

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2A)RS-10	LAKE	42	1
		ILLINOIS	CONTRACT NO. 60X23	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THE IMPROVEMENT IS LOCATED IN THE VILLAGES OF LIBERTYVILLE AND VERNON HILLS

**PROPOSED  
HIGHWAY PLANS**

F.A.P. ROUTE 330: IL 21 (MILWAUKEE AVE.)  
CHURCH ST. TO IL 60 (TOWNLINE RD.)  
SECTION: (2&2A)RS-10  
RESURFACING, NEW MEDIAN

**TRAFFIC DATA**

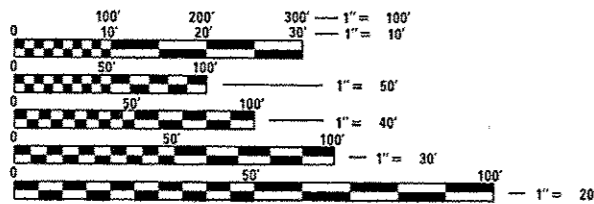
ADT (2013) = 28,700

POSTED SPEED LIMIT = 25-40 MPH

**LAKE COUNTY**

C-91-043-14

R. 10 E. R. 11 E.

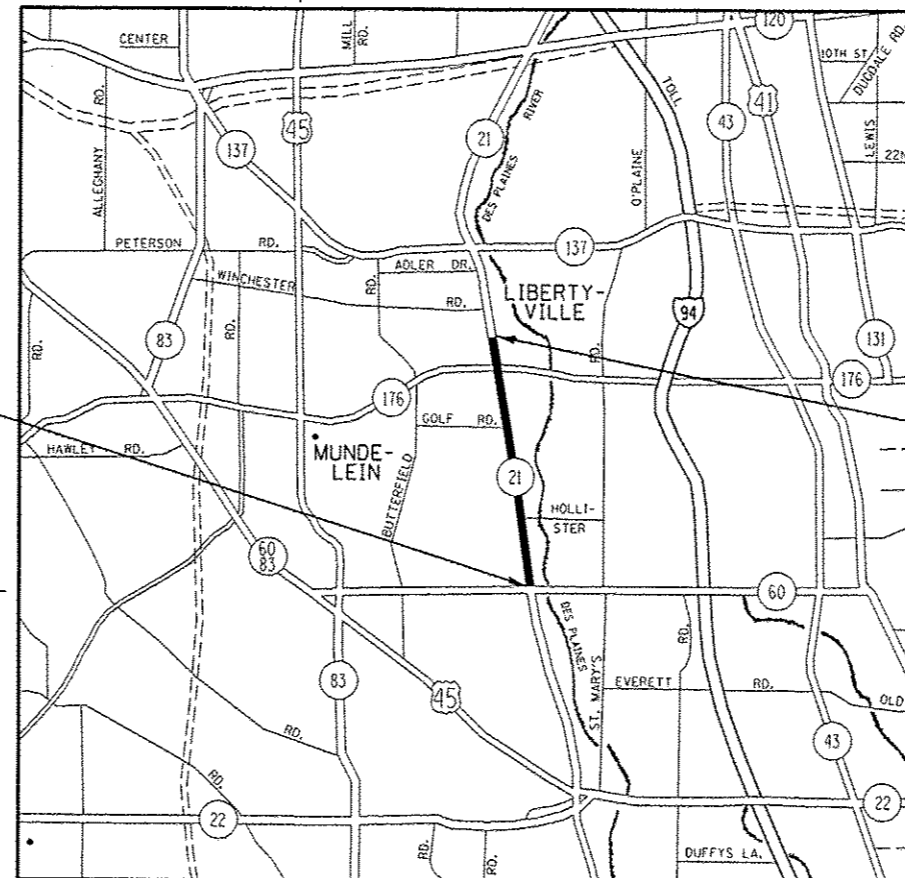


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

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

PROJECT ENGINEER J. ALAIN MIDY (847) 221-3056  
PROJECT MANAGER ISSAM RAYYAN (847) 705-4178

CONTRACT NO. 60X23



PROJECT BEGINS  
STA. 17 + 00

PROJECT ENDS  
STA. 186 + 18.4

T. 43 N. T. 44 N.

LIBERTYVILLE TOWNSHIP

GROSS & NET LENGTH = 16918.4 FT. = 3.204 MILES



LOCATION OF SECTION INDICATED THUS: -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED July 10 2014  
John Furman  
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

Aug 15 2014  
John D. Baranzoli, P.E.  
acting ENGINEER OF DESIGN AND ENVIRONMENT

Aug 15 2014  
Omer Osman, P.E.  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

**INDEX OF SHEETS**

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17-18.	IRRIGATION PLAN
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40.	TYPICAL SUPPLEMENTAL SIGNING AND PAVEMENT MARKING TREATMENT FOR RAILROAD CROSSINGS (TC-23)
41.	DRIVEWAY ENTRANCE SIGNING (TC-26)
42.	DISTRICT ONE - DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

**STATE STANDARDS**

STANDARD NO	DESCRIPTION
424001-07	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
424021-02	DEPRESSED CORNER FOR SIDEWALKS
442201-03	CLASS C AND D PATCHES
606001-05	CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER
701101-04	OFF-ROAD OPERATIONS, MULTILANE, 15' TO 24" FROM PAVEMENT EDGE
701427-02	LANE CLOSURE, MULTILANE, INTERMITTENT OR MOVING OPER. FOR SPEEDS ≤ 40 MPH
701601-09	URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NONTRAVERSABLE MEDIAN
701602-07	URBAN LANE CLOSURE, MULTILANE, 2W WITH BIDIRECTIONAL LEFT TURN LANE
701606-09	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
701701-09	URBAN LANE CLOSURE, MULTILANE INTERSECTION
701801-05	SIDEWALK CORNER OR CROSSWALK CLOSURE
701901-03	TRAFFIC CONTROL DEVICES

**LANDSCAPING GENERAL NOTES:**

- PLANTING MIXTURE -  
COMPOST FURNISH AND PLACE  
DELETE THE FIRST SENTENCE OF ARTICLE 211.01 DESCRIPTION AND SUBSTITUTE THE FOLLOWING: THIS WORK SHALL CONSIST OF FURNISHING, TRANSPORTING AND PLACING TOPSOIL, SPECIAL TYPES OF TOPSOIL, COMPOST, OR COMPOST/TOPSOIL BLEND TO THE DEPTH SPECIFIED IN AREAS AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.  
DELETE THE FIRST SENTENCE OF THE FIRST PARAGRAPH OF ARTICLE 211.04 PLACING TOPSOIL AND COMPOST AND SUBSTITUTE THE FOLLOWING: TOPSOIL, COMPOST, OR COMPOST/TOPSOIL BLEND SHALL NOT BE PLACED UNTIL THE AREA TO BE COVERED HAS BEEN SHAPED, TRIMMED AND FINISHED ACCORDING TO SECTION 212.  
DELETE THE SECOND SENTENCE OF THE SECOND PARAGRAPH OF ARTICLE 211.04 PLACING TOPSOIL AND COMPOST AND SUBSTITUTE THE FOLLOWING: AFTER VERIFICATION OF PROPER DEPTH, THE CONTRACTOR SHALL COMPLETELY INCORPORATE THE PLACED MATERIAL INTO THE EXISTING SURFACE TO A MINIMUM DEPTH OF 12 INCHES BELOW FINISHED GRADE BY TILLING.  
DELETE THE FIRST SENTENCE OF THE SECOND PARAGRAPH OF ARTICLE 211.04 PLACING TOPSOIL AND COMPOST AND SUBSTITUTE THE FOLLOWING: THE ENGINEER WILL VERIFY THAT THE PROPER TOPSOIL, COMPOST, OR COMPOST/TOPSOIL BLEND DEPTH HAS BEEN APPLIED.  
ADD THE FOLLOWING TO ARTICLE 211.06 CLEARING AREA AND DISPOSAL OF SURPLUS MATERIALS: PRIOR TO PLACING TOPSOIL, COMPOST OR COMPOST/TOPSOIL BLEND, THE CONTRACTOR SHALL REMOVE ALL LITTER (INCLUDING PLASTIC BAGS, BOTTLES, ROCKS, ETC.) AND PLANT DEBRIS.  
ADD THE FOLLOWING TO ARTICLE 211.08 BASIS OF PAYMENT: PAYMENT SHALL INCLUDE ALL COSTS FOR MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THE WORK SPECIFIED HEREIN, INCLUDING THE COST OF REMOVING AND DISPOSING OF ANY DEBRIS.
- PLANT MATERIAL SHALL BE NURSERY GROWN WITHIN A 150 MILE RADIUS OF VERNON HILLS AND BE EITHER BALLED AND BURLAPPED OR CONTAINER GROWN. SIZES INDICATED ON PLANT LIST REPRESENT MINIMUM REQUIREMENTS. THE REQUIREMENTS FOR MEASUREMENT, BRANCHING AND BALL SIZE SHALL CONFORM TO THE 'AMERICAN STANDARD FOR NURSERY STOCK' BY THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION. PLANTS SHALL BE INSTALLED PER IDOT SECTION 253 AND 254 SPECIFICATIONS. THE VILLAGE OF VERNON HILLS WILL REQUIRE COPIES OF SHIPPING TICKETS TO VERIFY PLANT ORIGIN, QUANTITY AND SIZE.
- PLANT SUBSTITUTIONS MUST BE APPROVED BY THE ENGINEER PRIOR TO DELIVERY OF MATERIALS TO THE SITE.

PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR SHORT TERM PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF SHORT TERM PAVEMENT MARKING.

**GENERAL NOTES:**

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

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGES OF LIBERTYVILLE AND VERNON HILLS.

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

ANY PAVEMENT MARKINGS AND RAISED REFLECTIVE PAVEMENT MARKERS OBLITERATED BY MILLING AND RESURFACING OPERATIONS ON SIDE STREETS AND ENTRANCES SHALL BE REPLACED AND PAID FOR IN KIND.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40MM) WHERE THE SPEED LIMIT IS 40 MPH (80KM/H) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 40 MPH (80 KM/H), WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES (75 MM) MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H) OR A NOTCHED LONGITUDINAL WEDGE IS USED.

BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD FOR FUTURE REFERENCE, ALL EXISTING PAVEMENT MARKING LINES AND REVISED 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.

THE RESIDENT ENGINEER SHALL CONTACT WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER AT 847-715-8419 A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

DRAINAGE ADJUSTMENT OR RECONSTRUCTION LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

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

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

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

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 ACCORDING TO ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.

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

ALL PAVEMENT PATCHING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

LOCATION OF COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT WILL BE DETERMINED IN THE FIELD BY THE ENGINEER.

THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM THE BUREAU OF CONSTRUCTION.

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

OVERNIGHT LANE CLOSURES SHALL NOT BE ALLOWED FOR REHABILITATION PROJECTS INVOLVING DAYTIME MILLING AND RESURFACING OPERATIONS AND CLASS D PATCHING UNLESS OTHER CONDITIONS WARRANT EXTENDED LANE CLOSURES AS DETERMINED AND APPROVED IN WRITING BY THE ENGINEER OR AS PROVIDED FOR IN THE CONTRACT SPECIFICATIONS.

SIDEWALK RAMPS MODIFICATIONS WITHIN THE LIMITS OF THE PROJECT SHALL CONFORM TO THE APPLICABLE HIGHWAY STANDARDS INCLUDED IN THE PLANS.

ALL PIPE UNDERDRAINS SHALL BE PLACED AT A DEPTH OF 30" BELOW THE TOP OF PROPOSED PAVEMENT OR AS DEEP AS POSSIBLE AND IN ACCORDANCE WITH CHECK SHEET #19 OF THE SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS. THE COST OF MAKING PIPE UNDERDRAIN CONNECTIONS TO DRAINAGE STRUCTURES SHALL BE INCLUDED IN THE COST OF PIPE UNDERDRAINS ITEM.

FILE NAME =	USER NAME = pyrzanovskrb	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
Default	10/22/14-ht-plan.dgn	DRAWN -	REVISED -					330	12&2A/RS-10	LAKE	42	2
	PLOT SCALE = 100.0000' / 1" =	CHECKED -	REVISED -		CONTRACT NO. 60X23			ILLINOIS FED. AID PROJECT				
	PLOT DATE = 8/5/2014	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	



URBAN

URBAN

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE 0005					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	100% STATE 0005	80% STATE 20% VILLAGE OF VERNON HILLS 0031			
*K0012990	PERENNIAL PLANTS, ORNAMENTAL TYPE, GALLON POT	UNIT	6.6		6.6			
*A2002484	TREE, CARPINUS BETULUS FASTIGIATA, (COLUMNAR EUROPEAN HORNBEAM), 2" CALIPER, BALLED AND BURLAPPED	EACH	6		6			
*C2007765	SHRUB, ROSA RUGOSA 'FRAU DOROTHEA HARTOPP' (FRAU DOROTHEA HASTRUP RUGOSA ROSE), CONTAINER GROWN, 5-GALLON	EACH	88		88			
XD327774	BACKFLOW PREVENTER (RPZ) 1.5 INCH	EACH	1		1			
*21101615	TOPSOIL FURNISH AND PLACE, 4"	SO YD	463	463				
*21101665	TOPSOIL FURNISH AND PLACE, 18"	SO YD	620		620			
*21101805	COMPOST FURNISH AND PLACE, 2"	SO YD	620		620			
*25200110	SODDING, SALT TOLERANT	SO YD	463	463				
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SO YD	1080	1080				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	196	196				
40600827	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	7162	7162				
40600895	CONSTRUCTING TEST STRIP	EACH	2	2				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	599	599				
40603153	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80	TON	12762	12762				
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX'D; N50	TON	13	13				
42001300	PROTECTIVE COAT	SO YD	347	347				
42300400	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 8 INCH	SO YD	93	93				

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE 0005					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	100% STATE 0005	80% STATE 20% VILLAGE OF VERNON HILLS 0031			
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SO FT	2278	2278				
42400800	DETECTABLE WARNINGS	SO FT	438	438				
44000159	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"	SO YD	130215	130215				
44000200	DRIVEWAY PAVEMENT REMOVAL	SO YD	203	203				
44000600	SIDEWALK REMOVAL	SO FT	2278	2278				
44201798	CLASS D PATCHES, TYPE I, 13 INCH	SO YD	300	300				
44201803	CLASS D PATCHES, TYPE II, 13 INCH	SO YD	2415	2415				
44201807	CLASS D PATCHES, TYPE III, 13 INCH	SO YD	683	683				
44201809	CLASS D PATCHES, TYPE IV, 13 INCH	SO YD	2245	2245				
56109210	WATER VALVES TO BE ADJUSTED	EACH	18	18				
56200700	WATER SERVICE LINE 2"	FOOT	20		20			
60109510	PIPE UNDERDRAINS, FABRIC LINED TRENCH 4"	FOOT	400		400			
60252800	CATCH BASINS TO BE RECONSTRUCTED	EACH	10	10				
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	120	120				
60406100	FRAMES AND LIDS, TYPE I, CLOSED LID	EACH	3	3				
60605000	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.24	FOOT	1620	1620				

FILE NAME :	USER NAME : gpr20000110	DESIGNED -	REVISED -
CLW_wor\p\gpr20000110\11240356587000224-11\plan.dgn		DRAWN -	REVISED -
PLOT SCALE = 1000000' / 1"		CHECKED -	REVISED -
PLOT DATE = 7/10/2014		DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

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

F.A.P. RTE. 330	SECTION (2&2A)RS-10	COUNTY LAKE	TOTAL SHEETS 42	SHEET NO. 3
CONTRACT NO. 60X23				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

Rev.

URBAN

URBAN

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE 0005					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	100% STATE 0005	20% STATE VILLAGE OF VERNON HILLS 0031			
60618300	CONCRETE MEDIAN SURFACE, 4 INCH	50 FT	10040	10040				
60620000	CONCRETE MEDIAN, TYPE SB-6.24	50 FT	912	912				
* 66900200	NON-SPECIAL WASTE DISPOSAL	CU YD	40	40				
* 66900450	SPECIAL WASTE PLANS AND REPORTS	L SUM	1	1				
* 66900530	SOIL DISPOSAL ANALYSIS	EACH	1	1				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6				
67100100	MOBILIZATION	L SUM	1	1				
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1				
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	1	1				
70102632	TRAFFIC CONTROL AND PROTECTION, STANDARD 701602	L SUM	1	1				
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1				
70102640	TRAFFIC CONTROL AND PROTECTION, STANDARD 701801	L SUM	1	1				
70300100	SHORT TERM PAVEMENT MARKING	FOOT	6156	6156				
70300210	TEMPORARY PAVEMENT MARKING LETTERS AND SYMBOLS	50 FT	2736	2736				
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	47101	47101				
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	12054	12054				

SUMMARY OF QUANTITIES			CONSTRUCTION TYPE CODE 0005					
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	100% STATE 0005	20% STATE VILLAGE OF VERNON HILLS 0031			
70300250	TEMPORARY PAVEMENT MARKING - LINE 8"	FOOT	2088	2088				
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	3083	3083				
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	1196	1196				
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	50 FT	28594	28594				
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	50 FT	2736	2736				
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	47101	47101				
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	12054	12054				
* 78000500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	FOOT	2088	2088				
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	3083	3083				
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	1196	1196				
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	1910	1910				
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	1820	1820				
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	6462	6462				
* 89502376	REBUILD EXISTING HANDHOLE	EACH	2	2				
* A2007016	TREE, QUERCUS ROBUR FASTIGIATA (FASTIGIATE ENGLISH OAK), 2" CALIPER, BALLED AND BURLAPPED	EACH	5		5			
* K0012993	PERENNIAL PLANTS, ORNAMENTAL TYPE, 3-GALLON POT	UNIT	3.76		3.76			

FILE NAME	USER NAME	DESIGNED	REVISED
		DRAWN	REVISED
		CHECKED	REVISED
		DATE	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

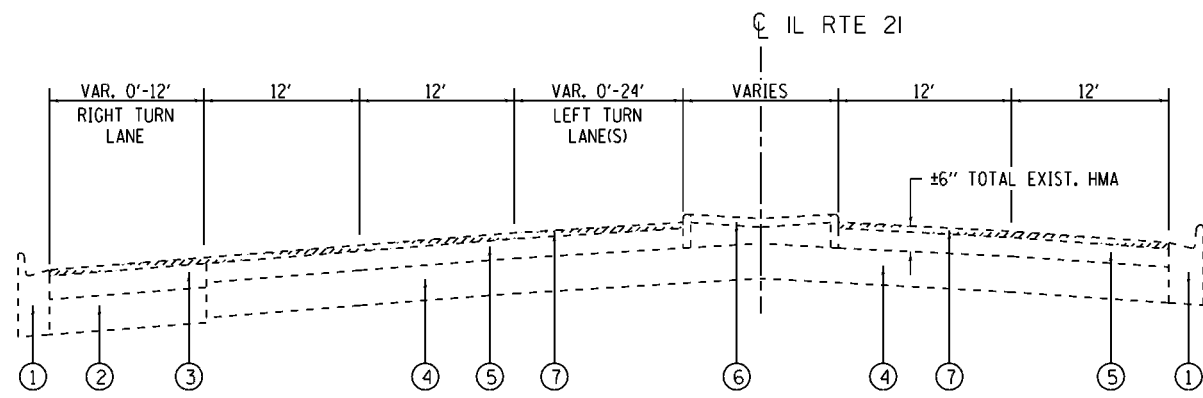
SCALE: SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2A)RS-10	LAKE	42	4
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X23	

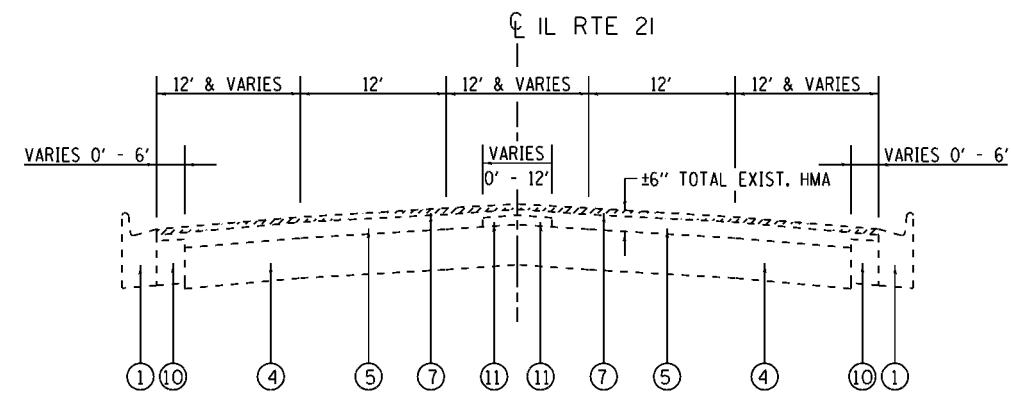
Rev.

\*Specialty Items

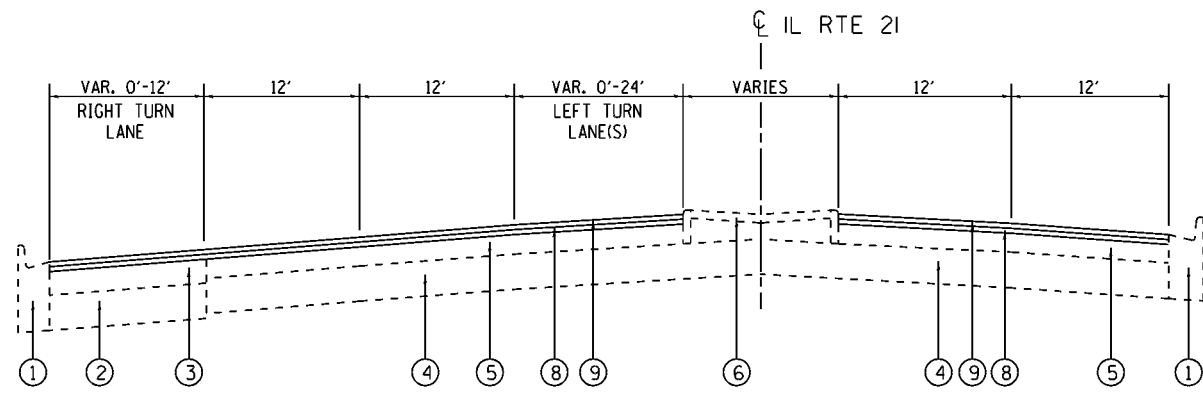




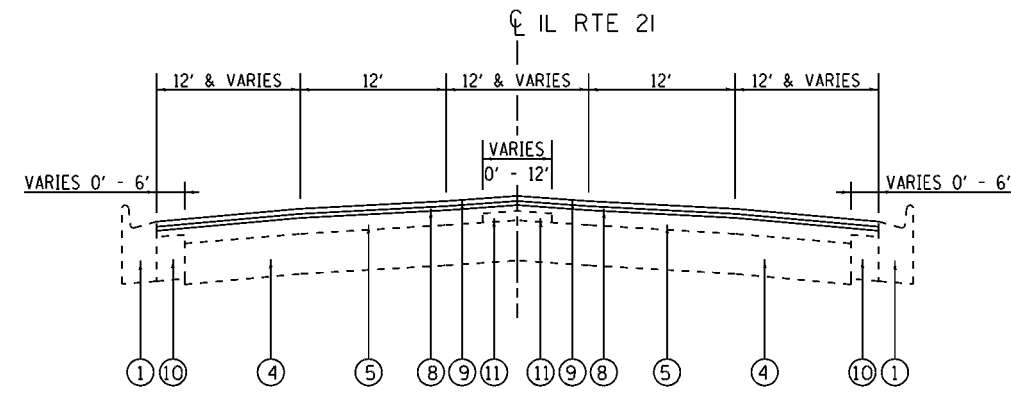
EXISTING TYPICAL SECTION IL 21  
STA. 17+00 TO STA. 36+32



EXISTING TYPICAL SECTION IL 21  
STA. 36+32 TO STA. 145+17



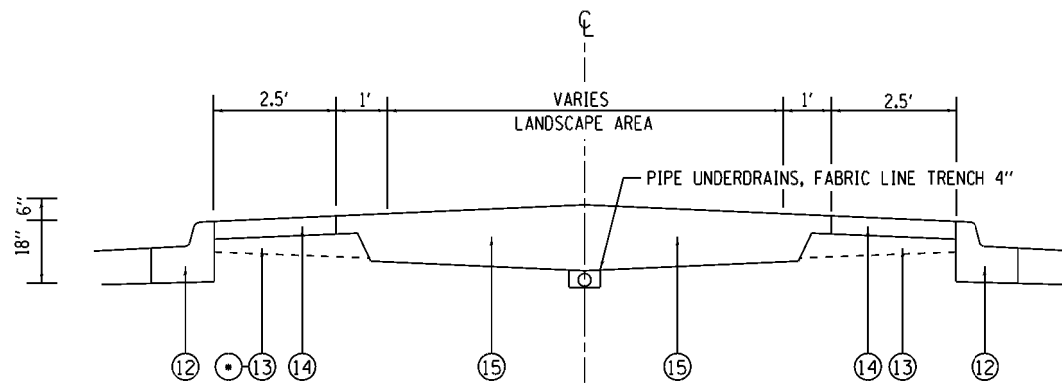
PROPOSED TYPICAL SECTION IL 21  
STA. 17+00 TO STA. 36+32



PROPOSED TYPICAL SECTION IL 21  
STA. 36+32 TO STA. 145+17

**LEGEND**

- ① EXIST. COMB. CURB & GUTTER
- ② EXIST. PCC PAVEMENT, ±7"
- ③ EXIST. HMA, ±7"
- ④ EXIST. P.C.C. PAVEMENT, ±8"
- ⑤ EXIST. HMA, ±6"
- ⑥ EXIST. MEDIAN
- ⑦ PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/2"
- ⑧ PROP. POLY. LEVELING BINDER (MM), IL-4.75, N50, 3/4"
- ⑨ PROP. POLY. HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80, 1 3/4"
- ⑩ EXIST. P.C.C. PAVEMENT, 8"
- ⑪ EXIST. MEDIAN
- ⑫ PROP. COMB. CURB AND GUTTER, TYPE B 6.24
- ⑬ PROP. SUB-BASE GRANULAR MATERIAL, TYPE B 4"
- ⑭ PROP. CONCRETE MEDIAN SURFACE 4"
- ⑮ PROP. TOPSOIL FURNISH AND PLACE, 18"



PROPOSED MEDIAN  
STA. 25+15 TO STA. 35+70

⑮ ANY ADDITIONAL SUB-BASE GRANULAR MATERIAL, TYPE B 4" REQUIRED SHALL BE INCLUDED IN THE COST OF SUB-BASE GRANULAR MATERIAL, TYPE B 4" AND SHALL NOT BE PAID FOR SEPERATELY.

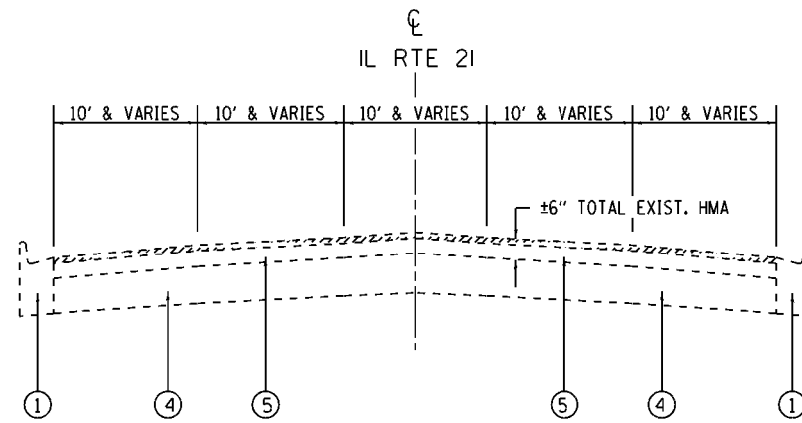
**NOTE:**  
**CONTRACTOR SHALL MILL BEFORE PATCHING**

**HMA MIXTURE REQUIREMENTS**

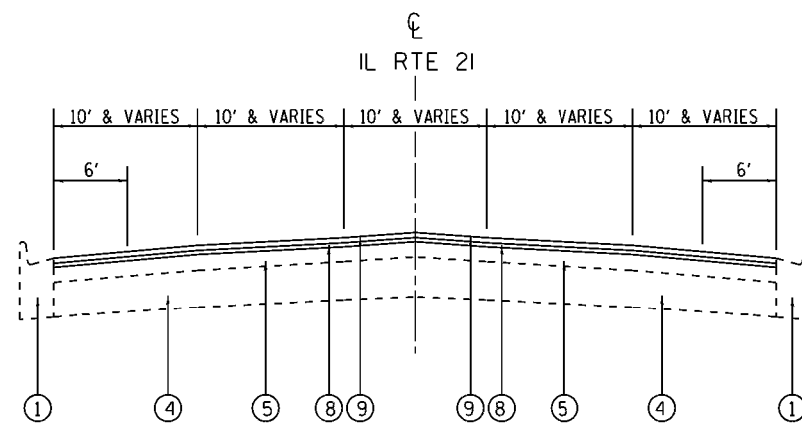
MIXTURE TYPE	AIR VOIDS @ NDES	QUALITY MANAGEMENT PROGRAM (QMP)
PAVEMENT RESURFACING		
POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE STONE MATRIX ASPHALT, N80 (IL 9.5 mm)	3.5% @ 80 GYR	PFP
POLYMERIZED LEVELING BINDER, (MM), IL 4.75, N50	3.5% @ 50 GYR	OCP
PAVEMENT PATCHING		
CLASS D PATCHES (HMA BINDER IL-19mm)	4% @ 70 GYR	OCP
DRIVEWAY		
HMA DRIVEWAY PAVEMENT, 8" (HMA BINDER IL-19mm)	4% @ 50 GYR	QC/OA
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	4% @ 50 GYR	QC/OA
QMP DESIGNATION: QUALITY CONTROL/ QUALITY ASSURANCE (QC/OA); QUALITY CONTROL FOR PERFORMANCE (QCP), PAY FOR PERFORMANCE (PFP)		

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SOYD/IN.

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 SPECIAL PROVISIONS. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.



EXISTING TYPICAL SECTION IL 21  
STA. 145+17 TO STA. 186+18.4



PROPOSED TYPICAL SECTION IL 21  
STA. 145+17 TO STA. 186+18.4

**LEGEND**

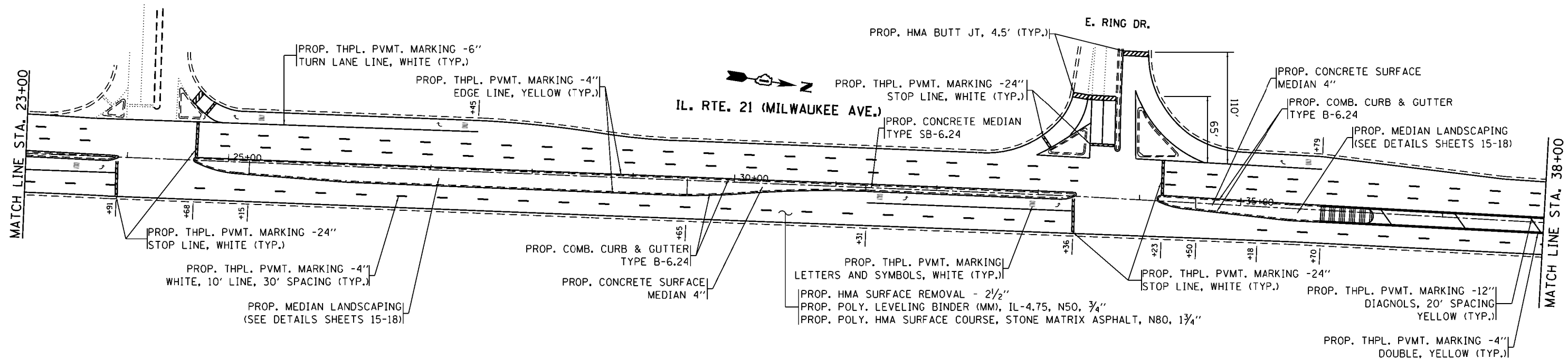
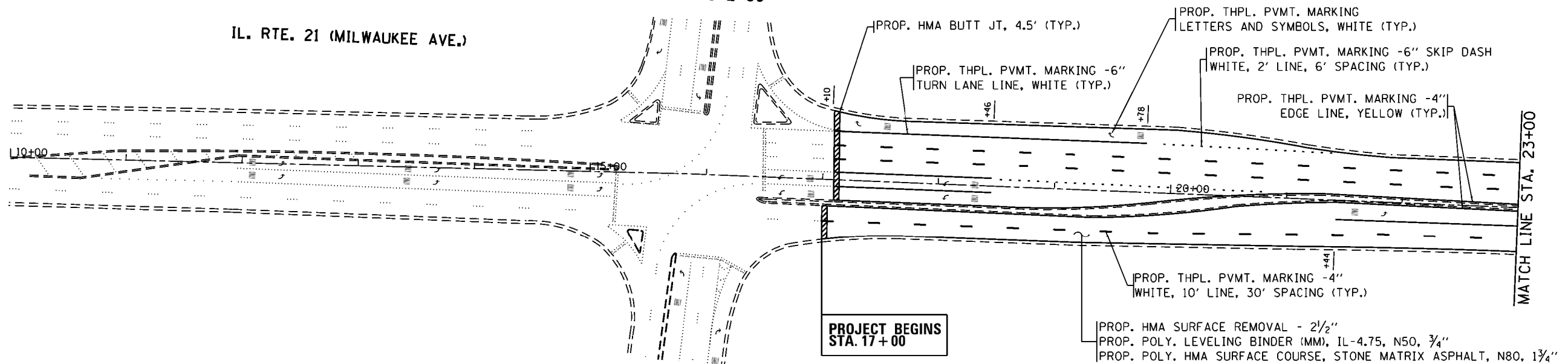
- ① EXIST. COMB. CURB & GUTTER
- ② EXIST. PCC PAVEMENT, ±7"
- ③ EXIST. HMA, ±7"
- ④ EXIST. P.C.C. PAVEMENT, ±8"
- ⑤ EXIST. HMA, ±6"
- ⑥ EXIST. MEDIAN
- ⑦ PROP. HOT-MIX ASPHALT SURFACE REMOVAL, 2½"
- ⑧ PROP. POLY. LEVELING BINDER (MM), IL-4.75, N50, ¾"
- ⑨ PROP. POLY. HOT-MIX ASPHALT SURFACE COURSE, STONE MATRIX ASPHALT, N80, 1¾"
- ⑩ EXIST. P.C.C. PAVEMENT, 8"
- ⑪ EXIST. MEDIAN
- ⑫ PROP. COMB. CURB AND GUTTER, TYPE B 6.24
- ⑬ PROP. SUB-BASE GRANULAR MATERIAL, TYPE B 4"
- ⑭ PROP. CONCRETE MEDIAN SURFACE 4"
- ⑮ PROP. TOPSOIL FURNISH AND PLACE, 18"

FILE NAME =	USER NAME = pyzzenowskirb	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>TYPICAL SECTIONS IL RTE. 21 (MILWAUKEE AVE.)</b>				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwr\work\pwidat\pyzzenowskirb\d035658\DI02214-sh-t-plen.dgn		DRAWN -	REVISED -		330	(2&2AIRS-10	LAKE	42	7				
	PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISED -		CONTRACT NO. 60X23								
Default	PLOT DATE = 8/20/2014	DATE -	REVISED -		SCALE:	SHEET	OF	SHEETS	STA.	TO	STA.	ILLINOIS FED. AID PROJECT	



IL. RTE. 21 (MILWAUKEE AVE.)

IL. ROUTE 60



FILE NAME =	USER NAME = pyzzenowski	DESIGNED -	REVISED -
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		CHECKED -	REVISED -
		DATE -	REVISED -

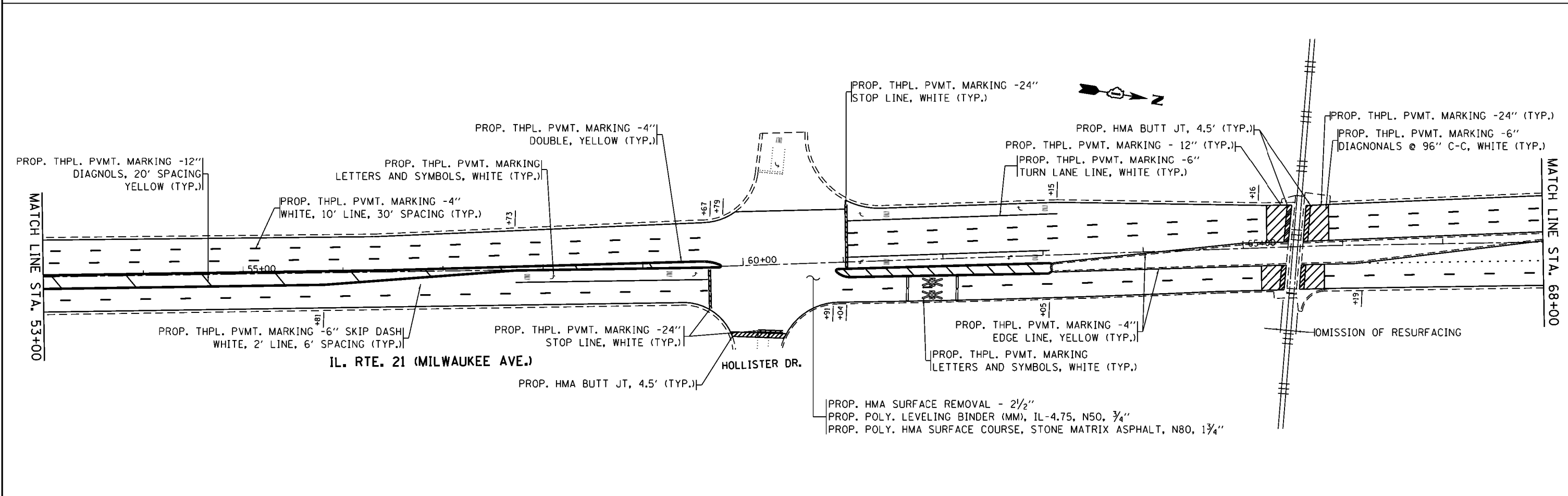
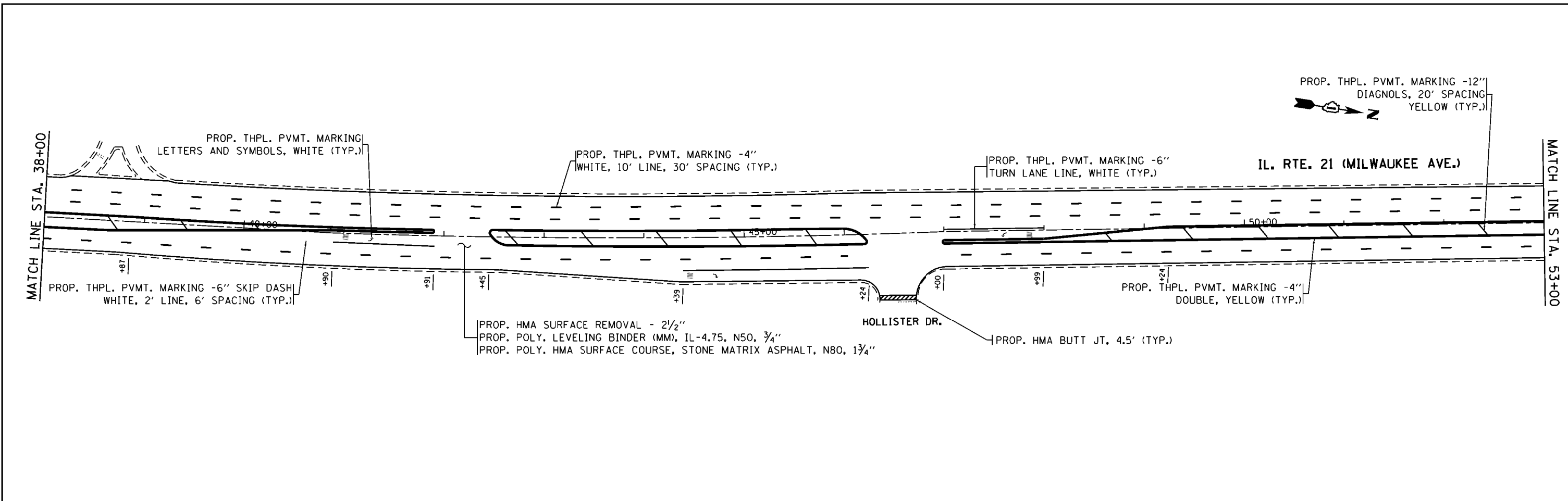
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROADWAY & PAVEMENT MARKING PLANS  
IL RTE 21 (MILWAUKEE AVE.) FROM IL RTE 60 TO CHURCH ST.

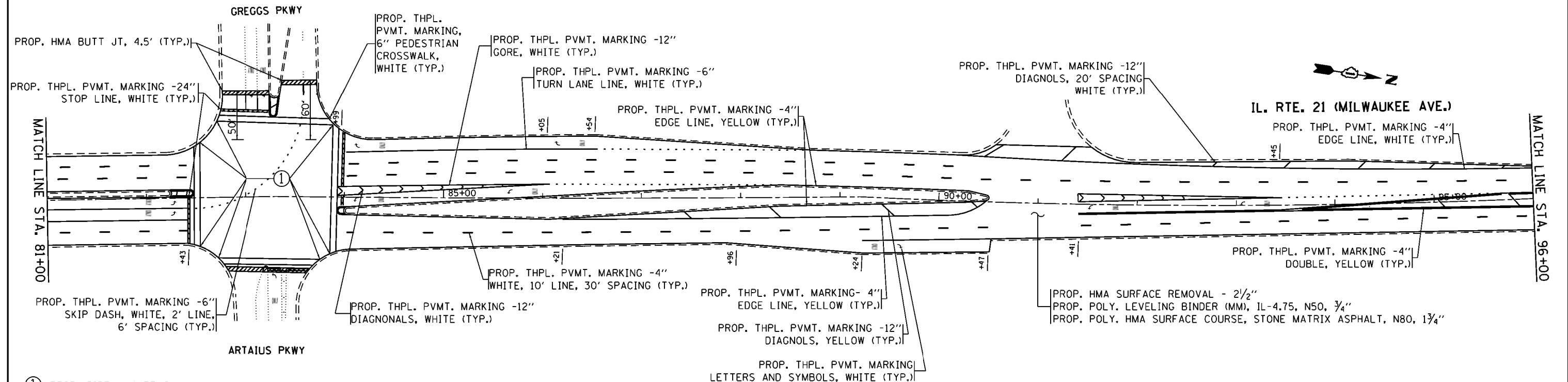
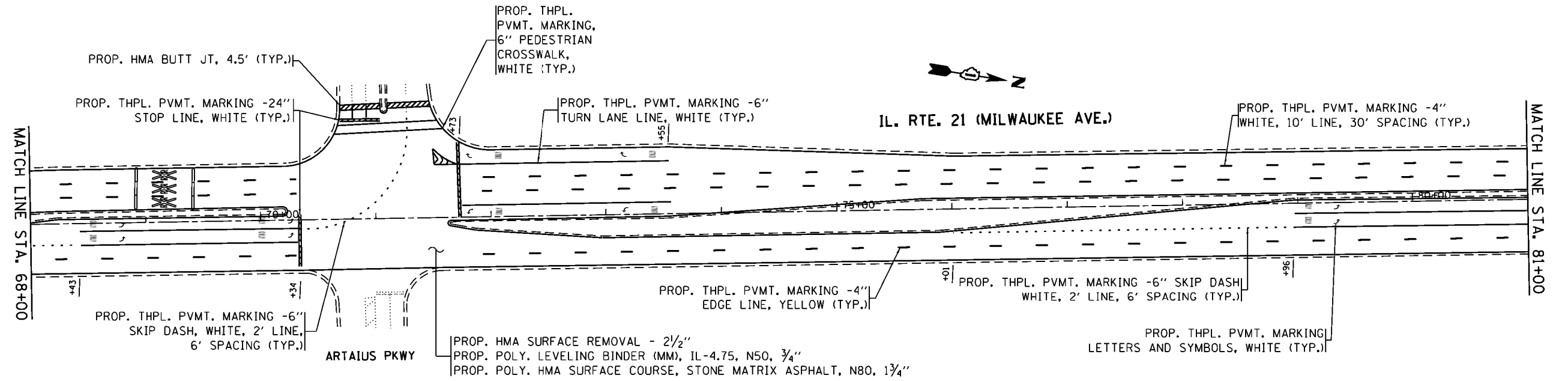
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2A)RS-10	LAKE	42	8
CONTRACT NO. 60X23				

SCALE: SHEET OF SHEETS STA. TO STA.

ILLINOIS FED. AID PROJECT



FILE NAME =	USER NAME = pyzzenowskirb	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY &amp; PAVEMENT MARKING PLANS</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwr\work\pwr\pwr\pyzzenowskirb\10035658\10102214-shr-plan.dgn		DRAWN -	REVISED -		<b>IL RTE 21 (MILWAUKEE AVE.) FROM IL RTE 60 TO CHURCH ST.</b>			330	(2&2AIRS-10)	LAKE	42	9
		CHECKED -	REVISED -		SCALE:      SHEET      OF      SHEETS      STA.      TO      STA.			<b>CONTRACT NO. 60X23</b>				
Default	PLOT DATE = 8/20/2014	DATE -	REVISED -		ILLINOIS FED. AID PROJECT							



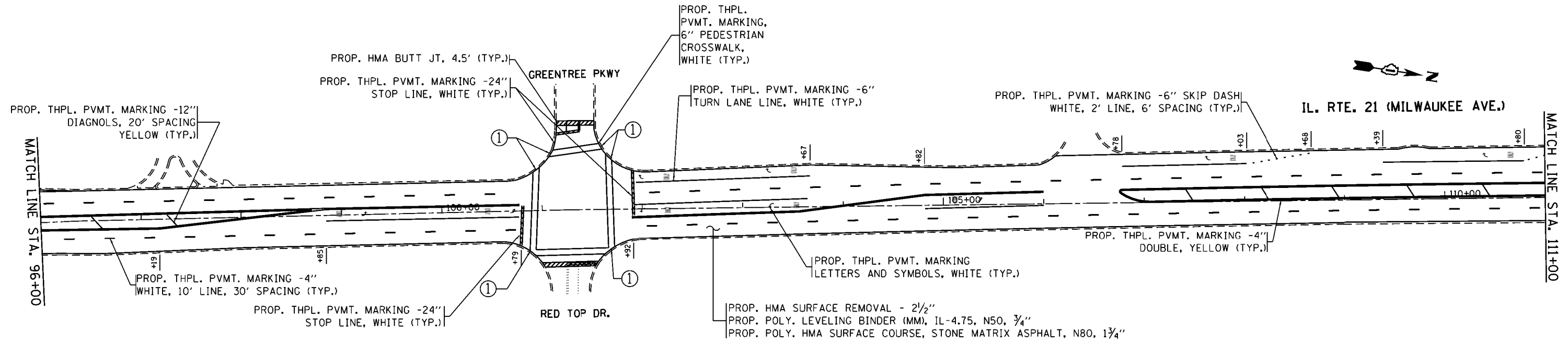
- ① PROP. SIDEWALK REMOVAL
- PROP. PCC SIDEWALK RAMP (SEE HWY STD. ON SHEET 2)
- PROP. DETECTABLE WARNINGS

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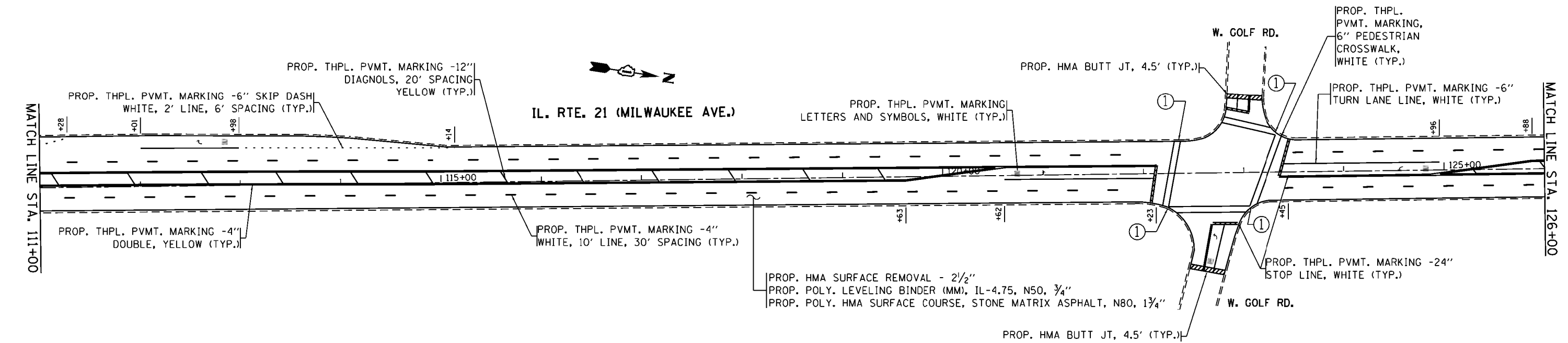
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ROADWAY & PAVEMENT MARKING PLANS  
IL RTE 21 (MILWAUKEE AVE.) FROM IL RTE 60 TO CHURCH ST.**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2A)RS-10	LAKE	42	10
CONTRACT NO. 60X23				
ILLINOIS FED. AID PROJECT				

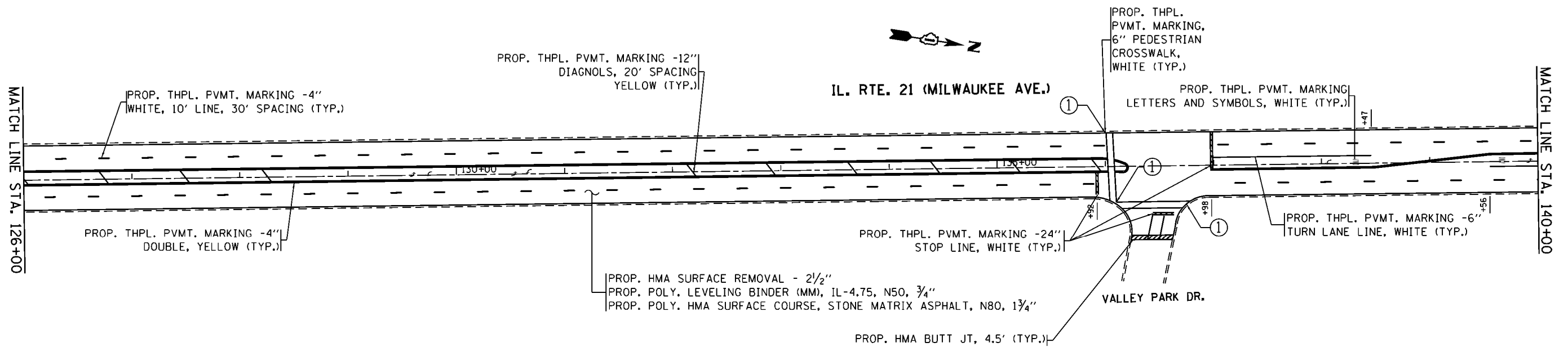


- ① PROP. SIDEWALK REMOVAL
- PROP. PCC SIDEWALK RAMP (SEE HWY STD. ON SHEET 2)
- PROP. DETECTABLE WARNINGS

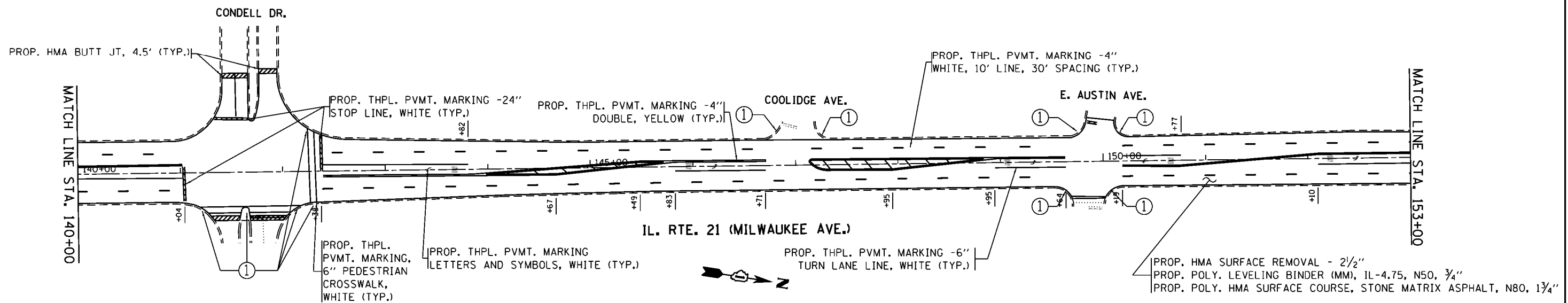


- ① PROP. SIDEWALK REMOVAL
- PROP. PCC SIDEWALK RAMP (SEE HWY STD. ON SHEET 2)
- PROP. DETECTABLE WARNINGS

FILE NAME = c:\pwwork\pwwork\pyrzenowski\10035658\10102214-shr-plan.dgn	USER NAME = pyrzenowski	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>ROADWAY &amp; PAVEMENT MARKING PLANS IL RTE 21 (MILWAUKEE AVE.) FROM IL RTE 60 TO CHURCH ST.</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 100.0000' / 1" / 1" / 1"	CHECKED -	REVISED -					330	(2&2AIRS-10)	LAKE	42	11
Default	PLOT DATE = 8/20/2014	DATE -	REVISED -	SCALE: SHEET OF SHEETS STA. TO STA.			CONTRACT NO. 60X23 ILLINOIS FED. AID PROJECT					



- ① PROP. SIDEWALK REMOVAL
- PROP. PCC SIDEWALK RAMP (SEE HWY STD. ON SHEET 2)
- PROP. DETECTABLE WARNINGS



- ① PROP. SIDEWALK REMOVAL
- PROP. PCC SIDEWALK RAMP (SEE HWY STD. ON SHEET 2)
- PROP. DETECTABLE WARNINGS

FILE NAME =	USER NAME = pyrozenowskirb	DESIGNED -	REVISED -
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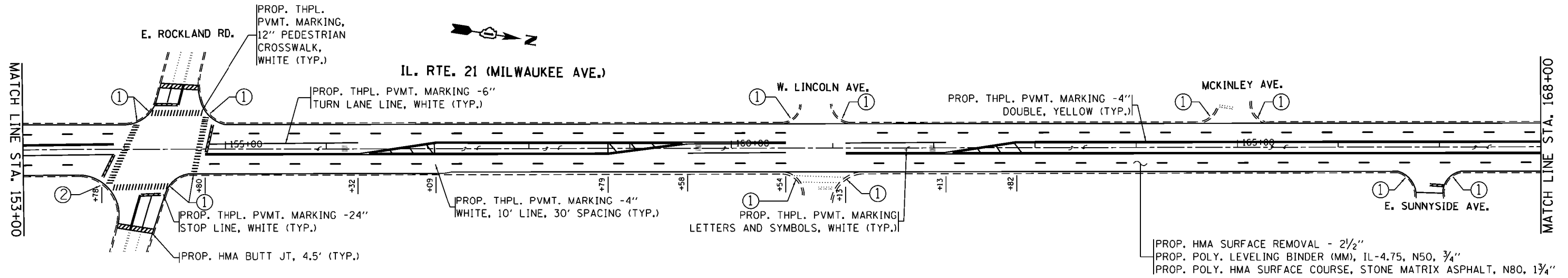
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ROADWAY & PAVEMENT MARKING PLANS  
IL RTE 21 (MILWAUKEE AVE.) FROM IL RTE 60 TO CHURCH ST.**

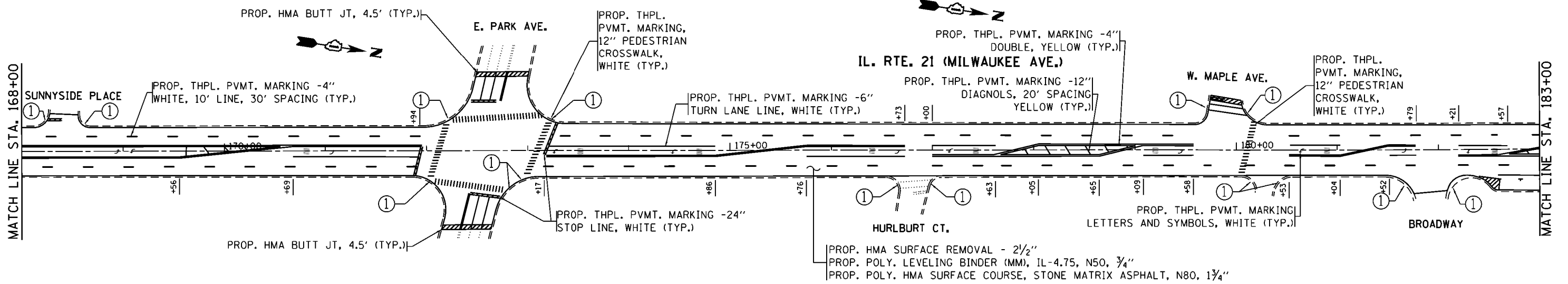
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330	(2&2A)RS-10	LAKE	42	12
CONTRACT NO. 60X23				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET OF SHEETS STA. TO STA.





- ① PROP. SIDEWALK REMOVAL  
PROP. PCC SIDEWALK RAMP (SEE HWY STD. ON SHEET 2)  
PROP. DETECTABLE WARNINGS
- ② PROP. HMA SURFACE REMOVAL  
PROP. PCC SIDEWALK RAMP (SEE HWY STD. ON SHEET 2)  
PROP. DETECTABLE WARNINGS



- ① PROP. SIDEWALK REMOVAL  
PROP. PCC SIDEWALK RAMP (SEE HWY STD. ON SHEET 2)  
PROP. DETECTABLE WARNINGS

FILE NAME =	USER NAME = pyzzenowskirb	DESIGNED -	REVISED -
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Default	PLOT SCALE = 100.0000' / 1" / 1" / 1"		
	PLOT DATE = 8/20/2014		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

ROADWAY & PAVEMENT MARKING PLANS			
IL RTE 21 (MILWAUKEE AVE.) FROM IL RTE 60 TO CHURCH ST.			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2A)RS-10	LAKE	42	13
CONTRACT NO. 60X23				
ILLINOIS FED. AID PROJECT				

PROP. THPL. PVMT. MARKING -4"  
DOUBLE, YELLOW (TYP.)

MATCH LINE STA. 183+00

PROP. THPL. PVMT. MARKING -4"  
WHITE, 10' LINE, 30' SPACING (TYP.)

PROP. HMA BUTT JT, 4.5' (TYP.)

PROJECT ENDS  
STA. 186+18.4

W. CHURCH STREET

W. COOK AVE.

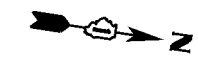
PROP. THPL. PVMT. MARKING -4"  
CHANNELIZING LINES, WHITE (TYP.)

IL. RTE. 21 (MILWAUKEE AVENUE)

E. CHURCH STREET

E. COOK AVE.

PROP. HMA SURFACE REMOVAL - 2 1/2"  
PROP. POLY. LEVELING BINDER (MM), IL-4.75, N50, 3/4"  
PROP. POLY. HMA SURFACE COURSE, STONE MATRIX ASPHALT, N80, 1 3/4"

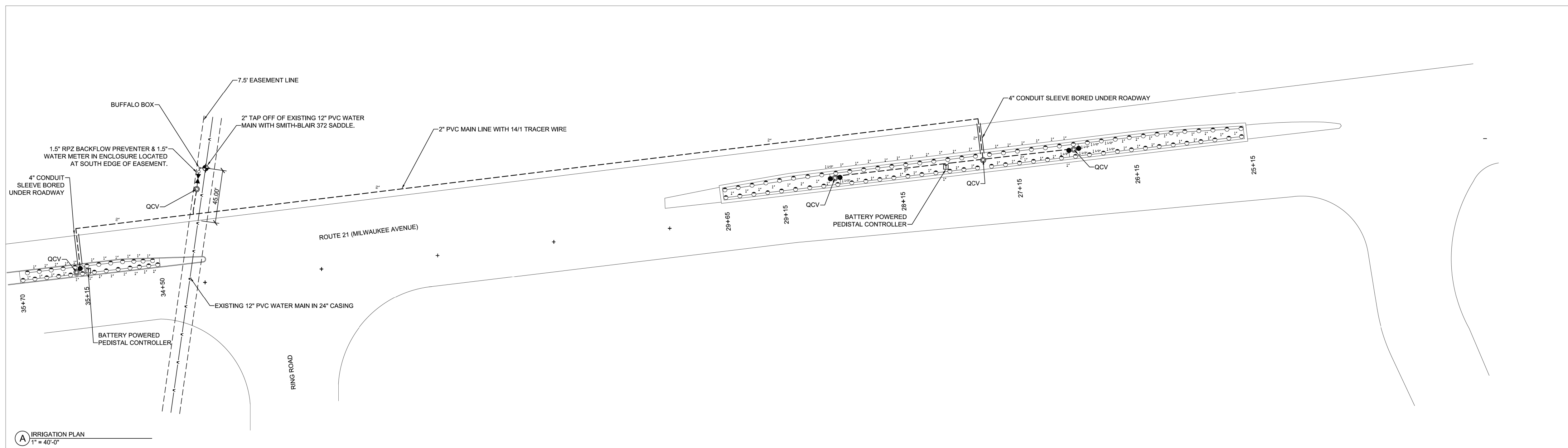


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Default	PLOT DATE = 8/20/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROADWAY & PAVEMENT MARKING PLANS  
IL RTE 21 (MILWAUKEE AVE.) FROM IL RTE 60 TO CHURCH ST.  
SCALE: SHEET OF SHEETS STA. TO STA.

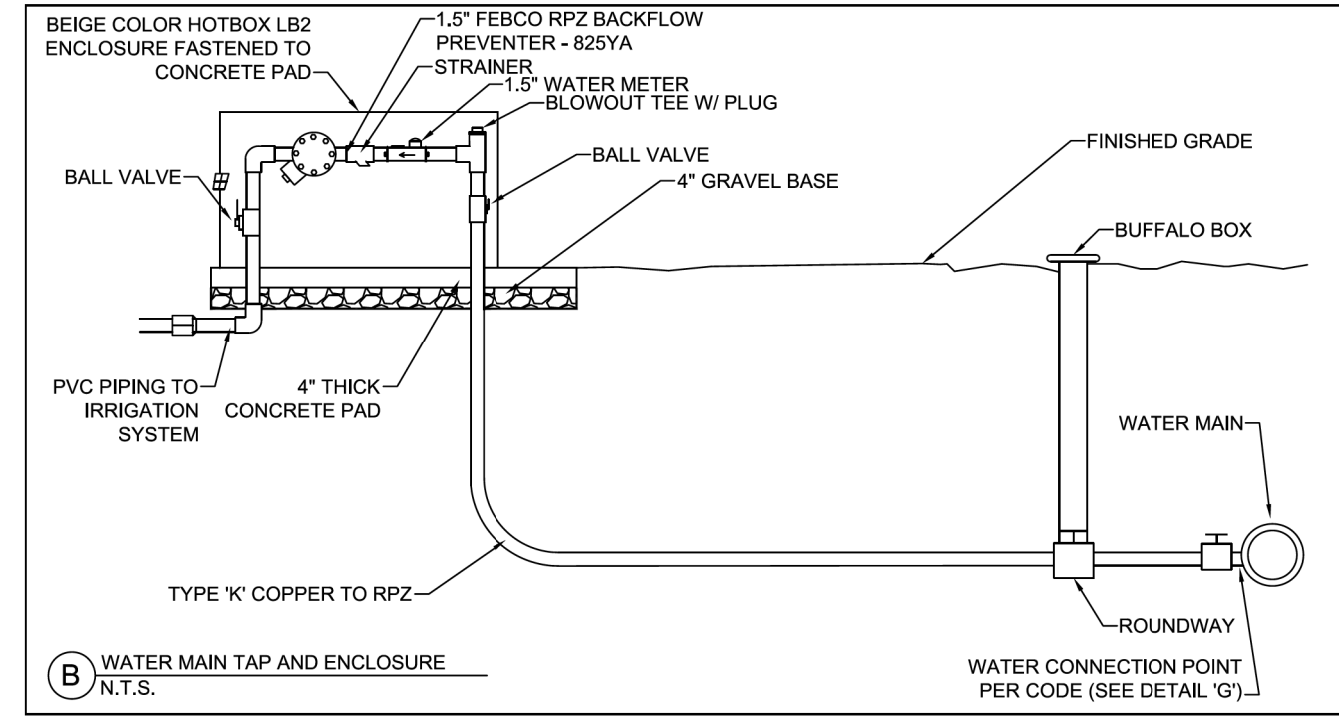
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330	(2&2A)RS-10	LAKE	42	14
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X23	



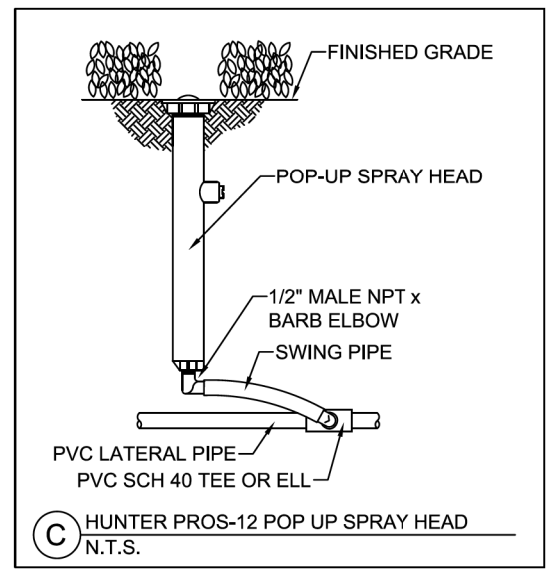
**A** IRRIGATION PLAN  
1" = 40'-0"

SUMMARY OF QUANTITIES	
ITEM	QUANTITY
2" TAP COMPLETE W/ SMITH BLAIR 372 SADDLE	1
B-BOX	1
2" TYPE K COPPER	20'
1.5" WATER METER	1
1.5" FEBCO 1625 BACKFLOW PREVENTER	1
HOTBOX LB2 ENCLOSURE	1
2" SDR 21 200# PVC PIPE	1050'
4" CONDUIT	50'
BUCKNER QCV100 QUICK COUPLING VALVE	5
1" SDR 21 200# PVC PIPE	1030'
1.5" SDR 21 200# PVC PIPE	100'
HUNTER ELECTRIC VALVE 1CV151G W/ DC SOLENOID	5
HUNTER PROS-12 SPRAY HEAD	101
HUNTER XC HYBRID CONTROLLER	2

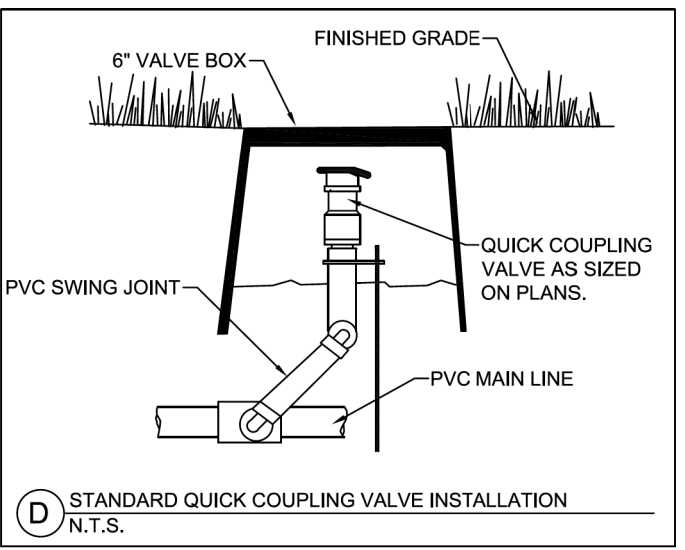
SPECIFIED MATERIALS	
HUNTER ELECTRIC VALVE 1CV151G W/ DC SOLENOID	●
HUNTER PROS-12 SPRAY HEAD (12")	○
HUNTER CONTROLLER XC HYBRID ON MOUNTING POLE	□
BUCKNER QUICK COUPLING VALVE - QCV100	⊙
PVC SDR 21 200# PIPE & SCH 40 FITTINGS	----



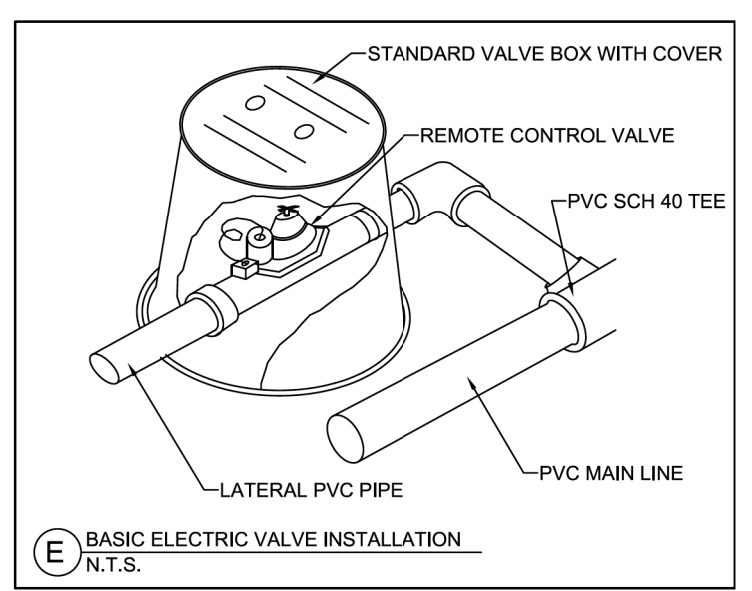
**B** WATER MAIN TAP AND ENCLOSURE  
N.T.S.



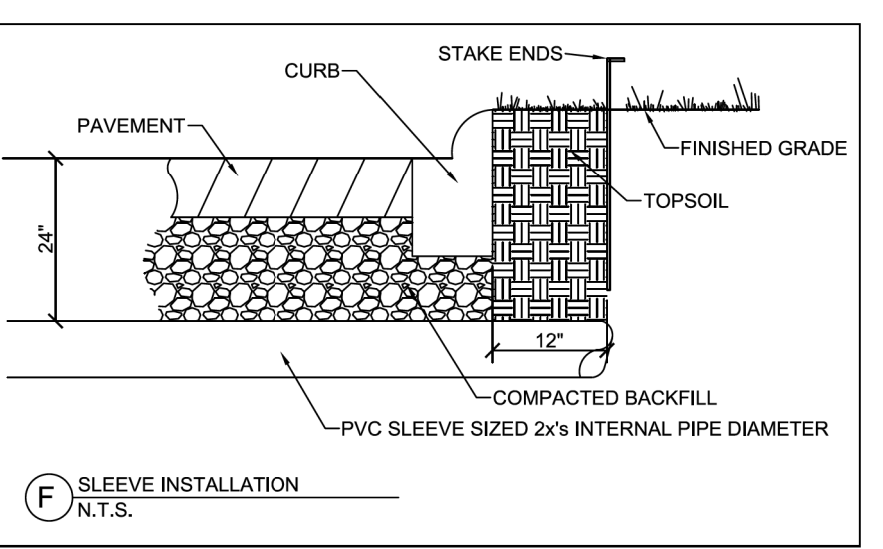
**C** HUNTER PROS-12 POP UP SPRAY HEAD  
N.T.S.



**D** STANDARD QUICK COUPLING VALVE INSTALLATION  
N.T.S.



**E** BASIC ELECTRIC VALVE INSTALLATION  
N.T.S.



**F** SLEEVE INSTALLATION  
N.T.S.

**HALLORAN & YAUCH, INC.**  
IRRIGATION SYSTEMS  
28322 BALLARD DR.  
LAKE FOREST, IL 60045  
847-281-9400  
FAX: 847-281-9780

PROJECT: IDOT VERNON HILLS ENHANCEMENT PROGRAM  
RT 21 MEDIAN ISLAND IRRIGATION

LEGEND	SYMBOL	QUANT.
Rotary Head	△	
Pop up Head	○	
Shrub Head	○	101
Electric Valve	●	5
QCV	⊙	5
Manual Drains	⊗	

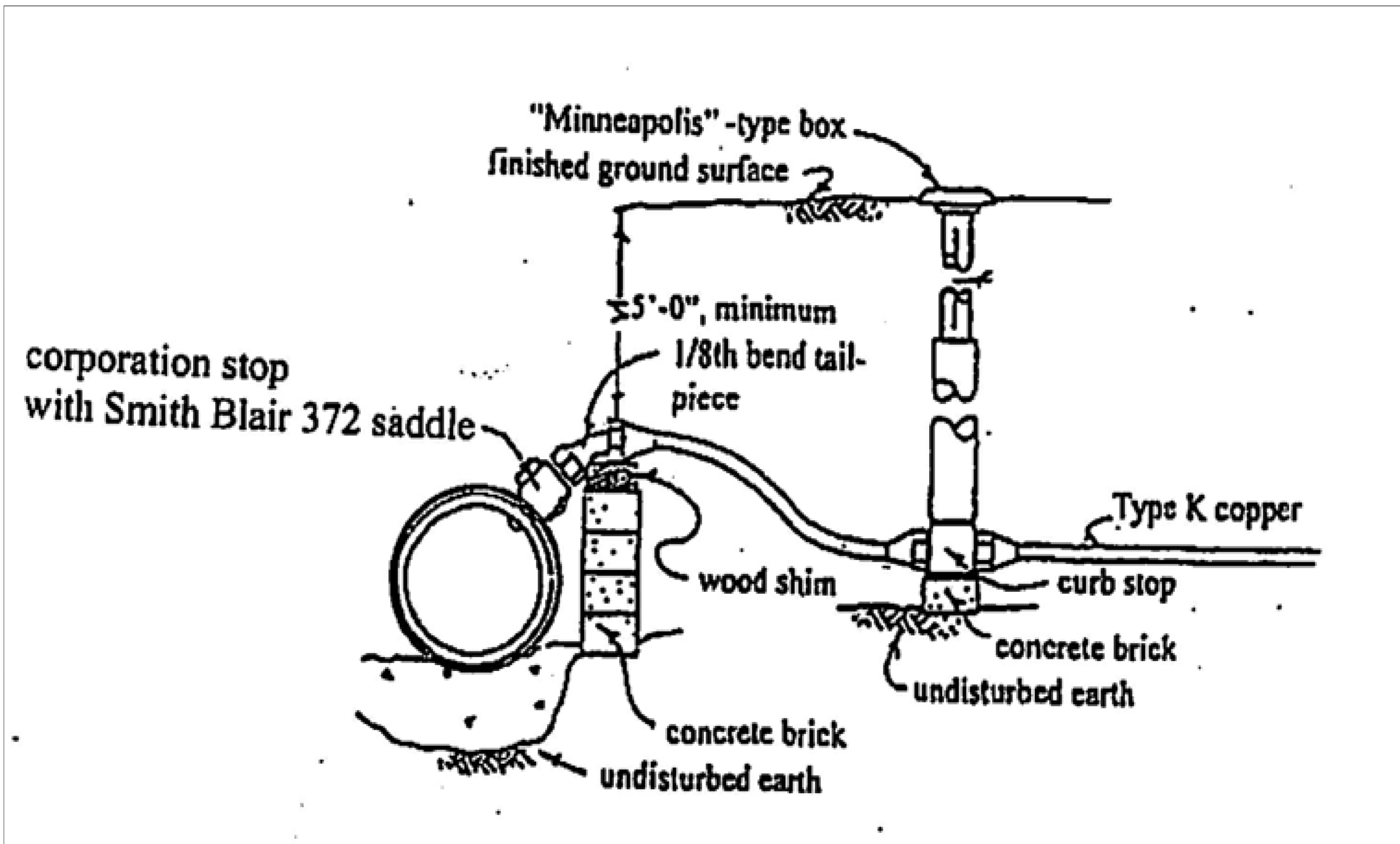
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Scale: 1" = 40'-0"  
Date: 02.21.14

FILE NAME =	USER NAME = pyzranawskirb	DESIGNED -	REVISED -
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Default	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/2/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>IRRIGATION PLAN IL RTE. 21 (MILWAUKEE AVE.)</b>			
SCALE:	SHEET 1	OF 2 SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)IRS-10	LAKE	42	15
CONTRACT NO. 60X23				ILLINOIS FED. AID PROJECT



**G** WATER TAP  
N.T.S.

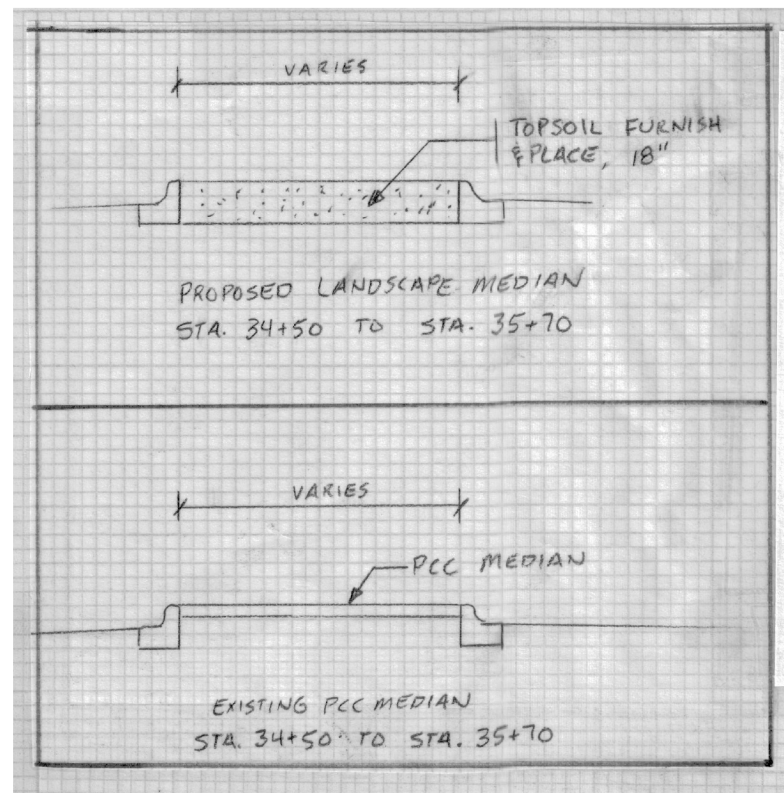
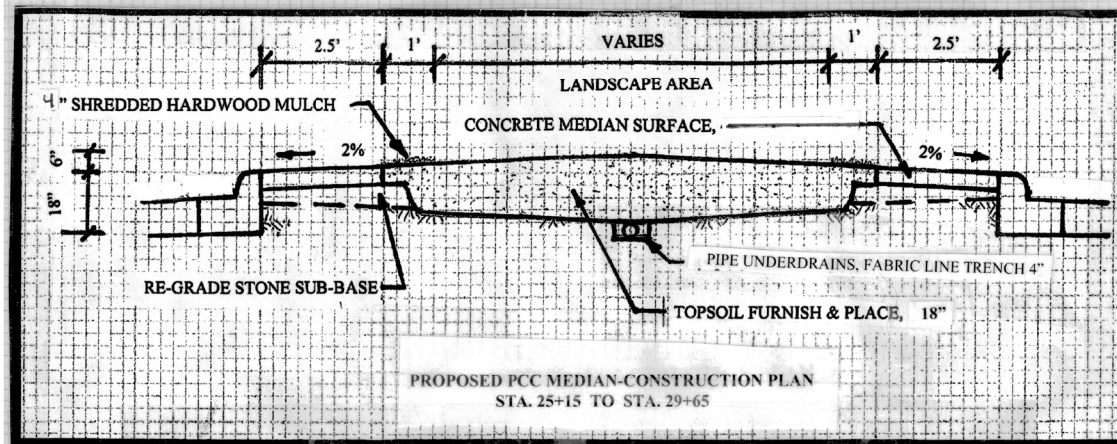
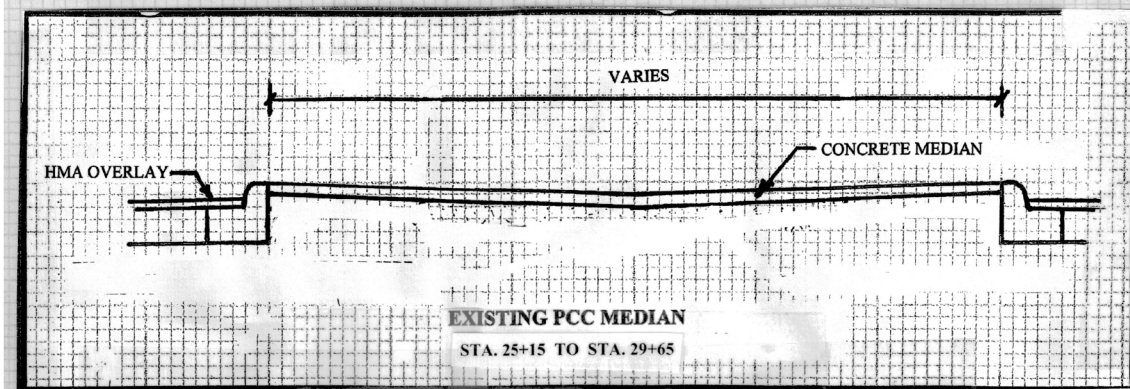
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Default	PLOT DATE = 7/2/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

IRRIGATION PLAN  
IL RTE. 21 (MILWAUKEE AVE.)

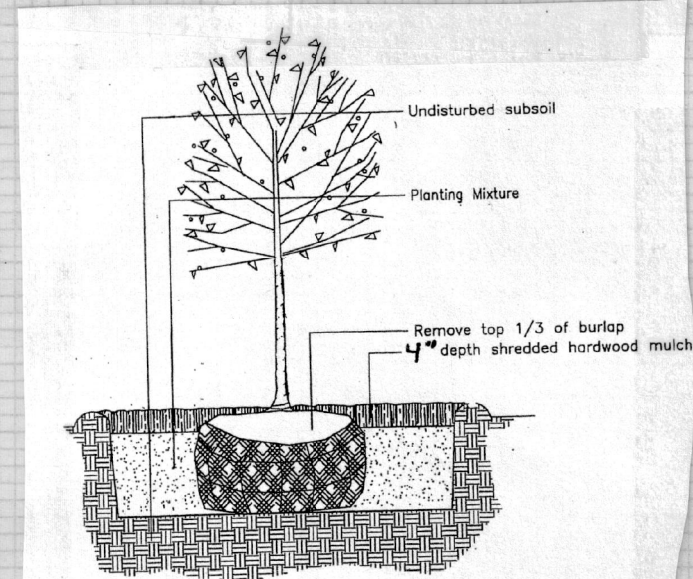
SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2A)RS-10	LAKE	42	16
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X23	

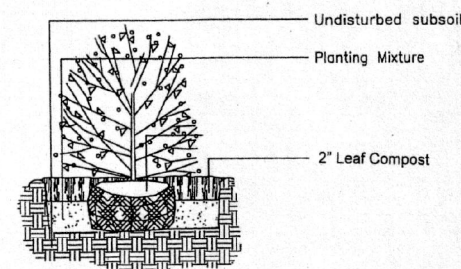


**Plant Material List**

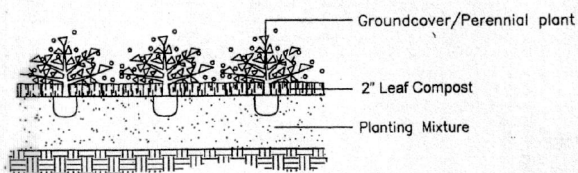
Key	Qty	Size	Botanical Name	Common Name
EO	5	2"	<i>Quercus robur 'Fastigiata'</i>	English Oak, Columnar
AE	6	2"	<i>Carpinus betulus 'Fastigiata'</i>	European Hornbeam, Columnar
RR	88	5 gal.	<i>Rosa rugosa 'Frau Dagmar Hastrup'</i>	Rugosa Rose 'Frau Dagmar Hastrup'
CA	376	3 gal.	<i>Sesleria autumnalis</i>	Autumn Moor Grass
AL	330	1 gal.	<i>Allium 'Summer Beauty'</i>	Summer Beauty Onion
VE	330	1 gal.	<i>Vernonia 'Giles Van Hees'</i>	Speedwell



Detail  
**Deciduous Tree Planting**



Detail  
**Shrub Planting**



Detail  
**Groundcover/Perennial Planting**

SUMMARY OF QUANTITIES - LANDSCAPE			
PAY CODE	DESCRIPTION	UNIT	TOTAL QUANTITY
60109510	P UNDER FAB LINE TR 4	FT	400
21101665	TOPSOIL FURNISH AND PLACE, 18"	SQ YD	620
21101805	COMPOST FURNISH AND PLACE 2"	SQ YD	620
A2007016	TREE, QUERCUS ROBUR FASTIGIATA, (COLUMNAR EUROPEAN HORNBEAM) 2" CALIPER, BALLED AND BURLAPPED	EA	5
	TREE, CARPINUS BETULUS FASTIGIATA, (COLUMNAR EUROPEAN HORNBEAM), 2" CALIPER, BALLED AND BURLAPPED	EA	6
	SHRUB, ROSA RUGOSA 'FRAU DAMAR HARTOPP' (FRAU DAMAR HASTRUP RUGOSA ROSE), CONTAINER GROWN, 5-GALLON	EA	88
K0012993	PERENNIAL PLANTS, ORNAMENTAL TYPE, 3-GALLON POT	UNIT	3.76
#1008487	PERENNIAL PLANTS, ORNAMENTAL HERBACEOUS TYPE, GALLON POT	UNIT	6.6
K0036120	MULCH PLACEMENT 4"	SQ YD	101

FILE NAME =	USER NAME = pyzzenowskirb	DESIGNED -	REVISED -
ci:\pwork\pwork\pyzzenowskirb\1035658\10102214-shr-plant.dgn		DRAWN -	REVISED -
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		DATE -	REVISED -

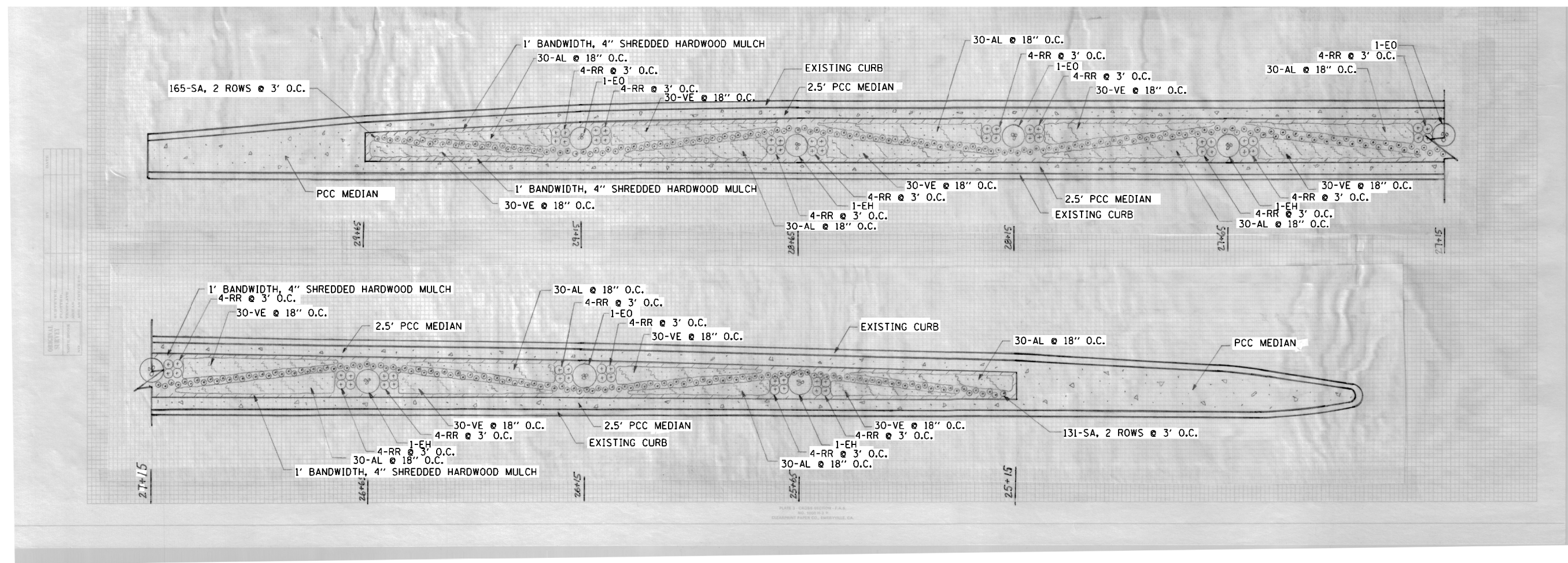
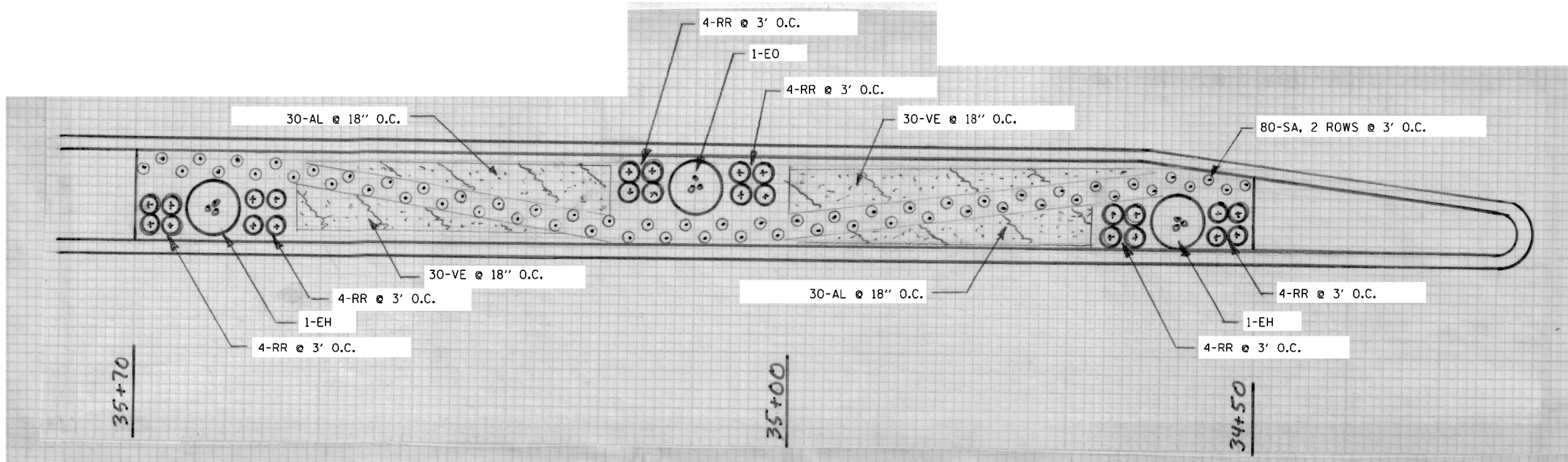
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

MEDIAN LANDSCAPE PLAN  
IL RTE. 21 (MILWAUKEE AVE.)

SCALE: SHEET 1 OF 2 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2A)RS-10	LAKE	42	17
CONTRACT NO. 60X23				
ILLINOIS FED. AID PROJECT				



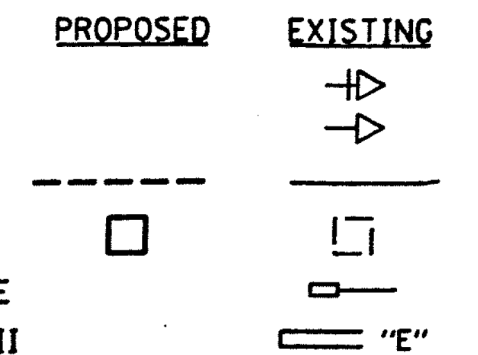


FILE NAME =	USER NAME = pyrozenowskirb	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>MEDIAN LANDSCAPE PLAN IL RTE. 21 (MILWAUKEE AVE.)</b>		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwr\work\pwidot\pyrozenowskirb\10102214-shr-plant.dgn	DRAWN -	REVISED -	330				(2&2AIRS-10)	LAKE	42	18	
PLOT SCALE = 100.0000' / 1" =	CHECKED -	REVISED -	CONTRACT NO. 60X23								
Default	DATE -	REVISED -	SCALE:		SHEET 2	OF 2 SHEETS	STA.	TO STA.	ILLINOIS FED. AID PROJECT		

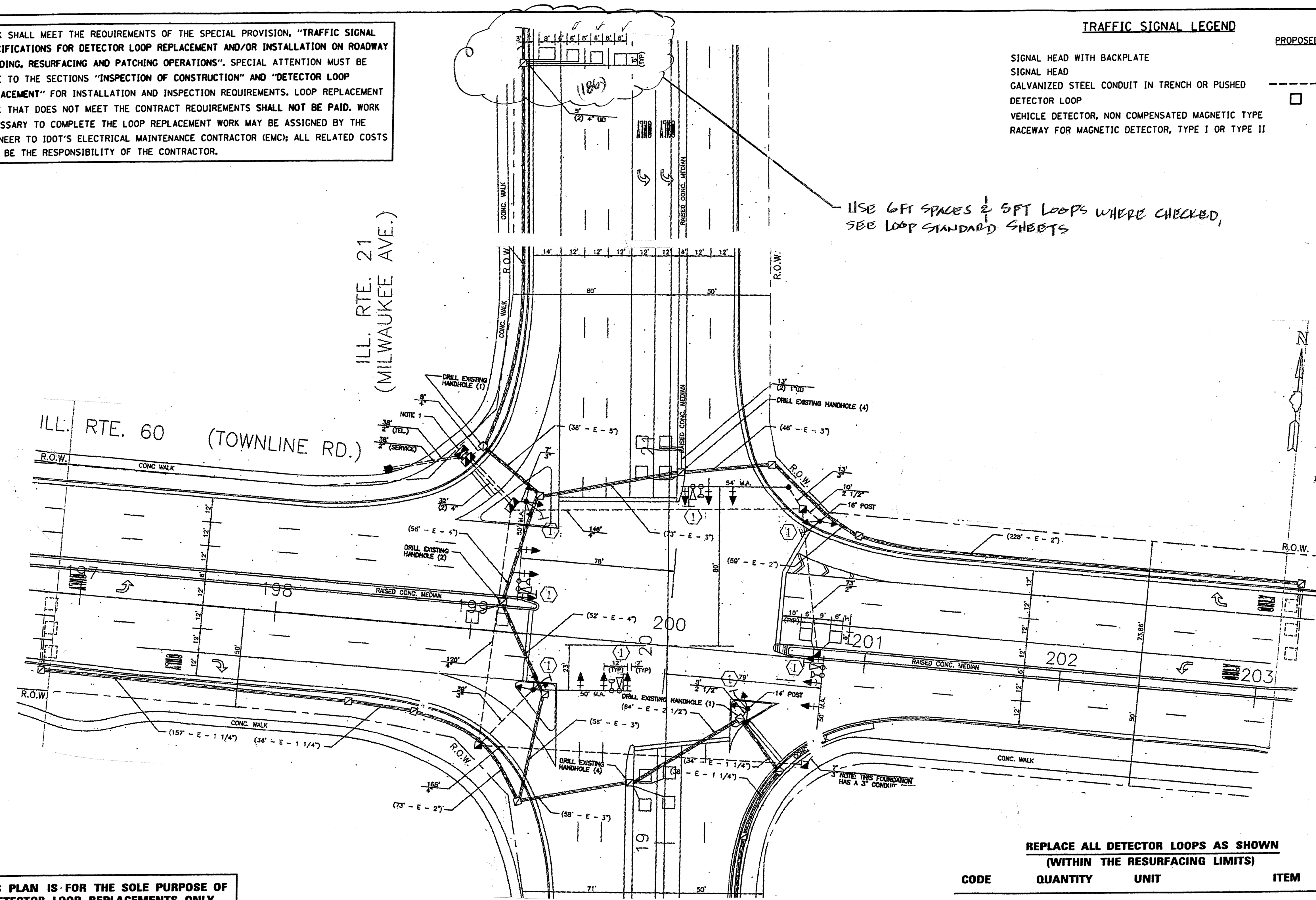
WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

SIGNAL HEAD WITH BACKPLATE  
 SIGNAL HEAD  
 GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED  
 DETECTOR LOOP  
 VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE  
 RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II



USE 6FT SPACES & 5FT LOOPS WHERE CHECKED, SEE LOOP STANDARD SHEETS



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

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

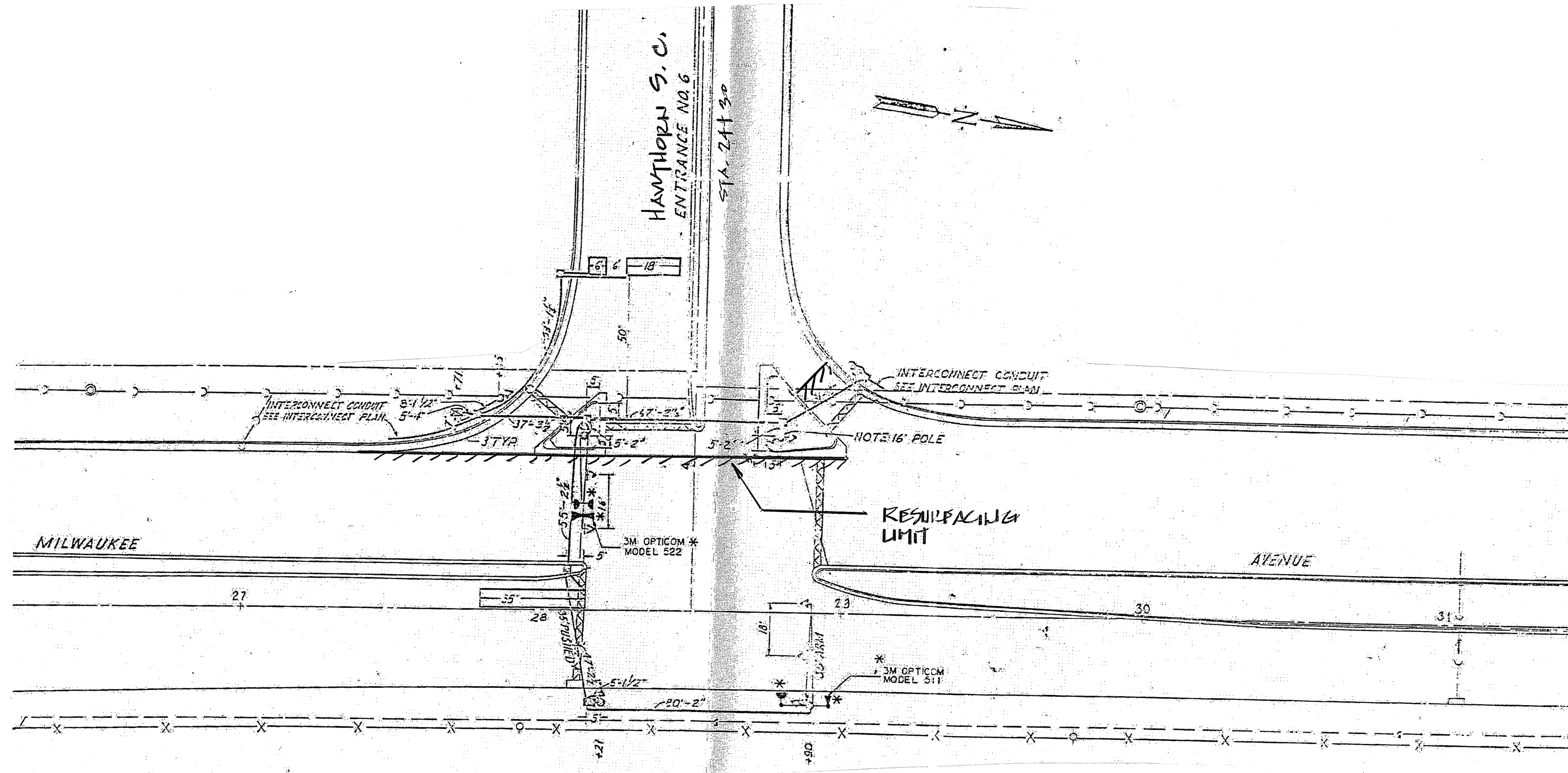
CODE	QUANTITY	UNIT	ITEM
88600600	186	FOOT	DETECTOR LOOP, REPLACEMENT



WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	<b>PROPOSED</b>	<b>EXISTING</b>
SIGNAL HEAD WITH BACKPLATE	⊕	⊕
SIGNAL HEAD	⊕	⊕
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED	---	---
DETECTOR LOOP	□	□
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	⊕	⊕
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	⊕	⊕



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

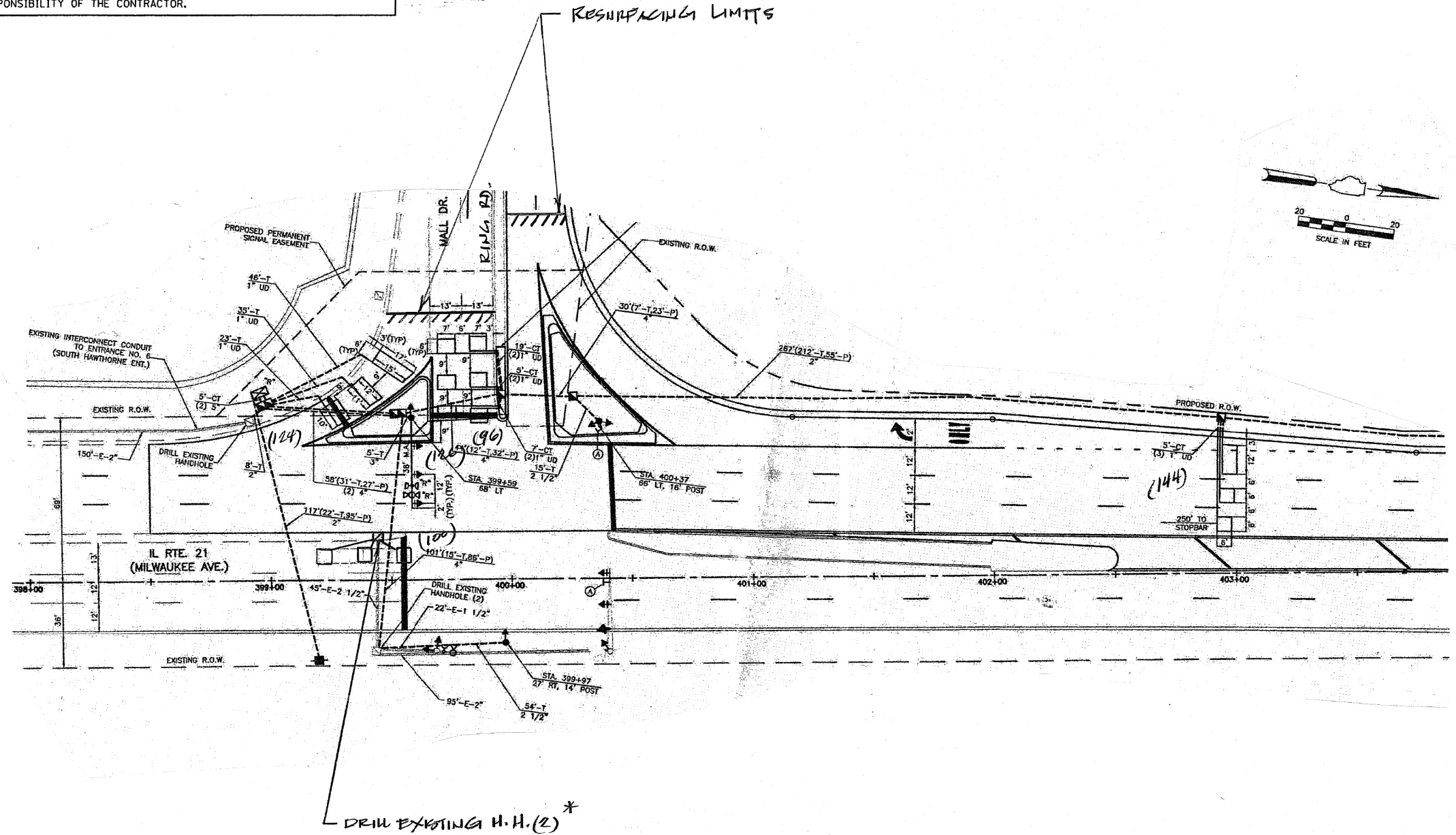
**REPLACE ALL DETECTOR LOOPS AS SHOWN  
(WITHIN THE RESURFACING LIMITS)**

CODE	QUANTITY	UNIT	ITEM
88600600	100	FOOT	DETECTOR LOOP, REPLACEMENT

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE	⊕	⊕
SIGNAL HEAD	⊕	⊕
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED	---	---
DETECTOR LOOP	□	□
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	⊕	⊕
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	⊕	⊕



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

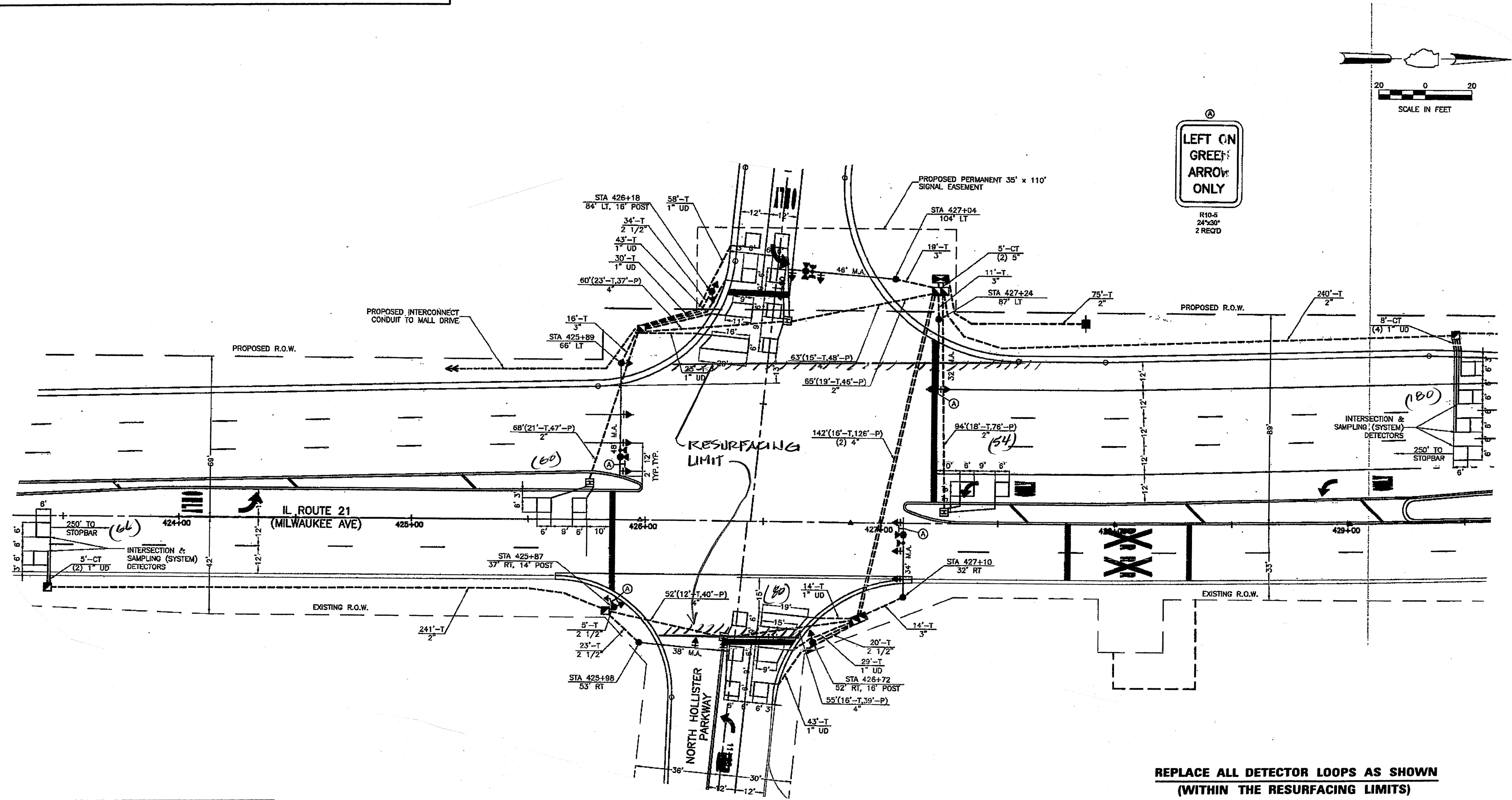
CODE	QUANTITY	UNIT	ITEM
88600600	590	FOOT	DETECTOR LOOP, REPLACEMENT

\* INCLUDED IN COST OF DETECTOR LOOP REPLACEMENT

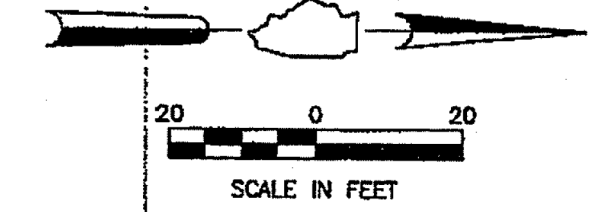
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SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



**LEFT ON GREEN ARROW ONLY**  
R10-S  
24"x30"  
2 REQD



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

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

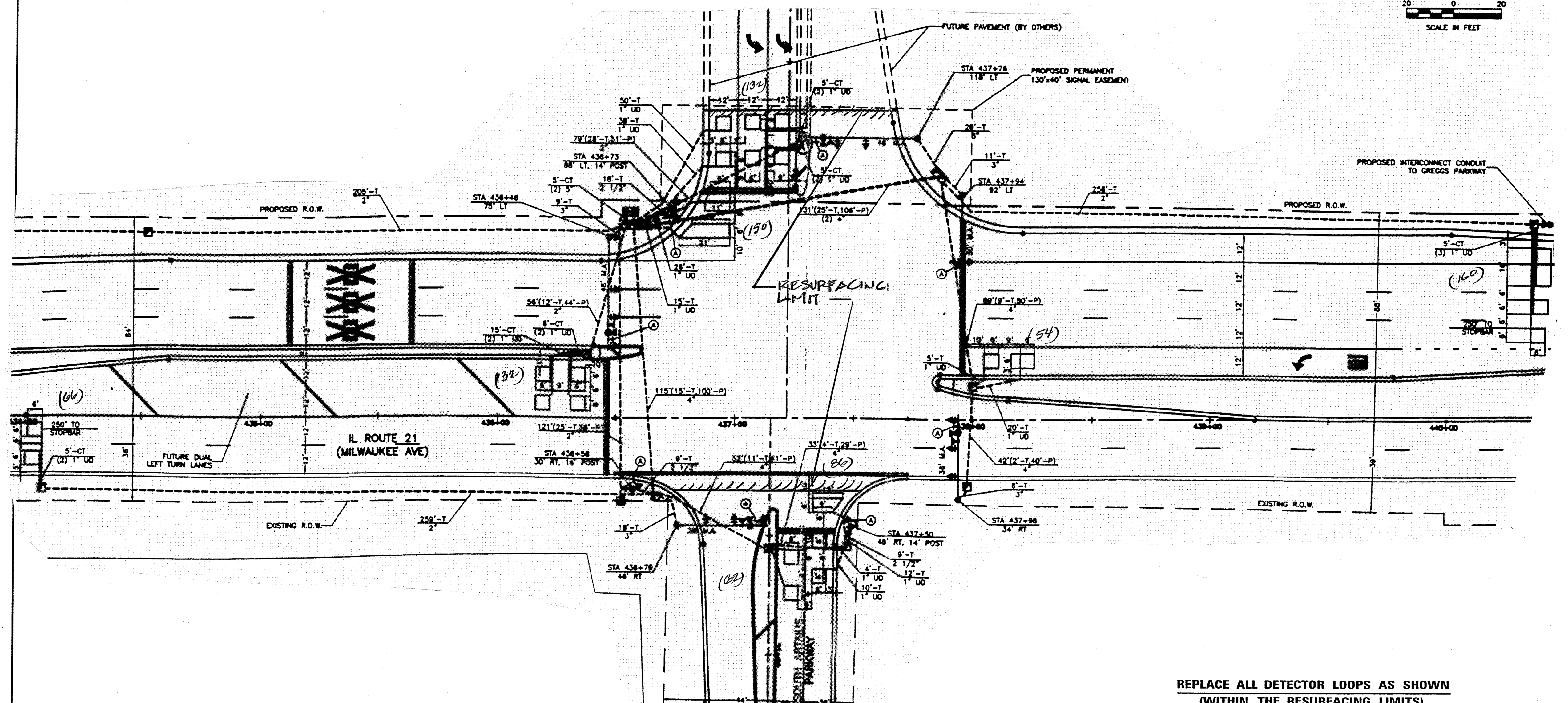
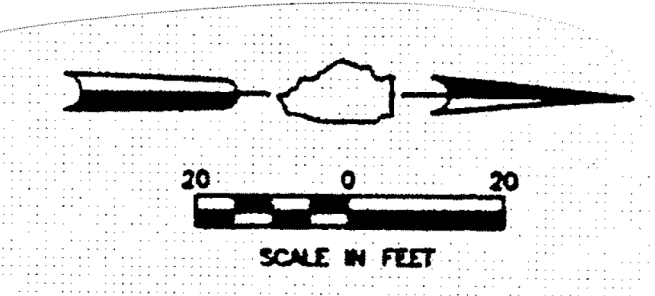
CODE	QUANTITY	UNIT	ITEM
88600600	440	FOOT	DETECTOR LOOP, REPLACEMENT



WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

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SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



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

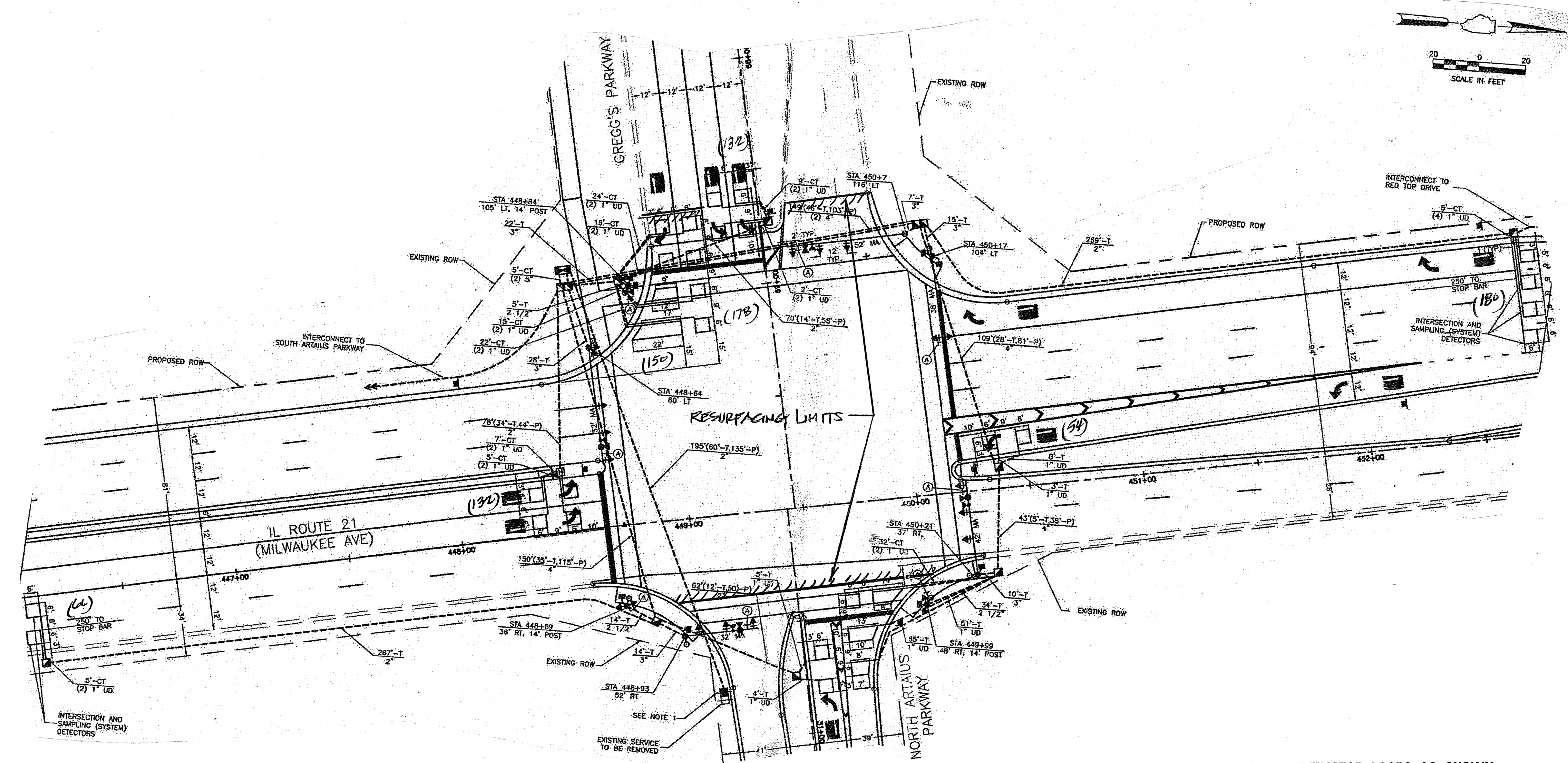
CODE	QUANTITY	UNIT	ITEM
88600600	842	FOOT	DETECTOR LOOP, REPLACEMENT



WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

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	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



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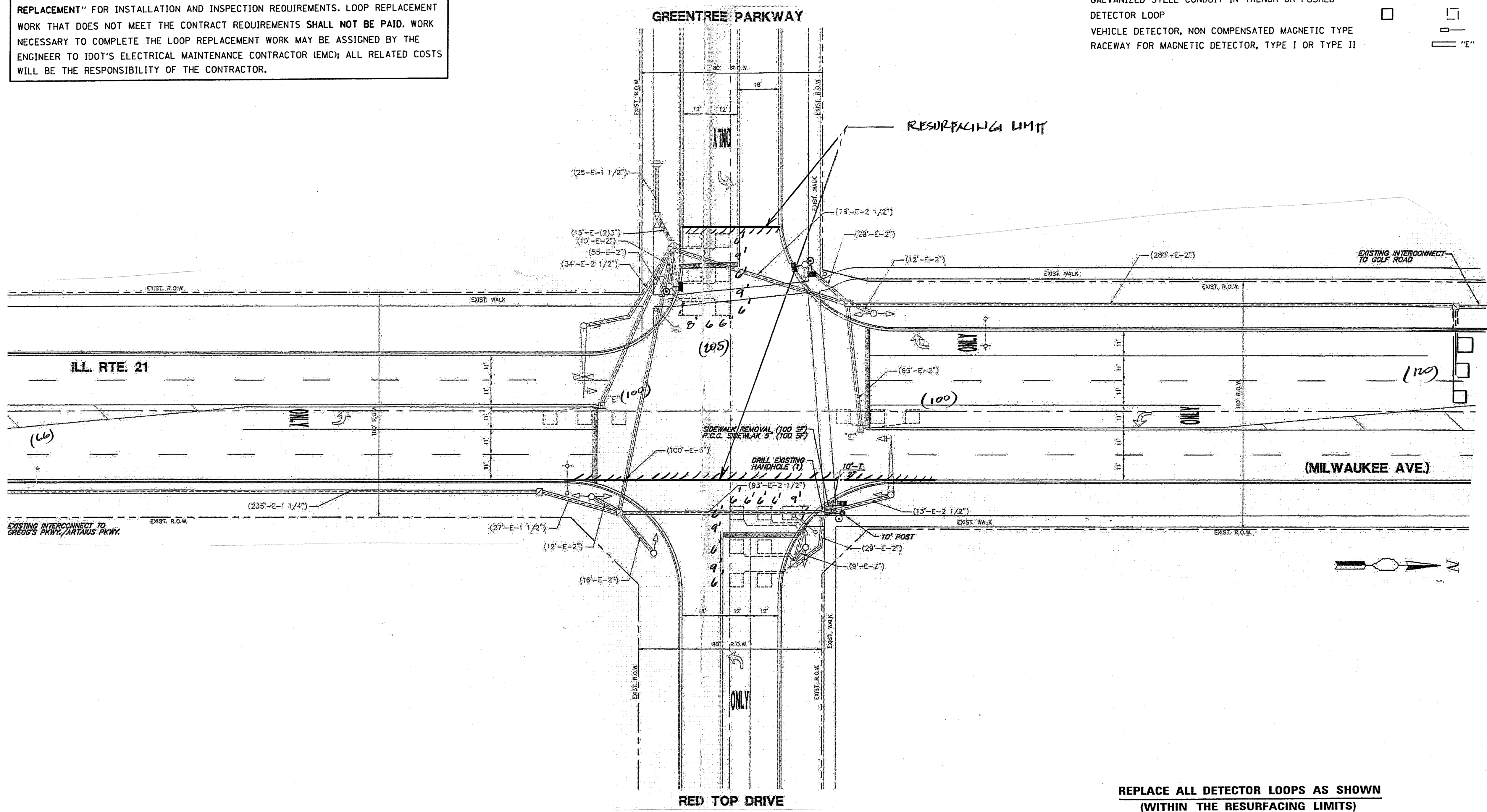
**REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)**

CODE	QUANTITY	UNIT	ITEM
88600600	760	FOOT	DETECTOR LOOP, REPLACEMENT

WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE	—	—
SIGNAL HEAD	—	—
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED	—	—
DETECTOR LOOP	□	□
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	—	—
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	—	—



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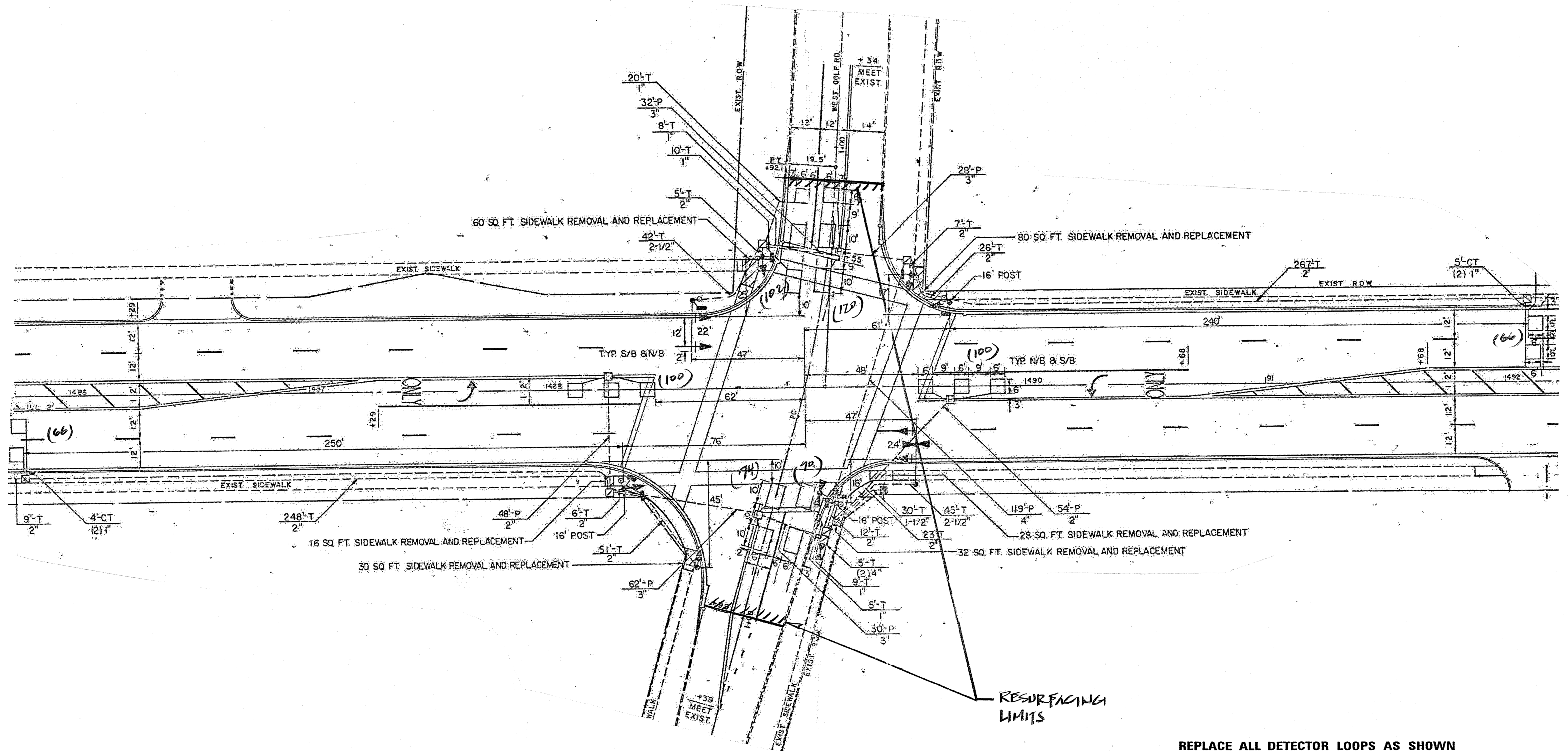
CODE	QUANTITY	UNIT	ITEM
88600600	591	FOOT	DETECTOR LOOP, REPLACEMENT



WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

	<b>PROPOSED</b>	<b>EXISTING</b>
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



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CODE	QUANTITY	UNIT	ITEM
88600600	698	FOOT	DETECTOR LOOP, REPLACEMENT

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et:\pw_work\pwwdot\pyzzenowskirb\d0356580	ND102214-sht-plan.dgn	DRAWN -	REVISED -
Default	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/2/2014	DATE -	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**DETECTOR LOOP PLANS**  
**IL RTE. 21 (MILWAUKEE AVE.) AT W. GOLF RD.**  
 SCALE: SHEET OF SHEETS STA. TO STA.

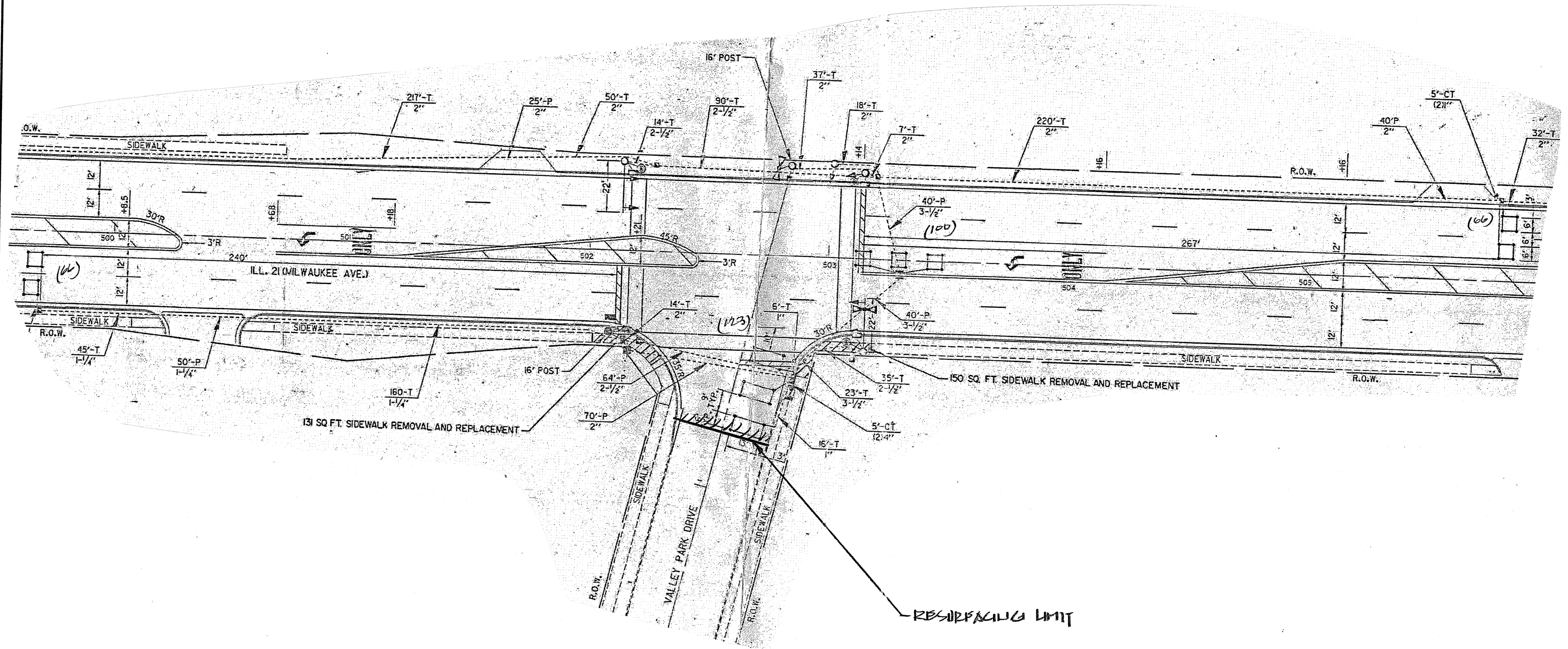
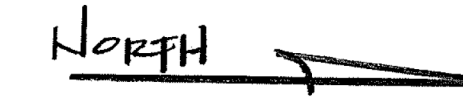
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)IRS-10	LAKE	42	26
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60X23	



WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

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	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



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DETECTOR LOOP REPLACEMENTS ONLY**

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(WITHIN THE RESURFACING LIMITS)**

CODE	QUANTITY	UNIT	ITEM
88600600	355	FOOT	DETECTOR LOOP, REPLACEMENT

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Default	PLOT SCALE = 50.0000' / 1" in.	CHECKED -	REVISED -
	PLOT DATE = 7/2/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETECTOR LOOP PLANS  
IL RTE. 21 (MILWAUKEE AVE.) AT VALLEY PARK DR.**

SCALE: SHEET OF SHEETS STA. TO STA.

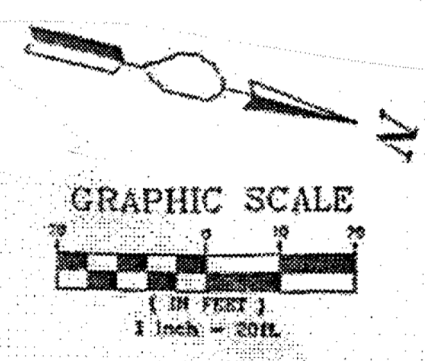
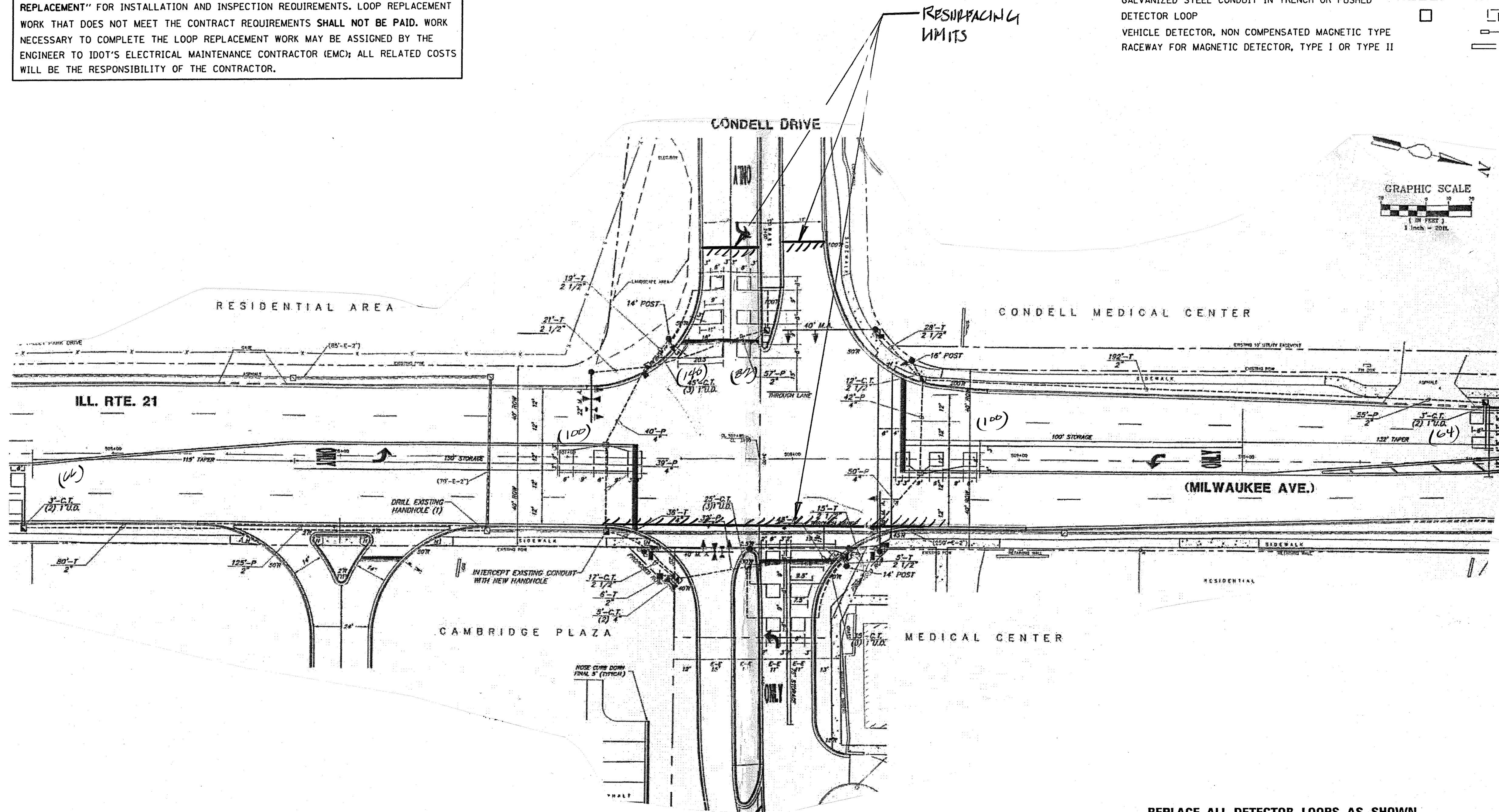
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)RS-10	LAKE	42	27
			CONTRACT NO. 60X23	
ILLINOIS FED. AID PROJECT				



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SIGNAL HEAD WITH BACKPLATE		
SIGNAL HEAD		
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED		
DETECTOR LOOP		
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE		
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II		



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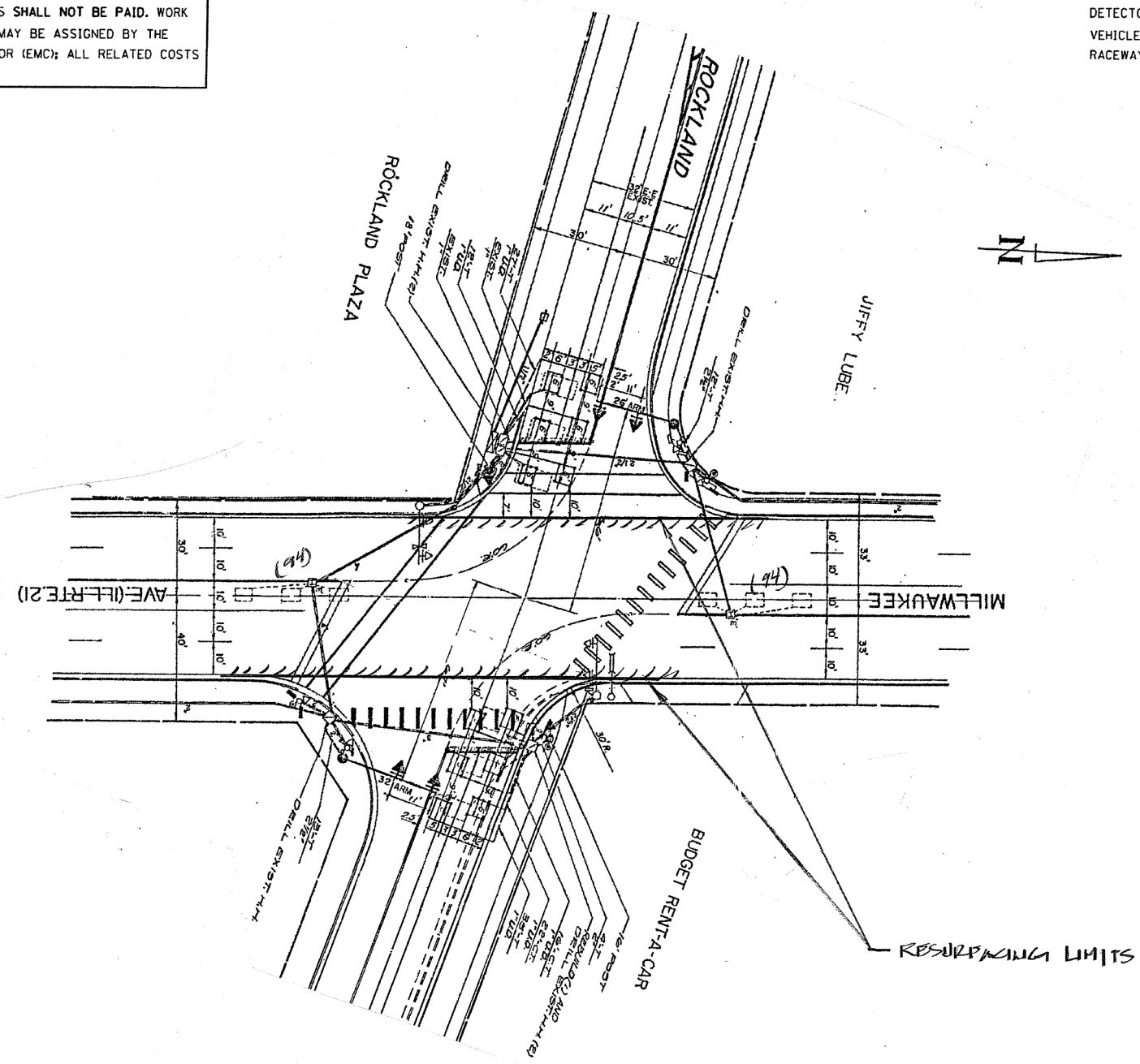
**REPLACE ALL DETECTOR LOOPS AS SHOWN (WITHIN THE RESURFACING LIMITS)**

CODE	QUANTITY	UNIT	ITEM
88600600	552 ✓	FOOT	DETECTOR LOOP, REPLACEMENT

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**TRAFFIC SIGNAL LEGEND**

	PROPOSED	EXISTING
SIGNAL HEAD WITH BACKPLATE	◀▶	▶▶
SIGNAL HEAD	▶▶	▶▶
GALVANIZED STEEL CONDUIT IN TRENCH OR PUSHED	---	---
DETECTOR LOOP	□	□
VEHICLE DETECTOR, NON COMPENSATED MAGNETIC TYPE	— —	— —
RACEWAY FOR MAGNETIC DETECTOR, TYPE I OR TYPE II	— —	— —



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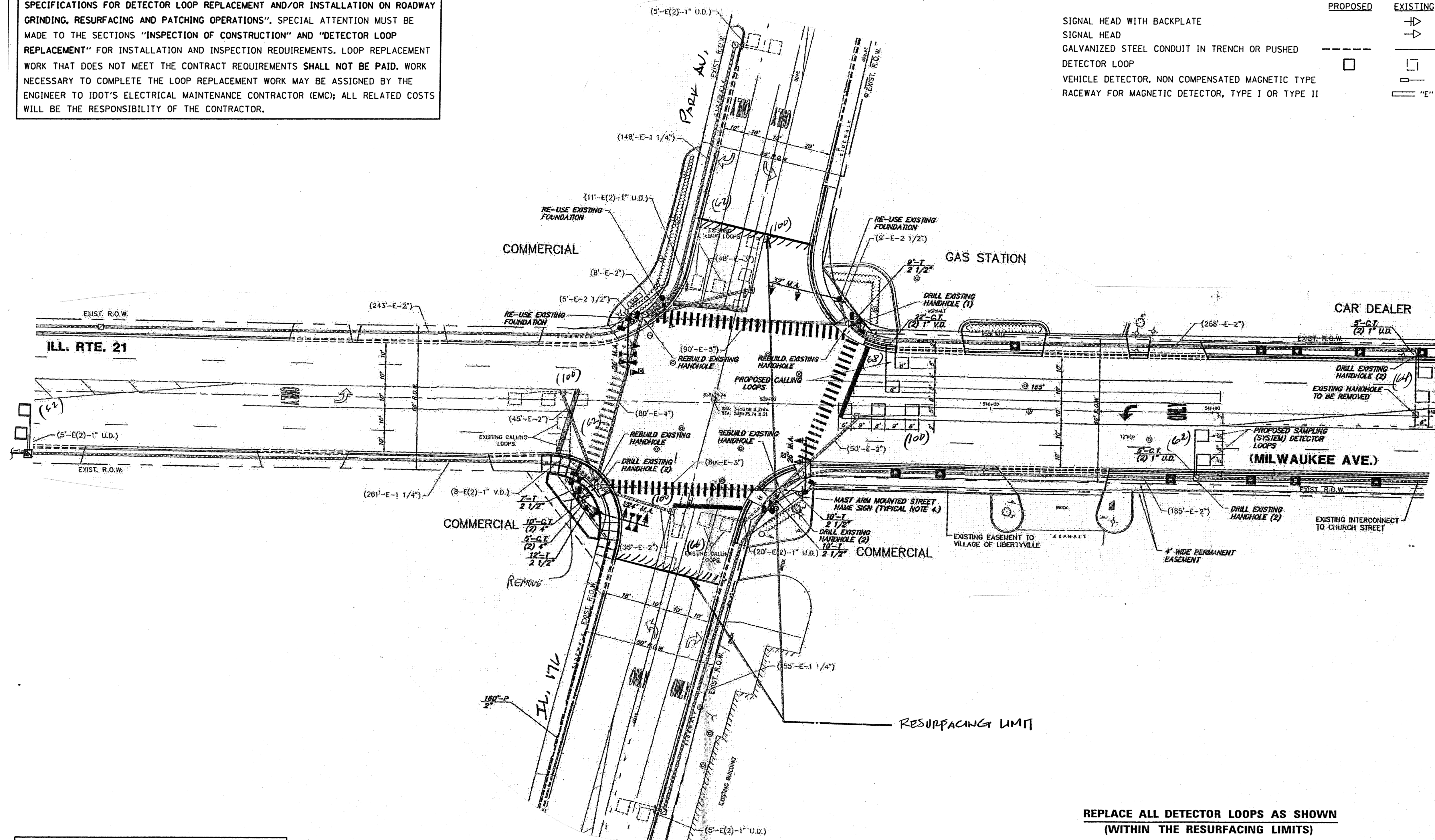
CODE	QUANTITY	UNIT	ITEM
88600600	564	FOOT	DETECTOR LOOP, REPLACEMENT



WORK SHALL MEET THE REQUIREMENTS OF THE SPECIAL PROVISION, "TRAFFIC SIGNAL SPECIFICATIONS FOR DETECTOR LOOP REPLACEMENT AND/OR INSTALLATION ON ROADWAY GRINDING, RESURFACING AND PATCHING OPERATIONS". SPECIAL ATTENTION MUST BE MADE TO THE SECTIONS "INSPECTION OF CONSTRUCTION" AND "DETECTOR LOOP REPLACEMENT" FOR INSTALLATION AND INSPECTION REQUIREMENTS. LOOP REPLACEMENT WORK THAT DOES NOT MEET THE CONTRACT REQUIREMENTS SHALL NOT BE PAID. WORK NECESSARY TO COMPLETE THE LOOP REPLACEMENT WORK MAY BE ASSIGNED BY THE ENGINEER TO IDOT'S ELECTRICAL MAINTENANCE CONTRACTOR (EMC); ALL RELATED COSTS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.

**TRAFFIC SIGNAL LEGEND**

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

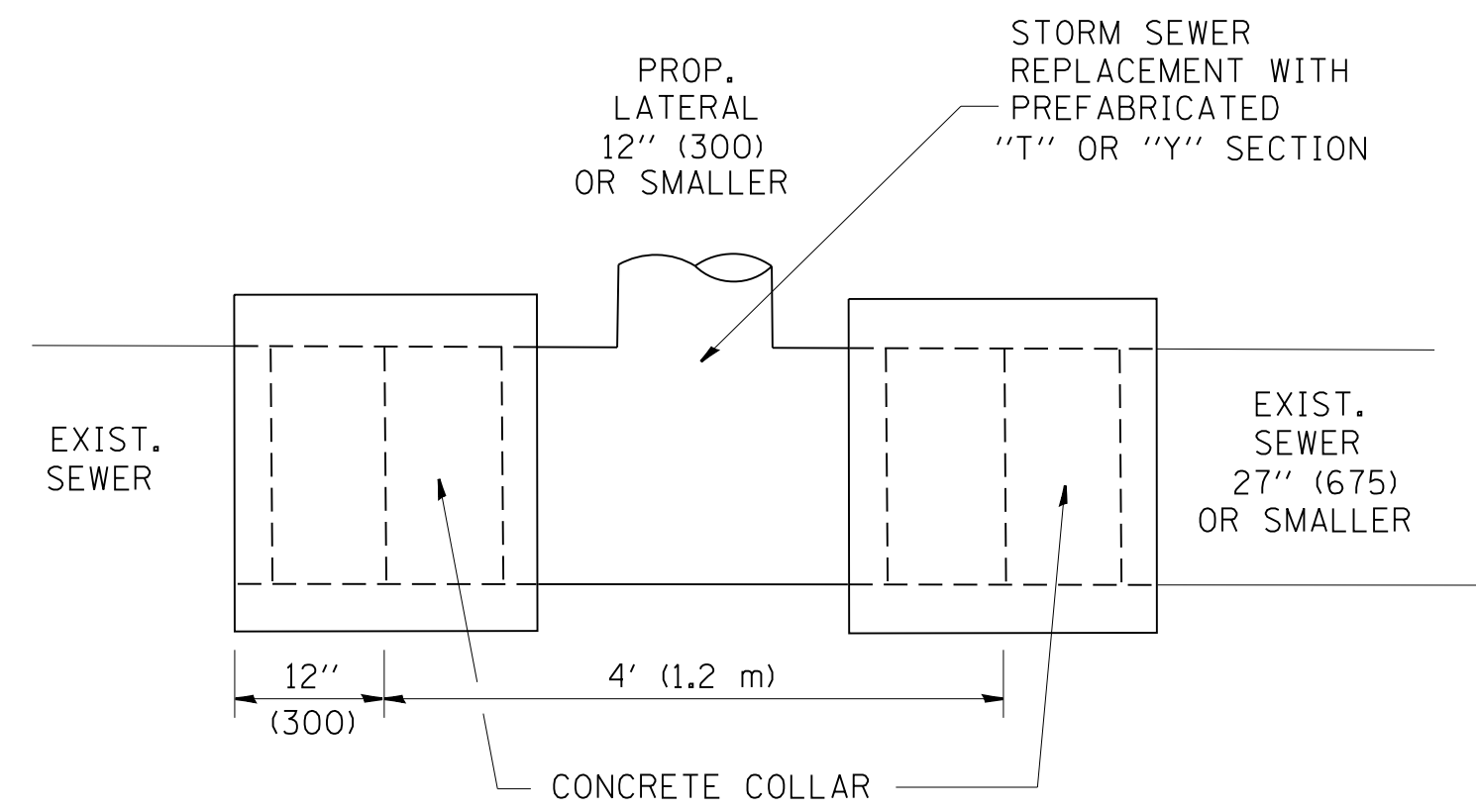


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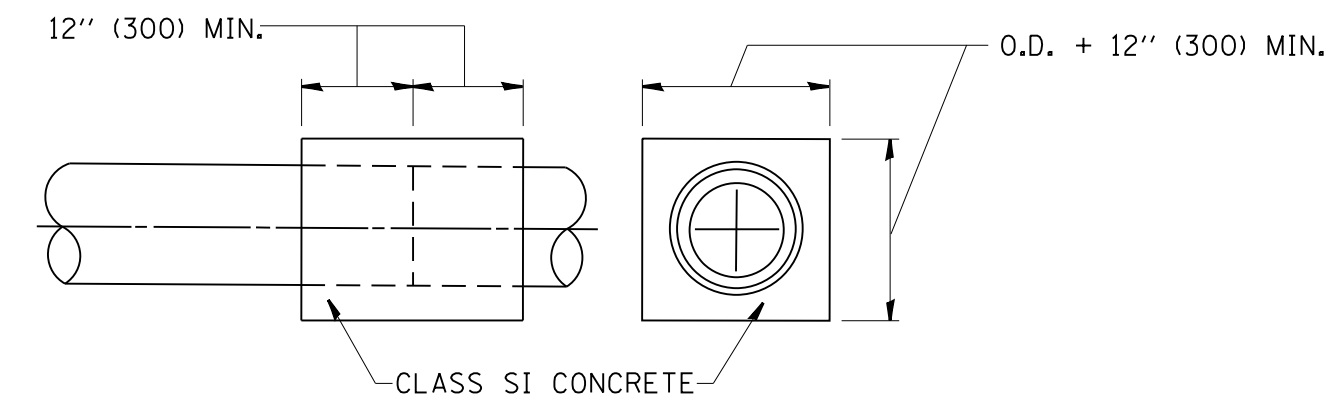
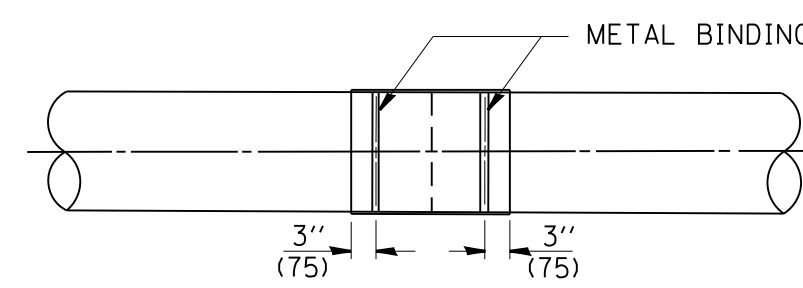
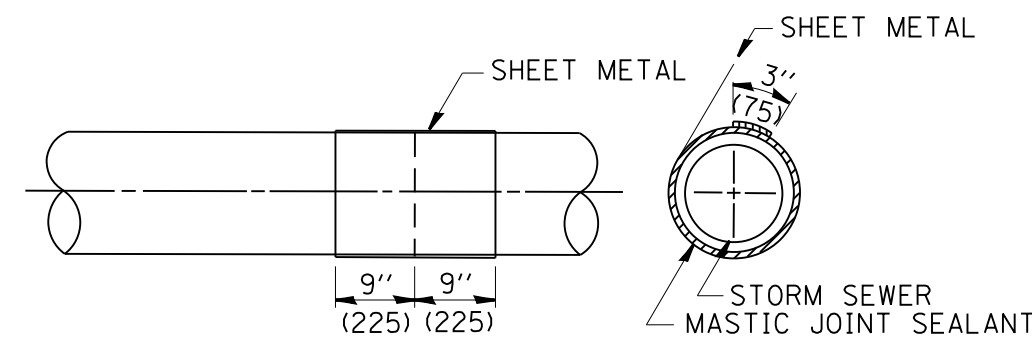
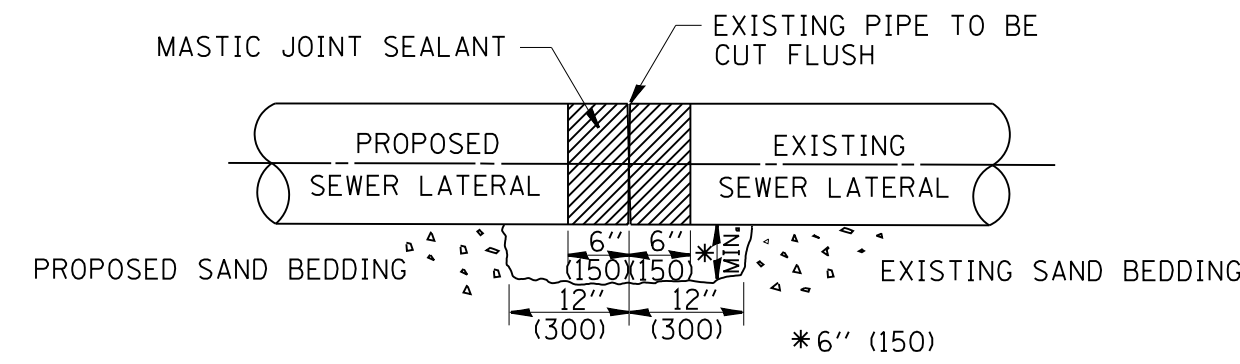
CODE	QUANTITY	UNIT	ITEM
88600600	784	FOOT	DETECTOR LOOP, REPLACEMENT





**DETAIL "A"**

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

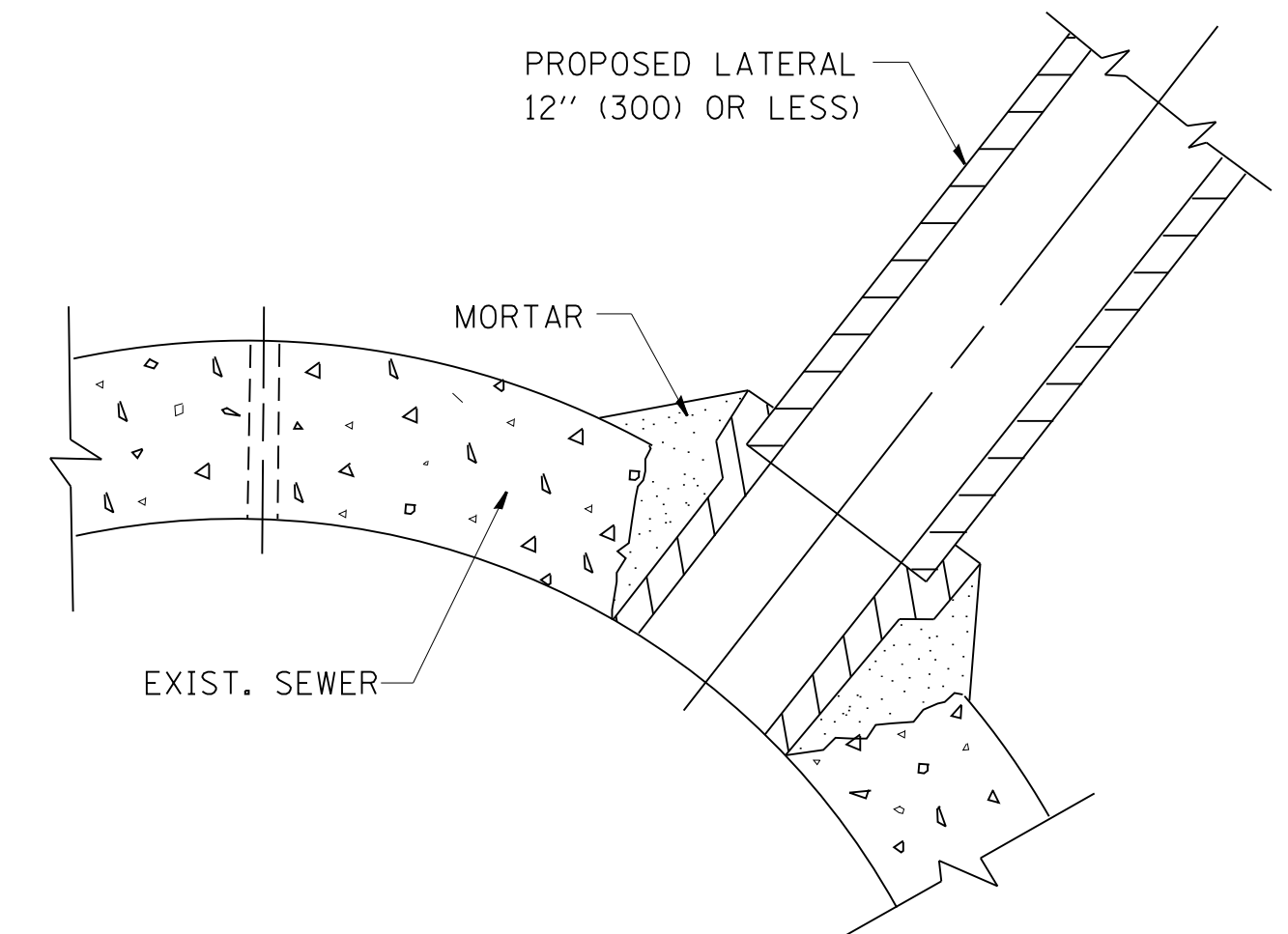


**DETAIL "B"**

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.

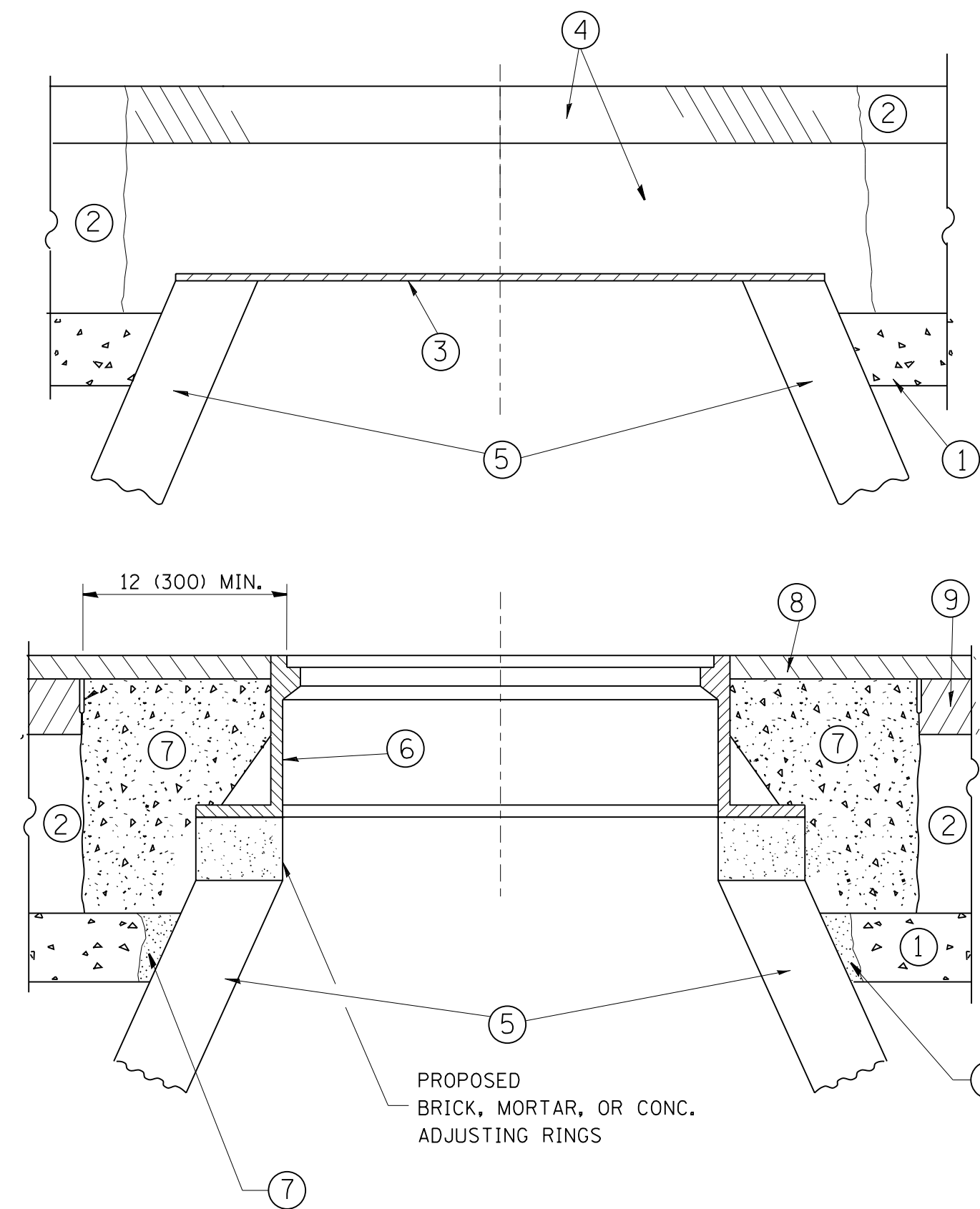
FILE NAME =	USER NAME = pyzranawskrb	DESIGNED - M. DE YONG	REVISED - M. DE YONG 05-08-92
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	PLOT SCALE = 50.0000' / 1" =	CHECKED -	REVISED - R. SHAH 10-25-94
	PLOT DATE = 7/2/2014	DATE - 07-25-90	REVISED - R. SHAH 06-12-96

**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.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)RS-10	LAKE	42	31
<b>BD500-01 (BD-7)</b>		<b>CONTRACT NO. 60X23</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**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.

**NOTES:**

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

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

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

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

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

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

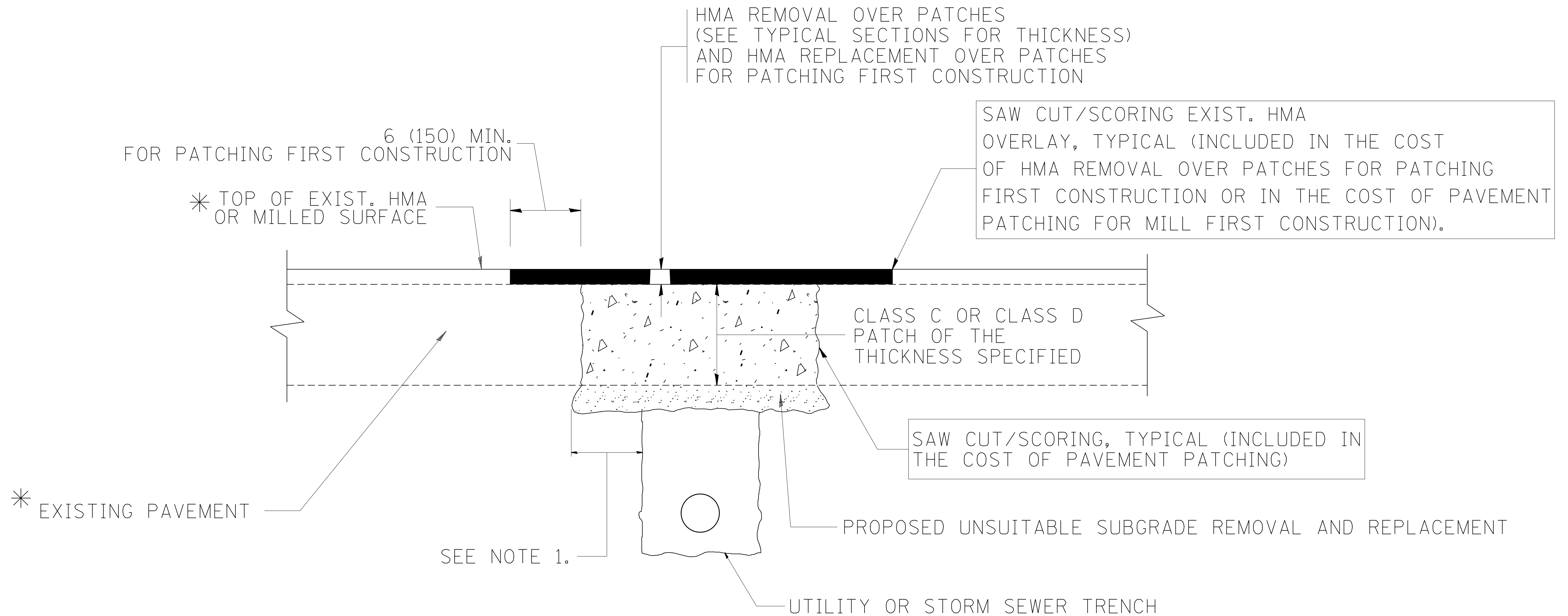
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = pyrzanowski	DESIGNED - R. SHAH	REVISED - R. WIEDEMAN 05-14-04
et:\pw_work\pwwork\pyrzanowski\0356580	ND102214-sht-plan.dgn	DRAWN -	REVISED - R. BORO 01-01-07
	PLOT SCALE = 50.0000' / 1"	CHECKED -	REVISED - R. BORO 03-09-11
	PLOT DATE = 7/2/2014	DATE - 10-25-94	REVISED - R. BORO 12-06-11

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)RS-10	LAKE	42	32
<b>BD600-03 (BD-8)</b>		<b>CONTRACT NO. 60X23</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

**NOTES:**

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME =	USER NAME = pyrzanowski	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98
et:\pw_work\p\dot\pyrzanowski\bd0356580	ND102214-sht-plan.dgn	DRAWN -	REVISED - R. BORO 01-01-07
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	PLOT DATE = 7/2/2014	DATE - 10-25-94	REVISED - K. ENG 10-27-08

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT PATCHING FOR  
HMA SURFACED PAVEMENT**

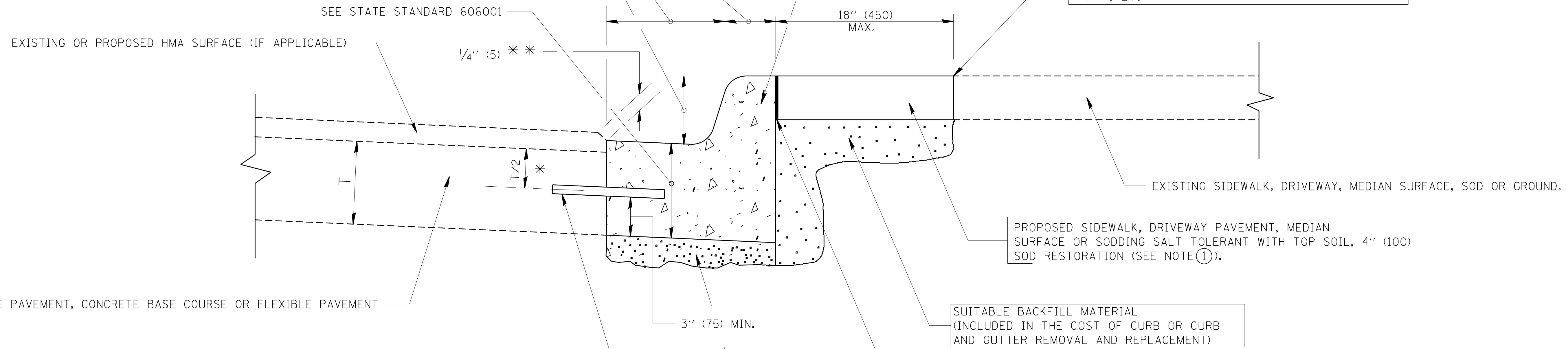
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)RS-10	LAKE	42	33
<b>BD400-04 (BD-22)</b>		<b>CONTRACT NO. 60X23</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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

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

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



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

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

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

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

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

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

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

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

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

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

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

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

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

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

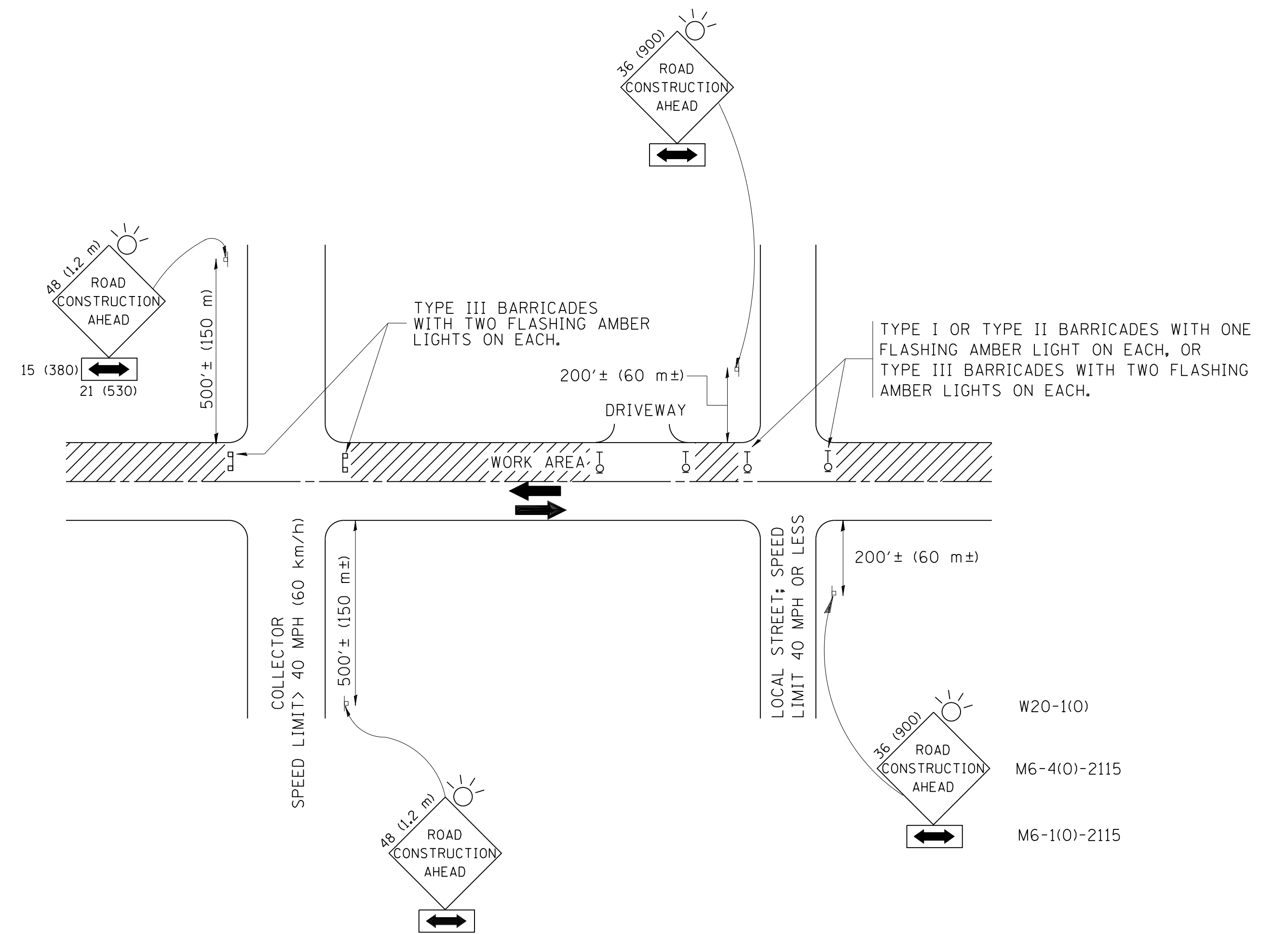
PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

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

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

FILE NAME =	USER NAME = pyzranowskirb	DESIGNED - A. HOUSEH	REVISED - R. SHAH 10-03-96	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
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	PLOT SCALE = 50.0000' / 1"	CHECKED -	REVISED - M. GOMEZ 01-22-01			<b>BD600-06 (BD-24)</b>		CONTRACT NO. 60X23			
	PLOT DATE = 7/2/2014	DATE - 03-11-94	REVISED - R. BORO 12-15-09			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		
						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.

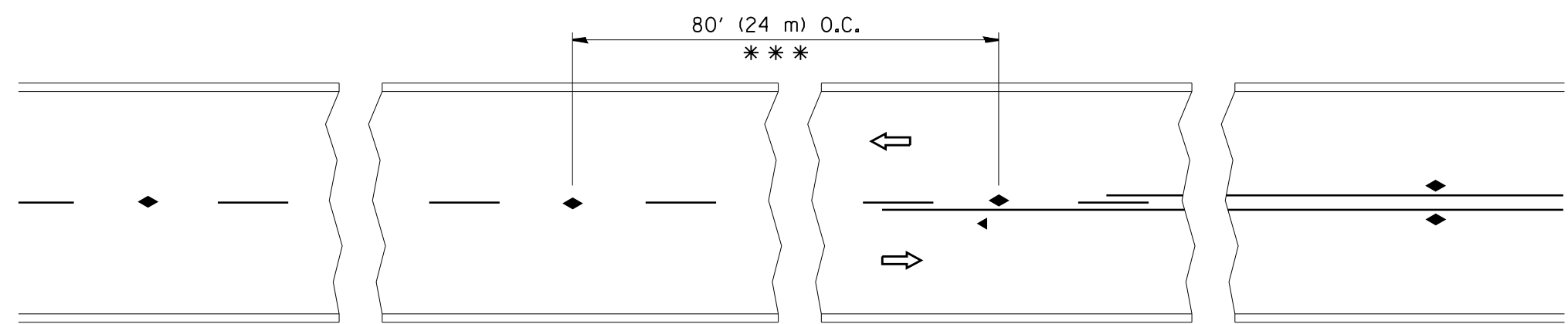
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	PLOT SCALE = 50.0000' / 1"	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 7/2/2014	DATE - 06-89	REVISED - T. RAMMACH 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

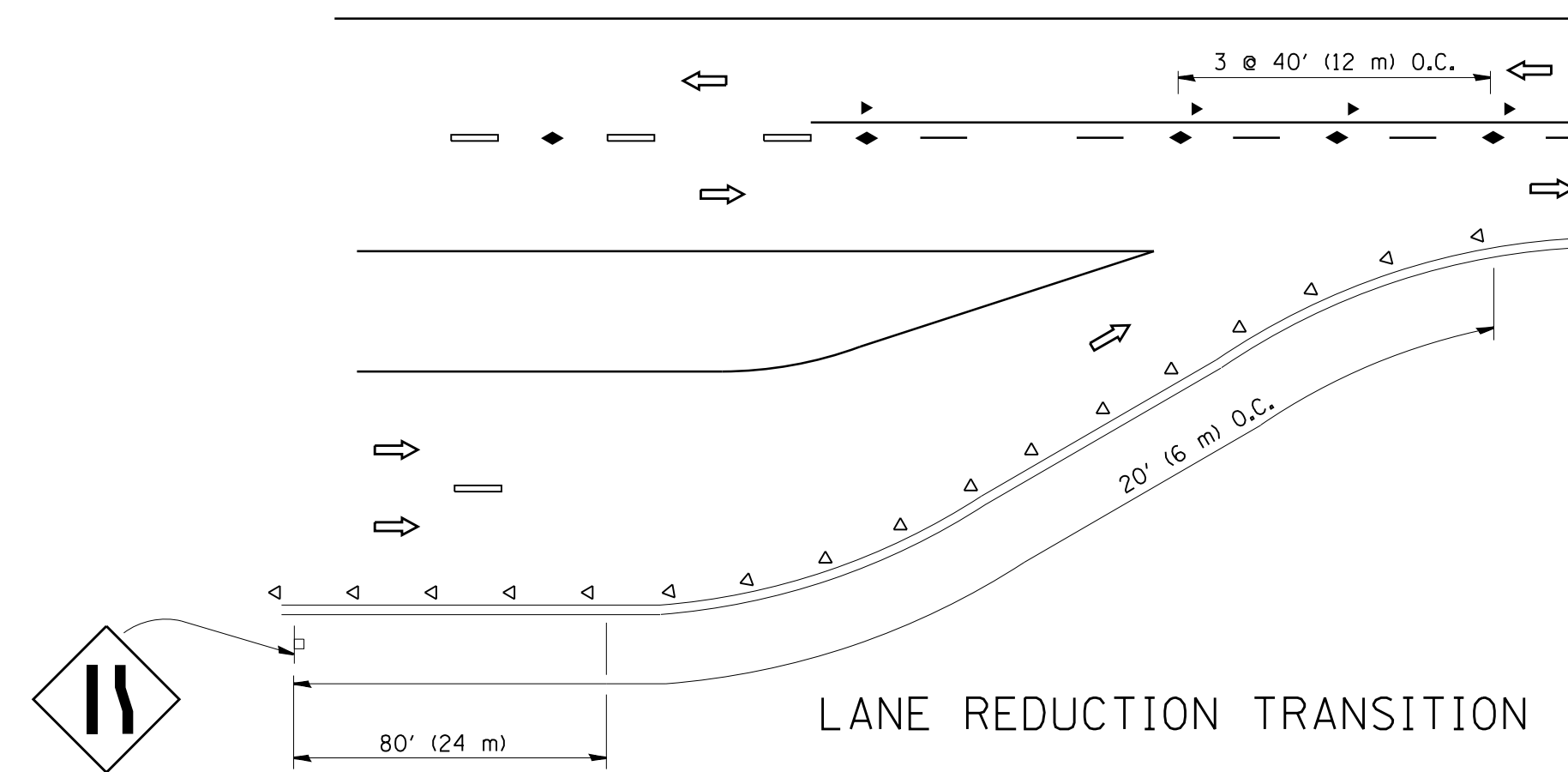
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)RS-10	LAKE	42	35
<b>TC-10</b>			<b>CONTRACT NO. 60X23</b>	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

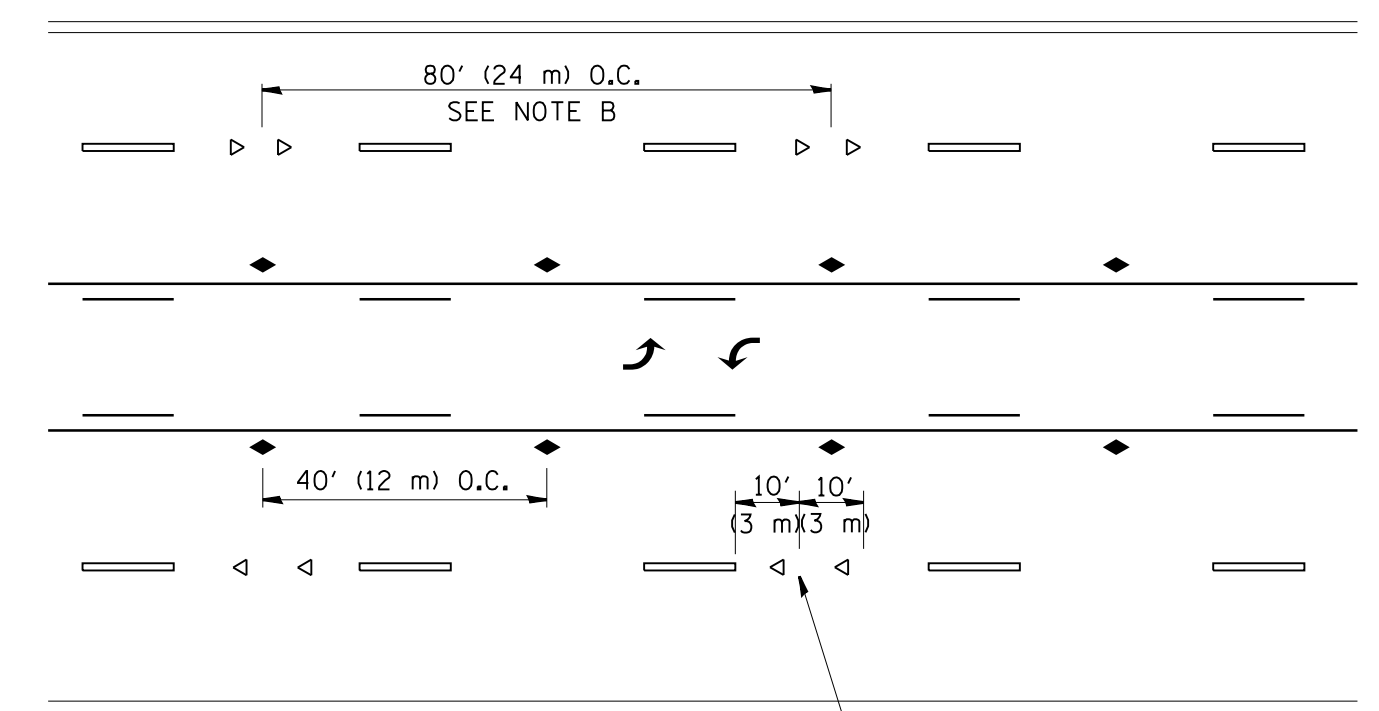


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

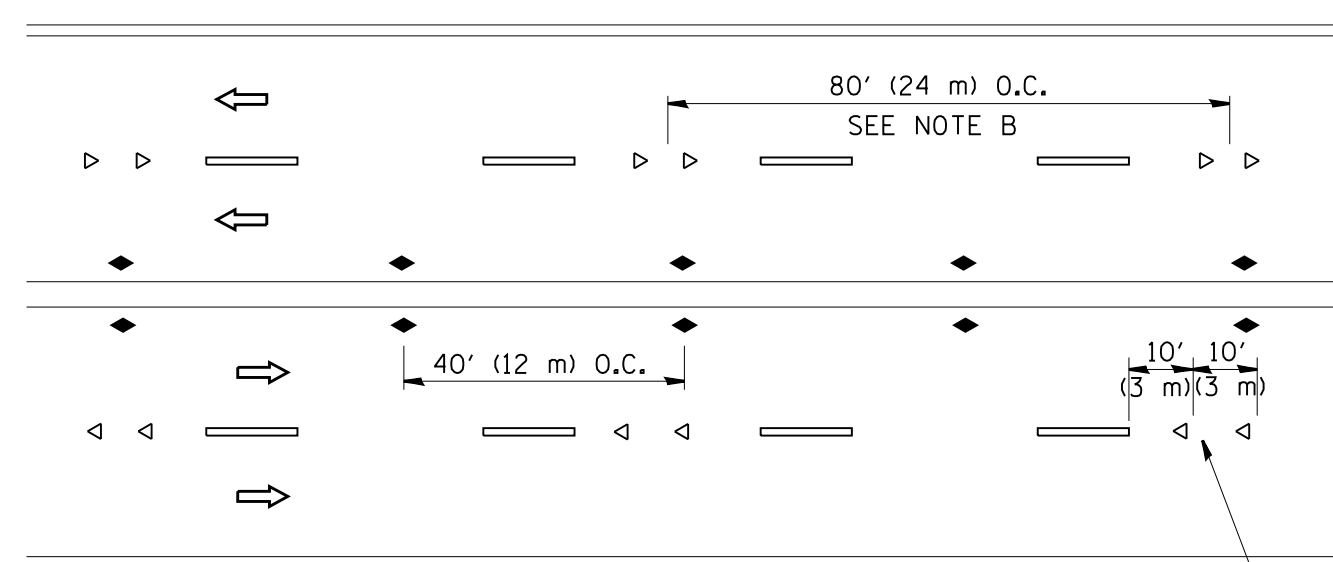
TWO-LANE/TWO-WAY



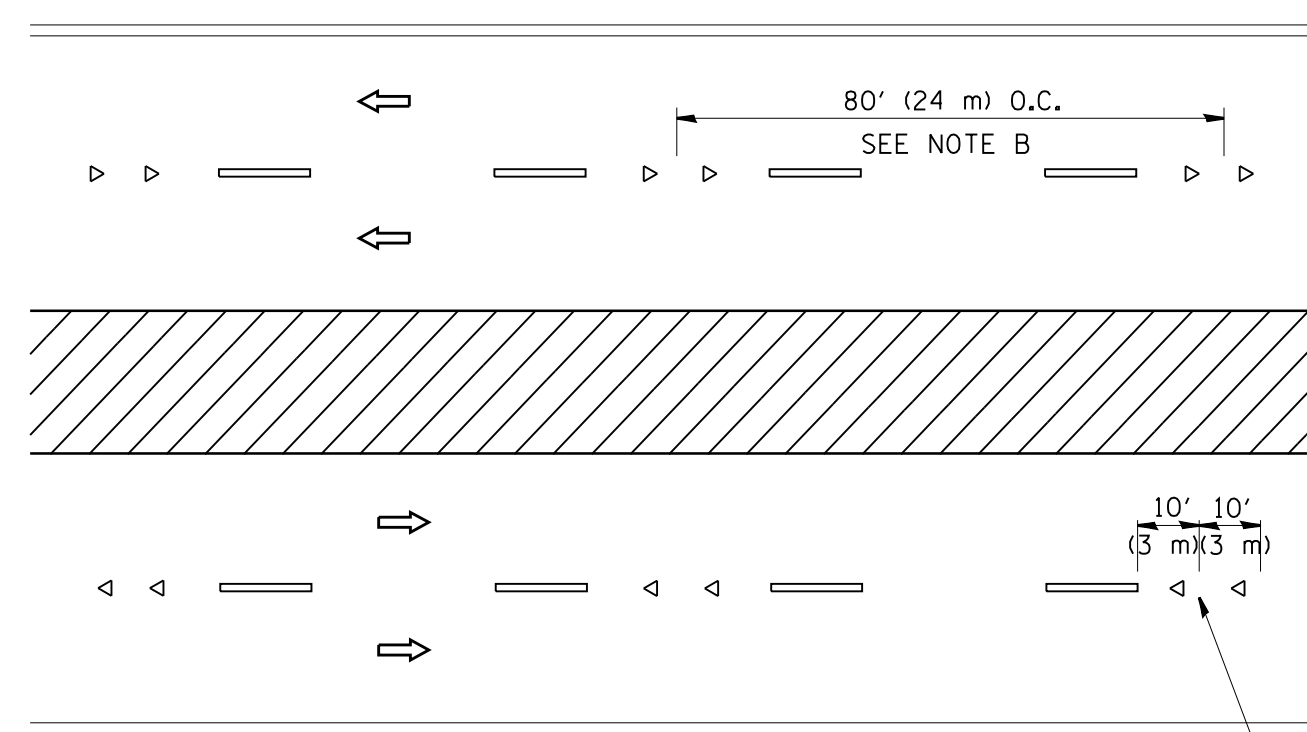
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

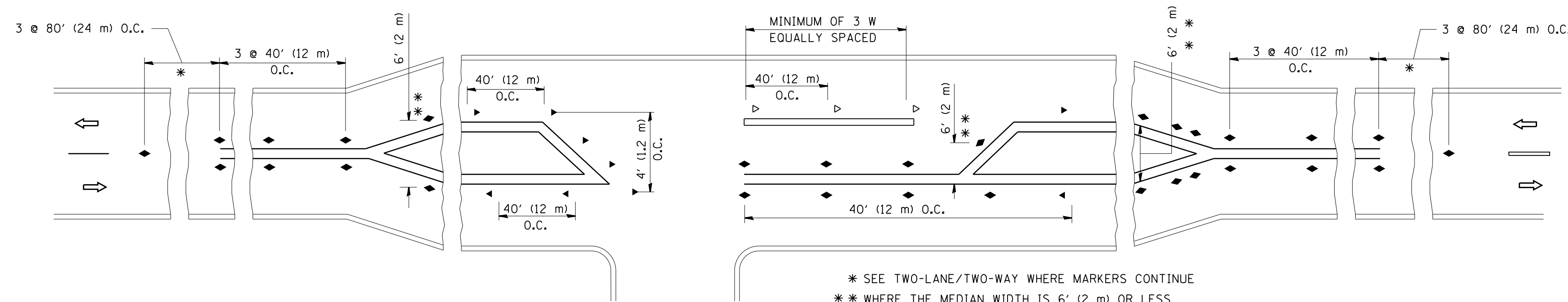
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

DESIGN NOTES

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



LEFT TURN

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

FILE NAME =	USER NAME = pyrzanowski	DESIGNED -	REVISED - T. RAMMACHER 09-19-94
et:\pw\work\p\dot\pyrzanowski\0356580	ND102214-sht-plan.dgn	DRAWN -	REVISED - T. RAMMACHER 03-12-99
	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
	PLOT DATE = 7/2/2014	DATE -	REVISED - C. JUCIUS 09-09-09

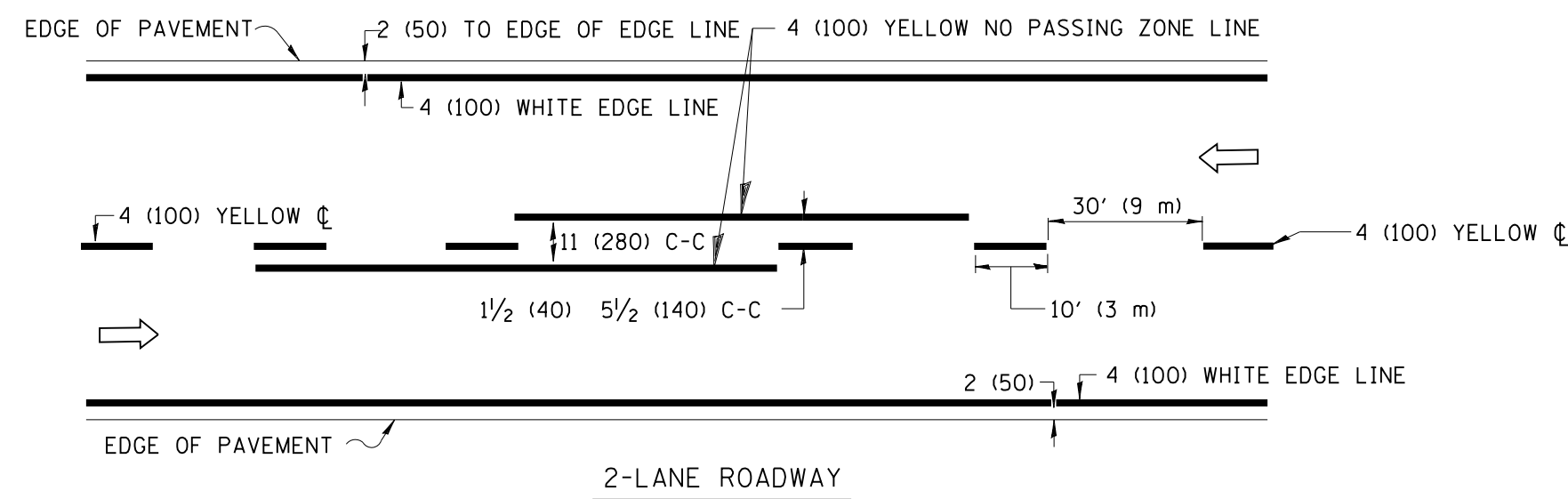
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL APPLICATIONS  
RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

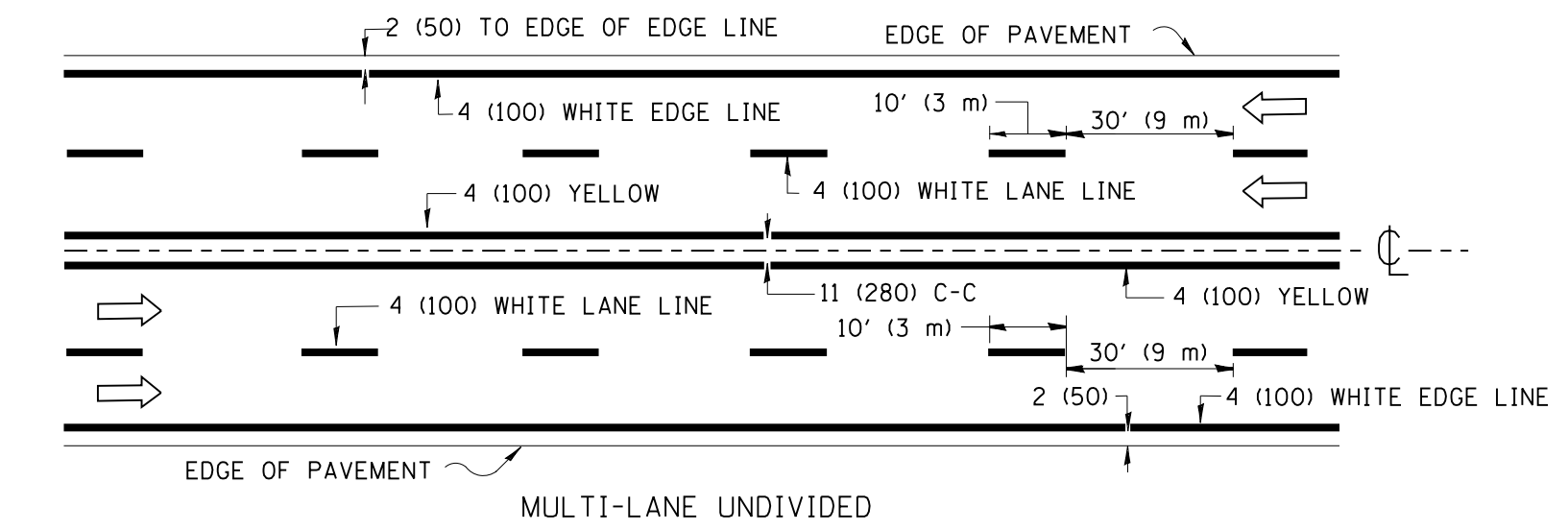
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-11		CONTRACT NO. 60X23		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

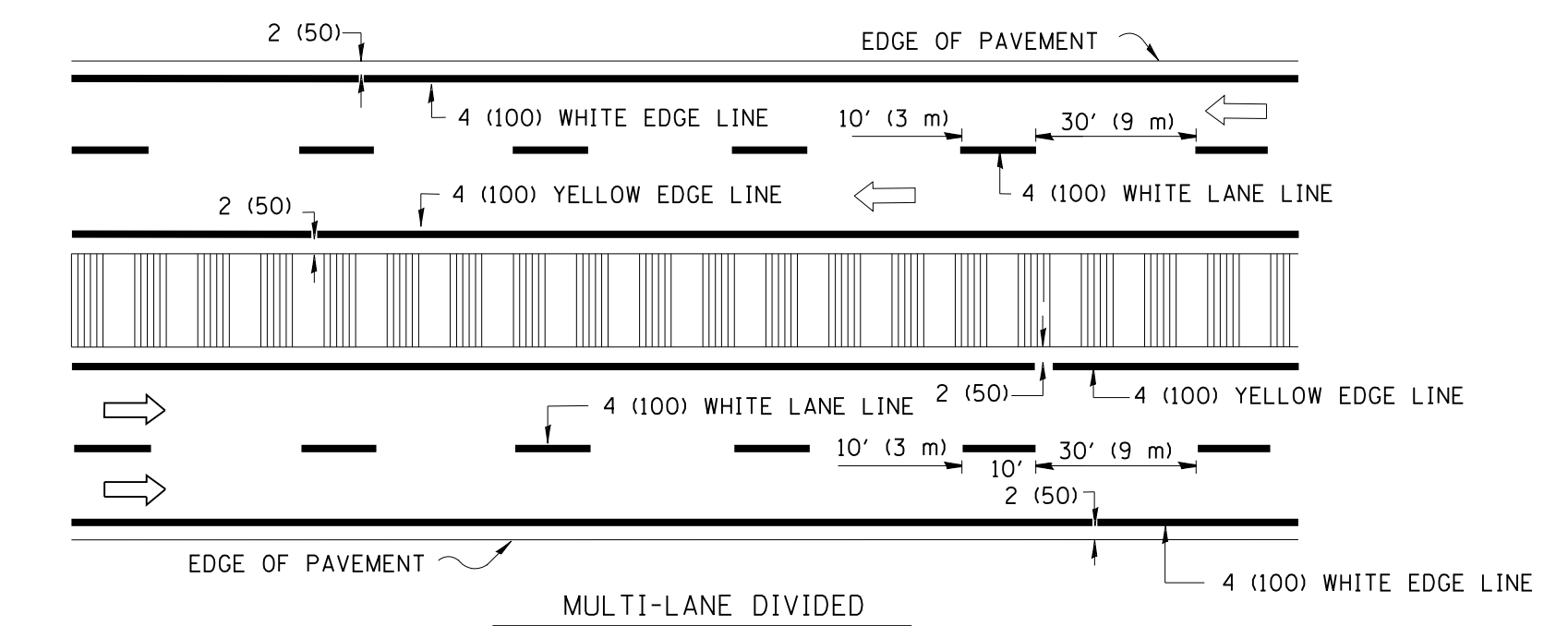




2-LANE ROADWAY



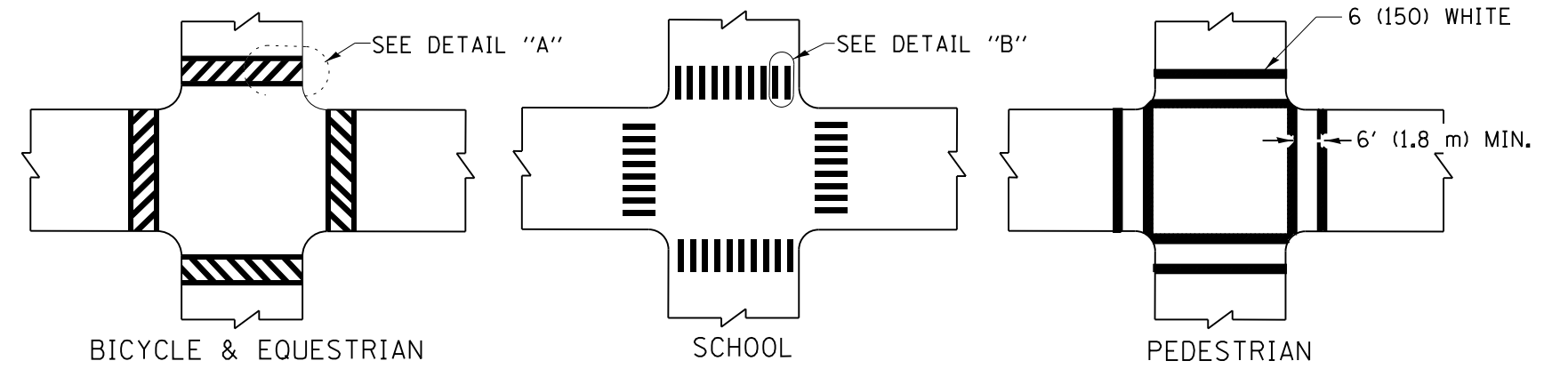
MULTI-LANE UNDIVIDED



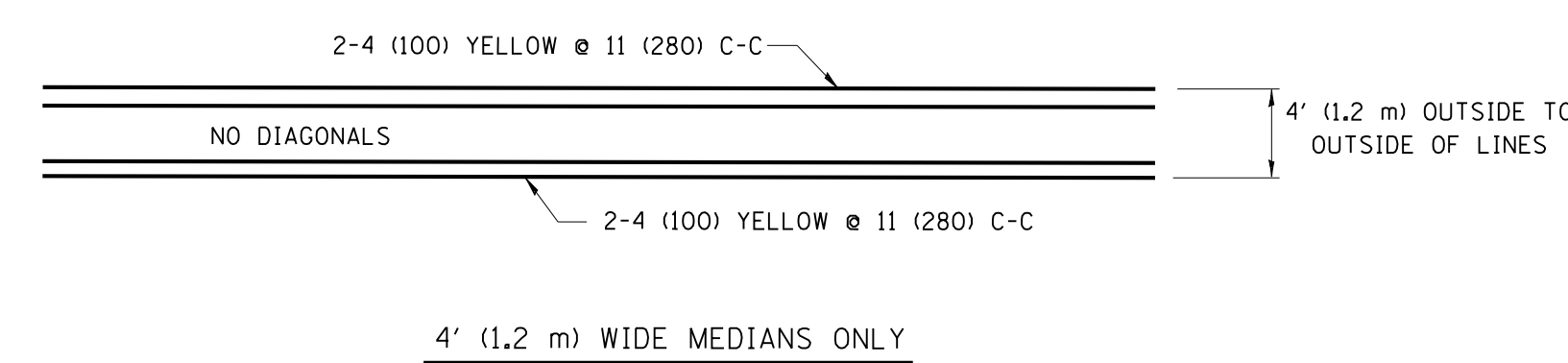
MULTI-LANE DIVIDED WITH MOUNTABLE MEDIAN

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

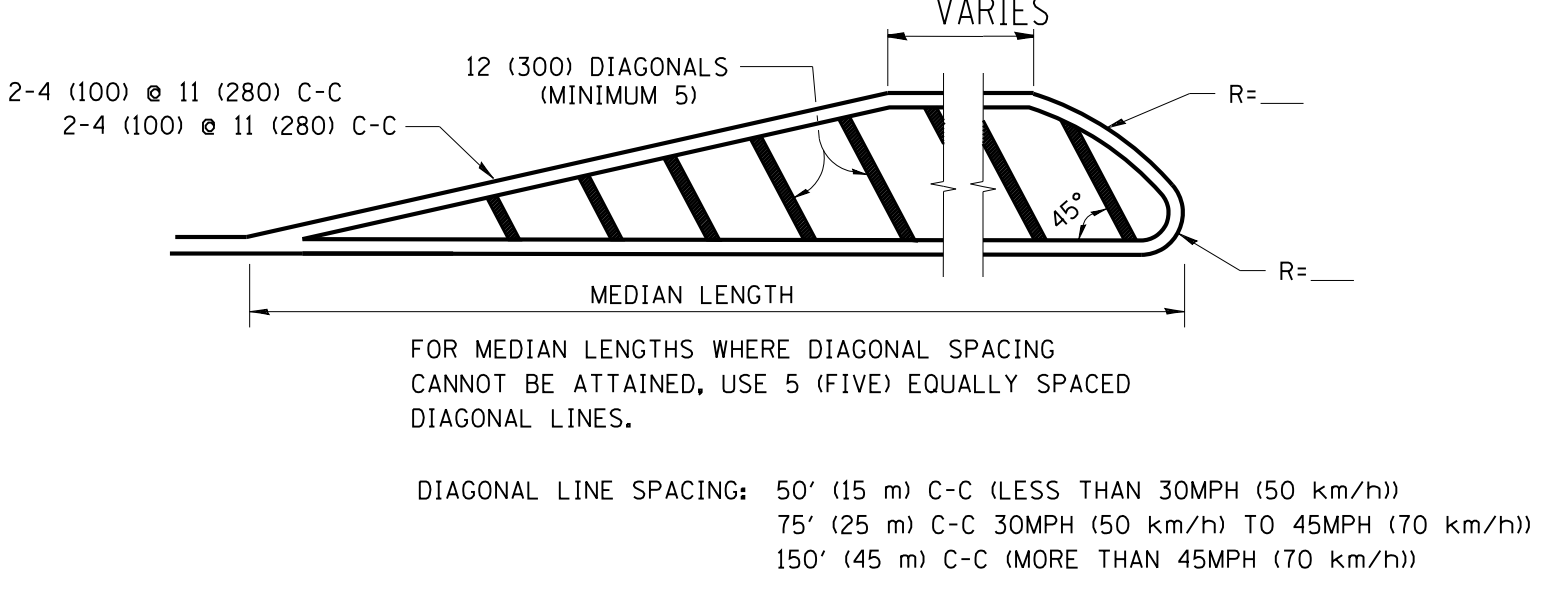
TYPICAL LANE AND EDGE LINE MARKING



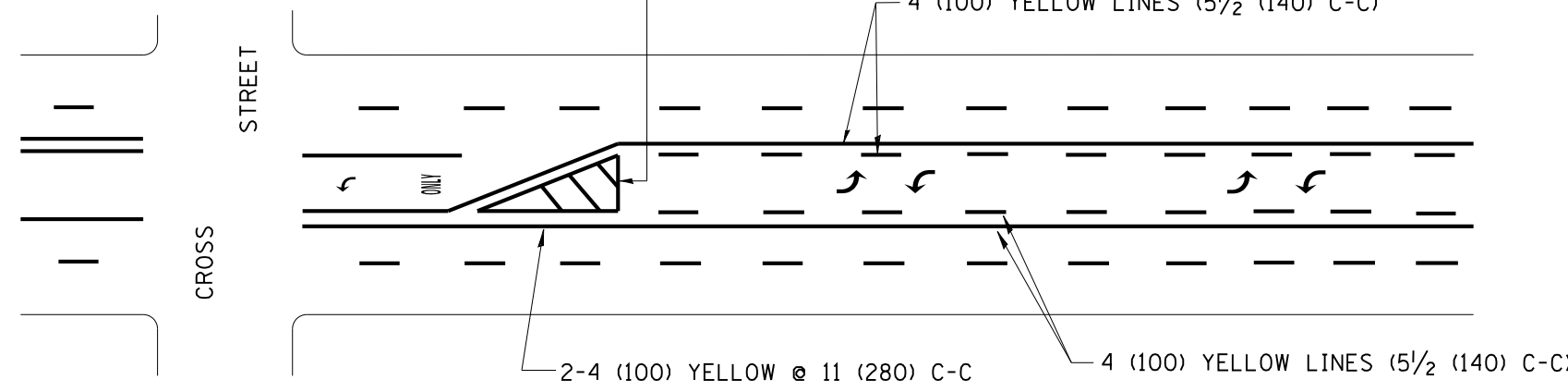
TYPICAL CROSSWALK MARKING



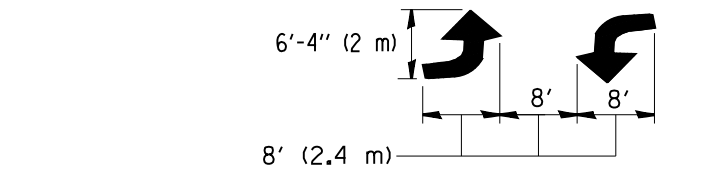
4' (1.2 m) WIDE MEDIANS ONLY



MEDIANS OVER 4' (1.2 m) WIDE

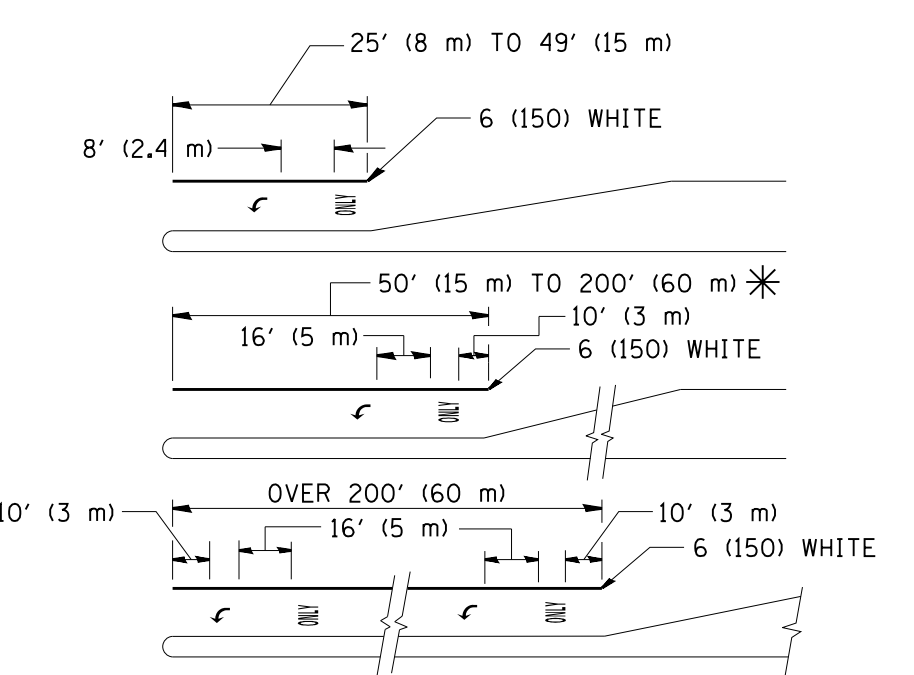


TYPICAL PAINTED MEDIAN MARKING

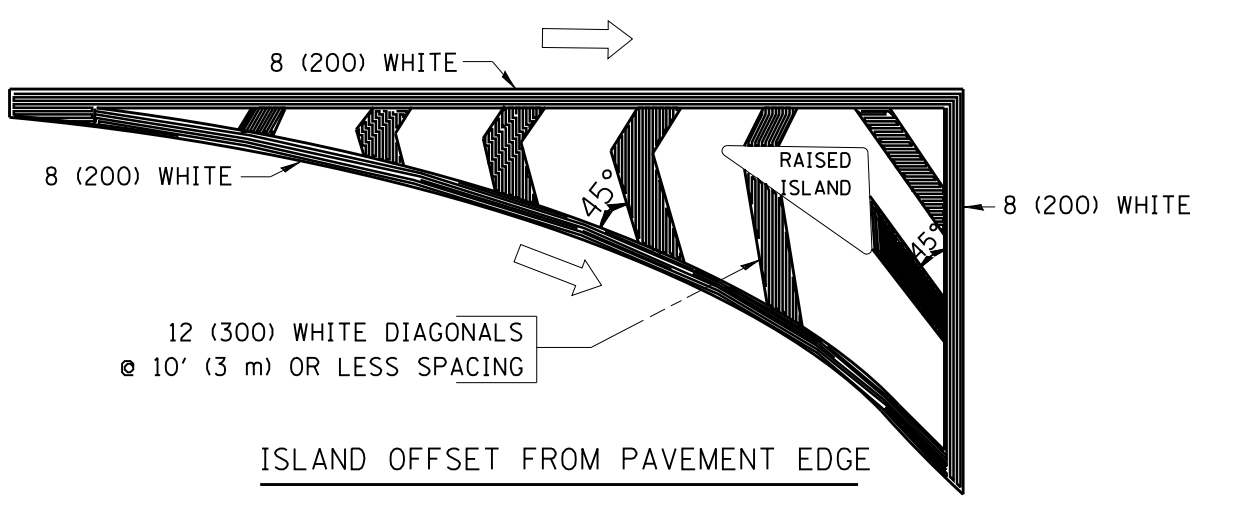


MEDIAN WITH TWO-WAY LEFT TURN LANE

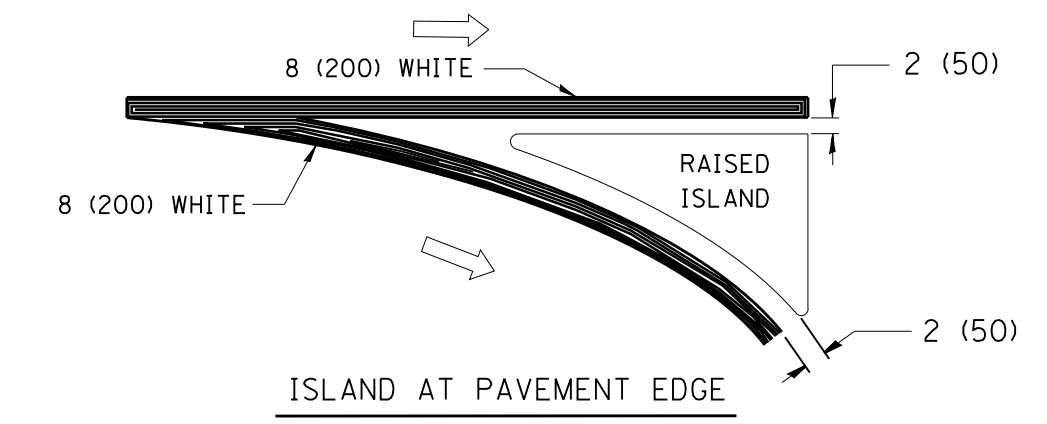
TYPICAL LEFT (OR RIGHT) TURN LANE



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	4 (100)	SOLID	YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE
NO PASSING ZONE LINES: FOR BOTH DIRECTIONS	2 @ 4 (100)	SOLID	YELLOW	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 <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

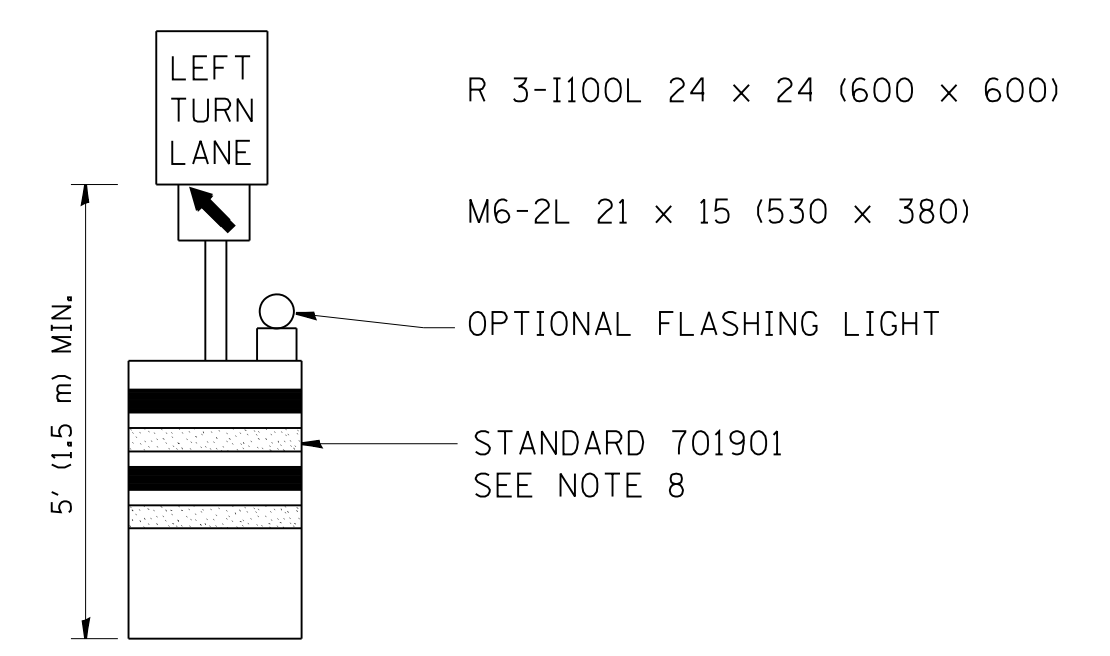
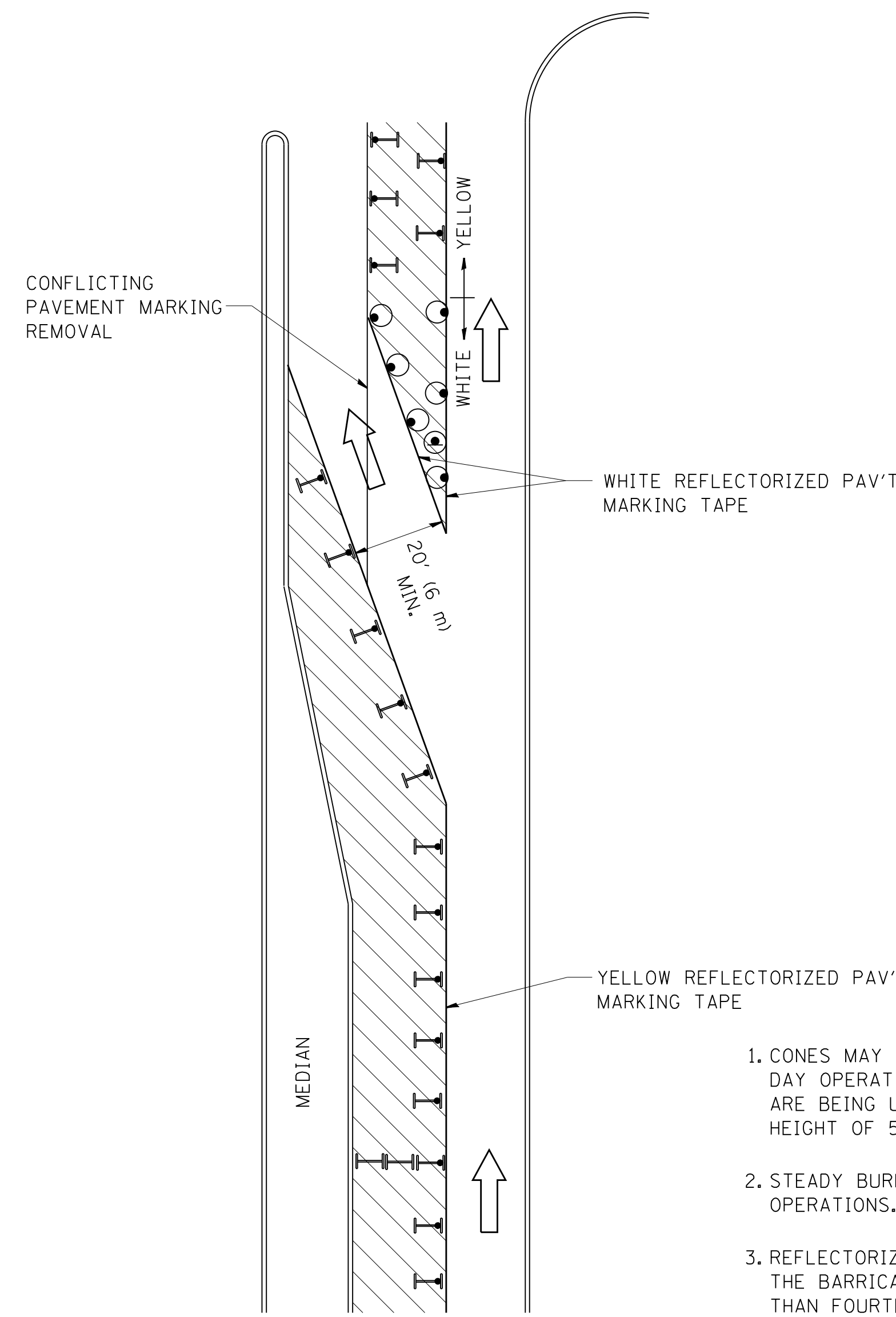
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = pyzranowski	DESIGNED - EVERS	REVISED - T. RAMMACHER 10-27-94
et:\pw_work\pwork\pyzranowski\bd0356580	ND102214-sht-plan.dgn	DRAWN -	REVISED - C. JUCIUS 09-09-09
	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/2/2014	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.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)AIRS-10	LAKE	42	37
TC-13		CONTRACT NO. 60X23		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				


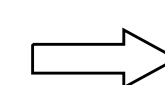
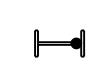


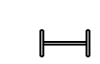


**GENERAL NOTES**

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

FILE NAME =	USER NAME = pyrzanowski	REVISED - T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09
et:\pwork\pwork\pyrzanowski\0356580	ND102214-sht-plan.dgn	REVISED - A. HOUSEH 11-07-95	REVISED -
	PLOT SCALE = 50.0000' / 1" =	REVISED - A. HOUSEH 10-12-96	REVISED -
	PLOT DATE = 7/2/2014	REVISED - T. RAMMACHER 01-06-00	REVISED -

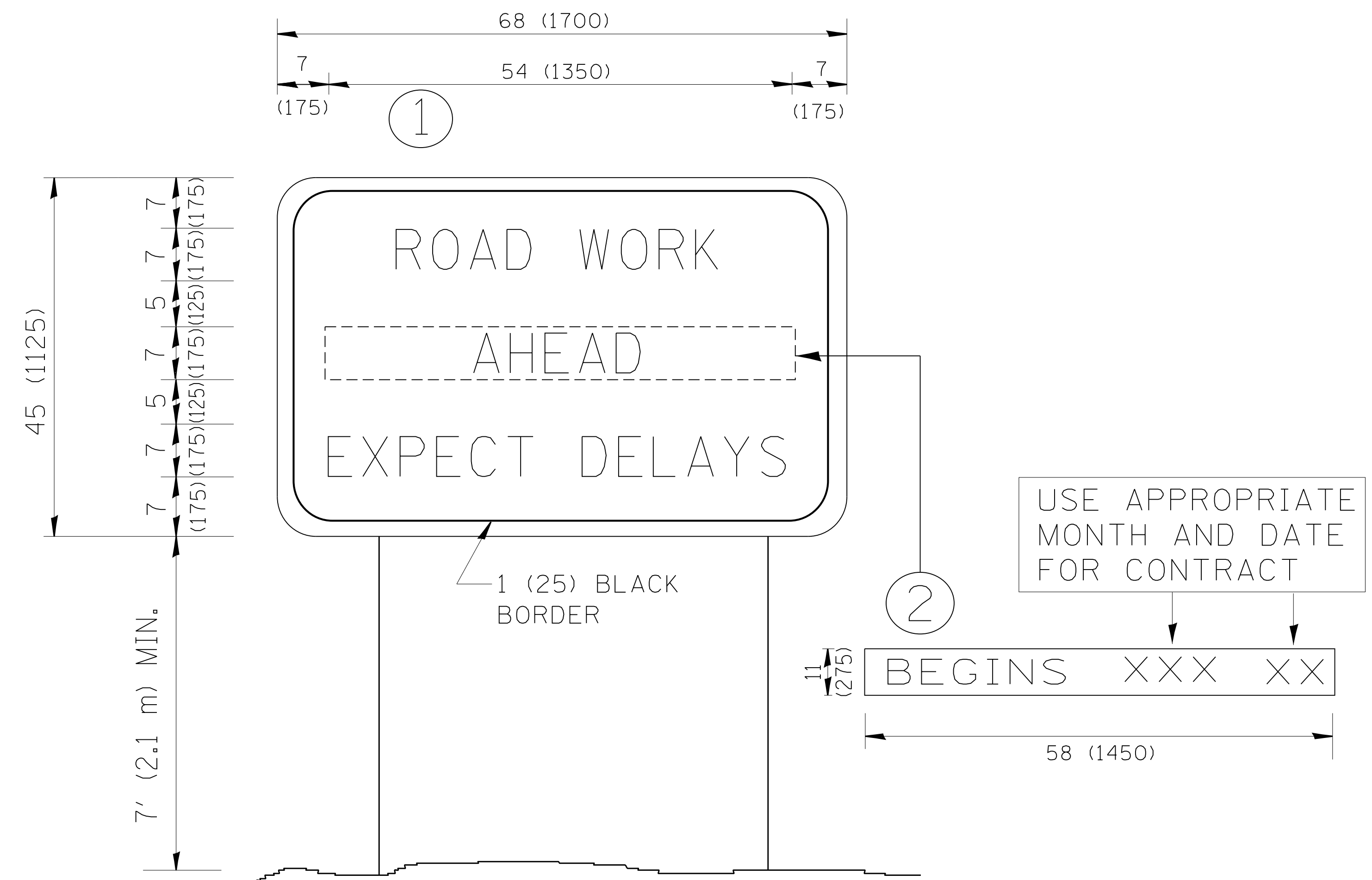
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**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.
330	(2&2)RS-10	LAKE	42	38
<b>TC-14</b>		<b>CONTRACT NO. 60X23</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





**NOTES:**

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

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

FILE NAME =	USER NAME = pyrzenowski	DESIGNED -	REVISED - R. MIRS 09-15-97
et:\pw_work\pwwork\pyrzenowski\0356580	ND102214-sht-plan.dgn	DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 7/2/2014	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

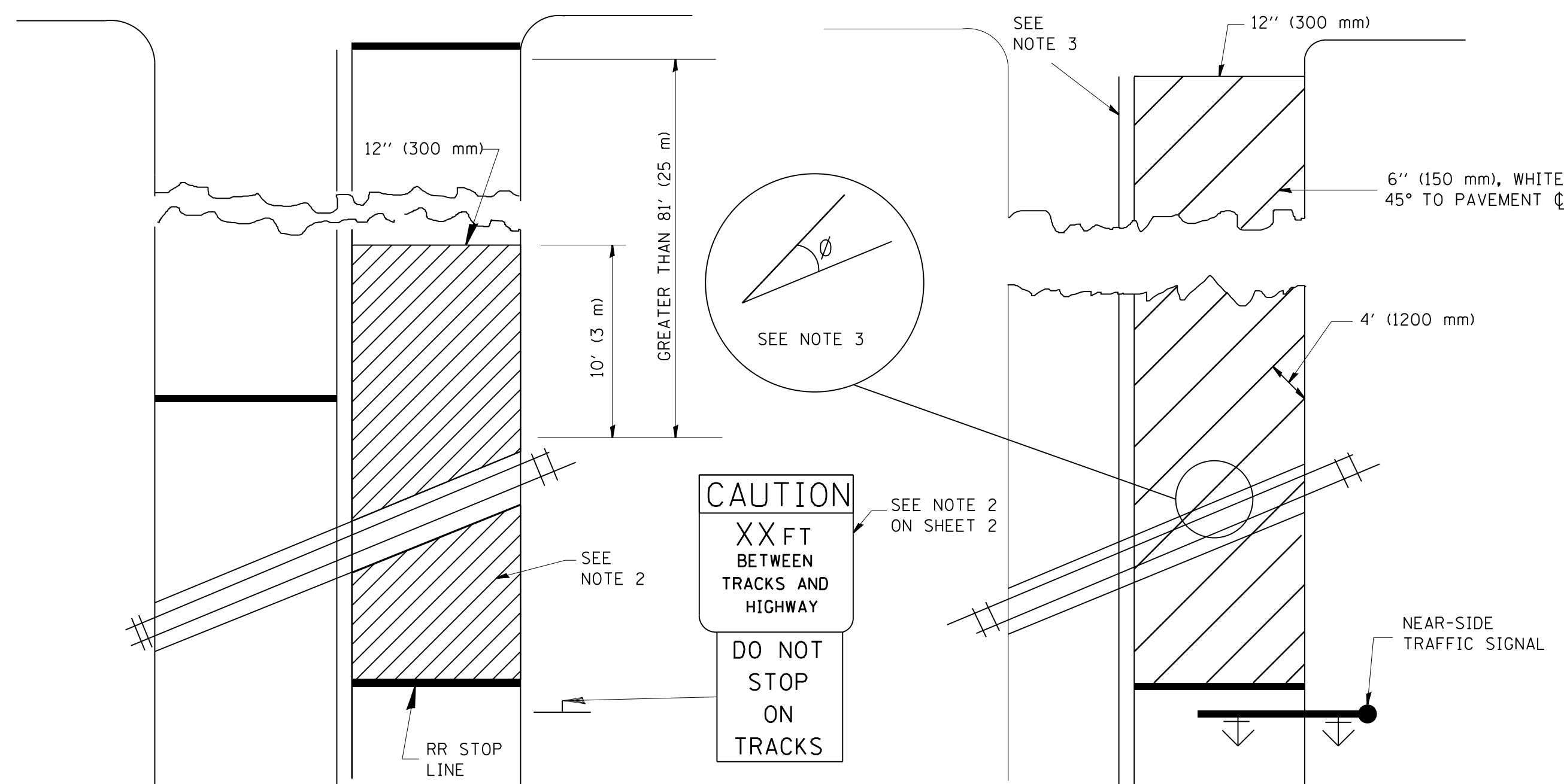
**ARTERIAL ROAD  
INFORMATION SIGN**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)ARS-10	LAKE	42	39
<b>TC-22</b>		<b>CONTRACT NO. 60X23</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

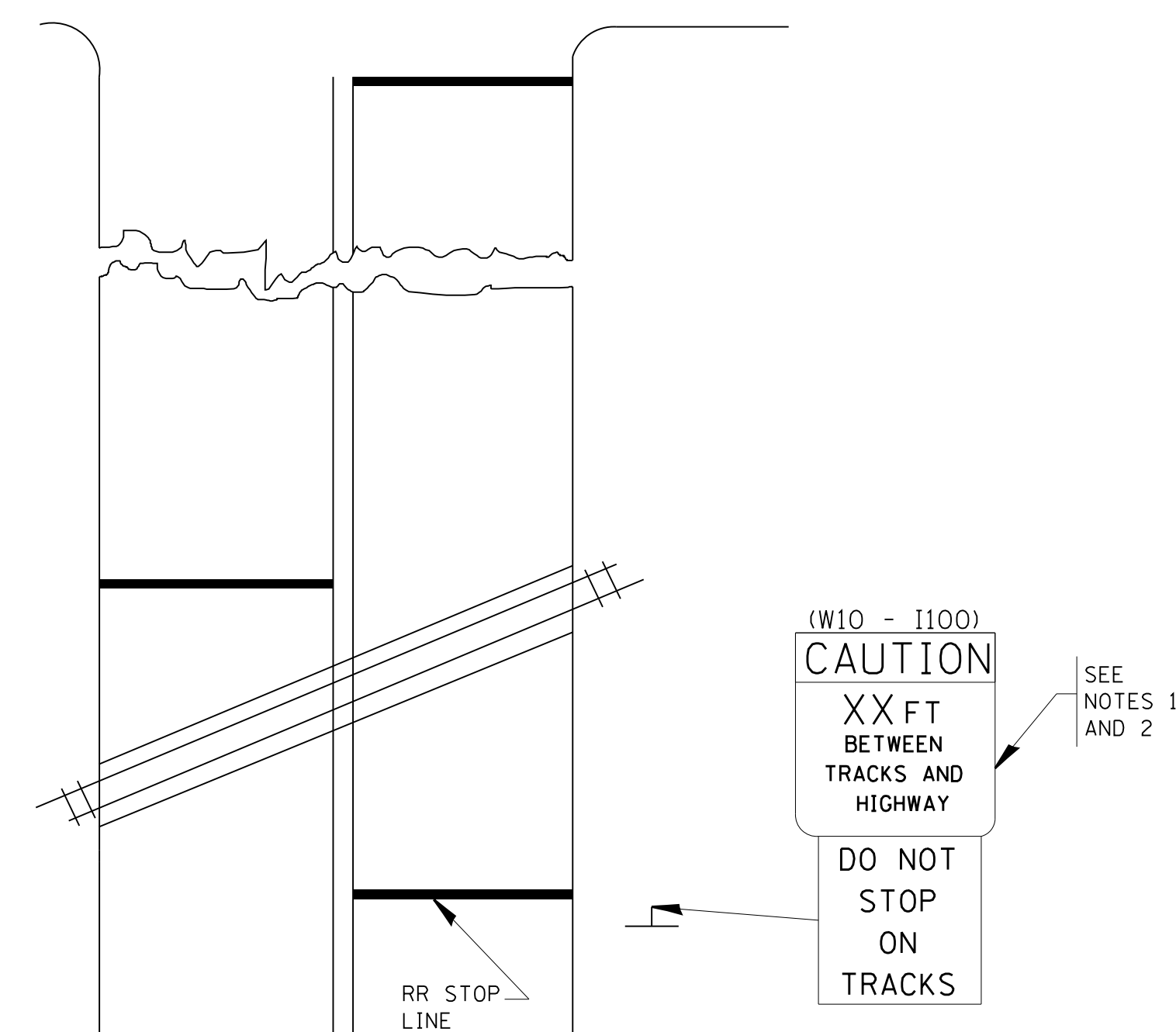
WITH INTERSECTION TRAFFIC SIGNALS

WITH NEAR-SIDE TRAFFIC SIGNALS



WITH NONSIGNALIZED INTERSECTION

81' (25 m) OR LESS TO CLOSEST RAIL



NOTES:

1. PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
2. WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED, THE PAVEMENT MARKINGS EXTENDS TO THE INTERSECTION.
3. WHERE THE ANGLE BETWEEN THE DIAGONAL STRIPES AND THE TRACK ( $\theta$ ) WOULD BE LESS THAN APPROXIMATELY 20°, THE STRIPES SHOULD BE SLOPED IN THE OPPOSITE DIRECTION FROM THAT SHOWN.

NOTE :

1. DISTANCE TO BE SHOWN ON SIGN MEASURED FROM A POINT 6 FEET (1.8 m) FROM THE RAIL CLOSEST TO THE INTERSECTION TO THE STOP LINE OR CROSSWALK, WHICHEVER IS CLOSEST, ROUNDED DOWN TO THE NEAREST 5 FEET (1.5 m). WHERE THERE IS NO STOP LINE, MEASURE TO POINT WHERE THE DRIVER HAS A VIEW OF APPROACHING TRAFFIC.
2. THE CLEARANCE SIGN IS ALSO TO BE USED AS AN INTERIM MEASURE AT LOCATIONS WITH INTERCONNECTED INTERSECTION TRAFFIC SIGNALS WHERE IT IS PLANNED TO CHANGE THEM TO NEAR-SIDE SIGNALS AT A FUTURE TIME. IN THIS CASE, THE DISTANCE TO BE SHOWN ON THE SIGN IS MEASURED FROM THE EDGE OF THE STRIPED-OUT AREA INSTEAD OF 6- FEET FROM THE RAIL. THE SIGN IS TO BE REMOVED WHEN THE NEAR-SIDE SIGNALS ARE INSTALLED AND THE PAVEMENT MARKINGS EXTEND TO THE INTERSECTION.

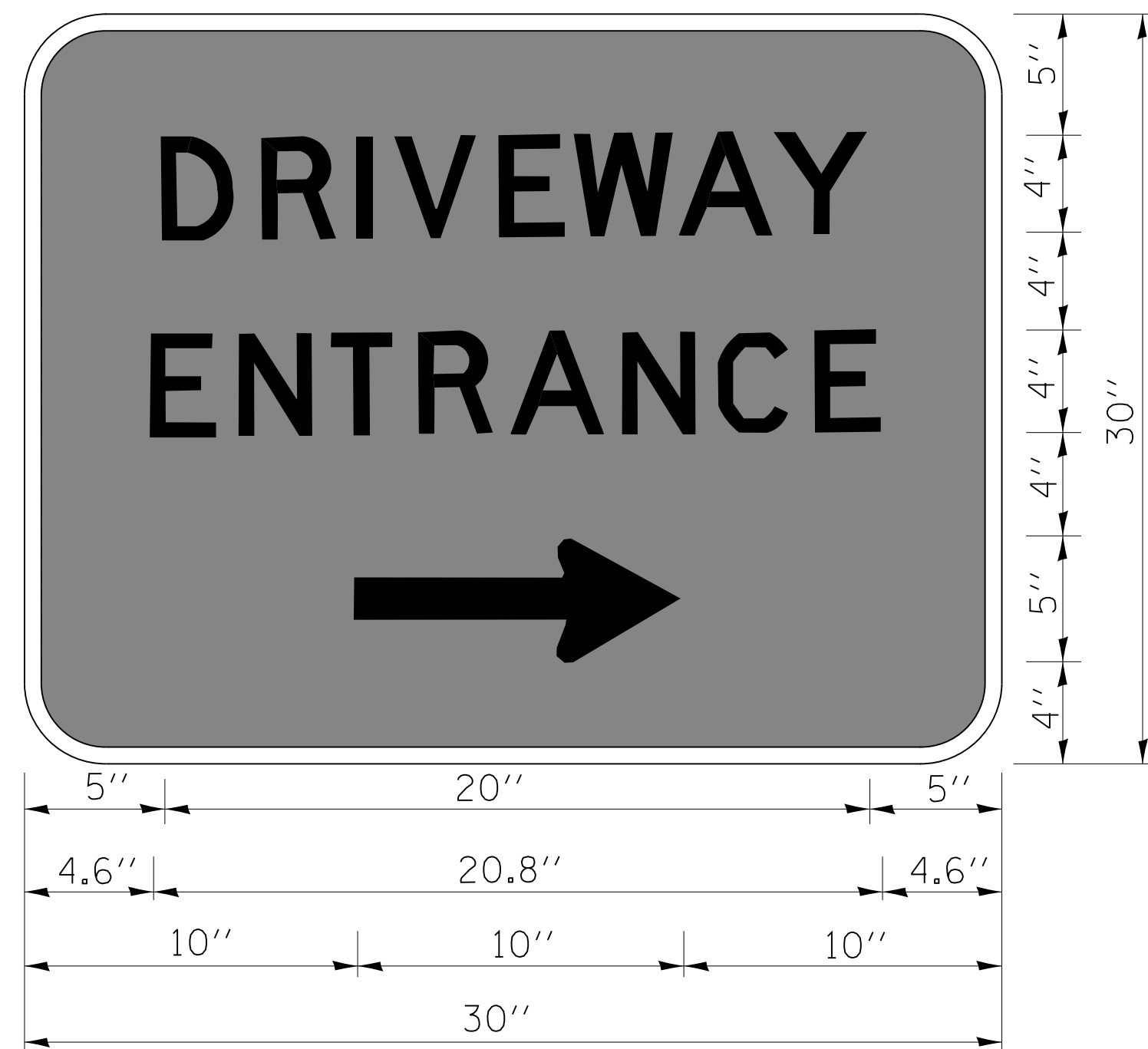
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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	PLOT SCALE = 50.0000' / 1" =	CHECKED -	REVISED -
	PLOT DATE = 7/2/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TYPICAL SUPPLEMENTAL SIGNING AND PAVEMENT MARKING TREATMENT FOR RAILROAD CROSSINGS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)RS-10	LAKE	42	40
TC-23			CONTRACT NO. 60X23	
FED. ROAD DIST. NO. 1   ILLINOIS FED. AID PROJECT				



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

**NOTES:**

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

FILE NAME =	USER NAME = pyzzenowskirb	DESIGNED -	REVISED - C. JUCIUS 02-15-07
et:\pw\work\p\dot\pyzzenowskirb\d0356580	ND102214-sht-plan.dgn	DRAWN -	REVISED -
	PLOT SCALE = 50.0000' / in.	CHECKED -	REVISED -
	PLOT DATE = 7/2/2014	DATE -	REVISED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

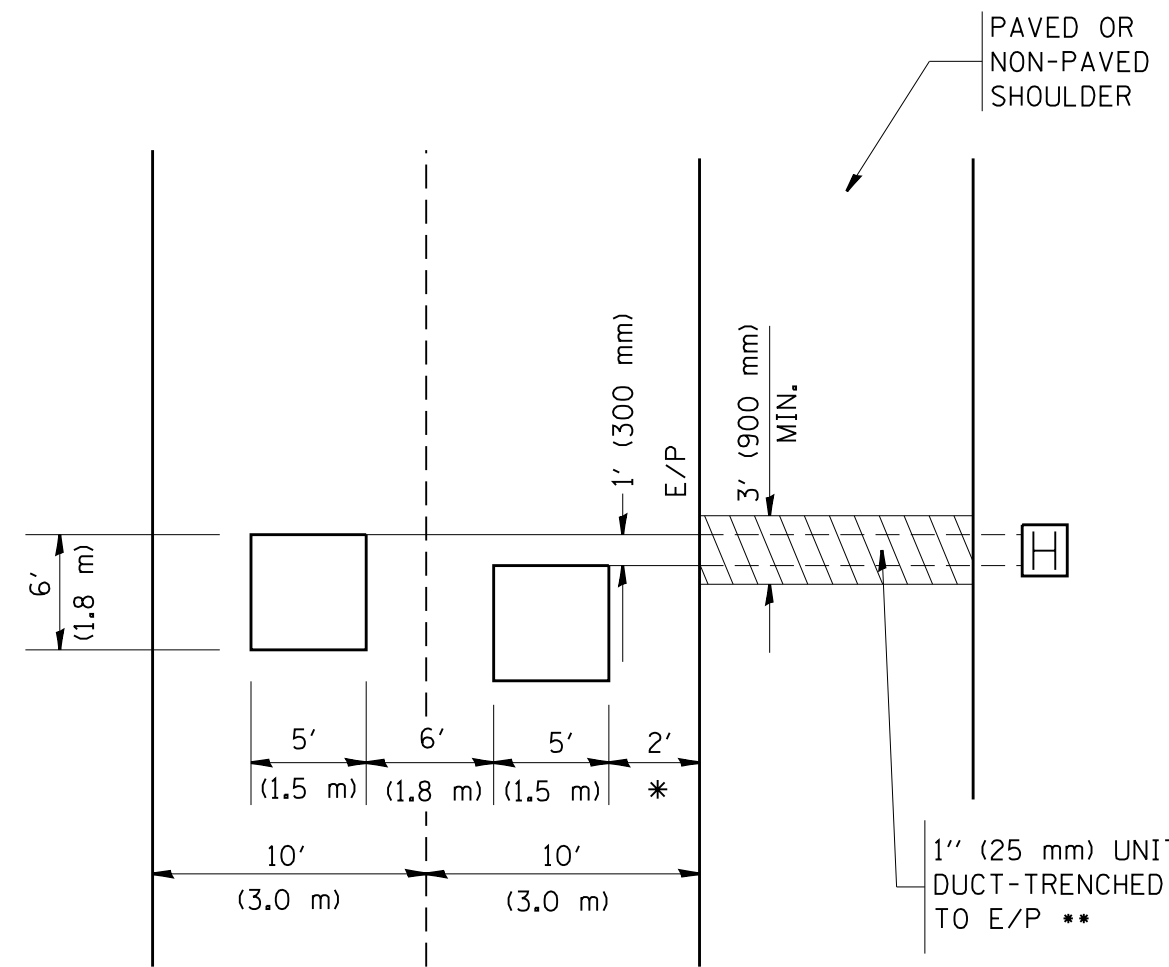
**DRIVEWAY ENTRANCE SIGNING**

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)RS-10	LAKE	42	41
<b>TC-26</b>		<b>CONTRACT NO. 60X23</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

LOOPS NEXT TO SHOULDERS

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



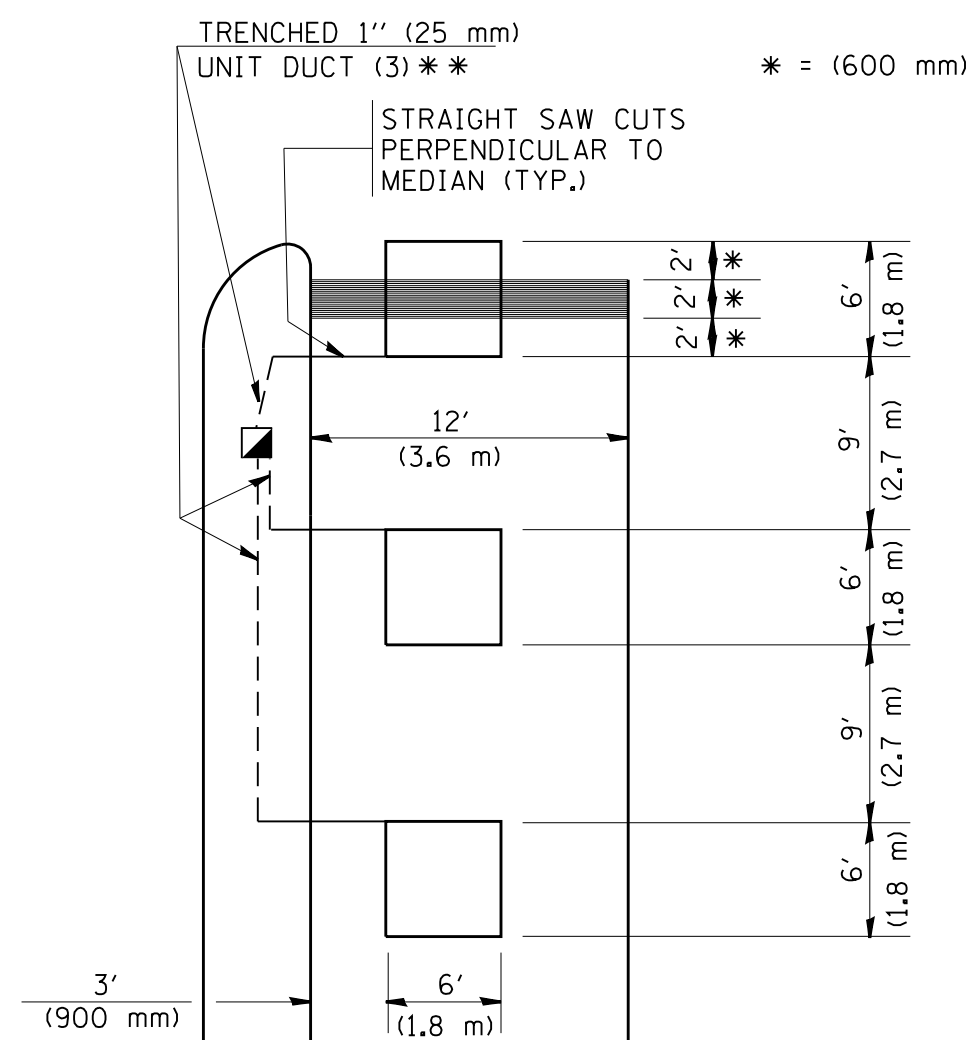
\* = (600 mm)

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

LEFT TURN LANES WITH MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH

(PROTECTED / PERMITTED LEFT TURN PHASING)

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



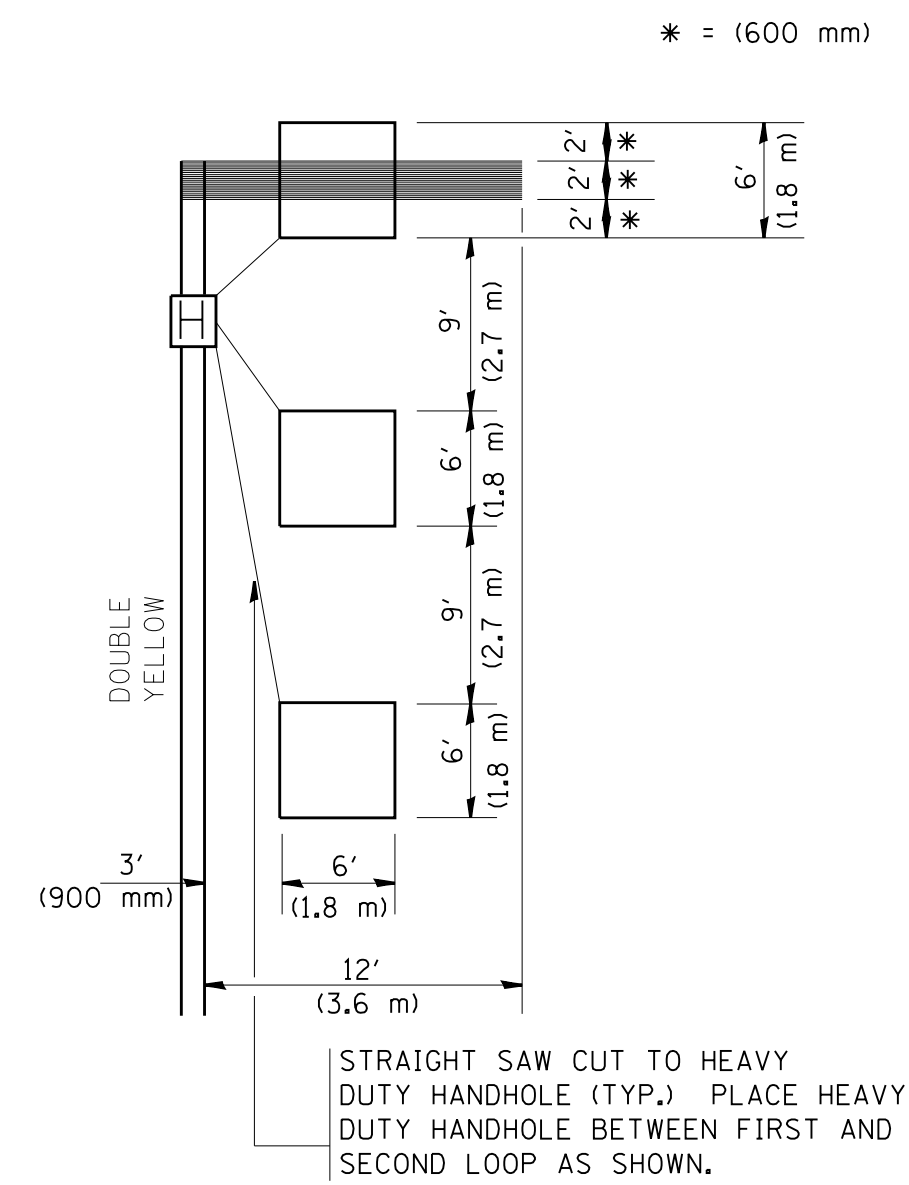
\* = (600 mm)

\*\* 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.

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.

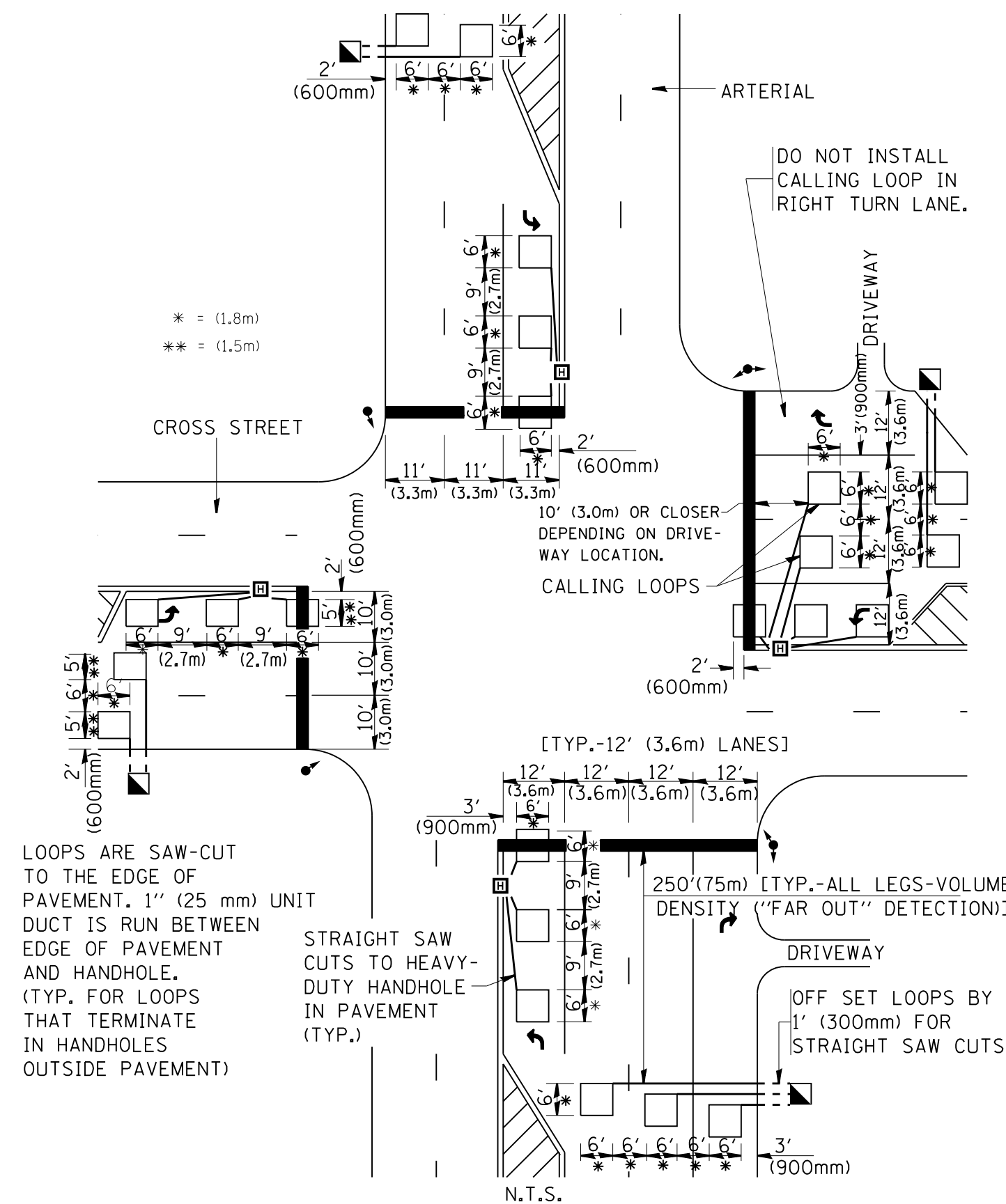
"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0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

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

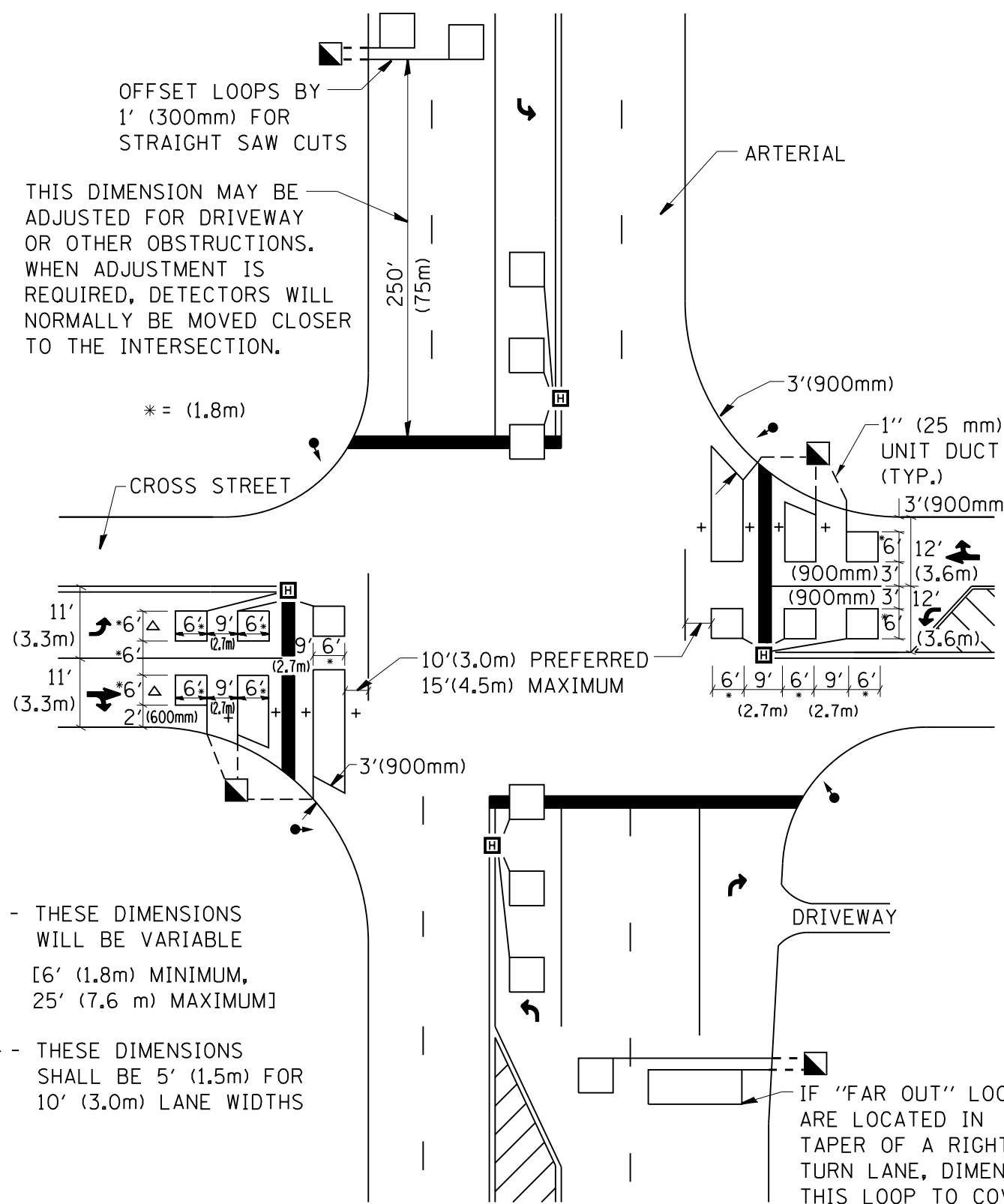


LOOPS ARE SAW-CUT TO THE EDGE OF PAVEMENT. 1" (25 mm) UNIT DUCT IS RUN BETWEEN EDGE OF PAVEMENT AND HANDHOLE. (TYP. FOR LOOPS THAT TERMINATE IN HANDHOLES OUTSIDE PAVEMENT)

STRAIGHT SAW CUTS TO HEAVY-DUTY HANDHOLE IN PAVEMENT (TYP.)

DETAIL 1  
N.T.S.

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



THIS DIMENSION MAY BE ADJUSTED FOR DRIVEWAY OR OTHER OBSTRUCTIONS. WHEN ADJUSTMENT IS REQUIRED, DETECTORS WILL NORMALLY BE MOVED CLOSER TO THE INTERSECTION.

+ - THESE DIMENSIONS WILL BE VARIABLE [6' (1.8m) MINIMUM, 25' (7.6 m) MAXIMUM]

△ - THESE DIMENSIONS SHALL BE 5' (1.5m) FOR 10' (3.0m) LANE WIDTHS

IF "FAR OUT" LOOPS ARE LOCATED IN TAPER OF A RIGHT TURN LANE, DIMENSION THIS LOOP TO COVER TAPER AREA. DO NOT COVER THE LEFT TURN LANE OR LEFT TURN LANE TAPER.

DETAIL 2  
N.T.S.

FILE NAME =	USER NAME = pyrzanawskirb	DESIGNED -	REVISED -
et:\pwwork\pwwork\pyrzanawskirb\d0356580	VD102214-sht-plan.dgn	DRAWN -	REVISED -
	PLOT SCALE = 50.0000' / 1"	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 7/2/2014	DATE -	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION  
DETAILS FOR ROADWAY RESURFACING

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

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
330	(2&2)ARS-10	LAKE	42	42
TS-07		CONTRACT NO. 60X23		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				