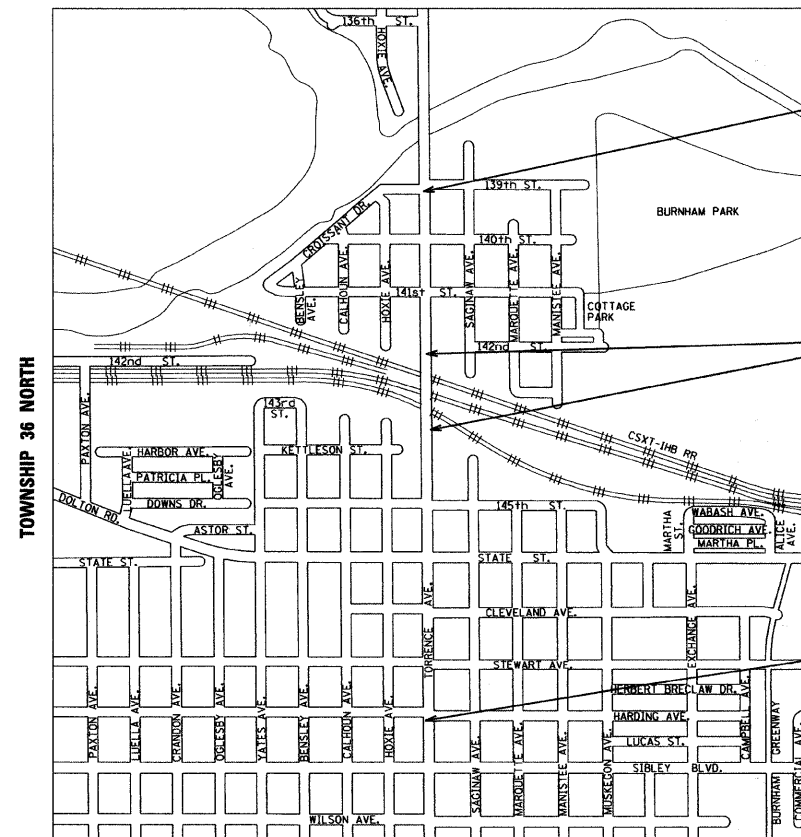


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED
HIGHWAY PLANS

FAP 358 (TORRENCE AVENUE)
SECTION 2009-135 RS
138th STREET TO IL 83 (SIBLEY BLVD).
RESURFACING

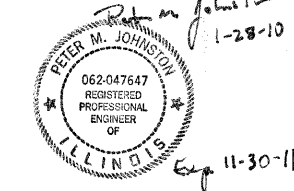
COOK COUNTY
C-91-323-10
RANGE 15 EAST



END PROJECT
STA. 73+17

BRIDGE OMISSION
STA. 44+74 TO
STA. 51+24

BEGIN PROJECT
STA. 7+44

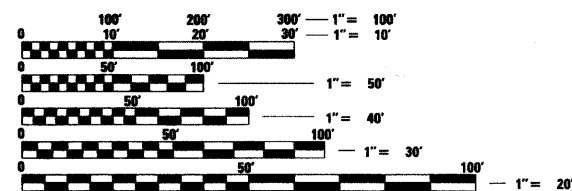


FOR INDEX OF SHEETS, SEE SHEET NO. 2

TRAFFIC DATA

EXISTING ADT = 12,800 (2007)
SPEED LIMIT = 35 MPH

THE IMPROVEMENT IS LOCATED WITHIN
THE CALUMET CITY AND THE VILLAGE
OF BURNHAM



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: PETER JOHNSTON (GRAEF) 773-399-0112
PROJECT MANAGER: KEN ENG (IDOT) 847-705-4247

CONTRACT NO. 60K01

GROSS LENGTH = 6,573 FT. = 1.24 MILES
NET LENGTH = 5,923 FT. = 1.12 MILES

GRAEF 8501 W. Higgins Road, Suite 280
Chicago, Illinois 60631
(773) 399-0112

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
358	2009-135 RS	COOK	21	1
ILLINOIS		CONTRACT NO. 60K01		

D-91-323-10



LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED FEBRUARY 3, 2010
Diana M. O'Keefe
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
March 19, 2010
Scott E. Stitt, P.E.
Acting ENGINEER OF DESIGN AND ENVIRONMENT
March 19, 2010
Christine M. Reed
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

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INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	INDEX, GENERAL NOTES AND HIGHWAY STANDARDS
3	SUMMARY OF QUANTITIES
4	TYPICAL SECTIONS
5-7	ROADWAY AND PAVEMENT MARKING PLANS
8-9	DETECTOR LOOP REPLACEMENT PLANS
10	FRAMES AND LIDS ADJUSTMENT WITH MILLING (BD08)
11	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD22)
12	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT (BD24)
13	BUTT JOINTS AND BITUMINOUS TAPER (BD32)
14	DETAILS FOR DEPRESSED CURB AND GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL (BD34)
15	TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS AND DRIVEWAYS (TC10)
16	RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT (TC11)
17	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC13)
18	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) (TC14)
19	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC16)
20	ARTERIAL ROAD INFORMATION SIGN (TC22)
21	DETECTOR LOOP INSTALLATION DETAIL FOR ROADWAY RESURFACING (TS07)

THE CONTRACTOR SHALL PATCH BEFORE MILLING

HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR VOIDS @ Ndes
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5mm)	4% @ 70 GYR
POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50	4% @ 50 GYR
CLASS D PATCHES (HMA BINDER IL 19mm)	4% @ 70 GYR
HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (HMA BINDER IL 19 mm) 3"	4% @ 70 GYR

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURE A IS 112 LBS/SQ YD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALE BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS.

FOR "PERCENT OF RAP" SEE DISTRICT ONE SPECIAL PROVISIONS.

HIGHWAY STANDARDS

STD. NO.	TITLE
442201-03	CLASS C AND D PATCHES
630001-06	STEEL PLATE BEAM GUARDRAIL
630201-06	PCC/HMA STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
630301-06	SHOULDER WIDENING FOR TYPE 1 (SPECIAL) GUARDRAIL TERMINALS
635006-03	REFLECTOR AND TERMINAL MARKER PLACEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701501-05	URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED
701701-06	URBAN LANE CLOSURE, MULTILANE, INTERSECTION
701901-01	TRAFFIC CONTROL DEVICES
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOUR NOTIFICATION IS REQUIRED).
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- WHEN ARTIFICIAL LIGHTING IS USED IN NIGHT OPERATIONS THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBLTY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
5. WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES (40 MM) WHERE THE SPEED LIMIT IS 45 MPH (80 KM/H) OR LESS AND 1 INCH (25 MM) WHERE THE SPEED LIMIT IS GREATER THAN 45 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).
- BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT), IN ACCORDANCE WITH THE "BUTT JOINT AND HMA TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- FOR PAVEMENT MARKING AND RAISED REFLECTIVE PAVEMENT MARKERS, REFER TO DISTRICT ONE TYPICAL MARKINGS FOR DETAILS NOT SHOWN.
- THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM 72 HOURS PRIOR TO THE PLACEMENT OF ANY TEMPORARY TRAFFIC CONTROL DEVICES.
- MATCH EXISTING PAVEMENT MARKINGS AT PROJECT LIMITS.
- THE RESIDENT ENGINEER SHALL CONTACT WALTER CZARNY, AREA TRAFFIC FIELD ENGINEER, AT 847-715-8419 AT LEAST (2) WEEKS PRIOR TO PLACING PERMANENT PAVEMENT MARKINGS.

FILE NAME =	USER NAME = _USER_	DESIGNED - MW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE - 138th STREET TO IL 83 (SIBLEY BLVD) INDEX OF SHEETS, HIGHWAY STANDARDS, AND GENERAL NOTES	SCALE: NTS	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - EF	REVISED -						358	2009-135 RS	COOK	21	2
	PLOT SCALE = 50.0000' / IN.	CHECKED - RS	REVISED -						CONTRACT NO. 60K01				
	PLOT DATE = 2/18/2010	DATE - 07/08/2009	REVISED -						[ILLINOIS] FED. AID PROJECT				

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DRAWN - EF
CHECKED - RS
DATE - 07/08/2009

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TORRENCE AVENUE - 138th STREET TO IL 83 (SIBLEY BLVD)
SUMMARY OF QUANTITIES

SCALE: NTS SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 358 SECTION 2009-135 RS COUNTY COOK TOTAL SHEETS 21 SHEET NO. 3
CONTRACT NO. 60K01
ILLINOIS FED. AID PROJECT

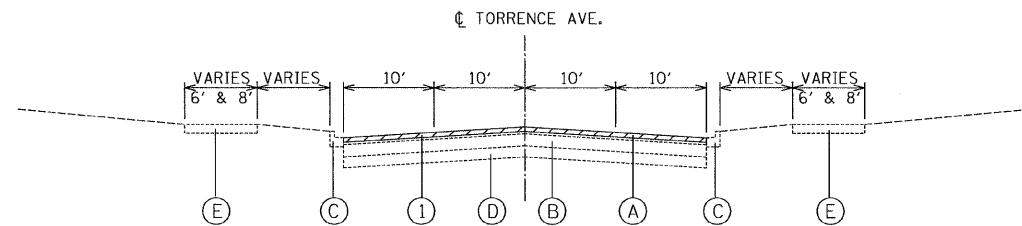
SUMMARY OF QUANTITIES

100% STATE

	PAY ITEM NUMBER	DESCRIPTION	UNIT	URBAN TOTAL QUANTITY	I000-2A STATE
	40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	25	25
	40600300	AGGREGATE (PRIME COAT)	TON	124	124
	40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	46	46
	40600826	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	1,302	1,302
	40600895	CONSTRUCTING TEST STRIP	EACH	1	1
	40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	251	251
	40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	86	86
	40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	2,603	2,603
	44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4"	SQ YD	30,990	30,990
	44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	300	300
	44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 3"	SQ YD	513	513
	44201737	CLASS D PATCHES, TYPE I, 8 INCH	SQ YD	350	350
	44201741	CLASS D PATCHES, TYPE II, 8 INCH	SQ YD	50	50
	44201745	CLASS D PATCHES, TYPE III, 8 INCH	SQ YD	50	50
*	63000001	STEEL PLATE BEAM GUARD RAIL, TYPE A, 6 FOOT POSTS	FOOT	100	100
*	63100167	TRAFFIC BARRIER TERMINAL, TYPE 1 (SPECIAL) TANGENT	EACH	5	5
*	63100045	TRAFFIC BARRIER TERMINAL, TYPE 2	EACH	2	2
	63200310	GUARDRAIL REMOVAL	FOOT	404	404
	67000400	ENGINEER'S FIELD OFFICE TYPE A	CAL MO	6	6
	67100100	MOBILIZATION	L SUM	1	1
	70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1
	70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1
	70300100	SHORT-TERM PAVEMENT MARKING	FOOT	2,978	2,978
	70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	291	291
	70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	29,778	29,778
	70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	1,306	1,306
	70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	216	216
	70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	572	572
*	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	146	146
*	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	14,889	14,889
*	78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	653	653
*	78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	108	108
*	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	286	286
*	78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	520	520
	78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	260	260
*	88500100	INDUCTIVE LOOP DETECTOR	EACH	4	4
*	88600100	DETECTOR LOOP, TYPE 1	FOOT	114	114
*	88600600	DETECTOR LOOP REPLACEMENT	FOOT	901	901
*	87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PAIR	FOOT	1,398	1,398
	X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	103	103
	60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	20	20
	60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	5	5
	70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	993	993
	87900200	DRILL EXISTING HANDHOLE	EACH	4	4
	Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	15	15

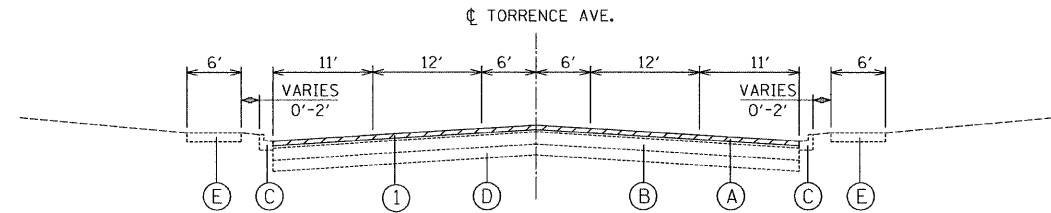
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Rev.



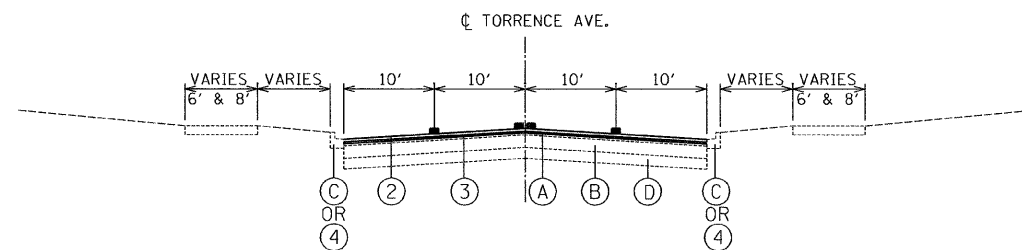
EXISTING TYPICAL SECTION

STA. 7+44 TO STA. 19+43
STA. 33+75 TO STA. 44+74
STA. 51+24 TO STA. 73+17



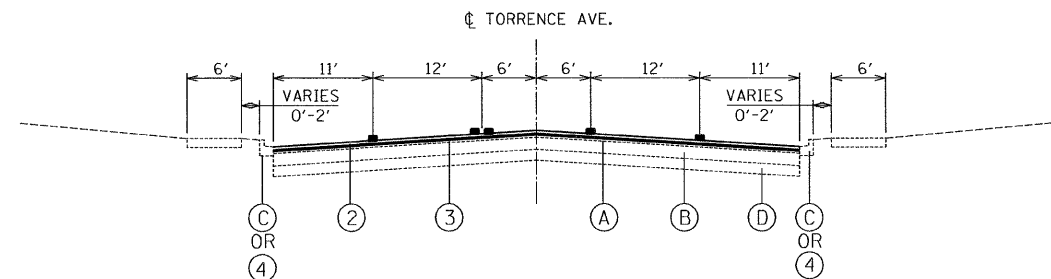
EXISTING TYPICAL SECTION

STA. 22+60 TO STA. 31+65



PROPOSED TYPICAL SECTION

STA. 7+44 TO STA. 19+43
STA. 33+75 TO STA. 44+74
STA. 51+24 TO STA. 73+17



PROPOSED TYPICAL SECTION

STA. 22+60 TO STA. 31+65

EXISTING CONDITIONS:

- (A) PCC PAVEMENT, 8"
- (B) HOT-MIX ASPHALT SURFACE 3"
- (C) COMBINATION CONCRETE CURB AND GUTTER
- (D) GRANULAR SUB-BASE, 4"
- (E) PCC SIDEWALK
- ITEMS TO BE REMOVED

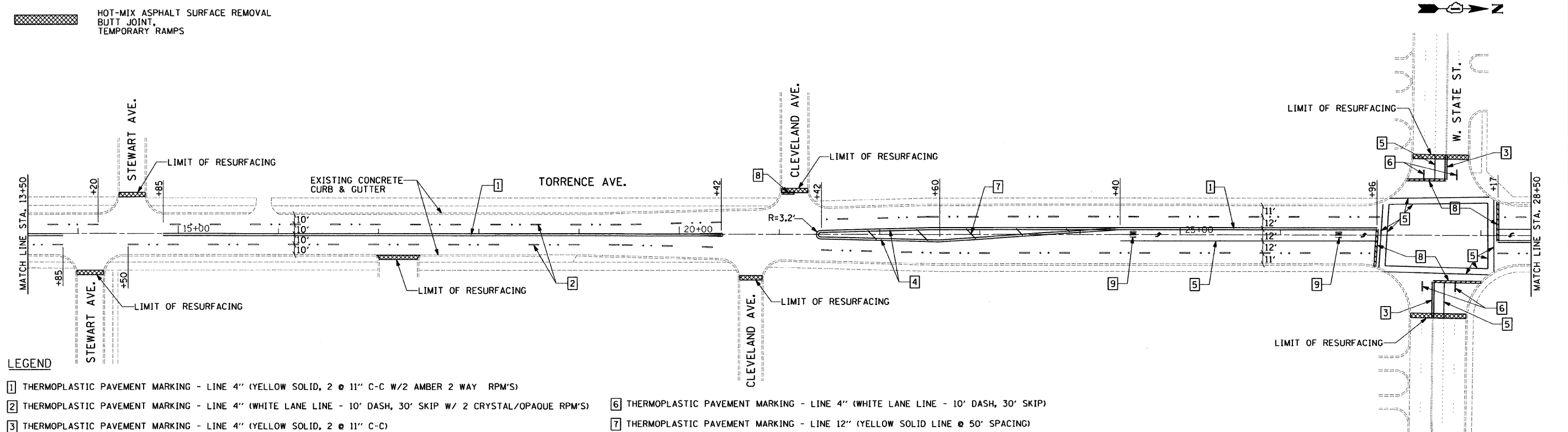
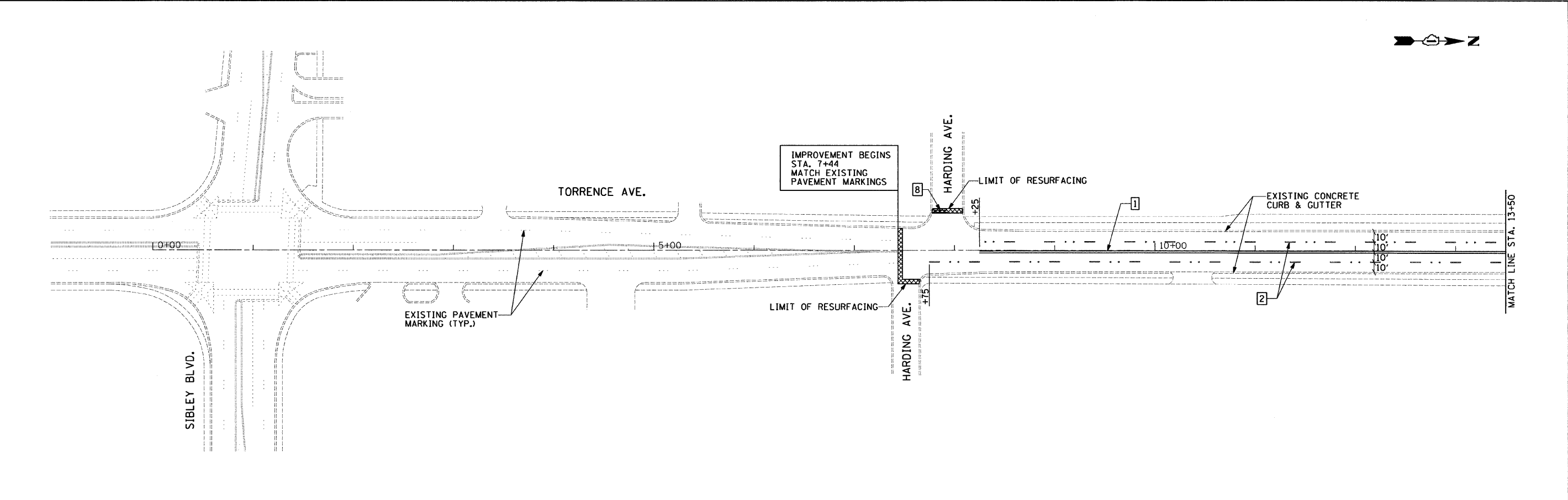
PROPOSED IMPROVEMENTS:

- (1) HOT-MIX ASPHALT SURFACE REMOVAL, 2 1/4 "
- (2) HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1 1/2 "
- (3) POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL 4.75, N50, 3/4 "
- (4) COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (AS DETERMINED BY THE ENGINEER)
- PAVEMENT MARKING

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	PLOT SCALE = 10,0000 ' / IN.	DRAWN - EF	REVISED -						358	2009-135 RS	COOK	21	4
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	DATE - 07/08/2009	REVIS	REVISED -						ILLINOIS FED. AID PROJECT				

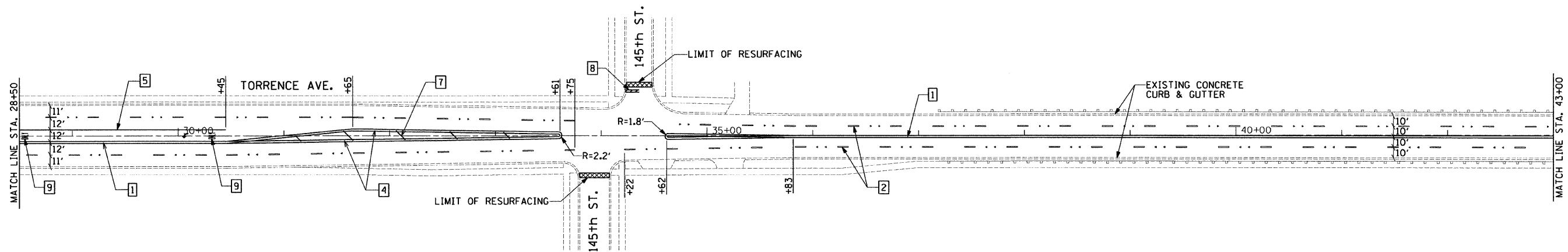
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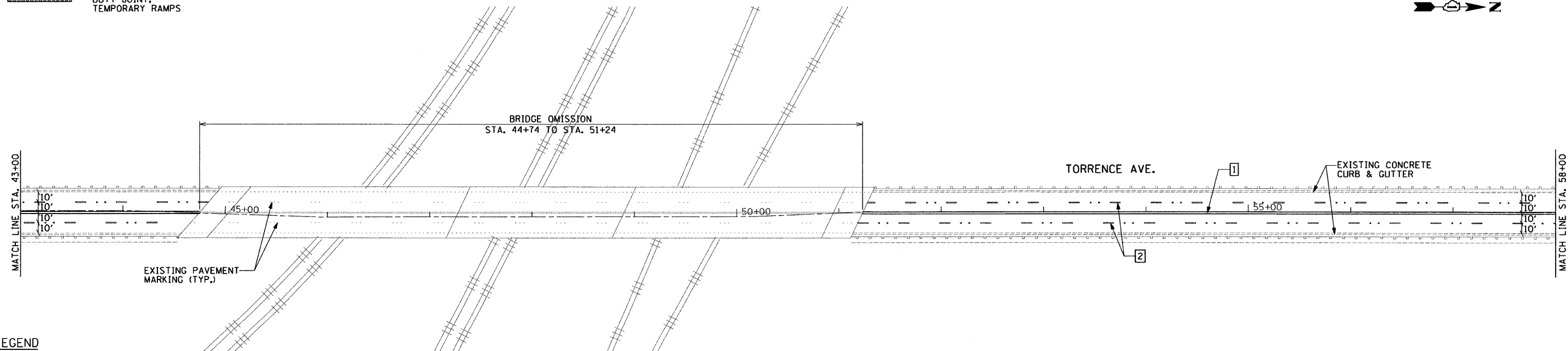
LEGEND

- | | |
|---|---|
| 1 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SOLID, 2 @ 11" C-C W/2 AMBER 2 WAY RPM'S) | 6 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP) |
| 2 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (WHITE LANE LINE - 10' DASH, 30' SKIP W/ 2 CRYSTAL/OPAQUE RPM'S) | 7 THERMOPLASTIC PAVEMENT MARKING - LINE 12" (YELLOW SOLID LINE @ 50' SPACING) |
| 3 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SOLID, 2 @ 11" C-C) | 8 THERMOPLASTIC PAVEMENT MARKING - LINE 24" (WHITE STOP LINES) |
| 4 THERMOPLASTIC PAVEMENT MARKING - LINE 4" (YELLOW SOLID, 2 @ 11" C-C W/ 1 YELLOW RPM) | 9 THERMOPLASTIC PAVEMENT MARKING - LETTERS & SYMBOLS (TYP.) |
| 5 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE SOLID LINE) | |

FILE NAME = \$FILE\$	USER NAME = _USER_	DESIGNED - MW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE – 138th STREET TO IL 83 (SIBLEY BLVD.) ROADWAY AND PAVEMENT MARKING PLANS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - EUB	REVISED -			358	2009-135 RS	COOK	21	5
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	PLOT DATE = 3/8/2010	DATE -	REVISED -			SCALE: 50	SHEET NO. 1 OF 3 SHEETS	STA. 0+00 TO STA. 28+50	ILLINOIS FED. AID PROJECT	



 HOT-MIX ASPHALT SURFACE REMOVAL
 BUTT JOINT,
 TEMPORARY RAMP



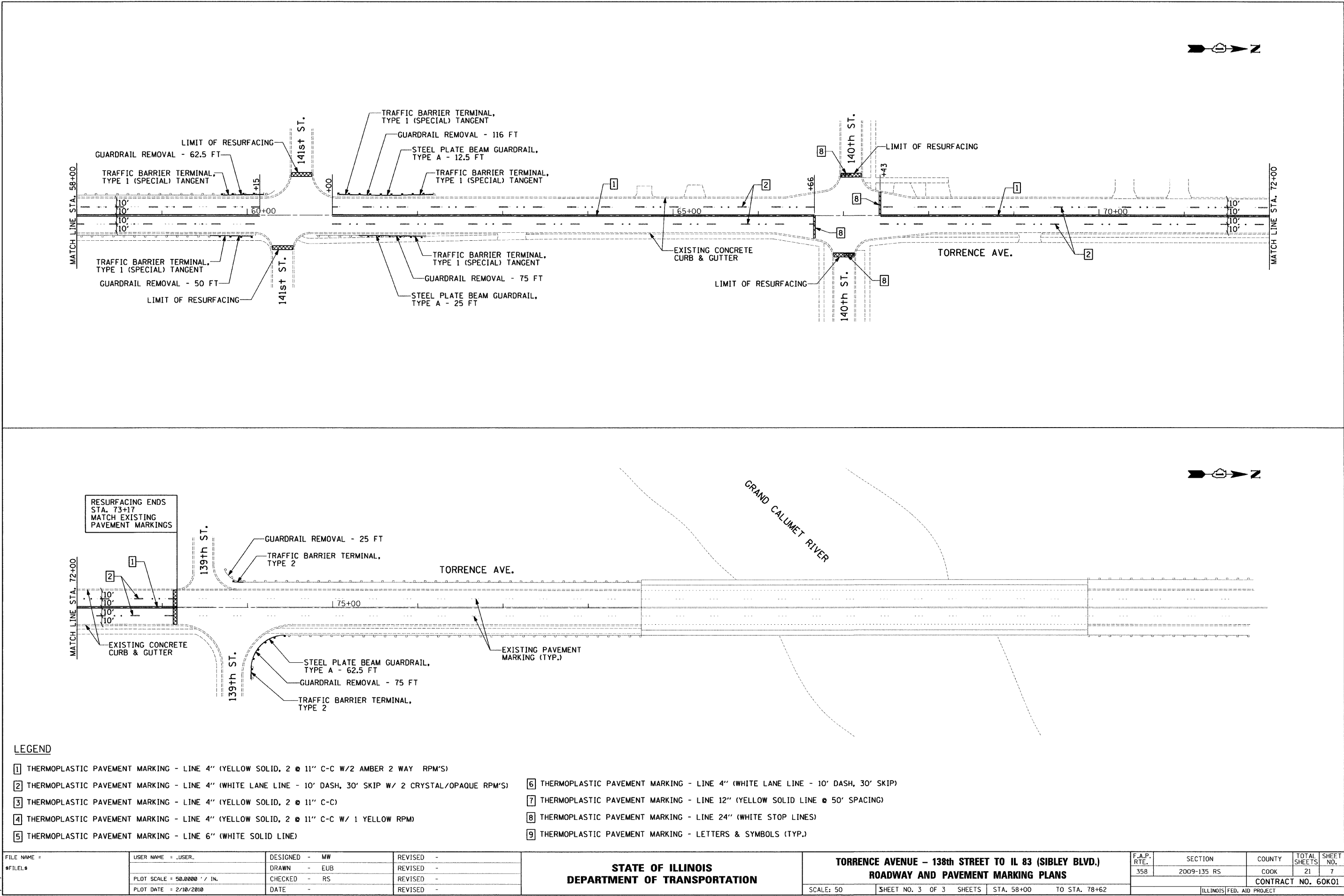
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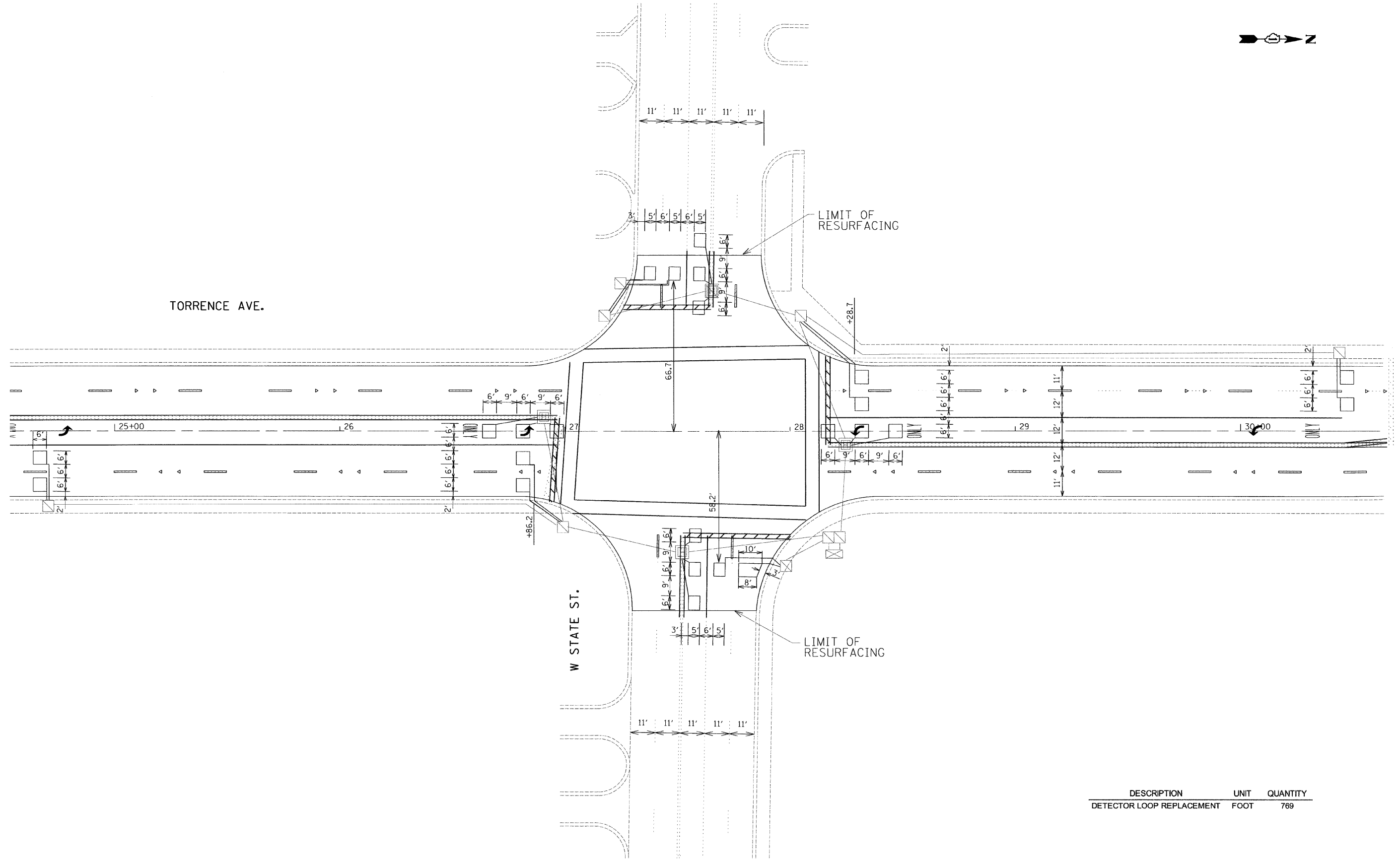
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| 5 THERMOPLASTIC PAVEMENT MARKING - LINE 6" (WHITE SOLID LINE) | |

FILE NAME = *FILE#	USER NAME = .USER.	DESIGNED - MW	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE – 138th STREET TO IL 83 (SIBLEY BLVD.) ROADWAY AND PAVEMENT MARKING PLANS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN - EUB	REVISED -			358	2009-135 RS	COOK	21	6
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	PLOT DATE = 2/10/2010	DATE -	REVISED -			ILLINOIS FED. AID PROJECT				
					SCALE: 50	SHEET NO. 2 OF 3 SHEETS	STA. 28+50	TO STA. 58+00		

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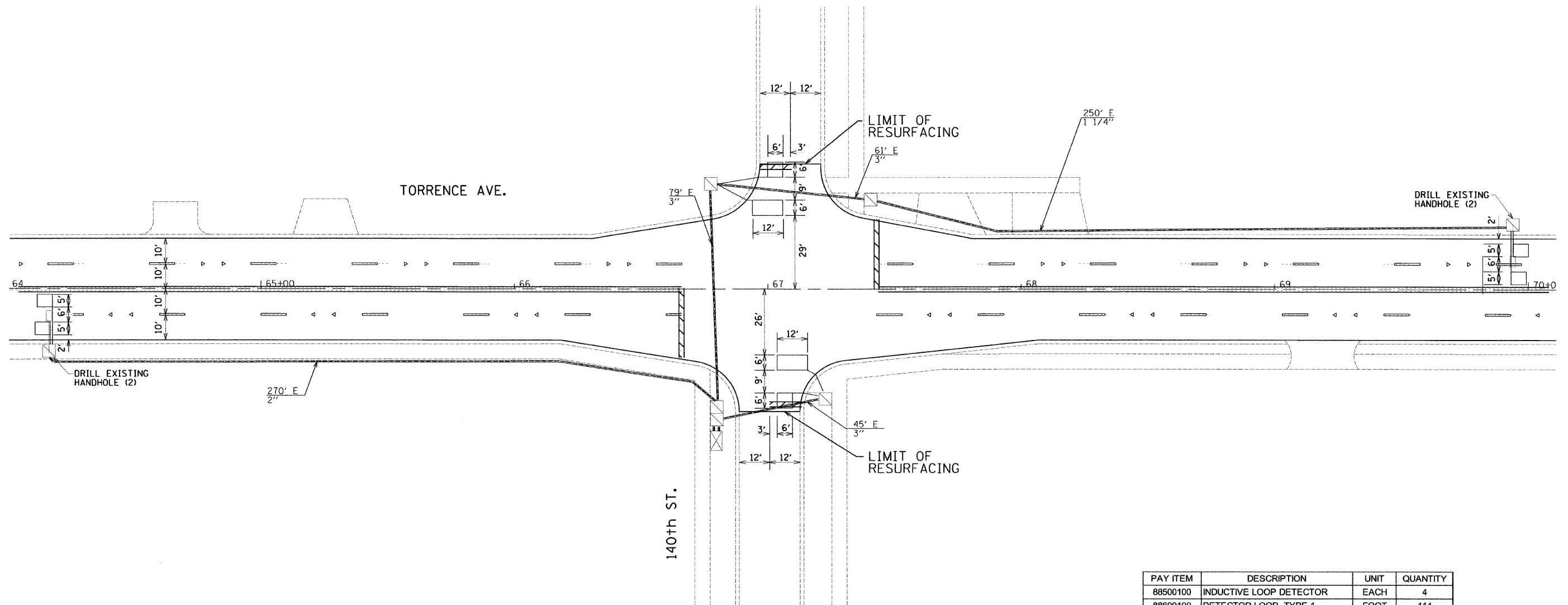




DESCRIPTION	UNIT	QUANTITY
DETECTOR LOOP REPLACEMENT	FOOT	769

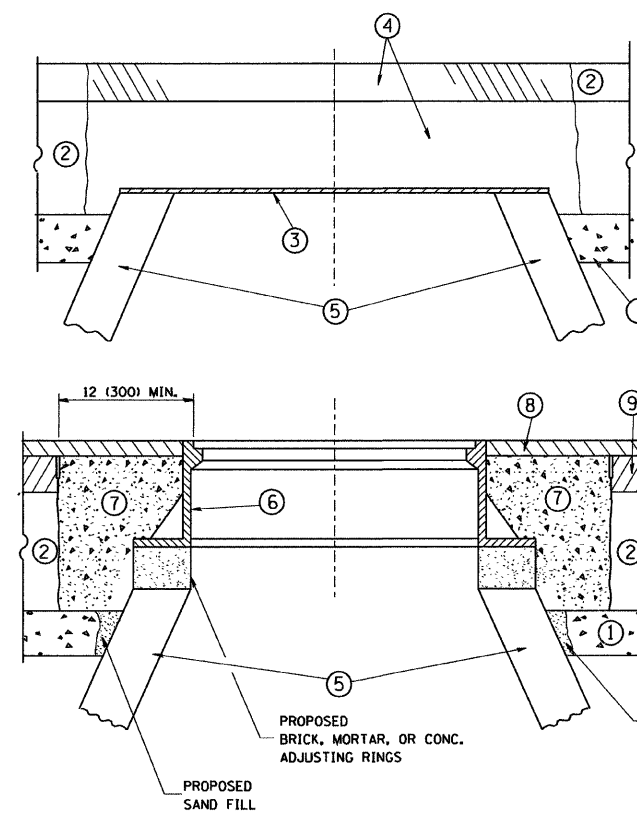
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		DATE -	REVISED -				ILLINOIS FED. AID PROJECT				
SCALE: 20		SHEET NO. 1 OF 2 SHEETS		STA.		TO STA.					

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PAY ITEM	DESCRIPTION	UNIT	QUANTITY
88500100	INDUCTIVE LOOP DETECTOR	EACH	4
88600100	DETECTOR LOOP, TYPE 1	FOOT	114
88600600	DETECTOR LOOP REPLACEMENT	FOOT	132
87300305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO.14, 1 PAIR	FOOT	1398
87900200	DRILL EXISTING HANDHOLE	EACH	4

3/8/2010	FILE NAME =	USER NAME = .USER.	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TORRENCE AVENUE – 138th STREET TO IL 83 (SIBLEY BLVD) DETECTOR LOOP REPLACEMENT PLANS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	\$FILEL\$		DRAWN -	REVISED -					358	2009-135 RS	COOK	21	9
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	PLOT DATE = 3/8/2010	DATE -	REVISED -										
							SCALE: 20	SHEET NO. 2 OF 2 SHEETS	STA.	TO STA.		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 1½ (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.
- STAGE 2 (AFTER PAVEMENT MILLING)**
- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
 - B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
 - C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURFACE COURSE OR HMA BINDER COURSE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

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

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.

- 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 SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
 - ⑧ PROPOSED HMA SURFACE COURSE
 - ⑨ PROPOSED HMA BINDER COURSE

LOCATION OF STRUCTURES:

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

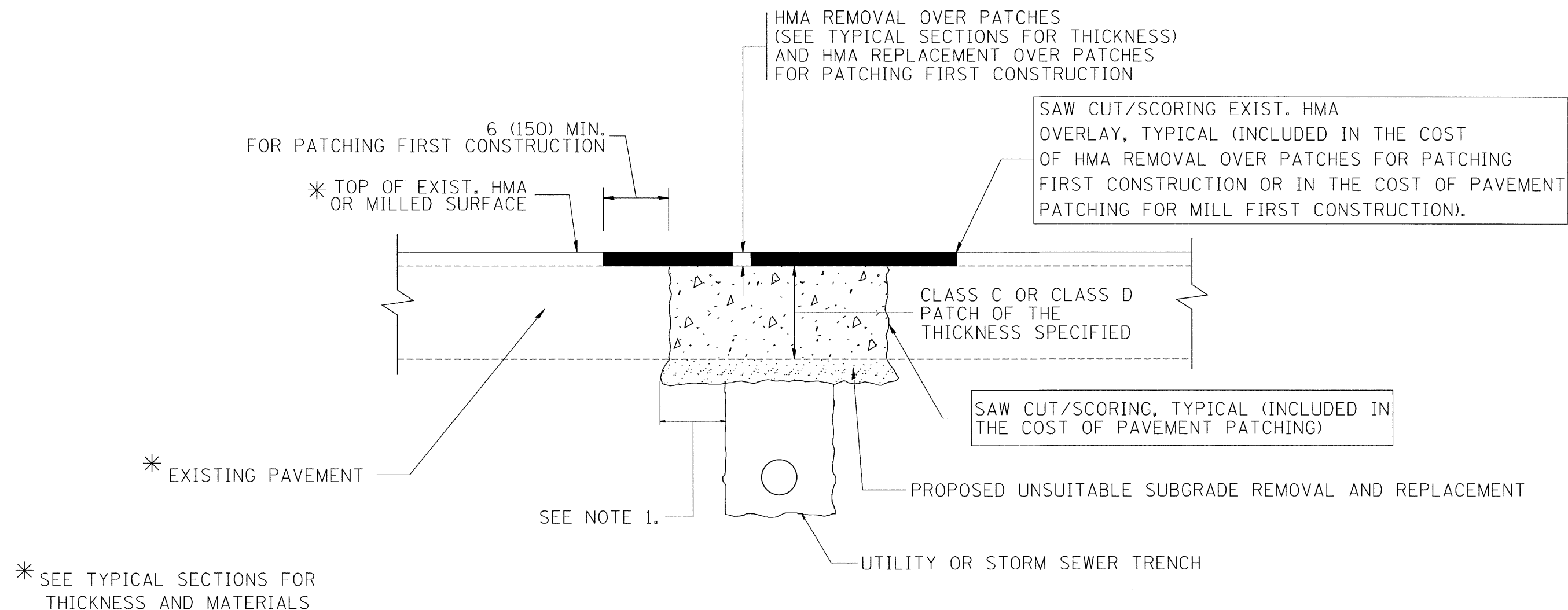
BASIS OF PAYMENT: THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER EACH FOR "FRAMES AND LIDS TO BE ADJUSTED, SPECIAL"

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

DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME = W:\diststd\22x34\bd08.dgn	USER NAME = gaglianobt	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING					F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - A. ABBAS 03-21-97							358	2009-135 RS	COOK	21	10
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04							BD600-03 (BD-8)		CONTRACT NO.		
	PLOT DATE = 1/4/2008	DATE - 10-25-94	REVISED - R. BORO 01-01-07							FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
SCALE: NONE					SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.							



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)

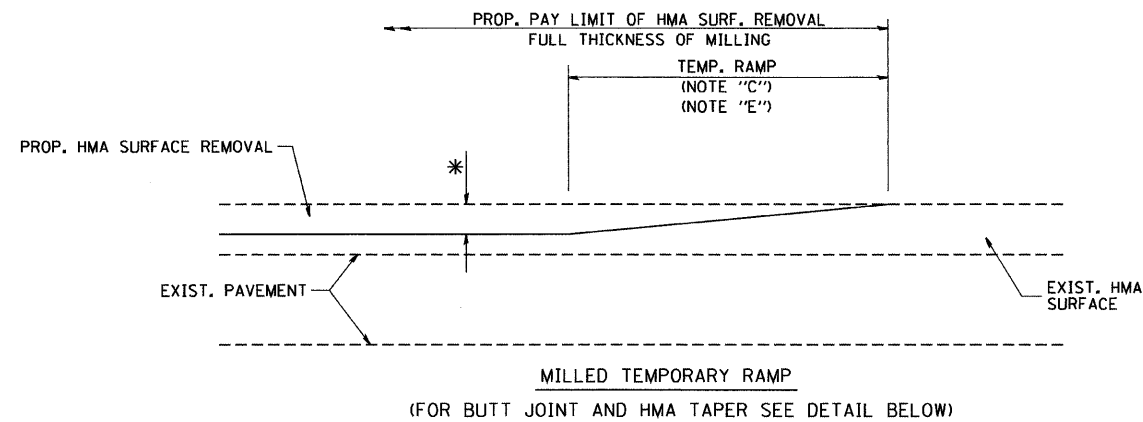
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

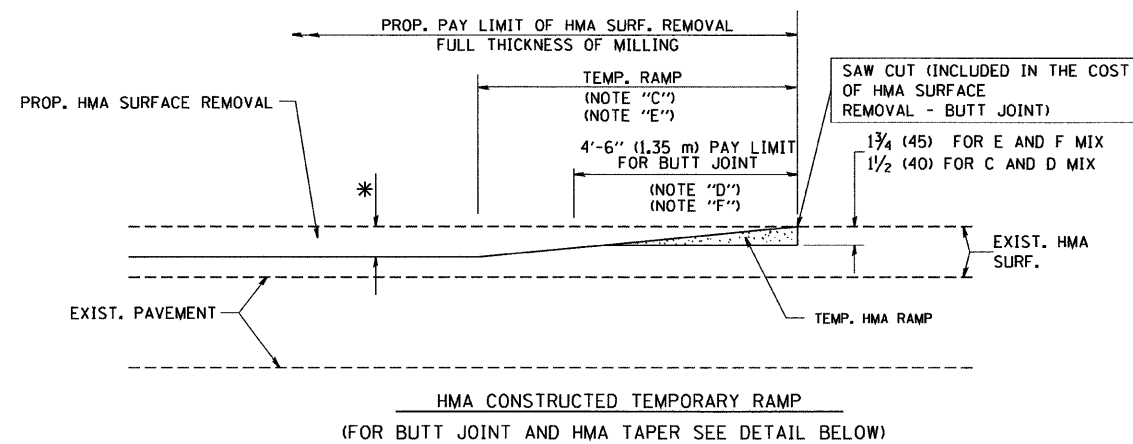
1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME =	USER NAME = boudri	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\projects\diststd22x34\bd22.dgn		DRAWN -	REVISED - R. BORO 01-01-07					358	2009-135 RS	COOK	21	11
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - R. BORO 09-04-07					BD400-04 (BD-22) CONTRACT NO.				
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

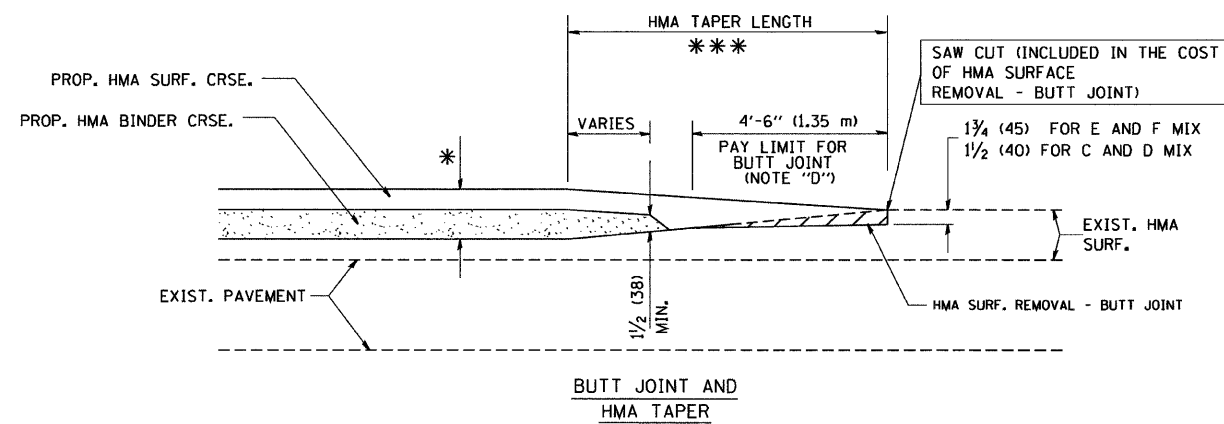


OPTION 1

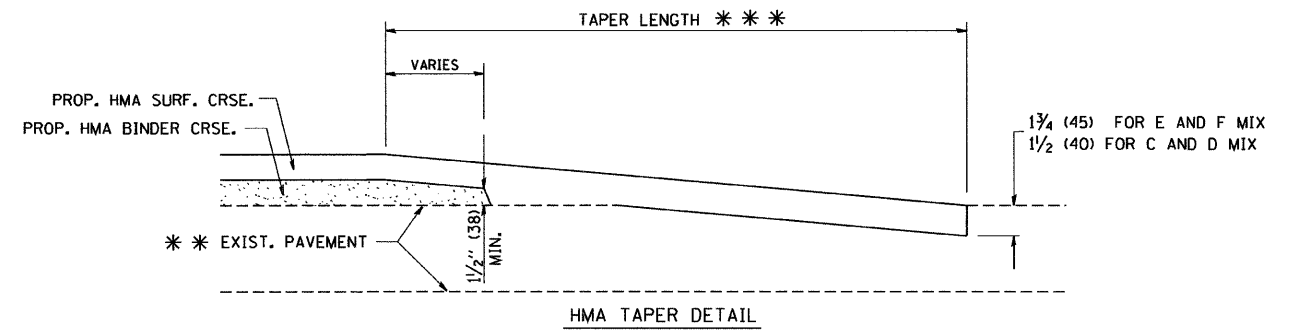
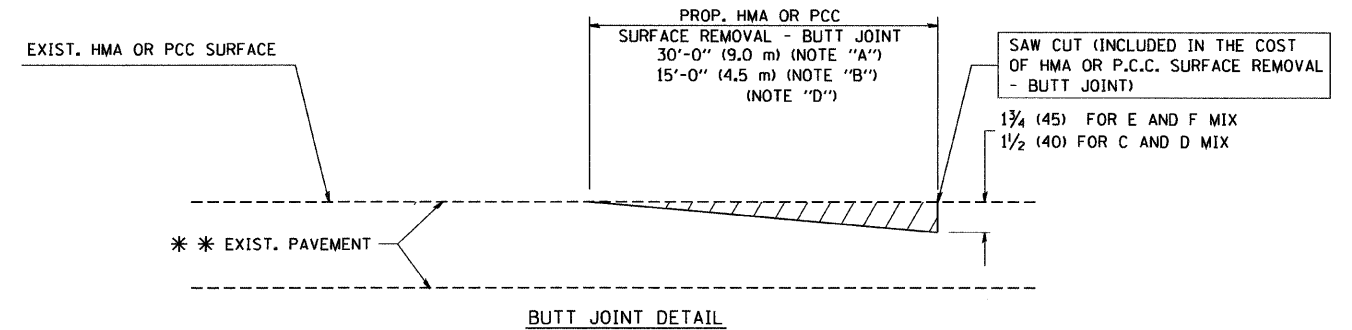


OPTION 2

TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

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

NOTES

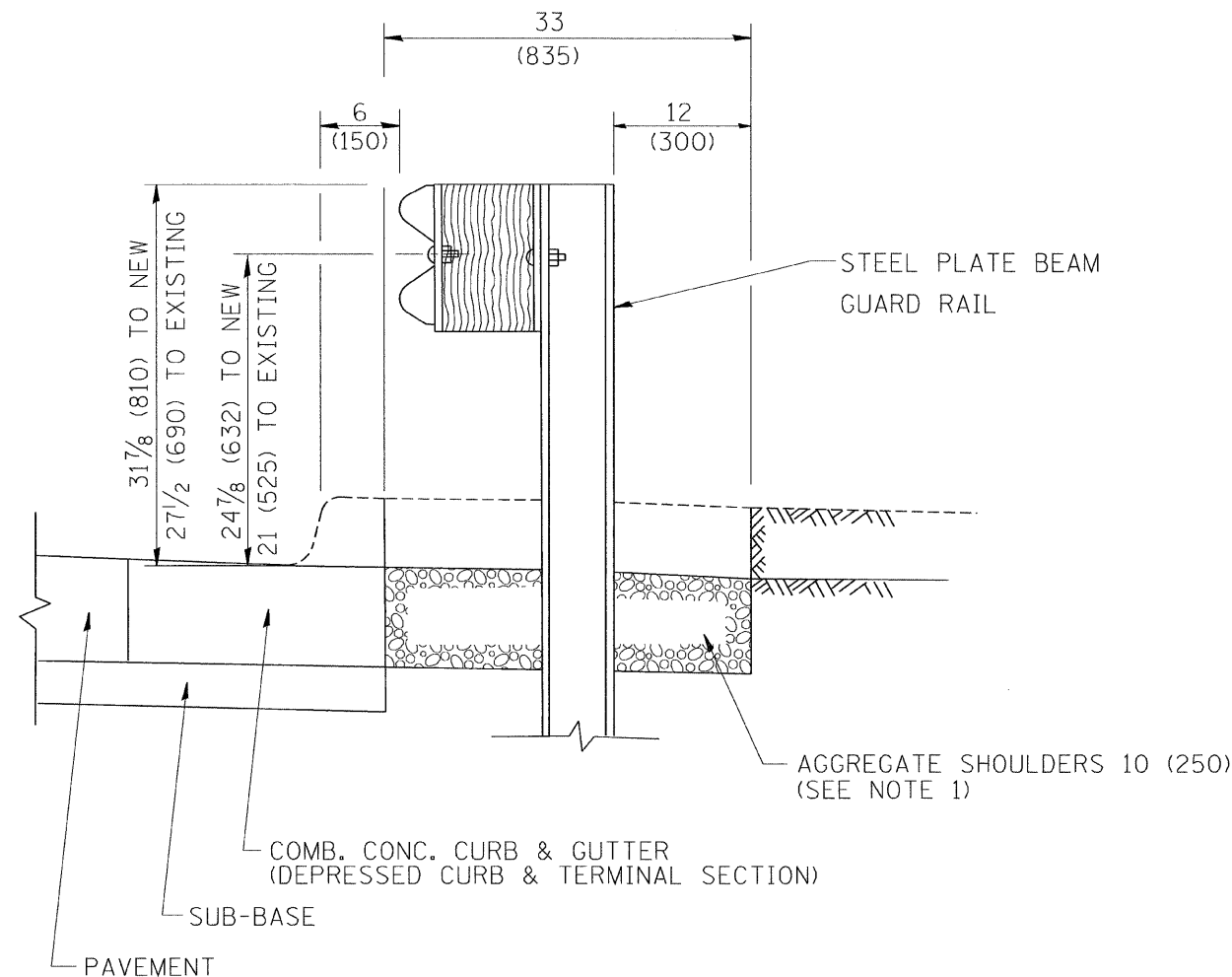
- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
B: MINOR SIDE ROADS.
C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900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

BASIS OF PAYMENT:

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

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

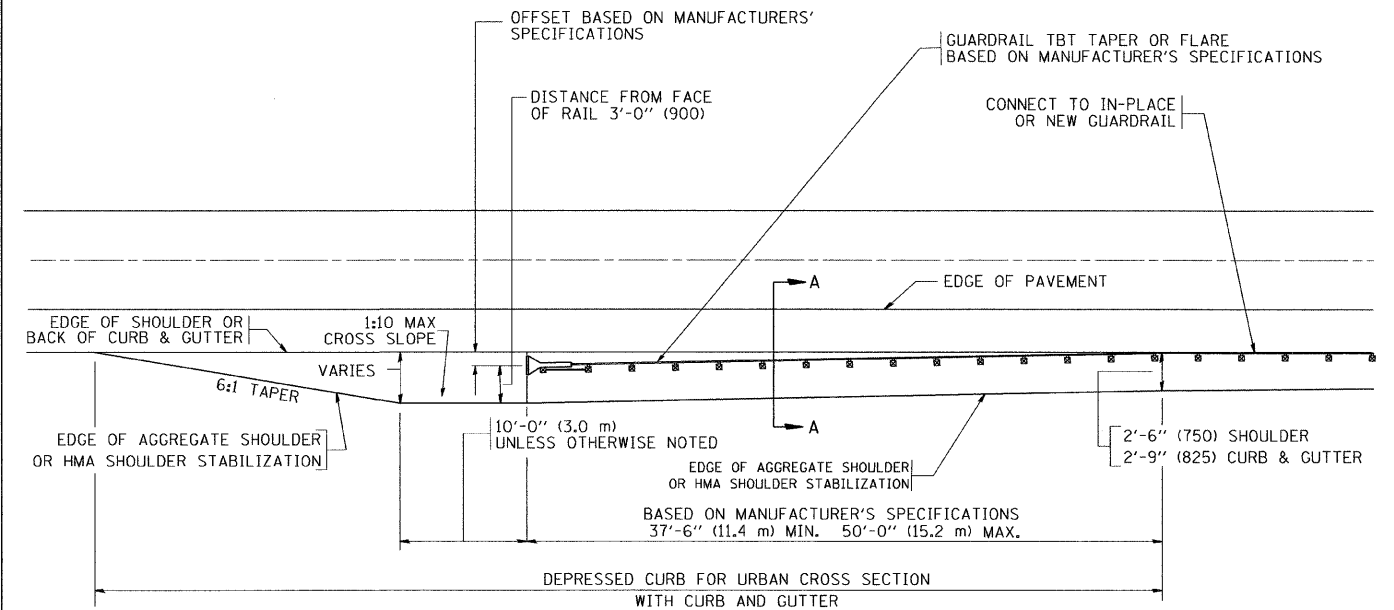
FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - A. ABBAS 03-21-97						358	2009-135 RS	COOK	21	13
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01						BD400-05 BD32		CONTRACT NO.		
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
					SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.					



SECTION A-A

- NOTES: 1. THE AGGREGATE SHOULDER, 10" OR HMA SHOULDER, 6" (IF REQUIRED) SHALL EXTEND UNDER THE TRAFFIC BARRIER TERMINAL.
2. "EXISTING" GUARDRAIL REFERS TO CONNECTING TERMINAL SECTION TO GUARD RAILING PRIOR TO THE MIDWEST GUARDRAIL SYSTEM.
3. THE CONTRACTOR SHALL VERIFY THE TYPE/HEIGHT OF GUARDRAIL IN-PLACE BEFORE ORDERING THE NEW TERMINAL SECTION. COST INCLUDED WITH THE COST OF THE TERMINAL. THE TERMINAL SECTION HEIGHT TO BE PLACED MUST MATCH THE HEIGHT OF THE IN-PLACE GUARDRAIL.

DETAILS FOR STEEL PLATE BEAM
GUARD RAIL ADJACENT TO CURB AND GUTTER
 [FOR ROADWAY SPEED 35 MPH (60 kmh) TO 45 MPH (70 kmh)]



DEPRESSED CURB AND GUTTER AND
SHOULDER TREATMENT AT TBT TY. 1 SPL.

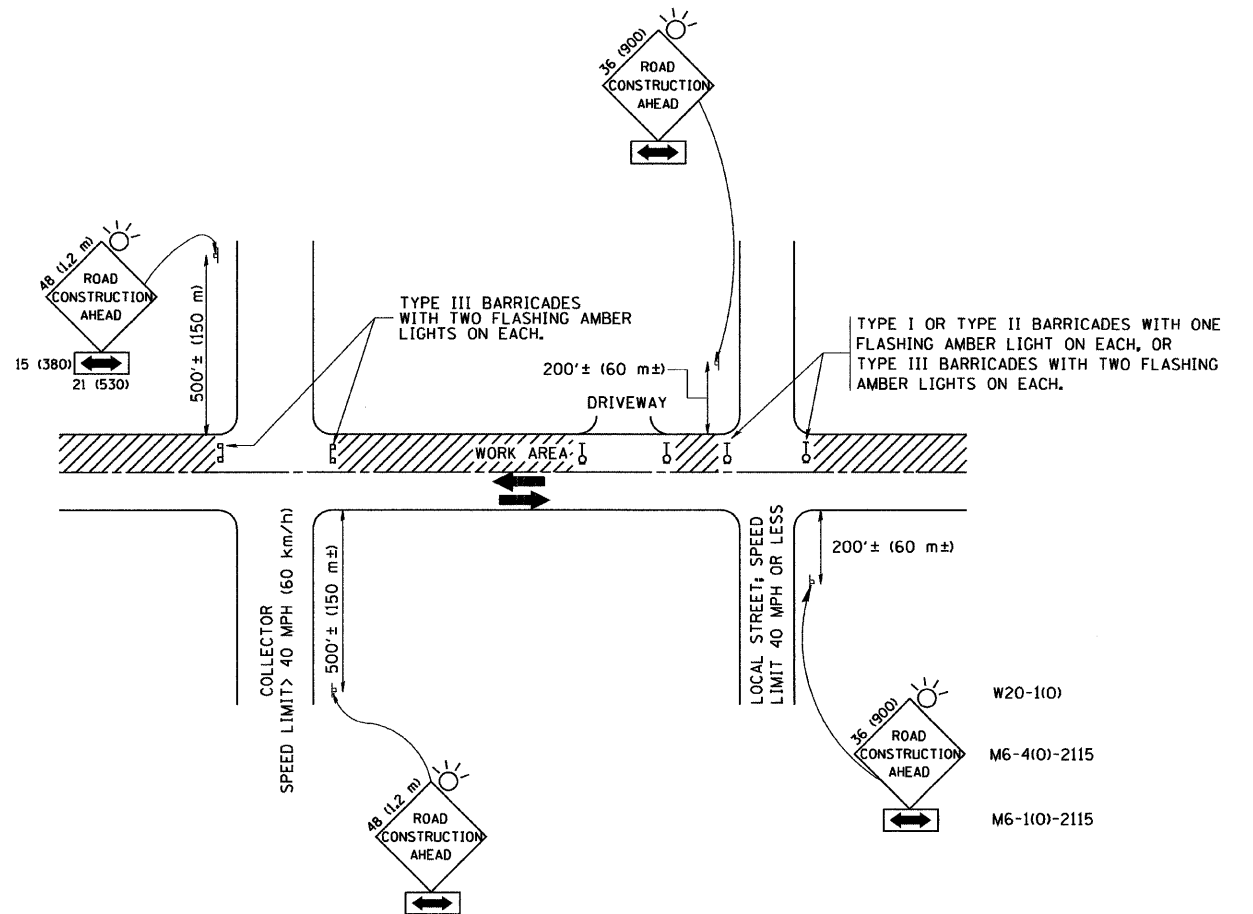
BASIS OF PAYMENT: HMA SHOULDERS 6 (150) (IF REQUIRED) WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SHOULDERS 6" (150 mm)".

STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL, OF THE TYPE SPECIFIED WILL BE PAID FOR SEPARATELY.

TBT = TRAFFIC BARRIER TERMINAL

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

FILE NAME =	USER NAME = drvakosgn	DESIGNED - M. DE YONG	REVISED - E. GOMEZ 08-28-00	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DETAILS FOR DEPRESSED CURB & GUTTER AND SHOULDER TREATMENT AT TBT TY 1 SPL.	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	F.A.B. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ci:\pwork\pwork\DRIVAKOSGN\0108315\bd34.dgn		DRAWN -	REVISED - R. BORO 01-01-07						358	2009-135 RS	COOK	21	14
PLOT SCALE = 49.9999 ' / IN.		CHECKED -	REVISED - R. BORO 12-08-2008						BD600-10 (BD 34)				
PLOT DATE = 9/21/2009		DATE - 09-22-90	REVISED - R. BORO 09-14-2009						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

- 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:
 - 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.
 - 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.
- SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
 - 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.
 - 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.
- WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).

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

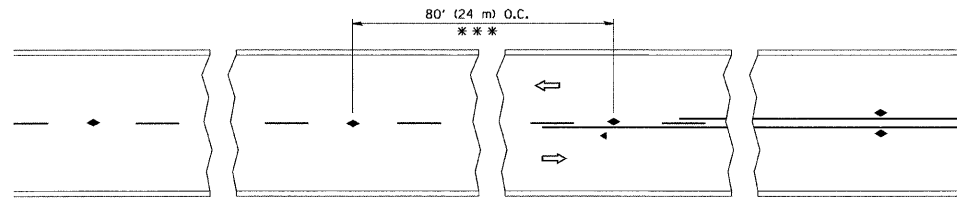
USE APPLICABLE PORTIONS OF THE TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES (STD. 701501, STD. 701606 OR THE APPROPRIATE STANDARD). THE SPACING OF SIGNS AND BARRICADES SHALL BE ADJUSTED FOR FIELD CONDITIONS AS DIRECTED BY THE ENGINEER. THE DIRECTIONAL ARROW SHALL BE COVERED OR REMOVED WHEN NO LONGER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

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

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

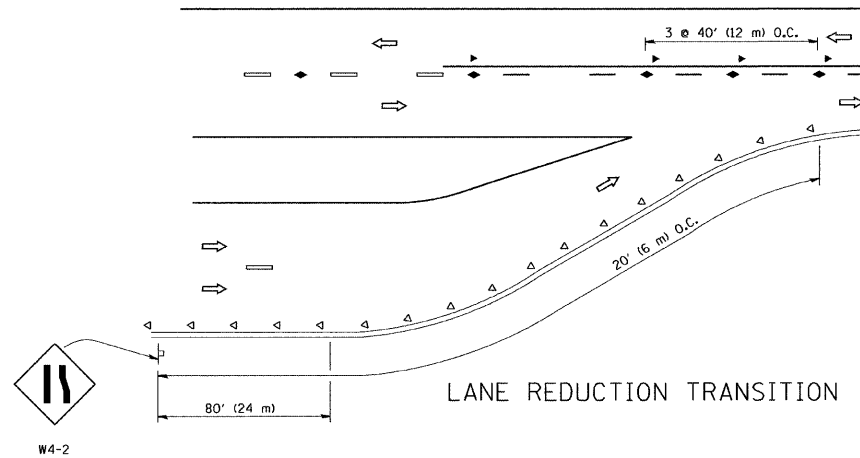
All dimensions are in millimeters (inches) unless otherwise shown.

FILE NAME = W:\diststd\22x34\tcl0.dgn	USER NAME = gaglianobt	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - A. HOUSEH 03-06-96					358	2009-135 RS	COOK	21	15
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96					TC-10				
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACHER 01-06-00					FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				
				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.					

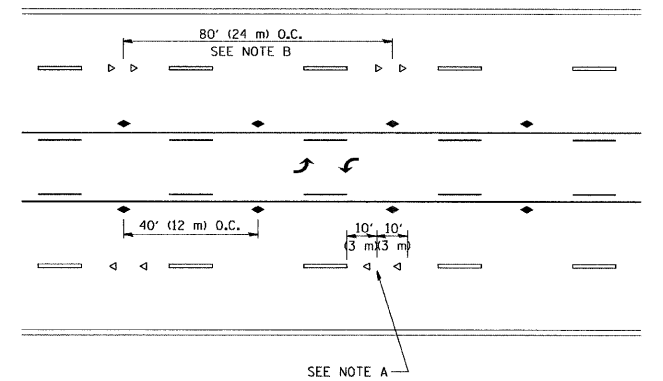


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

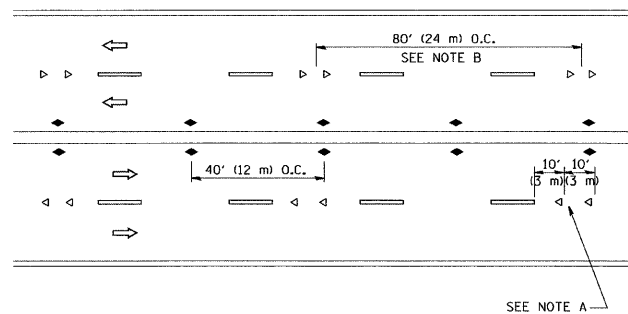
TWO-LANE/TWO-WAY



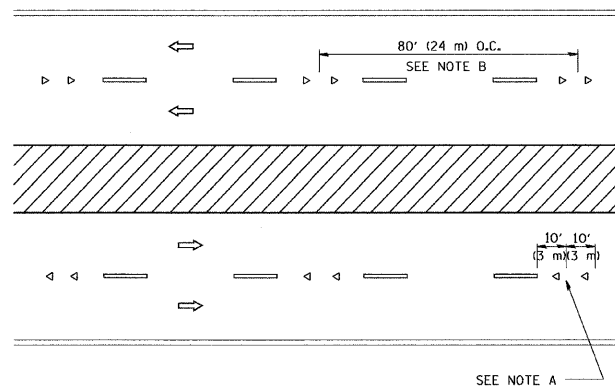
LANE REDUCTION TRANSITION



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.

LANE MARKER NOTES

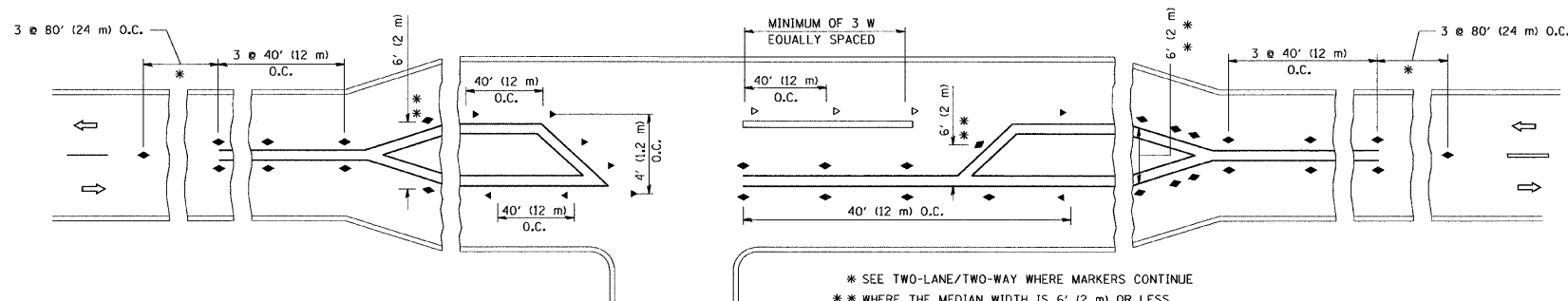
- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H. (20 km/h) LOWER THAN POSTED SPEEDS.

SYMBOLS

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

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.

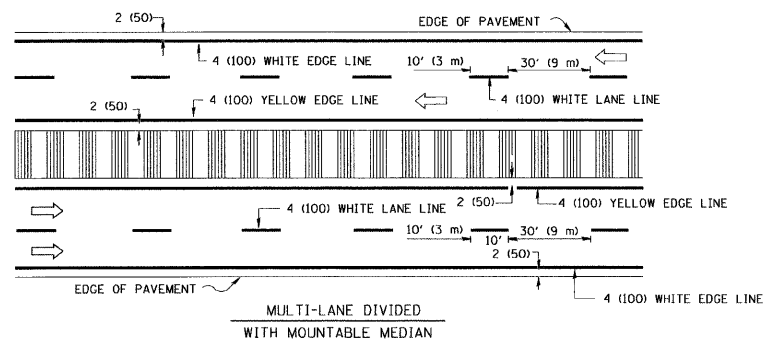
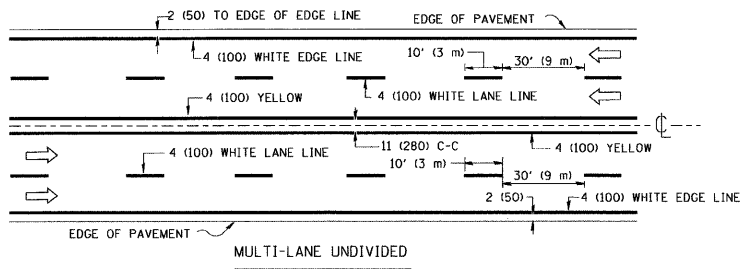
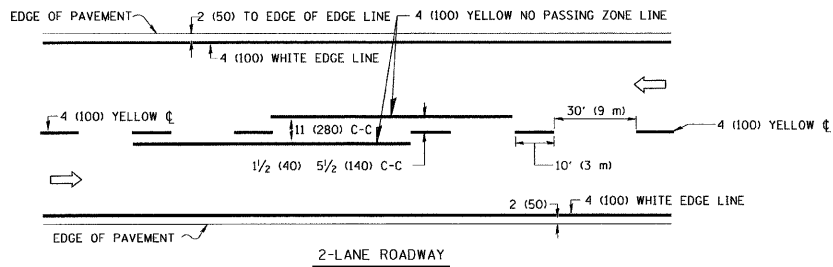


LEFT TURN

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

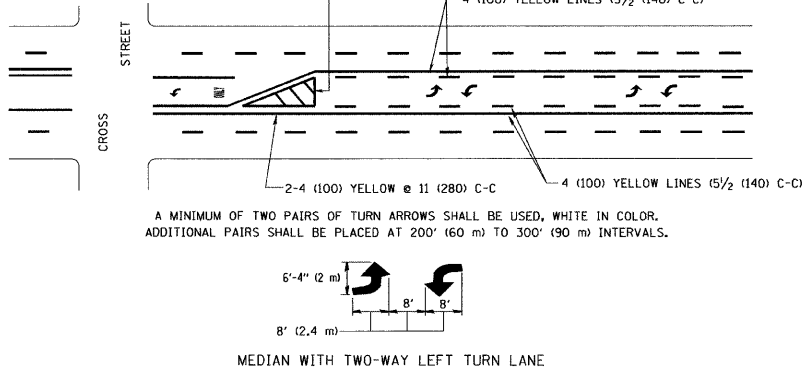
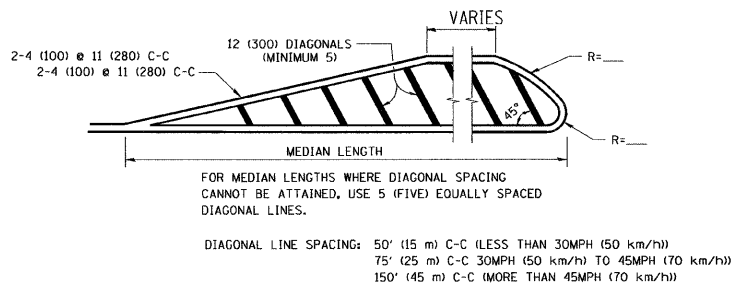
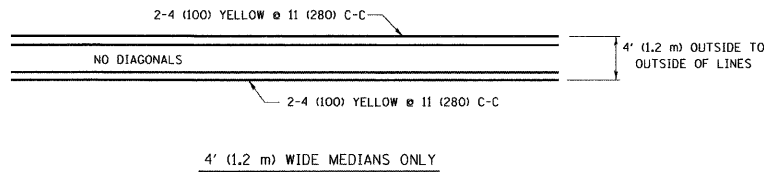
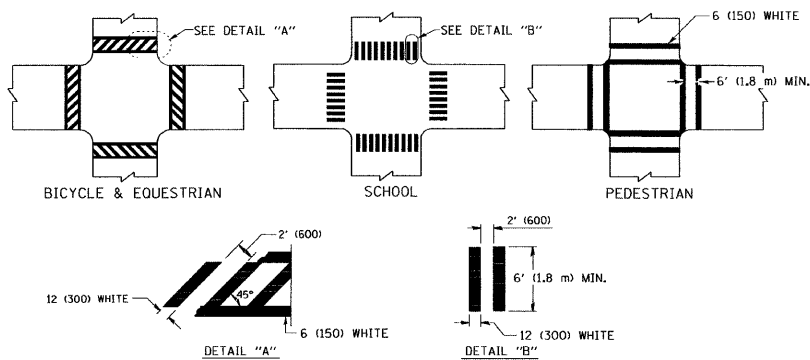
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = drvakosgn	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et:\pw\work\pwidat\drvakosgn\080315\td1.dgn		DRAWN -	REVISED - T. RAMMACHER 03-12-99		RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			358	2009-135 RS	COOK	21	16
PLOT SCALE = 50.000' / IN.		CHECKED -	REVISED - T. RAMMACHER 01-06-00					TC-11				
PLOT DATE = 9/9/2009		DATE -	REVISED - C. JUCIUS 09-09-09					CONTRACT NO.				

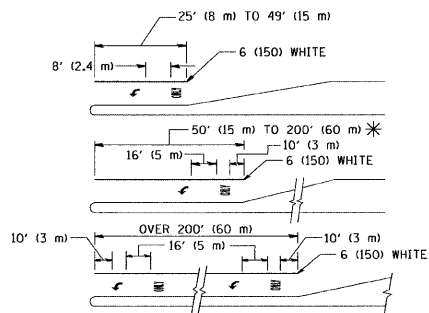


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

TYPICAL LANE AND EDGE LINE MARKING

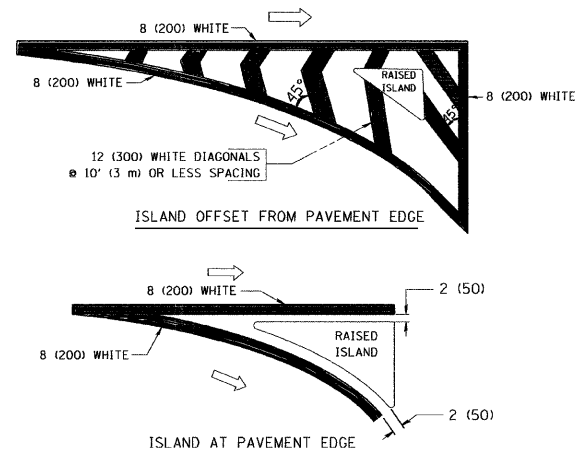


TYPICAL LEFT (OR RIGHT) TURN LANE



FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
 AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
 * TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

TYPICAL TURN LANE MARKING

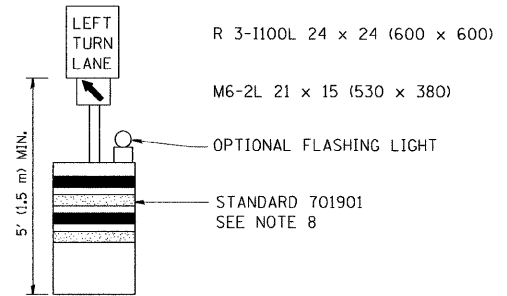
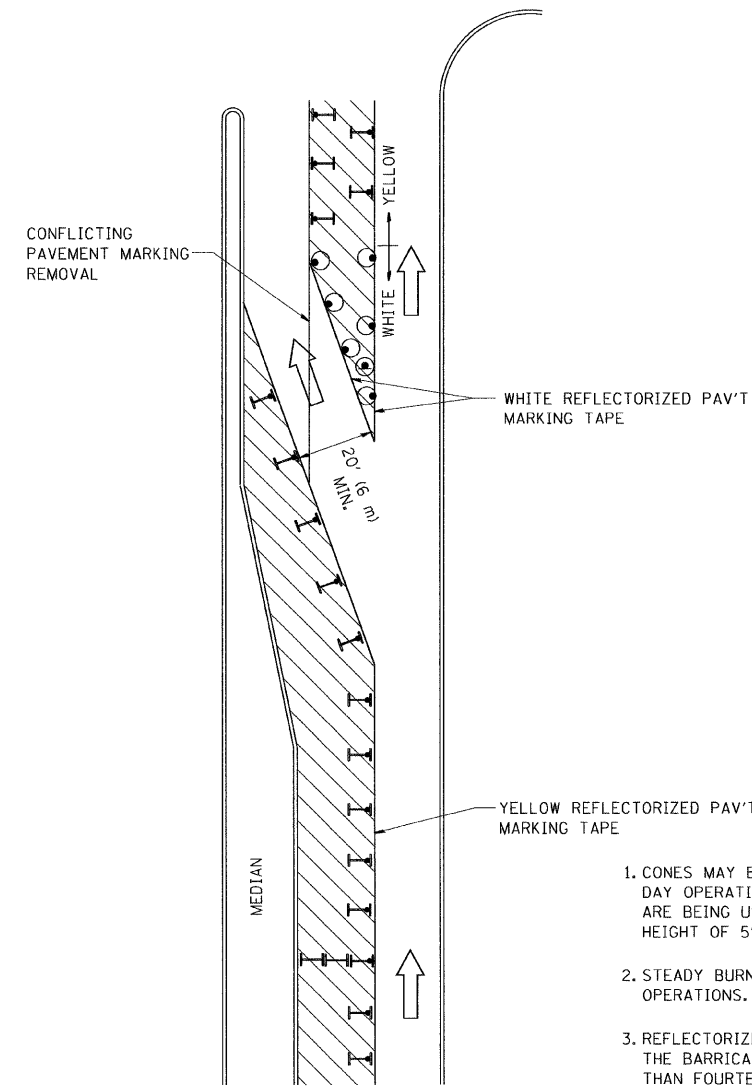


TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING / REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100)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

FILE NAME =	USER NAME = drivakosgn	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		DISTRICT ONE TYPICAL PAVEMENT MARKINGS		F.A.D. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ei\pw_work\pwidot\drivakosgn\d8108315\to3.dgn		DRAWN -	REVISED -C. JUCIUS 09-09-09					358	2009-135 RS	COOK	21	17
PLOT SCALE = 50.000' / IN.		CHECKED -	REVISED -					TC-13				
PLOT DATE = 9/9/2009		DATE - 03-19-90	REVISED -					FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				
				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.				









GENERAL NOTES

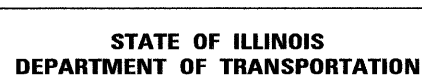
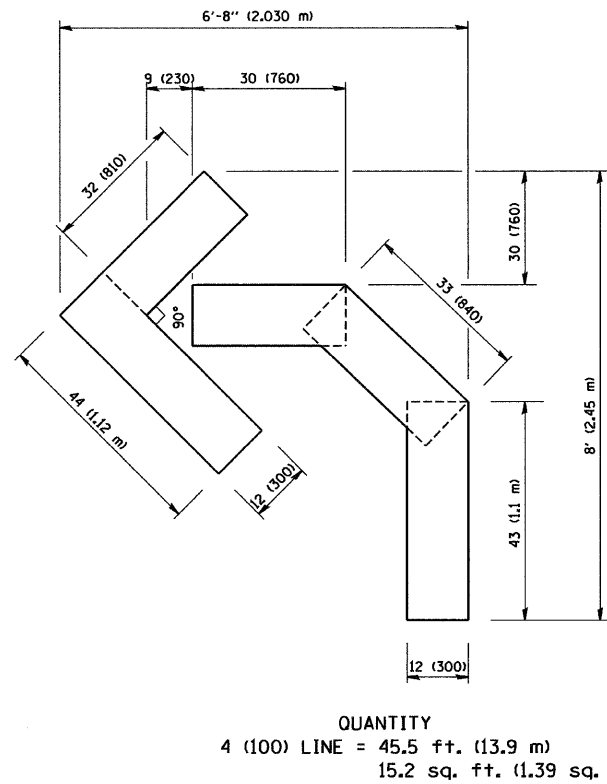
1. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT. WHEN CONES ARE BEING USED, THE "LEFT TURN LANE" SIGN MAY BE SKID MOUNTED AT A MINIMUM HEIGHT OF 5' (1.5 m).
2. STEADY BURNING LIGHTS WILL NOT BE REQUIRED ON BARRICADES 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

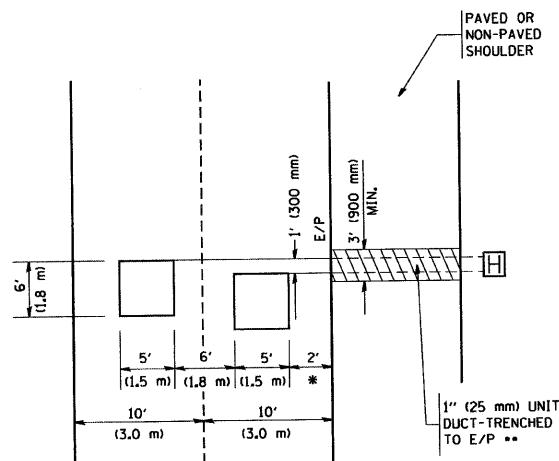
FILE NAME = c:\pwwork\PWIDOT\DRIVAKOSGN\0108315\14.dgn	USER NAME = drivakosgn	REVISED -T. RAMMACHER 09-08-94	REVISED - R. BORO 09-14-09	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		REVISED - A. HOUSEH 11-07-95	REVISED -					358	2009-135 RS	COOK	21	18
	PLOT SCALE = 49.9999 ' / IN.	REVISED - A. HOUSEH 10-12-96	REVISED -		TC-14			CONTRACT NO.				
	PLOT DATE = 9/14/2009	REVISED -T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE			SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	



FILE NAME =	USER NAME = gaglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
W:\diststd\22x34\to16.dgn		DRAWN -	REVISED -T. RAMMACHER 11-04-97					358	2009-135 RS	COOK	21	19
	PLOT SCALE = 50.0000 ' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98		TC-16		CONTRACT NO.					
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT		

LOOPS NEXT TO SHOULDERS

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

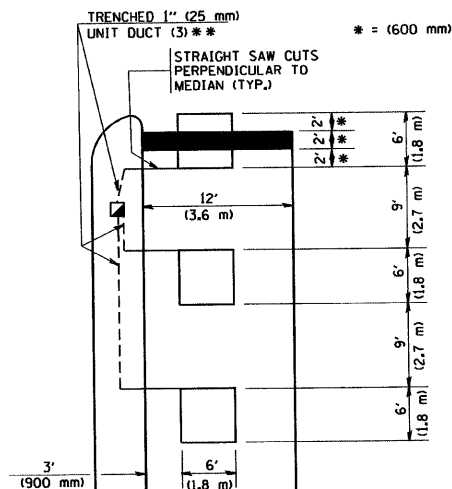


* = (600 mm)

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

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

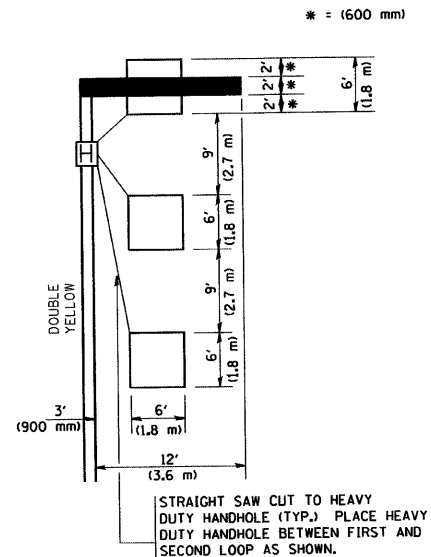
HANDHOLE LOCATION MAY
VARY DEPENDING ON GEOMETRICS
AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.



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

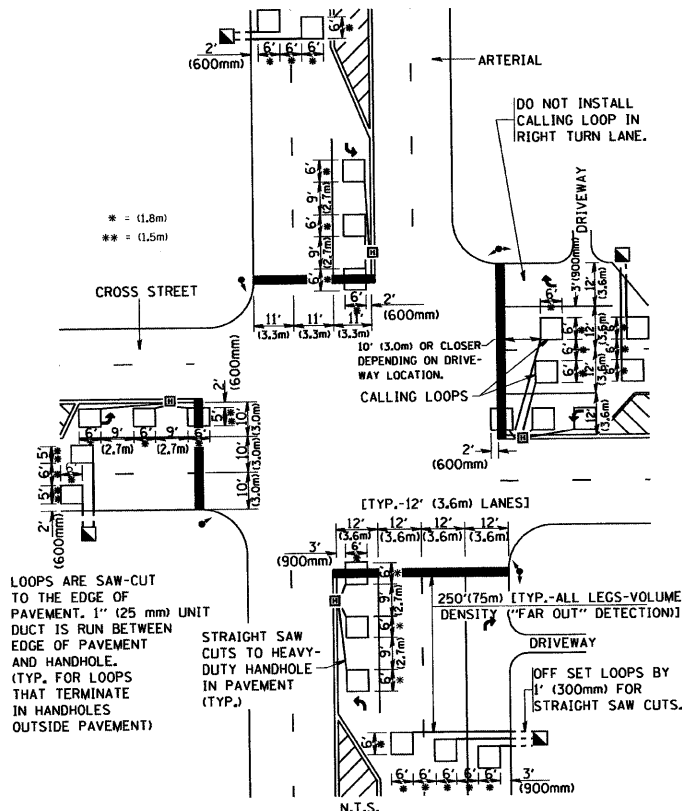
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



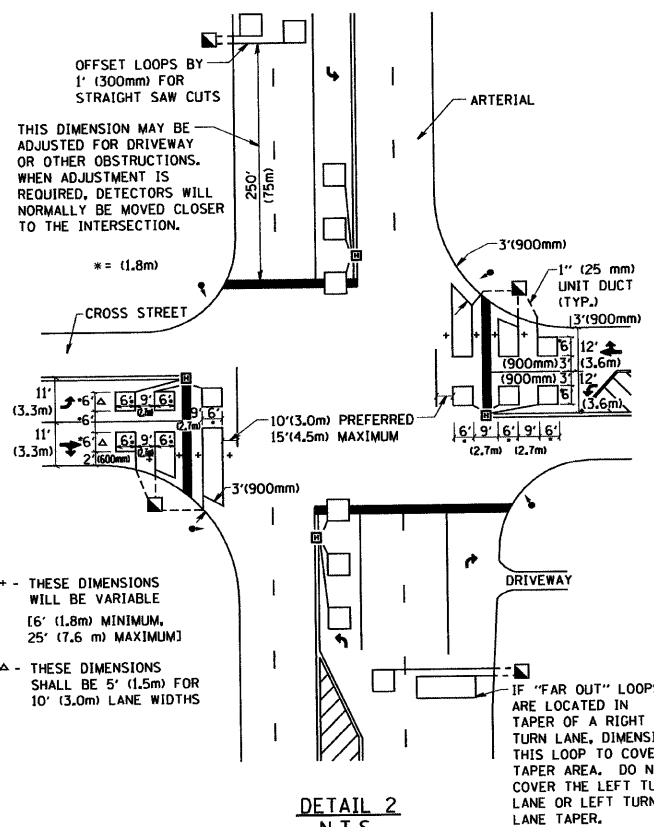
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO
PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

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



DETAIL 1
N.T.S.

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



DETAIL 2
N.T.S.

NOTES:

VEHICLES LOOP DETECTORS

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

PLACEMENT OF DETECTORS

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

LOCATIONS AND 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 =
W:\diststd\22x34\ts07.dgn

USER NAME = gaglienobt

DESIGNED -

DRAWN -

CHECKED - R.K.F.

DATE -

DESIGNED -

DRAWN -

CHECKED - R.K.F.

DATE -

REVISED -

REVISED -

REVISED -

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.
358	2009-135 RS	COOK	21	21
TS-07		CONTRACT NO. 60K01		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				