

A d d e n d u m

Iowa Department of Transportation
Office of Contracts

Date of Letting: December 17, 2013
Date of Addendum: December 16, 2013

B.O.	Proposal ID	Proposal Work Type	County	Project Number	Addendum
104	57-1557-638	PCC PAVEMENT WIDENING	JOHNSON	STP-U-1557(638)--70-52	17DEC104.A02

Notice: Only the bid proposal holders receive this addendum and responsibility for notifying any potential subcontractors or suppliers remains with the proposal holder.

Make the following changes to the PROPOSAL SCHEDULE OF PRICES:

Change Proposal Line No. 0650 2523-0000200 ELECTRICAL CIRCUITS:

From: 6,585.000 LF

To: 6,470.000 LF

Change Proposal Line No. 0810 2554-0114012 WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 12 IN.:

From: 287.000 LF

To: 78.000 LF

Change Proposal Line No. 0820 2554-0114018 WATER MAIN, TRENCHED, POLYVINYL CHLORIDE PIPE (PVC), 18 IN.:

From: 124.000 LF

To: 333.000 LF

Change Proposal Line No. 1150 2599-9999014 ('SQUARE FEET' ITEM) PCC PAVERS, 2-3/8 IN. WITH ACC SETTING BED (TYPE A):

From: 2,634.000 SF

To: 5,849.000 SF

Change Proposal Line No. 1160 2599-9999014 ('SQUARE FEET' ITEM) PCC PAVERS, 2-3/8 IN. WITH ACC SETTING BED (TYPE B):

From: 2,262.000 SF

To: 11,254.000 SF

Delete Proposal Line No. 1170 2599-9999014 ('SQUARE FEET' ITEM) PCC PAVERS, 3-1/8 IN. WITH ACC SETTING BED (TYPE A); 3,096.000 SF

Delete Proposal Line No. 1180 2599-9999014 ('SQUARE FEET' ITEM) PCC PAVERS, 3-1/8 IN. WITH ACC SETTING BED (TYPE B); 9,055.000 SF

If the above changes are not made, they will be made as shown here.

Make the following changes to the Estimate Reference Information on plan sheets C.04 through C.07:

Add Estimate Reference Information for Item No. 66 2523-0000310 HANDHOLES AND JUNCTION BOXES:

B. All handholes installed for roadway and pedestrian lighting shall be type RM-38. Provide as specified in Iowa DOT Standard Specifications Section 4185.08, Handholes.

Add Estimate Reference Information for Item No. 114 2599-9999010 UNDERPASS/TUNNEL LIGHTING, TYPE TL1:

C. The PX10 in the fixture model number refers to the Proximo occupancy detector accessory to be provided with the fixture to make it self-dimming.

Add Estimate Reference Information for Item No. 115 2599-9999014 PCC PAVERS, 2-3/8 IN. WITH ACC SETTING BED (TYPE A) and Item No. 116 2599-9999014 PCC PAVERS, 2-3/8 IN. WITH ACC SETTING BED (TYPE B):

H. All locations showing 3-1/8 IN. or 8 cm pavers shall be constructed using 2-3/8 IN. pavers.

I. Type A paver quantity includes 2,567 SF of soldier course pavers.

Make the following changes to plan sheet C.11:

Add Tabulation 108-2, ELECTRICAL DUCTS.

Add Tabulation 108-12, WIRE, CABLES, and CONNECTORS.

Replace plan sheet C.11 with attached plan sheet C.11.

Make the following changes to plan sheets P05, P06, P08, and P09:

Change the mark on roadway lighting unit at approximate Sta 33+15 RT from L1 to L2.

Change the mark on roadway lighting unit at approximate Sta 34+50 RT from L1 to L2.

Change the first sentence of the Lighting Control Cabinet Construction Specification on Sheet P.08 to read:

The lighting control cabinet shall be a Single-Phase, 3-wire, weatherproof cabinet...

Delete Note 8 of the Highway Lighting Data notes on Sheet P09. No receptacles are provided with the lighting installations for this project.

Change the note referring to the circuit conduits for the Unit L2 Foundation Detail on Sheet P.09 to read:

PVC CONDUIT TO LIGHTING UNIT, SIZE AS PER PLANS

Replace plan sheets P.05, P.06, P.08, and P.09 with attached plan sheets P.05, P.06, P.08, and P.09.

Make the following changes to plan sheet Q.07:

Sheet Q.06 was attached to ADDENDUM.17DEC104.A01 in error. Sheet Q.07 should have been attached.

Replace plan sheet Q.07 with attached plan sheet Q.07.

Make the following changes to plan sheet W.07:

Change the location of the retaining wall in the cross-section at Sta 15+65. The front face of wall is approx. 75 feet left of centerline.

Replace plan sheet W.07 with attached plan sheet W.07.

Make the following change to the Special Provision SP-126015:

Change the Style of the Type A Soldier Course:

From: Uni-Stone

To: Holland

100-19
MODIFIED

PERIMETER AND SLOPE SEDIMENT CONTROL DEVICE

Station	Location	Offset	Side	Length of Installation				Remarks
				6 inch Dia	9 inch Dia	12 inch Dia	20 inch Dia	
				LF	LF	LF	LF	
10+45.57		24.50'	L		20			EXISTING INTAKE
11+23.00		34.00'	R		20			INTAKE #48
11+84.76		57.39'	L		20			INTAKE #6
60+95.08		57.27'	L		20			INTAKE #10
14+23.00		57.27'	L		20			INTAKE #27
21+00.00		34.00'	R		20			INTAKE #31
21+00.00		42.19'	R		20			INTAKE #32
17+22.50		34.00'	R		30			INTAKE #33
17+20.47		8.05'	L		20			INTAKE #34
17+22.50		50.38'	L		30			INTAKE #35
23+23.00		34.00'	R		20			INTAKE #40
23+23.00		41.59'	L		20			INTAKE #42
22+00.00		86.36'	L		20			INTAKE #44
29+60.57		44.24'	R		20			INTAKE #50
29+45.00		34.00'	R		20			INTAKE #51
29+45.00		49.25'	L		20			INTAKE #52
27+16.21		69.14'	L		20			INTAKE #56
26+23.00		34.00'	R		20			INTAKE #56
26+23.00		43.66'	L		20			INTAKE #57
34+95.00		43.50'	R		20			INTAKE #61
34+95.00		55.00'	L		20			INTAKE #62
32+43.00		39.19'	R		20			INTAKE #64
32+43.00		54.42'	L		20			INTAKE #65
TOTAL					500			

110-1
04-16-13

REMOVAL OF PAVEMENT

Station to Station	Pavement Type	Area (Sq. Yds.)	Saw Cut# (Lns. Ft.)	Remarks
16+57.04	PCC	752.6	102.1	STAGE I
16+57.39	ACC	881.1	24	STAGE I
12+67.18	PCC	230.2	351.8	STAGE I
15+86.67	AC/PPC	513.8	647	STAGE I
15+86.67	AC/PPC	335.9	364	STAGE I
32+91.71	PCC	443.6	401.6	STAGE I
32+92.25	PCC	486.9	338.7	STAGE I
36+51.70	PCC	1057.5	369.1	STAGE I
2+89.31	PCC	117.6	151.8	STAGE I/A
11+12.52	AC/PPC	1029.9		STAGE I/A
14+35.84	AC/PPC	652.6	26.5	STAGE I/B
16+56.47	AC/PPC	1325.7		STAGE I/B
20+01.17	AC/PPC	247.6		STAGE I/B
21+13.31	PCC	2448		STAGE I/B
30+72.22	PCC	602.4		STAGE I/B
32+31.34	PCC	1900.4	215.2	STAGE I/B
12+78.50	PCC	445.2	237.4	STAGE I/I
34+92.71	PCC	189.3	189.7	STAGE I/I
TOTALS:		14283.5	3781.9	

108-2
08-01-08

ELECTRICAL DUCTS

Location	Conduit Type	Dia.	Length FT	Remarks
Circuit LC1-A2	Plastic	2.0	1565	
STA: 7+97	SCH 80 PVC	2.0	150	Road Crossing
Circuit LC1-B1	Plastic	1.5	95	
STA: 7+10, 143'	SCH 80 PVC	1.5	155	Road Crossing
Circuit LC1-B2	Plastic	1.5	40	
STA: 7+10, 140'	SCH 80 PVC	1.5	155	Road Crossing
Circuit LC1-C1	Plastic	2.0	30	
Circuit LC2-A1	Plastic	2.0	1865	
STA: 34+58	SCH 80 PVC	2.0	150	Road Crossing
STA: 35+97, 75'	SCH 80 PVC	2.0	125	Road Crossing
Circuit LC2-A2	Plastic	2.0	1170	
LC2 Empty Conduit	Plastic	2.0	75	

TABULATION OF SAFETY CLOSURES

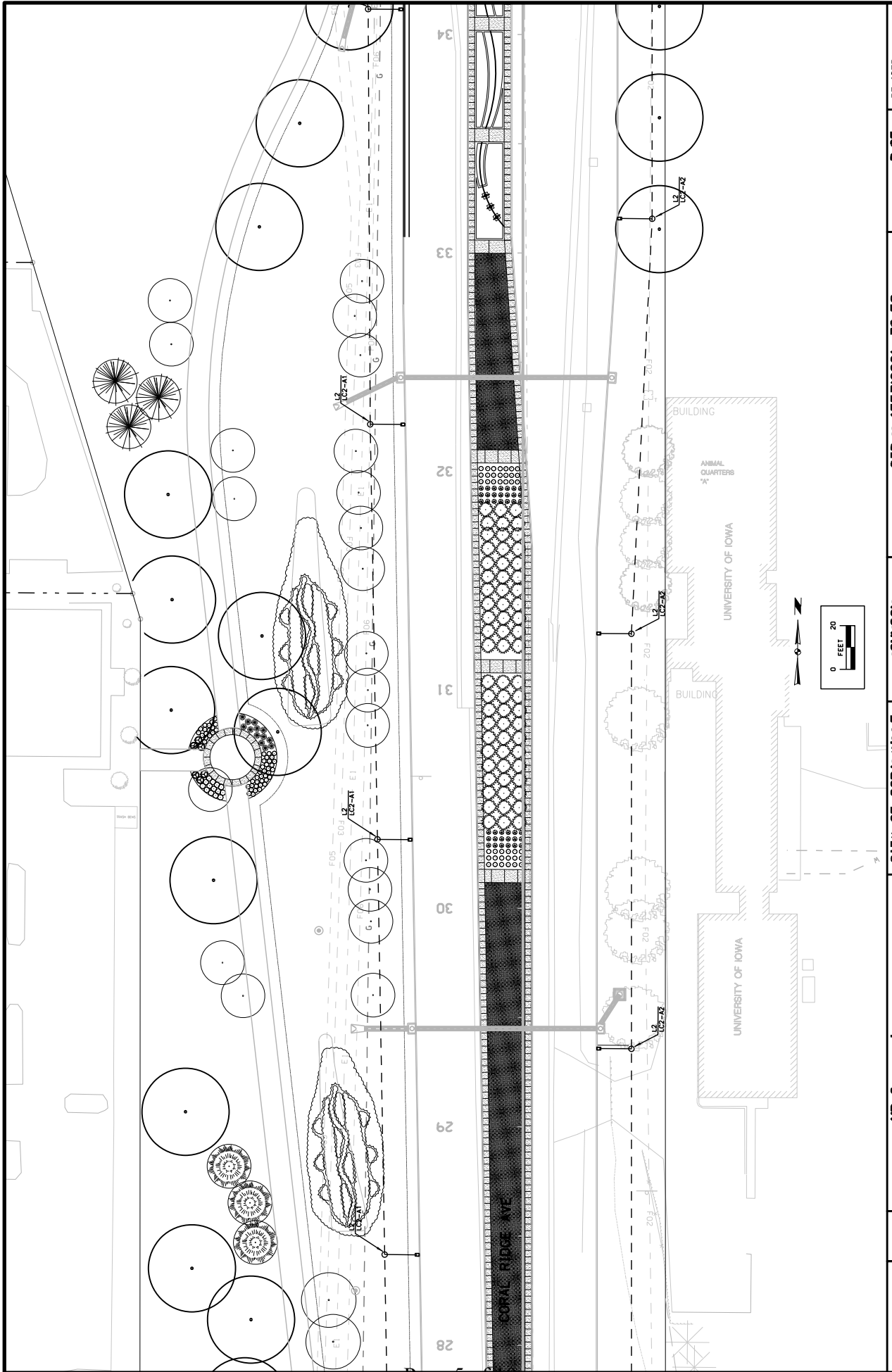
Refer to Section 2518 of the Standard Specifications

STATION	CLOSURE TYPE		REMARKS
	Road Qty.	Hazard Qty.	
7+70, RT	1		STAGE J, REFER TO J SHEETS
10+10, LT	1		STAGE J, REFER TO J SHEETS
13+15, LT	1		STAGE J, REFER TO J SHEETS
35+70, LT	1		STAGE J, REFER TO J SHEETS
7+70, RT	1		STAGE I/A, REFER TO J SHEETS
35+65, RT	1		STAGE I/B, REFER TO J SHEETS
14+50, LT	1		STAGE I/I, REFER TO J SHEETS
7+70, RT	1		STAGE I/I, REFER TO J SHEETS
35+75, LT & RT	1		STAGE I/I, REFER TO J SHEETS

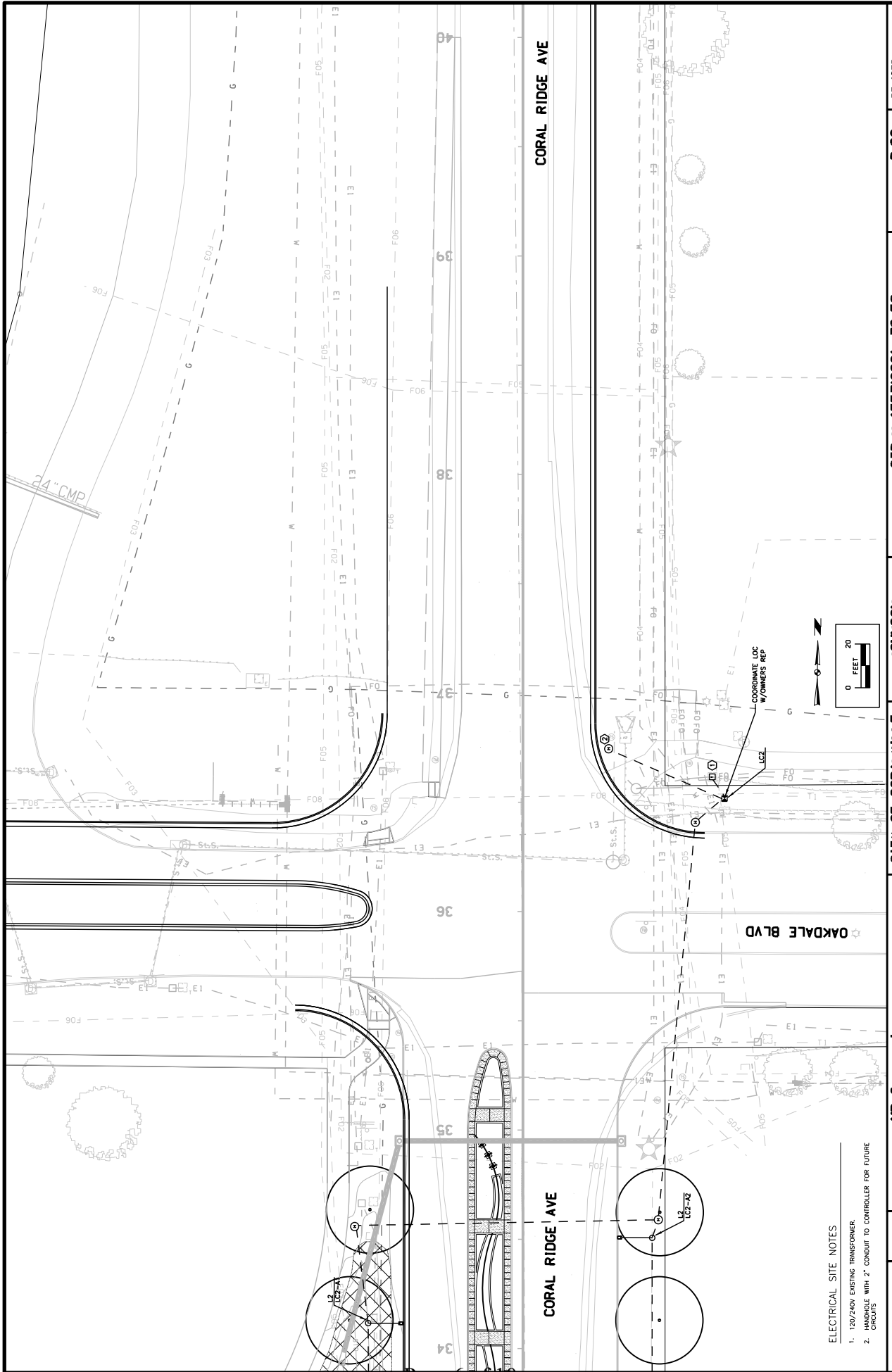
108-12
08-01-08

WIRE, CABLE AND CONNECTORS

Circuit Number	RM-40 Connectors				Phase Lines				Ground				Remarks	
	Type	Qty.	Type	Qty.	Type	Qty.	Type	Qty.	Type	Qty.	Type	Qty.		
LC1-A1														
LC1-A2														
LC1-B1														
LC1-B2														
LC1-C1														
LC2-A1														
LC2-A2														



ENGLISH	IOWA DOT	DESIGN TEAM	HR Green, Inc.	CITY OF CORALVILLE	JOHNSON COUNTY	PROJECT NUMBER	STP-U-155716381--70-52	SHEET NUMBER	P.05	REVISED
11:26:51 AM	14.DOT	\\irgcrmas\data\CD\1939500\Design\1939500\F01.rvt								



ELECTRICAL SITE NOTES

1. 120/240V EXISTING TRANSFORMER.
2. MANHOLE WITH 2' CONDUIT TO CONTROLLER FOR FUTURE CIRCUITS

ENGLISH IDMA DOT DESIGN TEAM

HR Green, Inc.

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CITY OF CORALVILLE JOHNSON COUNTY

PROJECT NUMBER STP-U-15576381--70-52

SHEET NUMBER P.06 REVISED

LIGHTING CONTROL CABINET CONSTRUCTION SPECIFICATION

1. GENERAL
 - a. THE LIGHTING CONTROL CABINET SHALL BE A SINGLE-PHASE, 3-WIRE, WEATHERPROOF CABINET, AND SHALL CONTAIN CIRCUIT BREAKERS, PHOTOELECTRIC CONTROL, PHOTOCELL, KEY SWITCH, TIMER, POWER DISTRIBUTION BLOCKS, AND NEUTRAL/GROUND BONDING BAR. THE CABINET SHALL BE DEAD FRONT.
 - b. THE CABINET AND ITS CONTENTS SHALL COMPLY WITH THE STANDARDS UL-508 AND UL-508A. THE ENCLOSURE SHALL HAVE A MIN. 3/8" RAINING.
2. CABINET ENCLOSURE
 - a. THE LIGHTING SERVICE CABINET SHALL BE CONSTRUCTED FROM A MINIMUM OF 1/2" ALUMINUM OR 3/16" THICK ALUMINUM SHEET.
 - b. THE CABINET SHALL HAVE TWO COMPARTMENTS. THE RIGHT COMPARTMENT SHALL PROVIDE SPACE FOR THE LIGHTING SERVICE PHOTOELECTRIC CONTROL AND PHOTOCELL. THE LEFT COMPARTMENT SHALL HAVE AN ENCLOSED LEFT COMPARTMENT TO PROVIDE SPACE FOR THE PHOTOCELL AND KEY SWITCH. THE LIGHTING SERVICE PHOTOELECTRIC CONTROL SHALL BE MOUNTED ON THE METER AND TO THE ROADWAY LIGHTS MAIN CIRCUIT BREAKER.
 - c. THE CABINET SHALL HAVE A WEATHERIGHT HINGED DOOR OPENING TO THE RIGHT (RIGHT-HANDED DOOR). THE DOOR SHALL OPERATE FROM A SINGLE LAST-TURNING HANDLE. THE CABINET DOOR SHALL LOCK WITH A STANDARD POLICE LOCK AND KEY. (4 HINGES SHALL BE PROVIDED TO SUPPORT THE DOOR). THE HINGES SHALL BE PROVIDED WITH STAINLESS STEEL TAMPERPROOF WELDED ON OR FASTENED WITH STAINLESS STEEL TAMPERPROOF BOLTS.
 - d. TWO CIRCULAR WINDOWS SHALL BE AT THE RIGHT UPPER BACK CORNER OF THE CABINET. THE WINDOWS SHALL BE OF A DIAMETER OF 3-1/2". THE WINDOWS SHALL BE OF A MANNER THAT DOES NOT SACRIFICE THE WEATHER-TIGHTNESS OR THE SECURITY OF THE CABINET.
 - e. THE CABINET SHALL BE CROWNED OR SLANTED TO THE REAR OVERHANG.
 - f. THE LIGHTING SERVICE CABINET SHALL HAVE A LIFTING CAPACITY EQUAL TO 10 PERCENT OF THE COMPLETELY WIRING CABINET PLUS 25 PERCENT. A 500 LB. CAPACITY MINIMUM.
 - g. THE EXTERIOR SEAMS FOR CABINET AND DOORS SHALL BE ALL STAINLESS STEEL. EXTERIOR WELDS SHALL BE GRIND SMOOTH. ALL SHARP EDGES SHALL BE FILED.
 - h. ANCHOR BOLTS SHALL BE PROVIDED FOR PAD MOUNTING. A MINIMUM OF TWO ANCHOR BOLTS SHALL BE PROVIDED FOR BETWEEN THE PAD AND THE CABINET.

APPROVED MANUFACTURERS:
 STAINLESS ELECTRIC MFG. CO. OF MINNEAPOLIS, MN
 BISON ELECTRIC MFG. CO. OF MINNEAPOLIS, MN
 HERITAGE MANUFACTURING OF WAUKESHA, WI

PHOTOELECTRIC CONTROL, MODERNING RECEPTACLE (E1/NEWA) WITHIN THE CABINET NEAR THE POLYCARBONATE WINDOW. THE PHOTOELECTRIC CONTROL SHALL BE OF A SINGLE STRANDED COPPER CONDUCTORS. THE PHOTOELECTRIC CONTROL SHALL BE OF A TURN-ON / TURN-OFF DESIGN.

THE PHOTOELECTRIC CONTROL DEVICE SHALL HAVE A "TURN ON" LEVEL OF 32 LUX AT THE APPROPRIATE VOLTAGE. THE "TURN OFF" DARK-ON VALUE.

ALL NEUTRAL/GROUND BONDING BARS, BUS BARS AND TERMINALS SHALL BE UL LISTED FOR COPPER AND ALUMINUM WIRES. ALL NEUTRAL/GROUND BONDING BARS SHALL BE SUFFICIENT LENGTH TO ALLOW FOR CONTRACTION.

4. PHOTOELECTRIC CONTROL

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3. ELECTRICAL EQUIPMENT AND WIRING
 - a. SELF-CONTAINED METER SOCKET, CONFORMING TO UTILITY REQUIREMENTS SHALL BE MOUNTED TO THE LEFT CABINET WALL. THE METER SOCKET SHALL BE PROVIDED WITH A METER JUMPER SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
 - b. THE LIGHTING SERVICE CABINET SHALL HAVE CIRCUIT BREAKERS, PHOTOELECTRIC CONTROL, PHOTOCELL, KEY SWITCH, TIMER, POWER DISTRIBUTION BLOCKS, AND NEUTRAL/GROUND BONDING BAR. THE CABINET SHALL BE DEAD FRONT.
 - c. THE CIRCUIT BREAKERS SHALL BE THERMAL-MAGNETIC TYPE, SQUARE D, CUTLER-HAMMER OR GENERAL ELECTRIC. EACH CIRCUIT BREAKER SHALL BE MOUNTED ON A REMOVABLE PANEL. THE MAIN SERVICE ENTRANCE CIRCUIT BREAKERS SHALL BE UL LISTED FOR SUCH USE. NON-CONDUCTOR CONTROLLED CIRCUIT BREAKERS SHALL BE PROVIDED FOR THE PHOTOCELL AND KEY SWITCH. THE LIGHTING SERVICE PHOTOELECTRIC CONTROL SHALL BE MOUNTED ON THE METER AND TO THE ROADWAY LIGHTS MAIN CIRCUIT BREAKER.
 - d. ALL LIGHTING CONDUCTORS SHALL BE COPPER, NORMALLY OPEN, FLAME AND BALLAST LIGHTING LOADS. THE LIGHTING SERVICE PHOTOELECTRIC CONTROL SHALL BE RATED FOR 120VAC. THE PHOTOCELL AND KEY SWITCH SHALL BE RATED FOR 120VAC. THE PHOTOCELL AND KEY SWITCH SHALL BE RATED FOR 120VAC. THE PHOTOCELL AND KEY SWITCH SHALL BE RATED FOR 120VAC.
 - e. THE MAIN BREAKERS, LIGHTING CONTROL AND BRANCH CIRCUIT BREAKERS SHALL BE MOUNTED ON A REMOVABLE PANEL. A REMOVABLE PANEL SHALL BE PROVIDED FOR THE MAIN BREAKERS, LIGHTING CONTROL AND BRANCH CIRCUIT BREAKERS. THE PANEL SHALL BE HINGED ON ONE SIDE AND HELD IN PLACE WITH QUICK RELEASE CAPTIVE FASTENERS. MAIN CIRCUIT BREAKERS SHALL BE SERVICE ENTRANCE RATED.
 - f. ALL NEUTRAL/GROUND BONDING BARS, BUS BARS AND TERMINALS SHALL BE UL LISTED FOR COPPER AND ALUMINUM WIRES. ALL NEUTRAL/GROUND BONDING BARS SHALL BE SUFFICIENT LENGTH TO ALLOW FOR CONTRACTION.
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5. TIMER
 - a. THE ELECTRONIC TIME SWITCH SHALL BE A PROGRAMMABLE SOLID STATE DIGITAL ELECTRONIC TYPE CAPABLE OF CONTROLLING 2 CIRCUITS. THE TIME SWITCH SHALL BE PROVIDED FOR EACH CIRCUIT TO ENABLE SWITCHING EITHER CIRCUIT "ON" OR "OFF".
 - b. THE TIME SWITCH SHALL PROVIDE FOR FULL YEAR CONTROL, AND SHALL BE PROVIDED WITH A MONTH AND DATE ASSIGNMENT. A TOTAL OF 20 SET POINTS SHALL BE PROVIDED AND SHALL BE ASSIGNABLE IN ANY MONTH AND DATE ASSIGNMENT. A SOLID STATE CIRCUIT SHALL PROTECT DATES AND HOLIDAYS. A SOLID STATE CIRCUIT SHALL PROTECT PROGRAM AND TIME OF DAY DATA FOR A MINIMUM OF 24 HOURS.
 - c. THE TIME SWITCH IS TO BE POWERED BY A 20 V.A.C.-60 HZ. CIRCUIT WITH A RATING OF 15A U.L. LISTED. THE TIME SWITCH SHALL BE AN INTERMATIC INC., MODEL ET0215C.
6. KEY SWITCH
 - a. THE KEY SWITCH SHALL BE MOUNTED ON THE CONTROL STATION. THE KEY SWITCH SHALL BE PROVIDED WITH A KEY ASSIGNMENT FROM THE OPERATOR OF THE CABINET. THE KEY SWITCH SHALL BE OF A HEAVY DUTY, ELECTRIC SWITCH, 3 POSITION, MAINS/MAINTENANCE/OPERATED. SQUARE D TYPE "K", CLASS 9001, ALLEN BRADLEY B00T SERIES OR CUTLER HAMMER 10250T SERIES.

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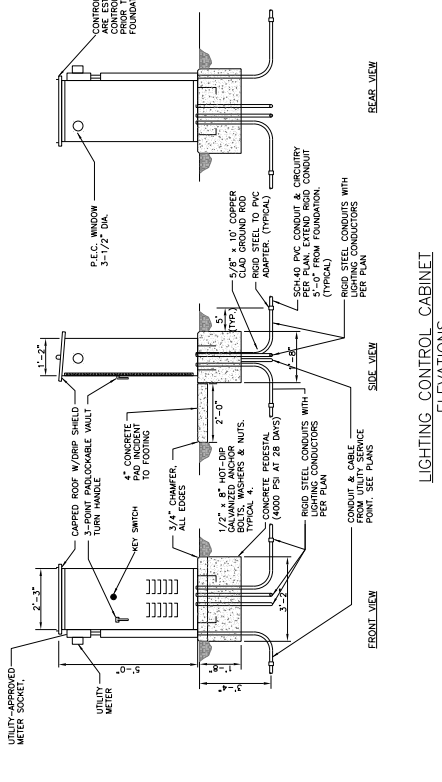
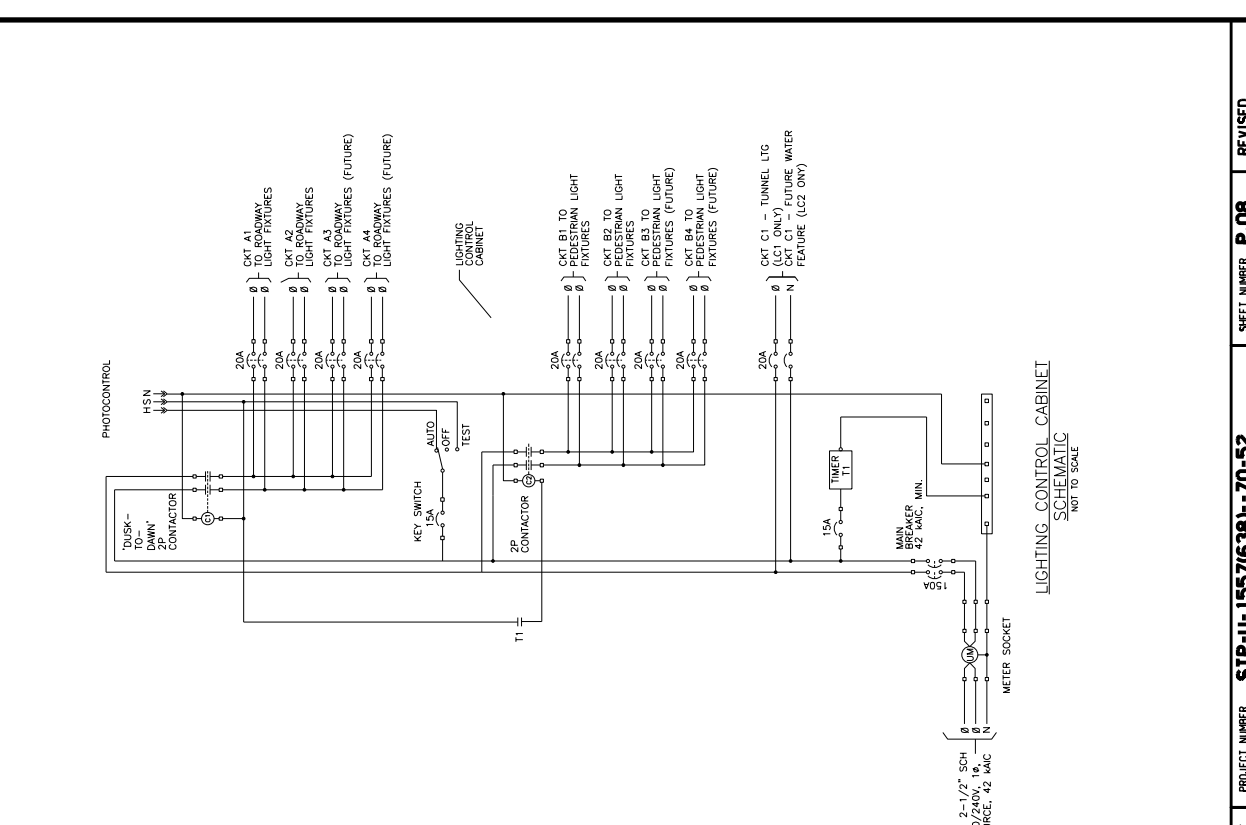
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HIGHWAY LIGHTING DATA

GENERAL

1. LIGHTING INSTALLATION SHALL BE IN ACCORDANCE WITH IWA DOT STANDARD SPECIFICATION FOR LIGHTING AND SIGNALS.
2. LIGHTING MATERIALS SHALL BE IN ACCORDANCE WITH IWA DOT STANDARD SPECIFICATION WITH A SIGN POST EXPANSION.
3. CONTRACTOR SHALL CORRODATE ROUTING AND INSTALLATION OF CONDUIT SYSTEM WITH EXISTING AND PROPOSED UTILITIES, STRUCTURES, AND EQUIPMENT. CONTRACTOR SHALL CLEARANCES BEFORE BURNING, TRENCHING OR EXCAVATION. UNDER UTILITIES AND VERIFY CLEARANCES BEFORE BURNING, TRENCHING OR EXCAVATION. UNDER UTILITIES AND VERIFY CLEARANCES BEFORE BURNING, TRENCHING OR EXCAVATION. UNDER UTILITIES AND VERIFY CLEARANCES BEFORE BURNING, TRENCHING OR EXCAVATION.
4. ALL LIGHT FIXTURES SHALL HAVE TOOL-FREE ACCESS TO THE INTERIOR OF THE LUMINAIRE. ALL LIGHT FIXTURES SHALL BE WATER-TIGHT AND AIR-TIGHT SEALED WITH A SILICON GASKET.
5. ALL ALUMINUM LIGHT SURFACES SHALL BE CHEMICALLY TREATED IN ACCORDANCE WITH IWA DOT STANDARD SPECIFICATION FOR LIGHTING AND SIGNALS. ALL ALUMINUM BASES FOR LIGHT POLES SHALL BE ANODIZED. ALL ALUMINUM SHALL BE CHEMICALLY TREATED IN ACCORDANCE WITH IWA DOT STANDARD SPECIFICATION FOR LIGHTING AND SIGNALS. ALL ALUMINUM SHALL BE CHEMICALLY TREATED IN ACCORDANCE WITH IWA DOT STANDARD SPECIFICATION FOR LIGHTING AND SIGNALS.
6. THE PAINT SYSTEM FOR FREESTANDING AND STREET LIGHT COMPONENTS SHALL BE AN APPROVED POWDER-COATING SYSTEM, AND ALL POWDER-COATED SURFACES SHALL BE WARRANTED AGAINST CORROSION, PEELING, CRACKING, AND FADING FOR 5 YEARS.
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ALL LIGHTS, LIGHTED SIGNS, POLES, AND BASES; AND COLOR CHIPS FOR ALL POWDER-COAT COLORS.
8. WHEN INDICATED ON DRAWINGS, EQUIPMENT VENDORS ARE SOLE-SOURCED PER THE SPECIFICATIONS AND REQUIREMENTS. SUBSTITUTIONS WILL NOT BE ALLOWED UNLESS OTHERWISE NOTED.

ELECTRIC SERVICE

1. CONTRACTOR SHALL CORRODATE ELECTRICAL SERVICE INCLUDING METER AND INSTALLATIONS, TRANSFORMER AND PAD LOCATIONS AND ORIENTATIONS AND ENERGIZATION WITH THE UTILITY.
2. THE INSTALLATION SHALL MEET ALL UTILITY AND NEC CODES AND REQUIREMENTS.
3. PROVIDE ELECTRIC SERVICE TO THE TRAFFIC SIGNALS ONLY. INSTALLATION OF THE CONTROL PANEL AND ALL CONTROLS IS THE RESPONSIBILITY OF THE SIGNAL CONTRACTOR.

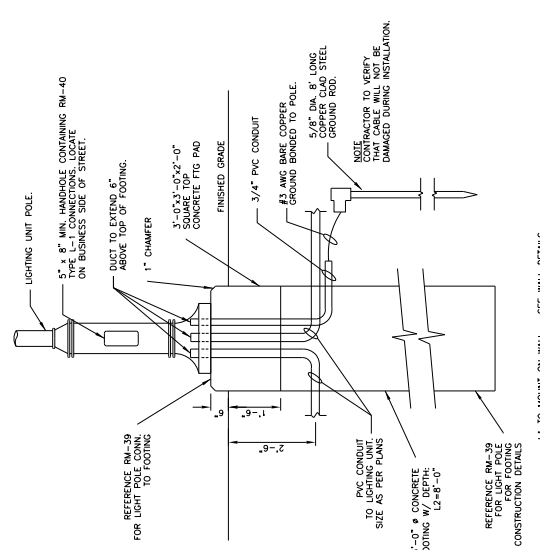
1. INSTALL DUCTS 30" BELOW FINISHED GRADE AND PROVIDE PLASTIC ELECTRICAL WARNING TAPE IN TRENCH ABOVE ALL CONDUIT AT 1'-0" BELOW FINISH GRADE.
2. WIRING INSTALLED IN CONDUIT SHALL BE SINGLE-CONDUCTOR COPPER TYPE XHHW (CONFORMS TO IWA DOT STANDARD SPECIFICATION FOR TRAFFIC, SIGNAL, AND GROUND CONDUCTORS).
3. FOR WIRING SCHEDULE INFORMATION SEE "ELECTRICAL DUCTS" AND "WIRE, CABLE AND CONNECTIONS" TABULATIONS.
4. ALL ROAD CROSSING CONDUITS SHALL BE 2" SCHEDULE 80 PVC UNLESS OTHERWISE NOTED. INSTALLATIONS SHALL BE IN ACCORDANCE WITH RM-33.
5. CONDUIT WITHIN 5' OF LIGHTING CONTROL STATIONS SHALL BE GALVANIZED RIGID STEEL AS INDICATED ON THE DRAWINGS.
6. COORDINATE CONDUIT ROUTING WITH LANDSCAPE PLANTINGS. DO NOT LOCATE CONDUIT BENEATH TREES. ALL CONDUIT RUNS SHALL STAY WITHIN RIGHT OF WAYS.

GROUNDING

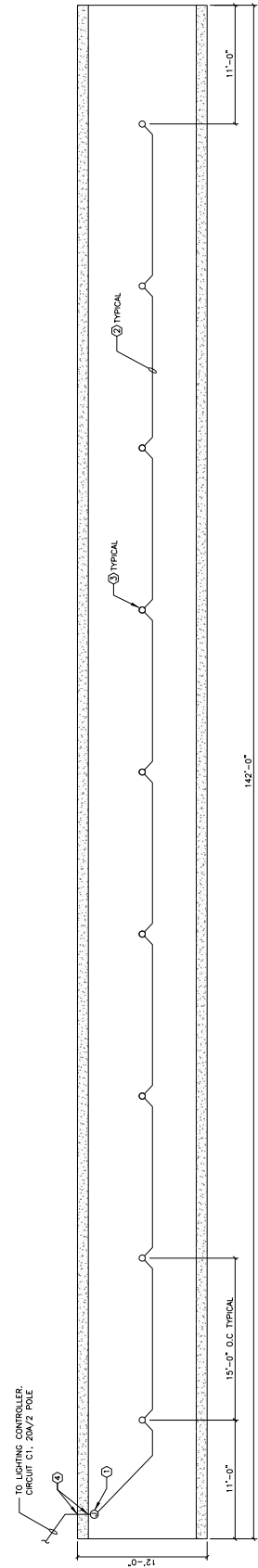
1. ALL LIGHTING CONTROL STATIONS, JUNCTION BOXES, HANDHOLES OR ENCLOSURES SHALL BE CONNECTED TO THE GROUNDING SYSTEM. PROVIDE AND INSTALL GROUND RODS AND CONDUITS TO THE GROUNDING SYSTEM. PROVIDE AND INSTALL GROUND RODS AND HANDHOLES, ETC. PER NEC AND IWA DOT STANDARD SPECIFICATIONS.
2. RMSE TIP CONNECTORS SHALL BE MADE WITH RM-40 1/2" CONNECTORS WITH 20 AMP FUSES IN HANDHOLES; RM-40 1/2" CONNECTORS WITH 5 AMP FUSES SHALL BE PLACED INSIDE POLE SHAFT HANDHOLES.
3. ALL LIGHTING LOADS SHALL BE CONNECTED 20BY LINE-TO-NEUTRAL. ALL RECEPTACLE LOADS SHALL BE CONNECTED 120V LINE TO NEUTRAL.
4. ALL LAMPS SHALL BE HIGH PRESSURE SODIUM STANDBY TYPE WITH A DUAL ARC TUBE DESIGN - 40000 HOUR MINIMUM RATED LIFE.
5. TOUCH-UP PAINT.

SUBMITTALS

1. PRODUCE THE FOLLOWING MATERIALS/EQUIPMENT:
 - A. LIGHTING CONTROL STATION
 - B. LIGHTING FIXTURES
 - C. POLES, MASTS, INCLUDING WIND LOAD CALCULATIONS AND COLOR CHIPS.
 - D. WIRE AND CABLE
 - E. CONDUIT
 - F. CONDUIT



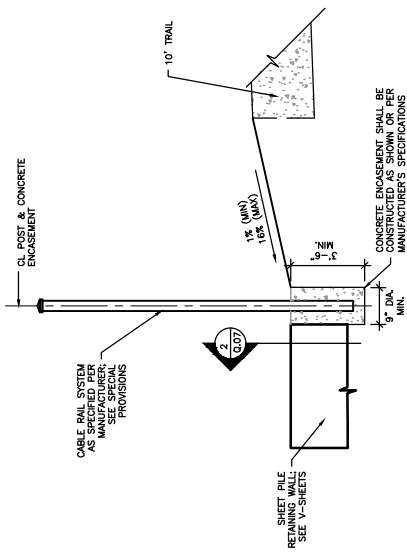
UNIT L2 FOUNDATION DETAIL
NOT TO SCALE



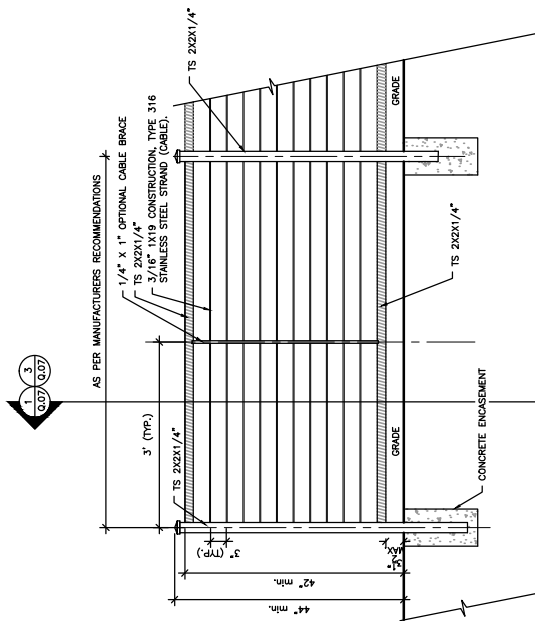
TUNNEL LIGHTING
NOT TO SCALE

NOTES:

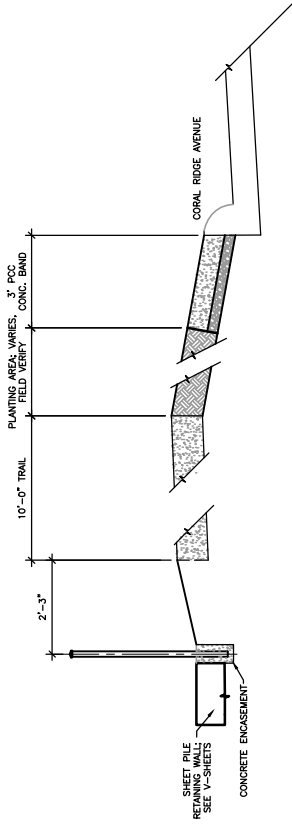
1. RM-37, TYPE 2 J-BOX, 12"x12"x6" MINIMUM.
2. ALL CONDUIT WITH TUNNEL TO BE GALVANIZED RIGID STEEL SECURED WITH GALVANIZED TWO-HOLE STRAPS, EXPANSION ANCHORS WITH STAINLESS STEEL HARDWARE.
3. TYPICAL CEILING MOUNTED TUNNEL LIGHTING UNIT TYPE TL1. TYPICAL WITH EXPANSION ANCHORS & STAINLESS STEEL FASTENERS.
4. CORE DRILL CULVERT FOR CONDUIT PENETRATION. PROVIDE WATER-TIGHT SEAL WITH NON-SHRINK GROUT.



1 TYPICAL ORNAMENTAL RAIL SECTION
SCALE: NTS

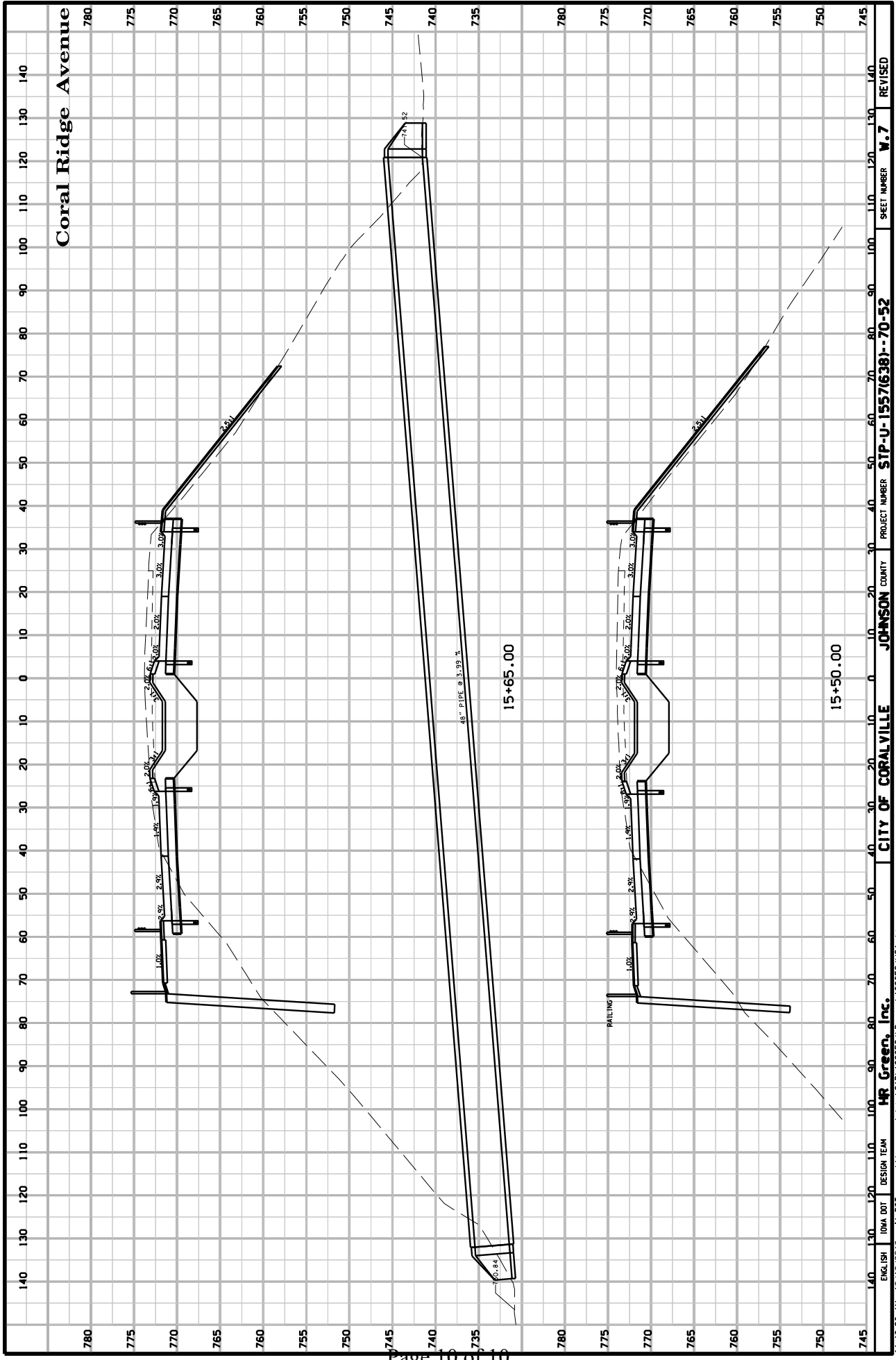


2 TYPICAL ORNAMENTAL RAIL SECTION
SCALE: NTS



3 TYPICAL SECTION: RETAINING WALL TO ROAD
SCALE: NTS

- ORNAMENTAL RAIL NOTES:
 1. FOR ORNAMENTAL RAIL INFORMATION SEE SPECIAL PROVISIONS.
 2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS SHOWING MANUFACTURER'S INSTALLATION, ETC. FOR APPROVAL TO ENGINEER PRIOR TO INSTALLATION.
 3. INSTALLED ORNAMENTAL RAIL SHALL MEET APPLICABLE BUILDING CODES.
 4. ORNAMENTAL RAIL SHALL HAVE A TIGHTENING MECHANISM AT CONNECTION TO VERTICAL RAILS/BRACING.
 5. REFER TO MANUFACTURER'S HARDWARE PER MANUFACTURER'S RECOMMENDATIONS.



Coral Ridge Avenue

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775
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735
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745

140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140

15+65.00
15+50.00

48" PIPE @ 1.99 %

RAILING

3.0%
2.0%
1.0%
2.8%
1.8%
1.3%
2.0%
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PROJECT NUMBER
COUNTY
CITY OF CORALVILLE
JOHNSON
SIP-U-1557(638)-70-52
SHEET NUMBER
W.7
REVISED