III. E.

690 Chesterfield Pkwy W • Chesterfield MO 63017-0760
Phone: 636-537-4000 • Fax 636-537-4798 • www.chesterfield.mo.us

Architectural Review Board Staff Report

Project Type: Amended Site Development Section Plan

Meeting Date: July 14, 2016

From: Jonathan Raiche, AICP
Senior Planner

Cc: Aimee Nassif, Planning & Development Services Director

Location: 18350 Wings Corporate Drive

Applicant: Dial Architects, on behalf of D.F. Adams and Associates

Description: **Wings Corporate Estates, Lot 14:** An Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and an Architect's Statement of Design for a 1.61 acre tract of land zoned "PI" Planned Industrial District located on the east side of Eatherton Road, south of Wings Corporate Drive.

PROPOSAL SUMMARY

The purpose of this request is to amend the plans that were previously approved by the Planning Commission to reflect site grading changes near the building as well as revisions of various architectural elements. The architectural revisions include the following items:

1) Removal of the extended raised/roofed platform that extended off the west end of the proposed building,
2) Removal of the three (3) dormers located on the rear/south façade,
3) Removal of the handicap ramp in front due to revised site grading, and
4) Revisions of the proposed wall-mounted lighting fixtures.

More detail will be provided about the architectural revisions later in this report. The overall request is for a 16,640 square foot office/warehouse building located at the corner of Wings Corporate Drive and Buzz Westfall Drive in the interior of the Wings Corporate Estates development. The subject site is zoned "PI" Planned Industrial District and is governed under the terms and conditions of City of Chesterfield Ordinance 2237. The exterior building materials will be comprised primarily of tilt-up concrete and glass with a prominent sloped roof.

HISTORY OF SUBJECT SITE

On February 6, 2006, the City of Chesterfield approved Ordinance 2237, which zoned the subject site from a "NU" Non-Urban District to a "PI" Planned Industrial District. Following the change of zoning, the City of Chesterfield approved the Site Development Concept Plan for Wings Corporate Estates on September 11, 2006. The Record Plat for the development was approved on February 4, 2008 to subdivide the development into twenty one (21) lots. Of the twenty-one (21) lots in the Wings Corporate Estates development, three (3) lots have been developed with an additional lot near completion as seen in Figure 1 below.

As previously mentioned, prior to the proposed revisions this project was originally approved by the Planning Commission in October of 2015. Subsequently, the developer made minor changes to the trim color which was also approved by the Planning Commission in January of 2016. The changes being proposed currently are of a nature that require review by the Architectural Review Board and the Planning Commission.

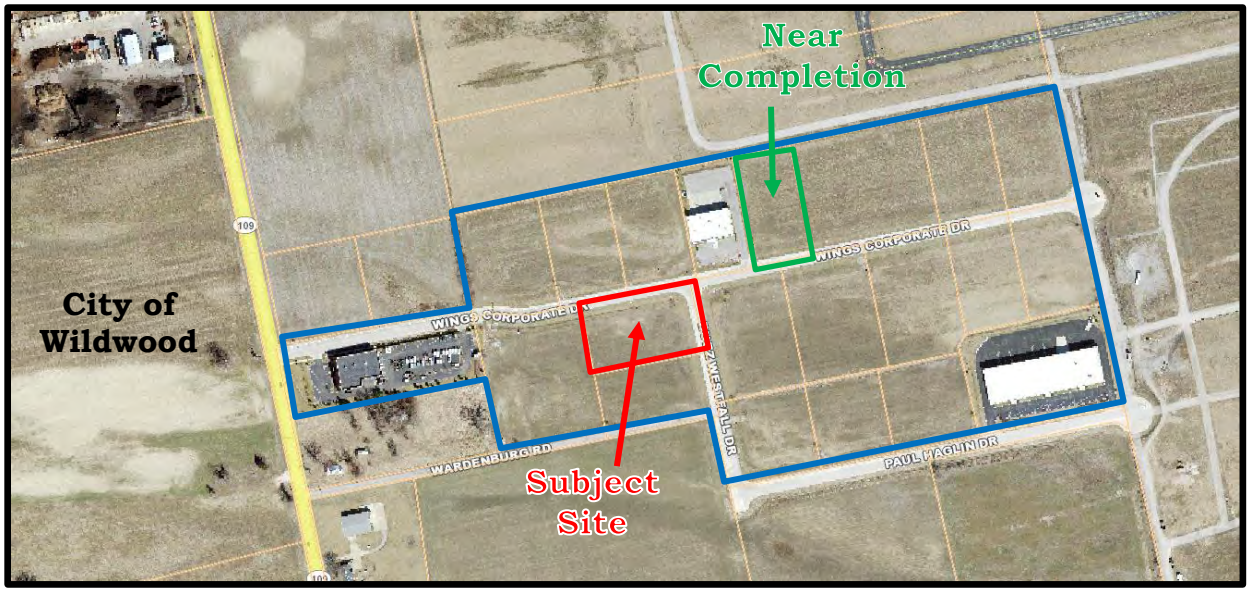


Figure 1

STAFF ANALYSIS

General Requirements for Site Design:

A. Site Relationships

The subject site is adjacent to and completely surrounded by other vacant lots in the Wings Corporate Estates development. While proposing a unique design, the proposed building uses similar materials as other buildings constructed in the area. The developer has indicated that his desire is to use the proposed train depot inspired design to match the transportation history of the site which will be discussed in more depth later in this report. The previously approved Lot 5 was the first to begin this transportation inspired design through the use of an airport hangar inspired design. Although the extended raised platform has been removed with the current proposal, the applicant has preserved various other elements which are used to create this train depot inspired design.

B. Circulation System and Access

There are no proposed revisions to the previously approved site circulation and access. The site proposes a total of two (2) access points which are both proposed as shared access drives. The first is located along the western property line off Wings Corporate Drive and the second is located along the southern property line off Buzz Westfall Drive. The proposal also provides a five (5) foot sidewalk on the south side of Wings Corporate Drive to provide pedestrian circulation which is consistent with the approved Concept Plan for this development.

C. Topography

Minor revisions to the proposed grading have been made by the applicant near the building which have resulted in the removal of the more extensive handicap accessible ramp on the front façade. The existing grade of the property is flat. Minimal changes to the existing topography are planned to accommodate for proposed improvements and proper stormwater drainage. Due to the flat topography of the site, the only retaining wall proposed is in the northeast corner around the drainage inlet.

General Requirements for Building Design:

A. Scale

The applicant is proposing a building of similar height and size as the other structures in the office park which meet the maximum forty (40) foot building height requirement. The design includes a single-story office / warehouse building similar to adjacent properties. The main façade of the proposed structure utilizes a large sloped roof and covered porch along the entire façade that provide a sense of human scale. The large porch wraps around the east and west façades to help continue this scale around three (3) sides of the building. The south elevation has a larger expanse of tilt-up concrete; however, the applicant has proposed small windows with arch-top painted trim to help bring some sense of scale to this minor façade as well.

B. Design

As previously mentioned, the proposed development of Lot 14 is similar to other nearby buildings in both materials and design theme. There are two proposed entrances in the corners of the property with parking located along the north and east portions of the site. The parking will include porous pavement and there are also two (2) small bio-retention areas to the west of the proposed building for stormwater purposes. The loading area for this site is proposed on the western façade along with the dumpster enclosure. The applicant has proposed plantings along the building and dumpster enclosure as well as along the street that will provide screening for this area.

As previously mentioned, the applicant has designed this building with a train depot as the inspiration. The low sloped roof with significant dormers, in conjunction with the wrap-around covered porch, are strong architectural elements used along the north, east, and west facades as seen in Figure 2 on the next page. These elements provide articulation along the façade which provides visual interest. The proposal also indicates ground-mounted HVAC equipment on the south side of the building that will be screened on all sides by proposed landscaping.

C. Materials and Color

As mentioned previously, the building will be comprised of tilt-up concrete and glass with a prominent sloped roof. The developer has chosen a neutral color palette with bronze and taupe paint utilized on the concrete and bronze utilized for the various window and wood trim elements located on the porch. This color palette is consistent with the existing building in the development. The wood trim brackets and posts, along with the scale of the porch, help create the train depot inspired design.

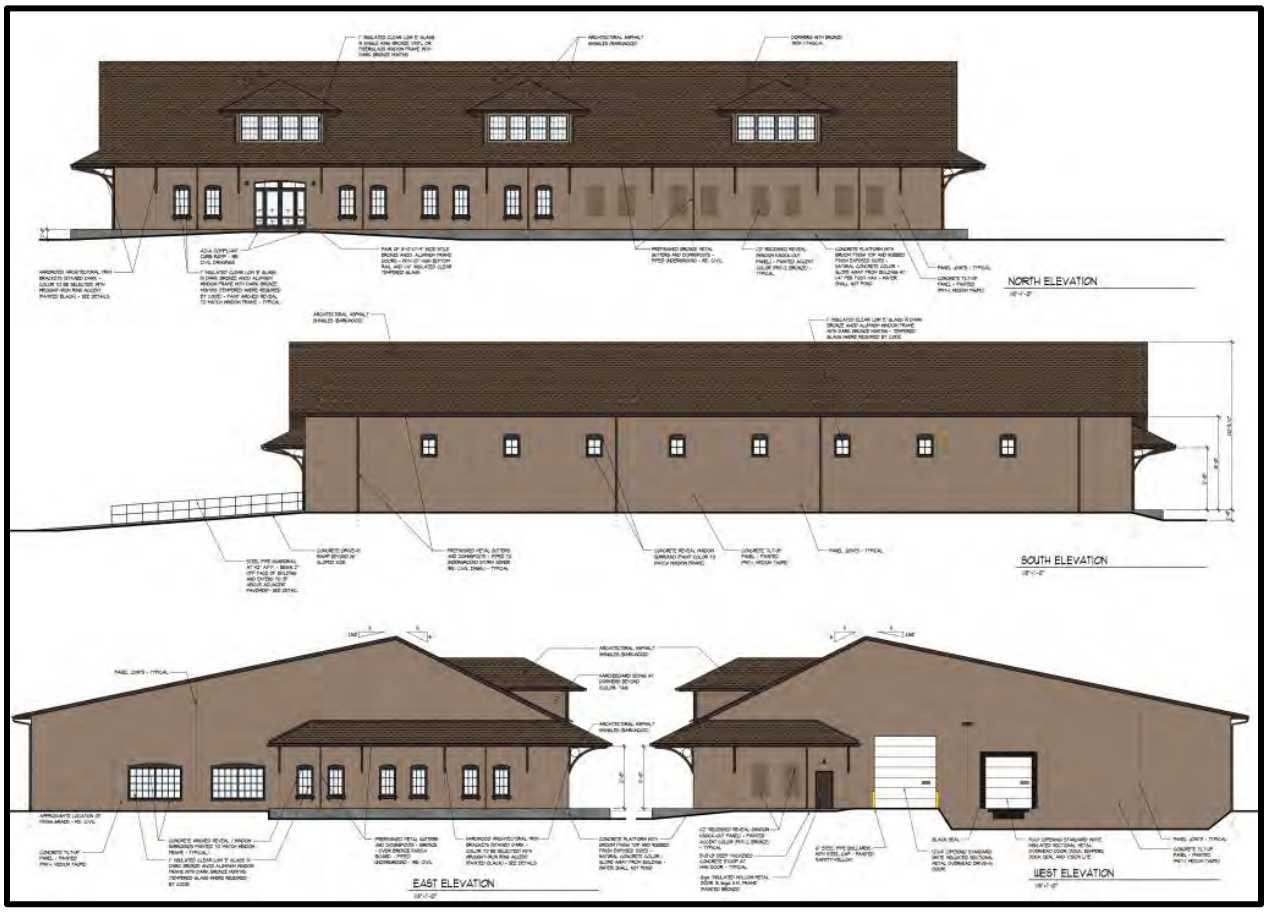


Figure 2

D. Landscape Design and Screening

The main change in the proposed Landscape Plan is the addition of three (3) Red Pines near the northwest corner of the building. These trees were added in the area that the previous raised platform was located in an effort to replace some of the visual screening that the previous platform provided. The proposal also includes landscaping required by the City of Chesterfield Tree Preservation and Landscape Requirements Ordinance. The plantings include street trees along Wings Corporate Drive and Buzz Westfall Drive, as well as plantings dispersed throughout the site along each side of the building which includes screening for two different ground mounted equipment locations. The proposed plantings also enhance the proposed covered porch and parking island areas to create an aesthetically pleasant area for pedestrians utilizing these areas. The dumpster will be screened by a six (6) foot tall concrete panel enclosure. The concrete panels will be painted to match the building and will be screened by proposed plantings on two sides.

E. Signage
Signage is not part of the proposal before Architectural Review Board and will be reviewed by Staff.

F. Lighting
The revisions proposed for lighting under the current proposal are: changing the wall-mounted fixtures near the entrances to a decorative fixture, the removal of the wall-mounted lighting on the southern façade, and the use of can lighting under the proposed porch roof. The plan proposes the same four (4) light standards in the parking areas and one (1) street light standard in the northeast corner of the site as required by the approved Improvement Plans for this development. The street light proposed is the same fixture that has been utilized on adjacent sites.

Additionally, there are seven (7) wall-mounted, shoebox type fixtures located on three (3) of the building facades. Four (4) of these wall-mounted fixtures are to illuminate the building entrances with three (3) provided on the south elevation. Aside from the decorative fixtures proposed near the entrances, all of the light fixtures are LED area lights which are fully shielded, full cut off optics and adhere to the City of Chesterfield Lighting Standards.

DEPARTMENTAL INPUT
Staff has reviewed the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design and finds that the plans are in compliance with City Code. Staff requests action on the Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design for Wings Corporate Estates, Lot 14.

MOTION
The following options are provided to the Architectural Review Board for consideration relative to this application:

1) "I move to forward the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design for Wings Corporate Estates, Lot 14, as presented, with a recommendation for approval (or denial) to the Planning Commission."

2) "I move to forward the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design for Wings Corporate Estates, Lot 14, to the Planning Commission with a recommendation for approval with the following conditions…"

Attachments
1. Architectural Review Packet Submittal

Lot-14

Wings Corporate Estates
18350 Wings Corporate Drive
Chesterfield, Missouri

June 6, 2016

Owner:
D.F. Adams & Associates, Inc.

Architect:
David W. Dial Architects, P.C.

Civil Engineer:
The Clayton Engineering Company

ARCHITECTURAL REVIEW BOARD
Project Statistics and Checklist

Date of First Comment Letter Received from the City of Chesterfield _____

Project Title: Wings Lot-5 **Location:** 18350 Wings Corporate Drive

Developer: D.F. Adams & Assoc.., Inc. **Architect**: David W. Dial Architects, P.C **Engineer**: The Clayton Engineering Co.

PROJECT STATISTICS:

Size of site (in acres): 1.61 acres **Total Square Footage:** 16,640 S.F. **Building Height:** +/-33'-0"

Proposed Usage: Speculative Office/Warehouse

Exterior Building Materials: Tilt-up Concrete

Roof Material & Design: Asphalt Shingles over sloped roof

Screening Material & Design: Trash Enclosure is tilt-up concrete panels coordinated with building

Description of art or architecturally significant features (if any):

Historic Train Station design; Deep canopy overhang front walkway platform with decorative brackets

ADDITIONAL PROJECT INFORMATION:

Checklist: Items to be provided in an 11" x 17" format

- [x] **Color Site Plan with contours, site location map, and identification of adjacent uses.**
- [x] **Color elevations for all building faces.**
- [x] **Color rendering or model reflecting proposed topography.**
- [x] **Photos reflecting all views of adjacent uses and sites.**
- [x] **Details of screening, retaining walls, etc.**
- [ ] **Section plans highlighting any building off-sets, etc. (as applicable)**
- [x] **Architect's Statement of Design which clearly identifies how each section in the Standards has been addressed and the intent of the project.**
- [x] **Landscape Plan.**
- [x] **Lighting cut sheets for any proposed building lighting fixtures. (as applicable)**
- [x] **Large exterior material samples. (to be brought to the ARB meeting)**
- [x] **Any other exhibits which would aid understanding of the design proposal. (as applicable)**
- [x] **Pdf files of each document required.**

dial architects

14364 Manchester Road
Manchester Missouri 63011
636 230 0400

June 6, 2016

City of Chesterfield
Department of Planning
690 Chesterfield Parkway West
Chesterfield, Missouri 63017-0760

Members of the Architectural Review Board

Re: Architectural Statement
Submittal for Approval of New Facility on Lot 14.
Wings Corporate Estates, Lot 14 – 18350 Wings Corporate Drive

General Requirements for Site Design

This project consists of a single-story speculative office/warehouse building designed for a single tenant. The site is located at the corner of Wings Corporate Drive and Buzz Westfall Drive near Eatherton Road on the far west side of Chesterfield Valley in the Wings Development. The owner of this development is also the owner of this building. It is his intent to create an upscale business park by creating 'specialty design' buildings. This building is the second building of its kind in the park, but the fourth building in the park as a whole.

As you can see from the photos in this packet, the rectangular site is treeless and generally flat other than the drainage ditch and is otherwise featureless. The building is strategically located on the site to be compatible with the existing drainage system for the development.

The approved concept plan for the entire development shows a 5' wide side walk on the north side of Wings Corporate Drive to provide pedestrian circulation. While we cannot control future development of neighboring sites, this specific site design forces shared entrances with future neighbors on each side. This concept is key to the park owners desires for this overall development.

We are not proposing the use of fencing nor retaining walls at this time.

Landscaping is designed per city ordinance in a similar fashion to the adjacent developments. Please see attached landscape plan.

General Requirements for Building Design

The owner of this facility, being a long time and current resident of the City of Chesterfield, places a high priority on the appearance of his facility and has played a major role in the design of this facility.

The intent of the design is to represent the spirit of transportation with the nearby airport and the old Centaur train station. The front (north) elevation is articulated with a large overhanging canopy with decorative posts and exposed architectural brackets, glass, reveals and large dormers with operable windows. The canopy brackets and windows create rhythmically pleasing patterns accented with colors and opposing shapes to add depth and a sense of place. The full length canopy design reflects a railway style platform extends around the street-side (north-east) corner to address the intersection and encourage one to explore the building further. The platform canopy also extends around the (north-west) corner to continue the covered platform walkway to the west side exit and to give balance to building articulation.

The building will utilize an earth tone color, single hung operable windows and earth tone colored asphalt shingle sloped roof with dormers. The colors, glass and metal items are juxtaposed on the façades of the building to create a very nice overall building design. These include a main building color of a warm taupe and darker accent color of similar nature. In addition, the large railway platform canopy is designed to cover the northern and partial-eastern and west facing walkways to prevent the buildup of ice and snow in inclement weather. So the intended office area will receive the strong morning eastern light and the diffuse northern light provided by the compass orientation.

All sides of this building are treated in a historically accurate fashion. We have not only 'designed' the street elevations. The building materials are the same as all of the other buildings in this park, but are being used in more design appropriate ways to deliver an aesthetically pleasing solution. A special elastomeric coating designed specifically for concrete will protect the concrete panels. The sloped roof is covered with dark architectural asphalt shingles.

The windows for this project, in keeping with its strong design theme, are operable single-hung energy compliant windows. We have used the glass as an effective design element in the elevational articulation.

The design is respectful of the surrounding development in general and is harmonious in scale, material, and color. Nearby buildings are also constructed of tilt-up concrete and/or earth tone colors and materials similar to ours. Signage will be applied to the building in a similar fashion as adjacent buildings.

Site lighting is planned to be two light standards in the front of the building along Wings Corporate Drive, two light standards at the side of the building along Buzz Westfall Drive with wall-mounted, shoebox type fixtures on the west and south elevations of the building that will not shine off of the property in an unnecessary fashion and lighting on either side of the main building entry.

Please see the site development section plan for drainage information.

The proposed HVAC system is planned to be ground mounted.

Specific Requirements for the Chesterfield Valley

As stated above we encompass the building with reveals and colors for continuity while highlighting the visible front with glass. The trash receptacle will be screened from public view with tilt-up concrete to coordinate with the building.

The electrical service will be provided by a new transformer located along the south/east side of the property south of the building and will receive vegetation to screen the units. All utilities to this building are underground.

I-64/US-40 is to the north of this property and is not readily visible from the property. Automobile parking is north and east of the building and the service/loading area is on the west side of the building.

Street lighting is included in this project to match the existing industrial park street lighting and is located to the east of the building along Buzz Westfall Drive.

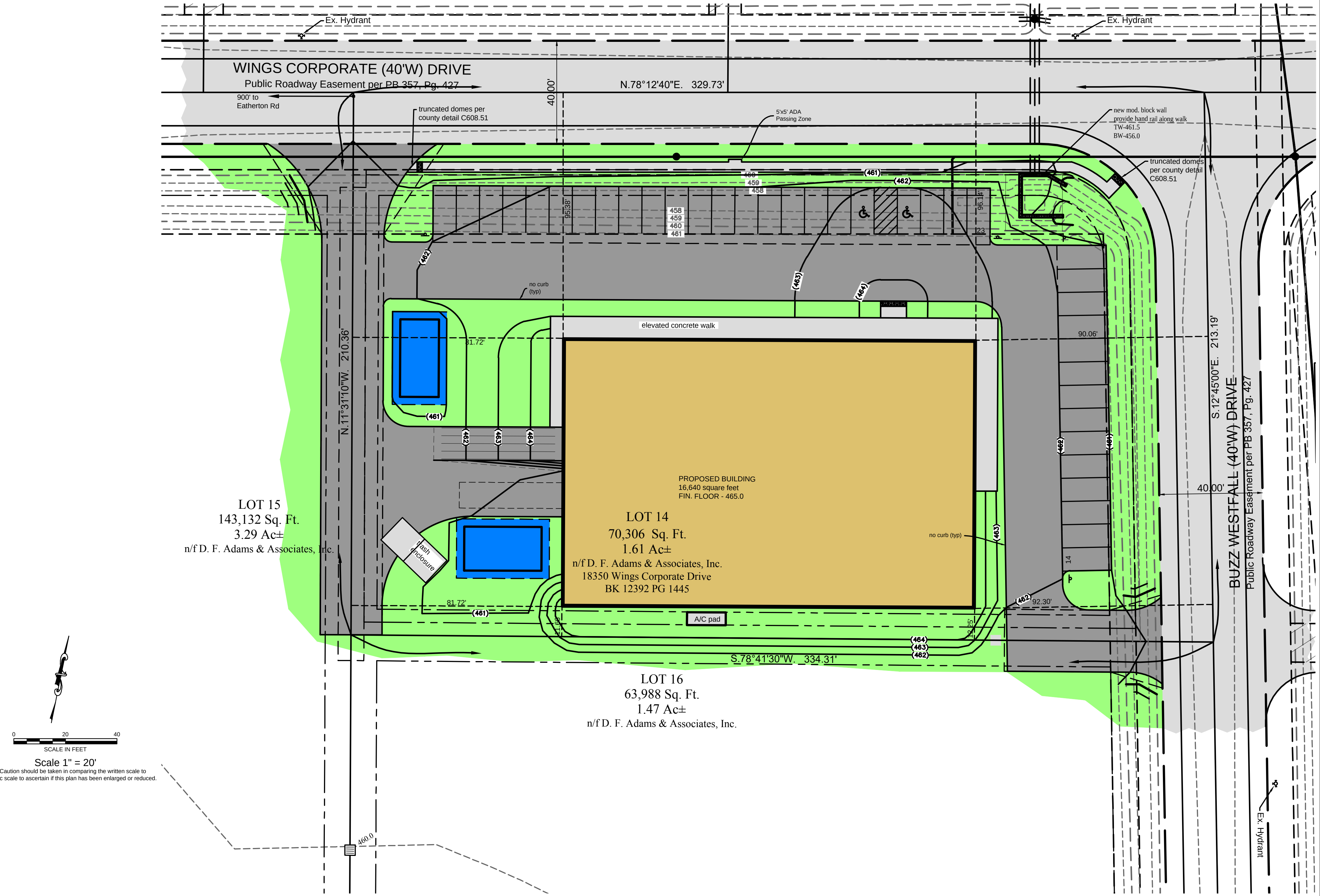
It remains our intention to provide a design that will enhance the local environment while blending with the building types already in Wings Corporate Estates. The owner is excited about providing a new quality designed facility for the City of Chesterfield.

Thank you for your assistance.

As required, building materials will be brought to the ARB meeting and will include:

- Glass and frame sample
- Color samples of the concrete coatings
- Asphalt Shingle Roof

End of Architects Statement



Scale 1" = 20'

Note: Caution should be taken in comparing the written scale to the graphic scale to ascertain if this plan has been enlarged or reduced.

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The Contractor shall be responsible for verifying the actual location of all underground facilities, structures, & utilities, either shown or not shown on these plans. The underground facilities, structures, & utilities shall be located in the field prior to any grading, excavation or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMO.

the clayton engineering company, inc.
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(314) 692-8888 FAX: (314) 692-8688 claytoneng.com
MO Cert. of Authority - Prof. Engineering #000067 & Prof. Surveying #000014
IL Dept. Financial & Prof. Reg. Prof. Design & Engineering Corp. #184.000879

REVISIONS

F.B.

FILE: G:\15xxx\15006_WINGS 14\Plans\site Plan 3.dwg
PLOTTED: 6/9/2016 9:41 AM

Prepared for:
D. F. Adams & Associates, Inc.
262 Little Harbour Lane
Naples, FL 34102
(314) 422-5256

Wings Corporate Estates - Lot 14
SITE PLAN

18350 Wings Corporate Drive
Chesterfield, MO 63005

STATE OF MISSOURI
EDWARD R. DABLER, JR.
E-20441
PROFESSIONAL ENGINEER

Designed	ERD
Drawn	JRW
Checked	ERD
Date	06/07/2016

Project Number
15006

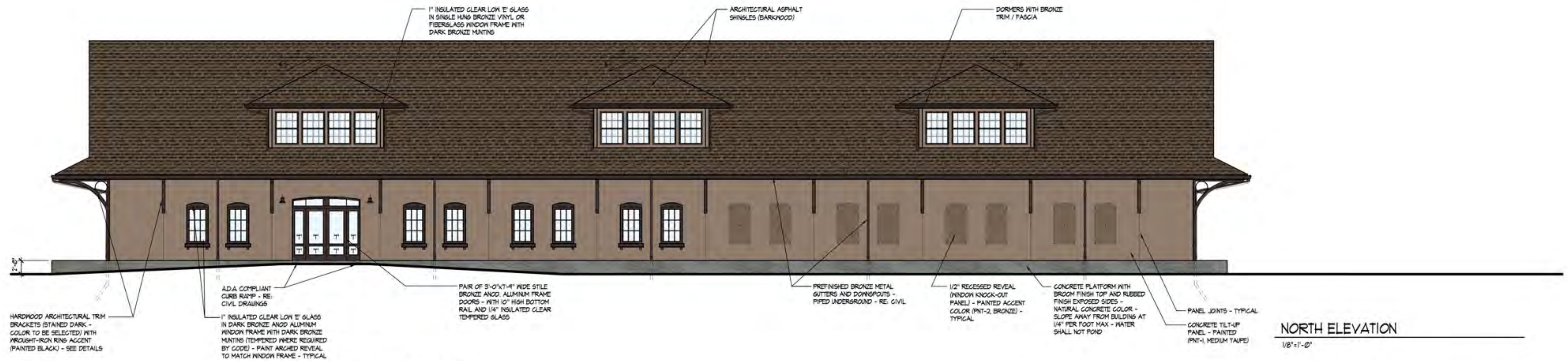
Sheet Number
1 of 1

LOOKING NORTH

LOOKING EAST

LOOKING SOUTH

LOOKING WEST



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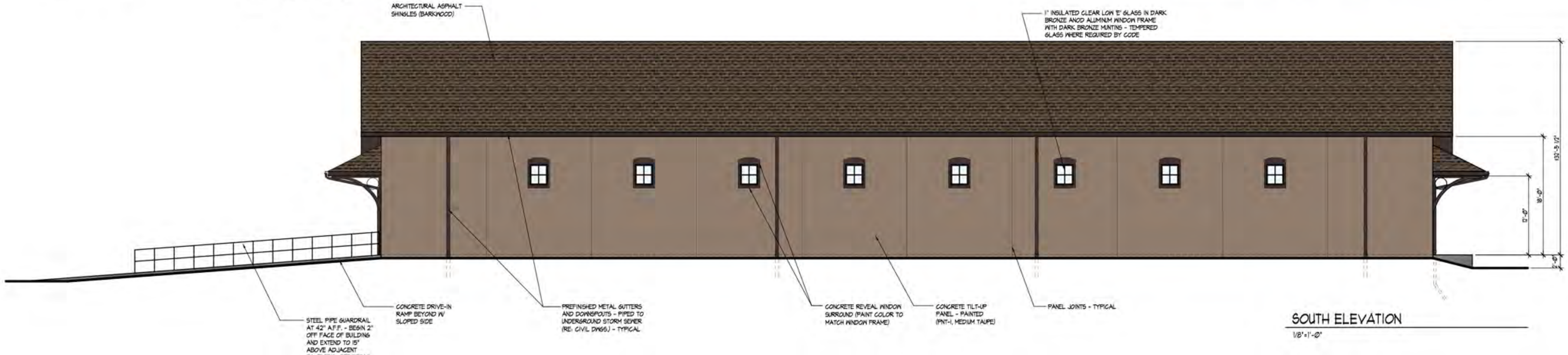

SOUTH ELEVATION
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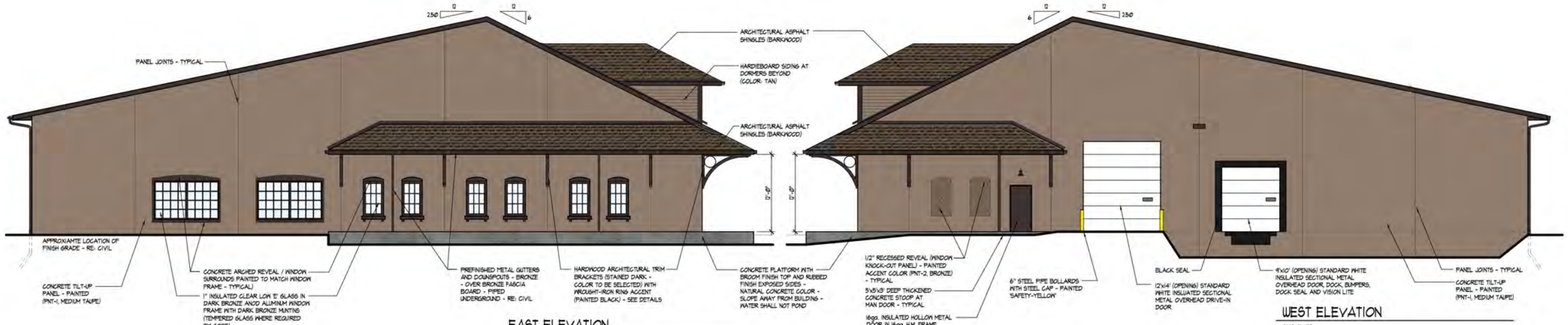

EAST ELEVATION
1/8"=1'-0"

WEST ELEVATION
1/8"=1'-0"

Civil Engineer:
the clayton engineering company, inc.
ENGINEERS · SURVEYORS · PLANNERS

Structural Engineer:
LK ENGINEERING, INC.
5656C Ed Lou Lane, St. Louis, MO 63128
Ted J. Lobbereckt, PE • 314.341.4512

New Building for:
Corporate Wings Estates - Lot 14
18350 Wings Corporate Drive
Chesterfield, MO 63005

ISSUE DATES:

PRELIMINARY DESIGN:	03-06-2015
PRELIMINARY DESIGN:	03-13-2015
CITY SUBMITTAL:	04-29-2015
CITY COMMENTS:	06-08-2015
CITY COMMENTS:	08-13-2015
CITY COMMENTS:	09-30-2015
CITY SUBMITTAL:	05-12-2016
CITY COMMENTS:	06-06-2016

STATE OF MISSOURI REGISTERED ARCHITECT:
DAVID WILLIAM DIAL – LICENSE NUMBER A-7331
DAVID W. DIAL ARCHITECTS, P.C.
ARCHITECTURAL CORPORATION #2000149091

JUNE 06 2016
STATE OF MISSOURI DAVID WILLIAM DIAL NUMBER A-7331 REGISTERED ARCHITECT

THE ARCHITECTS SEAL AFFIXED TO THIS SHEET INDICATES THAT THE NAMED ARCHITECT HAS PREPARED OR DIRECTED THE PREPARATION OF THE MATERIAL SHOWN ONLY ON THIS SHEET. OTHER DRAWINGS AND DOCUMENTS, NOT EXHIBITING THIS SEAL, SHALL NOT BE CONSIDERED PREPARED BY OR THE RESPONSIBILITY OF THE UNDERSIGNED.

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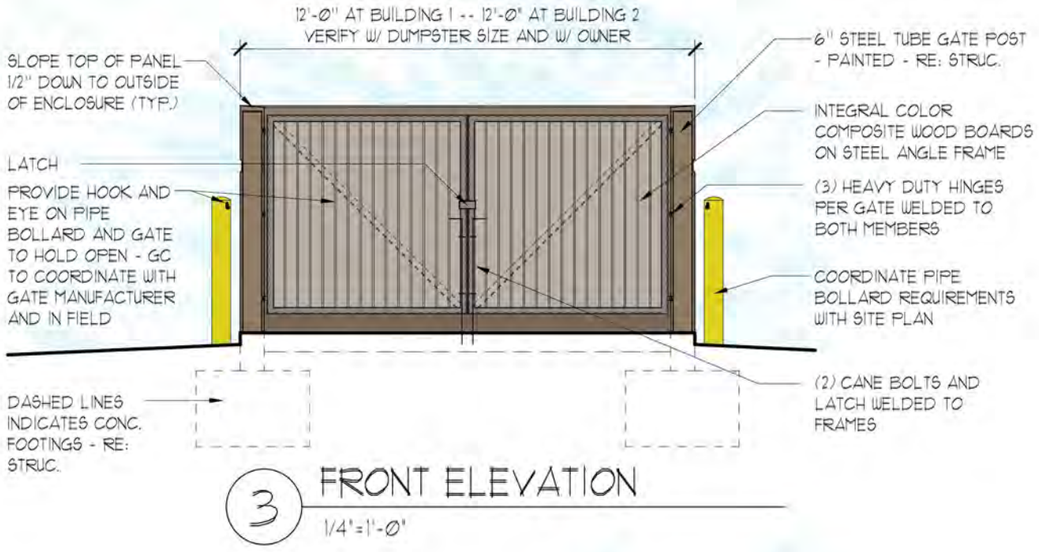
SHEET NUMBER:

PROJECT NUMBER: 15020 DATE: 06-06-16


DIAL
ARCHITECTS



3 FRONT ELEVATION
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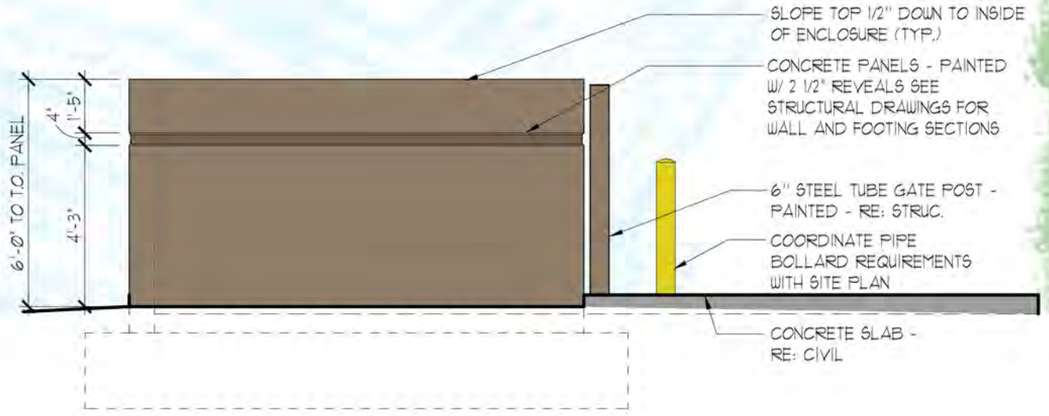
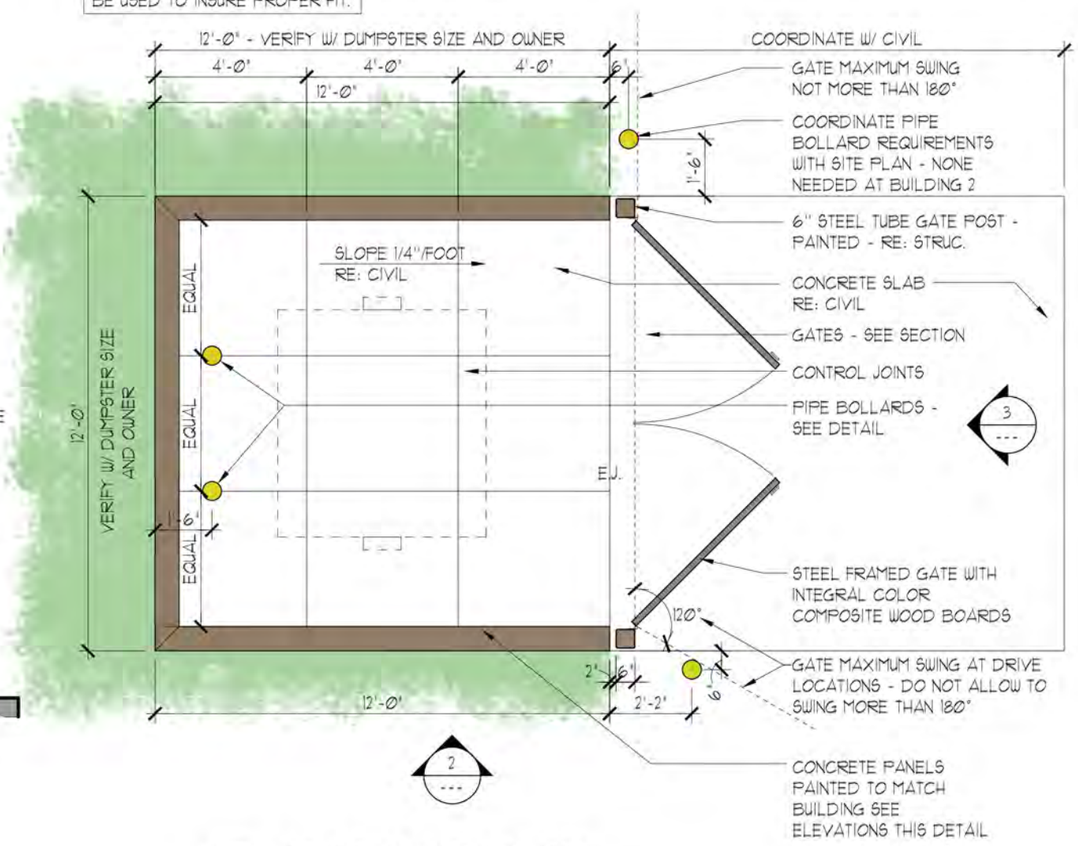


2 SIDE ELEVATION
1/4"=1'-Ø"

NOTE:
DUE TO VARYING DUMPSTER SIZES, THE G.C. MUST VERIFY THE SIZE OF THIS ENCLOSURE WITH THE OWNER AND/OR THE DUMPSTER SIZES INTENDED TO BE USED TO INSURE PROPER FIT.



1 DUMPSTER PLAN
1/4"=1'-Ø"

07-09-2015
STATE OF MISSOURI
DAVID WILLIAM DIAL
NUMBER A-7331
REGISTERED ARCHITECT

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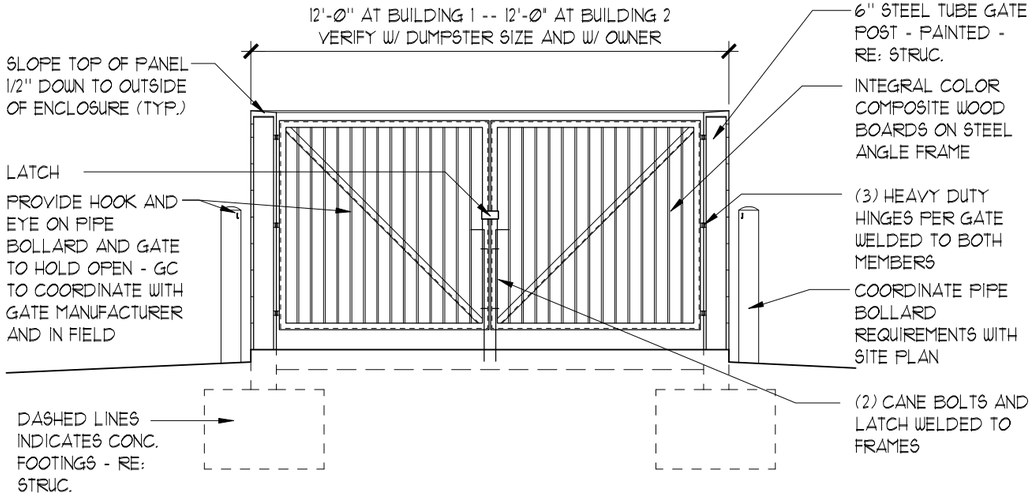
New Building for:

Wings Corporate Estates - Lot 14

Chesterfield, MO 63005

DATE:
07-09-15
DDA PROJECT NUMBER:
15020

DUMPSTER DETAILS



3 4 DUMPSTER FRONT AND SIDE ELEVATIONS

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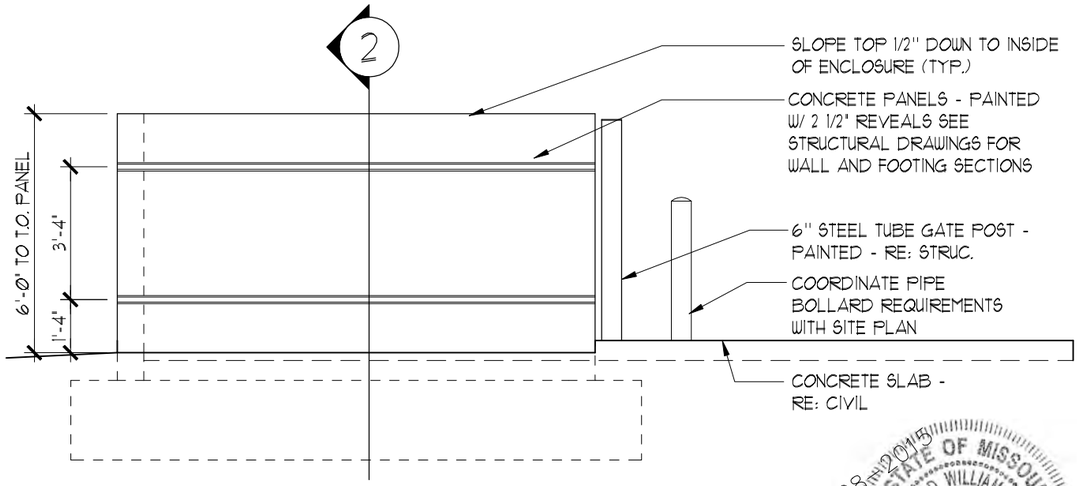

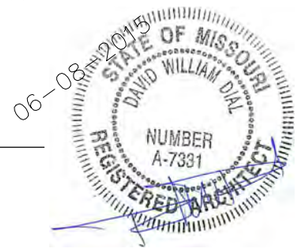

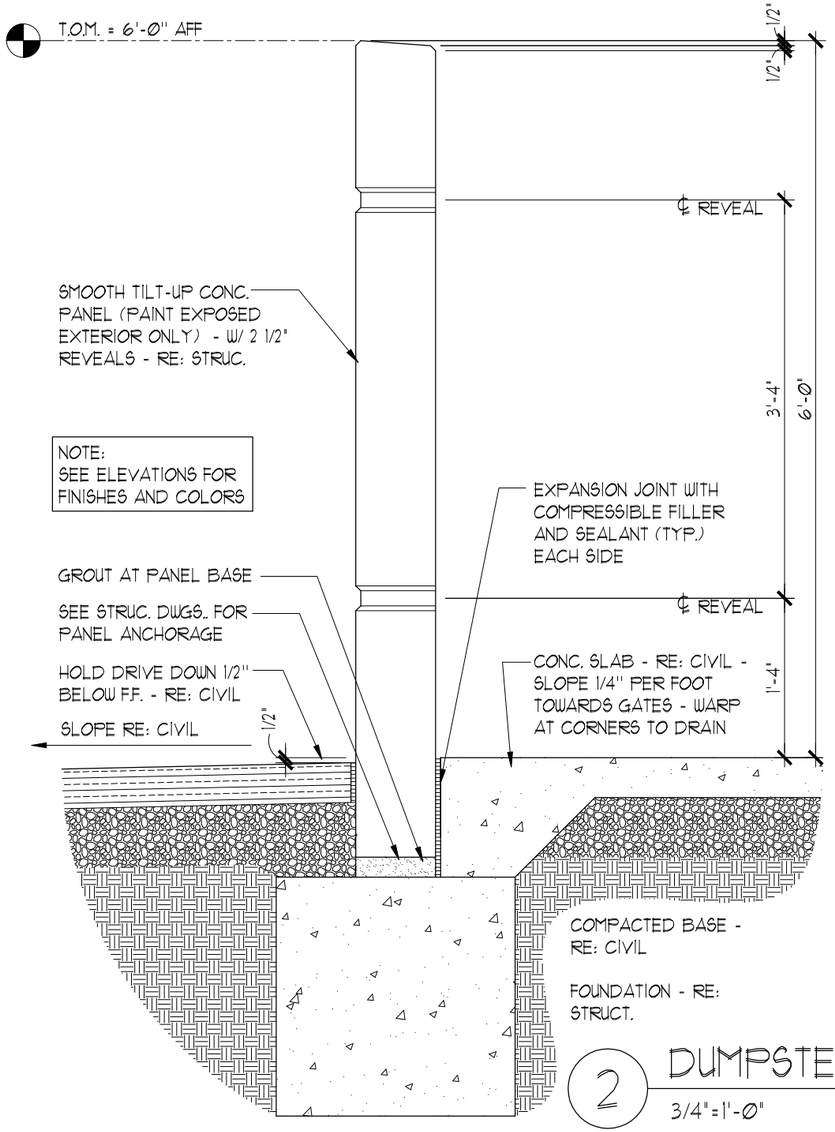

2 DUMPSTER SECTION

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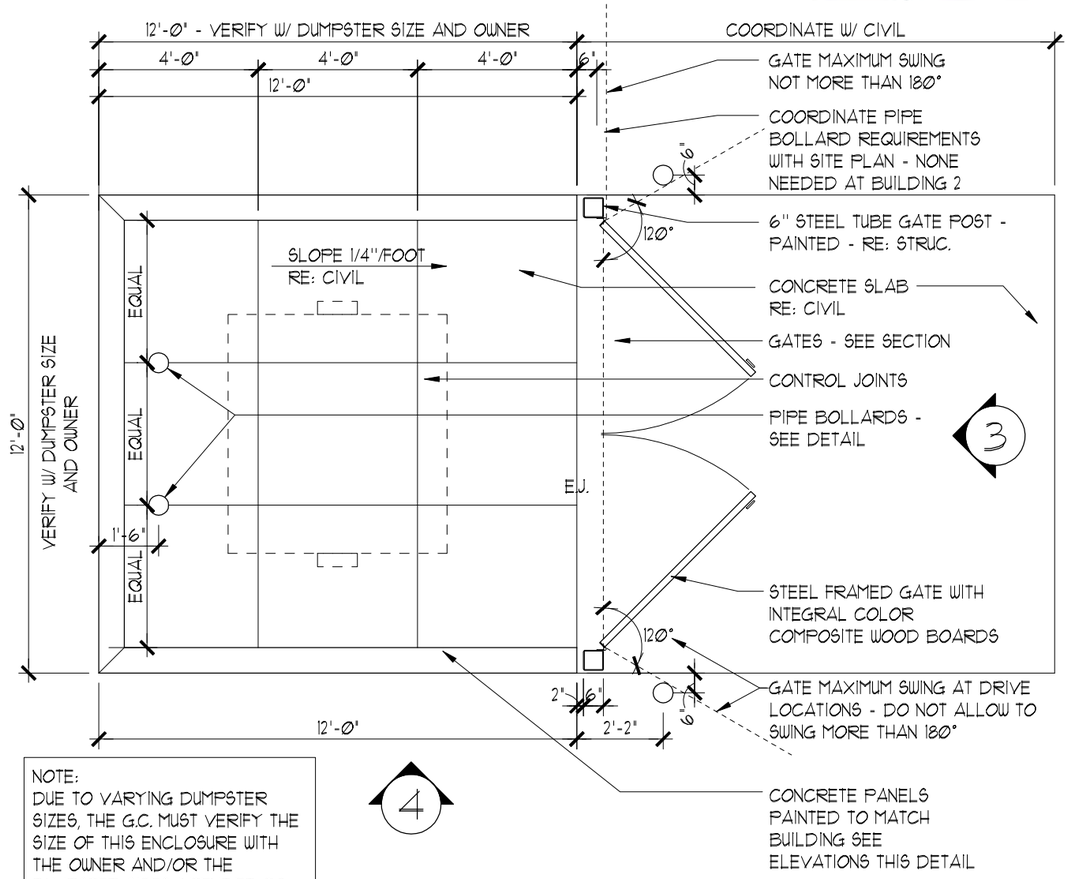

NOTE:
DUE TO VARYING DUMPSTER SIZES, THE G.C. MUST VERIFY THE SIZE OF THIS ENCLOSURE WITH THE OWNER AND/OR THE DUMPSTER SIZES INTENDED TO BE USED TO INSURE PROPER FIT.

4

1 DUMPSTER PLAN

1/4"=1'-Ø"

Structural Engineer:

Civil Engineer:

Mechanical/Electrical/Plumbing & Fire Protection Engineers:

New Building for:

Wings Corporate Estates - Lot 14

Chesterfield, MO 63005

ISSUE DATES:

PRELIMINARY DESIGN:	03-06-2015
PRELIMINARY DESIGN:	03-13-2015
CITY SUBMITTAL:	06-08-2015
CITY SUBMITTAL:	05-12-2016

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DAVID W. DIAL ARCHITECTS, P.C.
ARCHITECTURAL CORPORATION #2000149091

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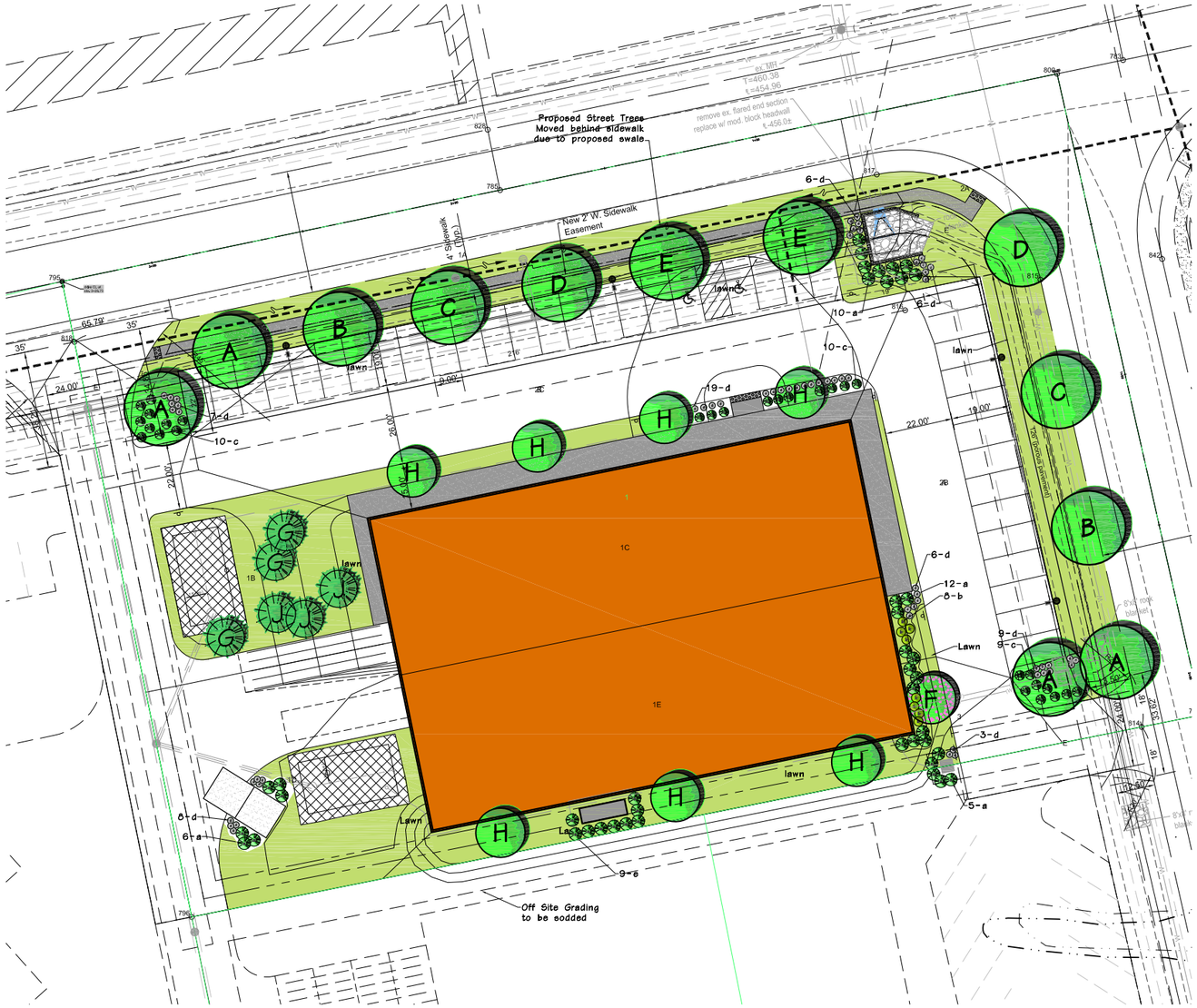
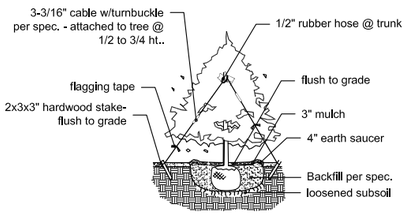
DUMPSTER DETAILS

PROJECT NUMBER: 15020 DATE: 05-12-2016

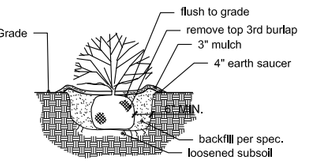


Landscape Plan

SCALE 1"=20'

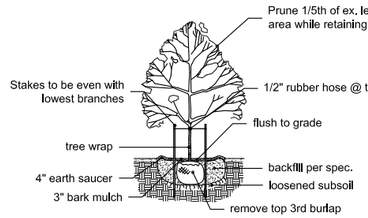


TYPICAL EVERGREEN PLANTING

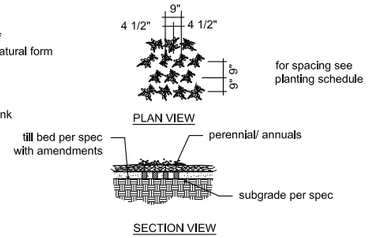


SCARIFY ROOT BALL OF ALL CONTAINER STOCK

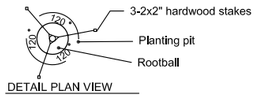
TYPICAL SHRUB PLANTING



CANOPY TREE PLANTING



TYPICAL PERENNIAL PLANTING



DETAIL PLAN VIEW

PLANTING SCHEDULE						
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	MATURE HEIGHT	TYPE
A	4	Platanus x acerifolia	London Planetree	2 1/2"	45'+	Fast Growing
B	2	Tilia americana	American Linden	2 1/2"	45'+	Medium Growing
C	2	Quercus bicolor	Swamp White Oak	2 1/2"	45'+	Medium Growing
D	2	Quercus imbricaria	Shingle Oak	2 1/2"	45'+	Medium Growing
E	2	Acer rubrum 'Red Sunset'	Red Sunset Red Maple	2 1/2"	45'+	Fast Growing
F	1	Cercis canadensis	Red Bud	2 1/2"	25'+	Fast Growing
G	3	Taxodium distichum	Bald Cypress	8'	45'+	Medium Growing
H	7	Carpinus betulus "Fastigiata'	Upright European Hornbeam	2 1/2"	35'+	Slow Growing
J	3	Pinus Resinosa	Red Pine	8'	45'+	Medium Growing
a	33	Ilex glabra 'Shamrock'	Shamrock Inkberry	2-3'		3' O.C.
b	8	Itea virginica	Sweetspire	18-24"		2.5' O.C.
c	29	Juniperus horizontalis 'Plumosa'	Compact Andorra Juniper	18-24"		3' O.C.
d	64	Calamagrostis a. 'Karl Foerster'	Karl Foerster Grass	1 gal		2' O.C.
e	9	Thuja occidentalis 'Smaragd'	Emerald Arborvitae	4-6'		4' O.C.
		Water quality plantings to be selected				

GENERAL NOTES:

1) Openspace ratio is 31.6% Total Site 70,306 SF/Open Space 22,243 SF
2) Street trees Req.- 485 lf/50 ft = 9.7 or 10 street trees
2) All street trees will be located at least 3' from proposed curb.
3) All street trees will be located at least 10' from all storm sewer structures.
4) All street trees will be located at least 25" from all Street lights, Signs, and intersections.
5) Street Trees along Wings Coporate Drive moved behind sidewalk due to proposed swale.
6) All turf areas will be sodded.
7) An in-ground irrigation system will be provided.

STATE OF MISSOURI
DOUGLAS A. DeLONG
NUMBER LA-81
LANDSCAPE ARCHITECT
6/6/2016

Douglas A. DeLong, Landscape Architect LA-81

Consultants:

Wings Corporate Estates-Lot 14
Chesterfield, Mo

Dial Architects

Revisions:

Date	Description	No.
6/18/15	City Comments	1
7/24/15	Site Revisions	2
8/14/15	Site Revisions	3
5/12/16	Site Revisions	4
6/6/16	City Comments	5

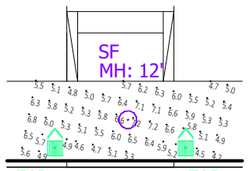
Drawn: BAD
Checked: DAD

DeLong Landscape Architecture, LLC
7620 West Bruno Ave
St. Louis, MO. 63117
(314) 346-4856
delong.la@gmail.com
Missouri State Certificate of Authority: #2015000145

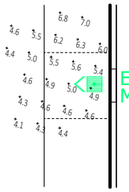
Sheet Title: Landscape Plan

Sheet No: L-1

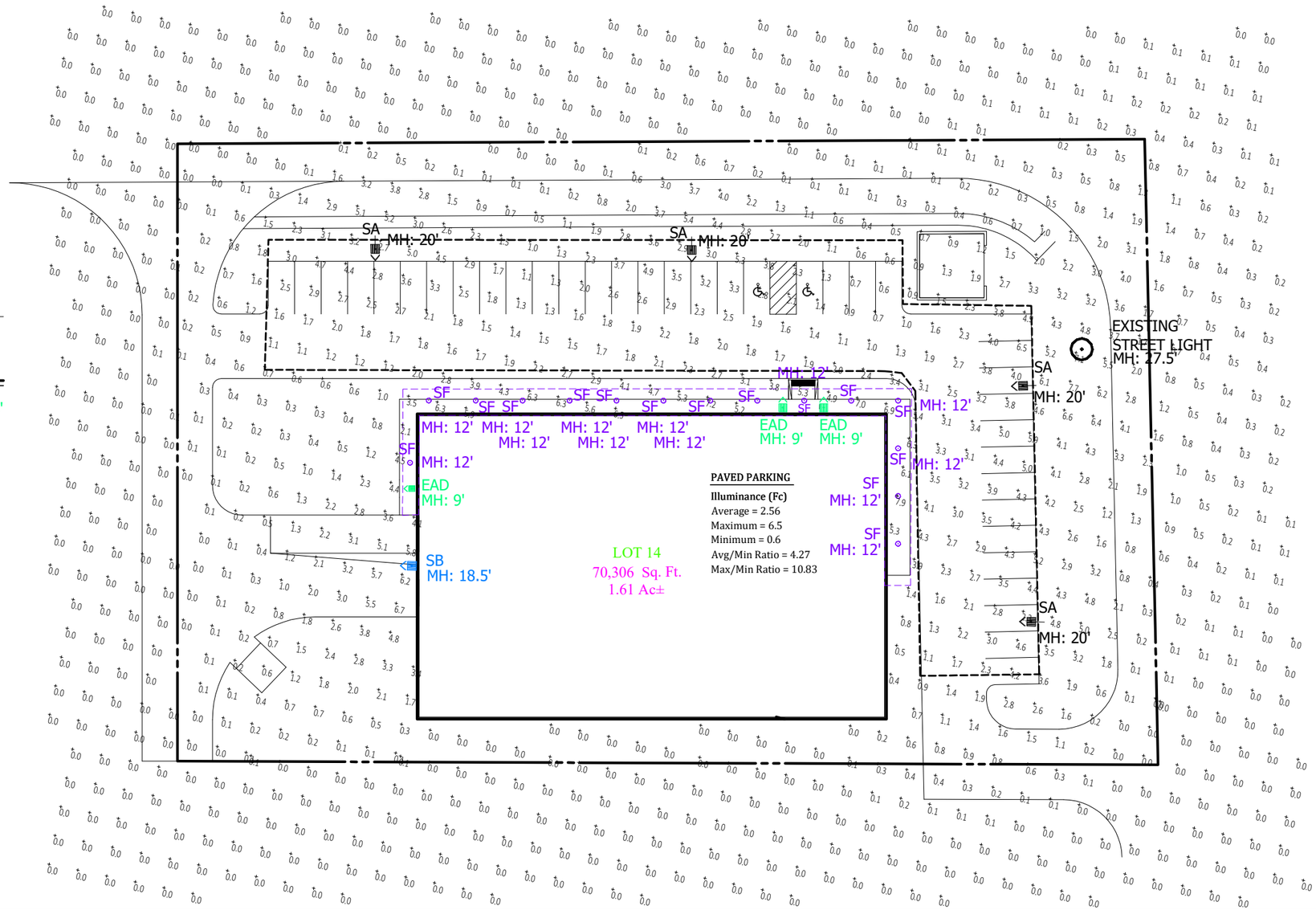
Date: 4/27/2015
Job #: 105.014



1 MAIN ENTRY
NORTH-EAST



2 SIDE EXIT
WEST



Designed By: SA
Ward & Burton, Inc.
Job Name: Wings - Lot 14 Chesterfield MO
Drawing #: 152585 (rwings 7)
Date: 6/29/2016

Calculation Points: 10' x 10' Spacing

DISCLAIMER:
The lighting calculations contained herein are for estimation purposes only and are based upon information provided at the time of calculation. Actual results may differ due to variances in surface finishes and reflectance, supply voltage, and final fixture placement. Ward and Burton, Inc. will not be held responsible for light level differences encountered as a result of these variances.

Luminaire Schedule									
Project: Wings Corporate Estates - Lot 14									
Symbol	Qty	Label	Arrangement	Manufacturer	Description	Lum. Watts	Lum. Lumens	LLF	BUG Rating
	1	EXISTING STREET LIGHT	SINGLE	ARCHITECTURAL AREA LIGHTING	UCL-H2-250PSMH ON 25 FT POLE AND 2.5 FT PEDESTAL	298	17083	1.000	B3-U0-G3
	4	SA	SINGLE	PHILIPS GARDCO	ECF-1-3-160LA-481A-NW-UNIV-STD FINISH/SSS4-18-4-11-D1-STD FINISH (2' BASE)	159	15565	1.000	B3-U0-G2
	1	SB	SINGLE	PHILIPS GARDCO	161-4-220LA-9670-NW-UNIV-STD FINISH @ 20'	210	17822	1.000	B3-U0-G3
	15	SF	SINGLE	LITON LIGHTING INC.	LRCLD602WWF240-R25	27	1893	1.000	B1-U0-G1
	2	ENTRY ARCH DECO (EAD)	SINGLE	FEISS-REDDING STATION-LANTERN	OL8601TRD - STD FINISH: TARNISHED SILVER - WALL MOUNT @ 9'	100w Max.	n/a	n/a	n/a

Calculation Summary					
Label	CalcType	Units	Avg	Max	Min
INSIDE PROPERTY LINE	Illuminance	Fc	2.04	7.9	0.0
MAIN ENTRY	Illuminance	Fc	5.67	7.2	4.2
SIDE ENTRY	Illuminance	Fc	5.16	7.0	4.1
SPILL LIGHT	Illuminance	Fc	0.10	1.7	0.0
PAVED PARKING	Illuminance	Fc	2.53	6.5	0.6

06-29-2016

STATE OF MISSOURI
DAVID WILLIAM DIAL NUMBER A-7331
ARCHITECT

Structural Engineer:

Civil Engineer:

Mechanical/Electrical/Plumbing & Fire Protection Engineers:

New Building for:
Wings Corporate Estates - Lot 14
Chesterfield, MO 63005

ISSUE DATES:

PRELIMINARY DESIGN:	03-06-2015
PRELIMINARY DESIGN:	03-13-2015
PHOTOMETRIC:	06-16-2015
PHOTOMETRIC:	05-12-2016
PHOTOMETRIC:	06-06-2016
PHOTOMETRIC:	06-29-2016

STATE OF MISSOURI REGISTERED ARCHITECT:
DAVID WILLIAM DIAL – LICENSE NUMBER A-7331
DAVID W. DIAL ARCHITECTS, P.C.
ARCHITECTURAL CORPORATION #2000149091

THE ARCHITECTS SEAL AFFIXED TO THIS SHEET INDICATES THAT THE NAMED ARCHITECT HAS PREPARED OR DIRECTED THE PREPARATION OF THE MATERIAL SHOWN ONLY ON THIS SHEET. OTHER DRAWINGS AND DOCUMENTS, NOT EXHIBITING THIS SEAL, SHALL NOT BE CONSIDERED PREPARED BY OR THE RESPONSIBILITY OF THE UNDERSIGNED.

dial architects
14364 Manchester Road • Manchester Missouri 63011
636 230 0400 www.dialarchitects.com

SHEET NUMBER:

PHOTOMETRIC PLAN

PROJECT NUMBER: 15020 DATE: 06-29-2016

TYPE SA

PHILIPS

GARDCO

Site & Area

EcoForm

Project:	Chesterfield Lot 14
Location:	
Cat.No:	ECF-1-3-160LA-481A-NW-UNIV-STD FINISH
Type:	SA
Qty:	
Notes:	

Philips Gardco EcoForm LED luminaire combines economy with performance. Capable of delivering up to 20,000 lumens or more in a compact, low profile housing, EcoForm offers a new level of customer value. EcoForm features an innovative retrofit arm kit, simplifying site conversions to LED by eliminating the need to drill additional holes in most existing poles. Integral control systems, including motion response and wireless controls are available for further energy savings during off peak hours.

Ordering guide

example: ECF-APD-MRO-1-4-75LA-NW-120-NP-LF

Prefix	Controls	Mounting	Optical System	Wattage	Color Temp	Voltage	Finish	Options
ECF –	–	1 –	3 –	160LA –	NW –	UNV –	STD –	
ECF EcoForm	**—** Standard luminaire (leave blank) **DIM** 0-10V Dimming **APD**[1] Auto Profile Dimming **APD-MRO**[2] Auto Profile Dimming and Motion Response Override pole mounted motion sensor **APD-MRI**[2,3] APD with Motion Response Override luminaire sensor **MRI**[2,3] Motion Response at 50% low luminaire sensor **MR50**[2] Motion Response at 50% low, pole mounted sensor **Wireless Controls** (Remote wireless controller available. See p.2 for details) **LLC2**[1,4] #2 lens for 8' mounting heights **LLC3**[1,4] #3 lens for 9-20' mounting heights **LLC4**[1,4] #4 lens for 21-40' mounting heights	**1** Standard **2** 2@180 **2@90** 2@90 **3** 3@90 **3@120** 3@120 **4** 4@90 **WS** Wall mount including surface conduit rear entry permitted **MA** Mast Arm Fitter (requires 2-3/8" O.D. Mast Arm)	**2** Type 2 **3** Type 3 **4** Type 4 **5** Type 5	**530 mA** **55LA-3253**[1] **75LA-4853** **100LA-6453** **700mA** **70LA-3270** **105LA-4870** **135LA-6470** **1050mA** **105LA-321A**[1] **160LA-481A** **215LA-641A**	**CW** Cool White 5,700 K 70 CRI (nominal) **NW** Neutral White 4,000 K 70 CRI (nominal) **WW**[5] Warm White 3,000 K 70 CRI (nominal)	**120** 120V **208** 208V **240** 240V **277** 277V **347** 347V **480** 480V **UNV** 120-277V 50hz/60hz **HVU** 347-480V 50hz/60hz	**BRP** Bronze Paint **BLP** Black Paint **WP** White Paint **NP** Natural Paint **OC** Optional Color Specify optional color or RAL (ex: OC-LGP or OC-RAL7024) **SC** Special color Specify, must supply color chip. Requires factory quote.	**TL** Tool-Less entry and driver removal hardware **TB**[3] Terminal Block **IS**[6] Internal Shield **LF**[7] Line Fusing **LFC**[7] Line Fusing for Canada **PC**[5,7,8] Receptacle with Photocell (Includes PCR5) **PCB**[4,7,8] Photocell Button **PCR5**[4,9,10] Photocell Receptacle only with 2 dimming connections **PCR7**[4,10,11] Photocell Receptacle only with 2 dimming and 2 auxiliary connections **RAM** Retrofit Arm Mount kit **PTF2**[12] Pole Top Fitter for 2 3/8"- 3" Tenon **PTF3**[12] Pole Top Fitter for 3"- 3 1/2" Tenon **PTF4**[12] Pole Top Fitter for 3 1/2"- 4" Tenon **RPA**[13] Round Pole Adapter for 3"- 3.9" O.D. **BD** Bird Deterrent (field installed only)

1. Available in 120V–277V Voltages only (UNV, 120, 208, 240 & 277).
2. MR50 and APD-MRO luminaires require one motion sensor per pole, ordered separately. See page 2 for Accessories. Available in 120V or 277V only.
3. ECF-MRI requires outboarded sensor when used with Terminal Block (TB) Option.
4. LLC2/LLC3/LLC4 Wireless Controls are not configurable with PC/PCB/PCR5/PCR7 Options. See page 6-7 for more info.
5. Contact factory for lead times on warm white.
6. Not configurable with Type 5 (5) Optics.
7. Not configurable with 120-277V (UNV) Voltage. Voltage must be specified.
8. Not configurable with 480V (480) Voltage.
9. Works with 3-pin or 5-pin NEMA photocell/ dimming device.
10. If ordered with DIM, APD, MRI, MR50, APD-MRI, APD-MRO, dimming will not be connected to NEMA receptacle.
11. Works with 3-pin or 5-pin NEMA photocell/dimming device and auxiliary connections are not connected (for future use only).
12. Not configurable with 3@120 (3@120) Mounting.
13. No adaptor required for 4" round poles. RPAs provided with Black Paint standard.

ECF EcoForm LED luminaire

EcoForm Accessories (order separately)

FS1R-100

MR hand held programmer

For use with 'MRI' motion response when field programming is required. If desired, only one is needed per job.

MS-A-120V

120V Input Area Motion Sensor

For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

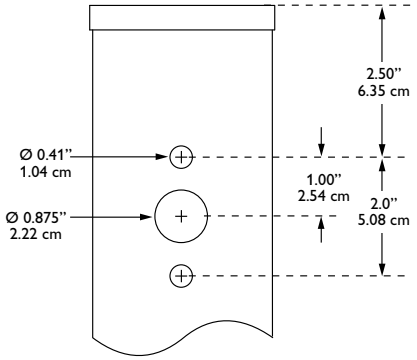
MS-A-277V

277V Input Area Motion Sensor

For MR50 (Motion Response) or APD-MRO (Automatic Profile Dimming with Motion Response Override)

Note: Motion Sensors are ordered separately, with one (1) motion sensor required per pole location for MR50 or APD-MRO luminaires. See Luminaire Configuration Information on page 5 for more details. Area motion sensor color is Arctic White. MRI and APD-MRI luminaires include an integral motion sensor.

EcoForm Drill Template (standard arm mount)



EcoForm Wireless Controls Accessories (for wall or pole mount)[1,2,3,4]

LLCR2-(F)

Standalone wall or pole wireless controller with #2 Lens.

LLCR3-(F)

Standalone wall or pole wireless controller with #3 Lens.

LLCR4-(F)

Standalone wall or pole wireless controller with #4 Lens.

1. When using the wireless remote accessory option (LLCR-F) in a pole mount application, specify pole option (CL=Coupling Internal Thread, 3/4" size)
2. 120-277V only.
3. Must specify finish (F=Specify matching finish)
4. Luminaire configuration must include 0-10V Dimming 'ECF-DIM' option when Wireless Controls Accessories are specified

LED Wattage and Lumen Values (standard EcoForm luminaire)

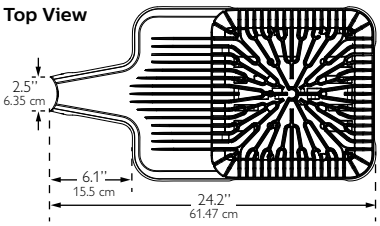
						Type 2			Type 3			Type 4			Type 5		
Ordering Code	No. of LED Modules (16 LEDs per Module)	Total LEDs	LED Current (mA)	Average System Watts[5]	Color Temp.	Delivered Lumens[6]	Efficacy (LPW)	BUG Rating	Delivered Lumens[6]	Efficacy (LPW)	BUG Rating	Delivered Lumens[6]	Efficacy (LPW)	BUG Rating	Delivered Lumens[6]	Efficacy (LPW)	BUG Rating
55LA-3253	2	32	530	52	4000K	6,294	122	B1-U0-G1	6,190	120	B2-U0-G2	6,106	118	B1-U0-G2	5,867	114	B3-U0-G2
70LA-3270	2	32	700	69	4000K	7,754	112	B2-U0-G2	7,955	115	B2-U0-G2	7,659	111	B2-U0-G2	7,421	107	B3-U0-G2
75LA-4853	3	48	530	77	4000K	9,344	121	B2-U0-G2	9,191	119	B2-U0-G2	9,086	117	B2-U0-G2	8,712	113	B3-U0-G2
105LA-321A	2	32	1050	107	4000K	10,709	100	B2-U0-G2	10,981	103	B3-U0-G2	10,576	99	B2-U0-G2	10,255	96	B4-U0-G2
105LA-4870	3	48	700	104	4000K	11,513	111	B2-U0-G2	11,812	114	B3-U0-G2	11,373	110	B2-U0-G2	11,019	106	B4-U0-G2
100LA-6453	4	64	530	103	4000K	12,491	121	B2-U0-G2	12,285	119	B3-U0-G2	12,129	118	B2-U0-G2	11,645	113	B4-U0-G2
135LA-6470	4	64	700	139	4000K	15,390	111	B3-U0-G2	15,789	114	B3-U0-G2	15,192	110	B3-U0-G3	14,729	106	B4-U0-G2
160LA-481A	3	48	1050	158	4000K	15,901	101	B3-U0-G3	16,343	103	B3-U0-G2	15,696	99	B3-U0-G3	15,188	96	B4-U0-G2
215LA-641A	4	64	1050	211	4000K	21,255	101	B3-U0-G3	21,265	100	B4-U0-G3	20,984	99	B3-U0-G3	20,874	99	B5-U0-G3

5. System input wattage may vary based on input voltage, by up to +/- 10% , and based on manufacturer forward voltage, by up to +/- 8%.
6. Lumen values based on photometric tests performed in compliance with IESNA LM-79.

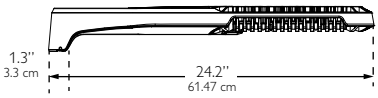
Note: Some data may be scaled based on tests of similar, but not identical, luminaires.

Dimensions – Standard EcoForm luminaire

Top View



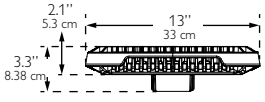
Side View



EPA (ft²/m²)

Single	Twin (2@180)	3/4@90
0.2 / 0.019	0.5 / 0.046	0.5 / 0.046

End View

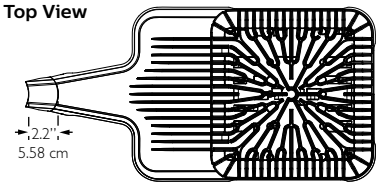


Approximate Luminaire Weight:
20 Lbs (9.07 Kg)

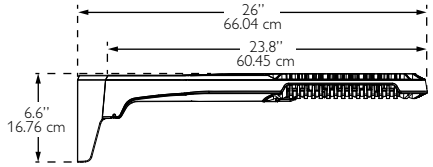
ECF EcoForm LED luminaire

Dimensions – EcoForm with Retrofit Arm Mount (RAM)

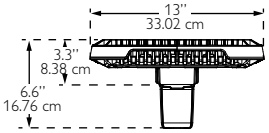
Top View



Side View



End View



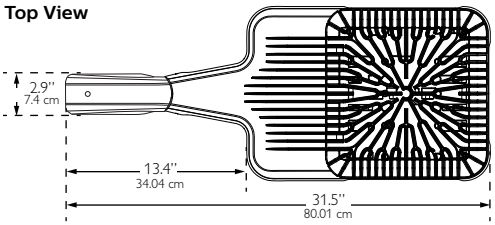
EPA (ft^2/m^2)

Single	Twin (2@180)	3/4@90
0.3 / 0.028	0.6 / 0.056	0.7 / 0.065

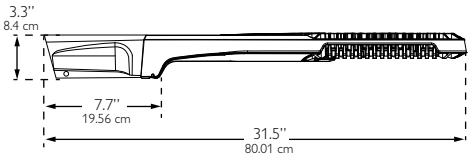
Approximate Luminaire Weight:
21 Lbs (9.53 Kg)

Dimensions – EcoForm with Mast Arm Fitter (MA)

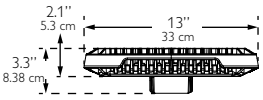
Top View



Side View



End View



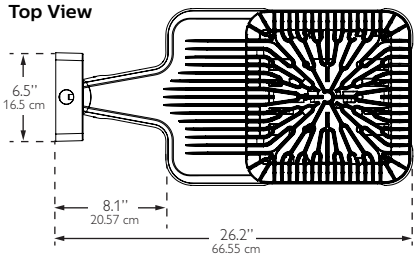
EPA (ft^2/m^2)

Single
0.51 / 0.047

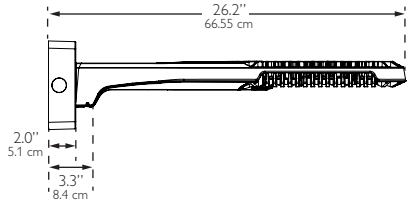
Approximate Luminaire Weight:
21.5 Lbs (9.77 Kg)

Dimensions – EcoForm with Wall Mount (WS)

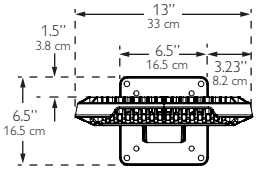
Top View



Side View



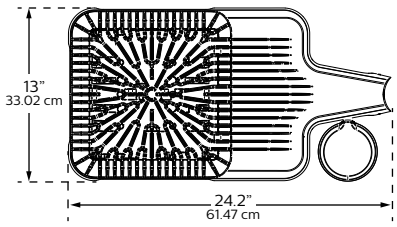
End View



Approximate Luminaire Weight:
23.36 Lbs (10.6 Kg)

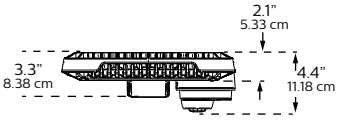
Dimensions – EcoForm with wireless controls (luminaire mounted controller)

Top View



Side View

End View



ECF EcoForm LED luminaire

Luminaire Configuration Information

ECF

Philips Gardco EcoForm LED standard luminaire providing constant wattage and constant light output when power to the luminaire is energized.

ECF-DIM

Philips Gardco EcoForm LED luminaire provided with 0-10V dimming for connection to a control system provided by others.

ECF-APD

Philips Gardco EcoForm LED luminaire with Automatic Profile Dimming. Luminaire is provided with a Philips DynaDimmer module, programmed to go to 50% power, 50% light output two (2) hours prior to night time mid-point and remain at 50% for six (6) hours after night time mid-point. Mid-point is continuously recalculated by the Philips DynaDimmer module based on the average mid-point of the last two full night cycles. Short duration cycles, and power interruptions are ignored and do not affect the determination of mid-point.

ECF-APD is available in 120V–277V input only.

ECF-APD Dimming Profile:

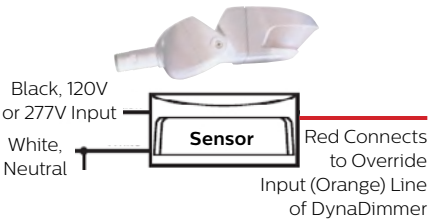
100%	2 hours	6 hours	100%
	50%	50%	
Power On		Mid Point	Power Off

ECF-MR50

Philips Gardco EcoForm LED luminaire with motion response, providing a 50% power reduction on low and a commensurate reduction in light output. The power and light output reduction is accomplished utilizing the Philips DynaDimmer module, programmed for a constant 50% power. Power supplied by the motion sensor connected to the override line on the DynaDimmer takes the luminaire to high setting, 100% power and light output, when motion is detected. The luminaire remains on high until no motion is detected for the motion sensor duration period, after which the luminaire returns to low. Duration period is factory set at 15 minutes, and is field adjustable from 5 minutes up to 15 minutes.

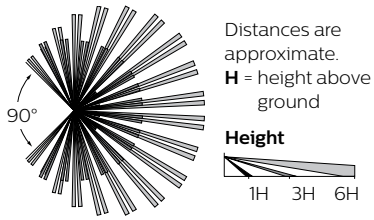
ECF-MR50 is available in 120V–277V input only to the luminaire. Motion sensors require single voltage 120V or 277V input.

The Area PIR motion sensor is the WattStopper EW-200-120-W (120V Input - MSA-120V) or the WattStopper EW-200-277-W (277V Input - MSA-277V.) One motion sensor per pole is required and is ordered separately. Area sensors require single voltage 120V or 277V input.



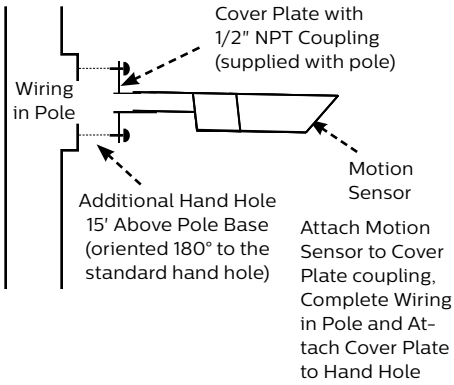
The area motion detector provides coverage equal to up to 6 times the sensor height above ground, 270° from the front-center of the sensor.

Area PIR Motion Sensor Coverage Pattern:



Motion response requires that the pole include an additional hand hole 15 feet above the pole base, normally oriented 180° to the standard hand hole. For Philips Gardco poles, order the pole with the Motion Sensor Mounting (MSM) option which includes the hand hole and a special hand hole cover plate for the sensor with a 1/2" NPT receptacle centered on the hand hole cover plate into which the motion sensor mounts. Once the motion sensor is connected to the hand hole cover plate, then wiring connections are completed in the pole. The plate (complete with motion sensor attached and wired) is then mounted to the hand hole. If poles are supplied by others, the customer is responsible for providing suitable mounting accommodations for the motion sensor in the pole.

Mounting to a Philips Gardco Pole:



ECF-APD-MRO

Philips Gardco EcoForm LED luminaire with Automatic Profile Dimming, with Motion Response Override. The ECF-APD-MRO combines the benefits of both automatic profile dimming and motion response, using the Philips DynaDimmer module. The luminaire will dim to 50% power, 50% light output, per the dimming profile shown for the ECF-APD. If motion is detected during the time that the luminaire is operating at 50%, the luminaire returns to 100% power and light output. The luminaire remains on high until no motion is detected for the duration period, after which the luminaire returns to low. Duration period is factory set at 15 minutes, and is field adjustable from 5 minutes up to 15 minutes.

Notes:

ECF-APD-MRO is available in 120V through 277V input only to luminaire. The motion sensor requires either 120V or 277V input to the motion sensor.

The ECF-APD-MRO has the same pole requirements and utilizes the same motion sensors as the ECF-MR50. The motion sensor mounts and wires identically as well. The ECF-APD-MRO utilizes the identical dimming profile as shown for the ECF-APD.

By combining the benefits of automatic profile dimming and motion response, the ECF-APD-MRO assures maximum energy savings, and insures that adequate light is present if motion is detected.

All motion sensors utilized consume 0.0 watts in the off state.

Luminaire Configuration Information (Continued)

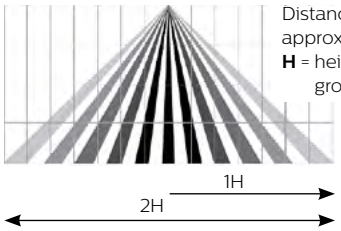
ECF-MRI

Luminaires with Motion Response include a LED driver and an integral programmable motion sensor. The motion sensor is set to a constant 50%. When motion is detected, the luminaire goes to 100%. The luminaire remains on high until no motion is detected for the motion sensor duration period, after which the luminaire returns to low. Duration period is factory set at 5 minutes. Available with 120V or 277V only.

Luminaires include a passive infrared (PIR) motion sensor, WattStopper® FSP-211 equipped with an FSP-L3 lens, capable of detecting motion within 20 feet of the sensor, 180° around the luminaire, when placed at a 20 foot mounting height, or mounted on a wall. Available in 120V or 277V input only. Motion sensor off state power is 0.0 watts.

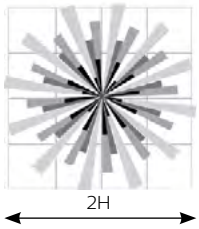
The approximate motion sensor coverage pattern is as shown below.

Side Coverage Pattern



Distances are approximate.
H = height above ground

Top Coverage Pattern



ECF-APD-MRI

Luminaires with Automatic Profile Dimming and Motion Response Override combine the benefits of both automatic profile dimming and motion response. APD-MRI luminaires utilize Philips DynaDimmer. The luminaire will dim to 50% power, 50% light output, per the dimming profile shown for APD luminaires (see page 4). If motion is detected during the time that the luminaire is operating at 50%, the luminaire goes to 100% power and light output. The luminaire remains on high until no motion is detected for the duration period, after which the luminaire returns to low. Duration period is factory set at 5 minutes.

APD-MRI luminaires are available with 120V or 277V input voltages only.

APD-MRI luminaires use the identical motion sensor as MRI luminaires. See motion sensor details for ECF-MRI.

FS1R-100 Wireless Remote Programming Tool

The FS1R-100 Remote Programming Tool accessory permits adjustment of ECF-MRI and ECF-APD-MRI sensor settings, including duration and dimming level on low, without the need to connect any wires to the luminaire.

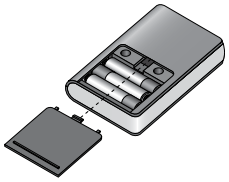
The FS1R-100 Wireless IR Programming Tool is a handheld tool for setup and testing of WattStopper FSP-211. It provides wireless access to the FSP-211 sensors for setup and parameter changes.

The FS1R-100 display shows menus and prompts to lead you through each process. The navigation pad provides a familiar way to navigate through the customization fields.

Within a certain mounting height of the sensor, the FS1R-100 allows modification of the system without requiring ladders or tools simply with a touch of a few buttons.

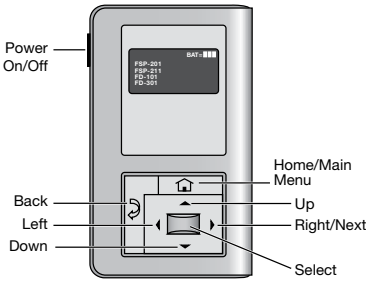
The FS1R-100 IR transceiver allows bi-directional communication between the FSP-211 and the FS1R-100 programming tool . Simple menu screens let you see the current status of the system and make changes. It can change FSP-211 sensor parameters such as high/low mode, sensitivity, time delay, cut off and more. With the FS1R-100 you can also establish and store FSP-211 parameter profiles.

The FS1R-100 operates on three standard 1.5V AAA Alkaline batteries or three rechargeable AAA NiMH batteries. The battery status displays in the upper right corner of the display. Three bars next to BAT= indicates a full battery charge. A warning appears on the display when the battery level falls below a minimum acceptable level. To conserve battery power, the FS1R-100 automatically shuts off 10 minutes after the last key press.



You navigate from one field to another using (up) or (down) arrow keys. The active field is indicated by flashing (alternates between yellow text on black background and black text on yellow background.)

Once active, use the Select button to move to a menu or function within the active field. Value fields are used to adjust parameter settings. They are shown in “less-than/greater-than” symbols: <value>. Once active, change them using (left) and (right) arrow keys. In general the up key increments and the down key decrements a value. Selections wrap-around if you continue to press the key beyond maximum or minimum values. Moving away from the value field overwrites the original value. The Home button takes you to the main menu. The Back button can be thought of as an undo function. It takes you back one screen. Changes that were in process prior to pressing the key are lost.More information on the FS1R-100 Remote Programming Tool is available at wattstopper.com.

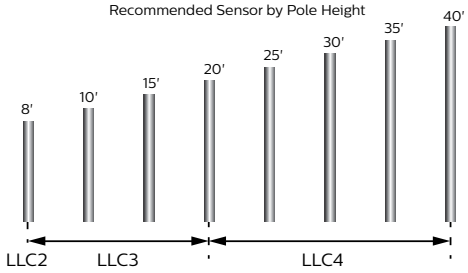


ECF EcoForm LED luminaire

Luminaire Configuration Information – EcoForm with wireless controls

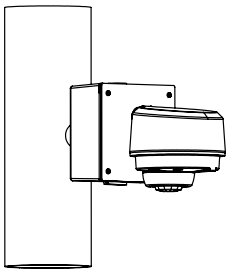
ECF-LLC2/3/4 Luminaire Mounted Controller

Wireless controller attached to luminaire and Includes radio, photocell and motion sensor with #2, 3, or 4 lens for 8-40' mounting heights.



LLCR2/3/4 Pole Mounted Controller

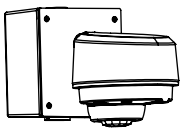
In this configuration, the wireless controller will be mounted to the pole at a fifteen foot mounting height. The number of luminaires on each pole, as well as the specific wattage chosen, will determine how many controllers will be required.



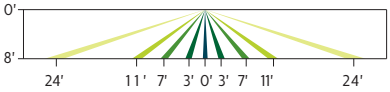
When using the wireless remote accessory option (LLCR-F) in a pole mount application, specify pole option (CL=Coupling Internal Thread, 3/4" size). Confirm required orientation of luminaire and wireless controller. Indicate height above pole base and orientation to handhold. Recommended min pole height is 18ft, with option (CL) 15ft above pole base. Other heights are possible when choosing the appropriate sensor lens type. See pole specification sheets for more information.

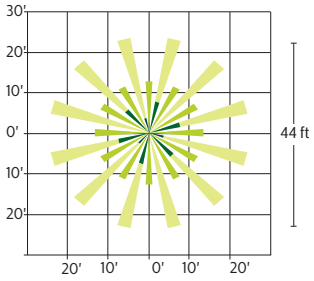
Remote Mount Wireless Controller

Used to extend the communication on site, to extend motion response and add other luminaires that are not pole mounted. Consult factory for more information.

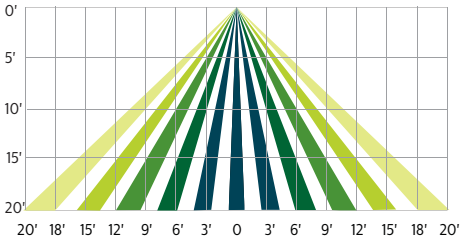


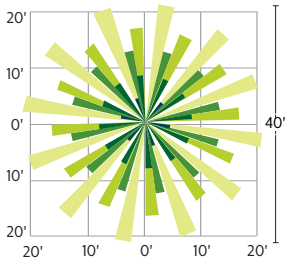
LLC2/LLCR2 (for pole or remote mount only)



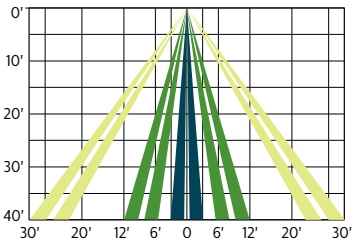


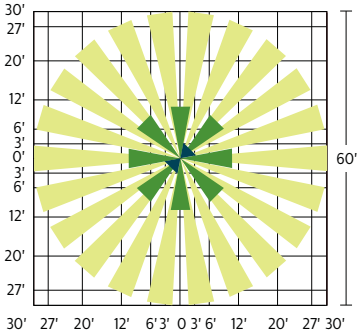
LLC3/LLCR3 (for luminaire, pole, or remote mount)



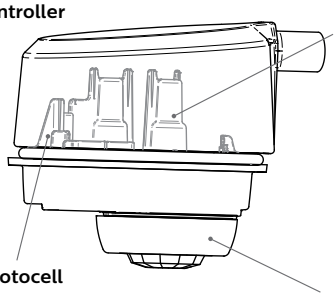


LLC4/LLCR4 (for luminaire, pole, or remote mount)





Controller



Photocell

- Ambient light photocell on every wireless radio that averages the light levels of up to 5 controllers for an accurate reading and optimal light harvesting activity.
- Reports ambient light readings to 1500 Fc.

Wireless Radio

- 1.8 Watts max (no load draw)
- Operating voltage 120-277 VAC RMS
- Communicates using the ZigBee protocol
- Carries out dimming commands from Gateway
- Reports ambient light readings to 1500 Ft-Cd
- Transmission Systems Operating within the band 2400-2483.5Mhz
- ROHS Compliant

Motion Response

- Detects motion through passive infrared sensing technology with three different lens configurations
- Motion sensor coverage can be adjusted from a narrow to a wide detection range, which helps reduce false triggers to further increase energy savings.
- Sensing profiles can be updated to adapt to activity levels in the environment, such as occupancy level, wind, and mounting height

ECF EcoForm LED luminaire

Luminaire Configuration Information (EcoForm with wireless controls)

Gateway

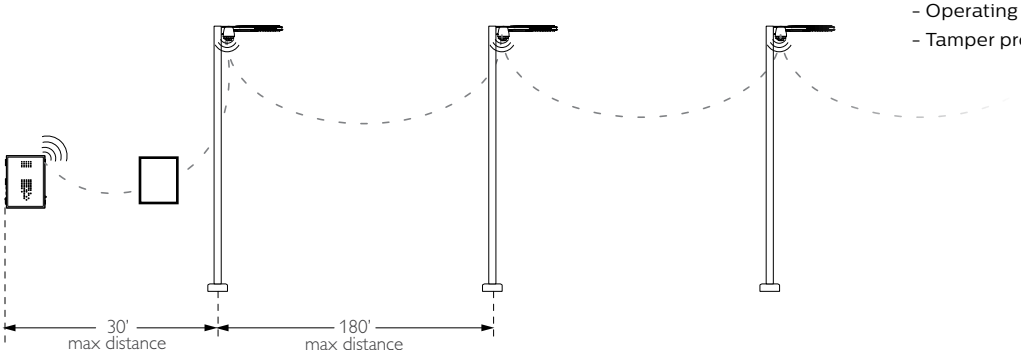
Overview: One gateway is included with the wireless controls system. The gateway opens up communication with the wireless radios installed with the EcoForm luminaires (or pole), allowing you to control your fixtures straight from the web. One gateway can communicate with up to 800 fixtures. Typically one unit is required per parking lot.

Installation: Gateway has 4 blind threaded holes on the back side that accept 10-32 screws. Mount spacing is 10.41" across and 14.19" vertical.

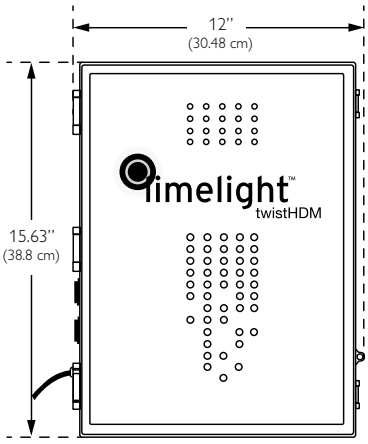
Requirements: The gateway must be mounted in a secure on-site location. The gateway requires 120V. Distance of gateway to the first radio varies upon application; contact factory. Strong internet connection required.

Specifications:

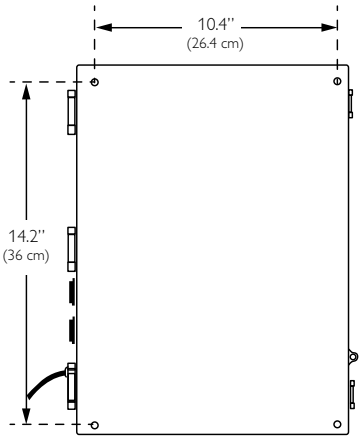
- High density RF Mesh coordinator
- Ethernet or wireless internet connection to server
- Proprietor of software "rules of operation"
- Watertight Ethernet connections
- Highly protected, long life ac/dc power supply
- Single board, ARM compliant 520Mhz Intel computer.
- Operating Temperature -20°C to 55°C
- Tamper proof housing



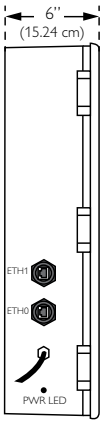
Front View



Back View



Side View



ECF EcoForm LED luminaire

Specifications

Housing

One piece die cast aluminum housing with integral arm and separate,self retained hinged, one piece die cast door frame.

IP Rating

LED light engine rated IP66.

Vibration Resistance

EcoForm with Standard Arm carries a 3G vibration rating that conforms to standards set forth by ANSI C136.31. Testing includes vibration to 3G acceleration in three axes, all performed on the same luminaire.

Electrical

Driver efficiency (>90% standard). 120-480V available (restrictions apply). Open/short circuit protection. Optional 0-10V dimming to 10% power. RoHS compliant. Surge protector standard. 10KA per ANSI/IEEE C62.41.2.

LED Board and Array

32, 48, or 64 LEDs. Color temperatures: 3000K, 4000K, 5700K +/- 250K. Minimum CRI of 70. Aluminum metal clad board. RoHS compliant.

LED Thermal Management

The housing design allows the one piece housing to provide excellent thermal management critical to long LED system life.

Energy Saving Benefits

System efficacy up to 95 lms/W with significant energy savings over Pulse Start Metal Halide luminaires. Optional control options provide added energy savings during unoccupied periods.

LED Performance

Predicted Lumen Depreciation Data[1]

Ambient Temperature °C	Driver (mA)	Calculated L_{70} Hours[1,2]	L_{70} Per TM-21[2,3]	Lumen Maintenance % @ 60,000 hours
Up to 40 °C	Up to 1050 mA	> 350,000 hours	> 60,000 hours	97%

1. Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
2. L70 is the predicted time when LED performance depreciates to 70% of initial lumen output.
3. Calculated per IESNA TM21-11. Published L70 hours limited to 6 times actual LED test hours.

Wireless Controls

The wireless controls system includes: gateway, controller (with wireless radio, motion response, and photocell), and commissioning/ training. This intelligent web-based system operates through a high density mesh (HDM) wireless technology. Wireless radios with motion response and photocell sensors are integrated with PureForm luminaires, and enable the fixtures to communicate via the ZigBee protocol. The gateway is a mini computer that connects to the internet, and is located in a secure location. The central database channels communication to and from the gateway, allowing data to be viewed or managed through the web-based graphical user interface (GUI). See wireless controls pages 6-7 for details and technical information.

Motion Sensors

ECF-MR50, ECF-APD-MRO, ECF-MRI, ECF-APD-MRI luminaires may be specified for additional energy savings during unoccupied periods. See pages 4-6 for complete details.

Optical Systems

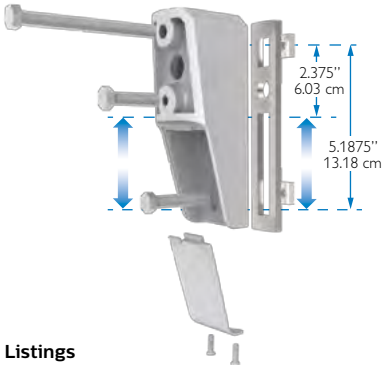
Type 2, 3, 4, and 5 distributions available. Internal Shield option mounts to LED optics and is available with Type 2, 3, and 4 distributions to control backlight.

Mounting

Standard luminaire arm mounts to 4" round poles. Square pole adapter included with every luminaire. Round Pole Adapter (RPA) required for 3-3.9" poles.

Retrofit Arm Mount

EcoForm features an innovative retrofit arm kit. When specified with the retrofit arm (RAM) option, EcoForm seamlessly simplifies site conversions to LED by eliminating the need for additional pole drilling on most existing poles. RAM will be boxed separately.



Listings

ETL/cETL listed to the UL 1598 standard, suitable for Wet Locations. Suitable for use in ambients from -40° to 40°C (-40° to 104°F). The quality systems of this facility have been registered by UL to the ISO 9001 series standards. All EcoForm luminaires equipped with NW and CW are DesignLights Consortium® qualified.

Finish

Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BRP), black (BLP), white (WP), and natural aluminum (NP). Consult factory for specs on optional or custom colors.

Warranty

EcoForm luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED Drivers also carry a 5 year limited warranty. Motion sensors are covered by warranty for 5 years by the motion sensor manufacturer.

Philips Lighting North America Corporation
200 Franklin Square Drive, Somerset, NJ 08873
Tel. 855-486-2216

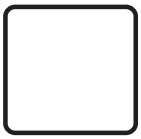
Philips Lighting Canada Ltd.
281 Hillmount Rd, Markham, ON, Canada L6C 2S3
Tel. 800-668-9008

Job: **CHESTERFIELD LOT 14**
Type: SA - POLE
Notes: GARDCO SSS-18-4-11-D1-STD FINISH ON 2' CONCRETE PEDESTAL

Poles

4" Straight Square Steel

The Philips Gardco SSS straight steel pole consists of a one-piece square fabricated steel lighting standard. The carbon steel base plate is secured to the shaft with a continuous circumferential weld providing excellent strength and integrity. The poles are finished with an electrostatically applied, thermally cured TGIC polyester powdercoat. All poles include anchor bolts, full base cover, hand hole, ground lug and top cap.



PREFIX	HEIGHT	SIZE	GAUGE	DRILLING	FINISH	OPTIONS
SSS	18	4	11	D1		

Enter the order code into the appropriate box above. Note: Philips Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

SSS4

HEIGHT

10'
12'
14'
15'
18'
20'
24'
25'
30'

SIZE

4"

GAUGE

7
11

DRILLING

D1	1 Way
D2	2 Way
D2@90	2 Way at 90°
D3	3 Way
D4	4 Way
T2	2 3/8" OD Tenon
T4	4" OD Tenon

FINISH

PP	Prime Painted
BRP	Bronze Paint
BLP	Black Paint
WP	White Paint
NP	Natural Aluminum Paint
GV	Galvanized *(No Paint)*
FPGV	Finished Paint over Galvanized *(specify color)*
OC	Optional Color Paint *Specify RAL designation ex: OC-RAL7024.*
SC	Special Color Paint *Specify. Must supply color chip.*

OPTIONS

FES	Festoon Outlet
AHH	Additional Hand Hole

For Festoon Outlets and Additional Hand Holes, indicate height above base and orientation to original hand hole. See Pole Orientation Information on Page 4.

Couplings

Indicate size (1/2", 3/4", 1", 1 1/4", 1 1/2".) Indicate height above base and orientation to hand hole. See Pole Orientataion Information on Page 4.

CL Coupling - Internal thread

Single Mount Bullhorn Brackets

Indicate height above base and orientation to hand hole. See Pole Orientation Information on Page 4.

GM-080-19	Single - 1.9" OD
GM-080-24	Single - 2.4" OD

Motion Response Provisions

GMR Provision for Gardco HID Motion Response System

Minimum Pole Height is 18'. Includes a 1/2" coupling placed 180° to the hand hole, 12' above the pole base.

MSM Motion Sensor Mounting Provision for LED Luminaires available with Motion Response

Minimum Pole Height is 18'. Includes a special hand hole with 1/2" coupling placed in the cover plate, 180° to the hand hole, 15' above the pole base.

Refer to Steel Pole Accessories sheet 79415-26 for additional accessories.

1611 Clovis Barker Road, San Marcos, TX 78666
(800) 227-0758 (512) 753-1000 FAX: (512) 753-7855 sitelighting.com

79415-17/0611

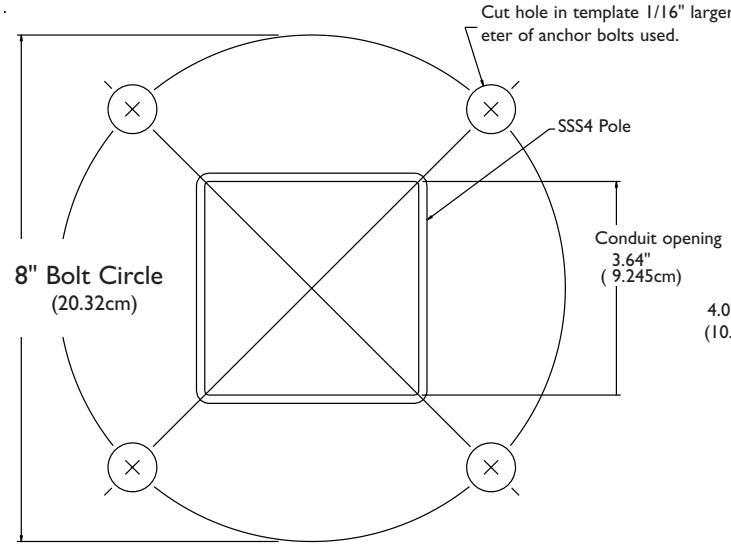
PHILIPS
GARDCO

POLE DATA

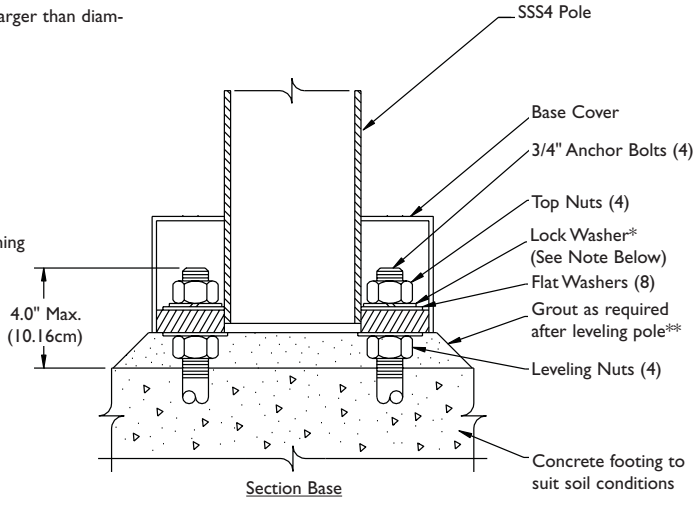
CATALOG NUMBER		POLE SIZE		MAXIMUM LUMINAIRE LOADING[1]									ANCHOR BOLT DATA[2]		
				HIGH WIND CONDITIONS						NORMAL WIND CONDITIONS					
				130 MPH		120 MPH		110 MPH		100 MPH	90 MPH	80 MPH			
PREFIX	HEIGHT (FT.)	POLE SIZE (inches)	GAUGE	EPA FT^2	Max Weight (lbs)	EPA FT^2	Max Weight (lbs)	EPA FT^2	Max Weight (lbs)	EPA FT^2	EPA FT^2	EPA FT^2	BOLT CIRCLE (inches)	BOLT SIZE (inches)	MAX PROJ. (inches)
SSS	10	4	11	9.9	248	12.0	300	14.5	363	18.9	23.9	30.6	8.0"	3/4 x 17 x 3	4.0"
SSS	12	4	11	7.4	185	9.2	230	11.3	283	14.8	18.8	24.4	8.0"	3/4 x 17 x 3	4.0"
SSS	14	4	11	5.5	138	7.0	175	8.8	220	11.7	15.1	19.9	8.0"	3/4 x 17 x 3	4.0"
SSS	15	4	11	3.8	95	5.0	125	6.7	168	8.9	11.8	15.9	8.0"	3/4 x 17 x 3	4.0"
SSS	18	4	11	2.3	58	3.5	88	4.8	120	6.7	9.2	12.6	8.0"	3/4 x 17 x 3	4.0"
SSS	20	4	11	-	-	1.9	48	3.3	83	4.5	6.7	9.6	8.0"	3/4 x 17 x 3	4.0"
SSS	20	4	7	4.3	108	5.6	140	7.4	185	8.8	11.8	16.0	8.0"	3/4 x 17 x 3	4.0"
SSS	25	4	11	-	-	-	-	-	-	1.0	2.6	4.8	8.0"	3/4 x 17 x 3	4.0"
SSS	25	4	7	1.6	40	2.6	65	3.8	95	5.4	7.7	10.8	8.0"	3/4 x 17 x 3	4.0"
SSS	30	4	7	-	-	-	-	1.2	50	2.6	4.4	6.7	8.0"	3/4 x 17 x 3	4.0"

1. **Warning:** Additional wind loading, in terms of EPA, from banners, cameras, floodlights and other accessories attached to the pole, must be added to the luminaire(s) EPA before selecting the pole with the appropriate wind load capability.
2. Factory supplied template must be used when setting anchor bolts. Philips Gardco will not honor any claim for incorrect anchorage placement resulting from failure to use factory supplied templates.

DIMENSIONS



NOTE: Factory supplied template must be used when setting anchor bolts. Philips Gardco will not honor any claim for incorrect anchorage placement from failure to use factory supplied templates.



*Anchor Bolt Lock Washers are not normally required and are not included in standard anchor bolt sets. They are available upon request at additional cost.
**** Grouting should include a drainage slot or tube (by others) to permit water to drain from the base of the pole. Failure to provide drainage may weaken the pole base structure over time and may result in pole base failure, for which Philips Gardco is not responsible.**

1611 Clovis Barker Road, San Marcos, TX 78666
(800) 227-0758 (512) 753-1000 FAX: (512) 753-7855 sitelighting.com

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SPECIFICATIONS

POLE SHAFT: The pole shaft is fabricated from a single-piece of 11 ga (.1196") or 7 ga (.1793") commercial carbon steel. The formed steel plate is longitudinally welded providing minimum yield strength of 46 KSI.

ANCHOR BASE: The pole anchor base is fabricated from A-36 structural quality carbon steel with a minimum yield strength of 36 KSI. The base plate telescopes the pole shaft and is circumferentially welded on both top and bottom.

ANCHOR BOLTS: Anchor bolts are fabricated from a commercial quality hot rolled carbon steel bar that meets or exceeds a minimum guaranteed yield strength of 50,000 psi. Bolts have an "L" bend on one end and threaded on the opposite end. Anchor bolts are galvanized a minimum of 12" on the threaded end. Four (4) properly sized bolts, each furnished with two (2) regular hex nuts and two (2) flat washers, are provided per pole, unless otherwise specified.

BASE COVER: A two-piece base cover completely conceals the entire base plate and anchorage.

HAND HOLE: The reinforced hand hole has a nominal rectangular 2" X 4" inside opening in the pole shaft. Included is a cover plate with attachment screws. The hand hole is located 18" above the base and 180° clockwise with respect to the luminaire arm when viewed from the top of the pole for one arm. For two arms the hand hole is located directly under one arm.

POLE TOP CAP: Each pole assembly is provided with a removable pole top cap.

FINISH: Poles are available with a bronze, natural, white or black electrostatically applied, thermally cured TGIC polyester powdercoat finish.

STOCK POLES: Poles provided from stock under the Quick Ship program are drilled for four (4) luminaires at 90° with three (3) hole sets plugged.

GENERAL POLE INFORMATION

DESIGN: The poles as charted are designed to withstand dead loads and predicted dynamic loads developed by variable wind speeds with an additional 30% gust factor under the following conditions:

The charted weights include luminaire(s) and/or mounting bracket(s).

The wind velocities are based on 10 mph increments from 80 mph through 100 mph. Poles to be located in areas of known abnormal conditions may require special consideration. For example: coastal areas, airports and areas of special winds.

Poles are designed for ground mounted applications. Poles mounted on structures (such as buildings and bridges) may also necessitate special consideration requiring Philips Gardco's recommendation.

Height correction factors and drag coefficients are applied to the entire structure. An appropriate safety factor is maintained based on the minimum yield strength of the material incorporated in the pole.

WARNING: This design information is intended as a general guideline only. The customer is solely responsible for proper selection of pole, luminaire, accessory and foundation under the given site conditions and intended usage. The addition of any items to the pole, in addition to the luminaire, will dramatically impact the EPA load on that pole. It is strongly recommended that a qualified professional be consulted to analyze the loads given the user's specific needs to ensure proper selection of the pole, luminaire, accessories, and foundation. Philips Gardco assumes no responsibility for such proper analysis or product selections. **Failure to insure proper site analysis, pole selection, loads and installation can result in pole failure, leading to serious injury or property damage.**

GENERAL INFORMATION: Mounting height is the vertical distance from the base of the lighting pole to the center of the luminaire arm at the point of luminaire attachment.Twin arms as charted are oriented at 180° with respect to each other. For applications of two (2) arms at 90° or other multiple arm applications, consult the factory.

WARRANTY: Philips Gardco poles feature a 1 year limited warranty. See Warranty Information on www.sitelighting.com for complete details and exclusions.

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79415-17/0611

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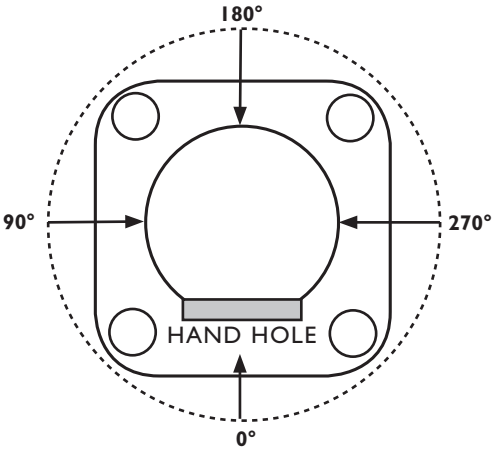
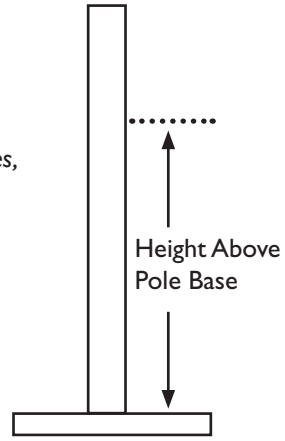
ORIENTATION INFORMATION

FACTORY INSTALLED OPTIONS AND ACCESSORIES



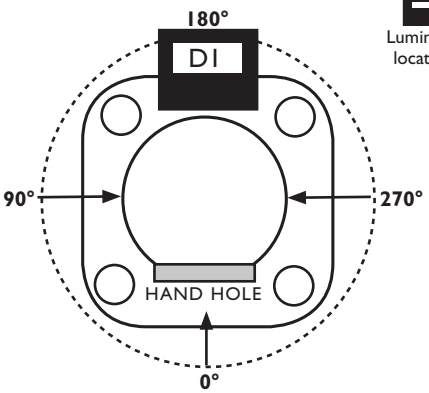
Orientation is measured clockwise from the Hand Hole Center.

For Factory Installed Options and Accessories, Specify Orientation from Hand Hole and Height Above Pole Base Where Required.



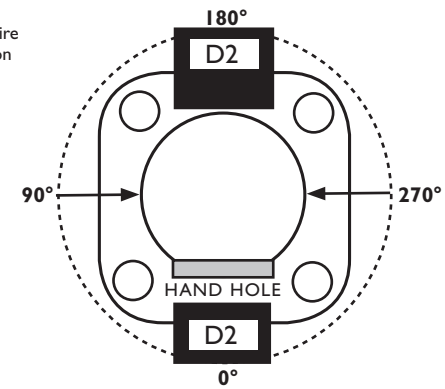
STANDARD ARM MOUNT LUMINAIRE ORIENTATION

D1 Drilled for Single Luminaire

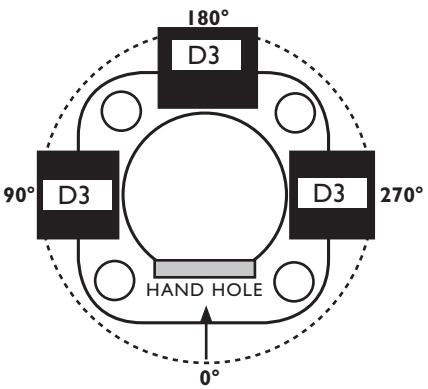


Luminaire location

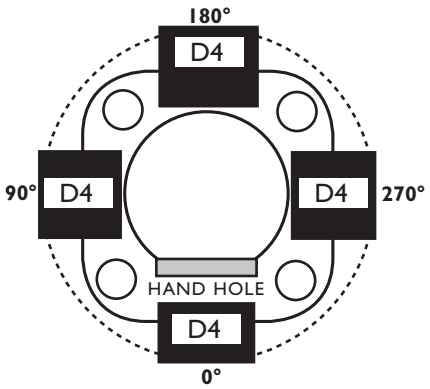
D2 Drilled for 2 Luminaires at 180°



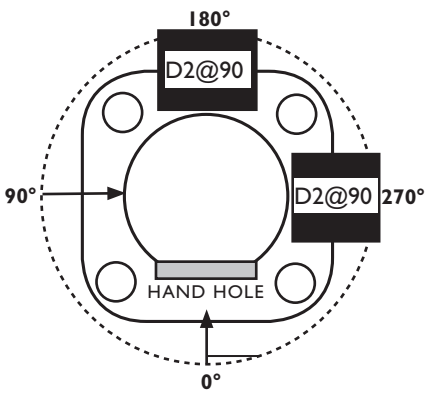
D3 Drilled for 3 Luminaires @ 90°



D4 Drilled for 4 Luminaires at 90°



D2@90 Drilled for 2 Luminaires at 90°



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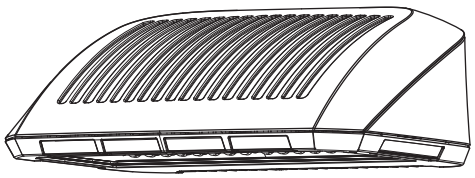
High performance and integrated style, all in one luminaire

LED Wall Sconce 161

TYPE SB



DESIGNLIGHTS CONSORTIUM®

Project: CHESTERFIELD LOT 14

Location:

Catalog No:

Fixture Type: 161-4-220LA-9670-NW-U

Mfg: Qty:

Notes:

PHILIPS GARDCO, LED WALL SCONCE 161

The Philips Gardco LED Wall Sconce 161 is an enlarged and enhanced version of the 121, providing performance capability up to that of a 400W metal halide luminaire, while using considerably less energy.

Ordering guide

example: 161-CWL-2-70LA-6435-CW-UNIV-BRP

Prefix	Distribution	Wattage	LED Type	Voltage	Finish	Options
161	4	220la-967	NW	UNIV	STD	
161-CWL Sconce 161 LED **161-MR** 161 with motion response (120V or 277V only) **161-DCC**[1] 161 with dual circuit control **161-DIM** 161 with 0-10V dimming controlled by others **161-APD** 161 with automatic profile dimming (120V thru 277V ONLY) **161-APD-MRI** 161 with automatic profile dimming and motion response override – integrated motion sensor (120V or 277V ONLY)	**2** IES Type 2 distribution **3** IES Type 3 distribution **4** IES Type 4 distribution	**350mA** **70LA-6435** 2 LED arrays, 70W **110LA-9635** 2 LED arrays, 110W **530mA** **110LA-6453** 2 LED arrays, 110W **170LA-9653** 2 LED arrays, 170W **700mA** **150LA-6470** 2 LED arrays, 150W **220LA-9670** 2 LED arrays, 220W	**CW** 5700°K 70 CRI **NW** 4000°K 70 CRI **WW** 3000°K 70 CRI	**120** **208** **240** **277** **347** **480** **UNIV** 120-277V AC **HVU** 347-480V AC	**BRP** Bronze **BLP** Black **NP** Natural **WP** White **OC** Optional color (specify optional color or RAL ex: OC-LGP or RAL7024) **SC** Special color (specify, must supply color chip)	**F**[2] Fusing **PCB**[2] Button photocell (not available with 161-DCC) **DL** Diffusing lens **WS** Surface mount conduit feed junction box

Footnotes:

[1] For luminaires with input voltages above 277V (347, 480 or HVU) the 161-DCC is available with 110LA-9635, 170LA-9653 and 220LA-9670 LED wattages only.

[2] Available 120-277V only. Provide specific input voltage.

Accessories (order separarately)

- **FS1R-100** – MR hand held programmer (For use with 'MR' motion response when field programming is required). If desired, only one is needed per job.

Features

- Complements the 121 wall sconce
- Perfect companion to Philips Gardco PureForm site and area luminaires
- Type 2, 3, and 4 optical distributions available
- Full cutoff performance minimizes glare and light trespass
- 10kA surge protection provided standard, meeting ANSI C62.41.2

Benefits

- Exceptional performance can reduce pole requirements on a site
- Motion response and control options available for additional energy savings
- Performance equivalent to 400W HID while utilizing less energy

Description

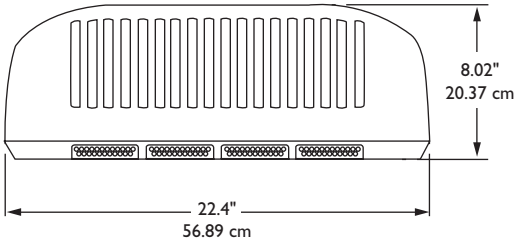
- **Housing:** Die cast housing
- **Finish:** Painted finish only
- **Lens:** Light engines will be sealed IP66 (in downlight application only). Tempered flat glass and diffuse glass lens option
- **Mounting:** Wall mounted only
- **Supply connection:** 90°C supply wire minimum (supplied by others)
- **Driver:** 120-277VAC and 347-480VAC non-class 2, constant current driver 350mA and 530mA, 700mA 0-10VDC dimming
- **Light engine:** LEDgine 32, 48 LEDs. LEDgine optics - acrylic. IES distributions - 2, 3, and 4. 0% uplight (full cut-off).
- **Agency approvals:** UL/CUL listed for wet locations when mounted in the downlight position. All 161 luminaires equipped with NW or CW are DesignLights Consortium® qualified.

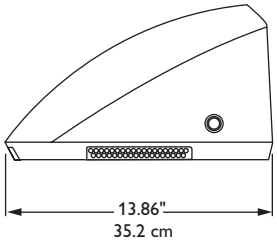
PHILIPS GARDCO

LED Wattage and Lumen Values

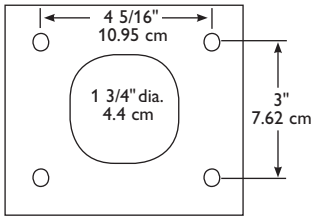
Ordering Code	Average System Watts[3]	LED Current (mA)	LED Quantity - Dual LED Arrays		LED Selection	Luminaire Initial Absolute Lumens		
			Per LED Array	Total LEDs		TYPE 2	TYPE 3	TYPE 4
70LA-6435	74.4	350	32	64	NW	6,815	7,105	6,890
110LA-9635	110.0	350	48	96	NW	10,029	10,469	10,171
110LA-6453	106.8	530	32	64	NW	9,565	9,972	9,670
170LA-9653	158.0	530	48	96	NW	14,061	14,532	14,181
150LA-6470	142.0	700	32	64	NW	11,957	12,466	12,087
220LA-9670	210.0	700	48	96	NW	17,509	18,103	17,822

Dimensions





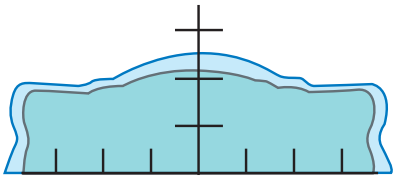
Approximate luminaire weight – 40lbs (18.15kg)



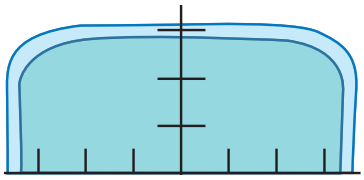
Mounting plate and bolt pattern

Note: Mounting plate center is located in the center of the luminaire width and 3.5" (8.89cm) above the luminaire bottom (lens down position). Splices must be made in the J-box (by others). Mounting plate must be secured by max. 5/16" (.79cm) diameter bolts (by others) structurally to the wall.

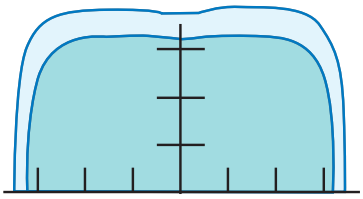
Distribution Options



Type 2



Type 3



Type 4

LED Performance

Predicted Lumen Depreciation Data[4]		
Ambient Temperature °C	Driver mA	L_{70} Hours[5]
25 °C	350 mA	180,000
	530 mA	150,000
	700 mA	120,000
40 °C	350 mA	170,000
	530 mA	130,000
	700 mA	100,000

Footnotes:

[3] Wattage may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.

[4] Predicted performance derived from LED manufacturer's data and engineering design estimates.

[5] L_{70} is the predicted time when LED performance depreciates to 70% of initial lumen output.

Luminaire Configuration Information

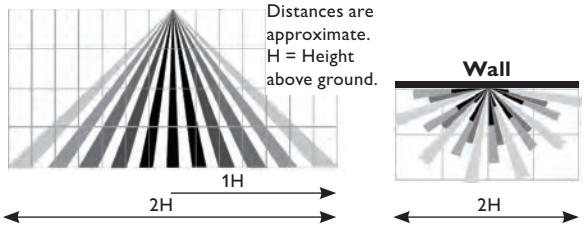
- **161-CWL:** 161 LED sconce providing constant wattage and constant light output when power to the luminaire is energized.

- **161-MR:** Luminaires include a passive infrared (PIR) motion sensor, WattStopper® FSP-211 equipped with an FS-L3W lens, capable of detecting motion within 20 feet of the sensor, 180° around the luminaire, when placed at a 20 foot mounting height, and mounted on a wall. Available in 120V or 277V input only. Motion sensor off state power is 0.0 watts.

  In Motion Response (MR) luminaires, when no motion is detected for 10 minutes, the Motion Response system reduces the wattage by 90%, to 10% of the normal constant wattage, reducing the light level accordingly. When motion is detected by the PIR, the luminaire returns to full wattage and full light output. Dimming on low is factory set to 10% with duration set at 10 minutes.

  The approximate motion sensor coverage pattern is as shown below.

Side Coverage Pattern **Top Coverage Pattern**



- **FS1R-100 Wireless Remote Programming Tool:**
  The FS1R-100 Remote Programming Tool accessory permits adjustment of 161-MR sensor settings, including duration and dimming level on low, without the need to connect any wires to the luminaire.

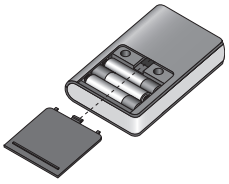
  The FS1R-100 Wireless IR Programming Tool is a handheld tool for setup and testing of WattStopper FSP-211. It provides wireless access to the FSP-211 sensors for setup and parameter changes.

  The FS1R-100 display shows menus and prompts to lead you through each process. The navigation pad provides a familiar way to navigate through the customization fields.

  Within a certain mounting height of the sensor, the FS1R-100 allows modification of the system without requiring ladders or tools simply with a touch of a few buttons.

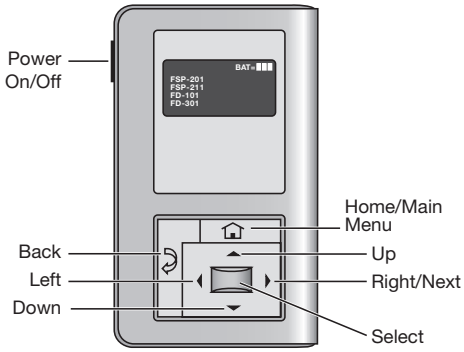
  The FS1R-100 IR transceiver allows bi-directional communication between the FSP-211 and the FS1R-100 programming tool . Simple menu screens let you see the current status of the system and make changes. It can change FSP-211 sensor parameters such as high/low mode, sensitivity, time delay, cut off and more. With the FS1R-100 you can also establish and store FSP-211 parameter profiles.

  The FS1R-100 operates on three standard 1.5V AAA Alkaline batteries or three rechargeable AAA NiMH batteries. The battery status displays in the upper right corner of the display. Three bars next to BAT= indicates a full battery charge. A warning appears on the display when the battery level falls below a minimum acceptable level. To conserve battery power, the FS1R-100 automatically shuts off 10 minutes after the last key press.



You navigate from one field to another using (up) or (down) arrow keys. The active field is indicated by flashing (alternates between yellow text on black background and black text on yellow background.)

Once active, use the Select button to move to a menu or function within the active field. Value fields are used to adjust parameter settings. They are shown in "less-than/greater-than" symbols: <value>. Once active, change them using (left) and (right) arrow keys. In general the up key increments and the down key decrements a value. Selections wrap-around if you continue to press the key beyond maximum or minimum values. Moving away from the value field overwrites the original value. The Home button takes you to the main menu. The Back button can be thought of as an undo function. It takes you back one screen. Changes that were in process prior to pressing the key are lost.



More information on the FS1R-100 Remote Programming Tool is available at wattstopper.com.

The FS1R-100 Wireless Remote Programming Tool can be used to adjust sensor settings on 161-MR luminaires ONLY. It cannot be used to adjust sensor settings on the 161-APD-MRI.

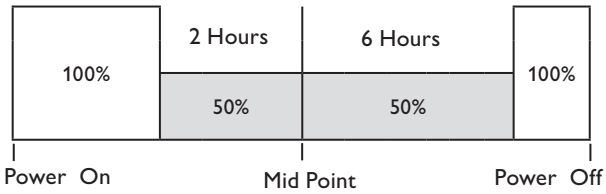
- **161-DCC:** 161 LED sconce provided with dual circuiting, permitting separate switching of each LED array. Note, for luminaires with input voltages above 277V (347, 480 or HVU) the 161-DCC is available with 110LA-9635, 170LA-9653 and 220LA-9670 LED wattages only.

- **161-DIM:** 161 LED sconce provided with 0-10V dimming for connection to a control system provided by others.

- **161-APD:** 161 LED sconces with Automatic Profile Dimming. are provided with a programmable driver, programmed to go to 50% power, 50% light output two (2) hours prior to night time mid-point and remain at 50% for six (6) hours after night time mid-point. Mid-point is continuously recalculated by the programmable driver based on the average mid-point of the last two full night cycles. Short duration cycles, and power interruptions are ignored and do not affect the determination of mid-point.

  161-APD is available in 120V through 277V input only.

APD Dimming Profile:



Luminaire Configuration Information

- **161 - APD- MRI:** 161 wall sconce with Automatic Profile Dimming and Motion Response Override (with integral motion sensor) combines the benefits of both automatic profile dimming and motion response. The luminaire will dim to 50% power, 50% light output, per the dimming profile shown for the 161-APD. If motion is detected during the time that the luminaire is operating at 50%, the luminaire returns to 100% power and light output. The luminaire remains on high until no motion is detected for the duration period, after which the luminaire returns to low. Duration period is factory set at 10 minutes.
  APD-MRI luminaires are available with 120V or 277V input voltages only.
  APD-MRI luminaires use the identical motion sensor as MR luminaires.

Additional Specifications

General Description

The Philips Gardco LED Wall Sconce 161 is an enlarged and enhanced version of the 121, providing performance capability up to that of a 400W metal halide luminaire, while using considerably less energy.

Housing

Housing constructed of die-cast aluminum.

IP Rating

LED light engine rated IP66 (in downlight application only).

Optical Systems

IES Type 2, 3 and 4 distributions available. 0% uplight (full cut-off).

Listings

UL/CUL listed for wet locations when mounted in the downlight position. All 161 luminaires equipped with NW or CW are DesignLights Consortium® qualified.

Finish

Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors are as listed. Consult factory for specs on custom colors.

Warranty

161 Luminaires feature a 5 year limited warranty. LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer.

Philips Lighting Company
200 Franklin Square Drive
Somerset, NJ 08873
Phone: 855-486-2216

Philips Lighting Company
281 Hillmount Road
Markham ON, Canada L6C 2S3
Phone: 800-668-9008

Job: **Chesterfield Lot 14**
Type: SC-ALT
Notes: GARDCO 121-2-18LA-NW-UNIV-STD FINISH MOUNTED AT 15' ABOVE GRADE

TYPE SC-ALT

120 LINE LED

121 LED Performance Sconce - Generation 2

The Philips Gardco 121 LED Performance Sconce provides an energy efficient, architecturally pleasing solution for wall mount applications. The sloped surface ribs of the die cast aluminum housing create a distinctly unique aesthetic element, and perform important functions in the Philips Gardco thermal management system. 121 Generation 2 luminaires feature high performance Class 1 LED systems. The high performance LED optical systems produce full cutoff performance, minimizing glare and light trespass. Philips Gardco's LED technology provides maximized light output and maximum energy savings.

PREFIX	OPTICAL SYSTEM	LED WATTAGE	LED SELECTION	VOLTAGE	FINISH	OPTIONS
121	2	18LA	NW	UNIV		

Enter the order code into the appropriate box above. Note: Philips Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

PREFIX

121	121 LED Performance Sconce - Constant Wattage / Full Light Output
121-MR	121 LED Performance Sconce - Motion Response
121-DIM	121 LED Performance Sconce - 0 - 10V Dimming
121-APD	121 LED Performance Sconce - Automatic Profile Dimming
121-DCC	121 LED Performance Sconce - Dual Circuit Control

OPTICAL SYSTEM

2	Type 2
3	Type 3
4	Type 4
MT	Medium Throw

All optical systems are supplied with a clear glass lens standard. A Diffuse Lens (DL) option is available, See **OPTIONS** *on Page 2.*

LED WATTAGE AND LUMEN VALUES

Single LED Array Wattages, Available in 121, 121-MR, 121-DIM and 121-APD Only

Ordering Code	Average System Watts[1]	LED Current (mA)	LED Quantity - Single LED Array	LED Selection	Luminaire Initial Absolute Lumens[2]			
					TYPE 2	TYPE 3	TYPE 4	MT
18LA	18	350	16	NW	1,673	1,707	1,609	2,022
26LA	26	530	16	NW	2,442	2,485	2,345	2,927
35LA-700	36	700	16	NW	3,102	3,139	2,972	3,650
35LA-350	35	350	32	NW	3,664	3,736	3,523	4,425
50LA	52	530	32	NW	5,587	5,685	5,365	6,697
75LA	72	700	32	NW	6,199	6,538	6,296	7,289

Dual LED Array Wattages, Available in 121-DCC Only

Ordering Code	Average System Watts[1]	LED Current (mA)	LED Quantity - Dual LED Arrays		LED Selection	Luminaire Initial Absolute Lumens[2]			
			Per LED Array	Total LEDs		TYPE 2	TYPE 3	TYPE 4	MT
35LA-2	35	350	16	32	NW	3664	3,736	3,523	4,425
50LA-2	52	530	16	32	NW	5587	5,685	5,365	6,697
75LA-2	72	700	16	32	NW	6199	6,538	6,296	7,289

1. *Wattage may vary by +/- 8% due to LED manufacturer forward volt specification and ambient temperature. Wattage shown is average for 120V through 277V input. Actual wattage may vary by an additional +/- 10% due to actual input voltage.*
2. *Values shown are for luminaires without the DL option. Tests are in process for configurations not shown. "(s)" following the value indicates that values are scaled from tests on similar, but not identical luminaire configurations. Contact Gardco.applications@ philips.com if any approximate estimates are required for design purposes. Lumen values based on tests performed in compliance with IESNA LM-79.*

PHILIPS GARDCO

121 LED Performance Sconce - Generation 2

LED SELECTION

CW	Cool White - 5700°K - 75 CRI Nominal
NW	Neutral White - 4000°K - 70 CRI Nominal
WW	Warm White - 3000°K - 80 CRI Nominal

VOLTAGE

120	
208	
240	
277	
UNIV	Accepts 120V through 277V input, 50hz to 60hz.
347	347V - Requires Extended Back Box, which is provided standard. Requires and includes auxilliary transformer mounted in Extended Back Box.

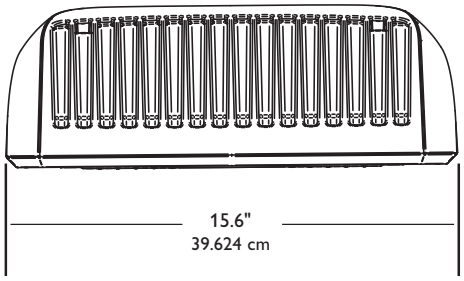
FINISH

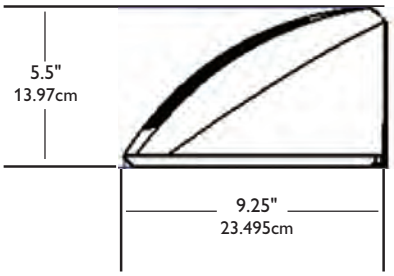
BRP	Bronze Paint
BLP	Black Paint
WP	White Paint
NP	Natural Aluminum Paint
BGP	Beige Paint
OC	Optional Color Paint *Specify Optional Color or RAL ex: OC-LGP or OC-RAL7024.*
SC	Special Paint *Specify. Must supply color chip.*

OPTIONS

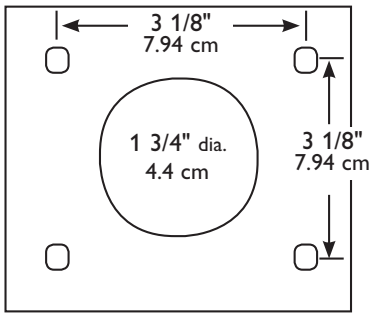
F	Fusing *(Provide specific inpout voltage)*
DL	Solite Diffusing Glass Lens *(Reduces performance significantly.)*
PCB	Button Type Photocontrol *(Provide specific inpout voltage)*
WS	Wall Mounted Box for Surface Conduit *(Rear entry permitted.)*
EBB	Extended Back Box *(Provided standard with 347V luminaires.)*

DIMENSIONS





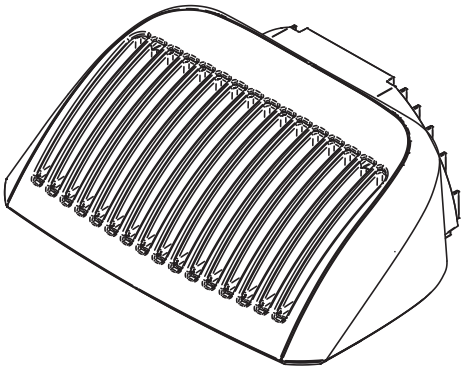
Mounting Plate

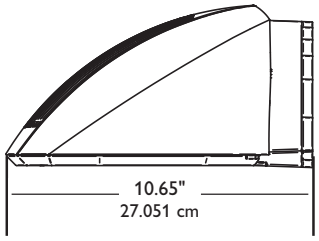


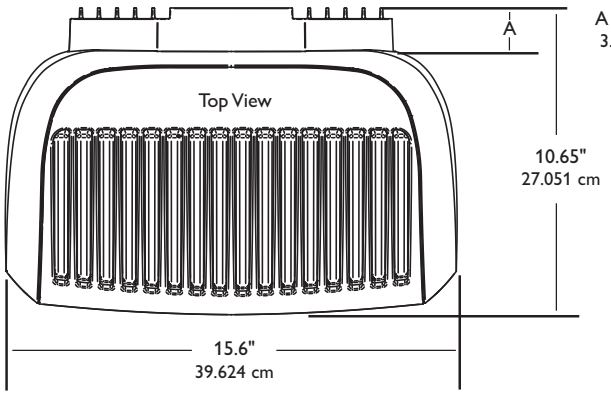
Mounting Bolt Pattern

Note: Mounting plate center is located in the center of the luminaire width and 2.38" (6.03cm) above the luminaire bottom (lens down position). Splices must be made in the J-box (by others). Mounting plate must be secured by max. 5/16" (.79cm) diameter bolts (by others) structurally to the wall.

With Extended Back Box (EBB) Option





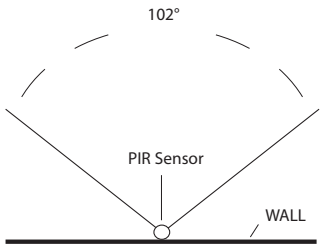


LUMINAIRE CONFIGURATION INFORMATION

121-CWL: 121 LED sconce providing constant wattage and constant light output when power to the luminaire is energized.

121-MR: 121 LED sconce including a passive infrared (PIR) motion sensor capable of detecting motion within 30 feet of the 121 LED Sconce. The PIR sensor is mounted in the center of the luminaire, near the wall edge of the door frame, approximately 1.5" forward from the wall, and is less than .75" in diameter. When no motion is detected for 5 minutes, the Motion Response system reduces the wattage by 75%, to 25% of the normal constant wattage, reducing the light level accordingly. When motion is detected by the PIR, the luminaire returns to full wattage and full light output. The PIR sensor is capable of motion detection across a total angle of 102° from the center of the sensor (51° to either side of center.) The sensor may be adjusted directionally to maximize detection of motion to one side of the luminaire if desired based on site traffic patterns. PIR sensor provided is the Panasonic EKMB1203112. If the PIR sensor fails, the luminaire will operate in default-high mode. Motion sensors utilized consume 0.0 watts in the off state.

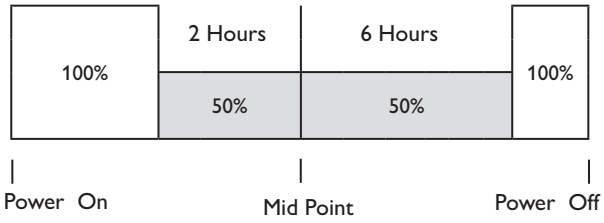
Sensor Coverage Pattern



121-DIM: 121 LED sconce provided with 0 -10V dimming for connection to a control system provided by others.

121-APD: Philips Gardco performance LED sconces with Automatic Profile Dimming are provided with the Philips DynaDimmer included. The DynaDimmer is factory programmed to go to 50% power, 50% light output two (2) hours prior to night time mid-point and remain at 50% for six (6) hours after night time mid-point. Mid-point is continuously calculated by the DynaDimmer based on the average mid-point of the last two full night cycles. Short duration cycles, and power interruptions are ignored and do not affect the determination of mid-point.

APD Dimming Profile



121-DCC: 121 LED sconce provided with dual circuiting, and dual arrays, permitting separate switching of each led array. Available in LED wattages shown on Page 1 only.

SPECIFICATIONS

GENERAL: Each Philips Gardco 121 luminaire is a wall mounted full cutoff luminaire with integrated lensed LEDs mounted in a fixed array. Internal components are totally enclosed in a rain-tight, dust-tight and corrosion resistant housing. The housing, back plate and door frame are die cast aluminum. A choice of four (4) optical systems is available. Luminaires are suitable for wet locations, mounted in the normal downlight position.

HOUSING: The single-piece stylized housing is die cast aluminum. A memory retentive gasket seals the housing with the door frame to exclude moisture, dust, insects and pollutants from the luminaire. A black, die cast ribbed backplate is included.

IP RATING: Luminaires are rated IP66.

DOOR FRAME: A single-piece die cast aluminum door frame integrates to the housing form. The door frame is hinged closed and secured to the housing with two (2) captive stainless steel fasteners.

OPTICAL SYSTEMS: Philips Gardco 121 Generation 2 LED luminaires utilize lensed LED arrays set to achieve IES Type II, Type III, and Type IV distributions, as well as a Medium Throw distribution. Individual LED arrays are replaceable. Luminaires feature high performance Class 1 LED systems. Luminaires are supplied standard with a clear glass lens.

ELECTRICAL: Luminaires are equipped with an LED driver that accepts 120V through 277V, 50hz to 60hz, input. Driver output is either 350 mA, 530 mA or 700 mA, based on the LED wattage selected. Component-to-component wiring within the luminaire will carry no more than 80% of rated current and is listed by UL for use at 600 VAC at 302°F/150°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher. Power factor is not less than 90%. Luminaires consume 0.0 watts in the off state. Surge protector standard. 10KA per AN SI/IEEE C62.41.2.

LED THERMAL MANAGEMENT: The 121 design provides deep integral thermal radiation fins cast into the upper housing to assist in the thermal management so critical to long LED system life. Metallic screens are placed over the fins and integrated to the housing to prevent the buildup of dust, dirt and contaminants, while permitting required air flow for cooling

LED PERFORMANCE:

PREDICTED LUMEN DEPRECIATION DATA[4]		
Ambient Temperature °C	Driver mA	L_{70} Hours[5]
25 °C	350 mA	180,000
	530 mA	150,000
	700 mA	120,000
40 °C	350 mA	170,000
	530 mA	130,000
	700 mA	100,000

4. Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.

5. L_{70} is the predicted time when LED performance depreciates to 70% of initial lumen output.

FINISH: Each standard color luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) textured polyester powdercoat finish. Standard colors include bronze (BRP), black (BLP), white (WP), natural aluminum (NP) and beige (BGP). Consult factory for specifications on custom colors.

LABELS: All luminaires bear either UL or CUL (where applicable) Wet Location labels.

WARRANTY: Philips Gardco luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays and LED drivers. See Warranty Information on www.sitelighting.com for complete details and exclusions.

FULL CUTOFF PERFORMANCE: Full cutoff performance means a luminaire distribution where zero candela intensity occurs at an angle at or above 90° above nadir . Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

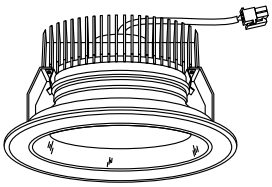
Philips Lighting
North America Corporation
200 Franklin Square Drive
Somerset, NJ 08873
Tel. 855-486-2216

Imported by: Philips Lighting,
A division of Philips Electronics Ltd.
281 Hillmount Rd,
Markham, ON, Canada L6C 2S3
Tel. 800-668-9008

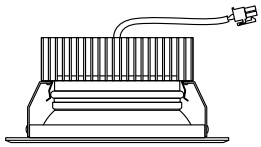
TYPE SF | TYPE SF | PROJECT CHESTERFIELD LOT 14 | CATALOG# LRCLD602WWF240-R25

LRCLD602 - 6" ARCHITECTURAL SHALLOW LED RETROFIT (1400/2400 LUMEN LED)

RETROFIT



5⅛"



3⅜"

7⅛"

SPECIFICATION

120V/277V 12W/25W LED

Application: Architectural-grade shallow LED recessed downlight retrofit with omnidirectional lumen output similar to CFL downlights. Ideal for low to high ceiling heights in commercial applications that require smooth ambient lighting without sacrificing footcandles.

Reflector Construction: One piece self-flanged design enables a clean trim finish, without the need for a secondary trim ring. Heavy-gauge aluminum reflector prevents ugly dents during shipping and installation. Held in place with 2 steel pressure springs.

Driver: 50/60Hz Electronic Direct Current Class 2 driver integrally mounted on thermally stabilized heat sink. Input current 0.50 Amps at 115VAC. Power Factor > 0.90 Operating Temperature: -30°C to +80°C. Accessible from above or below ceiling. Consult factory for compatible dimmers. See ordering guide for dimming options.

Emergency Option: Emergency LED Battery Back-up available, remotely mounted adjacent to housing by installer. When AC power fails,the device immediately switches to the emergency mode, operating the LEDs for a minimum of 90 minutes. Remote test switch, plate cover and junction box included. Optional Generator Transfer Device switches the driver to auxiliary generator power during the loss of normal AC power, (recommended for applications requiring individual circuit switching).

Dimming: The UniDim™ option (-DUN) is a universal dimming system that works with most ELV, Incandescent and 0-10V dimming controls.

Retrofit Mounting: Designed for use with existing 6" Architectural Incandescent, Compact Fluorescent and Metal Halide housings like LITON brand LVH6, LH600 and LHM600. Supplied with metal conduit for connection to existing electrical junction box. Features specially designed pressure spring clips that hold the retrofit trim firmly to the existing frame-in kit. Very easy to install.

Color Temperature: Comes standard with 4,000K Warm White LED's binned according to ANSI C78 377A for color temperature and chromaticity ranges. Available with other color temperatures with ANSI binning of 2,700K, 3,500K & 5,000K. To order use "-T" Suffix followed by color temperature. Example 3000K= T30. Consult factory as extended lead times and minimum order apply.

Thermal Management: Heat dissipation facilitated by exposed integral aluminum heat sink to maximize heat rejection in an open air environment. Recommended ambient temperature is below 35 degree celsius to achieve a minimum L70 life of 50,000 hours according to LM80 testing.

Insulation Contact: Non IC rated, must be kept 3" from insulation.

Warranty: Covered by a 5 Year Warranty to be free of defects in materials and craftsmanship. Fixture should not be installed in applications with ambient temperature above 35 degrees C. Doing so will result in reduced lamp life and voided warranty.

Safety Labels: ETL/cETL listed. Suitable for dry, damp and wet locations. NYC approved: Calendar #41937.

Housing: Pre-wired housing adjusts up to a 1/2" - 1 3/4" ceiling thickness. Trim is secured with torsion wing springs.

Mounting: Housing suitable for new construction installations only, supplied with (2) 24" adjustable hanger bars with 90 degrees repositioning ability. Hanger bars equipped with nail-less install 3/4" serrated barbed studs and with captive nails, for faster and easier secure mounting in wood joists. Set-screws lock into position and prevent shifting after installation. Earthquake structural cable compatible for drop panel ceiling or any other mounting that requires direct support from structural ceilings.

Driver: Electronic Direct Current U.L. Listed driver mounted away from LED Array for cool operation and end-of-life modularity. Comes standard with 120VAC input and available with optional 120V/277V universal voltage input.

Dimming: Dimming option smoothly dims down as low as 10% of initial light output with flicker-free operation. Incandescent dimming option (-DIN) works with standard Incandescent dimmers. Factory qualified for use with LUTRON Brand Dimmers: S600PR, DVSCCL-153P & DV600PR as well at Leviton# IP106-600W.

Power Connection: LED heat sinked lamp module is replaceable via onboard quick exclusionary disconnect terminal. No tools required. Meets CA Title 24 Requirements and other standards restricting the use of Medium Base or Bi-Pin Sockets.

Lumen Maintenance: Minimum 50,000 hours L70 life based on ANSI TM-21 calculations from LM80 standardized test results. (25,000 for Insulation Contact)

Thermal Management: Effective thermal dissipation facilitated by integral cast-aluminum, finned heat sink design for maximum heat rejection to provide long LED life.

2016.4.21

FEATURE: U.S. Assembled

ORDERING EXAMPLE : LRCLD602WWF100-R12-EM

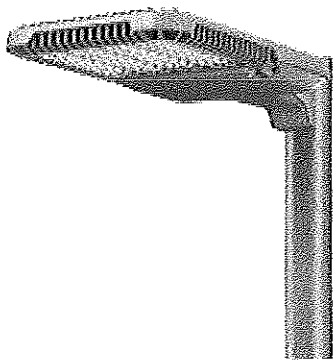
LRCLD602	FINISH	LUMEN PACKAGE	OPTIONS	LED COLOR
LRCLD602	**WWF** :White	**100-R12**:1400 Lumens	**Blank** :Non-Dimming	**Blank** :4000K
		240-R25:2400 Lumens	**UE** :Non-Dimming (120V/277V)	**-T30** :3000K
			UE-D10 :0-10V Dimming (120V/277V)	**-T35** :3500K
			UE-DUN:Universal Dimming (120V/277V)	
			-EM :Emergency Backup	

ID#: 2843

Photometric Report (Type SA)

Filename: ECF-3-160LA-481A-NW.ies
[TEST] LRP0722F
[TESTLAB] PHILIPS Lighting - San Marcos
[ISSUEDATE] 7/16/2013
[MANUFAC] PHILIPS GARDCO
[LUMCAT] ECF-3-160LA-481A-NW
[LUMINAIRE] ECOFORM
[LAMP] (1) LIGHT ARRAY OF 48 LEDs DRIVEN AT 1050mA

Maximum Candela = 9221.7002 at 55 H 70 V

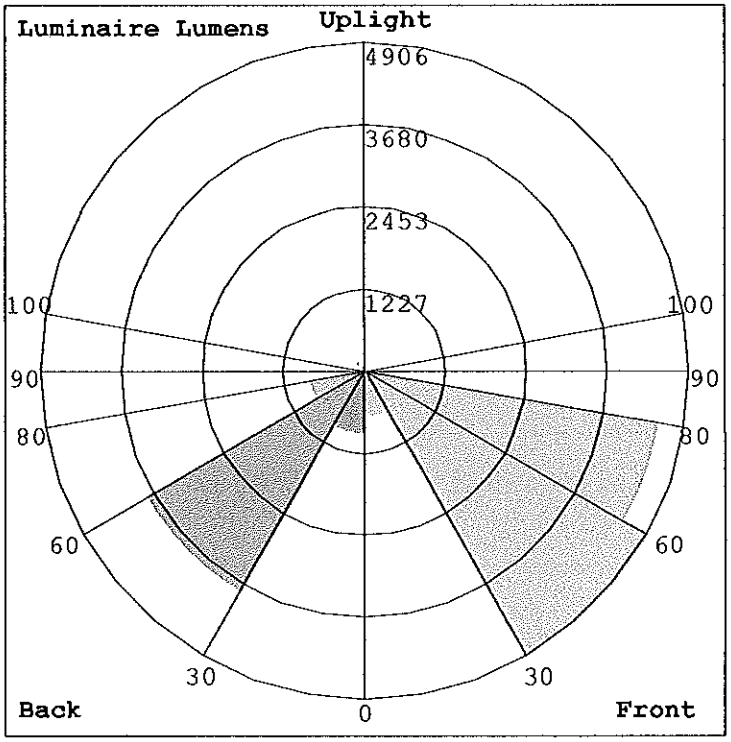


Classification:

Road Classification: Type IV, Medium, N.A. (deprecated)
Upward Waste Light Ratio: 0.00
Luminaire Efficacy Rating (LER): 98
Indoor Classification: Direct
BUG Rating : B3-U0-G2

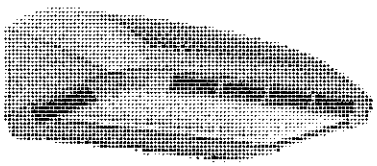
LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	640.3	N.A.	4.1
FM (30-60)	4906.4	N.A.	31.5
FH (60-80)	4493.0	N.A.	28.9
FVH (80-90)	52.2	N.A.	0.3
BL (0-30)	897.6	N.A.	5.8
BM (30-60)	3758.6	N.A.	24.1
BH (60-80)	802.7	N.A.	5.2
BVH (80-90)	14.0	N.A.	0.1
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	15564.8	N.A.	100.0
BUG Rating	B3-U0-G2		



Photometric Report (Type SB)

Filename: 161-4-220LA-9670-NW.ies
[TEST] LRP0542E
[TESTLAB] PHILIPS Lighting - San Marcos
[ISSUEDATE] 1/14/2013
[MANUFAC] PHILIPS GARDCO
[LUMCAT] 161-4-220LA-9670-NW
[LUMINAIRE] PHILIPS 161 SCONCE WITH TYPE 4 OPTIC AT 700mA
[LAMP] (2) LEDgine 48 LUXEON R NW



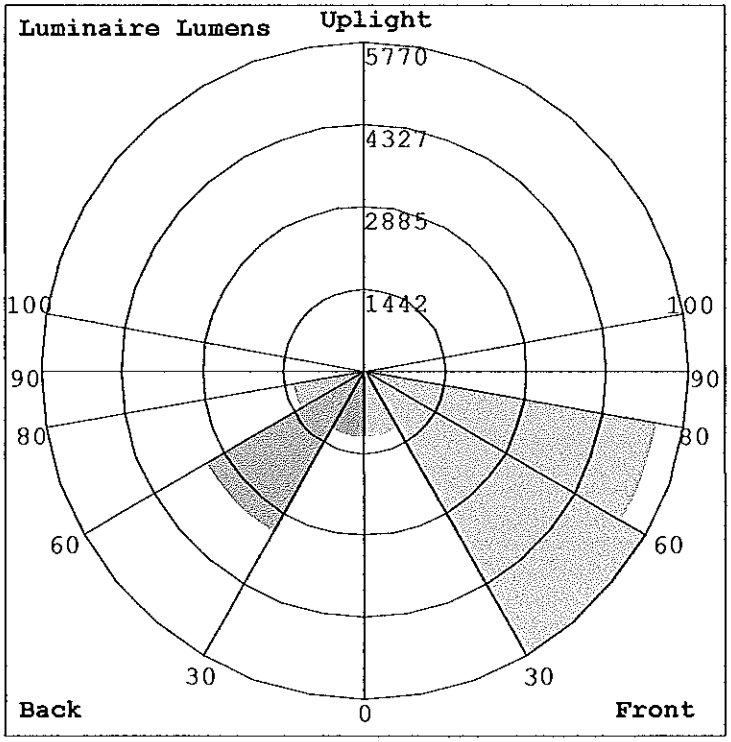
Maximum Candela = 11868.214 at 45 H 67.5 V

Classification:

Road Classification: Type IV, Short, N.A. (deprecated)
Upward Waste Light Ratio: 0.00
Luminaire Efficacy Rating (LER): 85
Indoor Classification: Direct
BUG Rating : B3-U0-G3

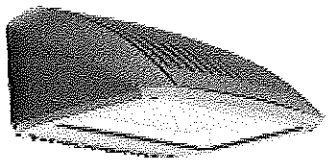
LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	1113.7	N.A.	6.2
FM (30-60)	5769.6	N.A.	32.4
FH (60-80)	5256.5	N.A.	29.5
FVH (80-90)	59.2	N.A.	0.3
BL (0-30)	1121.3	N.A.	6.3
BM (30-60)	3218.2	N.A.	18.1
BH (60-80)	1264.9	N.A.	7.1
BVH (80-90)	18.8	N.A.	0.1
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	17822.2	N.A.	100.0
BUG Rating	B3-U0-G3		



Photometric Report (Type SC-ALT)

Filename: 121-2-18LA-NW.IES
[TEST] SCALED FROM LRP0839A
[TESTLAB] PHILIPS Lighting - San Marcos
[ISSUEDATE] 9/23/2014
[MANUFAC] PHILIPS GARDCO
[LUMCAT] 121-2-18LA-NW
[LUMINAIRE] PHILIPS 121 WITH TYPE 2 OPTICS
[LAMP] (1) LEDGINE 2.2 LIGHT ARRAY OF 16 LEDs (LUXEON R) DRIVEN AT 350mA



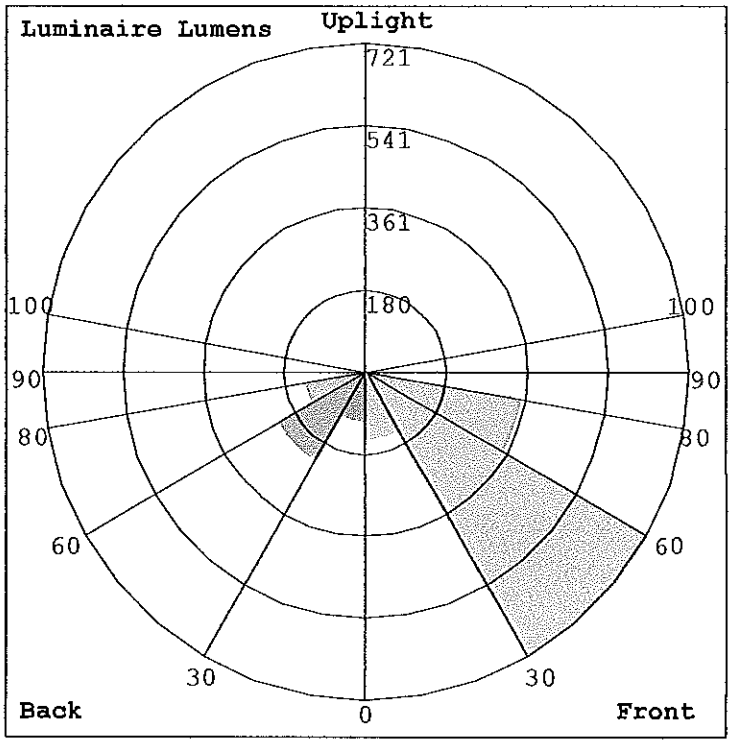
Maximum Candela = 1870.149 at 72.5 H 67.5 V

Classification:

Road Classification: Type II, Medium, N.A. (deprecated)
Upward Waste Light Ratio: 0.00
Luminaire Efficacy Rating (LER): 93
Indoor Classification: Direct
BUG Rating : B1-U0-G1

LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	142.9	N.A.	8.5
FM (30-60)	721.2	N.A.	43.1
FH (60-80)	347.5	N.A.	20.8
FVH (80-90)	3.2	N.A.	0.2
BL (0-30)	103.9	N.A.	6.2
BM (30-60)	218.9	N.A.	13.1
BH (60-80)	132.0	N.A.	7.9
BVH (80-90)	3.6	N.A.	0.2
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	1673.2	N.A.	100.0
BUG Rating	B1-U0-G1		



Photometric Report (Type SF)

Filename: L01143502_LRCLD602WWF240.ies
[TEST] L01143502-LRCLD602WWF240-R25UE
[TESTLAB] LIGHT LABORATORY, INC.
[ISSUEDATE] 01/13/2014
[MANUFAC] LITON LIGHTING INC.
[LUMCAT] LRCLD602WWF240-R25UE
[LUMINAIRE] 9"DIA. X 6"H. LED LUMINAIRE DIFFUSED LENS
[LAMPCAT] N/A
[BALLAST] INPUT: 120-277VAC, 0.325-0.143A, 50/60HZ
OUTPUT: 18-36VDC, 700mA

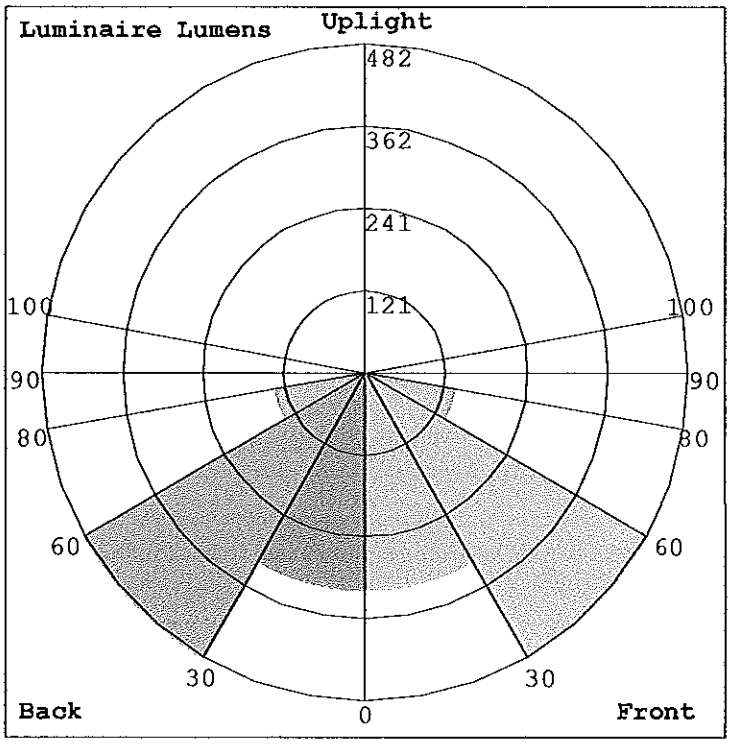
Maximum Candela = 872.7 at 0 H 0 V

Classification:

Road Classification: Type V, Very Short, N.A. (deprecated)
Upward Waste Light Ratio: 0.00
Luminaire Efficacy Rating (LER): 70
Indoor Classification: Direct
BUG Rating : B1-U0-G1

LCS Summary:

LCS Zone	Lumens	%Lamp	%Lum
FL (0-30)	318.2	N.A.	16.8
FM (30-60)	482.3	N.A.	25.5
FH (60-80)	135.2	N.A.	7.1
FVH (80-90)	10.7	N.A.	0.6
BL (0-30)	318.2	N.A.	16.8
BM (30-60)	482.3	N.A.	25.5
BH (60-80)	135.2	N.A.	7.1
BVH (80-90)	10.7	N.A.	0.6
UL (90-100)	0.0	N.A.	0.0
UH (100-180)	0.0	N.A.	0.0
Total	1892.8	N.A.	100.0
BUG Rating	B1-U0-G1		



UCM/UCL

Universe Collection® – Medium/Large Scale

STREET LIGHT

CONTEMPORARY

- MicroCore™ technology
- First decorative, modular system with precise LED aiming capabilities
- Surge protection included
- 0-10v dimming ready
- IP66 optics
- DLC listed
- Powder coat finish in 13 standard colors with a polymer primer sealer

ORDERING INFORMATION

UCM/UCL – ____ – ____ – ____ – ____ – ____ – ____ – ____ – ____

MODEL	
UCM	Universe Medium
UCL	Universe Large
UCM Upgrade Kit – UCM-LK	
UPLT	For internal illumination. Add 4 watts
Distribution	T2, T3, T4, T5, TL, TR
Color	32LED-3K, 32LED-4K, 32LED-5K
Driver	700 (700mA, 75 watts)
Bezel Fishes	Available in 13 standard finishes and premium finishes
UCL Upgrade Kit - UCL-LK	
UPLT	For internal illumination. Add 4 watts
Distribution	T2, T3, T4, T5, TL, TR
Color	56LED-3K, 56LED-4K, 56LED-5K
Driver	700 (700mA, 132 watts)
	450 (450mA, 85 watts)
Bezel Fishes	Available in 13 standard finishes and premium finishes

HOOD	
ANG	Angled hood
BEL	Bell hood
FLR	Flared hood
STR	Straight hood
SKB	Skirted bell hood

LUMINOUS ELEMENTS	
WND	4 luminous windows
SR	Solid rings
VSL	Vertical slots
LUM	Luminous rings

LUMINOUS RINGS COLOR OPTION	
BL	Blue inner lens
RD	Red inner lens
GRN	Green inner lens

DISTRIBUTION	
T2	Type 2
T3	Type 3
T4	Type 4
T5	Type 5
TL	45° Left
TR	45° Right

COLOR TEMPERATURE	
UCM	
32LED-3K	Warm White, 3000K output
32LED-4K	Neutral White, 4200K output
32LED-5K	Bright White, 5100K output
UCL	
56LED-3K	Warm White, 3000K output
56LED-4K	Neutral White, 4200K output
56LED-5K	Bright White, 5100K output

DRIVER	
120 thru 277 volt	
UCM	
700	700mA drive current, 75 watts
UCL	
700	700mA drive current, 132 watts
450	450mA drive current, 85 watts

COLORS	
AWT	Arctic White
BLK	Black
MTB	Matte Black
DGN	Dark Green
DBZ	Dark Bronze
WRZ	Weathered Bronze
BRM	Metallic Bronze
VBL	Verde Blue
CRT	Corten
MAL	Matte Aluminum
MDG	Medium Grey
ATG	Antique Green
LGY	Light Grey
RAL/ PREMIUM COLOR	Provide a RAL 4 digit color number
CUSTOM COLOR	Please provide a color chip for matching

OPTIONS	
OPTIONS - HOOD	
COP	Copper
STS	Stainless Steel
OPTIONS	
WIH	Integral HBA wiHUBB IFM transceiver and antenna
SLC	Luminous element remains unlit during normal operation
FTG	Flat glass lens.
FLD	Lightly diffused finish on flat glass lens
SAG	Clear sag glass lens. **UCM MicroCore only.**
RCK	Rock guard painted black. **UCM only.**
LDL	Lightly diffused lens
PCA-C	Rotatable photocell housing-contemporary
SCP	Programmable motion control, factory default is 50%, requires pole.

Please visit www.aal.net for mounting, dimensions, weight and EPA.

FEISS
EST. 1955

ENTRY ARCH
DECO (EAD)

www.feiss.com info@feiss.com 1.800.969.3347

THE REDDING STATION COLLECTION

< PREVIOUS

1-LIGHT OUTDOOR LANTERN
Tarnished Silver

STYLE NO.: OL8601TRD

DESCRIPTION

All Aboard! Reminiscent of old railroad lighting, the Redding outdoor lighting collection by Feiss warmly illuminates its surroundings no matter the residential architecture. The all-a shades are designed to withstand the elements and feature detailed silhouette which conveys the vintage styling which become so popular. The LED version features field-repalace advanced, warm-on-dim LED technology that warms in colc dimmed, going from 2700K to 2200K and is California Title 2 compliant. Dark Sky compliant.

Dimensions:W: 12" H: 12 1/2"
Lamping: (1) Medium A21 100w Max.
Bulb not included.

CFL Convertible. For commercial quotes, call 847.410.

Incandescent

DETAILS

Extends:13 7/16"
Backplate: H: 7 7/8" W: 4 3/4" Depth: 1"

DOWNLOADS

Instructions (English)
Parts Diagram (English)
Specification Sheet
PDF Specification Sheet
Hi-Res Images