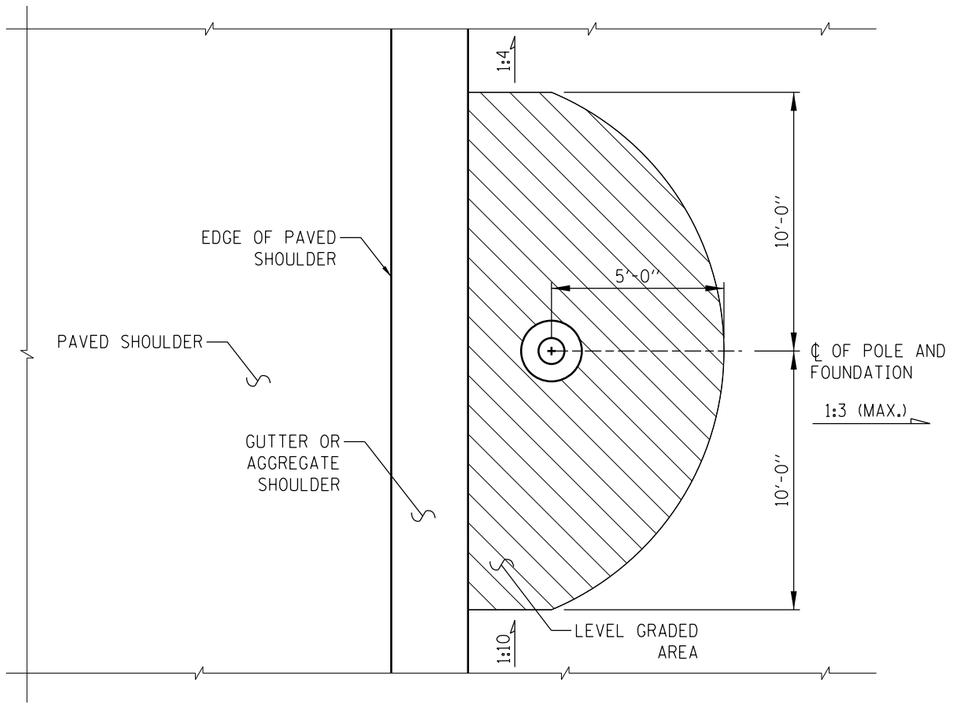
Tollway Standard Drawing Revisions

Section H	Roadway Lighting and Electrical	
	Standard	**Modification Summary** **Effective 03/01/2013**
	All Sheets	**Illinois Tollway Standard Logo Inserted In Title Block.**

New Sheet

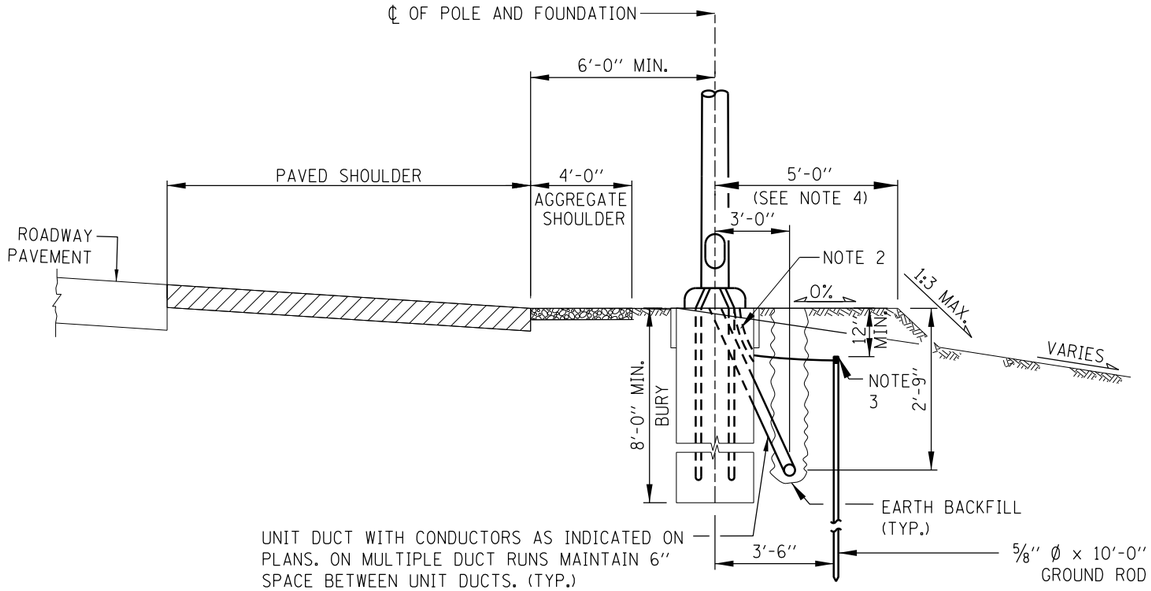


PLAN

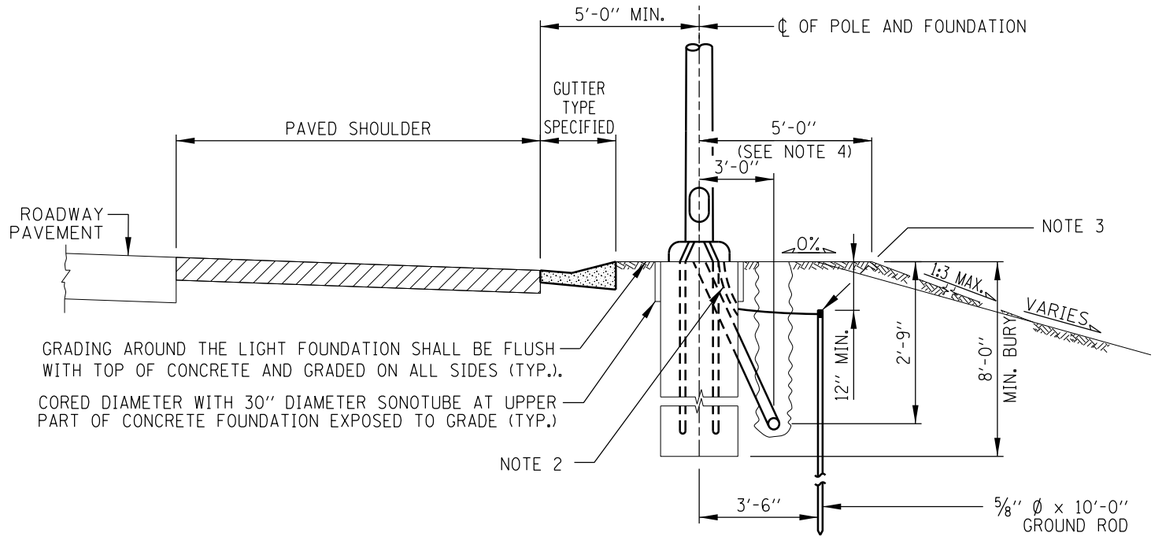
CONCRETE FOUNDATION GRADING PLAN WITH FRONT SLOPES

NOTES:

1. AT LOCATIONS NOT SHIELDED BY GUARDRAIL, THE SLOPE ADJACENT TO EACH FOUNDATION SHALL BE GRADED LEVEL SO THAT THE LIGHT POLE FOUNDATION IS FLUSH WITH GRADE ON ANY FACE. THE TOP OF THE FOUNDATION SHALL BE AT THE SAME ELEVATION AS THE TOP OF GUTTER OR AGGREGATE SHOULDER.
2. ¾" PVC CONDUIT IN CONCRETE FOUNDATION FOR NO. 6 BARE COPPER GROUND WIRE.
3. CADWELD NO. 6 BARE COPPER GROUND CABLE TO GROUND ROD.
4. WHERE THE GRADING SLOPES DOWNWARD THE AREA BEHIND EACH LIGHT POLE FOUNDATION SHALL BE GRADED LEVEL FOR 5' BEFORE SLOPING DOWN.
5. THE LEVEL AREA SHALL EXTEND PARALLEL TO THE ROADWAY 10' ON EITHER SIDE OF THE LIGHT POLE FOUNDATION.
6. ALL SLOPES ARE EXPRESSED AS UNITS OF VERTICAL DISPLACEMENT TO UNITS OF HORIZONTAL DISPLACEMENT (V:H).
7. ALL GROUND MOUNTED LIGHT POLES SHALL BE PROVIDED WITH AN ACCEPTED FHWA BREAKAWAY BASE OR DEVICE.
8. THE MINIMUM LIGHT POLE SETBACK DISTANCE FROM EDGE OF ROADWAY TO ℄ OF POLE AND FOUNDATION SHALL BE 11'-0" WHEN THE PAVED SHOULDER WIDTH IS LESS THAN 10'-0".



CONCRETE FOUNDATION ADJACENT TO AGGREGATE SHOULDER WITH FORESLOPE



CONCRETE FOUNDATION ADJACENT TO GUTTER WITH FORESLOPE

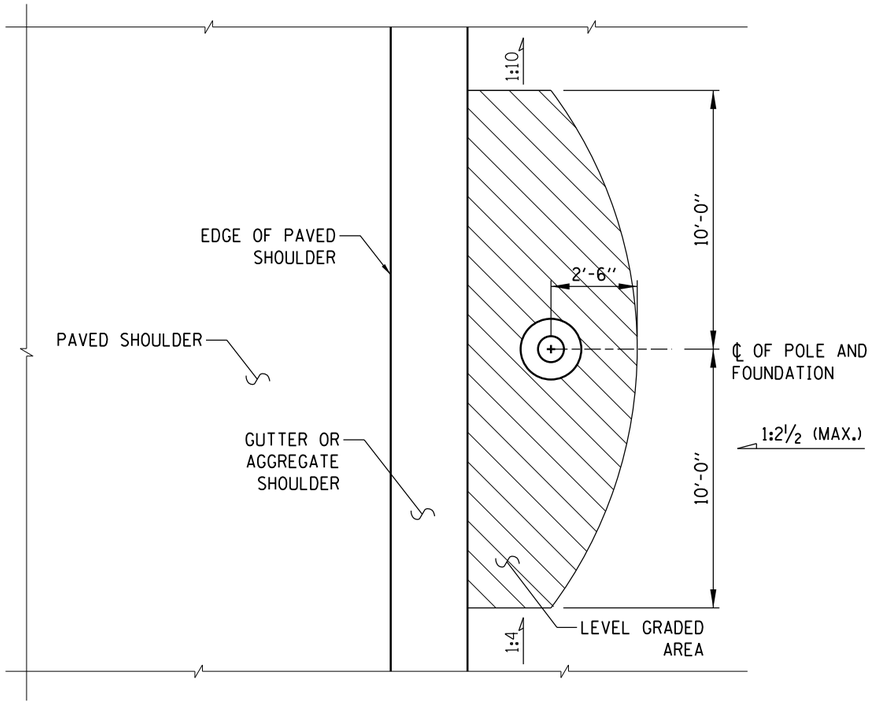
APPROVED Paul Kovacs CHIEF ENGINEER DATE 2-7-2012

DATE	REVISIONS
2-7-2012	MODIFIED FOUNDATION DETAILS, REVISED NOTES
11-1-2012	ADDED CONTROLLER NUMBER

Illinois Tollway

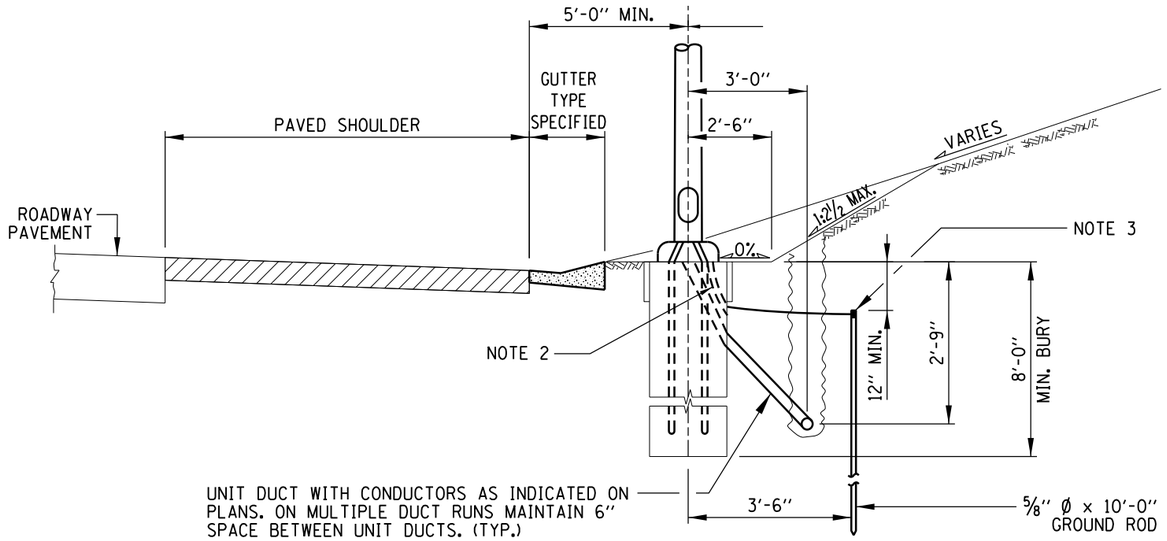
LIGHT STANDARD FOUNDATION

STANDARD H1-02

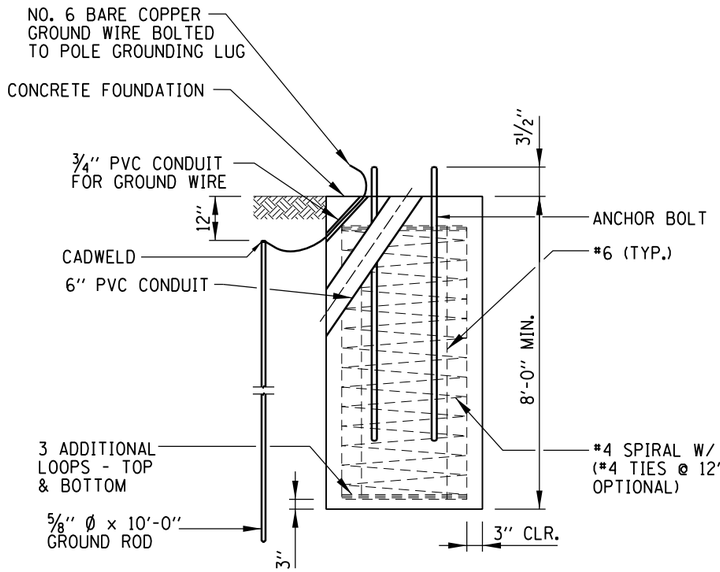


PLAN

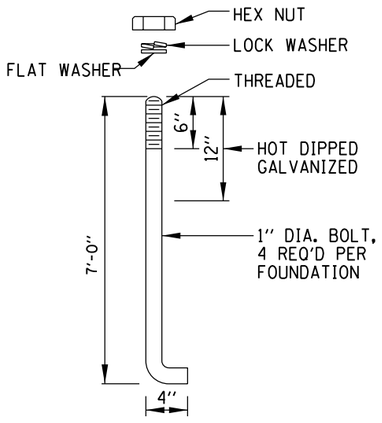
CONCRETE FOUNDATION GRADING PLAN WITH BACKSLOPE



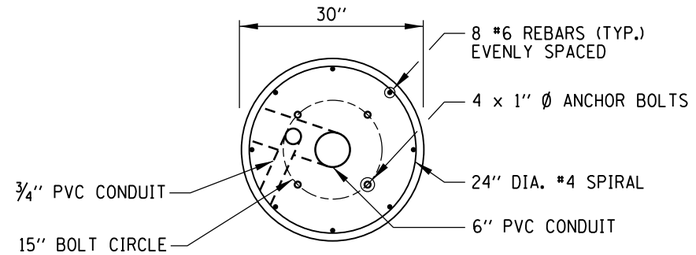
CONCRETE FOUNDATION ADJACENT TO GUTTER WITH BACKSLOPE



ELEVATION



ANCHOR BOLT DETAIL



PLAN

CONCRETE FOUNDATION DETAILS

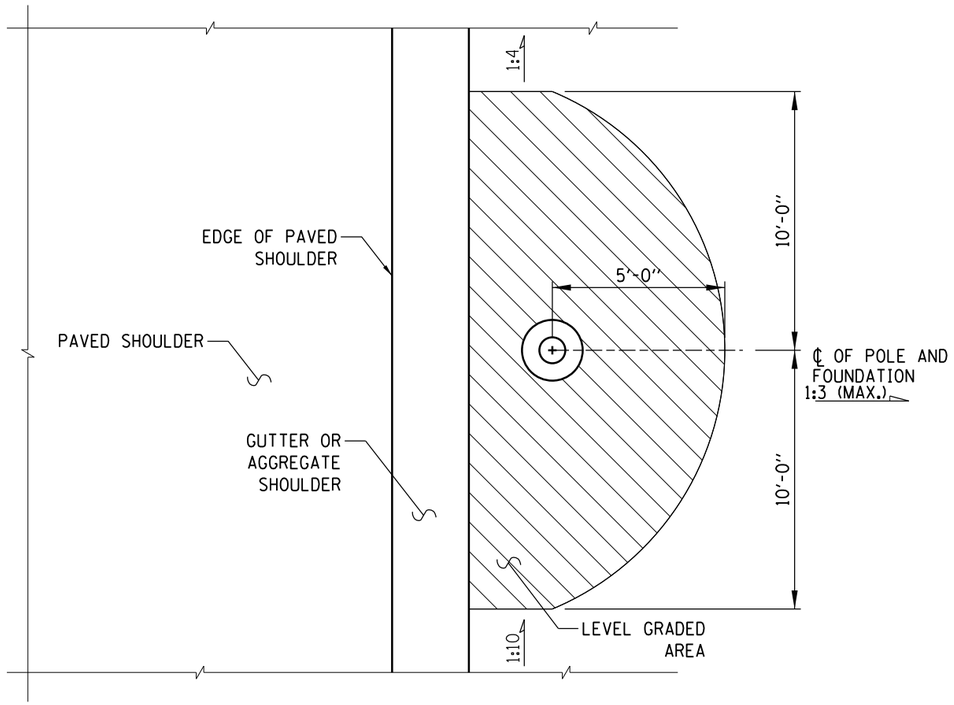
NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

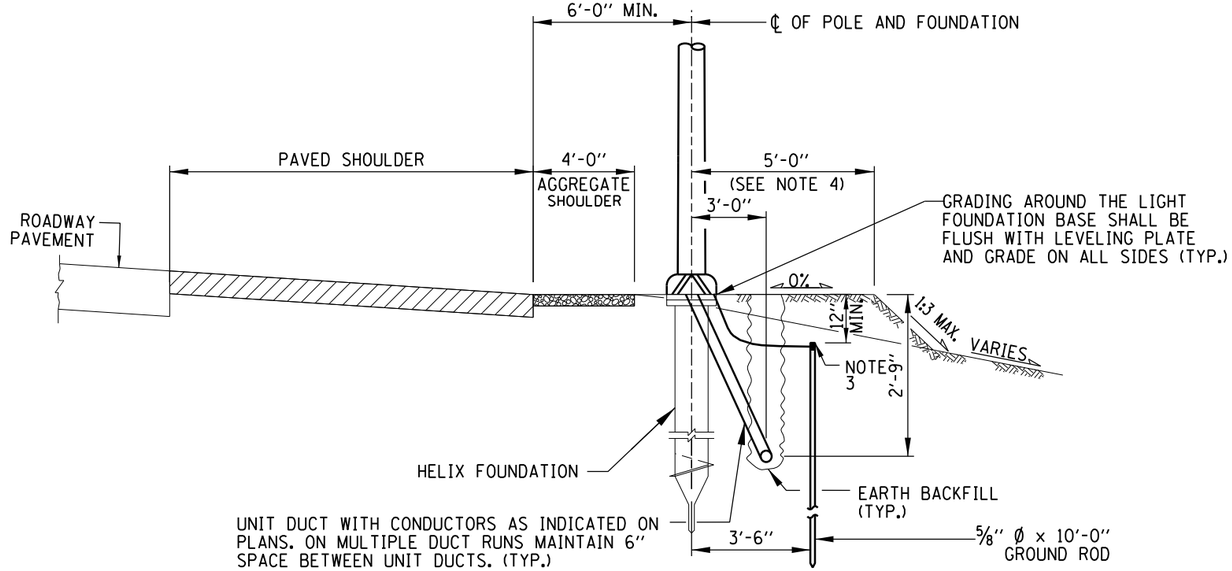
LIGHT STANDARD FOUNDATION

STANDARD H1-02

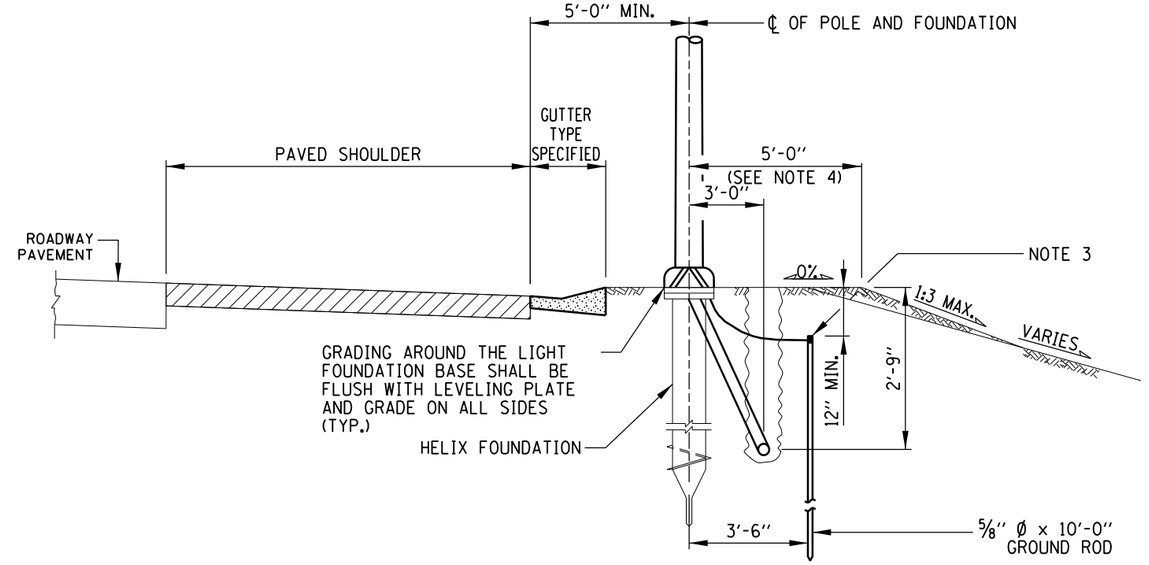


PLAN

HELIX FOUNDATION GRADING PLAN WITH FRONT SLOPES



HELIX FOUNDATION ADJACENT TO AGGREGATE SHOULDER WITH FORESLOPE



HELIX FOUNDATION ADJACENT TO GUTTER WITH FORESLOPE

NOTE:

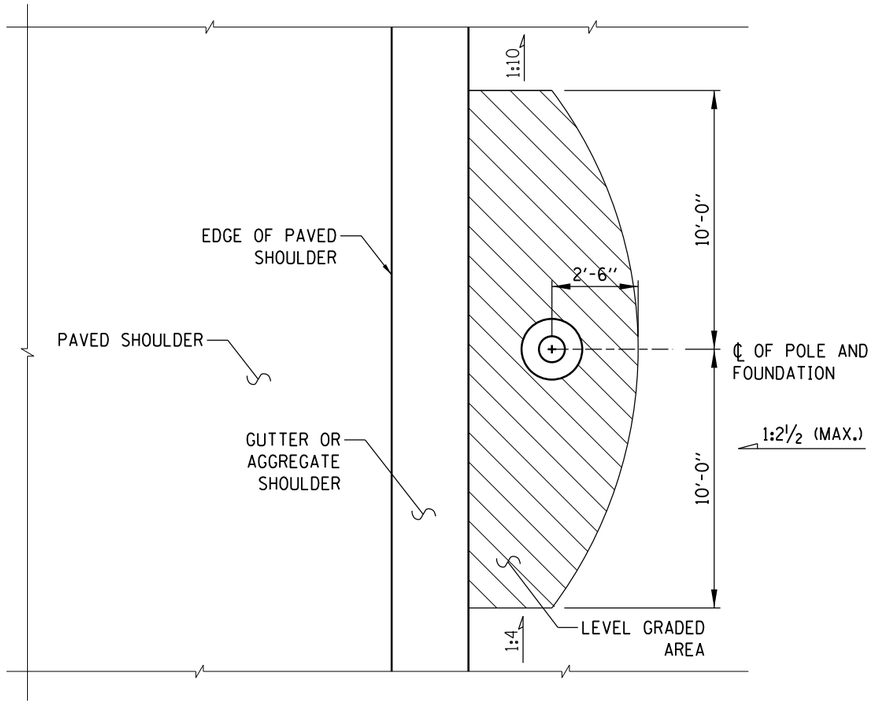
SEE SHEET 1 OF THIS SERIES FOR NOTES.

Paul Kovacs
APPROVED . . . . . CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

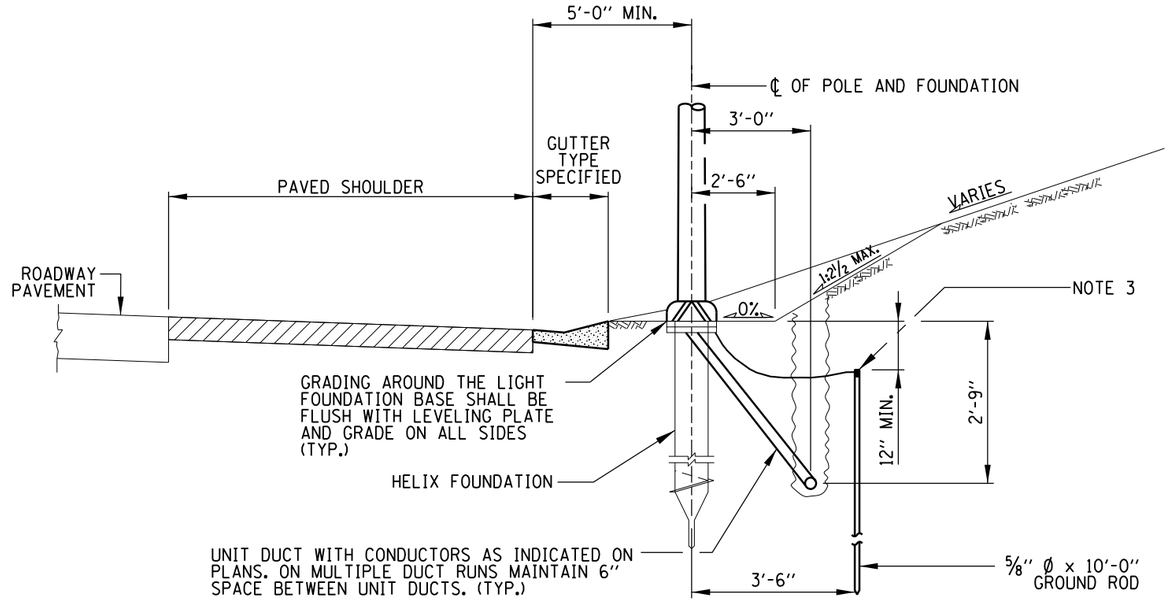
LIGHT STANDARD FOUNDATION

STANDARD H1-02

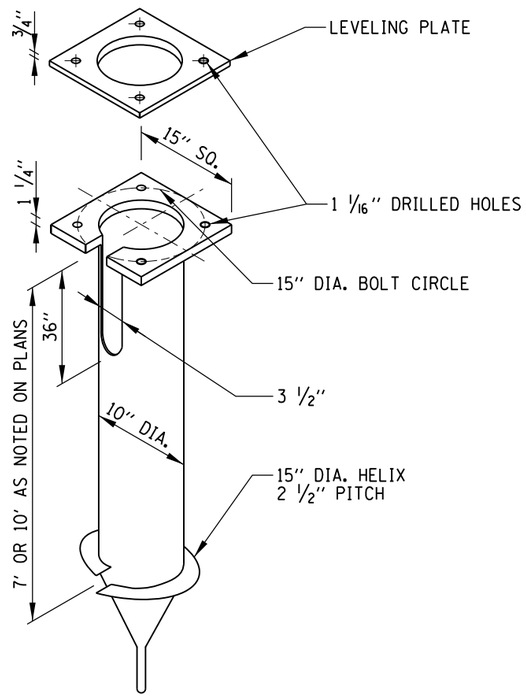


PLAN

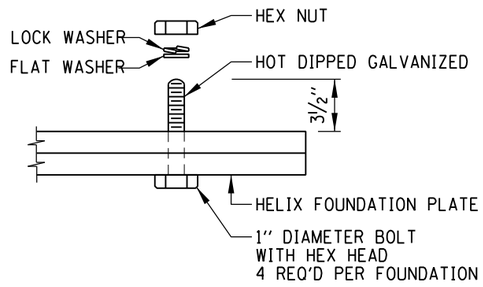
HELIX FOUNDATION GRADING PLAN WITH BACKSLOPE



HELIX FOUNDATION ADJACENT TO GUTTER WITH BACKSLOPE



HELIX FOUNDATION



HELIX FOUNDATION BASE ATTACHMENT DETAIL

NOTE:

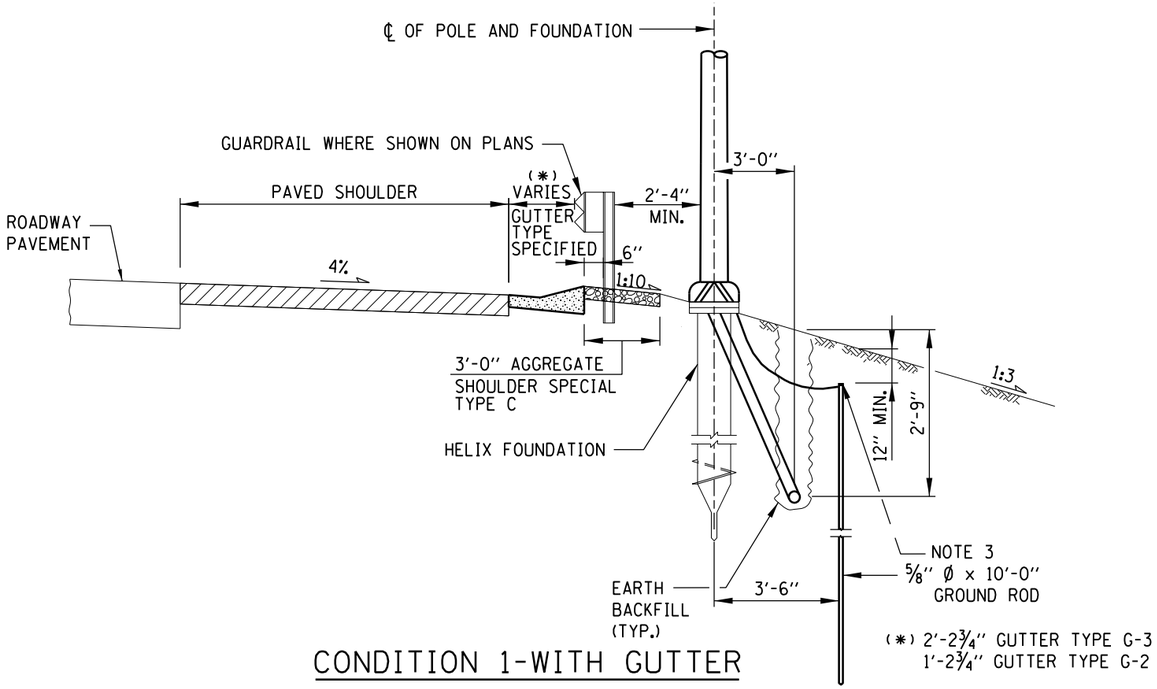
SEE SHEET 1 OF THIS SERIES FOR NOTES.

Paul Kovacs
APPROVED ..... DATE 2-7-2012
CHIEF ENGINEER

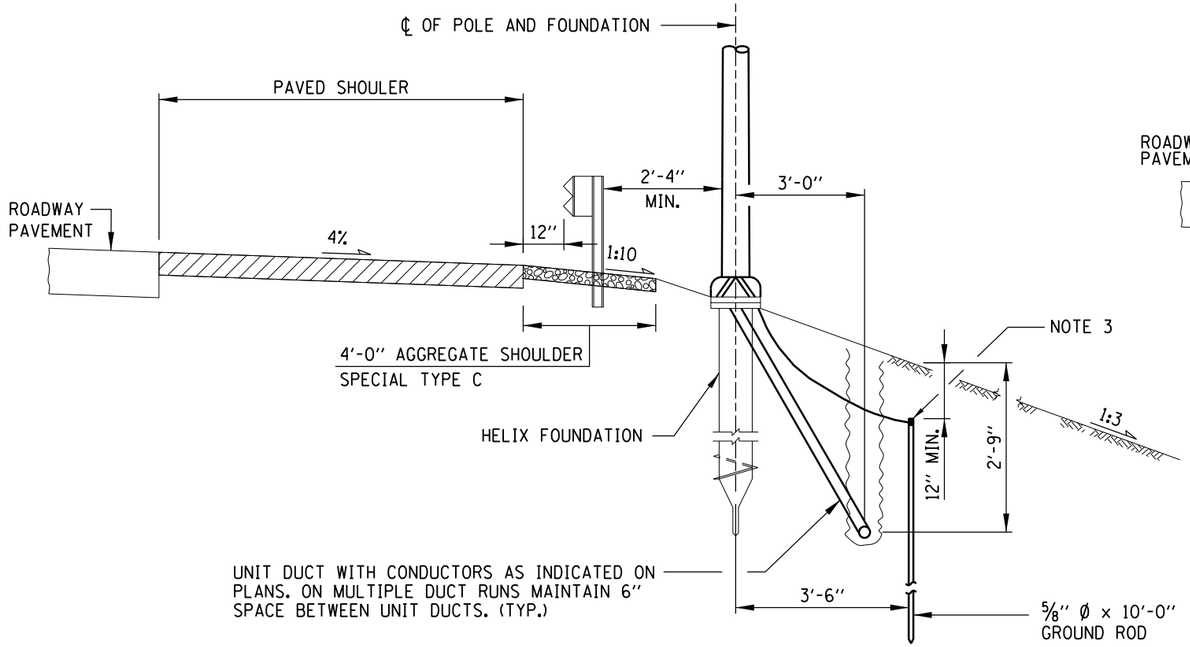
Illinois Tollway

LIGHT STANDARD FOUNDATION

STANDARD H1-02

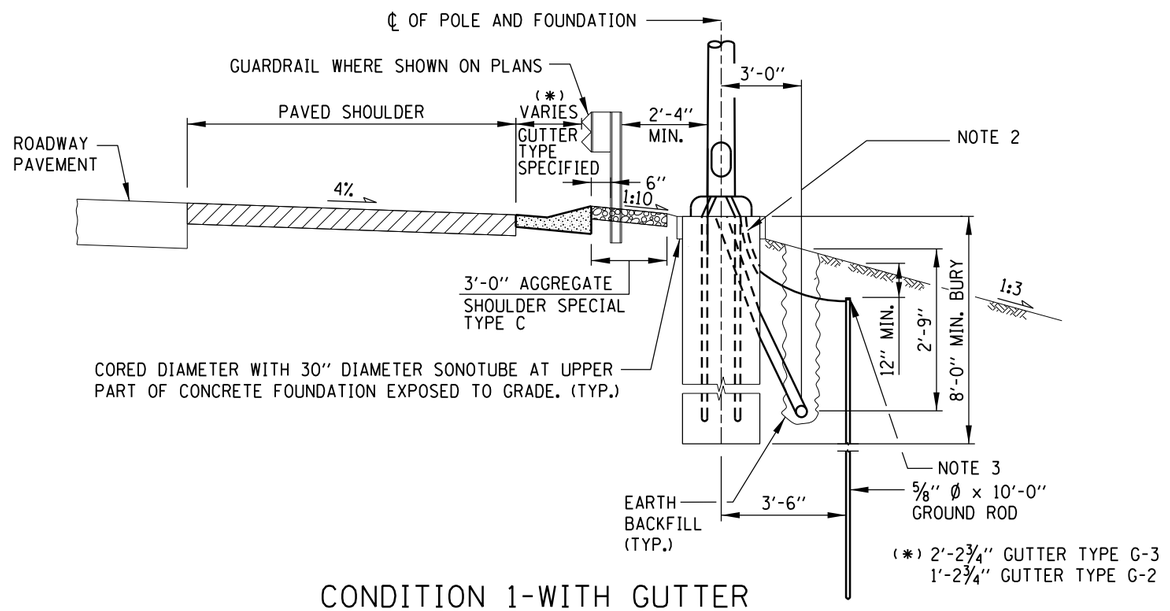


CONDITION 1-WITH GUTTER

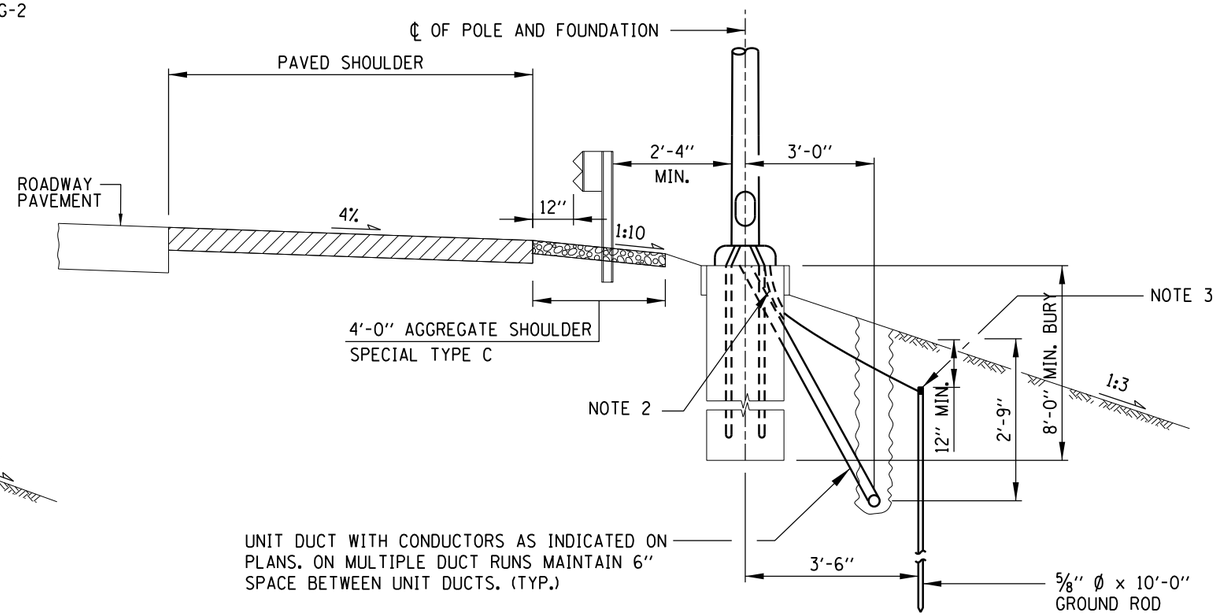


CONDITION 2-WITHOUT GUTTER

HELIX FOUNDATION



CONDITION 1-WITH GUTTER



CONDITION 2-WITHOUT GUTTER

CONCRETE FOUNDATION

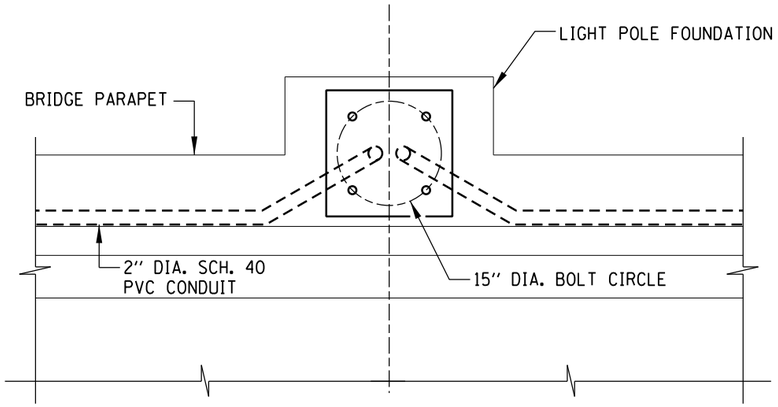
NOTE:
SEE SHEET 1 OF THIS SERIES FOR NOTES.

Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

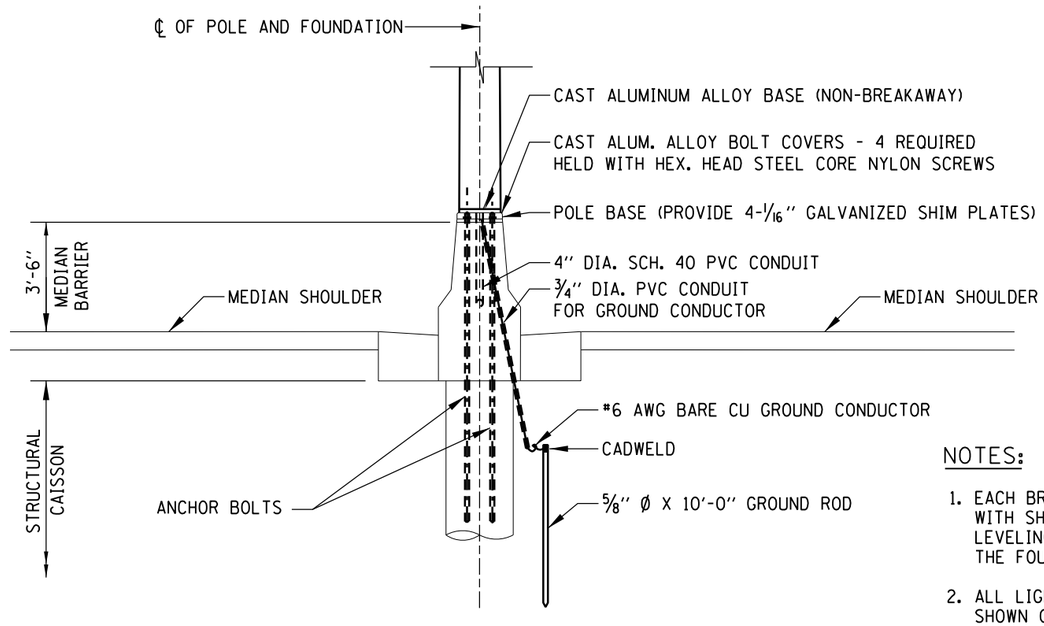
Illinois Tollway

LIGHT STANDARD FOUNDATION

STANDARD H1-02



PLAN VIEW



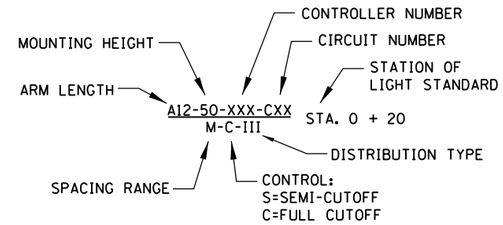
MEDIAN BARRIER MOUNTED LIGHT STANDARD DETAIL

(SEE STANDARDS H8 AND H9)

NOTES:

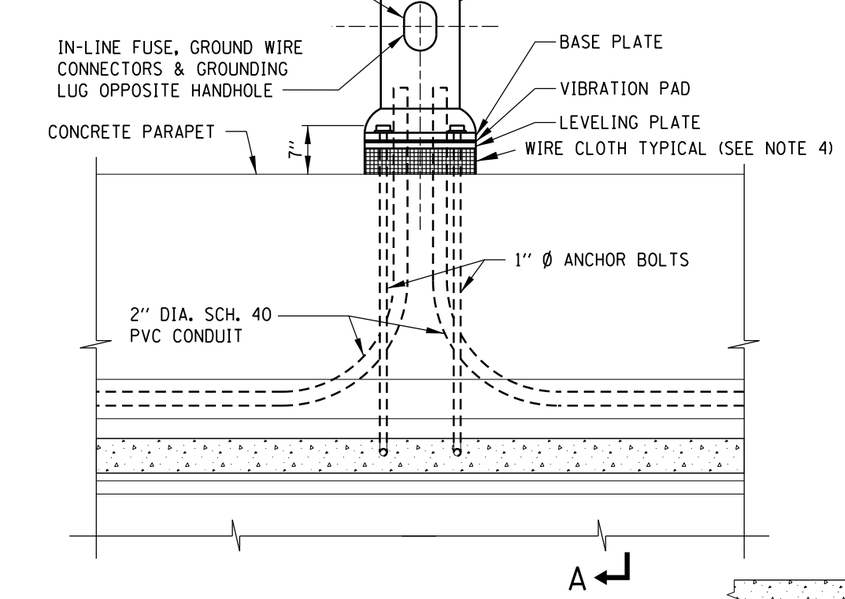
1. EACH BRIDGE MOUNTED STANDARD SHALL BE PROVIDED WITH SHOCK ABSORBING VIBRATION PADS, NUTS, WASHERS, LEVELING PLATE AND WIRE MESH FOR ITS ERECTION ON THE FOUNDATION AS SHOWN ON THE PLANS.

2. ALL LIGHT STANDARDS, BOTH NEW AND EXISTING, ARE SHOWN ON PLANS WITH THE FOLLOWING SAMPLE DESCRIPTION:

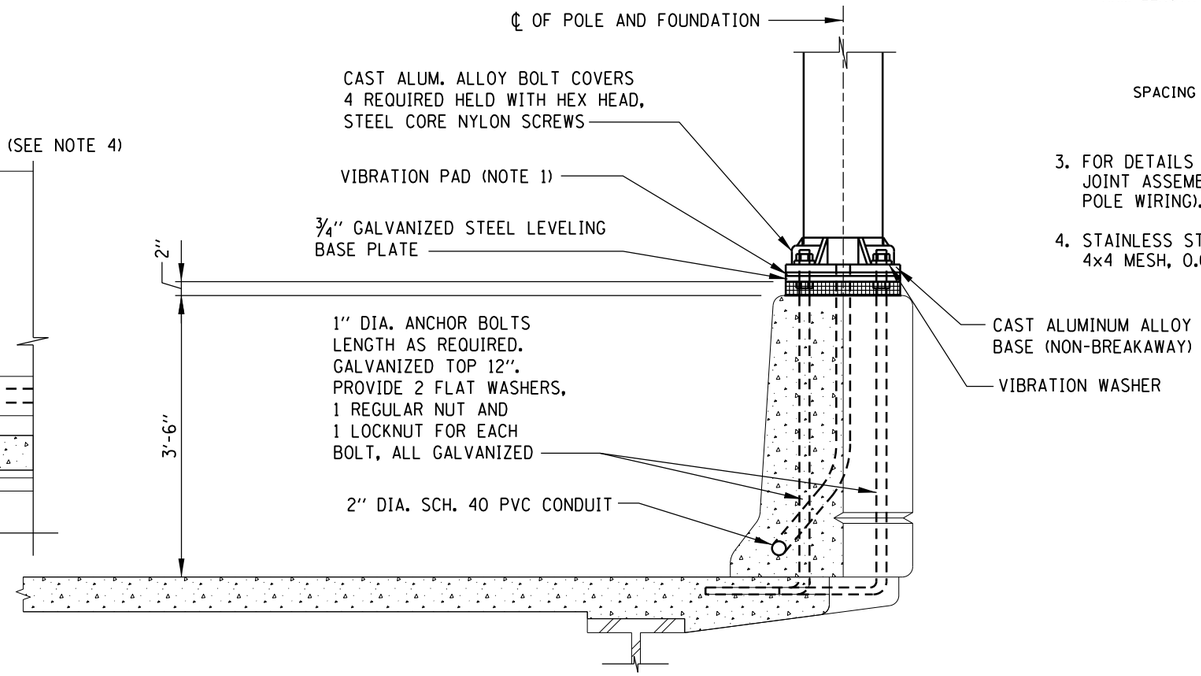


3. FOR DETAILS OF FUSE HOLDER, POLE BASE WIRING, AND JOINT ASSEMBLY, SEE STANDARD H2 (LIGHT STANDARD POLE WIRING).

4. STAINLESS STEEL STANDARD GRADE WIRE CLOTH-TYPE 304, 4x4 MESH, 0.047" WIRE DIAMETER.



ELEVATION OF CONCRETE
PARAPET AND LIGHT STANDARD



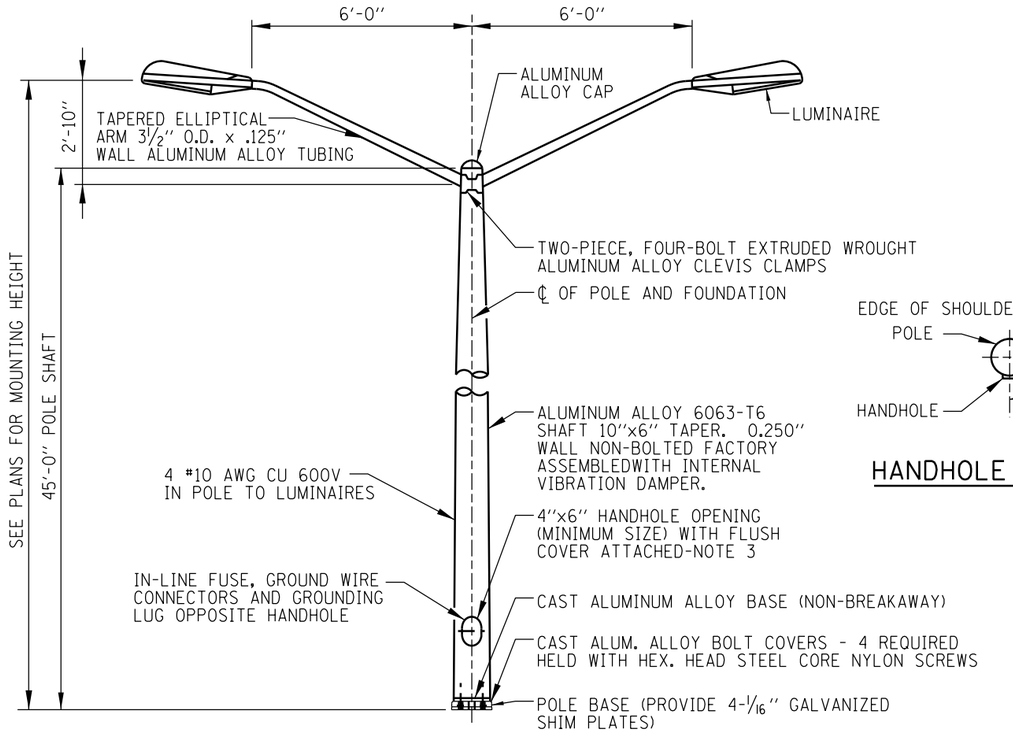
BRIDGE PARAPET MOUNTED LIGHT STANDARD DETAIL
SECTION A-A

Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

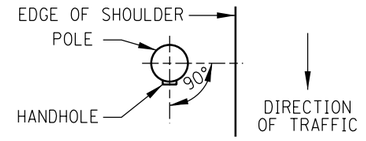
Illinois Tollway

LIGHT STANDARD
FOUNDATION

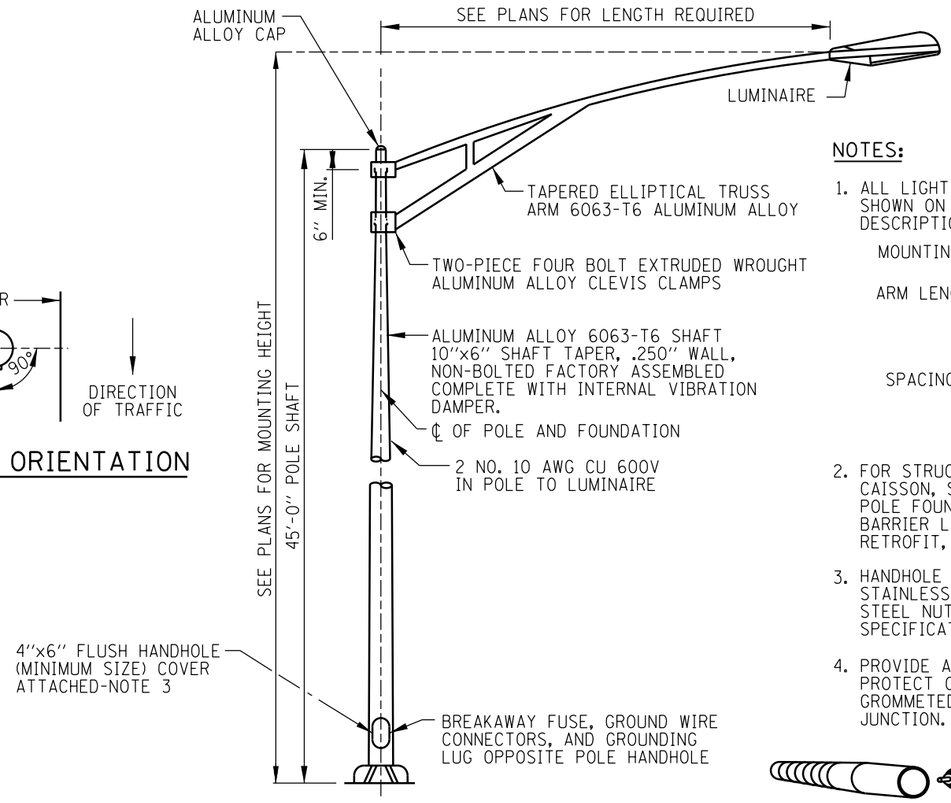
STANDARD H1-02



TWIN MAST LIGHT STANDARD DETAIL



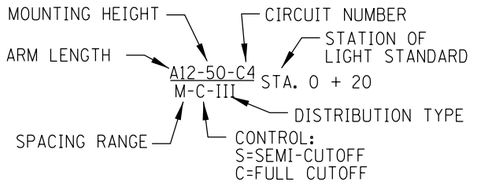
HANDHOLE ORIENTATION



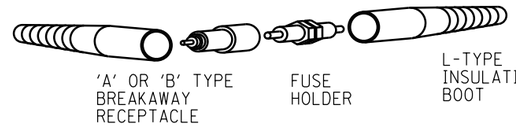
SINGLE MAST LIGHT STANDARD DETAIL

NOTES:

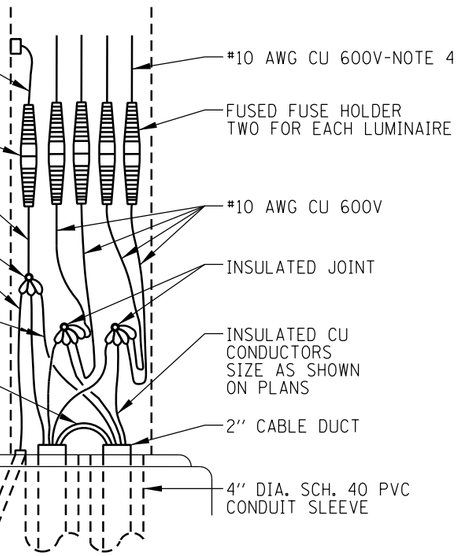
1. ALL LIGHT STANDARDS, BOTH NEW AND EXISTING, ARE SHOWN ON PLANS WITH THE FOLLOWING SAMPLE DESCRIPTION:



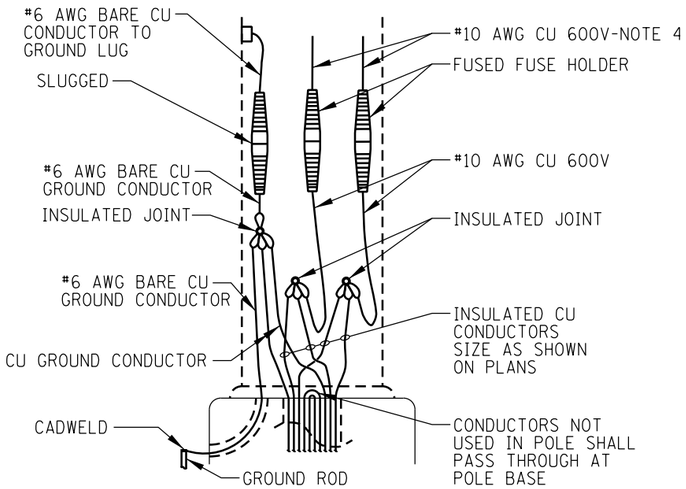
2. FOR STRUCTURAL DETAILS OF MEDIAN BARRIER AND CAISSON, SEE STANDARD H8 (MEDIAN BARRIER LIGHT POLE FOUNDATION DETAILS), STANDARD H9 (MEDIAN BARRIER LIGHT POLE FOUNDATION DETAILS - TYPE 4 RETROFIT, 32" BARRIER) OR STRUCTURAL PLANS.
3. HANDHOLE COVERS SHALL BE FASTENED USING TWO STAINLESS STEEL SCREWS WITH CAPTIVE STAINLESS STEEL NUTS OR INSERTS, PER THE SUPPLEMENTAL SPECIFICATIONS.
4. PROVIDE A 24" LONG POLYETHYLENE TUBE TO PROTECT CABLES WHERE THEY PASS THROUGH THE GROMMETED OPENING AT THE POLE/MAST ARM JUNCTION.



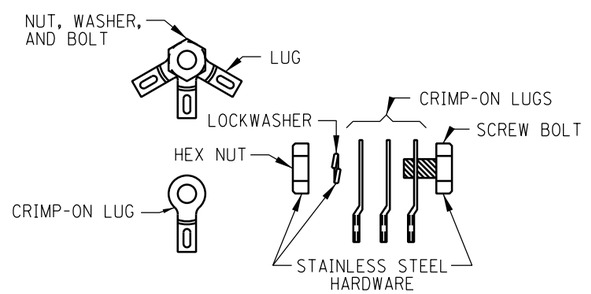
IN-THE-LINE FUSE HOLDER DETAIL WITH BREAKAWAY FEATURE



TWIN MAST POLE BASE WIRING DIAGRAM



SINGLE MAST POLE BASE WIRING DIAGRAM



JOINT ASSEMBLY DETAILS

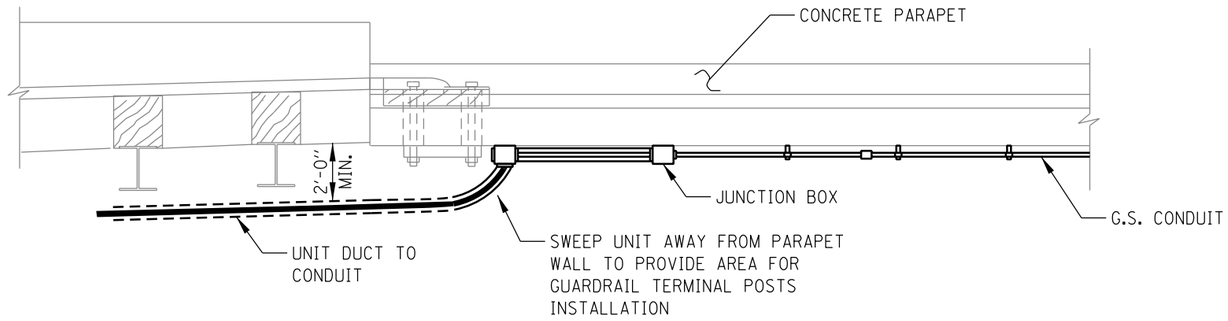
Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

DATE	REVISIONS
2-7-2012	REVISED LIGHT POLE HANDHOLE NOTES, REMOVED CABLE VOLTAGE, AND REVISED NOTES

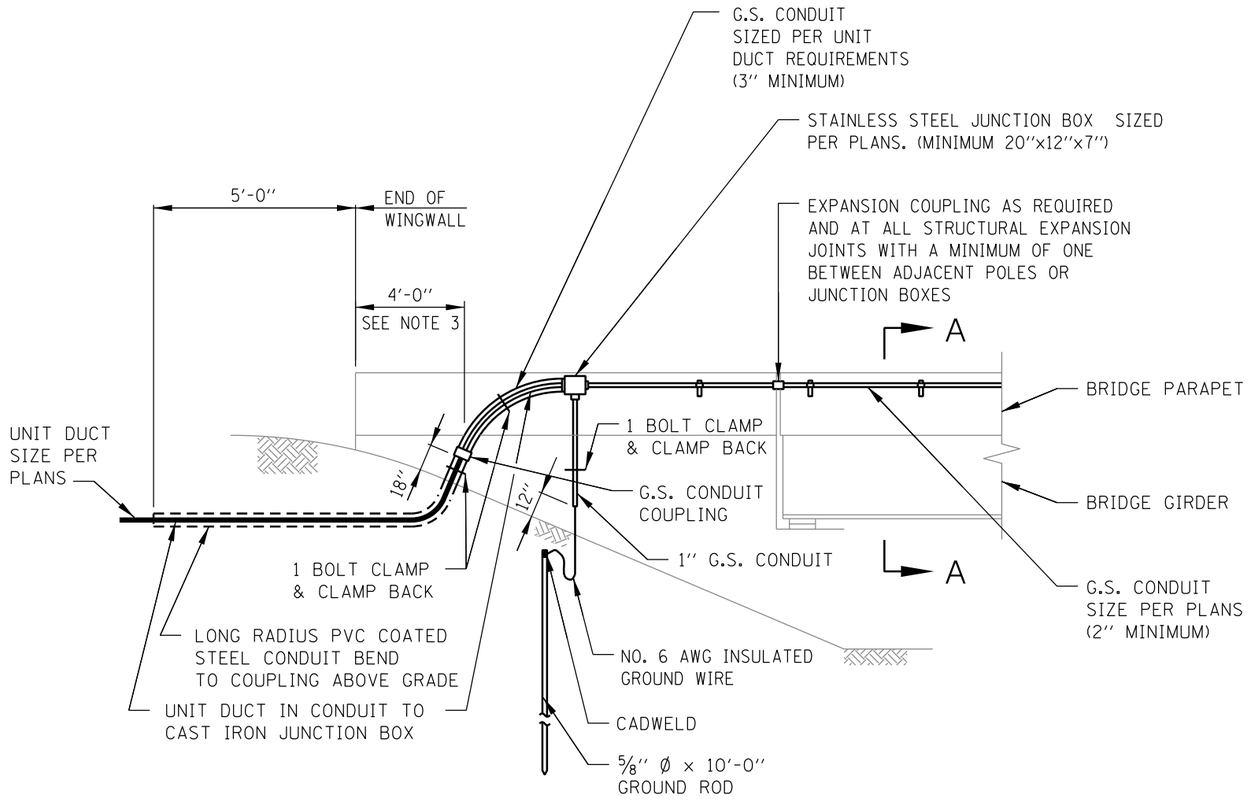
Illinois Tollway

LIGHT STANDARD POLE WIRING

STANDARD H2-01



PLAN VIEW



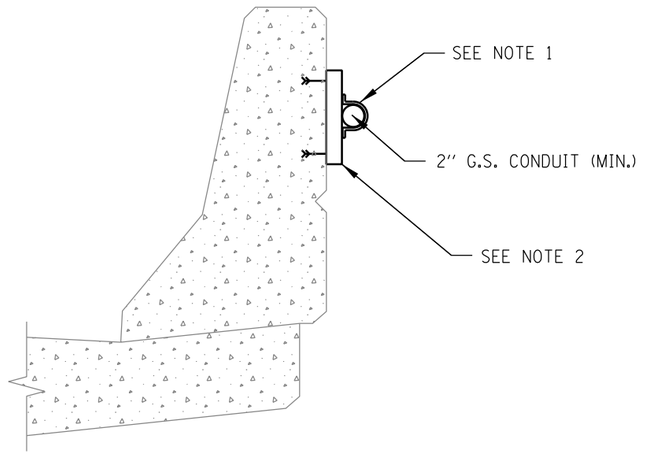
ELEVATION OF TYPICAL WINGWALL CONDIUT TRANSITION

NOTES:

1. PIPE SUPPORT (HOT DIPPED GALVANIZED AFTER FABRICATION), MINIMUM SIZE EQUAL TO PIPE DIAMETER. MOUNT TO CHANNEL WITH TWO 3/8" STAINLESS STEEL CLAMPING NUTS, HEX HEAD CAP SCREW & LOCK WASHER, MOUNTED ON 5 FOOT CENTERS.

2. UNISTRUT P2000 STEEL CHANNEL (HOT DIPPED GALVANIZED AFTER FABRICATION), 10" LONG MOUNTED EXTERNALLY ON BRIDGE PARAPET. INSTALL ON 5'-0" CENTERS. ATTACH TO BRIDGE PARAPET WITH 1/2" DIA. EXPANSION ANCHORS, MIN. 2" LONG. EXPANSION ANCHOR SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION AND SHALL BE MADE BY PARABOLT, KWICK-BOLT OR WEJ-IT.

3. THE END 4'-0" SECTION OF WINGWALL/PARAPET SHALL BE KEPT FREE FROM ANY ATTACHMENTS TO AVOID CONFLICT FROM TRAFFIC BARRIER TERMINAL TYPE T6 ANCHORAGE ASSEMBLY.



SECTION A-A

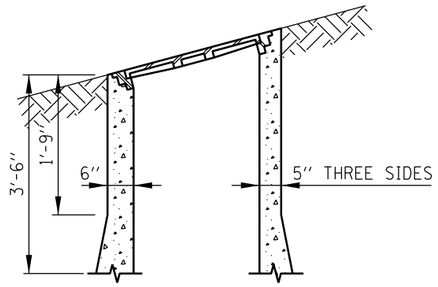
Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

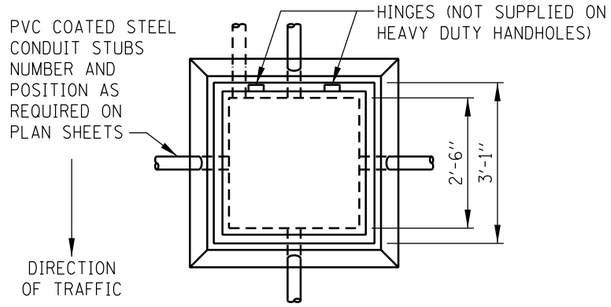
DATE	REVISIONS
2-7-2012	REVISED NOTES
11-1-2012	REVISED JUNCTION BOX

WINGWALL CONDUIT DETAILS

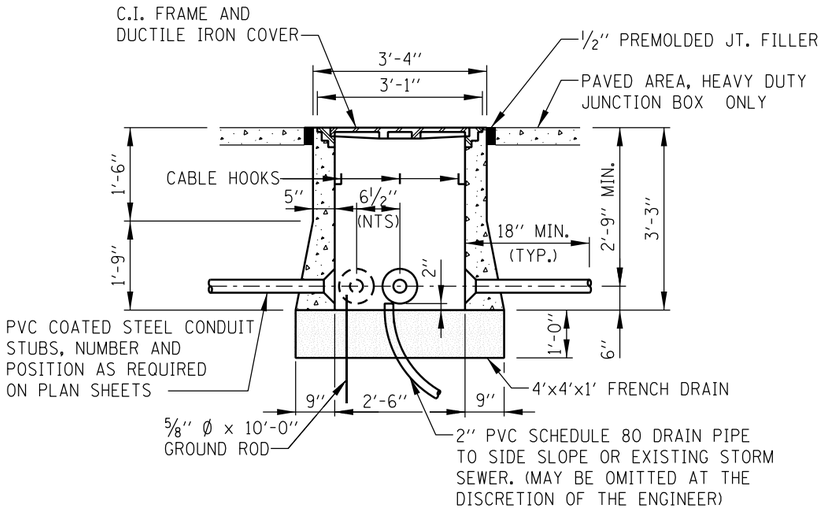
STANDARD H3-02



SLOPE INSTALLATION



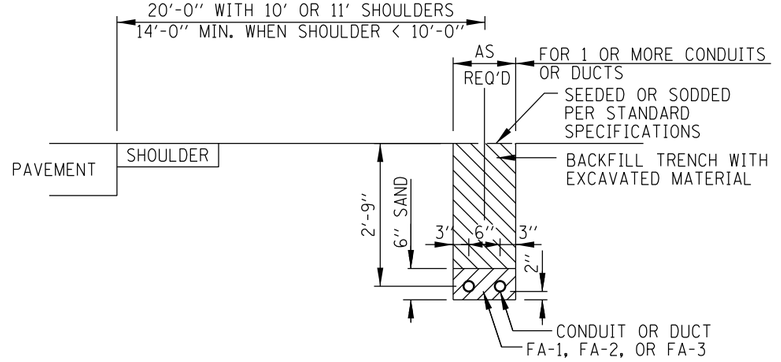
PLAN



PAVED AREA INSTALLATION

HANDHOLE AND HEAVY DUTY HANDHOLE

SEE NOTES

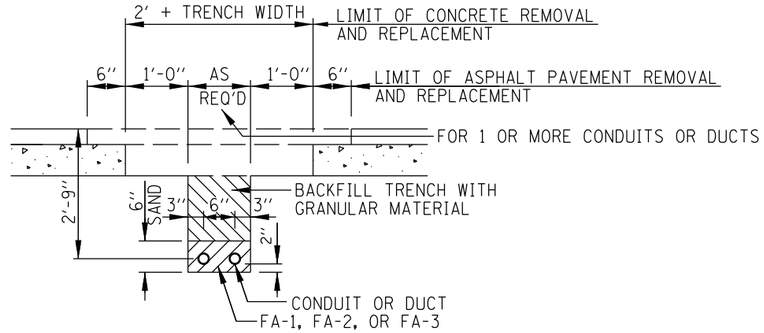


TRENCHING FOR CONDUIT IN NON-PAVED AREAS

(NOTE 6)

NOTE:

SAW-CUT HMA AND CONCRETE PAVEMENTS PRIOR TO REMOVAL



TRENCHING FOR CONDUIT IN PAVED AREAS

(NOTE 6)

NOTES:

1. HANDHOLES LOCATED IN UNPAVED AREAS AND NOT SHIELDED BY GUARDRAIL SHALL BE CONSTRUCTED WITH THE TOP FLUSH WITH THE ADAJACENT SLOPE.
2. HEAVY DUTY HANDHOLE - THIS TYPE SHALL BE CONSTRUCTED IN PAVED AREAS AND ITS FRAME AND COVER SHALL BE EITHER NEENAH FOUNDRY R-6662-PP WITH TYPE G LIFTING HANDLE OR EAST JORDAN IRON WORKS NO. 8213 WITH LIFTING RING, OR APPROVED EQUAL.
3. HANDHOLE - THIS TYPE SHALL BE CONSTRUCTED ONLY IN NON-PAVED AREAS AND ITS FRAME AND COVER SHALL BE NEENAH FOUNDRY R-6660-NH OR APPROVED EQUAL. THE FRAME AND COVER SHALL BE INSTALLED WITH THE HINGES AT THE SIDE FACING APPROACHING TRAFFIC.
4. AGGREGATE FOR FRENCH DRAIN SHALL BE PER ARTICLE 1003.04 OF THE STANDARD SPECIFICATIONS.
5. 10 FEET OF EXTRA CABLE SHALL BE COILED IN EACH HANDHOLE.
6. TRENCH AND BACKFILL FOR ELECTRICAL WORK SHALL BE INCLUDED IN THE COST OF THE UNDERGROUND RACEWAY AND WILL NOT BE MEASURED FOR PAYMENT.

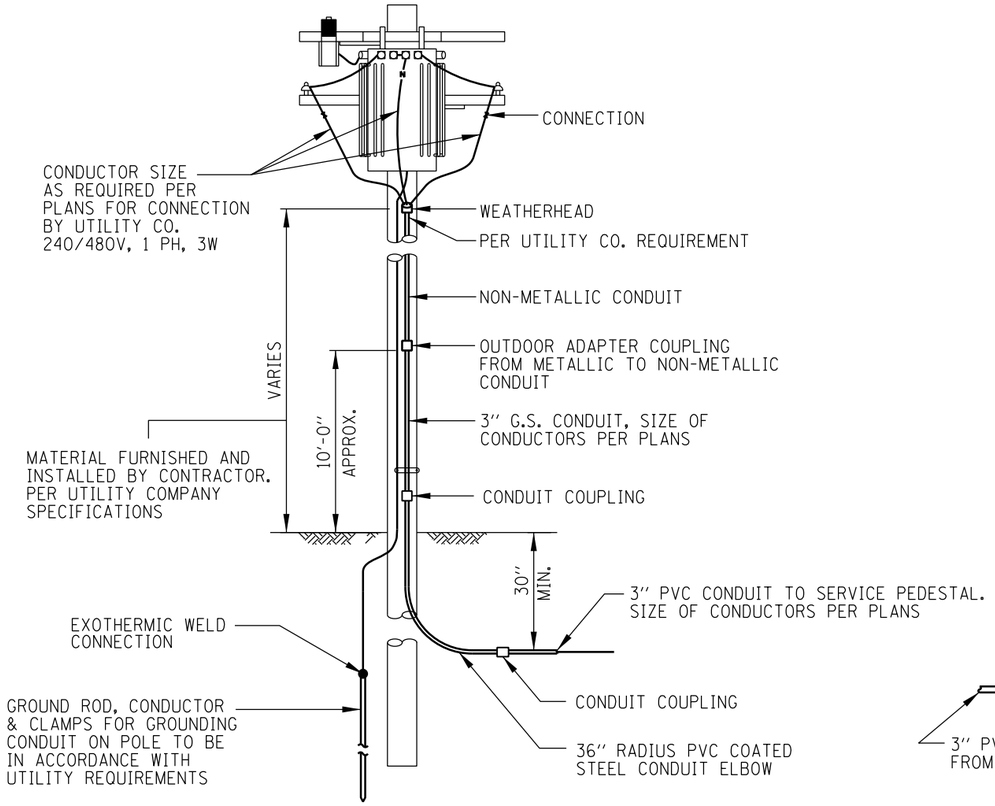
Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

DATE	REVISIONS
2-7-2012	MODIFY TRENCH DETAIL, NEW HANDHOLE DETAILS AND REVISED NOTES

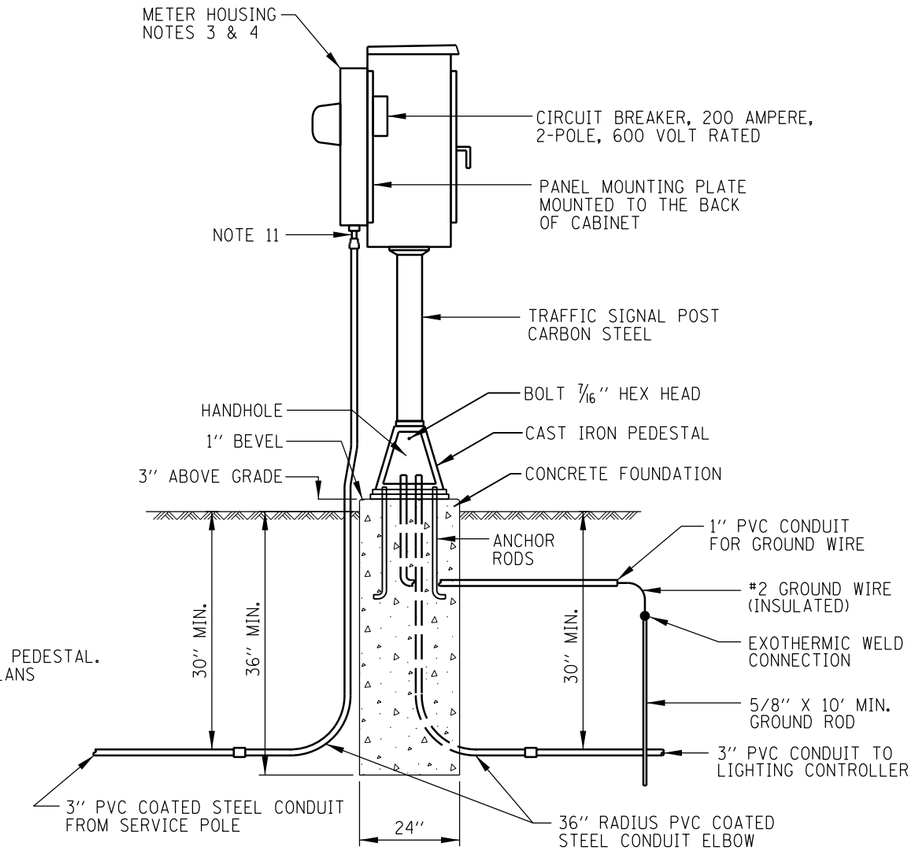
HANDHOLES AND BURIED WIRING DETAILS

STANDARD H4-01



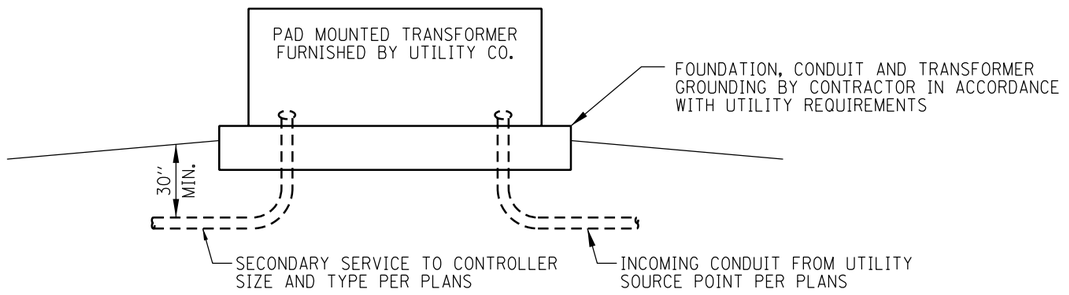
UTILITY SERVICE POLE

SUBJECT TO UTILITY COMPANY APPROVAL
NO SCALE



SERVICE PEDESTAL WITH METER DETAIL

NO SCALE (NOTE 9)



PAD MOUNTED TRANSFORMER

SUBJECT TO UTILITY COMPANY APPROVAL
NO SCALE

NOTES:

1. CABINETS, CABINET POSTS AND CABINET PEDESTALS SHALL BE PRIMED AND PAINTED. THE EXTERIOR SHALL HAVE TWO EPOXY FINISH COATS OF ANSI-61 GRAY. THE INTERIOR SHALL BE PAINTED WHITE.
2. METER HOUSING SHALL BE MOUNTED TO BACK WALL OF CONTROL CABINET. PROVIDE A GATE IN ROW FENCE TO ALLOW UTILITY ACCESS TO READ THE METER.
3. CABLES FROM METER HOUSING SHALL PASS THROUGH BACK WALL OF CONTROL CABINET.
4. METER HOUSING SHALL BE MILBANK CATALOG NUMBER U8949.
5. THE CABINET SHALL BE 36"H x 20"W x 15"D, FABRICATED FROM ALUMINUM WITH A MINIMUM THICKNESS OF .125", RATED NEMA TYPE 3R AND HAVE A MOUNTING BACK PLATE.
6. THE CABINET DOOR SHALL HAVE A CONTINUOUS HINGE THAT IS BOLTED TO THE CABINET AND DOOR WITH 1/4-20 STAINLESS STEEL CARRIAGE BOLTS AND NY-LOCK NUTS. THE HINGE SHALL BE INSTALLED ON THE RIGHT SIDE WHEN FACING THE CABINET AND BE MADE OF STAINLESS STEEL WITH A 0.25 INCH DIAMETER STAINLESS STEEL HINGE PIN. THE HINGE PIN SHALL BE CAPPED TOP AND BOTTOM BY WELD TO RENDER IT TAMPER-PROOF. THE CABINET SHALL HAVE A GASKET THAT FORMS A WEATHER-TIGHT SEAL BETWEEN THE CABINET AND DOOR. THE DOOR LATCHING MECHANISM SHALL BE THE 3-POINT DRAW ROLLER TYPE. WHEN THE DOOR IS CLOSED AND LATCHED, IT WILL BE LOCKED. THE LATCHING HANDLE SHALL BE FABRICATED FROM A 0.75" STAINLESS STEEL ROUND BAR AND SHALL HAVE A PROVISION FOR PADLOCKING IN THE CLOSED POSITION.
7. THE ENCLOSURE SHALL BE EQUIPPED WITH TWO ADJUSTABLE "C" MOUNTING CHANNELS WELDED ON BOTH SIDE WALLS AND BACK WALL OF THE ENCLOSURE, ALLOWING VERSATILE POSITIONING OF SHELVES OR PANELS. MOUNTING CHANNELS SHALL BE FACTORY PAINTED SAME COLOR AS INTERIOR OF CABINET.
8. CABINET DOOR SHALL NOT HAVE COMPARTMENT DOORS OR LOUVERS.
9. THE CABINET, POST, PEDESTAL BASE, METER HOUSING, FOUNDATION, GROUND ROD, GROUND WIRE AND GROUND CONNECTIONS SHALL BE INCLUDED IN THE COST OF EACH ELECTRIC SERVICE INSTALLATION (PAY ITEM 80400100).
10. CONTRACTOR MUST COORDINATE WITH PEDESTAL BASE SUPPLIER AND FURNISH THE NECESSARY ANCHOR RODS.
11. PROVIDE A 2½" CONDUIT HUB, 2½" NIPPLE AND 2½" TO 3" CONDUIT REDUCER FITTING.

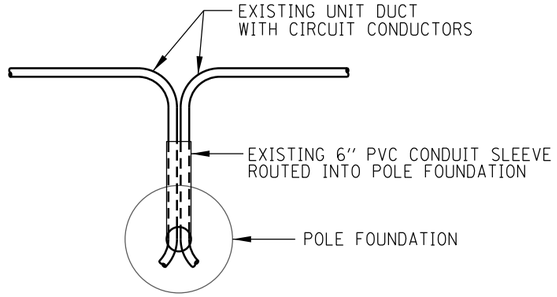
Paul Kovacs
APPROVED ..... DATE 2-7-2012
CHIEF ENGINEER

Illinois Tollway

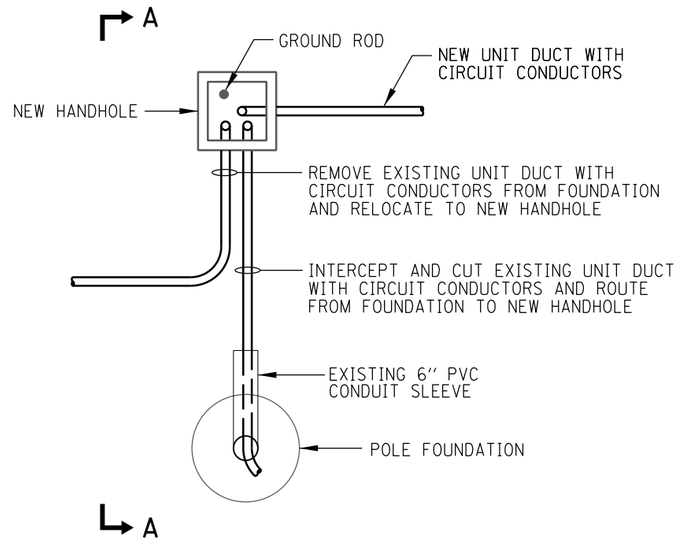
DATE	REVISIONS
2-7-2012	NEW SERVICE PEDESTAL DETAIL,
	MODIFIED UTILITY SEVICE POLE

SERVICE POLE AND PEDESTAL DETAILS

STANDARD H5-01



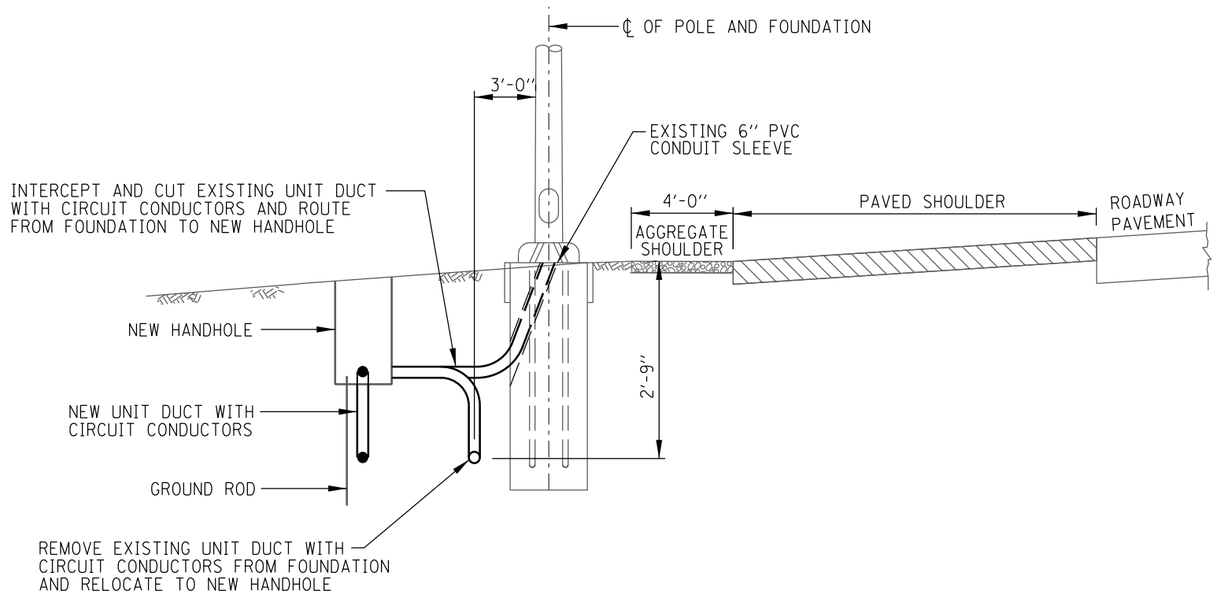
EXISTING WIRING



PROPOSED WIRING REVISION

POLE FOUNDATION WITH UNIT DUCT

NO SCALE



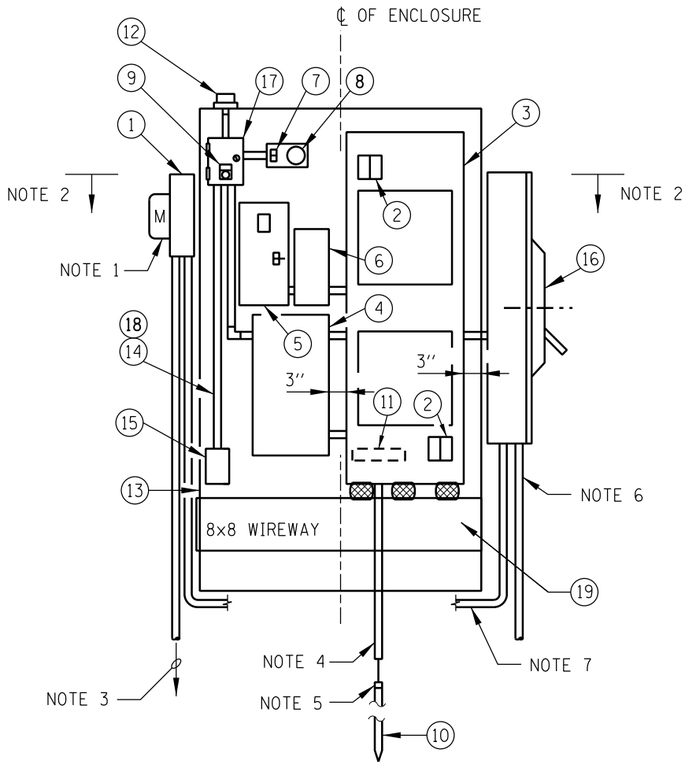
SECTION A-A

Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

WIRING MODIFICATIONS AT
EXISTING LIGHT STANDARDS

STANDARD H5-01



INTERIOR EQUIPMENT LAYOUT

FOR WIRING DIAGRAM SEE SHEET 2 (OF 2) IN THIS SERIES

ITEM DESCRIPTION

1. METER HOUSING, MILBANK U8949.
2. SECONDARY SURGE ARRESTERS, 2 POLE, 650 VOLT. (JOSLYN Z2-650-0)
3. MAIN PANELBOARD, 480/240 VOLT, 1 PHASE, 3 WIRE, 2 SECTION, 200 AMP, 2 POLE MAIN CIRCUIT BREAKER 65,000 AMPERES SYMMETRICAL INTERRUPTING CAPACITY. EATON PANELBOARD TYPE POW-R-LINE 3a IN A NEMA 1 ENCLOSURE, WITH CIRCUIT BREAKERS PER SCHEDULE ON PLANS. DOOR HINGES ON RIGHT SIDE.
4. LIGHTING CONTACTOR, 480 VOLT, 200 AMP, 2 POLE, 120 VOLT CONTROL, WITH RELAY FOR 2 WIRE CONTROL, (MAGNECRAFT W389ACX-9) ONE NORMALLY OPEN AND ONE NORMALLY CLOSED AUXILIARY CONTACTS, CONTROL LINE FUSE, IN A NEMA 1 ENCLOSURE, SQUARE-D CLASS 8903, TYPE PB.
5. SECONDARY BREAKER, 15 AMPERE TRIP, 120 VOLT, SINGLE POLE, 65,000 AMPERES SYMMETRICAL INTERRUPTING CAPACITY IN A NEMA 1 SURFACE MOUNTED ENCLOSURE.
6. STEP DOWN TRANSFORMER, 1500 VA, 480 VOLT PRIMARY, 120 VOLT SECONDARY, SINGLE PHASE, 60 HERTZ, DRY TYPE, NEMA 3R ENCLOSURE. (JEFFERSON 411-0081-000)
7. SINGLE POLE, 15 AMPERE SWITCH, IN A NEMA 1 ENCLOSURE (WITH ITEM 8), RATED AT 120-277 VAC. (HUBBELL 1201)
8. LAMP HOLDER 660W, 600V, MOUNTED ON A NEMA 1 ENCLOSURE (WITH ITEM 7), W/25W, 120V INCANDESCENT LAMP. (LEVITON 8829)
9. HAND-OFF-AUTO SELECTOR SWITCH WITH LEGEND PLATE. MOUNTED IN THE COVER OF ITEM 18. (SQ D 9001KS43BH13)
10. 5/8" x 10'-0" GROUND ROD IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, DRIVEN EXTERNAL TO THE FOUNDATION.
11. GROUND BUS MOUNTED IN PANELBOARD ENCLOSURE.
12. PHOTO ELECTRIC CONTROL SWITCH, (TORK 5001S) WITH RECEPTACLE (MODEL 2421).
13. NEMA TYPE 3R STAINLESS STEEL ENCLOSURE WITH DRIP SHIELD AND STAINLESS STEEL HARDWARE. ENCLOSURE SHALL CONFORM TO J.I.C. STANDARDS WITH CELLULAR NEOPRENE GASKETED DOORS, ALL SEAMS CONTINUOUSLY WELDED, 10 GAUGE STAINLESS STEEL BODY, REMOVABLE STEEL (PAINTED WHITE) PANEL INSIDE THE BACK AND A FACTORY INSTALLED DRIP SHIELD. THE ENCLOSURE SHALL HAVE CONTINUOUS HINGED DOORS MEETING IN THE CENTER, OVERLAPPED AND GASKETED, WITH NO CENTERPOST. AN OIL TIGHT KEY LOCKING HANDLE WITH 3 POINT LATCH SHALL BE PROVIDED (FURNISH 6 KEYS). EACH END OF THE ENCLOSURE SHALL HAVE A SCREENED, GASKETED VENTILATING LOUVER AND THE TOP OF THE ENCLOSURE SHALL HAVE A VENTILATOR. INTERNAL CONDUIT SHALL HAVE LOCKNUTS, INSULATING BUSHING AND CONDULET FITTINGS AS REQUIRED. INTERNAL WIRING SHALL BE XLP INSULATED NEC TYPE RHH/RHW-2. PROVIDE A WIRING DIAGRAM IN A PRINT POCKET ON THE INSIDE OF THE CABINET DOOR.
14. INTERNAL CONTROL WIRING SHALL BE #12 AWG, STRANDED, XLP INSULATED NEC TYPE RHH/RHW-2 RATED 600 VOLT, WITH SUITABLE COLOR CODING TO BE APPROVED BY THE ENGINEER BEFORE CONSTRUCTION.
15. 200 WATT, 120 VOLT CABINET HEATER WITH INTEGRAL THERMOSTAT. HOFFMAN CATALOG NO. DAH2001A.
16. SERVICE SAFETY SWITCH, 200 AMP, 600 VOLT, NON-FUSED, NEMA 4X STAINLESS STEEL ENCLOSURE.
17. NEMA TYPE 1, 8"x6"x4" JUNCTION BOX & COVER WITHOUT KNOCKOUTS. ITEM 9 IS MOUNTED IN THE COVER.
18. INTERNAL CONDUIT AND FITTINGS SHALL BE 3/4" MINIMUM.
19. 8"x8" WIREWAY WITH 3-3" NIPPLES.

NOTES:

1. PROVIDE METER HOUSING WHEN SERVICE PEDESTAL IS NOT PROVIDED.
2. 6'-0" MAXIMUM HEIGHT ABOVE GRADE.
3. TO UTILITY SERVICE AS INDICATED ON PLANS WHEN SERVICE PEDESTAL IS NOT PROVIDED.
4. 3/4" PVC CONDUIT IN CONCRETE, SEE FOUNDATION DETAILS.
5. CADWELD NO. 2 BARE COPPER GROUND CABLE TO GROUND ROD.
6. TO SERVICE PEDESTAL AS INDICATED ON PLANS.
7. CONDUIT AND CABLE BETWEEN METER FITTING AND DISCONNECT SWITCH ROUTED BETWEEN CONTROL CONSOLE AND CONCRETE FOUNDATION, WHEN A METER HOUSING IS REQUIRED. CONDUIT AND CABLE SHALL BE THE SAME AS THE SERVICE.

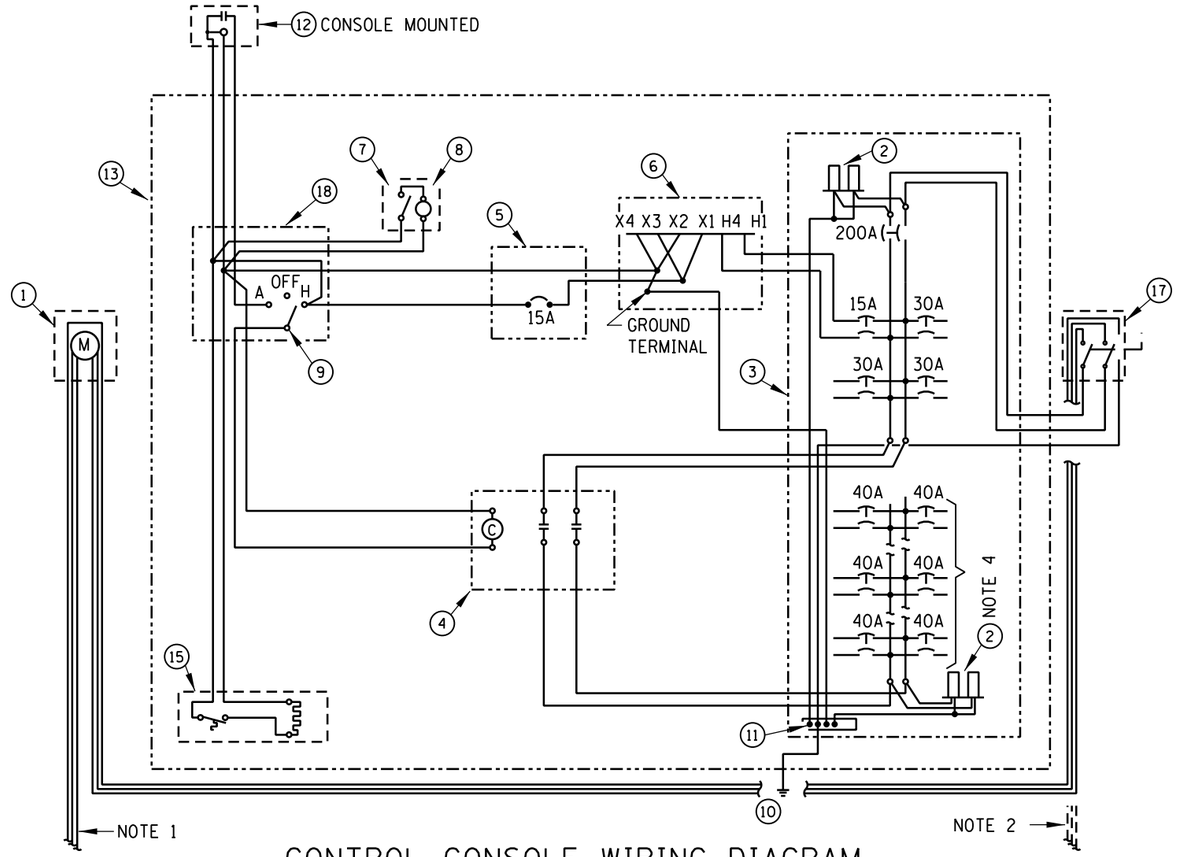
Illinois Tollway

DATE	REVISIONS
2-7-2012	MODIFY ENCLOSURE DIMENSIONS, REVISED NOTES AND ITEM DESCRIPTIONS

OUTDOOR CONTROL CONSOLE DETAILS

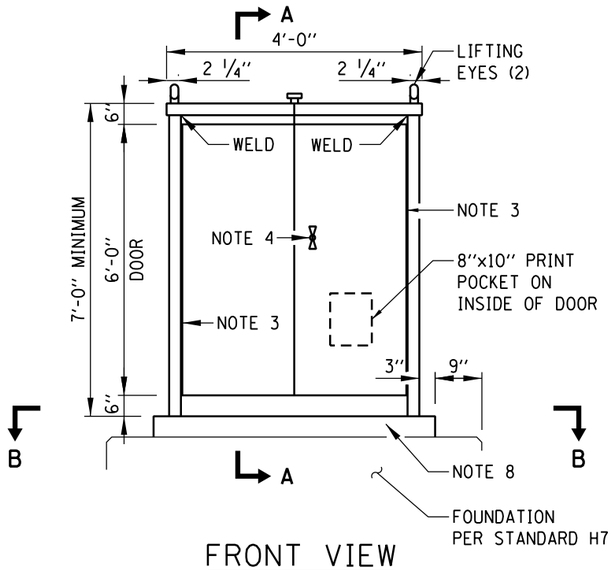
STANDARD H6-01

Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

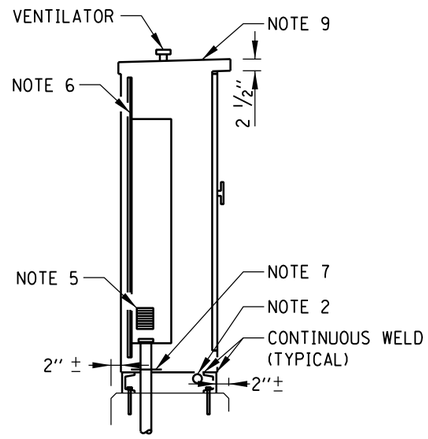


CONTROL CONSOLE WIRING DIAGRAM

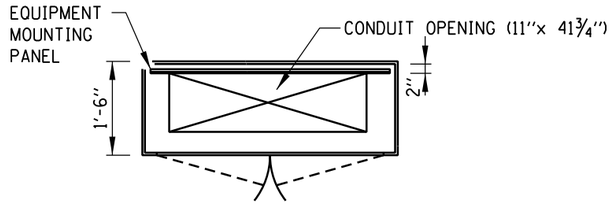
NOTE 1



FRONT VIEW



SECTION A-A



SECTION B-B

WIRING DIAGRAM NOTES:

1. TO UTILITY SERVICE. 480/240V, 1 PHASE, 3 WIRE, GROUNDED, WHEN A METER HOUSING IS REQUIRED (FED FROM PAD MOUNTED UTILITY TRANSFORMER WITHIN TOLLWAY RIGHT-OF-WAY).
2. TO SERVICE PEDESTAL, 480/240V, 1 PHASE, 3 WIRE, GROUNDED. SEE STANDARD H5.
3. ITEM NUMBERS REFER TO EQUIPMENT LIST ON SHEET 1 (OF 2) IN THIS SERIES.
4. PROVIDE BREAKERS PER SCHEDULE ON THE CONTRACT PLANS.

CONTROL CONSOLE NOTES:

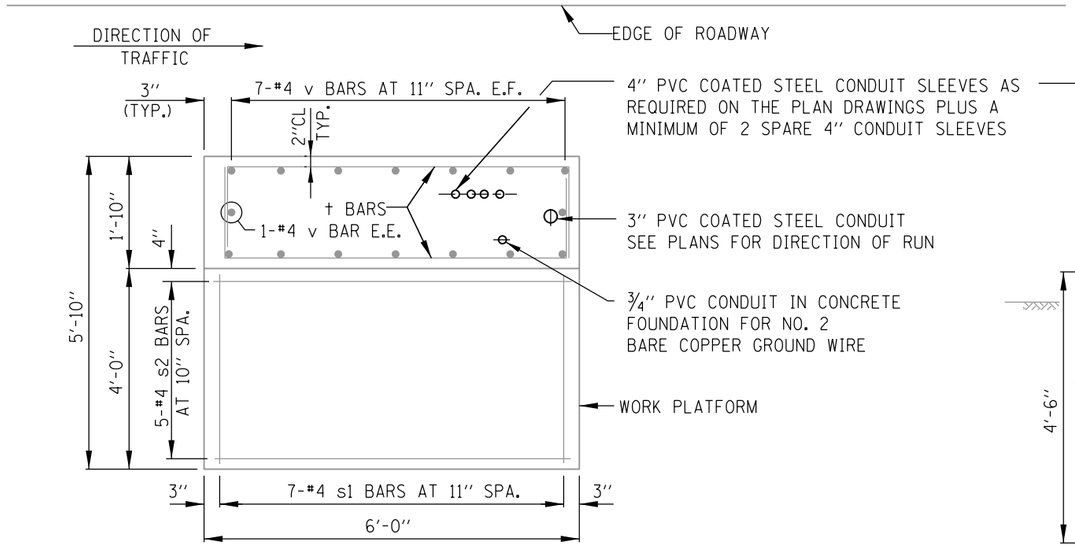
1. FOR INTERIOR EQUIPMENT LAYOUT DETAILS, SEE SHEET 1 (OF 2) IN THIS SERIES.
2. CONDUIT AND CABLE BETWEEN METER FITTING AND DISCONNECT SWITCH ROUTED BETWEEN CONTROL CONSOLE AND CONCRETE FOUNDATION, WHEN A METER HOUSING IS REQUIRED. CONDUIT AND CABLE SHALL BE THE SAME AS THE SERVICE.
3. CONTINUOUS STAINLESS STEEL PIANO HINGES.
4. 3 POINT LATCH VAULT TYPE HANDLE WITH MASTER KEYED CHICAGO CYLINDER LOCK CATALOG NO. 60
5. SCREENED LOUVERS ON SIDES OF CABINET.
6. 10 GAUGE GALVANIZED STEEL EQUIPMENT MOUNTING PANEL (PAINTED WHITE).
7. REMOVABLE #10 GAUGE 13"x43¾" STAINLESS STEEL PLATE. DRILL PLATE AS REQUIRED FOR CONDUIT ENTRY.
8. 4" x 2½" STAINLESS STEEL CHANNEL (2 REQUIRED-FRONT AND BACK). EXTEND CHANNEL 3" BEYOND ENCLOSURE (CONTINUOUSLY WELD CHANNEL TO ENCLOSURE).
9. TOP SLOPED ½" TO REAR FOR DRAINAGE.

Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

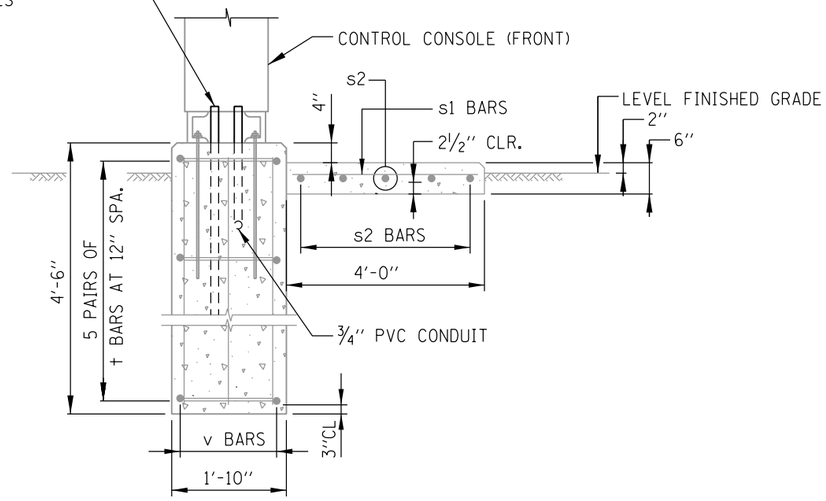
Illinois Tollway

OUTDOOR CONTROL CONSOLE DETAILS

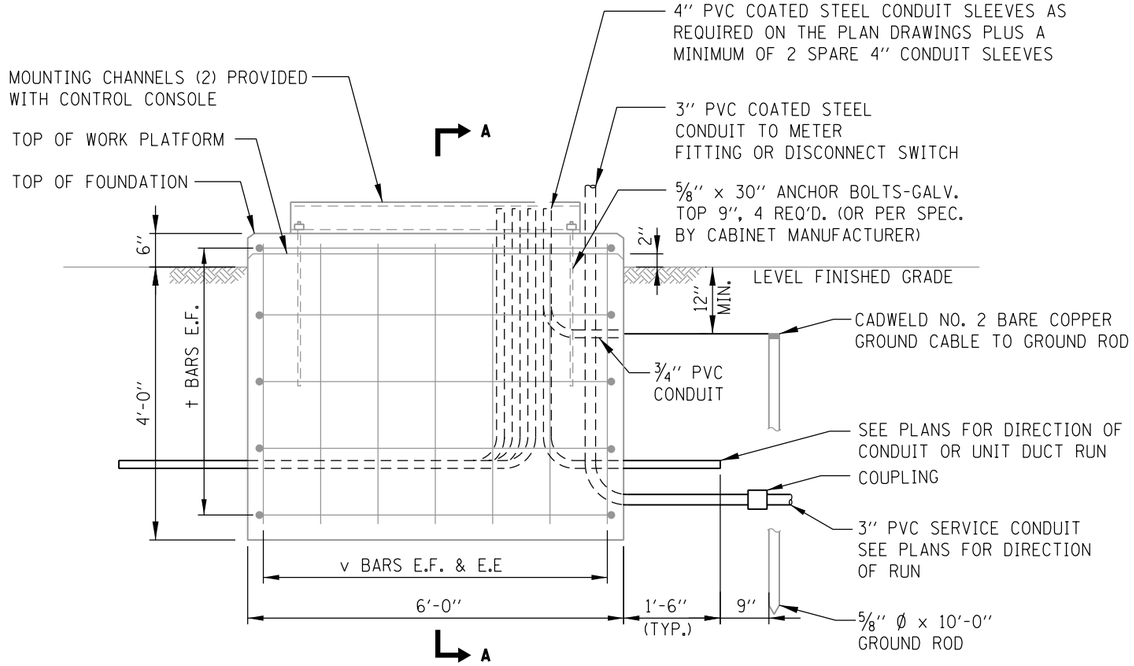
STANDARD H6-01



PLAN



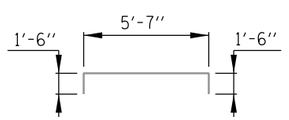
SECTION A-A



ELEVATION

REINFORCING BAR SCHEDULE					
BAR	NO.	SIZE	LENGTH	WT. LBS.	SHAPE
v	16	#4	4'-0"	43	——
†	10	#4	8'-7"	57	⌐¬
s1	7	#4	3'-8"	17	——
s2	5	#4	5'-8"	19	——

BILL OF MATERIAL		
DESCRIPTION	UNIT	QUANTITY
REINF. STEEL, EPOXY COATED	LBS.	136
CLASS "SI" CONCRETE	CU. YDS.	2.3



† BARS

NOTE:

SEE SHEET 2 OF THIS SERIES FOR GENERAL NOTES

SHEET 1 OF 2

TYPE A CONTROL CONSOLE FOUNDATION

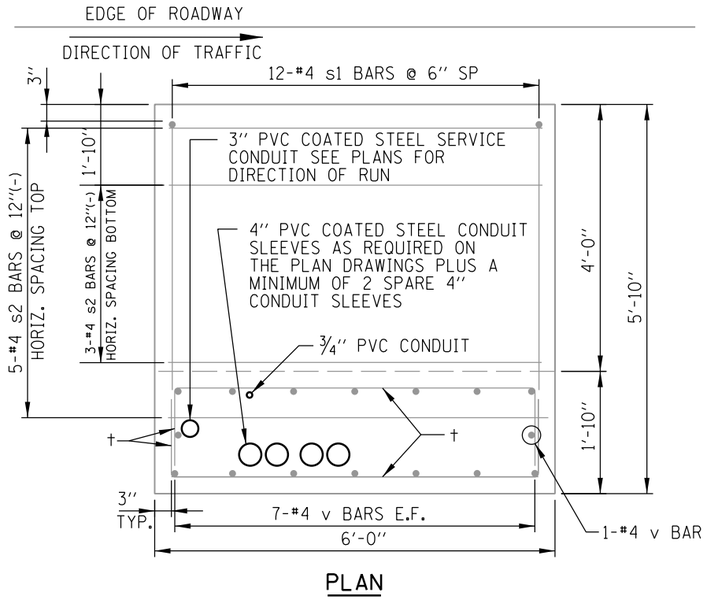
Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

DATE	REVISIONS
2-7-2012	REVISED TYPE A AND TYPE B CONTROL CONSOLE FOUNDATIONS

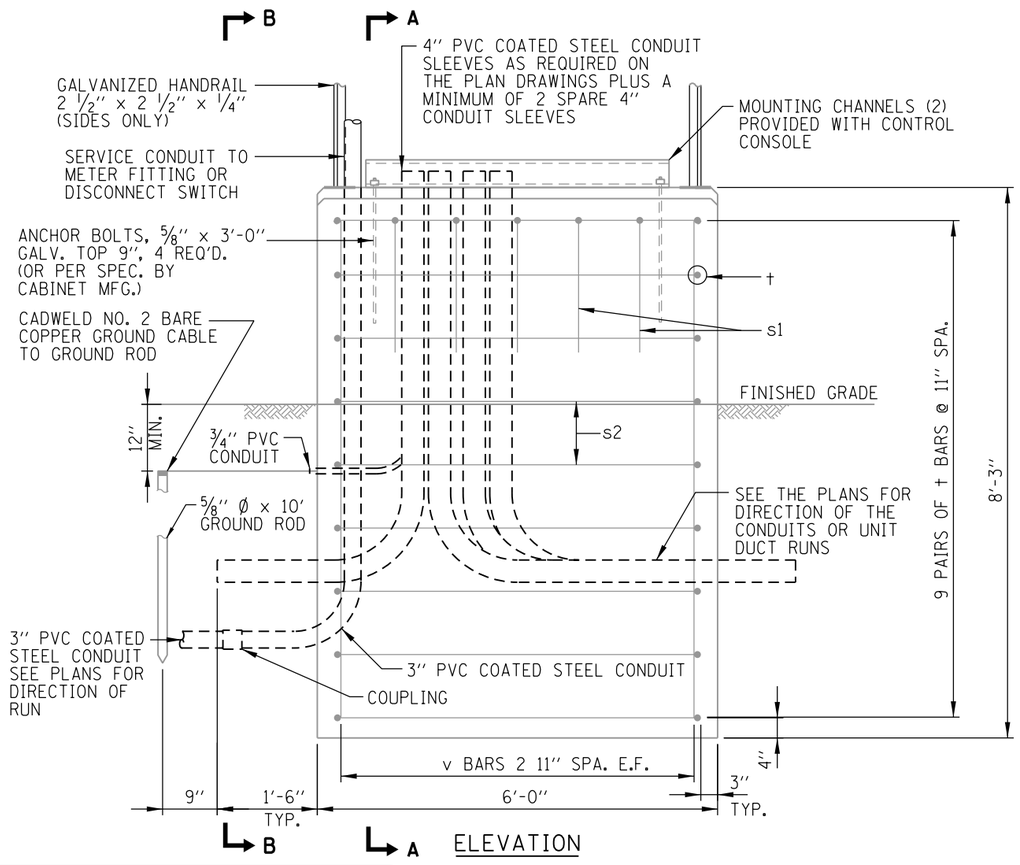
Illinois Tollway

OUTDOOR CONTROL CONSOLE FOUNDATION DETAILS

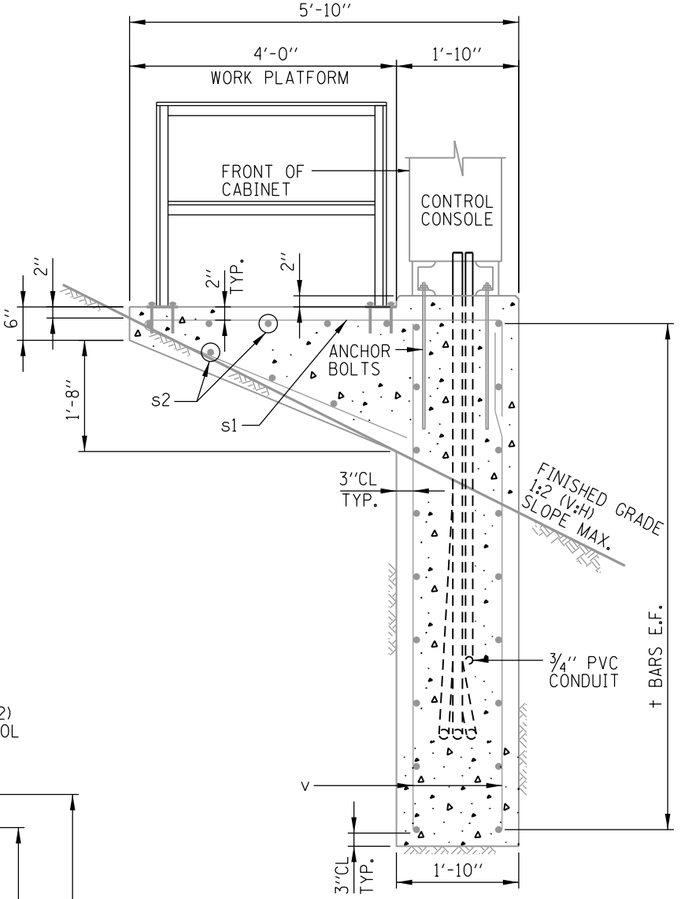
STANDARD H7-01



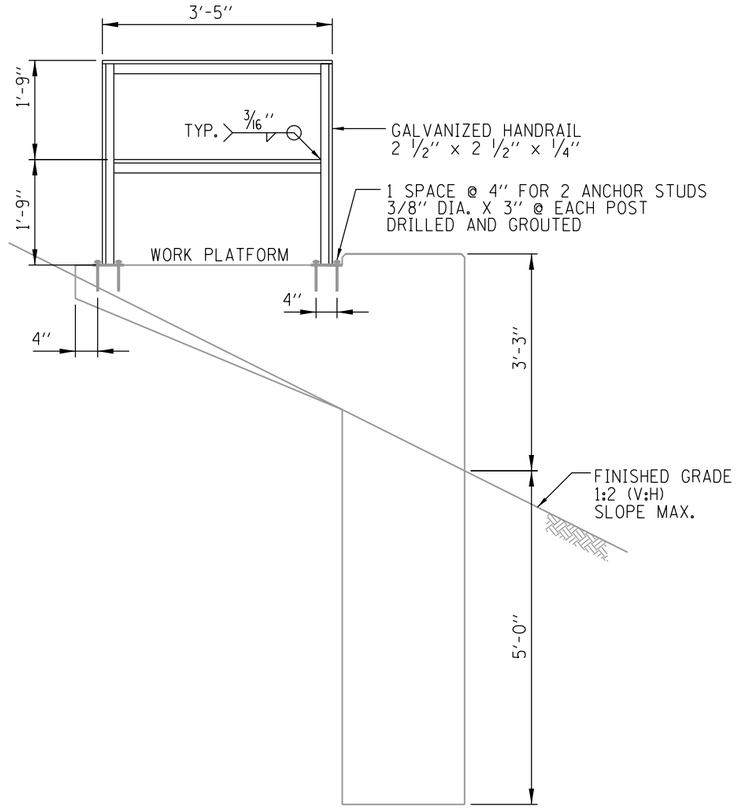
PLAN



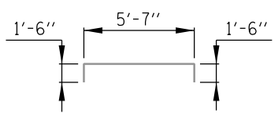
ELEVATION



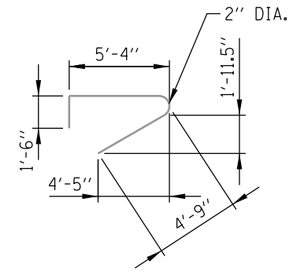
SECTION A-A



VIEW B-B



† BARS



s1 BARS

NOTES:

1. EXPOSED CONCRETE EDGES SHALL HAVE 3/4" x 45° CHAMFERS EXCEPT WHERE SHOWN OTHERWISE. CHAMFERS ON VERTICAL EDGES SHALL BE CONTINUED A MINIMUM OF ONE FOOT BELOW FINISHED GROUND LEVEL.
2. ALL REINFORCEMENT BARS SHALL BE EXPOXY COATED AND SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31 (ASTM A615), GRADE 60 DEFORMED BARS.
3. REINFORCEMENT BENDING DETAILS SHALL BE IN ACCORDANCE WITH THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, LATEST EDITION.
4. REINFORCEMENT BAR BENDING DIMENSIONS ARE OUT TO OUT.
5. COVER FROM THE FACE OF CONCRETE TO FACE OF REINFORCEMENT BARS SHALL BE 3" FOR ALL SURFACES UNLESS OTHERWISE SHOWN.
6. FOR CLARITY, CONTROL CONSOLE AND RAILINGS ARE NOT SHOWN IN PLAN VIEW.

REINFORCING BAR SCHEDULE					
BAR	NO.	SIZE	LENGTH	WT. LBS.	SHAPE
v	16	#4	7'-10"	84	
†	18	#4	8'-7"	103	
s1	12	#4	11'-9"	94	
s2	8	#4	5'-6"	29	

BILL OF MATERIAL		
DESCRIPTION	UNIT	QTY
REINF. STEEL, EPOXY COATED	LBS.	310
CLASS "SI" CONCRETE	CU. YDS.	9.4
STRUCTURAL STEEL	LBS.	158

Paul Kovacs
APPROVED CHIEF ENGINEER DATE 2-7-2012

TYPE B CONTROL CONSOLE FOUNDATION

Illinois Tollway

OUTDOOR CONTROL CONSOLE FOUNDATION DETAILS

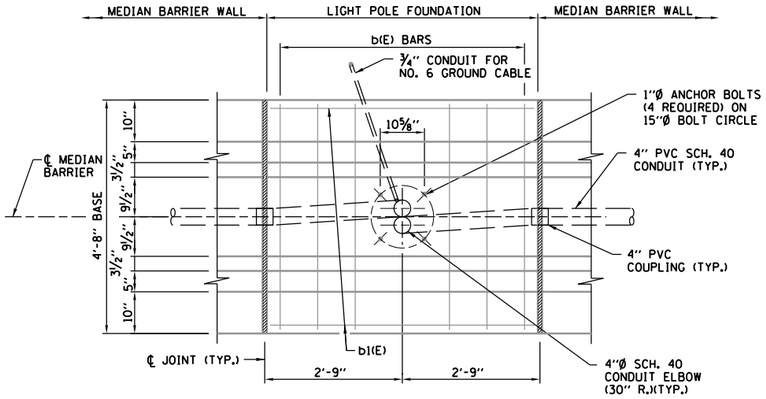
STANDARD H7-01

NOTE:

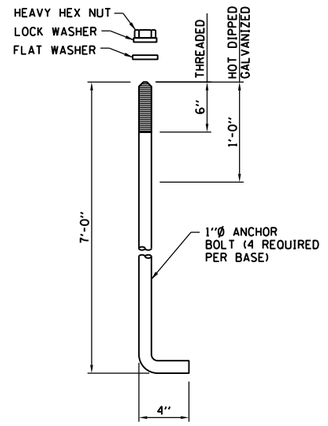
ALL BARS SHALL BE EPOXY COATED.

REINFORCING BAR SCHEDULE					
BAR	NO.	SIZE	LENGTH	WT. LBS.	SHAPE
a1(E)	12	#4	5'-0"	40	
b(E)	6	#4	4'-2"	17	
b1(E)	2	#4	5'-2"	7	
d1(E)	12	#4	5'-9"	46	
sp1(E)	•	#4	•		
v1(E)	8	#6	11'-9"	142	

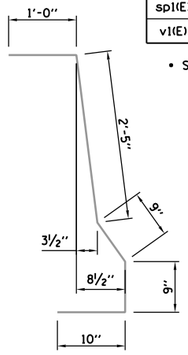
• SEE SECT. A-A



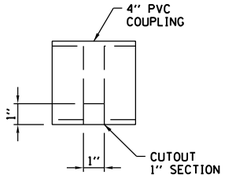
PLAN VIEW



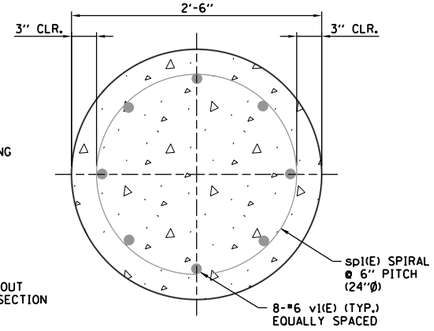
ANCHOR BOLT DETAIL



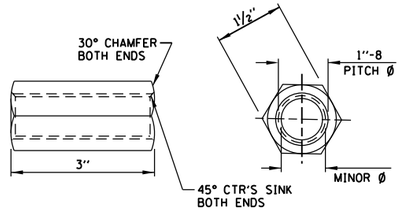
d1(E) BAR



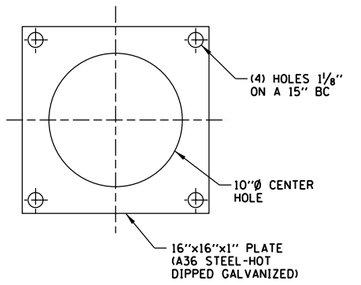
DETAIL A



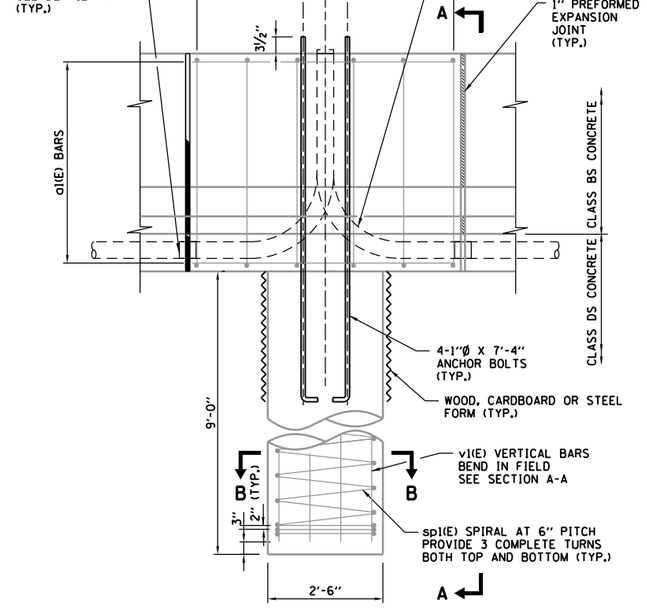
SECTION B-B



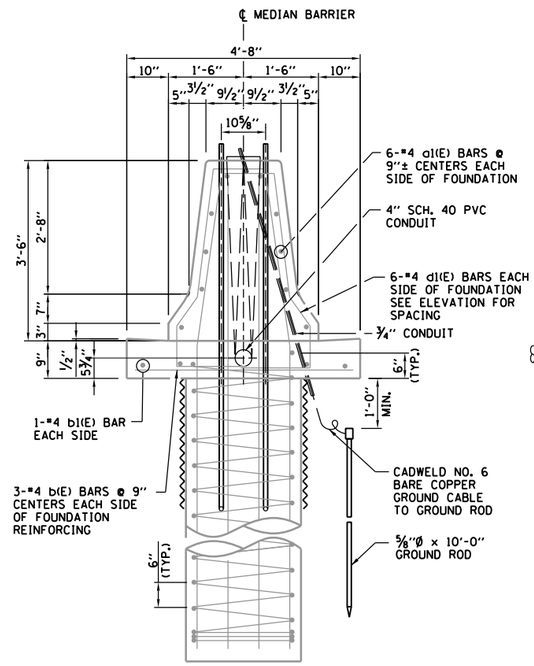
COUPLING NUT



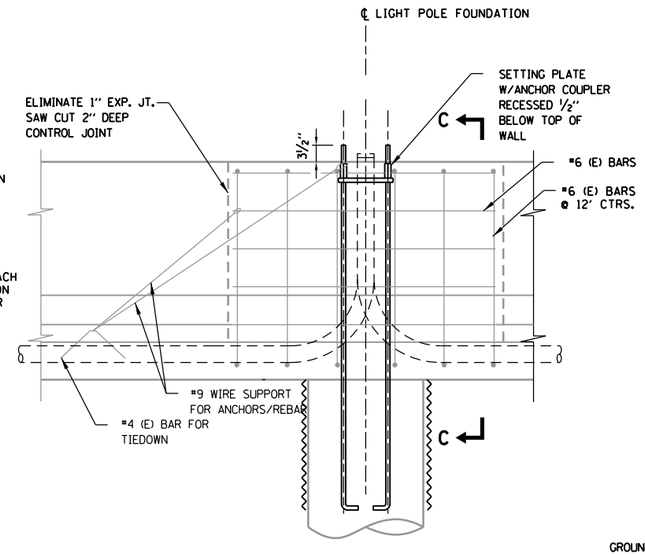
SETTING PLATE



ELEVATION



SECTION A-A



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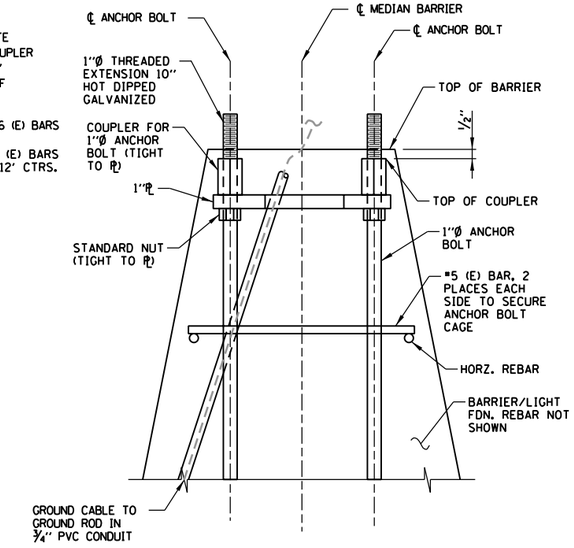


SECTION C-C

NOTE:

PLUG TOP OF COUPLER WITH PLASTIC PLUG OR COVER WHILE PLACING CONCRETE. PROTECT GROUND WIRE WHILE PLACING CONCRETE.

TYPE 1 CENTERED CAISSON, 42" BARRIER

MODIFIED LIGHT POLE FOUNDATION (SLIPFORM POUR)

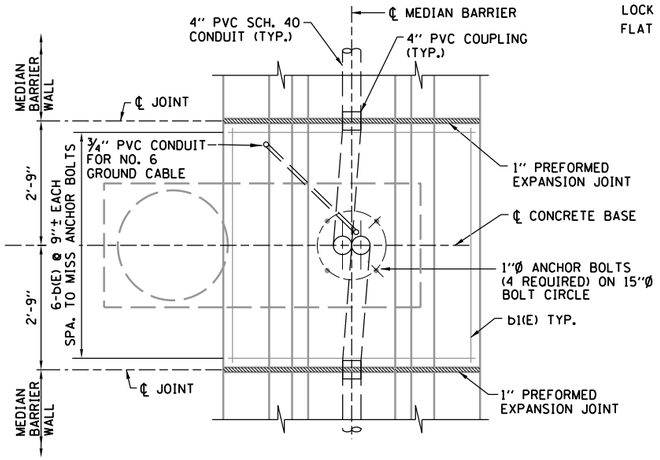
Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

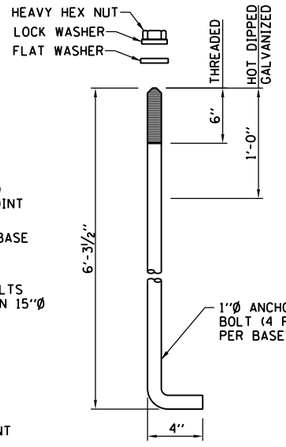
DATE	REVISIONS
2-7-2012	CHANGED ANCHOR BOLT DIMENSION, MODIFIED LIGHT POLE FOUNDATION, CHANGED FOUNDATION CONCRETE, MODIFIED REINFORCEMENT BARS

MEDIAN BARRIER LIGHT POLE FOUNDATION DETAILS

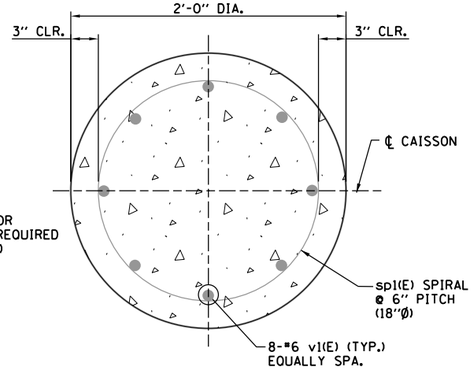
STANDARD H8-01



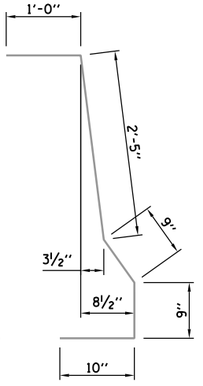
PLAN VIEW



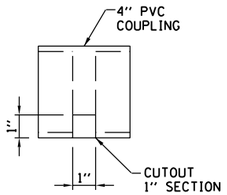
ANCHOR BOLT DETAIL



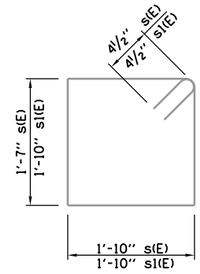
SECTION B-B



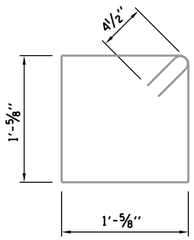
d1(E) BAR



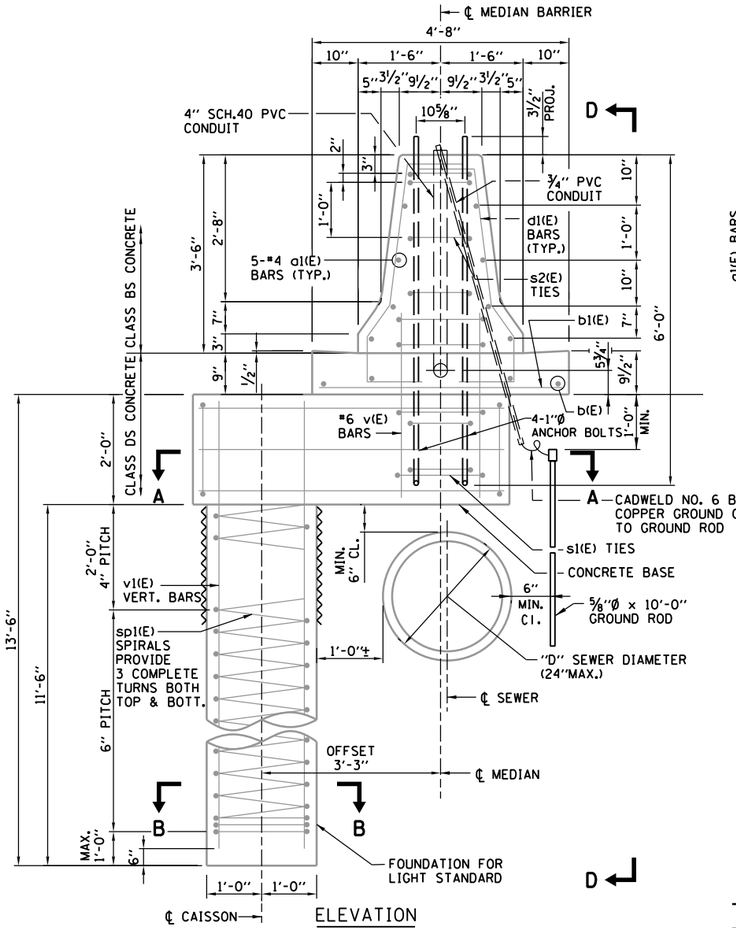
DETAIL "A"

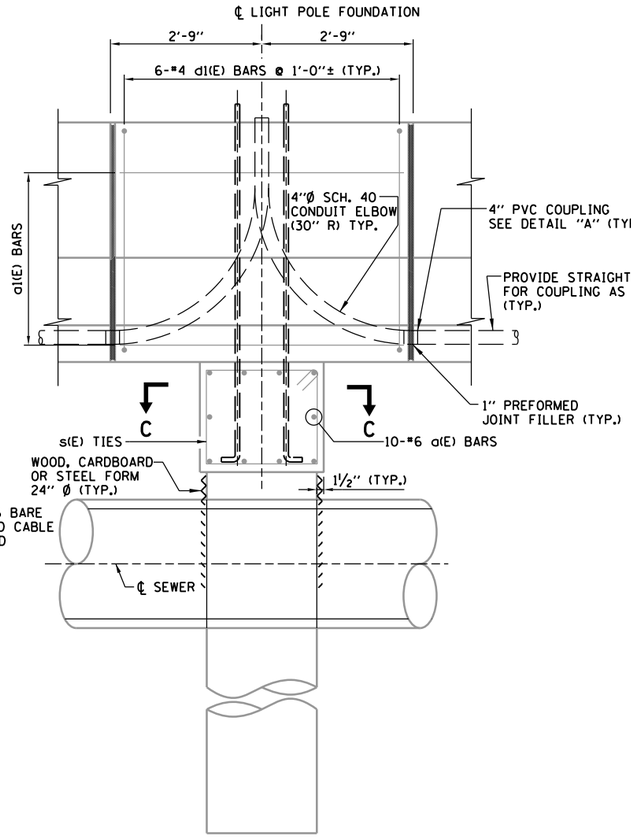


BARS s(E) AND s1(E)



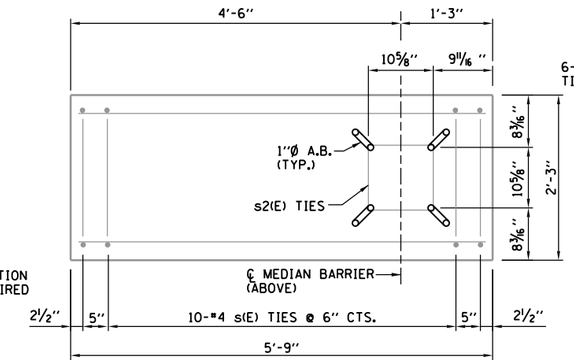
BAR s2(E)



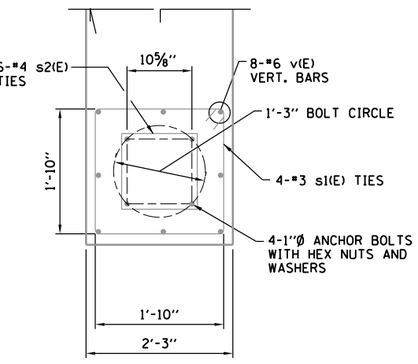


VIEW D-D

TYPE 2 OFFSET CAISSON, 42" BARRIER



SECTION A-A



SECTION C-C

REINFORCING BAR SCHEDULE					
BAR	NO.	SIZE	LENGTH	WT. LBS.	SHAPE
a(E)	10	#6	5'-6"	83	——
a1(E)	10	#4	5'-0"	34	——
b(E)	6	#4	4'-2"	17	——
b1(E)	2	#4	5'-2"	7	——
d1(E)	12	#4	5'-9"	46	⌐
s(E)	12	#4	7'-7"	61	□
s1(E)	4	#4	8'-1"	22	□
s2(E)	6	#4	5'-0"	20	□
sp1(E)	*	#4	*		≋
v(E)	8	#6	3'-2"	38	——
v1(E)	8	#6	12'-6"	267	——

* SEE SECT. B-B

NOTE:

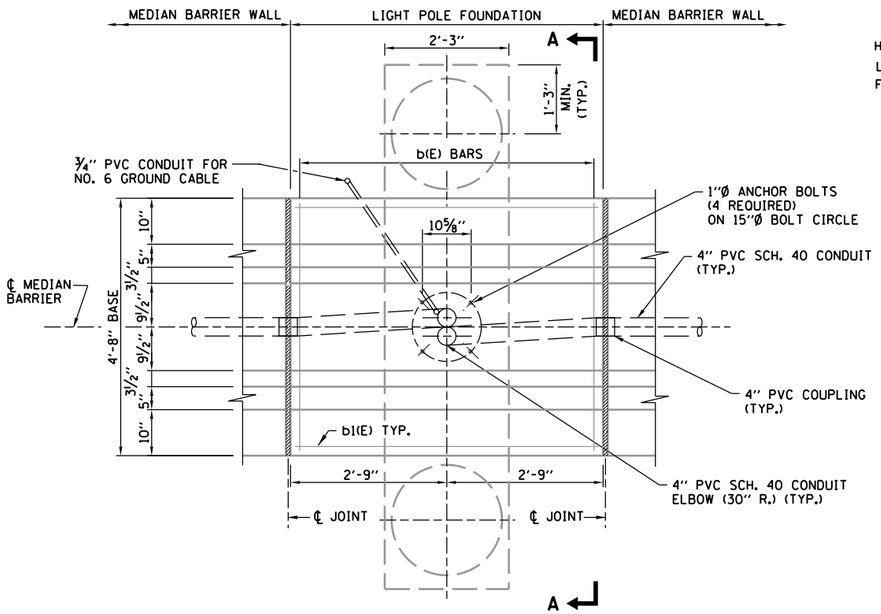
1. ALL BARS SHALL BE EPOXY COATED.
2. FOR SLIPFORM POUR DETAIL SEE SHEET 1 OF THIS SERIES

Paul Kovacs
APPROVED CHIEF ENGINEER
DATE 2-7-2012

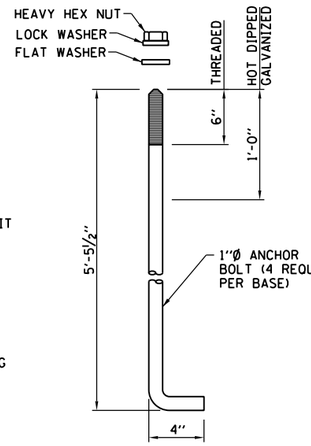
Illinois Tollway

MEDIAN BARRIER LIGHT POLE FOUNDATION DETAILS

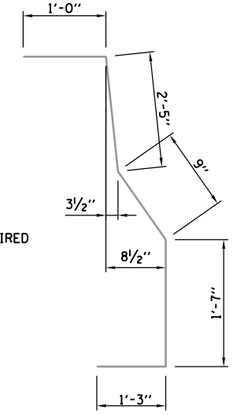
STANDARD H8-01



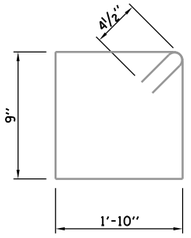
PLAN VIEW



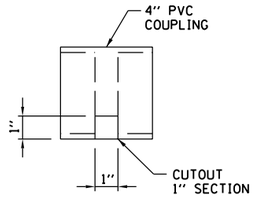
ANCHOR BOLT DETAIL



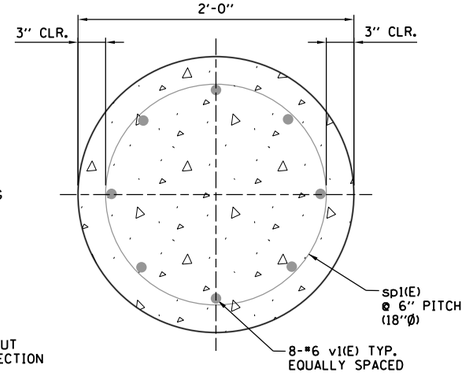
d1(E) BAR



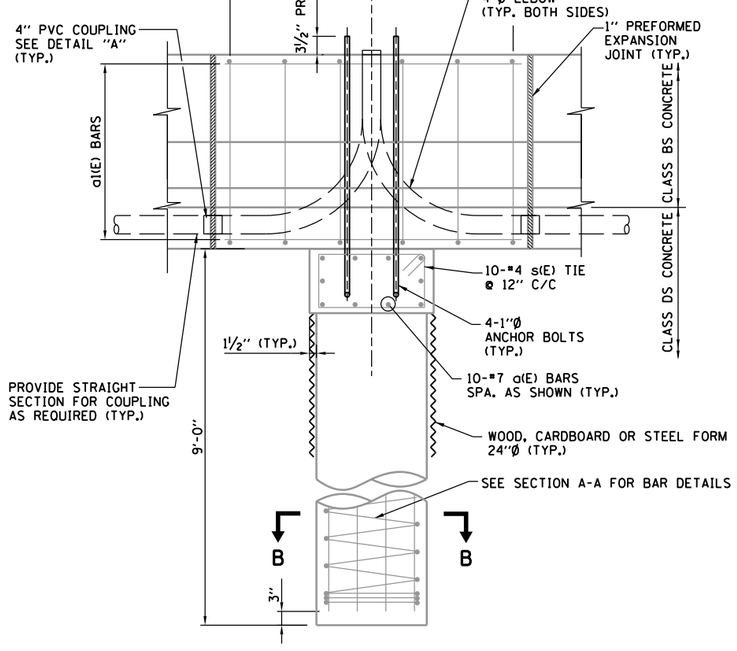
s(E) BAR



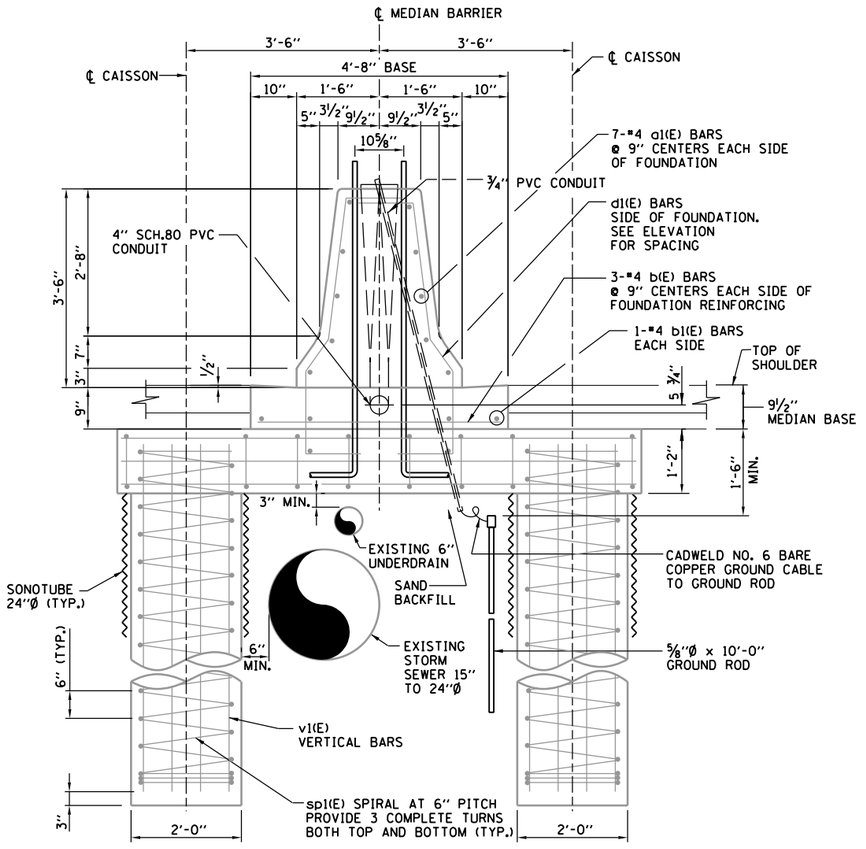
DETAIL "A"



SECTION B-B



ELEVATION



SECTION A-A

NOTES:

1. THE FURNISHING AND INSTALLATION OF THE 6" P.V.C. DRAIN PIPE INCLUDING ALL THE FITTINGS REQUIRED AND REMOVAL AND REPLACEMENT OF THE EXISTING SHOULDER NECESSARY TO INSTALL THE 6" P.V.C. PIPE SHALL BE INCIDENTAL TO LIGHT POLE FOUNDATION (MEDIAN BARRIER) STRADDLED.
2. PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING CONDITIONS AND LOCATIONS AND SIZES OF DRAIN AND STORM SEWER PIPES HAVE BEEN TAKEN FROM EXISTING PLANS AND SUBJECT TO NOMINAL CONSTRUCTION VARIANCES. IT WILL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY SUCH DIMENSIONS, DETAILS AND LOCATIONS OF THE PIPES IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS.
3. ALL BARS SHALL BE EPOXY COATED.
4. FOR SLIPFORM POUR DETAIL SEE SHEET 1 OF THIS SERIES

REINFORCING BAR SCHEDULE

BAR	NO.	SIZE	LENGTH	WT. LBS.	SHAPE
a(E)	10	#7	9'-0"	184	
a1(E)	14	#4	5'-0"	47	
b(E)	6	#4	4'-2"	17	
b1(E)	2	#4	5'-2"	7	
d1(E)	12	#4	6'-7"	53	
s(E)	10	#4	5'-11"	40	
spl(E)	*	#4	*		
v1(E)	16	#6	9'-9"	235	

* SEE SECT. A-A

TYPE 3 STRADDLED CAISSON, 42" BARRIER

Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

SHEET 3 OF 3

Illinois Tollway

MEDIAN BARRIER LIGHT POLE FOUNDATION DETAILS

STANDARD H8-01

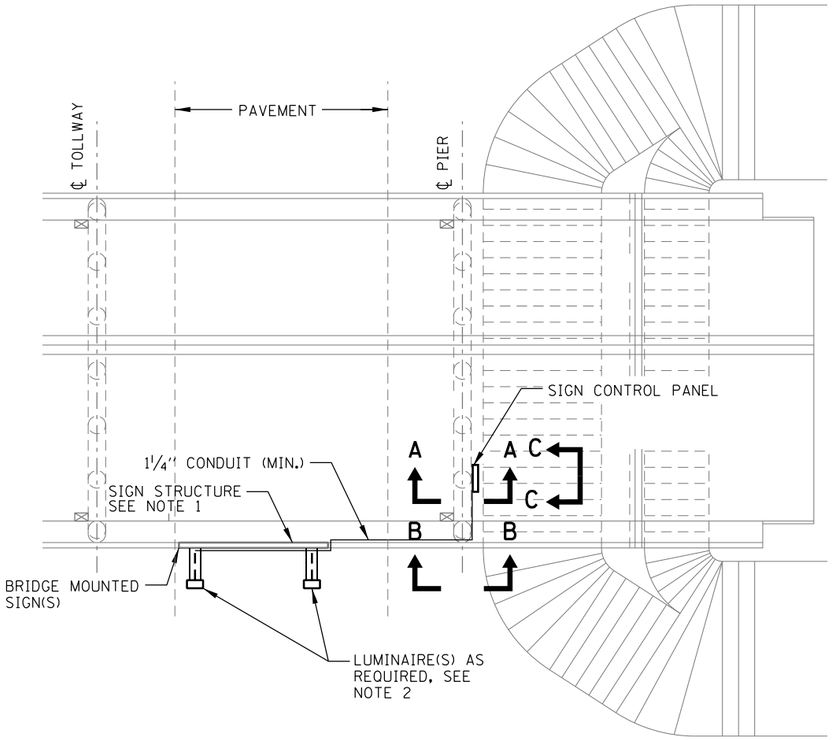
RESERVED

Paul Kovacs
APPROVED . . . . . DATE 2-7-2012 . . . .
CHIEF ENGINEER

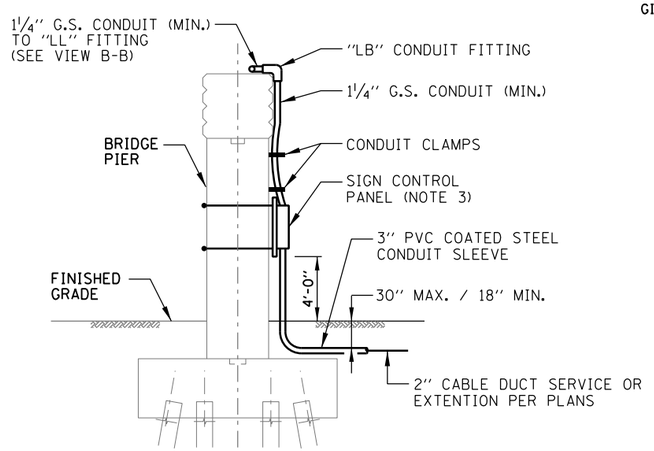
DATE	REVISIONS

Illinois Tollway

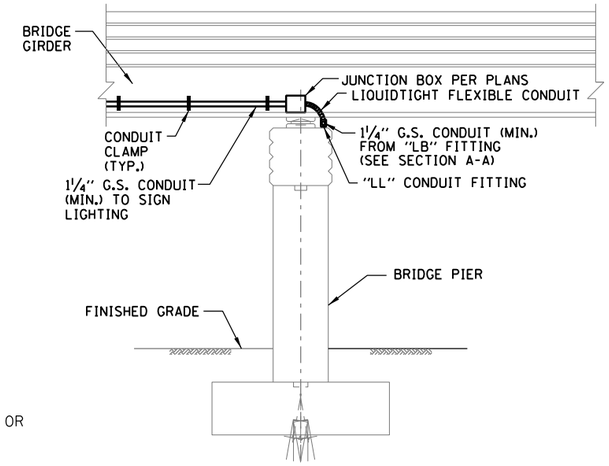
STANDARD H9-00



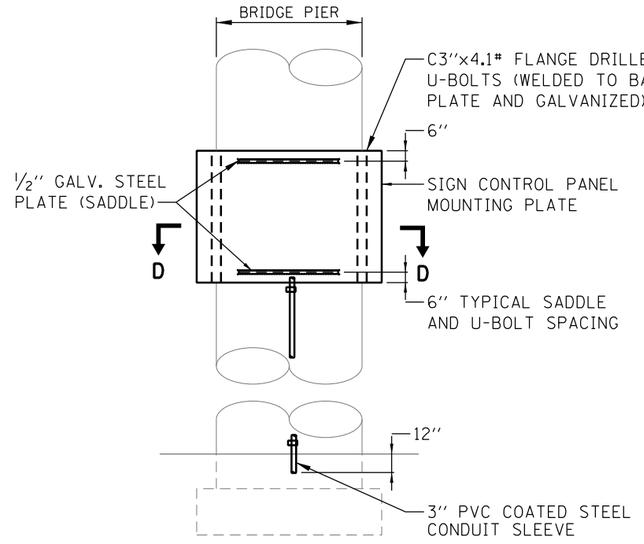
PLAN



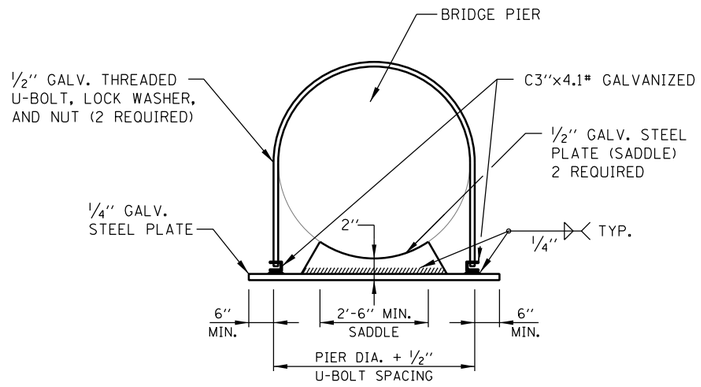
SECTION A-A



SECTION B-B



VIEW C-C



SECTION D-D

NOTES:

1. FOR SIGN STRUCTURE INSTALLATION DETAILS SEE SHEET 3 OF 3 IN THIS SERIES.
2. FOR SIGN LUMINAIRE INSTALLATION AND WIRING, SEE STANDARD H14 (SIGN LUMINAIRE MOUNTING DETAIL AND WIRING DIAGRAMS).
3. FOR TYPICAL SIGN CONTROL PANEL DETAILS SEE SHEET 2 OF 3 IN THIS SERIES.
4. DETAILS SHOWN ON THIS SHEET ARE WITHOUT FLASHING BEACON. INSTALLATION OF FLASHING BEACON REQUIRES ADDITIONAL WORK AS SHOWN ON TYPICAL SIGN CONTROL PANEL DETAIL (SHEET 2 OF 3 IN THIS SERIES).
5. LUMINAIRE SUPPORT MEMBERS TO BE INSTALLED ONLY WHEN THE SIGN IS TO BE ILLUMINATED. MAINLINE PLAZA APPROACH SIGNS SHALL BE ILLUMINATED. DESIGNER TO DETERMINE REQUIREMENTS FOR LIGHTING ALL OTHER SIGNS BASED ON ROADWAY GEOMETRY.

NOTE:

ALL STEEL TO BE HOT DIPPED GALVANIZED AFTER WELDING PER THE STANDARD SPECIFICATIONS.

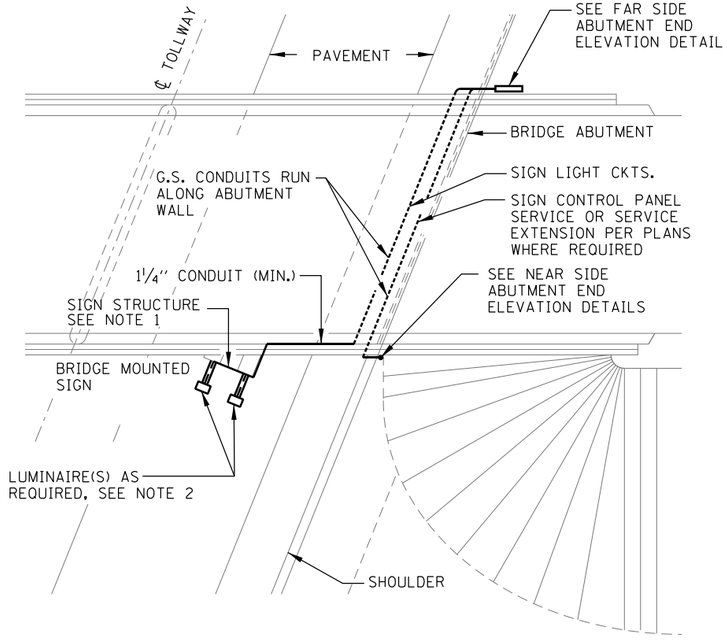
Illinois Tollway

DATE	REVISIONS
2-7-2012	ADDED CONTROL PANEL MOUNTING DETAILS
	REVISED NOTES, REMOVED CANISTOR BALLASTS,
	NEW JUNCTION BOX, AND REVISED CONDUCTOR
	DESIGNATION

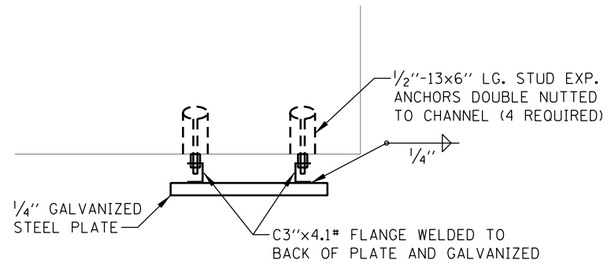
BRIDGE MOUNT SIGN
LIGHTING TYPICAL WIRING

STANDARD H10-01

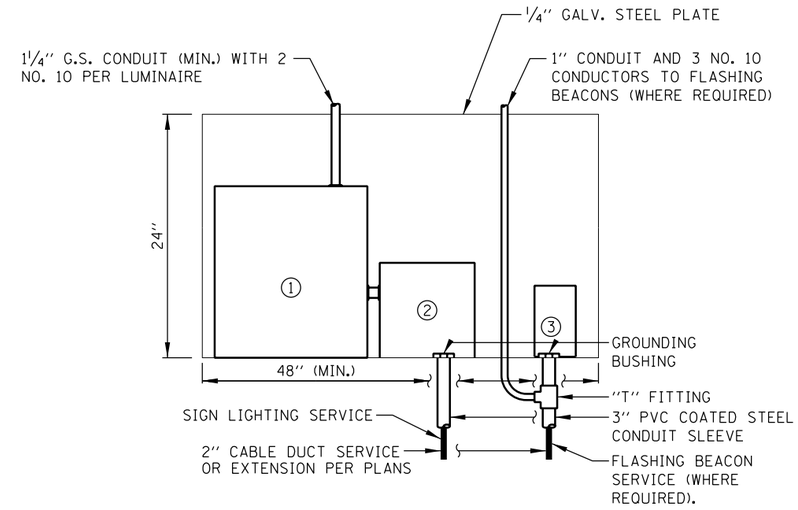
Paul Kovacs
APPROVED ..... DATE 2-7-2012
CHIEF ENGINEER



PLAN



SECTION A-A



LEGEND:

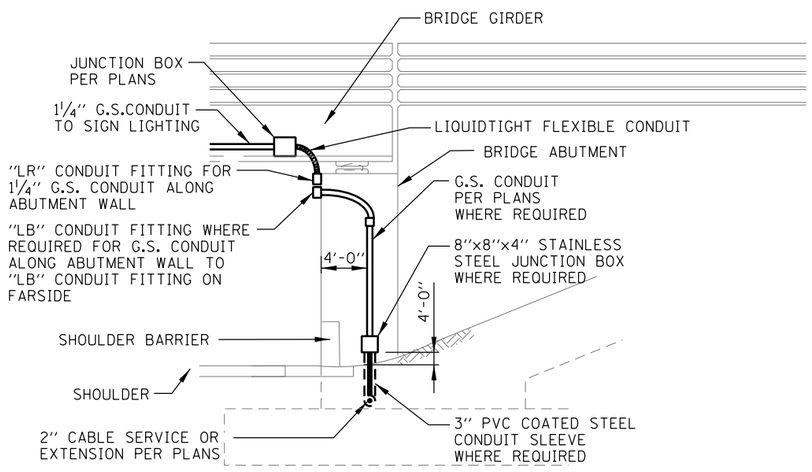
① 18"x18"x8" STAINLESS STEEL JUNCTION BOX. PROVIDE SUFFICIENT 30 AMPERE, 600 VOLT TERMINAL BLOCKS TO SPLIT 480 VOLT WIRING FROM SIGN SERVICE CIRCUIT BREAKER TO TWO NO. 10 WIRES FOR EACH LUMINAIRE.

② SIGN LIGHTING SERVICE - CIRCUIT BREAKER (30 AMP/2 POLE) IN NEMA TYPE 4 C.I. ENCLOSURE, OZ TYPE "YW" WITH MOUNTING FEET OR APPROVED EQUAL.

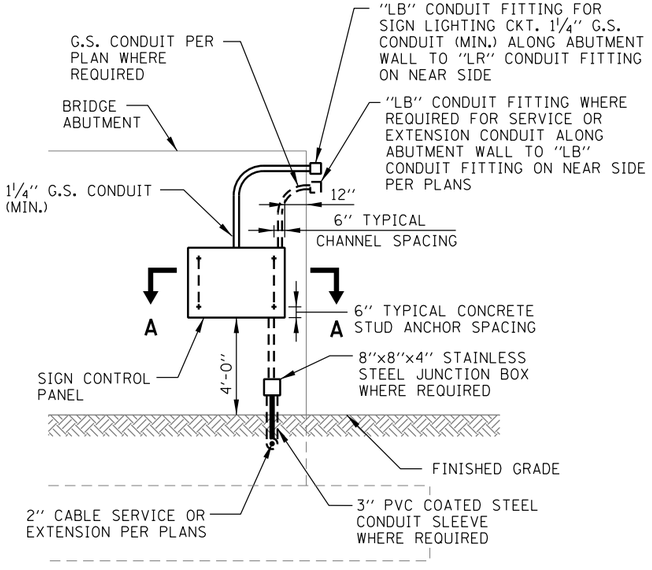
③ FLASHING BEACON CONTROLLER.

TYPICAL SIGN CONTROL PANEL

(FOR TYPICAL WIRING DIAGRAM SEE STANDARD H14)



NEAR SIDE ABUTMENT END ELEVATION



FAR SIDE ABUTMENT END ELEVATION

NOTE:

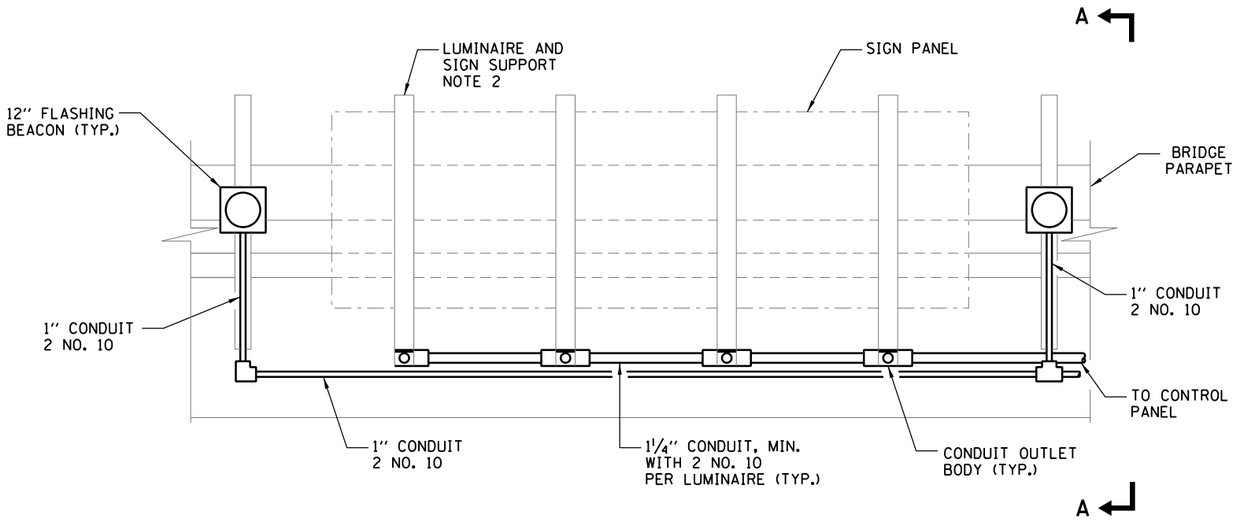
SEE SHEET I OF THIS SERIES FOR NOTES.

Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

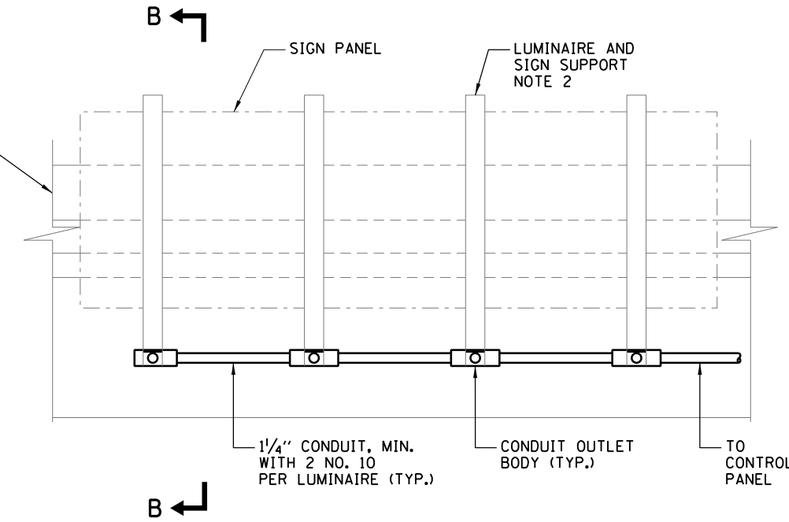
BRIDGE MOUNT SIGN LIGHTING TYPICAL WIRING

STANDARD H10-01



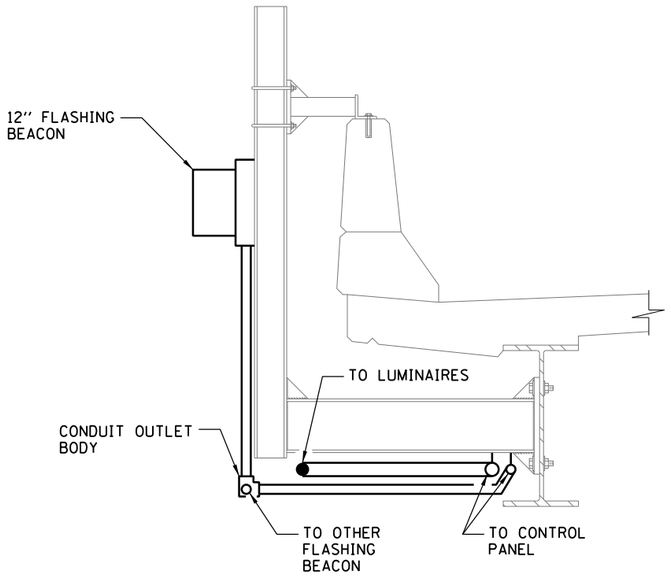
TYPICAL FRONT ELEVATION WITH FLASHING BEACON

LUMINAIRES NOT SHOWN



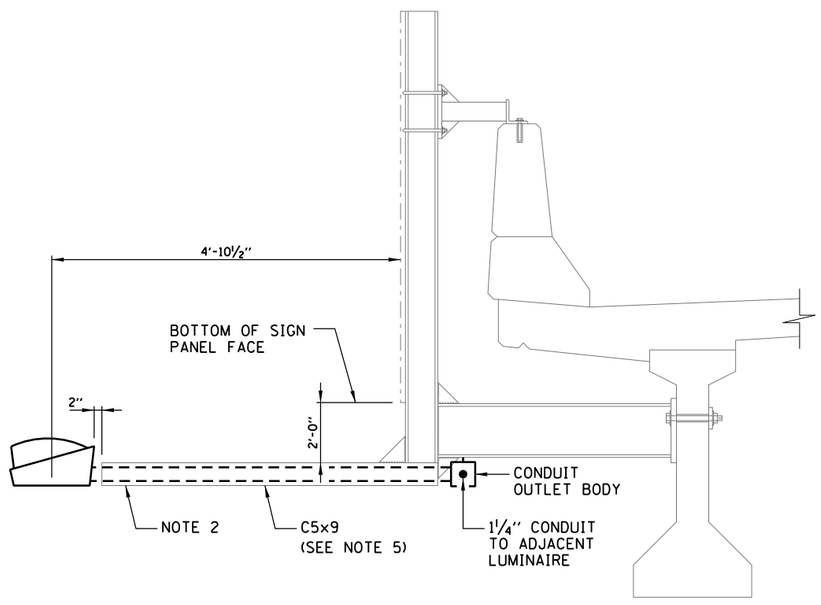
TYPICAL FRONT ELEVATION WITHOUT FLASHING BEACON

LUMINAIRES NOT SHOWN



SECTION A-A

STEEL BRIDGE SHOWN



SECTION B-B

CONCRETE BRIDGE SHOWN

NOTES:

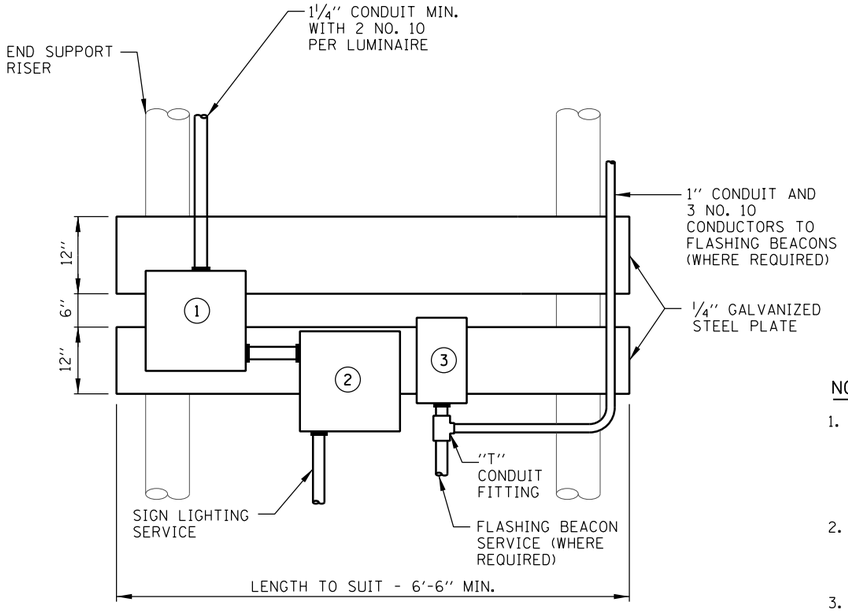
1. PROVIDE 12" FLASHING BEACON ONLY WHERE INDICATED ON PLANS.
2. SEE STRUCTURAL DRAWINGS FOR DETAILS OF SIGN SUPPORTS AND FIXTURE SUPPORT CHANNELS.
3. SEE STANDARD H14 (SIGN LUMINAIRE MOUNTING DETAIL AND WIRING DIAGRAMS) FOR INSTALLATION OF CONDUIT IN FIXTURE SUPPORT CHANNEL.
4. FLASHING BEACON TO BE ATTACHED TO SUPPORT WITH STAINLESS STEEL SCREWS AND NEOPORENE SPACERS. DRILLED SCREW HOLES TO BE SEALED WATERTIGHT.
5. LUMINAIRE SUPPORT MEMBERS TO BE INSTALLED ONLY WHEN SIGN STRUCTURE IS TO BE ILLUMINATED. MAINLINE PLAZA APPROACH SIGNS SHALL BE ILLUMINATED. DESIGNER TO DETERMINE REQUIREMENTS FOR LIGHTING ALL OTHER SIGNS BASED ON ROADWAY GEOMETRY.

Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

BRIDGE MOUNT SIGN LIGHTING TYPICAL WIRING

STANDARD H10-01



TYPICAL SIGN LIGHTING CONTROL PANEL

FOR WIRING DIAGRAMS SEE STANDARD H14
(SIGN LUMINAIRE MOUNTING DETAIL AND WIRING DIAGRAMS)

LEGEND:

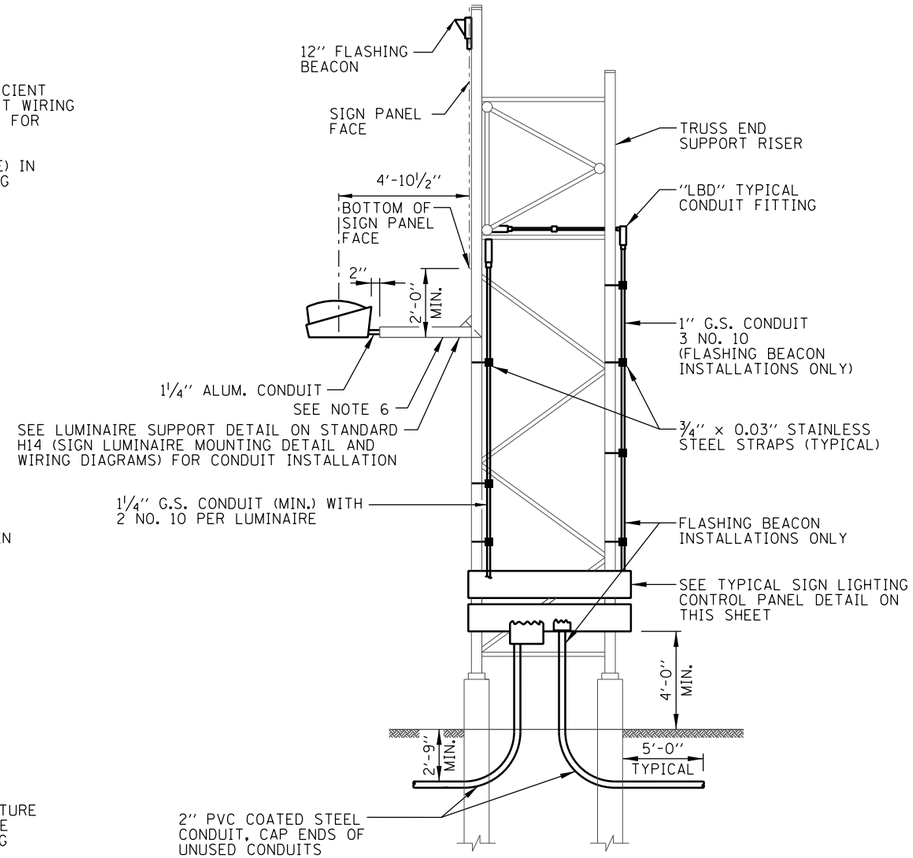
① 18"x18"x8" STAINLESS STEEL JUNCTION BOX. PROVIDE SUFFICIENT 30 AMPERE, 600 VOLT TERMINAL BLOCKS TO SPLIT 480 VOLT WIRING FROM SIGN SERVICE CIRCUIT BREAKER TO TWO NO. 10 WIRES FOR EACH LUMINAIRE.

② SIGN LIGHTING SERVICE - CIRCUIT BREAKER (30 AMP/2 POLE) IN NEMA TYPE 4 C.I. ENCLOSURE, OZ TYPE "YW" WITH MOUNTING FEET OR APPROVED EQUAL.

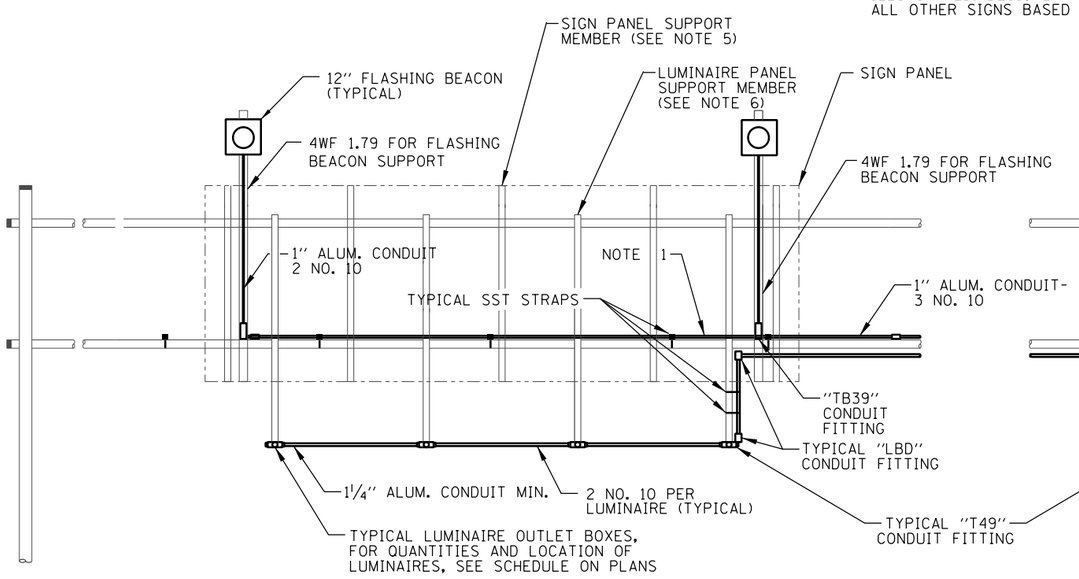
③ FLASHING BEACON CONTROLLER.

NOTES:

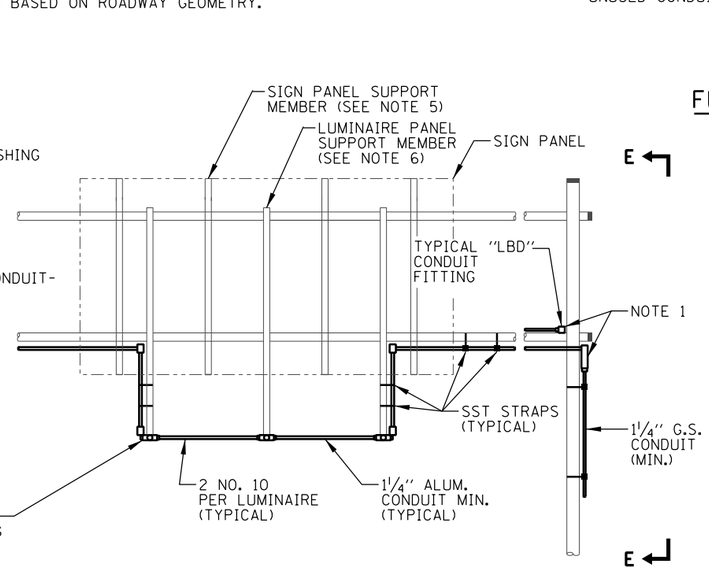
1. CONDUIT AND FITTINGS ATTACHED TO THE HORIZONTAL ALUMINUM SIGN TRUSS SHALL BE ALUMINUM. GALVANIZED STEEL CONDUIT AND CAST IRON ALLOY FITTINGS SHALL BE UTILIZED WHERE ATTACHED TO STEEL TRUSS END SUPPORT RISERS. THREADED JOINTS BETWEEN DISSIMILAR METALS SHALL BE COATED WITH AN APPROVED THREAD LUBRICANT.
2. PROVIDE 12" FLASHING BEACON ONLY WHERE INDICATED ON PLANS. FLASHING BEACON TO BE ATTACHED TO SUPPORT WITH STAINLESS STEEL SCREWS AND NEOPRENE SPACERS. DRILLED SCREW HOLES TO BE SEALED WATERTIGHT.
3. ALL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND THE NATIONAL ELECTRICAL SAFETY CODE.
4. ALL STEEL TO BE HOT DIPPED GALVANIZED AFTER WELDING PER THE STANDARD SPECIFICATIONS.
5. FOR SIGN SUPPORT MEMBERS REQUIREMENTS; SEE STANDARD F8.
6. LUMINAIRE SUPPORT MEMBERS TO BE INSTALLED ONLY WHEN STRUCTURE IS TO BE ILLUMINATED. MAINLINE PLAZA APPROACH SIGNS SHALL BE ILLUMINATED. DESIGNER TO DETERMINE REQUIREMENTS FOR LIGHTING ALL OTHER SIGNS BASED ON ROADWAY GEOMETRY.



SECTION E-E
FULL ELEVATION (OUTSIDE FOUNDATION)



FRONT ELEVATION WITH FLASHING BEACON
LUMINAIRES NOT SHOWN



FRONT ELEVATION WITHOUT FLASHING BEACON
LUMINAIRES NOT SHOWN

TYPICAL SIGN PANEL ELEVATIONS

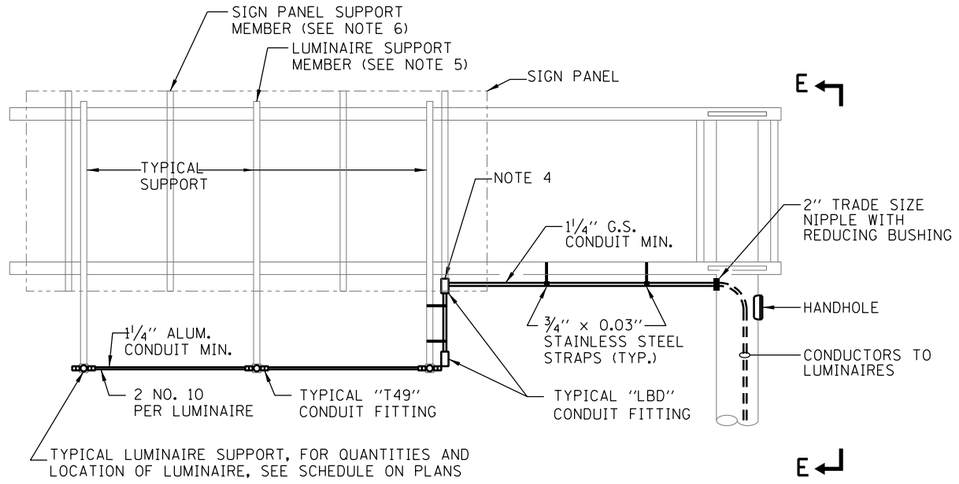
Paul Kovacs
APPROVED ..... CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

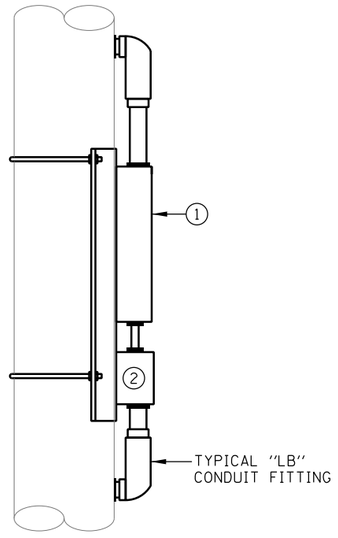
DATE	REVISIONS
2-7-2012	ADDED SIGN PANEL SUPPORT MEMBER
	REVISED NOTES, BANNER SIGN REMOVED,
	BEACONS RELOCATED, REMOVED CANISTAR
	BALLASTS AND ADDED JUNCTION BOX

OVERHEAD TRUSS WITH SIGN LIGHTING WITHOUT CATWALK TYPICAL WIRING DETAILS

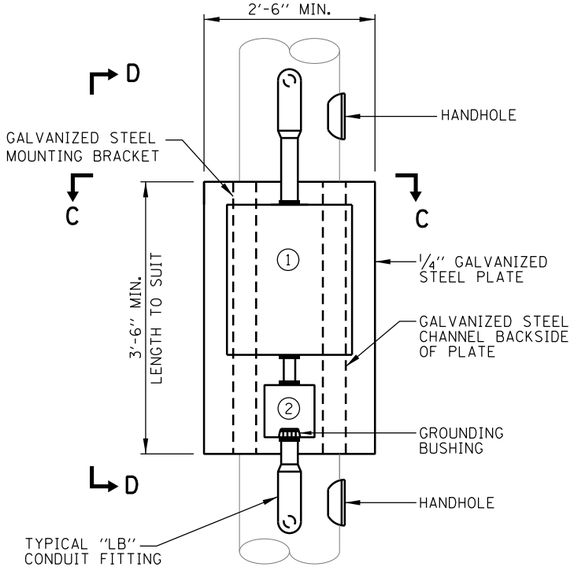
STANDARD H11-01



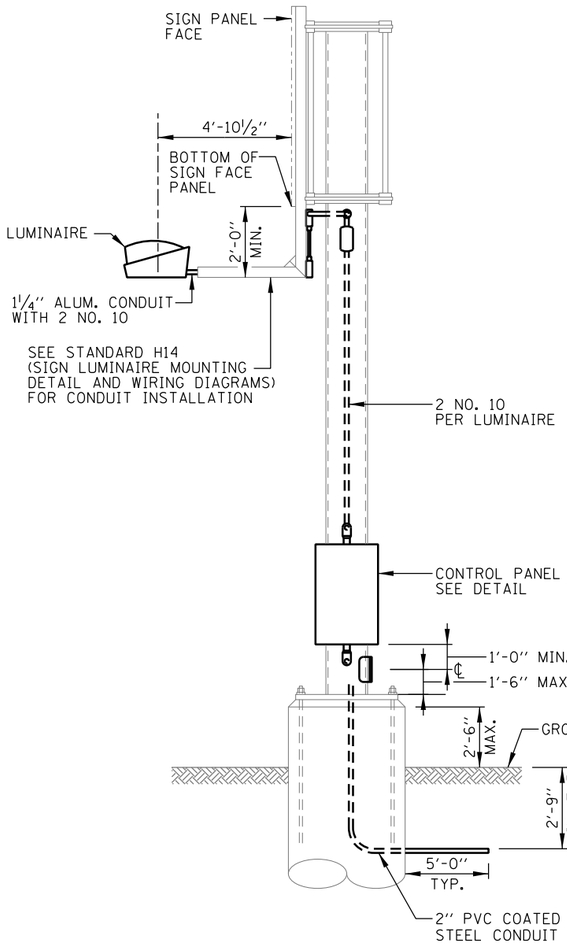
FRONT ELEVATION
(LUMINAIRES NOT SHOWN)



SECTION D-D



TYPICAL CONTROL PANEL
FOR WIRING DIAGRAM SEE STANDARD H14
(SIGN LUMINAIRE MOUNTING DETAIL AND WIRING DIAGRAMS)



SECTION E-E - SIDE ELEVATION

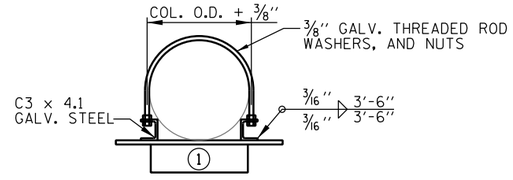
NOTES:

1. A GROUND WIRE (NO. 12 AWG.) WILL BE RUN FROM THE GROUNDING BUSHING (OVERHEAD SUPPORT) TO THE GROUNDING BUSHING IN THE JUNCTION BOX.
2. ALL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND THE NATIONAL ELECTRICAL SAFETY CODE.
3. ALL STEEL TO BE HOT DIPPED GALVANIZED AFTER WELDING PER THE STANDARD SPECIFICATIONS.
4. CONDUIT AND FITTINGS ATTACHED TO THE ALUMINUM LUMINAIRE SUPPORTS SHALL BE ALUMINUM. GALVANIZED STEEL CONDUIT AND CAST IRON ALLOY FITTINGS SHALL BE UTILIZED WHERE ATTACHED TO THE STEEL SIGN SUPPORT TRUSS. THREADED JOINTS BETWEEN DISSIMILAR METALS SHALL BE COATED WITH AN APPROVED THREAD LUBRICANT.
5. LUMINAIRE SUPPORT MEMBERS TO BE INSTALLED ONLY WHEN SIGN STRUCTURE IS TO BE ILLUMINATED. MAINLINE PLAZA APPROACH SIGNS SHALL BE ILLUMINATED. DESIGNER TO DETERMINE REQUIREMENTS FOR LIGHTING ALL OTHER SIGNS BASED ON ROADWAY GEOMETRY.
6. FOR SIGN SUPPORT MEMBERS REQUIREMENTS, SEE STANDARD F8.

LEGEND:

(1) 18"x18"x8" STAINLESS STEEL JUNCTION BOX. PROVIDE SUFFICIENT 30 AMPERE, 600 VOLT TERMINAL BLOCKS TO SPLIT 480 VOLT WIRING FROM SIGN SERVICE CIRCUIT BREAKER TO TWO NO. 10 WIRES FOR EACH LUMINAIRE.

(2) SIGN LIGHTING SERVICE - CIRCUIT BREAKER (30 AMP/2 POLE) IN NEMA TYPE 4 C.I. ENCLOSURE, OZ TYPE "YW" WITH MOUNTING FEET OR APPROVED EQUAL.



SECTION C-C

Paul Kovacs
APPROVED
CHIEF ENGINEER
DATE 2-7-2012

Illinois Tollway

DATE	REVISIONS
2-7-2012	ADDED SIGN POST SUPPORT MEMBERS,
	REVISED NOTES, REMOVED CANISTER
	BALLAST AND ADDED JUNCTION BOX

CANTILEVER SIGN WITH LIGHTING WITHOUT CATWALK TYPICAL WIRING DETAILS

STANDARD H12-01

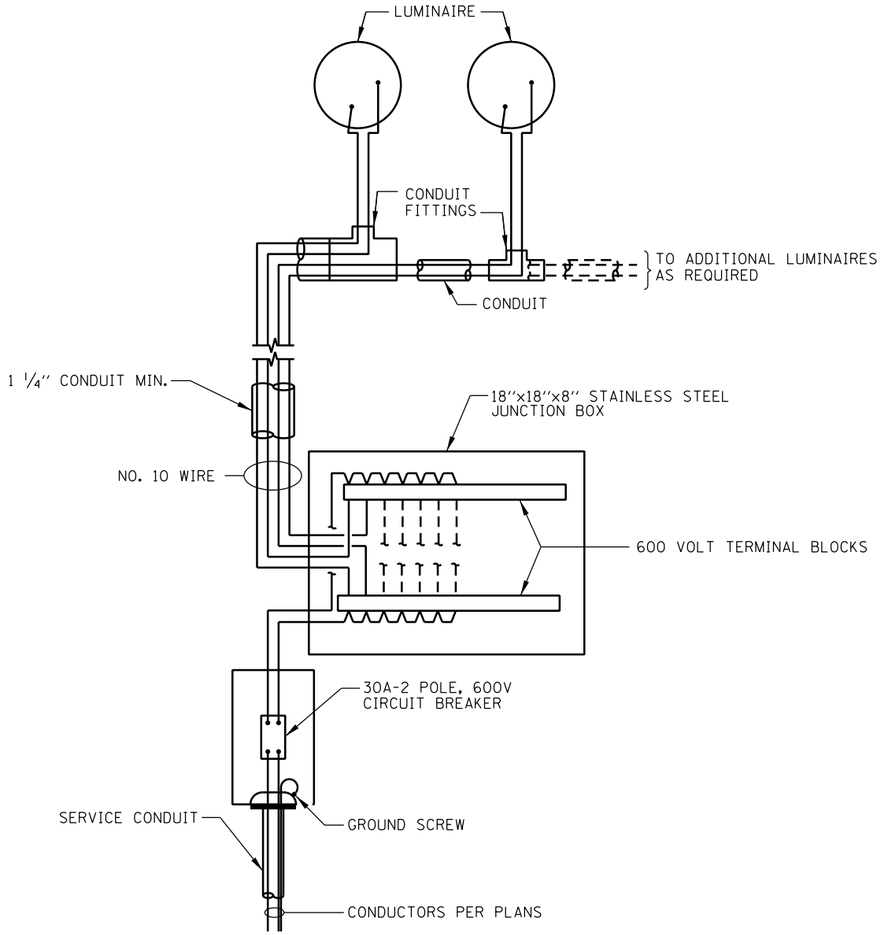
RESERVED

Paul Kovacs
APPROVED . . . . . DATE 2-7-2012
CHIEF ENGINEER

DATE	REVISIONS

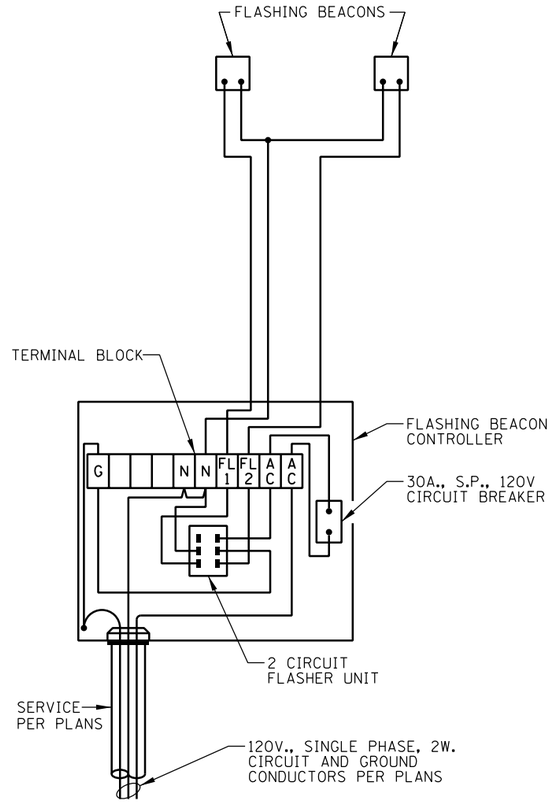
Illinois Tollway

STANDARD H13-00



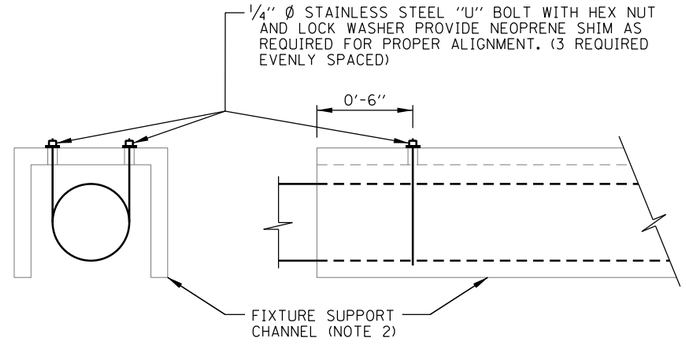
SIGN WIRING DIAGRAM

NO SCALE



FLASHING BEACON WIRING DIAGRAM

NO SCALE



LUMINAIRE SUPPORT DETAIL

NO SCALE

NOTES:

1. HOLES WHICH ARE FIELD DRILLED IN STRUCTURAL STEEL MEMBERS SHALL BE PAINTED WITH ONE (1) COAT OF ZINC PAINT IMMEDIATELY FOLLOWING DRILLING. THE PAINT SHALL CONFORM TO FEDERAL SPECIFICATION TT-P641b TYPE 2 FOR GALVANIZING PRIMER.
2. SEE STRUCTURAL DRAWINGS FOR DETAILS OF FIXTURE SUPPORT CHANNELS. SUPPORT CHANNELS ARE ALUMINUM (n4''x2'') FOR TRUSS TYPE AND CANTILEVER TYPE SIGN STRUCTURES AND STEEL (C5x9) FOR BRIDGE MOUNTED SIGNS.

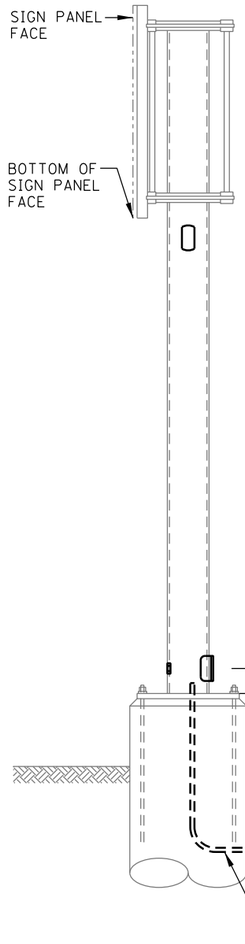
Paul Kovacs
APPROVED ..... DATE 2-7-2012
CHIEF ENGINEER

Illinois Tollway

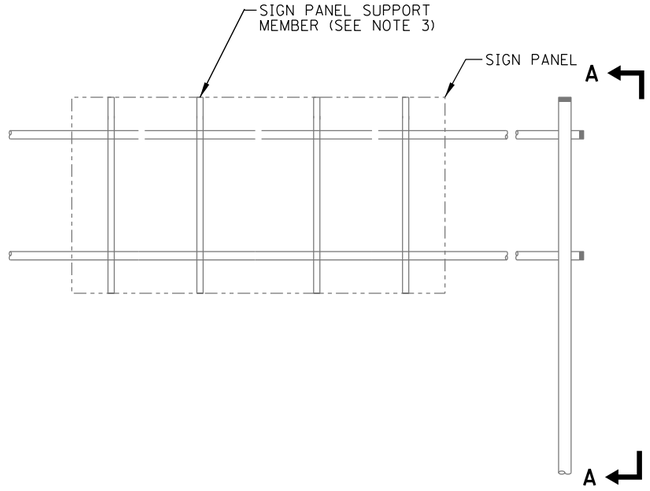
DATE	REVISIONS
2-7-2012	REMOVED CANISTER BALLASTS, NEW JUNCTION BOX AND TERMINAL BLOCKS

SIGN LUMINAIRE MOUNTING DETAIL AND WIRING DIAGRAMS

STANDARD H14-01

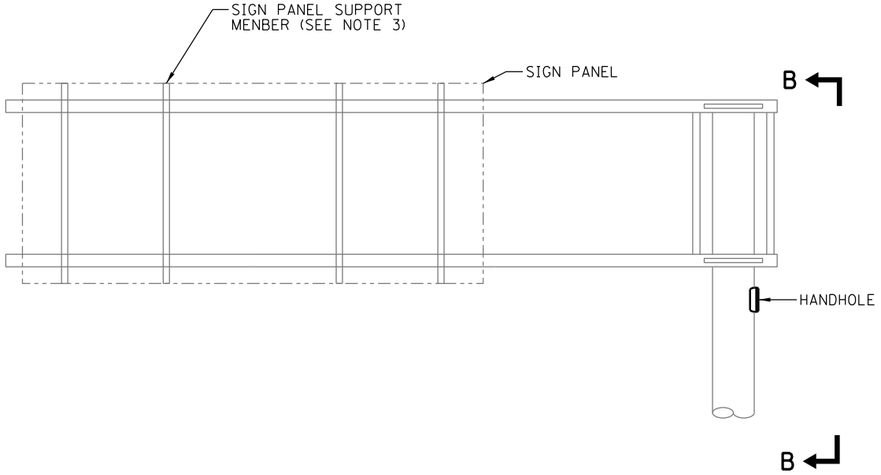


SECTION B-B
FULL ELEVATION (OUTSIDE FOUNDATION)



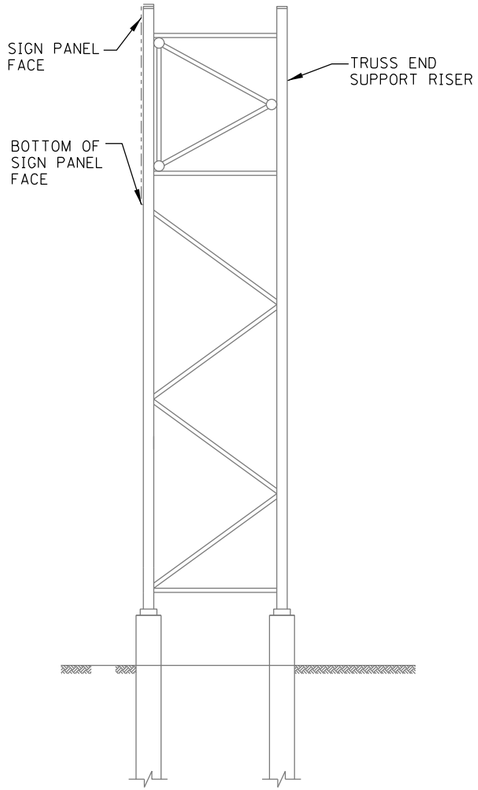
FRONT ELEVATION

TYPICAL SIGN PANEL ELEVATION-OVERHEAD SIGN TRUSS



FRONT ELEVATION

TYPICAL SIGN PANEL ELEVATION-CANTILEVER SIGN TRUSS



SECTION A-A
FULL ELEVATION (OUTSIDE FOUNDATION)

NOTES:

1. ALL EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND THE NATIONAL ELECTRICAL SAFETY CODE.
2. ALL STEEL TO BE HOT DIPPED GALVANIZED AFTER WELDING PER THE STANDARD SPECIFICATIONS.
3. FOR SIGN SUPPORT MEMBERS REQUIREMENTS; SEE STANDARD F8.
4. CONDUIT SLEEVES TO BE STUBBED AT 90° TO THE ROAD.

Paul Kovacs
APPROVED CHIEF ENGINEER DATE 2-7-2012

Illinois Tollway

DATE	REVISIONS

OVERHEAD TRUSS AND CANTILEVER SIGN WITHOUT LIGHTING OR CATWALK TYPICAL DETAILS

STANDARD H15-00