

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

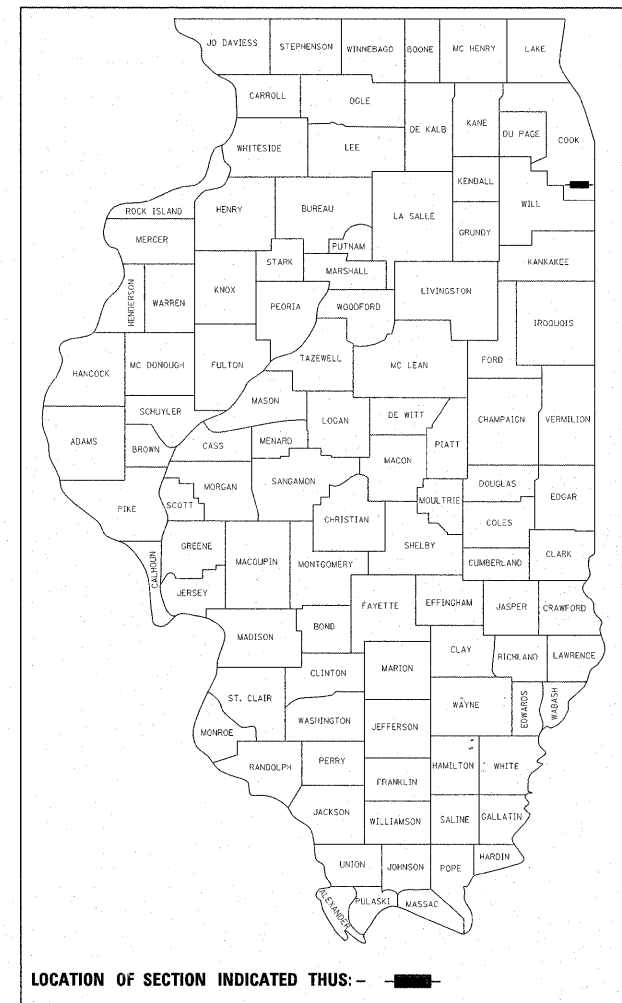
FAP 351: US 6 (159TH STREET)
I-94 (BISHOP FORD EXPY) TO ILL 83 (TORRENCE AVE.)
SECTION: 539 W-1-RS
RESURFACING, BRIDGE DECK OVERLAY & BRIDGE JOINT REPAIR
PROJECT: NHF-0351(023)
COOK COUNTY
C-91-526-10

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	1
FED. ROAD DIST. NO.	ILLINOIS	CONTRACT NO.	60K57	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

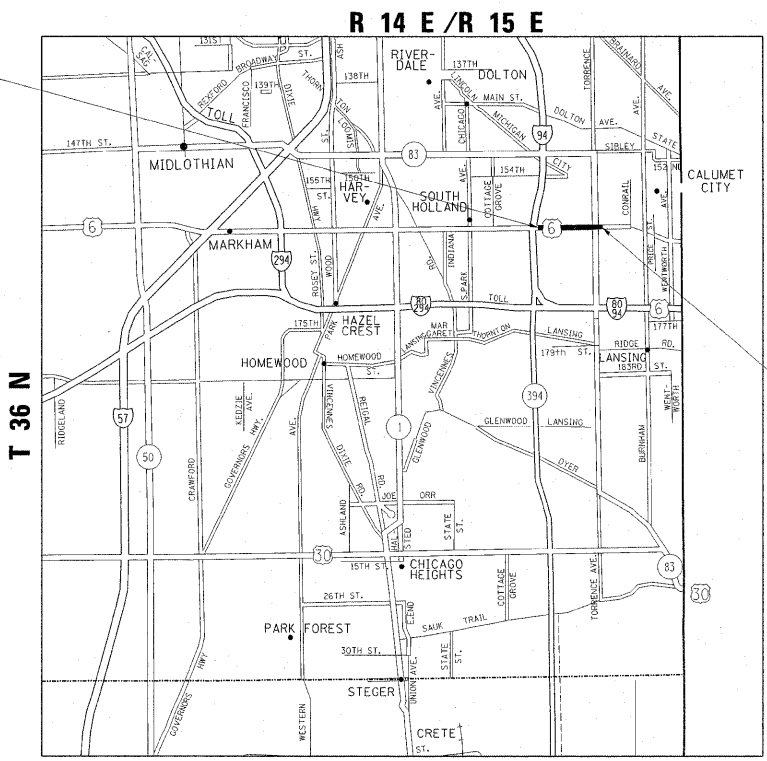
THE PROJECT IS LOCATED IN THE VILLAGE OF SOUTH HOLLAND AND THE CITY OF CALUMET CITY

D -91-526-10



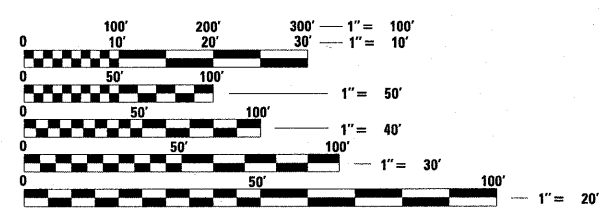
PROJECT BEGINS
STA. 9+88

RESURFACING OMISSION
STA. 21+46 TO STA. 23+05
STA. 43+20 TO STA. 50+38



TRAFFIC DATA
2009 ADT = 32,100
POSTED SPEED LIMIT = 35 MPH

PROJECT ENDS
STA. 74+40



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

PROJECT ENGINEER KARI SMITH (847) 705-4437
PROJECT MANAGER KEN ENG (847) 705-4247

GROSS LENGTH OF PROJECT = 6,452 LINEAL FEET = 1.22 MILE
NET LENGTH OF PROJECT = 5,575 LINEAL FEET = 1.06 MILE

CONTRACT NO. 60K57

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED APRIL 12 20 11

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

May 13 20 11
Scott E. Still, P.E.
Acting ENGINEER OF DESIGN AND ENVIRONMENT

May 13 20 11
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX OF SHEETS, STANDARDS, AND GENERAL NOTES
3-4	SUMMARY OF QUANTITIES
5-6	TYPICAL SECTIONS PLAN
7-10	ROADWAY & PAVEMENT MARKINGS PLANS
11-15	DETECTOR LOOP REPLACEMENT PLANS
16-42	BRIDGE REPAIR (STRUCTURE NO. 016-0389)
43-45	EXISTING BRIDGE PLAN (FOR INFORMATION ONLY)
46	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING
47	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT
48	BUTT JOINT AND HMA TAPER DETAILS
49	HMA TAPER AT EDGE OF P.C.C. PAVEMENT
50	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS
51	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)
52	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
53	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)
54	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
55	ARTERIAL ROAD INFORMATION SIGN
56	DISTRICT ONE DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING

LIST OF STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
442201-03	CLASS C AND D PATCHES
604001-03	FRAME AND LIDS, TYPE 1
606001-04	COMBINATION CONCRETE CURB AND GUTTER
701301-04	LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS
701411-07	LANE CLOSURE, MULTILANE AT ENTRANCE OR EXIT RAMP FOR SPEED > 45 MPH
701427	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER., FOR SPEEDS < 40 MPH
701601-07	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701701-07	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701901-01	TRAFFIC CONTROL DEVICES
886001-01	DETECTOR LOOP INSTALLATION
886006-01	TYPICAL LAYOUT FOR DETECTOR LOOPS

GENERAL NOTES

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

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF SOUTH HOLLAND AND CALUMET CITY

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

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (45 KM/H) OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH (45 KM/H). WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).

BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HOT-MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.

THE RESIDENT ENGINEER SHALL CONTACT MS. PATRICE HARRIS AREA TRAFFIC FIELD ENGINEER AT (708) 597-9800 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKING.

THE CONTRACTOR SHALL VERIFY ALL EXISTING PAVEMENT MARKINGS BEFORE MILLING

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS

DOUBLE LANE MARKERS ARE TO BE USED AS SHOWN ON THE DISTRICT ONE DETAIL "TYPICAL APPLICATIONS - RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" SHOWN IN THE PLANS.

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD 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

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

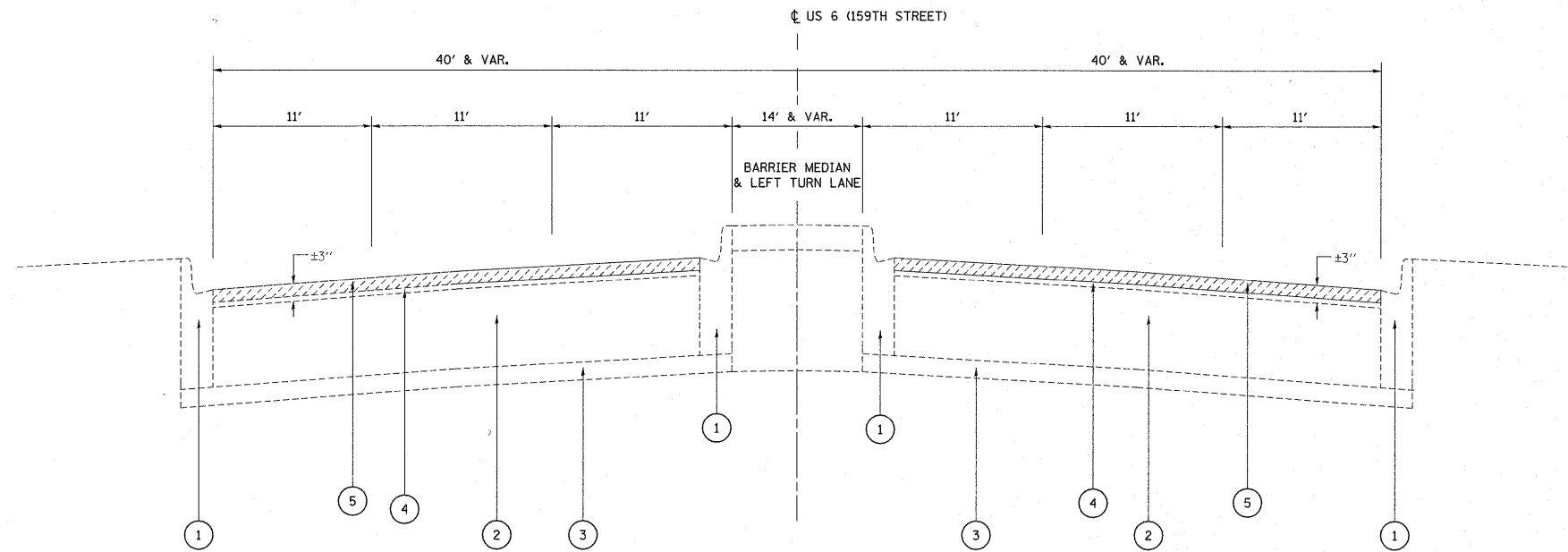
THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.

FILE NAME =	USER NAME = guilloumefp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, LIST OF STATE STANDARDS & GENERAL NOTES FAP 351/US 6 (159TH ST.) (I-94 TO ILL 83)	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ei:\pwork\pwork\guilloumefp\d0188275\052610-sh-t-plan.dgn	DRAWN -	REVISED -	351			539 W-1-RS	COOK	56	2	
PLOT SCALE = 50.0000 "/ IN.	CHECKED -	REVISED -	CONTRACT NO. 60K57							
PLOT DATE = 4/12/2011	DATE -	REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT							
					SCALE: 1"=50'	SHEET NO. 1 OF 1 SHEETS		STA.	TO STA.	

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE						SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE							
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	0005 80% FED 20% STATE	0014 80% FED 20% STATE					CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	0005 80% FED 20% STATE	0014 80% FED 20% STATE				
21101615	TOPSOIL FURNISH AND PLACE, 4"	SQ YD	110	110						70300100	SHORT TERM PAVEMENT MARKING	FOOT	3100	2600	500				
25200110	SODDING, SALT TOLERANT	SQ YD	110	110						70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SO FT	580.8	580.8					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	30	30						70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	19600	19600					
40600300	AGGREGATE (PRIME COAT)	TON	150	150						70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	2750	2750					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	100	100						70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	350	350					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1						70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	230	230					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	1137	1137						70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	2900	440	2460				
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SQ YD	330	330						70400100	TEMPORARY CONCRETE BARRIER	FOOT	500		500				
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	80	80						70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	500		500				
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	5310	5310					* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	617.8	580.8	37					
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1 1/2"	SQ YD	570	570					* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	20196	19600	596					
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SQ YD	13240	13240					* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	2933	2750	183					
44201753	CLASS D PATCHES, TYPE II, 9 INCH	SO YD	672	672					* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	350	350						
44201757	CLASS D PATCHES, TYPE III, 9 INCH	SO YD	282	282					* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	268	230	38					
44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SO YD	110	110					* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	236	236						
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	16	16					* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	17		17					
50102400	CONCRETE REMOVAL	CU YD	71.8		71.8				* 78200530	BARRIER WALL MARKERS, TYPE C	EACH	80		80					
50157300	PROTECTIVE SHIELD	SO YD	130		130				78300100	PAVEMENT MARKING REMOVAL	SO FT	401		401					
50300255	CONCRETE SUPERSTRUCTURE	CU YD	75.6		75.6				78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	250	200	50					
50300260	BRIDGE DECK GROOVING	SO YD	1080		1080				* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	2703	2703						
50300300	PROTECTIVE COAT	SO YD	387	220	167				89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1		1					
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	11970		11970				X0656100	DRIVEWAY PAVEMENT REMOVAL AND REPLACEMENT	SO YD	15	15						
50800515	BAR SPLICERS	EACH	58		58				X4060826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1810	1810						
52000110	PREFORMED JOINT STRIP SEAL	FOOT	163		163				X4400100	PORTLAND CEMENT CONCRETE SURFACE REMOVAL (VARIABLE DEPTH)	SO YD	7280	7280						
X5539700	STORM SEWERS TO BE CLEANED	FOOT	1500	1500					X6030205	FRAMES AND GRATES TO BE ADJUSTED (SPECIAL)	EACH	12	12						
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	9	9					X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0.5	0.5					
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	3	3					X7010240	TRAFFIC CONTROL SURVEILLANCE (SPECIAL)	CAL DA	15		15					
60404950	FRAMES AND GRATES, TYPE 24	EACH	9	9															
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	1	1															
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	9	9															
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6															
67100100	MOBILIZATION	L SUM	1	0.5	0.5														
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	6		6														

* Specialty Items
 X Non-Participating (100% STATE)

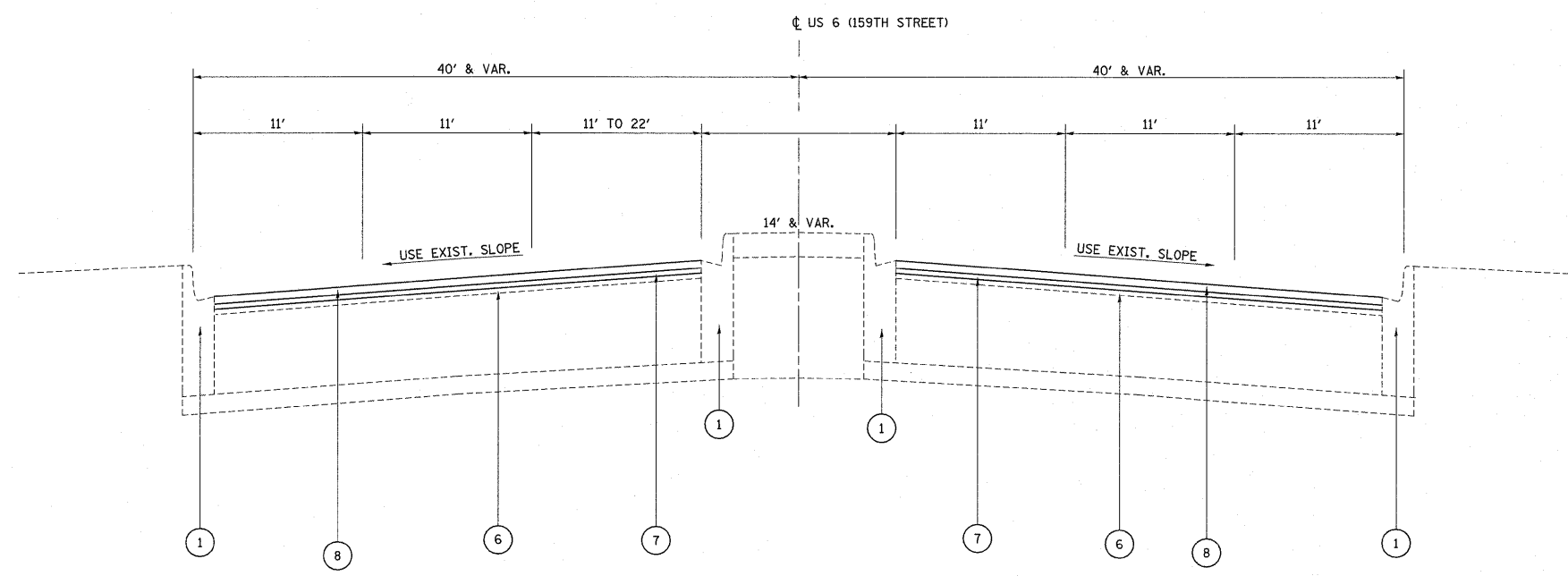
FILE NAME =	USER NAME = gulltaumefp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwworking\gulltaumefp\01088275\0152610-stf-pln.dgn	DRAWN -	REVISED -	351			539 W-1-RS	COOK	56	3	
PLOT SCALE = 50,000' / 1" IN.	CHECKED -	REVISED -	CONTRACT NO. 60K57							
PLOT DATE = 4/12/2011	DATE -	REVISED -	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
				SCALE:	SHEET NO. OF SHEETS STA. TO STA.					



EXISTING TYPICAL CROSS SECTION
US 6/ 159TH STREET (I-94 TO ILL 83)
STA. 66+98.06 TO STA. 74+40

LEGEND

1. EXISTING COMBINATION CONCRETE CURB AND GUTTER
2. EXISTING P.C. CONCRETE PAVEMENT ± 9"
3. EXISTING STABILIZED SUB-BASE, 4 "
4. EXISTING HMA SURFACE COURSE ± 3 "
5. PROPOSED HMA SURFACE REMOVAL (2 1/2 ")
6. EXISTING HMA SURFACE OVERLAY AFTER MILLING, ± 1/2"
7. PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (3/4")
8. PROPOSED POLYMERIZED HMA SURFACE COURSE, MIX "F", N90 (1 3/4 ")

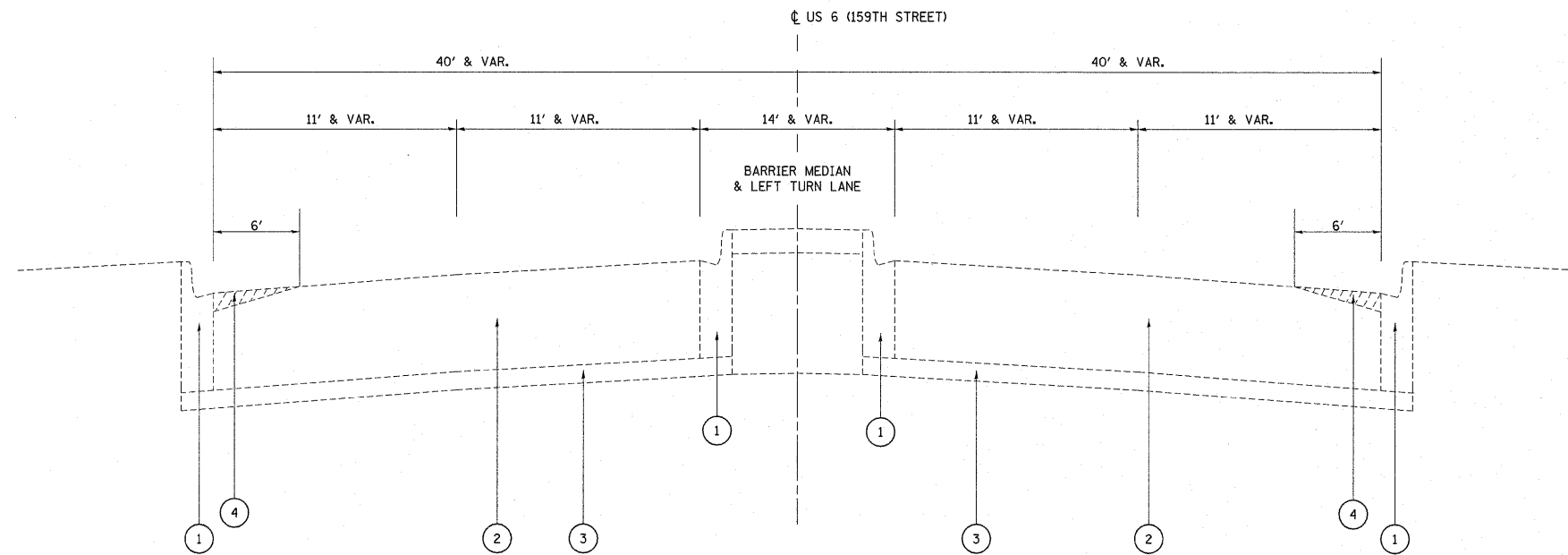


PROPOSED TYPICAL CROSS SECTION
US 6/ 159TH STREET (I-94 TO ILL 83)
STA. 66+98.06 TO STA. 74+40

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	DESIGN AIR VOIDS
POLYMERIZED HMA SURFACE COURSE, MIX F, N90, (IL-9.5 mm)	4% @ 90 GYR
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	4% @ 50 GYR
HOT-MIX ASPHALT BINDER COURSE, IL-19, N50	4% @ 50 GYR
CLASS D PATCHES (HMA BINDER IL 19 mm)	4% @ 70 GYR

NOTES

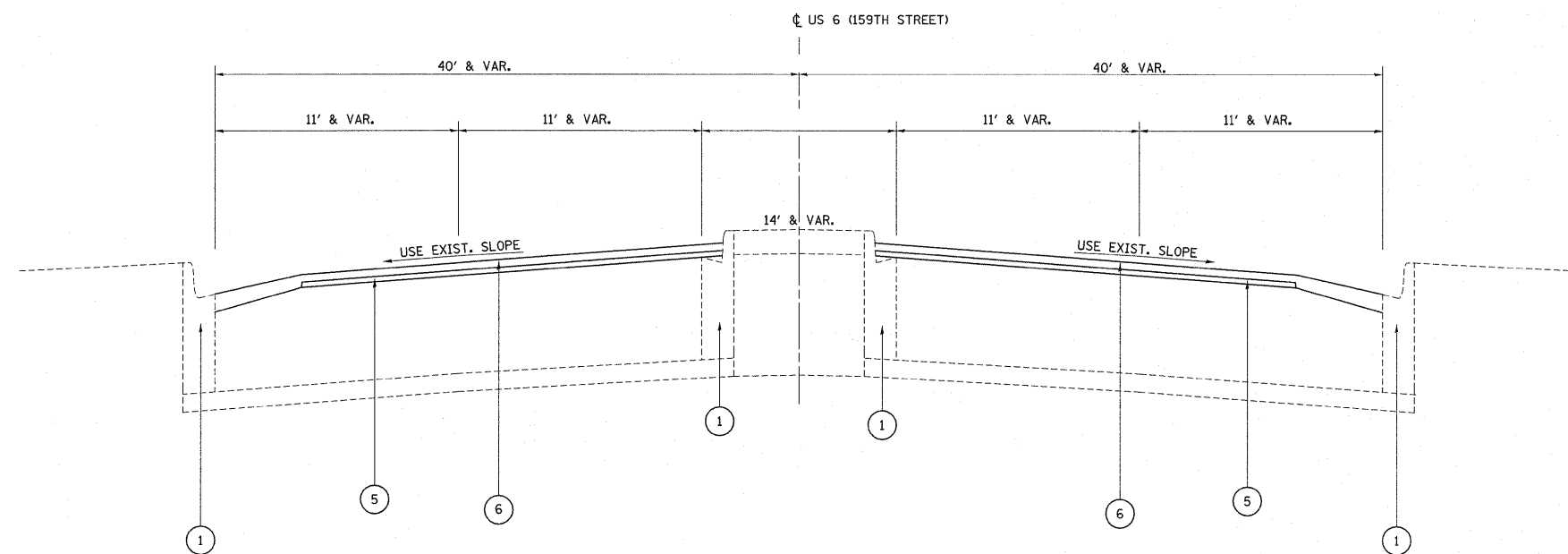
THE UNIT WEIGHT USED TO CALCULATE ALL HMA SURFACE COURSE MIXTURES IS 112 LBS/SQYD/IN.
 "THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS."
 "FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS."



EXISTING TYPICAL CROSS SECTION
US 6/ 159TH STREET (I-94 TO ILL 83)
STA. 9+88 TO STA. 66+98.06

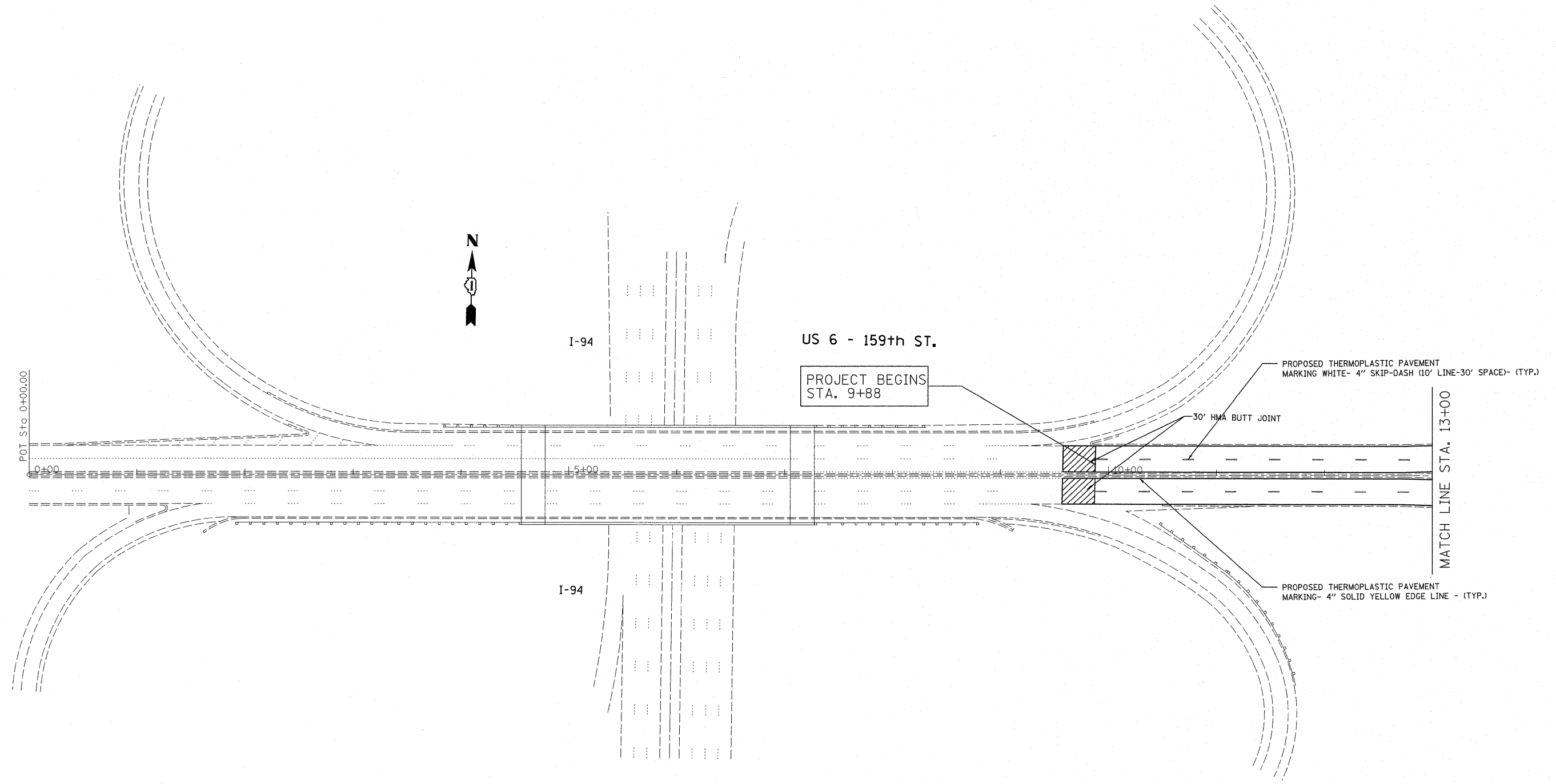
LEGEND

1. EXISTING COMBINATION CONCRETE CURB AND GUTTER
2. EXISTING P.C. CONCRETE PAVEMENT ± 9"
3. EXISTING STABILIZED SUB-BASE, 4 "
4. PROP. P.C.C. SURFACE REMOVAL (VARIABLE DEPTH)
5. PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50 (3/4")
6. PROPOSED POLYMERIZED HMA SURFACE COURSE, MIX "F", N90 (1 3/4 ")



PROPOSED TYPICAL CROSS SECTION
US 6/ 159TH STREET (I-94 TO ILL 83)
STA. 9+88 TO STA. 66+98.06

FILE NAME =	USER NAME = guillaumejp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 6 (159TH ST) (I-94 TO ILL 83)		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ca:\pw\work\p\dot\guillaumejp\d0108275\052610-shr-plendgn		DRAWN -	REVISED -		TYPICAL SECTIONS		351	539 W-1-RS	COOK	56	6
PLOT SCALE = 50,0001' / IN.		CHECKED -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
PLOT DATE = 4/12/2011		DATE -	REVISED -		CONTRACT NO. 60K57						



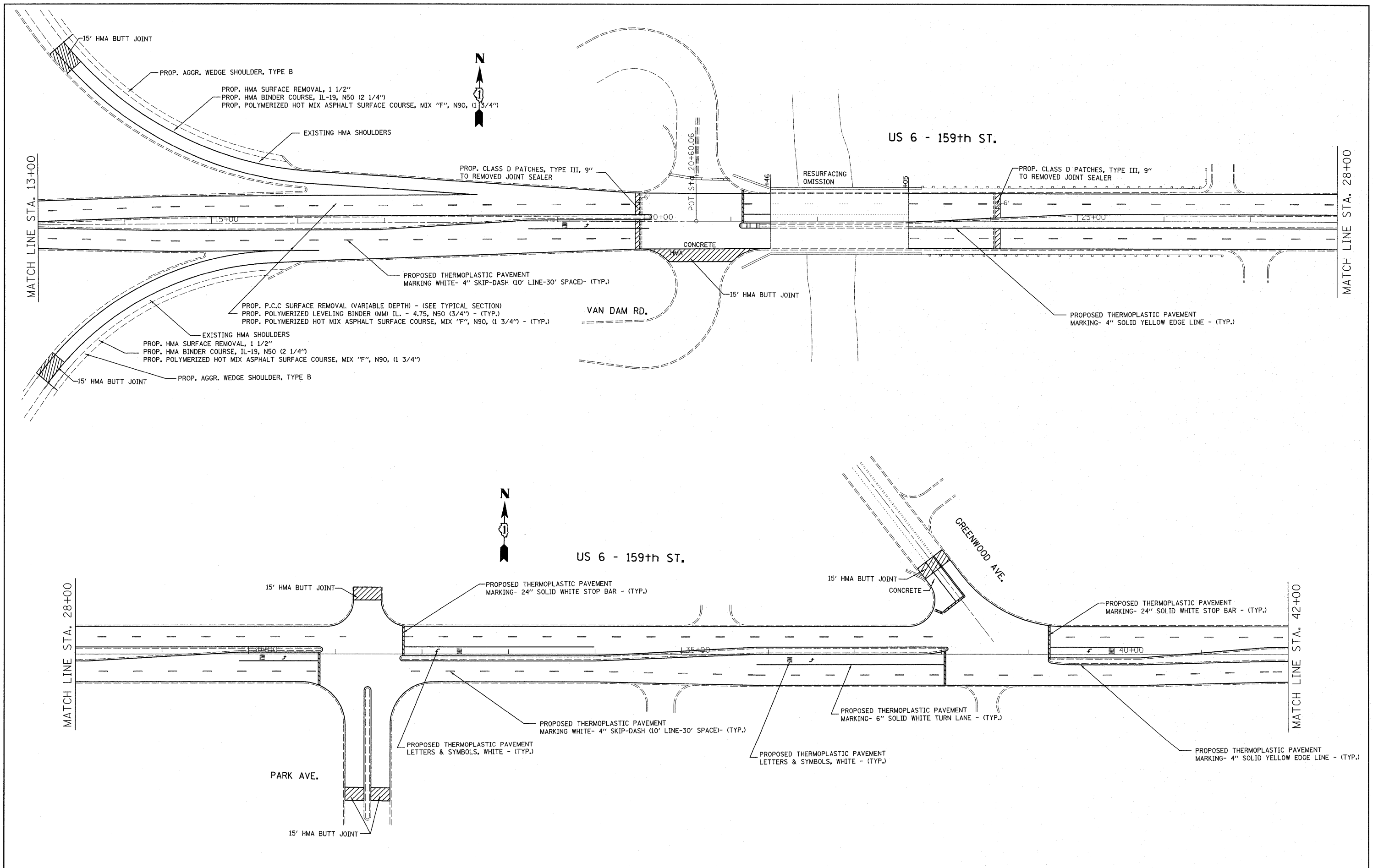
FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED -
ca\pwork\pwork\guillaumefp\d0188275\052610-shr-plan.dgn		DRAWN -	REVISED -
PLOT SCALE = 50,0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 4/12/2011		DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ROADWAY AND PAVEMENT MARKING PLAN
US 6 (159TH ST) (I-94 TO ILL 83)**

SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.
--------	-----------	----	--------	------	---------

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	7
CONTRACT NO. 60K57				
ILLINOIS FED. AID PROJECT				



FILE NAME =
 c:\pwork\pwork\guilloumefp\d0188275\052610-shs-plan.dgn

USER NAME = guilloumefp
 52610-shs-plan.dgn
 PLOT SCALE = 50.0000' / IN.
 PLOT DATE = 4/12/2011

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

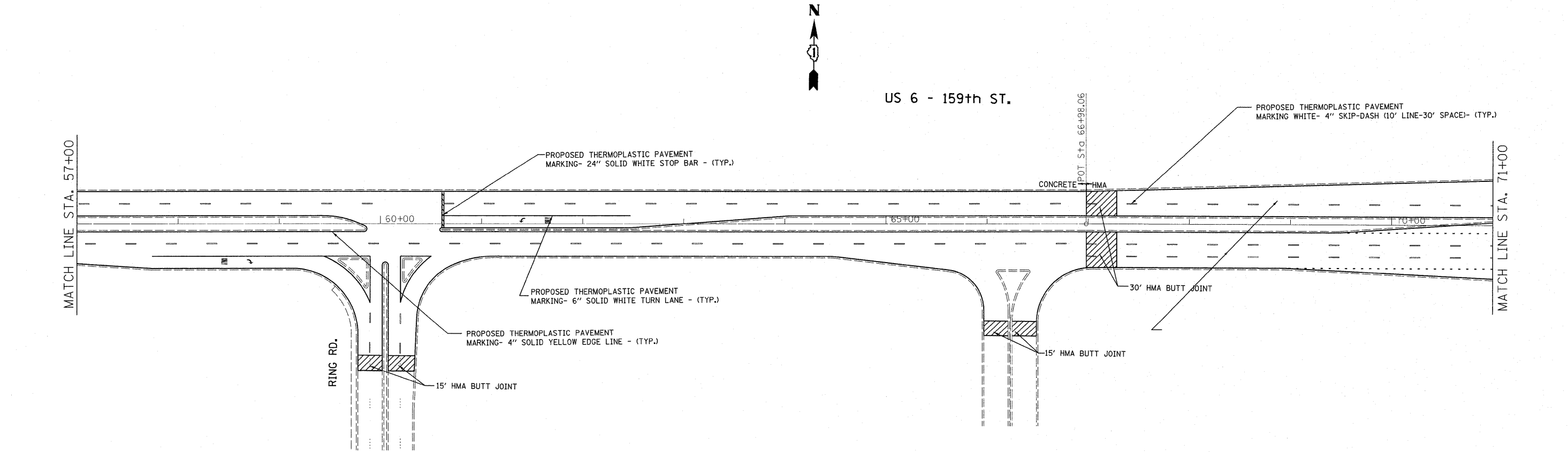
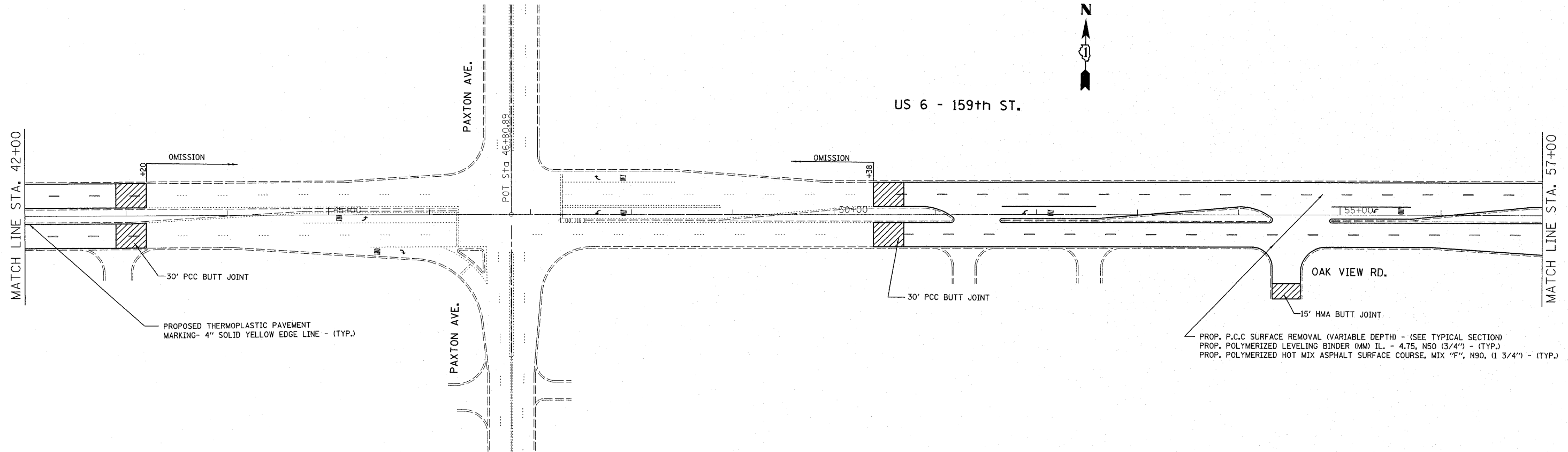
REVISED -
 REVISED -
 REVISED -
 REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

ROADWAY AND PAVEMENT MARKING PLAN
 US 6 (159TH ST) (I-94 TO ILL 83)

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	8
CONTRACT NO. 60K57				
ILLINOIS FED. AID PROJECT				



FILE NAME =
 cr:\pw\work\p\dot\guillaume\p\d\188275\0

USER NAME = guillaume\fp
 52610-sh-t-plan.dgn
 PLOT SCALE = 50.0000' / IN.
 PLOT DATE = 4/12/2011

DESIGNED -
 DRAWN -
 CHECKED -
 DATE -

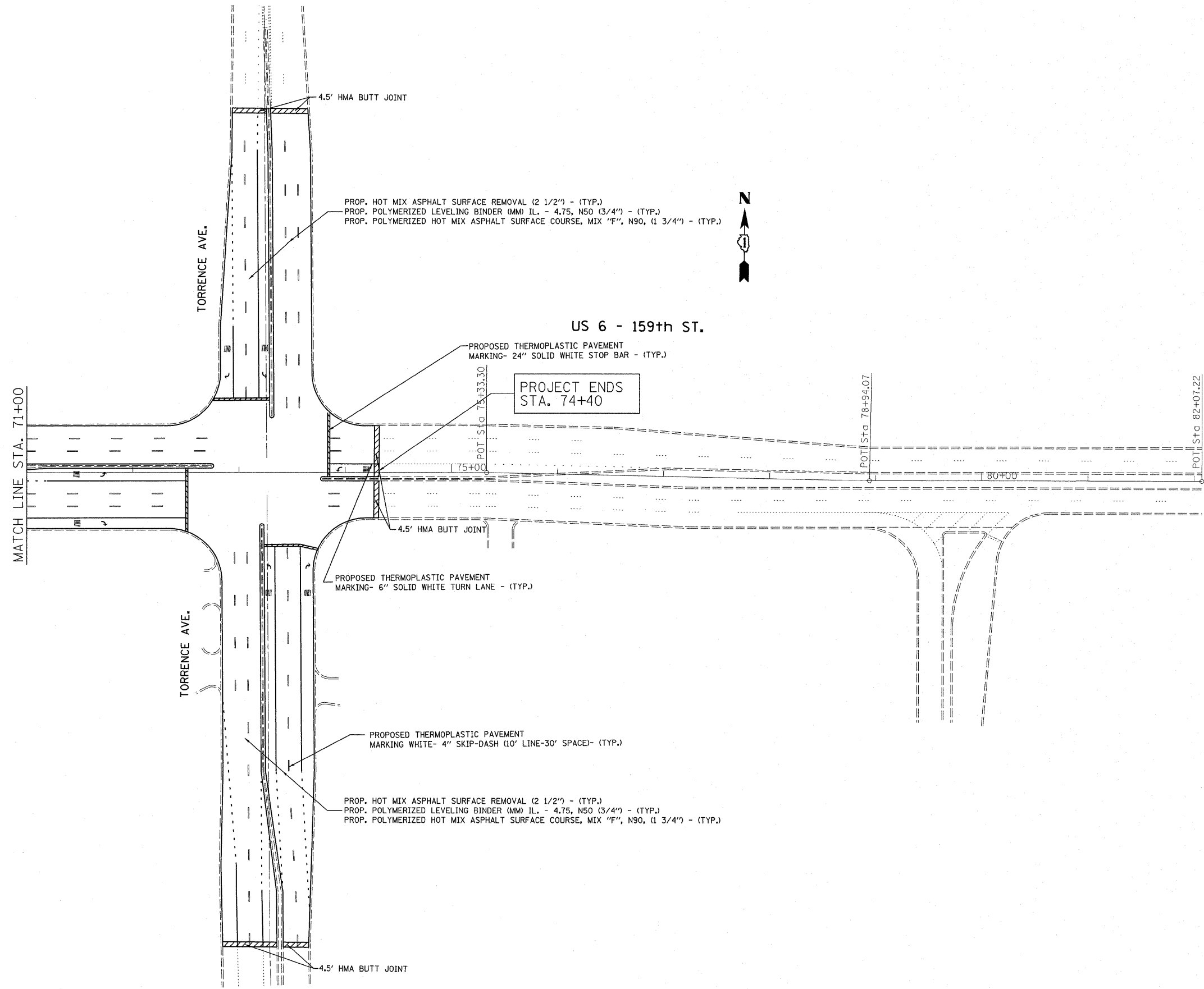
REVISED -
 REVISED -
 REVISED -
 REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

**ROADWAY AND PAVEMENT MARKING PLAN
 US 6 (159TH ST) (I-94 TO ILL 83)**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	9
CONTRACT NO. 60K57				
ILLINOIS FED. AID PROJECT				

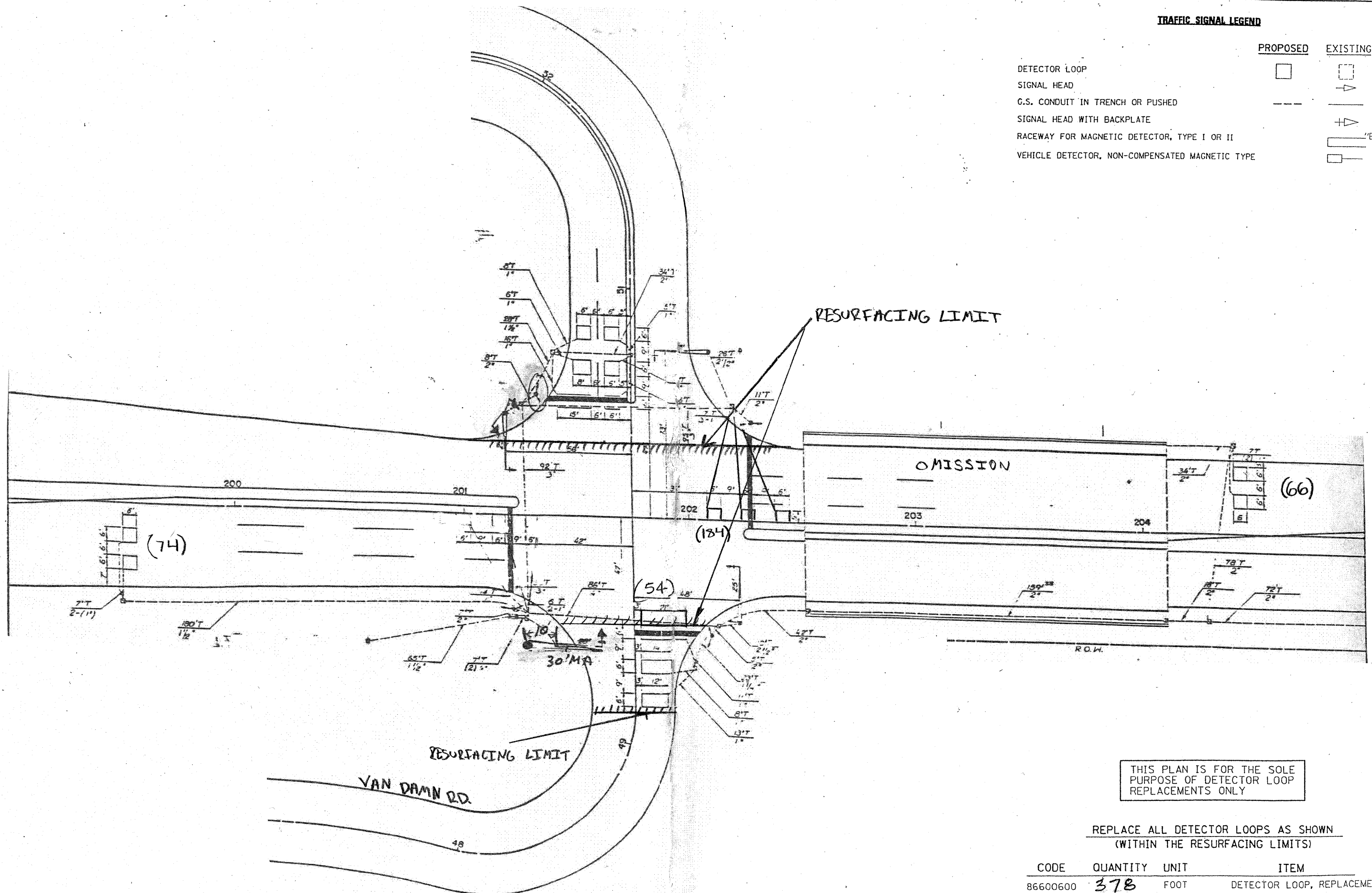


PROJECT ENDS
STA. 74+40

FILE NAME = c:\pwork\pwork\guilleufp\d0188275\	USER NAME guilleufp 52618-sh:plandgn	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY AND PAVEMENT MARKING PLAN US 6 (159TH ST) (I-94 TO ILL 83)	F.A.P. RTE. 351	SECTION 539 W-1-RS	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 10
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -			CONTRACT NO. 60K57				
	PLOT DATE = 4/12/2011	DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
	SCALE: SHEET NO. OF SHEETS STA. TO STA.									

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
DETECTOR LOOP	□	□
SIGNAL HEAD		▷
G.S. CONDUIT IN TRENCH OR PUSHED	---	---
SIGNAL HEAD WITH BACKPLATE		▷
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		"E"
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		□



THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
86600600	378	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = kanthaphixaybo	DESIGNED - BCK	REVISED -
ca:\pwork\pwork\WIDOT\KANTHAPHIXAYBO\01126	4\traffic.legend.v7.dgn	DRAWN - BCK	REVISED -
	PLOT SCALE = 3/4" = 1' IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 4/3/2009	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

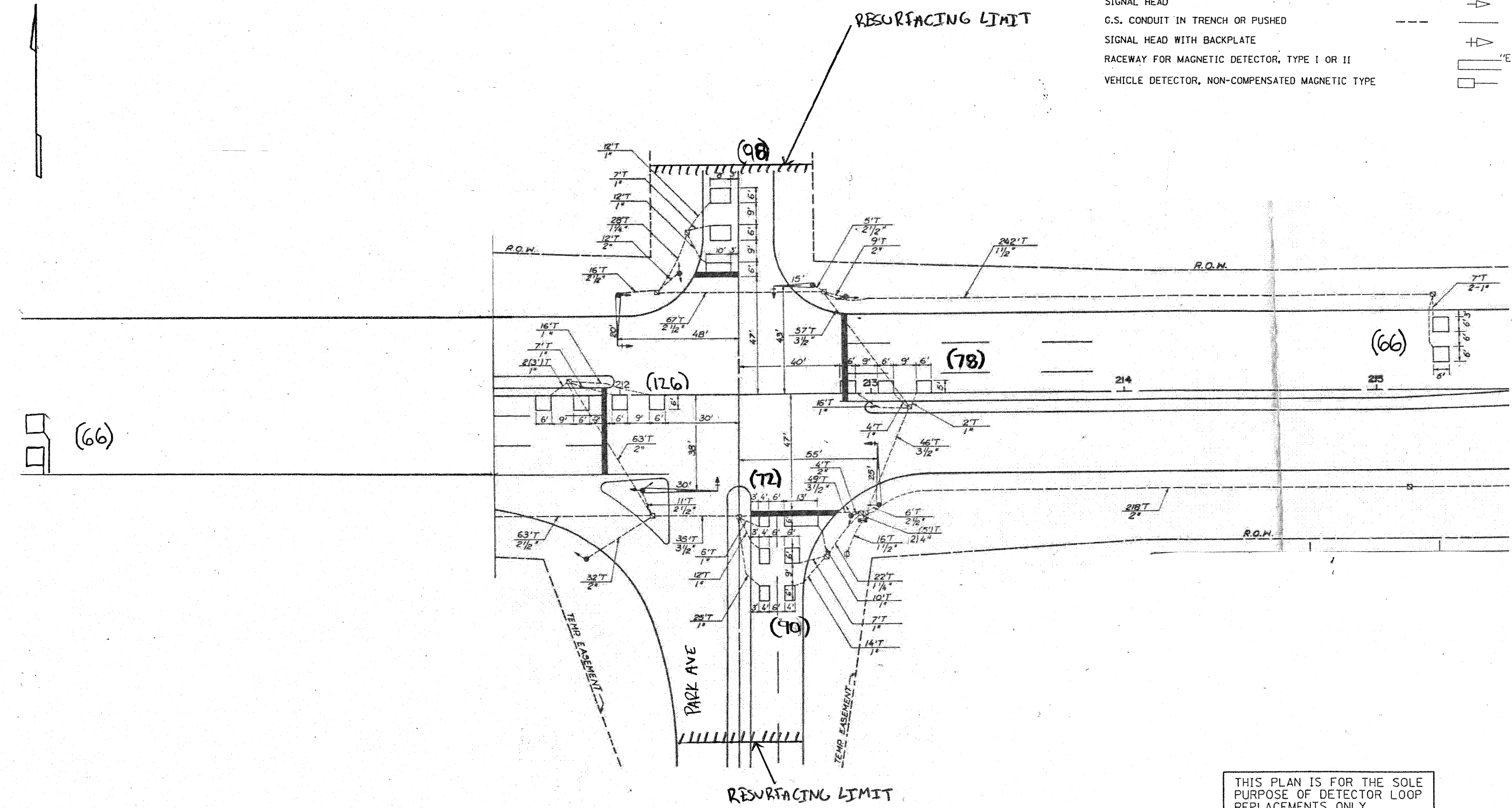
DISTRICT ONE - DETECTOR LOOP REPLACEMENT
U.S. ROUTE 6 @ VAN DAM RD.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-R5	COOK	56	11
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	CONTRACT NO.
			60057	

SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD		
G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		



THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

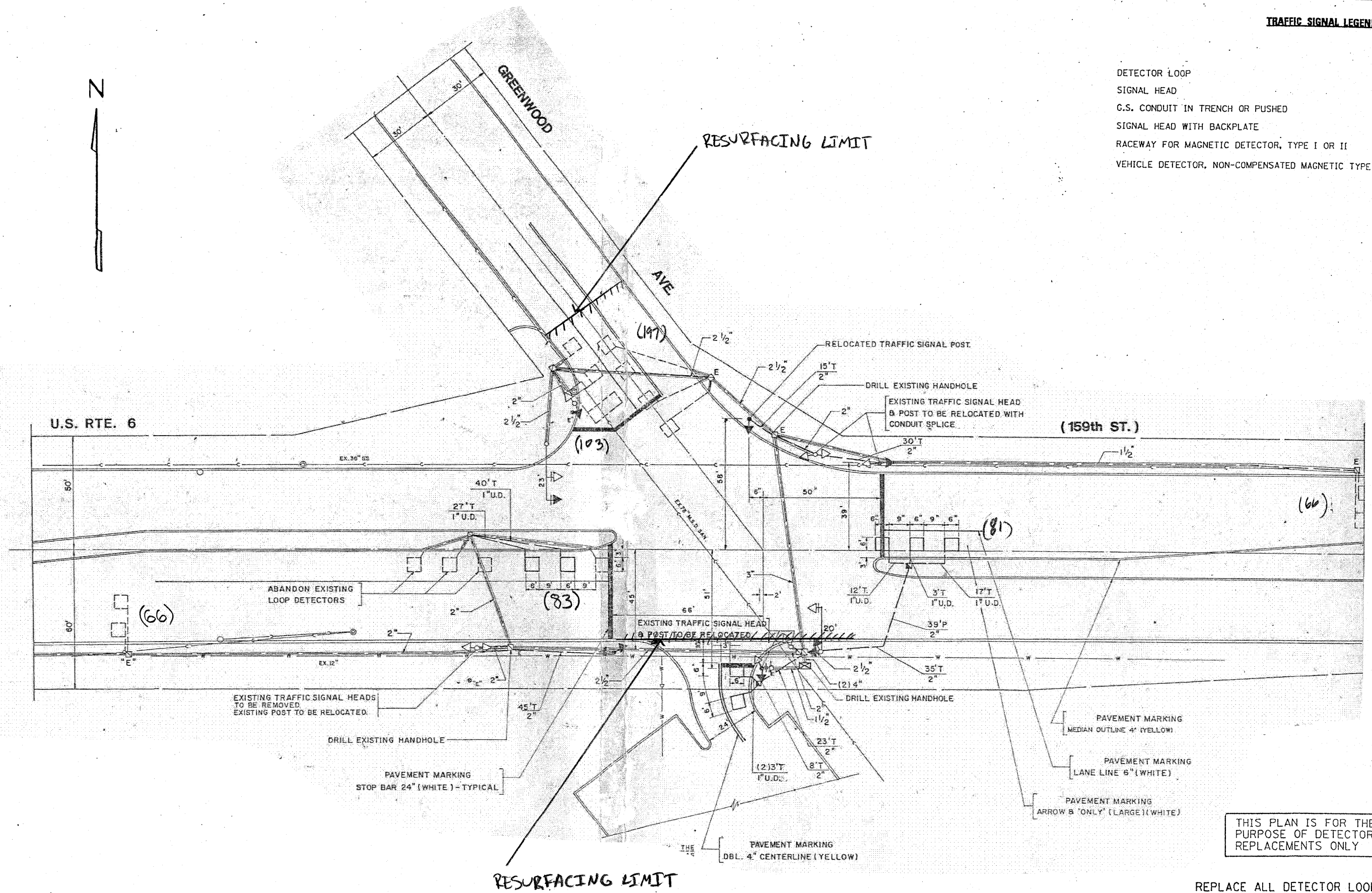
REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
86600600	596	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = kanthaphixaybc	DESIGNED - BCK	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE - DETECTOR LOOP REPLACEMENT U.S. ROUTE 6 @ PARK AV.	F.A.P. RTE. 357	SECTION 539W-1-RS	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 12
c:\pwork\PMIDOT\KANTHAPHIXAYBC\01126	4\traffic.legend.v7.dgn	DRAWN - BCK	REVISED -			SCALE: NONE	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT 60KS1	
		CHECKED - DAD	REVISED -							
		DATE -	REVISED -							

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD		
G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		



THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
86600600	591	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME *	USER NAME = konthaphixaybo	DESIGNED - BCK	REVISED -
ca:\pwork\pwork\KANTHAPHIXAYBO\081126	4\traffic.legend.v7.dgn	DRAWN - BCK	REVISED -
	PLOT SCALE = 39.9368' / IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 4/3/2009	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

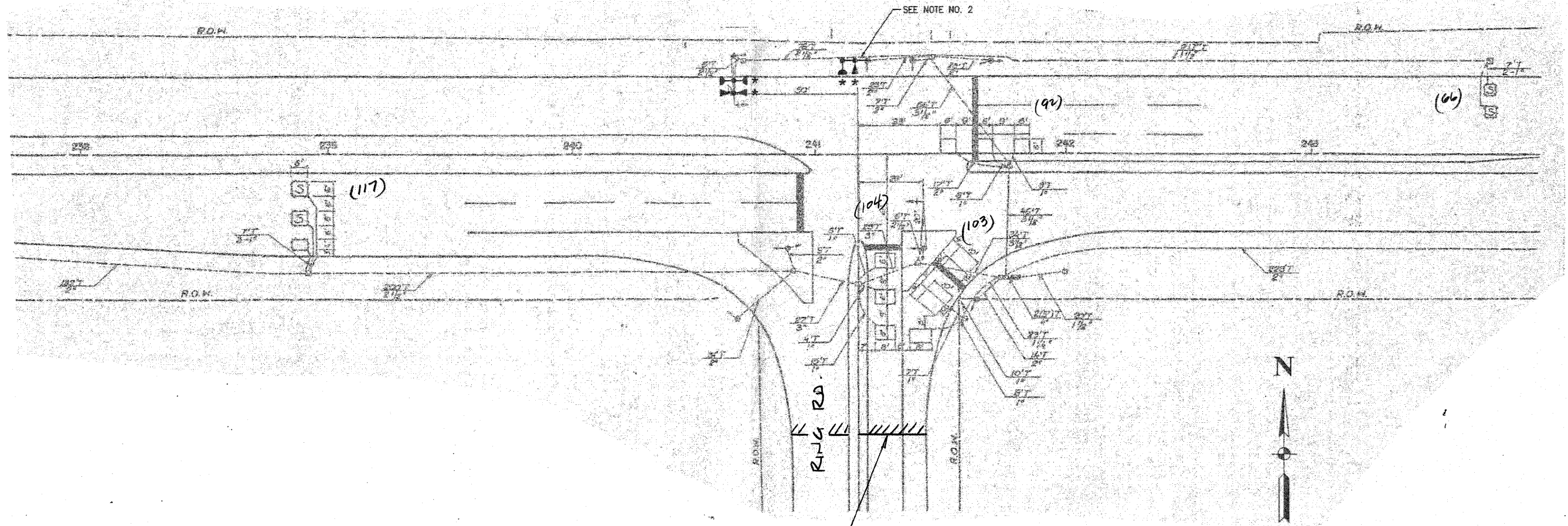
**DISTRICT ONE - DETECTOR LOOP REPLACEMENT
U.S. ROUTE 6 @ GREENWOOD AV.**

F.A.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
357	539W-1-R5	COOK	56	13
CONTRACT NO.			00K57	
FED. ROAD DIST. NO.	ILLINOIS FED. AID PROJECT			

SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD		
G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		



THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
86600600	482	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =	USER NAME = konthaphixaybo	DESIGNED - BCK	REVISED -
ca:\pw_vork\VP\MIDOT\KANTHAPHIXAYBC\401126	4\tr\offic\legend_v7.dgn	DRAWN - BCK	REVISED -
	PLOT SCALE = 3/4" = 1' IN.	CHECKED - DAD	REVISED -
	PLOT DATE = 4/3/2009	DATE	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE - DETECTOR LOOP REPLACEMENT
U.S. ROUTE 6 @ RING ROAD**

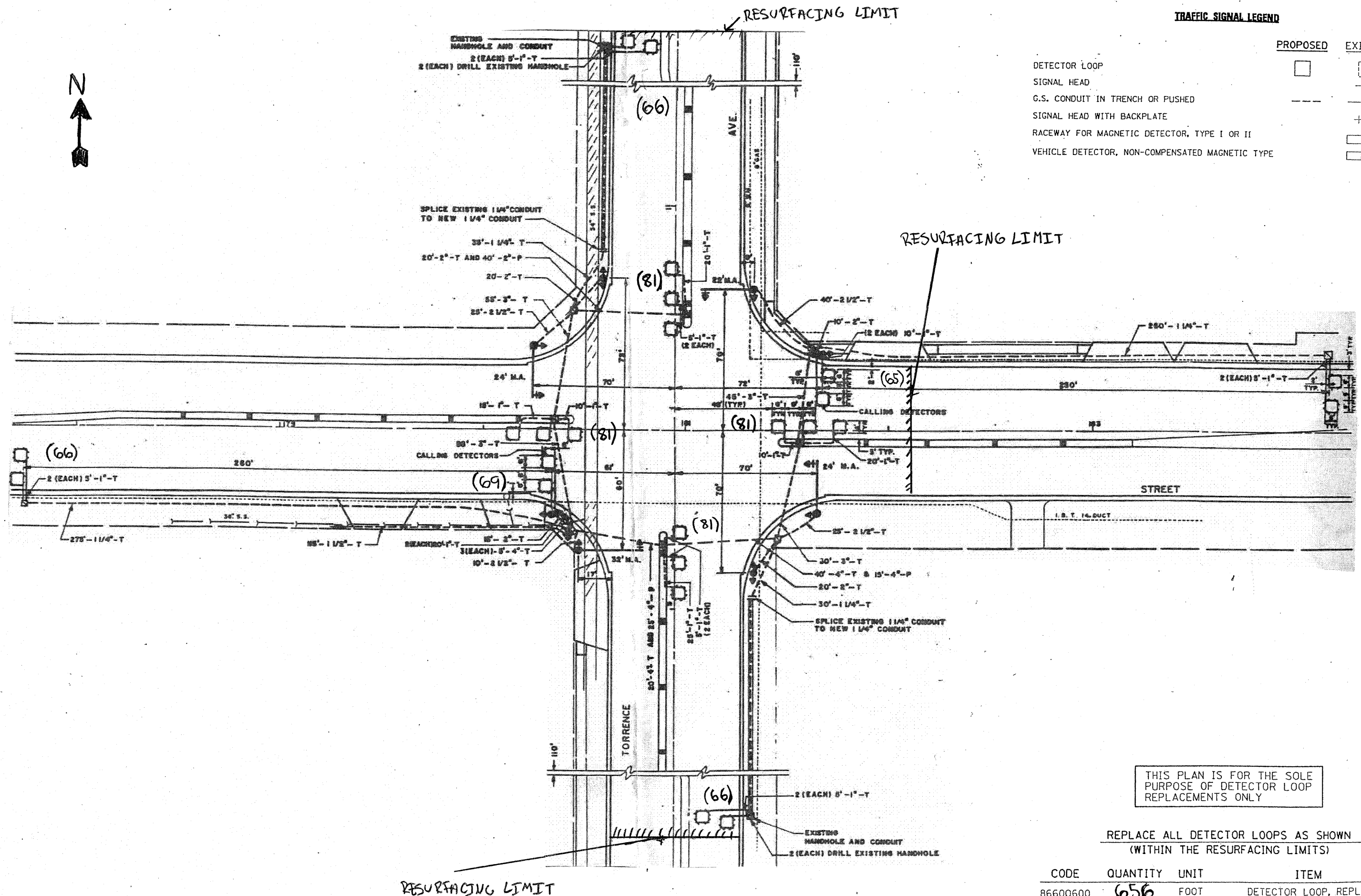
SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	56	14
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			60K51	



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
DETECTOR LOOP		
SIGNAL HEAD		
G.S. CONDUIT IN TRENCH OR PUSHED		
SIGNAL HEAD WITH BACKPLATE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR II		
VEHICLE DETECTOR, NON-COMPENSATED MAGNETIC TYPE		



THIS PLAN IS FOR THE SOLE PURPOSE OF DETECTOR LOOP REPLACEMENTS ONLY

REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)

CODE	QUANTITY	UNIT	ITEM
86600600	656	FOOT	DETECTOR LOOP, REPLACEMENT

FILE NAME =
c:\pwork\pwidot\KANTHAPH\XAY8C\d01126

USER NAME = kanthaphxayba
4\tr of fic legend.v7.dgn
PLOT SCALE = 3/4" = 1' IN.
PLOT DATE = 4/3/2009

DESIGNED - BCK
DRAWN - BCK
CHECKED - DAD
DATE -

REVISED -
REVISED -
REVISED -
REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

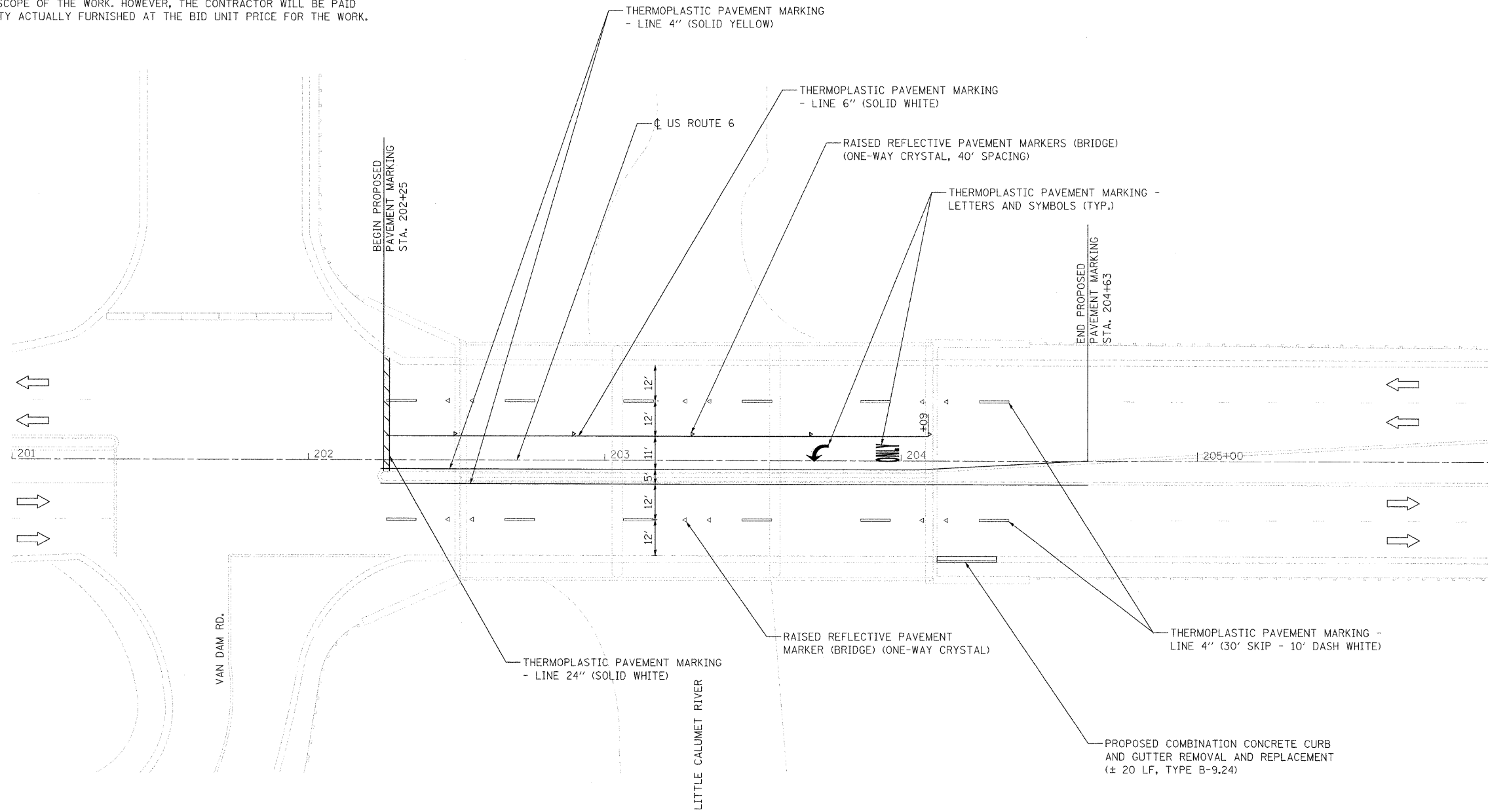
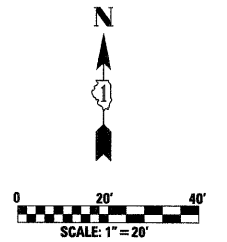
DISTRICT ONE - DETECTOR LOOP REPLACEMENT
U.S. ROUTE 6 @ TORRENCE AV.

SCALE: NONE SHEET NO. OF SHEETS STA. TO STA.

F.A.R. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
851	539W-1-RS	COOK	56	15
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			00RS1	

NOTES:

1. ALL PROPOSED PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH DISTRICT ONE STANDARDS: "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)" (TC-11) AND "TYPICAL PAVEMENT - MARKINGS" (TC-13).
2. IN ADDITION TO FIELD REVIEW AND AERIAL DATA, PLAN DIMENSIONS AND DETAILS RELATIVE TO THE EXISTING FACILITIES HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD. SUCH VARIATIONS SHALL NOT BE A CAUSE FOR ADDITIONAL COMPENSATION DUE TO A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE BID UNIT PRICE FOR THE WORK.



COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT

• STA 204+11.18 TO STA 204+31.18, 34.0' RT

• EXACT LOCATION TO BE VERIFIED IN FIELD



USER NAME = #USER#	DESIGNED - RWK	REVISED -
PLOT SCALE = #SCALE#	DRAWN - RWK	REVISED -
PLOT DATE = #DATE#	CHECKED - ST	REVISED -
	DATE - 04/2011	REVISED -

DESIGNED - RWK	REVISED -
DRAWN - RWK	REVISED -
CHECKED - ST	REVISED -
DATE - 04/2011	REVISED -










**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**PROPOSED PAVEMENT MARKING PLAN
U.S. ROUTE 6 OVER LITTLE CALUMET RIVER**

SCALE: 1"=20' SHEET NO. 1 OF 1 SHEETS STA. 201+00 TO STA. 206+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	56	16
CONTRACT NO. 60K57				
ILLINOIS FED. AID PROJECT				

LEGEND

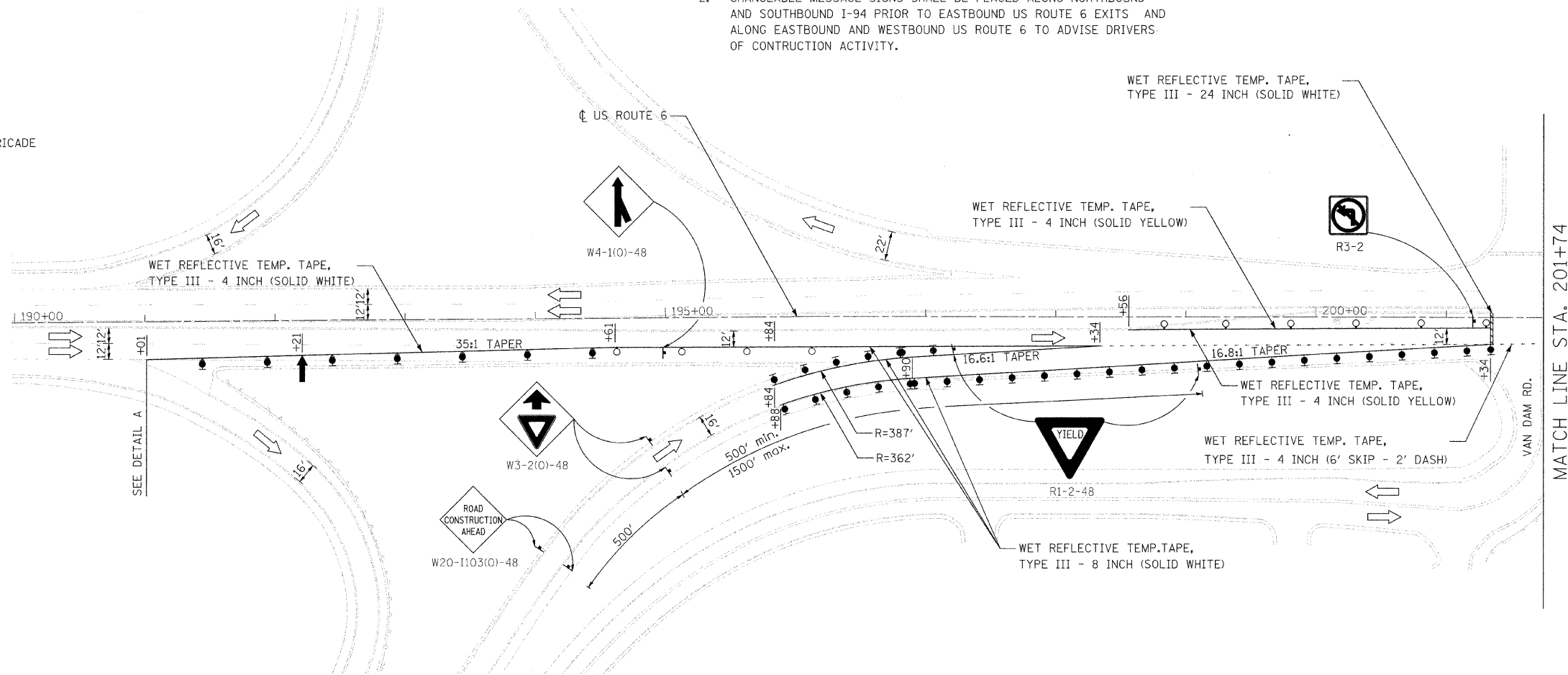
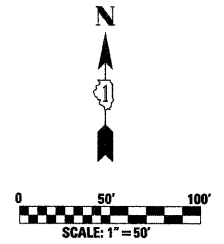
-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES
-  SIGN
-  ARROW BOARD
-  TYPE III BARRICADE

STAGE I CONSTRUCTION:

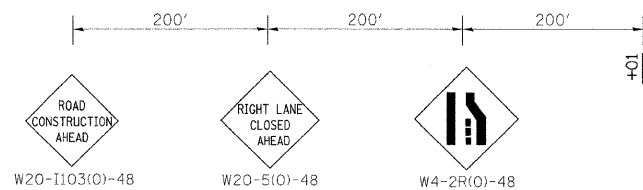
1. REMOVE CONFLICTING EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS UNDER HIGHWAY STANDARD 701427.
2. CLOSE THE OUTSIDE LANES OF US ROUTE 6 AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH HIGHWAY STANDARDS 701601-07, 701411-07 AND DISTRICT 1 STANDARD TC10.
3. PERFORM OUTSIDE LANE STRUCTURAL AND APPROACH SLAB REPAIRS AS SHOWN IN THE STRUCTURAL PLANS, AS WELL AS THE COMBINATION CURB AND GUTTER REMOVAL AND REPLACEMENT AS SHOWN ON THE PAVEMENT MARKING PLANS.

NOTES:

1. FIRST TWO WARNING SIGNS IN EACH DIRECTION AND WARNING SIGNS ALONG SIDE STREETS REQUIRE MONO-DIRECTIONAL FLASHING BEACONS.
2. CHANGEABLE MESSAGE SIGNS SHALL BE PLACED ALONG NORTHBOUND AND SOUTHBOUND I-94 PRIOR TO EASTBOUND US ROUTE 6 EXITS AND ALONG EASTBOUND AND WESTBOUND US ROUTE 6 TO ADVISE DRIVERS OF CONSTRUCTION ACTIVITY.



DETAIL A



USER NAME = #USER#	DESIGNED - AS	REVISED -
PLOT SCALE = #SCALE#	DRAWN - AS	REVISED -
PLOT DATE = #DATE#	CHECKED - ST	REVISED -
	DATE - 04/2011	REVISED -










**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

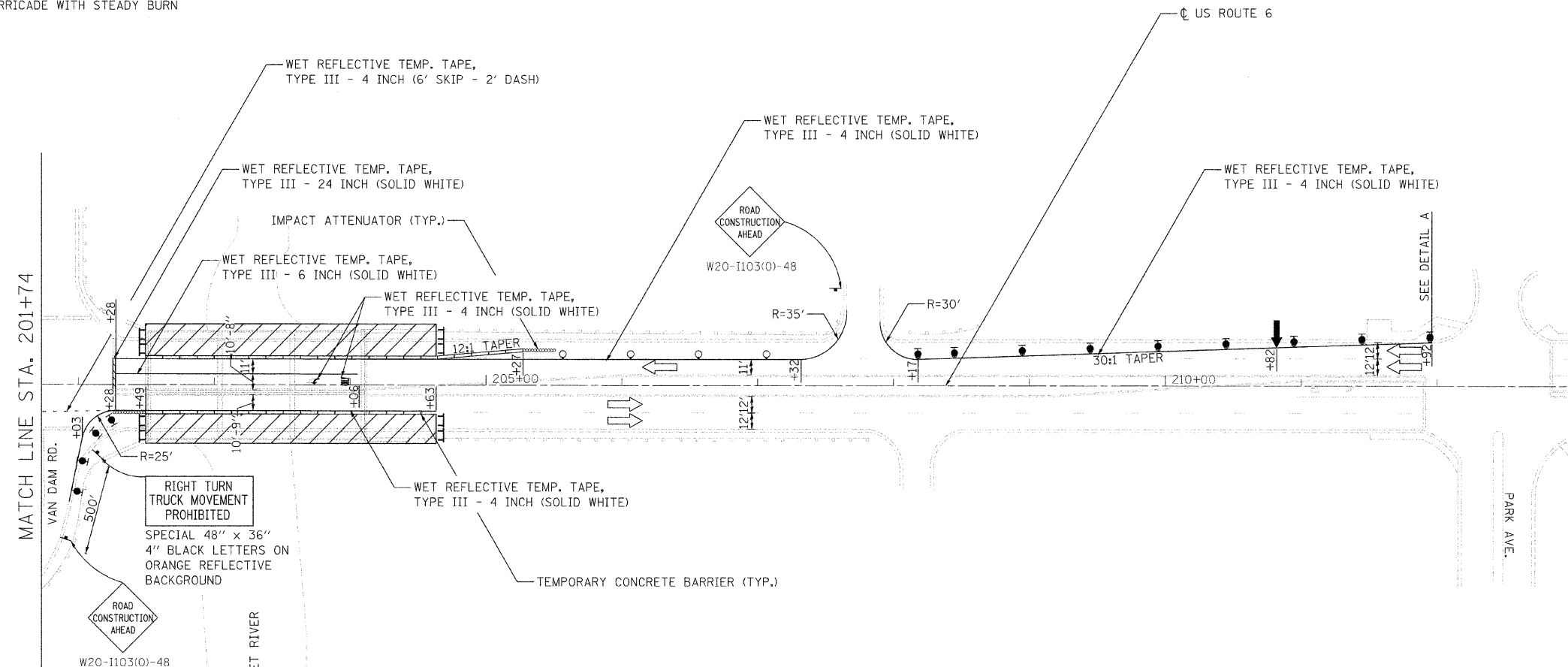
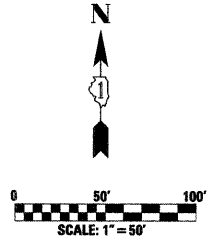
**MAINTENANCE OF TRAFFIC - STAGE 1
US ROUTE 6 OVER LITTLE CALUMET RIVER**

SCALE: 1"=50' SHEET NO. 1 OF 2 SHEETS STA. 190+00 TO STA. 201+74

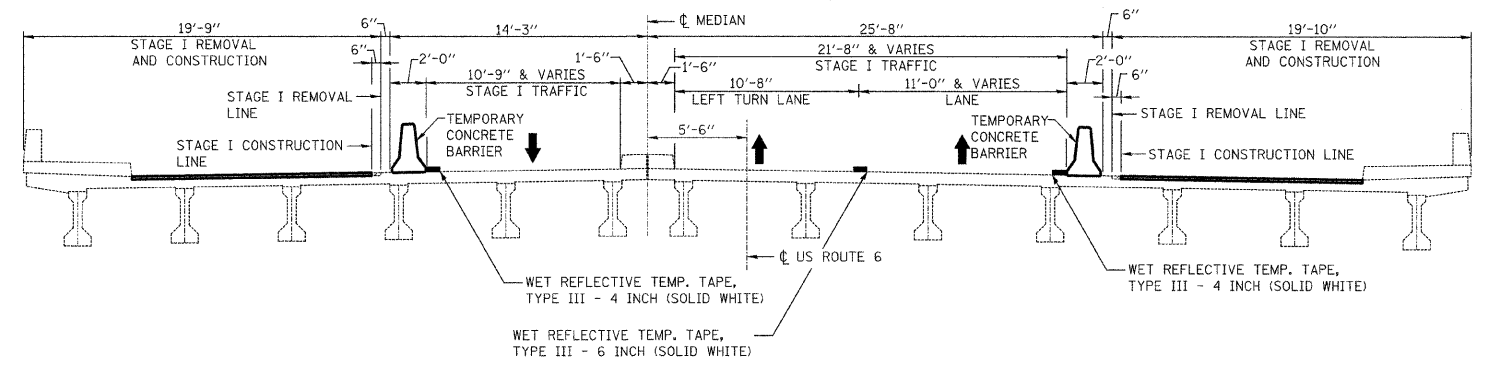
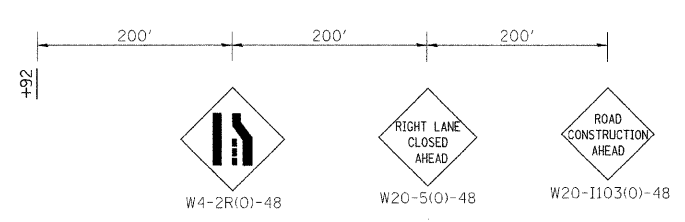
F.A.P. RTE. 351	SECTION 539W-1-RS	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 17
CONTRACT NO. 60K57				
ILLINOIS FED. AID PROJECT				

LEGEND

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES
-  SIGN
-  ARROW BOARD
-  TYPE III BARRICADE



DETAIL A



STAGE I MAINTENANCE OF TRAFFIC TYPICAL SECTION

(LOOKING WEST)
N.T.S.












USER NAME = #USER#	DESIGNED - AS	REVISED -
PLOT SCALE = #SCALE#	DRAWN - AS	REVISED -
PLOT DATE = #DATE#	CHECKED - ST	REVISED -
	DATE - 04/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MAINTENANCE OF TRAFFIC - STAGE 1 US ROUTE 6 OVER LITTLE CALUMET RIVER		
SCALE: 1"=50'	SHEET NO. 2 OF 2 SHEETS	STA. 201+74 TO STA. 213+00

F.A.P. RTE. 351	SECTION 539W-1-RS	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 18
				CONTRACT NO. 60K57
ILLINOIS FED. AID PROJECT				

LEGEND

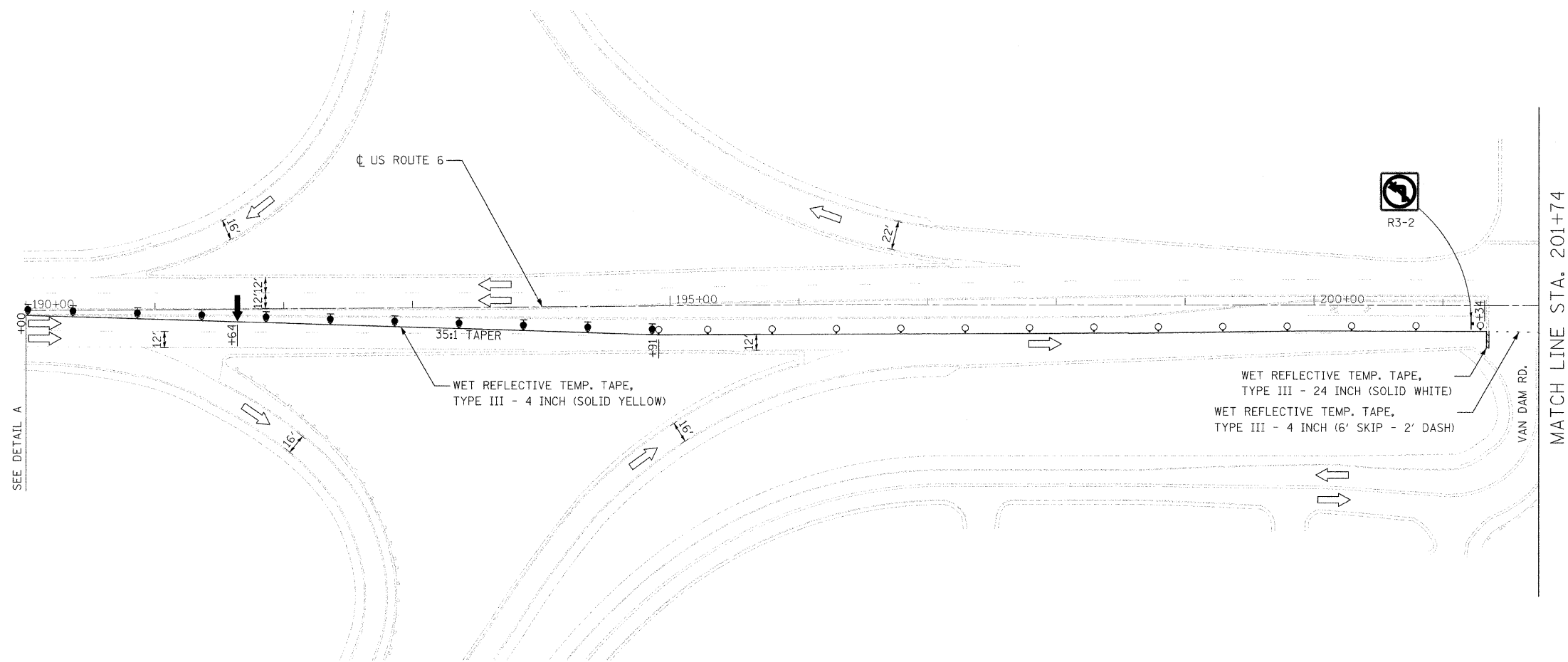
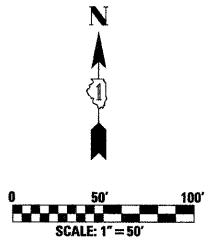
-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES
-  SIGN
-  ARROW BOARD
-  TYPE III BARRICADE

STAGE II CONSTRUCTION:

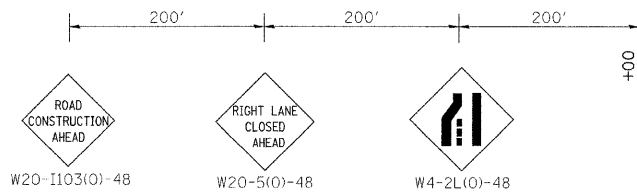
1. REMOVE CONFLICTING EXISTING PAVEMENT MARKING LINES UNDER HIGHWAY STANDARD 701427.
2. CLOSE THE INSIDE LANES, INCLUDING LEFT TURN LANES, OF US ROUTE 6 AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH HIGHWAY STANDARD 701601-07 AND DISTRICT 1 STANDARD TC 10.
3. PERFORM STRUCTURAL AND APPROACH SLAB REPAIRS AS SHOWN IN THE STRUCTURAL PLANS.
4. APPLY PERMANENT PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS AS SHOWN IN THE PAVEMENT MARKINGS PLANS IN ACCORDANCE WITH HIGHWAY STANDARD 701427.

NOTES:

1. FIRST TWO WARNING SIGNS IN EACH DIRECTION AND WARNING SIGNS ALONG SIDE STREETS REQUIRE MONO-DIRECTIONAL FLASHING BEACONS.
2. CHANGABLE MESSAGE SIGNS ALONG NB AND SB I-94 AND ALONG US ROUTE 6 TO REMAIN FROM STAGE I UNTIL PROJECT COMPLETION.



DETAIL A












USER NAME = #USER#	DESIGNED - AS	REVISED -
PLOT SCALE = #SCALE#	DRAWN - AS	REVISED -
PLOT DATE = #DATE#	CHECKED - ST	REVISED -
	DATE - 04/2011	REVISED -

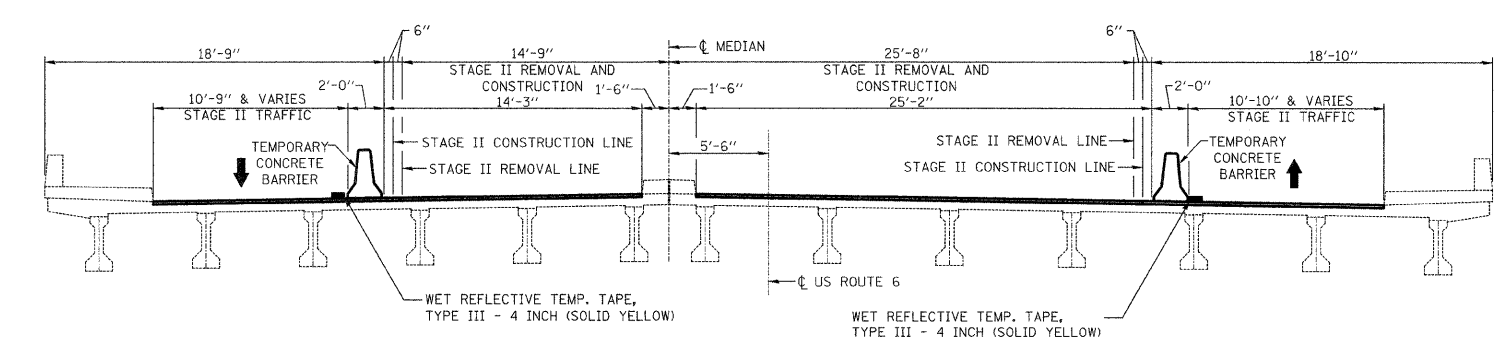
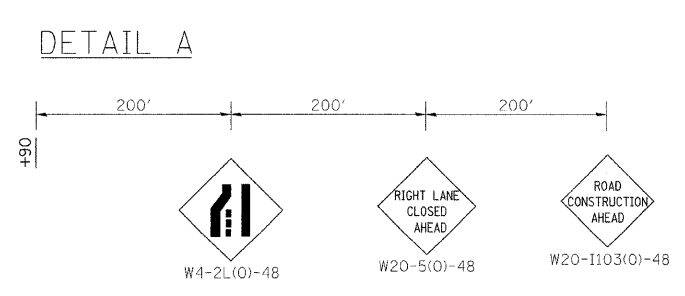
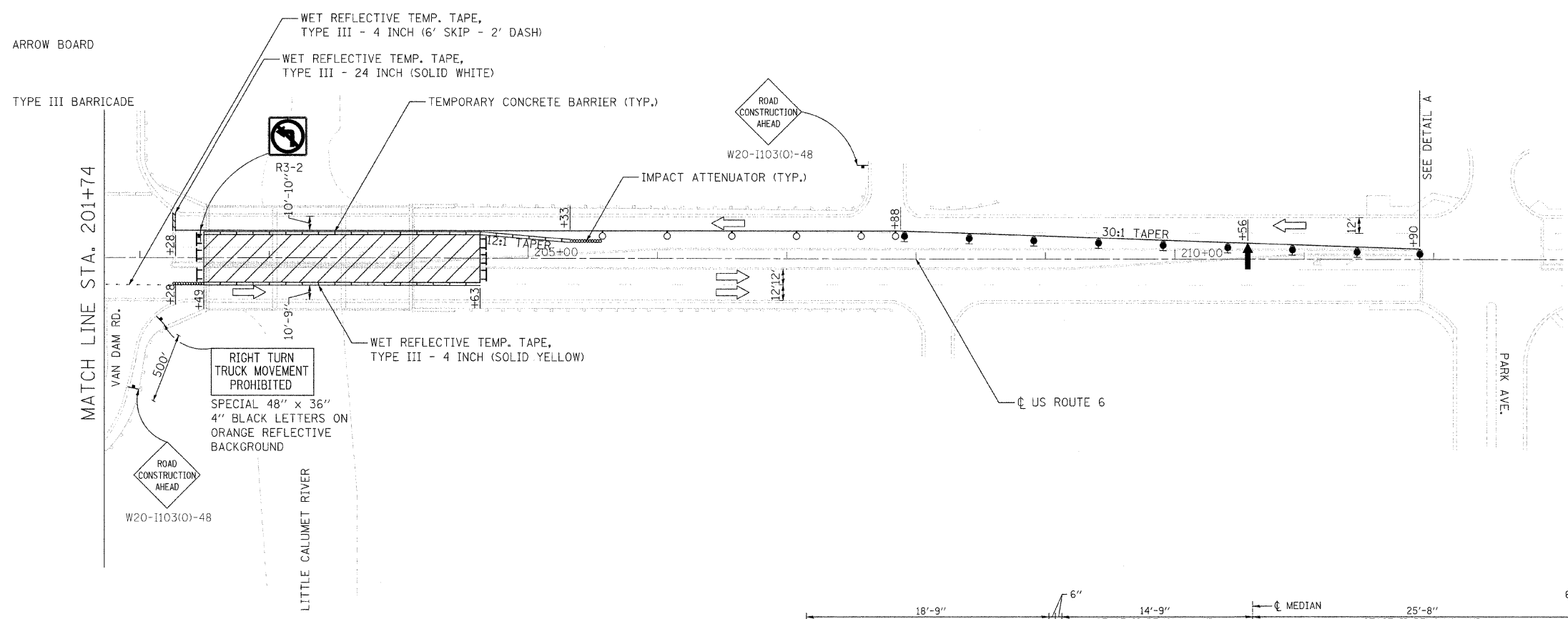
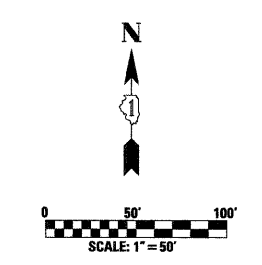
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

MAINTENANCE OF TRAFFIC - STAGE 2		
US ROUTE 6 OVER LITTLE CALUMET RIVER		
SCALE: 1"=50'	SHEET NO. 1 OF 2 SHEETS	STA. 190+00 TO STA. 201+74

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	56	19
CONTRACT NO. 60K57				
ILLINOIS FED. AID PROJECT				

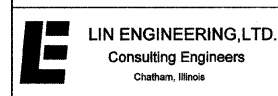
LEGEND

-  WORK AREA
-  IMPACT ATTENUATORS, TEMPORARY
-  TEMPORARY CONCRETE BARRIER
-  DRUM WITH STEADY BURN MONODIRECTIONAL LIGHT
-  DIRECTION INDICATOR BARRICADE WITH STEADY BURN MONODIRECTIONAL LIGHT
-  TYPE II BARRICADES
-  SIGN
-  ARROW BOARD
-  TYPE III BARRICADE



STAGE II MAINTENANCE OF TRAFFIC TYPICAL SECTION

(LOOKING WEST)
N.T.S.



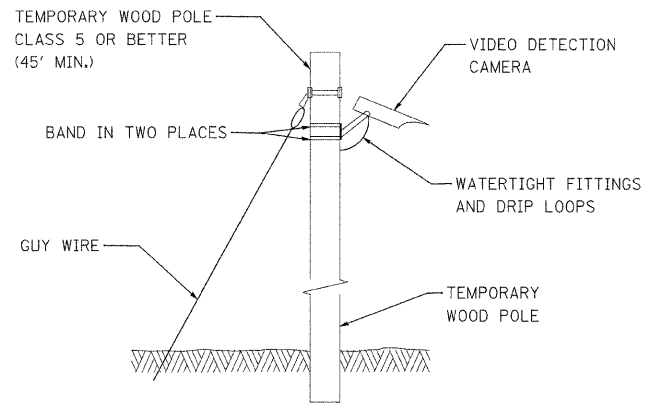
USER NAME = #USER#	DESIGNED - AS	REVISED -
PLOT SCALE = #SCALE#	DRAWN - AS	REVISED -
PLOT DATE = #DATE#	CHECKED - ST	REVISED -
	DATE - 04/2011	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC - STAGE 2
US ROUTE 6 OVER LITTLE CALUMET RIVER**

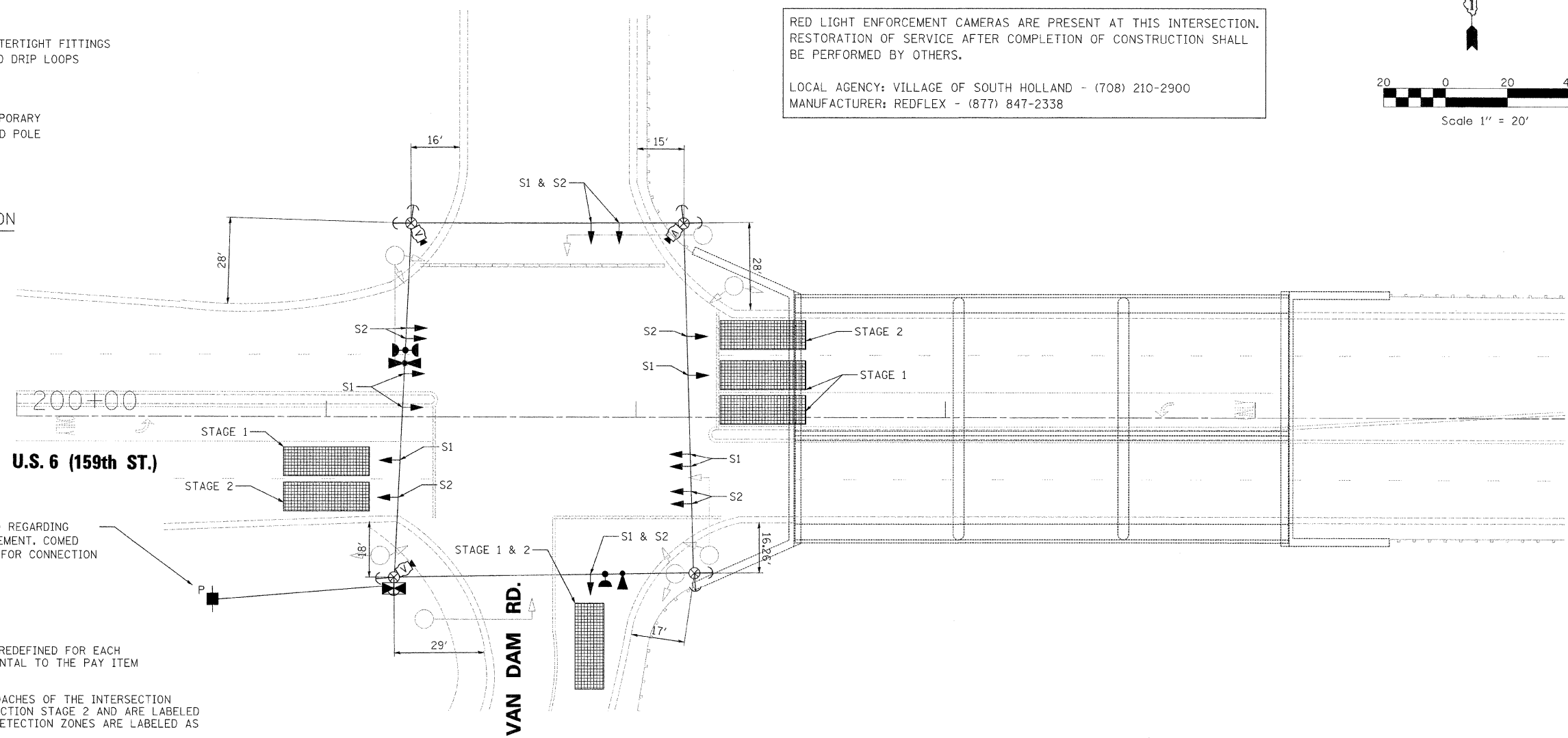
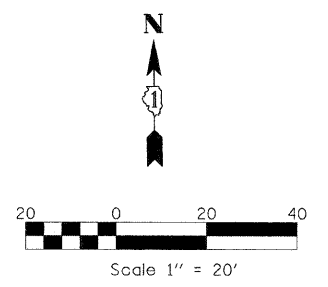
SCALE: 1"=50' SHEET NO. 2 OF 2 SHEETS STA. 201+74 TO STA. 213+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	56	20
CONTRACT NO. 60K57				
ILLINOIS FED. AID PROJECT				



TEMPORARY VIDEO DETECTION MOUNTING DETAIL
(NOT TO SCALE)

RED LIGHT ENFORCEMENT CAMERAS ARE PRESENT AT THIS INTERSECTION. RESTORATION OF SERVICE AFTER COMPLETION OF CONSTRUCTION SHALL BE PERFORMED BY OTHERS.
LOCAL AGENCY: VILLAGE OF SOUTH HOLLAND - (708) 210-2900
MANUFACTURER: REDFLEX - (877) 847-2338



CONTRACTOR SHALL COORDINATE WITH COMED REGARDING LOCATION OF SERVICE POLE PRIOR TO PLACEMENT. COMED WILL PROVIDE UP TO MAXIMUM 125' LENGTH FOR CONNECTION FROM TRANSFORMER.

CONSTRUCTION NOTES:

- NOTE 1: ALL THE VIDEO DETECTION ZONES SHALL BE REDEFINED FOR EACH CONSTRUCTION STAGE. THIS WORK IS INCIDENTAL TO THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION".
- NOTE 2: THE SIGNAL HEAD PLACEMENT FOR ALL APPROACHES OF THE INTERSECTION IS FOR CONSTRUCTION STAGE 1 AND CONSTRUCTION STAGE 2 AND ARE LABELED AS "S1" AND "S2". CORRESPONDING VIDEO DETECTION ZONES ARE LABELED AS "STAGE 1" AND "STAGE 2".

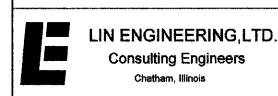
THE EXISTING TRAFFIC SIGNAL CONTROLLER SHALL BE DISABLED AND TRAFFIC SIGNAL HEADS SHALL BE BAGGED DURING THE TIME WHEN TEMPORARY TRAFFIC SIGNAL INSTALLATION IS IN OPERATION. NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE SAME AND SHALL BE INCIDENTAL TO PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION"

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

NOTES FOR TEMPORARY TRAFFIC SIGNALS

1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
7. UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
8. TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
9. DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
10. WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.



USER NAME = #USER#	DESIGNED - RWK	REVISED -
PLOT SCALE = #SCALE#	DRAWN - RWK	REVISED -
PLOT DATE = #DATE#	CHECKED - FML	REVISED -
	DATE - 04/2011	REVISED -

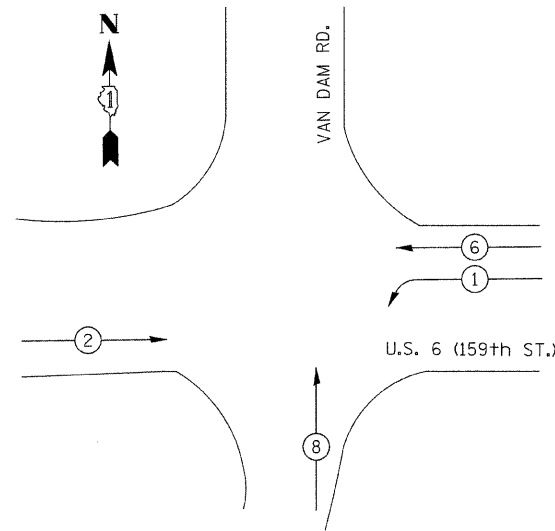
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION
U.S. ROUTE 6 OVER LITTLE CALUMET RIVER**

SCALE: 1"=20' SHEET NO. 1 OF 3 SHEETS STA. 200+00 TO STA. 205+00

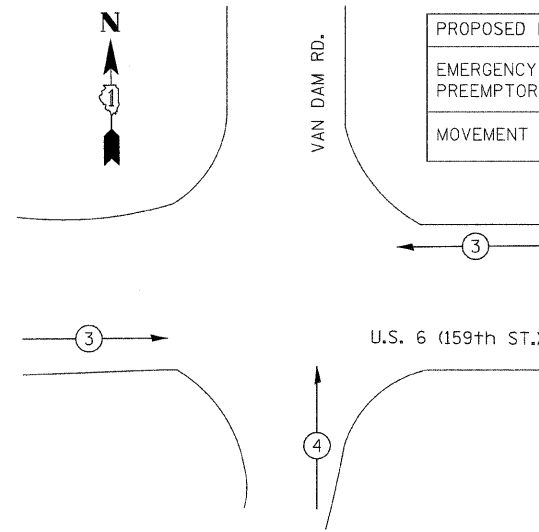
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	56	21
				CONTRACT NO. 60K57
[ILLINOIS] FED. AID PROJECT				

CONTROLLER SEQUENCE



LEGEND

- X NUMBER REFERS TO ASSOCIATED PHASE
- ⊗ PEDESTRIAN MOVEMENT
- ⊗ OL OVERLAP
- ⊗ SINGLE ENTRY PHASE
- ⊗ DUAL ENTRY PHASE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	←	↑

SCHEDULE OF QUANTITIES

QUANTITY	UNIT	ITEM
1	EACH	TEMPORARY TRAFFIC SIGNAL INSTALLATION
1	EACH	TEMPORARY TRAFFIC SIGNAL TIMING

TEMPORARY PHASE DESIGNATION DIAGRAM
STAGE 1

TEMPORARY EMERGENCY VEHICLE
PREEMPTION SEQUENCE
STAGES 1 & 2

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE EXISTING TRAFFIC SIGNAL CONTROLLER SHALL BE DISABLED AND TRAFFIC SIGNAL HEADS SHALL BE BAGGED DURING THE TIME WHEN TEMPORARY TRAFFIC SIGNAL INSTALLATION IS IN OPERATION. NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE SAME AND SHALL BE INCIDENTAL TO PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION"

I.D.O.T

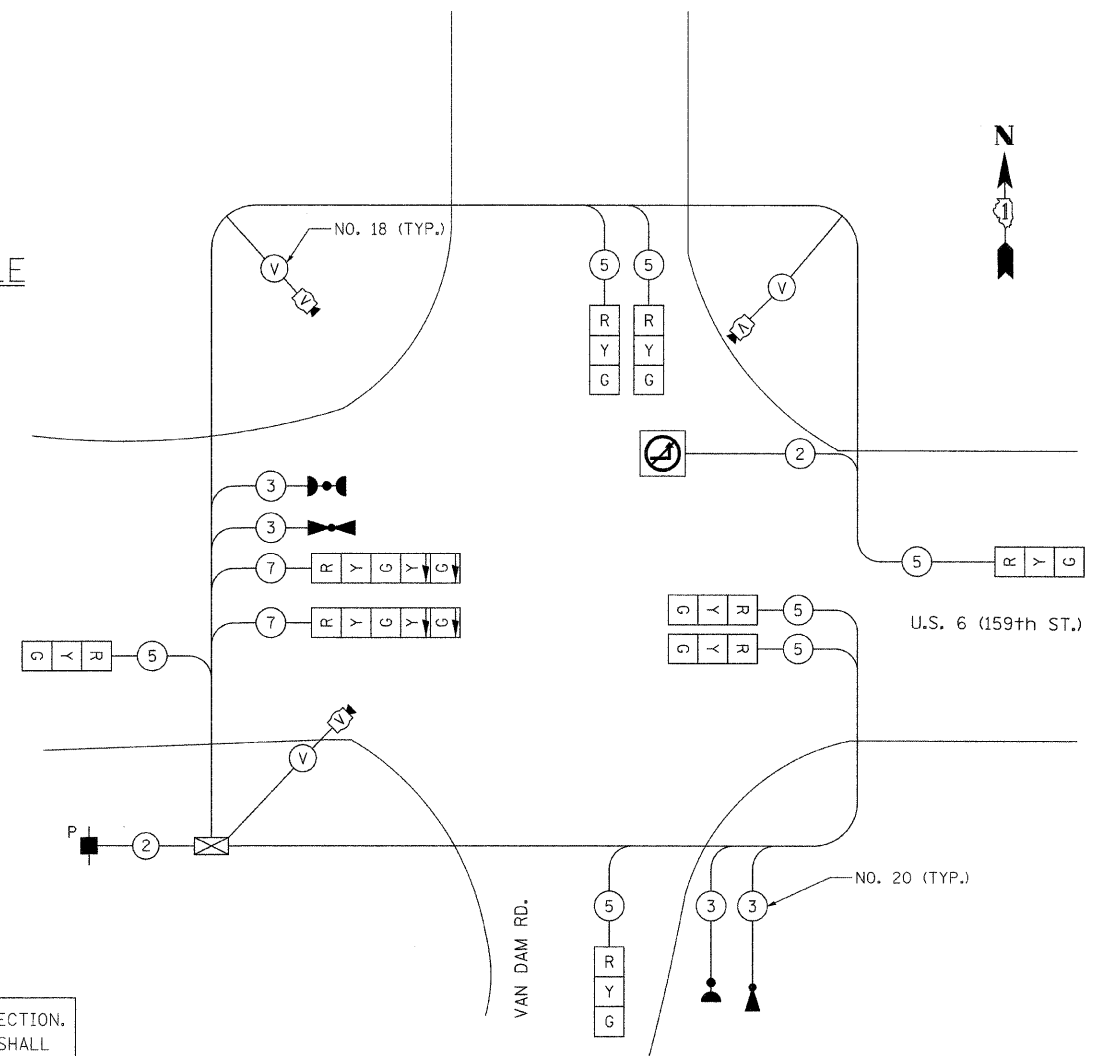
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	9		17	0.50	76.50
SIGNAL (YELLOW)	9		25	0.25	56.25
SIGNAL (GREEN)	9		15	0.25	33.75
ARROW	4		12	0.10	4.80
PED. SIGNAL			25	1.00	
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN	1		25	0.05	1.25
VIDEO SYSTEM	1	150		1.00	150.00
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	422.55

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
ENERGY SUPPLY: CONTACT: Valerie Murphy
PHONE: (708)235-2346
COMPANY: ComED

RED LIGHT ENFORCEMENT CAMERAS ARE PRESENT AT THIS INTERSECTION. RESTORATION OF SERVICE AFTER COMPLETION OF CONSTRUCTION SHALL BE PERFORMED BY OTHERS.

LOCAL AGENCY: VILLAGE OF SOUTH HOLLAND - (708) 210-2900
MANUFACTURER: REDFLEX - (877) 847-2338



TEMPORARY CABLE PLAN
STAGE 1



ILLUMINATED SIGN, L.E.D.
"NO LEFT TURN"
(INCIDENTAL TO TEMPORARY SIGNAL INSTALLATION)

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



USER NAME = #USER#	DESIGNED - RWK	REVISED -
PLOT SCALE = #SCALE#	DRAWN - RWK	REVISED -
PLOT DATE = #DATE#	CHECKED - FML	REVISED -
	DATE - 04/2011	REVISED -

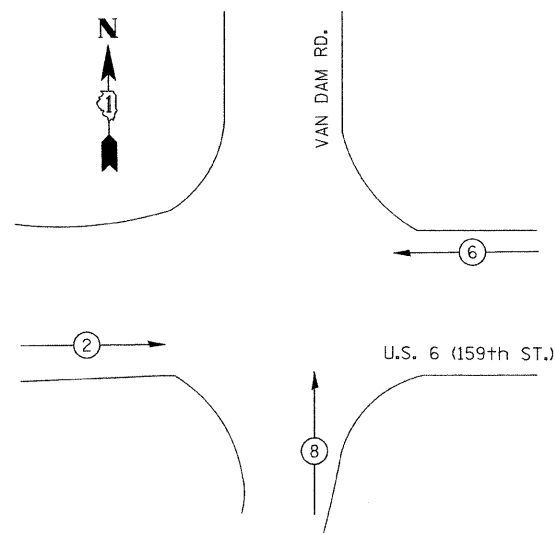
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE DIAGRAM—U.S. ROUTE 6 AT VAN DAM RD. (STAGE 1)
U.S. ROUTE 6 OVER LITTLE CALUMET RIVER

SCALE: N.T.S. SHEET NO. 2 OF 3 SHEETS STA. TO STA.

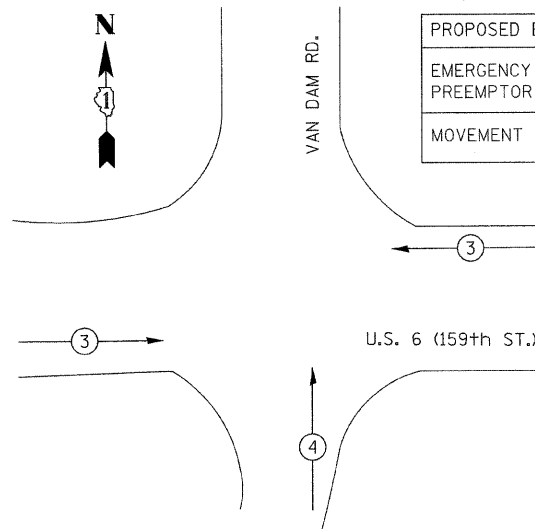
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	56	22
			CONTRACT NO. 60K57	
ILLINOIS FED. AID PROJECT				

CONTROLLER SEQUENCE



LEGEND

- X NUMBER REFERS TO ASSOCIATED PHASE
- (P-X) PEDESTRIAN MOVEMENT
- (X) OL OVERLAP
- (X) SINGLE ENTRY PHASE
- (X) DUAL ENTRY PHASE



PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTOR	3	4
MOVEMENT	← →	↑

TEMPORARY PHASE DESIGNATION DIAGRAM
STAGE 2

TEMPORARY EMERGENCY VEHICLE
PREEMPTION SEQUENCE
STAGES 1 & 2

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

THE EXISTING TRAFFIC SIGNAL CONTROLLER SHALL BE DISABLED AND TRAFFIC SIGNAL HEADS SHALL BE BAGGED DURING THE TIME WHEN TEMPORARY TRAFFIC SIGNAL INSTALLATION IS IN OPERATION. NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE SAME AND SHALL BE INCIDENTAL TO PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION"

I.D.O.T
TRAFFIC SIGNAL INSTALLATION
ELECTRICAL SERVICE REQUIREMENTS

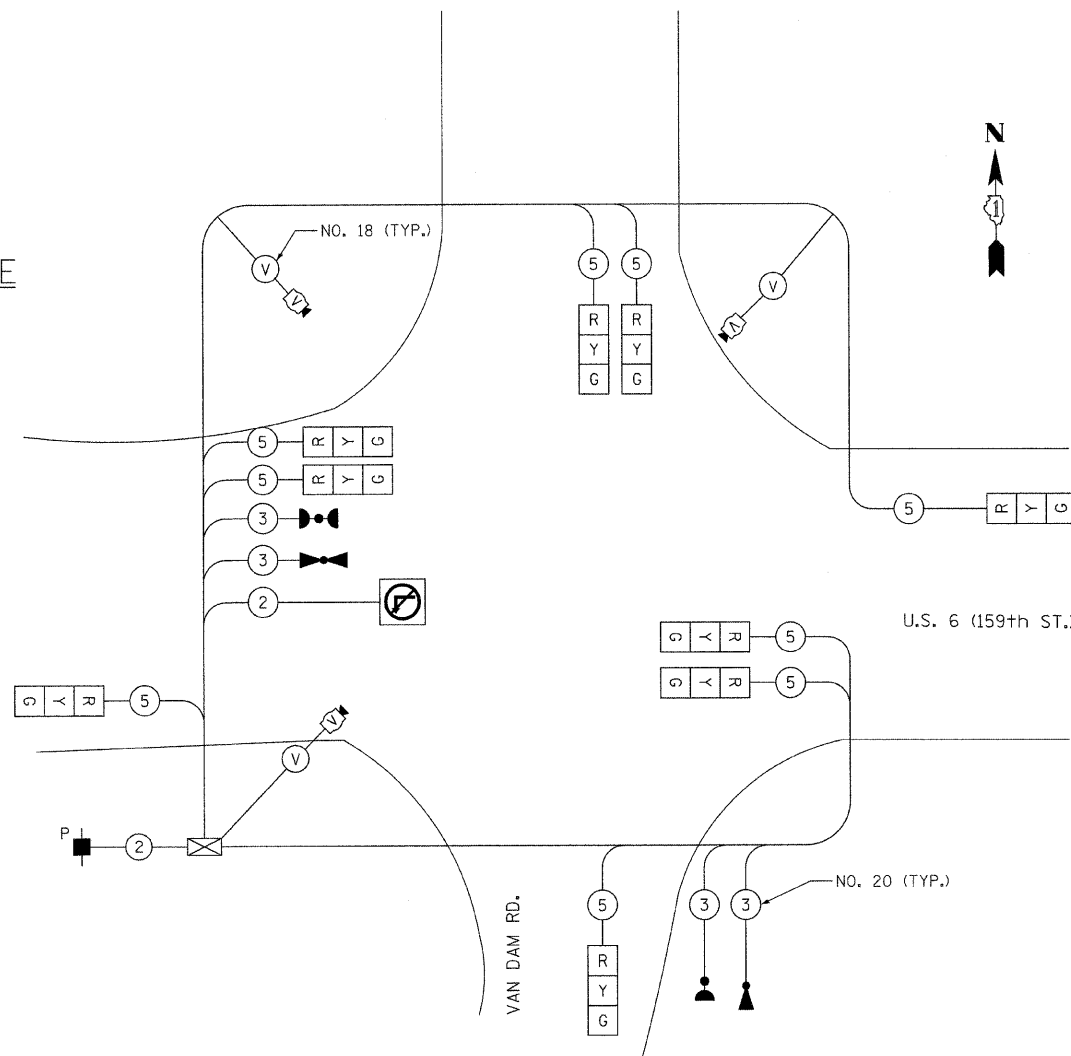
TYPE	NO. OF LAMPS	WATTAGE		% OPERATION	TOTAL WATTAGE
		INCAND.	LED		
SIGNAL (RED)	9		17	0.50	76.50
SIGNAL (YELLOW)	9		25	0.25	56.25
SIGNAL (GREEN)	9		15	0.25	33.75
ARROW			12	0.10	
PED. SIGNAL			25	1.00	
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	
VIDEO SYSTEM	1	150		1.00	150.00
FLASHER				0.50	
ENERGY COSTS TO:				TOTAL =	416.50

ILLINOIS DEPARTMENT OF TRANSPORTATION
201 WEST CENTER COURT
SCHAUMBURG, ILLINOIS 60196-1096
ENERGY SUPPLY: CONTACT: Valerie Murphy
PHONE: (708) 235-2346
COMPANY: ComED

RED LIGHT ENFORCEMENT CAMERAS ARE PRESENT AT THIS INTERSECTION. RESTORATION OF SERVICE AFTER COMPLETION OF CONSTRUCTION SHALL BE PERFORMED BY OTHERS.

LOCAL AGENCY: VILLAGE OF SOUTH HOLLAND - (708) 210-2900
MANUFACTURER: REDFLEX - (877) 847-2338

THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.



TEMPORARY CABLE PLAN
STAGE 2



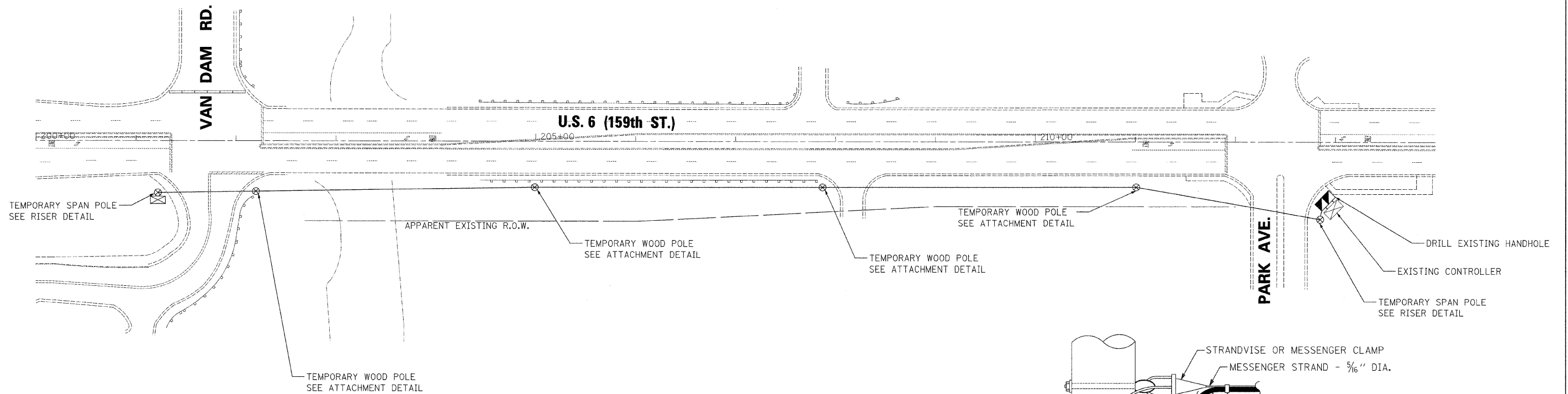
USER NAME = #USER#	DESIGNED - RWK	REVISED -
PLOT SCALE = #SCALE#	DRAWN - RWK	REVISED -
PLOT DATE = #DATE#	CHECKED - FML	REVISED -
	DATE - 04/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE DIAGRAM—U.S. ROUTE 6 AT VAN DAM RD. (STAGE 2)
U.S. ROUTE 6 OVER LITTLE CALUMET RIVER

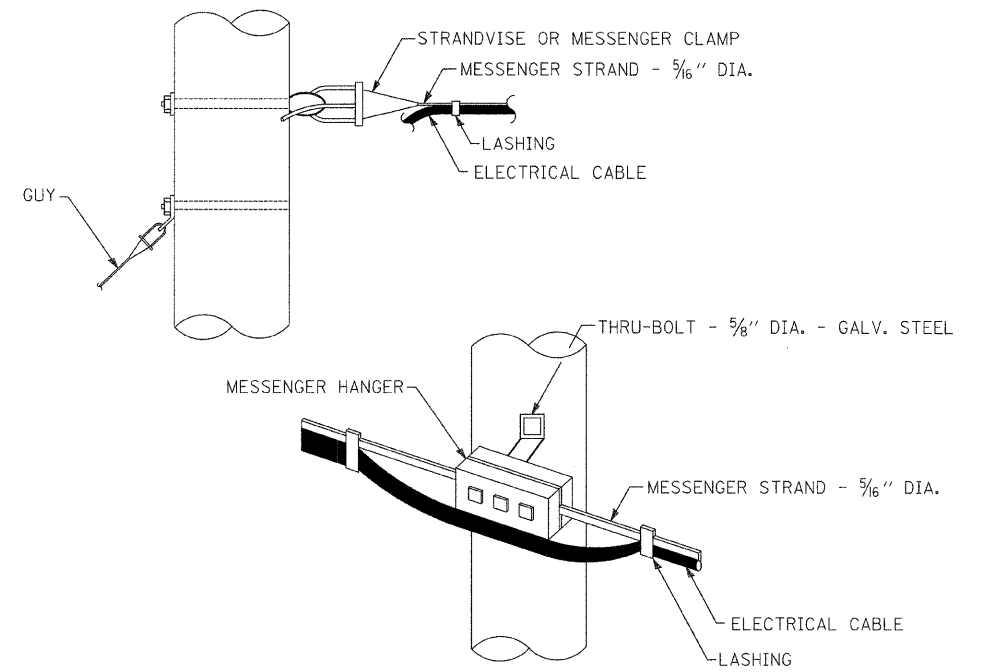
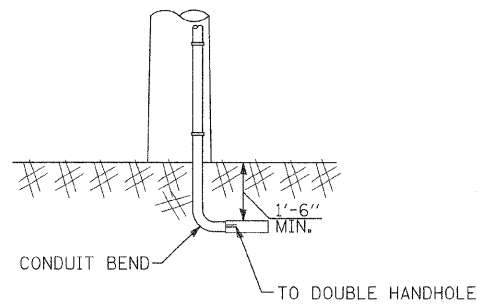
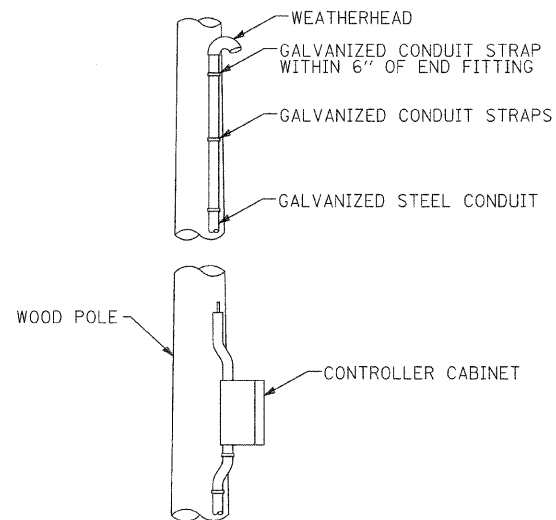
SCALE: N.T.S. SHEET NO. 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE. 351	SECTION 539W-1-RS	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 23
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60K57	



THE TRAFFIC SIGNAL CONTROL EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDING IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



ATTACHMENT DETAIL

TEMPORARY INTERCONNECT PLAN LEGEND

	PROPOSED	EXISTING
CONTROLLER		
HANDHOLE		
DOUBLE HANDHOLE		
G.S. CONDUIT IN TRENCH OR PUSHED		
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM		
TEMPORARY MESSENGER WIRE AND CABLE		
SYSTEM	S	I
INTERSECTION	IP	I

NOTE:

- OTHER METHODS MAY BE USED WITH PRIOR APPROVAL BY DISTRICT 1, ILLINOIS DEPARTMENT OF TRANSPORTATION.
- PROVIDE ELECTRIC CABLE IN CONDUIT, NO. 12, 2/C, AND ELECTRIC CABLE IN CONDUIT, NO. 12, 9/C BETWEEN THE TEMPORARY CONTROLLER TO THE EXISTING CONTROLLER AT PARK AVENUE. ALL LABOR, EQUIPMENT, AND MATERIALS TO PERFORM THIS WORK, INCLUDING AERIAL AND ELECTRIC CABLE IN CONDUIT, RACEWAYS, AND DRILL EXISTING HANDHOLE SHALL BE INCIDENTAL TO THE PAY ITEM "TEMPORARY TRAFFIC SIGNAL INSTALLATION."
- EXISTING RIGHT OF WAY AS SHOWN IN THE PLANS IS BASED ON EXISTING RECORD DRAWINGS, AND IS NOT A RESULT OF GROUND SURVEY.



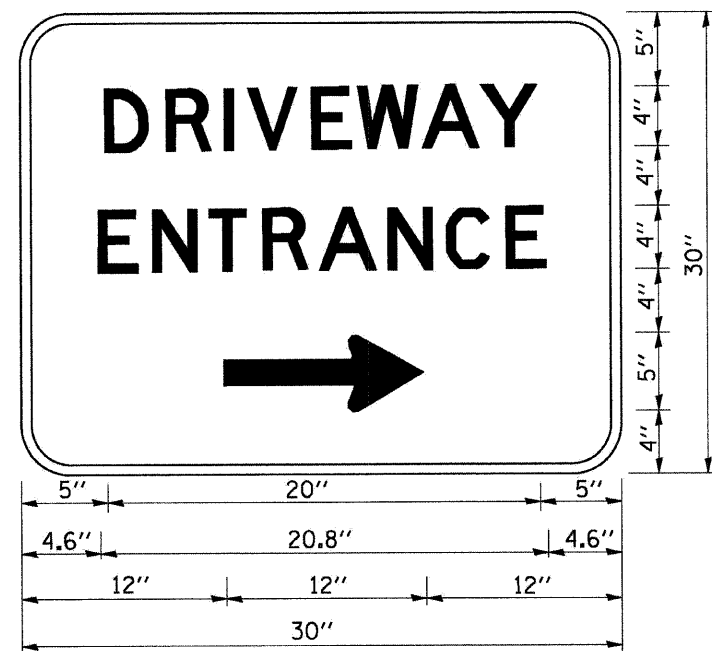
USER NAME = #USER#	DESIGNED - RWK	REVISED -
PLOT SCALE = #SCALE#	DRAWN - RWK	REVISED -
PLOT DATE = #DATE#	CHECKED - FML	REVISED -
	DATE - 04/2011	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY TRAFFIC SIGNAL INTERCONNECTION
U.S. ROUTE 6 OVER LITTLE CALUMET RIVER

SCALE: 1"=50' SHEET NO. 1 OF 1 SHEETS STA. 200+00 TO STA. 214+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	52	24
			CONTRACT NO. 60K57	
ILLINOIS FED. AID PROJECT				



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

NOTES:

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE
 PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN)
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

DRIVEWAY ENTRANCE SIGNING



USER NAME = #USER#	DESIGNED -	REVISED -
PLOT SCALE = #SCALE#	DRAWN -	REVISED -
PLOT DATE = #DATE#	CHECKED -	REVISED -
	DATE - 04/2011	REVISED -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

DISTRICT STANDARDS
 US ROUTE 6 OVER LITTLE CALUMET RIVER

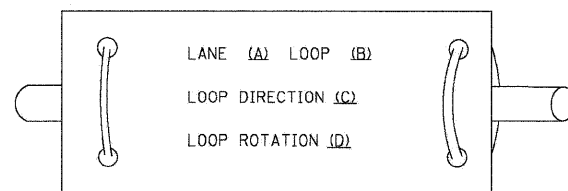
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	54	25
TC-26			CONTRACT NO. 60K57	
ILLINOIS FED. AID PROJECT				

LOOP DETECTOR NOTES

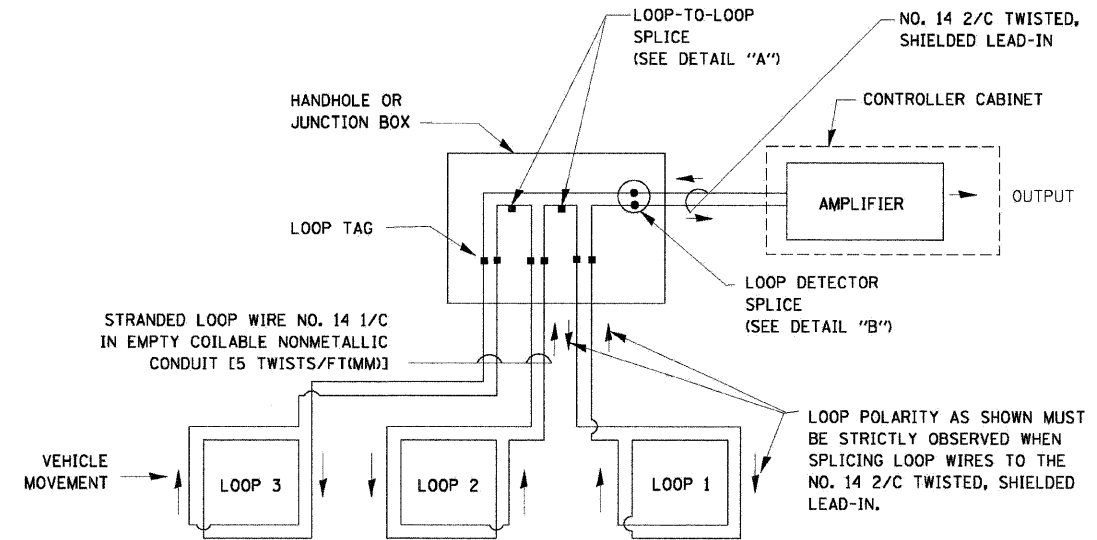
1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG



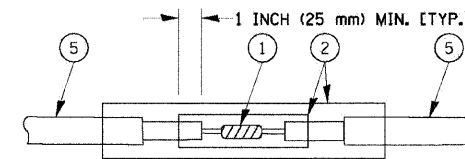
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

STANDARD TRAFFIC SIGNAL DESIGN DETAILS

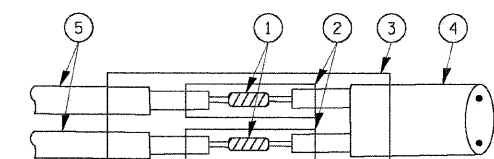


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

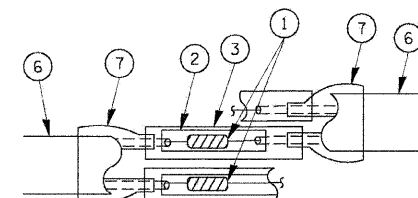


DETAIL "A"
LOOP-TO-LOOP SPLICE

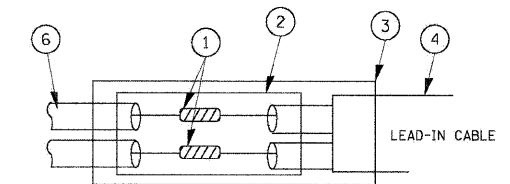


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



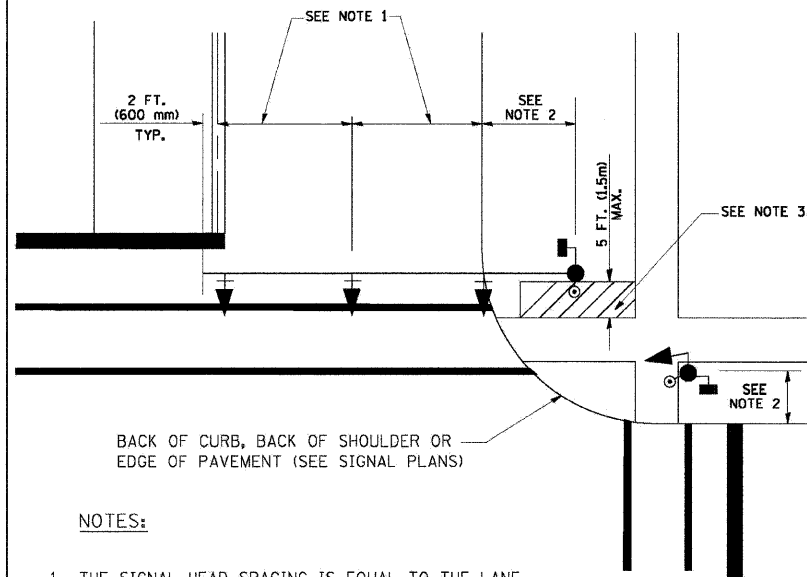
DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- 1 WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- 2 WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- 3 WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- 4 NO. 14 2/C TWISTED, SHIELDED CABLE.
- 5 LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- 6 PRE-FORMED LOOP
- 7 XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

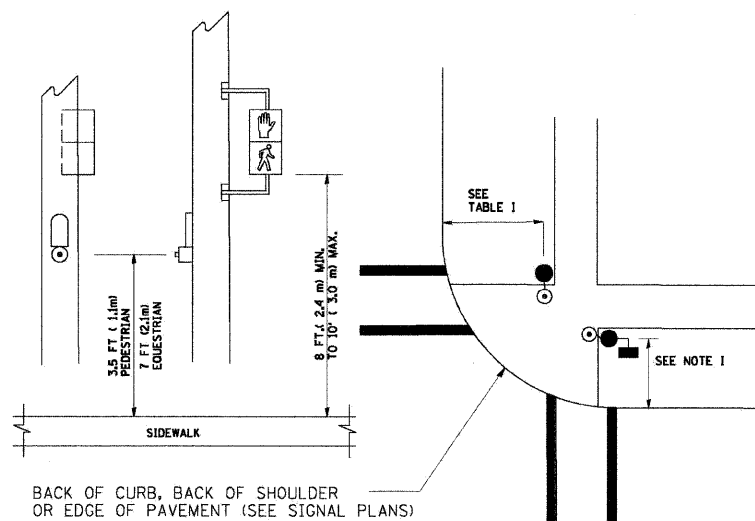
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

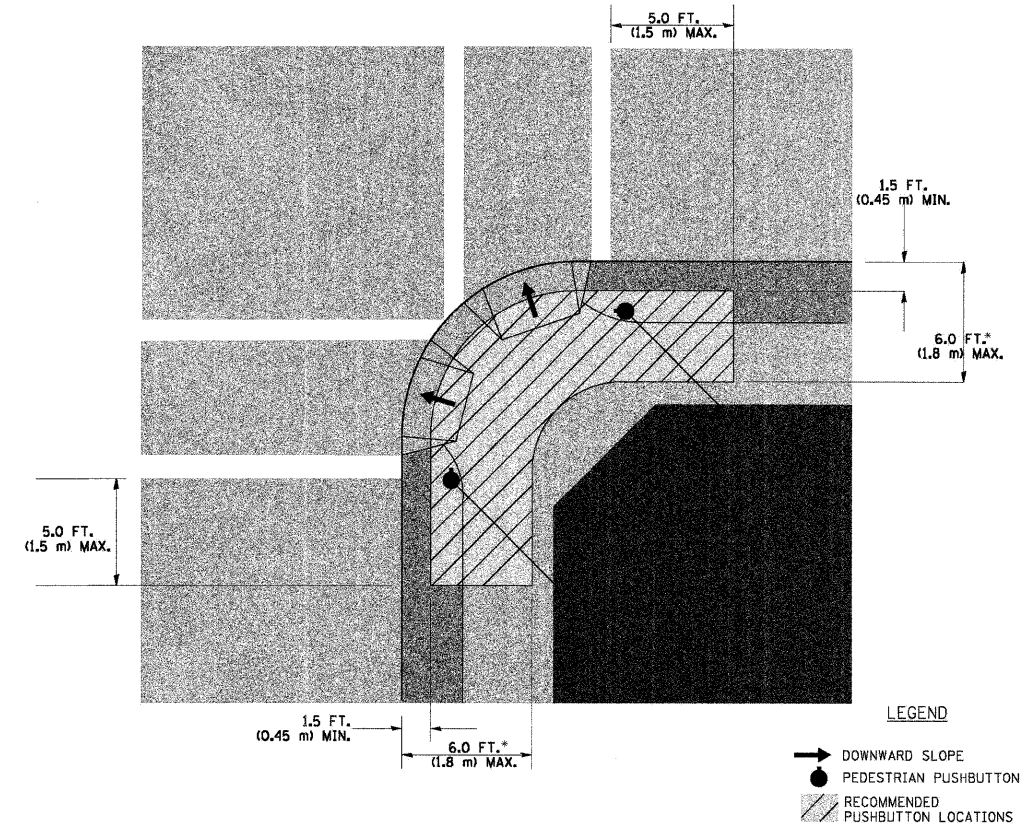
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

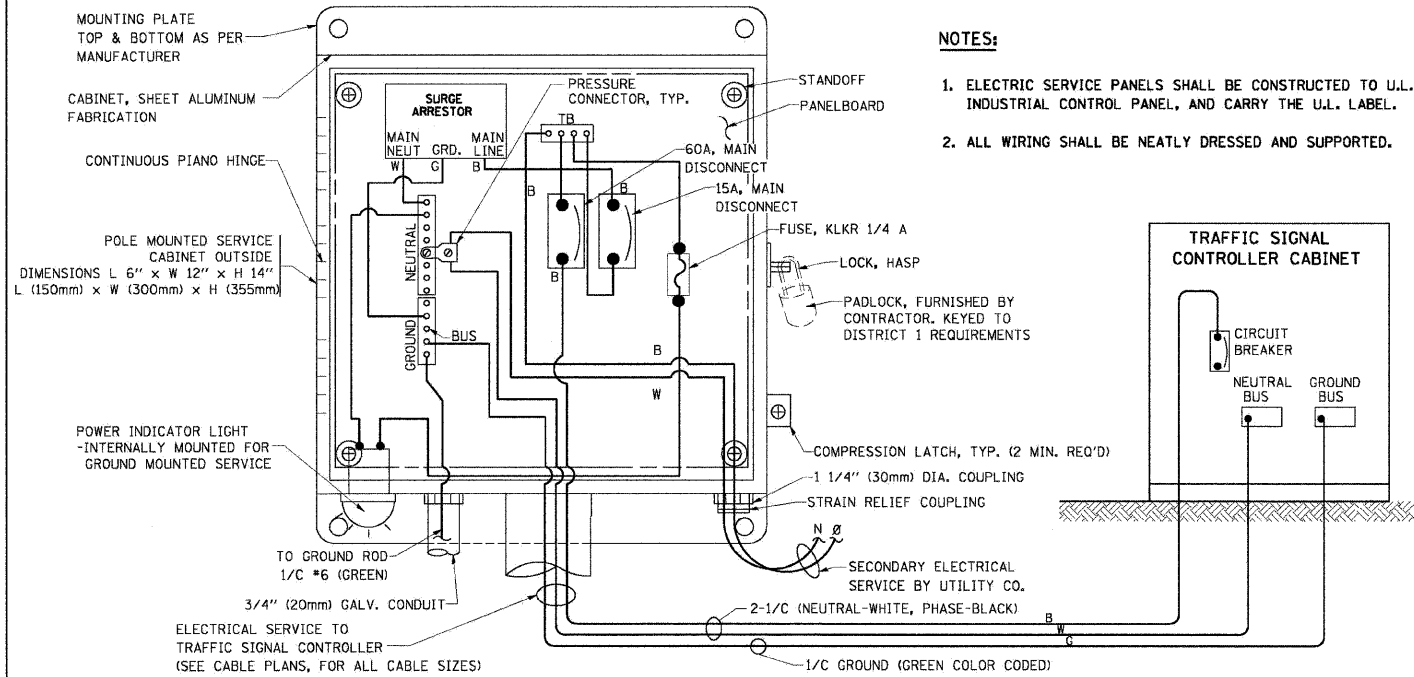
TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

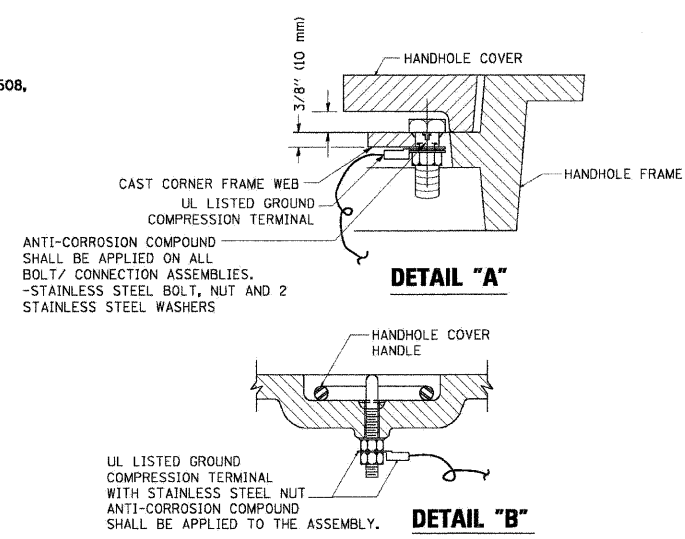
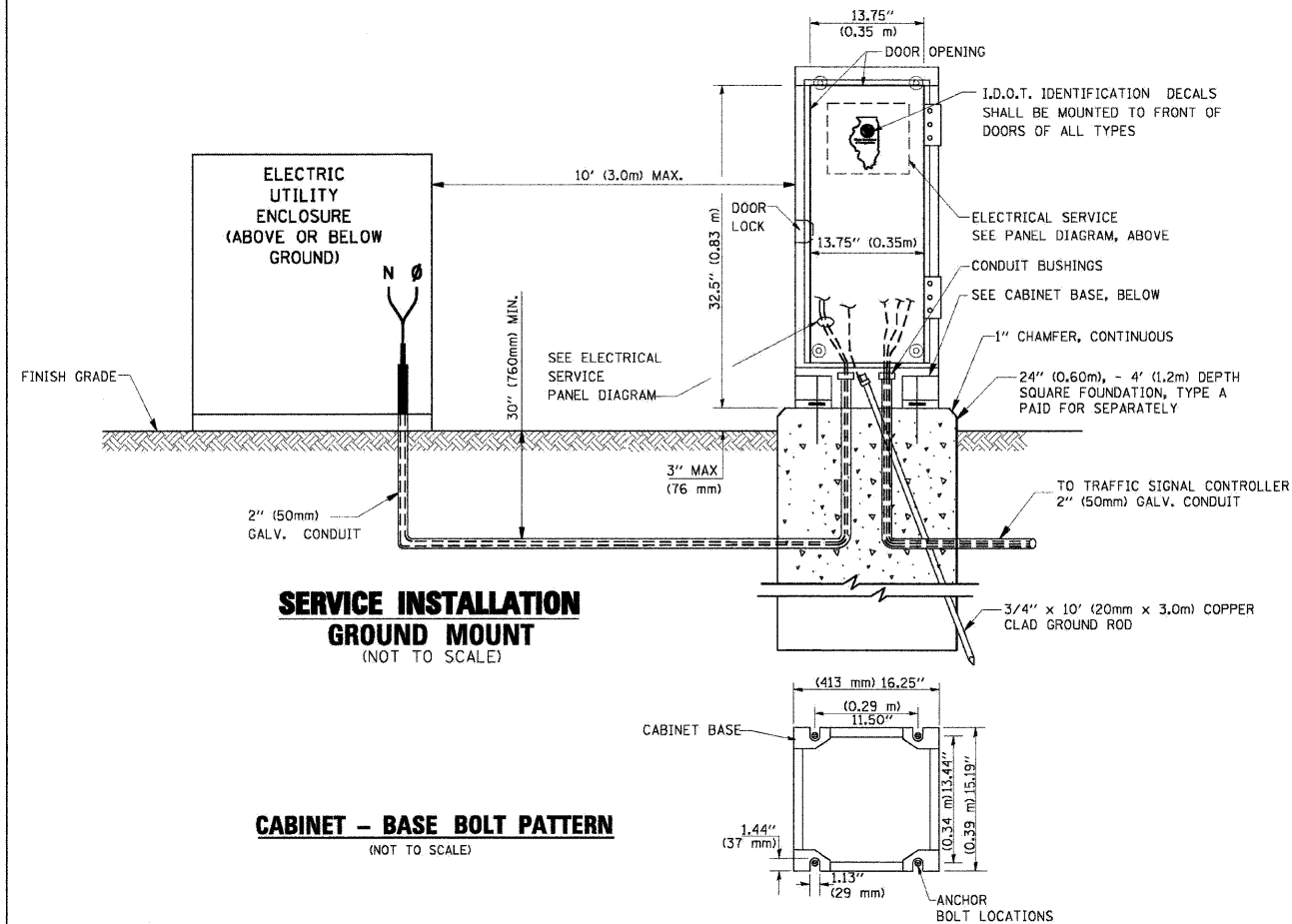
NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

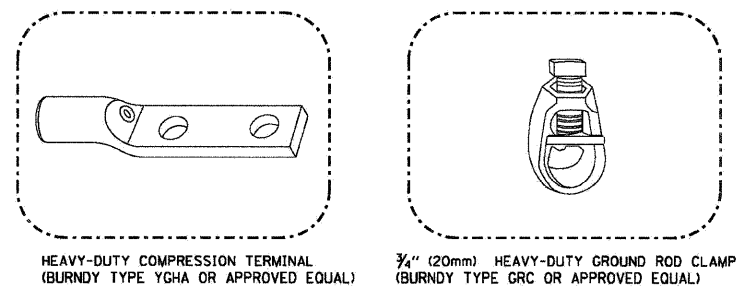
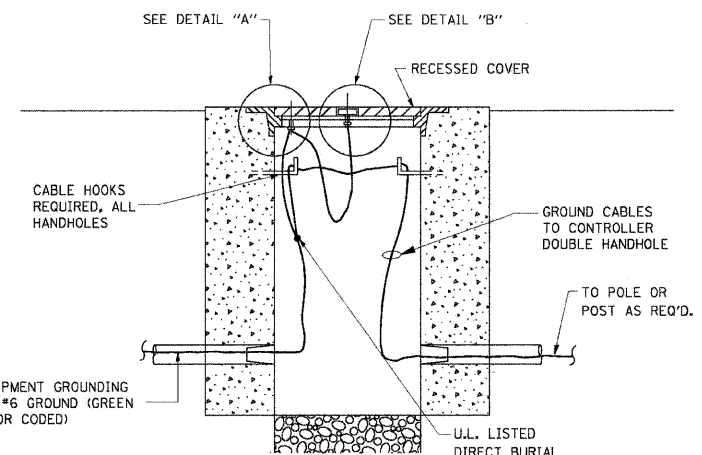
STANDARD TRAFFIC SIGNAL DESIGN DETAILS



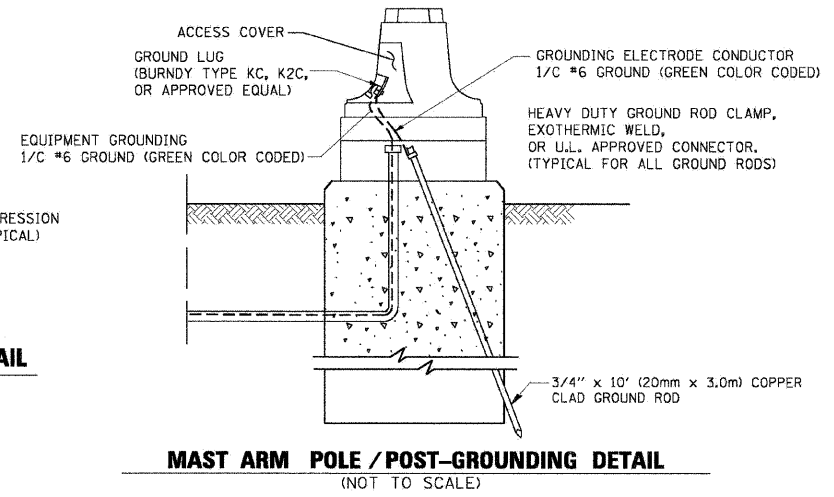
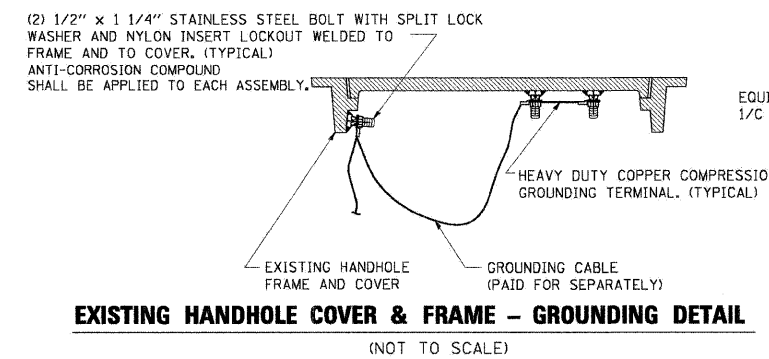
ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



- NOTES:**
- GROUNDING SYSTEM**
- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
 - THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
 - ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
 - THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

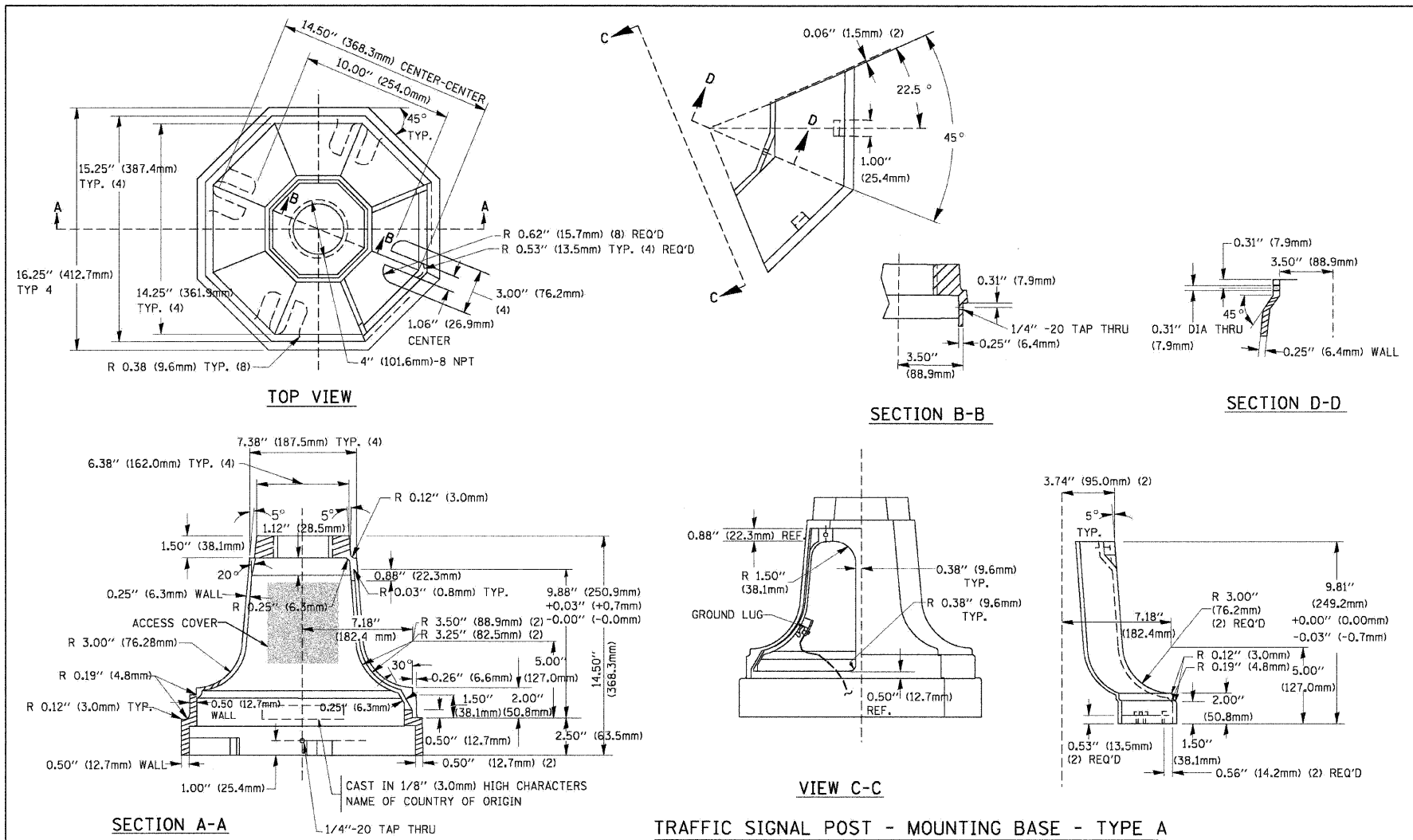


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
 - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.

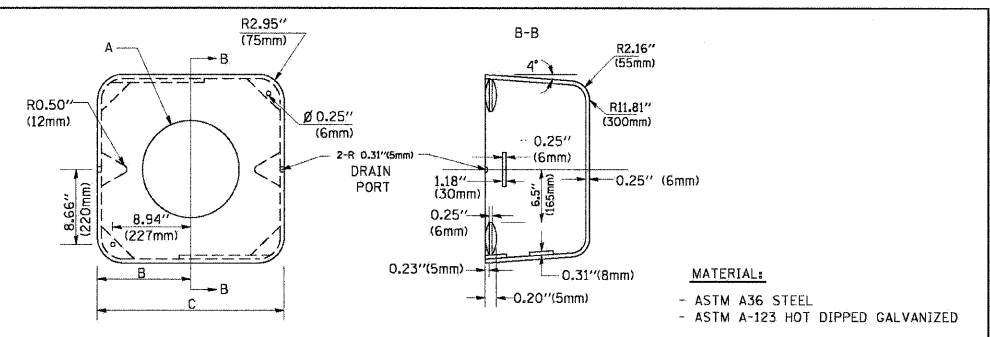


STANDARD TRAFFIC SIGNAL DESIGN DETAILS

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	USER NAME = #USER#	DESIGNED -	REVISED -	<p>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</p>	<p>DISTRICT STANDARDS US ROUTE 6 OVER LITTLE CALUMET RIVER</p>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = #SCALE#	DRAWN -	REVISED -		351	539W-1-RS	COOK	56	28			
	PLOT DATE = #DATE#	CHECKED -	REVISED -			TS-05c						
		DATE - 04/2011	REVISED -						CONTRACT NO. 60K57	ILLINOIS FED. AID PROJECT		
					SCALE: NONE	SHEET NO. 3 OF 6 SHEETS	STA.	TO STA.				



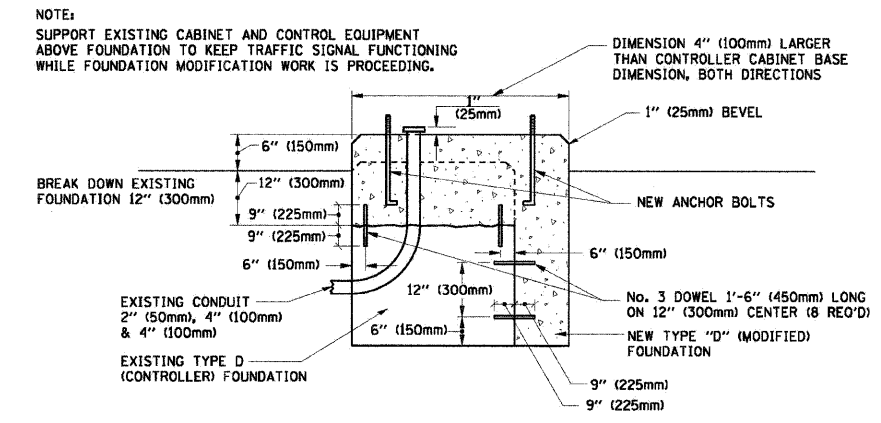
TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



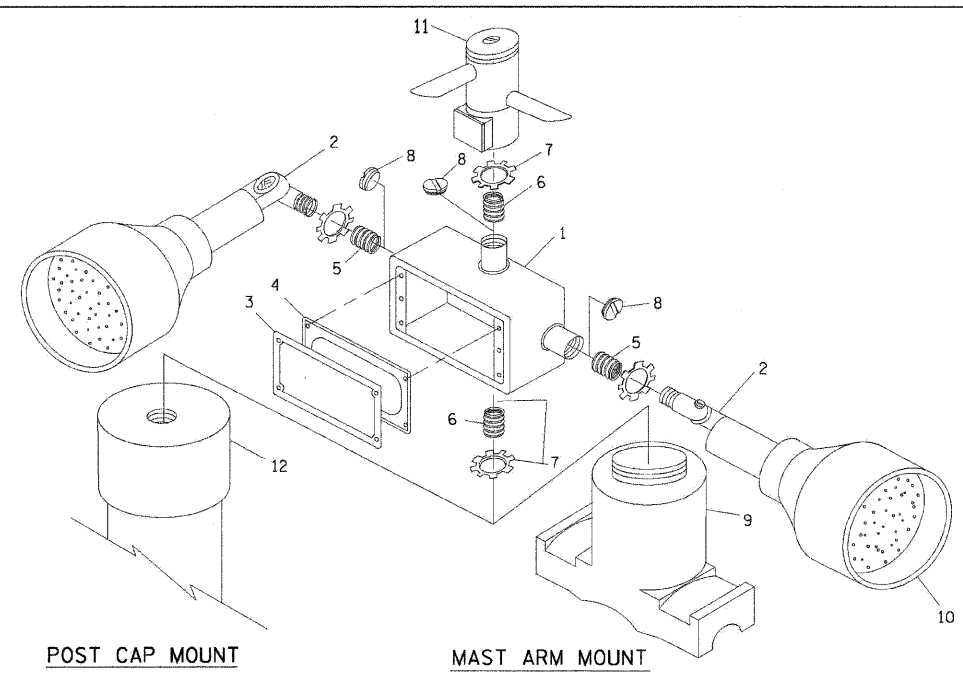
	A	B	C	HEIGHT	WEIGHT
VARIES	9.5\"(241mm)	19\"(483mm)	7\"(178mm)	12\"(300mm)	53 lbs (24kg)
VARIES	10.75\"(273mm)	21.5\"(546mm)	7\"(178mm)	12\"(300mm)	68 lbs (31 kg)
VARIES	13.0\"(330mm)	26\"(660mm)	7\"(178mm)	12\"(300mm)	81 lbs (37 kg)
VARIES	18.5\"(470mm)	37\"(940mm)	7\"(178mm)	12\"(300mm)	126 lbs (57 kg)

SHROUD

- NOTES:
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
 - THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
 - THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.



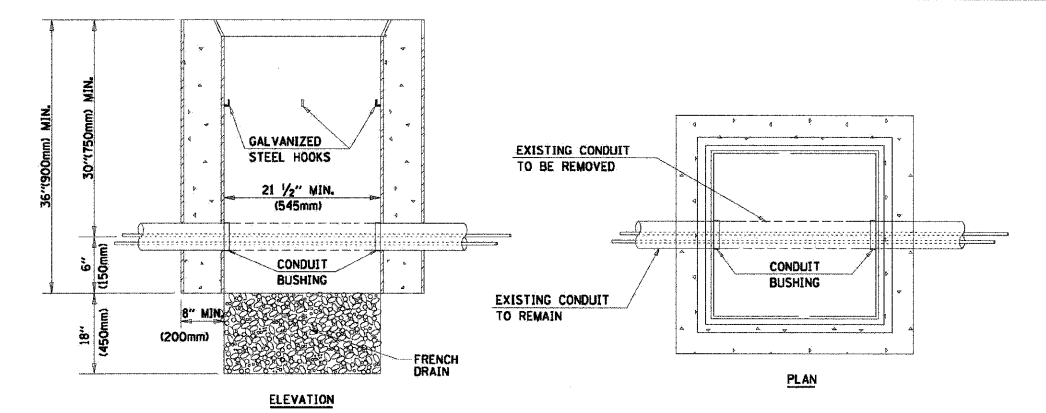
MODIFY EXISTING TYPE "D" FOUNDATION



ITEM NO.	IDENTIFICATION
1	OUTLET BOX - GALV., 21 CU. IN. (0.00344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4\"(19 mm) CLOSE NIPPLE
7	3/4\"(19 mm) LOCKNUT
8	3/4\"(19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

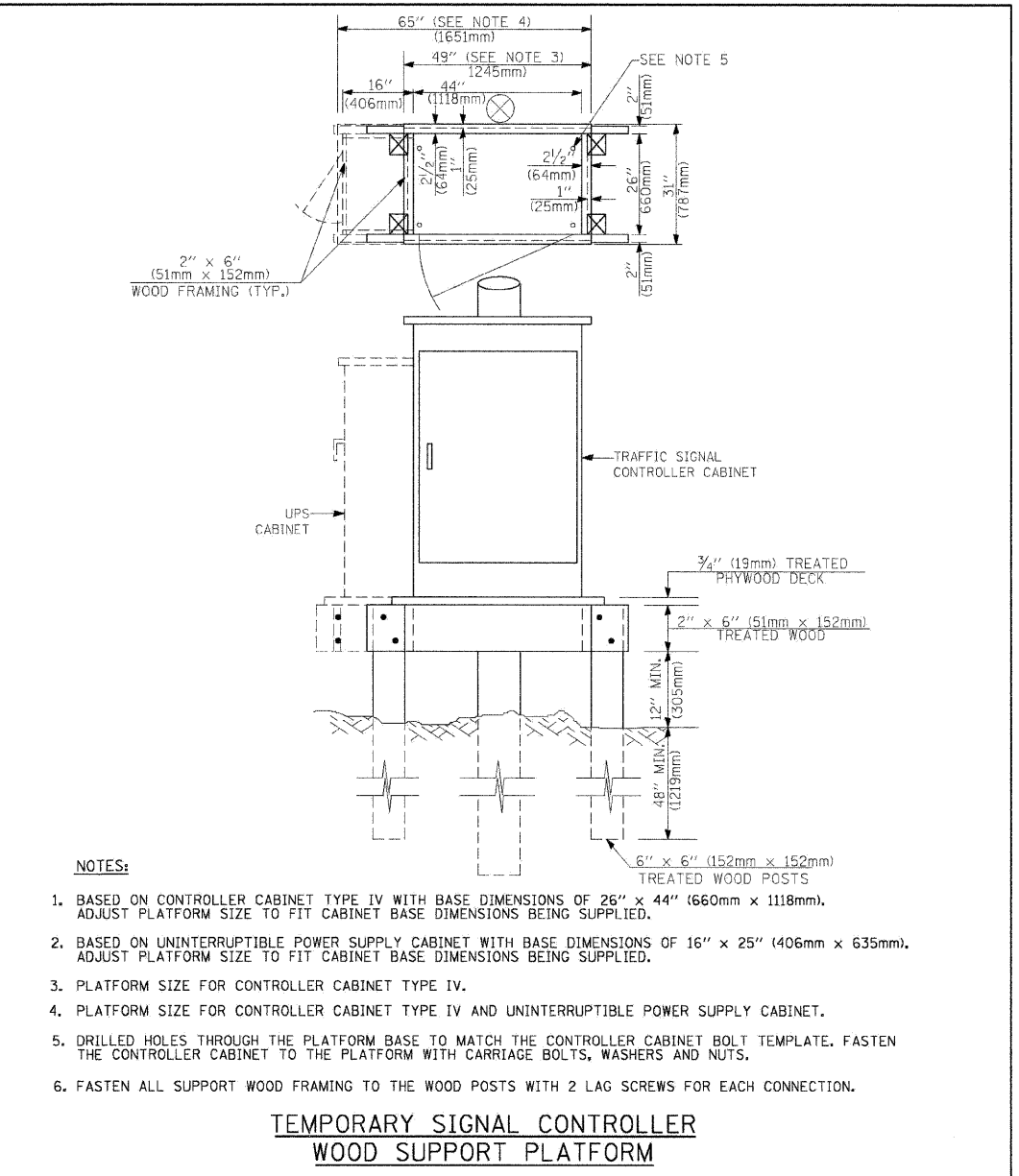
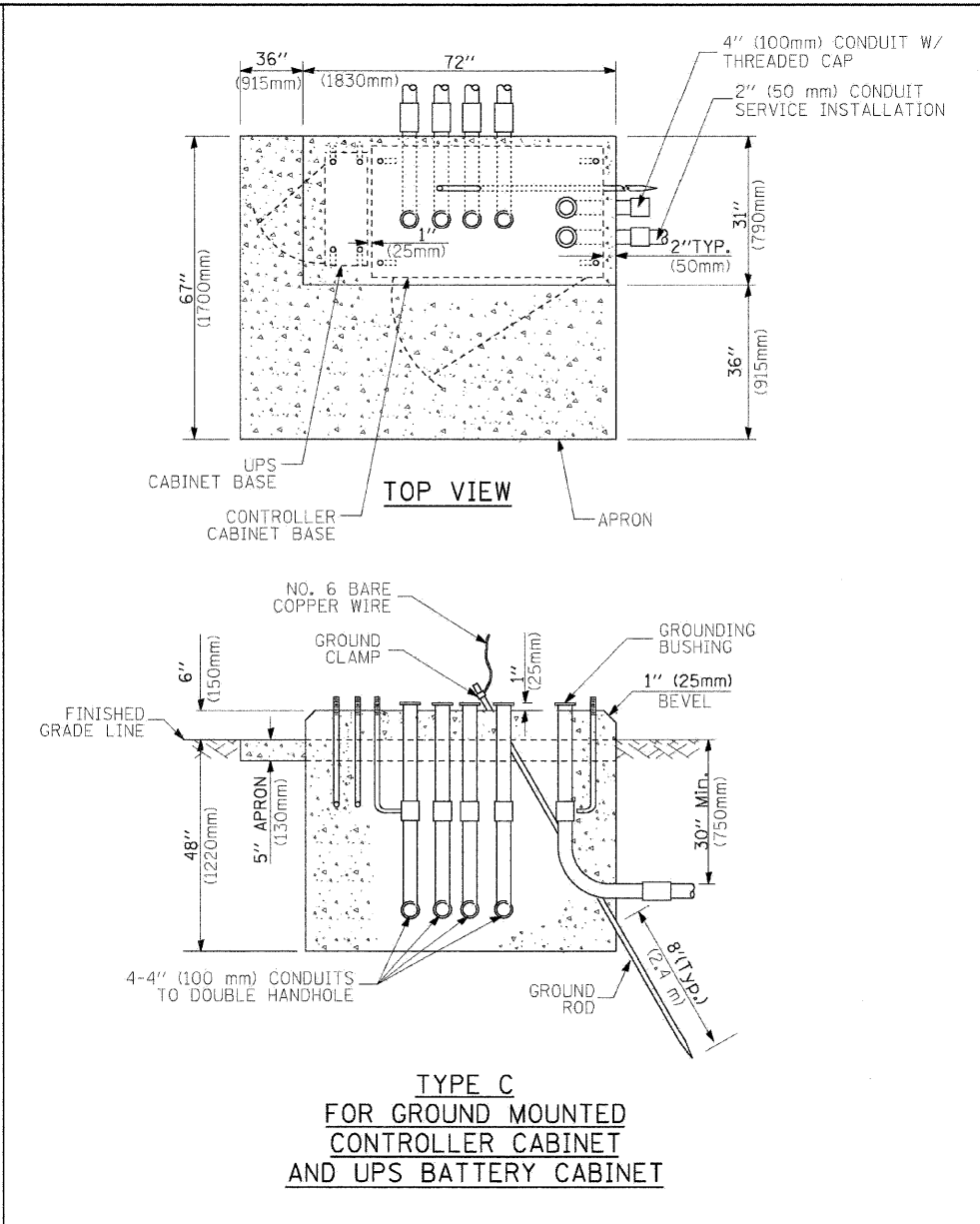
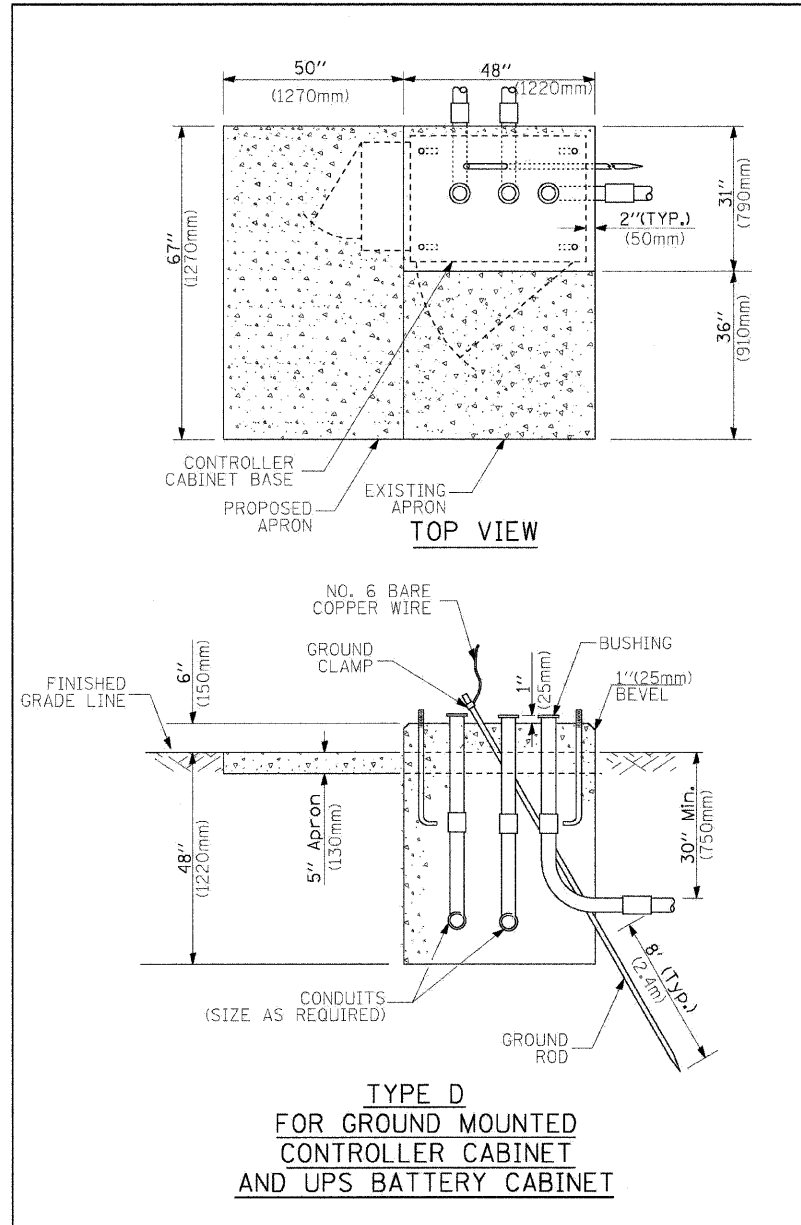
- NOTES:
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
 - ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
 - WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4\"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.

POST CAP MOUNT
MAST ARM MOUNT
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL



- NOTES:
- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
 - REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT



- NOTES:**
- BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 - BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
 - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
 - PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
 - DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
 - FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

VERTICAL CABLE LENGTH

STANDARD TRAFFIC SIGNAL DETAILS

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

DEPTH OF FOUNDATION

Mast Arm Length	① Foundation Depth	Foundation Diameter	Spiral Diameter	Quantity of Rebars	Size of Rebars
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:**
- These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (q_{ul}) ≥ 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
 - Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
 - Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
 - For mast arm assemblies with dual arms refer to state standard 878001.

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

TRAFFIC SIGNAL LEGEND

STANDARD TRAFFIC SIGNAL DETAILS

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED																	
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE																				
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE																				
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA																				
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED																				
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																				
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																				
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																				
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)																				
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH				GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE																				
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)				CONTROLLER CABINET AND FOUNDATION TO BE REMOVED																				
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S		STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																				
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I		ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																				
SIGNAL POST				REMOVE ITEM	R			STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED																				
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM	RL			SIGNAL POST AND FOUNDATION TO BE REMOVED																				
GUY WIRE				ABANDON ITEM	A			INTERSECTION & SAMPLING (SYSTEM) DETECTOR																				
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR																				
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																				
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																				
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE. "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																				
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED SAMPLING (SYSTEM) DETECTOR																				
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				<h2>RAILROAD SYMBOLS</h2> <table border="1"> <thead> <tr> <th></th> <th>EXISTING</th> <th>PROPOSED</th> </tr> </thead> <tbody> <tr> <td>RAILROAD CONTROL CABINET</td> <td></td> <td></td> </tr> <tr> <td>RAILROAD CANTILEVER MAST ARM</td> <td></td> <td></td> </tr> <tr> <td>FLASHING SIGNAL</td> <td></td> <td></td> </tr> <tr> <td>CROSSING GATE</td> <td></td> <td></td> </tr> <tr> <td>CROSSBUCK</td> <td></td> <td></td> </tr> </tbody> </table>				EXISTING	PROPOSED	RAILROAD CONTROL CABINET			RAILROAD CANTILEVER MAST ARM			FLASHING SIGNAL			CROSSING GATE			CROSSBUCK		
	EXISTING	PROPOSED																										
RAILROAD CONTROL CABINET																												
RAILROAD CANTILEVER MAST ARM																												
FLASHING SIGNAL																												
CROSSING GATE																												
CROSSBUCK																												
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID																								
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER																								
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT																								
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER																								
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																								
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																								
MICROWAVE VEHICLE SENSOR																												
VIDEO DETECTION CAMERA																												
VIDEO DETECTION ZONE																												
PAN, TILT, ZOOM CAMERA																												
WIRELESS DETECTOR SENSOR																												
WIRELESS ACCESS POINT																												

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION

CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER																											PREEMPTOR NUMBER 3	PREEMPTOR NUMBER 4	CLEAR TO NORMAL SEQUENCE				
	1	5	5	8	8	11	11	14	18	18	22	22	26	26	2	3																	
EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1J	1K	1L	1M	1N	1P	1Q	1R	1S	1T	1U	1V	1W	1X	1Y	1Z	1AA	1BB	1CC	1DD	1EE	1FF			
CHANGE TO EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2 OR 3	1C	2	1E	1F	3	1H	2	1K	1L	3	2	1P	1Q	3	2 OR 3	1T	1U	2	1W	3	1Y	1Z	2	1BB	3	1DD	1EE	2	3			
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS E/B	R ←Y	R	R	R	R	R	R	G ←G	G ←Y	G ←G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
MAIN STREET FAR RIGHT SIGNAL E/B	R	R	R	R	R	R	G	G	G	Y	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS W/B	R ←Y	G ←G	G ←Y	G ←G	Y	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
MAIN STREET FAR RIGHT SIGNAL W/B	R	G	G	G	Y	R	R	R	R	R	R	R	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
CROSS STREET FAR RIGHT SIGNAL S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
CROSS STREET FAR RIGHT SIGNAL N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	G	R	◇
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON NORTHSIDE OF MAIN STREET	H	FH	H	FH	H	H	H	H	H	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON SOUTHSIDE OF MAIN STREET	H	H	H	H	H	H	FH	H	FH	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	◇
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON EASTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	H	FH	H	H	H	H	H	FH	H	H	FH	H	H	H	◇
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON WESTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	FH	H	FH	H	H	FH	H	H	◇

◇ EMERGENCY VEHICLE SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY A DIFFERENT EMERGENCY INTERVAL AFTER EMERGENCY VEHICLE 2 OR 3 IS TERMINATED.

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION – MAIN STREET AND CROSS STREET



PROPOSED SEQUENCE OF OPERATION

MOVEMENT	1 + 5				1 + 6			2 + 5			2 + 6			3 + 7			3 + 8			4 + 7			4 + 8			FLASH						
PHASE	1	2	3	4	5	6	7	8	9	10	11	12	13A	13B	14	15	16	17	18	19	20A	20B	21	22	23		24A	24B	25	26	27	28A
CHANGE TO		1+6	2+5	2+6	φ	φ	2+6	φ	φ	2+6			3+7 3+8 4+7 4+8		1+5 1+6 2+5 2+6	3+8	4+7			φ	φ	1+5 1+6 2+5 2+6	4+8	φ	φ	1+5 1+6 2+5 2+6	4+8			1+5 1+6 2+5 2+6		
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS E/B	R ←G	R ←Y	R ←G	R ←Y	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
MAIN STREET FAR RIGHT SIGNAL E/B	R	R	R	R	R	R	R	G	G	G	G	G	G	Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS W/B	R ←G	R ←Y	R ←G	R ←Y	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
MAIN STREET FAR RIGHT SIGNAL W/B	R	R	R	R	R	R	R	G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CROSS STREET FAR RIGHT SIGNAL S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
CROSS STREET FAR RIGHT SIGNAL N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON NORTHSIDE OF MAIN STREET	H	H	H	H	*P	**FH	H	H	H	H	*P	**FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON SOUTHSIDE OF MAIN STREET	H	H	H	H	H	H	H	*P	**FH	H	*P	**FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON EASTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON WESTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H

- TO APPEAR ONLY UPON PUSHBUTTON ACTIVATION
- FLASHING "H" IS TO TERMINATE AT THE COMPLETION OF THE PEDESTRIAN INTERVAL CLEARANCE.
- φ THIS "H" OR FLASHING "H" INTERVAL MAY FINISH TIMING IN THE BIDIRECTIONAL STRAIGHT THROUGH MOVEMENT IF THE LEFT ARROW TIME IS NOT SUFFICIENT TO COMPLETE "H" OR FLASHING "H" INTERVALS. "H" AND FLASHING "H" TIMINGS TO BE SET ONLY ON PHASES WHERE "H" AND FLASHING "H" ARE INDICATED IN THE SEQUENCE OF OPERATION.

P = ILLUMINATED PERSON = WALK
 FH = ILLUMINATED FLASHING HAND = FLASHING DON'T WALK
 H = ILLUMINATED SOLID HAND = DON'T WALK

PHASE 2+6 SHALL BE PLACED ON RECALL.

NLT = "NO LEFT TURN" OR 
 NRT = "NO RIGHT TURN" OR 

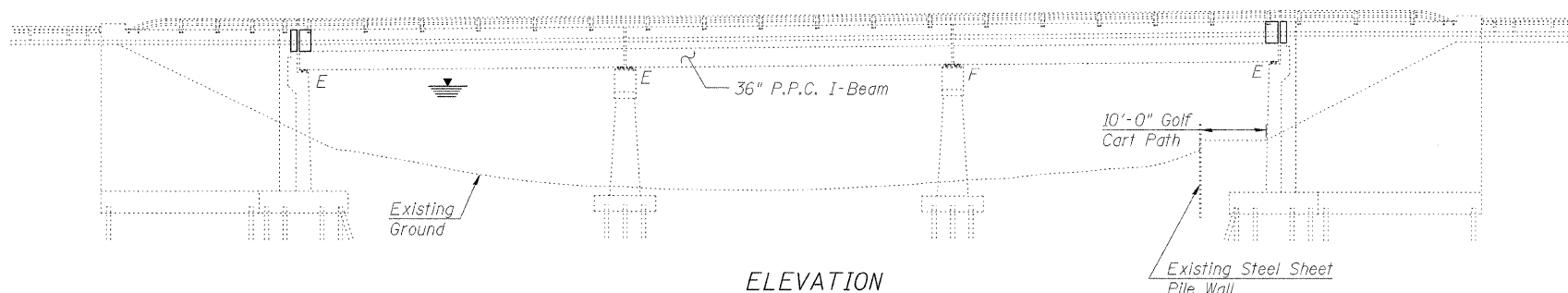
PROPOSED RAILROAD PREEMPTION SEQUENCE OF OPERATION

	PREEMPTOR NUMBER 3																PREEMPTOR NUMBER 4		PREEMPTOR NUMBER 2		CLEAR TO NORMAL SEQUENCE											
CHANGE FROM NORMAL SEQUENCE OF OPERATION INTERVAL NUMBER	1	5	8	11	14	18	22	26	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L		1M	1N	1P	1Q	1R	1S	2	3	4	5	
CHANGE FROM EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER																	2	3														
RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	1A	1B	1C	1D	1E	1F	1G	1H	1I	1J	1K	1L	1M	1N	1P	1Q	1R	1S	2	3	4	5										
CHANGE TO RAILROAD PREEMPTION SEQUENCE OF OPERATION INTERVAL NUMBER	2	1C	2	1E	2	1G	2	2	1K	2	2	1N	2	1Q	2	1S	2	3	4	5												
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS E/B	R ←Y	Y	R	R	R	Y	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R										
MAIN STREET FAR RIGHT SIGNAL E/B	R	Y	R	R	R	Y	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R										
MAIN STREET END MAST ARM AND FAR LEFT SIGNALS W/B	R ←Y	R	R	Y	R	Y	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R										
MAIN STREET FAR RIGHT SIGNAL W/B	R	R	R	Y	R	Y	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R										
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R										
CROSS STREET FAR RIGHT SIGNAL S/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R										
CROSS STREET END MAST ARM AND FAR LEFT SIGNALS N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R										
CROSS STREET FAR RIGHT SIGNAL N/B	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Y	R	R	R	R	R	R	R										
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON NORTHSIDE OF MAIN STREET	H	FH	H	H	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H											
PEDESTRIAN SIGNALS CROSSING CROSS STREET ON SOUTHSIDE OF MAIN STREET	H	H	H	FH	H	FH	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H											
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON EASTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	FH	H	H	FH	H	H	H	H	H	H	H	H	H											
PEDESTRIAN SIGNALS CROSSING MAIN STREET ON WESTSIDE OF CROSS STREET	H	H	H	H	H	H	H	H	H	FH	FH	H	H	H	H	H	H	H	H	H	H											
INTERNALLY ILLUMINATED NRT SIGNS	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT	NRT											
INTERNALLY ILLUMINATED NLT SIGNS	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT	NLT											

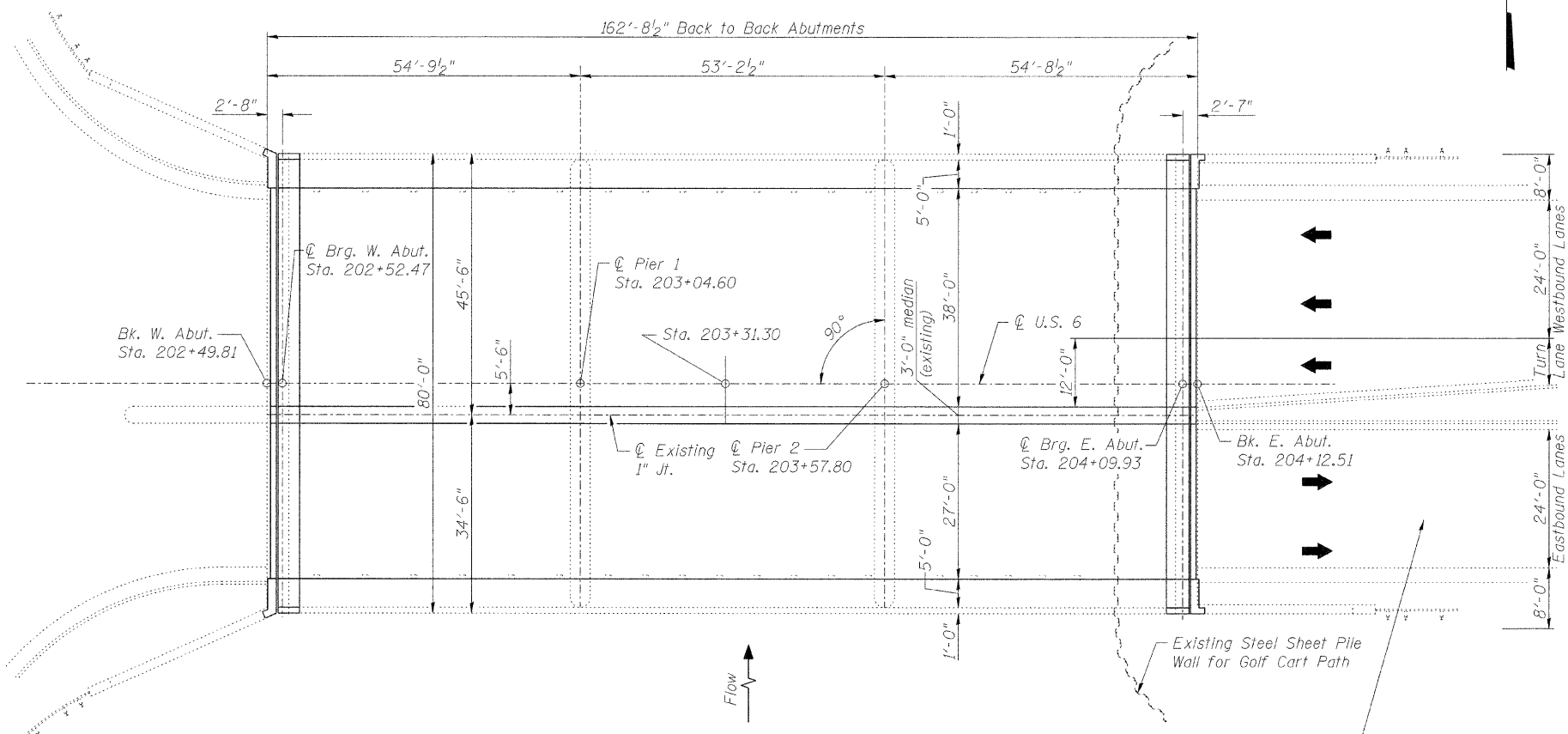
Δ RAILROAD PREEMPTION SEQUENCE SHALL PROVIDE THE PROPER CLEARANCE INTERVAL TO RESUME THE NORMAL SEQUENCE OF OPERATION OR PROPER CLEARANCE INTERVAL TO DISPLAY AN EMERGENCY VEHICLE INTERVAL (IF APPLICABLE) AFTER RAILROAD PREEMPTION INTERVAL 5 IS TERMINATED.

EMERGENCY VEHICLE PREEMPTION SEQUENCE OF OPERATION – MAIN STREET AND CROSS STREET

Existing Structure: S.N. 016-0389 built in 1931 as F.A.U. 1608, Section 539-BY at Station 203+31.20. In 1952, bridge was widened. In 1981, as F.A.U. 1608 Section 539-BY the bridge was reconstructed and widened. Structure consists of 3 span PPC-I Beam bridge with 7 1/2" concrete deck, 80'-0" out to out, and 162'-8 1/2" bk. to bk. abutments on pile supported closed abutments and solid wall piers. Stage Construction shall be utilized to maintain traffic during construction.



ELEVATION



PLAN



INDEX OF SHEETS

1. General Plan and Elevation
2. General Notes and Details
3. Temporary Concrete Barrier for Stage Construction
4. Superstructure Repair
5. Concrete Removal
- 6-7. Concrete Details
8. Preformed Joint Strip Seal
9. Bar Splicer Assembly and Mechanical Splicer Details

DESIGN STRESSES

FIELD UNITS

NEW CONSTRUCTION

$f'_c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

FIELD UNITS

EXISTING CONSTRUCTION

$f'_c = 1,000$ psi, $f_s = 20,000$ psi, Substructure with earth pressure
 $f'_c = 1,400$ psi, $f_s = 20,000$ psi, Substructure without earth pressure
 $f'_c = 3,500$
 $f_y = 60,000$ psi, Deck Slab, Curb & Parapet (Epoxy Coated Bars in Top of Slab)

PRECAST PRESTRESSED UNITS

EXISTING CONSTRUCTION

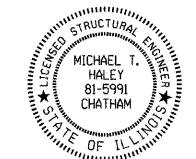
$f'_c = 5,000$ psi
 $f'_{cl} = 4,000$ psi
 $f'_s = 270,000$ psi, 1/2" ϕ Strands
 $f'_{si} = 189,000$ psi, 1/2" ϕ Strands
 $f_y = 60,000$ psi (Non prestressed reinforcement)

DESIGN SPECIFICATIONS

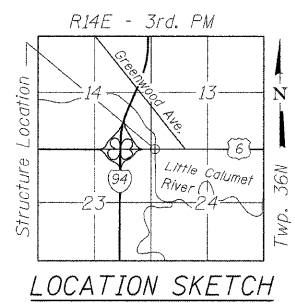
(New Construction)
 2002 AASHTO "Standard Specifications for Highway Bridges"

LOADING HS20-44

(Original Construction)

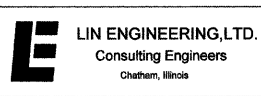


Michael J. Haley 4-8-2011
 Michael T. Haley Date
 Licensed Structural Engineer
 State of Illinois No. 81-5991
 Expires 11/30/2012



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
U.S. RTE. 6 (159TH ST.) OVER
LITTLE CALUMET RIVER
F.A.P. 351 - SECTION 539W-1-RS
COOK COUNTY
STATION 203+31.20
STRUCTURE NO. 016-0389



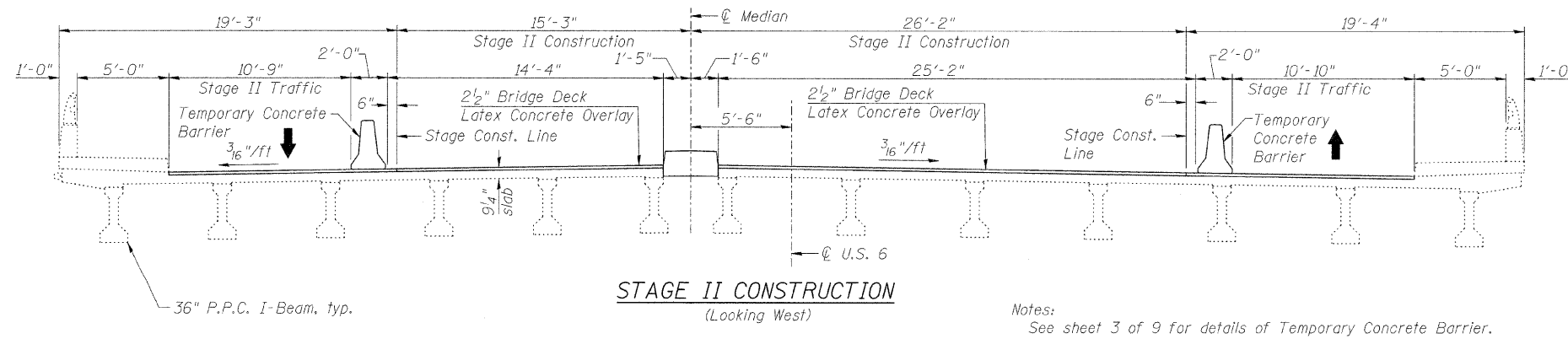
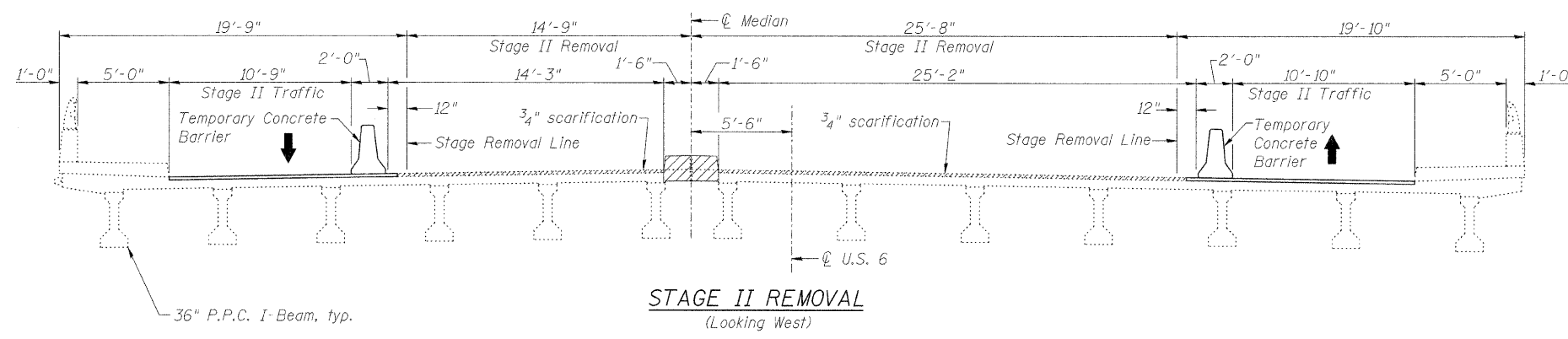
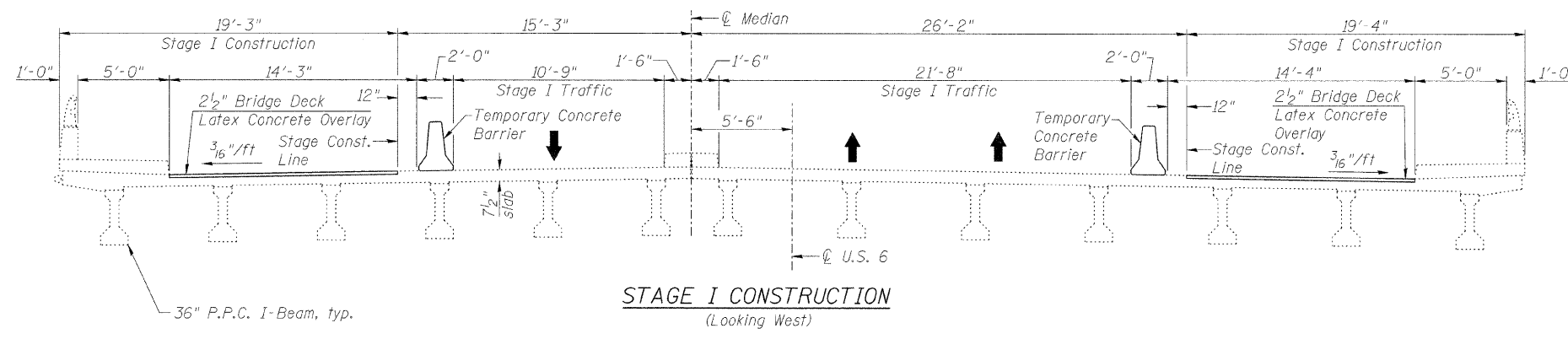
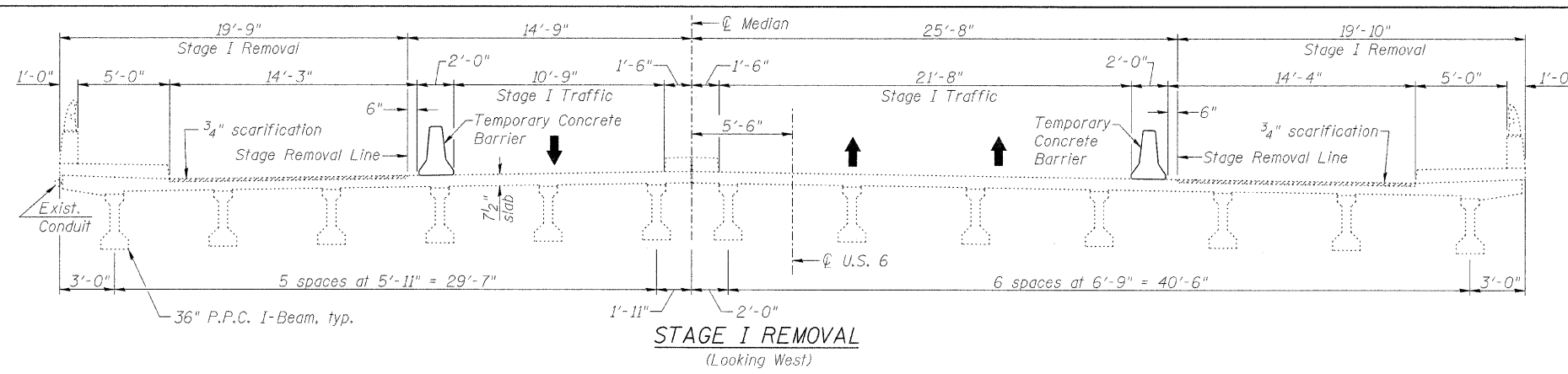
USER NAME =	DESIGNED - ADB	REVISED -
FILE NAME =	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SHEET NO. 1 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	52	34
			CONTRACT NO. 60K57	

ILLINOIS FED. AID PROJECT



Notes:
See sheet 3 of 9 for details of Temporary Concrete Barrier.
See Roadway plans for quantities of Temporary Concrete Barrier.
Hatched areas indicate concrete removal.

GENERAL NOTES

Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
Reinforcement bars designated (E) shall be epoxy coated.
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 at the unit price bid for the work.
Joint openings shall be adjusted according to Article 520.04 of the Std. Specs. when the deck is poured at an ambient temperature other than 50° F.
Contractor shall be careful not to damage conduit. Damages will be repaired at the Contractor's expense.
Existing reinforcement bars in the concrete removal areas extending into new construction shall be cleaned and incorporated into the new construction. Cost included with Concrete Removal.
Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system, in accordance with IDOT Standard Specifications Article 501.03. Cost included with Concrete Removal.

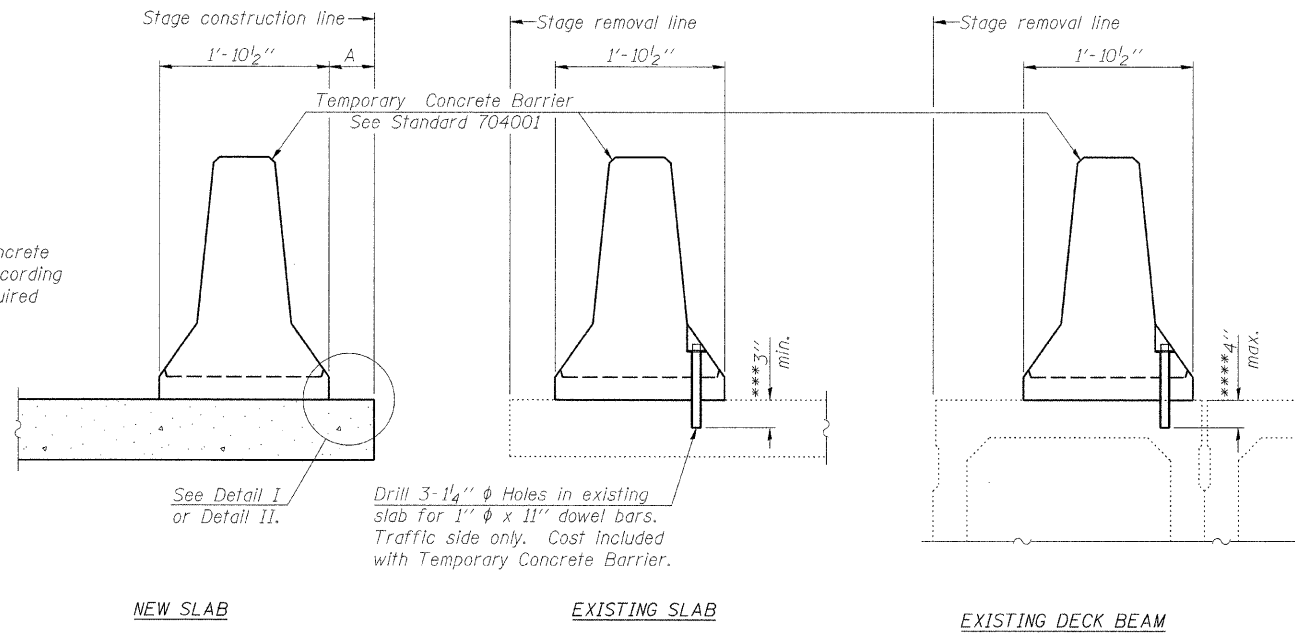
SCOPE OF WORK

1. Install Protective Shield over golf cart path at east abutment.
2. Remove 3/4" of concrete deck using Bridge Deck Scarification.
3. Remove and replace concrete median while closing the open longitudinal joint.
4. Remove and replace concrete deck and parapets adjacent to abutment expansion joints in order to provide Preformed Joint Strip Seal expansion joints.
5. Repair deck slab and approach slab.
6. Place 2 1/2" latex concrete overlay on bridge deck and perform Bridge Deck Grooving.
7. Apply Protective Coat to new concrete at joint on front and top face of parapets and top face of slab, and all faces of new median.

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.	71.8	-	71.8
Protective Shield	Sq. Yd.	130	-	130
Concrete Superstructure	Cu. Yd.	75.6	-	75.6
Bridge Deck Grooving	Sq. Yd.	1080	-	1080
Protective Coat	Sq. Yd.	167	-	167
Reinforcement Bars, Epoxy Coated	Pound	11970	-	11970
Bar Splicers	Each	58	-	58
Preformed Joint Strip Seal	Foot	163	-	163
Bridge Deck Latex Concrete Overlay, 2 1/2 inches	Sq. Yd.	1151	-	1151
Bridge Deck Scarification 3/4"	Sq. Yd.	1151	-	1151
Approach Slab Repair (Partial Depth)	Sq. Yd.	5.1	-	5.1
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	2.2	-	2.2
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	2.8	-	2.8

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

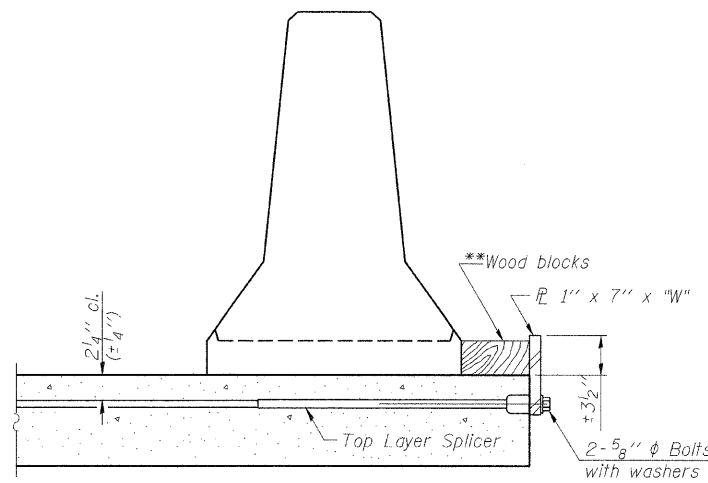
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel \bar{L} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

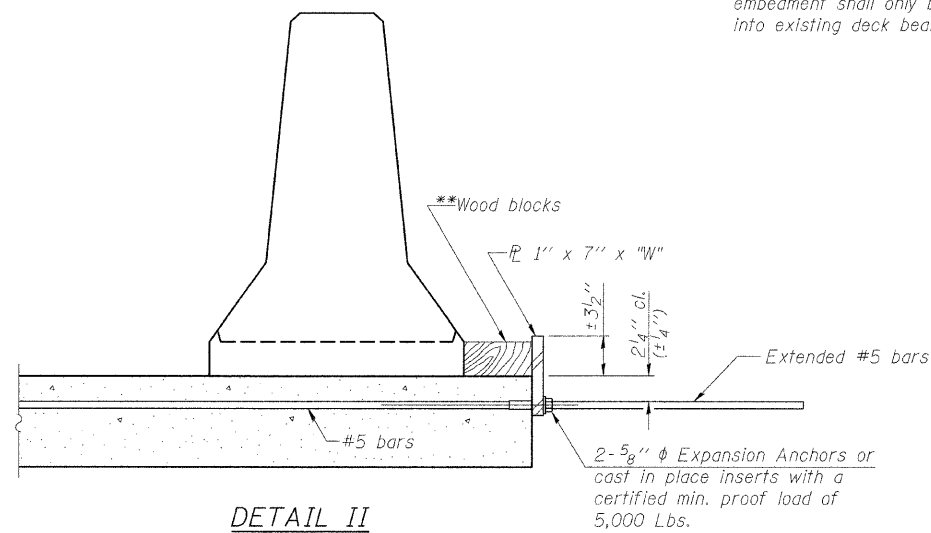
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

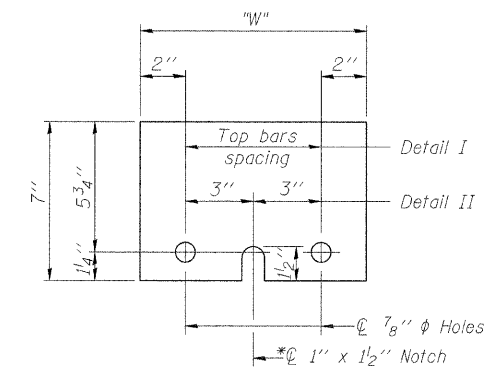
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{L} 1" x 7" x "W"

* Required only with Detail II

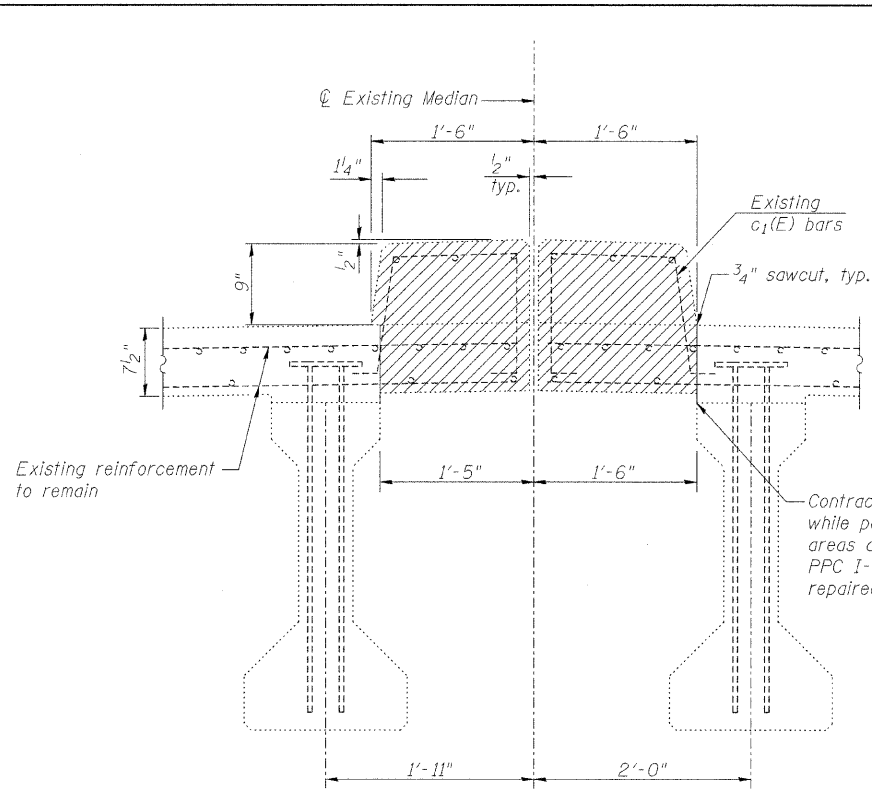
** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

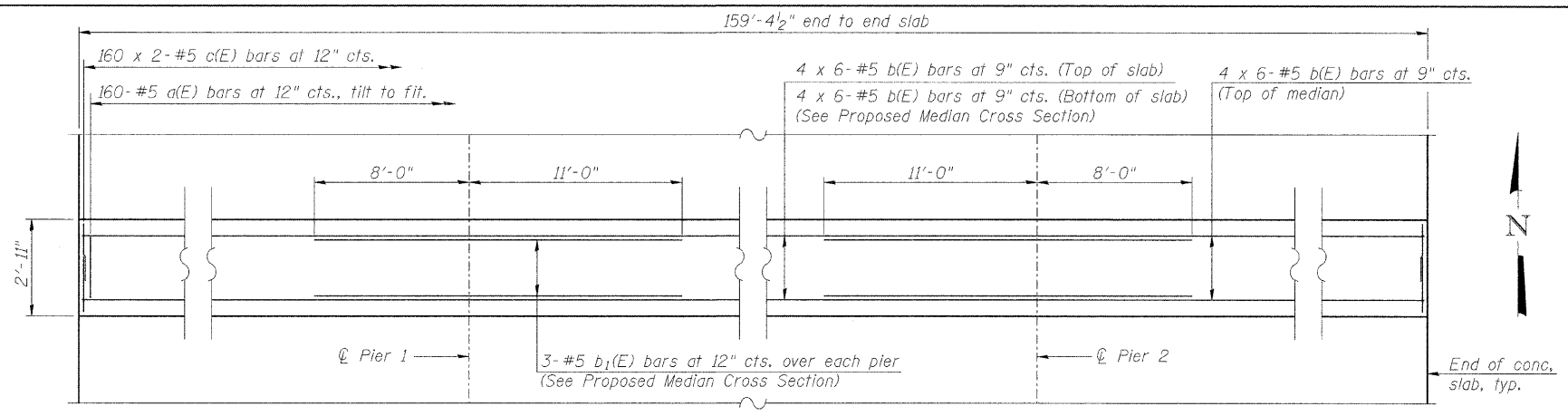
R-27

7-1-10

<p>LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois</p>	USER NAME =	DESIGNED - ADB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION STRUCTURE NO. 016-0389	F.A.P. R.T.E. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME =	CHECKED - MTH	REVISED -			351	539W-1-RS	COOK	56	36
	PLOT SCALE =	DRAWN - AJF	REVISED -			CONTRACT NO. 60K57				
	PLOT DATE =	CHECKED - MTH	REVISED -			ILLINOIS FED. AID PROJECT				
SHEET NO. 3 OF 9 SHEETS										

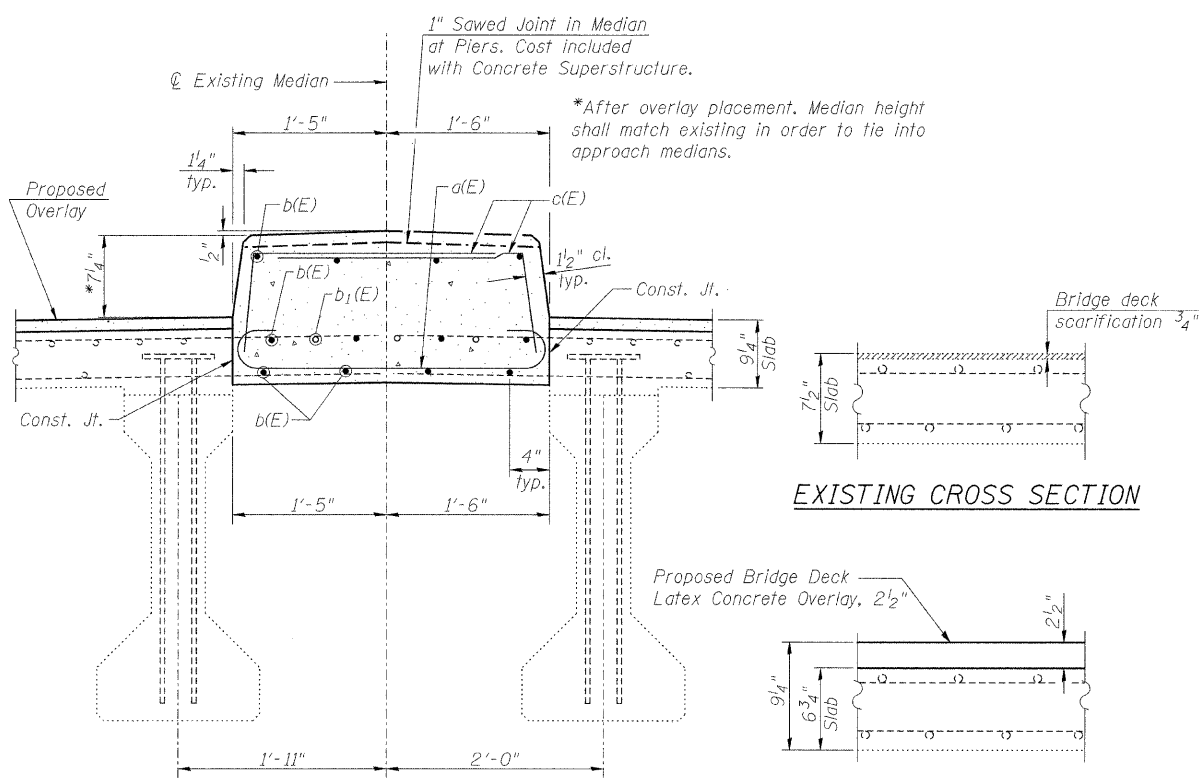


EXISTING MEDIAN CROSS SECTION
(Looking West)



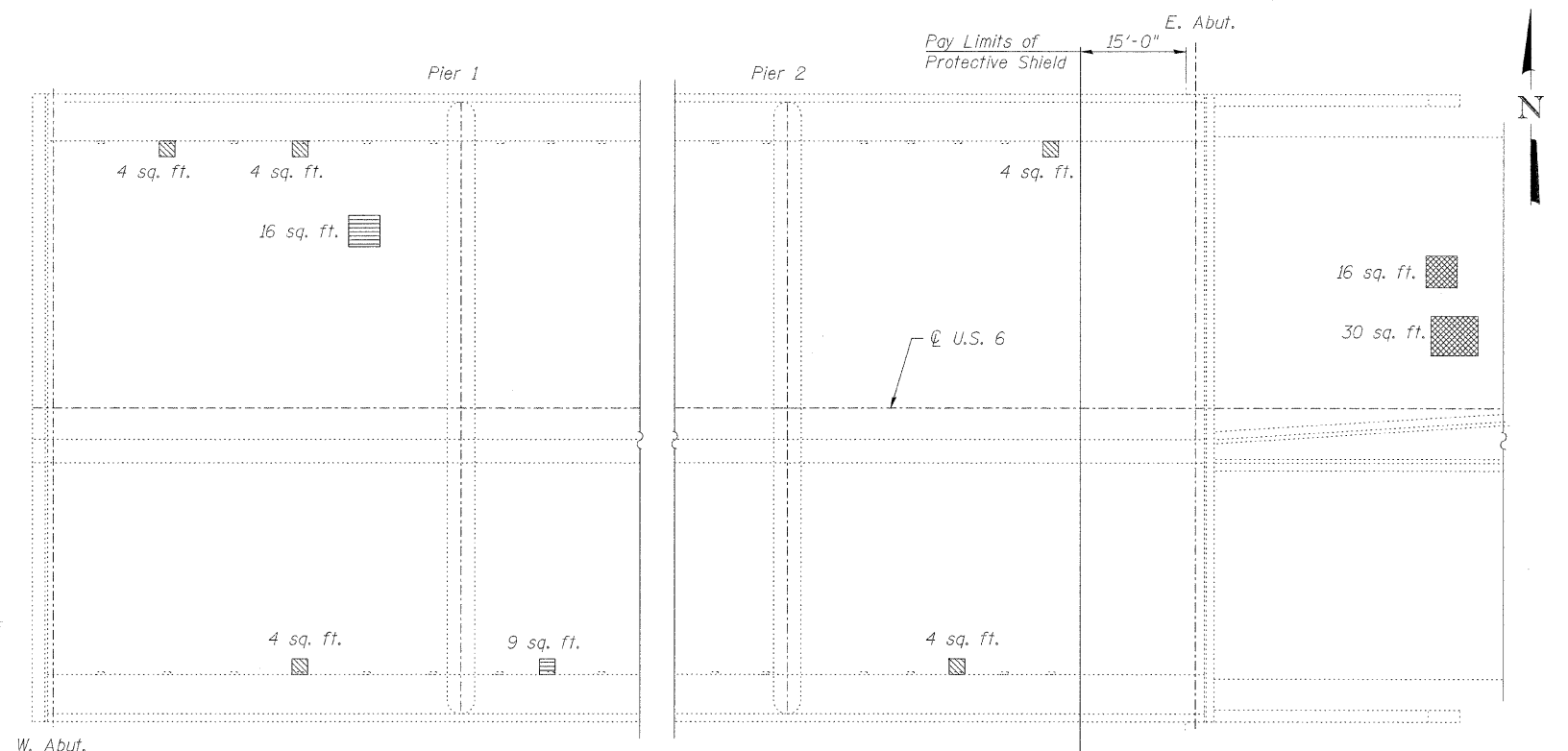
PLAN - MEDIAN

MINIMUM BAR LAP
#5 bar = 2'-6"
Bars indicated thus 4 x 6-#5 etc. indicates 4 lines of bars with 6 lengths per line.



EXISTING CROSS SECTION

PROPOSED CROSS SECTION
(Looking West)



PLAN

BILL OF MATERIAL

Item	Unit	Total
Concrete Removal	Cu. Yd.	24.3
Approach Slab Repair	Sq. Yd.	5.1
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	2.2
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	2.8

LEGEND

- Concrete Removal
- Approach Slab Repair (Partial Depth)
- Deck Slab Repair (Full Depth, Type I)
- Deck Slab Repair (Full Depth, Type II)

Notes:
Deck survey performed 11/29/2010.
See sheet 7 of 9 for Bill of Material, Bar List and Bar Bend Details for median.
Repair of the existing bridge deck and approach slab shall include but may not be limited to the areas shown. The actual area to be repaired will be determined by the Engineer at the time of construction.
Protective Shield shall be provided full width of bridge deck.
Removal of median shall be accomplished by methods that will not damage the beams under and adjacent to the median. Any damage shall not be cause for additional compensation.
Existing c1(E) bars to be cut flush with removal line. Cost included with Concrete Removal.



USER NAME =	DESIGNED - ADB	REVISED -
FILE NAME =	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - AJF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

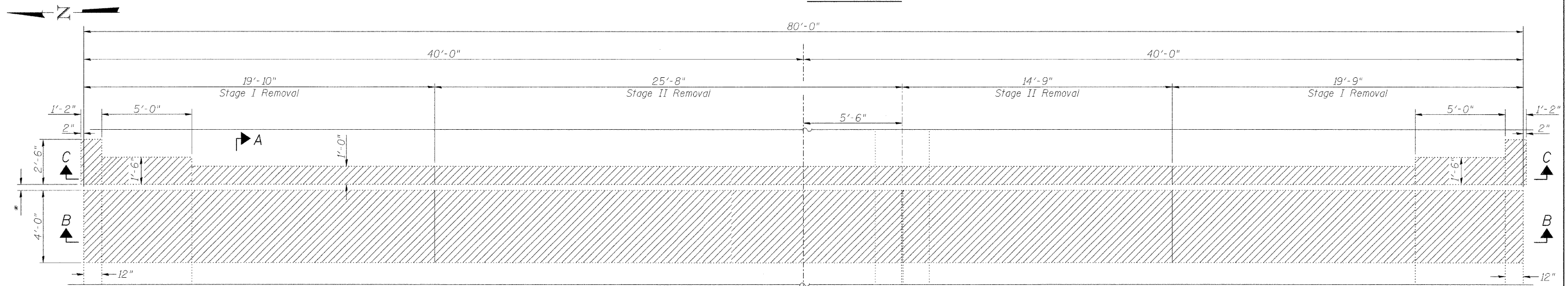
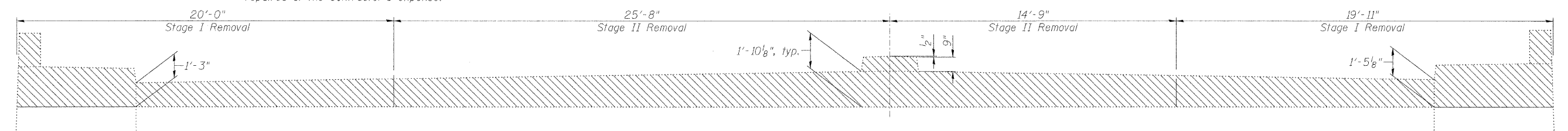
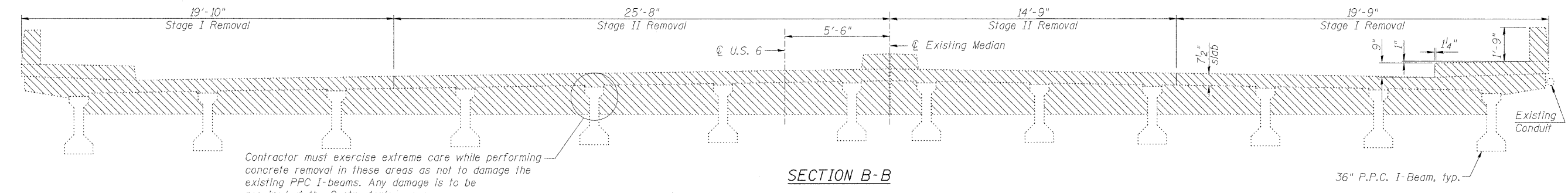
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE REPAIR
STRUCTURE NO. 016-0389

SHEET NO. 4 OF 9 SHEETS

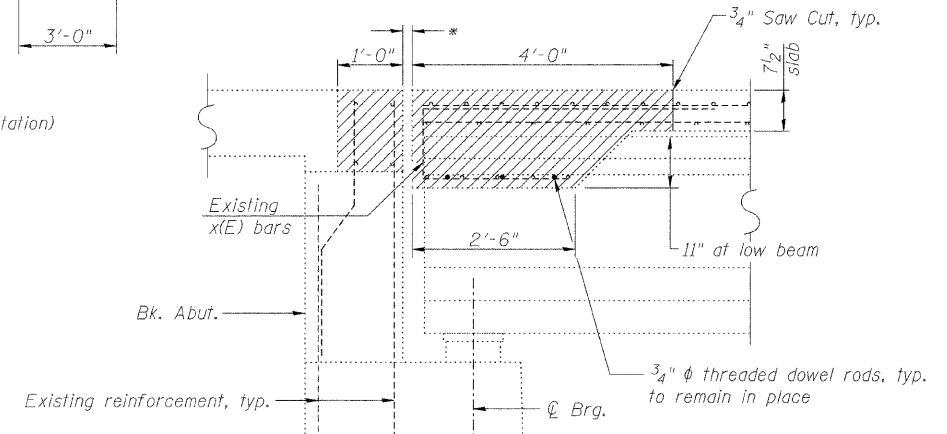
F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	52	37
			CONTRACT NO. 60K57	

ILLINOIS FED. AID PROJECT



* 1 3/4" @ 50°F (East Abutment)
 2 3/4" @ 50°F (West Abutment)

ABUTMENT PLAN
 (East abutment shown, West abutment similar by rotation)

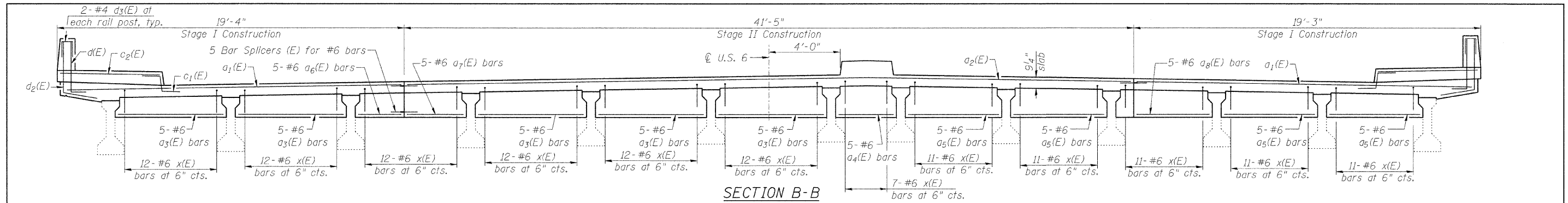


SECTION A-A

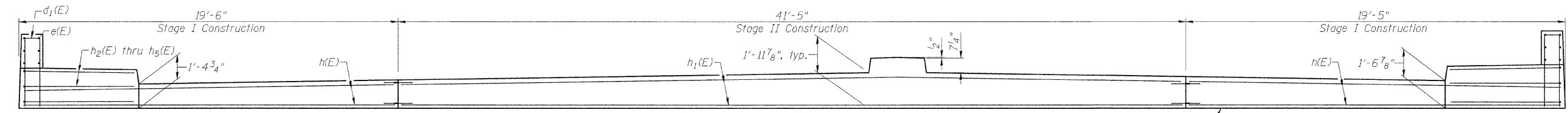
Notes:
 Hatched areas indicate Concrete Removal limits. Perimeter of Concrete Removal areas shall be saw cut 3/4" prior to removal of concrete.
 Removal of the existing joint system is included with Concrete Removal.
 Existing x(E) bars to be cut flush with removal line. Cost included with Concrete Removal.

BILL OF MATERIAL
 (2 Joints)

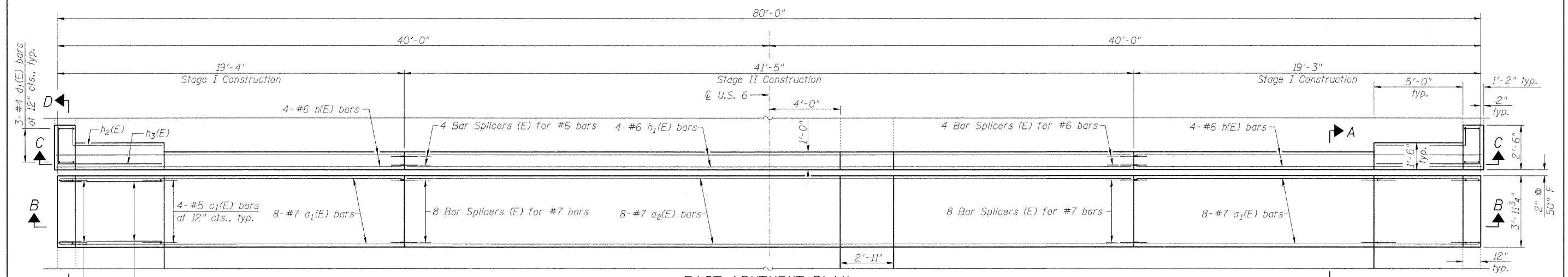
Item	Unit	Total
Concrete Removal	Cu. Yd.	47.5



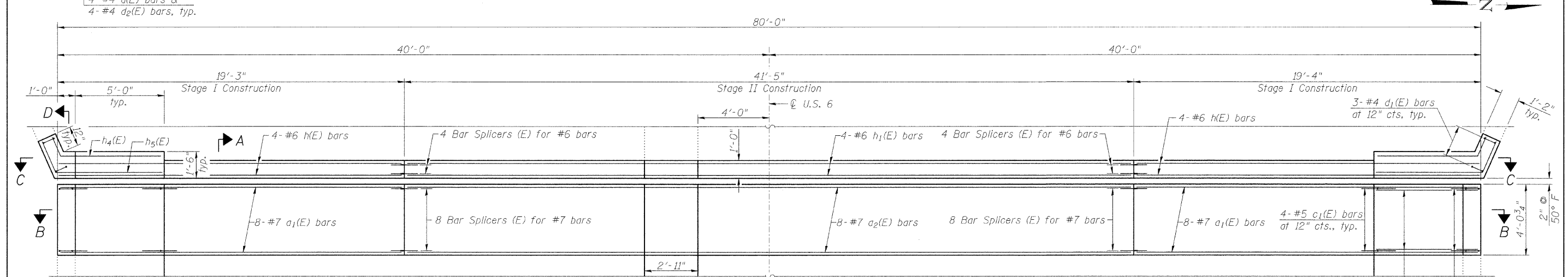
SECTION B-B



SECTION C-C



EAST ABUTMENT PLAN
(x(E) bars not shown)



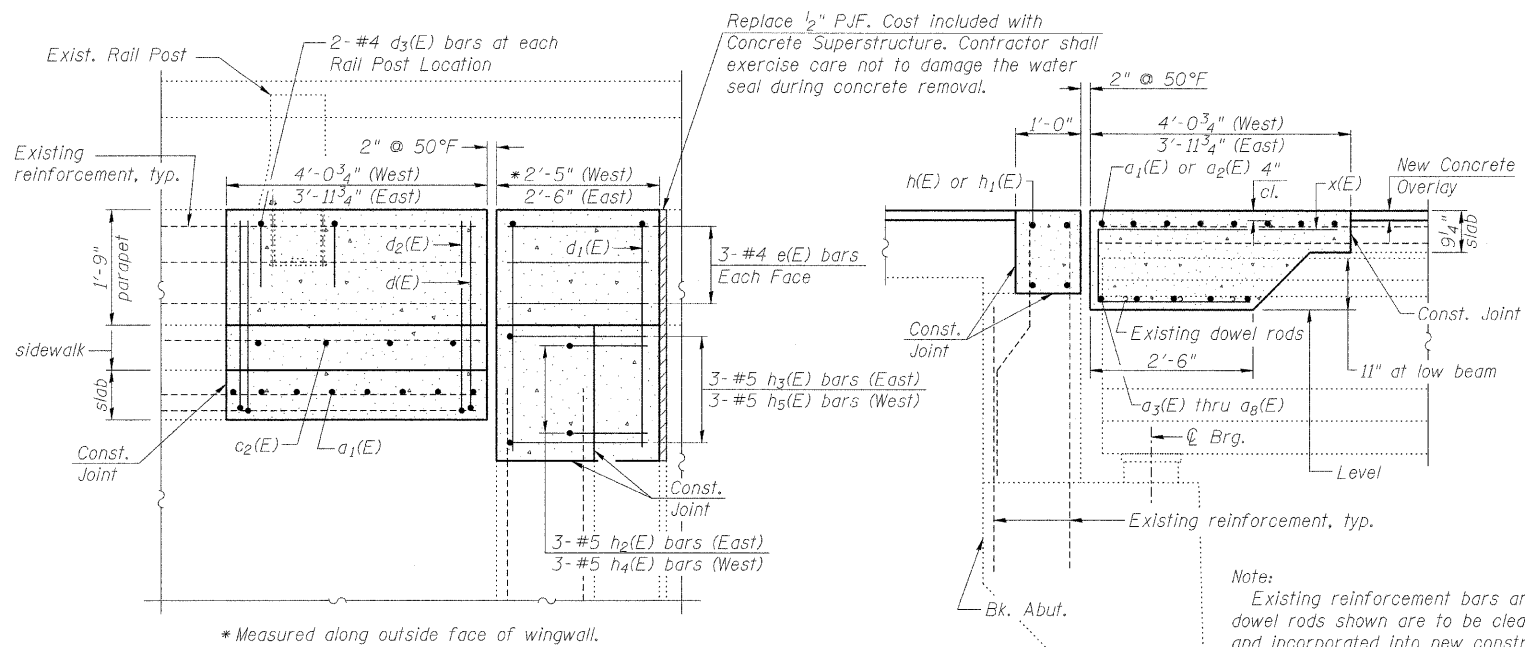
WEST ABUTMENT PLAN
(x(E) bars not shown)

See sheet 7 of 9 for Sections A-A and D-D, Bill of Material, and Bar Bend Details.
Work this sheet with sheet 7 of 9.

(Sheet 1 of 2)

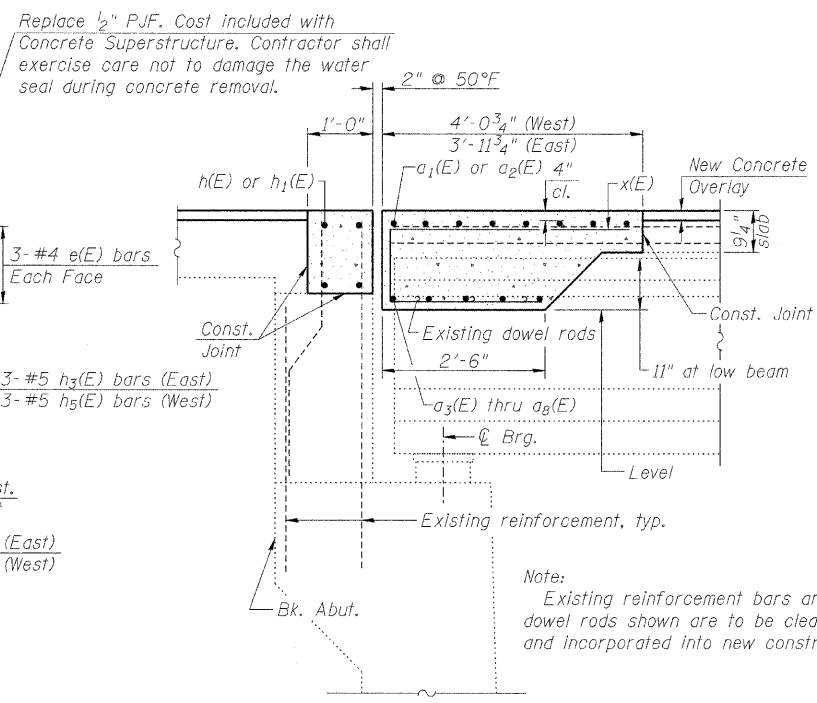
<p>LIN ENGINEERING, LTD. Consulting Engineers Chattanooga, Illinois</p>	USER NAME =	DESIGNED - ADB	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONCRETE DETAILS STRUCTURE NO. 016-0389	F.A.P. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	FILE NAME =	CHECKED - MTH	REVISED -			351	539W-1-RS	COOK	56	39
	PLOT SCALE =	DRAWN - AJF	REVISED -			CONTRACT NO. 60K57				
	PLOT DATE =	CHECKED - MTH	REVISED -			ILLINOIS FED. AID PROJECT				

SHEET NO. 6 OF 9 SHEETS



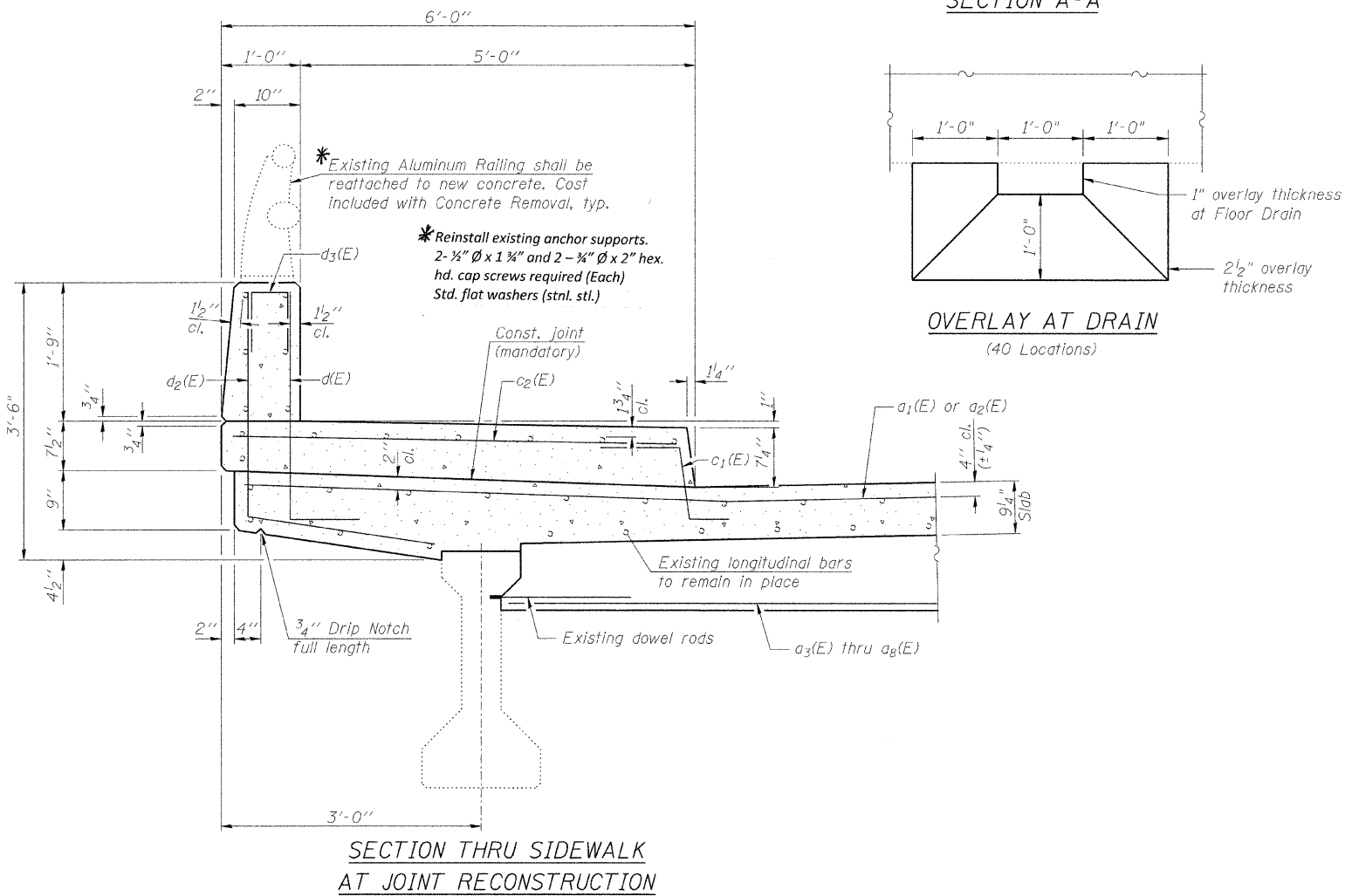
* Measured along outside face of wingwall.

SECTION D-D

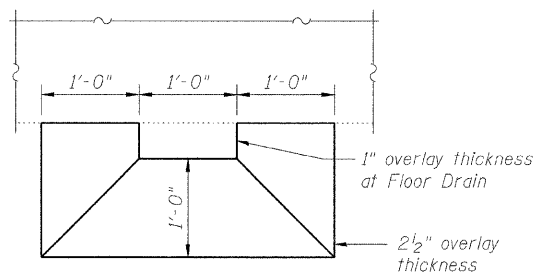


SECTION A-A

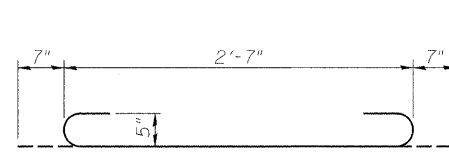
Note:
Existing reinforcement bars and
dowel rods shown are to be cleaned
and incorporated into new construction.



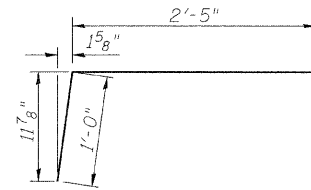
SECTION THRU SIDEWALK
AT JOINT RECONSTRUCTION



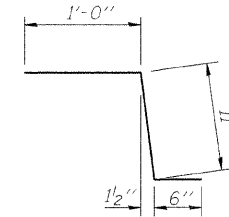
OVERLAY AT DRAIN
(40 Locations)



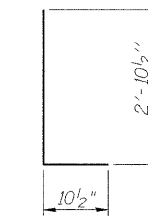
BAR d(E)



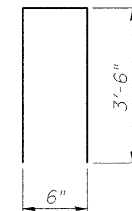
BAR c(E)



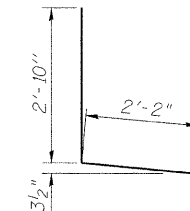
BAR c1(E)



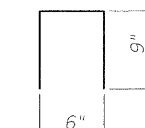
BAR d(E)



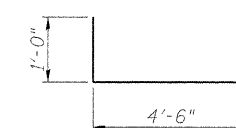
BAR d1(E)



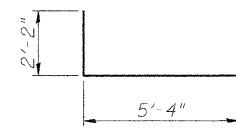
BAR d2(E)



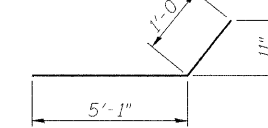
BAR d3(E)



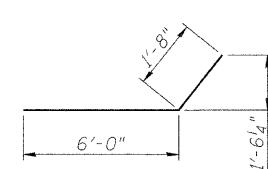
BAR h2(E)



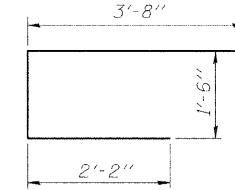
BAR h3(E)



BAR h4(E)



BAR h5(E)



BAR x(E)

BILL OF MATERIAL

(2 Joints)

Bar	No.	Size	Length	Shape
a1(E)	32	#7	18'-10"	—
a2(E)	16	#7	41'-2"	—
a3(E)	50	#6	5'-11"	—
a4(E)	10	#6	3'-1"	—
a5(E)	40	#6	5'-1"	—
a6(E)	10	#6	2'-3"	—
a7(E)	10	#6	3'-4"	—
a8(E)	10	#6	3'-10"	—
c1(E)	16	#5	2'-5"	└
c2(E)	16	#5	5'-8"	—
d(E)	16	#4	3'-9"	└
d1(E)	12	#4	7'-6"	└
d2(E)	16	#4	5'-0"	└
d3(E)	8	#4	2'-0"	└
e(E)	24	#4	2'-2"	—
h(E)	16	#6	19'-2"	—
h1(E)	8	#6	41'-2"	—
h2(E)	6	#5	5'-6"	└
h3(E)	6	#5	7'-6"	└
h4(E)	6	#5	6'-1"	└
h5(E)	6	#5	7'-8"	└
x(E)	268	#6	7'-4"	└
Reinforcement Bars, Epoxy Coated		Pound	7930	
Concrete Superstructure		Cu. Yd.	51.9	

BILL OF MATERIAL

(Median)

Bar	No.	Size	Length	Shape
a(E)	160	#5	3'-9"	└
b(E)	72	#5	28'-8"	—
b1(E)	6	#5	19'-0"	—
c(E)	320	#5	3'-5"	└
Reinforcement Bars, Epoxy Coated		Pound	4040	
Concrete Superstructure		Cu. Yd.	23.7	

(Sheet 2 of 2)

Work this sheet with sheet 6 of 9.



USER NAME =
FILE NAME =
PLOT SCALE =
PLOT DATE =

DESIGNED - ADB
CHECKED - MTH
DRAWN - AJF
CHECKED - MTH

REVISED -
REVISED -
REVISED -
REVISED -

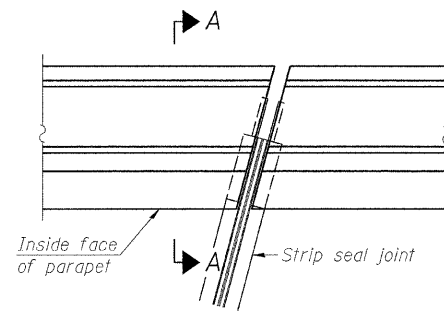
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE DETAILS
STRUCTURE NO. 016-0389

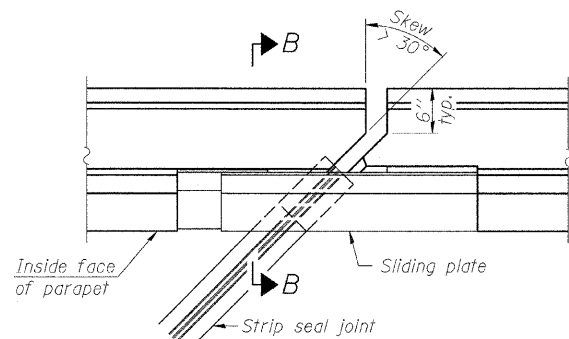
SHEET NO. 7 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	56	40
			CONTRACT NO. 60K57	

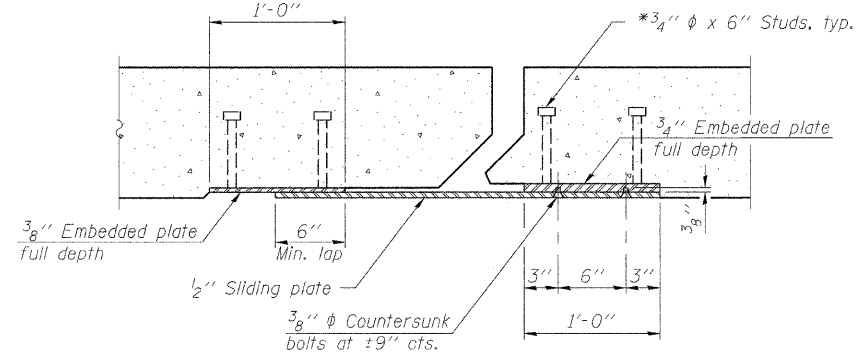
ILLINOIS FED. AID PROJECT



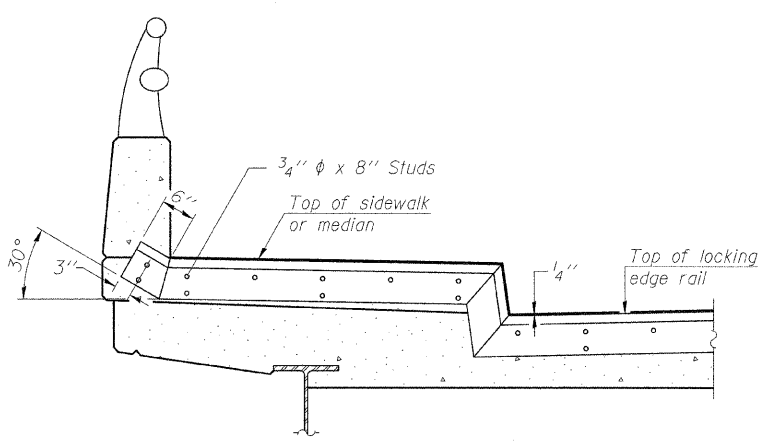
PLAN
(For skews $\leq 30^\circ$)



PLAN
(For skews $> 30^\circ$)
Showing point block

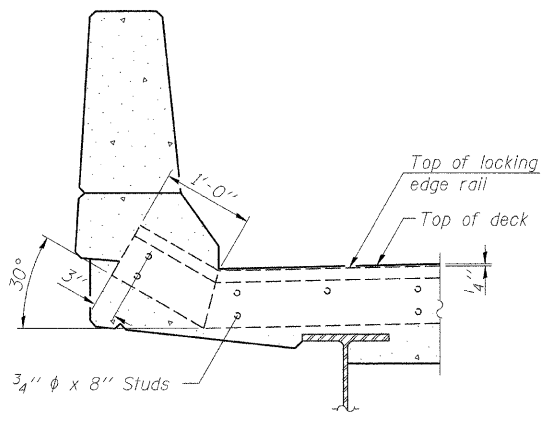


SECTION C-C

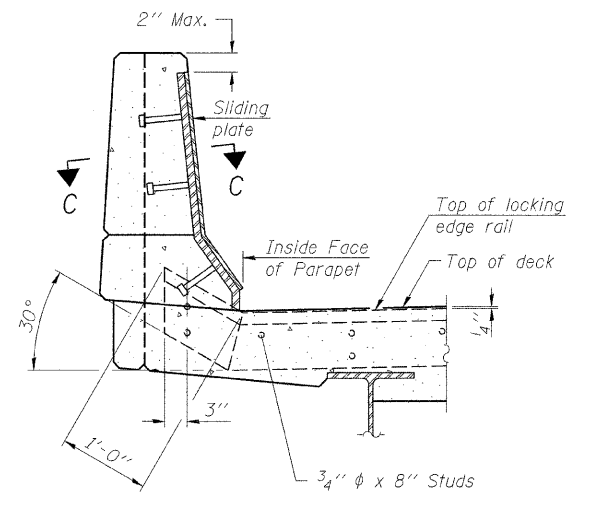


TYPICAL END TREATMENT AT SIDEWALK OR MEDIAN

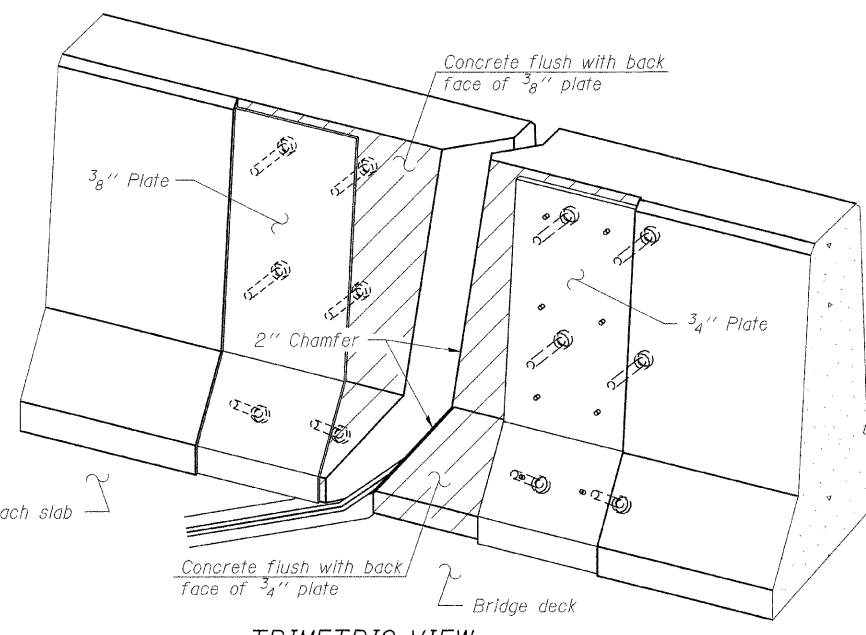
Shorter plates with a single row of studs at 12" cts. may be necessary on medians which are shallower than 9". See manufacturer's recommendation.



SECTION A-A



SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)

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. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. 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. Locking Edge Rails may be spliced at slope discontinuities.

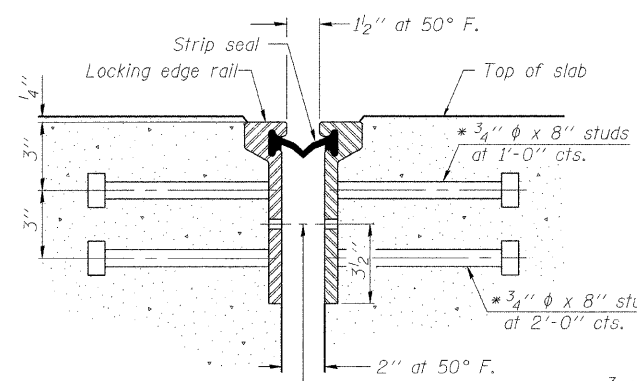
The manufacturer's recommended installation methods shall be followed.

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.

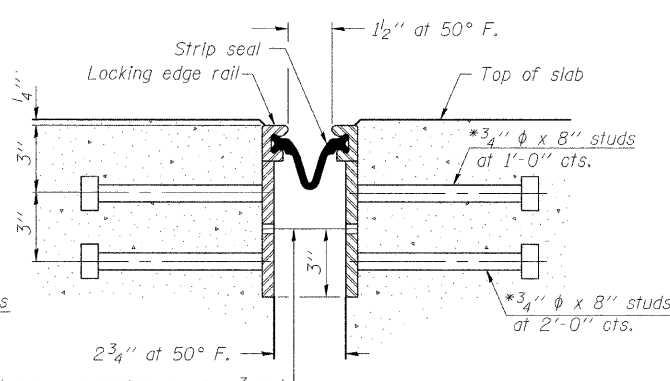
All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications.

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.



SECTION THRU ROLLED RAIL JOINT

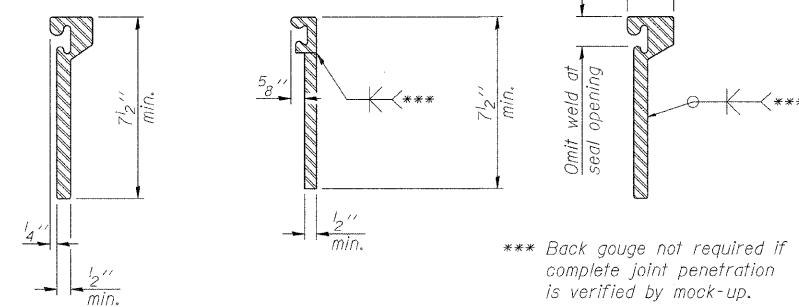


SECTION THRU WELDED RAIL JOINT

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.

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.

* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



ROLLED EXTRUDED RAIL **WELDED RAIL**

LOCKING EDGE RAIL SPLICE

The inside of the locking edge rail groove shall be free of weld residue.
Rolled rail shown, welded rail similar.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	163

EJ-SSJ 7-1-10

LIN ENGINEERING, LTD. Consulting Engineers Chatham, Illinois	USER NAME =	DESIGNED - ADB	REVISED -
	FILE NAME =	CHECKED - MTH	REVISED -
	PLOT SCALE =	DRAWN - AJF	REVISED -
	PLOT DATE =	CHECKED - MTH	REVISED -

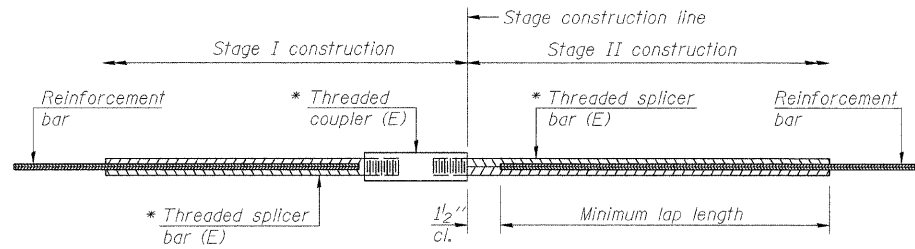
DESIGNED - ADB	REVISED -
CHECKED - MTH	REVISED -
DRAWN - AJF	REVISED -
CHECKED - MTH	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PREFORMED JOINT STRIP SEAL
STRUCTURE NO. 016-0389

SHEET NO. 8 OF 9 SHEETS

F.A.P. RTE. 351	SECTION 539W-1-RS	COUNTY COOK	TOTAL SHEETS 56	SHEET NO. 41
			CONTRACT NO. 60K57	
ILLINOIS FED. AID PROJECT				



STANDARD BAR SPLICER ASSEMBLY

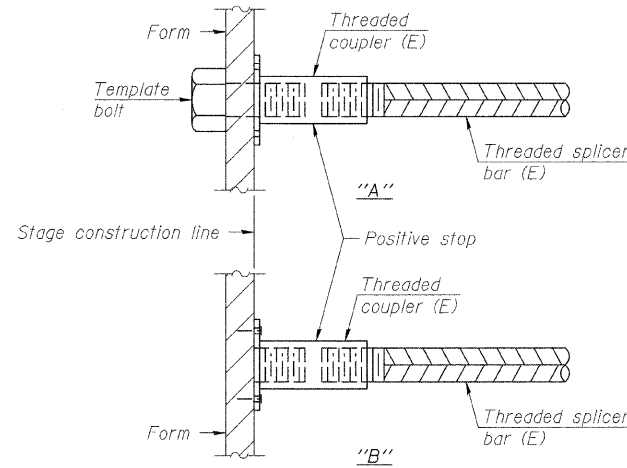
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

- 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

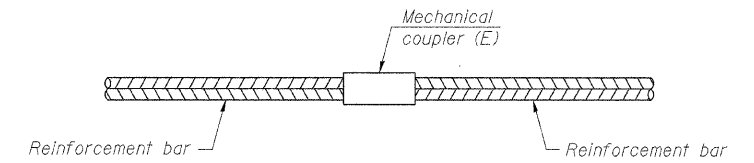
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
East Abutment -- Approach Side	#6	8	Table 3
East Abutment -- Deck Side	#7	16	Table 3
West Abutment -- Approach Side	#6	8	Table 3
West Abutment -- Deck Side	#7	16	Table 3
East Abutment -- Deck Side	#6	5	Table 3
West Abutment -- Deck Side	#6	5	Table 3



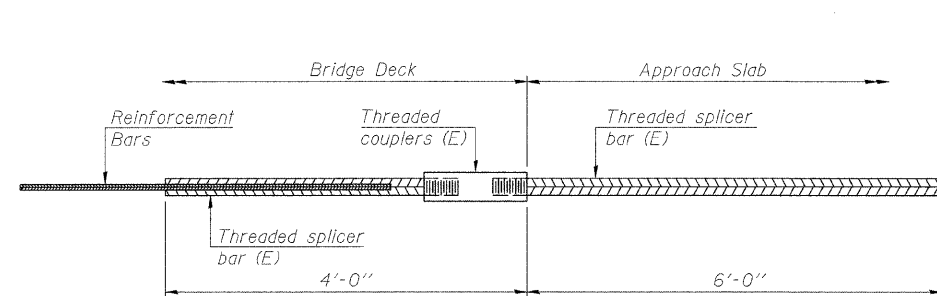
INSTALLATION AND SETTING METHODS

"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.



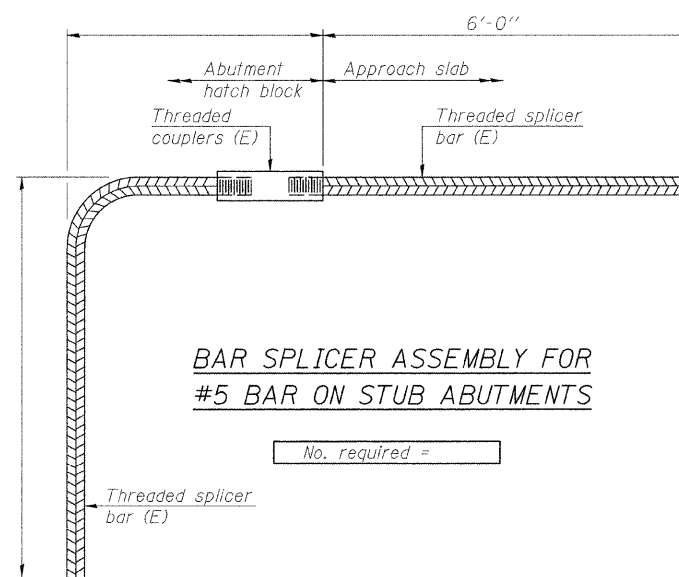
STANDARD MECHANICAL SPLICER

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



USER NAME =	DESIGNED - ADB	REVISED -
FILE NAME =	CHECKED - MTH	REVISED -
PLOT SCALE =	DRAWN - A,JF	REVISED -
PLOT DATE =	CHECKED - MTH	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
STRUCTURE NO. 016-0389**

SHEET NO. 9 OF 9 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539W-1-RS	COOK	56	42
			CONTRACT NO. 60K57	
ILLINOIS FED. AID PROJECT				

BENCH MARK #7

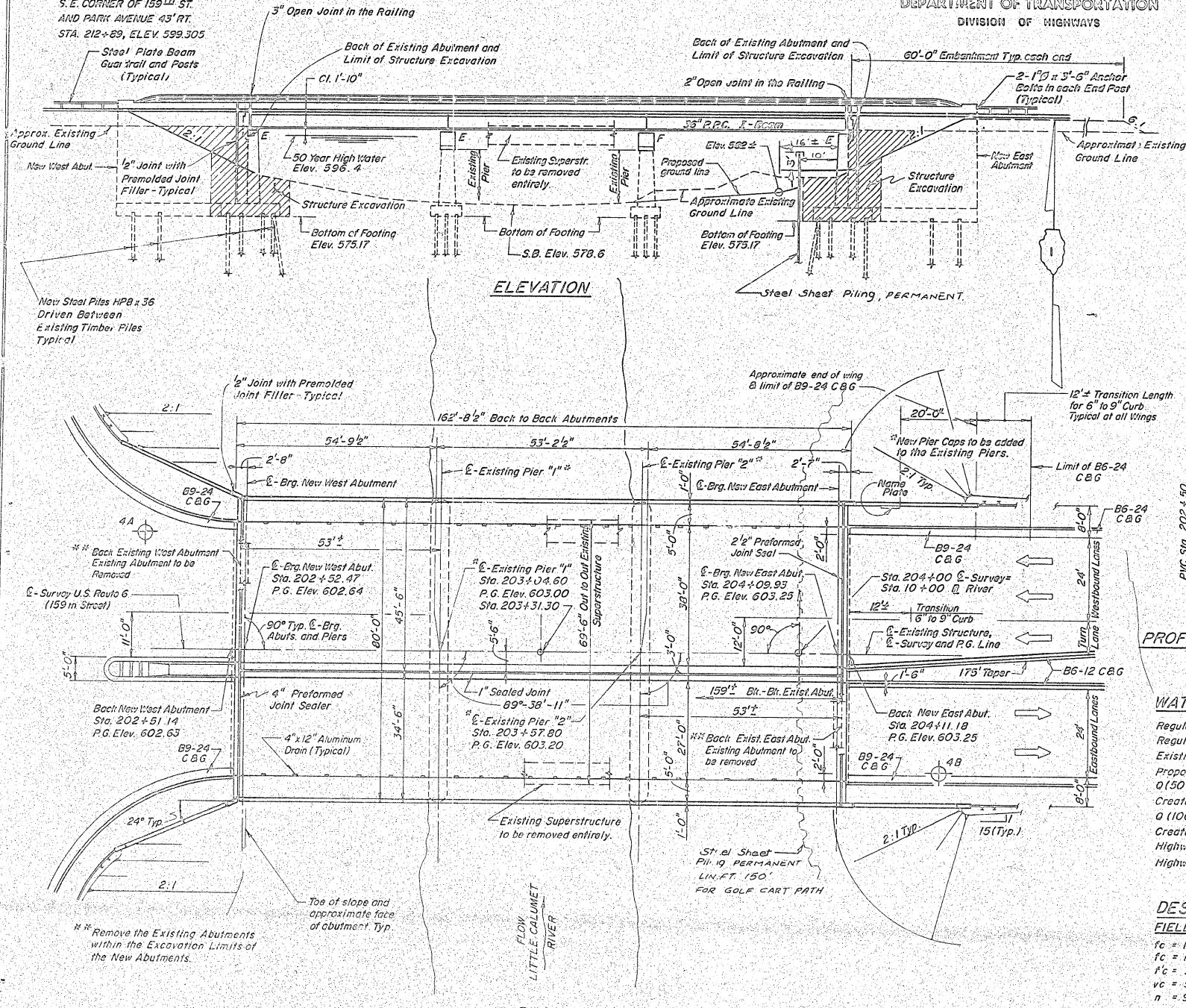
R.R. SPIKE IN POWER POLE
S.E. CORNER OF 159TH ST.
AND PARK AVENUE 43RD RT.
STA. 212+89, ELEV. 539.305

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

FOR INFORMATION ONLY

DATE	BY	NO.	REV.
08/12/01	CS	177	102

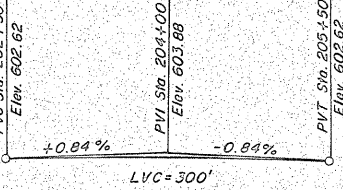
PROJECT NO. 1
SHEET NO. 10



Original Structure: 16 tan untreated timber piles (8" tip and 12" butt)
1952 Widening: 20 tan untreated timber piles.

STATION 203 + 31.20 (FAU 1608)
WIDENED 198 BY
STATE OF ILLINOIS
FAU 1608 SEC. 539-BY
F.A. PROJECT IX-5003(704)
LOADING HS 20
*** STRUCTURE NO.

BRIDGE NAME PLATE
SEE STD. DWG. 2113
*** Structure No. to be supplied by district



PROFILE GRADE PROPOSED STRUCTURE

WATERWAY INFORMATION

Regulatory Flood Discharge	8600 cfs
Regulatory Flood Elevation	598.6 Ft.
Existing Opening Below 50 Year High Water	2000 Sq. Ft.
Proposed Opening Below 50 Year High Water	2360 Sq. Ft.
Created Head (50 Year)	0.07 Ft.
Created Head (100 Year)	0.08 Ft.
Highwater Elevation (50 Year)	596.4 Ft.
Highwater Elevation (100 Year)	597.0 Ft.

DESIGN STRESSES

FIELD UNITS
f_c = 1,000 psi, f_s = 20,000 psi, Substructure with earth pressure
f_c = 1,400 psi, f_s = 20,000 psi, Substructure without earth pressure
f_c = 3,500, f_y = 60,000 psi, Deck Slab, Curb & Parapet (Epoxy Coated Bars in Top of Slab)
v_c = 56 psi Footings
n = 9

PRECAST PRESTRESSED UNITS

f_c = 5000 psi
f_{ci} = 4000 psi
f_s = 270,000 psi, 1/2" Ø Strands
f_{st} = 189,000 psi, 1/2" Ø Strands
f_y = 60,000 psi (Non prestressed reinforcement) except as noted
LOADING HS 20-44
Allow 25 PSF for Future Wearing Surface

DESIGN SPECIFICATIONS

AASHTO 1977 and Interims (1978 & 1979)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPPLY	USED	TOTAL
Aluminum Rolling - Type L	Lb. Ft.	454.5		454.5
Structure Excavation	Cu. Yd.		50-20	50-20
Class II Concrete	Cu. Yd.	459.2	1213.5	1672.7
Form Piles	Each	1		1
Form Circular Embankment	Cu. Yd.		1377	1377
Reinforcement Bars	Pound	5500	16000	21500
Reinforcement Bars - (Epoxy Coated)	Pound	6350		6350
Preformed Joint Seal (4")	Lb. Ft.	21.5		21.5
Preformed Joint Seal (2 1/2")	Lb. Ft.	21.5		21.5
Steel Piles - HP 10 x 36	Lb. Ft.		60-07	60-07
Test Pile Steel - (HP 10 x 36)	Each		1	1
Furnishing and Erecting PRC Forms - 36"	Lb. Ft.	2057.0		2057.0
Temporary Sheet Piling	Sq. Ft.		4437	4437
Removal of Existing Superstructure	Each	1		1
Concrete Removal	Cu. Yd.		621.3	621.3
Floor Drains	Each	40		40
Temporary Eriqg Rail	Lb. Ft.	162.7		162.7
Repair Concrete Structures	Sq. Ft.	240		240
Traffic Barrier Terminal Type II	Each	8		8
Elastic Bearing Assembly Type I	Each	59		59
Protective Coat	Sq. Yd.	1372		1372
Structural Steel	Pound	4550		4550

- 1 Approximate Volume of Existing Superstructure Concrete is 732 Cubic Yards.
- 2 Estimated quantity, deteriorated surface areas of the existing piers requiring repair shall be specified by the Engineer.

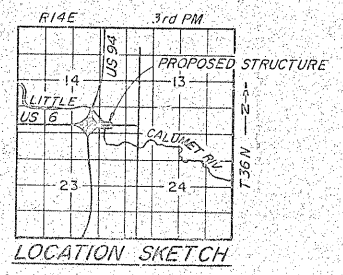
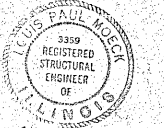
Existing Superstructure:
Reinforced Concrete Deck Girder, 69.5' out to out deck, 3- spans at 53' ±, 2-27' roadways, 4' mountable median and sidewalks with metal railing.

Existing Substructures:
Reinforced Concrete Abutments and Piers supported on untreated timber piles.

For General Notes - See Sheet No. 4

GENERAL PLAN AND ELEVATION
PROJECT IX-5003(704) SEC. 539-BY
FAU 1608 (159TH ST.) OVER LITTLE CALUMET RIVER
COOK COUNTY
STA. 203 + 31.20

DESIGNED	Somana
CHECKED	Capshaw
DRAWN	B. Sullivan
CHECKED	CS



BRIGHTON ENGINEERING COMPANY CONSULTING ENGINEERS
SCHAMBURG, ILLINOIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

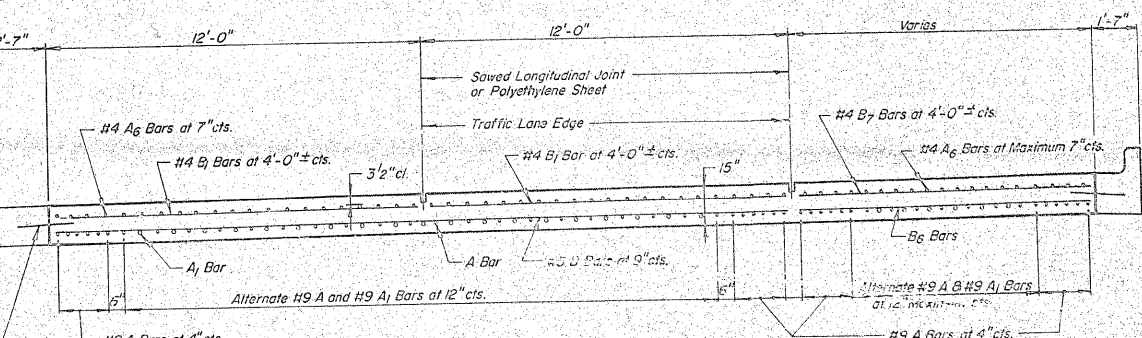
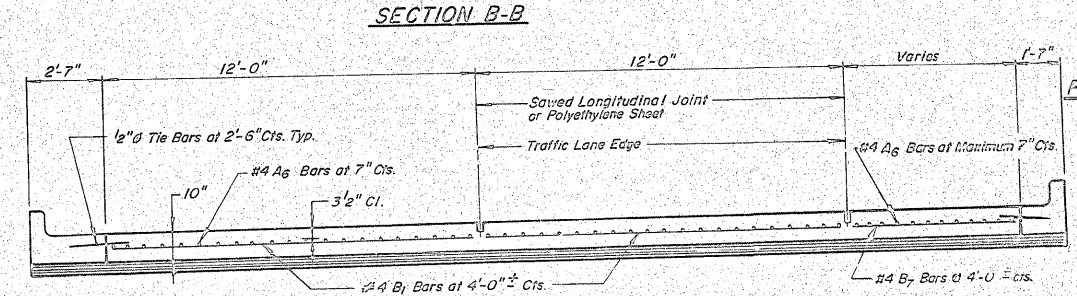
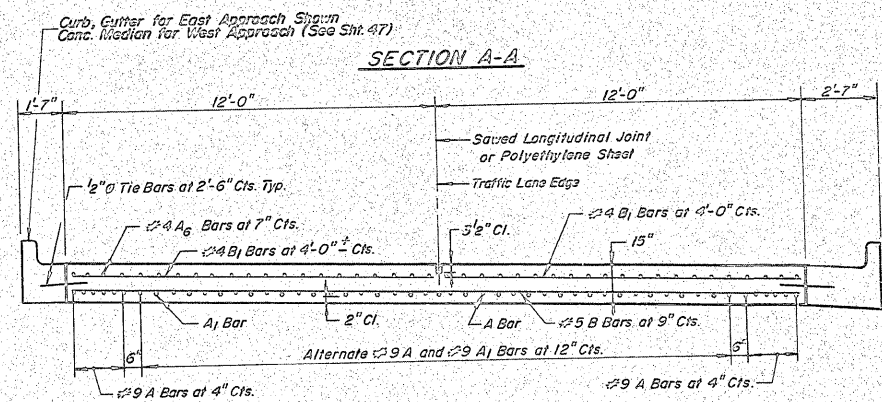
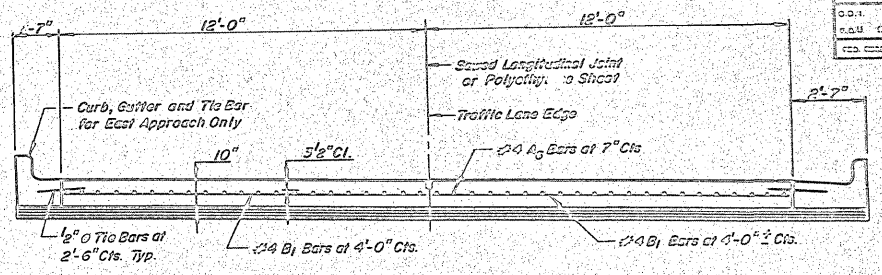
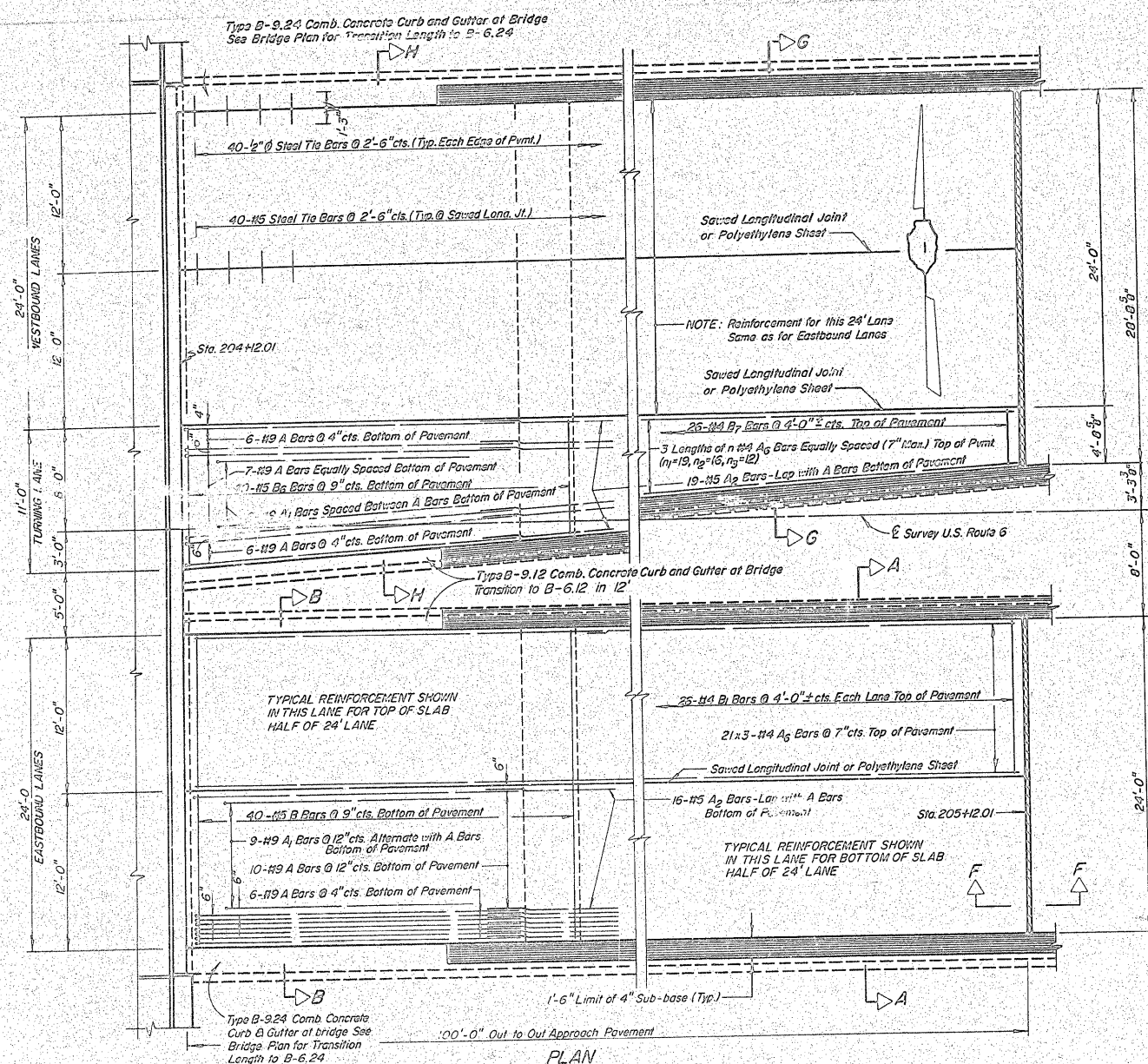
GENERAL PLAN AND ELEVATION
STRUCTURE NO. 016-0389

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	43

CONTRACT NO. 60K57
ILLINOIS FED. AID PROJECT

FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED -
ct:\pw\work\pawdet\guillaumefp\d0189275\052610-sht-plan.dgn		DRAWN -	REVISED -
PLOT SCALE = 50.0000' / IN.		CHECKED -	REVISED -
PLOT DATE = 4/12/2011		DATE -	REVISED -

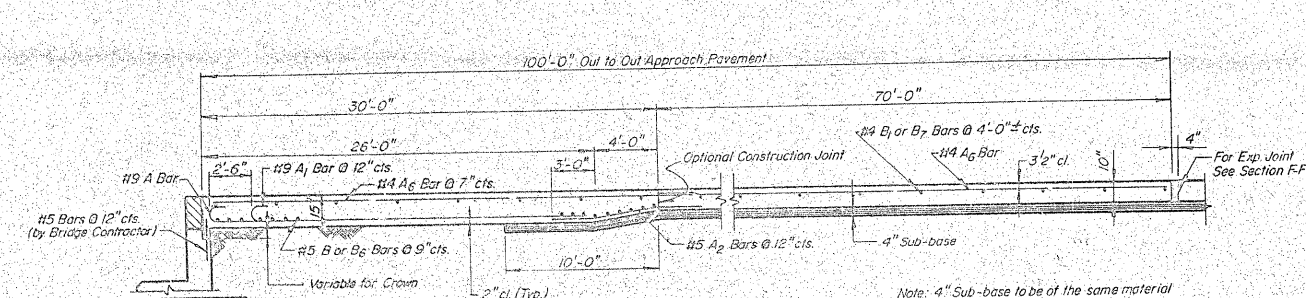
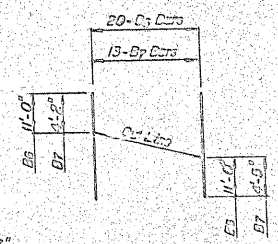
DATE	BY	CHKD	APPD	REV
03/01/01	ESOM	ODM	177	121
03/02/01	ESOM	ODM	177	121



**EAST APPROACH
FULL OF MATERIAL**

BAR	NUMBER	SIZE	LENGTH	SHAPE
A	10	#4	27'-0"	
A1	14	#4	27'-0"	
A2	10	#4	10'-0"	
A3	10	#4	10'-0"	
B	10	#4	27'-0"	
B1	10	#4	11'-0"	
B2	10	#4	27'-0"	
B3	10	#4	10'-0"	

Bridge Approach Pavement By No. COO.7
Reinforcement Data LGA. SMH



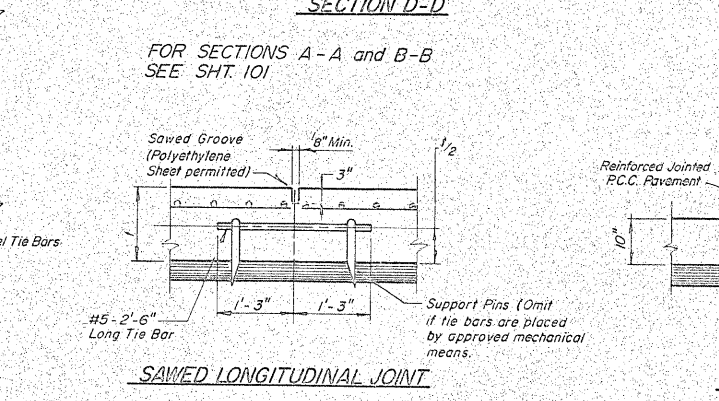
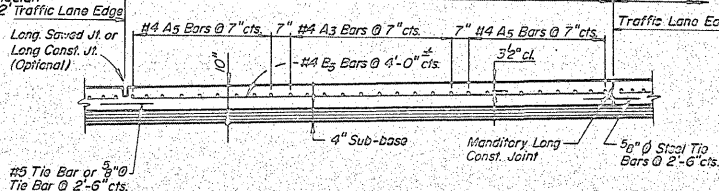
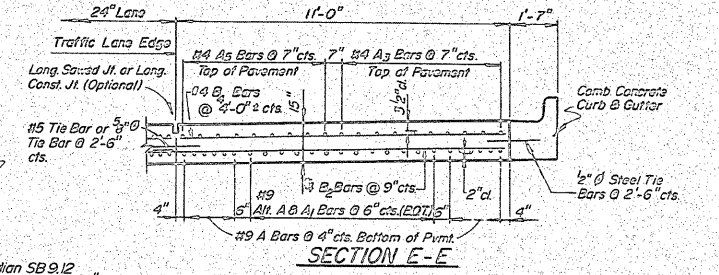
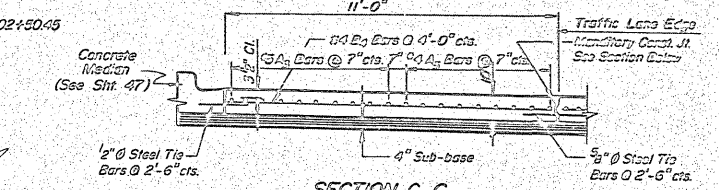
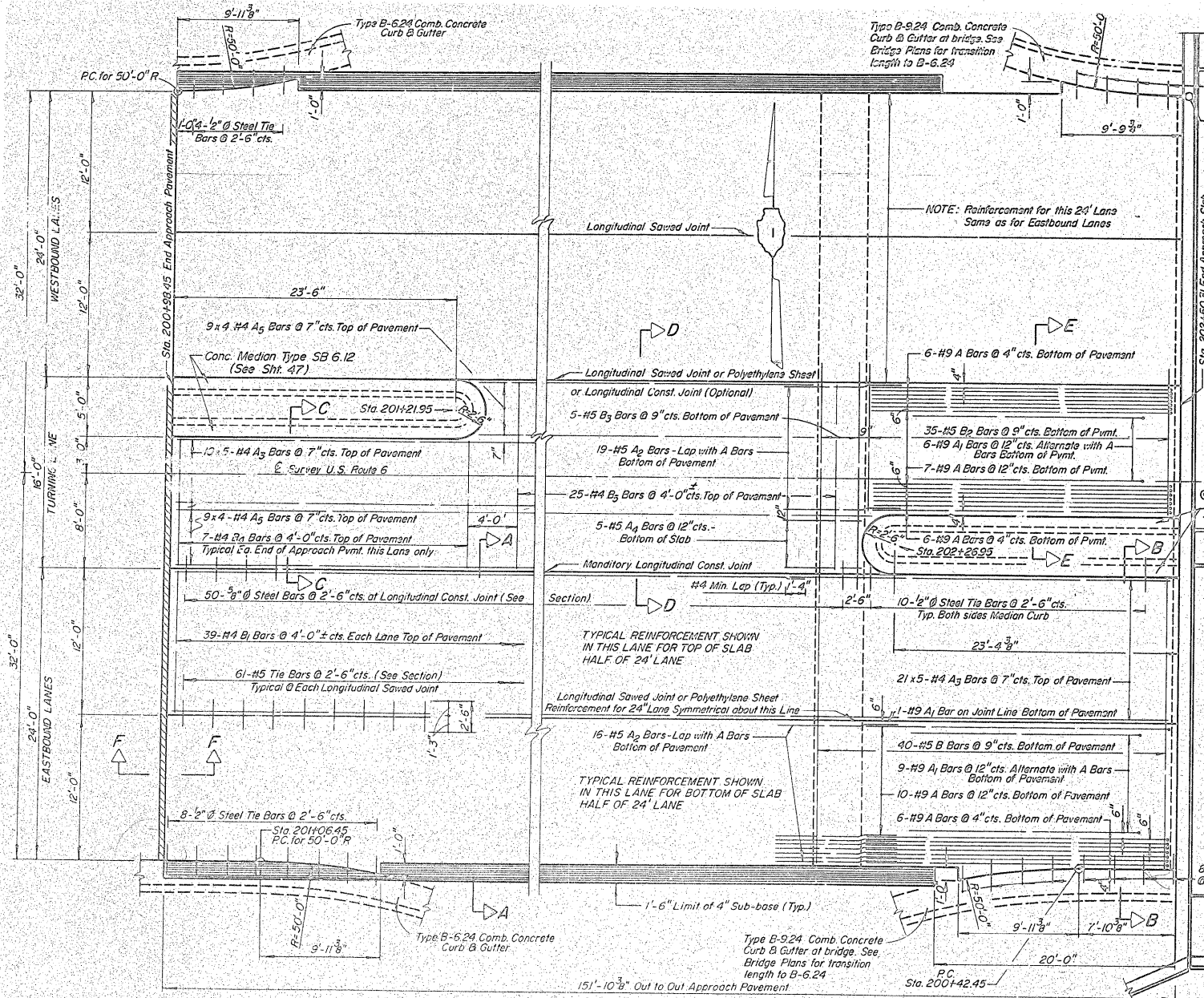
DESIGNED	Capshaw
CHECKED	Samuel
DRAWN	TABLE
CHECKED	FS

LONGITUDINAL CROSS SECTION

FOR INFORMATION ONLY

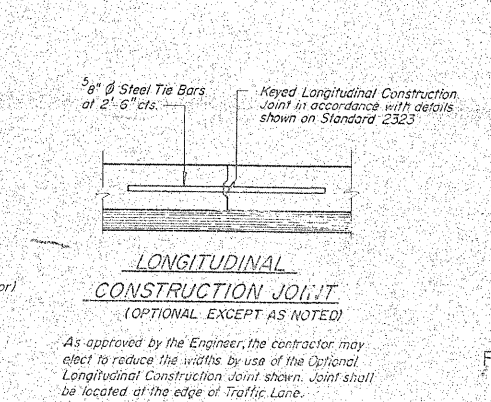
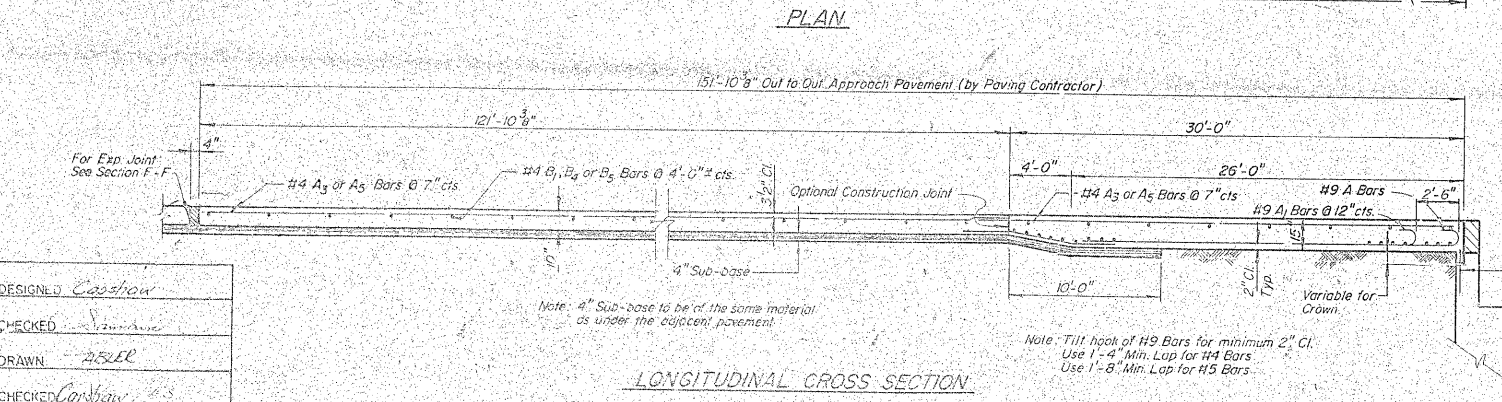
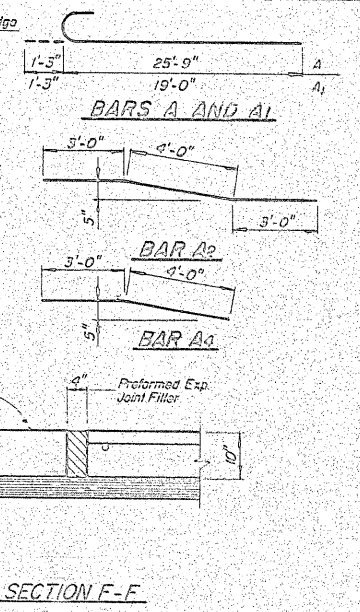
EAST APPROACH PAVEMENT
FAU 1608 (159th ST) OVER LITTLE CALUMET RIVER
COOK COUNTY
SECTION 539-BY STATION 203+31.20
Rev. 8-27-80

DATE	ISSUED	REVISION	BY	NO.	DATE
10/1/11	10/1/11	10/1/11	COOK	177	100
WEST APPROACH PAVEMENT					



**WEST APPROACH
BILL OF MATERIAL**

BAR NUMBER	SIZE	LENGTH	SHAPE
A	Ø	Ø	Ø
A1	Ø	Ø	Ø
A2	Ø	Ø	Ø
A3	Ø	Ø	Ø
A4	Ø	Ø	Ø
A5	Ø	Ø	Ø
B	Ø	Ø	Ø
B1	Ø	Ø	Ø
B2	Ø	Ø	Ø
B3	Ø	Ø	Ø
B4	Ø	Ø	Ø
B5	Ø	Ø	Ø
Bridge Approach Pavement 57 Kds 1052.5			
Reinforcement Bars 1.65 27077			

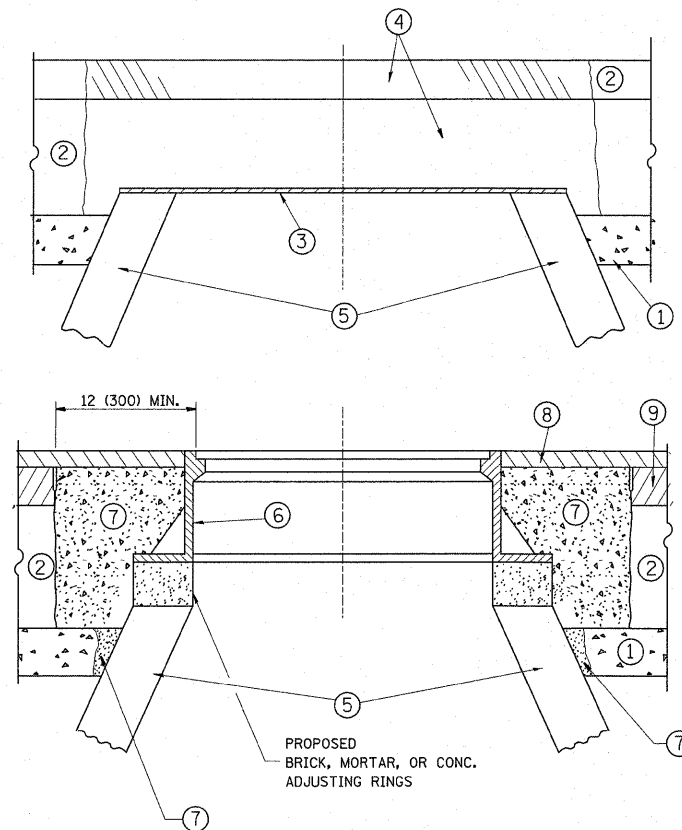


Note: The cost of Tie Bars, Expansion Joints and Sub-base shall be included in the cost of Bridge Approach Pavement.

FOR INFORMATION ONLY

WEST APPROACH PAVEMENT
FAU 1608 (159th ST.) OVER LITTLE CALUMET RIVER
COOK COUNTY
SECTION 539-BY STATION 203+31.20

DESIGNED	Castro
CHECKED	...
DRAWN	...
CHECKED	...



CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1½ (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS.

LEGEND

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1* CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL" NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

NOTES:

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = guilleumefp	DESIGNED - R. SHAH	REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\guilleumefp\d0188275\	52610-sht-plan.dgn	DRAWN -	REVISED - R. WIEDEMAN 05-14-04		351	539 W-1-RS	COOK	56	46			
PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - R. BORO 01-01-07			BD600-03 (BD-8)				CONTRACT NO. 60K57			
PLOT DATE = 4/12/2011	DATE - 10-25-94	REVISED - R. BORO 03-09-11			FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT					

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001

18" (450) MAX.

EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

1/4" (5) **

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

T/2 *

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

3" (75) MIN.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USUABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

BASIS OF PAYMENT:

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

** IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY,

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

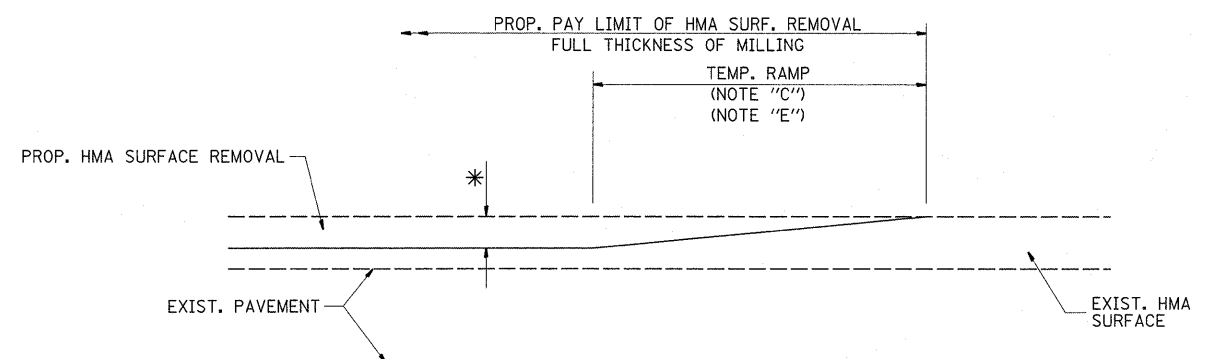
⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

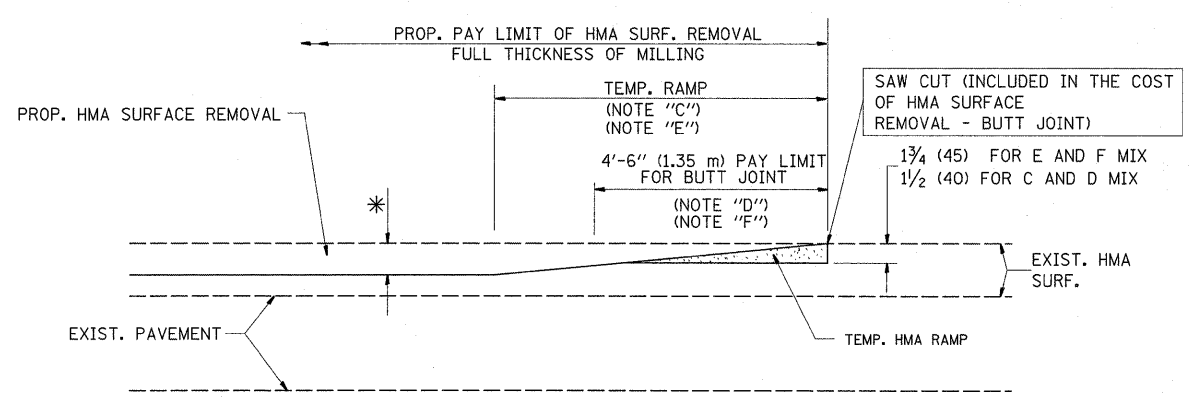
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = guillaumefp	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
cr:\pwork\pwidot\guillaumefp\d0188275\052610-sh-t-plan.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	351	539 W-1-RS	COOK	56	47
	PLOT SCALE = 50.0000" / IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01					BD600-06 (BD-24)		CONTRACT NO. 60K57			
	PLOT DATE = 4/12/2011	DATE - 03-11-94	REVISED - R. BORO 12-15-09					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					



MILLED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

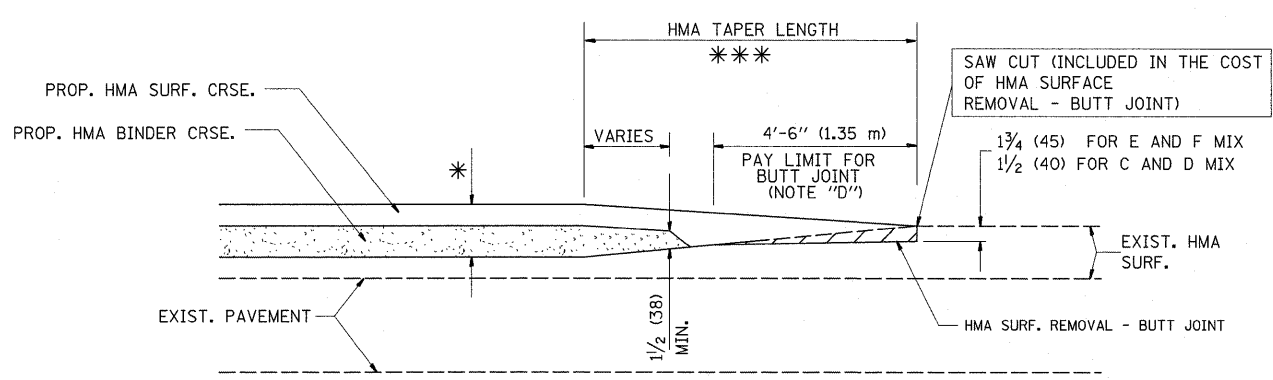
OPTION 1



HMA CONSTRUCTED TEMPORARY RAMP
(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

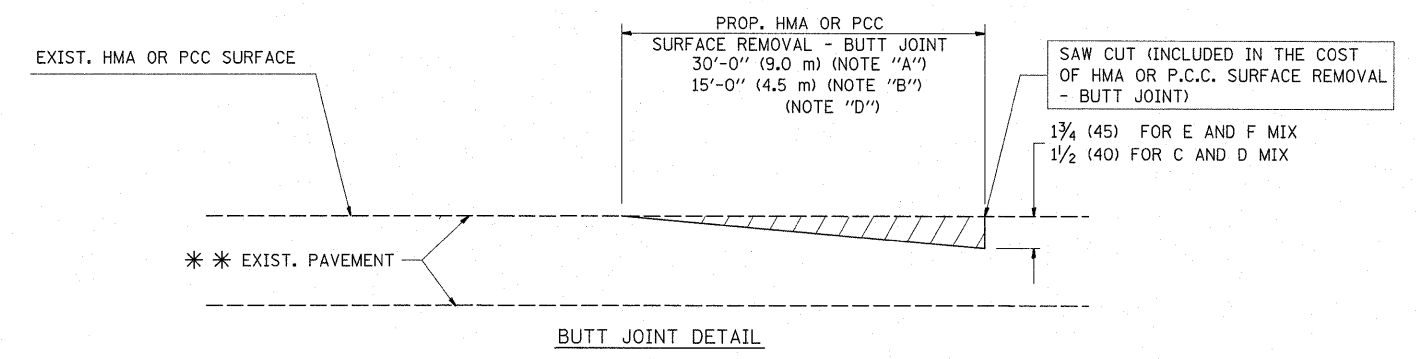
OPTION 2

TYPICAL TEMPORARY RAMP

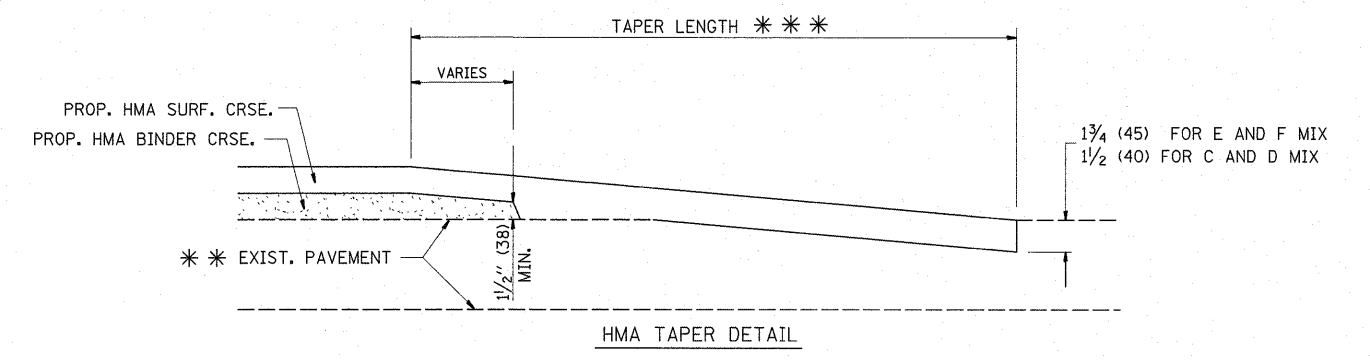


BUTT JOINT AND HMA TAPER

TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

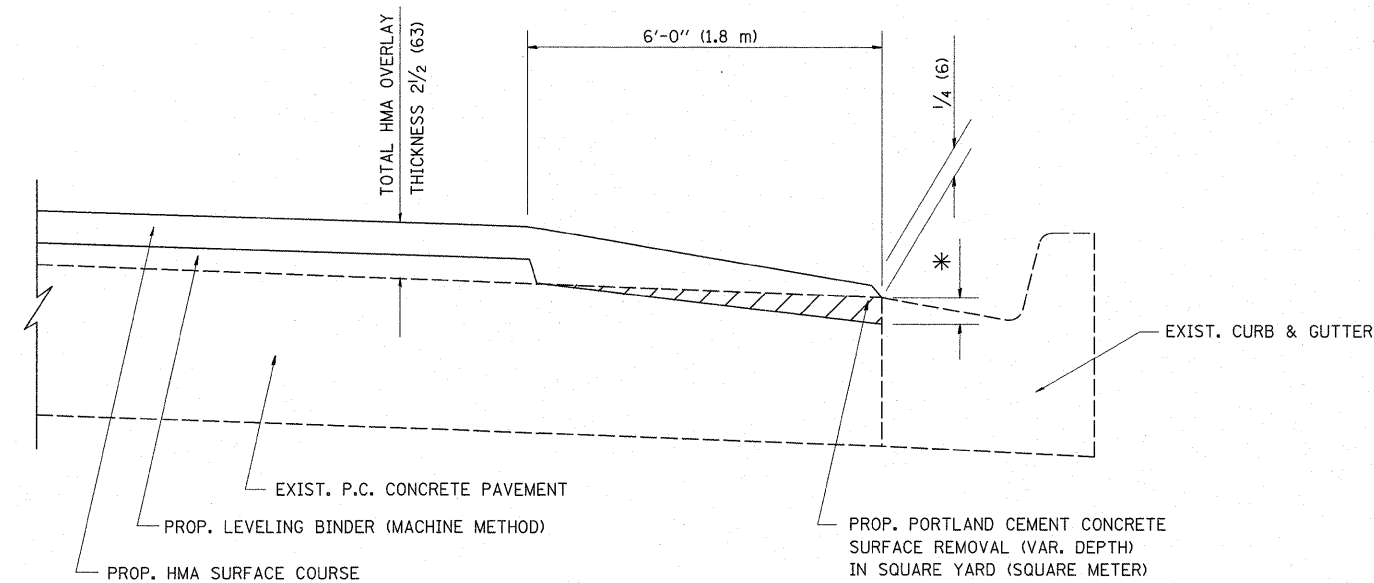
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = guillaumejp	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
c:\pwwork\pwwork\guillaumejp\0818827510	52618-shr-plan.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 4/12/2011	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND HMA TAPER DETAILS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	48
BD400-05 BD32			CONTRACT NO. 60K57	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



HMA TAPER AT
EDGE OF P.C.C. PAVEMENT

HMA SURFACE		LEVELING BINDER		* MILLING AT GUTTER FLAG
MIX	THICKNESS	THICKNESS		
C OR D	1 1/2 (38)	1 (25)	1/4 (33)	
F	1 3/4 (44)	3/4 (19)	1/2 (38)	

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

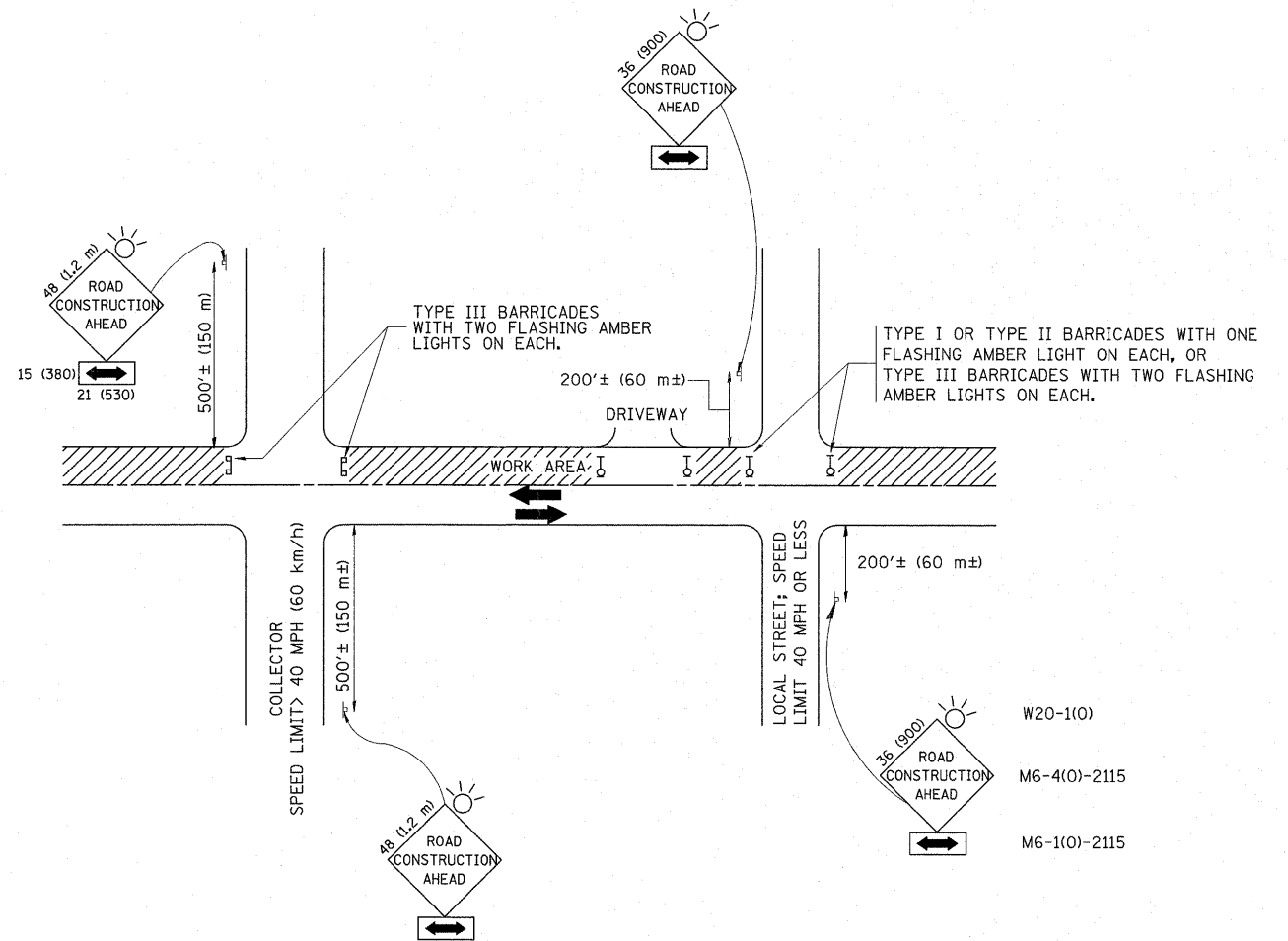
FILE NAME =	USER NAME = guillaumejp	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94
c:\pwork\pwork\guillaumejp\08188275\052618-shr-plan.dgn		DRAWN - JIS	REVISED - A. ABBAS 05-05-99
	PLOT SCALE = 50.0000' / IN.	CHECKED - A. ABBAS	REVISED - E. GOMEZ 12-21-00
	PLOT DATE = 4/12/2011	DATE - 09-10-94	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**HMA TAPER AT
EDGE OF P.C.C. PAVEMENT**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	49
BD400-06 (BD33)		CONTRACT NO. 60K57		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

NOTES:

A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - a) ONE ROAD CONSTRUCTION AHEAD SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
 - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

B. FOR A LANE CLOSURE ON A SIDE ROAD OR DRIVEWAY:

USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE SIDE ROAD LANE CLOSURE.

C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.

D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

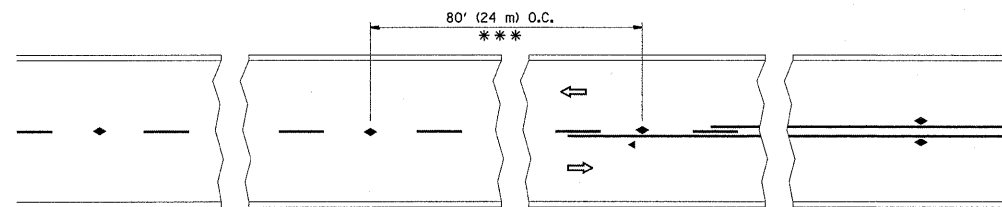
FILE NAME =	USER NAME = guilloumefp	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
et\pwork\pwork\guilloumefp\d0188275\0	52610-sht-plan.dgn	DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.0000 "/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 4/12/2011	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

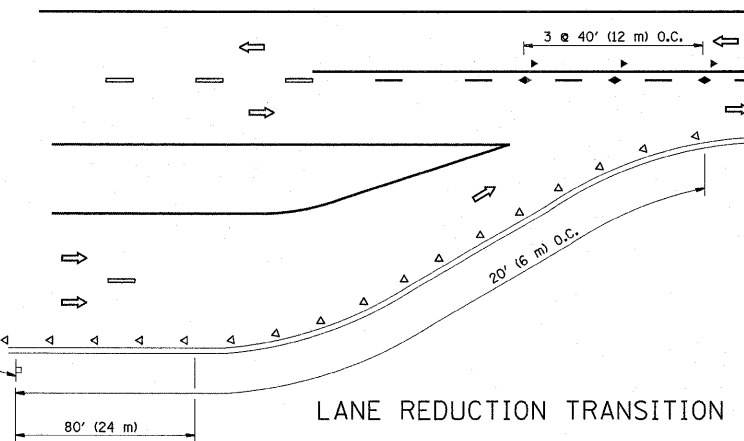
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	50
TC-10			CONTRACT NO. 60K57	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

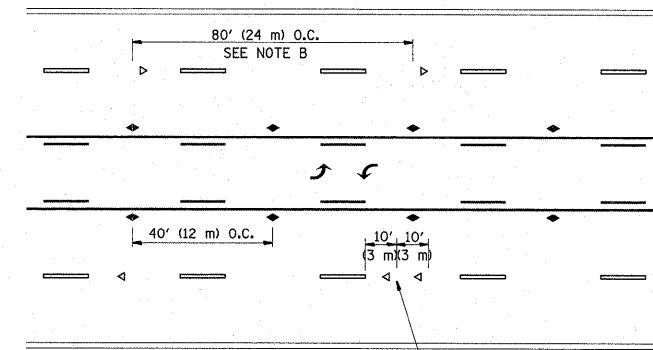


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

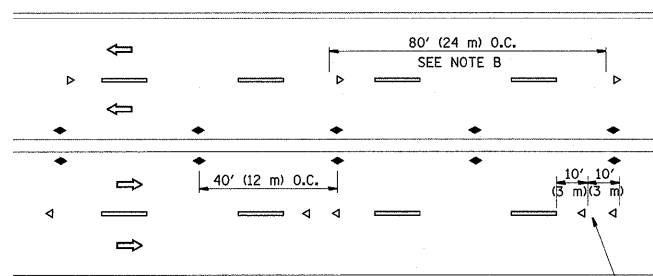
TWO-LANE/TWO-WAY



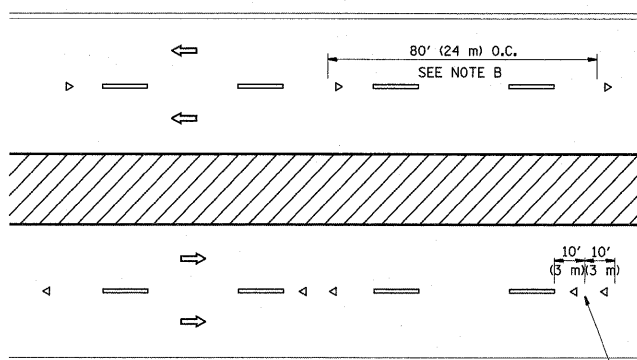
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

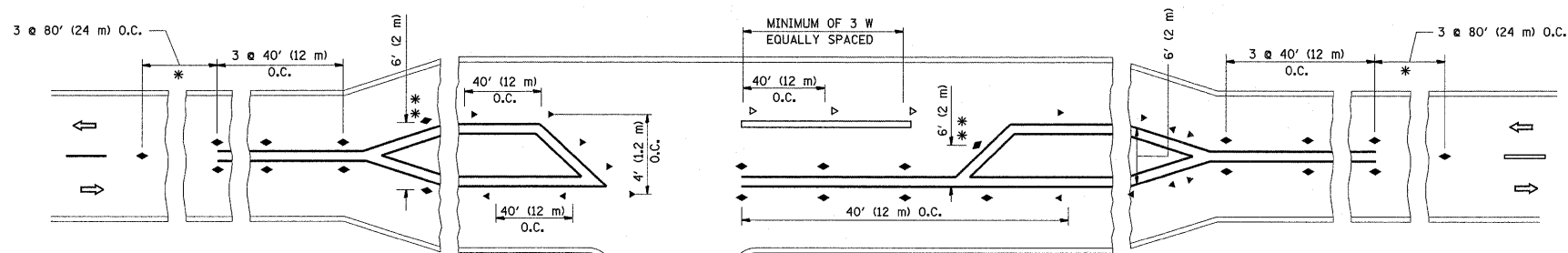
1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE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

SYMBOLS

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

LANE MARKER NOTES

- 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.
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.



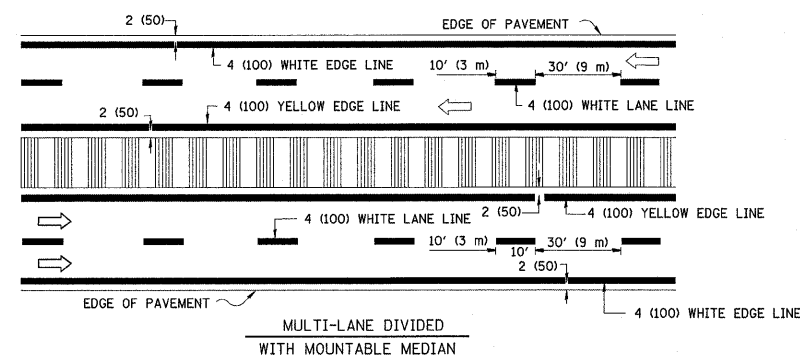
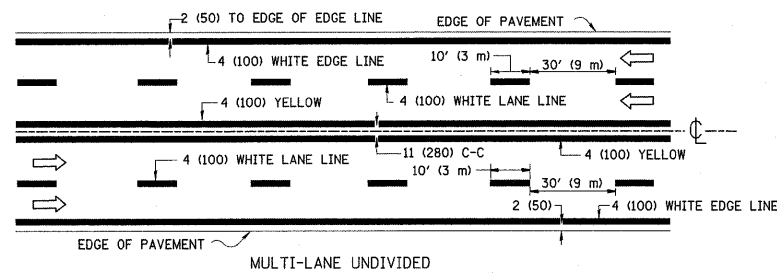
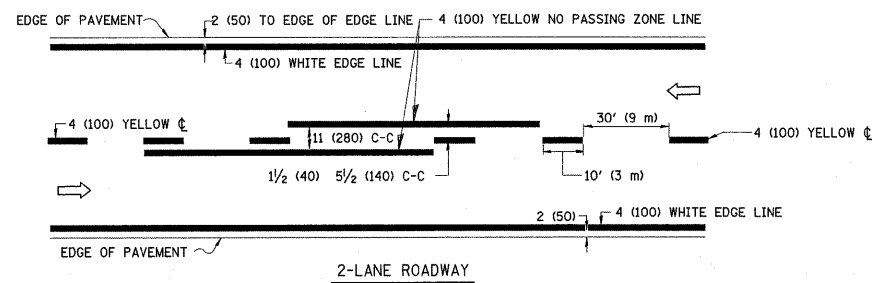
LEFT TURN

* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.



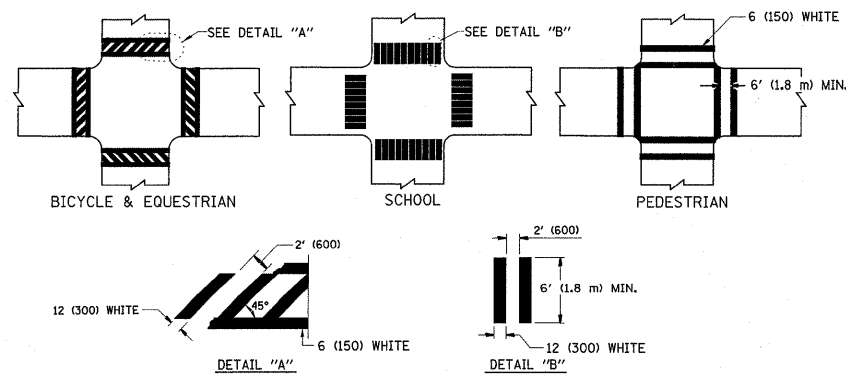
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = guillaumefp	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\p\dot\guillaumefp\d0188275\052610-shr-plan.dgn	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED - T. RAMMACHER 03-12-99		RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			351	539 W-1-RS	COOK	56	51
PLOT DATE = 4/12/2011	DATE -	CHECKED -	REVISED - T. RAMMACHER 01-06-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	TC-11			
									CONTRACT NO. 60K57			
								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

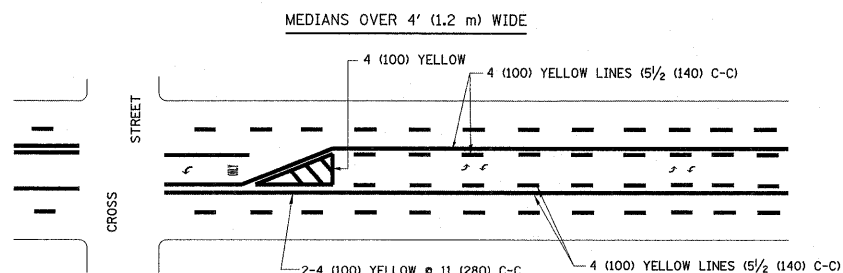
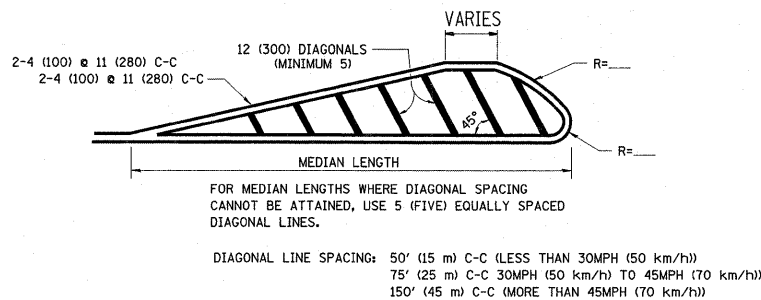
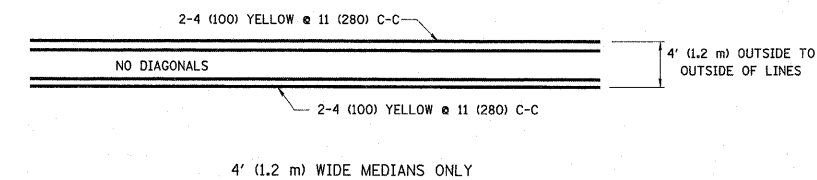


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

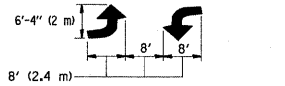
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

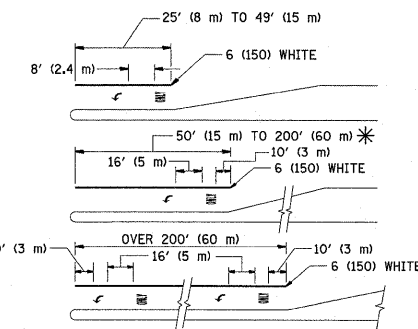


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



TYPICAL PAINTED MEDIAN MARKING

MEDIAN WITH TWO-WAY LEFT TURN LANE

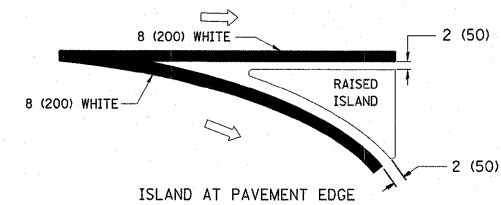
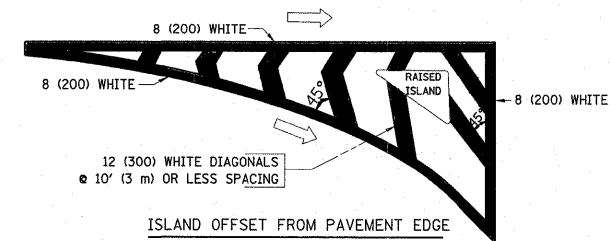


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)

* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING



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	5/2 (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; 5/2 (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 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" 15 6" (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 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 780001.

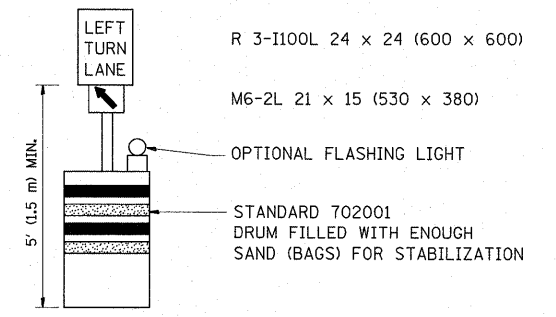
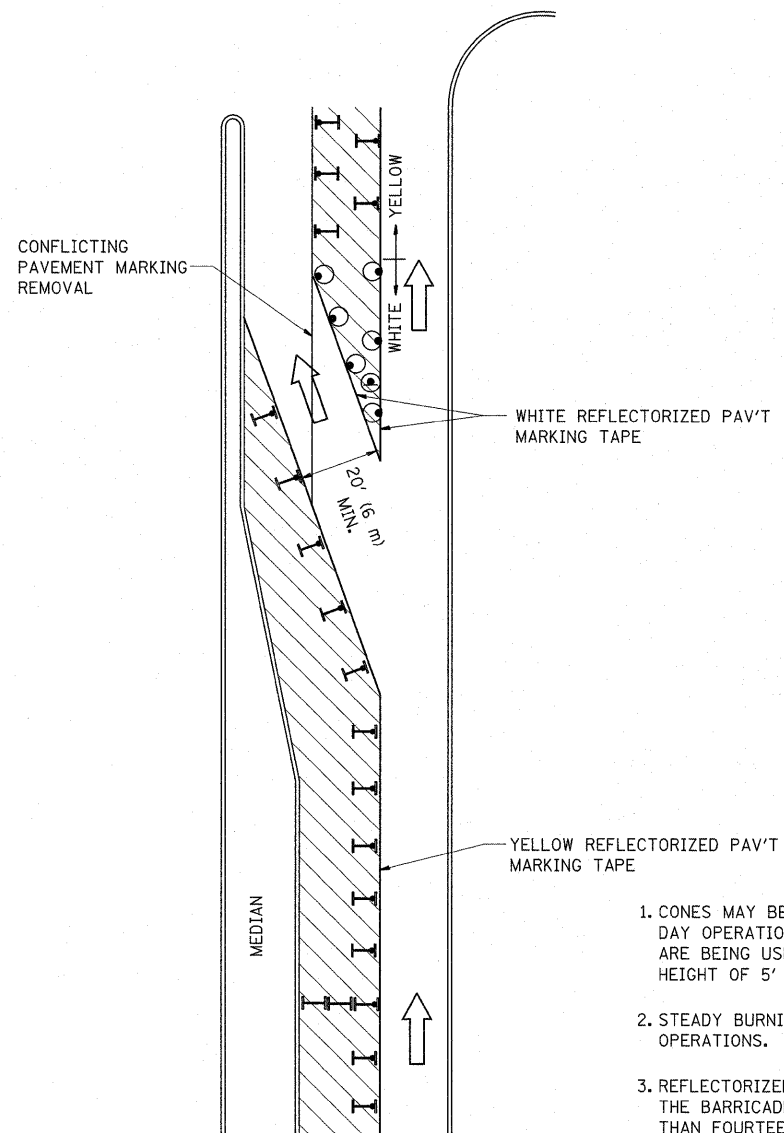
All dimensions are in Inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = guillaumefp	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
ct:\pw\work\pwidot\guillaumefp\d0188275\052610-sh-t-plan.dgn		DRAWN -	REVISED - A. HOUSEH 10-09-96
	PLOT SCALE = 50,00000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-17-96
	PLOT DATE = 4/12/2011	DATE - 03-19-90	REVISED - T. RAMMACHER 01-06-00

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
TYPICAL PAVEMENT MARKINGS**

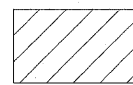





SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
				351	539 W-1-RS	COOK	56	52
				TC-13		CONTRACT NO. 60K57		
				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



GENERAL NOTES

1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
3. REFLECTORIZED TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE BARRICADED AREA OF EACH TURN BAY WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS.
4. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-100 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
5. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
6. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED TO FIT FIELD CONDITIONS.
7. FORM BT 725 IS REQUIRED.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

LEGEND

-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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

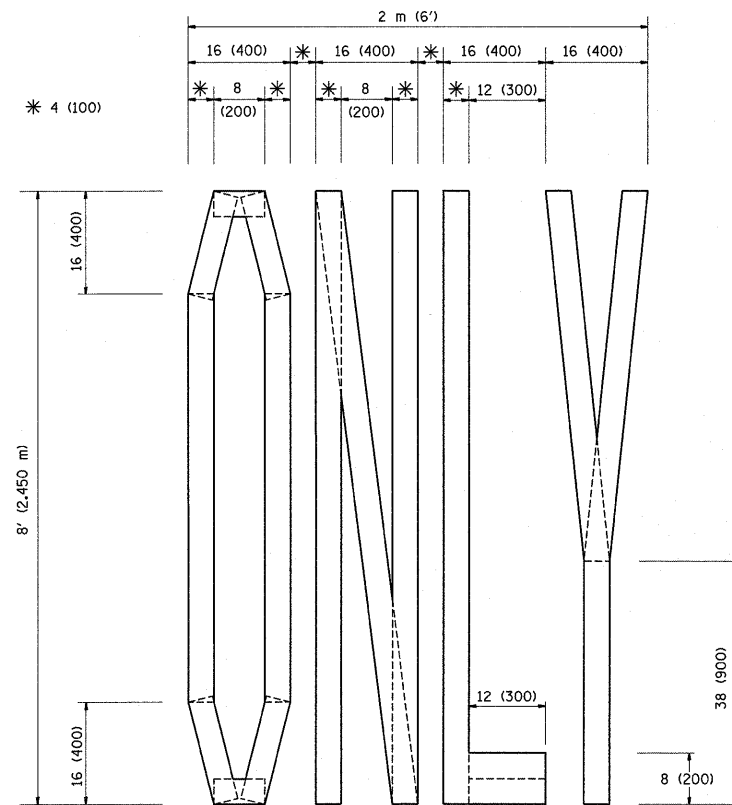
FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED -T. RAMMACHER 09-08-94
ci:\pw\work\p1dot\guillaumefp\d0188275\0	52610-sh-t-plan.dgn	DRAWN -	REVISED - A. HOUSEH 11-07-95
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - A. HOUSEH 10-12-96
	PLOT DATE = 4/12/2011	DATE -	REVISED -T. RAMMACHER 01-06-00

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

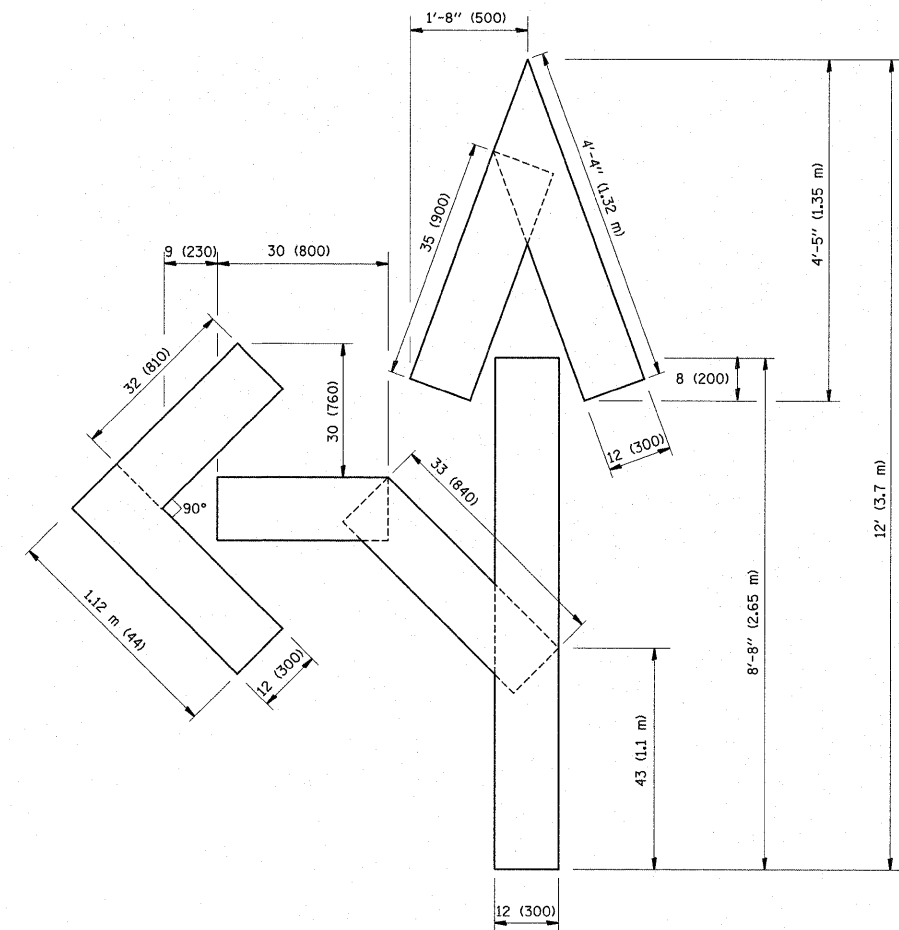
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

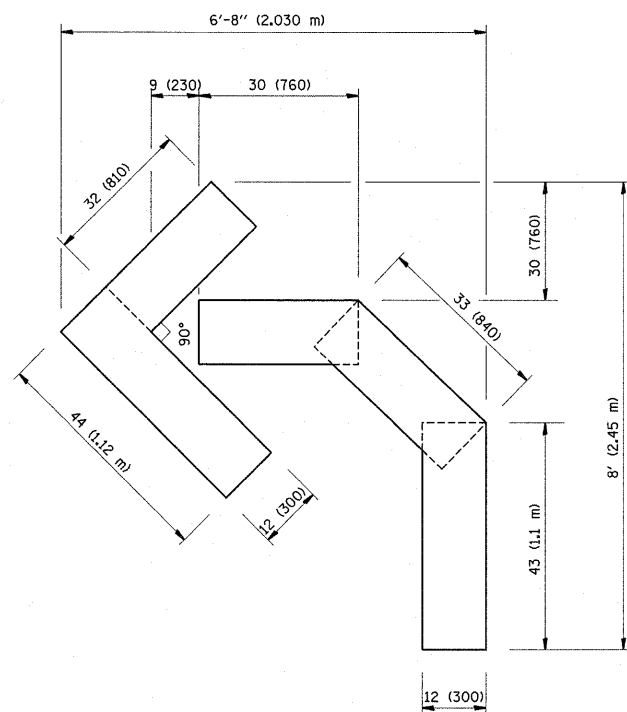
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	53
TC-14		CONTRACT NO. 60K57		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

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

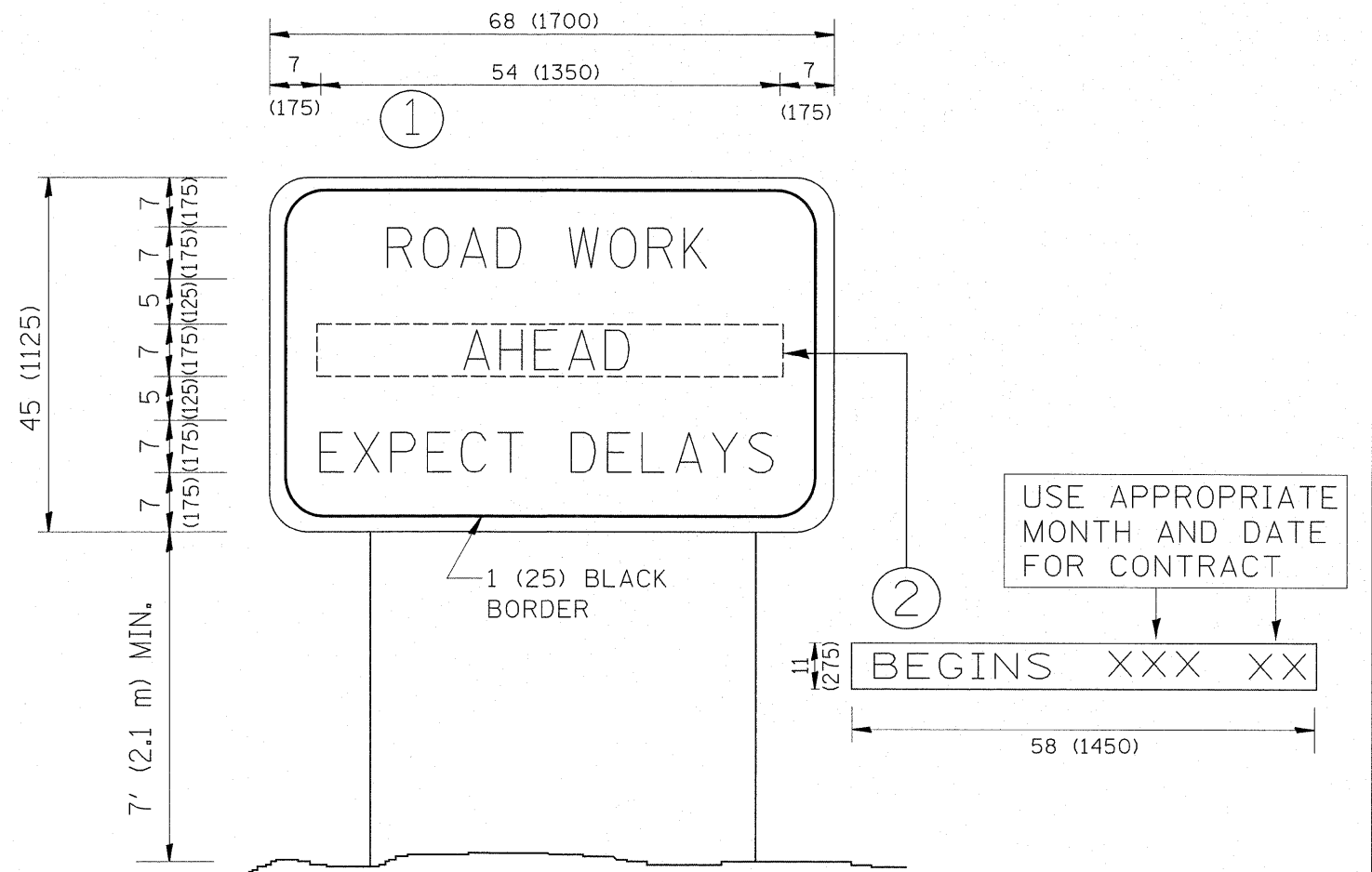
FILE NAME =	USER NAME = guilleumefp	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
es:\pw_work\pwsdot\guilleumefp\d0188275\052610-sht-plan.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 4/12/2011	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	54
TC-16		CONTRACT NO. 60K57		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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 = guillaumefp	DESIGNED -	REVISED - R. MIRS 09-15-97
ct:\pw_work\p\dot\guillaumefp\d0188275\052610-sht-plan.dgn		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 4/12/2011	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

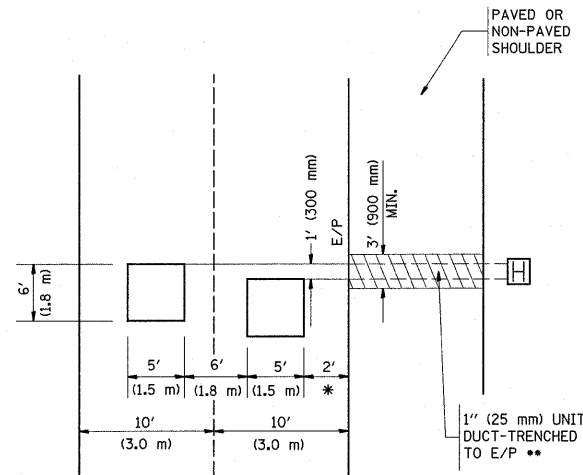
**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	539 W-1-RS	COOK	56	55
TC-22		CONTRACT NO. 60K57		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.

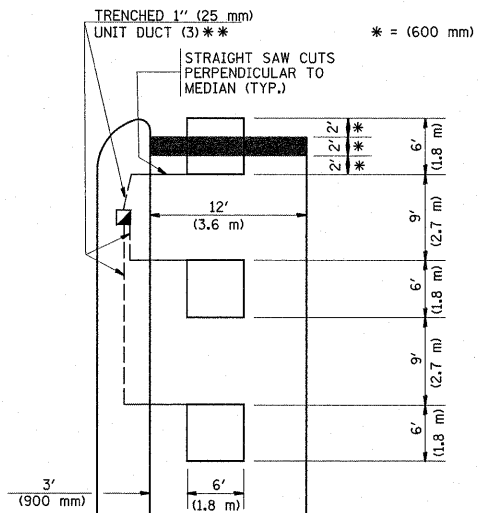


* = (600 mm)

** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

**LEFT TURN LANES WITH MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)**

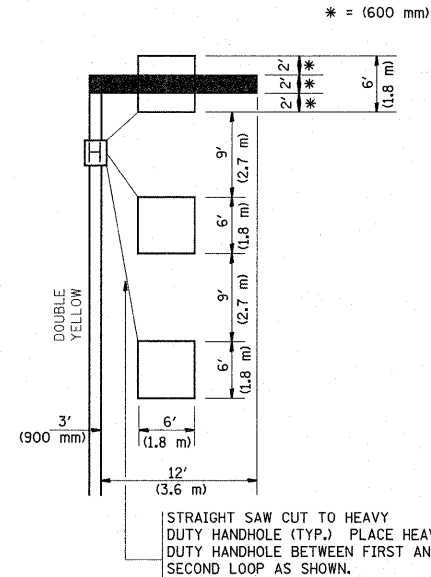
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



** UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

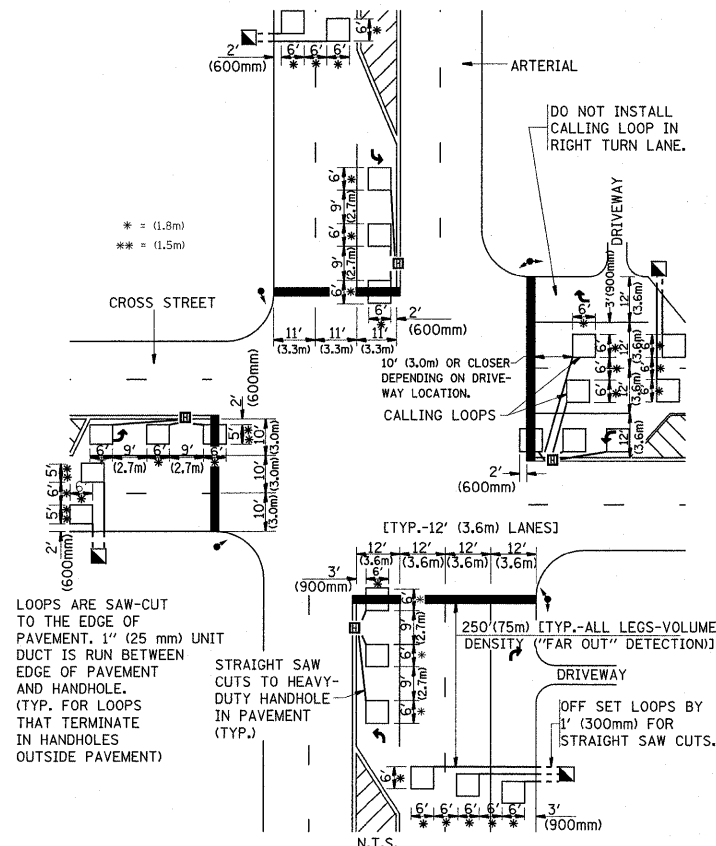
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**LEFT TURN LANES WITHOUT MEDIANS
VOLUME DENSITY ("FAR OUT" DETECTION)
ON SAME APPROACH
(PROTECTED / PERMITTED LEFT TURN PHASING)**



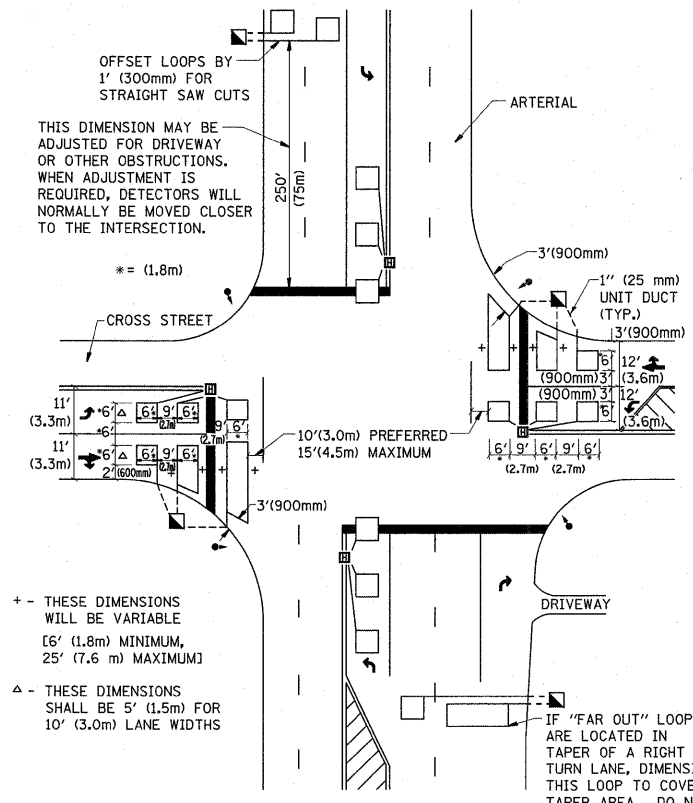
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)**



**DETAIL 1
N.T.S.**

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)**



**DETAIL 2
N.T.S.**

NOTES:

VEHICLES LOOP DETECTORS

- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- * ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

NOTE:

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

FILE NAME =	USER NAME = guillaumefp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
cr:\pw\work\p\idot\guillaumefp\d0186275\052610-sh-t-plan.dgn	52610-sh-t-plan.dgn	DRAWN -	REVISED -			351	539 W-1-RS	COOK	56	56
PLOT SCALE = 5/8"=1'-0"	CHECKED - R.K.F.	REVISED -	REVISED -			TS-07		CONTRACT NO. 60K57		
PLOT DATE = 4/12/2011	DATE -	REVISED -	REVISED -			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	