

ALAMO MANHATTAN

June 29, 2020

Staci Monroe
Bureau of Development Services
City of Portland
1900 SW 4th Ave.
Portland, Oregon 97201
staci.monroe@portlandoregon.gov

RE: Response to Portland Audubon Letter Dated 6/21/2020

Dear Staci,

In response to Audubon Portland letter, please find changes/data requested listed below:

Glass

1. There will be no reflective coating on any glass on the project.
2. Block 41 will have no glass railing on the base and will instead use cable railing at these locations.
3. Block 44 changed all railing adjacent to brick to cable rails at the base.

Lighting

1. The bollards at ground level will be changed from Hess Ferrara to Hess Padua in Paseo (15 bollards), Block 45 courtyard (4 bollards), and Block 44 mural courtyard (4 bollards). The Hess Padua is Dark Sky compliant and 3,000K or less - cut sheet is attached as well as revised drawings.
2. The Hess Linea bollard used on River Blocks 41 & 44 Level 5 and City Blocks 42 & 45 Level 2 is already Dark Sky compliant and 3,000K or less – cut sheet attached.
3. The Selux Ritorno light used for the Greenway & three (3) access ways to SW River Parkway is specified because it is consistent with the Greenway to the north. Attached cut sheet indicates that it is top shielded and 3,000K or less. There are many factors mentioned in the Audubon letter that this light complies with or exceeds what is requested. They are as follows:
 - a. The light is only used to illuminate a narrow portion of the Greenway to provide safety lighting for the bike trail and pedestrian pathway.
 - b. The light is apprx. 60 – 100' from the river thus addresses the concern that it will not project directly into the Willamette River.
 - c. The lights are primarily located in Subarea # 3 away from heavily planted, restored wildlife habitat in Subareas # 1 & 2.
 - d. The lights are spaced apprx. 50' o.c. greater than minimum Audubon requested 25' o.c.

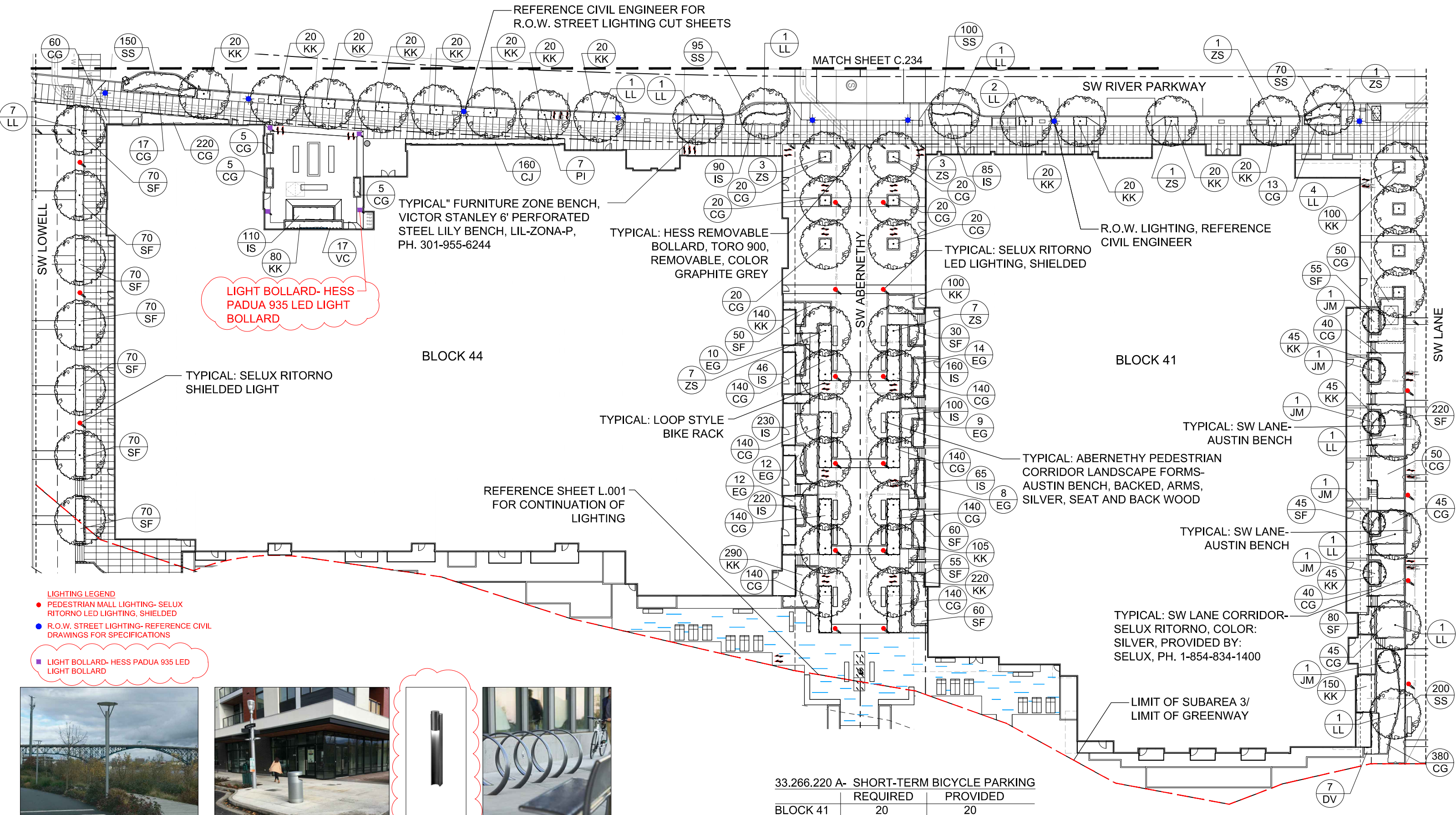
- e. The lights are over 50' from residential windows and therefore will not have an effect on the windows per Audubon request.
- 4. The down lit cable guardrail for the river overlook at Abernethy is custom and attached cut sheet indicates low wattage LED downlight mounted in niche in wood cap therefore totally shielded.

Please let me know if you have any questions.

Respectfully Submitted,



Wade Johns



- LIGHTING LEGEND**
- PEDESTRIAN MALL LIGHTING- SELUX RITORNO LED LIGHTING, SHIELDED
 - R.O.W. STREET LIGHTING- REFERENCE CIVIL DRAWINGS FOR SPECIFICATIONS
 - LIGHT BOLLARD- HESS PADUA 935 LED LIGHT BOLLARD



PEDESTRIAN MALL LIGHTING- SELUX RITORNO



R.O.W. STREET LIGHTING



LIGHT BOLLARD- HESS PADUA 935 LED LIGHT BOLLARD

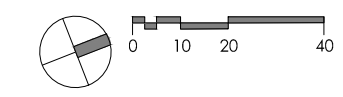


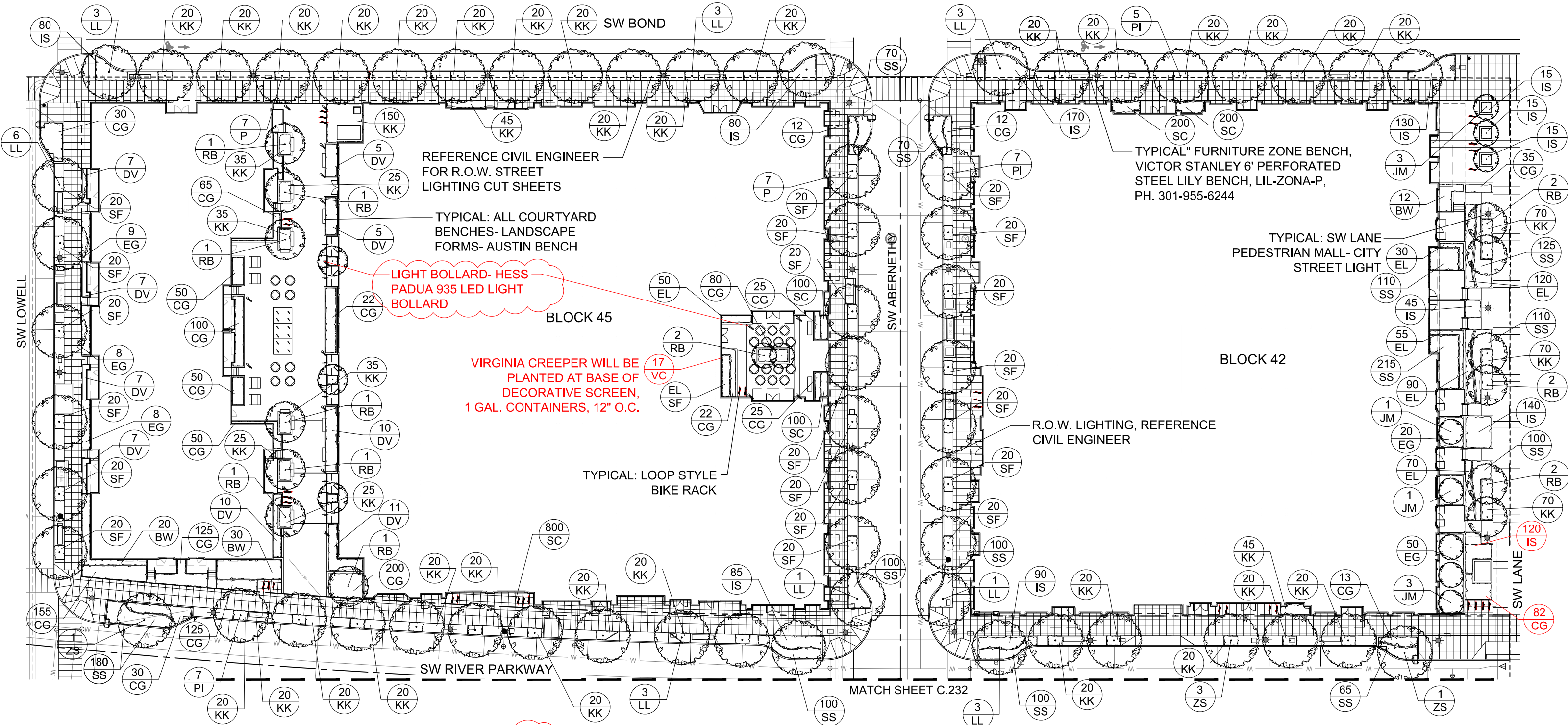
BIKE RACK- LOOP STYLE RACK

	REQUIRED	PROVIDED
BLOCK 41	20	20
BLOCK 44	21	21

REFERENCE SHEET C.233 FOR PLANT CHART AND PLANT IMAGES

LANDSCAPE - R.O.W. -PEDESTRIAN MALL/ LIGHTING- RIVER BLOCKS- B41 & B44



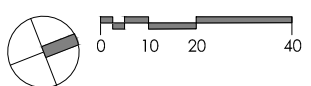


33.266.220 A- SHORT-TERM BICYCLE PARKING		
	REQUIRED	PROVIDED
BLOCK 42	16	16
BLOCK 45	18	18

REFERENCE SHEET C.235 FOR PLANT CHART AND PLANT IMAGES

LANDSCAPE - R.O.W. PLANTING - CITY BLOCKS- B42 & B45

LAND USE REVIEW # (LU-20-102914 DZM GW) EXHIBIT C.234



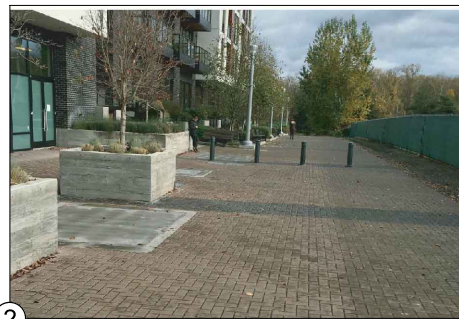
LIGHTING LEGEND

● R.O.W. STREET LIGHTING- REFERENCE CIVIL DRAWINGS FOR SPECIFICATIONS

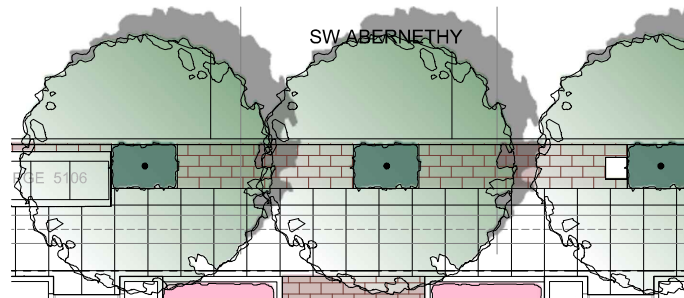
■ LIGHT BOLLARD- HESS PADUA 935 LED LIGHT BOLLARD



1 R.O.W. STREET LIGHT



2 ENRICHED PAVEMENT AND FORM LINED PLANTERS



4 BENCH SEATING
30" HT. PLANTER

2 CONCRETE PAVERS

TABLES AND CHAIRS

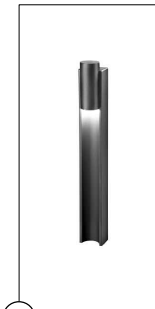


3 AT GRADE POP FOUNTAIN

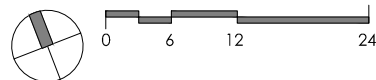
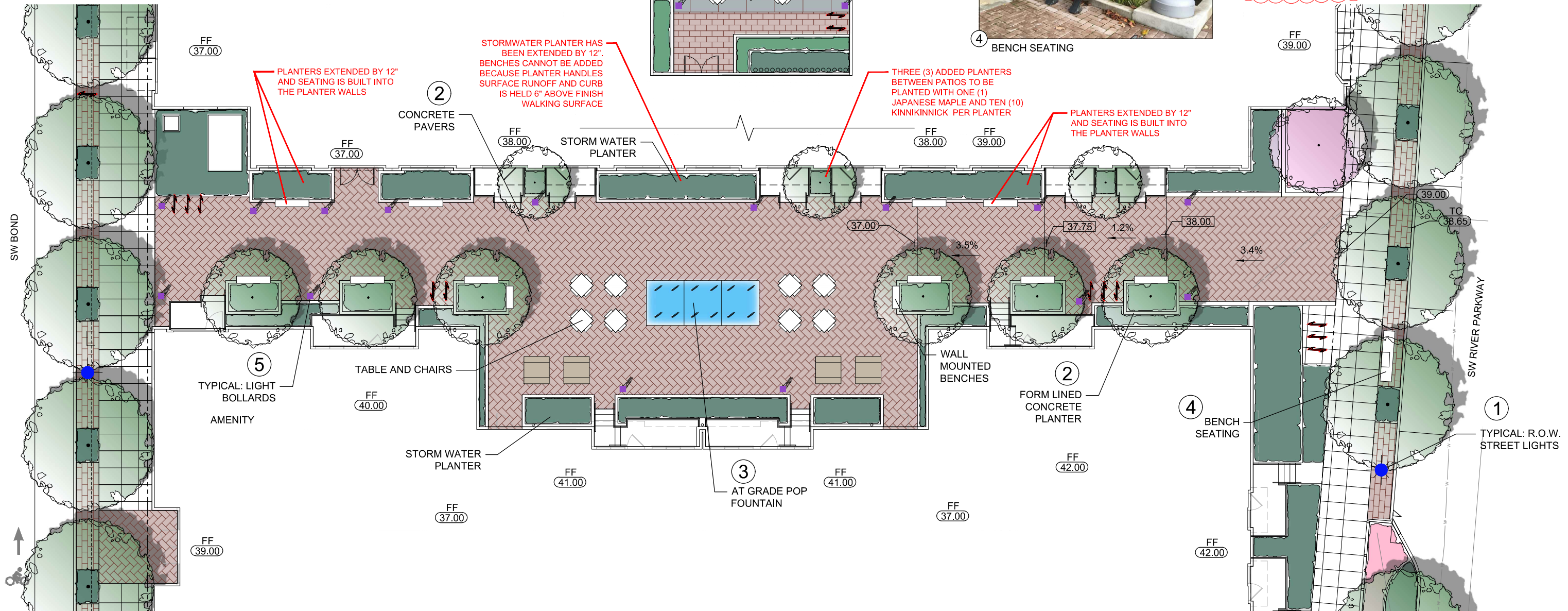


4 BENCH SEATING

45.00 - DENOTES CIVIL ENGINEER GRADES
42.00 - DENOTES LANDSCAPE ARCHITECT GRADES



5 LIGHT BOLLARD- HESS PADUA 935 LED LIGHT BOLLARD

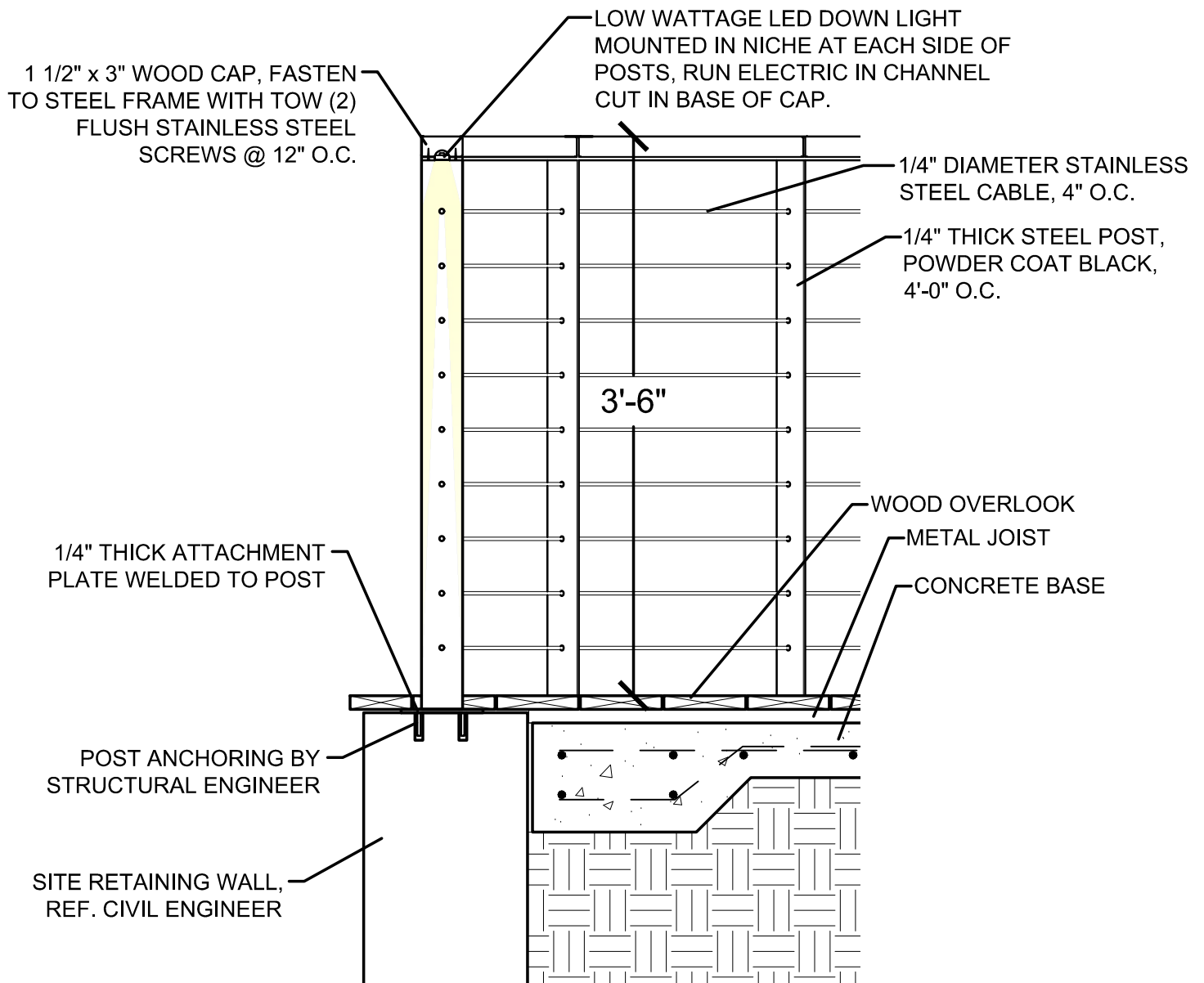


BLOCK 45 PASEO / POCKET PARK ENLARGEMENT / LIGHTING PLAN

LAND USE REVIEW # (LU-20-102914 DZM GW) EXHIBIT C.238



CABLE GUARDRAIL AT OVERLOOK



2 CABLE GUARD RAIL AT OVERLOOK

SCALE: 3/4" = 1'-0"

PADUA





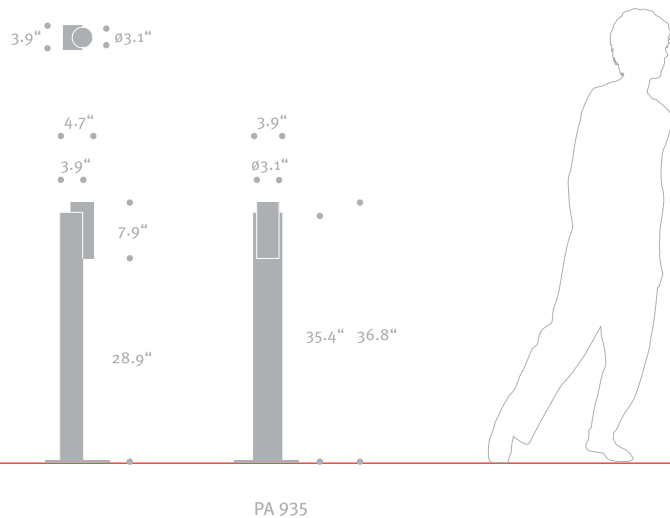
PADUA

www.hessamerica.com

PADUA . Illuminating Bollard

PADUA combines simple geometric shapes to produce an understated form that enhances contemporary architecture. The cylindrical housing is extruded aluminum, cradled by the concave detailing of the fabricated aluminum bollard shaft. The fully shielded luminaire emits zero uplight. It is suitable for LEED lighting zones 1 through 4 and is Dark Sky compliant. Integral universal LED driver. All hardware is stainless steel. Standard colors; matte silver grey metallic, dark grey, or graphite grey. Special colors available. CSA certified for Wet Locations.

Model	Mounting	Lamp
PA935	Bollard	LED



LINEA S 900 Specification

The slender profile of LINEA complements contemporary architecture with well proportioned styling and a modern form. The fabricated aluminum bollard is available as a single or twin mount luminaire in three different heights to meet varying scale requirements. The fully shielded luminaire emits zero uplight and is Dark Sky compliant. Concealed mounting minimizes the footprint. All hardware is stainless steel.



Model	Lamp	Color Temperature	Volt	Mounting	Finish	Option
LN900S	LED	WW -3000K	UNV - 120-277V	A - Single Mount	SG - Silver Grey	DIM - 0-10vDC Dimming
		NW - 4000K		B - Twin Mount	DG - Dark Grey	N - None
					GG - Graphite Grey	
					BLK - Matte Black	
					BRZ - Dark Bronze	
					CC - Custom Color	

Ordering Information

Specifications are subject to change without notification

HessAmerica › Products › Lighting Products › Illuminating Bollard › LINEA S
https://www.hessamerica.com/Products/Lighting/Illuminating_Bollard/LINEA_S/

LINEA S 900

Specification

HOUSING

Single piece bollard consisting of luminaire head and shaft is fabricated from 6061 aluminum extrusion showing no visible welds. Nominal wall thickness is 0.125" with rectangular cross-section of 6" x 2". LED light engine and driver are housed within a self contained power pack installed in the bollard head and is removable with a single tamper-proof fastener. The LED light engine is thermally managed using convection and heat transfer through the use of an aluminum heat sink and the luminaire housing. The lens is clear, impact resistant acrylic. Bollard is available in single or twin mount configurations. All hardware is stainless steel.

OPTICS

LED light engine consists of three high output, multi-chip LED arrays fitted with prismatic lens optics to produce a uniform asymmetric light distribution pattern suitable for pathways and sidewalks. Luminaire emits zero uplight at or above 90 degrees horizontal and qualifies for use in LEED zones LZ1, LZ2, LZ3, and LZ4. Color temperature may be 3000K or 4000K with CRI greater than 80.

ELECTRICAL

Integral LED driver is housed in luminaire head and consumes 11 watts at 350 mA. Input voltage range is 120v - 277v AC, 50-60 Hz. High power factor LED driver shall be UL recognized.

LED DELIVERED LUMENS / BUG RATING

3000K - 479 delivered lumens / Bo-Uo-G1

4000K - 514 delivered lumens / Bo-Uo-G1

NOTE: Due to rapid and continuous advances in LED technology, LED luminaire data is subject to change without notice and at the discretion of HessAmerica. Consult factory for more current technical data.

MOUNTING

Flangeless bollard shaft slips over an integral tenon on the installation plate and is secured with stainless steel tamper-proof hardware to provide a stable mounting platform for the luminaire. Hardware for the installation plate includes hex nuts and washers for leveling and fastening, as well as three 1/2" hot-dip galvanized anchor bolts for embedment into a concrete foundation provided by others.

FINISH

Standard finishes are finely textured matte silver grey metallic, dark grey, graphite grey, matte black, or dark bronze. Special colors available on request.

CERTIFICATION

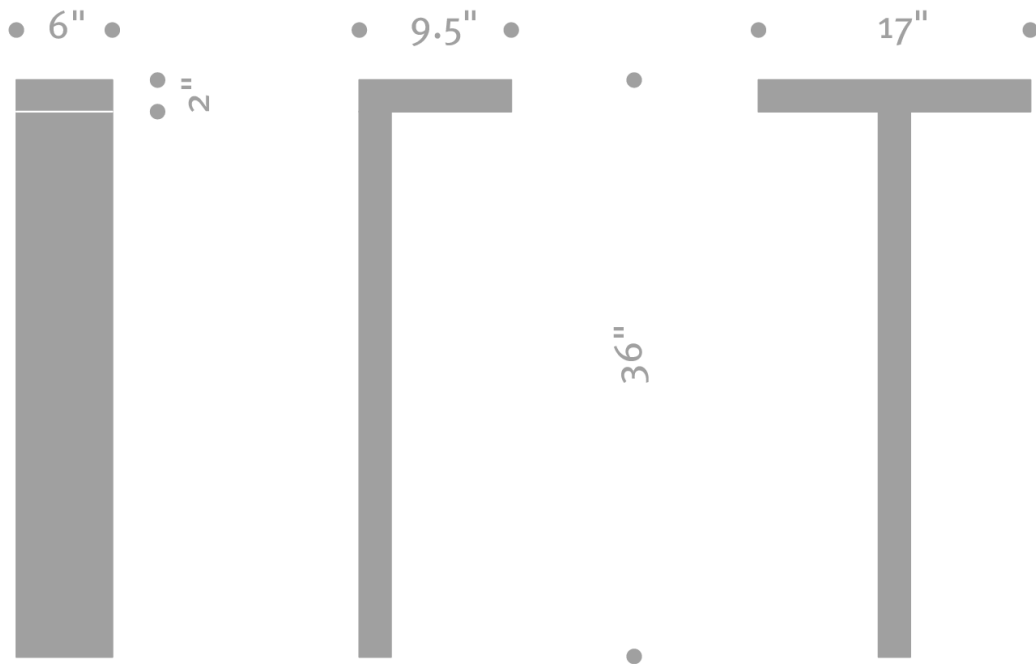
CSA/US Certified for Wet Locations

WARRANTY

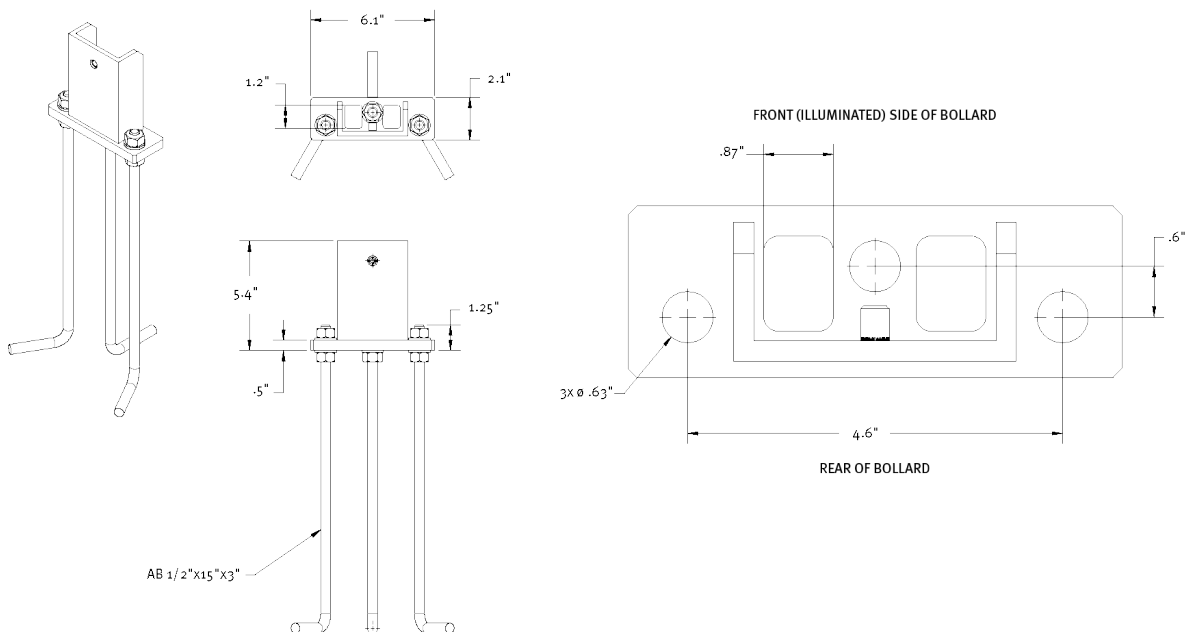
Limited product warranty period including LEDs is five years. Driver shall carry the manufacturer's limited warranty.

Additional information

Dimensions



Mounting detail



Specifications are subject to change without notification

HessAmerica > Products > Lighting Products > Illuminating Bollard > LINEA S
https://www.hessamerica.com/Products/Lighting/Illuminating_Bollard/LINEA_S/

Date: _____ Customer: _____

Project: _____

Type: _____ Qty: _____

selux

Ritorno Round Symmetrical LED



Order Code: RRSL - - - - -

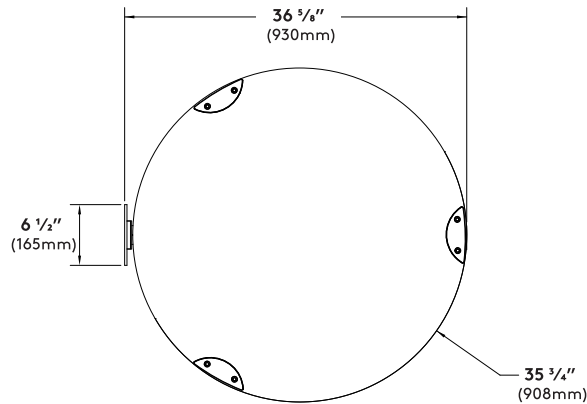
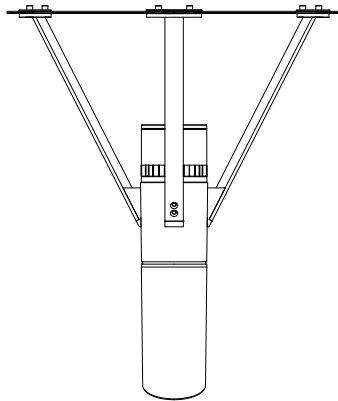
<u>RRSL</u>	Series	RRSL Ritorno Round Symmetrical LED				
	Mounting	1 Single	W Wall Mount			
	Height	RP10 10 ft.	RP12 12 ft.	RP14 14 ft.	RP16 16 ft.	
	Light Engine	2G350 350 mA/43W	2G500 500 mA/59W	2G700 700 mA/84W	2G900 900 mA/109W	2G105 1050 mA/123W
	CCT	30 3000K	40 4000K	*For other CCT please consult factory		
	Finish	WH White	BK Black	BL Semi-Matte Black	BZ Bronze	SV Silver
		SP Specify Premium Color				
	Voltage	120	208	277	347*	480*
		*Equipped with step-down transformer				
	Options	DM Dimming (0-10V)	HLxx ¹ Hi-Lo Switching	REC GFCI Receptacle w/ weather-proof cover	REC2 GFCI Receptacle w/ padlockable in-use cover	¹ 120V, 240V, & 277V only ² See p. 6 for details
		REC3 USB & Duplex Receptacle w/ weather- proof cover	REC4 USB & Duplex Receptacle w/ weather- proof padlockable in-use cover			

Product Modifications

Please list modification requirements for review by factory:

Approvals

Date: _____



Specifications

Reflective Shade - 36 5/8" x 35 3/4" (930mm x 908mm) minimum 3/16" (4.7mm) thick aluminum reflector shade painted white for maximum reflectivity. Supplied with drip groove around perimeter, to prevent rain marks on underside. Shade attached to fixture arms with low profile stainless steel hardware.

Fixture Arms - Three natural, marine grade stainless steel with bead-blasted finish, rigidly attach reflector shade to pole fitter.

Housing Cover - Heat-tempered flat glass lens protects LED light engine assembly. Continuous die cut silicone gasket creates sealed optic chamber for weather proofing, dust and insect control. Lens retainer can be removed for servicing. Five stainless steel socket head cap screws secure retainer in place.

LED Light Engine - High efficacy LED light engine with reported 60,000+ hour life until L70. Available with 3000K or 4000K CCT and a CRI of 80.

Optics - Symmetric reflector and flat glass lens focus lumen output on secondary reflector shade. Secondary reflector shade redirects light for even illumination without shadows.

LED Driver - High Power factor, High Efficiency constant current LED driver. 120-277VAC input. Protection class IP66.

Surge Protection - 3-Pole Surge protection device safeguards electrical components from indirect lightning strikes and surges up to (10kA and 10kV).

Pole Fitter - Die cast aluminum fitter secures fixture arms and reflective shade to pole. Tapered to continue lines from pole.

Pole - Pole to be aluminum and taper from 5" diameter at the bottom to 7" diameter at the top. Pole wall thickness to be minimum 0.156" thick, supplied with 3" x 5" hand hole, with cast 356 aluminum tempered to T6 condition reinforced frame, with integral ground lug connection and gasketed flush fitting door.

Base Cover - Standard two-piece base cover is made from die cast 356 alloy aluminum which is heat treated to produce a T6 temper, measuring 4 1/2" (115mm) height by 12 1/2" (316mm) diameter.

Hi-Lo Switching Option - Please see options page for details.

Power Cord - Pre-installed at factory. Please specify power cord length in accordance to height of the pole. Add 2 feet to power cord length if double mounting (2) is specified.

Exterior Luminaire Finish - Selux utilizes a high quality Polyester Powder Coating. All Selux luminaires and poles are finished in our Tiger Drylac certified facility and undergo a five stage intensive pretreatment process where product is thoroughly cleaned, phosphated and sealed. Selux powder coated products provide excellent salt and humidity resistance as well as ultraviolet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI.

Standard exterior colors are White (WH), Black (BK), Semi-Matte Black (BL), Bronze (BZ), and Silver (SV). Selux premium colors (SP) are available, please specify from your Selux color selection guide.

5 Year Limited LED Luminaire Warranty

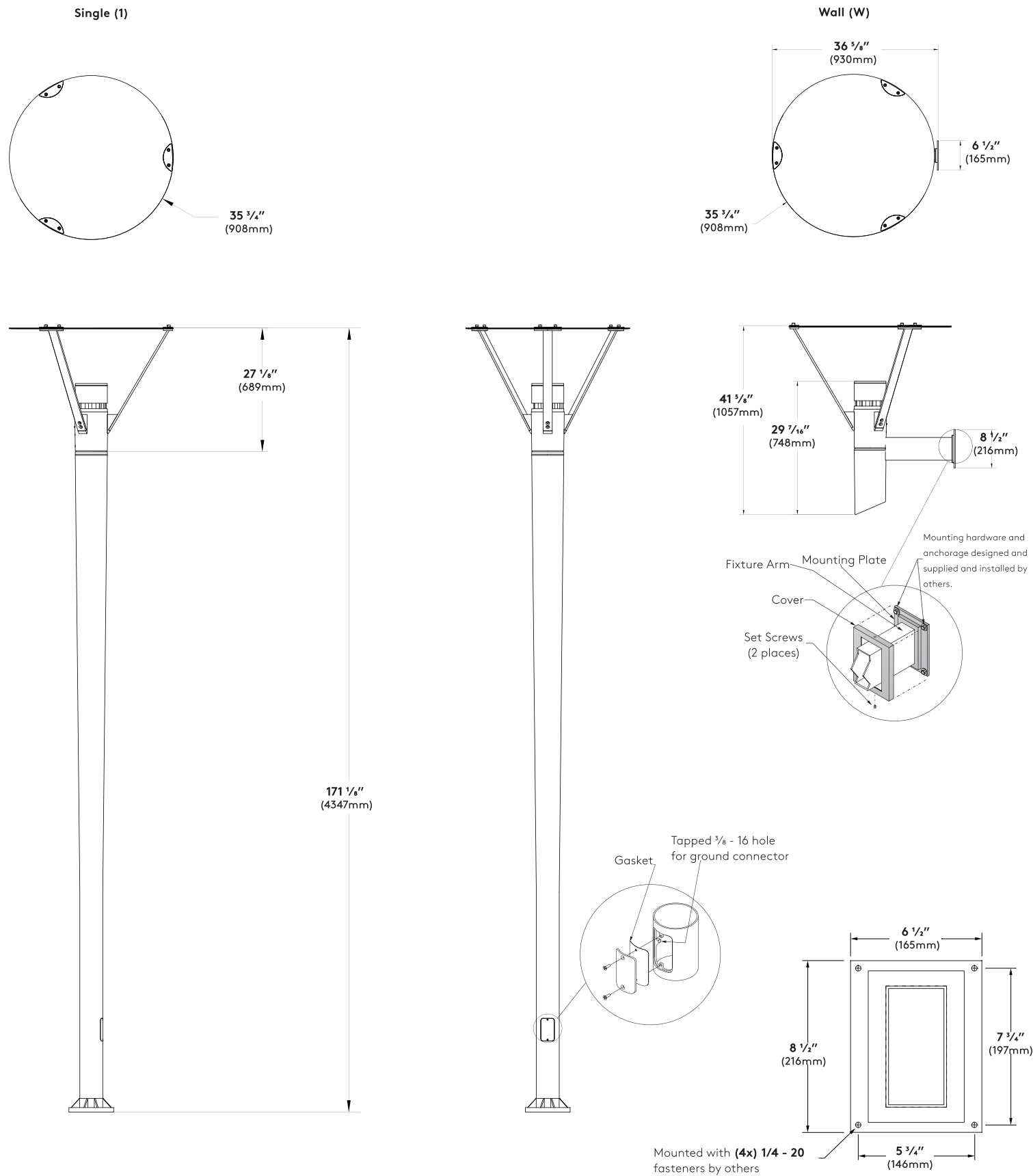
- Selux offers a 5 Year Limited Warranty to the original purchaser that the Ritorno LED luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers the LED driver and LED array when installed and operated according to Selux instructions. For details, see "Selux Terms and Condition of Sale."

Listings and Ratings: Luminaire and LED tested to IP65 and IESNA LM-79-08 standards. LED tested to LM-80 standards. Luminaire and LED tested at 25°C ambient temperature.

NRTL Listed (i.e. UL, CSA)

Visit selux.us for our LED End of Life recycling policy.

Mounting



Conversion Chart	
Values based on 16' (4.9 m) mounting height	
Mounting Height	Multiply
10' (3.0 m)	1.27
12' (3.7 m)	1.16
14' (4.3 m)	1.07
16' (4.9 m)	1.00
18' (5.5 m)	0.84

LED CCT Prorate Table	
Values based on Flux Binning	
CCT	Theoretical Multiplier
3000K	1.00
4000K	1.073

Ritorno Round Symmetrical LED Lumen Matrix					
Model#	Watts	Delivered Lumens	Lumens/Watt	Light Engine Multiplier	CCT Multiplier
RRSL-X-RPXX-2G350-30-XX-UNV	43.01	2545	59.2	0.402	3000K CCT Multiplier = 1.00
RRSL-X-RPXX-2G500-30-XX-UNV	58.87	3472	59.0	0.548	
RRSL-X-RPXX-2G700-30-XX-UNV	84.64	4670	55.2	0.738	
RRSL-X-RPXX-2G900-30-XX-UNV	108.60	5670	52.2	0.896	
RRSL-X-RPXX-2G105-30-XX-UNV	123.30	6330	51.3	1.000	
RRSL-X-RPXX-2G350-40-XX-UNV	43.01	2656	61.8	0.402	4000K CCT Multiplier = 1.043
RRSL-X-RPXX-2G500-40-XX-UNV	58.87	3623	61.5	0.548	
RRSL-X-RPXX-2G700-40-XX-UNV	84.64	4873	57.6	0.738	
RRSL-X-RPXX-2G900-40-XX-UNV	108.60	5917	54.5	0.896	
RRSL-X-RPXX-2G105-40-XX-UNV	123.30	6606	53.6	1.000	

123W LED / 3000K CCT

Catalog #: RRSL-X-RPXX-2G105-30-XX-UNV

Delivered Lumens: 6330

Input Watts: 123W

Efficacy: 51 lm/W

CCT: 3048K

CRI (Ra): 81.4

Maximum candela of 1264 at 25°

IES classification: Type V

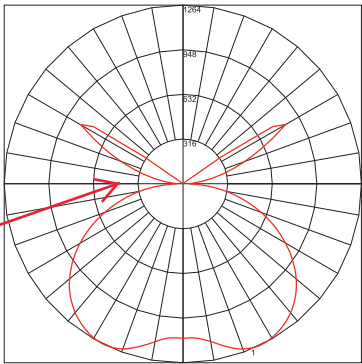
Mounting Height: 16' (4.9 m)

BUG Rating: B2-U5-G1

Power Factor: 0.994

Total Harmonic Distortion: 8.72%

SOME LIGHT GOES
ABOVE HORIZONTAL



Maximum Candela = 1264 - Located At Horizontal Angle = 0, Vertical Angle = 25
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)

