

GENERAL NOTES:

- UTILITY LINES ARE SHOWN FOR INFORMATION ONLY.
- ALL WORK PERFORMED UNDER THIS CONTRACT SHALL CONFORM TO THE CURRENT ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE AND CURRENT CITY AND COUNTY OF DENVER REQUIREMENTS.
- ALL CONDUIT SHALL BE INSTALLED A MINIMUM OF 24" BELOW GRADE. UNDER TRAVELED WAY AND ALL CONDUIT ELBOWS SHALL BE PVC COATED GRC. REMAINING CONDUIT SHALL BE SCHEDULE 40 PVC TYPE CONDUIT. ALL STREET LIGHTING CONDUIT SHALL BE 2" PVC (SCH 80) UNLESS NOTED OTHERWISE.
- CONTRACTOR SHALL COORDINATE ALL CONDUIT RUNS AND CONSTRUCTION SEQUENCE WITH ALL TRADES.
- PROVIDE PULL BOXES AND JUNCTION BOXES AS NECESSARY ACCORDING TO THE NATIONAL ELECTRICAL CODE, AASHTO REQUIREMENTS, AND OTHER GOVERNING AUTHORITIES. PROVIDE PULL BOXES AND JUNCTION BOXES, SIZED AS REQUIRED, TO PROVIDE A WEATHER TIGHT RACEWAY SYSTEM.
- PRIOR TO THE COMMENCEMENT OF DEMOLITION ASSOCIATED WITH THIS PROJECT, CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND THE SCOPE OF ELECTRICAL DEMOLITION WORK.
- THE INFORMATION SHOWN FOR THE EXISTING ELECTRICAL PANELS IS BASED ON PLANS FOR THE "COLFAX ENHANCED TRANSIT CORRIDOR" (2014) PROJECT. CONTRACTOR TO VERIFY CIRCUIT AND NOTIFY ENGINEER IMMEDIATELY IF THE EXISTING CONDITIONS DIFFER FROM THAT DEPICTED IN THE PLANS.

KEYED NOTES:



- EXISTING LIGHT POLE CIRCUIT SPEARL-5 TO BE EXTENDED DOWN EAST SIDE OF PEARL STREET TO (4) NEW LIGHT POLES.
- EXISTING LIGHT POLE CIRCUIT SPEARL-1 TO BE EXTENDED DOWN WEST SIDE OF PEARL STREET TO (4) NEW LIGHT POLES.
- NEW CIRCUIT SPEARL-10 2#8, 1#10GND TO UTILIZE EXISTING CONDUIT FROM EXISTING SERVICE "S PEARL" TO NEW RECEPTACLES ON (4) NEW LIGHT POLES ON EAST SIDE OF PEARL.
- NEW CIRCUIT SPEARL-8 2#8, 1#10GND TO UTILIZE EXISTING CONDUIT FROM EXISTING SERVICE "S PEARL" TO NEW RECEPTACLES ON (4) NEW LIGHT POLES ON WEST SIDE OF PEARL.
- SEE PULL BOX / SPLICE BOX DETAILS DS-02 AND DS-03 ON SHEET E-03.
- SEE LIGHT POLE AND POLE BASE DETAILS DS-03 AND DS-05 ON SHEET E-03.

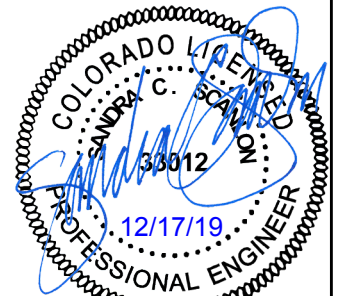
LEGEND			
	EXISTING LIGHT STANDARD TO BE REMAIN		UTILITY COMPANY PAD MOUNTED TRANSFORMER, 120/240V, 1Ø, 3W (TYPICAL U.N.O.)
	NEW DECORATIVE POLE MOUNTED PEDESTRIAN FIXTURE WITH FIXTURE DESIGNATION		SELF CONTAINED UTILITY METER PEDESTAL (MP)
	EXISTING DECORATIVE POLE MOUNTED PEDESTRIAN FIXTURE TO BE REMAIN		UTILITY SECONDARY SERVICE PEDESTAL
	EXISTING DECORATIVE POLE MOUNTED PEDESTRIAN FIXTURE TO BE REMOVED		FUSED DISCONNECT SWITCH
	NEW 13"W X 20"L STREET LIGHT PULLBOX, POLYMER CONCRETE, TIER 22 RATED COVER TO BE ENGRAVED "ELECTRIC"		GROUND ROD
	NEW CIRCUIT UNDERGROUND RUN (BOLD LINE WEIGHT)		KEYED NOTE
	EXISTING CIRCUIT UNDERGROUND RUN (LIGHT LINE WEIGHT)		DETAIL REFERENCE DESIGNATION
		R.O.W.	RIGHT OF WAY
		MIN.	MINIMUM
		P.V.C.	POLYVINYL CHLORIDE CONDUIT
		DIA.	DIAMETER
		U.N.O.	UNLESS NOTED OTHERWISE
		N.I.C.	NOT IN CONTRACT
		(RL)	RELOCATED
		G.R.C.	GALVANIZED RIGID CONDUIT

SHEET INDEX

- E-01 COVER SHEET & GENERAL NOTES
- E-02 ELECTRICAL PLAN
- E-03 DETAILS

DESCRIPTION OF THE WORK

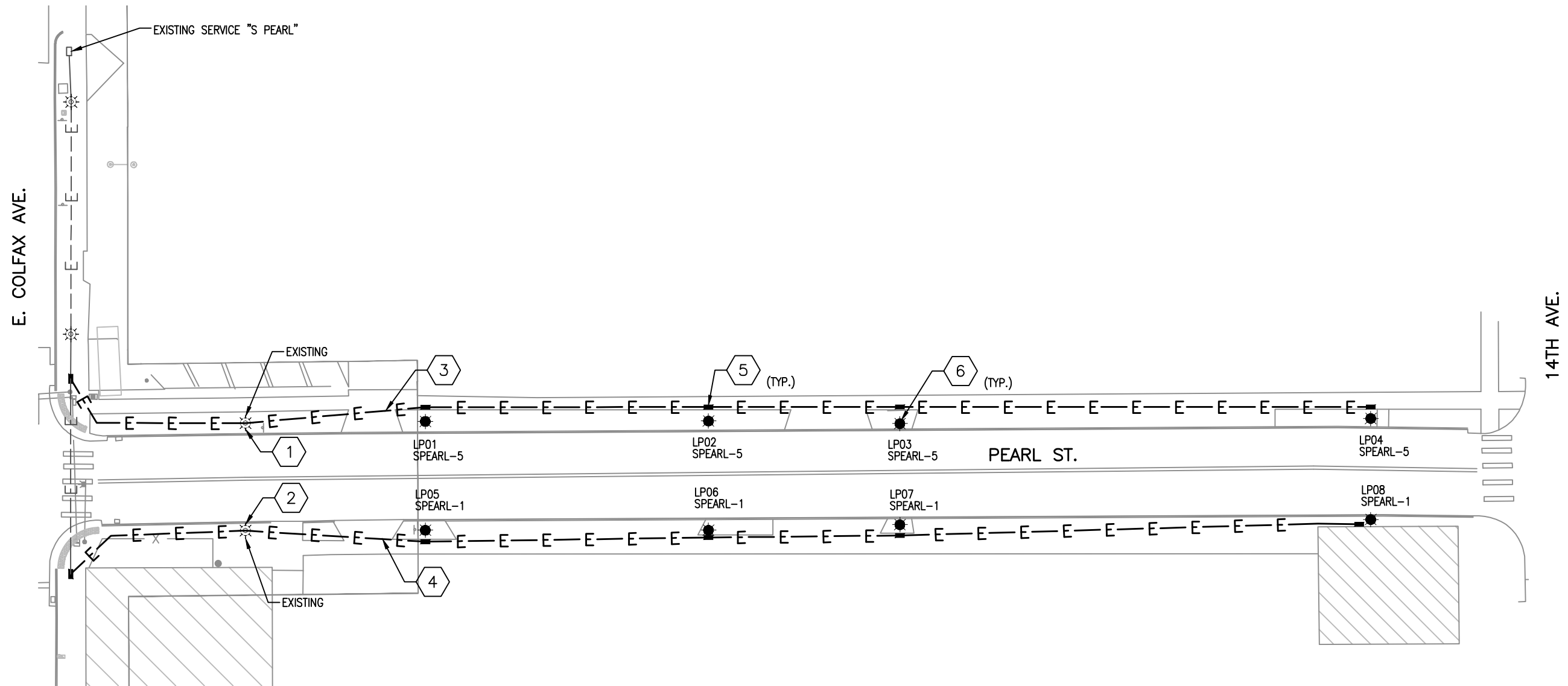
THE CONTRACTOR SHALL FURNISH AND INSTALL NEW CONDUCTORS FROM EXISTING ELECTRICAL PANEL(S) UTILIZING EXISTING UNDERGROUND RACEWAYS TO PROVIDE POWER TO NEW PEDESTRIAN LIGHTS AT LOCATIONS SHOWN ON THE PLANS. NEW PEDESTRIAN LIGHTS SHALL BE OWNER FURNISHED AND CONTRACTOR INSTALLED (OFCI). THE PEDESTRIAN LIGHT ASSEMBLY INCLUDES A DUPLEX GFCI RECEPTACLE. THE GFCI RECEPTACLE SHALL BE CONNECTED TO A SEPARATE CIRCUIT FROM THE LED LIGHT. EXISTING UNDERGROUND CONDUITS WILL BE INTERCEPTED AT THE LOCATION(S) SHOWN AND MODIFIED TO TERMINATE IN FLUSH TO GRADE PULL BOXES ADJACENT TO EACH PEDESTRIAN LIGHT. NEW CONDUIT AND PULLBOXES WILL BE REQUIRED TO COMPLETE THE SYSTEM. THE CONTRACTOR IS TO USE THE SHORTEST POSSIBLE ROUTE FROM THE PEDESTRIAN LIGHT TO THE NEAREST EXISTING ELECTRICAL PANEL. THE CONTRACTOR IS RESPONSIBLE FOR ALL WIRING AND MAKING ALL TERMINATIONS IN THE PANEL AND AT THE LIGHTS TO MAKE THE LIGHTS AND RECEPTACLES OPERATIONAL.



Know what's below. Call before you dig.

Print Date: 12/17/2019 9:58:46 AM	<table border="1"> <thead> <tr> <th>R-#</th> <th>Date:</th> <th>Comments</th> <th>Init.</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	R-#	Date:	Comments	Init.													Sheet Revisions		As Constructed	COLFAX & PEARL BID COVER SHEET & GENERAL NOTES ELECTRICAL			Project Number
R-#		Date:	Comments	Init.																				
File Name: 121219001 COVER NOTES.DWG	No Revisions:		Designer: GJA		Structure Numbers	Sheet Number																		
Horiz. Scale: N/A Vert. Scale: N/A	Revised:		Detailer: ART		Sheet Subset: ELECTRICAL																			
BCER ENGINEERING, INC. 5420 Ward Road Arvada, CO 80002 Phone: 303.422.7400	Void:		Sheet Subset: ELECTRICAL				E-01 OF 03																	

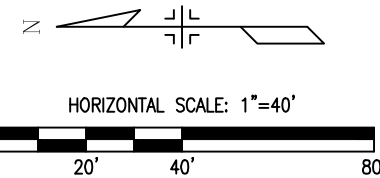
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\BCERCloud\110-Projects\121219001-Production\20-Colfax_Pearl_Pedlights\121219001 PLANS, 12/17/2019 9:59:07 AM, Alberto Rosario

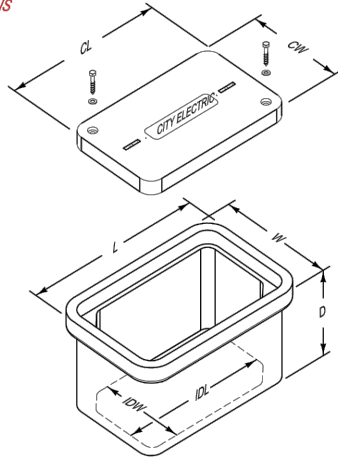


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Print Date: 12/17/2019 9:59:07 AM	Sheet Revisions			As Constructed	COLFAX & PEARL BID ELECTRICAL PLAN ELECTRICAL		Project Number
File Name: 121219001 PLANS.DWG	R-#	Date:	Comments	No Revisions:	Designer: GJA	Structure Numbers	
Horiz. Scale: 1" = 40' Vert. Scale: N/A				Revised:	Detailer: ART		
BCER ENGINEERING, INC. 5420 Ward Road Arvada, CO 80002 Phone: 303.422.7400				Void:	Sheet Subset: ELECTRICAL	E-02 OF 03	Sheet Number

XCEL ENERGY SPECIFICATIONS



PULL BOX / SPLICE BOX - COMPOSITE MINIMUM DIMENSIONS		
TYPE 1	TYPE 2	TYPE 3
L = 20"	L = 25"	L = 32"
W = 13"	W = 15"	W = 19"
D = 12"	D = 12"	D = 12"
IDL = 17"	IDL = 21"	IDL = 28"
IDW = 10"	IDW = 11"	IDW = 15"
CL = 18"	CL = 23"	CL = 30"
CW = 11"	CW = 13"	CW = 17"

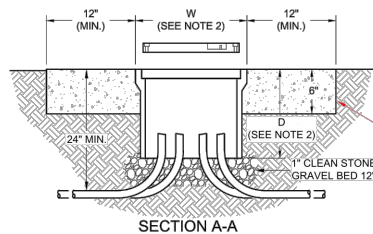
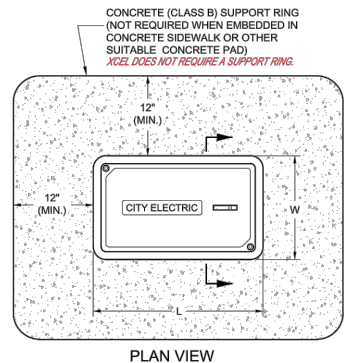
XCEL PULL BOX / SPLICE BOX - COMPOSITE MINIMUM DIMENSIONS	
SMALL	LARGE
CAT ID # LID-215570 BODY-215571	CAT ID # LID-215587 BODY-215589
L = 18"	L = 24"
W = 11"	W = 13"
D = 12"	D = 12"

DETAIL NOTES

- BOX COVERS MUST BE POLYMER CONCRETE WITH FIBERGLASS REINFORCEMENT, INCIDENTAL TRAFFIC RATED TO TIER 22 AND BOLTED. *XCEL REQUIRES TIER 8 RATED.*
- BOX COVERS SHALL BE LABELED AS FOLLOWS:
 - "CITY ELECTRIC" ON ALL PULL BOXES CONTAINING CITY ELECTRICAL POWER.
 - "UTILITY ELECTRIC" ON ALL PULL BOXES CONTAINING UTILITY ELECTRICAL POWER.
 - "CITY LIGHTING" ON ALL PULL BOXES CONTAINING CITY OWNED STREET LIGHTING CONDUCTORS.
 - "UTILITY LIGHTING" ON ALL PULL BOXES CONTAINING UTILITY OWNED STREET LIGHTING CONDUCTORS. LABELING MUST BE CAST INTO THE COVER AND NOT A SEPARATE INDEPENDENT TAG.
- REFER TO N.E.C. ARTICLE 314 "PULL AND JUNCTION BOXES AND CONDUIT BODIES MINIMUM SIZE" FOR BOX SIZE REQUIREMENTS BASED ON CONDUIT AND WIRE SIZES

City and County of Denver Department of Public Works
Date: SEPTEMBER 2019
Std. Dwg. No. DS-02

XCEL ENERGY SPECIFICATIONS



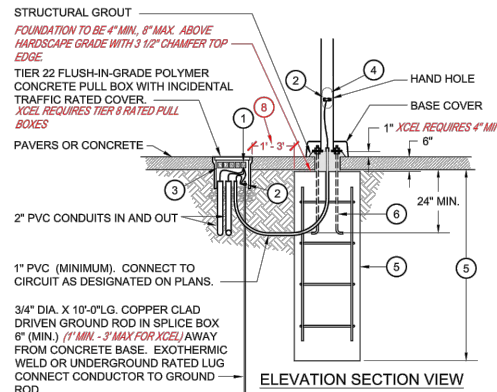
TYPICAL PULL BOX / SPLICE BOX

DETAIL NOTES

- ALL PULL OR SPLICE BOXES SHALL BE INCIDENTAL TRAFFIC RATED TO TIER 22 MINIMUM. *XCEL REQUIRES TIER 8 RATED PULL/SPLICE BOXES.*
- REFER TO DS-02 FOR PULL BOX SIZE REQUIREMENTS.

City and County of Denver Department of Public Works
Date: SEPTEMBER 2019
Std. Dwg. No. DS-03

XCEL ENERGY SPECIFICATIONS



FOUNDATION DETAIL NOTES

- BOND RACEWAY GROUND TO GROUND ROD IN PULL BOX / SPLICE BOX.
- BOND (1#6 SOFT DRAWN BARE CU) TO GROUND ROD IN PULL BOX / SPLICE BOX AND GROUNDING LUG IN POLE BASE HAND HOLE. *XCEL REQUIRES 1#4 CU.*
- PROVIDE 3-TERMINAL UNDERGROUND RATED LUG CONNECTORS TO FIT #14AWG - #4AWG COPPER WIRE, BY BURNDY OR ILSCO NIMBUS OR APPROVED EQUAL. MAXIMUM OF (5) REQUIRED OR (1) FOR EACH CONDUCTOR IN HOME RUN. *XCEL REQUIRES 4 LUG TERMINAL FOR HOT CONDUCTORS AND 4 LUG TERMINAL FOR NEUTRAL / GROUND CONDUCTORS. 3-CONNECTORS MAX. XCEL ALSO REQUIRES #12 AWG 350 KCMIL CU/AL.*
- AT EACH POLE BASE HAND HOLE, PROVIDE A BREAKAWAY, WATERPROOF, IN-LINE FUSE HOLDER BY EATON OR APPROVED EQUAL WITH FNO-R 15A FUSE FOR EACH HOT AND A BREAKAWAY, WATERPROOF CONNECTOR ON NEUTRAL (IF REQUIRED).
- LIGHT STANDARD FOUNDATION EMBEDMENT DEPTH, DIMENSIONS AND REINFORCEMENT SHALL BE PER DS-10 THROUGH DS-15 OR AS DESIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE STATE OF COLORADO.
- ANCHOR BOLT CIRCLE SHALL BE 12 INCH DIAMETER AND CENTERED ON FOUNDATION (OR PER SMALL CELL 24 INCH DIAMETER BOLT CIRCLE SPACING, FOR FUTURE SMALL CELL INSTALLATION).
- XCEL REQUIRES THE CLOSEST EDGE OF PULL BOX SHALL BE 1' TO 3' FROM FOUNDATION, EXCEPT WHEN FIELD CONDITIONS DICTATE OTHERWISE.*

GENERAL NOTE

FOUNDATION DETAILS ARE INCLUDED ONLY TO SHOW ELECTRICAL COMPONENTS. REFER TO DS-10 THROUGH DS-15 FOR STRUCTURAL REQUIREMENTS.

City and County of Denver Department of Public Works
Date: SEPTEMBER 2019
Std. Dwg. No. DS-05

TIER II COLFAX BUSINESS IMPROVEMENT DISTRICT (CBD)

LUMINAIRE SPECIFICATIONS

TYPE: LED FRANKLIN SQUARE - MODIFIED (M1)

SIZE: 17\"/>

LAMP POST SPECIFICATIONS

TYPE: REGISTRATION WITH STAGGUT TOP

HEIGHT: 15'-0"

PHOTOMETRIC CENTER: 12'-0"

BASE: 12\"/>

PROJECT HISTORY

REVISIONS:

- REVISION BY: J.K.M. DATE: 03-10-2015
- REVISION BY: B.A.R. DATE: 02-13-2015
- REVISION BY: B.A.R. DATE: 11-25-2013
- REVISION BY: D.A.C. DATE: 09-11-2013
- REVISION BY: M.N.G. DATE: 04-25-2013

Spring City Electrical Mfg. Co.
1841 AND MAIN STREETS - P.O. BOX 10 - SPRING CITY, PA. 19380
PHONE (610) 948-4000 - FAX (610) 948-5057 - WWW.SCEMFG.COM

DESCRIPTION: THE WASHINGTON #12 STANDARD LAMP POST WITH THE LED FRANKLIN SQUARE (M1) LUMINAIRE

CUSTOMER: COLORADO LIGHTING INC.

JOB: LED FIXTURE (EAST COLFAX, CO)

SCALE: N.T.S.

DATE: 08-02-2011

DRAWING NO.: LP-28116

DESIGNED BY: J.K.M.

CHECKED BY: B.A.R.

DATE: 08-02-2011

PROFESSIONAL ENGINEER

12/17/19

NOTE
THE CONTRACTOR SHALL CONSTRUCT ALL LIGHTING AND ELECTRICAL SYSTEM FOR THIS PROJECT IN ONFORMANCE WITH CCD STREET LIGHTING DESIGN GUIDELINES. XCEL REQUIREMENTS SHOWN ABOVE DO NOT APPLY.

FED VIA: VOLTAGE: 240/120 KAIC: 10 ENCLOSURE: NEMA 1

PANEL: (E) S PEARL

PHASE: 1

BUS AMPACITY: 100A

NEUTRAL: 100%

GROUND: STD

WIRE: 3

TERMINATION: MLO

MOUNTING: SURFACE

CKT NO	DESCRIPTION	LOAD			CKT BREAKER			CKT BREAKER			LOAD			DESCRIPTION	CKT NO
		VA	TYPE	P	A	OPT	OPT	A	P	TYPE	VA				
1	PENN-PEARL LTG	420	L	1	20		20	1	R	30			LIGHTING CONTACTOR	2	
3	PENN-PEARL REC	1440	R	1	20		20	1	R	180			GFI RECEPT	4	
5	PEARL-WASH LTG	840	L	1	20		20	1	S	25			IRRIGATION CONTROLLER	6	
7	PEARL-WASH REC	1440	R	1	20		20	1	R	720			PEARL REC	8	
9	WASH-CLARKSON LTG	840	L	1	20		20	1	R	720			PEARL REC	10*	
11	WASH-CLARKSON REC	1440	R	1	20		-	-	-	-			SPACE	12	
13	TVSS			2	50		-	-	-	-			SPACE	14	
15	TVSS			/	/		-	-	-	-			SPACE	16	

LOAD TYPE	CONNECTED (KVA)			DEMAND FACTOR			DEMAND (KVA)		
	A	B	TOTAL	A	B	TOTAL			
LIGHTING (L)	2.1	0.0	2.1	1.25	2.6	0.0	2.6		
RECEPTACLE (R)	0.8	5.2	6.0	1.00	0.8	5.0	6.0		
REC (>10000VA) (R)				0.50	0.0	0.1	0.0		
HVAC (H)	0.0	0.0	0.0	1.00	0.0	0.0	0.0		
LARGEST MOTOR (M)	0.0	0.0	0.0	1.25	0.0	0.0	0.0		
REMAIN MOTOR (M)	0.0	0.0	0.0	1.00	0.0	0.0	0.0		
CONTINUOUS MOTOR (CM)	0.0	0.0	0.0	1.25	0.0	0.0	0.0		
KITCHEN LOADS (K)	0.0	0.0	0.0	1.00	0.0	0.0	0.0		
SPECIFIC LOADS (S)	0.0	0.0	0.0	1.00	0.0	0.0	0.0		
NONCOINCIDENTAL (N)	0.0	0.0	0.0	0.00	0.0	0.0	0.0		
DWELLING (D)	0.0	0.0	0.0	0.65	0.0	0.0	0.0		
TOTAL DEMAND (KVA)				3.4	5.1	8.6			
TOTAL (A/PH)				28.3	42.6				

* NEW CIRCUIT BREAKER AND LOAD.

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5420 Ward Road
Arvada, CO 80002
Phone: 303.422.7400

R-#	Date:	Comments	Init.

As Constructed	COLFAX & PEARL BID DETAILS ELECTRICAL		Project Number
No Revisions:	Designer: GJA	Structure Numbers	
Revised:	Detailer: ART		
Void:	Sheet Subset: ELECTRICAL	E-03 OF 03	Sheet Number