III. B.

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 Section Plan, Lot 1

Meeting Date: April 13, 2017

From: Cecilia Hernandez
Project Planner

Location: 18600 Olive Street Road, Lot 1

Applicant: MW Weber Architects

Description: **18600 Olive Street Rd (Canaan Crossing, Lot 1)**: A Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design for a 1.06 acre tract of land zoned "PI" Planned Industrial District located south of Olive Street Road west of its intersection with Spirit Airpark West Drive.

PROPOSAL SUMMARY

The request is for a Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and an Architect's Statement of Design for a new 45,346 square foot service building. The proposed building is to be constructed of brick, EIFS, cast stone, and aluminum. The subject site is zoned "PI" Planned Industrial District and is governed under the terms and conditions of City of Chesterfield Ordinance 2903.

HISTORY OF SUBJECT SITE

At 1.06 acres in size, the subject site is roughly one-fifth of a 5.0 acre parcel and was originally zoned "M3" Planned Industrial District by St. Louis County prior to the incorporation of the City of Chesterfield. The site is currently vacant and was rezoned to "PI" Planned Industrial District via ordinance 2903 in July of 2016. Since that time, a Site Development Concept Plan has been approved and the Record Plat is currently under consideration.

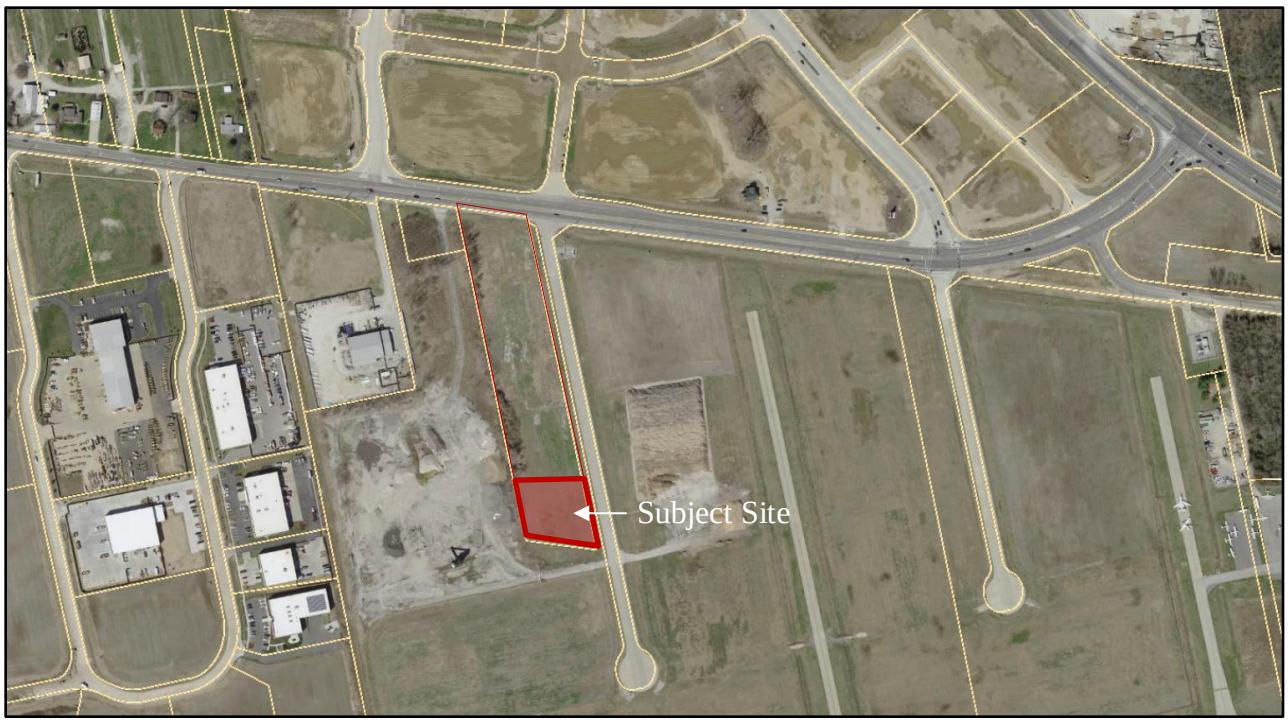


Figure 1: Site Photo

STAFF ANALYSIS

General Requirements for Site Design:

A. Site Relationships
The proposed structure is to be set back behind two rows of accessory parking, with additional parking along the rear of the building. The placement of the structure behind the parking is consistent with the Site Development Concept Plan which provides a cross access easement along the front parking, connecting all 5 lots of the development and ensuring a maximum of 2 curb cuts for this development (both off of Spirit Airpark West Drive). For reference, see the site development concept plan in Figure 2 below.

B. Circulation System and Access
Proposed access to the site would be from 1 of 2 curb cuts off of Spirit Airpark West Drive. As mentioned in the above Site Relationship section, parking is proposed in the front of the subject property to create a corridor providing access to all 5 lots within the development.

The Unified Development Code specifically notes a number of specific requirements for the Chesterfield Valley to be applied to commercial and industrial development. These requirements include utilizing architectural elements from the front façade on the side and rear of the structure and screening trash enclosures which should be constructed with materials consistent to the building. The applicant provides a 360-degree architecture, integrating consistent materials on all four sides of the building and the trash enclosure alike.

Additionally, the applicant will be required to provide a sidewalk along the eastern portion of the site as shown on the Site Development Concept Plan in Figure 2 below and will be required to provide internal pedestrian circulation to the building. While this is not shown on the plans presented today, this has been addressed in a comment on the plans to be addressed prior to review by the Planning Commission.

C. Topography & Retaining Walls
The subject site is relatively flat and the applicant does not propose significant grade alterations or retaining walls.

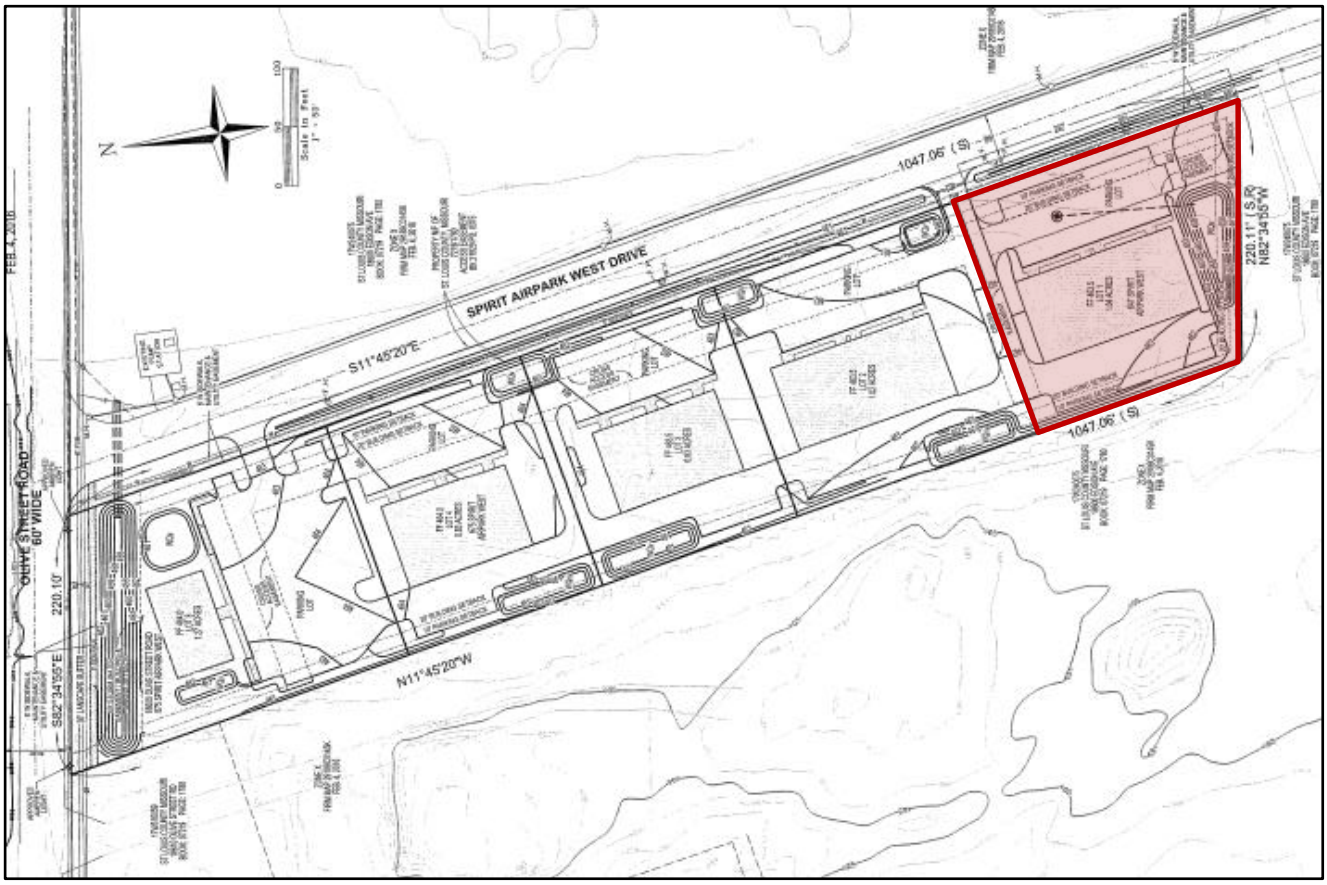


Figure 2: Site Development Concept Plan

General Requirements for Building Design:

A. Scale, Design, Materials and Color
The proposed one-story structure is consistent in height and scale with other stand-alone industrial structures in the area. Main access to the structure is provided on the eastern elevation near the proposed parking. The applicant is proposing 2 entry points which are pushed forward to break down the scale of the building. Additionally, the eastern (front) elevation is further broken down by details such as glazing bars, columns, and canopies, all of various materials. Additional design themes on the frontages have been carried onto the side elevations as desired for structures within the Chesterfield Valley. Mechanical equipment is planned to be located on the northwestern and southwestern elevations and will be screened by brick walls and cast stone tops which are consistent with the building design.

Materials planned for this proposal include brick, EIFS, cast stone, and aluminum. Multiple colors are proposed which are associated with the design of the building as documented on the rendering and elevations as well as detailed in the Architect's Statement of Design. Material samples will be made available for the Board's consideration at the meeting.

B. Landscape Design and Screening
Landscaping is planned in association with the proposed development as required by the City of Chesterfield. The landscape design provides a variety of deciduous and evergreen trees along Spirit Airpark West Drive and near parking areas. Additionally, low-maintenance and pollinator species have been integrated to ensure a variety of seasonal color and texture is present throughout the site.

A trash enclosure and mechanical screening is planned with this proposed construction. The enclosure and screening, per the Statement of Design, will match the material and color of the proposed main structure. This is a design element which is identified for development within the Chesterfield Valley.

C. Signage
Signage will be approved by a separate City process.

D. Lighting
Lighting is planned in association with this improvement. The proposed lighting plan consists of three (3) light standards within the front parking field and ten (10) wall mounted lighting fixtures. No accent lighting is proposed for this building.

DEPARTMENTAL INPUT
Staff has reviewed the Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design. Be advised that 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.

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 Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design, for 18600 Olive Street Road, Lot 1, as presented, with a recommendation for approval (or denial) to the Planning Commission."

2) "I move to forward the Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design, for 18600 Olive Street Road, Lot 1, 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 _____

Project Title: Spirit Service Center **Location:** 18600 Olive Street Road

Developer: Kurt Odle **Architect**: mw Weber architects **Engineer**: Volz

PROJECT STATISTICS:

Size of site (in acres): 1.06 acres **Total Square Footage:** 10,048 sf **Building Height:** 31' (to roof ridge)

Proposed Usage: Service building

Exterior Building Materials: Brick, EIFS, cast stone, aluminum fascia soffit & storefront system

Roof Material & Design: Architectural shingles

Screening Material & Design: HVAC units: 6' h. Brick wall with cast stone cap. Trash: 6' h. brick w/ aluminum cap

Description of art or architecturally significant features (if any): Please refer to the Architectural Design Statement.

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.**

mw weber architects

March 3, 2017

Architectural Review Board
City of Chesterfield
Department of Planning
690 Chesterfield Parkway West
Chesterfield, MO 63017-0760

Re: Architect's Statement
Spirit Service Center

Dear members of the Architectural Review Board,
The following is the Architect's Statement for the Spirit Service Center, located at 18500 Olive Street Road.

The Site:

Physical features and Access:
The 1.06 acre project site will contain a one story, 10,000 square foot service building. The site is adjacent to a 1.02 acre undeveloped site (located to the north of the project). Both sites will share a single entry drive off of Spirit Airpark West Drive. The site has a very gentle slope from north to south and will contain a detention pond on the south side of the property. The adjacent properties are all undeveloped with very few trees or shrubs.

Site Relationship & Circulation:
The site which is accessed off of Spirit Airpark West Drive, contains parking in the front and the rear of the building but will be screened from the street, adjacent neighbors, and the building with layers of landscape buffers. Mechanical equipment will be located on the 2 side elevations of the building but will be screened with a 6' high brick wall with cast stone cap that naturally extrudes from the brick/cast stone walls of the building. The trash dumpster will also be screened with a similarly designed brick wall with stained wood swinging gates, which tucks in quietly at the rear of the property. The type and location of site and building lighting fixtures were designed to reduce excess glare into the neighboring properties. Many of the fixtures are indirect fixtures and will be located within the entry alcoves or back from the main face of the building, which allows the mass of the building to shield the glare from the side neighboring properties.

Topography & Retaining walls:
The natural topography is relatively level and will not require any retaining walls. The storm water management systems includes a bio-retention basin to handle water quality, and will be approved by the City and MSD.

The Building:

Materials:
The materials on the building include one color of brick, accent bands of light colored cast stone trim, one light color of EIFS, darker architectural shingles, clear aluminum storefront window and door frames with bluish gray tinted glazing. Light colored aluminum gutters, downspouts and entry canopies will complement the light colored EIFS and cast stone.

Scale & Design:
The one story building is appropriately scaled to the few buildings that are near the area. In order to break down the scale of the building, taller masonry entry masses were created at the 2 front corners. The building is further broken down to a human scale with simple lower horizontal entry canopies that are integrated with the recessed entries or brick and cast stone pilaster entries. Lastly, a light colored cast stone trim was used as a linear thread that weaves throughout the building and acts as a unifying element that further breaks down the masses, forms an edge between the masonry (foreground mass) and EIFS (background mass), and ties all of the building elements together.

Landscape design and screening:
The required number of trees has been provided and, along the street frontage, have been located to provide shade at strategic points while also allowing "view corridors" into the site. Landscaping is also added to the buildings to buffer the spaces between this and the adjacent building.

The plant palette, designed for low maintenance, has been selected from Chesterfield's list of approved trees. The chosen plants also provide pollinators (especially at the bio-retention pond) and seasonal color & texture throughout the site.

Signage:
The signage shall be secondary to the architectural design, in order to not distract from the building architecture. Signage shall be designated in the area directly above the entry canopies. Address signage shall consist of individual aluminum numbers mounted directly to the top edge of the entry canopies.

Lighting standards:
The parking areas will be illuminated by full cutoff, low profile, LED roadway fixtures and equipped with house side shields where located at property lines to minimize glare and light trespass. Total fixture height is 18'-0" above finished grade. Building entries will incorporate a combination of full cutoff, low profile, LED surface mounted accent fixtures and recessed LED can lighting. Service bays will incorporate full cutoff, low profile, LED surface mounted accent fixtures. Foot candles at parking and drive areas are 0.5 minimum and 3.4 average. Maximum foot candles at the property lines are at 0.4 or below with most areas at 0.0. Average foot candles at all building entries are above 5.0.

Sincerely,
mw Weber Architects

Michael J. Reardon
Project Manager

SPIRIT SERVICE CENTER

Chesterfield, Missouri

mw weber architects

636.519.1400

RENDERING

06 MARCH 2017
16.095

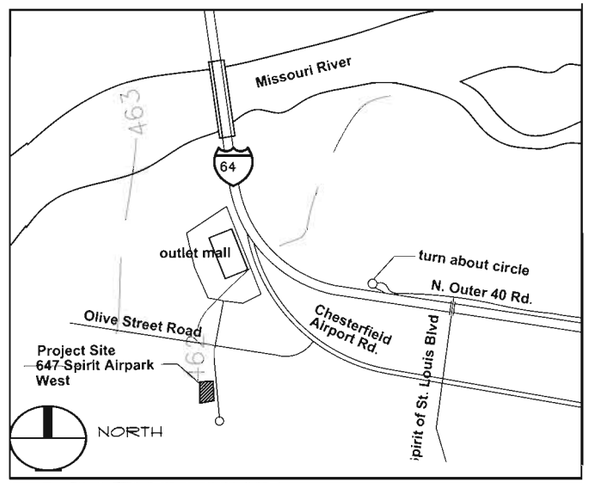
SPIRIT SERVICE CENTER

Chesterfield, Missouri

SITE PLAN

SCALE: 1" =30'-0"

0 30 50 100



LOCATION MAP

ACROSS THE STREET PROPERTY: MULCH STORAGE (UNDEVELOPED)

STATE OF MISSOURI
MICHAEL WILLIAM WEBER
A-5547
REGISTERED ARCHITECT

mw weber architects
636.519.1400

SITE PLAN

Scale: 1" = 30'-0"

06 APRIL 2017
16.095

SPIRIT SERVICE CENTER
Chesterfield, Missouri

VIEW LOOKING NORTH (TOWARDS OLIVE STREET RD.)

VIEW LOOKING EAST (ACROSS SPIRIT AIRPARK WEST DRIVE)

VIEW LOOKING SOUTH (TOWARDS SPIRIT AIRPORT)

VIEW LOOKING WEST

ADJACENT SITE PHOTOS

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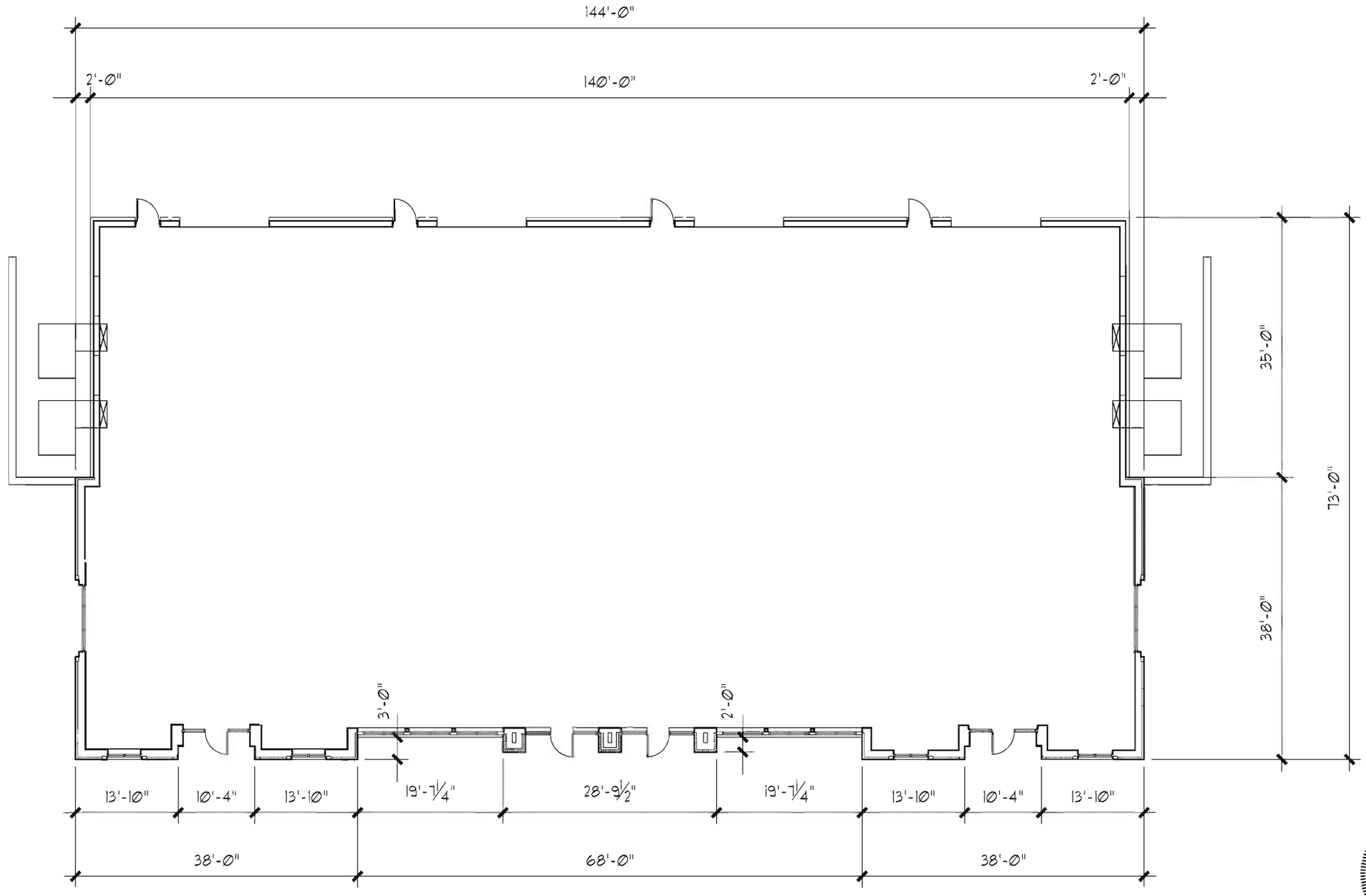
06 MARCH 2017
16.095

SPIRIT SERVICE CENTER

Chesterfield, Missouri



STATE OF MISSOURI
MICHAEL WILLIAM WEBER
A-5547
REGISTERED ARCHITECT

mw weber architects

636.519.1400

FLOOR PLAN

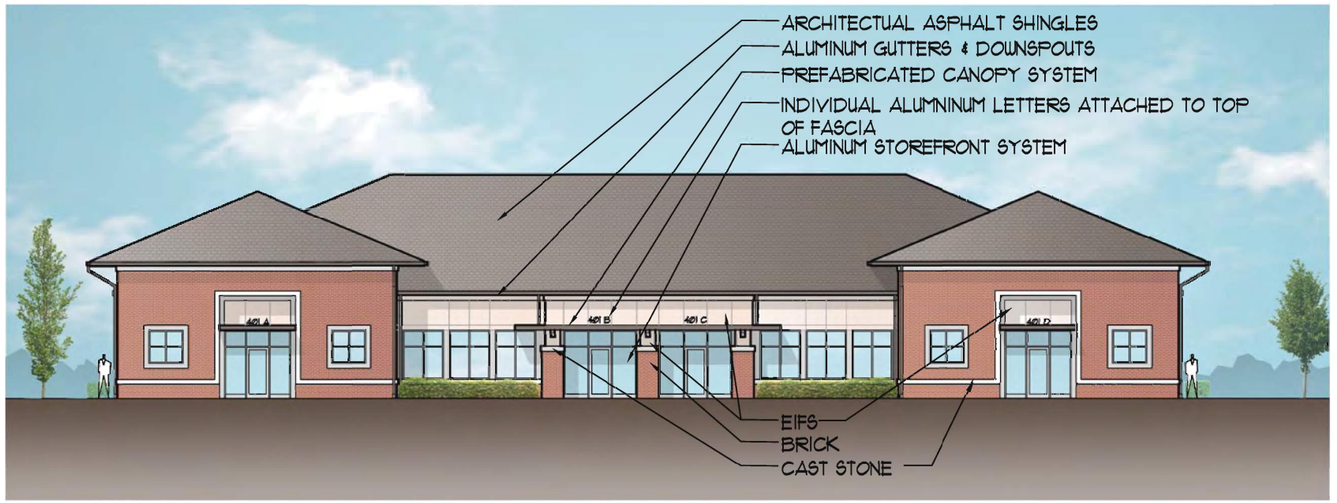
Scale: 1/16" = 1'-0"

06 MARCH 2017
16095

SPIRIT SERVICE CENTER

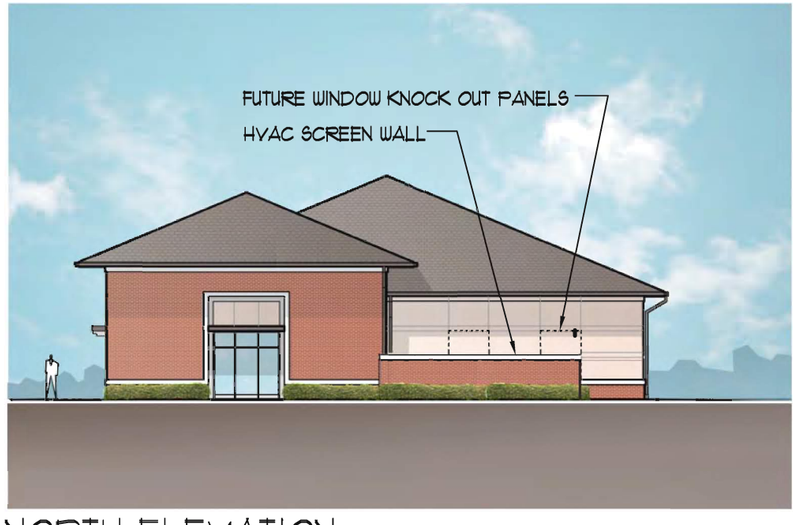
Chesterfield, Missouri

SOUTH ELEVATION



EAST ELEVATION

WEST ELEVATION



NORTH ELEVATION

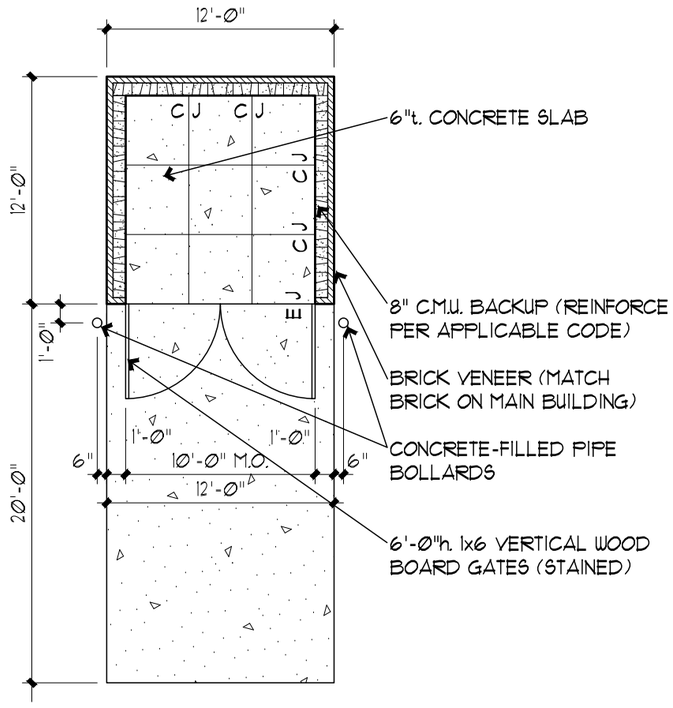
EXTERIOR ELEVATIONS

1" = 20'-0"

06 APRIL 2017
16.035

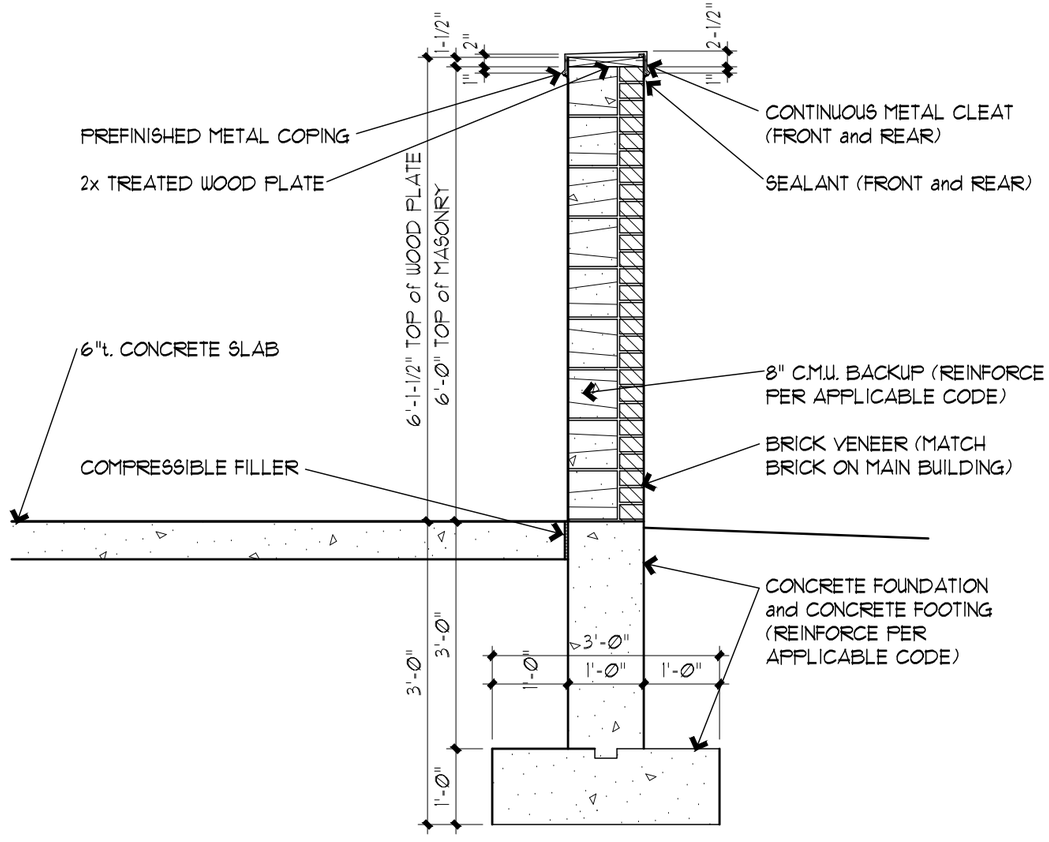
SPIRIT SERVICE CENTER

Chesterfield, Missouri



TRASH ENCLOSURE PLAN

SCALE: 1/8"=1'-0"



SECTION @ TRASH ENCLOSURE

SCALE: 1/2"=1'-0"

PLAN & ELEVATIONS- TRASH ENCLOSURE

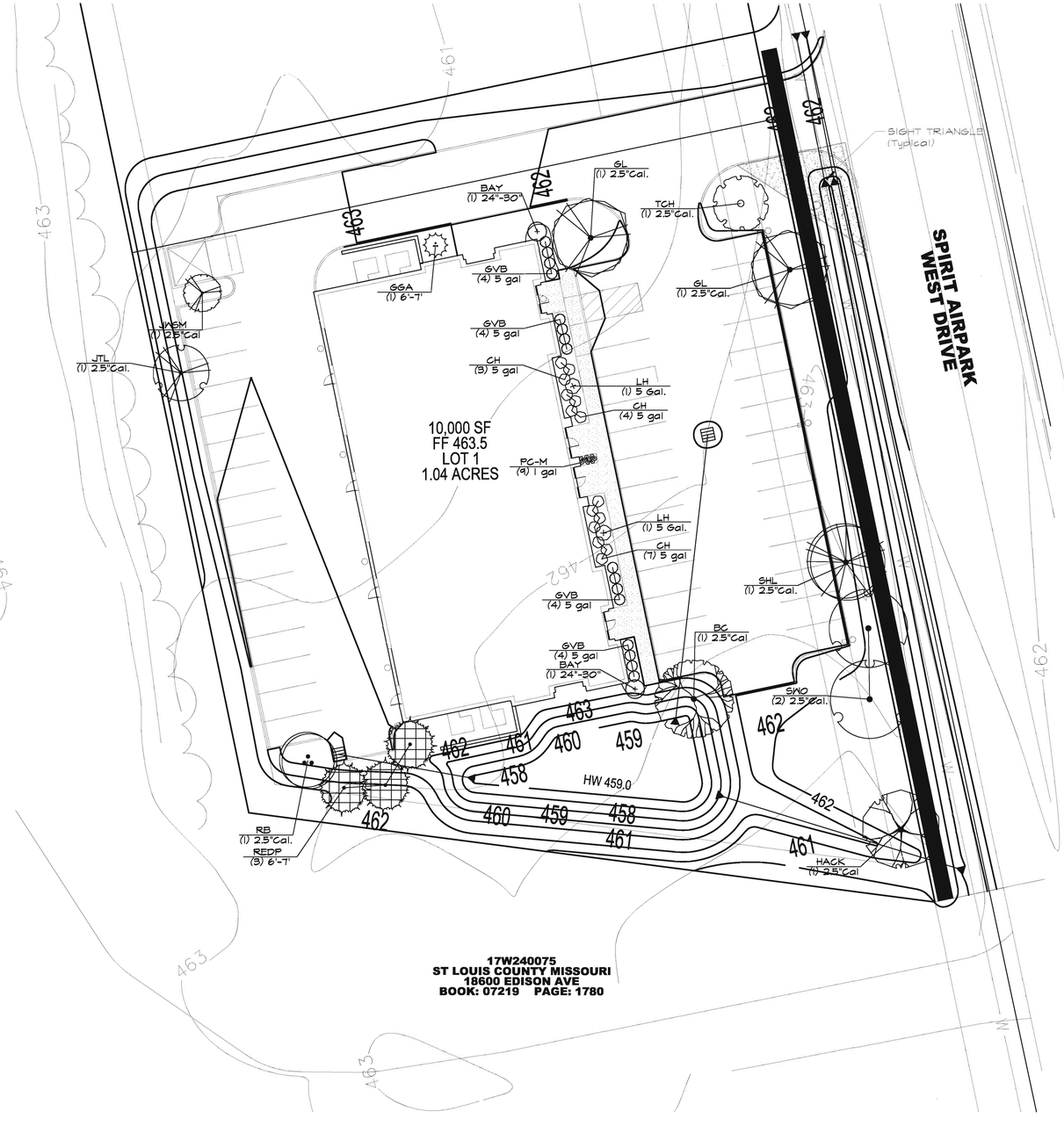
Scale: 1/16" = 1'-0"

mw weber architects

636.519.1400

09 FEBRUARY 2017

16.095



17W240075
ST LOUIS COUNTY MISSOURI
18600 EDISON AVE
BOOK: 07219 PAGE: 1780

NORTH

1-800-DIG-RITE

0 20 40 60 feet

SCALE: 1" = 20'

STREET TREES: 1 per 50 LF FRONTAGE
@254.26 LF FRONTAGE @ SPIRIT AIRPORT WEST DRIVE, REQUIRING SIX (6) TREES @ 2.5" CALIPER — 6 PROVIDED

TREE GROUPINGS:

TYPE	QTY.	PERCENTAGE
DECIDUOUS:	7	50%
ORNAMENTAL:	4	29%
EVERGREEN:	3	21%

11 FAST GROWTH (79%) AND 3 SLOW/MEDIUM GROWTH (21%)

LANDSCAPE GUIDELINE SPECS:

GENERAL:

1.) All natural vegetation shall be maintained where it does not interfere with construction or the permanent plan of operation. Every effort possible shall be made to protect existing structures or vegetation from damage due to equipment usage. Contractor shall at all times protect all materials and work against injury to public.
2.) The landscape contractor shall be responsible for any coordination and sequencing with other site related work being performed by other contractors. Refer to additional drawings for further coordination of work to be done.
3.) Underground facilities, structures and utilities must be considered approximate only. There may be others not presently known or shown. It shall be the landscape contractor's responsibility to determine or verify the existence of and exact location of the above (Call 1-800-DIG-RITE in Missouri).
4.) Plant material are to be planted in the same relationship to grade as was grown in nursery conditions. All planting beds shall be cultivated to 6" depth minimum and graded smooth immediately before planting of plants. Plant groundcover to within 12" of trunk of trees or shrubs planted within the area.
5.) It shall be the landscape contractor's responsibility to:
A.) Verify all existing and proposed features shown on the drawings prior to commencement of work.
B.) Report all discrepancies found with regard to existing conditions or proposed design to the landscape architect immediately for a decision.
C.) Stake the locations of all proposed plant material and obtain the approval of the owner's representative or landscape architect ten (10) days prior to installation.
6.) Items shown on this drawing take precedence over the material list. It shall be the landscape contractor's responsibility to verify all quantities and conditions prior to implementation of this plan. No substitutions of types or size of plant materials will be accepted without written approval from the landscape architect.
7.) Provide single-stem trees unless otherwise noted in plant schedule.
8.) All plant material shall comply with the recommendations and requirements of ANSI Z60.1 "American Standards for Nursery Stock".
9.) It shall be the contractor's responsibility to provide for inspection of the plant material by the Landscape Architect (or Owners' Representative) prior to acceptance. Inspections may take place before, during or after installation. Plants not conforming exactly to the plant list will not be accepted and shall be replaced at the landscape contractor's expense.
10.) All bids are to have unit prices listed. The Owner has the option to delete any portion of the contract prior to signing the contract or beginning work. This will be a unit price contract, quotes shall be valid for 12 months.
11.) Should auger equipment be utilized in excavating any plant pits, vertical sides of plant pits shall be thoroughly scarified to avoid creation of "polished wall walls" prior to plant material installation.
12.) All excess topsoil, rocks, debris and/or tainted soils shall be removed by the general contractor prior to point project is turned over to the landscape contractor to commence landscape installation.
13.) Keep all plant material (except turf) a minimum of 36" clear of fire hydrants.
14.) Landscape contractor shall kill & remove all existing weeds within the project site.
15.) All tags, nursery stakes, labels, etc. shall be removed by the landscape contractor at completion of all landscape installation.
16.) Landscape contractor shall be in compliance with all federal, state and local laws / regulations relating to insect infestation and/or plant diseases.
17.) Transplanted material will not be guaranteed by the landscape contractor.

PRUNING:

1.) Lightly prune trees at time of planting. Prune only the crossover limbs, intermingled leaders and/or any broken branches. Some interior twigs and lateral branches may be pruned. However, do not remove the terminal buds of branches that extend to the edge of the crown.
2.) All pruning shall comply with ANSI A300 standards.

INSURANCE:

1.) The landscape contractor shall submit certificates of insurance for workman's compensation and general liability.

MULCH:

1.) All mulch to be shredded oak bark mulch at 3" depth (after compaction) unless otherwise noted. Mulch shall be clean and free of all foreign materials, including weeds, mold, deleterious materials, etc.
2.) No plastic sheeting or filter fabric shall be placed beneath shredded bark mulch beds. Mirafi fabric shall be used beneath all gravel mulch beds.
3.) Edge all beds with spade-cut edge unless otherwise noted.

MAINTENANCE:

1.) Landscape Contractor shall provide a separate proposal to maintain all plants, shrubs, groundcover, perennials and annuals for a period of 12 months after acceptance.
2.) Contractor shall ensure that only competent and trained personnel shall provide such services and that such services be provided in a timely manner.

SIGHT TRIANGLES:

1.) No landscape material or other obstructions shall be placed or be maintained within the sight distance area so as not to impede the vision between a height of thirty inches (30") and ten feet (10') above the adjacent street or paving surfaces.
2.) Sight triangles at the intersection of a public street and a private access way (except for single family residences) shall also be formed by measuring from the point of intersection of the street frontage curbs and the entrance curb lines a distance of 35' and connecting the points so established to form the sight triangle area.
3.) All shrubs/perennials within sight triangle zones to be maintained at a maximum height at 24"; All trees to be maintained at a clear height from grade of ten (10) feet.

TOPSOIL:

1.) Topsoil mix for all proposed landscape plantings shall be five (5) parts well-drained screened organic topsoil to one (1) part Canadian sphagnum peat moss as per planting details. Roto-till topsoil mix to a depth of 6" minimum and grade smooth.
2.) Provide a soil analysis, as requested, made by an independent soil-testing agency outlining the % of organic matter, inorganic matter, deleterious material, pH and mineral content.
3.) Any foreign topsoil used shall be free of roots, stumps, weeds, brush, stones (larger than 1"), litter or any other extraneous or toxic material. Landscape contractor shall be fully responsible for correcting all negative soil issues prior to plant installation. Killing and removal of all weeds shall be the responsibility of the landscape contractor as part of this task.
4.) Landscape contractor to apply pre-emergent herbicide to all planting beds upon completion of planting operations and before application of shredded bark mulch.
5.) Install siltation controls prior to commencement of any grading operations. Inspect and maintain all siltation fences on a weekly basis until vegetation is established.

TREE MISCELLANEOUS MATERIALS:

1.) Provide stakes and deadmen of sound, new hardwood, free of knotholes and defects.
2.) Tree wrap tape shall be 4" minimum, designed to prevent borer damage and winter freezing. Additionally, only B-ply tying material shall be used.

TURF:

1.) All disturbed lawn areas to be seeded with a mixture of Turf-Type fescue (300# per acre) and bluegrass (18# per acre). Lawn areas shall be unconditionally warranted for a period of 90 days from date of final acceptance. Bare areas more than one square foot per any 50 square feet shall be replaced.
2.) The turf contractor shall be responsible for protection of finished grade; restore and repair any erosion or water damage and obtain owners' approval prior to seeding or sod installation.
3.) Landscape contractor shall offer an alternate price for sod in lieu of seed. Sod shall be cut at a uniform thickness of 3/4". No broken pieces, irregular pieces or torn pieces will be accepted.
4.) Any points carrying concentrated water loads and all slopes of 15% or greater shall be sodded.
5.) All sod shall be placed a maximum of 24 hours after harvesting.
6.) Recondition existing lawn areas damaged by Contractor's operations including equipment/material storage and movement of vehicles.
7.) Sod Contractor to ensure sod is placed below sidewalk and all paved area elevations to allow for proper drainage.

EROSION CONTROL BLANKET (Where applicable):

1.) All seeded areas shall receive an erosion control blanket which shall consist of loose straw mat and anchor pins as manufactured by: North American Green, DS 75 or approved equal. Install per manufacturer's recommendations.

PLUG PLANTING NOTES:

1.) All plugs to be 4-1/2" deep X 2" diameter minimum.
2.) Plugs are to be planted in a hole dug with a trowel, spade or planting bar such that the hole is of a minimum diameter and depth to accommodate the plug and its roots, without damage.
3.) Plugs shall be spaced in a triangulated layout approximately 24" on center. Plugs shall be planted through erosion control blanket where appropriate.
4.) Obtain plugs from a reputable nursery.
5.) Water plugs upon completion of planting so that soil is moist but not saturated.
6.) If planting is delayed more than six hours after delivery, store plugs in the shade, protect from weather and mechanical damage and keep them moist and cool. All plugs shall be planted within 24 hours after delivery.

WARRANTY:

1.) All plant material (excluding ground cover, perennials and annuals) are to be warranted for a period of 12 months after complete installation of all landscape material at 100% of the installed price.
2.) Any plant material found to be defective shall be removed and replaced within 30 days of notification or in growth season determined to be best for that plant.
3.) Only one replacement per tree or shrub shall be required at the end of the warranty period, unless loss is due to failure to comply with warranty.
4.) Lawn establishment period will be in effect once the lawn has been mowed three times. Plant establishment period shall commence on the date of acceptance and 100% completion.
5.) A written guarantee shall be provided to the owner per conditions outlined in #1 above.

MISCELLANEOUS:

1.) All landscape areas & islands shall be be provided with a mechanical underground irrigation system (by others). Coordinate landscaping with irrigation contractor.
2.) Adjust tree locations for light standards and underground utilities.
3.) No trees or other obstructions shall be located within 6'-0" of fire hydrants.

PLANT SCHEDULE

TREES	QTY	COMMON NAME / BOTANICAL NAME	SIZE
BC	1	Baldcypress / Taxodium distichum	2.5"Cal
HACK	1	Common Hackberry / Celtis occidentalis	2.5"Cal
GL	2	Greenspire Littleleaf Linden / Tilia cordata 'Greenspire'	2.5"Cal.
SWO	2	Swamp White Oak / Quercus bicolor	2.5"Cal.
SHL	1	'Skyline' Locust / Gleditsia triacanthos 'Skyline'	2.5"Cal.
EVERGREEN TREES	QTY	COMMON NAME / BOTANICAL NAME	SIZE
GGA	1	Green Giant Arborvitae / Thuja plicata 'Green Giant'	6'-7'
REDP	3	Red Pine / Pinus resinosa	6'-7'
FLOWERING TREES	QTY	COMMON NAME / BOTANICAL NAME	SIZE
JTL	1	Ivory Silk Japanese Tree Lilac / Syringa reticulata 'Ivory Silk'	2.5"Cal.
RB	1	Redbud / Cercis canadensis	2.5"Cal.
JMSM	1	Sweetbay Magnolia / Magnolia virginiana 'Jim Wilson'	2.5"Cal
TCH	1	Thornless Cockspur Hawthorn / Crataegus crusgalli var. inermis	2.5"Cal.
SHRUBS	QTY	COMMON NAME / BOTANICAL NAME	SIZE
CH	14	China Boy/Girl Holly / Ilex meserveae 'China Boy/Girl' TM	5 gal
GVB	16	Green Velvet Boxwood / Buxus 'Green Velvet'	5 gal
LH	2	Limelight Hydrangea / Hydrangea paniculata 'Limelight' TM	5 Gal.
BAY	2	Northern Bayberry / Myrica pensylvanica	24"-30"
ANNUALS/PERENNIALS	QTY	COMMON NAME / BOTANICAL NAME	SIZE
PC-M	9	Purple Coneflower / Echinacea purpurea 'Magnus'	1 gal
FORBS	QTY	COMMON NAME / BOTANICAL NAME	SIZE
OBS	44	Ozark Blue Star / Amsonia illustris	1 Gal @ 30" OC
PFRM	26	Party Favor Rose Mallow / Hibiscus laslocarpos	1 Gal @ 30" OC
SMN	98	Swamp Milkweed / Asclepias incarnata	2 Gt. @ 24" OC
NATIVE GRASSES	QTY	COMMON NAME / BOTANICAL NAME	SIZE
	389	Brown Fox Sedge / Carex vulpinoidea	Plug at 18" OC
	81	Great Green Bulrush / Scirpus atrovirens	Plug at 18" OC
	212	Morning Star Sedge / Carex grayi	Plug at 18" OC

REVISIONS	BY
3/4/17	RMM

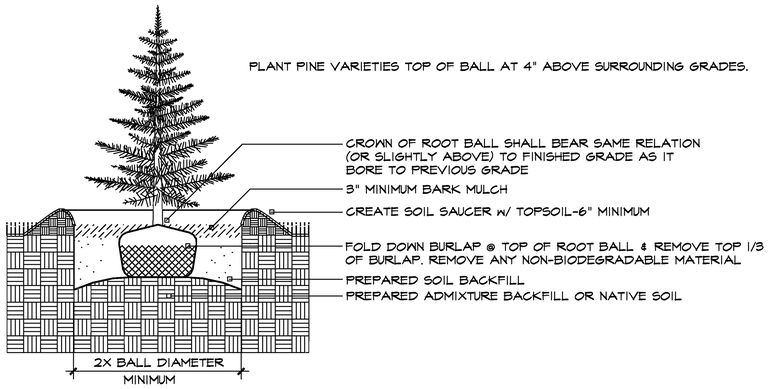
landscape TECHNOLOGIES
61 Jacobs Creek Drive
St. Charles, Missouri 63304
MO Landscape Architecture Corporation #2005003782
(636) 928-2250
Fax: (636) 928-9865

RANDALL W. MARDIS
NUMBER A-2001019
REGISTERED LANDSCAPE ARCHITECT
STATE OF MISSOURI

RANDALL K. MARDIS
MISSOURI LANDSCAPE ARCHITECT #2001019
DATE: 12/19/16

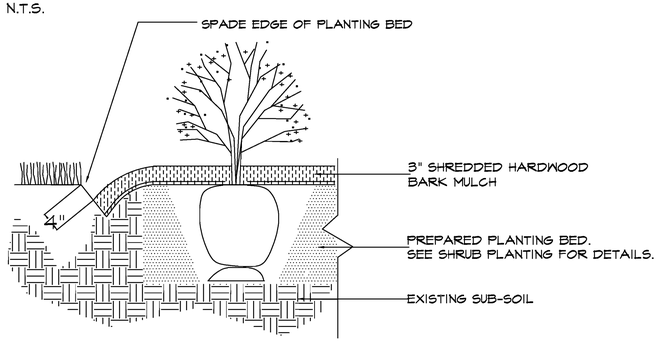
PLANTING PLAN FOR THE PROPOSED
Spirit Service Center-Lot 1
CHESTERFIELD, MISSOURI

DRAWN	R.MARDIS
CHECKED	RMM
DATE	12/19/16
SCALE	1"=20'-0"
JOB No.	2016-190
SHEET	L-1
OF	TWO SHEETS



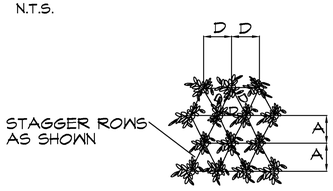
EVERGREEN TREE PLANTING

N.T.S.

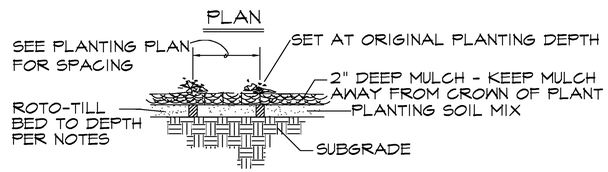


SPADE-CUT EDGE DETAIL

N.T.S.



SPACING "D"	ROW "A"	# OF PLANTS PER SQ. FT.
30"	26"	0.16
24"	20.8"	0.25
18"	15.6"	0.45
15"	13"	0.64
12"	10.4"	1.00
10"	8.66"	1.44
8"	6.93"	2.25

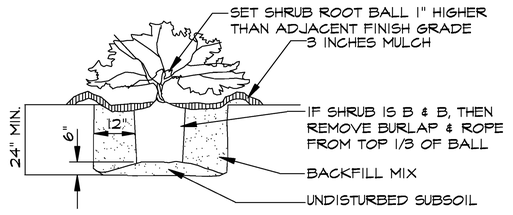


FORB/GRASS PLANTING DETAIL

N.T.S.

NOTE:

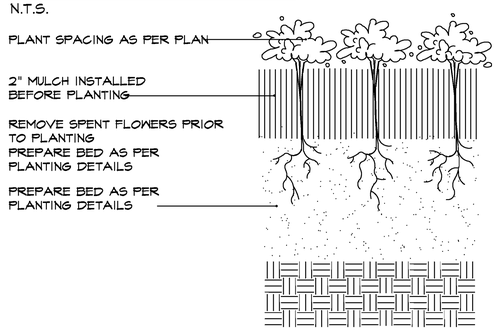
- MSD BASE MAP
- P# P-
- ZIP CODE: 63005



PRUNE ANY BROKEN BRANCHES AFTER PLANTING. DAMAGED SHRUBS OR BROKEN / CRUMBLING ROOT BALLS WILL BE REJECTED.

SHRUB PLANTING

N.T.S.



PERENNIAL / ANNUAL PLANTING

N.T.S.

PLANTING, WATER and MULCH REQUIREMENTS

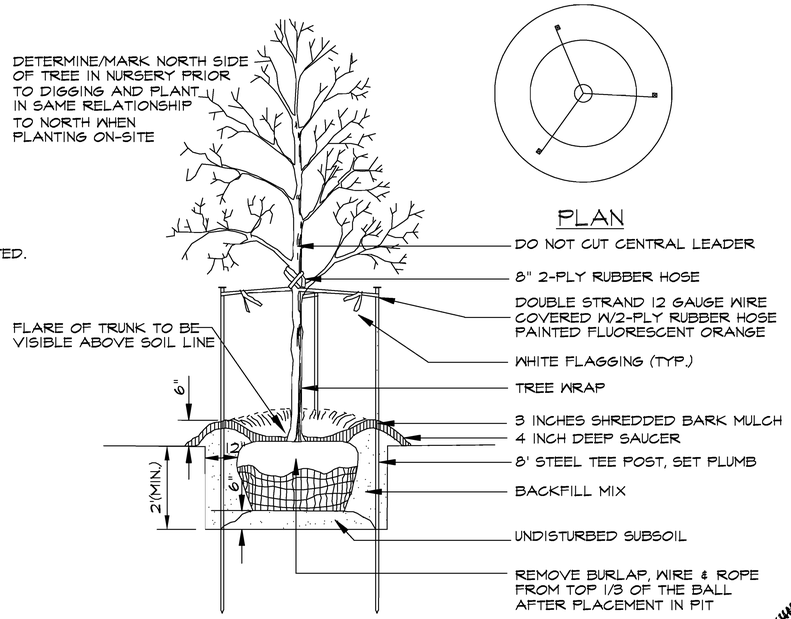
WATER AVAILABILITY	REQUIRED PLANTING PERIOD	MINIMUM CONTAINER SIZE	WATER REQUIREMENT FIRST 3 WEEKS	WATER REQUIREMENT AFTER 3 WEEKS	MAXIMUM MULCH DEPTH
NO AVAILABILITY TO WATER AFTER	LATE FEB. - APRIL ONLY	2.25"x3.75" OR LARGER	WATER EACH PLUG IMMEDIATELY		1.5" FOR PLUGS
MANUAL WATERING WITH STANDARD SPRINKLER	LATE FEB. - EARLY JUNE or SEPT. - OCTOBER	4.5"x5 OR" LARGER IN SUMMER & FALL	1" (60 MIN) EVERY 4 DAYS	1" (60 MIN) EVERY 7 DAYS UNTIL PLANTS ESTABLISHED	1.5" FOR PLUGS 2.5" FOR QUARTS
AUTOMATIC IRRIGATION (WATER MORE FREQUENTLY THAN NORMAL DURING FIRST TWO MONTHS AFTER PLANTING)	LATE FEB. - EARLY OCTOBER	2.25"x3.75" OR LARGER IN SPRING	1" (60 MIN) EVERY 4 DAYS IN SPRING AND FALL	1" (60 MIN) EVERY 7 DAYS UNTIL PLANTS ESTABLISHED	1.5" FOR PLUGS 2.5" FOR QUARTS
		4.5"x5 OR" LARGER IN SUMMER & FALL	1" (60 MIN) EVERY 3 DAYS IN SUMMER		

BIO-RETENTION MAINTENANCE PROCEDURES:

1. ADD 2-4 INCHES OF MULCH (SEE CIVIL DWGS. FOR TYPE) TO THE ENTIRE NEWLY PLANTED RAIN GARDEN/BIO-RETENTION AREA. DO NOT COVER THE CROWNS OF THE PERENNIALS. REPLENISH THE MULCH AS NEEDED.
2. AVOID FINE CUT OR LIGHTER WEIGHT MULCHES AS THEY FLOAT IN WET CONDITIONS.
3. PRUNE ANY DEAD, DISEASED OR DAMAGED PLANTS AS SOON AS THE PROBLEM IS NOTICED. DEADHEAD PLANTS AS NEEDED AND DIVIDE PERENNIALS EVERY 3-4 YEARS AS NEEDED. LEAVE STEMS AND SEED HEADS STANDING IN FALL/WINTER TO ADD VISUAL INTEREST AND TO PROVIDE FOOD AND COVER FOR BIRDS.
4. PRUNE THE FOLIAGE OF PERENNIALS WHEN THEY DIE BACK FOR THE WINTER AND ORNAMENTAL GRASSES BEFORE NEW GROWTH BEGINS IN THE SPRING.
5. HAND WEED BIWEEKLY UNTIL PLANTS ARE ESTABLISHED. THEREAFTER, REMOVE OR SPOT WEEDS AS NECESSARY.
6. WATER THE GARDEN DURING ITS ESTABLISHMENT AND EXTENDED DRY PERIODS. ONE INCH OF WATER PER WEEK IS RECOMMENDED.
7. DO NOT USE LAWN FERTILIZERS NEAR GARDEN AREA AS THIS WILL STIMULATE WEED GROWTH.
8. EACH SPRING, MOW AND REMOVE DEAD VEGETATION. USE BURNING ONLY UNDER SUPERVISION OF LOCAL FIRE DEPARTMENT (NATIVE PLANTS THRIVE UNDER FIRE MANAGEMENT).

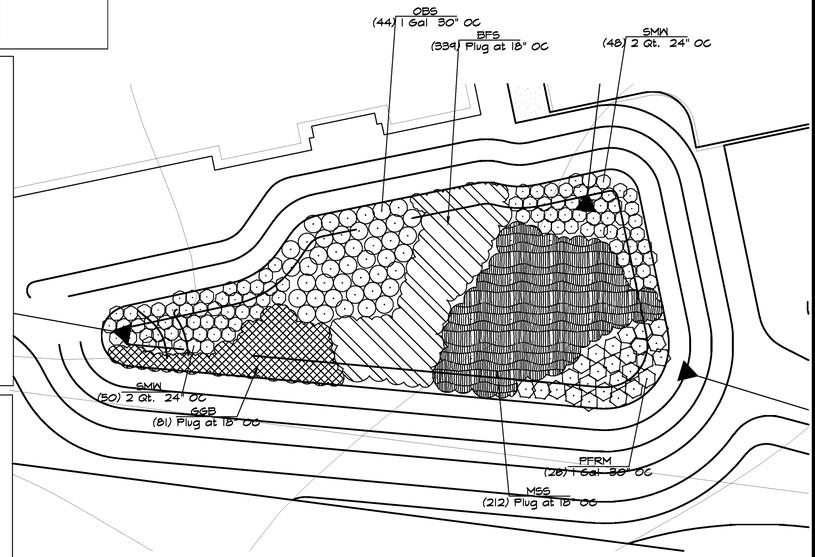
NOTE:

- ALL NATIVE GRASS PLUGS ARE TO BE A MINIMUM 4.5" DEEP X 2" DIAMETER
- CONTRACTOR TO PROVIDE SIGNED AND SEALED SHOP DRAWINGS TO BE APPROVED BY THE PROJECT ENGINEER AND MSD. CONTACT MSD AT 314/335-2072.
- DURING CONSTRUCTION, THE BIO-RETENTION AREAS MAY TRAP SEDIMENT. FINAL CONSTRUCTION AND PLANTING OF THE BIO-RETENTION AREAS SHALL BE COMPLETED AFTER SILT AND DEBRIS IS REMOVED.
- HEAVY EQUIPMENT SHALL BE KEPT OFF OF THE SOIL MIX DURING CONSTRUCTION OPERATIONS TO AVOID COMPACTING. FOOT TRAFFIC AND PRE-SOAKING TO AID NATURAL COMPACTION IS ALLOWABLE.
- SOIL pH SHALL FALL IN THE RANGE OF 5.5 AND 7.
- SEE CIVIL DRAWINGS FOR CROSS-SECTIONAL DETAILS OF MULCH AND SOIL MAKEUP.



DECIDUOUS TREE PLANTING

N.T.S.



BIO-RETENTION PLAN

SCALE: 1"=10'-0"

REVISIONS

BY	
3/4/17	RWM

Landscape TECHNOLOGIES
61 Jaycee Creek Drive
St. Charles, Missouri 63304
(636) 928-2250
Fax: (636) 928-9865
MO Landscape Architecture Corporation #2005001702

STATE OF MISSOURI
RANDALL W. MARDIS
NUMBER 019
REGISTERED LANDSCAPE ARCHITECT

RANDALL W. MARDIS
MISSOURI LANDSCAPE ARCHITECT #2000019
DATE: 3/4/17

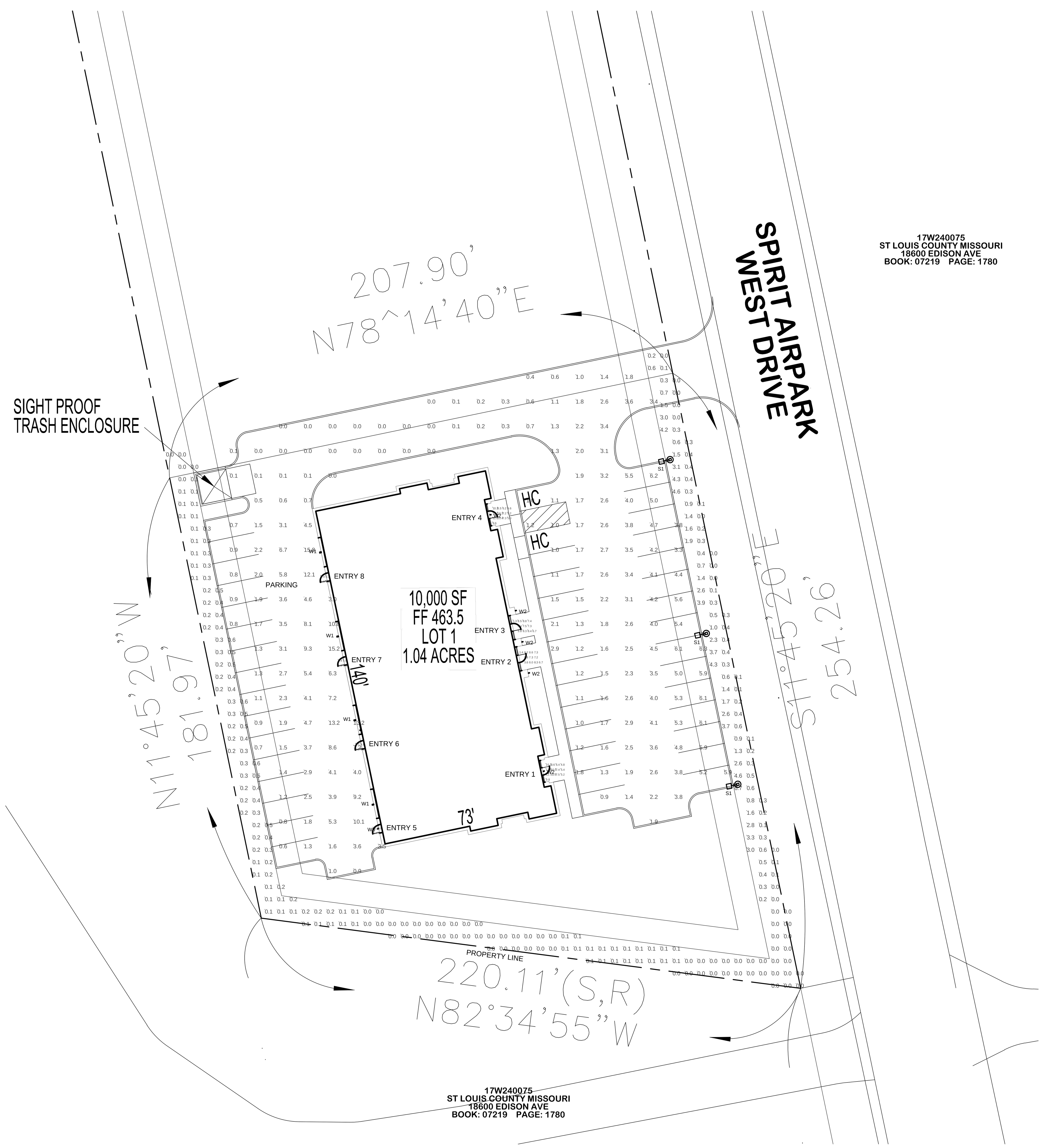
PLANTING PLAN FOR THE PROPOSED

Spirit Service Center-Lot 1

CHESTERFIELD, MISSOURI

DRAWN	R.MARDIS
CHECKED	RWM
DATE	12/19/16
SCALE	1"=10'-0"
JOB No.	2016-190
SHEET	L-2

OF TWO SHEETS



SITE PLAN - PHOTOMETRICS

SCALE: 1" = 30'-0"

Luminaire Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
□-◎	S1	3	EATON - McGRAW-EDISON (FORMER COOPER LIGHTING)	GLEON-AF-03-LED-E1-SL4-HSS	GALLEON AREA AND ROADWAY LUMINAIRE (3) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET		48	GLEON-AF-03-LED-E1-SL4-HSS.ies	306.9438	0.95	166
□-◎	S2	0	EATON - McGRAW-EDISON (FORMER COOPER LIGHTING)	GLEON-AF-02-LED-E1-5WQ	GALLEON AREA AND ROADWAY LUMINAIRE (2) 70 CRI, 4000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE V WIDE OPTICS Retail, Roadway, Sidewalk, Site, Street, Substation, Security, Corrosion Resistant, Vandal Resistant, Wet Location ABSOLUTE PHOTOMETRY IS BASED ON CALIBRATION FACTORS CREATED USING LAB LUMEN STANDARDS IN GONIOPHOTOMETER WITH TEST DISTANCE OF 28.75 FEET		32	GLEON-AF-02-LED-E1-5WQ.ies	400.9783	0.95	113
▯	W1	4	EATON - LUMARK (FORMER COOPER LIGHTING)	XTOR8B	CROSSTOUR 81W WALL MOUNT LED	EATON LED 5000K	1	XTOR8B.ies	8499.597	0.95	81
▯	W2	5	EATON - LUMARK (FORMER COOPER LIGHTING)	XTOR1B	CROSSTOUR 12W WALL MOUNT LED	EATON LED 5000K	1	XTOR1B.ies	1417.286	0.95	12.2
▯	W3	1	EATON - LUMARK (FORMER COOPER LIGHTING)	XTOR1A	LUMARK CROSSTOUR 1A - 5000K CCT		1	XTOR1A.ies	721.4001	0.95	7

Statistics

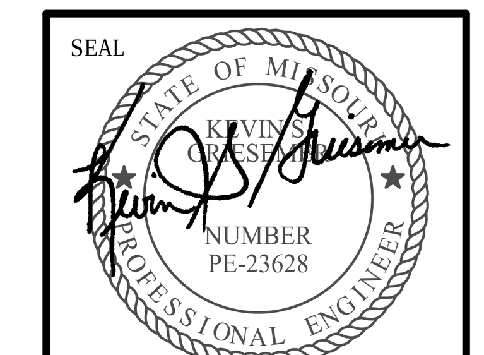
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min	Avg/Max
Entry 1	+	8.6 fc	12.8 fc	4.8 fc	2.7:1	1.8:1	0.7:1
Entry 2	+	6.6 fc	8.6 fc	1.4 fc	6.1:1	4.7:1	0.8:1
Entry 3	+	6.7 fc	8.8 fc	1.3 fc	6.8:1	5.2:1	0.8:1
Entry 4	+	8.4 fc	12.7 fc	4.6 fc	2.8:1	1.8:1	0.7:1
Entry 5	+	9.5 fc	12.0 fc	7.7 fc	1.6:1	1.2:1	0.8:1
Entry 6	+	5.5 fc	7.2 fc	4.1 fc	1.8:1	1.3:1	0.8:1
Entry 7	+	5.7 fc	7.4 fc	4.3 fc	1.7:1	1.3:1	0.8:1
Entry 8	+	5.7 fc	7.4 fc	4.3 fc	1.7:1	1.3:1	0.8:1
Inside Property Line	+	0.5 fc	6.7 fc	0.0 fc	N/A	N/A	0.1:1
Parking & Roadway	+	2.9 fc	15.8 fc	0.0 fc	N/A	N/A	0.2:1

G&W
ENGINEERING CORPORATION
DYNAMIC PROCESSES ◆ SUSTAINABLE RESULTS
138 WELDON PARKWAY ST. LOUIS, MO 63043
(314) 469-3737 PROJECT NUMBER: 2017-0018.00
WWW.GANDWENGINEERING.COM
MISSOURI STATE CERTIFICATE OF AUTHORITY # 2002018767

SPIRIT SERVICE CENTER

647 Spirit Airpark West Drive
Chesterfield, Missouri 63005

SEAL



02-09-2017

REVISIONS

JOB NO:	2017-0018.00
DRAWN BY:	AWL
CHECKED BY:	KSG
DATE:	01-13-2017

SHEET NO.

E1.0

SITE PLAN PHOTOMETRIC

DESCRIPTION

Lumark

The patented Lumark Crosstour™ MAXX LED wall pack series of luminaries provides low-profile architectural style with super bright, energy-efficient LEDs. The rugged die-cast aluminum construction, back box with secure lock hinges, stainless steel hardware along with a sealed and gasketed optical compartment make Crosstour impervious to contaminants. The Crosstour MAXX wall luminaire is ideal for wall/surface, inverted mount for facade/canopy illumination, perimeter and site lighting. Typical applications include pedestrian walkways, building entrances, multi-use facilities, industrial facilities, perimeter parking areas, storage facilities, institutions, schools and loading docks.

		Type
Catalog #		W1
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Low-profile LED design with rugged one-piece, die-cast aluminum back box and hinged removable door. Matching housing styles incorporate both a full cutoff and refractive lens design. Full cutoff and refractive lens models are available in 58W and 81W. Patent pending secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes four 1/2" NPT threaded conduit entry points. The back box is secured by four lag bolts (supplied by others). External fin design extracts heat from the fixture surface. One-piece silicone gasket seals door and back box. Not recommended for car wash applications.

Optical
Silicone sealed optical LED chamber incorporates a custom engineered reflector providing high-efficiency illumination. Full cutoff models integrate an impact-resistant molded refractive prism optical lens assembly meeting requirements for Dark Sky compliance. Refractive lens models incorporate a molded lens assembly designed for maximum forward throw. Solid state LED Crosstour MAXX luminaries are thermally optimized with eight lumen packages in cool 5000K or neutral 4000K (58W, 81W models) LED color temperature (CCT).

Electrical
LED driver is mounted to the die-cast aluminum housing for optimal heat sinking. LED thermal management system incorporates both conduction and natural convection to transfer heat rapidly away from the LED source. 58W and 81W models operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C [122°F] models available in 58W and 81W models only. Crosstour MAXX luminaires maintain greater than 89% of initial light output after 72,000 hours of operation. Four 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, 480V 60Hz, or 347V 60Hz electrical operation. 480V is compatible for use with 480V Wye systems only.

Emergency Egress
Optional integral cold weather battery emergency egress includes emergency operation test switch (available in 58W and 81W models only), an AC-ON indicator light and a premium extended rated sealed maintenance-free nickel-metal hydride battery pack. The separate emergency lighting LEDs are wired to provide redundant emergency lighting. Listed to UL Standard 924, Emergency Lighting.

Area and Site Pole Mounting
Optional extruded aluminum 6-1/2" arm features internal bolt guides for supplied twin support rods, allowing for easy positioning of the fixture during installation to pole. Supplied with round plate adapter plate. Optional tenon adapter fits 2-3/8" or 3-1/2" O.D. Tenon.

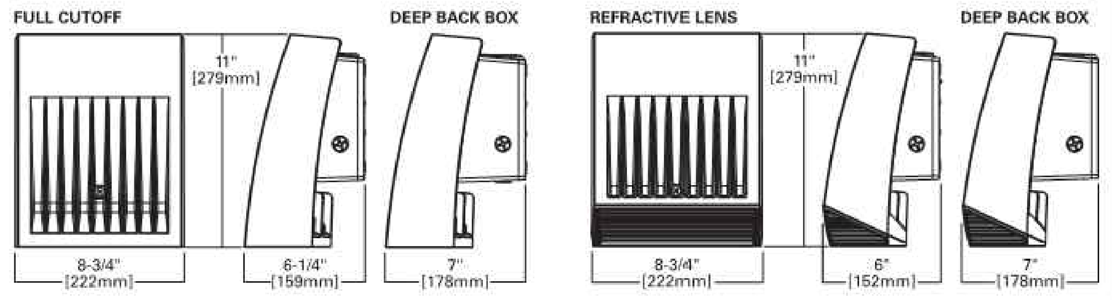
Finish
Crosstour MAXX is protected with a super TGIC carbon bronze or summit white polyester powder coat paint. Super TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty
Five-year warranty.

XTOR
CROSSTOUR MAXX LED

APPLICATIONS:
WALL / SURFACE
INVERTED
SITE LIGHTING

DIMENSIONS



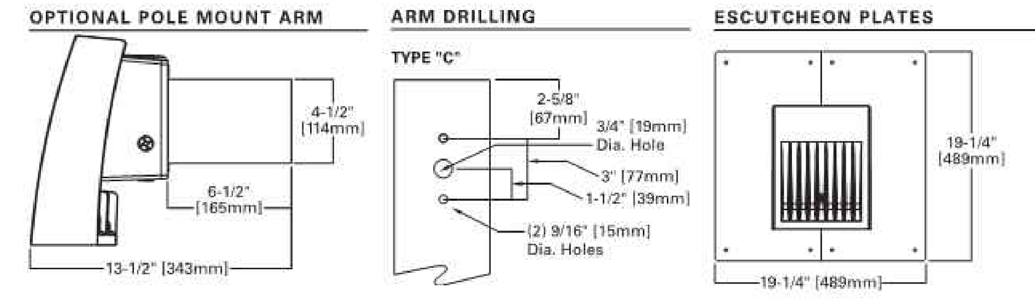
CERTIFICATION DATA
UL/cUL Wet Location Listed
LM79 / LM80 Compliant
ROHS Compliant
NOM Compliant Models
3G Vibration Tested
UL924 Listed (CBP Models)
IP66 Rated

TECHNICAL DATA
40°C Ambient Temperature
External Supply Wiring 90°C Minimum

EPA
Effective Projected Area (Sq. Ft.):
XTOR6B, XTOR8B=0.54
With Pole Mount Arm=0.98

SHIPPING DATA:
Approximate Net Weight:
12-15 lbs. [5.4-6.8 kgs.]

DIMENSIONS



POWER AND LUMENS BY FIXTURE MODEL

58W Series				
LED Information	XTOR6B	XTOR6BRL	XTOR6B-W	XTOR6BRL-W
Delivered Lumens	6,129	6,225	6,038	6,133
B.U.G. Rating	B1-U0-G1	B2-U4-G3	B1-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K
CRI (Color Rendering Index)	70	70	70	70
Power Consumption (Watts)	58W	58W	58W	58W
81W Series				
LED Information	XTOR8B	XTOR8BRL	XTOR8B-W	XTOR8BRL-W
Delivered Lumens	8,502	8,635	8,373	8,504
B.U.G. Rating	B2-U0-G1	B2-U4-G3	B2-U0-G1	B2-U4-G3
CCT (Kelvin)	5000K	5000K	4000K	4000K
CRI (Color Rendering Index)	70	70	70	70
Power Consumption (Watts)	81W	81W	81W	81W

EGRESS Information	XTOR6B, and XTOR8B Full Cutoff CBP Egress LED	XTOR6B, and XTOR8B Refractive Lens CBP Egress LED
Delivered Lumens	509	468
B.U.G. Rating	N.A.	N.A.
CCT (Kelvin)	4000K	4000K
CRI (Color Rendering Index)	65	65
Power Consumption (Watts)	1.8W	1.8W

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (72,000 Hours)	Theoretical L70 (Hours)
XTOR6B Model		
25°C	> 90%	246,000
40°C	> 88%	217,000
50°C	> 88%	201,000
XTOR8B Model		
25°C	> 89%	219,000
40°C	> 87%	195,000
50°C	> 86%	181,000

CURRENT DRAW

Voltage	Model Series			
	XTOR6B	XTOR8B	XTOR6B-CBP (Fixture/Battery)	XTOR8B-CBP (Fixture/Battery)
120V	0.51	0.71	0.60/0.25	0.92/0.25
208V	0.25	0.39	- -	- -
240V	0.25	0.35	- -	- -
277V	0.22	0.31	0.36/0.21	0.50/0.21
347V	0.19	0.25		- -
480V	0.14	0.19		- -

ORDERING INFORMATION

Sample Number: XTOR6B-W-WT-PC1

Series	LED Kelvin Color	Housing Color	Options (Add as Suffix)
Full Cutoff **XTOR6B**=58W **XTOR8B**=81W **Refractive Lens** **XTOR6BRL**=58W **XTOR8BRL**=81W	**[Blank]**=Bright White (Standard) 5000K **W**=Neutral, 4000K [1]	**[Blank]**=Carbon Bronze (Standard) **WT**=Summit White **BK**=Black **BZ**=Bronze **AP**=Grey **GM**=Graphite Metallic	**347V**=347V [2,3,4,5] **480V**=480V [2,3,4,5,6] **PC1**=Photocontrol 120V [7] **PC2**=Photocontrol 208-277V [7,8] **PMA**=Pole Mount Arm (C Drilling) with Round Adapter [3,9] **HA**=50 C High Ambient [4] **MS-L20**=Motion Sensor for ON/OFF Operation [2,3,10,11] **MS/DIM-L20**=Motion Sensor for Dimming Operation [2,3,10,11,12,13,14] **CBP**=Cold Weather Battery Pack [2,3,11,15]

Accessories (Order Separately)	
WG-XTORMX=Crosstour MAXX Wire Guard	**VA1033-XX**=Single Tenon Adapter for 2-3/8" O.D. Tenon [16]
PB120V=Field Installed 120V Photocontrol	**VA1034-XX**=2@180° Tenon Adapter for 2-3/8" O.D. Tenon [16]
PB277V BUTTON PC=Field Installed 208-277V Photocontrol [8]	**VA1035-XX**=3@120° Tenon Adapter for 2-3/8" O.D. Tenon [16]
VA1040-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon [16]	**VA1036-XX**=4@90° Tenon Adapter for 2-3/8" O.D. Tenon [16]
VA1041-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon [16]	**VA1037-XX**=2@90° Tenon Adapter for 2-3/8" O.D. Tenon [16]
VA1042-XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon [16]	**VA1038-XX**=3@90° Tenon Adapter for 2-3/8" O.D. Tenon [16]
VA1043-XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon [16]	**VA1039-XX**=2@120° Tenon Adapter for 2-3/8" O.D. Tenon [16]
VA1044-XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon [16]	**EWP/XTORMX**=Escutcheon Wall Plate, Carbon Bronze
VA1045-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon [16]	**EWP/XTORMX-WT**=Escutcheon Wall Plate, Summit White
VA1046-XX=2@120° Tenon Adapter for 3-1/2" O.D. Tenon [16]	**FSIR-100**=Wireless Configuration Tool for Occupancy Sensor [14]

NOTES:
1. Available in 58W and 81W only.
2. Not available with HA option.
3. Deep back box is standard for 347V, 480V, CBP, PMA, MS-L20 and MS/DIM-L20.
4. Not available with CBP option.
5. Thru-branch wiring not available with HA option or with 347V.
6. 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).
7. Not available with MS-L20 and MS/DIM-L20 options.
8. Use PC2 with 347V or 480V option for photocontrol. Factory wired to 208-277V lead.
9. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
10. For use in downlight orientation only. Optimal coverage at mounting heights of 9'-20'.
11. 120V or 277V only.
12. Factory set to 50% power reduction after 15-minutes of inactivity. Dimming driver included.
13. Includes integral photo sensor.
14. 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.
15. Operating temperatures -20°C to 25°C.
16. Replace XX with housing color.

STOCK ORDERING INFORMATION

58W Series	81W Series
Full Cutoff	
XTOR6B=58W, 5000K, Carbon Bronze	**XTOR8B**=81W, 5000K, Carbon Bronze
XTOR6B-PC1=58W, 5000K, 120V PC, Carbon Bronze	**XTOR8B-PC1**=81W, 5000K, 120V PC, Carbon Bronze
XTOR6B-WT= 58W, 5000K, Summit White	**XTOR8B-WT**=81W, 5000K, Summit White
XTOR6B-W=58W, 4000K, Carbon Bronze	**XTOR8B-PC2**=81W, 5000K, 208-277V PC, Carbon Bronze
XTOR6B-PMA= 58W, 5000K, Pole Mount Arm, Carbon Bronze	**XTOR8B-PMA**=81W, 5000K, Pole Mount Arm, Carbon Bronze
XTOR6B-W-PMA=58W, 4000K, Pole Mount Arm, Carbon Bronze	**XTOR8B-W**=81W, 4000K, Carbon Bronze
XTOR6B-PC2= 58W, 5000K, 208-277V PC, Carbon Bronze	**XTOR8B-W-PC1**=81W, 4000K, 120V PC, Carbon Bronze
XTOR6B-W-PC2=58W, 4000K, 208-277V PC, Carbon Bronze	**XTOR8B-W-PC2**=81W, 4000K, 208-277V PC, Carbon Bronze
XTOR6B-W-PC1=58W, 4000K, 120V PC, Carbon Bronze	**XTOR8B-W-PMA**=81W,4000K, Pole Mount Arm, Carbon Bronze
Refractive Lens	
XTOR6BRL=58W, 5000K, Refractive Lens, Carbon Bronze	**XTOR8BRL**=81W, 5000K, Refractive Lens, Carbon Bronze
XTOR6BRL-PC1=58W, 5000K, Refractive Lens, 120V PC, Carbon Bronze	**XTOR8BRL-PC1**=81W, 5000K, Refractive Lens, 120V PC, Carbon Bronze
XTOR6BRL-WT=58W, 5000K, Refractive Lens, Summit White	**XTOR8BRL-WT**=81W, 5000K, Refractive Lens, Summit White
XTOR6BRL-W=58W, 4000K, Refractive Lens, Carbon Bronze	**XTOR8BRL-PC2**=81W, 5000K, Refractive Lens, 208-277V PC, Carbon Bronze
XTOR6BRL-PMA=58W, 5000K, Refractive Lens, Pole Mount Arm, Carbon Bronze	**XTOR8BRL-PMA**=81W, 5000K, Refractive Lens, Pole Mount Arm, Carbon Bronze
XTOR6BRL-W-PMA=58W,4000K, Refractive Lens, Pole Mount Arm, Carbon Bronze	**XTOR8BRL-W**=81W, 4000K, Refractive Lens, Carbon Bronze
XTOR6BRL-PC2=58W, 5000K, Refractive Lens, 208-277V PC, Carbon Bronze	**XTOR8BRL-W-PC1**=81W, 4000K, Refractive Lens, 120V PC, Carbon Bronze
XTOR6BRL-W-PC2=58W, 4000K, Refractive Lens, 208-277V PC, Carbon Bronze	**XTOR8BRL-W-PC2**=81W, 4000K, Refractive Lens, 208-277V PC, Carbon Bronze
XTOR6BRL-W-PC1=58W, 4000K, Refractive Lens, 120V PC, Carbon Bronze	**XTOR8BRL-W-PMA**=81W,4000K, Refractive Lens, Pole Mount Arm, Carbon Bronze

DESCRIPTION

Lumark

The patented Lumark Crosstour™ LED Wall Pack Series of luminaries 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.

		Type
Catalog #		W2 & W3
Project		
Comments		Date
Prepared by		

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 medium design. The small housing is available in 7W, 18W and 26W. The medium housing is available in the 38W model. Patented secure lock hinge feature allows for safe and easy tool-less electrical connections with the supplied push-in connectors. Back box includes three half-inch, NPT threaded conduit entry points. The universal back box supports both the small and medium 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. Available in seven lumen packages; 5000K and 4000K 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, 18W, 26W and 38W series operate in -40°C to 40°C [-40°F to 104°F]. High ambient 50°C models available. Crosstour luminaires maintain greater than 89% of initial light output after 72,000 hours of operation. Three 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.

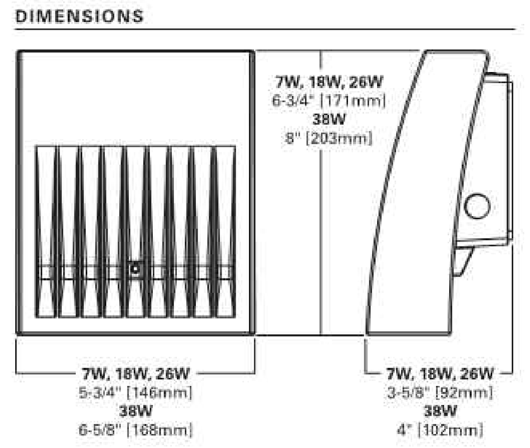
Finish
Crosstour is protected with a Super durable TGIC carbon bronze or summit white polyester powder coat paint. Super durable TGIC powder coat paint finishes withstand extreme climate conditions while providing optimal color and gloss retention of the installed life.

Warranty
Five-year warranty.

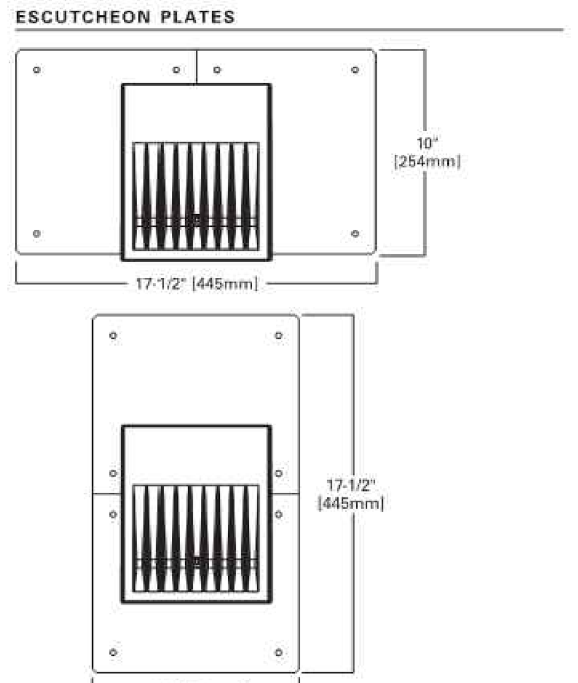
XTOR
CROSSTOUR LED

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

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

EPA
Effective Projected Area (Sq. Ft.):
XTOR1A, XT0R2B, XT0R3B=0.34
XTOR4B=0.45

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

LUMENS - CRI/CCT TABLE

LED Information	XTOR1A	XTOR2B	XTOR2B-W	XTOR3B	XTOR3B-W	XTOR4B	XTOR4B-W
Delivered Lumens (Wall Mount)	772	2,135	2,103	2,751	2,710	4,269	4,205
Delivered Lumens (With Flood Accessory Kit) [1]	468	1,495	1,472	2,099	2,068	3,168	3,121
B.U.G. Rating [2]	B0-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B1-U0-G0	B2-U0-G0	B2-U0-G0
CCT (Kelvin)	5,000	5,000	4,000	5,000	4,000	5,000	4,000
CRI (Color Rendering Index)	65	70	70	70	70	70	70
Power Consumption (Watts)	7W	18W	18W	26W	26W	38W	38W

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

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
XTOR2B Model		
25°C	> 89%	240,000
40°C	> 88%	212,000
50°C	> 87%	196,000
XTOR3B Model		
25°C	> 91%	280,000
40°C	> 91%	270,000
50°C	> 88%	240,000
XTOR4B Model		
25°C	> 89%	222,000
40°C	> 87%	198,000
50°C	> 87%	184,000

CURRENT DRAW

Voltage	Model Series			
	XTOR1A	XTOR2B	XTOR3B	XTOR4B
120V	0.05A	0.15A	0.22A	0.34A
208V	0.03A	0.09A	0.13A	0.17A
240V	0.03A	0.08A	0.11A	0.17A
277V	0.03A	0.07A	0.10A	0.15A
347V	0.025A	0.06A	0.082A	0.12A

ORDERING INFORMATION

Sample Number: XTOR2B-W-WT-PC1

Series	LED Kelvin Color	Housing Color	Options (Add as Suffix)	Accessories (Order Separately)
XTOR1A=Small Door, 7W **XTOR2B**=Small Door, 18W **XTOR3B**=Small Door, 26W **XTOR4B**=Medium Door, 38W	**[Blank]**=Bright White (Standard), 5000K **W**=Neutral White, 4000K [1]	**[Blank]**=Carbon Bronze (Standard) **WT**=Summit White **BK**=Black **BZ**=Bronze **AP**=Grey **GM**=Graphite Metallic	**PC1**=Photocontrol 120V [2] **PC2**=Photocontrol 208-277V [2,3] **347V**=347V [4] **HA**=50 C High Ambient [4]	**WG/XTOR**=Wire Guard [5] **XTORFLD-KNC**=Knuckle Floodlight Kit [6] **XTORFLD-TRN**=Trunnion Floodlight Kit [6] **XTORFLD-KNC-WT**=Knuckle Floodlight Kit, Summit White [6] **XTORFLD-TRN-WT**=Trunnion Floodlight Kit, Summit White [6] **EWP/XTOR**=Escutcheon Wall Plate, Carbon Bronze **EWP/XTOR-WT**=Escutcheon Wall Plate, Summit White

NOTES:
1. 2B, 3B, and 4B models only.
2. Photocontrols are factory installed.
3. Order PC2 for 347V models.
4. Thru-branch wiring not available with HA option or with 347V.
5. Wire guard for wall/surface mount. Not for use with floodlight kit accessory.
6. Floodlight kit accessory supplied with knuckle (KNC) or trunnion (TRN) base, small and large top visors and small and large impact shields.

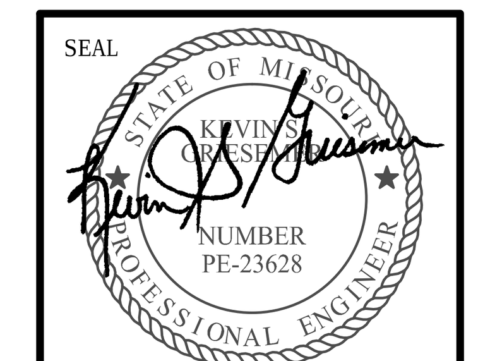
STOCK ORDERING INFORMATION

7W Series	18W Series	26W Series	38W Series
XTOR1A=7W, 5000K, Carbon Bronze	**XTOR2B**=18W, 5000K, Carbon Bronze	**XTOR3B**=26W, 5000K, Carbon Bronze	**XTOR4B**=38W, 5000K, Carbon Bronze
XTOR1A-WT=7W, 5000K, Summit White	**XTOR2B-W**=18W, 4000K, Carbon Bronze	**XTOR3B-W**=26W, 4000K, Carbon Bronze	**XTOR4B-W**=38W, 4000K, Carbon Bronze
XTOR1A-PC1=7W, 5000K, 120V PC, Carbon Bronze	**XTOR2B-WT**=18W, 5000K, Summit White	**XTOR3B-WT**=26W, 5000K, Summit White	**XTOR4B-WT**=38W, 5000K, Summit White
	XTOR2B-PC1=18W, 5000K, 120V PC, Carbon Bronze	**XTOR3B-PC1**=26W, 5000K, 120V PC, Carbon Bronze	**XTOR4B-PC1**=38W, 5000K, 120V PC, Carbon Bronze
	XTOR2B-W-PC1=18W, 4000K, 120V PC, Carbon Bronze		**XTOR4B-W-PC1**=38W, 4000K, 120V PC, Carbon Bronze

G&W
ENGINEERING CORPORATION
DYNAMIC PROCESSES ◆ SUSTAINABLE RESULTS
138 WELDON PARKWAY ST. LOUIS, MO 63043
(314) 469-3737 PROJECT NUMBER: 2017-0018.00
WWW.GANDWENGINEERING.COM
MISSOURI STATE CERTIFICATE OF AUTHORITY # 2002018767

SPIRIT SERVICE CENTER
647 Spirit Airpark West Drive
Chesterfield, Missouri 63005

SEAL



02-09-2017

REVISIONS	
JOB NO:	2017-0018.00
DRAWN BY:	AWL
CHECKED BY:	KSG
DATE:	01-13-2017

SHEET NO.

E1.1

LIGHT FIXTURE SPECIFICATIONS

McGraw-Edison

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 and UL/cUL Listed for wet locations.

Catalog #		Type
Project		S1 & S2
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 and rated. Optional tool-less hardware available for ease of entry into electrical chamber. Housing is IP66 rated.

Optics
Patented, high-efficiency injection-molded AccuLED Optics technology. 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 70 CRI. Optional 3000K, 5000K and 6000K CCT.

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 600mA, 800mA and 1200mA drive currents (nominal).

Mounting
STANDARD ARM MOUNT: Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during mounting. When mounting two or more luminaires at 90° and 120° apart, the EA extended arm may be required. Refer to the arm mounting requirement table. Round pole adapter included. For wall mounting, specify wall mount bracket option. QUICK MOUNT ARM: Adapter is bolted directly to the pole. Quick mount arm slide into place on the adapter and is secured via two screws, facilitating quick and easy installation. The versatile, patent pending, quick mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the quick mount arm enables wiring of the fixture without having to access the driver compartment. A knock-out enables round pole mounting.

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 housing colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available.

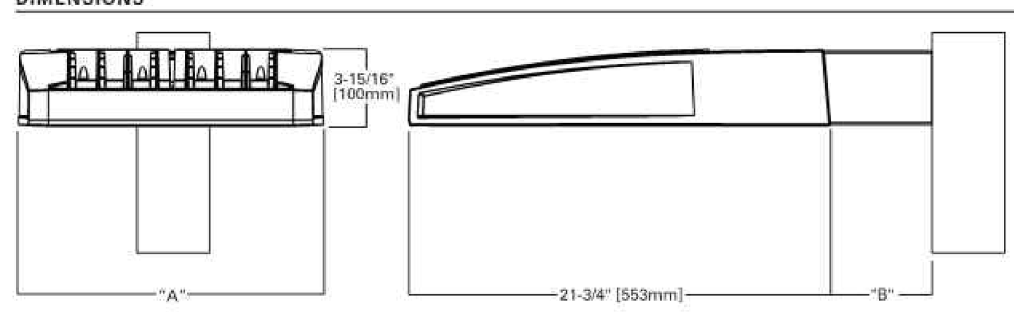
Warranty
Five-year warranty.

GLEON
GALLEON LED

1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE

DIMENSIONS



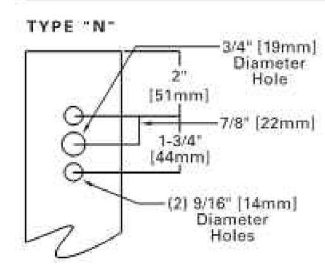
DIMENSION DATA

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. Optional arm length to be used when mounting two fixtures at 90° on a single pole. 2. EPA calculated with optional arm length.

DRILLING PATTERN

TYPE "N"



CERTIFICATION DATA

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

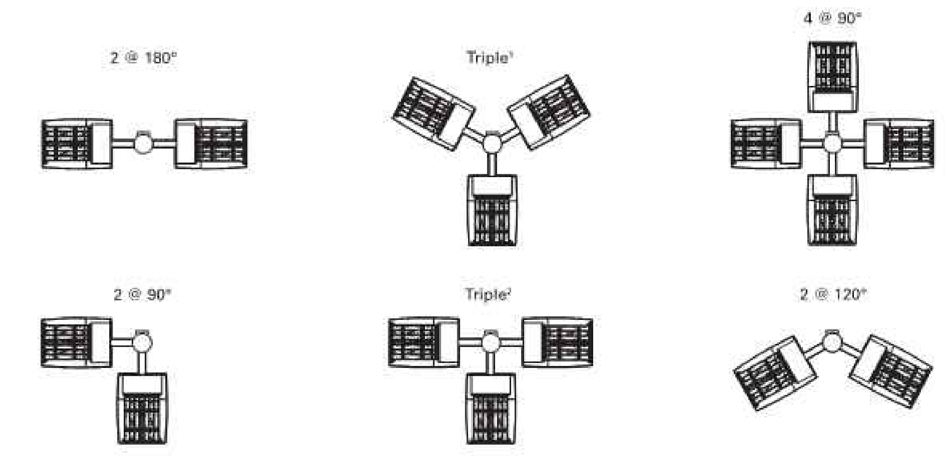
ENERGY DATA

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)

*www.designlights.org

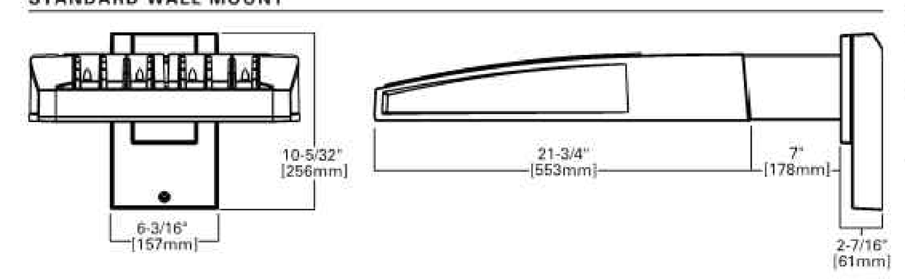
ARM MOUNTING REQUIREMENTS

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

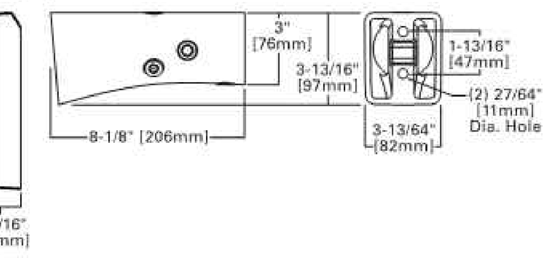


NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. 2 Round poles are 3 @ 90°.

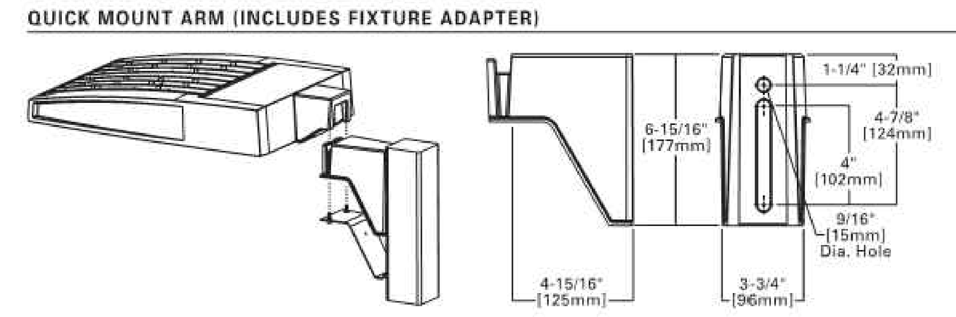
STANDARD WALL MOUNT



MAST ARM MOUNT

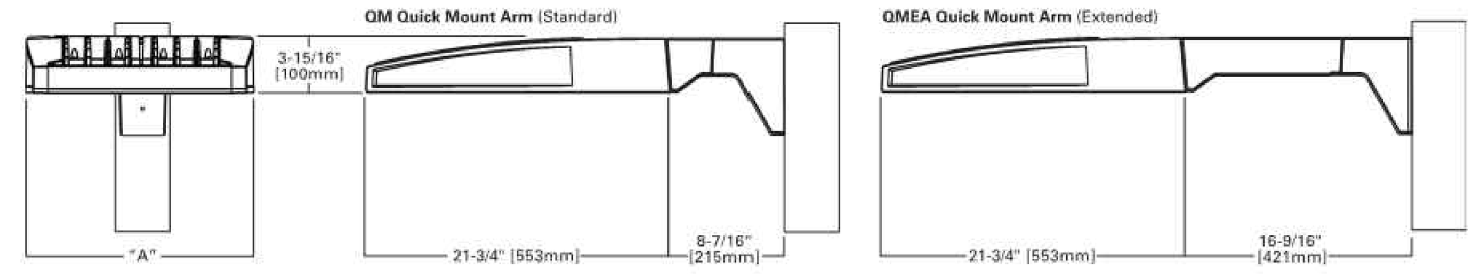


QUICK MOUNT ARM (INCLUDES FIXTURE ADAPTER)



QM Quick Mount Arm (Standard)

QMEA Quick Mount Arm (Extended)

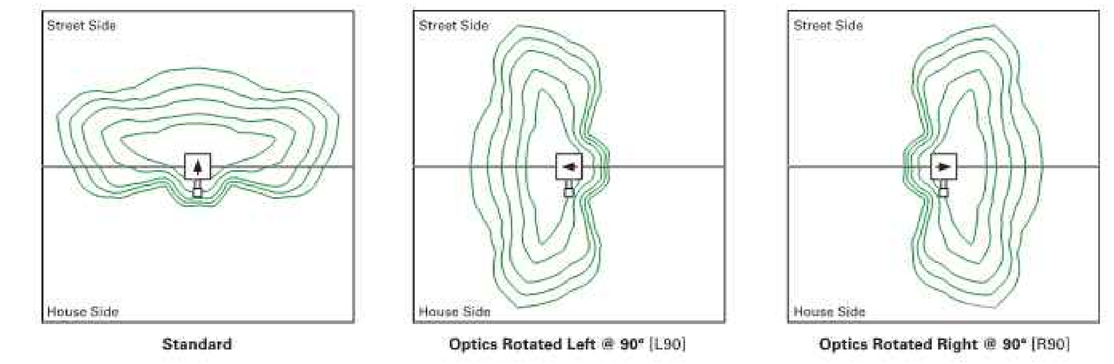


QUICK MOUNT ARM DATA

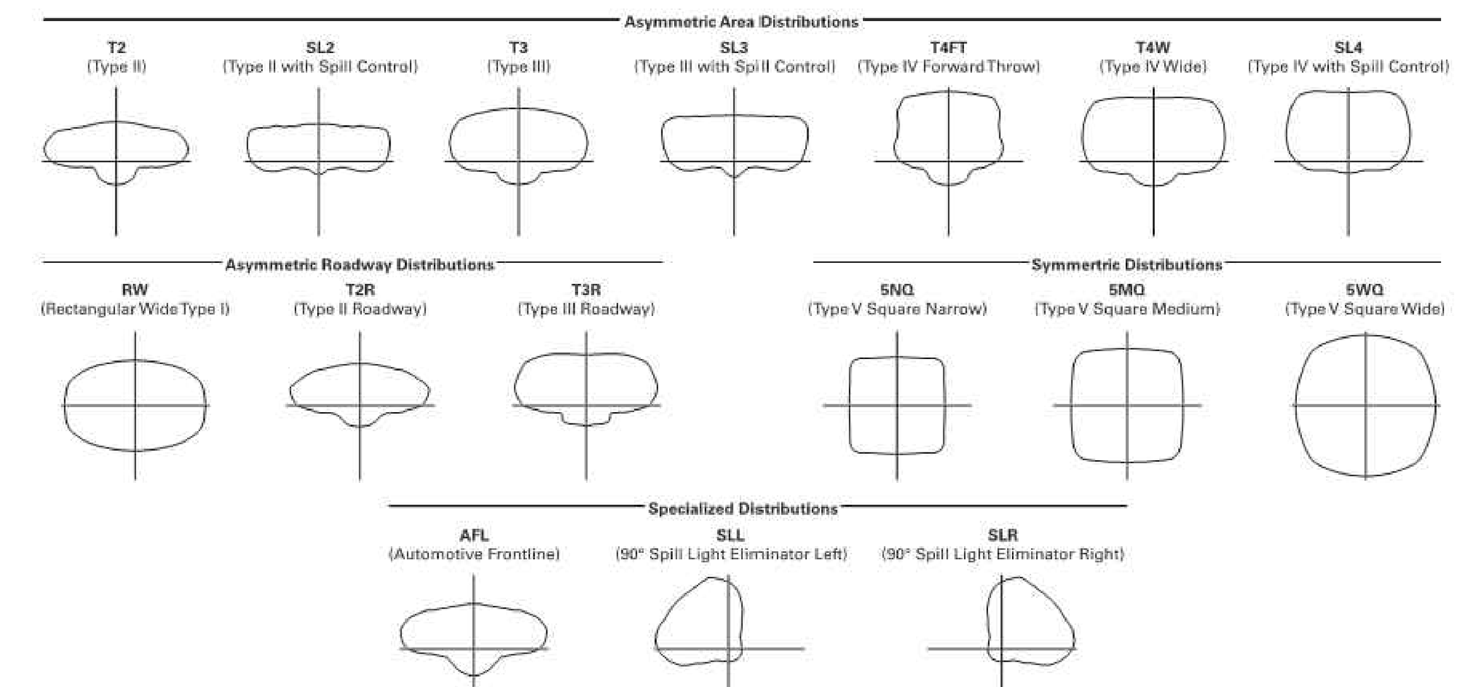
Number of Light Squares [1,2]	"A" Width	Weight with QM Arm (lbs.)	Weight with QMEA Arm (lbs.)	EPA (Sq. Ft.)
1-4	15-1/2" (394mm)	35 (15.91 kgs.)	38 (17.27 kgs.)	1.11
5-6 [3]	21-5/8" (549mm)	46 (20.91 kgs.)	49 (22.27 kgs.)	
7-8	27-5/8" (702mm)	56 (25.45 kgs.)	59 (26.82 kgs.)	

NOTES: 1 QM option available with 1-8 light square configurations. 2 QMEA option available with 1-6 light square configurations. 3 QMEA arm to be used when mounting two fixtures at 90° on a single pole.

OPTIC ORIENTATION

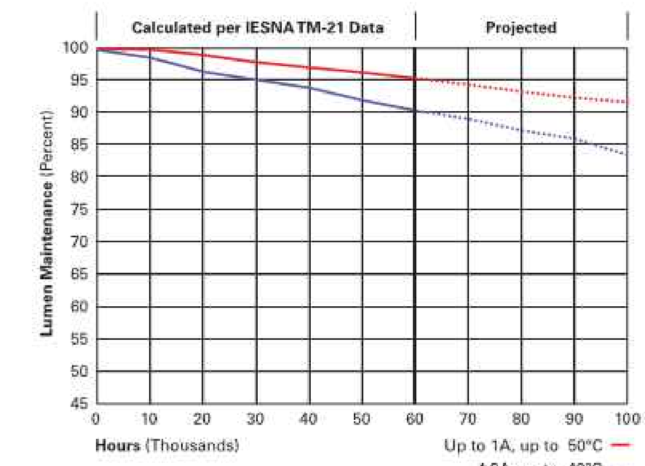


OPTICAL DISTRIBUTIONS



LUMEN MAINTENANCE

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Projected L70 (Hours)
Up to 1A	Up to 50°C	> 95%	416,000
1.2A	Up to 40°C	> 90%	205,000



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

NOMINAL POWER LUMENS (1A)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		59	113	166	225	279	333	391	445	501	558
Input Current @ 120V (A)		0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.6	5.07
Input Current @ 208V (A)		0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75
Input Current @ 240V (A)		0.26	0.48	0.71	0.96	1.19	1.41	1.67	1.89	2.12	2.39
Input Current @ 277V (A)		0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09
Input Current @ 347V (A)		0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68
Input Current @ 480V (A)		0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28
Optics											
T2	4000K/5000K Lumens	6,116	11,951	17,833	23,563	29,195	34,937	41,317	46,814	52,221	57,817
	3000K Lumens	5,414	10,579	15,786	20,858	25,843	30,926	36,574	41,440	46,226	51,180
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
T2R	4000K/5000K Lumens	6,493	12,688	18,932	25,015	30,994	37,090	43,863	49,699	55,439	61,380
	3000K Lumens	5,748	11,231	16,759	22,143	27,436	32,832	38,828	43,994	49,075	54,334
	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
T3	4000K/5000K Lumens	6,234	12,181	18,176	24,017	29,756	35,609	42,111	47,715	53,225	58,930
	3000K Lumens	5,518	10,783	16,089	21,260	26,340	31,521	37,277	42,237	47,115	52,165
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
T3R	4000K/5000K Lumens	6,372	12,453	18,580	24,550	30,418	36,400	43,048	48,776	54,409	60,239
	3000K Lumens	5,640	11,023	16,447	21,732	26,926	32,221	38,106	43,177	48,163	53,324
	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	B4-U0-G5
T4FT	4000K/5000K Lumens	6,270	12,252	18,282	24,156	29,929	35,815	42,356	47,992	53,534	59,271
	3000K Lumens	5,550	10,845	16,183	21,383	26,493	31,703	37,494	42,483	47,388	52,467
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
T4W	4000K/5000K Lumens	6,189	12,094	18,045	23,844	29,543	35,352	41,809	47,372	52,843	58,506
	3000K Lumens	5,479	10,706	15,973	21,107	26,151	31,294	37,009	41,934	46,777	51,790
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL2	4000K/5000K Lumens	6,105	11,931	17,803	23,522	29,144	34,877	41,245	46,734	52,130	57,717
	3000K Lumens	5,404	10,561	15,759	20,822	25,798	30,873	36,510	41,369	46,145	51,091
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL3	4000K/5000K Lumens	6,233	12,180	18,174	24,013	29,753	35,604	42,106	47,708	53,218	58,921
	3000K Lumens	5,517	10,782	16,088	21,256	26,337	31,517	37,272	42,231	47,109	52,157
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
SL4	4000K/5000K Lumens	5,922	11,572	17,268	22,816	28,269	33,829	40,006	45,330	50,566	55,984
	3000K Lumens	5,242	10,244	15,286	20,197	25,024	29,945	35,413	40,126	44,761	49,557
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
5NQ	4000K/5000K Lumens	6,429	12,563	18,746	24,768	30,688	36,723	43,429	49,208	54,891	60,775
	3000K Lumens	5,691	11,121	16,594	21,925	27,165	32,507	38,443	43,559	48,590	53,798
	BUG Rating	B2-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	B5-U0-G4
5MQ	4000K/5000K Lumens	6,547	12,794	19,090	25,224	31,253	37,400	44,228	50,114	55,902	61,893
	3000K Lumens	5,795	11,325	16,898	22,328	27,665	33,106	39,151	44,361	49,484	54,788
	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-G5	B5-U0-G5
5WQ	4000K/5000K Lumens	6,564	12,828	19,141	25,291	31,336	37,499	44,347	50,248	56,051	62,058
	3000K Lumens	5,810	11,355	16,944	22,388	27,739	33,194	39,256	44,480	49,616	54,934
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
SLL/SLR	4000K/5000K Lumens	5,478	10,703	15,970	21,102	26,145	31,286	37,001	41,924	46,765	51,777
	3000K Lumens	4,849	9,474	14,137	18,679	23,144	27,694	32,753	37,111	41,396	45,833
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
RW	4000K/5000K Lumens	6,371	12,449	18,576	24,544	30,411	36,392	43,037	48,764	54,396	60,225
	3000K Lumens	5,640	11,020	16,443	21,726	26,920	32,214	38,096	43,166	48,151	53,311
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
AFL	4000K/5000K Lumens	6,394	12,494	18,644	24,634	30,521	36,524	43,194	48,942	54,593	60,444
	3000K Lumens	5,660	11,060	16,504	21,806	27,017	32,331	38,235	43,323	48,326	53,505
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4

* Nominal data for 70 CRI.

ORDERING INFORMATION

Sample Number: GLEON-AF-04-LED-E1-T3-GM-QM

Product Family [1,2]	Light Engine	Number of Light Squares [3]	Lamp Type	Voltage	Distribution	Color	Mounting
GLEON=Galleon	**AF**=1A Drive Current	**01**=1 **02**=2 **03**=3 **04**=4 **05**=5 **06**=6 **07**=7 [4] **08**=8 [4] **09**=9 [5] **10**=10 [5]	**LED**=Solid State Light Emitting Diodes	**E1**=120-277V **347**=347V [6] **480**=480V [6,7]	**T2**=Type II **T2R**=Type II Roadway **T3**=Type III **T3R**=Type III Roadway **T4FT**=Type IV Forward Throw **T4W**=Type IV Wide **5NQ**=Type V Narrow **5MQ**=Type V Square Medium **5WQ**=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 [8] **MA**=Mast Arm Adapter [9] **WM**=Wall Mount **QM**=Quick Mount Arm (Standard Length) [10] **QMEA**=Quick Mount Arm (Extended Length) [11]

Options (Add as Suffix)

7030=70 CRI 3000K [12]
8030=80 CRI 3000K [13]
7050=70 CRI 5000K [12]
7060=70 CRI 6000K [12]
600=Drive Current Factory Set to Nominal 600mA [14]
800=Drive Current Factory Set to Nominal 800mA [14]
1200=Drive Current Factory Set to Nominal 1200mA [14,15]
F=Single Fuse (120, 277 or 347V. Must Specify Voltage)
FF=Double Fuse (208, 240 or 480V. Must Specify Voltage)
2L=Two Circuits [16,17]
DIM=External 0-10V Dimming Leads
P=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Volatage)
PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle
R=NEMA Twistlock Photocontrol Receptacle
AHD145=After Hours Dim, 5 Hours [18]
AHD245=After Hours Dim, 6 Hours [18]
AHD255=After Hours Dim, 7 Hours [18]
AHD355=After Hours Dim, 8 Hours [18]
HA=50°C High Ambient [19]
MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height [20,21]
MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height [20,22]
MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height [20,23]
MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range) [20,24]
MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height [20,21,25]
MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height [20,22,25]
MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height [20,23,25]
MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range) [20,24,25]
MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height [20,21]
MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height [20,22]
MS-L40=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height [20,23]
MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height (Wide Range) [20,24]
LWR-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [26]
LWR-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height [26]
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 [27]
HSS=Factory Installed House Side Shield [28]
CE=CE Marking [29]

Accessories (Order Separately)

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 [30]
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
GLEON-QM=Quick Mount Arm Kit
GLEON-QMEA=Quick Mount Extended Arm Kit
LS/HSS=Field Installed House Side Shield [28,30]

NOTES:
1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
2. DesignLights Consortium™ Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
3. Standard 4000K CCT and minimum 70 CRI.
4. Not compatible with extended quick mount arm (QMEA).
5. Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA).
6. Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
7. 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).
8. May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table.
9. Factory installed.
10. Maximum 8 light squares.
11. Maximum 6 light squares.
12. Extended lead times apply. Use dedicated IES files for 3000K, 5000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.
13. Extended lead times apply. Use dedicated IES files for 3000K, 5000K and 6000K when performing layouts. These files are published on the Galleon luminaire product page on the website.
14. 1 Amp standard. Use dedicated IES files for 600mA, 800mA and 1200mA when performing layouts. These files are published on the Galleon luminaire product page on the website.
15. Not available with HA option.
16. 2L is not available with MS, MS/X or MS/DIM at 347V or 480V. 2L in AF-02 through AF-04 requires a larger housing, normally used for AF-05 or AF-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.
17. Not available with LumaWatt wireless sensors.
18. Requires the use of P photocontrol or the PER7 or R photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
19. 50°C lumen maintenance data applies to 600mA, 800mA and 1A drive currents.
20. 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.
21. Approximately 22' detection diameter at 8' mounting height.
22. Approximately 40' detection diameter at 20' mounting height.
23. Approximately 60' detection diameter at 40' mounting height.
24. Approximately 100' detection diameter at 40' mounting height.
25. Replace X with number of Light Squares operating in low output mode.
26. 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.
27. Not available with house side shield (HSS).
28. Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.
29. CE is not available with the LWR, MS, MS/X, MS/DIM, P, R or PER7 options. Available in 120-277V only.
30. One required for each Light Square.

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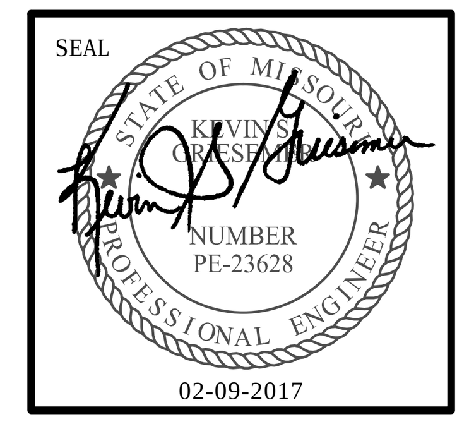

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REVISIONS

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DATE:	01-13-2017

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E1.2

LIGHT FIXTURE SPECIFICATIONS