

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

~~FAP ROUTE 316 (IL 26) & FAP ROUTE 573 (US 30)~~
SECTION D2 BRIDGE PAINTING 2013-1
BRIDGE PAINTING
~~OGLE / WHITESIDE COUNTY~~
C-92-140-12

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Whiteside	Bridge Painting 2013-1	Whiteside	14	1
FED. ROAD DIST. NO. 2 ILLINOIS		CONTRACT NO. 64H98		

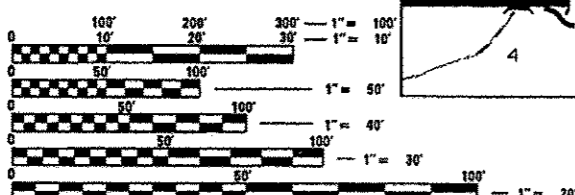
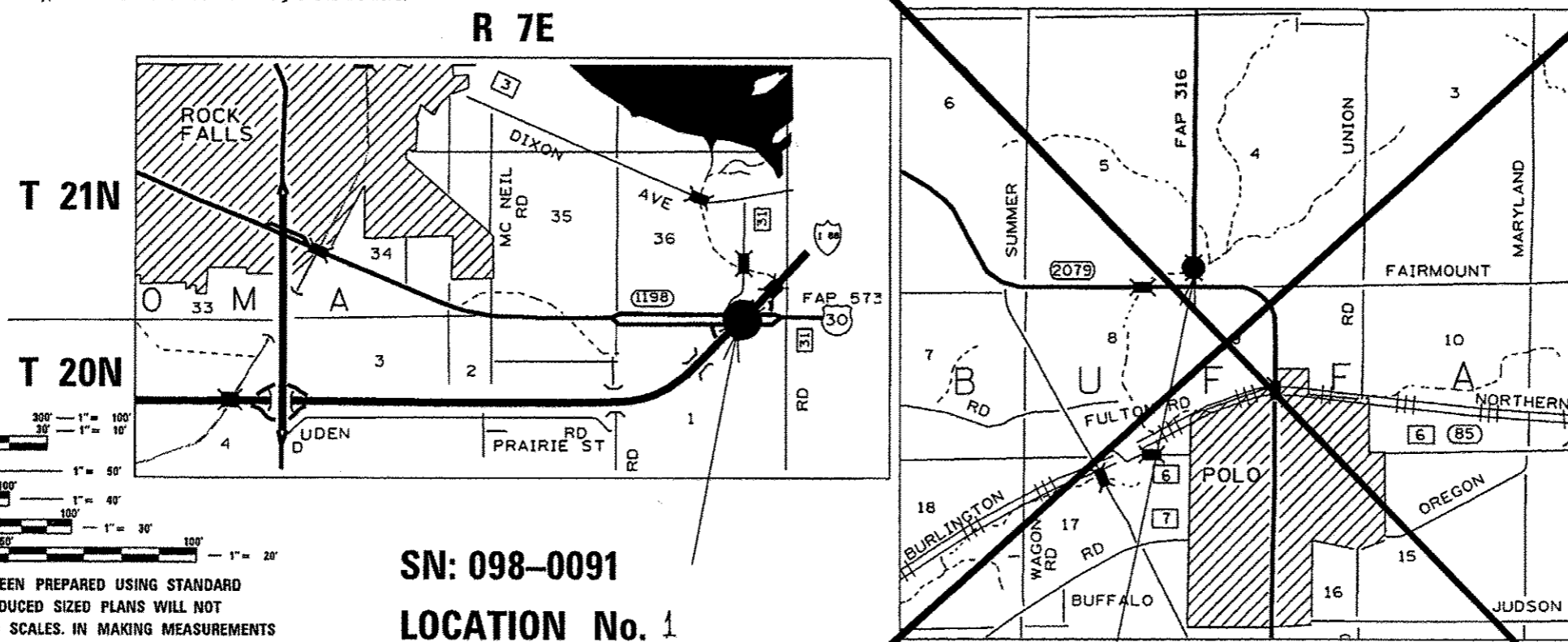
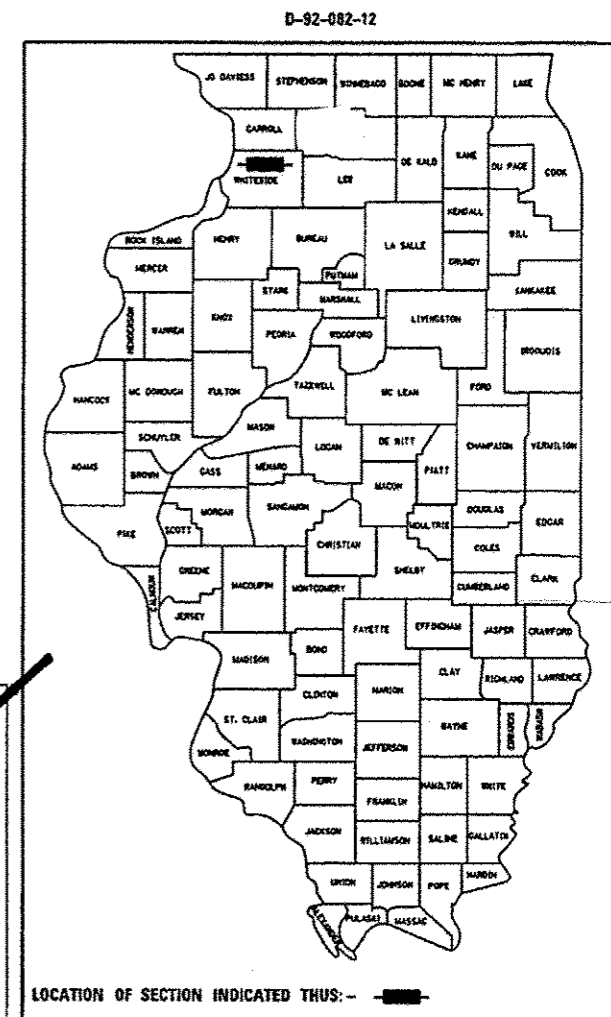
FAP 573

INDEX OF SHEETS

- Cover Sheet, Index Sheet, Standards
- Summary of Quantities, General Notes
- Traffic Control Plan for Location No. 1
- 6. District Standards 41.1
- District Standard 44.1
- 14. Existing Bridge Plans for Location 1 and 2-

STANDARDS

- 701001-02 Off-Road Operations, 2L, 2W, More than 4.5 m (15') Away
- 701006-03 OFF-Road Operations, 2L, 2W, 15' (5.5 m) TO 24' (600 mm) from pavement edge
- 701101-02 Off-Road Operations, Multilane, 4.5 m (15') to 600 mm (24") From Pavement Edge
- 701201-04 Lane Closure, 2L, 2W, Day Only, for speeds > 45 mph
- 701301-04 Lane Closure, 2L, 2W, Short Time Operations
- 701400-05 Approach to Lane Closure, Freeway/Expressway
- 701401-06 Lane Closure, Freeway/Expressway
- 701402-09 Lane Closure, Freeway/Expressway, with Barrier
- 701411-08 Lane Closure, Multilane, at Entrance or Exit Ramp, for Speeds > 45 mph
- 701426-04 Lane Closure, Multilane, Intermittent or Moving Operation for Speeds > 45 mph
- 701901-02 Traffic Control Devices
- 704001-07 Temporary Concrete Barrier
- 720011-01 Metal Posts for Signs, Markers & Delineators
- 728001-01 Telescoping Steel Sign Support
- 729001-01 Applications for Types A & B Metal Posts (For Signs and Markers)



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

SN: 098-0091
LOCATION No. 1

~~SN: 071-0069~~
~~LOCATION No. 1~~

District 2 Bridge Maintenance Engineer - Mahmoud Etemadi 815/284-5393

COLONA TOWNSHIP, SECTION 36
MONTMORENCY TOWNSHIP, SECTION 1
BUFFALO TOWNSHIP, SECTION 4, 5
CONTRACT NO. 64H98

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED August 14, 2012
Earl S. Shekhtman
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

October 5, 2012
John D. Baranelli P.E.
ENGINEER OF DESIGN AND ENVIRONMENT

October 5, 2012
William R. Frey
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

SUMMARY OF QUANTITIES

GENERAL NOTES

Pay Item Number	Description	Units	Total Quantity	100% STATE 0014	0014 WHITESIDE
67100100	MOBILIZATION	L SUM	1		1
70100207	TRAFFIC CONTROL AND PROTECTION STANDARD 701402	EACH	2	-	2
70100420	TRAFFIC CONTROL AND PROTECTION STANDARD 701411	EACH	2	-	2
70100450	TRAFFIC CONTROL AND PROTECTION STANDARD 701201	L SUM	1	-	1
70100800	TRAFFIC CONTROL AND PROTECTION STANDARD 701401	L SUM	1	-	1
70300220	TEMPORARY PAVEMENT MARKING-LINE 4"	FOOT	11,200	-	11,200
70400100	TEMPORARY CONCRETE BARRIER	FOOT	375		375
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1,125	-	1,125
78300100	PAVEMENT MARKING REMOVAL	SQ FT	3,736	-	3,736
X5067501	BRIDGE CLEANING AND PAINTING WARRANTY NUMBER 1	L SUM	1	-	1
Z0007101	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1	-	1
Z0007111	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES	L SUM	1	-	1
Z0010501	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1		1
Z0010502	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1	-	1
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	-	1
Z0030350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	1	-	1

A minimum of 2 air monitors will be required to monitor abrasive blasting operations, see special provision for "Containment and Disposal of Lead Paint Cleaning Residues".

The Contractor shall seed all disturbed areas within the project limits. Seeding Class 2A shall be used. This work will be included in the contract unit price per LUMP SUM for CLEANING AND PAINTING STEEL BRIDGE NO. 1 and CLEANING AND PAINTING STEEL BRIDGE NO. 2.

Fertilizer shall be applied to all disturbed areas and incorporated into the seedbed prior to seeding or placement of sod at the rate specified in Sections 250 and 252 of the Standard Specifications. This work shall be included in the cost of CLEANING AND PAINTING STEEL BRIDGE NO. 1 and in the cost of CLEANING AND PAINTING STEEL BRIDGE NO. 2.

Mulch Method II shall be applied over all seeded areas. This shall be included in the cost of the CLEANING AND PAINTING STEEL BRIDGE NO. 1 AND CLEANING AND PAINTING STEEL BRIDGE NO. 2.

All Borrow/Waste/Use sites must be approved by the Department prior to removing any material from the project or initiating any earthmoving activities, including temporary stockpiling outside the limits of construction.

Temporary Impact Attenuators will be measured as each for each attenuator supplied on the job as specified in the plans, and shall include the cost of renting/owning the attenuator for the time required on the job plus hauling to and from the project site, as well as one placement and removal from the roadway. This shall be paid for at the contract unit price per Each for IMPACT ATTENUATORS, TEMPORARY of the type specified.

Relocate Temporary Impact Attenuators will be paid for as Each and will be paid for each time the attenuator is required by staging to be picked up and moved to a different location on the project, whether it is to another location on the roadway or to a storage/staging location for the project. This shall be paid for at the contract unit price per Each for IMPACT ATTENUATORS, RELOCATE of the type specified.

This work shall be done in accordance with Section 704 of the Standard Specifications. Temporary Concrete Barrier will be measured in feet along the centerline of the barrier and shall include the cost of renting/owning the barrier for the time required on the job plus hauling to and from the project site, as well as one placement and removal from the roadway in accordance with Section 704 of the Standard Specification. This shall be paid for at the contract unit price per Foot for TEMPORARY CONCRETE BARRIER.

Relocate Temporary Concrete Barrier will be paid for in Feet along the centerline of the barrier, and will be paid for each time the barrier is required by staging to be picked up and moved to a different location on the project, whether it is to another location on the roadway or to a storage/staging location for the project. This shall be paid for at the contract unit price per Foot for RELOCATE TEMPORARY CONCRETE BARRIER.

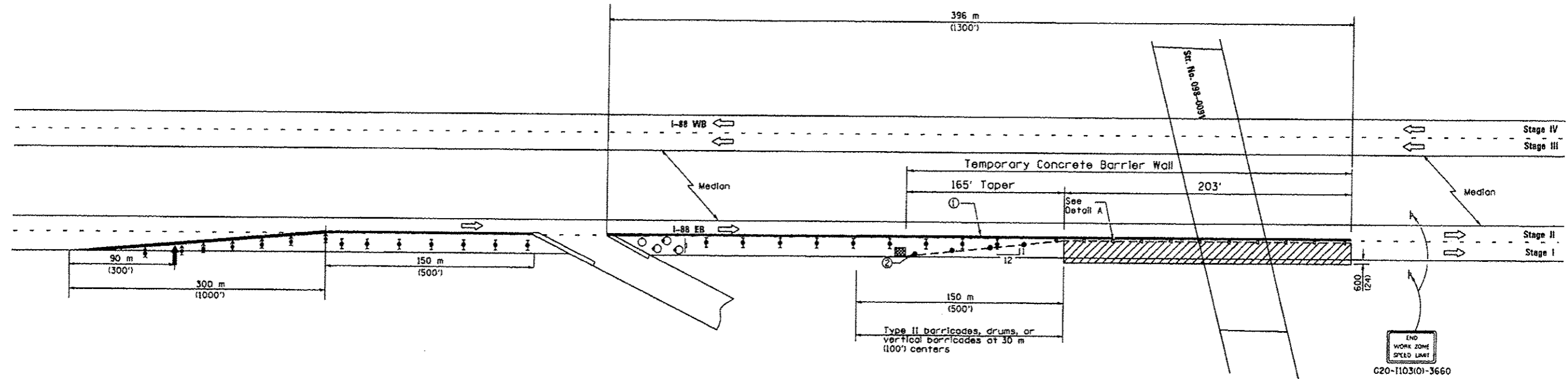
The Contractor shall be responsible for protecting utility property during construction operations as outlined in Article 107.31 of the Standard Specifications. A minimum of 48 hours advance notice is required for non-emergency work. The JULIE number is 800-892-0123.

The SSPC QP1 & QP2 Contract certifications will be Required for this Contract.

FILE NAME *	USER NAME * bar tess	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	Summary of Quantities			F.A. RTE.	SECTION	COUNTY	TOTAL SHEET SHEETS NO.
\\CENTRAL\Sho-ed\2\BR\CONSTANTIN\64H9	IL 25 US 38 Painting\64H9B.dgn	DRAWN -	REVISED -					016/119902 Bridge Painting 2013-	016/119902	Whiteside	14
PLOT SCALE * 181.6273 1/ in.	CHECKED -	REVISED -	SCALE:		SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 64H9B	
PLOT DATE * Tue Aug 14 08:16:49 2012	DATE -	REVISED -	FED. ROAD DIST. NO.		ILLINOIS	FED. AID PROJECT					

Rex.

Traffic Control Plan for Location No. 1 Stage I, II, III, IV



Temporary Concrete Barrier

Total: 375 Feet for Stage I

Relocate Temporary Concrete Barrier

Stage II	375 Feet
Stage III	375 Feet
Stage IV	375 Feet

Total 1,125 Feet

Impact Attenuators, Temporary

Locations 1 1 Each

Impact Attenuators, Relocate

Stage II	1 Each
Stage III	1 Each
Stage IV	1 Each
	3 Each

Temporary Pavement marking-Line 4"

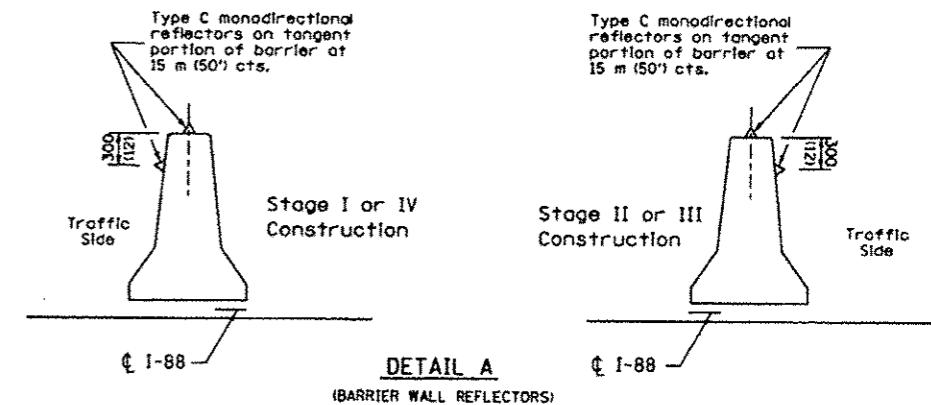
Stage I	2,800 Feet
Stage II	2,800 Feet
Stage III	2,800 Feet
Stage IV	2,800 Feet

Total 11,200 Feet

Pavement Marking Removal

Stage I	934 Sq Feet
Stage II	934 Sq Feet
Stage III	934 Sq Feet
Stage IV	934 Sq Feet

Total 3,736 Sq Feet



SYMBOLS

- ↑ Arrow board
- ▨ Work area
- ⊥ Sign. See detail A in Standard 701411
- ⊥ Direction indicator barricade with steady burn monodirectional light
- ⊥ Type II barricade, drum, or vertical barricade with steady burn monodirectional light
- ▭ Temporary concrete barrier
- ◁ Type C Monodirectional reflector
- Vertical panel with steady burn monodirectional light.
- ▩ Impact attenuator
- Drums with Steady burning monodirectional light

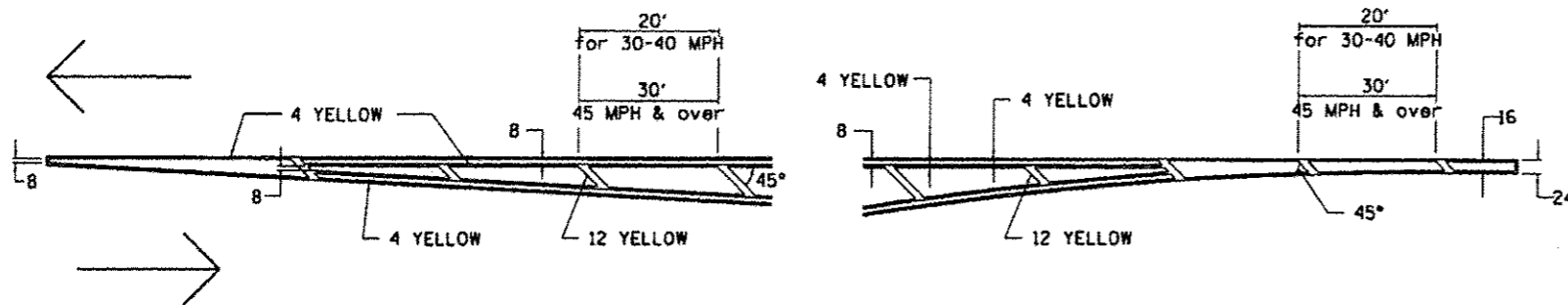
NOTES:

- ① ReflectORIZED temporary pavement marking shall be placed throughout the taper and along-side the work area. The edge line shall be white for right lane closure and yellow for left lane closure.
- ② Vertical panels at 7.6 m (25') centers with steady burning monodirectional lights.
- ③ All dimensions are in millimeters (inches) unless otherwise shown.
- ④ For stage I and III, use traffic control standard 701402-09

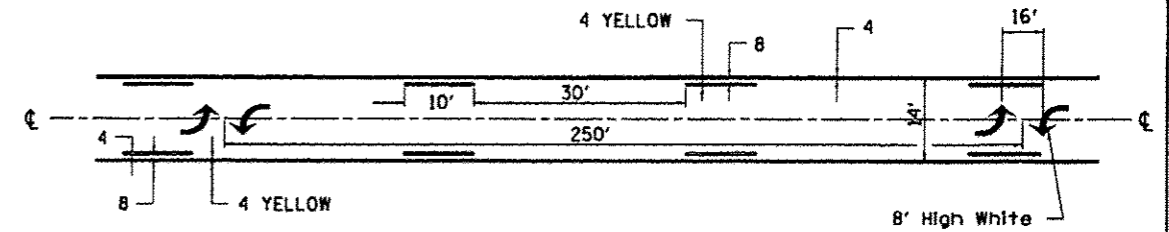
DESIGNED -	EXAMINED	DATE	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
CHECKED -	ENGINEER OF STRUCTURAL SERVICES			1199 D2 BRIDGE PAINTING 2013-1	WITESIDE	14	3	
DRAWN -	PASSED	REVISOR		SHEET NO. OF SHEETS		CONTRACT NO. 64H9B		
CHECKED -	ENGINEER OF BRIDGES AND STRUCTURES	REVISOR		[ILLINOIS] FED. AID PROJECT				

TYPICAL PAVEMENT MARKINGS

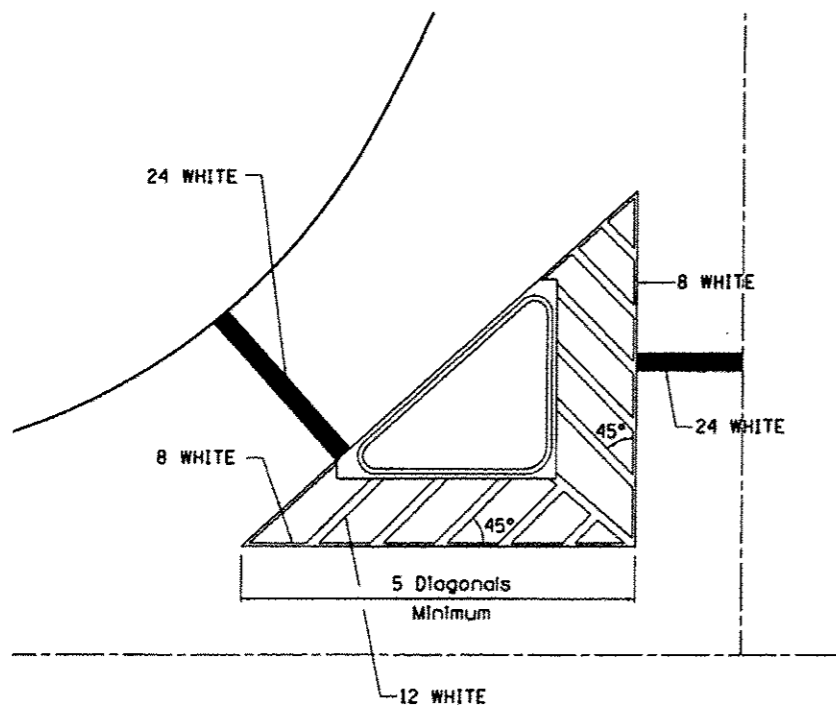
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN AT LEFT TURN LANE



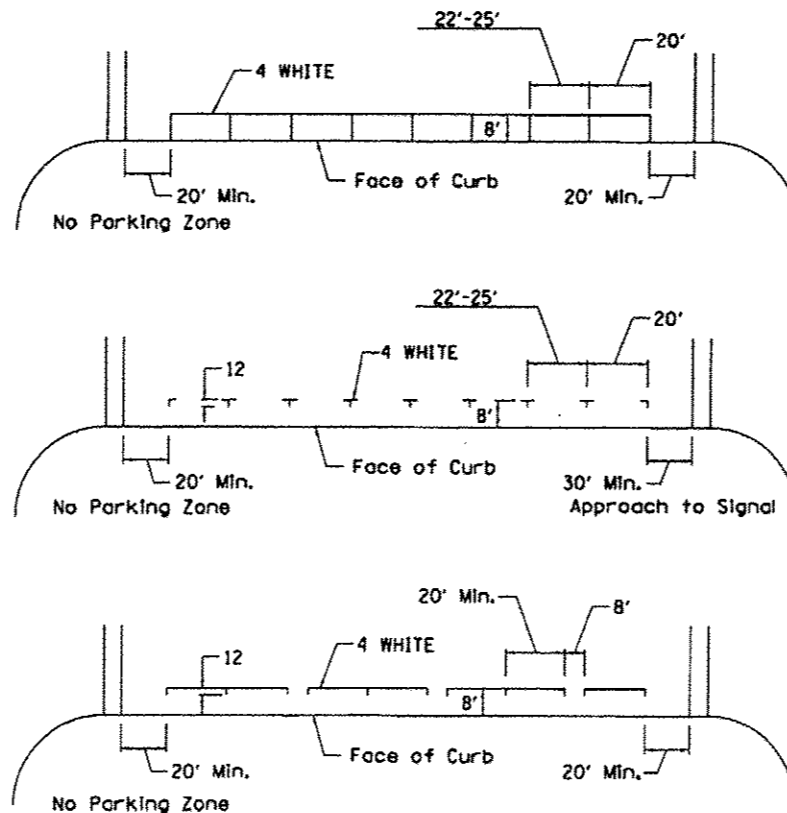
MEDIAN PAVEMENT MARKING



TYPICAL ISLAND OFFSET SHOULDER WIDTH



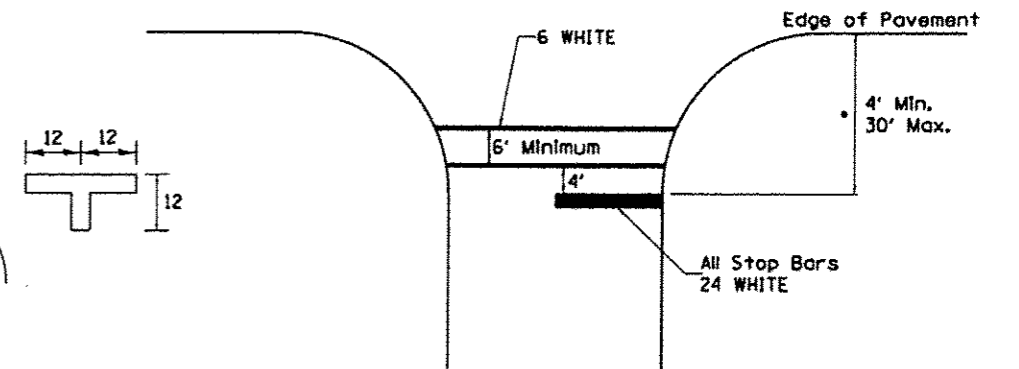
TYPICAL PARKING SPACING



•• ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

STANDARD CROSSWALK MARKING

See Schedules for Locations

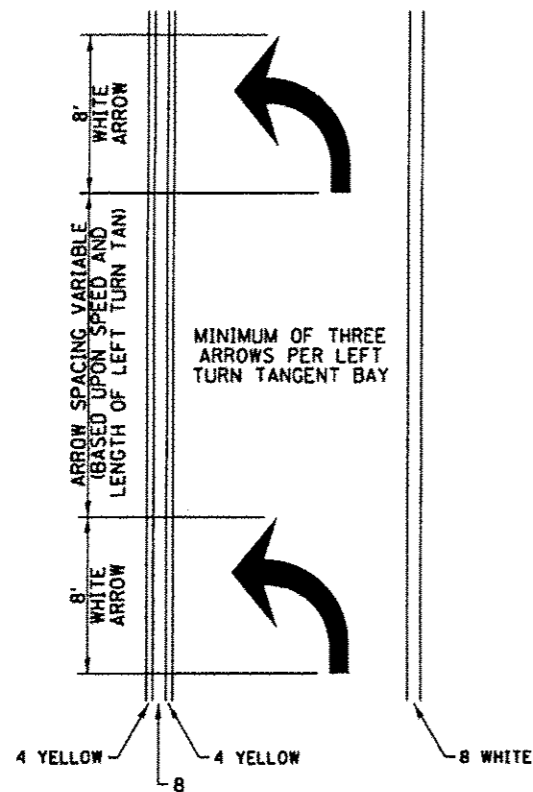


• Distance to the nearest edge of the intersecting roadway in the absence of a marked crosswalk.

FILE NAME :	USER NAME :	DESIGNED :	REVISED :	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD	F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
\\CENTRAL\Shared\02\BR\CONSTANTIN\64198	borlase	-	3-5-12							17	4
8 IL 26 US 30 Painting\64198.dgn		DRAWN	REVISED								
PLOT SCALE = 1/8" = 1'-0"		CHECKED	REVISED								
PLOT DATE = Mon Aug 06 10:18:53 2012		DATE	REVISED			FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT				

TYPICAL PAVEMENT MARKINGS

ARROW LAYOUT

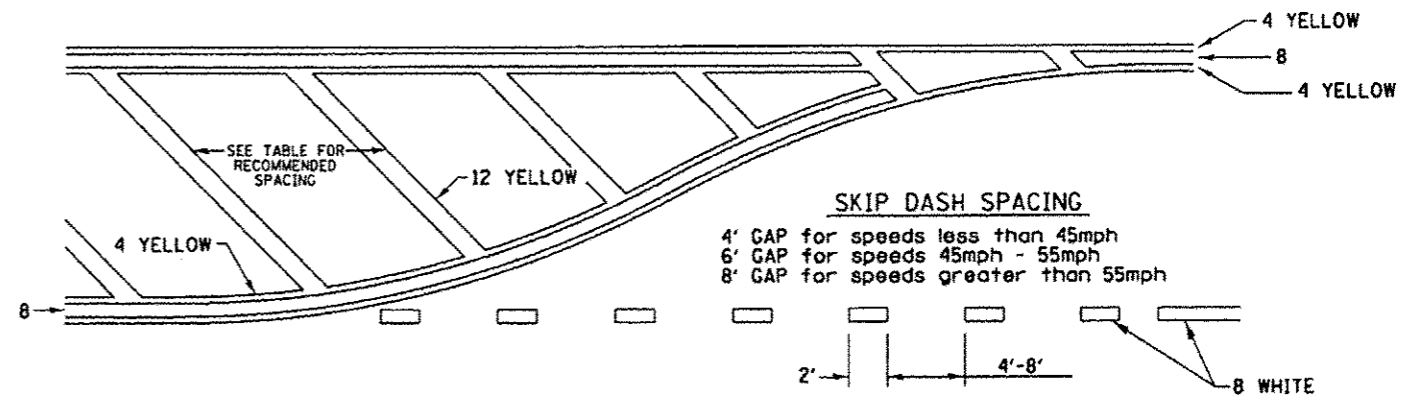


- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER
- ◆ TWO-WAY AMBER MARKER

ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

6 at 40' O.C. APPROACH SIDE ONLY

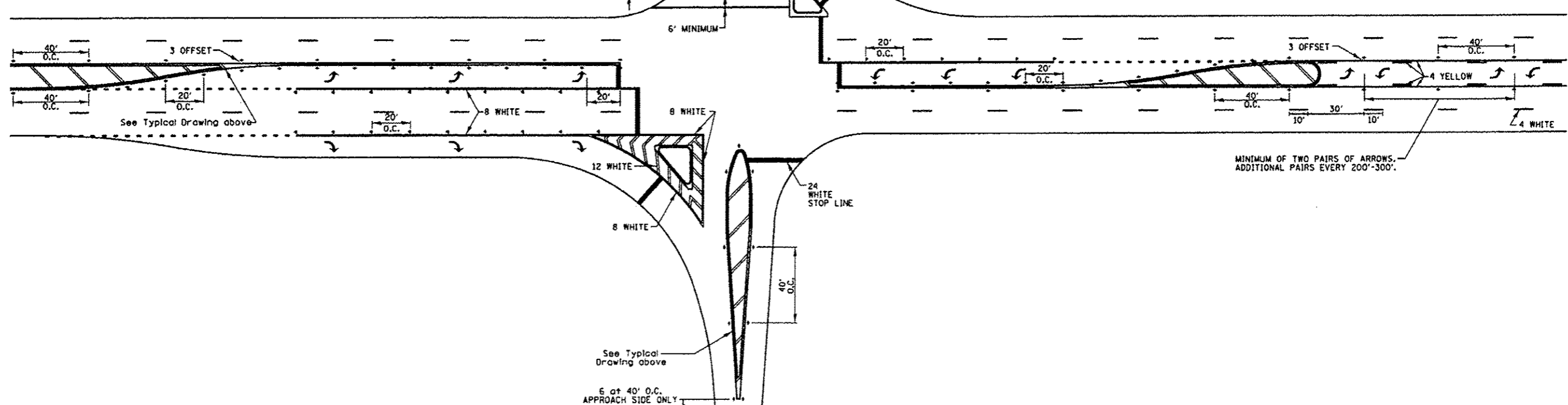
TYPICAL PAVEMENT MARKING FOR FLUSH MEDIAN



RECOMMENDED SPACING BETWEEN DIAGONALS (IN FEET)

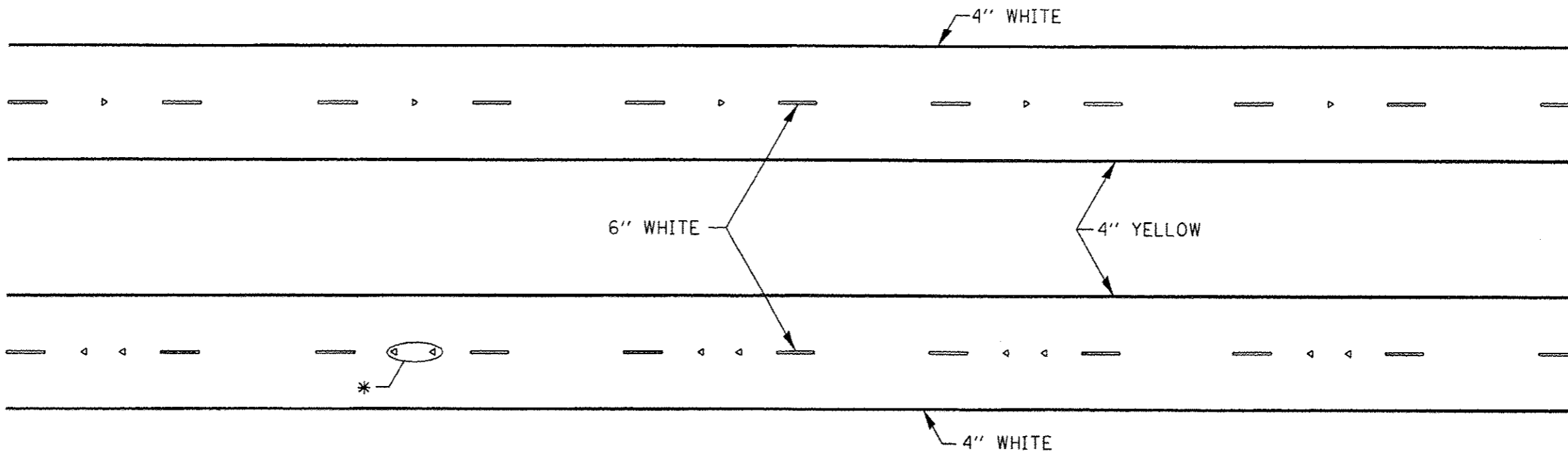
Speed Limit Range	Continuous Median Area	Intersection Channelization	Objects (Islands)
less than 30MPH	50'	15'	10'
30-40MPH	75'	20'	15'
45MPH & over	75'	30'	20'

NOTE: If the spacing recommended in the Table does not permit at least five diagonal lines in the area being marked, the spacing from the next lowest speed range should be used. The recommended spacing is measured parallel to the pavement center line.



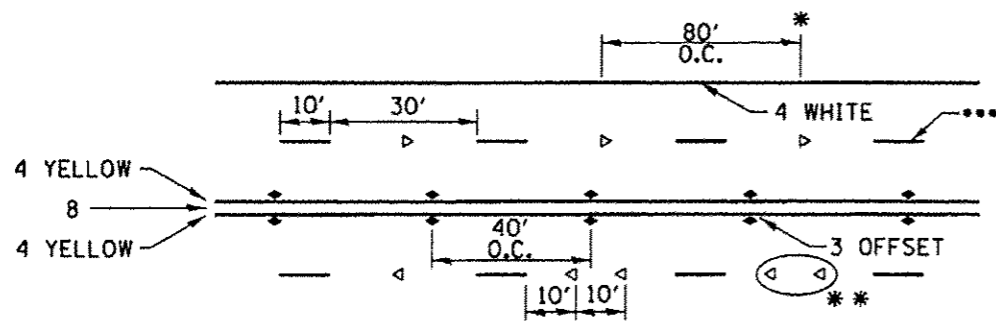
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\\CENTRAL\Shared\02\BR\CONSTANT\IN\64118	8 IL 25 US 38 Painting\641198.dgn	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT	CONTRACT NO. 64H98	
	PLOT SCALE = 1/8" = 1' / in.	CHECKED -	REVISED -										77	5
	PLOT DATE = Mon Aug 06 10:28:28 2012	DATE -	REVISED -											

TYPICAL PAVEMENT MARKINGS



* SEE HIGHWAY STANDARD 781001 FOR SPACING DETAILS.
USE DOUBLE MARKERS WHEN ADT ≥ 25,000.

MULTI-LANE / DIVIDED



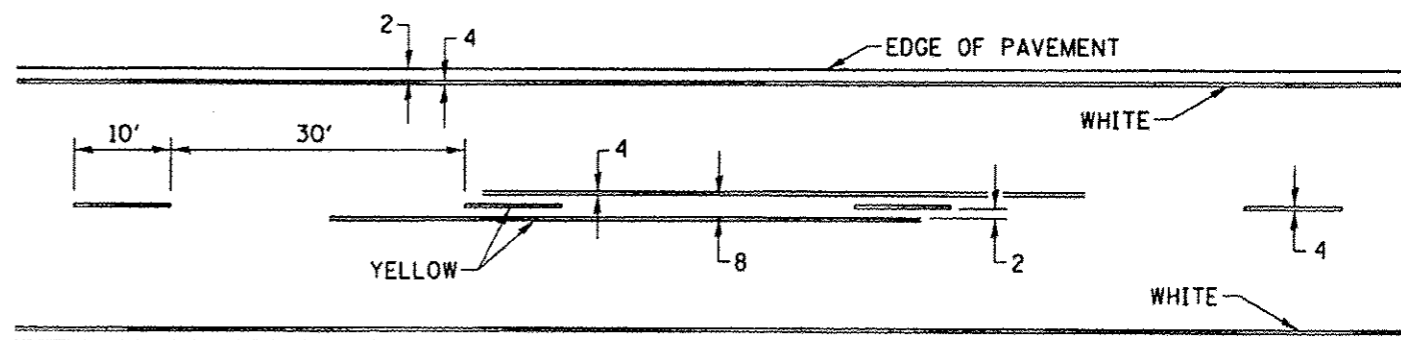
SYMBOLS

- REDUCE TO 40' O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH LOWER THAN POSTED SPEEDS.
- USE DOUBLE MARKERS WHEN ADT ≥ 25,000
- CENTERLINE SKIP DASH PAVEMENT MARKING SPEED LIMIT LESS THAN 40 MPH USE 4" LINE SPEED LIMIT 40 MPH AND OVER USE 6" LINE

MULTI-LANE / UNDIVIDED & ONE WAY

(FOR MULTI-LANE UNDIVIDED HIGHWAYS USE THIS
DETAIL NOT HIGHWAY STANDARD 781001)

TYPICAL PAVEMENT MARKING FOR TWO LANE SECTION - NO PASSING ZONES

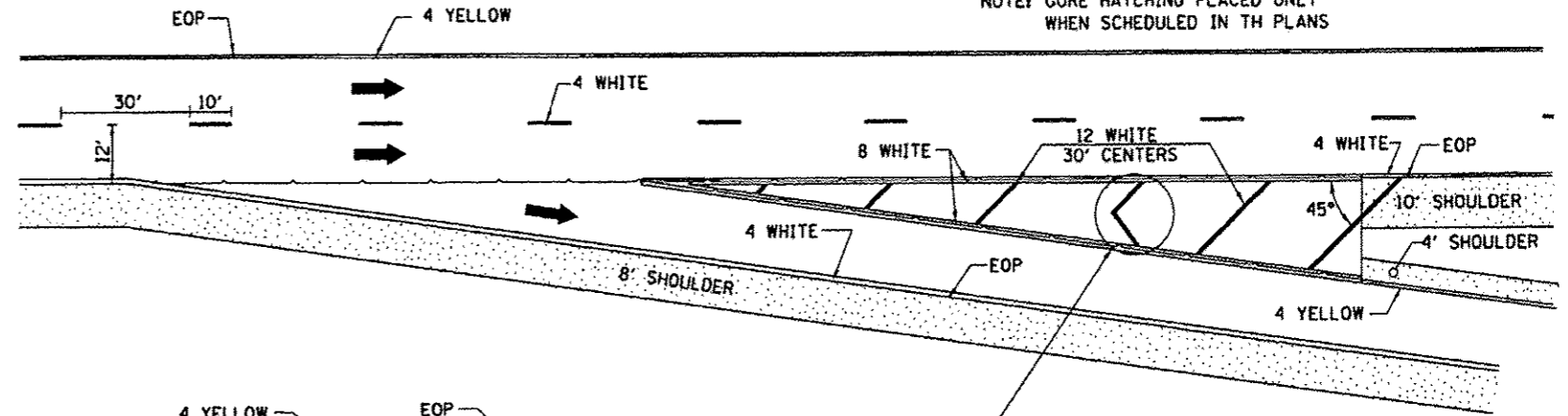


FILE NAME *	USER NAME * bartec	DESIGNED -	REVISED - 3-5-12	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	REGION 2 / DISTRICT 2 STANDARD			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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		CHECKED -	REVISED -										
		DATE -	REVISED -										

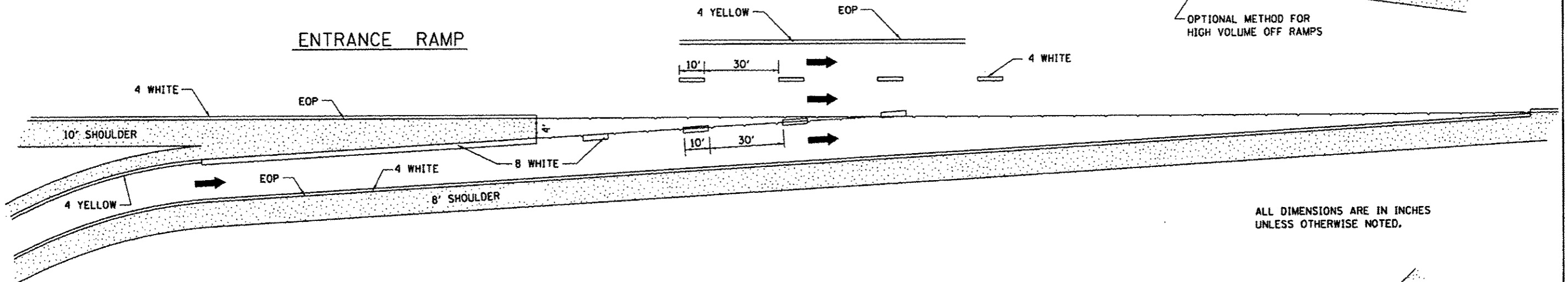
PAINTING DETAILS

EXIT RAMP

NOTE: GORE HATCHING PLACED ONLY WHEN SCHEDULED IN TH PLANS

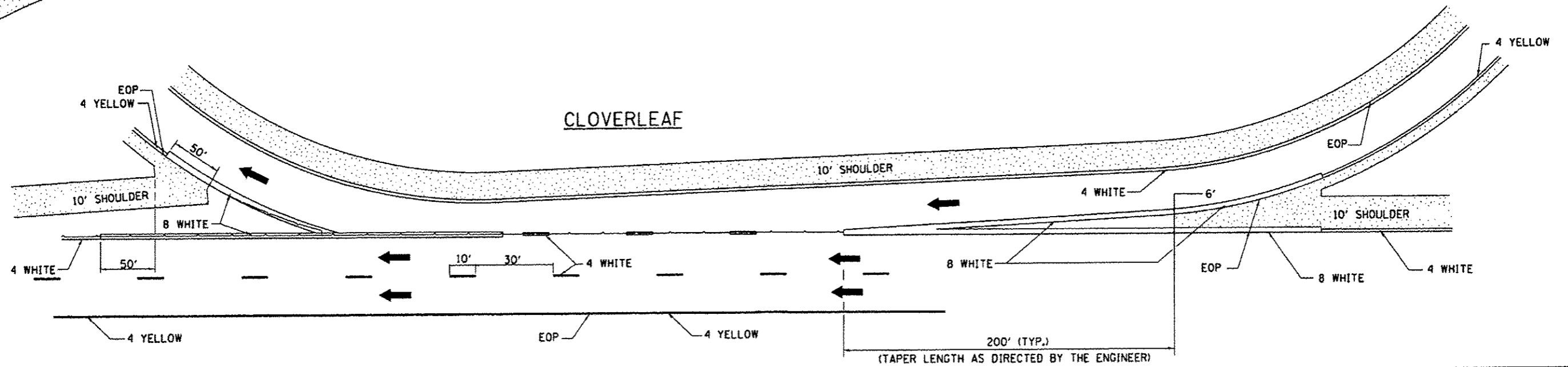


ENTRANCE RAMP



ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED.

CLOVERLEAF



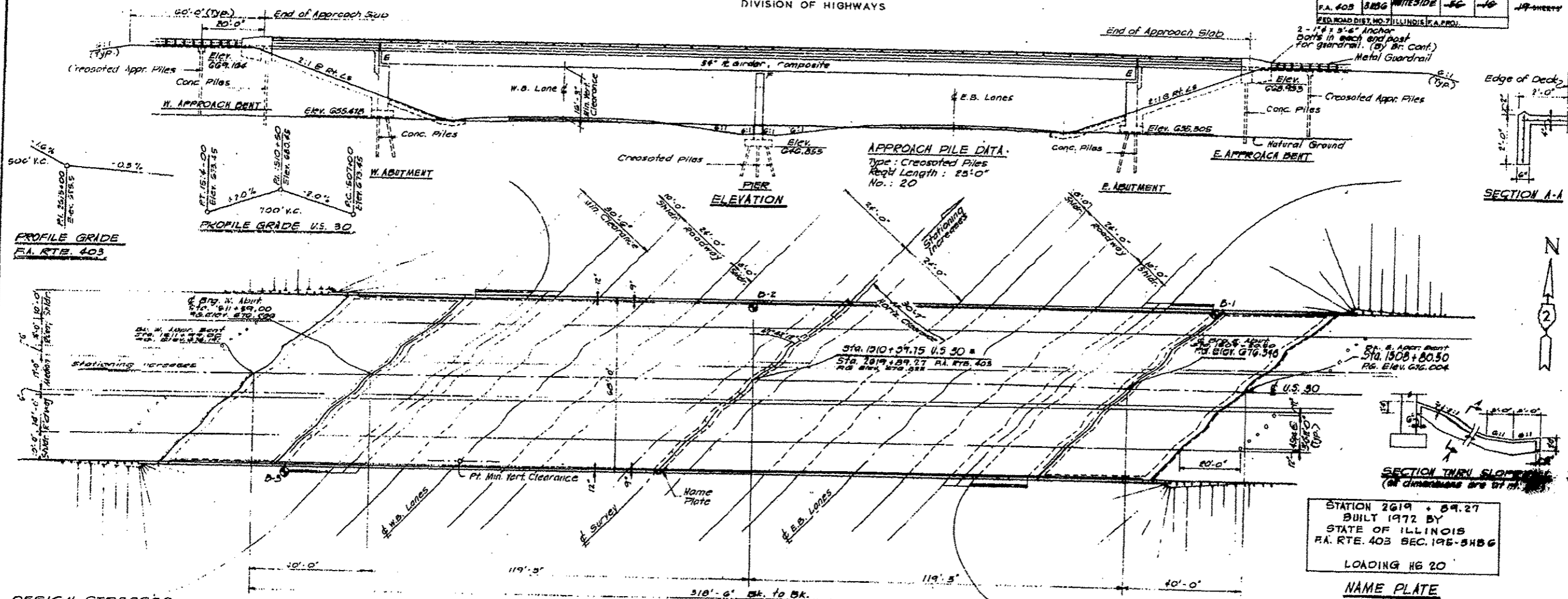
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\\CENTRAL\Share\02\BR\CONSTANT\IN\6498	8 TL 26 US 38 Painting\6498.dgn	DRAWN -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 64H98
	PLOT SCALE = 1/8" = 1' / in.	CHECKED -	REVISED -								ILLINOIS FED. AID PROJECT
	PLOT DATE = Mon Aug 06 10:06:30 2012	DATE -	REVISED -								77 7

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
FA. 403	3186	WHITESIDE	16	14

FED. ROAD DIST. NO. 7 ILLINOIS (I.A. PROJ.)



DESIGN STRESSES
 $f_c = 1300$ psi Deck Slab
 $f_c = 1400$ psi Curb, Parapet, Substructure
 $f_c = 75$ psi Footings
 $n = 10$
 $f_s = 20,000$ psi Reinf.
 $f'_s = 20,000$ psi Struct.
 Allowable Δ Deflection = $1/1440$
 Design Specifications - 1969 AASHTO (as applicable)
 Allow 25% for Future Wearing Surface

PRECAST PRESTRESSED UNITS
 $f_c = 5000$ psi
 $f_{ci} = 4000$ psi
 $f'_s = 248,000$ psi Strands
 $f'_s = 173,500$ psi Strands

LOADING - HS 20-44

DESIGNED H. Walker	EXAMINED	19
CHECKED - Roberts	PASSED	
DRAWN - Roberts	APPROVED	
CHECKED S. McKnight		

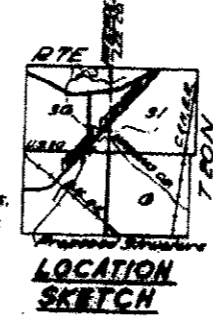
TOTAL BILL OF MATERIALS

Item	Unit	Super.	Sub.	Total
Structure Excavation	Cu. Yds.		96	96
Class X Concrete	Cu. Yds.	736.7	636.0	1480.7
Structural Steel	Lump Sum			1
Reinforcement Bars	Lbs.	187418	58786	246204
Concrete Piles	Lin. Ft.		3933	3933
Driving Concrete Piles	Lin. Ft.		3933	3933
Test Piles, Concrete	Ea.		2	2
Creosoted Piles (up to 20')	Lin. Ft.		1600	1600
Creosoted Piles (20' to 35')	Lin. Ft.		460	460
Driving Timber Piles	Lin. Ft.		2060	2060
Test Piles, Timber	Ea.		1	1
Aluminum Railing	Lin. Ft.	623		623
Neoprene Exp. Joint 2"	Lin. Ft.	184		184
Stud Shear Connectors, 3/4"	Ea.	4140		4140
PPC I-Beams 36"	Lin. Ft.	577		577
Protective Coat	Sq. Yds.	662	226	888
Name Plate	Ea.		1	1
Slope Wall 4"	Sq. Yds.		485	485
Bit Surface, Class I	Tons	140		140
Coal Tar Int. Prot. Coat	Sq. Yds.	1078		1078

GENERAL NOTES

All reinforcement bars shall be lapped 2d diameters unless otherwise shown.
 Fasteners shall be high strength bolts. Bolts 7/8", open holes 1 1/8", unless otherwise noted.
 Calculated weight of Structural Steel = 615741 Lbs.
 The basic lead silico chromate paint system shall be used for shop and field painting of Structural Steel.
 Field welding of construction accessories will not be permitted to the bottom flange of beams or girders 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.
 Anchor bolts shall be set before bolting diaphragms over supports.
 Slope wall shall be reinforced with welded wire fabric 6"x6" mesh, weighing 58# per 100 sq. ft.
 The Contractor shall drive one concrete test pile of each abutment in place and 1 permanent creos. pile at the pier as directed by the Engineer before ordering the remainder of piles.
 Concrete piles at approach bents shall be driven in holes prepared through the embankment in accordance with Article 513.09(c) of the Standard Specifications.

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 Handrail Concrete.
 Protective Coat shall not be applied to surfaces to which Coal Tar Interlayer Protective Coat is applied.
 The embankment configuration shown shall be the minimum embankment that must be constructed prior to the construction of the abutments.



SN: 096-8091

GENERAL PLAN AND ELEVATION
 PROJECT - FA. 403
 U.S. 30 OVER FA. RTE. 403
 FA. RTE. 403 - SEC. 195-3186 G
 WHITESIDE COUNTY
 STATION 2619 + 09.27

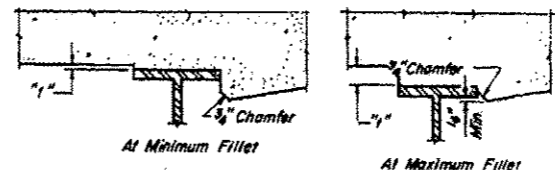
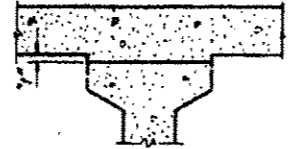
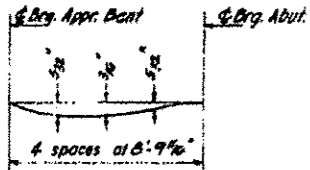
REGISTERED STRUCTURAL ENGINEER - STATE OF ILLINOIS 01-5105

Rev. 5-26-71 Creos. Piles (up to 20') from 1620 to 1600 lin. ft., Conc. Piles from 3843 to 3933 lin. ft., S.M. Rev. 7-25-71 Structure Excav. from 926 to 96 cu. yd.

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	SECTION	SPAN	TOTAL SPANS	SHEET NO.	TOTAL SHEETS
FA. RTE 403-SEC. 145-3NB-6	145	WHITESIDE	576	19	19



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 below.

To determine "f": After all precast prestressed beams have been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted algebraically from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, 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 2", equals the embedment of the beam above the theoretical bottom of slab elevation.

To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown below, minus slab thickness, equals the fillet heights "f" above top flange of beams.

FILLET HEIGHTS

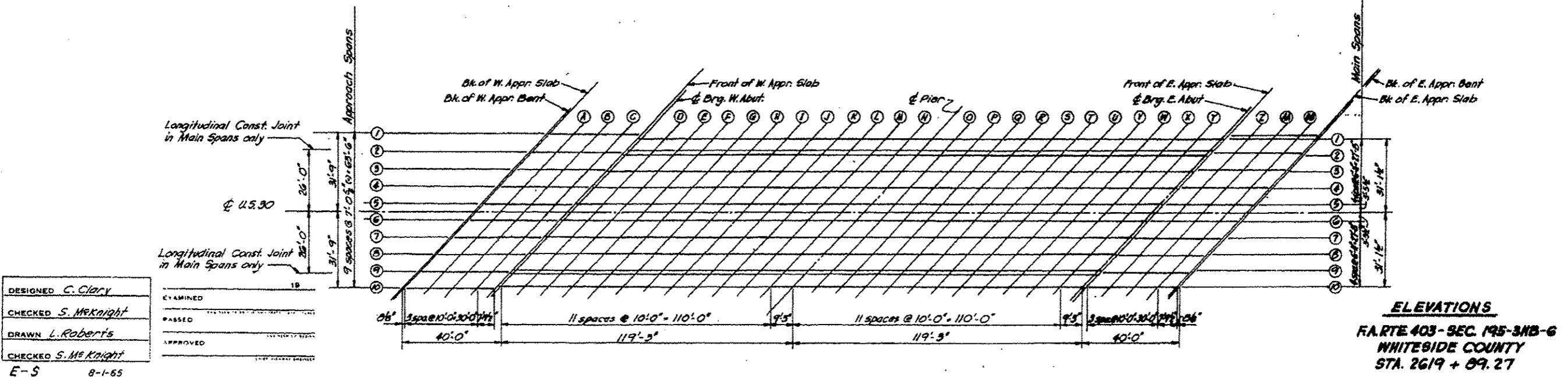
Note: Elevations are to the top of the concrete slab.

Location	Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of W. Appr. Slab	1	1511+01.019	31.750	676.015	676.015
	2	1511+75.530	24.667	676.118	676.118
	3	1511+81.041	17.583	676.199	676.199
	4	1511+88.053	10.500	676.230	676.230
	5	1511+95.064	3.417	676.310	676.310
	6	1511+98.500	0	676.357	676.357
	7	1511+101.579	3.417	676.256	676.256
	8	1511+108.087	10.500	676.086	676.086
	9	1511+115.594	17.583	675.916	675.916
	10	1511+122.110	24.667	675.732	675.732
A	10	1512+21.071	31.750	675.549	675.549
	1	1511+99.049	31.750	676.080	676.080
	2	1511+65.530	24.667	676.186	676.186
	3	1511+72.041	17.583	676.292	676.292
	4	1511+78.553	10.500	676.398	676.398
	5	1511+85.064	3.417	676.504	676.504
	6	1511+91.576	0	676.610	676.610
	7	1511+98.087	3.417	676.516	676.516
	8	1511+104.599	10.500	676.422	676.422
	9	1511+111.110	17.583	676.328	676.328
10	1511+117.621	24.667	676.234	676.234	

Location	Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
B	1	1511+61.024	31.750	676.160	676.157
	2	1511+35.530	24.667	676.260	676.267
	3	1511+61.041	17.583	676.359	676.346
	4	1511+68.053	10.500	676.377	676.444
	5	1511+75.064	3.417	676.404	676.481
	6	1511+81.576	0	676.446	676.513
	7	1511+88.087	3.417	676.413	676.435
	8	1511+95.099	10.500	676.295	676.272
	9	1511+102.611	17.583	676.091	676.108
	10	1511+110.123	24.667	675.916	675.933
C	10	1512+17.621	31.750	675.710	675.727
	1	1511+61.024	31.750	676.194	676.203
	2	1511+35.530	24.667	676.307	676.316
	3	1511+61.041	17.583	676.390	676.399
	4	1511+68.053	10.500	676.468	676.471
	5	1511+75.064	3.417	676.539	676.542
	6	1511+81.576	0	676.606	676.678
	7	1511+88.087	3.417	676.640	676.699
	8	1511+95.099	10.500	676.551	676.540
	9	1511+102.611	17.583	676.411	676.400
10	1511+110.123	24.667	675.999	676.008	

Location	Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Front of W. Appr. Slab	1	1511+81.027	31.750	676.232	676.232
	2	1511+51.730	24.667	676.343	676.343
	3	1511+61.049	17.583	676.454	676.454
	4	1511+70.361	10.500	676.503	676.503
	5	1511+79.673	3.417	676.553	676.553
	6	1511+89.000	0	676.617	676.617
	7	1511+98.326	3.417	676.549	676.549
	8	1511+107.653	10.500	676.396	676.396
	9	1511+116.977	17.583	676.239	676.239
	10	1511+126.303	24.667	676.080	676.080
D	10	1512+18.121	31.750	675.861	675.861
	1	1511+81.027	31.750	676.253	676.253
	J.1	1511+25.000	26.000	676.357	676.357
	2	1511+36.660	20.200	676.366	676.366
	3	1511+48.320	14.400	676.448	676.448
	4	1511+60.000	8.600	676.522	676.522
	5	1511+71.680	2.800	676.592	676.572
	6	1511+83.360	0	676.627	676.627
	7	1511+95.040	3.456	676.552	676.552
	8	1511+106.720	7.072	676.458	676.458
9	1511+118.400	10.688	676.354	676.354	
10	1511+130.080	14.304	676.250	676.250	
E	J.2	1511+75.000	26.000	676.458	676.458
	1	1511+86.660	20.200	676.464	676.464
	2	1511+98.320	14.400	676.548	676.548
	3	1511+110.000	8.600	676.622	676.622
	4	1511+121.680	2.800	676.692	676.672
	5	1511+133.360	0	676.727	676.727
	6	1511+145.040	3.456	676.652	676.652
	7	1511+156.720	7.072	676.558	676.558
	8	1511+168.400	10.688	676.454	676.454
	9	1511+180.080	14.304	676.350	676.350
10	1511+191.760	17.920	676.246	676.246	

Location	Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
Back of E. Appr. Slab	1	1511+81.027	31.750	676.290	676.290
	J.1	1511+25.000	26.000	676.353	676.353
	2	1511+36.660	20.200	676.418	676.418
	3	1511+48.320	14.400	676.493	676.493
	4	1511+60.000	8.600	676.578	676.578
	5	1511+71.680	2.800	676.650	676.650
	6	1511+83.360	0	676.698	676.698
	7	1511+95.040	3.456	676.614	676.614
	8	1511+106.720	7.072	676.510	676.510
	9	1511+118.400	10.688	676.406	676.406
Front of E. Appr. Slab	10	1512+18.121	31.750	676.160	676.160
	1	1511+81.027	31.750	676.253	676.253
	J.1	1511+25.000	26.000	676.357	676.357
	2	1511+36.660	20.200	676.366	676.366
	3	1511+48.320	14.400	676.448	676.448
	4	1511+60.000	8.600	676.522	676.522
	5	1511+71.680	2.800	676.592	676.572
	6	1511+83.360	0	676.627	676.627
	7	1511+95.040	3.456	676.552	676.552
	8	1511+106.720	7.072	676.458	676.458
9	1511+118.400	10.688	676.354	676.354	
J.2	1511+75.000	26.000	676.458	676.458	
10	1511+86.660	20.200	676.464	676.464	



DESIGNED *C. Clary*
CHECKED *S. McKnight*
DRAWN *L. Roberts*
CHECKED *S. McKnight*

EXAMINED _____
PASSED _____
APPROVED _____

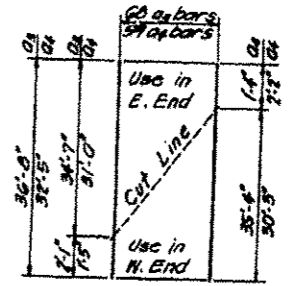
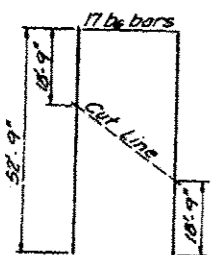
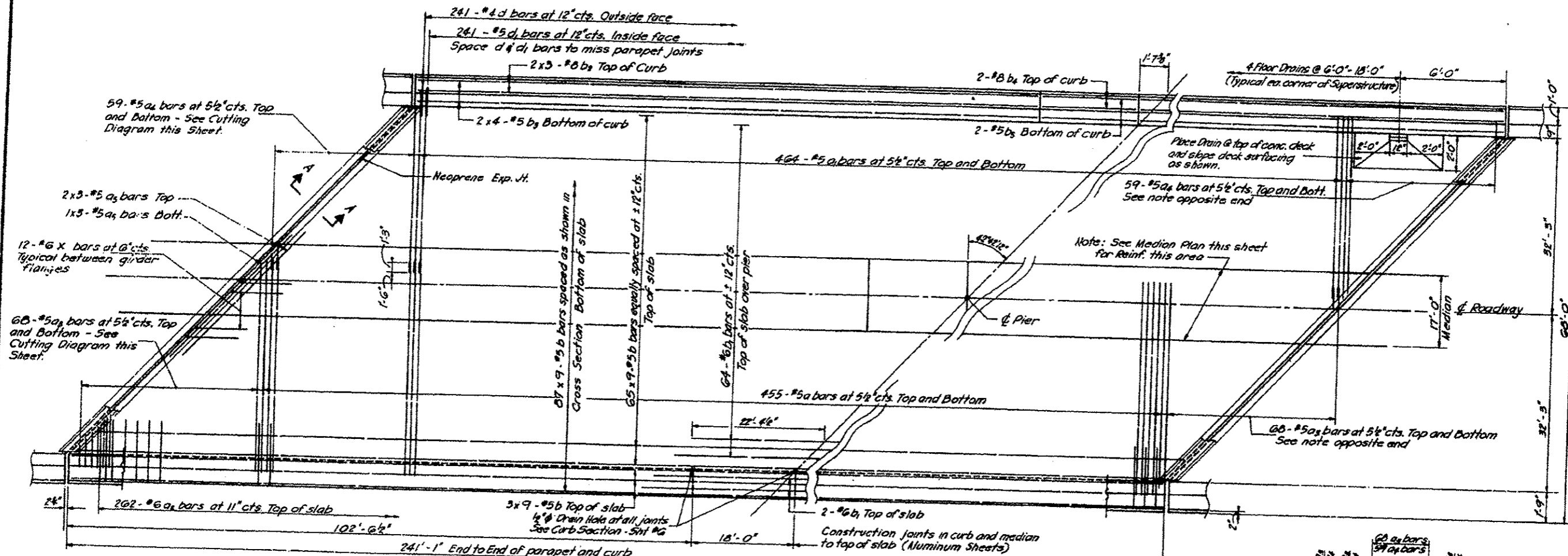
ELEVATIONS
FA. RTE 403-SEC. 145-3NB-6
WHITE SIDE COUNTY
STA. 2619 + 89.27

Notes:
 Bars indicated thus 20x3-#5 etc.
 indicates 20 lines of bars with 3
 lengths per line.
 Min. bar laps = 24 diameters

FOR INFORMATION ONLY

STATE OF ILLINOIS
 DEPARTMENT OF PUBLIC WORKS & BUILDINGS
 DIVISION OF HIGHWAYS

ROUTE NO.	SEC.	COUNTY	ROYAL SHEETS NO.	SHEET NO.
195	3186	WHITE SID	46	10
SHEET NO. 5 OF 18 SHEETS				
F.A. RTE. 403 ILLINOIS P.A. PROJ.				



DESIGNED L. Roberts	EXAMINED	19
CHECKED S. M. Knight	PASSED	
DRAWN L. Roberts	APPROVED	
CHECKED S. M. Knight		

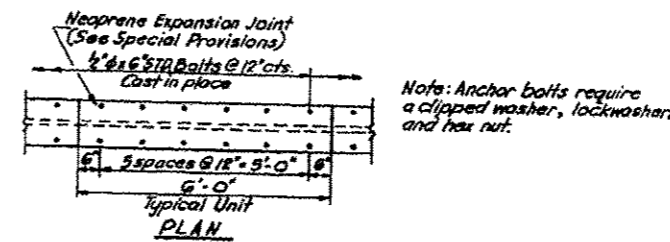
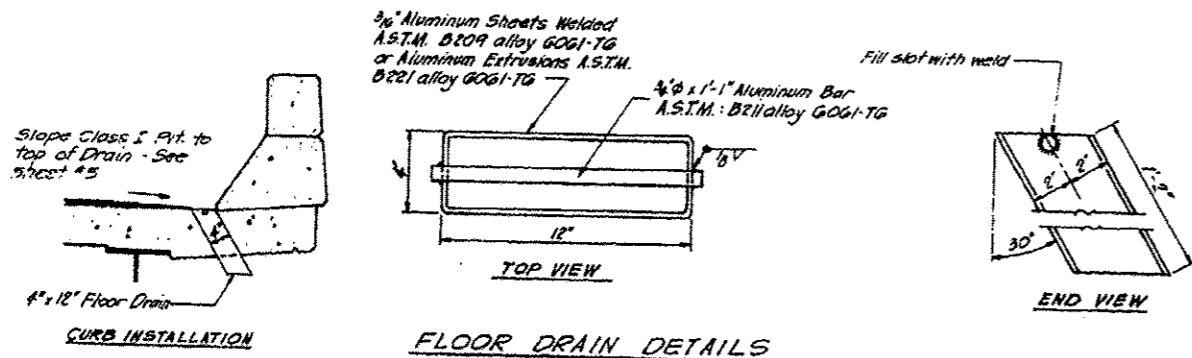
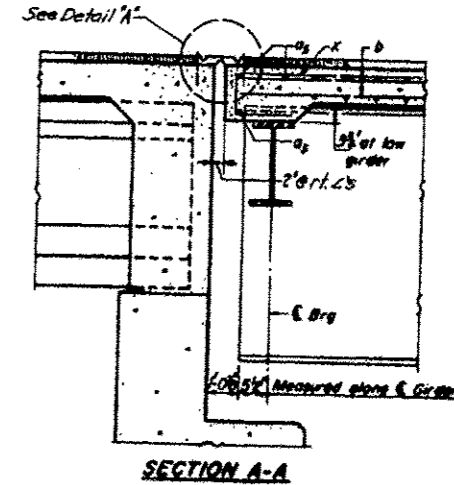
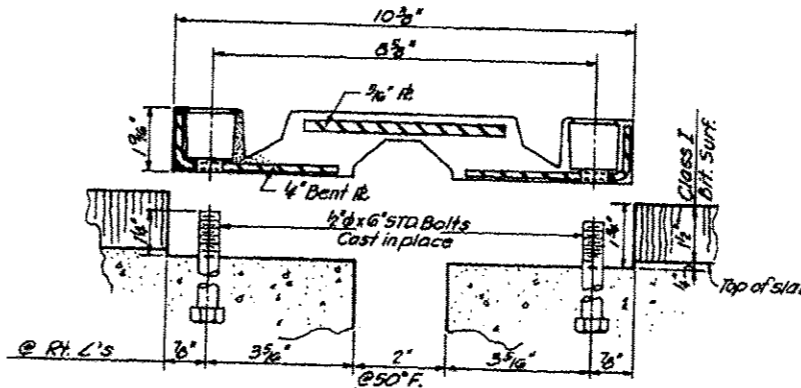
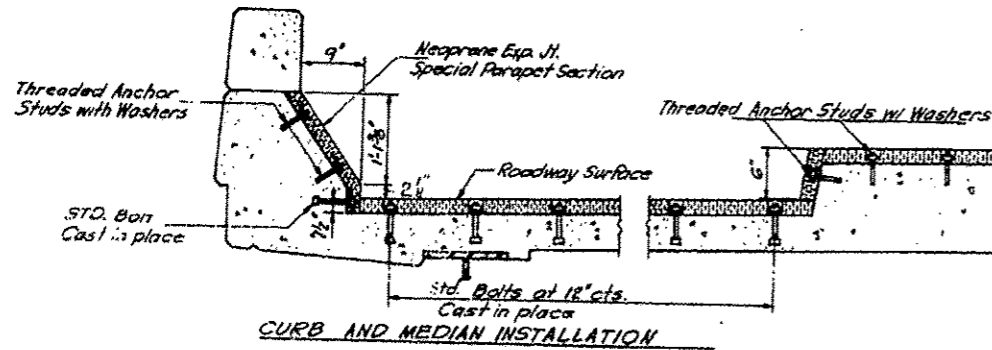
Reinforcement and Class X Concrete are billed on Sheet # 6

**SUPERSTRUCTURE
 MAIN SPANS**
 F.A. RTE. 403 - SEC. 195-3186-G
 WHITE SID. COUNTY
 STA. 2679 + 09.27

FOR INFORMATION ONLY

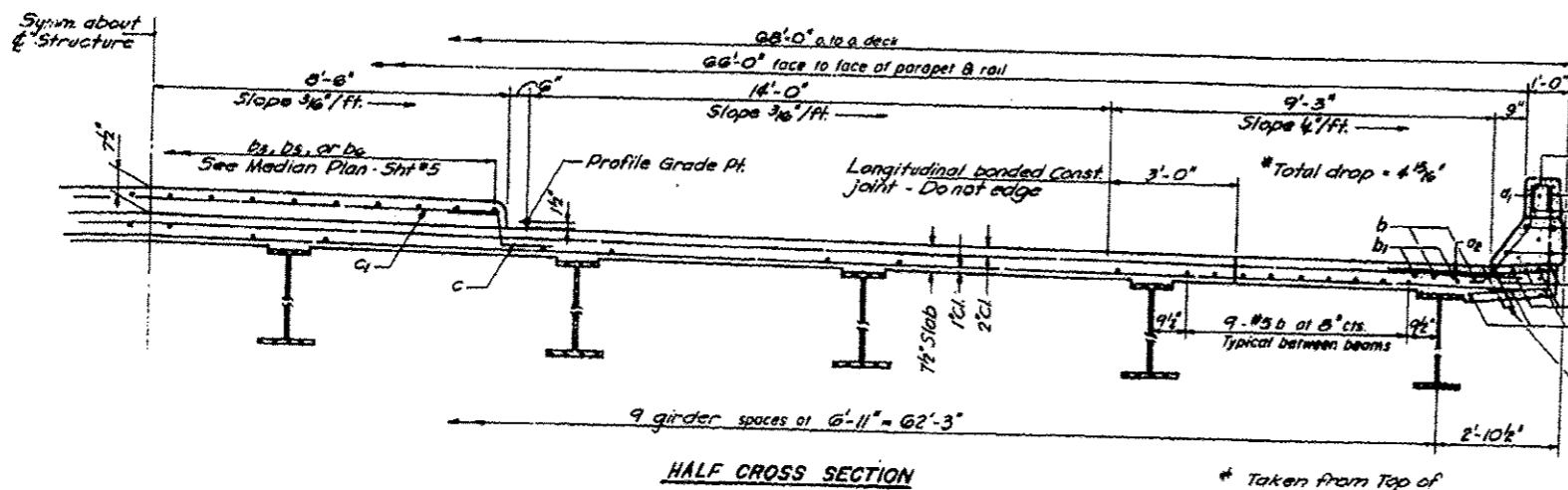
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	195	SECTION	490	SHEET NO. OF	12
PROJECT NAME	WHITESIDE	SECTION	490	SHEET NO. OF	12
DATE	12-3-69	SCALE			

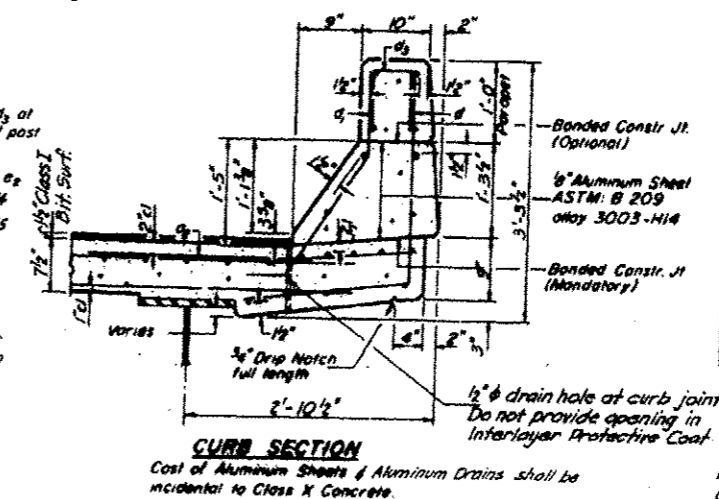


BILL OF MATERIAL

Qty	Size	Length	Shape
a	410	85	38.4"
a	420	85	27.8"
a	524	45	4.0"
a ₁	180	85	36.5"
a ₂	118	85	32.5"
a ₃	10	85	50.0"
b	1422	85	27.10"
b	68	85	44.9"
b ₁	24	85	35.5"
b ₂	134	85	26.6"
b ₃	8	85	17.6"
b ₄	22	85	17.9"
b ₅	17	85	32.4"
c	100	85	3.7"
c ₁	226	85	16.6"
c ₂	14	85	17.5"
d	402	84	2.7"
d ₁	402	85	3.6"
x	210	86	6.1"
Reinforcement Bars			L82 142216
Class X Concrete			Cu 192 502.0

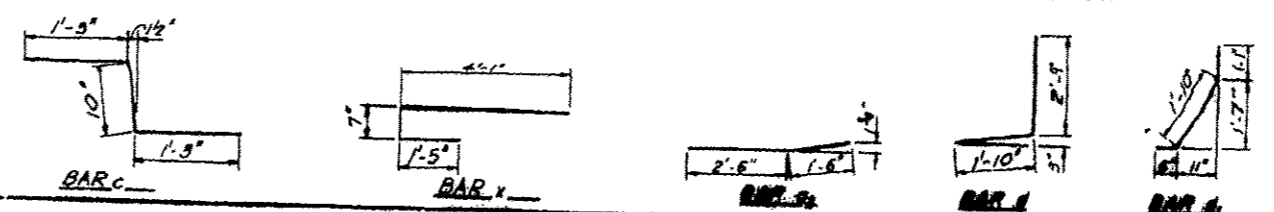


NOTE: For placement of bars d₁ and a thru e₁ see sheet #10



DESIGNED	L. Roberts	EXAMINED	IP
CHECKED	S. W. Knight	PLANNED	
DRAWN	L. Roberts	APPROVED	
CHECKED	S. W. Knight		

S-506-L(30) 4-22-68, 12-3-69



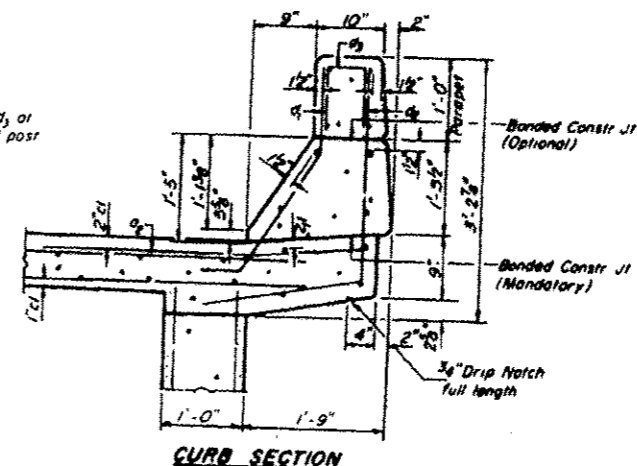
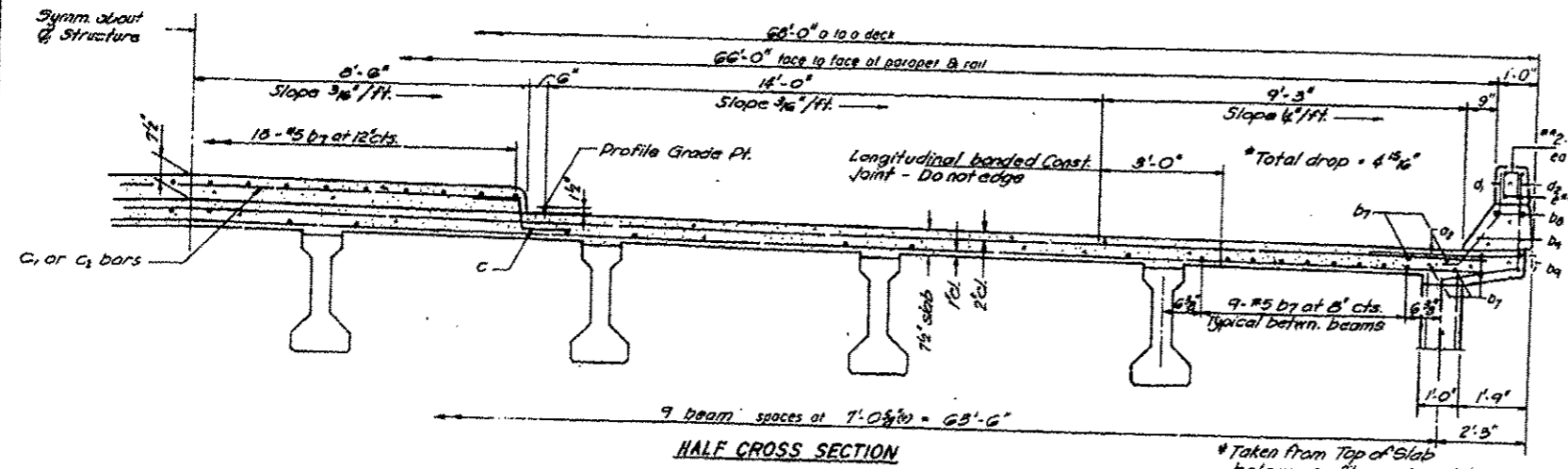
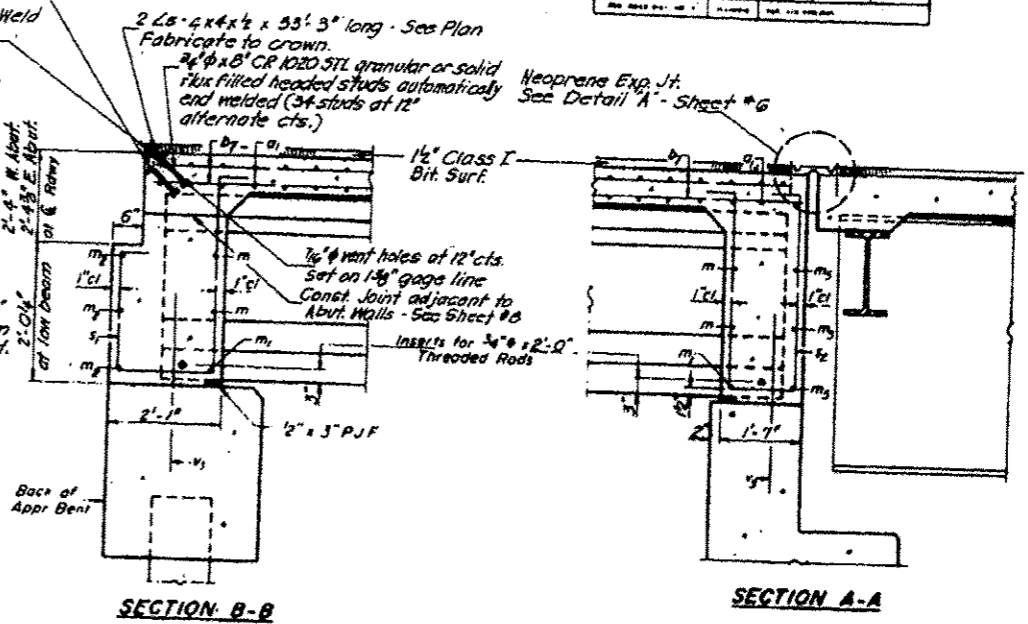
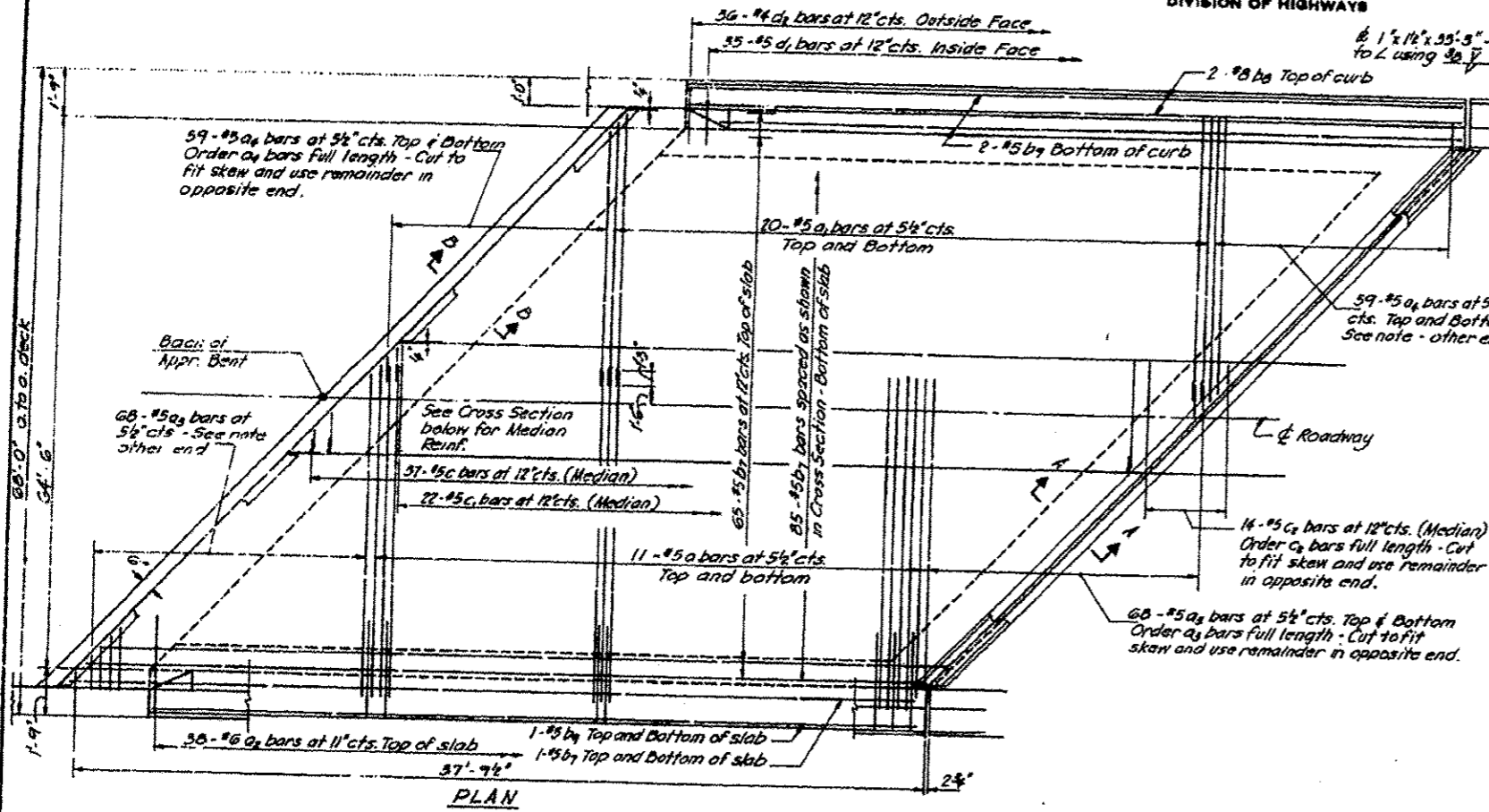
SUPERSTRUCTURE DETAILS
R.A. RTE. 403 - SEC. 195-3ND-G
WHITESIDE COUNTY
STA. 2619 + 89.27

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

3/8" holes at 12" cts. for 1/2" bolts set on 24" gage line. All bolts shall be burned, sawed, or clipped off flush with back of angles after forms are removed.

PROJECT NO.	DATE	SCALE	SHEET NO.	TOTAL SHEETS
FA 403-3186	195	WHITE SIDE	48	12



**TWO APPR. SPANS
BILL OF MATERIAL**

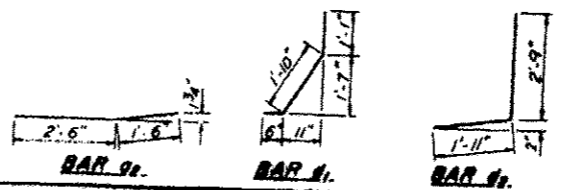
Bar No.	Size	Length	Shape
a	44	75	35'-9"
a1	80	75	37'-0"
a2	162	75	4'-0"
a3	272	75	36'-0"
a4	286	75	32'-5"
b1	500	75	37'-6"
b2	8	75	36'-9"
b3	16	75	36'-9"
c	178	75	5'-0"
c1	44	75	16'-0"
c2	28	75	17'-3"
d	140	75	3'-0"
d1	144	74	4'-0"
m	72	74	8'-6"
m1	56	75	7'-4"
m2	10	75	30'-0"
m3	36	74	6'-2"
m4	36	74	5'-0"
m5	18	75	27'-1"
s1	108	76	8'-0"
s2	108	76	9'-1"
s3	90	74	8'-11"
Reinforcement Bars	Lbs.	68587	
Class X Concrete	Cu. Yds.	274.2	

* Parapet Reinforcement and Class X Concrete are billed on sheet # 10
For placement and details of bars in thru m1 and s, thru s3, see sheet # 8

DESIGNED L. Roberts
CHECKED S. M. Knight
DRAWN L. Roberts
CHECKED S. M. Knight

EXAMINED
PREPARED
APPROVED

SA-586-L-307 3-7-69

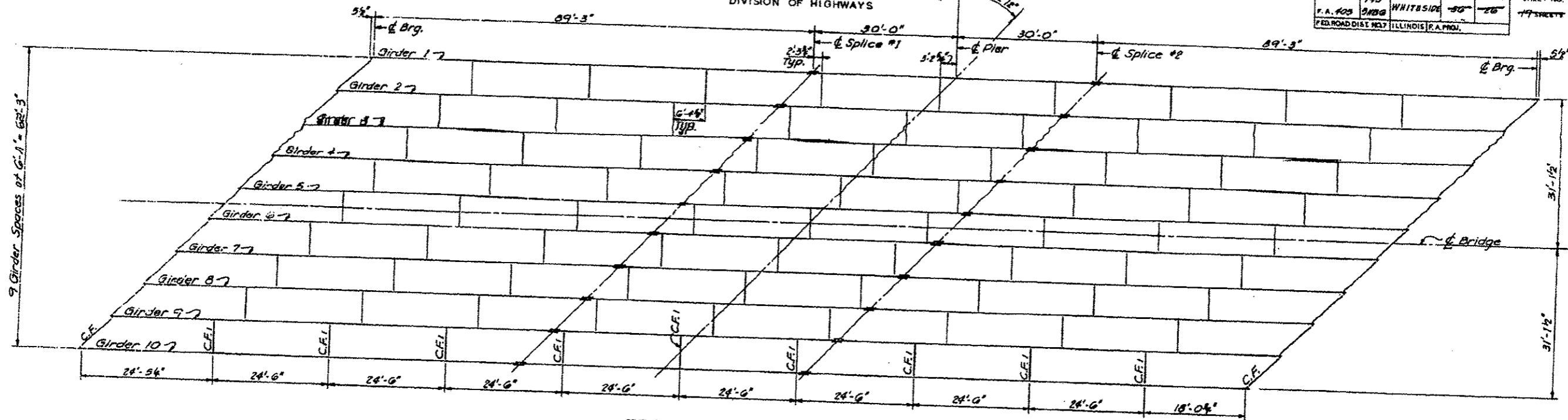


APPROACH SLABS
FA.RTE. 403 - SEC. 195-3NB-6
WHITESIDE COUNTY
STA. 2619 + 89.27

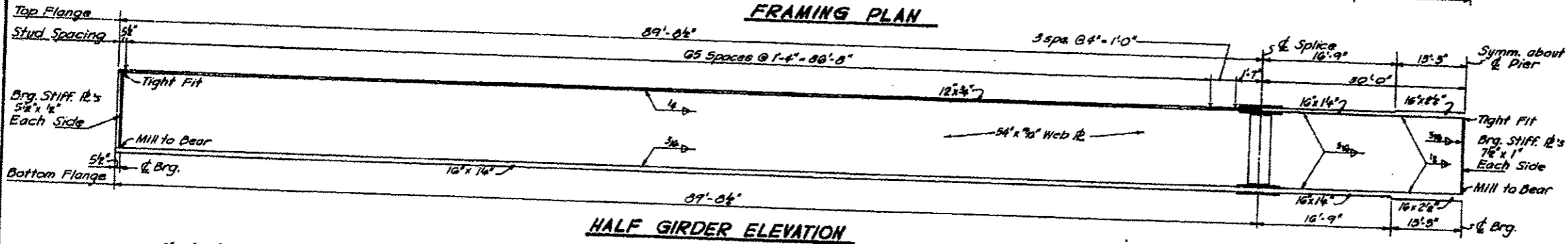
FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

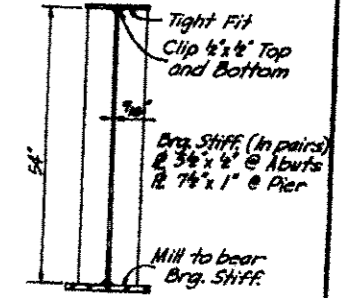
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET TOTAL
F.A. 403	3NB-6	WHITESIDE	30	26	19 SHEETS
FED. ROAD DIST. NO. 7 ILLINOIS P.A. PROJ.					



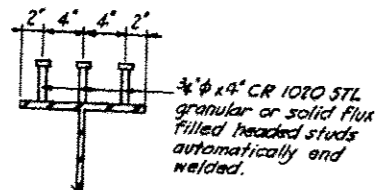
FRAMING PLAN



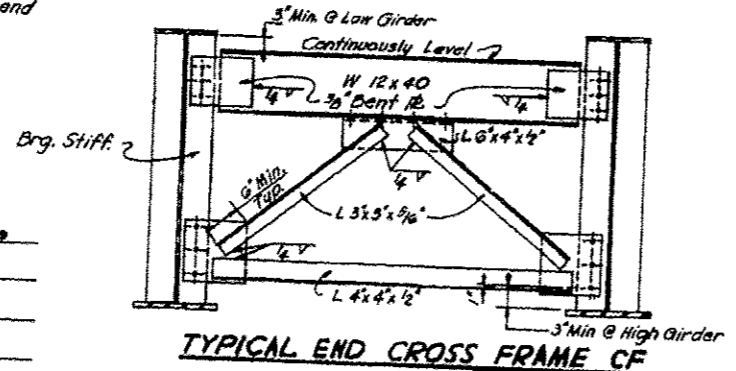
HALF GIRDER ELEVATION



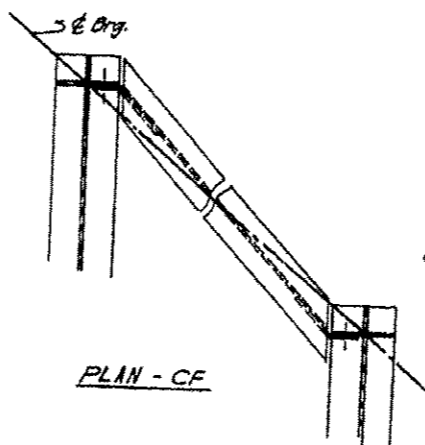
TYPICAL SECTION



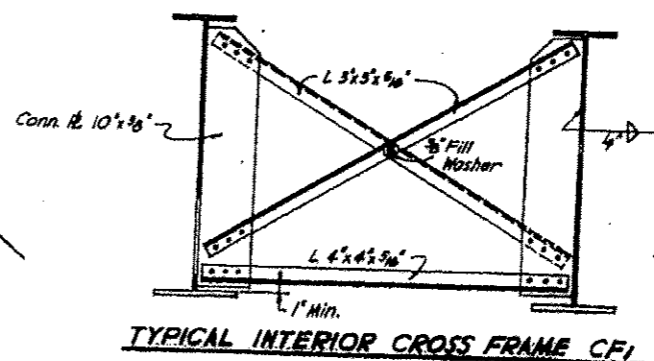
SHEAR CONNECTORS DETAIL
(4/4 Studs per girder.)



TYPICAL END CROSS FRAME CF



PLAN - CF



TYPICAL INTERIOR CROSS FRAME CF1

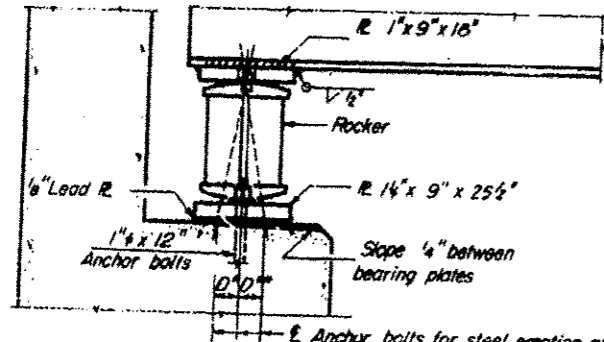
DESIGNED G. Cummins	EXAMINED
CHECKED S. McKnight	PASSED
DRAWN L. Roberts	APPROVED
CHECKED S. McKnight	

STRUCTURAL STEEL
F.A. RTE. 403 - SEC. 195-3NB-6
WHITESIDE COUNTY
STA. 2619 + 89.27

FOR INFORMATION ONLY

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

PROJECT NO.	195	CONTRACT	WRITESIDE	SHEET NO.	12 OF 19 SHEETS
EA. 403	3486				

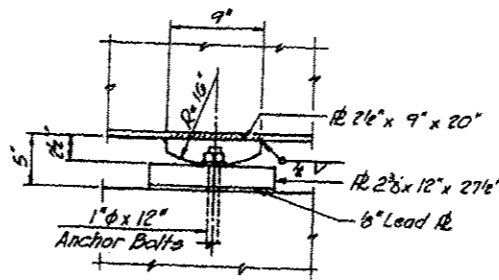


SECTION

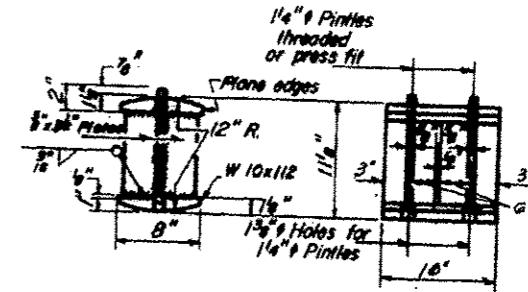
SHIM PLATES

Shim plates are required as indicated below.

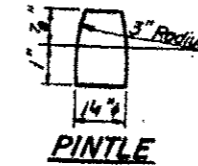
LOCATION	SIZE
W. Abut. Dim. #8	1/4"
Pier Dim. #1	3/8"
E. Abut. Dim. #5	3/8"



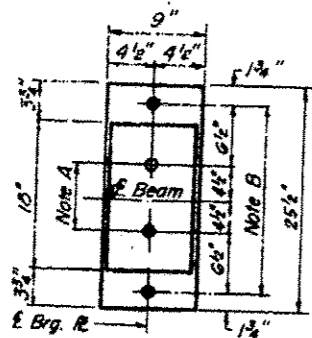
ELEVATION



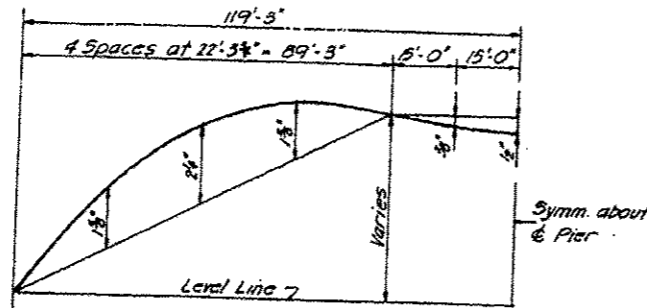
ROCKER



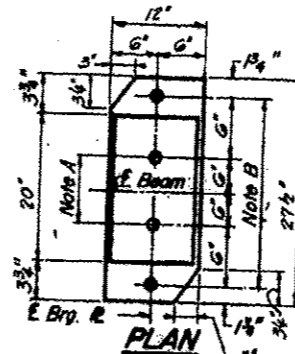
PINTLE



PLAN AT ABUTMENT



HALF CAMBER DIAGRAM
(Includes Allowance for Vert. Curve)



PLAN AT PIER

NOTE A
1 1/2" Holes - 1" deep in top R. for pintles. Thread or press fit pintles into bottom R.

NOTE B
1 1/2" Holes for 1" anchor bolts. 2" x 2 1/2" x 2 1/2" R. Washers under nut.

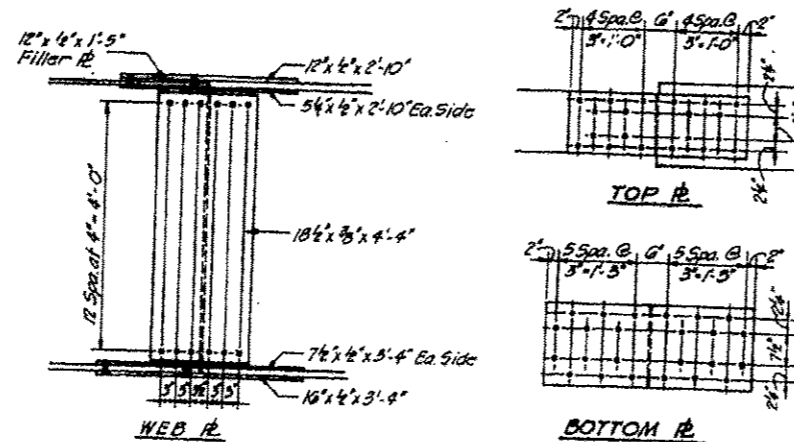
NOTE C
1 1/2" Holes 1" deep in top R. only for 1 1/4" pintles.

NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BRGS.

- a) D* (Side of brg away from fixed brg)
D* = 1/8" per each 100' of expansion for every 15° fall below the normal temp. of 50°F
- D** (Side of brg toward fixed brg.)
D** = 1/8" per each 100' of expansion for every 15° rise above the normal temp. of 50°F

- b) After beams have been erected and dimensions D* or D** determined, holes shall be drilled and anchor bolts shall be grouted in place. All fixed anchor bolts may be built into the masonry.

BEARING ASSEMBLY DETAILS



SPLICE DETAILS
(All Bolts 3/8" H.S.)

	Span 1	Pier
I ₂	27810	71868
S ₂	1205	2916
DL/FT.	938	938
Max.	749	1982
I ₂ DL	746	973
I ₂ (n=30)	50593	—
S ₂	1921	—
Sp. / FT.	510	510
Max.	501	959
I ₂ DL	393	473
I ₂ (n=10)	7997	—
S ₂	1706	—
Max.	972	910
Min.	200	188
Max.	1172	1090
I ₂ DL	624	544
I ₂ Total	1568	1992
V ₂	63.8	—

Girder #	W. Abut.	Splice 1	Pier	Splice 2	E. Abut.
1	675.578	675.612	675.629	675.614	675.647
2	675.491	675.738	675.609	675.646	675.687
3	675.578	675.872	675.790	675.782	675.215
4	675.547	675.979	675.928	675.910	675.570
5	675.717	676.081	676.022	676.035	675.584
6	675.677	676.074	676.020	676.049	675.581
7	675.677	676.956	676.914	676.934	675.510
8	675.376	676.886	675.807	675.856	675.462
9	675.213	675.707	675.672	675.799	675.378
10	675.080	675.547	675.556	675.610	675.272

* for fabrication only.

I₂ and S₂ are the moment of inertia and section modulus of the steel section.
I_c and S_c are the moment of inertia and section modulus of the composite section used in computing I₂.
VR is the maximum & impact shear range in span.

	Abut.	Pier
R _{2L}	67.6	222.5
R _{2R}	46.1	78.4
R _{2T}	9.0	10.1
R _{2Total}	112.6	317

DESIGNED	G. Cummins	EXAMINED	19
CHECKED	S. McKnight	PASSED	
DRAWN	Roberts	APPROVED	
CHECKED	S. McKnight		