III. D

Memorandum

Department of Planning & Development Services

To: Planning and Public Works Committee

From: Jessica Henry, Senior Planner *jh*

Date: July 19, 2018

RE: **18385 Chesterfield Airport Road, Lot A (Chesterfield Hockey Association):** A Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design for a 10.12 acre tract of land zoned "PC" Planned Commercial District located north of Chesterfield Airport Road and northeast of its intersection with Olive Street Road and northwest of its intersection with Wings of Hope Boulevard.

Summary

Stock and Associates Consulting Engineers, Inc., on behalf of Chesterfield Hockey Association has submitted a request for an 84,144 square foot ice and multi-sport facility located on the north side of North Outer 40 Road and northeast of its intersection with Olive Street Road. The proposed facility will contain two ice rinks for local recreation as well as regional sporting events. The subject site is zoned "PC" Planned Commercial District and is governed under the terms and conditions of City of Chesterfield Ordinance Number 2974.

The project was reviewed by the Architectural Review Board (ARB) on June 14, 2018. A motion to forward the submittal to the Planning Commission with a recommendation for approval with the following conditions was passed by a vote of 3-0: Provide additional landscaping to soften the front façade of the building and provide traffic calming measures near the front drop off area. Both of the ARB conditions have been fulfilled by the applicant.

Planning Commission recommended approval of the request on July 9, 2018 by a vote of 9 – 0. Power of Review was called in accordance to Section 31-02-20 of the Unified Development Code.

Attached to this report please find a copy of the Planning Commission Staff Report, Site Development Section Plan, Landscape Plan, Lighting Plan, and the Architect's Statement of Design.

Attachments: Planning Commission Meeting Packet

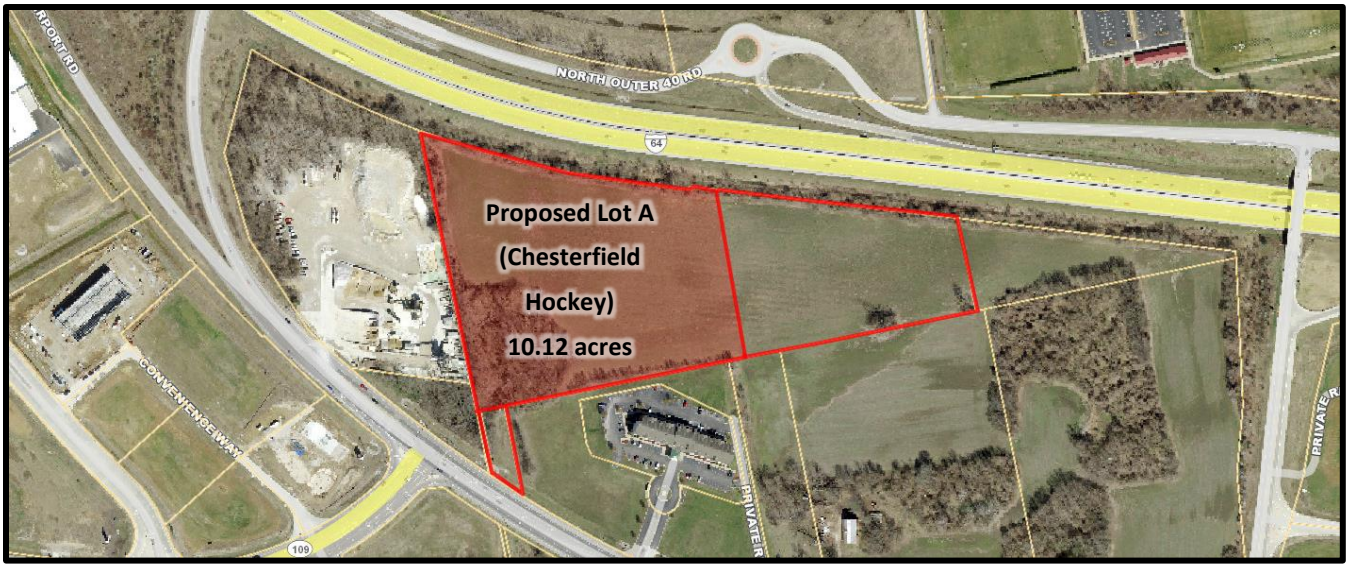

Figure 1: Subject Site Aerial

VII. B.

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

Planning Commission Staff Report

Project Type: Site Development Section Plan

Meeting Date: July 9, 2018

From: Jessica Henry, AICP *jh*
Senior Planner

Location: North of Chesterfield Airport Road and northeast of its intersection with Olive Street Road and northwest of its intersection with Wings of Hope Boulevard.

Applicant: Chesterfield Hockey Association/ Stock and Associates Consulting Engineers, Inc.

Description: **18385 Chesterfield Airport Road, Lot A (Chesterfield Hockey Association):** A Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design for a 10.12 acre tract of land zoned "PC" Planned Commercial District located north of Chesterfield Airport Road and northeast of its intersection with Olive Street Road and northwest of its intersection with Wings of Hope Boulevard.

PROPOSAL SUMMARY

Stock and Associates Consulting Engineers, Inc., on behalf of Chesterfield Hockey Association has submitted a request for an 84,144 square foot ice and multi-sport facility located on the north side of North Outer 40 Road and northeast of its intersection with Olive Street Road. The proposed facility will contain two ice rinks for local recreation as well as regional sporting events. The subject site is zoned "PC" Planned Commercial District and is governed under the terms and conditions of City of Chesterfield Ordinance Number 2974.

HISTORY OF SUBJECT SITE

The subject site was blanket zoned "M-3" Planned Industrial by St. Louis County in 1965 with no site specific ordinance or development plan filed for this property after this zoning designation. In October of 2017, the City Council approved Ordinance 2974 which changed the zoning of the subject property from an "M-3" Planned Industrial District to a "PC" Planned Commercial District. The subject site is currently vacant.

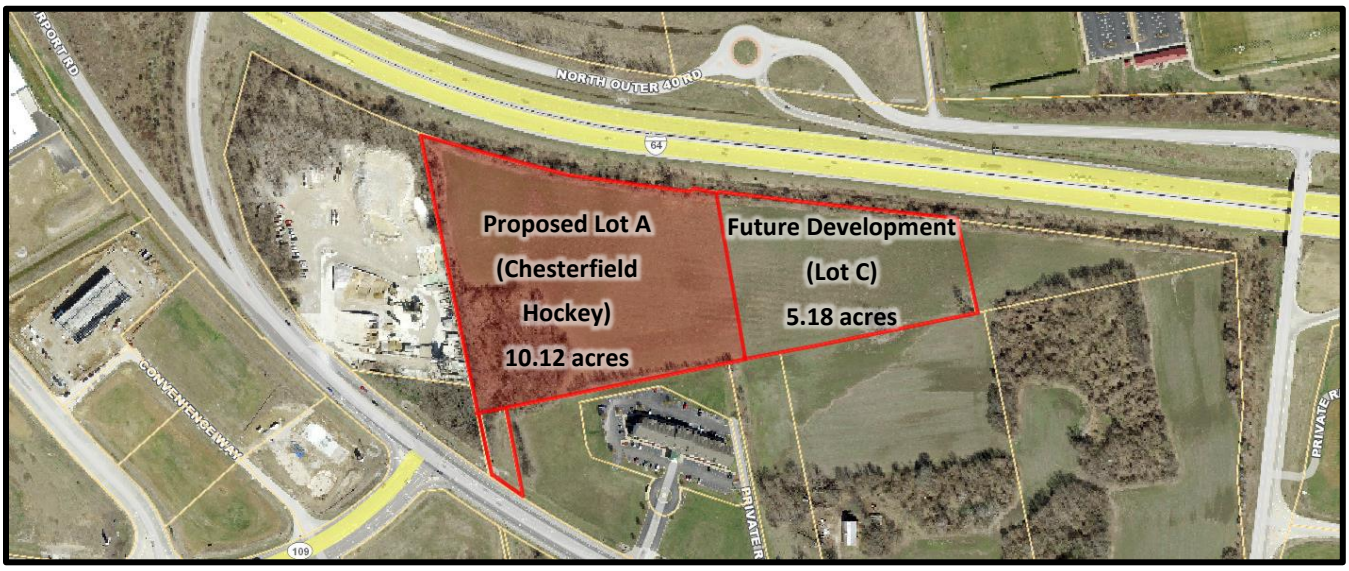

Figure 1: Aerial image (lots not drawn to scale/approximated)

LAND USE AND ZONING OF SURROUNDING PROPERTIES

The land use and zoning for the properties surrounding this parcel are described below:

North: The subject site is bordered by Interstate 64 to the north.

South: The Comfort Inn & Suites hotel is located to the south of Lot A of the subject site and is zoned "C-8" Planned Commercial District. The land directly south of the future development parcel is zoned "M-3" Planned Industrial District and is undeveloped.

East: The triangular parcel to the east is zoned "M-3" Planned Industrial District and is currently vacant. To the south of this parcel is a large, undeveloped tract that was zoned to "PC" Planned Commercial District in 2017.

West: The property directly to the west is zoned "M-3" Planned Industrial District and contains a concrete batching plant.

COMPREHENSIVE PLAN ANALYSIS

The subject site is located within Ward 4 of the City of Chesterfield and is within the Mixed Commercial Use land use designation per the City's Land Use Plan as seen in Figure 2 on the next page. The Comprehensive Plan defines Mixed Commercial Use as an area where "Appropriate uses in this designation would be retail and office".

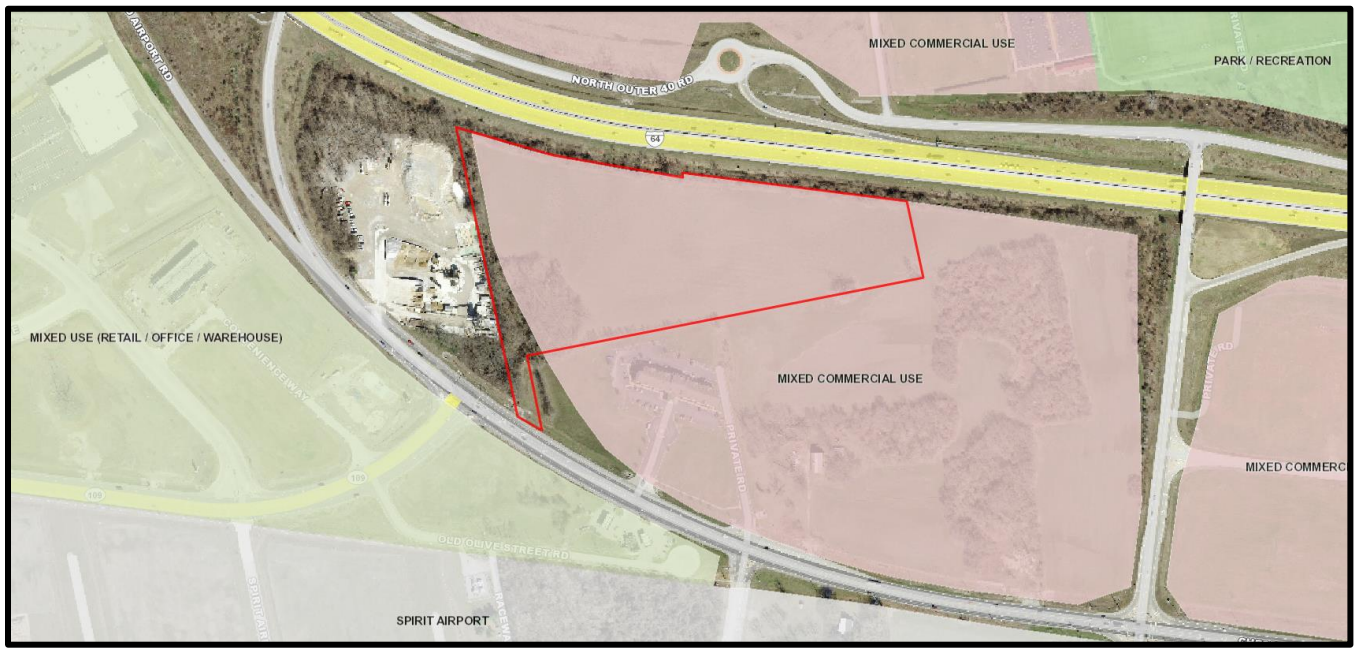

Figure 2: Future Land Use Plan

The Comprehensive Plan includes Commercial Development Policies as well as specific policies which are applicable to developments within the Chesterfield Valley sub-area.

Commercial Development Policies

- **3.1.1 Quality of Design—**Overall design standards should be provided for smaller-scale, mixed-use, project-oriented developments. Developments should emphasize architectural design, pedestrian circulation, landscaping, open space, innovative parking solutions and landscape buffering between any adjacent residential uses.

- **3.1 Quality Commercial Development—**The intent of this policy is to ensure developments positively reflect the image of the City of Chesterfield, provide employment opportunities and offer retail and service options to residents.

- **7.2.6 Cross-Access Circulation—**Cross-access is encouraged for both vehicular and pedestrian connections in all new developments.

Chesterfield Valley Sub-Area and Chesterfield Valley Design Policies

The City of Chesterfield's Comprehensive Plan has a specific Chesterfield Valley Policies Element. The policies include commercial development with particular concern over the image presented by development along I-64. There are six specific policies of which four are applicable to the design of this project. Staff outlines the applicable policies below and how the Site Development Section Plan relates to those policies.

- **Façades of Buildings Along I-64/US 40—**Care should be taken to make sure that any portion of a building that can be viewed from I-64/US 40 or any arterial and collector roadways should convey the image of a high-quality office or commercial development and should be equally uniform in materials and attractiveness as the primary façade of the building if it does not face I-64/US 40 or the roadways. The intent is to avoid projects having their view from I-64/US 40 or the roadways appear to be the rear or side of a development.

  As shown on the Architectural Elevations, the proposed building features a four-sided design.

- **Lighting of Buildings along I-64/US 40—**The façades of buildings facing I-64/US 40 should be lighted to provide an attractive image at night for individuals traveling along I-64/US 40. Accent lighting, as opposed to flood lighting should be used.

  There are three building mounted utilitarian light fixtures located along the northern building façade situated parallel to I-64/US 40.

- **Automobile Parking for Buildings along I-64/US 40—**Parking should be primarily located to the side or rear of any building façade facing I-64/US 40 or along North Outer 40.

  Given the building's north/south orientation, the majority of the parking is located in front of the building in the eastern portion of the site. A small amount of parking and one bus parking space is located between the northern façade of the building and I-64/US 40.

- **Pedestrian Circulation—**In order to promote pedestrian movement, each development is required to address pedestrian circulation within and between all developments. This pedestrian system shall be designed in an overall safe, clearly understood plan meeting ADA (American Disabilities Act) requirements.

  In addition to sidewalks along the site's frontage, a crosswalk is provided on the future Olive Street Road extension, and a crosswalk is provided to allow a clear pedestrian path to the hotel to the south.

STAFF ANALYSIS

The subject site is zoned "PC" Planned Commercial District and is governed under the terms and conditions of City of Chesterfield Ordinance Number 2974. The submittal was reviewed against the requirements of City of Chesterfield Ordinance 2974 and all applicable requirements of the Unified Development Code and the proposed development adheres to the applicable requirements.

Circulation System and Access

The subject site will be ultimately be served from the future Olive Street Road extension, which upon completion will extend between Chesterfield Airport Road and Spirit of St. Louis Boulevard. In conjunction with development of the ice sports facility, the three lane section of the Olive Street Road extension that is located along the southern portion of Lot A will be constructed. Two curb cuts from this portion of the Olive Street Road extension will provide direct access to Lot A.

Until such time as the extension is connected to either Chesterfield Airport Road or Spirit of St. Louis Boulevard, access to the development will be from an existing private drive off of Chesterfield Airport Road. This is not a signalized intersection, and the Traffic Impact Study indicated that while there will be a delay for vehicles exiting the facility following a sporting event, no delay on Chesterfield Airport Road or negative impact to a public roadway is predicted to occur. However, an updated Traffic Impact Study will be required in conjunction with any expansion of the ice sports complex or future development on Lot C. This will allow the City, St. Louis County, and MoDOT to reevaluate traffic conditions, impacts to the surrounding roadway network, and any necessary roadway improvements prior to approving any further development. St. Louis County and MoDOT have both reviewed and accepted the Traffic Impact Study for the development currently proposed on Lot A.

Cross access easements are provided for future development of the remaining portion of the development to the east as well as to the vacant land to the west of the subject site, as shown in the image below.

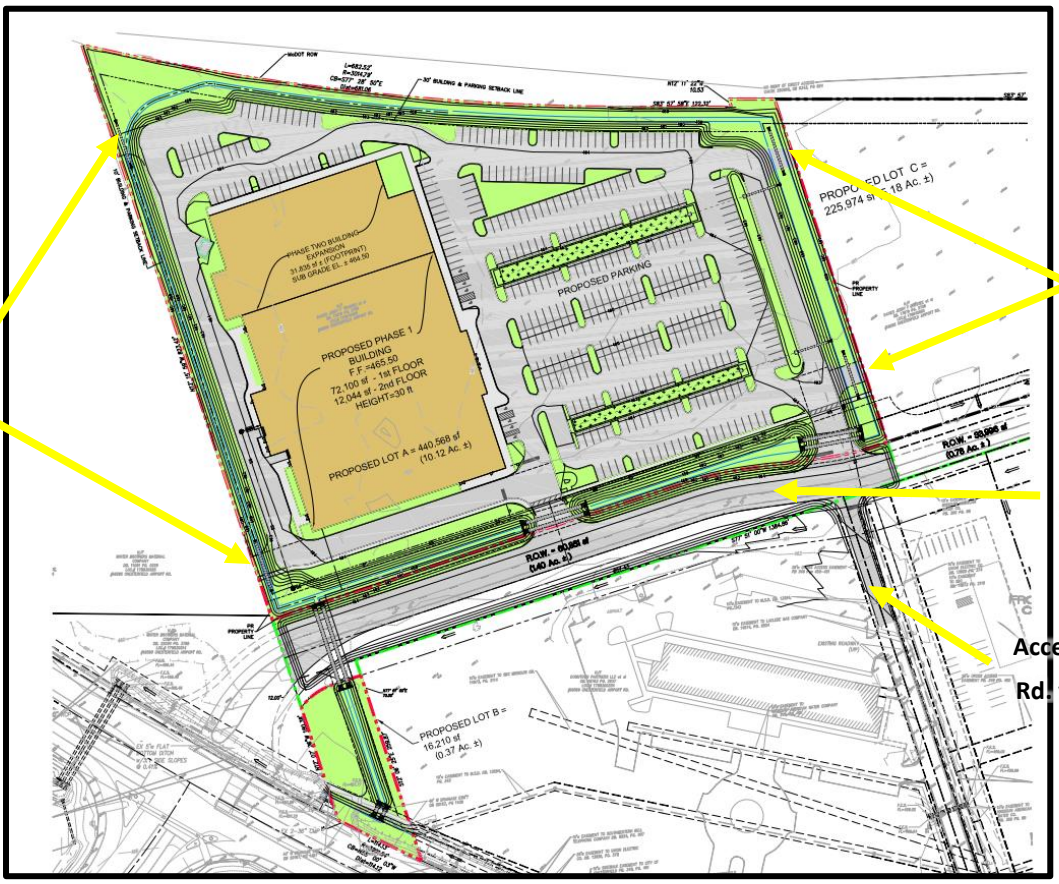

Figure 3: Color Site Development Section Plan excerpt

Open Space

The minimum required open space for this development per Ordinance 2974 is 35%. The proposed Chesterfield Ice Sports Complex provides 44% open space.

Landscape Design and Screening

Several different areas of landscaping are proposed in accordance with City Code requirements, including parking lot landscaping, a 30 foot landscape buffer, and street trees along the site's frontage. The 30 foot landscape buffer provided along the proposed Olive Street Road extension will be planted with a mix of canopy, ornamental, and evergreen trees. The landscape design provides an additional mix of canopy trees, ornamental trees, evergreen trees, deciduous shrubs and flowering plants to ensure for seasonal color and texture.

Given the substantial amount of right-of-way dedication required to construct the Olive Street Extension and the size and location of the building on the site, the applicant is unable to preserve the existing tree canopy. In accordance with the UDC, mitigation is required and the applicant has indicated that the required mitigation will be accomplished in full through a contribution to the City's Tree Preservation Account. Funds placed in this account are utilized to plant trees on public property throughout the City.

Rooftop mechanical equipment is included on the building, and it will be screened by a perforated architectural metal panel. A trash enclosure to screen trash receptacles from public view is planned for this proposed construction. The enclosure will be constructed of concrete tilt-up panel with brick inlaid on the exterior side to match the building.

Finally, a space is provided for public art at the entrance to the site.

Lighting

Lighting is planned in association with the proposed development as required by the City of Chesterfield. The proposed lighting plan primarily consists of utilitarian lighting, including parking and street light fixtures and wall-mounted light fixtures. Additionally, bollard light fixtures are proposed at the front entrance to the building and these serve to enhance the pedestrian-scale nature of the entry.

Architectural Elevations

The main envelope structure of the building is an insulated tilt-up concrete panel, along with an R-30 insulated roof for maximum energy efficiency. The building includes a four-sided design with similar materials and treatments on each façade, as required by the Chesterfield Valley Design Requirements. Facing east, the front façade consists of an architectural metal panel canopy system to accentuate and protect the entry area. This is surrounded by scored and painted exposed concrete tilt-up panels. The storefront system will be a dark anodized aluminum with clear tinted Low-e glass. The brick shown on the front elevation is a thin brick that will be poured in place into the concrete panels.

Facing north and south, the side façades will also consist of the tilt up concrete panels with thin brick and painted tilt up panels with horizontal decorative recessed reveals to split up the panel. The rear façade facing west consists of the same material as the other three sides and contains the step-down portion of the building, where the ammonia equipment room will be located. The condenser for the ammonia system will be located on top of the ammonia equipment room. The condenser will be screened by a perforated architectural metal panel, similar to the architectural metal panel that will screen the HVAC units on the roof of the facility.

Figure 4: Proposed rendering view with perforated metal panel screening shown.

The project was reviewed by the Architectural Review Board (ARB) on June 14, 2018. A motion to forward the submittal to the Planning Commission with a recommendation for approval with the conditions listed below was passed by a vote of 3-0. Information regarding the applicant's response to each recommendation follows in italicized text.

1. Provide additional landscaping to soften the front façade of the building.

   The applicant has revised the Landscape Plan to reflect this recommendation.

2. Provide traffic calming measures near the front drop off area.

   The applicant has revised the Site Development Section Plan to provide stamped concrete in the portion of the drive lane that is located in front of the main entrance.

DEPARTMENT INPUT

Staff has reviewed the Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design and has found the proposal to be in compliance with the site specific ordinance, Comprehensive Plan, and all City Code requirements. Staff recommends approval of this request.

MOTION

The following options are provided to the Planning Commission for consideration relative to this application:

1) "I move to approve (or deny) the Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for 18385 Chesterfield Airport Road, Lot A (Chesterfield Hockey Association).

2) "I move to approve the Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for 18385 Chesterfield Airport Road, Lot A (Chesterfield Hockey Association) with the following conditions…" (Conditions may be added, eliminated, altered or modified)

cc: Justin Wyse, Director of Planning and Development Services

Attachments: Site Development Section Plan
Landscape Plan
Lighting Plan
Architect's Statement of Design
Architectural Elevations
Lighting Cut Sheets

Chiodini ARCHITECTS

Architectural Statement of Design

Chesterfield SportsComplex

Chesterfield, Missouri

Project Overview:

Our goal is to create the premier hockey destination in Missouri and in the Midwest, located adjacent to the Premium Outlet Mall, on approximately 12 acres of land between Chesterfield Airport Road and US 64/40. Our proposed facility's design and its location will eventually combine retail, entertainment and sports. The new facility differentiates itself from others in the St. Louis area, many of which are older and in need of renovation.

The Chesterfield SportsComplex, a state-of-the-art ice and multi-sport facility, is being developed in the Chesterfield Valley to replace the Hardees IcePlex, which was recently sold and demolished to make way for the new Top Golf facility. The complex will provide much needed ice time and recreational facilities for St. Louis youth and adults. It will attract local and regional sporting events and tournaments, generating jobs and tourism dollars for local businesses and also help St. Louis maintain and build upon its reputation as a first-tier hockey and sports town. The new complex is a public-private partnership and will be owned and operated by the Chesterfield Hockey Association, a non-profit organization.

Statement of Design:

Building:
The scale of our facility is conducive to functioning as an ice rink There are certain interior clear height restrictions that need to be met for the game of hockey; as well as no windows in the ice portion due to natural light affecting the ice and the game in a negative way. This building is a perfect example for form following function.

Adjacent to our site, to the west, is a concrete plant, to the south is an outdated three-story hotel. To the east of our building is all undeveloped green space. There is nothing around our building with which to correlate design.

Design:
The main envelope structure of the building is a 14" insulated tilt-up concrete panel (R- value 13), along with an R-30 insulated roof, for maximum energy efficiency. Facing east, the front facade consists of an architectural metal panel canopy system to both accentuate and protect the entry area. This is surrounded by scored and painted exposed concrete tilt-up panels. The storefront system will be a very dark anodized aluminum (black) with clear tinted Low-e glass. The horizontal detail between the first and second story storefront will be recessed reveals in the concrete panel created by a form-liner. The brick shown on the front elevation is a thin brick that will be poured in place into the concrete panels.

The two side elevations (facing north & south) will consist of the tilt up concrete panels with thin brick poured in place and painted tilt up panels with horizontal decorative recessed reveals to split up the

chiodiniarchitects STUDIO 575
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314.725.5588 | FAX 314.733.9999 | arch@chiodini.com

panel. The back (west elevation) consists of the same material as the other three sides and contains the step-down portion of the building. This is where the ammonia equipment room will be located. On top of the ammonia equipment room will the condenser for the ammonia system. The condenser will be screened by a perforated architectural metal panel; this is the same architectural metal panel which will screen the HVAC units on the roof of the facility.

Landscape:

The landscaping has been planned in association with the proposed development as required by the City of Chesterfield. A 30' landscape buffer is provided along I-64 and Olive Street Road Extension and is planted with a mix of canopy, ornamental and evergreen trees. Additionally, a mix of canopy, ornamental trees, evergreen and deciduous shrubs and flowering plants have been provided on site to ensure seasonal color and interest. The islands in the parking lot serve as bioretention and will be planted with native grasses and forbes to meet MSD requirements.

Michael **Chiodini**

Chiodini Architects
Programming | Planning | Architecture | Interiors I Graphics

SOLID STATE BOLLARDS

BRA SERIES-LED

SPECIFICATIONS

PROJECT NAME: Chesterfield Sports Complex

FIXTURE TYPE: B1

BOLLARD
Durable corrasion resistant extruded and cast aluminum construction. ¼" wall thickness.

LED POWER ARRAY™
Three-dimensional array consisting of 6 individual LED tubes for the BDA8 model and 4 individual LED tubes for the BDA6 model, which are fastened to a retaining plate equally spaced to provide 360° of even illumination output. Each LED tube consists of a circuit board populated with a multiple of LED's which is fostened to a radial aluminum heat sink. A white polycarbonate lens and end caps protect each LED tube's internal components and provides diffusion to prevent shadowing and striations.

INTERNAL LOUVER (IL) - A specular louver stack conceals the inner LED Power Array Module and provides uplight and glare control through the external clear polycarbonate lens.

CAST LOUVER (CL) - External cast aluminum louver stack protects the internal LED Power Array Module and provides uplight and glare control. An internal clear polycarbonate lens is integrated with the LED Power Array Module.

OPAL LENS (WP) - Exterior white polycarbonate lens protects the internal LED Power Array Module and provides a uniform white glow.

RADIAL LED MODULE
LED'S are mounted to a circular heatsink in a radial array. The radiol LED module is concealed in the cap of the bollard. LED's are not directly visible from angles above 90°.

PARABOLIC REFLECTOR (TR) - A specular Parabolic Reflector reflects a portion of the distribution from the radial LED module and provides a uniform wide angle throw through the outer clear polycarbonate lens.

LED EMITTERS
High Output LED's are driven at 350mA for nominol 1 Watt output each. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

LED DRIVER
UL and CUL recognized Constant Current LED drivers operate on input voltages from 120-277VAC, 50/60hz. Consult Factory for (347-480VAC). Driver is mechanically fastened to a retaining brocket. Driver has a minimum 4KV of internal surge protection, 10KV & 20KV Surge Protector optional. Dimmable and High-Low Driver options available.

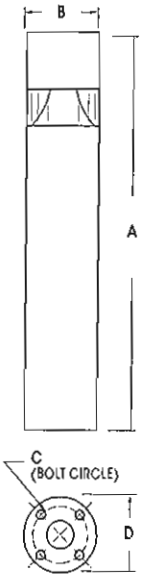
FINISH
Polyester powder coat incorporates four step iron phosphate process to pretreat metal surface for maximum adhesion. Top coat is baked at 400°F for maximum hardness and exterior durability.

With Cast Louver for Dark Sky compliance

BRA

BRA8 SHOWN WITH -TR OPTICS

PATENT PENDING



BOLLARD	A	B	C	D
BRA8	42" 1067mm	8" 203mm	6" 152mm	8" 203mm
BRA6	42" 1067mm	6" 152mm	4" 102mm	6" 152mm

U.L. Listed for wet location

MADE IN THE USA

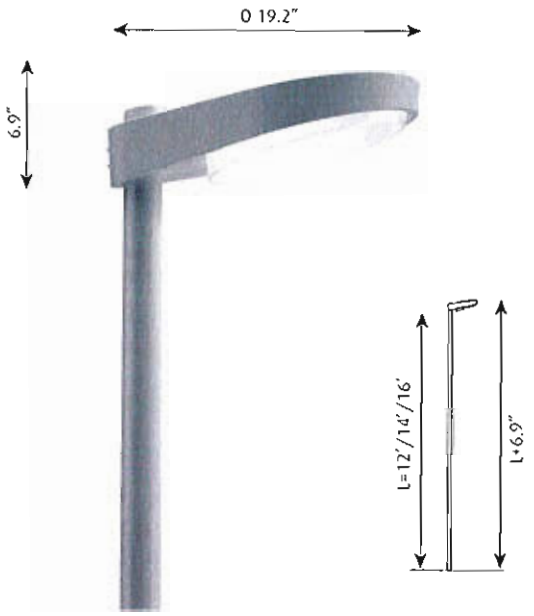
2015239

U.S. Architectural Lighting
660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-2000 Fax (661) 233-2001
www.usalg.com

U.S. ARCHITECTURAL LIGHTING

Chesterfield Sports Complex
Type D1

louis poulsen



LP CAPSULE

Design:
Carsten Fischer/Henning Larsen

Concept:
The fixture emits light directed mainly downwards. The fixture has an upward tilt with a compact profile. Variants include 3000K and 4000K options as well as high and low output options.

Finish:
Natural painted aluminum, powder coated.

Material:
Housing: die-cast aluminum. Top and bottom covers: UV-stabilized acrylic.

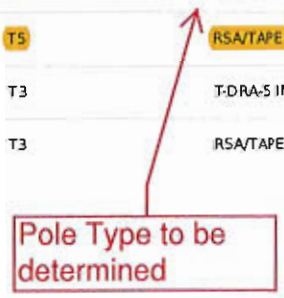
Mounting:
Post top: Mounted directly on top of either dual round aluminum (DRA-5"-3") or Taper-5"-2.4"poles, or onto a round straight aluminum (RSA-4.5") pole with provided tenon.

Weight:
Min: 18 lbs. Max: 18 lbs.

Compliance:
cULus, Wet location.

PRODUCT OVERVIEW

Product Code	Light source	Voltage	Finish	Distribution/Trim	Transition to pole	Features	Item number
LP CAPSULE	20W LED/3000K	120-277V/60HZ	NAT PAINT ALU	T5	T-DRA-5 IN-3 IN	DIM 0-10V	5747919352
LP CAPSULE	20W LED/3000K	120-277V/60HZ	NAT PAINT ALU	T5	RSA/TAPER	DIM 0-10V	5747919365
LP CAPSULE	20W LED/3000K	120-277V/60HZ	NAT PAINT ALU	T3	T-DRA-5 IN-3 IN	DIM 0-10V	5747919433
LP CAPSULE	20W LED/3000K	120-277V/60HZ	NAT PAINT ALU	T3	RSA/TAPER	DIM 0-10V	5747919446
LP CAPSULE	20W LED/4000K	120-277V/60HZ	NAT PAINT ALU	T5	T-DRA-5 IN-3 IN	DIM 0-10V	5747919394
LP CAPSULE	20W LED/4000K	120-277V/60HZ	NAT PAINT ALU	T5	RSA/TAPER	DIM 0-10V	5747919404
LP CAPSULE	20W LED/4000K	120-277V/60HZ	NAT PAINT ALU	T3	T-DRA-5 IN-3 IN	DIM 0-10V	5747919475
LP CAPSULE	20W LED/4000K	120-277V/60HZ	NAT PAINT ALU	T3	RSA/TAPER	DIM 0-10V	5747919488
LP CAPSULE	40W LED/3000K	120-277V/60HZ	NAT PAINT ALU	T5	T-DRA-5 IN-3 IN	DIM 0-10V	5747919378
LP CAPSULE	40W LED/3000K	120-277V/60HZ	NAT PAINT ALU	T5	RSA/TAPER	DIM 0-10V	5747919381
LP CAPSULE	40W LED/3000K	120-277V/60HZ	NAT PAINT ALU	T3	T-DRA-5 IN-3 IN	DIM 0-10V	5747919459
LP CAPSULE	40W LED/3000K	120-277V/60HZ	NAT PAINT ALU	T3	RSA/TAPER	DIM 0-10V	5747919462
LP CAPSULE	40W LED/4000K	120-277V/60HZ	NAT PAINT ALU	T5	T-DRA-5 IN-3 IN	DIM 0-10V	5747919417
LP CAPSULE	40W LED/4000K	120-277V/60HZ	NAT PAINT ALU	T5	RSA/TAPER	DIM 0-10V	5747919420
LP CAPSULE	40W LED/4000K	120-277V/60HZ	NAT PAINT ALU	T3	T-DRA-5 IN-3 IN	DIM 0-10V	5747919491
LP CAPSULE	40W LED/4000K	120-277V/60HZ	NAT PAINT ALU	T3	RSA/TAPER	DIM 0-10V	5747919501



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	Chesterfield Sports Complex	S1 thru S5
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.

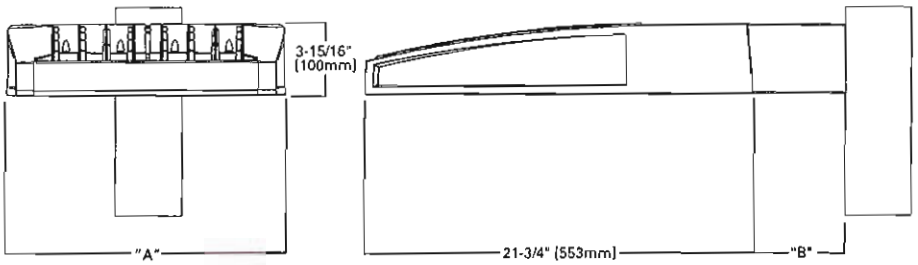
Warranty
Five-year warranty.

GLEON
GALLEON LED

1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE

DIMENSIONS



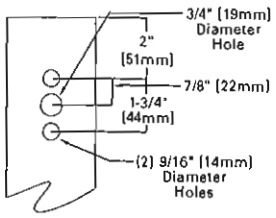
DIMENSION DATA

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)

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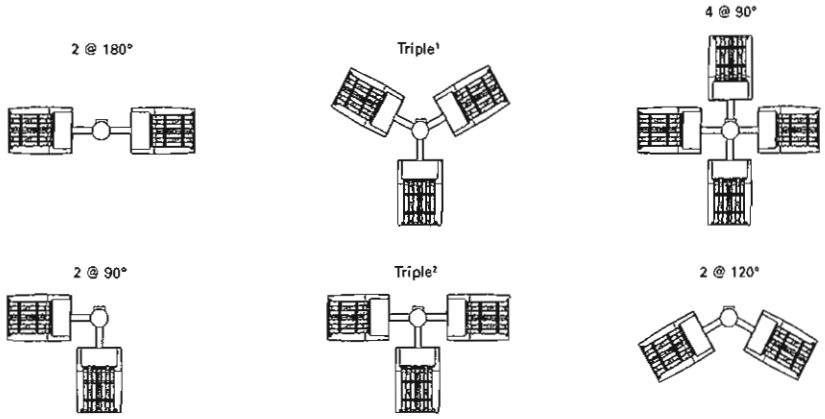
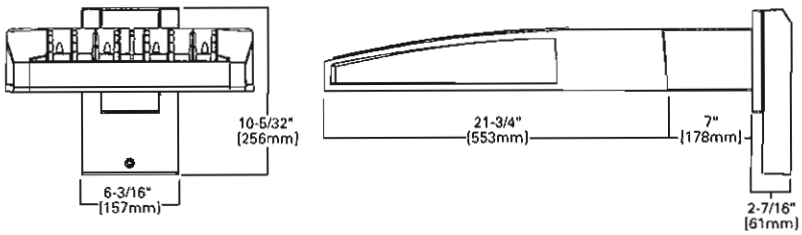
ARM MOUNTING REQUIREMENTS

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)

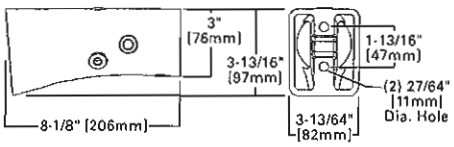


NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. 2 Round poles are 3 @ 90°.

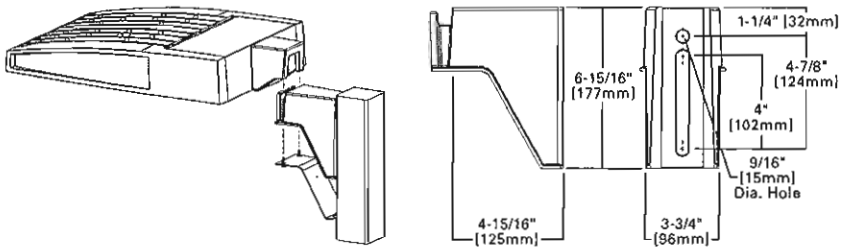
STANDARD WALL MOUNT

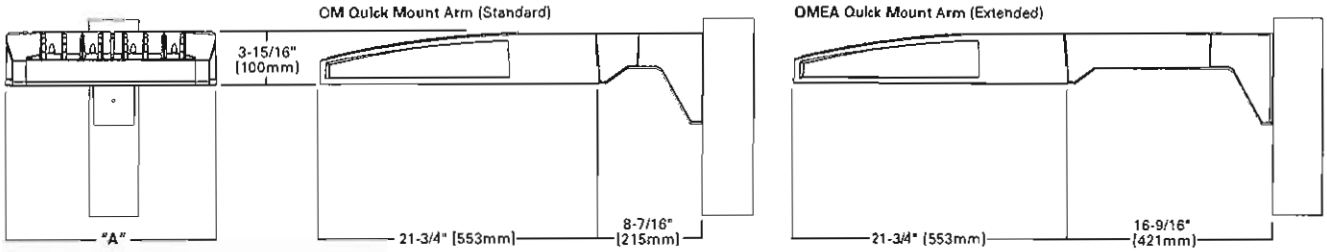


MAST ARM MOUNT



QUICK MOUNT ARM (INCLUDES FIXTURE ADAPTER)





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)	58 (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.

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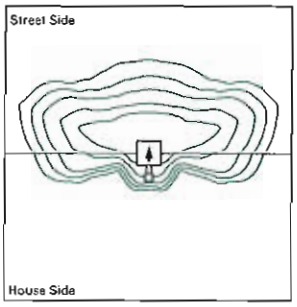
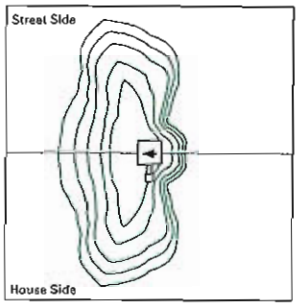
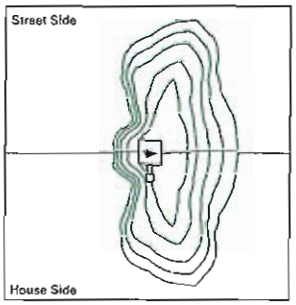
OPTIC ORIENTATION



Standard

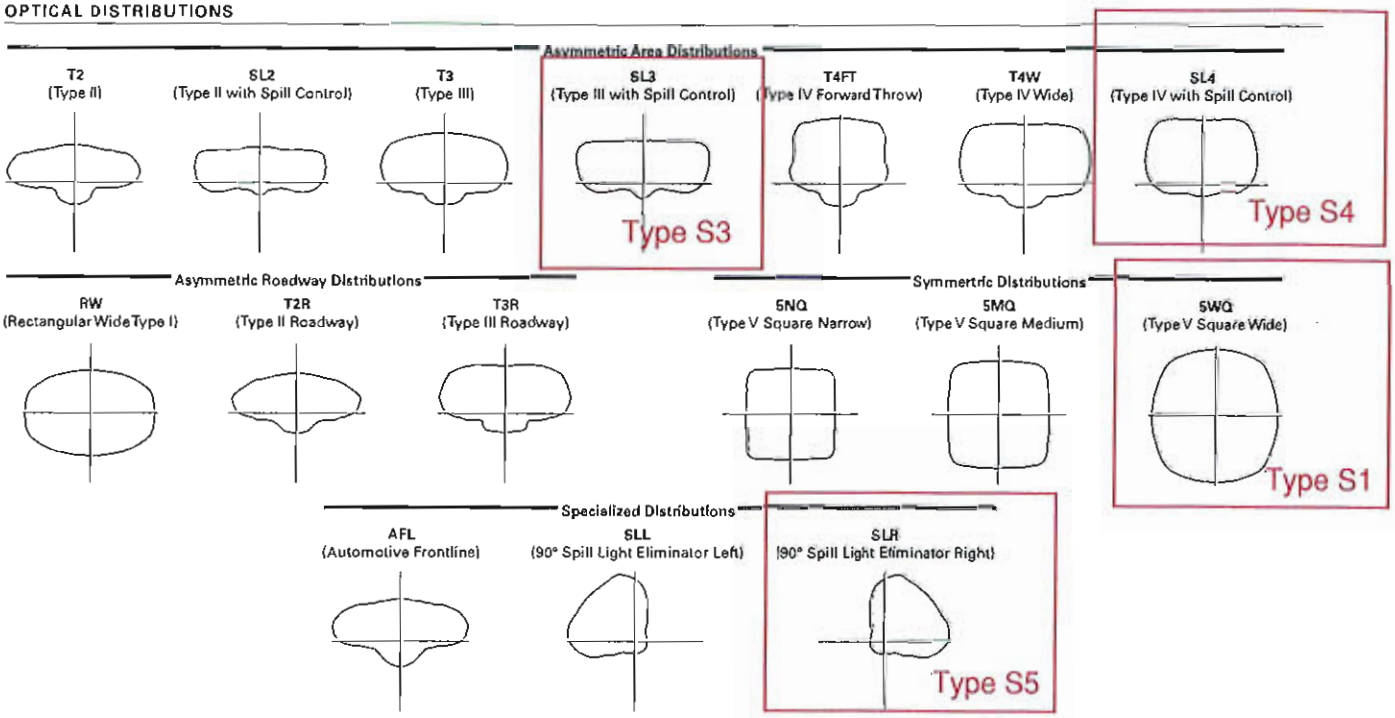


Optics Rotated Left @ 90° [L90]



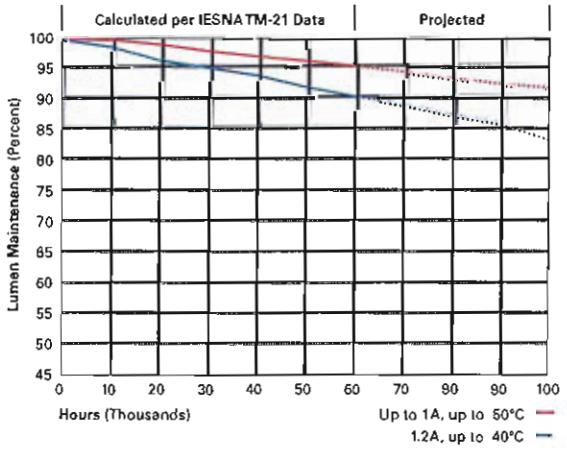
Optics Rotated Right @ 90° [R90]

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

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NOMINAL POWER LUMENS (1.2A)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		67	129	191	258	320	382	448	511	575	640
Input Current @ 120V (A)		0.58	1.16	1.78	2.31	2.94	3.56	4.09	4.71	5.34	5.87
Input Current @ 208V (A)		0.33	0.63	0.93	1.27	1.57	1.87	2.22	2.62	2.8	3.14
Input Current @ 240V (A)		0.29	0.55	0.80	1.10	1.35	1.61	1.93	2.18	2.41	2.71
Input Current @ 277V (A)		0.25	0.48	0.70	0.96	1.18	1.39	1.69	1.90	2.09	2.36
Input Current @ 347V (A)		0.20	0.39	0.57	0.78	0.96	1.15	1.36	1.54	1.72	1.92
Input Current @ 480V (A)		0.15	0.30	0.43	0.60	0.73	0.85	1.03	1.16	1.28	1.45
Optics											
T2	4000K/5000K Lumens	6,709	13,111	19,562	25,848	32,026	38,325	45,324	51,355	57,286	63,424
	3000K Lumens	5,939	11,606	17,316	22,881	28,349	33,925	40,121	45,459	50,710	56,143
	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
T2R	4000K/5000K Lumens	7,122	13,919	20,769	27,442	34,000	40,687	48,117	54,519	60,816	67,333
	3000K Lumens	5,939	11,606	17,316	22,981	28,349	33,925	40,121	45,459	50,710	56,143
	BUG Rating	B1-U0-G1	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
T3	4000K/5000K Lumens	6,838	13,363	19,939	26,346	32,642	39,062	46,196	52,343	58,399	64,646
	3000K Lumens	6,053	11,829	17,650	23,321	28,895	34,678	40,893	46,334	51,685	57,225
	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	6,990	13,660	20,382	26,931	33,368	39,930	47,223	53,506	59,686	66,081
	3000K Lumens	6,188	12,092	18,042	23,839	29,537	35,346	41,802	47,364	52,834	58,495
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
T4FT	4000K/5000K Lumens	6,878	13,440	20,055	26,489	32,832	39,289	46,464	52,646	58,726	65,020
	3000K Lumens	6,088	11,897	17,753	23,457	29,063	34,779	41,130	46,602	51,984	57,556
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
T4W	4000K/5000K Lumens	6,789	13,267	19,795	26,156	32,408	38,781	45,864	51,967	57,968	64,180
	3000K Lumens	6,010	11,744	17,523	23,153	28,688	34,329	40,599	46,001	51,313	56,812
	BUG Rating	B1-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	B4-U0-G5
SL2	4000K/5000K Lumens	6,697	13,088	19,529	25,804	31,870	39,259	45,245	51,267	57,186	63,315
	3000K Lumens	5,928	11,585	17,287	22,842	28,300	33,867	40,051	45,382	50,621	56,046
	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	6,837	13,361	19,936	26,342	32,639	39,057	46,189	52,336	58,380	64,636
	3000K Lumens	6,052	11,827	17,647	23,318	28,892	34,573	40,887	46,328	51,678	57,216
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL4	4000K/5000K Lumens	6,496	12,695	18,943	25,029	31,011	37,110	43,886	49,727	55,470	61,414
	3000K Lumens	5,750	11,238	16,768	22,156	27,451	32,850	38,848	44,018	49,102	54,364
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	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	7,052	13,781	20,564	27,171	33,664	40,285	47,641	53,981	60,215	66,668
	3000K Lumens	6,242	12,189	18,203	24,052	29,799	35,660	42,172	47,784	53,302	58,015
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
5MQ	4000K/5000K Lumens	7,182	14,034	20,942	27,871	34,284	41,027	48,518	54,875	61,323	67,896
	3000K Lumens	6,358	12,423	18,538	24,494	30,348	36,317	42,948	48,664	54,283	60,102
	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
5WQ	4000K/5000K Lumens	7,201	14,073	20,988	27,744	34,375	41,136	48,648	55,121	61,487	68,077
	3000K Lumens	6,374	12,457	18,587	24,559	30,429	36,414	43,063	48,793	54,428	60,262
	BUG Rating	B3-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	B5-U0-G5
SLL/SLR	4000K/5000K Lumens	6,009	11,741	17,519	23,148	28,681	34,321	40,589	45,990	51,301	56,798
	3000K Lumens	5,319	10,393	15,508	20,491	25,388	30,381	35,928	40,710	45,412	50,278
	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	B3-U0-G5	B4-U0-G5
RW	4000K/5000K Lumens	6,989	13,657	20,378	26,925	33,360	39,921	47,211	53,484	59,672	66,066
	3000K Lumens	6,187	12,089	18,039	23,834	29,530	35,338	41,791	47,353	52,822	58,482
	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
AFL	4000K/5000K Lumens	7,014	13,706	20,452	27,023	33,481	40,068	47,383	53,688	59,888	66,306
	3000K Lumens	6,208	12,133	18,104	23,921	28,637	35,466	41,943	47,625	53,013	58,684
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B4-U0-G4

* Nominal data for 70 CRI.

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)		0.61	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	41,609	47,372	52,843	58,506
	3000K Lumens	5,479	10,706	15,973	21,107	26,151	31,284	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	5,105	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	16,068	21,258	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	22,818	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	24,788	30,688	36,723	43,429	49,208	54,891	60,775
	3000K Lumens	5,691	11,121	15,594	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
5MO	4000K/5000K Lumens	6,547	12,794	19,080	26,224	31,253	37,400	44,228	50,114	55,902	61,893
	3000K Lumens	6,795	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	25,281	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	38,256	44,480	48,616	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.

Eaton
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.eaton.com/lighting

NOMINAL POWER LUMENS (800MA)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		44	85	124	171	210	249	295	334	374	419
Input Current @ 120V (A)		0.39	0.77	1.13	1.54	1.90	2.26	2.67	3.03	3.39	3.80
Input Current @ 208V (A)		0.22	0.44	0.62	0.88	1.06	1.24	1.50	1.68	1.87	2.12
Input Current @ 240V (A)		0.19	0.38	0.54	0.76	0.92	1.08	1.30	1.46	1.62	1.84
Input Current @ 277V (A)		0.17	0.36	0.47	0.72	0.83	0.95	1.19	1.31	1.42	1.67
Input Current @ 347V (A)		0.15	0.24	0.38	0.49	0.63	0.77	0.87	1.01	1.15	1.52
Input Current @ 480V (A)		0.11	0.18	0.29	0.37	0.48	0.59	0.66	0.77	0.88	0.96
Optics											
T2	4000K/5000K Lumens	4,941	9,656	14,408	19,038	23,588	28,227	33,382	37,823	42,191	46,713
	3000K Lumens	4,374	8,547	12,754	16,852	20,880	24,987	29,550	33,481	37,347	41,350
	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-G5	B4-U0-G5
T2R	4000K/5000K Lumens	5,246	10,251	15,296	20,211	25,041	29,966	35,439	40,154	44,791	49,592
	3000K Lumens	4,644	9,074	13,540	17,891	22,166	26,526	31,371	35,544	39,649	43,889
	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
T3	4000K/5000K Lumens	5,037	9,842	14,685	18,404	24,041	28,770	34,024	38,551	43,003	47,612
	3000K Lumens	4,458	8,712	12,999	17,178	21,281	25,467	30,118	34,125	38,066	42,146
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5
T3R	4000K/5000K Lumens	5,148	10,061	15,011	18,835	24,576	29,409	34,780	39,408	43,959	48,669
	3000K Lumens	4,557	8,908	13,288	17,558	21,755	26,033	30,787	34,884	38,913	43,082
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
T4FT	4000K/5000K Lumens	5,066	8,889	14,770	19,516	24,191	28,936	34,221	38,774	43,252	47,888
	3000K Lumens	4,484	8,763	13,074	17,276	21,405	25,614	30,292	34,323	38,287	42,390
	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
T4W	4000K/5000K Lumens	5,000	9,771	14,579	18,264	23,869	28,562	33,779	38,274	42,894	47,259
	3000K Lumens	4,426	8,649	12,905	17,052	21,129	25,283	29,901	33,880	37,793	41,843
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
SL2	4000K/5000K Lumens	4,833	9,639	14,383	18,005	23,547	28,178	33,324	37,758	42,118	46,632
	3000K Lumens	4,357	8,532	12,732	16,823	20,844	24,943	29,498	33,423	37,283	41,278
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5
SL3	4000K/5000K Lumens	5,036	9,841	14,683	19,401	24,039	28,766	34,019	38,546	42,997	47,605
	3000K Lumens	4,458	8,711	12,997	17,174	21,279	25,464	30,114	34,121	38,061	42,140
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
SL4	4000K/5000K Lumens	4,784	9,350	13,951	18,434	22,840	27,332	32,323	36,624	40,854	45,232
	3000K Lumens	4,235	8,277	12,349	16,318	20,218	24,194	28,612	32,420	36,164	40,039
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
5NQ	4000K/5000K Lumens	5,194	10,150	15,145	20,011	24,784	29,670	35,088	38,757	44,348	49,102
	3000K Lumens	4,598	8,985	13,406	17,714	21,948	26,264	31,060	35,193	38,258	43,465
	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-G3
5MQ	4000K/5000K Lumens	5,290	10,337	15,424	20,380	25,250	30,217	35,734	40,489	45,165	50,006
	3000K Lumens	4,683	9,150	13,653	18,040	22,351	26,748	31,632	35,841	39,980	44,265
	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
5WQ	4000K/5000K Lumens	5,304	10,365	15,465	20,434	25,318	30,297	35,830	40,597	45,286	50,139
	3000K Lumens	4,695	8,175	13,690	18,088	22,411	26,819	31,717	35,836	40,087	44,383
	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
SLL/SLR	4000K/5000K Lumens	4,426	8,648	12,903	17,049	21,124	25,278	29,894	33,872	37,784	41,832
	3000K Lumens	3,918	7,655	11,422	15,092	18,699	22,376	26,462	29,983	33,446	37,030
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
RW	4000K/5000K Lumens	5,147	10,058	15,008	19,830	24,570	29,402	34,771	39,389	43,948	48,658
	3000K Lumens	4,556	8,903	13,286	17,554	21,748	26,027	30,779	34,878	38,904	43,072
	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-G4
AFL	4000K/5000K Lumens	5,166	10,095	15,063	19,903	24,659	29,509	34,898	39,542	44,108	48,835
	3000K Lumens	4,573	8,938	13,334	17,618	21,828	26,121	30,892	35,003	39,044	43,229
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3

* Nominal data for 70 CRI.

NOMINAL POWER LUMENS (600MA)

Number of Light Squares		1	2	3	4	5	6	7	8	9	10
Nominal Power (Watts)		34	66	95	129	162	193	226	257	290	323
Input Current @ 120V (A)		0.30	0.58	0.86	1.16	1.44	1.73	2.03	2.33	2.59	2.89
Input Current @ 208V (A)		0.17	0.34	0.49	0.65	0.84	0.99	1.14	1.30	1.48	1.63
Input Current @ 240V (A)		0.15	0.30	0.43	0.56	0.74	0.87	1.00	1.13	1.30	1.43
Input Current @ 277V (A)		0.14	0.28	0.41	0.52	0.69	0.81	0.93	1.04	1.22	1.33
Input Current @ 347V (A)		0.11	0.19	0.30	0.39	0.49	0.60	0.69	0.77	0.90	0.99
Input Current @ 480V (A)		0.08	0.15	0.24	0.30	0.38	0.48	0.53	0.59	0.71	0.77
Optics											
T2	4000K/5000K Lumens	4,029	7,874	11,749	15,525	19,235	23,019	27,222	30,844	34,406	38,093
	3000K Lumens	3,566	6,970	10,400	13,743	17,027	20,376	24,097	27,303	30,456	33,720
	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	4000K/5000K Lumens	4,278	8,360	12,474	16,482	20,421	24,437	28,900	32,745	36,527	40,441
	3000K Lumens	3,787	7,400	11,042	14,590	18,077	21,632	25,582	28,986	32,334	35,798
	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
T3	4000K/5000K Lumens	4,107	8,026	11,976	15,824	19,605	23,461	27,746	31,438	35,068	38,827
	3000K Lumens	3,836	7,105	10,601	14,007	17,354	20,768	24,561	27,829	31,042	34,370
	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-G5	B3-U0-G5
T3R	4000K/5000K Lumens	4,198	8,205	12,242	16,175	20,041	23,982	28,363	32,137	35,848	39,688
	3000K Lumens	3,716	7,263	10,837	14,318	17,740	21,229	25,107	28,448	31,733	35,133
	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	4000K/5000K Lumens	4,131	8,072	12,045	15,915	19,719	23,597	27,907	31,620	35,272	39,052
	3000K Lumens	3,657	7,145	10,662	14,088	17,455	20,888	24,703	27,890	31,223	34,569
	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	4000K/6000K Lumens	4,077	7,968	11,889	15,710	19,465	23,292	27,546	31,212	34,816	38,547
	3000K Lumens	3,609	7,053	10,524	13,906	17,230	20,618	24,384	27,629	30,818	34,122
	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	4000K/5000K Lumens	4,022	7,861	11,729	15,498	19,202	22,979	27,175	30,791	34,347	38,028
	3000K Lumens	3,560	6,959	10,383	13,719	16,998	20,341	24,055	27,256	30,404	33,662
	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-G5	B3-U0-G5
SL3	4000K/5000K Lumens	4,106	8,025	11,974	15,821	19,603	23,458	27,742	31,433	35,064	38,821
	3000K Lumens	3,635	7,104	10,599	14,005	17,353	20,765	24,557	27,824	31,039	34,364
	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	4000K/5000K Lumens	3,902	7,624	11,377	15,033	18,626	22,289	26,359	29,867	33,316	36,688
	3000K Lumens	3,454	6,749	10,071	13,307	16,488	19,730	23,333	26,438	29,491	32,651
	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	B3-U0-G5	B3-U0-G5
5NQ	4000K/5000K Lumens	4,236	8,277	12,351	16,319	20,219	24,186	28,614	32,422	36,168	40,042
	3000K Lumens	3,750	7,327	10,833	14,446	17,898	21,418	25,329	28,700	32,014	35,445
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3
5MO	4000K/5000K Lumens	4,314	8,428	12,578	16,619	20,591	24,641	29,141	33,018	36,832	40,779
	3000K Lumens	3,818	7,461	11,134	14,711	18,227	21,812	25,788	29,228	32,604	36,098
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
5WQ	4000K/5000K Lumens	4,325	8,452	12,811	16,664	20,648	24,707	29,219	33,106	36,930	40,888
	3000K Lumens	3,828	7,482	11,163	14,751	18,276	21,871	25,865	29,305	32,690	36,194
	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	4000K/5000K Lumens	3,609	7,052	10,522	13,903	17,226	20,613	24,378	27,622	30,812	34,114
	3000K Lumens	3,195	6,242	9,314	12,307	15,248	18,247	21,579	24,451	27,275	30,198
	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-G5	B3-U0-G5
RW	4000K/5000K Lumens	4,197	8,202	12,239	16,171	20,036	23,977	28,356	32,129	35,838	38,680
	3000K Lumens	3,715	7,260	10,834	14,315	17,736	21,224	25,101	28,441	31,725	35,125
	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	4000K/5000K Lumens	4,213	8,232	12,284	16,230	20,109	24,084	28,468	32,246	35,968	39,824
	3000K Lumens	3,729	7,287	10,874	14,367	17,800	21,301	25,192	28,544	31,840	35,252
	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 70 CRI.

CONTROL OPTIONS

0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

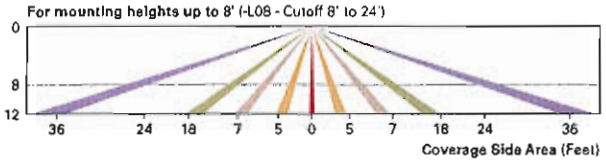
Photocontrol (P, R and PER7)
Optional button-type photocontrol (P) and photocontrol receptacles (R and PER7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

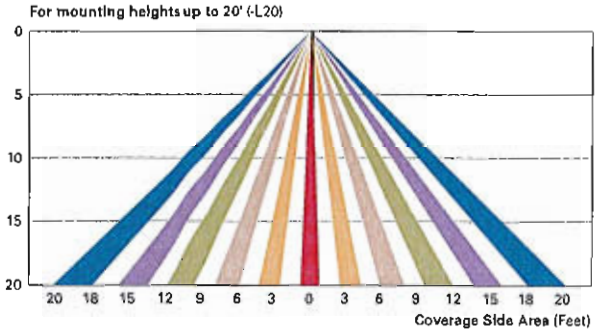
After Hours Dim (AHD)
This feature allows photocontrol-enabled luminairas to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

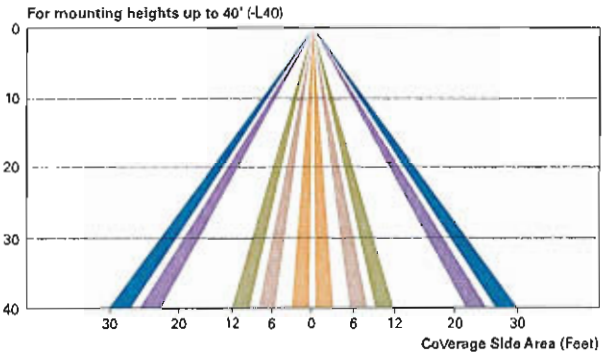
Dimming Occupancy Sensor (MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is datected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminairo off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from tho remaining light engines.

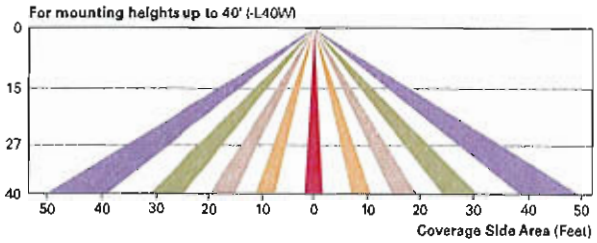
These occupancy sensors includes an integral photocell that can be activated with the FSIR-100 accessory for "dusk-to-dawn" control or daylight harvesting - the factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters.

A variety of sensor lens are available to optimize the coverage pattern for mounting heights from 8'-40'.



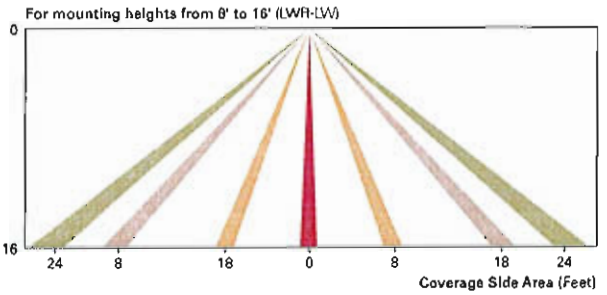


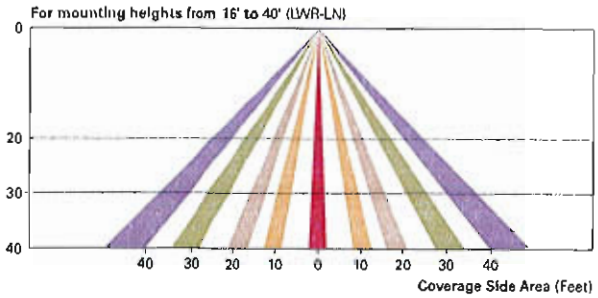




LumaWatt Wireless Control and Monitoring System (LWR-LW and LWR-LN)
The LumaWatt system is a peer-to-peer wireless network of luminaire-integral sensors for any sized project. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication. The end-user can securely create and manage sensor profiles with browser-based management software. The software will automatically broadcast to the sensors via wireless gateways for zone-based and individual luminaire control. The LumaWatt software provides smart building solutions by utilizing the sensor to provide easy-to-use dashboard and analytic capabilities such as improved energy savings, traffic flow analysis, building management software integration and more.

For additional details, refer to the LumaWatt product guides.





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 5NO=Type V Narrow 5MQ=Type V Square Medium 5WQ=Type V Square Wide Type S1 SL2=Type II w/Spill Control SL3=Type III w/Spill Control Type S3 SL4=Type IV w/Spill Control Type S4 SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right Type S5 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]

01 - Types S1, S5

02 - Types S3, S4

Options (Add as Suffix)	Accessories (Order Separately)
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 [20,22] 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 [20,22,25] MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range) [20,24,26] 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 15' - 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]	OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V QA/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 MA1039-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 [20] GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEDN-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.

McGraw-Edison

DESCRIPTION

The Galleon™ wall LED luminaire's appearance is complementary with the Galleon area and site luminaire bringing a modern architectural style to lighting applications. Flexible mounting options accommodate wall surfaces in both an upward and downward configuration. The Galleon family of LED products deliver exceptional performance with patented, high-efficiency AccuLED Optics™, providing uniform and energy conscious lighting for parking lots, building and security lighting applications.

Catalog #		Type
Project	Chesterfield Sports Complex	WP1 & WP2
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction
Driver enclosure thermally isolated from optics for optimal thermal performance. Heavy wall aluminum housing die-cast with integral external heat sinks to provide superior structural rigidity and an IP66 rated housing. Overall construction passes a 1.5G vibration test to ensure mechanical integrity. UPLIGHTING: Specify with the UPL option for inverted mount uplight housing with additional protections to maintain IP rating.

Optics
Choice of thirteen 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 3000K, 5000K and 6000K CCT. Greater than 90% lumen maintenance expected at 60,000 hours. Available in standard 1A drive current and optional 1200mA, 800mA, and 600mA drive currents.

Electrical
LED drivers are mounted for ease of maintenance. 120-277V 50/60Hz, 347V or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Drivers are provided standard with 0-10V dimming. An optional Eaton proprietary surge protection module is available and designed to withstand 10kV of transient line surge. The Galleon Wall LED luminaire is suitable for operation in -30°C to 40°C ambient environments. For applications with ambient temperatures exceeding 40°C, specify the HA (High Ambient) option. Emergency egress options for -20°C ambient environments and occupancy sensor available.

Mounting
Gasketed and zinc plated rigid steel mounting attachment fits directly to 4" j-box or wall with the Galleon Wall "Hook-N-Lock" mechanism for quick installation. Secured with two captive corrosion resistant black oxide coated allen head set screws which are concealed but accessible from bottom of fixture.

Finish
Housing finished in super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. 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.

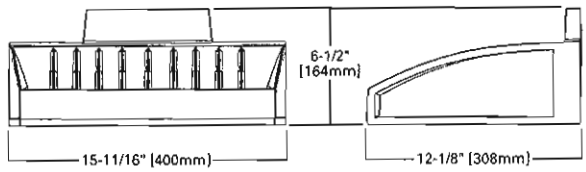
Warranty
Five-year warranty.

GWC GALLEON WALL LUMINAIRE

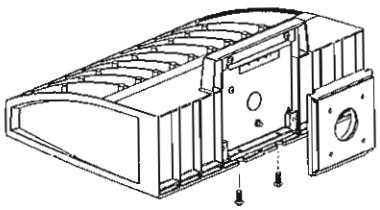
1-2 Light Squares
Solid State LED

WALL MOUNT LUMINAIRE

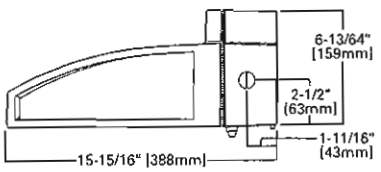
DIMENSIONS



HOOK-N-LOCK MOUNTING



BATTERY BACKUP AND THRU-BRANCH BACK BOX



CERTIFICATION DATA

UL/cUL Listed
LM79 / LM80 Compliant
IP66 Housing
ISO 9001
DesignLights Consortium® Qualified*

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz, 480V/60Hz
-30°C Minimum Temperature
40°C Ambient Temperature Rating

SHIPPING DATA

Approximate Net Weight:
27 lbs. (12.2 kgs.)

*www.designlights.org

POWER AND LUMENS

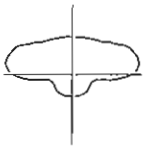
Number of Ught Squares		1				2			
Drive Current		600mA	800mA	1.0A	1.2A	600mA	800mA	1.0A	1.2A
Nominal Power (Watts)		34	44	59	67	66	85	113	129
Input Current @ 120V (A)		0.30	0.39	0.51	0.58	0.58	0.77	1.02	1.18
Input Current @ 208V (A)		0.17	0.22	0.29	0.33	0.34	0.44	0.56	0.63
Input Current @ 240V (A)		0.15	0.19	0.26	0.29	0.30	0.38	0.48	0.55
Input Current @ 277V (A)		0.14	0.17	0.23	0.25	0.28	0.36	0.42	0.48
Input Current @ 347V (mA)		0.11	0.15	0.17	0.20	0.19	0.24	0.32	0.39
Input Current @ 480V (mA)		0.08	0.11	0.14	0.15	0.15	0.18	0.24	0.30
Optics									
T2	4000K/5000K Lumens	4,110	5,040	8,238	6,843	8,031	9,849	12,190	13,373
	3000K Lumens	3,638	4,461	5,522	6,057	7,109	8,718	10,791	11,638
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
T3	4000K/5000K Lumens	4,189	5,138	6,359	8,975	8,187	10,039	12,425	13,630
	3000K Lumens	3,708	4,548	5,629	8,174	7,247	8,887	10,999	12,065
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
T4FT	4000K/5000K Lumens	4,214	5,167	8,395	7,016	8,233	10,097	12,497	13,709
	3000K Lumens	3,730	4,574	5,661	6,211	7,288	8,938	11,062	12,135
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3
T4W	4000K/5000K Lumens	4,159	5,100	6,313	8,925	6,127	9,966	12,336	13,532
	3000K Lumens	3,682	4,515	5,588	8,130	7,184	8,822	10,920	11,979
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
SL2	4000K/5000K Lumens	4,102	5,032	6,227	6,831	8,018	9,832	12,170	13,350
	3000K Lumens	3,631	4,454	5,512	6,047	7,098	8,703	10,773	11,817
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
SL3	4000K/5000K Lumens	4,188	5,137	6,358	8,974	8,186	10,038	12,424	13,628
	3000K Lumens	3,707	4,547	5,828	6,173	7,246	8,886	10,998	12,064
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3
SL4	4000K/5000K Lumens	3,980	4,890	6,040	6,628	7,778	9,537	11,803	12,949
	3000K Lumens	3,523	4,320	5,347	5,865	6,883	8,442	10,448	11,462
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3
5NQ	4000K/5000K Lumens	4,321	5,298	6,558	7,193	8,443	10,353	12,814	14,057
	3000K Lumens	3,825	4,690	5,605	6,367	7,474	9,184	11,343	12,443
	BUG Rating	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2
5MQ	4000K/5000K Lumens	4,400	5,396	6,678	7,326	8,598	10,544	13,050	14,315
	3000K Lumens	3,895	4,777	5,911	6,485	7,611	9,334	11,552	12,672
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
5WQ	4000K/5000K Lumens	4,412	5,410	6,695	7,345	6,821	10,572	13,085	14,354
	3000K Lumens	3,908	4,789	5,926	6,502	7,631	9,358	11,563	12,708
	BUG Rating	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
SLL/SLR	4000K/5000K Lumens	3,661	4,515	5,588	6,129	7,193	8,821	10,917	11,976
	3000K Lumens	3,258	3,997	4,946	5,425	6,367	7,806	9,664	10,601
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3
RW	4000K/5000K Lumens	4,281	5,250	6,498	7,129	8,366	10,259	12,698	13,930
	3000K Lumens	3,790	4,647	5,752	6,311	7,406	9,081	11,240	12,331
	BUG Rating	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2

* Nominal lumen data for 70 CRI. BUG rating for 4000K/5000K. Refer to IES files for 3000K BUG ratings.

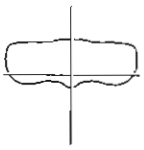
OPTICAL DISTRIBUTIONS

Asymmetric Area Distributions

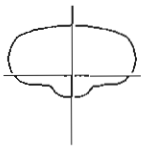
T2
(Type II)



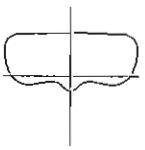
SL2
(Type II with Spill Control)



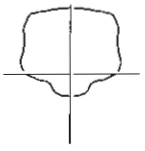
T3
(Type III)



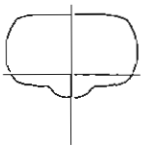
SL3
(Type III with Spill Control)



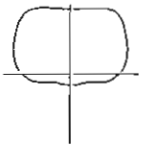
T4FT
(Type IV Forward Throw)



T4W
(Type IV Wide)

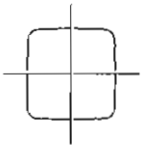


SL4
(Type IV with Spill Control)

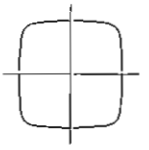


Symmertric Distributions

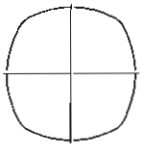
5NQ
(Type V Square Narrow)



6MQ
(Type V Square Medium)

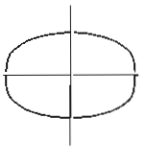


5WQ
(Type V Square Wide)

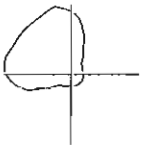


Specialized Distributions

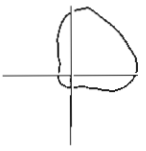
RW
(Rectangular Wide Type I)



SLL
(90° Spill Light Eliminator Left)

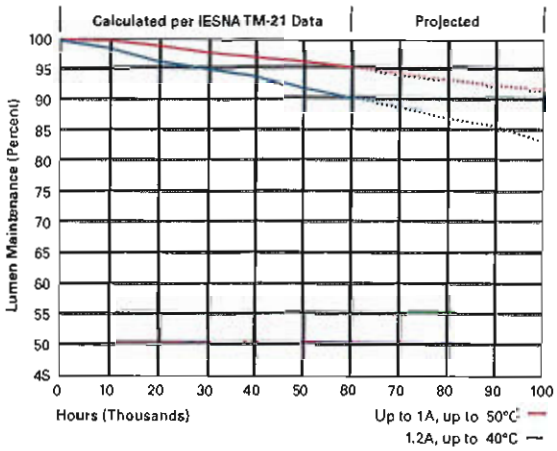


SLR
(90° Spill Light Eliminator Right)



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

CONTROL OPTIONS

0-10V (DIM)
This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

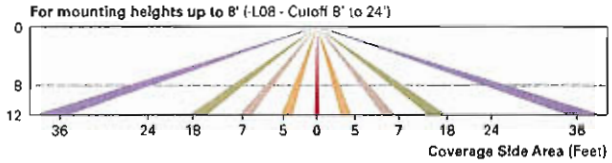
Photocontrol (P, R and PER7)
Optional button-type photocontrol (P) and photocontrol receptacles (R and PER7) provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

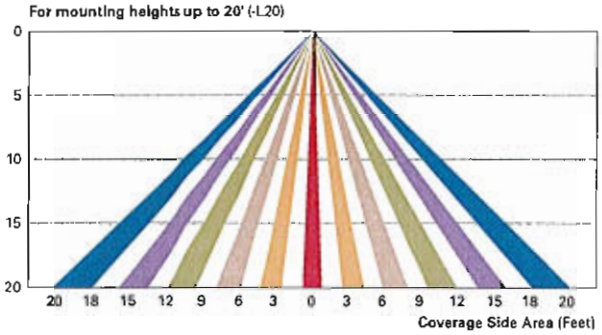
After Hours Dim (AHD)
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a "dusk-to-dawn" period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

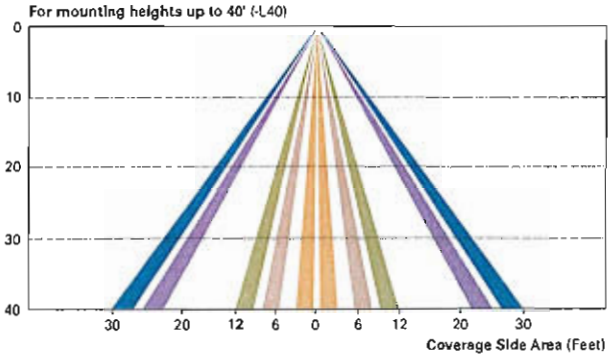
Dimming Occupancy Sensor (MS/DIM-LXX, MS/X-LXX and MS-LXX)
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines.

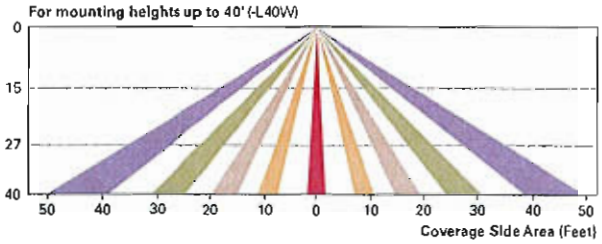
These occupancy sensors includes an integral photocell that can be activated with the FSIR-100 accessory for "dusk-to-dawn" control or daylight harvesting - the factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters.

A variety of sensor lens are available to optimize the coverage pattern for mounting heights from 8'-40'.



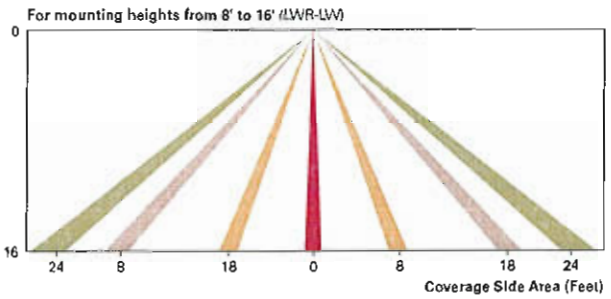


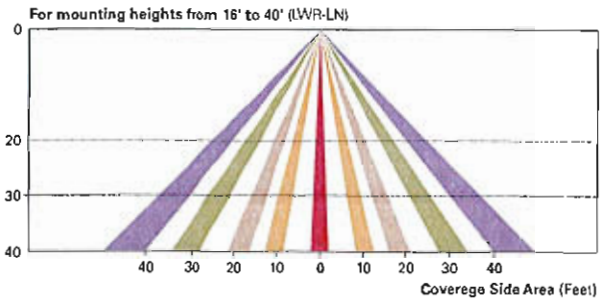




LumaWatt Pro Wireless Control and Monitoring System (LWR-LW and LWR-LN)
The LumaWatt Pro system is a peer-to-peer wireless network of luminaire-integral sensors for any sized project. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication. The end-user can securely create and manage sensor profiles with browser-based management software. The software will automatically broadcast to the sensors via wireless gateways for zone-based and individual luminaire control. The LumaWatt Pro software provides smart building solutions by utilizing the sensor to provide easy-to-use dashboard and analytic capabilities such as improved energy savings, traffic flow analysis, building management software integration and more.

For additional details, refer to the LumaWatt Pro product guides.





ORDERING INFORMATION

Sample Number: GWC-AF-02-LED-E1-T3-GM

Product Family [1]	Light Engine	Number of Light Squares [2]	Lamp Type	Voltage	Distribution	Color	Mounting Options
GWC=Galleon Wall	AF=1A Drive Current	01=1 02=2 [3]	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V [4] 480=480V [4,5]	T2=Type II T3=Type III T4FT=Type IV Forward Throw T4W=Type IV 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 5NQ=Type V Square Narrow 5MQ=Type V Square Medium 5WQ=Type V Square Wide	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White CC=Custom Color [6]	[BLANK]=Surface Mount

Type WP1

Type WP2

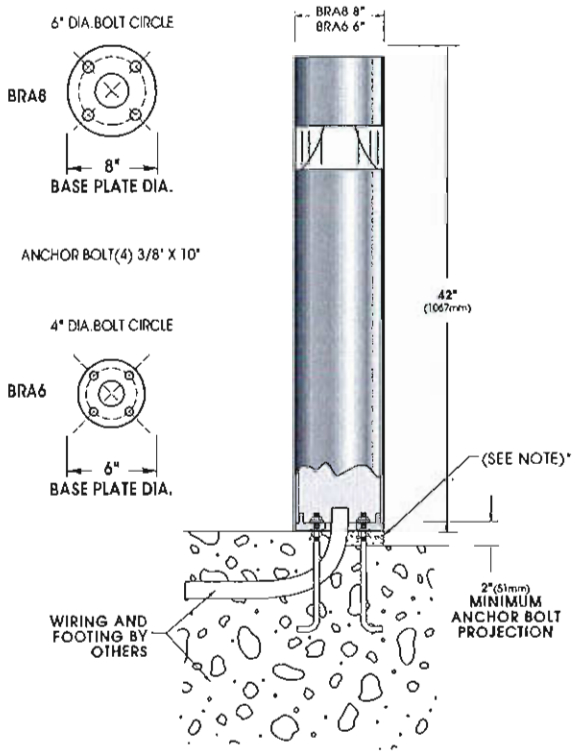
Options (Add as Suffix)	Accessories (Order Separately)
7030=70 CRI / 3000K [7] 8030=80 CRI / 3000K [7] 7050=70 CRI / 5000K [7] 7060=70 CRI / 6000K [7] 600=Drive Current Factory Set to 600mA 800=Drive Current Factory Set to 800mA 1200=Drive Current Factory Set to 1200mA [8] F=Single Fused (120, 277 or 347V. Must Specify Voltage) FF=Double Fused (208, 240 or 480V. Must Specify Voltage) 10K=10kV Surge Module DIM=0-10V Dimming Leads [9,10] DALI=DALI Driver [11] HA=50°C High Ambient [12] UPL=Uplight Housing [13] BBB=Battery Pack with Back Box [3,8,9,14] CWB=Cold Weather Battery Pack with Back Box [3,8,9,14] P=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage) R=NEMA Twistlock Photocontrol Receptacle PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle [15] AHD145=After Hours Dim, 5 Hours [16] AHD245=After Hours Dim, 6 Hours [16] AHD255=After Hours Dim, 7 Hours [16] AHD355=After Hours Dim, 8 Hours [16] MS-LXX=Motion Sensor for On/Off Operation [17,18,19] MS/DIM-LXX=Motion Sensor for Dimming Operation [17,18,19] LWR-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height [18,20,21] LWR-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 20' Mounting Height [18,20,21] L90=Optics Rotated 90° Left R90=Optics Rotated 90° Right MT=Factory Installed Mesh Top LCF=Light Square Trim Plate Painted to Match Housing [22] HSS=Factory Installed House Side Shield [23] CE=CE Marking and Small Terminal Block [24]	OA/RA1013=Photocontrol Shorting Cap OA/RA1016=NEMA Photocontrol - Multi-Tap 105-285V OA/RA1201=NEMA Photocontrol - 347V OA/RA1027=NEMA Photocontrol - 480V MA1252=10kV Circuit Module Replacement MA1059XX=Thru-branch Back Box (Must Specify Color) FSIR-100=Wireless Configuration Tool for Occupancy Sensor [17] LS/HSS=Field Installed House Side Shield [23,25]

NOTES:
1. DesignLight Consortium® Qualied. Refer to www.designlights.org Qualified Products List under Family Models for details.
2. Standard 4000K CCT and minimum 70 CRI.
3. Two light squares with BBB or CWB options limited to 25°C, 120-277V only.
4. Requires the use of a step down transformer. Not available in combination with sensor options at 1200mA.
5. 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).
6. Custom colors are available. Setup charges apply. Paint chip samples required. Extended Lead times apply.
7. Extended lead times apply. Use dedicated IES files when performing layouts.
8. Not available with HA option.
9. Cannot be used with other control options.
10. Low voltage control lead brought out 18" outside fixture.
11. Only availble with BBB or CWB in single light square. HA option available for single light square only. Limited to 1A and below.
12. Not available with 1200, UPL, BBB and CWB options. Available for single light square only.
13. Not available with SL2, SL3, SL4, HA, BBB, CWB, R, or PER7 options.
14. Operates a single light square only. Cold weather option operates -20°C to +40°C, standard 0°C to +40°C. Backbox is non-IP rated.
15. Compatible with standard 3-PIN photocontrols, 5-PIN or 7-PIN ANSI controls.
16. 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.
17. 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.
18. Replace LXX with the available mounting height options: L08, L20, L40 or L40W are the only choices.
19. Includes integral photosensor.
20. LumaWatt wireless sensors are factory installed requiring network components in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
21. Bronze sensor is shipped with Bronze fixtures. White sensor shipped on all other housing color options.
22. Not available with HSS option.
23. Only for use with SL2, SL3 and SL4 distributions. The light square trim plate is painted black when the HSS option is selected.
24. CE is not available with the 1200, DALI, LWR, MS, MS/DIM, P, R or PER7 options. Available in 120-277V only.
25. One required for each light square.

BRA SERIES-LED

SPECIFICATIONS

INSTALLATION



*When mounting in soil, anchor bolt fasteners and other hardware must be protected from soil by grouting.

OPTICS

INTERNAL LOUVER SUPPLIED WITH CLEAR POLYCARBONATE LENS — IL

CAST LOUVER — CL

OPAL POLYCARBONATE — WA

VPA - Vertical Array
BRA8 Available in:
36 LED Max

BRA6 Available in:
24LED Max

PARABOLIC REFLECTOR — TR

RADIAL LED Module
BRA8 Available in:
18 LED Module

BRA6 Available in:
12 LED Module

Spec/Order Example: BRA6-TR/12LED120WW/RAL-8019-T/HLSW

ORDERING INFORMATION

BOLLARD	OPTICS	# of LED's	COLOR	VOLTAGE	MOUNTING	FINISH	OPTIONS

BOLLARD

- ☐ BRA8-LED
- ☒ BRA6-LED

OPTICS

VERTICAL POWER ARRAY

- ☐ INTERNAL LOUVER IL
- ☒ CAST LOUVER CL
- ☐ OPAL POLYCARBONATE ..... WP*

RADIAL LED MODULE

- ☐ PARABOLIC REFLECTOR ..... TR

*-WP OPTICS USE OPAL POLYCARBONATE LENS

LED

of LEDs

- ☐ 36LED[1] (42 Watts)
- ☒ 24LED (28 Watts)
- ☐ 18LED[1] (21 Watts)
- ☐ 12LED[2] (15 Watts)

COLOR

- ☒ NW (4000K) Standard
- ☐ CW (5000K)
- ☐ WW (3000K)

OTHER LED COLORS AVAILABLE CONSULT FACTORY

VOLTAGE

- ☐ 120
- ☐ 208
- ☐ 240
- ☐ 277
- ☐ 347
- ☐ 480

NOTES:
1 - AVAILABLE IN BRA8 ONLY.
2 - AVAILABLE IN BRA6 ONLY.

MOUNTING

- ☒ GROUND INSTALLATION .... (STANDARD)
- ☐ WALL MOUNT WM .....

FINISH

STANDARD TEXTURED FINISH

- ☐ BLACK RAL-9005-T
- ☐ WHITE RAL-9003-T
- ☐ GREY RAL-7004-T
- ☐ DARK BRONZE RAL-8019-T
- ☐ GREEN RAL-6005-T

FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9500-S)

SEE USALTG.COM FOR ADDITIONAL COLORS

OPTIONS

- ☐ DIMMABLE DRIVER (0-10V PROVIDED) ..... DIM
- ☐ HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR ..... HLSW
- ☐ INTERNAL HOUSE SIDE SHIELD. .... HS
- ☐ DUPLEX RECEPTACLE ..... DUP
- ☐ GROUND FAULT RECEPTACLE ..... GFI
- ☐ 10KV SURGE PROTECTOR. 10SP
- ☐ 20KV SURGE PROTECTOR (277V & 480V Only) 20SP

OPTIONAL HEIGHTS:

- ☐ 30"
- ☐ 36"

U.S. Architectural Lighting

660 West Avenue O, Palmdale, CA 93551
Phone (661) 233-3000 Fax (661) 233-3001
www.usaltg.com

U.S. ARCHITECTURAL LIGHTING

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ARB SUBMITTAL PACKAGE (REVISED) - MAY 21, 2018

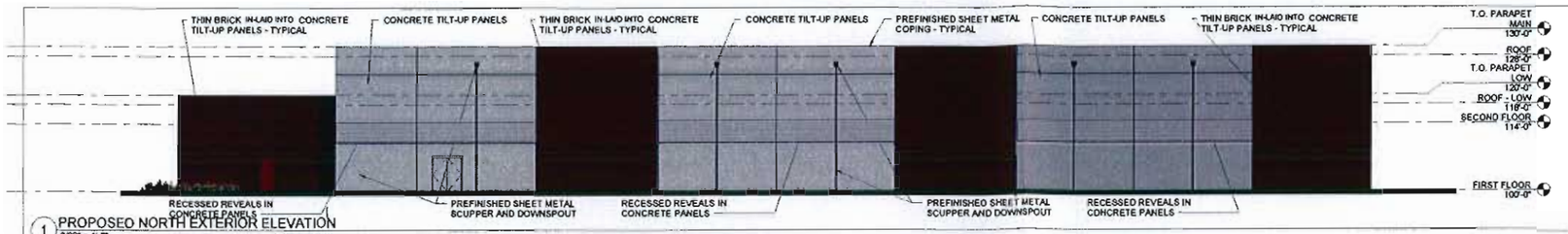
Chiodini ARCHITECTS
Architecture / Interior Design / Graphics

CHESTERFIELD SPORTSCOMPLEX
CHESTERFIELD, MISSOURI

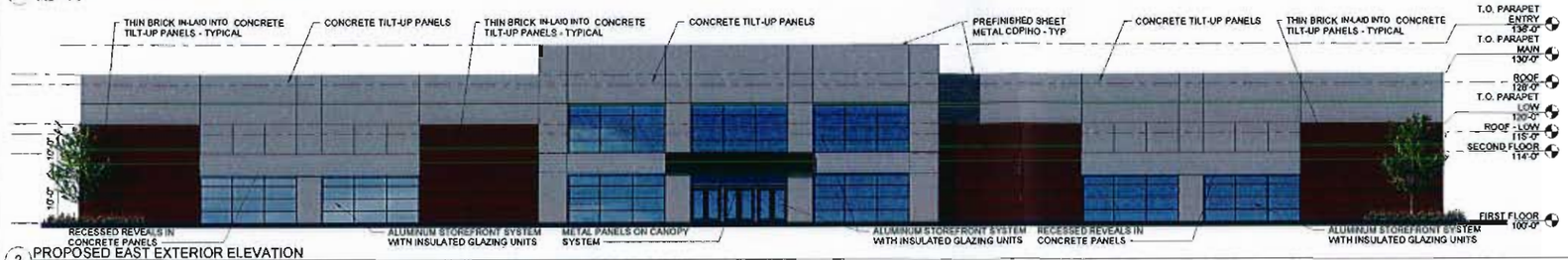
REVISIONS

PROPOSED EXTERIOR RENDERING

Project Number: 2018.007
Date: 2018.05.21
Drawn By: MM



1 PROPOSEO NORTH EXTERIOR ELEVATION
3/32" = 1'-0"



2 PROPOSED EAST EXTERIOR ELEVATION
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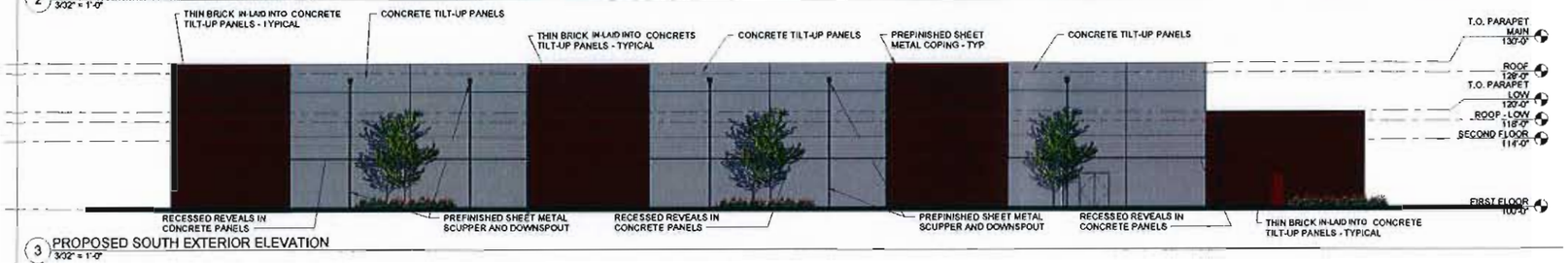

3 PROPOSED SOUTH EXTERIOR ELEVATION
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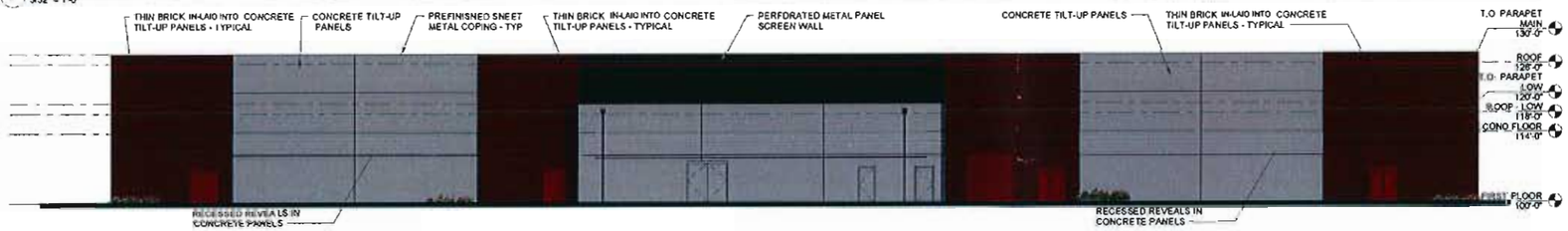
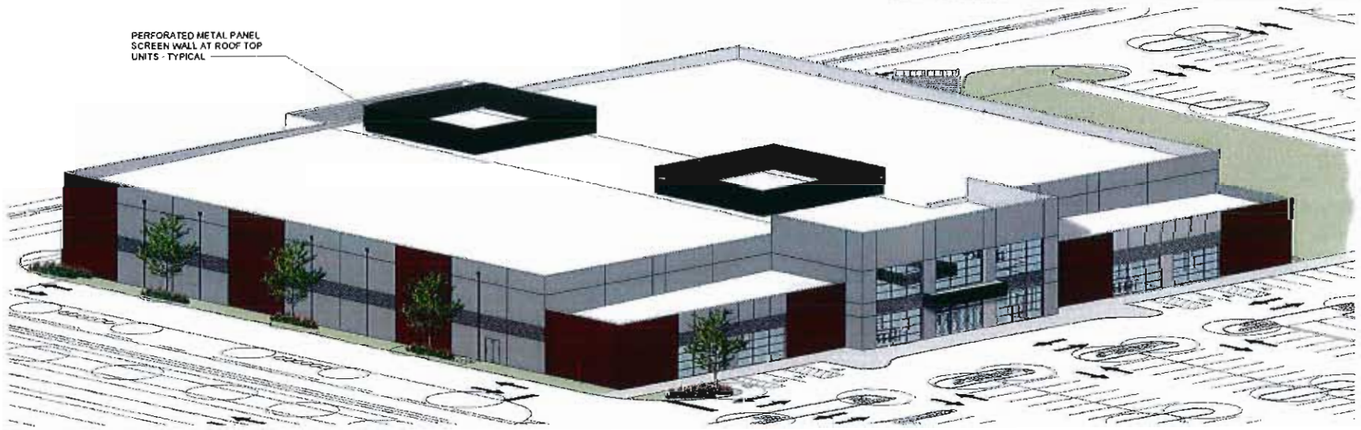
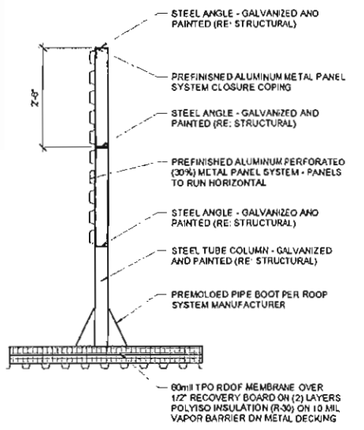


4 PROPOSEO WEST EXTERIOR ELEVATION
3/32" = 1'-0"



5 PROPOSED RENDERING VIEW



6 PROPOSED MECHANICAL EQUIPMENT SCREEN WALL
3/4" = 1'-0"

EXTERIOR FINISH MATERIAL

CONCRETE TILT-UP PANELS	INSULATED CONCRETE TILT-UP PANELS WITH SMOOTH FACE
THIN BRICK	THIN MASONRY BRICK UNIT INLAID IN CONCRETE PANEL - ENDICOTT REO IRONSPOT UTIUTY SIZE THIN BRICK
ACM METAL PANEL CANOPY	ACM METAL PANELS ON CANOPY - ALUCOBOND BLACK ANODIZED ALUMINUM
STOREFRONT SYSTEM	BLACK ALUMINUM STOREFRONT SYSTEM 2" X 4 1/2" - THERMAL BROKEN - OLD CASTLE
GLAZING UNITS	1" INSULATED GLASS UNITS - GREY TINTED - GUARDIAN GLASS
PAINT	EXPOSED CONCRETE PANELS SHERWIN WILLIAMS #7018 DOVETAIL
MECH SCREEN WALL	PERFORATED METAL PANELS FOR MECHANICAL EQUIPMENT SCREENINC - BLACK ANODIZED ALUMINUM WITH 30% PERFORATION
COPINGS / DOWNSPOUTS	SHFET METAL COPINGS AND DOWNSPOUTS - BLACK ALUMINUM

Chiodini ARCHITECTS
Architecture / Interior Design / Graphics

CHESTERFIELD SPORTSCOMPLEX
CHESTERFIELD, MISSOURI

REVISIONS.

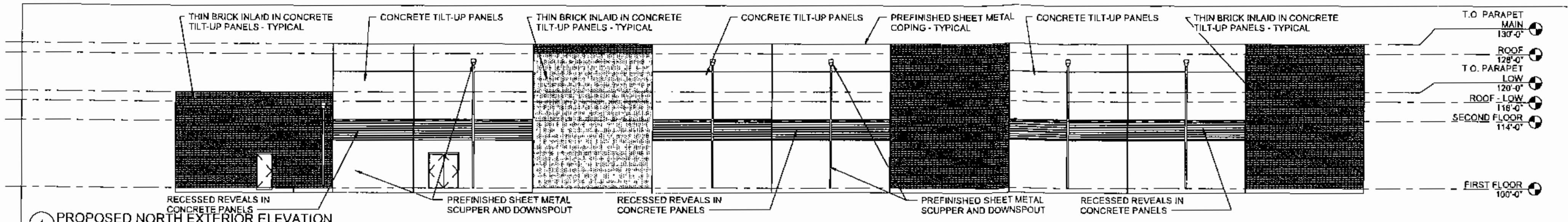
ARB SUBMITTAL PACKAGE (REVISED) - MAY 21, 2018

PROPOSED EXTERIOR ELEVATIONS

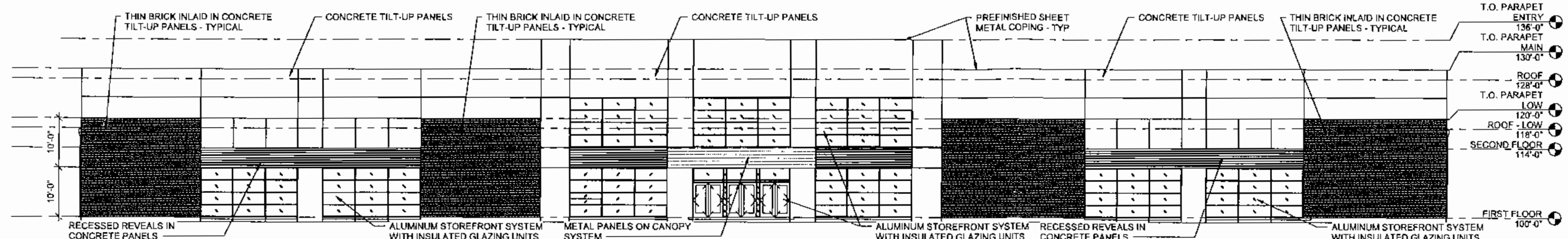
Project Number:	2018.007
Date:	2018.05.21
Drawn By:	SMM

A020

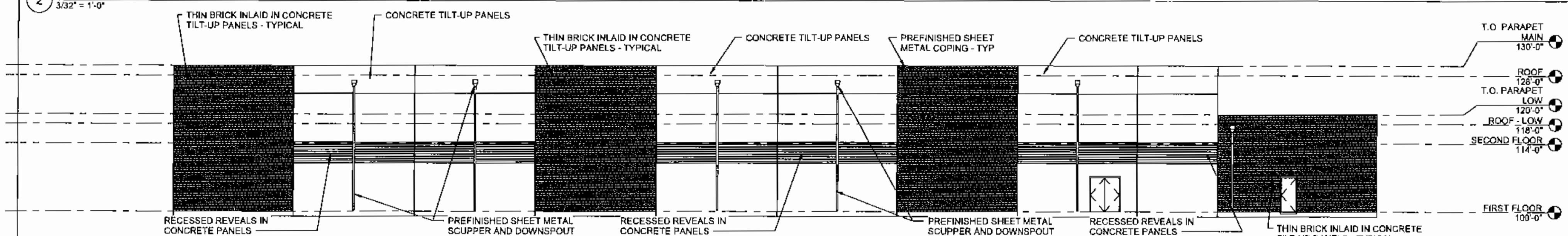
PRINTED: 5/21/2018, 10:16:38 AM



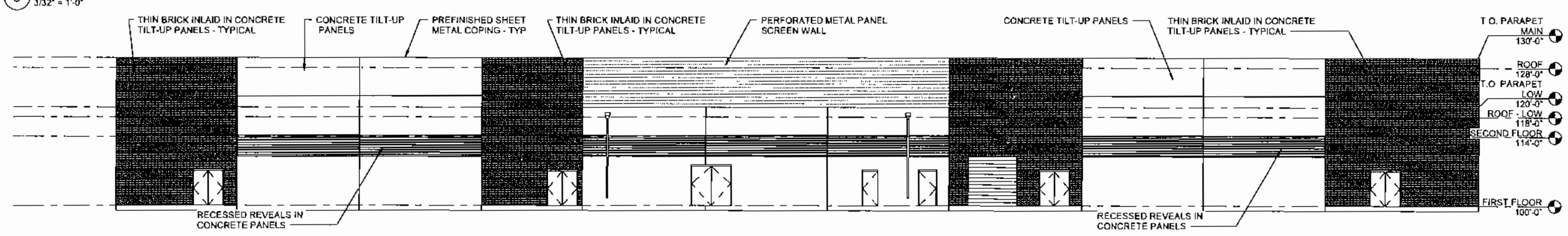
1 PROPOSED NORTH EXTERIOR ELEVATION
3/32" = 1'-0"



2 PROPOSED EAST EXTERIOR ELEVATION
3/32" = 1'-0"



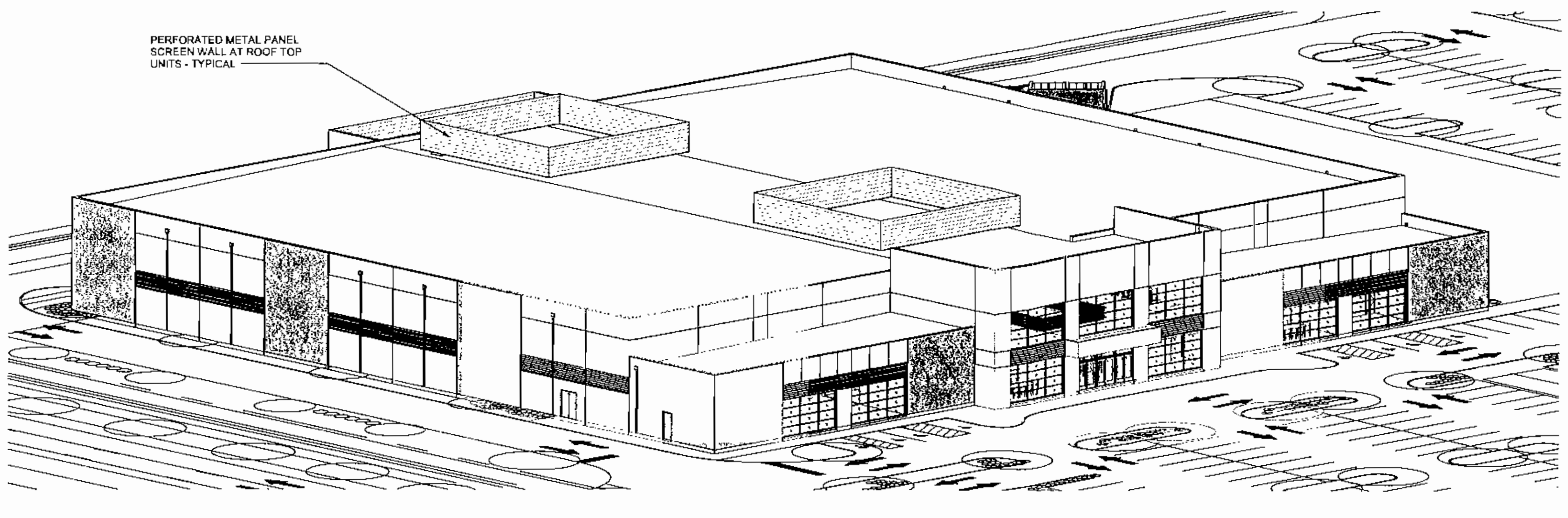
3 PROPOSED SOUTH EXTERIOR ELEVATION
3/32" = 1'-0"



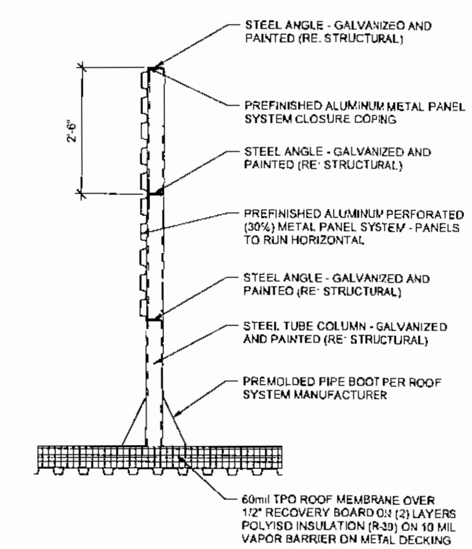
4 PROPOSED WEST EXTERIOR ELEVATION
3/32" = 1'-0"

EXTERIOR FINISH MATERIAL

CONCRETE TILT-UP PANELS	INSULATED CONCRETE TILT-UP PANELS WITH SMOOTH FACE
THIN BRICK	THIN MASONRY BRICK UNIT INLAID IN CONCRETE PANEL - ENDICOTT RED IRONSPOT UTILITY SIZE THIN BRICK
ACM METAL PANEL CANOPY	ACM METAL PANELS ON CANOPY - ALUCOBOND BLACK ANODIZED ALUMINUM
STOREFRONT SYSTEM	BLACK ALUMINUM STOREFRONT SYSTEM 2" X 4 1/2" - THERMAL BROKEN - OLD CASTLE
GLAZING UNITS	1" INSULATED GLASS UNITS - GREY TINTED - GUARDIAN GLASS
PAINT	EXPOSED CONCRETE PANELS SHERWIN WILLIAMS #7018 DOVETAIL
MECH SCREEN WALL	PERFORATED METAL PANELS FOR MECHANICAL EQUIPMENT SCREENING - BLACK ANODIZED ALUMINUM WITH 30% PERFORATION
COPINGS / DOWNSPOUTS	SHEET METAL COPINGS AND DOWNSPOUTS - BLACK ALUMINUM



5 PROPOSED RENDERING VIEW



6 PROPOSED MECHANICAL EQUIPMENT SCREEN WALL
3/4" = 1'-0"

PRINTED: 5/22/2018 6:25:50 AM

ARB SUBMITTAL PACKAGE (REVISED) - MAY 21, 2018

Chiodini ARCHITECTS
Architecture / Interior Design / Graphics

CHESTERFIELD SPORTSCOMPLEX
CHESTERFIELD, MISSOURI

REVISIONS:

STATE OF MISSOURI — L. G. CHIODINI — NUMBER — ARCHITECT

PROPOSED EXTERIOR ELEVATIONS

Project Number	2018 007
Date:	2018 05.21
Drawn By:	SMM

A020

SITE DEVELOPMENT SECTION PLAN

A TRACT OF LAND BEING PART OF LOT 3 OF THE "NICHOLAS MUELLER ESTATE" AS RECORDED IN PLAT BOOK 2, PAGE 25 LOCATED IN U.S. SURVEY 371 AND PART OF U.S. SURVEY 102, TOWNSHIP 45 NORTH, RANGE 3 EAST OF THE 5TH PRINCIPAL MERIDIAN, CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI

FLOOD NOTE:

SUBJECT PROPERTY LIES WITHIN FLOOD ZONE "X" (AREA WITH REDUCED FLOOD RISK DUE TO LEVEE) AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR ST. LOUIS COUNTY, MISSOURI AND INCORPORATED AREAS. THE MAP IS IDENTIFIED AS MAP NO. 29189C0145K WITH AN EFFECTIVE DATE OF FEBRUARY 4, 2015.

F.A.R. CALCULATION (PHASE 1)

F.A.R. = 84,144 S.F. / 440,568 S.F. = 0.19
MAXIMUM = 0.55

MAXIMUM = 0.55

BUILDING + PARKING SETBACKS

NORTH: 30' BUILDING AND 30' PARKING SETBACK
EAST: 30' BUILDING AND 30' PARKING SETBACK
SOUTH: 30' BUILDING AND 30' PARKING SETBACK
WEST: 10' BUILDING AND 10' PARKING SETBACK

PARKING CALCULATIONS

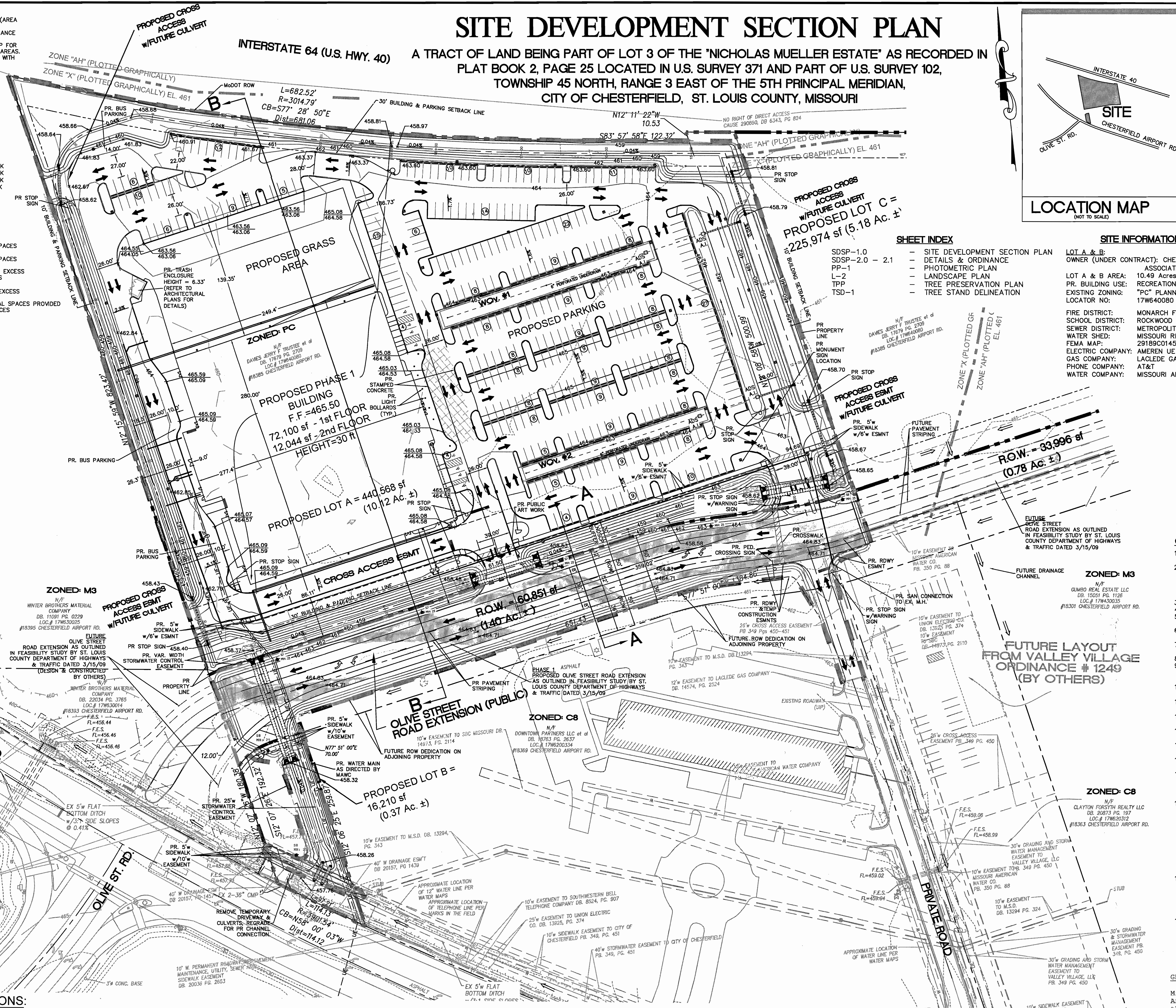
RECREATIONAL USE (PHASE 1 BUILDING)

REQUIRED:
MIN. PARKING 3.3 / 1,000 GFA
3.3 * 84.144 = 277 SPACES
MAX. PARKING 4.5 / 1,000 GFA
4.5 * 84.144 = 378 SPACES

EXCEED MAX. PARKING REQUIREMENT – 20% MAX. EXCESS
1.20 * 4.5 * 84.144 = 454 SPACES
(388 SPACES PROVIDED)
REQUESTING : (388 – 378) / 388 = 2.6% EXCESS

MIN. HANDICAP PARKING REQUIRED = 2% OF TOTAL SPACES PROVIDED
2.0% * 388 = 8 SPACES
(8 SPACES PROVIDED)

REQUIRED LOADING: NONE



LOCATION MAP
(NOT TO SCALE)

GRAPHIC SCALE
(IN FEET)
1 inch = 50 ft.

ABBREVIATIONS

ATG	ADJUST TO GRADE	PG.	PAGE
B.C.	BACK OF CURB	PR.	PROPOSED
C.O.	CLEANOUT	P.V.C.	POLYVINYL CHLORIDE PIPE
DB.	DEED BOOK	R.C.P.	REINFORCED CONCRETE PIPE
E	ELECTRIC	R/W	RIGHT-OF-WAY
ELEV.	ELEVATION	SQ.	SQUARE
EX.	EXISTING	T	TELEPHONE CABLE
F.C.	FACE OF CURB	T.B.A.	TO BE ABANDONED
FL	FLOWLINE	T.B.R.	TO BE REMOVED
FT.	FEET	T.B.R.&R.	TO BE REMOVED AND REPLACED
FND.	FOUND	TYP.	TYPICALLY
G	GAS	U.I.P.	USE IN PLACE
H.W.	HIGH WATER	U.O.N.	UNLESS OTHERWISE NOTED
LFB	LOW FLOW BLOCKED	V.C.P.	VITRIFIED CLAY PIPE
M.H.	MANHOLE	W	WATER
N/F	NOW OR FORMERLY	(86'W)	RIGHT-OF-WAY WIDTH
PB.	PLAT BOOK		

SHEET INDEX

SITE INFORMATION

LOT A & B:
OWNER (UNDER CONTRACT): CHESTERFIELD HOCKEY ASSOCIATION, INC.

LOT A & B AREA: 10.49 Acres ±
PR. BUILDING USE: RECREATION FACILITY
EXISTING ZONING: "PC" PLANNED COMMERCIAL
LOCATOR NO: 17W640080

FIRE DISTRICT: MONARCH FIRE PROTECTION DISTRICT
SCHOOL DISTRICT: ROCKWOOD
SEWER DISTRICT: METROPOLITAN ST. LOUIS SEWER DIST.
WATER SHED: MISSOURI RIVER
FEMA MAP: 29189C0145K
ELECTRIC COMPANY: AMEREN UE
GAS COMPANY: LACLEDE GAS COMPANY
PHONE COMPANY: AT&T
WATER COMPANY: MISSOURI AMERICAN WATER COMPANY

LEGEND

EXISTING SANITARY SEWER
EXISTING STORM SEWER
EXISTING TREE
EXISTING BUILDING
EXISTING CONTOUR
SPOT ELEVATION
EXISTING UTILITIES
FOUND 1/2" IRON PIPE
SET IRON PIPE
FOUND CROSS
FOUND STONE
FIRE HYDRANT
LIGHT STANDARD
BUSH
SIGN
NOTES PARKING SPACES
GUY WIRE
POWER POLE
WATER VALVE
DENOTES RECORD INFORMATION
HANDICAPPED PARKING
PROPOSED CONTOUR
PROPOSED SPOT
PROPOSED STORM
PROPOSED SANITARY

GENERAL NOTES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC.
2. ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.
3. ALL PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND.
4. NO GRADE SHALL EXCEED 3:1 SLOPE.
5. GRADING AND STORM WATER PER M.S.D., THE CITY OF CHESTERFIELD, MISSOURI, AND THE MONARCH CHESTERFIELD LEVEE DISTRICT.
6. STORM WATER SHALL BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINTS, SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
7. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SIGNAGE. SIGN APPROVAL IS A SEPARATE PROCESS.
8. ALL UTILITIES WILL BE INSTALLED UNDERGROUND.
9. SITE DEVELOPMENT SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL EXPLORATION PREPARED BY MIDWEST TESTING DATED MAY 02, 2018.
10. ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO CITY OF CHESTERFIELD'S STANDARDS.
11. NO SLOPES WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL).
12. STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
13. ALL PROPOSED ACCESS TO ST. LOUIS COUNTY ROADS SHALL MEET MINIMUM ST. LOUIS COUNTY SIGHT DISTANCE REQUIREMENTS.
14. ALL SIDEWALKS AND ASSOCIATED ACCESSIBILITY IMPROVEMENTS SHALL BE CONSTRUCTED TO THE CITY'S ADA STANDARDS.
15. ALL GRADING AND DRAINAGE SHALL BE IN CONFORMANCE WITH ST. LOUIS COUNTY AND MSD STANDARDS.
16. ALL HYDRANTS, POWER POLES OR OTHER POTENTIAL OBSTRUCTIONS WITHIN THE ST. LOUIS COUNTY ROAD RIGHT-OF-WAY SHALL HAVE A MINIMUM TWO (2) FOOT SETBACK FROM FACE OF CURB, AS DIRECTED BY THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC.
17. ANY ENTITY THAT PERFORMS WORK ON ST. LOUIS COUNTY MAINTAINED PROPERTY SHALL PROVIDE THE COUNTY WITH A CERTIFICATE OF INSURANCE EVIDENCING GENERAL LIABILITY COVERAGE (BODILY INJURY AND PROPERTY DAMAGE) IN THE AMOUNTS SPECIFIED AS THE LIMITS OF LIABILITY SET BY THE STATE FOR PUBLIC ENTITIES. SUCH CERTIFICATE SHALL INCLUDE "ST. LOUIS COUNTY" AS AN ADDITIONAL INSURED AND SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF ANY PERMIT. CERTIFICATE SHALL PROVIDE FOR A 30 DAY POLICY CANCELLATION NOTICE TO ST. LOUIS COUNTY. UPON REQUEST, THE COUNTY WILL PROVIDE THE SPECIFIC AMOUNTS FOR BOTH PER PERSON AND PER OCCURRENCE LIMITS.
18. PRIOR TO "SPECIAL USE PERMIT" ISSUANCE BY THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC, A SPECIAL CASH ESCROW OR A SPECIAL ESCROW SUPPORTED BY AN IRREVOCABLE LETTER OF CREDIT, MAY BE REQUIRED TO BE ESTABLISHED WITH THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC TO GUARANTEE COMPLETION OF THE REQUIRED ROADWAY IMPROVEMENTS.
19. ACCESS RESTRICTION SHALL BE IMPLEMENTED UPON CONNECTION OF THE OLIVE STREET ROAD EXTENSION FROM CHESTERFIELD AIRPORT ROAD TO THE WEST, TO SPIRIT OF ST. LOUIS BLVD TO THE EAST. PER ORDINANCE 2794, IT MUST BE RESTRICTED AT THE NORTHERN ACCESS POINT SOUTH OF THE NEW OLIVE STREET ROAD OR AT THE SOUTHERN ACCESS POINT NORTH OF CHESTERFIELD AIRPORT ROAD.

GEOTECHNICAL ENGINEER'S STATEMENT

Midwest Testing, at the request of CHESTERFIELD HOCKEY ASSOCIATION, INC., has performed a geotechnical exploration for the property of which the project proposed hereon is a part thereof. Our findings indicated that the earth related aspects are suitable for the development proposed hereon pursuant to the geotechnical recommendations and considerations set forth in our May 2, 2018 report, titled "Geotechnical Exploration - MT Job No. 14414 - Chesterfield Ice & Sports Complex - Chesterfield, Missouri".

Midwest Testing

DANIEL J. BARCZYKOWSKI NUMBER E-25861 PROFESSIONAL ENGINEER

Name 5-7-18 Date

RECEIVED
JUN 29 2018
City of Chesterfield
Department of Public Services

OPENSPACE CALCULATIONS:

PER ORD. 2974 - 35% OPEN SPACE REQUIRED
CHESTERFIELD HOCKEY ASSOC. : LOT A = 10.12 Ac. + 0.37 Ac. = 10.49 Ac.
LOT C = 5.18 Ac.

PHASE 1 : CURRENT PLAN WITHOUT FUTURE BUILDING EXPANSION
TOTAL SITE = LOT A & LOT B = 440,568 sf + 16,210 sf = 456,778 sf
PR. BUILDING FOOTPRINT = 72,100 sf (ROOF)
VEHICULAR PAVEMENT = 183,553 sf
OPENSPACE (GRASS & NON-VEHICULAR PVMT) = 201,125 sf
OPENSPACE = (201,125 sf)/(456,778 sf) = 44.0%

PROPOSED LOT A

A tract of land being part of Lot 3 of the Nicholas Mueller Estate in U.S. Survey 371, Township 45 North, Range 3 East, Saint Louis County, Missouri and being more particularly described as:

COMMENCING at the Southwest corner of Lot 3 of said Nicholas Mueller Estate, according to the plat thereof recorded in Plat Book 2 Page 25 of the Saint Louis County Records, said point being also a point in the South line of U.S. Survey 371 ; thence Northwardly along the West line of said Lot 3 North 12 degrees 15 minutes 59 seconds West, a distance of 77.98 feet to the POINT OF BEGINNING of the tract herein described; thence continuing along said line North 12 Degrees, 15 Minutes, 59 Seconds West, a distance of 745.44 feet to a point on the Southern line of State Highway 40 T.R. (I-64); thence along said Southern line the following: in a Easterly direction along a curve to the left having a radius of 3,014.79 feet, an arc length of 682.52 feet, the chord of which bears South 77 Degrees, 28 Minutes, 50 Seconds East, a chord distance of 681.06 feet to a point; thence South 83 Degrees, 57 Minutes, 58 Seconds East, a distance of 122.32 feet; thence North 12 Degrees, 11 Minutes, 22 Seconds West, a distance of 10.53 feet; thence South 83 Degrees, 57 Minutes, 58 Seconds East, a distance of 56.38 feet to a point; thence leaving said Southern line South 12 Degrees, 09 Minutes, 00 Seconds East, a distance of 443.92 feet to a point; thence South 77 Degrees, 51 Minutes, 01 Seconds West, a distance of 19.20 feet to a point on a curve; thence in a Westerly direction along a curve to the right having a radius of 325.00 feet, an arc length of 58.25 feet, the chord of which bears South 82 Degrees, 59 Minutes, 06 Seconds West, a chord distance of 58.18 feet to a point; thence South 88 Degrees, 07 Minutes, 12 Seconds West, a distance of 100.87 feet to a point of curve to the left having a radius of 425.00 feet, an arc length of 76.18 feet, the chord of which bears South 82 Degrees, 59 Minutes, 06 Seconds West, a chord distance of 76.08 feet to a point; thence South 77 Degrees, 51 Minutes, 00 Seconds West, a distance of 504.60 feet to and the beginning of a curve to the left, having a radius of 230.00 feet, an arc length of 30.48 feet, the chord of which bears South 74 Degrees, 03 Minutes, 15 Seconds West, a chord distance of 30.45 feet to a point the POINT OF BEGINNING and containing 440,568 square feet or 10.114 acres, more or less as per calculations by Stock & Associates Consulting Engineers, Inc. during February, 2018.

PROPOSED LOT B

A tract of land being part of U.S. Survey 102, Township 45 North, Range 3 East, City of Chesterfield, Saint Louis County, Missouri, and being more particularly described as follows:

COMMENCING at the Southwest corner of Lot 3 of the Nicholas Mueller Estate, a subdivision recorded in Plat Book 2, Page 25; thence South 12 degrees 07 minutes 26 seconds East, 34.58 feet to the Point of Beginning of the tract herein described; thence in a Northeasterly direction along a curve to the right, having a radius of 80.00 feet, an arc length of 49.06 feet, the chord of which bears North 60 Degrees, 16 Minutes, 53 Seconds East, a chord distance of 48.30 feet to a point; thence North 77 Degrees, 51 Minutes, 00 Seconds East, a distance of 35.96 feet; thence South 12 Degrees, 06 Minutes, 25 Seconds East, a distance of 239.87 feet to a point on the Northeasterly line of Chesterfield Airport Road, formerly U.S. Forty, thence in a Northwesterly direction along a curve to the right having a radius of 3,901.54 feet, an arc length of 114.13 feet, the chord of which bears North 58 Degrees, 00 Minutes, 03 Seconds West, a chord distance of 114.12 feet to a point; thence leaving said line North 12 Degrees, 07 Minutes, 26 Seconds West, a distance of 145.80 feet to the POINT OF BEGINNING and containing 16,220 square feet or 0.372 acres, more or less as per calculations by Stock & Associates Consulting Engineers, Inc. during February, 2018.

PROPOSED LOT C

A tract of land being part of Lot 3 of the Nicholas Mueller Estate in U.S. Survey 371, Township 45 North, Range 3 East, Saint Louis County, Missouri and being more particularly described as:

Commencing at the Southwest corner of Lot 3 of said Nicholas Mueller Estate, according to the plat thereof recorded in Plat Book 2 Page 25 of the Saint Louis County Records, said point being also a point in the South line of U.S. Survey 371 ; thence Northwardly along the West line of said Lot 3 North 12 degrees 15 minutes 59 seconds West, 823.42 feet to a point in the South line of State Highway 40 T.R. Relocation (I-64) as described in Cause No. 290860 of the Circuit Court of Saint Louis County, Missouri; thence Eastwardly along said last mentioned South line along a curve to the left having a radius of 3014.79 feet, an arc length of 682.52 feet, the chord of which bears South 77 degrees 28 minutes 50 seconds East, a chord distance of 681.06 feet to a point; thence South 83 degrees 57 minutes 58 seconds East, 122.31 feet to a point; thence North 12 degrees 08 minutes 58 seconds West, 10.53 feet to a point; thence South 83. Degrees 57 minutes 58 seconds East, 56.38 feet to the POINT OF BEGINNING of the tract herein described; thence continuing South 83 Degrees, 57 Minutes, 58 Seconds East, a distance of 716.22 feet to a point; thence leaving said line South 12 Degrees, 01 Minute, 29 Seconds East, a distance of 220.42 feet to a point thence South 77 Degrees, 51 Minutes, 00 Seconds West, a distance of 679.97 feet; thence North 12 Degrees, 09 Minutes, 00 Seconds West, a distance of 443.92 feet to the POINT OF BEGINNING and containing 225,974 square feet or 5.188 acres, more or less as per a survey by Stock & Associates Consulting Engineers, Inc. during February, 2018.

SURVEYOR'S CERTIFICATION

This is to certify that Stock and Associates Consulting Engineers, Inc. has prepared this Site Development Section Plan from a field survey and does not represent a property boundary 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

DANIEL EHLMANN, MISSOURI P.L.S. NO. 2215

ST. LOUIS COUNTY BENCHMARK

BENCHMARK# 11121 NGVD29 ELEV.=461.91
Standard DNR aluminum disk stamped SL-40A situated in a naturalized grass area south of the North Outer Forty Road at an approximate distance of 0.4 miles east of the intersection with Spirit of St Louis Boulevard north of Interstate Route I-64 (also known as Highway 40); roughly 24.5 feet south of the centerline of North Outer Forty Road, 13.7 feet south of the edge of pavement, and 5.3 feet south of a MSHTD witness post set in the line of a cable guard along the south side of North Outer Forty Road.

UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION, OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY WITH COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.

PREPARED FOR:

CHESTERFIELD HOCKEY ASSOCIATION, INC.
2199 INNERBELT BUSINESS CENTER
OVERLAND, MO 63114

THE STAENBERG GROUP
2127 INNERBELT BUSINESS CENTER DR.
SUITE 310
ST. LOUIS, MO 63114

PREPARED BY:

STOCK & ASSOCIATES Consulting Engineers, Inc.
257 Chesterfield Business Parkway
St. Louis, MO 63005
PH. (636) 530-9100
FX. (636) 530-9130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

SITE DEVELOPMENT SECTION PLAN FOR:
CHESTERFIELD ICE AND SPORTS COMPLEX
ORD. 2974, ZONED: PC
CHESTERFIELD, MISSOURI

DATE:

GEORGE MICHAEL STOCK NUMBER E-25116 PROFESSIONAL ENGINEER 6/29/18

GEORGE M. STOCK E-25116
CIVIL ENGINEER
CERTIFICATE OF AUTHORITY
NUMBER: 000996

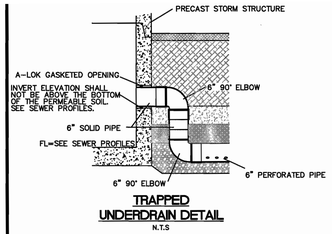
REVISIONS:

1	04-11-18 MEETING WITH CITY
2	04-23-18 CITY COMMENTS
3	05-21-18 CITY COMMENTS
4	06-22-18 CITY COMMENTS
5	06-26-18 CITY COMMENTS
6	06-29-18 PLANNING COMMISSION

DRAWN BY: A.L.W.	CHECKED BY: G.M.S.
DATE: 03/01/2018	JOB NO.: 215-5542.2
M.S.D. P#: –	BASE MAP #: 17W2
S.L.C. H&T #: –	H&T S.U.P. #: –
M.D.N.R. #: MO-00	

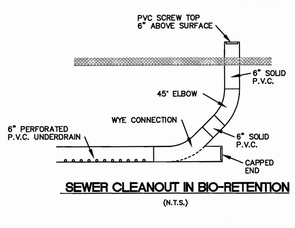
SHEET TITLE:
SITE DEVELOPMENT SECTION PLAN

SHEET NO.:
SDSP-1.0



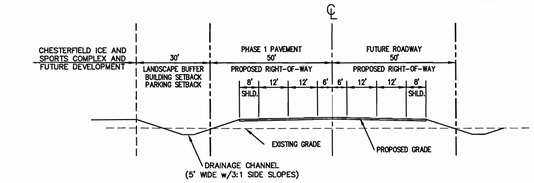
TRAPPED UNDERDRAIN DETAIL

N.T.S



SEWER CLEANOUT IN BIO-RETENTION

(N.T.S.)



TYPICAL SECTION

OLIVE STREET ROAD EXTENSION – ULTIMATE

SCALE: N.T.S.

Chesterfield Hockey, Inc., the owner under contract of the property shown on this plan for and in consideration of being granted approval of said plan to develop property under the provisions of

Section 03. , of City of Chesterfield

Unified Development Code, do hereby agree and declare that said property from the date of recording this plan shall be developed only as shown thereon, unless said plan is amended by the City of Chesterfield, or voided or vacated by order of ordinance of the City of Chesterfield Council.

by:_____

Chesterfield Hockey, Inc.

STATE OF MISSOURI)
) SS.
COUNTY OF ST. LOUIS)

On this _____ day of _____, A.D., 2018, before me personally appeared _____ (Officer of Corporation), to me known, who, being by me sworn in, did say that he/she is the _____ (Title) of _____ (Name of Corporation) a corporation in the State of _____, and that the seal affixed to the foregoing instruments is the corporate seal of said corporation, and that said instrument was signed on behalf of said corporation by authority of its Board of Directors, and the said _____ (Officer of Corporation) acknowledged said instrument to be the free act and deed of said corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Notarial Seal at my Office in _____ (County and State), the day and year last above written.

_____
Notary Public

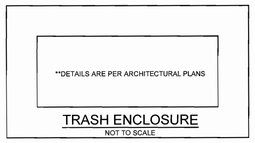
_____
Print Name

My commission expires:_____

This Site Development Section Plan was approved by the City of Chesterfield Planning Commission and duly verified on the _____ day of _____, 2018, by the CHairperson of said Commission, authorizing the recording of this Site Development Section Plan pursuant to Chesterfield Ordinance No. 200, as attested to by the Director of Planning and Development Services and the City Clerk.

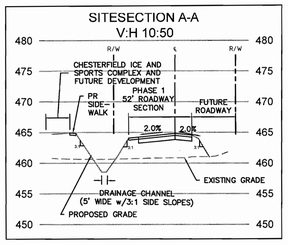
By: _____
Justin Wyse, Director of Planning and Development Services
City of Chesterfield, MO

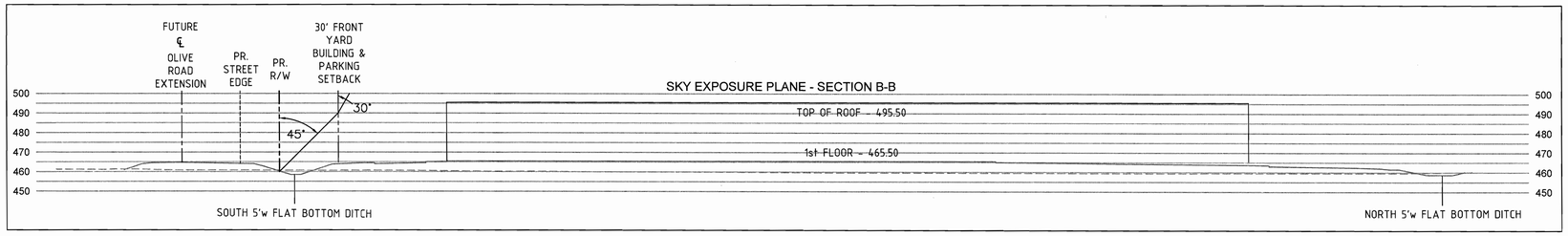
By: _____
Vickie Hass, City Clerk
City of Chesterfield, MO



TRASH ENCLOSURE

NOT TO SCALE





BILL NO. 3165 **ORDINANCE NO. 2974**

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF CHESTERFIELD BY CHANGING THE BOUNDARIES OF AN "M3" PLANNED INDUSTRIAL DISTRICT TO A "PC" PLANNED COMMERCIAL DISTRICT FOR A 17.85 ACRE TRACT OF LAND AT 18385 CHESTERFIELD AIRPORT ROAD, LOCATED NORTH OF CHESTERFIELD AIRPORT ROAD AND NORTHEAST OF ITS INTERSECTION WITH OLIVE STREET ROAD AND NORTHWEST OF ITS INTERSECTION WITH WINGS OF HOPE BOULEVARD. (P.Z. 09-2017 18385 CHESTERFIELD AIRPORT ROAD (CHESTERFIELD HOCKEY ASSOCIATION) 17W640080).

WHEREAS, the petitioner, Chesterfield Hockey Association, has requested a change in zoning from the "M3" Planned Industrial District to a "PC" Planned Commercial District for a 17.85 acre tract of land at 18385 Chesterfield Airport Road, located north of Chesterfield Airport Road and northeast of its intersection with Olive Street Road and northwest of its intersection with Wings of Hope Boulevard; and,

WHEREAS, a Public Hearing was held before the Planning Commission on July 10, 2017; and,

WHEREAS, the Planning Commission, having considered said request, recommended approval of the change of zoning with one amendment; and,

WHEREAS, the Planning and Public Works Committee, having considered said request, recommended approval of the change of zoning request with one amendment; and

WHEREAS, the City Council, having considered said request with one amendment by Planning and Public Works Committee, voted on September 18, 2017 to approve the change of zoning request with one amendment; and

WHEREAS, the City Attorney on September 18, 2017 has recommended one amendment; and

WHEREAS, the City Council, having considered said request with one amendment by the City Attorney voted on October 2, 2017 to approve the change of zoning request with one amendment.

NOW THEREFORE BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI, AS FOLLOWS:

Section 1. City of Chesterfield Unified Development Code and the Official Zoning District Map, which are part thereof, are hereby amended by establishing a "PC" Planned Commercial District for a 17.85 acre tract of land located at 18385 Chesterfield Airport Road and as described as follows:

A TRACT OF LAND BEING PART OF LOT 3 OF THE "NICHOLAS MUELLER ESTATE" AS RECORDED IN PLAT BOOK 2, PAGE 25 AND LOCATED IN U.S. SURVEY 371 AND PART OF U.S. SURVEY 102, TOWNSHIP 45 NORTH, RANGE 3 EAST OF THE 5TH PRINCIPAL MERIDIAN, CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A STONE IN THE SOUTH LINE OF LOT 3 OF THE NICHOLAS MUELLER ESTATE, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 2 PAGE 25 OF THE SAINT LOUIS COUNTY RECORDS, SAID POINT BEING THE SOUTHEAST CORNER OF PROPERTY CONVEYED TO GENEVIEVE E. SCHNARR, NORTH 12 DEGREES 15 MINUTES 59 SECONDS WEST, 823.42 FEET TO AN IRON ROD IN THE SOUTHERN LINE OF STATE HIGHWAY 40 (NOW KNOWN AS I-64) AS DESCRIBED IN CAUSE NO. 290860 OF THE CIRCUIT COURT OF SAINT LOUIS COUNTY, MISSOURI AND RECORDED IN DEED BOOK 6343, PAGE 824; THENCE ALONG SAID SOUTHERN LINE THE FOLLOWING: IN AN EASTERLY DIRECTION ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 3014.79 FEET, AN ARC LENGTH OF 682.52 FEET, THE CHORD OF WHICH BEARS SOUTH 77 DEGREES 28 MINUTES 50 SECONDS EAST, A CHORD DISTANCE OF 681.06 FEET TO AN IRON ROD; THENCE SOUTH 83 DEGREES 57 MINUTES 58 SECONDS EAST, 122.32 FEET TO AN IRON ROD; THENCE NORTH 12 DEGREES 11 MINUTES 22 SECONDS WEST, 10.53 FEET TO AN IRON ROD; THENCE SOUTH 83 DEGREES 57 MINUTES 58 SECONDS EAST, 722.60 FEET TO AN IRON ROD; THENCE LEAVING SAID SOUTHERN LINE SOUTH 12 DEGREES 01 MINUTES 29 SECONDS EAST, 270.42 FEET TO A POINT ON THE AFORESAID SOUTH LINE OF LOT 3; THENCE ALONG SAID SOUTH LINE OF LOT 3 SOUTH 77 DEGREES 51 MINUTES 00 SECONDS WEST, 1384.86 FEET TO A POINT; THENCE LEAVING SAID SOUTH LINE OF LOT 3 SOUTH 12 DEGREES 06 MINUTES 25 SECONDS EAST, 259.87 FEET TO AN IRON ROD ON THE NORTHERN LINE OF CHESTERFIELD AIRPORT ROAD, FORMERLY STATE HIGHWAY 40 T.R.; THENCE ALONG SAID NORTHERN LINE IN A WESTERLY DIRECTION ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 3901.54 FEET AN ARC LENGTH OF 114.13 FEET, THE CHORD OF WHICH BEARS NORTH 58 DEGREES 00 MINUTES 03 SECONDS WEST, A CHORD DISTANCE OF 114.12 FEET TO AN IRON ROD; THENCE LEAVING SAID NORTHERN LINE NORTH 12 DEGREES 07 MINUTES 26 SECONDS WEST, 180.38 FEET TO A POINT OF BEGINNING AND CONTAINING 777,604 SQUARE FEET OR 17.851 ACRES MORE OR LESS AS PER A SURVEY BY STOCK & ASSOCIATES CONSULTING ENGINEERS, INC. DURING THE MONTH OF APRIL 2017.

Section 2. The preliminary approval, pursuant to the City of Chesterfield Unified Development Code, is granted subject to all of the ordinances, rules and regulations and the specific conditions as recommended by the Planning Commission in its recommendation to the City Council, which are set out in the "Attachment A" and the preliminary plan indicated as "Attachment B" which is attached hereto as and made part of.

Section 3. The City Council, pursuant to the petition filed by Chesterfield Hockey Association in P.Z. 09-2017, requesting the amendment embodied in this ordinance, and pursuant to the recommendation of the City of Chesterfield Planning Commission that said petition be granted and after a public hearing, held by the Planning Commission on the 10th day of July 2017, does hereby adopt this ordinance pursuant to the power granted to the City of Chesterfield under Chapter 89 of the Revised Statutes of the State of Missouri authorizing the City Council to exercise legislative power pertaining to planning and zoning.

Section 4. This ordinance and the requirements thereof are exempt from the warning and summons for violations as set out in Section 8 of the City of Chesterfield Unified Development Code.

Section 5. This ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this 2nd day of October, 2017.

Bob Nation
PRESIDING OFFICER

Bob Nation
Bob Nation, MAYOR

ATTEST:

Vickie Hass
Vickie Hass, CITY CLERK

FIRST READING HELD: 9/18/2017

ATTACHMENT A

All provisions of the City of Chesterfield City Code shall apply to this development except as specifically modified herein.

I. SPECIFIC CRITERIA

A. PERMITTED USES

1. The uses allowed in this "PC" Planned Commercial District shall be:
   a. Animal grooming service
   b. Art gallery
   c. Art studio
   d. Auditorium
   e. Bakery
   f. Banquet facility
   g. Bar
   h. Barber- or beauty shop
   i. Bowling center
   j. Brewpub
   k. Coffee shop
   l. College/university
   m. Drugstore and pharmacy
   n. Dry-cleaning establishment
   o. Financial institution, no drive-through
   p. Grocery, community
   q. Grocery, neighborhood
   r. Laundromat

   s. Office – dental
   t. Office – general
   u. Office – medical
   v. Recreation facility
   w. Restaurant-fast-food
   x. Restaurant-sit-down
   y. Restaurant-take-out
   z. Retail sales establishment-community
   aa. Retail sales establishment-neighborhood
   bb. Self-storage facility
   cc. Specialized private school
   dd. Theater, indoor
   ee. Theater, outdoor
   ff. Veterinary clinic
   gg. Vocational school
   hh. Vocational school with outdoor training
   ii. Warehousc, general
2. All outdoor storage and / or outdoor sales activity shall be prohibited within this development.
3. All drive through uscs shall be prohibited within this development.
4. Hours of Operation.
   a. Uscs "m", "p", "q", "z", and "aa" listed above are considered retail uscs and retail sales, with respect to those uses, will be subject to hours of operation from 6:00 AM to 11:00 PM. Hours of operation for said uses may be expanded for Thanksgiving Day and the day after Thanksgiving upon review and approval of a Special Activities Permit, signed by the property owner and submitted to the City of Chesterfield at least seven (7) business days in advance of said holiday.

B. FLOOR AREA, HEIGHT, BUILDING AND PARKING STRUCTURE REQUIREMENTS

1. Height
   a. The maximum height of the building, exclusive of roof screening, shall not exceed forty-five (45) feet.
2. Building Requirements
   a. A minimum of thirty-five percent (35%) openspace is required for each lot within this development.
   b. This development shall have a maximum F.A.R. of 0.55.

C. SETBACKS

1. Structure Setbacks

   No building or structure, other than: a freestanding project identification sign, light standards, or flag poles will be located within the following setbacks:
   a. Thirty (30) feet from the southern boundary of this district.
   b. Thirty (30) feet from the northern boundary of this district.
   c. Thirty (30) feet from the eastern boundary of this district.
   d. Ten (10) feet from the western boundary of this district.
   e. Ten (10) feet from the interior boundary lines within this district.
2. Parking Setbacks

   No parking stall, loading space, internal driveway, or roadway, except points of ingress or egress, will be located within the following setbacks:
   a. Thirty (30) feet from the southern boundary of this district.
   b. Thirty (30) feet from the northern boundary of this district.
   c. Thirty (30) feet from the eastern boundary of this district.

   d. Ten (10) feet from the western boundary of this district.
   e. Zero (0) feet from the interior boundary lines within this district.

D. PARKING AND LOADING REQUIREMENTS

1. Parking and loading spaces for this development will be as required in the City of Chesterfield Code.
2. No construction related parking shall be permitted within right of way or any existing roadways. All construction related parking shall be confined to the development.
3. Parking lots shall not be used as streets.

E. LANDSCAPE AND TREE REQUIREMENTS

The development shall adhere to the Landscape and Tree Preservation Requirements of the City of Chesterfield Code.

F. SIGN REQUIREMENTS

1. Signs shall be permitted in accordance with the regulations of the City of Chesterfield Code or a Sign Package may be submitted for the planned district. Sign Packages shall adhere to the City Code.
2. Ornamental Entrance Monument construction, if proposed, shall be reviewed by the City of Chesterfield, and/or the St. Louis County Department of Transportation (or MoDOT), for sight distance considerations prior to installation or construction.

G. LIGHT REQUIREMENTS

1. Provide a lighting plan and cut sheet in accordance with the City of Chesterfield Code.
2. Street lights shall be provided along the proposed Olive Street Road in accordance with the City of Chesterfield Unified Development Code and as directed by the City of Chesterfield.

H. ARCHITECTURAL

1. The development shall adhere to the Architectural Review Standards of the City of Chesterfield Unified Development Code.

2. Trash enclosures: All exterior trash areas will be enclosed with a minimum six (6) foot high sight-proof enclosure complemented by adequate landscaping. The location, material, and elevation of any trash enclosures will be as approved by the City of Chesterfield on the Site Development Plan.

I. ACCESS/ACCESS MANAGEMENT

1. Access to the development shall be as shown on the Preliminary Site Plan attached hereto as Attachment "B" and adequate sight distance shall be provided, as directed by the City of Chesterfield, the Missouri Department of Transportation and St. Louis County Department of Transportation, as applicable.
2. If adequate sight distance cannot be provided at the access location(s), acquisition of right of way, reconstruction of pavement and other off-site improvements may be required to provide the required sight distance as required by the City of Chesterfield and the agency in control of the right of way off which the access is proposed.
3. Access to this development from Chesterfield Airport Road shall be as directed by the Saint Louis County Department of Transportation. Cross-access easements shall be provided as necessary to allow for access through the adjacent property to Chesterfield Airport Road.
4. Provide cross-access easements as needed to the parcels to the south, east, and to the west as directed by the City of Chesterfield.
5. If any public roads are proposed within this development, the roads shall be designed to meet the current American Association of State and Highway Transportation Officials (AASHTO) Manual requirements and as directed by the Saint Louis County Department of Transportation.
6. Installation of landscaping and ornamental entrance monument or identification signage construction shall be reviewed by the Saint Louis County Department of Transportation for sight distance consideration and approved prior to installation or construction.
7. Upon connection of the Olive Street Road extension from Chesterfield Airport Road to the west, to Spirit of St. Louis Blvd to the east, the interim access road connecting to the development to the south shall be restricted at either its northern (south side of the new Olive Street Road extension) or southern (north side of Chesterfield Airport Road) access point.

J. PUBLIC/PRIVATE ROAD IMPROVEMENTS, INCLUDING PEDESTRIAN CIRCULATION

1. Any request to install a gate at the entrance to this development must be approved by the City of Chesterfield and the agency in control of the right of way off of which the entrance is constructed. No gate installation will be permitted on public right of way.
2. If a gate is installed on a street in this development, the streets within the development, or that portion of the development that is gated, shall be private and remain private forever.
3. Provide street connections to the adjoining properties as directed by the City of Chesterfield. Stub street signage, in conformance with Article 04-09 of the Unified Development Code of the City of Chesterfield, shall be posted within thirty (30) days of the street pavement being placed.
4. Provide a five (5) foot wide sidewalk, conforming to ADA standards, along all frontages of the site. The sidewalk shall provide for future connectivity to adjacent developments and/or roadway projects. The sidewalk may be located within right of way controlled by another agency, if permitted by that agency or on private property within a six (6) foot wide sidewalk, maintenance and utility easement dedicated to the City of Chesterfield.
5. Obtain approvals from the City of Chesterfield, St. Louis County Department of Transportation, and the Missouri Department of Transportation and other entities as necessary for locations of proposed curb cuts and access points, areas of new dedication, and roadway improvements.
6. Additional right of way and road improvements shall be provided, as required by the Missouri Department of Transportation, St. Louis County Department of Transportation, and the City of Chesterfield.
7. Any work within MoDOT's right of way will require a MoDOT permit.
8. The petitioner shall provide adequate detention and / or hydraulic calculations for review and approval of all storm water that will affect MoDOT right of way.

9. All proposed work in MoDOT right of way must comply with MoDOT standards, specifications, conform to MoDOT's Access Management Guidelines with detailed construction plans being received and approved by MoDOT.
10. Due to the close proximity to Interstate 64, sound mitigation is the responsibility of the owner/developer. MoDOT will not provide any noise mitigation measures for this development.
11. Prior to Special Use Permit issuance by the Saint Louis County Department of Transportation, a special cash escrow or a special escrow supported by an Irrevocable Letter of Credit, must be established with the Saint Louis County Department of Transportation to guarantee completion of the required roadway improvements.
12. Provide adequate temporary off-street parking for construction employees. Parking on non-surfaced areas shall be prohibited in order to eliminate the condition whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driving conditions.
13. The Olive Street Road extension shall be extended throughout the property as directed by the City of Chesterfield and Saint Louis County Department of Transportation. The typical section of the roadway to be constructed or escrowed, as directed by the Saint Louis County Department of Transportation, shall closely follow the Saint Louis County Standard Drawing C203.68. The right-of-way dedicated shall reflect the potential for a five (5) lane expansion per St. Louis County Standard Drawing C203.66 along with any easement required for future traffic control installations.

K. TRAFFIC STUDY

1. Provide a traffic study as directed by the City of Chesterfield and/or St. Louis County Department of Transportation. The developer's additional road improvement obligation and traffic signal improvements shall be as determined by the approved study. The scope of the study shall include internal and external circulation and may be limited to site specific impacts, such as the need for additional lanes, entrance configuration, geometrics, sight distance, traffic signal modifications or other improvements required, as long as the density of the proposed development falls within the parameters of the City's traffic model. Should the density be other than the density

PREPARED FOR:
CHESTERFIELD HOCKEY ASSOCIATION, INC.
2199 INNERBELT BUSINESS CENTER
OVERLAND, MO 63114

THE STAENBERG GROUP
2127 INNERBELT BUSINESS CENTER DR.
SUITE 310
ST. LOUIS, MO 63114

PREPARED BY:
STOCK & ASSOCIATES Consulting Engineers, Inc.
2257 Chesterfield Business Parkway
St. Louis, MO 63005
PH. (636) 530-9100
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e-mail: general@stockassoc.com
Web: www.stockassoc.com

SITE DEVELOPMENT SECTION PLAN FOR:
CHESTERFIELD ICE AND SPORTS COMPLEX
ORD. 2974, ZONED: PC
CHESTERFIELD, MISSOURI

DATE:

GEORGE M. STOCK E-25116
CIVIL ENGINEER
CERTIFICATE OF AUTHORITY NUMBER: 000996

REVISIONS:

1	04–11–18 MEETING WITH CITY
2	04–23–18 CITY COMMENTS
3	05–21–18 CITY COMMENTS
4	06–22–18 CITY COMMENTS
5	06–26–18 CITY COMMENTS
6	06–29–18 PLANNING COMMISSION

DRAWN BY: A.L.W.	CHECKED BY: G.M.S.
DATE: 03/01/2018	JOB NO. 215–5542.2
M.S.D. P# –	BASE MAP # 17W2
S.L.C. PAT # –	PAT SUP. # –
M.D.N.R. # MO–00	

SHEET TITLE:

DETAILS & ORDINANCE

SHEET NO.:

SDSP-2.0

assumed in the model, regional issues shall be addressed as directed by the City of Chesterfield.

2. Provide a sight distance evaluation report, as required by the City of Chesterfield, for the proposed entrance onto public right of way. If adequate sight distance cannot be provided at the access location, acquisition of right of way, reconstruction of pavement, including correction to the vertical alignment, and/or other off-site improvements shall be required, as directed by the City of Chesterfield and/or the Missouri Department of Transportation.

L. POWER OF REVIEW

Either Councilmember of the Ward where a development is proposed or the Mayor may request that the plan for a development be reviewed and approved by the entire City Council. This request must be made no later than twenty-four (24) hours after Planning Commission review. The City Council will then take appropriate action relative to the proposal. The plan for a development, for purposes of this section, may include the site development plan, site development section plan, site development concept plan, landscape plan, lighting plans, architectural elevations, sign package or any amendment thereto.

M. STORM WATER

1. The site shall provide for the positive drainage of storm water and it shall be discharged at an adequate natural discharge point or connected to an adequate piped system.

2. Detention/retention and channel protection measures are to be provided in each watershed as required by the City of Chesterfield. The storm water management facilities shall be operational prior to paving of any driveways or parking areas in non-residential development or issuance of building permits exceeding sixty percent (60%) of approved dwelling units in each plat, watershed or phase of residential developments. The location and types of storm water management facilities shall be identified on the Site Development Plan(s).

3. Emergency overflow drainage ways to accommodate runoff from the 100-year storm event shall be provided for all storm sewers, as directed by the City of Chesterfield.

4. Offsite storm water shall be picked up and piped to an adequate natural discharge point. Such bypass systems must be adequately designed.

5. The lowest opening of all structures shall be set at least two (2) feet higher than the one hundred (100) year high water elevation in detention/retention facilities. All structures shall be set at least thirty (30) feet horizontally from the limits of the one hundred (100) year high water.

6. Locations of site features such as lakes and detention ponds must be approved by the City of Chesterfield and the Metropolitan St. Louis Sewer District.

7. The developer shall be responsible for construction of any required storm water improvements per the Chesterfield Valley Master Storm Water Plan, as applicable, and shall coordinate with the owners of the properties affected by construction of the required improvements. In the event that the ultimate required improvements cannot be constructed concurrently with this development, the developer shall provide interim drainage facilities and establish sufficient escrows as guarantee of future construction of the required improvements, including removal of interim facilities. Interim facilities shall be sized to handle runoff from the 100-year, 24-hour storm event as produced by the Master Storm Water Plan model. The interim facilities shall provide positive drainage and may include a temporary pump station, if necessary. Interim facilities shall be removed promptly after the permanent storm water improvements are constructed.

8. The developer may elect to propose alternate geometry, size and/or type of storm water improvements that are functionally equivalent to the required improvements per the Chesterfield Valley Master Storm Water Plan. Functional equivalence is said to be achieved when, as determined by the Director of Public Works, the alternate proposal provides the same hydraulic function, connectivity, and system-wide benefits without adversely affecting any of the following: water surface profiles at any location outside the development; future capital expenditures; maintenance obligations; equipment needs; frequency of maintenance; and probability of malfunction. The City will consider, but is not obligated to accept, the developer's alternate plans. If the Director of Public Works determines that the developer's proposal may be functionally equivalent to the Chesterfield Valley Master Storm Water Plan improvements, hydraulic routing calculations will be performed to make a final determination of

functional equivalence. The Director will consider the developer's proposal, but is not obligated to have the hydraulic analysis performed if any of the other criteria regarding functional equivalence will not be met. The hydraulic routing calculations regarding functional equivalence may be performed by a consultant retained by the City of Chesterfield. The developer shall be responsible for all costs related to consideration of an alternate proposal, which shall include any costs related to work performed by the consultant.

9. The developer shall provide all necessary Chesterfield Valley Storm Water Easements to accommodate future construction of the Chesterfield Valley Master Storm Water Plan improvements, and depict any and all Chesterfield Valley Master Storm Water Plan improvements on the Site Development Plan(s) and Improvement Plans. Maintenance of the required storm water improvements shall be the responsibility of the property owner unless otherwise noted.

10. All Chesterfield Valley Master Storm Water Plan improvements, as applicable, shall be operational prior to the paving of any driveways or parking areas unless otherwise approved.

11. The proposed development is within 1,000 feet of the levee. Design plans and construction documents shall be submitted to the Monarch-Chesterfield Levee District for review. All site improvements are subject to review and approval by the St. Louis District Corps of Engineers. That determination is made by the Corps of Engineers.

12. Formal MSD review, approval, and permits are required prior to construction. Approval from the Monarch Chesterfield Levee District indicating that the final plans conform to their master conveyance plan will be required prior to formal MSD plan approval.

13. Post Construction Best Management Practices (BMPs) are required to treat the extents of the project's disturbed area. Areas appear to be identified on the plan for BMPs, however the actual types of BMPs to be utilized are not indicated. As a new development site, BMPs with a volume reduction component (such as bioretention, pervious pavements, etc.) are necessary. It is recommended that geotechnical investigation be conducted in order to determine the depth to the seasonal high water table and alluvial sand layer, as these two factors will influence BMP design and performance. MSD will review and comment on the details of these facilities during formal plan review.

14. The project is located within the Caulks Creek Impact area, and subject to the Caulks Creek Surcharge. The surcharge will be assessed and collected during formal plan review.

N. SANITARY SEWER

1. Sanitary Sewers shall be as approved by the City of Chesterfield and the Metropolitan St. Louis Sewer District.

2. Sanitary service is shown on the plan and is proposed to connect to the Valley Village Pump Station. That pump station's capacity will need to be evaluated by the developer's engineering consultant during formal plan review to assess its ability to accommodate this development as well as the properties it already serves. Upgrades to the pump station and/or additional storage will be required if the development cannot be served within its current level of service. Additional offsite easements may be necessary if warranted improvements cannot be accomplished within the limits of existing easements.

O. GEOTECHNICAL REPORT

Prior to Site Development Plan approval, provide a geotechnical report, prepared by a registered professional engineer licensed to practice in the State of Missouri, as directed by the City of Chesterfield. The report shall verify the suitability of grading and proposed improvements with soil and geologic conditions and address the existence of any potential sinkhole, ponds, dams, septic fields, etc., and recommendations for treatment. A statement of compliance, signed and sealed by the geotechnical engineer preparing the report, shall be included on all Site Development Plans and Improvement Plans.

P. MISCELLANEOUS

1. All utilities will be installed underground.

2. Public art work shall be provided and installed by the Developer in this development. General areas where public art may be placed shall be indicated on the appropriate Site Development Plan. The specific details for the public art, such as location, size, placement, type, etc., shall be approved by the City of Chesterfield.

3. An opportunity for recycling will be provided. All provisions of Chapter 25, Article VII, and Section 25-122 thru Section 25-126 of the City Code shall be required where applicable.

4. Road improvements and right of way dedication shall be completed prior to the issuance of an occupancy permit. If development phasing is anticipated, the developer shall complete road improvements, right of way dedication, and access requirements for each phase of development as directed by the City of Chesterfield and Saint Louis County Department of Transportation. Delays due to utility relocation and adjustments will not constitute a cause to allow occupancy prior to completion of road improvements.

5. Prior to record plat approval, the developer shall cause, at his expense and prior to the recording of any plat, the reestablishment, restoration or appropriate witnessing of all Corners of the United States Public Land Survey located within, or which define or lie upon, the out boundaries of the subject tract in accordance with the Missouri Minimum Standards relating to the preservation and maintenance of the United States Public Land Survey Corners, as necessary.

6. Prior to final release of subdivision construction deposits, the developer shall provide certification by a registered land surveyor that all monumentation depicted on the record plat has been installed and United States Public Land Survey Corners have not been disturbed during construction activities or that they have been reestablished and the appropriate documents filed with the Missouri Department of Natural Resources Land Survey Program, as necessary.

7. If any development in, or alteration of, the floodplain is proposed, the developer shall submit a Floodplain Study and Floodplain Development Permit/Application to the City of Chesterfield for approval. The Floodplain Study must be approved by the City of Chesterfield prior to the approval of the Site Development Plan, as directed. The Floodplain Development Permit must be approved prior to the approval of a grading permit or improvement plans. If any change in the location of the Special Flood Hazard Area is proposed, the Developer shall be required to obtain a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency. The LOMR must be issued by FEMA prior to the final release of any escrow held by the City of Chesterfield for improvements in the development. Elevation Certificates will be required for any structures within the Special Flood Hazard Area or the Supplemental Protection Area. All new roads within and adjacent to this site shall be constructed at least one (1) foot above the base flood elevation of the Special Flood Hazard Area. Improvements to existing roadways shall be required as necessary to provide at least one access route to each lot that is at

least one (1) foot above the base flood elevation. Consult Article 5 of the Unified Development Code for specific requirements.

8. Streetlights shall be required along public right of way frontage.

9. The developer is advised that utility companies will require compensation for relocation of their facilities within public road right-of-way. Utility relocation cost shall not be considered as an allowable credit against the petitioner's traffic generation assessment contributions. The developer should also be aware of extensive delays in utility company relocation and adjustments. Such delays will not constitute a cause to allow occupancy prior to completion of road improvements.

II. TIME PERIOD FOR SUBMITTAL OF SITE DEVELOPMENT CONCEPT PLANS AND SITE DEVELOPMENT PLANS

A. The developer shall submit a concept plan within eighteen (18) months of City Council approval of the change of zoning.

B. In lieu of submitting a Site Development Concept Plan and Site Development Section Plans, the petitioner may submit a Site Development Plan for the entire development within eighteen (18) months of the date of approval of the change of zoning by the City.

C. Failure to comply with these submittal requirements will result in the expiration of the change of zoning and will require a new public hearing.

D. Said Plan shall be submitted in accordance with the combined requirements for Site Development Section and Concept Plans. The submission of Amended Site Development Plans by sections of this project to the Planning Commission shall be permitted if this option is utilized.

E. Where due cause is shown by the developer, the City Council may extend the period to submit a Site Development Concept Plan or Site Development Plan for eighteen (18) months.

III. COMMENCEMENT OF CONSTRUCTION

A. Substantial construction shall commence within two (2) years of approval of the Site Development Concept Plan or Site Development Plan, unless otherwise authorized by ordinance.

B. Where due cause is shown by the developer, the City Council may extend the period to commence construction for two (2) additional years.

IV. GENERAL CRITERIA

A. SITE DEVELOPMENT CONCEPT PLAN

1. Any Site Development Concept Plan shall show all information required on a preliminary plat as required in the City of Chesterfield Code.

2. Include a Conceptual Landscape Plan in accordance with the City of Chesterfield Code to indicate proposed landscaping along arterial and collector roadways.

3. Include a Lighting Plan in accordance with the City of Chesterfield Code to indicate proposed lighting along arterial collector roadways.

4. Provide comments/approvals from the appropriate Fire District, the St. Louis County Department of Transportation, Monarch Chesterfield Levee District, Spirit of St. Louis Airport and the Missouri Department of Transportation.

5. Compliance with the current Metropolitan St. Louis Sewer District Site Guidance as adopted by the City of Chesterfield.

B. SITE DEVELOPMENT PLAN SUBMITTAL REQUIREMENTS

The Site Development Plan shall include, but not be limited to, the following:

1. Location map, north arrow, and plan scale. The scale shall be no greater than one (1) inch equals one hundred (100) feet.

2. Outboundary plat and legal description of property.

3. Density calculations.

4. Parking calculations. Including calculation for all off street parking spaces, required and proposed, and the number, size and location for handicap designed.

5. Provide openspace percentage for overall development including separate percentage for each lot on the plan.

6. Provide Floor Area Ratio (F.A.R.).

7. A note indicating all utilities will be installed underground.

8. A note indicating signage approval is separate process.

9. Depict the location of all buildings, size, including height and distance from adjacent property lines, and proposed use.

10. Specific structure and parking setbacks along all roadways and property lines.

11. Indicate location of all existing and proposed freestanding monument signs.

12. Zoning district lines, subdivision name, lot number, dimensions, and area, and zoning of adjacent parcels where different than site.

13. Floodplain boundaries.

14. Depict existing and proposed improvements within 150 feet of the site as directed. Improvements include, but are not limited to, roadways, driveways and walkways adjacent to and across the street from the site, significant natural features, such as wooded areas and rock formations, and other karst features that are to remain or be removed.

15. Depict all existing and proposed easements and rights-of-way within 150 feet of the site and all existing or proposed off-site easements and rights-of-way required for proposed improvements.

16. Indicate the location of the proposed storm sewers, detention basins, sanitary sewers and connection(s) to the existing systems.

17. Depict existing and proposed contours at intervals of not more than one (1) foot, and extending 150 feet beyond the limits of the site as directed.

18. Address trees and landscaping in accordance with the City of Chesterfield Code.

19. Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Regulations per the City of Chesterfield Code.

20. Signed and sealed in conformance with the State of Missouri Department of Economic Development, Division of Professional Registration, Missouri Board for Architects, Professional Engineers and Land Surveyors requirements.

21. Provide comments/approvals from the appropriate Fire District, Monarch Levee District, Spirit of St. Louis Airport, Metropolitan St. Louis Sewer District (MSD) and the Missouri Department of Transportation.

22. Compliance with Sky Exposure Plane.

23. Compliance with the current Metropolitan St. Louis Sewer District Site Guidance as adopted by the City of Chesterfield.

C. SITE DEVELOPMENT SECTION PLAN SUBMITTAL REQUIREMENTS

The Site Development Section Plan shall adhere to the above criteria and to the following:

1. Location map, north arrow, and plan scale. The scale shall be no greater than one (1) inch equals one hundred (100) feet.

2. Parking calculations. Including calculation for all off street parking spaces, required and proposed, and the number, size and location for handicap designed.

3. Provide openspace percentage for overall development including separate percentage for each lot on the plan.

4. Provide Floor Area Ratio (F.A.R.).

5. A note indicating all utilities will be installed underground.

6. A note indicating signage approval is separate process.

7. Depict the location of all buildings, size, including height and distance from adjacent property lines and proposed use.

8. Specific structure and parking setbacks along all roadways and property lines.

9. Indicate location of all existing and proposed freestanding monument signs.

10. Zoning district lines, subdivision name, lot number, lot dimensions, lot area, and zoning of adjacent parcels where different than site.

11. Floodplain boundaries.

12. Depict existing and proposed improvements within 150 feet of the site as directed. Improvements include, but are not limited to, roadways, driveways and walkways adjacent to and across the street from the site, significant natural features, such as wooded areas and rock formations, and other karst features that are to remain or be removed.

13. Depict all existing and proposed easements and rights-of-way within 150 feet of the site and all existing or proposed off-site easements and rights-of-way required for proposed improvements.

14. Indicate the location of the proposed storm sewers, detention basins, sanitary sewers and connection(s) to the existing systems.

15. Depict existing and proposed contours at intervals of not more than one (1) foot, and extending 150 feet beyond the limits of the site as directed.

16. Address trees and landscaping in accordance with the City of Chesterfield Code.

17. Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Regulations per the City of Chesterfield Code.

18. Signed and sealed in conformance with the State of Missouri Department of Economic Development, Division of Professional Registration, Missouri Board for Architects, Professional Engineers and Land Surveyors requirements.

19. Provide comments/approvals from the appropriate Fire District, Monarch Levee District, Spirit of St. Louis Airport, St. Louis Department of Highways and Traffic, Metropolitan St. Louis Sewer District (MSD) and the Missouri Department of Transportation.

20. Compliance with Sky Exposure Plane.

21. Compliance with the current Metropolitan St. Louis Sewer District Site Guidance as adopted by the City of Chesterfield.

V. TRUST FUND CONTRIBUTION

A. The developer shall be required to contribute a Traffic Generation Assessment contribution to the Chesterfield Valley Trust Fund (No. 556).

This contribution shall not exceed an amount established by multiplying the required parking spaces by the following rate schedule:

Type of Development	Required Contribution
Recreational Uses	$524.92/parking space
General Office	$759.58/parking space
General Retail	$2,278/parking space

If types of development differ from those listed, St. Louis County Department of Transportation will provide rates.

If a portion of the improvements required herein are needed to provide for the safety of the traveling public, their completion as a part of this development is mandatory.

Allowable credits for required roadway improvements will be awarded as directed by the St. Louis County Department of Transportation and the City of Chesterfield. Sidewalk construction and utility relocation, among other items, are not considered allowable credits.

B. As this development is located within a trust fund area established by Saint Louis County, any portion of the traffic generation assessment contribution which remains following completion of road improvements required by the development shall be retained in the appropriate trust fund.

C. Road Improvement Traffic Generation Assessment contributions shall be deposited with Saint Louis County Department of Transportation. The deposit shall be made prior to the issuance of a Special Use Permit (S.U.P.) by Saint Louis County Department of Transportation or prior to the issuance of building permits in the case where no Special Use Permit is required. If development phasing is anticipated, the developer shall provide the Traffic Generation Assessment contribution prior to the issuance of building permits for each phase of development. Funds shall be payable to Treasurer, Saint Louis County.

D. The amount of all required contributions for roadway, storm water and primary water line improvements, if not submitted by January 1, 2018, shall be adjusted on that date and on the first day of January in each succeeding year thereafter in accordance with the construction cost index as determined by the Saint Louis County Department of Transportation.

E. WATER MAIN

The primary water line contribution is based on gross acreage of the development land area. The contribution shall be a sum of $916.54 per acre for the total area as approved on the Site Development Plan to be used solely to help defray the cost of constructing the primary water line serving the Chesterfield Valley area.

The primary water line contribution shall be deposited with the Saint Louis County Department of Transportation. The deposit shall be made before Saint Louis County approval of the Site Development Plan unless otherwise directed by the Saint Louis County Department of Transportation. Funds shall be payable to Treasurer, Saint Louis County.

F. STORM WATER

The storm water contribution is based on gross acreage of the development land area. These funds are necessary to help defray the cost of engineering and construction improvements for the collection and disposal of storm water from the Chesterfield Valley in accordance with the Master Plan on file with and jointly approved by Saint Louis County and the Metropolitan St. Louis Sewer District. The amount of the storm water contribution will be computed based on $2,907.99 per acre for the total area as approved on the Site Development Plan.

The storm water contributions to the Trust Fund shall be deposited with the Saint Louis County Department of Transportation. The deposit shall be made prior to the issuance of a Special Use Permit (S.U.P.) by Saint Louis County Department of Transportation or prior to the issuance of building permits in the case where no Special Use Permit is required. Funds shall be payable to Treasurer, Saint Louis County.

G. SANITARY SEWER

1. The sanitary sewer contribution is collected as the Caulks Creek impact fee.

2. The sanitary sewer contribution within Chesterfield Valley area shall be deposited with the Metropolitan St. Louis Sewer District as required by the District.

H. RECORDING

Within sixty (60) days of approval of any development plan by the City of Chesterfield, the approved Plan will be recorded with the St. Louis County

Recorder of Deeds. Failure to do so will result in the expiration of approval of said plan and require re-approval of a plan by the Planning Commission.

I. ENFORCEMENT

1. The City of Chesterfield, Missouri will enforce the conditions of this ordinance in accordance with the Plan approved by the City of Chesterfield and the terms of this Attachment A.

2. Failure to comply with any or all the conditions of this ordinance will be adequate cause for revocation of approvals/permits by reviewing Departments and Commissions.

3. Non-compliance with the specific requirements and conditions set forth in this Ordinance and its attached conditions or other Ordinances of the City of Chesterfield shall constitute an ordinance violation, subject, but not limited to, the penalty provisions as set forth in the City of Chesterfield Code.

4. Waiver of Notice of Violation per the City of Chesterfield Code.

5. This document shall be read as a whole and any inconsistency to be integrated to carry out the overall intent of this Attachment A.

PREPARED FOR:

CHESTERFIELD HOCKEY ASSOCIATION, INC.
2199 INNERBELT BUSINESS CENTER
OVERLAND, MO 63114

THE STAENBERG GROUP
2127 INNERBELT BUSINESS CENTER DR.
SUITE 310
ST. LOUIS, MO 63114

PREPARED BY:
STOCK & ASSOCIATES
Consulting Engineers, Inc.
257 Chesterfield Business Parkway
St. Louis, MO 63005
PH (636) 530-9100
FAX (636) 530-9130
e-mail: generic@stockassoc.com
Web: www.stockassoc.com

SITE DEVELOPMENT SECTION PLAN FOR:
CHESTERFIELD ICE AND SPORTS COMPLEX
ORD. 2974, ZONED: PC
CHESTERFIELD, MISSOURI

DATE:

GEORGE MICHAEL STOCK NUMBER E-25116 STATE OF MISSOURI REGISTERED ENGINEER
06/29/18

GEORGE M. STOCK E-25116
CIVIL ENGINEER
CERTIFICATE OF AUTHORITY
NUMBER: 000996

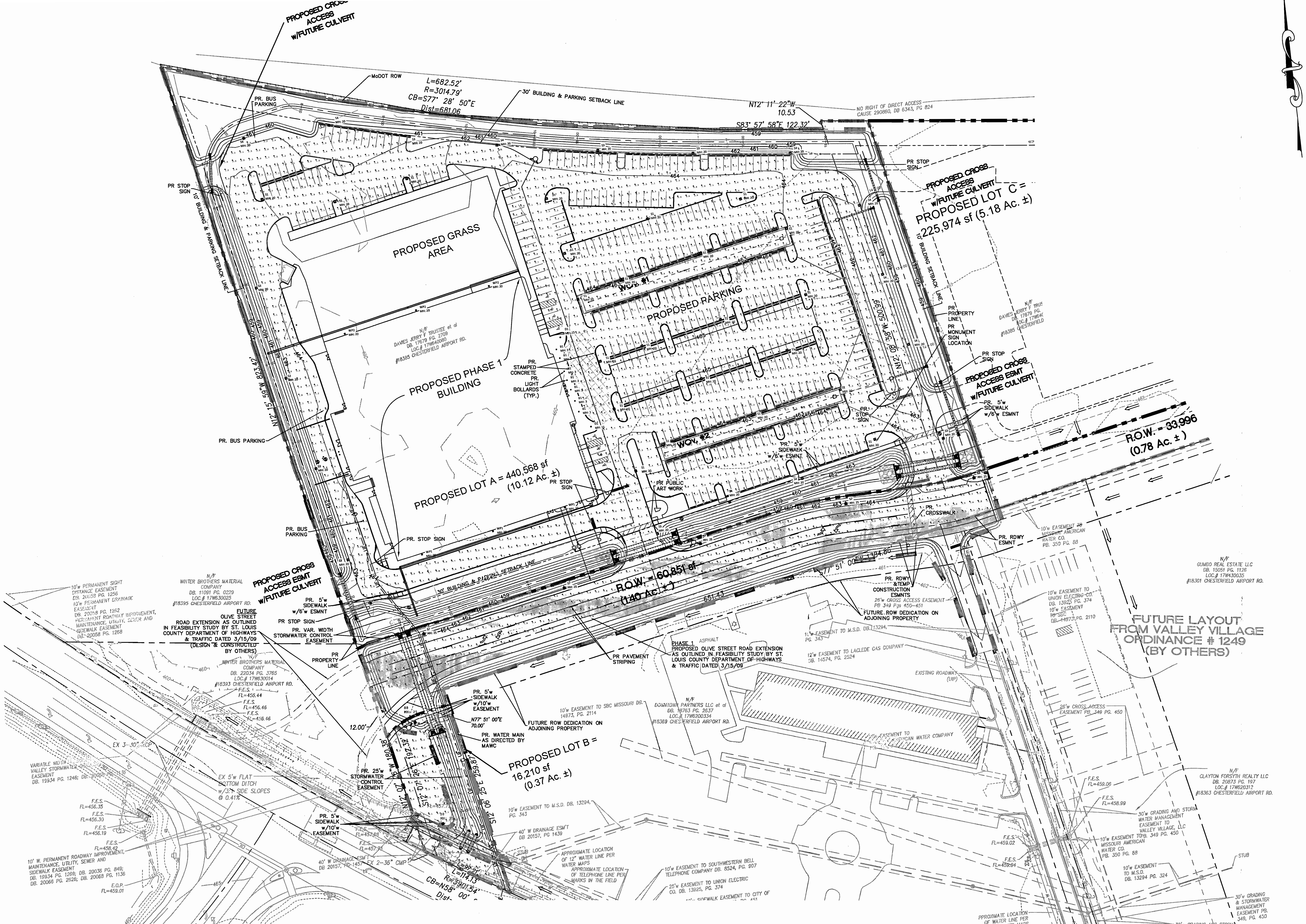
REVISIONS:

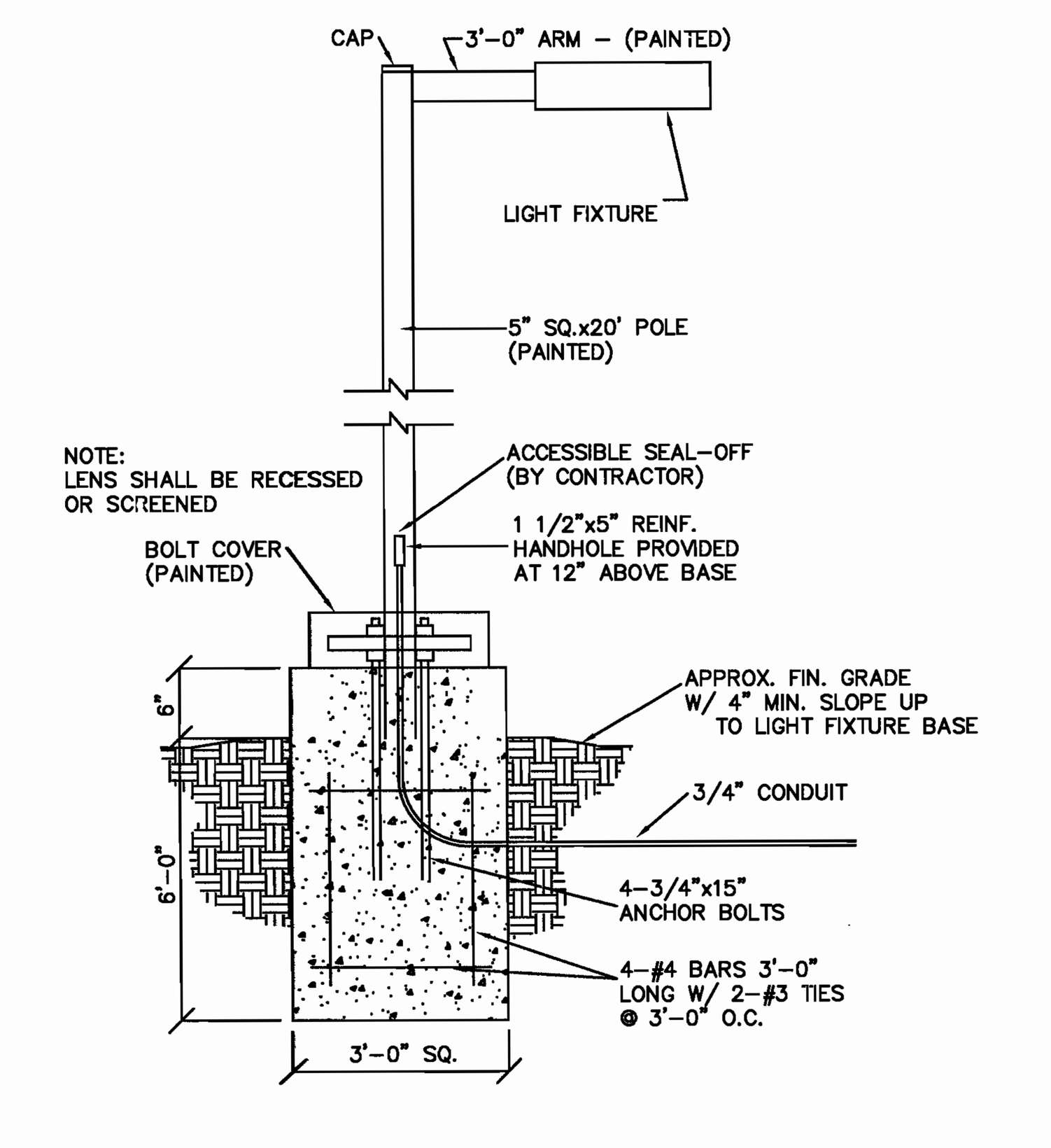
1	04-11-18 MEETING WITH CITY
2	04-23-18 CITY COMMENTS
3	05-21-18 CITY COMMENTS
4	06-22-18 CITY COMMENTS
5	06-26-18 CITY COMMENTS
6	06-29-18 PLANNING COMMISSION

DRAWN BY: A.L.W.	CHECKED BY: G.M.S.
DATE: 03/01/2018	JOB NO.: 215-5542.2
M.S.D. Plj. # –	BASE MAP # 17W2
S.L.C. HAT #: –	HAT S.U.P. #: –
M.D.N.R. # MO-00	

SHEET TITLE:
ORDINANCE

SHEET NO.:
SDSP-2.1





Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
LOT B	Illuminance	Fc	1.10	5.4	0.0	N.A.	N.A.
OLIVE STREET	Illuminance	Fc	2.64	7.7	0.5	5.28	15.40
Parking Lot	Illuminance	Fc	1.18	4.4	0.5	2.36	8.80
Property Line	Illuminance	Fc	0.22	2.0	0.0	N.A.	N.A.

Luminaire Schedule							
Symbol	Qty	Label	Arrangement	Lum. Watts	Total Watts	LLF	Description
	23	S1	SINGLE	67	1541	1.000	GLEON-AF-01-LED-E1-5WQ-1200
	8	S3	SINGLE	66	528	1.000	GLEON-AF-02-LED-E1-SL3-600-HSS
	9	S4	SINGLE	66	594	1.000	GLEON-AF-02-LED-E1-SL4-600-HSS
	1	S5	SINGLE	34	34	1.000	GLEON-AF-01-LED-E1-SLR-600
	3	WP1	SINGLE	34	102	1.000	GWC-AF-01-LED-E1-SL4-600
	3	WP2	SINGLE	66	198	1.000	GWC-AF-02-LED-E1-SL4-600
	2	D1	SINGLE	40	80	1.000	LP CAPSULE 40W 40K T5
	7	B1	SINGLE	26.4	184.8	1.000	BRA6-LED-CL-24-NW
	4	S7	SINGLE	258	1032	1.000	GLEON-AF-04-LED-E1-SL3-1200
	3	S8	SINGLE	258	774	1.000	GLEON-AF-04-LED-E1-SL4-1200

NOTES:

DESIGN IS BASED ON CURRENT INFORMATION PROVIDED AT TIME OF REQUEST.
ANY CHANGES IN MOUNTING HEIGHT OR LOCATION, LAMP WATTAGE, LAMP TYPE, AND EXISTING FIELD CONDITIONS, THAT EFFECT ANY OF THE PREVIOUSLY MENTIONED, WILL VOID CURRENT LAYOUT AND REQUIRE A CHANGE REQUEST AND RECALCULATION.

LIGHT LEVELS CALCULATED ON GROUND EVERY 10'

FIXTURE MOUNTING HEIGHTS = VARIES, SEE PLAN (FIXTURE MOUNTING HEIGHTS INCLUDE BASE)

CLOSEST EXISTING STREET LIGHT IS ESTIMATED TO BE APPROXIMATELY 1,750 FEET EAST OF OUR EASTERN-MOST PROPERTY CORNER ON CHESTERFIELD AIRPORT ROAD

UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION, OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY WITH COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.

PREPARED FOR:

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SITE DEVELOPMENT SECTION PLAN FOR:
CHESTERFIELD ICE AND SPORTS COMPLEX
ORD. 2974, ZONED: PC
CHESTERFIELD, MISSOURI

DATE:

GEORGE M. STOCK E-25116
CIVIL ENGINEER
CERTIFICATE OF AUTHORITY
NUMBER: 000996

REVISIONS:

1	04-11-18	MEETING WITH CITY
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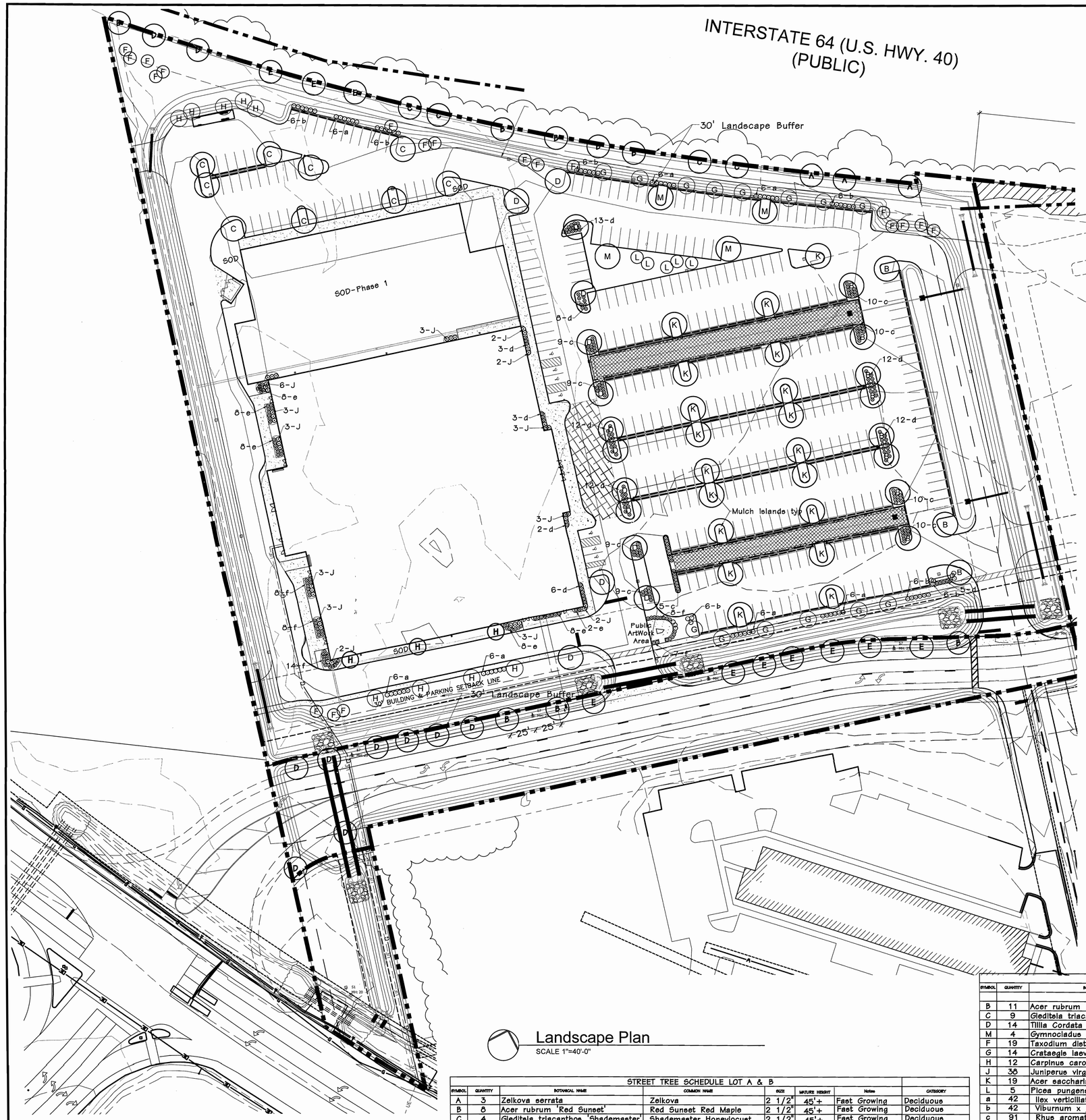
DRAWN BY: A.L.W.	CHECKED BY: G.M.S.
DATE: 03/01/2018	JOB NO: 215-5542.2
M.S.D. P# –	BASE MAP # 17W2
S.L.C. H&T # –	H&T S.U.P. # –
M.D.N.R. # MO-00	

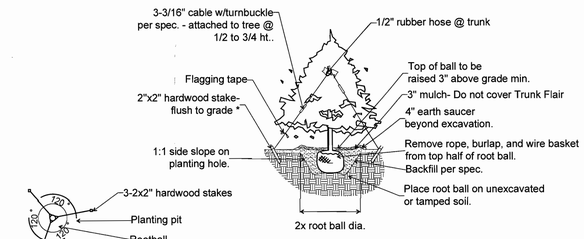
SHEET TITLE:
PHOTOMETRIC PLAN

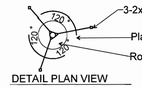
SHEET NO.:
PP-1.0



Landscape Plan

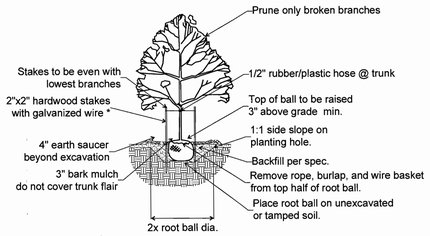
SCALE 1"=40'-0"



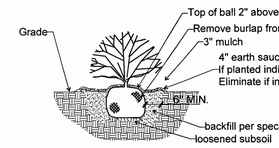


TYPICAL EVERGREEN PLANTING

* Staking should be done only when:
- Planting in soft, loose soils
- Root balls with sandy soil, or wet clay
- Trees located in an extremely windy location

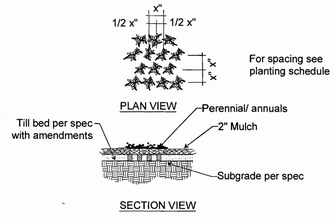


DECIDUOUS TREE PLANTING



SCARIFY ROOT BALL OF ALL CONTAINER STOCK

TYPICAL SHRUB PLANTING



TYPICAL PERENNIAL PLANTING

GENERAL NOTES LOT A & B:

1) Openespace ratio Phase 1 is 51.1% Total Site 456,776 SF/Openespace 233,263 SF Openespace ratio Phase 2 is 44.1% Total Site 456,776 sf/Openespace 201,428 SF.
2) Street trees-I-64 804.8 lf/50 = 16.09 or 17 Street Trees
3) Street Trees-Olive Street Road Extension Lot A - 789.1 lf/50 = 15.8 or 16 Street Trees
4) Street Trees-Olive Street Road Extension Lot B - 82.65 lf/50 = 1.65 or 2 Street Trees
5) All street trees will be located at least 3' from proposed curb.
6) All street trees will be located at least 10' from all storm sewer structures.
7) All street trees will be located at least 25' from all Street lights, Signs, and Intersections.
8) A contribution to Chesterfield Tree Fund will be required to meet preservation requirements of 28,623 sq. ft. of tree canopy.

STREET TREE SCHEDULE LOT A & B

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	MATURE HEIGHT	Notes	CATEGORY
A	3	Zelkova serrata	Zelkova	2 1/2"	45'+	Fast Growing	Deciduous
B	8	Acer rubrum 'Red Sunset'	Red Sunset Red Maple	2 1/2"	45'+	Fast Growing	Deciduous
C	4	Gleditsia triacanthos 'Shademaster'	Shademaster Honeylocust	2 1/2"	45'+	Fast Growing	Deciduous
D	9	Tillia cordata 'Greenspire'	Little-leaf Linden	2 1/2"	45'+	Medium Growing	Deciduous
E	10	Quercus bicolor	Swamp White Oak	2 1/2"	45'+	Medium Growing	Deciduous

PLANTING SCHEDULE

SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	MATURE HEIGHT	Notes	CATEGORY
B	11	Acer rubrum 'Red Sunset'	Red Sunset Red Maple	2 1/2"	45'+	Fast Growing	Deciduous
C	9	Gleditsia triacanthos 'Shademaster'	Shademaster Honeylocust	2 1/2"	45'+	Fast Growing	Deciduous
D	14	Tillia Cordata 'Greenspire'	Little-leaf Linden	2 1/2"	45'+	Slow Growing	Deciduous
M	4	Gymnocladus dioicus	Kentucky Coffeetree	2 1/2"	45'+	Medium Growing	Deciduous
F	19	Taxodium distichum	Bald Cypress	8-10'	45'+	Medium Growing	Deciduous
G	14	Crataegis laevigata 'Superba'	Crimson cloud Hawthorn	2 1/2"	25'+	Medium Growing	Ornamental
H	12	Carpinus caroliniana	American Hornbeam	2 1/2"	20'+	Medium Growing	Ornamental
J	36	Juniperus virginiana 'Taylor'	Taylor Juniper	6-8'	20'+	Medium Growing	Evergreen
K	19	Acer saccharinum 'Fall Fiesta'	Fall Fiesta Sugar Maple	2 1/2"	45'+	Slow Growing	Deciduous
L	5	Picea pungene	Colorado Spruce	8-10'	30'+	Medium Growing	Evergreen
a	42	Ilex verticillata 'Spravy'	Berry Heavy Winterberry	24-30"		4' O.C.	
b	42	Viburnum x juddii'	Judd Viburnum	24-30"		4' O.C.	
c	91	Rhus aromatica 'Gro-Low'	Gro Low Sumac	18-24"		3' O.C.	
d	67	Juniperus sabina 'Buffalo'	Buffalo Juniper	18-24"		4' O.C.	
e	42	Ceanothus americanus	New Jersey Tea	18-24"		3' O.C.	
f	45	Itea virginica 'Henry's Garnet'	Henry's Garnet Sweetspire	18-24"		3' O.C.	
		Water quality Plantings per MSD					

STATE OF MISSOURI
DOUGLAS A. DeLONG
NUMBER LA-81
LANDSCAPE ARCHITECT
6/21/2018
Douglas A. DeLong, Landscape Architect LA-81

Consultants:

Chesterfield Ice and Sports Complex
Ord. 2974, Zoned: PC

Chesterfield, Missouri

Revisions:

Date	Description	No.
4/16/18	Site Revisions	1
5/18/18	City Comments	2
6/21/18	City Comments	3

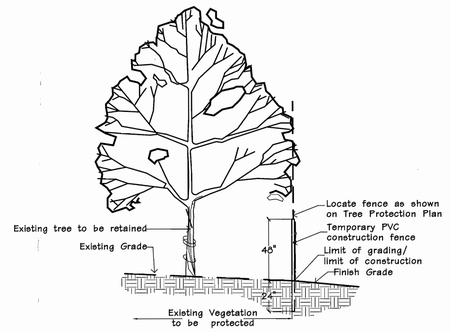
Drawn: DAD
Checked: BAD

DeLong Landscape Architecture, LLC
7620 West Bruno Ave
St. Louis, MO. 63117
(314) 346-4856
delong.la@gmail.com
Missouri State Certificate of Authority: #2013000145

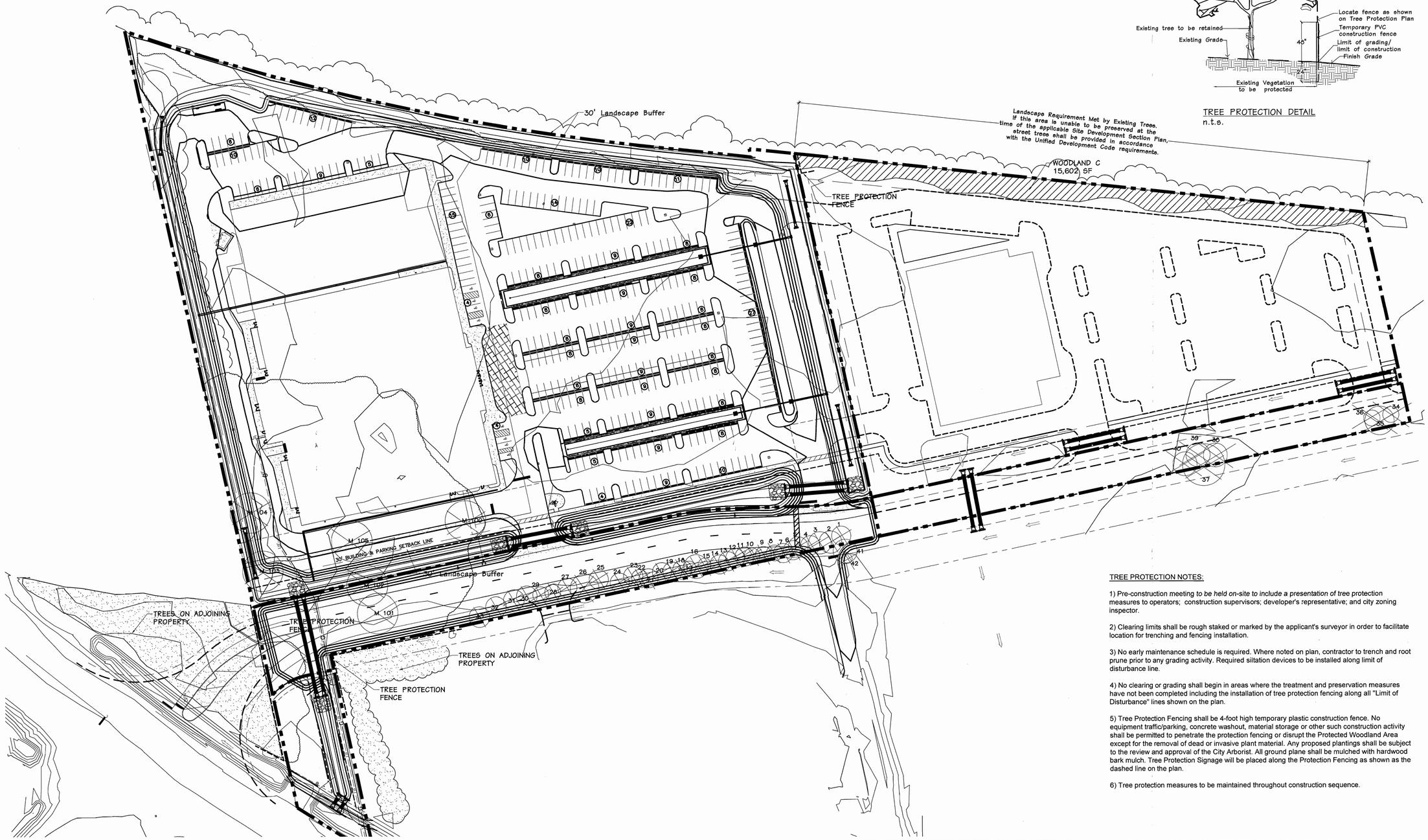
Sheet Title: Landscape Plan

Sheet No: L-2

Date: 3/1/2018
Job #: 176.002



TREE PROTECTION DETAIL
n.t.s.



Tree Preservation Plan
SCALE 1"=50'-0"

LEGEND

10 — Location / Referance Number

Tree To Be Removed

TOTAL EXISTING WOODLANDS & INDIVIDUAL TREES LOT A = 2.93 Ac (127,975 sq. ft.)
INDIVIDUAL TREES IN PROPOSED ROW LOT A = 0.33 Ac. (14,472 sq. ft.)
EXISTING WOODLANDS IN PROPOSED ROW LOT A = 0 .49 Ac. (20,851 sq. ft.)

NET WOODLAND CANOPY ON LOT A NOT IN ROW = 2.12 Ac. (92,652 sq. ft.)

CANOPY REMOVED = 92,652 SQ. FT. (100.0%)

CANOPY TO REMAIN = 0 SQ. FT. (0.0%)

REQUIRED PRESERVATION = 27,795 (30%)

MITIGATION PLANTINGS REQUIRED OR PAYMENT INTO CHESTERFIELD TREE FUND

TOTAL EXISTING WOODLANDS LOT B = 0.09 Ac (3,869 sq. ft.)

EXISTING WOODLANDS IN PROPOSED ROW LOT B = 0.03 Ac. (1,108 sq. ft.)

NET WOODLAND CANOPY ON LOT B NOT IN ROW = 0.06 Ac. (2,761 sq. ft.)

CANOPY REMOVED = 2,761 SQ. FT. (100.0%)

CANOPY TO REMAIN = 0 SQ. FT. (0.0%)

REQUIRED PRESERVATION = 828 sq. ft. (30%)

TOTAL EXISTING WOODLANDS & INDIVIDUAL TREES LOT C = 0.50 Ac (21,842 sq. ft.)
INDIVIDUAL TREES IN PROPOSED ROW LOT A = 0.14 Ac. (6,240 sq. ft.)

NET WOODLAND CANOPY ON LOT A NOT IN ROW = 0.36 Ac. (15,602 sq. ft.)

CANOPY REMOVED = 6,240 SQ. FT. (28.5%)

CANOPY TO REMAIN = 15,602 SQ. FT. (71.5%)

REQUIRED PRESERVATION = 4,680 SQ. FT. (30%)

MITIGATION PLANTINGS CALCULATIONS:
REQUIRED PRESERVATION LOT A= 27,795 SF
REQUIRED PRESERVATION LOT B = 828 SF
TOTAL 28,623 SF

32 LARGE TREES @ 400SF EACH = 12,800 SF
32 MEDIUM TREES @ 300SF EACH = 9,600 SF
32 SMALL TREES @ 200 SF EACH = 6,400 SF
TOTAL 28,800 SF

A CONTRIBUTION WILL BE MADE TO CHESTERFIELD'S TREE PRESERVATION ACCOUNT BASED ON PROVIDING ABOVE TREES.

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 shall be rough staked or marked by the applicant's surveyor in order to facilitate location for trenching and fencing installation.

3) No early maintenance schedule is required. Where noted on plan, contractor to trench and root prune prior to any grading activity. Required siltation devices to be installed along limit of disturbance line.

4) 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 plan.

5) Tree Protection Fencing shall be 4-foot high temporary plastic construction fence. 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 except for the removal of dead or invasive plant material. Any proposed plantings shall be subject to the review and approval of the City Arborist. All ground plane shall be mulched with hardwood bark mulch. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the plan.

6) Tree protection measures to be maintained throughout construction sequence.

STATE OF MISSOURI
DOUGLAS A DELONG
NUMBER LA-81
LANDSCAPE ARCHITECT
6/21/2018
Douglas A. DeLong, Landscape Architect LA-81

Consultants:

Chesterfield Ice and Sprots Complex
Ord. 2974, Zoned: PC

Chesterfield, Missouri

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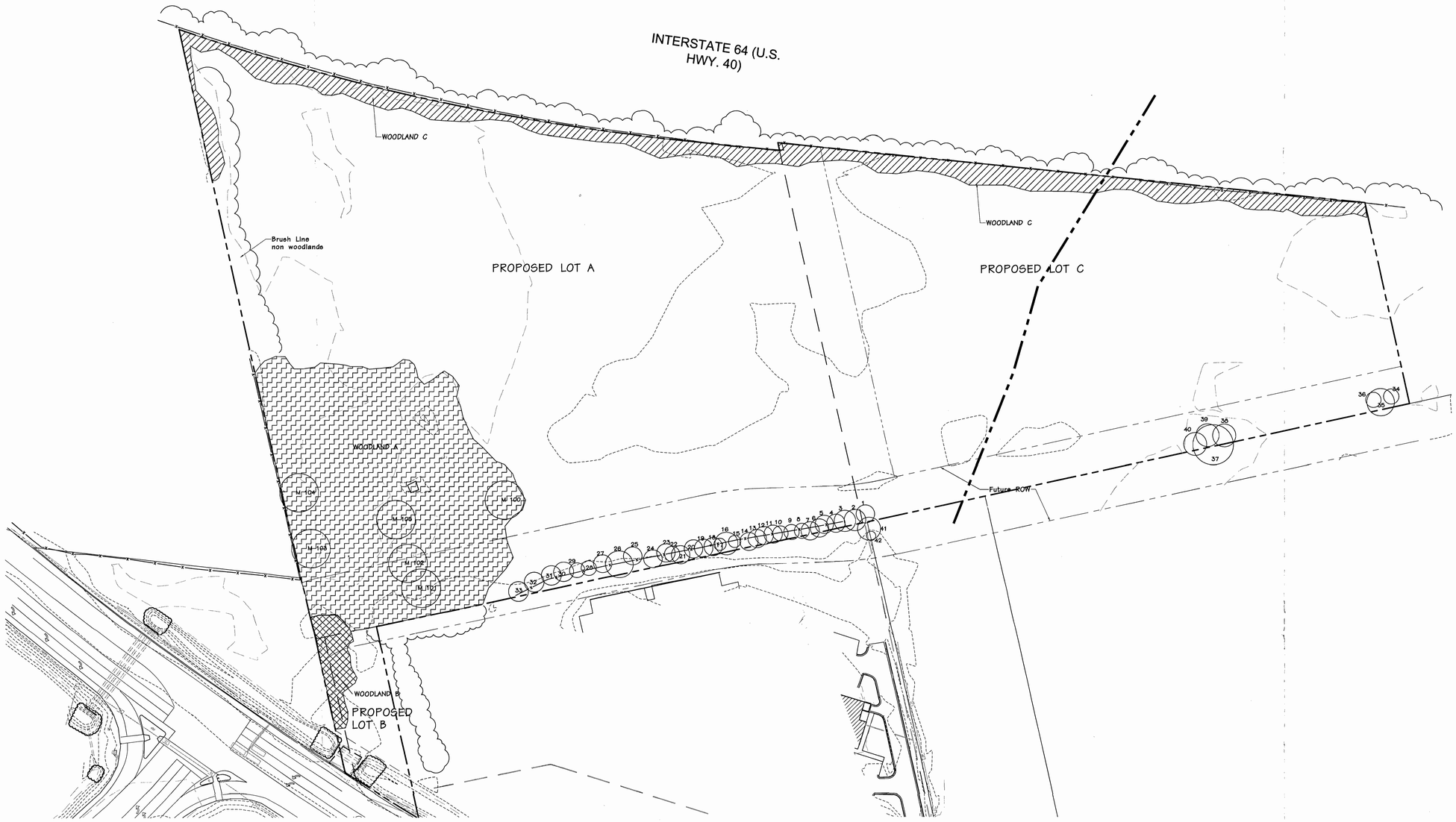
Drawn: DAD
Checked: BAD

DeLong Landscape Architecture, LLC
7620 West Bruno Ave
St. Louis, MO. 63117
(314) 546-4856
delong.la@gmail.com
Missouri State Certificate of Authority #2012000145

Sheet Title: Tree Preservation Plan
Sheet No: TPP
Date: 3/1/2018
Job #: 176.002



Tree Stand Delineation

SCALE 1" = 60'-0"

Individual Tree List					
Number	Common Name	DBH Of Trunk	Canopy Area	Condition Rating	Comments
1	Boxelder	5	452	3	
2	Bradford Pear	8	615	3	
3	Bradford Pear	5	452	3	multi Trunk
4	Bradford Pear	5	452	3	
5	Bradford Pear	5	452	3	
6	Elm	7	254	2	Broken Leader
7	Mulberry	8	314	2	
8	Bradford Pear	6	314	3	
9	Sycamore	6	314	3	
10	Boxelder	5	314	3	
11	Boxelder	6	452	3	
12	Bradford Pear	6	452	3	
13	Elm	8	0	0	dead
14	Elm	8	452	3	
15	Boxelder	5	200	3	
16	Sycamore	8	615	3	
17	Boxelder	5	200	3	
18	Elm	9	615	3	
19	Elm	5	452	3	
20	Elm	6	452	3	
21	Bradford Pear	5	314	3	
22	Elm	7	452	3	
23	Elm	5	314	3	
24	Elm	6	452	3	
25	Elm	7	452	.	
26	Elm	9	1017	3	
27	Elm	6	452	3	
28	Elm	8	452	3	
29	Elm	5	314	3	Triple Trunk
30	Elm	7	379	3	
31	Elm	6	329	3	
32	Sycamore	6	452	3	
33	Sycamore	5	314	3	
34	Mulberry	10	706	2	
35	Silver Maple	40	1256	2	
36	Mulberry	20	706	2	
37	Cottonwood	70	1962	2	
38	Mulberry	12	706	1	DBL trunk
39	Mulberry	10	452	1	DBL trunk
40	Mulberry	18	452	1	multi Trunk
41	Cottonwood	30	706	2	multi Trunk
42	Mulberry	5	200	3	
		TOTAL	20,712		

Monarch Tree List					
Number	Common Name	DBH Of Trunk		Condition Rating	Comments
100	Pecan	42		4	
101	Pecan	28		4	
102	Bur Oak	27		4	
103	Pecan	26		4	
104	Pecan	30		4	
105	Pecan	28		4	

LEGEND

Location

109 — Reference Number

Dead Tree

Tree Stand Delineation Narrative
May 9, 2017

The overall lot comprises a total of 15.67 Ac and has a total of 3.5 AC. of Woodlands. The attached detailed Tree Stand Delineation map was completed by field inspection.

Woodland A: The woodland area is located along the western side of the property. The dominate canopy is oak, walnut, sycamore, and Pecan. The understory is made up of Boxelder, Mulberry and Elm. The size ranges from 8-18" on a majority of the trees. There are several Monarch trees which have been identified on the plan above.

Woodland B: The woodland area is located between Chesterfield Airport Rd and the Winter Bros. Material Co. This woodlands dominate canopy is made up of Elms. The understory is made up of Walnut, Boxelder, and Silver Maple. The size ranges from 4-12" primarily. There are some larger trees but they do not meet the criteria to be classified as Monarch Trees. The overall quality is low and approximately 5% of the stand has died.

Woodland C: The woodland area is located along the ROW of I-64/HWY 40. This woodlands is made up of Boxelder and Elm that have volunteered. The size varies from 3-12" with 5-8" being the dominate size. The overall quality of the trees is low due to the fact that grape vines have grown up into the canopies of the majority of these trees.

No state champion or rare trees were found on the site.

There is flood zone "x" on this parcel per FEMA map # 29189C0145 K

WOODLAND A = 2.11 Ac. (92,065 sq. ft.)
WOODLAND B = 0.12 Ac. (5,118 sq. ft.)
WOODLAND C = 0.79 Ac. (34,631 sq. ft.)
INDIVIDUAL TREES = 0.48 Ac (20,712 sq. ft.)

Total Existing Canopy 3.5 Ac (152,526 sq. ft.)

Tree Stand Delineation Plan Prepared by Douglas A. DeLong
Certified Arborist MW-4826A

Douglas A. DeLong

Base Map Provided by: Stock & Associates

Douglas A. DeLong, Landscape Architect LA-81

Consultants:

Chesterfield Ice and Sports Complex
ORD. 2974, Zoned: PC

Chesterfield Hockey Association, Chesterfield, MO

Revisions:

Date	Description	No.
04/19/18	Updated	1

Drawn: BD
Checked: DD

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Sheet Title: Tree Stand Delineation

Sheet No: TSD-1

Date: 05/15/2017
Job #: 176.001