ENGINEER: PERPARATION

0 🚓

STATE OF ILLINOIS

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.U. 1459: 26TH STREET

DES PLAINES AVENUE TO IL 43

SECTION: 0404.4 RS

RESURFACING (MAINTENANCE)

PROJECT: M-1459 (003)

COOK COUNTY

C-91-157-05

R. 12 E.

PROJECT ENDS STATION 51+90

TRAFFIC DATA 2006 ADT = 13,500 SPEED LIMIT = 35 MPH

SCALE: NONE

PROJECT BEGINS

STATION 05+12

STA. 45+46 TO 46+35

OMISSION

LOCATION MAP

RIVERSIDE TOWNSHIP

NET LENGTH = 4.588 FEET = 0.87 MILES GROSS LENGTH = 4,678 FEET = 0.89 MILES

LOCATION OF SECTION INDICATED THUS: -

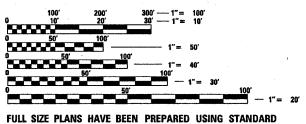
0404.4 RS

D-91-157-05

COOK

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER Christine M. Reed R. DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS



FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN THE VILLAGE OF RIVERSIDE

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: SUNG H. BYUN PROJECT MANAGER: KEN ENG

CONTRACT NO. 62928

INDEX OF SHEETS

SHEET NO. DESCRIPTION TITLE SHEET INDEX OF SHEETS, STATE STANDARDS, AND GENERAL NOTES SUMMARY OF QUANTITIES TYPICAL SECTIONS ROADWAY PLAN DETECTOR LOOP REPLACEMENT PLANS 9-10 DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT BUTT JOINT AND HMA TAPER DETAILS 15 TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS 16 (SNOW-PLOW RESISTANT) DISTRICT ONE TYPICAL PAVEMENT MARKINGS 17 18 TRAFFIC CONTROL AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) 19 PAVEMENT MARKINGS, LETTERS AND SYMBOLS FOR TRAFFIC STAGING 20 ARTERIAL ROAD INFORMATION SIGNING DISTRICT 1 DETECTOR LOOP INSTALLATION DETAILS FOR 21 ROADWAY RESURFACING

DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

STATE STANDARDS

STANDARD NO. DESCRIPTION

000001-05 STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS

442201 - 03 CLASS C AND D PATCHES

604001-02 FRAME AND GRATE TYPE 23

604086-01 FRAME AND LIDS, TYPE 1

606001-03 CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER

701301-02 LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS

701601-05 URBAN LANE CLOSURE, MULTILANE, 1W OR 2W WITH NON TRAVERSABLE MEDIAN

701606-05 URBAN LANE CLOSURE, MULTILANE 2W WITH MOUNTABLE MEDIAN

701701-05 URBAN LANE CLOSURE, MULTILANE INTERSECTION

701901 TRAFFIC CONTROL DEVICES

886006

886001 DETECTOR LOOP INSTALLATION

TYPICAL LAYOUT FOR DETECTOR LOOPS

GENERAL NOTES

BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED)

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES AND THE VILLAGE OF RIVERSIDE.

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

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

10 FEET (3 METER) TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURB & GUTTER AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITION SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.

THE RESIDENT ENGINEER SHALL VERIFY THE LOCATIONS OF ALL EXISTING PAVEMENT MARKINGS PRIOR TO START OF CONSTRUCTION.

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 IS 45 MPH. A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED, WITH WRITTEN APPROVAL FROM THE RESIDENT ENGINEER, IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM OF 1:3 (V:H).

THE UNIT WEIGHT (CONVERSION FACTOR) QUOTED IS FOR THE ESTIMATED PLAN QUANTITIES ONLY. ACTUAL QUANTITIES TO FUFILL CONTRACT REQUIREMENTS WILL BE DETERMINED BASED ON UNIT WEIGHT OF THE APPROVED MIX DESIGN, PLAN DIMENSIONS AND DENSITY LIMITATIONS. MAXIMUM PAYMENT WILL BE COMPUTED BASED ON WEIGHT AVERAGE DENSITIES OF THE IN-PLACE MIXTURES.

SCALE:

CONTRACT NO. 62928

 F.A.U. RTE.	SECTION		COUNT	γ	TOTAL SHEETS	SHEET NO.
1459	4040.4 RS		COOK	(25	3
FED.	ROAD DIST. NO. 1	ILL	INOIS	HIG	HWAY PRO	DJECT

	SUMMARY OF QUANTITIES		URBAN 80:(FFD.	7.54	CONSTRUCT	TION TYPE	CODE		SUMMARY OF QUANTITIES	2	URBAN 807. FED.			CONSTRUCT	ION TYPE	CODE	······································
CODE NO	ITEM	ÜNIT	80 (FEO. 20 / STATE TOTAL QUANTITIES	I000				CODE NO	ITEM	UNIT	20:4 STATE TOTAL QUANTITIES	1000				1	
40600200	BITUMINOUS MATERIALS (PRIME COAT)	TON	10	10				70300210	TEMPORARY PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	200	200					
40600300	AGGREGATE (PRIME COAT)	TON	47	47				70300220	TEMPORARY PAVEMENT MARKING	FOOT	13700	13700					
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS	TON	8	8				70300240	- LINE 4" TEMPORARY PAVEMENT MARKING	FOOT	280	280					
40600895	CONSTRUCTING TEST STRIP	EACH	. 1	1				10300240	- LINE 6"	Poor	280	260					
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	50	50				70300260	TEMPORARY PAVEMENT MARKING - LINE 12"	FOOT	170	170		 			
40601005	HOT-MIX ASPHALT REPLACEMENT OVER PATCHES	TON	290	290		,		70300280	TEMPORARY PAVEMENT MARKING - LINE 24"	FOOT	160	160					
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	1970	1970				70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SO FT	7000	7000					
42001300	PROTECTIVE COAT	SQ YD	110	110				78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SO FT	200	200					
44000158	HOT-MIX ASPHALT SURFACE REMOVAL, 2	SQ YD	23400	23400				* 78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	13700	13700					
44001700	COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	470	* 470	-	e.		* 78000400	THERMOPLASTIC PAVEMENT MARKING - LINE 6"	FOOT	280	280				-	
44002212	HOT-MIX ASPHALT REMOVAL OVER PATCHES. 3"	SO YD	1700	1700	The second of th			* 78000600	THERMOPLASTIC PAVEMENT MARKING - LINE 12"	FOOT	170	170					
44201761	CLASS D PATCHES, TYPE I, 10 INCH	. SQ YD	20	20				¥ 78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	160	160					
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SO YD	1020	1020				78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	450	450					
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SO YD	150	150				¥ 85000200	MAINTENANCE OF EXISTING TRAFFIC SIGNAL	EACH	2	2					
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SO YD	580	580					INSTALLATION								
60251730	CATCH BASINS TO BE ADJUSTED WITH NEW TYPE 23 FRAME AND GRATE	EACH	12	12				X 87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 PAIR	FOOT	1410	1410					
60300105	FRAMES AND GRATES TO BE ADJUSTED	EACH	4	4				X 87900200	DRILL EXISTING HANDHOLE	EACH	5	5	,				
60300205	FRAMES AND GRATES TO BE ADJUSTED (SPECIAL)	EACH	24	24				¥ 88500100	INDUCTIVE LOOP DETECTOR	EACH	4	4					
60603800	COMBINATION CONCRETE CURB AND GUTTER.	FOOT	300	300				* 88600100	DETECTOR LOOP, TYPE I	FOOT	140	140					
67000400	TYPE B-6. 12	641 115	_					X 88600600	DETECTOR LOOP REPLACEMENT	FOOT	128	128					
	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	6	6				89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	870	870					
67100100	MOBILIZATION	L SUM	1	1				X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	51.4	51.4					
70102625	TRAFFIC CONTROL AND PROTECTION, STANDARD 701606	L SUM	1	1				X4067107	POLYMERIZED LEVELING BINDER (MACHINE METHOD), IL-4.75, N50	TON	990	990					
70102630	TRAFFIC CONTROL AND PROTECTION, STANDARD 701601	L SUM	- 1	1				Z0018500	DRAINAGE STRUCTURES TO BE CLEANED	EACH	10	10				-	
70102635	TRAFFIC CONTROL AND PROTECTION, STANDARD 701701	L SUM	1	1				20048665	RAILROAD PROTECTIVE LIABILITY INSURANCE	L SUM	1	1					
70300100	SHORT-TERM PAVEMENT MARKING	FOOT	4800	4800													

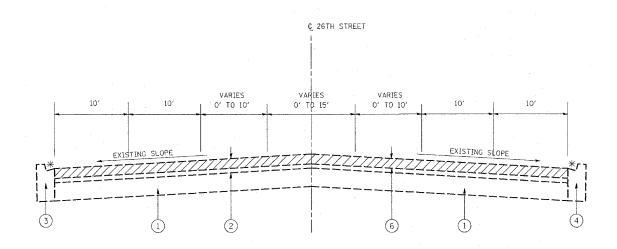
* - Specialty Items
NP = Non-participating

REVISIONS ILLINOIS DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

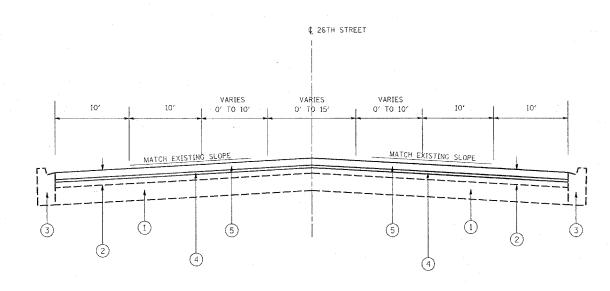
26TH STREET

PLOT DATE: 5/28/2008



EXISTING TYPICAL SECTION 26TH STREET

STATION 05+12 TO 51+90



PROPOSED TYPICAL SECTION 26TH STREET

STATION 05+12 TO 51+90

LEGEND

- 1) EXISTING PCC BASE COURSE, ± 10"
- (2) EXISTING HMA SURFACE COURSE, ±3"
- 3) EXISTING COMBINATION CONC. CURB & GUTTER, TYPE B-6.12
- 4) PROPOSED POLYMERIZED LEVELING BINDER (MM) IL-4.75, N50, 3/4"
- (5) PROPOSED HMA SURFACE COURSE, MIX "D", N70, 1-1/2"
- 6) HMA SURFACE REMOVAL, 2-1/4"

NOTES:

TYPE M-4.12 CURB AND GUTTER EXISTS FROM STA. 05+12 TO STA. 22+21 ON NORTH SIDE OF STREET ONLY

* COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT LOCATIONS TO BE DETERMINED IN THE FIELD BY THE RESIDENT ENGINEER.

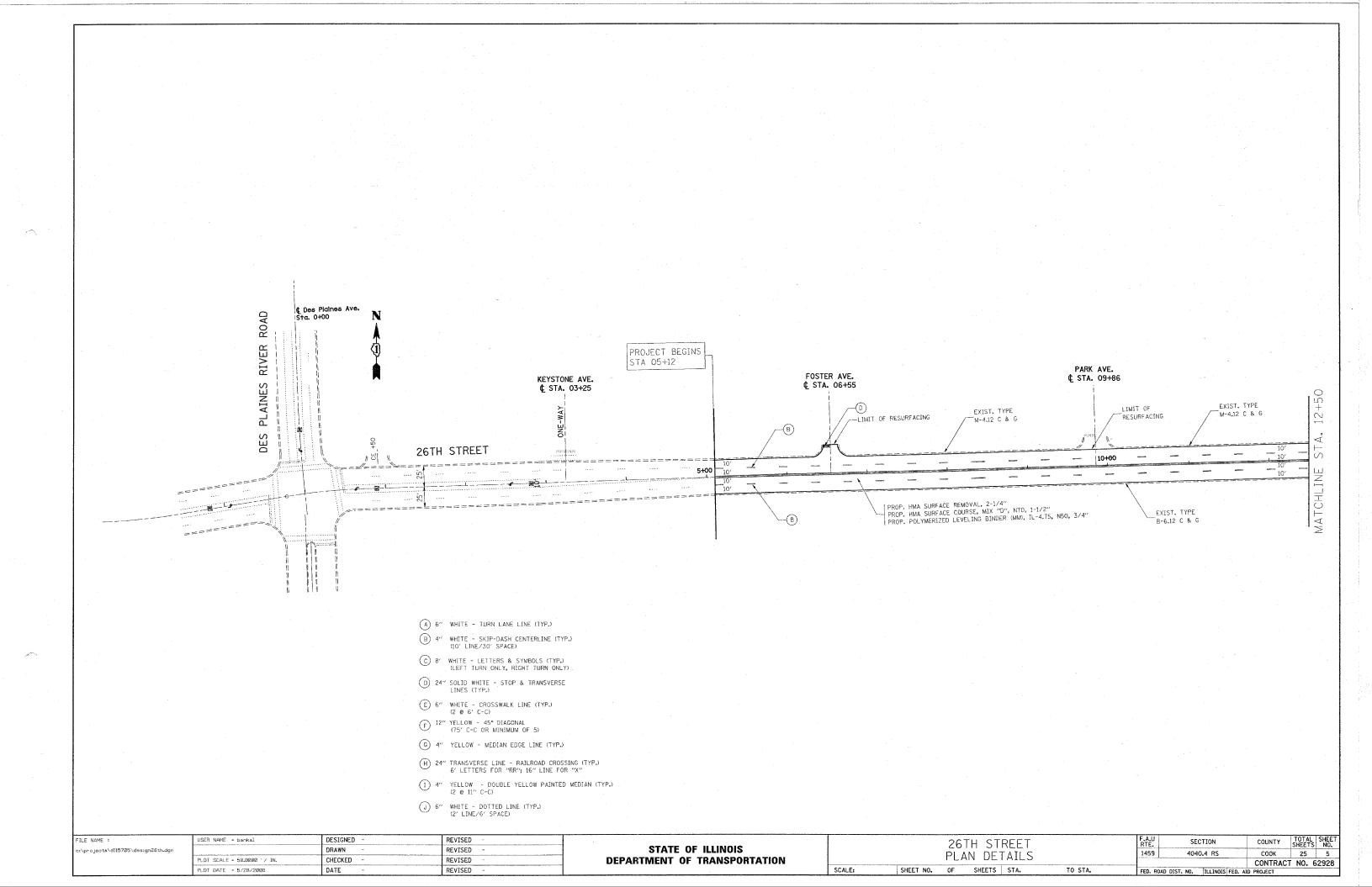
HOT-MIX ASPHALT MIXTURE REQUIREMENTS

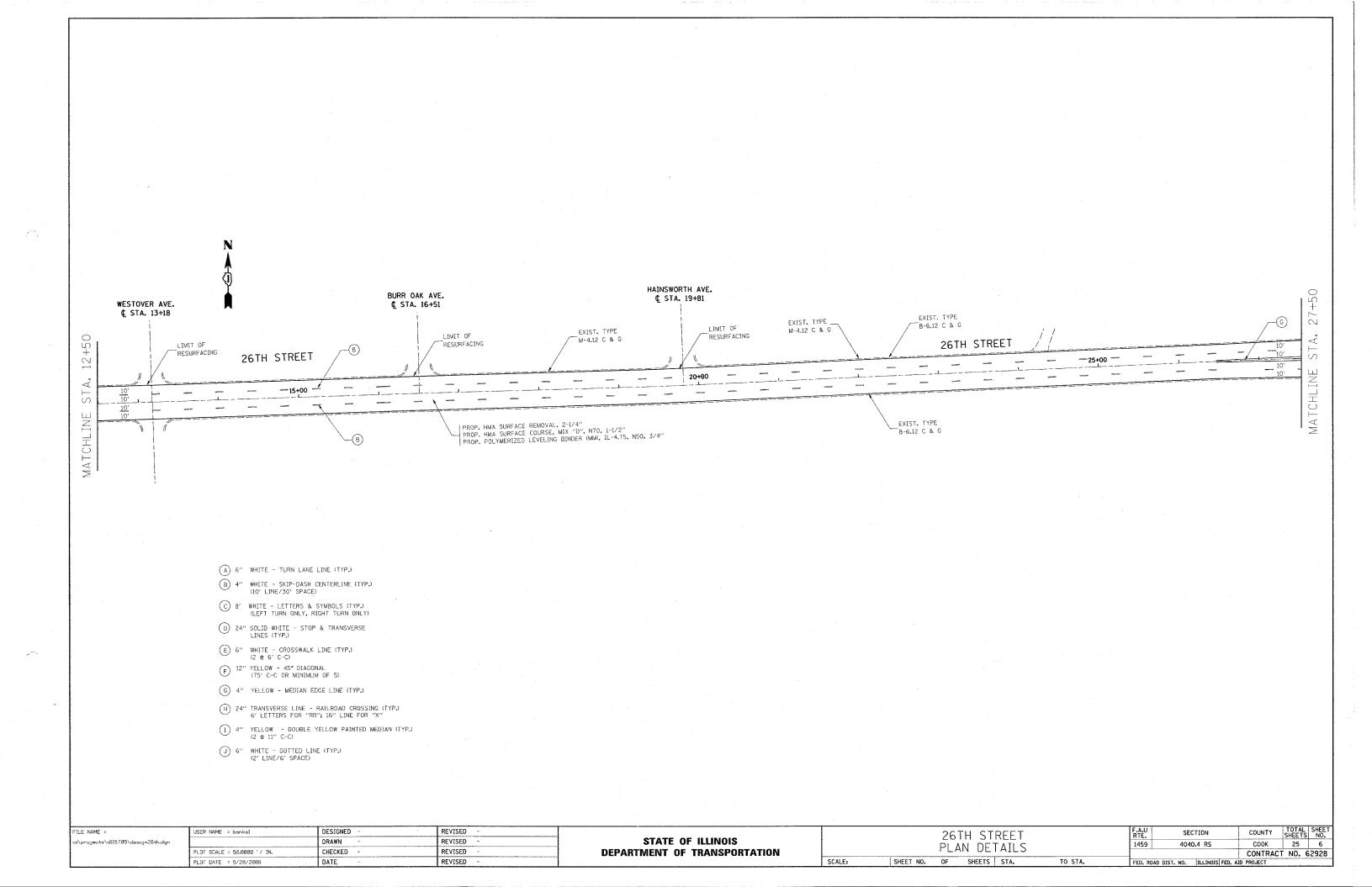
MIXTURE TYPE	AC TYPE	AIR VOIDS (%)
POLYMERIZED LEVELING BINDER (MM), IL-4.75, N50	SBS/SBR 76-28/-22	4% @ 50 GYR
HMA SURFACE COURSE, MIX "D" N70 (IL 9.5 MM)	PG 64-22	4% @ 70 GYR
BIT. REPLACEMENT OVER PATCHES, (HMA BINDER IL-19.0 MM)	PG 64-22 **	4% @ 70 GYR
CLASS D PATCHES, HMA BINDER IL-19 MM, 10"	PG 64-22 **	4% & 70 GYR

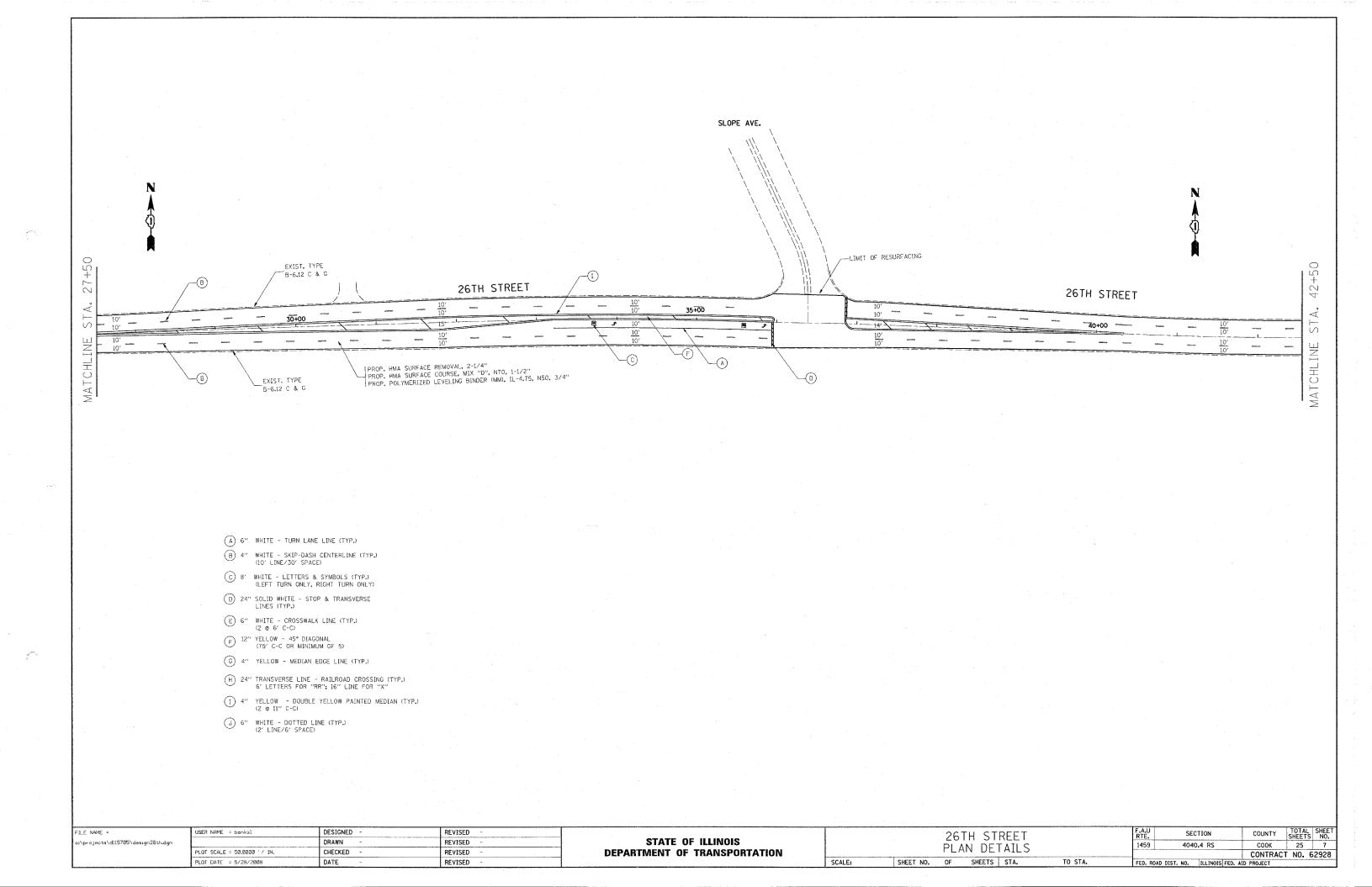
THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT SURFACE MIXTURES QUANTITIES IS 112 LBS/SQ YD/IN

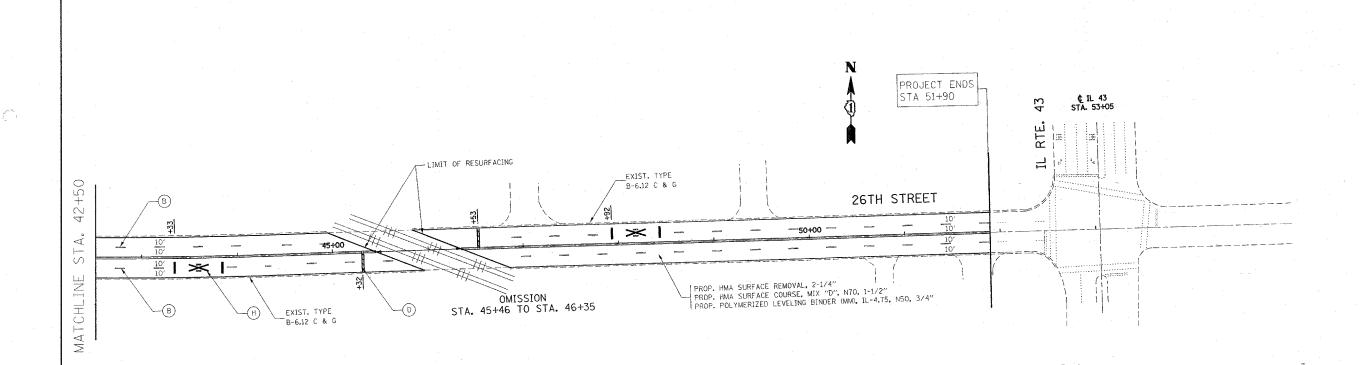
** WHEN RAP EXCEEDS 20 %, THE NEW ASPHALT BINDER IN THE MIX SHALL BE PG 58-22

FILE NAME =	USER NAME = banksl	DESIGNED -	REVISED -				26	TH C	TREET		F.A.U	SECTION	COUNTY	TOTAL SI	HEET
c:\projects\dI15705\design26th.dgn		DRAWN -	REVISED -	STATE OF ILLINOIS		т.	ZO				1459	4040.4 RS	COOK	25	4
1	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	TYPICAL SECTIONS					ACT NO. 629	328				
L	PLOT DATE = 5/28/2008	DATE -	REVISED -		SCALE:	SHEET NO.	OF	SHEETS	STA.	TO STA.	FED. ROAD	DIST. NO. ILLINOIS	FED. AID PROJECT		









- A 6" WHITE TURN LANE LINE (TYP.)
- B 4" WHITE SKIP-DASH CENTERLINE (TYP.) (10' LINE/30' SPACE)
- © 8' WHITE LETTERS & SYMBOLS (TYP.)
 (LEFT TURN ONLY, RIGHT TURN ONLY)
- D 24" SOLID WHITE STOP & TRANSVERSE LINES (TYP.)
- E 6" WHITE CROSSWALK LINE (TYP.)
 (2 @ 6' C-C)
- F 12" YELLOW 45° DIAGONAL (75' C-C OR MINIMUM OF 5)
- G 4" YELLOW MEDIAN EDGE LINE (TYP.)
- (TYP.)

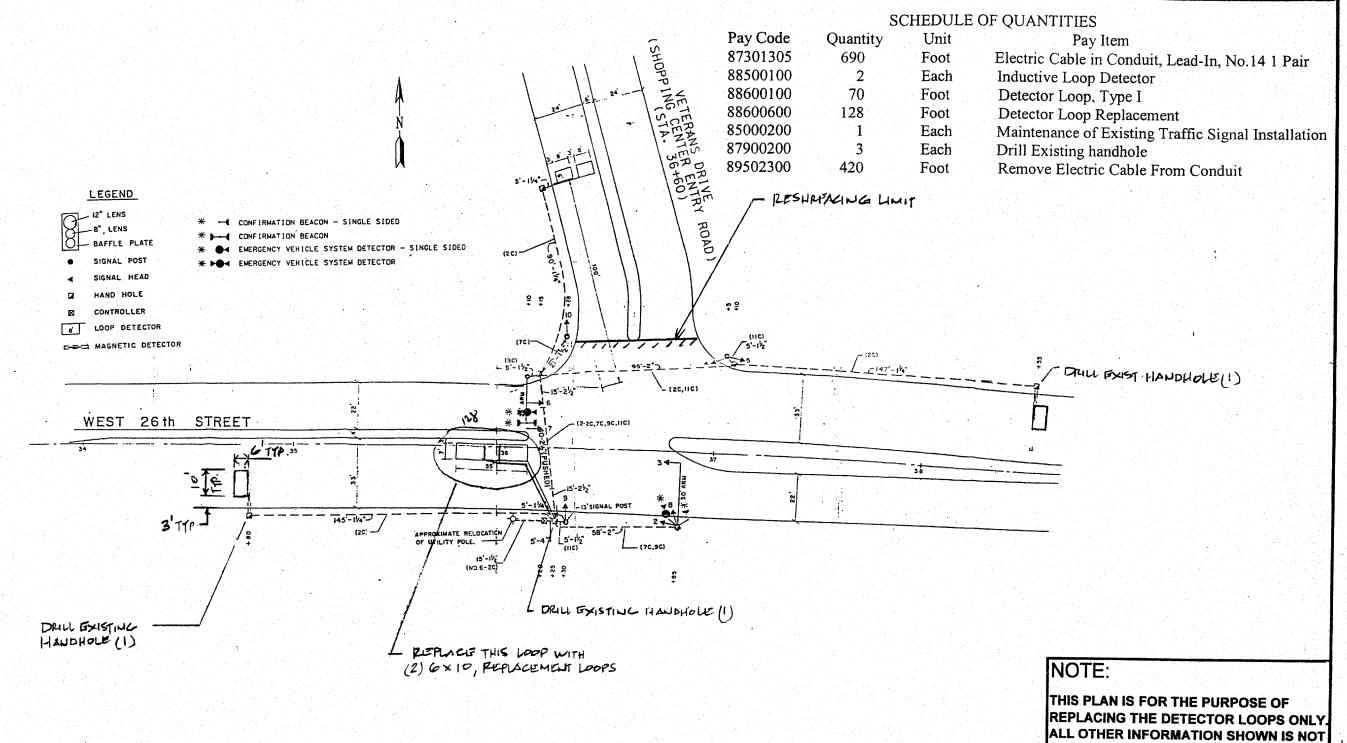
 24" TRANSVERSE LINE RAILROAD CROSSING (TYP.)
 6' LETTERS FOR "RR"; 16" LINE FOR "X"
- (1) 4" YELLOW DOUBLE YELLOW PAINTED MEDIAN (TYP.) (2 @ 11" C-C)
- (J) 6" WHITE DOTTED LINE (TYP.)

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	PLOT DATE = 5/28/2008	DATE -	REVISED -		SCALE:	SHEET NO. OF SHEETS STA. TO STA.	FED. ROAD (DIST. NO. ILLINOIS FE	D. AID PROJECT		
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STA. TO STA.

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REPLACE ALL DETECTOR LOOPS AS SHOWN

(WITHIN THE RESURFACING LIMITS)

CODE NO. QUANTITY UNIT ITEM

86600600 128 Foot Detector Loop Replacement

ILLINOIS	DEPART	MENT C	OF TRAI	NSPORT	ATION

DETECTOR LOOP REPLACEMENT

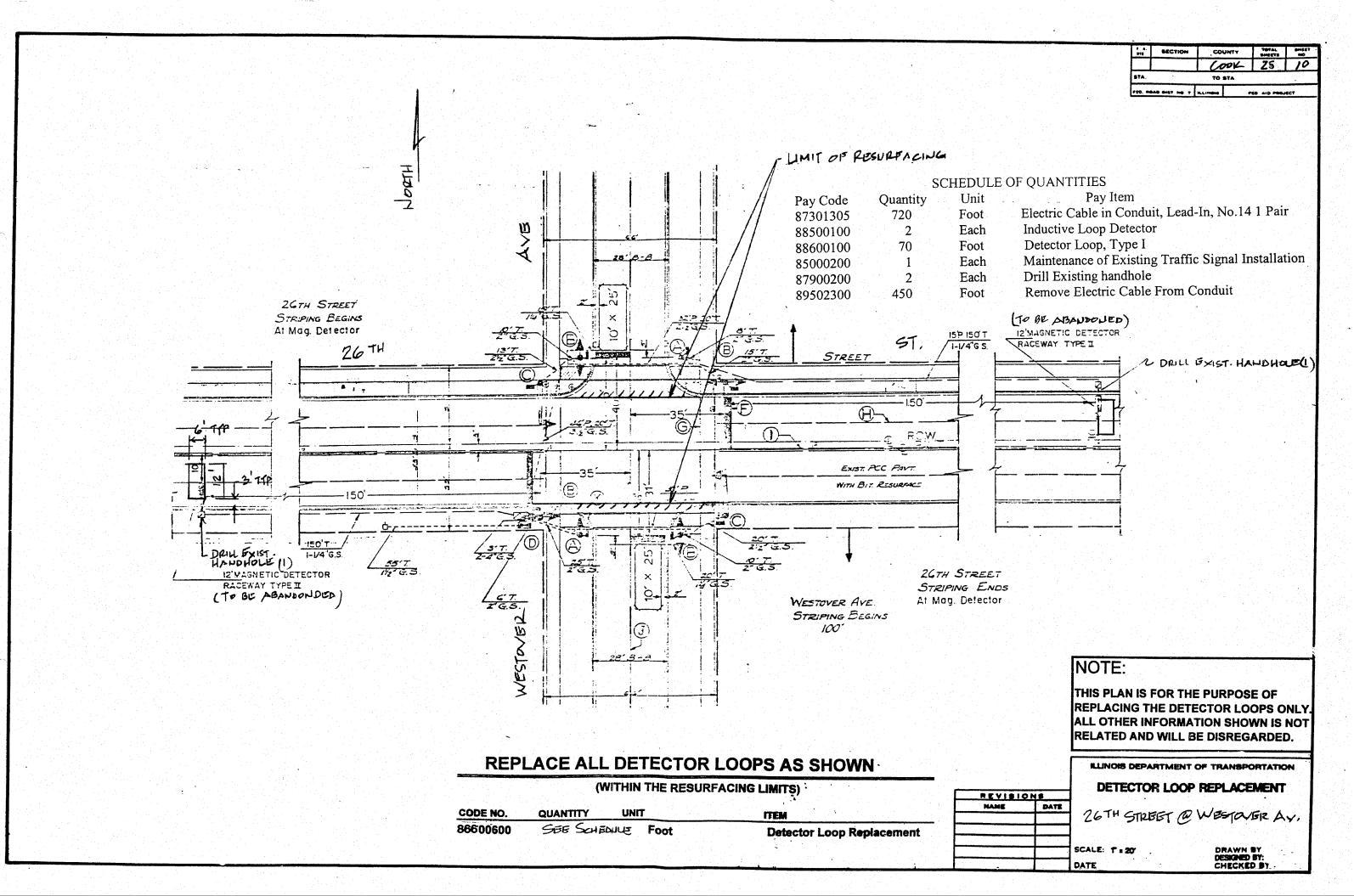
RELATED AND WILL BE DISREGARDED.

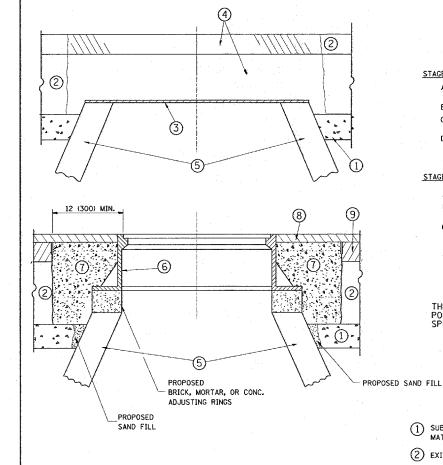
26TH STREET @ HALL ENTRANCE

SCALE: T:20

REVISIONS NAME D

> DRAWN BY DESIGNED BY: CHECKED BY





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

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

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

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

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

CONSTRUCTION PROCEDURES

STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 11/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS SI CONCRETE, OR HMA SURPACE 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.

LEGEND

- 1 SUB-BASE GRANULAR MATERIAL
- 6 FRAME AND LID (SEE NOTES)
- 2 EXISTING PAVEMENT
- CLASS SI CONCRETE, HMA SURFACE COURSE OR HMA BINDER COURSE
- 3 36 (900) DIAMETER METAL PLATE PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- 8 PROPOSED HMA SURFACE COURSE
- 5 EXISTING STRUCTURE
- 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

COUNTY

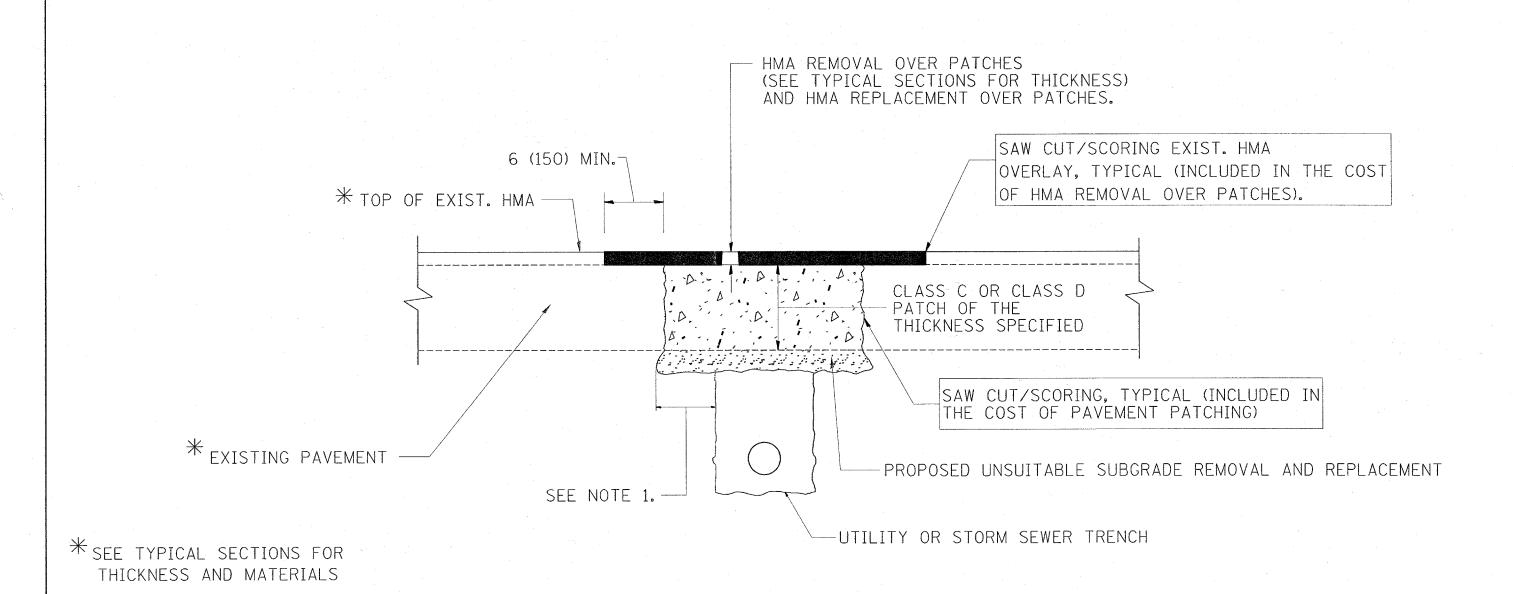
TOTAL SHEE SHEETS NO.

25 [] CONTRACT NO. 61928

FILE NAME =	USER NAME = steedpa	DESIGNED - R. SHAH	REVISED - R. SHAH 03-10-95
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED - R. WIEDEMAN 05-14-04
}	PLOT DATE = 5/28/2008	DATE - 10-25-94	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

	D	ETAILS FOR	Wash-Wild day	F.A RTE.	SECTIO	NC
	FRAMES AND LIDS		BD600-03 (BD) 01		
F	SHEET NO 1 OF 1	SHEETS STA.	TO STA.	CCD D	OAD DIST NO 1 TU	J-0}



NOTES:

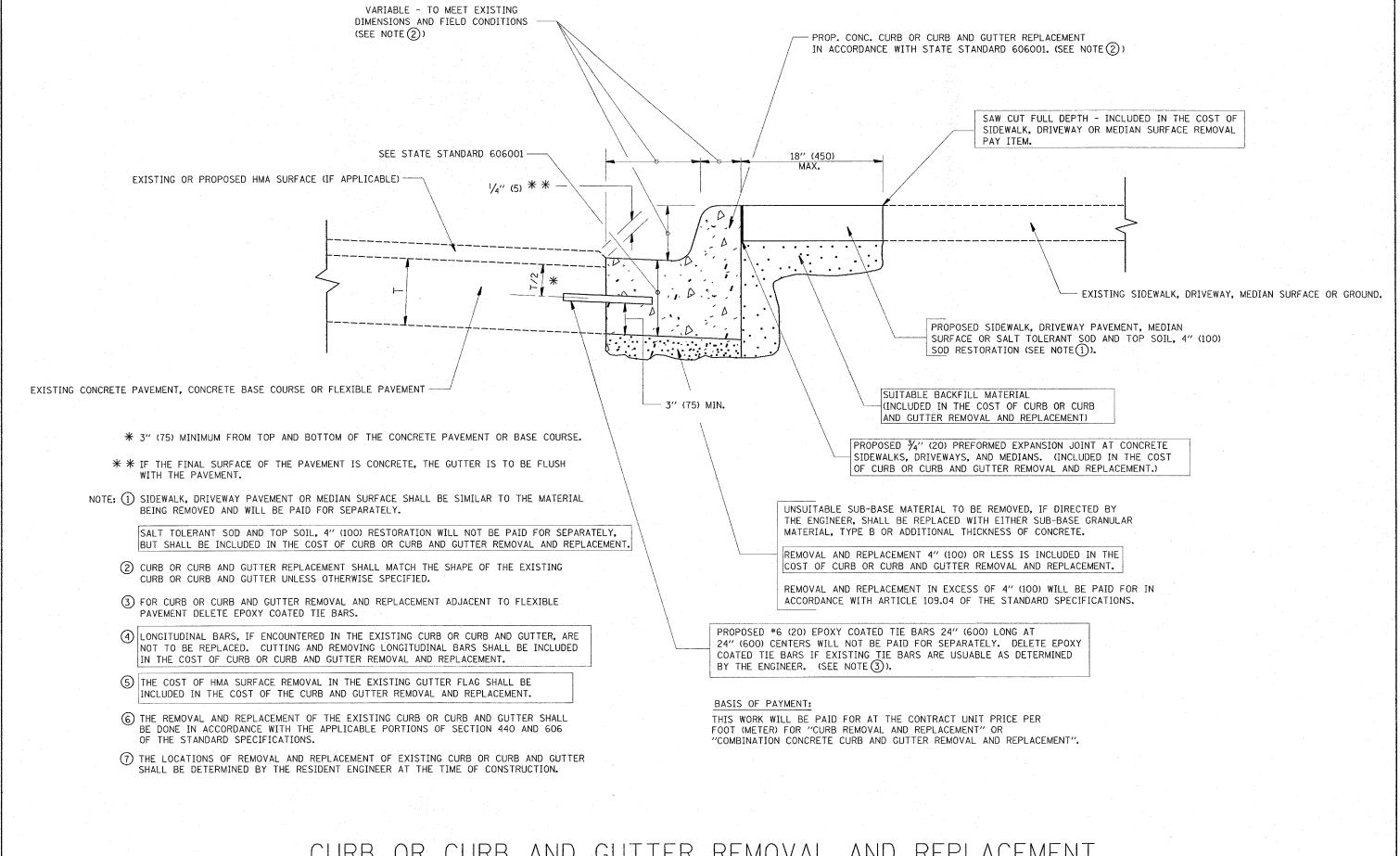
- 1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
- 2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

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.

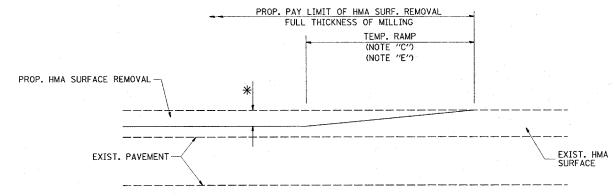
FILE NAME =	USER NAME = banksl	DESIGNED - R. SHAH	REVISED - A. ABBAS 01-20-98		PAVEMENT PATCHING FOR	RTE. SECTION COUNTY SHEETS NO.
W:\diststd\22x34\bd22.dgn		DRAWN -	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS		25 12
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - R. BORO 01-01-07	DEPARTMENT OF TRANSPORTATION	HMA SURFACED PAVEMENT	BD400-04 (BD-22) CONTRACT NO. 62928
	PLOT DATE = 5/28/2008	DATE - 10-25-94	REVISED - R. BORO 09-04-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT
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CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

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

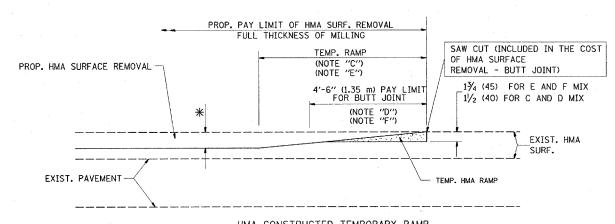
FILE NAME = W:\diststd\22x34\bd24.dgn	USER NAME = Danksi	DRAWN -	REVISED - R. SHAH 10-03-96 REVISED - A. ABBAS 03-21-97	STATE OF ILLINOIS	CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT	RTE. SECTION COUNTY SHEETS NO. SHEETS NO. 25 13
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - M. GOMEZ 01-22-01	DEPARTMENT OF TRANSPORTATION		BD600-06 (BD-24) CONTRACT NO. 62928
	PLOT DATE = 5/28/2008	DATE - 03-11-94	REVISED - R. BORO 01-01-07		SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



MILLED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 1

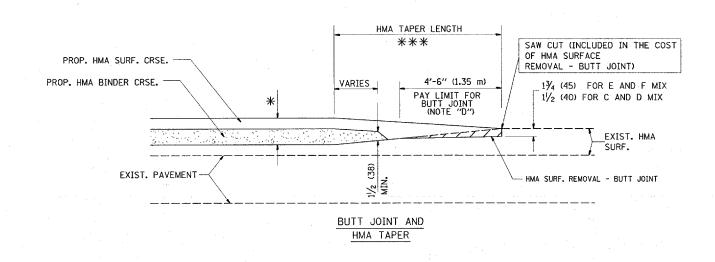


HMA CONSTRUCTED TEMPORARY RAMP

(FOR BUTT JOINT AND HMA TAPER SEE DETAIL BELOW)

OPTION 2

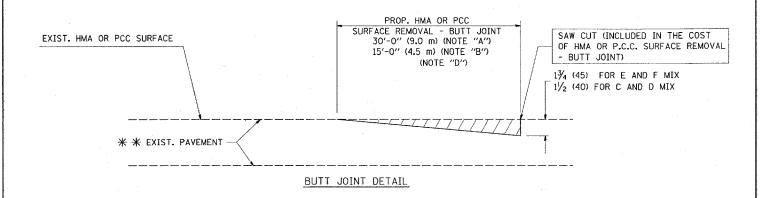
TYPICAL TEMPORARY RAMP

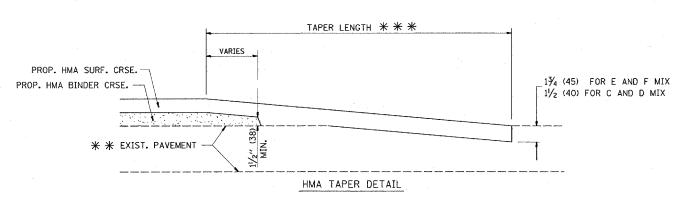


TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING

FILE NAME = DESIGNED - M. DE YONG REVISED - R. SHAH 10-25-94 USER NAME = banks! W:\diststd\22x34\bd32.dgn DRAWN REVISED - A. ABBAS 03-21-97 LOT SCALE = 50.0000 '/ IN. CHECKED REVISED M. GOMEZ 04-06-01 REVISED R. BORO 01-01-07 PERT DATE = 5/28/2008 DATE 06-13-90

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION





TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

* * PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

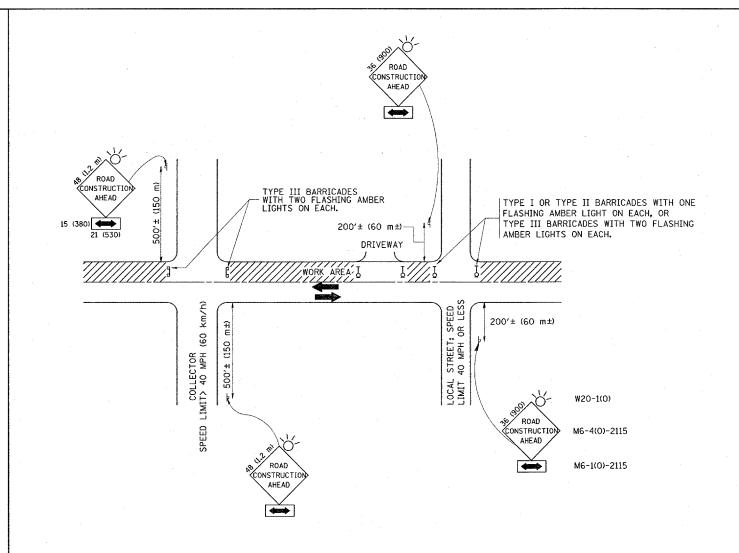
NOTES

- 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.
- ** \times 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
- 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:
- 0) ONE ROAD CONSTRUCTION AHEAD SIGN 36 \times 36 (900 \times 900) 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:
- g) ONE ROAD CONSTRUCTION AHEAD SIGN 48 \times 48 (1,2 m \times 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).

SCALE: NONE

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 =	USER NAME = banksl	DESIGNED - LHA	REVISED - J. OBERLE 10-18-95
W:\diststd\22x34\toI0.dgn		DRAWN -	REVISED - A. HOUSEH 03-06-96
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 5/28/2008	DATE - 06-89	REVISED -T. RAMMACHER 01-06-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

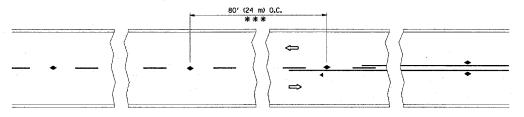
TRAFFIC CONTROL AND PROTECTION FOR	F.A. RTE.	SECTION
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS		
		TC-10
SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FFD. R	DAD DIST. NO. 1 ILLINOIS

F.A. SECTION COUNTY TOTAL SHEETS NO.

25 15

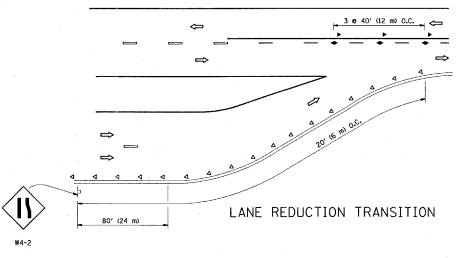
TC-10 CONTRACT NO. 62928

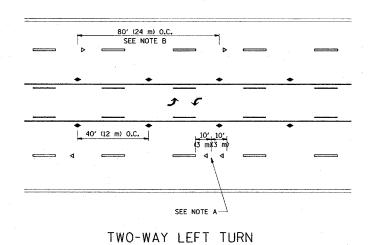
FED. ROAD DIST. NO. 1 | ILLINOIS FED. AID PROJECT

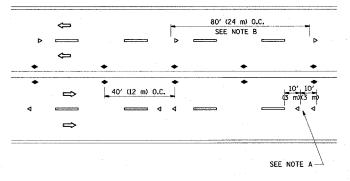


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

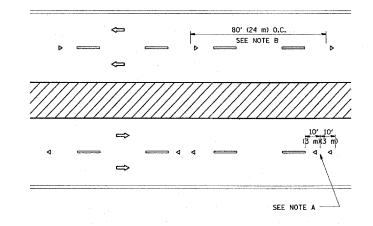
TWO-LANE/TWO-WAY











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 (₩/O)
- ◆ TWO-WAY AMBER MARKER

DESIGN NOTES

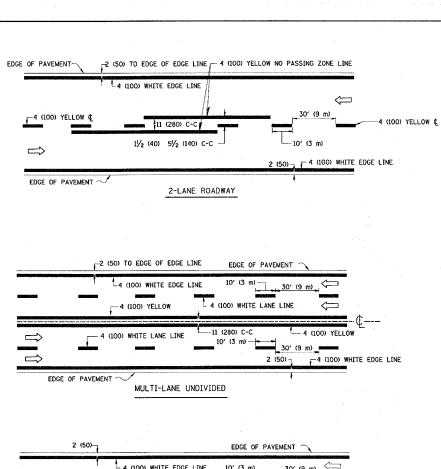
- 1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
- EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
- 3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHOULD BE INCLUDED IN THE PLANS.
- MARKERS SHOULD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

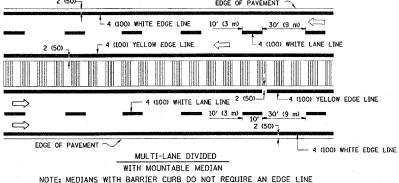
3 e 80' (24 m) 0.C. | MINIMUM OF 3 W | EQUALLY SPACED | 3 e 40' (12 m) | 3 e 40' (12 m) | 40' (12 m) | 40' (12 m) | 0.C. | 40

LEFT TURN

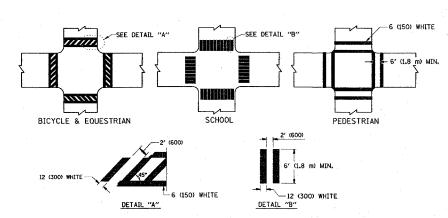
All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME ≈ banksl	DESIGNED -	REVISED	-T. RAMM	IACHER 09-19-94			TVP	ICAL APP	ICATIONS		F.A.	SECTION	COUNTY	TOTAL S	SHEET NO.
W:\diststd\22x34\to11.dgn		DRAWN -	REVISED	- T. RAMM	ACHER 03-12-99	STATE OF ILLINOIS	BAICED				-PLOW RESISTANT)				25	160
	PLOT SCALE = 50.000 1/ IN.	CHECKED -	REVISED	-T. RAMM	ACHER 01-06-00	DEPARTMENT OF TRANSPORTATION						To	C-11	CONTRACT	1 NO. 62	928
	PLOT DATE = 5/28/2008	DATE -	REVISED	-			SCALE: NONE	SHEET NO. 1 OF	1 SHEET	S STA.	TO STA.	FED. ROAD DIST.	NO. 1 ILLINOIS FED.	AID PROJECT		

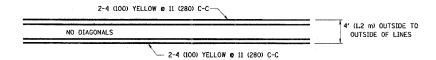




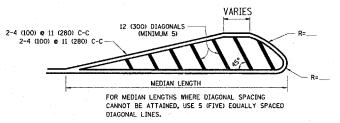
TYPICAL LANE AND EDGE LINE MARKING



TYPICAL CROSSWALK MARKING

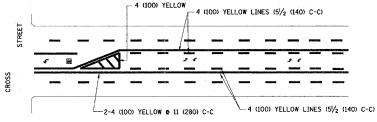


4' (1.2 m) WIDE MEDIANS ONLY

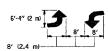


DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h))
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))

MEDIANS OVER 4' (1.2 m) WIDE

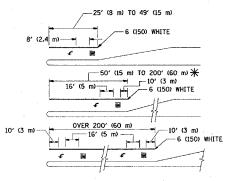


A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



MEDIAN WITH TWO-WAY LEFT TURN LANE

TYPICAL PAINTED MEDIAN MARKING

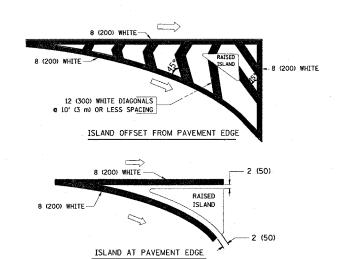


FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED. \P AREA = 15.6 SQ. FT. (1.5 m²) \P AREA = 20.8 SQ. FT. (1.9 m²)

* 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 LEFT (OR RIGHT) TURN LANE

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 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	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	SKIP-DASH AND SOLID	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5½ (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' (500) 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	SOLID	YELLOW: TWO WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE
	NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS		WHITE: ONE WAY TRAFFIC	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 m²) EACH "X"=54.0 SQ. FT. (5.0 m²)
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) T0 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

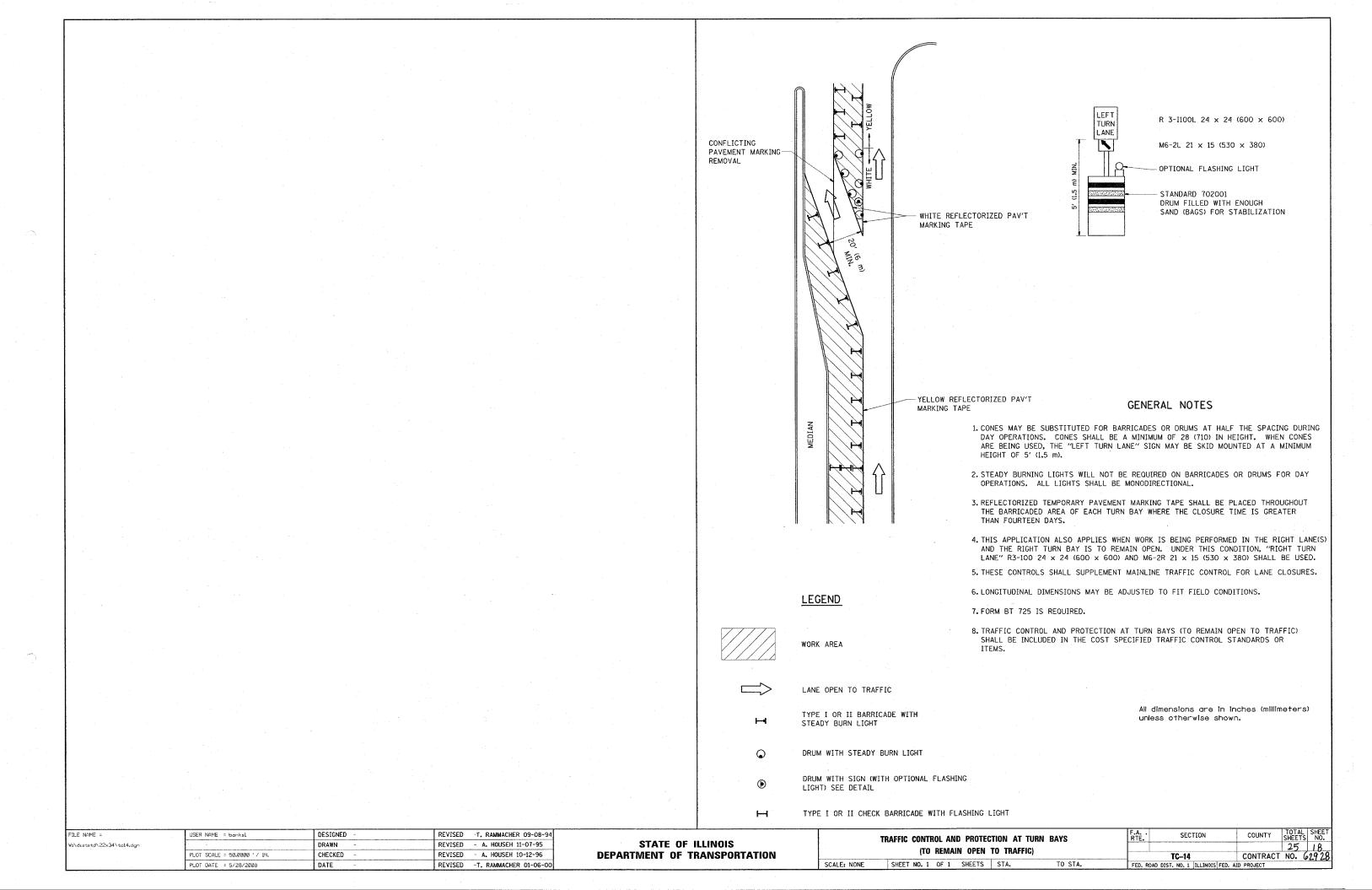
FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

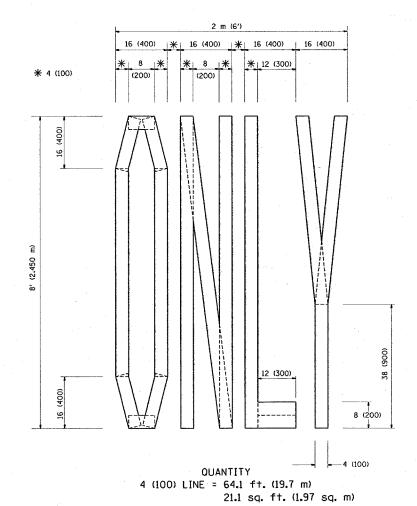
All dimensions are in inches (millimeters) unless otherwise shown.

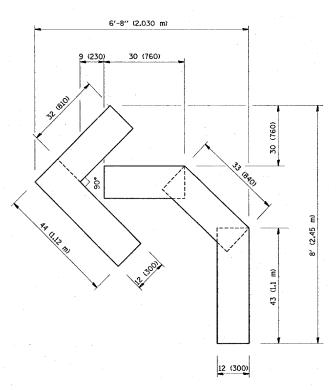
FILE NAME =	USER NAME = benkel .	DESIGNED - EVERS	REVISED -T. RAMMACHER 10-27-94
W:\diststd\22x34\tc13.dgm		DRAWN -	REVISED -A. HOUSEH 10-09-96
	PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -A. HOUSEH 10-17-96
	PLOT DATE = 5/28/2008	DATE - 03-19-90	REVISED -T. RAMMACHER 01-06-00

STATE	E OF	FILLINOIS	
DEPARTMENT	0F	TRANSPORTATION	

		DI	STRICT OF	IE		F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	TYPI	AL PA	VEMENT				25	17		
				MARKINGS			NO. (2928		
SCALE: NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. R	DAD DIST. NO. 1 ILLINOIS FED. A	D PROJECT		

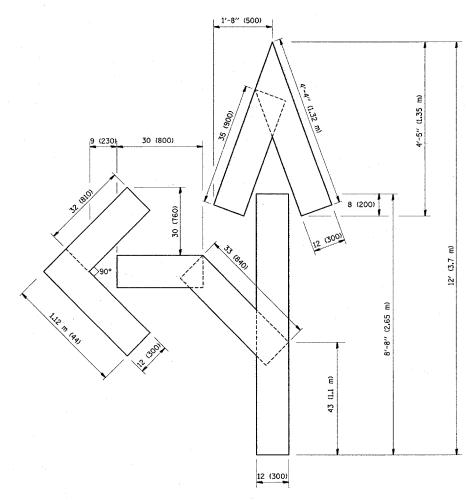






QUANTITY 4 (100) LINE = 45.5 ft. (13.9 m) 15.2 sq. ft. (1.39 sq. m)

SCALE: NONE



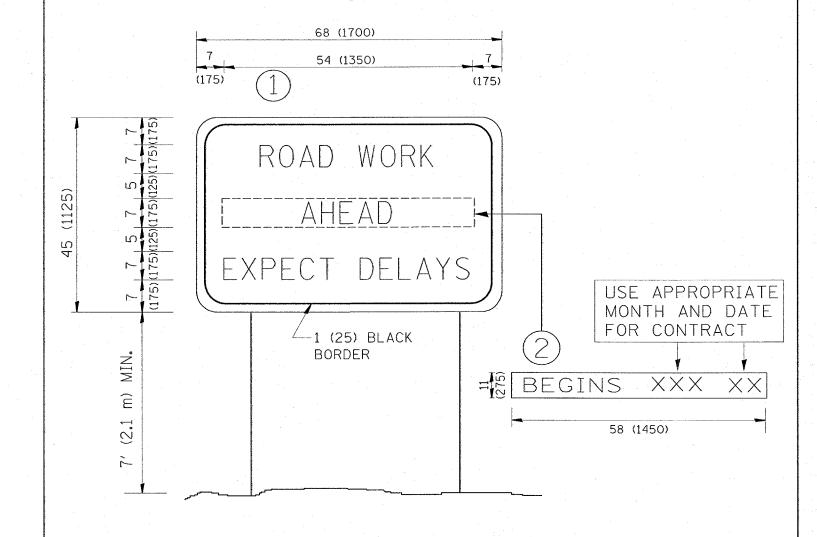
QUANTITY 4 (100) LINE = 82.5 ft. (25.3 m) 27.5 sq. ft. (2.53 sq. m)

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

FILE NAME =	USER NAME = banksl	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
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	PLOT SCALE = 50.0000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 5/28/2008	DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVE	MENT	MARKI	NG LETTE	RS AND	SYMBOLS	F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		FOR T	RAFFIC ST	ACINIC					25	19
		FUN I	RAFFIC 31	AUINU			TC-16	CONTRACT	NO. 6	2928
SHEET	NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. R	DAD DIST. NO. 1 ILLINOIS FED. AI	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 () 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 = banksl	DESIGNED -	REVISED - R. MIRS 09-15-97
	W:\diststd\22x34\to22.dgn		DRAWN -	REVISED - R. MIRS 12-11-97
		PLOT SCALE = 50.000 '/ IN.	CHECKED -	REVISED -T. RAMMACHER 02-02-99
į		PLOT DATE = 5/28/2008	DATE -	REVISED - C. JUCIUS 01-31-07

STATE	0F	ILLINOIS	
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		INFO						
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NONE	SHEET NO. 1	OF 1	SHEETS	STA.	TO STA.	FED. R	OAD DIST, NO. 1 ILLIN	NOIS FED. AID PROJECT

LOOPS NEXT TO SHOULDERS

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X_WIDTH OF PAVED OR NON-PAVED SHOULDER 900 MIN. Ê (1.5 m) (1.8 m) (1.5 m) DUCT-TRENCHED

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

(3.0 m)

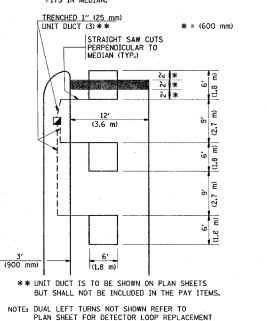
(3.0 m)

* = (600 mm)

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

(PROTECTED / PERMITTED LEFT TURN PHASING)

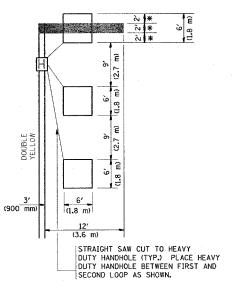
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE



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

(PROTECTED / PERMITTED LEFT TURN PHASING)

* = (600 mm)

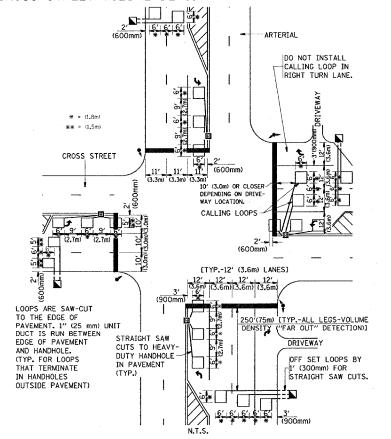


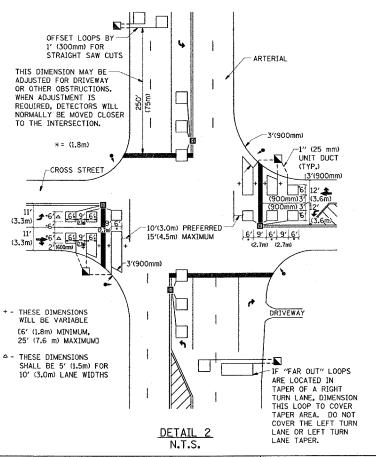
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

SCALE: NONE

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

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. SHIFLDED.
- * 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 ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- * EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- * WHEN NON-LOCKING, PRESENCE DETECTION IS USED. MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- * WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

PLACEMENT OF DETECTORS

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

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

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

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.

DESIGNED REVISED FILE NAME = USER NAME = banksl W:\diststd\22x34\ts07.dqr DRAWN REVISED LOT SCALE = 50.0000 1/ IN CHECKED REVISED REVISED PLOT DATE = 5/28/2008 DATE

DETAIL 1 N.T.S.

> STATE OF ILLINOIS **DEPARTMENT OF TRANSPORTATION**

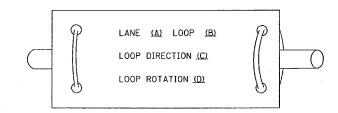
DISTRICT 1 - DETECTOR LOOP INSTALLATION **DETAILS FOR ROADWAY RESURFACING** SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE. SECTION COUNTY 25 CONTRACT NO. 62928 TS-07 FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

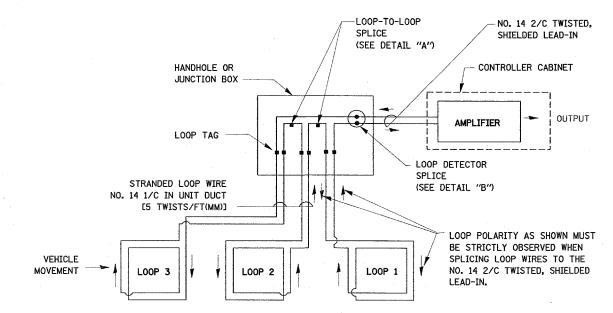
LOOP DETECTOR NOTES

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

LOOP LEAD-IN CABLE TAG

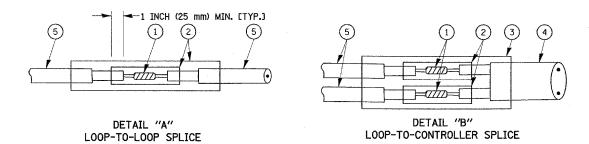


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



DETECTOR LOOP WIRING SCHEMATIC

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



LOOP DETECTOR SPLICE

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

SCALE: NONE

(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

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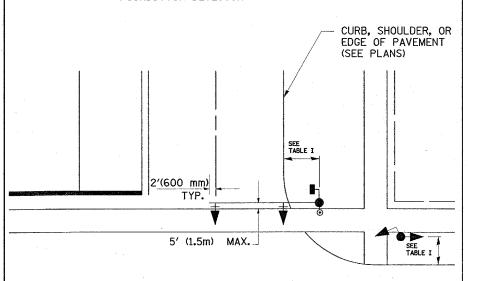
STATI	E OF	: ILLINOIS
DEPARTMENT	OF	TRANSPORTATION

DISTRICT ONE		SECTION	COUNT
STANDARD TRAFFIC SIGNAL DESIGN DETAILS			001170
SHEET NO. 1 OF 4 SHEETS STA. TO STA.	FED. R	TS-05 OAD DIST. NO. 1 ILLINOIS FED. A	CONTR ID PROJECT

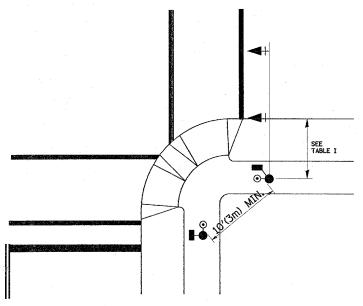
25

TRAFFIC SIGNAL MAST ARM AND POST

MAST ARM MOUNTED SIGNAL IN PROPOSED & FUTURE SIDEWALK AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNAL AND PUSHBUTTON DETECTOR



PEDESTRIAN SIGNAL PUSHBUTTON



RECOMMENDED PUSHBUTTON LOCATIONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHALL BE IN ACCORDANCE WITH THE CURRENT MUTCD (SEE NOTE 1). TO MEET MUTCD REQUIREMENTS, PEDESTRIAN SIGNAL PUSHBUTTONS MAY HAVE TO BE MOUNTED ON A SEPARATE POST.

NOTES:

1. AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS WITH PEDESTRIAN ACTUATION. EACH PUSHBUTTON SHALL ACTIVATE BOTH THE WALK INTERVAL AND THE ACCESSIBLE PEDESTRIAN SIGNALS.

AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON. PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991). TACTILE ARROWS SHOULD POINT IN THE SAME DIRECTION AS THE ASSOCIATED CROSSWALK. AT CORNERS OF SIGNALIZED LOCATIONS WITH ACCESSIBLE PEDESTRIAN SIGNALS WHERE PEDESTRIAN PUSHBUTTONS ARE PROVIDED, THE PUSHBUTTONS SHOULD BE SEPARATED BY THE DISTANCE OF AT LEAST 10 FT (3m). THIS ENABLES PEDESTRIANS WHO HAVE VISUAL DISABILITIES TO DISTINGUISH AND LOCATE THE APPROPRIATE PUSHBUTTON.

PUSHBUTTONS FOR ACCESSIBLE PEDESTRIAN SIGNALS SHOULD BE LOCATED AS FOLLOWS:

- A: ADJACENT TO A LEVEL ALL-WEATHER SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS AN ALL WEATHER SURFACE, WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
- B: WITHIN 5 FT (1.5m) OF THE CROSSWALK EXTENDED.
- C: WITHIN 10 FT (3m) OF THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- D: PARALLEL TO THE CROSSWALK TO BE USED (SEE MUTCD FIGURE 4E-2).
- E: NORMAL PEDESTRIAN PUSHBUTTON MOUNTING HEIGHT SHOULD BE 3.5 FT (1.05m) ABOVE ADJACENT SIDEWALK
- 2. PEDESTRIAN SIGNAL FACES SHALL BE MOUNTED WITH THE BOTTOM OF THE HOUSING NOT LESS THAN 8 FT (2.4m) NOR MORE THAN 10 FT (3.0m) ABOVE THE SIDEWALK LEVEL AND SO THERE IS A PEDESTRIAN INDICATION IN THE LINE OF PEDESTRIANS' VISION WHICH PERTAINS TO THE CROSSWALK BEING USED.
- 3. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, NOT MOUNTED OVER A ROADWAY, SHALL BE AT LEAST 10 FT (3.0m) BUT NOT MORE THAN 15 FT (4.5m) ABOVE THE SIDEWALK OR, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE HIGHWAY IF NO SIDEWALKS EXIST.
- 4. THE BOTTOM OF THE HOUSING OF A VEHICLE SIGNAL FACE, MOUNTED OVER A ROADWAY, SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001 AND 877006. (16 FT (5m) MIN., 18 FT (5.5m) MAX., FROM HIGHEST POINT OF PAVEMENT)

PEDESTRIAN SIGNAL POST

PEDESTRIAN SIGNAL HEAD AND PEDESTRIAN PUSHBUTTON DETECTOR LOCATION

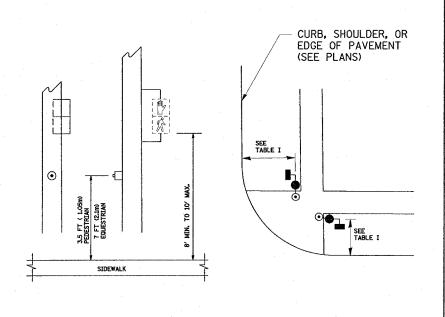


TABLE I

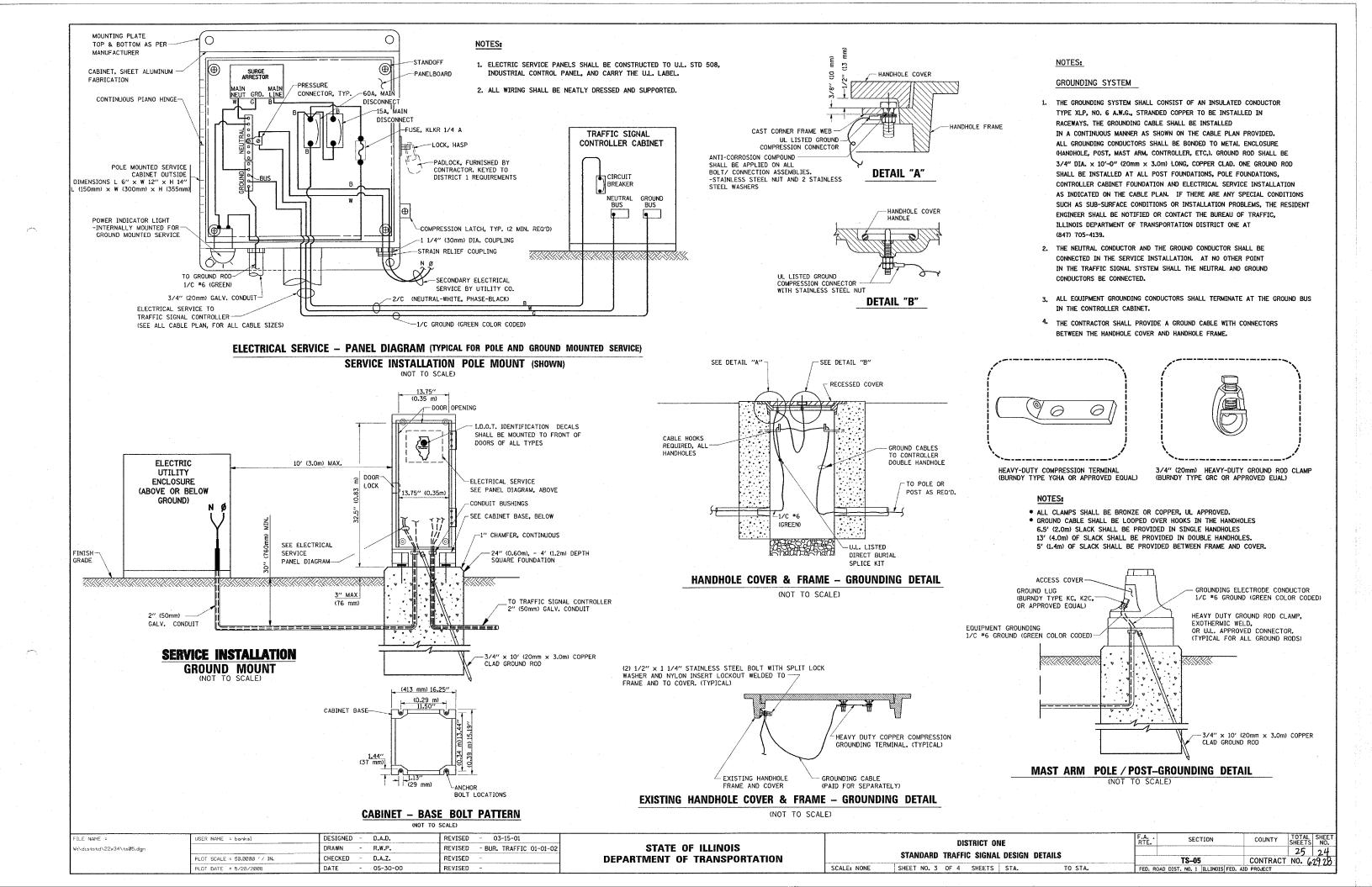
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MIN. DIST. FROM BACK OF CURB)	SHOULDER/NON-CURBED AREA (MIN. DIST. FROM EDGE OF PAVEMENT)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2FT(0.6m), MINIMUM 10FT(3.0m)
PEDESTRIAN PUSHBUTTON	SEE NOTE 1	SEE NOTE 1

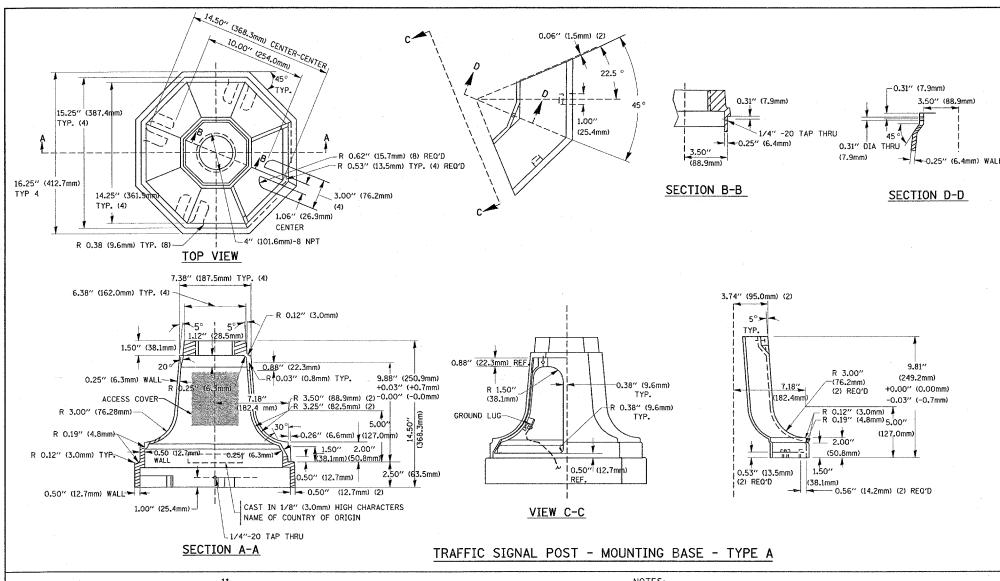
SCALE: NONE

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F	PLOT SCALE = 50.0000 ′/ IN.	CHECKED -	D.A.Z.	REVISED	-
F	PLOT DATE = 5/28/2008	DATE -		REVISED	~

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STANDARD TRAFFIC SIGNAL DESIGN DETAILS		F.A RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
					25	23		
		TS-05		CONTRACT	NO. 6	2928		
	SHEET NO 2 OF 4 SHEET	: I STA	TO STA.	EED D	OAD DICT NO 1 THE THOIC FED AT	D ODO ICCT		





IDENTIFICATION

1 OUTLET BOX- GALV. 21 CU.IN. (0.000344 CU-M) 2 LAMP HOLDER AND COVER 3 OUTLET BOX COVER 4 RUBBER COVER GASKET 5 REDUCING BUSHING 6 ½'(19 mm) CLOSE NIPPLE 7 ½'(19 mm) HOLE PLUG 9 SADDLE BRACKET - GALV. 10 PAR 38 LAMP 11 DETECTOR UNIT 12 POST CAP (IB FT. (5.4 m) POST MIN.) 8 -3-93

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

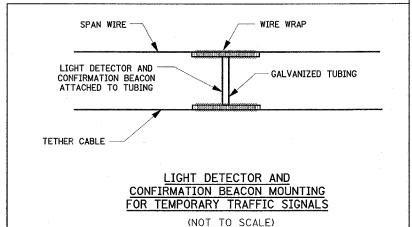
POST CAP MOUNT

DESIGNED -D.A.D. REVISED - BUR.TRAFFIC 03-15-01 :\diststd\22x34\ts05.dgn DRAWN R.W.P. REVISED BUR.TRAFFIC 11-12-01 LOT SCALE = 50.0000 '/ IN. CHECKED D.A.Z. BUR.TRAFFIC 01-01-02 PLOT DATE = 5/28/2008 DATE 05-30-00 REVISED

MAST ARM MOUNT

NOTES:

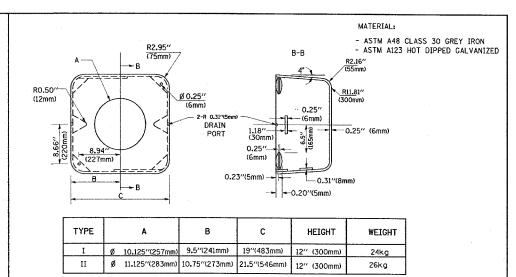
- ALL ELECTRICAL ITEMS, EXCEPT ITEMS *2 AND *11 SHALL BE ALUMINUM OR GALVANIZED
- 2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT
 ITEM #2- MULBERRY CON-O-SHADE LAMP SHIELD OR EQUIVALENT
 ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
- 3. WHEN POST MOUNTING IS SPECIFIED, ITEM *9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A ¾"(19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



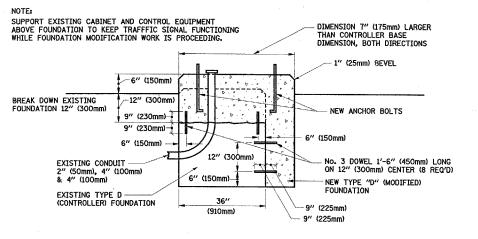
SCALE: NONE

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

HANDHOLE TO INTERCEPT EXISTING CONDUIT



SHROUD DETAIL



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)

