

April 26, 2023

Jason Litteral
County of Currituck
Planning & Community Development
153 Courthouse Rd.
Currituck, NC 27929

Re: Lot 41, Currituck Industrial Park
Major Site Plan
124 Greyson Loop,
Powells Point, Currituck County, NC

Dear Mr. Litteral:

On behalf of Mr. Luke J. Hardy, Quible & Associates, P.C. hereby submit for your review the enclosed application package for Lot 41 of the Currituck Industrial Park – Powells Point, NC Major Site Plan Application. Enclosed in this package, please find the following:

Three (3) copies of each:

- Signed Major Site Plan Submission Application;
- Major Site Plan Submittal Checklist;
- Signed SW-002 Major Stormwater Form;
- Lot 41 Grading and Drainage Guidelines;
- ARHS Septic Evaluation;
- Site Narrative;
- NFF Computation Sheet;
- Lighting Plan Specification Sheet;
- 24"x36" Full Size Site Plan Set;
- 24"x36" Preliminary Architectural Building Plans.

One (1) copy of each:

- Major Site Plan Application Fee in the amount of \$625.00 made payable to "Currituck County";
- CD containing pdf copy of the Major Site Plan Application package.

Please review the attached site plans and do not hesitate to me at 252.491.8147 if you have any questions, comments, or requests for additional information.

Sincerely,
Quible & Associates, P.C.

Christiana Tambone, P.M.P.
Engineering Specialist
Encl: as stated
Cc: Luke J. Hardy, Lot 41, Currituck Industrial Park



Major Stormwater Plan Form SW-002

OFFICIAL USE ONLY:
 Permit Number: _____
 Date Filed: _____
 Date Approved: _____

Contact Information

APPLICANT:		PROPERTY OWNER:	
Name:	<u>Luke J. Hardy</u>	Name:	<u>Same as Applicant</u>
Address:	<u>P.O. Box 527</u> <u>Gainsville, Virginia 20156</u>	Address:	_____
Telephone:	<u>703-361-7829</u>	Telephone:	_____
E-Mail Address:	<u>lukehardyva@aol.com</u>	E-Mail Address:	_____

Property Information

Physical Street Address: 124 Greysoon Loop, Powells Point NC, 27966

Parcel Identification Number(s): 124E00000410000

FEMA Flood Zone Designation: X

Request

Project Description: Contractor Services Warehouse with Office Space

Total land disturbance activity: 42,668 SF sf Calculated volume of BMPs: _____ sf

Maximum lot coverage: 46,127.8 SF sf Proposed lot coverage: 32,600.8 sf

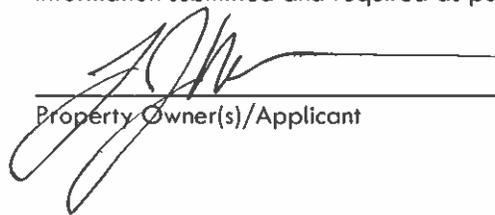
TYPE OF REQUEST

- Major subdivision (10-year, 24-hour rate)
- Major site plan (5-year, 24-hour rate)

METHOD USED TO CALCULATE PEAK DISCHARGE

- Rational Method
- NRCS Method (TR-55 and TR-20)
- Simple volume calculation for small sites (less than 10 acres)
- Alternative stormwater runoff storage analysis
- Downstream drainage capacity analysis

I hereby authorize county officials to enter my property for purposes of determining compliance. All information submitted and required as part of this process shall become public record.



 Property Owner(s)/Applicant

4/21/23

 Date



Major Stormwater Plan Form SW-002 Review Process

Contact Information

Currituck County
Planning and Community Development
153 Courthouse Road, Suite 110
Currituck, NC 27929

Phone: 252.232.3055
Fax: 252.232.3026

Website: <http://www.co.currituck.nc.us/planning-community-development.cfm>

Currituck County
Engineering Department
153 Courthouse Road, Suite 302
Currituck, NC 27929

Phone: 252.232.6035

General

Major stormwater plan approval is required for:

- Major subdivisions.
- Major site plans - development or expansion on a nonresidential, multi-family, or mixed use lot by 5,000 square feet or more of impervious coverage or resulting in 10% or more total impervious coverage.

Step 1: Application Submittal

The applicant must submit a complete application packet consisting of the following:

- Completed Currituck County Minor Stormwater Plan Form SW-002 (unless submitting a major subdivision or major site plan).
- Completed Rational Method Form SW-003 or NRCS Method Form SW-004.
- Stormwater management plan drawn to scale. The plan shall include the items listed in the major stormwater plan design standards checklist.
- Alternative stormwater runoff storage analysis and/or downstream drainage capacity analysis, if applicable.
- NCDENR permit applications, if applicable.
- Number of Copies Submitted:
 - 3 Copies of required plans
 - 3 Hard copies of ALL documents
 - 1 PDF digital copy (ex. Compact Disk – e-mail not acceptable) of all plans AND documents.

On receiving an application, staff shall determine whether the application is complete or incomplete. A complete application contains all the information and materials listed above, and is in sufficient detail to evaluate and determine whether it complies with appropriate review standards. An application for major stormwater plan must be submitted and approved prior altering an existing drainage system, performing any land disturbing activity or, before construction documents are approved.

Step 2: Staff Review and Action

Once an application is determined complete staff shall approve, approve subject to conditions or disapprove the application.

Major Stormwater Plan Design Standards Checklist

The table below depicts the design standards of the major stormwater plan application. Please make sure to include all applicable listed items to ensure all appropriate standards are reviewed.

Major Stormwater Plan Design Standards Checklist

Date Received: _____

Project Name: Lot 41, Currituck Industrial Park

Applicant/Property Owner: Luke J. Hardy

Minor Stormwater Plan Design Standards Checklist		
General		
1	Property owner name and address.	✓
2	Site address and parcel identification number.	✓
3	North arrow and scale to be 1" = 100' or larger.	✓
Site Features		
4	Scaled drawing showing existing and proposed site features: Property lines with dimensions, acreage, streets, easements, structures (dimensions and square footage), fences, bulkheads, septic area (active and repair), utilities, vehicular use areas, driveways, and sidewalks.	✓
5	Approximate location of all designated Areas of Environmental Concern (AEC) or other such areas which are environmentally sensitive on the property, such as Maritime Forest, CAMA, 404, or 401 wetlands as defined by the appropriate agency.	N/A
6	Existing and proposed ground elevations shown in one foot intervals. All elevation changes within the past six months shall be shown on the plan.	✓
8	Limits of all proposed fill, including the toe of fill slope and purpose of fill.	N/A
9	Square footage of all existing and proposed impervious areas (structures, sidewalks, walkways, vehicular use areas regardless of surface material), including a description of surface materials.	✓
10	Existing and proposed drainage patterns, including direction of flow.	✓
11	Location, capacity, design plans (detention, retention, infiltration), and design discharge of existing and proposed stormwater management features.	✓
12	Elevation of the seasonal high water level as determined by a licensed soil scientist.	✓
13	Plant selection.	✓
Permits and Other Documentation		
14	NCDENR stormwater permit application (if 10,000sf or more of built upon area).	✓
15	NCDENR erosion and sedimentation control permit application (if one acre or more of land disturbance).	✓
16	NCDENR coastal area management act permit application, if applicable.	✓
17	Stormwater management narrative with supporting calculations.	✓
18	Rational Method Form SW-003 or NRCS Method Form SW-004	✓
19	Alternative stormwater runoff storage analysis and/or downstream drainage capacity analysis, if applicable	✓
20	Design spreadsheets for all BMPs (<i>Appendix F – Currituck County Stormwater Manual</i>).	✓
21	Detailed maintenance plan for all proposed BMPs.	✓

Certificate

22 The major stormwater plan shall contain the following certificate:

I, _____, owner/agent hereby certify the information included on this and attached pages is true and correct to the best of my knowledge.

On the plan entitled _____, stormwater drainage improvements shall be installed according to these plans and specifications and approved by Currituck County. Yearly inspections are required as part of the stormwater plan. The owner is responsible for all maintenance required. Currituck County assumes no responsibility for the design, maintenance, or performance of the stormwater improvements.

Date: _____ Owner/Agent: _____

Major Stormwater Plan Submittal Checklist

Staff will use the following checklist to determine the completeness of your application. Please make sure all of the listed items are included. Staff shall not process an application for further review until it is determined to be complete.

Major Stormwater Plan Form SW-002 Submittal Checklist

Date Received: _____

Project Name: Lot 41, Currituck Industrial Park

Applicant/Property Owner: Luke J. Hardy

Major Stormwater Plan Form SW-002 Submittal Checklist	
1	Completed Major Stormwater Plan Form SW-002
2	Completed Rational Method Form SW-003 or NRCS Method Form SW-004
3	Stormwater plan
4	NCDENR permit applications, if applicable
5	3 copies of plans
6	3 hard copies of ALL documents
7	1 PDF digital copy of all plans AND documents (ex. Compact Disk – e-mail not acceptable)

Comments

Currituck Industrial Park
Grading and Drainage Guidelines (Cont'd): (revised 10/04/04)

~~Lot 41~~

Grading:

Lot to be graded to drain to Farr Loop and Beckner Drive. Built-upon areas of lot to maintain a minimum elevation of 9.5'. Finish Floor of buildings to maintain a minimum elevation of 10.5'.

Drainage:

Site to be accessed from Farr Loop.

Culvert under Farr Loop driveway to be 24" Aluminum CMP min. with inverts at ditch invert or suppressed below ditch invert with appropriate inlet and outlet protection to maintain full pipe opening.

~~Lot 42~~ LOT 41

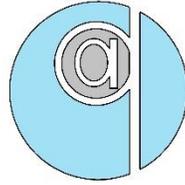
Grading:

Lot to be graded to drain to Farr Loop. Built-upon areas of lot to maintain a minimum elevation of 9.5'. Finish Floor of buildings to maintain a minimum elevation of 10.5'.

Drainage:

Site to be accessed from Farr Loop.

Culvert under Farr Loop driveway to be twin 30" Aluminum CMP min. with inverts at ditch invert or suppressed below ditch inverts with appropriate inlet and outlet protection to maintain full pipe opening.



SITE NARRATIVE
Lot 41, Currituck Industrial Park
124 Greyson Loop, Powells Point, NC
Currituck County, North Carolina

Prepared for:
Luke J. Hardy
P.O. Box 527
Gainsville, VA 20156

Prepared by:
Quible & Associates, P.C.
PO Drawer 870
Kitty Hawk, NC 27949

April 26, 2023
P22139

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Overview

The subject property is located at 124 Greyson Loop, Powells Point, NC in Currituck County within the Currituck Industrial Park. The site development proposes the construction of a 6,250 sq. ft. contractor warehouse with office space. The site also proposes a 1,220 sq. ft. covered shelter. The project development will include the associated parking utility, landscaping and drainage improvements for the development of the 1.63 acre lot. The site is zoned Light Industrial (LI) and a contractor services building is a permitted use for this zoning.

Access

The proposed building will be accessed from Greyson Loop, a private right-of-way. At the entrance to the development and 124 Greyson Loop, 20 ft by 20 ft. sight triangles are provided on the plan sheets to demonstrate visibility at the proposed intersection. This will allow for fire apparatus to come within 150' of all portions of the structure. The proposed pavement section is capable of withstanding 75,000 lbs and one existing fire hydrant is within 400' of the proposed site along Greyson Loop.

One 12' x 30' temporary loading space is all that is required per Currituck County UDO, Section 5.1.8. as the building is less than 7,500 sq.ft., single story, and for industrial use. Two 14' x 20' temporary loading areas have been provided and shown on the plan.

Parking

The number of proposed parking spaces for the site development is eleven. The proposed building is 6,250 sq. ft. Parking requirements are calculated using a similar use warehouse. Calculations are based on 1 space per 2,500 sq ft. for warehouse space and 1 space per 300 sf for professional office space. Two ADA parking spaces are required for the contractor services building and two have been provided (2 ADA accessible parking spaces).

Security lighting will be provided at the building as required, but additional parking lot lighting is not proposed.

Stormwater Management Plan

A regional stormwater management facility, Stormwater Area 'D', is located adjacent to the site to the southeast. Therefore, onsite stormwater and stormwater permitting are not required. This development is proposed to have 45.9% of impervious coverage within the existing lot. The regional stormwater facility is designed to store, control, and treat the stormwater runoff from all surfaces generated by the one and one-half inch of rainfall.

Utilities

A water service is proposed to connect to the proposed water meter within Greyson Loop. The hydrant at 121 Greyson Loop has a recorded fire flow of 1146 at 20 psi residual pressure (per Currituck County GIS). The building will be designed for the Needed Fire Flow to be within the Available Fire Flow. Changes to the existing waterline within the private right-of-way is not proposed, therefore, a permit to construct from NC DEQ Public Water Supply is not required. The proposed water service shall be installed per Currituck County standard water specifications and details.

The proposed on-site wastewater is proposed to handle 360 gallons per day. This anticipated amount is based on 6 employees at 25 gpd/employee. An onsite evaluation has been conducted with Albemarle Regional Health Services to determine acceptable site characteristics.

Buffers and Site Vegetation

The property zoning to the North is LI, therefore a landscape buffer is not required along the North property line. The surrounding property lines abut Greyson Loop. Site Landscaping and Vehicular Landscaping are provided on the plans, along with a Type D buffer adjacent to the proposed dumpster enclosure. The site and vehicular landscape buffer around the proposed parking lot will provide a minimum of 2" ACI canopy tree per acre and 1 shrub per 5 ft of building façade facing the street. Trees will also be provided within 60' of all parking spaces. The site proposes a total of 61 shrubs and 10 trees.

ALBEMARLE REGIONAL HEALTH SERVICES

390753

Applicant:

QUIBLE & ASSOCIATES PC
PO DRAWER 870
KITTY HAWK, NC 27949

Owner:

HARDY, LUKE J
PO BOX 527
GAINSVILLE, VA 20156

Site Location:

124 GREYSON LOOP
POWELLS POINT, NC 27966

GPD: 350 LTAR: 0.400 Classification: PS Shallow Placement

If unsuitable, the site may be reclassified to provisionally suitable with the following modification(s):

- * Shallow Placement - Type II System

To obtain an Authorization to Construct:

- * Submit a plat or scale drawing of the lot, showing location and dimensions of all property lines, proposed structures and driveways
- * Pay permit fee of \$225

Comments:

- **Fill building pad higher than high sitting septic tank.
- ** A pump may be required if gravity fall can't be met
- **Top of tank to be a minimum of 12 inches above existing grade

EHS:



Carver, Kevin

Date: 02/23/2023

THIS APPROVAL WILL BECOME VOID AFTER 12 MONTHS AND A NEW APPLICATION WILL BE NECESSARY.

Bertie (252) 794-5303 Camden (252) 338-4460 Chowan (252)482-1199 Currituck (252) 232-6603
Gates (252) 357-1380 Pasquotank (252) 338-4490 Perquimans (252) 426-2100

FIRE & RESCUE			Page 1/3																					
ISO Fire Flow Worksheet																								
Needed Fire Flow Work Sheet (ISO formulas)			NFF = (Ci)(Oi)(Xi+Pi) C=18F(Ai)^0.5																					
Address:	124 Greyson Loop, Powells Point, NC																							
Project Name:	Hardy Construction	Occupancy Type:	contractor																					
Construction Type:	Metal	Number of Stories:	1																					
<p>STEP 1 Take the area, which is 100% sq. ft. of the first floor plus the following percentage of the total area of the other floors.</p> <p>First Floor Area in Sq. Ft 6250 Sq. Ft. @ 100%</p> <p>Additional Floors Enter total area in sq. ft for all other floors 1250</p> <p>Total Area Entire Building 6875</p>																								
<p>STEP 2</p> <p>F = Coefficient related to the class of construction as determined by using the construction type found in SBCCI</p> <table border="1" style="width: 100%; border-collapse: collapse; margin: 10px 0;"> <thead> <tr> <th style="text-align: left;">Construction Type</th> <th style="text-align: center;">Class</th> <th style="text-align: center;">F Value</th> </tr> </thead> <tbody> <tr><td>Frame</td><td style="text-align: center;">1</td><td style="text-align: center;">1.5</td></tr> <tr><td>Joist Masonry</td><td style="text-align: center;">2</td><td style="text-align: center;">1</td></tr> <tr><td>Non-combustible</td><td style="text-align: center;">3</td><td style="text-align: center;">0.8</td></tr> <tr><td>Heavy Timber</td><td style="text-align: center;">4</td><td style="text-align: center;">0.8</td></tr> <tr><td>Modified fire resistance</td><td style="text-align: center;">5</td><td style="text-align: center;">0.6</td></tr> <tr><td>Fire resistive</td><td style="text-align: center;">6</td><td style="text-align: center;">0.6</td></tr> </tbody> </table> <p>Construction Class 3</p> <p>Square Root of the Area x F x 18 1250 = C Value</p>				Construction Type	Class	F Value	Frame	1	1.5	Joist Masonry	2	1	Non-combustible	3	0.8	Heavy Timber	4	0.8	Modified fire resistance	5	0.6	Fire resistive	6	0.6
Construction Type	Class	F Value																						
Frame	1	1.5																						
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Heavy Timber	4	0.8																						
Modified fire resistance	5	0.6																						
Fire resistive	6	0.6																						

ISO Fire Flow Worksheet

Needed Fire Flow Work Sheet (ISO formulas)

STEP 3	Multiply result of rounded off GPM by the Occupancy Factor (Oi)	Occupancy Factor
	Noncombustible (C-1) = No active fuel loads such as storage of asbestos, clay, glass, marble, stone, or metal products.	0.75
	Limited - Combustible (C-2) = Limited fuel loads such as airports, apartments, art studios, auto repair, auto showroom, aviaries, banks, barber shops, beauty shops, churches, clubs, cold storage warehouses, day care center, educational occupancies, gas stations, green houses, health clubs, hospitals, jails, libraries, medical labs, motels, museums, nursing homes, offices, radio stations, recreation centers, and rooming houses.	0.85
	Combustible (C-3) = Moderate fuel loads such as auto part stores, auto repair training center, bakery, bookstores, bowling centers, casinos, commercial laundries, contractor equipment storage, dry cleaners with no flammable fluids, leather processing, municipal storage buildings, nursery sales stores, pavilions, pet shops, photographic supplies, printers, restaurants, shoe repair, supermarkets, theaters, vacant buildings, and most wholesale & retail sales occupancies.	1.0
	Free-Burning (C-4) = Active fuel loads such as aircraft hangers, cabinet making, combustible metals, dry cleaners using flammable fluids, feed stores, furniture stores, kennels, lumber, packaging and crating, paper products manufacturing, petroleum bulk distribution centers, tire manufacturers, tire recapping or retreading, wax products, and wood working shops.	1.15
	Rapid-Burning (C-5) = Contents that burn with great intensity, spontaneously ignite, have flammable or explosive vapors, or large quantities of dust such as ammunition, feed mills, fireworks, flammable compressed gases, flammable liquids, flour mills, highly flammable solids, matches, mattress factories, nitrocellulose-based products, rag storage, upholstery shops, & waste paper storage.	1.25
	Occupancy Class Selected (1 thru 5) 2	
	GPM x Oi 1062.5	

ISO Fire Flow Worksheet

Needed Fire Flow Work Sheet (ISO formulas)

STEP 4

Now consider the exposure factor (Xi) - (Separation between buildings)

Distance (feet to the exposed building)	Xi	>3 stories
0-10	0.22	0.47
11-30	0.18	0.43
31-60	0.13	0.38
61-100	0.09	0.34

Distance, in feet, to the exposed building

Xi (from table)

Multiply GPM from step 4 by (1+Xi)

Total From Step 4

STEP 5

Approved Fire Sprinkler System? (Y or N)

Take fire flow from step 5 and multiply by sprinkler credit of 0.25

Sprinkler credit

Now subtract sprinkler credit from fire flow in step 4

NEEDED FIRE FLOW

WATER SYSTEM AVAILABLE FIRE FLOW AT 20 PSI RESIDUAL
PRESSURE = 1146 GPM + 250 GPM APPARATUS = 1396 GPM AFF
1250 GPM NFF < 1396 GPM AFF

WPA Series

LED Wall Pack Specifications

Project _____

Date _____ Type _____



Features

- 120-277 VAC
- L70 rated 50,000 hour lifetime
- IP65 rated water resistance
- 0-10 V dimming
- Full cutoff design
- Adjustable angle for precise aiming

Construction

Manufactured with a durable aluminum housing and polycarbonate lens.

Application

Easily replaces inefficient metal-halide fixtures such as those found in warehouses, parking lots and garages, gas stations, and other commercial and industrial spaces. These are also a great solution for entryways and other areas where good lighting is essential for security.

Output Equivalencies

WPA-xK12-W	50 W metal-halide
WPA-xK35-W	175W metal-halide
WPA-xK75-W	320 W metal-halide
WPA-xK120-W	400 W metal-halide

Warranty

Five (5) Year Warranty

Certifications and Compliances

These lights are UL Listed in compliance with UL 1598 (IFAM) and are listed as DLC Premium.



T 866.811.5550
 F 314.972.6202
 email: commercial-sales@superbrightleds.com
 www.superbrightleds.com/cat/industrial-led-lighting/

Available Models¹

3000K

- WPA-30K12-W
- WPA-30K35-W
- WPA-30K75-W
- WPA-30K120-W

5000K

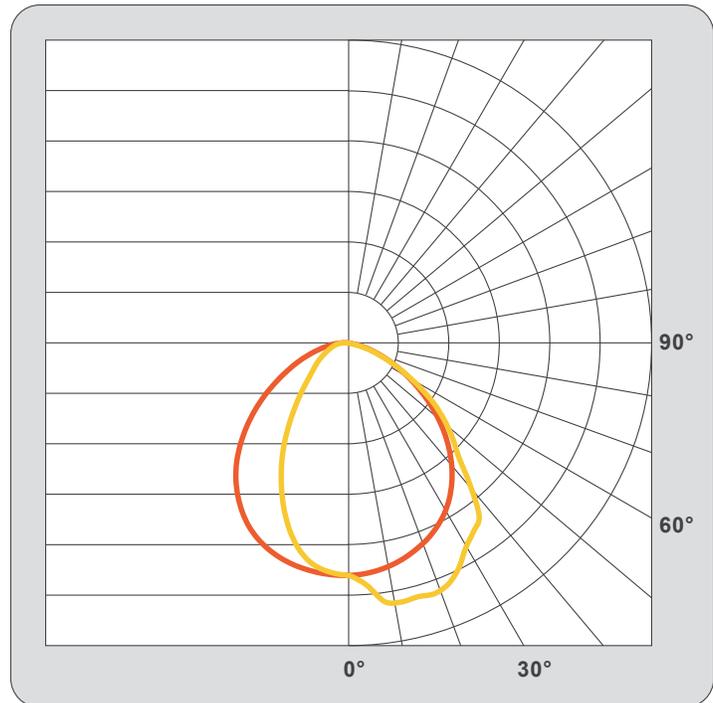
- WPA-50K12-W
- WPA-50K35-W
- WPA-50K75-W
- WPA-50K120-W

Part Number Breakdown

Example: WPA-50K75-W

Family	Color Temperature	Wattage
WPA	30K [3000K] or 50K [5000K]	12-W [12 W]
		35-W [35 W]
		75-W [75 W]
		120-W [120 W]

Photometrics - Beam Angle



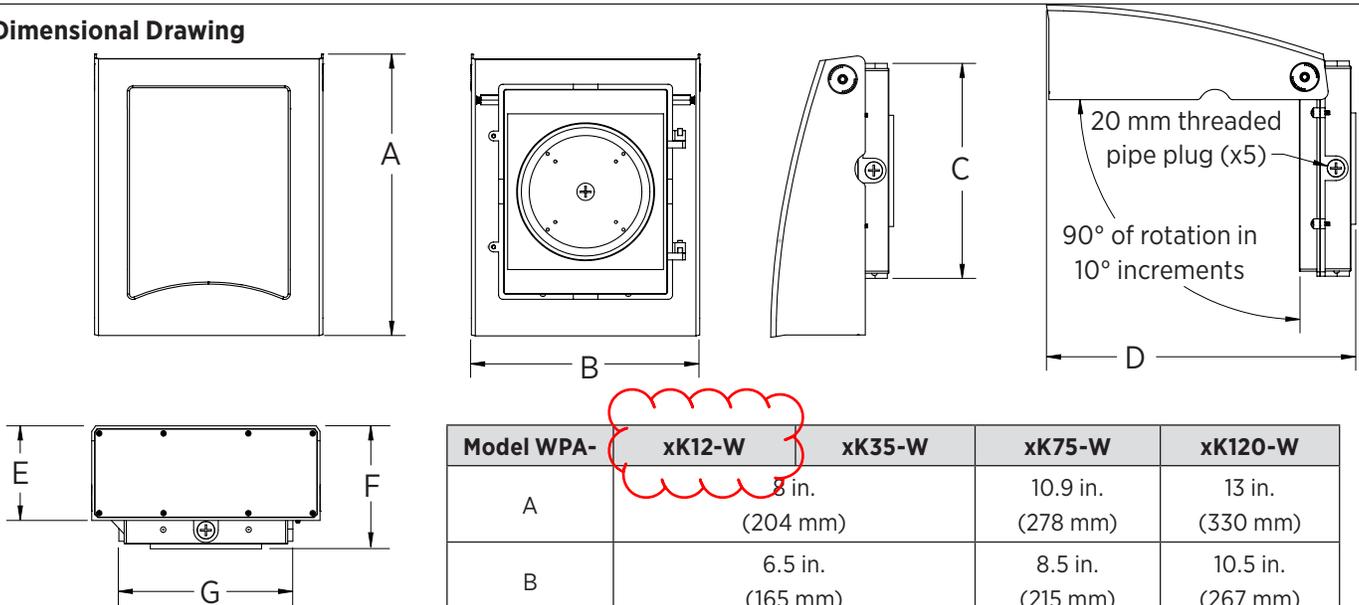
Additional model-specific photometric data available on site or upon request.

¹Contact customer service if interested in options other than those listed.

WPA Series

LED Wall Pack Specifications

Dimensional Drawing



Model WPA-	xK12-W	xK35-W	xK75-W	xK120-W
A	8 in. (204 mm)	10.9 in. (278 mm)	13 in. (330 mm)	
B	6.5 in. (165 mm)	8.5 in. (215 mm)	10.5 in. (267 mm)	
C	5.9 in. (150 mm)	8.2 in. (207 mm)	9.9 in. (251 mm)	
D	8.9 in. (226 mm)	12.1 in. (306 mm)	14.2 in. (361 mm)	
E	3.2 in. (81 mm)	4 in. (100 mm)	4.4 in. (110 mm)	
F	4.1 in. (98 mm)	4.6 in. (114 mm)	5.1 in. (130 mm)	
G	4.3 in. (108 mm)	6 in. (151 mm)	8 in. (202 mm)	

Specifications

Model	WPA-xK12-W	WPA-xK35-W	WPA-xK75-W	WPA-xK120-W
Intensity	1,560 lm	4,550 lm	9,750 lm	15,600 lm
Operating Voltage	120-277 VAC			
Power Consumption	12 W	35 W	75 W	120 W
Current Draw	0.1 A @120 VAC	0.29 A @120 VAC	0.63 A @120 VAC	1 A @120 VAC
Efficacy	130 lm/W			
Color Temperature	3000K or 5000K (as ordered)			
Beam Angle	100° x 75° (NEMA 6 x NEMA 5)			
CRI	70+			
Dimming	0-10 V			
IP Rating	IP65			
Ambient Operating Temperature	-40°-122° F (-40°-50° C)			
Product Weight	3.2 lb (1.5 kg)	5 lb (2.3 kg)	7 lb (3.2 kg)	
Rated Life (L70)	50,000 hours			

T 866.811.5550

F 314.972.6202

email: commercial-sales@superbrightleds.com

www.superbrightleds.com/cat/industrial-led-lighting/

