

BENCHMARK: B/M #15-A-3; P.K. nail in stump in E-W fence line, 400' Rt. Sta. 1215+60  
Elev. 638.21

No Existing Structure

**DESIGN STRESSES**

**FIELD UNITS\***

$f_c = 1200$  psi - Deck slab  
 $f_c = 1400$  psi - Curb, Parapet  
 $f_s = 20,000$  psi

**PRECAST PRESTRESSED UNITS**

$f_c = 5000$  psi  
 $f_c = 4000$  psi  
 $f_s = 270,000$  psi - 2"  $\phi$  strands  
 $f_s = 189,000$  psi - 2"  $\phi$  strands

$n = 10$

DESIGN LOADING: HS 20-44

DESIGN SPECIFICATIONS: 1973 AASHTO and Interims

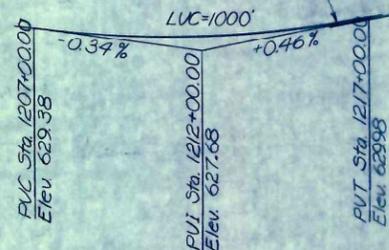
Allow 25 PSF for future wearing surface.

\* Load Factor Design Substructure -  $f_c = 3500$  psi,  $f_y = 40,000$  psi

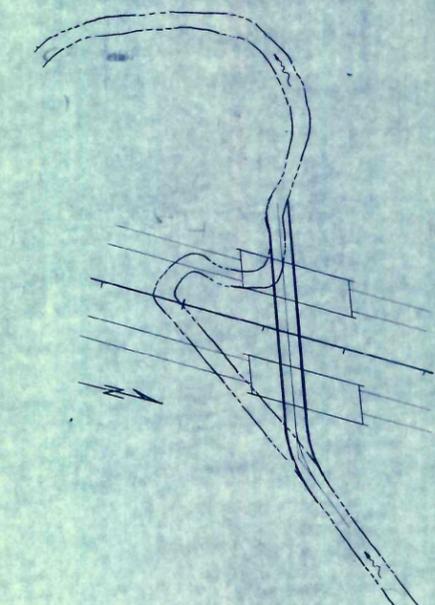
**WATERWAY INFORMATION**

Drainage Area 20480 acres  
Required Opening 795 sq. ft.  
Proposed Opening 795 sq. ft.  
Design  $Q_{(100)}$  2500 cfs  
 $Q_{(100)}$  3020 cfs  
Design Created Head 0.47'  
100 year Created Head 0.55'  
100 year H.W. Elev. 622.2

Top - Cl. I.W.S.

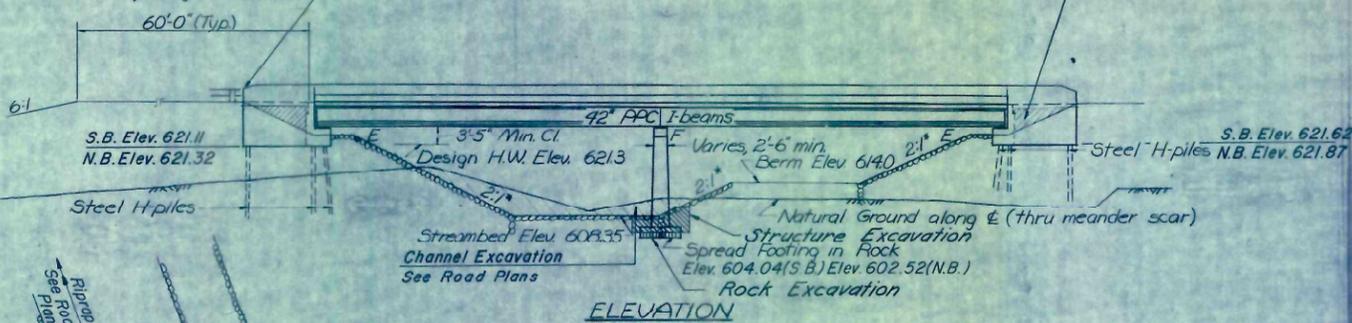


PROFILE GRADE FA 412



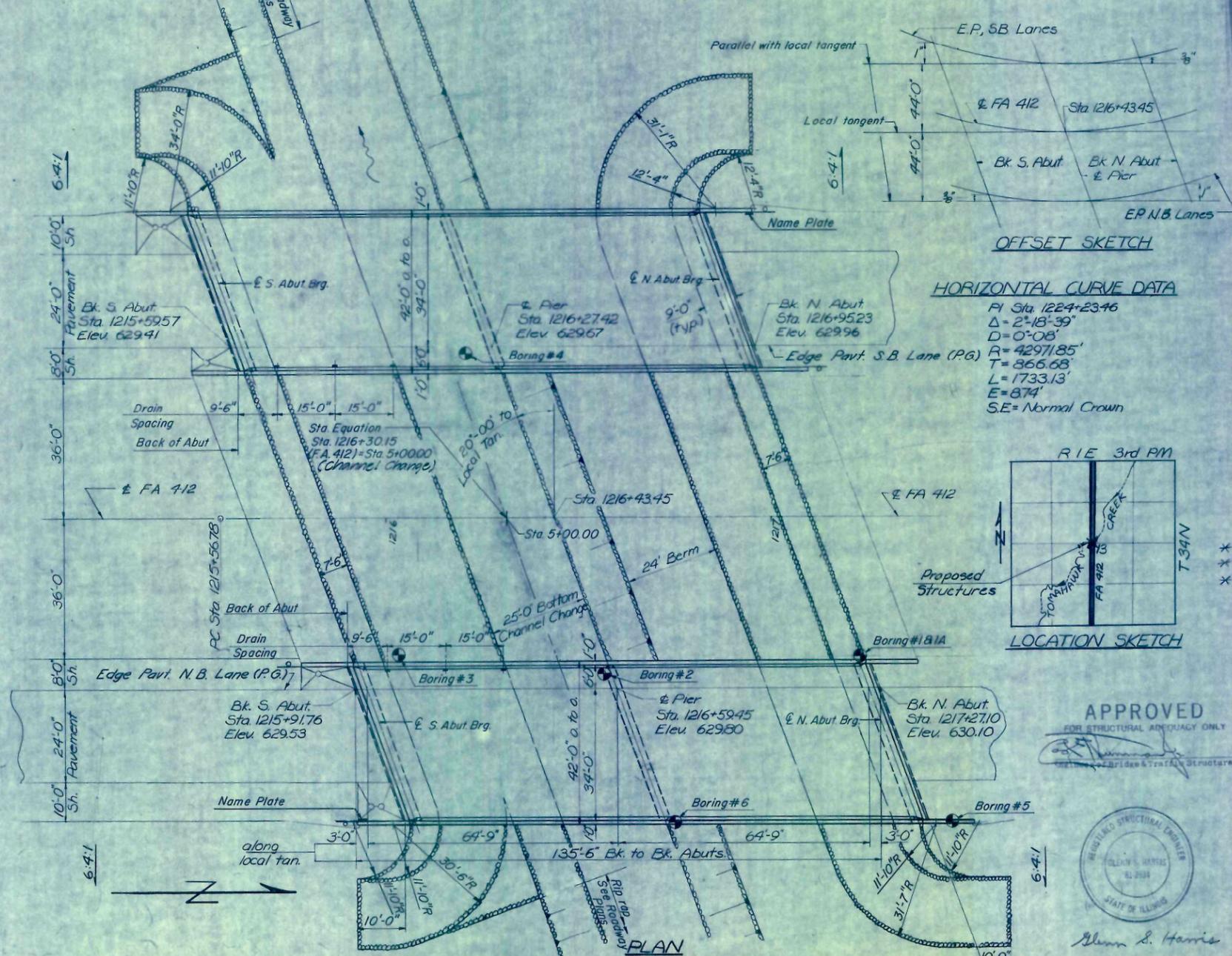
CHANNEL CHANGE SKETCH  
(See Roadway Plans for details)

2-1"  $\phi$  x 3'-6" Anchor Bolts in End Posts by Bridge Contractor



ELEVATION

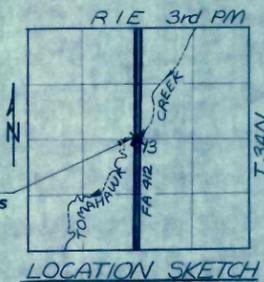
This portion of backfill by Bridge Contractor after abutment is in place.



PLAN

**HORIZONTAL CURVE DATA**

PI Sta. 1224+23.46  
 $\Delta = 2^\circ 18' 39''$   
 $D = 0^\circ 08'$   
 $R = 42971.85'$   
 $T = 366.68'$   
 $L = 1733.13'$   
 $E = 874'$   
SE = Normal Crown



LOCATION SKETCH

APPROVED FOR STRUCTURAL ADEQUACY ONLY



Helen S. Harris

**GENERAL NOTES**

- All reinforcement bars shall be lapped 24 diameters unless otherwise shown.
- Angles and anchor bolts on abutments included in the weight of structural steel.
- All structural steel shall be shop painted with two coats of basic lead silico chromate paint.
- The Contractor shall drive 2 steel test piles in permanent locations at South Abutment, South Bound lanes and North Abutment North Bound lanes as directed by the Engineer before ordering the remainder of piles.
- The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.
- The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Hand-rail Concrete.
- Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.
- For channel change see road plans.
- For Soil Borings see Special Provisions.
- For Stone Riprap and Plastic Filler Cloth Quantities see Roadway Plans.

**TOTAL BILL OF MATERIAL**

ITEM	UNITS	SUPERSTR	SUBSTR	TOTAL
Rock Excavation	Cu. Yds.		10	10
Structure Excavation	Cu. Yds.		190	190
Class A Concrete	Cu. Yds.		237.0	237.0
Class X Concrete	Cu. Yds.	373.8	182.8	556.6
Precast Prestressed Conc. I Bm (42")	Lin. Ft.	1,566		1,566
Structural Steel	Lbs.	6,950		6,950
Reinforcement Bars	Lbs.	87,750	26,380	114,140
Steel Piles HP 8 x 36	Lin. Ft.		685	685
Test Piles, Steel HP 8 x 36	Ea.		2	2
Name Plates	Ea.		2	2
Preformed Joint Sealer (2 1/2")	Lin. Ft.	177		177
Bit. Conc. Surf. Crse. Mix "D", Cl. I	Tons	96.6		96.6
Protective Coat	Sq. Yds.	250		250
Waterproofing Membrane System	Sq. Yds.	1,158		1,158

\* By Others

**GENERAL PLAN**

NO.	DATE	INITIALS	REVISIONS
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FA 412 OVER TOMAHAWK CREEK  
FA 412 SEC. 50-5 B PROJ  
STA 1216+43.45 LASALLE CO.

HOMER L. CHASTAIN & ASSOCIATES  
CONSULTING ENGINEERS  
DECATUR, ILLINOIS

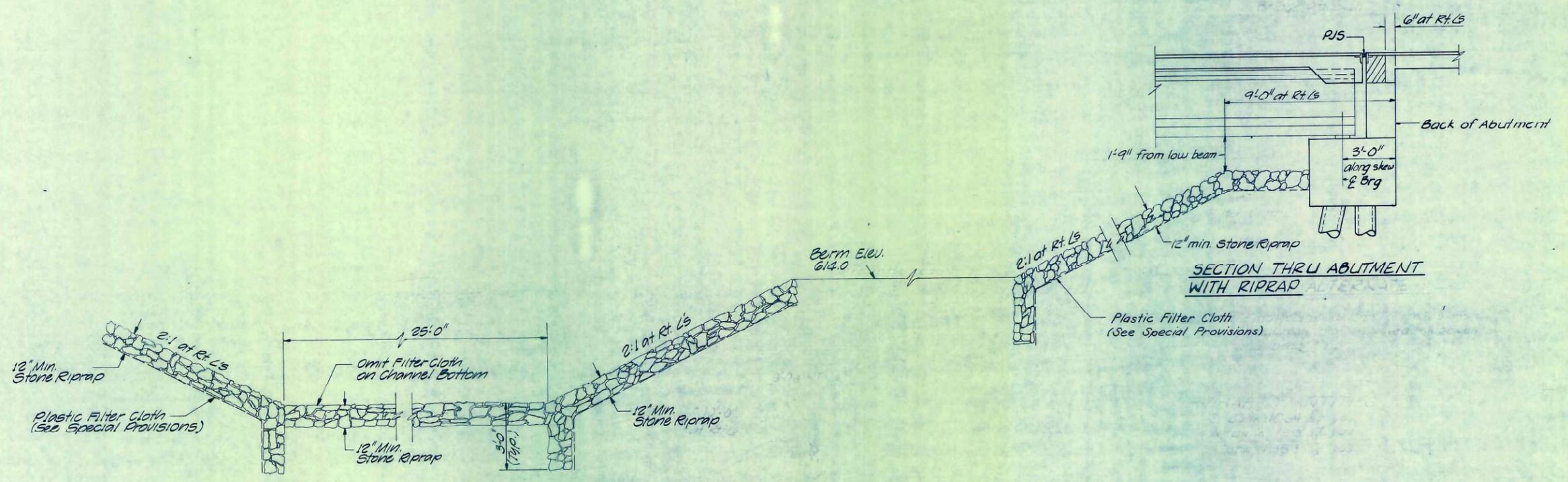
DRAWN BY DATE: JWN 6-75  
CHECKED BY DATE: GSH 6-75  
PROJECT NO.: 2601-6  
SHEET NO.:

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 412	50-58	LA SALLE		75
FED. ROAD DIST NO.	ILLINOIS		PROJECT	

STATION 1216+43.45  
BUILT BY  
STATE OF ILLINOIS  
FA. RT. 412 SEC 50-58  
FA. PROJ.  
LOADING HS20

NAME PLATE LETTERING  
(See Std. 2113)



SECTION THRU CHANNEL

SECTION THRU ABUTMENT WITH RIPRAP

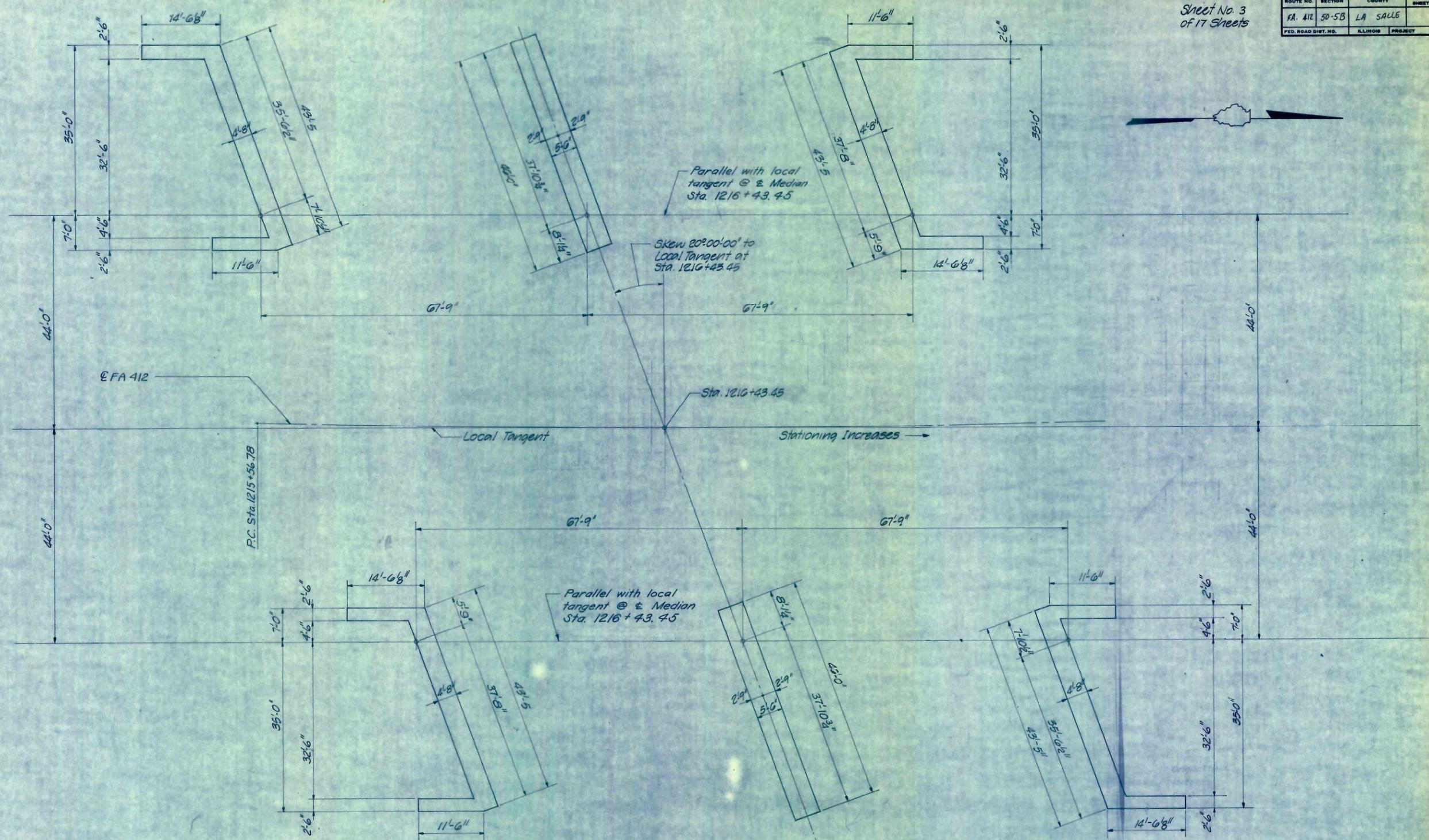
Notes:  
Layout of stone riprap may be varied in the field to suit ground conditions as directed by the Engineer.  
For riprap placing, gradation and size, see Sections 601 and 705 of the Standard Specifications & Special Provisions.  
For plastic filter cloth requirements see Special Provisions.  
For additional riprap details see Special Provisions.

REVISIONS			DATE	INITIALS
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FA. 412 OVER TOMAHAWK CREEK FA. 412 SEC. 50-58 PROJ. STA 1216+43.45 LaSALLE Co.		DRAWN BY J.W.A. 6-75 CHECKED BY G.S.H. 6-75 BOOK NUMBER PROJECT NO. 2601-G SHEET NO.
HOMER L. CHASTAIN & ASSOCIATES CONSULTING ENGINEERS DECATUR, ILLINOIS		

FOR INFORMATION  
ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 412	50-5B	LA SALLE		76
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

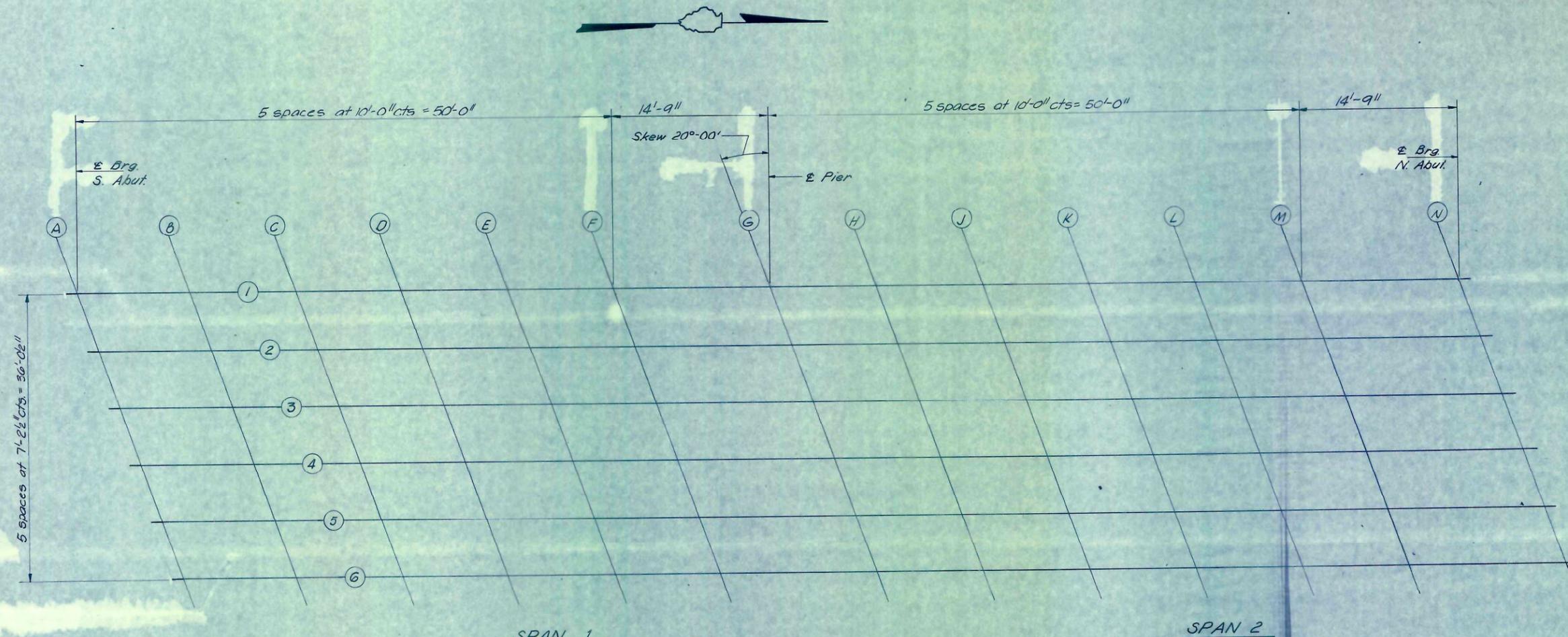


REVISION		DATE	BY
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<b>FOOTING LAYOUT</b>		JCH 5-75 G.S.H. 6-75
FA. 412 OVER TOMAHAWK CREEK FA. 412 SEC. 50-5B PROJ. STA. 1216+43.45 LA SALLE CO.		BOOK NUMBER 2601-G
<b>HOMER L. CHASTAIN &amp; ASSOCIATES</b> CONSULTING ENGINEERS DECATUR, ILLINOIS		

FOR INFORMATION  
ONLY

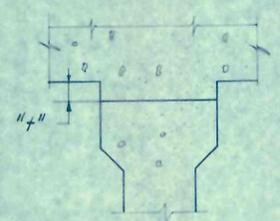
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-412	50-5B	LA SALLE		77
FED. ROAD DIST. NO.	ILLINOIS PROJECT			



SPAN 1

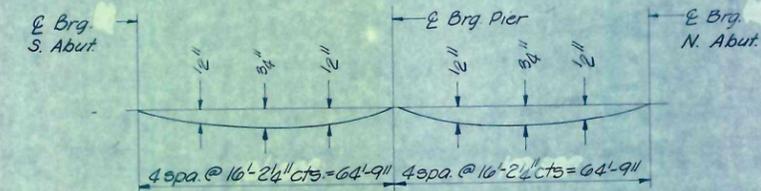
SPAN 2

- PLAN -



FILLET HEIGHTS

To determine "f": After all precast prestressed beams have been erected elevations of the top flanges of the beam shall be taken at intervals shown above. These elevations subtracted algebraically from the "Elevations Adjusted for Dead Load Deflections" shown on sheet #3, minus slab thickness, equals the fillet heights "f". A positive value of "f" equals the fillet height above the top of the beam. A negative value of "f", not to exceed 1/2", equals the embedment of the beam above the theoretical bottom of slab elevation.



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 sheet no. 5.

NORTH BOUND

DECK ELEVATIONS

REVISIONS			DESIGNED BY
NO.	DATE	INITIALS	JWN 5-75
			CHECKED BY DATE
			G.S.H. 6-75
			BOOK NUMBER
			2601-6
			SHEET NO.

FA-412 OVER TOMAHAWK CREEK  
FA-412 SEC. 50-5B PROJ.  
STA. 1216+43.45 LASALLE CO.

HOMER L. CHASTAIN & ASSOCIATES  
CONSULTING ENGINEERS  
DECATUR, ILLINOIS

FOR INFORMATION ONLY

LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
<i>Q Brg.</i> <i>S. Abut.</i>	A	1	40.008	629.327	629.327
		2	47.214	629.470	629.470
		3	54.419	629.592	629.592
		4	61.625	629.599	629.599
		5	68.831	629.432	629.432
		6	76.037	629.292	629.292
B		1	39.998	629.364	629.390
		2	47.204	629.508	629.534
		3	54.410	629.630	629.656
		4	61.616	629.577	629.604
		5	68.823	629.471	629.497
		6	76.029	629.331	629.358
C		1	39.990	629.403	629.449
		2	47.196	629.546	629.593
		3	54.403	629.669	629.715
		4	61.610	629.617	629.663
		5	68.817	629.511	629.557
		6	76.024	629.371	629.418
D		1	39.984	629.442	629.499
		2	47.191	629.586	629.643
		3	54.398	629.709	629.766
		4	61.606	629.657	629.714
		5	68.814	629.551	629.608
		6	76.021	629.412	629.469
E		1	39.980	629.482	629.534
		2	47.188	629.626	629.678
		3	54.396	629.749	629.801
		4	61.604	629.698	629.749
		5	68.813	629.592	629.643
		6	76.021	629.453	629.504
F		1	39.979	629.523	629.562
		2	47.188	629.667	629.706
		3	54.396	629.791	629.829
		4	61.605	629.739	629.778
		5	68.814	629.634	629.672
		6	76.023	629.495	629.534

LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
<i>Q Pier</i>	G	1	39.982	629.585	629.585
		2	47.191	629.730	629.730
		3	54.400	629.853	629.853
		4	61.610	629.802	629.802
		5	68.820	629.697	629.697
		6	76.030	629.558	629.558
H		1	39.986	629.628	629.654
		2	47.196	629.773	629.799
		3	54.406	629.897	629.923
		4	61.616	629.846	629.872
		5	68.827	629.740	629.767
		6	76.037	629.602	629.628
J		1	39.993	629.672	629.719
		2	47.204	629.817	629.863
		3	54.414	629.941	629.987
		4	61.625	629.890	629.936
		5	68.836	629.785	629.831
		6	76.047	629.647	629.693
K		1	40.002	629.717	629.774
		2	47.213	629.862	629.919
		3	54.425	629.986	630.043
		4	61.636	629.935	629.992
		5	68.848	629.830	629.887
		6	76.059	629.692	629.749
L		1	40.014	629.763	629.814
		2	47.226	629.908	629.959
		3	54.437	630.032	630.084
		4	61.649	629.981	630.032
		5	68.862	629.876	629.927
		6	76.074	629.738	629.789
M		1	40.028	629.809	629.847
		2	47.240	629.954	629.993
		3	54.452	630.078	630.117
		4	61.665	630.026	630.065
		5	68.878	629.921	629.960
		6	76.091	629.783	629.822
<i>Q Brg.</i> <i>N. Abut.</i>	N	1	40.052	629.877	629.877
		2	47.266	630.022	630.022
		3	54.479	630.147	630.147
		4	61.692	630.094	630.094
		5	68.906	629.988	629.988
		6	76.120	629.850	629.850

Note: The Profile Grade Elevations shown on this sheet are to the top of the 7/2" concrete slab.

TOP OF SLAB ELEVATIONS N.B. LANE

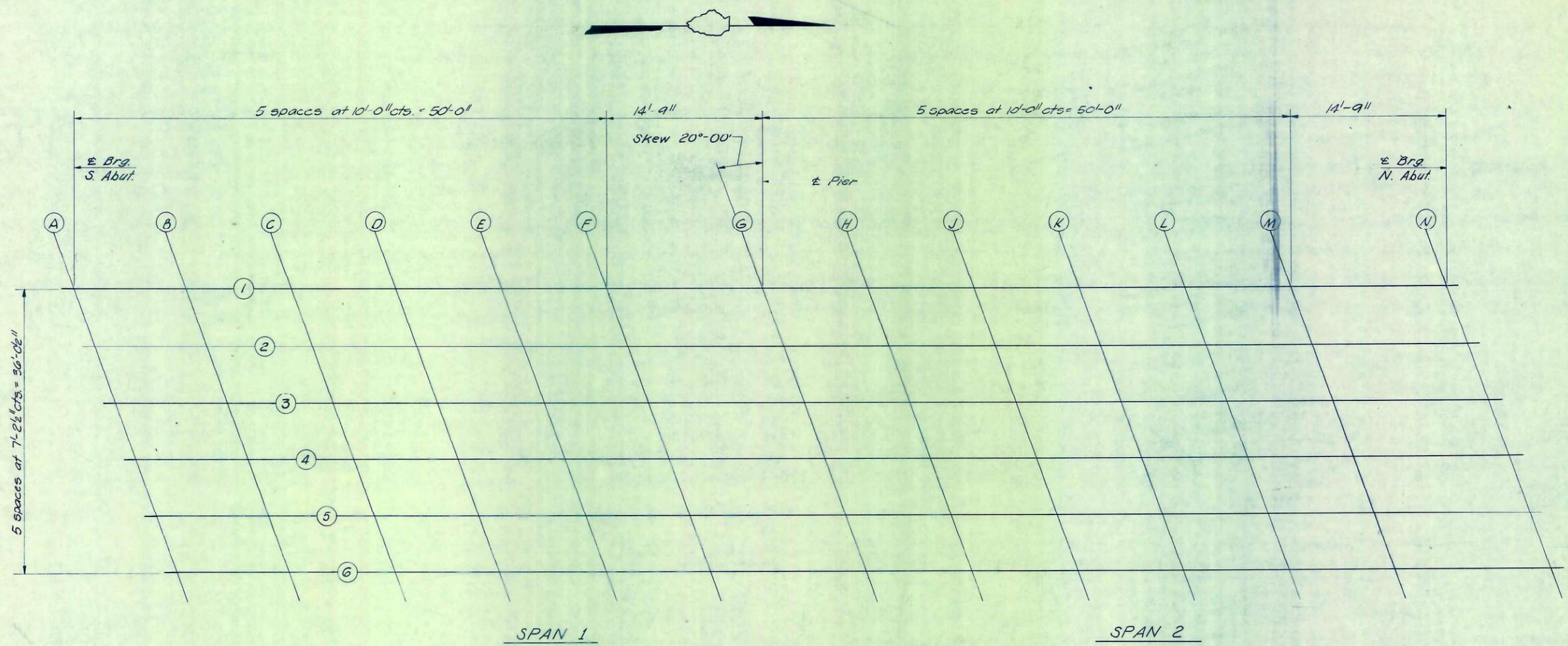
REVISIONS			DRAWN BY DATE	
1	DATE	INITIALS	JWIN 6-75	
2			CHECKED BY DATE	
3			G.S.H. 6-75	
4			BOOK NUMBER	
5			PROJECT NO.	
6			2601-G	
7			SHEET NO.	
8				
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F.A. 412 OVER TOMAHAWK CREEK  
F.A. 412 SEC. 50-5B PROJ.  
STA. 1216+43.45 LASALLE CO.

HOMER L. CHASTAIN & ASSOCIATES  
CONSULTING ENGINEERS  
DECATUR, ILLINOIS

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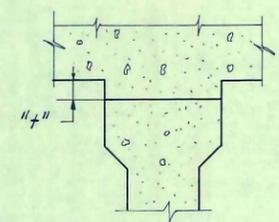
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA-412	50-5B	LASALLE		79
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



SPAN 1

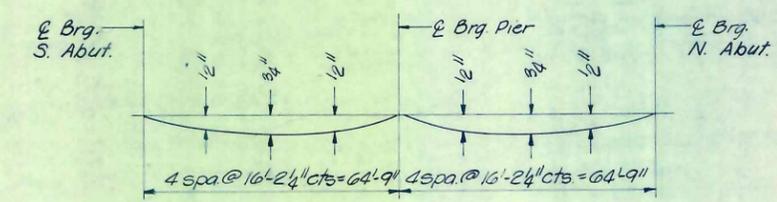
SPAN 2

-PLAN-



FILLET HEIGHTS

To determine "f": After all precast prestressed beams have been erected, elevations of the top flanges of the beam shall be taken at intervals shown above. These elevations subtracted algebraically from the "Elevations Adjusted for Dead Load Deflections" shown on sheet #7, minus slab thickness, equals the fillet heights "f". A positive value of "f" equals the fillet height above the top of the beam. A negative value of "f", not to exceed 1/2", equals the embedment of the beam above the theoretical bottom of slab elevation.



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 sheet no. 7.

SOUTH BOUND

DECK ELEVATIONS

REVISIONS			DATE	INITIALS
1				
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FA-412 OVER TOMAHAWK CREEK FA-412 SEC. 50-5B PROJ. STA. 1216+43.45 LASALLE CO.	JWN 5-75 G.S.H. 6-75 BOOK NUMBER PROJECT NO. 2601-6 SHEET NO.
HOMER L. CHASTAIN & ASSOCIATES CONSULTING ENGINEERS DECATUR, ILLINOIS	

FOR INFORMATION ONLY

	LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
<i>E Brg.</i> <i>S. Abut.</i>	A	1	121550.867	-75.921	629.093	629.093
		2	121553.511	-68.719	629.252	629.252
		3	121556.153	-61.516	629.377	629.377
		4	121558.795	-54.313	629.446	629.446
		5	121561.435	-47.109	629.343	629.343
		6	121564.075	-39.906	629.218	629.218
	B	1	121560.885	-75.942	629.127	629.153
		2	121563.527	-68.738	629.286	629.313
		3	121566.167	-61.535	629.412	629.438
		4	121568.807	-54.331	629.491	629.508
		5	121571.446	-47.127	629.378	629.405
		6	121574.084	-39.923	629.254	629.281
	C	1	121570.903	-75.960	629.162	629.209
		2	121573.542	-68.756	629.322	629.368
		3	121576.182	-61.552	629.447	629.494
		4	121578.820	-54.347	629.518	629.564
		5	121581.457	-47.143	629.415	629.461
		6	121584.094	-39.938	629.291	629.337
	D	1	121580.920	-75.975	629.198	629.255
		2	121583.559	-68.771	629.358	629.414
		3	121586.196	-61.566	629.484	629.540
		4	121588.832	-54.361	629.555	629.611
		5	121591.468	-47.156	629.452	629.509
		6	121594.103	-39.951	629.329	629.385
	E	1	121590.938	-75.989	629.235	629.286
		2	121593.575	-68.784	629.394	629.446
		3	121596.210	-61.578	629.521	629.572
		4	121598.845	-54.373	629.592	629.644
		5	121601.479	-47.167	629.490	629.541
		6	121604.112	-39.961	629.367	629.418
	F	1	121600.956	-76.000	629.272	629.311
		2	121603.591	-68.794	629.432	629.471
		3	121606.225	-61.588	629.559	629.597
		4	121608.858	-54.382	629.631	629.669
		5	121611.490	-47.176	629.529	629.567
		6	121614.122	-39.969	629.406	629.444

	LINE	BEAM	STATION	OFFSET	THEORETICAL GRADE ELEVATION	ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
<i>E Pier</i>	G	1	121615.732	-76.012	629.329	629.329
		2	121618.364	-68.805	629.489	629.489
		3	121620.996	-61.598	629.616	629.616
		4	121623.626	-54.391	629.689	629.689
		5	121626.256	-47.184	629.587	629.587
		6	121628.885	-39.977	629.464	629.464
	H	1	121625.749	-76.017	629.369	629.395
		2	121628.380	-68.810	629.529	629.555
		3	121631.010	-61.602	629.656	629.683
		4	121633.639	-54.395	629.729	629.755
		5	121636.267	-47.187	629.628	629.654
		6	121638.895	-39.979	629.505	629.531
	J	1	121635.767	-76.020	629.409	629.456
		2	121638.396	-68.812	629.570	629.616
		3	121641.025	-61.604	629.697	629.744
		4	121643.652	-54.396	629.771	629.817
		5	121646.278	-47.188	629.669	629.715
		6	121648.904	-39.979	629.547	629.593
	K	1	121645.785	-76.021	629.451	629.507
		2	121648.412	-68.812	629.611	629.658
		3	121651.039	-61.604	629.739	629.796
		4	121653.664	-54.395	629.812	629.869
		5	121656.289	-47.186	629.711	629.768
		6	121658.913	-39.976	629.589	629.646
	L	1	121655.803	-76.019	629.493	629.544
		2	121658.428	-68.810	629.654	629.705
		3	121661.053	-61.601	629.782	629.833
		4	121663.677	-54.391	629.855	629.906
		5	121666.300	-47.182	629.754	629.805
		6	121668.922	-39.972	629.632	629.683
	M	1	121665.820	-76.015	629.536	629.574
		2	121668.444	-68.805	629.697	629.736
		3	121671.068	-61.595	629.825	629.864
		4	121673.690	-54.385	629.899	629.937
		5	121676.311	-47.175	629.798	629.836
		6	121678.932	-39.965	629.676	629.714
<i>E Brg.</i> <i>N. Abut.</i>	N	1	121680.596	-76.005	629.601	629.601
		2	121683.218	-68.794	629.762	629.762
		3	121685.839	-61.583	629.891	629.891
		4	121688.458	-54.372	629.964	629.964
		5	121691.077	-47.161	629.864	629.864
		6	121693.696	-39.950	629.742	629.742

Note: The Profile Grade Elevations shown on this sheet are to the top of the 7 1/2" concrete slab.

REVISIONS		DRAWN BY DATE	
NO.	DATE	INITIALS	
1			JWN 6-73
2			GSH 6-73
3			
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10			

**TOP OF SLAB ELEVATIONS S.B. LANE**

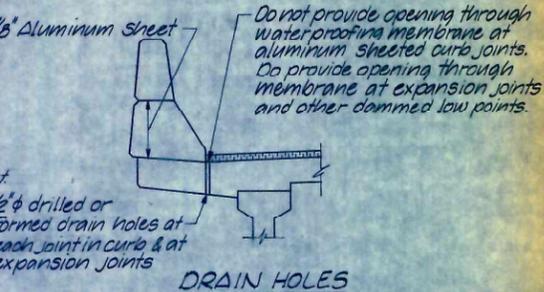
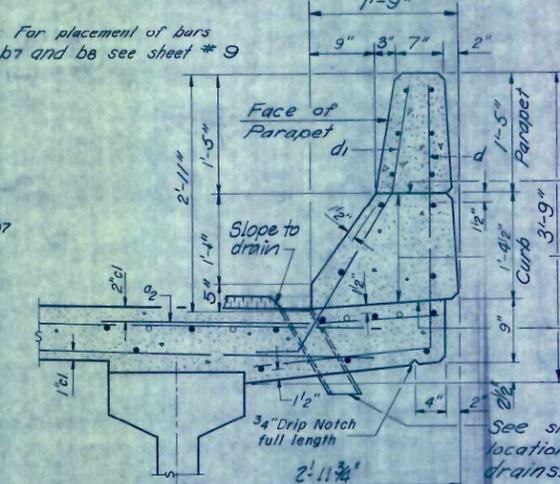
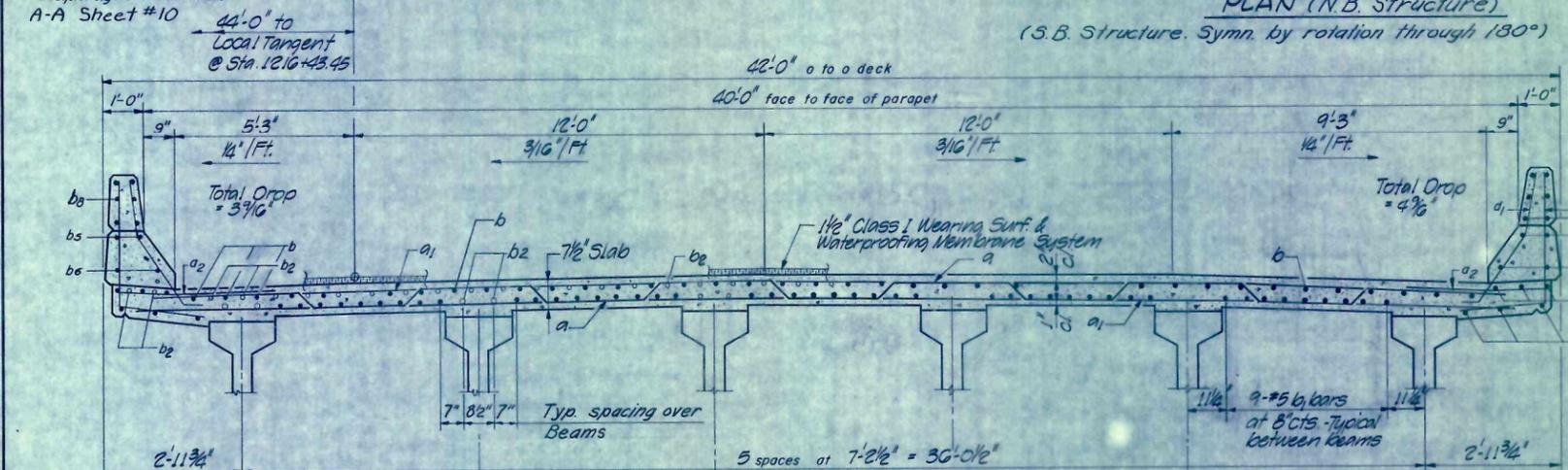
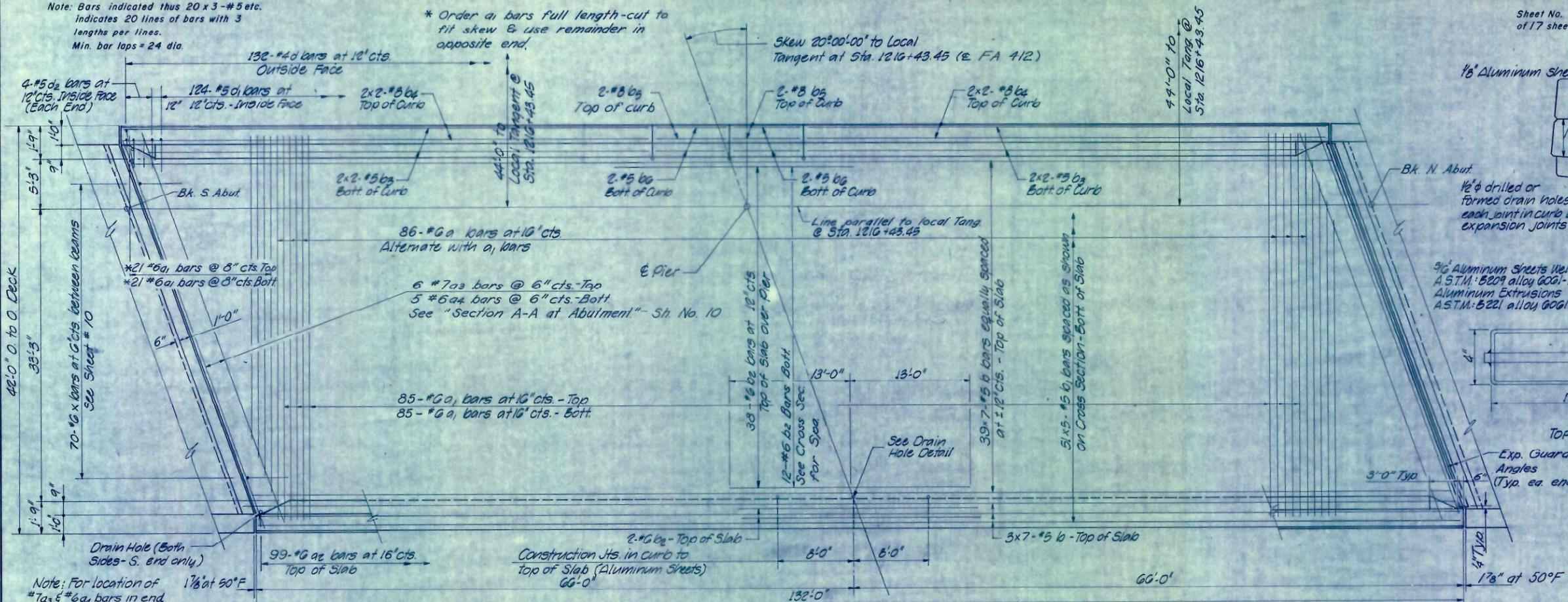
FA. 412 OVER TOMAHAWK CREEK		PROJECT NO.
FA. 412 SEC 50-5 B PROJ.		2601-G
STA. 1216+43.45		SHEET NO.
<b>HOMER L. CHASTAIN &amp; ASSOCIATES</b>		
CONSULTING ENGINEERS		
DECATUR, ILLINOIS		

FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
LA. 412	50-5B	LA SALLE		31
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

Note: Bars indicated thus 20 x 3 - #5 etc. indicates 20 lines of bars with 3 lengths per line. Min. bar laps = 24 dia.

\* Order a<sub>1</sub> bars full length-cut to fit skew & use remainder in opposite end.



TWO SUPERSTRUCTURES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	172	#6	41'-0"	
a <sub>1</sub>	424	#6	40'-0"	
a <sub>2</sub>	396	#6	4'-0"	
a <sub>3</sub>	24	#7	42'-0"	
a <sub>4</sub>	100	#6	6'-11"	
b	630	#5	19'-10"	
b <sub>1</sub>	510	#5	27'-3"	
b <sub>2</sub>	108	#6	26'-0"	
b <sub>3</sub>	32	#5	29'-0"	
b <sub>4</sub>	32	#8	29'-9"	
b <sub>5</sub>	16	#8	7'-9"	
b <sub>6</sub>	16	#5	7'-9"	
b <sub>7</sub>	144	#4	19'-1"	
b <sub>8</sub>	48	#4	7'-9"	
d	328	#4	5'-2"	
d <sub>1</sub>	496	#5	3'-11"	
d <sub>2</sub>	32	#5	4'-8"	
m	40	#4	6'-11"	
m <sub>1</sub>	20	#6	5'-6"	
s	50	#4	10'-2"	
x	280	#6	8'-6"	
Reinforcement Bars			Lbs.	87,160
Class X Concrete			Cu Yds.	373.8
Preformed Jt. Sewer (22)			Lin. Ft.	177
Structural Steel			Lbs.	6,950

REVISIONS

NO.	DATE	INITIALS
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REVISIONS

DATE

INITIALS

FA. 412 OVER TOMAHAWK CREEK  
FA. 412 SEC. 50-5B PROJ.  
STA. 1216+43.45 LA SALLE CO.

HOMER L. CHASTAIN & ASSOCIATES  
CONSULTING ENGINEERS  
DECATUR, ILLINOIS

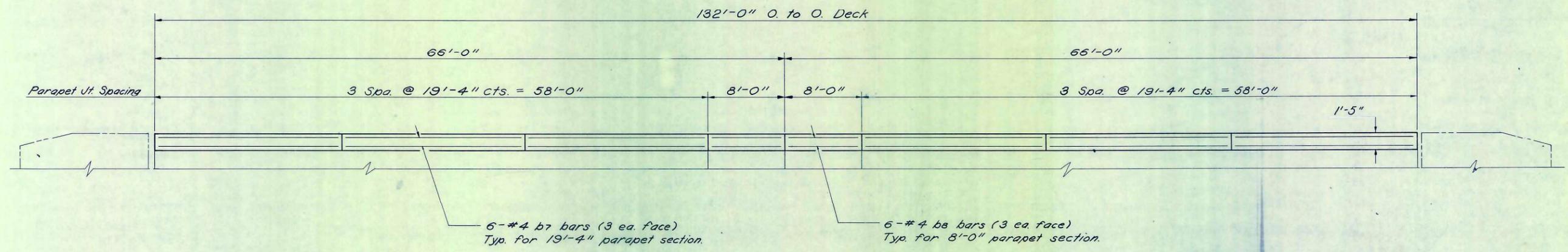
PROJECT NO.  
2201-6

SHEET NO.

FOR INFORMATION ONLY

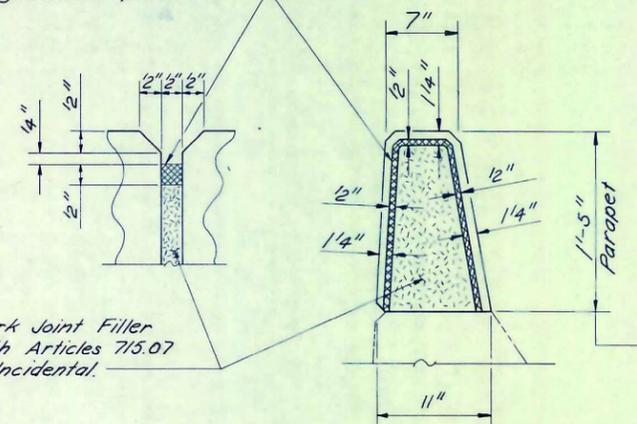


ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 412	50-5B	LA SALLE		82
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



PARAPET ELEVATION

Two component non-staining gray sealing compound with polysulfide liquid polymers-gun grade with primer.



1/2" Preformed Cork Joint Filler  
(In accordance with Articles 715.07 or 715.08) Cost Incidental.

Bonded Construction Ut  
(Optional)

PARAPET JOINT DETAIL

Note: Parapet Reinforcement and Class X Concrete are billed on sheet no. 8

REVISIONS			DRAWN BY DATE	
No.	DATE	INITIALS	M.S.F. 6-75	
1			CHECKED BY DATE	
2			G.S.H. 6-75	
3			BOOK NUMBER	
4			PROJECT NO.	
5			2601-6	
6			SHEET NO.	
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8				
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10				

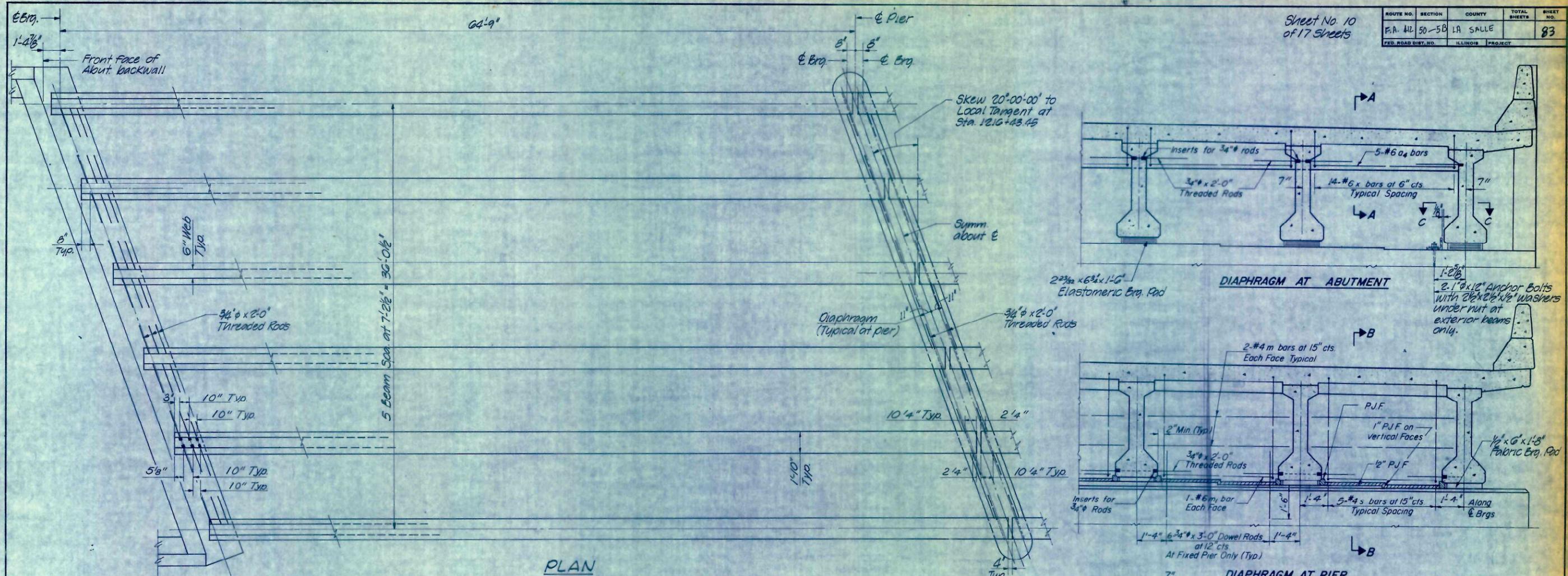
**CONCRETE PARAPET**

FA 412 OVER TOMAHAWK CREEK  
FA 412 SEC. 50-5B PROJ.  
STA. 1216+43.45 LASALLE CO.

**HOMER L. CHASTAIN & ASSOCIATES**  
CONSULTING ENGINEERS  
DECATUR, ILLINOIS

**FOR INFORMATION ONLY**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 412	50-5B	LA SALLE		83
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



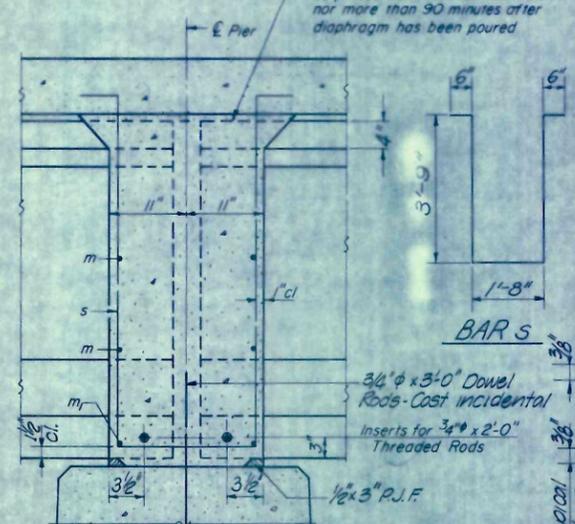
**PLAN**  
(Span 1)

Pour diaphragm flush with top of beam. Concrete in slab above this line shall be placed not less than 45 minutes nor more than 90 minutes after diaphragm has been poured.

**DIAPHRAGM AT PIER**

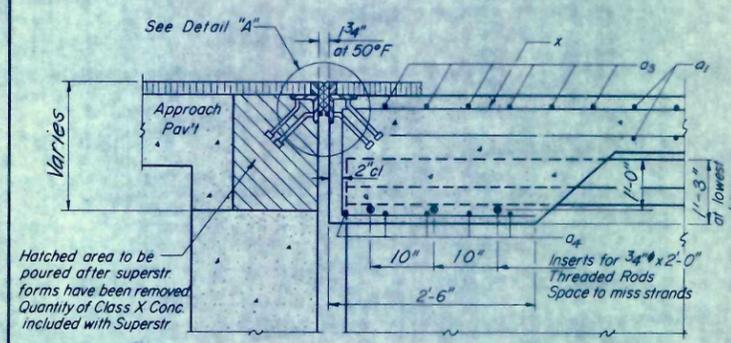


**SECTION C-C**



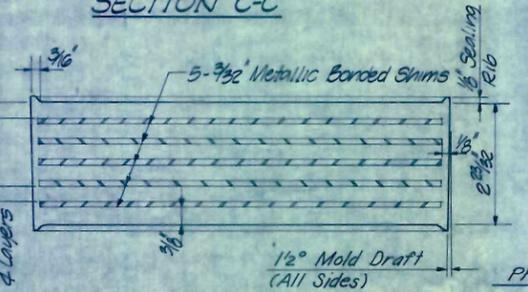
**SECTION B-B**  
AT PIER  
(at Rt. Ls.)

**SECTION A-A**  
AT ABUTMENT  
(at Rt. Ls.)



Hatched area to be poured after superstr. forms have been removed. Quantity of Class X Conc. included with Superstr.

**ELASTOMERIC BEARING**  
(2 #3/32 x 6 #4 x 1'-6")  
(cost incidental to P.P.C. I-Beams)



Note: Reinforcement bars shown on this sheet are included in Bill of Material on sheet no. 8. For plan view and location of bearing pads see sheet no. 11.

**BEAM LAYOUT & DETAILS**

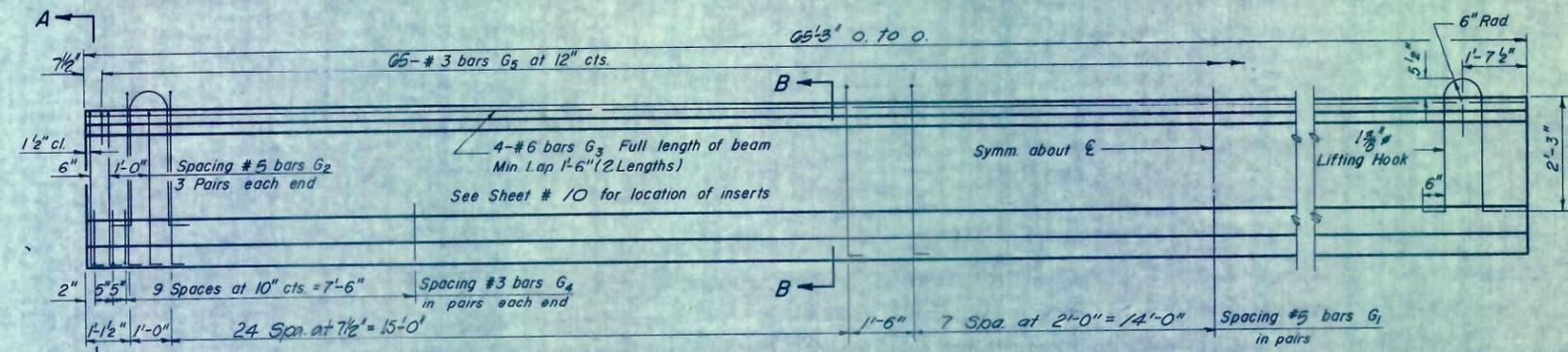
REVISIONS			DRAWN BY DATE
NO.	DATE	INITIALS	JCH 5-73
1			
2			
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FA. 412 OVER TOMAHAWK CREEK	PROJ.	PROJECT NO.
FA. 412 SEC. 50-5B	LA SALLE CO.	2801-G
STA. 1216+43.45		

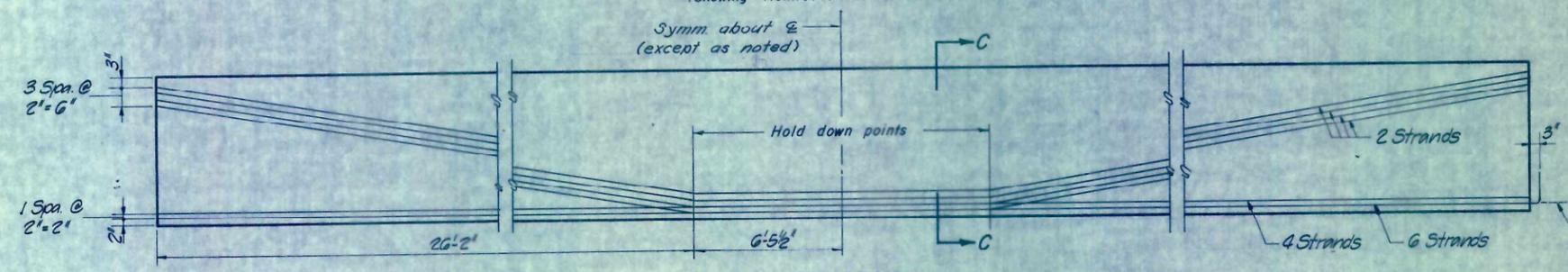
<b>HOMER L. CHASTAIN &amp; ASSOCIATES</b>	SHEET NO.
CONSULTING ENGINEERS	
DECATUR, ILLINOIS	

FOR INFORMATION ONLY

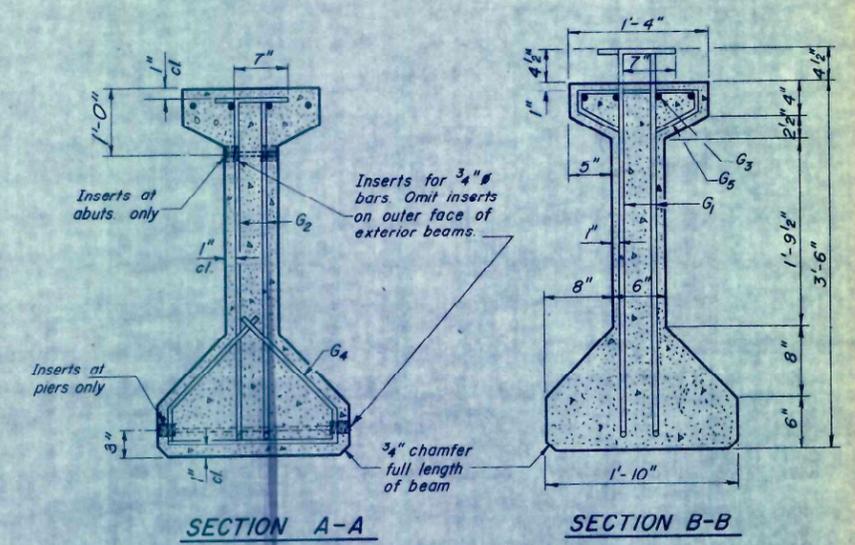
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 412	50-5B	LA SALLE		84
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



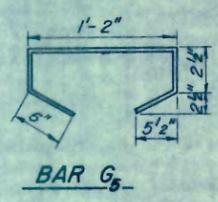
**ELEVATION OF BEAMS**  
(Showing Reinforcement & Dimensions)



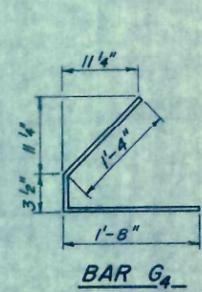
**ELEVATION OF BEAMS**  
(Showing Prestressing Steel)



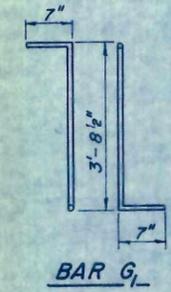
**SECTION A-A**      **SECTION B-B**



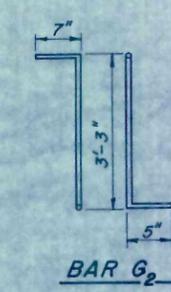
**BAR G5**



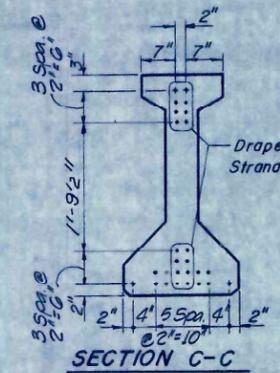
**BAR G4**



**BAR G1**



**BAR G2**



**SECTION C-C**

**\* BAR LIST**

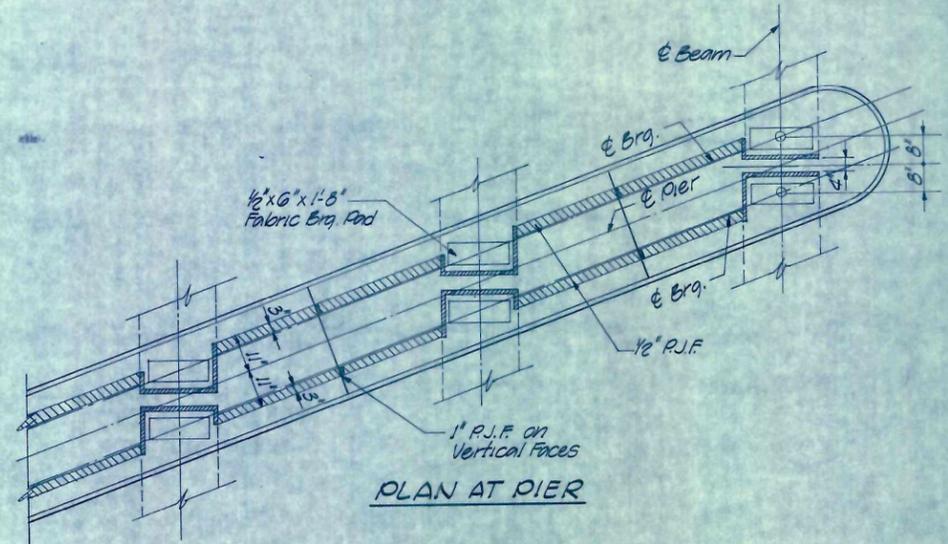
Bar	No	Size	Length	Shape
G1	134	#5	4'-10 1/2"	TL
G2	12	#5	4'-3"	TL
G3	8	#6	33'-3"	—
G4	48	#3	3'-3 1/2"	C
G5	65	#3	2'-7"	U

\* For one beam only

**NOTES**

All inserts and threaded rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lineal foot of "Furnishing And Erecting Precast Prestressed Concrete I-Beams, 42 In."

Prestressing Steel shall have a nominal diameter of 1/2".  
Inserts for 3/4" threaded rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.  
Steel for lifting hooks shall be non-deformed bars fy = 40,000 psi.



**PLAN AT PIER**

**BILL OF MATERIAL**

Item	Unit	Total
Furnishing & Erecting Precast Prestressed Concrete I-Beams, 42"	Lin. Ft.	1560

**BEAM DETAILS**

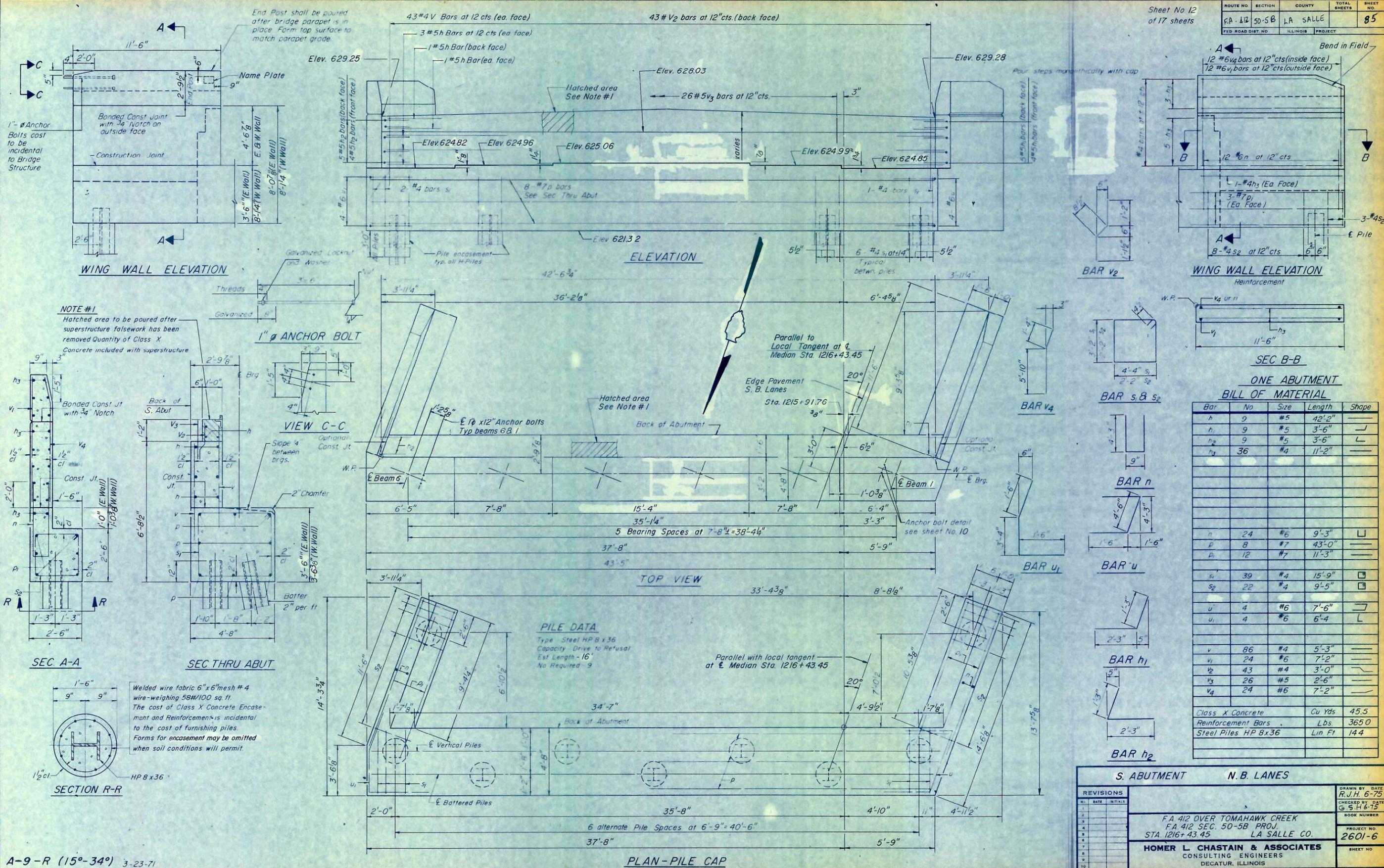
NO.	DATE	INITIALS
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DRAWN BY DATE JLH 5-75
CHECKED BY DATE GSH 6-75
BOOK NUMBER
PROJECT NO. 2601-G
SHEET NO.

**HOMER L. CHASTAIN & ASSOCIATES**  
 CONSULTING ENGINEERS  
 DECATUR, ILLINOIS

**FOR INFORMATION ONLY**

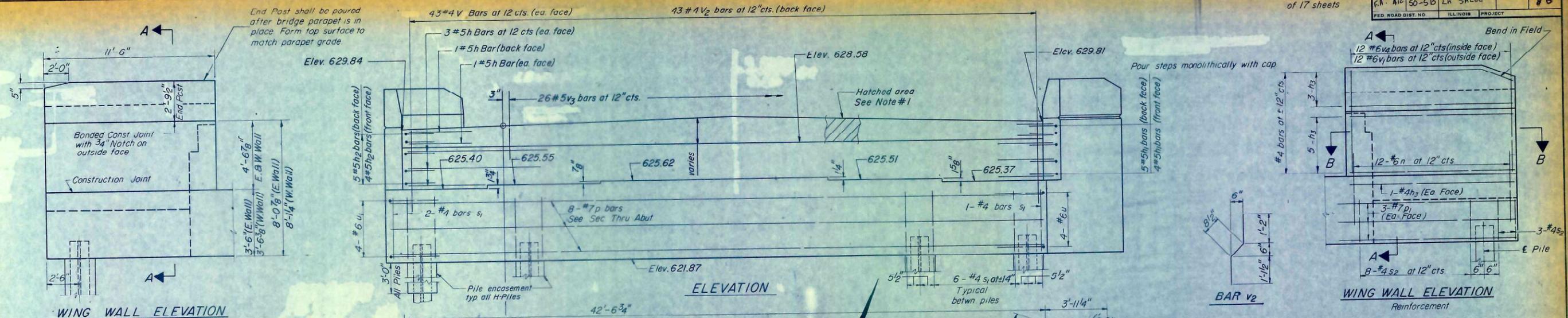
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 412	50-5B	LA SALLE		85
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



**FOR INFORMATION ONLY**

REVISIONS		DATE	INITIALS
1			
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S. ABUTMENT		N.B. LANES	
FA 412 OVER TOMAHAWK CREEK FA 412 SEC. 50-5B PROJ. STA. 1216+43.45 LA SALLE CO.			
HOMER L. CHASTAIN & ASSOCIATES CONSULTING ENGINEERS DECATUR, ILLINOIS		DRAWN BY: DATE R.J.H. 6-75 CHECKED BY: DATE G.S.H. 6-75 PROJECT NO. 2601-6 SHEET NO.	

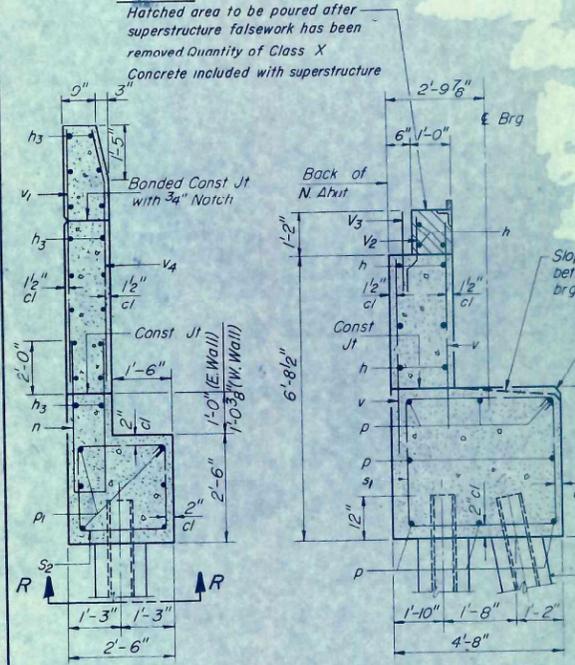


WING WALL ELEVATION

ELEVATION

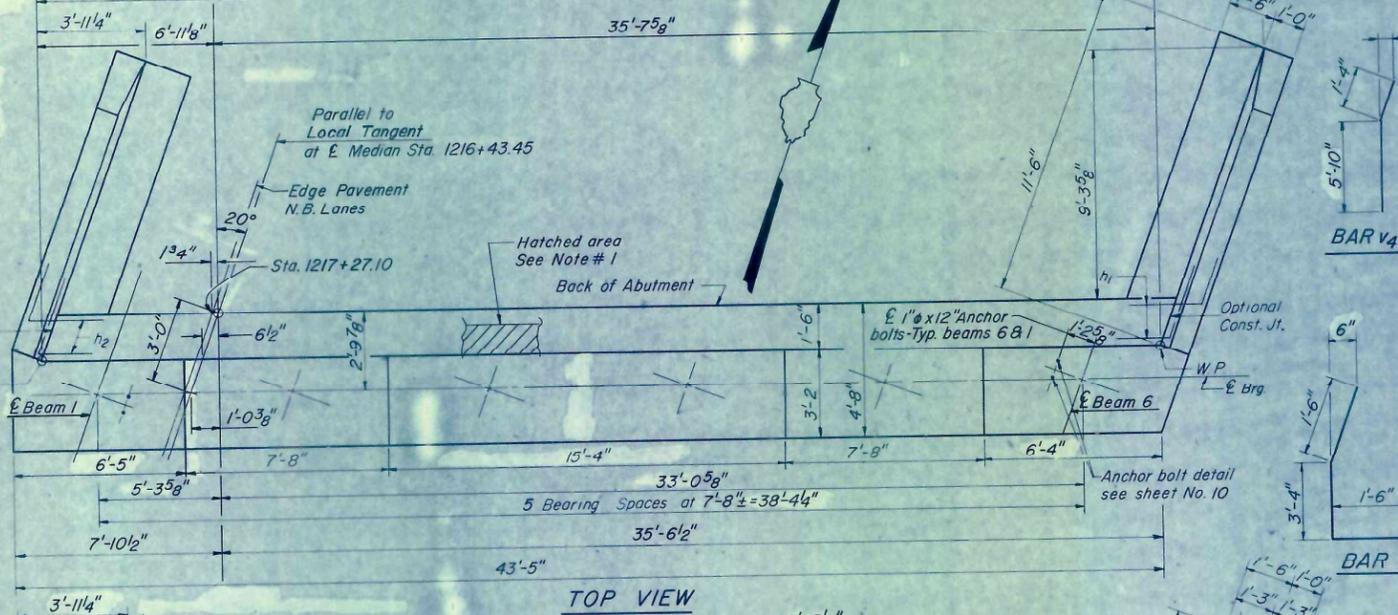
WING WALL ELEVATION Reinforcement

**NOTE #1**  
Hatched area to be poured after superstructure falsework has been removed. Quantity of Class X Concrete included with superstructure.



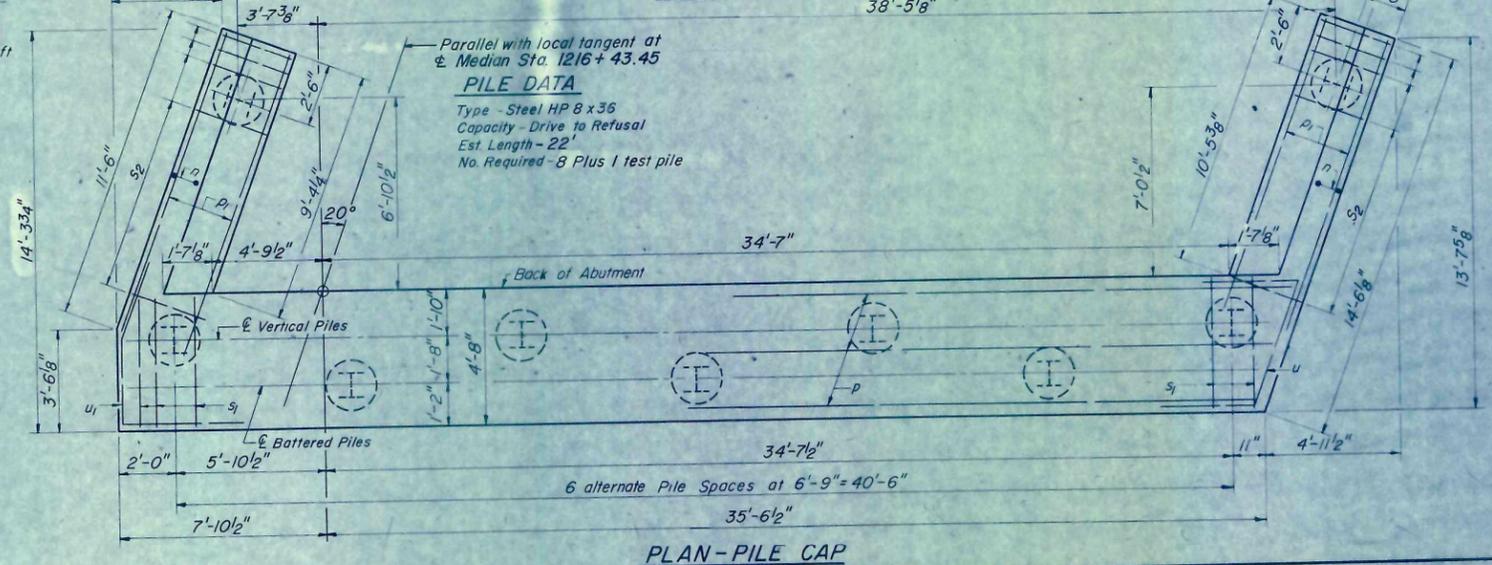
SEC. A-A

SEC. THRU ABUT.

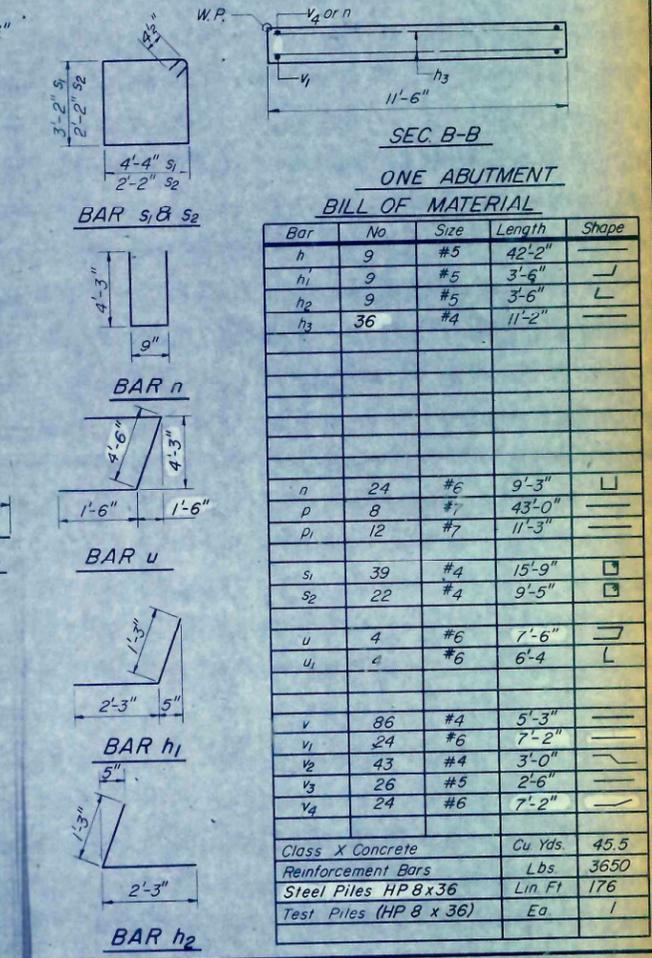


TOP VIEW

Parallel with local tangent at Median Sta. 1216+43.45  
**PILE DATA**  
Type - Steel HP 8 x 36  
Capacity - Drive to Refusal  
Est. Length - 22'  
No. Required - 8 Plus 1 test pile



PLAN - PILE CAP



**ONE ABUTMENT BILL OF MATERIAL**

Bar	No	Size	Length	Shape
h	9	#5	42'-2"	—
h1	9	#5	3'-6"	—
h2	9	#5	3'-6"	—
h3	36	#4	11'-2"	—
n	24	#6	9'-3"	—
p	8	#7	43'-0"	—
p1	12	#7	11'-3"	—
s1	39	#4	15'-9"	—
s2	22	#4	9'-5"	—
u	4	#6	7'-6"	—
u1	4	#6	6'-4"	—
v	86	#4	5'-3"	—
v1	24	#6	7'-2"	—
v2	43	#4	3'-0"	—
v3	26	#5	2'-6"	—
v4	24	#6	7'-2"	—
Class X Concrete				Cu Yds. 45.5
Reinforcement Bars				Lbs. 3650
Steel Piles HP 8 x 36				Lin Ft 176
Test Piles (HP 8 x 36)				Ea 1

REVISIONS		DRAWN BY DATE	
NO.	DATE	INITIALS	
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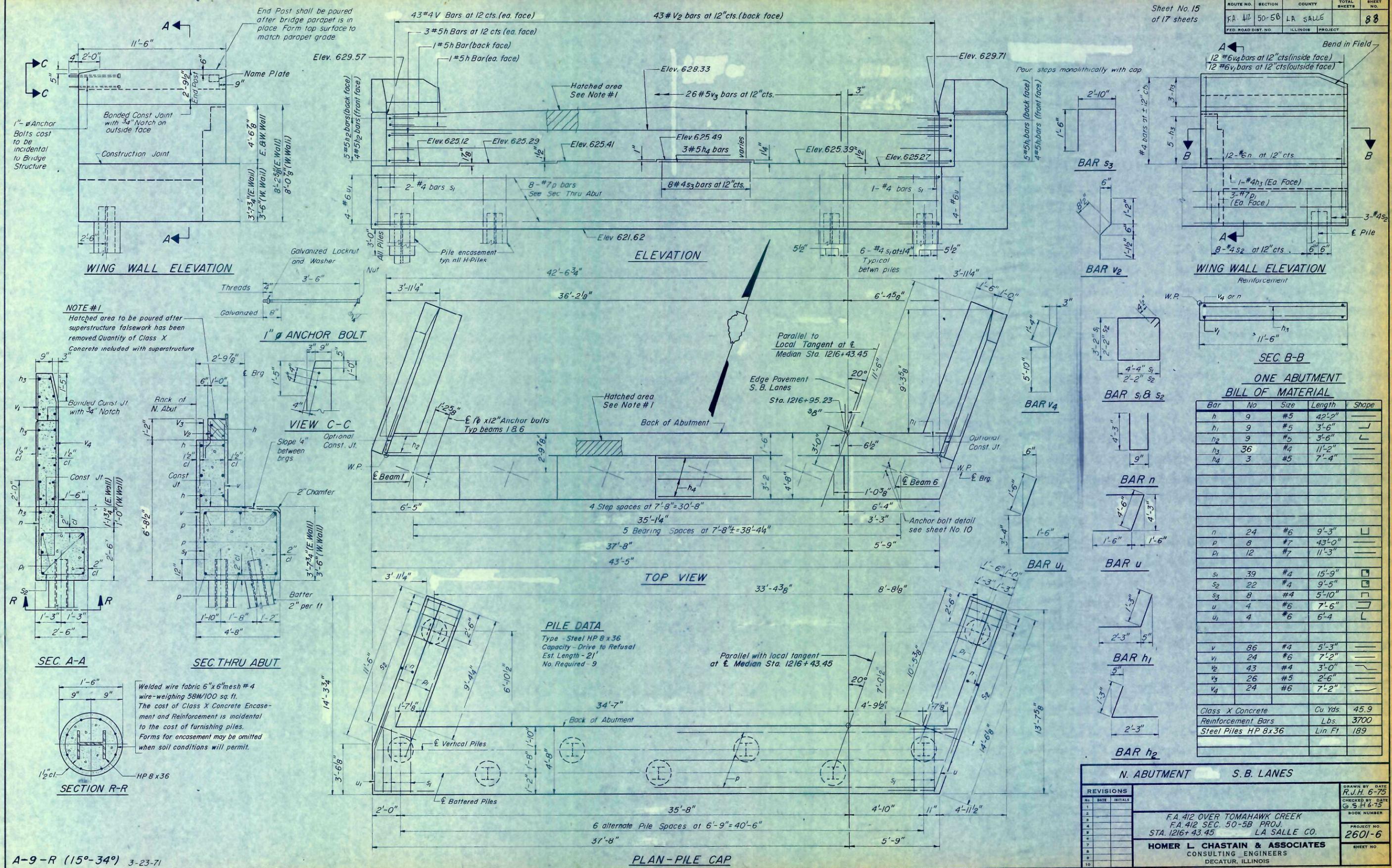
N. ABUTMENT		N.B. LANES	
F.A. 412 OVER TOMAHAWK CREEK			
F.A. 412 SEC. 50-5B PROJ.			
STA. 1216+43.45 LA SALLE CO.			
HOMER L. CHASTAIN & ASSOCIATES		CONSULTING ENGINEERS	
DECATUR, ILLINOIS		PROJECT NO. 2601-6	
		SHEET NO.	

A-9-R (15°-34°) 3-23-71

**FOR INFORMATION ONLY**



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A. 412	50-5B	LA SALLE		88
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



FOR INFORMATION ONLY

REVISIONS		DATE	INITIALS
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DRAWN BY DATE R.J.H. 6-75	
CHECKED BY DATE G.S.H. 6-75	
BOOK NUMBER	
PROJECT NO. 2601-6	
SHEET NO.	

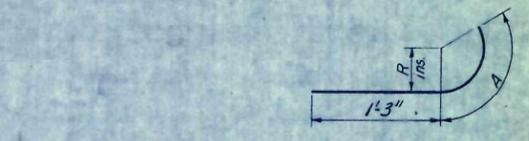
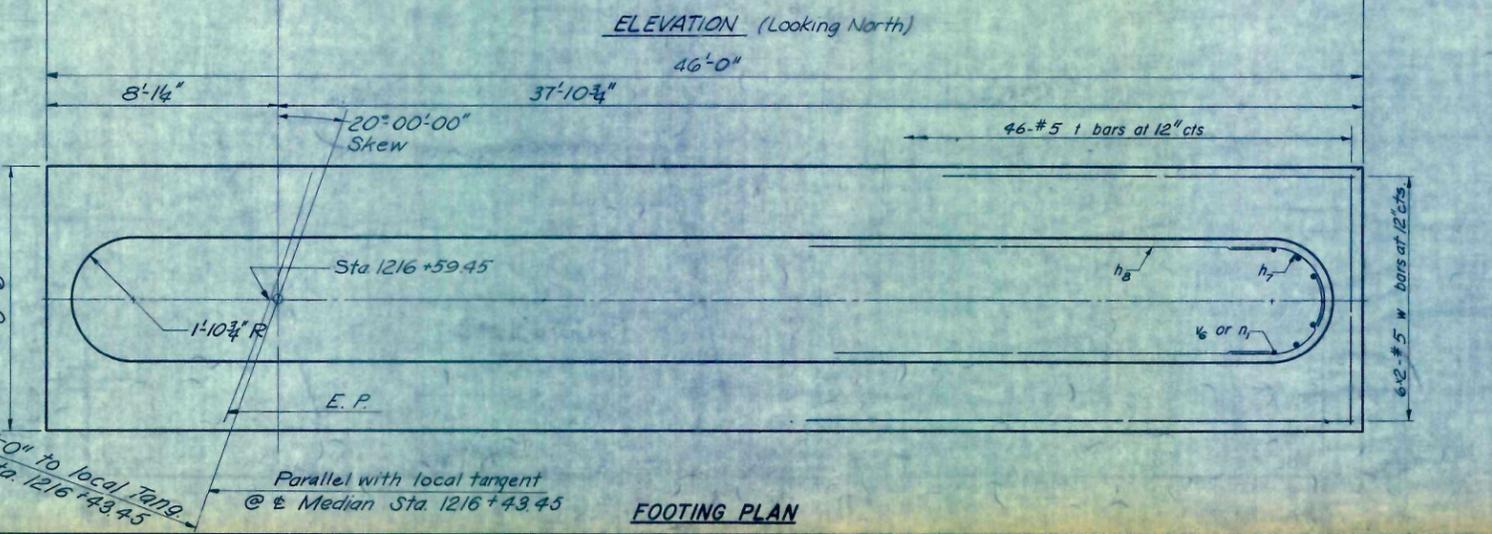
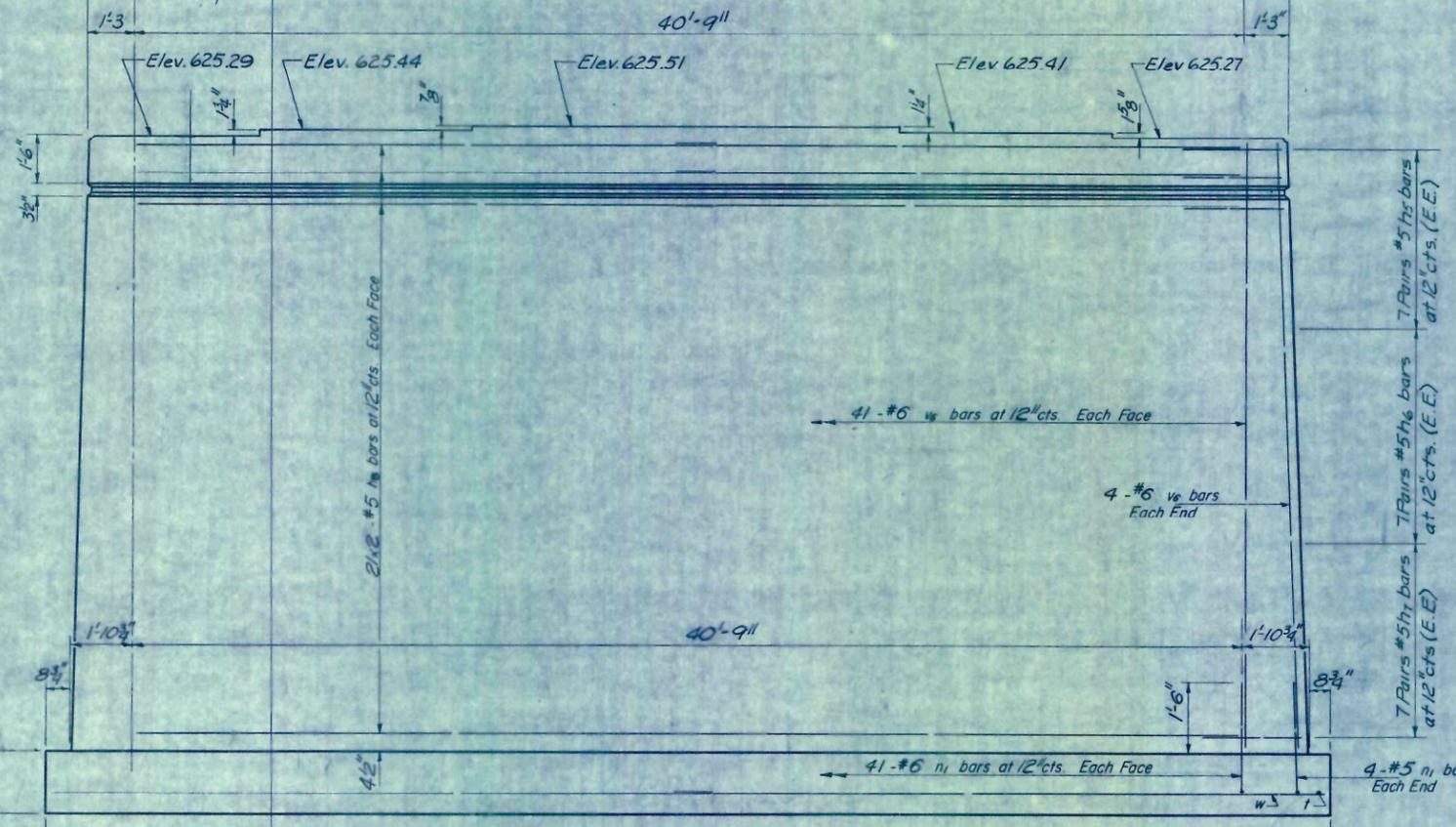
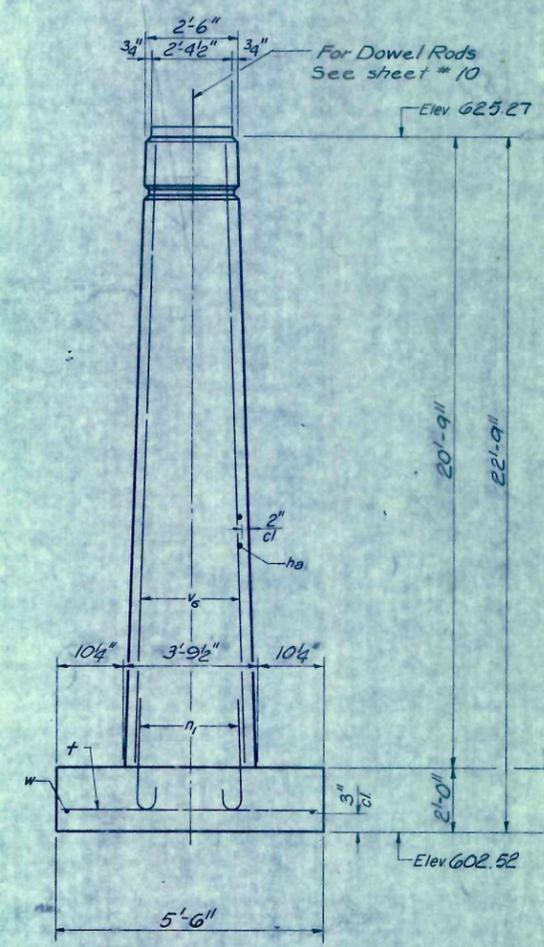
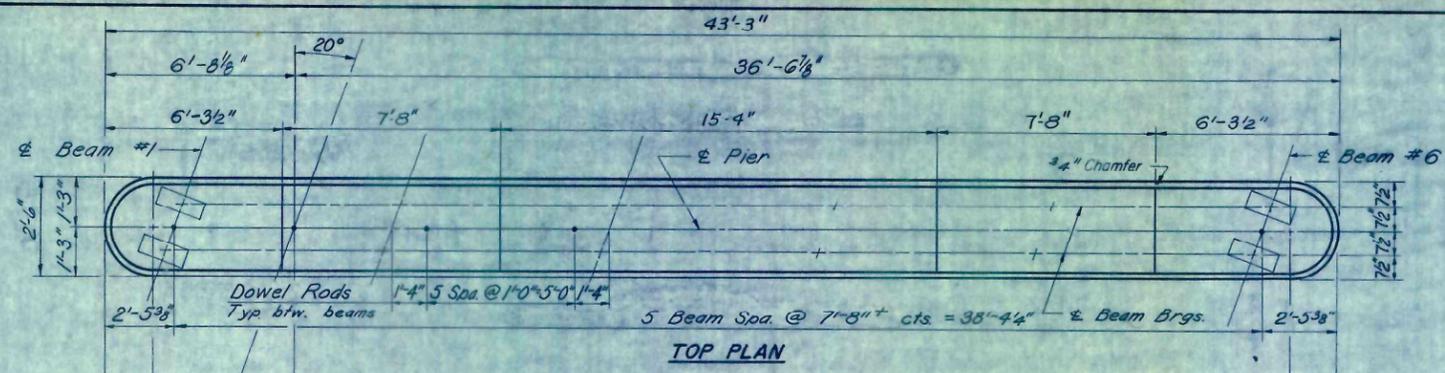
F.A. 412 OVER TOMAHAWK CREEK  
 F.A. 412 SEC. 50-5B PROJ.  
 STA. 1216+43.45 LA SALLE CO.

**HOMER L. CHASTAIN & ASSOCIATES**  
 CONSULTING ENGINEERS  
 DECATUR, ILLINOIS

NOTES:  
 All edges shall have standard  $\frac{3}{4}$ " chamfers except as noted.  
 Pour steps monolithically with pier.

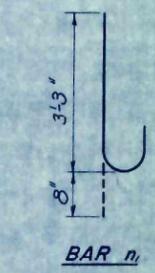
Sheet No. 16  
 of 17 Sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 412	50-5B	LA SALLE		89
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		



Bar	R	A
h <sub>5</sub>	1'-2 1/2"	2'-5 1/2"
h <sub>6</sub>	1'-4 1/2"	2'-11 1/2"
h <sub>7</sub>	1'-7 1/2"	3'-3 1/2"

DETAIL OF BARS  
 h



BILL OF MATERIAL

Bar	No	Size	Length	Shape
h <sub>5</sub>	87	#5	21'-0"	—
h <sub>6</sub>	28	#5	3'-8 1/2"	—
h <sub>7</sub>	28	#5	4'-2 1/2"	—
h <sub>7</sub>	28	#5	4'-6"	—
n <sub>1</sub>	90	#6	3'-11 1/2"	—
t	46	#5	5'-0"	—
v <sub>6</sub>	90	#6	20'-6"	—
w	12	#5	23'-6"	—
Class A Concrete		Cu. Yds	123.6	
Reinforcement Bars		Lbs	6040	
Structure Excavation		Cu. yds	115	
Rock Excavation		Cu. yds	5	

PIER - NORTH BOUND

REVISIONS			DATE	INITIALS
1			JUN 5-76	
2			G.S.H. 6-73	

DRAWN BY DATE  
 JWN 5-76  
 CHECKED BY DATE  
 G.S.H. 6-73

PROJECT NO.  
 2601-6

HOMER L. CHASTAIN & ASSOCIATES  
 CONSULTING ENGINEERS  
 DECATUR, ILLINOIS

P-1 6-1-73

FOR INFORMATION  
 ONLY

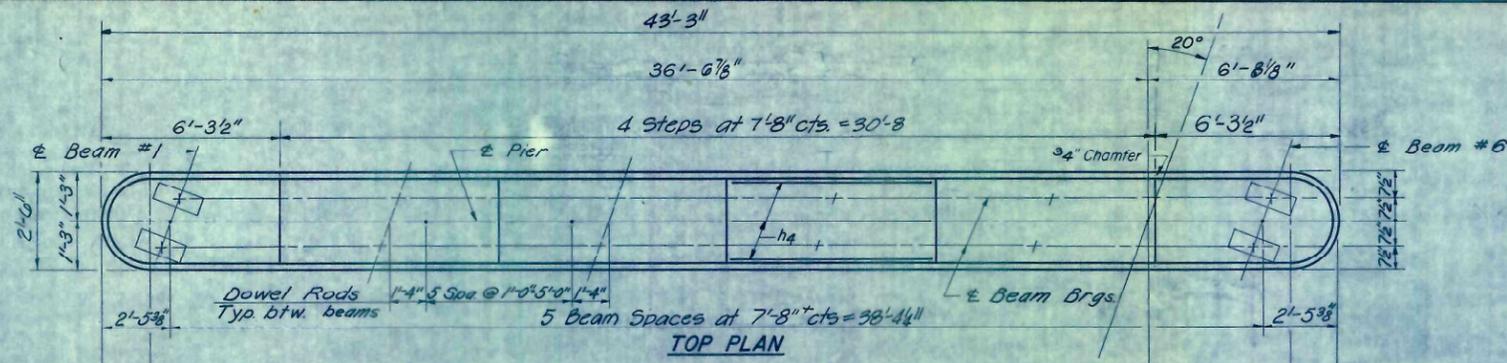


**NOTES:**

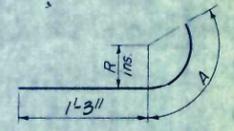
All edges shall have standard  $3/4"$  chamfers except as noted.  
 Four steps monolithically with pier

Sheet No 17  
 of 17 sheets

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FA 412	50-5B	LA SALLE		90
FED. ROAD DIST. NO.	ILLINOIS	PROJECT		

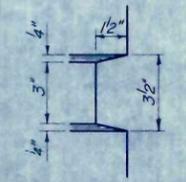


**TOP PLAN**

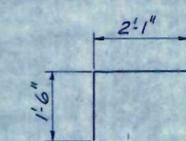


Bar	R	A
h5	1'-2"	2'-5"
h6	1'-4 1/2"	2'-11"
h7	1'-7"	3'-3"

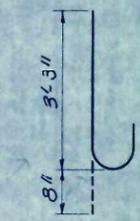
**DETAIL OF BARS**



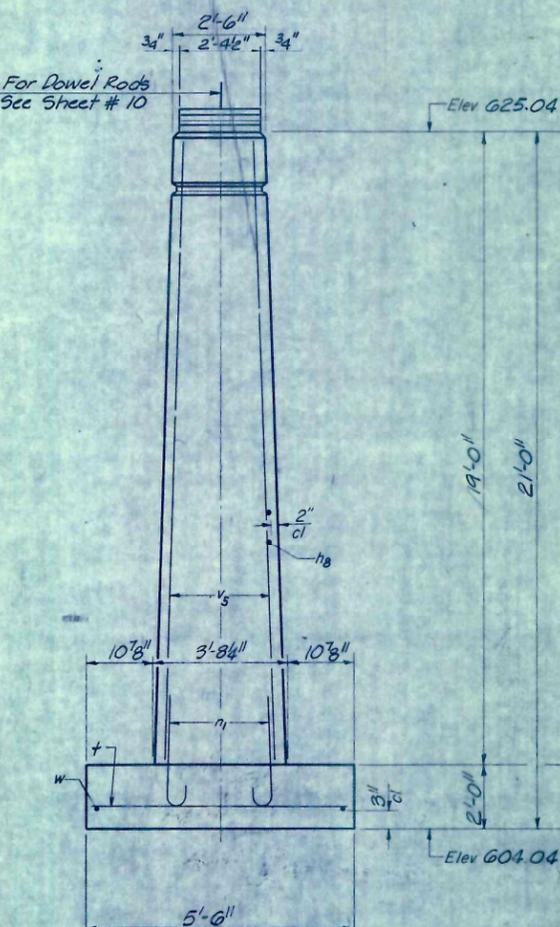
**NOTCH DETAIL**



**BAR s4**

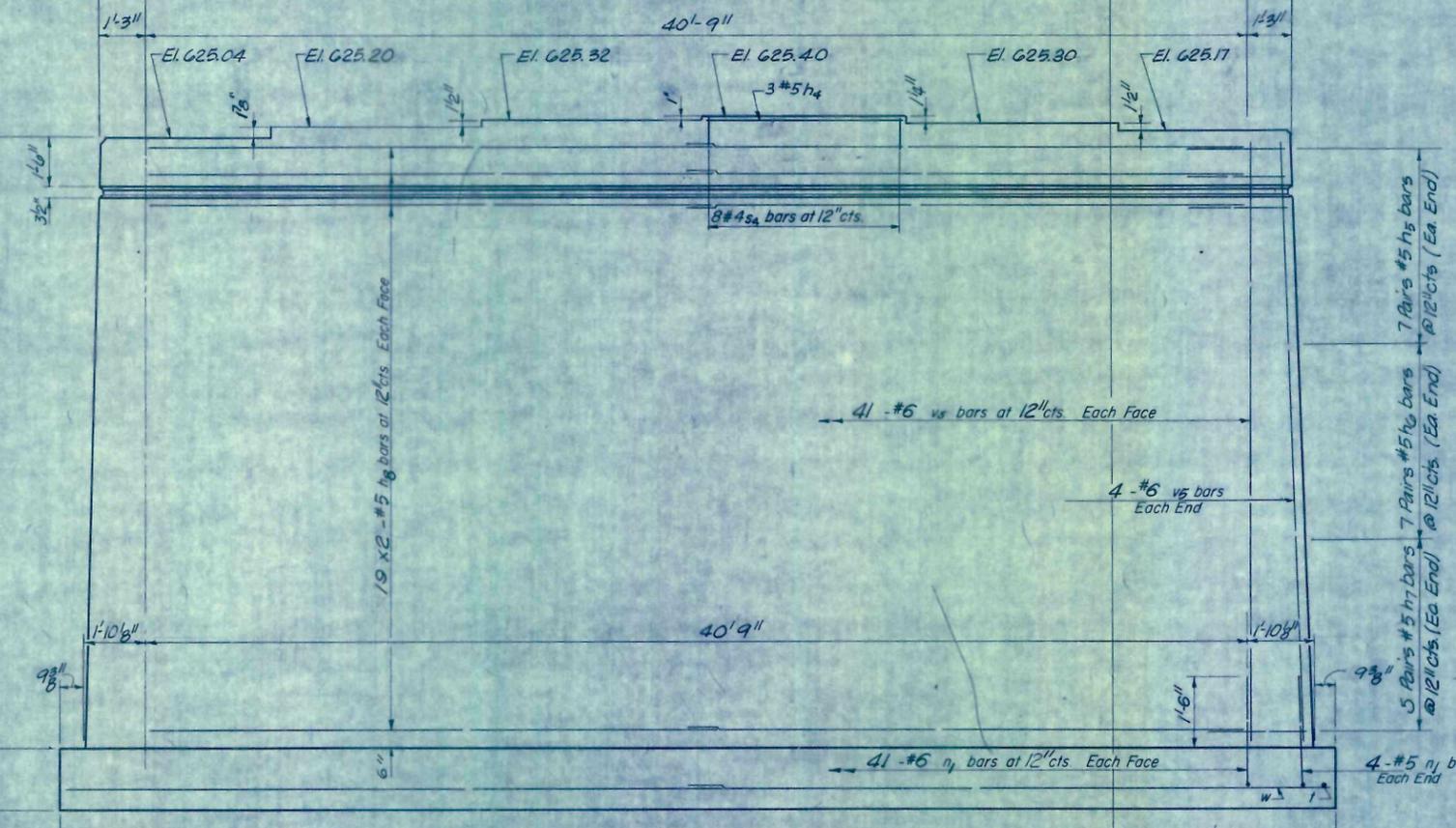


**BAR n1**

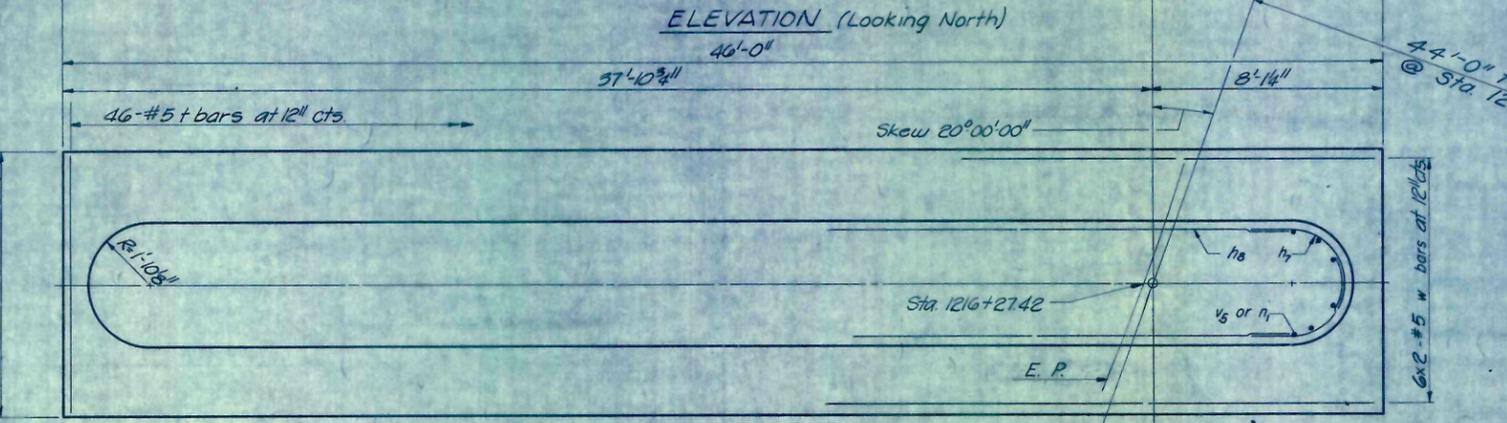


**END VIEW**

Max. Soil Press. = 7.1 1/2'



**ELEVATION (Looking North)**



**FOOTING PLAN**

**BILL OF MATERIAL**

Bar	No	Size	Length	Shape
h5	28	#5	3'-8"	U
h6	28	#5	4'-2"	U
h7	20	#5	4'-6"	U
h8	76	#5	21'-0"	—
h4	3	#5	7'-4"	—
n1	90	#6	3'-11"	U
s4	8	#4	5'-1"	□
i	46	#5	5'-0"	—
v5	90	#6	18'-9"	—
w	12	#5	23'-6"	—
Glass A Concrete			Cu. Yds	113.4
Reinforcement Bars			Lbs	5640
Structure Excavation			Cu. Yds	75
Rock Excavation			Cu. Yds	5

**PIER- SOUTH BOUND**

REVISIONS			DRAWN BY DATE	
NO.	DATE	INITIALS	JWN 5-75	
1			CHECKED BY DATE	
2			G.S.H. 6-75	
3			BOOK NUMBER	
4			PROJECT NO.	
5			2601-6	
6			SHEET NO.	
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FA-412 OVER TOMAHAWK CREEK  
 FA-412 SEC 50-5B PROV.  
 STA. 1216+43.45 LASALLE CO.

**HOMER L. CHASTAIN & ASSOCIATES**  
 CONSULTING ENGINEERS  
 DECATUR, ILLINOIS

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