



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

## DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING

	PLOT DATE = 11/2/2016	DATE - 10-25-94	REVISED - R. BORO 12-06-11	DEFAITMENT OF THANSI OFFATION	SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO STA.	FED. RO	AD DIST. NO. 1 ILLINOIS FED.	AID PROJECT	NU. C	3ZA41
	PLOT SCALE = 100.0000 '/ in.	CHECKED -	REVISED - R. BORO 03-09-11	DEPARTMENT OF TRANSPORTATION	FRAMES AND LIDS ADJUSTMENT WITH MILLING		550		CONTRACT		102
pw:\\IL084EBIDINTEG.1llinois.gov:PWIDOT\D	ocuments\IDOT_Offices\District_1\Projects\P1	1381 <b>0/RAWD</b> ata\Design\DistStd.dgn	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS			330	91Y-N-2	COOK	128	102
FILE NAME =	USER NAME = tariqfm	DESIGNED - R. SHAH	REVISED - R. WIEDEMAN 05-14-04			DETAILS FOR	F.A.P.	SECTION	COUNTY	SHEETS	SHEET

## CONSTRUCTION PROCEDURES

### STAGE 1 (BEFORE PAVEMENT MILLING)

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE. B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE. D) BACKFILL WITH CRUSHED STONE AND A MINIMUM  $1^{\prime}_{2}$  (40)
- THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

## STAGE 2 (AFTER PAVEMENT MILLING)

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.
- \* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

## LEGEND

1	SUB-BASE GRANULAR	6 FRAME AND LID (SEE NOTES)
2	EXISTING PAVEMENT	(7) CLASS PP-1* CONCRETE
3	36 (900) DIAMETER METAL PLATE	R DEODOSED UNA SUBEACE COURSE
4	PROPOSED CRUSHED STONE AND HMA SURFACE MIX	-
(5)	EXISTING STRUCTURE	(9) PROPOSED HMA BINDER COURSE

(5) EXISTING STRUCTURE

### LOCATION OF STRUCTURES:

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

## BASIS OF PAYMENT:

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

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

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) U	JNLESS OTHERWISE SHOWN
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SECTION B-B

4 PER VERTICAL 3 PER HORIZONTIAL





SECTION C-C

STATION	MANHOLE DIAMETER	FRAME AND GRATE	RESTRICTOR TYPE	INSIDE RESTRICTOR TYPE DIAMETER in. (mm) (d)	INVERT OF RESTRICTOR TYPE	ELEVATION OF TOP OF PLATE OVERFLOW
STA. 106+05.3. 64.5' LT	6′	TY-1 FR & CLID	3	10.51"	625.00	628.84



STEEL ANGLE BOLTING DETAILS



FILE NAME =	USER NAME = tariqfm	DESIGNED - R. SHAH	REVISED - R. SHAH 10-25-94			
pw:\\ILØ84EBIDINTEG.1111no1s.gov:PWIDOT\Do	cuments\IDOT_Offices\District_I\Projects\P113	81 <b>0/RDAWD</b> ata\Design\DistStd.dgn	REVISED - E. GOMEZ 08-28-00	STATE OF ILLINOIS		
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - M. GOMEZ 01-08-01	DEPARTMENT OF TRANSPORTATION		RESTRICTOR P
	PLOT DATE = 11/2/2016	DATE - 09-09-94	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS

TYPICAL VERTICAL ANGLES LOOKING TOWARD MANHOLE WALL













		RESTRICTOR	TYPE							
	2	3	4	5	6					
ΝT	SHARP EDGED	SQUARE EDGED	RE-ENTRANT TUBE	SQUARE EDGED	ROUNDED					
		STREAM CLEARS SIDES								
	C=.61	C=.61	C=.73	C=.82	C=.98					
	VALUES OF "C" FOR CIRCULAR AND SOUARE ORIFICES									

ALL	DIMENS	IONS	ARE	IN	INCHES	(MILLIMETERS)	UNLESS
OTHE	ERWISE	SHOW	Ν.				

/ITH PLATE		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.		
		330	91Y-N-2	СООК	128	103		
		B	D600–04 (BD–	12)	CONTRACT	NO. 6	2A47	
	STA.	TO STA.	FED. RC	DAD DIST. NO. 1 ILLINO	S FED. AI	D PROJECT		



FILE NAME =	USER NAME = tariqfm	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98			PAVEMENT PATCHI	NG FOR		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw:\\ILØ84EBIDINTEG.illinois.gov:PWIDOT\Do	cuments/IDOT_Offices/District_I/Projects/P	1138107774WDeta\Design\DistStd.dgn	REVISED - R. BORO 01-01-07	STATE OF ILLINOIS	HMA SURFACED PAVEMENT           SCALE: NONE         SHEET NO. 1 OF 1 SHEETS STA.			330	91Y-N-2	СООК	128	104	
	PLOT DATE = 11/2/2016	DATE - 10-25-94	REVISED - R. BORO 09-04-07 REVISED - K. ENG 10-27-08	DEPARTMENT OF TRANSPORTATION			STA.	TO STA.	FED. ROAD	D400-04 (BD-22) DIST. NO. 1  ILLINOIS FED.	AID PROJECT	NO. 6	2447

OVERLAY, TYPICAL (INCLUDED IN THE COST OF HMA REMOVAL OVER PATCHES FOR PATCHING FIRST CONSTRUCTION OR IN THE COST OF PAVEMENT PATCHING FOR MILL FIRST CONSTRUCTION).

PROPOSED UNSUITABLE SUBGRADE REMOVAL AND REPLACEMENT

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST  $4\frac{1}{2}$  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

2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

	ALL OTHE	DIMENSIONS ARE IN INCHES RWISE SHOWN.	(MILLIMETERS	) UNLES	S
FOR	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHE
	770	017 N 2	C00K	100	10



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

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100)

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

ND GUTTER Placement		F.A.P. RTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
		330	91Y-N-2	СООК	128	105	
			BD600-06 (BD-24)	CONTRACT	NO. 6	2A47	
	STA.	TO STA.	FED. RO	DAD DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		



AND		F.A.P. RTE.	A.P. SECTION			COUNTY	TOTAL SHEETS	SHEET		
ETAILS		330	91Y-N-2				СООК	128	106	
			BD400-05	BD32		Т	CONTRACT	NO.	62A47	
	STA.	TO STA.	FED. RO	DAD DIST. NO. 1	ILLINOIS	FED. /	١D	PROJECT		

		WITH TWO FLASHING AMBER LIGHTS ON EACH. (SEE NOTE 2) 200't (60 mt) DRIVEWAY WORK AREA'J	** TYPE FLASI TYPE AMBE TYPE AMBE TYPE TYPE AMBE TYPE TYPE TYPE TYPE AMBE TYPE TYPE TYPE AMBE TYPE TYPE AMBE	I OR TYPE II BARRICADES WITH ONE HING AMBER LIGHT ON EACH, OR III BARRICADES WITH TWO FLASHING R LIGHTS ON EACH. (SEE NOTE 1)
	NOTES: 1. SIDE ROAD WITH A SPEED SHOWN ON THE DRAWING AN a) ONE "ROAD CONSTRUM MOUNTED ON IT APPH b) THE CLOSED PORTION BLOCKING WITH TYPE THE CROSS SECTION 2. SIDE ROAD WITH A SPEED AS SHOWN ON THE DRAWING a) ONE "ROAD CONSTRUM FLASHER MOUNTED ON OF THE MAIN ROUTE. b) THE CLOSED PORTION BLOCKING WITH TYPE OF THE CLOSED PORTION BLOCKING WITH TYPE OF THE CLOSED PORTION SPACING DURING DAY OPER IN HEIGHT. 4. WHEN THE SIDE ROAD LIES SIGNING AND THE WORK ZC BE USED IN LIEU OF THE	LIMIT OF 40 MPH (60 km/h) OR LESS AS ND AS DIRECTED BY THE ENGINEER: CTION AHEAD" SIGN 36 × 36 (900×900) WITH A FLASHER ROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE. N OF THE MAIN ROUTE SHALL BE PROTECTED BY I. TYPE II OR TYPE III BARRICADES, 1/3 OF OF THE CLOSED PORTION. LIMIT GREATER THAN 40 MPH (60 km/h) G AND AS DIRECTED BY THE ENGINEER: CTION AHEAD" SIGN 48 × 48 (1.2 m × 1.2 m) WITH A N IT APPROXIMATELY 500' (150 m) IN ADVANCE III BARRICADES, 1/2 OF THE CROSS SECTION TION. ED FOR BARRICADES OR DRUMS AT HALF THE FATIONS. CONES SHALL BE A MINIMUM OF 28 (710) BETWEEN THE BEGINNING OF THE MAINLINE INE, A SINCLE HEADED ARROW (M6-1) SHALL DOUBLE HEADED ARROW (M6-4).	<ol> <li>WHEN WORK IS BE FOLLOW THE APPL ARROW (M6-1 OR NO LONGER CONSI</li> <li>ADVANCE WARNING UNLESS OTHERWIS ENGINEER.</li> <li>THE TRAFFIC CON INTERSECTIONS, A COST OF SPECIFIC</li> </ol>	ING PERFORMED ON A SIDE ROAD OR DRIVEWAY, ICABLE STANDARD(S). THE DIRECTIONAL MG-4) SHALL BE COVERED OR REMOVED WHEN STENT WITH THE TRAFFIC CONTROL SET-UP. S SIGNS ARE TO BE OMITTED ON DRIVEWAYS E SPECIFIED IN THE PLANS OR BY THE ITROL AND PROTECTION FOR SIDE ROADS, IND DRIVEWAYS SHALL BE INCLUDED IN THE ED TRAFFIC CONTROL STANDARDS OR ITEMS.
FILE NAME = USER NAME = tariqfm DESIGNED - L.H.A. REVISED - A. HOUSEH 10-15-96		TRAFFIC CONTROL AND PROTECTION FO	)R	All dimensions are in inches (millimeters) unless otherwise shown. AP SECTION COUNTY TOTAL SHEETS NO.
Put:/\ll@84EBIDINTEG.illinois.gov/#WID0T\Documents\DD0T Offices\District i\Projects\P11381@RX#WMtata\Design\DistStd.dgn         REVISED         -T. RAMMACHER 01-06-00           PL0T SCALE = 100.0000 // in.         CHECKED         REVISED         - A. SCHUETZE 07-01-13         Defeuit         PLOT DATE = 11/2/2016         DATE         - 06-89         REVISED         - A. SCHUETZE 09-15-16         DEfeuit	STATE OF ILLINOIS EPARTMENT OF TRANSPORTATION	SCALE: NONE SHEET 1 OF 1 SHEETS STA.	/AYS to sta.	330         91Y-N-2         COOK         128         107           TC-10         CONTRACT         NO.         62A47           ILLINOIS         FED.         AID         PROJECT





FILE NAME =	USER NAME = tariqfm	DESIGNED -	REVISED	- T. RAMMACHE	R 09-19-94				ТҮРІС	AL APPLIC	ATIONS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
ow:\\IL084EBIDINTEG.1llinois.gov:PWIDOT\Do	cuments\IDOT_Offices\District_l\Projects\P113	31 <b>2/ROAWIN</b> ata\Design\DistStd.dgn	REVISED	T. RAMMACHE	R 03-12-99	STATE OF ILLINOIS	DAIGED	DEELECTIV			DE (ENOM		330	91Y-N-2	соок	128	108
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED	-T. RAMMACHE	01-06-00 ج	DEPARTMENT OF TRANSPORTATION	NAIJED	NEFLECTIV	C FAVEIVIC		na (aluov-	-FLOW RESISTANT)		TC11	CONTRAC	T NO. 6	2447
	PLOT DATE = 11/2/2016	DATE -	REVISED	- C. JUCIUS	09-09-09		SCALE: NONE	SHEET N	0.1 OF 1	SHEETS	STA.	TO STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED. A	ID PROJECT		

2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT 4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.





## LANE REDUCTION TRANSITION

# lane reduction arrows required at speeds of 45 MPH or greater or when specified in plans.

LINE	PATTERN	COLOR	SPACING /REMARKS
	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
	SOLID	YELLOW	11 (280) C-C
	SOLID SOLID	YELLOW YELLOW	5½ (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
EWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
BEING	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
ULL & .4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
	SKIP-DASH AND SOLID IN PAIRS	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH: 5½ (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
ANNON		WHITE	
	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.
	SOLID	WHITE	PLACE 4' (1,2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHEWNISE, PLACE AT DESIRED STOPPING POINT. PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
TH NALS USED FOR MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
2 (300) 5°	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))
VERSE 6'(1.8 m) 20)	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
	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 (0VER 45MPH (70 km/h))
	SOLID	WHITE	16.3 SF
	SOLID	WHITE	30.4 SF

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

IE	F.A.P RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
MARKINGS	330	91Y-N-2	СООК	128	109
MAIRINGS	_	TC-13	CONTRACT	NO. 6	2A47
STA. TO STA.		ILLINOIS FED. A	ID PROJECT		





## NOTES:

- 1. A) WHEN "L" IS < THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.
  - B) WHEN "L" IS > THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
- 2. 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.
- 3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
- 4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
- 5. 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" R3-1100R 24 x 24 (600 x 600) AND M6-2R 21 × 15 (530 × 380) SHALL BE USED.
- 6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
- 7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
- 8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.



FILE NAME =	USER NAME = tariqfm	REVISED - T. RAMMACHER 09-08-94	4 REVISED - R. BORO 09-14-09		TRAF	FIC CONTROL AND PROTECTION AT TURN RAYS	F.A.P SECTION	COUNTY TOTAL SHEET
pw:\\IL084EBIDINTEG.illinois.gov:PWIDOT\Do	cuments\IDOT_Offices\District_1\Projects\P11	3818850405560°\Design\A.s49041856H 11-07-95	REVISED - A. SCHUETZE 07-01-13	STATE OF ILLINOIS		TO DEMAIN OPEN TO TRACEIC)	330 91Y-N-2	СООК 128 110
	PLOT SCALE = 100.0000 ' / 10.	REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16	DEPARTMENT OF TRANSPORTATION		(TO REIVIAIN OPEN TO TRAFFIC)	TC-14	CONTRACT NO. 62A47
Default	PLOT DATE = 11/2/2016	REVISED - T. RAMMACHER 01-06-00	REVISED -		SCALE: NONE	SHEET 1 OF 1 SHEETS STA. TO STA.	ILLINOIS FED	. AID PROJECT



SCALE: NONE SHEET NO. 1 OF 1 SHEETS

			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
j	LETTERS	AND SYMBOLS	330	91Y-N-2	СООК	128	111
_			_	TC16	CONTRACT	NO. 6	2A47
	STA.	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		



REVISED - C. JUCIUS 01-31-07

PLOT DATE = 11/2/2016

DATE

0	AD		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	SIGN		330	91Y-N-2	СООК	128	112
	31010			TC-22	CONTRACT	NO. 6	2A47
	STA.	TO STA.	FED. R	OAD DIST. NO. 1 ILLINOIS FED. AI	D PROJECT		



pwt/LL084EBIDINTEG.illinois.gov/PWIDDT/Documents/IDDT Offices/District 1/Projects/PI13810RXWWata/Design/DistStd.dgn REVISED - 04-26-12 STATE OF ILLINOIS	
PLOT SCALE = 100.0000 1/ In. CHECKED - REVISED - A.R. 07-11-16 DEPARTMENT OF TRANSPORTATION IREALMENT	<b>OK KAILH</b>
Default         PLOT DATE = 11/2/2016         DATE -         REVISED -         SCALE: NONE         SHEET 1         OF	2 SHEET

# **TYPICAL SUPPLEMENTAL SIGNING AND PAVEMENT MARKING TREATMENT FOR RAILROAD CROSSINGS**

## WITH SIGNALIZED INTERSECTION

## WITH NON-SIGNALIZED INTERSECTION 81' OR LESS TO CLOSEST RAIL



## NOTE:

- 1. PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
- 2. WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED THE PAVEMENT MARKINGS EXTEND TO THE INTERSECTION. (SEE DETAIL FOR PRE-SIGNALS).

## NOTE:

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

FILE NAME =	USER NAME = tariqfm	DESIGNED -	REVISED - 02-25-11		TYPICAL SUPPLEMENTAL SIGNING AND PAVEMENT MARKING	F.A.P	SECTION	COUNTY TOTAL SHEET
pw:\\IL084EBIDINTEG.1111no15.gov:PWIDOT\Do	uments\IDOT Offices\District 1\Projects\P113	81 <b>27RCANNN</b> eta\Design\DistStd.dgn	REVISED - 04-26-12	STATE OF ILLINOIS		330	91Y-N-2	COOK 128 114
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED - A.R. 07-11-16	DEPARTMENT OF TRANSPORTATION	IREATIVIENT FUR RAILRUAD CRUSSINGS		TC-23	CONTRACT NO. 62A47
Default	PLOT DATE = 11/2/2016	DATE -	REVISED -		SCALE: NONE SHEET 2 OF 2 SHEETS STA. TO STA.		ILLINOIS FED. AI	D PROJECT



CAUTION **XX FEET** BETWEEN TRACKS AND

W10-I100 30" × 36"



R8-8 24" × 30"

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



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

## NOTES:

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

FILE NAME =	USER NAME = tariqfm	DESIGNED -	REVISED - C. JUCIUS 02-15-07		(	DRIVEWAY ENTRANCE SIGNING		F.A.P.	SECTION	COUNTY ,	TOTAL	SHEET
pw:\\ILØ84EBIDINTEG.1111no1s.gov:PWIDOT\Do	cuments\IDOT_Offices\District_I\Projects\P113	81 <b>27704WD</b> ata\Design\DistStd.dgn	REVISED -	STATE OF ILLINOIS	1	DRIVEWAT ENTRANCE SIGNING		330	91Y-N-2	соок	128	115
	PLOT SCALE = 100.0000 ' / in.	CHECKED -	REVISED -	DEPARTMENT OF TRANSPORTATION	1				TC-26	CONTRACT	NO. 62	2447
	PLOT DATE = 11/2/2016	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS STA. TO	STA.	FED. ROAD	DIST. NO. 1 ILLINOIS FED. AIT	D PROJECT		



## 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  $\underline{ALL}$  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.

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![](_page_26_Figure_0.jpeg)

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