Staff Report and Comments Charlotte Water Works/Vest Station 2041 Patton Ave, Charlotte Application for COA HLC181

Exhibits presented to and considered by the Commission:

Exhibit A – project description

The scope of work for this Project will all occur at the corner of Patton Avenue and Beatties Ford Road.

PATTON AVE. WATER TANK LIGHTING

1. As a part of this Project, the Patton Avenue water tank would be fitted with lights at the ground level and along the tanks maintenance walkway to illuminate the tank itself. a. In addition to the standard temperatures of white light, the lights being installed would have the capability to produce different colors of light.

b. The lights are also able to be dimmed.

BENCH / SIGN

- 1. As a part of this Project, a bench, landscaping, and signage which would highlight the historical significance of the water tower are being proposed for installation on the south side of Patton Avenue adjacent to the water tower.
- a. proposed concrete hardscape is shown with a diagonal saw-cut joint pattern, which imitates the crossing cables that support the adjacent water tower
- b. custom curvilinear monolithic concrete bench uses a decorative contoured profile, which plays into the art deco style of the adjacent Vest Water Treatment Plant
- c. large diameter steel pipe sections are shown supporting the concrete signage element and bench, which ties into the water treatment plant industrial look, and the material matches the supporting structures of the adjacent water tower
- d. the overall curvilinear form of the hardscape features play into the water theme, and the proposed landscaping is shown in similar sweeping gestures to support the flow of the hardscape elements

Exhibit B – map

Exhibit C – Proposed Scope of Work

Based upon the information presented in the application, staff offers the following suggested findings of fact:

A. The proposed development as shown in Exhibit C is not incongruous according to STANDARDS 2, 9, and 10. (See page 3 of this report for the STANDARDS)

1* The proposed project does not destroy historic materials.

- 2* The proposed lighting and landscape features could be easily removed in the future to restore the property's historic character.
- 3* The light locations shown on page E2-02 of Exhibit C are not an accurate representation of the actual sizes of the lights. The proposed lights mounted on the water tank railing and the proposed ground-mounted lights are 2.3 inches by 3.6 inches at their thickest, which is a much thinner profile than the representative markings on page E2-02 of Exhibit C.
- 4* The proposed cables, conduit, and electrical boxes are in keeping with the existing electrical cables, conduit, and boxes.

Staff suggests that the Commission approve the application with the following conditions:

- 1. All work shall be in accordance with attached drawings and plans.
- 2. All permits, variances, or approvals as required by law must be obtained before work may commence.

THE STANDARDS

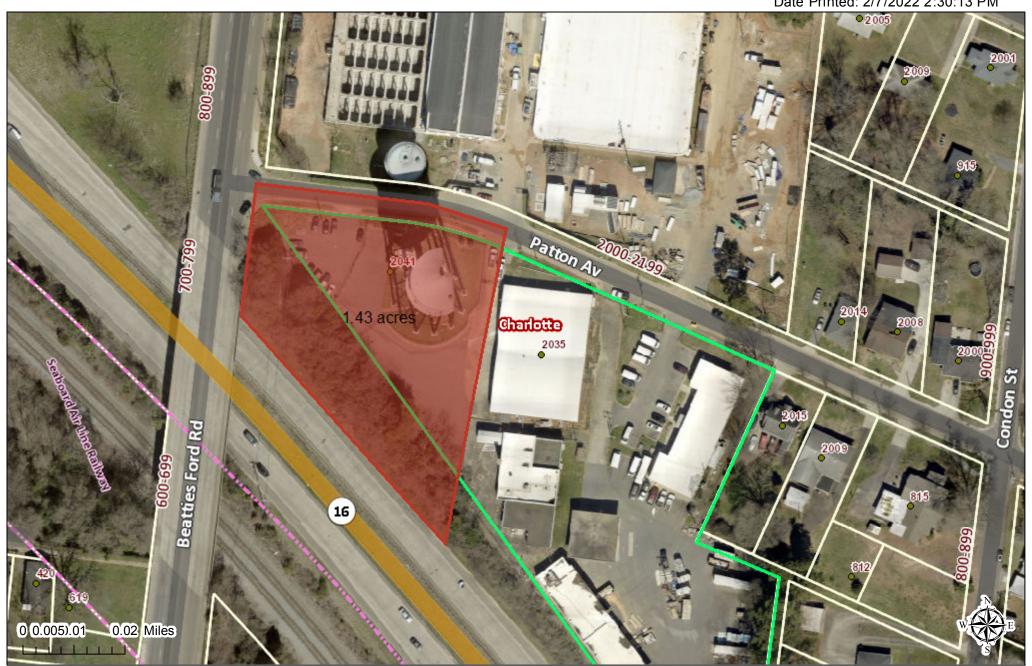
Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

- 1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
- 2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
- 3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
- 4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
- 5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
- 6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
- 7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
- 8. Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
- 9. New additions, alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
- 10. Alterations, new additions, and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

EXHIBIT B

Polaris 3G Map – Mecklenburg County, North Carolina Vest Water Tower Lighting

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This map or report is prepared for the inventory of real property within Mecklenburg County and is compiled from recorded deeds, plats, tax maps, surveys, planimetric maps, and other public records and data. Users of this map or report are hereby notified that the aforementioned public primary information sources should be consulted for verification. Mecklenburg County and its mapping contractors assume no legal responsibility for the information contained herein.





PROPOSED SCOPE OF WORK

Project:	Vest Water Treatment Plant (WTP) – Patton Water Tank Lighting & Associated Site Improvements
Subject:	Submittal to the Historical Landmarks Commission
Address:	820 Beatties Ford Rd, Charlotte, NC 28216

SITE PLANS (SEE EXHIBIT 1)

- 1. The scope of work for this Project will all occur at the corner of Patton Avenue and Beatties Ford Road.
- 2. Sheet E1-01 shows the locations of the two Project areas:
 - a. Patton Avenue water tank
 - b. Southern corner of Patton Avenue and Beatties Ford Road
- 3. Sheet E1-02 shows the existing site conditions and the proposed improvements.

PATTON AVE. WATER TANK LIGHTING (SEE EXHIBIT 2)

- 1. As a part of this Project, the Patton Avenue water tank would be fitted with lights at the ground level and along the tanks maintenance walkway to illuminate the tank itself.
- 2. A proposed rendering of the tank at night, from different locations in the City, is shown on E2-01.
 - a. In addition to the standard temperatures of white light, the lights being installed would have the capability to produce different colors of light.
 - b. The lights are also able to be dimmed.
- 3. A new power service from Duke Energy is proposed to provide power to the lights. This service will be attached to an existing power pole that is currently serving other facilities.
- 4. Power will be routed underground from this pole to a stainless steel junction box that will be located at the base of the water tower.
- 5. Power will then be routed from the junction box to approximately twelve (12) lights located underneath the tank at the ground level and fifty (50) lights located along the handrail of the maintenance walkway. See E2-02.
- 6. The conduit carrying power from the ground level to the walkway level will be the same color (black) as the water tank structural support column that it will be attached to.
- 7. Images of the Patton Avenue water tank are shown on E2-03 to provide context of the existing site conditions.
- 8. Cutsheets of the walkway mounted lights are shown on E2-04 through E2-06. The light housing will be black.
- 9. Cutsheets of the ground mounted lights are shown on E2-07 through E2-09. The light housing will be black.

BENCH / SIGN (SOUTH OF PATTON AVE.) (SEE EXHIBIT 3)

- 1. As a part of this Project, the south side of Patton Avenue is being proposed include a bench, landscaping, and signage which would highlight the historical significance of the adjacent water tower to the surrounding area.
- 2. Sheet E3-01 shows the existing site conditions.



- 3. Sheet E3-02 and E3-08 show renderings of the proposed bench and signage which includes the following features:
 - a. proposed concrete hardscape is shown with a diagonal saw-cut joint pattern, which imitates the crossing cables that support the adjacent water tower
 - b. custom curvilinear monolithic concrete bench uses a decorative contoured profile, which plays into the art deco style of the adjacent Vest Water Treatment Plant
 - c. large diameter steel pipe sections are shown supporting the concrete signage element and bench, which ties into the water treatment plant industrial look, and the material matches the supporting structures of the adjacent water tower
 - d. the overall curvilinear form of the hardscape features play into the water theme, and the proposed landscaping is shown in similar sweeping gestures to support the flow of the hardscape elements

Attachments:

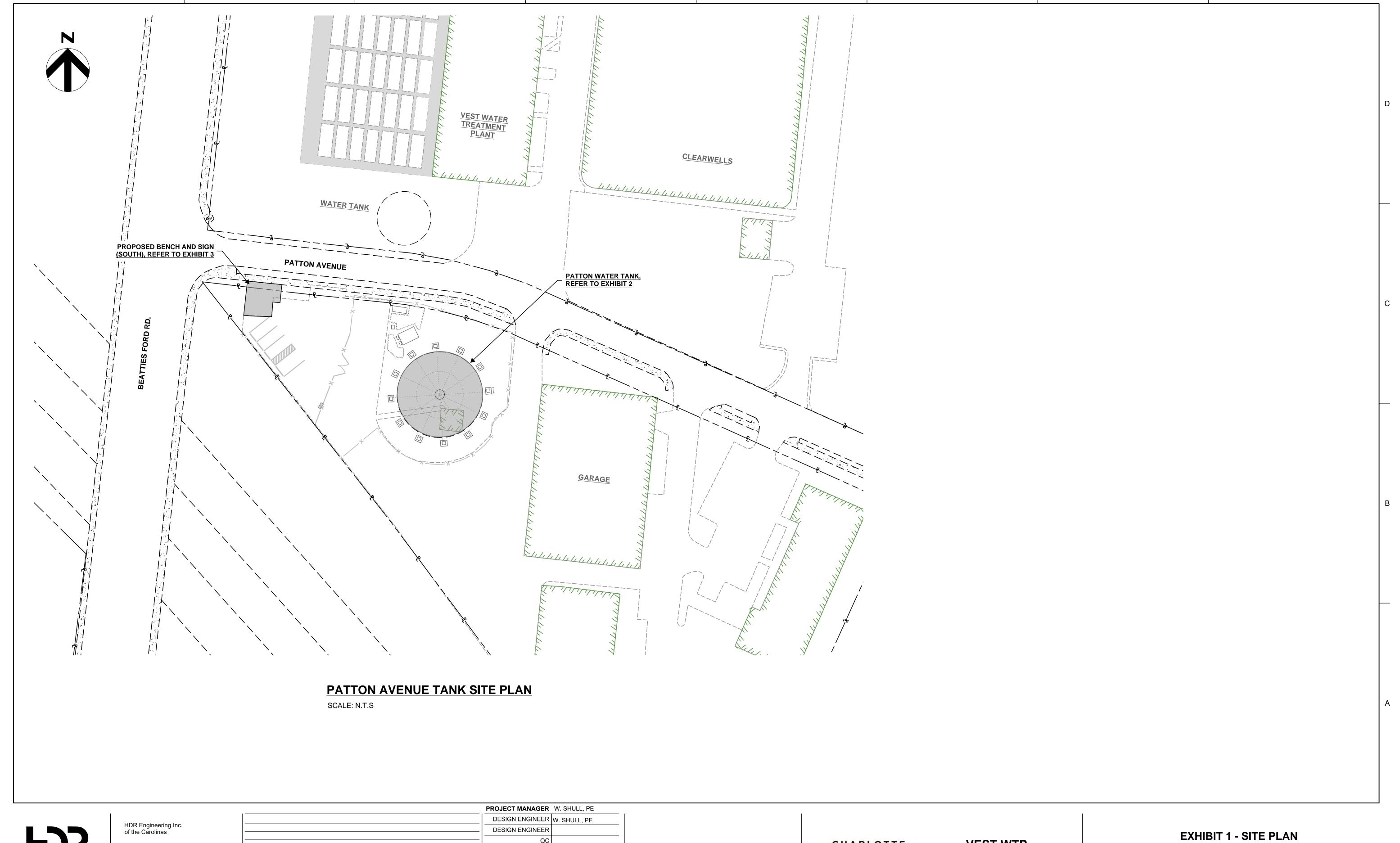
Exhibit 1 Site Plans

Exhibit 2 Water Tank Lighting

Exhibit 3 Bench / Sign Area (SOUTH)

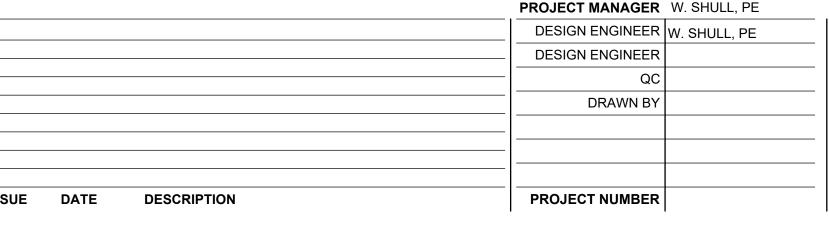
EXHIBIT 1

SITE PLANS





440 S. Church Street, Suite 1000 Charlotte, NC 28202 704.338.6700 N.C.B.E.L.S. License Number: F-0116

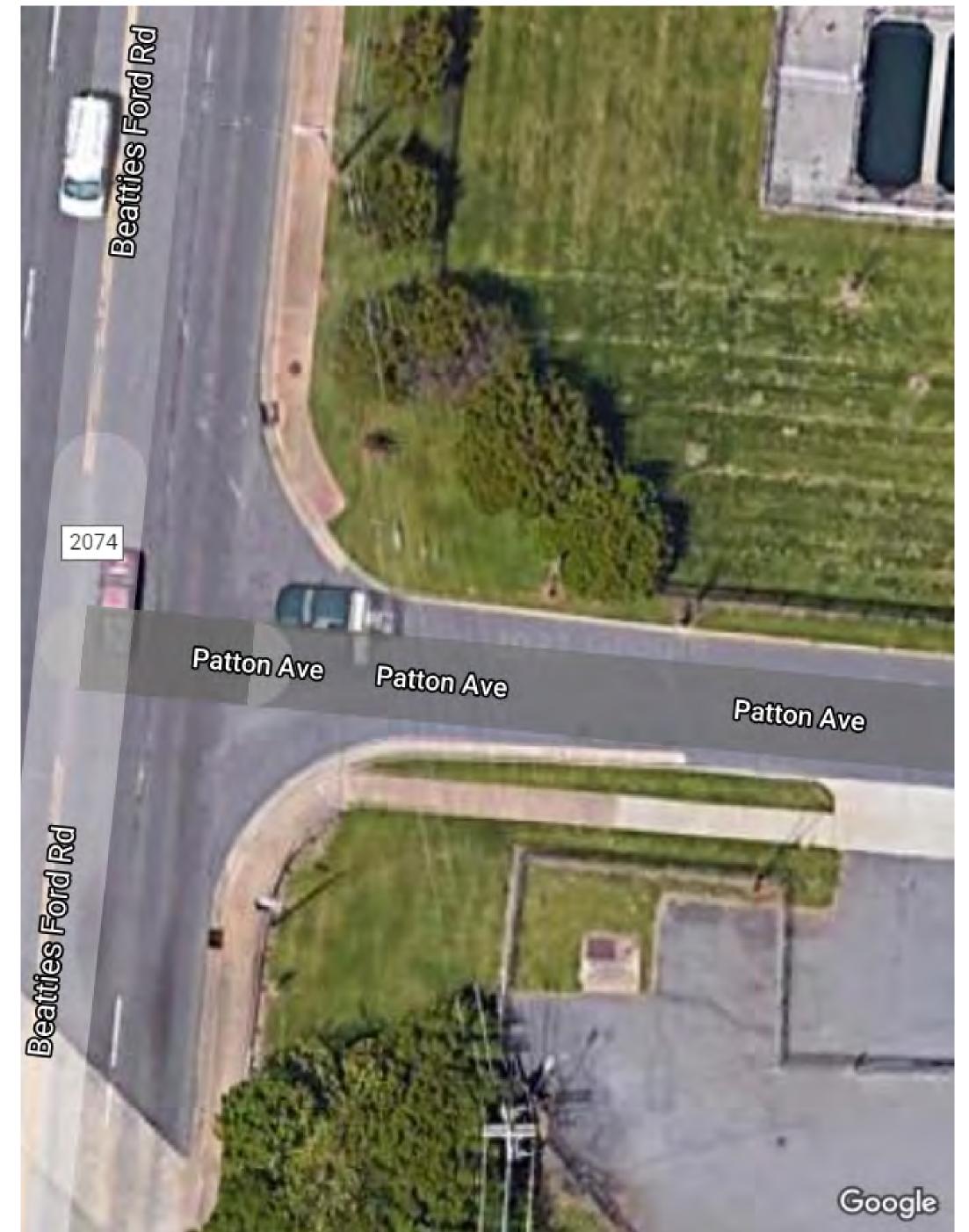




VEST WTP TANK LIGHTING PROJECT



SHEET E1-01





N.C.B.E.L.S. License Number: F-0116

PROJECT MANAGER W. SHULL, PE DESIGN ENGINEER W. SHULL, PE HDR Engineering Inc. of the Carolinas DESIGN ENGINEER 440 S. Church Street, Suite 1000 Charlotte, NC 28202 704.338.6700 DRAWN BY

PROJECT NUMBER DESCRIPTION



PROPOSED IMPROVEMENTS

SCALE: N.T.S

CHARLOTTE WOTER

VEST WTP TANK LIGHTING PROJECT **EXHIBIT 1 - SITE PLAN**



E1-02



EXHIBIT 2

WATER TANK LIGHTING



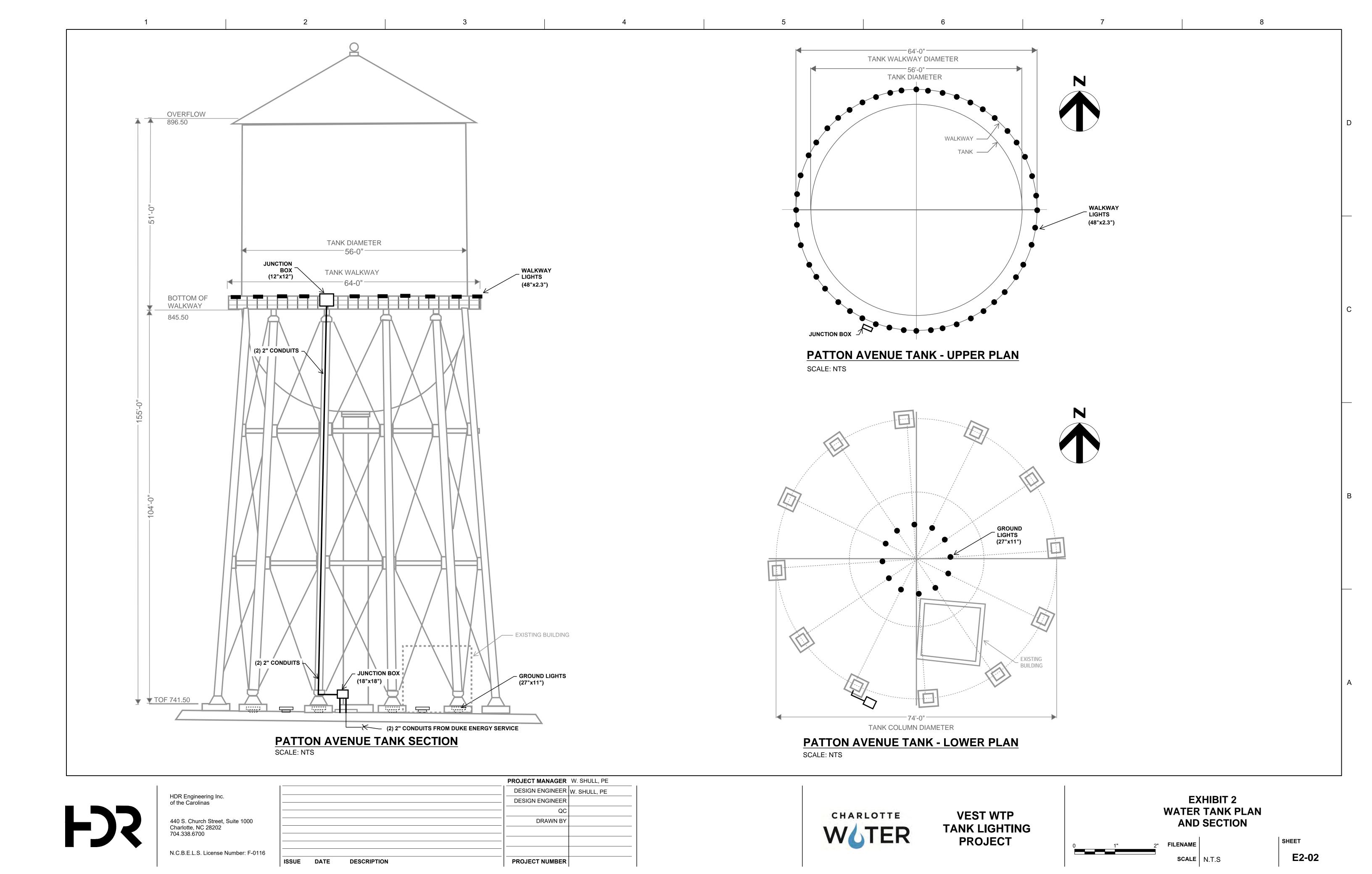








COLEJENEST AND STONE BOLTON MENK, INC



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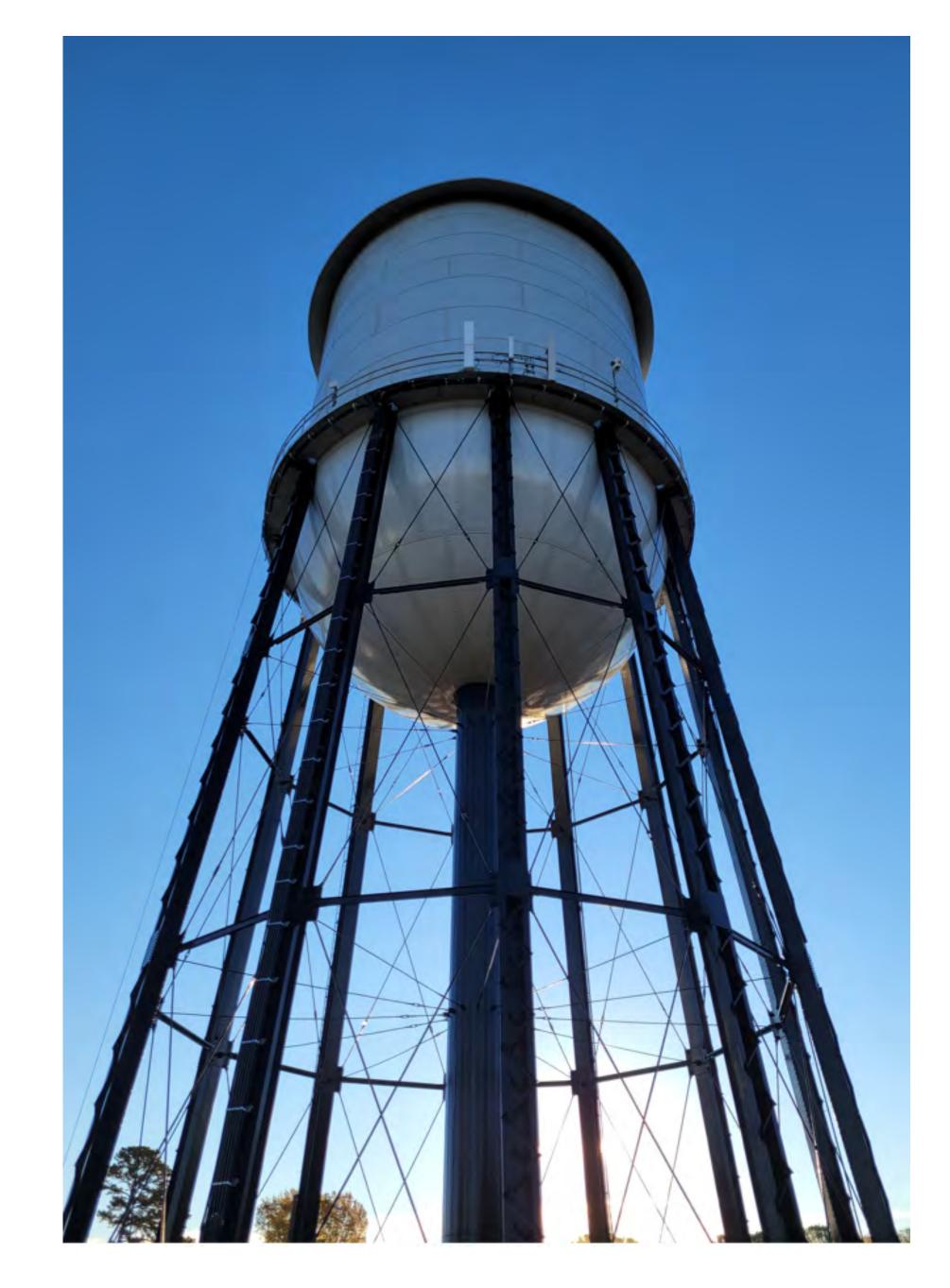


IMAGE OF EXISTING TANK

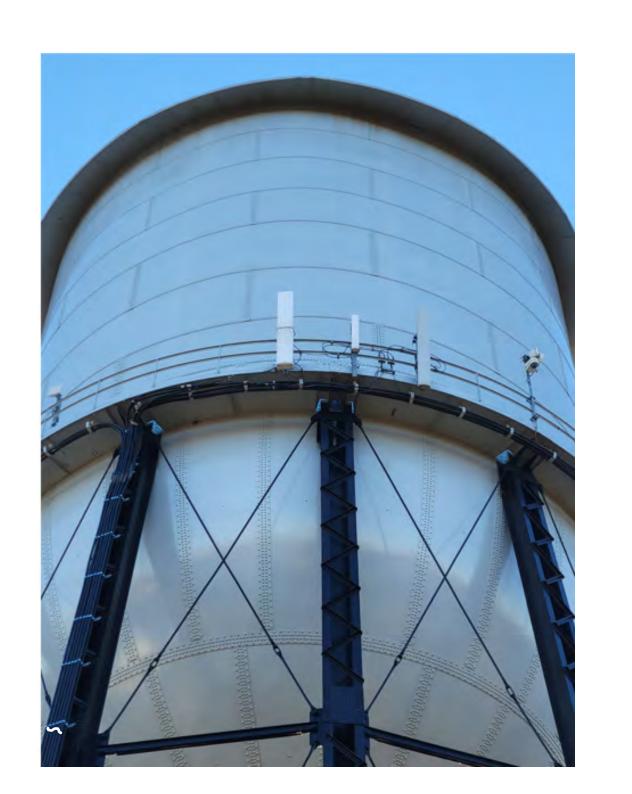


IMAGE OF TANK TOP

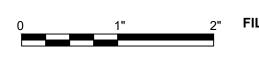


IMAGE OF TANK BASE





VEST WTP TANK LIGHTING PROJECT EXHIBIT 2 PHOTOS OF WATER TANK



E2-03





Date:	 Quantity:	
Company:		
Project:		



ProPoint[™] Linear HO RGBW

The ProPoint Linear HO RGBW is an AC Line powered luminaire in a slim profile. The ProPoint Linear HO RGBW is available in 8W (SO) or 12W (HO) per foot output, 4 beam options, standard & custom finishes which can meet the needs for most projects. The daisy chain topology is augmented with a separate Data Injector allowing single cable feed combining data and power to fixtures.

Product Specifications

Model	ProPoint Linear HO RGBW 1' ProPoint Linear HO RGBW 4			
Light Source	4-in-1 LED cluster × 5 4-in-1 LED cluster × 20			
Color Range	RGBW (White CCT: 4000K standard) Other White CCT and RGBA available ¹			
Beam Angle	15°, 25°, 35°, 50° x 30°, 105° x 105°			
Luminous Flux	493 lm @15° 2,096 lm @15°			
Efficacy	42 lm/W @15°	45 lm/W @15°		
Lumen Maintenance	L ₇₀ @ 25° 81,000 hours			
Cover Lens	Tempered Glass			
Housing	Die Cast Aluminum			
Adjustment Options	±90°			
Size	300mm x 58mm x 90mm (12" x 2.3" x 3.6") 1200mm x 58mm x 90mm (48" x 2.3" x 3.6")			
Weight	1.35 kg (3 lbs.)	3.6 kg (8 lbs.)		
Regulatory/Product Certifications	cETLus, FCC, RoHS, ASTM B117-16, ANSI 3G, IK	08		
Operating Temperature	-30°C to +55°C (-22°F to +131°F)			
Minimum Starting Temperature	-20°C (-4°F)			
Storage Temperature	-40°C to +80°C (-40°F to +176°F)			
Environment	IP66 Outdoor, suitable for coastal environments			
Humidity	85%, non-condensing			

Electrical Specifications

Input Voltage ²	100-277Vac 50/60Hz	100-277Vac 50/60Hz			
Wattage	12W	48W			
Power Factor	≥0.9				

System Specifications

Power	AC Line		
Control	DMX512, RDM Enabled		
Power Supply	Integrated		

^{1.} No MOQ required. Please consult regional sales office for pricing and lead time.

LED CHARACTERISTICS: Because LEDs are semiconductor devices, their performances are subject to inherent variability commonly found in semiconductor industry. To improve consistency in performance across the same product, LED manufacturers "sort" LEDs into bins according to different preset parameters, such as forward driving voltage, illumination, etc. Whereas binning is a sorting function, it is not a correction process. Inherent variability in the manufacturing process always results in different binning distributions according to different production lots. Traxon uses automatically binned LEDs on its products, thereby minimizing output variations within the model range.

As with all electronic devices, LED output degrades over time – a term called lumen depreciation. This also explains why it is nearly impossible to expect photometric performances of two LED products with different service life spans to be the same. The rate of LED degrade is a complicated function involving many factors, such as operating efficiency, duration of continuous operation and, more significantly, environmental conditions (ambient temperature or age and with good ventilation, LED devices ergol yong service lives over conventional light sources. When using/installing LED devices, care should be taken to ensure that the devices will operate within the operating conditions specified in respective product literature.

Lumen measurement complies with LM-79-08 standard. Lumen maintenance is calculated based on LM-80 compliant measurement.

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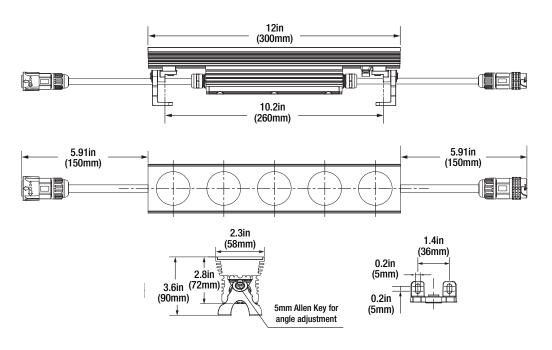
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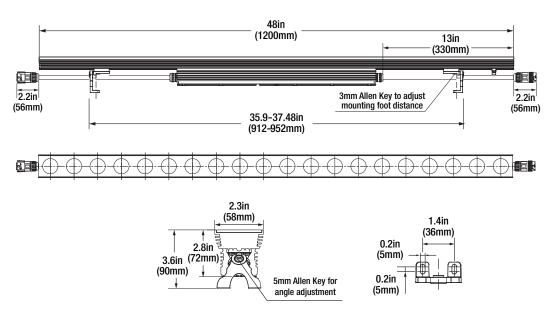
Product Specification 08/19 V1.0 1 of

Auto-switching. Single phase (line, neutral and ground).

ProPoint™ Linear 1'



ProPoint Linear 4'



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Model Number

PP	. XX	. 9	4	4	4	Х	X
ProPoint	Linear HO	Control	Color	CCT	Approbation	Optic	Finish
	L1 - 4' 48W	9: DMX	4: RGBW	4: 4000K	4: cETLus	2: 15°	1: Gray
	L4 - 1' 12W					3: 25°	2: Black
						4: 35°	3: White
						5: 50° x 30°	
	-					6: 105° x 10	5°

Fixtures

Model Number	Description	Item Code
PP.L4.944421	ProPoint Linear HO (12W) 1' RGBW 15°	AM310240055
PP.L4.944431	ProPoint Linear HO (12W) 1' RGBW 25°	
PP.L4.944441	ProPoint Linear HO (12W) 1' RGBW 35°	AS000140055
PP.L4.944451	ProPoint Linear HO (12W) 1' RGBW 50°x30°	
PP.L1.944421	ProPoint Linear HO (48W) 4' RGBW 15°	
PP.L1.944431	ProPoint Linear HO (48W) 4' RGBW 25°	
PP.L1.944441	ProPoint Linear HO (48W) 4' RGBW 35°	AS000150055
PP.L1.944451	ProPoint Linear HO (48W) 4' RGBW 50°x30°	
PP.L4.944422	ProPoint Linear HO (12W) 1' RGBW 15° BL	
PP.L4.944432	ProPoint Linear HO (12W) 1' RGBW 25° BL	
PP.L4.944442	ProPoint Linear HO (12W) 1' RGBW 35° BL	
PP.L4.944452	ProPoint Linear HO (12W) 1' RGBW 50°x30° BL	
PP.L1.944422	ProPoint Linear HO (48W) 4' RGBW 15° BL	
PP.L1.944432	ProPoint Linear HO (48W) 4' RGBW 25° BL	
PP.L1.944442	ProPoint Linear HO (48W) 4' RGBW 35° BL	
PP.L1.944452	ProPoint Linear HO (48W) 4' RGBW 50°x30° BL	
PP.L4.944423	ProPoint Linear HO (12W) 1' RGBW 15° WT	
PP.L4.944433	ProPoint Linear HO (12W) 1' RGBW 25° WT	
PP.L4.944443	ProPoint Linear HO (12W) 1' RGBW 35° WT	
PP.L4.944453	ProPoint Linear HO (12W) 1' RGBW 50°x30° WT	
PP.L1.944423	ProPoint Linear HO (48W) 4' RGBW 15° WT	
PP.L1.944433	ProPoint Linear HO (48W) 4' RGBW 25° WT	
PP.L1.944443	ProPoint Linear HO (48W) 4' RGBW 35° WT	
PP.L1.944453	ProPoint Linear HO (48W) 4' RGBW 50°x30° WT	

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Project:	
Type:	





ProPoint™ Vista 200W RGBW

The ProPoint Vista RGBW is an AC line powered, high brightness luminaire. Controllable with DMX512, the ProPoint Vista RGBW is available in 200W and 400W output, 12 beam angle options, standard & custom finishes which can meet the needs for most projects. The daisy chain topology, and direct-wire nature of the fixture via the two integral cable whips allow for simple installation into existing installations and new structures, and is ideal for high-rise and tower illumination.

Product Specifications

•	
Model	ProPoint Vista 200W RGBW
Light Source	Discrete LED x 84
Color Range	RGBW (White CCT: 4000K standard) Other White CCT and RGBA available ¹
Beam Angle	3° native; 5°, 8°, 10°, 15° 20°, 30°, 40°, 55°, 80°, 50°x10°, 50°x5° via accessory Internal Louver (Standard)
Luminous Flux	7,944 lm
Efficacy	39 lm/W
Lumen Maintenance	L ₇₀ @ 25° 81,000 hours
Cover Lens	Tempered Glass
Housing	Die Cast Aluminum
Housing Finish Options	Gray (RAL7015), Black (RAL9005), White (RAL9003)
Adjustment Options	±90° Vertical
Size	689mm x 357.2mm x 271.5mm (27.1" x 14.1" x 10.7")
Weight	22.3 kg (49.17 lbs.)
Regulatory/Product Certifications	cETLus, CE, FCC, RoHS, REACH, ASTM B117-16, ANSI 3G, IK08
Operating Temperature	-30°C to +55°C (-22°F to +131°F)
Minimum Starting Temperature	-20°C (-4°F)
Storage Temperature	-40°C to +80°C (-40°F to +176°F)
Environment	IP66 Outdoor, suitable for coastal environments
Humidity	85%, non-condensing

Electrical Specifications

Input Voltage ²	100-277Vac 50/60Hz		
Wattage	200W		
Power Factor	≥0.9		

System Specifications

Technology	DynaMood®: BeamOne	
Power	AC Line	
Control	DMX512, RDM Enabled	
Power Supply	Integrated	

Integrated Power Supply

1. No MOQ required. Please consult regional sales office for pricing and lead time. 2. Auto-switching. Single phase (line, neutral and ground).

LED CHARACTERISTICS: Because LEDs are semiconductor devices, their performances are subject to inherent variability commonly found in semiconductor industry. To improve consistency in performance across the same product, LED manufacturers "sort" LEDs into bins according to different preset parameters, such as forward driving voltage, illumination, etc. Whereas binning is a sorting function, it is not a correction process. Inherent variability in the manufacturing process always results in different binning distributions according to different production lots. Traxon uses automatically binned LEDs on its products, thereby minimizing output variations within the model range.

As with all electronic devices, LED output degrades over time – a term called lumen depreciation. This also explains why it is nearly impossible to expect photometric performances of two LED products with different service life spans to be the same. The rate of LED degrade is a complicated function involving many factors, such as operating efficiency, duration of continuous operation and, more significantly, environmental conditions (ambient temperature for a searple), if allowed, working under opiniand operating temperature range and with pood ventilation, LED devices enjoy long service lives over conventional light sources. When using/installing LED devices, care should be taken to ensure that the devices will operate within the operating conditions specified in respective product literature.

Lumen measurement complies with LM-79-08 standard. Lumen maintenance is calculated based on LM-80 compliant measurement.

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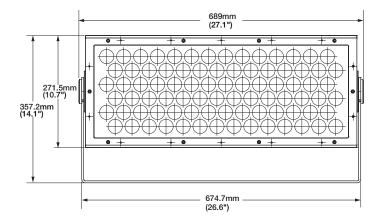
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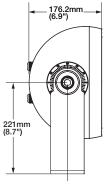
Model Number (Accessories)

PP	. VA	. 0	X	X	0	0	Х
ProPoint	Vista Accessories	Vista Size	Accessory Type	Spread Lens Package			Finish
		0: 200W/400W	1: Anti-Glare Half Shield	0: n/a			1: Gray
			2: Anti-Glare Full Shield	1: 5°			2: Black
			3: Rockguard	2: 8°			3: White
			4: Spread Lens Module	3: 10°			
			5: Pole-Mounting Support	4: 15°			
				5: 20°			
				6: 30°			
				7: 40°			
				8: 55°			
				9: 80°			
				A: 50° x 10°			
				B: 50° x 5°			

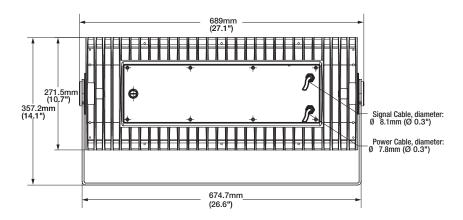
Accessories

Model Number	Description	Item Code
AM243520054	ProPoint Termination Kit	AM243520054
PP.AK.0000AA	ProPoint Allen Key Set (3mm – 17mm)	AS000490055
PP.AK.000014	ProPoint 14mm Allen Key	AS000430055
PP.VA.010001	PP Vista Half Shield	AM380690055
PP.VA.020001	PP Vista Full Shield	AM380720055
PP.VA.030001	PP Vista Mask – Rock Guard	AM380730055
PP.VA.050001	PP Vista Pole-Mounting Support	AM380750055
PP.VA.041001	ProPoint Vista Spread Lens Module – 5°	AM380760055
PP.VA.042001	ProPoint Vista Spread Lens Module – 8°	AM380770055
PP.VA.043001	ProPoint Vista Spread Lens Module – 10°	AM380780055
PP.VA.044001	ProPoint Vista Spread Lens Module – 15°	AM380790055
PP.VA.045001	ProPoint Vista Spread Lens Module – 20°	AM380800055
PP.VA.046001	ProPoint Vista Spread Lens Module – 30°	AM380810055
PP.VA.047001	ProPoint Vista Spread Lens Module – 40°	AM380820055
PP.VA.048001	ProPoint Vista Spread Lens Module – 55°	AM380830055
PP.VA.049001	ProPoint Vista Spread Lens Module – 80°	AM380840055
PP.VA.04A001	ProPoint Vista Spread Lens Module – 50°x10°	AM380850055
PP.VA.04B001	ProPoint Vista Spread Lens Module – 50°x5°	AM380860055





14mm Hex Key required to adjust Fixture angle (Available from Traxon)



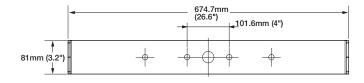
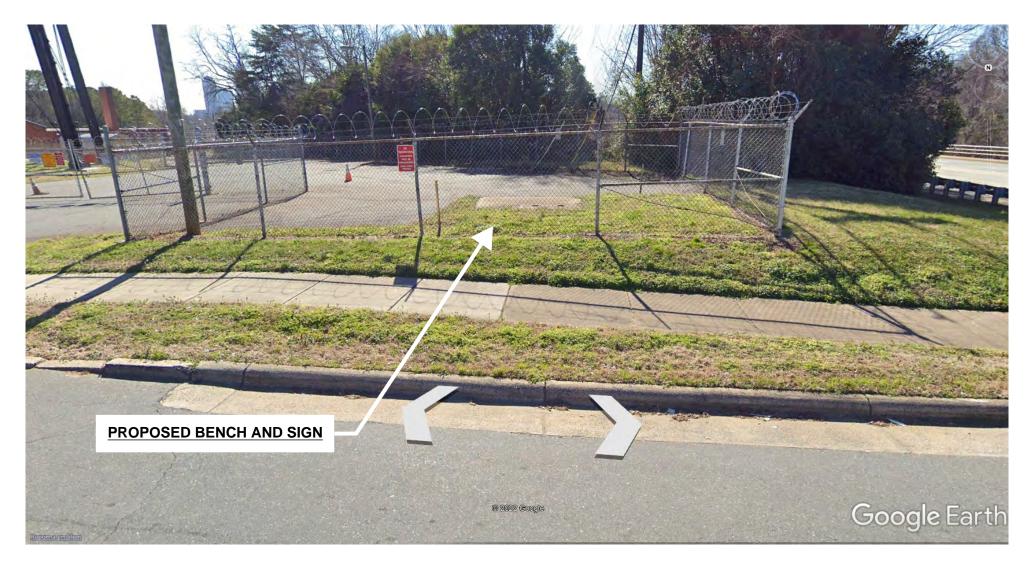


EXHIBIT 3

BENCH/SIGN AREA 1 (SOUTH)



EXISTING CONDITIONS















AERIAL VIEW











PERSPECTIVE VIEW













