## STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS**

FOR INDEX OF SHEETS, SEE SHEET NO. 2

THIS PROJECT IS LOCATED IN

**VILLAGE OF FRANKLIN PARK** 

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# PROPOSED HIGHWAY PLANS

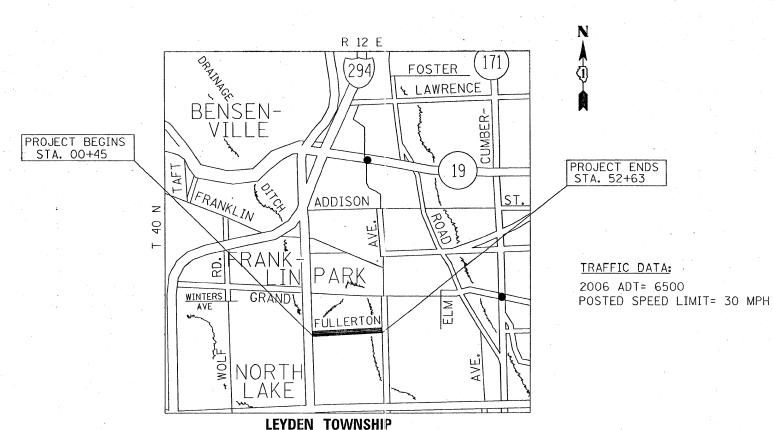
F.A.U. ROUTE 1381 FULLERTON AVENUE

**SECTION: 2000-048 RS** 

US 12/45 (MANNHEIM ROAD) TO 25TH AVENUE (ROSE STREET)

RESURFACING (3P)

**COOK COUNTY** C-91-158-00



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.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION 1-800-892-0123

PROJECT ENGINEER J.P CHANG (847) 705-4432 PROJECT MANAGER

GROSS AND NET LENGTH OF PROJECT = 5,218.00 LIN. FT = 0.99 MILES

COOK 2000-048 RS CONTRACT NO. 60951

#### D-91-158-00



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION Diane M. O'Koefe GF
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER WAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

**CONTRACT NO. 60951** 

#### INDEX OF SHEETS

#### STATE STANDARDS

SHEET NO.	<u>DESCRIPTION</u>	STANDARD NO.	DESCRIPTION
1	TITLE SHEET	442201 <i>-03</i>	CLASS C AND D PATCHES
2	INDEX OF SHEETS, STATE STANDARDS & GENERAL NOTES.	482011 <b>- <i>03</i></b>	HMA SHLD. STRIPS/SHLDS. WITH RESURFACING OR WIDENING AND RESURFACING PROJECTS
3	SUMMARY OF QUANTITIES		
.4	EXISTING AND PROPOSED TYPICAL SECTIONS	701301- <i>0</i> 3	LANE CLOSURE, 2-L, 2-W, SHORT TIME OPERATIONS
5-6	ROADWAY AND PAVEMENT MARKING PLANS	701311 <b>-<i>03</i></b>	LANE CLOSURE, 2-L, 2-W, MOVING DAY ONLY OPERATIONS
7-8	DETECTOR LOOP REPLACEMENT PLANS	701501 <b>-<i>05</i></b>	URBAN LANE CLOSURE, 2-L, 2-W, UNDIVIDED
9	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT (BD-22)	701606 <i>-06</i>	URBAN LANE CLOSURE, MULTILANE, 2W WITH MOUNTABLE MEDIAN
10	BUTT JOINT AND HMA TAPER DETAILS (BD-32)	701701-06	URBAN LANE CLOSURE, MULTILANE INTERSECTION
11	TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, (TC-10) INTERSECTIONS AND DRIVEWAYS	701901-0/	TRAFFIC CONTROL DEVICES
12	TYPICAL APPLICATIONS: RAISED REFLECTIVE PAVEMENT (TC-11) MARKERS (SNOW-PLOW RESISTANT)		
13	DISTRICT ONE TYPICAL PAVEMENT MARKINGS (TC-13)		
14	TRAFFIC CONTROL AND PROTECTION OF TURN BAYS (TC-14) (TO REMAIN OPEN TO TRAFFIC)		
15	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING (TC	-16)	en en la martine de la companya de La companya de la co
16	ARTERIAL ROAD INFORMATION SIGN (TC-22)		

#### GENERAL NOTES

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

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF FRANKLIN PARK

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.

THE RESIDENT ENGINEER SHALL CONTACT MR. WALLY CZARNY, AREA TRAFFIC FIELD ENGINEER, AT (773) 685-4342 A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS.

WHEN MILLED PAVEMENT IS OPEN TO TRAFFIC, THE MAXIMUM GRADE
DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED
1 1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS, AND 1 INCH
WHERE THE SPEED LIMIT IS 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)

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

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

ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT NO ADDITIONAL COST TO THE DEPARTMENT.

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

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

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

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

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

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.

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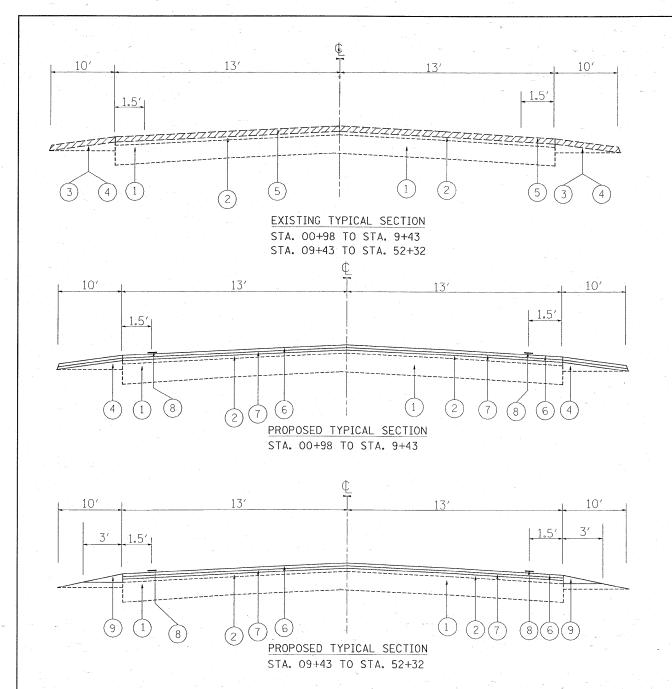
DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR ROADWAY RESURFACING (TS-07)

SCALE:

INDEX	OF	•	STATE STANDAF LL NOTES	RDS AND	
 SHEET NO	0. 1	OF 1 SHEET:	S STA.	TO STA.	

F.A.U RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.					
1381	2000-048 RS	COOK	17	2					
		CONTRACT	NO. 60	951					
ILLINOIS FED. AID PROJECT									

	SUMMARY OF QUANTITIES		URBAN 1001.STATE		1	CONSTRUCT	ION TYPE	CODE	<u> </u>		SUMMARY OF QUANTITIES	-	URBAN 1007.STATE	-		CONSTRUCT	ION TYPE	CODE	I .
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	I-000						CODE NO	ITEM	UNIT	TOTAL OUANTITIES	I-000					# # # # # # # # # # # # # # # # # # #
20201006	GRADING AND SHAPING SHOULDERS	UNIT	105	105						70300280	TEMPORARY PAVEMENT MARKING	FOOT	146	146					
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	18	18	1 2 -					70701000	- LINE 24"	SO ET	5687	5687					
40600300	AGGREGATE (PRIME COAT)	TON	86	86						70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT			<b>'</b>				
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	7	7						* 78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	145	145					
40600895	CONSTRUCTING TEST STRIP	EACH	1	1	4					* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	14658	14658			¥ 1		
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SO YD	253	253						* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	749	749					
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	547	547						* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	138	138					
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N7O	TON	1842	1842						* 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	146	146					
44000155	HOT-MIX ASPHALT SURFACE REMOVAL, 1	SO YD	646	646						* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	130	130				4	
44000158	1/2" HOT-MIX ASPHALT SURFACE REMOVAL, 2	SO YD	21284	21284						* 78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	17	17		1			
	1/4"					4.				* 88600600	DETECTOR LOOP REPLACEMENT	FOOT	126	126					
44002216	HOT-MIX ASPHALT REMOVAL OVER PATCHES, 4"	SQ YD	2042	2042						X0322256	TEMPORARY INFORMATION SIGNING	SO FT	51.4	51.4					
44003510	MEDIAN REMOVAL PARTIAL DEPTH	SO FT	3805	3805				· ·		X4067107	POLYMERIZED LEVELING BINDER (MACHINE	TON	864	864					
44201761	CLASS D PATCHES, TYPE I, 10 INCH	SQ YD	8	8		, gerting .	٠,	1.,			METHOD), IL-4.75, N50	1			and the second of the second o		- conflicting	x 1	specification is
44201765	CLASS D PATCHES. TYPE II. 10 INCH	SO YD	1685	1685				-											
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SQ YD	275	275	•			1.5											
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SO YD	74	74							* SPECIALITY ITEMS								
48102100	AGGREGATE WEDGE SHOULDER, TYPE B	TON	450	450			1												
60300310	FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)	EACH	13	13			* - N -												
67000400	ENGINEER'S FIELD OFFICE. TYPE A	CAL MO	6	6															
67100100	MOBIL IZATI <b>O</b> N	L SUM	1	1															
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1															
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1															
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1									*						
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	21820	21820															
70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	145	145								-							
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	14658	14658												:			
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	749	749								¢				-	·		
70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	138	138															
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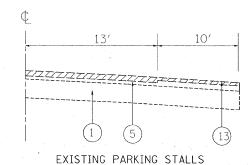
MIXTURES REQUIREN	MENTS	
MIXTURE USES	AC TYPE	VOIDS
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70 (IL 9.5 mm)	PG 64-22	4% @ 70 GYR.
POLY. LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	SBS/SBR PG 76-28/-22	4% @ 50 GYR.
CLASS D PATCHES, (HMA BINDER IL-19 mm)	PG 64-22 *	4% @ 70 GYR.
HOT-MIX ASPHALT REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	PG 64-22 *	4% @ 70 GYR.

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

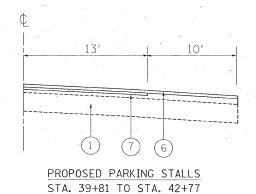
\* WHEN RAP EXCEEDS 20% THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

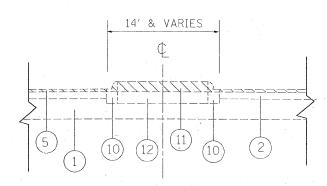
### LEGEND

- (1) EXISTING P.C.C. PAVEMENT, 10"
- (2) EXISTING HMA AFTER MILLING,  $\pm 1\frac{3}{4}$
- (3) EXISTING AGGREGATE SHOULDER, (STA. 9+43 TO STA. 52+63)
- (4) EXISTING HMA SHOULDER, (STA. 0+98 TO STA. 9+43)
- (5) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL , 21/4"
- PROPOSED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, 1-1/2"
- 7) PROPOSED POLY. LEVELNG BINDER (MACHINE METHOD), IL-4.75, N50, 3/4'
- (8) PROPOSED 4" WHITE THERMOPLASTIC PAVEMENT MARKING LINE
- (9) PROPOSED AGGREGATE WEDGE SHOULDERS, TYPE B
- (10) EXISTING CONCRETE CURB AND GUTTER TYPE M-2.12
- (1) PROP. GRINDING OF MEDIAN AND CURB, TO BE PAID FOR AS MEDIAN REMOVAL PARTIAL DEPTH
- (12) EXISTING MEDIAN
- (13) PROPOSED HOT-MIX ASPHALT SURFACE REMOVAL , 11/2"

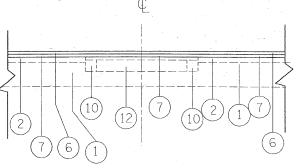


STA. 39+81 TO STA. 42+77





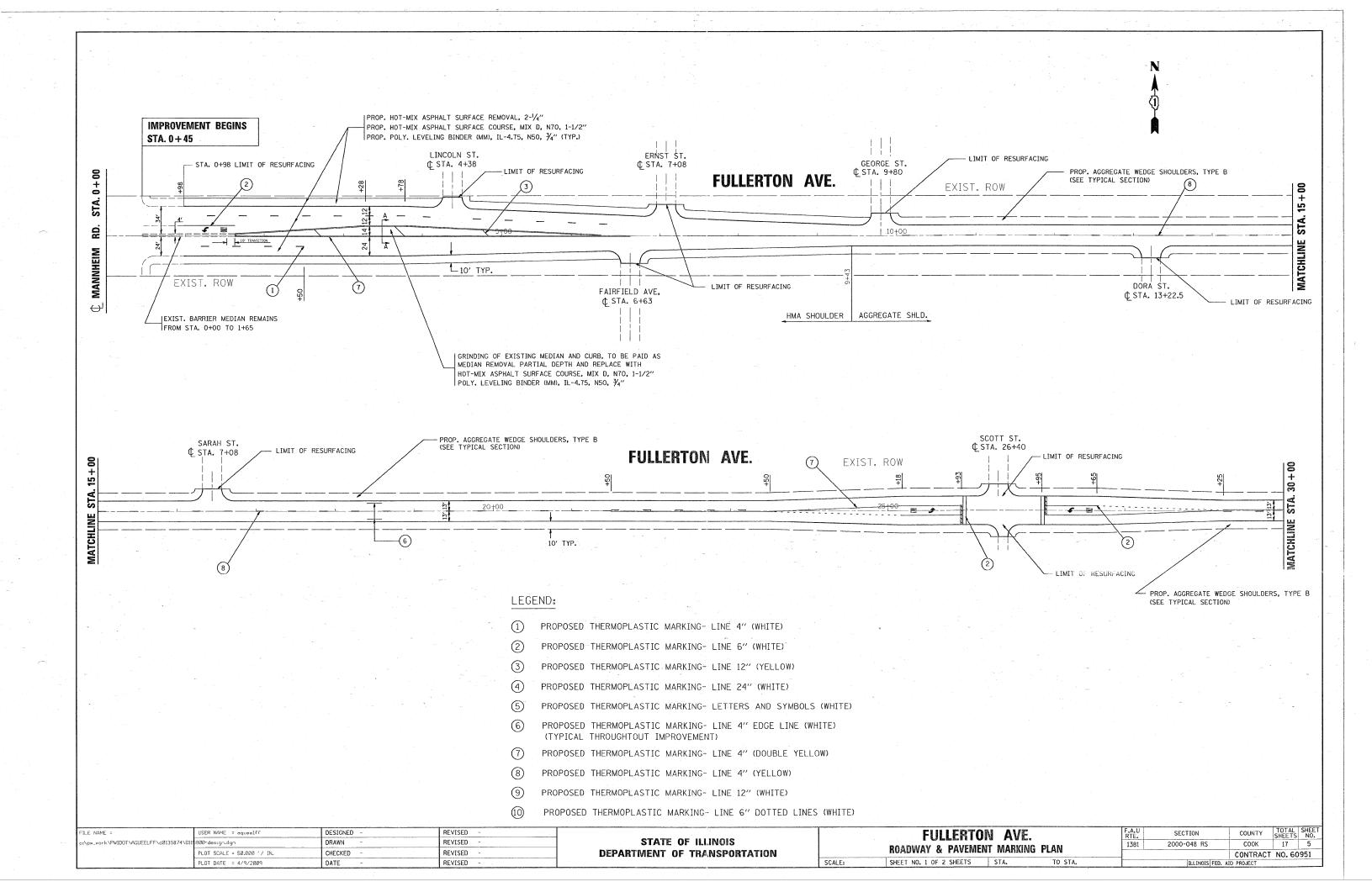
SECTION "A-A"- EXISTING
MEDIAN REMOVAL DETAIL, STA 1+65 TO 5+60

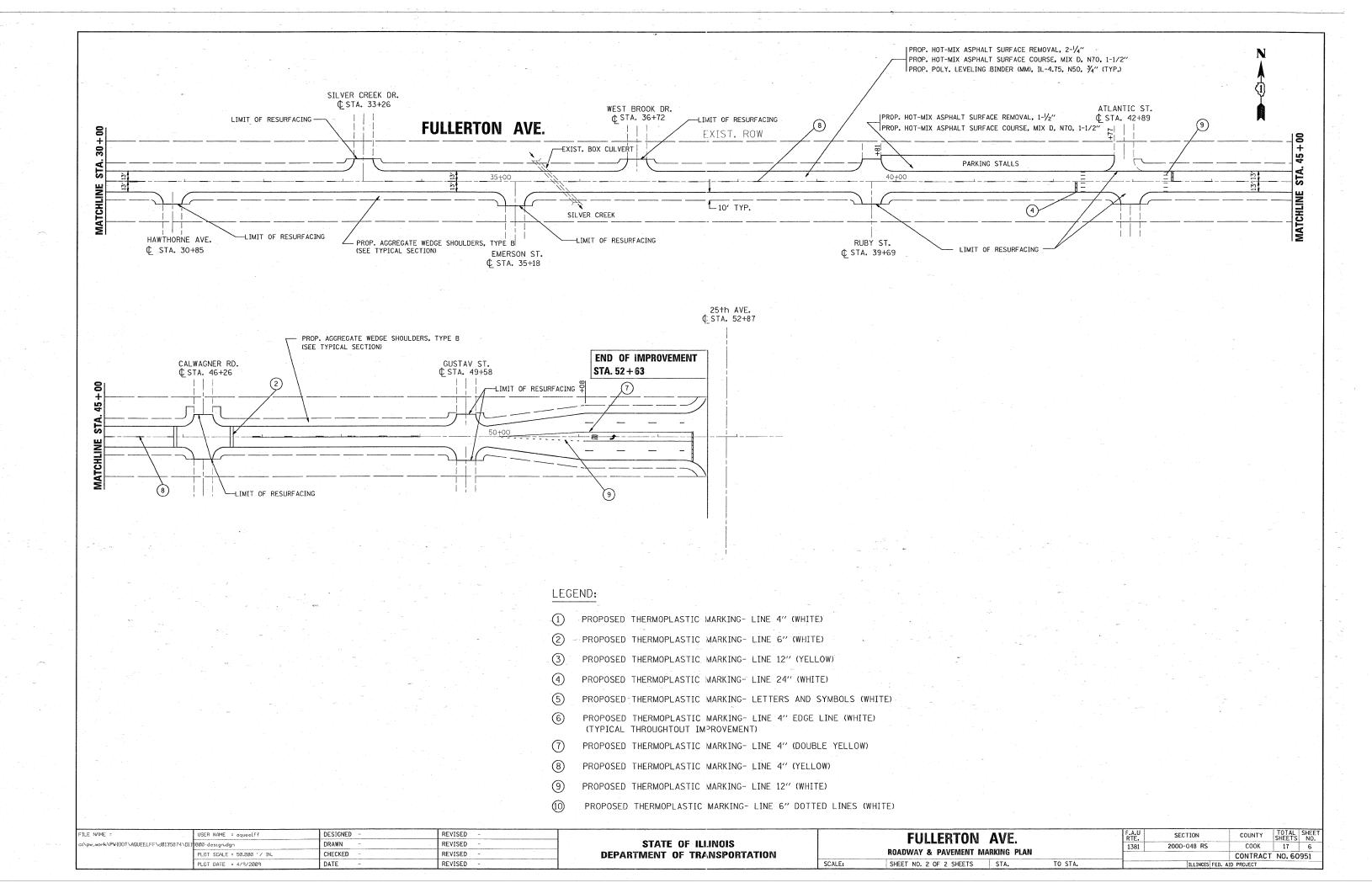


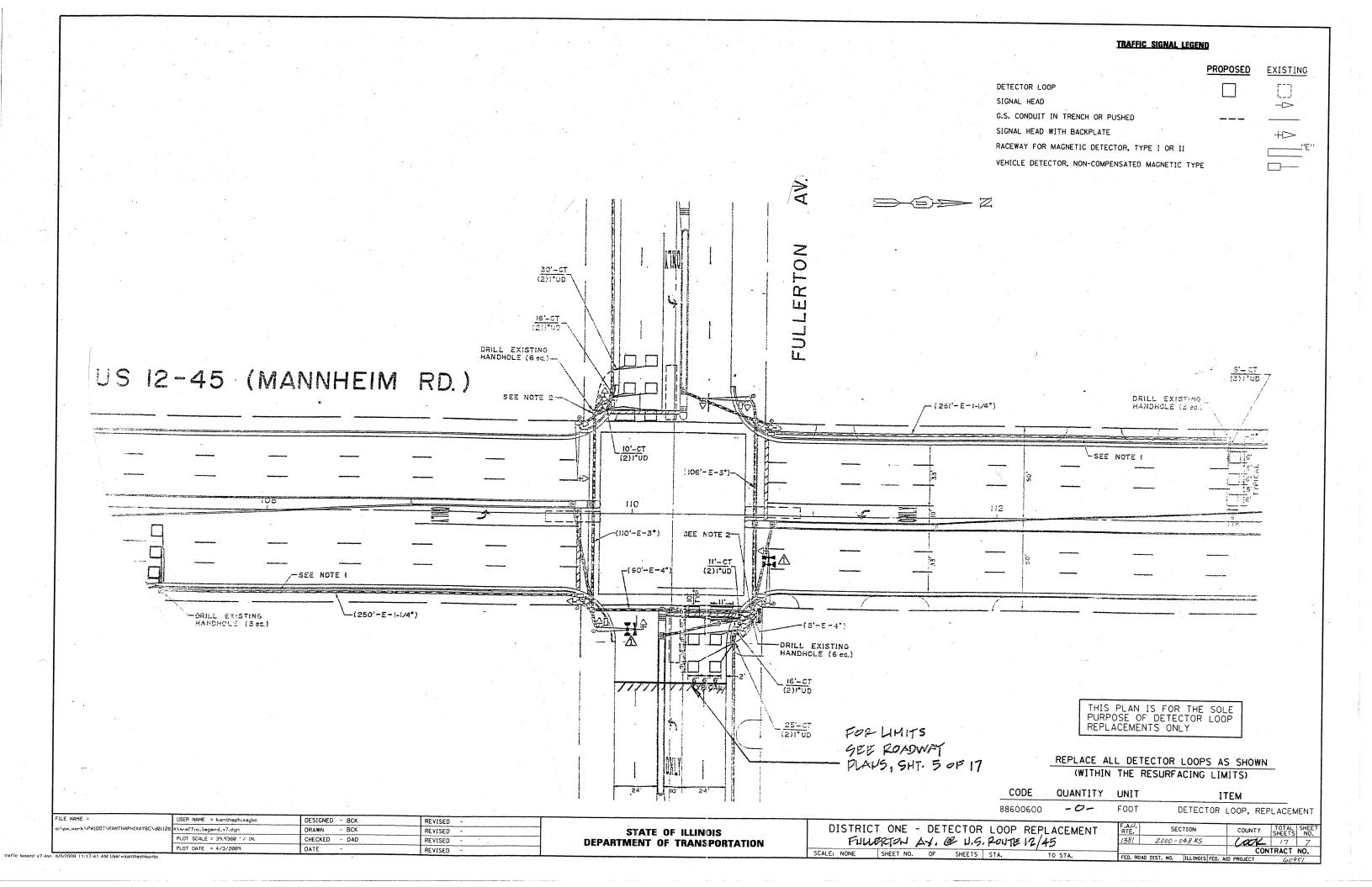
SECTION "A-A"- PROPOSED
MEDIAN REMOVAL DETAIL, STA 1+65 TO 5+60

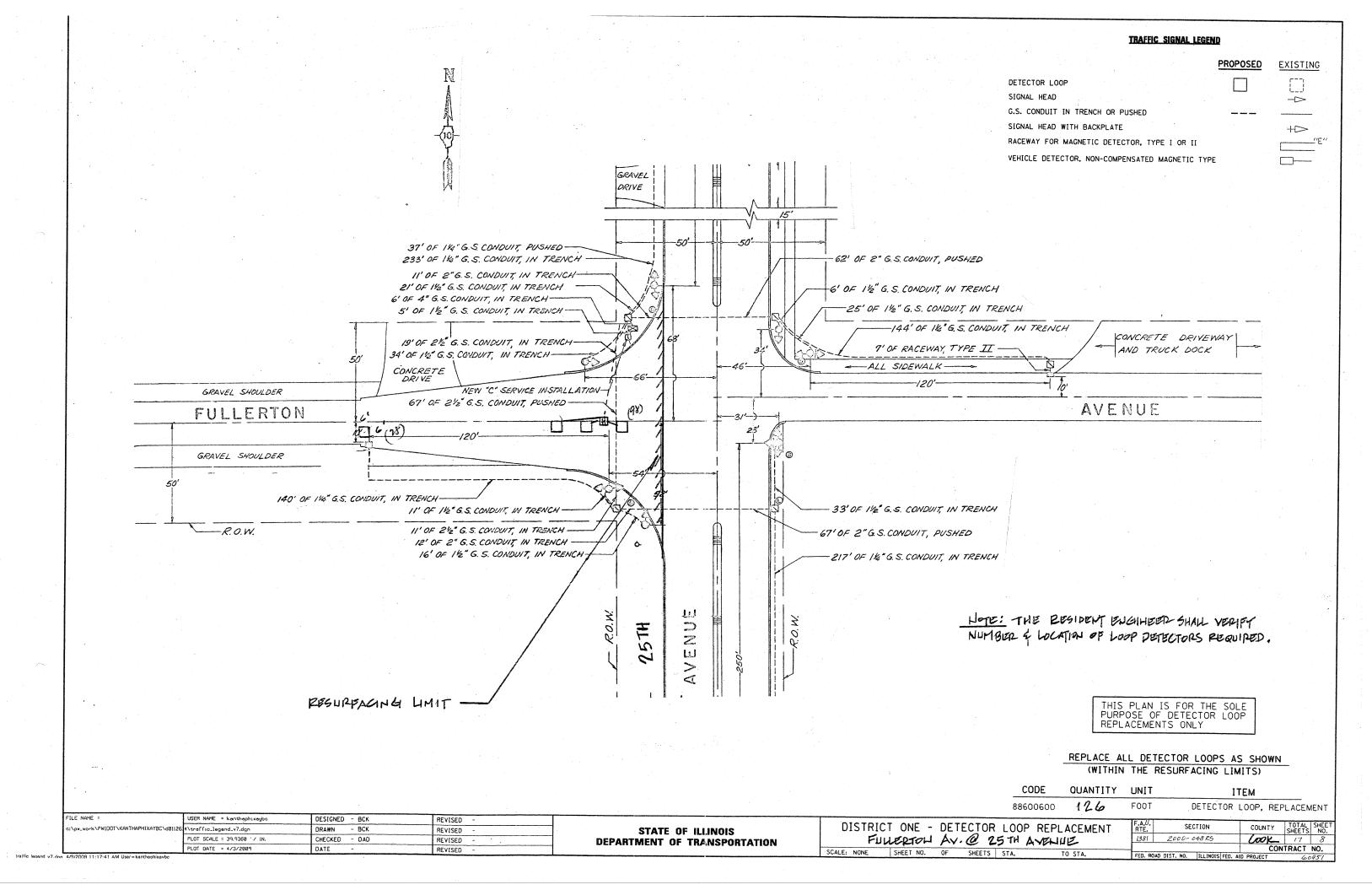
# NOTE: THE CONTRACTOR SHALL PATCH FIRST THEN MILL

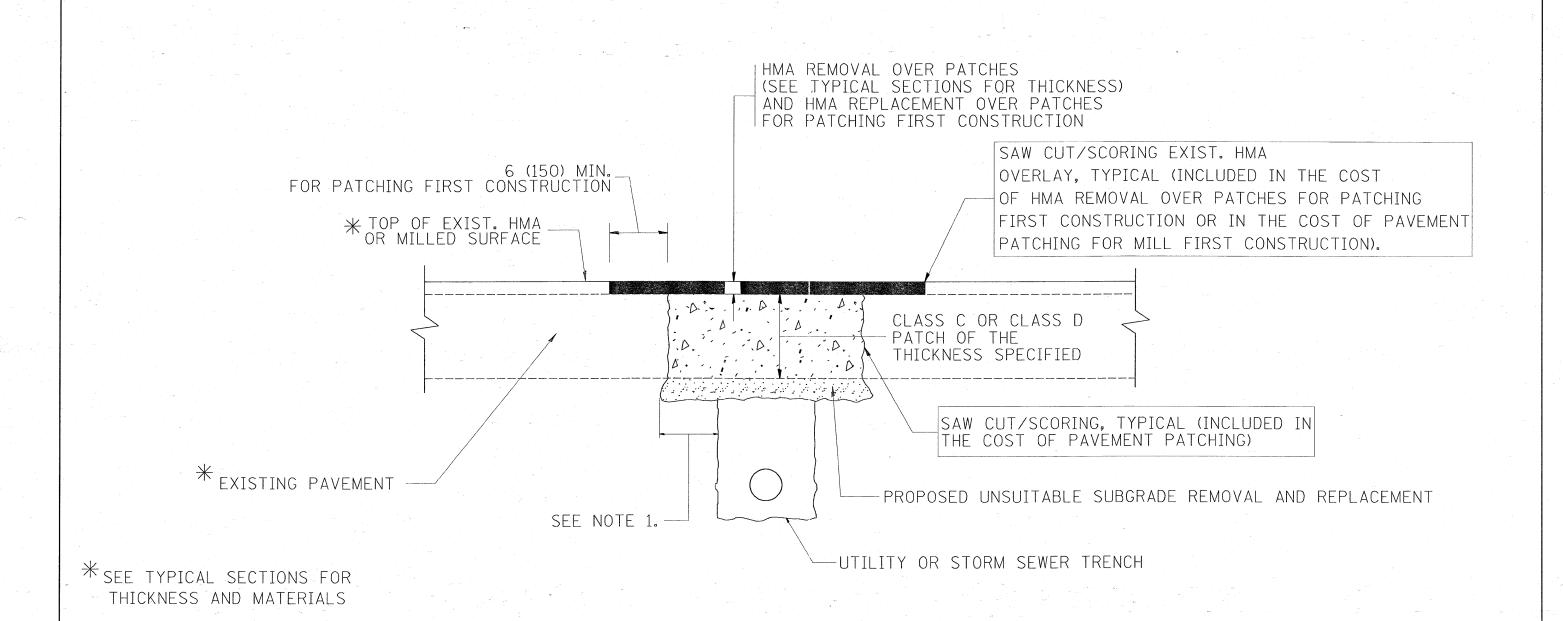
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		PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION		TYPICAL SECTIONS				CONTRACT NO. 60951
1		PLOT DATE = 4/14/2009	DATE -	REVISED -		SCALE:	SHEET NO. 1 OF 1 SHEETS STA.	TO STA.		ILLINOIS FED.	AID PROJECT











### 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)

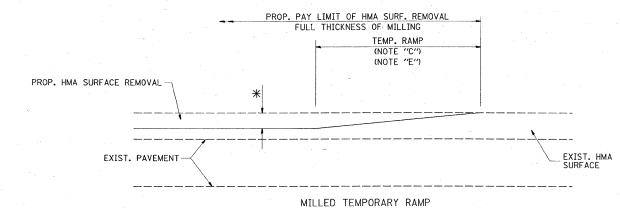
- 1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
- 2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
- 3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

- 1. MILL HMA FIRST IF THERE IS AT LEAST 41/2 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.

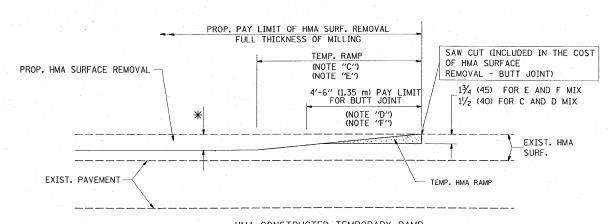
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

	FILE NAME :	USER NAME = aqueelff	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98			PAVEMENT PATCHING FOR	RTF. SECTION CO	UNTY SHEETS NO.
٠.	c:\pw_work\PWIDOT\AQUEELFF\dØ135874\Dis	Std.dgn	DRAWN -	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS			1381 2000-048 RS C	00K 17 9
		PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. BORO 09-04-07	DEPARTMENT OF TRANSPORTATION		HMA SURFACED PAVEMENT		TRACT NO. 60951
		PLOT DATE = 4/9/2009	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 PRO-	



(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

#### OPTION 1

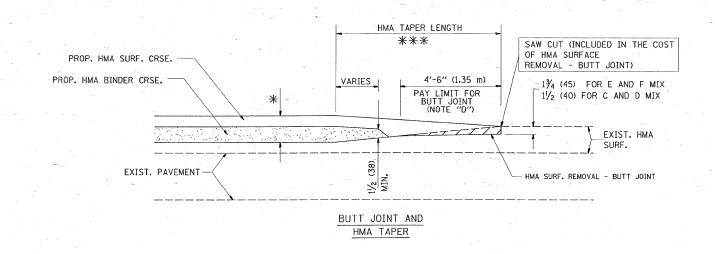


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

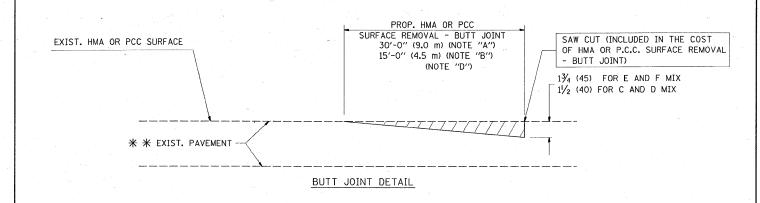
#### OPTION 2

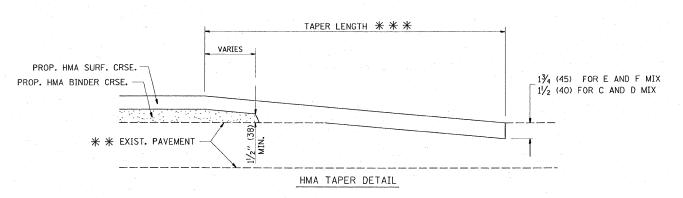
#### TYPICAL TEMPORARY RAMP



# TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





# TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

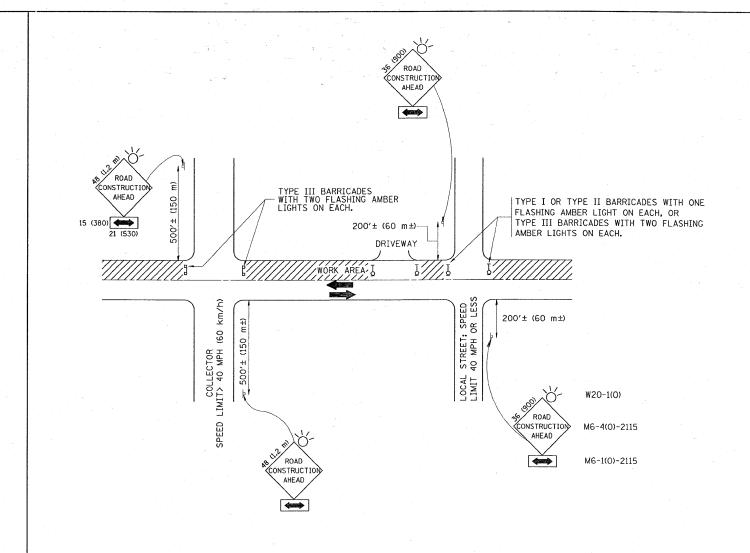
#### NOTES

- 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.



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:
- O) 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 POLITE
- 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.

SCALE: NONE

3. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (MG-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (MG-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.

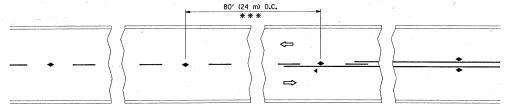
- C. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAY UNLESS OTHERWISE NOTED.
- D. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCIDENTAL TO THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

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

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

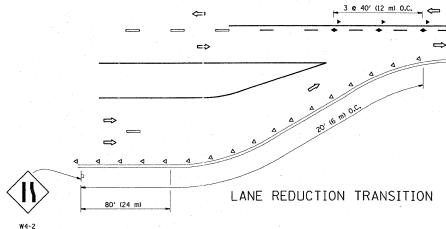
TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS

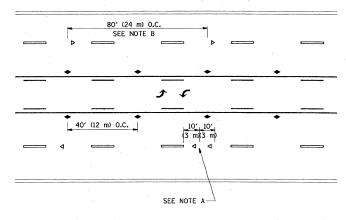
SHEET NO. 1 OF 1 SHEETS STA.



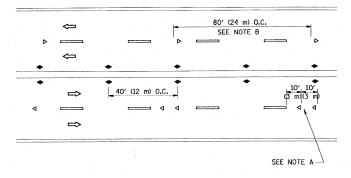
\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

#### TWO-LANE/TWO-WAY



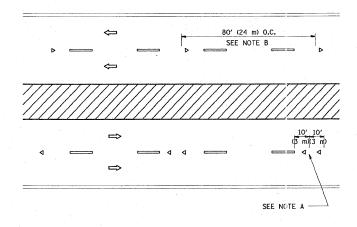


TWO-WAY LEFT TURN



93

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

- 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.

#### SYMBOLS

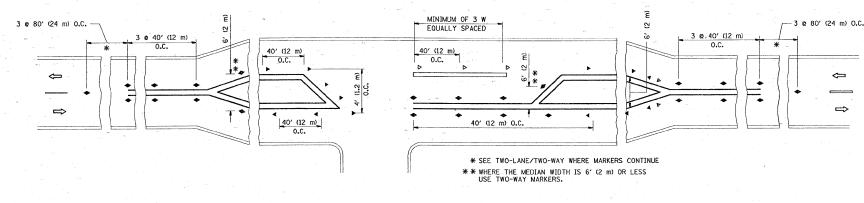
YELLOW STRIPE

- WHITE STRIPE

- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER (W/O)
- TWO-WAY AMBER MARKER

#### DESIGN NOTES

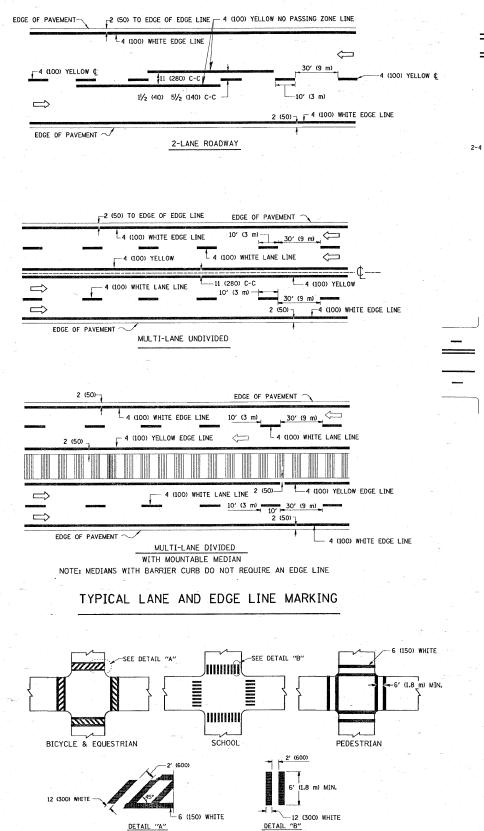
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- 2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- MARKERS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



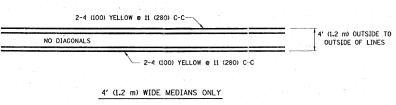
LEFT TURN

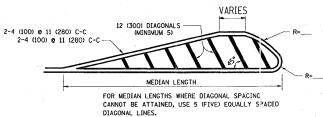
All dimensions are in inches (millimeters) unless otherwise shown.

DESIGNED REVISED - T. RAMMACHER 09-19-94 SECTION COUNTY TYPICAL APPLICATIONS DRAWN REVISED - T. RAMMACHER 03-12-99 STATE OF ILLINOIS :\pw\_work\PWIDOT\AGUEELFF\dØ135874\DistStd.dgr 2000-048 RS СООК RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT) CHECKED REVISED -T. RAMMACHER 01-06-00 PLOT SCALE = 50.0000 '/ IN. **DEPARTMENT OF TRANSPORTATION** TC-11 CONTRACT NO. 60951 SHEET NO. 1 OF 1 SHEETS STA. PLOT DATE = 4/9/2009 DATE



TYPICAL CROSSWALK MARKING



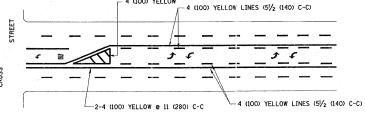


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))

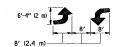
75' (25 m) C-C 30MFH (50 km/h) TO 45MPH (70 km/h))

150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

## MEDIANS OVER 4' (1.2 m) WIDE

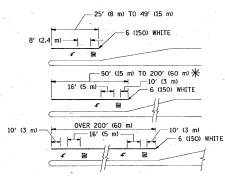


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLORADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS



MEDIAN WITH TWO-WAY LEFT TURN LANE

#### TYPICAL PAINTED MEDIAN MARKING

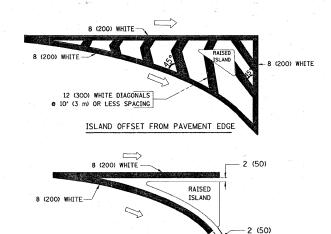


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  $\P$  AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>)  $\P$  AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)

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

TYPICAL LEFT (OR RIGHT) TURN LANE

#### TYPICAL TURN LANE MARKING



#### TYPICAL ISLAND MARKING

ISLAND AT PAVEMENT EDGE

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 UNDIVEDED 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	5½ (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	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 51/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE
	8' (2.4m) LEFT ARROW	IN PAIRS	WHITE	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 CROSSMALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45°	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
	NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	SEE THIOSE TABLES MEDIAN MANNEY
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 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
SHOULDER DIAGONALS	12 (300) <b>e</b> 45°	SOLID	WHITE - RIGHT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) T0 45MPH (70 km/h)) 1150' (45 m) C-C (0VER 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.

SECTION

COOK

CONTRACT NO. 60951

2000-048 RS

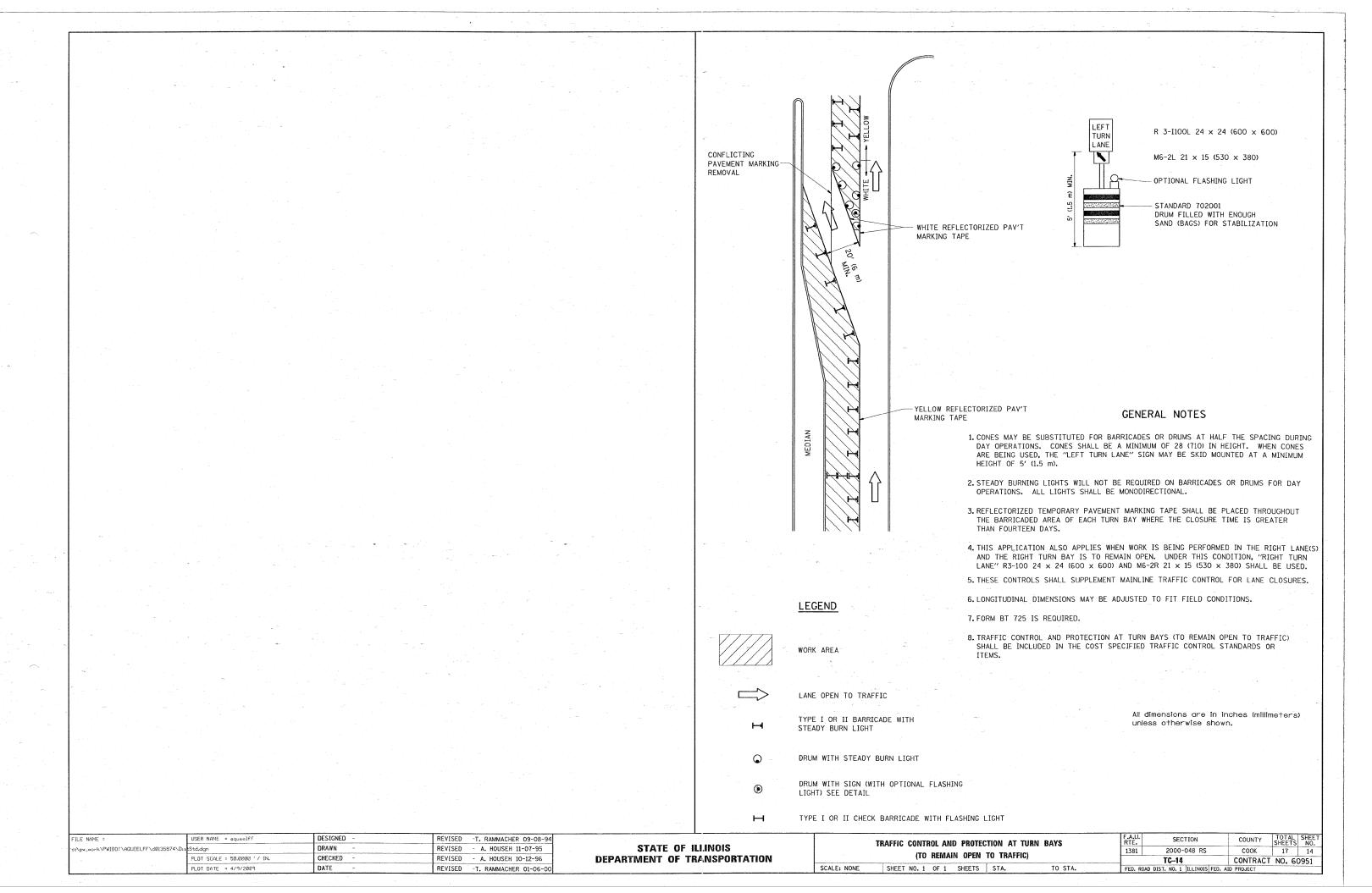
TC-13

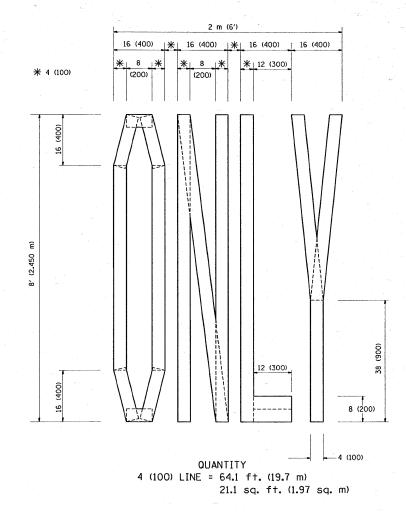
1381

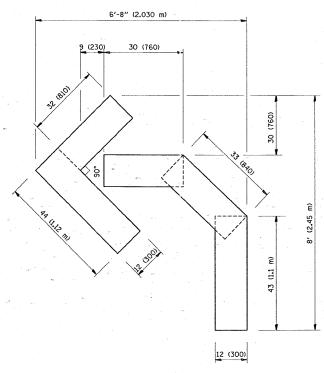
TO STA.

THICKE FORTY EARL WATER

FILE NAME = cr\pw_work\PWIDDT\AQUEELFF\dØ135874\Dis	USER NAME = aqueelff Std.dgn	DESIGNED - EVERS DRAWN -	REVISED -T. RAMMACHER 10-27-94 REVISED -A. HOUSEH 10-09-96	STATE OF ILLINOIS		DISTRICT ON	
	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-17-96	DEPARTMENT OF TRANSPORTATION		TYPICAL PAVEMENT N	MARKINGS
	PLOT DATE = 4/9/2009	DATE - 03-19-90	REVISED -T. RAMMACHER 01-06-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.

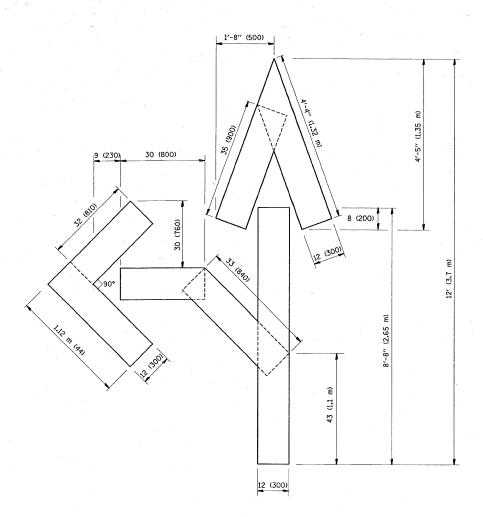






QUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)

SCALE: NONE



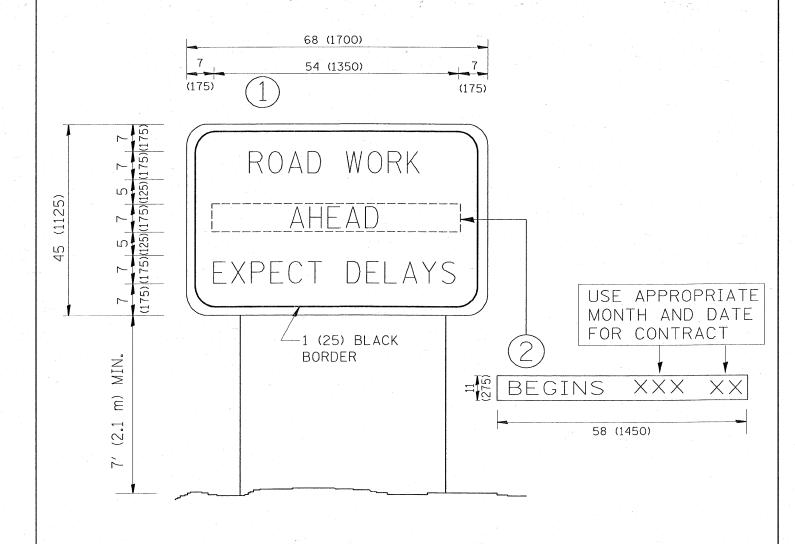
QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

FILE NAME =	USER NAME = aqueelff	DESIGNED	-		REVISED	-T.	RAMMACHER	06-05-96
c:\pw_work\PWIDOT\AGUEELFF\dØ135874\Dis	iStd.dgn	DRAWN	-		REVISED	-т.	RAMMACHER	11-04-97
	PLOT SCALE = 50.0000 '/ IN.	CHECKED	-		REVISED	-T.	RAMMACHER	03-02-98
*	PLOT DATE = 4/9/2009	DATE	-	09-18-94	REVISED	- E.	GOMEZ 08-2	28-00

STATE OF ILLINOIS	
<b>DEPARTMENT OF TRANSPORTATION</b>	

·					
PAVEMENT MARKING LETTERS AND SYMBOLS	F.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FOR TRAFFIC STAGING		2000-048 RS	COOK	17	15
		TC-16	CONTRACT	NO. 60	951
SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. RO	AD DIST, NO. 1 TILLINOIS FED. AT	D PROJECT		



## NOTES:

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

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

FILE NAME =	USER NAME = aqueelff	DESIGNED -	REVISED	- R. MIRS 09-15-97
c:\pw:work\PWIDOT\AQUEELFF\dØ135874\Dis	tStd.dgn	DRAWN -	REVISED	- R. MIRS 12-11-97
	PLOT SCALE = 50.00000 ' / IN.	CHECKED -	REVISED	-T. RAMMACHER 02-02-99
	PLOT DATE = 4/9/2009	DATE -	REVISED	- C. JUCIUS 01-31-07

STATI	OF	ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

ARTERIAL ROAD									
				IN	F	ORMATION	SIGN		
	SHEET	NO.	1	OF	1	SHEETS	STA.		-

.A.U. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1381	2000-048 RS	COOK	17	16
	TC-22	CONTRACT	NO. 60	951
EED B	OAD DIST NO 1 THE INDIS FED A	ID PROJECT		

### LOOPS NEXT TO SHOULDERS

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

PAVED OR
NON-PAVED
SHOULDER

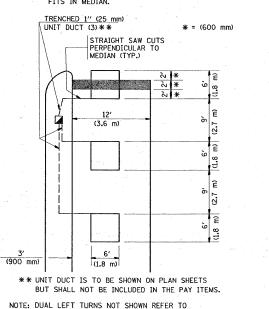
PAVED OR
NON-PAVED
SHOULDER

1" (25 mm) UNIT
DUCT-TRENCHED
TO E/P \*\*\*

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

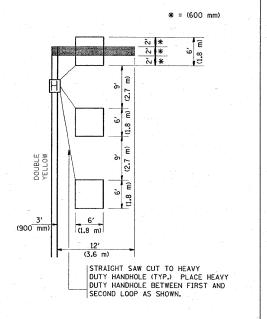
HANDHOLE LOCATION MAY
VARY DEPENDING ON GEOMETRICS
AND DESIGN OF TRAFFIC SIGNALS.
HEAVY-DUTY HANDHOLES TO BE
USED WHEN THE MEDIAN IS
MOUNTABLE. REFER TO STANDARD
814001 TO ENSURE THAT HANDHOLE
FITS IN MEDIAN.



PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

# 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

SCALE: NONE

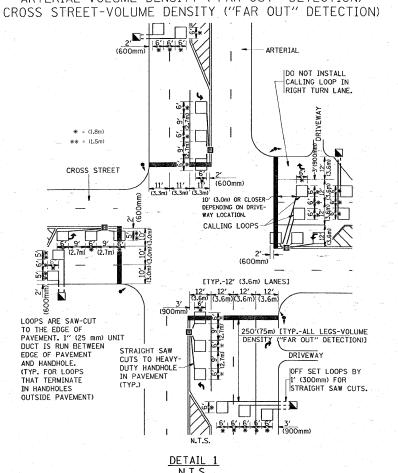
BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

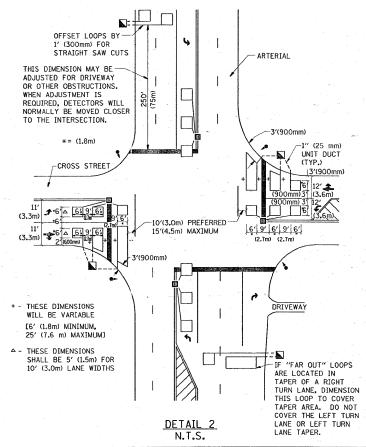
ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)

\* \* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS

\* = (600 mm)

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





#### 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 SEPARATLY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF <u>ALL</u> 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, <u>MORE</u>
  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. <u>EACH</u> ONE OF THESE TYPE OF LOOPS REQUIRES A <u>SEPARATE</u> TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A <u>SEPARATE</u> INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

#### PLACEMENT OF DETECTORS

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

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

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

#### NOTE:

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

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

107104				
FILE NAME =	USER NAME = aqueelff	DESIGNED -	REVISED	
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED - R.K.F.	REVISED -	
	PLOT DATE = 4/9/2009	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DISTRICT 1 - DETECTOR LOOP INSTALLATION

DETAILS FOR ROADWAY RESURFACING

SHEET NO. 1 OF 1 SHEETS STA. TO STA.