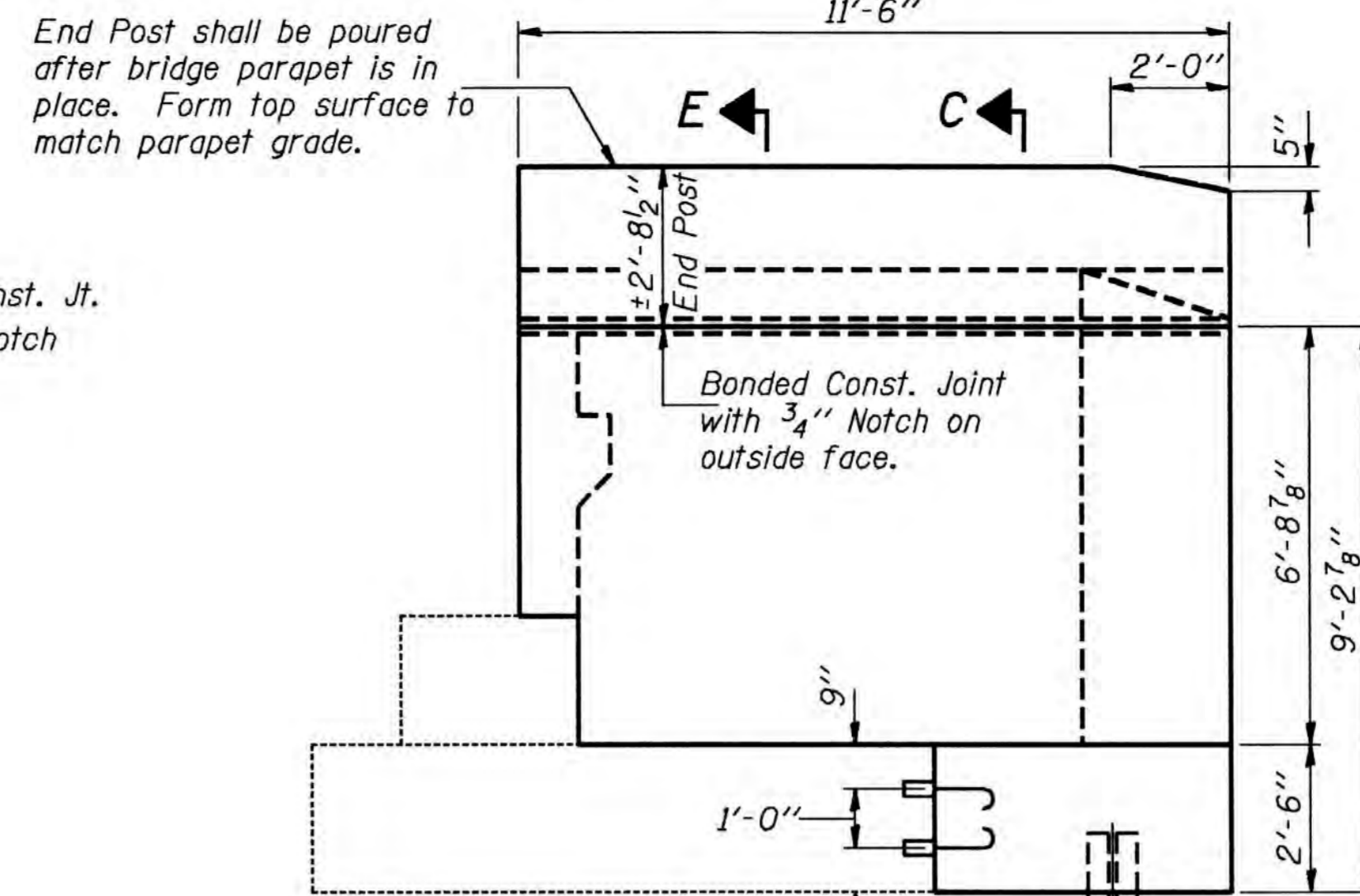
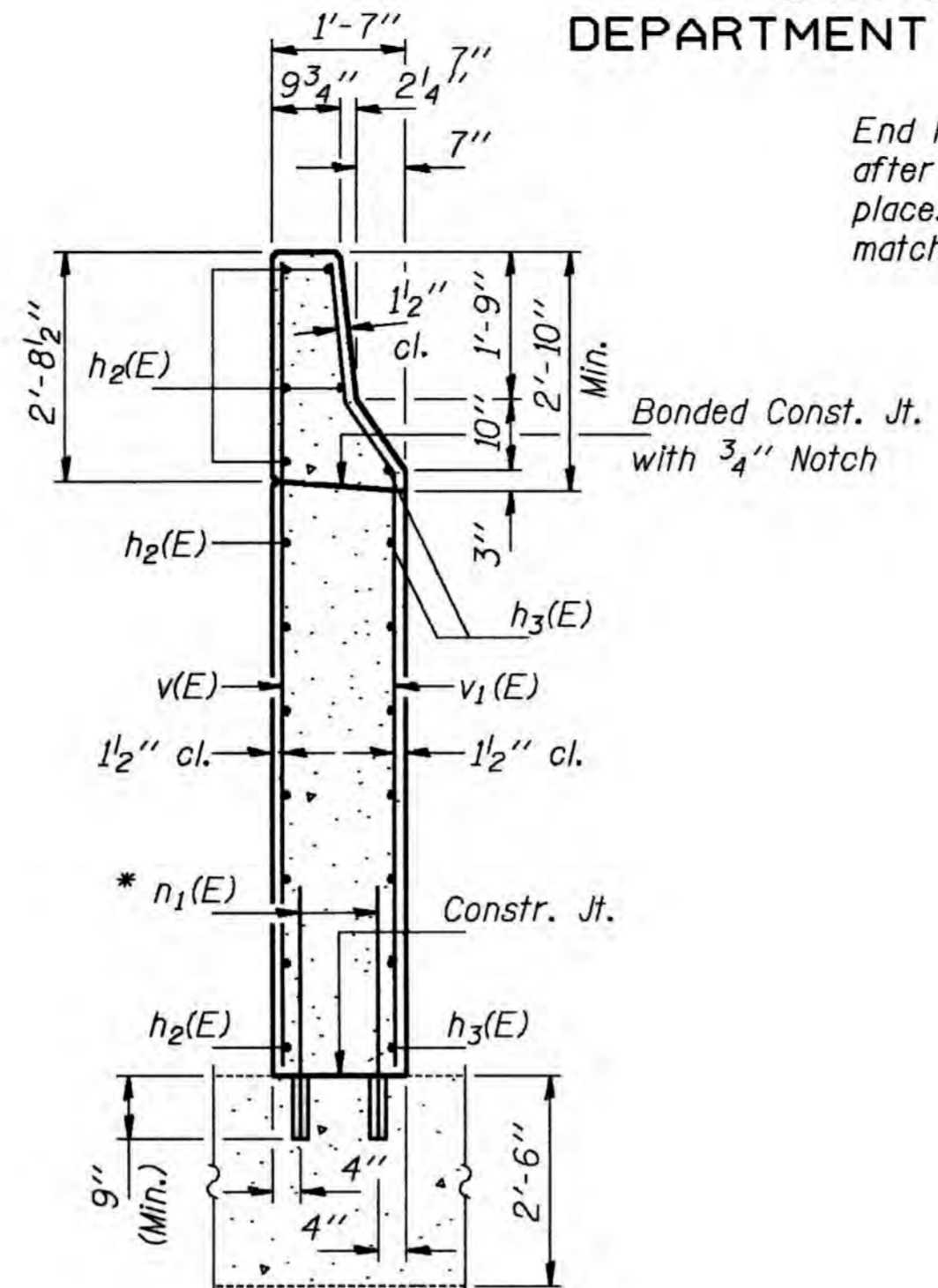
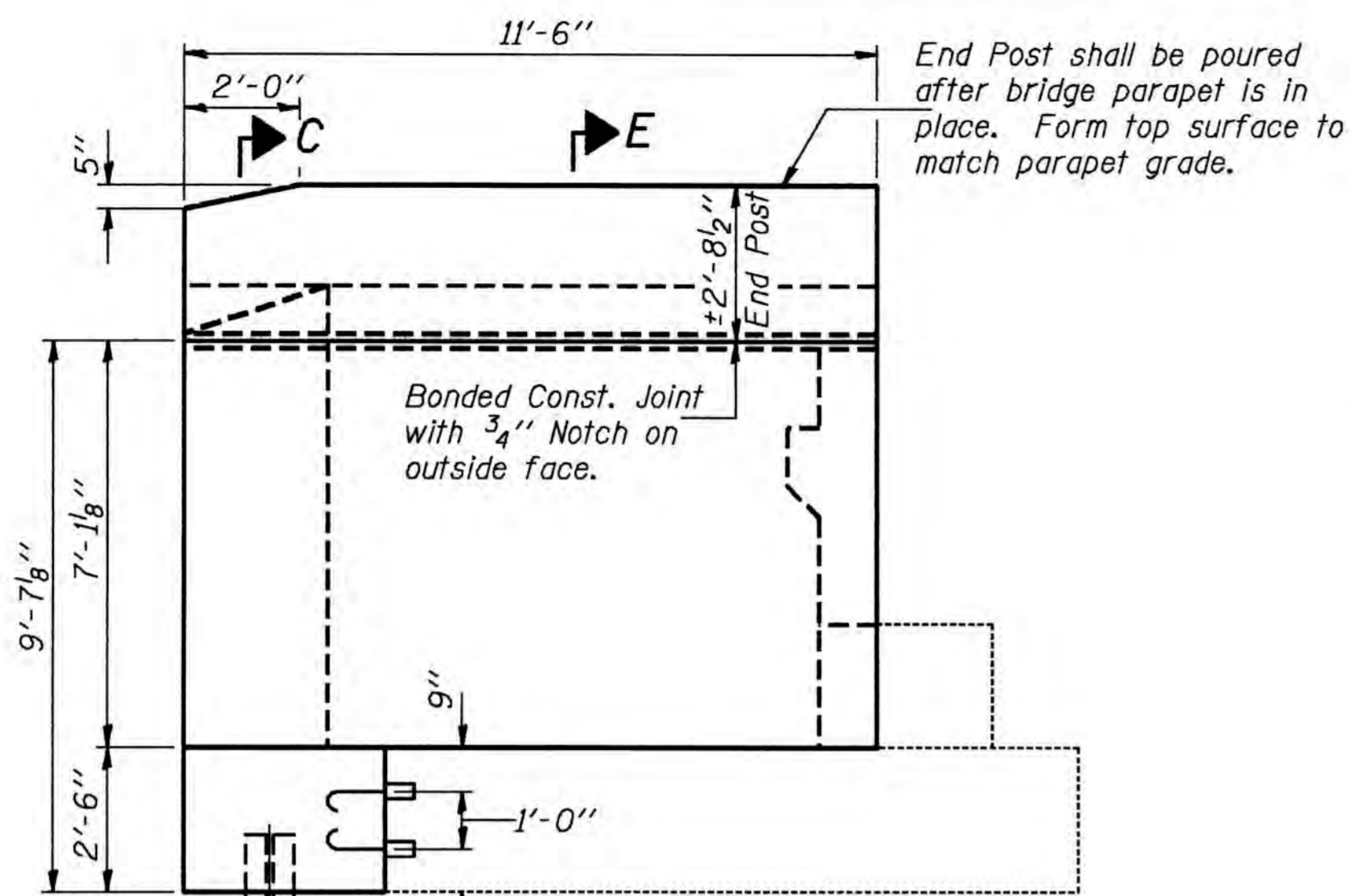
STA. 403+14.67

DESIGNED	Shaker Astour
CHECKED	Michael D. Cina
DRAWN	John F. Schneller Jr.
CHECKED	SA, MDC

EXAMINED	Aug 20 1994 Greg J. Kasper ENGINEER OF BRIDGE DESIGN
PASSED	Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES
APPROVED	DIRECTOR OF HIGHWAYS

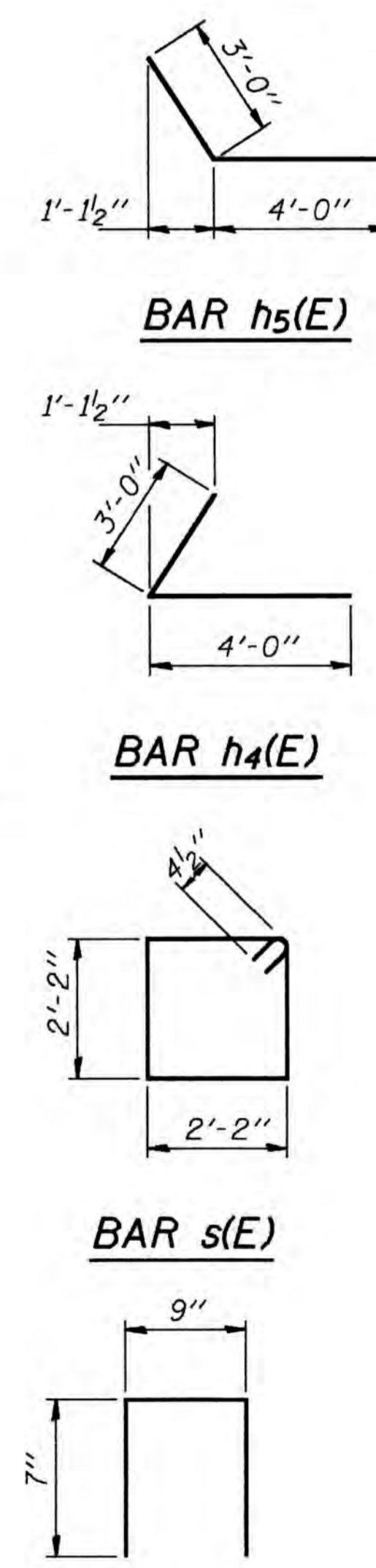
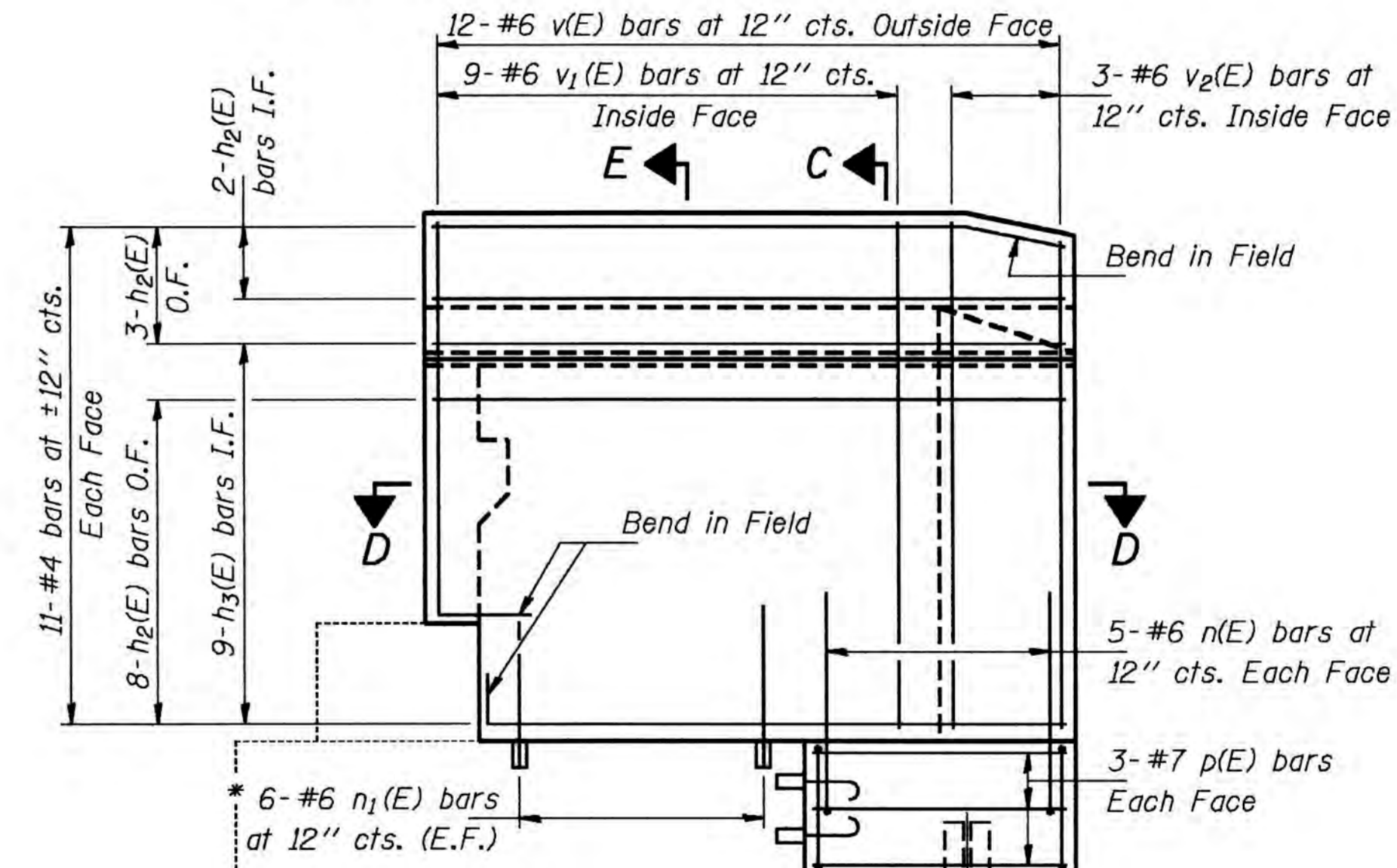
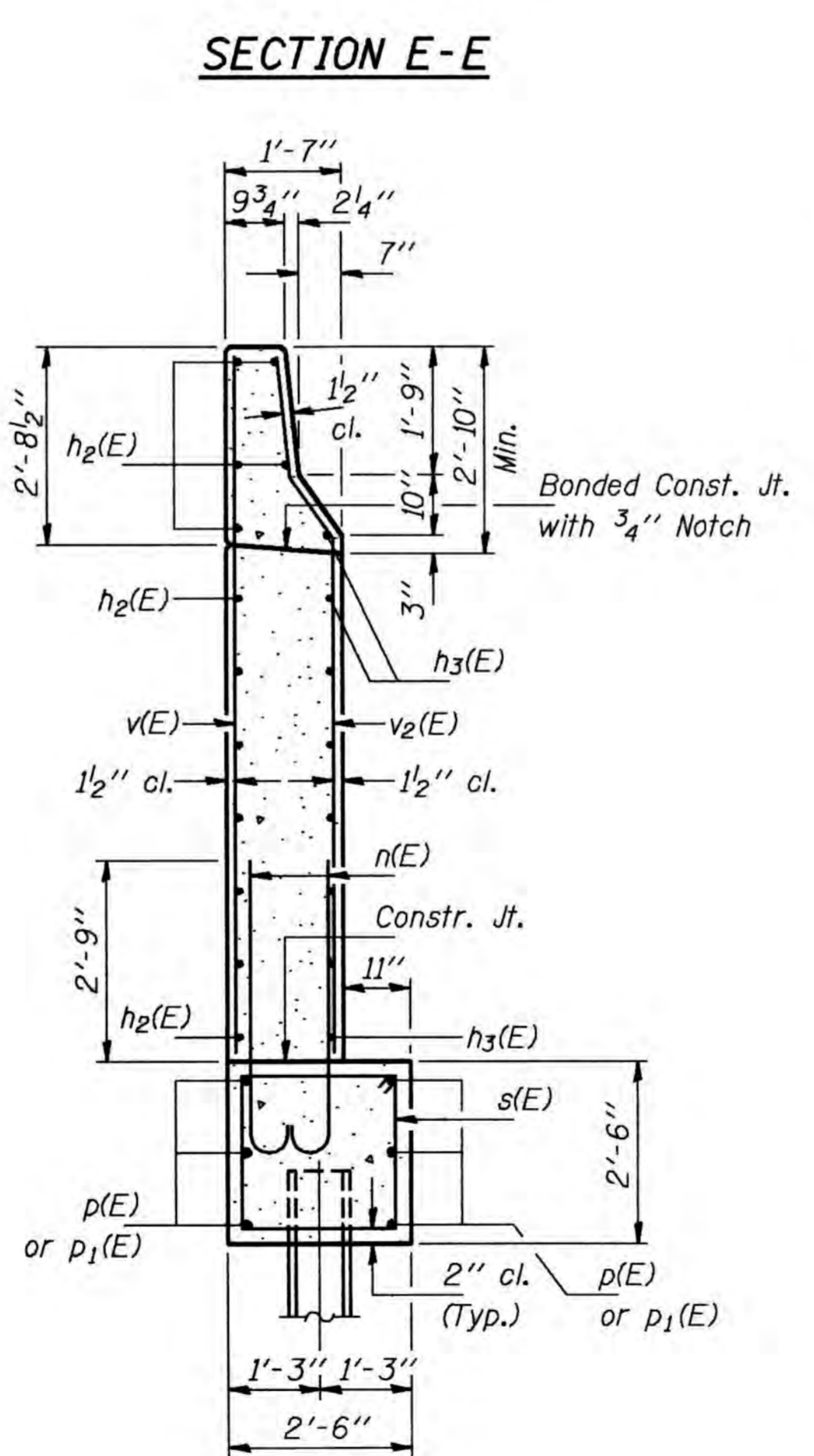
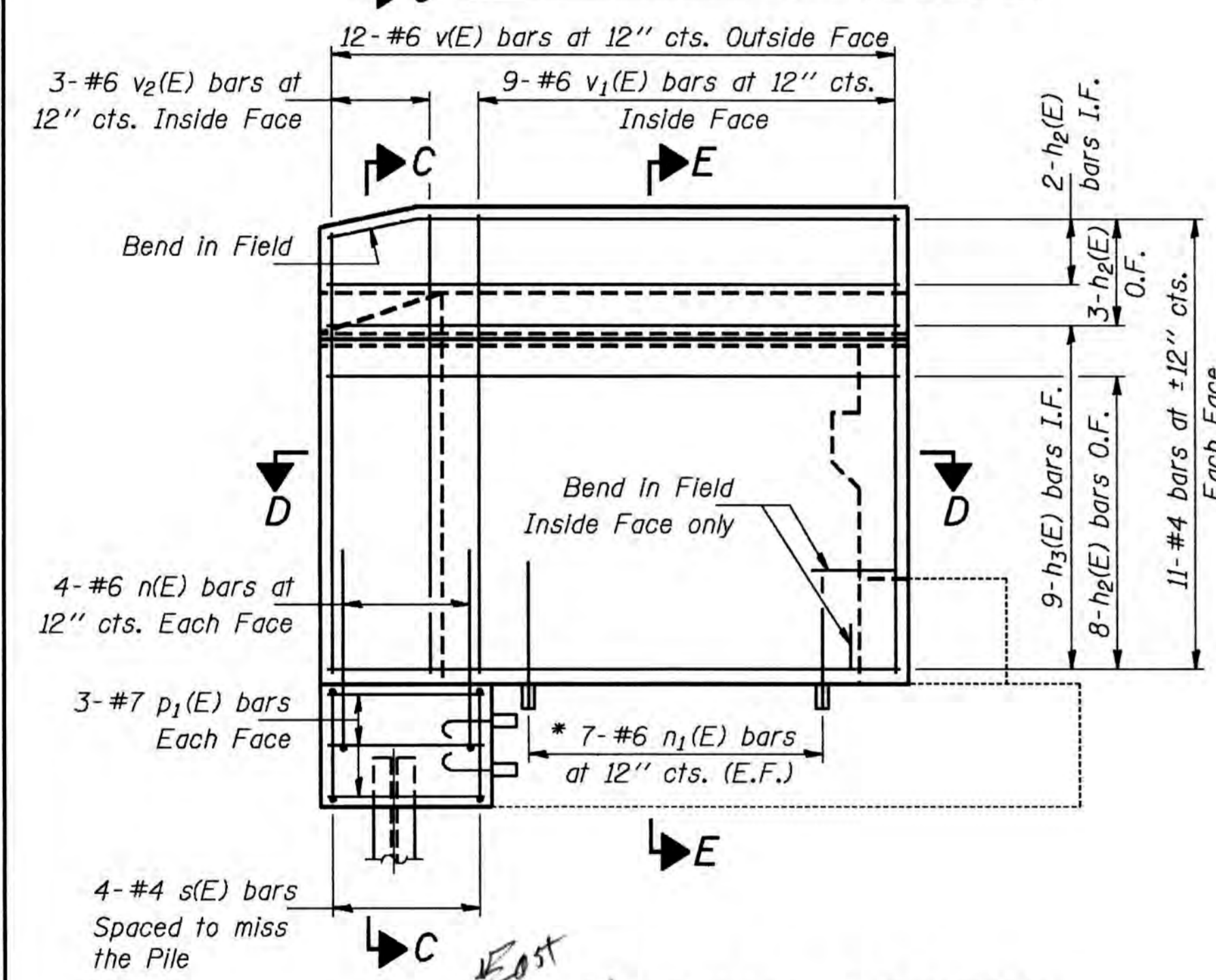
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 19
F.A.I. 80	37-1HBY	HENRY	33	24	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2(E)	26	#4	11'-2"	—
h3(E)	18	#4	11'-2"	—
h4(E)	9	#5	7'-0"	—
h5(E)	9	#5	7'-0"	—
h6(E)	4	#5	22'-3"	—
h7(E)	4	#5	27'-7"	—
n(E)	18	#6	4'-8"	—
n1(E)	26	#6	3'-0"	—
p1(E)	6	#7	2'-10"	—
p3(E)	6	#7	3'-10"	—
s(E)	10	#4	9'-5"	—
u(E)	49	#5	1'-11"	—
v(E)	24	#6	9'-4"	—
v1(E)	18	#6	9'-4"	—
v2(E)	6	#6	8'-6"	—
v3(E)	8	#5	1'-9"	—
v4(E)	8	#5	5'-6"	—
v5(E)	16	#5	4'-1"	—
Class X Concrete		Cu. Yds.	14.2	
Reinforcement Bars (Epoxy Coated)		Lbs.	1,950	
Steel Piles HP10x42		Lin. Ft.	48	
Structure Excavation		Cu. Yds.	21	
Expansion Bolts 3/4"φ		Each	107	



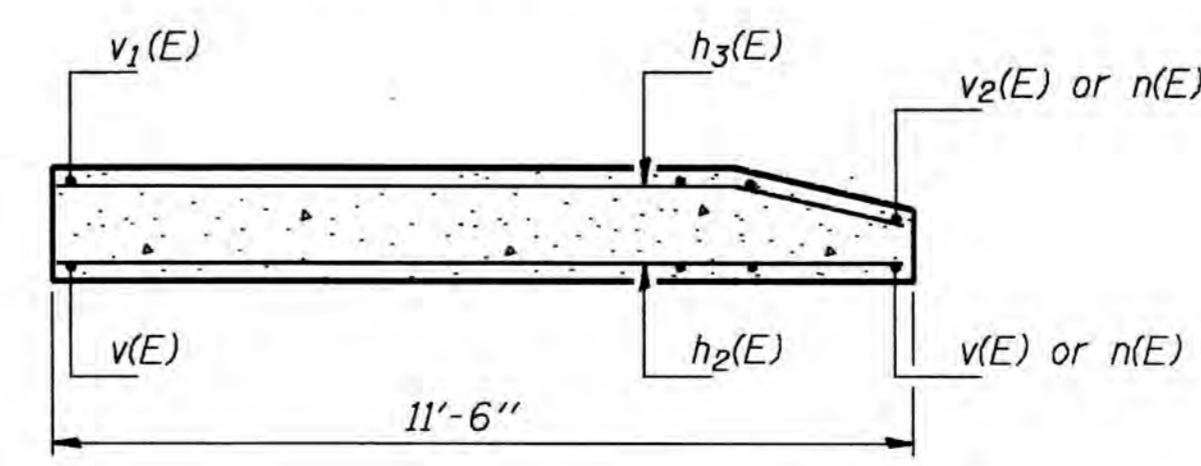
SOUTH ABUTMENT DETAILS  
NORTH BOUND LANES  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

SECTION D-D

DESIGNED	Shaker Asfour	EXAMINED	Aug 20 1990
CHECKED	Michael D. Cava	PASSED	Ralph E. Anderson
DRAWN	John F. Schneller Jr.	APPROVED	
CHECKED	SA, MAC		

\* Drill 1"φ Hole & epoxy grout n1(E) bars 9" Min. See Special Provisions. Cost shall be incidental to "Reinforcement Bars (Epoxy Coated)".

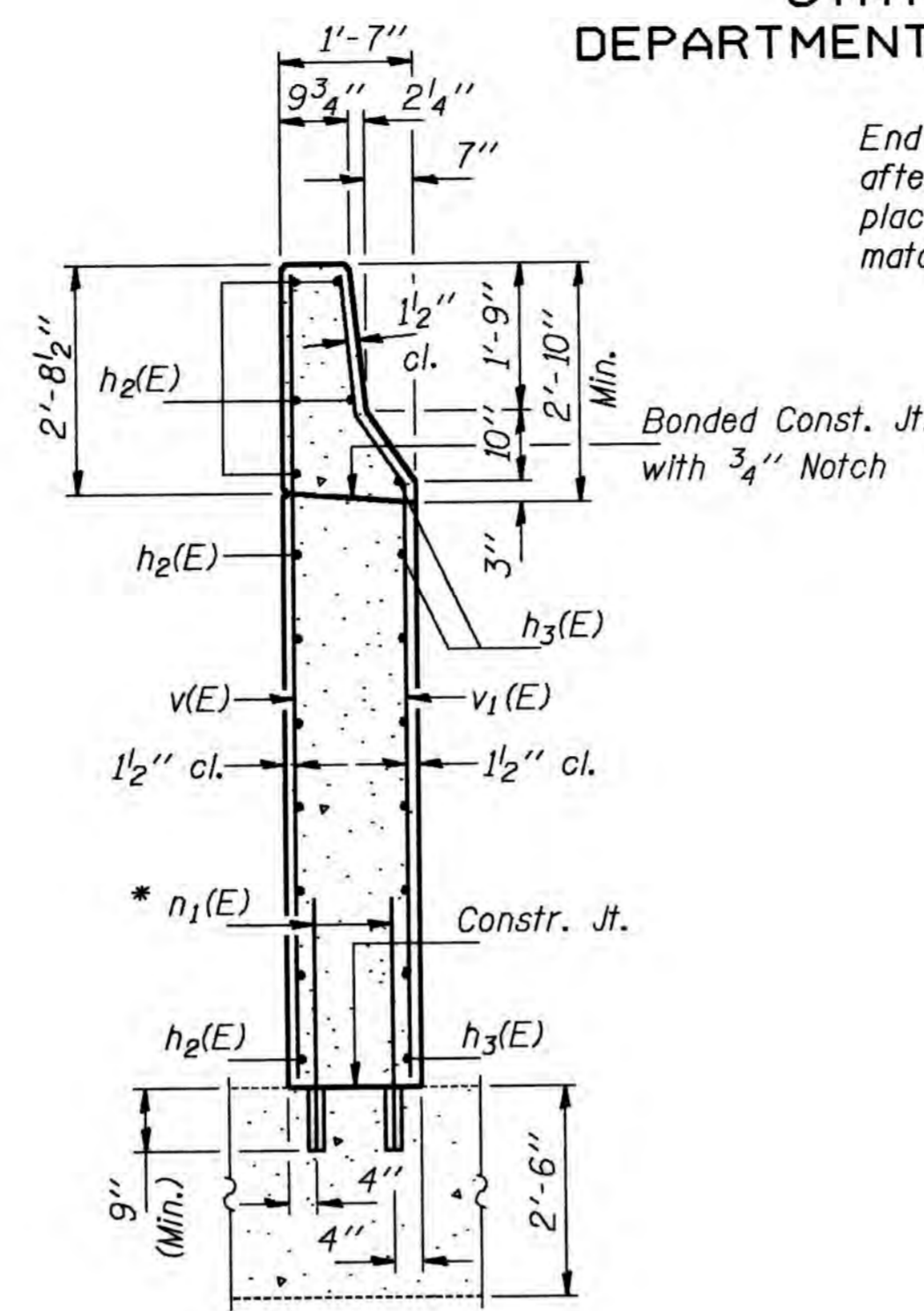
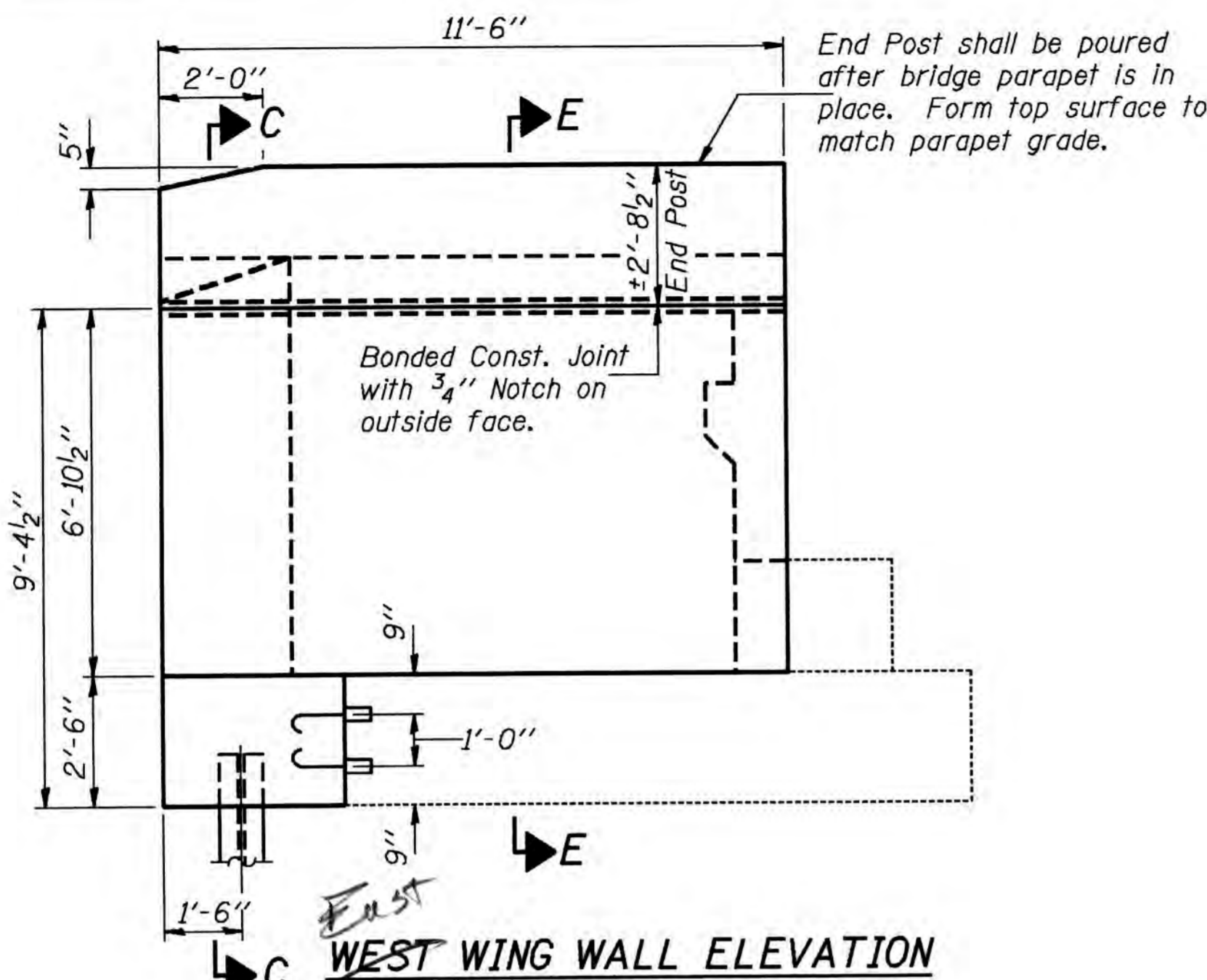
SECTION D-D



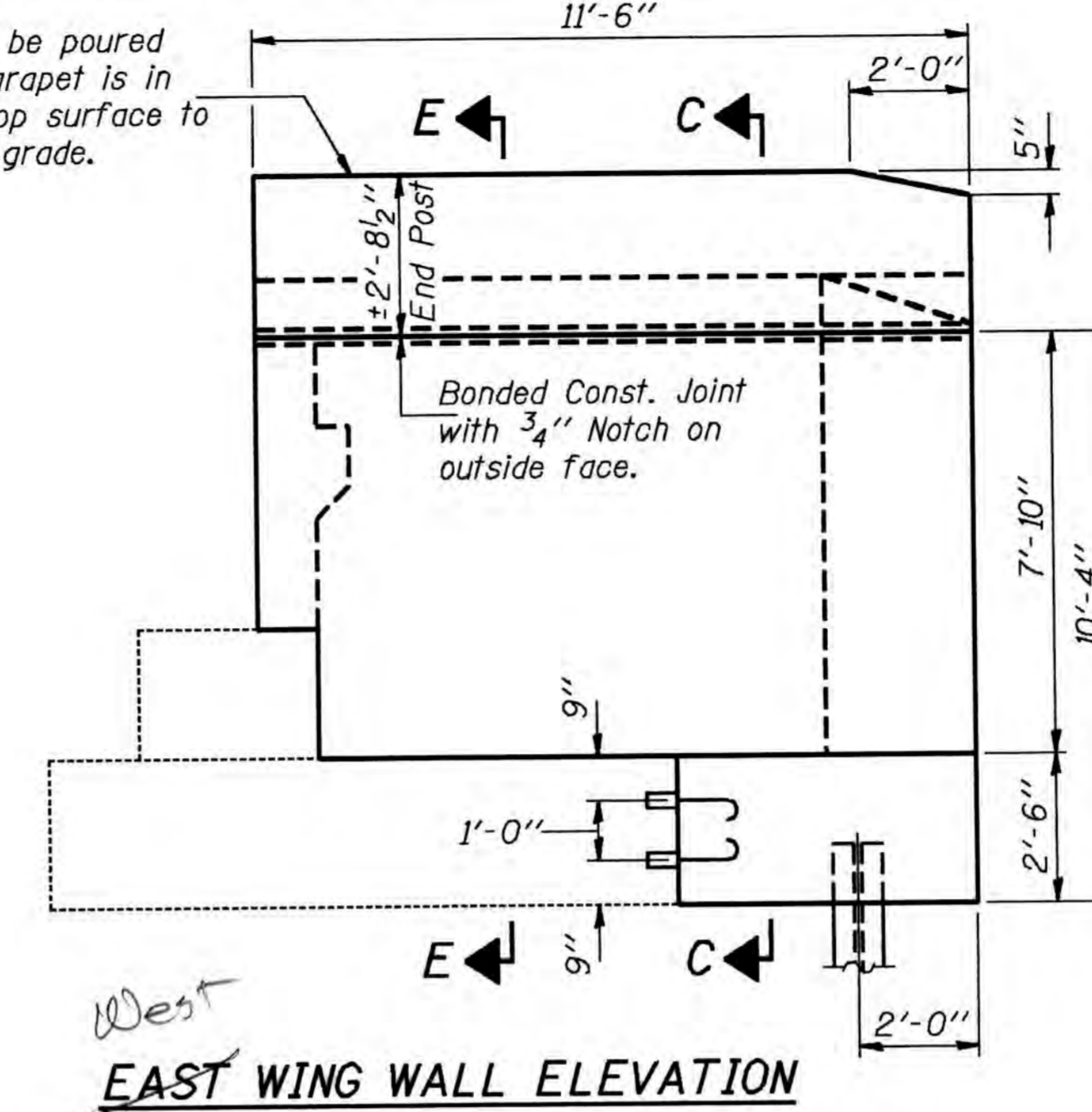


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

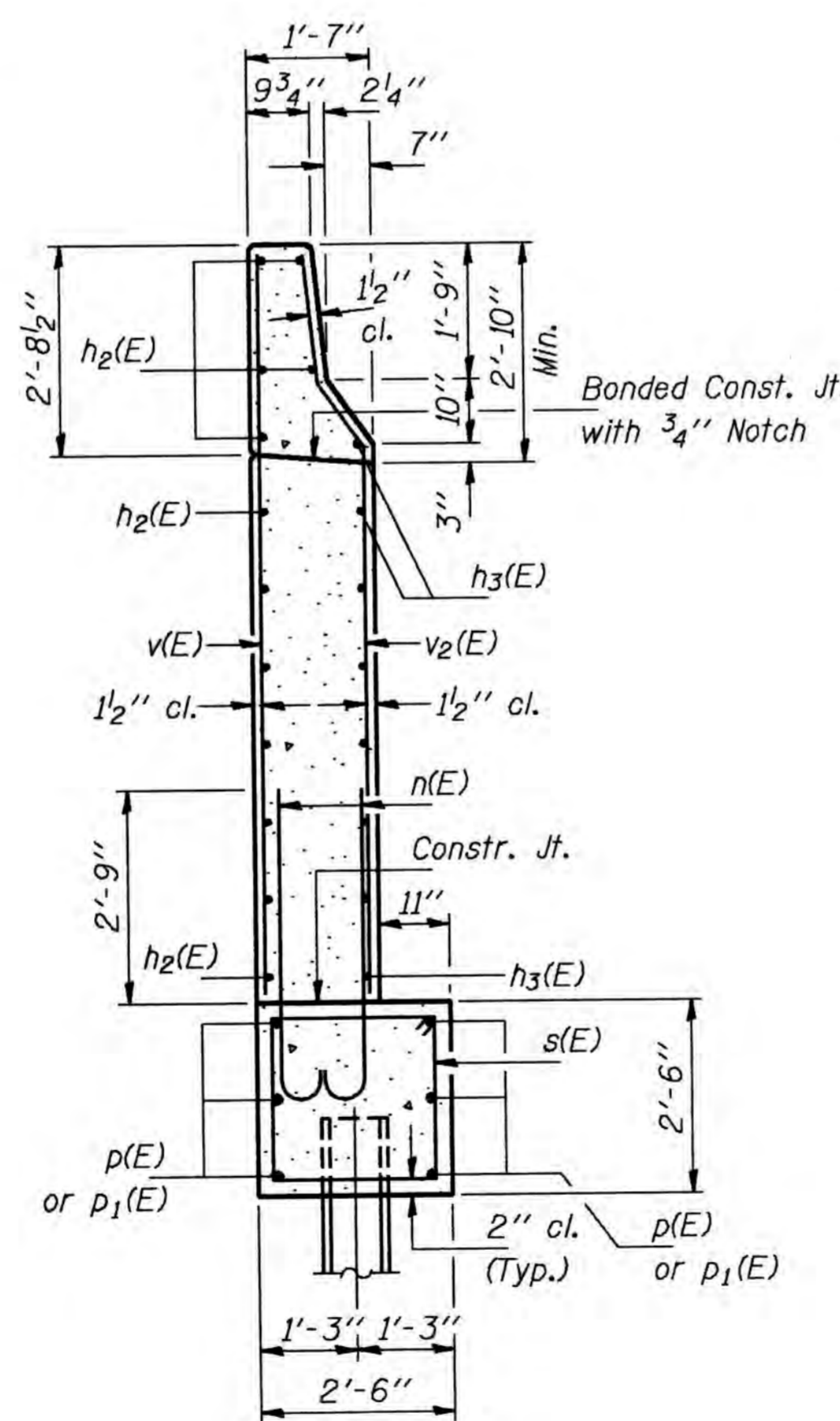
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



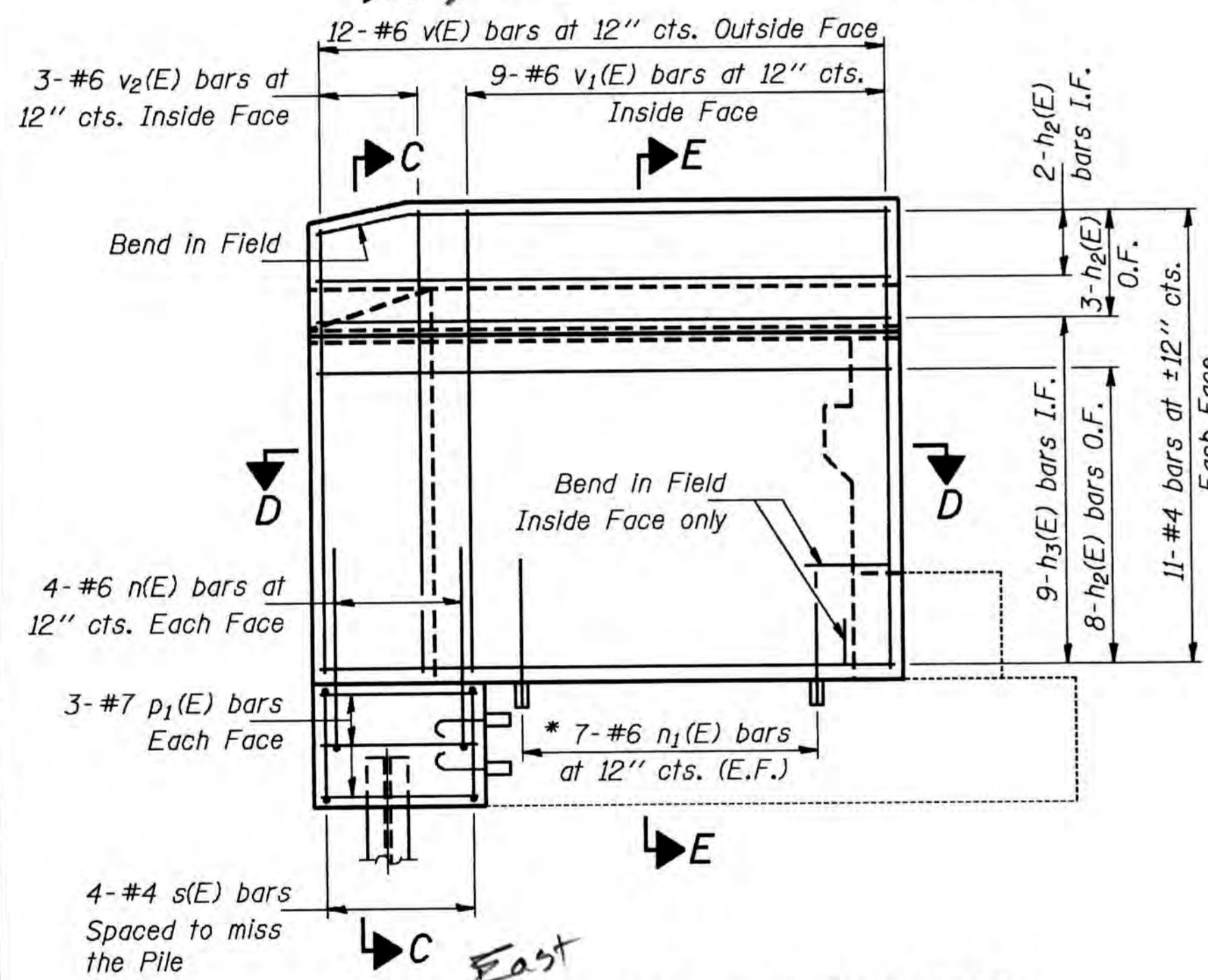
End Post shall be poured after bridge parapet is in place. Form top surface to match parapet grade.



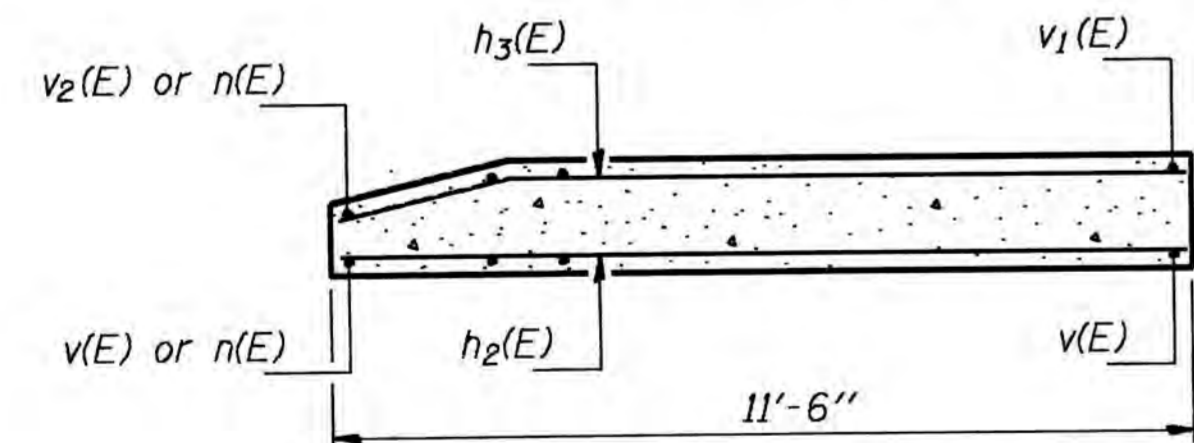
SECTION E-E



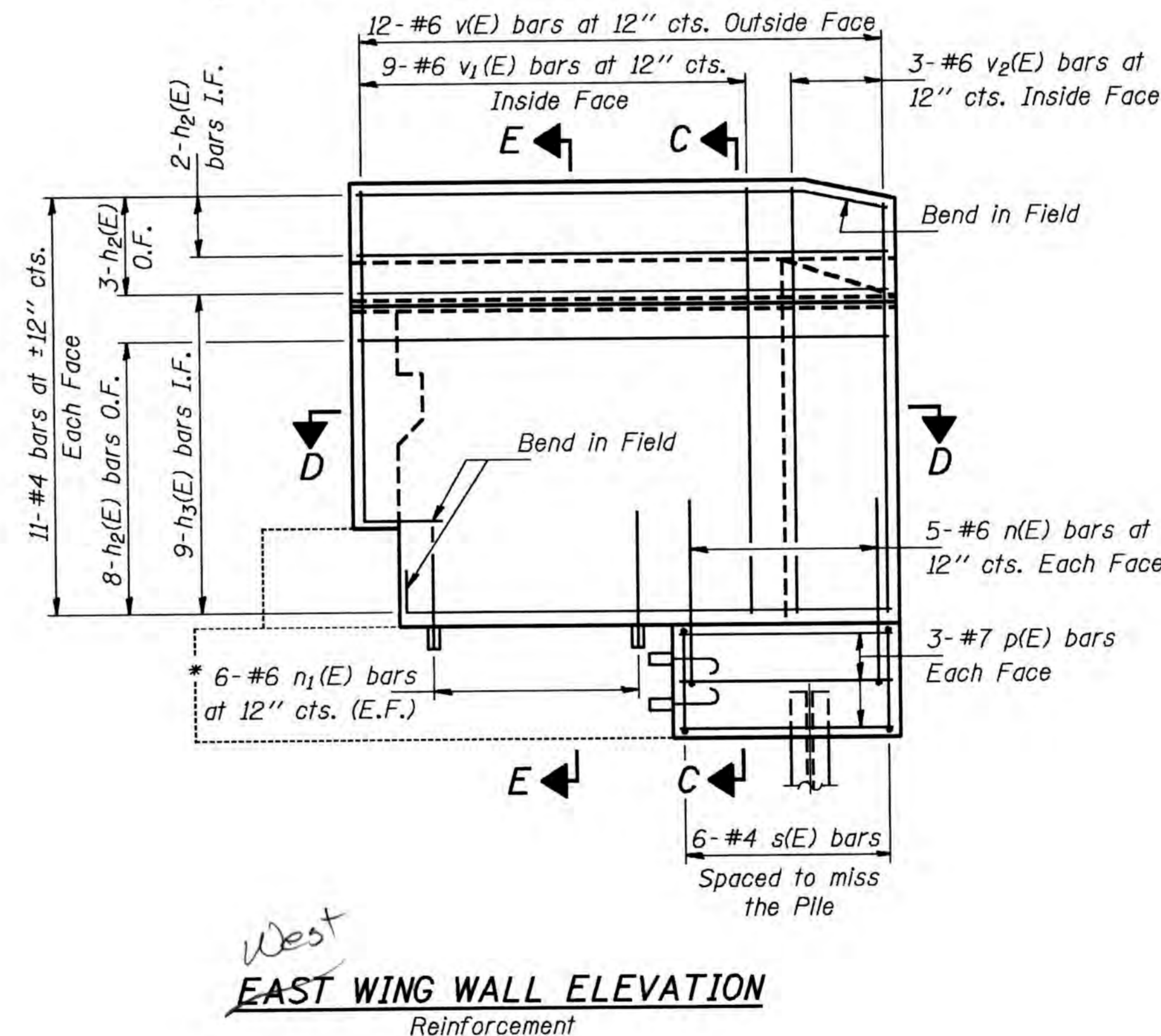
SECTION C-C



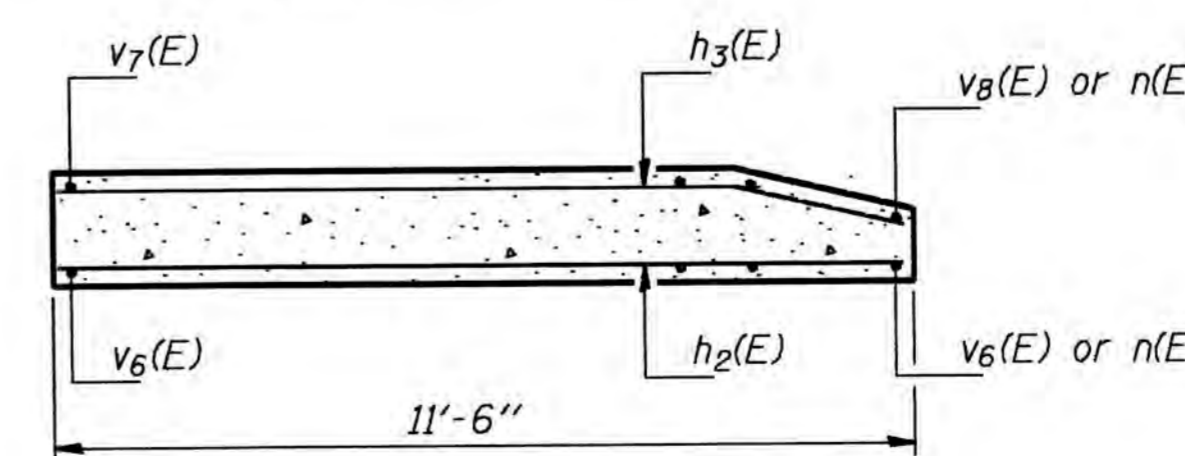
WEST WING WALL ELEVATION Reinforcement



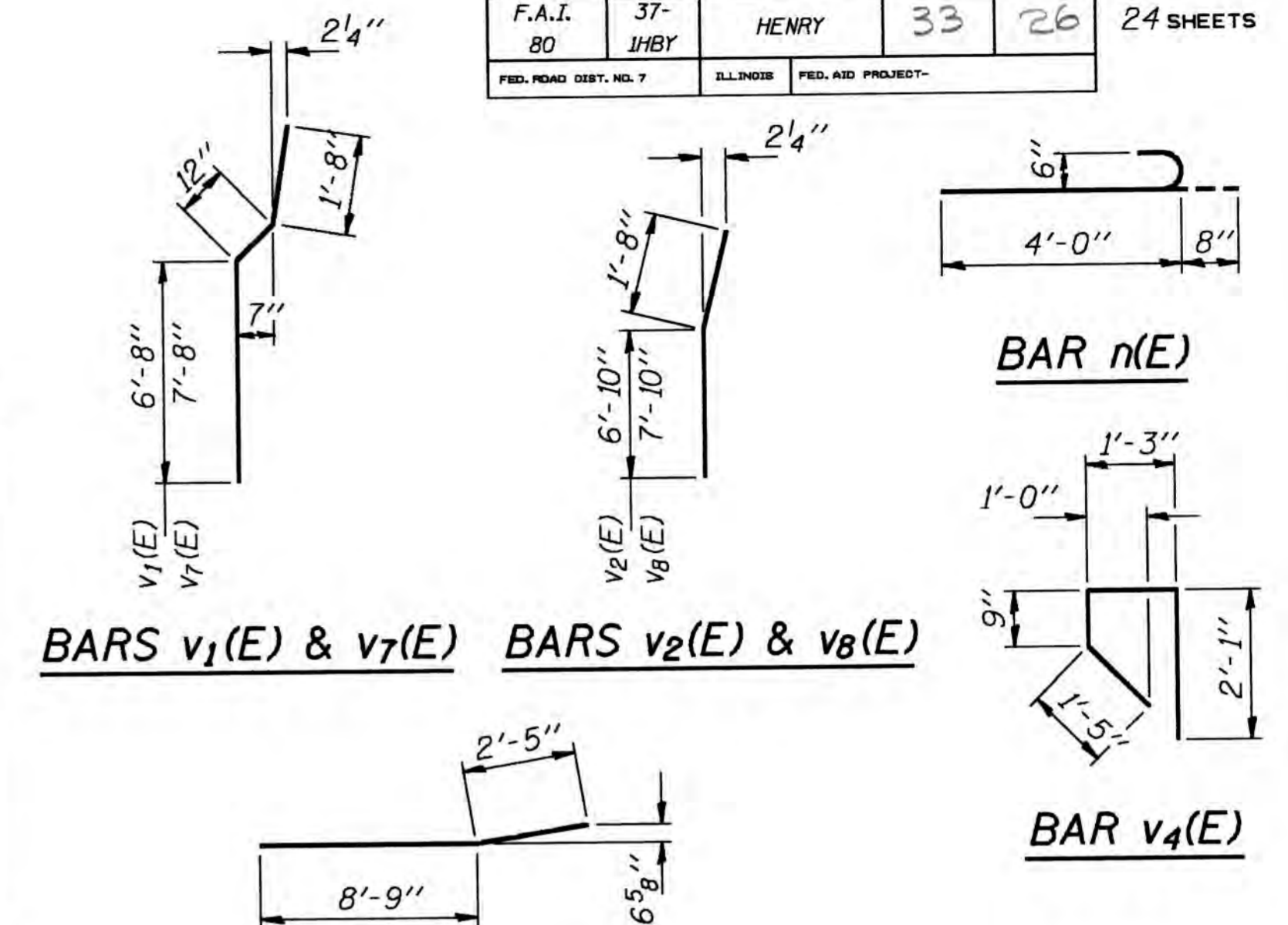
SECTION D-D



EAST WING WALL ELEVATION Reinforcement



SECTION D-D



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2(E)	26	#4	11'-2"	
h3(E)	18	#4	11'-2"	
h4(E)	9	#5	7'-0"	
h5(E)	9	#5	7'-0"	
h8(E)	4	#5	28'-9"	
h9(E)	4	#5	29'-6"	
n(E)	18	#6	4'-8"	
n1(E)	26	#6	3'-0"	
p1(E)	6	#7	2'-10"	
p3(E)	6	#7	3'-10"	
s(E)	10	#4	9'-5"	
u(E)	57	#5	1'-11"	
v(E)	12	#6	9'-4"	
v1(E)	9	#6	9'-4"	
v2(E)	3	#6	8'-6"	
v3(E)	8	#5	1'-9"	
v4(E)	8	#5	5'-6"	
v5(E)	16	#5	4'-1"	
v6(E)	12	#6	10'-2"	
v7(E)	9	#6	10'-4"	
v8(E)	3	#6	9'-6"	
Class X Concrete				Cu. Yds. 14.7
Reinforcement Bars (Epoxy Coated)				Lbs. 2,030
Steel Piles HP10x42				Lin. Ft. 68
Structure Excavation				Cu. Yds. 21
Expansion Bolts 3/4"φ				Each 125

NORTH ABUTMENT DETAILS  
SOUTH BOUND LANES  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

DESIGNED Shaker Astour  
CHECKED Michael D. Cina  
DRAWN John F. Schneller Jr.  
CHECKED SA, MDC

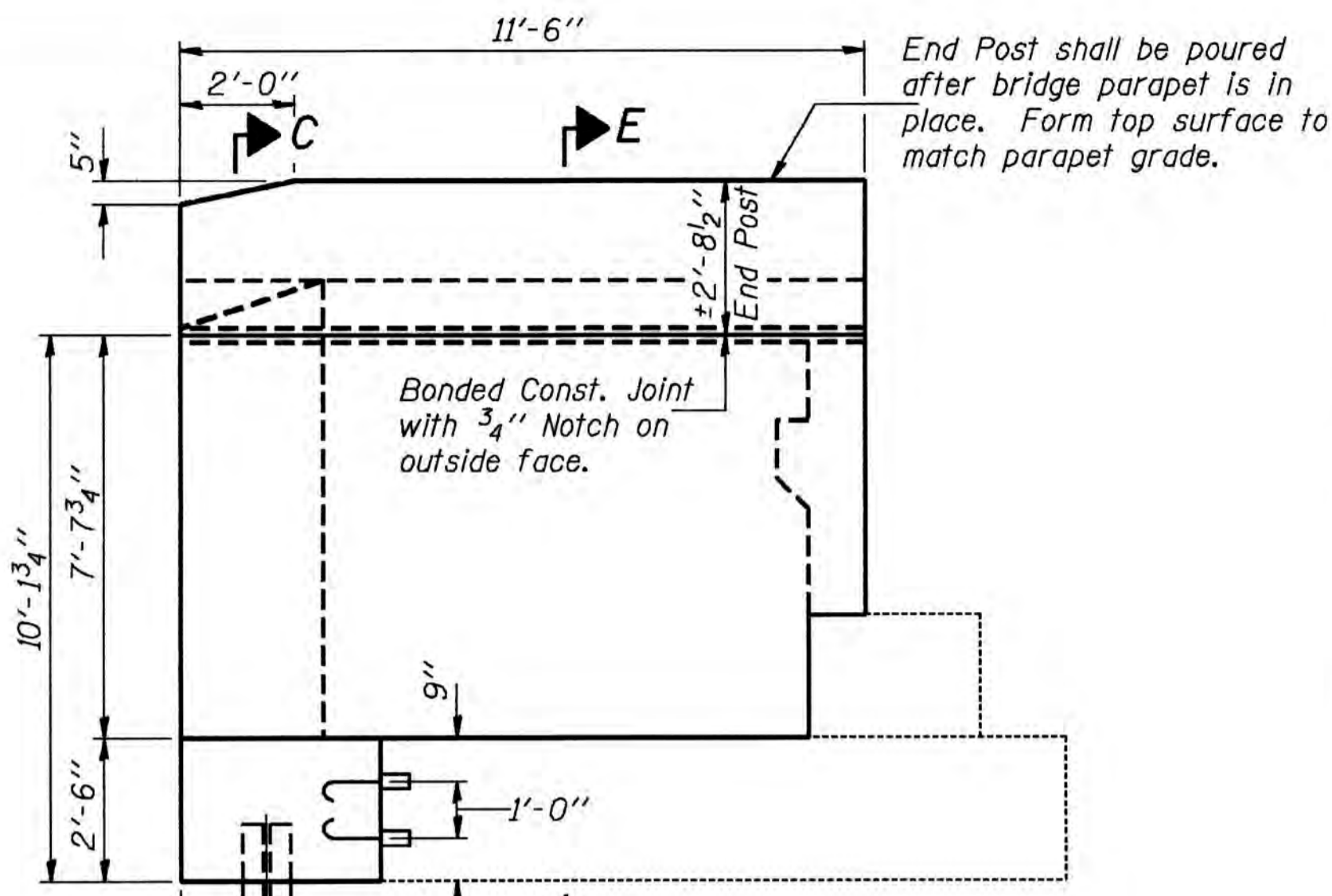
EXAMINED Craig J. Kaspar  
PASSED Ralph E. Anderson  
APPROVED [Signature]  
DIRECTOR OF HIGHWAYS

\* Drill 1"φ Hole & epoxy grout n1(E) bars 9" Min. See Special Provisions. Cost shall be incidental to "Reinforcement Bars (Epoxy Coated)".

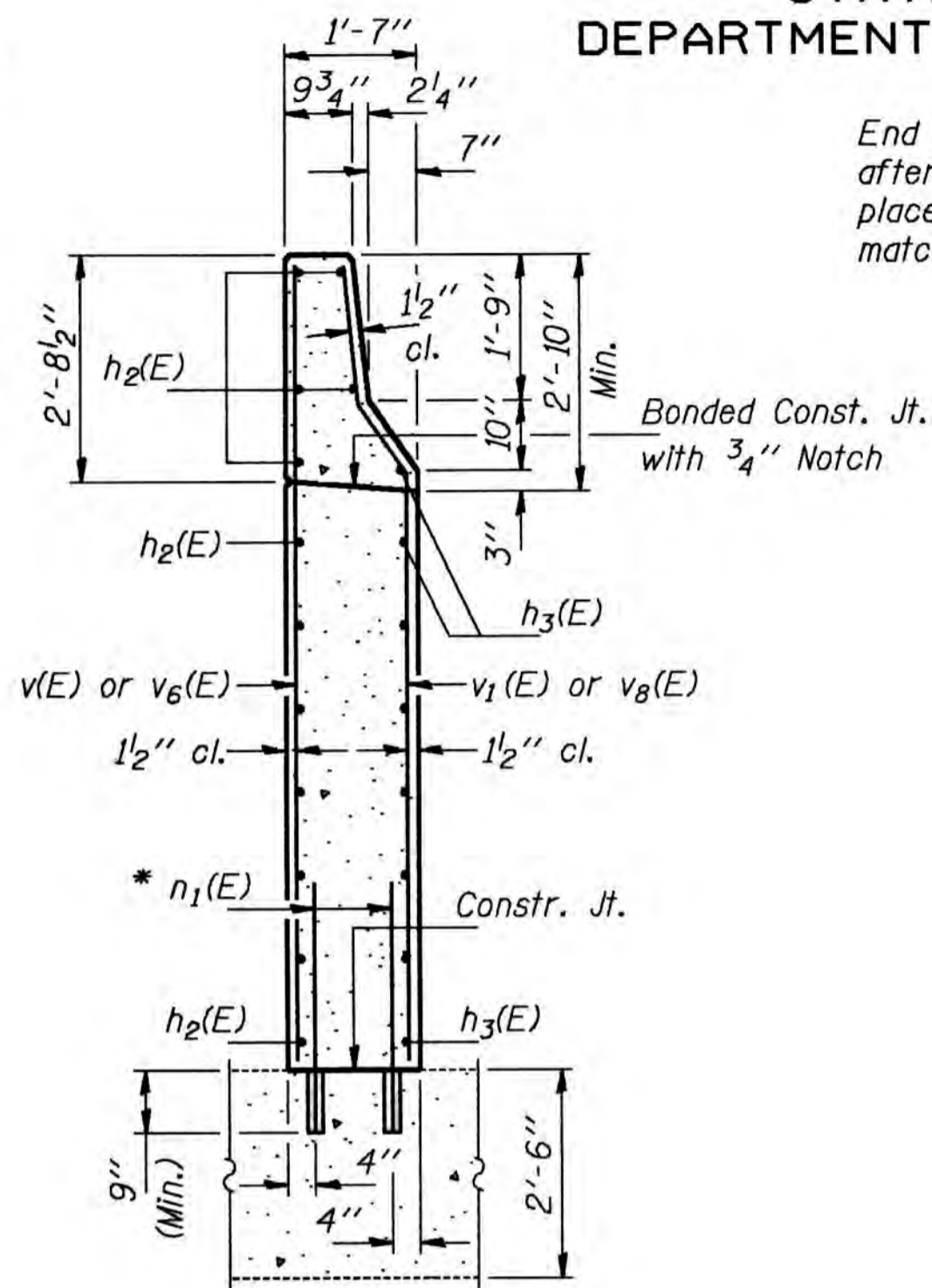


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SET	SHEET NO. 23
F.A.I. 80	37-1HBY	HENRY	33	28	24 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

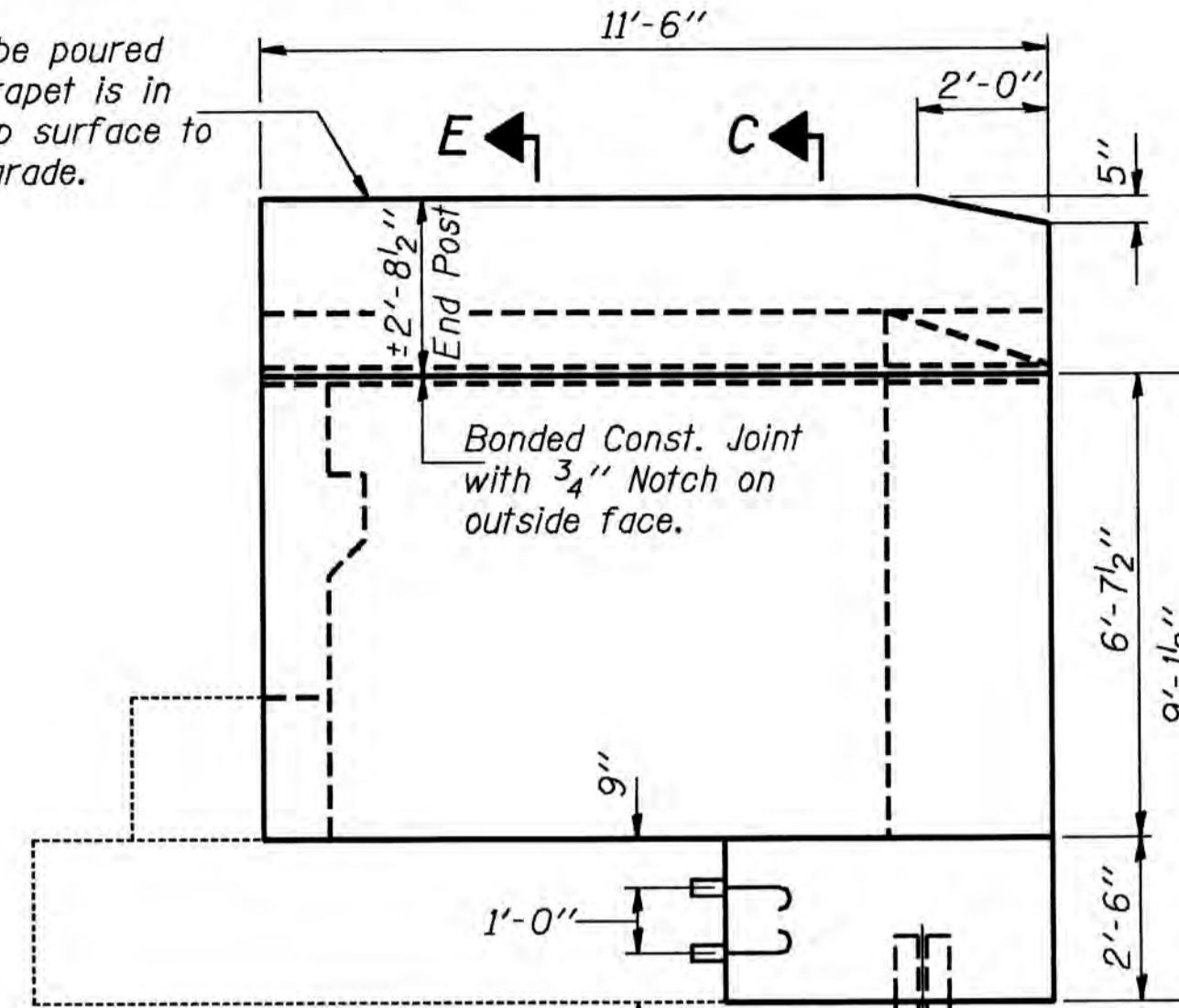


WEST WING WALL ELEVATION

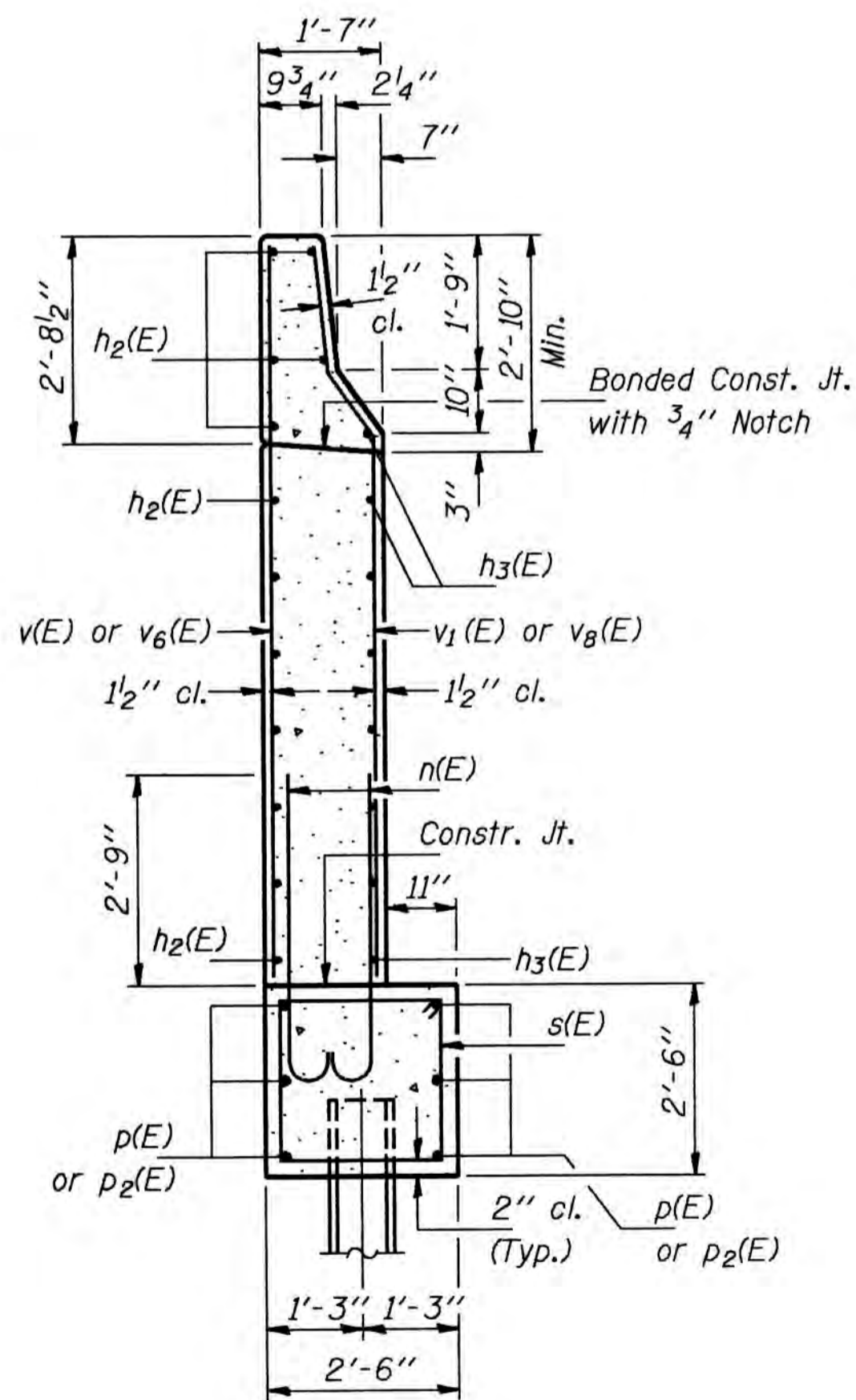


SECTION E-E

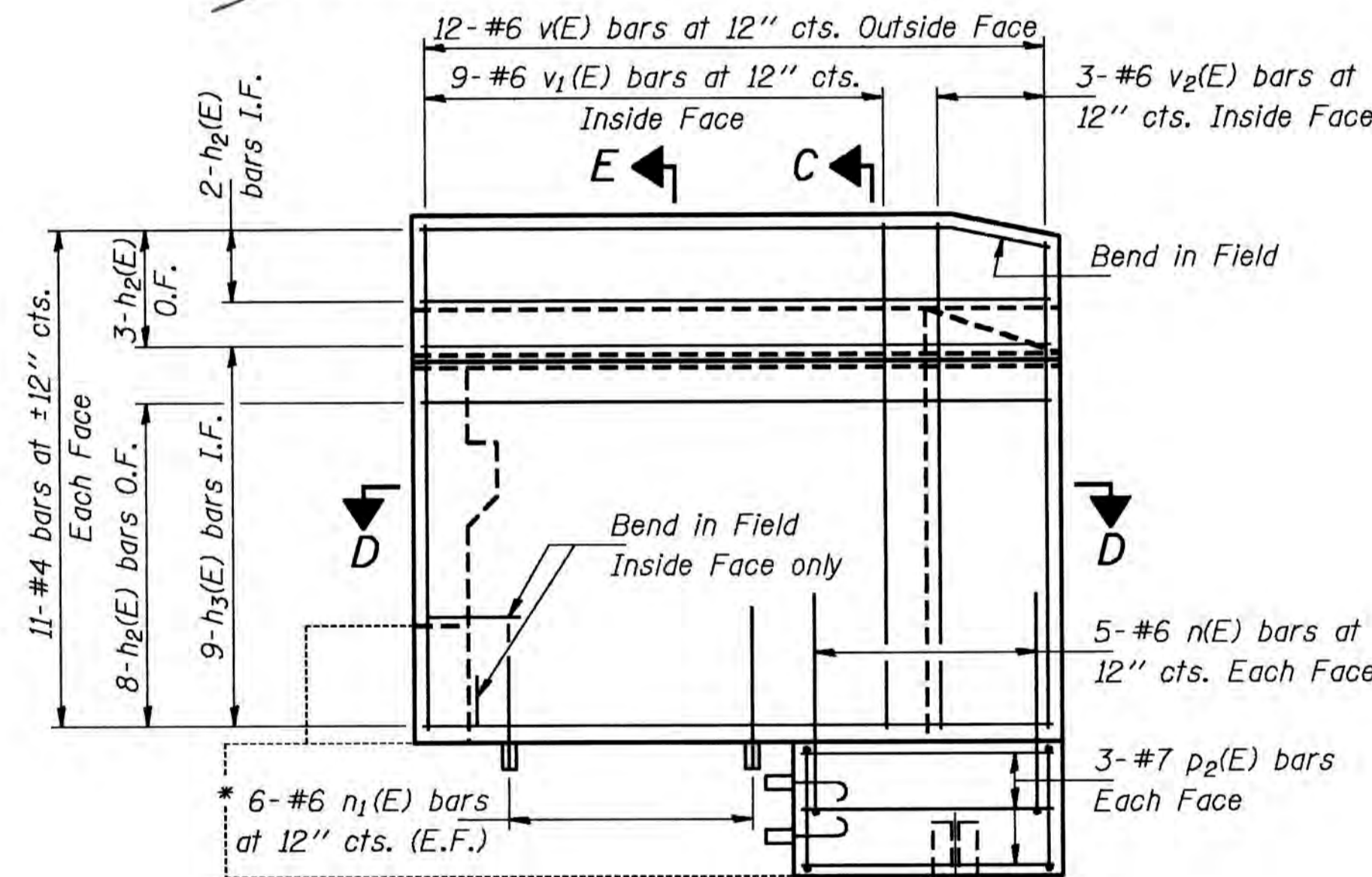
End Post shall be poured after bridge parapet is in place. Form top surface to match parapet grade.



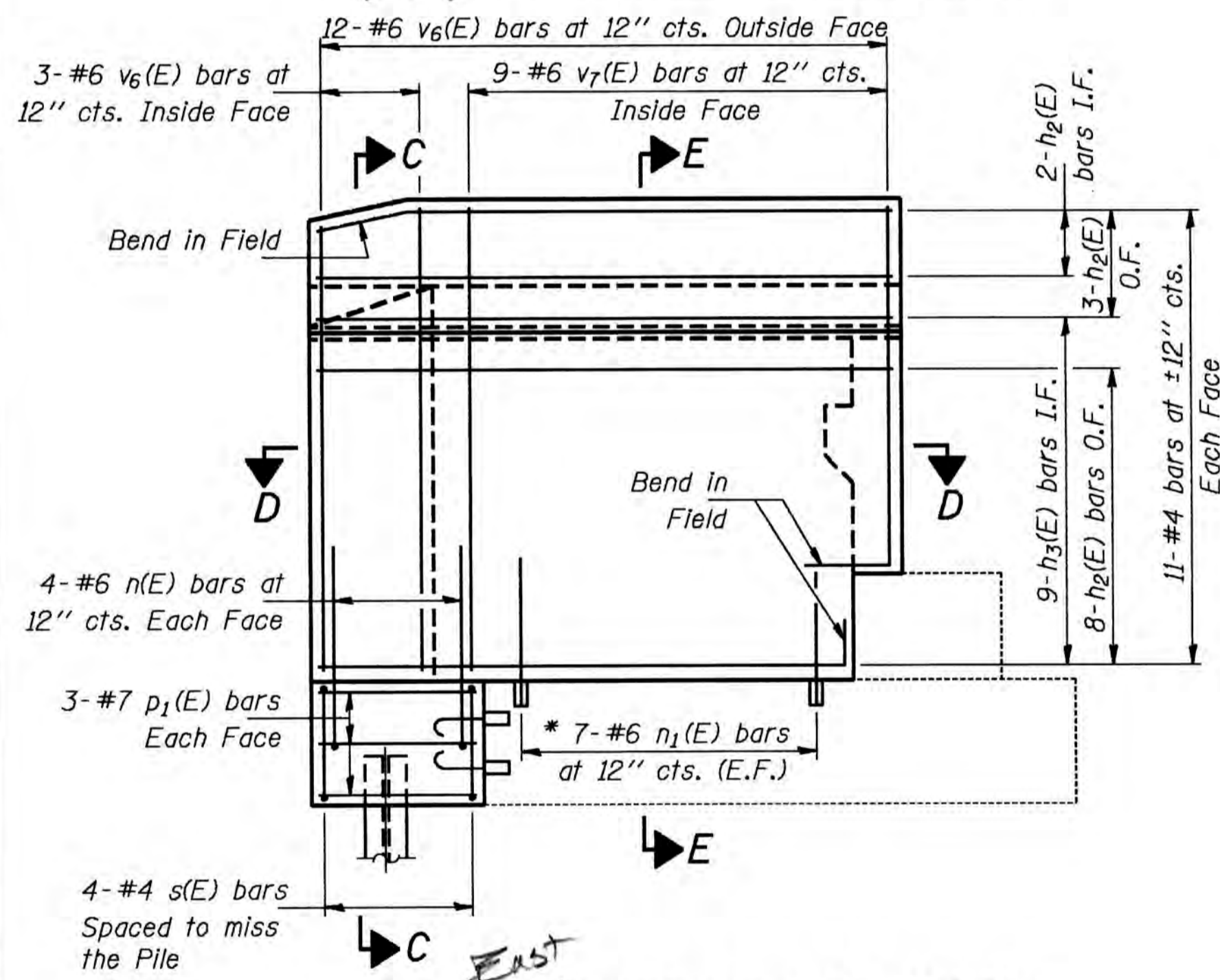
EAST WING WALL ELEVATION



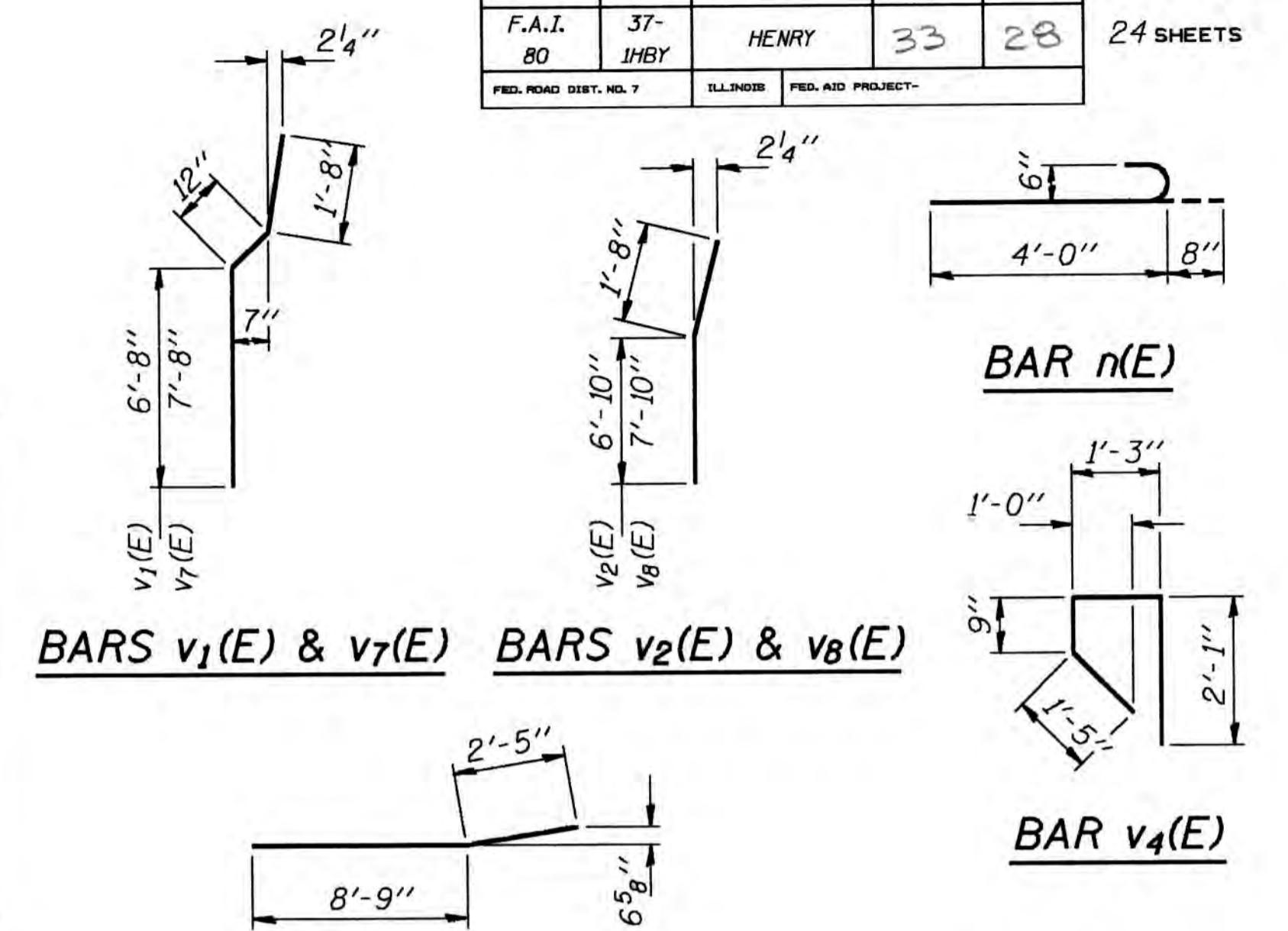
SECTION C-C



EAST WING WALL ELEVATION  
Reinforcement



WEST WING WALL ELEVATION  
Reinforcement



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h2(E)	26	#4	11'-2"	
h3(E)	18	#4	11'-2"	
h4(E)	9	#5	7'-0"	
h5(E)	9	#5	7'-0"	
h9(E)	4	#5	29'-6"	
h10(E)	4	#5	26'-8"	
n(E)	18	#6	4'-8"	
n1(E)	26	#6	3'-0"	
p1(E)	6	#7	2'-10"	
p2(E)	6	#7	4'-6"	
s(E)	10	#4	9'-5"	
u(E)	55	#5	1'-11"	
v(E)	12	#6	9'-4"	
v1(E)	9	#6	9'-4"	
v2(E)	3	#6	8'-6"	
v3(E)	8	#5	1'-9"	
v4(E)	8	#5	5'-6"	
v5(E)	16	#5	4'-1"	
v6(E)	12	#6	10'-2"	
v7(E)	9	#6	10'-4"	
v8(E)	3	#6	9'-6"	
Class X Concrete		Cu. Yds.	14.7	
Reinforcement Bars (Epoxy Coated)		Lbs.	2,030	
Steel Piles HP10x42		Lin. Ft.	33	
Test Piles Steel HP10x42		Each	1	
Structure Excavation		Cu. Yds.	21	
Expansion Bolts 3/4"φ		Each	119	

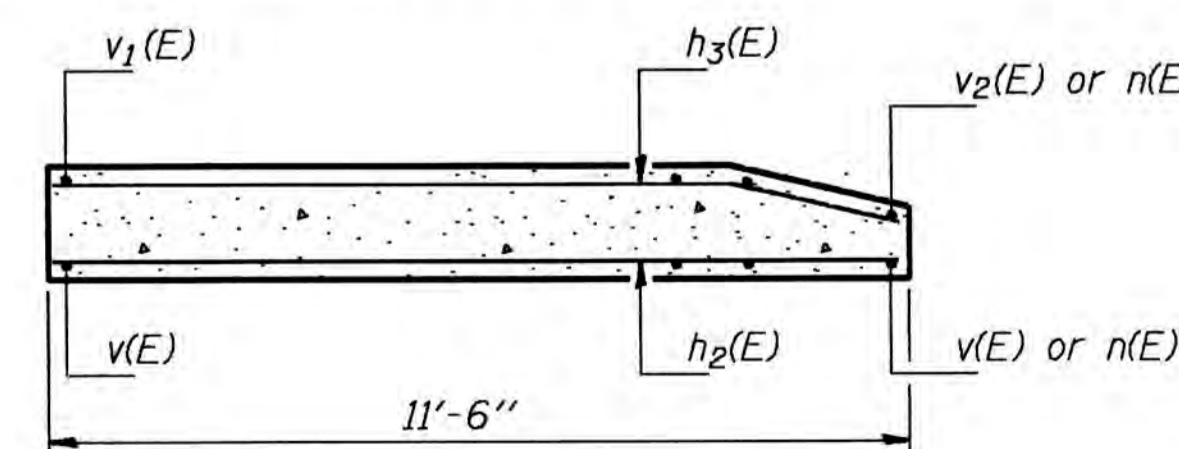
SOUTH ABUTMENT DETAILS  
SOUTH BOUND LANES  
F.A.I. RT. 80 SEC. 37-1HBY  
HENRY COUNTY  
STA. 403+14.67

DESIGNED Shaker Asfour  
CHECKED Michael D. Cima  
DRAWN John F. Schneller Jr.  
CHECKED SA, MDC

SECTION D-D

Aug. 20 1970  
EXAMINED [Signature]  
PASSED [Signature]  
APPROVED [Signature]  
DIRECTOR OF HIGHWAYS

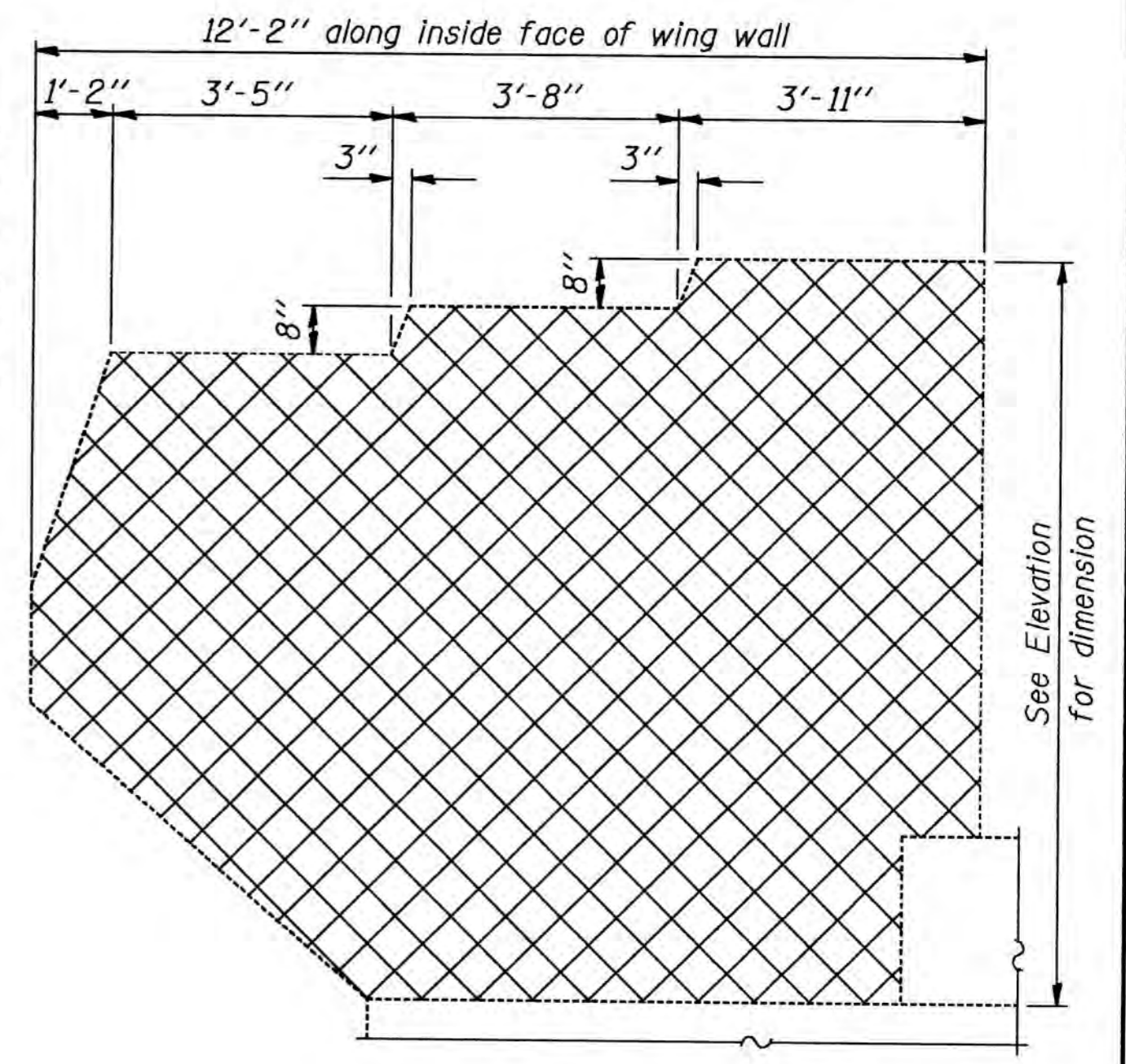
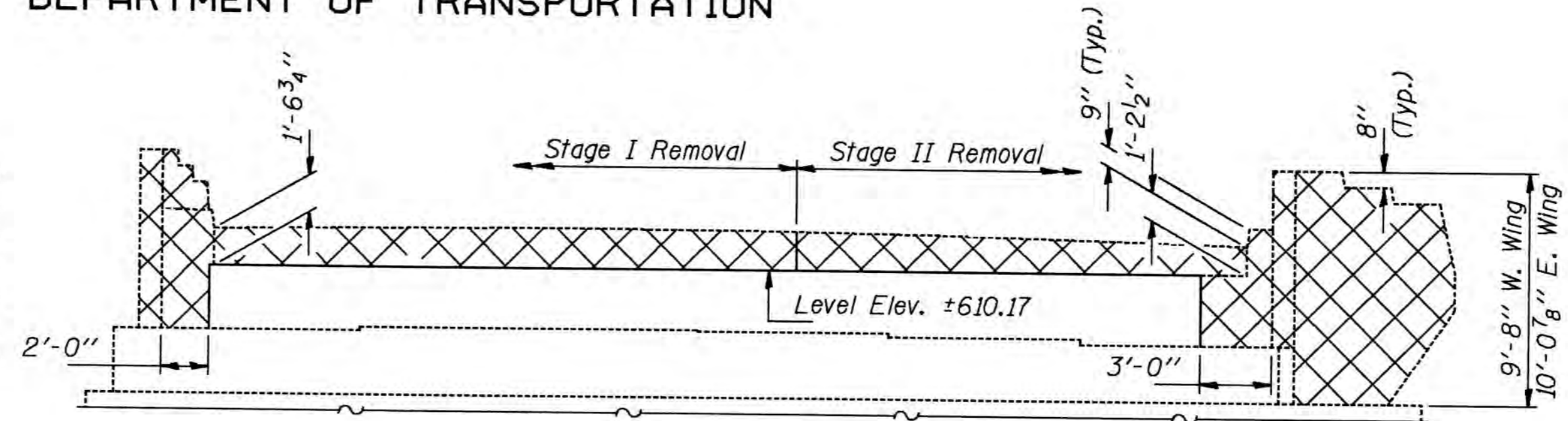
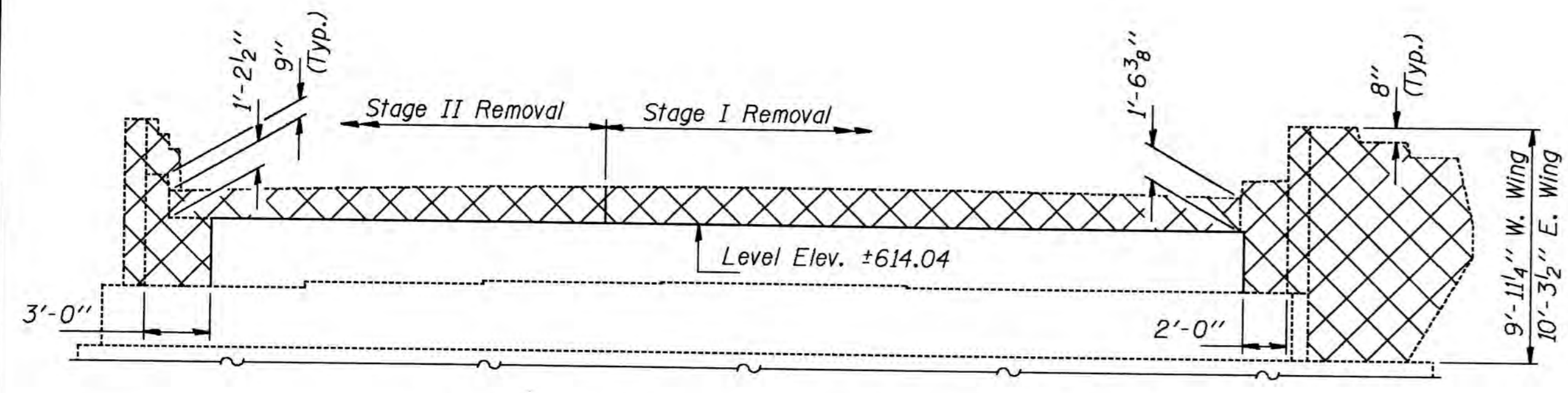
\* Drill 1"φ Hole & epoxy grout n1(E) bars 9" Min. See Special Provisions. Cost shall be incidental to "Reinforcement Bars (Epoxy Coated)".



SECTION D-D

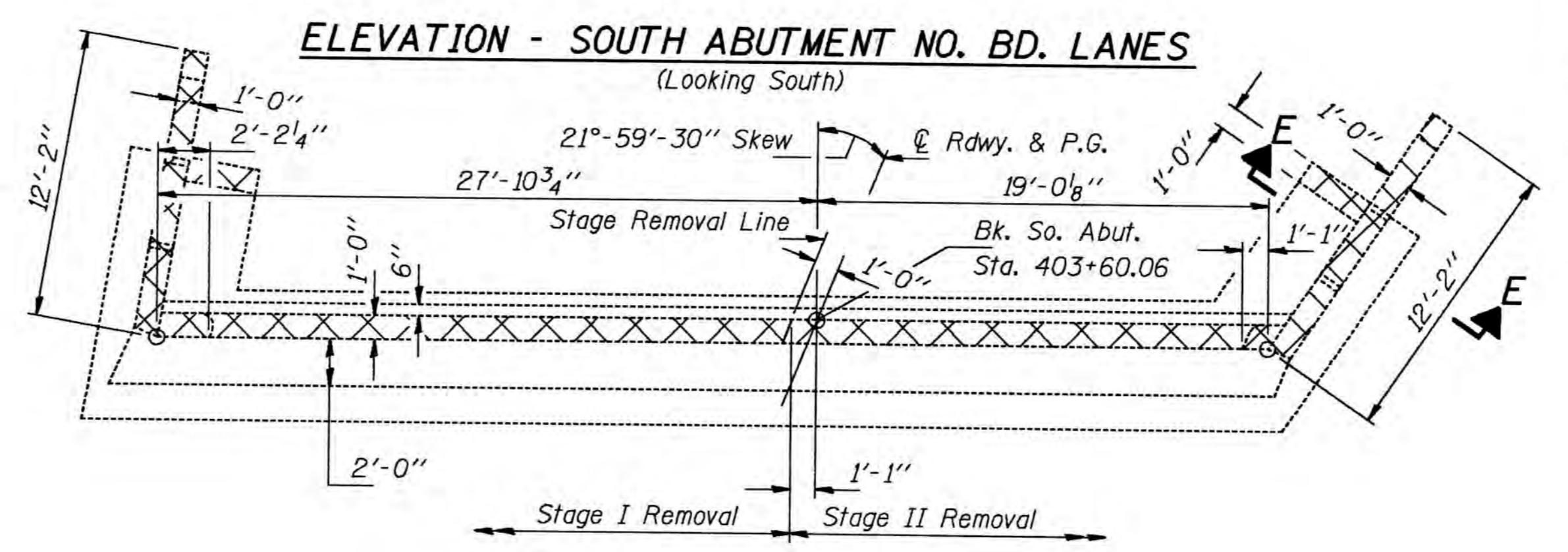
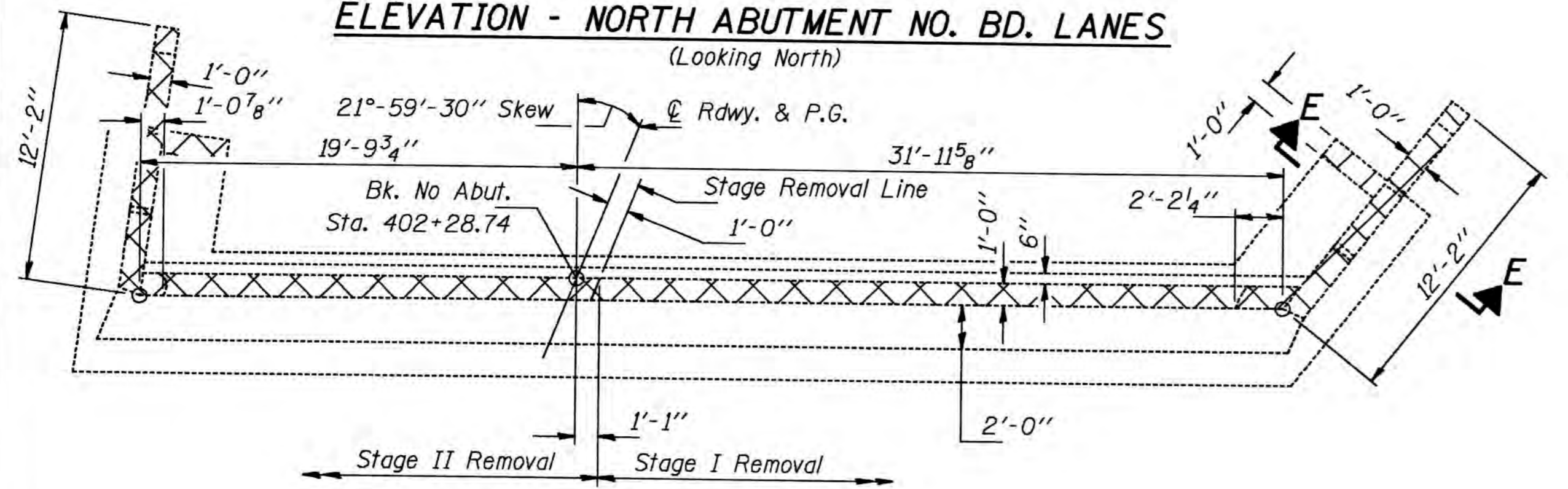
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 24 24 SHEETS
F.A.I. 80	37- I-HBY	HENRY	33	29	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			



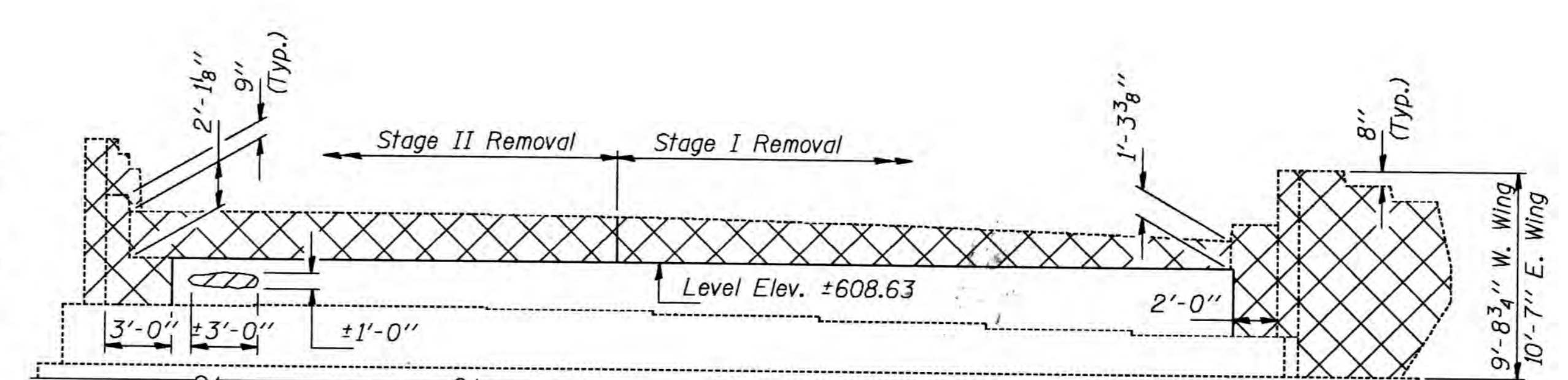
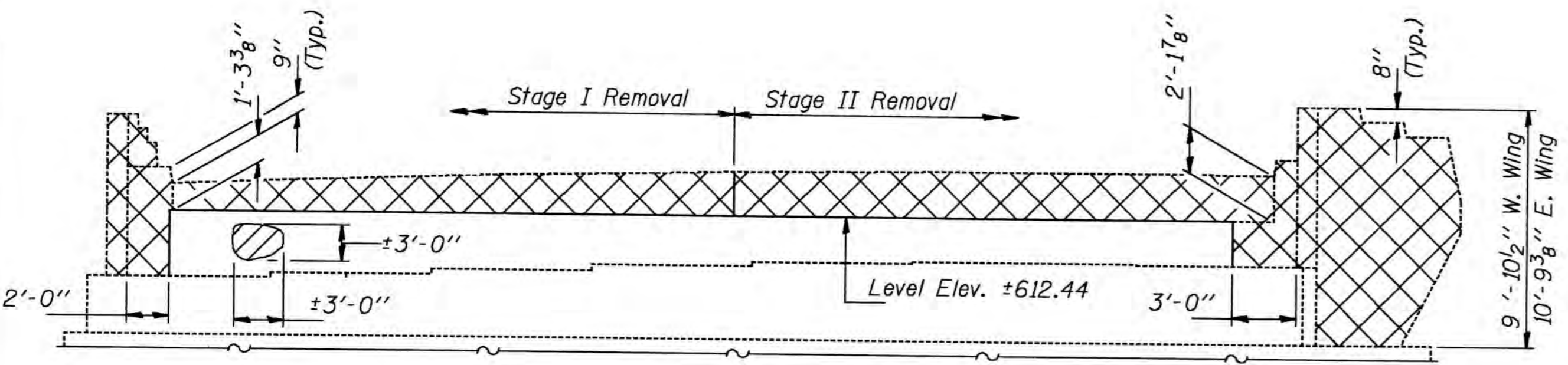
**ELEVATION - NORTH ABUTMENT NO. BD. LANES**  
(Looking North)

**ELEVATION - SOUTH ABUTMENT NO. BD. LANES**  
(Looking South)



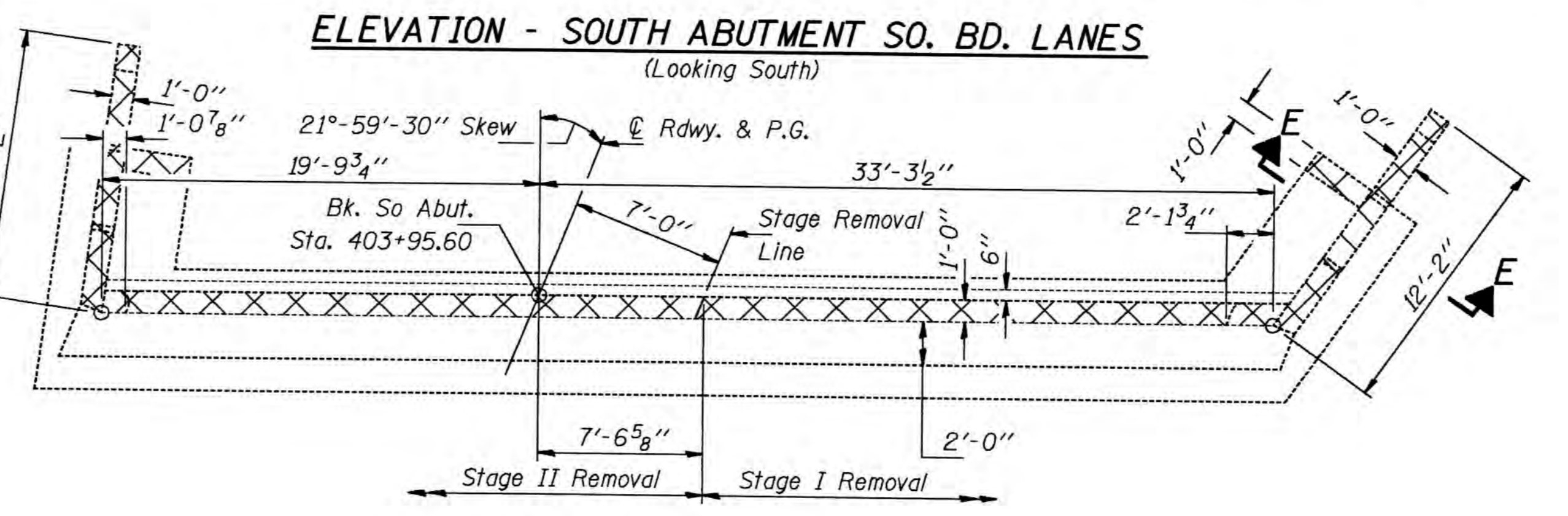
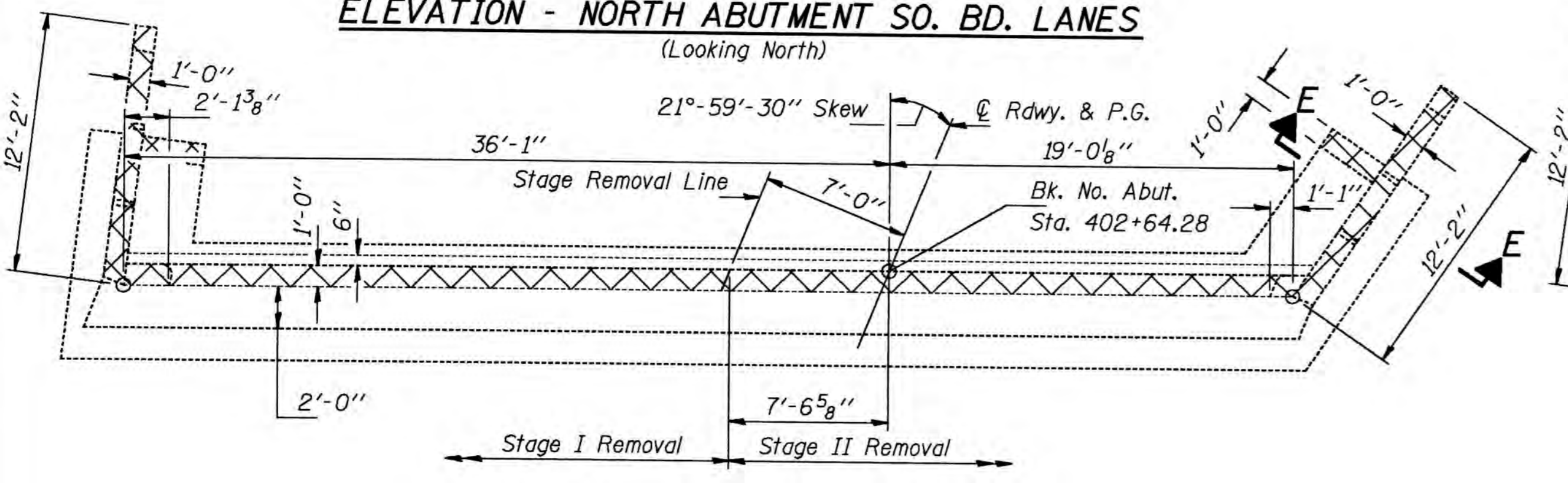
**PLAN - NORTH ABUTMENT NO. BD. LANES**

**PLAN - SOUTH ABUTMENT NO. BD. LANES**



**ELEVATION - NORTH ABUTMENT SO. BD. LANES**  
(Looking North)

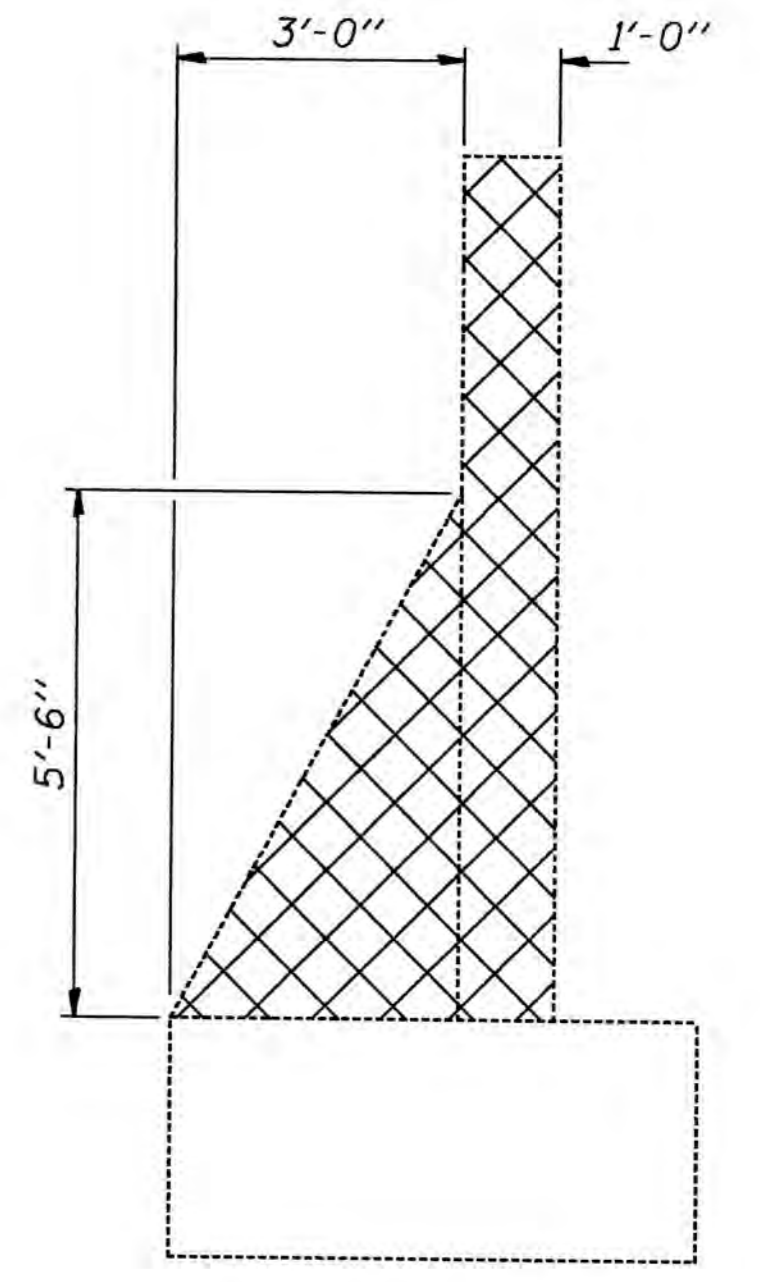
**ELEVATION - SOUTH ABUTMENT SO. BD. LANES**  
(Looking South)



**PLAN - NORTH ABUTMENT SO. BD. LANES**

**PLAN - SOUTH ABUTMENT SO. BD. LANES**

**ELEVATION**  
(Typical all Wing Walls)



**SECTION E-E**  
**BILL OF MATERIAL**  
**FOR FOUR ABUTMENTS**

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	48
Repair Concrete Structure	Sq. Ft.	12

**ABUTMENTS**  
**CONCRETE REMOVAL DETAILS**  
**F.A.I. RT. 80 SEC. 37-IHBY**  
**HENRY COUNTY**  
**STA. 403+14.67**

Notes: Hatched area indicates "Repair Concrete Structure".  
Cross hatched areas indicates concrete removal.  
Existing reinforcement extending into new construction shall be cleaned, straightened and incorporated into the new construction. Cost is incidental to "Concrete Removal".

DESIGNED *Shaker Asfour*  
CHECKED *Michael D. Cima*  
DRAWN *John F. Schneller Jr.*  
CHECKED *SA, MAC*

EXAMINED *Aug. 20 1970*  
*Raj J. Kaspar*  
ENGINEER OF BRIDGE DESIGN  
PASSED *Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES  
APPROVED \_\_\_\_\_  
DIRECTOR OF HIGHWAYS