

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	120RS-4	MCHENRY	26	1
FED. ROAD DIST. NO. 1	ILLINOIS	CONTRACT NO. 60B62		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 335 : IL 176 (TERRA COTTA AVE.)

US 14 TO IL 31

SECTION: 120RS-4

RESURFACING (MAINTENANCE)

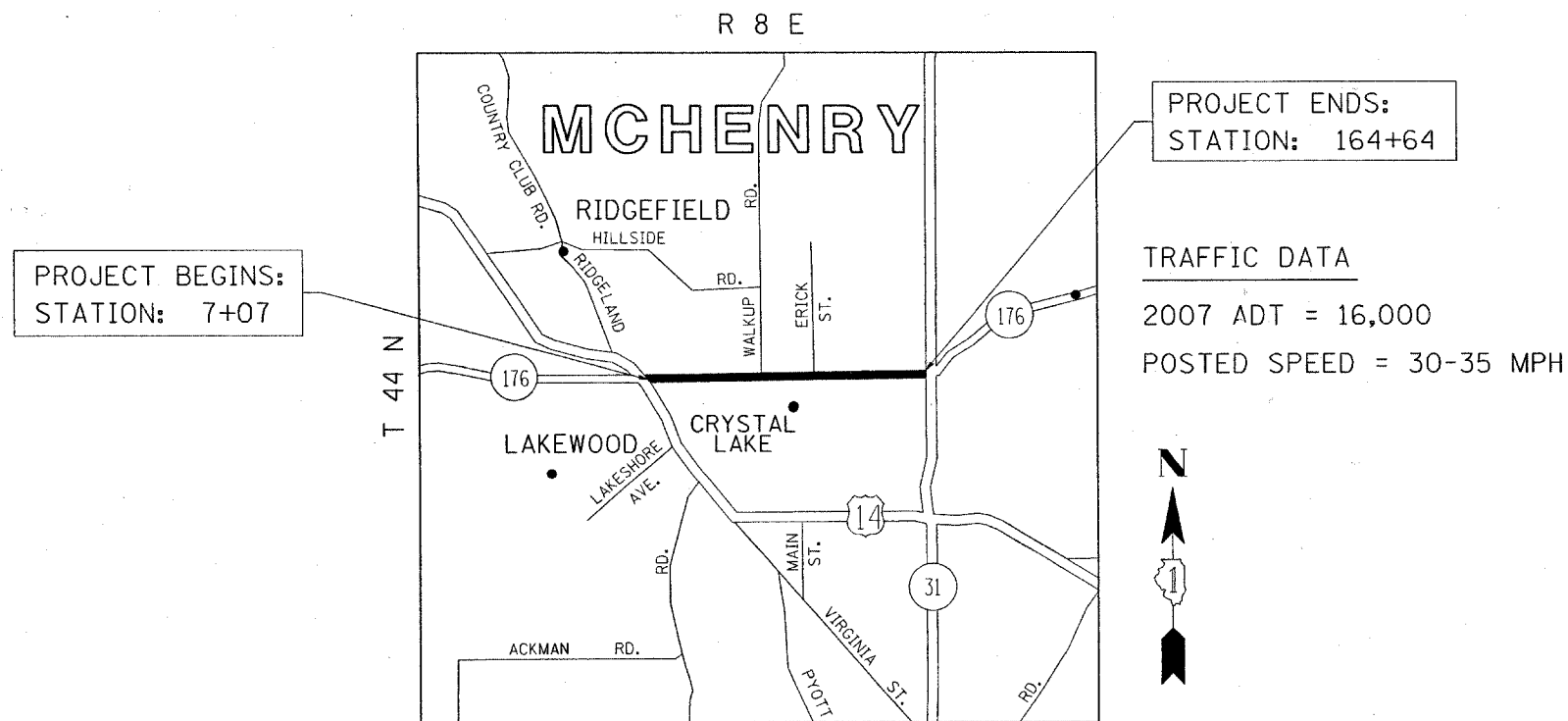
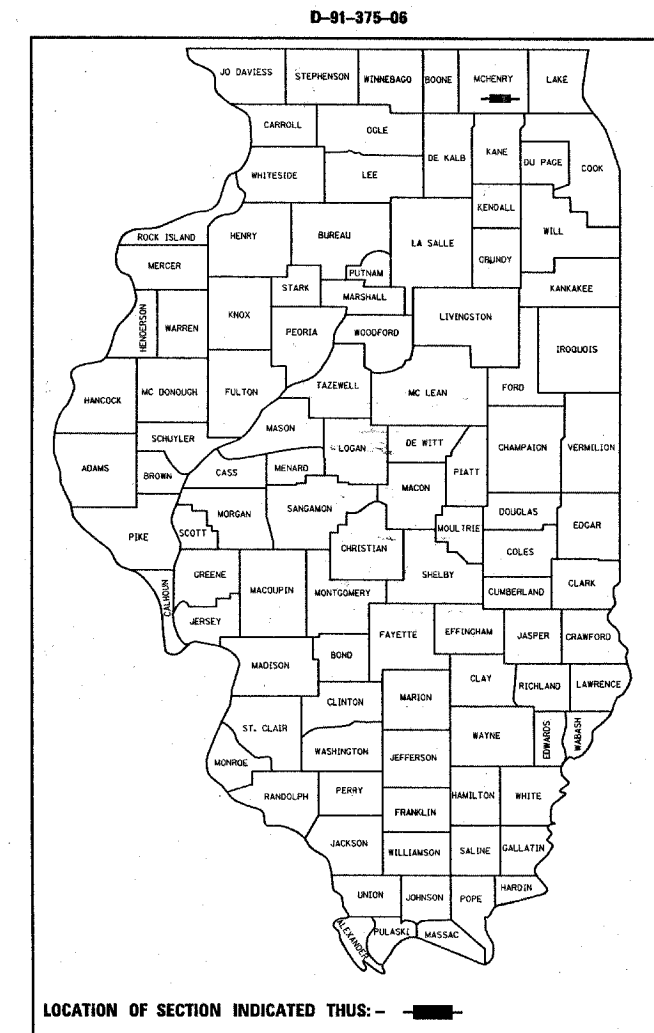
PROJECT: F-0335(010)

MCHENRY COUNTY

C-91-375-06

FOR INDEX OF SHEETS, SEE SHEET NO. 2

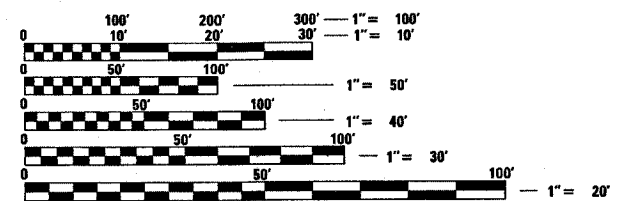
PROJECT LOCATED IN THE CITY OF CRYSTAL LAKE



PROJECT ENDS:
STATION: 164+64

PROJECT BEGINS:
STATION: 7+07

TRAFFIC DATA
2007 ADT = 16,000
POSTED SPEED = 30-35 MPH



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: JENPAI CHANG (847) 705-4432
PROJECT MANAGER: KEN ENG

CONTRACT NO. 60B62

GROSS AND NET LENGTH OF PROJECT = 15,757 FEET (2.98 MILES)

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED APRIL 2, 2008

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

May 9, 2008
Eric E. Horn
ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 2008
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

STATE STANDARDS

GENERAL NOTES

<u>SHEET NO.</u>	<u>DESCRIPTION</u>	<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
1	TITLE SHEET	000001-05	TYPICAL SYMBOLS, ABBREVIATIONS AND PATTERNS
2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES	442201-03	CLASS C AND D PATCHES
3	SUMMARY OF QUANTITIES	604001-02	FRAME AND LIDS, TYPE 1
4-5	EXISTING AND PROPOSED TYPICAL SECTIONS	604091-01	FRAME AND GRATE, TYPE 24
6-11	ROADWAY AND PAVEMENT MARKING PLANS	606001-03	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
12-15	DETECTOR LOOP REPLACEMENT PLANS	701006-02	OFF-ROAD OPERATIONS, 2L, 2W, 4.5 M (15') TO 600 MM (24") FROM PAVEMENT EDGE
16	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT	701011-01	OFF-ROAD MOVING OPERATIONS, 2L, 2W DAY ONLY
17	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	701201-02	LANE CLOSURE, 2L, 2W, DAY ONLY, ON-ROAD TO 600 MM (24") OFF-ROAD
18	BUTT JOINT AND HMA TAPER	701306-01	LANE CLOSURE, 2L, 2W, SLOW MOVING OPERATIONS - DAY ONLY
19	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS AND DRIVEWAYS	701501-04	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
20	TYPICAL APPLICATIONS: RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)	701901	TRAFFIC CONTROL DEVICES
21	DISTRICT ONE TYPICAL PAVEMENT MARKINGS	886001	DETECTOR LOOP INSTALLATION
22	TRAFFIC CONTROL AND PROTECTION OF TURN BAYS (TO REMAIN OPEN TO TRAFFIC)	886006	TYPICAL LAYOUT FOR DETECTION LOOPS
23	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING		
24	ARTERIAL INFORMATION SIGNING		
25	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN		
26	DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING		

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

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

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

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

WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.

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

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

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.

THE RESIDENT ENGINEER SHALL CONTACT MS. DEBBIE HANLON, AREA TRAFFIC FIELD ENGINEER, AT (847) 438-2300 A MINIMUM OF 2 WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO THE INSTALLATION OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.

FILE NAME = c:\projects\dl37506\dl37506a.dgn	USER NAME = wilgreenp	DESIGNED - DRAWN -	REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 176 (US 14 TO IL 31 INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES		F.A.P. RTE. 335	SECTION 120RS-4	COUNTY MCHENRY	TOTAL SHEETS 26	SHEET NO. 2	
	PLOT SCALE = 50,0000 ' / IN.	CHECKED -	REVISED -		SCALE:	SHEET NO. 2 OF 26 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
	PLOT DATE = 4/7/2008	DATE -	REVISED -		CONTRACT NO. 60B62							

SUMMARY OF QUANTITIES			URBAN 80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		I000-2A				
20201006	GRADING AND SHAPING SHOULDERS	UNIT	160	160				
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	52	52				
40600300	AGGREGATE (PRIME COAT)	TON	130	130				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	33	33				
40600895	CONSTRUCTING TEST STRIP	EACH	1	1				
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	540	540				
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	1214	1214				
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	5460	5460				
42001300	PROTECTIVE COAT	SQ YD	170	170				
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	65000	65000				
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	500	500				
44002224	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 6"	SQ YD	3614	3614				
44201749	CLASS D PATCHES, TYPE I, 9 INCH	SQ YD	297	297				
44201753	CLASS D PATCHES, TYPE II, 9 INCH	SQ YD	1485	1485				
44201757	CLASS D PATCHES, TYPE III, 9 INCH	SQ YD	445	445				
44201759	CLASS D PATCHES, TYPE IV, 9 INCH	SQ YD	743	743				
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	1215	1215				
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	5	5				
60300305	FRAMES AND LIDS TO BE ADJUSTED	EACH	1	1				
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	57	57				
60404950	FRAMES AND GRATES, TYPE 24	EACH	1	1				
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	14	14				
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6				
67100100	MOBILIZATION	L SUM	1	1				
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1	1				
70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	L SUM	1	1				

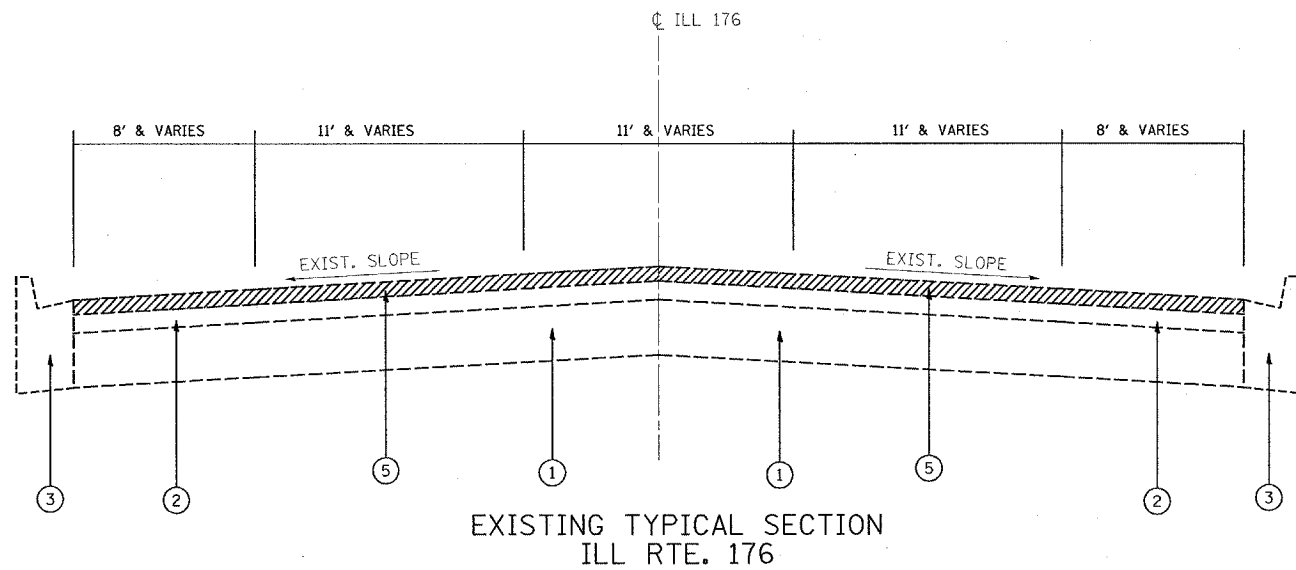
SUMMARY OF QUANTITIES			URBAN 80% FED. 20% STATE TOTAL QUANTITIES	CONSTRUCTION TYPE CODE				
CODE NO	ITEM	UNIT		I000-2A				
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1				
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	9950	9950				
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	930	930				
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	60,350	60,350				
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	3770	3770				
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	1525	1525				
70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	400	400				
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	3315	3315				
72400100	REMOVE SIGN PANEL ASSEMBLY - TYPE A	EACH	2	2				
* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	930	930				
* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	60,350	60,350				
* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	3770	3770				
* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	1525	1525				
* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	400	400				
* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	627	627				
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	502	502				
* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	2137	2137				
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4				
X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	2560	2560				
NP Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	64	64				
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1				
© 20076600	TRAINERS	HOUR	1000	1000				

* SPECIALTY ITEM
NP = Non-participating
© Y180

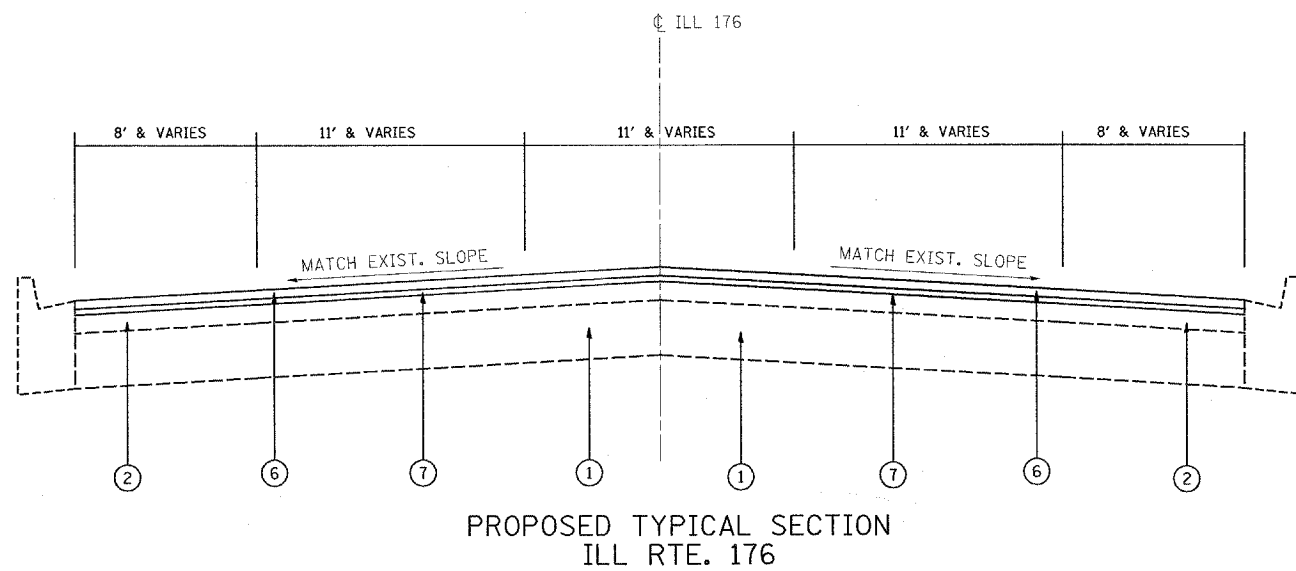
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES

4/7/2008 10:56:11 AM



STATION:
 7+07 TO 12+83
 33+16 TO 41+09
 53+98 TO 70+32
 159+30 TO 164+64



STATION:
 7+07 TO 12+83
 33+16 TO 41+09
 53+98 TO 70+32
 159+30 TO 164+64

LEGEND

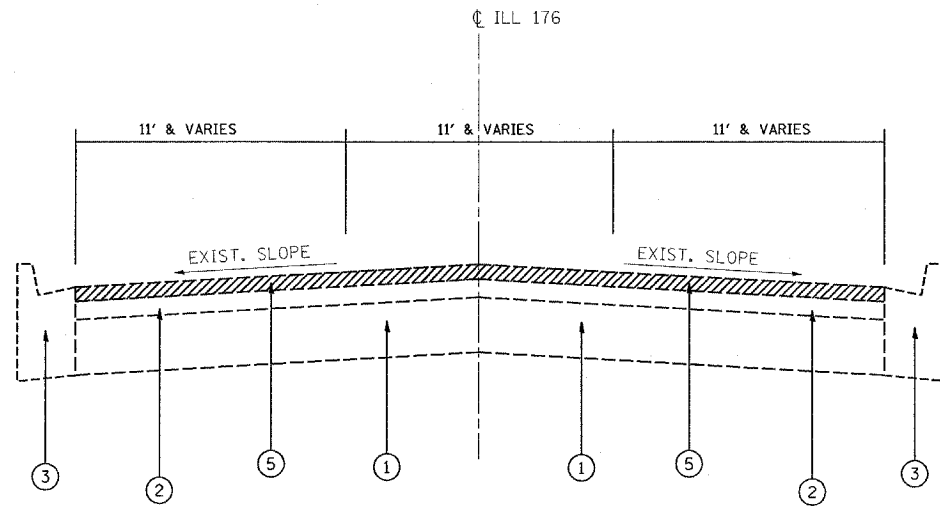
- ① EXISTING PCC BASE COURSE, 9''(±)
- ② EXISTING HOT-MIX ASPHALT SURFACE COURSE, 6''(±)
- ③ EXISTING CONC. CURB AND GUTTER, TYPE B-6.24
- ④ EXISTING AGGREGATE SHOULDER, 6''
- ⑤ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL - 2 1/4 ''
- ⑥ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2''
- ⑦ PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4''
- ⑧ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- ⑨ PROPOSED GRADING AND SHAPING SHOULDERS

HOT-MIX ASPHALT MIXTURE REQUIREMENTS

	MIXTURE USE	AC TYPE	AIR VOIDS (%)
ROADWAY	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 MM), 1 1/2 ''	PG 64-22	4% @ 70 GYR
	POLYMERIZED LEVELING BINDER, (MM) IL-4.75, N50, 3/4''	SBS/SBR PG 76-28/-22	4% @ 50 GYR
PATCHES	CLASS D PATCHES, (HMA BINDER IL-19.0 MM), 9''	PG 64-22 *	4% @ 70 GYR
	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES, (HMA BINDER IL-19.0 MM)	PG 64-22 *	4% @ 70 GYR

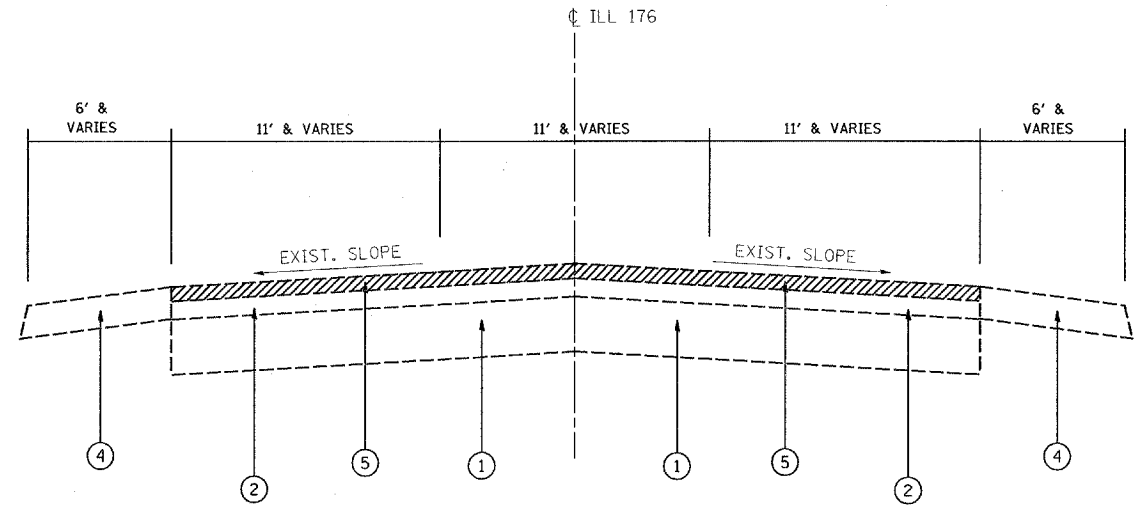
THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE QUANTITIES IS 112 LBS/SY/IN.

* WHEN RAP EXCEEDS 20%, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22



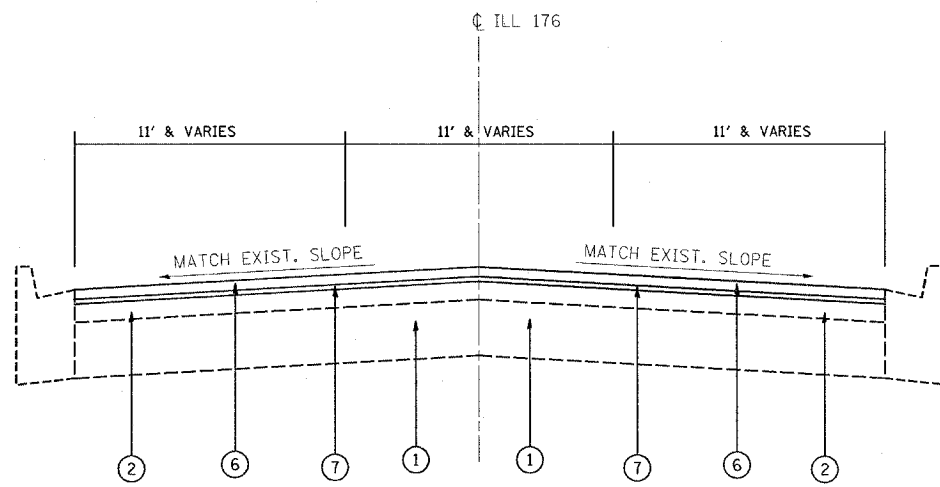
EXISTING TYPICAL SECTION
ILL RTE. 176

STATION:
70+32 TO 107+38
134+13 TO 142+95



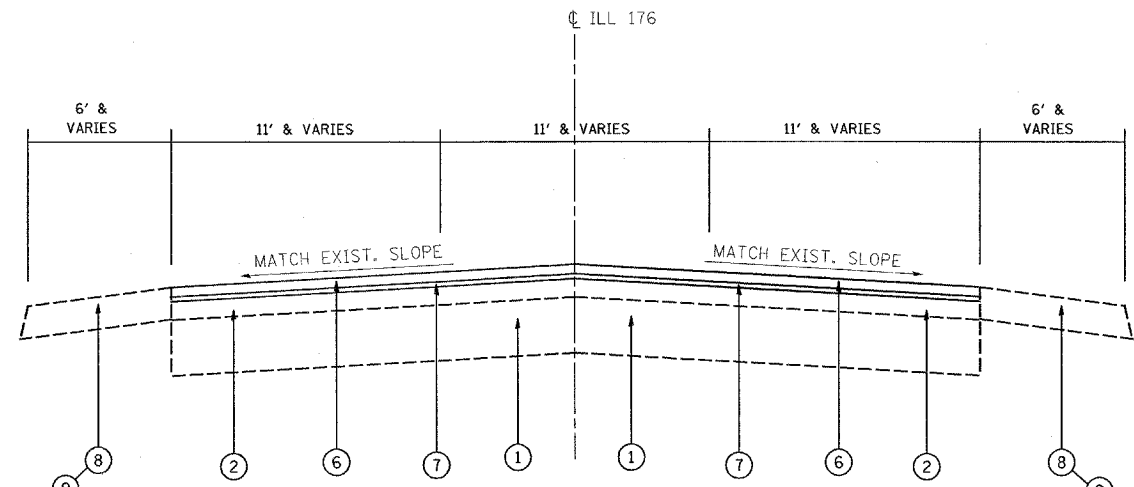
EXISTING TYPICAL SECTION
ILL RTE. 176

STATION:
12+83 TO 33+16
41+09 TO 53+98
107+38 TO 134+13
142+95 TO 159+30



PROPOSED TYPICAL SECTION
ILL RTE. 176

STATION:
70+32 TO 107+38
137+33 TO 142+95



PROPOSED TYPICAL SECTION
ILL RTE. 176

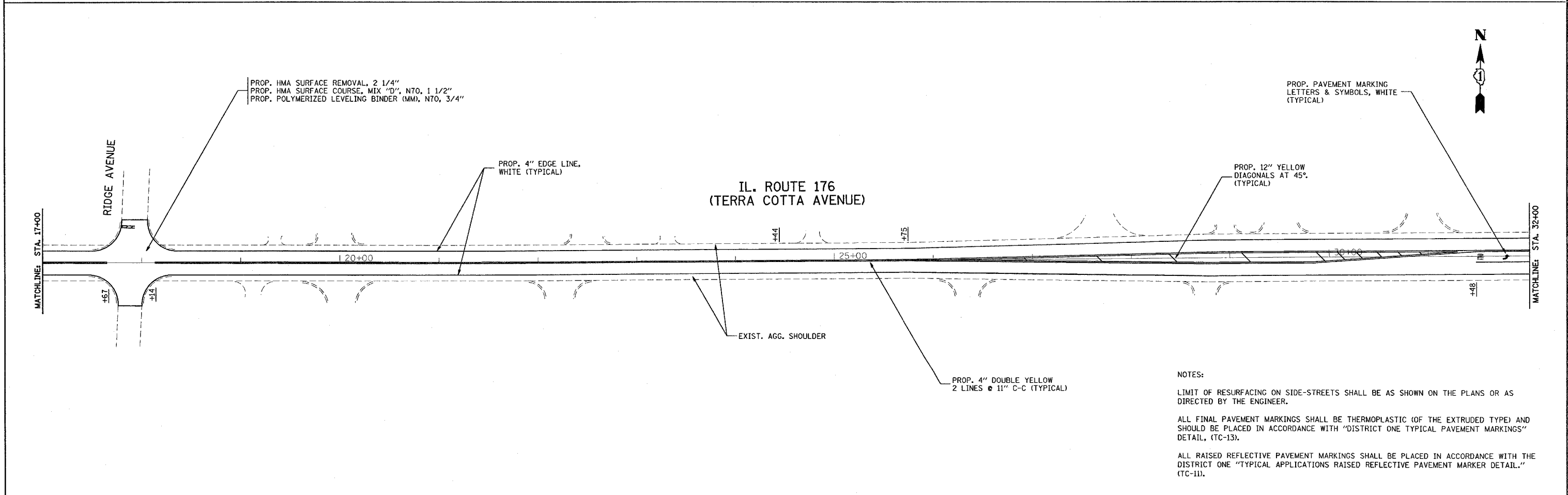
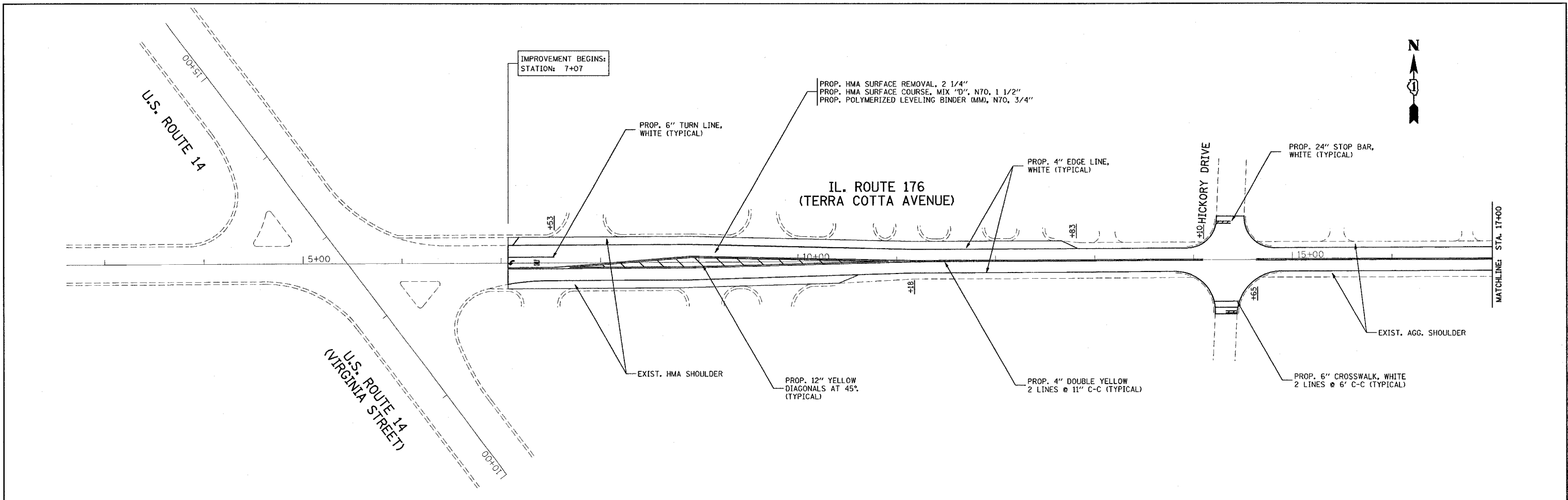
STATION:
12+83 TO 33+16
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LEGEND

- ① EXISTING PCC BASE COURSE, 9''(±)
- ② EXISTING HOT-MIX ASPHALT SURFACE COURSE, 6''(±)
- ③ EXISTING CONC. CURB AND GUTTER, TYPE B-6.24
- ④ EXISTING AGGREGATE SHOULDER, 6''
- ⑤ PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL - 2 1/4 ''

- ⑥ PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", 7NO, 1 1/2''
- ⑦ PROPOSED POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50, 3/4''
- ⑧ PROPOSED AGGREGATE WEDGE SHOULDER, TYPE B
- ⑨ PROPOSED GRADING AND SHAPING SHOULDERS

FILE NAME = o:\projects\dl37506\dl37506.dgn	USER NAME = wilgreendp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	IL 176 (US 14 TO IL 31) EXISTING AND PROPOSED TYPICAL SECTIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -					335	120RS-4	MCHENRY	26	5
PLOT DATE = 4/7/2008	CHECKED -	REVISED -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	CONTRACT NO. 60B62			
	DATE -	REVISED -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							



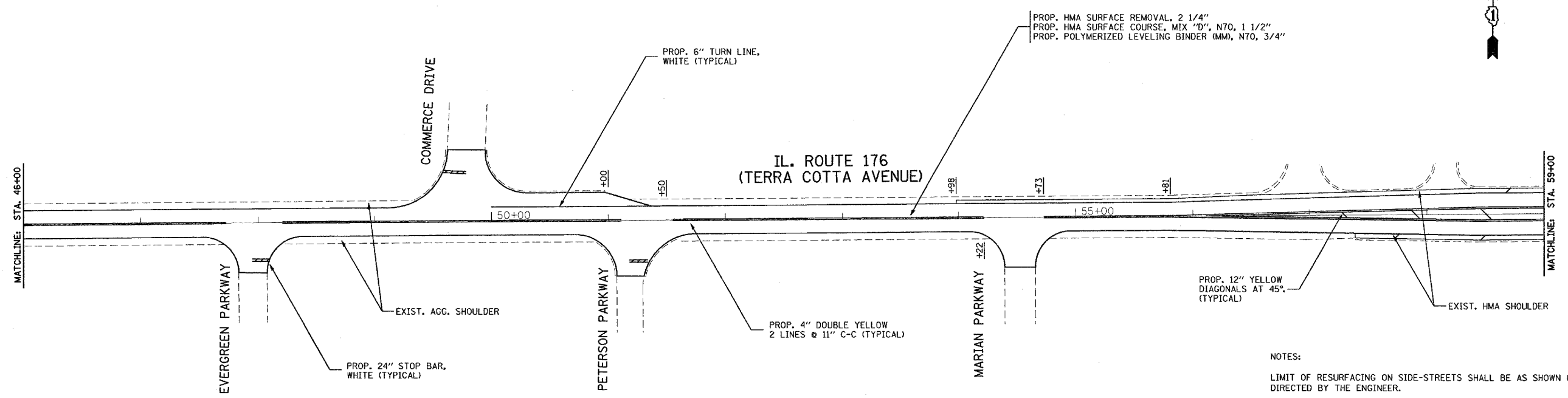
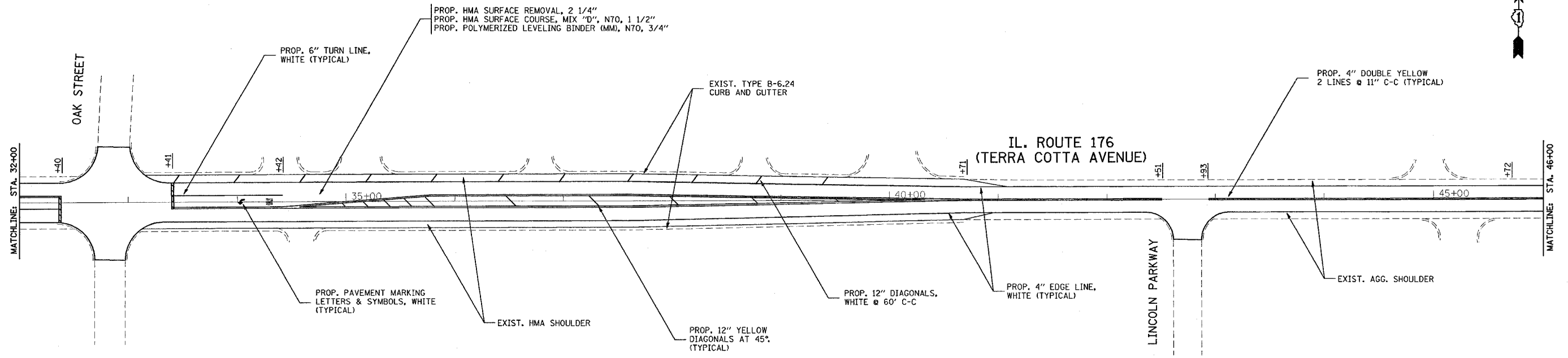
NOTES:

LIMIT OF RESURFACING ON SIDE-STREETS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

ALL FINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL, (TC-13).

ALL RAISED REFLECTIVE PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKER DETAIL." (TC-11).

FILE NAME = c:\projects\dl37506\dl37506a.dgn	USER NAME = wlg-aendp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY AND PAVEMENT MARKING PLANS IL 176 (US 14 TO IL 31)			F.A.P. RTE. 335	SECTION 120RS-4	COUNTY MCHENRY	TOTAL SHEETS 26	SHEET NO. 6
	PLOT SCALE = 50.0000' / IN.	DRAWN -	REVISED -		SCALE:	SHEET NO. 6 OF 26 SHEETS	STA.	TO STA.	CONTRACT NO. 60B62			
	PLOT DATE = 5/6/2008	CHECKED -	REVISED -		FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT							
		DATE -	REVISED -		REV. 1							



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USER NAME = wlgreendp
PLOT SCALE = 50.0000' / IN.
PLOT DATE = 5/6/2008

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DATE -	REVISED -

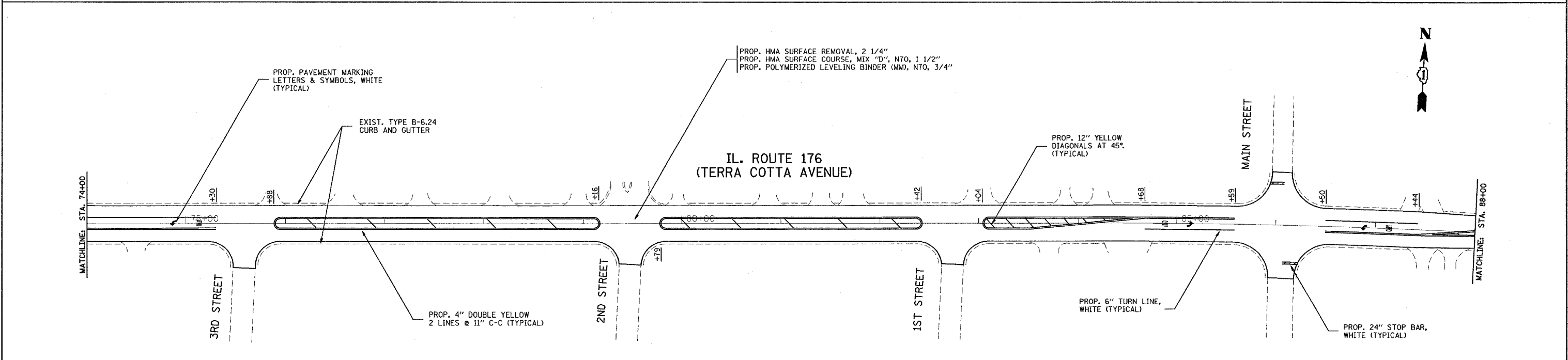
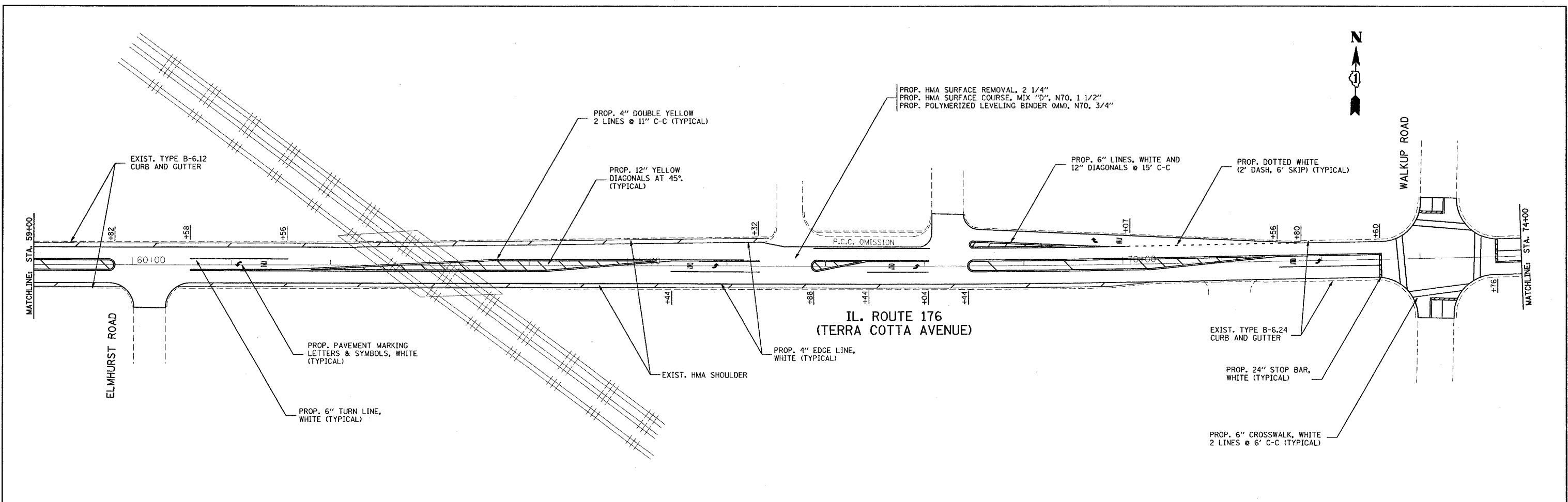
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ROADWAY AND PAVEMENT MARKING PLANS
IL 176 (US 14 TO IL 31)**

SCALE: SHEET NO. 7 OF 26 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	120RS-4	MCHENRY	26	7
CONTRACT NO. 60B62				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

REV. 1



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FILE NAME = c:\projects\dl37506\dl37506aa.dgn

USER NAME = wilgreendp

PLOT SCALE = 50.0000' / IN.

PLOT DATE = 5/6/2008

DESIGNED -

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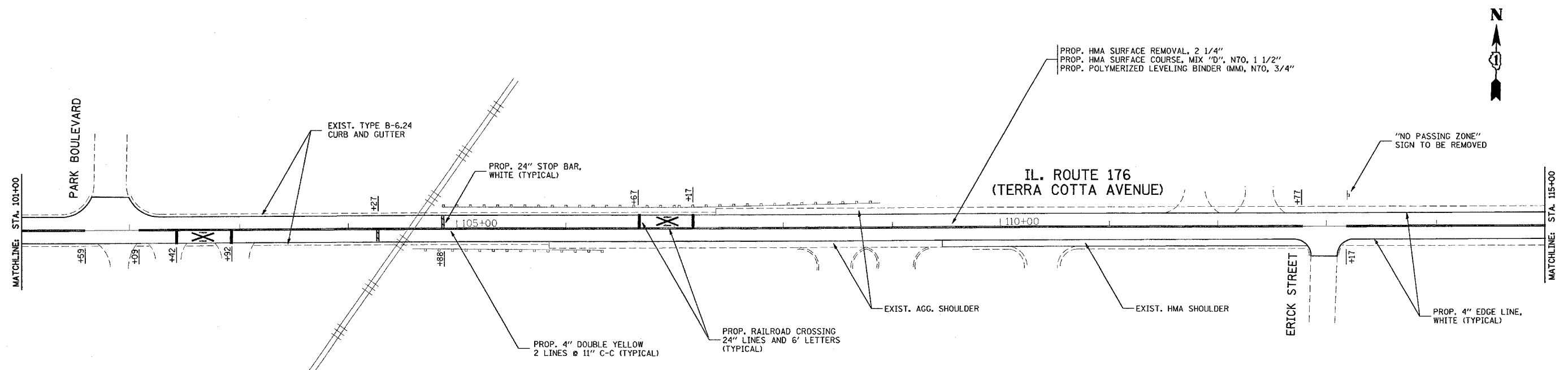
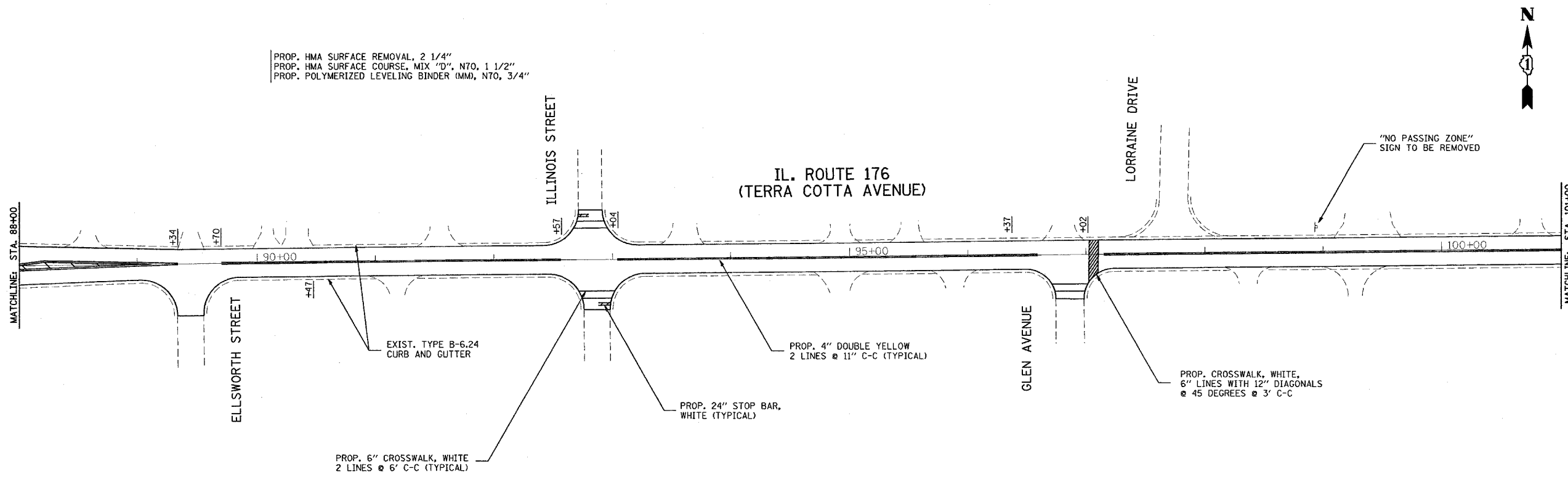
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROADWAY AND PAVEMENT MARKING PLANS
IL 176 (US 14 TO IL 31)

SCALE: SHEET NO. 8 OF 26 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	120RS-4	MCHENRY	26	8
CONTRACT NO. 60B62				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

REV. 1



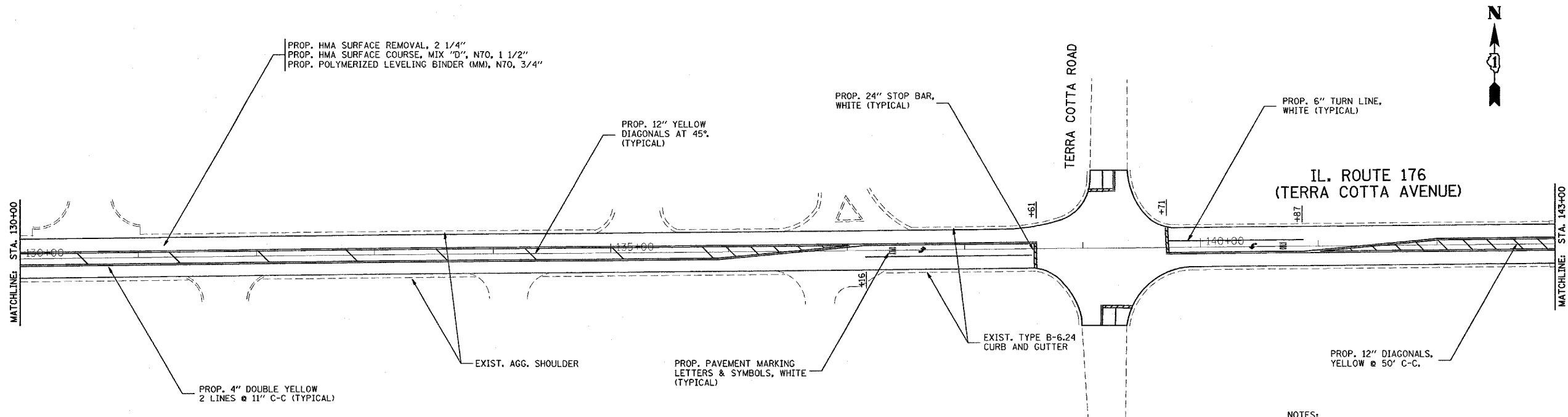
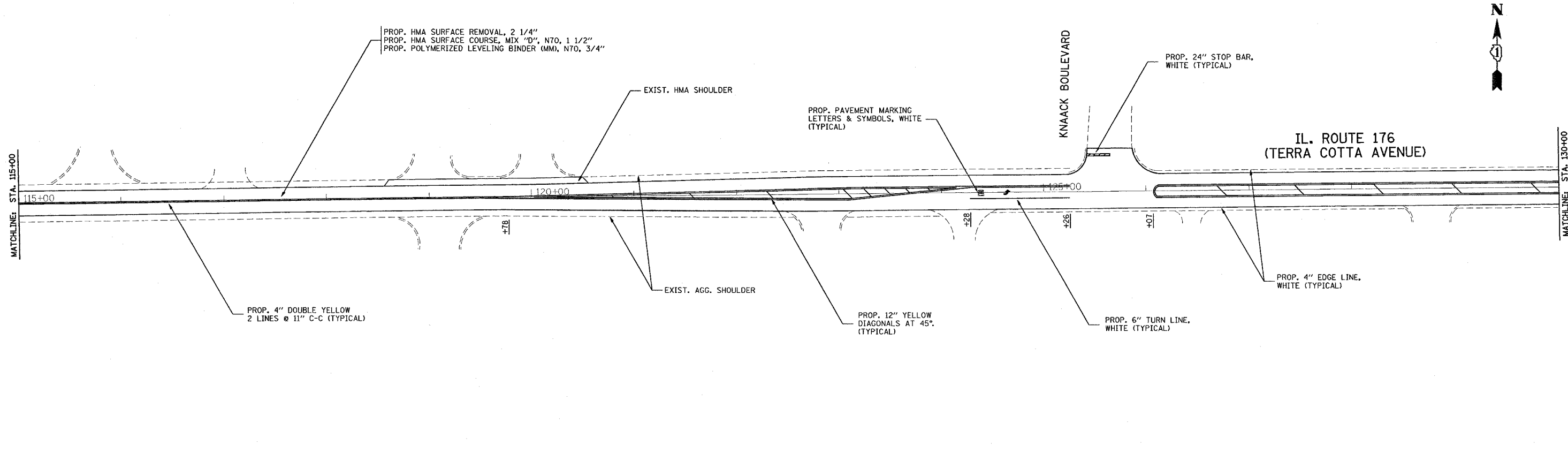
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FILE NAME = c:\projects\dl37506\dl37506a.dgn	USER NAME = wilg-randp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY AND PAVEMENT MARKING PLANS IL 176 (US 14 TO IL 31)		F.A.P. RTE. 335	SECTION 120RS-4	COUNTY MCHENRY	TOTAL SHEETS 26	SHEET NO. 9	
PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -	REVISED -		SCALE:	SHEET NO. 9 OF 26 SHEETS	STA.	TO STA.	CONTRACT NO. 60B62			
PLOT DATE = 5/6/2008	DATE -	REVISED -	REVISED -		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
REV. 1												



NOTES:

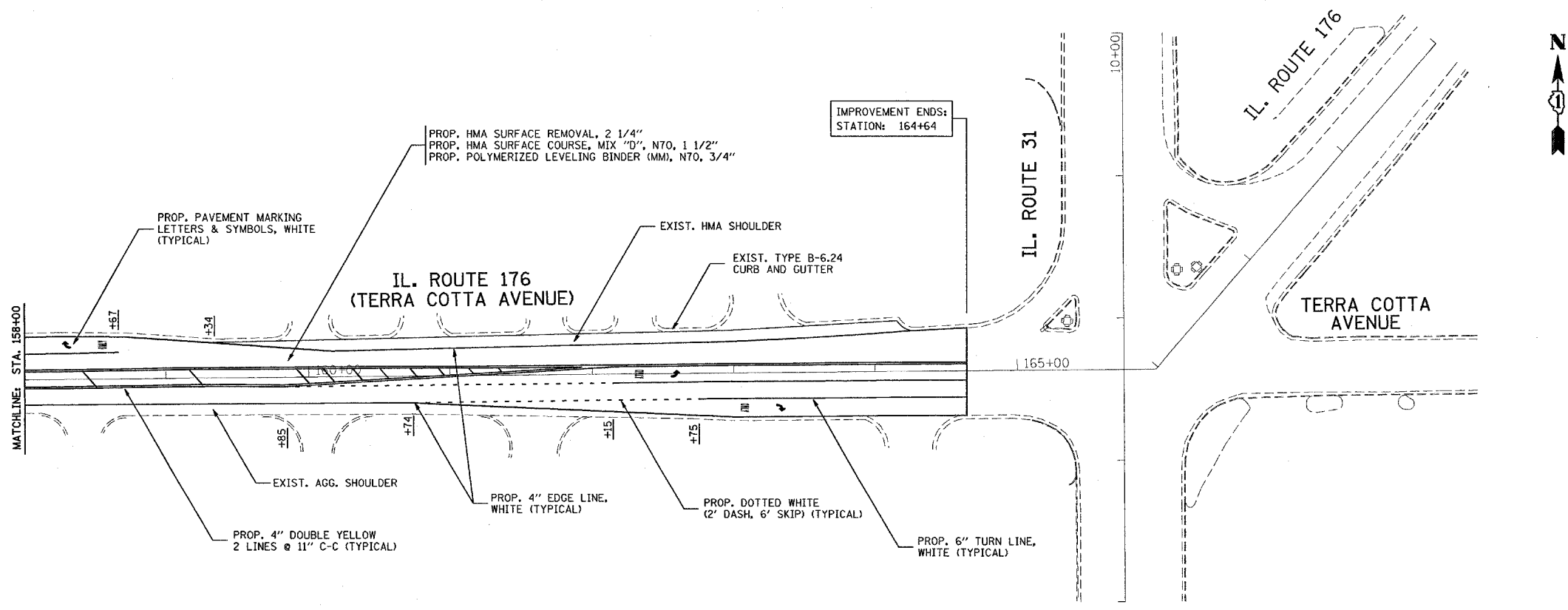
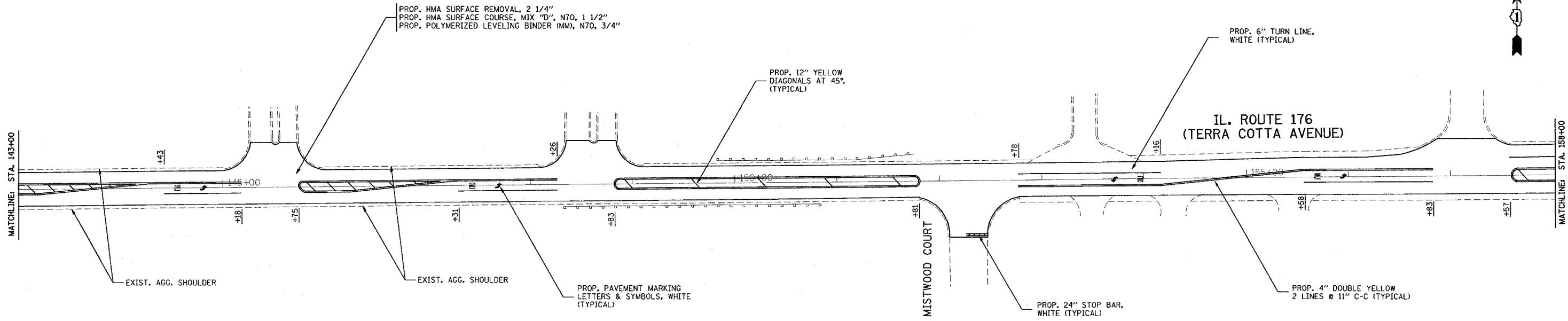
LIMIT OF RESURFACING ON SIDE-STREETS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

ALL FINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL, (TC-13).

ALL RAISED REFLECTIVE PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKER DETAIL," (TC-11).

FILE NAME = c:\projects\dl37506\dl37506aa.dgn	USER NAME = wjlgreendp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY AND PAVEMENT MARKING PLANS IL 176 (US 14 TO IL 31)			F.A.P. RTE. 335	SECTION 120RS-4	COUNTY MCHENRY	TOTAL SHEETS 26	SHEET NO. 10
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -					SCALE:	SHEET NO. 10 OF 26 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	
PLOT DATE = 5/6/2008	DATE -	REVISED -	REVISED -					CONTRACT NO. 60B62				

REV. 1



NOTES:

LIMIT OF RESURFACING ON SIDE-STREETS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

ALL FINAL PAVEMENT MARKINGS SHALL BE THERMOPLASTIC (OF THE EXTRUDED TYPE) AND SHOULD BE PLACED IN ACCORDANCE WITH "DISTRICT ONE TYPICAL PAVEMENT MARKINGS" DETAIL, (TC-13).

ALL RAISED REFLECTIVE PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE DISTRICT ONE "TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKER DETAIL." (TC-11).

FILE NAME = c:\projects\137508\137508aa.dgn	USER NAME = wilgreenp	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ROADWAY AND PAVEMENT MARKING PLANS IL 176 (US 14 TO IL 31)			F.A.P. RTE. 335	SECTION 120RS-4	COUNTY MCHENRY	TOTAL SHEETS 26	SHEET NO. 11
PLOT SCALE = 50,000 / IN.	DATE = 5/6/2008	DRAWN -	REVISED -		SCALE:	SHEET NO. 11 OF 26 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			
		CHECKED -	REVISED -									
		DATE -	REVISED -									
CONTRACT NO. 60B62												

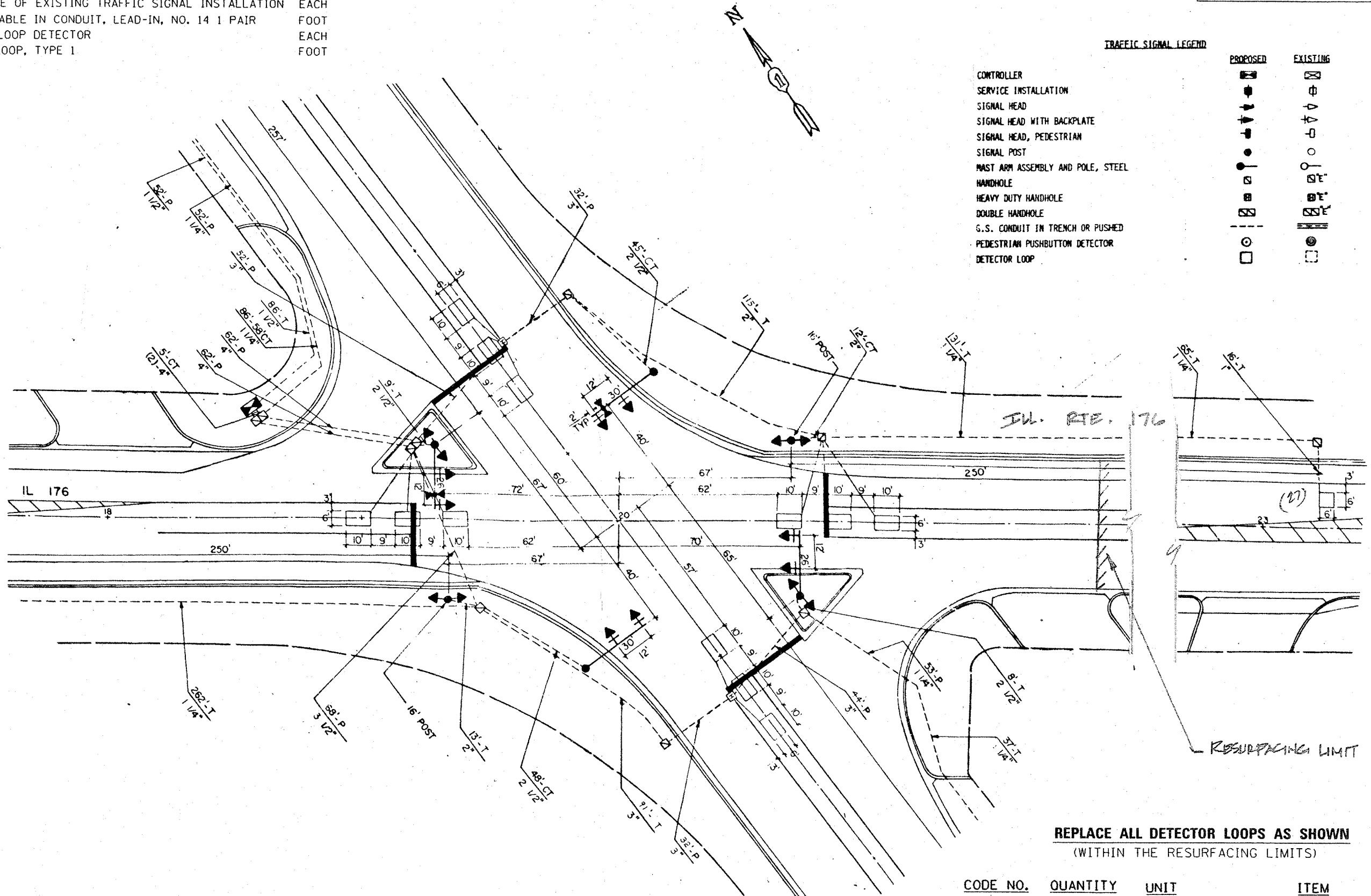
REV. 1

RESURFACING - TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

The "Pay Items" below are paid separately as per the attached "Specification" for MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION.

Code No.	Pay Item	Unit	Quantity
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	
88500100	INDUCTIVE LOOP DETECTOR	EACH	
88600100	DETECTOR LOOP, TYPE 1	FOOT	

NOTE:
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.



TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
SIGNAL HEAD WITH BACKPLATE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G.S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]
PEDESTRIAN PUSHBUTTON DETECTOR	[Symbol]	[Symbol]
DETECTOR LOOP	[Symbol]	[Symbol]

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

CODE NO.	QUANTITY	UNIT	ITEM
86600600	27	FOOT	DETECTOR LOOP REPLACEMENT

FILE NAME = c:\projects\view\traffic\traffic_gen.dgn	USER NAME = kanthaphaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETECTOR LOOP REPLACEMENT U.S. ROUTE 14 @ ILLINOIS ROUTE 176	F.A.P. RTE. 335	SECTION 120RS-4	COUNTY MCHENRY	TOTAL SHEETS 26	SHEET NO. 12
PLOT SCALE = 100.0002 "/> <td>PLOT DATE = 3/25/2008</td> <td>CHECKED -</td> <td>REVISED -</td> <td>CONTRACT NO. 60B62</td>	PLOT DATE = 3/25/2008	CHECKED -	REVISED -			CONTRACT NO. 60B62				
DATE -	REVISED -	SCALE:	SHEET NO. OF SHEETS			STA. TO STA.	FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	

view\traffic_gen.dgn 3/25/2008 3:18:14 PM User=kanthaphaybc

RESURFACING - TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

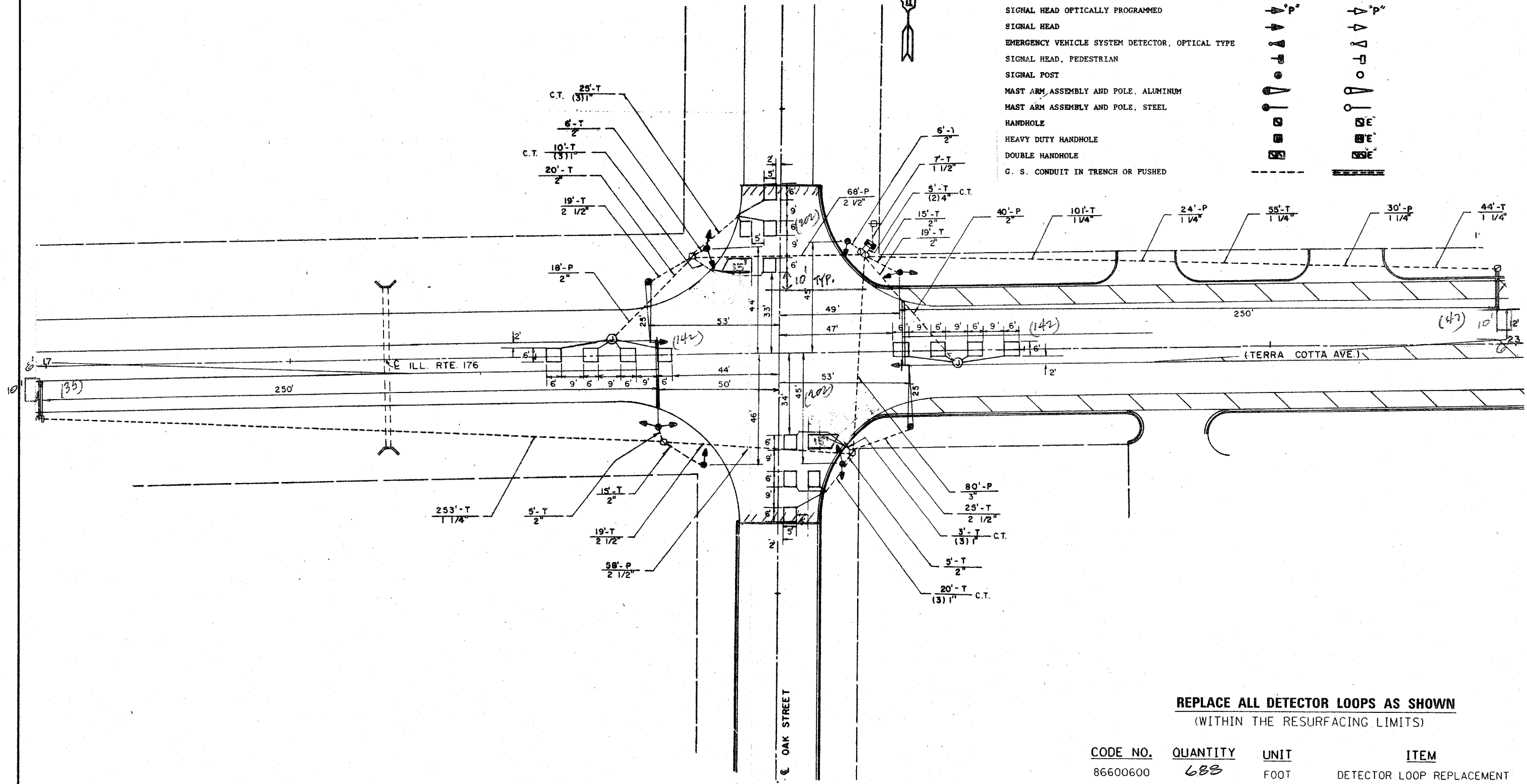
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Code No.	Pay Item	Unit	Quantity
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	1
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	720
88500100	INDUCTIVE LOOP DETECTOR	EACH	2
88600100	DETECTOR LOOP, TYPE 1	FOOT	82

NOTE:
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

TRAFFIC SIGNAL LEGEND

	PROPOSED	EXISTING
CONTROLLER	[Symbol]	[Symbol]
SERVICE INSTALLATION	[Symbol]	[Symbol]
SIGNAL HEAD OPTICALLY PROGRAMMED	[Symbol]	[Symbol]
SIGNAL HEAD	[Symbol]	[Symbol]
EMERGENCY VEHICLE SYSTEM DETECTOR, OPTICAL TYPE	[Symbol]	[Symbol]
SIGNAL HEAD, PEDESTRIAN	[Symbol]	[Symbol]
SIGNAL POST	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, ALUMINUM	[Symbol]	[Symbol]
MAST ARM ASSEMBLY AND POLE, STEEL	[Symbol]	[Symbol]
HANDHOLE	[Symbol]	[Symbol]
HEAVY DUTY HANDHOLE	[Symbol]	[Symbol]
DOUBLE HANDHOLE	[Symbol]	[Symbol]
G. S. CONDUIT IN TRENCH OR PUSHED	[Symbol]	[Symbol]



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

CODE NO.	QUANTITY	UNIT	ITEM
86600600	688	FOOT	DETECTOR LOOP REPLACEMENT

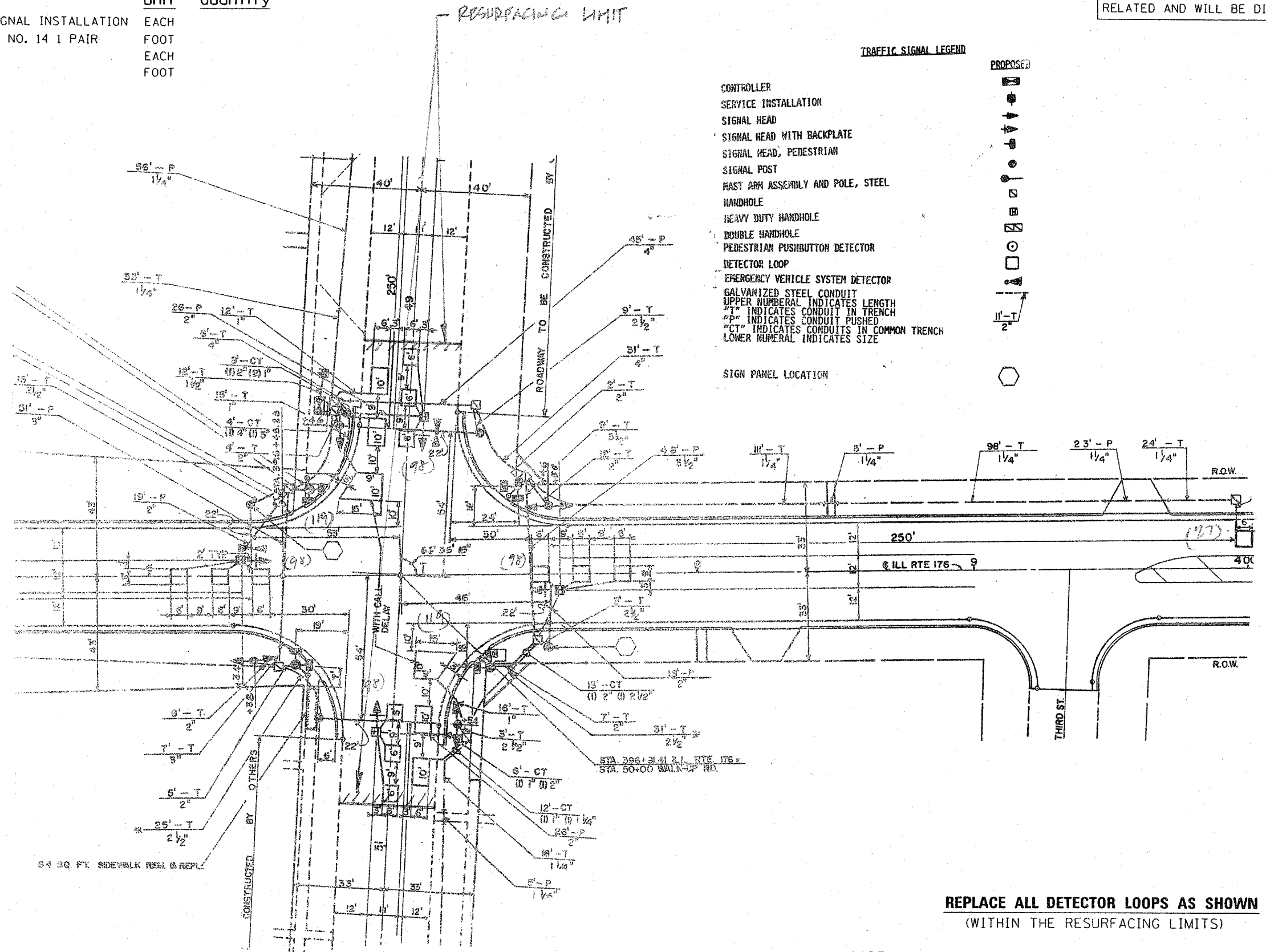
FILE NAME = c:\projects\view\traffic\traffic_gen.dgn	USER NAME = kenthaphaybc	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETECTOR LOOP REPLACEMENT ILLINOIS ROUTE 176 @ OAK STREET	F.A.R. RTE. 335	SECTION 120RS-4	COUNTY MCHENRY	TOTAL SHEETS 26	SHEET NO. 13
PLOT SCALE = 100.0002 / IN.	CHECKED -	REVISED -	FED. ROAD DIST. NO. 1			ILLINOIS FED. AID PROJECT				
PLOT DATE = 3/25/2008	DATE -	REVISED -	SHEET NO. OF SHEETS			STA. TO STA.				

RESURFACING - TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

The "Pay Items" below are paid separately as per the attached "Specification" for MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION.

Code No.	Pay Item	Unit	Quantity
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	
88500100	INDUCTIVE LOOP DETECTOR	EACH	
88600100	DETECTOR LOOP, TYPE 1	FOOT	

NOTE:
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.



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

CODE NO.	QUANTITY	UNIT	ITEM
86600600	684	FOOT	DETECTOR LOOP REPLACEMENT

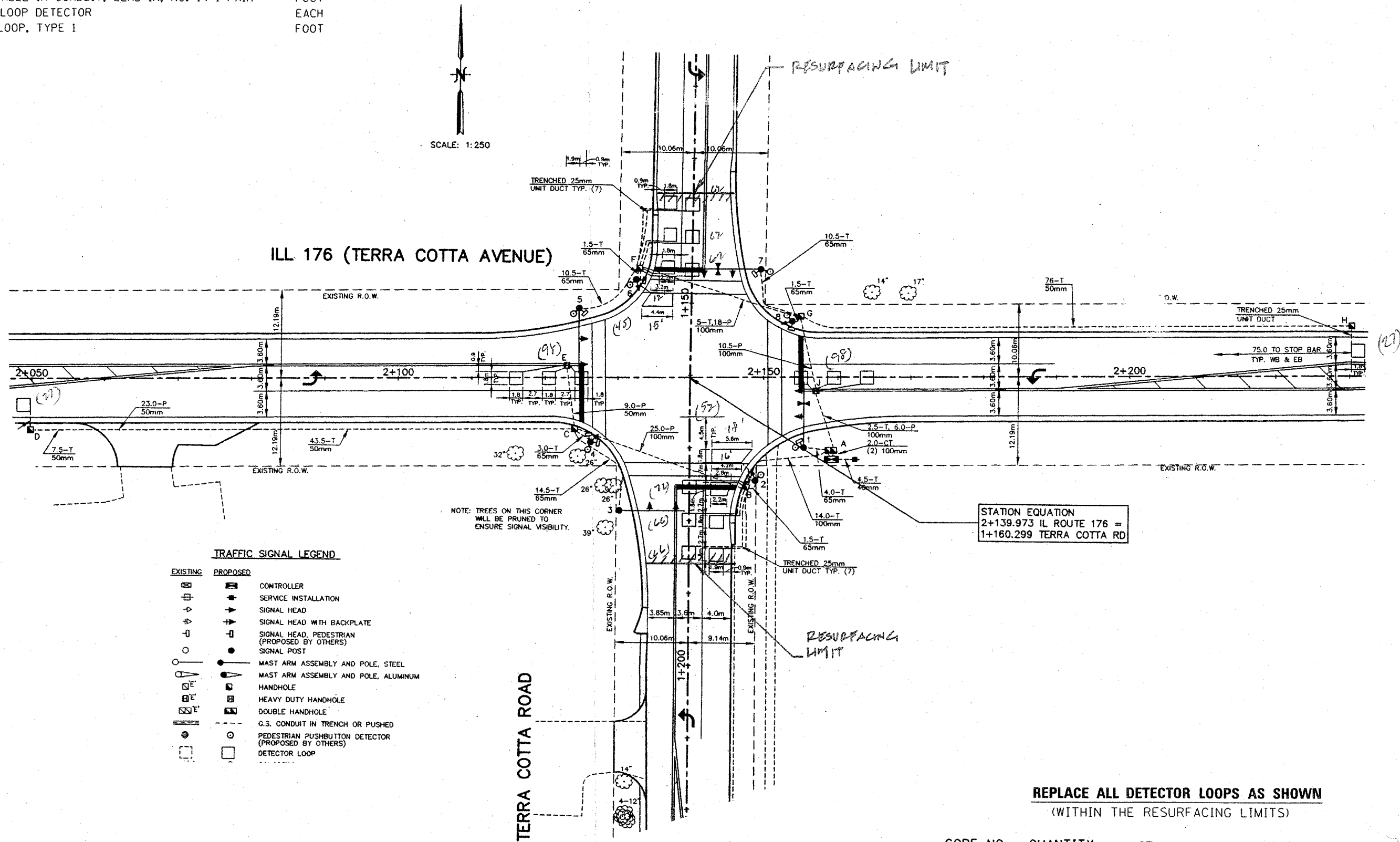
FILE NAME: c:\projects\view\traffic\traffic_gen.dgn	USER NAME: kanthapixy	DESIGNED: -	REVISED: -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETECTOR LOOP REPLACEMENT ILLINOIS ROUTE 176 @ WALKUP RD.	F.A.P. RTE.:	SECTION:	COUNTY:	TOTAL SHEETS:	SHEET NO.:	
	PLOT SCALE: 1/8" = 1'-0"	DRAWN: -	REVISED: -			335	120RS-4	MCHENRY	26	14	
	PLOT DATE: 3/25/2008	CHECKED: -	REVISED: -			CONTRACT NO. 60B62					
		DATE: -	REVISED: -			SCALE:	SHEET NO. OF SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

RESURFACING - TRAFFIC SIGNAL SCHEDULE OF QUANTITIES

The "Pay Items" below are paid separately as per the attached "Specification" for MAGNETIC DETECTOR REMOVAL AND DETECTOR LOOP INSTALLATION.

NOTE:
THIS PLAN IS FOR THE PURPOSE OF REPLACING THE DETECTOR LOOPS ONLY. ALL OTHER INFORMATION SHOWN IS NOT RELATED AND WILL BE DISREGARDED.

Code No.	Pay Item	Unit	Quantity
85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	
88500100	INDUCTIVE LOOP DETECTOR	EACH	
88600100	DETECTOR LOOP, TYPE 1	FOOT	

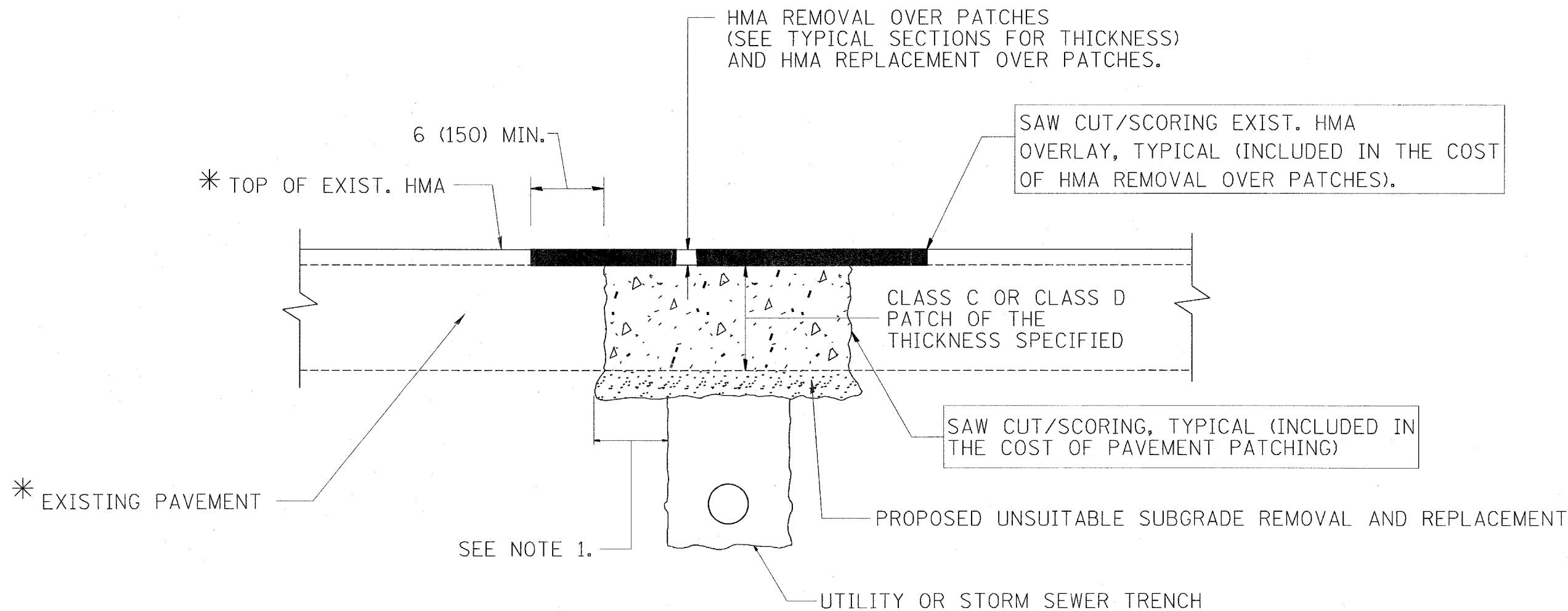


TRAFFIC SIGNAL LEGEND

EXISTING	PROPOSED	DESCRIPTION
[Symbol]	[Symbol]	CONTROLLER
[Symbol]	[Symbol]	SERVICE INSTALLATION
[Symbol]	[Symbol]	SIGNAL HEAD
[Symbol]	[Symbol]	SIGNAL HEAD WITH BACKPLATE
[Symbol]	[Symbol]	SIGNAL HEAD, PEDESTRIAN (PROPOSED BY OTHERS)
[Symbol]	[Symbol]	SIGNAL POST
[Symbol]	[Symbol]	MAST ARM ASSEMBLY AND POLE, STEEL
[Symbol]	[Symbol]	MAST ARM ASSEMBLY AND POLE, ALUMINUM
[Symbol]	[Symbol]	HANDHOLE
[Symbol]	[Symbol]	HEAVY DUTY HANDHOLE
[Symbol]	[Symbol]	DOUBLE HANDHOLE
[Symbol]	[Symbol]	G.S. CONDUIT IN TRENCH OR PUSHED
[Symbol]	[Symbol]	PEDESTRIAN PUSHBUTTON DETECTOR (PROPOSED BY OTHERS)
[Symbol]	[Symbol]	DETECTOR LOOP

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

CODE NO.	QUANTITY	UNIT	ITEM
86600600	738	FOOT	DETECTOR LOOP REPLACEMENT



* 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

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE FULL DEPTH PATCHES
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

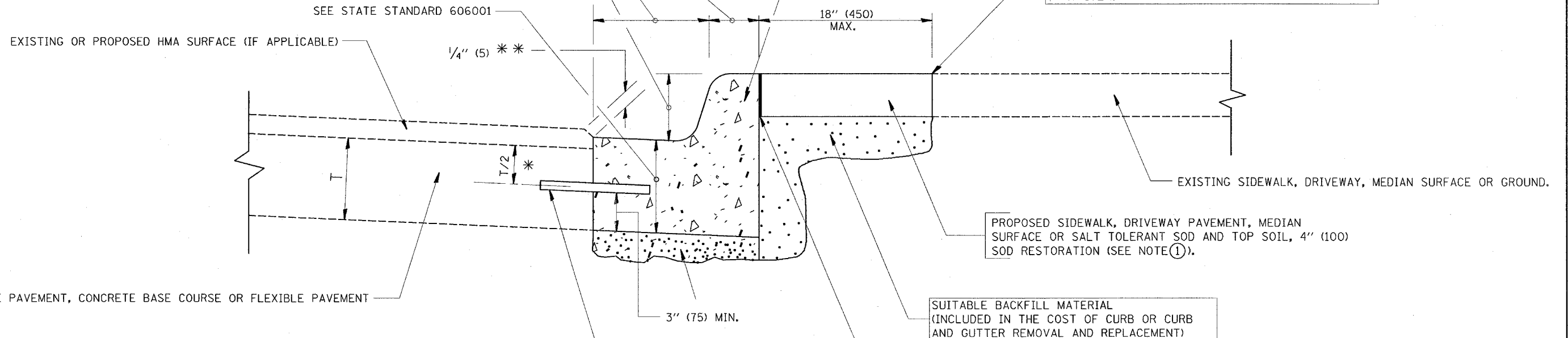
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = wilgreendp	DESIGNED - R. SHAH	REVISED - A. ABBAS 01-20-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A.P. RTE. 335	SECTION 12ORS-4	COUNTY MCHENRY	TOTAL SHEETS 26	SHEET NO. 16
\\dst\inf2\users\wilgreendp\Desk top\IL	176 (US 14 TO IL 31) DETAILS\bd22.dgn	DRAWN -	REVISED - A. ABBAS 04-27-98		SCALE: NONE	SHEET NO. 16 OF 26 SHEETS	STA.	TO STA.	BD400-04 (BD-22)			
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - R. BORO 01-01-07		CONTRACT NO. 60862							
	PLOT DATE = 4/7/2008	DATE - 10-25-94	REVISED - R. BORO 09-04-07		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.



EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

* 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.

SALT TOLERANT SOD AND TOP SOIL, 4" (100) RESTORATION WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

② CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

③ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

④ 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.

⑤ 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.

⑥ 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.

⑦ 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.

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

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

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).

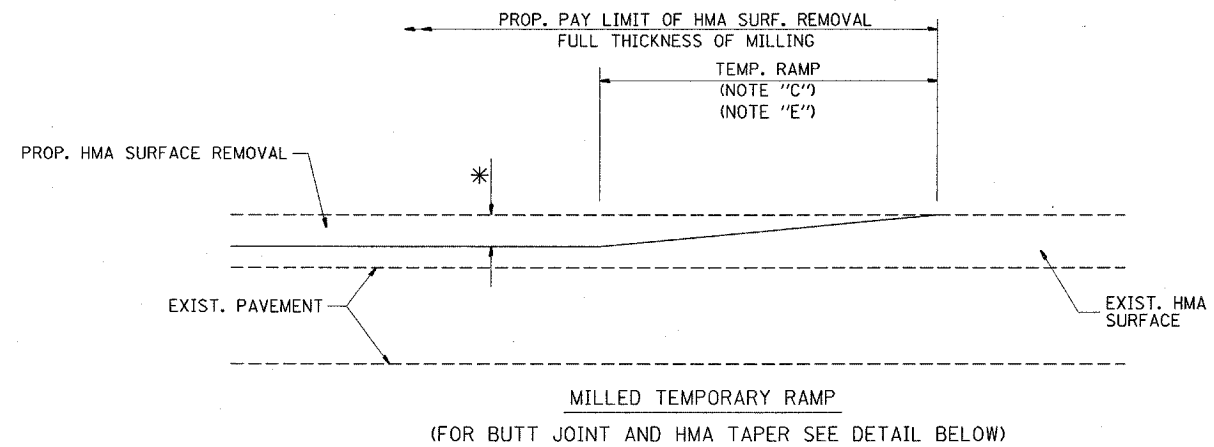
BASIS OF PAYMENT:

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".

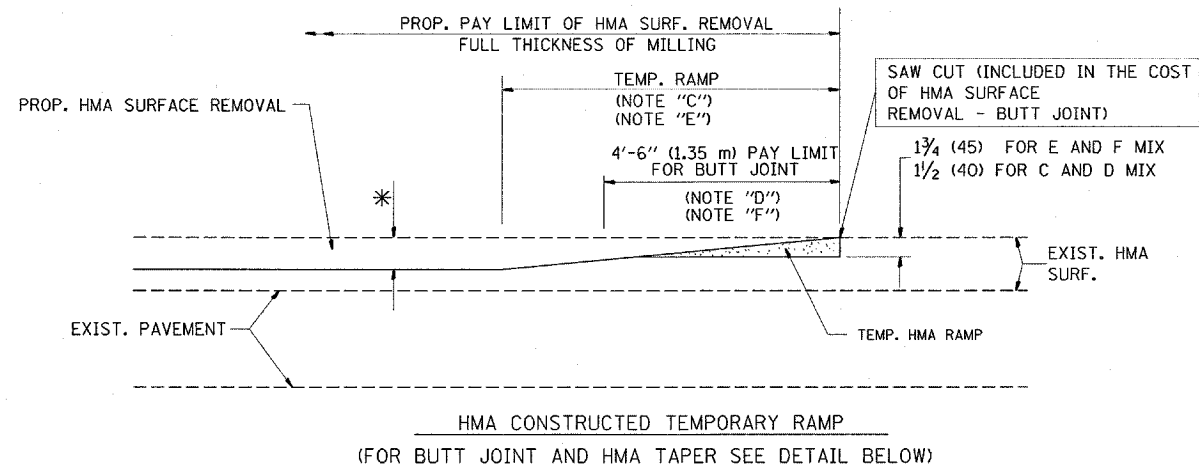
CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

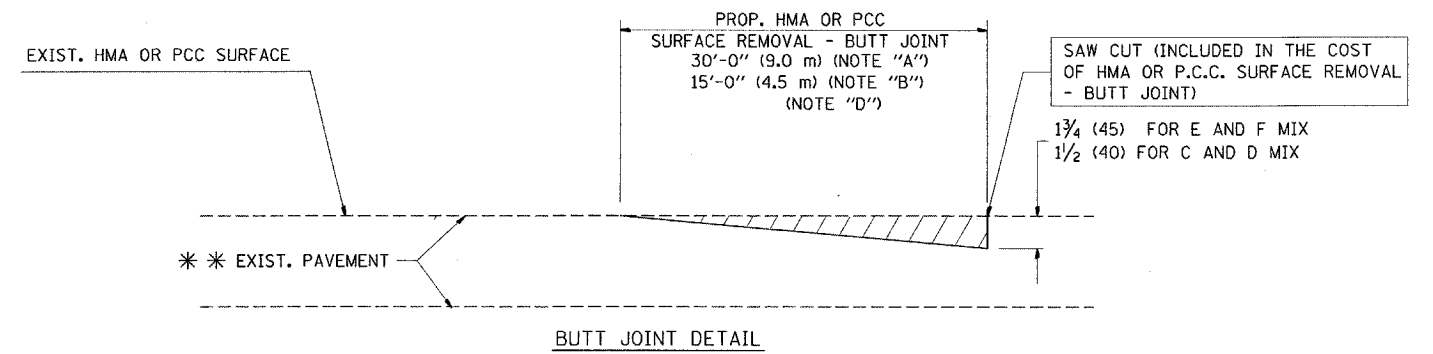
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\\dist\inf2\users\wlgreendp\Desktop\1176 (US 14 TO IL 30) DETAILS\bd24.dgn	DRAWN -	REVISED - A. ABBAS 03-21-97	335			120RS-4	MCHENRY	26	17	
PLOT SCALE = 50.000 "/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	BD600-06 (BD-24)			CONTRACT NO. 60B62				
PLOT DATE = 4/7/2008	DATE - 03-11-94	REVISED - R. BORO 01-01-07	SCALE: NONE			SHEET NO. 17 OF 26 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



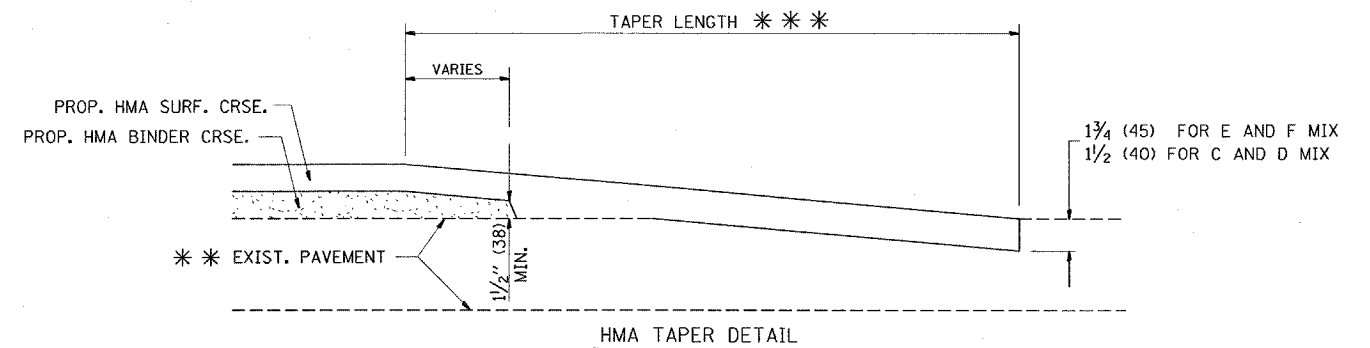
OPTION 1



**OPTION 2
TYPICAL TEMPORARY RAMP**



BUTT JOINT DETAIL



HMA TAPER DETAIL

**TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY**

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

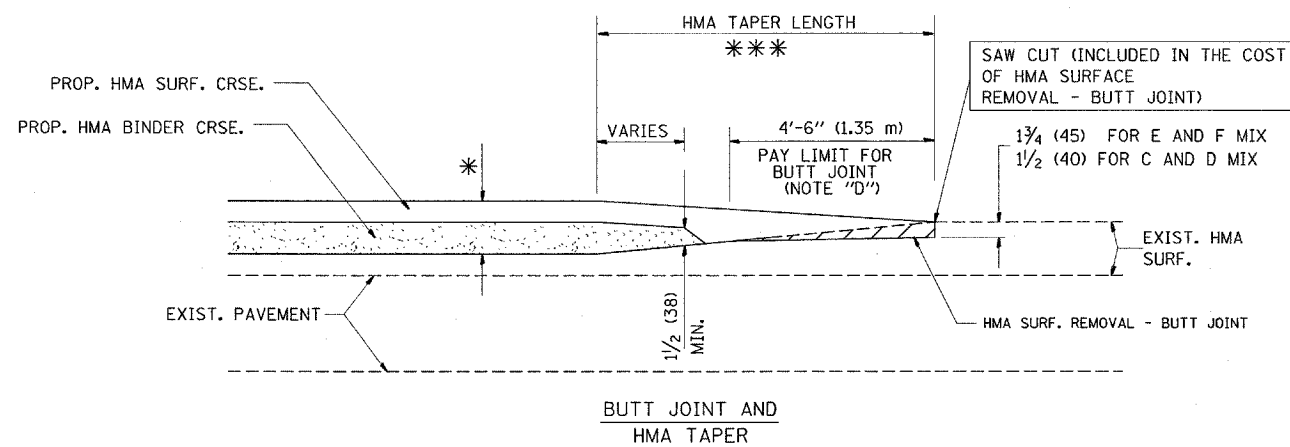
NOTES

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

BASIS OF PAYMENT:

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

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



**TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING**

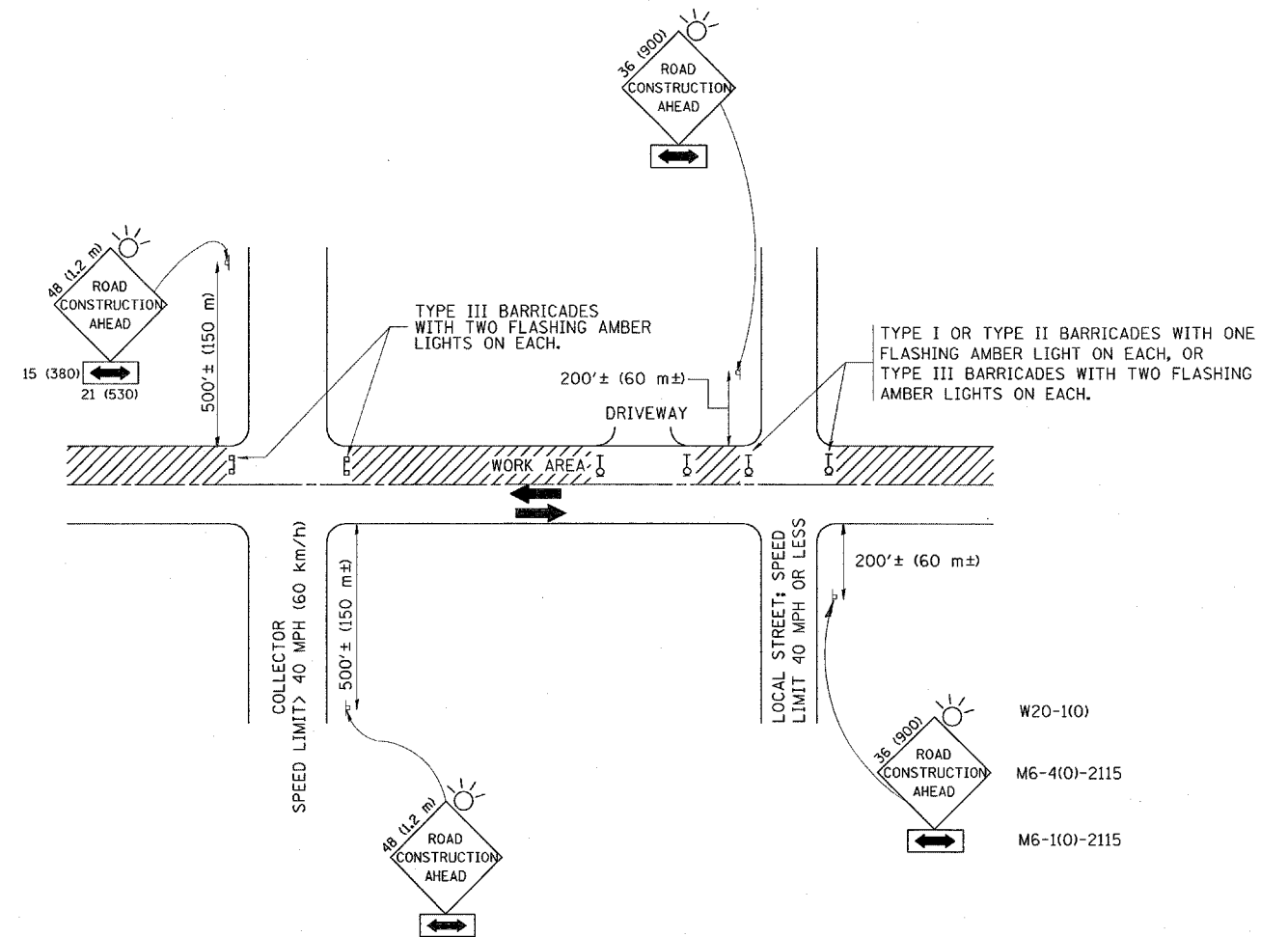
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PLOT SCALE = 49.9999' / IN.		CHECKED -	REVISED - M. GOMEZ 04-06-01
PLOT DATE = 4/7/2008		DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND
HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 18 OF 26 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	120RS-4	MCHENRY	26	18
BD400-05 BD32			CONTRACT NO. 60B62	
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.

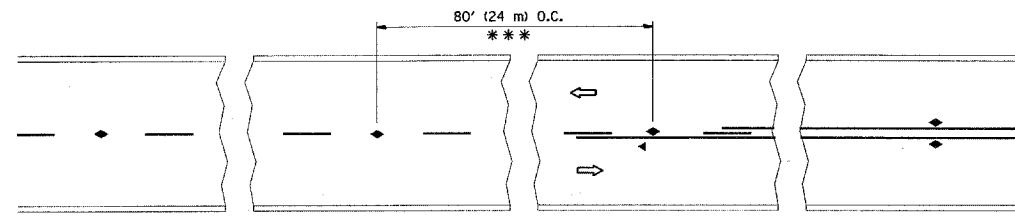
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	PLOT DATE = 4/7/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

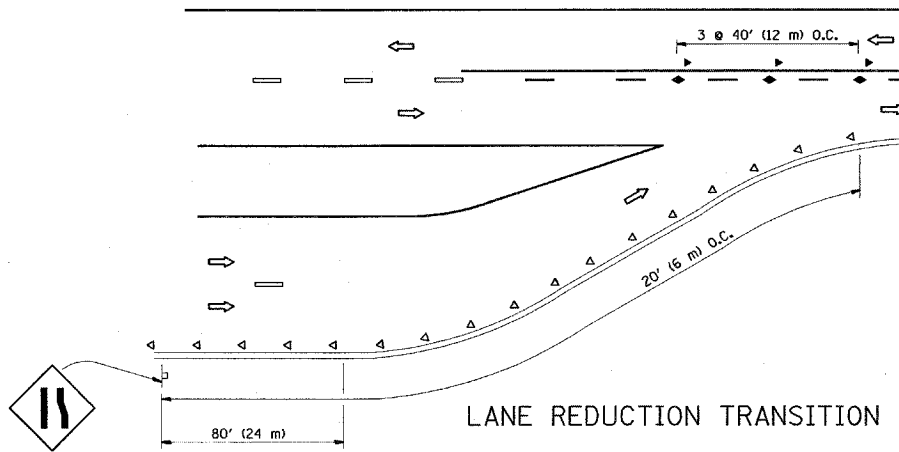
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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TC-10			CONTRACT NO. 60862	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

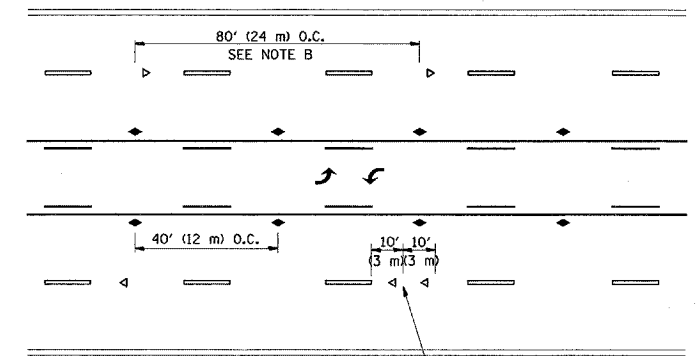


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

TWO-LANE/TWO-WAY

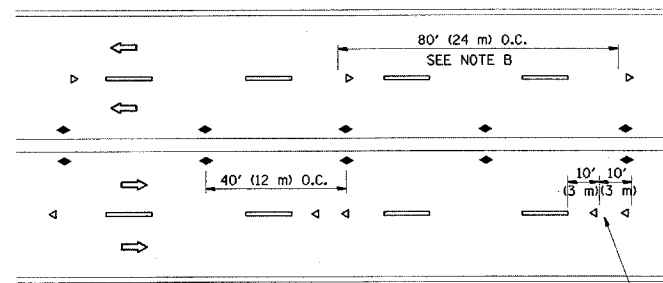


LANE REDUCTION TRANSITION



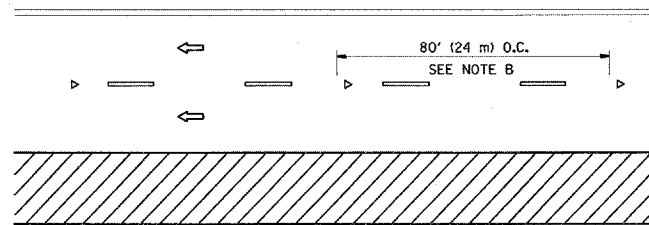
SEE NOTE A

TWO-WAY LEFT TURN



SEE NOTE A

MULTI-LANE/UNDIVIDED



SEE NOTE A

MULTI-LANE/DIVIDED

GENERAL NOTES

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

SYMBOLS

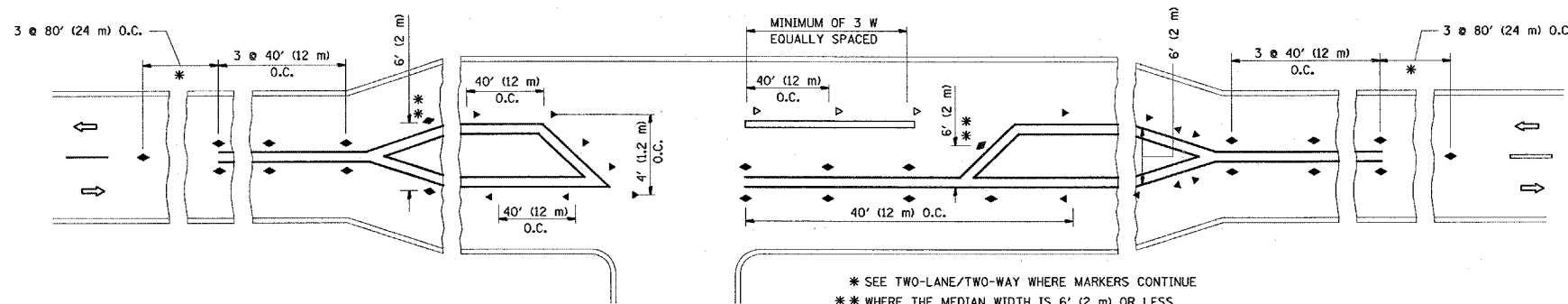
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◀ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

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

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 SHOULD BE INCLUDED IN THE PLANS.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

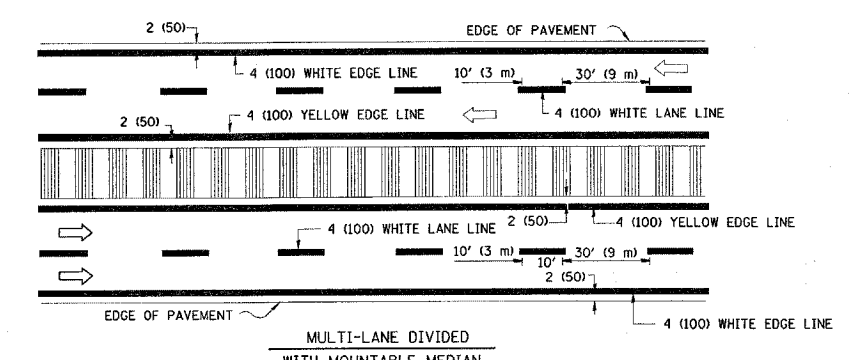
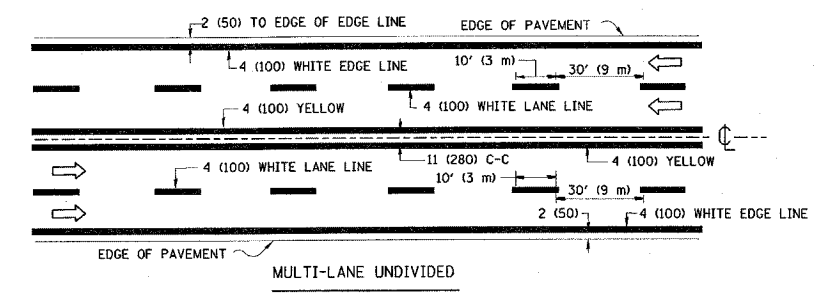
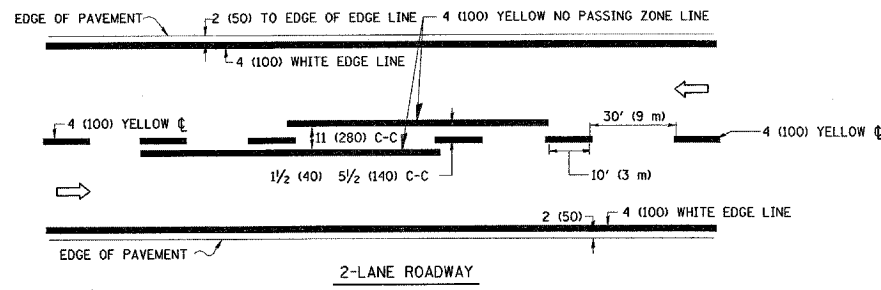


* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (1.8 m) OR LESS USE TWO-WAY MARKERS.

LEFT TURN

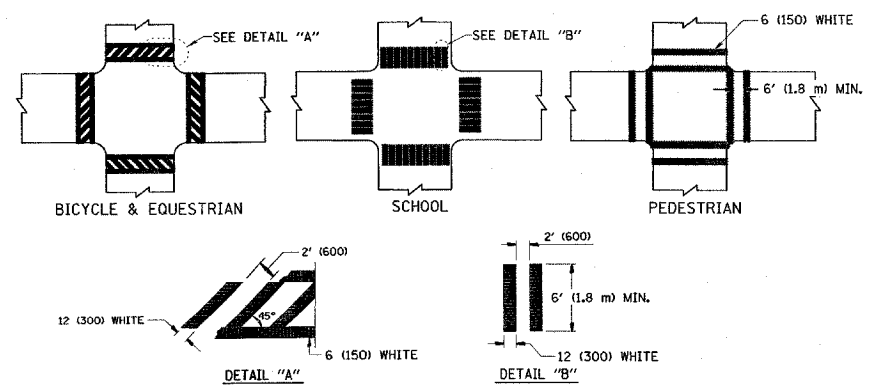
All dimensions are in inches (millimeters) unless otherwise shown.

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	176 IUS 14 TO IL 3D DETAILS\116.dgn	DRAWN -	REVISED - T. RAMMACHER 03-12-99		RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			TC-11			CONTRACT NO. 60B62	
	PLOT SCALE = 50,000' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00		SCALE: NONE	SHEET NO. 20 OF 26 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
	PLOT DATE = 4/7/2008	DATE -	REVISED -									

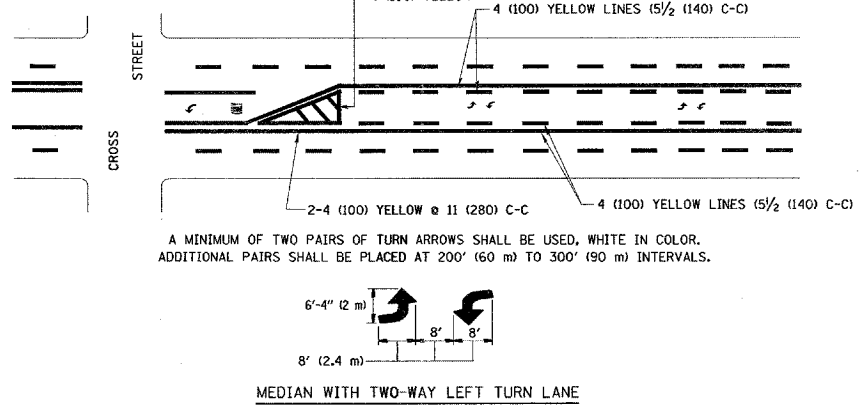
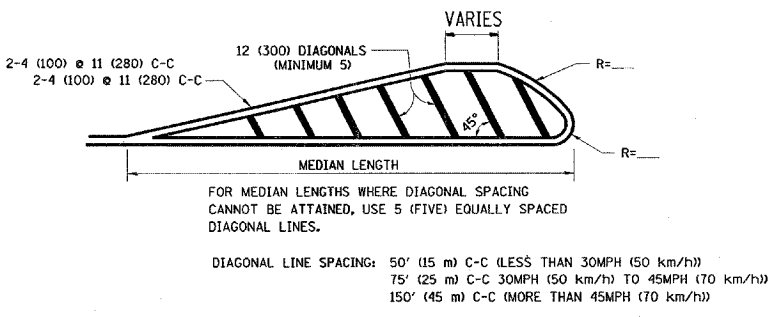
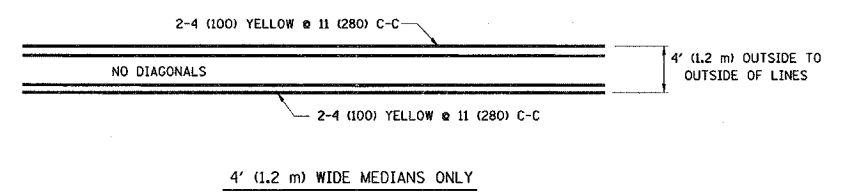


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

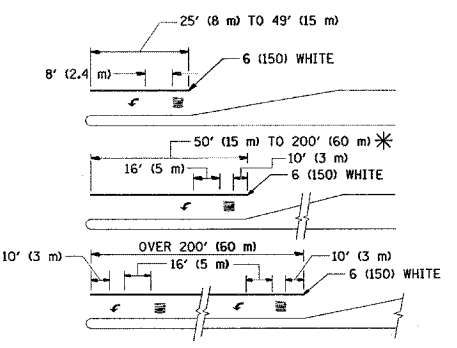
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

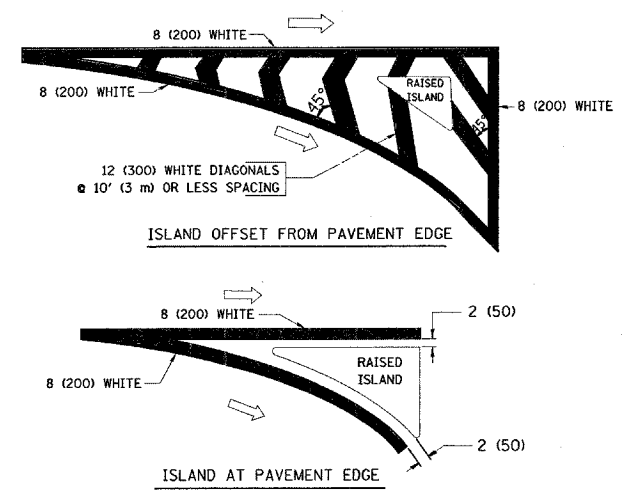


TYPICAL PAINTED MEDIAN MARKING



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL TURN LANE MARKING

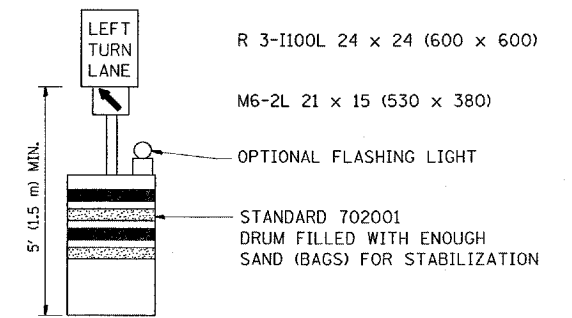
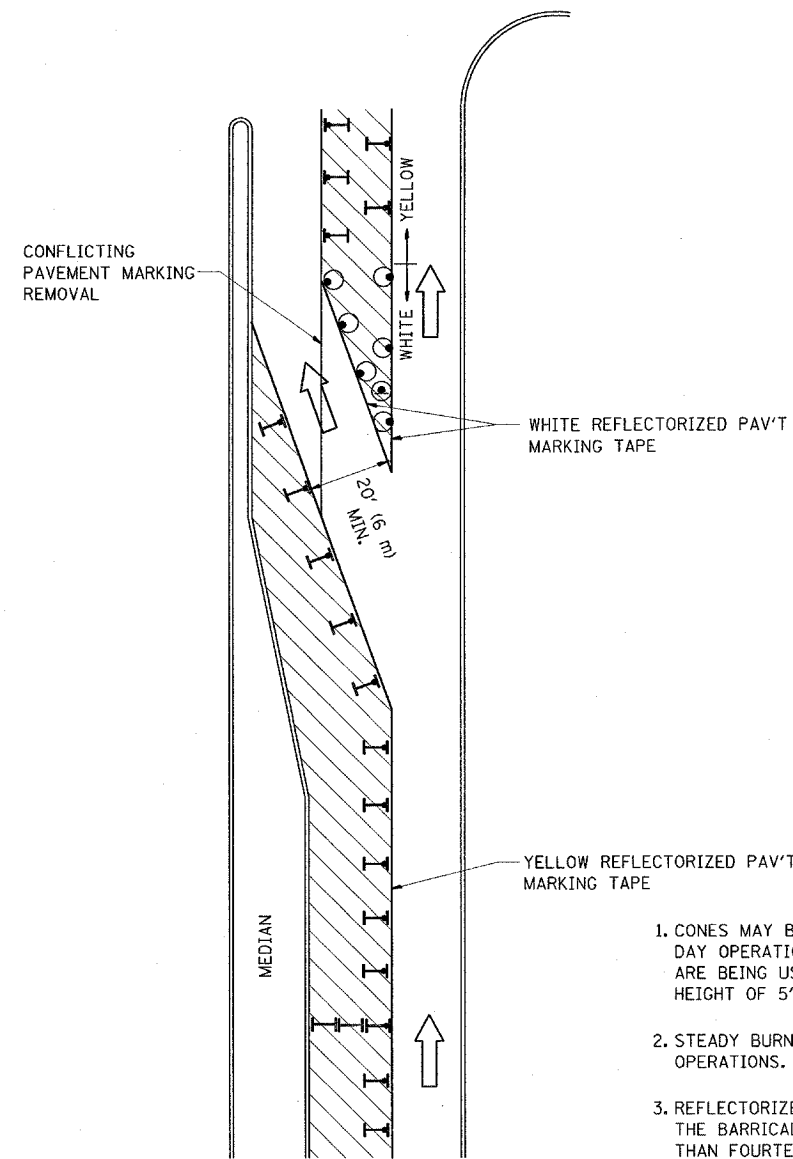


TYPICAL ISLAND MARKING

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4 m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4 m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C (30MPH (50 km/h) TO 45MPH (70 km/h)) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

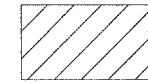





All dimensions are in inches (millimeters) unless otherwise shown.



GENERAL NOTES

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

LEGEND

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

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

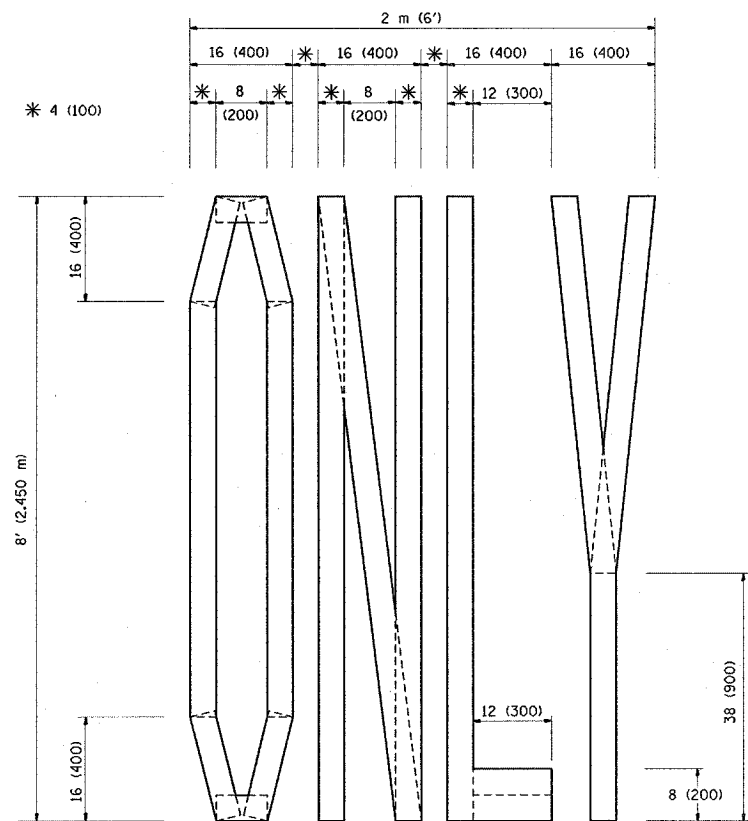
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	PLOT DATE = 4/7/2008	DATE -	REVISED -T. RAMMACHER 01-06-00

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

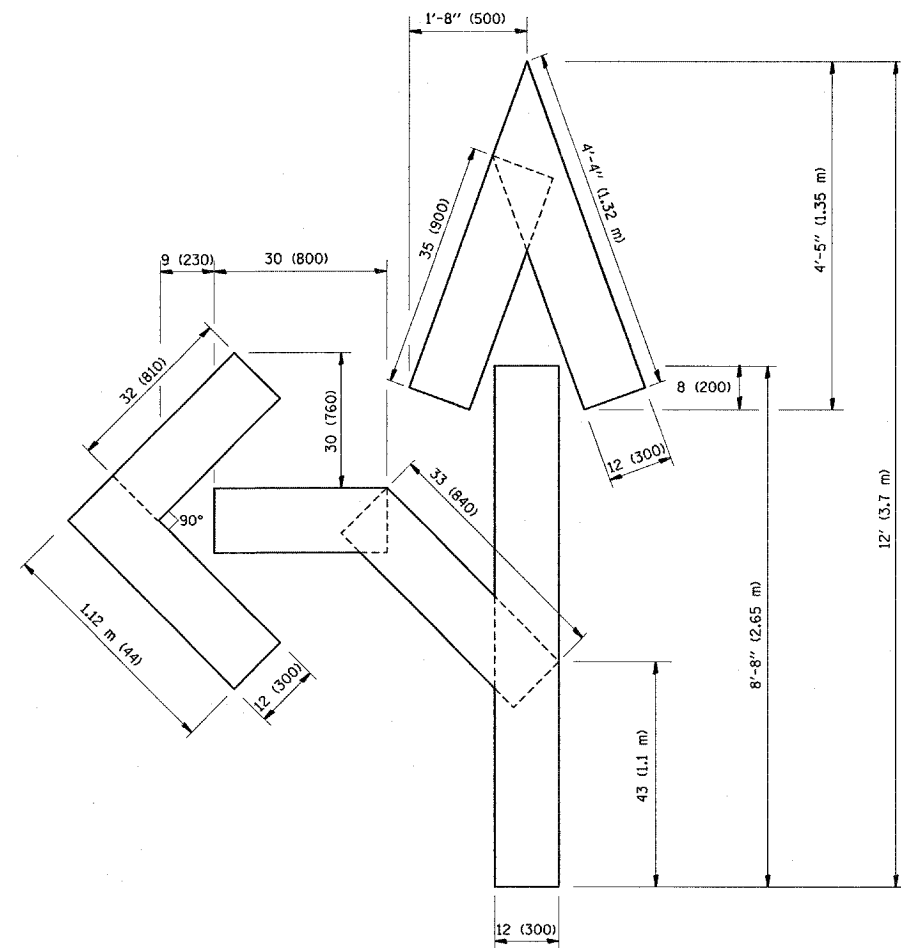
**TRAFFIC CONTROL AND PROTECTION AT TURN BAYS
(TO REMAIN OPEN TO TRAFFIC)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	120RS-4	MCHENRY	26	22
TC-14			CONTRACT NO. 60B62	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

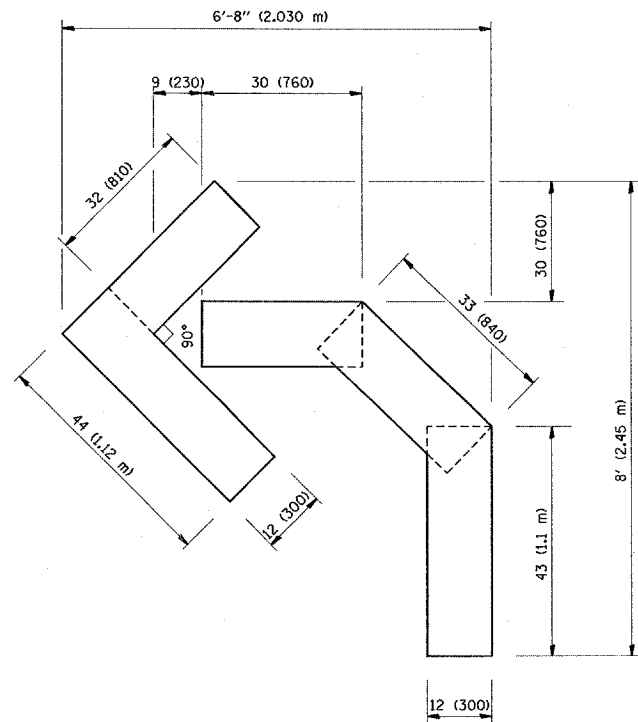
SCALE: NONE SHEET NO. 22 OF 26 SHEETS STA. TO STA.



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



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



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

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

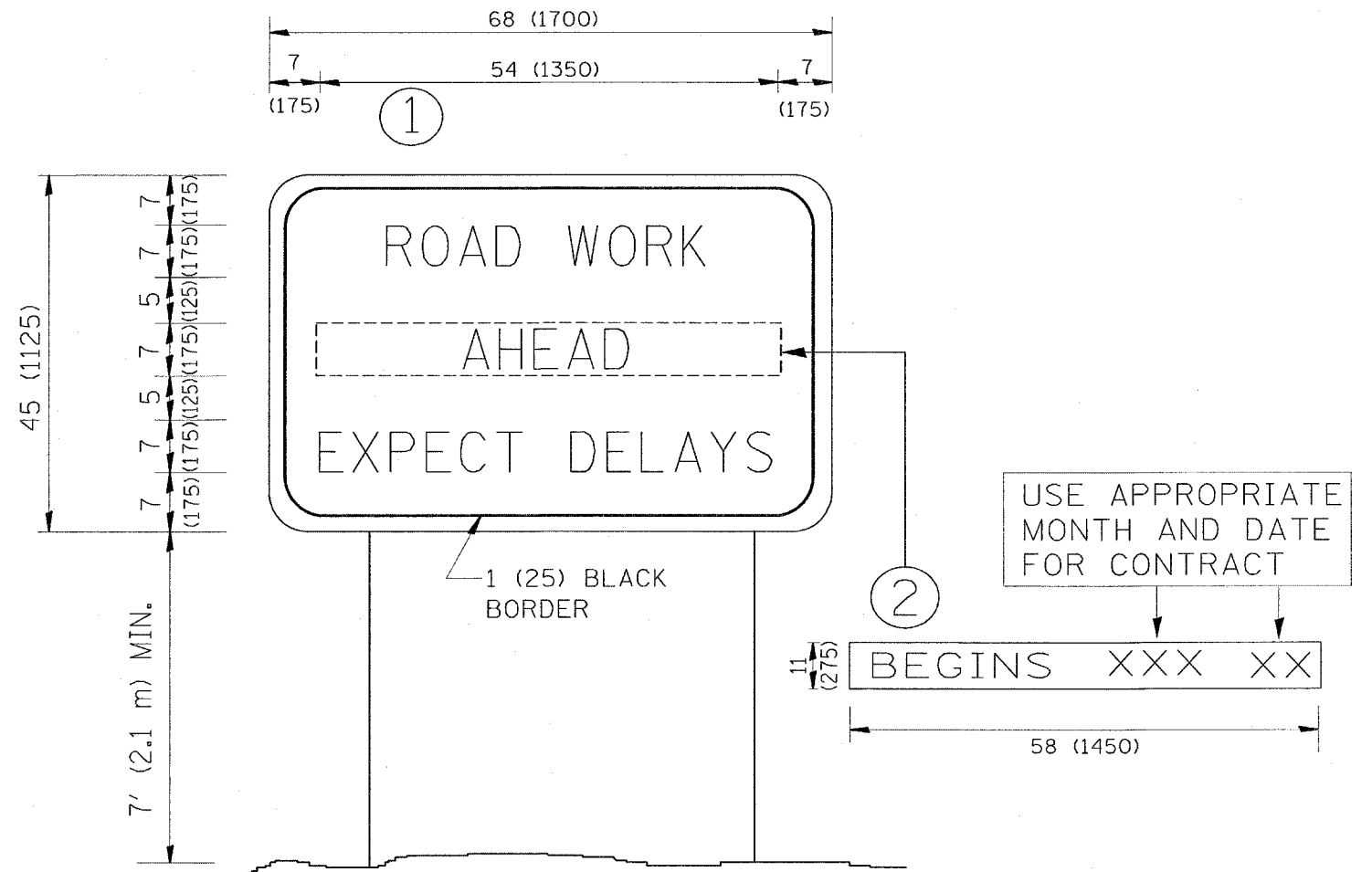
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	PLOT DATE = 4/7/2008	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

SCALE: NONE SHEET NO. 23 OF 26 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	I20RS-4	MCHENRY	26	23
TC-16			CONTRACT NO. 60B62	
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.

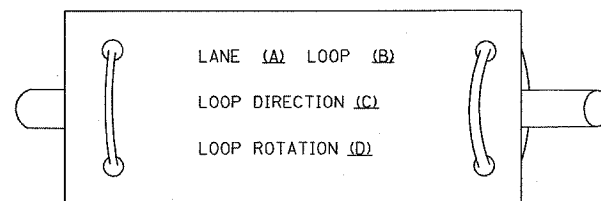
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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	PLOT DATE = 4/7/2008	DATE -	REVISED - C. JUCIUS 01-31-07			SCALE: NONE	SHEET NO. 24 OF 26 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

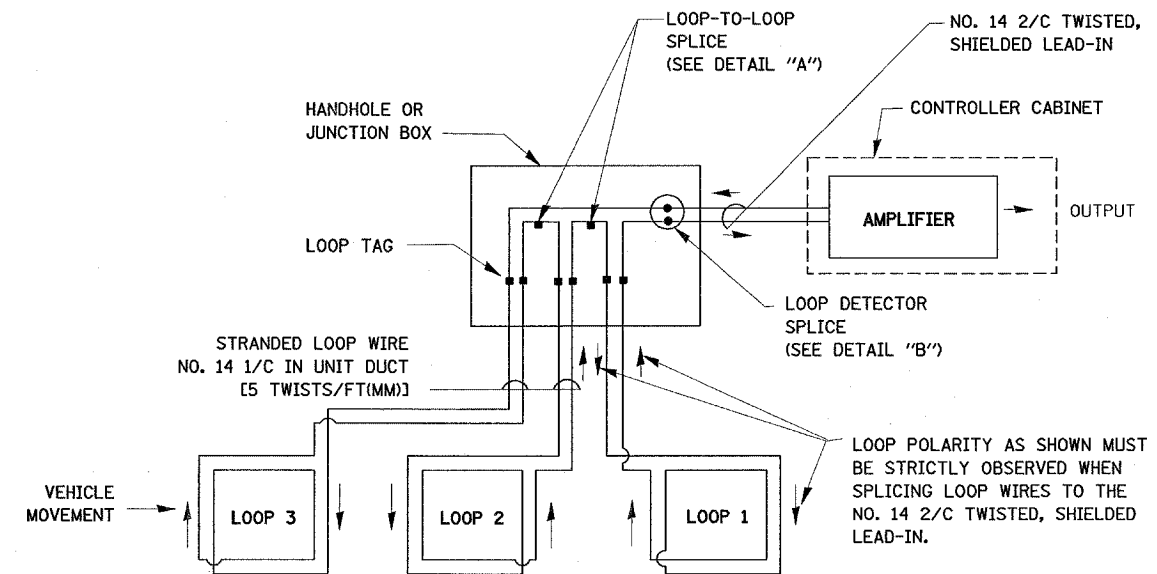
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

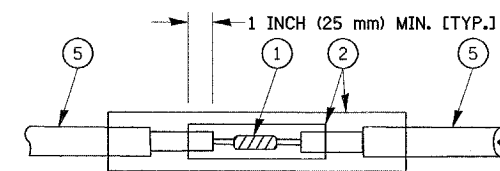


- LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

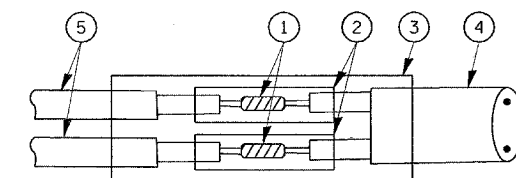


DETECTOR LOOP WIRING SCHEMATIC

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



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

FILE NAME =	USER NAME = wlgreendp	DESIGNED - D.A.D.	REVISED - 11-12-01
\\dist1nfs2\users\wlgreendp\Desktop\11176 (US 14 TO IL 3D DETAILS)\ts05.dgn		DRAWN - R.W.P.	REVISED - BUR. TRAFFIC 01-01-02
	PLOT SCALE = 50.0000' / IN.	CHECKED - D.A.Z.	REVISED -
	PLOT DATE = 4/7/2008	DATE - 05-30-00	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

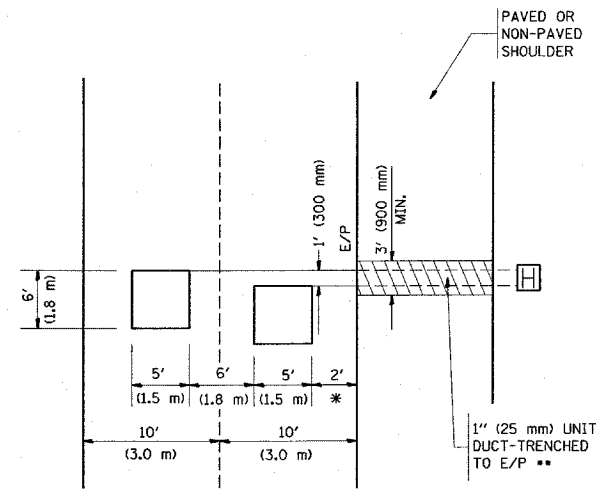
DISTRICT ONE
STANDARD TRAFFIC SIGNAL DESIGN DETAILS

F.A.P. RTE. 335	SECTION 120RS-4	COUNTY MCHENRY	TOTAL SHEETS 26	SHEET NO. 25
TS-05		CONTRACT NO. 60B62		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SCALE: NONE SHEET NO. 25 OF 26 SHEETS STA. TO STA.

LOOPS NEXT TO SHOULDERS

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

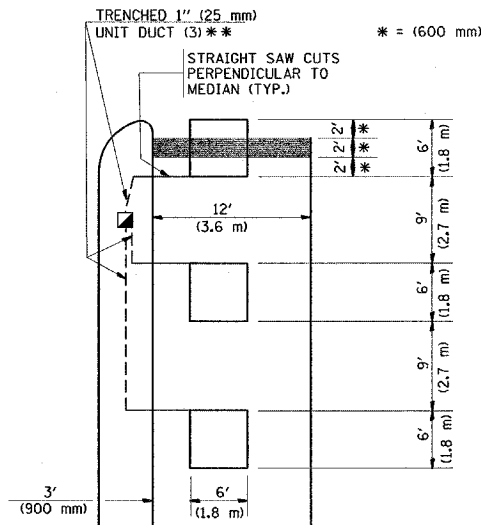


* = (600 mm)

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

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

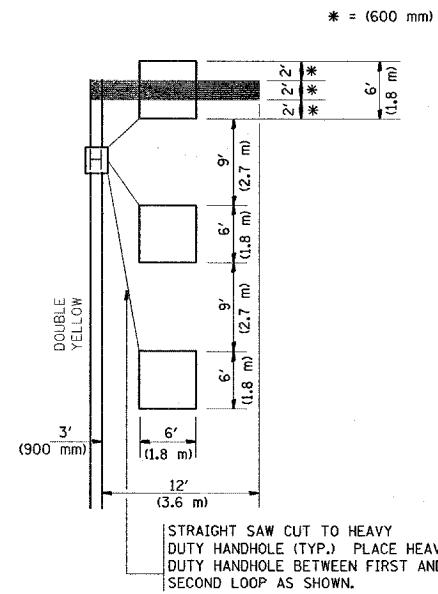
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



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

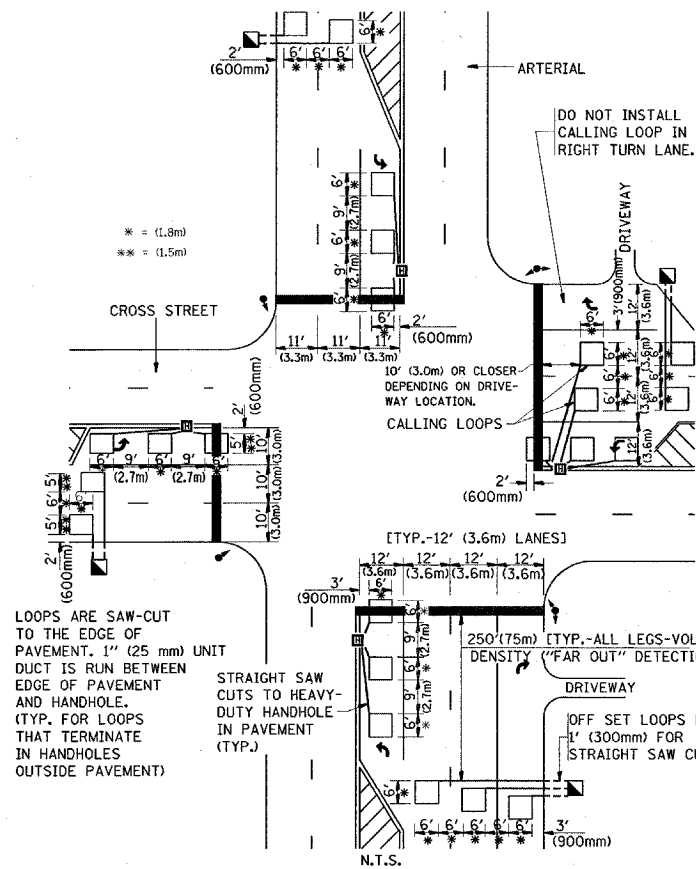
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



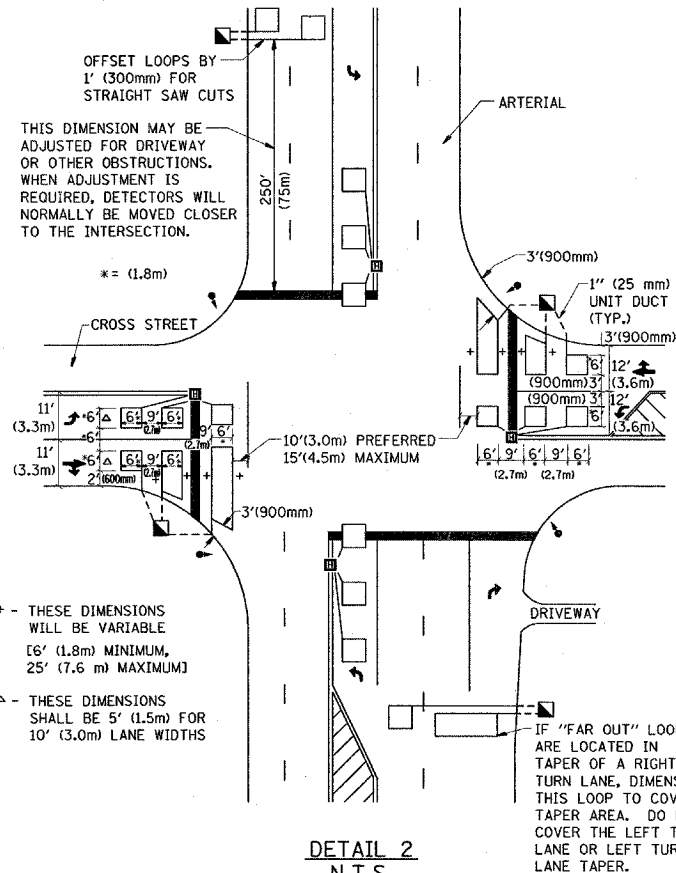
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

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

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

NOTE:

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

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

FILE NAME =	USER NAME = wlgreendp	DESIGNED -	REVISED -
\\dst1\inf2\users\wlgreendp\Desktop\IL	176 (US 14 TO IL 3D DETAILS)\ts07.dgn	DRAWN -	REVISED -
	PLOT SCALE = 49.9999 / IN.	CHECKED - R.K.F.	REVISED -
	PLOT DATE = 4/7/2008	DATE -	REVISED -

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

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

SCALE: NONE SHEET NO. 26 OF 26 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
335	120RS-4	MCHENRY	26	26
TS-07		CONTRACT NO. 60B62		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				