

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	1
		ILLINOIS	CONTRACT NO. 60T88	

D-91-490-12
#5841-59

06-14-13 LETTING ITEM 029

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 334 (US 12)
SECTION: TR-TS

PROJECT: HSIP-0334(023)

US 12 INTERSECTION IMPROVEMENTS
AT OLD MCHENRY ROAD

LAKE COUNTY
C-91-490-12

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN
VILLAGE OF NORTH BARRINGTON

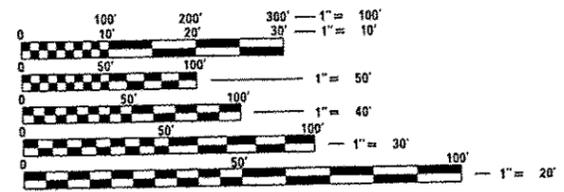
FUNCTIONAL CLASSIFICATION
OTHER PRINCIPAL ARTERIAL
2011 ADT: 32,000
POSTED SPEED: 55 MPH



PROJECT BEGINS
STA. 491 + 22.90

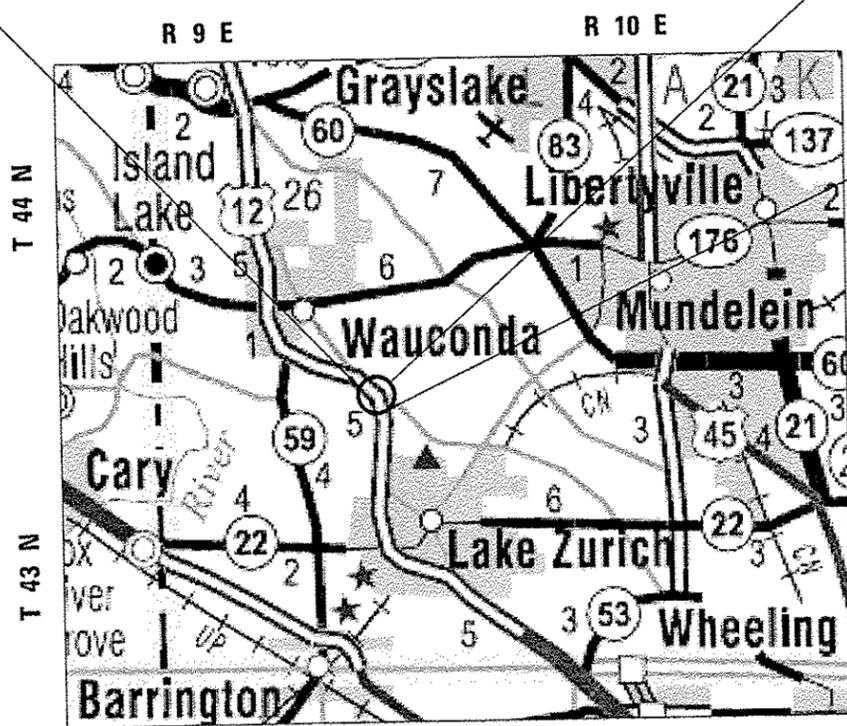
INTERSECTION OF US-12
& OLD MCHENRY ROAD
STA. 500 + 00 (US-12)

PROJECT ENDS
STA. 505 + 88.67 S.B.
STA. 505 + 70.56 N.B.



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



LOCATION MAP
N.T.S.



LICENSE EXPIRATION DATE 11/30/2013
[Signature] 3/25/2013
SIGNATURE, DATE

DISTRICT ONE -
PROJECT MANAGER: KARI SMITH (847) 705-4437 (IDOT)
PROJECT ENGINEER: BEHZAD AMINI (312) 857-1006 (DBS)

ELA TOWNSHIP
GROSS LENGTH = 1,468.00 FEET = 0.28 MILE
NET LENGTH = 1,468.00 FEET = 0.28 MILE

DBS DBS STERLIN CONSULTANTS, INC.
123 N. WACKER DRIVE SUITE 2000
CHICAGO, ILLINOIS 60606
TEL. (312) 957-1000 FAX. (312) 957-1056

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
SUBMITTED *March 27* 2013
John Fortman
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
May 10 2013
John D. Baranzoni, P.E.
ENGINEER OF DESIGN AND ENVIRONMENT
May 10 2013
Omer Osman, P.E.
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

CONTRACT NO. 60T88

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

SHEET NO.	DESCRIPTION	STANDARD NO.	DESCRIPTION
1	COVER SHEET	000001-06	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
2	INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES AND COMMITMENTS	001006	DECIMAL OF AN INCH AND A FOOT
3-10	SUMMARY OF QUANTITIES	420001-07	PAVEMENT JOINTS
11-12	EXISTING AND PROPOSED TYPICAL SECTIONS	420111-03	PCC PAVEMENT ROUNDOUTS
13	SCHEDULE OF QUANTITIES	420601-05	24' (7.2 m) PCC PAVEMENT
14-16	ALIGNMENT, TIES AND BENCHMARKS	420701-02	PAVEMENT FABRIC
17-18	ROADWAY PLAN	482011-03	HMA SHLD. STRIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
19	EXISTING PROFILE - US ROUTE 12	602001-02	CATCH BASIN TYPE A
20-21	SUGGESTED MAINTENANCE OF TRAFFIC - TYPICAL SECTIONS	602011-02	CATCH BASIN TYPE C
22-23	SUGGESTED MAINTENANCE OF TRAFFIC	602301-03	INLET TYPE A
24-25	TEMPORARY EROSION AND SEDIMENT CONTROL	602401-03	MANHOLE - TYPE A
26-28	PROPOSED DRAINAGE AND UTILITIES	602701-02	MANHOLE STEPS
29-30	PAVEMENT MARKING PLAN	604001-03	FRAME AND LIDS TYPE 1
31-33	TEMPORARY TRAFFIC SIGNAL PLANS	606001-04	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
34-36	TRAFFIC SIGNAL PLANS	606301-04	PC CONCRETE ISLANDS AND MEDIAN
37	(BD-03) OUTLET FOR CONCRETE CURB AND GUTTER	701101-03	OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE
38	(BD-07) DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER	701421-05	LANE CLOSURE, MULTILANE, DAY OPERATIONS ONLY, FOR SPEEDS ≥ 45 MPH TO 55 MPH
39	(BD-08) DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING	701422-05	LANE CLOSURE, MULTILANE, FOR SPEEDS ≥ 45 MPH TO 55 MPH
39A	(BD-22) PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT	701701-08	URBAN LANE CLOSURE, MULTILANE INTERSECTION
40	(BD-32) BUTT JOINT AND HMA TAPER DETAILS	701901-02	TRAFFIC CONTROL DEVICES
41	(BD-33) HMA TAPER AT EDGE OF P.C.C. PAVEMENT	720001-01	SIGN PANEL MOUNTING DETAILS
42	(TC-10) TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS	720011-01	METAL POSTS FOR SIGNS, MARKERS & DELINEATORS
43	(TC-11) TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)	729001-01	APPLICATIONS OF TYPES A & B METAL POSTS (FOR SIGNS & MARKERS)
44	(TC-13) DISTRICT ONE TYPICAL PAVEMENT MARKINGS	781001-01	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS
45	(TC-14) TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)	814001-02	HANDHOLES
46	(TC-16) PAVEMENT MARKING LETTER AND SYMBOLS FOR TRAFFIC STAGING	814006-02	DOUBLE HANDHOLES
47	(TC-22) ARTERIAL ROAD INFORMATION SIGN	857001-02	STANDARD PHASE DESIGNATION DIAGRAMS AND PHASE SEQUENCES
48-53	(TS-05) DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	862001-01	UNINTERRUPTABLE POWER SUPPLY (UPS)
54	(TS-07) DISTRICT 1 - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING	873001-02	TRAFFIC SIGNAL GROUNDING & BOUNDING
55-58	CROSS SECTIONS	877001-05	STEEL MAST ARM ASSEMBLY AND POLE
		878001-09	CONCRETE FOUNDATION DETAILS
		880001-01	SPAN WIRE MOUNTED SIGNALS AND BEACON INSTALLATION
		880006-01	TRAFFIC SIGNAL MOUNTING DETAILS
		886001-01	DETECTOR LOOP INSTALLATION

- ALL CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE DETAILS IN THE PLANS, THE SPECIAL PROVISIONS INCLUDED IN THE CONTRACT DOCUMENTS, AND THE LATEST EDITION OF THE FOLLOWING STATE OF ILLINOIS SPECIFICATIONS: "THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2012 (REFERRED TO AS THE STANDARD SPECIFICATIONS), THE "SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS", THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" AND THE "MANUAL OF TEST PROCEDURES FOR MATERIALS".
- 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 REQUIRED).
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND LAKE COUNTY.
- THE CONTRACTOR WILL NOT BE ABLE TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT THE WRITTEN PERMISSION OF THE DEPARTMENT.
- THE CONTRACTOR SHALL NOTIFY THE IDOT ARTERIAL TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- THE CONTRACTOR SHALL CONTACT MRS. DEBBIE HANLON, AREA TRAFFIC FIELD ENGINEER, AT (847) 438-2300 A MINIMUM OF TWO (2) WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.
- ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES (AND RAISED REFLECTIVE PAVEMENT MARKERS) IN ORDER THAT THESE LOCATIONS CAN BE RE-ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL PAVEMENT MARKINGS SHALL BE AS DIRECTED BY THE ENGINEER.
- DRAINAGE ADJUSTMENT OR RE-CONSTRUCTION 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.
- FRAMES AND GRATES ADJUSTMENT OF PRIVATE UTILITIES WITHIN THE LIMITS OF THE IMPROVEMENTS SHALL BE DONE BY THEIR RESPECTIVE OWNERS AND ARE NOT PART OF THIS CONTRACT.
- THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ACCESS TO ABUTTING PROPERTY AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- THE CONTRACTOR SHALL REPLACE ALL THE PAVEMENT MARKINGS AS LAID OUT IN THE FIELD AS DIRECTED BY THE ENGINEER.

COMMITMENTS

ALL EXTRA EXCAVATED SOIL SHALL BE PLACED WITHIN 100T RIGHT-OF-WAY, WITHIN PROJECT LIMITS.

FILE NAME: #FILE#

SHT_PLAN	USER NAME * #USER#	DESIGNED - MTM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	INDEX OF SHEETS, STATE STANDARDS, GENERAL NOTES AND COMMITMENTS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE * #SCALE#	DRAWN - MTM	REVISED -		334	TR-TS	LAKE	58	2			
	PLOT DATE * #DATE#	CHECKED - BA	REVISED -		SCALE: N.T.S.	SHEET 1	OF 1 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		
		DATE - 3/27/13	REVISED -		CONTRACT NO. 60T88							

FILE NAME : G:\Projects\ILLINOIS Department of Transportation\18 162 - Item 7 - Various Vertical Work Order No. 9-15 12 st. Old McHenry Rd\CAD Sheets\180788-44-500.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				0004 90% FEDERAL 10% STATE WIDENING & RESURFACING	0021 90% FEDERAL 6.7% STATE 3.3% COUNTY TRAF. SIGNALS	0021 100% WAUCONDA FIRE PROT. DEPT. CONTROL SAFETY (EVP)			
20200100	EARTH EXCAVATION	CU YD	600	600					
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	363	363					
20800150	TRENCH BACKFILL	CU YD	355	355					
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SO YD	2,114	2,114					
21101505	TOPSOIL EXCAVATION AND PLACEMENT	CU YD	333	333					
21400100	GRADING AND SHAPING DITCHES	FOOT	455	455					
25000210	SEEDING, CLASS 2A	ACRE	0.18	0.18					
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	16	16					
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	16	16					
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	16	16					
28000305	TEMPORARY DITCH CHECKS	FOOT	147	147					
28000400	PERIMETER EROSION BARRIER	FOOT	3,229	3,229					
28000510	INLET FILTERS	EACH	14	14					
28001100	TEMPORARY EROSION CONTROL BLANKET	SO YD	867	867					

△ SPECIALTY ITEM

14

Rev.

SHT. PLAN	USER NAME : mmillar	DESIGNED - MTM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE : 100.0000 ' / 1" =	DRAWN - MTM	REVISED -			334	TR-15	LAKE	58	3
	PLOT DATE : 3/27/2013	CHECKED - BA	REVISED -	SCALE: N.T.S.	SHEET 1 OF 8 SHEETS	STA.	TO STA.	CONTRACT NO. 60T88		
		DATE - 3/27/13	REVISED -	ILLINOIS FED. AID PROJECT						

FILE NAME: G:\Projects\ILLINOIS Department of Transportation\PIB 162 - Item 7 - Various Various Work Order No. 9, US 12 at Old McHenry Rd\ADD Sheets\060188-shi-500.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				0004 90% FEDERAL 10% STATE WIDENING & RESURFACING	0021 90% FEDERAL 6.7% STATE 3.3% COUNTY TRAF. SIGNALS	0021 100% WAUCONDA FIRE PROT. DEPT. SAFETY (EVP)			
28100701	STONE DUMPED RIPRAP, CLASS A1	SO YD	53	53					
28200200	FILTER FABRIC	SO YD	53	53					
30300112	AGGREGATE SUBGRADE IMPROVEMENT 12"	SO YD	2,114	2,114					
35501312	HOT-MIX ASPHALT BASE COURSE, 7"	SO YD	379	379					
35600704	HOT-MIX ASPHALT BASE COURSE WIDENING, 7"	SO YD	1,206	1,206					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	6	6					
40600300	AGGREGATE (PRIME COAT)	TON	27	27					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	11	11					
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1,412	1,412					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	711	711					
40600985	PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT	SO YD	152	152					
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	124	124					
40603595	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90	TON	1,512	1,512					
42001300	PROTECTIVE COAT	SO YD	483	483					

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 2 OF 8 SHEETS STA. TO STA.

F.A.P. RTE. 334	SECTION TR-15	COUNTY LAKE	TOTAL SHEETS 58	SHEET NO. 4
CONTRACT NO. 60T88			[ILLINOIS] FED. AID PROJECT	

Rev.

14

FILE NAME : C:\Projects\ILLINOIS Department of Transportation\PTB 162 - Item 7 - Various Versions\Work Order No. 9 - US 12 at Old McHenry Rd\CADD Sheets\0160168-INT-500.dgn

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				0004 90% FEDERAL 10% STATE WIDENING & RESURFACING	0021 90% FEDERAL 6.7% STATE 3.3% COUNTY TRAF. SIGNALS	0021 100% WAUCONDA FIRE PROT. DEPT. SAFETY (EVP)			
44000160	HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"	SQ YD	7,305	7,305					
4400221B	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4 1/2"	SQ YD	490	490					
44004250	PAVED SHOULDER REMOVAL	SQ YD	1,114	1,114					
44201353	CLASS C PATCHES, TYPE II, 10 INCH	SQ YD	310	310					
44201357	CLASS C PATCHES, TYPE III, 10 INCH	SQ YD	186	186					
44201359	CLASS C PATCHES, TYPE IV, 10 INCH	SQ YD	124	124					
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SQ YD	245	245					
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	147	147					
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SQ YD	98	98					
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	41	41					
550A0340	STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	391	391					
550A0360	STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	150	150					
550A0380	STORM SEWERS, CLASS A, TYPE 2 18"	FOOT	357	357					
55100900	STORM SEWER REMOVAL 18"	FOOT	6	6					
60107700	PIPE UNDERDRAIN 6"	FOOT	250	250					
60208240	CATCH BASINS, TYPE C, TYPE 24 FRAME AND GRATE	EACH	14	14					

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 3 OF 8 SHEETS STA. TO STA.

F.A.P. RTE. 334	SECTION TR-TS	COUNTY LAKE	TOTAL SHEETS 58	SHEET NO. 5
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

Rev.

14

FILE NAME = C:\Projects\ILLINOIS Department of Transportation\PTB 152 - Item 7 - Various Versions\Work Order No. 9 - US 12 at Old McHenry Rd\CAD00 Sheets\0160T88-411-500.dgn
 SHT_PLAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				0004	0021	0021			
				90% FEDERAL	90% FEDERAL	100% WAUCONDA			
				10% STATE	6.7% STATE	FIRE PROT. DEPT.			
	WIDENING & RESURFACING	3.3% COUNTY TRAF. SIGNALS	SAFETY (EVP)						
60218400	MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1	1					
60221000	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	3	3					
60221100	MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2	2					
60500060	REMOVING INLETS	EACH	1	1					
60600095	CLASS SI CONCRETE (OUTLET)	CU YD	3	3					
60608582	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24	FOOT	1,686	1,686					
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	SO FT	1,852	1,852					
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6					
67100100	MOBILIZATION	L SUM	1	1					
70100310	TRAFFIC CONTROL AND PROTECTION, STANDARD 701421	L SUM	1	1					
70100315	TRAFFIC CONTROL AND PROTECTION, STANDARD 701422	EACH	4	4					
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1					
70300100	SHORT TERM PAVEMENT MARKING	FOOT	6,076	6,076					
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	SO FT	146	146					

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: N.T.S. SHEET 4 OF 8 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	6
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T88	

Rev.

FILE NAME: G:\Projects\ILLINOIS Department of Transportation\RTB 152 - Item 7 - Various Vertical Work Order No. 9- US 12 at Old Highway Rd\000 Sheets\018088-INT-SUM.dgn
 SMT_PLAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				0004	0021	0021			
				90% FEDERAL	90% FEDERAL	100% WAUCONDA			
				10% STATE	6.7% STATE	FIRE PROT. DEPT.			
				WIDENING & RESURFACING	3.3% COUNTY TRAF. SIGNALS	SAFETY (EVP)			
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	12,153	12,153					
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	777	777					
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	106	106					
△ 72000100	SIGN PANEL - TYPE I	SO FT	7.5		7.5				
△ 72300100	INSTALL EXISTING SIGN PANEL	SO FT	62	62					
△ 72900100	METAL POST - TYPE A	FOOT	29	29					
△ 72900200	METAL POST - TYPE B	FOOT	13.5	13.5					
△ 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	255	255					
△ 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1,486	1,486					
△ 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	1,812	1,812					
△ 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	132	132					
△ 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	331	331					
△ 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	114	114					
△ 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	99	99					

△ SPECIALTY ITEM

USER NAME - muller	DESIGNED - MTM	REVISED -
PLOT SCALE - 100.0000' / 1" =	DRAWN - MTM	REVISED -
PLOT DATE - 3/27/2013	CHECKED - BA	REVISED -
	DATE - 3/27/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUMMARY OF QUANTITIES			
SCALE: N.T.S.	SHEET 5	OF 8 SHEETS	STA. TO STA.

F.A.P. RTE. 334	SECTION TR-TS	COUNTY LAKE	TOTAL SHEETS 58	SHEET NO. 7
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

FILE NAME : C:\Projects\ILLINOIS Department of Transportation\PIB 162 - Item 7 - Various Vertical\Work Order No. 9 - US 12 at Old McHenry Rd\CD00 Sheets\0160788-11-500.dgn
 SHT. PLAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE					
				0004	0021	0021			
				90% FEDERAL	90% FEDERAL	100% WAUCONDA			
				10% STATE	6.7% STATE	FIRE PROT. DEPT.			
	WIDENING & RESURFACING	3.3% COUNTY TRAF. SIGNALS	SAFETY (EVP)						
78300100	PAVEMENT MARKING REMOVAL	50 FT	482	482					
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	99	99					
△ 81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	98		98				
△ 81028210	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	230		230				
△ 81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	48		48				
△ 81028240	UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	113		113				
△ 81400200	HEAVY-DUTY HANDHOLE	EACH	2		2				
△ 87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	695		695				
△ 87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	163		163				
△ 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	539		539				
△ 87502480	TRAFFIC SIGNAL POST, GALVANIZED STEEL 14 FT.	EACH	1		1				
△ 87502520	TRAFFIC SIGNAL POST, GALVANIZED STEEL 18 FT.	EACH	1		1				
△ 87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1		1				
△ 87800100	CONCRETE FOUNDATION, TYPE A	FOOT	12		12				

△ SPECIALTY ITEM

Rev.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE. 334	SECTION TR-1S	COUNTY LAKE	TOTAL SHEETS 58	SHEET NO. 8
SCALE: N.T.S. SHEET 6 OF 8 SHEETS STA. TO STA.		ILLINOIS FED. AID PROJECT CONTRACT NO. 60T88				

FILE NAME : G:\Projects\ILLINOIS Department of Transportation\162 - Item 7 - Various Vertical Work Order No. 9 - US 12 at Old McHenry Rd\CA00 Sheets\080188-W1-600.dgn

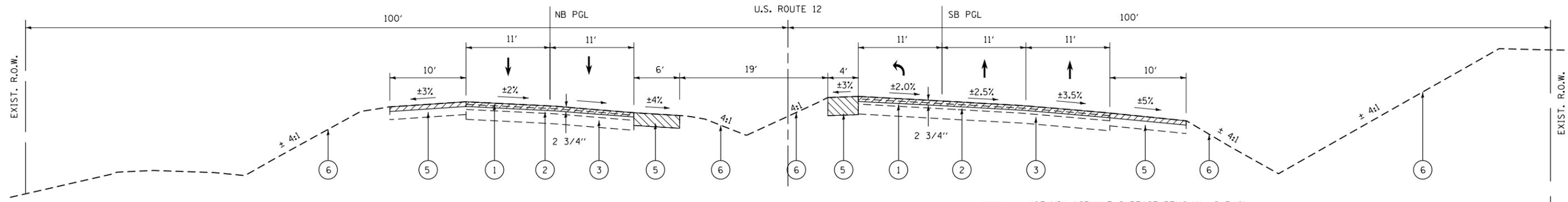
CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE		
				0004 90% FEDERAL 10% STATE WIDENING & RESURFACING	0021 90% FEDERAL 6.7% STATE 3.3% COUNTY TRAF. SIGNALS	0021 100% WAUCONDA FIRE PROT. DEPT. SAFETY (EVP)
△ 87800400	CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10		10	
△ 87900200	DRILL EXISTING HANDHOLE	EACH	1		1	
△ 87900205	DRILL EXISTING HEAVY DUTY HANDHOLE	EACH	2		2	
△ 88030050	SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1		1	
△ 88030210	SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1		1	
△ 88030220	SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1		1	
△ 88500100	INDUCTIVE LOOP DETECTOR	EACH	5		5	
△ 88600100	DETECTOR LOOP, TYPE I	FOOT	531		531	
△ 89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1		1	
△ 89501150	RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1		1	
△ 89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1		1	
△ 89502380	REMOVE EXISTING HANDHOLE	EACH	2		2	
△ 89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	4		4	
X2020110	GRADING AND SHAPING SHOULDERS	UNIT	4	4		

URBAN

△ SPECIALTY ITEM

14

SHT. PLAN	USER NAME : mml11er	DESIGNED - MTM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE : 1/8"=1'-0"	DRAWN - MTM	REVISED -		SCALE: N.T.S.	SHEET 7 OF 8 SHEETS	STA. TO STA.	334	TR-TS	LAKE	58
	PLOT DATE : 3/27/2013	CHECKED - BA	REVISED -							CONTRACT NO. 60T88	
		DATE - 3/27/13	REVISED -							ILLINOIS FED. AID PROJECT	

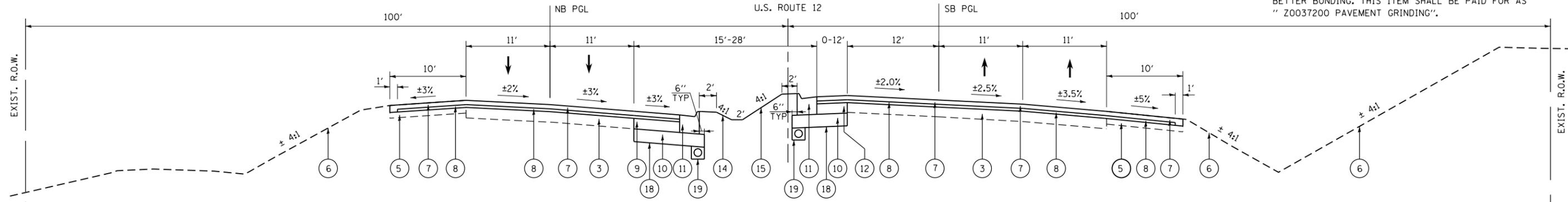


* STA. 491+22.90 TO STA. 496+94.47 HMA PAVEMENT
 STA. 496+94.47 TO STA. 505+70.56 PCC PAVEMENT (NORTHBOUND)
 STA. 496+88.25 TO STA. 505+88.67 PCC PAVEMENT (SOUTHBOUND INNER LANE)
 STA. 496+95.06 TO STA. 505+88.67 PCC PAVEMENT (SOUTHBOUND OUTER LANE)

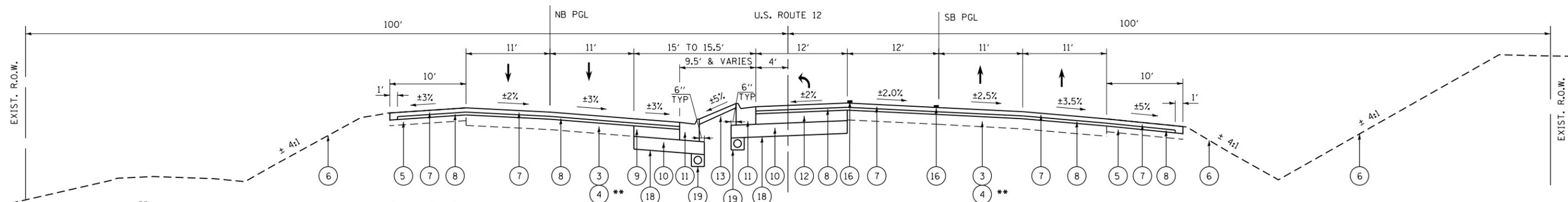
EXISTING TYPICAL SECTION U.S. ROUTE 12
 STA. 491+22.90 TO STA. 499+81.67*

▨ - HOT-MIX ASPHALT SURFACE REMOVAL, 2 3/4"
 ▨ - PAVED SHOULDER REMOVAL

NOTE 1:
 THE SURFACE OF THE EXISTING PCC PAVEMENT BEING OVERLAYED BY HMA PAVEMENT, SHALL BE GRINDED TO 1-INCH IN ORDER TO CREATE A ROUGH SURFACE FOR BETTER BONDING. THIS ITEM SHALL BE PAID FOR AS "Z0037200 PAVEMENT GRINDING".



PROPOSED TYPICAL SECTION U.S. ROUTE 12
 STA. 491+22.90 TO STA. 495+05.00



** STA. 496+94.47 TO STA. 505+70.56 PCC PAVEMENT (NORTHBOUND)
 STA. 496+88.25 TO STA. 505+88.67 PCC PAVEMENT (SOUTHBOUND INNER LANE)
 STA. 496+95.06 TO STA. 505+88.67 PCC PAVEMENT (SOUTHBOUND OUTER LANE)

PROPOSED TYPICAL SECTION U.S. ROUTE 12
 STA. 495+05.00 TO STA. 499+68.00

LEGEND

- ① EXISTING HOT-MIX ASPHALT SURFACE COURSE, 1 1/2"
- ② EXISTING HOT-MIX ASPHALT BINDER COURSE, 3"
- ③ EXISTING HOT-MIX ASPHALT BINDER COURSE, 9 1/4"
- ④ EXISTING P.C. PAVEMENT, 9 1/2" (HINGE JOINTED)
- ⑤ EXISTING HOT-MIX ASPHALT SHOULDER, 8"
- ⑥ EXISTING TOPSOIL & SODDING
- ⑦ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4"
- ⑧ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1"
- ⑨ PROPOSED HOT-MIX ASPHALT BASE COURSE, 7"
- ⑩ PROPOSED AGGREGATE SUBGRADE IMPROVEMENT, 12"
- ⑪ PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24
- ⑫ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 7"
- ⑬ PROPOSED CONCRETE MEDIAN SURFACE, 4"
- ⑭ PROPOSED TOPSOIL EXCAVATION AND PLACE, 8"
- ⑮ PROPOSED SEEDING, CLASS 2A
- ⑯ PROPOSED THERMOPLASTIC PAVEMENT MARKING - LINE 6"
- ⑰ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- ⑱ PROPOSED GEOTECHNICAL FABRIC FOR GROUND STABILIZATION
- ⑲ PROPOSED PIPE UNDERDRAINS 6"

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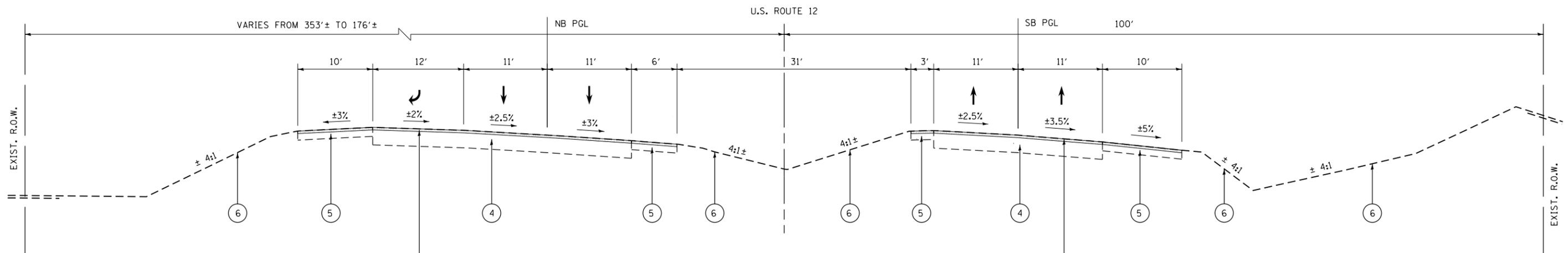
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DRAWN - MTM	REVISIONS -	
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PLOT DATE = \$DATE\$	DATE - 3/27/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED TYPICAL SECTIONS

SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	11
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

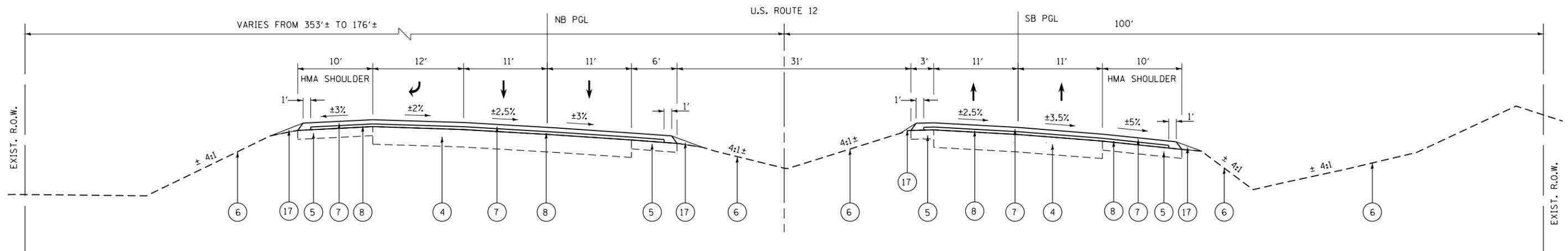


THE SURFACE OF THE EXISTING PCC PAVEMENT BEING OVERLAYED BY HMA PAVEMENT, SHALL BE GRINDED TO 1-INCH IN ORDER TO CREATE A ROUGH SURFACE FOR BETTER BONDING. THIS ITEM SHALL BE PAID FOR AS " Z0037200 PAVEMENT GRINDING".

EXISTING TYPICAL SECTION U.S. ROUTE 12

STA. 500 + 43.69 TO STA. 505 + 70.56 (NORTHBOUND)
 STA. 500 + 43.69 TO STA. 505 + 88.67 (SOUTHBOUND)

THE SURFACE OF THE EXISTING PCC PAVEMENT BEING OVERLAYED BY HMA PAVEMENT, SHALL BE GRINDED TO 1-INCH IN ORDER TO CREATE A ROUGH SURFACE FOR BETTER BONDING. THIS ITEM SHALL BE PAID FOR AS " Z0037200 PAVEMENT GRINDING".



NOTE: SEE IDOT DISTRICT ONE STANDARD DETAIL BD-32 FOR THE TAPER LENGTH BETWEEN THE HMA PAVEMENT AND PCC PAVEMENT.

PROPOSED TYPICAL SECTION U.S. ROUTE 12

STA. 500 + 43.69 TO STA. 505 + 70.56 (NORTHBOUND)
 STA. 500 + 43.69 TO STA. 505 + 88.67 (SOUTHBOUND)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

MIXTURE TYPE	AIR VOIDS Ndes
PAVEMENT RESURFACING	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL 9.5 mm, MIX "F", N90, 1 3/4"	4% @ 90 GYR.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1"	3.5% @ 50 GYR.
PAVEMENT WIDENING & RESURFACING	
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, IL 9.5 mm, MIX "F", N90, 1 3/4"	4% @ 90 GYR.
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1"	3.5% @ 50 GYR.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N90, 7"	4% @ 90 GYR.
PATCHING	
CLASS D PATCHES (HMA BINDER IL-19 mm) 11 INCHES (IN FOUR LIFTS)	4% @ 90 GYR.

1. THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN
2. THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 76-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE DISTRICT ONE SPECIAL PROVISIONS.

LEGEND

- | | | |
|---|--|--------------------------------|
| ① EXISTING HOT-MIX ASPHALT SURFACE COURSE, 1 1/2" | ⑩ PROPOSED AGGREGATE SUBGRADE IMPROVEMENT, 12" | ⑰ PROPOSED PIPE UNDERDRAINS 6" |
| ② EXISTING HOT-MIX ASPHALT BINDER COURSE, 3" | ⑪ PROPOSED COMBINATION CONCRETE CURB AND GUTTER, TYPE M-4.24 | |
| ③ EXISTING HOT-MIX ASPHALT BINDER COURSE, 9 1/4" | ⑫ PROPOSED HOT-MIX ASPHALT BASE COURSE WIDENING, 7" | |
| ④ EXISTING P.C. PAVEMENT, 9 1/2" (HINGE JOINTED) | ⑬ PROPOSED CONCRETE MEDIAN SURFACE, 4" | |
| ⑤ EXISTING HOT-MIX ASPHALT SHOULDER, 8" | ⑭ PROPOSED TOPSOIL EXCAVATION AND PLACE, 8" | |
| ⑥ EXISTING TOPSOIL & SODDING | ⑮ PROPOSED SEEDING, CLASS 2A | |
| ⑦ PROPOSED POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "F", N90, 1 3/4" | ⑯ PROPOSED THERMOPLASTIC PAVEMENT MARKING - LINE 6" | |
| ⑧ PROPOSED POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50, 1" | ⑰ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B | |
| ⑨ PROPOSED HOT-MIX ASPHALT BASE COURSE, 7" | ⑱ PROPOSED GEOTECHNICAL FABRIC FOR GROUND STABILIZATION | |

FILE NAME = \$FILEL\$
 SHT.PLAN

USER NAME = \$USER\$	DESIGNED - MTM	REVISED -
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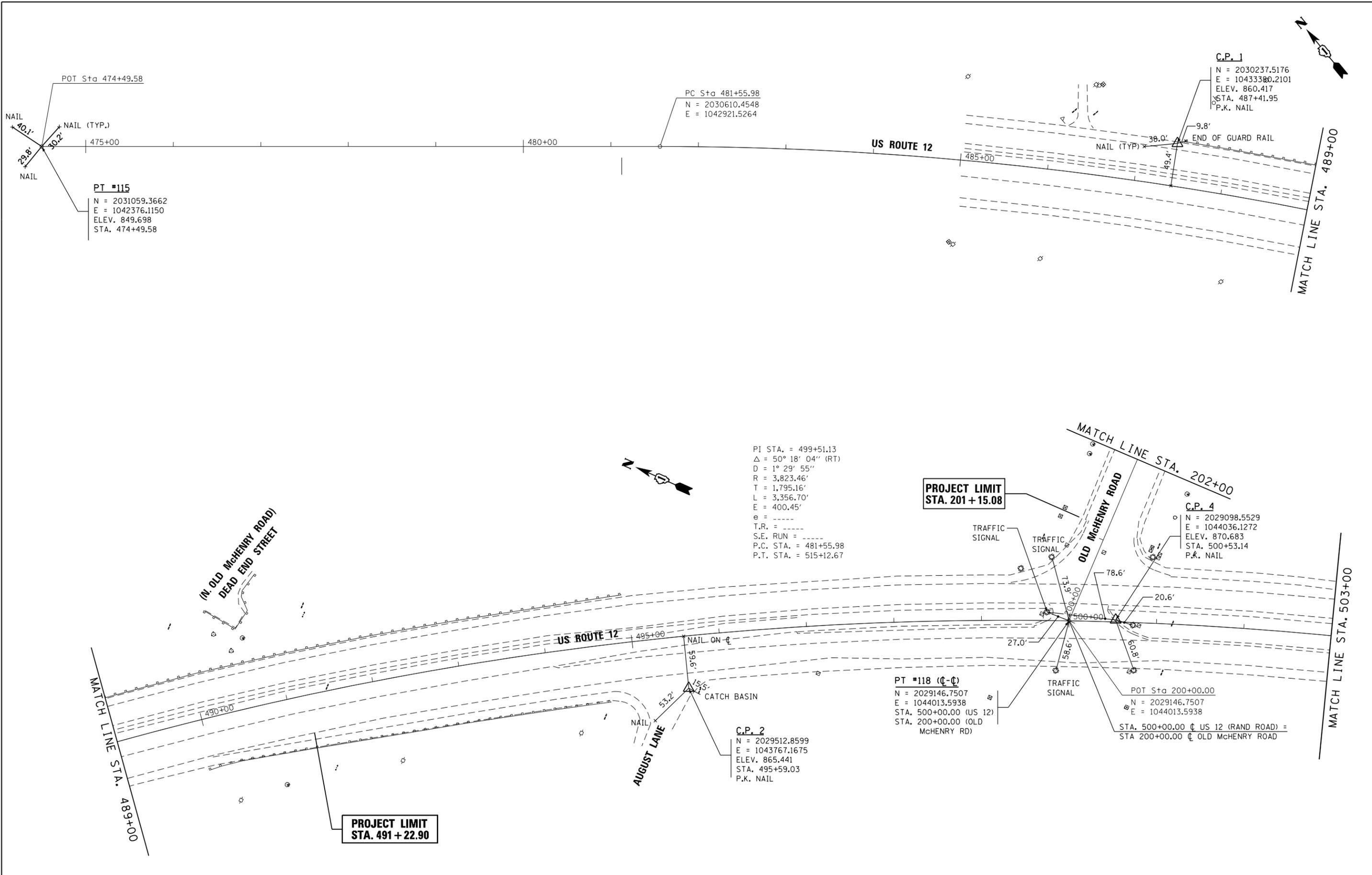
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

EXISTING AND PROPOSED TYPICAL SECTIONS

SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	12
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

FILE NAME = G:\Projects\ILLINOIS Department of Transportation\PTB 162 - Item 7 - Various Various\Work Order No. 9 - US 12 at Old McHenry Rd\CADD Sheets\162T88-sh1-ATB.dgn



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	DRAWN - MTM	REVISED -
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PLOT DATE = 3/26/2013	DATE - 3/27/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ALIGNMENT, TIES AND BENCHMARKS		
SCALE: 1"=50'	SHEET 1 OF 3 SHEETS	STA. 474+49.58 TO STA. 503+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	14
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

FILE NAME : G:\Projects\ILLINOIS Department of Transportation\PTB 162 - Item 7 - Various Various\Work Order No. 9- US 12 at Old McHenry Rd\CADD Sheets\160T88-sh1-ATB.dgn

MATCH LINE STA. 517+00

MATCH LINE STA. 503+00

PROJECT LIMIT
STA. 505 + 70.56

PROJECT LIMIT
STA. 505 + 88.67



US ROUTE 12

C.P. 3

N = 2027987.6524
E = 1044351.9548
ELEV. 865.715
STA. 512+09.34
P.K. NAIL

PT Sta 515+12.67
N = 2027674.4986
E = 1044315.1610

TIMBERLAKE DR.

MATCH LINE STA. 517+00

US ROUTE 12



520+00

525+00

530+00

MATCH LINE STA. 531+00

SHT.PLAN

USER NAME = mmiller	DESIGNED - MTM	REVISED -
	DRAWN - MTM	REVISED -
PLOT SCALE = 100.0000' / in.	CHECKED - BA	REVISED -
PLOT DATE = 3/26/2013	DATE - 3/27/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ALIGNMENT, TIES AND BENCHMARKS

SCALE: 1"=50' SHEET 2 OF 3 SHEETS STA. 503+00 TO STA. 531+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	15
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				



MATCH LINE STA. 531+00

US ROUTE 12

POT Sta 538+77.28

PT #101
 N = 2025309.9079
 E = 1044325.1526
 ELEV. 858.147
 STA. 538+77.28

BENCHMARKS:

- CUT "□" IN WESTERLY CORNER OF CONCRETE FOUNDATION OF TRAFFIC CONTROL BOX IN SOUTHEAST CORNER OF US 12 AND OLD McHENRY ROAD.
ELEV. 871.360
- NAIL IN POWER POLE IN SOUTHEAST CORNER OF OLD McHENRY AND FOX HUNT TRAIL.
ELEV. 869.462

POT Sta 305+24.48
 N = 2029674.1810
 E = 1044298.0566

C.P. 6
 N = 2029500.2642
 E = 1044310.6332
 ELEV. 857.452
 STA. 498+10.56
 P.K. NAIL

PT 116 (PI)
 N = 2029469.6401
 E = 1044307.5756
 ELEV. 847.297
 STA. 499+51.13

POT Sta 303+03.43
 N = 2029453.1595
 E = 1044294.2723

POT Sta 300+00.00
 N = 2029151.5864
 E = 1044327.7971

PC Sta 204+17.90
 N = 2029153.1815
 E = 1044431.4413

PI STA. = 208+61.20
 $\Delta = 36^\circ 29' 46''$ (RT)
 $D = 4^\circ 15' 41''$
 $R = 1,344.53'$
 $T = 443.31'$
 $L = 856.43'$
 $E = 71.20'$
 $e = \text{-----}$
 $T.R. = \text{-----}$
 $S.E. RUN = \text{-----}$
 $P.C. STA. = 204+17.90$
 $P.T. STA. = 212+74.33$

PT 109 (PI)
 N = 2029160.0032
 E = 1044874.6955
 ELEV. 864.4911
 STA. 208+61.20

PT Sta 212+74.33
 N = 2028901.8541
 E = 1045235.0840

PT 107
 N = 2028694.0819
 E = 1045525.1440
 ELEV. 864.490
 STA. 216+31.12

STA. 203+14.24 ϕ OLD McHENRY ROAD =
 STA 300+00.00 ϕ MILTON ROAD

MATCH LINE STA. 202+00

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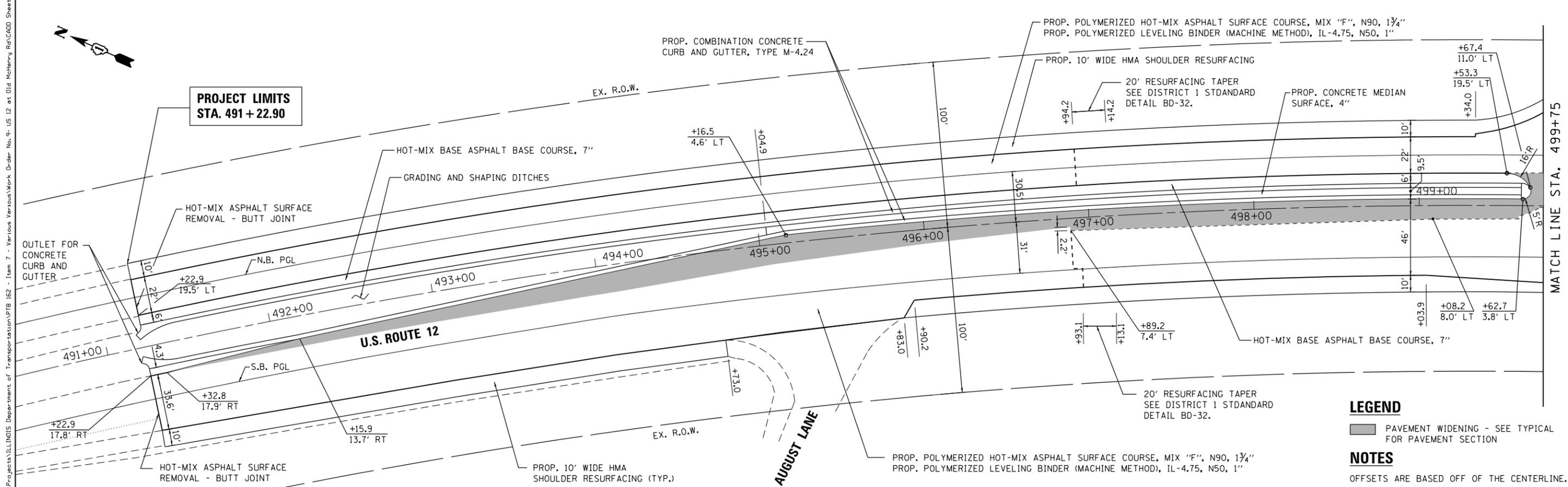
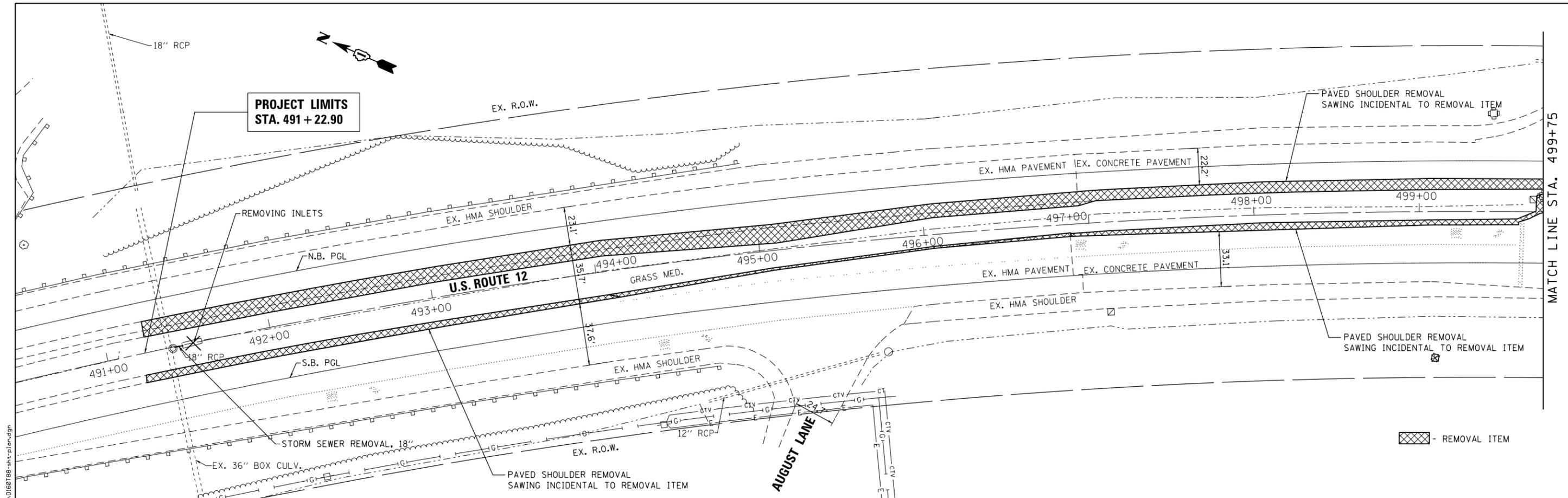
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	DATE - 3/27/13	REVISED -

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

ALIGNMENT, TIES AND BENCHMARKS

SCALE: 1"=50' SHEET 3 OF 3 SHEETS STA. 531+00 TO STA. 538+77.28

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	16
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				



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	DATE - 3/27/13	REVISED -

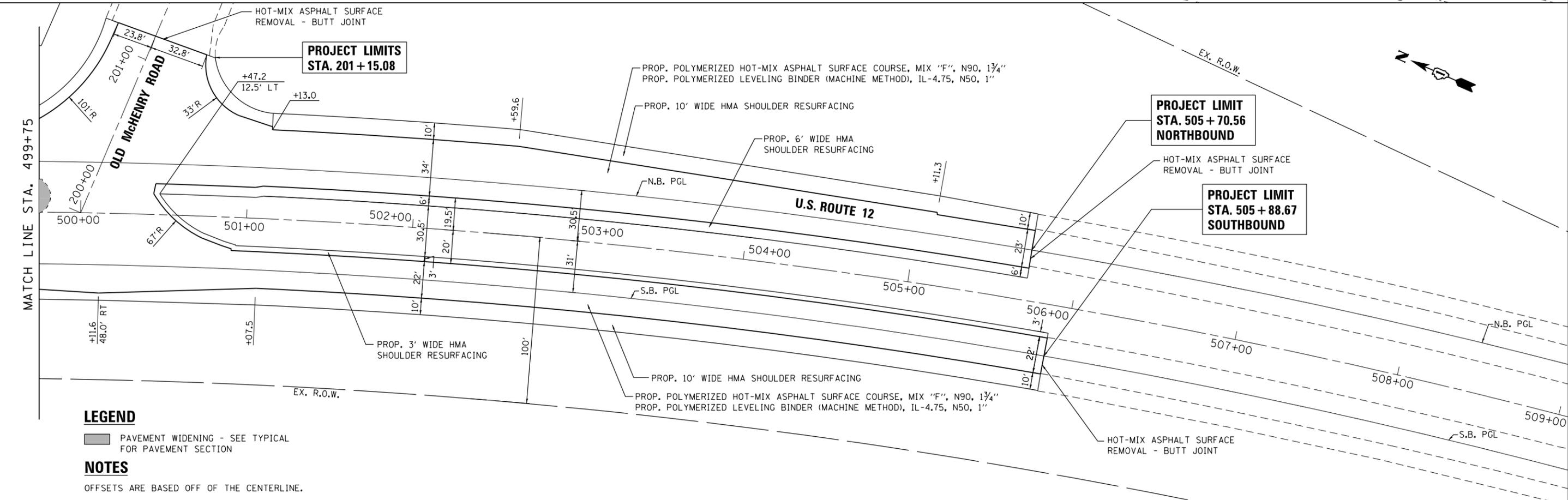
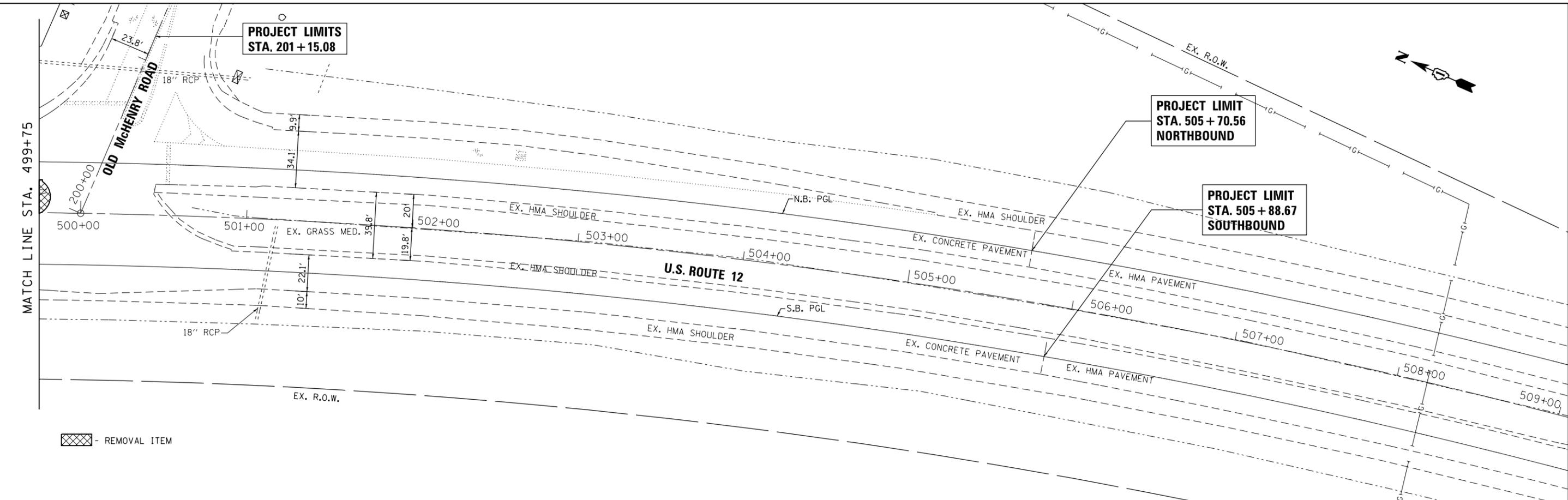
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY PLAN	
SCALE: 1"=30'	SHEET 1 OF 2 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	59	17
CONTRACT NO. 60788				
ILLINOIS FED. AID PROJECT				

LEGEND
 [Hatched Box] PAVEMENT WIDENING - SEE TYPICAL FOR PAVEMENT SECTION
NOTES
 OFFSETS ARE BASED OFF OF THE CENTERLINE.

FILE NAME = G:\Projects\ILLINOIS Department of Transportation\PTB 162 - Item 7 - Various Various Work Order No. 9- US 12 at Old McHenry Rd\CADD Sheets\162T88-sht-plan.dgn



LEGEND

PAVEMENT WIDENING - SEE TYPICAL FOR PAVEMENT SECTION

NOTES

OFFSETS ARE BASED OFF OF THE CENTERLINE.

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	DRAWN - MTM	REVISED -
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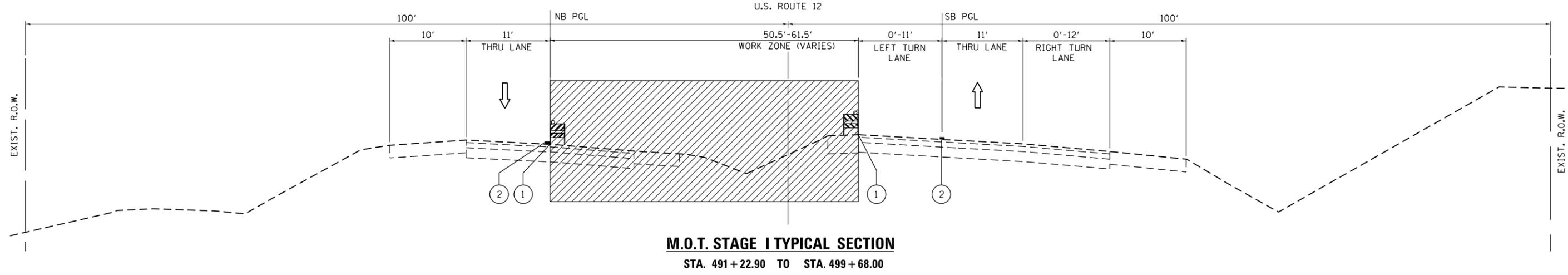
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

ROADWAY PLAN

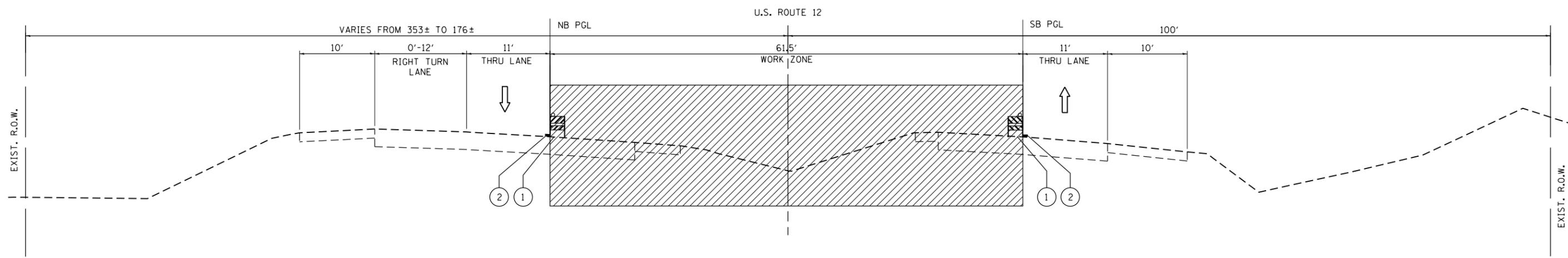
SCALE: 1"=30' SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	59	18
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

FILE NAME = G:\Projects\ILLINOIS Department of Transportation\PTB 162 - Item 7 - Various Various\Work Order No. 9- US 12 at Old McHenry Rd\CADD Sheets\160T88-sht-mot-typical.dgn



M.O.T. STAGE I TYPICAL SECTION
STA. 491+22.90 TO STA. 499+68.00



M.O.T. STAGE I TYPICAL SECTION
STA. 500+43.69 TO STA. 505+70.56 (NORTHBOUND)
STA. 500+43.69 TO STA. 505+88.67 (SOUTHBOUND)

LEGEND

- ① TYPE II BARRICADE OR VERTICAL PANEL WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- ② TEMPORARY PAVEMENT MARKING - LINE 4" (YELLOW)
- ← DIRECTION OF TRAFFIC
- ▨ WORK ZONE

NOTES

1. PRIOR TO INSTALLING POST MOUNTED SIGNS, THE CONTRACTOR SHALL CONTACT J.U.L.I.E.
2. SEE STAGING PLAN AND STANDARD 701422 FOR ADDITIONAL INFORMATION.
3. ALL DRAINAGE ITEMS SHALL BE CONSTRUCTED DURING M.O.T. STAGE I.

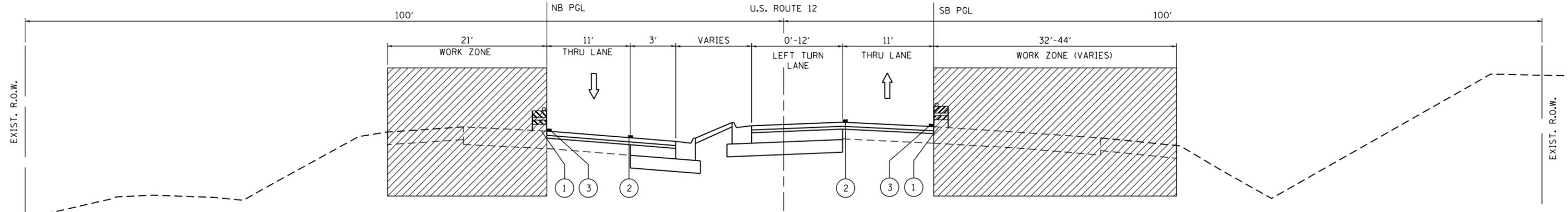
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PLOT DATE = 3/27/2013	DATE - 3/27/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**SUGGESTED MAINTENANCE OF TRAFFIC
STAGE I - TYPICAL SECTIONS**

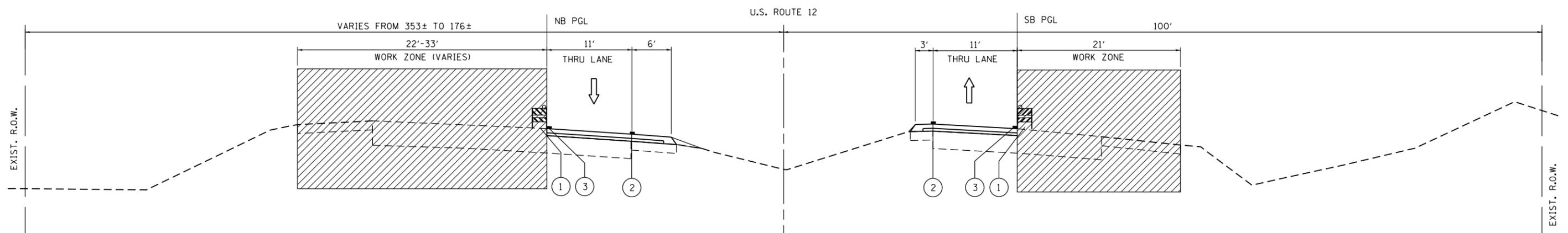
SCALE: N.T.S. SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	20
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				



M.O.T. STAGE II TYPICAL SECTION

STA. 495+05.00 TO STA. 499+68.00



M.O.T. STAGE II TYPICAL SECTION

STA. 500+43.69 TO STA. 505+70.56 (NORTHBOUND)
 STA. 500+43.69 TO STA. 505+88.67 (SOUTHBOUND)

LEGEND

- ① TYPE II BARRICADE OR VERTICAL PANEL WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- ② TEMPORARY PAVEMENT MARKING - LINE 4" (YELLOW)
- ③ TEMPORARY PAVEMENT MARKING - LINE 4" (WHITE)
- ← DIRECTION OF TRAFFIC
- ▨ WORK ZONE

NOTES

1. PRIOR TO INSTALLING POST MOUNTED SIGNS, THE CONTRACTOR SHALL CONTACT J.U.L.I.E.
2. SEE STAGING PLAN AND STANDARD 701422 FOR ADDITIONAL INFORMATION.
3. ALL DRAINAGE ITEMS SHALL BE CONSTRUCTED DURING M.O.T. STAGE I.

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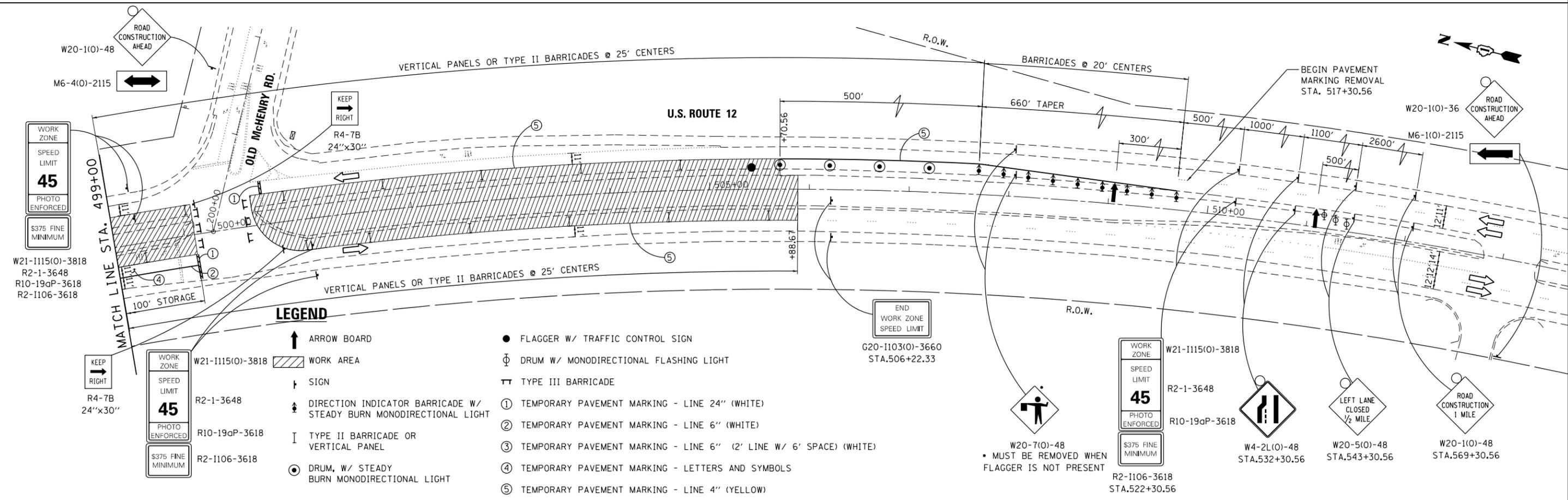
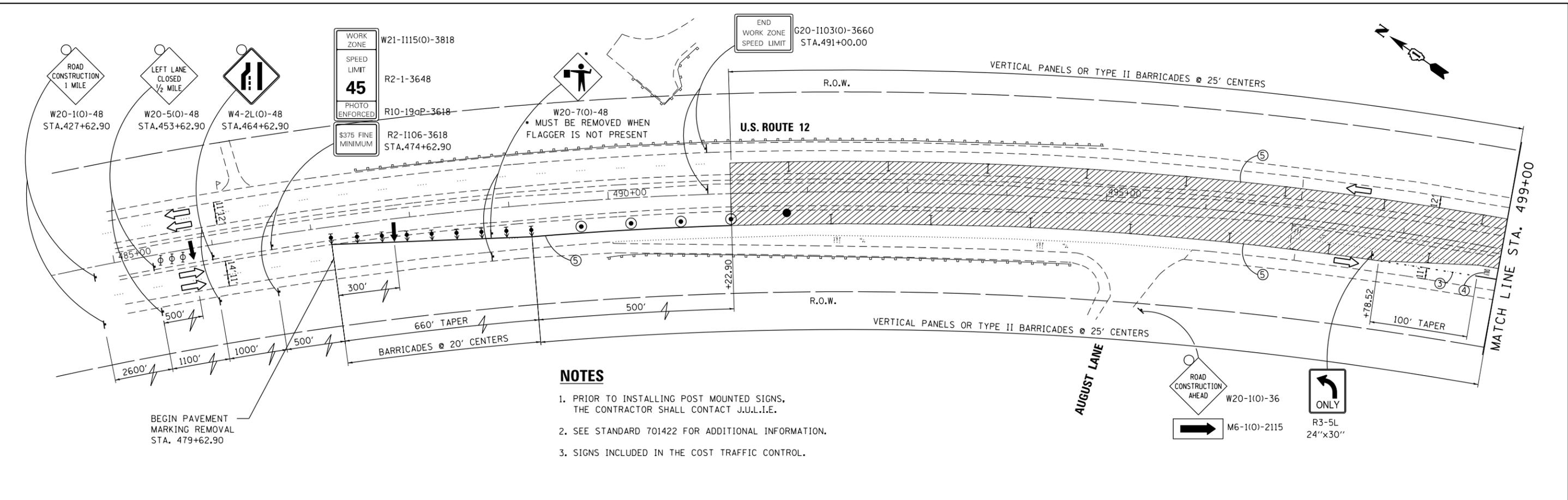
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUGGESTED MAINTENANCE OF TRAFFIC
STAGE II - TYPICAL SECTIONS

SCALE: N.T.S. SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	21
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

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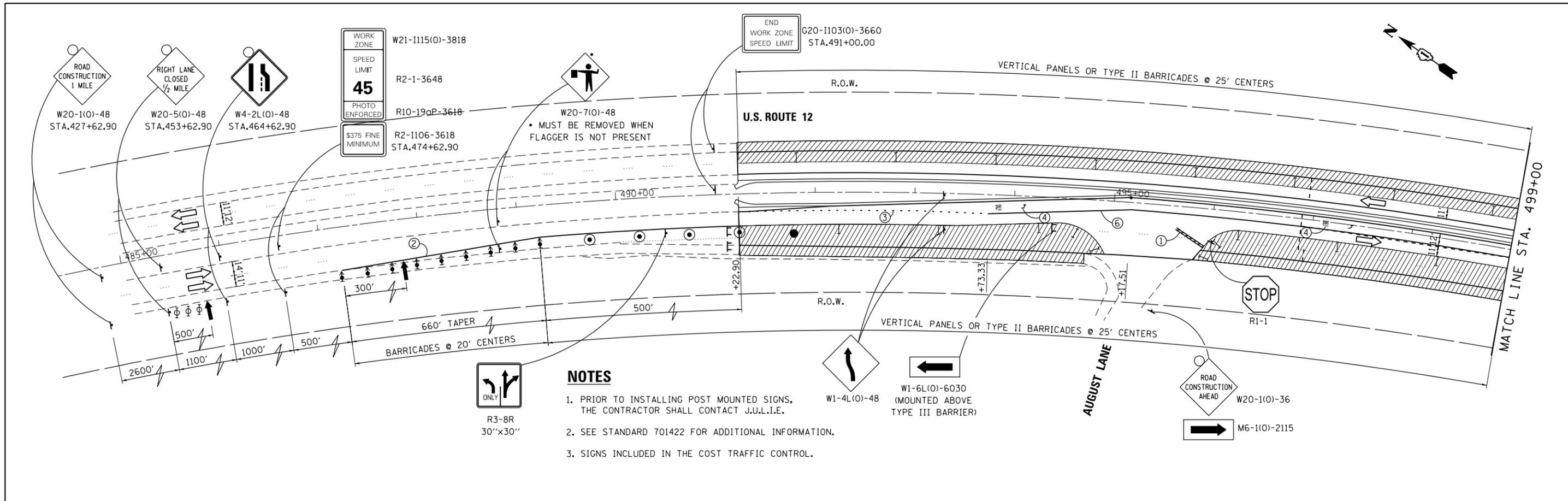
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PLOT SCALE = 100.0000' / 1" =	DRAWN - MTM	REVISED -
PLOT DATE = 3/27/2013	CHECKED - BA	REVISED -
	DATE - 3/27/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUGGESTED MAINTENANCE OF TRAFFIC	
STAGE I	
SCALE: 1"=50'	SHEET 1 OF 2 SHEETS
STA.	TO STA.

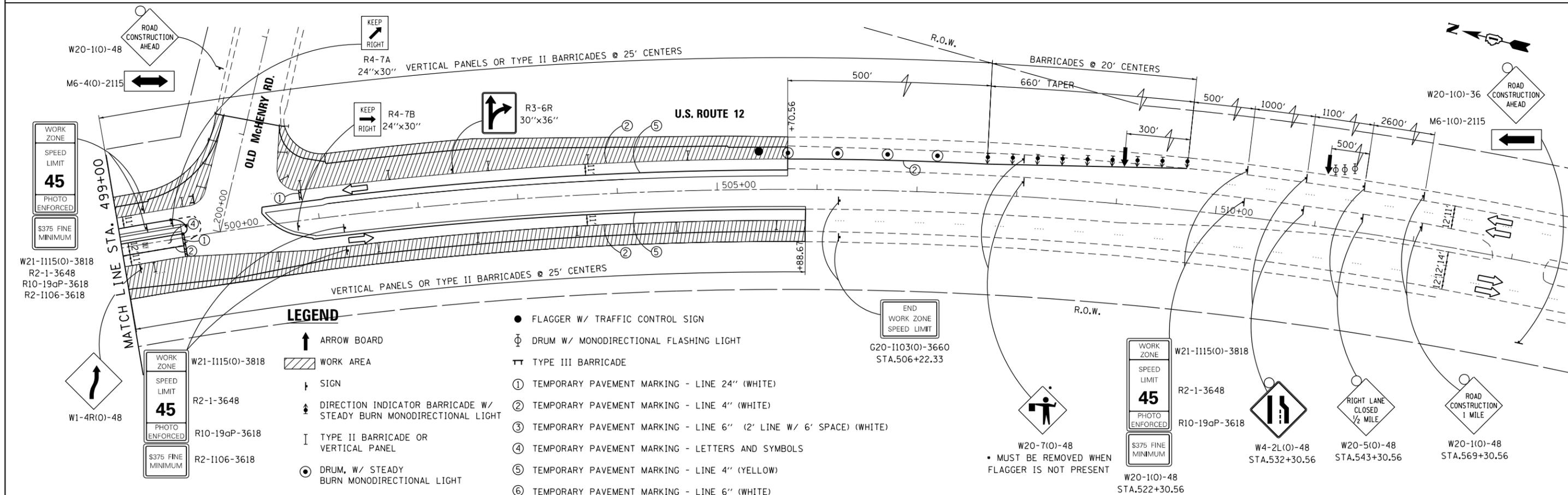
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	22
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

FILE NAME = G:\Projects\ILLINOIS Department of Transportation\PTB 162 - Item 7 - Various Various Work Order No. 9- US 12 at Old McHenry Rd\CADD Sheets\0160788-ah-1-stage.dgn



NOTES

1. PRIOR TO INSTALLING POST MOUNTED SIGNS, THE CONTRACTOR SHALL CONTACT J.U.L.I.E.
2. SEE STANDARD 701422 FOR ADDITIONAL INFORMATION.
3. SIGNS INCLUDED IN THE COST TRAFFIC CONTROL.



LEGEND

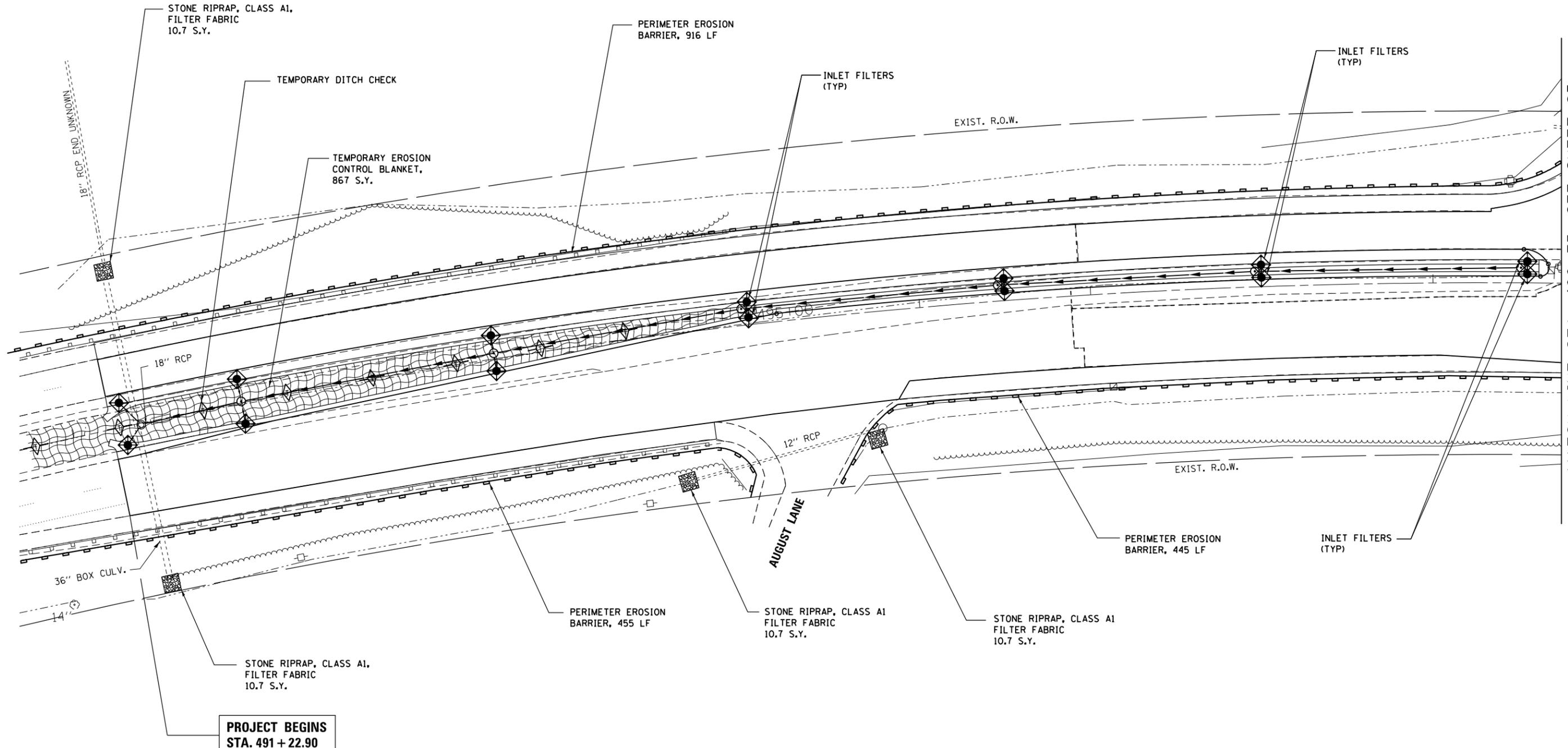
- ▲ ARROW BOARD
- ▨ WORK AREA
- ⬇ SIGN
- ⬆ DIRECTION INDICATOR BARRICADE W/ STEADY BURN MONODIRECTIONAL LIGHT
- I TYPE II BARRICADE OR VERTICAL PANEL
- DRUM, W/ STEADY BURN MONODIRECTIONAL LIGHT
- FLAGGER W/ TRAFFIC CONTROL SIGN
- ⊕ DRUM W/ MONODIRECTIONAL FLASHING LIGHT
- TT TYPE III BARRICADE
- ① TEMPORARY PAVEMENT MARKING - LINE 24" (WHITE)
- ② TEMPORARY PAVEMENT MARKING - LINE 4" (WHITE)
- ③ TEMPORARY PAVEMENT MARKING - LINE 6" (2' LINE W/ 6' SPACE) (WHITE)
- ④ TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS
- ⑤ TEMPORARY PAVEMENT MARKING - LINE 4" (YELLOW)
- ⑥ TEMPORARY PAVEMENT MARKING - LINE 6" (WHITE)

USER NAME = mml1er	DESIGNED - MTM	REVISED -
PLOT SCALE = 100.0000' / 1" =	DRAWN - MTM	REVISED -
PLOT DATE = 3/27/2013	CHECKED - BA	REVISED -
	DATE - 3/27/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

SUGGESTED MAINTENANCE OF TRAFFIC	
STAGE II	
SCALE: 1"=50'	SHEET 2 OF 2 SHEETS
STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	23
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				



**PROJECT BEGINS
STA. 491 + 22.90**

MATCH LINE STA. 499+75, SEE SHEET 25

NOTES

INSTALL INLET FILTERS ON ALL OPEN STRUCTURES IMPACTED BY CONSTRUCTION.

G:\Projects\ILLINOIS Department of Transportation\PTB 162 - Item 7 - Various Various\Work Order No. 9- US 12 at Old McHenry Rd\CADD Sheets\160T88-ah-erosion.dgn

FILE NAME =	USER NAME = mmiller	DESIGNED - BA	REVISED -
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	PLOT SCALE = 60.0000' / in.	CHECKED - AW	REVISED -
	PLOT DATE = 3/27/2013	DATE - 3/27/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

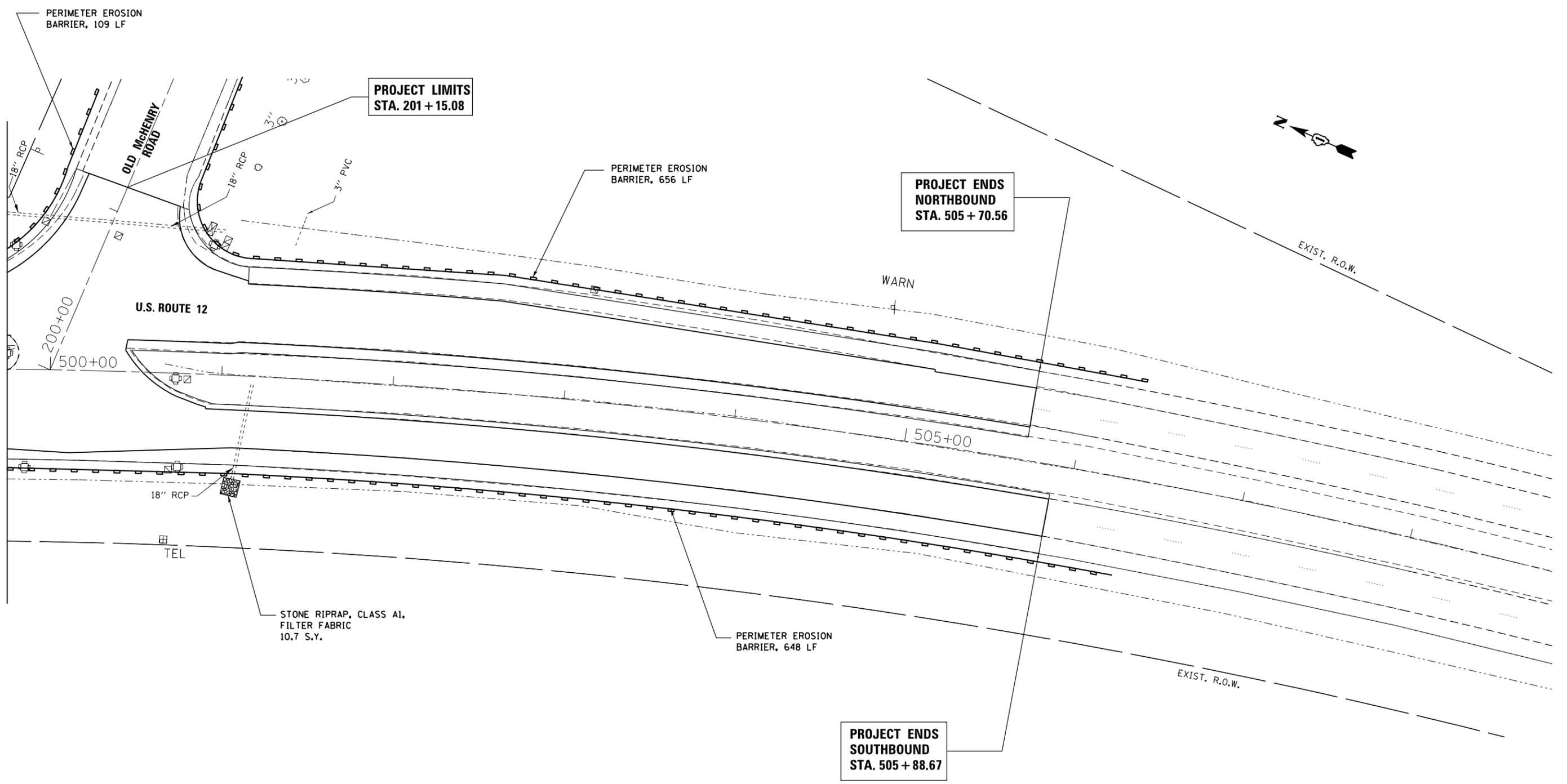
TEMPORARY EROSION AND SEDIMENT CONTROL

SCALE: 1"=30' SHEET 1 OF 2 SHEETS STA. 491+22.90 TO STA. 499+75.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	24
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

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MATCH LINE STA. 499+75, SEE SHEET 24



FILE NAME =	USER NAME = mmiller	DESIGNED - BA	REVISED -
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	PLOT SCALE = 60.0000' / in.	CHECKED - AW	REVISED -
	PLOT DATE = 3/27/2013	DATE - 3/27/13	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TEMPORARY EROSION SEDIMENT CONTROL

SCALE: 1"=30' SHEET 2 OF 2 SHEETS STA. 499+75.00 TO STA. 505+88.67

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	25
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

DRAINAGE SCHEDULE

PAY ITEM	UNIT	QUANTITY
TRENCH BACKFILL	CU.YD.	355
STORM SEWERS, CLASS A, TYPE 2 12"	FOOT	391
STORM SEWERS, CLASS A, TYPE 2 15"	FOOT	150
STORM SEWERS, CLASS A, TYPE 2 18"	FOOT	357
STORM SEWER REMOVAL 18"	FOOT	6
CATCH BASINS, TYPE C, TYPE 24 FRAME AND GRATE	EACH	14
MANHOLES, TYPE A, 4'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1
MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, OPEN LID	EACH	3
MANHOLES, TYPE A, 5'-DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	2
REMOVING INLETS	EACH	1
FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	1

DRAINAGE AND UTILITIES GENERAL NOTES:

- ALL STORM SEWERS AND PIPE CULVERTS, UNLESS OTHERWISE NOTED, SHALL CONFORM TO THE IDOT STANDARD AND SUPPLEMENTAL SPECIFICATIONS FOR REINFORCED CONCRETE CULVERT, STORM DRAIN AND SEWER PIPE A.A.S.H.T.O. DESIGNATION M170 (A.S.T.M. DESIGNATION C76), WITH A MINIMUM OF CLASS III.
- WHEN EXISTING DRAINAGE FACILITIES ARE DISTURBED, THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY OUTLETS AND CONNECTIONS FOR ALL PRIVATE OR PUBLIC DRAINS, SEWERS AND CATCH BASINS. THE CONTRACTOR SHALL PROVIDE FACILITIES TO TAKE IN ALL STORM WATER WHICH WILL BE RECEIVED BY THESE DRAINS AND SEWERS AND DISCHARGE THE SAME. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN AN EFFICIENT PUMPING PLANT, IF NECESSARY, AND A TEMPORARY OUTLET, AND BE PREPARED AT ALL TIMES TO DISPOSE OF THE WATER RECEIVED FROM THE TEMPORARY CONNECTIONS UNTIL SUCH TIME AS THE PERMANENT CONNECTION WITH SEWERS ARE BUILT AND IN SERVICE. THIS WORK WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- ALL BACKFILLING OPERATIONS SHALL CONFORM TO ARTICLE 550.07 OF THE IDOT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.
- TRENCH BACKFILL SHALL BE USED ON THE ENTIRE LENGTH OF THE MAIN DRAIN.
- ALL BENDS SHOWN WILL NOT BE PAID FOR DIRECTLY, BUT SHALL BE INCLUDED IN THE UNIT PRICE BID PER FOOT OF THE RESPECTIVE SIZE STORM SEWER.
- PERFORMED FLEXIBLE GASKETS ARE TO BE USED ON ALL CIRCULAR STORM SEWERS AND CULVERTS AND SHALL CONFORM TO ARTICLE 1056.01 OF THE STANDARD AND SUPPLEMENTAL SPECIFICATIONS. THIS WORK WILL NOT BE PAID FOR DIRECTLY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID PER FOOT FOR STORM SEWER OF SPECIFIED SIZE.
- THE LOCATION AND ELEVATION OF EXISTING UTILITIES ARE APPROXIMATE AND ARE PROVIDED BY OWNERS. THE EXACT LOCATIONS AND ELEVATIONS ARE TO BE VERIFIED BY THE CONTRACTOR THROUGH THE OWNER OF THE UTILITY.
- EMBANKMENTS SHALL BE COMPLETED TO THE SATISFACTION OF THE ENGINEER PRIOR TO EXCAVATION FOR STORM SEWER.
- THE COST OF MAKING STORM SEWER CONNECTIONS TO EXISTING MANHOLE SHALL BE INCIDENTAL TO THE COST OF STORM SEWER.
- INVERT ELEVATIONS FOR PROPOSED DRAINAGE STRUCTURES TO BE CONNECTED TO EXISTING STRUCTURES ARE PROVIDED FOR INFORMATION ONLY. THE CONTRACTOR IS TO VERIFY AND ADJUST PROPOSED INVERTS AS NECESSARY IN ORDER TO ACHIEVE POSITIVE DRAINAGE.
- ALL ADJUSTMENTS OR RECONSTRUCTIONS REQUIRED FOR STRUCTURES SHALL INCLUDE THE REMOVAL AND REPLACEMENT, AT THE CONTRACTOR'S EXPENSE, OF ALL UNSUITABLE 24 INCH INSIDE DIAMETER ADJUSTING RINGS.
- IT IS UNDERSTOOD THAT THE PAY ITEM FOR STORM SEWER REMOVAL DOES NOT INCLUDE THE PROVISION OF FINE AGGREGATE TRENCH BACKFILL MATERIAL AS DESCRIBED IN ARTICLE 208.01 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. AN ESTIMATED QUANTITY OF TRENCH BACKFILL HAS BEEN ADDED TO THE PLANS FOR THE PURPOSES OF BACKFILLING THE TRENCH REMAINING FROM THE STORM SEWER REMOVAL TO BE USED AT THE DIRECTION OF THE ENGINEER.
- THE CONTRACTOR'S ATTENTION IS CALLED TO THE FACT THAT NOT ALL THE EXISTING UNDERGROUND UTILITIES HAVE BEEN DELINEATED ON THE PLANS AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING KNOWN UTILITIES. NO EXTRA COMPENSATION WILL BE ALLOWED FOR DELAYS ARISING FROM ANY WORK PERFORMED BY THE UTILITY COMPANY.
- THE CONTRACTOR SHOULD CONTACT J.U.L.I.E. AT LEAST 48 HOURS BEFORE START OF CONSTRUCTION AT 1-800-892-0123.
- OFFSETS FOR DRAINAGE STRUCTURES ON PLAN SHEET 27 ARE TO CENTER OF FRAME.

FILE NAME : G:\Projects\ILLINOIS Department of Transportation\PTB 162 - Item 7 - Various Various\Work Order No. 9- US 12 at Old McHenry Rd\CADD Sheets\162T88-shr-drain notes.dgn

SHT.PLAN	USER NAME = mmiller	DESIGNED - MTM	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PROPOSED DRAINAGE AND UTILITIES			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / 1" =	CHECKED - BA	REVISED -		SCALE: N.T.S.	SHEET 1 OF 3 SHEETS	STA. TO STA.	334	TR-TS	LAKE	58	26
	PLOT DATE = 3/27/2013	DATE - 3/27/13	REVISED -								CONTRACT NO. 60T88	
											ILLINOIS FED. AID PROJECT	

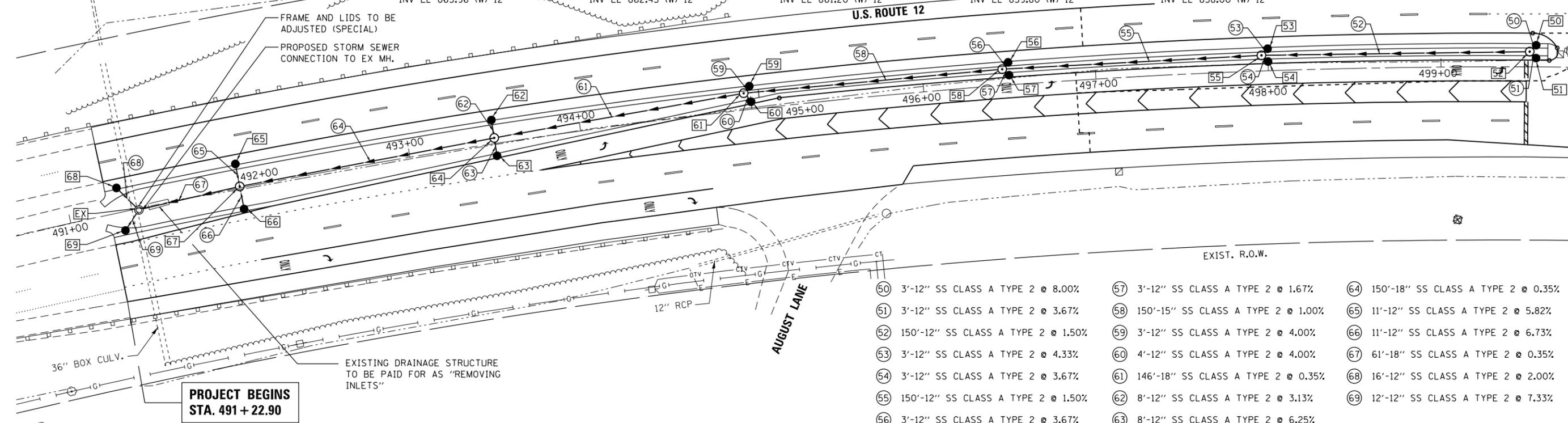
PLAN	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	ALIGNMENT CHECKED	
	STRUCTURE NOTED	
	FILE NAME	
	NO.	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	
	STRUCTURE NOTED	
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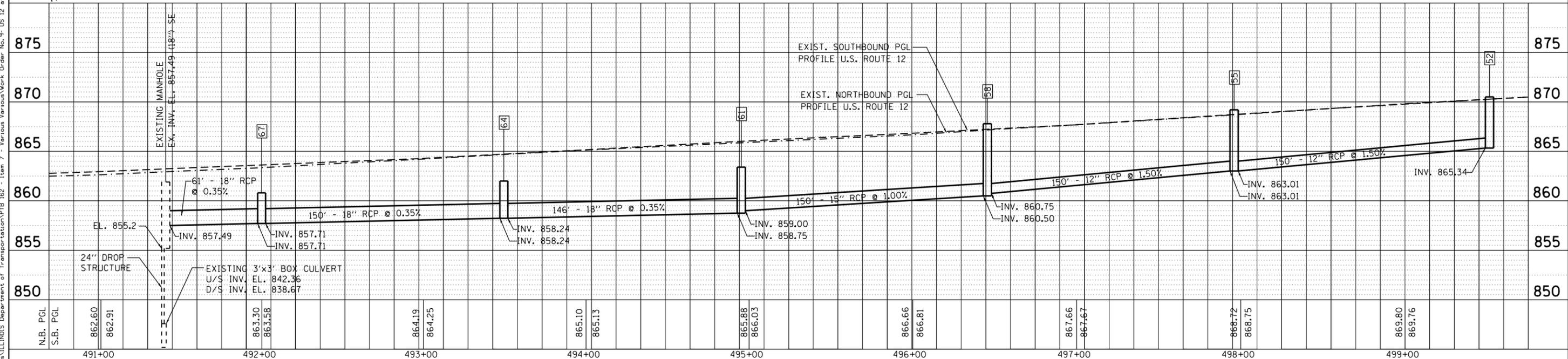


- 50 STA. 499+55.00 12.5' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 869.74 INV EL 865.74 (W) 12"
- 51 STA. 499+55.00 5.1' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 870.11 INV EL 865.61 (E) 12"
- 52 STA. 499+51.30 8.8' LT MANHOLE TYPE A, 4' DIA TYPE 1 FRAME & GRATE, CLOSED RIM EL 870.00 INV EL 865.34 (N) 12" INV EL 865.50 (E) 12" INV EL 865.50 (W) 12"
- 53 STA. 498+00.00 12.8' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 868.09 INV EL 864.09 (W) 12"
- 54 STA. 498+00.00 5.4' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 868.57 INV EL 864.07 (E) 12"
- 55 STA. 497+96.30 9.1' LT MANHOLE TYPE A, 5' DIA TYPE 1 FRAME, CLOSED LID RIM EL 868.45 INV EL 863.01 (N) 12" INV EL 863.01 (S) 12" INV EL 863.96 (E) 12" INV EL 863.96 (W) 12"
- 56 STA. 496+50.00 13.1' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 866.56 INV EL 862.56 (W) 12"
- 57 STA. 496+50.00 5.6' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 867.00 INV EL 862.50 (E) 12"
- 58 STA. 496+46.30 9.4' LT MANHOLE TYPE A, 5' DIA TYPE 1 FRAME, CLOSED LID RIM EL 866.75 INV EL 860.75 (N) 12" INV EL 860.50 (S) 15" INV EL 862.45 (E) 12" INV EL 862.45 (W) 12"
- 59 STA. 495+00.00 13.4' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 865.32 INV EL 861.32 (W) 12"
- 60 STA. 495+00.00 4.3' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 865.86 INV EL 861.36 (E) 12"
- 61 STA. 494+96.30 9.7' LT MANHOLE TYPE A, 5' DIA TYPE 1 FRAME, OPEN LID RIM EL 865.55 INV EL 858.75 (N) 15" INV EL 859.00 (S) 18" INV EL 861.20 (E) 12" INV EL 861.20 (W) 12"
- 62 STA. 493+50.00 13.8' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 864.05 INV EL 860.05 (W) 12"
- 63 STA. 493+50.00 7.2' RT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 864.80 INV EL 860.30 (E) 12"
- 64 STA. 493+50.00 3.3' LT MANHOLE TYPE A, 5' DIA TYPE 1 FRAME, OPEN LID RIM EL 863.50 INV EL 858.24 (N) 18" INV EL 858.24 (S) 18" INV EL 859.80 (E) 12" INV EL 859.80 (W) 12"
- 65 STA. 492+00.00 14.1' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 862.64 INV EL 858.64 (W) 12"
- 66 STA. 492+00.00 12.3' RT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 863.74 INV EL 858.74 (E) 12"
- 67 STA. 492+00.00 0.9' LT MANHOLE TYPE A, 5' DIA TYPE 1 FRAME, OPEN LID RIM EL 861.80 INV EL 857.71 (N) 18" INV EL 857.71 (S) 18" INV EL 858.00 (E) 12" INV EL 858.00 (W) 12"
- 68 STA. 491+30.00 14.3' LT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 862.12 INV EL 858.12 (W) 12"
- 69 STA. 491+30.00 10.8' RT CATCH BASIN TYPE C, 4' DIA TYPE 24 FRAME & GRATE RIM EL 863.18 INV EL 858.68 (E) 12"
- EX STA. 491+39.37 1.0' RT EXISTING MANHOLE EX RIM EL 861.86 ADJUST RIM EL 861.20 INV EL 857.49 (S) 18" INV EL 857.80 (E) 12" INV EL 857.80 (W) 12"



- 50 3'-12" SS CLASS A TYPE 2 @ 8.00%
- 51 3'-12" SS CLASS A TYPE 2 @ 3.67%
- 52 150'-12" SS CLASS A TYPE 2 @ 1.50%
- 53 3'-12" SS CLASS A TYPE 2 @ 4.33%
- 54 3'-12" SS CLASS A TYPE 2 @ 3.67%
- 55 150'-12" SS CLASS A TYPE 2 @ 1.50%
- 56 3'-12" SS CLASS A TYPE 2 @ 3.67%
- 57 3'-12" SS CLASS A TYPE 2 @ 1.67%
- 58 150'-15" SS CLASS A TYPE 2 @ 1.00%
- 59 3'-12" SS CLASS A TYPE 2 @ 4.00%
- 60 4'-12" SS CLASS A TYPE 2 @ 4.00%
- 61 146'-18" SS CLASS A TYPE 2 @ 0.35%
- 62 8'-12" SS CLASS A TYPE 2 @ 3.13%
- 63 8'-12" SS CLASS A TYPE 2 @ 6.25%
- 64 150'-18" SS CLASS A TYPE 2 @ 0.35%
- 65 11'-12" SS CLASS A TYPE 2 @ 5.82%
- 66 11'-12" SS CLASS A TYPE 2 @ 6.73%
- 67 61'-18" SS CLASS A TYPE 2 @ 0.35%
- 68 16'-12" SS CLASS A TYPE 2 @ 2.00%
- 69 12'-12" SS CLASS A TYPE 2 @ 7.33%

PROJECT BEGINS STA. 491 + 22.90



FILE NAME =		USER NAME = mmiller		DESIGNED - MTM		REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		PROPOSED DRAINAGE AND UTILITIES				F.A.P. R.T.E. 334		SECTION TR-TS		COUNTY LAKE		TOTAL SHEETS 58		SHEET NO. 27	
PLOT SCALE = 60.0000' / in.		CHECKED - BA		DRAWN - MTM		REVISED -				SCALE: 1"=30'				SHEET 2		OF 3 SHEETS		STA.		TO STA.		CONTRACT NO. 60T88	
PLOT DATE = 3/27/2013		DATE = 3/27/13		REVISOR -		REVISOR -																ILLINOIS FED. AID PROJECT	

MATCH LINE STA. 499+75
SEE SHEET 28

PLAN	SURVEYED	DATE
	PLOTTED	BY
	ALIGNED	CHECKED
	NOTE BOOK	NO.
	FILE NAME	

PROFILE	SURVEYED	DATE
	PLOTTED	BY
	GRADES CHECKED	CHECKED
	NOTE BOOK	NO.
	STRUCTURE	NOTATIONS CHECKED

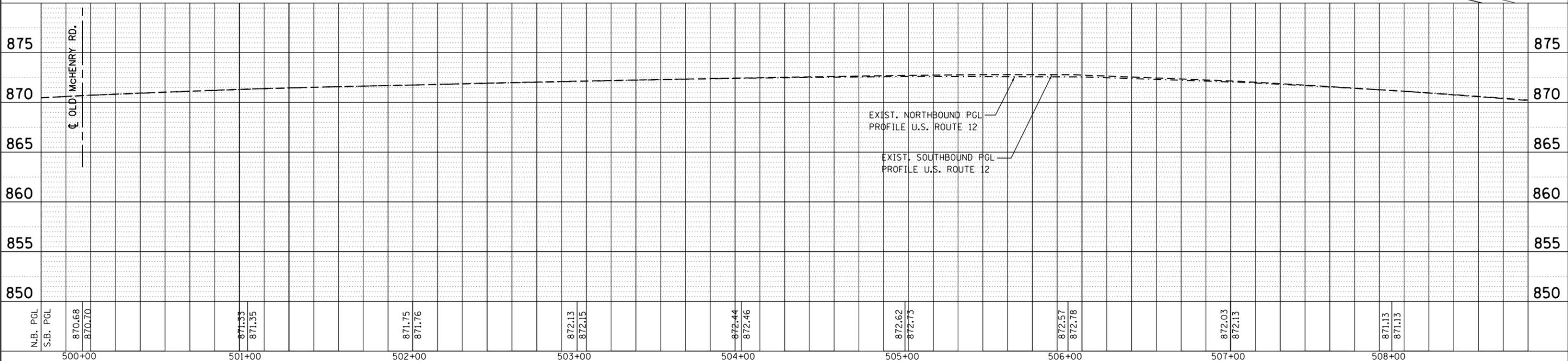
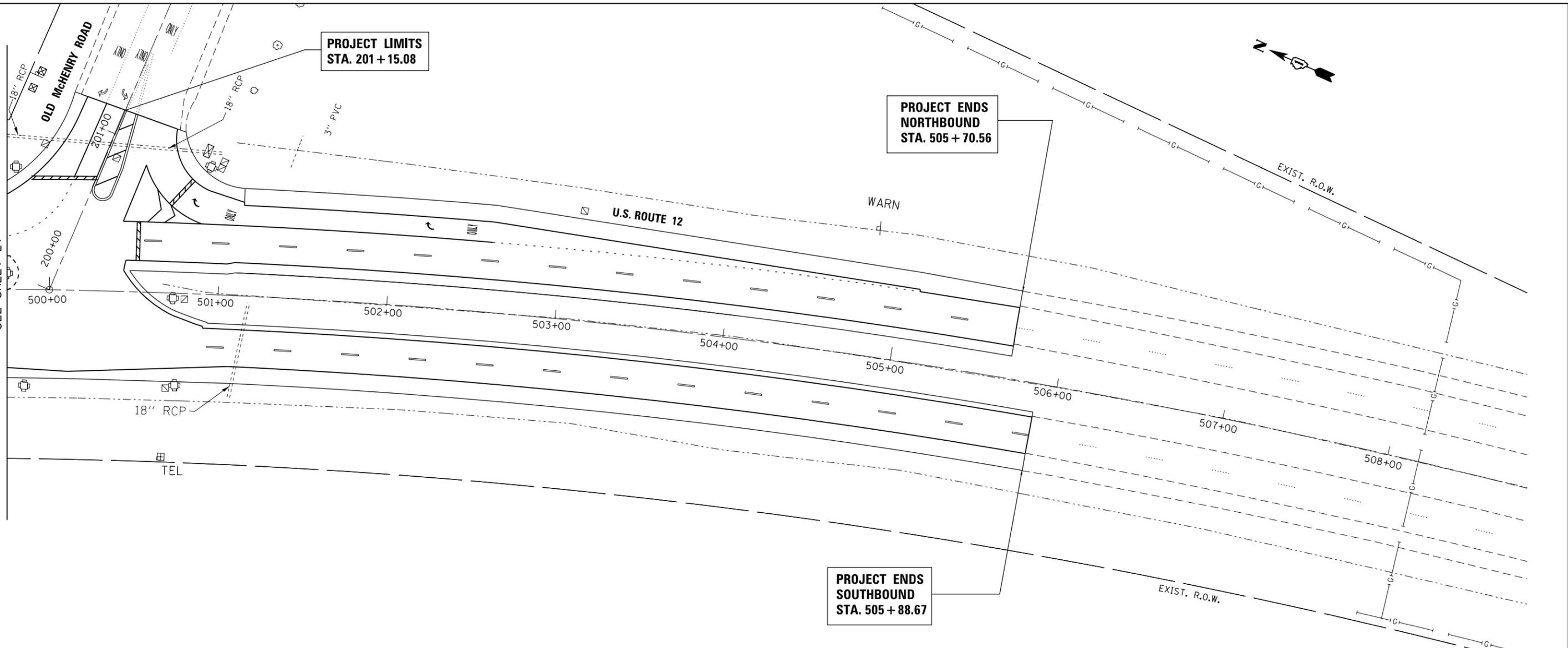
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MATCH LINE STA. 499+75
SEE SHEET 27

PROJECT LIMITS
STA. 201 + 15.08

PROJECT ENDS
NORTHBOUND
STA. 505 + 70.56

PROJECT ENDS
SOUTHBOUND
STA. 505 + 88.67



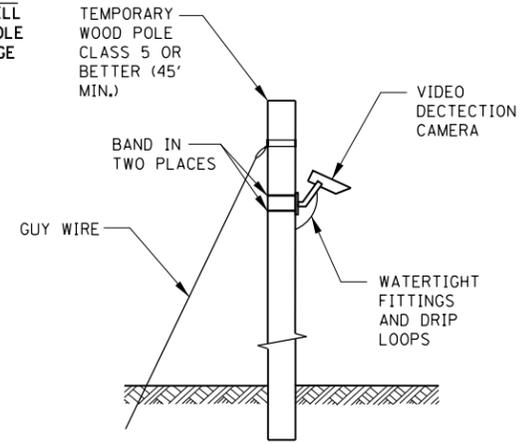
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Default	PLOT SCALE = 60.0000' / in.	CHECKED - BA	REVISED -			CONTRACT NO. 60T88					
	PLOT DATE = 3/27/2013	DATE - 3/27/13	REVISED -			ILLINOIS FED. AID PROJECT					
						SCALE: 1"=30'	SHEET 3	OF 3	SHEETS	STA.	TO STA.

NOTES FOR TEMPORARY TRAFFIC SIGNALS

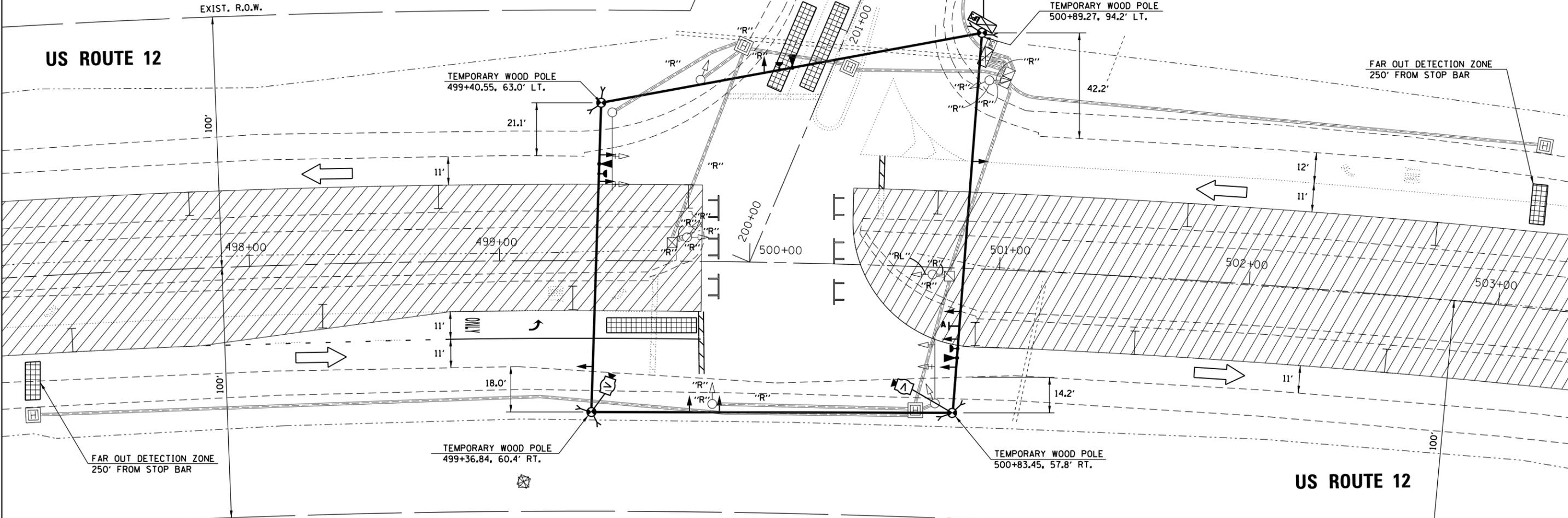
- ① ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL (S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ② ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL 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 TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ③ ALL TRAFFIC SIGNAL SECTIONS SHALL BE 12" (300mm). HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. 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. ALL SIGNAL HEADS SHALL BE L.E.D.
- ④ ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL 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 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.
- ⑨ 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 CAMERAS.

SERVICE CONNECTION FOR THE TEMPORARY TRAFFIC SIGNAL WILL BE AT THE EXISTING POWER POLE ON THE EAST SIDE OF FRONTAGE ROAD.



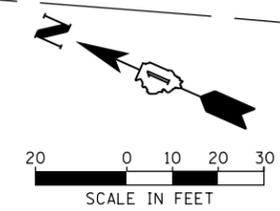
R10-5
30" X 36" (TYP)
SIGN PANEL TYPE 1
1 REQUIRED



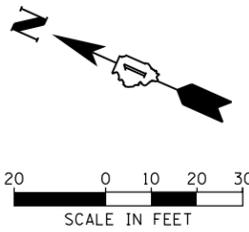
THE FOLLOWING ITEMS SHALL BE REMOVED BY THE CONTRACTOR AND SHALL BE DISPOSED OF BY THEM OUTSIDE OF THE RIGHT-OF-WAY AT THEIR EXPENSE. THE SALVAGE VALUE OF THE REMOVED EQUIPMENT SHALL BE REFLECTED IN THE CONTRACT BID PRICE.

- 2 EACH SIGNAL POST
- 3 EACH SIGNAL HEAD, 1-FACE, 3-SECTION
- 1 EACH SIGNAL HEAD, 2-FACE, 5-SECTION

- CONSTRUCTION NOTES:**
- ① ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLAN FOR MORE DETAILS.
 - ② ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCIDENTAL TO THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.



FILE NAME =	USER NAME = *USER*	DESIGNED - BA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY TRAFFIC SIGNAL INSTALLATION PLANS AND EXISTING TRAFFIC SIGNAL EQUIPMENT REMOVAL PLAN - STAGE I US ROUTE 12 AND OLD MCHENRY ROAD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
MODELNAME	PLOT SCALE = *SCALE*	DRAWN - BA	REVISED -			334	TR-TS	LAKE	58	31	
	PLOT DATE = *DATE*	CHECKED - WK	REVISED -			CONTRACT NO. 60T88					
		DATE - 3/27/13	REVISED -			ILLINOIS FED. AID PROJECT					



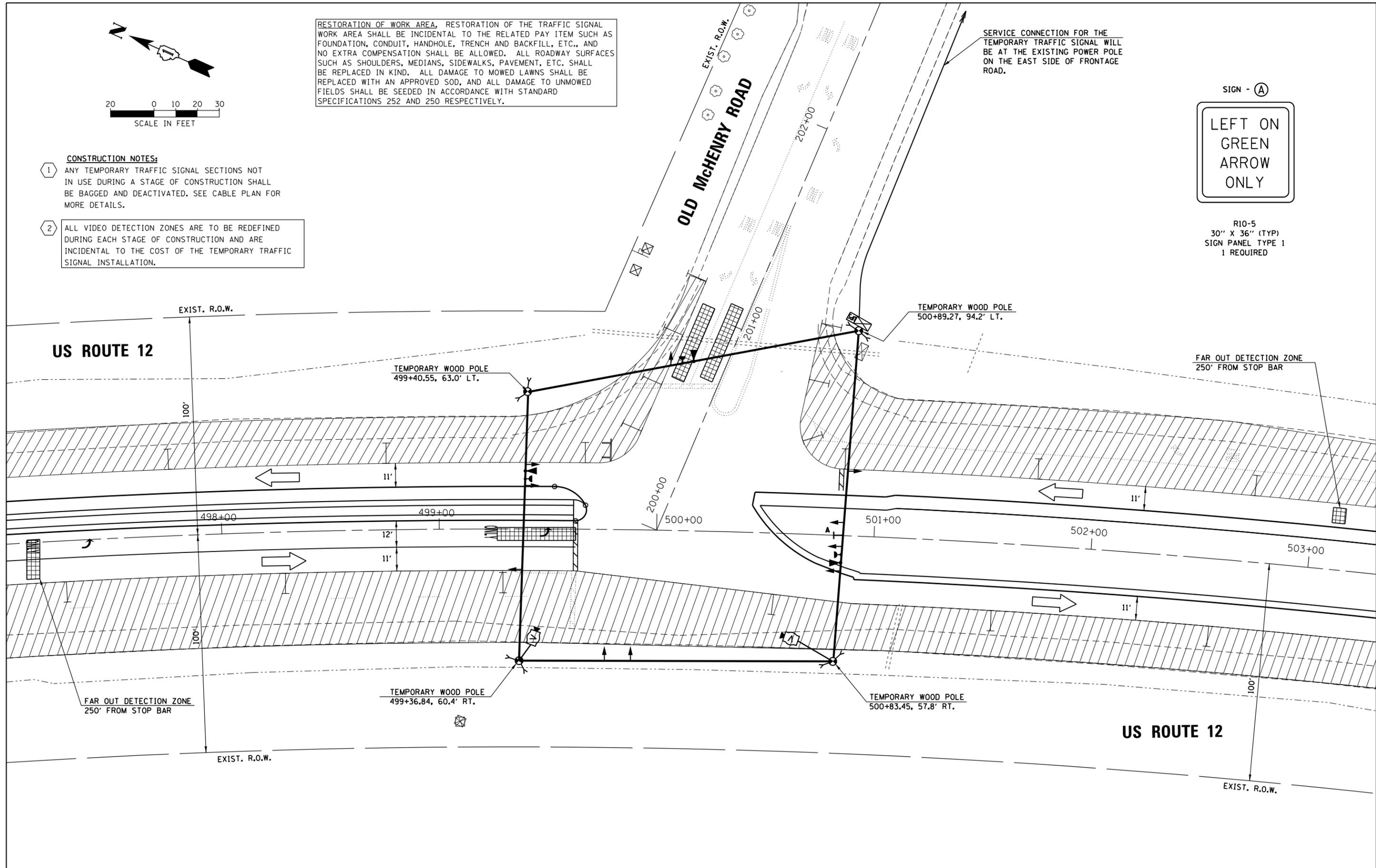
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.

SERVICE CONNECTION FOR THE TEMPORARY TRAFFIC SIGNAL WILL BE AT THE EXISTING POWER POLE ON THE EAST SIDE OF FRONTAGE ROAD.



R10-5
30" X 36" (TYP)
SIGN PANEL TYPE 1
1 REQUIRED

- CONSTRUCTION NOTES:**
- 1 ANY TEMPORARY TRAFFIC SIGNAL SECTIONS NOT IN USE DURING A STAGE OF CONSTRUCTION SHALL BE BAGGED AND DEACTIVATED. SEE CABLE PLAN FOR MORE DETAILS.
 - 2 ALL VIDEO DETECTION ZONES ARE TO BE REDEFINED DURING EACH STAGE OF CONSTRUCTION AND ARE INCIDENTAL TO THE COST OF THE TEMPORARY TRAFFIC SIGNAL INSTALLATION.



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		DRAWN - BA	REVISED -
\$MODELNAME*	PLOT SCALE = \$SCALE*	CHECKED - WK	REVISED -
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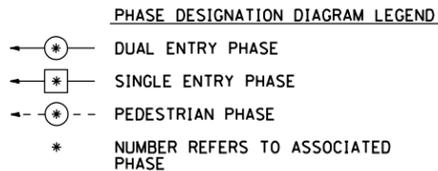
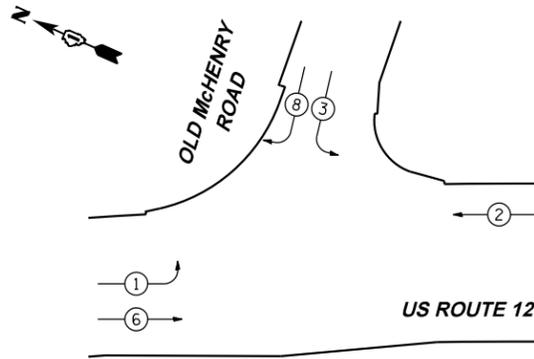
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY TRAFFIC SIGNAL INSTALLATION AND EXISTING
TRAFFIC SIGNAL EQUIPMENT REMOVAL PLAN - STAGE II
US ROUTE 12 AND OLD MCHENRY ROAD**

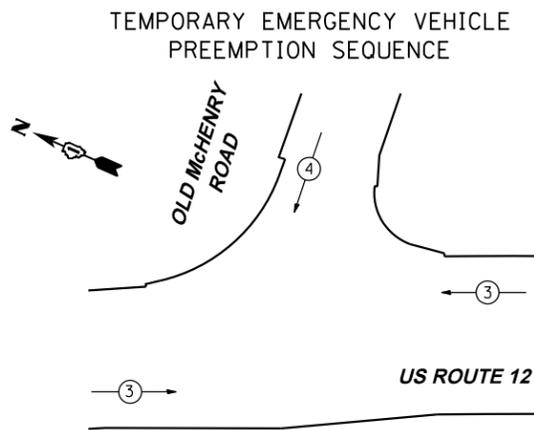
SCALE: 1"=20' SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	32
			CONTRACT NO. 60T88	
ILLINOIS FED. AID PROJECT				

TEMPORARY CONTROLLER SEQUENCE



TEMPORARY PHASE DESIGNATION DIAGRAM



TEMPORARY PROPOSED EMERGENCY VEHICLE PREEMPTORS		
EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	↔	↓

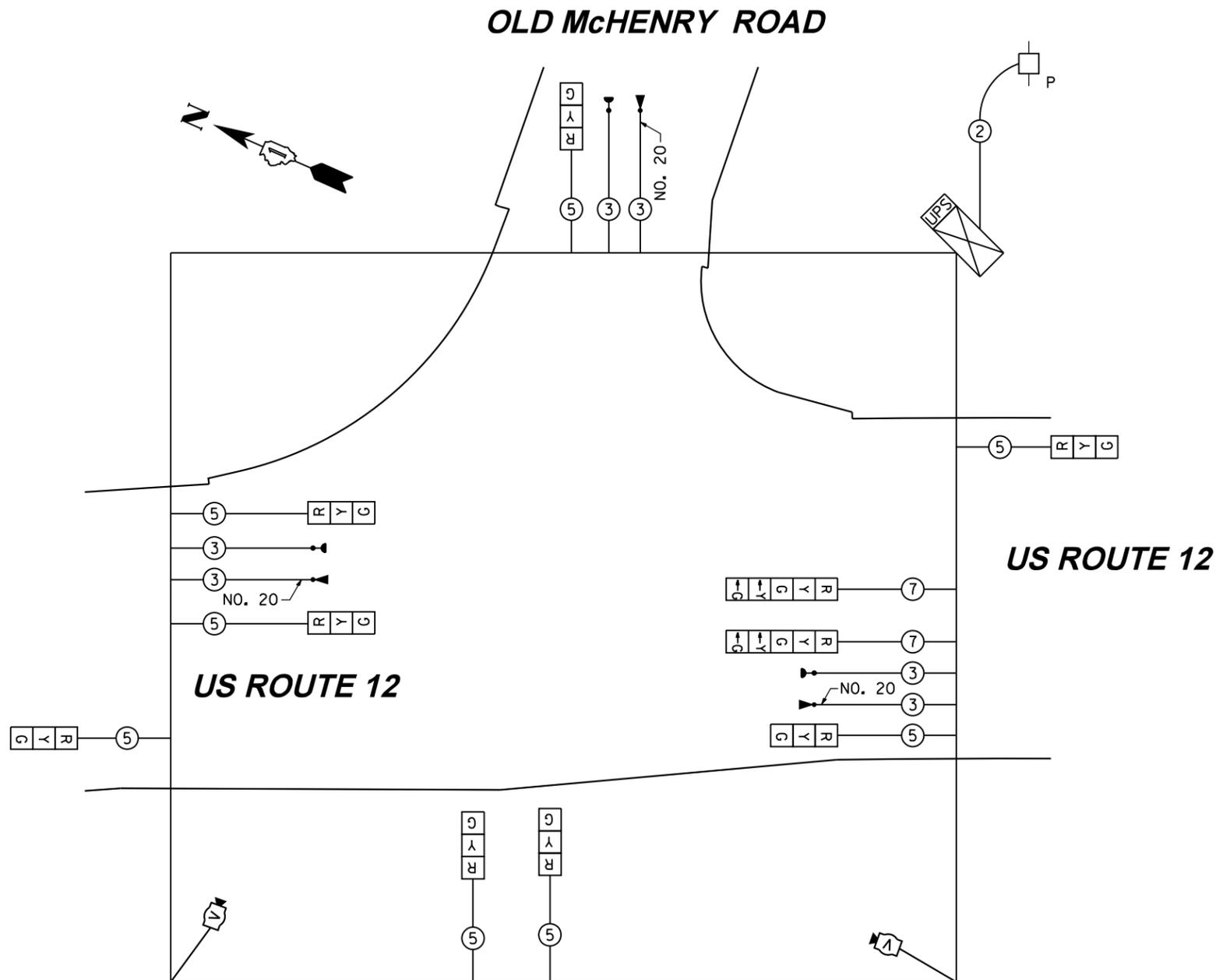
I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS						TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION		
SIGNAL (RED)	10		17	0.50		85.0
(YELLOW)	10		25	0.25		62.5
(GREEN)	10		15	0.25		37.5
ARROW	4		12	0.10		4.8
PED. SIGNAL	0		25	1.00		-
CONTROLLER	1		100	1.00		100.0
ILLUM. SIGN	0		25	0.05		-
FLASHER			25	0.50		
ENERGY COST TO: Illinois Department of Transportation & Lake County						TOTAL= 289.8

ILLINOIS DEPARTMENT OF TRANSPORTATION & LAKE COUNTY

ENERGY SUPPLY CONTACT: DAVID GARDNER
 PHONE: (630) 691-4393
 COMPANY: COMMONWEALTH EDISON

FILE NAME =	USER NAME = \$USER*	DESIGNED - BA	REVISED -
		DRAWN - BA	REVISED -
\$MODELNAME*	PLOT SCALE = \$SCALE*	CHECKED - WK	REVISED -
	PLOT DATE = \$DATE*	DATE - 3/27/13	REVISED -

TEMPORARY CABLE PLAN
STAGE I & STAGE II



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 END OF THE TRACER CABLE SHALL BE CONTINUOUS AND EXTEND INTO THE CONTROLLER CABINET.

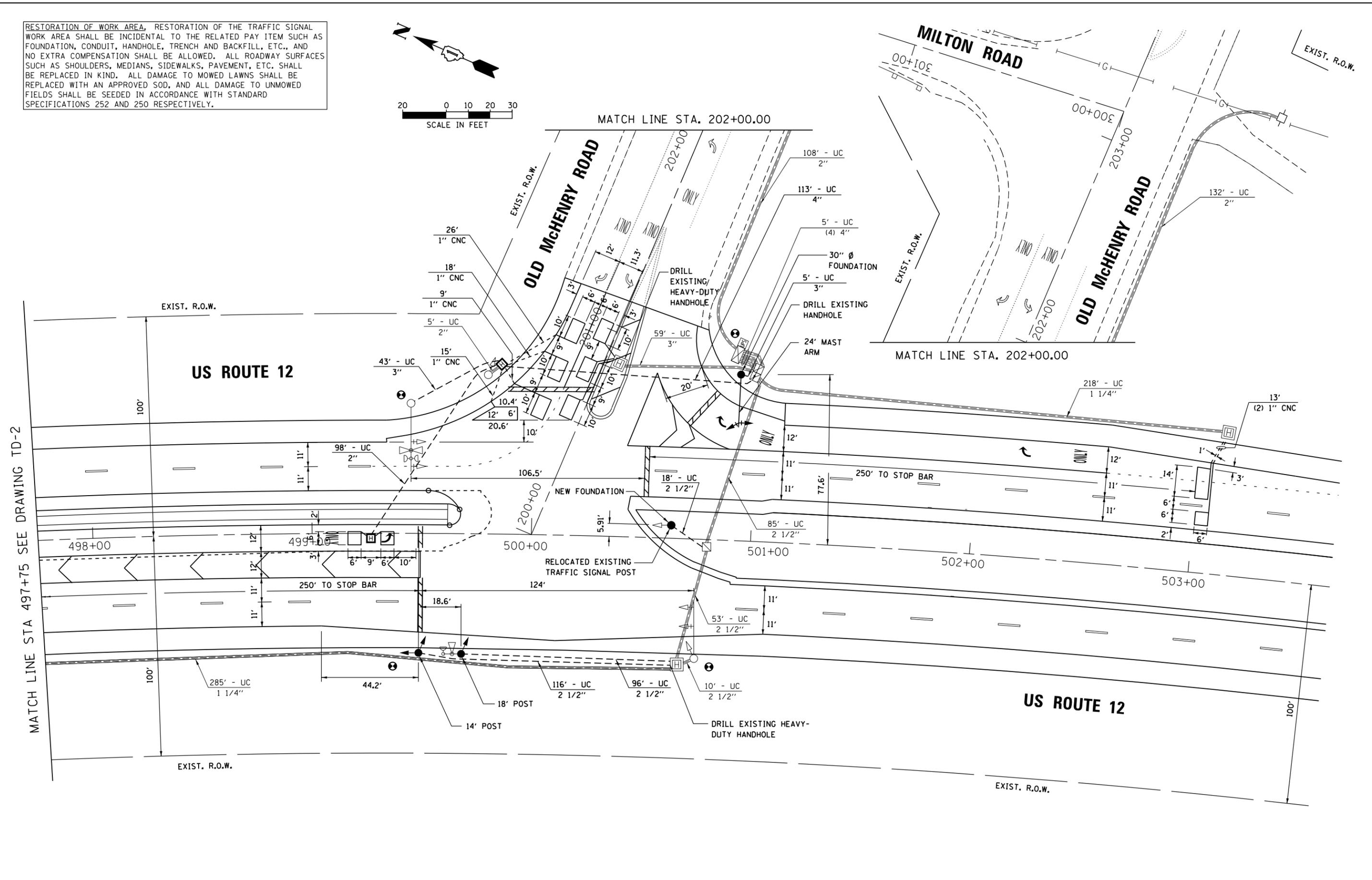
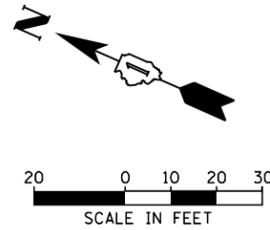
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN, TEMPORARY PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE - STAGE I & II

SCALE: N.T.S. SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	33
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

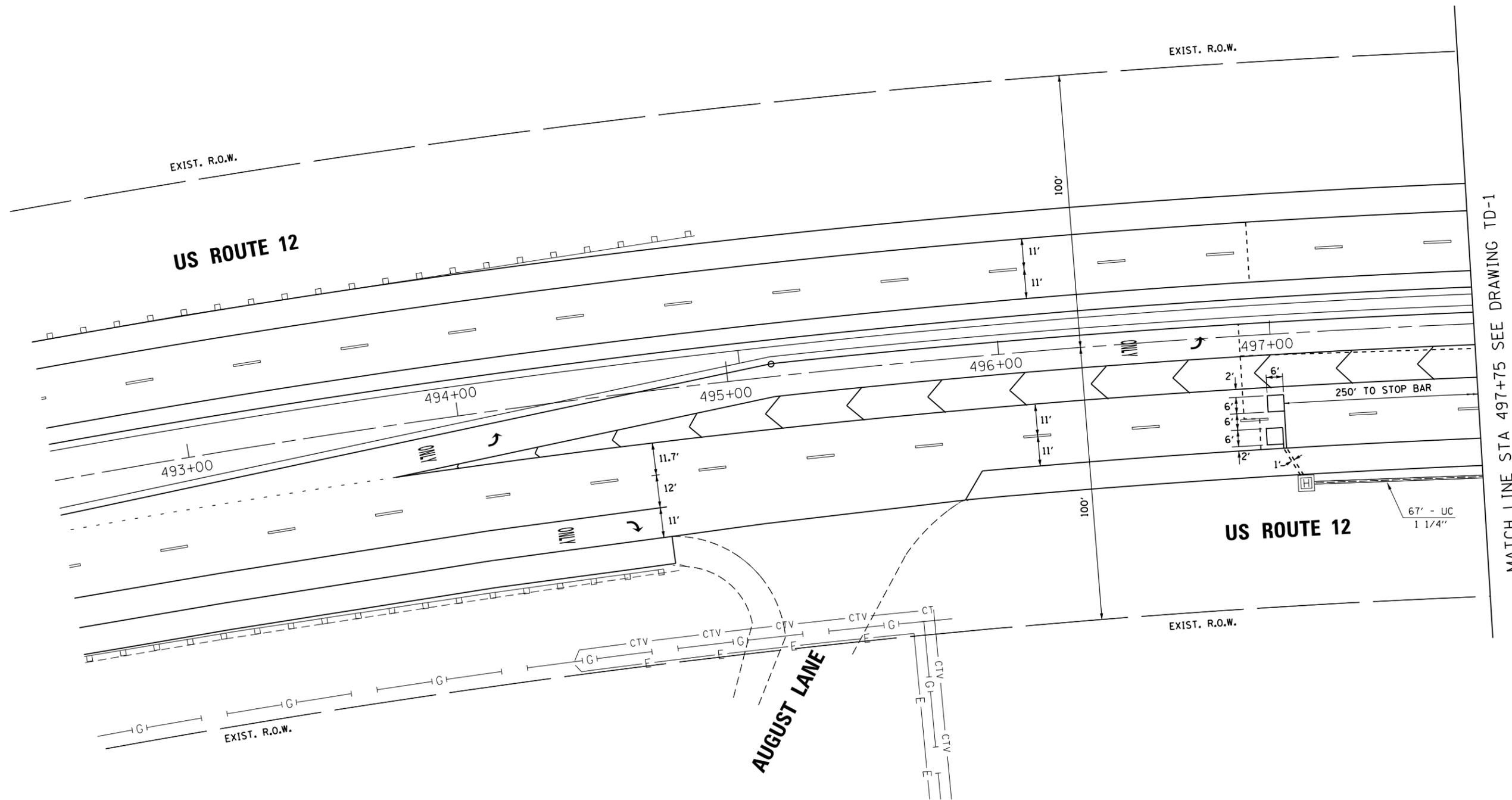
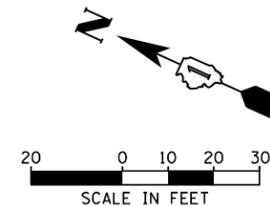
RESTORATION OF WORK AREA, RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC. SHALL 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.



FILE NAME =	USER NAME = \$USER*	DESIGNED - BA	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC SIGNAL INSTALLATION PLAN US ROUTE 12 AND OLD MCHENRY ROAD	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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\$MODELNAME*	PLOT DATE = \$DATE*	CHECKED - WK	REVISED -			CONTRACT NO. 60T88					
		DATE - 3/27/13	REVISED -			ILLINOIS FED. AID PROJECT					

SCALE: 1"=20' SHEET 1 OF 3 SHEETS STA. TO STA.

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.



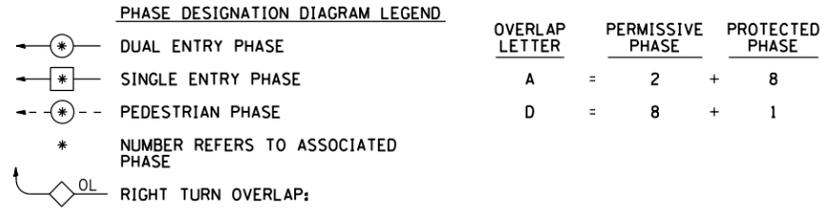
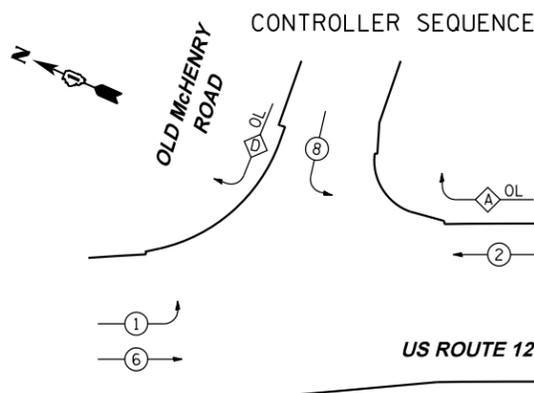
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		DRAWN - BA	REVISED -
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		DATE - 3/27/13	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

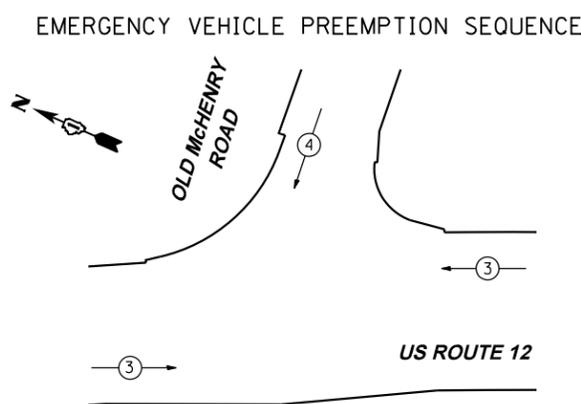
TRAFFIC SIGNAL INSTALLATION PLAN
US ROUTE 12 AND OLD MCHENRY ROAD

SCALE: 1"=20' SHEET 2 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	35
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				

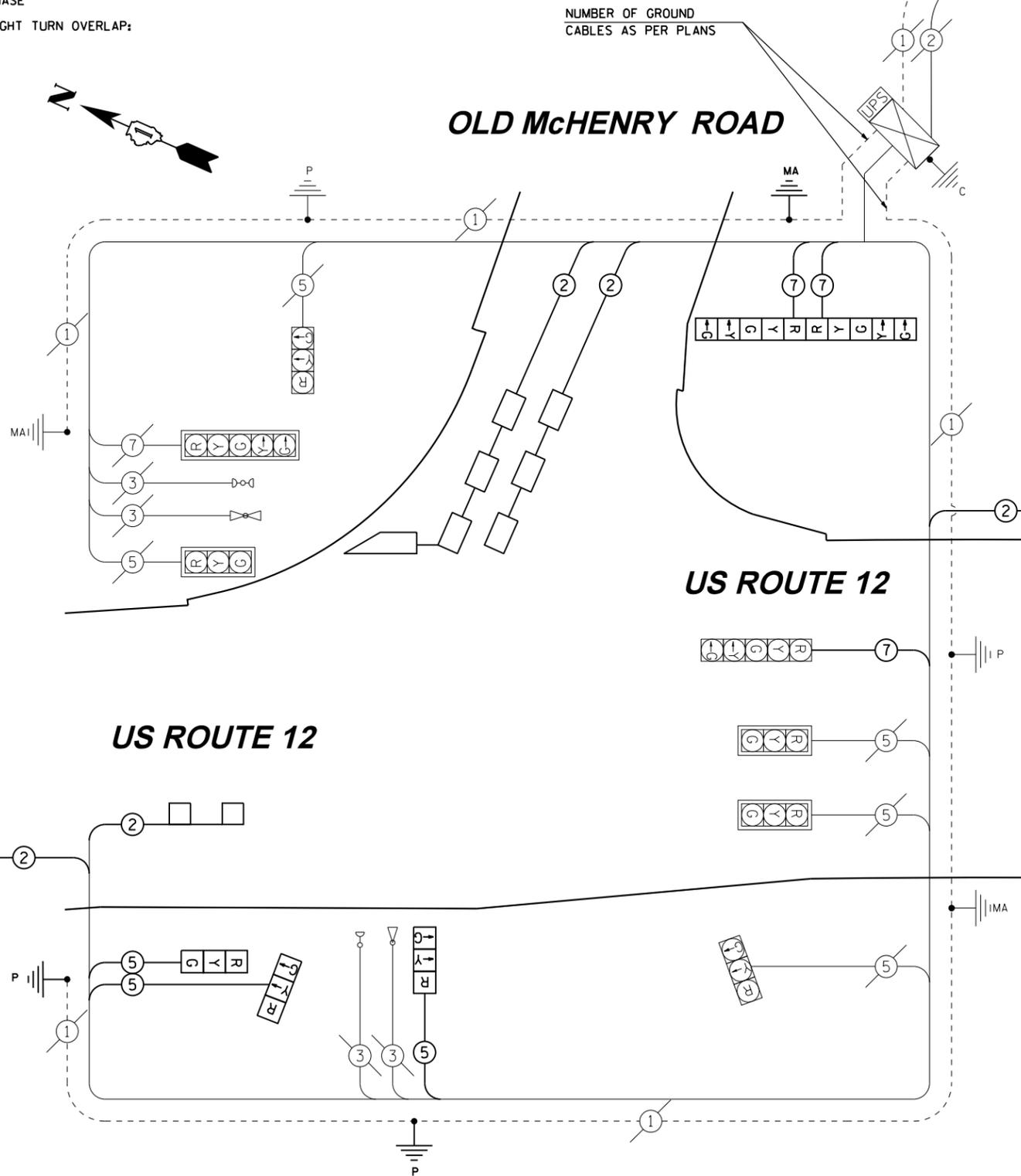


PHASE DESIGNATION DIAGRAM



PROPOSED EMERGENCY VEHICLE PREEMPTORS

EMERGENCY VEHICLE PREEMPTORS	3	4
MOVEMENT	←→	↓



CABLE PLAN

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.

SCHEDULE OF QUANTITIES

ITEM	UNIT	TOTAL
SIGN PANEL - TYPE 1	SQ FT	7.50
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	98
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2 1/2" DIA.	FOOT	230
UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	48
UNDERGROUND CONDUIT, GALVANIZED STEEL, 4" DIA.	FOOT	113
HEAVY-DUTY HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	695
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	163
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	539
TRAFFIC SIGNAL POST, 14 FT.	EACH	1
TRAFFIC SIGNAL POST, 18 FT.	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	12
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	10
DRILL EXISTING HANDHOLE	EACH	1
DRILL EXISTING HEAVY DUTY HANDHOLE	EACH	2
SIGNAL HEAD, LED, 1-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 3-SECTION, BRACKET MOUNTED	EACH	1
SIGNAL HEAD, LED, 2-FACE, 5-SECTION, BRACKET MOUNTED	EACH	1
INDUCTIVE LOOP DETECTOR	EACH	5
DETECTOR LOOP, TYPE I	FOOT	531
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
RELOCATE EXISTING TRAFFIC SIGNAL POST	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	2
REMOVE EXISTING CONCRETE FOUNDATION	EACH	4
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1

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

TYPE	NO. OF LAMPS	WATTAGE INCAND.	LED	% OPERATION	TOTAL WATTAGE
SIGNAL (RED)	12		17	0.50	102.0
(YELLOW)	8		25	0.25	50.0
(GREEN)	8		15	0.25	30.0
ARROW	16		12	0.10	19.2
PED. SIGNAL	0		25	1.00	-
CONTROLLER	1	100		1.00	100.0
ILLUM. SIGN	0		25	0.05	-
FLASHER			25	0.50	
ENERGY COST TO: Illinois Department of Transportation & Lake County					TOTAL= 301.2

ILLINOIS DEPARTMENT OF TRANSPORTATION & LAKE COUNTY

ENERGY SUPPLY CONTACT: DAVID GARDNER (630) 691-4393 COMMONWEALTH EDISON

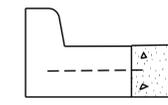
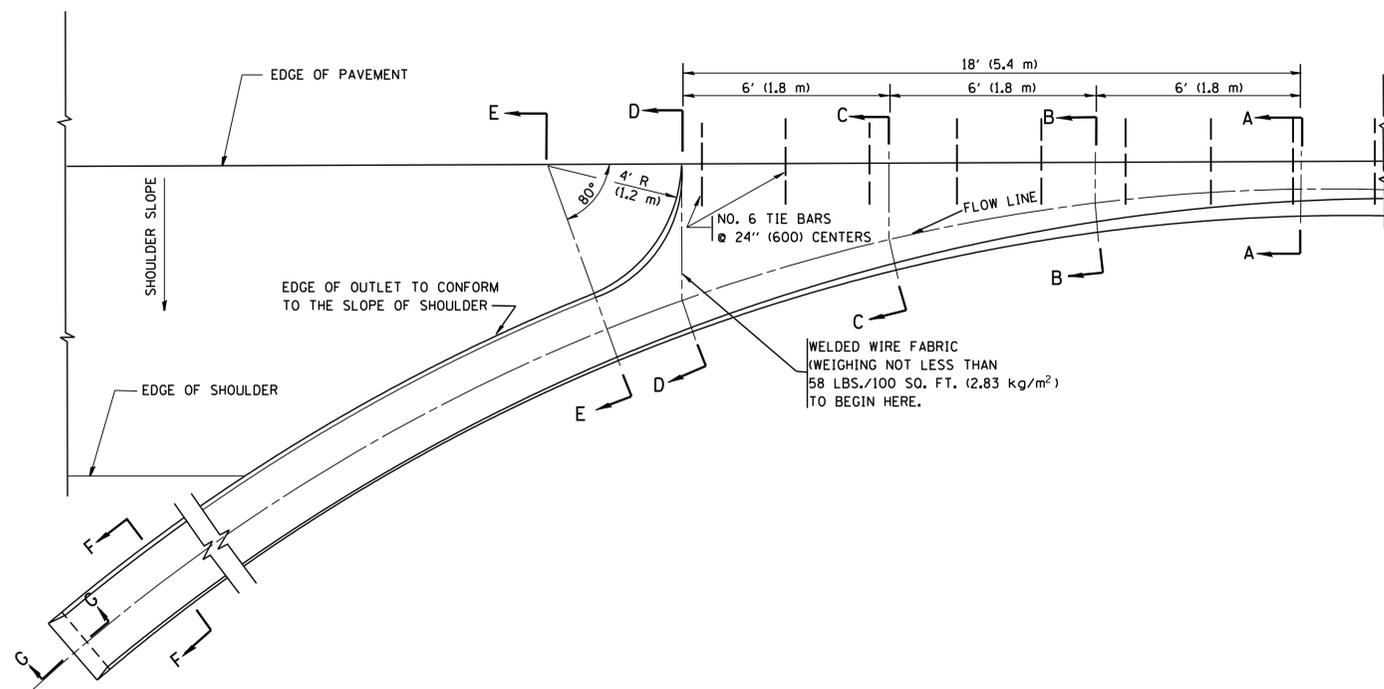
FILE NAME	USER NAME	DESIGNED	REVISIONS
MODELNAME	*USER*	BA	BA
		WK	WK
		3/27/13	

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

SCHEDULE OF QUANTITIES, CABLE PLAN, PHASE DESIGNATION DIAGRAM AND EMERGENCY VEHICLE PREEMPTION SEQUENCE

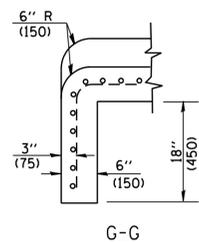
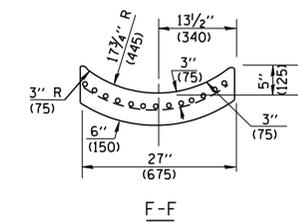
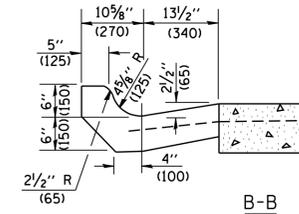
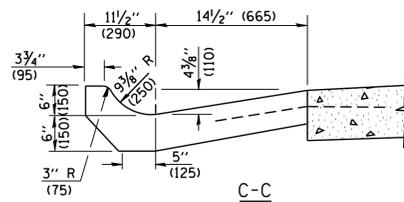
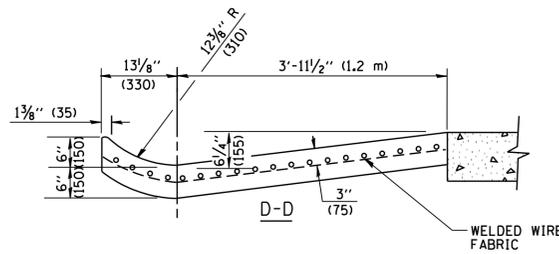
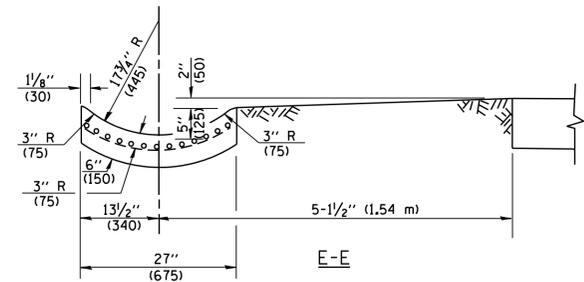
SCALE: N.T.S. SHEET 3 OF 3 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	36
CONTRACT NO. 60T88				
ILLINOIS FED. AID PROJECT				



A-A *

* DIMENSIONS OF THE CURB & GUTTER AT SECTION A-A ARE SHOWN ON STATE STANDARD 606001. FOR DETAILS OF OUTLET FOR CONCRETE CURB & GUTTER, TYPE B-6.24 (B-15.60) SEE STATE STANDARD 606006.



GENERAL NOTES

GUTTER OUTLET SHALL BE TIED TO THE PAVEMENT IN ACCORDANCE WITH DETAILS FOR LONGITUDINAL CONSTRUCTION JOINT SHOWN ON STANDARD 420001.

TIE BARS SHALL BE NO. 20 (NO.6) AT 24\"/>

IF THE AVERAGE GRADE OF PAVEMENT FOR THE DISTANCE FROM SECTION A-A TO D-D EXCEEDS 2%, THIS DISTANCE SHALL BE INCREASED 6' (1.8 m) FOR EACH 1% INCREASE IN GRADE.

QUANTITIES

FOR SECTION A-A TO E-E AND CURTAIN WALL =
 1.25 CU. YDS. (0.96 m³) CLASS S1 CONCRETE (OUTLET) FOR 9\"/>

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

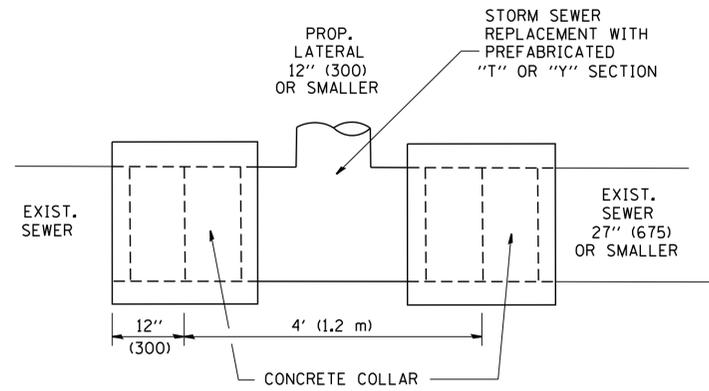
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		DRAWN -	REVISED - R. SHAH 10-25-94
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - E. GOMEZ 12-21-00
	PLOT DATE = 1/4/2008	DATE - 08-04-86	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**OUTLET FOR CONCRETE
CURB AND GUTTER**

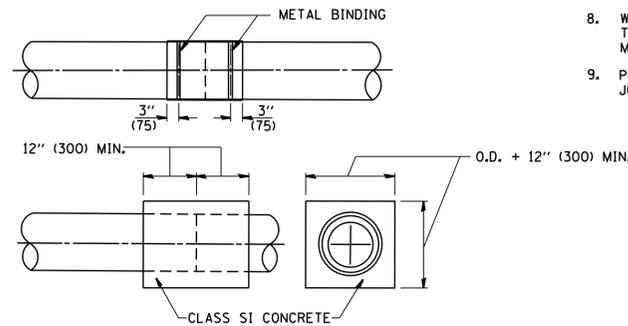
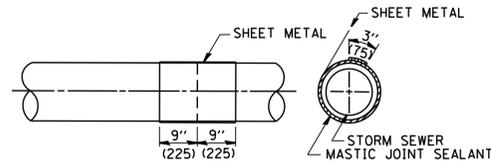
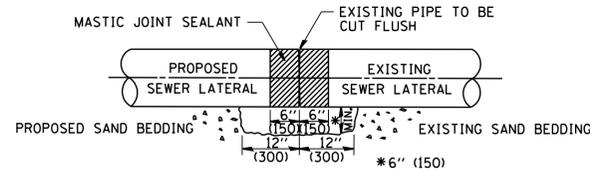
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 334	SECTION TR-TS	COUNTY LAKE	TOTAL SHEETS 58	SHEET NO. 37
BD600-01 (BD-03)		CONTRACT NO. 60T88		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

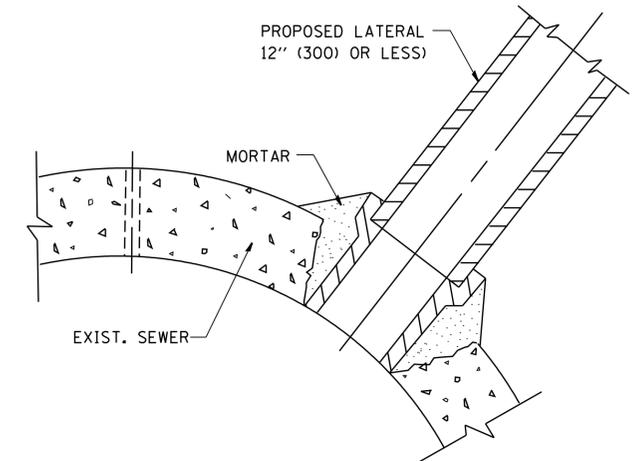


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

- THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
 - PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS. THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

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

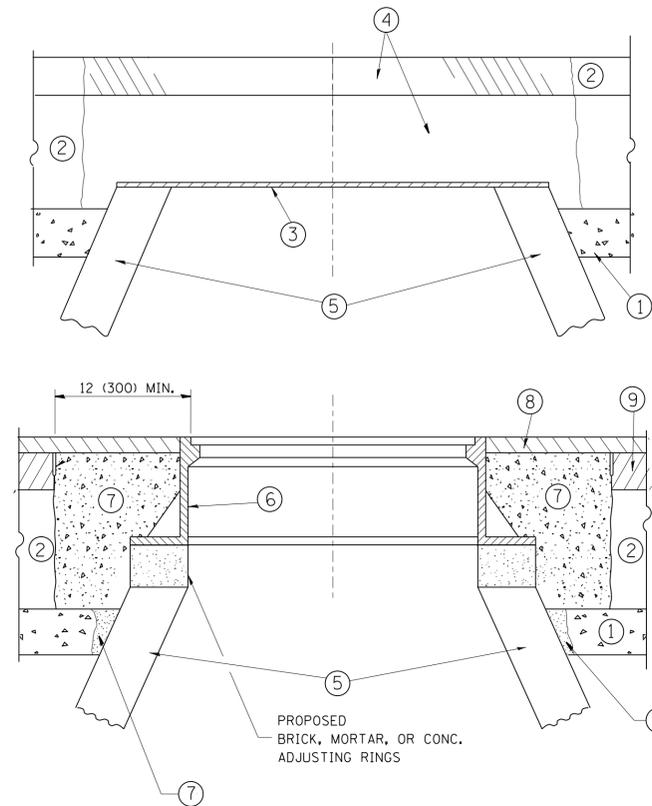
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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - R. SHAH 10-25-94
	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DETAIL OF STORM SEWER
CONNECTION TO EXISTING SEWER**

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

F.A.P. RTE. 334	SECTION TR-TS	COUNTY LAKE	TOTAL SHEETS 58	SHEET NO. 38
BD500-01 (BD-7)		CONTRACT NO. 60T88		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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.

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 1/2 (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 EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

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:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

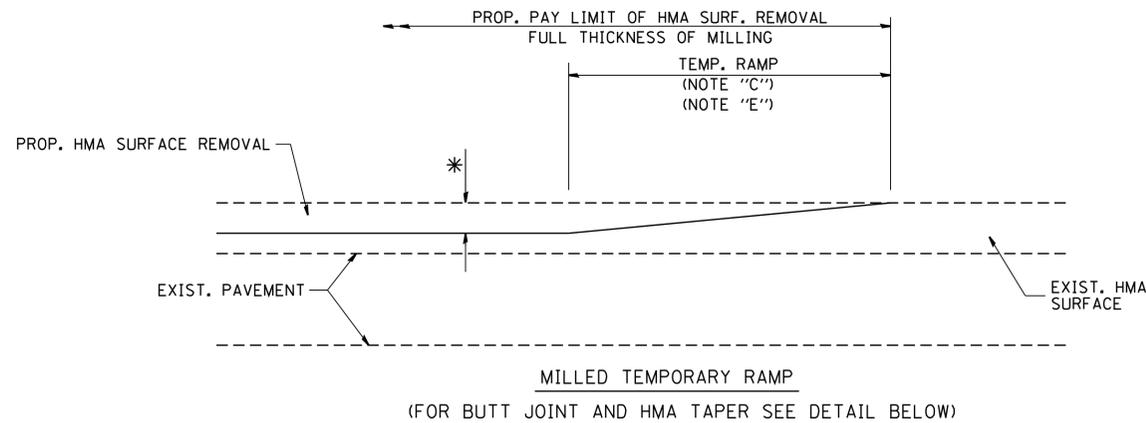
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

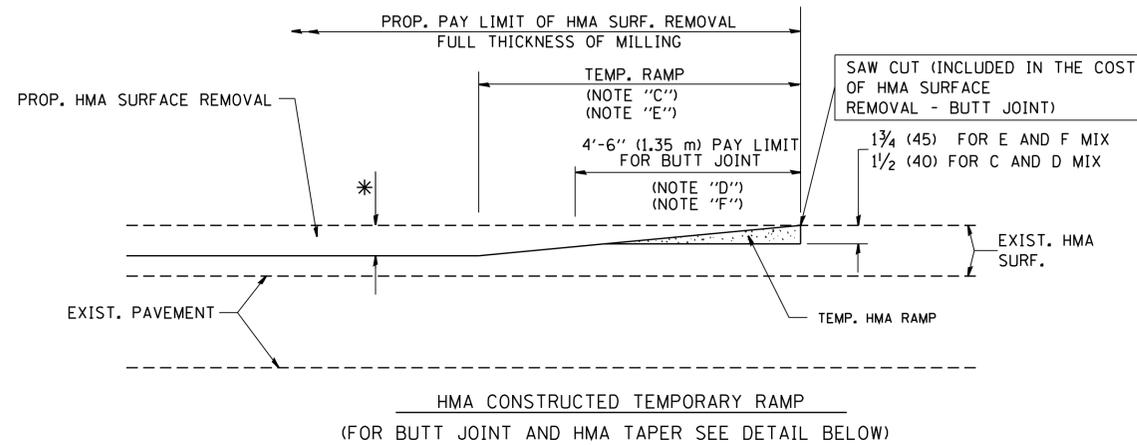
**DETAILS FOR
FRAMES AND LIDS ADJUSTMENT WITH MILLING**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	39
BD600-03 (BD-8)		CONTRACT NO. 60T88		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

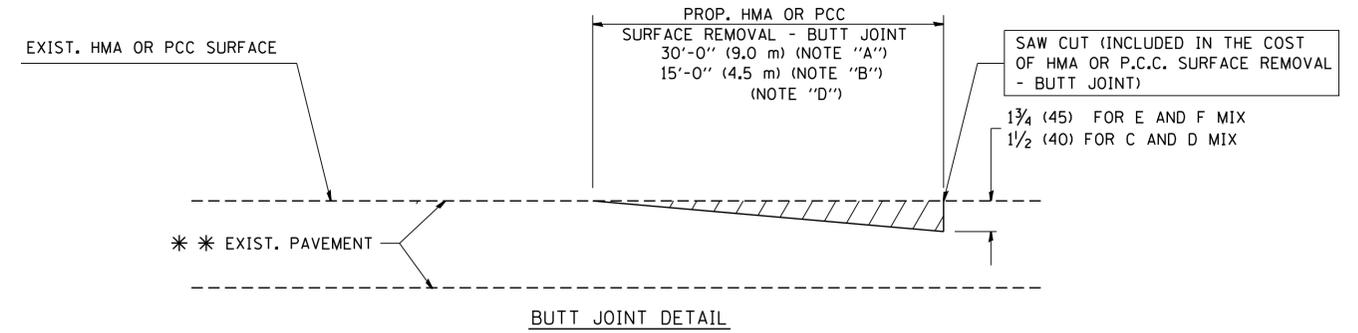


OPTION 1

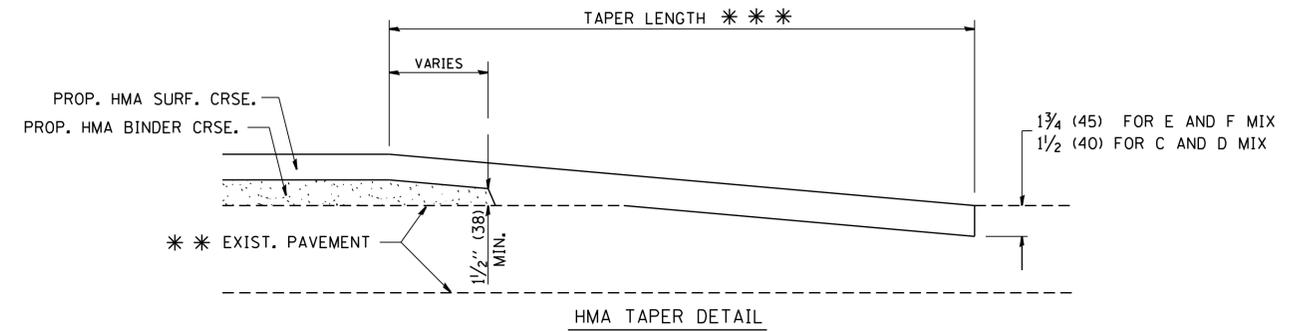


OPTION 2

TYPICAL TEMPORARY RAMP



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

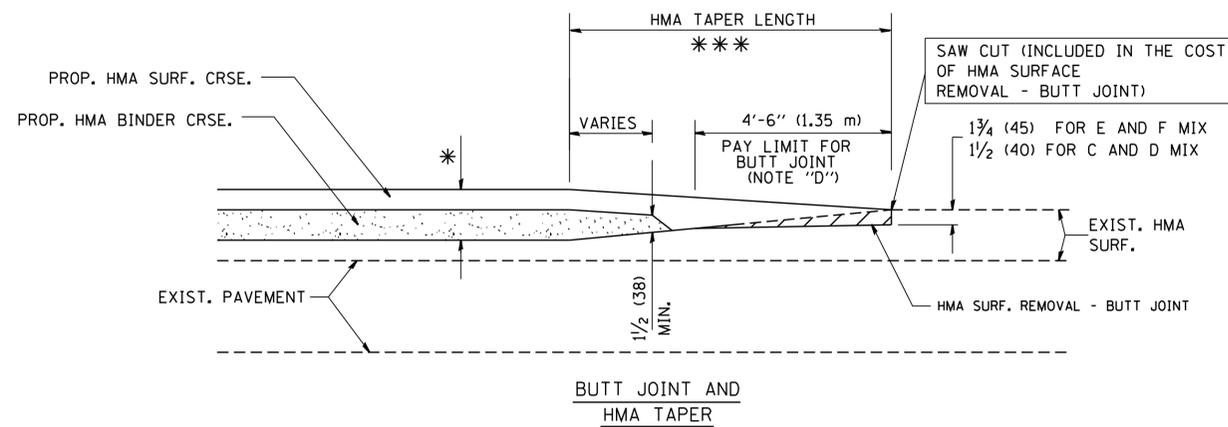
NOTES

- 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.



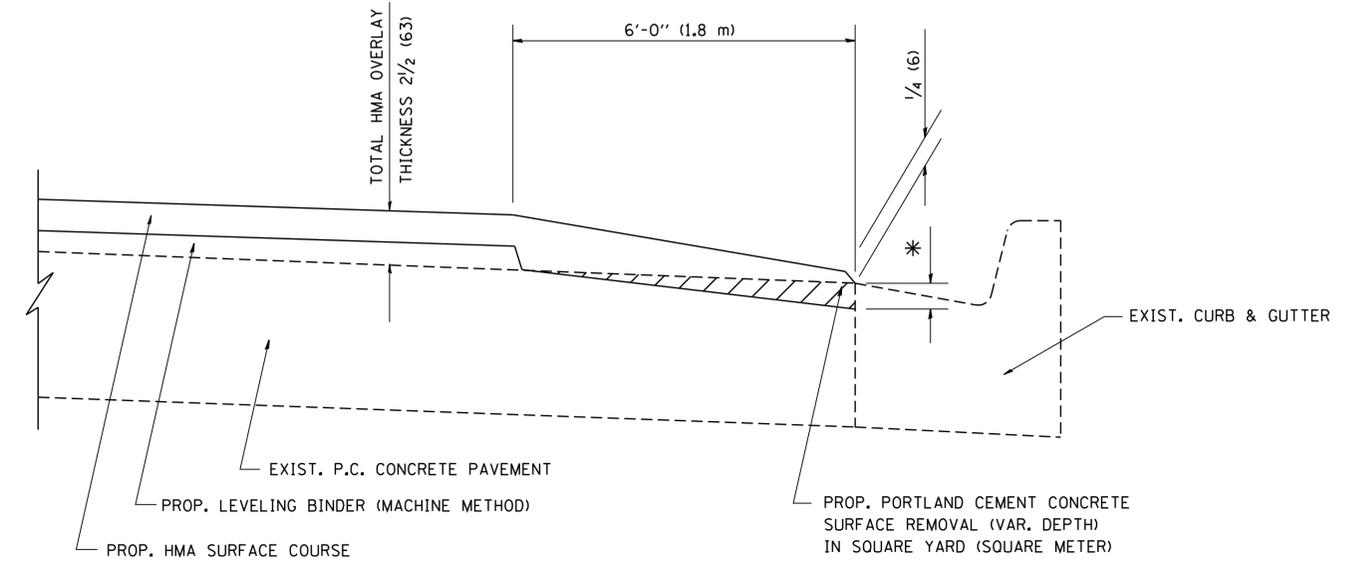
TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

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		DRAWN -	REVISED - A. ABBAS 03-21-97
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	PLOT DATE = 1/4/2008	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. 334	SECTION TR-TS	COUNTY LAKE	TOTAL SHEETS 58	SHEET NO. 40
BD400-05 BD32		CONTRACT NO. 60T88		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

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

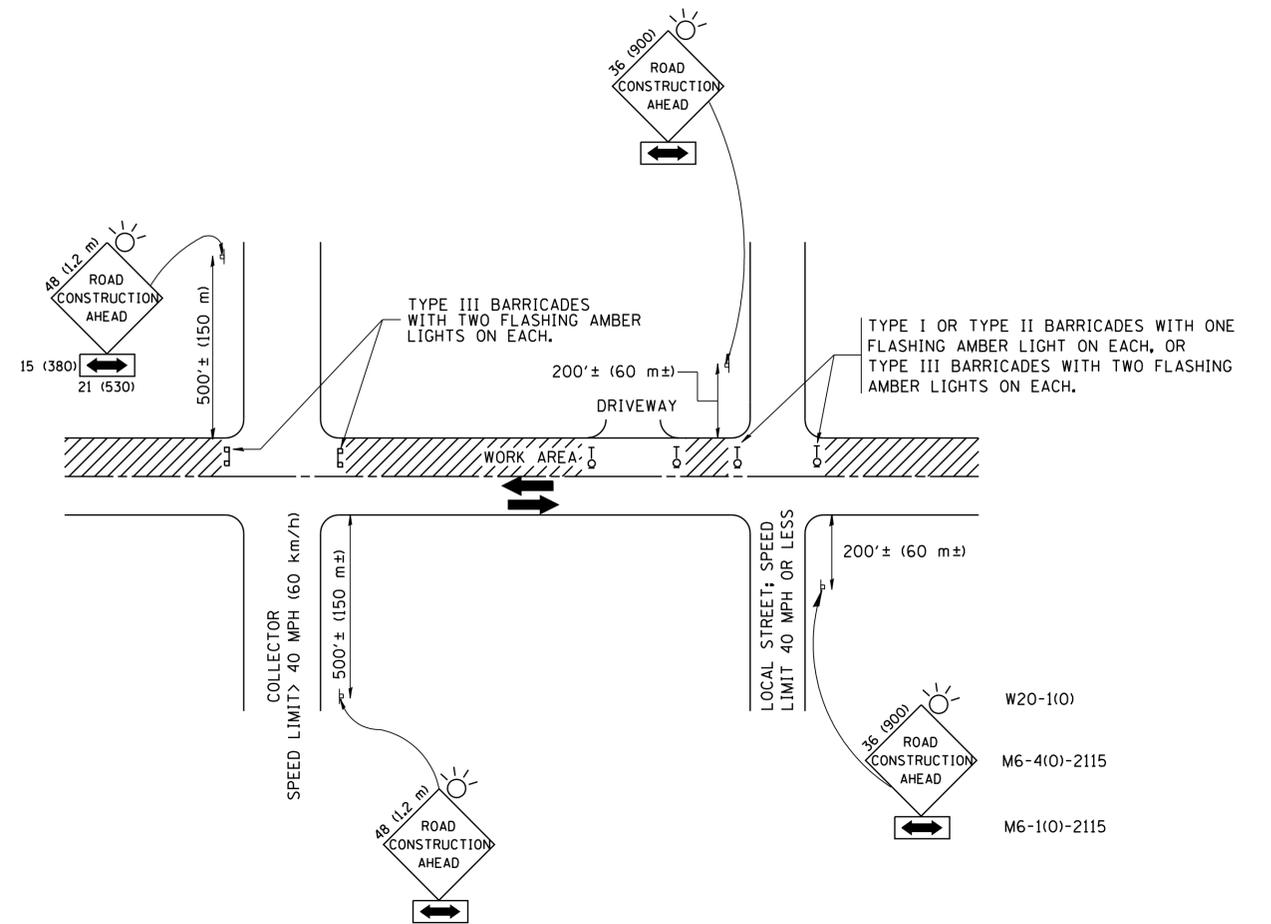
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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.
334	TR-TS	LAKE	58	41
BD400-06 (BD33)		CONTRACT NO. 60T88		
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.

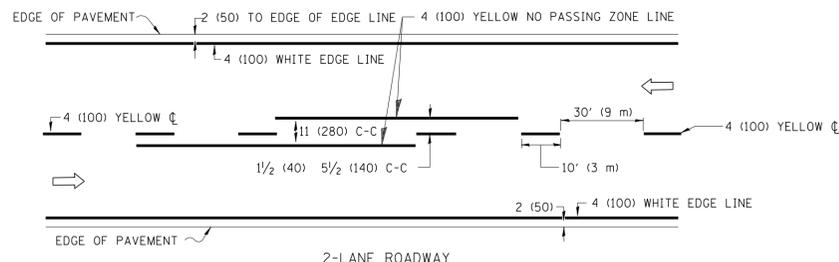
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

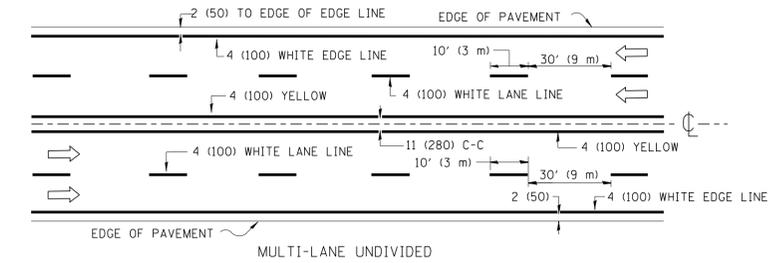
TRAFFIC CONTROL AND PROTECTION FOR
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

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

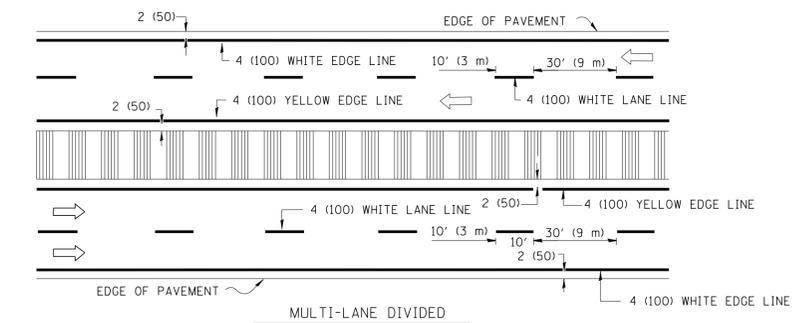
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334	TR-TS	LAKE	58	42
TC-10			CONTRACT NO. 60T88	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



2-LANE ROADWAY



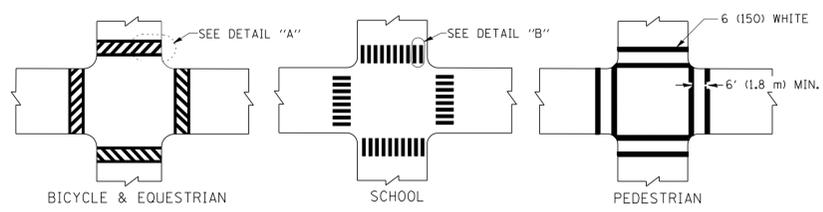
MULTI-LANE UNDIVIDED



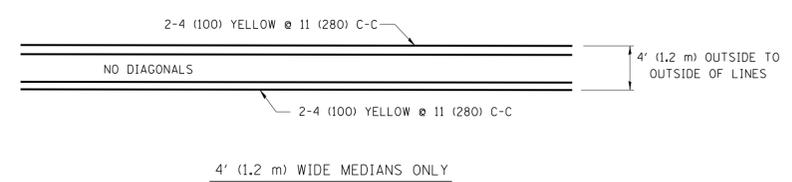
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

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

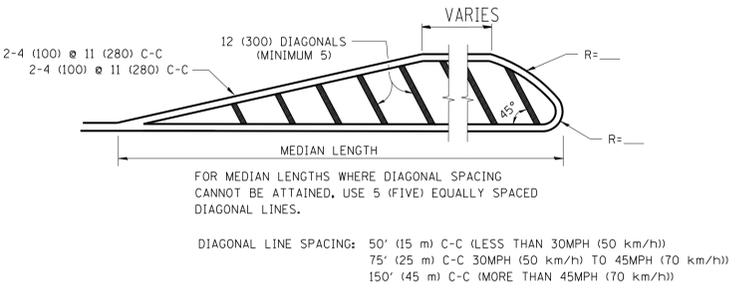
TYPICAL LANE AND EDGE LINE MARKING



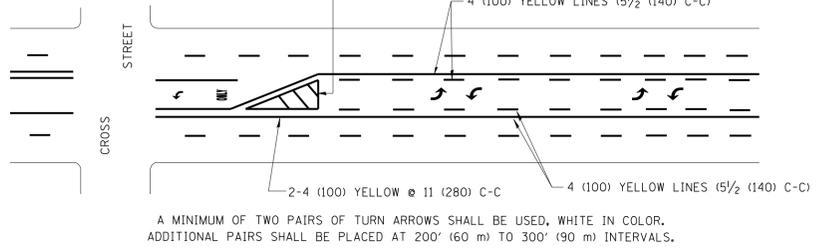
TYPICAL CROSSWALK MARKING



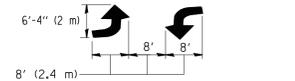
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE



TYPICAL PAINTED MEDIAN MARKING

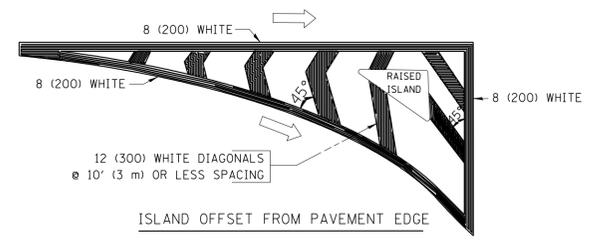


MEDIAN WITH TWO-WAY LEFT TURN LANE

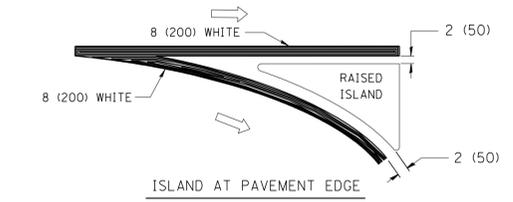
TYPICAL LEFT (OR RIGHT) TURN LANE

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * 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 TURN LANE MARKING



ISLAND OFFSET FROM PAVEMENT EDGE



ISLAND AT PAVEMENT EDGE

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 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.

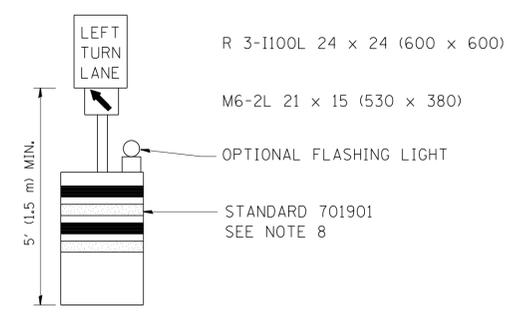
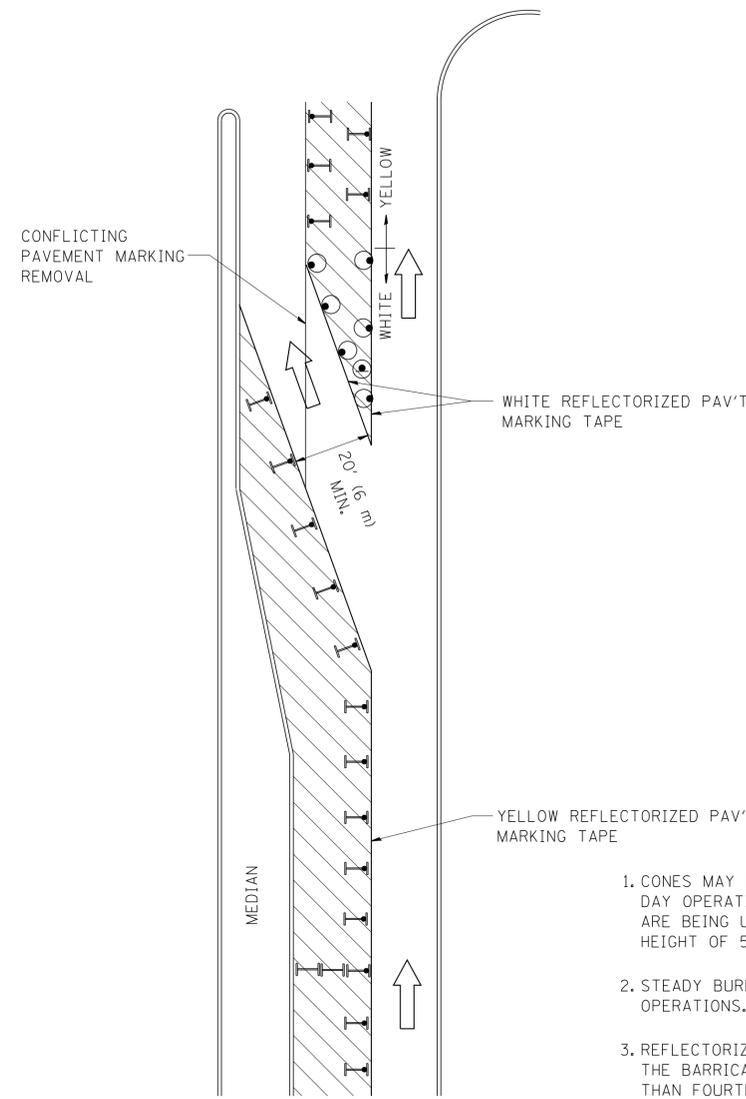
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	PLOT DATE = 9/9/2009	CHECKED -	REVISED -
		DATE - 03-19-90	REVISED -

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. 334	SECTION TR-TS	COUNTY LAKE	TOTAL SHEETS 58	SHEET NO. 44
TC-13		CONTRACT NO. 60T88		
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 OPER 725 IS REQUIRED.
8. IF A DRUM OR TYPE II BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 PREQUIREMENTS.
9. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

LEGEND

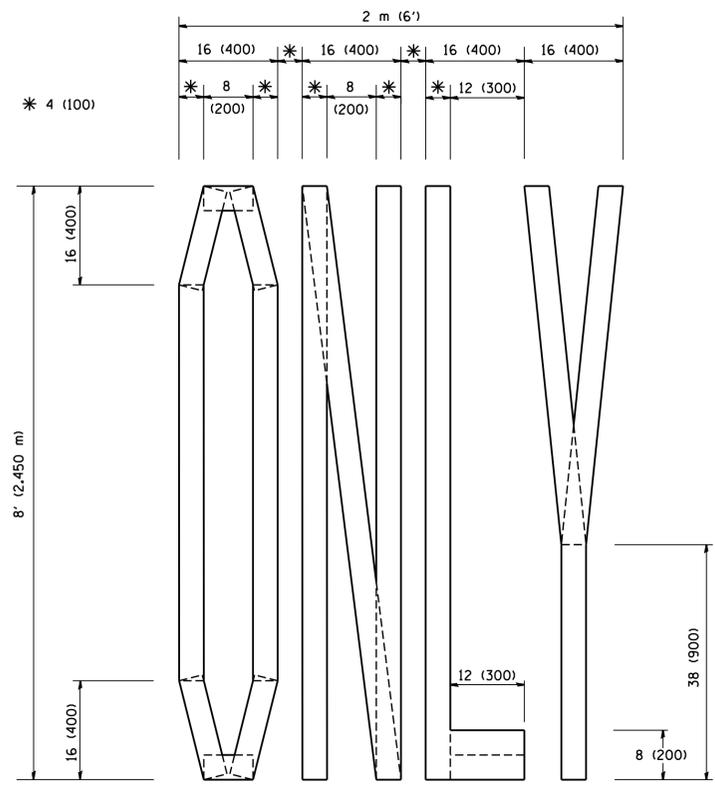
-  WORK AREA
-  LANE OPEN TO TRAFFIC
-  TYPE I OR II BARRICADE WITH STEADY BURN LIGHT
-  DRUM WITH STEADY BURN LIGHT
-  DRUM WITH SIGN (WITH OPTIONAL FLASHING LIGHT) SEE DETAIL
-  TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

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et:\pw\work\PWIDOT\DRIVAKOSGN\d0108315\14.dgn		REVISED - A. HOUSEH 11-07-95	REVISED -
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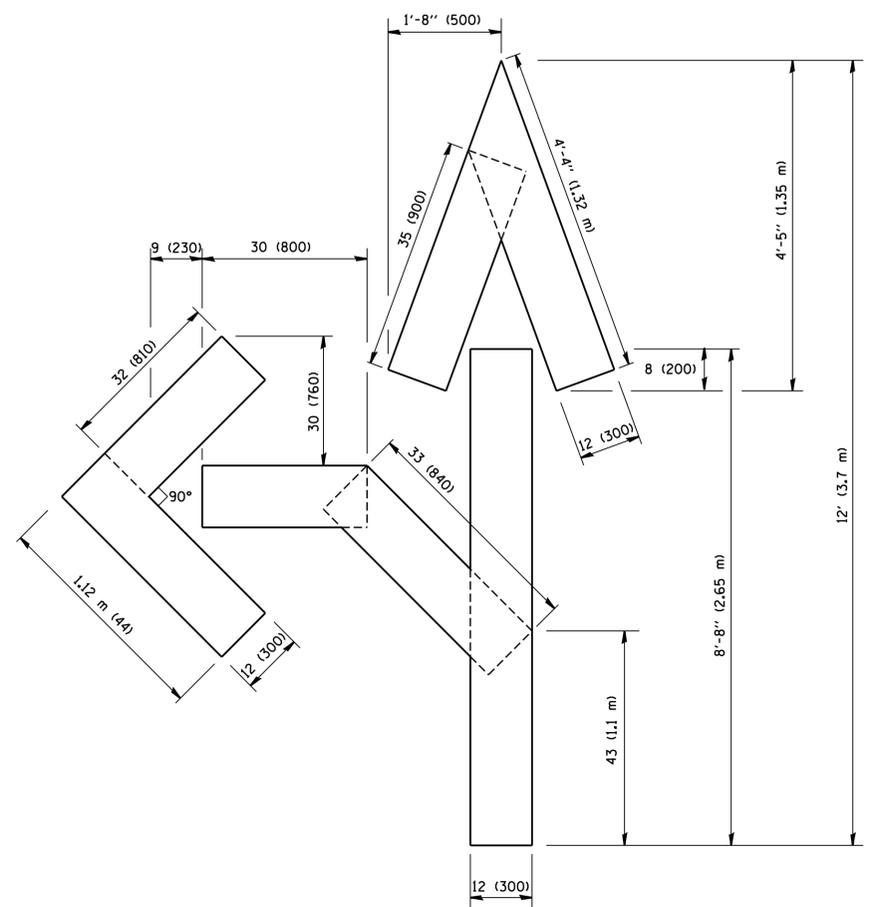
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

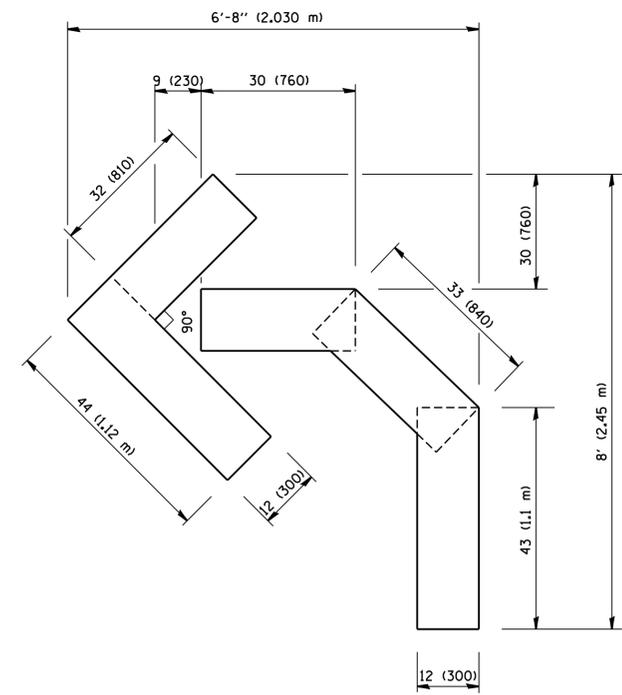
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	45
TC-14		CONTRACT NO. 60T88		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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.

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		DRAWN -	REVISED -T. RAMMACHER 11-04-97
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	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION**

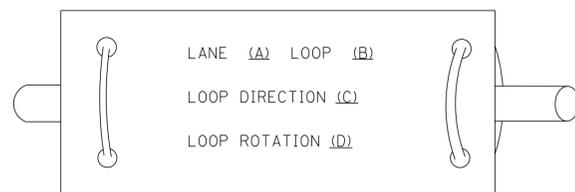
PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING			
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	46
TC-16			CONTRACT NO. 60T88	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

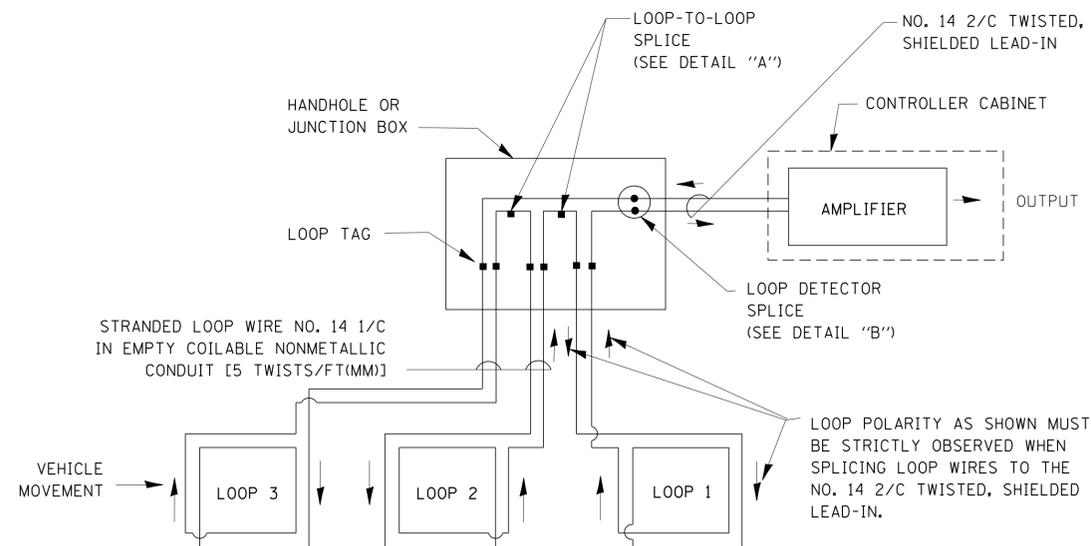
LOOP DETECTOR NOTES

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

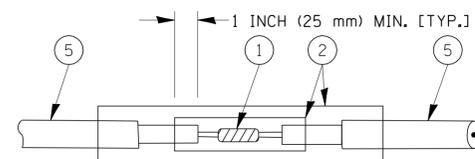


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

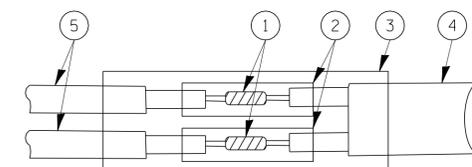


DETECTOR LOOP WIRING SCHEMATIC

- 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.

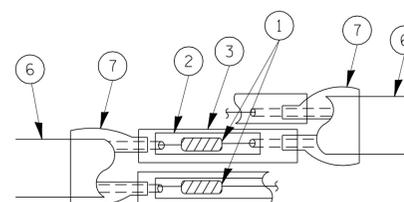


**DETAIL "A"
LOOP-TO-LOOP SPLICE**

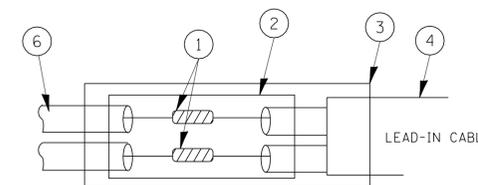


**DETAIL "B"
LOOP-TO-CONTROLLER SPLICE**

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

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

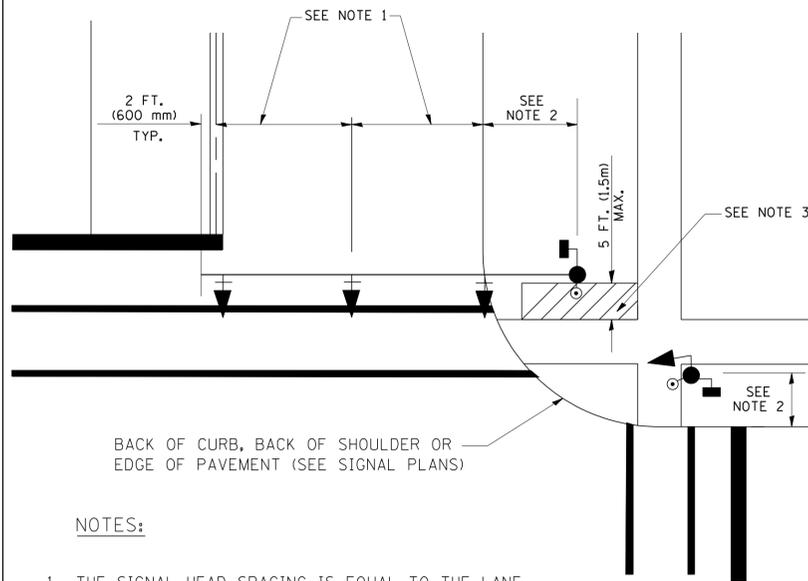
**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 1 OF 6 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-1S	LAKE	58	48
TS-05		CONTRACT NO. 60T88		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

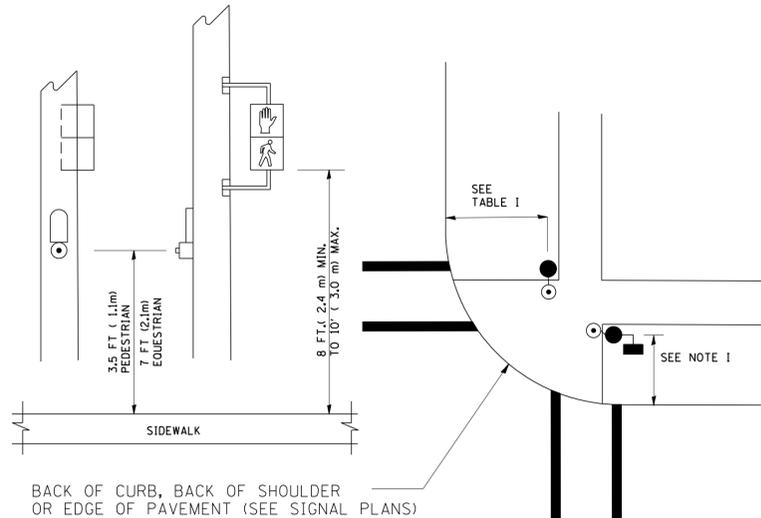
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



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."

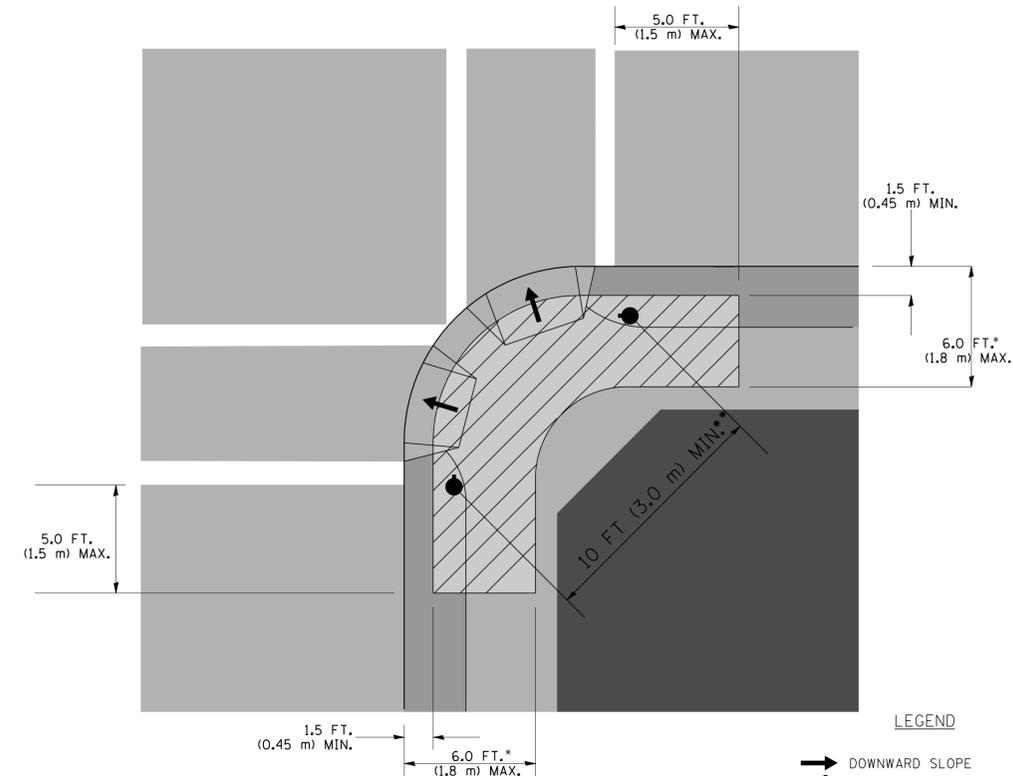
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



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



LEGEND

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ 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:

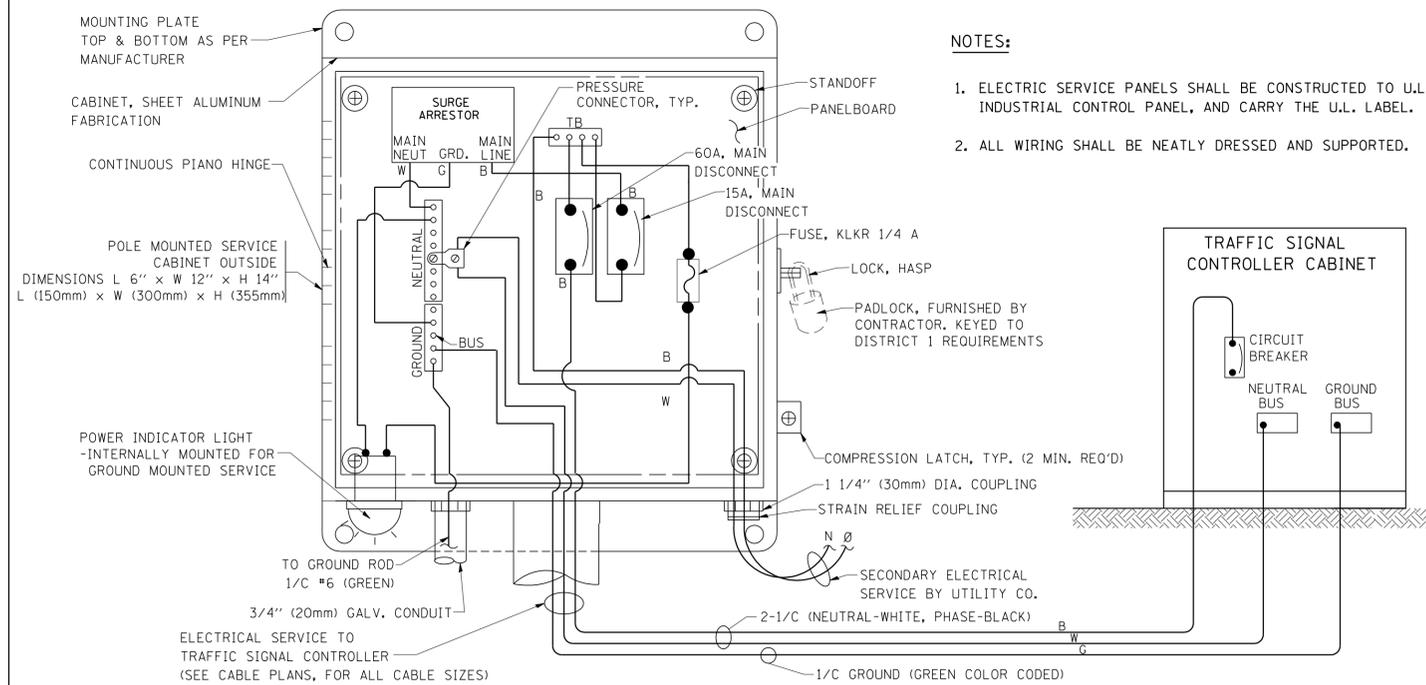
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM 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

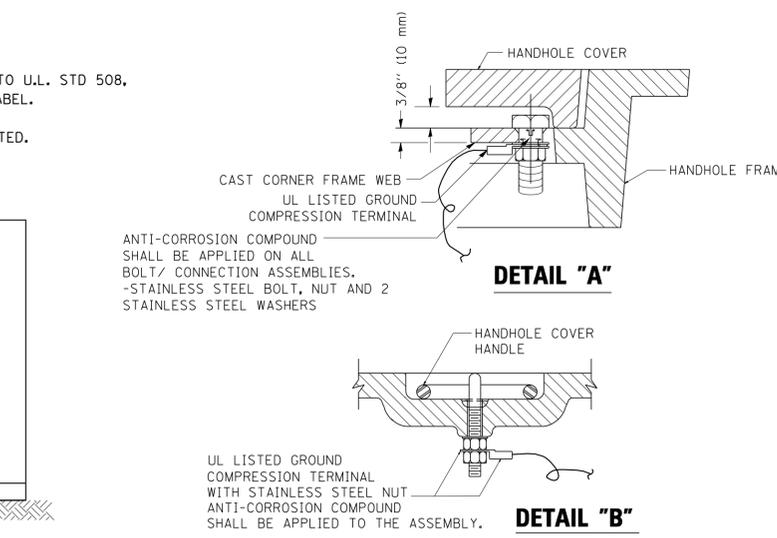
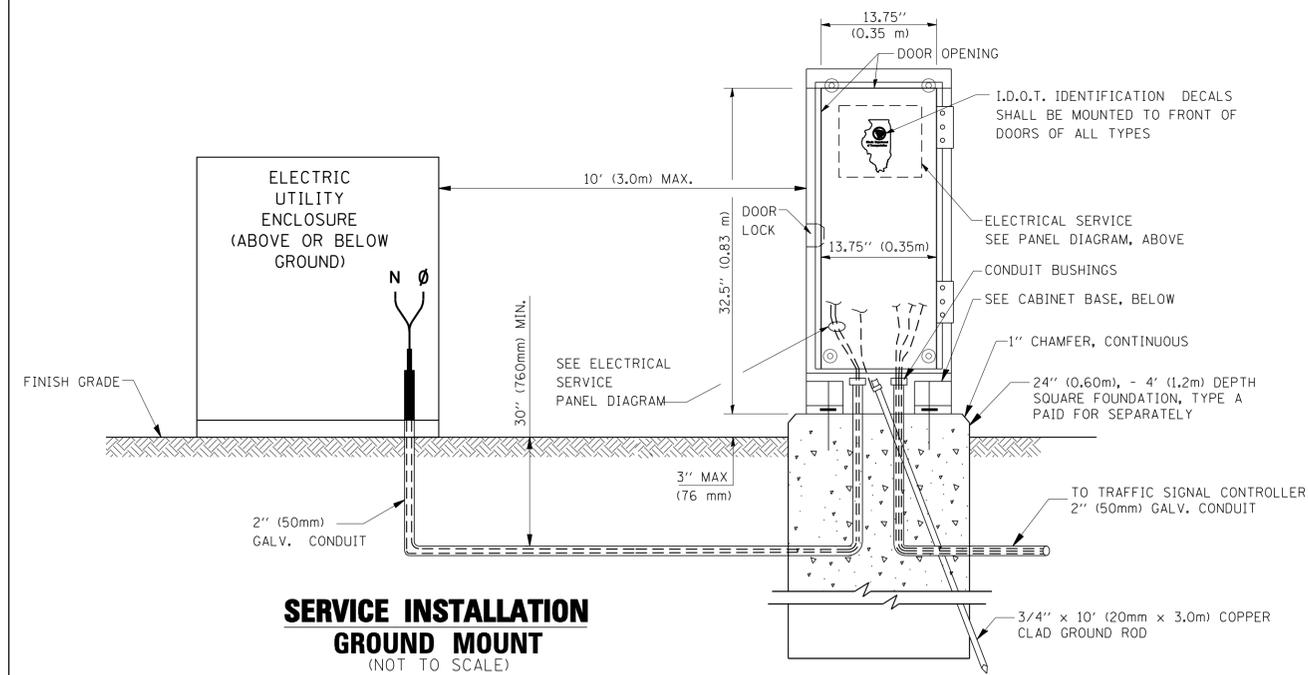
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 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.



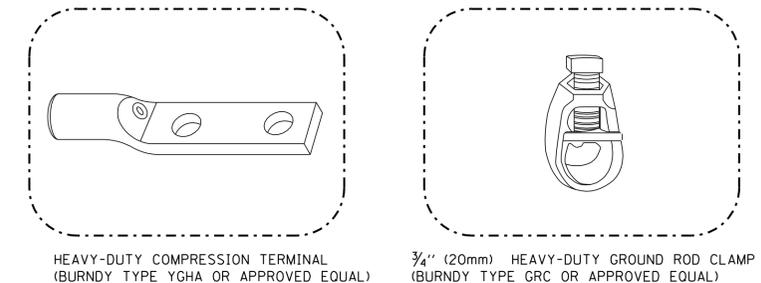
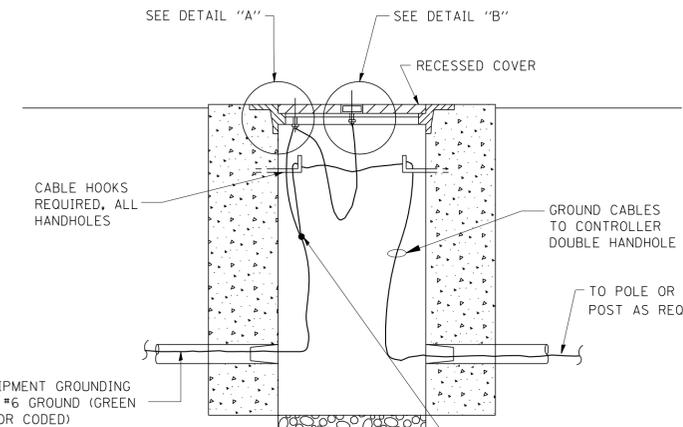
ELECTRICAL SERVICE – PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)
SERVICE INSTALLATION POLE MOUNT (SHOWN)
 (NOT TO SCALE)



NOTES:

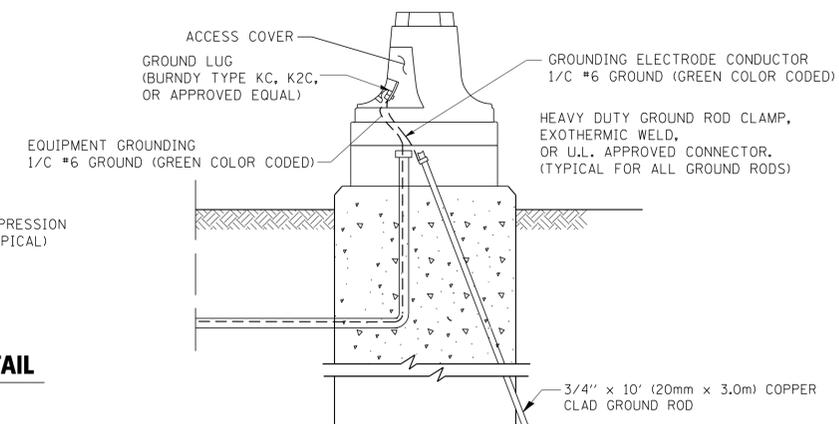
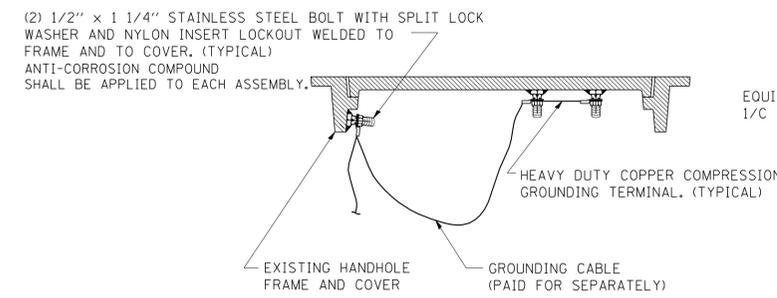
GROUNDING SYSTEM

1. 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.
2. 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.
3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
4. 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.

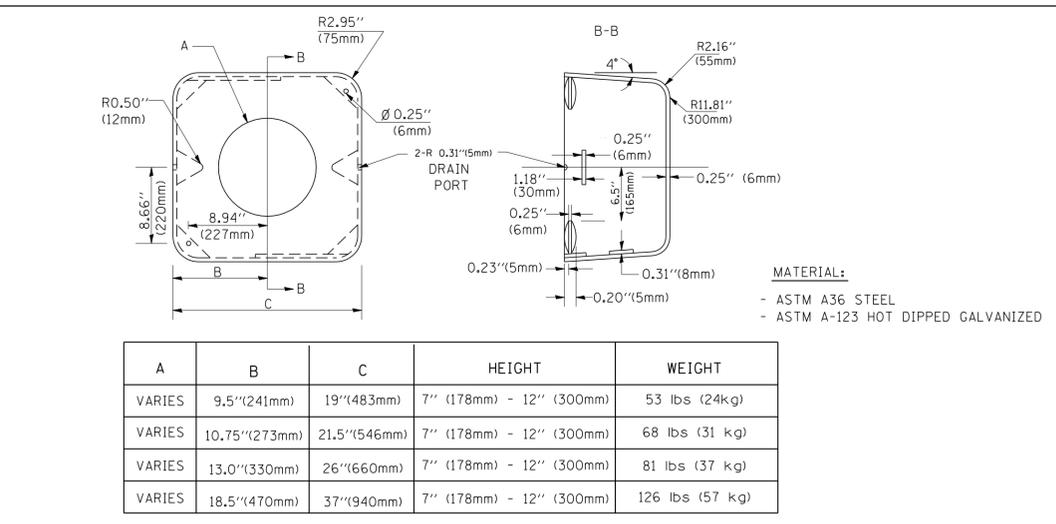
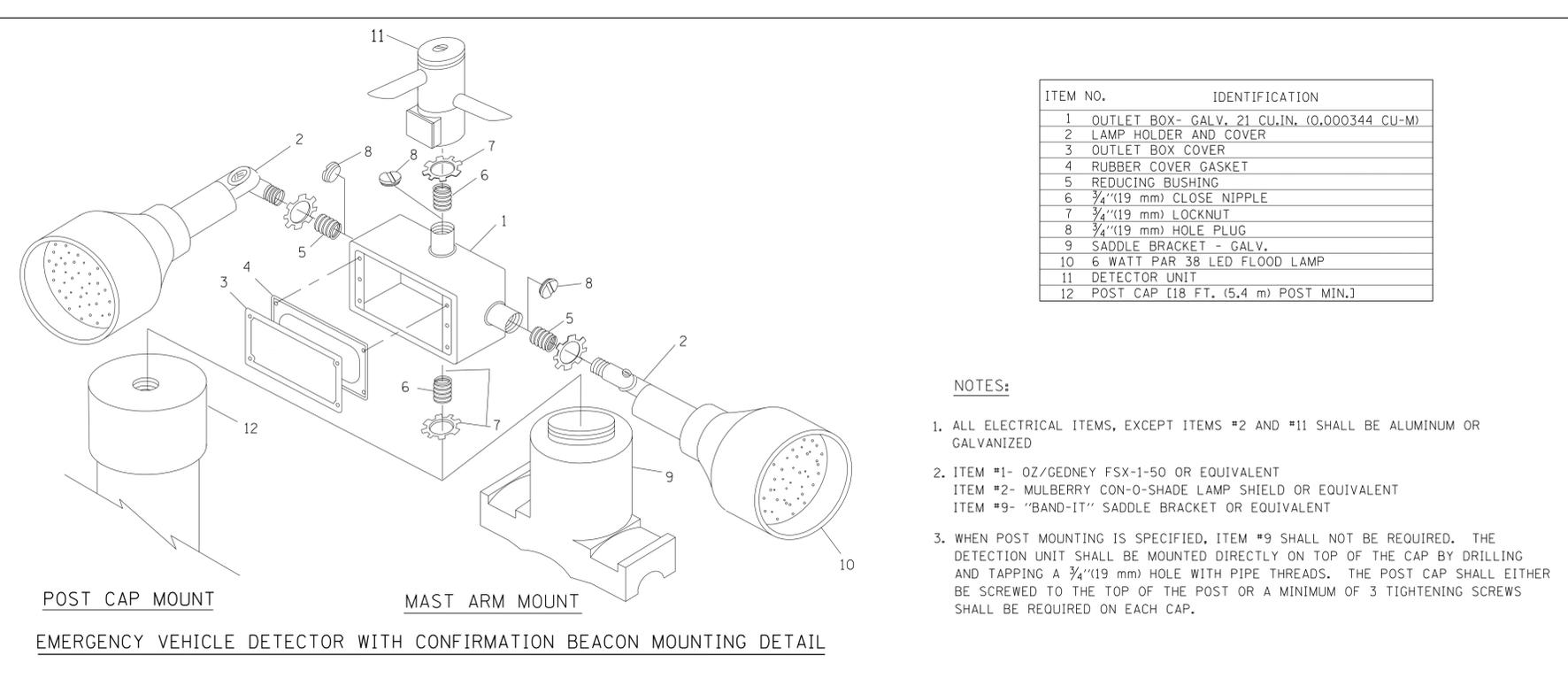
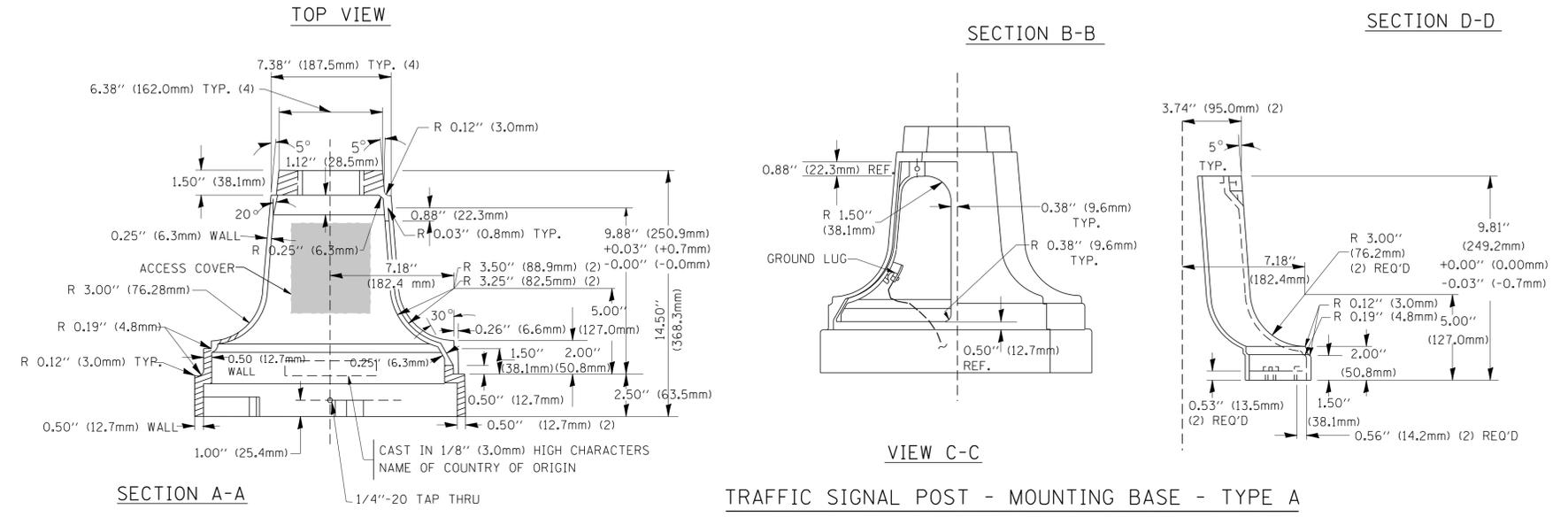
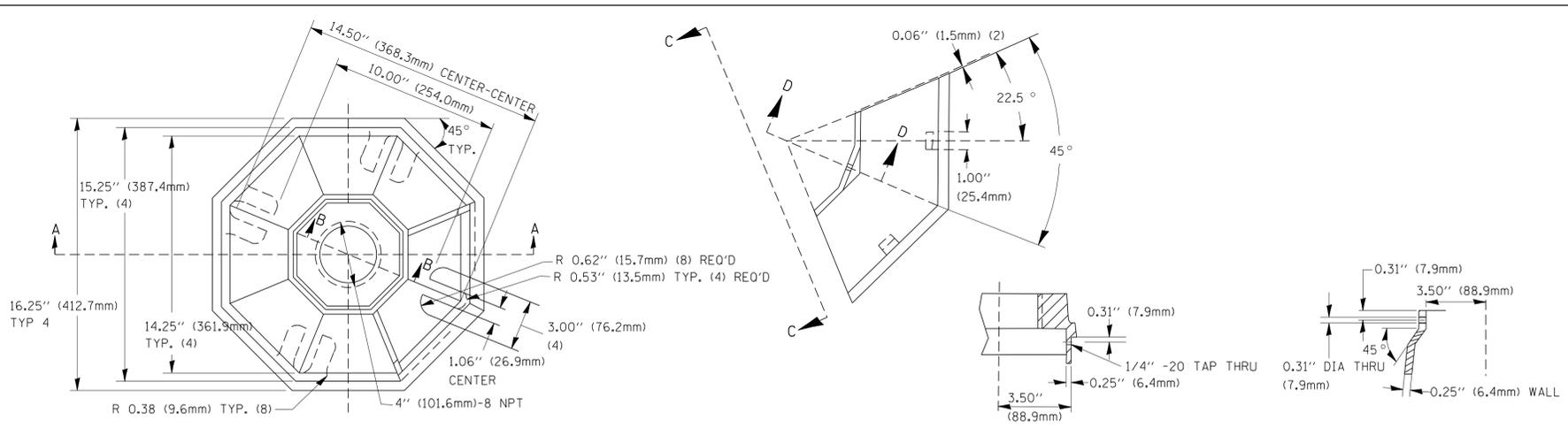


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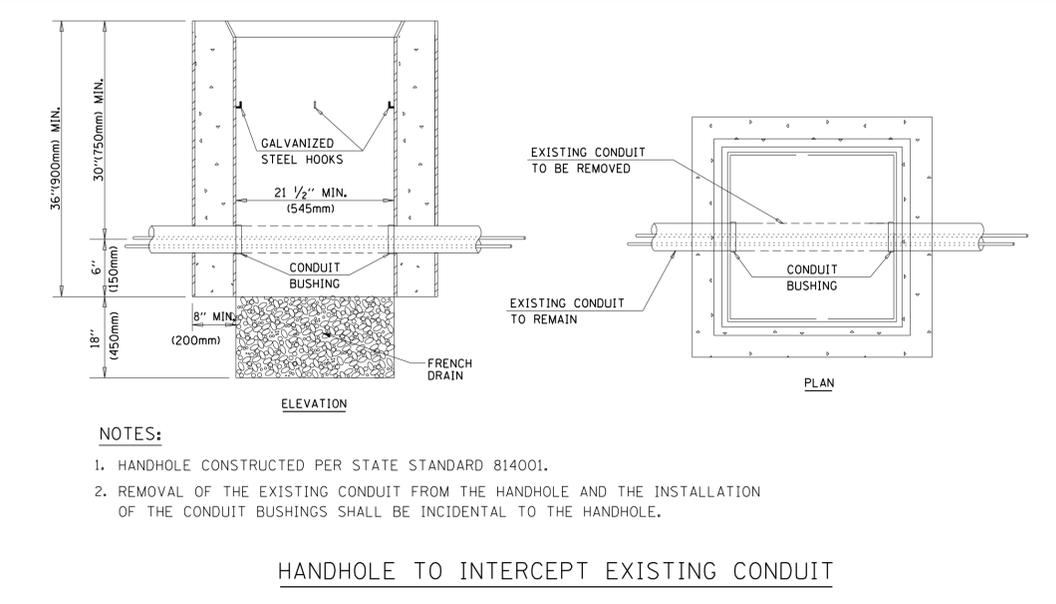
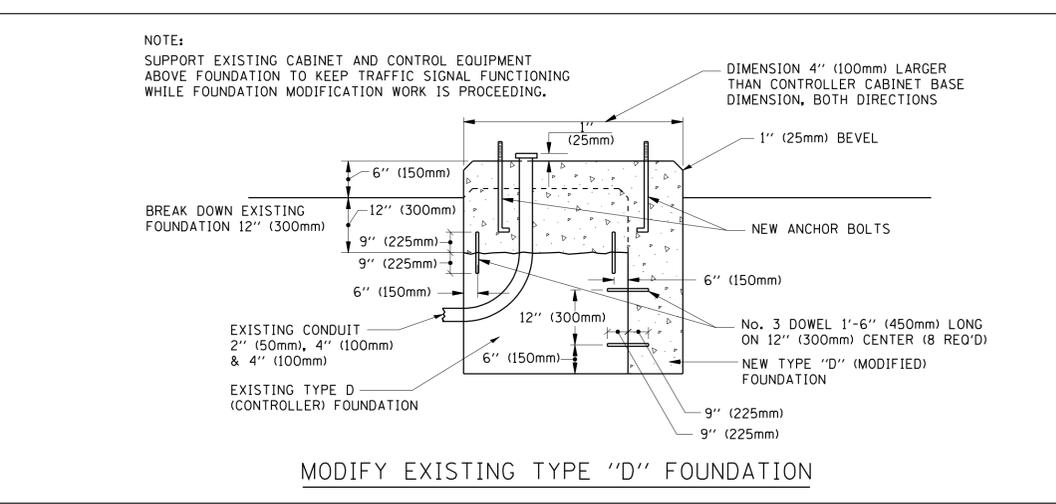
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

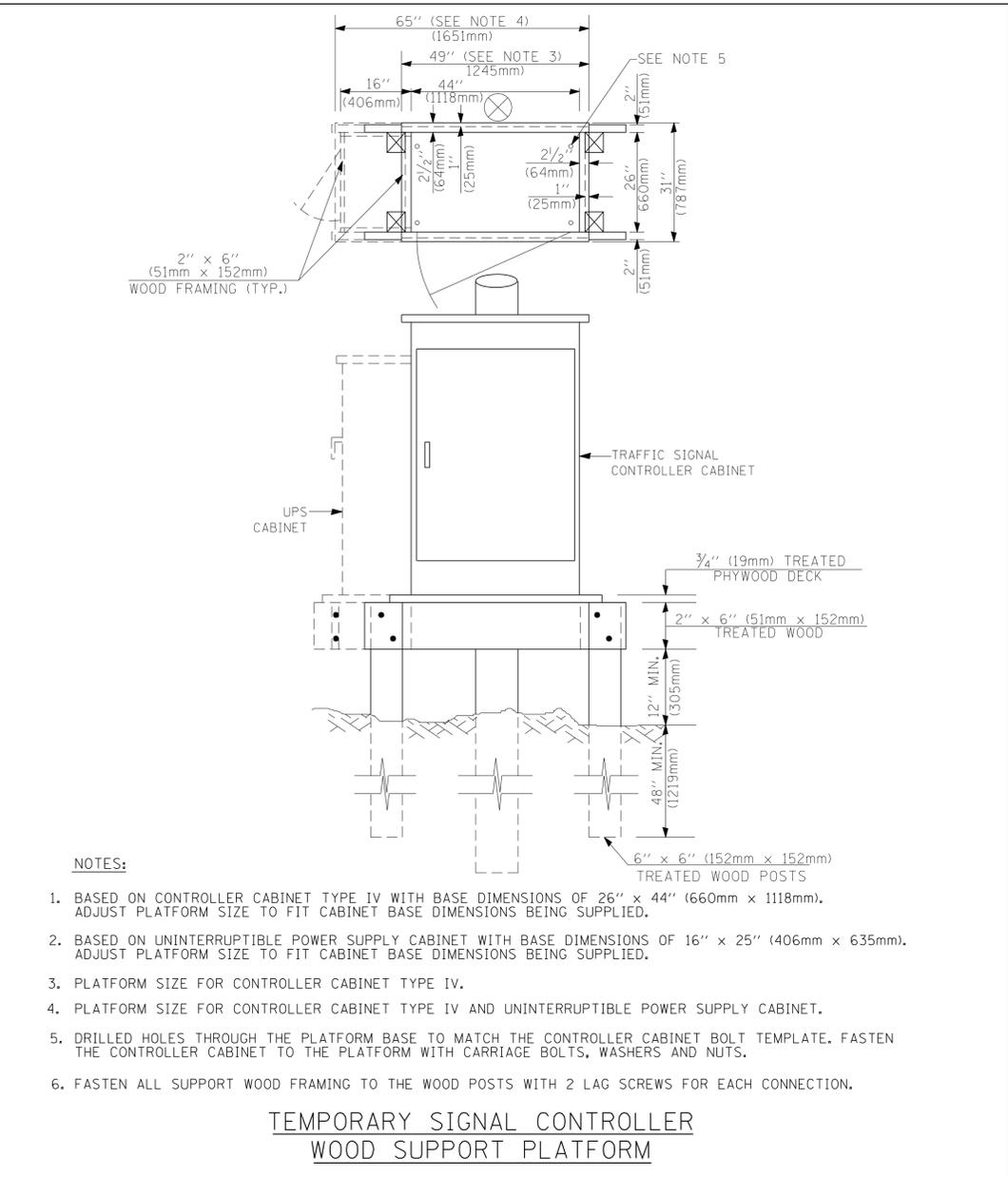
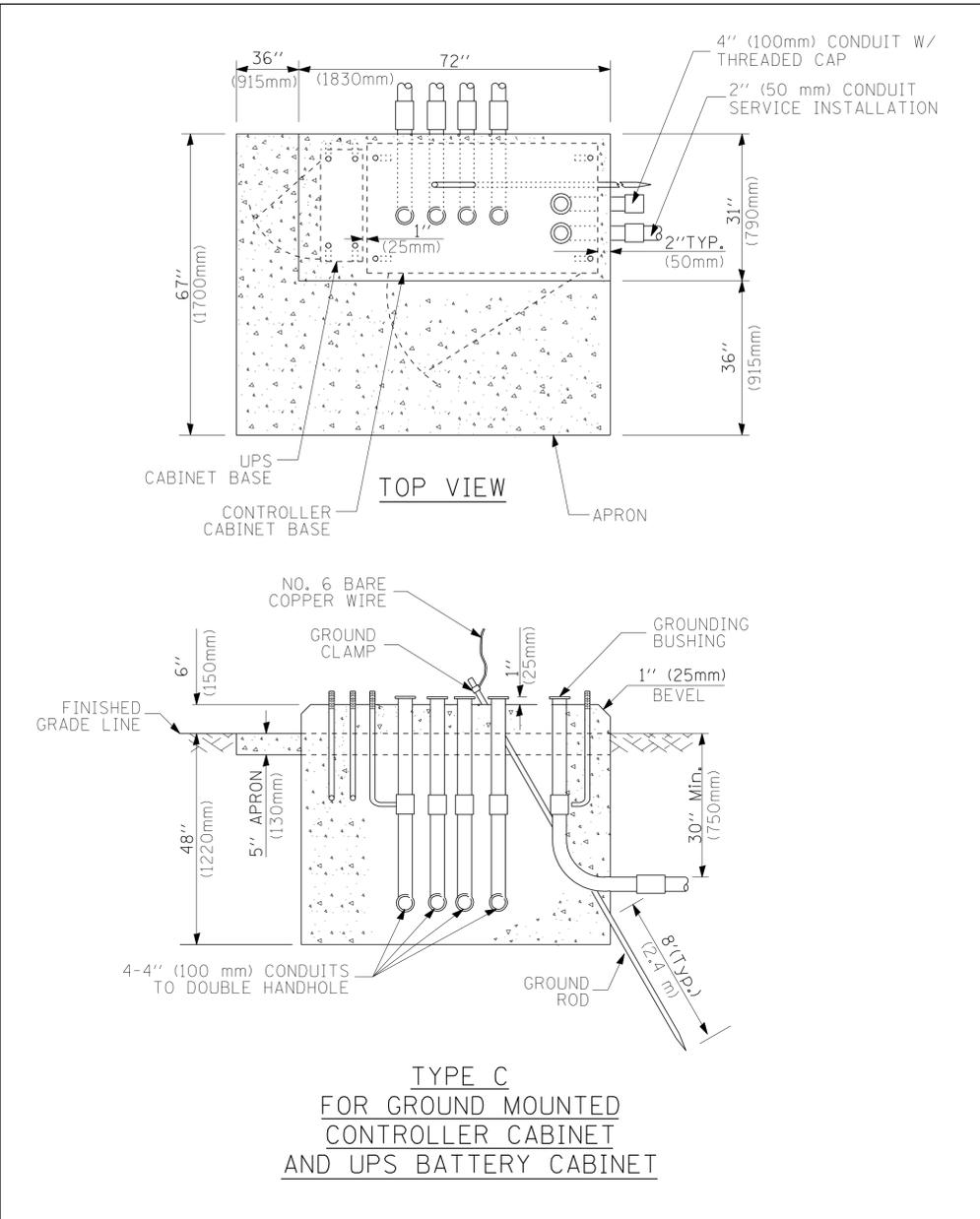
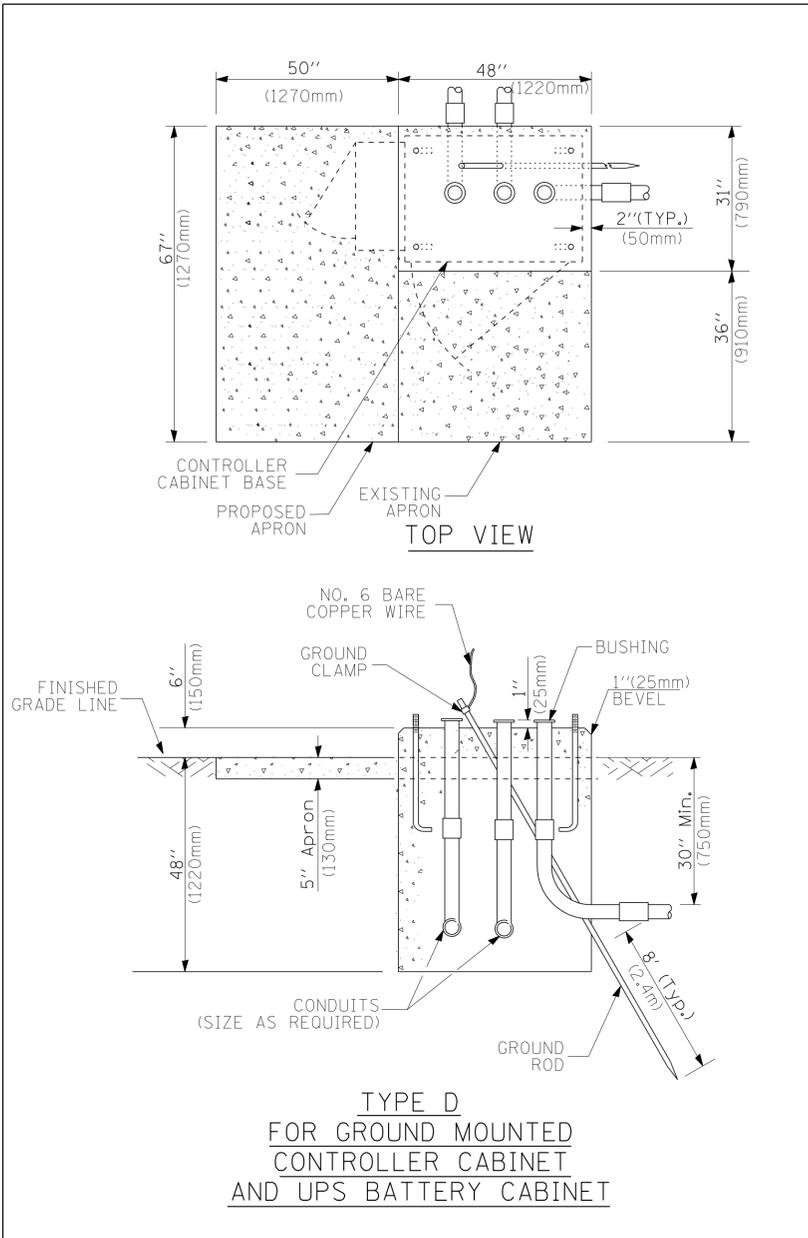
DISTRICT ONE			
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			
SCALE: NONE	SHEET NO. 3 OF 6 SHEETS	STA. TO STA.	

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	50
TS-05		CONTRACT NO.	60T88	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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





- 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 CABLE, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

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

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)

Mast Arm Length	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)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	24" (600mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and less than 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 m)	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_u) > 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.

CABLE SLACK

VERTICAL CABLE LENGTH

DEPTH OF FOUNDATION

DEPTH OF MAST ARM FOUNDATIONS, TYPE E

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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 5 OF 6 SHEETS STA. TO STA.

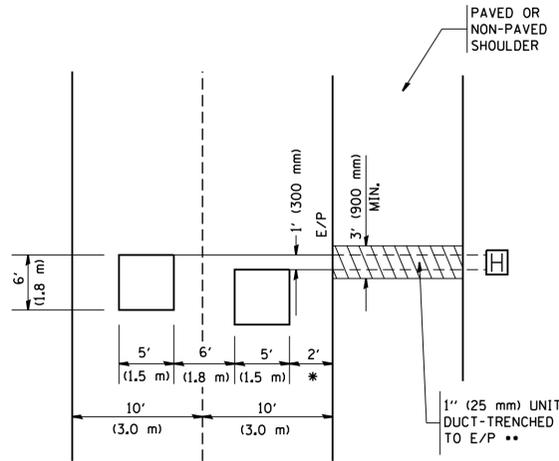
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	52
TS-05			CONTRACT NO. 60T88	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL LEGEND

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 SM21F															
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				STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED															
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM				ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED															
SIGNAL POST				REMOVE ITEM				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				SIGNAL POST AND FOUNDATION TO BE REMOVED															
GUY WIRE				ABANDON ITEM				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 style="margin: 0;">RAILROAD SYMBOLS</h2> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">EXISTING</th> <th style="width: 50%;">PROPOSED</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table>				EXISTING	PROPOSED										
EXISTING	PROPOSED																						
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																							

LOOPS NEXT TO SHOULDERS

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



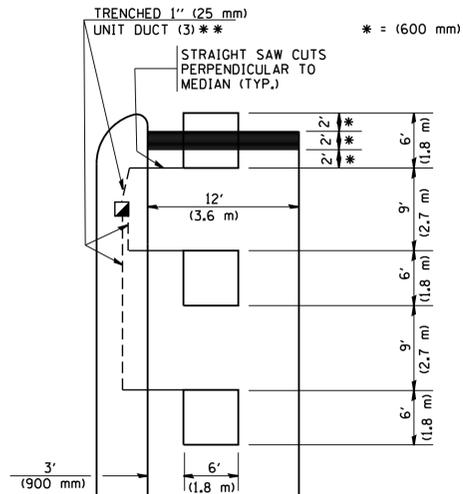
* = (600 mm)

** 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.



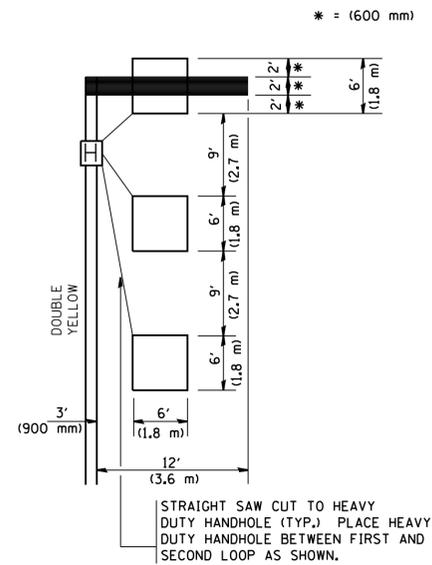
* = (600 mm)

** 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)



* = (600 mm)

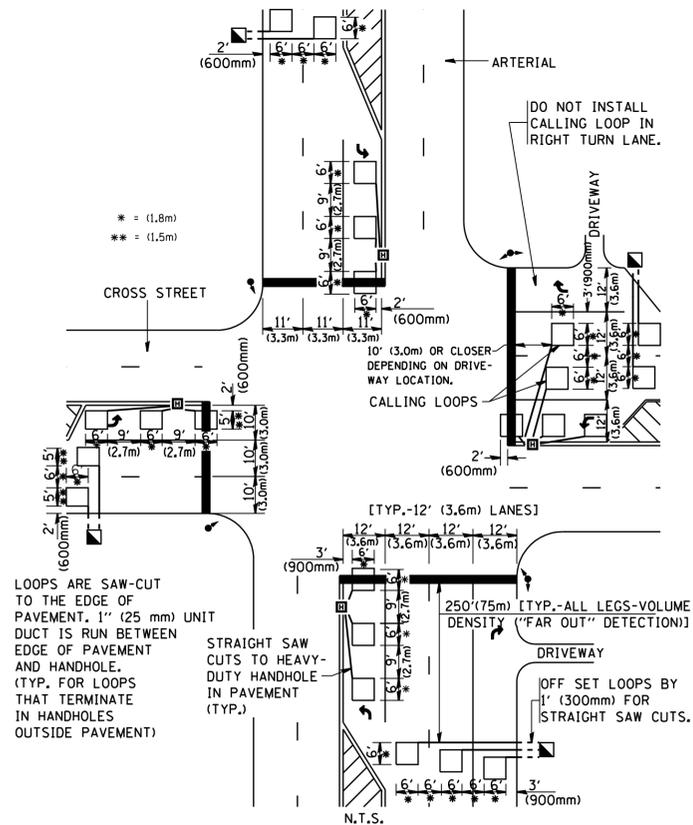
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

NOTES:

VEHICLES LOOP DETECTORS

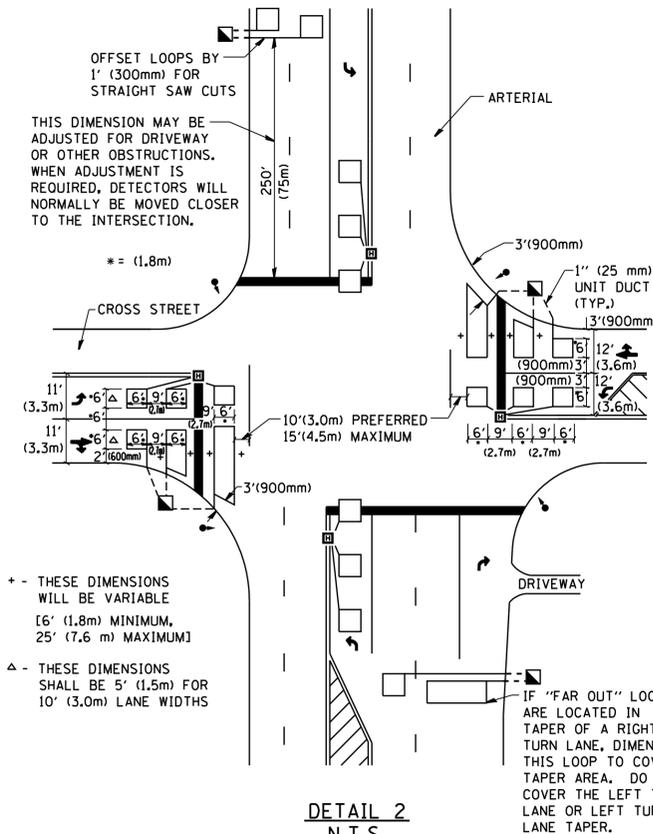
- * ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- * EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST 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.

**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.

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.

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PLOT SCALE = 50.0000' / IN.
PLOT DATE = 1/4/2008

DESIGNED -
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CHECKED - R.K.F.
DATE -

REVISED -
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REVISED -
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION
DETAILS FOR ROADWAY RESURFACING**

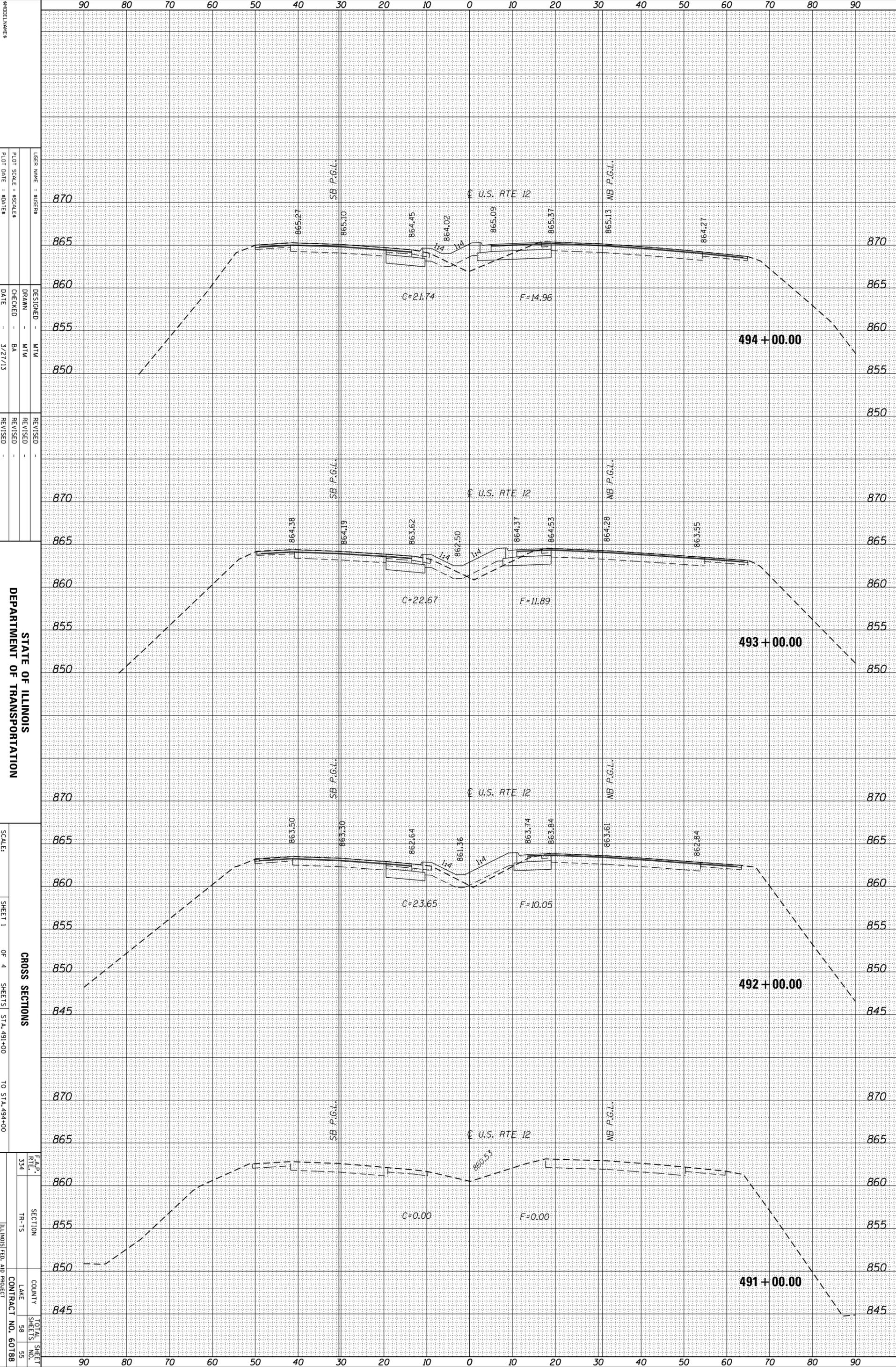
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
334	TR-TS	LAKE	58	54
TS-07			CONTRACT NO. 60T88	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

ORIGINAL SURVEY	SURVEYED _____	BY _____	DATE _____
NOTE BOOK	PLOTTED _____		
	TEMPLATE _____		
	AREAS _____		
	AREAS CHECKED _____		

FINAL SURVEY	SURVEYED _____	BY _____	DATE _____
NOTE BOOK	PLOTTED _____		
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DESIGNED - MTM
 DRAWN - MTM
 CHECKED - BA
 DATE - 3/27/13

REVISIONS

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

SCALE:

SHEET 1 OF 4 SHEETS STA. 491+00 TO STA. 494+00

CROSS SECTIONS

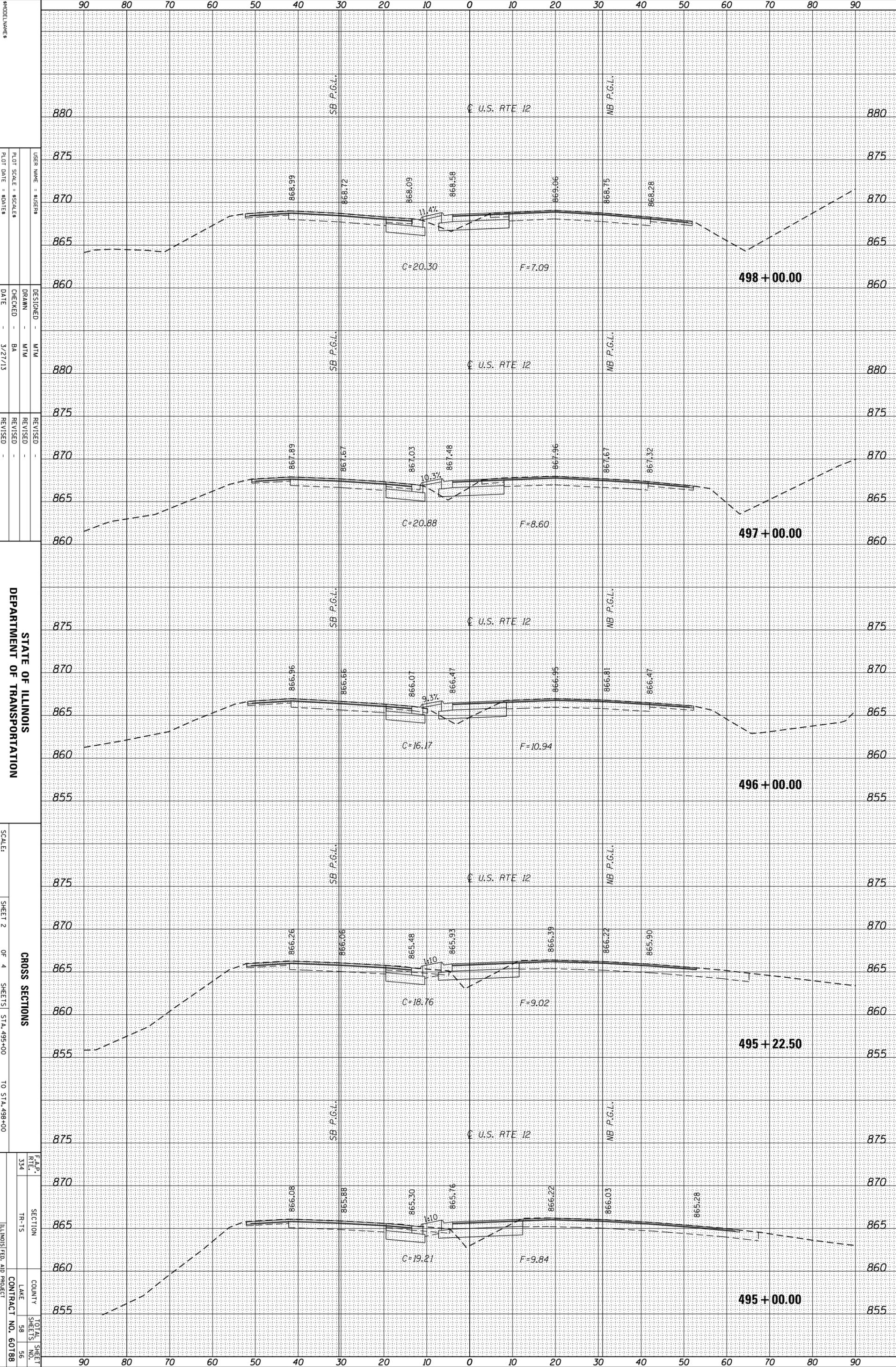
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 SECTION TR-15
 COUNTY LAKE
 CONTRACT NO. 60188
 TOTAL SHEET NO. 58
 SHEET NO. 55

ILLINOIS FED. AID PROJECT

ORIGINAL SURVEY	SURVEYED _____	BY _____	DATE _____
NOTE BOOK	PLOTTED _____		
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FINAL SURVEY	SURVEYED _____	BY _____	DATE _____
NOTE BOOK	PLOTTED _____		
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USER NAME = \$USER\$
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 CHECKED - BA
 DATE - 3/27/13

DESIGNED -
 REVISIONS -

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

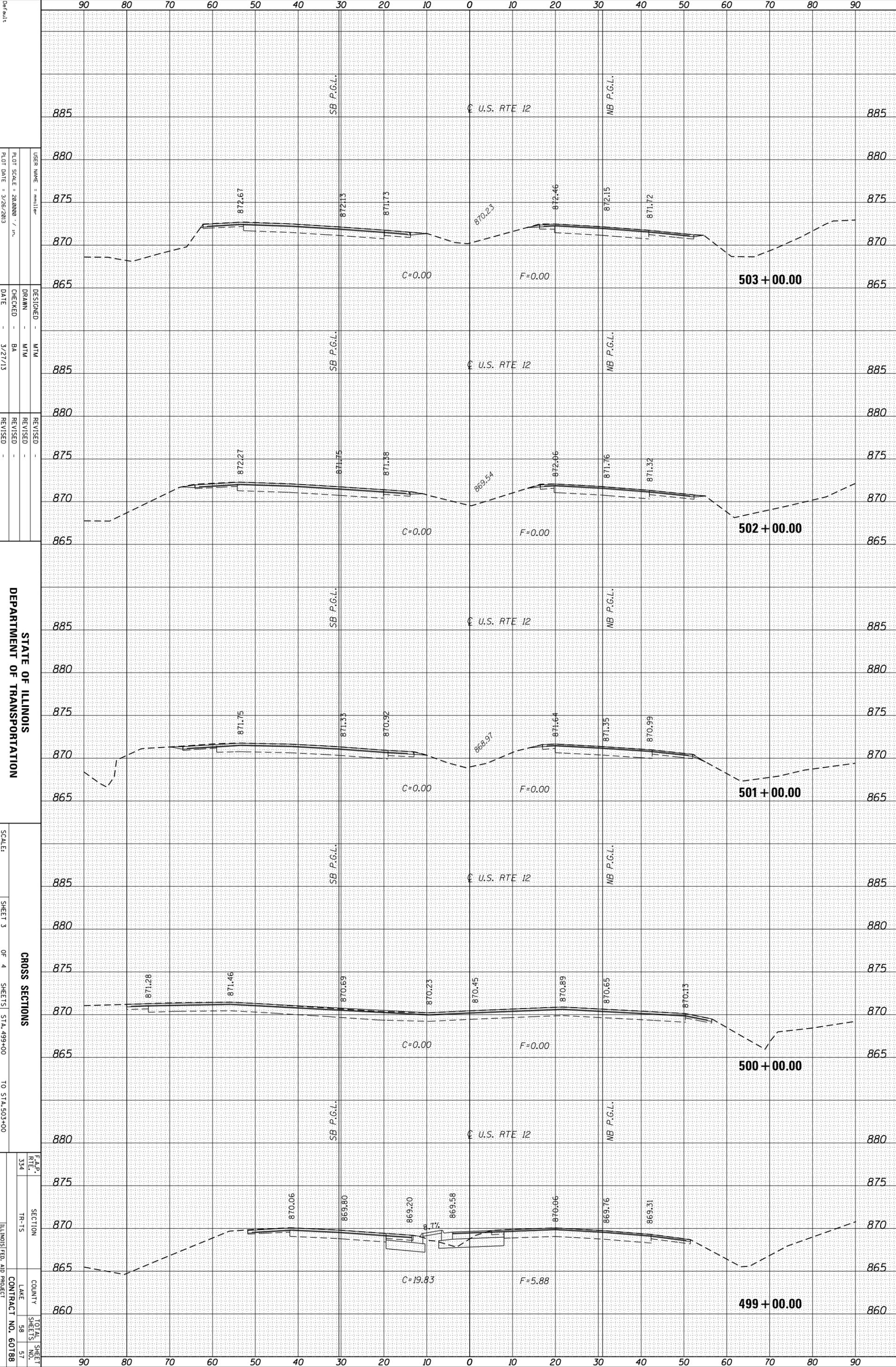
SCALE:
 SHEET 2 OF 4 SHEETS STA. 495+00 TO STA. 498+00

CROSS SECTIONS
 F.A.P. R.T.L. 334
 SECTION TR-15
 COUNTY LAKE
 CONTRACT NO. 60188
 TOTAL SHEET NO. 58

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
	TEMPLATE		
	AREAS		
	CHECKED		

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SHEET 3 OF 4 SHEETS STA. 499+00 TO STA. 503+00

F.A.P. RT# 334 SECTION TR-15 COUNTY LAKE CONTRACT NO. 60188
TOTAL SHEET NO. 58 SHEET NO. 57 ILLINOIS FED. AID PROJECT

DESIGNED - MTM
DRAWN - MTM
CHECKED - BA
DATE - 3/27/13

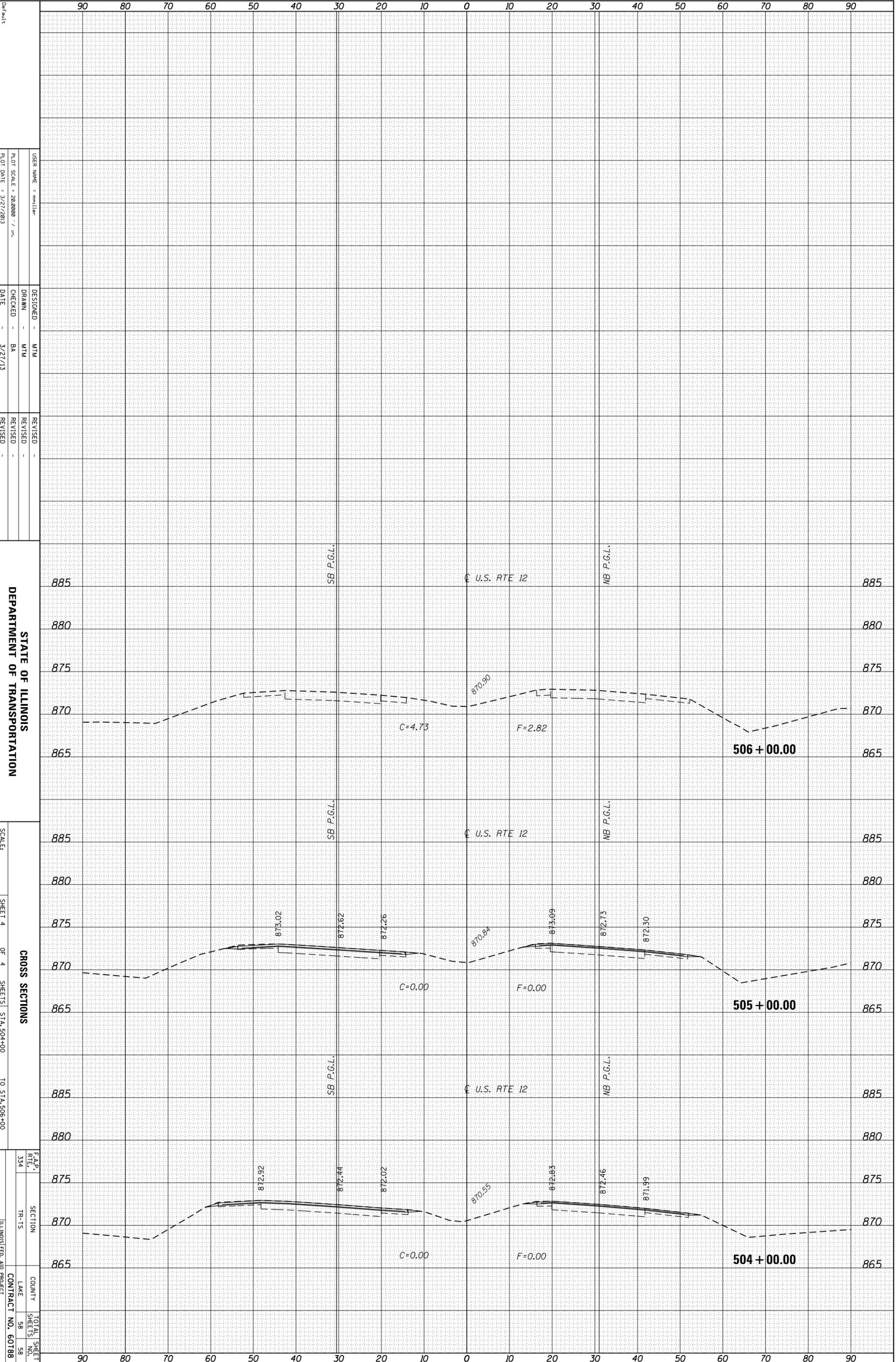
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NOTE BOOK	PLOTTED _____		
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NOTE BOOK	PLOTTED _____		
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS
SHEET 4 OF 4 SHEETS STA. 504+00 TO STA. 506+00

F.A.P. RTE. 334 SECTION TR-15 COUNTY LAKE CONTRACT NO. 60188 TOTAL SHEET NO. 58

USER NAME = mm11a
DRAWN - MTM
CHECKED - BA
DATE - 3/27/13

DESIGNED - MTM
REVISIONS -

REVISIONS -