

Memorandum Department of Planning & Development Services



To: Planning and Public Works Committee

From: Mike Knight, Planner *mk*

Date: February 07, 2019

RE: **Downtown Chesterfield, (Category C), SDCP:** A Site Development Concept Plan, Landscape Concept Plan, Signage Concept Plan, and Lighting Fixture Concept Plan for the 22 acre tract of land located north of Wild Horse Creek Road, east of its intersection with Old Chesterfield Road and west of its intersection with Chesterfield Parkway.

Summary

This request depicts a phased development of 5 lots that total 22 acres. The subject site is located in what is known as "Category C" of Downtown Chesterfield. The subject site is zoned "PC&R" Planned Commercial and Residence District and governed under the terms and conditions of City of Chesterfield Ordinance 3023.

A Site Development Concept Plan, Landscape Concept Plan, Signage Concept Plan, and Lighting Fixture Concept Plan have all been submitted for review and approval in accordance to the governing ordinance.

The project was reviewed by the Planning Commission on January 28, 2019. At that time the Commission recommended approval of the request as submitted by a vote of 9-0.

Governing ordinance 3023 states that City Council shall have automatic power of review of site plans for the subject development. The City Council will then take appropriate action relative to the proposal.

Attached to this report please find a copy of the Planning Commission Staff Report, Site Development Concept Plan, Landscape Concept Plan, Signage Concept Plan, and Lighting Fixture Concept Plan.

Attachments: Planning Commission Staff Report
Site Development Concept Plan
Landscape Concept Plan
Signage Concept Plan
Lighting Fixture Concept Plan



Figure 1: Aerial Image of Subject Site



VILA.

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 Concept Plan

Meeting Date: January 28, 2019

From: Mike Knight, Planner *JMK*

Location: A 22 acre tract of land located northeast of the intersection of Wild Horse Creek Road and Old Chesterfield Road.

Description: **Downtown Chesterfield, (Category C), SDCP:** A Site Development Concept Plan, Landscape Concept Plan, Signage Concept Plan, and Lighting Fixture Concept Plan for the 22 acre tract of land located north of Wild Horse Creek road, east of its intersection with Old Chesterfield Road and west of its intersection with Chesterfield Parkway.

PROPOSAL SUMMARY

Stock and Associates Consulting Engineers, Inc. has submitted a Site Development Concept Plan for Planning Commission review. This request depicts a phased development of 5 lots that total 22 acres. The subject site is located in what is known as "Category C" of Downtown Chesterfield. The subject site is zoned "PC&R" Planned Commercial and Residence District and governed under the terms and conditions of City of Chesterfield Ordinance 3023. A Site Development Concept Plan, Landscape Concept Plan, Signage Concept Plan, and Lighting Fixture Concept Plan have all been submitted for review and approval in accordance to the governing ordinance.

HISTORY OF SUBJECT SITE

On March 19th, 2008, the City of Chesterfield City Council approved Ordinance 2449. This ordinance amended the previous governing zoning ordinance of the City of Chesterfield by changing the boundaries of 99 acres of the following: an "R-8" Residence District with a Planned Environmental Unit Procedure, "R-5" Residence District, "FPR-5" Residence District, "R-6A" PEU Residence District with a Planned Environmental Unit Procedure, "C-8" Planned Commercial District, "NU" Non-Urban District and "M-3" Planned Industrial District to one 99 acre "PC&R" Planned Commercial & Residence District known as Downtown Chesterfield.

City of Chesterfield Ordinance 2449 created one PC&R district that defined specific development criteria into three specific categories. The three categories were labeled in Ordinance 2449 as

Category A, Category B, and Category C. They were also defined by location, having specific category standards, and with a specific streetscape.

On February 21st, 2018, the City of Chesterfield approved Ordinance 2990. This ordinance solely amended the legal description of the entire 99 acre PC&R district.

On November 5th, 2018, City Council approved the governing Ordinance 3023. This ordinance amendment had two main objectives. The first was to incorporate and re-zone a 0.4 acre Non-Urban “NU” parcel to the “PC&R” District. **The second was to amend the development criteria of the governing ordinance in which separate Concept Plans would be submitted by defined Category vs. for the entire District.** It essentially allows for 2 phases of development within Downtown Chesterfield. **The Site Development Concept Plan is the 22 acres that make up Category C, which is one of three categories that make up the 99 acres known as Downtown Chesterfield.**



Figure 1: Aerial Image of Subject Site

STAFF ANALYSIS

The subject site is located north of Wild Horse Creek Road (WHCR), east of its intersection with Old Chesterfield Road (OCR) and west of the intersection with Chesterfield Parkway. The subject site is located directly south of Interstate 64. Given that WHCR and I-64 are both classified as major arterials according to the City’s functional classification system, and Chesterfield Parkway and OCR are classified as minor arterials, all facades will be highly visible to a large number of users. The area is designated Urban Core within the City of Chesterfield Comprehensive Land Use Plan and the subject site would be 22 acres of the 99 acre PC&R zoning district known as Downtown Chesterfield.

The governing ordinance is unique in the fact that there are four specific concept plans to be submitted and approved by Planning Commission with automatic Power of Review. These plans include the Site Development Concept Plan, Landscape Concept Plan, Signage Concept Plan, and Lighting Fixture Concept Plan that are required to be submitted in conjunction with the overall Site Development Concept Plan process. Category C has specific standards outlined in the governing ordinance that reference building placement, building volume, floor heights, façade elements, outdoor space, building function, and a specific exhibit that details a streetscape to which the development should adhere to.

Site Development Concept Plan:

The Subject Site is composed of five total lots (A-E) for the phased development of Category C as seen on Figure 2. All of the lots are currently undeveloped except for a Sachs building that currently resides on Lot D. There is also a Site Development Section Plan submitted for Lot A.

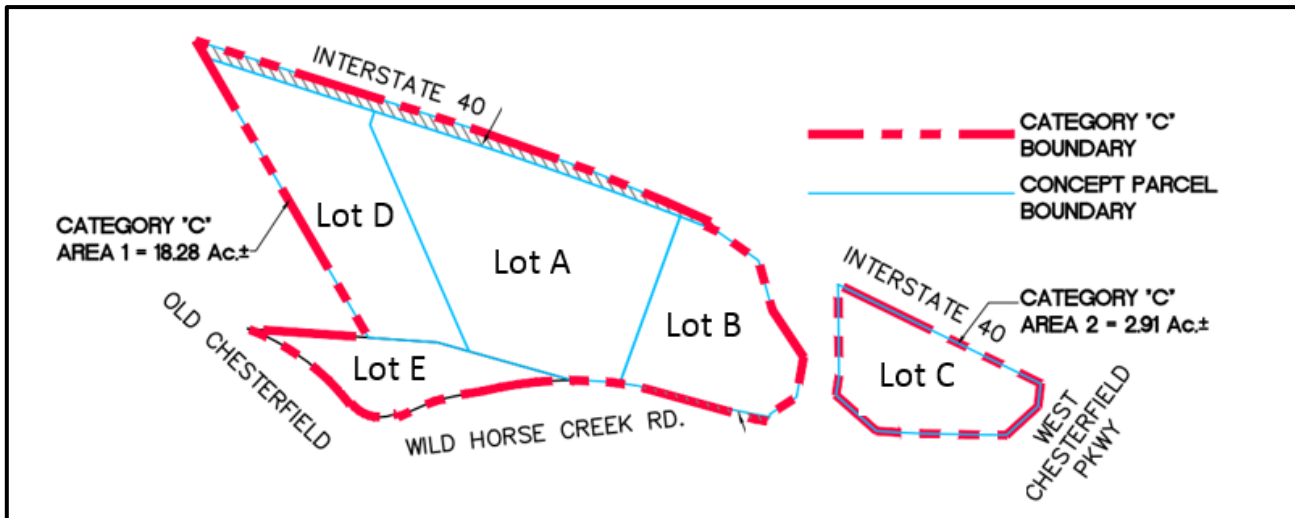


Figure 2: Category C Lot Breakdown

The Concept Plan provides general areas for lot lines, potential roadways, building foot prints, and parking areas. The Site Development Section Plan (Lot A) that is currently submitted within the City of Chesterfield is requesting a modification to utilize the streetscape outlined for Category C along an internal drive vs. WHCR. Staff acknowledges and is supportive of the center drive aisle dictating an urban “Downtown” streetscape vs. the major arterial of WHCR in between Lots A and B. Although Staff is supportive, the SDCP requires the remaining Lots (E and C) that front Wild Horse Creek Road to follow the streetscape designated within the governing ordinance. All lots either conform to the criteria outlined within the governing ordinance or are consistent with the modification request within the Site Development Section Plan. Both the Site Development Concept Plan and Site Development Section Plan for Lot A will be submitted to Planning Commission on January 28th and their approval will be inherently linked through the modification request.

Primary vehicular access for Lots A and B is provided by one access point off of Wild Horse Creek Road. There is a cross access easement provided between both Lots A and B and also with Lots D and E directly to the west. Lots D and E will have one primary access point off of Old Chesterfield

Road at the existing location of the current private drive. Lot C will have one access point off of Wild Horse Creek Road at the existing curb cut between the intersection of Chesterfield Parkway and the I-64 off ramp. The future Concept Plan for Categories A and B will be reviewed with the Concept Plan for cohesiveness.

Pedestrian Circulation is a key component of the Urban Core and was specifically addressed during the Public Hearing for the governing ordinance. The Site Development Concept Plan includes an 8 foot sidewalk within a 12 foot sidewalk easement completely across the frontage of both Wild Horse Creek Road and Old Chesterfield Road. Emphasis will be placed on achieving pedestrian circulation both internally within Category C and externally between adjacent sites upon each time a Site Development Section Plan is submitted.

Landscape Concept Plan:

The Landscape Concept Plan outlines areas for street trees along the minor arterial roadway Old Chesterfield Road, and major arterial roadway Wild Horse Creek Road. Adequate spacing was created for the future street lights along both roadways. Given a modification request is to create a streetscape along the center drive aisle within the development, street trees have been placed along the center drive with the appropriate spacing. There are five existing monarch trees located on the site. They are all White Oaks and reside on the north end of Lot D behind the existing building.

Lighting Fixture Concept Plan:

The applicant has submitted the required Lighting Fixture Concept Plan. The primary purpose of the Lighting Fixture Concept Plan is to establish a cohesive appearance in regards to lighting within Category C of Downtown Chesterfield. Below are the fixtures chosen by the applicant to be utilized consistently through Category C. These fixtures consist of a bollard (A.), pedestrian scale lighting (B.), and parking (C.) and can all be seen in Figure 3 below with the associated cut sheets located within the attached Site Development Concept Plan Packet.

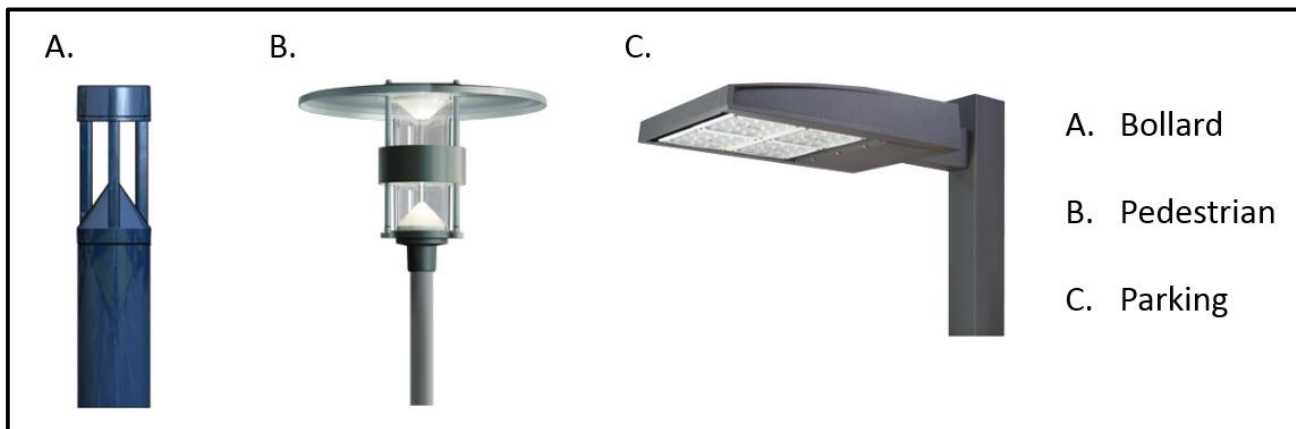


Figure 3: Lighting Fixture Concept

Signage Concept Plan:

The applicant submitted the required Signage Concept Plan. The primary purpose of the Signage Concept Plan is to establish a cohesive appearance in regards to signage within Category C of

Downtown Chesterfield. This conceptual document will then be utilized when each Site Development Section Plan is submitted (including Lot A) to assure that each Section substantially conforms to the Concept Plans. The governing ordinance states sign packages shall be required for each Site Development Section Plan in this development and approved by the City of Chesterfield Planning Commission. The individual sign packages must be consistent with the Signage Concept Plan.

The applicant supplied a narrative statement along with defined criteria for both building and site signage. In regards to the site signage, the applicant defines specific criteria in regards to the background or cabinet, the message/graphic, the landscaping, and illumination source. In regards to the building signage, the applicant defines specific criteria in regards to the raceway, the letter return, and the illumination source. The plan attached to this packet also contains two examples for both the site and building signage to further describe criteria set forth in the Concept Plan.

DEPARTMENTAL INPUT

Staff has reviewed the submittal and has found the application to be in conformance with the City of Chesterfield Unified Development Code and Ordinance 3023. Staff recommends approval of the Site Development Concept Plan for the Downtown Chesterfield (Category C) development.

MOTION

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

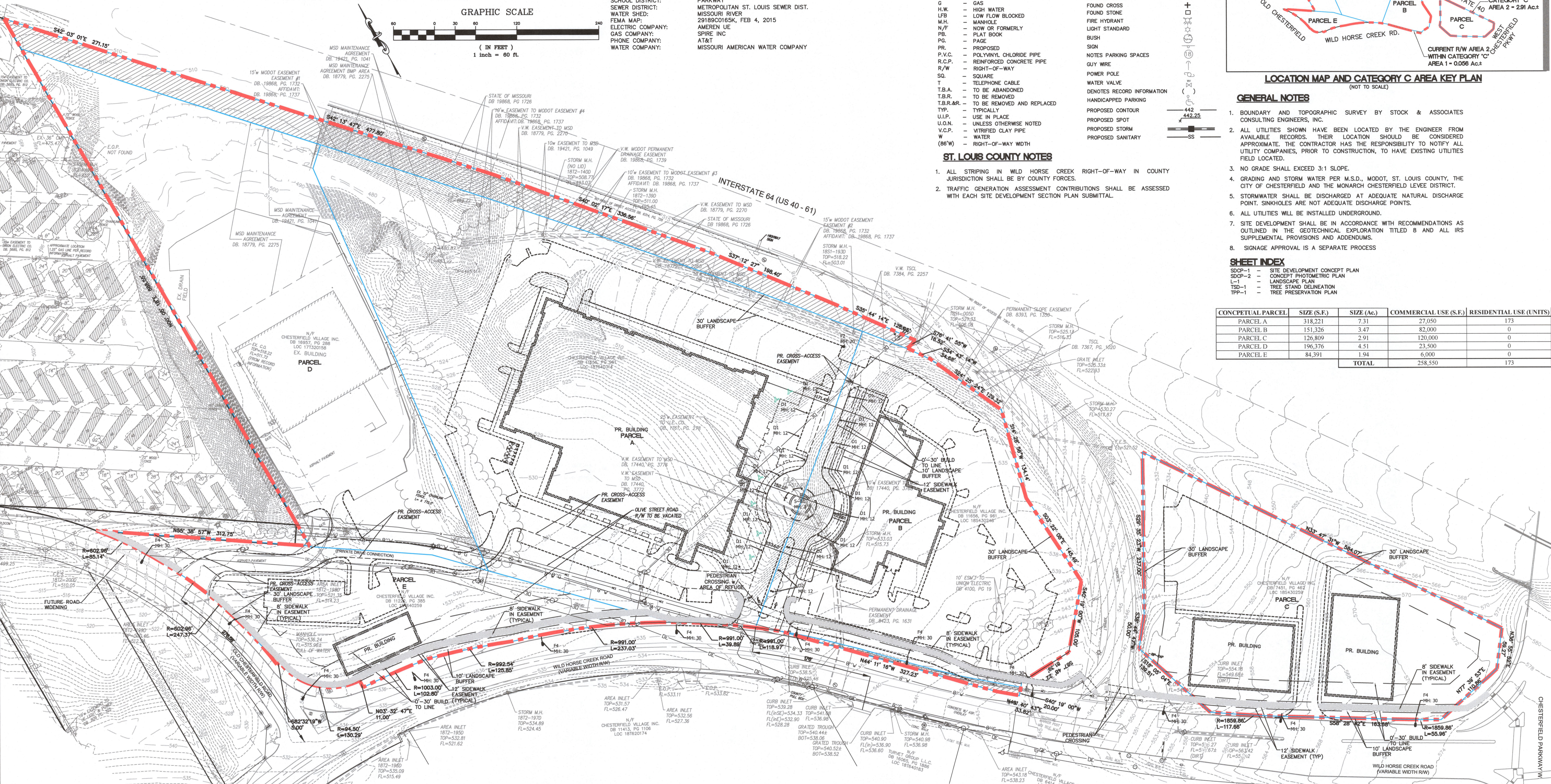
- 1) "I move to approve (or deny) the Site Development Concept Plan, Landscape Concept Plan, Signage Concept Plan, and Lighting Fixture Concept Plan for the Downtown Chesterfield (Category C) development."
- 2) "I move to approve the Site Development Concept Plan, Landscape Concept Plan, Signage Concept Plan, and Lighting Fixture Concept Plan for the Downtown Chesterfield (Category C) development with the following conditions..." (Conditions may be added, eliminated, altered or modified)

Attachments: Site Development Concept Plan
Landscape Concept Plan
Lighting Fixture Concept Plan
Signage Concept Plan

SITE DEVELOPMENT CONCEPT PLAN - DOWNTOWN CHESTERFIELD

CATEGORY "C" NORTH OF WILDHORSE CREEK ROAD

PART OF U.S. SURVEYS 123 AND 2031 TOWNSHIP 45 NORTH, RANGE 4 EAST
CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI
ZONED: PLANNED COMMERCIAL + RESIDENCE DISTRICT "PC-HR" PER ORD. NO. #3023



ST. LOUIS COUNTY BENCHMARK

BENCHMARK 12277 NAD83 Elev = 490.38
Cut "X" on the southeast corner of the 3x3 traffic signal pole base and flush to the top of a concrete median island northeast of the right turn lane from eastbound Wild Horse Creek Road onto the southbound side of a pavement slab for a future extension of Burkhardt Place as shown on the plan of Wild Horse Creek Road Dedication Plat (Plat Book 304, Page roughly 52 feet south of the center of Wild Horse Creek Road, 27 feet west of the center of the pavement slab for future Burkhardt Place, and 0.3 miles more or less east of Barker Road.

DISCLAIMER

STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. AND THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR SERVICES PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL APPEARS. THE CONSTRUCTION MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. HAS NO RESPONSIBILITY TO VERIFY FINAL IMPROVEMENTS AS SHOWN ON THIS PLAN UNLESS SPECIFICALLY ENGAGED AND AUTHORIZED TO DO SO BY THE OWNER OR CONTRACTOR.

UTILITY NOTE

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 FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMO.

PREPARED FOR

PEARL COMPANIES
919 N. EAST STREET
INDIANAPOLIS, IN. 46202
ATTN: MR. JEFF TEGETHOFF

ST. LOUIS COUNTY STANDARD NOTES

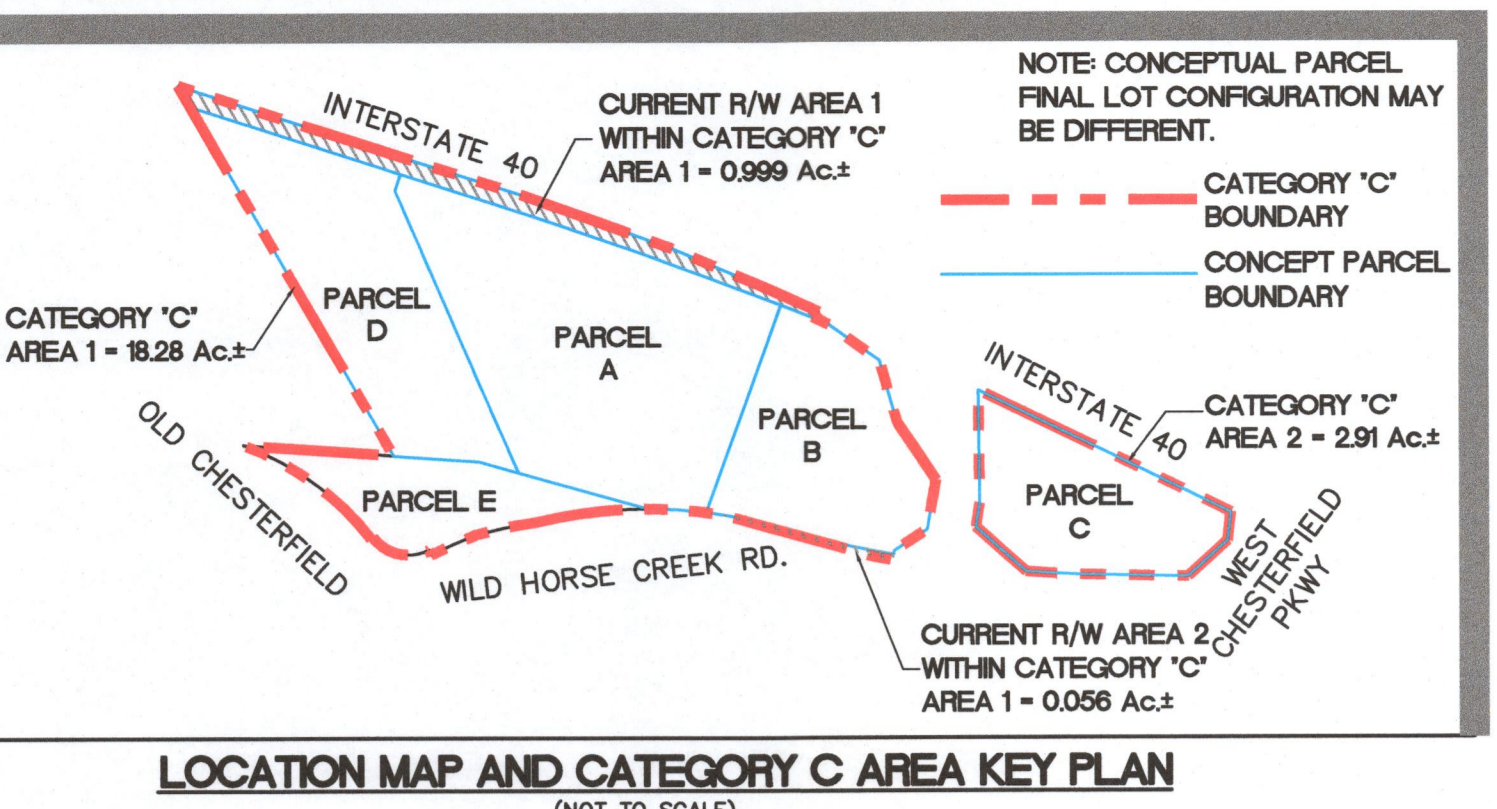
- ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY STANDARDS.
- NO SLOPES WITHIN ST. LOUIS COUNTY RIGHT-OF-WAY SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL).
- STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
- ALL PROPOSED ACCESS TO ST. LOUIS COUNTY ROADS SHALL MEET MINIMUM ST. LOUIS COUNTY RIGHT DISTANCE REQUIREMENTS.
- ALL SIDEWALKS AND ASSOCIATED ACCESSIBILITY IMPROVEMENTS WITHIN RIGHT-OF-WAY SHALL BE CONSTRUCTED TO ST. LOUIS COUNTY ADA STANDARDS.
- A SIGNED/SEALED NOTE SHALL BE ADDED TO THE CONSTRUCTION PLANS INDICATING THAT THE UNIMPROVED EXISTING SIDEWALK/PEDESTRIAN PATH ALONG THE PROJECT FRONTAGE MEETS CURRENT ST. LOUIS COUNTY ADA STANDARDS.
- ALL GRADING AND DRAINAGE SHALL BE IN CONFORMANCE WITH ST. LOUIS COUNTY AND MSD STANDARDS.
- 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 OR EDGE OF PAVEMENT, AS DIRECTED BY THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC.
- 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 PROMISED 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.
- PRIOR TO SPECIAL USE PERMIT ISSUANCE BY THE ST. LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC, A SPECIAL CASH ESROW OR A SPECIAL ESROW 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.
- CONTINUOUS PEDESTRIAN ACCESS SHALL BE PROVIDED DURING THE CONSTRUCTION PROCESS. PRIOR TO THE START OF CONSTRUCTION, ADEQUATE PEDESTRIAN ACCESS AROUND THE SITE SHALL BE PROVIDED AND VERIFIED. NO EXISTING SIDEWALK SHALL BE REMOVED WITHOUT PROVIDING ADEQUATE PEDESTRIAN FACILITIES AND ROUTES DURING CONSTRUCTION ACTIVITIES.

AREA 1 & AREA 2
OWNER: CHESTERFIELD VILLAGE INC
21.191 Acres ±
EXISTING ZONING: "PC" & "R" PLANNED COMMERCIAL & RESIDENTIAL (ORD. #3023)
LOT ADDRESS: 16439, 16461, 16491, 16493, 16495, 16503, 16511 WILD HORSE CREEK CHESTERFIELD, MISSOURI 63005 & 63017
LOCATOR NO: 185430259, 185430248, 187640095, 187640204, 187640215, 187640303, 187640314, 187640325
WUNNENBERG'S: PG. 21, GRID 185E & 10 EE
FIRE DISTRICT: MONARCH FIRE PROTECTION DISTRICT
SCHOOL DISTRICT: PARKWAY
METROPOLITAN ST. LOUIS SEWER DIST. MISSOURI RIVER
WATER SHED: 2918900165K, FEB 4, 2015
FEMA MAP: AMEREN UE
ELECTRIC COMPANY: SPIRE INC
GAS COMPANY: AT&T
PHONE COMPANY: MISSOURI AMERICAN WATER COMPANY
WATER COMPANY:

PERTINENT DATA
CHESTERFIELD VILLAGE INC
21.191 Acres ±
"PC" & "R" PLANNED COMMERCIAL & RESIDENTIAL (ORD. #3023)
PG. 21, GRID 185E & 10 EE
MONARCH FIRE PROTECTION DISTRICT
PARKWAY
METROPOLITAN ST. LOUIS SEWER DIST.
MISSOURI RIVER
WATER SHED: 2918900165K, FEB 4, 2015
AMEREN UE
SPIRE INC
AT&T
MISSOURI AMERICAN WATER COMPANY

ABBREVIATIONS
ATO - ADJUST TO GRADE
B.C. - BACK OF CURB
C.O. - CLEANOUT
DB - DEED BOOK
DB - DEED BOOK
E - ELEVATION
EX - EXISTING
F.C. - FACE OF CURB
FL - FLOWLINE
FT. - FEET
FND. - FOUND
G - GAS
H.W. - HIGH WATER
LFB - LOW FLOW BLOCKED
M.H. - MANHOLE
N/F - NOW OR FORMERLY
PB. - PLAY BOOK
PAGE - PAGE
PR - PROPOSED
P.V.C. - POLYVINYL CHLORIDE PIPE
R.C.P. - REINFORCED CONCRETE PIPE
R.O.W. - RIGHT-OF-WAY
SQ. - SQUARE
T - TELEPHONE CABLE
T.B.A. - TO BE ABANDONED
T.B.R. - TO BE REMOVED
T.B.R.&R. - TO BE REMOVED AND REPLACED
TYP. - TYPICALLY
U.S.P. - USE IN PLACE
U.O.N. - UNLESS OTHERWISE NOTED
V.C.P. - VITRIFIED CLAY PIPE
W - WATER
(86"W) - RIGHT-OF-WAY WIDTH

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

- BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK & ASSOCIATES CONSULTING ENGINEERS, INC.
- 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.
- NO GRADE SHALL EXCEED 3:1 SLOPE.
- GRADING AND STORM WATER PER M.S.D., MODOT, ST. LOUIS COUNTY, THE CITY OF CHESTERFIELD AND THE MONARCH CHESTERFIELD LEVEE DISTRICT.
- STORMWATER SHALL BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
- ALL UTILITIES WILL BE INSTALLED UNDERGROUND.
- SITE DEVELOPMENT SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL EXPLORATION TITLED B AND ALL IRS SUPPLEMENTAL PROVISIONS AND ADDENDUMS.
- SIGNAGE APPROVAL IS A SEPARATE PROCESS

SHEET INDEX

- SDCP-1 - SITE DEVELOPMENT CONCEPT PLAN
- SDCP-2 - CONCEPT PHOTO-METRIC PLAN
- L-1 - LANDSCAPE PLAN
- TSD-1 - TREE STAND DELINEATION
- TRP-1 - TREE PRESERVATION PLAN

CONCEPTUAL PARCEL	SIZE (S.F.)	SIZE (Ac.)	COMMERCIAL USE (S.F.)	RESIDENTIAL USE (UNITS)
PARCEL A	318,221	7.31	27,050	173
PARCEL B	151,326	3.47	82,000	0
PARCEL C	126,809	2.91	120,000	0
PARCEL D	196,376	4.51	23,500	0
PARCEL E	84,391	1.94	6,000	0
TOTAL		258.550		173

the owner under contract of the property shown on this plan for and in consideration of being granted a permit to develop property under the provisions of Chapter. "PC&R" - Planned Commercial & Residence of the City of Chesterfield (applicable subsection) (present zoning)

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 Planning Commission, or voided or vacated by order of ordinance of the City of Chesterfield Council.

By: Justin Wyse, Director of Planning and Development Services
By: Vickie Hoss, City Clerk

STATE OF MISSOURI ss. COUNTY OF ST. LOUIS
On this day of 2018, before me personally appeared _____, who being by me duly sworn, did say he is _____, and that said instrument was signed on behalf of said limited liability company, and that said _____ acknowledged said instrument to be the free act and deed of said limited liability company.

IN WITNESS WHEREOF, I have signed and sealed the foregoing the day and year first above written.

Notary Public
Print Name

This Site Development Concept 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 Amended 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.

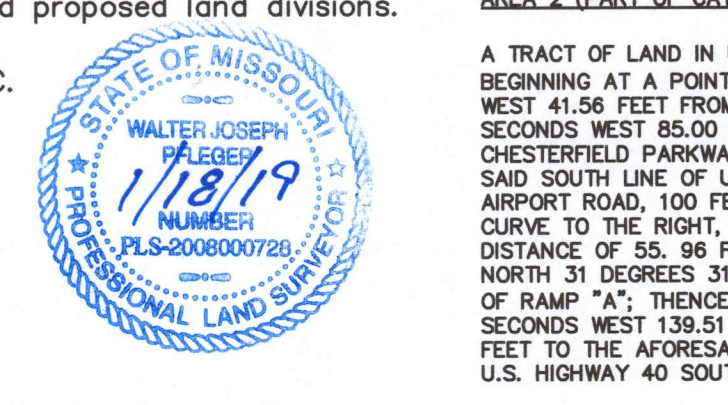
By: Justin Wyse, Director of Planning and Development Services
By: Vickie Hoss, City Clerk

SURVEYOR'S CERTIFICATION

This is to certify that Stock and Associates Consulting Engineers, Inc. has prepared this Site Development Concept 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.

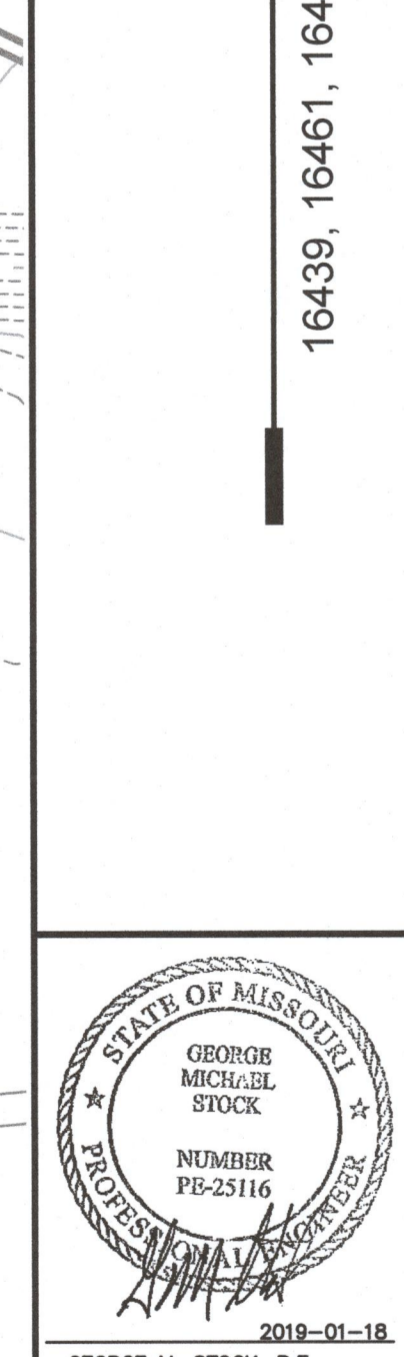
STOCK AND ASSOCIATES CONSULTING ENGINEERS INC.
L.S. No. 222-D

Walter J. Pfleger, Missouri L.S. No. 200800728



PREPARED BY: STOCK & ASSOCIATES Consulting Engineers, Inc.
257 Chesterfield Business Parkway
St. Louis, MO 63016 PA, (636) 551-9100 FAX (636) 551-9330
e-mail: general@stockandassociates.com
Web: www.stockandassociates.com

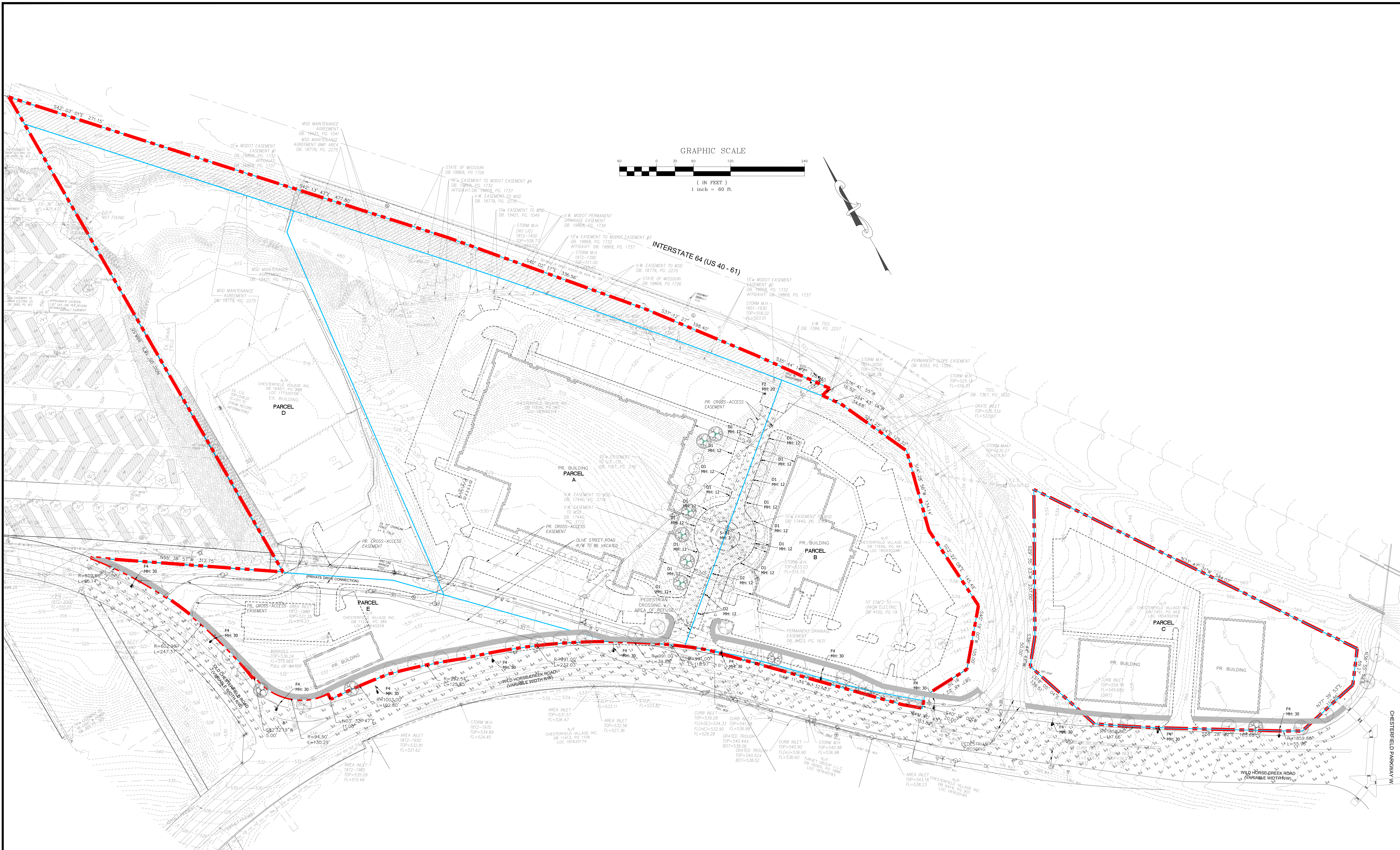
SITE DEVELOPMENT CONCEPT PLAN FOR: WILDHORSE
16439, 16461, 16491, 16493, 16495, 16503, 16511 WILD HORSE CREEK ROAD
CHESTERFIELD, MO 63005 & 63017



REVISIONS:

- 2018-10-29 CITY
- 2018-12-14 CITY
- 2019-01-04 CITY
- 2019-01-17 CITY
- 2019-01-17 COUNTY
- 2019-01-18 COUNTY

DRAWN BY: K.S.G./J.E.B. CHECKED BY: G.M.S.
DATE: 09/07/18 JOB NO: 218-6283.4
M.S.P. # BASE MAP # 85 & 181
W.D.A.R. # 4234 HAT # 3
SHEET TITLE: SITE DEVELOPMENT CONCEPT PLAN
SHEET NO.: SDCP-1



POLE FIXTURE MOUNTING HEIGHT INCLUDES BASE
 LIGHT LEVEL CALCULATED ON THE GROUND

Calculation Summary

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
OLD CHESTERFIELD RD	Illuminance	Fc	0.76	2.5	0.1	7.60	25.00
INTERNAL DRIVE	Illuminance	Fc	1.60	7.4	0.5	3.20	14.80
WHCR	Illuminance	Fc	0.56	2.5	0.0	N.A.	N.A.

Luminaire Schedule

Symbol	Qty	Label	Arrangement	Lum. Watts	Total Watts	LLF	Description
○	5	B1	SINGLE	46.8	234	1.000	RT4xx-26L45T5-MDL05-CA
●	16	D1	SINGLE	42	672	1.000	L9462A Albertslund Mini LED 4000K
●●	3	D2	BACK-BACK	42	252	1.000	L9462A Albertslund Mini LED 4000K
□	1	F2	SINGLE	59	59	1.000	GLEON-AF-01-LED-E1-SL3-HSS
⊞	12	F4	SINGLE	72.3	867.6	1.000	GCM2-40H-MW-NW-3R-XX-575

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

REVISIONS:
 1. 2018-10-29 CITY
 2. 2018-12-14 CITY
 3. 2019-01-04 CITY
 4. 2019-01-16 CITY
 5. 2019-01-17 COUNTY
 6. 2019-01-18 COUNTY

DRAWN BY: K.S.C./J.E.B. CHECKED BY: G.M.S.
 DATE: 09/07/18 JOB NO: 218-6283.4
 W.S.D. P.#: - RISE MAP #:
 S.L.C. MAP # 4234 H&T SUP. #:
 M.B.N.R. #:

SHEET TITLE:
**CONCEPT
 PHOTOMETRIC
 PLAN**
 SHEET NO:
SDCP-2

LANDSCAPE GUIDELINE SPECS:

GENERAL:

- All natural vegetation shall be maintained where it does not interfere with construction or the permanent plan of operation. Every effort possible shall be made to protect existing structures or vegetation from damage due to equipment usage. Contractor shall at all times protect all materials and work against injury to public. The landscape contractor shall be responsible for any coordination and sequencing with other site related work being performed by other contractors. Refer to additional drawings for further coordination of work to be done.
- Underground facilities, structures and utilities must be considered approximate only. There may be others not presently known or shown. It shall be the landscape contractor's responsibility to determine or verify the existence of and exact location of the above (Call utility location services in municipality). Plant material are to be planted in the same relationship to grade as was grown in nursery conditions.
- It shall be the landscape contractor's responsibility to:
 - Verify all existing and proposed features shown on the drawings prior to commencement of work.
 - Report all discrepancies found with regard to existing conditions on proposed design to the landscape architect immediately for a decision.
 - Stake the locations of all proposed plant material and obtain the approval of the owner's representative or landscape architect ten (10) days prior to installation.
- Items shown on this drawing take precedence over the material list. It shall be the landscape contractor's responsibility to verify all quantities and conditions prior to implementation of this plan. No substitutions of types or size of plant materials will be accepted without written approval from the landscape architect.
- Provide single-stem trees unless otherwise noted in plant schedule.
- All plant material shall comply with the recommendations and requirements of ANSI Z601 "American Standards for Nursery Stock".
- It shall be the contractor's responsibility to provide for inspection of the plant material by the Landscape Architect (or Owners' Representative) prior to acceptance. Inspections may take place before, during or after installation. Plants not conforming exactly to the plant list will not be accepted and shall be replaced at the landscape contractor's expense.

- All bids are to have unit prices listed. The Owner has the option to delete any portion of the contract prior to signing the contract or beginning work. This will be a unit price contract; quotes shall be valid for 12 months.
- Should any equipment be utilized in excavating any plant pits, vertical sides of plant pits shall be thoroughly scarified to avoid creation of "polished side walls" prior to plant material installation.
- All excess topsoil, rocks, debris and/or tainted soils shall be removed by the general contractor prior to point project is turned over to the landscape contractor to commence landscape installation.
- Keep all plant material (except turf) a minimum of 36" clear of fire hydrants.
- Landscape contractor shall kill & remove all existing weeds within the project site.
- All tags, nursery stakes, labels, etc. shall be removed by the landscape contractor at completion of all landscape installation.
- Landscape contractor shall be in compliance with all Federal, state and local laws / regulations relating to insect infestation and/or plant diseases.
- All substitutions of plant material shall be submitted to landscape architect for approval.

TOPSOIL:

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

WARRANTY:

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

PRUNING:

- Lightly prune trees at time of planting. Prune only the crossover limbs, intermingled leaders and/or any broken branches. Some interior twigs and lateral branches that extend to the edge of the crown.
- All pruning shall comply with ANSI A300 standards.

INSURANCE:

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

MULCH:

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

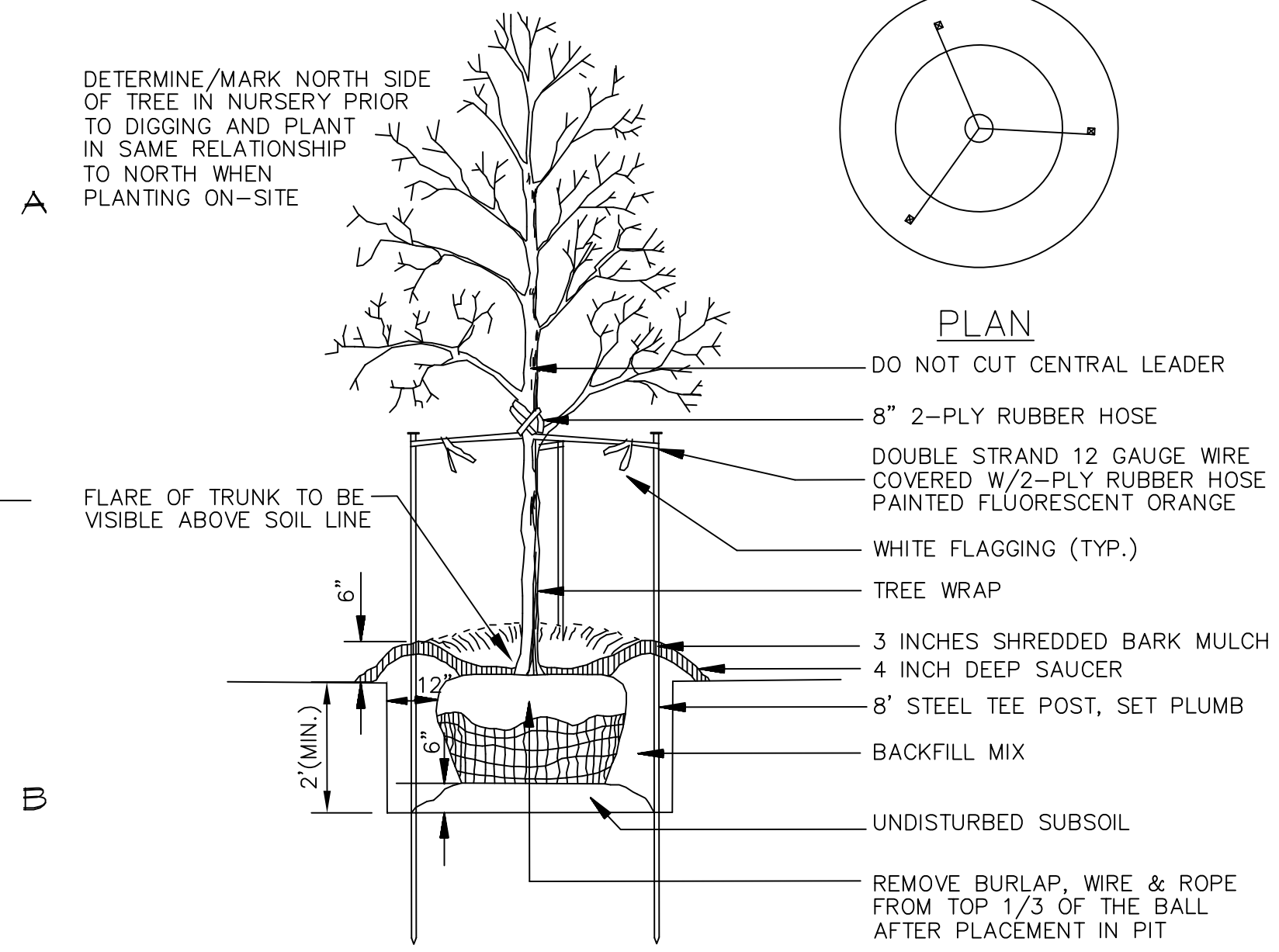
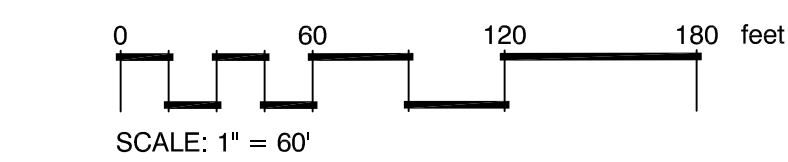
TYPE	QTY.	PERCENTAGE
DECIDUOUS:	52	100%
ORNAMENTAL:	0	0%
EVERGREEN:	0	0%

14 FAST GROWTH (45%) AND 28 SLOW/MEDIUM GROWTH (55%)

ALL STREET TREES SHALL BE MIN. 2.5" CALIPER WITH A MAXIMUM OF 20% OF TREES OF ONE SPECIES THROUGHOUT



INDICATES PROPOSED LIGHTING FIXTURES (SEE CIVIL DWGS.)



DECIDUOUS TREE PLANTING

N.T.S.

STREET TREES: 1 per 50 LF FRONTAGE (or part thereof)

• 400.78 LF FRONTAGE @ WILDHORSE CREEK RD. (Parcel A+E), REQUIRING TWENTY TWO (22) TREES, EIGHTEEN (18) TREES PROVIDED

• 341.71 LF FRONTAGE @ WILDHORSE CREEK RD. (Parcel B), REQUIRING EIGHT (8) TREES, EIGHT (8) TREES PROVIDED

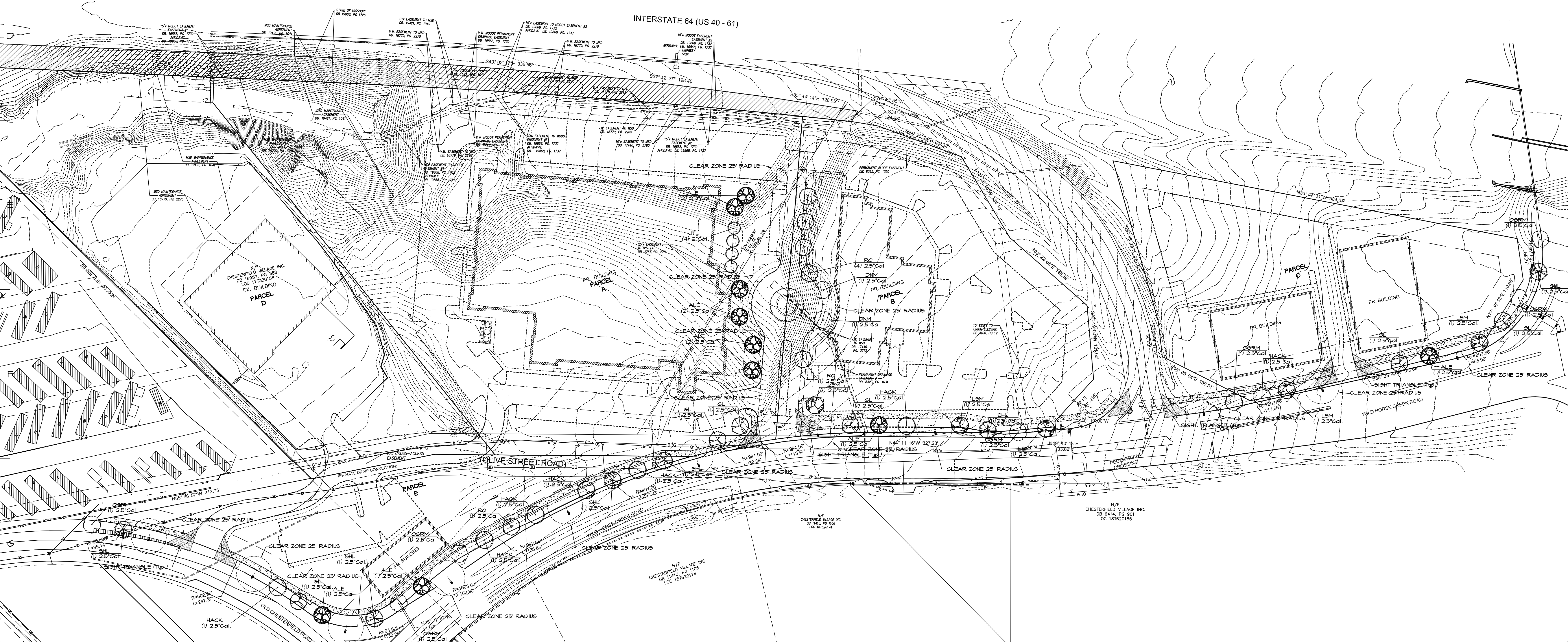
• 507.45 LF FRONTAGE @ WILDHORSE CREEK RD. (Parcel C), REQUIRING ELEVEN (11) TREES, TEN (10) TREES PROVIDED

PLEASE NOTE: DUE TO LOCATIONS OF LIGHT STANDARDS, DRIVE OPENINGS AND SIGHT TRIANGLES NUMBER OF PROPOSED TREES ARE FEWER THAN REQUIRED BY A TOTAL OF FIVE (5) TREES

PLANT SCHEDULE

TREES	QTY	COMMON NAME / BOTANICAL NAME	SIZE	Slon	Moderate	Fast	< 6"	6" - 18"	18" - 36"	> 36"	< 18"	18" - 36"	6" - 10"	10" - 15"	15"	< 15"	15" - 25"	25" - 40"	40" - 65"	> 65"		
ALE	10 (14%)	Athena Lacebark Elm / <i>Ulmus parvifolia</i> 'Emer 1'	2.5" Cal.				●															
HACK	7 (9%)	Common Hackberry / <i>Celtis occidentalis</i>	2.5" Cal.				●															
DNM	2 (3%)	Deborah Norway Maple / <i>Acer platanoides</i> 'Deborah'	2.5" Cal.				●															
SKL	6 (8%)	Greening Lilac / <i>Syringa reticulata</i> 'Greening'	2.5" Cal.				●															
LSM	5 (7%)	Legacy Sugar Maple / <i>Acer saccharum</i> 'Legacy'	2.5" Cal.				●															
GOR	6 (8%)	Red Oak / <i>Quercus rubra</i>	2.5" Cal.				●															
OSRM	7 (9%)	October Glory Maple / <i>Acer rubrum</i> 'October Glory'	2.5" Cal.				●															
SKL	6 (8%)	Skyline Locust / <i>Biodista triacanthos</i> 'Skyline'	2.5" Cal.				●															
FLOWERING TREES	QTY	COMMON NAME / BOTANICAL NAME	SIZE	Slon	Moderate	Fast	< 6"	6" - 18"	18" - 36"	> 36"	< 18"	18" - 36"	6" - 10"	10" - 15"	15"	< 15"	15" - 25"	25" - 40"	40" - 65"	> 65"		
JTL	4 (8%)	Ivory Silk Japanese Tree Lilac / <i>Syringa reticulata</i> 'Ivory Silk'	2.5" Cal.				●															

CONCEPTUAL PARCEL	SIZE (Sq. Ft.)	SIZE (Ac.)
PARCEL A	318,221	7.31
PARCEL B	151,326	3.47
PARCEL C	126,304	2.91
PARCEL D	146,316	4.51
PARCEL E	84,391	1.94



REVISIONS BY

DATE	BY
10/9/18	RAM
10/26/18	RAM
12/14/18	RAM
1/3/19	RAM

Landscap
TECHNOLOGIES

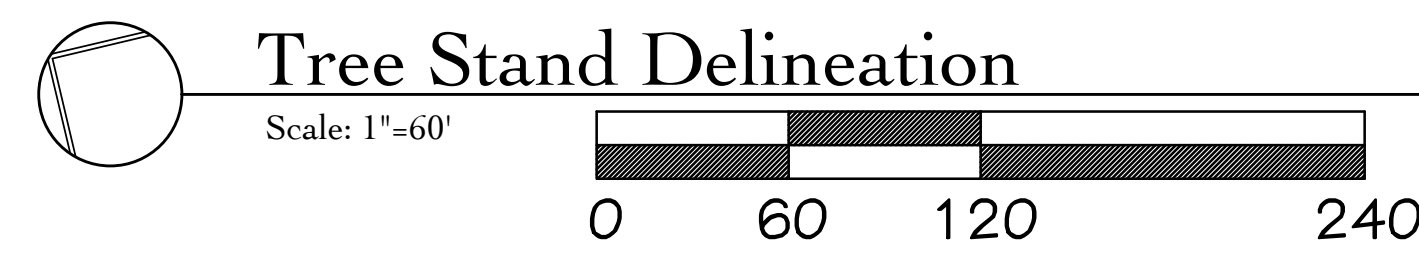
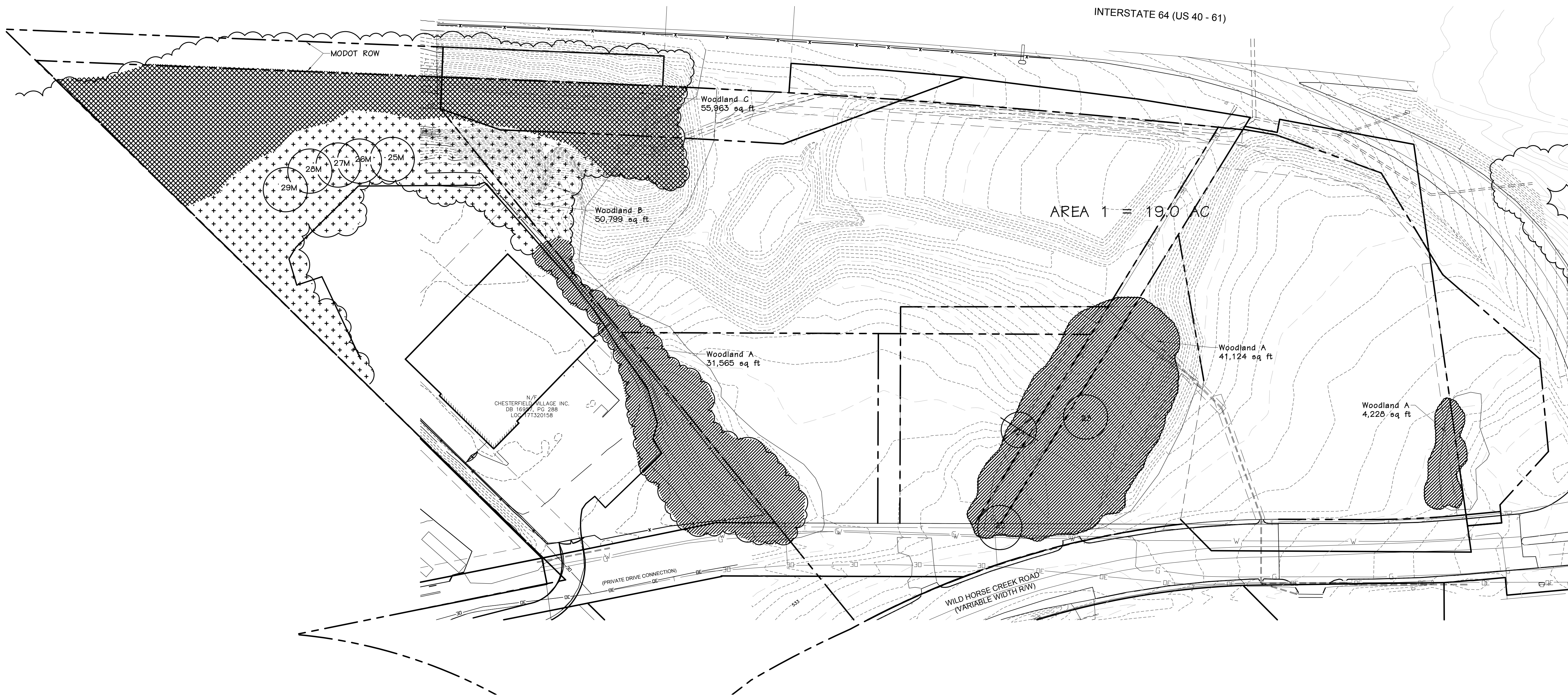
617 Jacobs Creek Drive
St. Louis, MO 63114
Tel: 314-291-1100
Fax: 314-291-1101
www.landscaptechnologies.com

REGISTERED PROFESSIONAL LANDSCAPE ARCHITECT

RANDALL M. HARDS
LANDSCAPE ARCHITECT
NO. 19337
DATE: 1/3/19

CONCEPTUAL PLAN FOR THE PROPOSED:
Wildhorse
CHESTERFIELD, MISSOURI

DRAWN
R. HARDS
CHECKED
RAM/EL
DATE
9/6/18
SCALE
1"=60'-0"
JOB No.
2018-153
SHEET
L-1
OF ONE SHEET



Project Tree ID	Latin Name	Common Name	DBH	Height (ft.)	Canopy Spread (ft.)	Condition	Number of Stems
1	<i>Gleditsia triacanthos var inermis</i>	honeylocust thornless	26	41-50	41-50	Dead (0)	1
2	<i>Quercus palustris</i>	oak pin	38	51-60	41-50	Poor (50-59)	1
3	<i>Morus species</i>	mulberry	12	31-40	31-40	Fair (60-69)	1
4	<i>Liquidambar styraciflua</i>	sweetgum	26	41-50	31-40	Good (70-79)	1
5	<i>Liquidambar styraciflua</i>	sweetgum	30	51-60	41-50	Good (70-79)	1
6	<i>Prunus serotina</i>	cherry black	26	41-50	31-40	Fair (60-69)	1
7	<i>Betula nigra</i>	birch river	8	21-30	13-20	Fair (60-69)	Multiple Stems
8	<i>Betula nigra</i>	birch river	6	21-30	13-20	Fair (60-69)	Multiple Stems
9	<i>Betula nigra</i>	birch river	9	21-30	13-20	Fair (60-69)	1
10	<i>Betula nigra</i>	birch river	10	21-30	21-30	Fair (60-69)	1
11	<i>Betula nigra</i>	birch river	10	21-30	21-30	Fair (60-69)	1
12	<i>Prunus serotina</i>	cherry black	10	21-30	21-30	Poor (50-59)	Multiple Stems
13	<i>Unmusical rubra</i>	elm slippery	14	31-40	31-40	Fair (60-69)	1
14	<i>Quercus velutina</i>	oak black	14	31-40	31-40	Fair (60-69)	1
15	<i>Quercus velutina</i>	oak black	12	31-40	31-40	Fair (60-69)	1
16	<i>Betula nigra</i>	birch river	10	31-40	21-30	Fair (60-69)	1
17	<i>Morus species</i>	mulberry	12	31-40	21-30	Fair (60-69)	1
18	<i>Unmusical rubra</i>	elm slippery	12	31-40	21-30	Fair (60-69)	1
19	<i>Crataegus phaenopyrum</i>	hawthorn washington	6	20-Nov	13-20	Poor (50-59)	1
20	<i>Crataegus phaenopyrum</i>	hawthorn washington	6	20-Nov	13-20	Fair (60-69)	1
21	<i>Unmusical rubra</i>	elm slippery	28	41-50	41-50	Fair (60-69)	1
22	<i>Juglans nigra</i>	walnut black	42	51-60	41-50	Critical (10-49)	1
23	<i>Juglans nigra</i>	walnut black	40	51-60	41-50	Critical (10-49)	1
24	<i>Juglans nigra</i>	walnut black	32	41-50	41-50	Dead (0)	1

NOTE: These larger trees were located and identified. However, it was determined that none of these met two or more of the criteria to be classified as Monarch trees.

MONARCH TREE LIST

Project Tree ID	Latin Name	Common Name	DBH	Condition
25	<i>Quercus alba</i>	White Oak	28	Monarch
26	<i>Quercus alba</i>	White Oak	28	Monarch
27	<i>Quercus alba</i>	White Oak	28	Monarch
28	<i>Quercus alba</i>	White Oak	28	Monarch
29	<i>Quercus alba</i>	White Oak	28	Monarch

LEGEND

- Location
- 10 Reference Number
- Dead Tree

Tree Stand Delineation Narrative
October 22, 2018

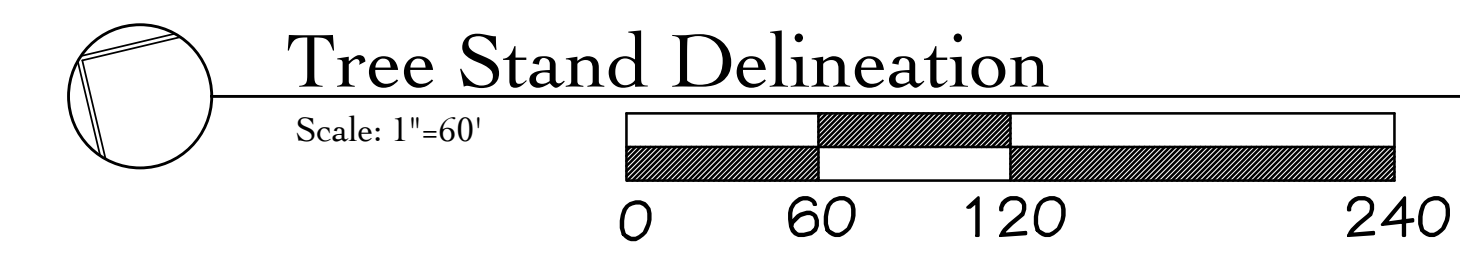
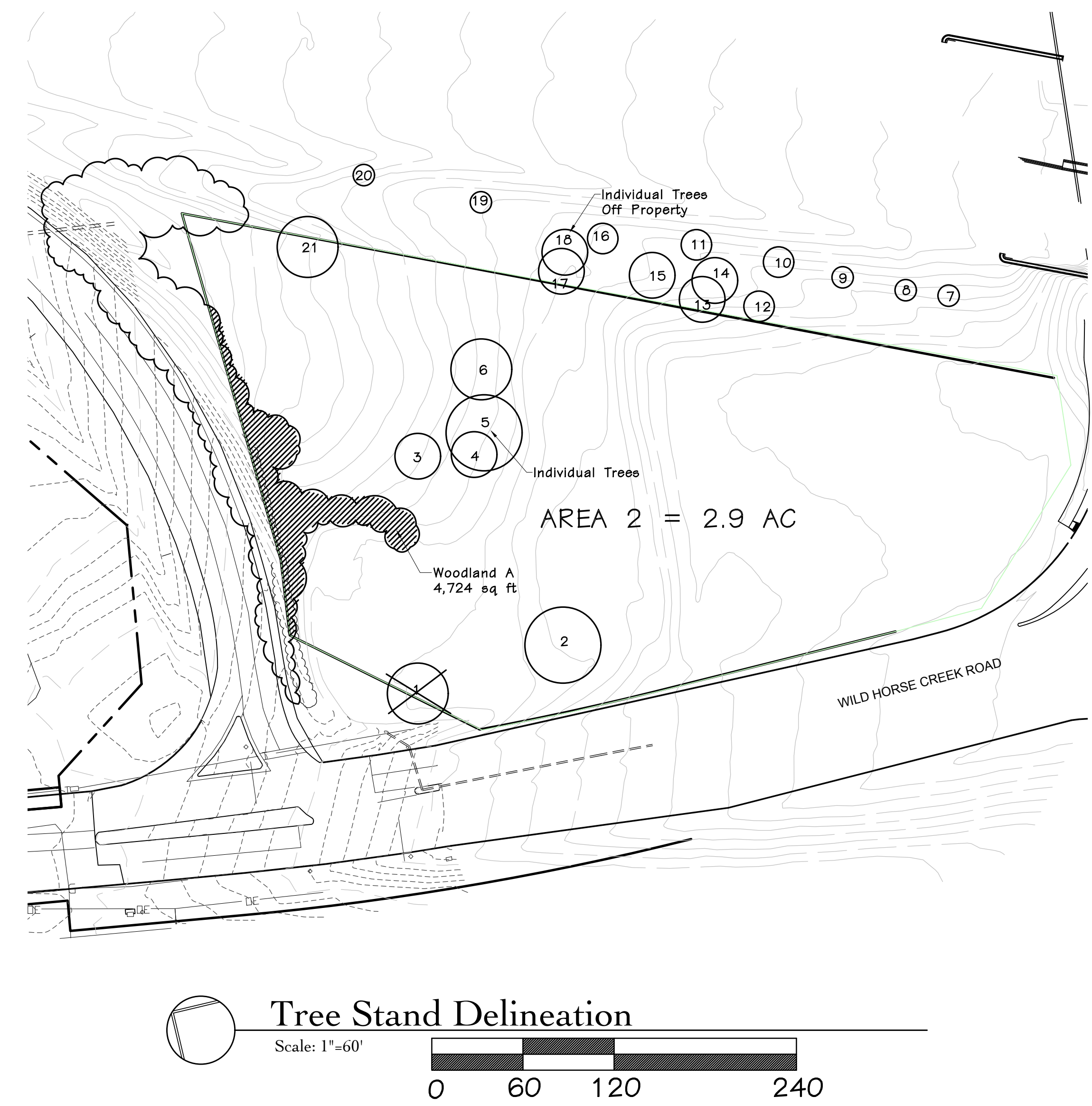
The overall properties comprises a total of 21.91 Ac and has a total of 4.5 Ac. of Woodlands. The attached detailed Tree Stand Delineation map was completed by field inspection.

Woodland A: The Woodlands are second growth with scattered canopy trees that are 10-14" diameter and a dense understory of honeysuckle. Canopy species include walnut, elm, honeylocust and black locust.

Woodland B: The Woodlands are scattered large canopy trees of White and Red oak that are 18-28" diameter. The understory is primarily Sugar Maple that are 3-4" diameter and honeysuckle.

Woodland C: The Woodlands are second growth with scattered canopy trees that are 6-10" diameter and a dense understory of honeysuckle. Canopy species include sycamore, cottonwood, and black locust.

WOODLAND Area 1 = 4.2 Ac.	(183,679 sq. ft.)
Woodland A = 76,917 sq. ft.	
Woodland B = 50,799 sq. ft.	
Woodland C = 55,963 sq. ft.	
WOODLAND Area 2 = 0.1 Ac.	(4,724 sq. ft.)
INDIVIDUAL TREES = 0.2 Ac.	(7,142 sq. ft.)
Total Existing Canopy	4.5 Ac (195,545 sq. ft.)



Douglas A. DeLong, Landscape Architect LA-81

Consultants:



WILDHORSE
Pearl Companies

Chesterfield, Mo.

Revisions:

Date	Description	No.
12/14/18	City Comments	1

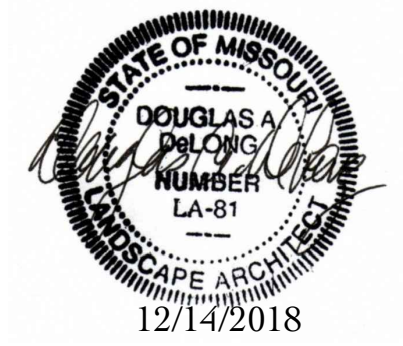
Drawn: **BD**
Checked: **DD**

DeLong
Landscape Architecture, LLC
7620 West Bruno Ave
St. Louis, MO, 63117
(314) 346-4856
delong.la@gmail.com
Missouri State Certified Landscape Architect #0103000415

Sheet Title: **Tree Stand Delineation**
Sheet No: **TSD-1**
Date: **10-22-18**
Job #: **174,002**

Tree Stand Delineation Prepared under direction of Skip Kincaid of Hansen's Tree Service Certified Arborist MW-0155BW

Skip Kincaid
Base Map Provided by: Stack Associates

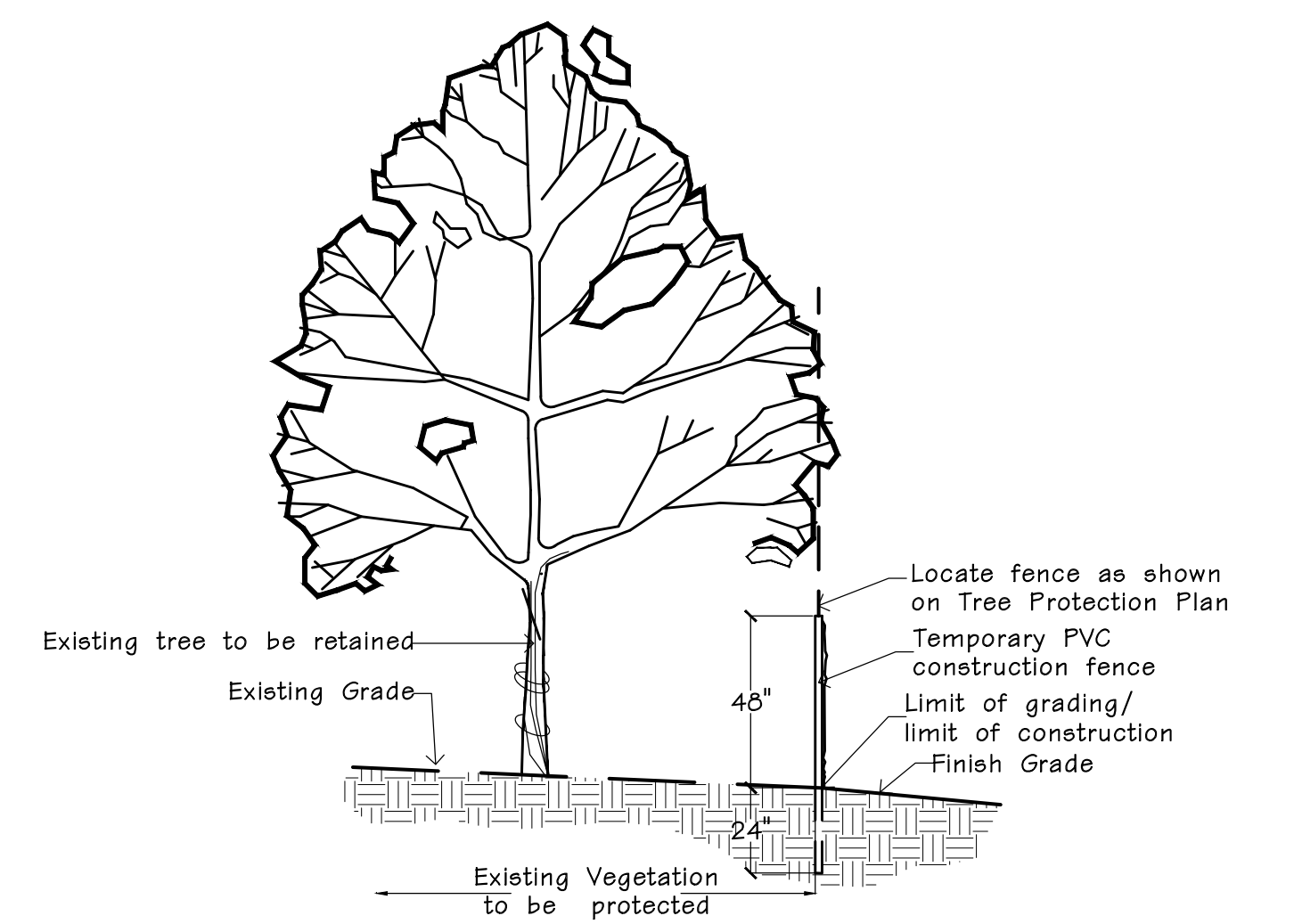
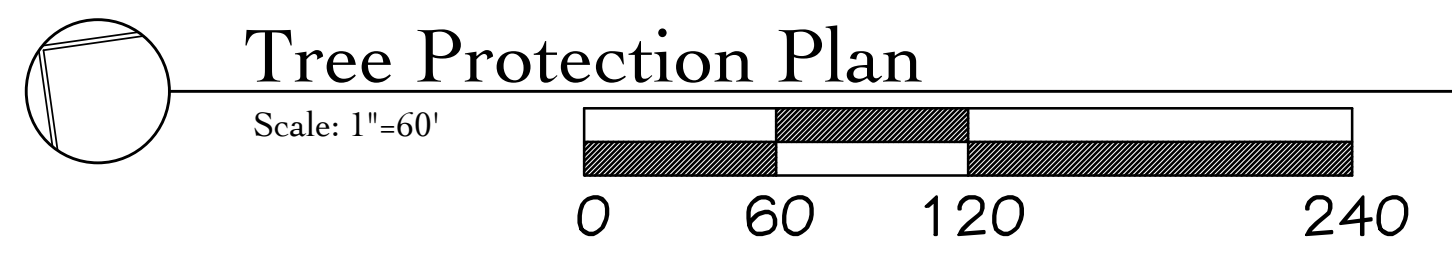
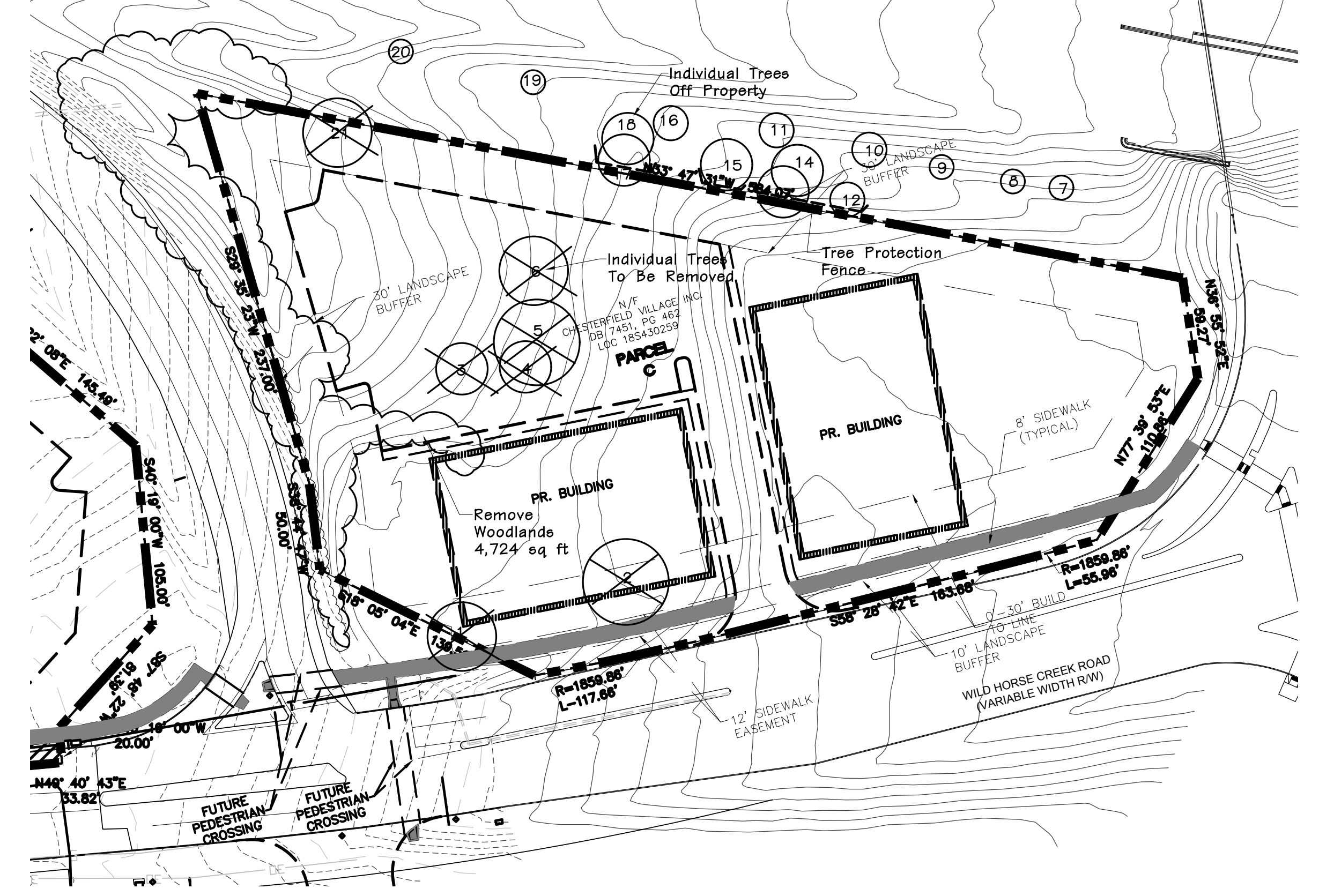
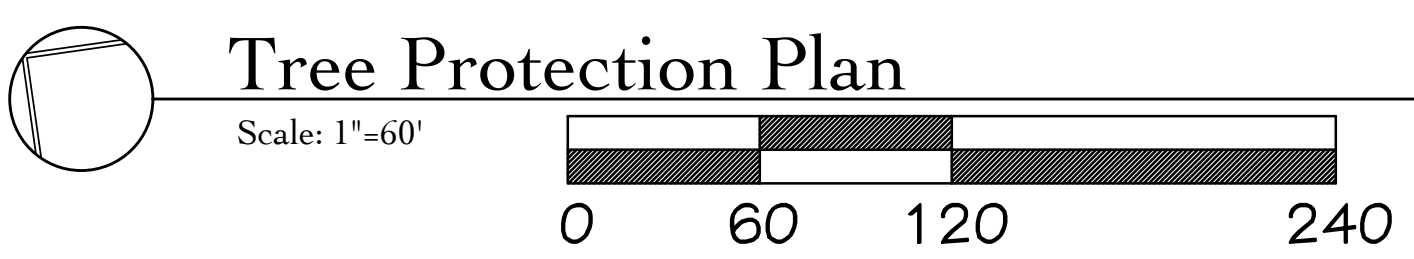
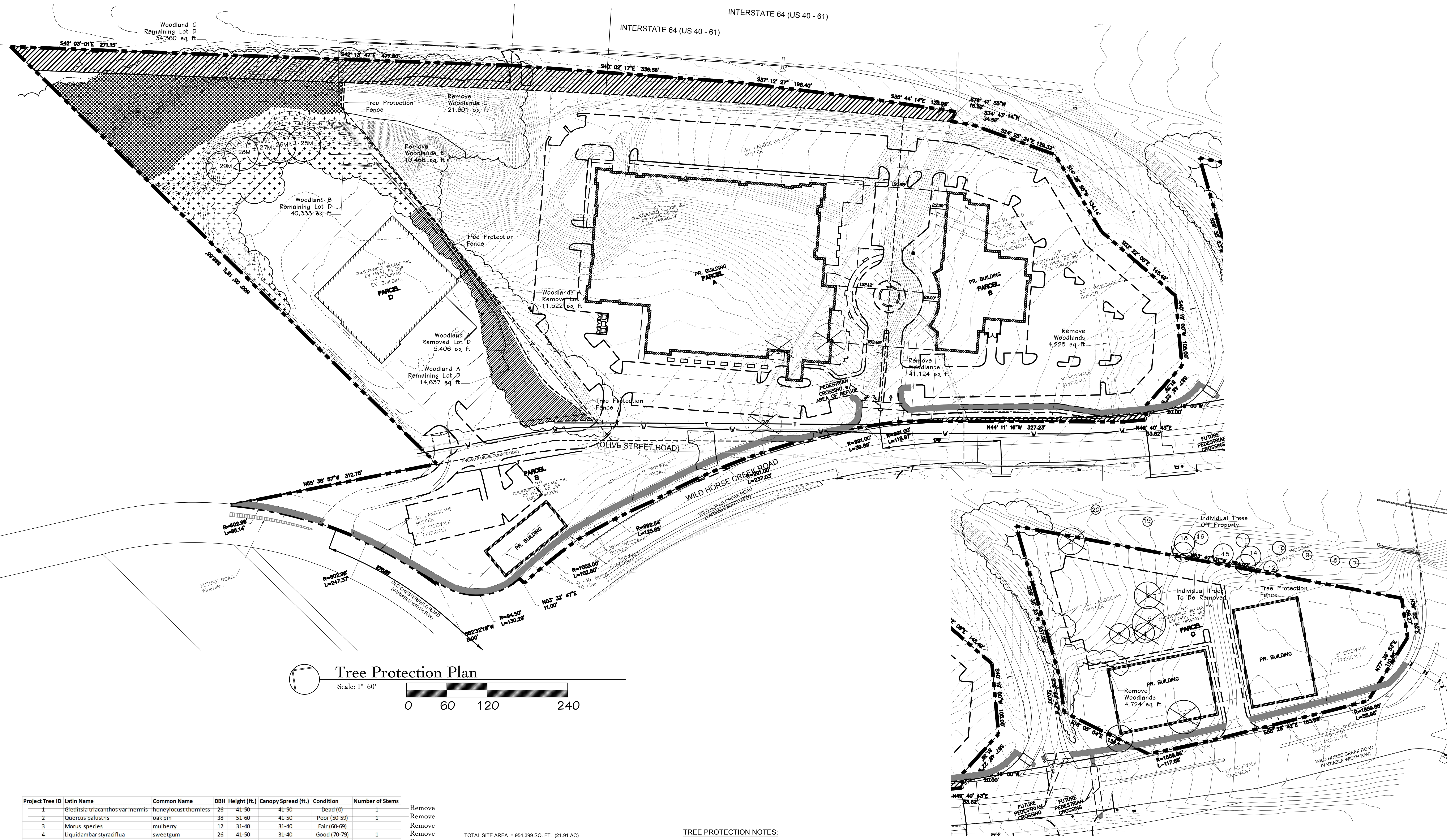


Douglas A. DeLong, Landscape Architect LA-81

Consultants:



WILDHORSE
Pearl Companies
Chesterfield, Mo.



TREE PROTECTION DETAIL
n.t.s.

Project Tree ID	Latin Name	Common Name	DBH	Height (ft.)	Canopy Spread (ft.)	Condition	Number of Stems	Remove
1	Gleditsia triacanthos var inermis	honeylocust thornless	26	41-50	41-50	Dead (0)	1	Remove
2	Quercus palustris	oak pin	38	51-60	41-50	Poor (50-59)	1	Remove
3	Morus species	mulberry	12	31-40	31-40	Fair (60-69)	1	Remove
4	Liquidambar styraciflua	sweetgum	26	41-50	31-40	Good (70-79)	1	Remove
5	Liquidambar styraciflua	sweetgum	30	51-60	41-50	Good (70-79)	1	Remove
6	Prunus serotina	cherry black	26	41-50	31-40	Fair (60-69)	1	Remove
7	Betula nigra	birch river	8	21-30	13-20	Fair (60-69)	Multiple Stems	
8	Betula nigra	birch river	6	21-30	13-20	Fair (60-69)	Multiple Stems	
9	Betula nigra	birch river	9	21-30	13-20	Fair (60-69)	1	
10	Betula nigra	birch river	10	21-30	21-30	Fair (60-69)	1	
11	Betula nigra	birch river	10	21-30	21-30	Fair (60-69)	1	
12	Prunus serotina	cherry black	10	21-30	21-30	Poor (50-59)	Multiple Stems	
13	Unmusical rubra	elm slippery	14	31-40	31-40	Fair (60-69)	1	
14	Quercus velutina	oak black	14	31-40	31-40	Fair (60-69)	1	
15	Quercus velutina	oak black	12	31-40	31-40	Fair (60-69)	1	
16	Betula nigra	birch river	10	31-40	21-30	Fair (60-69)	1	
17	Morus species	mulberry	12	31-40	21-30	Fair (60-69)	1	
18	Unmusical rubra	elm slippery	12	31-40	21-30	Fair (60-69)	1	
19	Crataegus phaenopyrum	hawthorn washington	6	20-Nov	13-20	Poor (50-59)	1	
20	Crataegus phaenopyrum	hawthorn washington	6	20-Nov	13-20	Fair (60-69)	1	
21	Unmusical rubra	elm slippery	28	41-50	41-50	Fair (60-69)	1	Remove
22	Juglans nigra	walnut black	42	51-60	41-50	Critical (10-49)	1	Remove
23	Juglans nigra	walnut black	40	51-60	41-50	Critical (10-49)	1	Remove
24	Juglans nigra	walnut black	32	41-50	41-50	Dead (0)	1	Remove

NOTE: These larger trees were located and identified. However, it was determined that none of these met two or more of the criteria to be classified as Monarch trees.

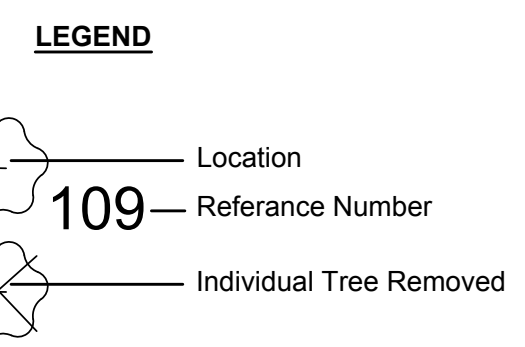
MONARCH TREE LIST

Project Tree ID	Latin Name	Common Name	DBH	Condition
25	Quercus alba	White Oak	28	Monarch
26	Quercus alba	White Oak	28	Monarch
27	Quercus alba	White Oak	28	Monarch
28	Quercus alba	White Oak	28	Monarch
29	Quercus alba	White Oak	28	Monarch

TOTAL SITE AREA = 954,399 SQ. FT. (21.91 AC)
 TOTAL EXISTING WOODLANDS & INDIVIDUAL TREES = 195,545 SQ. FT.
 PARCEL A: EXISTING WOODLANDS: 84,715 sq ft
 WOODLANDS REMOVED: 84,715 sq ft (100%)
 WOODLANDS REMAINING: 0 - sq ft Mitigation Required
 PARCEL B: EXISTING WOODLANDS: 4,228 sq ft
 WOODLANDS REMOVED: 4,228 sq ft (100%)
 WOODLANDS REMAINING: 0 - Mitigation Required
 PARCEL C: EXISTING WOODLANDS: 11,866 sq ft
 WOODLANDS REMOVED: 11,866 sq ft (100%)
 WOODLANDS REMAINING: 0 - Mitigation Required
 PARCEL D: EXISTING WOODLANDS: 94,736 sq ft
 WOODLANDS REMOVED: 5,406 sq ft (5.7%)
 WOODLANDS REMAINING: 89,330 sq ft (94.3%)
 PARCEL E: NO EXISTING WOODLANDS: 0 sq ft
 NO PRESERVATION REQUIRED

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.



Revisions:

Date	Description	No.
12/14/18	City Comments	1

Drawn: **BD**
Checked: **DD**

DeLong Architecture, LLC
 7620 West Bruno Ave
 St. Louis, MO 63117
 (314) 346-4856
 delong.la@gmail.com
 Missouri State Certificate of Arborist: #010300145

Sheet Title: **Tree Protection Plan-6DCP**
 Sheet No: **TPP-1**
 Date: **10-22-18**
 Job #: **174,002**



January 17, 2019

Joseph M. Knight
City Planner
City of Chesterfield

Re: Category Area C – Signage Concept Plan
TR,i Project #: 18-030

To Whom it may concern,

Chesterfield's Unified Development Code requires the development team to submit a Signage Concept Plan for review and approval by the City of Chesterfield. The concepts proposed in this signage plan are intended to be utilized by neighboring Area C sites to promote a consistent approach to signage. It is our intent to create a high quality and unique development that enhances the Chesterfield community. There are two components to our approach to the Signage Concept Plan; building signage and site signage.

The building signage is generally being utilized by our commercial tenants having frontage along streets or internal drives. Our intent is to maintain the flexibility that the Chesterfield Sign Code provides these types of tenants. This flexibility is important to maintain parity with other developments in the marketplace when competing for tenants. All building signage will be constructed of quality industry standard materials and components consistent with the City sign ordinance.

The site signage has been designed to integrate into the landscape, as well as, relate to the building architecture. The dark metal utilized in the signs relates to the proposed building materials, while the use of random boulder bases ties the signage to the landscaping. This approach will aid in facilitating a unified approach to site signage of adjacent developments due to the emphasis on the landscaping rather than the building architecture, as design style is likely to change and evolve as sites are developed over time.

I trust this information meets your needs. Please advise if you have any questions or comments.

Respectfully,

A handwritten signature in black ink, appearing to read 'Daniel Tate'.

Daniel Tate
Senior Design Architect

Section Area C – Signage Concept Plan

Signage for developments located in Section Area C are to comply with the following criteria and guidelines. Individual sign packages for each site development are to be submitted to the City of Chesterfield for approval.

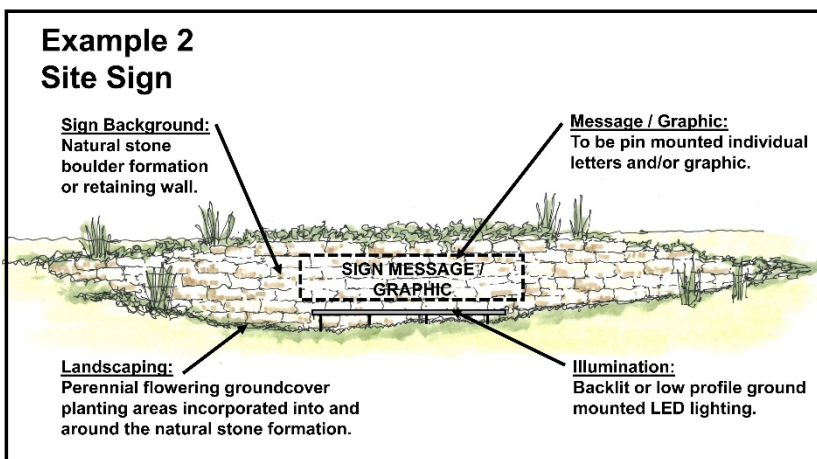
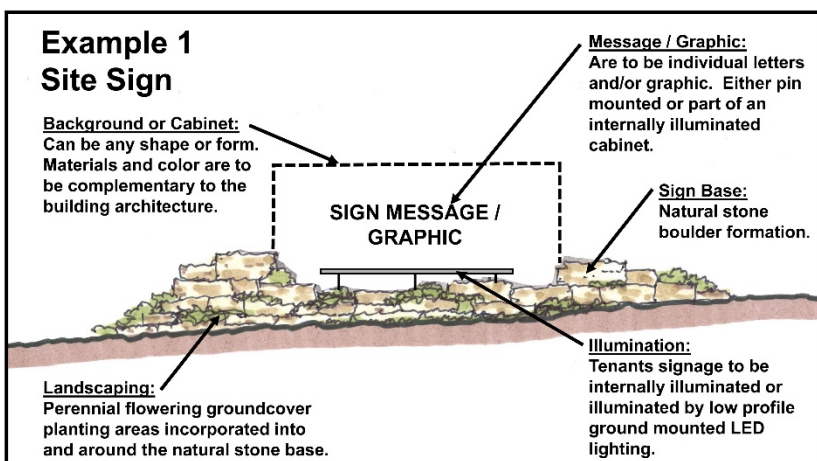
Free Standing Site Signage

Free standing signs are to integrate into the landscape as a common theme throughout Area C. All free standing signs are to utilize large scale natural stone for the base of the sign, or as the background for the sign message. The sign background or cabinet can be any shape or form. The materials and color are to be complementary to the building architecture. The signage message and/or graphic are to be comprised of individual letters or symbols. All text and graphic are to be pin mounted to the sign background or be cut out letters and graphics in an opaque panel integral to the sign cabinet. A sign mounted to a background is to be either to be illuminated by ground mounted LED lighting or be backlit. Signage integral to a sign cabinet is to be internally illuminated. Reference example site sign 1 and 2 for clarification.

Landscaping is an important component of the site signage concept. Perennial flowering groundcover planting areas are to be incorporated into and around the base of each site sign to add color and texture. The types of groundcover planting selected are to be compatible for growth within the USDA Plant Hardiness Zones 6b and 7a. Suggested species of perennial groundcover are as follows by common name:

- Creeping Thyme
- Creeping Phlox
- Sedum
- Campaula Portenschlagiana
- Lamb's Ear
- Whitewell Gem Rock Cress

Planting and groundcover are not limited to the list above. All proposed signage landscaping will be review based on merit at the time of submission.

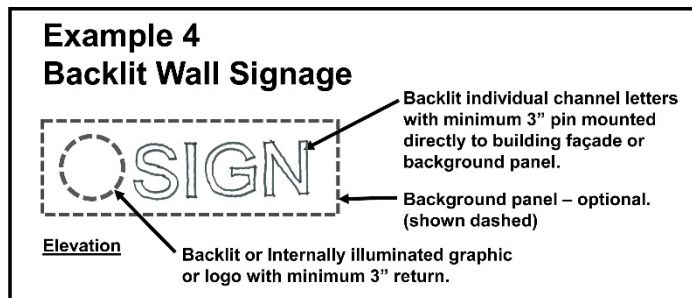
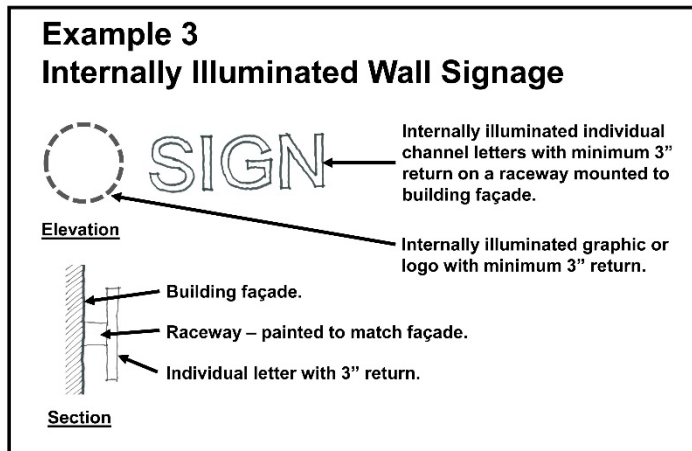


Attached Wall Building Signage

Building wall signs are to be complementary to the building architecture. All wall signage will be constructed of quality industry standard materials and components consistent with the City sign ordinance.

Wall signs are to be internally illuminated individual letters with acrylic translucent face and 3" opaque return. An internally illuminated graphic or logo may be part of an individual tenant sign. Internally illuminated wall signs are to be mounted on a raceway, painted to match the building façade. Reference example 3 for internally illuminated wall signs.

Individual tenants or developments may choose to utilize backlit wall signage. Backlit wall signs are to be individual metal letters with a minimum 3" return. These signs are to be either pin mounted directly to the building façade or mounted to a background panel that is attached to the façade. An internally illuminated or backlit graphic or logo may be part of an individual tenant sign. Reference example 4 for backlit signs.



Cabinet signs and blade signs are allowed within Section Area C pending review and approval by the City of Chesterfield through the Concept Sign Package process. Unique design, superior quality and appropriateness of the proposed cabinet or blade sign will be the primary consideration.



RIALTA® RT4xx

The RIALTA® RT4xx luminaire is a cylindrical, three legged, open cage ground mounted luminaire designed to bring ambiance to any project by providing a performance lighting package in a vertical form. The 8" cast aluminum cage cylinder adds a 12" high luminous element that adds visual interest by illuminating from the top casting and giving the effect of moon light from within its cage form. The RT4xx uses one round LED array configuration with a choice of Clear Acrylic or SV2 lens to deliver IES types 5, 4, 3, 3R and 2 distribution with high efficiency and low wattage consumption. A variety of LED color temperatures are available. A choice of several popular polyester powder coat colors are also available.

PROJECT: _____

TYPE: B1 _____

ORDERING EXAMPLE: BL-RT442-26L45T5-MDL05-CA-FHD/UGMT

RT4__											
MOUNTING CONFIG.	SERIES	HEIGHT (H) IN.	NO. OF LEDES	COLOR TEMP K	DISTRIBUTION TYPE	DRIVER	LENS	CONTROLS	DUAL FUSE & HOLDER	COLOR	
BL	Post Top Mounted Luminaire	36	26L	27(00) K	T2	MDL03	CA	OPTIONS		UGMT	UGM
		42		35(00) K	T3	MDL05	SV2	PEC	FHD	UBT	UB
		48		45(00) K	T3R	MDH03		PEC4		ULBT	ULB
					T4	MDH05				USLT	USL
					T5					UWHT	UWH
										UCHS	BKT

BL = Bollard

Product Specs

Optical

- IP66 rated optic module.
- Available in IES Types 2, 3, 3R, 4 and 5 distribution.
- Utilizes high output, high brightness LEDs.
- Minimum of 70 CRI, CCT 2700, 3500 and 4500K. Call factory for custom CCT.
- LM-79 and LM-80 tests in accordance with IESNA standards.
- Lumen depreciation rating L70>100,000 hrs. projected per TM-21 guideline using 525mA drive at 25°C ambient.
- RoHS Compliant.

Electrical

- 120-277 volt and 347-480 volt available.
- Minimum drivers power factor: >0.9.
- Electrical surge protection in accordance with IEEE/ANSI C62.41.2 guidelines.
- UL listed in U.S. and Canada.

Mechanical

- Cast aluminum heat sink, cylindrical lens and twist lock housing.
- Spun aluminum heat sink cover.
- Twist-lock housing installs on 8" OD welded tenon.
- Pole door driver access and removeable driver tray.

Controls

- Supplied with dimmable driver.
- PEC: Optional electronic button photocell (120v-277v).
- PEC4: Optional electronic button photocell (480v).

Finish

- Durable, color retentive powder coat finish.

Warranty & Standards

LED Systems and Drivers - 7 years.
All fixtures shall be free from defects in materials and workmanship for a period of 7 years from the date of manufacture. The luminaire manufacturer shall warrant the LED boards/system, during the stated warranty period, against failure defined as more than 10 percent of non-operating LEDs.

Housing

Housing shall consist of 0.188" wall extruded aluminum and A360 cast top and bottom lens retaining assemblies. Minimum height overall with shaft is 36".

Drivers:

- MDL03: 350mA, 120-277V
- MDL05: 525mA, 120-277V
- MDH03: 350mA, 347-480V
- MDH05: 525mA, 347-480V

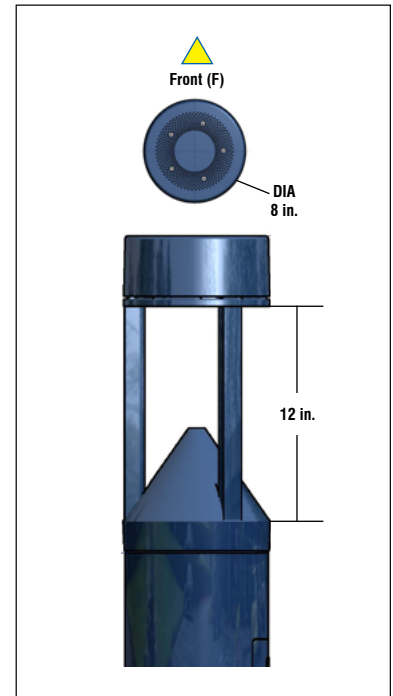
Lens:

- CA - Clear Flat Acrylic
- SV2 - Flat heavy diffuse acrylic

Colors:

- UGMT - Urban Gun Metal Textured
- UBT - Urban Bronze Textured
- ULBT - Urban Light Bronze Textured
- USLT - Urban Silver Textured
- UWHT - Urban White Textured
- UCHS - Urban Champagne Satin Smooth
- UGM - Urban Gun Metal Matte
- UB - Urban Bronze Matte
- ULB - Urban Light Bronze Matte
- USL - Urban Silver Matte
- UWH - Urban White Matte
- BKT - Black Textured

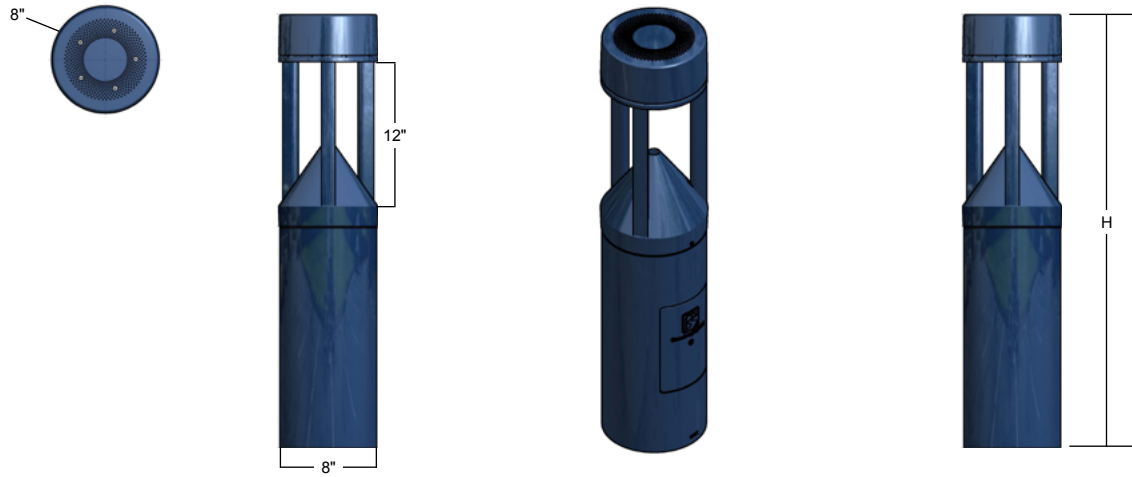
Distribution Orientation:



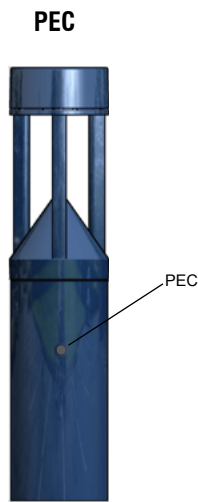
Performance

MODEL #	T3 DELIVERED LUMENS	EFFICACY (LPW)	T3R DELIVERED LUMENS	EFFICACY (LPW)	T4 DELIVERED LUMENS	EFFICACY (LPW)	T5 DELIVERED LUMENS	EFFICACY (LPW)	WATTAGE
RT436CA-26L27T_-MD_03	1995	64.5	2130	68.8	2160	69.7	2095	67.6	31
RT436CA-26L35T_-MD_03	2280	73.6	2430	78.5	2465	79.6	2390	77.1	31
RT436CA-26L45T_-MD_03	2560	82.6	2735	88.2	2770	89.4	2685	86.7	31
RT436CA-26L27T_-MD_05	2825	60.2	3010	64.0	2955	62.9	2980	63.4	47
RT436CA-26L35T_-MD_05	3225	68.7	3435	73.1	3375	71.8	3400	72.4	47
RT436CA-26L45T_-MD_05	3625	77.1	3855	82.1	3790	80.7	3820	81.3	47

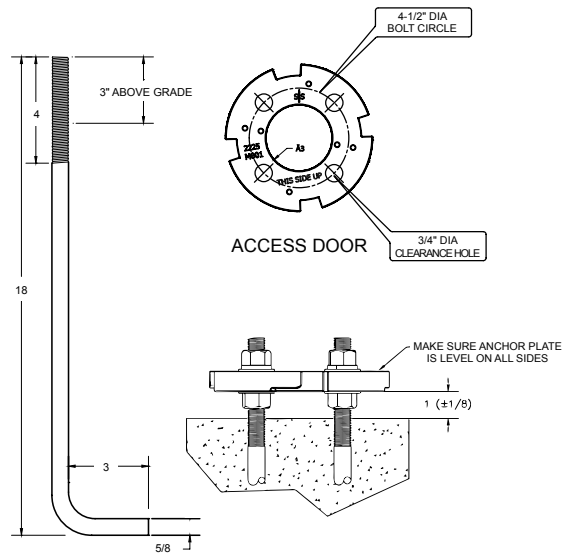
Product Dimensions and Features



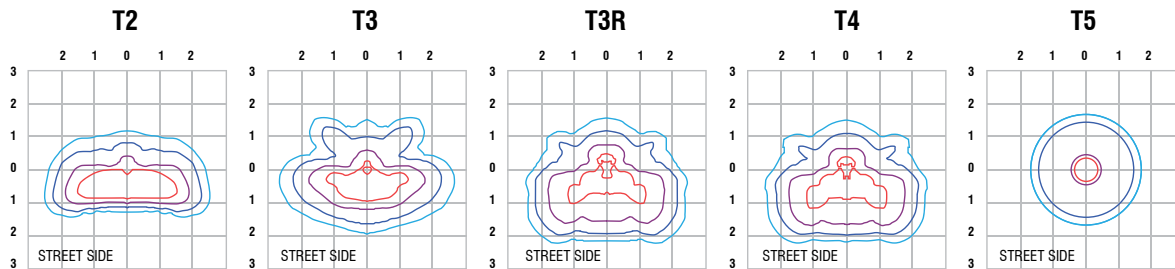
Options



Bolt Circle

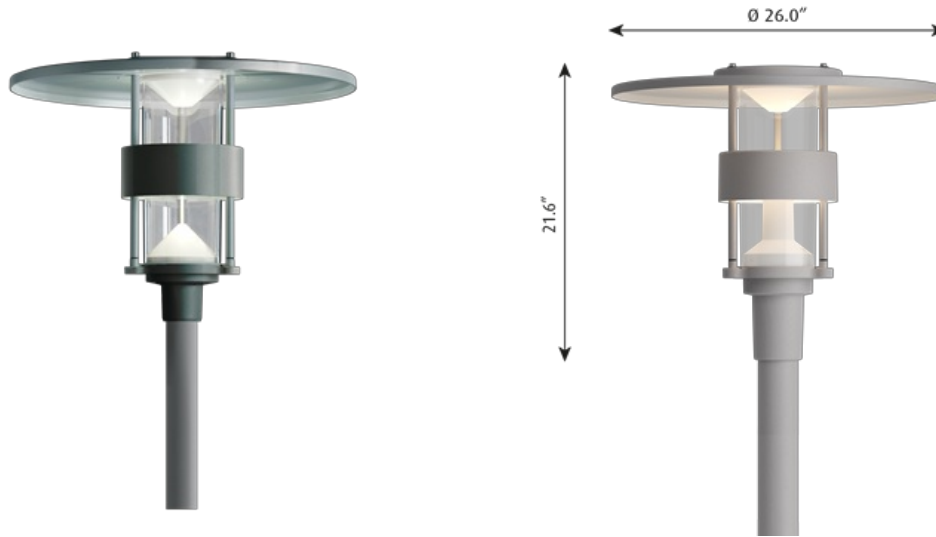


ISO Footcandle Plots



All published luminaire photometric testing performed to IESNA LM-79 standards by NVLAP, certified laboratory. ISO footcandle plots demonstrate the RIALTA'S light patterns only. Not for total fixture output. For complete specifications and IES files, see website.

Albertslund Mini Post



The design is based on an anti-glare ring, conical reflectors and a circular top shade, which serves as the primary reflector.

Terse design

Different colour variants.

Part of a product family.

US: Mounting tenon of die-cast aluminum, 4mm (0.18") thickness for T-DRA-5"-3" or T-RSA-4.5" poles.

Light description

The fixture emits symmetrical glare-free light directed downwards.

The top shade helps direct the light downwards and prevent light from being emitted upwards.

The white painted reflectors result in diffuse and comfortable light distribution.

The reflector ring protects against direct glare and does also serves as a heat sink.

Provides a high level of vertical light for people to feel safe and comfortable.

Two LEDs ensures a good balance between the uplight and downlight.

The fixture design is identifiable when the light is on.

LED technology with more options of standard CCTs.

Electronic dimmable driver

Design

Jens Møller-Jensen

Mounting

EU: Aluminium coloured with textured surface, graphite with textured surface or grey, powder coated.

US: Aluminium coloured, grey, graphite grey, or white, powder coated.

Top shade: High pressure moulded fiber glass, 3mm (0.12") thick. Lower surfaces with high-reflectance white finish.

Enclosure: Injection moulded clear polycarbonate, U. V. stabilized, 3mm (0.12") thick.

Heat sink: Die-cast aluminium, 6mm (0.24") thickness typical, includes hidden fins for thermal transfer to atmosphere.

Console: Die-cast aluminium, 3mm (0.12") thick.

Struts: Stainless steel.

Inside reflectors of white polycarbonate, 2mm (0.08") thick.

Lower LED cover of opal polycarbonate, 2mm (0.08") thick.

Driver inside the fixture head.

Weight

Min: 22 lbs Max: 22 lbs

Finish

Graph, Grey, Nat paint alu, Wht

Voltage
120-277V/60HZ

Finish

Graphite grey, grey, white or natural painted aluminum, powder coated.

Materials

Top shade: Die formed fiber glass. Enclosure: Injection molded clear U.V. stabilized polycarbonate. Heat sink: Die cast aluminum. Base: Die cast aluminum. Struts: Aluminum.

Mounting

Post top: Mounted on dual round aluminum (DRA) or round straight aluminum (RSA) pole.

Sizes and weight

Width x Height x Length (in.)
26 x 19.3 x 26 Max 22.0 lbs

Compliance

cULus, Wet location.

Specification notes

a. Surge protector only available with T-RSA-4.5 transition to pole. b. Consult factory for product specifications for Photo Sensor and Wireless Control options.

Light source

Light source 57W LED/3000K

Light source	Voltage frequency	Color	Class	Transition to pole	Lighting control	Variant number
42W LED/4000K	120-277V/60HZ	Graph	I/II	T-RSA-4.5 IN	DIM 0-10V	10000108764
57W LED/3000K	120-277V/60HZ	Graph	I/II	T-DRA-5 IN-3 IN	DIM 0-10V	10000108771
57W LED/3000K	120-277V/60HZ	Graph	I/II	T-RSA-4.5 IN	DIM 0-10V	10000108762
57W LED/3000K	120-277V/60HZ	Grey	I/II	T-DRA-5 IN-3 IN	DIM 0-10V	10000108773
57W LED/3000K	120-277V/60HZ	Grey	I/II	T-RSA-4.5 IN	DIM 0-10V	10000108765
57W LED/3000K	120-277V/60HZ	Nat paint alu	I/II	T-RSA-4.5 IN	DIM 0-10V	10000108760
57W LED/3000K	120-277V/60HZ	Nat paint alu	I/II	T-DRA-5 IN-3 IN	DIM 0-10V	10000108769
57W LED/3000K	120-277V/60HZ	Wht	I/II	T-DRA-5 IN-3 IN	DIM 0-10V	10000108775
57W LED/3000K	120-277V/60HZ	Wht	I/II	T-RSA-4.5 IN	DIM 0-10V	10000108767
57W LED/4000K	120-277V/60HZ	Graph	I/II	T-DRA-5 IN-3 IN	DIM 0-10V	10000108772
57W LED/4000K	120-277V/60HZ	Grey	I/II	T-DRA-5 IN-3 IN	DIM 0-10V	10000108774
57W LED/4000K	120-277V/60HZ	Grey	I/II	T-RSA-4.5 IN	DIM 0-10V	10000108766
57W LED/4000K	120-277V/60HZ	Nat paint alu	I/II	T-DRA-5 IN-3 IN	DIM 0-10V	10000108770
57W LED/4000K	120-277V/60HZ	Nat paint alu	I/II	T-RSA-4.5 IN	DIM 0-10V	10000108761
57W LED/4000K	120-277V/60HZ	Wht	I/II	T-DRA-5 IN-3 IN	DIM 0-10V	10000108776
57W LED/4000K	120-277V/60HZ	Wht	I/II	T-RSA-4.5 IN	DIM 0-10V	10000108768

Spareparts & accessories

ALB. MINI, POLYCARBON. DIFF.
5747291096

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 #	GLEON-AF-01-LED-E1-SL3-HSS	Type	F2
Project		Date	
Comments			
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

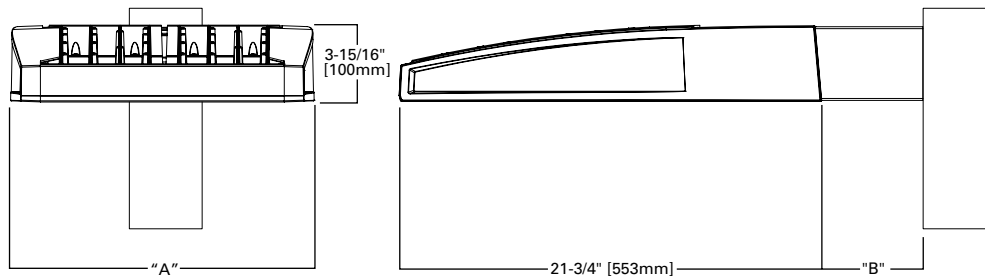
1-10 Light Squares
Solid State LED

AREA/SITE LUMINAIRE



LumenSafe Technology
[CLICK HERE](#)

DIMENSIONS

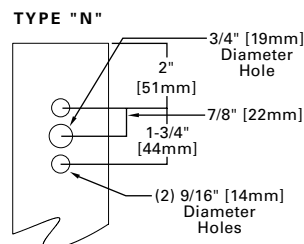


DIMENSION DATA

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



CERTIFICATION DATA

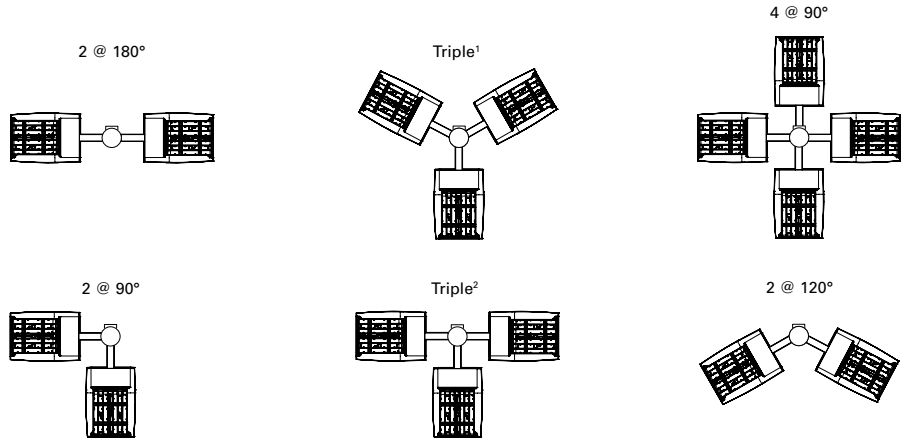
UL/cUL Wet Location Listed
ISO 9001
LM79 / LM80 Compliant
3G Vibration Rated
IP66 Rated
DesignLights Consortium® Qualified*

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)

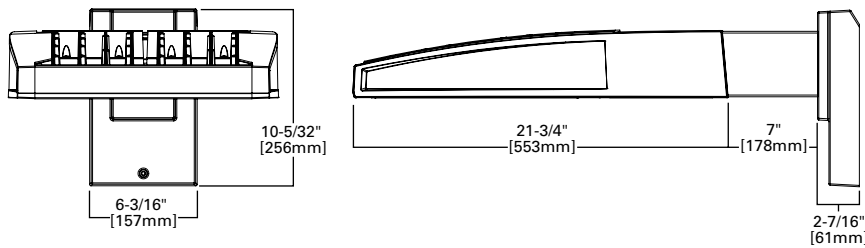
ARM MOUNTING REQUIREMENTS

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

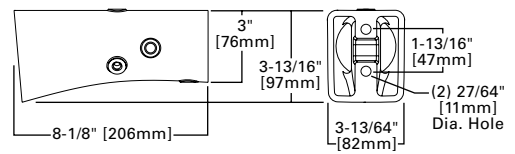


NOTES: 1 Round poles are 3 @ 120°. Square poles are 3 @ 90°. 2 Round poles are 3 @ 90°.

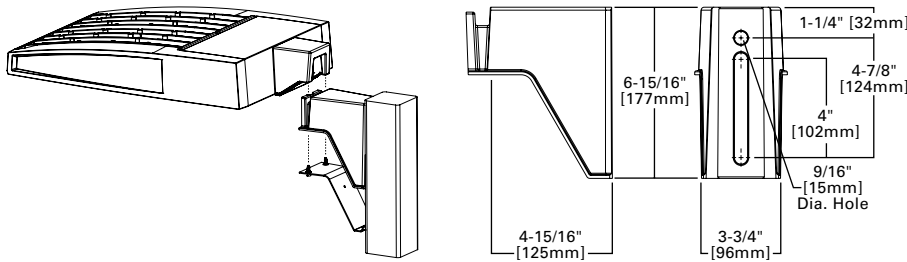
STANDARD WALL MOUNT



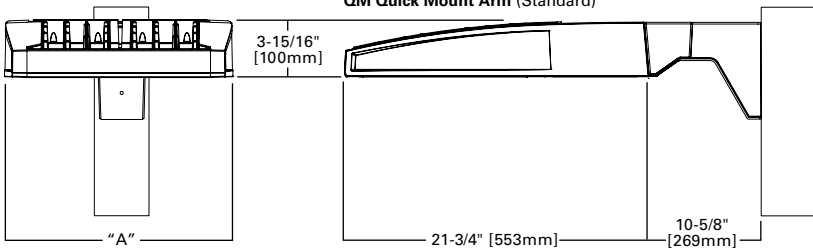
MAST ARM MOUNT



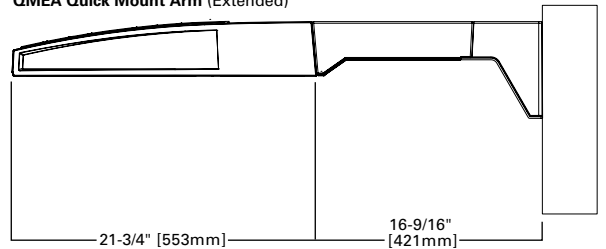
QUICK MOUNT ARM (INCLUDES FIXTURE ADAPTER)



QM Quick Mount Arm (Standard)



QMEA Quick Mount Arm (Extended)

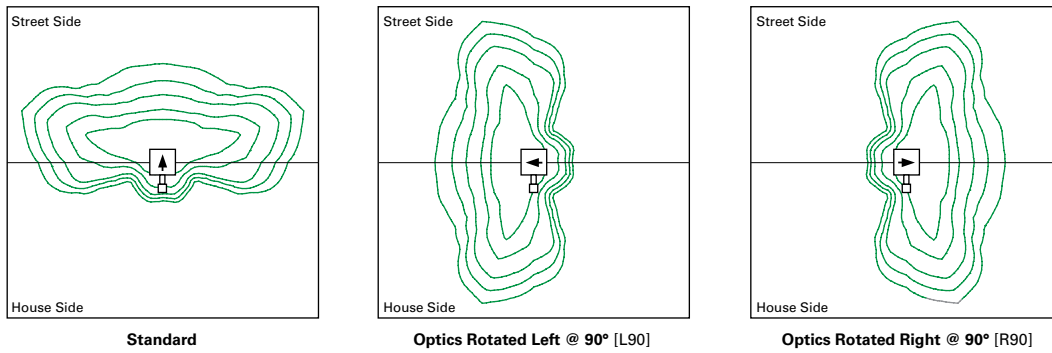


QUICK MOUNT ARM DATA

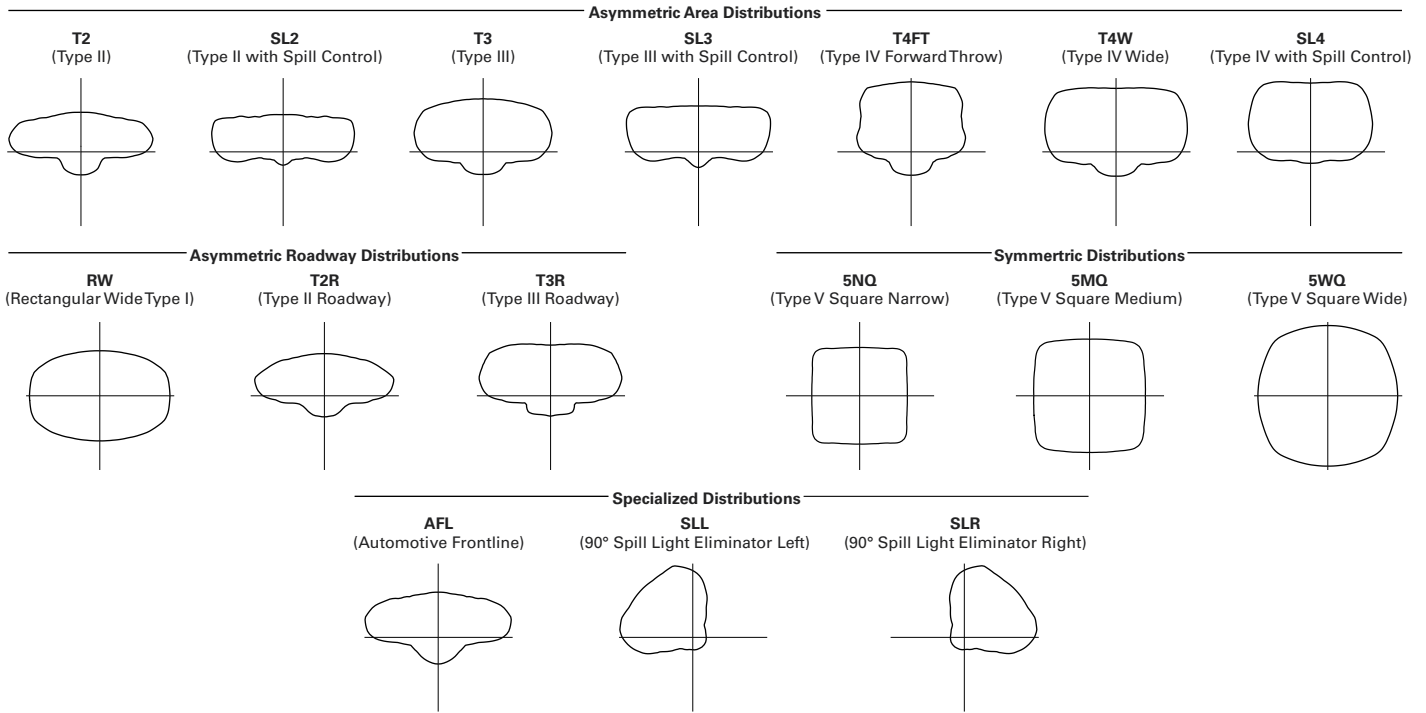
Number of Light Squares ^{1,2}	"A" Width	Weight with QM Arm (lbs.)	Weight with QMEA Arm (lbs.)	EPA (Sq. Ft.)
1-4	15-1/2" (394mm)	35 (15.91 kgs.)	38 (17.27 kgs.)	1.11
5-6 ³	21-5/8" (549mm)	46 (20.91 kgs.)	49 (22.27 kgs.)	
7-8	27-5/8" (702mm)	56 (25.45 kgs.)	59 (26.82 kgs.)	

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

OPTIC ORIENTATION



OPTICAL DISTRIBUTIONS

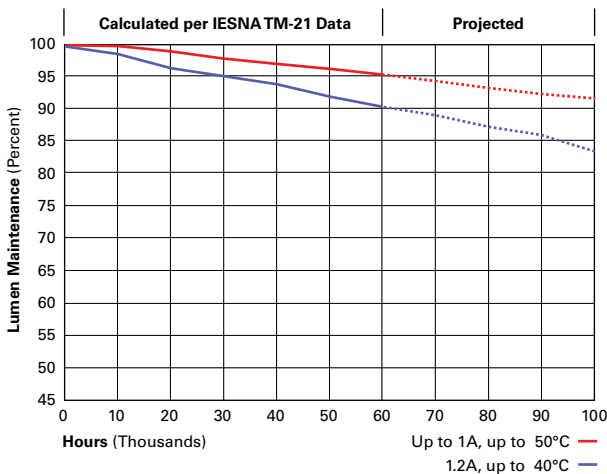


LUMEN MAINTENANCE

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

LUMEN MULTIPLIER

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



NOMINAL POWER LUMENS (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	2.52	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	22,881	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	58,388	64,646
	3000K Lumens	6,053	11,829	17,650	23,321	28,895	34,578	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	26,499	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	31,970	38,259	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	66,669
	3000K Lumens	6,242	12,199	18,203	24,052	29,799	35,660	42,172	47,784	53,302	59,015
	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	27,671	34,284	41,027	48,518	54,975	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	20,998	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	35,929	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	53,494	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	40,066	47,383	53,688	59,888	66,306
	3000K Lumens	6,209	12,133	18,104	23,921	29,637	35,466	41,943	47,525	53,013	58,694
	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)	0.51	1.02	1.53	2.03	2.55	3.06	3.56	4.08	4.6	5.07	
Input Current @ 208V (A)	0.29	0.56	0.82	1.11	1.37	1.64	1.93	2.19	2.46	2.75	
Input Current @ 240V (A)	0.26	0.48	0.71	0.96	1.19	1.41	1.67	1.89	2.12	2.39	
Input Current @ 277V (A)	0.23	0.42	0.61	0.83	1.03	1.23	1.45	1.65	1.84	2.09	
Input Current @ 347V (A)	0.17	0.32	0.50	0.64	0.82	1.00	1.14	1.32	1.50	1.68	
Input Current @ 480V (A)	0.14	0.24	0.37	0.48	0.61	0.75	0.91	0.99	1.12	1.28	
Optics											
T2	4000K/5000K Lumens	6,116	11,951	17,833	23,563	29,195	34,937	41,317	46,814	52,221	57,817
	3000K Lumens	5,414	10,579	15,786	20,858	25,843	30,926	36,574	41,440	46,226	51,180
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
T2R	4000K/5000K Lumens	6,493	12,688	18,932	25,015	30,994	37,090	43,863	49,699	55,439	61,380
	3000K Lumens	5,748	11,231	16,759	22,143	27,436	32,832	38,828	43,994	49,075	54,334
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5
T3	4000K/5000K Lumens	6,234	12,181	18,176	24,017	29,756	35,609	42,111	47,715	53,225	58,930
	3000K Lumens	5,518	10,783	16,089	21,260	26,340	31,521	37,277	42,237	47,115	52,165
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
T3R	4000K/5000K Lumens	6,372	12,453	18,580	24,550	30,418	36,400	43,048	48,776	54,409	60,239
	3000K Lumens	5,640	11,023	16,447	21,732	26,926	32,221	38,106	43,177	48,163	53,324
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5
T4FT	4000K/5000K Lumens	6,270	12,252	18,282	24,156	29,929	35,815	42,356	47,992	53,534	59,271
	3000K Lumens	5,550	10,845	16,183	21,383	26,493	31,703	37,494	42,483	47,388	52,467
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
T4W	4000K/5000K Lumens	6,189	12,094	18,045	23,844	29,543	35,352	41,809	47,372	52,843	58,506
	3000K Lumens	5,479	10,706	15,973	21,107	26,151	31,294	37,009	41,934	46,777	51,790
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL2	4000K/5000K Lumens	6,105	11,931	17,803	23,522	29,144	34,877	41,245	46,734	52,130	57,717
	3000K Lumens	5,404	10,561	15,759	20,822	25,798	30,873	36,510	41,369	46,145	51,091
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5
SL3	4000K/5000K Lumens	6,233	12,180	18,174	24,013	29,753	35,604	42,106	47,708	53,218	58,921
	3000K Lumens	5,517	10,782	16,088	21,256	26,337	31,517	37,272	42,231	47,109	52,157
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5
SL4	4000K/5000K Lumens	5,922	11,572	17,268	22,816	28,269	33,829	40,006	45,330	50,566	55,984
	3000K Lumens	5,242	10,244	15,286	20,197	25,024	29,945	35,413	40,126	44,761	49,557
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B2-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
5NQ	4000K/5000K Lumens	6,429	12,563	18,746	24,768	30,688	36,723	43,429	49,208	54,891	60,775
	3000K Lumens	5,691	11,121	16,594	21,925	27,165	32,507	38,443	43,559	48,590	53,798
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5MQ	4000K/5000K Lumens	6,547	12,794	19,090	25,224	31,253	37,400	44,228	50,114	55,902	61,893
	3000K Lumens	5,795	11,325	16,898	22,328	27,665	33,106	39,151	44,361	49,484	54,788
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5
5WQ	4000K/5000K Lumens	6,564	12,828	19,141	25,291	31,336	37,499	44,347	50,248	56,051	62,058
	3000K Lumens	5,810	11,355	16,944	22,388	27,739	33,194	39,256	44,480	49,616	54,934
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
SLL/SLR	4000K/5000K Lumens	5,478	10,703	15,970	21,102	26,145	31,286	37,001	41,924	46,765	51,777
	3000K Lumens	4,849	9,474	14,137	18,679	23,144	27,694	32,753	37,111	41,396	45,833
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
RW	4000K/5000K Lumens	6,371	12,449	18,576	24,544	30,411	36,392	43,037	48,764	54,396	60,225
	3000K Lumens	5,640	11,020	16,443	21,726	26,920	32,214	38,096	43,166	48,151	53,311
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
AFL	4000K/5000K Lumens	6,394	12,494	18,644	24,634	30,521	36,524	43,194	48,942	54,593	60,444
	3000K Lumens	5,660	11,060	16,504	21,806	27,017	32,331	38,235	43,323	48,326	53,505
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4

* Nominal data for 70 CRI.

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	43,899
	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	19,404	24,041	28,770	34,024	38,551	43,003	47,612
	3000K Lumens	4,459	8,712	12,999	17,176	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	19,835	24,576	29,409	34,780	39,408	43,959	48,669
	3000K Lumens	4,557	8,906	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	9,899	14,770	19,516	24,181	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	19,264	23,869	28,562	33,779	38,274	42,694	47,269
	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	4,933	9,639	14,383	19,005	23,547	28,178	33,324	37,758	42,118	46,632
	3000K Lumens	4,367	8,532	12,732	16,823	20,844	24,943	29,498	33,423	37,283	41,279
	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	24,794	29,670	35,088	39,757	44,349	49,102
	3000K Lumens	4,598	8,985	13,406	17,714	21,948	26,264	31,060	35,193	39,258	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	9,175	13,690	18,088	22,411	26,819	31,717	35,936	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	15,009	19,830	24,570	29,402	34,771	39,399	43,949	48,658
	3000K Lumens	4,556	8,903	13,286	17,554	21,749	26,027	30,779	34,876	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	8,936	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	96	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	3,636	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	39,689
	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	27,990	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/5000K 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	30,819	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	36,886
	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	24,196	28,614	32,422	36,166	40,042
	3000K Lumens	3,750	7,327	10,933	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
5MQ	4000K/5000K Lumens	4,314	8,429	12,578	16,619	20,591	24,641	29,141	33,019	36,832	40,779
	3000K Lumens	3,819	7,461	11,134	14,711	18,227	21,812	25,796	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	12,611	16,664	20,646	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	35,839	39,680
	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	24,064	28,459	32,246	35,969	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.

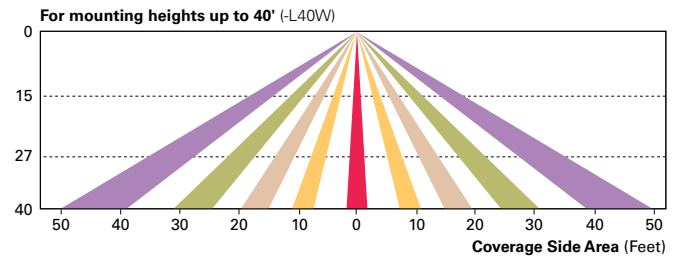
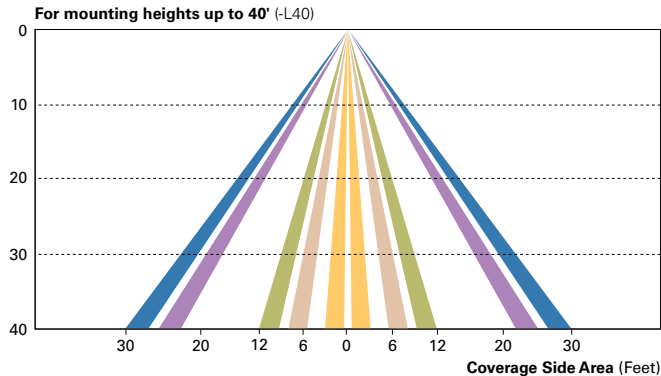
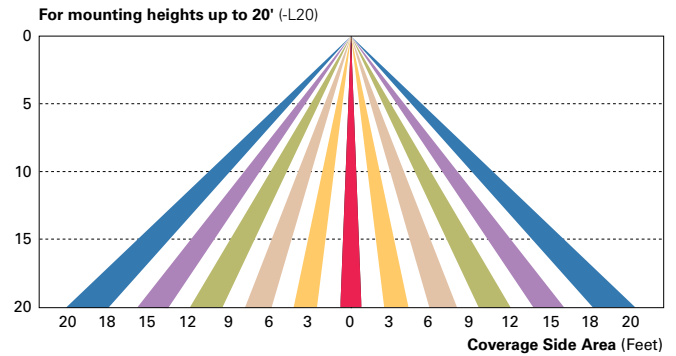
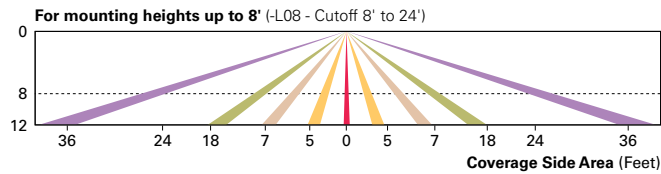
After Hours Dim (AHD)

This feature allows photocontrol-enabled 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)

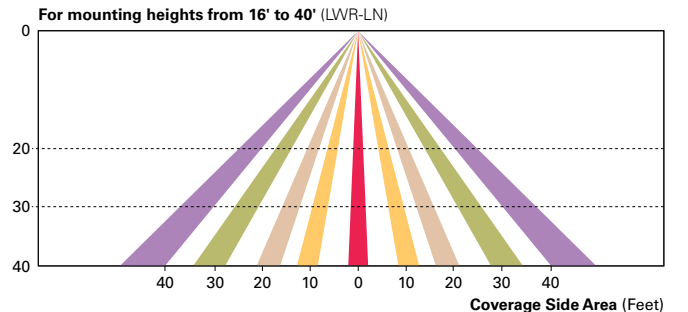
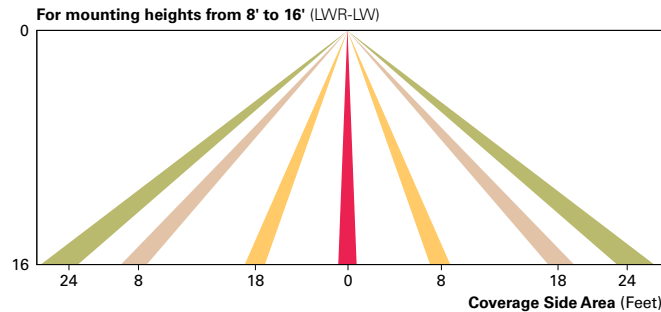
These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The 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 Eaton's LumaWatt Pro powered by Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting.



WaveLinx Wireless Outdoor Lighting Control Module (WOLC-7P-10A)

The 7-pin wireless outdoor lighting control module enables WaveLinx to control outdoor area, site and flood lighting. WaveLinx controls outdoor lighting using schedules to provide ON, OFF and dimming controls based on astronomical or time schedules based on a 7 day week.

LumenSafe Integrated Network Security Camera (LD)

Eaton brings ease of camera deployment to a whole new level. No additional wiring is needed beyond providing line power to the luminaire. A variety of networking options allows security integrators to design the optimal solution for active surveillance. As the ideal solution to meet the needs for active surveillance, the LumenSafe integrated network camera is a streamlined, outdoor-ready fixed dome that provides HDTV 1080p video. This IP camera is optimally designed for deployment in the video management system or security software platform of choice.

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 ⁴ 06=6 07=7 ⁵ 08=8 ⁵ 09=9 ⁶ 10=10 ⁶	LED=Solid State Light Emitting Diodes	E1=120-277V 347=347V ⁷ 480=480V ^{7,8}	T2=Type II T2R=Type II Roadway T3=Type III T3R=Type III Roadway T4FT=Type IV Forward Throw T4W=Type IV Wide 5NQ=Type V Narrow 5MQ=Type V Square Medium 5WQ=Type V Square Wide SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right RW=Rectangular Wide Type I AFL=Automotive Frontline	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	[Blank]=Arm for Round or Square Pole EA=Extended Arm ⁹ MA=Mast Arm Adapter ¹⁰ WM=Wall Mount QM=Quick Mount Arm (Standard Length) ¹¹ QMEA=Quick Mount Arm (Extended Length) ¹²

Options (Add as Suffix)	Accessories (Order Separately)
<p>7030=70 CRI 3000K¹³ 8030=80 CRI 3000K¹⁴ 7050=70 CRI 5000K¹³ 7060=70 CRI 6000K¹³ 600=Drive Current Factory Set to Nominal 600mA¹⁵ 800=Drive Current Factory Set to Nominal 800mA¹⁵ 1200=Drive Current Factory Set to Nominal 1200mA^{15,16} F=Single Fuse (120, 277 or 347V. Must Specify Voltage) FF=Double Fuse (208, 240 or 480V. Must Specify Voltage) 2L=Two Circuits^{17,18} DIM=External 0-10V Dimming Leads^{19,20} P=Button Type Photocontrol (120, 208, 240 or 277V. Must Specify Voltage)²¹ PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle²¹ R=NEMA Twistlock Photocontrol Receptacle²¹ AHD145=After Hours Dim, 5 Hours²² AHD245=After Hours Dim, 6 Hours²² AHD255=After Hours Dim, 7 Hours²² AHD355=After Hours Dim, 8 Hours²² HA=50°C High Ambient²³ MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height^{24,25} MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height^{24,25} MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height^{24,27} MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height (Wide Range)^{24,28} MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height^{24,25,29} MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height^{24,26,29} MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height^{22,27,29} MS/X-L40W=Bi-Level Motion Sensor, 21' - 40' Mounting Height (Wide Range)^{24,28,29} MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height^{24,25} MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height^{24,26} MS-L40=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height^{24,27} MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height (Wide Range)^{24,28} LWR-LW=LumaWatt Pro Wireless Sensor, Wide Lens for 8' - 16' Mounting Height^{30,(A)} LWR-LN=LumaWatt Pro Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height^{30,(A)} WOLC-7P-10A=WaveLinx Wireless Outdoor Lighting Control Module^(B) 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 Housing³¹ HSS=Factory Installed House Side Shield³² CE=CE Marking³³</p>	<p>OA/RA1016=NEMA Photocontrol Multi-Tap - 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=120V Photocontrol MA1252=10kV Surge Module Replacement MA1036-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1037-XX=2 @ 180° Tenon Adapter for 2-3/8" O.D. Tenon MA1197-XX=3 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1188-XX=4 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1189-XX=2 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1190-XX=3 @ 90° Tenon Adapter for 2-3/8" O.D. Tenon MA1191-XX=2 @ 120° Tenon Adapter for 2-3/8" O.D. Tenon MA1038-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1039-XX=2 @ 180° Tenon Adapter for 3-1/2" O.D. Tenon MA1192-XX=3 @ 120° Tenon Adapter for 3-1/2" O.D. Tenon MA1193-XX=4 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1194-XX=2 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon MA1195-XX=3 @ 90° Tenon Adapter for 3-1/2" O.D. Tenon FSIR-100=Wireless Configuration Tool for Occupancy Sensor³⁴ GLEON-MT1=Field Installed Mesh Top for 1-4 Light Squares GLEON-MT2=Field Installed Mesh Top for 5-6 Light Squares GLEON-MT3=Field Installed Mesh Top for 7-8 Light Squares GLEON-MT4=Field Installed Mesh Top for 9-10 Light Squares GLEON-QM=Quick Mount Arm Kit¹⁰ GLEON-QMEA=Quick Mount Extended Arm Kit¹¹ LS/HSS=Field Installed House Side Shield^{32,33} WOLC-7P-10A=WaveLinx Outdoor Control Module (7-pin)^{35,(B)}</p>

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 MS/4-LXX or MS/1-LXX sensors. 5 Not compatible with extended quick mount arm (QMEA). 6 Not compatible with standard quick mount arm (QM) or extended quick mount arm (QMEA). 7 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. 8 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). 9 May be required when two or more luminaires are oriented on a 90° or 120° drilling pattern. Refer to arm mounting requirement table. 10 Factory installed. 11 Maximum 8 light squares. 12 Maximum 6 light squares. 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 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. 15 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. 16 Not available with HA option. 17 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. 18 Not available with LumaWatt Pro wireless sensors. 19 Cannot be used with other control options. 20 Low voltage control lead brought out 18" outside fixture. 21 Not available if any "MS" sensor is selected. Motion sensor has an integral photocell. 22 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. 23 50°C lumen maintenance data applies to 600mA, 800mA and 1A drive currents. 24 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. 25 Approximately 22" detection diameter at 8' mounting height. 26 Approximately 40" detection diameter at 20' mounting height. 27 Approximately 60" detection diameter at 40' mounting height. 28 Approximately 100" detection diameter at 40' mounting height. 29 Replace X with number of Light Squares operating in low output mode. 30 LumaWatt Pro wireless sensors are factory installed only requiring network components LWP-EM-1, LWP-GW-1 and LWP-PoE8 in appropriate quantities. See www.eaton.com/lighting for LumaWatt Pro application information. 31 Not available with house side shield (HSS). 32 Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected. 33 CE is not available with the LWR, MS, MS/X, MS/DIM, P, R or PER7 options. Available in 120-277V only. 34 One required for each Light Square. 35 Requires 7-pin NEMA twistlock photocontrol receptacle.

LumenSafe Integrated Network Security Camera Technology Options (Add as Suffix)

Product Family	Camera Type	Data Backhaul
L=LumenSafe Technology* 	D=Dome Camera	<p>C=Cellular, Customer Installed SIM Card A=Cellular, Factory Installed AT&T SIM Card V=Cellular, Factory Installed Verizon SIM Card S=Cellular, Factory Installed Sprint SIM Card</p> <p>R=Cellular, Factory Installed Rogers SIM Card W=Wi-Fi Networking w/ Omni-Directional Antenna E=Ethernet Networking</p>

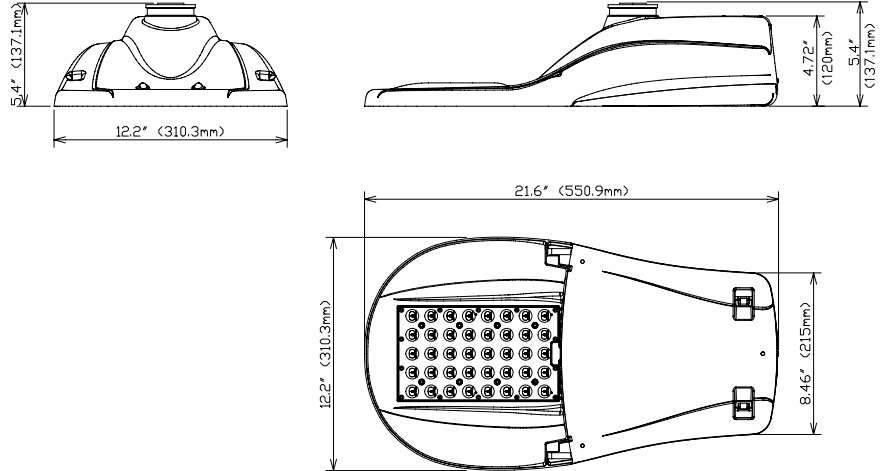
*Consult LumenSafe system pages for additional details and compatibility. Not available with 9-10 light square housing. Not available with 347V, 480V or high ambient options.

GreenCobra™ Midsize LED Street Light

GCM H-Series Specification Data Sheet

Luminaire Data

Weight 10 lbs [4.6 kg]
EPA 0.44 ft²



Ordering Information

Sample Catalog No. GCM2 30H MV NW 2R GY 700 PCR7 WL

Product	LED Code	Voltage	Color Temperature	Distribution	Finish ¹	30H Drive Current Code ²	Options
GCM2	30H	MV 120-277V	WW 3000K	2S Type 2 Short	GY Gray	530	FDC ³ Fixed Drive Current
		HV 347-480V	NW 4000K	2R Type 2 Medium	DB Dark Bronze	610	FFA ⁴ Full field Adjustability
GCM2	40H		CW 5000K	3R Type 3 Medium	BK Black	700	LPCR Less Photocontrol Receptacle
				4 Type 4		850	PCR7 ⁵ ANSI 7-wire Photocontrol Receptacle
				5 Type 5		1A	PCR7-CR ⁶ Control Ready 7-wire PC Receptacle
						40H Drive Current Code ²	WL Utility Wattage Label
						575	4B 4-Bolt Mounting Bracket
					700	RWG Rubber Wildlife Guard	
					850	SWTB Straight Wire Terminal Block	
					950	BBL Bubble Level	
					1A	CF ⁷ Coastal Paint Finish	

Notes:

- 1 Gray, Black, and Dark Bronze standard. Consult factory for other finishes.
- 2 Specified drive current code is the factory set maximum drive current. Field adjustable current selector enables standard dimming to lower wattage drive currents only. Consult factory if wattage limits require a special drive current.
- 3 Non-field adjustable, fixed drive current. Specify required drive current. Not available with PCR7-CR option.
- 4 The FFA option enables full field adjustability from the specified drive current code to all drive currents available. This option is not DLC qualified.
- 5 Field adjustable current selector included to enable standard dimming to lower wattage drive currents only. Field changeable connectors included to enable connection to PCR7 (wireless node dimming is disabled by default).
- 6 Control-ready wired at factory for wireless node dimming. Supplied at maximum drive current. If a lower drive current is required, consult factory.
- 7 Specify the CF Option for coastal installation. See warranty for details.
- 8 Flush mounted house side shield. Shield cuts light off at 1/2 mounting height behind luminaire.
- 9 Flush mounted cul-de-sac shield. Shield cuts light off at 1/2 mounting height behind luminaire and 1-1/2 mounting height on either side of luminaire.
- 10 Flush mounted front side shield cuts light off at approximately one mounting height in front of luminaire (street side).
- 11 Specify Color (GY, DB, BK)
- 12 Specify MV (120-277V) or HV (347V-480V)

Accessories*

HSSGCM ⁸	House Side Shield, Snap-On*
CSSGCM ⁹	Cul-De-Sac Side Shield, Snap-On*
FSSGCM ¹⁰	Front Side Shield, Snap-On*
SPB ¹¹	Square Pole Horizontal Arm Bracket
RPB ¹¹	Round Pole Horizontal Arm Bracket
PTB ¹¹	Pole Top Tenon Horizontal Arm Bracket
PTB2 ¹¹	Pole Top Tenon Horizontal Arm Bracket (2@180°)
WB ¹¹	Wall Horizontal Arm Bracket
BSK	Bird Deterrent Spider Kit
LLPC ¹²	Long-Life Twist Lock Photocontrol
SC	Twist Lock Shorting Cap

*Accessories are ordered separately and not to be included in the catalog number. For factory installed HSS, CSS, and FSS consult factory.

Luminaire Specifications

Housing

Die cast aluminum housing with universal two-bolt slip fitter mounts to 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter mast arm. One-piece aluminum housing provides passive heat-sinking of the LEDs and has upper surfaces that shed precipitation. Four-bolt mounting bracket is available. Mounting provisions meet 3G vibration per ANSI C136.31-2010 Normal Application, Bridge & Overpass. Mounting has leveling adjustment from ± 5° in 2.5° steps. Electrical components are accessed without tools via a high-strength, non-conductive polycarbonate door with quick-release latches. Polycarbonate material meets UL 746C for outdoor usage. Available rubber wildlife guard (RWG option) conforms to mast arm with no gaps.

Light Emitting Diodes

High-flux/High-power white LEDs produce a minimum of 90% of initial intensity over 75,000 hours of life based on IES TM-21 (L90 ≥ 75k hours). LEDs are tested in accordance with IES LM-80 testing procedures. LEDs have correlated color temperature of 3000K (WW), 4000K (NW), or 5000K (CW) and 70 CRI minimum. LEDs are 100% mercury and lead free.

Field Adjustability

LED drive current can be changed in the field to adjust light output for local conditions (not available with PCR7-CR option). The specified drive current code will be the factory set maximum drive current and field adjustments can only be made to available lower wattage drive currents. Select the FFA option if full field adjustability to all available drive currents (1A max) is desired. The FFA option is not DLC qualified.

Quality Control

Every luminaire is performance tested before and after a 2-hour burn-in period. Assembled in the USA.

Optical Systems

Micro-lens optical systems produce IESNA Type 2, Type 3, Type 4, or Type 5 distributions and are fully sealed to maintain an IP66 rating. Luminaire produces 0% total lumens above 90° (BUG Rating, U=0). Optional house side shield cuts light off at 1/2 mounting height behind luminaire. Cul-de-sac shield provides back and side light control for end of cul-de-sac applications. Both shields are field installable without tools.

Electrical

Rated life of electrical components is 100,000 hours. Uses isolated power supply that is 1-10V dimmable. Power supply is wired with quick-disconnect terminals. Power supply features a minimum power factor of .90 and <20% Total Harmonic Distortion (THD). EMC meets or exceeds FCC CFR Part 15. Terminal block accommodates 6 to 14 gauge wire. Surge protection complies with IEEE/ANSI C62.41 Category C High, 20kV/10kA and ANSI C136.2-2015, 20kV/10kA.

Controls

3-Wire photocontrol receptacle is standard. ANSI C136.41 7-wire (PCR7) photocontrol receptacle is available. All photocontrol receptacles have tool-less rotatable bases. Wireless control module is provided by others.

Finish

Housing receives a durable, fade-resistant polyester powder coat finish with 3.0 mil nominal thickness. Standard finish tested to withstand 5000 hours in salt spray exposure per ASTM B117 and Coastal Finish per ASTM G85. Finish meets scribe creepage rating 8 per ASTM D1654. Finish tested 500 hours in UV exposure per ASTM G154 and meets ASTM D523 gloss retention.

Listings/Ratings/Labels

Luminaires are UL listed for use in wet locations in the United States and Canada. DesignLights Consortium™ qualified product. Consult DLC QPL for Standard and Premium Classification Listings. International Dark Sky Association listed. Luminaire is qualified to operate at ambient temperatures of -40°C to 40°C.

Photometry

Luminaires photometrics are tested by certified independent testing laboratories in accordance with IES LM-79 testing procedures.

Warranty

10-year limited warranty is standard on luminaire and components.

Vandal Resistance

Housing and optics rated to IK10

Standards

Luminaire complies with:
ANSI: C136.2, C136.3, C136.10, C136.13, C136.15, C136.22, C136.31, C136.35, C136.37, C136.41, C62.41, C78.377, C82.77
Other: FCC 47 CFR, IEC 60598, ROHS II, UL 1449, UL 1598

Performance Data: 3000K (WW)

All data nominal. IES files for all CCTs available at leotek.com.

Product	LED Code	Drive Current Code	System Wattage (W)	Delivered Lumens (Lm) ¹	Efficacy (Lm/W)
GCM2	30H	530	48	5770	120
		610	58	6700	116
		700	68	7620	112
		850	82	8800	107
		1A	101	10480	104
	40H	575	73	8780	120
		700	88	10230	116
		850	107	11960	112
		950	121	13040	108
		1A	135	14080	104

Notes:

1 Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.

Performance Data: 4000K (NW) and 5000K (CW)

All data nominal. IES files for all CCTs available at leotek.com.

Product	LED Code	Drive Current Code	System Wattage (W)	Delivered Lumens (Lm) ¹	Efficacy (Lm/W)
GCM2	30H	530	48	6330	132
		610	58	7440	128
		700	68	8550	126
		850	82	9830	120
		1A	101	11720	116
	40H	575	73	9590	131
		700	88	11260	128
		850	107	13270	124
		950	121	14390	119
		1A	135	15430	114

Notes:

1 Nominal lumens. Normal tolerance $\pm 10\%$ due to factors including distribution type, LED bin variance, and ambient temperatures.

BUG Ratings

3000K (WW)

			Type 2S	Type 2R	Type 3R	Type 4	Type 5
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCM2	30H	530	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G1	B3 U0 G1
		610	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G2	B3 U0 G1
		700	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
		850	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		1A	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
	40H	575	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		700	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		850	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B3 U0 G2
		950	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		1A	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2

4000K (NW)

			Type 2S	Type 2R	Type 3R	Type 4	Type 5
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCM2	30H	530	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G1	B3 U0 G1
		610	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
		700	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		850	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		1A	B3 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2	B3 U0 G2
	40H	575	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B2 U0 G2	B3 U0 G2
		850	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		950	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		1A	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2

5000K (CW)

			Type 2S	Type 2R	Type 3R	Type 4	Type 5
Product	LED Code	Drive Current Code	BUG Rating	BUG Rating	BUG Rating	BUG Rating	BUG Rating
GCM2	30H	530	B2 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G1	B3 U0 G1
		610	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G1
		700	B2 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		850	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		1A	B2 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B3 U0 G2
	40H	575	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2	B3 U0 G2
		700	B2 U0 G2	B2 U0 G2	B3 U0 G3	B2 U0 G2	B3 U0 G2
		850	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		950	B3 U0 G2	B2 U0 G2	B3 U0 G3	B3 U0 G2	B4 U0 G2
		1A	B3 U0 G2	B3 U0 G3	B3 U0 G3	B3 U0 G3	B4 U0 G2