INDEX OF SHEETS

- COVER SHEET
- 2.-3. SUMMARY OF QUANTITIES
- 4.-7. DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS (4 SHEETS)
- 8.-9. TEMPORARY TRAFFIC SIGNAL AND REMOVAL PLAN
- 10.-11. TRAFFIC SIGNAL MODERNIZATION
- 12. STREET NAME SIGNS

STATE OF ILLINOIS

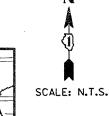
DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.U. 1349 (DEVON AVE) SECTION 2006-41 TS DEVON AVENUE AT DEE ROAD TRAFFIC SIGNAL MODERNIZATION **COOK COUNTY**

○ D-91-116-07



PROJECT LOCATION

F.A.U. SECTION 1349 2006-41 TS

D-91-116-07

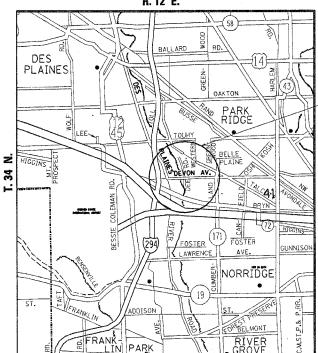
STANDARD DRAWINGS (701006-02) (701011-11) (701101-01) (701301-02) (702001-06)(81 4001-01) (81 4006-01) 877011-02 (878001-0**5**) 720001 81 3001 - 01 424001-04 (857001) (877001-02) 877006-02 880006 (886001 701 201 - 02 701 31 6 - 03 701 321 - 08 701 501 - 03 (701 701 - 04) (701601-04) 701 801 - 03 (701502-01) 701606-04 NOTE: STANDARD DRAWNINGS REQUIRED (CIRCLED).



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.

PREPARED BY: Steam Tonderin TRAFFIC ENGINEER

CONTRACT NO. 60C09



MAINE TOWNSHIP **LOCATION MAP**

THIS IMPROVEMENT IS LOCATED IN THE VILLAGE OF PARK RIDGE

POSTED SPEED LIMIT = 40 MPH DEVON AVE. POSTED SPEED LIMIT = 35 MPH DEE RD.

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS

LOCATION OF SECTION INDICATED THUS: -

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

1/25/2007 K:\trafflc\t0600I3\devon@dee.dqi

TRAFFIC SIGNAL SUMMARY OF QUANTITIES

F.A.U. RTE.	RTE. SECTION		COUNTY		TOTAL SHEETS	SHEET NO.		
1349		2006-041	TS		COOK		12	2
FED.	ROAD	DIST. NO.	1	ILL	INOIS	HIG	HWAY PRO	JECT
CONTE	RACT	NO. 600	09					

-		ALLEN OF OUR NITITIES				CON	STRUCTION	TYPE CODE		
-		SUMMARY OF QUANTITIES		URBAN TOTAL		90%.FED. 515.7978 5%. FRANZ R. 1962	7031-3⊅ X CITY			
	CODE NO	ITEM	UNIT	QUANTITIES		TRAFFIC SIGNALS	OF PARK RIDGE			
	67100100	MOBILIZATION	L SUM	1		, i				
	70100700	TRAFFIC CONTROL AND PROTECTION STANDARD 701406	L SUM	1		. 1				
	70102620	TRAFFIC CONTROL AND PROTECTION STANDARD 701501	L SUM	1		1				
	70102630	TRAFFIC CONTROL AND PROTECTION STANDARD 701601	L SUM	1		1				
	70102635	TRAFFIC CONTROL AND PROTECTION STANDARD 701701	L SUM	1		<u>1</u> .		-		
**	72000100	SIGN PANEL - TYPE 1	SQ FT	24		.24				
**	78000650	THERMOPLASTIC PAVEMENT MARKING - LINE 24"	FOOT	120		120				
**	78300400	THERMOPLASTIC PAVEMENT MARKING - REMOVAL	SQ FT	130		130				
	81000600	CONDUIT IN TRENCH, 2" DIA., GALVANIZED STEEL	FOOT	1054		1054				
	81000700	CONDUIT IN TRENCH, 2 1/2" DIA., GALVANIZED STEEL	FOOT	93		93			1.1.	
	81000800	CONDUIT IN TRENCH, 3" DIA., GALVANIZED STEEL	FOOT	16		16				
	81001000	CONDUIT IN TRENCH, 4" DIA., GALVANIZED STEEL	FOOT	42		42				
	81018500	CONDUIT PUSHED, 2" DIA., GALVANIZED STEEL	FOOT	70		70	Trade of the control			
	81018900	CONDUIT PUSHED, 4" DIA., GALVANIZED STEEL	FOOT	298		298				
	81400100	HANDHOLE	EACH	3		. 3				
	81400200	HEAVY-DUTY HANDHOLE	EACH	1		1				
	81400300	DOUBLE HANDHOLE	EACH	1		1				
	81 9 00200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	1169		1169				
	85700200	FULL-ACTUATED CONTROLLER AND TYPE IV CABINET	EACH	1)	. 1				
	87301215	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 2C	FOOT	449		449				
050°99	87301225	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 3C	FOOT	1104		1104				
0600138devonæde										
1.06003		·		,						

			CONTRACT N	0. 60009			
	SUMMARY OF QUANTITIES					TYPE CODE	_
CODE NO	ITEM	UNIT	URBAN TOTAL QUANTITIES	901-FED 515TME Y031-FU TRAFFIC SIGNALS	OF PARK RIDGE		
87301245	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 5C	FOOT	1525	1525		-	-
87301255	ELECTRIC CABLE IN CONDUIT, SIGNAL NO.14 7C	FOOT	1576	1576			
87301305	ELECTRIC CABLE IN CONDUIT, LEAD-IN NO.14 1 PAIR	FOOT	2282	2282			
87301805	ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C	FOOT	53	53			
X8730027	ELECTRIC CABLE IN CONDUIT, GROUNDING NO. 6 1C	FÓOT	634	634			
* X8730250	ELECTRIC CABLE IN CONDUIT, NO. 20 3/C, TWISTED, SHIELDED	FOOT	* 655		* 655		
87502500	TRAFFIC SIGNAL POST, GALVANIZED STEEL 16 FT.	EACH	. 2	2			
87700160	STEEL MAST ARM ASSEMBLY AND POLE, 24 FT.	EACH	2	2 .			
87702316	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 24 FT. AND 44 FT.	EACH	1	1			
87702470	STEEL MAST ARM ASSEMBLY AND POLE WITH DUAL MAST ARMS, 30 FT. AND 42 FT.	EACH	1	1			
87800100	CONCRETE FOUNDATION, TYPE A	FOOT	8	8			
87800150	CONCRETE FOUNDATION, TYPE C	FOOT	4	4			
87800400	CONCRETE FOUNDATION, TYPE E 30 INCH DIAMETER	FOOT	30	30			
87800415	CONCRETE FOUNDATION, TYPE E 36 INCH DIAMETER	FOOT	30	30			
87900200	DRILL EXISTING HANDHOLE	EACH	11	11			
88200210	TRAFFIC SIGNAL BACKPLATE, LOUVERED	EACH	13	13			
88500100	INDUCTIVE LOOP DETECTOR	EACH	8	. 8			
88600100	DETECTOR LOOP, TYPE 1	FOOT	656	656			
* 88700200	LIGHT DETECTOR	EACH	*3		*3		
* 88700300	LIGHT DETECTOR AMPLIFIER	EACH	*1		*1		
89000100	TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1	1			
			REVISIO NAME	DATE ILLINOI	S DEPARTM		

*100% COST TO THE CITY OF PARK RIDGE FOR EMERGENCY VEHICLE PREEMPTION EQUIPMENT

* * SPECIALTY ITEMS

ILLINOIS DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL SUMMARY

OF QUANTITIES

DEVON AVENUE @ DEE ROAD

CALE: NONE

DESIGNED BY JHE CHECKED BY DAD

TRAFFIC SIGNAL SUMMARY OF QUANTITIES

F.A.U. RTE.	SECTION		COUNT	Υ	TOTAL SHEETS	SHEET NO.
1349	2006-041 TS		соок		12	3
FED.	ROAD DIST. NO. 1	ILL	INOIS	HIG	HWAY PRO	JECT

	SUMMARY OF QUANTITIES		URBAN		STRUCTION	TYPE CODE	
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	901.FED 5 15778 51. POST- TRAFFIC SIGNALS			
X8670020	UNINTERRUPTIBLE POWER SUPPLY	EACH	1	: 1			
89502300	REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	1800	1800		-	
89502375	REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1	1			
89502380	REMOVE EXISTING HANDHOLE	EACH	2	2			
89502385	REMOVE EXISTING CONCRETE FOUNDATION	EACH	10	10			
88030020	SIGNAL HEAD, L E D, 1-FACE, 3-SECTION MAST-ARM MOUNTED	EACH	7	7			
88030100	SIGNAL HEAD, L E D, 1-FACE, 3-SECTION BRACKET MOUNTED	EACH	2	2			
88030110	SIGNAL HEAD, L E D, 1-FACE, 5-SECTION MAST-ARM MOUNTED	EACH	6	6		-:-	
X8050015	SERVICE INSTALLATION, POLE MOUNT	EACH	1	1			
	•						
				-			

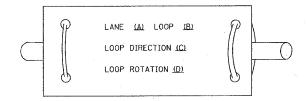
*100% COST TO THE CITY OF PARK RIDGE FOR EMERGENCY VEHICLE PREEMPTION EQUIPMENT

			ı
REVISION	IS	THE THORSE ACCUMENTED AS TO MACROCIATION	
NAME	DATE	ILLINOIS DEPARTMENT OF TRANSPORTATION	
		TRAFFIC SIGNAL SUMMARY OF QUANTITIES	
		DEVON AVEENUE @ DEE ROAD	
		SCALE- NONE DRAWN BY CADD	

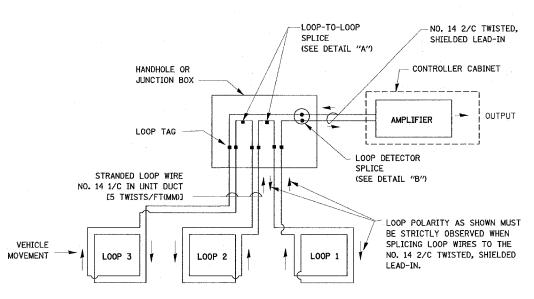
LOOP DETECTOR NOTES

- 1. 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

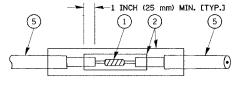


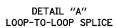
- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

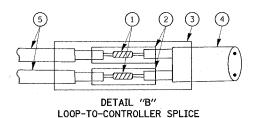


DETECTOR LOOP WIRING SCHEMATIC

- 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.







- (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.

LOOP DETECTOR SPLICE

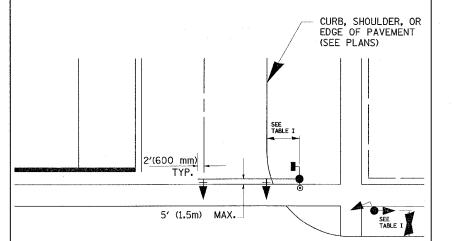
(5) LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTAT				
NAME	DATE	TEETNOIS DEL ANTIMENT	OF THANSFORTATION			
CADD	5/30/00					
ADD NOTE NO. 8	11/12/01	DISTRIC	CT ONE			
BUREAU OF TRAFFIC	1-01-02	CTAMBADD TD	AFFIC SIGNAL			
		DESIGN	DETAILS			
		SCALE: NONE	DRAWN BY: RWP			
		SCALE: NUNE	DESIGNED BY: DA			
		DATE: 1/24/2007	SHEET 1 OF 4			

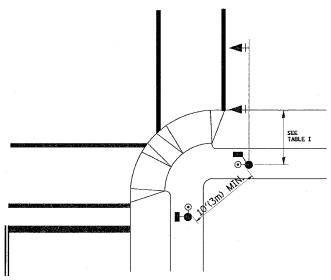
DRAWN BY: RWP DESIGNED BY: DAD

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:

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

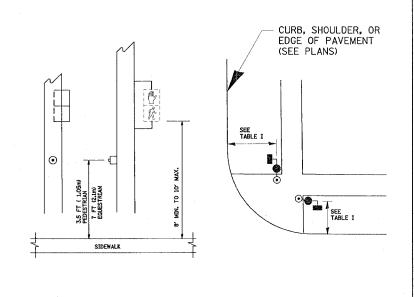
AT ACCESSIBLE PEDESTRIAN SIGNAL LOCATIONS, PUSHBUTTONS SHOULD CLEARLY INDICATE WHICH CROSSWALK SIGNAL IS ACTUATED BY EACH PUSHBUTTON, PUSHBUTTONS AND TACTILE ARROWS SHOULD HAVE HIGH VISUAL CONTRAST (SEE THE DEPARTMENT OF JUSTICE'S AMERICANS WITH DISABILITIES ACT STANDARDS FOR ACCESSIBLE DESIGN, 1991), 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
- 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



PLOT FILE PLOT USER

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

REVISIONS
NAME DATE
BUREAU OF TRAFFIC 1/01/02

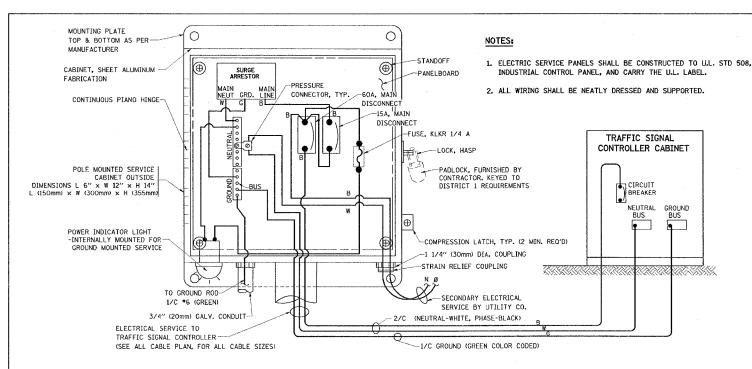
ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE DATE: 1/24/2007 DRAWN BY: RWP DESIGNED BY: DAD CHECKED BY: DAZ SHEET 2 OF 4

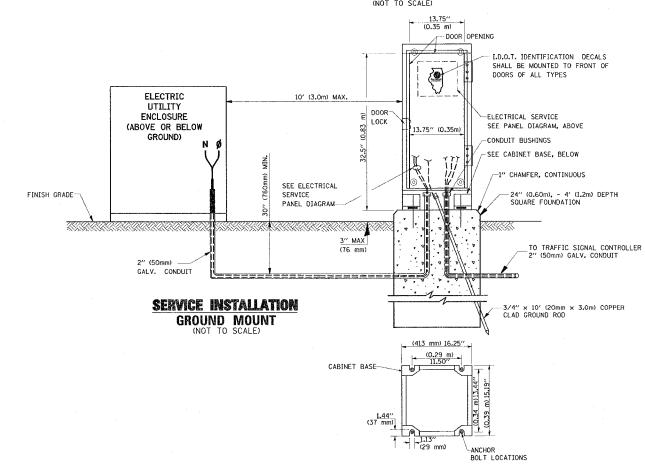
TS05

REVISION DATE: 01/01/02



ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)

SERVICE INSTALLATION POLE MOUNT (SHOWN)



CABINET - BASE BOLT PATTERN

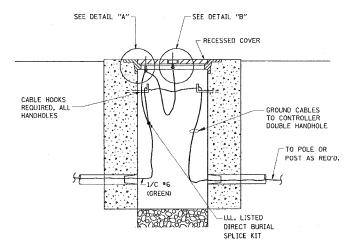
HANDHOLE COVER IANDHOLF FRAME CAST CORNER FRAME WEB-IN LISTED GROUND

-STAINLESS STEEL NUT AND 2 STAINLESS

COMPRESSION CONNECTOR ANTI-CORROSION COMPOUND
SHALL BE APPLIED ON ALL
BOLT/ CONNECTION ASSEMBLIES. **DETAIL "A"**

> HANDHOLE COVER HANDLE UL LISTED GROUND COMPRESSION CONNECTOR WITH STAINLESS STEEL NUT

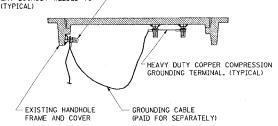
DETAIL "B"



HANDHOLE COVER & FRAME - GROUNDING DETAIL

(NOT TO SCALE)

(2) 1/2" x 1 1/4" STAINLESS STEEL BOLT WITH SPLIT LOCK WASHER AND NYLON INSERT LOCKOUT WELDED TO FRAME AND TO COVER, (TYPICAL)



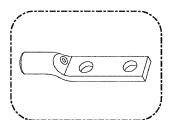
EXISTING HANDHOLE COVER & FRAME - GROUNDING DETAIL

NOTES:

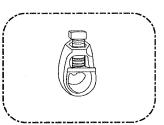
CONTRACT NO. 60C09 COUNTY TOTAL SHEET SHEETS NO. SECTION COOK 12 6 STA. TO STA. FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT

GROUNDING SYSTEM

- 1. THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP. NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS, THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT
- 2. THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- 3. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS
- 4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.



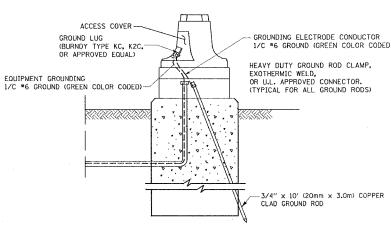
HEAVY-DUTY COMPRESSION TERMINAL (BURNDY TYPE YGHA OR APPROVED EQUAL)



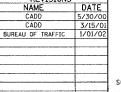
3/4" (20mm) HEAVY-DUTY GROUND ROD CLAMP (BURNDY TYPE GRC OR APPROVED EUAL)

NOTES:

• ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED. • GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



MAST ARM POLE / POST-GROUNDING DETAIL (NOT TO SCALE)

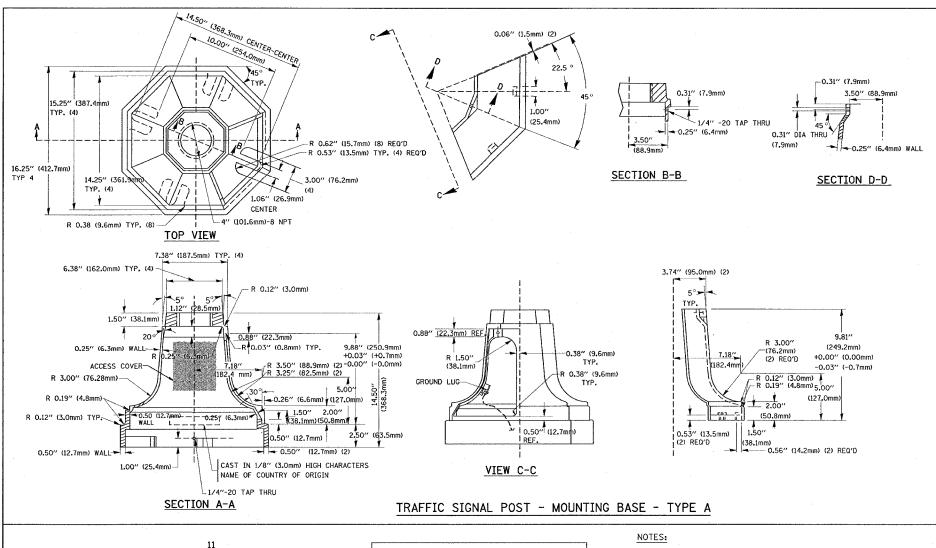


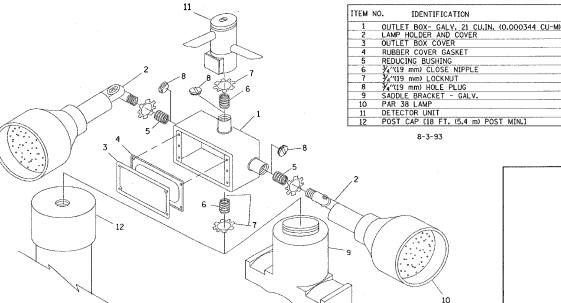
ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE DATE: 1/24/2007

TS05





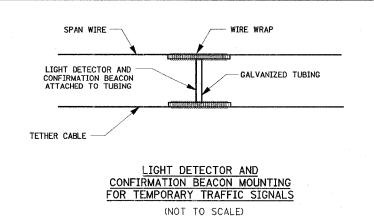
MAST ARM MOUNT

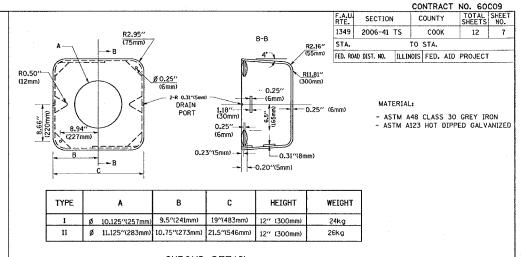
EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

POST CAP MOUNT

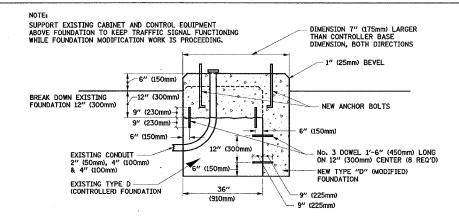
DATE NAME SCALE NAME

- 1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR
- 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 34"(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.



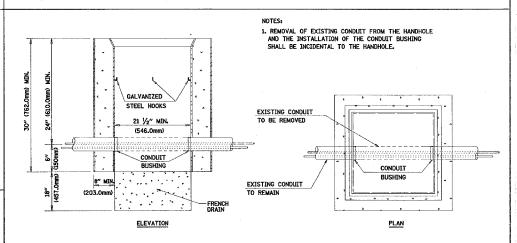


SHROUD DETAIL



MODIFY EXISTING TYPE "D" FOUNDATION

(NOT TO SCALE)



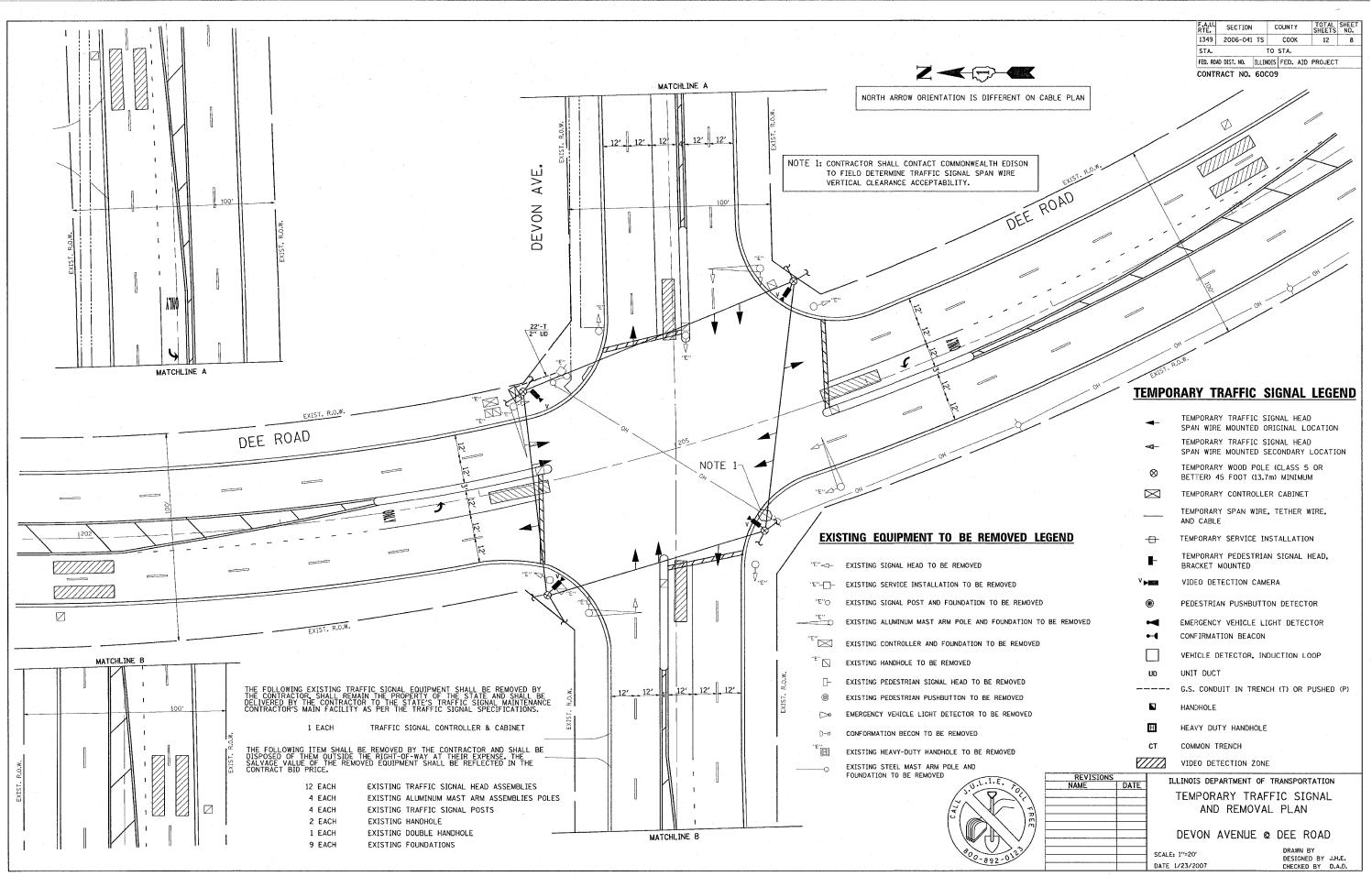
HANDHOLE TO INTERCEPT EXISTING CONDUIT

REVISIONS

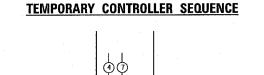
REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTAT			
NAME	DATE	ICCINOIS DEL ANTIMENT	OF TRANSFORTATION		
BUREAU OF TRAFFIC	5/30/00				
BUREAU OF TRAFFIC	3/15/01	DISTRIC	T ONE		
BUREAU OF TRAFFIC	11/12/01				
BUREAU OF TRAFFIC	1-01-02	STANDARD TR	AFFIC SIGNAL		
		DESIGN	DETAILS		
		DESIGN	DE I MIES		
		SCALE: NONE	DRAWN BY: RWP DESIGNED BY: DA		
			OCCIONED DIT DA		

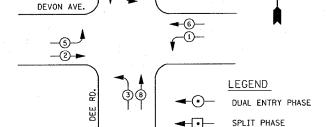
DATE: 1/24/2007

REVISION DATE: 01/01/02



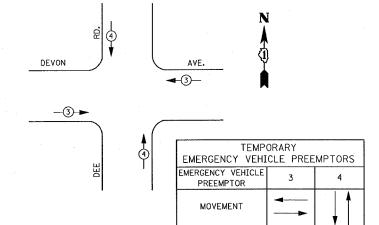






TEMPORARY PHASE DISIGNATION DIAGRAM

TEMPORARY EMERGENCY VEHICLE PREEMPTION SEQUENCE



TOTAL = 341.2

→ PEDESTRIAN PHASE

PHASE

NUMBER REFERS TO ASSOCIATED

_						
·	RAFFIC SIGNA					
ELEC	CTRICAL SERV	/ICE REQL	JIREMEN'	rs	TOTAL	
TYPE	NO. LAMPS	WATT		C ZOPERATION	WATTAGE	
		INCAND.	LED '			
SIGNAL (RED)	12	135	17	0,50	102.0	
(YELLOW)	12	135	25	0.25	75.0	
(GREEN)	12	135	15	0.25	45.0	
ARROW	12	135	12	0.10	19.2	
PED. SIGNAL		90	25	1.00		
CONTROLLER	1	100	100	1.00	100.0	
ILLUM. SIGN		. 84		0.05		
				1.		
FLASHER				0.50		

ENERGY COSTS TO:

ILLINOIS DEPARTMENT OF TRANSPORTATION

201 WEST CENTER COURT SCHAUMBURG, ILLINOIS 60196-1096

ENERGY SUPPLY CONTACT: JUDY SCHOMER

PHONE: (847) 870 - 2063

COMPANY: COM. EDISON

TEMPORARY CABLE PLAN

THE CONTRACTOR SHALL USE TEMPORARY L.E.D. TRAFFIC SIGNALS WITH THIS INSTALLATION AS MANUFACTURED BY "GELCORE" TYPE G-1; OR AS APPROVED

F.A.U. RTE.	SECTION	1	COUNTY	TOTAL	SHEET NO.
1349	2006-041	TS	COOK	12	9
STA.		T	O STA.		
FED. ROA	O DIST. NO.	ILLINO	IS FED. AI	D PROJECT	
CONT	RACT NO.	60C	09		

TEMPORARY CABLE DIAGRAM LEGEND

TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)

TEMPORARY CONTROLLER CABINET

TEMPORARY SERVICE INSTALLATION

INDICATES NUMBER OF CONDUCTORS
IN CABLE. ALL CONDUCTORS TO BE
NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.

■ EMERGENCY VEHICLE LIGHT DETECTOR

◆◆ CONFIRMATION BEACON

VEHICLE DETECTOR, INDUCTION LOOP

PEDESTRIAN PUSHBUTTON DETECTOR

D A

12" (300 MM) PEDESTRIAN SIGNAL SECTION

V VIDEO DETECTION CAMERA

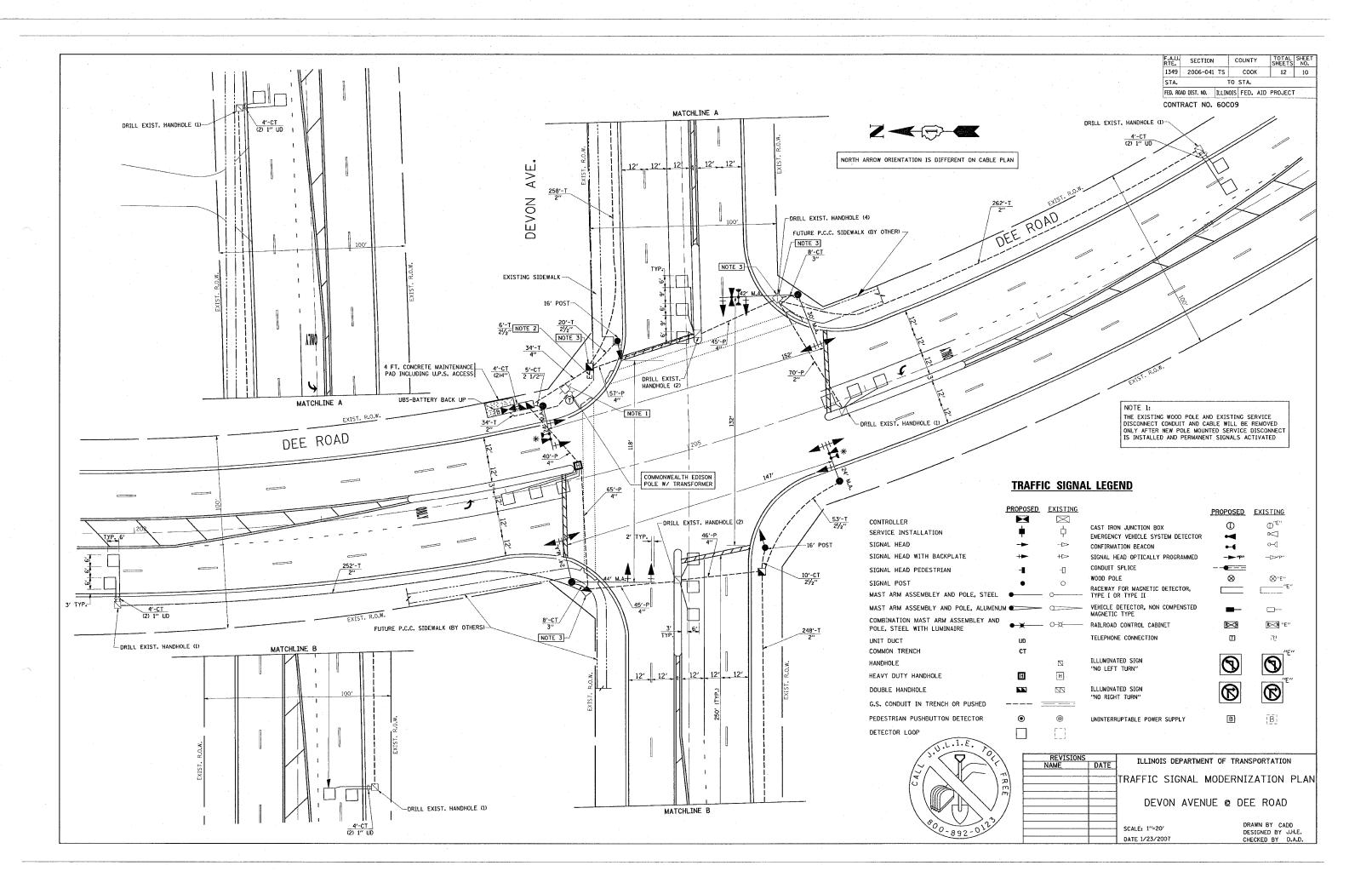
NOTES FOR TEMPORARY TRAFFIC SIGNALS

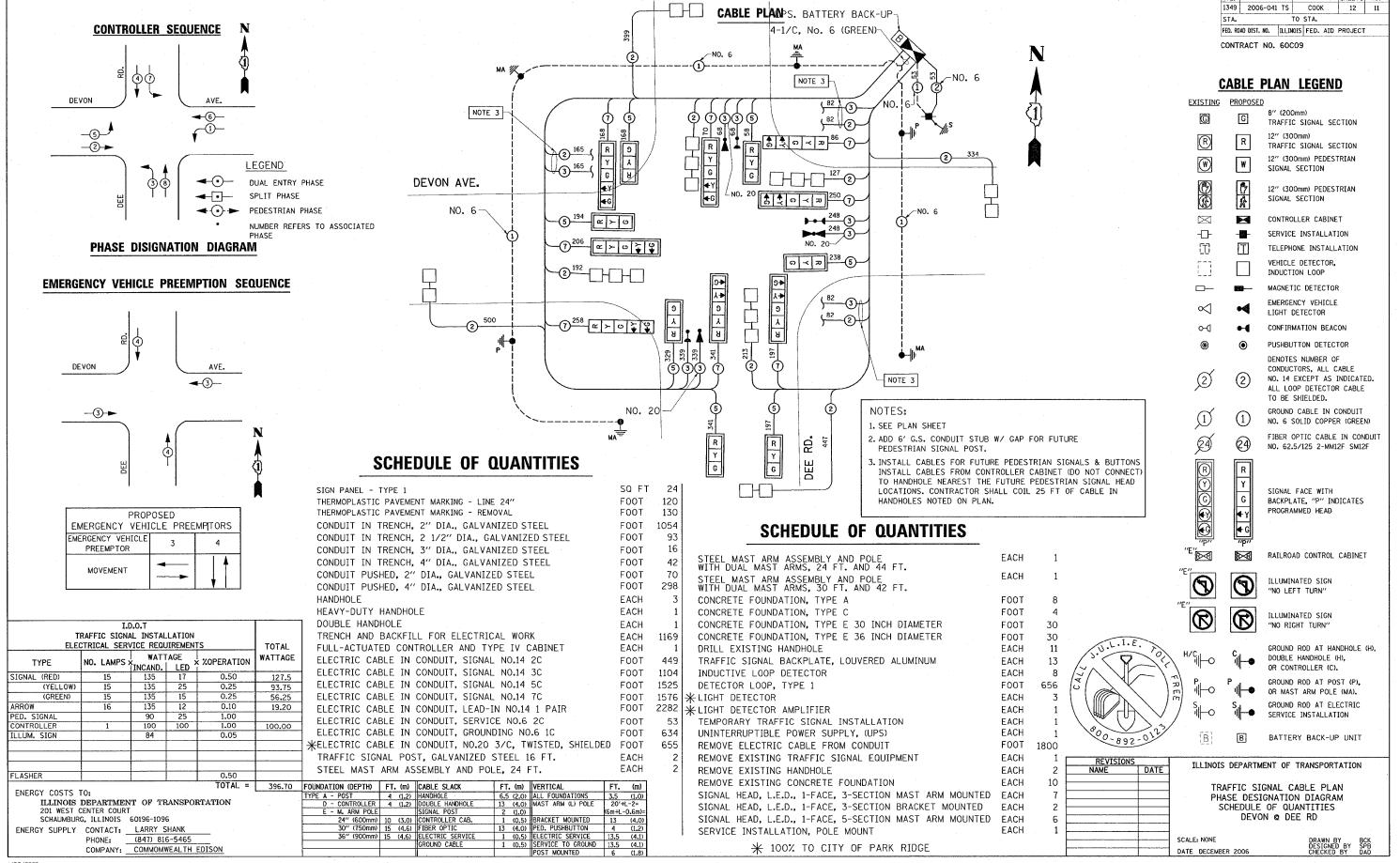
- 1. ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- 2. ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR THE USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATABLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS1 OR TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- 3. ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE 12". HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS INDICATED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE THE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- 4. ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SIGNAL SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- 5. ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMULAR BRAND CONTROL EQUIPMENT.
- 6. THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.

REVISIONS	ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME DA	TECHNOIS DELAKTMENT OF TRANSPORTATION
	TEMPORARY TRAFFIC SIGNAL CABLE PLAN
	AND PHASE DESIGNATION DIAGRAM
	DEVON @ DEE RD
	SCALE: NONE DRAWN BY BESTONED BY SPE CHECKED BY DATE 1/30/2007 CHECKED BY DAG

1/30/2007

c:\pro Jects\trafftc\t0600i3\devan@dee.dgn





COUNTY

SECTION

16:51:17 01/23/2007

1/23/2007 c:\projects\traffic\t060013\devon@dee.dgn

4. ALL BORDERS SHALL BE 3/4" WIDE AND CORNER RADIUS SHALL BE 2-1/4". 5. SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND

CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND

CHICAGO HEIGHTS, IL

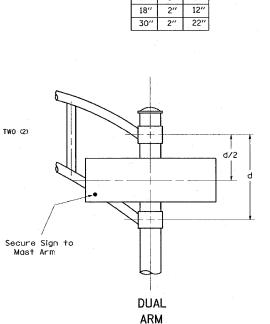
CICERO, IL

* WESTERN TRAFFIC CONTROL INC.

PART #HPN053 (MED. CHANNEL) $^{1}\!/_{4}'' \times 14 \times 1''$ H.W.H. *3 SELF TAPPING WITH NEOPRENE WASHER

PART #HPN034 (UNIVERSAL)

COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.



SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM Shall be used. See Note #5.

Upper Case to Lower Case Spacing Chart 8-6 Inch Series "C & D"

							SEC	ONI	L	ETT	ER						
	•	a c		b h m n ;		f	w	j	i	S	†	· V	У	>	<	2	Z
	SERIES	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D
1	AWX	12	14	14	15	12	14	06	10	11	14	O _e	10	1 ¹	12	12	14
	В	14	15	20	21	14	1 ⁵	11	12	14	15	1 ²	14	12	14	16	17
	CEG	14	15	20	21	12	14	06	10	12	14	1 ²	14	14	1 ⁵	14	1 ⁵
F	DOQR	14	15	20	21	14	1 ⁵	06	10	12	14	1 ²	14	1 ⁴	1 ⁵	14	1 ⁵
İ	F	05	06	14	1 ⁵	06	10	05	06	O e	10	O _e	10	06	10	1 ¹	12
FIRST	HIMN	20	2 ¹	2.2	24	20	2 ¹	14	1 ⁵	16	17	1 ⁶	17	20	2 ¹	20	21
],'	JU	2 0	21	20	21	16	17	14	1 ⁵	1 ⁶	17	16	17	16	17	20	2 ¹
Ē	KL	11	12	16	17	11	12	05	06	11	12	11	1 ²	11	12	12	14
JUTTER	Р	12	14	14	1 ⁵	1 ²	14	05	06	11	12	11	12	12	14	1 ²	14
R	S	12	14	16	17	12	14	06	10	1 ²	14	12	14	12	14	12	14
	T	11	12	16	17	06	10	06	10	11	12	11	12	1 ¹	12	12	14
	٧	06	10	14	15	11	12	06	⊢	12	14	12	14	12	14	12	14
	Υ	05	06	14	15	06	10	05	06	05	07		06	06	-	1 ¹	12
	Z	1 ⁶	17	2 ²	24	1 ⁶	17	12	14	16	17	16	17	1 ⁶	17	20	21

Lower Case to Lower Case Spacing Chart 6 Inch Series "C & D"

			SECOND LETTER														
			d e o q	b h m n p		f	w		1	s	†	٧	У	>	<	Ž	<u>z</u>
	SERIES	С	D	С	D	С	D	С	D	С	D	С	D	С	D	С	D
F	adhgij Imnqu	16	17	22	24	16	1 ⁷	12	14	14	15	14	1 ⁵	16	17	1 ⁶	17
I R S		12	14	16	17	11	12	05	Oe	11	12	11	12	12	14	12	14
T	Се	12	14	16	17	12	14	06	10	12	14	12	14	12	14	12	14
F	r	06	10	12	14	06	10	03	03	05	06	05	Oe	06	10	Oe	10
E	† z	12	14	16	17	12	14	06	10	11	12	11	12	12	14	12	14
Ė	νу	11	12	14	15	11	12	05	Oe	06	10	06	10	11	12	11	12
"	w .	11	12	14	15	11	12	05	06	11	12	11	12	11	12	12	14
L	×	12	14	16	17	11	12	05	06	11	12	11	12	11	12	12	14

Number to Number Spacing Chart 8 Inch Series "C & D"

. [SE	COI	ND	NU	МВ	ER							
)		l	2	2	7	3	. 4	1	5	5	6	ζ.	7	7	8	}	ç)
	ı.	SERI	ΞS	С	D	С	D	C	D	С	D	С	D	С	D	C	О	С	D	C	D	C	D
	F	0 9		16	17	16	17	14	1 ⁵	12	14	14	1 ⁵	14	1 ⁵	16	17	12	14	1 ⁶	17	16	17
	R	1		2 ⁰	2 ¹	2 ⁰	2 ¹	2 ⁰	21	1 ⁶	17	14	1 ⁵	20	21	2 ⁰	21	14	15	2 ⁰	2 ¹	20	2 ¹
	T	2 3	4	14	1 ⁵	14	1 ⁵	14	1 ⁵	12	14	12	14	14	1 ⁵	14	1 ⁵	1 ¹	12	1 ⁶	17	14	1 ⁵
	N	5		14	15	14	1 ⁵	14	1 ⁵	1 ¹	12	1 ¹	1 ²	14	1 ⁵	14	1 ⁵	11	1 ²	14	1 ⁵	14	1 ⁵
	M B	6		16	17	14	1 ⁵	14	1 ⁵	12	1 ⁵	1 ²	14	14	1 ⁵	14	1 ⁵	1 ¹	1 ²	14	1 ⁵	14	1 ⁵
	E R	7		12	14	12	14	14	1 ⁵	12	1 ⁵	0 ⁵	06	1 ²	14	14	1 ⁵	11	1 ²	14	1 ⁵	1 ²	14
		8		1 ⁶	17	16	17	14	1 ⁵	12	1 ⁵	1 ²	14	14	1 ⁵	1 ⁶	17	1 ²	14	1 ⁶	17	14	1 ⁵

EXAMPLE, 2^{3} DENOTES $\frac{3''}{8}$

	CO	NTRACT	NO.	60	CO9
SECTION	C	OUNTY	TO SHE	TAL ETS	SHEET NO.
2006-041	TS	соок	1	2	12
	TO	STA.			
D DIST. NO.	LLINOIS	FED. AI	PRO	JECT	
	2006-041	SECTION C 2006-041 TS TO	SECTION COUNTY 2006-041 TS COOK TO STA.	SECTION COUNTY TO SHE	2006-041 TS COOK 12 TO STA.

UPPER AND LOWER CASE LETTER WIDTHS

	6 INCH	UPPER		H UPPER	L	6 INCH LOWER			
E T T E R S		ETTERS		LETTERS	L E T E		ETTERS		
,E	SERIES		SE	RIES	E R S	SERIES			
S.	С	D	С	D -	R S	С	D		
A	36	50	50	65	. а	35	42		
В	32	40	43	53	ь	35	42		
С	32	40	43	53	c	35	41		
D	32	40	43	53	d	35	4 ²		
E	30	3 ⁵	40	47	ө	3 ⁵	42		
F	30	35	40	47	f	23	26		
G	3 ²	40	43	53	g	35	4 ²		
H .	3 ²	40	43	53	h	35	42		
I	07	07	11	12	ī	1 ¹	1 ¹		
J	30	36	40	50	·J	20	22		
K	32	41	43	54	k	35	42		
L	30	35	40	47	ı	11	11		
M	37	45	51	61	. m	60	70		
N	3 ²	40	43	5 ³	n	35	42		
0	34	42	45	55	0	36	43		
Р	3 ²	40	43	53	P	35	42		
Q	34	42	45	55	q	35	42		
R	3 ²	40	43	53	r	26	32		
S	32	40	43	53	s	36	42		
Т	30	3 ⁵	40	47	†	27	32		
U	32	40	43	53	u	35	42		
٧	35	44	47	60	· v	42	47		
W	44	5 ²	60	70	w	55	64		
Х	3 4	40	45	53	×	44	51		
Y	36	50	50	66	У	46	53		
Z	3 2	40	43	53	z	36	43		

NU	6 INCH	SERIES	8 INCH SERIES				
N _U MBER	С	D	С	D			
1	12	14	1 ⁵	20			
2	3 ²	40	43	53			
3	32	40	43	53			
4	35	43	47	57			
5	32	40	43	53			
6	32	40	43	53			
7	3 ²	40	43	53			
8	3 ²	40	43	53			
9	32	40	43	53			
0	34	4 ²	45	55			

REVISION	IS
NAME	DATE
CREATED	2/79
D.A.Z./ D.A.G.	11/90
	6/98
CADD	10/00

ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT 1 MAST ARM MOUNTED STREET NAME SIGNS

SCALE: NONE DATE: 1/23/2007 DRAWN BY TJR CHECKED BY RFK

FINAL REVISIONS DECEMBER, 2006

DATE NAME SCALE NAME PLOT FILE PLOT USER

* A.K.T. CORPORATION

SCHAUMBURG, IL

* TUCKER COMPANY, INC.

WAUWATOSA, WI

PARTS LISTING SIGN CHANNEL

SIGN SCREWS

BRACKETS

REVISION DATE: 10/01/00