



III.A.

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: Site Development Plan

Meeting Date: October 8, 2015

From: John Boyer
Senior Planner

Location: 16300 Justus Post Road

Applicant: Lantz-Boggio Architects and Stock & Associates Consulting Engineers, Inc.

Description: **Chesterfield Village Mall (The Grove in Chesterfield) SDP:** A Site Development Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design for a 3.64 acre tract of land zoned "UC" Urban Core District located southeast of the intersection of Chesterfield Parkway West and Justus Post Road.

PROPOSAL SUMMARY

The request is for construction of a three (3) story 82,300 square foot assisted living care facility. The subject site is zoned "UC" Urban Core District and is governed under the terms and conditions of City of Chesterfield Ordinance 2861.

ZONING HISTORY OF SUBJECT SITE

This site is located within the Southwest Quadrant of the Chesterfield Village, specifically parcel C104. The Southwest Quadrant of Olive/Clarkson and I-64 was included in the original presentation to the St. Louis County Planning Commission in 1971 to initiate development of Chesterfield Village. Parcel C104 is located within the Regional Commercial/Town Center which permitted C1 through C7 land uses. Two office buildings were previously located on the subject parcels and later were demolished in 2005.

On August 3, 2015, City of Chesterfield Ordinance 2861 approved the rezoning of this parcel from "C8" Planned Commercial to the "UC" Urban Core District. Ordinance 2861 permits an assisted living care facility, the proposed land use. The subject site is currently vacant minus a portion of the previous parking area of the office buildings.



Figure 1: Aerial Photo

STAFF ANALYSIS

General Requirements for Site Design:

A. Site Relationships

This is a 3.64 acre tract located within the Southwest Quadrant of the Chesterfield Village. The proposed three (3) story, 82,300 square foot structure is projected to be situated towards Chesterfield Parkway with parking south of the structure providing a buffer from existing residences to the south.

B. Circulation System and Access

Proposed access to the site will be via an existing entrance point off Justus Post Road. This existing access point is planned to be updated for the proposed improvement. No other vehicular access to the site is proposed by the applicants nor permitted by the site's ordinance.

Pedestrian access is planned to be enhanced via this application. The proposed Site Development Plan documents a bike rack to encourage bicycle use and provides a bus shelter off Chesterfield Parkway for the existing bus stop. The applicant will be working with St. Louis-Metro Transit as this process moves forward on the exact appearance and placement of this shelter.

C. Topography

The subject site changes in grade as one moves towards the on-ramp for Clarkson Road/Hwy 340 from Justus Post Road with the high point near Clarkson Road. The site shares an existing landscape berm to the south with the adjacent residential subdivision (Sycamore subdivision) which provided additional screening from the previous office buildings. This berm is to be maintained and improved by the applicants associated with this application as required via City of Chesterfield Ordinance 2861. Additional discussion on the landscaping of this berm may be found within the Landscape Design Section on page 4.

D. Retaining Walls

Retaining walls are proposed associated with this development. The walls are proposed to be masonry and located on the eastern side of the lot adjacent to the on-ramp for Clarkson Rd.

General Requirements for Building Design:

A. Scale, Design, Materials and Color

The three (3) story structure design employs a slight curve to the site, with the building utilizing many residential features to integrate the structure into the area, which has residential homes to the south and west. Residential features include a pitched roof, cornices, and use of similar materials of adjacent residential developments. Materials for the structure include a stone veneer wainscoting at the base of the structure, lap siding, and shake siding seen in adjacent residential developments. These materials are wrapped on all sides of the structure to provide a cohesive building. Colors include different shades of grays which mimic some of the residential structures in the adjacent area. Colors, architectural features and materials are used consistently on all side of the proposed structure, which is recommended by the City architectural standards.

Other architectural technique uses are the connectors which assist in breaking the size of the building to mimic residential units. All mechanical units are planned to be roof mounted and screened by the pitched roofs.



Figure 2: North Elevation



Figure 3: South Elevation

B. Landscape Design, Screening and Fencing

A combination of deciduous trees, coniferous trees and shrubs/bushes have been utilized throughout the exterior of the site in addition to landscaping planned to be retained. The storm-water bio-retention of the site is planned to be landscaped per MSD requirements, which will add to the overall landscaping of this project. As discussed earlier under the topography section, the existing berm is planned to be heavily planted and enhanced to screen residences to the south. Planned landscaping is continuing to be evaluated by Staff.

A proposed trash and generator planned with this construction on the southeast portion of the facility will be enclosed by a screening wall. The enclosure will match the material and color of the proposed main structure.

C. Lighting

Lighting is proposed to use a combination of wall mounted pack lights near the access points of the structure and pole lights in the parking area. Details on planned site lighting are included for the Architectural Review Board's review and comment. While all site lighting is included for the ARB's review and comment, Staff is continuing to review proposed lighting in accordance with the City's lighting standards.

DEPARTMENTAL INPUT

Staff has reviewed the Site Development Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design. Be advised, this project is still going through development review by City Staff and will not proceed to the Planning Commission until all outstanding items have been addressed. All recommendations made by the ARB will be included in Staff's report to the Planning Commission.

Staff requests review and recommendation on this submittal for Chesterfield Village Mall (The Grove in Chesterfield) Site Development Plan.

MOTION

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

- 1) "I move to forward the Site Development Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design, for Chesterfield Village Mall (The Grove in Chesterfield), as presented, with a recommendation for approval (or denial) to the Planning Commission."

- 2) “I move to forward the Site Development Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect’s Statement of Design, for Chesterfield Village Mall (The Grove in Chesterfield), to the Planning Commission with the following recommendations...”

Attachments

1. Architectural Review Packet Submittal



**ARCHITECTURAL REVIEW BOARD
Project Statistics and Checklist**

Date of First Comment Letter Received from the City of Chesterfield 9/3/15

Project Title: The Grove in Chesterfield **Location:** Chesterfield, MO

Developer: Brinkmann Constructors Senior Lifestyle **Architect:** Lantz-Boggio Architects **Engineer:** Stock & Associates

PROJECT STATISTICS:

Size of site (in acres): 3.64 Acre **Total Square Footage:** 82,300 GSF **Building Height:** 62'-0"

Proposed Usage: Assisted Living and Memory Support Senior Care Facility

Exterior Building Materials: Stone Veneer, Pre-Finished Lap Siding and Cedar Shakes

Roof Material & Design: Asphalt Shingle

Screening Material & Design: Stone Veneer, Pre-Finished Lap Siding and Cedar Shakes

Description of art or architecturally significant features (if any): _____
Craftsman Style Using Subtle Colors of Grays

ADDITIONAL PROJECT INFORMATION:

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

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

Material Samples and mock-up of building facade finishes will be brought to the ARB Meeting.

5650 DTC Parkway
Suite 200
Englewood, Colorado
80111
(303)773-0436
fax (303)773-8709

Memorandum

September 23, 2015

To: The Architectural Review Board
The City of Chesterfield, Missouri

From: Ro-Tien Liang, RA, LEED AP

Reference: The Grove in Chesterfield
16300 Justus Post Rd.
Chesterfield, MO 63017

Architect's Statement of Design

The purpose of this letter is to identify how each section in the Architectural Review Standards has been addressed and the intent of the project.

SITE DESIGN

The building is situated in response to the existing neighborhood with the front of the building facing southwest towards the neighboring residence and the rear of the building facing Chesterfield Parkway. Courtyards and pedestrian paths will be provided for the residents, with the majority of the courtyards being on the north side. The service side is on the east side of the building, which is away from public view.

The access into the facility is off of Justus Post Road. Parking is lineal along the front of the building, with setbacks, existing berm and planting that creates a landscaped foreground from the south neighbors.

The orientation and placement of the building takes advantage of the existing topography to minimize disturbance of the natural grade and uses existing berms to screen the parking area.

Retaining walls will be minimized because of the building placement. In locations where retaining walls are required, it will be of stone, masonry, or textured concrete with appropriate landscaping.

BUILDING DESIGN

The scale of the building has taken consideration from adjacent residential and commercial developments. Architectural elements (materials, windows, roof line) are all related to residential design, and borrowing design elements from neighboring houses. The building is divided with connectors, which breaks down the overall mass. It also creates a rhythm that emulates the neighborhood.

The building is laid out in a slight curve, in response to the shape of the site and the topography. This gesture also deconstructs the lineal streetscape.

Roof top equipment will be screened by screen walls and parapets, which are an extension of the building façade, with similar materials and colors.

Equipment and trash enclosure are placed on the east side of the site, which is less visible from the neighborhood on the south. It will be screened by stone and siding walls that match with the main building.

The primary materials used are stone veneer, lap siding, shake siding, cementitious trim boards, and asphalt roof shingles. The colors used are subtle shades of grays, which emulates from the surrounding neighborhood.

The landscaping around the building will be a consistent theme, with variation on specific areas like the courtyard and the main entrance. Setbacks have been established to meet or exceed zoning requirements and appropriate landscaping will be placed around the perimeter of the site.

Monument signage and directional and traffic signs are placed strategically, which will adhere to the city codes.

The above letter states how each section in the standards has been addressed and describes the intent of the project. This letter supplements the drawings that are submitted, which visually depicts our design intent.

Sincerely,

 9.23.15

Ro-Tien Liang, RA, LEED AP
Project Director
Lantz-Boggio Architects, P.C.

cc: Bobby Swacil, Bob Brinkmann, Nancy Cutter, David Fik



THE GROVE IN CHESTERFIELD

SITE DEVELOPMENT PLAN

A TRACT OF LAND BEING LOT A AND PART OF LOT B OF CHESTERFIELD VILLAGE AS RECORDED IN PLAT BOOK 183, PAGE 95 LOCATED IN U.S. SURVEY 2002, TOWNSHIP 45 NORTH, RANGE 4 EAST OF THE 5TH PRINCIPAL MERIDIAN CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI
ZONED: UC (URBAN CORE)

SITE INFORMATION

- 3.6 Acres ±
- 16300 JUSTUS POST RD.
- 195431691, 195430579
- "UC" URBAN CORE
- EXISTING ZONING
- EXISTING ORD.
- MONARCH FIRE PROTECTION
- PARKWAY DISTRICT
- SEWER DISTRICT
- ST. LOUIS SEWER DIST.
- MISSOURI AMERICAN WATER COMPANY
- LAKELEE GAS
- ANDERSON U.E.
- AT&T

ST. LOUIS COUNTY BENCHMARK

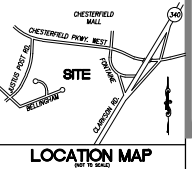
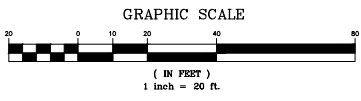
12-165 - ELEV. 646.98 "STANDARD ALUMINUM DISK"
STAMPED 5-31 SET ALONG THE WEST SIDE OF
ELDRIDGE DRIVE, ACROSS THE NORTH DRIVE OF FIRST
NATIONAL BANK, APPROX. 100' SOUTH OF STRECKER RD.
& MCARDLE POINTE DR.

SITE BENCHMARK

CUT CROSS IN TRAFFIC SIGNAL MEDIAN AT S.W. QUADRANT
OF CHESTERFIELD PARKWAY WEST AND HIGHWAY 340 ON
RAMP, AS SHOWN HEREON.

DRAWING INDEX

- 1 - SITE DEVELOPMENT PLAN
- 2 - SITE SECTIONS
- 3 - SITE PHOTOMETRICS
- 4 - SITE ORDINANCE
- 5 - SITE ORDINANCE
- 6 - TREE STAND DELINEATION
- 7 - LANDSCAPE PLAN
- 8 - TREE PROTECTION PLAN



PROPERTY DESCRIPTION
A tract of land being Lot A and Part of Lot B of Chesterfield Village Area "A" Phase One Plat One, a subdivision recorded in Plat Book 183, Page 96 and 97 of the St. Louis County, Missouri Recorder's Office and being more particularly described as follows:

GENERAL NOTES
1. GRADING AND DRAINAGE PER CITY OF CHESTERFIELD AND ST. LOUIS COUNTY DEPT. OF PUBLIC WORKS AND SPECIFICATIONS. STORM WATER TO DISCHARGE AT AN ADEQUATE NATURAL DISCHARGE POINT.
2. THE LOCATION OF STORM AND SANITARY SEWER IMPROVEMENTS ARE APPROXIMATE ONLY. ACTUAL LOCATION SHALL BE DETERMINED BY FIELD CONDITIONS AND SHALL BE INDICATED ON THE IMPROVEMENT PLAN.
3. NO SLOPE SHALL EXCEED 3:1 FOR EARTH SLOPES. STEEPER SLOPES SHALL BE QUALIFIED BY A PROFESSIONAL GEOTECHNICAL ENGINEER.
4. BOUNDARY AND TOPOGRAPHICAL SURVEY BY STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC.
5. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE. SIGN APPROVAL IS A SEPARATE PROCESS.
6. SUBJECT PROPERTY LIES WITHIN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 500-YEAR FLOOD) ACCORDING TO THE NATIONAL FLOOD INSURANCE RATE MAP FOR ST. LOUIS COUNTY, MISSOURI AND INCORPORATED AREAS. MAP NUMBER 21980039 H WITH AN EFFECTIVE DATE OF AUGUST 2, 1995.
7. TRASH ENCLOSURE SHALL BE CONSTRUCTED OF MATCHING BRICK MATERIALS.
8. ALL PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
9. OPEN SPACE CALCULATIONS:
LOT = 3.84 AC.
BUILDING = 0.66 AC. (18.12%)
PAVEMENT = 0.83 AC. (22.82%)
OPEN SPACE = 2.15 AC. (59.07%)
10. F.A.R. = 0.53
11. PARKING CALCULATIONS:
DEFINED USE = NURSING HOME
REQUIRED: 1 SPACE FOR EVERY 3 BEDS = 32 SPACES (96 BEDS)
PROVIDED: 53 REGULAR SPACES
57 TOTAL SPACES
12. ALL MECHANICAL EQUIPMENT SHALL BE SCREENED.
13. RECEIVING STORM AND SANITARY SEWERS WILL BE EVALUATED DURING IMPROVEMENT PLANS.

CURRENT OWNER
JPM CORPORATION
DB. 6800 PG. 2098
LOC.# 19543079
16300 JUSTUS POST RD.
CHESTERFIELD, MO 63005
AND
CHESTERFIELD MFB CORP.
DB. 7102 PG. 975
LOC.# 19543689
16120 N. CHESTERFIELD PARKWAY

SURVEYOR'S CERTIFICATION
This is to certify that Stock and Associates Consulting Engineers, Inc. has prepared this Site Development Plan from an actual survey. The information shown is a correct representation of all existing and proposed land divisions.
STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC.
L.S. No. 222-D
By: Daniel Ehlmann, Missouri L.S. No. 2215

THE GROVE IN CHESTERFIELD

SITE DEVELOPMENT PLAN FOR:
16300 JUSTUS POST ROAD
CITY OF CHESTERFIELD, MISSOURI 63017

DATE: SEPT. 23, 2015	REVISIONS:
GEORGE M. STOKK - E-20116 CIVIL ENGINEER CERTIFICATE OF AUTHORITY NUMBER: 000006	
Per City Commission: 09/23/15	
DRAWN BY: []	CHECKED BY: []
DATE: 08/17/2015	JOB NO.: 215-0215
SCALE: 7/8"	BASE MAP: # 183
FILE: []	DATE: []
DATE: []	DATE: []
SHEET TITLE: SITE DEVELOPMENT PLAN	
SHEET NO.: SHEET 1	

PREPARED FOR:
THE GROVE ASSISTED LIVING
16650 CHESTERFIELD GROVE RD. STE. 100
CHESTERFIELD, MO. 63005
PHONE: (636) 537-9700

PREPARED BY:
STOCK & ASSOCIATES
Consulting Engineers, Inc.
195 Chesterfield Parkway
St. Louis, Missouri 63005
314-910-1144 FAX (314) 537-9700
e-mail: general@stockandassociates.com
Web: www.stockandassociates.com



1 NORTH ELEVATION
1/16" = 1'-0"



2 SOUTH ELEVATION
1/16" = 1'-0"

COLOR LEGEND

- COLOR GROUP "A" :**
 PRE-FINISHED SHAKE SIDING- MAGNETIC GRAY (SW 7058)
 PRE-FINISHED LAP SIDING - MAGNETIC GRAY (SW 7058)
 PRE-FINISHED LAP SIDING - UNUSUAL GRAY (SW 7059)
- COLOR GROUP "B" :**
 PRE-FINISHED SHAKE SIDING- AMAZING GRAY (SW 7044)
 PRE-FINISHED LAP SIDING - AMAZING GRAY (SW 7044)
 PRE-FINISHED LAP SIDING - INTELLECTUAL GRAY (SW 7045)
- ROOF GABLES:** CEDAR SHAKE SIDING - GRAY SEMI-TRANSPARENT STAIN
STONE VENEER: EARTHWORKS MAYOR BLEND

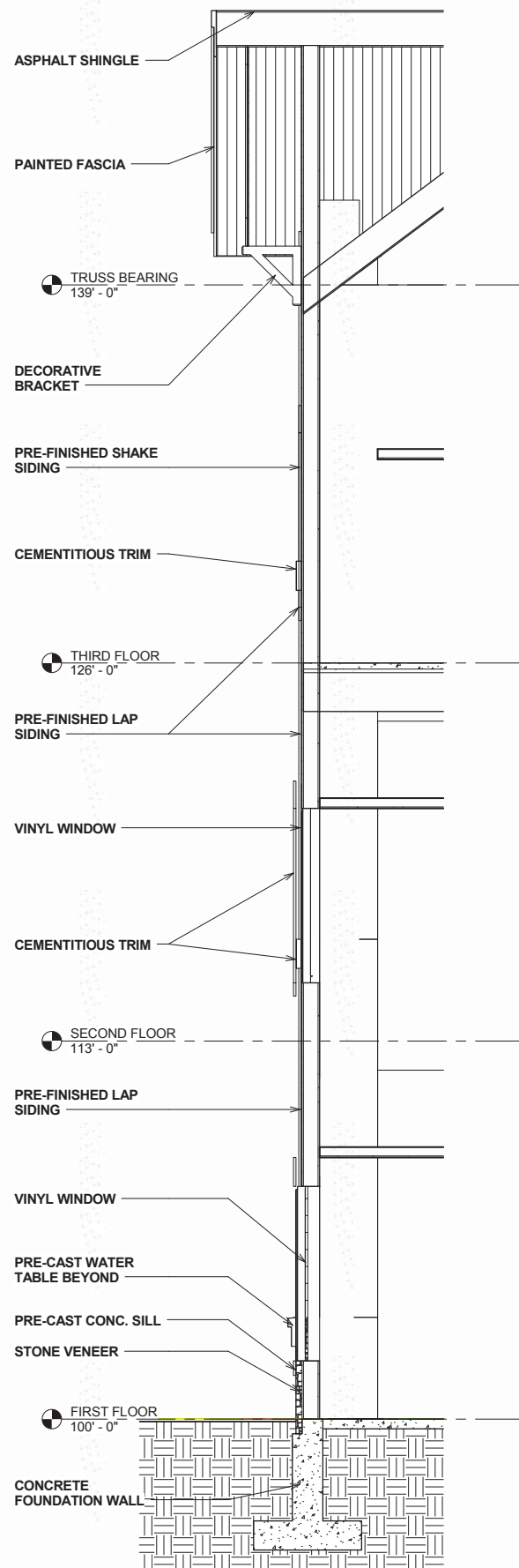


The Grove in Chesterfield

Chesterfield, Missouri

September 25th, 2015

Lantz - Boggio Architects, P.C.



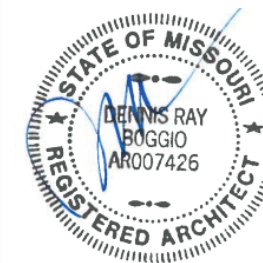
3 TYPICAL WALL SECTION
3/8" = 1'-0"



1 EAST ELEVATION
1/16" = 1'-0"



2 WEST ELEVATION
1/16" = 1'-0"



COLOR LEGEND

COLOR GROUP "A":
 PRE-FINISHED SHAKE SIDING- MAGNETIC GRAY (SW 7058)
 PRE-FINISHED LAP SIDING - MAGNETIC GRAY (SW 7058)
 PRE-FINISHED LAP SIDING - UNUSUAL GRAY (SW 7059)

COLOR GROUP "B":
 PRE-FINISHED SHAKE SIDING- AMAZING GRAY (SW 7044)
 PRE-FINISHED LAP SIDING - AMAZING GRAY (SW 7044)
 PRE-FINISHED LAP SIDING - INTELLECTUAL GRAY (SW 7045)

ROOF GABLES: CEDAR SHAKE SIDING - GRAY SEMI-TRANSPARENT STAIN
 STONE VENEER: EARTHWORKS MAYOR BLEND



The Grove in Chesterfield

Chesterfield, Missouri

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Chesterfield, Missouri

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1 FRONT PERSPECTIVE



2 Entry View



3 Rear View

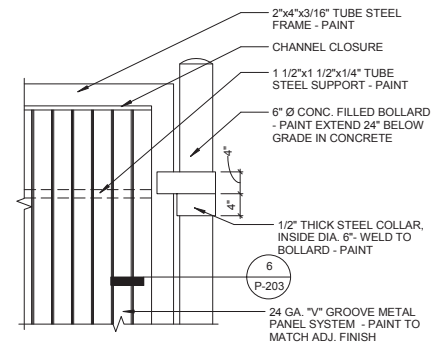


The Grove in Chesterfield

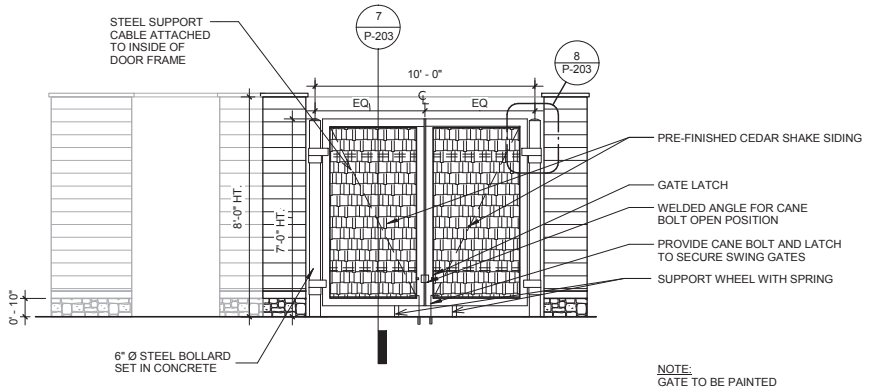
Chesterfield, Missouri

September 25th, 2015

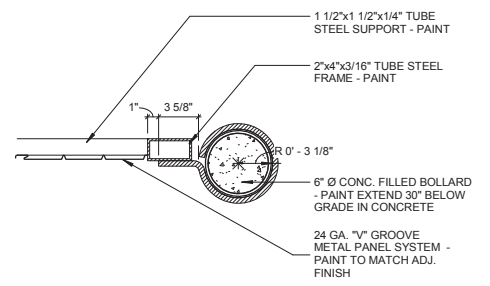
Lantz Boggio Architects, P.C.



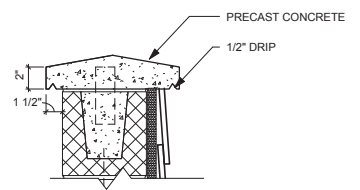
8 TRASH GATE
3/4" = 1'-0"



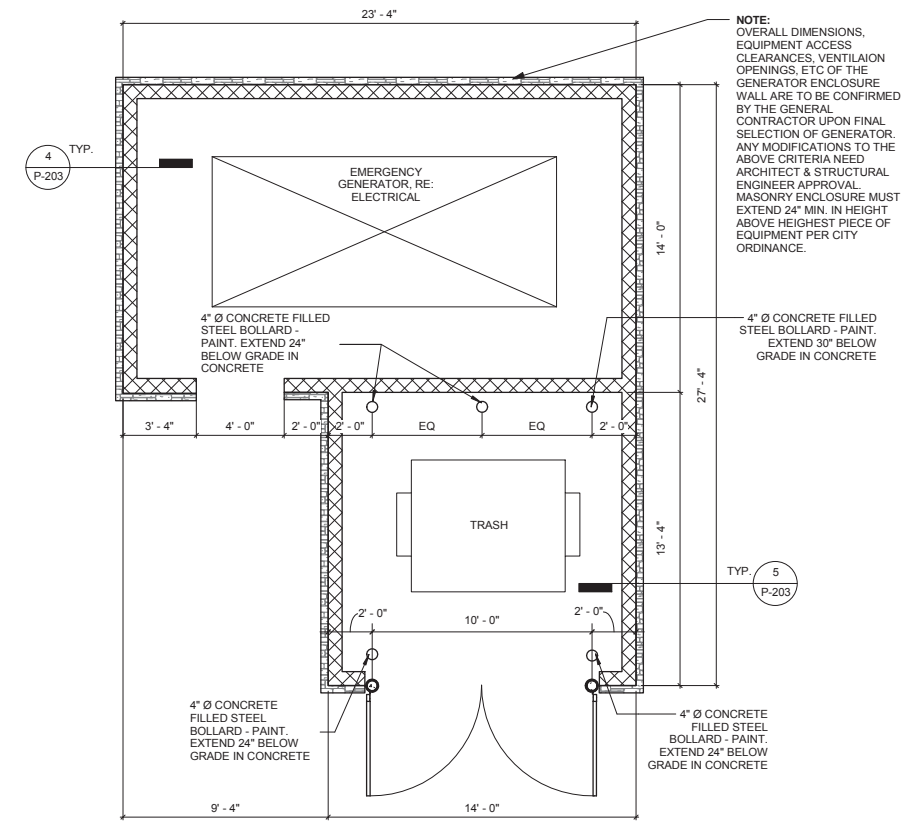
3 TRASH ENCLOSURE ELEVATION
1/4" = 1'-0"



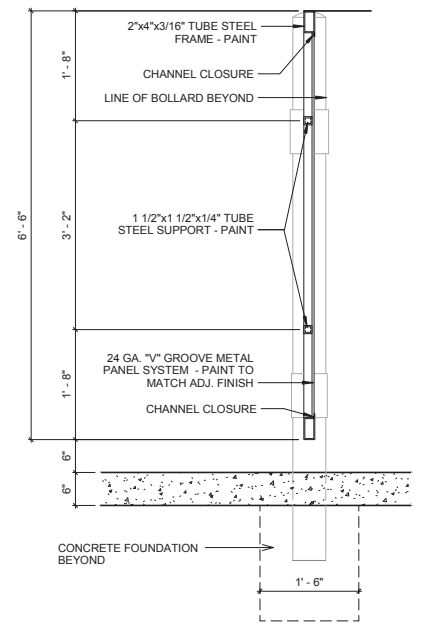
6 TRASH GATE DETAIL
1 1/2" = 1'-0"



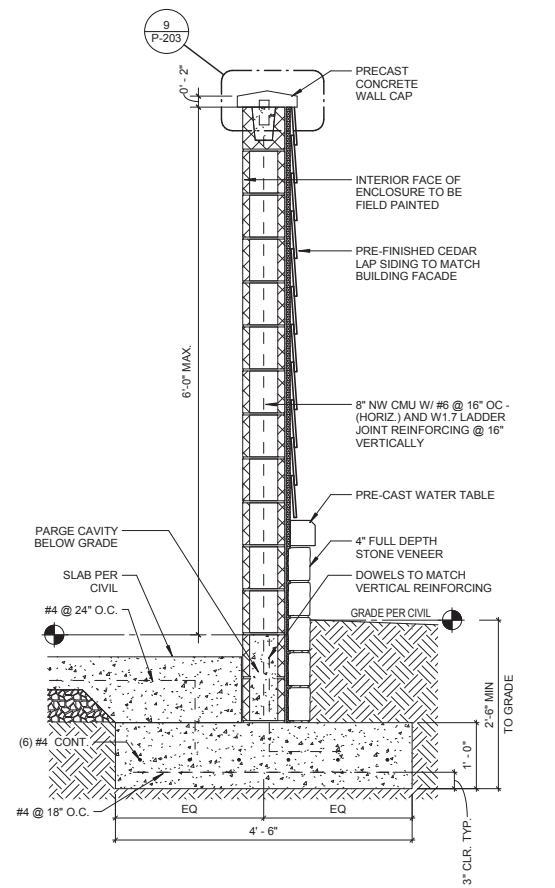
9 PRECAST CONCRETE WALL CAP
1 1/2" = 1'-0"



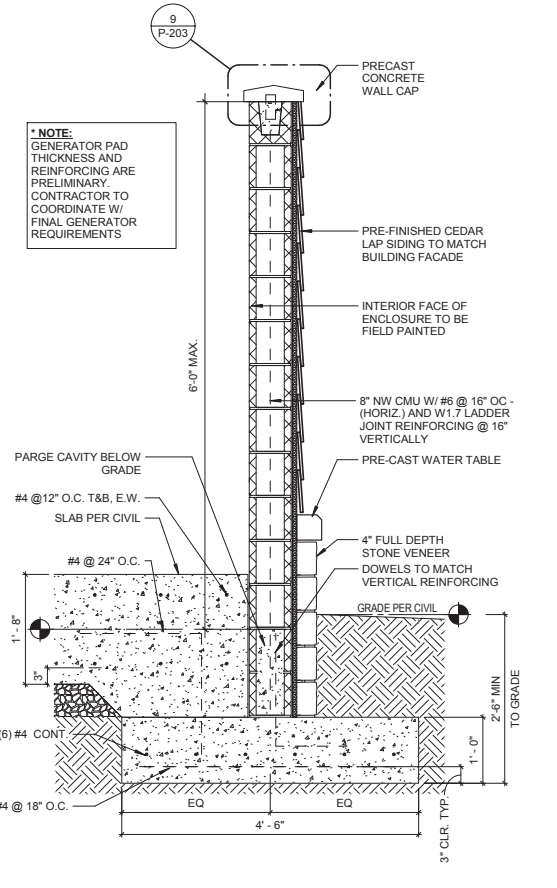
1 TRASH ENCLOSURE ENLARGED PLAN
1/4" = 1'-0"



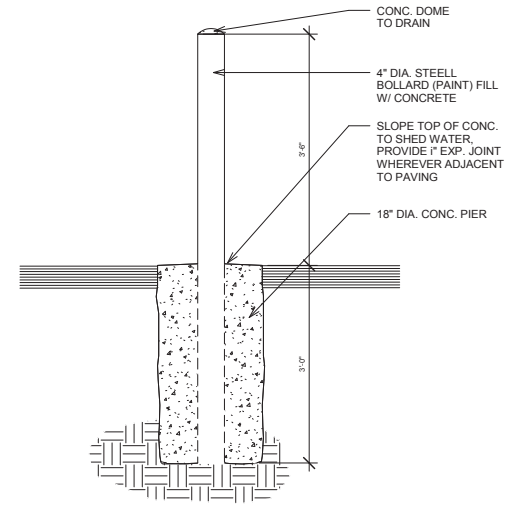
7 SECTION AT TRASH GATE, SUPPORT AND BOLLARD
3/4" = 1'-0"



5 TRASH ENCLOSURE WALL SECTION
3/4" = 1'-0"



4 GENERATOR ENCLOSURE WALL SECTION
3/4" = 1'-0"



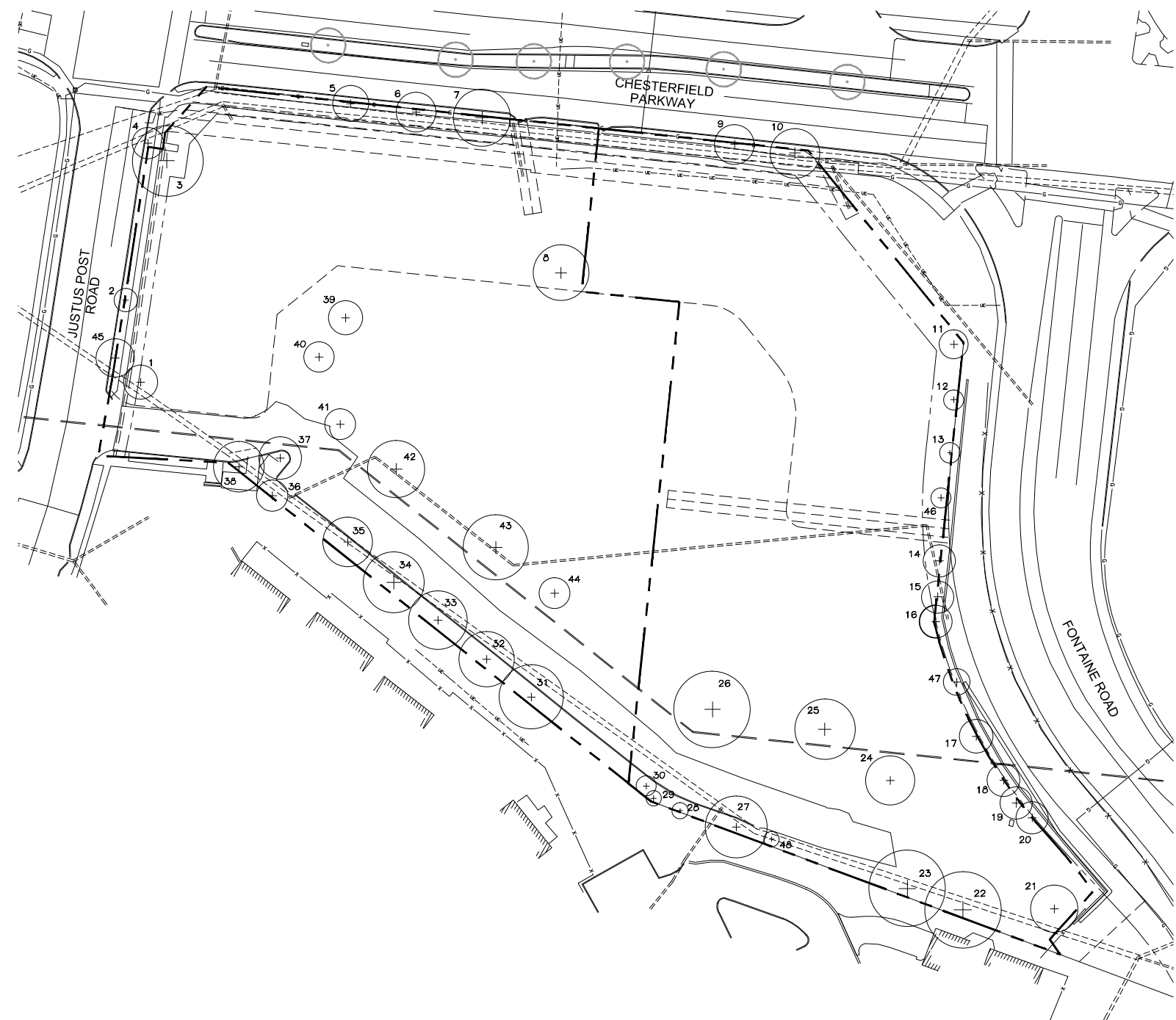
2 BOLLARD DETAIL
3/4" = 1'-0"



The Grove in Chesterfield

Chesterfield, Missouri

September 25th, 2015



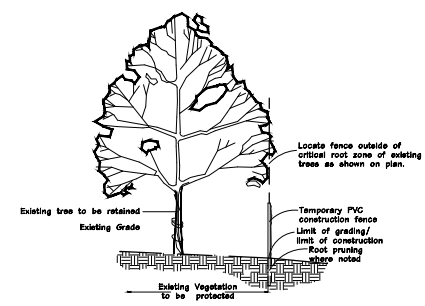
TREE STAND DELINEATION.

Justus Post Road 5-27-2014					
No.	Common Name	DBH of Trunk (in)	Canopy Area (sf)	Condition Rating (1-5 Scale)	Condition Comment
1	Austrian Pine	16"	300	3	
2	Red Maple	10"	87	2	
3	Honeylocust	24"	1,110	3	
4	Green Ash	14"	48	2	
5	Green Ash	10"	205	3	
6	Green Ash	12"	170	2	
7	Green Ash	14"	495	2	
8	Sugar Maple	14"	1,000	1	Sunscald dieback
9	Green Ash	18"	250	2	
10	Green Ash	18"	400	2	
11	Red Maple	12"	190	3	
12	Red Maple	10"	90	1	50% dead sunscald/borers
13	Red Maple	8"	80	2	Severe sunscald/borers
14	White Pine	18"	170	2	In decline
15	White Pine	16"	140	3	
16	White Pine	16"	150	3	Double leader
17	White Pine	16"	170	3	
18	Red Maple	10"	160	3	
19	White Pine	10"	190	3	
20	Red Maple	8"	150	3	
21	Green Ash	14"	590	1	50% dead-in decline
22	Green Ash	18"	1,050	3	
23	Green Ash	20"	1,070	3	
24	Pin Oak	16"	700	3	
25	Pin Oak	18"	1,000	3	
26	Sugar Maple	24"	1,250	1	50% dead sun scald/borers
27	Green Ash	20"	680	3	
28	Hawthorn	4"	48	3	
29	Colorado Spruce	8"	54	3	
30	Austrian Pine	8"	110	2	
31	Green Ash	20"	740	3	
32	Green Ash	18"	600	2	
33	Green Ash	18"	670	3	
34	Green Ash	20"	760	2	
35	Green Ash	18"	580	3	
36	Crabapple	8"	160	1	50% dead
37	Green Ash	12"	450	2	
38	Green Ash	18"	450	1	Severe decline
39	Honeylocust	12"	250	3	
40	Honeylocust	12"	250	3	
41	Green Ash	12"	300	2	In decline
42	Green Ash	16"	1,000	3	
43	Green Ash	24"	1,250	3	
44	Green Ash	10"	250	2	
45	Red Maple	12"	200	3	
46	Red Maple	8"	100	2	Sun scald
47	Red Maple	8"	60	2	25% dieback
48	Green Ash	20"	1,000	3	

Total Canopy Area: 21,177 sf.

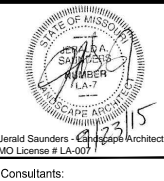
Tree Stand Delineation
SCALE 1" = 30'-0"

- LEGEND:
- | Symbol | Description |
|--------|--------------------------|
| ⊕ | Existing Individual Tree |
| ○ | Existing Off-Site Tree |



TREE PROTECTION DETAIL
n.t.s.

Tree Stand Delineation Plan Prepared under direction of: Douglas DeLong
Certified Arborist MW-4826A
Douglas DeLong



Consultants:

The Grove in Chesterfield
16300 Justus Post Road, Chesterfield, Missouri

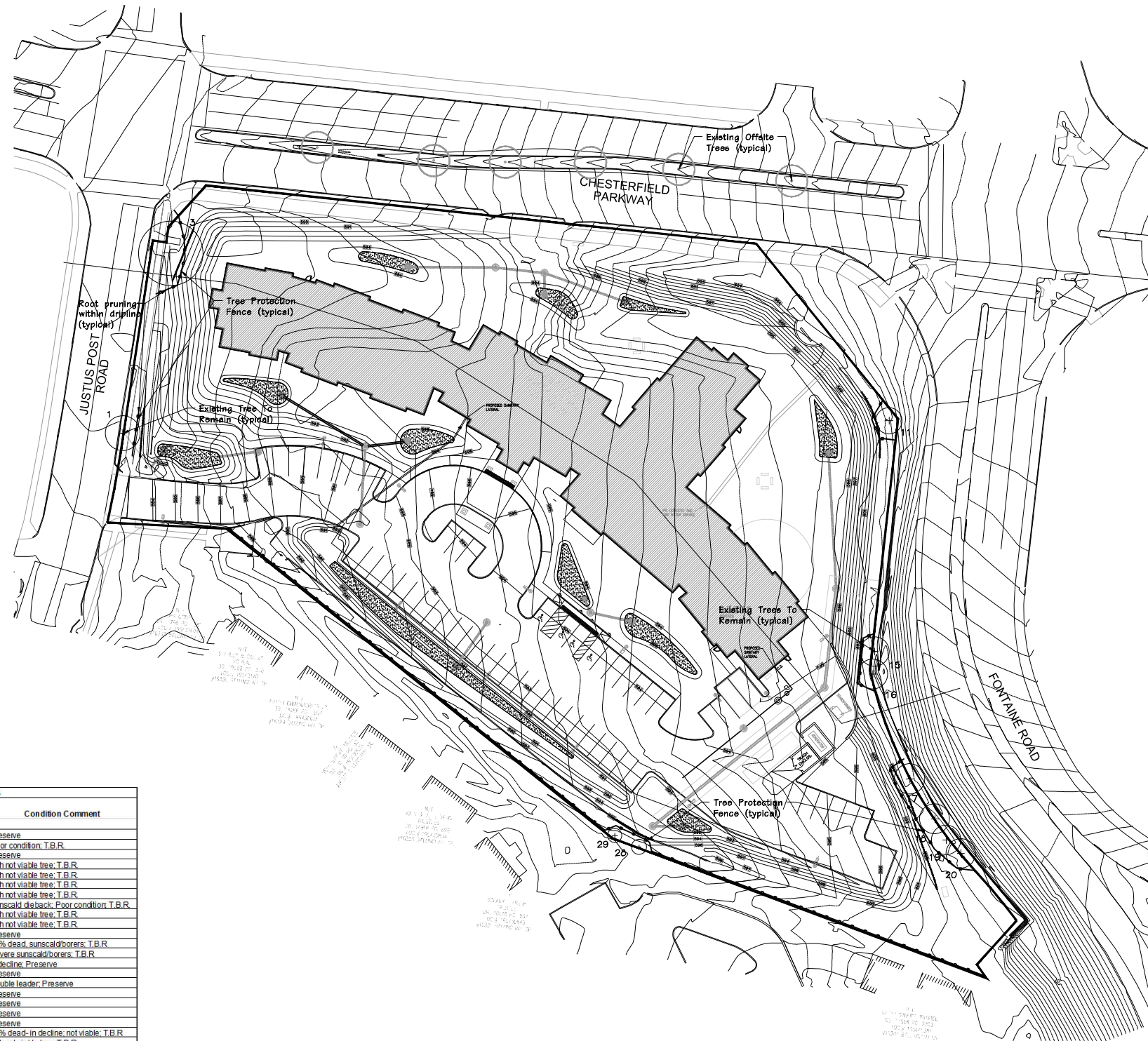
Revisions:

Date	Description	No.
4/6/15	On-site only	1
9/23/15	City Comments	

Drawn: LWH
Checked: JAS

loomisAssociates
Landscape Architecture
16300 Justus Post Road
Chesterfield, MO 63005
Phone: 636.861.1111
www.loomisassociates.com
Missouri State Certificate of Authority # LAC 000019

Sheet Title:	Tree Stand Delineation
Sheet No.:	TSD
Date:	6/6/14
Job #:	566,016



TREE PROTECTION NOTES:

- 1) Pre-construction meeting to be held on-site to include a presentation of tree protection measures to operators, construction supervisors, developer's representative, and city zoning inspector.
- 2) Clearing Limits to be rough staked in order to facilitate location for installation of protection fencing. No early maintenance schedule is required. Where noted on plan, contractor to trench and root prune (as needed) prior to any grading activity. Required siltation devices to be installed along limit of disturbance line.
- 3) No clearing or grading shall begin in areas where the treatment and preservation measures have not been completed including the installation of tree protection fencing along all "Limit of Disturbance" lines shown on the map.
- 4) Tree Protection Fencing shall be 4-foot tall, plastic, orange fencing. No equipment traffic/parking, concrete washout, material storage or other such construction activity shall be permitted to penetrate the protection fencing or disrupt the Protected Woodland Area. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the map.
- 5) Tree protection measures to be maintained throughout construction sequence.

TREE PROTECTION ACTION KEY SEQUENCE:

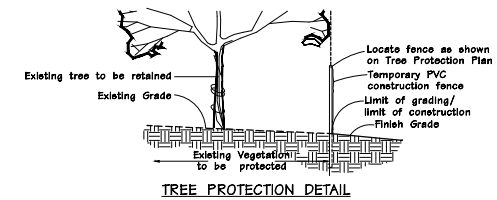
- 1) Survey limit of disturbance.
- 2) Install tree protection fencing.
- 3) Post tree protection signage on fence (No signs will be posted on trees).
- 4) Maintain tree protection area as an off-limits zone.

CALCULATIONS:

Total Site Area: 156,535 s.f., or 3.64 acres
 Existing Tree Canopy Coverage: 21,177 s.f., or 0.49 acres
 Tree Canopy proposed for removal: 16,345 s.f., or 0.42 acres (86.63%)
 21,177 s.f. x .30 = 6,353 s.f. of tree canopy preservation required
 Tree Canopy proposed for preservation: 2,832 s.f., or 0.07 acres (13.37%)
 3,521 s.f. new tree canopy required

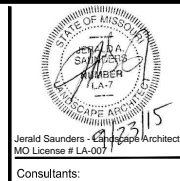
LEGEND:

- | Symbol | Description |
|--------|--------------------------|
| ⊕ | Existing Individual Tree |
| ⊙ | Existing Off-Site Tree |
| — | Tree Protection Fence |
| ⌒ | Root pruning |



Justus Post Road 5-27-2014					
No.	Common Name	DBH of Trunk (in.)	Canopy Area (sq. ft.)	Condition Rating (1-5 Scale)	Condition Comment
1	Austrian Pine	16"	300	3	Preserve
2	Red Maple	10"		2	Poor condition T.B.R
3	Honeylocust	24"	1,110	3	Preserve
4	Green Ash	14"		2	Ash not viable tree T.B.R
5	Green Ash	10"		3	Ash not viable tree T.B.R
6	Green Ash	12"		2	Ash not viable tree T.B.R
7	Green Ash	14"		2	Ash not viable tree T.B.R
8	Sugar Maple	14"		1	Sunscald dieback: Poor condition T.B.R
9	Green Ash	18"		2	Ash not viable tree T.B.R
10	Green Ash	18"		2	Ash not viable tree T.B.R
11	Red Maple	12"	190	3	Preserve
12	Red Maple	10"		1	50% dead sunscald/borers T.B.R
13	Red Maple	8"		2	Severe sunscald/borers T.B.R
14	White Pine	18"	170	2	In decline: Preserve
15	White Pine	16"	140	3	Preserve
16	White Pine	16"	150	3	Double leader: Preserve
17	White Pine	16"	170	3	Preserve
18	Red Maple	10"	160	3	Preserve
19	White Pine	10"	190	3	Preserve
20	Red Maple	8"	150	3	Preserve
21	Green Ash	14"		1	50% dead-in decline: not viable T.B.R
22	Green Ash	18"		3	Ash not viable tree T.B.R
23	Green Ash	20"		3	Ash not viable tree T.B.R
24	Pin Oak	16"		3	T.B.R
25	Pin Oak	18"		3	T.B.R
26	Sugar Maple	24"		1	50% dead sunscald/borers T.B.R
27	Green Ash	20"		3	Ash not viable tree T.B.R
28	Hawthorn	4"	48	3	Preserve
29	Colorado Spruce	8"	54	3	Preserve
30	Austrian Pine	8"		2	Poor condition T.B.R
31	Green Ash	20"		3	Ash not viable tree T.B.R
32	Green Ash	18"		2	Ash not viable tree T.B.R
33	Green Ash	18"		3	Ash not viable tree T.B.R
34	Green Ash	20"		2	Ash not viable tree T.B.R
35	Green Ash	18"		3	Ash not viable tree T.B.R
36	Crabapple	8"		1	50% dead T.B.R
37	Green Ash	12"		2	Ash not viable tree T.B.R
38	Green Ash	18"		1	Severe decline T.B.R
39	Honeylocust	12"		3	T.B.R
40	Honeylocust	12"		3	T.B.R
41	Green Ash	12"		2	In decline: Ash not viable tree T.B.R
42	Green Ash	16"		3	Ash not viable tree T.B.R
43	Green Ash	24"		3	Ash not viable tree T.B.R
44	Green Ash	10"		2	Ash not viable tree T.B.R
45	Red Maple	12"		3	T.B.R
46	Red Maple	8"		2	Sunscald: Poor condition T.B.R
47	Red Maple	8"		2	25% dieback: Poor condition T.B.R
48	Green Ash	20"		3	Ash not viable tree T.B.R

Tree Preservation Plan
SCALE 1" = 30'-0"



Consultants:

The Grove in Chesterfield
16300 Justus Post Road, Chesterfield, Missouri

Revisions:

Date	Description	No.
9/23/15	City Comments	

Drawn: KP
Checked: JS

loomisAssociates
Landscape Architects/Planners
16300 Justus Post Road, Suite 200
Chesterfield, MO 63005
Phone: 636.861.1111
www.loomisassociates.com

Sheet Title:	Tree Preservation Plan
Sheet No:	TPP
Date:	08/17/15
Job #:	566,016

The Grove In Chesterfield

16300 Justus Post Road, Chesterfield, Missouri



Landscape Plan
SCALE 1" = 30'-0"

PLANTING SCHEDULE							
TREES	QUANTITY	SYMBOL	COMMON NAME	SIZE	ROWSPACING	TYPE	GROWTH RATE
A	4	Tilia cordata	Little-leaf Linden	2.5' cal	B&B	Deciduous	Slow/Medium
B	10	Acer rubrum 'Franseria'	Red Sunset Maple	2.5' cal	B&B	Deciduous	Fast
C	11	Zelkova serrata	Zelkova	2.5' cal	B&B	Deciduous	Fast
D	10	Quercus imbricaria - Male	Pin oak (male)	2.5' cal	B&B	Deciduous	Slow/Medium
E	10	Quercus rubra	Red Oak	2.5' cal	B&B	Deciduous	Medium/Fast
F	8	Taxodium distichum	Red Cypress	2.5' cal	B&B	Evergreen	Medium
G	5	Cercis canadensis	Redbud	2.5' cal	B&B	Deciduous	Fast
H	4	Syringa reticulata	Japanese Lilac	2.5' cal	B&B	Deciduous	Medium
J	4	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	2.5' cal	B&B	Deciduous	Medium
K	4	Amelanchier arborea	Downy Serviceberry	2.5' cal	B&B	Deciduous	Slow/Medium
L	4	Cornus florida	Flowering Dogwood	2.5' cal	B&B	Deciduous	Slow/Medium
M	12	Picea pungens	Colorado Blue Spruce	6'-8' ht	B&B	Evergreen	Medium
N	11	Picea glauca	White Spruce	6'-8' ht	B&B	Evergreen	Medium
P	11	Pinus strobus	White Pine	6'-8' ht	B&B	Evergreen	Fast
SHRUBS							
Q	11	Viburnum plicatum 'Marsell'	Doublefile Viburnum	36"-42"			
R	5	Viburnum rhytidophyllum	Leatherleaf Viburnum	36"-42"			
S	4	Syringa patula 'Miss Kim'	Miss Kim Lilac	36"-42"			
GROUNDCOVER/ANNUALS/PERENNIALS							
200 s.f. Annuals and Perennials							
MIXTURES							
0.3 mi ² s.y. Native Grass Seed Mix							
BIORETENTION PLANTING							
14,421 s.f. Per MSD requirements							

CALCULATIONS:
 Total Site Area: 150,530 s.f., or 3.44 acres
 Existing Tree Canopy Coverage: 21,177 s.f., or 0.49 acres
 Tree Canopy proposed for removal: 16,345 s.f., or 0.42 acres (58.63%)
 21,177 s.f. x .30 = 6,353 s.f. of tree canopy preservation required
 Tree Canopy proposed for preservation: 2,832 s.f., or 0.07 acres (13.37%)
 3,521 s.f. new tree canopy required

OPEN SPACE = 2.15 acres (59.07%)



Note: All landscaping areas, including parking islands, shall be irrigated by an inground system.

Revisions		
Date	Description	No.
9/23/15	As Commented	

Drawn: KJ
Checked: JB

Icomis Associates

Professional Engineer
Jerrita Saunders
Missouri State Certificate # A-0071
16300 Justus Post Road
Chesterfield, Missouri 63005
Phone: 636.871.1111
Fax: 636.871.1112
www.icomis.com

Sheet Title	Landscape Plan
Sheet No	L-1
Date/Job #	08/17/15 556.016



Joan M. Saunders, L.A. #2215
 Missouri License # LA-007

Consultants:

The Grove in Chesterfield

16300 Justus Post Road, Chesterfield, Missouri



Mitigation Plan
 SCALE 1" = 30'-0"

PLANTING SCHEDULE						
SYMBOL	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	LEAF TYPE	SPREAD RATE
A	4	Tilia cordata	Little-leaf Linden	2.5' cal	B&B	Deciduous Slow/Medium
B	10	Acer rubrum 'Franksred'	Red Sunset Maple	2.5' cal	B&B	Deciduous Fast
C	11	Zelkova serrata	Zelkova	2.5' cal	B&B	Deciduous Fast
D	10	Ginkgo biloba - Male	Ginkgo (male)	5.5' cal	B&B	Deciduous Slow/Medium
E	10	Quercus rubra	Hardpan Red Oak	2.5' cal	B&B	Deciduous Medium/Fast
F	8	Panicum virgatum	Baldcypress	2.5' cal	B&B	Deciduous Medium
G	5	Cercis canadensis	Redbud	2.5' cal	B&B	Ornamental Fast
H	4	Syringa reticulata	Japanese Lilac	2.5' cal	B&B	Ornamental Medium
J	4	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	2.5' cal	B&B	Ornamental Medium
K	4	Amelanchier arborea	Dowry Serviceberry	2.5' cal	B&B	Ornamental Slow/Medium
L	4	Cornus florida	Flowering Dogwood	2.5' cal	B&B	Ornamental Slow/Medium
M	12	Picea pungens	Colorado Blue Spruce	8-8' ht	B&B	Evergreen Medium
N	11	Pinus glauca	White Spruce	8-8' ht	B&B	Evergreen Medium
P	11	Pinus strobus	White Pine	8-8' ht	B&B	Evergreen Fast
SHRUBS						
Q	11	Viburnum plicatum 'Mariesii'	Doublefile Viburnum	36-42"		
R	5	Viburnum rhytidophyllum	Leatherleaf Viburnum	36-42"		
S	4	Syringa patula 'Miss Kim'	Miss Kim Lilac	36-42"		
GROUND COVER/ANNUALS/PERENNIALS						
	200	e.f. Annuals and Perennials				
GRASSES						
	934	e.v. Native Grass Seed Mix				
BIOROTATION PLANTINGS						
	4,421	e.f. Per MSD requirements				

MITIGATION TREES PLANTING SCHEDULE						
SYMBOL	QUANTITY	SCIENTIFIC NAME	COMMON NAME	SIZE	LEAF TYPE	SPREAD RATE
Ax	3	Tilia cordata	Little-leaf Linden	2.5' cal	B&B	Deciduous Slow/Medium
Px	8	Pinus strobus	White Pine	8-8' ht	B&B	Evergreen Fast

CALCULATIONS:

Total Site Area: 100,000 e.f., or 2.30 acres

Existing Tree Canopy Coverage: 21,177 e.f., or 0.49 acres

Tree Canopy proposed for removal: 18,345 e.f., or 0.42 acres (86.63%)

21,177 e.f. x 50 = 8,583 e.f. of tree canopy preservation required

Tree Canopy proposed for preservation: 2,832 e.f., or 0.07 acres (13.37%)

3,521 e.f. new tree canopy required

Proposed Mitigation Planting:
 9 large trees @ 400 e.f./tree = 3,600 e.f.

Note: All landscaping areas, including parking islands, shall be irrigated by an Inground system.

OPEN SPACE = 2.15 acres (59.07%)

KEY

A, H - Required trees

Ax, Px - Mitigation trees

Revisions:

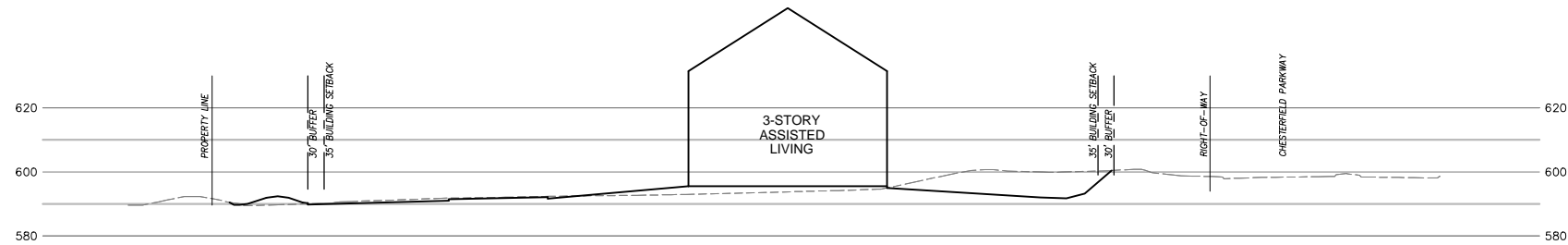
Date	Description	No.
9/23/15	City Comments	

Drawn: KP
 Checked: JB

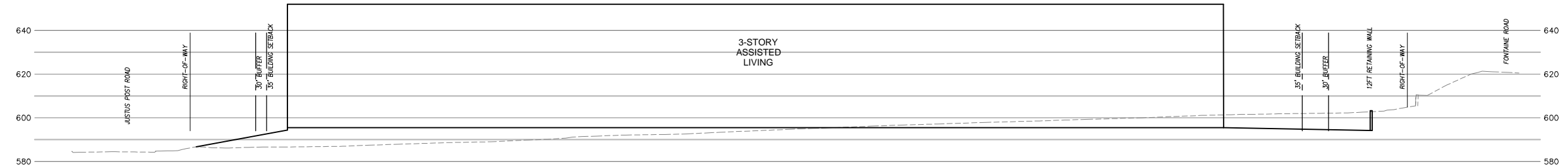
Ioomis Associates

Missouri State Certificate of Authority # LAC 9900010

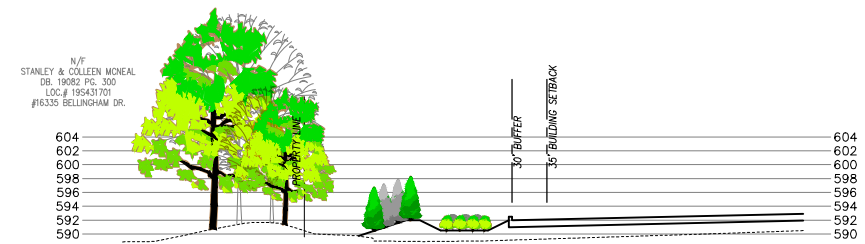
Sheet Title:	Mitigation Plan
Sheet No.:	L-2
Date:	09/23/15
Job #:	566.016



SITE SECTION A-A
SCALE: 1"=20'(H)(V)



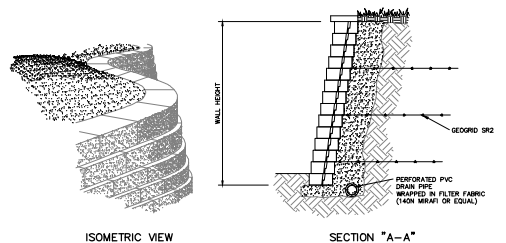
SITE SECTION B-B
SCALE: 1"=20'(H)(V)



SITE SECTION C-C
SCALE: 1"=10'(H)(V)



SITE SECTION D-D
SCALE: 1"=10'(H)(V)



NOTE: THE ABOVE INFORMATION IS A CONCEPT ONLY. ACTUAL DESIGN OF RETAINING WALL SHALL BE BY A LICENSED PROFESSIONAL ENGINEER & SUBMITTED TO STOCK AND ASSOCIATES FOR GENERAL COMPLIANCE W/ GRADING PLAN.

- NOTES:
- 1.) ALL CONSTRUCTION SHALL BE PER THE MANUFACTURERS RECOMMENDATION.
 - 2.) SHOP DRAWINGS BEARING THE SEAL OF A REGISTERED ENGINEER IN THE STATE OF MISSOURI TO BE SUPPLIED TO THIS ENGINEER FOR APPROVAL.
 - 3.) ACCEPTED WALL SYSTEMS: OMEGA, VERSALOK, KEYSTONE OR HERCULES.
 - 4.) TW= TOP OF RETAINING WALL, BW= GRADE AT BASE OF WALL.
 - 5.) BLOCK SHALL BE A SPLIT FACE TYPE BLOCK.
 - 6.) COLOR OF BLOCK TO BE STANDARD GRAY. BLOCK PAINTED TO MATCH BLDG.

RETAINING WALL DETAIL

PREPARED BY:
STOCK & ASSOCIATES
Consulting Engineers, Inc.
257 Chestnut Hill, Lincoln, Mo. Hwy
201-781-1100 FAX (636) 530-9830
e-mail: general@stockand.com
Web: www.stockand.com

SITE DEVELOPMENT PLAN FOR:
THE GROVE IN CHESTERFIELD
18300 JUSTUS POST ROAD
CITY OF CHESTERFIELD, MISSOURI 63017

DATE: SEPT. 23, 2015

GEORGE M. STOCK 6-20116
CIVIL ENGINEER
CERTIFICATE OF AUTHORITY
NUMBER: 00095

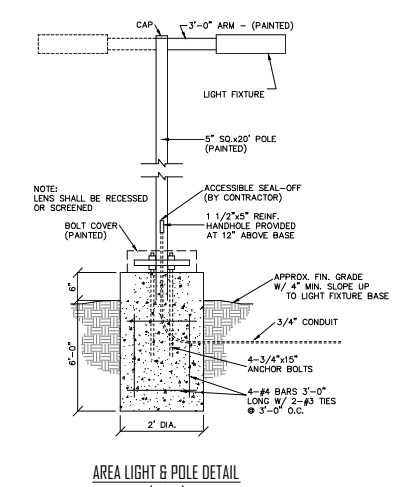
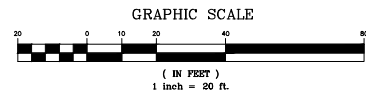
REVISIONS:

Per City Comments 09/23/15

DRAWN BY:	CKL/E	CHECKED BY:	GM
DATE:	08-17-2015	JOB NO.:	215-0215
W.S.D. #:		BASE MAP #:	195
S.L.C. MAP #:		MAP SLEEP. #:	
W.S.D.A. #:			

SHEET TITLE:
PRELIMINARY SITE
SECTIONS

SHEET NO.:
SHEET 2



DESIGN BY LIGHTING ASSOCIATES, INC.
 DESIGN IS BASED ON CURRENT INFORMATION PROVIDED AT THE TIME OF REQUEST. ANY CHANGES IN MOUNTING HEIGHT, MOUNTING LOCATION, LAMP VOLTAGE, LAMP TYPE, AND EXISTING FIELD CONDITIONS THAT AFFECT ANY OF THE PROVIDED MOUNTING, WILL VOID CURRENT LAYOUT AND REQUIRE A CHANGE REQUEST AND RECALCULATION.

FIXTURES MOUNTED ON 20" POLE
 LIGHT LEVEL CALCULATED ON THE GROUND

Calculation Summary	Calc Type	Units	Avy	Msc	Mic	Zavg/Mic	Mic/Mic
BEHIND PERIMETER	ILLUMINANCE	FC	0.17	12.7	0.0	N.A.	N.A.
PARKING LOT	ILLUMINANCE	FC	1.38	2.3	0.6	2.38	5.50
RELOCATED BENCH	ILLUMINANCE	FC	0.35	11.2	0.0	N.A.	N.A.

Symbol	Qty	Label	Arrangement	Item Name	Total Qty	HP	Description
4	31	STRG2		200	204	1,000	GRABER-AR-01-LR0-01-04-000
2	34	STRG2		204	214	1,000	GRABER-AR-01-LR0-01-03-000
1	65	STRG2		204	81	1,000	GRABER-AR-02-LR0-01-04-000
1	22	STRG2		7	7	1,000	XTREMA

PREPARED BY:
STOCK & ASSOCIATES
 Consulting Engineers, Inc.
 757 Chesterfield Parkway
 St. Louis, MO 63105
 314-991-0101 FAX 314-991-9030
 e-mail: general@stockassoc.com
 Web: www.stockassoc.com

SITE DEVELOPMENT PLAN FOR:
THE GROVE IN CHESTERFIELD
 16300 JUSTUS POST ROAD
 CITY OF CHESTERFIELD, MISSOURI 63017

DATE: SEPT. 23, 2015

GEORGE M. STOCK 6-20116
 CIVIL ENGINEER
 CERTIFICATE OF AUTHORITY
 NUMBER: 00096

REVISIONS:
 Per City Comments 09/23/15

DRAWN BY: J.E.P. CHECKED BY: G.M.S.
 DATE: 08/17/2015 JOB NO.: 2154215
 W.S.D. P.#: BASE MAP # 185
 E.L.C. MAP #: HAY SLIP #
 W.S.D.A. #:
 SHEET TITLE:
 SITE PHOTOMETRIC PLAN
 SHEET NO.:
SHEET 3

DESCRIPTION

The Galleon™ LED luminaire delivers exceptional performance in a highly scalable, low-profile design. Patented, high-efficiency AccuLED Optics™ system provides uniform and energy conscious illumination to walkways, parking lots, roadways, building areas and security lighting applications. IP66 rated.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Extruded aluminum driver enclosure thermally isolated from Light Squares for optimal thermal performance. Heavy-wall, die-cast aluminum end caps enclose housing and die-cast aluminum heat sinks. A unique, patent pending interlocking housing and heat sink provides scalability with superior structural rigidity. 3G vibration tested. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics

Choice of 16 patented, high-efficiency AccuLED Optics. The optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 6000K CCT and 3000K CCT. For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed. The

house side shield is designed to seamlessly integrate with the SL2, SL3, SL4 or AFL optics.

Electrical

LED drivers are mounted to removable tray assembly for ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Standard with 0-10V dimming. Shipped standard with Eaton proprietary circuit module designed to withstand 10kV of transient line surge. The Galleon LED luminaire is suitable for operation in -40°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Light Squares are IP66 rated. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 530mA and 700mA drive currents.

Mounting

Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during

assembly. Designed for pole or wall mounting. When mounting two or more luminaires at 90° or 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table on page 3. Round pole top adapter included. For wall mounting, specify wall mount bracket option. 3G vibration rated.

Finish

Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Heat sink is powder coated black. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult the McGraw-Edison Architectural Colors brochure for the complete selection.

Warranty

Five-year warranty.



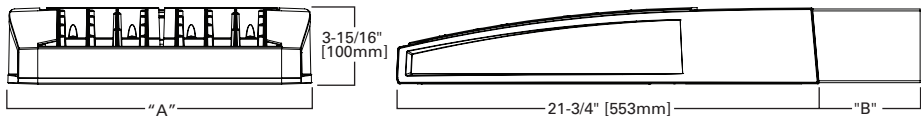
GLEON GALLEON LED

1-10 Light Squares
Solid State LED

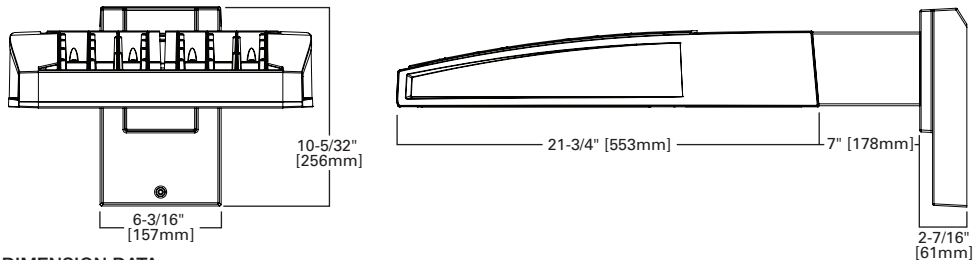
AREA/SITE LUMINAIRE

DIMENSIONS

POLE MOUNT



WALL MOUNT



DIMENSION DATA

Number of Light Squares	"A" Width	"B" Standard Arm Length	"B" Optional Arm Length ¹	Weight with Arm (lbs.)	EPA with Arm ² (Sq. Ft.)
1-4	15-1/2" (394mm)	7" (178mm)	10" (254mm)	33 (15.0 kgs.)	0.96
5-6	21-5/8" (549mm)	7" (178mm)	10" (254mm)	44 (20.0 kgs.)	1.00
7-8	27-5/8" (702mm)	7" (178mm)	13" (330mm)	54 (24.5 kgs.)	1.07
9-10	33-3/4" (857mm)	7" (178mm)	16" (406mm)	63 (28.6 kgs.)	1.12

NOTES: 1 Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table. 2 EPA calculated with optional arm length.



CERTIFICATION DATA

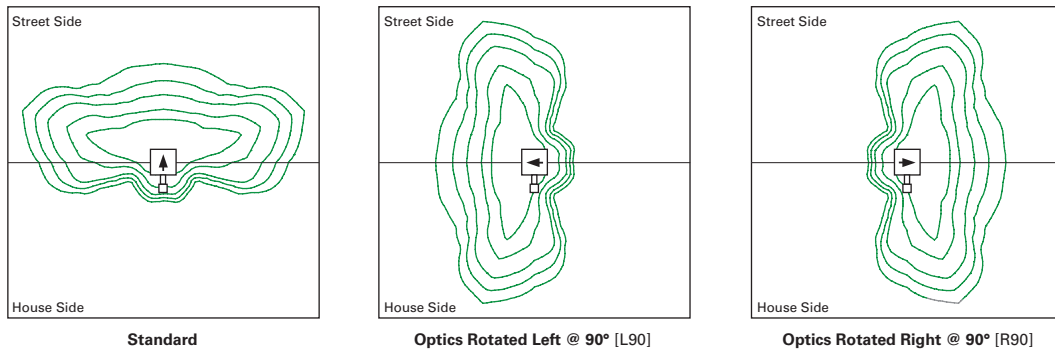
UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
IP66 Rated
DesignLights Consortium® Qualified*

ENERGY DATA

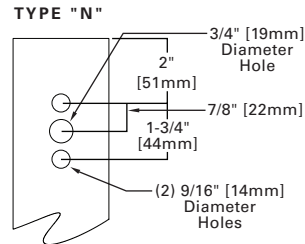
Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120V-277V 50/60Hz
347V & 480V 60Hz
-40°C Min. Temperature
40°C Max. Temperature
50°C Max. Temperature (HA Option)



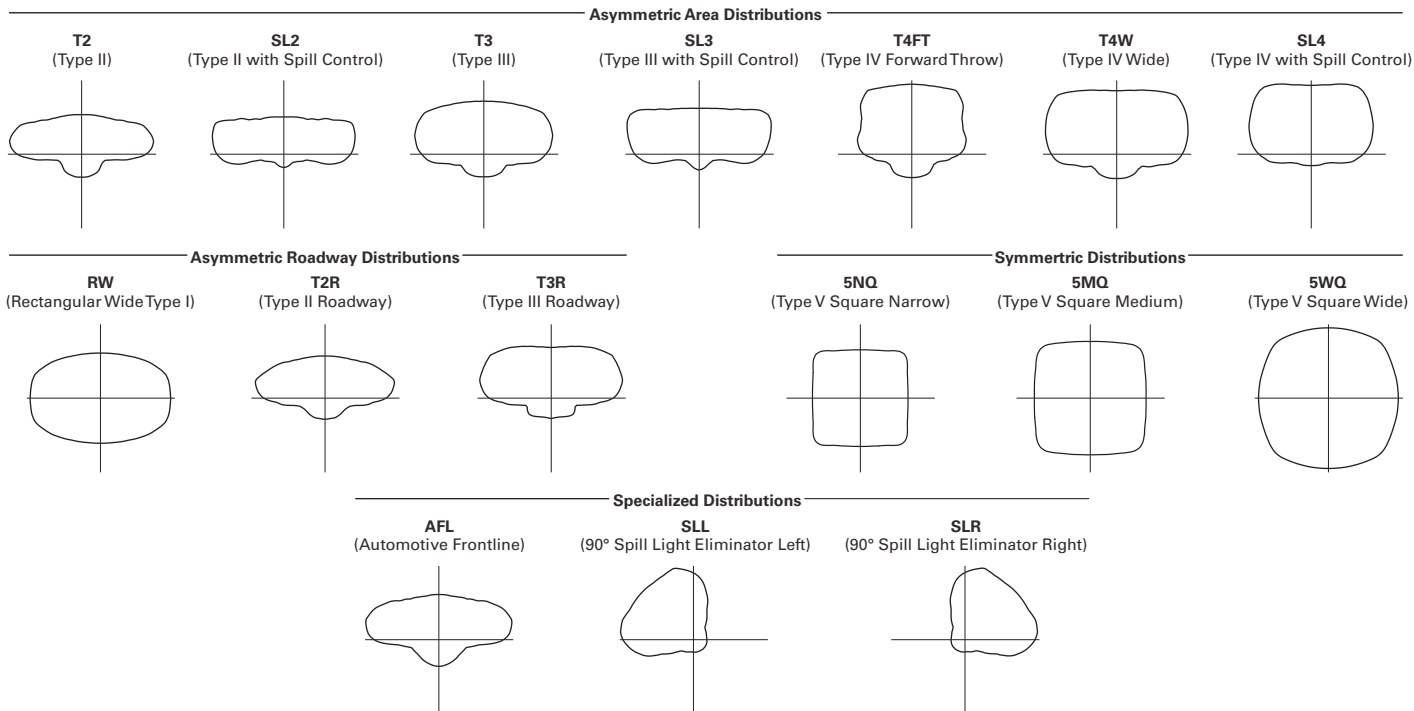
OPTIC ORIENTATION



DRILLING PATTERN

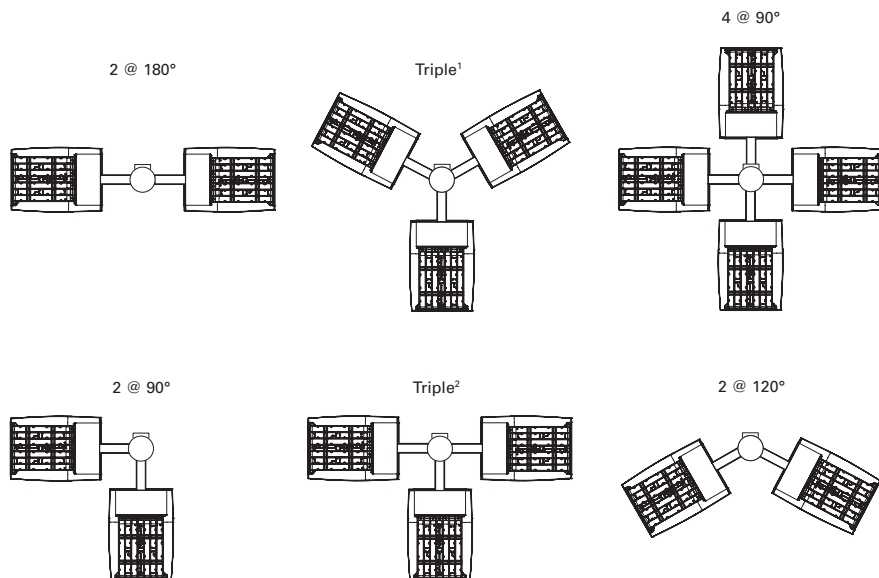


OPTICAL DISTRIBUTIONS



ARM MOUNTING REQUIREMENTS

Configuration	90° Apart	120° Apart
GLEON-AE-01	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-02	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-03	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-04	7" Arm (Standard)	7" Arm (Standard)
GLEON-AE-05	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-06	10" Extended Arm (Required)	7" Arm (Standard)
GLEON-AE-07	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-08	13" Extended Arm (Required)	13" Extended Arm (Required)
GLEON-AE-09	16" Extended Arm (Required)	16" Extended Arm (Required)
GLEON-AE-10	16" Extended Arm (Required)	16" Extended Arm (Required)



NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. 2 Round poles are 3 @ 90°.

NOMINAL POWER AND LUMENS (1A)

Number of Light Squares	1	2	3	4	5	6	7	8	9	10	
Drive Current	1A	1A	1A	1A	1A	1A	1A	1A	1A	1A	
Nominal Power (Watts)	56	107	157	213	264	315	370	421	475	528	
Input Current @ 120V (A)	0.47	0.90	1.31	1.79	2.21	2.64	3.09	3.51	3.96	4.41	
Input Current @ 208V (A)	0.28	0.51	0.74	1.02	1.25	1.48	1.76	1.99	2.22	2.50	
Input Current @ 240V (A)	0.25	0.45	0.65	0.90	1.10	1.30	1.55	1.75	1.95	2.20	
Input Current @ 277V (A)	0.23	0.41	0.59	0.82	1.00	1.18	1.41	1.59	1.77	2.00	
Optics											
T2	Lumens	5,272	10,303	15,373	20,313	25,168	30,118	35,618	40,357	45,018	49,842
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5
T2R	Lumens	5,597	10,938	16,321	21,565	26,719	31,974	37,813	42,844	47,792	52,914
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B4-U0-G4	B4-U0-G5
T3	Lumens	5,374	10,501	15,669	20,704	25,652	30,697	36,303	41,134	45,884	50,802
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
T3R	Lumens	5,493	10,735	16,017	21,164	26,222	31,379	37,110	42,048	46,904	51,930
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4FT	Lumens	5,405	10,562	15,760	20,824	25,801	30,875	36,514	41,372	46,150	51,096
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	5,335	10,426	15,556	20,555	25,468	30,476	36,042	40,838	45,554	50,436
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL2	Lumens	5,263	10,285	15,347	20,278	25,124	30,066	35,556	40,288	44,940	49,756
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
SL3	Lumens	5,373	10,500	15,667	20,701	25,649	30,693	36,298	41,128	45,878	50,794
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL4	Lumens	5,105	9,976	14,886	19,669	24,370	29,163	34,488	39,078	43,591	48,262
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
5NQ	Lumens	5,542	10,830	16,160	21,352	26,455	31,658	37,439	42,421	47,320	52,392
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4
5MQ	Lumens	5,644	11,029	16,457	21,745	26,942	32,241	38,128	43,202	48,191	53,356
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5
5WQ	Lumens	5,659	11,059	16,501	21,803	27,014	32,327	38,230	43,317	48,320	53,498
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5
SLL/SLR	Lumens	4,722	9,227	13,767	18,191	22,539	26,971	31,897	36,141	40,315	44,635
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
RW	Lumens	5,492	10,732	16,014	21,159	26,216	31,372	37,101	42,038	46,893	51,918
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
AFL	Lumens	5,512	10,771	16,072	21,236	26,311	31,486	37,236	42,191	47,063	52,107
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

NOMINAL POWER AND LUMENS (700MA)

Number of Light Squares	1	2	3	4	5	6	7	8	9	10	
Drive Current	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	700mA	
Nominal Power (Watts)	38	72	105	138	176	210	243	276	314	348	
Input Current @ 120V (A)	0.32	0.59	0.86	1.14	1.45	1.72	2	2.28	2.58	2.86	
Input Current @ 208V (A)	0.21	0.36	0.51	0.67	0.87	1.02	1.18	1.34	1.53	1.69	
Input Current @ 240V (A)	0.19	0.32	0.45	0.59	0.77	0.90	1.04	1.18	1.35	1.49	
Input Current @ 277V (A)	0.20	0.29	0.40	0.51	0.69	0.80	0.91	1.02	1.20	1.31	
Optics											
T2	Lumens	3,854	7,531	11,237	14,847	18,395	22,013	26,033	29,497	32,904	36,430
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T2R	Lumens	4,091	7,995	11,929	15,762	19,529	23,370	27,638	31,316	34,932	38,676
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3	Lumens	3,928	7,676	11,453	15,133	18,750	22,437	26,534	30,065	33,537	37,132
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T3R	Lumens	4,015	7,846	11,707	15,469	19,166	22,936	27,124	30,733	34,283	37,957
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
T4FT	Lumens	3,951	7,720	11,519	15,221	18,858	22,567	26,688	30,240	33,732	37,347
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4W	Lumens	3,900	7,620	11,370	15,024	18,615	22,276	26,343	29,849	33,296	36,864
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL2	Lumens	3,847	7,518	11,217	14,821	18,364	21,975	25,988	29,447	32,847	36,368
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL3	Lumens	3,927	7,675	11,451	15,131	18,747	22,434	26,531	30,061	33,533	37,126
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	Lumens	3,731	7,292	10,880	14,376	17,812	21,315	25,208	28,562	31,861	35,275
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5
5NQ	Lumens	4,051	7,916	11,811	15,606	19,336	23,139	27,365	31,006	34,587	38,294
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3
5MQ	Lumens	4,125	8,062	12,029	15,894	19,692	23,565	27,869	31,577	35,224	38,999
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5WQ	Lumens	4,136	8,083	12,061	15,936	19,745	23,628	27,943	31,661	35,318	39,103
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	3,451	6,744	10,063	13,296	16,474	19,714	23,314	26,416	29,467	32,625
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
RW	Lumens	4,014	7,844	11,704	15,465	19,162	22,930	27,118	30,726	34,274	37,948
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3
AFL	Lumens	4,029	7,873	11,747	15,522	19,231	23,014	27,216	30,838	34,399	38,086
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

NOMINAL POWER AND LUMENS (530MA)

Number of Light Squares	1	2	3	4	5	6	7	8	9	10	
Drive Current	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	530mA	
Nominal Power (Watts)	30	54	80	105	130	159	184	209	234	259	
Input Current @ 120V (A)	0.25	0.45	0.66	0.86	1.07	1.32	1.52	1.72	1.93	2.14	
Input Current @ 208V (A)	0.17	0.28	0.39	0.51	0.63	0.78	0.9	1.02	1.14	1.26	
Input Current @ 240V (A)	0.17	0.25	0.35	0.45	0.55	0.70	0.80	0.90	1.00	1.10	
Input Current @ 277V (A)	0.19	0.24	0.32	0.40	0.49	0.64	0.72	0.80	0.89	0.98	
Optics											
T2	Lumens	3,079	6,017	8,978	11,862	14,697	17,588	20,800	23,567	26,289	29,106
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
T2R	Lumens	3,269	6,388	9,531	12,593	15,603	18,672	22,082	25,020	27,909	30,900
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4
T3	Lumens	3,138	6,133	9,150	12,091	14,980	17,926	21,200	24,021	26,795	29,667
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3R	Lumens	3,208	6,269	9,354	12,359	15,313	18,325	21,671	24,555	27,390	30,326
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T4FT	Lumens	3,156	6,168	9,203	12,161	15,067	18,030	21,323	24,160	26,950	29,839
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
T4W	Lumens	3,116	6,088	9,084	12,004	14,872	17,797	21,047	23,848	26,602	29,453
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL2	Lumens	3,074	6,006	8,962	11,842	14,672	17,558	20,764	23,527	26,244	29,056
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL3	Lumens	3,138	6,132	9,149	12,089	14,978	17,924	21,197	24,018	26,791	29,662
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL4	Lumens	2,981	5,826	8,693	11,486	14,231	17,030	20,140	22,820	25,456	28,184
	BUG Rating	B0-U0-G1	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G4	B2-U0-G5
5NQ	Lumens	3,236	6,324	9,437	12,469	15,449	18,487	21,863	24,773	27,634	30,595
	BUG Rating	B1-U0-G0	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2
5MQ	Lumens	3,296	6,441	9,610	12,698	15,733	18,828	22,266	25,229	28,142	31,158
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3
5WQ	Lumens	3,305	6,458	9,636	12,732	15,775	18,878	22,325	25,296	28,217	31,241
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
SLL/SLR	Lumens	2,757	5,388	8,040	10,623	13,162	15,751	18,627	21,105	23,543	26,066
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4
RW	Lumens	3,207	6,267	9,351	12,356	15,309	18,320	21,666	24,549	27,384	30,319
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3
AFL	Lumens	3,219	6,290	9,385	12,401	15,365	18,387	21,745	24,638	27,484	30,429
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3

* Nominal data for 4000K CCT.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000
50°C*	> 90%	> 170,000

* 50°C lumen maintenance data applies to 530mA and 700mA drive currents.

ORDERING INFORMATION

Sample Number: GLEON-AE-04-LED-E1-T3-GM-700

Product Family ¹	Light Engine	Number of Light Squares ²	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	AE=1A Drive Current	01=1 02=2 03=3 04=4 05=5 06=6 07=7 08=8 09=9 10=10	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V ³ 480=480V ^{3,4}	T2=Type II T2R=Type II Roadway T3=Type III T3R=Type III Roadway T4FT=Type IV Forward Throw T4W=Type IV Wide 5N0=Type V Narrow 5M0=Type V Square Medium 5W0=Type V Square Wide SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right RW=Rectangular Wide Type I AFL=Automotive Frontline	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm ⁵ MA=Mast Arm Adapter ⁶ WM=Wall Mount
Options (Add as Suffix)					Accessories (Order Separately)		
2L=Two Circuits ^{7,8} 7030=70 CRI 3000K ⁹ 8030=80 CRI 3000K ¹⁰ 7050=70 CRI 5000K ¹⁰ 7060=70 CRI 6000K ⁹ 530=Drive Current Factory Set to 530mA ¹¹ 700=Drive Current Factory Set to 700mA ¹¹ F=Single Fuse (120, 277 or 347V. Must Specify Voltage) FF=Double Fuse (208, 240 or 480V. Must Specify Voltage) P=Button Type Photocontrol (120, 208, 240 or 277V) PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle R=NEMA Twistlock Photocontrol Receptacle HA=50°C High Ambient ^{8,12} MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ^{13,14,15,16,17} MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height ^{13,14,15,16,17} MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height ^{13,14,15,16,19} MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range) ^{13,14,15,16,20} MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height ^{13,14,15,16,17,21} MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height ^{13,14,15,16,18,21} MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height ^{13,14,15,16,19,21} MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range) ^{13,14,15,16,20,21} MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height ^{13,14,15,16,17} MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height ^{13,14,15,16,18} MS-L40=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height ^{13,14,15,16,19} MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height (Wide Range) ^{13,14,15,16,20} DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ²² DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ²² L90=Optics Rotated 90° Left R90=Optics Rotated 90° Right MT=Factory Installed Mesh Top TH=Tool-less Door Hardware LCF=Light Square Trim Plate Painted to Match Housing ²³ HSS=Factory Installed House Side Shield ²⁴ CE=CE Marking ²⁵					OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor ²⁶ GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares LS/HSS=Field Installed House Side Shield ^{24,27}		

- NOTES:**
- DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
 - Standard 4000K CCT and minimum 70 CRI.
 - Requires the use of a step down transformer when combined with MS/DIM, MS/X or DIMRF.
 - Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
 - May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
 - Factory installed.
 - 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in AE-02 through AE-04 requires a larger housing, normally used for AE-05 or AE-06. Extended arm option may be required when mounting two or more fixtures per pole at 90° or 120°. Refer to arm mounting requirement table.
 - Not available with LumaWatt wireless sensors.
 - Extended lead times apply. Use dedicated IES files for 3000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.
 - Extended lead times apply. For 8030, factor 7030 IES files x .92 (8% lumen loss). For 7050, use 7060 IES files.
 - 1 Amp standard. Use dedicated IES files for 530mA and 700mA when performing layouts. These files are published on the Galleon luminaire product page on the website.
 - 50°C lumen maintenance data applies to 530mA and 700mA drive currents.
 - Consult factory for more information.
 - Utilizes internal step down transformer when 347V or 480V is selected.
 - The FSIR-100 configuration tool is required to adjust parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
 - Not available with HA option.
 - Approximately 22' detection diameter at 8' mounting height.
 - Approximately 40' detection diameter at 20' mounting height.
 - Approximately 60' detection diameter at 40' mounting height.
 - Approximately 100' detection diameter at 40' mounting height.
 - Replace X with number of Light Squares operating in low output mode.
 - LumaWatt wireless sensors are factory installed only requiring network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
 - Not available with house side shield (HSS).
 - Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.
 - CE is not available with the DIMRF, MS, MS/X, MS/DIM, F, FF, P, R or PER7 options.
 - This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
 - One required for each Light Square.

DESCRIPTION

The patented Lumark Crosstour™ LED Wall Pack Series of luminaires provides an architectural style with super bright, energy efficient LEDs. The low-profile, rugged die-cast aluminum construction, universal back box, stainless steel hardware along with a sealed and gasketed optical compartment make the Crosstour impervious to contaminants. The Crosstour wall luminaire is ideal for wall/surface, inverted mount for façade/canopy illumination, post/bollard, site lighting, floodlight and low level pathway illumination including stairs. Typical applications include building entrances, multi-use facilities, apartment buildings, institutions, schools, stairways and loading docks test.

SPECIFICATION FEATURES

Construction

Slim, low-profile LED design with rugged one-piece, die-cast aluminum hinged removable door and back box. Matching housing styles incorporate both a small and large design. The small housing is available in 7W and 18W. The large housing is available in the 26W model. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three (3) half-inch, NPT threaded conduit entry points. The universal back box supports both the small and large forms and mounts to standard 3-1/2" to 4" round and octagonal, 4" square, single gang and masonry junction boxes. Key hole gasket allows for adaptation to junction box or wall. External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Minimum 5" wide pole for site lighting application. Not recommended for car wash applications.

Optical

Silicone sealed optical LED chamber incorporates a custom engineered mirrored anodized reflector providing high-efficiency illumination. Optical assembly includes impact-resistant tempered glass and meets IESNA requirements for full cutoff compliance. Solid state LED Crosstour luminaires are thermally optimized with five (5) lumen packages in cool 5000K or neutral warm 3500K LED color temperature (CCT).

Electrical

LED driver is mounted to the die-cast housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 7W models operate in -40°C to 40°C [-40°F to 104°F]. 18W and 26W models operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 90% of initial

Catalog #		Type
Project		
Comments		Date
Prepared by		

light output after 72,000 hours of operation. Three (3) half-inch NPT threaded conduit entry points allow for thru-branch wiring. Back box is an authorized electrical wiring compartment. Integral LED electronic driver incorporates surge protection. 120-277V 50/60Hz or 347V 60Hz models.

Finish

Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty

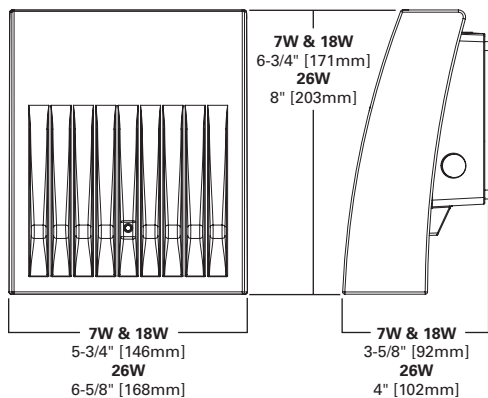
Five-year warranty.



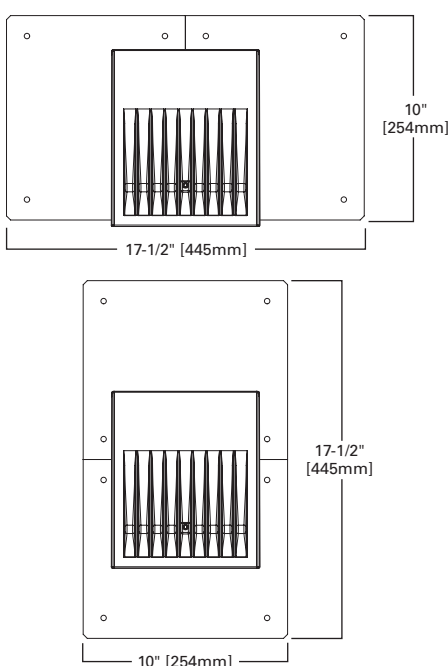
XTOR CROSTOUR LED

APPLICATIONS:
WALL / SURFACE
POST / BOLLARD
LOW LEVEL
FLOODLIGHT
INVERTED
SITE LIGHTING

DIMENSIONS



ESCUTCHEON PLATES



CERTIFICATION DATA

UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
ADA Compliant
NOM Compliant Models
IP66 Ingressed Protection Rated
Title 24 Compliant
DesignLights Consortium® Qualified*

TECHNICAL DATA

40°C Maximum Ambient Temperature
External Supply Wiring 90°C Minimum

EPA

Effective Projected Area (Sq. Ft.):
XTOR1A/XTOR2A=0.34
XTOR3A=0.45

SHIPPING DATA:

Approximate Net Weight:
3.7 – 5.25 lbs. [1.7 – 2.4 kgs.]

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR1A Model		
25°C	> 92%	> 290,000
40°C	> 92%	> 290,000
50°C	> 91%	> 270,000
XTOR2A Model		
25°C	> 91%	> 270,000
40°C	> 90%	> 260,000
50°C	> 88%	> 225,000
XTOR3A Model		
25°C	> 91%	> 280,000
40°C	> 91%	> 270,000
50°C	> 89%	> 240,000

LUMENS - CRI/CCT TABLE

LED Information	XTOR1A	XTOR2A	XTOR2A-N	XTOR3A	XTOR3A-N
Delivered Lumens (Wall Mount)	722	1,633	1,523	2,804	2,284
Delivered Lumens (With Flood Accessory Kit) ¹	468	1,060	978	2,168	1,738
B.U.G. Rating ²	B0-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0
CCT (Kelvin)	5,000	5,000	3,500	5,000	3,500
CRI (Color Rendering Index)	65	65	70	65	70
Power Consumption (Watts)	7W	18W	18W	26W	26W

NOTES: 1 Includes shield and visor. 2 B.U.G. Rating does not apply to floodlighting.

CURRENT DRAW

Voltage	Model Series		
	XTOR1A	XTOR2A	XTOR3A
120V	0.05A	0.15A	0.22A
208V	0.03A	0.08A	0.13A
240V	0.03A	0.07A	0.11A
277V	0.03A	0.06A	0.10A
347V	0.025A	0.058A	0.082A

ORDERING INFORMATION

Sample Number: XTOR2A-N-WT-PC1

Series ¹	LED Kelvin Color	Housing Color	Options (Add as Suffix)	Accessories (Order Separately)
XTOR1A=Small Door, 7W XTOR2A=Small Door, 18W XTOR3A=Small Door, 26W	[Blank]=Bright White (Standard) 5000K N=Neutral Warm White, 3500K ²	[Blank]=Carbon Bronze (Standard) WT=Summit White	PC1=Photocontrol 120V ³ PC2=Photocontrol 208-277V ^{3,4} 347V=347V ⁵ HA=50°C High Ambient ⁵	WG/XTOR=Wire Guard ⁶ XTORFLD-KNC=Knuckle Floodlight Kit ⁷ XTORFLD-TRN=Trunnion Floodlight Kit ⁷ XTORFLD-KNC-WT=Knuckle Floodlight Kit, Summit White ⁷ XTORFLD-TRN-WT=Trunnion Floodlight Kit, Summit White ⁷ EWP/XTOR=Escutcheon Wall Plate, Carbon Bronze EWP/XTOR-WT=Escutcheon Wall Plate, Summit White

NOTES: 1 DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details. 2 XTOR1A not available in 3500K. 3 Photocontrols are factory installed. 4 Order PC2 for 347V models. 5 Thru-branch wiring not available with HA option or with 347V. 6 Wire guard for wall/surface mount. Not for use with floodlight kit accessory. 7 Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.

STOCK ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A=7W, 5000K, Carbon Bronze	XTOR2A=18W, 5000K, Carbon Bronze	XTOR3A=26W, 5000K, Carbon Bronze
XTOR1A-WT=7W, 5000K, Summit White	XTOR2A-N=18W, 3500K, Carbon Bronze	XTOR3A-N=26W, 3500K, Carbon Bronze
XTOR1A-PC1=7W, 5000K, 120V PC, Carbon Bronze	XTOR2A-WT=18W, Summit White	XTOR3A-WT=26W, Summit White
	XTOR2A-PC1=18W, 120V PC, Carbon Bronze	XTOR3A-PC1=26W, 120V PC, Carbon Bronze

5-DAY QUICK SHIP ORDERING INFORMATION

7W Series	18W Series	26W Series
XTOR1A-WT-PC1=7W, 5000K, Summit White, 120V PC	XTOR2A-PC2=18W, 5000K, 208-277V PC, Carbon Bronze	XTOR3A-PC2=26W, 5000K, 208-277V PC, Carbon Bronze
	XTOR2A-WT-PC1=18W, 5000K, Summit White, 120V PC	XTOR3A-WT-PC1=26W, 5000K, Summit White, 120V PC
	XTOR2A-WT-PC2=18W, 5000K, Summit White, 208-277V PC	XTOR3A-WT-PC2=26W, 5000K, Summit White, 208-277V PC
	XTOR2A-N-WT=18W, 3500K, Summit White	XTOR3A-N-WT=26W, 3500K, Summit White
	XTOR2A-N-PC1=18W, 3500K, 120V PC, Carbon Bronze	XTOR3A-N-PC1=26W, 3500K, 120V PC, Carbon Bronze
	XTOR2A-N-PC2=18W, 3500K, 208-277V PC, Carbon Bronze	XTOR3A-N-PC2=26W, 3500K, 208-277V PC, Carbon Bronze
	XTOR2A-N-WHT-PC1=18W, 3500K, Summit White, 120V PC	XTOR3A-N-WHT-PC1=26W, 3500K, Summit White, 120V PC
	XTOR2A-N-WT-PC2=18W, 3500K, Summit White, 208-277V PC	XTOR3A-N-WT-PC2=26W, 3500K, Summit White, 208-277V PC



North - Bishop's Post
Restaurant-Chesterfield Mall

The Grove in Chesterfield

Chesterfield, Missouri

September 23, 2015

STOCK & ASSOCIATES
Consulting Engineers, Inc.



East - Office Building
16100 Chesterfield Parkway West

The Grove in Chesterfield

Chesterfield, Missouri

September 23, 2015

STOCK & ASSOCIATES
Consulting Engineers, Inc.



South - Sycamore Subdivision
(Residential)

The Grove in Chesterfield

Chesterfield, Missouri

September 23, 2015

STOCK & ASSOCIATES
Consulting Engineers, Inc.



West - Chesterfield Village
(Residential)

The Grove in Chesterfield

Chesterfield, Missouri

September 23, 2015

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