

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROPOSED
HIGHWAY PLANS
FAP ROUTE 350 : IL 50 (CICERO AVE.)
OVER CSXT RR
SECTION: 2011-064-1
JOINT RECONSTRUCTION & DECK SEALING
COOK COUNTY
C-91-620-11

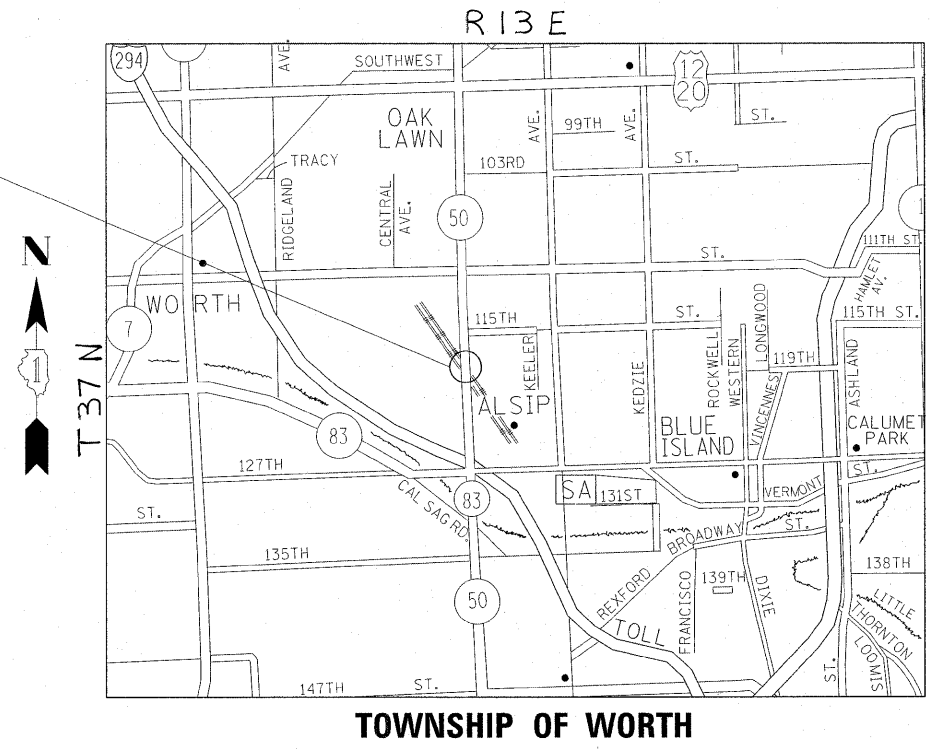
F.A.P. RTE. 350	SECTION 2011-064-1	COUNTY ILLINOIS	TOTAL SHEETS * 28	SHEET NO. 1
CONTRACT NO. 60P83			* 20-1 = 27	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

IMPROVEMENT IS LOCATED
IN THE VILLAGE OF ALSIP



LOCATION OF
IMPROVEMENT
SN 016-2429



TRAFFIC DATA:
 2009 ADT = 43800
 POSTED SPEED LIMIT = 35 MPH

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

PROJECT ENGINEER BORO, ROBERT (847) 705 - 4237
 PROJECT MANAGER RAYYAN, ISSAM (847) 705 - 4178

CONTRACT NO. 60P83

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED JANUARY 6, 20 11

Diane M. O'Keefe
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

February 3 20 12
John D. Baranzelli, P.E.
 acting ENGINEER OF DESIGN AND ENVIRONMENT

February 3 20 12
William R. Frenkel
 acting DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

SHEET NO.	DESCRIPTION	STANDARD NO.	DESCRIPTION
1	TITLE SHEET	701601-07	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
2	INDEX OF SHEETS, STATE STANDARDS, & GENERAL NOTES		
3	SUMMARY OF QUANTITIES	701801-05	LANE CLOSURE, MULTILANE 1W OR 2W CROSSWALK OR SIDEWALK CLOSURE
4-12*	BRIDGE REPAIR DETAILS		
13-16	TRAFFIC CONTROL PLANS	701901-02	TRAFFIC CONTROL DEVICES
17-25	EXISTING BRIDGE PLANS		
26	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) (TC-11)		
27	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)		
28	ARTERIAL ROAD INFORMATION SIGN (TC-22)		

* 12 NOT USED

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 OR 811 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. 48 HOUR NOTIFICATION IS REQUIRED.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE VILLAGE OF ALSIP.

THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.

USE #8 EPOXY-COATED TIE BARS, CONFORMING TO ART. 1006.10 OF THE STANDARD SPECIFICATIONS, FOR ALL TIE BARS. USE THE "LONGITUDINAL CONSTRUCTION JOINT (TIE BAR GROUDED IN PLACE)" DETAIL SHOWN ON HIGHWAY STANDARD 420001 FOR ALL LONGITUDINAL JOINTS.

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.

SIDEWALK REMOVAL AND P.C.C. SIDEWALK 5" LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.

THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847)705-4470 FOR ARTERIALS A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.

THE ENGINEER SHALL CONTACT PATRICIA HARRIS, AREA TRAFFIC FIELD TECHNICIAN, AT (708)597-9800 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF MAINTENANCE (OR CONSTRUCTION OR BRIDGE INSPECTORS).

THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

CONCRETE SUPERSTRUCTURE SHALL HAVE A SEVEN DAY MINIMUM CURE.

THE DEPARTMENT HAS DETERMINED THAT IN STREAM WORK IS NOT REQUIRED FOR THE WORK SPECIFIED IN THIS CONTRACT. ACTIVITIES REQUIRING AN ASCOE 404 PERMIT ARE NOT PERMITTED.

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR. 36, UNLESS OTHERWISE NOTED.

FASTENERS SHALL BE HIGH STRENGTH BOLTS 3/4"Ø OPEN HOLES 1/16"Ø UNLESS OTHERWISE NOTED

PRIOR TO POURING THE NEW CONCRETE DECK, ALL HEAVY OR LOOSE RUST, LOOSE MILL SCALE, AND OTHER LOOSE OR POTENTIALLY DETRIMENTAL FOREIGN MATERIAL SHALL BE REMOVED FROM THE SURFACES IN CONTACT WITH CONCRETE. TIGHTLY ADHERED PAINT MY REMAIN UNLESS OTHERWISE NOTED. REMOVAL SHALL BE ACCOMPLISHED BY METHODS THAT WILL NOT DAMAGE THE STEEL AND COST WILL BE INCLUDED IN THE PAY ITEM COVERING REMOVAL OF THE EXISTING CONCRETE.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION 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 SCOPE OF THE WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED AT THE UNIT PRICE BID FOR THE WORK.

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

FILE NAME =	USER NAME = currgaw	DESIGNED AWC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et\pw_work\pwidot\currgaw\0282133\0162011-shr-plon.dgn	1-shr-plon.dgn	DRAWN AWC	REVISED -		STATE STANDARDS, GENERAL NOTES				350	2011-064-1	COOK	28	2
		CHECKED -	REVISED -		SCALE: NONE	SHEET NO.	OF	SHEETS	STA.	TO STA.	CONTRACT NO. 60P83		
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT								

SUMMARY OF QUANTITIES			URBAN	CONSTRUCTION TYPE CODE 0014				
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	100% STATE				
42101300	PROTECTIVE COAT	SQ YD	2296	2296				
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	220	220				
44000600	SIDEWALK REMOVAL	SQ FT	220	220				
50102400	CONCRETE REMOVAL	CU YD	9.4	9.4				
50300255	CONCRETE SUPERSTRUCTURE	CU YD	9.4	9.4				
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3342	3342				
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	1090	1090				
50800515	BAR SPLICERS	EACH	16	16				
52000110	PREFORMED JOINT STRIP SEAL	FOOT	230	230				
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12	12				
52100020	ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12	12				
52100520	ANCHOR BOLTS, 1"	EACH	48	48				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3	3				
67100100	MOBILIZATION	L SUM	1	1				
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1				
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1				
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	806	806				
* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	2723	2723				
78300100	PAVEMENT MARKING REMOVAL	SQ FT	910	910				
X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	2416	2416				
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	24	24				
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	75	75				
Z0030850	TEMPORARY INFORMATION SIGNING	SQ FT	155	155				
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1				

*Specialty Items

FILE NAME =	USER NAME = curryw	DESIGNED AWC	REVISED -
c:\pw_work\paw\curryw\02282133\062011-shr-plan.dgn		DRAWN AWC	REVISED -
PLOT SCALE = 39335487' / 1 m		CHECKED -	REVISED -
PLOT DATE = 1/9/2012		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES				
SCALE:	SHEET NO.	OF	SHEETS	STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-064-1	COOK	30	3
CONTRACT NO. 60P83				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

Rev.

GENERAL NOTES:

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING PLANS ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. THE CONTRACTOR SHALL FIELD VERIFY EXISTING DIMENSIONS AND DETAILS AFFECTING NEW CONSTRUCTION AND MAKE NECESSARY APPROVED ADJUSTMENT PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED BASED AT THE UNIT PRICE BID FOR THE WORK.

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR. 36, UNLESS OTHERWISE NOTED.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

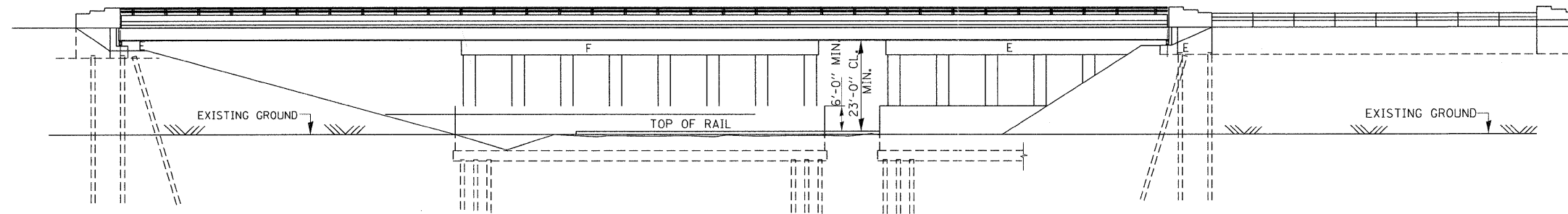
EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED AND INCORPORATED INTO THE NEW CONSTRUCTION. ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM. COST INCLUDED WITH CONCRETE REMOVAL.

CONCRETE SUPERSTRUCTURE SHALL HAVE A SEVEN DAY MINIMUM CURE.

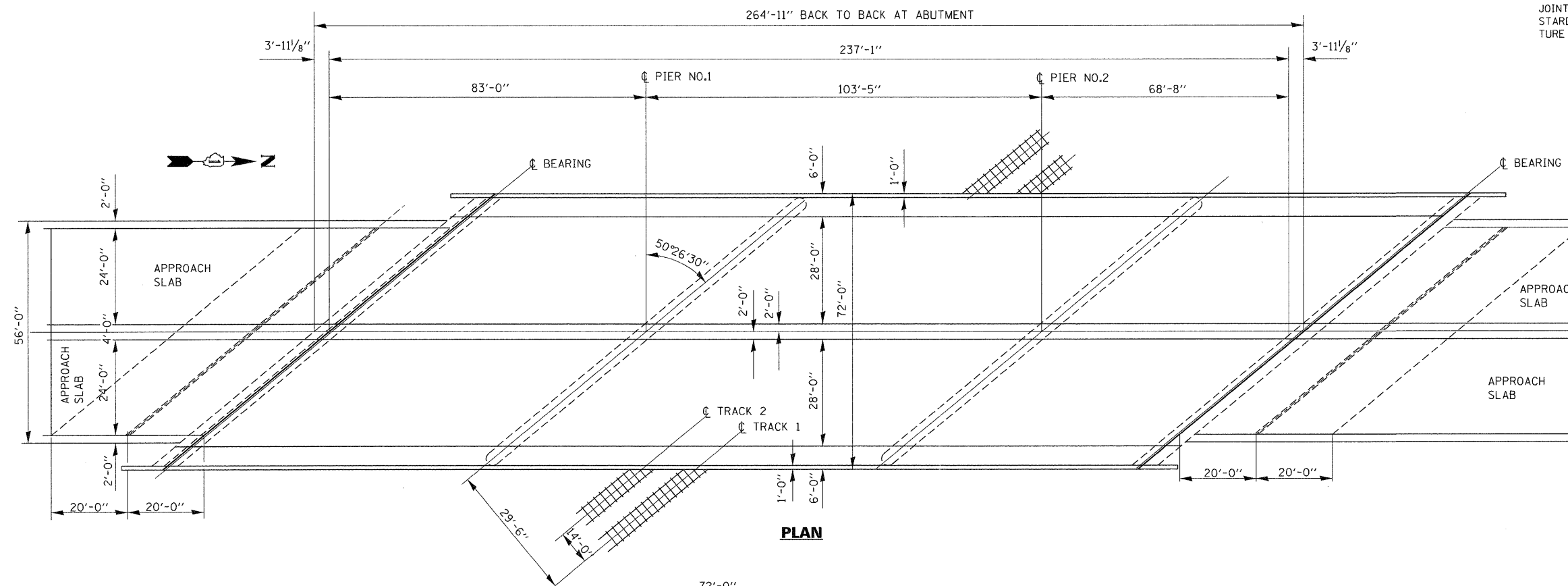
JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STANDARD SPECIFICATIONS, WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50° F.

TOTAL BILL OF MATERIALS

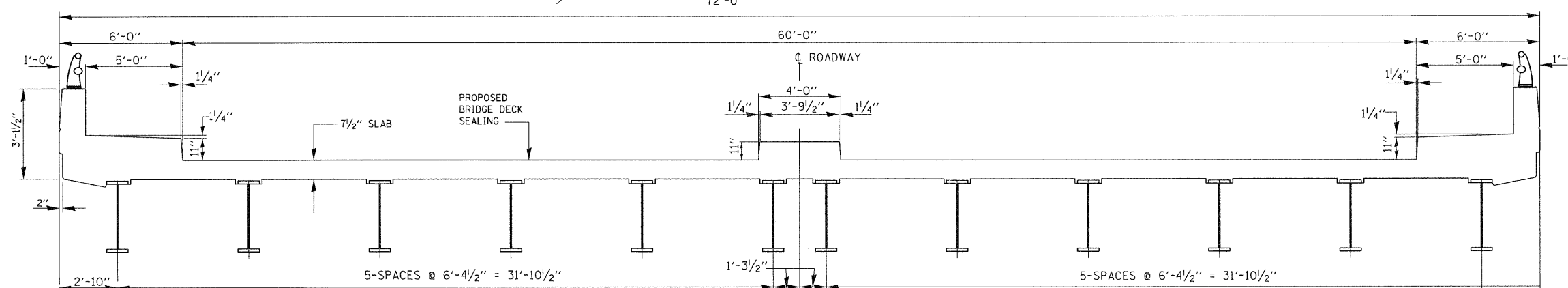
ITEM	UNIT	QUANTITY
REINFORCEMENT BARS (EPOXY COATED)	POUND	1090
CONCRETE REMOVAL	CU.YD.	9.4
CONCRETE SUPERSTRUCTURE	CU.YD.	9.4
PREFORMED JOINT STRIP SEAL	FOOT	230
ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	12
ELASTOMERIC BEARING ASSEMBLY, TYPE II	EACH	12
STRUCTURAL REPAIR OF CONCRETE (DEPTH ≤ 5")	SQ.FT.	75
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3342
BAR SPLICERS	EACH	16
PROTECTIVE COAT	SQ.YD.	2296
JACK AND REMOVE EXISTING BEARINGS	EACH	24
ANCHOR BOLTS 1"Ø	EACH	48
SIDEWALK REMOVAL	SQ.FT.	220
PORTLAND CEMENT CONCRETE SIDEWALK 5"	SQ.FT.	220



ELEVATION



PLAN



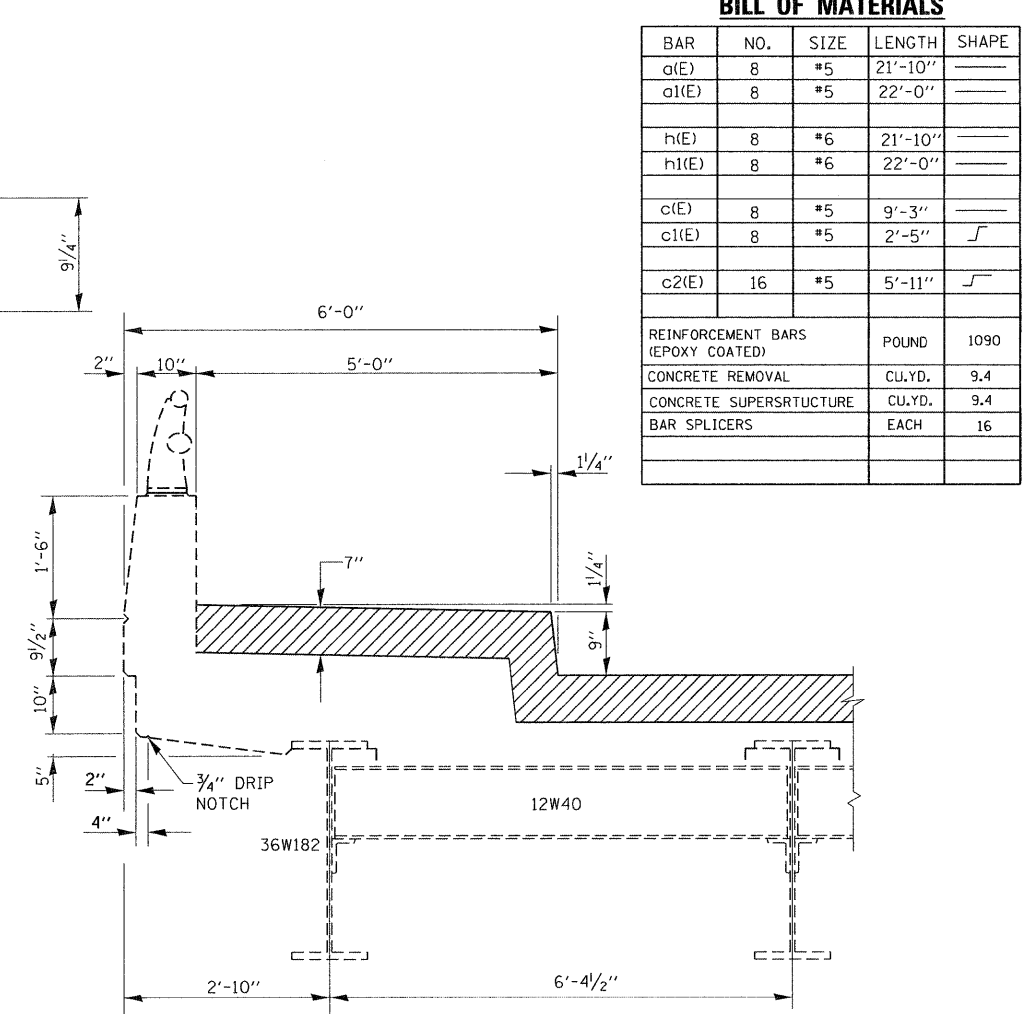
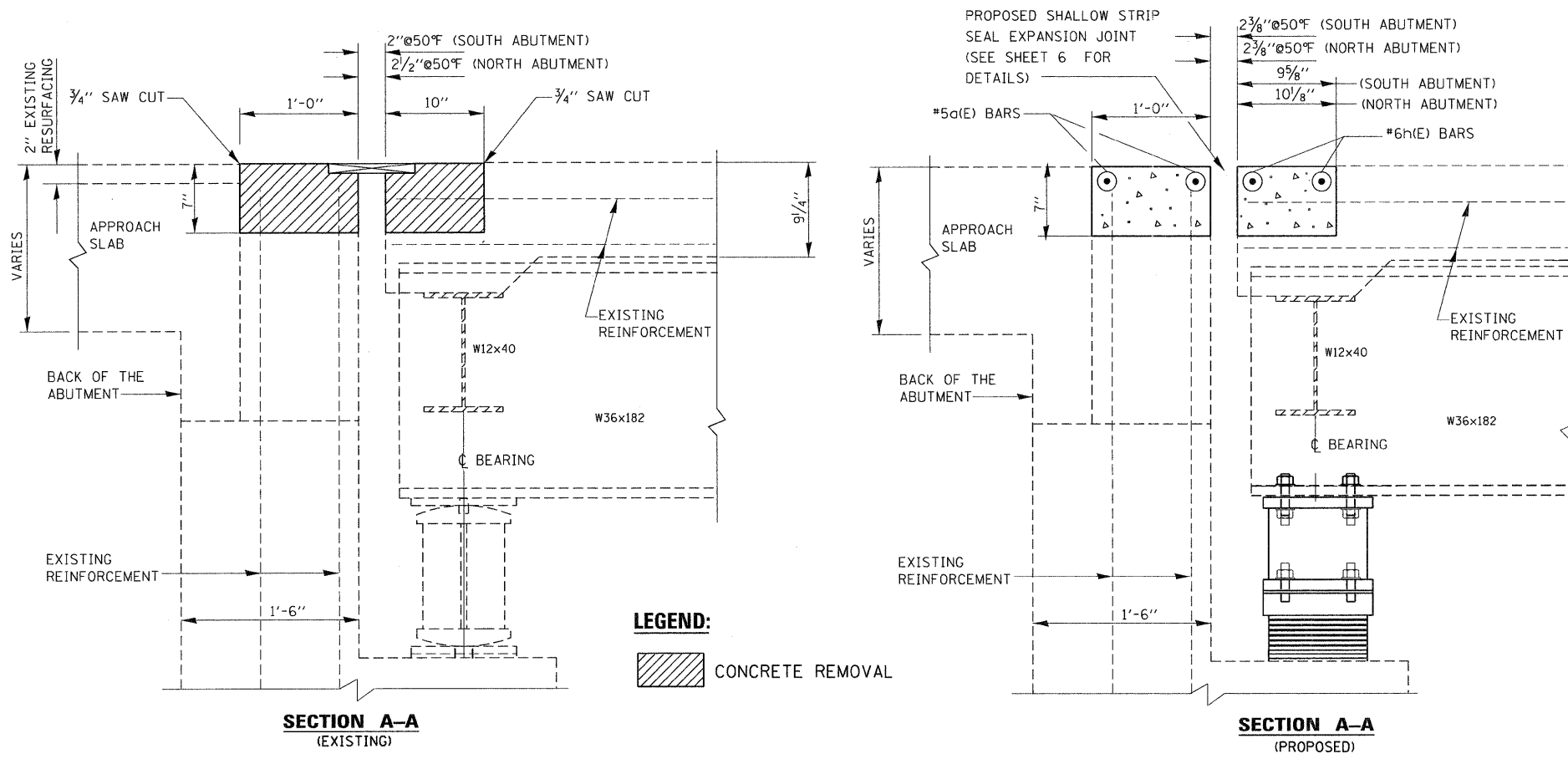
**CROSS SECTION
(LOOKING SOUTH)**



David Carl Puzey 1/24/12
Expires 1/30/12

FILE NAME =	USER NAME = curryw	DESIGNED - MVT	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ILLINOIS 50 (CICERO AVENUE) BRIDGE OVER B&O.CTRR TRACKS GENERAL PLAN, ELEVATION AND CROSS SECTION S.N. 016-2429	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
c:\pwork\pwork\curryw\d0282133\0162011-ah-t-plan.dgn	1-ah-t-plan.dgn	DRAWN - MVT	REVISED -			350	2011-064-1	COOK	28	4	
PLOT SCALE = 1/74.8967' / 1"		CHECKED - AWC	REVISED -			CONTRACT NO. 60P83					
PLOT DATE = 1/25/2012		DATE - 1-4-2012	REVISED -			ILLINOIS FED. AID PROJECT					

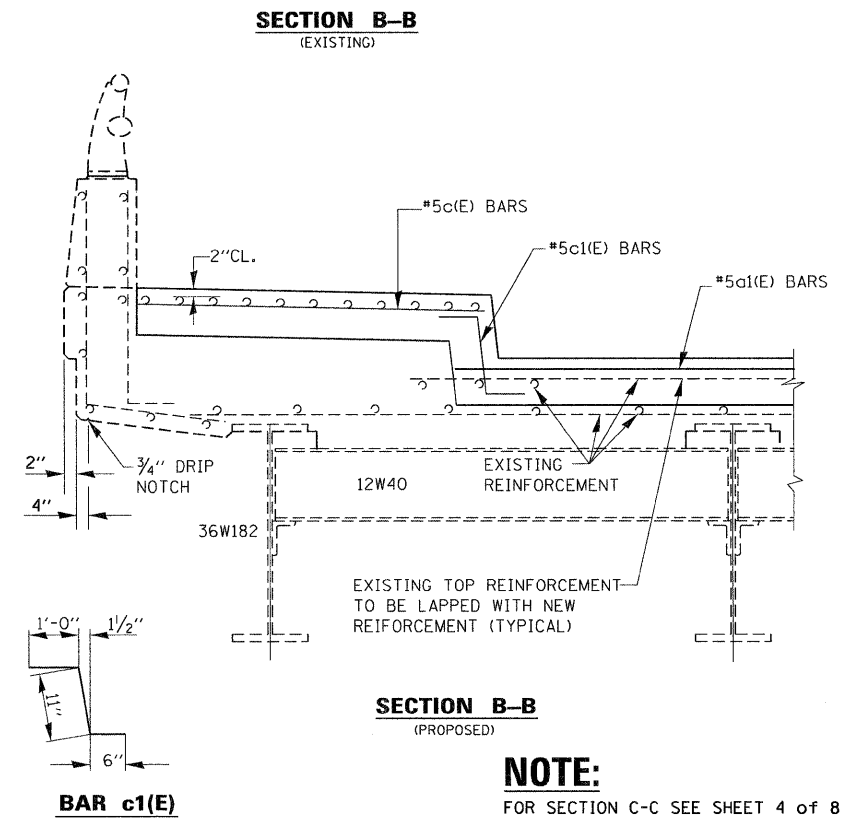
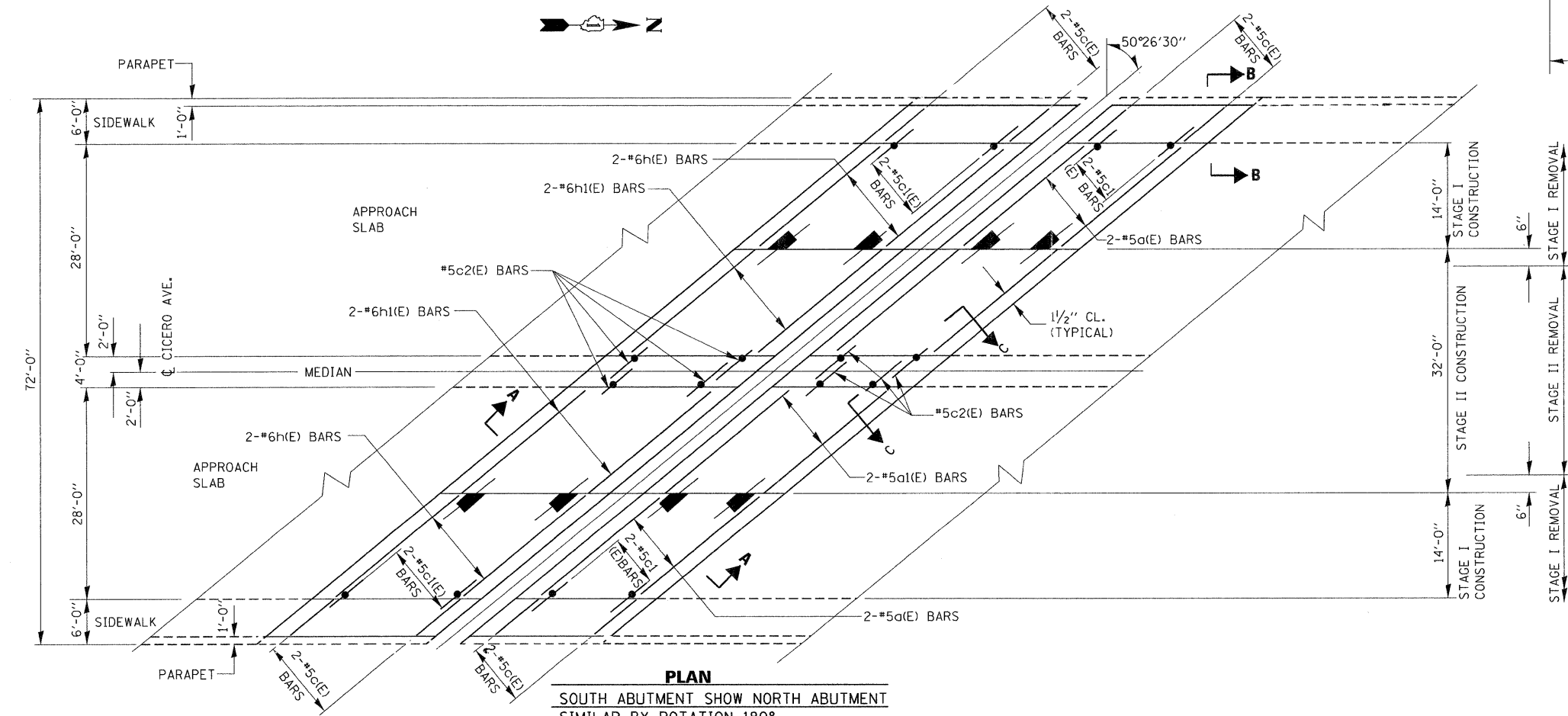
SCALE: SHEET 1 OF 8 SHEETS STA. TO STA.



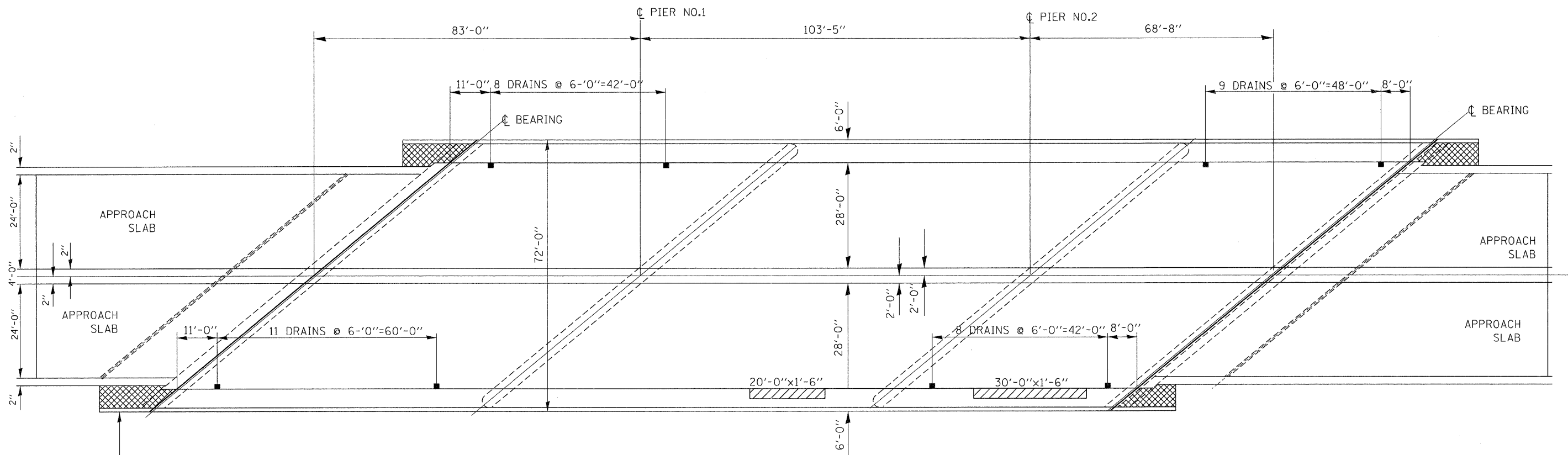
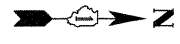
BILL OF MATERIALS

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	8	#5	21'-10"	
a1(E)	8	#5	22'-0"	
h(E)	8	#6	21'-10"	
h1(E)	8	#6	22'-0"	
c(E)	8	#5	9'-3"	
c1(E)	8	#5	2'-5"	
c2(E)	16	#5	5'-11"	
REINFORCEMENT BARS (EPOXY COATED)		POUND	1090	
CONCRETE REMOVAL		CU.YD.	9.4	
CONCRETE SUPERSTRUCTURE		CU.YD.	9.4	
BAR SPLICERS		EACH	16	

LEGEND:
 CONCRETE REMOVAL



NOTE:
 FOR SECTION C-C SEE SHEET 4 OF 8



SIDEWALK REMOVAL AND REPLACEMENT (TYPICAL ALL 4 CORNERS 11'-0" x 5'-0")

PLAN

NOTES:

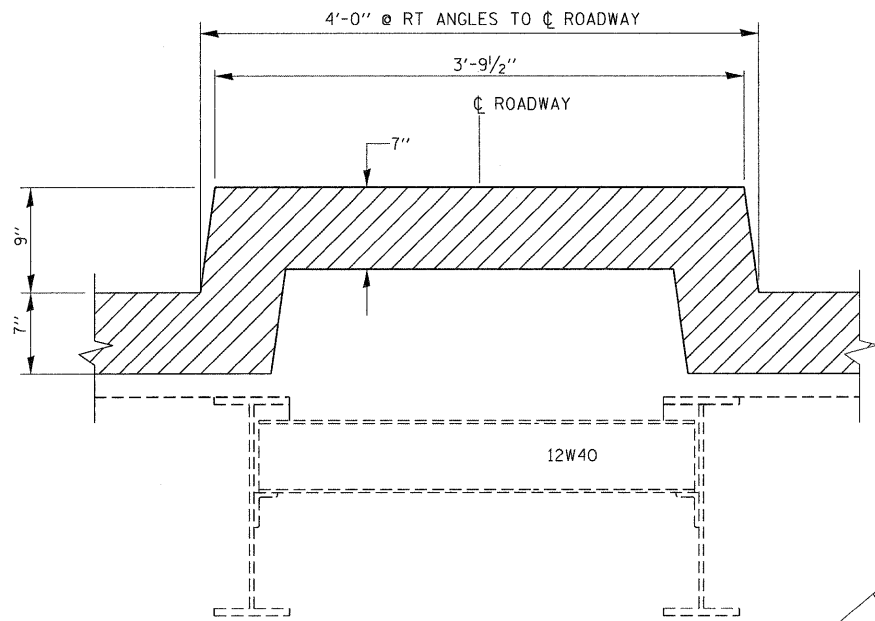
- DRAINS TO BE CLEANED COST TO BE INCLUDED STRUCTURAL REPAIR OF CONCRETE $\leq 5''$
- REMOVAL OF EXISTING SIDEWALK INCLUDED IN THE COST OF PCC SIDEWALK 5 INCH

BILL OF MATERIALS

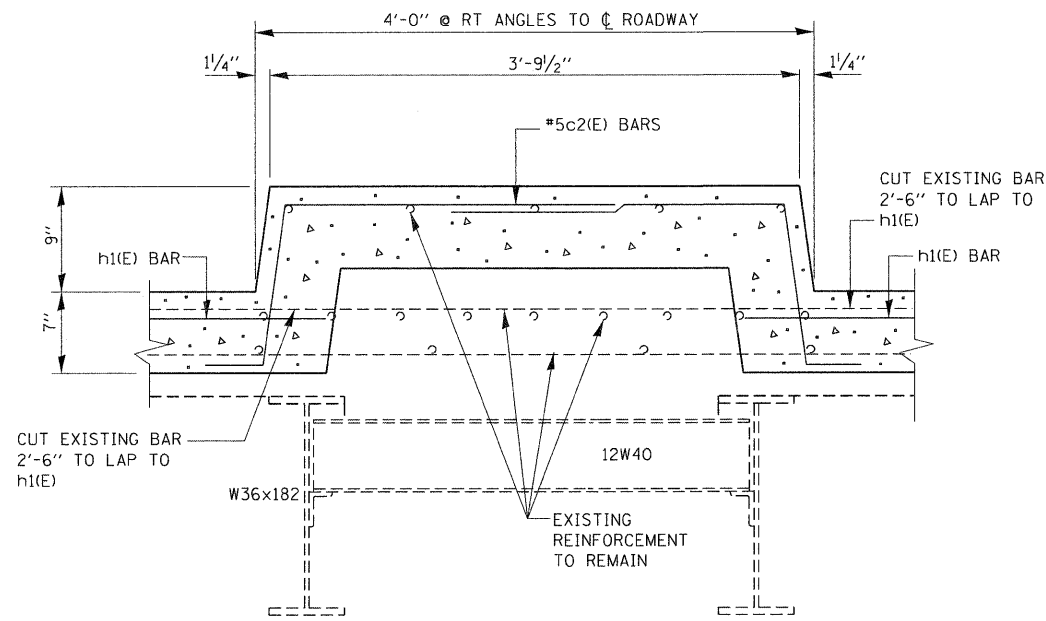
ITEM	UNIT	QUANTITY
STRUCTURAL REPAIR OF CONCRETE $\leq 5''$	SQ.FT.	75
PCC SIDEWALK 5 INCH	SQ.FT.	220

LEGEND:

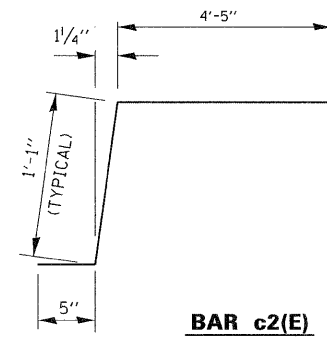
- STRUCTURAL REPAIR OF CONCRETE $\leq 5''$
- PCC SIDEWALK 5''



EXISTING SECTION C-C



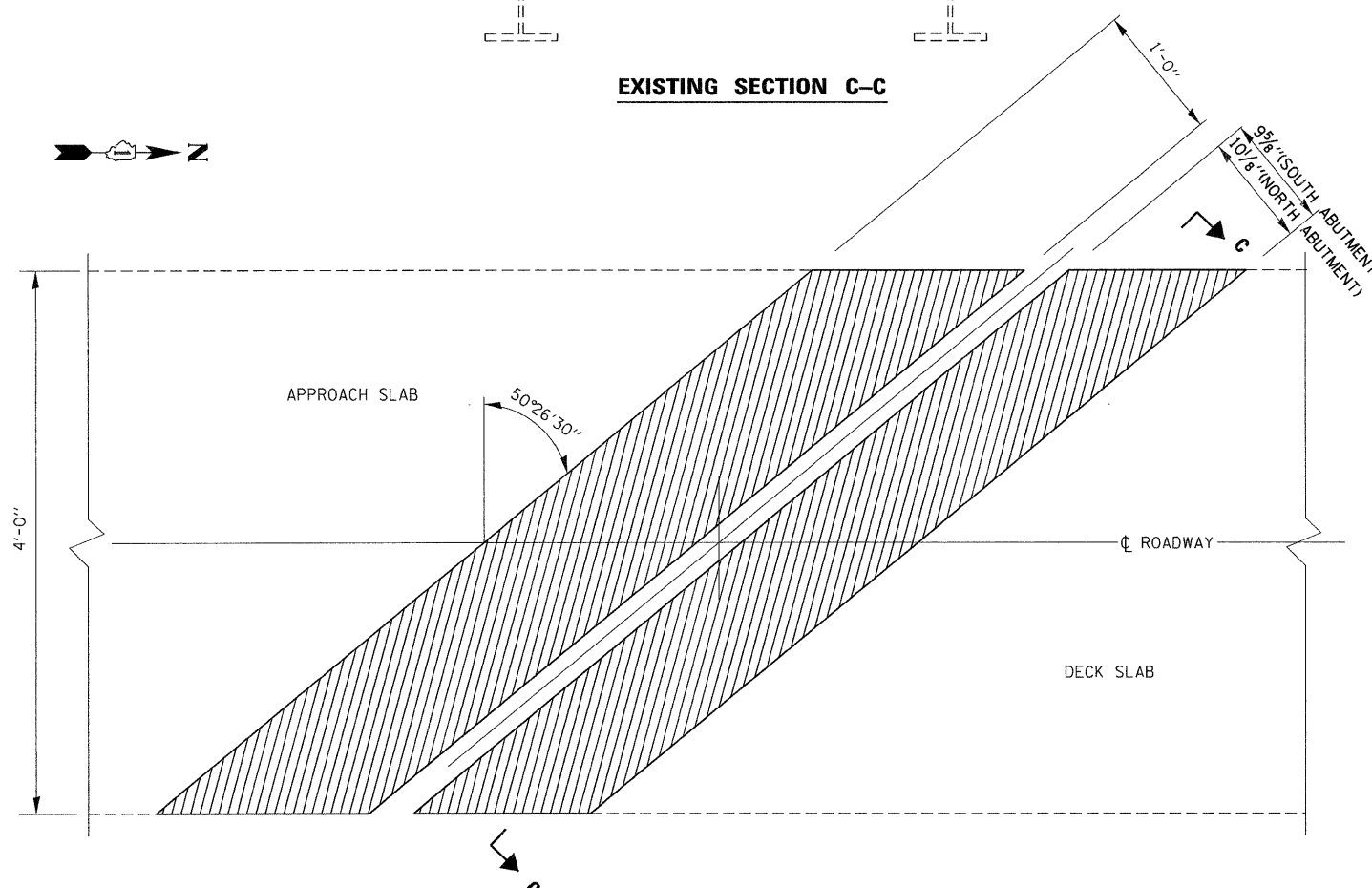
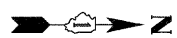
PROPOSED SECTION C-C



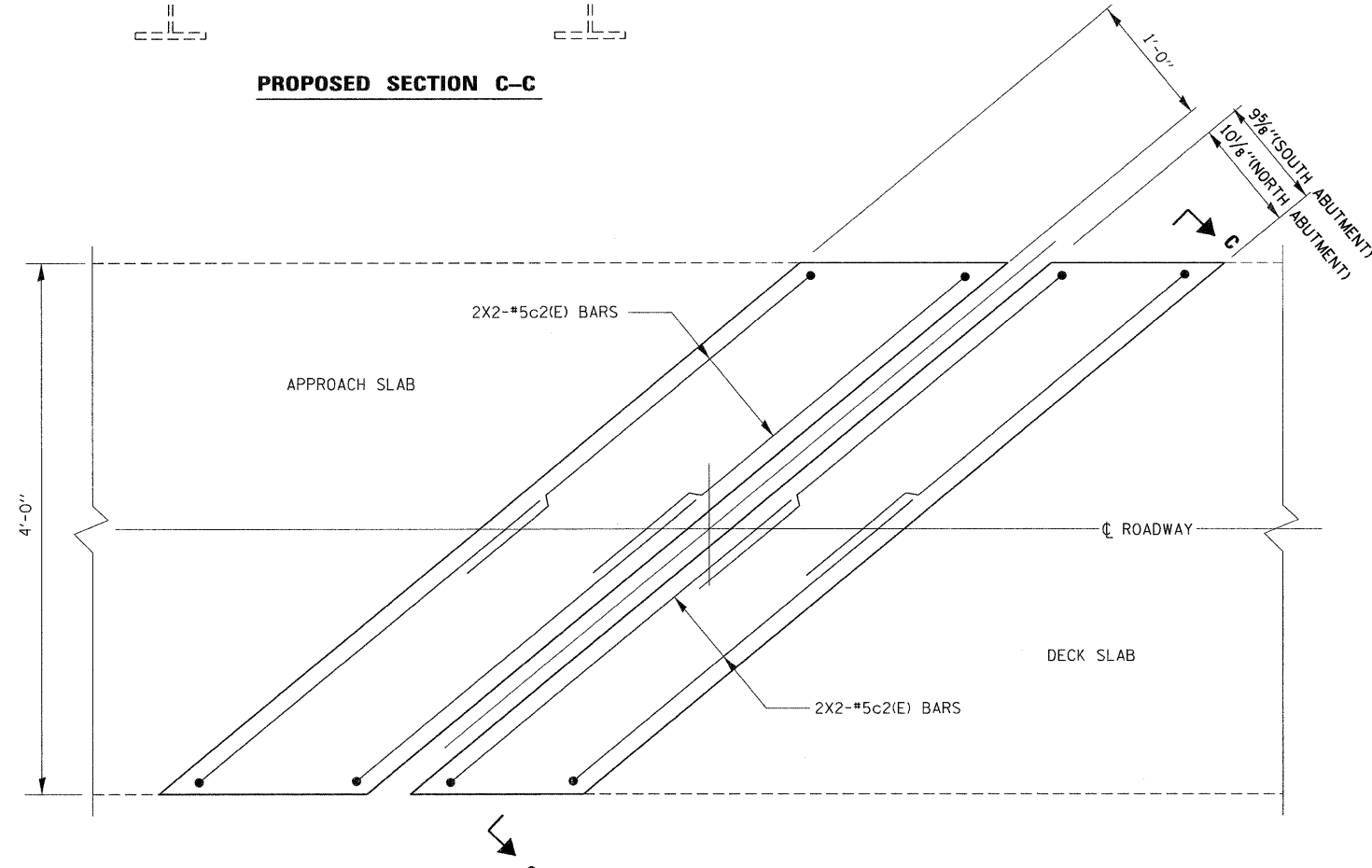
BAR c2(E)

LEGEND:

HATCHED AREA INDICATES CONCRETE REMOVAL

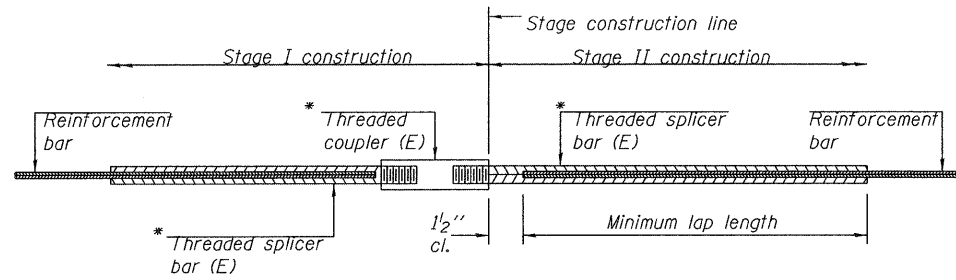


EXISTING PLAN



**PLAN OF SLAB MEDIAN
SHOWING REINFORCEMENT
PROPOSED**

BAR LAP TABLE	
SIZE	LENGTH
#5	1'-8"



STANDARD BAR SPLICER ASSEMBLY

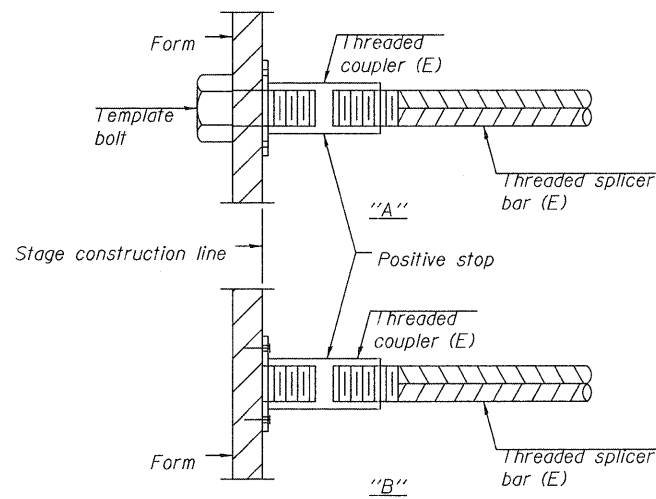
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- Table 1: Black bar, 0.8 Class C
- Table 2: Black bar, Top bar lap, 0.8 Class C
- Table 3: Epoxy bar, 0.8 Class C
- Table 4: Epoxy bar, Top bar lap, 0.8 Class C
- Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1/2" + thread length

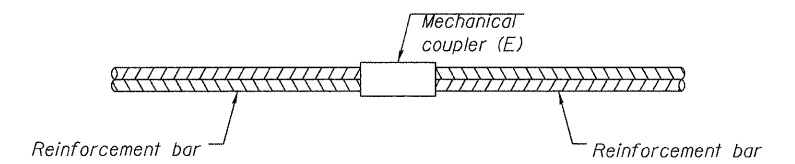
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Abutment	#6	8	3
Deck	#5	8	3



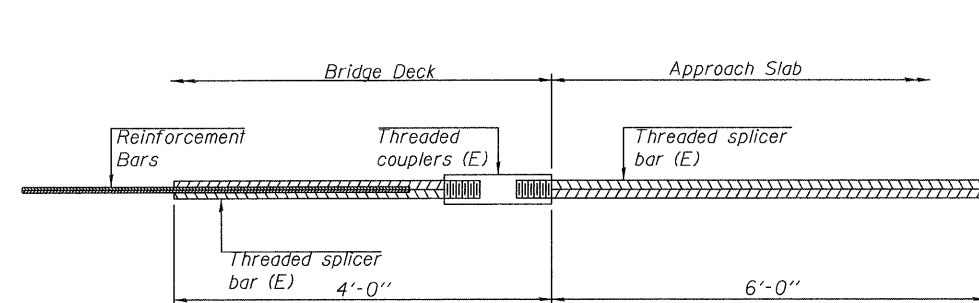
INSTALLATION AND SETTING METHODS

- "A" : Set bar splicer assembly by means of a template bolt.
- "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
- (E) : Indicates epoxy coating.



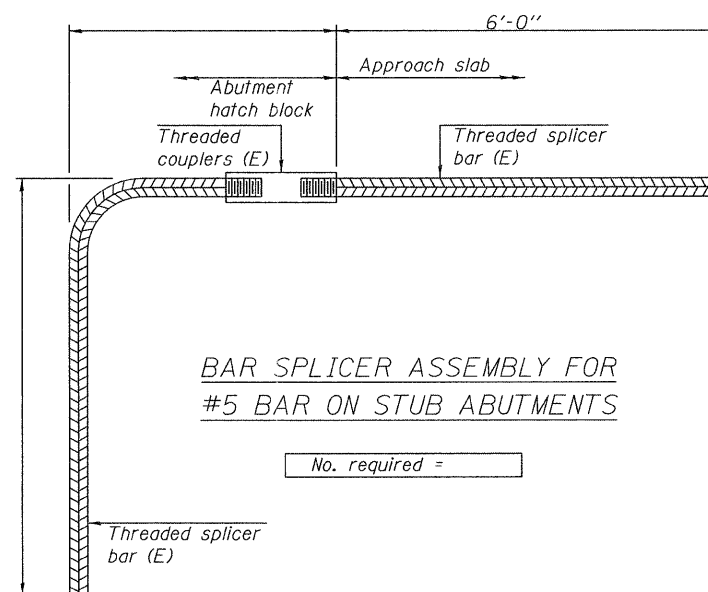
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



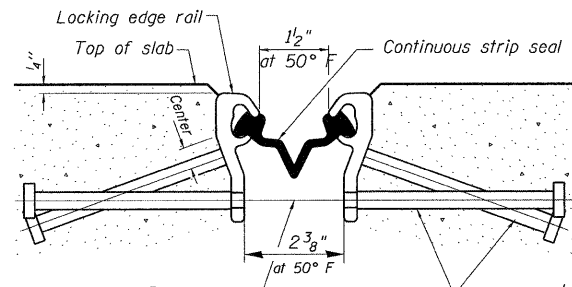
BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

- Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
- All reinforcement shall be lapped and tied to the splicer bars.
- Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
- See special provision for Mechanical Splicers.
- See approved list of bar splicer assemblies and mechanical splicers for alternatives.

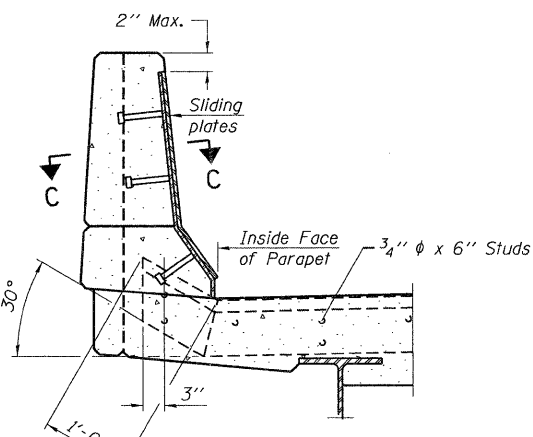
BSD-1 7-1-10



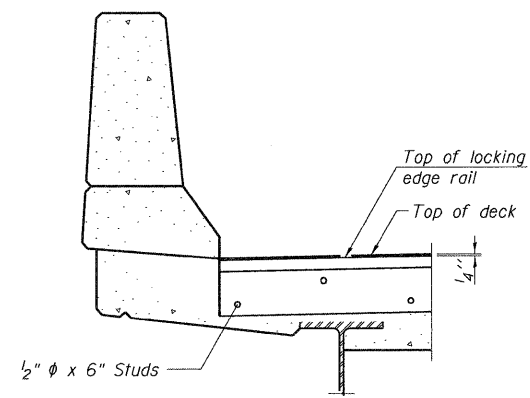
7/16" ϕ holes at 4'-0" cts. for 3/8" ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

SECTION THRU STRIP SEAL JOINT FOR OVERLAY OVER DECK BEAMS

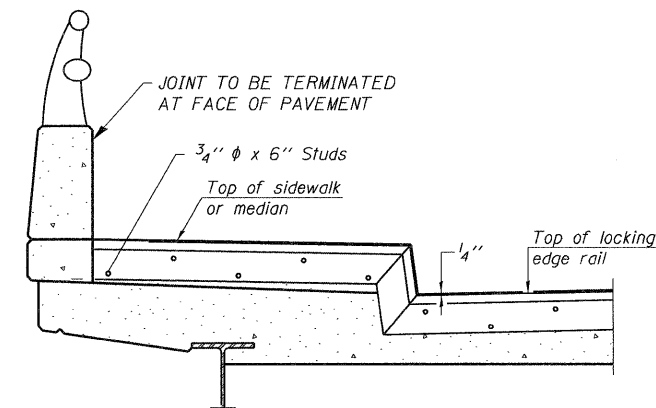
Place 1/2" ϕ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" alt. cts.



SECTION B-B POINT BLOCK DETAILS



SECTION A-A

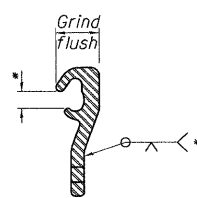


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.

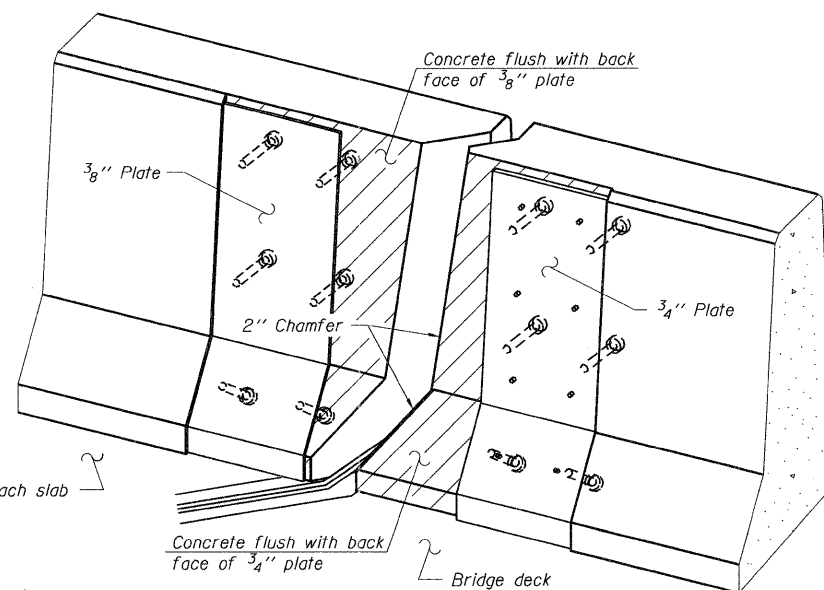


LOCKING EDGE RAIL

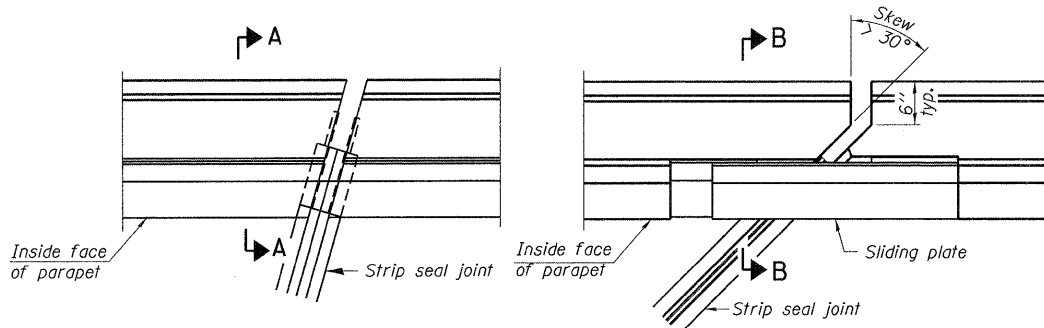


LOCKING EDGE RAIL SPLICE

* Omit weld at seal opening.



TRIMETRIC VIEW (Showing back plates only)

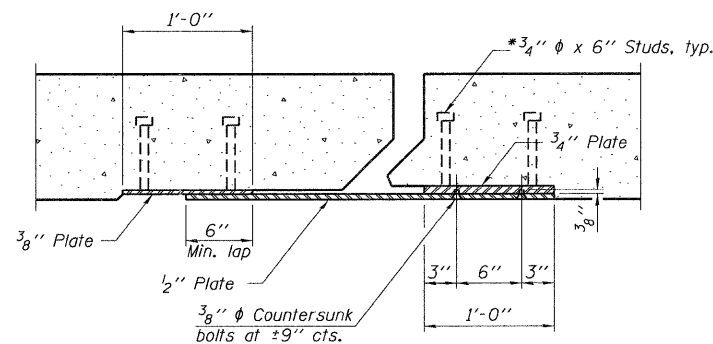


PLAN

(For Skew $\leq 30^\circ$)
Showing point Block

PLAN

(For Skew $> 30^\circ$)
Showing point Block



SECTION C-C

TYPICAL END TREATMENTS

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of 1/4". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

Maximum space between rail segments at stage lines shall be 3/16", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.

The inside of the Locking Edge Rail groove shall be free of weld residue.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	230

EJ-SSJ 11-1-09

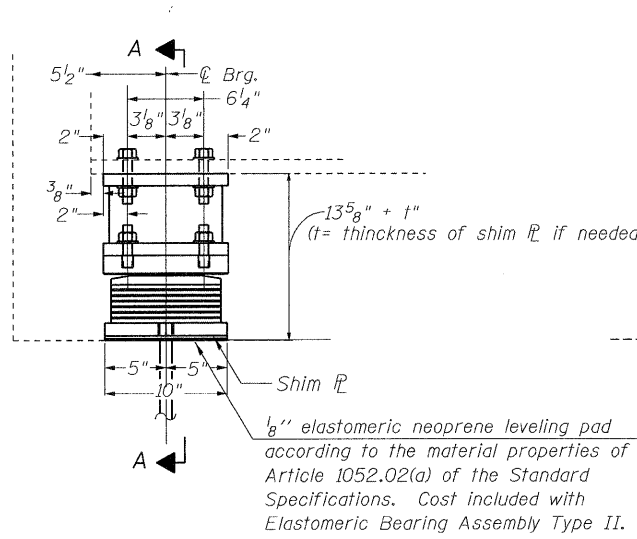
FILE NAME =	USER NAME = curryw	DESIGNED - MVT	REVISED -
c:\pwwork\p\dot\curryw\10282133\0162011-sht-plan.dgn		DRAWN - MVT	REVISED -
PLOT SCALE = 1967.7826' / m		CHECKED - AWC	REVISED -
PLOT DATE = 1/25/2012		DATE - 1-4-2012	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

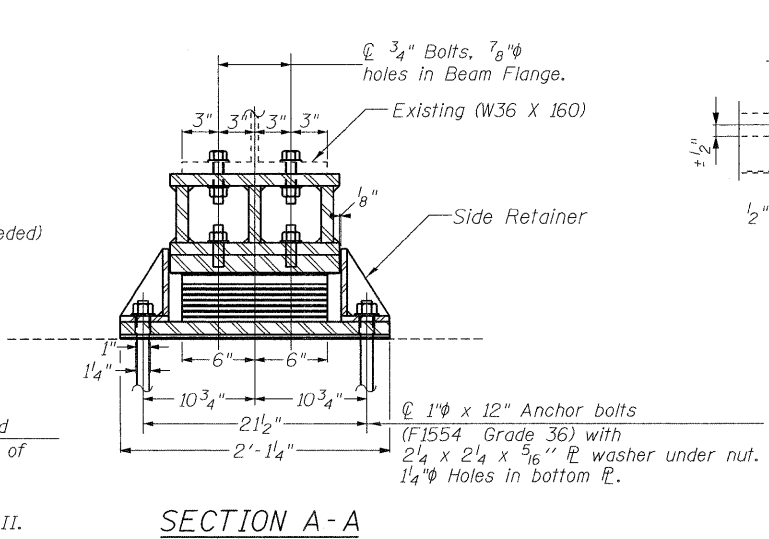
**ILLINOIS 50 (CICERO AVENUE) BRIDGE OVER B&O.CTRR TRACKS
PREFORMED JOINT STRIP SEAL
S.N. 016-2429**

SCALE: SHEET NO. 6 OF 8 SHEETS STA. TO STA.

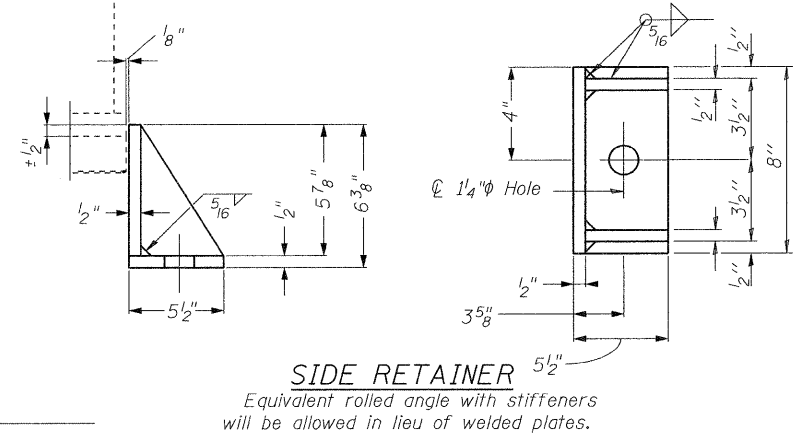
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
350	2011-064-1	COOK	28	9
			CONTRACT NO. 60P83	
ILLINOIS FED. AID PROJECT				



ELEVATION AT ABUT.

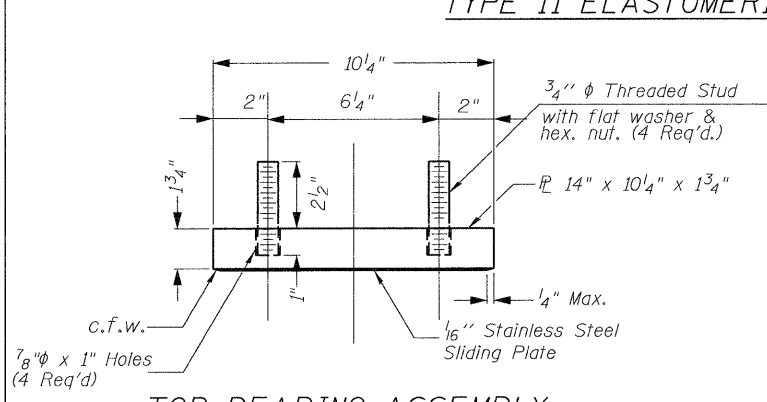


SECTION A-A

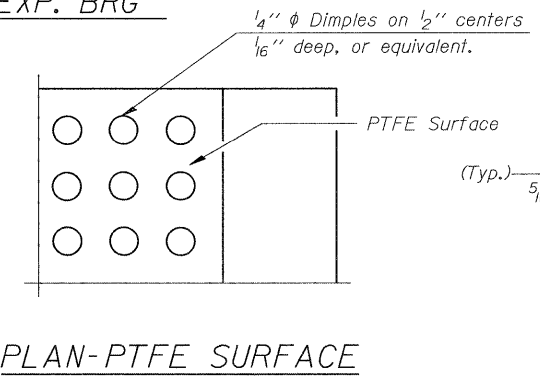


SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

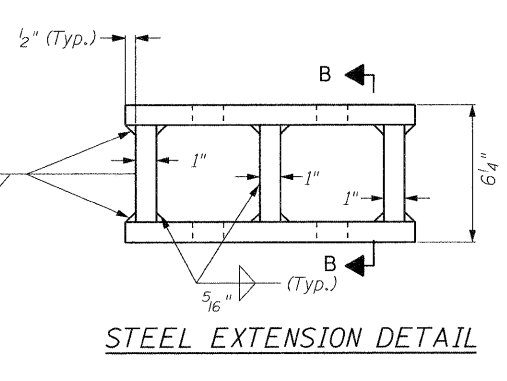
TYPE II ELASTOMERIC EXP. BRG



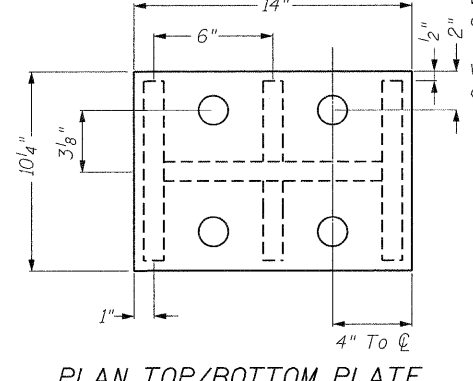
TOP BEARING ASSEMBLY



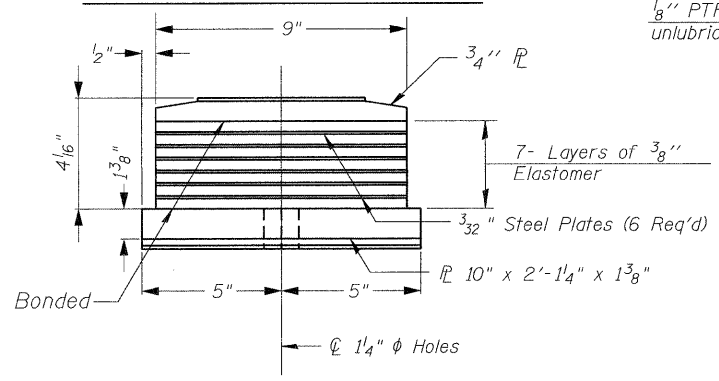
PLAN-PTFE SURFACE



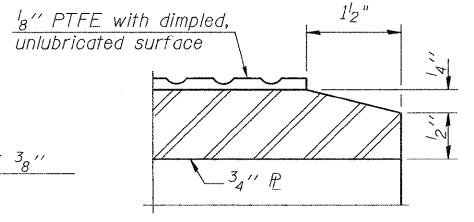
STEEL EXTENSION DETAIL



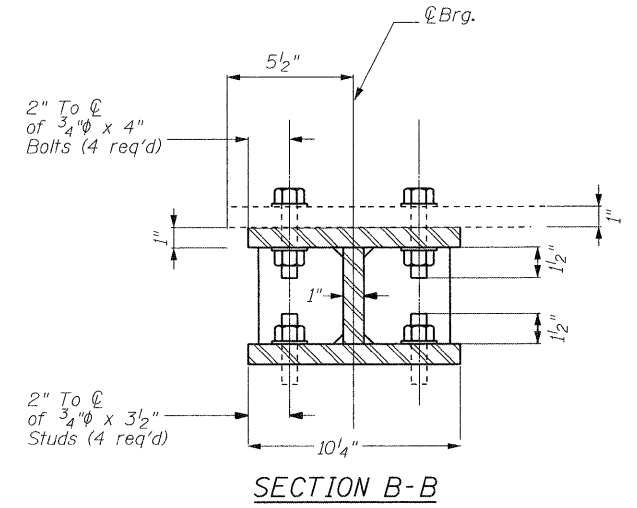
PLAN TOP/BOTTOM PLATE



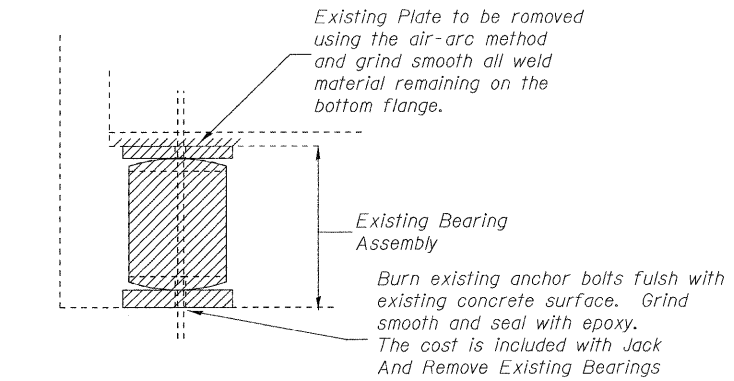
BOTTOM BEARING ASSEMBLY



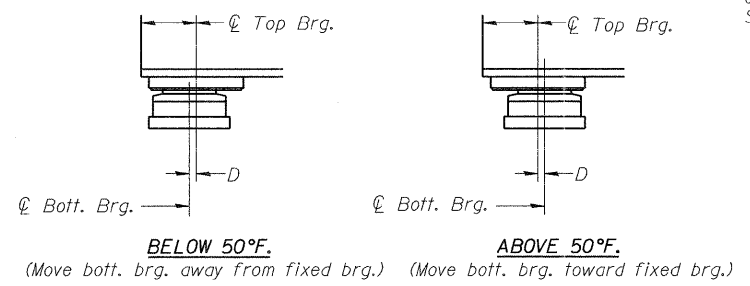
SECTION THRU PTFE



SECTION B-B



EXISTING BEARING REMOVAL



SETTING ANCHOR BOLTS AT EXP. BRG.

$D = \frac{1}{8}$ " per each 100' of expansion for every 15° temp. change from the normal temp. of 50°F.

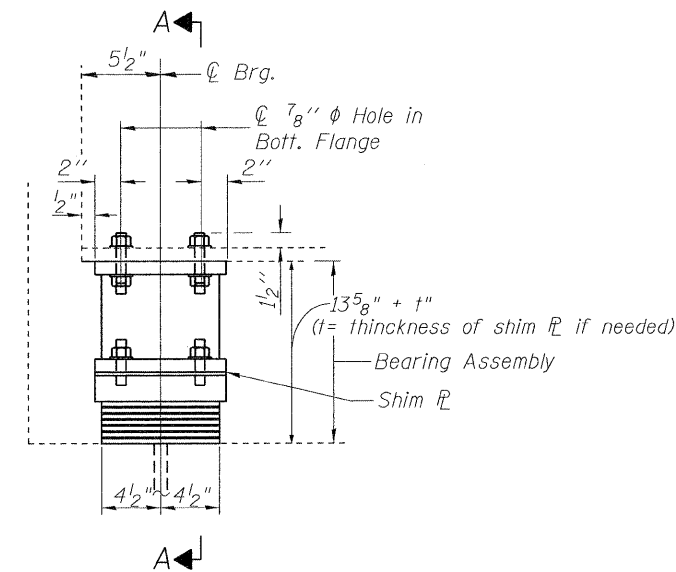
Notes:
For the details of existing bearings see sheet number 18
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for Type II bearings shall be placed in holes drilled in the concrete through holes in the bottom bearing plate after members are in place. Side retainers shall be placed after bolts are installed.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type II.
The $\frac{1}{8}$ " PTFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.
Bonding of $\frac{1}{8}$ " PTFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.
Prior to ordering any material the Contractor shall verify in the field all bearing height and shim thickness dimensions

BILL OF MATERIAL

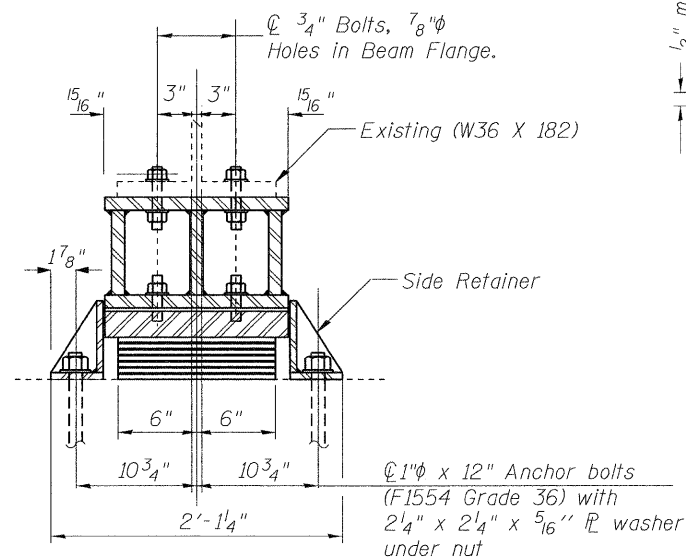
Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	12
Furnish And Erecting Structural Steel	Lbs.	1570
Jack and Remove Existing Bearings	Each	12
Anchor Bolts 1"φ	Each	24

REACTIONS SN 016-2429

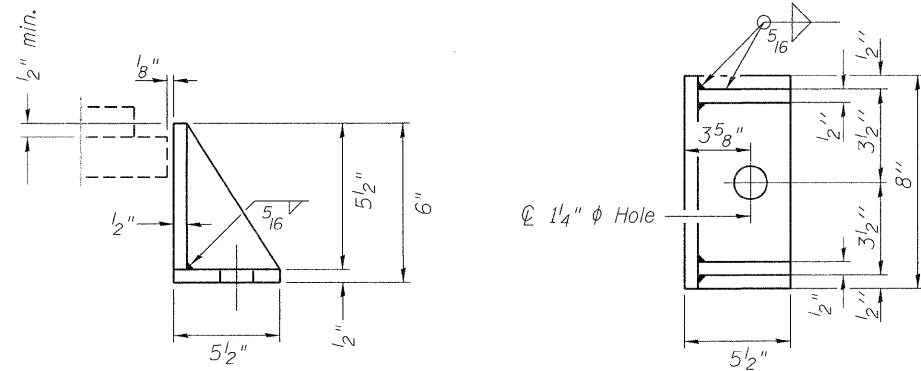
	NO. ABUT (kips)
R DL	18.5
R SDL	9.7
R LL	35
R Imp	9.0
R TOTAL	63.2



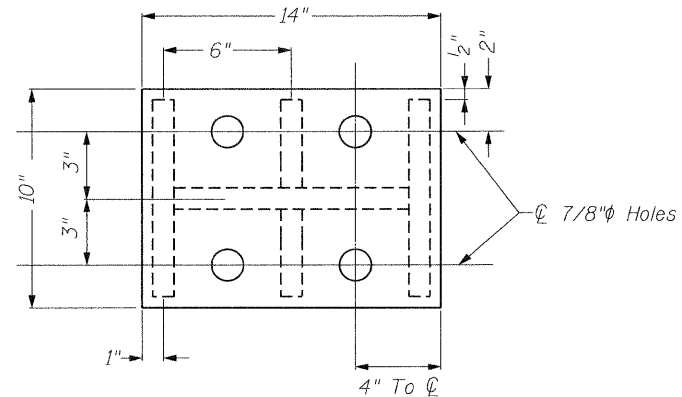
ELEVATION AT ABUT.



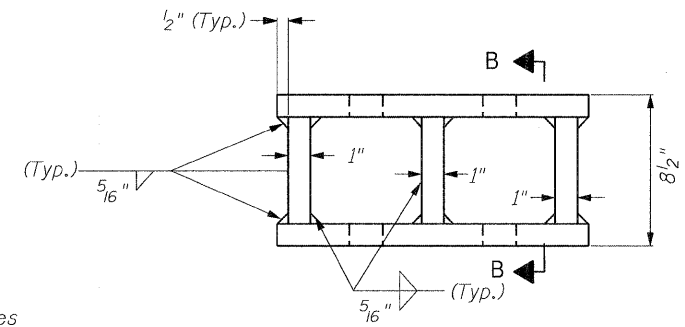
SECTION A-A



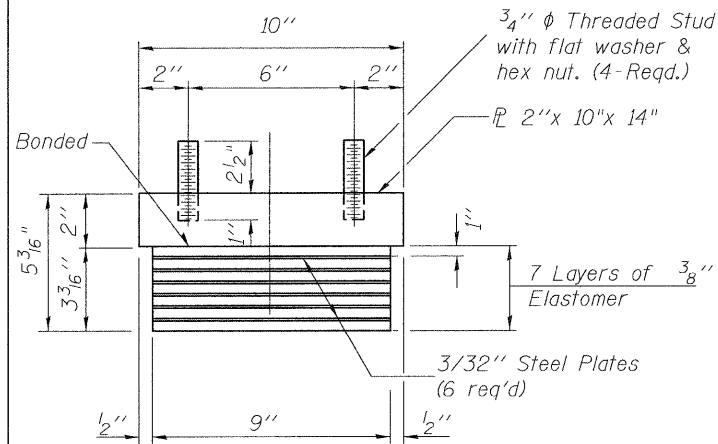
SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.



PLAN TOP/BOTTOM PLATE

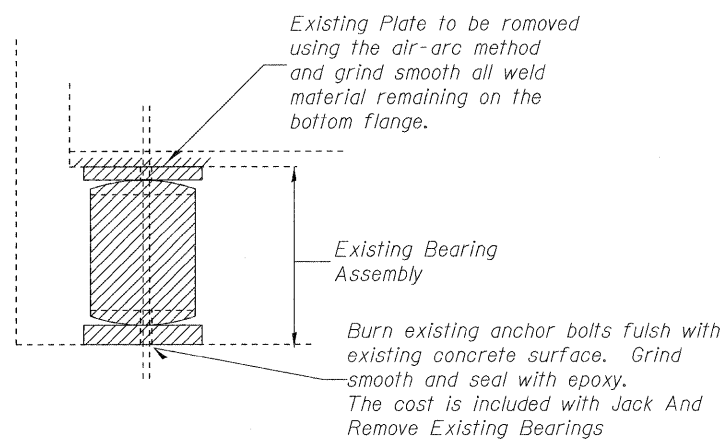


STEEL EXTENSION DETAIL



BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.



EXISTING BEARING REMOVAL

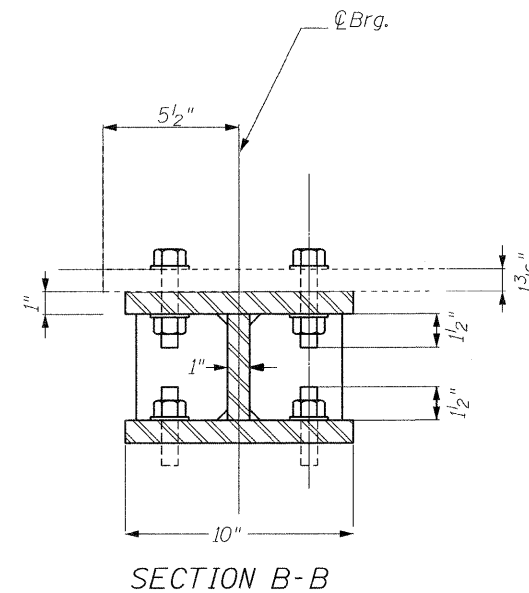
Notes:
For the details of existing bearings see sheet number 19
Side retainers and other steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.
Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.
Anchor bolts for side retainers may be cast in place or installed in holes drilled before or after members are in place.
Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.
Prior to ordering any material the Contractor shall verify in the field all bearing height and shim thickness dimensions

REACTIONS SN 016-2429

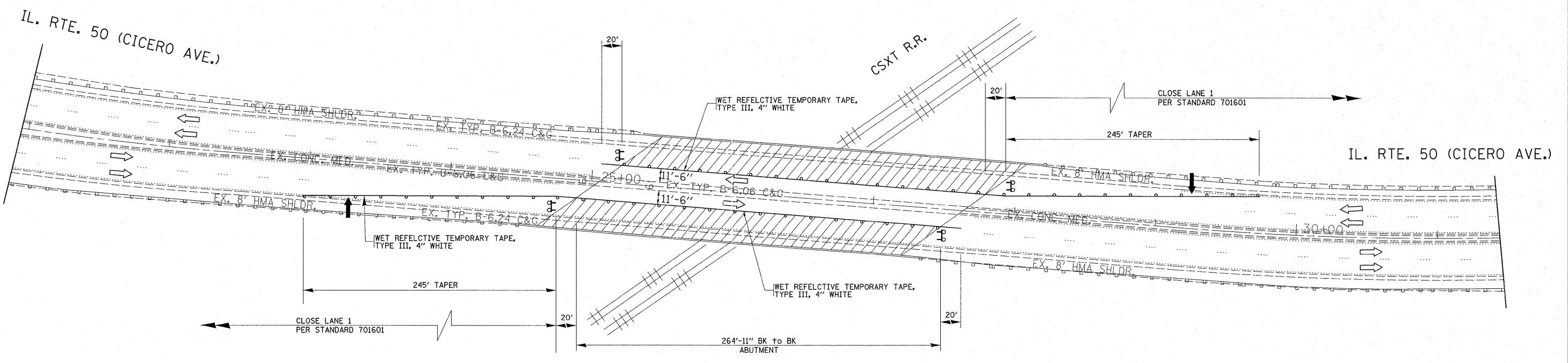
	SO. ABUT (kips)
R DL	25.1
R SDL	13.1
R LL	36.1
R Imp	8.6
R TOTAL	74.3

BILL OF MATERIAL






Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	12
Furnish And Erecting Structural Steel	Lbs.	1772
Jack and Remove Existing Bearings	Each	12
Anchor Bolts 1"φ	Each	24



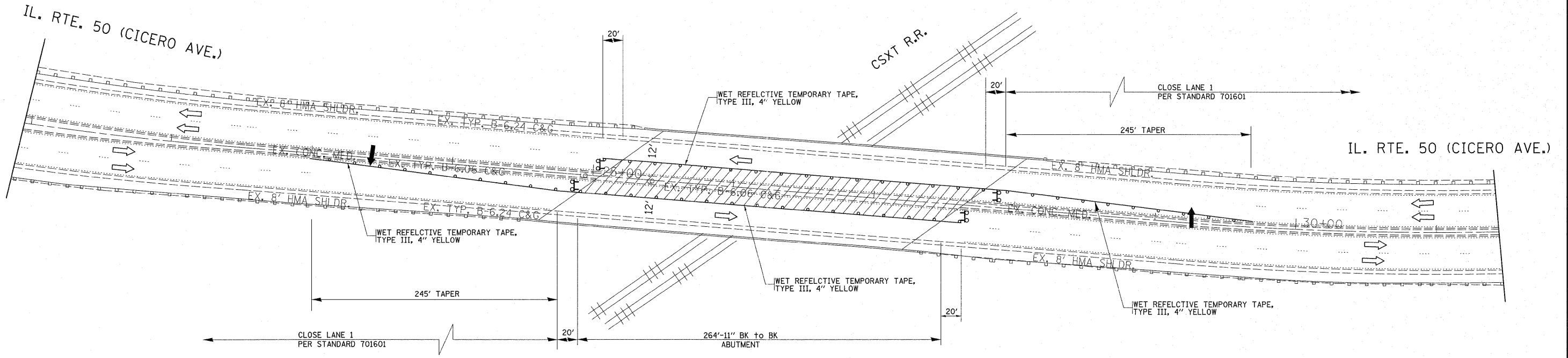
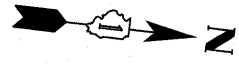
SECTION B-B








SYMBOLS

-  Arrow board
-  Cone, drum or barricade with steady burn monodirectional light.
-  Work area
-  Type III barricade with flashing lights
-  Direction of traffic

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	PLOT SCALE = 1/62,500	DRAWN AWC	REVISED -					CONTRACT NO. 60P83				
	PLOT DATE = 1/6/2012	CHECKED -	REVISED -					ILLINOIS FED. AID PROJECT				
		DATE -	REVISED -	SCALE: 1"=50'	SHEET OF SHEETS	STA. 12+05.9 TO STA. 40+00						



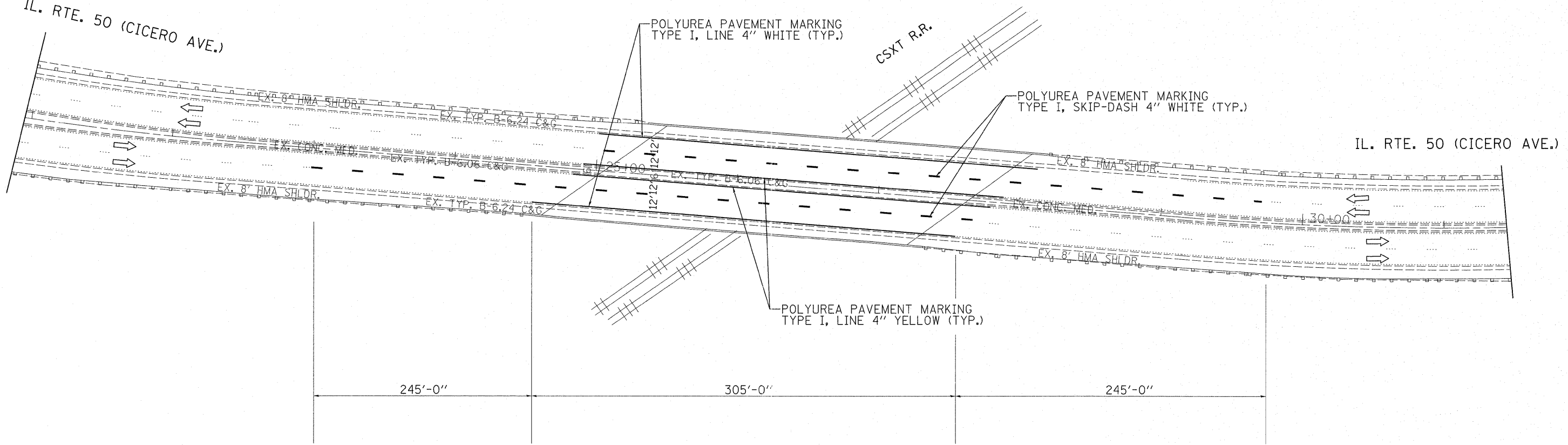
SYMBOLS

-  Arrow board
-  Cone, drum or barricade with steady burn monodirectional light.
-  Work area
-  Type III barricade with flashing lights
-  Direction of traffic

FILE NAME =	USER NAME = curryw	DESIGNED AWC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL. RTE. 50 (CICERO AVE.) AT CSXT RAILROAD TRAFFIC CONTROL STAGE 2			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 1/66.5852' / m	CHECKED -	REVISED -	SCALE: 1"=50' SHEET OF SHEETS STA. 12+05.9 TO STA. 40+00				CONTRACT NO. 60P83					
PLOT DATE = 1/6/2012	DATE -	REVISED -	ILLINOIS FED. AID PROJECT									



IL. RTE. 50 (CICERO AVE.)



CSXT R.R.

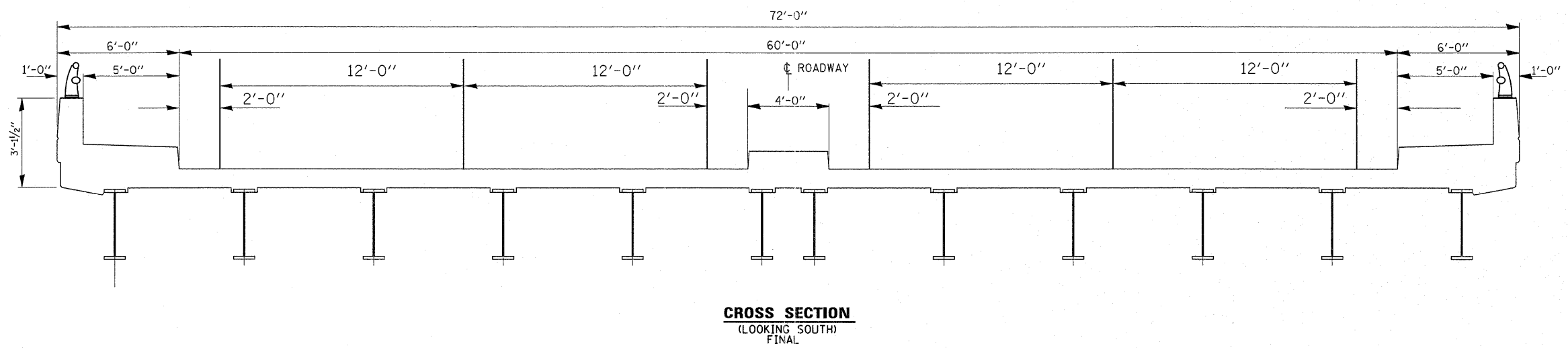
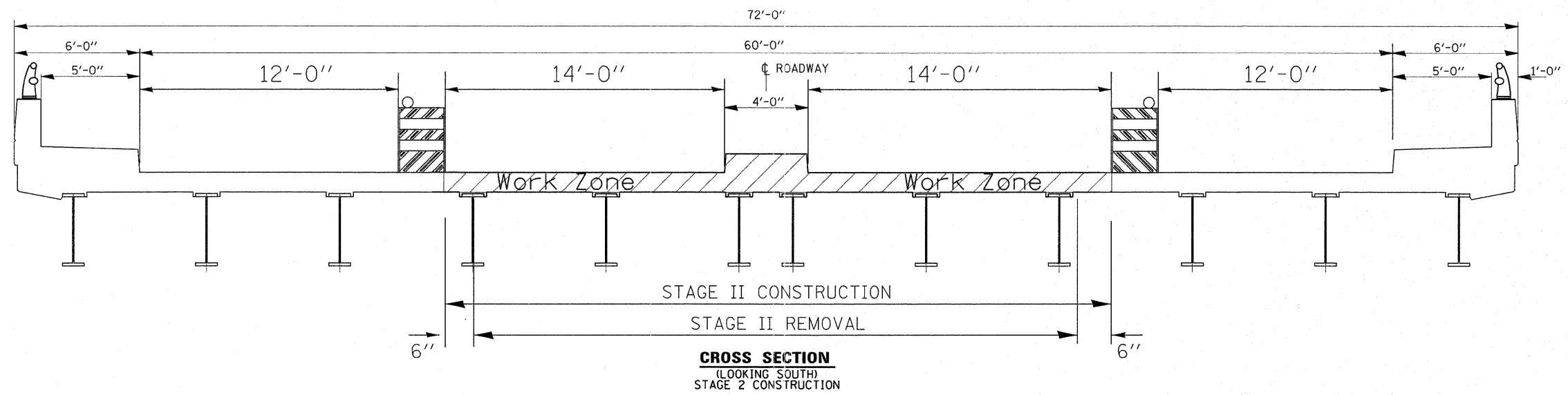
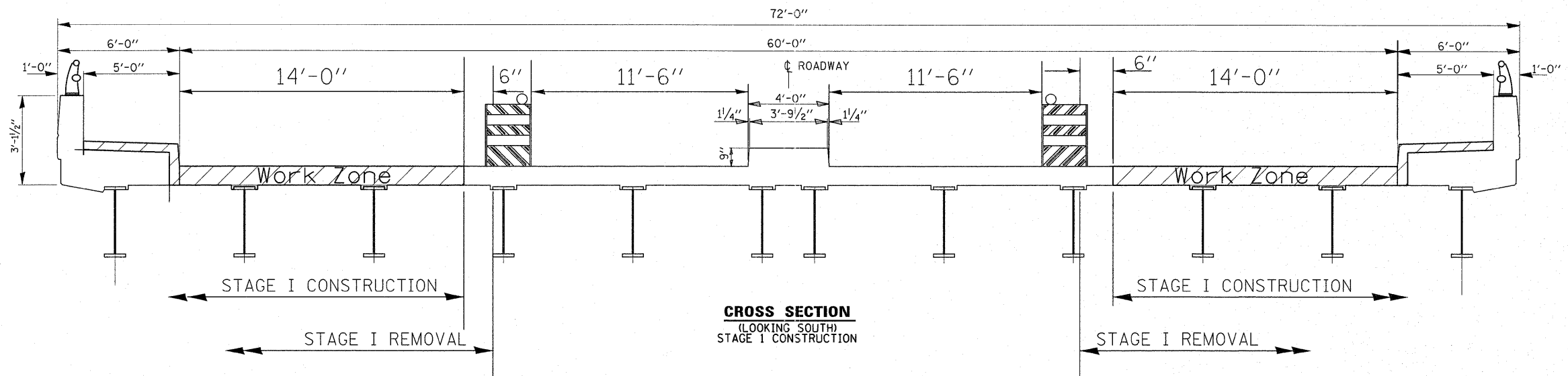
IL. RTE. 50 (CICERO AVE.)

245'-0"

305'-0"

245'-0"

FILE NAME = c:\pw\work\p1st\d01\curryw\02282133\0162011-shd-plan.dgn	USER NAME = curryw	DESIGNED AWC	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL. RTE. 50 (CICERO AVE.) AT CSXT RAILROAD PAVEMENT MARKING	F.A.P. RTE. 350	SECTION 2011-064-I	COUNTY COOK	TOTAL SHEETS 28	SHEET NO. 15		
	PLOT SCALE = 1/8"=1'-0"	CHECKED -	REVISED -			SCALE: 1"=50'	SHEET OF SHEETS	STA. 12+05.9	TO STA. 40+00	ILLINOIS FED. AID PROJECT CONTRACT NO. 60P83		
	PLOT DATE = 1/6/2012	DATE -	REVISED -									



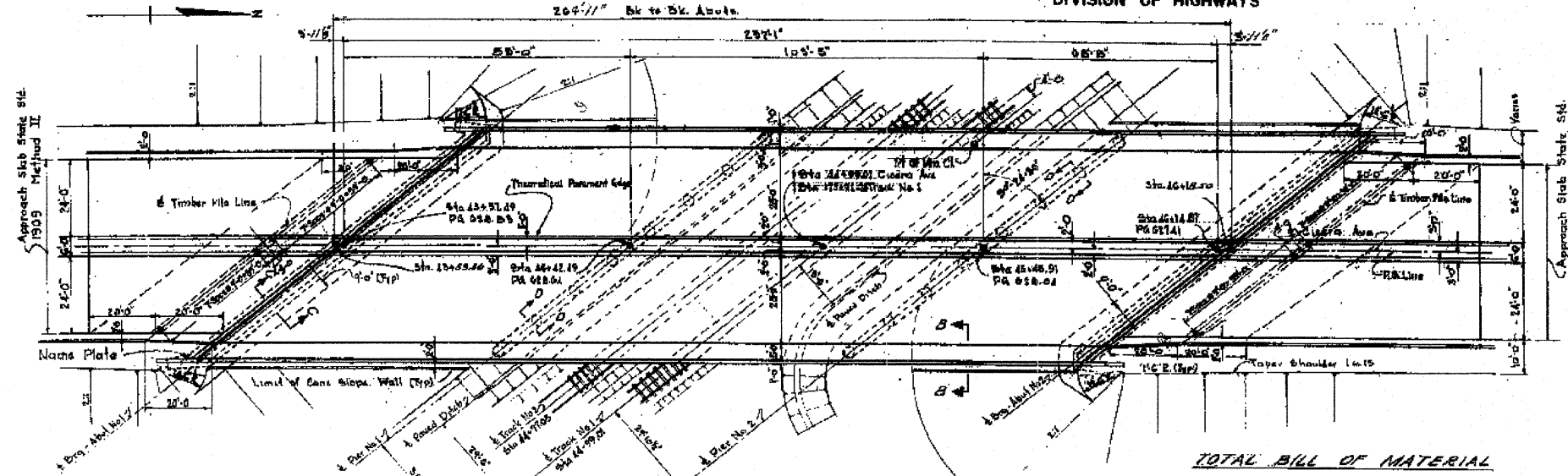
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#FILE#		DRAWN <i>AWC</i>	REVISED -		SCALE:	SHEET NO.	OF SHEETS	STA.	TO STA.	350	2011-064-I	COOK	28	16
		CHECKED -	REVISED -		CONTRACT NO. 60P83									
		DATE -	REVISED -		ILLINOIS FED. AID PROJECT									

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 350	2011-064-1	COOK	28	17

CONTRACT NO.: 60P83

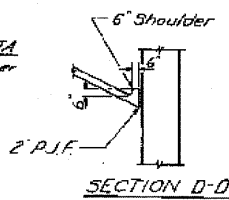
STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS & BUILDINGS
DIVISION OF HIGHWAYS

FOR INFORMATION ONLY



GENERAL NOTES
All reinforcement bars shall be lapped 24 dia. unless otherwise shown.
Diaphragm connections may be adopted to shop welding subject to approval by the Engineer.
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 4x depth the span length each way from the field 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 50# per 100 sq. ft.
The Contractor shall drive a steel test pile in a permanent location at Abut. #1 & Pier #2 as directed by the Engineer before ordering the remainder of piles.
Class A Excavation for structures includes excavation for slope wall.
Protective Coat shall not be applied to surfaces to which Coal Tar Interlayer Protective Coat is applied.

APPROACH PILE DATA
Type - Crossed Timber
No. Piles - 32
Pile Length - 25 FT



TOTAL BILL OF MATERIAL

Item	Unit	Sub.	Super	Total
Protective Coat	Sq. Yds	670		670
Coal Tar Interlayer Prot. Coat	Sq. Yds		1617	1617
Class A Excavation for Structures	CY	854		854
Class X Concrete	CY	870.7	660.7	1531.4
Reinforcement Bars	Lbs	89,520	171,350	260,870
Structural Steel	L.S.			1
Aluminum Roofing	LF		520	520
Furnishing & Driving Steel Piles (2 B.P.S.)	LF	4444		4444
Steel Test Piles B.P.S.	LF	2		2
Slope Wall 4'	Sq. Yds			1408
Name Plates	Lbs			1
Furnishing & Driving Crossed Piles	LF	800		800
2" Bridge Seal Spacing	L.S.			1.5

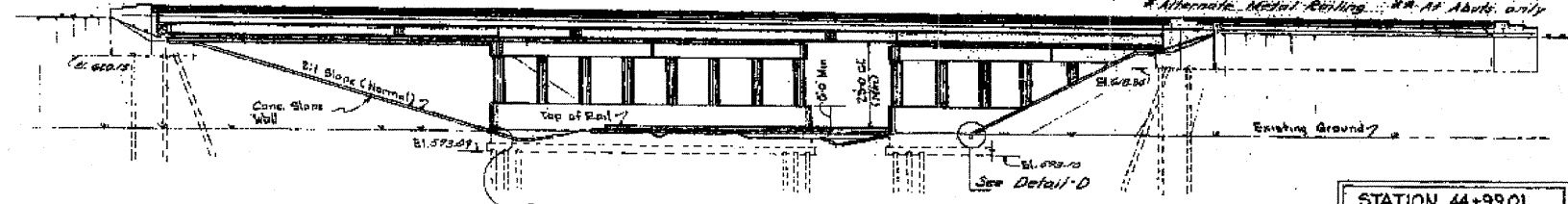
Calculated plan weight of Structural Steel = 713,360 lbs.
Fasteners shall be high strength bolts; bolts 4" dia; open holes 1/4" dia, unless otherwise noted.

The Basic Lead Silico Chromate paint system shall be used for shop and field painting of structural steel.

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 Normal Concrete.

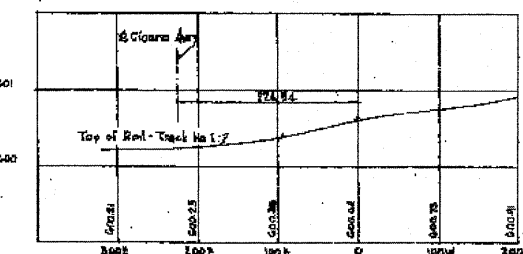
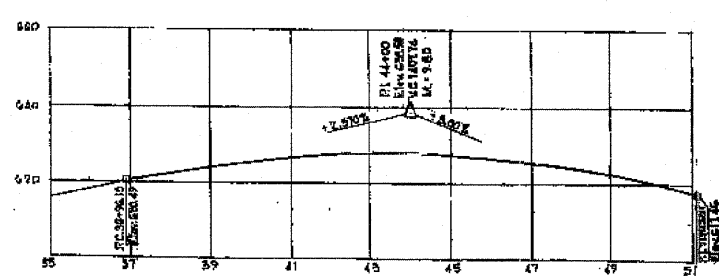
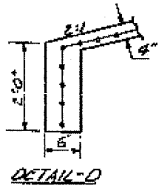
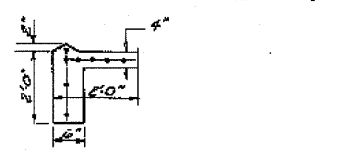
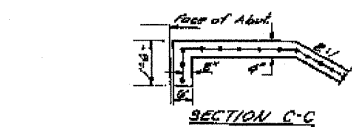
The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the piers.

Item	Unit	Sub.	Super	Total
Bif. Conc. Surf. Course Class I	Tons		131	131



STATION 44+99.01
BUILT 19 BY
STATE OF ILLINOIS
S.B.I. RTE 50 SEC. 3068-2VB
F.A. PROJ. U-141(21)
LOADING HS 20

NAME PLATE LETTERING
For details see Std. Dwg. 2115



DESIGNED	N.C.E.	EXAMINED	IMPLEMENTS OF THE DESIGN
CHECKED	S.S.	PREPARED	DESIGN OF WORK
DRAWN	N.C.E.	APPROVED	DESIGN OF WORK
CHECKED	S.S.		

Design Loading
HS 20-44
Design Stresses
F_c = 1400 psi (1200 slab)
F_s = 20,000 psi A-36 steel
F_s = 20,000 psi reinforcement
v = 75 p.s.i. 175 psi
A allow = 9000
n = 10
Future Wearing Surface = 25' dia

APPROVED
FOR STRUCTURAL ACCOUNT ONLY
Carl E. J. [Signature]
REGISTERED PROFESSIONAL ENGINEER

GENERAL PLAN AND ELEVATION
S.B.I. RTE 50 CICERO AVENUE BRIDGE
OVER B.O. C.T.R.R. TRACKS
PROJECT U-UG-141(21)
F.A. RTE. 99 SEC. 3068-2-VB 4W

COOK COUNTY
STATION 44+99.01
KNOERLE, GRAEF, BENDER AND ASSOCIATES INC.
CONSULTING ENGINEERS - CHICAGO, ILLINOIS

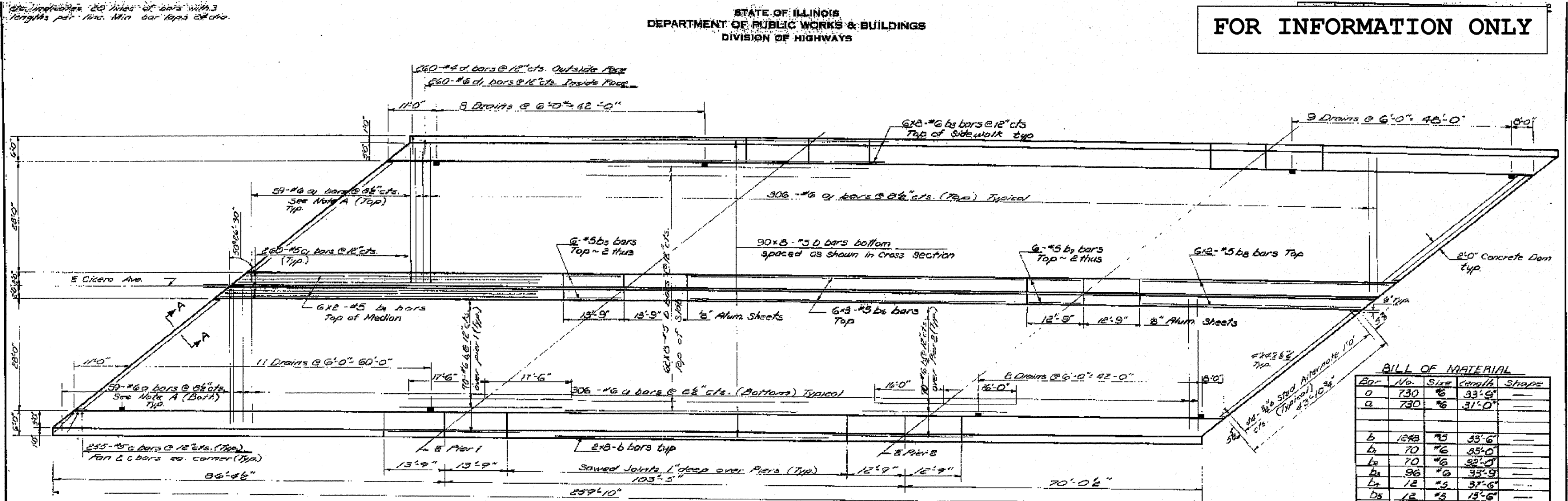
Revised Total Bill of Material, N. Abut. Sta. 44+19.71 to Sta. 44+18.20
S. Abut. Sta. 44+99.01 to Sta. 44+98.56 S.P.M. 12-22-69

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 350	2011-064-I	COOK	28	18

CONTRACT NO.: 60P83

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

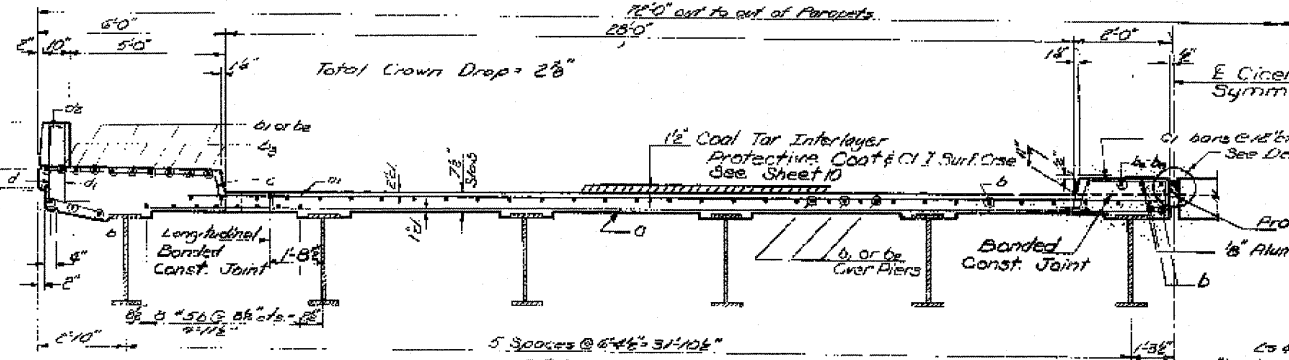
FOR INFORMATION ONLY



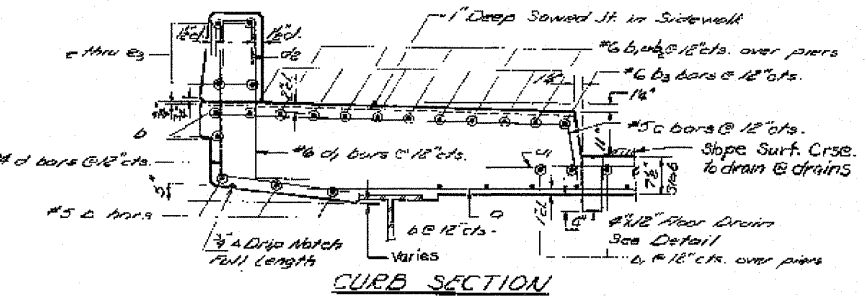
NOTE A: Cut bars to fit and use remainder in opposite end.

BILL OF MATERIAL

Bar No.	Size	Length	Shape
0	#30	33'-0"	---
1	#30	31'-0"	---
2	#30	33'-6"	---
3	#30	33'-0"	---
4	#30	33'-0"	---
5	#30	33'-9"	---
6	#30	37'-6"	---
7	#30	15'-6"	---
8	#30	26'-6"	---
9	#30	16'-6"	---
10	#30	28'-3"	---
C	#5	6'-8"	---
D	#5	5'-10"	---
E	#5	4'-6"	---
F	#5	3'-6"	---
Class A Concrete Cu. Yds.			634.2
Reinforcement Bars lbs.			189,240



PLAN



CURB SECTION

CROSS SECTION

DETAIL A

SECTION A-A

FLOOR DRAIN

DESIGNED	SFM
CHECKED	APH
DRAWN	D. Derringer
CHECKED	

EXAMINED	19
PASSED	
APPROVED	

Aluminum Sheets Welded
ASTM B209 alloy 6061-T6
or Aluminum Extrusions
ASTM B221 alloy 6061-T6
Cast Included to Class X Concrete

Weight of bearing assemblies with load plates and anchor bolts are included as structural steel. Est. Wt. = 14,360 lbs. The lengths and quantities of long reinforcement and Class X Conc. in parapets are not included in above quantities See Sheet 4.

SLAB DETAILS
FA, RT 99 - SEC. 2066-2-V08W
COOK COUNTY
STA. 44 + 99.01

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 350	2011-064-I	COOK	28	19

CONTRACT NO.: 60P83

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

FOR INFORMATION ONLY

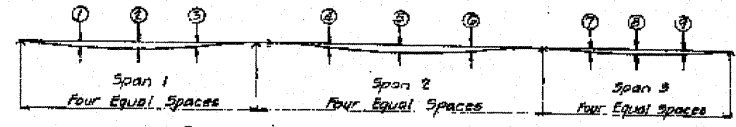
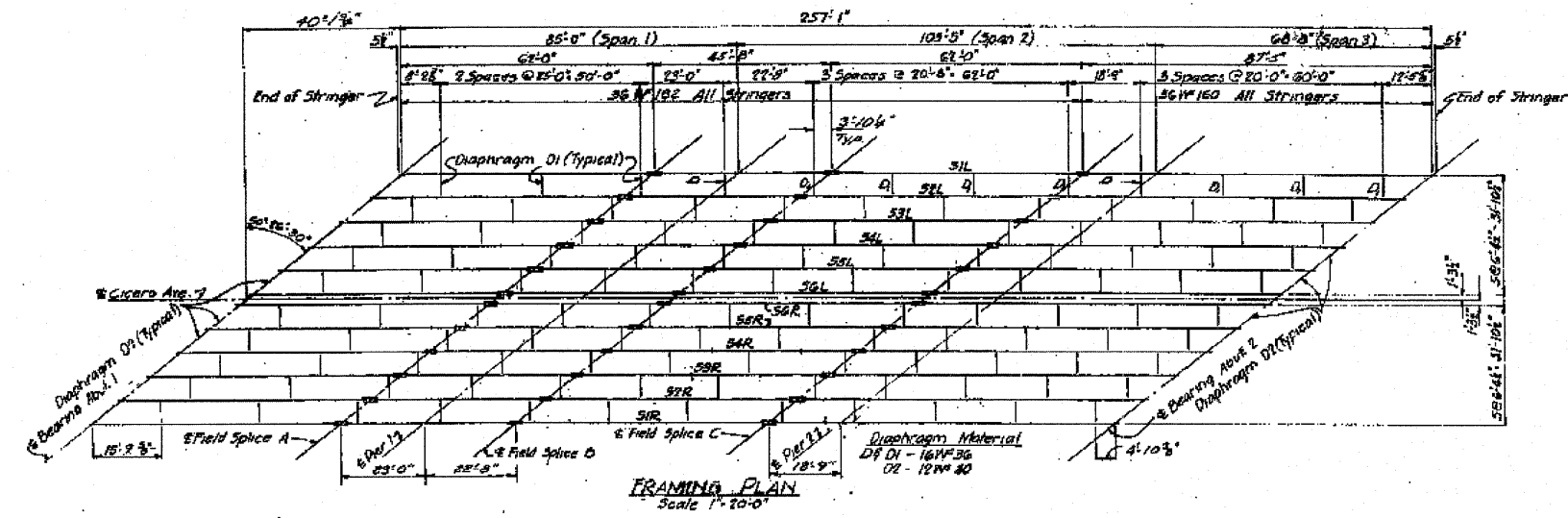


TABLE OF STRINGER DEAD LOAD DEFLECTIONS

Span	1	2	3	4	5	6	7	8	9
S1	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
S2-S3	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
S4	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"

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 647.

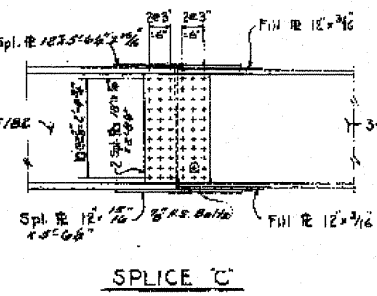
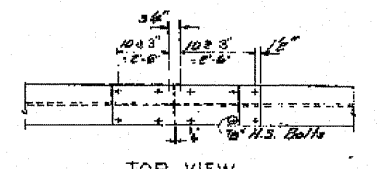
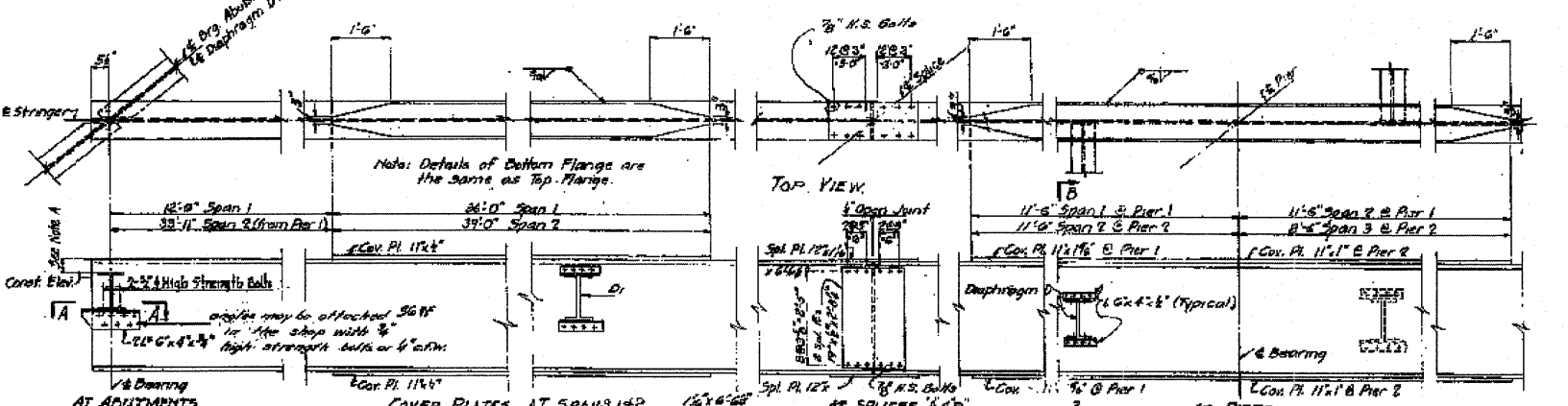
TABLE OF TOP OF TOP FLANGE (IN) OF STRINGERS

Station	Abut. 1	Sp. A	Pier 1	Sp. B	Sp. C	Pier 2	Abut. 2
S1R	627.86	627.78	627.75	627.73	627.68	627.35	626.86
S1L	627.87	627.77	627.74	627.71	627.66	627.30	626.79
S2R	627.98	627.80	627.79	627.78	627.74	627.50	626.77
S2L	627.99	627.84	627.79	627.78	627.74	627.49	626.75
S3R	628.09	627.87	627.86	627.77	627.74	627.50	626.75
S3L	628.09	627.86	627.86	627.77	627.74	627.49	626.71
S4R	627.82	627.74	627.73	627.71	627.66	627.31	626.81
S4L	627.83	627.73	627.72	627.70	627.65	627.29	626.77
S5R	627.89	627.81	627.79	627.77	627.72	627.37	626.87
S5L	627.89	627.80	627.78	627.76	627.71	627.35	626.83
S6R	627.90	627.80	627.78	627.76	627.71	627.36	626.84

TABLE OF FILL THICKNESSES FOR SHOES

Stringer	Abut. 1	Pier 1	Pier 2	Abut. 2
S1R	0	0	0	0
S1L	0	0	0	0
S2R	0	0	0	0
S2L	0	0	0	0
S3R	0	0	0	0
S3L	0	0	0	0
S4R	0	0	0	0
S4L	0	0	0	0
S5R	0	0	0	0
S5L	0	0	0	0
S6R	0	0	0	0
S6L	0	0	0	0

Note: These thicknesses are shown as (0) on the shoe details.

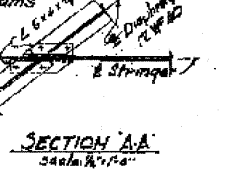
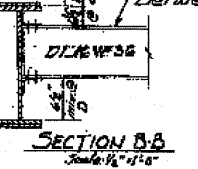
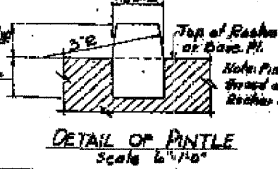
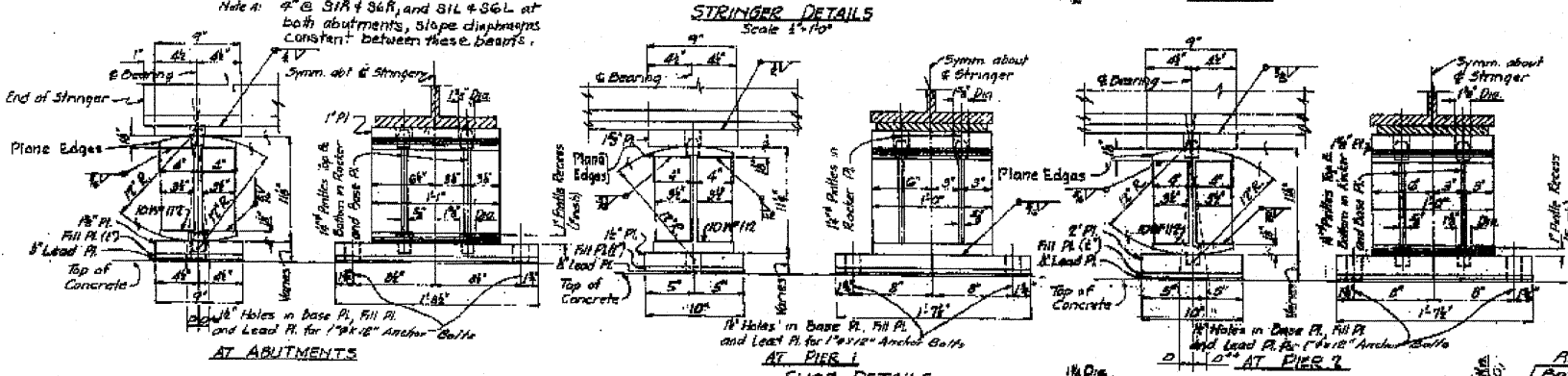


NOTES ON SETTING OF ANCHOR BOLTS AT EXP. BEARINGS

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 bms. 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.



DESIGNED	N.C.E.	ENGINEER	BRIDGE ENGINEER AND TRAFFIC ENGINEER
CHECKED	S.B.	PASSED	CHIEF OF BRIDGE
DRAWN	N.C.E.	APPROVED	BRIDGE TRAFFIC ENGINEER
CHECKED	S.B.		

FRAMING PLAN AND DETAILS
S.B.I. RTE. 50 CICERO AVENUE BRIDGE
OVER B.O.C.T.R.R. TRACKS
PROJECT UG-141(21)
FA. RTE. 99 SEC. 3068-Z-VB4W

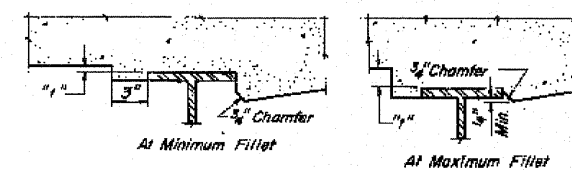
COOK COUNTY
STATION 44+99.01

KNOERLE, GRAEF, BENDER AND ASSOCIATES INC.
CONSULTING ENGINEERS - CHICAGO, ILLINOIS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 350	2011-064-I	COOK	28	21

CONTRACT NO.: 60P83

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



FOR INFORMATION ONLY

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 height "f" above top flange of beams.

FILLET HEIGHTS

Interior Beam S34

Location	Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
E Brg. Abut. 1		4382.206	-20.417	628.635	628.635
A		4392.206	-20.417	628.619	628.619
B		4402.206	-20.417	628.598	628.597
C		4412.206	-20.417	628.574	628.574
D		4422.206	-20.417	628.545	628.545
E		4432.206	-20.417	628.513	628.513
F		4442.206	-20.417	628.477	628.477
G		4452.206	-20.417	628.437	628.437
H		4462.206	-20.417	628.393	628.393
E Pier 1		4467.204	-20.417	628.369	628.369
I		4477.206	-20.417	628.319	628.311
J		4487.206	-20.417	628.269	628.289
K		4497.206	-20.417	628.207	628.242
L		4507.206	-20.417	628.145	628.188
M		4517.206	-20.417	628.079	628.130
N		4527.206	-20.417	628.007	628.055
O		4537.206	-20.417	627.936	627.979
P		4547.206	-20.417	627.868	627.886
Q		4557.206	-20.417	627.796	627.792
R		4567.206	-20.417	627.720	627.695
E Pier 2		4570.623	-20.417	627.640	627.660
S		4580.623	-20.417	627.569	627.575
T		4590.623	-20.417	627.474	627.486
U		4600.623	-20.417	627.379	627.394
V		4610.623	-20.417	627.275	627.293
W		4620.623	-20.417	627.169	627.187
X		4630.623	-20.417	627.055	627.055
E Brg. Abut. 2		4639.289	-20.417	626.956	626.956

Interior Beam S32

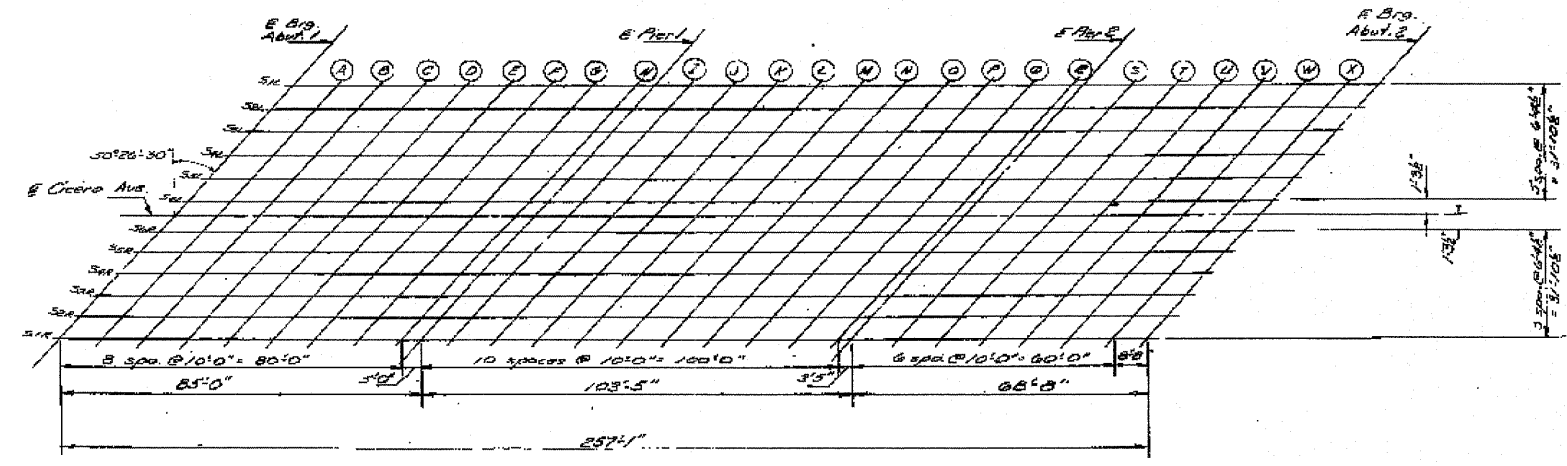
Location	Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
E Brg. Abut. 1		4399.923	-26.792	628.568	628.568
A		4399.923	-26.792	628.548	628.568
B		4409.923	-26.792	628.525	628.564
C		4419.923	-26.792	628.497	628.539
D		4429.923	-26.792	628.468	628.488
E		4439.923	-26.792	628.431	628.465
F		4449.923	-26.792	628.389	628.416
G		4459.923	-26.792	628.348	628.363
H		4469.923	-26.792	628.301	628.306
E Pier 1		4474.923	-26.792	628.276	628.276
I		4484.923	-26.792	628.228	628.235
J		4494.923	-26.792	628.186	628.190
K		4504.923	-26.792	628.140	628.140
L		4514.923	-26.792	628.090	628.082
M		4524.923	-26.792	628.037	628.022
N		4534.923	-26.792	627.981	627.963
O		4544.923	-26.792	627.921	627.898
P		4554.923	-26.792	627.858	627.829
Q		4564.923	-26.792	627.792	627.757
R		4574.923	-26.792	627.723	627.671
E Pier 2		4578.340	-26.792	627.656	627.536
S		4588.340	-26.792	627.581	627.448
T		4598.340	-26.792	627.503	627.358
U		4608.340	-26.792	627.422	627.260
V		4618.340	-26.792	627.338	627.196
W		4628.340	-26.792	627.251	627.047
X		4638.340	-26.792	627.162	626.922
E Brg. Abut. 2		4647.007	-26.792	626.810	626.810

Exterior Beam S1R

Location	Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
E Brg. Abut. 1		4317.339	33.167	628.536	628.536
A		4327.339	33.167	628.545	628.584
B		4337.339	33.167	628.580	628.629
C		4347.339	33.167	628.622	628.679
D		4357.339	33.167	628.669	628.742
E		4367.339	33.167	628.722	628.818
F		4377.339	33.167	628.782	628.893
G		4387.339	33.167	628.847	628.967
H		4397.339	33.167	628.917	629.049
E Pier 1		4402.339	33.167	628.988	629.138
I		4412.339	33.167	629.064	629.235
J		4422.339	33.167	629.146	629.344
K		4432.339	33.167	629.234	629.464
L		4442.339	33.167	629.327	629.598
M		4452.339	33.167	629.426	629.748
N		4462.339	33.167	629.531	629.914
O		4472.339	33.167	629.642	630.098
P		4482.339	33.167	629.759	630.300
Q		4492.339	33.167	629.882	630.530
R		4502.339	33.167	629.999	630.788
E Pier 2		4505.756	33.167	629.945	629.845
S		4515.756	33.167	629.979	629.985
T		4525.756	33.167	629.910	629.926
U		4535.756	33.167	629.837	629.871
V		4545.756	33.167	629.760	629.801
W		4555.756	33.167	629.678	629.720
X		4565.756	33.167	629.592	629.614
E Brg. Abut. 2		4574.422	33.167	629.516	629.516

Exterior Beam S1L

Location	Beam	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
E Brg. Abut. 1		4397.641	-33.167	628.498	628.498
A		4407.641	-33.167	628.476	628.515
B		4417.641	-33.167	628.449	628.528
C		4427.641	-33.167	628.419	628.506
D		4437.641	-33.167	628.384	628.477
E		4447.641	-33.167	628.345	628.421
F		4457.641	-33.167	628.304	628.358
G		4467.641	-33.167	628.257	628.297
H		4477.641	-33.167	628.207	628.217
E Pier 1		4482.641	-33.167	628.161	628.181
I		4492.641	-33.167	628.124	628.149
J		4502.641	-33.167	628.084	628.113
K		4512.641	-33.167	628.040	628.071
L		4522.641	-33.167	627.992	628.023
M		4532.641	-33.167	627.940	627.971
N		4542.641	-33.167	627.884	627.885
O		4552.641	-33.167	627.824	627.789
P		4562.641	-33.167	627.760	627.686
Q		4572.641	-33.167	627.692	627.570
R		4582.641	-33.167	627.621	627.450
E Pier 2		4586.058	-33.167	627.408	627.408
S		4596.058	-33.167	627.311	627.317
T		4606.058	-33.167	627.210	627.226
U		4616.058	-33.167	627.105	627.139
V		4626.058	-33.167	626.998	627.038
W		4636.058	-33.167	626.881	626.925
X		4646.058	-33.167	626.767	626.788
E Brg. Abut. 2		4654.724	-33.167	626.662	626.662



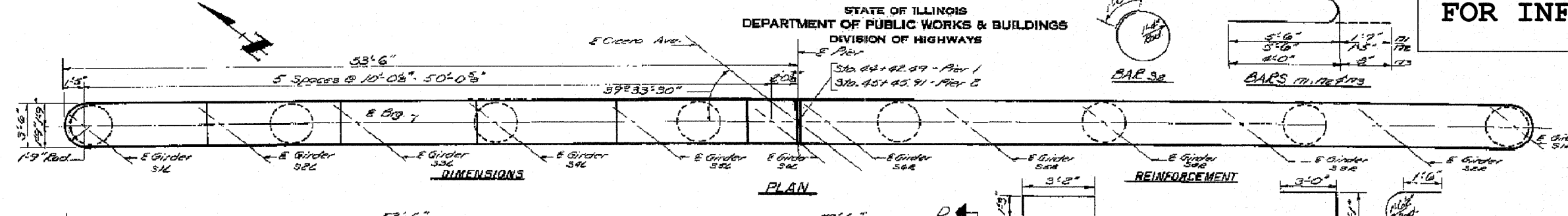
DESIGNED	SM	EXAMINED	19
CHECKED		PASSED	
DRAWN	D. Darringer R.G. Burnett	APPROVED	
CHECKED			
E-S	8-1-65		

TOP OF SLAB ELEVATIONS
P.A. RT. 99 - SEC. 3068-Z-VB
COOK COUNTY
STA. 44+93.01

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 350	2011-064-I	COOK	28	22

CONTRACT NO.: 60P83

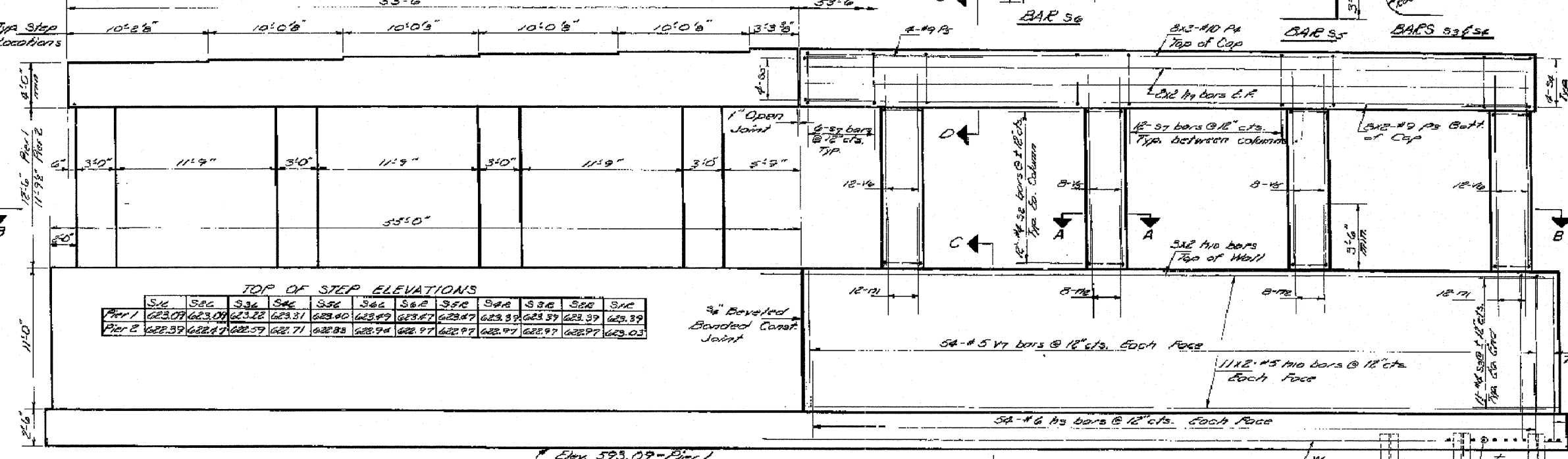
FOR INFORMATION ONLY



**TWO PIERS
BILL OF MATERIAL**

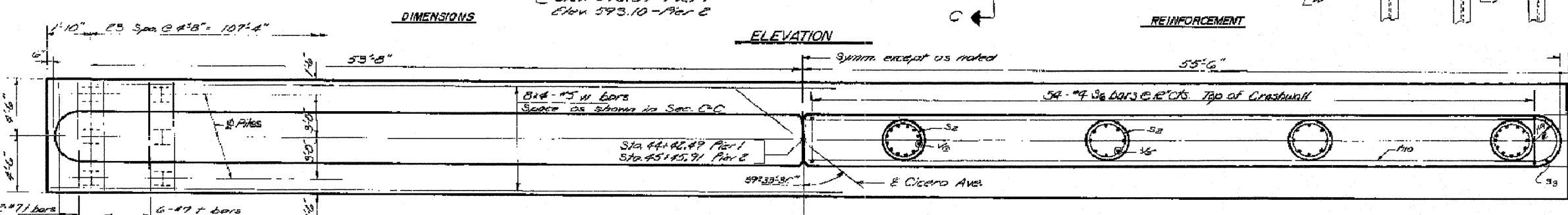
Bar No.	No.	Size	Length	Shape
1A	32	#5	26'-6"	
1B	200	#5	27'-6"	
1C	98	#11	7'-11"	
1D	68	#10	6'-11"	
1E	452	#6	4'-8"	
1F	64	#9	27'-6"	
1G	68	#10	27'-6"	
1H	18	#9	10'-6"	
1I	198	#8	9'-5"	
1J	84	#8	7'-11"	
1K	16	#8	9'-4"	
1L	216	#8	3'-5"	
1M	168	#5	14'-6"	
1N	288	#7	8'-9"	
1O	64	#10	14'-9"	
1P	96	#11	14'-3"	
1Q	452	#6	10'-9"	
1R	68	#5	28'-9"	

Class A Excavation	Cu. Yds.	516
Class X Concrete	Cu. Yds.	666.9
Reinforcement Bars	Lbs.	64,150
Steel Piles (B&P)	Lin. Ft.	6,200
Cast Piles Steel	Each	1

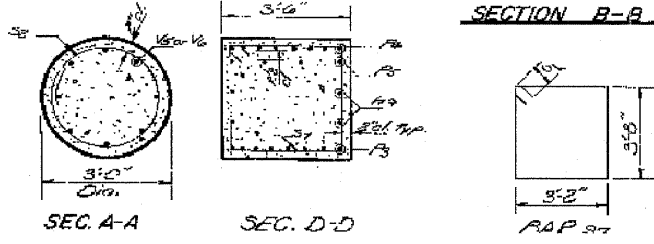


TOP OF STEP ELEVATIONS

Station	S46	S46	S36	S46	S36	S46	S46	S56	S46	S46	S46	S46
Pier 1	623.07	623.07	623.12	623.31	623.40	623.49	623.47	623.47	623.37	623.37	623.37	623.37
Pier 2	622.37	622.47	622.57	622.71	622.88	622.94	622.97	622.97	622.97	622.97	622.97	623.03

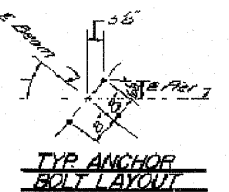


DESIGNED	S. Madonia	EXAMINED	19
CHECKED		PASSED	
DRAWN	D. Darringer	APPROVED	
CHECKED	G.M.		



Notes: Exposed edges shall be beveled 3/8".
Pier steps manufactured with the cap.
Space reinforcing in the cap to miss anchor bolts.

PILE DATA
Type: Steel B&P 36
Capacity: Refusal
Est. Length: 16 ft.
No. Piers: 189 + 1 Total: 190 Piers



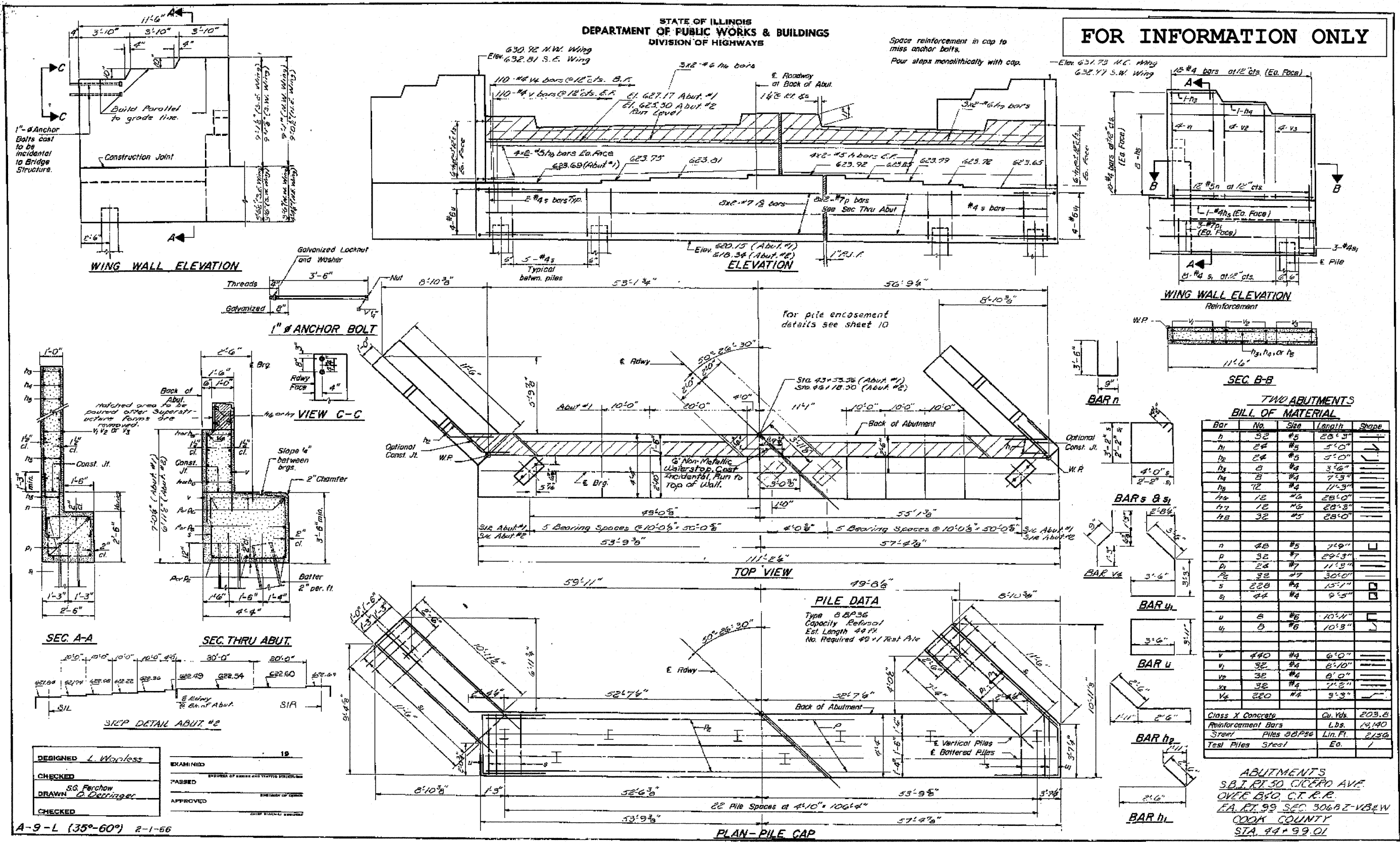
PIERS 1 AND 2
S.B.I. RT.50 CICERO AVE. BRIDGE
OVER B.&O. CT. R.R. TRACKS
PROJECT UG-14(21)
F.A. RT.99 SEC.3068-Z-VB&W
COOK COUNTY
STA. 44+99.01

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 350	2011-064-I	COOK	28	23

CONTRACT NO.: 60P83

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

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TWO ABUTMENTS

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
n	32	#5	28'-3"	
h	24	#5	5'-0"	
h ₂	24	#5	5'-0"	
h ₃	8	#4	3'-6"	
h ₄	8	#4	7'-3"	
h ₅	12	#4	11'-3"	
h ₆	12	#6	28'-0"	
h ₇	12	#6	28'-3"	
h ₈	32	#5	28'-0"	
n	48	#5	7'-9"	
p	32	#7	29'-3"	
q	24	#7	11'-3"	
r ₂	32	#7	30'-0"	
s	220	#4	15'-1"	
s ₁	44	#4	9'-5"	
u	8	#5	10'-2"	
u ₁	8	#6	10'-3"	
v	440	#4	6'-0"	
v ₁	32	#4	8'-10"	
v ₂	32	#4	8'-0"	
v ₃	32	#4	7'-2"	
v ₄	220	#4	9'-3"	

Class X Concrete Cu. Yds. 203.6
 Reinforcement Bars Lbs. 14,140
 Steel Piles B/P36 Lin. Ft. 2,136
 Test Piles Steel Ea. 1

ABUTMENTS
 S.B.I. RT. 50, CICERO AVE.
 OVER B&O, C.T. P.R.
 EA. RT. 99 SEC. 306&Z-VB&W
 COOK COUNTY
 STA. 44+99.01

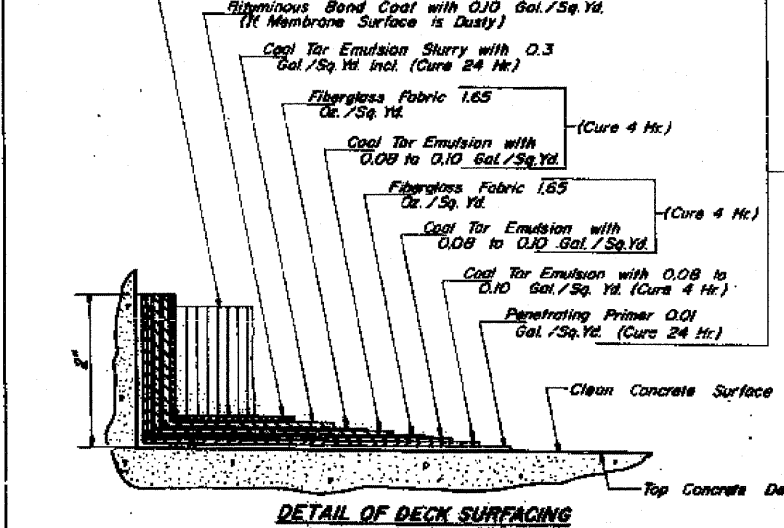
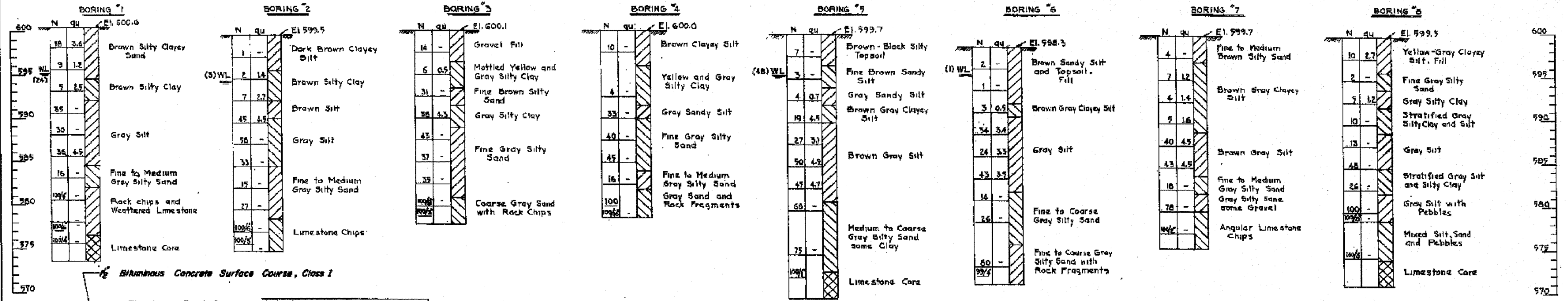
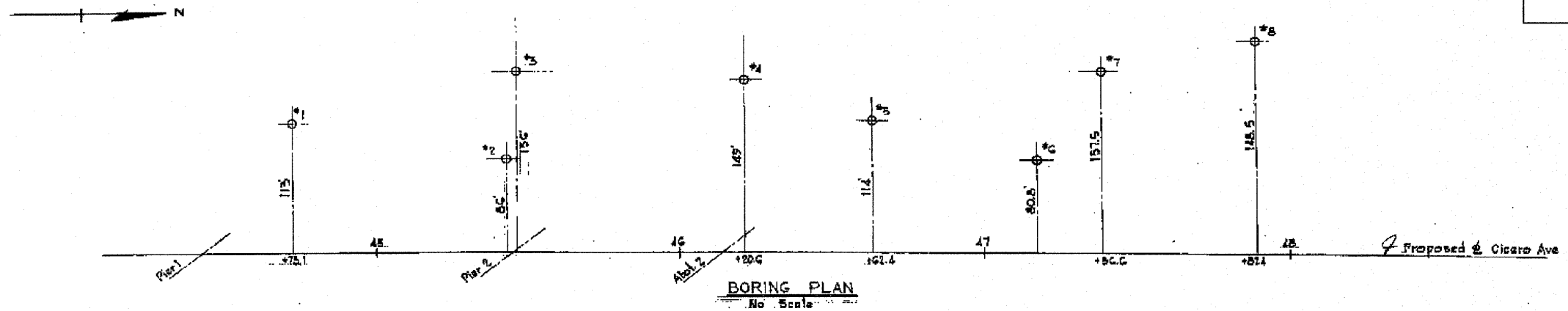
DESIGNED	L. Worless	EXAMINED	19
CHECKED		PASSED	
DRAWN	S.G. Furchow	APPROVED	
CHECKED	G. Doring		

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 350	2011-064-1	COOK	28	24

CONTRACT NO.: 60P83

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

FOR INFORMATION ONLY

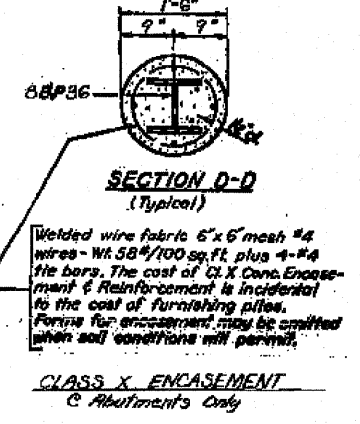


BORING LOGS

Vertical Scale: 1"=5'

NOTES

1. N = Number of blows required to drive 2" O.D. sampling pipe one foot, using 140 lb. weight falling 30 inches.
2. qu = Unconfined compressive strength in tons per square foot.
3. Boring data is shown only as a guide to bidders in estimating soil conditions which may be encountered in the work.
4. WL = Water level. Figure in parenthesis indicates time of reading (hours) after completion of boring.



CORE BORINGS
S.B.I. RTE 50 CICERO AVENUE BRIDGE
OVER B. & O. C.T. R.R. TRACKS
PROJECT UG-41 (21)
F.A. RTE. 99 SEC. 3068-Z-VB & W
COOK COUNTY
STATION 44+99.01

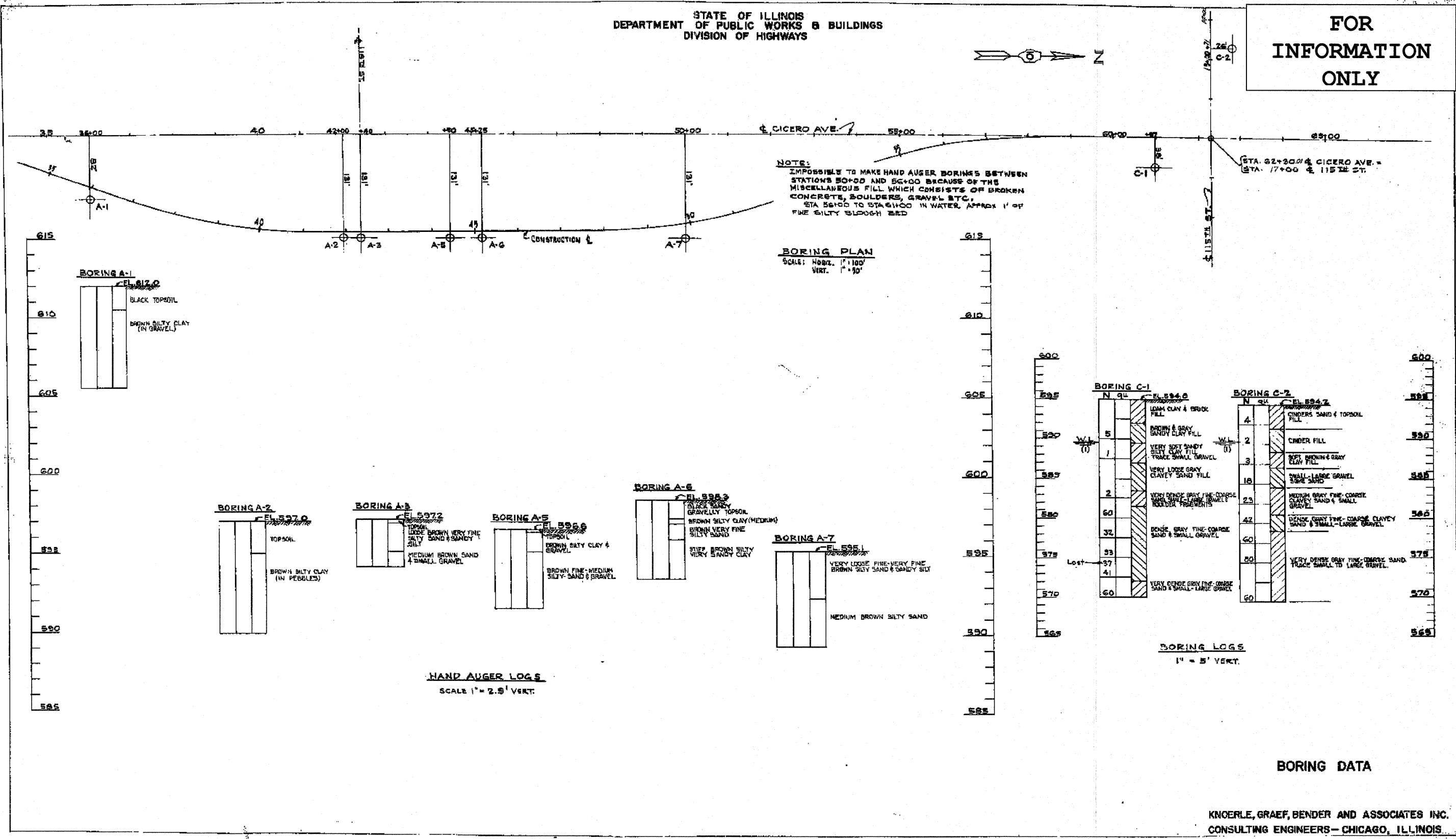
KNOERLE, GRAEF, BENDER AND ASSOCIATES INC.
CONSULTING ENGINEERS - CHICAGO, ILLINOIS

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NUMBER
FAP 350	2011-064-1	COOK	28	25

CONTRACT NO.: 60P83

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

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ONLY**



NOTE:
IMPOSSIBLE TO MAKE HAND AUGER BORINGS BETWEEN STATIONS 50+00 AND 56+00 BECAUSE OF THE MISCELLANEOUS FILL WHICH CONSISTS OF BROKEN CONCRETE, BOULDERS, GRAVEL, ETC.
STA 55+00 TO STA 61+00 IN WATER, APPROX 1' OF FINE SILTY SLOUGH SED.

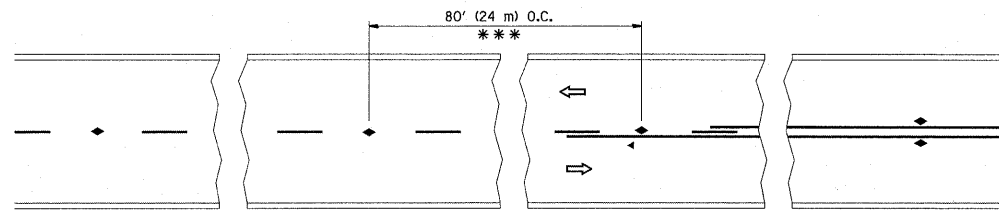
BORING PLAN
SCALE: HORIZ. 1"=100'
VERT. 1"=50'

HAND AUGER LOGS
SCALE 1"=2.5' VERT.

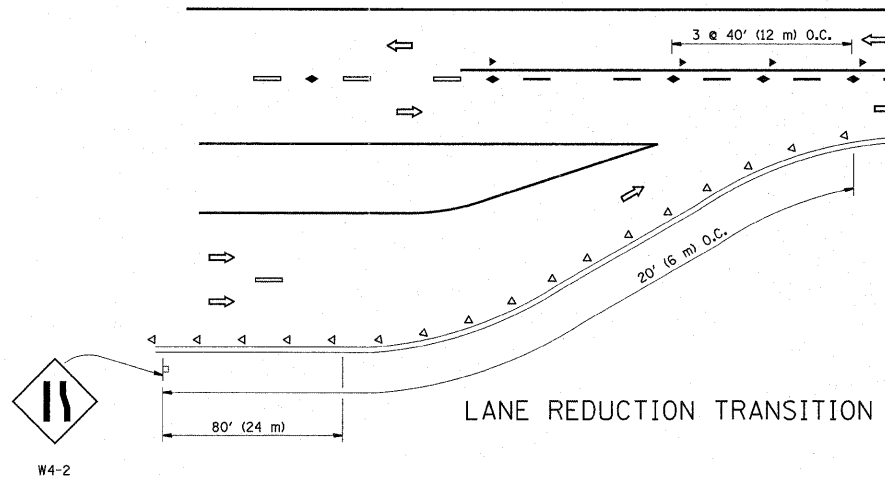
BORING LOGS
1"=5' VERT.

BORING DATA

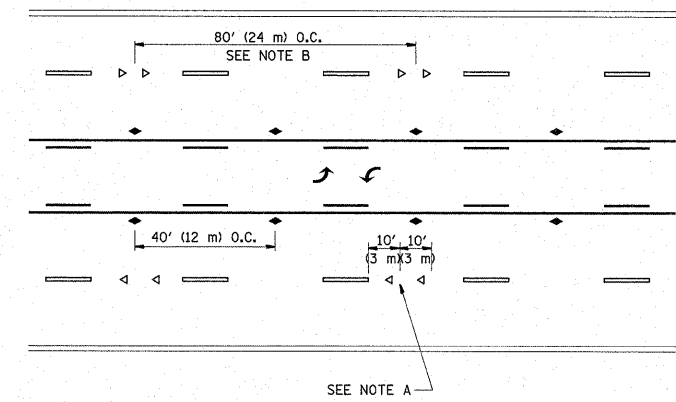
KNOERLE, GRAEF, BENDER AND ASSOCIATES INC.
CONSULTING ENGINEERS—CHICAGO, ILLINOIS



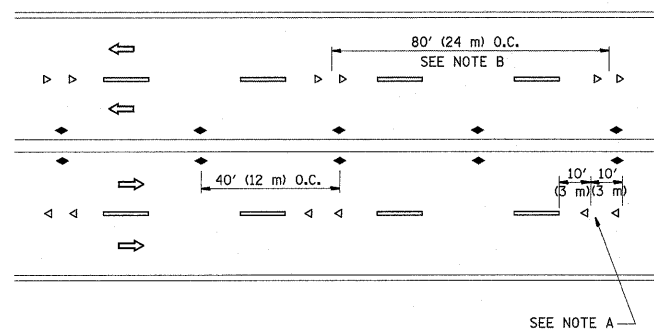
TWO-LANE/TWO-WAY



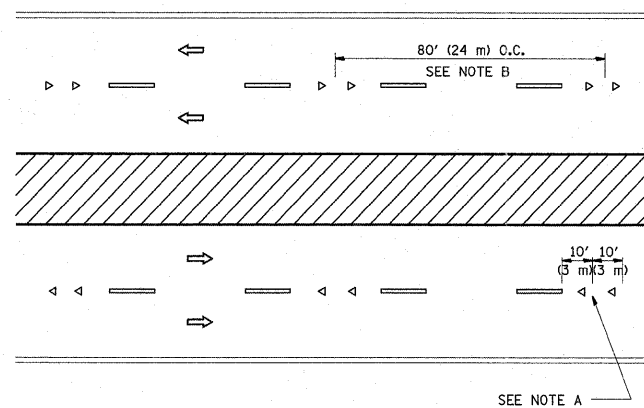
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

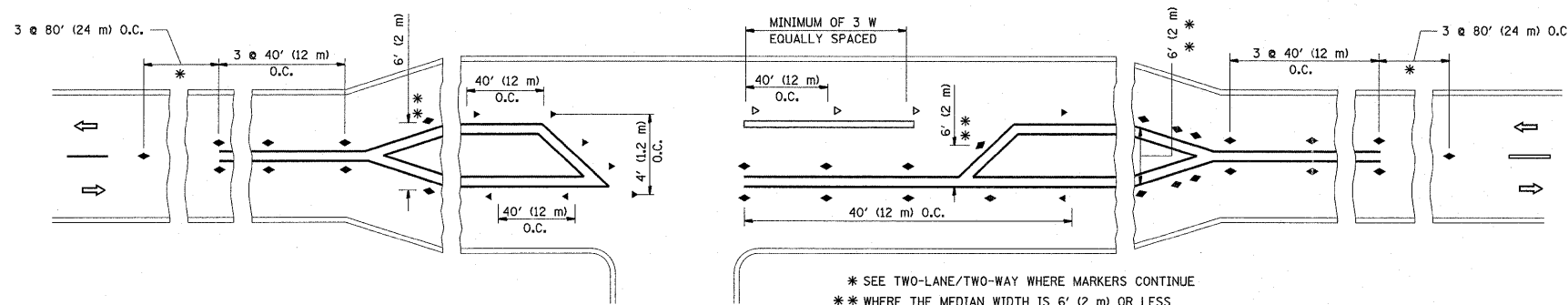
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

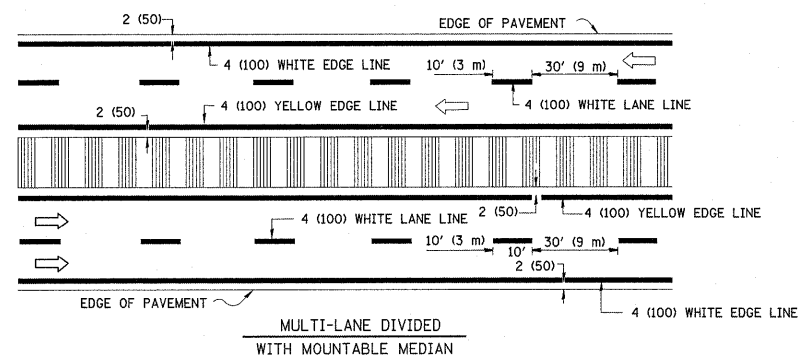
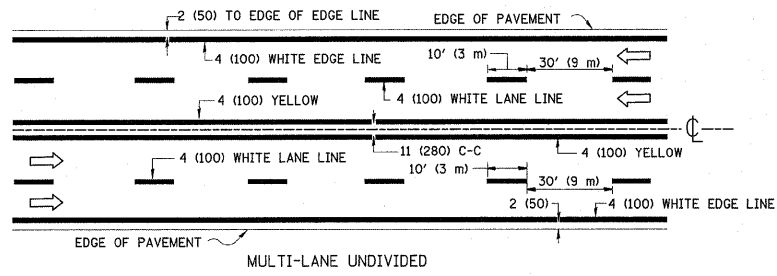
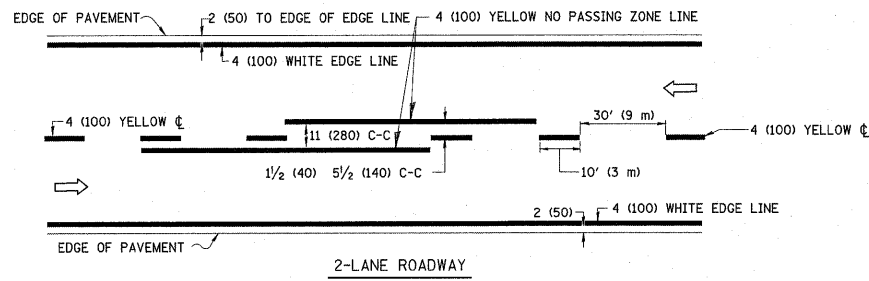
1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



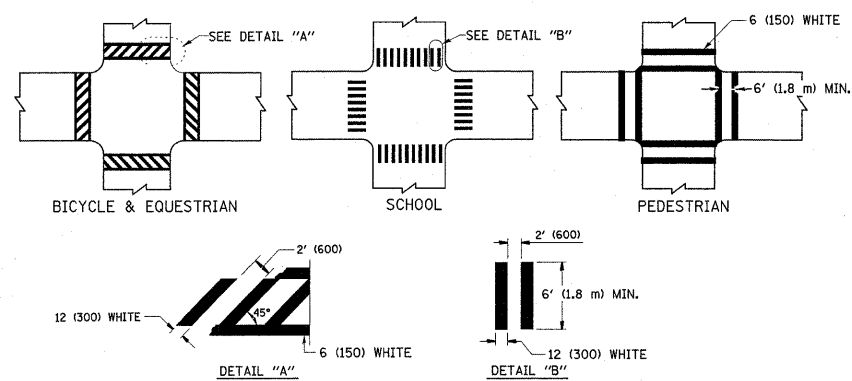
LEFT TURN

All dimensions are in inches (millimeters) unless otherwise shown.

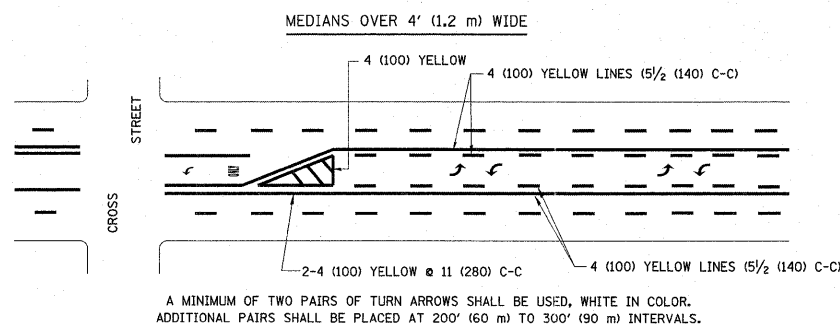
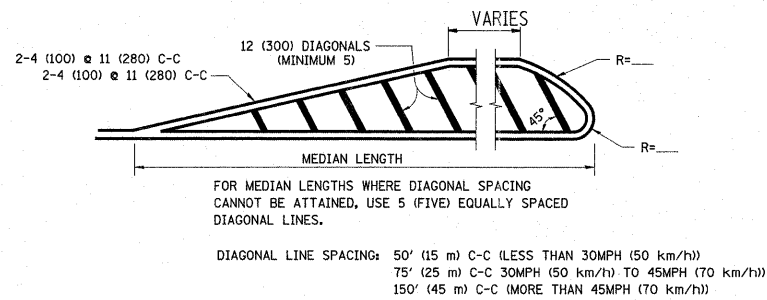
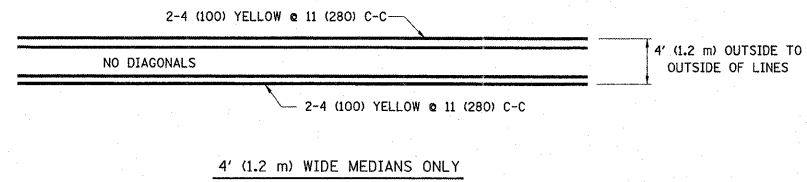
FILE NAME =	USER NAME = curryaw	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
ct:\pw\work\pwsdot\curryaw\dl0282133\0162011-shit-plendgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99		RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)		350	2011-064-I		28	26	
PLOT SCALE = 1/8" = 1'-0"		CHECKED -	REVISED - T. RAMMACHER 01-06-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-11			CONTRACT NO. 60P83
PLOT DATE = 1/9/2012		DATE -	REVISED - C. JUCIUS 09-09-09		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							



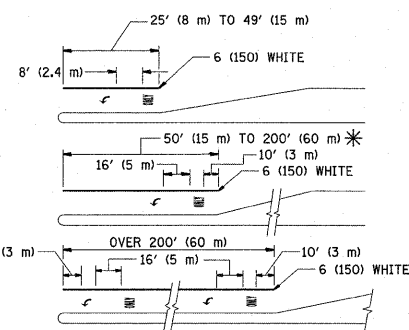
NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE
TYPICAL LANE AND EDGE LINE MARKING



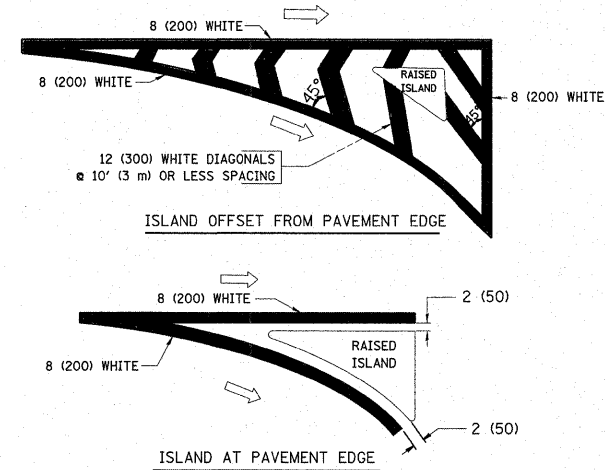
TYPICAL CROSSWALK MARKING



TYPICAL PAINTED MEDIAN MARKING



TYPICAL LEFT (OR RIGHT) TURN LANE

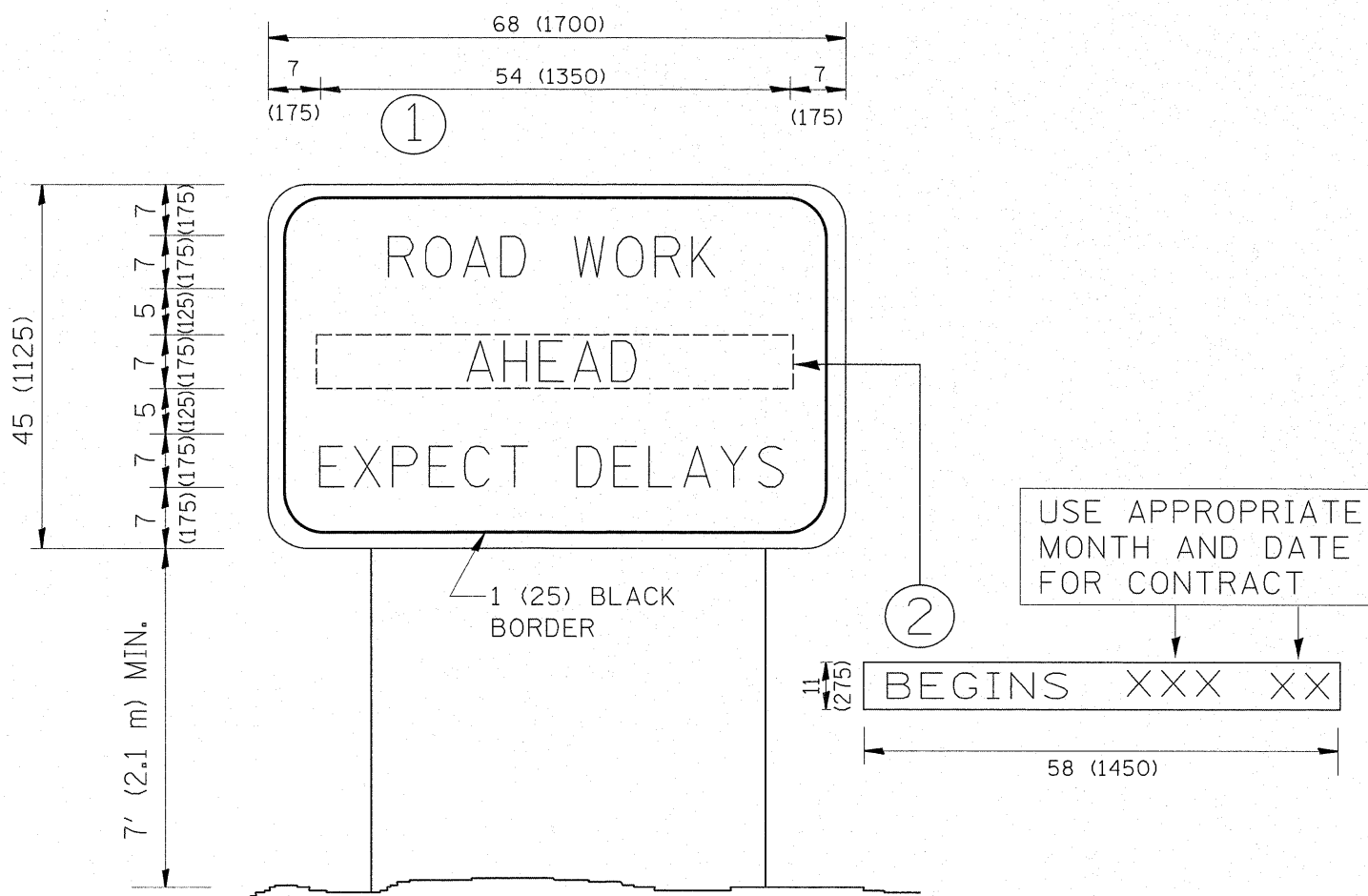


TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD T80001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD T80001.

All dimensions are in inches (millimeters) unless otherwise shown.



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = curryw	DESIGNED AWC	REVISED - R. MIRS 09-15-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ARTERIAL ROAD INFORMATION SIGN	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cr\pw_work\p\dot\curryw\08282133\0162011-sh-t-plen.dgn	DRAWN AWC	REVISED - R. MIRS 12-11-97	350			2011-064-I	COOK	28	28		
PLOT SCALE = 1/966.5778 ' / m	CHECKED -	REVISED - T. RAMMACHER 02-02-99	TC-22			CONTRACT NO. 60P83					
PLOT DATE = 1/9/2012	DATE -	REVISED - C. JUCIUS 01-31-07	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT								
					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.		