

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-I-1	KANE	35	1
ILLINOIS		CONTRACT NO. 60J42		

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

# PROPOSED HIGHWAY PLANS

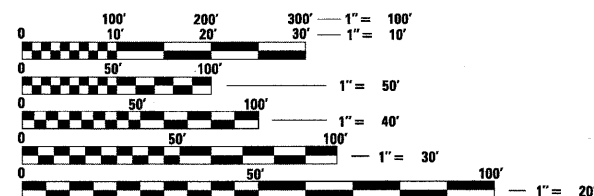
FAP ROUTE 573 (ROUTE 30)  
OVER WELCH CREEK  
SECTION: 31B-I-1  
BRIDGE DECK OVERLAY  
STRUCTURE NO. 045-0034  
KANE COUNTY

C-91-232-10

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN KANE COUNTY  
IN THE VILLAGE OF BIG ROCK, IL

ADT = 12,200 (2009)  
SPEED LIMIT = 55 MPH



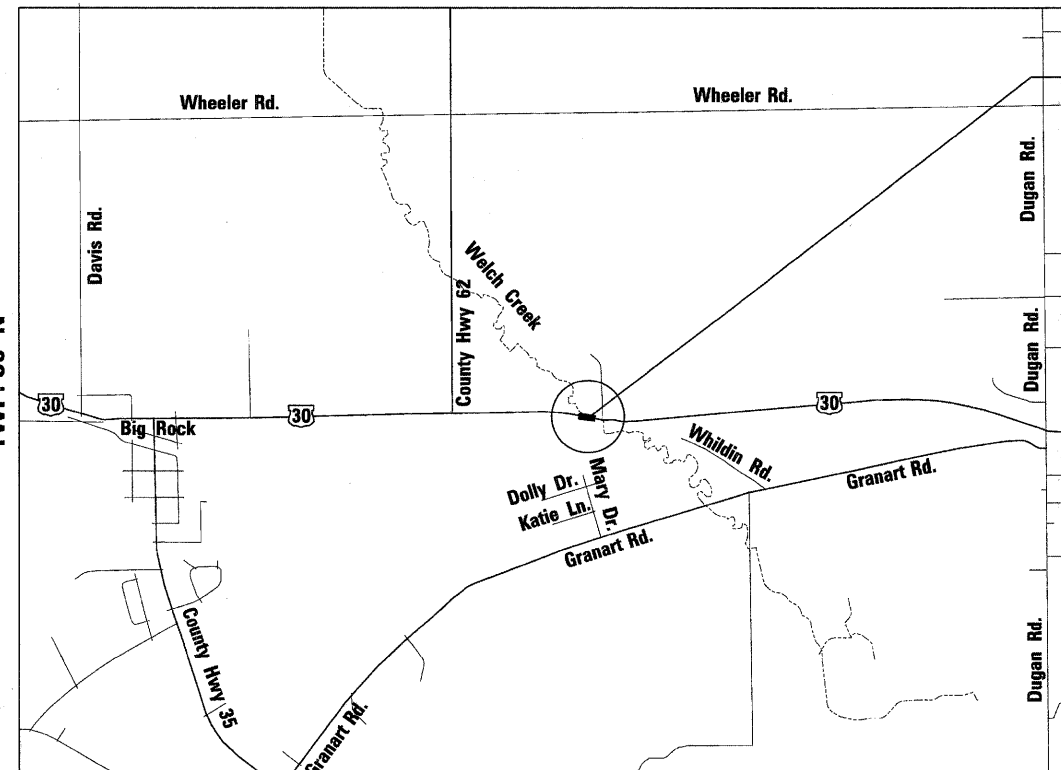
FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD  
ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT  
CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS  
ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811



*Robert J. Loehr*  
ROBERT J. LOEHR, S.E., P.E.  
DATE: 03/08/2010  
EXP. 11/30/2010  
SHEETS: 8-13

TWP. 38 N



BIG ROCK TOWNSHIP

GROSS LENGTH = 110.10 FT. = 0.021 MILE  
NET LENGTH = 110.10 FT. = 0.021 MILE

PROPOSED  
IMPROVEMENT



*Thomas P. Paolicchi*  
THOMAS P. PAOLICCHI, P.E.  
DATE: 03/08/2010  
EXP. 11/30/2011  
SHEETS: 1-7

D-91-232-10



LOCATION OF SECTION INDICATED THUS: —■—

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED MARCH 12 20 10  
*Diana M. O'Keefe* DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER  
May 7 20 10  
*Scott E. Stitt, P.E.* acting ENGINEER OF DESIGN AND ENVIRONMENT  
May 7 20 10  
*Christine M. Reed* DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT MANAGER: HELEN PAZON (847) 705-4523

CONTRACT NO. 60J42



PRINTED BY THE AUTHORITY  
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

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2	INDEX OF SHEETS, STATE STANDARDS AND GENERAL NOTES
3	SUMMARY OF QUANTITIES
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5	STAGE 1 MAINTENANCE OF TRAFFIC
6	STAGE 2 MAINTENANCE OF TRAFFIC
7	PROPOSED PAVEMENT MARKING PLAN
8-13	STRUCTURE DRAWINGS
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15	TEMPORARY CABLE PLAN & TEMPORARY PHASE DESIGNATION DIAGRAM
16	TEMPORARY ROADWAY LIGHTING NOTES
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18	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT
19	BUTT JOINTS AND HMA TAPER
20	TEMPORARY LIGHTING
21	TEMPORARY AERIAL CABLE INSTALLATION
22-24	TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING
25	TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS AND DRIVEWAYS
26	DISTRICT ONE TYPICAL PAVEMENT MARKINGS
27	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING
28	SIGNING AND FLAGGING OPERATIONS AT WORK ZONE OPENINGS
29	DRIVEWAY ENTRANCE SIGNING
30-35	STANDARD TRAFFIC SIGNAL DESIGN DETAILS (6 SHEETS)

STATE STANDARDS

STANDARD NO.	DESCRIPTION
000001-05	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
280001-05	TEMPORARY EROSION CONTROL SYSTEMS
482001-02	HMA SHOULDER ADJACENT TO FLEXIBLE PAVEMENT
635011-02	REFLECTOR MARKER AND MOUNTING DETAILS
701006-03	OFF-RD OPERATIONS 2L, 2W , 15' TO 24" FROM PAVEMENT EDGE
701301-03	LANE CLOSURE, 2L, 2W SHORT TIME OPERATIONS
701321-10	LANE CLOSURE, 2L, 2W BRIDGE REPAIR WITH BARRIER
701331-03	LANE CLOSURE, 2L, 2W WITH RUN AROUND, FOR SPEED ≥45MPH
701901-01	TRAFFIC CONTROL DEVICES
704001-06	TEMPORARY CONCRETE BARRIER
720001-01	SIGN PANEL MOUNTING DETAILS
720006-02	SIGN PANEL ERECTION DETAILS
720011-01	METAL POSTS FOR SIGNS, MARKERS AND DELINEATORS
728001-01	TELESCOPING STEEL SIGN SUPPORTS
729001-01	APPLICATIONS OF TYPE A AND B METAL POSTS (FOR SIGNS AND MARKERS)
731001-01	BASE FOR TELESCOPING STEEL SIGN SUPPORT
780001-02	TYPICAL PAVEMENT MARKINGS
781001-03	TYPICAL APPLICATIONS RAISED PAVEMENT MARKERS

GENERAL NOTES - ROADWAY

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "J.U.L.I.E." AT (800) 892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS UTILITIES. (48 HOUR NOTIFICATION IS REQUIRED.)
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- ALL DAMAGE TO EXISTING PAVEMENT MARKING OR RAISED REFLECTIVE PAVEMENT MARKERS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- WHEN MILLED PAVEMENT IS OPENED TO TRAFFIC THE MAXIMUM GRADE DIFFERENTIAL BETWEEN PASSES OF THE MILLING MACHINE SHALL NOT EXCEED 1 1/2 INCHES WHERE THE SPEED LIMIT IS 45 MPH OR LESS AND 1 INCH WHERE THE SPEED LIMIT IS GREATER THAN 45 MPH. WITH WRITTEN APPROVAL FROM THE ENGINEER, A MAXIMUM GRADE DIFFERENTIAL OF 3 INCHES MAY BE ALLOWED IF THE EDGE OF THE MILLING IS SLOPED A MINIMUM 1:3 (V:H).
- BUTT JOINTS WILL BE INSTALLED AT THE ENDS OF ALL RESURFACING (WHERE RESURFACING MEETS EXISTING PAVEMENT). IN ACCORDANCE WITH "BUTT JOINT AND HOT- MIX ASPHALT TAPER DETAILS" SHEET INCLUDED IN THE PLANS, UNLESS OTHERWISE SPECIFIED.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT ONE TRAFFIC CONTROL SUPERVISOR AT (847) 705-4470 A MINIMUM OF 72 HOURS IN ADVANCE OF BEGINNING WORK.
- WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREA.
- BEFORE BEGINNING ANY WORK, THE CONTRACTOR SHALL RETAIN AND RECORD (FOR FUTURE REFERENCES), ALL EXISTING PAVEMENT MARKING LINES AND RAISED REFLECTIVE PAVEMENT MARKERS IN ORDER THAT THESE LOCATIONS CAN BE RE- ESTABLISHED FOR STRIPING. EXACT LOCATIONS OF ALL STRIPING SHALL BE AS DIRECTED BY THE ENGINEER.
- THE ENGINEER SHALL CONTACT DON CHIARUGI TRAFFIC FIELD ENGINEER (OR TECHNICIAN), AT (847) 741-9857 A MINIMUM OF TWO WEEKS PRIOR TO PLACEMENT OF PERMANENT PAVEMENT MARKINGS.
- THE "ADVANCE WARNING SIGN DETAIL FOR ARTERIAL TRAFFIC" LOCATED IN THE SPECIAL PROVISIONS FOR "TEMPORARY INFORMATION SIGNING FOR LANE CLOSURES" IS APPLICABLE ONLY TO ARTERIAL ROADS.
- DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- THESE PLANS HAVE BEEN PREPARED FROM NOTES RECEIVED FROM DISTRICT 1 BRIDGE INSPECTORS.
- PAVEMENT MARKING TAPE, TYPE III SHALL BE USED FOR TEMPORARY PAVEMENT MARKINGS ON ALL FINAL SURFACES. THE COST OF THE PAVEMENT MARKING TAPE, TYPE III AND ITS REMOVAL SHALL BE INCLUDED IN THE COST OF TEMPORARY PAVEMENT MARKING.
- SAW CUTTING OF PAVEMENTS, SHOULDERS, ETC., SHALL BE TO FULL DEPTH AND SHALL RESULT IN A CLEAN, STRAIGHT EDGE ON THE PORTION REMAINING. THE COST OF SAW CUTTING REMOVAL ITEMS SHALL BE INCLUDED IN THE UNIT PRICES OF THESE ITEMS.

GENERAL NOTES - TRAFFIC CONTROL & PROTECTION

- STAGING PROCEDURES PRESENTED ARE THE SUGGESTED SEQUENCE OF OPERATIONS. AT HIS OPTION, THE CONTRACTOR MAY SUBMIT AN ALTERNATIVE STAGING PROPOSAL TO THE ENGINEER FOR HIS APPROVAL.
- TRAFFIC CONDITIONS, ACCIDENTS AND OTHER UNFORESEEN EMERGENCY CONDITIONS MAY REQUIRE THE ENGINEER TO RESTRICT, MODIFY OR REMOVE LANE CLOSURES OF CHANNELIZATION SHOWN IN THE PLANS. THE CONTRACTOR SHALL MAKE THE NECESSARY ADJUSTMENTS AS DIRECTED BY THE ENGINEER WITHOUT DELAY. THE CONTRACTOR SHALL RESPOND TO ANY REQUEST MADE BY THE ENGINEER FOR CORRECTION WITHIN TWO HOURS FROM THE TIME OF NOTIFICATION.
- ALL TEMPORARY PAVEMENT MARKINGS PROPOSED WITHIN THE WORK AREA SHALL BE COMPLETED PRIOR TO THE CONSTRUCTION PHASE CHANGE.
- BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED - ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL.



9901 S. Western Ave.  
Chicago, IL 60643  
Ph. 773-881-4788  
F: 773.239.3728

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DRAWN	JS	REVISED	-
CHECKED	TPP	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US RTE. 30 OVER WELCH CREEK  
STRUCTURE NO. 045-0034

INDEX OF SHEETS, STANDARDS  
AND GENERAL NOTES

SCALE: NONE SHEET NO. 2 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-I-1	KANE	35	2
CONTRACT NO. 60J42				
ILLINOIS FED. AID PROJECT				

CODE NO.	ITEM DESCRIPTION	UNIT	URBAN	CONSTRUCTION
			TOTAL QUANTITY	CODE TYPE
				BRIDGE
				SN 045-0034
				100% STATE
				SFTY-2A
<del>20700420</del>	POROUS GRANULAR EMBANKMENT, <del>SUBGRADE</del>	CU YD	266	266
21101600	TOPSOIL FURNISH AND PLACE, VARIABLE DEPTH	SQ YD	444	444
25000200	SEEDING, CLASS 2	ACRE	0.1	0.1
28300510	EROSION CONTROL FIBER BLANKET	SQ YD	444	444
31102100	SUB BASE GRANULAR MATERIAL, TYPE C 4"	SQ YD	512	512
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	90	90
<del>40600100</del>	BITUMINOUS MATERIALS (PRIME COAT)	GALLON	58	58
40600982	HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT	SQ YD	392	392
40603085	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	TON	115	115
40603340	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70	TON	79	79
<del>44000157</del>	<del>HOT-MIX ASPHALT SURFACE REMOVAL, 2"</del>	<del>SQ YD</del>	<del>182</del>	<del>182</del>
44004250	PAVED SHOULDER REMOVAL	SQ YD	73	73
<del>44201843</del>	CLASS D PATCHES, TYPE <del>III</del> , 16" INCH	SQ YD	32	32
50102400	CONCRETE REMOVAL	CU YD	14.0	14.0
50300100	FLOOR DRAINS	EACH	6	6
50300255	CONCRETE SUPERSTRUCTURE	CU YD	11.8	11.8
50300260	BRIDGE DECK GROOVING	SQ YD	230	230
50300300	PROTECTIVE COAT	SQ YD	245	245
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	<del>3670</del>	<del>3670</del>
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTION 12"	EACH	1	1
5422A012	PIPE CULVERTS, CLASS A, TYPE 2 12" (TEMPORARY)	FOOT	89	89
<del>67000400</del>	ENGINEER'S FIELD OFFICE, TYPE <del>A</del>	CAL MO	<del>3</del>	<del>3</del>
67100100	MOBILIZATION	L SUM	1	1
		EACH	1	1
<del>70101800</del>	TRAFFIC CONTROL AND PROTECTION, <del>(SPECIAL)</del>	L SUM	1	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	<del>85</del>	<del>85</del>
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	<del>3</del>	<del>3</del>

☒ SPECIALTY ITEM

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* SPECIAL PROVISION
** GUIDE BRIDGE SPECIAL PROVISION
*** BDE SPECIAL PROVISION
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**ABNA**  
DESIGN FIRM REG. 184.002117

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**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**US RTE. 30 OVER WELCH CREEK  
STRUCTURE NO. 045-0034**

## SUMMARY OF QUANTITIES

F.A.P. RTE.	573
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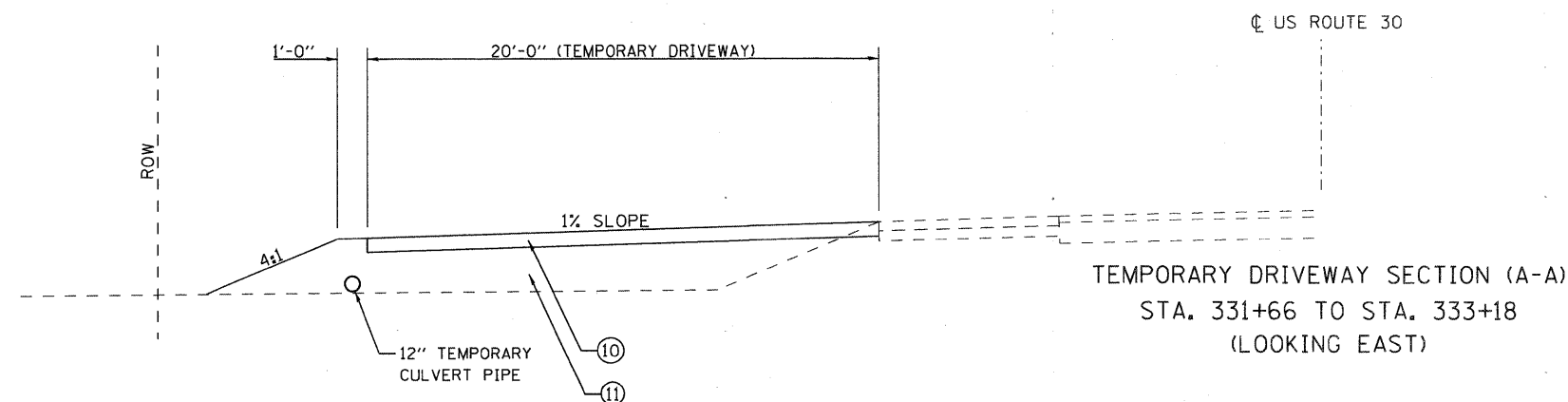
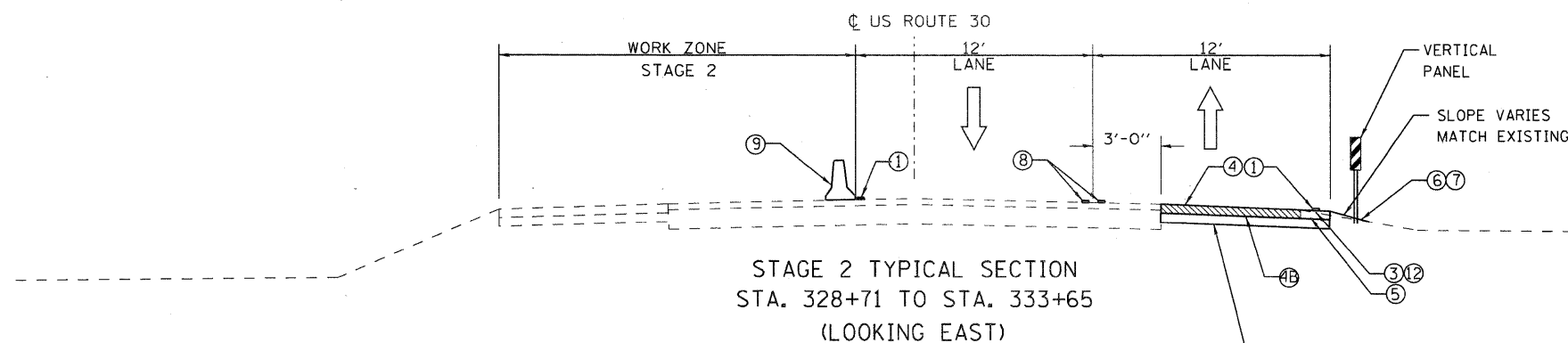
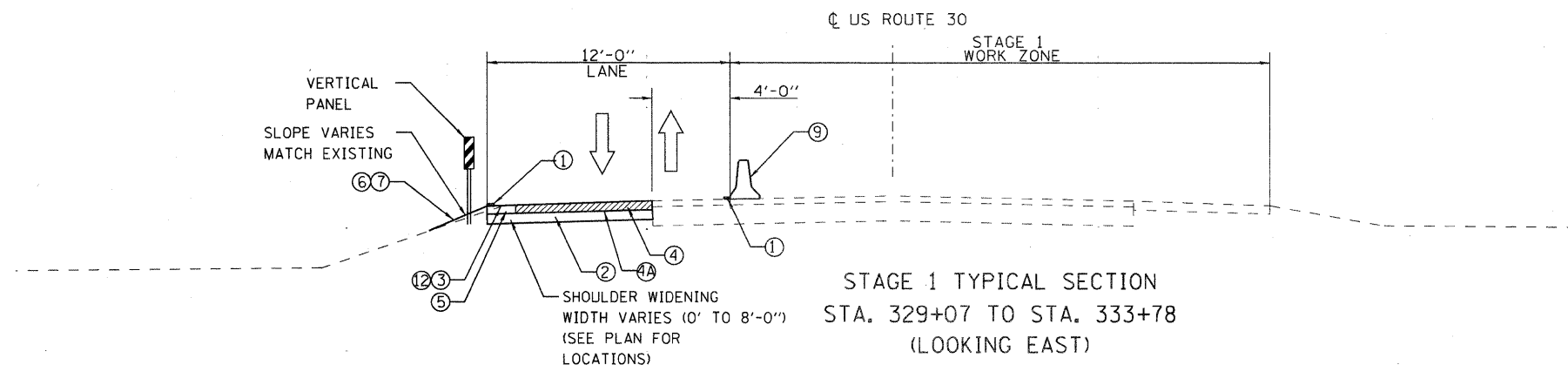
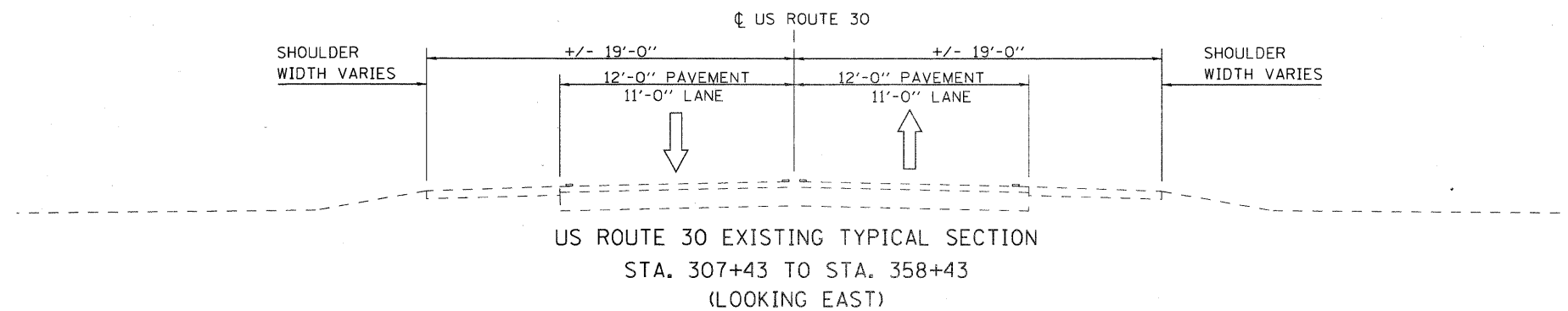
SECTION  
31B-I-1

COUNT  
KAN

TOTAL SHEETS	SHEET NO.
35	3

CONTRACT NO. 60J42

CODE NO.	ITEM DESCRIPTION	UNIT	URBAN	CONSTRUCTION
			TOTAL QUANTITY	CODE TYPE
				BRIDGE
				SN 045-0034
				100% STATE
				SFTY-2A
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	3063	3063
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	1020	1020
70400100	TEMPORARY CONCRETE BARRIER	FOOT	350	350
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	325	325
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	2920	2920
78201000	TERMINAL MARKER-DIRECT APPLIED	EACH	15	15
78300100	PAVEMENT MARKING REMOVAL	SQ FT	973	973
X0320887	POLYMER CONCRETE	CU FT	4.0	4.0
X0322489	BRIDGE DECK LATEX CONCRETE OVERLAY, 2-1/2 INCHES	SQ YD	245	245
X0325305	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	208	208
Z0001800	APPROACH SLAB REPAIR (PARTIAL DEPTH)	SQ YD	3	3
Z0006225	BRIDGE DECK HYDRO-SCARIFICATION 2 1/2"	SQ YD	245	245
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE 1)	SQ YD	8	8
Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
Z0030330	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2
80400100	ELECTRICAL SERVICE INSTALLATION	EACH	1	1
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	1
81603210	UNIT DUCT, 606V, 3-1C NO.4, 1/C NO. 6 GROUND (EPR-TYPE RHW), 1 1/4" DIA. POLYETHYLENE	FOOT	269	269
81800320	AERIAL CABLE, 3-1/C NO. 4 WITH MESSENGER WIRE	FOOT	915	915
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	175	175
82103400	LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT	EACH	6	6
83057250	LIGHT POLE, WOOD, 45 FOOT, CLASS 4	EACH	1	1
83057355	LIGHT POLE, WOOD, 60 FOOT, CLASS 4, WITH 15 FT MAST ARM	EACH	6	6
84100110	REMOVAL OF TEMPORARY LIGHTING UNIT	EACH	6	6
X0322256	TEMPORARY INFORMATION SIGNING	SQ FT	50	50
X0323574	MAINTENANCE OF LIGHTING SYSTEM	CAL MO	3	3
X0325737	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1
X0326135	ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1	1
X8900005	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1	1



HOT-MIX ASPHALT MIXTURE REQUIREMENTS	
MIXTURE TYPE	AIR Voids @ndes
HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N70, (IL-9.5mm)	4% @ 70 Gyr.
HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N70	4% @ 70 Gyr.
CLASS D PATCHES (HMA BINDER IL-19.0mm)	4% @ 70 Gyr.

THE UNIT WEIGHT TO CALCULATE ALL HMA SURFACE MIXTURE QUANTITIES IS 112 LBS/SQ YD/IN.

THE "AC TYPE" FOR POLYMERIZED HMA MIXES SHALL BE "SBS/SBR PG 70-22" AND FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64-22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR PERCENT OF RAP SEE DISTRICT ONE SPECIAL PROVISIONS. CONTRACTOR SHALL MILL BEFORE PATCHING.

#### LEGEND

- ① WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4" (WHITE)
- ② SUB-BASE GRANULAR MATERIAL, TYPE C, 4"
- ③ PROPOSED HMA SURFACE COURSE MIX "D", N70, 2"
- ④ HMA SHOULDER REMOVAL
- ④A REMOVE ASPHALT SHOULDER (STA. 330+42 TO STA. 330+72, STA. 331+55 TO STA. 331+93)
- ④B REMOVE ASPHALT SHOULDER (STA. 331+65 TO STA. 331+94)
- ⑤ HMA BINDER COURSE, IL-19.0, N70, 4"
- ⑥ PROPOSED TOPSOIL AND SEED SEEDING, CLASS 2A
- ⑦ PROPOSED EROSION CONTROL BLANKET
- ⑧ WET REFLECTIVE TEMPORARY TAPE, TYPE III, 4" (YELLOW)
- ⑨ TEMPORARY CONCRETE BARRIER
- ⑩ AGGREGATE FOR TEMPORARY ACCESS, 8"
- ⑪ POROUS GRANULAR EMBANKMENT, SUBGRADE
- ⑫ BIT. MATERIALS (PRIME COAT)

#### NOTE

1. TEMPORARY WIDENING SHALL REMAIN IN PLACE AFTER WORK IS COMPLETE.
2. SEE SHEET 9 "CONSTRUCTION STAGING" FOR BRIDGE STAGING.



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DESIGNED	TS	REVISED	-
CHECKED	RJL	REVISED	-
DRAWN	JS	REVISED	-
CHECKED	TPP	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US RTE. 30 OVER WELCH CREEK  
STRUCTURE NO. 045-0034

MAINTENANCE OF TRAFFIC  
STAGING SECTIONS

SCALE: NONE SHEET NO. 4 OF 7 SHEETS

STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-1-1	KANE	35	4
CONTRACT NO. 60J42				
ILLINOIS FED. AID PROJECT				




## GENERAL NOTES

1. ERECT CONSTRUCTION SIGNALS INCLUDING REDUCED SPEED LIMIT SIGNS AND PREPARE FOR SHOULDER WORK UTILIZING TEMPORARY DAY TIME LANE CLOSURES.
2. ESTABLISH MOT UTILIZING IDOT STANDARDS FOR SHOULDER CLOSURES AND TEMPORARY DAY TIME LANE CLOSURES WITH FLAG MEN.
3. PREPARE SHOULDERS FOR STAGE CONSTRUCTION TRAFFIC. PERFORM SHOULDER REMOVAL AND REPLACEMENT WITH AGGREGATE BASE AND HMA AS SHOWN IN THE TYPICAL SECTIONS. COMPLETE THE NORTH SIDE, EAST AND WEST FROM BRIDGE, THEN COMPLETE THE SOUTH SIDE APPROACHES EAST AND WEST OF THE BRIDGE.
4. SET UP AND SEQUENCE TEMPORARY SIGNALS FOR SINGLE LANE STAGE 1 TRAFFIC AND TEST AND ENSURE OPERATIONAL. FARM ENTRANCE ON NORTH SIDE AND RESIDENTIAL ENTRANCE ON WEST SIDE SHALL BE INCLUDED IN SIGNAL SEQUENCING.
5. USING IDOT STANDARDS FROM TEMPORARY LANE CLOSURES, INSTALL TEMPORARY LANE MARKINGS AND TEMPORARY CONCRETE BARRIERS FOR STAGE 1 CONSTRUCTION.
6. MAKE TEMPORARY SIGNALS FULLY OPERATIONAL AND COMPLETE STAGE 1 CONSTRUCTION ON BRIDGE AND BRIDGE APPROACHES. MONITOR SIGNALS TO ENSURE FULLY OPERATIONAL 24 HOURS PER DAY.
7. TEMPORARY LANE CLOSURES MAY NOT COMMENCE UNTIL 8:30 A.M. AND MUST BE COMPLETED BY 4:30 P.M. DURING NORMAL MONDAY THROUGH FRIDAY WORK WEEKS.
8. THE CONTRACTOR SHALL REQUEST AT LEAST TWO WEEKS IN ADVANCE HIS REQUEST TO WORK WEEKENDS. ADDITIONAL MOT MAY BE REQUIRED FOR WEEKENDS.
9. THE CONTRACTOR SHALL REFERENCE IDOT STANDARDS 701006 AND 701301 FOR THE CONSTRUCTION OF THE TEMPORARY TRAFFIC SIGNALS PRIOR TO MOT STAGING



### LEGEND

 WORK AREA

1 SIGN ON PORTABLE SUPPORT

TYPE III BARRICADE

◀● TRAFFIC SIGNAL (SEE SIGNAL PLANS)

 IMPACT ATTENUATOR, TEMPORARY  
(NON-REDIRECTIVE). TEST LEVEL 3

US ROUTE 30

DRUM WITH STEADY BURNING LIGHT

TEMPORARY CONCRETE BARRIER

DOUBLE VERTICAL PANEL

◇ CRYSTAL, BI DIRECTIONAL  
BARRIER WALL/GUARDRAIL MARKER

 SHOULDER WIDENING

TYPE B MONO DIRECTIONAL  
FLASHING LIGHT, TYP.

W3-3(0)-48  
STA 340+43

FOLLOW HIGHWAY  
STANDARDS 701321-10

- ① TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
- ② BARRIER WALL/GUARDRAIL MARKERS AT 25' CTS. SEE STANDARDS 704001 & 635011.
- ③ TEMPORARY SHOULDER WIDENING (SEE TYPICAL SECTIONS)



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**US RTE. 30 OVER WELCH CREEK  
STRUCTURE NO. 045-0034**

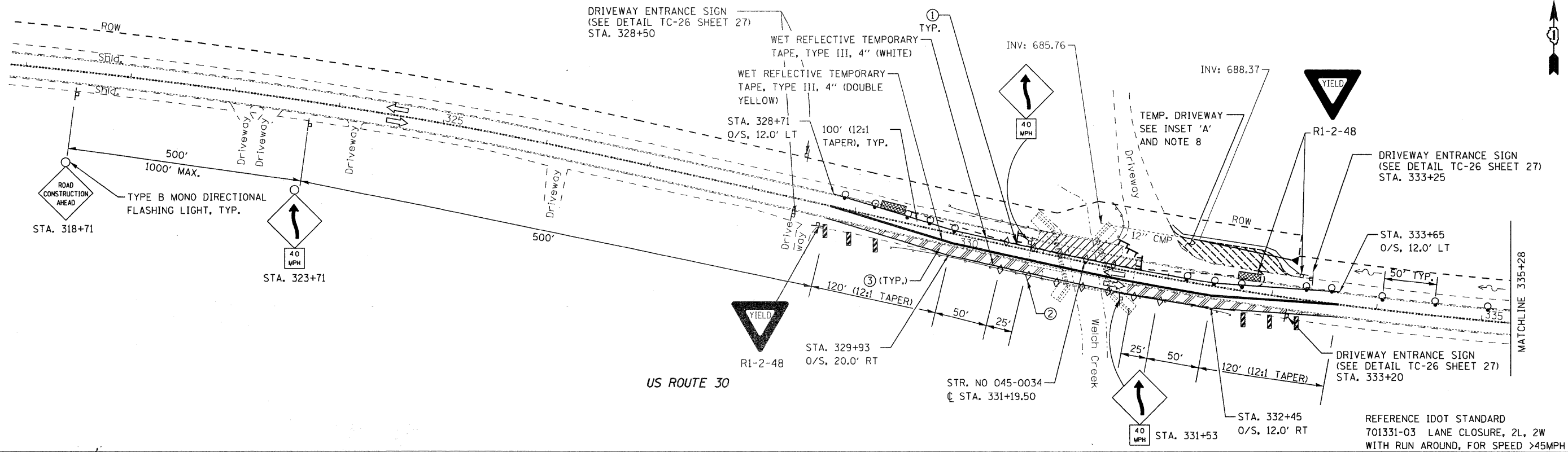
SCALE: 1" = 50'      SHEET NO. 5 OF 7 SHEETS

### STAGE 1 MAINTENANCE OF TRAFFIC

STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-1-1	KANE	35	5
		CONTRACT NO. 60J42		
		ILLINOIS FED. AID PROJECT		

ILLINOIS		FED. AID PROJECT
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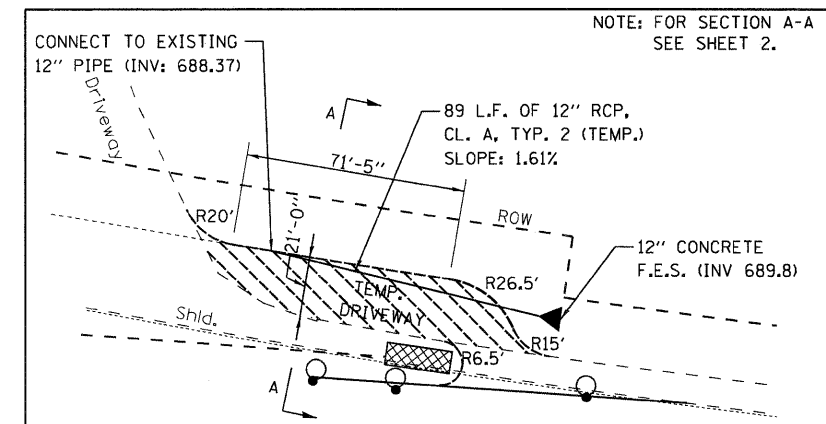
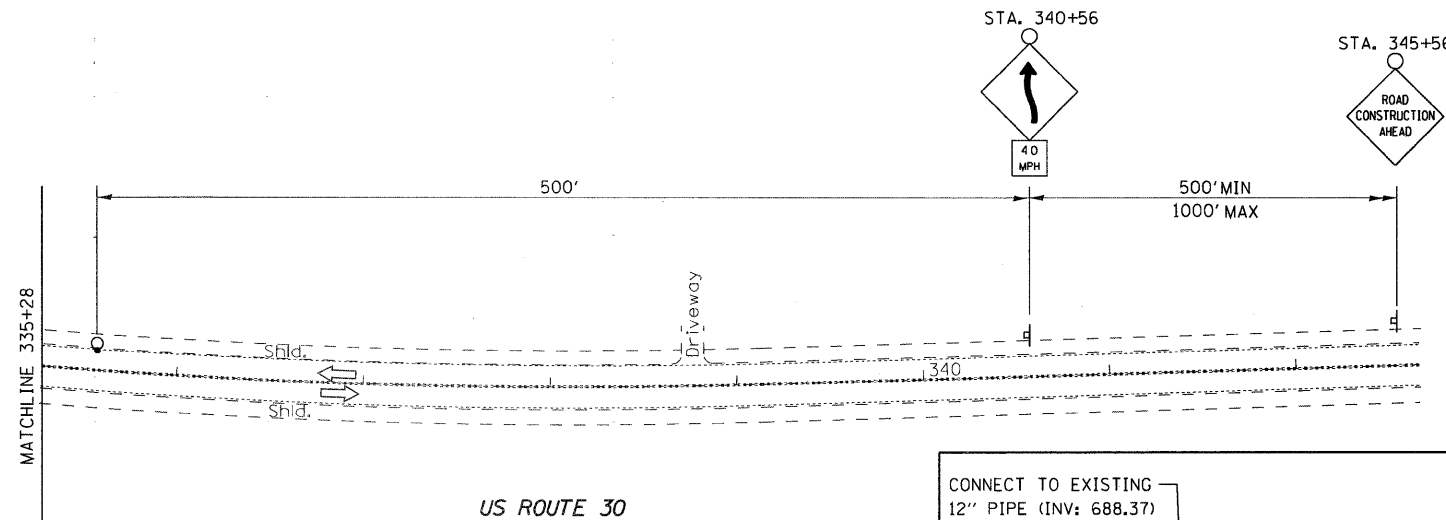
#### GENERAL NOTES

1. UTILIZING STANDARD IDOT TEMPORARY LANE CLOSURES WITH FLAG MEN, REMOVE TEMPORARY SIGNALS, REMOVE TEMPORARY LANE MARKINGS FROM STAGE 1 AND RELOCATE TEMPORARY CONCRETE BARRIERS FOR STAGE 2.
2. INSTALL TEMPORARY LANE MARKINGS FOR TWO 12'-0" LANES (ONE WEST BOUND, ONE EASTBOUND).
3. REVISE CONSTRUCTION SIGNING PER STANDARDS.
4. COMPLETE STAGE 2 CONSTRUCTION ON BRIDGE AND BRIDGE APPROACHES.
5. UTILIZING STANDARD IDOT TEMPORARY LANE CLOSURES WITH FLAG MEN, REMOVE TEMPORARY LANE MARKINGS FOR STAGE 2, REMOVE TEMPORARY CONCRETE BARRIERS AND INSTALL PERMANENT LANE MARKINGS.
6. TEMPORARY LANE CLOSURES MAY NOT COMMENCE UNTIL 8:30 A.M. AND MUST BE COMPLETED BY 4:30 P.M. DURING NORMAL MONDAY THROUGH FRIDAY WORK WEEKS.
7. THE CONTRACTOR SHALL REQUEST AT LEAST TWO WEEKS IN ADVANCE HIS REQUEST TO WORK WEEKENDS. ADDITIONAL MOT MAY BE REQUIRED FOR WEEKENDS.
8. THE EXISTING GARVEL DRIVEWAY IS TO BE TEMPORARILY RELOCATED FOR STAGE 2 CONSTRUCTION WITH EMBANKMENT AND AGGREGATE. THE DRIVEWAY IS TO BE RETURNED TO ITS ORIGINAL SIZE AND LOCATION AT THE COMPLETION OF STAGING.

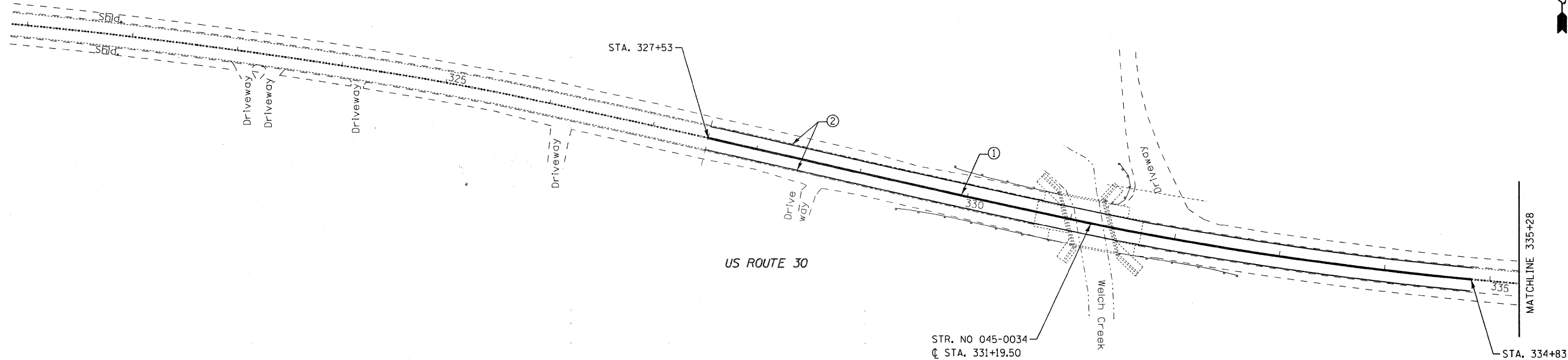
#### LEGEND

	WORK AREA		DRUM WITH STEADY BURNING LIGHT
	SIGN ON PORTABLE SUPPORT		TEMPORARY CONCRETE BARRIER
	TYPE III BARRICADE		DOUBLE VERTICAL PANEL
	IMPACT ATTENUATOR, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3		CRYSTAL, BI DIRECTIONAL BARRIER WALL/GUARDRAIL MARKER
	TEMPORARY DRIVEWAY RELOCATE		
	SHOULDER WIDENING		

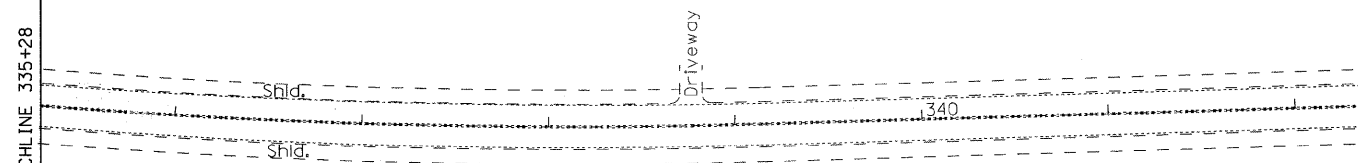
- ① TYPE III BARRICADE TO BE PLACED WHEN NO WORK IS BEING PERFORMED.
- ② BARRIER WALL/GUARDRAIL MARKERS AT 25' CTS. SEE STANDARDS 704001 & 635011.
- ③ TEMPORARY SHOULDER WIDENING (SEE TYPICAL SECTIONS)



INSET A  
SCALE: 1" = 30'



MATCHLINE 335+28



US ROUTE 30

LEGEND

- ① THERMOPLASTIC PAVEMENT MARKING LINE 4" (DOUBLE YELLOW).
- ② THERMOPLASTIC PAVEMENT MARKING LINE 4" (WHITE).



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F: 773.239.3728

DESIGNED	TS	REVISED	-
CHECKED	TPP	REVISED	-
DRAWN	JS	REVISED	-
CHECKED	TPP	REVISED	-

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US RTE. 30 OVER WELCH CREEK  
STRUCTURE NO. 045-0034

SCALE: 1" = 50' SHEET NO. 7 OF 7 SHEETS

PROPOSED PAVEMENT  
MARKING PLAN

STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-1-1	KANE	35	7
CONTRACT NO. 60J42				
ILLINOIS FED. AID PROJECT				

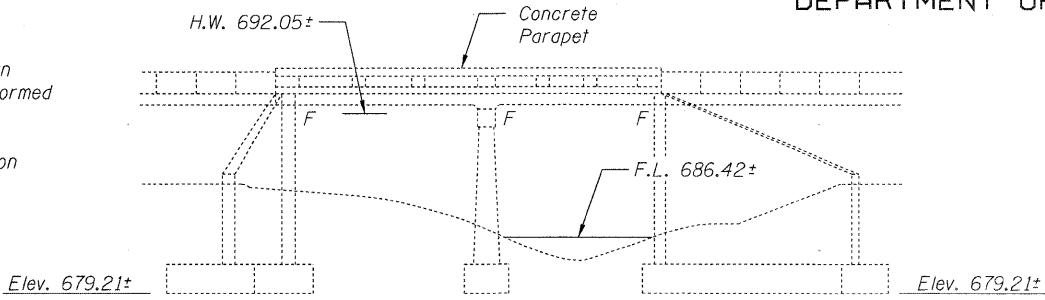


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

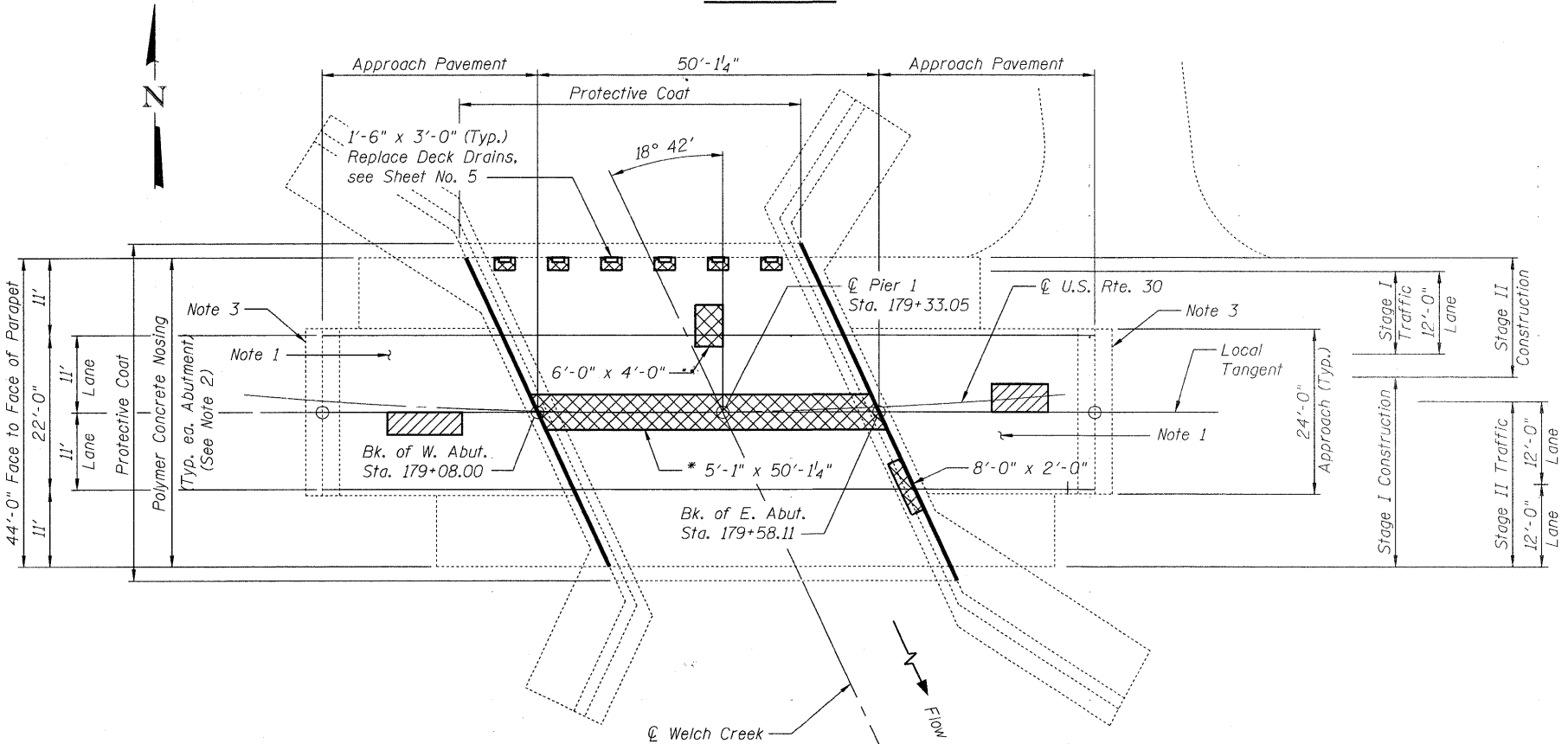
**NOTE**

The limits and locations of the repairs shown are taken from the most recent survey performed by the District on October 27, 2009.

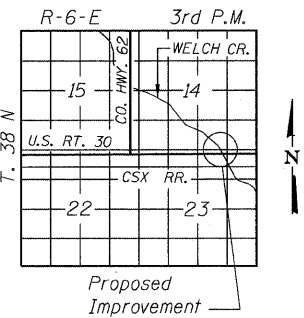
Existing structure is a two span R.C. Slab on closed abutments.



**ELEVATION**



**PLAN**



**LOCATION SKETCH**

**NOTES**

1. Remove existing HMA concrete overlay on East and West approaches and replace with new hot-mix asphalt overlay to proposed elevation of bridge deck overlay. See Detail, Sheet No. 6.
2. Install Polymer Concrete Nosing at East and West Abutments as shown. See Detail, Sheet No. 6.
3. Remove Existing Concrete above Existing Sleeper Slab / Grade Beam and Replace with Class D Patches, Type III, 16 inch.

**GENERAL NOTES**

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

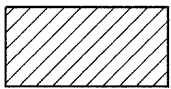
Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60.

Reinforcement bars designated (E) shall be epoxy coated.

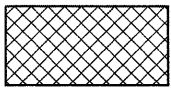
Existing reinforcement bars extending into the removal area shall be cleaned, straightened and incorporated into new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Areas of deck repairs shown are estimated. The Engineer shall show actual locations of deck repairs on As-built Plans.

**LEGEND**



Partial Depth  
Approach Slab Repair  
Locations to be field  
determined after HMA  
Concrete Removal



Full Depth  
Bridge Deck Repair  
and Concrete Removal

**TOTAL BILL OF MATERIAL**

Item	Unit	Total
Bituminous Materials (Prime Coat)	Gal.	19
Hot-Mix Asphalt Surface Removal - Butt Joint	Sq. Yd.	392
Hot-Mix Asphalt Surface Course, Mix "D", N70	Ton	21
Hot-Mix Asphalt Surface Removal, 2"	Sq. Yd.	182
Class D Patches, Type III, 16 inch	Sq. Yd.	32
Concrete Removal	Cu. Yd.	14.0
Floor Drains	Each	6
Concrete Superstructure	Cu. Yd.	11.8
Bridge Deck Grooving	Sq. Yd.	230
Protective Coat	Sq. Yd.	245
Reinforcement Bars, Epoxy Coated	Pound	3670
Polymer Concrete	Cu. Ft.	4
Bridge Deck Latex Concrete Overlay 2 1/2"	Sq. Yd.	245
Structural Repair of Concrete (Depth Equal to or Less than 5 inches)	Sq. Ft.	208
Approach Slab Repair (Partial Depth)	Sq. Yd.	3
Bridge Deck Hydro-Scarification 2 1/2"	Sq. Yd.	245
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	8

\* Removal shall be paid for as Concrete Removal.  
New concrete shall be paid for as Concrete Superstructure.

**INDEX OF SHEETS**

1. General Plan
2. Construction Staging
3. Substructure Repairs
4. Slab Repair Details
5. Deck Drain Details
6. Joint Details

**GENERAL PLAN**  
**U.S. RTE. 30 OVER WELCH CREEK**  
**SEC. 31B-I-1**  
**KANE COUNTY**  
**STATION 179+33.05**  
**STRUCTURE NO. 045-0034**

DESIGNED	RJL
CHECKED	TBS
DRAWN	SCS
CHECKED	TBS



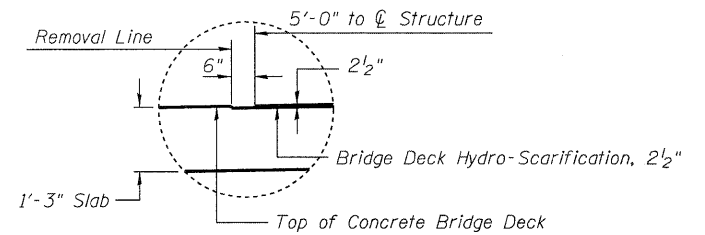
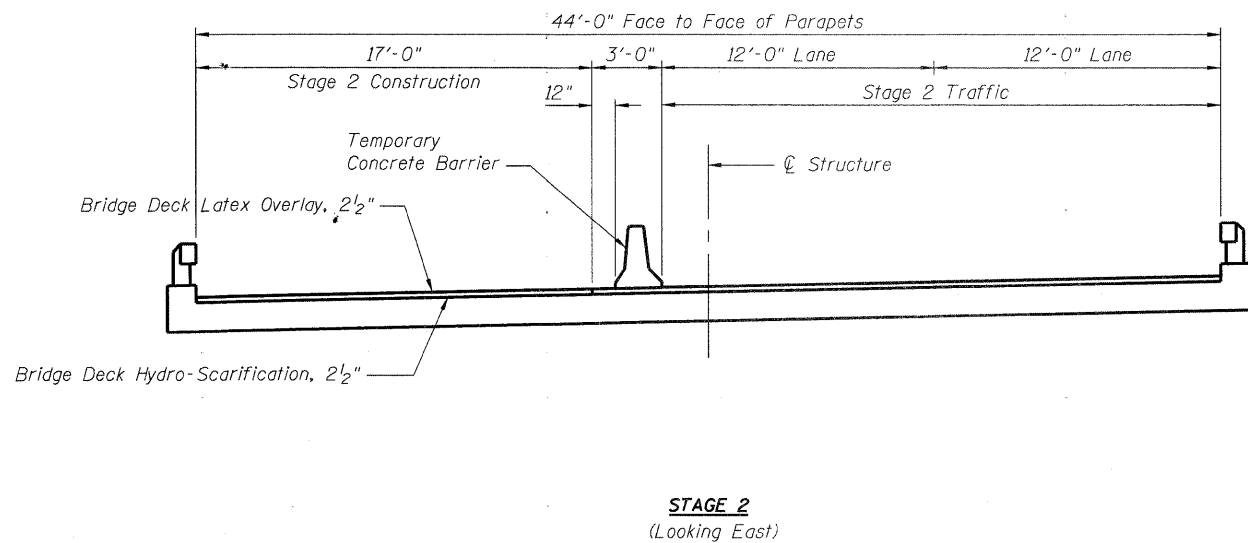
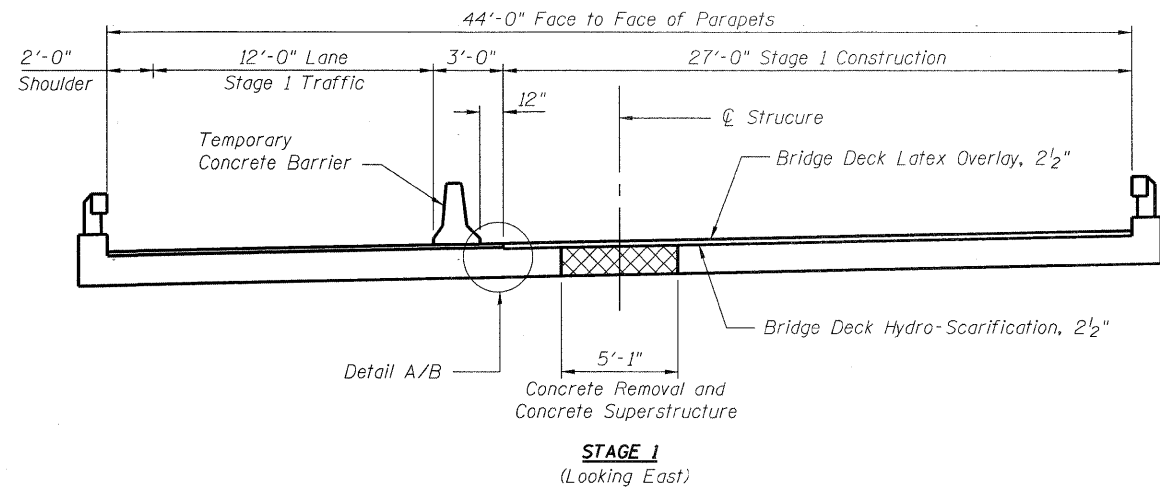
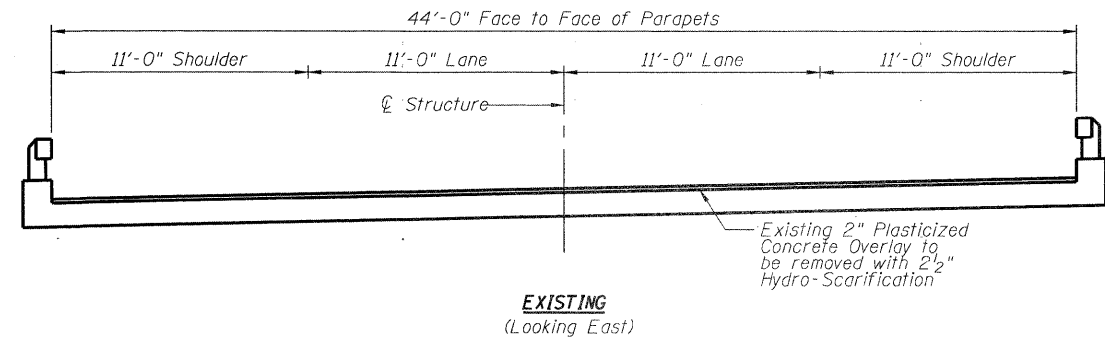
**ABNA**

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DESIGN FIRM REG. 184.002117

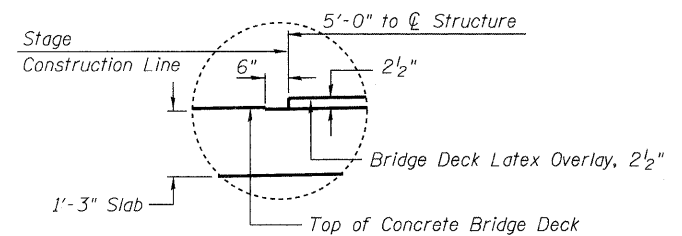
SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
6 SHEETS	573	31B-I-1	KANE	35	8
CONTRACT NO. 60J42					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



DETAIL A (Showing Removal)



DETAIL B (Showing Proposed)

PROPOSED CONSTRUCTION STAGING

NOTE:

Temporary Concrete Barrier is paid for as Roadway Item.  
See Standard 704001-06

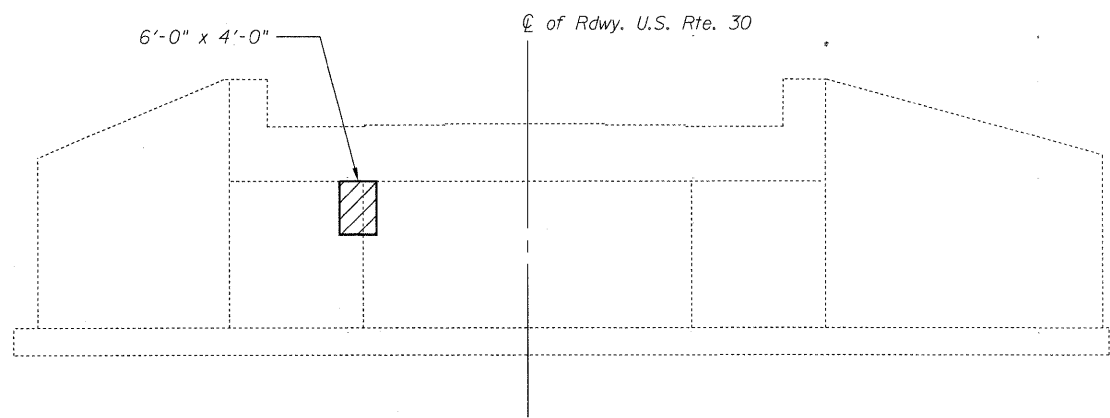
DESIGNED	RJL
CHECKED	TBS
DRAWN	SCS
CHECKED	TBS

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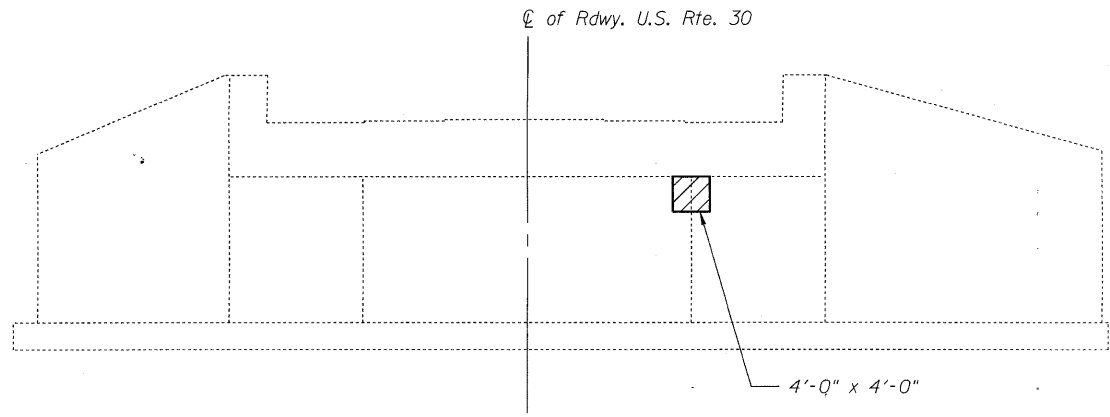
CONSTRUCTION STAGING  
U.S. RTE. 30 OVER WELCH CREEK  
SEC. 31B-1-1  
KANE COUNTY  
STATION 179+33.05  
STRUCTURE NO. 045-0034

SHEET NO. 2  6 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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	CONTRACT NO. 60J42				
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

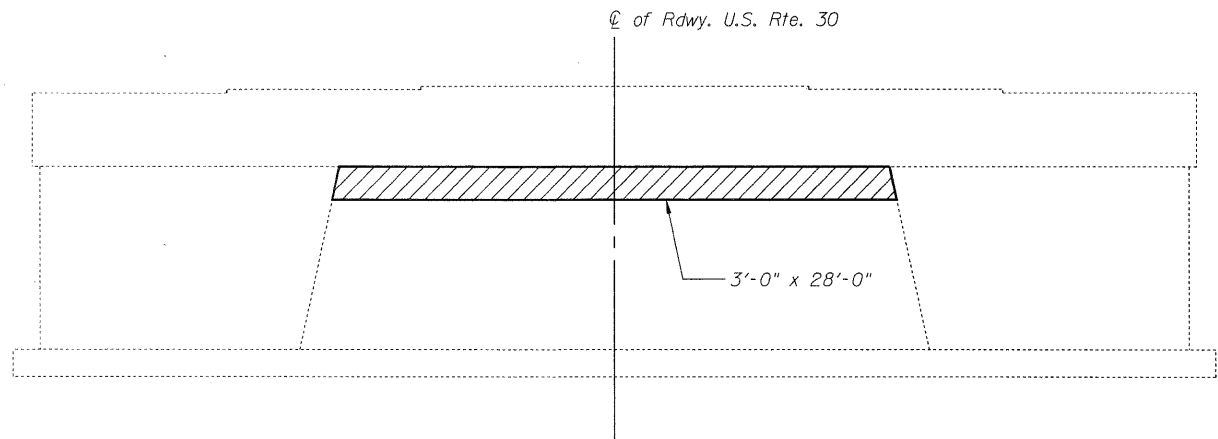
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



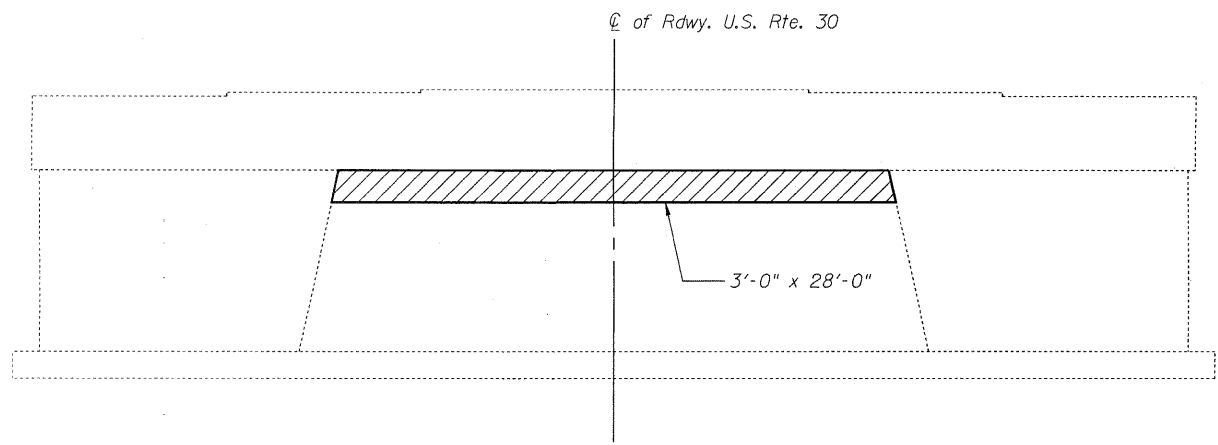
ELEVATION - WEST ABUTMENT



ELEVATION - EAST ABUTMENT



ELEVATION - WEST FACE OF PIER

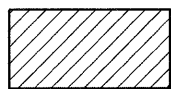


ELEVATION - EAST FACE OF PIER

NOTES

1. The contractor shall take sufficient precautions to prevent pollution of creeks or streams with construction materials.
2. The contractor shall avoid placing construction devices in creeks or streams. Placement of any such items shall be subject to approval by IDOT.

LEGEND



Structural Repair of Concrete  
(Depth Equal to or less than 5 in.)

DESIGNED	RJL
CHECKED	TBS
DRAWN	SCS
CHECKED	TBS

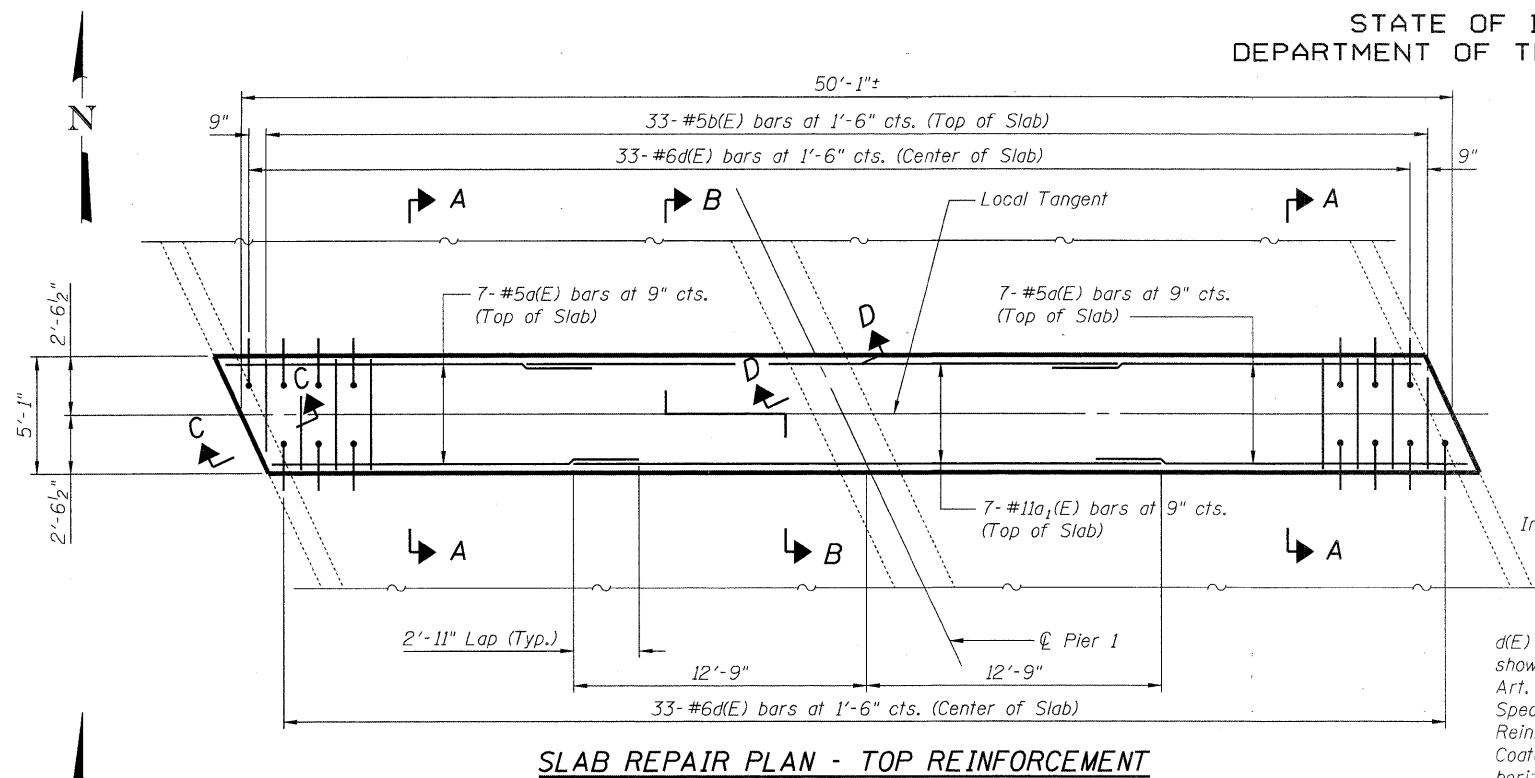


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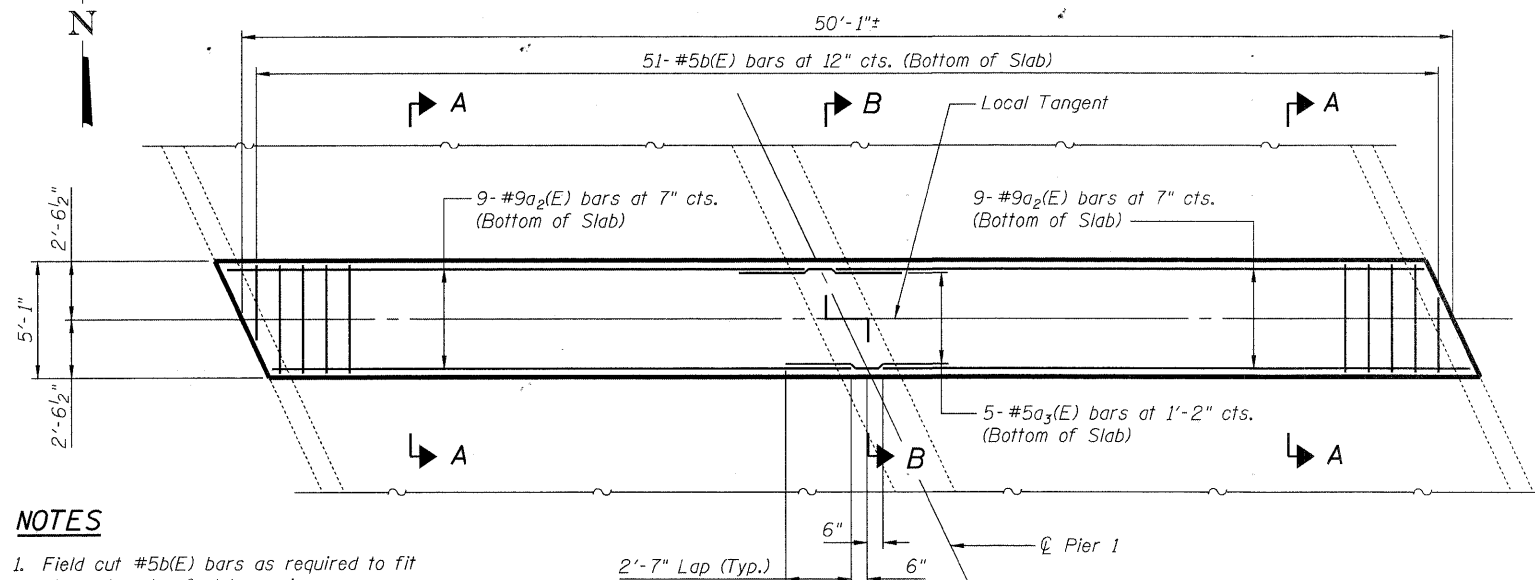
SUBSTRUCTURE REPAIRS  
U.S. RTE. 30 OVER WELCH CREEK  
SEC. 31B-1-1  
KANE COUNTY  
STATION 179+33.05  
STRUCTURE NO. 045-0034

SHEET NO.	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
3	573	31B-1-1	KANE	35	10
CONTRACT NO. 60J42					
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT					

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



SLAB REPAIR PLAN - TOP REINFORCEMENT

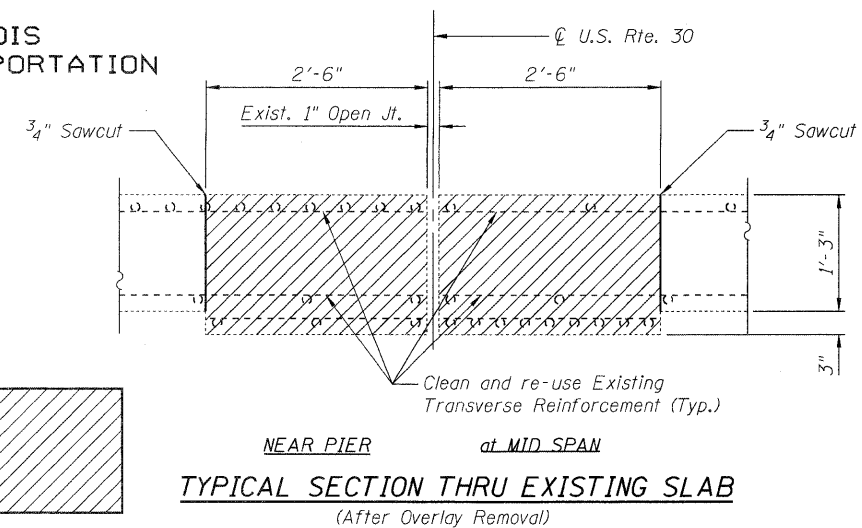
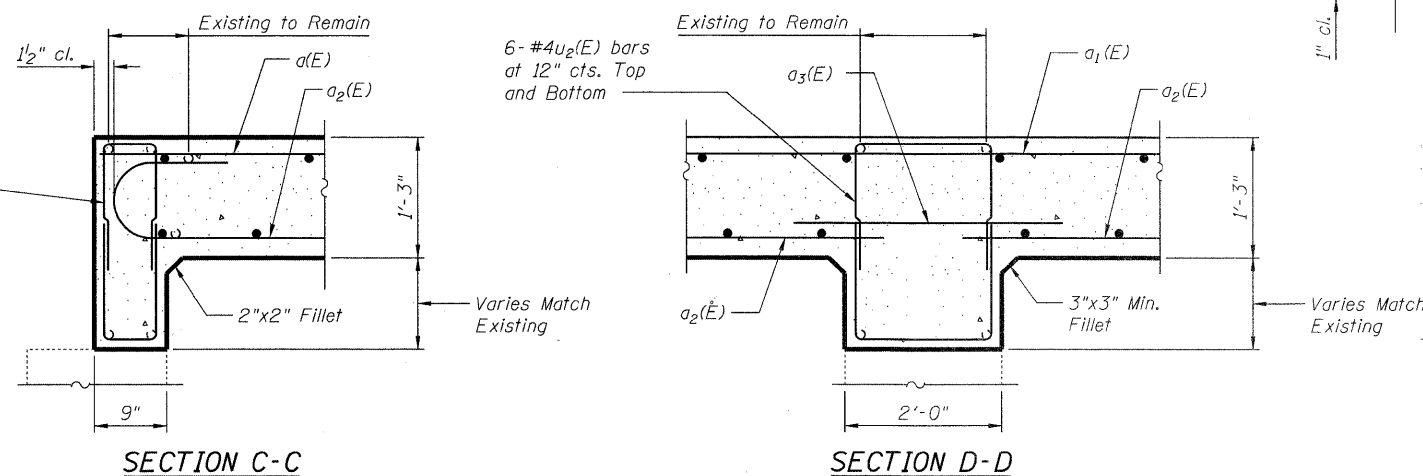


SLAB REPAIR PLAN - BOTTOM REINFORCEMENT

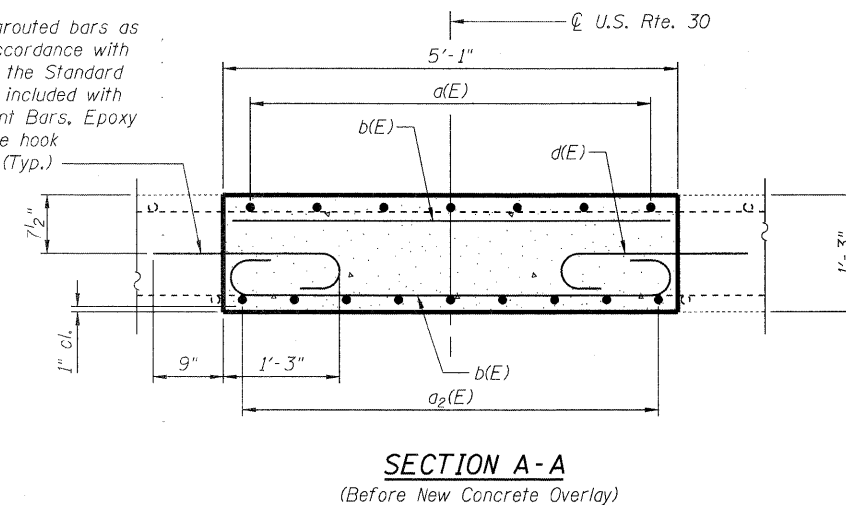
NOTES

- Field cut #5b(E) bars as required to fit skew at ends of slab repair.

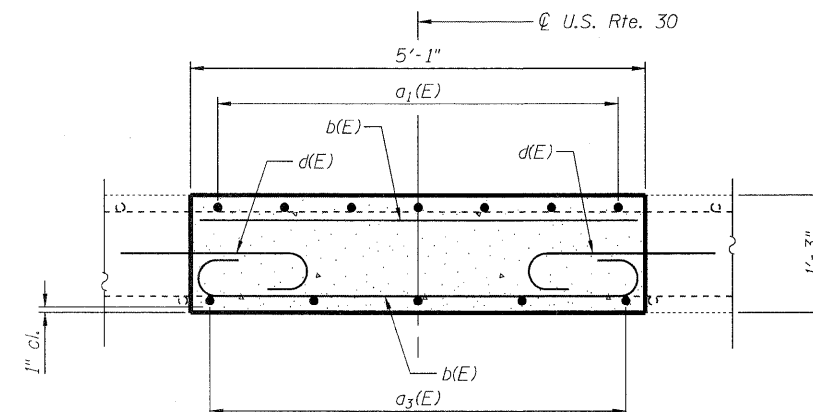
DESIGNED	RJL
CHECKED	TBS
DRAWN	SCS
CHECKED	TBS



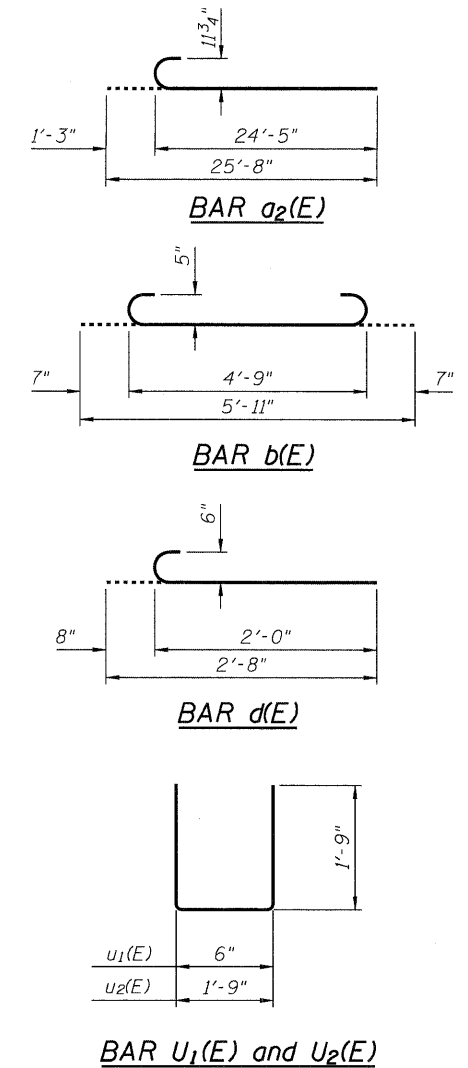
TYPICAL SECTION THRU EXISTING SLAB  
(After Overlay Removal)



SECTION A-A  
(Before New Concrete Overlay)



SECTION B-B  
(Before New Concrete Overlay)



BILL OF MATERIAL

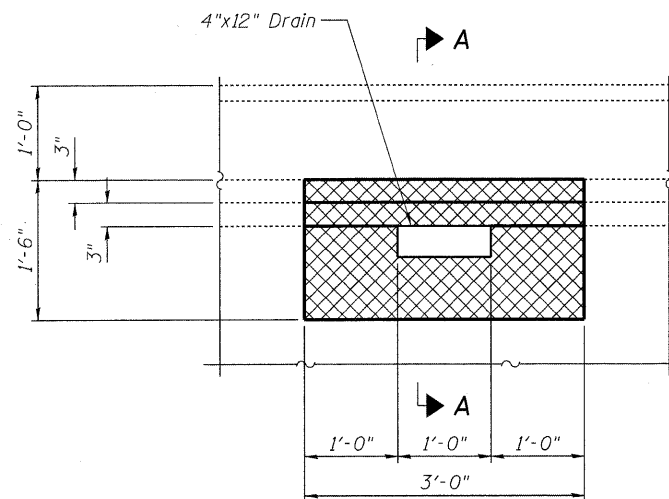
Bar	No.	Size	Length	Shape
a(E)	14	#5	15'-1"	U
a1(E)	7	#11	25'-6"	U
a2(E)	18	#9	25'-8"	U
a3(E)	5	#5	6'-2"	U
b(E)	84	#5	5'-11"	U
d(E)	66	#6	2'-8"	U
u1(E)	24	#4	4'-0"	U
u2(E)	12	#4	5'-3"	U
Concrete Superstructure			Cu. Yd.	11.8
Reinforcement Bars, Epoxy Coated			Pound	3670

SLAB REPAIR DETAILS  
U.S. RTE. 30 OVER WELCH CREEK  
SEC. 31B-1-1  
KANE COUNTY  
STATION 179+33.05  
STRUCTURE NO. 045-0034

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SHEET NO. 4  6 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	573	31B-I-1	KANE	35	11
				CONTRACT NO. 60J42	
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT					

LEGEND



Technical drawing of a curb and gutter cross-section. The drawing shows a curb with a height of 6" and a top width of 3". The gutter is 1'-0" wide and has a slope of 1'-0" to the drain. The drain is a 4"x12" channel. The bottom of the roadway slab is indicated. The total width of the gutter is 1'-6". The drawing also shows a 1" minimum dimension for the curb base and a 3" dimension for the gutter base. The gutter is labeled "Slope Concrete Overlay to Drain".

Technical drawing of a rectangular plate with a central rod. The plate has a width of 4" and a height of 2". The central rod has a diameter of 3/4" and a length of 1'-0". The plate has a thickness of 1/4", typical. A detail view of the corner shows a fillet radius of 1/8" and a typical corner profile.

1'-0"

1/4", Typ.

2"

2"

4"

3/4" Dia. x 1'-1" Rod  
ASTM A709 Grade 36

1/8" Typ.

Drain

$B$

Bottom of Roadway Slab

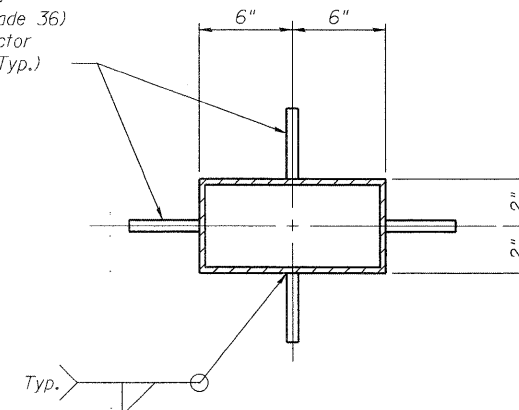
6"

4 1/2"

1 1/2"

17'-0"

Rod  $\frac{1}{2}$ " Dia. x 3"  
(ASTM A709 Grade 36)  
or Shear Connector  
 $\frac{1}{2}$ " Dia. x 3"± (Typ.)



## NOTES

*Taper Overlay from 2½" to 1" at edge of drain.  
See Section A-A.*

DESIGNED	RJL
CHECKED	TBS
DRAWN	SCS
CHECKED	TBS

*Slab drains may be fabricated of either 1/4" welded sheets of ASTM A709 Grade 36 steel or from 1/4" structural steel tubing ASTM A500 or A501.*

Locate drains in slab by dimensions shown in Part Plan at Drain and Section A-A.

Shift or cut reinforcing steel where necessary to clear drains.

*The drains shall be galvanized in accordance with ASTM A123.*

*Drains shall be paid for complete as Pay Item "Floor Drains."*

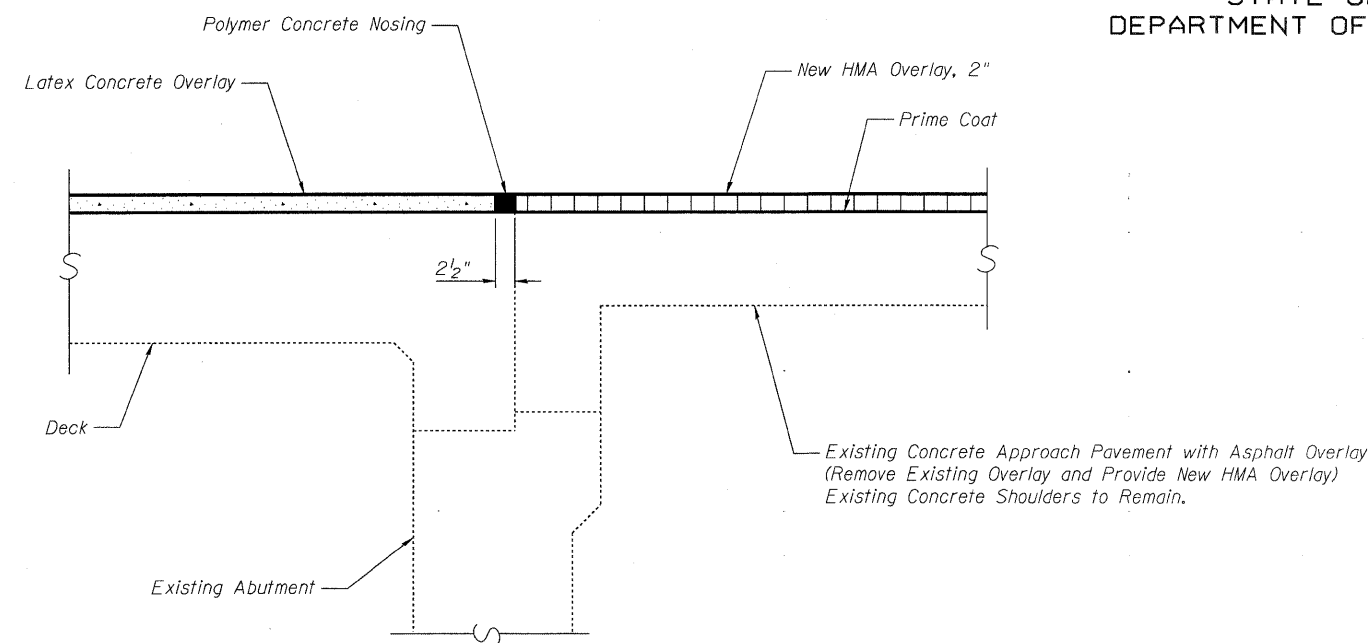
DECK DRAIN DETAILS  
U.S. RTE. 30 OVER WELCH CREEK  
SEC. 31B-I-1  
KANE COUNTY  
STATION 179+33.05  
STRUCTURE NO. 045-0034



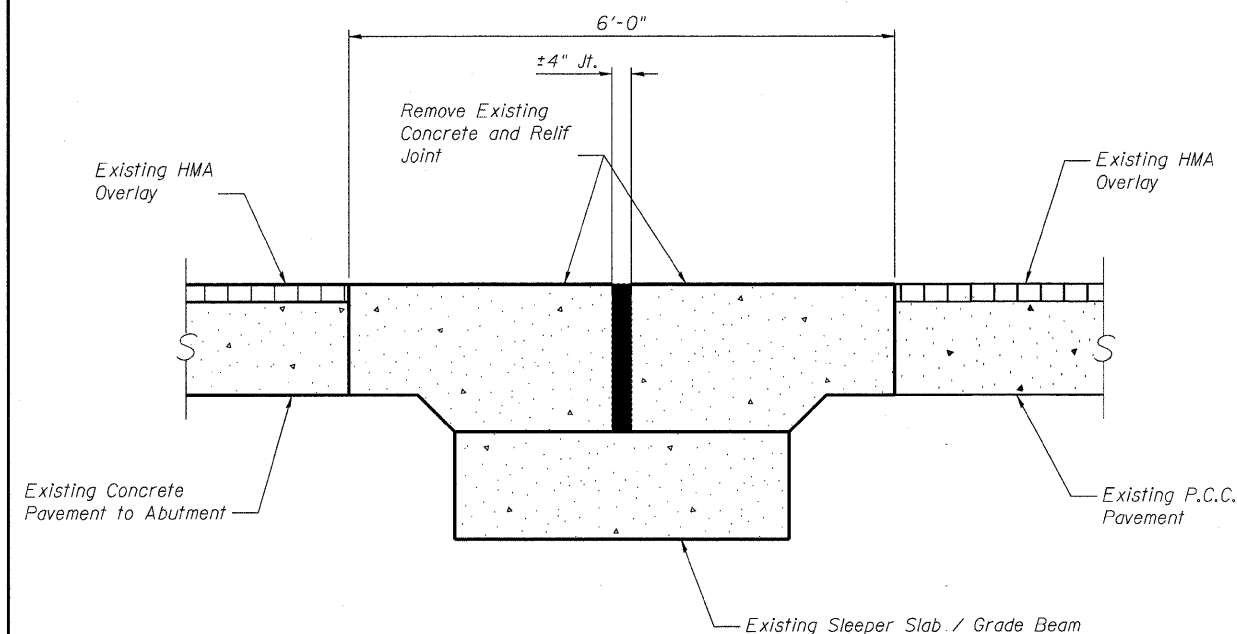
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SHEET NO. 5  6 SHEETS	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	573	31B-I-1	KANE	35	12
			CONTRACT NO. 60J42		
FED. ROAD DIST. NO. _		ILLINOIS	FED. AID PROJECT		

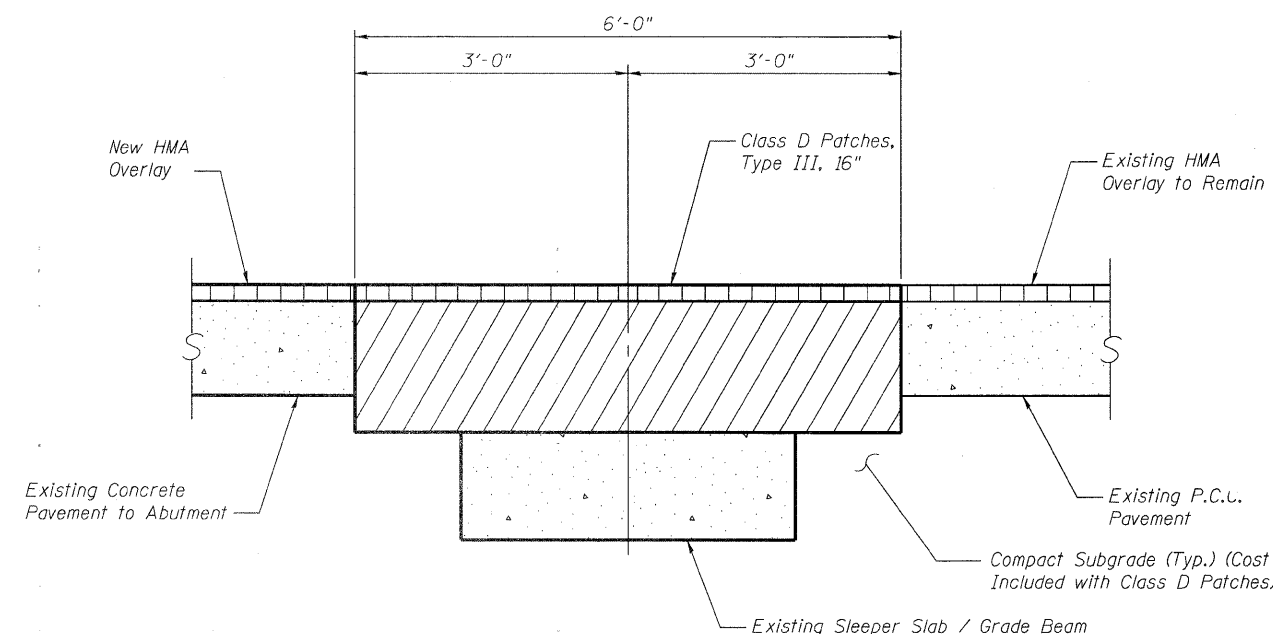
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION



OVERLAY TREATMENT AT ABUTMENTS



EXISTING JOINT



RECONSTRUCTED JOINT

PAVEMENT RELIEF JOINT RECONSTRUCTION

Note: See District One Details BD22

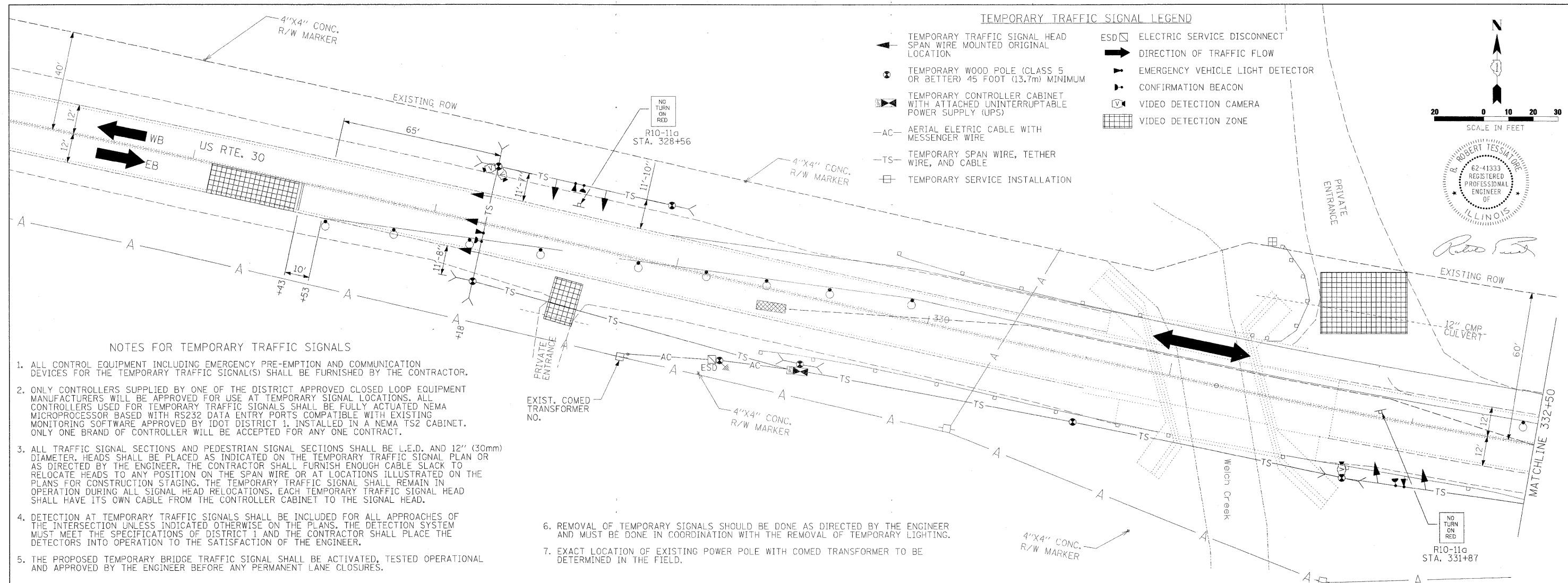
JOINT DETAILS  
U.S. RTE. 30 OVER WELCH CREEK  
SEC. 31B-I-1  
KANE COUNTY  
STATION 179+33.05  
STRUCTURE NO. 045-0034

DESIGNED	TPP
CHECKED	TBS
DRAWN	SCS
CHECKED	TBS

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SHEET NO. 6  6 SHEETS	F.A.P. RTE.	SECTION		COUNTY	TOTAL SHEETS	SHEET NO.
	573	31B-I-1		KANE	35	13
				CONTRACT NO. 60J42		
FED. ROAD DIST. NO. _ ILLINOIS FED. AID PROJECT						

FILE NAME = G:\ENR\05-5024-02 01 Various Structures\Task 01\05-5024-02 01\Signal\CD\CD\Signal\05-5024-02 01-TS.dgn



#### TEMPORARY TRAFFIC SIGNAL LEGEND

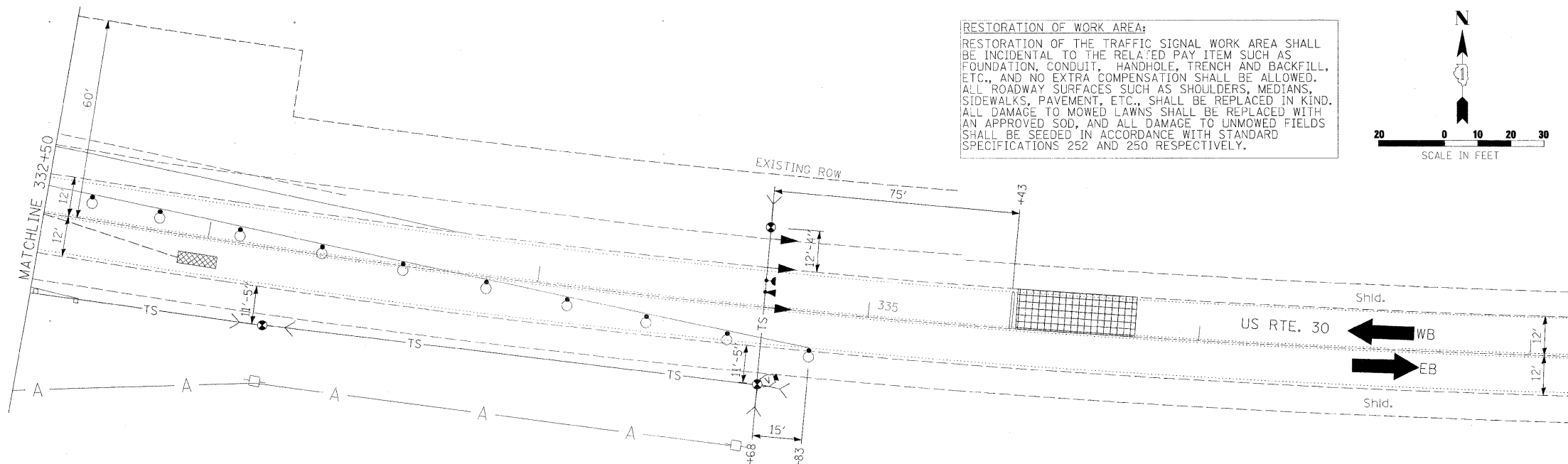
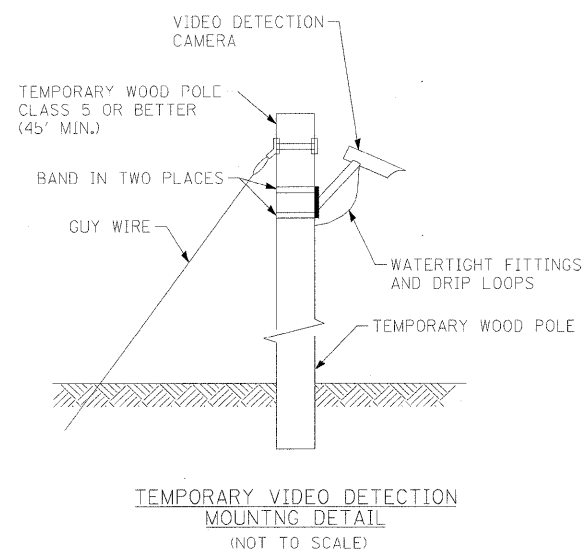
- |   |                                  |
|---|----------------------------------|
| TEMPORARY TRAFFIC SIGNAL HEAD<br>SPAN WIRE MOUNTED ORIGINAL<br>LOCATION             | ESD  ELECTRIC SERVICE DISCONNECT |
| TEMPORARY WOOD POLE (CLASS 5<br>OR BETTER) 45 FOOT (13.7m) MINIMUM                  | DIRECTION OF TRAFFIC FLOW        |
| TEMPORARY CONTROLLER CABINET<br>WITH ATTACHED UNINTERRUPTABLE<br>POWER SUPPLY (UPS) | EMERGENCY VEHICLE LIGHT DETECTOR |
| AC AERIAL ELECTRIC CABLE WITH<br>MESSENGER WIRE                                     | CONFIRMATION BEACON              |
| TS TEMPORARY SPAN WIRE, TETHER<br>WIRE, AND CABLE                                   | VIDEO DETECTION CAMERA           |
| TEMPORARY SERVICE INSTALLATION  | VIDEO DETECTION ZONE             |

#### NOTES FOR TEMPORARY TRAFFIC SIGNALS

- ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1. INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE L.E.D. AND 12" (30mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE 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.
- DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- THE PROPOSED TEMPORARY BRIDGE TRAFFIC SIGNAL SHALL BE ACTIVATED, TESTED OPERATIONAL AND APPROVED BY THE ENGINEER BEFORE ANY PERMANENT LANE CLOSURES.
- REMOVAL OF TEMPORARY SIGNALS SHOULD BE DONE AS DIRECTED BY THE ENGINEER AND MUST BE DONE IN COORDINATION WITH THE REMOVAL OF TEMPORARY LIGHTING.
- EXACT LOCATION OF EXISTING POWER POLE WITH COMED TRANSFORMER TO BE DETERMINED IN THE FIELD.

#### RESTORATION OF WORK AREA:

RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.



**Wight**

USER NAME = #USER#	DESIGNED - TMF	REVISED -
PLOT SCALE = #SCALE#	DRAWN - TMF	REVISED -
PLOT DATE = 4/23/2010	CHECKED - KAC	REVISED -
	DATE - 04/23/2010	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

#### TEMPORARY TRAFFIC SIGNAL PLAN US RTE. 30 OVER WELCH CREEK STRUCTURE NO. 045-0034

SCALE: 1" = 20' SHEET NO. OF SHEETS STA. TO STA.

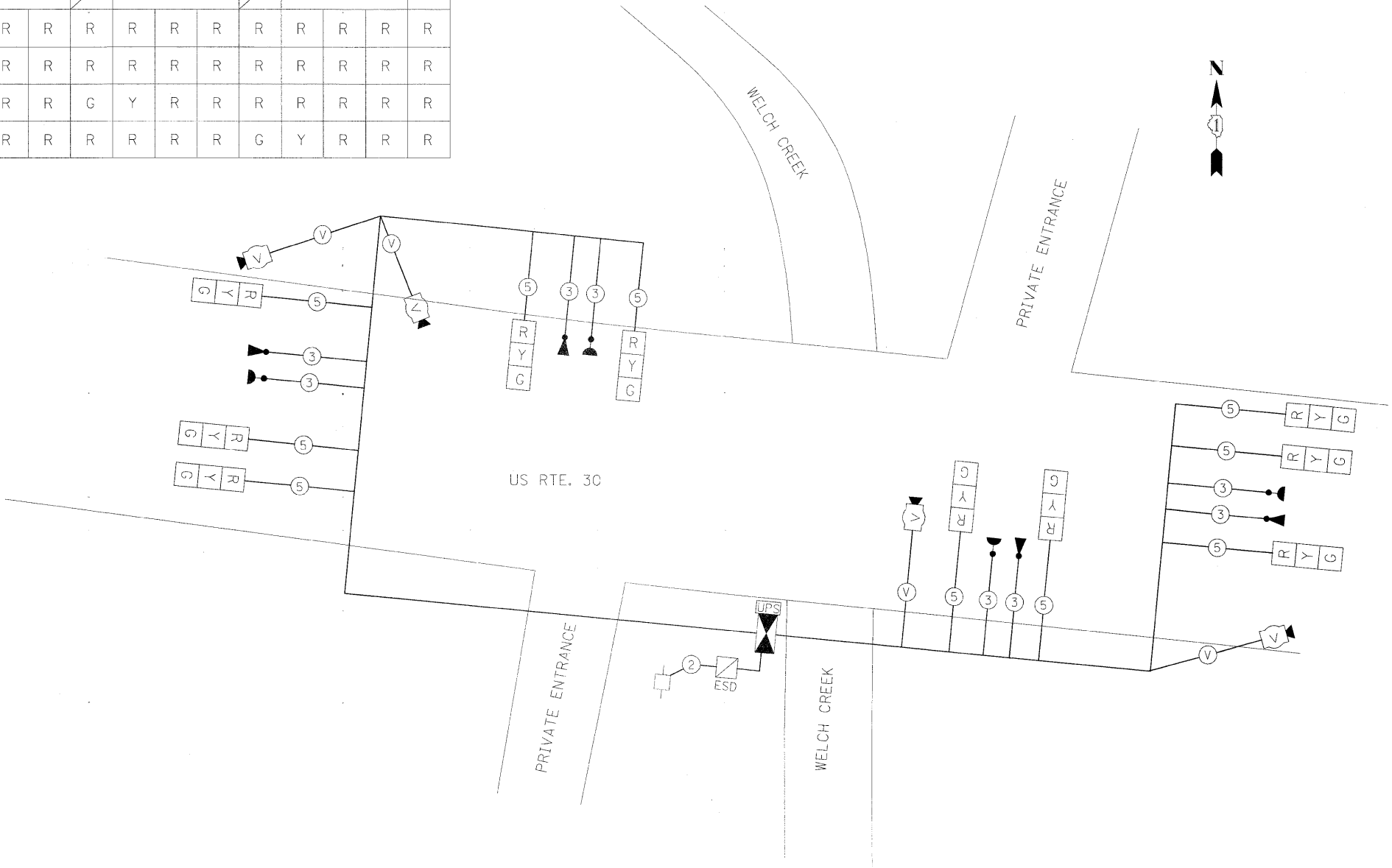
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-1-1	KANE	35	14
CONTRACT NO. 60J42				
ILLINOIS FED. AID PROJECT				

SEQUENCE OF OPERATION

<div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></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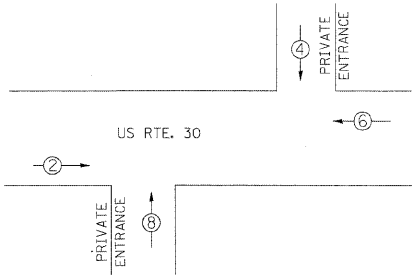
SCHEDULE OF QUANTITIES

ITEM	UNIT	QUANTITY
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1
TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1





I.D.O.T. TRAFFIC SIGNAL INSTALLATION ELECTRICAL SERVICE REQUIREMENTS					TOTAL WATTAGE
TYPE	NO. OF LAMPS	WATTAGE		LED x % OPERATION	
SIGNAL (RED)	10	INCAND.	17	0.50	85
(YELLOW)	10		25	0.25	62.5
(GREEN)	10		15	0.25	37.5
ARROW			12	0.10	-
PED. SIGNAL			25	1.00	-
CONTROLLER	1		100	1.00	100.00
ILLUM. SIGN			25	0.05	-
VIDEO SYSTEM	1	150	-	1.00	150.00
FLASHER				0.50	-
ENERGY COSTS TO:					435.00
ILLINOIS DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAY/DISTRICT 1 201 WEST CENTER COURT/SCHAUMBURG, ILLINOIS 60196-1096 ENERGY SUPPLY: CONTACT: JERRY SUHR PHONE: 815.490.2282 COMPANY: COMED					





EMERGENCY VEHICLE PREEMPTION SEQUENCE



TEMPORARY CABLE PLAN

**LEGEND**

 SINGLE ENTRY PHASE  
 NUMBER REFERS TO ASSOCIATED PHASE

PROPOSED EMERGENCY VEHICLE PREEMPTORS				
EMERGENCY VEHICLE PREEMPTORS	2	8	6	4
MOVEMENT				

RESTORATION OF WORK AREA:  
RESTORATION OF THE TRAFFIC SIGNAL WORK AREA SHALL BE INCIDENTAL TO THE RELATED PAY ITEM SUCH AS FOUNDATION, CONDUIT, HANDHOLE, TRENCH AND BACKFILL, ETC., AND NO EXTRA COMPENSATION SHALL BE ALLOWED. ALL ROADWAY SURFACES SUCH AS SHOULDERS, MEDIANS, SIDEWALKS, PAVEMENT, ETC., SHALL BE REPLACED IN KIND. ALL DAMAGE TO MOWED LAWNS SHALL BE REPLACED WITH AN APPROVED SOD, AND ALL DAMAGE TO UNMOWED FIELDS SHALL BE SEEDED IN ACCORDANCE WITH STANDARD SPECIFICATIONS 252 AND 250 RESPECTIVELY.

Wight

USER NAME = #USER#	DESIGNED - TMF	REVISED -
PLOT SCALE = #SCALE#	DRAWN - TMF	REVISED -
PLOT DATE = 4/23/2010	CHECKED - KAC	REVISED -
	DATE - 04/23/2010	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TEMPORARY CABLE PLAN & TEMPORARY PHASE DESIGNATION DIAGRAM  
US RTE. 30 OVER WELCH CREEK STRUCTURE NO. 045-0034

SCALE: N.T.S. SHEET NO. OF SHEETS STA. TO STA.

F.A.P. RTG.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-1-1	KANE	35	15
CONTRACT NO. 60J42				
ILLINOIS FED. AID PROJECT				

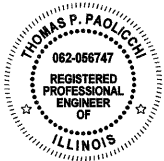


GENERAL NOTES

1. THE MATERIALS AND INSTALLATION METHODS SHALL COMPLY WITH THE LATEST CODES, STANDARDS, AND ORDINANCES OF FEDERAL, STATE, AND LOCAL GOVERNING BODIES HAVING JURISDICTION. ALL WORK SHOWN ON THE PLANS AND DESCRIBED ELSEWHERE SHALL CONFORM TO THE LATEST NATIONAL ELECTRICAL CODE.
2. THE CONTRACTOR SHALL CONTACT COMED AS SOON AS POSSIBLE CONCERNING PENDING ELECTRICAL SERVICE INSTALLATION AND CONNECTION TO ENSURE AVAILABILITY OF ELECTRICAL POWER SUPPLY IN A TIMELY MANNER.
3. TEMPORARY LIGHTING SHALL BE INSTALLED AND OPERATIONAL BEFORE THE START OF ROADWAY CONSTRUCTION. TEMPORARY LIGHTING SHALL REMAIN IN OPERATION FOR BOTH STAGE I AND STAGE II.
4. OVERHEAD CABLES SHALL MAINTAIN CLEARANCE FROM GROUND IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE SECTION 225.18 AND FROM EXISTING OVERHEAD UTILITY ELECTRICAL LINES IN ACCORDANCE WITH COMED REQUIREMENTS.
5. GROUND RODS SHALL BE INSTALLED AT EVERY SECOND TEMPORARY LIGHT POLE. GROUND WIRES AND CONNECTION OF GROUND RODS AT TEMPORARY LIGHT POLES ARE INCLUDED IN THE COST OF THE ITEM "ELECTRICAL SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL."
6. ALL AREAS DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE ENGINEER.
7. THE REMOVAL OF TEMPORARY LIGHTING UNITS SHALL INCLUDE ALL POLES, LUMINAIRES, MAST ARMS, MESSENGER WIRES, CABLES (INCLUDING UNDERGROUND CONDUCTORS IN UNIT DUCT), GROUND RODS, AND SERVICE DISCONNECT EQUIPMENT. ALL EQUIPMENT SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE. THE UNDERGROUND HDPE AND RIGID GALVANIZED STEEL CONDUIT ASSOCIATED WITH THE TEMPORARY ROADWAY LIGHTING SHALL BE ABANDONED IN PLACE.

BILL OF MATERIALS

ITEM	UNIT	QUANTITY
ELECTRIC SERVICE INSTALLATION	EACH	1
ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
UNIT DUCT, 600V, 3-1C NO. 4, 1/C NO. 6 GROUND (EPR-TYPE RHW), 1¼" DIA. POLYETHYLENE	FOOT	269
AERIAL CABLE, 3-1/C NO. 4 WITH MESSENGER WIRE	FOOT	915
TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	175
LUMINAIRE, SODIUM VAPOR, HORIZONTAL MOUNT, PHOTO-CELL CONTROL, 400 WATT	EACH	6
LIGHT POLE, WOOD, 45 FOOT, CLASS 4	EACH	1
LIGHT POLE, WOOD, 60 FOOT, CLASS 4, WITH 15 FT. MAST ARM	EACH	6
REMOVAL OF TEMPORARY LIGHTING UNITS	EACH	6
MAINTENANCE OF LIGHTING SYSTEM	CAL MO	3
ELECTRIC SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL	EACH	1



*Thomas P. Paolicchi*

THOMAS P. PAOLICCHI, P.E.

DATE: 4/23/2010

EXP. 11/30/2011

SHEETS: 16-17



9901 S. Western Ave.  
Chicago, IL 60643  
Ph. 773-881-4788  
F: 773.239.3728

DESIGNED	FM	REVISED	-
CHECKED	AA	REVISED	-
DRAWN	MR	REVISED	-
CHECKED	AA	REVISED	-

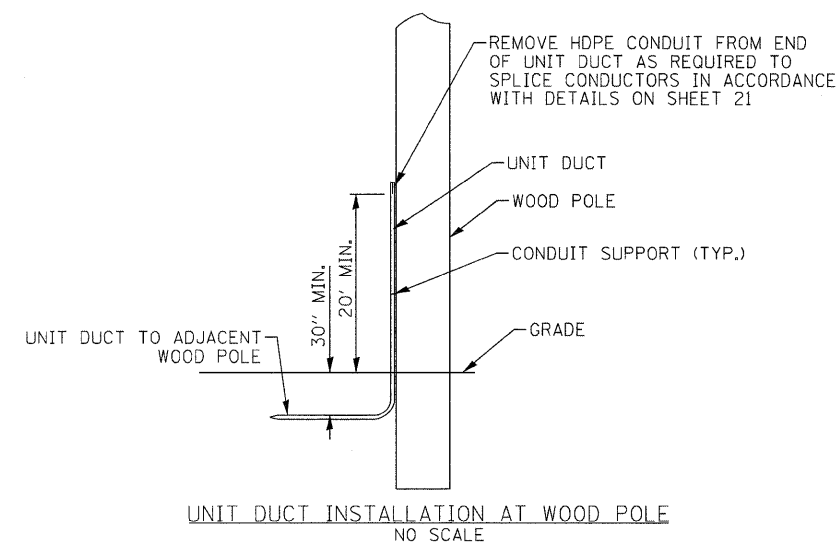
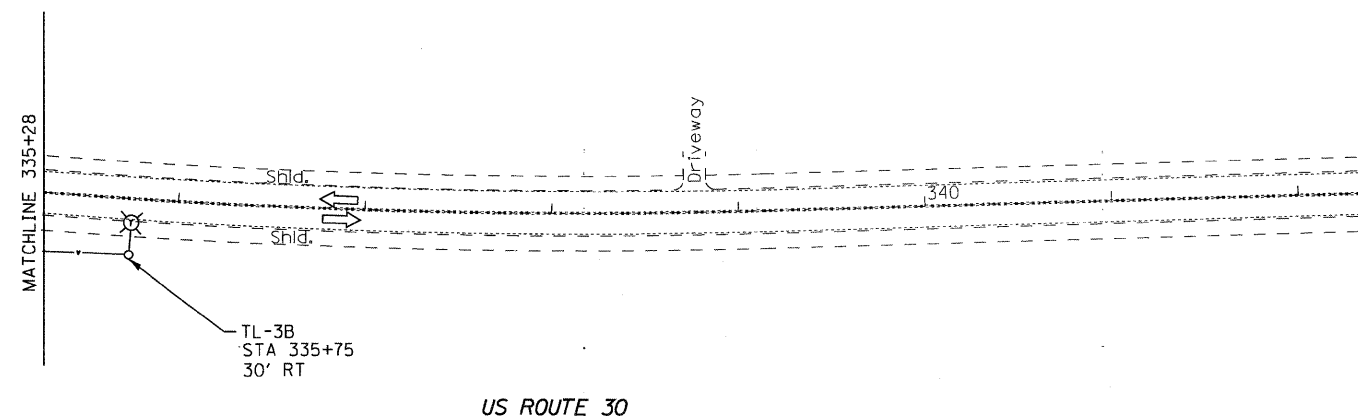
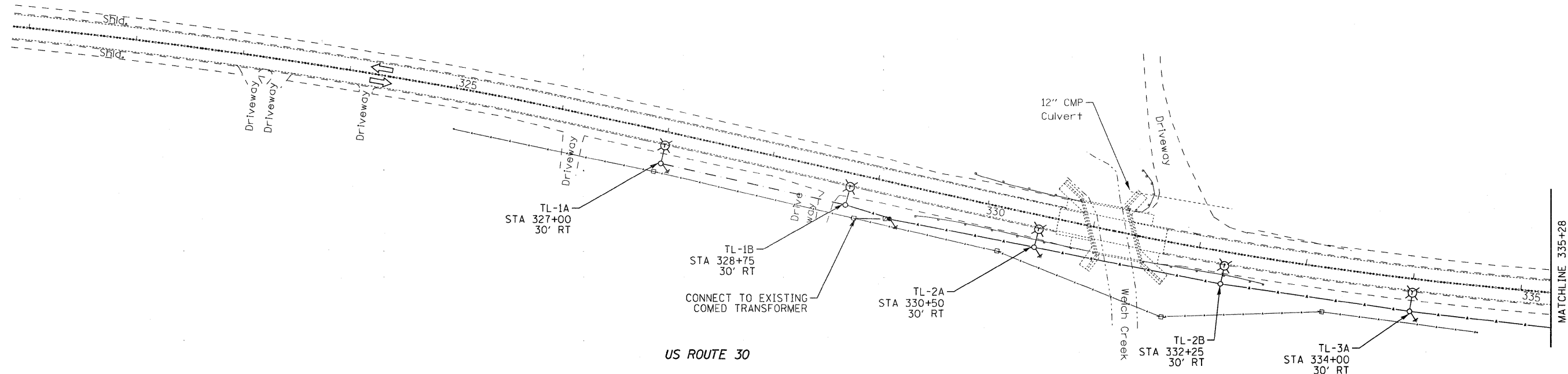
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

US RTE. 30 OVER WELCH CREEK  
STRUCTURE NO. 045-0034

TEMPORARY ROADWAY  
LIGHTING NOTES

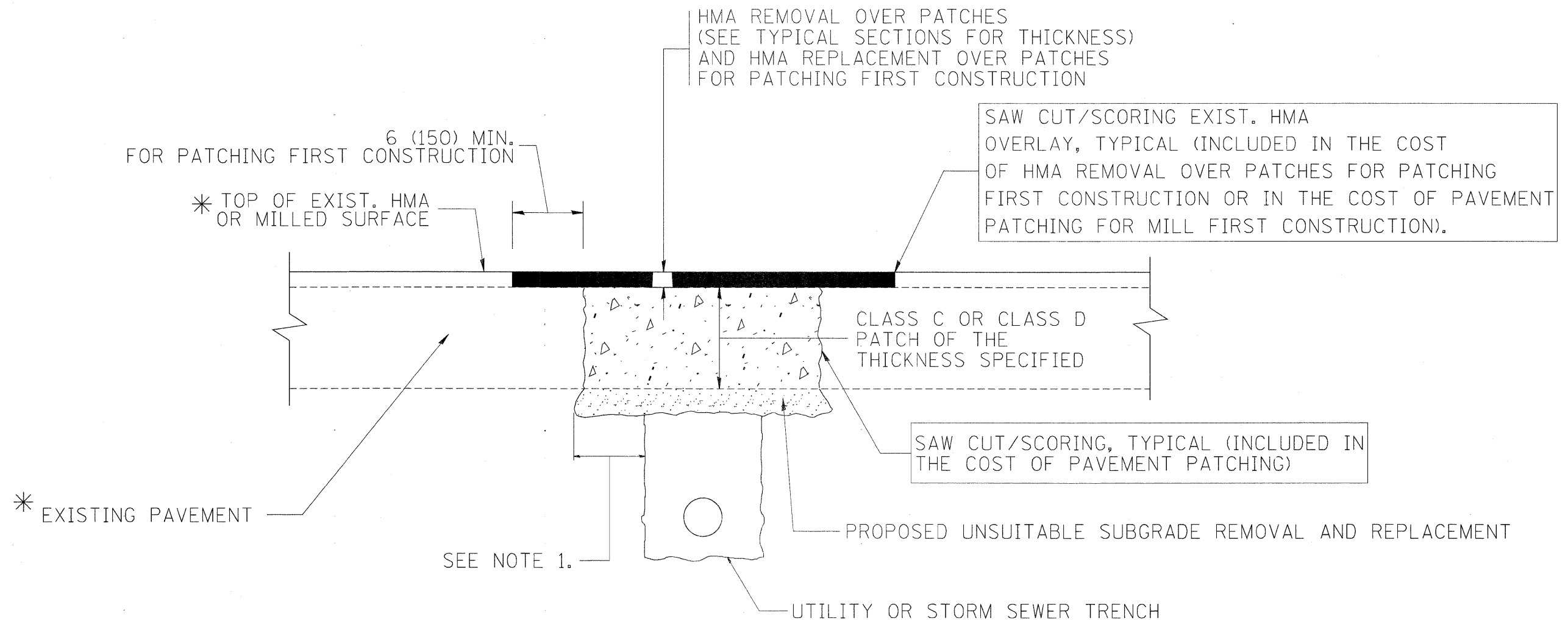
SCALE: 1" = 50'    SHEET NO. 1 OF 1 SHEETS    STA.    TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-1-1	KANE	35	16
CONTRACT NO. 60J42				
ILLINOIS FED. AID PROJECT				



- LEGEND**
- TEMPORARY LIGHTING UNIT, 50' MOUNTING HEIGHT ON 60' CLASS 4 WOOD POLE 15' MAST ARM, 400 WATT, 120 VOLT LUMINAIRE WITH PHOTOCELL ON EACH LUMINAIRE
  - AERIAL CABLE, 3-1/C NO. 4, ALUMINUM, WITH MESSENGER WIRE
  - UNIT DUCT IN TRENCH, 600V, 3-1/C NO. 4 1/C NO. 6 GROUND 1 1/4" DIA. POLYETHYLENE
  - EXISTING AERIAL UTILITY LINES

- GROUND ROD, 5/8" SIAMETER x 10'
- ELECTRICAL SERVICE DISCONNECT, LIGHTING AND TRAFFIC SIGNAL
- 45' CLASS 4 TEMPORARY WOOD POLE
- EXISTING UTILITY POLE
- TL-1A INDICATES CIRCUIT AND POLE NUMBER



\* SEE TYPICAL SECTIONS FOR  
THICKNESS AND MATERIALS

#### NOTES:

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

#### SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

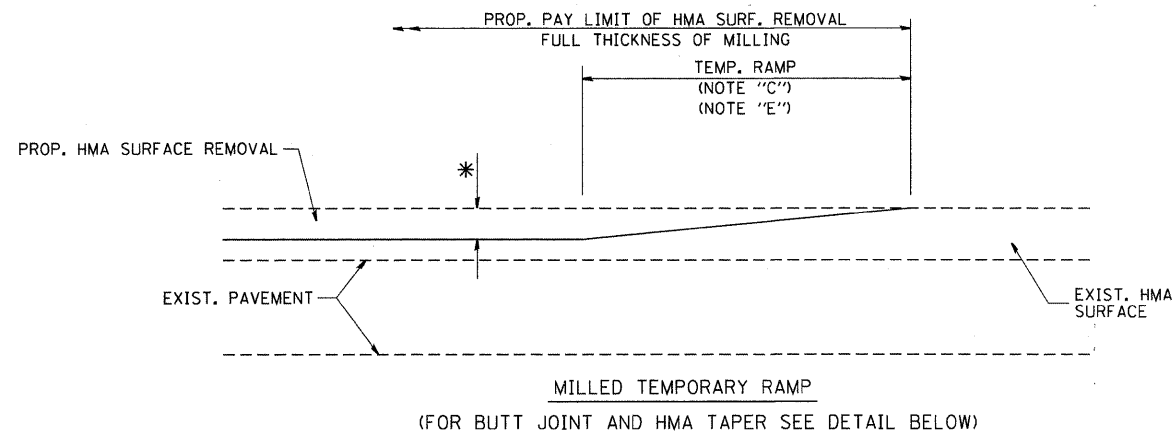
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

#### SEQUENCE OF CONSTRUCTION (MILLING FIRST)

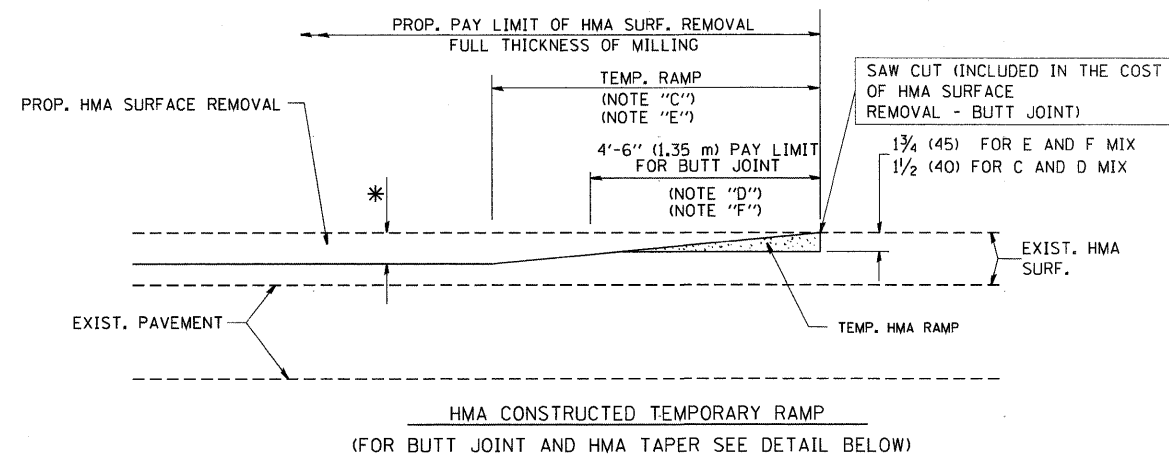
1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT		F.A.P. RTE. 573	SECTION 31B-1-1	COUNTY KANE	TOTAL SHEETS 35	SHEET NO. 18
PLOT SCALE = 50.000' / IN.	CHECKED -	REVISD - R. BORO 01-01-07	REVISD - R. BORO 09-04-07				BD400-04 (BD-22)		CONTRACT NO. 60J42		
PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISD - K. ENG 10-27-08			SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		

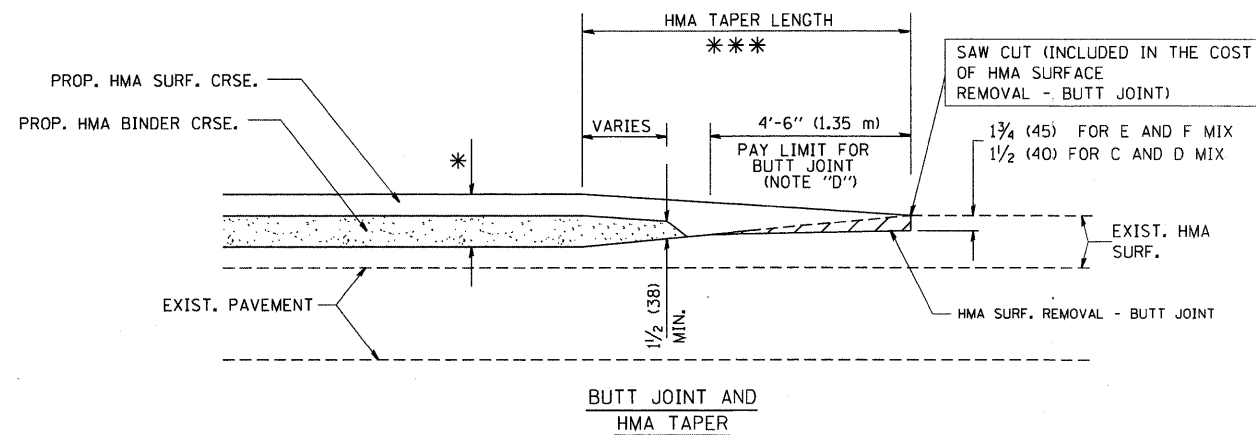


### OPTION 1

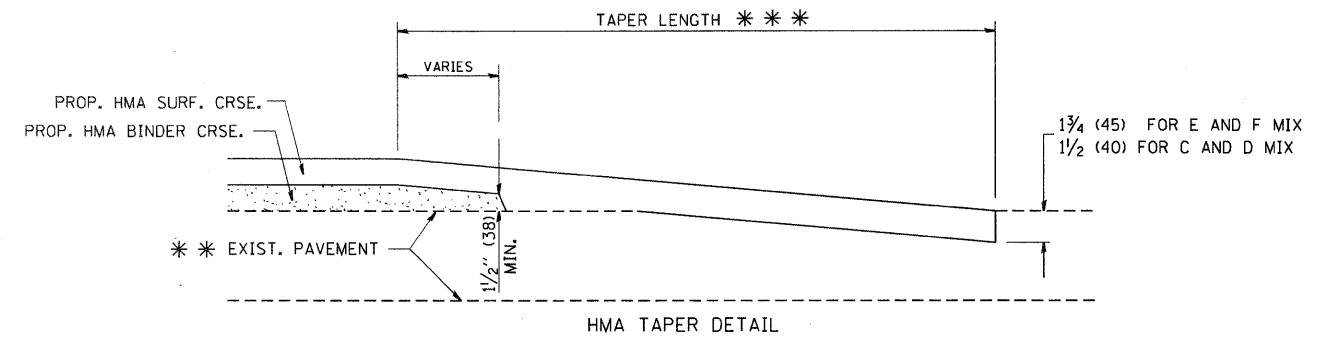
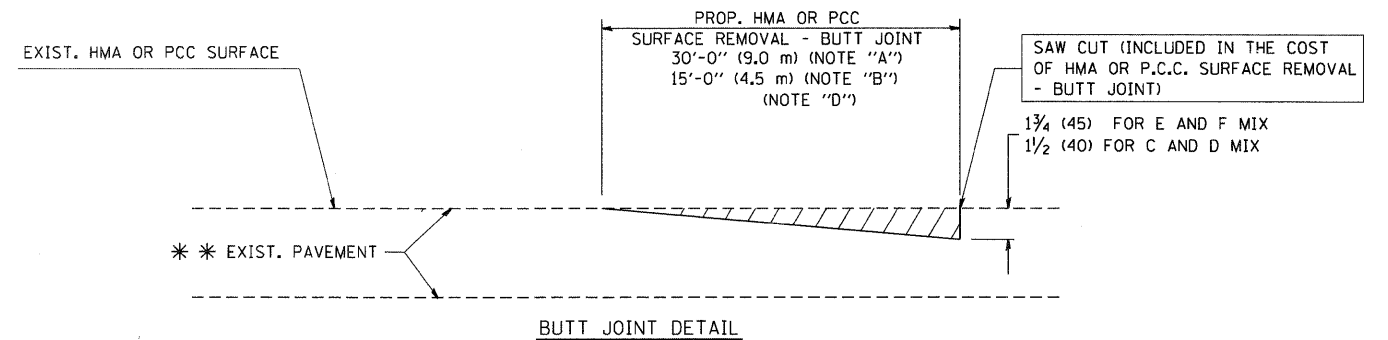


### OPTION 2

### TYPICAL TEMPORARY RAMP



### TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING



### TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY

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

### NOTES

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

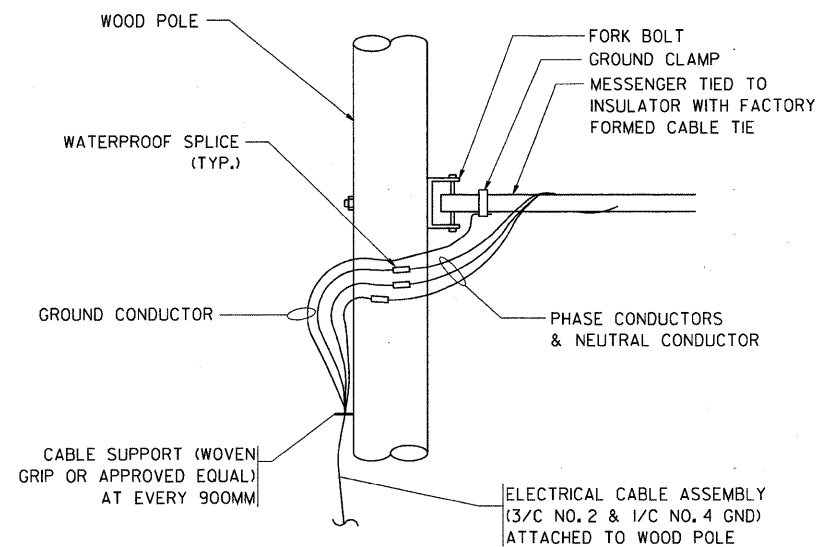
### BASIS OF PAYMENT:

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

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

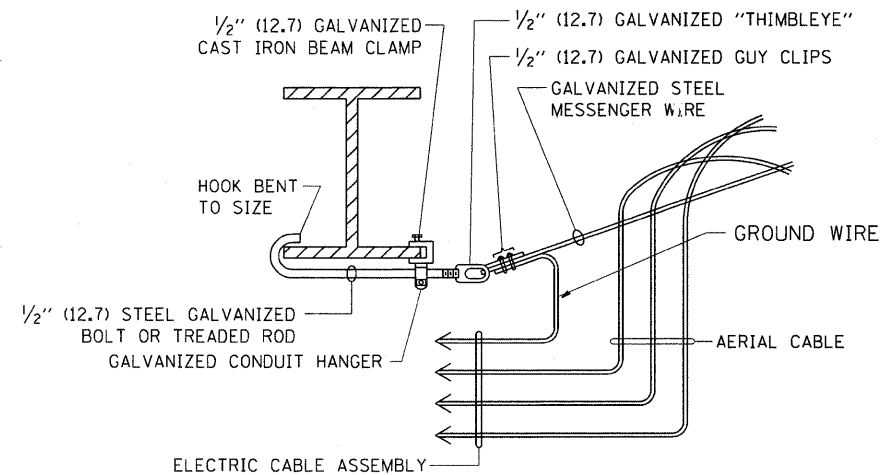
FILE NAME =	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	BUTT JOINT AND HMA TAPER DETAILS				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
W:\diststd\22x34\bd32.dgn		DRAWN -	REVISED - A. ABBAS 03-21-97						573	31B-I-1	KANE	35	19
PLOT SCALE = 50.0000 ' / IN.		CHECKED -	REVISED - M. GOMEZ 04-06-01		SCALE: NONE				BD400-05 BD32				
PLOT DATE = 1/4/2008		DATE - 06-13-90	REVISED - R. BORO 01-01-07		SHEET NO. 1 OF 1 SHEETS				CONTRACT NO. 60J42				
					STA. TO STA.				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





**AERIAL CABLE CONNECTION DETAIL**

N.T.S.

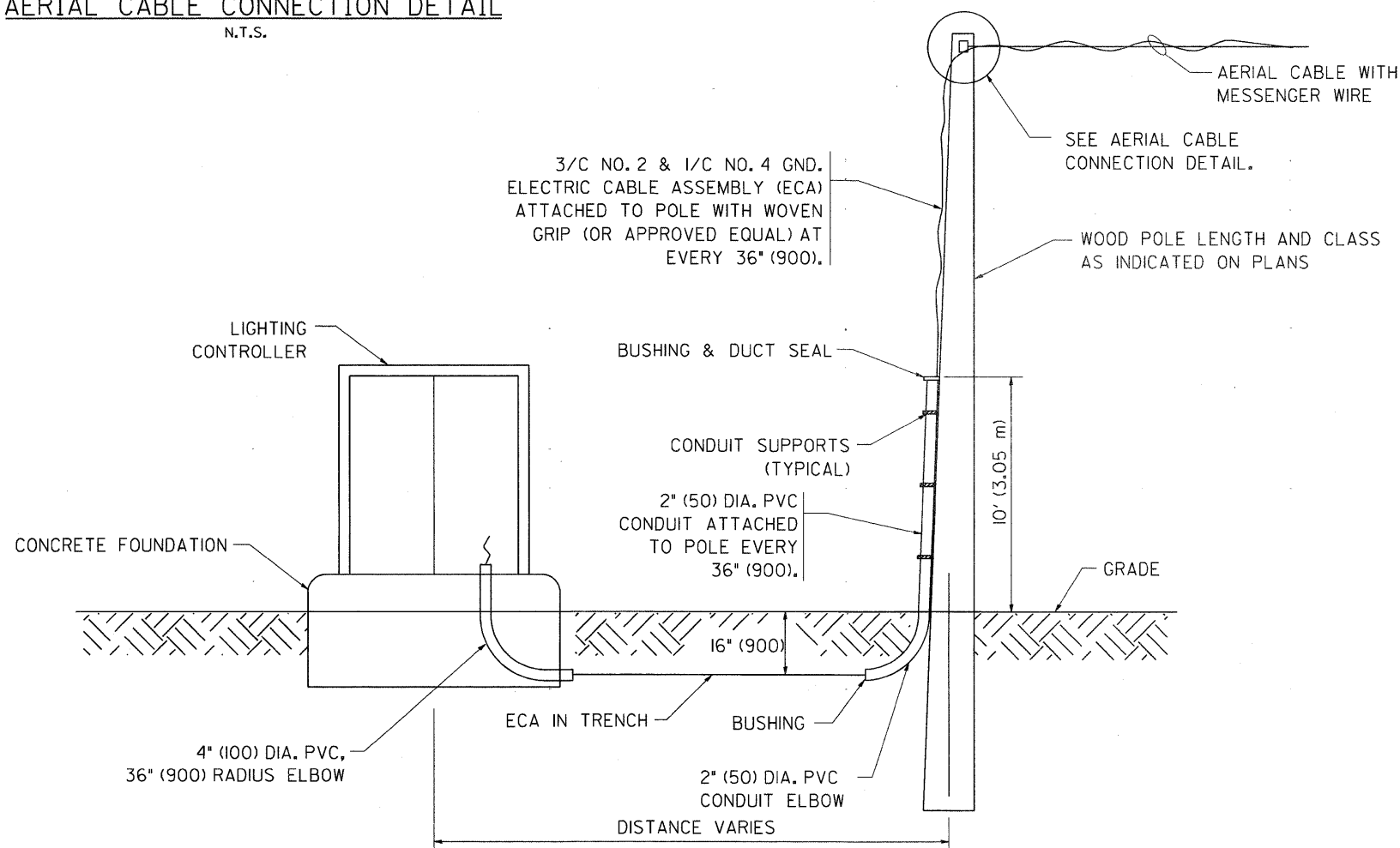


**AERIAL CABLE  
ATTACHED TO STRUCTURE**

NOT TO SCALE

**NOTES:**

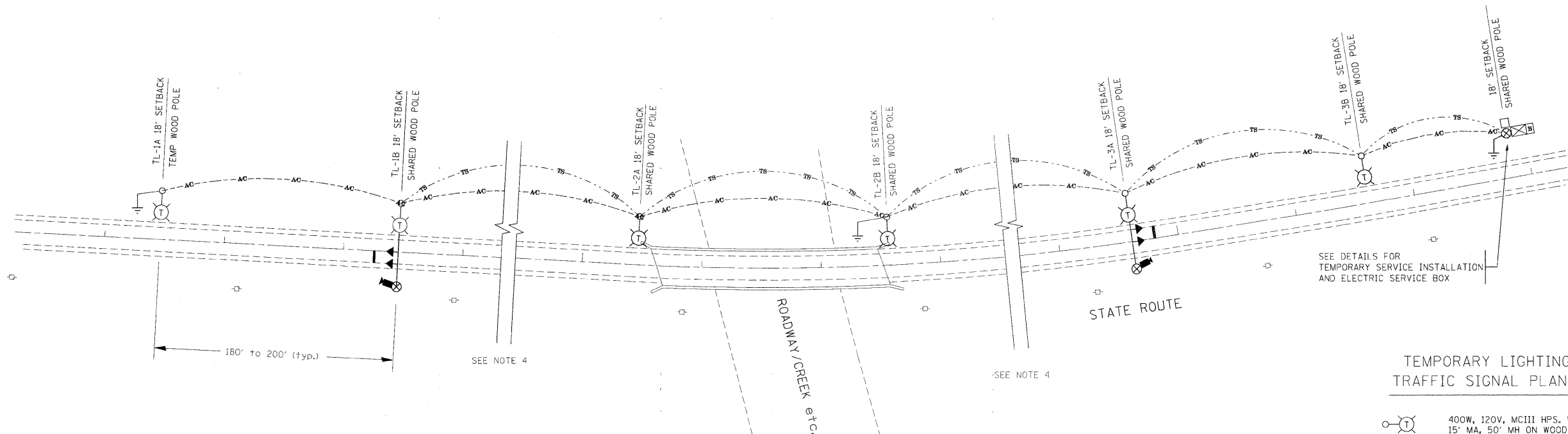
1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.



**WOOD POLE TO LIGHTING CONTROLLER  
WIRING CONNECTION DETAIL**

N.T.S.

FILE NAME = W:\diststd\22x34\ba001.dgn	USER NAME = geglianobt		DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY AERIAL CABLE INSTALLATION	F.A.P. RTE. 573	SECTION 318-I-1		COUNTY KANE	TOTAL SHEETS 35	SHEET NO. 21
	PLOT SCALE = 58,000' / IN.		DRAWN -	REVISED -				BE-801		CONTRACT NO. 60J42		
	PLOT DATE = 1/4/2008		CHECKED -	REVISED -				FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		
			DATE -	REVISED -				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS STA. TO STA.		



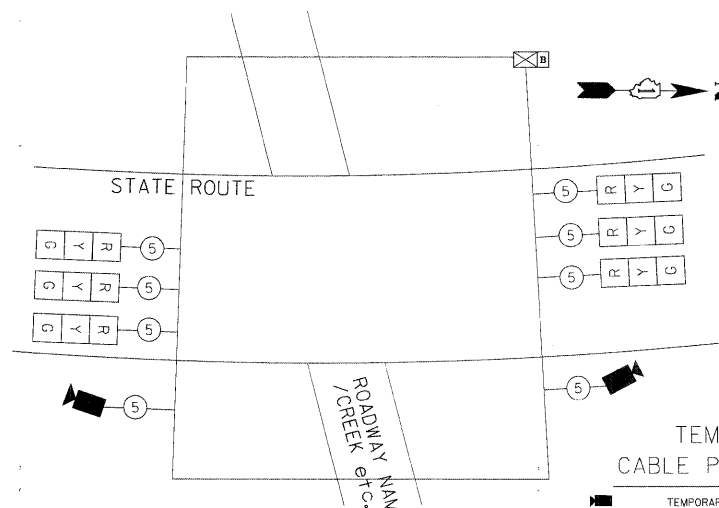
TYPICAL LAYOUT FOR TEMPORARY LIGHTING AND TRAFFIC SIGNALS  
NOT TO SCALE

# GENERAL NOTES:

- CONTACT TO THE ELECTRIC UTILITY SHALL BE INITIATED BEFORE THE PRECONSTRUCTION MEETING, AND DOCUMENTATION OF CONTACT SHALL BE PRESENTED AT THAT MEETING. NO PLACEMENT OF POLES WILL BE ALLOWED WITHOUT EVIDENCE OF A SIGNED AGREEMENT WITH THE ELECTRIC UTILITY, FURNISHED TO THE ENGINEER.
- UNLESS OTHERWISE INDICATED, AND EXCEPT AS OTHERWISE NOTED, THIS STANDARDIZED LAYOUT SHALL APPLY FOR BRIDGES NOT EXCEEDING A 250-FOOT SPAN. FOR BRIDGE SPANS IN EXCESS OF 250 FEET, THE POLES IMMEDIATELY ADJACENT TO THE BRIDGE SHALL BE 100-FOOT POLES (90-FOOT MOUNTING HEIGHT), WITH 750-WATT TYPE III HIGH PRESSURE SODIUM HIGH-MAST LUMINAIRES AS APPROVED BY THE ENGINEER.
- THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES, TRAFFIC SIGNALS, AND COMBINED SERVICE. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED.
- THE ELECTRIC SERVICE SHALL BE 240/120V. WHERE 240V SERVICE IS NOT AVAILABLE, THE CONTRACTOR MAY SUBMIT A PROPOSAL FOR 120V SERVICE, DROP CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED AND INCLUDED REGARDLESS OF THE SERVICE VOLTAGE APPLIED.
- THE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATION SHALL SHARE ANY COMMON ELEMENTS SUCH AS WOOD POLES, ELECTRICAL SERVICE, ELECTRIC SERVICE BOX, CABLE, ETC. THE CONTRACTOR SHALL COORDINATE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATIONS.
- THE LIGHT POLE SETBACK FROM THE EDGE OF TRAVEL PAVEMENT SHALL BE 18 FT. UNLESS THE LIGHT POLE IS BEHIND GUARDRAIL. THE LIGHT POLES INSTALLED BEHIND THE GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 8 FT. SETBACK FROM THE BACK OF THE SHOULDER AND OR AS DIRECTED BY THE ENGINEER.
- EACH LIGHTING UNIT SHALL BE CONTROLLED BY A PHOTO CELL MOUNTED ON EACH LUMINAIRE WITH THE LIGHTING CIRCUIT FED FROM THE TEMPORARY SERVICE DISCONNECT BOX. OTHER MEANS OF LUMINAIRE CONTROL CAN BE CONSIDERED IF APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH THE FACTORY APPLIED WATERPROOF SEALANT OR AN APPROVED UL LISTED AERIAL TAP DEVICE.
- ALL AREAS DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ENGINEER.

## TEMPORARY LIGHTING AND TRAFFIC SIGNAL PLAN LEGEND

- 400W, 120V, MCIII HPS. WITH PHOTO CELL 15' MA, 50' MH ON WOOD POLE, CLASS 4
- 3-1/C#2, AERIAL CABLE WITH MESSENGER WIRE UNLESS OTHERWISE NOTED
- TL-1A TEMPORARY LIGHTING UNIT NUMBER - ONE CIRCUIT A
- GROUND ROD 5/8" DIA. x 10'
- COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRICAL SERVICE BOX
- TEMPORARY WOOD POLE - NOMINAL 60 FT., CLASS 4
- TEMPORARY LED TRAFFIC SIGNAL HEAD, NUMBER OF SECTION AND DISPLAY AS REQUIRED.
- TEMPORARY TRAFFIC SIGNAL SPAN WIRE, NUMBER OF CONDUCTORS AS REQUIRED.
- TEMPORARY TRAFFIC CONTROLLER WITH UPS AND BOTTOM PLATE MOUNTED TO WOOD POLE
- TEMPORARY VIDEO DETECTOR



## TEMPORARY CABLE PLAN LEGEND

- TEMPORARY VIDEO DETECTOR
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)

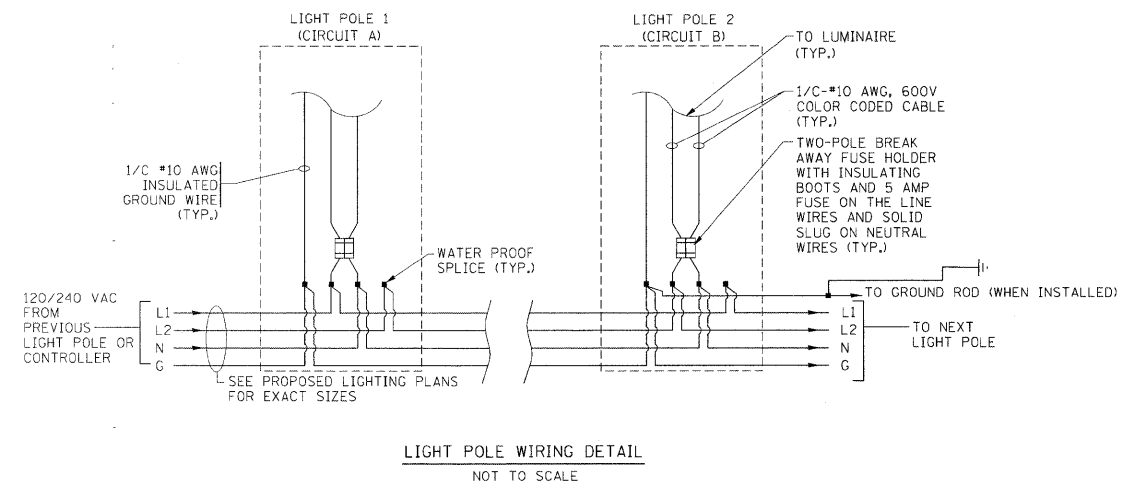
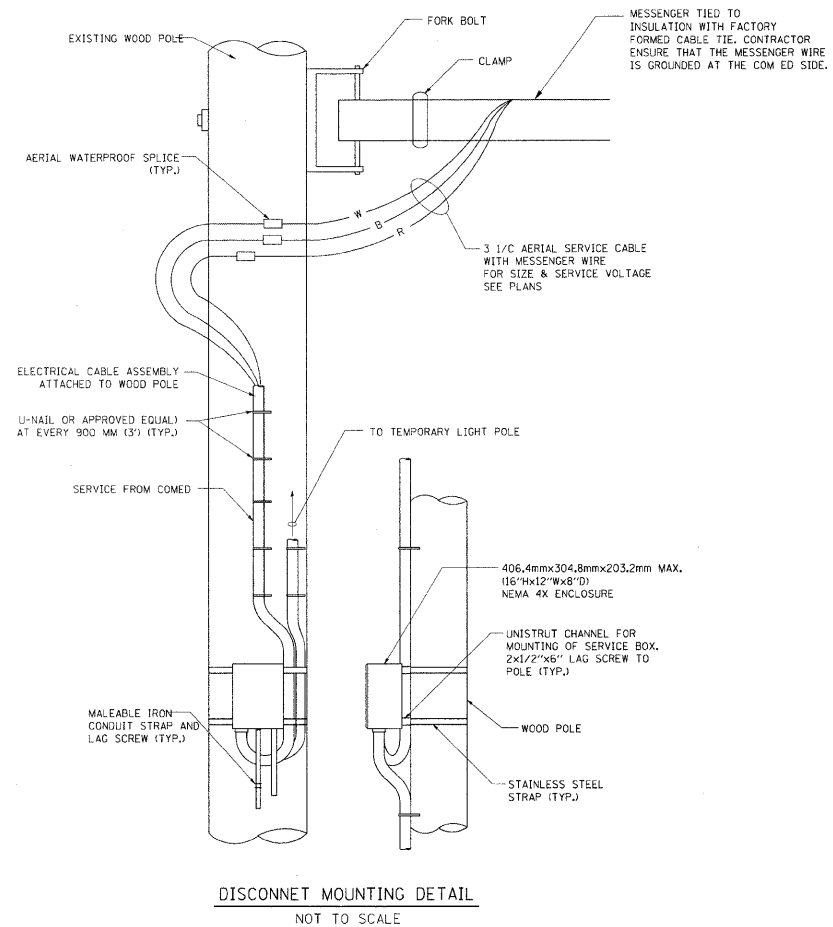
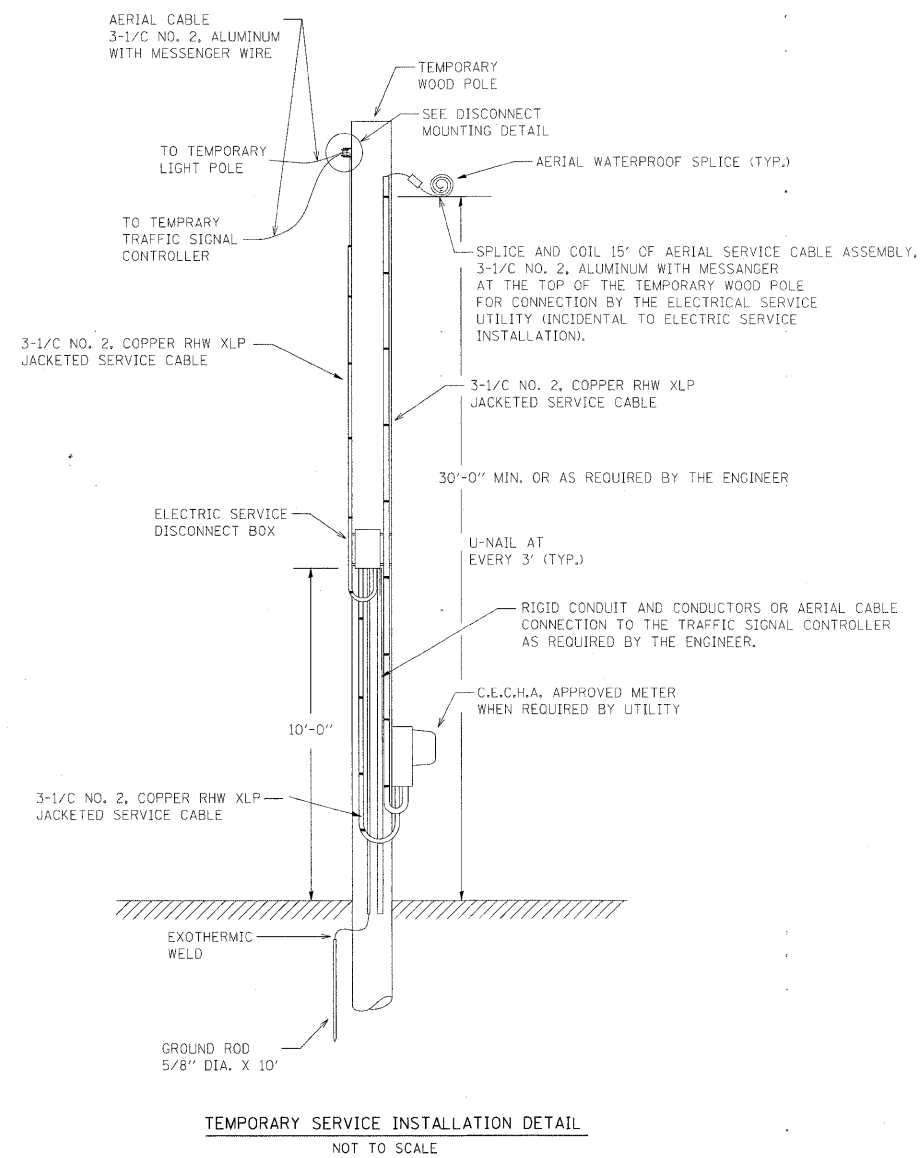
## TEMPORARY PHASE DESIGNATION DIAGRAM LEGEND

- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE

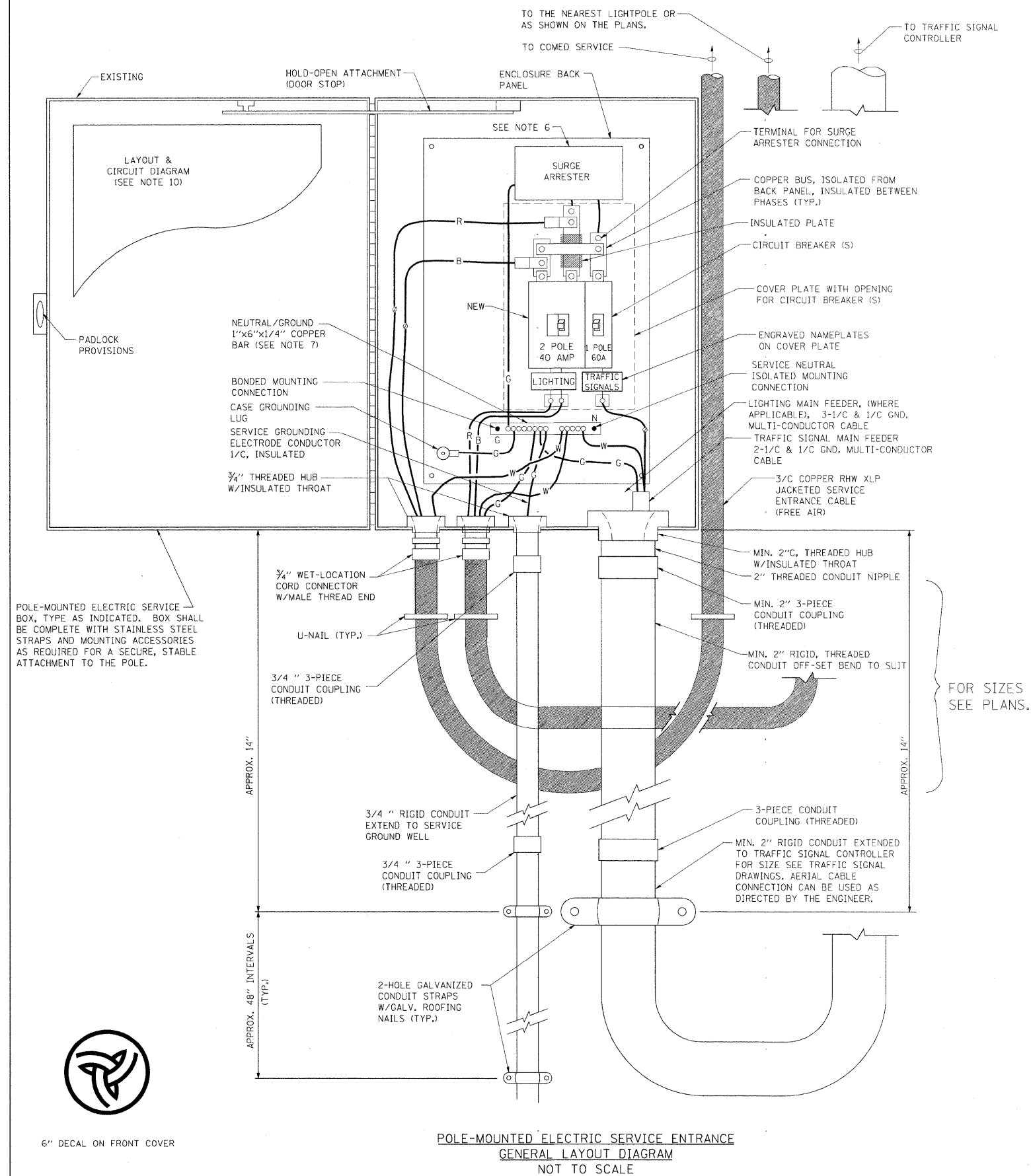
## TEMPORARY PHASE DESIGNATION DIAGRAM (TYPICAL)

NOT TO SCALE



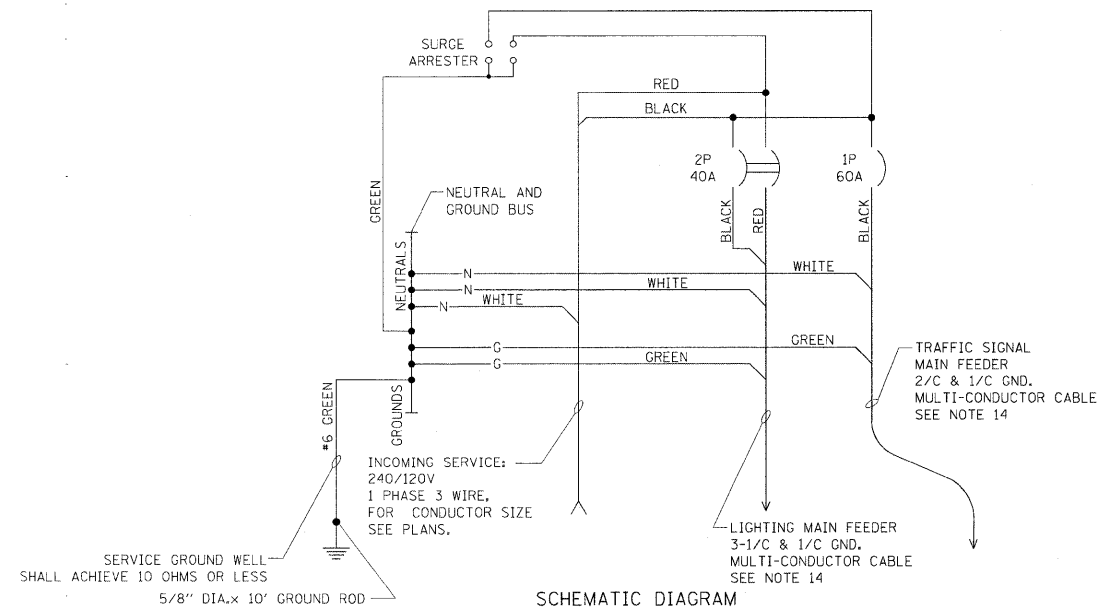


FILE NAME =	USER NAME = bauerdl	DESIGNED - MP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\p\work\p\WIDOT\BAUERDL\00108315\be005.dgn		DRAWN -	REVISED -					573	318-1-1	KANE	35	23
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -					BE-805 CONTRACT NO. 60J42				
	PLOT DATE = 1/14/2010	DATE - 01/14/10	REVISED -		SCALE: NONE	SHEET NO. 2 OF 3 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

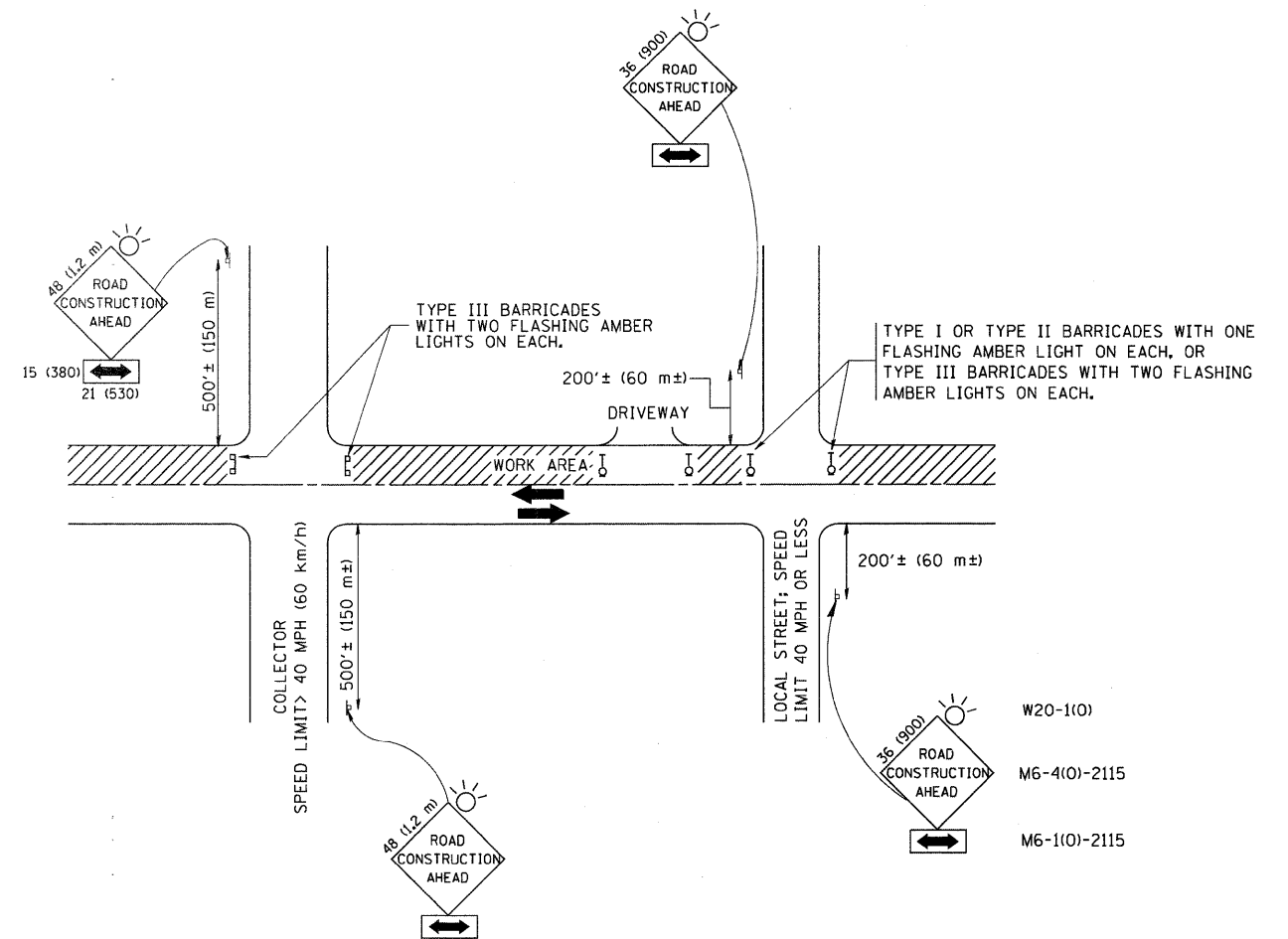


#### NOTES:

- ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
- THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 240/120V 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER AND TRAFFIC SIGNALS MAIN BREAKER AS REQUIRED.
- THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
- THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H1208SS6LP/A-16 P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
- CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
- THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CM0V230L065XST OR APPROVED EQUAL.
- BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
- THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
- THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
- A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
- A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
- LUGS AND CONNECTORS SHALL BE RATED FOR 75 C CONDUCTOR.
- THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.



FILE NAME =	USER NAME = bauerdl	DESIGNED - MP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
et\pw\work\PIWIDOT\BAUERDL\d0108315\be963.dgn		DRAWN -	REVISED -					573	31B-I-1	KANE	35	24
PLOT SCALE = 50.000' / IN.		CHECKED -	REVISED -					BE-805 CONTRACT NO. 60J42				
PLOT DATE = 1/14/2010		DATE = 01/14/10	REVISED -		SCALE: NONE	SHEET NO. 3 OF 3 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



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

### NOTES:

#### A. FOR NO LANE RESTRICTION ON THE SIDE ROAD OR DRIVEWAYS

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:

a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 36 x 36 (900x900) WITH A FLASHER AND FLAG MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.

2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:

a) ONE **ROAD CONSTRUCTION AHEAD** SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.

b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.

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).

#### 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.

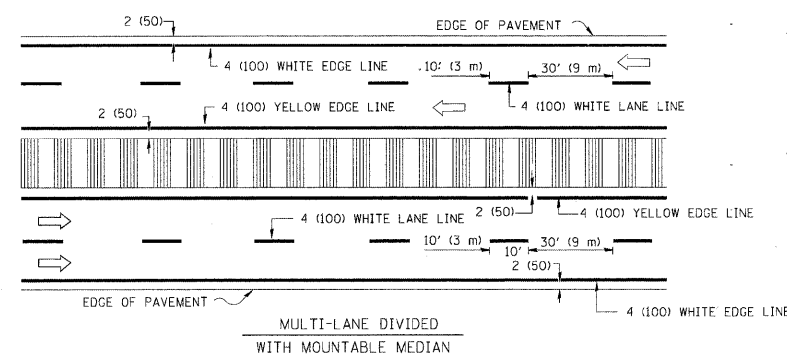
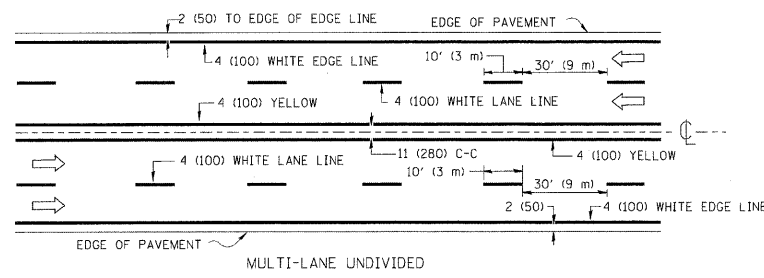
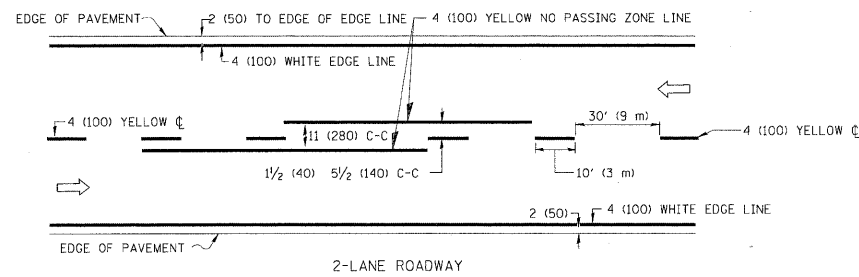
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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - A. HOUSEH 10-15-96
	PLOT DATE = 1/4/2008	DATE - 06-89	REVISED - T. RAMMACH 01-06-00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

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

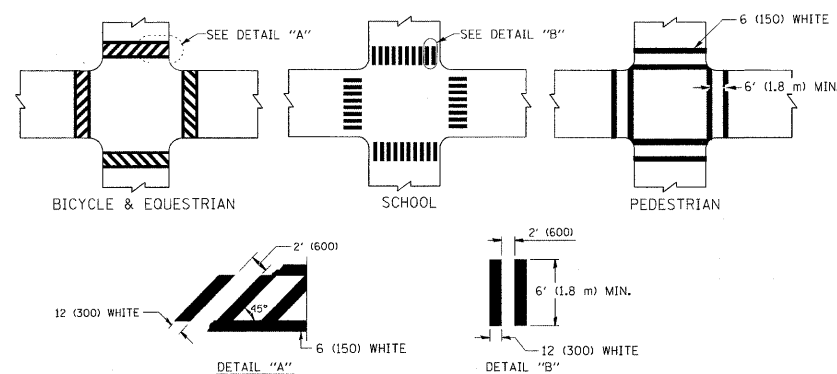
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	318-1-1	KANE	35	25
TC-10		CONTRACT NO. 60J42		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

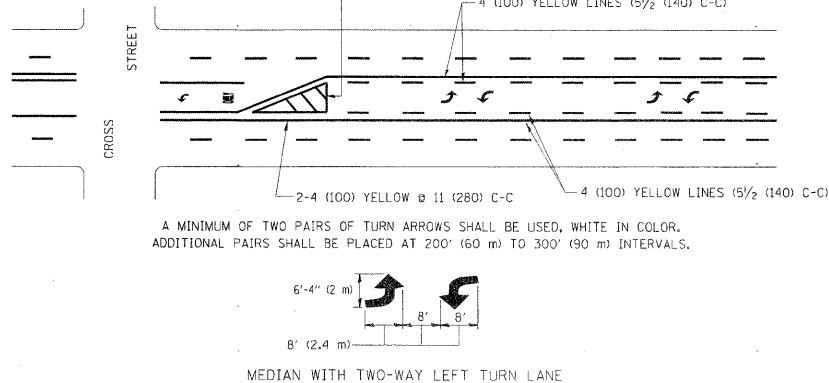
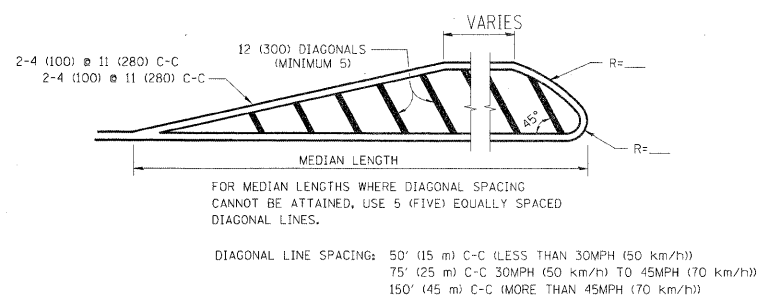
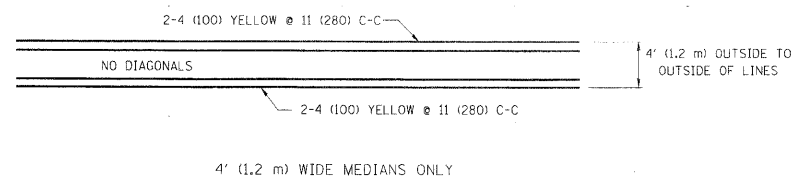


NOTE: MEDIANS WITH BARRIER CURB DO NOT REQUIRE AN EDGE LINE

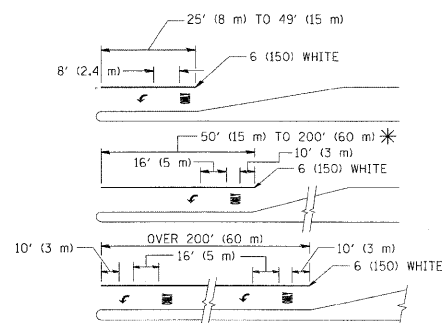
## TYPICAL LANE AND EDGE LINE MARKING



## TYPICAL CROSSWALK MARKING

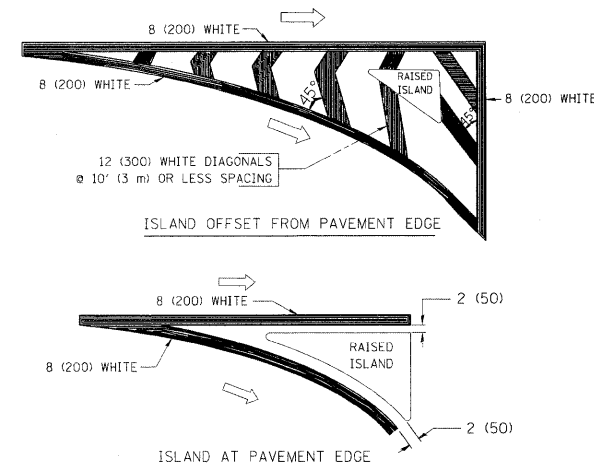


## TYPICAL PAINTED MEDIAN MARKING



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

## TYPICAL TURN LANE MARKING



## 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 UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES: FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2' (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MOUNTABLE MEDIANS IN YELLOW; EDGE LINES ARE NOT USED NEXT TO BARRIER CURB
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2' (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT. OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW: TWO WAY TRAFFIC WHITE: ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 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) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))

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

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

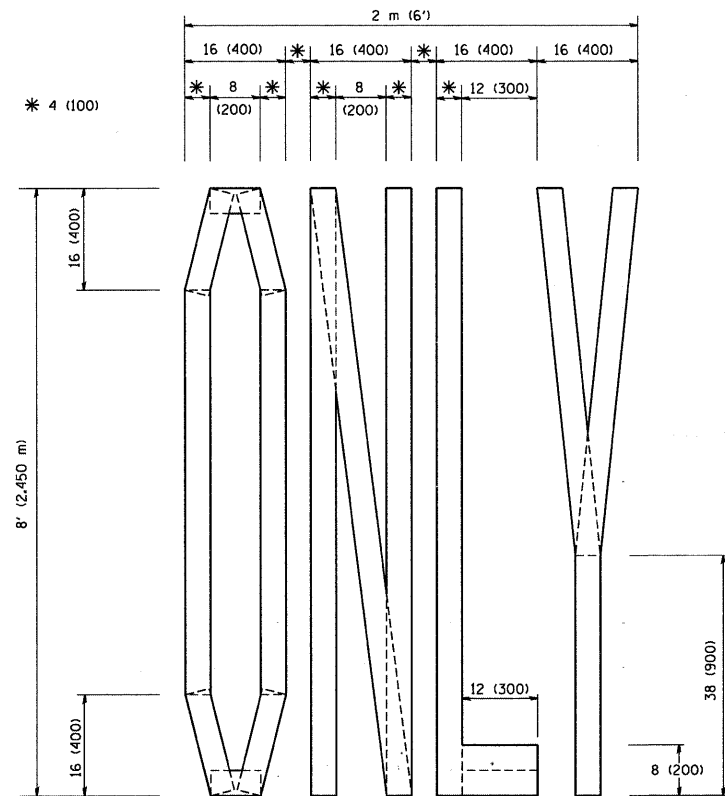
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c:\pwork\pwork\drivakosgn\d0108315\td	3.dgn	DRAWN =	REVISED = C. JUCIUS 09-09-09
	PLOT SCALE = 50.000' / IN.	CHECKED =	REVISED =
	PLOT DATE = 9/9/2009	DATE = 03-19-90	REVISED =

## STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

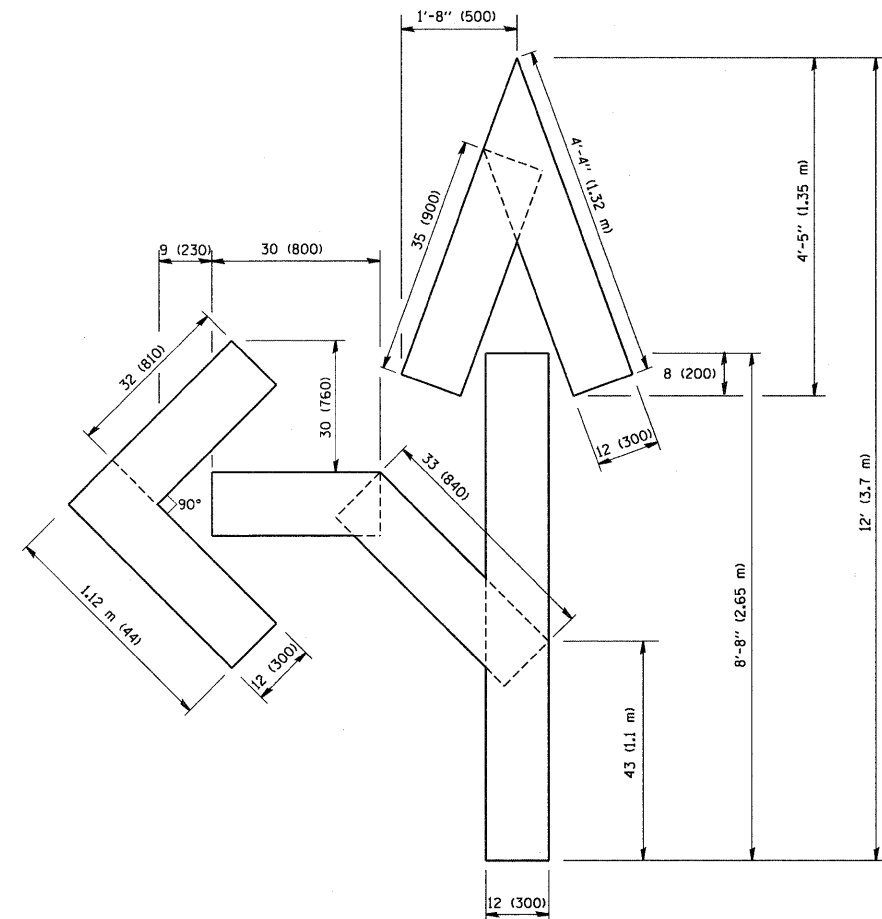
## DISTRICT ONE TYPICAL PAVEMENT MARKINGS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

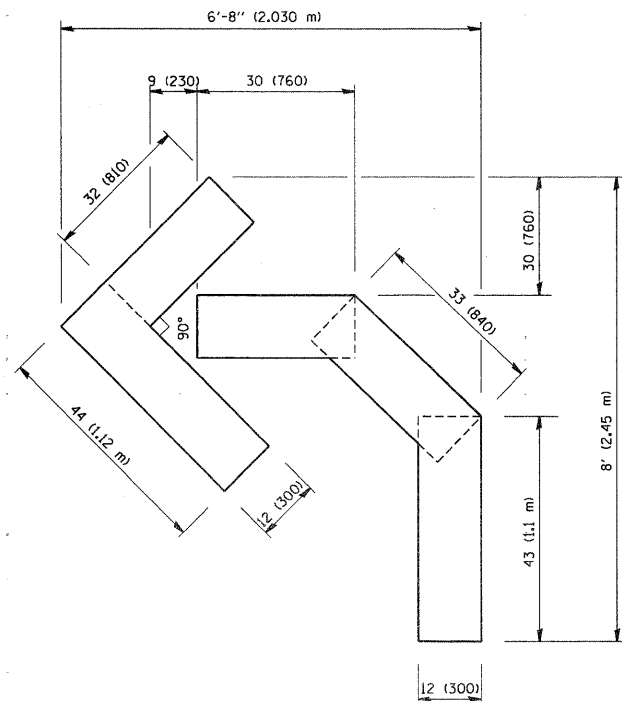
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-I-1	KANE	35	26
TC-13		CONTRACT NO. 60J42		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY  
4 (100) LINE = 64.1 ft. (19.7 m)  
21.1 sq. ft. (1.97 sq. m)



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

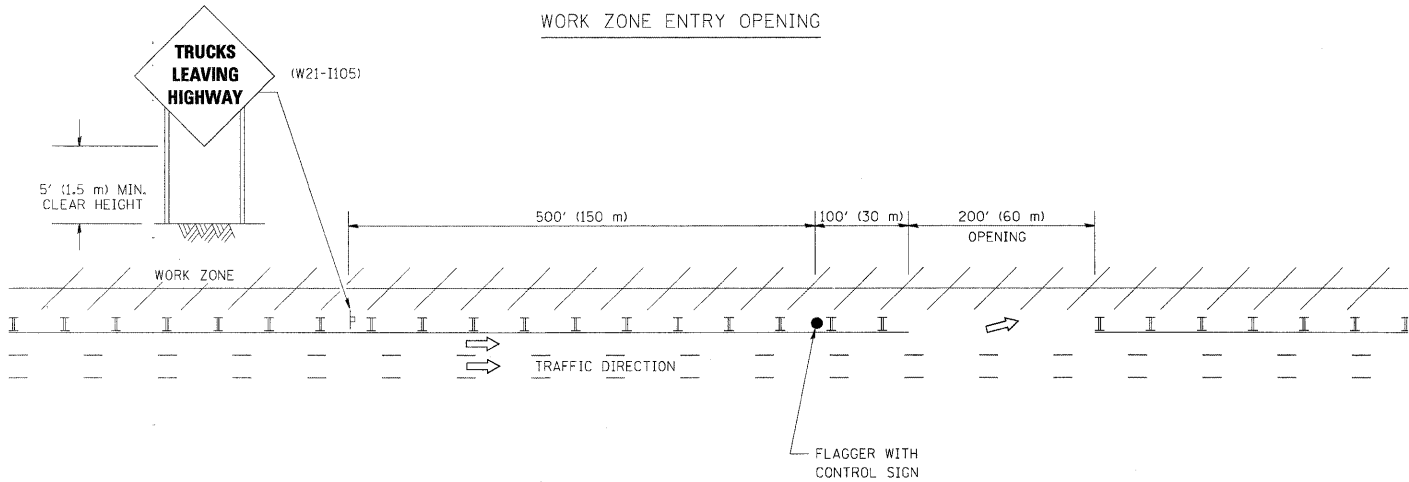
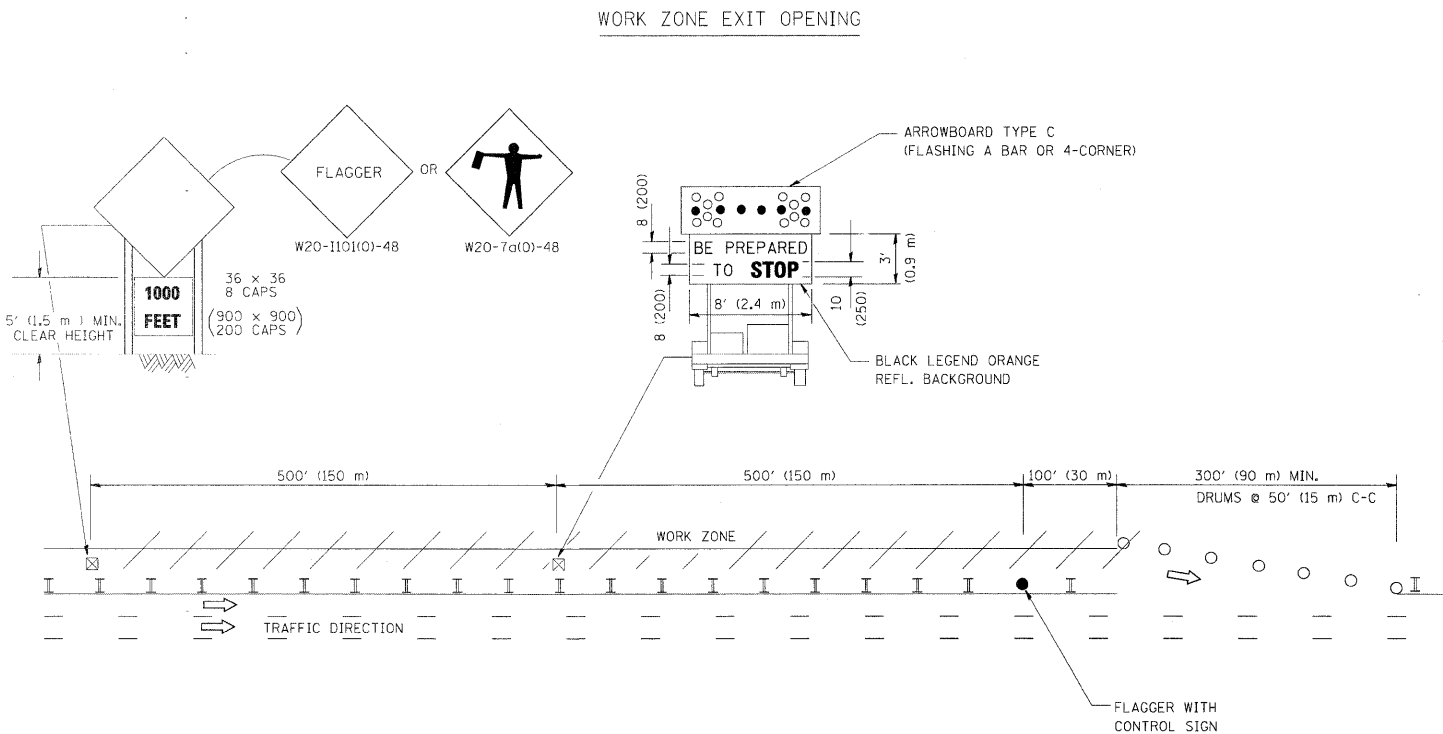


QUANTITY  
4 (100) LINE = 45.5 ft. (13.9 m)  
15.2 sq. ft. (1.39 sq. m)

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

FILE NAME = W:\diststd\22x34\tcl6.dgn	USER NAME = geglianobt	DESIGNED -	REVISED -T. RAMMACHER 06-05-96	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT MARKING LETTERS AND SYMBOLS FOR TRAFFIC STAGING			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED -T. RAMMACHER 11-04-97					573	31B-I-1	KANE	35	27
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98		TC-16			CONTRACT NO. 60J42				
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS



NOTES:

1. THE ARROWBOARD, THE FLAGGER AHEAD SIGN AND THE TRUCKS LEAVING HIGHWAY SIGN SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE EXIT OPENINGS SHOULD BE A MINIMUM OF ONE HALF MILE APART.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

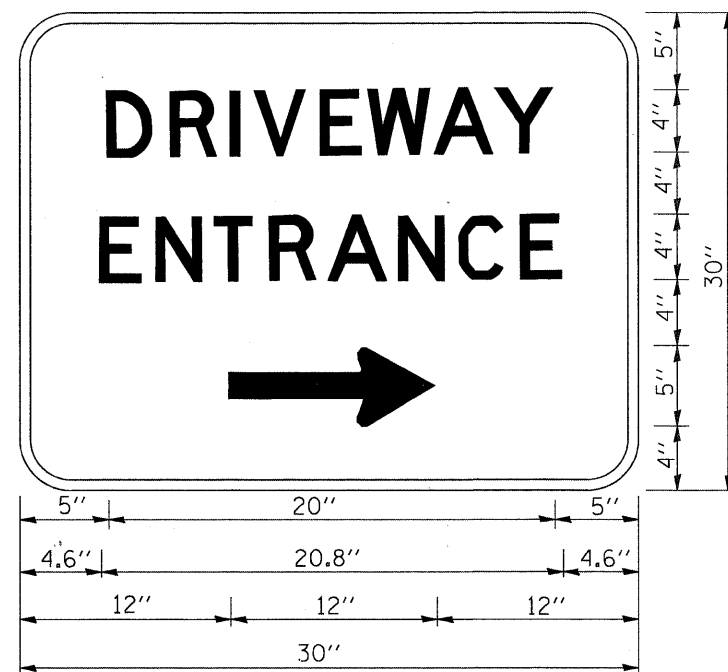
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		DRAWN -	REVISED - J.A.F. 02-06
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 1/26/2010	DATE -	REVISED - S.P.B. 12-09

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

SIGNING FOR FLAGGING OPERATIONS  
AT WORK ZONE OPENINGS

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
573	31B-I-1	KANE	35	28
TC-18		CONTRACT NO. 60J42		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



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

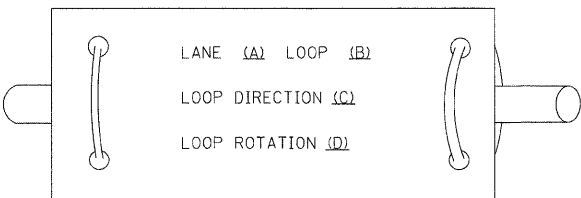
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		DRAWN -	REVISED -				318-1-1	KANE	35	29
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED -				TC-26	CONTRACT NO.	60J42	
	PLOT DATE = 1/4/2008	DATE -	REVISED -				FED. ROAD DIST. NO. 1	ILLINOIS FED. AID PROJECT		
				SCALE: NONE		SHEET NO. 1 OF 1 SHEETS		STA. TO STA.		



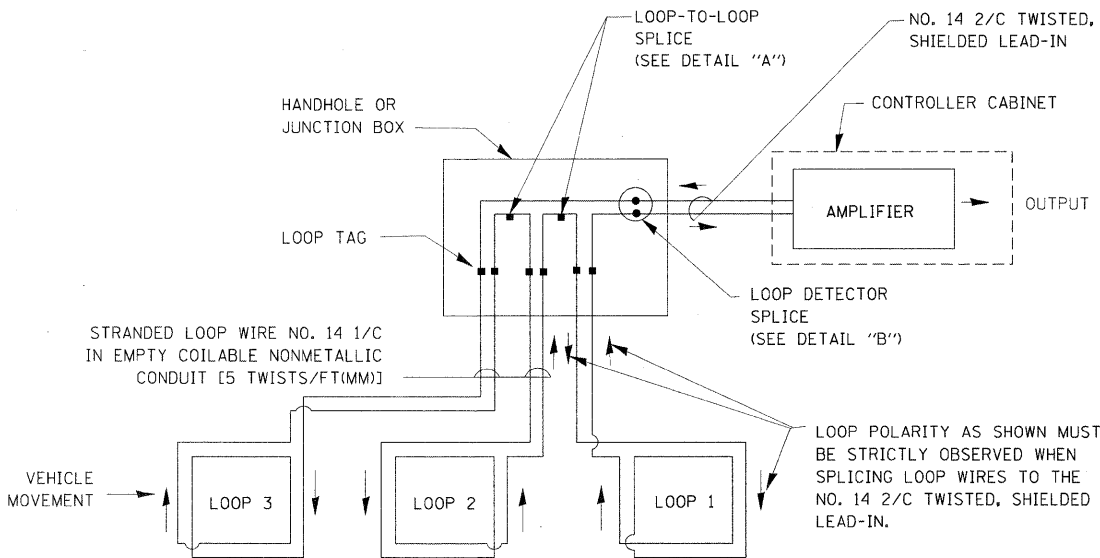
LOOP DETECTOR NOTES

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT 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

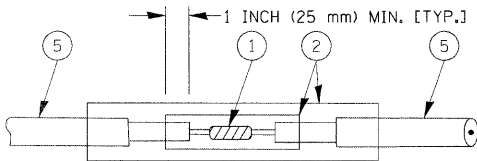


- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

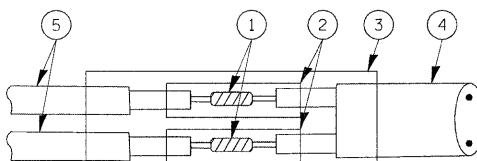


DETECTOR LOOP WIRING SCHEMATIC

- 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.

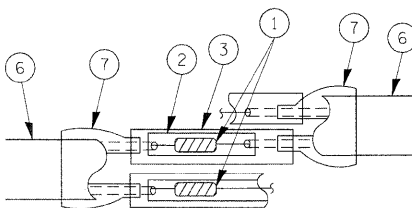


DETAIL "A"  
LOOP-TO-LOOP SPLICE

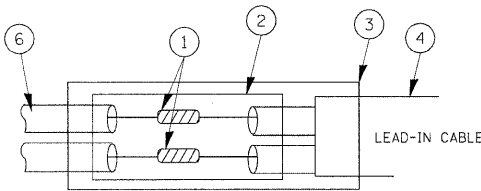


DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

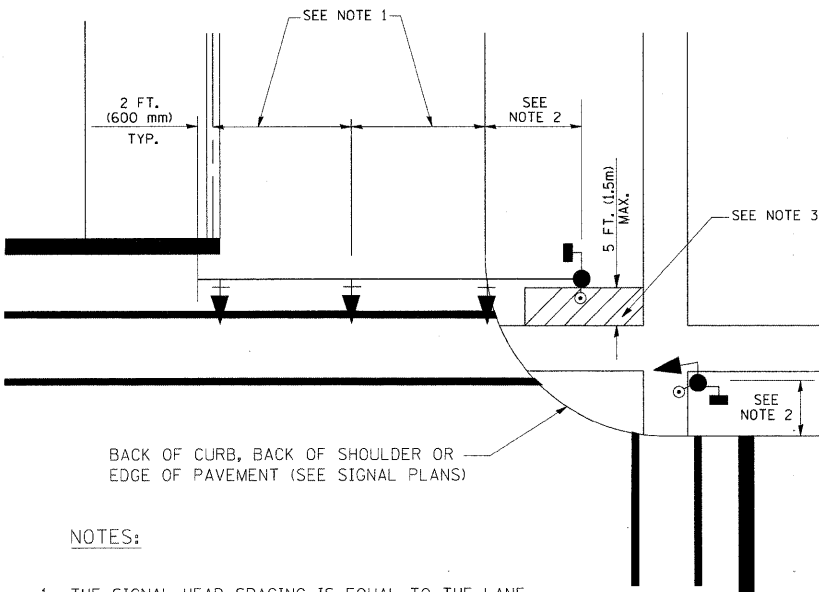
LOOP DETECTOR SPLICE

- 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.
- ⑤ LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- ⑥ PRE-FORMED LOOP
- ⑦ XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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	PLOT SCALE = 50.0000' / 1" IN.	CHECKED - DAD	REVISED -						TS-05		CONTRACT NO. 60J42		
	PLOT DATE = 11/4/2009	DATE - 10-28-09	REVISED -						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

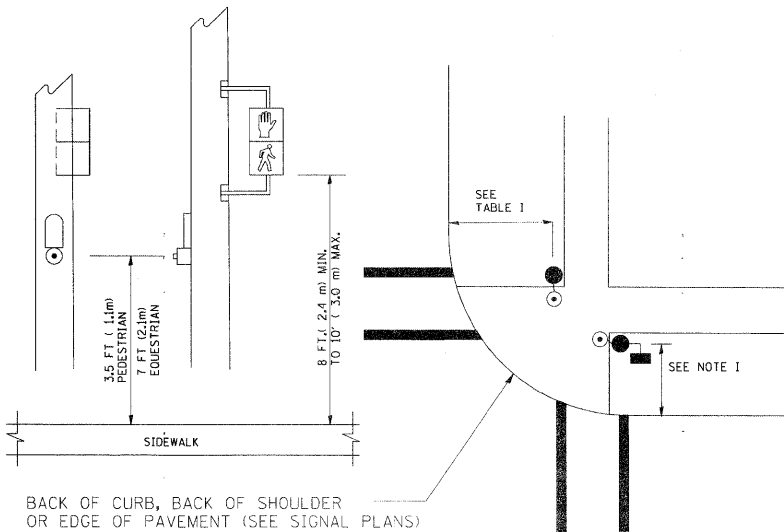
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

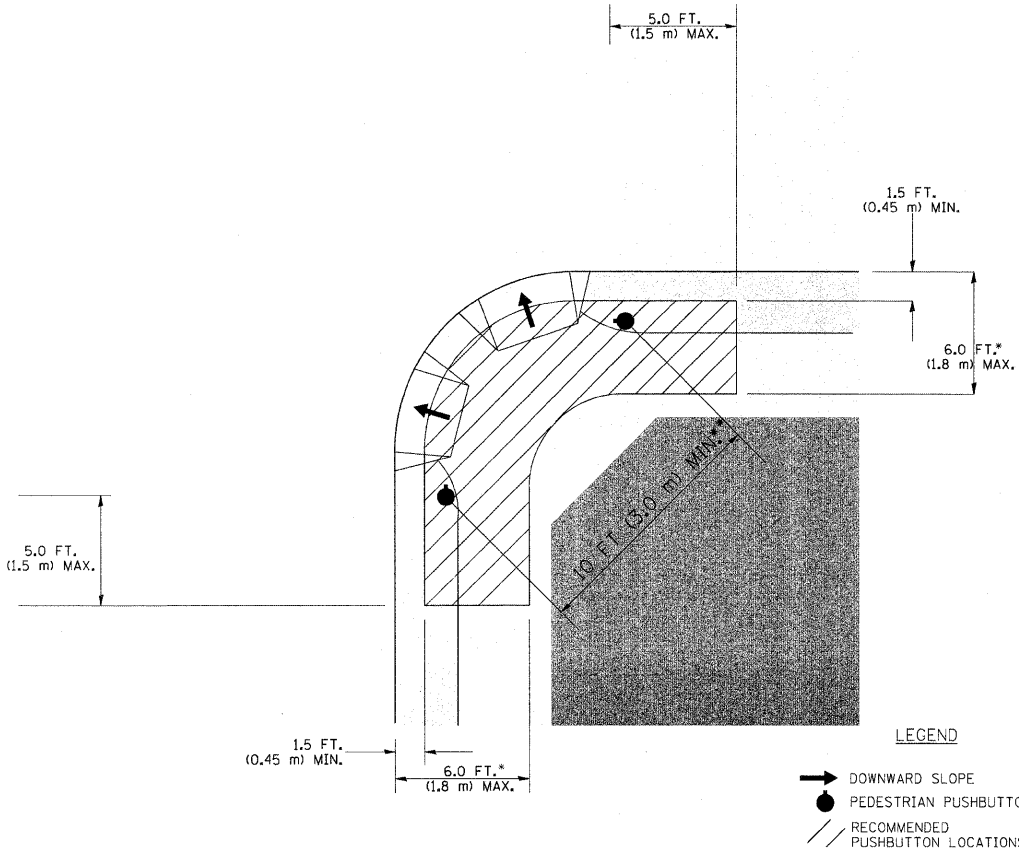
PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

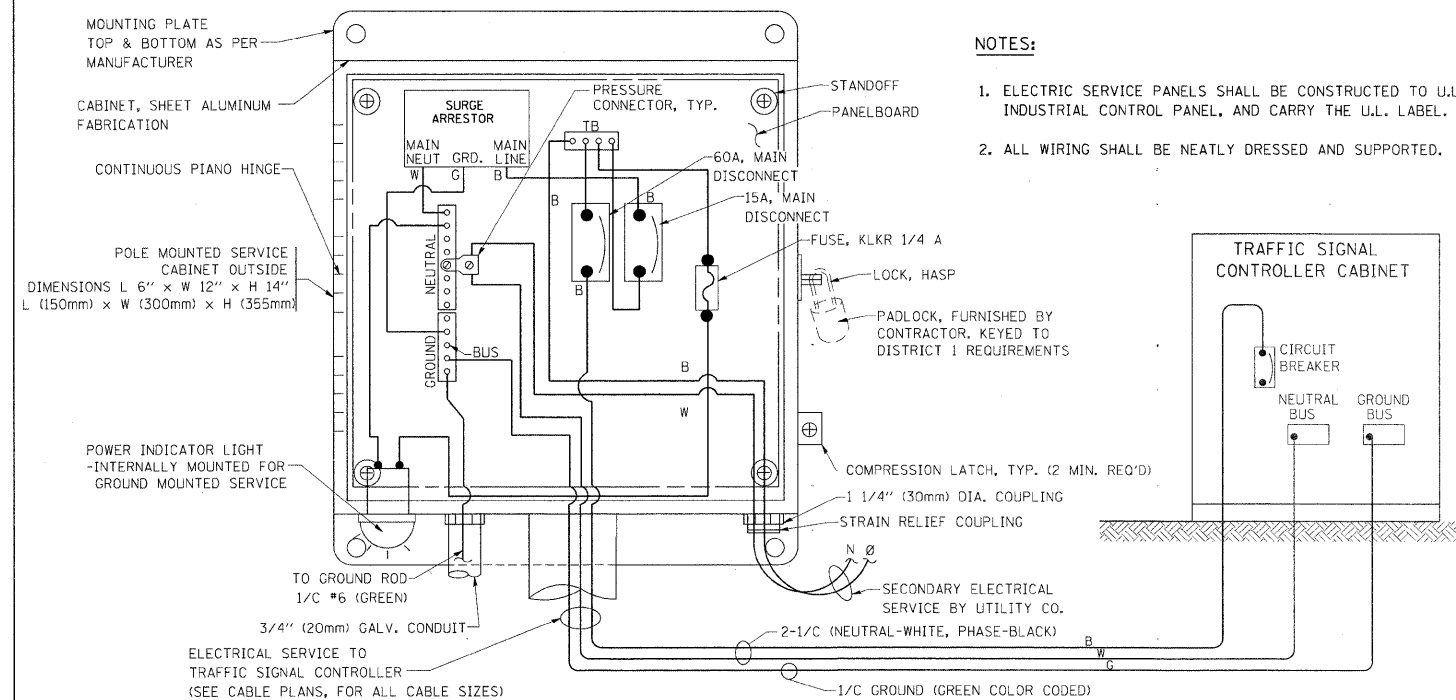
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

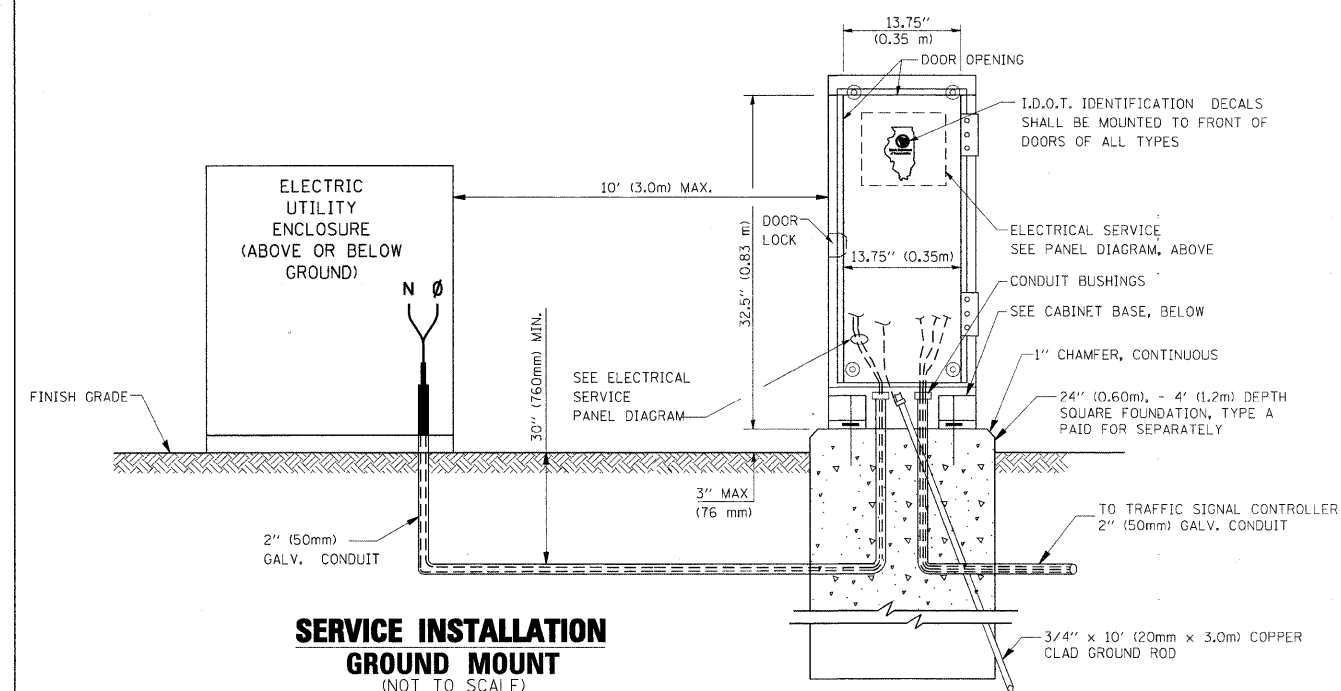
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

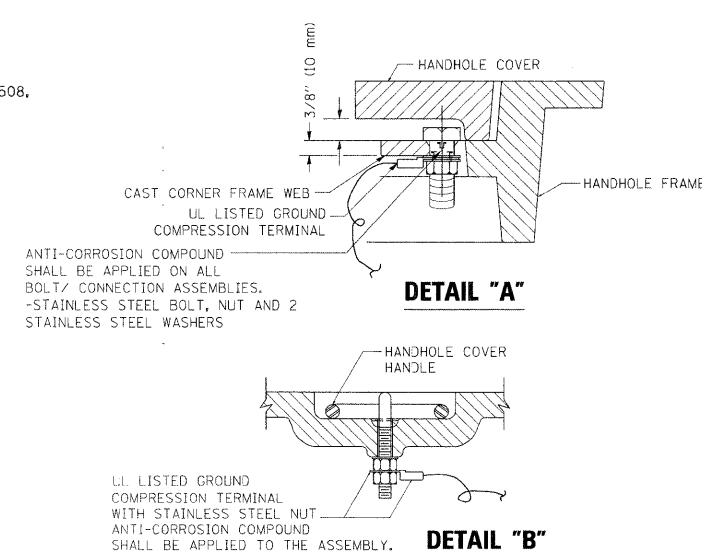
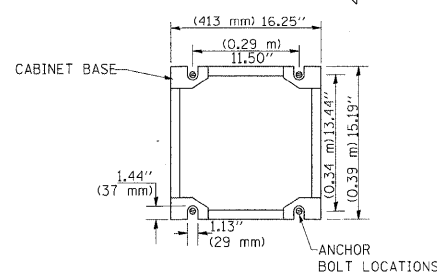
1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.



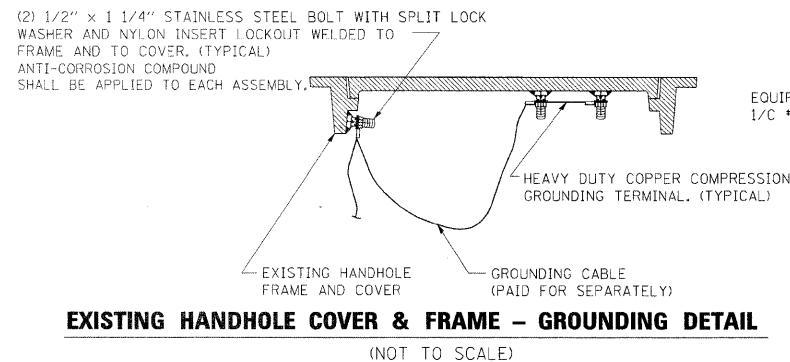
**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE)**  
**SERVICE INSTALLATION POLE MOUNT (SHOWN)**  
 (NOT TO SCALE)



**CABINET - BASE BOLT PATTERN**  
 (NOT TO SCALE)



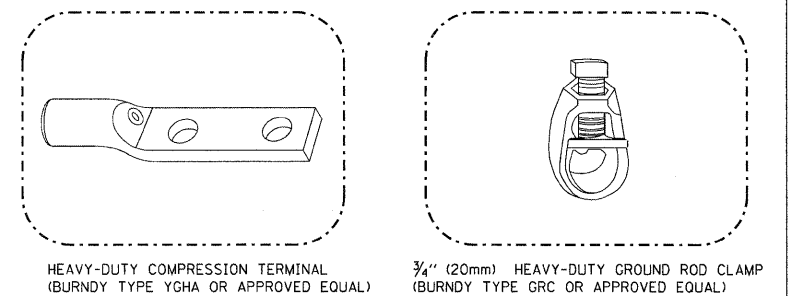
**HANDHOLE COVER & FRAME - GROUNDING DETAIL**  
 (NOT TO SCALE)



**NOTES:**

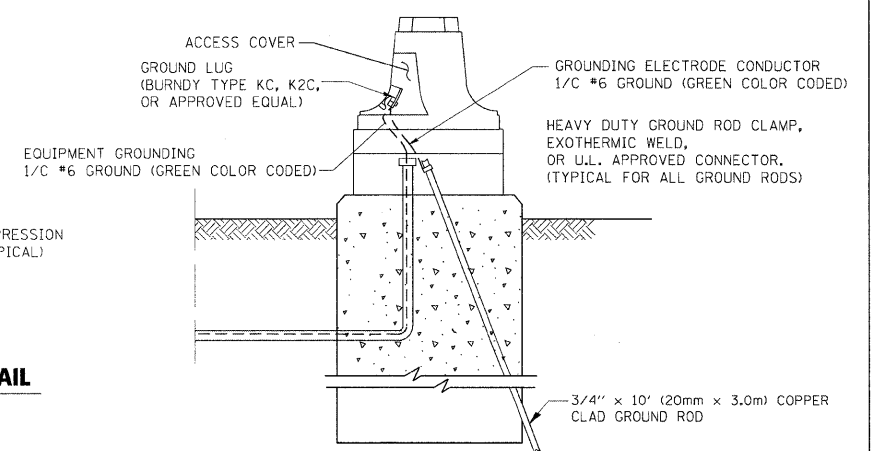
**GROUNDING SYSTEM**

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 (847) 705-4139.
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 IN THE CONTROLLER CABINET.
4. THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

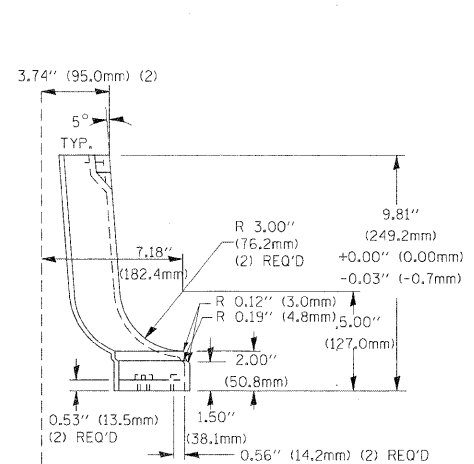
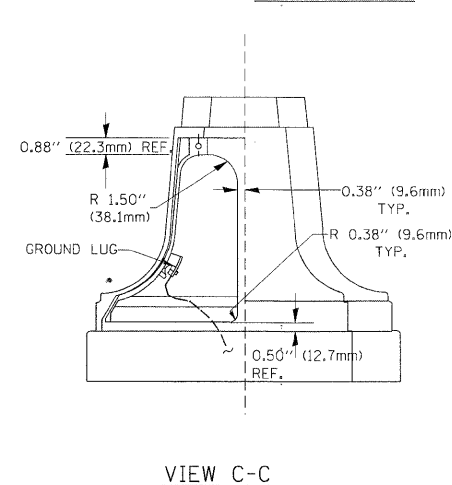
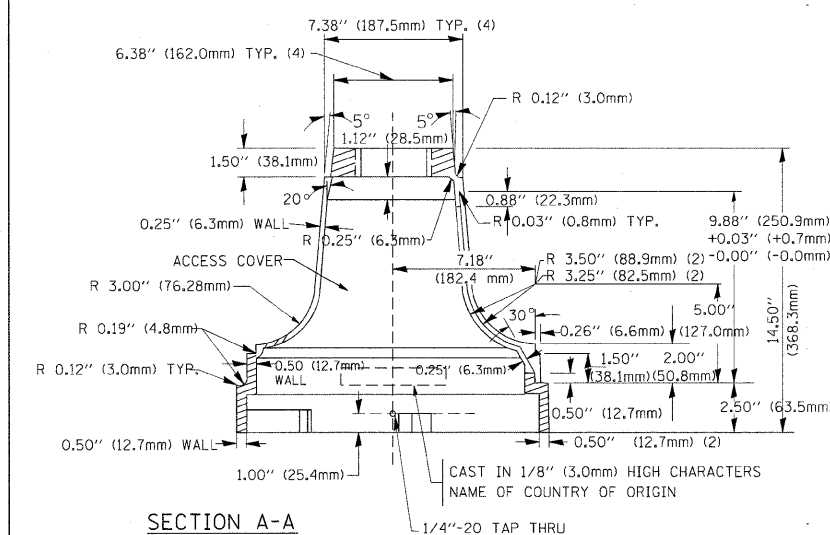
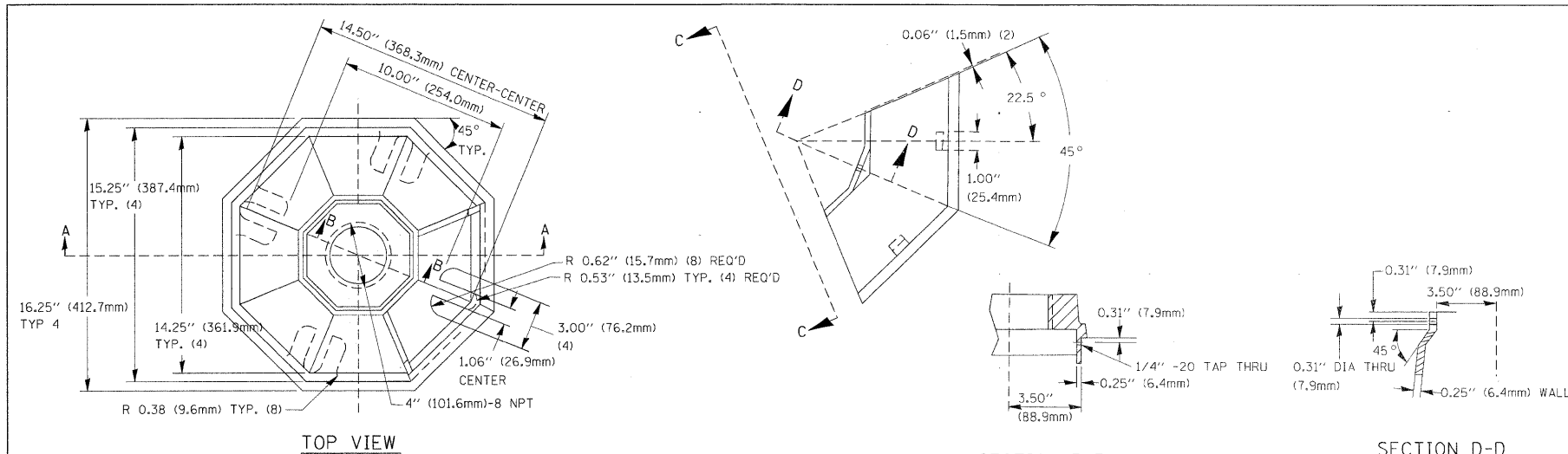


**NOTES:**

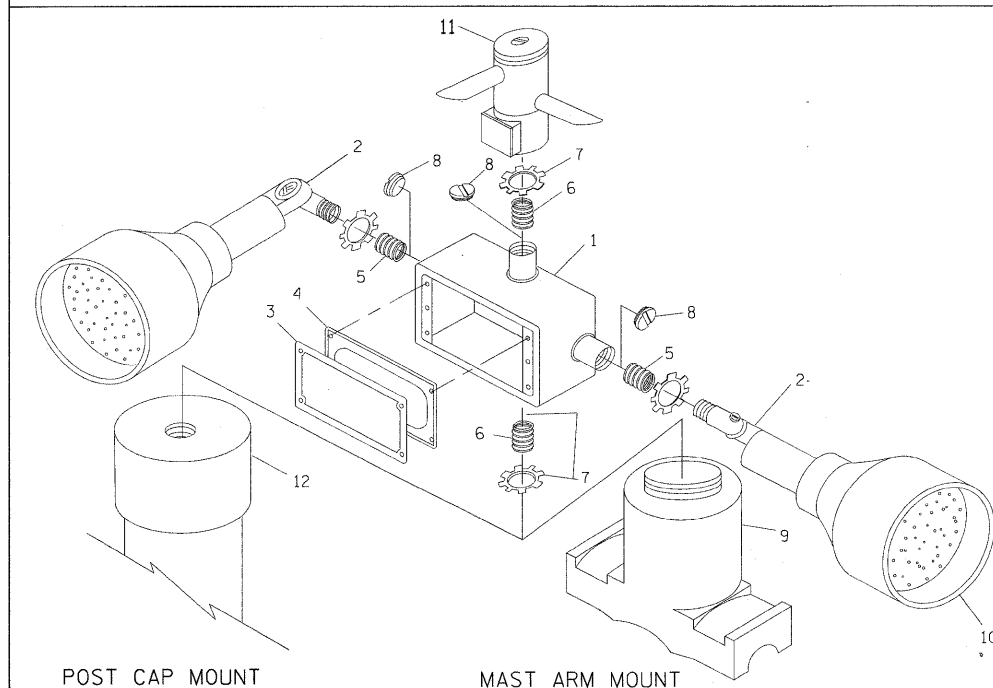
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
- GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES. 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES. 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



FILE NAME =	USER NAME = bauerdl	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE				F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
c:\pwork\pwork\BAUERDL\0108315\ts05.dgn		DRAWN - BCK	REVISED -		STANDARD TRAFFIC SIGNAL DESIGN DETAILS				573	318-I-1	KANE	35	32
	PLOT SCALE = 50.0000' / IN.	CHECKED - DAD	REVISED -						TS-05				
	PLOT DATE = 11/4/2009	DATE - 10-28-09	REVISED -						CONTRACT NO. 60J42				
					SCALE: NONE	SHEET NO. 3 OF 6 SHEETS		STA. TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			



TRAFFIC SIGNAL POST - MOUNTING BASE - TYPE A



POST CAP MOUNT

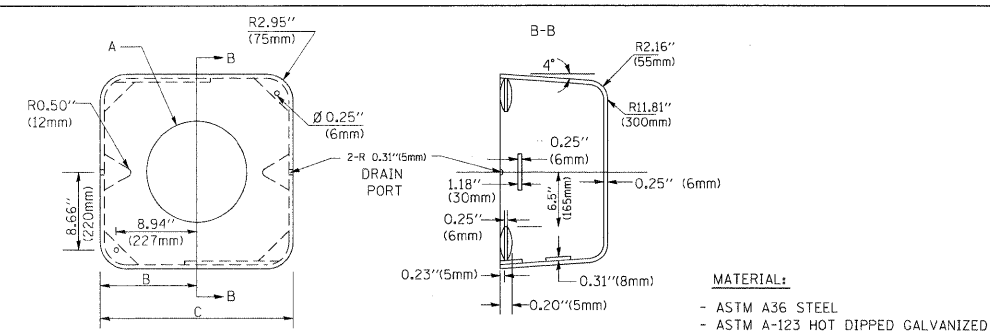
MAST ARM MOUNT

EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL

ITEM NO.	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	3/4\" (19 mm) CLOSE NIPPLE
7	3/4\" (19 mm) LOCKNUT
8	3/4\" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

NOTES:

- ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
- 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
- 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 3/4\" (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.



A	B	C	HEIGHT	WEIGHT
VARIES	9.5\" (241mm)	19\" (483mm)	7\" (178mm) - 12\" (300mm)	53 lbs (24kg)
VARIES	10.75\" (273mm)	21.5\" (546mm)	7\" (178mm) - 12\" (300mm)	68 lbs (31 kg)
VARIES	13.0\" (330mm)	26\" (660mm)	7\" (178mm) - 12\" (300mm)	81 lbs (37 kg)
VARIES	18.5\" (470mm)	37\" (940mm)	7\" (178mm) - 12\" (300mm)	126 lbs (57 kg)

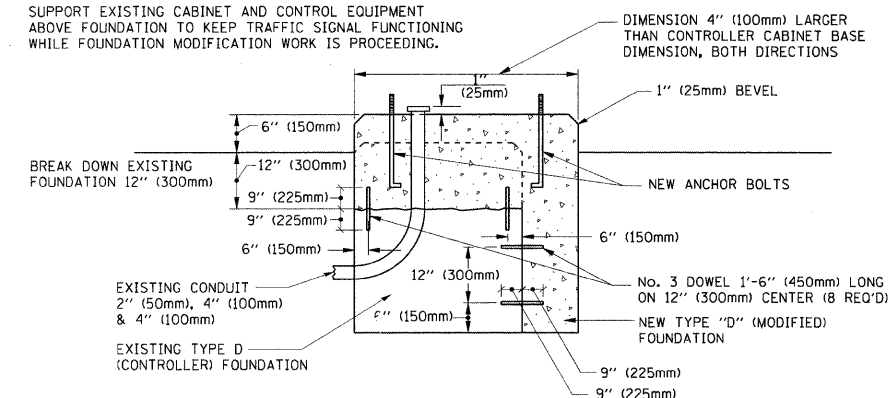
SHROUD

NOTES:

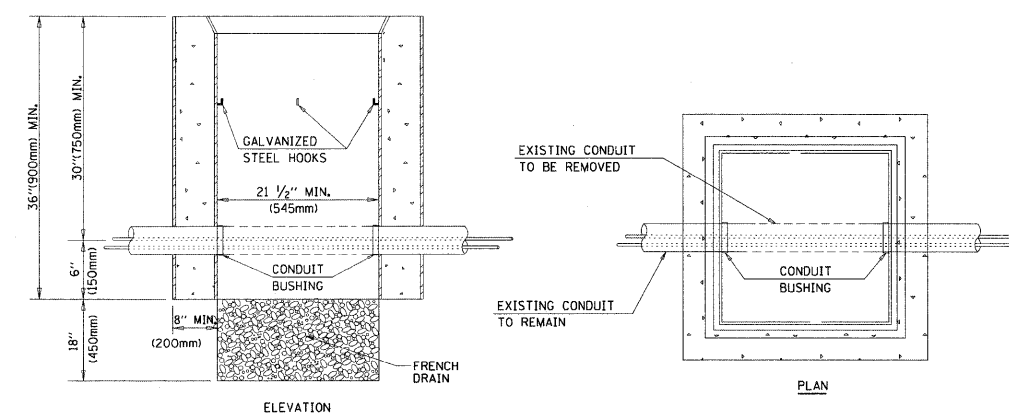
- DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
- THE SUPPLIER SHALL VERIFIED THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
- THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

NOTE:

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



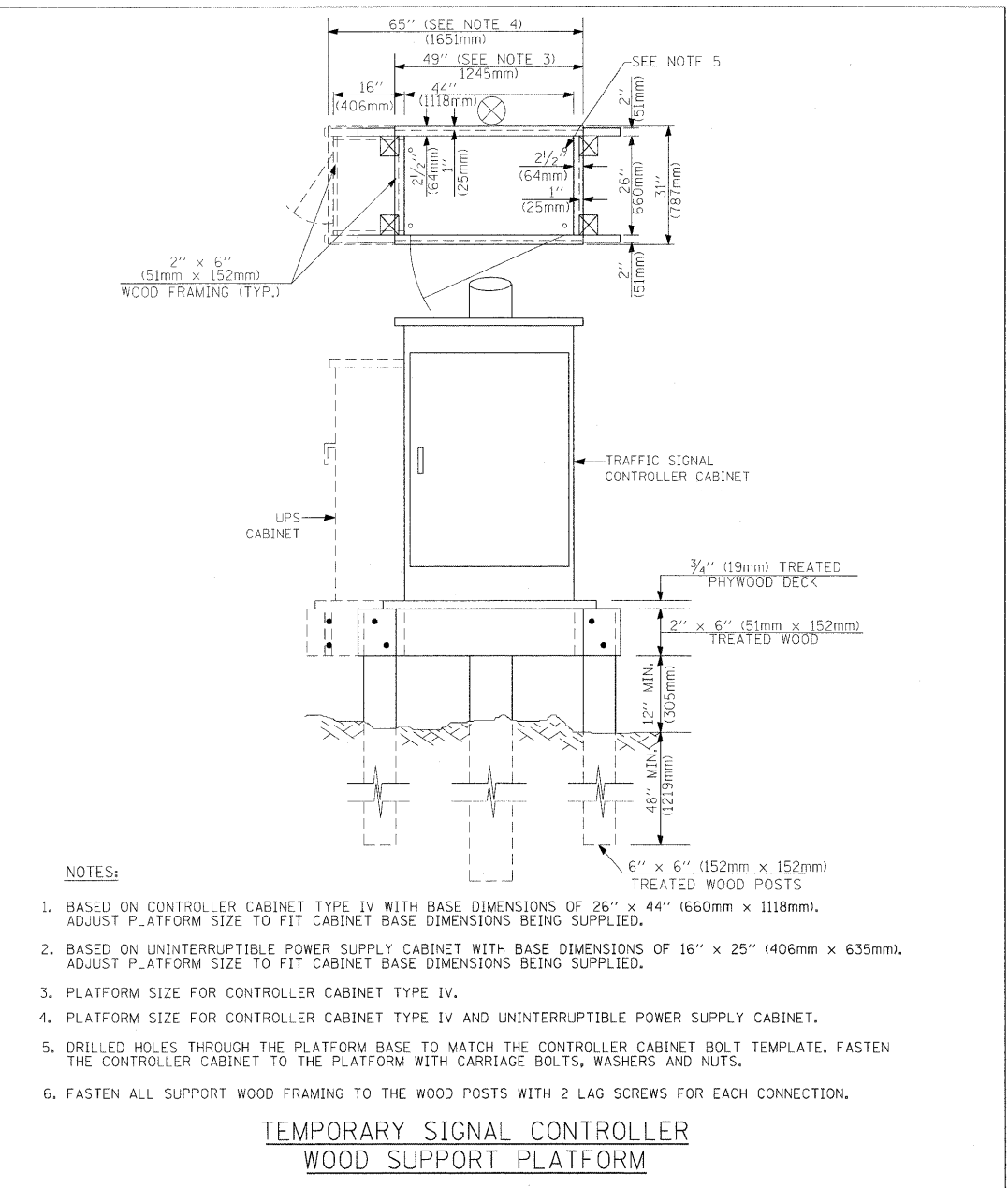
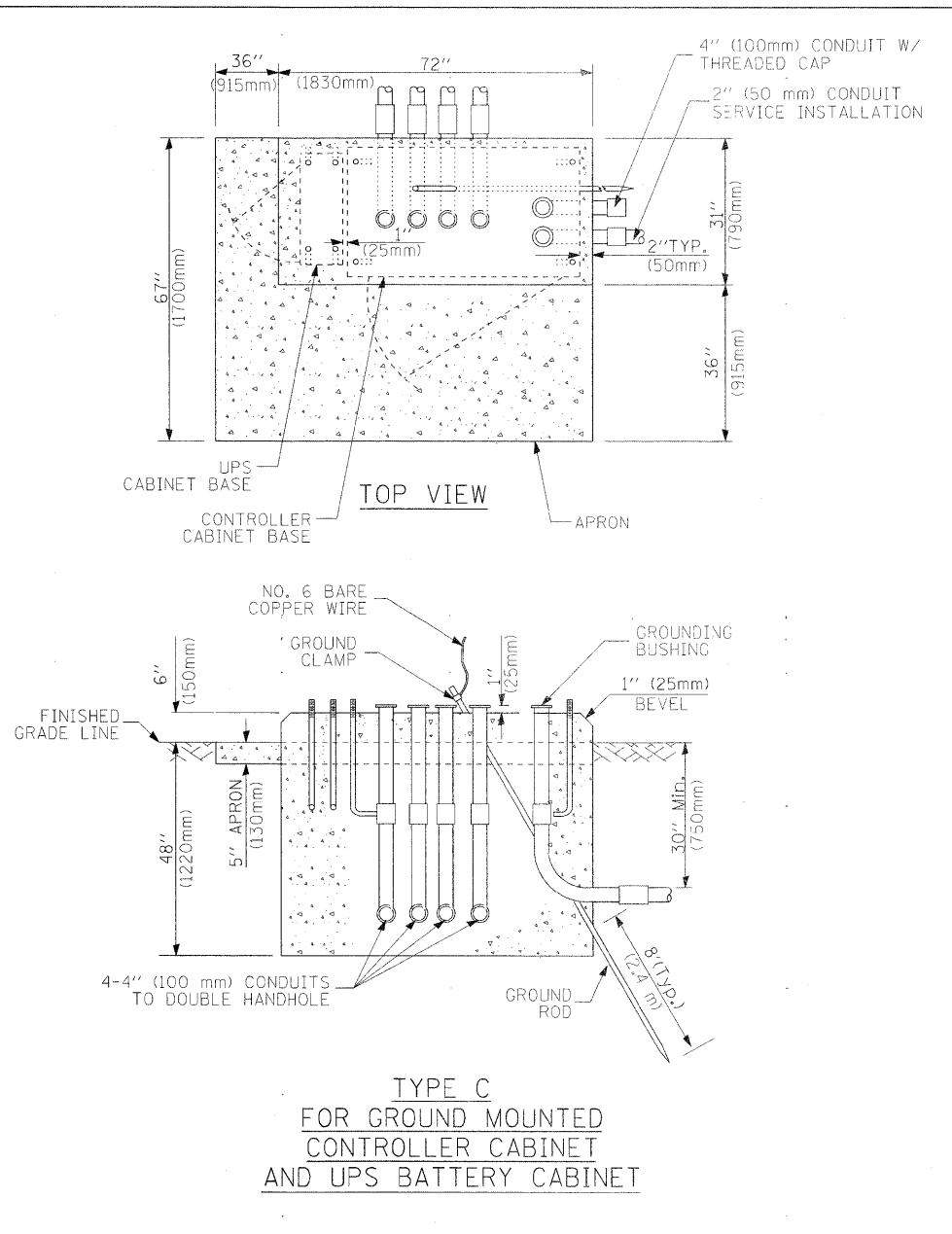
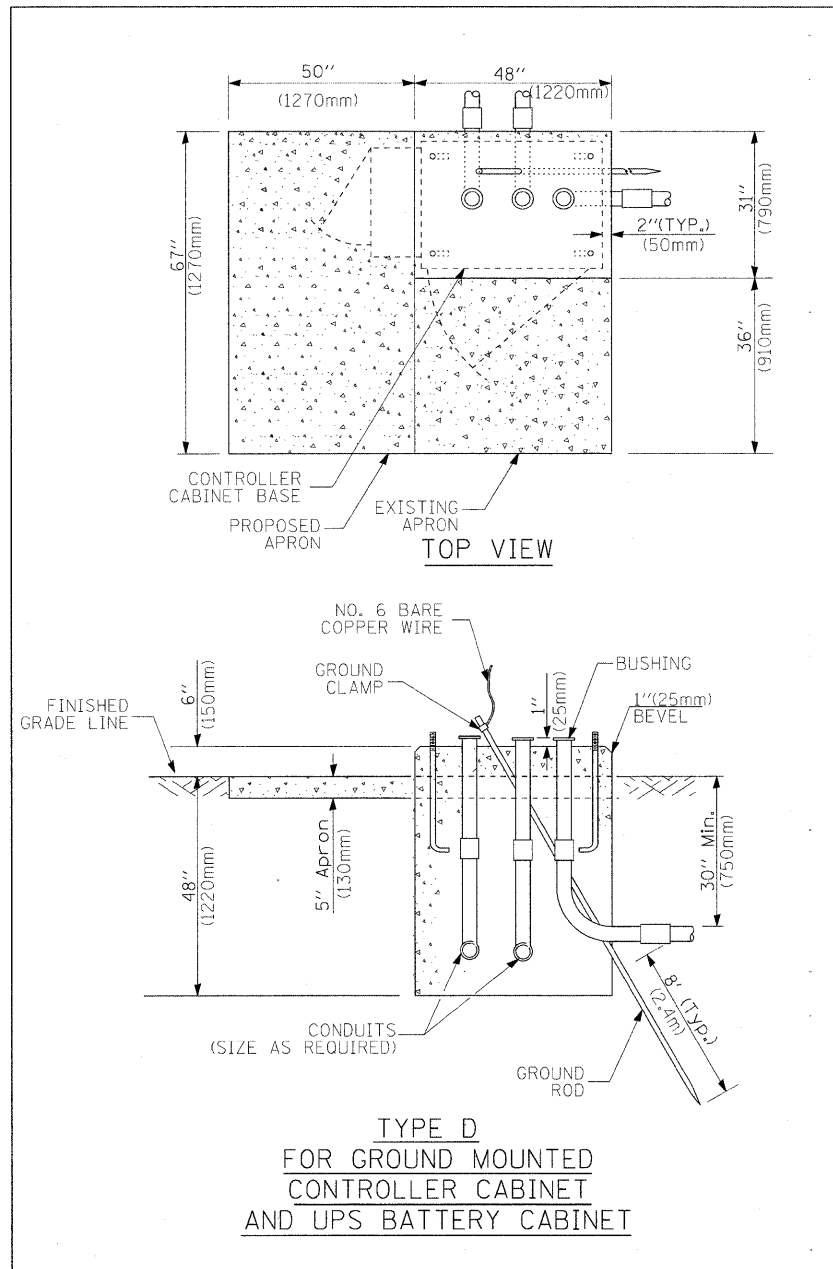
MODIFY EXISTING TYPE "D" FOUNDATION



NOTES:

- HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
- REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCIDENTAL TO THE HANDHOLE.

HANDHOLE TO INTERCEPT EXISTING CONDUIT



- NOTES:
1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
  3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
  4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
  5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
  6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

### TEMPORARY SIGNAL CONTROLLER WOOD SUPPORT PLATFORM

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

### CABLE SLACK

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE (MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

### VERTICAL CABLE LENGTH

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

### DEPTH OF FOUNDATION

MAST ARM LENGTH	① FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 55' (16.8 m) and less than 65' (19.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 75' (22.9 m) and up to 85' (25.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

- NOTES:
1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average Unconfined Compressive Strength (Qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
  2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
  3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
  4. For mast arm assemblies with dual arms refer to state standard 878001.

### DEPTH OF MAST ARM FOUNDATIONS, TYPE E

TRAFFIC SIGNAL LEGEND

ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED	ITEM	REMOVAL	EXISTING	PROPOSED																		
CONTROLLER CABINET				EMERGENCY VEHICLE LIGHT DETECTOR				ELECTRIC CABLE IN CONDUIT, TRACER, NO. 14 1/C, UNLESS NOTED OTHERWISE																					
RAILROAD CONTROL CABINET				CONFIRMATION BEACON				COAXIAL CABLE																					
COMMUNICATIONS CABINET				HANDHOLE				VENDOR CABLE FOR CAMERA																					
MASTER CONTROLLER				HEAVY DUTY HANDHOLE				COPPER INTERCONNECT CABLE, NO. 18 3 PAIR TWISTED, SHIELDED																					
MASTER MASTER CONTROLLER				DOUBLE HANDHOLE				FIBER OPTIC CABLE NO. 62.5/125, MM12F																					
UNINTERRUPTIBLE POWER SUPPLY				JUNCTION BOX				FIBER OPTIC CABLE NO. 62.5/125, MM12F SM12F																					
SERVICE INSTALLATION, (P) POLE OR (G) GROUND MOUNT				GALVANIZED STEEL CONDUIT IN TRENCH (T) OR PUSHED (P)				FIBER OPTIC CABLE NO. 62.5/125, MM12F 5M12F																					
TELEPHONE CONNECTION (P) POLE OR (G) GROUND MOUNT				TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE				FIBER OPTIC CABLE NO. 62.5/125, (NUMBER OF FIBERS & TYPE TO BE NOTED ON PLANS)																					
STEEL MAST ARM ASSEMBLY AND POLE				COMMON TRENCH			CT	GROUND ROD AT (C) CONTROLLER, (H) HANDHOLE, (P) POST, (M) MAST ARM, OR (S) SERVICE																					
ALUMINUM MAST ARM ASSEMBLY AND POLE				COILABLE NONMETALLIC CONDUIT (EMPTY)			CNC	CONTROLLER CABINET AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE				SYSTEM ITEM		S	S	STEEL MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH PTZ CAMERA				INTERSECTION ITEM		I	IP	ALUMINUM MAST ARM POLE AND FOUNDATION TO BE REMOVED																					
SIGNAL POST				REMOVE ITEM				STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE AND FOUNDATION TO BE REMOVED																					
TEMPORARY WOOD POLE (CLASS 5 OR BETTER) 45 FOOT (13.7m) MINIMUM				RELOCATE ITEM				SIGNAL POST AND FOUNDATION TO BE REMOVED																					
GUY WIRE				ABANDON ITEM				INTERSECTION & SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD				12" (300mm) TRAFFIC SIGNAL SECTION				SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD CONSTRUCTION STAGES (NUMBERS INDICATE THE CONSTRUCTION STAGE)				12" (300mm) RED WITH 8" (200mm) YELLOW AND GREEN TRAFFIC SIGNAL FACE				EXISTING INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD WITH BACKPLATE				SIGNAL FACE				EXISTING PREFORMED INTERSECTION LOOP DETECTOR PROPOSED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
SIGNAL HEAD OPTICALLY PROGRAMMED				SIGNAL FACE WITH BACKPLATE, "P" INDICATES PROGRAMMED HEAD				PREFORMED INTERSECTION AND SAMPLING (SYSTEM) DETECTOR																					
FLASHER INSTALLATION (S DENOTES SOLAR POWER)				12" (300mm) PEDESTRIAN SIGNAL HEAD WALK/DON'T WALK SYMBOL				PREFORMED SAMPLING (SYSTEM) DETECTOR																					
PEDESTRIAN SIGNAL HEAD				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, OUTLINED				<div>RAILROAD SYMBOLS</div> <table><tr><th></th><th>EXISTING</th><th>PROPOSED</th></tr><tr><td>RAILROAD CONTROL CABINET</td><td></td><td></td></tr><tr><td>RAILROAD CANTILEVER MAST ARM</td><td></td><td></td></tr><tr><td>FLASHING SIGNAL</td><td></td><td></td></tr><tr><td>CROSSING GATE</td><td></td><td></td></tr><tr><td>CROSSBUCK</td><td></td><td></td></tr></table>					EXISTING	PROPOSED	RAILROAD CONTROL CABINET			RAILROAD CANTILEVER MAST ARM			FLASHING SIGNAL			CROSSING GATE			CROSSBUCK		
	EXISTING	PROPOSED																											
RAILROAD CONTROL CABINET																													
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FLASHING SIGNAL																													
CROSSING GATE																													
CROSSBUCK																													
PEDESTRIAN PUSHBUTTON DETECTOR				12" (300mm) PEDESTRIAN SIGNAL HEAD INTERNATIONAL SYMBOL, SOLID																									
ACCESSIBLE PEDESTRIAN PUSHBUTTON DETECTOR				PEDESTRIAN SIGNAL HEAD, INTERNATIONAL SYMBOL, WITH COUNTDOWN TIMER																									
ILLUMINATED SIGN "NO LEFT TURN"				RADIO INTERCONNECT																									
ILLUMINATED SIGN "NO RIGHT TURN"				RADIO REPEATER																									
DETECTOR LOOP, TYPE I				DENOTES NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE, ALL DETECTOR LOOP CABLE TO BE SHIELDED																									
PREFORMED DETECTOR LOOP				GROUND CABLE IN CONDUIT NO. 6 SOLID COPPER (GREEN)																									
MICROWAVE VEHICLE SENSOR																													
VIDEO DETECTION CAMERA																													
VIDEO DETECTION ZONE																													
PAN, TILT, ZOOM CAMERA																													
WIRELESS DETECTOR SENSOR																													
WIRELESS ACCESS POINT																													

FILE NAME =

USER NAME = bauerdl

DESIGNED - DAG/BCK

REVISED -

DRAWN - BCK

REVISED -

CHECKED - DAD

REVISED -

DATE - 10-28-09

REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DISTRICT ONE

STANDARD TRAFFIC SIGNAL DESIGN DETAILS

SCALE: NONE

SHEET NO. 6 OF 6 SHEETS

STA.

TO STA.

F.A.P. RTE.

SECTION

COUNTY

TOTAL SHEETS

SHEET NO.

573

31B-I-1

KANE

35

35

TS-05

CONTRACT NO. 60J42

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