



VII. C.

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Phone: 636-537-4000 • Fax 636-537-4798 • www.chesterfield.mo.us

Planning Commission Staff Report

Project Type:	Amended Site Development Section Plan
Meeting Date:	December 14, 2015
From:	Purvi Patel Project Planner
Location:	North side of North Outer 40 Road, west of Timberlake Manor Parkway
Applicant:	Stock and Associates Consulting Engineers, Inc., on the behalf of Opus Development Company, LLC.
Description:	<u>Kraus Farm Office Center (OPUS I & II):</u> An Amended Site Development Section Plan, Amended Landscape Plan, Amended Tree Preservation Plan, Amended Lighting Plan, Amended Architectural Elevations and an Architect's Statement of Design for a 14.41 acre tract of land zoned "PC" Planned Commercial District located on the north side of North Outer 40 Road, west of Timberlake Manor Parkway.

PROPOSAL SUMMARY

Stock and Associates Consulting Engineers, Inc., on the behalf of Opus Development Company, LLC, has submitted a request for a four (4) story, 149,669 square foot office building with a bi-level parking garage located at the northwest corner of North Outer 40 Road and Timberlake Manor Parkway. The subject site is zoned "PC" Planned Commercial District and is governed under the terms and conditions of City of Chesterfield Ordinance Number 2464. The exterior building materials will be comprised of architectural precast panels, high efficiency tinted glass, and accent metal panels with a TPO (Thermoplastic Polyolefin) roofing system with precast panels and metal panel system for screening roof-top equipment.

HISTORY OF SUBJECT SITE

On June 16, 2008, the City of Chesterfield approved Ordinance 2464, which changed the zoning of the subject site from an "NU" Non- Urban District to a "PC" Planned Commercial District. Furthermore, a Site Development Concept Plan and Site Development Section Plan were approved by the Planning Commission on September 8th, 2008. The Site Development Section Plan approved the construction of a 172,665 square foot building and associated improvements; however, the lot was never developed and is currently vacant. A copy of the Site Development Section Plan is attached as Exhibit A for your reference. In conjunction with the Amended Site Development Section Plan, the applicant has submitted an Amended Site Development Concept Plan and Sign Package for the subject site. These projects are also being presented this evening.

Land Use and Zoning of Surrounding Properties

Direction	Land Use	Zoning
North	Residential	“R-1” Residential District with a Planned Environment Unit (PEU) procedure
South	Interstate	Interstate 64/Highway 40
East	Commercial Office Space	“C8” Planned Commercial District
West	Commercial Office Space	“PC” Planned Commercial District



Figure 1: Aerial

COMPREHENSIVE PLAN ANALYSIS

The subject site is located within the Office land use designation. The Office land use designation is defined within the Comprehensive Plan as “the Land Use Plan for commercial use outside of Chesterfield Valley and the Urban Core is based on clearly defined locations properly served by infrastructure. Office use is located along the north side of Interstate 64/Highway 40, on both the north and south sides of I-64/US 40 at the eastern city limits near Woods Mill Road (Highway 141) east of Yarmouth Drive, and at the southwest quadrant of Clarkson Road (Highway 340 South) and Baxter Road...”

In addition to the compliance of uses within the Office land use designation, a proposed development should be in general compliance with the Development Policies of the Office Development as well as Commercial Development in general. The following is a list of relevant policies within the Comprehensive Plan:

- **3.1.1 Quality of Design** – Overall design standards should be provided for smaller-scale, mixed-use, project-oriented developments. Developments should emphasize architectural design, pedestrian circulation, landscaping, open space, innovative parking solutions and landscape buffering between any adjacent residential uses.
 - *This policy is met by this proposed development. Please see Access and Site Circulation, Parking, Landscaping and Open Space, and Architectural Elevations sections starting on Page 4. These sections discuss each of these items in detail, as they apply to this project.*

- **3.1.2 & 4.1 Buffering of Neighborhoods** – Development should substantially buffer neighboring residential uses in all directions by employing good site design, addressing vehicular access, building materials selection, tree preservation, and expanded setbacks.
 - *The applicant is providing a heavily landscaped berm along Conway Road to provide a buffer to the residences on the north side. In addition, the ordinance for this site requires a 120 foot building and parking setback from Conway Road. The proposed parking garage is set back approximately 145feet from Conway Road and the building is approximately 280 feet from Conway Road.*
- **4.2 High Density Office Development** – High-density office development should be limited to the following areas: along I-64/US 40 extending to Chesterfield Parkway on the west, Highway 141 on the east but isolated from Conway Road by appropriate buffering or residential zoning. High-density is defined as 70 feet above grade exclusive of mechanical.
 - *This site falls within the area defined for high-density office development in the Comprehensive Plan. And the building proposal also meets the definition of high-density as described in the Comprehensive Plan. The total proposed square footage for both phases of development is 223,069 (Phase I is 149,669 square feet) and the building height proposed for Phase I is approximately 83 feet. And as described above, the applicant is providing a substantial buffer along Conway Road.*
- **7.2.6 Cross-Access Circulation** – Internal vehicular and pedestrian connections between commercial developments should be encouraged.
- **7.2.9 Access Management** – Control the placement of new driveway and intersection placement to maintain the safety at the roadway’s full traffic carrying capacity while encouraging smooth and safe traffic flow.
 - *These two policies are strongly linked in this development and compliance with these policies was pre-determined during the zoning process. The site-specific ordinance requires cross-access to the development to the west; in addition it states the access to this development shall be via Timberlake Manor Parkway and no direct access shall be allowed to Conway Road or North Outer 40 Road. The proposed Site Development Plan complies with both these requirements. The existing access along Conway Road will be removed and the site will be accessed via two entrances along Timberlake Manor Parkway. Additionally, cross-access is also provided as required by the ordinance and recommended by the Comprehensive Plan Policy.*

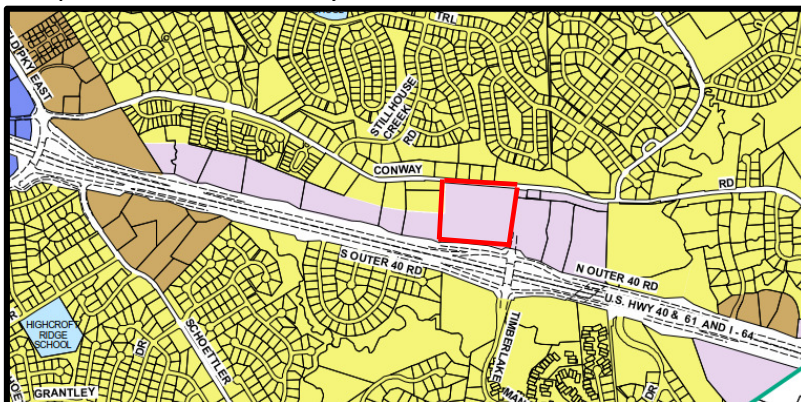


Figure 2: Comprehensive Plan – Subject Site shown in red outline

STAFF ANALYSIS

Zoning

The subject site is zoned “PC” Planned Commercial District under the terms and conditions of City of Chesterfield Ordinance 2464. This ordinance allows for a maximum of 345,330 square foot total building floor area. With the current Amended Site Development Concept Plan, the applicant is proposing a 149,669 square foot building with the first phase followed by a second phase addition of 73,400 square feet, bringing the total building floor area to 223,069 square feet. The proposal before you only includes the first phase of this plan. The maximum floor area ratio (F.A.R.) permitted in the “PC” Planned Commercial District is 0.55 and the proposed F.A.R. for Phase 1 of development is 0.25.

Additionally, the site specific ordinance also states that “the owner is required to grant the City of Chesterfield an option to acquire by conveyance a 120 foot or less strip of land not to exceed 120 feet parallel to the existing Conway Road right-of-way to the City of Chesterfield. The conveyance of said strip of land will be at no cost to the City.” This conveyance will occur with this first phase of development, prior to Improvement Plan approval. The applicant will be responsible for the maintenance of this area, which includes the proposed native prairie.

Access and Site Circulation

The site is currently accessed via an entrance from Conway Road; however, this access will be eliminated and access to the site will be provided via two entrances from Timberlake Manor Parkway and one access from the private drive located on the development to the west. The northernmost entrance will provide access to the loading area, parking garage and will also connect to the private drive to the west. The southern entrance will serve as main entrance to the site, with visitor parking area, drop-off areas and parking garage access from this drive. The visitor parking and drop-off area are separated from the two main drives, to provide a safe area for the visitors in front of the building.

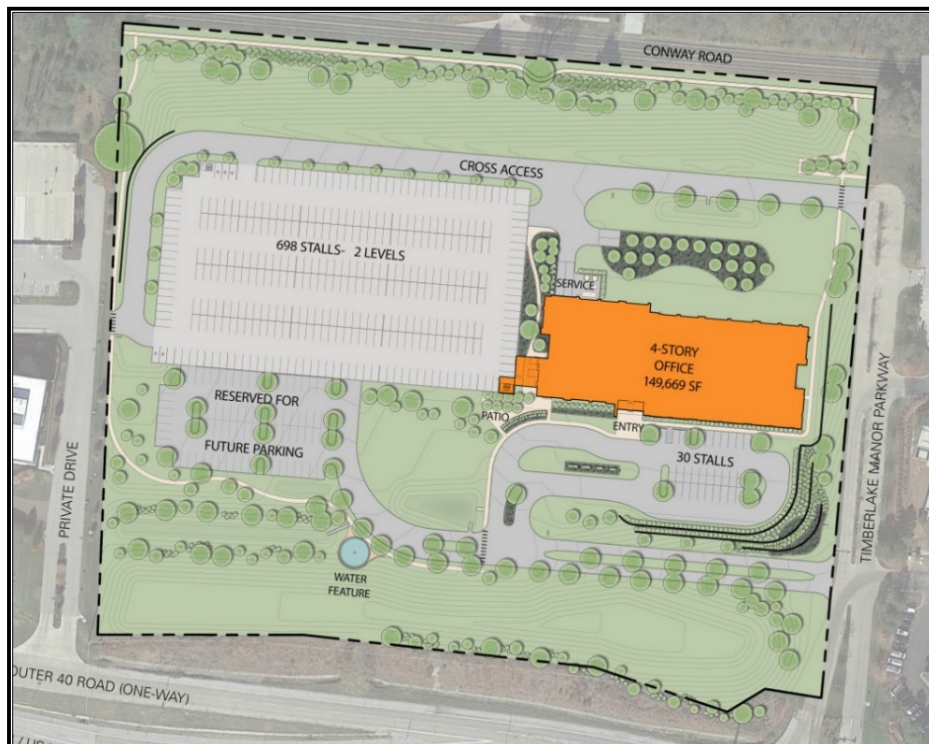


Figure 3 – Colored Site Plan

The proposal includes a sidewalk along Conway Road which will connect to the on-site sidewalks creating a path that loops the site. This loop runs along the eastern and southern edges of the building, down to the proposed water feature and bio-retention area south of the garage and up along the western edge of the development. A sidewalk connection is also provided to the east and west as required by the ordinance.

Parking

The visitor parking and drop-off area is in front of the building and is separated from the main two drives of the site. Employee parking will be provided in the bi-level parking garage, with a future area reserved for a parking expansion to the south of the proposed garage. As required per the City Code and after approval of a request to exceed the maximum parking requirements for an office building by the Planning and Development Services Director, the number of parking spaces provided for the first phase of this development is 806. With the proposed building of 149,669 square feet in size this results in a parking ratio of 5.39 spaces/1,000 square feet. Staff has determined that this ratio is adequate to meet the parking demand for this user. The applicant is proposing to defer 78 parking spaces, which will be built in the near future as new employees are hired per their business plan. As noted on the plan, this area will remain as green space until the parking spaces are paved.

Landscaping, Tree Preservation and Open Space

The north side of the site will include a landscaped berm which stretches along the entire frontage. The required buffer plantings are provided at the top of the berm, just south of the sidewalk along Conway Road, and the south side of the berm will include native prairie plantings. North of the proposed building, the applicant has also proposed a grove of ornamental trees; a feature visible from the north side of the building. The southern entry drive is lined with trees leading to the water feature. The required landscape buffer along North Outer 40 Road has been broken up into two main areas due to existing site constraints and the proposed drainage area along the southern edge of the site. The area on the southeast corner will include buffer plantings near the property line; whereas, the buffer plantings are provided behind the drainage swale at the southwest corner. Furthermore, a garden is proposed on the northwestern edge of the building, east of the parking garage. This is the day-to-day pedestrian route from the parking garage to the building. This area will also serve to provide screening of the service area of the building – loading dock, mechanical equipment and dumpsters. Additional precast walls matching the building will provide screening of this area. The roof-top equipment will be screened by painted horizontal ribbed, architectural metal panel roof screens and precast panels.

The site has existing overhead utilities along the North Outer 40 Road and Timberlake Manor Parkway frontage. Although there are no trees along North Outer 40 Road, the site does have several trees under the existing utilities along Timberlake Manor Parkway. The Tree Preservation Plan requirements states the plan must include the existing tree canopy coverage, excluding the area in easements and rights-of-way with overhead utility; therefore, the existing trees along Timberlake Manor Parkway are not included in the total canopy calculations. The existing tree canopy coverage of the site is 8,219 square feet, excluding the trees under the utility lines, and the applicant is proposing to preserve 36.5% of this canopy coverage.

The proposal includes a tier of retaining walls along the southeast corner of the site which will be softened by a variety of plantings to provide screening and architectural interest to the walls. The tallest wall, closest to the visitor’s parking area, will include a guardrail for safety purposes.

There will be 58% open space provide in the first phase of development; this percentage takes into account the future proposed parking south of the parking garage. The required open space is 35% per the “PC” Planned Commercial District regulations.

The site specific ordinance requires that a water feature be provided on the site. In accordance with this requirement, this feature is prominently located as a focal point to the public entering via the main entry drive and will be visible from North Outer 40 Road as well. The water feature will consist of a hard slash surface with a 12 to 14 foot vertical water jet. Examples of similar water features are included in the Planning Commission packet. The proposal also includes benches around the water feature.

Architectural Elevations

The applicant is proposing a four (4) story building that is approximately 83 feet in height, including roof-top equipment. The building height is comparable with the developments to the east and west. Additionally, the contemporary design of the proposed building ties into the surrounding area architecture via the use of similar materials, such as large glass expanses and precast concrete. The building has been designed “to provide sculpted, off-set massing to add visual interest and reduce the sense of scale. This is reinforced by the stepping of the building at the corners, and the recessed entry at the 1st level.” Furthermore, the building design features a substantially varied array of architectural elements, including vertical glass entry, horizontal and vertical framing components, recessed glass and columns, horizontal screens and changes in the precast color.



Figure 4: Rendering

The choice of materials for the building includes architectural precast panels, pre-finished aluminum accent metal panels, high efficiency tinted glass windows and curtainwall elements in prefinished aluminum frames, and functional prefinished sunscreens. The precast panels will be comprised of three (3) complementary colors ranging from white to dark gray. To accent these colors, the pre-finished aluminum accent “wrap on the south and east façades will be white in color and the entry canopies will be dressed in a pre-finished metal to match the window systems. The curtainwall will have pre-finished silver frames with a light gray tinted and insulated glass. The proposed spandrel glass will be the same glass as the vision glass. The roof-top equipment will be screened by the use of a painted horizontal ribbed, architectural metal panel roof screen and precast panels to match the building.

Per Ordinance 2464, the maximum building height permitted is 641 feet above mean sea level, exclusive of roof screening and parapet walls. The roof of the proposed building is at 630 feet above mean sea level and the overall height including parapet walls and penthouse is 646 feet above mean sea level.

The parking garage will utilize the same architectural precast panels, glass and metal as the office building for its finishes and will be linked to the building via a covered pedestrian path. The bi-level parking garage will be tucked into the hillside, providing an appearance of being on grade from the north, and in turn reducing the overall mass and sense of scale for the structure, especially when viewed from the north. The maximum height permitted for the parking garage per Ordinance 2464 is 590 feet above mean sea level, exclusive of elevator penthouse and stairwell. The height of the top wall of the proposed garage is approximately 580 feet above mean sea level and the overall height of the garage including the stairwell is 589.5 feet above mean sea level. The image below shows the south elevation of the proposed parking garage.

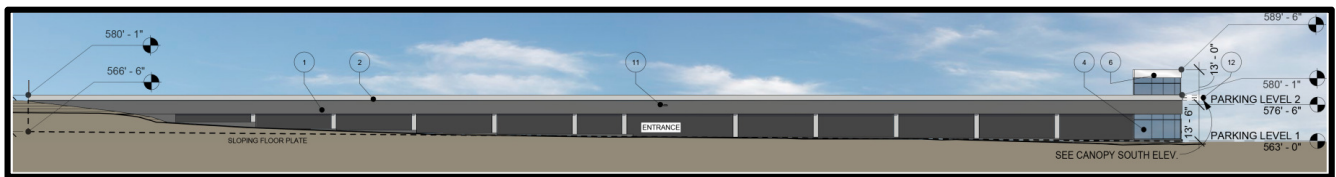


Figure 5: South Elevation of Parking Garage

The project was reviewed by the Architectural Review Board (ARB) on November 12, 2015. A motion to forward the submittal to the Planning Commission as presented with a recommendation for approval was passed by a vote of 5-0. The ARB members complimented and thanked the project team on the high quality of materials, design, and the overall project.

Lighting

Site lighting is proposed for walkways and parking fields to assure security and safe travel while on the site and not contribute to light pollution. The applicant is proposing light column bollards along the walkways/sidewalks and metal halide area lights for the driveways, parking areas and top level of the parking garage. Additional street lights are provided along Conway Road. Wall packs will illuminate the service area, with down lights integrated into the canopy designs to illuminate the visitor and employee entrances. To maintain the modern look of the building, no additional fixtures are proposed on the building.

STAFF RECOMMENDATION

Staff has reviewed the Amended Site Development Section Plan, Amended Landscape Plan, Tree Preservation Plan, Amended Lighting Plan, Amended Architectural Elevations and an Architect's Statement of Design and has found the proposal to be in compliance with the site specific ordinance, Comprehensive Plan, and all City Code requirements. Staff recommends approval of the proposed development of Kraus Farm Office Center (OPUS I & II).

MOTION

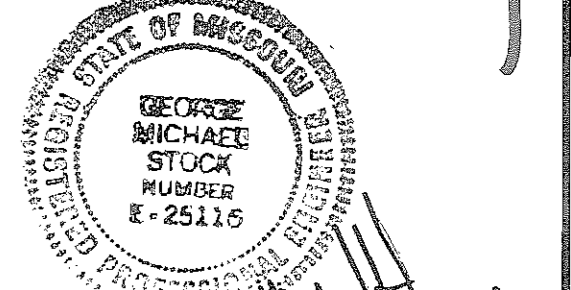
The following options are provided to the Planning Commission for consideration relative to this application:

- 1) "I move to approve (or deny) the Amended Site Development Section Plan, Amended Landscape Plan, Amended Tree Preservation Plan, Amended Lighting Plan, Amended Architectural Elevations and an Architect's Statement of Design for Kraus Farm Office Center (OPUS I & II).

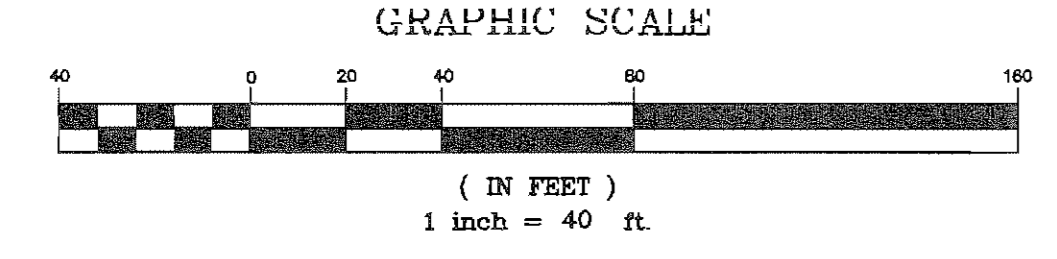
- 2) "I move to approve the Amended Site Development Section Plan, Amended Landscape Plan, Amended Tree Preservation Plan, Amended Lighting Plan, Amended Architectural Elevations and an Architect's Statement of Design for Kraus Farm Office Center (OPUS I & II), with the following conditions..." (Conditions may be added, eliminated, altered or modified)

Attachments: Exhibit A – Approved Site Development Section Plan
Amended Site Development Section Plan
Amended Landscape Plan
Amended Tree Preservation Plan
Amended Lighting Plan
Lighting Cut-sheets
Architect's Statement of Design
Amended Architectural Elevations
Architectural Rendering
Site Cross Sections
Water Feature Examples

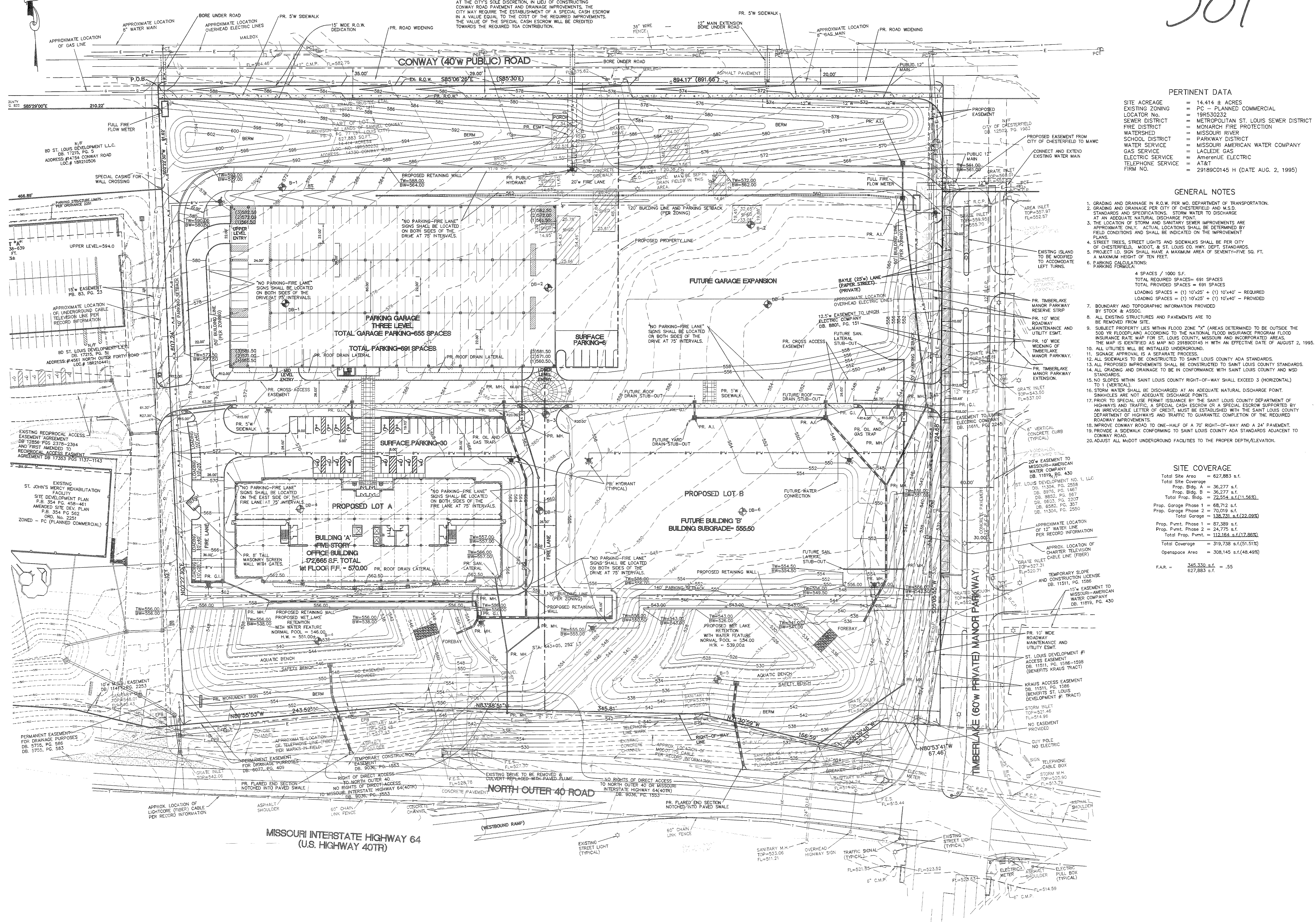
CC: Aimee Nassif, Planning and Development Services Director



581



AT THE CITY'S SOLE DISCRETION, IN LIEU OF CONSTRUCTING CONWAY ROAD PAVEMENT AND DRAINAGE IMPROVEMENTS, THE CITY MAY REQUIRE THE ESTABLISHMENT OF A SPECIAL CASH ESCROW IN A VALUE EQUAL TO THE COST OF THE REQUIRED IMPROVEMENTS. THE VALUE OF THE SPECIAL CASH ESCROW WILL BE CREDITED TOWARDS THE REQUIRED TGA CONTRIBUTION.



PERTINENT DATA

SITE ACREAGE	= 14.414 ± ACRES
EXISTING ZONING	= PC - PLANNED COMMERCIAL
LOCATOR No.	= 19R530232
SEWER DISTRICT	= METROPOLITAN ST. LOUIS SEWER DISTRICT
FIRE DISTRICT	= MONARCH FIRE PROTECTION DISTRICT
WATERSHED	= MISSOURI RIVER
SCHOOL DISTRICT	= PARKWAY DISTRICT
WATER SERVICE	= MISSOURI AMERICAN WATER COMPANY
GAS SERVICE	= LACLEDE GAS
ELECTRIC SERVICE	= AmerenUE ELECTRIC
TELEPHONE SERVICE	= AT&T
FIRM NO.	= 29189C0145 H (DATE AUG. 2, 1995)

- GENERAL NOTES**
1. GRADING AND DRAINAGE IN R.O.W. PER MO. DEPARTMENT OF TRANSPORTATION.
 2. GRADING AND DRAINAGE PER CITY OF CHESTERFIELD AND M.S.D. STANDARDS AND SPECIFICATIONS. STORM WATER TO DISCHARGE AT AN ADEQUATE NATURAL DISCHARGE POINT.
 3. THE LOCATION OF STORM AND SANITARY SEWER IMPROVEMENTS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS AND SHALL BE INDICATED ON THE IMPROVEMENT PLANS.
 4. STREET TREES, STREET LIGHTS AND SIDEWALKS SHALL BE PER CITY OF CHESTERFIELD, WOODOT, & ST. LOUIS CO. HWY. DEPT. STANDARDS.
 5. PROJECT I.D. SIGN SHALL HAVE A MAXIMUM AREA OF SEVENTY-FIVE SQ. FT. A MAXIMUM HEIGHT OF TEN FEET.
 6. PARKING CALCULATIONS:
PARKING FORMULA:
4 SPACES / 1000 S.F.
TOTAL REQUIRED SPACES= 691 SPACES
TOTAL PROVIDED SPACES = 691 SPACES
LOADING SPACES = (1) 10'x25' + (1) 10'x40' - REQUIRED
LOADING SPACES = (1) 10'x25' + (1) 10'x40' - PROVIDED
 7. BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY STOCK & ASSOC.
 8. ALL EXISTING STRUCTURES AND PAVEMENTS ARE TO BE REMOVED FROM SITE.
 9. SUBJECT PROPERTY LIES WITHIN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 500 YR FLOODPLAIN) ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR ST. LOUIS COUNTY, MISSOURI AND INCORPORATED AREAS. THE MAP IS IDENTIFIED AS MAP NO. 29189C0145 H WITH AN EFFECTIVE DATE OF AUGUST 2, 1995.
 10. ALL UTILITIES WILL BE INSTALLED UNDERGROUND.
 11. SOILAGE APPROVAL IS A SEPARATE PROCESS.
 12. ALL SIDEWALKS TO BE CONSTRUCTED TO SAINT LOUIS COUNTY ADA STANDARDS.
 13. ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO SAINT LOUIS COUNTY STANDARDS.
 14. ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH SAINT LOUIS COUNTY AND MSD STANDARDS.
 15. NO SLOPES WITHIN SAINT LOUIS COUNTY RIGHT-OF-WAY SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL).
 16. STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
 17. PRIOR TO SPECIAL USE PERMIT ISSUANCE BY THE SAINT LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC, A SPECIAL CASH ESCROW OR A SPECIAL ESCROW SUPPORTED BY AN IRREVOCABLE LETTER OF CREDIT, MUST BE ESTABLISHED WITH THE SAINT LOUIS COUNTY DEPARTMENT OF HIGHWAYS AND TRAFFIC TO GUARANTEE COMPLETION OF THE REQUIRED ROADWAY IMPROVEMENTS.
 18. IMPROVE CONWAY ROAD TO ONE-HALF OF A 70' RIGHT-OF-WAY AND A 24' PAVEMENT.
 19. PROVIDE A SIDEWALK CONFORMING TO SAINT LOUIS COUNTY ADA STANDARDS ADJACENT TO CONWAY ROAD.
 20. ADJUST ALL MUDOT UNDERGROUND FACILITIES TO THE PROPER DEPTH/ELEVATION.

SITE COVERAGE

Total Site Area	= 627,883 s.f.
Total Site Coverage	= 112,164 s.f. (17.86%)
Prop. Bldg. A	= 36,277 s.f.
Prop. Bldg. B	= 36,277 s.f.
Total Prop. Bldg.	= 72,554 s.f. (11.56%)
Prop. Garage Phase 1	= 68,712 s.f.
Prop. Garage Phase 2	= 70,019 s.f.
Total Garage	= 138,731 s.f. (22.09%)
Prop. Pvmnt. Phase 1	= 87,389 s.f.
Prop. Pvmnt. Phase 2	= 24,775 s.f.
Total Prop. Pvmnt.	= 112,164 s.f. (17.86%)
Total Coverage	= 319,738 s.f. (51.1%)
Open Space Area	= 308,145 s.f. (48.49%)
F.A.R. =	345,330 s.f. = .55
	627,883 s.f.

- ISSUE RECORD**
- 07/01/08 SITE DEVELOPMENT CONCEPT AND SECTION PLAN SUBMITTAL
 - 07/28/08 SITE DEVELOPMENT SECTION PLAN RESUBMITTAL
 - 08/14/08 SITE DEVELOPMENT SECTION PLAN RESUBMITTAL

DESIGN NUMBER
PROJECT NUMBER
207-4220
DATE
07/01/08
PROJECT MANAGER
DRAWN BY
E.J.F.
CHECKED BY
G.M.S.

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Prepared For
OPUS
Opus Northwest, L.L.C.
One North Brentwood
Suite 510
Clyde, MO 63105
314-290-2800
314-290-2801 fax

PROJECT
OPUS I and II
at KRAUS FARM
OFFICE CENTER
LOCATION
14551 North Outer 40 Road
Chesterfield, MO 63017

SHEET TITLE
SITE SECTION
PLAN

Exhibit A

AMENDED SITE DEVELOPMENT SECTION PLAN

OPUS I AT KRAUS FARM OFFICE CENTER

A TRACT OF LAND BEING PART OF LOT 3 OF THE SUBDIVISION OF LANDS OF SAMUEL CONWAY AS RECORDED IN PLAT BOOK 9, PAGE 77 (CITY OF ST. LOUIS) LOCATED IN U.S. SURVEY 366, TOWNSHIP 45 NORTH, RANGE 4 EAST OF THE 5TH PRINCIPAL MERIDIAN CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI
CURRENT ZONING: "PC" - ORD. NO. 2464

SITE DEVELOPMENT SECTION PLAN PB. 356 PGS. 580-584 (09/24/08)

SHEET INDEX

C1.0	TITLE SHEET
C2.0	AMENDED SITE DEVELOPMENT SECTION PLAN
C3.0	LOWER LEVEL GARAGE SITE PLAN
C4.0	SITE ORDINANCE SHEET
C5.0	SITE ORDINANCE SHEET
ES1.0-ES3.0	SITE LIGHTING PLAN
L1	LANDSCAPE PLAN
TPP	TREE PROTECTION PLAN
TSD	TREE STAND DELINEATION
A3.1A-A3.1C	ARCHITECTURAL ELEVATIONS

Opus Development Company, L.L.C., or its assigns, the owner of the property shown on this plan for and in consideration of being granted approval of said plan to develop property under the provisions of Section 03.

04.C "PC" - Planned Commercial District Of City of Chesterfield (applicable subsection) (present zoning)

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

Opus Development Company, L.L.C., or its assigns
(Signature):
(Name Typed): Joe Downs
Vice President

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

On this _____ day of _____, 2015, before me appeared _____, to me known, who, being by me duly sworn, did say that he / she is the

of Opus Development Company, L.L.C., or its assigns, a Missouri Corporation, and that the seal affixed to the foregoing instrument is the Corporate Seal of said Corporation and that the said instrument was signed and sealed on behalf of said Corporation by authority of its Board of Directors, and said _____ acknowledged said instrument to be the free act and deed of said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Notarial Seal on the day and year last written above.

Notary Public

Print Name

My commission expires: _____

Amiee Nassif, AICP
Planning and Development Services Director
City of Chesterfield, Missouri

Vickie Hass
City Clerk
City of Chesterfield, Missouri

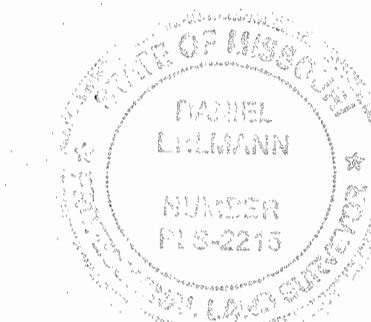
Ordinance No. 2464 dated JUNE 16th, 2008.
Approved Site Development Section Plan Recorded BK. 356 PG. 580-584 Recorded September 24, 2008.

SURVEYOR'S CERTIFICATION

This is to certify that Stock and Associates Consulting Engineers, Inc. has prepared this Amended Site Development Section Plan from an actual survey. The information shown is a correct representation of all existing and proposed land divisions and does not represent a property boundary survey.

STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC.

By: Daniel Ehlmann 10/08/15
DANIEL EHLMANN, Missouri, P.L.S. No. 2215



LEGEND

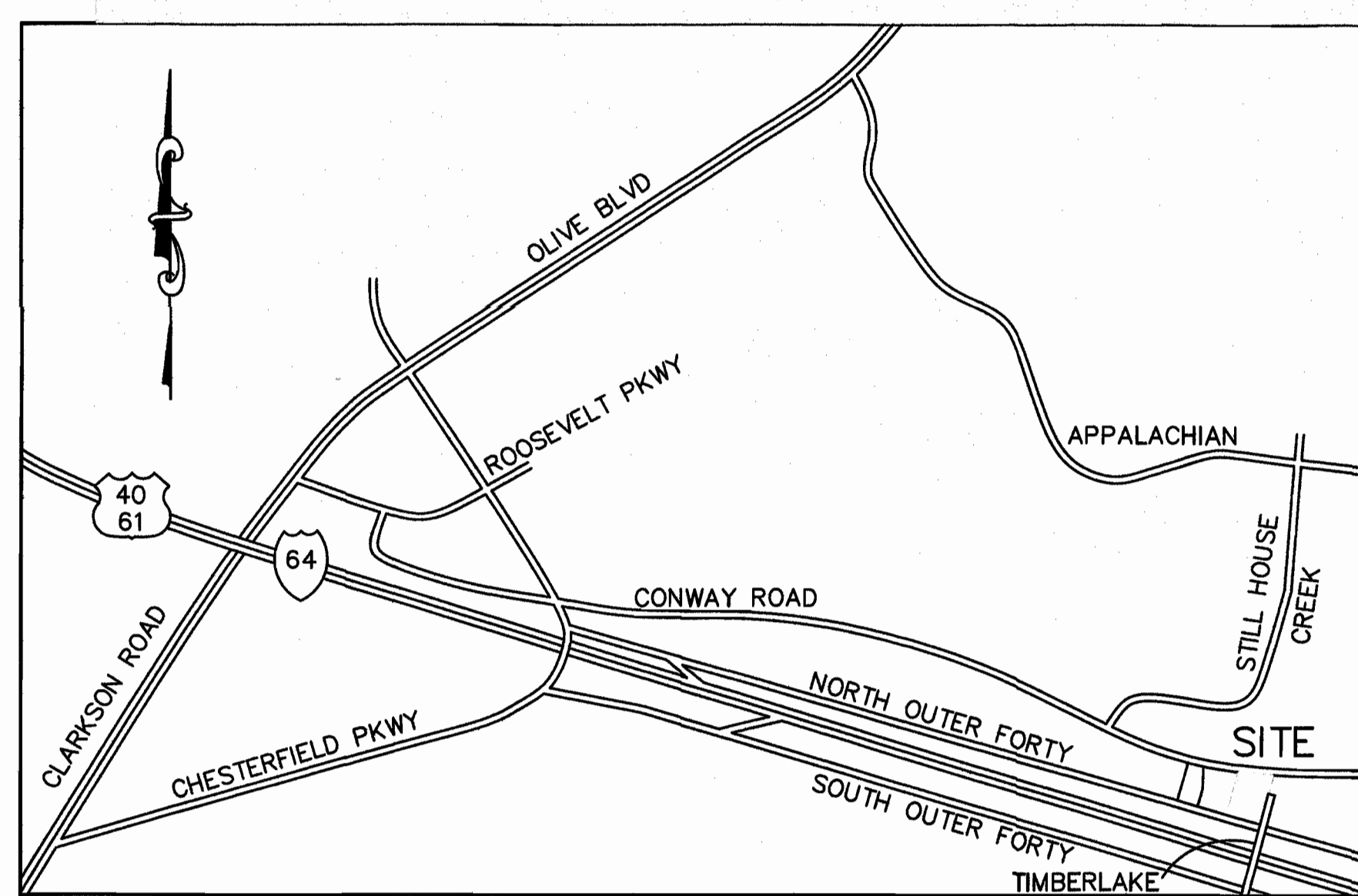
EXISTING CONTOURS	---
PROPOSED CONTOURS	---
EXISTING SANITARY SEWERS	---
EXISTING STORM SEWERS	---
PROPOSED SANITARY SEWERS	---
PROPOSED STORM SEWERS	---
EXISTING RIGHT-OF-WAY	---
PROPOSED RIGHT-OF-WAY	---
CENTERLINE	---
EASEMENT	---
NON-REINFORCED CONCRETE PAVEMENT	---
REINFORCED CONCRETE PAVEMENT	---
EXISTING SPOT ELEVATION	---
PROPOSED SPOT ELEVATION	---
SWALE	---
TO BE REMOVED	---
TO BE REMOVED & RELOCATED	---
TO BE USED IN PLACE	---
BACK OF CURB	---
FACE OF CURB	---
TRASH ENCLOSURE	---
LIGHT STANDARD	---
GAS MAIN	---
WATER MAIN	---
UNDERGROUND TELEPHONE	---
FIRE HYDRANT	---
POWER POLE	---
HAY BALE	---
SILTATION CONTROL	---

PROPERTY DESCRIPTION

Lot 3 of the Subdivision of LANDS OF SAMUEL CONWAY, deceased, according to plat thereof recorded in Plat Book 9 Page 77 of the City (former County) Records; EXCEPTING THEREFROM that part conveyed to the State of Missouri by deed recorded in Book 1414 Page 1 and that part condemned by decree rendered in Cause #276692 of the Circuit Court of the County of St. Louis. ALSO EXCEPTING THEREFROM that part lying South of U.S. Highway 40, 100 feet wide; ALSO EXCEPTING THEREFROM that part conveyed to the State of Missouri, in Cause #609172, a copy of Report of Commissions recorded in Book 9036 Page 1553.

ALSO BEING DESCRIBED AS:

A tract of land being part of Lot 3 of the SUBDIVISION OF LAND OF SAMUEL CONWAY, deceased, according to the plat thereof recorded Plat Book 9 Page 77 of the St. Louis City (former County) records and being more particularly described as follows: Beginning at the Northwesterly corner of above said Lot 3, said point also being located on the Southerly line of Conway Road, 40 feet wide; thence South 85 degrees 06 minutes 26 seconds East along said Southerly line 894.17 feet to the Northerly corner of above said Lot 3; thence departing last said Southerly line South 05 degrees 05 minutes 55 seconds West along the Easterly line of above said Lot 3 a distance of 724.68 feet to a point on the Northerly right-of-way line of Missouri Interstate Highway 64 (U.S. Highway 40TR) as established by instrument recorded in Book 9036 Page 1553 of the Recorder of Deeds Office in St. Louis County Missouri; thence along last said Northerly line the following courses and distances; thence North 80 degrees 53 minutes 41 seconds West 67.46 feet to a point being located 301 feet Northerly of Missouri Interstate Highway 64 (U.S. Highway 40TR) Centerline Station 447; thence South 58 degrees 39 minutes 46 seconds West 52.33 feet to a point located 264 feet Northerly of said Centerline Station 446; thence North 71 degrees 30 minutes 59 seconds West 166.59 feet to a point located 278.00 feet Northerly of said Centerline Station 445; thence North 83 degrees 38 minutes 51 seconds West 345.81 feet to a point located 234 feet Northerly of said Centerline Station 441; thence North 89 degrees 55 minutes 53 seconds West 243.52 feet to the Southeasterly corner of Adjusted Lot B of a Boundary Adjustment Plat as recorded in Plat Book 348 Pages 638 and 639 of the Recorder of Deeds Office in St. Louis County, Missouri as conveyed to Forty Partners No. 2, LC by instruments recorded in Book 12723 Page 1587 and Book 12723 Page 1592 of the above said Recorder's Office, said point also being located on the Westerly line above said Lot 3; thence along the common line between above said Adjusted Lot B and Adjusted Lot A of a Boundary Adjustment Plat as recorded in Plat Book 348 Pages 638 and 639 as conveyed to Forty Partners No. 3, LC by instrument recorded in Book 12723 Page 1595 of the above said Recorder's Office North 02 degrees 22 minutes 30 seconds East 723.87 feet to the point of beginning, according to survey of Stock & Associates Consulting Engineers, Inc. dated January 29, 2001.



LOCATION MAP
NOT TO SCALE

PERTINENT DATA

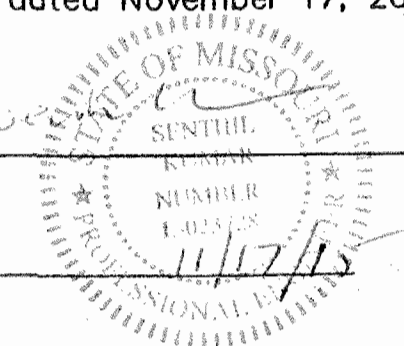
SITE ACREAGE	=	14.414 ± ACRES
EXISTING ZONING	=	PC - PLANNED COMMERCIAL
ORDINANCE No.	=	2464
LOCATOR No.	=	19R530232
SEWER DISTRICT	=	METROPOLITAN ST. LOUIS SEWER DISTRICT
FIRE DISTRICT	=	MONARCH FIRE PROTECTION
WATERSHED	=	MISSOURI RIVER
SCHOOL DISTRICT	=	PARKWAY DISTRICT
WATER SERVICE	=	MISSOURI AMERICAN WATER COMPANY
GAS SERVICE	=	LACLEDE GAS
ELECTRIC SERVICE	=	AmerenUE ELECTRIC
TELEPHONE SERVICE	=	AT&T
FIRM NO.	=	29189C0170 K (DATE FEB. 4, 2015)

GEOTECHNICAL ENGINEER'S STATEMENT

GEOTECHNOLOGY, INC. at the request of THE OPUS GROUP has provided geotechnical services for the project proposed hereon. A geotechnical investigation was conducted for the development proposed hereon. Our findings indicate that the earth-related aspects are suitable for the development proposed pursuant to the geotechnical recommendations set forth in our subsurface exploration report titled Proposed Office Development, Kraus Farm Site, Chesterfield, Missouri, dated November 9, 2015 and subsequent addendum dated November 17, 2015

By: _____

DATE



UTILITY NOTE:

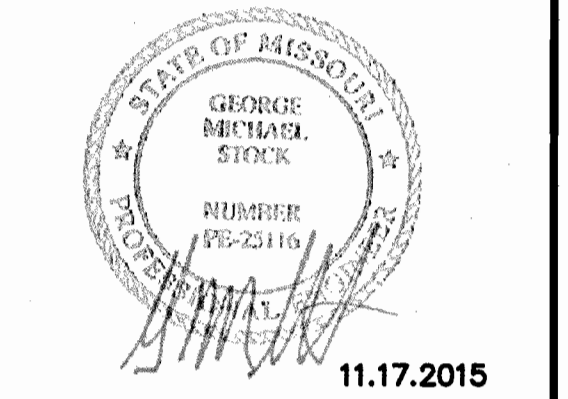
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS, RECORDS AND INFORMATION, AND THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES, STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE 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:
THE OPUS GROUP
7733 FORSYTH BLVD.
SUITE 1100
ST. LOUIS, MO 63105
PHONE: (314) 296-6100

STOCK & ASSOCIATES
Consulting Engineers, Inc.

257 Chesterfield Business Parkway
St. Louis, MO 63005
PH. (636) 530-8100 FAX (636) 530-8130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

REGISTRATION



GEORGE M. STOCK E-25116

ISSUE RECORD

1.) CITY COMMENTS	2015.10.08
2.) CITY COMMENTS	2015.10.28
3.) CITY COMMENTS	2015.11.17

DESIGN NUMBER

PROJECT NUMBER
214-5370
DATE
09/03/15
PROJECT MANAGER

DRAWN BY
R.E.S.
CHECKED BY
G.M.S.

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Prepared For
OPUS
The Opus Group
7733 Forsyth Blvd.
Suite 1100
St. Louis, MO 63105
314-296-6100

PROJECT
OPUS I
at KRAUS FARM
OFFICE CENTER

LOCATION
1391 Timberlake Manor Pkwy.
Chesterfield, MO 63017

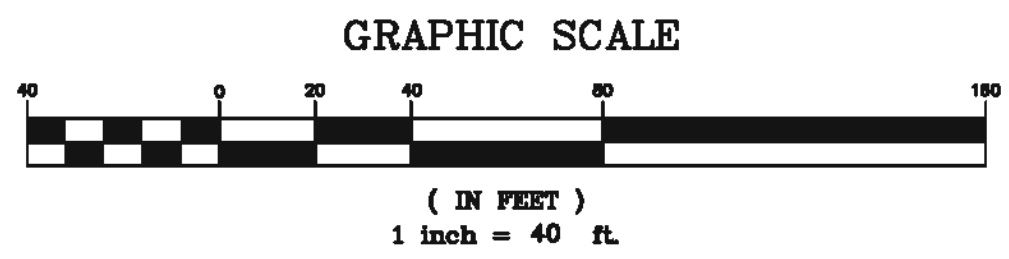
SHEET TITLE
TITLE SHEET

SHEET NUMBER
C1.0

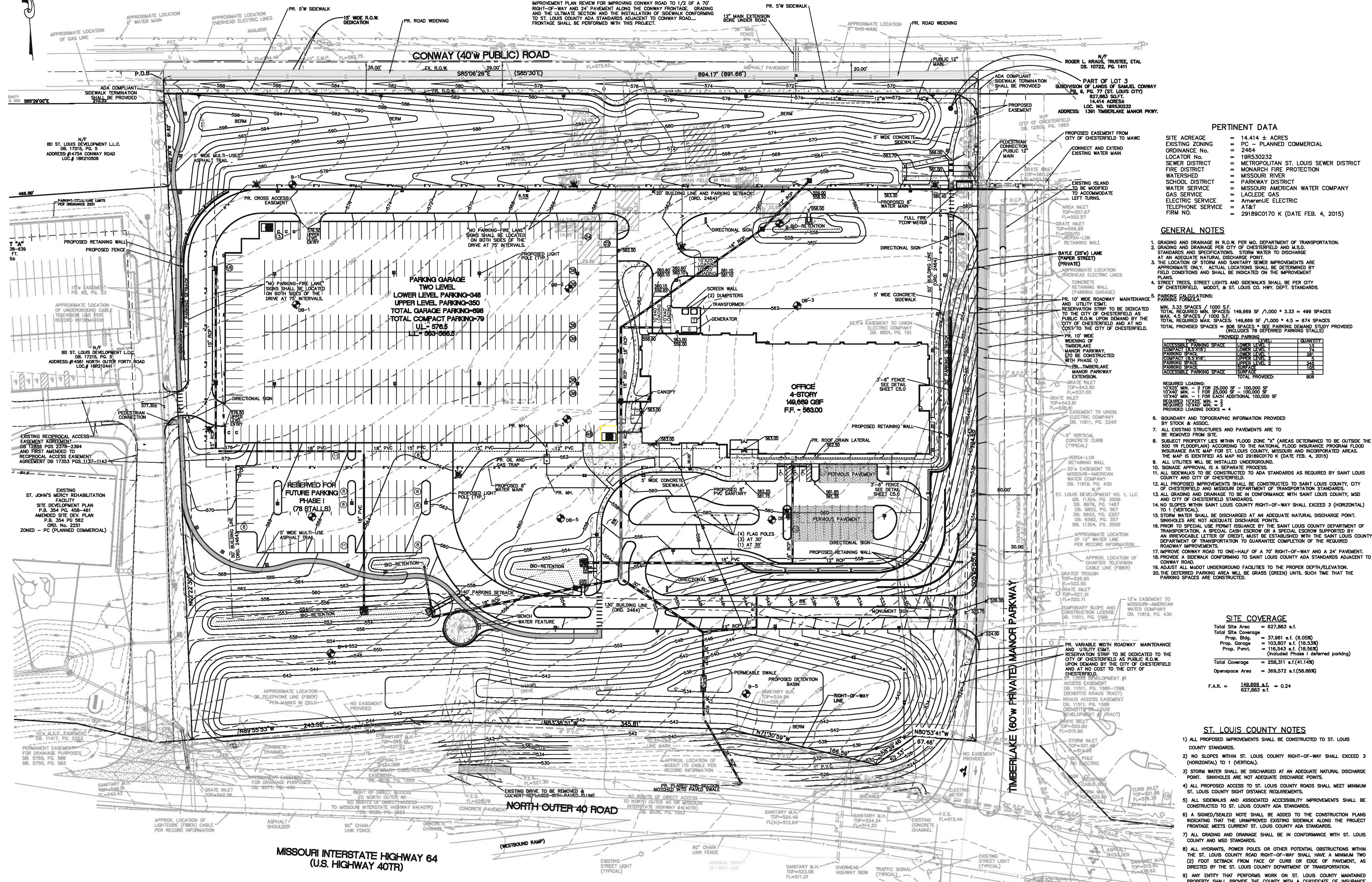
AMENDED SITE DEVELOPMENT SECTION PLAN

Stock & Associates
Consulting Engineers, Inc.
257 Chesterfield Business Parkway
St. Louis, MO 63105
PH (314) 530-9100 FAX (314) 530-9130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

REGISTRATION
STATE OF MISSOURI
GEORGE M. STOCK
MEMBER
PE-21116
11.17.2015
GEORGE M. STOCK E-25116



A CASH SPECIAL ESCROW SHALL BE PROVIDED TO ST. LOUIS COUNTY DURING IMPROVEMENT PLAN REVIEW FOR WIDENING CONWAY ROAD TO 1/2 OF A 70' RIGHT-OF-WAY AND 24' PAVEMENT ALONG THE CONWAY FRONTAGE. GRADING AND THE ULTIMATE SECTION AND THE INSTALLATION OF SIDEWALKS CONFORMING TO ST. LOUIS COUNTY ADA STANDARDS ADJACENT TO CONWAY ROAD FRONTAGE SHALL BE PERFORMED WITH THIS PROJECT.



PERTINENT DATA

SITE ACREAGE	= 14.414 ± ACRES
EXISTING ZONING	= PC - PLANNED COMMERCIAL
ORDINANCE No.	= 2464
LOCATOR No.	= 19R530232
SEWER DISTRICT	= METROPOLITAN ST. LOUIS SEWER DISTRICT
FIRE DISTRICT	= MONARCH FIRE PROTECTION
WATERSHED	= MISSOURI RIVER
SCHOOL DISTRICT	= PARKWAY DISTRICT
WATER SERVICE	= MISSOURI AMERICAN WATER COMPANY
GAS SERVICE	= LACLUDE GAS
ELECTRIC SERVICE	= AmerenUE ELECTRIC
TELEPHONE SERVICE	= AT&T
FIRM NO.	= 29189C0170 K (DATE FEB. 4, 2015)

GENERAL NOTES

- GRADING AND DRAINAGE IN R.O.W. PER MO. DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS. STORM WATER TO DISCHARGE AT AN ADEQUATE NATURAL DISCHARGE POINT.
- THE LOCATION OF STORM AND SANITARY SEWER IMPROVEMENTS ARE APPROXIMATE ONLY. ACTUAL LOCATIONS SHALL BE DETERMINED BY FIELD CONDITIONS AND SHALL BE INDICATED ON THE IMPROVEMENT PLANS.
- STREET TREES, STREET LIGHTS AND SIDEWALKS SHALL BE PER CITY OF CHESTERFIELD, MODOT, & ST. LOUIS CO. HWY. DEPT. STANDARDS.
- PARKING FORMULATIONS:
MIN. 3.33 SPACES / 1,000 S.F.
TOTAL REQUIRED MIN. SPACES: 140,869 SF / 7,000 * 3.33 = 499 SPACES
MAX. 4.5 SPACES / 1,000 S.F.
TOTAL REQUIRED MAX. SPACES: 140,869 SF / 7,000 * 4.5 = 874 SPACES
TOTAL PROVIDED SPACES = 808 SPACES * SEE PARKING DEMAND STUDY PROVIDED (INCLUDES 78 DEFERRED PARKING SPACES)

TYPE	LEVEL	QUANTITY
ACCESSIBLE PARKING SPACE	LOWER LEVEL 1	72
COMPACT (8'x12')	LOWER LEVEL 1	26
PARKING SPACE	LOWER LEVEL 1	26
PARKING SPACE	UPPER LEVEL 2	345
ACCESSIBLE PARKING SPACE	UPPER LEVEL 2	14
TOTAL PROVIDED:		808

REQUIRED LOADING:
10'x20' MIN. = 2 FOR 25,000 SF = 100,000 SF
12'x40' MIN. = 1 FOR 25,000 SF = 100,000 SF
10'x40' MIN. = 1 FOR EACH ADDITIONAL 100,000 SF
REQUIRED 10'x40' MIN. = 2
PROVIDED LOADING DOCKS = 4

- BOUNDARY AND TOPOGRAPHIC INFORMATION PROVIDED BY STOCK & ASSOC.
- ALL EXISTING STRUCTURES AND PAVEMENTS ARE TO BE REMOVED FROM SITE.
- SUBJECT PROPERTY LIES WITHIN FLOOD ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 500 YR FLOODPLAIN) ACCORDING TO THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR ST. LOUIS COUNTY, MISSOURI AND INCORPORATED AREAS. THE MAP IS IDENTIFIED AS MAP NO 29188C0170 K (DATE FEB. 4, 2015)
- ALL UTILITIES WILL BE INSTALLED UNDERGROUND.
- STORAGE APPROVAL IS A SEPARATE PROCESS TO MISSOURI-AMERICAN WATER COMPANY DB. 11811, PG. 430
- ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO SAINT LOUIS COUNTY, CITY OF CHESTERFIELD AND MISSOURI DEPARTMENT OF TRANSPORTATION STANDARDS.
- ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH SAINT LOUIS COUNTY, MISSOURI AND CITY OF CHESTERFIELD STANDARDS.
- NO SLOPES WITHIN SAINT 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.
- PRIOR TO SPECIAL USE PERMIT ISSUANCE BY THE SAINT LOUIS COUNTY DEPARTMENT OF TRANSPORTATION, A SPECIAL CASH ESCROW OR A SPECIAL ESCROW SUPPORTED BY AN IRREVOCABLE LETTER OF CREDIT, MUST BE ESTABLISHED WITH THE SAINT LOUIS COUNTY DEPARTMENT OF TRANSPORTATION TO GUARANTEE COMPLETION OF THE REQUIRED ROADWAY IMPROVEMENTS.
- IMPROVE CONWAY ROAD TO ONE-HALF OF A 70' RIGHT-OF-WAY AND A 24' PAVEMENT.
- PROVIDE A SIDEWALK CONFORMING TO SAINT LOUIS COUNTY ADA STANDARDS ADJACENT TO CONWAY ROAD.
- ADJUST ALL MODOT UNDERGROUND FACILITIES TO THE PROPER DEPTH/ELEVATION.
- THE DEFERRED PARKING AREA WILL BE GRASS (GREEN) UNTIL SUCH TIME THAT THE PARKING SPACES ARE CONSTRUCTED.

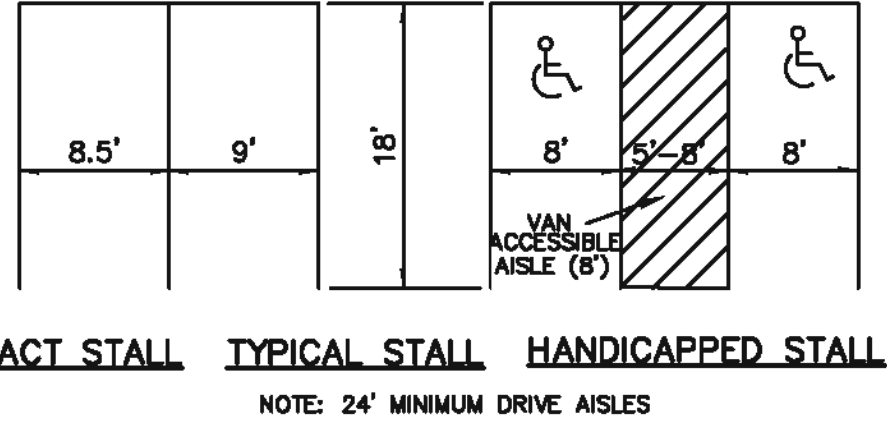
SITE COVERAGE

Total Site Area	= 627,883 s.f.
Total Site Coverage	= 37,981 s.f. (6.05%)
Prop. Bldg.	= 103,807 s.f. (16.53%)
Prop. Garage	= 116,543 s.f. (18.56%)
(Included Phase I deferred parking)	
Total Coverage	= 258,311 s.f. (41.14%)
Open-space Area	= 369,572 s.f. (58.86%)

F.A.R. = 140,869 s.f. = 0.24
627,883 s.f.

- ST. LOUIS COUNTY 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 SIGN REQUIREMENTS.
 - ALL SIDEWALKS AND ASSOCIATED ACCESSIBILITY IMPROVEMENTS 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 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.
 - ANY ENTITY THAT PERFORMS WORK ON ST. LOUIS COUNTY MAINTAINED PROPERTY SHALL PROVIDE THE COUNTY WITH A CERTIFICATE OF INSURANCE EVIDENCING GENERAL LIABILITY COVERAGE (BODILY INJURY AND PROPERTY DAMAGE) IN THE AMOUNTS SPECIFIED AS THE LIMITS OF LIABILITY SET BY THE STATE FOR PUBLIC ENTITIES. SUCH CERTIFICATE SHALL INCLUDE "ST. LOUIS COUNTY" AS AN ADDITIONAL INSURED AND SHALL BE PROVIDED PRIOR TO THE ISSUANCE OF ANY PERMIT. CERTIFICATE SHALL PROVIDE FOR A 30 DAY POLICY CANCELLATION NOTICE TO ST. LOUIS COUNTY. UPON REQUEST, THE COUNTY WILL PROVIDE THE SPECIFIC AMOUNTS FOR BOTH PER PERSON AND PER OCCURRENCE LIMITS.
 - PRIOR TO "SPECIAL USE PERMIT" ISSUANCE BY THE ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION, A SPECIAL CASH ESCROW OR A SPECIAL ESCROW SUPPORTED BY AN IRREVOCABLE LETTER OF CREDIT, MAY BE REQUIRED TO BE ESTABLISHED WITH THE ST. LOUIS COUNTY DEPARTMENT OF TRANSPORTATION TO GUARANTEE COMPLETION OF THE REQUIRED ROADWAY IMPROVEMENTS.

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.



LIGHTING NOTE
ALL LIGHT STANDARDS, OTHER THAN THOSE FOR SECURITY PURPOSES, SHALL BE TURNED OFF BY 9:00 PM, SEVEN DAYS A WEEK.

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Prepared For
OPUS.
The Opus Group
7733 Forsyth Blvd.
Suite 1100
St. Louis, MO 63105
314-298-0100

PROJECT
OPUS I
at KRAUS FARM
OFFICE CENTER

LOCATION
1391 Timberlake Manor Pkwy.
Chesterfield, MO 63017

SHEET TITLE
AMENDED SITE DEVELOPMENT SECTION PLAN

SHEET NUMBER
C2.0

LOWER LEVEL GARAGE SITE PLAN

Stock & Associates
Consulting Engineers, Inc.

257 Chesterfield Business Parkway
St. Louis, MO 63005
PH (636) 530-9100 FAX (636) 530-8130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

REGISTRATION

11.17.2015
GEORGE M. STOCK E-25116

ISSUE RECORD

1.) CITY COMMENTS	2015.10.08
2.) CITY COMMENTS	2015.10.28
3.) CITY COMMENTS	2015.11.17

DESIGN NUMBER
PROJECT NUMBER
DATE
PROJECT NUMBER

214-5370
09/03/15

DRAWN BY
CHECKED BY

R.E.S.
G.M.S.

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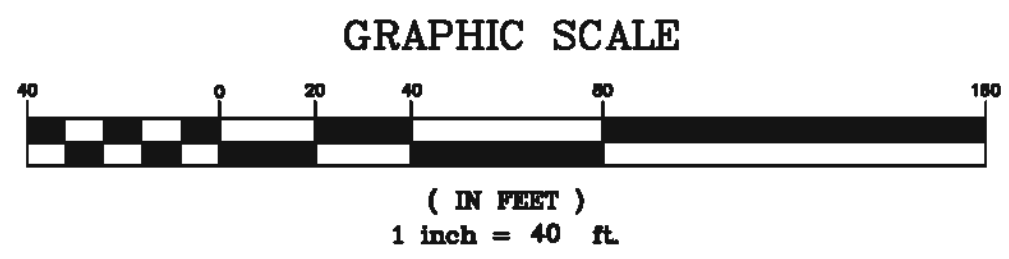
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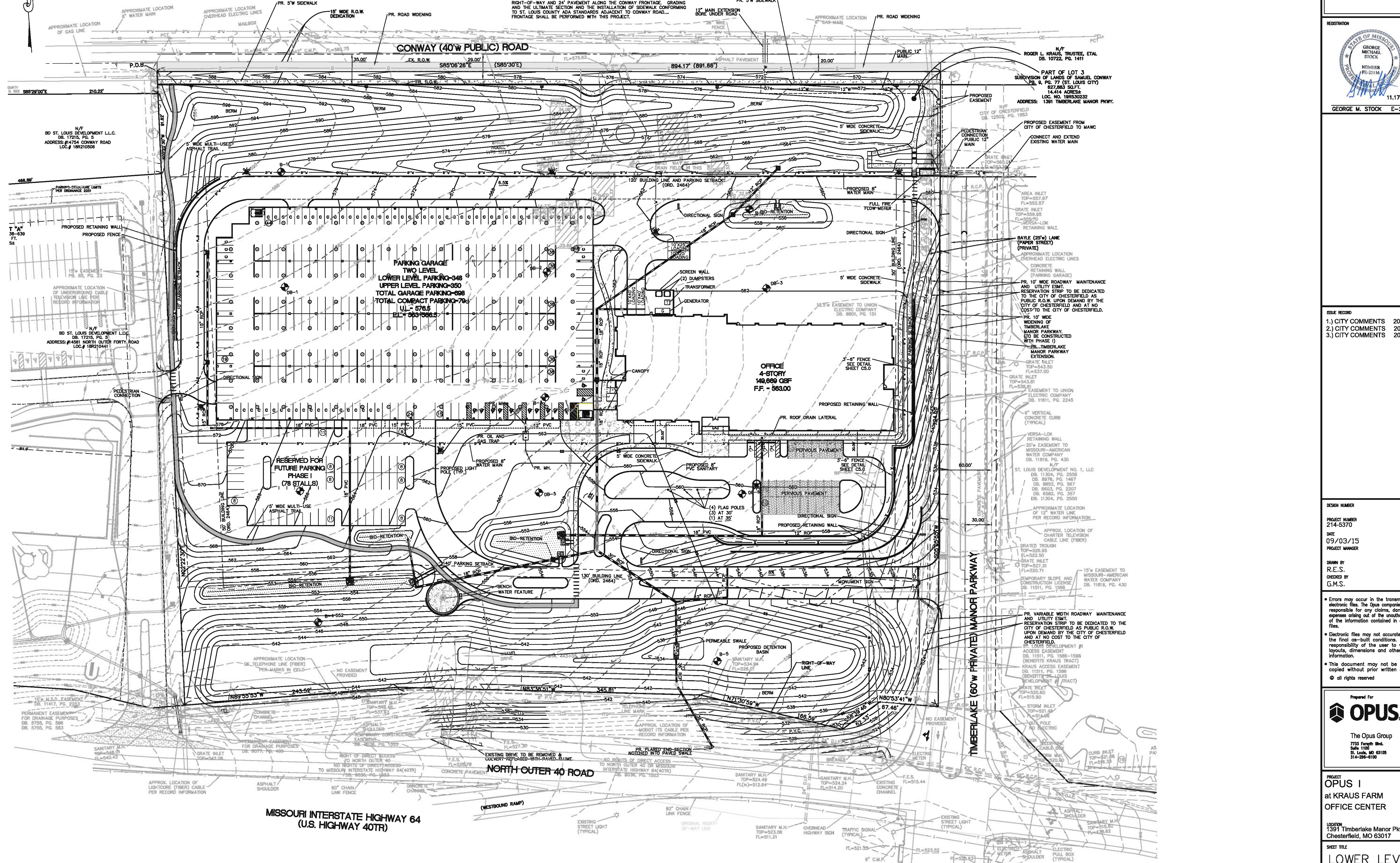
SHEET TITLE
LOWER LEVEL GARAGE
SITE PLAN

SHEET NUMBER
C3.0

PLOT DATE: November 30, 2015 - 11:30am



A CASH SPECIAL ESCROW SHALL BE PROVIDED TO ST. LOUIS COUNTY DURING IMPROVEMENT PLAN REVIEW FOR WIDENING CONWAY ROAD TO 1/2 OF A 10' RIGHT-OF-WAY AND 24" PAVEMENT ALONG THE CONWAY FRONTAGE. GRADING AND THE ULTIMATE SECTION AND THE INSTALLATION OF SIDEWALK CONFORMING TO ST. LOUIS COUNTY ADA STANDARDS ADJACENT TO CONWAY ROAD FRONTAGE SHALL BE PERFORMED WITH THIS PROJECT.



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.

BILL NO. 2643 ORDINANCE NO. 2464

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF CHESTERFIELD BY CHANGING THE BOUNDARIES OF AN "NU" NON-URBAN DISTRICT TO A "PC" PLANNED COMMERCIAL DISTRICT FOR A 14.414-ACRE PARCEL OF LAND LOCATED AT 14730 CONWAY ROAD, NEAR THE NORTHWEST CORNER OF HIGHWAY 40/INTERSTATE 64 AND TIMBERLAKE MANOR DRIVE. (P.Z. 01-2008 KRAUS FARM OFFICE CENTER/OPUS NORTHWEST)

WHEREAS, the Petitioner, Opus Northwest has requested a change in zoning from "NU" Non-Urban District to "PC" Planned Commercial District for the above-referenced 14.414-acre parcel of land; and,

WHEREAS, a public hearing before the City of Chesterfield Planning Commission was held on March 24, 2008 to consider the matter; and,

WHEREAS, the request was considered by the Planning Commission, and upon review, the Commission recommended approval of said change of zoning with amendments relative to restrictions on financial institutions, fire lane locations and road improvements by a vote of 5 to 2; and,

WHEREAS, the Planning and Public Works Committee, having also considered Opus Northwest's request, recommended approval by a vote of 4 to 0, with additional recommendations for change relative to conveyance of property, the addition of a water feature and lighting.

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

Section 1. City of Chesterfield Zoning Ordinance and the Official Zoning Maps, which are a part thereof, are hereby amended by transferring from the "NU" Non-urban District to the "PC" Planned Commercial District a 14.414-acre parcel of land located at 14730 Conway Road, near the northwest corner of Highway 40/Interstate 64 and Timberlake Manor Drive. A description of the subject site is as follows:

Property Description:

Lot 3 of the Subdivision of LANDS OF SAMUEL CONWAY, deceased, according to plat thereof recorded in Plat Book 9 Page 77 of the City (former County) Records; EXCEPTING THEREFROM that part conveyed to the State of Missouri by deed recorded in Book 1414 Page 1 and that part concerned by decree rendered in Cause #276692 of the Circuit Court of the County of St. Louis. ALSO EXCEPTING THEREFROM that part lying South of U.S. Highway 40, 100 feet wide; ALSO EXCEPTING THEREFROM that part conveyed to the State of Missouri, in Cause #609172, a copy of Report of Commissions recorded in Book 6036 Page 1553.

P.Z. 01-2008 Kraus Farm Office Center (Opus Northwest) Planning Commission May 12, 2008 City Council June 2, 2008 City Council June 16, 2008 Page 3 of 15

- a. One hundred thirty (130) feet from the existing right-of-way of North Outer Forty Road on the southern boundary of the "PC" Planned Commercial District.
b. One hundred twenty (120) feet from the existing right-of-way of Conway Road.
c. Fifty (50) feet from the western boundary of the "PC" Planned Commercial District.
d. Fifty (50) feet from the eastern boundary of the "PC" Planned Commercial District.

PARKING SETBACKS

No parking stall, loading space, internal driveway, or roadway, except points of ingress or egress and or lanes for use by the Fire Protection District, will be located within the following setbacks:

- a. One hundred forty (140) feet from the existing right-of-way of North Outer Forty Road on the southern boundary of the "PC" Planned Commercial District.
b. One hundred twenty (120) feet from the existing right-of-way of Conway Road.
c. Ten (10) feet from the western boundary of the "PC" Planned Commercial District.
d. Thirty (30) feet from the eastern boundary of the "PC" Planned Commercial District.

PARKING AND LOADING REQUIREMENTS

- 1. Parking and loading spaces for this development will be as required in the City of Chesterfield Code.
2. Construction Parking
a. No construction related parking shall be permitted within the Conway Road or North Outer Forty Road right of way.
b. The streets surrounding this development and any street used for construction access thereto shall be cleaned throughout the day. The developer shall keep the road clear of mud and debris at all times.
c. Provide adequate off-street stabilized parking area(s) for construction employees and a washdown station for construction vehicles entering and leaving the site in order to

Section 2. The preliminary approval, pursuant to the City of Chesterfield Zoning Ordinance is granted, subject to all of the ordinance, rules, and regulations and the specific conditions as recommended by the Planning Commission in its recommendations to the City Council, which are set out in the Attachment "A," which is attached hereto and made a part hereof.

Section 3. The City Council, pursuant to the request filed by Opus Northwest requesting the amendment embodied in this ordinance, and pursuant to the recommendations of the City of Chesterfield Planning Commission that said petition be granted and after public hearing held by the Planning Commission on the 24th day of march 2008, does hereby adopt this ordinance pursuant to the power granted to the City of Chesterfield under Chapter 89 of the Revised Statutes of the State of Missouri authorizing the City Council to exercise legislative power pertaining to planning and zoning.

Section 4. This ordinance and the requirements thereof are exempt from the warning and summons for violations as set out in Section 1003.410 of the Zoning Ordinance of the City of Chesterfield.

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

Passed and approved this 16th day of June, 2008.

ATTEST:

Audith A. Maggion CITY CLERK

MAYOR

FIRST READING HELD: 06-02-2008

P.Z. 01-2008 Kraus Farm Office Center (Opus Northwest) Planning Commission May 12, 2008 City Council June 2, 2008 City Council June 16, 2008 Page 4 of 15

- eliminate the condition whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driving conditions.
3. Parking lots shall not be used as streets.

LANDSCAPE AND TREE REQUIREMENTS

- 1. The developer shall adhere to the Tree Manual of the City of Chesterfield Code.
2. In addition to the requirement above, the developer shall provide, with the exclusion of areas dedicated for use by the Fire Protection District, a 120 foot buffer from the existing right-of-way of Conway Road with materials to be approved upon review of the Site Development Plan.

SIGN REQUIREMENTS

- 1. Sign package submittal materials shall be required for this development. All sign packages shall be reviewed and approved by the City of Chesterfield Planning Commission.
2. Ornamental Entrance Monument construction, if proposed, shall be reviewed by the City of Chesterfield, and/or the Missouri Department of Transportation.

LIGHT REQUIREMENTS

- 1. Provide a lighting plan and cut sheet in accordance with the City of Chesterfield Code.
2. All light standards, other than those for security purposes, shall be turned off by 9:00 p.m., seven days a week.
3. Provide additional lighting along the North Outer Forty frontage as approved by the City of Chesterfield and the Missouri Department of Transportation.

ARCHITECTURAL

- 1. The developer shall submit architectural elevations, including but not limited to, colored renderings and building materials. Architectural information is to be reviewed by the Architectural Review Board and the Planning Commission.
2. Building facades should be articulated by using color, arrangement or change in materials to emphasize the facade elements. The planes of the exterior walls may be varied in height, depth or direction. Extremely long facades shall be designed with sufficient

P.Z. 01-2008 Kraus Farm Office Center (Opus Northwest) Planning Commission May 12, 2008 City Council June 2, 2008 City Council June 16, 2008 Page 1 of 15

ATTACHMENT A

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

SPECIFIC CRITERIA

PERMITTED USES

- 1. The uses allowed in this "PC" Planned Commercial District shall be:
a. Financial Institutions
b. Medical and Dental Offices
c. Office or Office Buildings
2. Ancillary uses in this "PC" Planned Commercial District shall be:
a. Associated work and storage areas required by a business, firm, or service to carry on business operations.
b. Cafeterias for employees and guests only.
c. Parking areas, including garages, for automobiles, but not including any sales of automobiles, or the storage of wrecked or otherwise damaged and immobilized automotive vehicles for a period in excess of seventy-two (72) hours.
d. Permitted signs (See Section 1003.168 "Sign Regulations")
e. Recreational facilities, including swimming pools and gymnasiums, provided such uses shall be ancillary to the major office and medical uses and shall not have separate exterior entrances or exterior signage.
f. Restaurants, fast food and sitdown, provided such uses shall be ancillary to the major office and medical uses and shall not have separate exterior entrances or exterior signage.
g. Stores, shops, markets, service facilities, and automatic vending facilities in which goods or services of any kind are being offered for sale or hire to the general public on the premises, provided such uses shall be ancillary to the major office and medical uses and shall not have separate exterior entrances or exterior signage.
h. Vehicle washing facilities for automobiles.

P.Z. 01-2008 Kraus Farm Office Center (Opus Northwest) Planning Commission May 12, 2008 City Council June 2, 2008 City Council June 16, 2008 Page 5 of 15

building articulation and landscaping to avoid a monotonous or overpowering appearance.

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

- 4. Mechanical equipment will be adequately screened by roofing or other material as approved by the Planning Commission.

ACCESS/ACCESS MANAGEMENT

- 1. Access to this development shall be via Timberlake Manor Parkway Extension.
2. No permanent direct access shall be allowed to Conway Road or North Outer Forty Road.
3. Provide cross access easements and temporary slope construction licenses or other appropriate legal instruments or agreements guaranteeing permanent access between this site and adjacent properties as directed by the Department of Planning and Public Works, the St. Louis County Department of Highways and Traffic and the Missouri Department of Transportation.

PUBLIC/PRIVATE ROAD IMPROVEMENTS, INCLUDING PEDESTRIAN CIRCULATION

- 1. Provide a 5 foot wide sidewalk, conforming to ADA standards, adjacent to Conway Road or provide the finish grading therefore and required cash escrow, as directed by the St. Louis County Department of Highways and Traffic and/or the City of Chesterfield.
2. Pedestrian access between this development and the developments to the east and west shall be provided for (i.e. sidewalks, crosswalks) as directed by the City of Chesterfield.
3. The site shall be designed to accommodate a roadway, which will connect the subject property and the two parcels to the west to Timberlake Manor Parkway Extension. The roadway shall connect the existing east-west drives on the adjoining sites as directed by the Department of Planning and Public Works. No parking shall be allowed along or directly off this roadway within the site as directed by the Department of Planning and Public Works.

P.Z. 01-2008 Kraus Farm Office Center (Opus Northwest) Planning Commission May 12, 2008 City Council June 2, 2008 City Council June 16, 2008 Page 2 of 15

- 3. The above uses in the "PC" Planned Commercial District shall be restricted as follows:

- a. Associated work and storage areas required by business, firm or service to carry on business operations shall not include any outdoor storage.
b. Financial Institutions shall not have a separate exterior entrance and shall not utilize any drive thru in connection with operations.
c. Vehicle washing facilities for automobiles shall be located in the parking garage and the use of these facilities shall be restricted to the tenants of the building.

- 4. Hours of Operation.

- a. Hours of operation for this "PC" District shall not be restricted.

FLOOR AREA, HEIGHT, BUILDING AND PARKING STRUCTURE REQUIREMENTS

FLOOR AREA

Total building floor area shall not exceed 345,330 square feet.

HEIGHT

- a. The maximum height of the buildings, exclusive of roof screening and parapet, shall not exceed 641 feet above mean sea level.
b. The maximum height for the parking structure, exclusive of elevator penthouse and stairwell, shall not exceed 590 feet above mean sea level.

SETBACKS

STRUCTURE SETBACKS

No building or structure, other than a freestanding project identification sign, boundary and retaining walls, light standards, flag poles, fences or lines for use by the Fire Protection District will be located within the following setbacks:

P.Z. 01-2008 Kraus Farm Office Center (Opus Northwest) Planning Commission May 12, 2008 City Council June 2, 2008 City Council June 16, 2008 Page 6 of 15

- 4. Improve Timberlake Manor Parkway Extension, from its connection to North Outer Forty Road to its full designed section including curb, required tapers, turn lanes and storm drainage facilities, as directed by the Department of Planning and Public Works. The required improvements are to be located within a private road easement. Also, a 10 foot wide roadway, maintenance and utility easement is to be provided outside of the private road easement. The private road easement and the adjacent 10' wide easement shall be utilized to define a reserve strip. Said reserve strip shall be dedicated to the City of Chesterfield upon demand at no cost to the City.

- 5. Improve the intersection of Timberlake Manor Parkway Extension and North Outer Forty Road to provide a southbound right-turn lane and a westbound right-turn lane as directed by the Department of Planning and Public Works and the Missouri Department of Transportation.

- 6. Improve Conway Road to one half of a seventy (70) foot right of way and a twenty-four (24) foot pavement with eight (8) foot shoulders, and including all storm drainage facilities as directed by the Saint Louis County Department of Highways and Traffic and the City of Chesterfield.

- 7. At the City's sole discretion, in lieu of constructing Conway Road pavement and drainage improvements, the City may require the establishment of a special cash escrow in a value equal to the cost of the required improvements referenced in paragraph 6 above. The value of the Special Cash Escrow will be credited towards the required TGA contribution. Based on the preliminary plan, improvements to Conway Road must commence prior to issuance of the building permits. As noted, the delays due to utility relocation and adjustments will not constitute a cause to allow occupancy prior to completion of road improvements.

- 8. All roadway and related improvements in development shall be constructed prior to issuance of building permits exceeding 70% for the development. Delays due to utility relocation and/or adjustment, for which the developer is responsible monetarily, shall not constitute a cause to issue permits in excess of 70% as directed by the City of Chesterfield.

- 9. All proposed work in Missouri Department of Transportation right-of-way must comply with Missouri Department of Transportation standards, specifications, and conform to Missouri Department of Transportation's Access Management Guidelines with detailed construction plans being received and approved by Missouri Department of Transportation. Said work will also require a permit.

REGISTRATION



GEORGE M. STOCK E-25116

ISSUE RECORD

- 1.) CITY COMMENTS 2015.10.08
2.) CITY COMMENTS 2015.10.28
3.) CITY COMMENTS 2015.11.17

DESIGN NUMBER

PROJECT NUMBER 214-5370

DATE 09/03/15

PROJECT MANAGER

DRAWN BY R.E.S.

CHECKED BY G.M.S.

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The Opus Group 7707 Fourth Blvd. Suite 1100 St. Louis, MO 63105 314-295-8100

PROJECT OPUS I at KRAUS FARM OFFICE CENTER

LOCATION 1391 Timberlake Manor Pkwy. Chesterfield, MO 63017

SHEET TITLE SITE ORDINANCE SHEET

SHEET NUMBER C4.0

- Consideration must be given to flattening the right of way slope to 3:5:1 or flatter. The existing 3:1 slope is eroding and every effort must be made to reduce the potential for erosion and to improve future maintenance of this slope. Adjustment of all Missouri Department of Transportation underground facilities to the proper depth/elevation must be noted.
- The developer is advised that utility companies will require compensation for relocation of their facilities with public road right-of-way. Utility relocation cost shall not be considered as an allowable credit against the petitioner's traffic generation assessment contributions. The developer should also be aware of extensive delays in utility company relocation and adjustments. Such delays will not constitute a cause to allow occupancy prior to completion of road improvements.
- Road improvements and right-of-way dedication shall be completed prior to the issuance of an occupancy permit. If development phasing is anticipated, the developer shall complete road improvements, right-of-way dedication, and access requirements for each phase of development as directed by the Saint Louis County Department of Highways and Traffic. As previously noted, the delays due to utility relocation and adjustments will not constitute a cause to allow occupancy prior to completion of road improvements.

J. TRAFFIC STUDY

- Prior to Improvement Plan approval, provide a traffic study, as required by the City of Chesterfield, including, but not limited to internal and external circulation, for review and approval.
- Provide a sight distance evaluation report, as required by the City of Chesterfield. If adequate sight distance cannot be provided at the access location, acquisition of right of way, reconstruction of pavement, including correction to the vertical alignment, and/or other off-site improvements shall be required, as directed by the City of Chesterfield and/or the Missouri Department of Transportation.

K. POWER OF REVIEW

The Mayor or a Councilmember of the Ward in which a development is proposed may request that the Site Development Plan be reviewed and approved by the entire City Council. This request must be made no later than 24 hours before posting the agenda for the next City Council meeting after Planning Commission review and approval of the Site Development Plan. The City Council will then take appropriate action relative to the proposal.

- Outboundary plat and legal description of property.
- Density calculations.
- Parking calculations, including calculation for all off street parking spaces, required and proposed, and the number, size and location for handicap designed parking spaces.
- Provide open space percentage for overall development including separate percentage for each lot on the plan.
- Provide Floor Area Ratio (F.A.R.).
- A note indicating all utilities will be installed underground.
- A note indicating signage approval is a separate process.
- Depict the location of all buildings, size, including height and distance from adjacent property lines and proposed use.
- Specific structure and parking setbacks along all roadways and property lines.
- Indicate location of all existing and proposed freestanding monument signs.
- Zoning district lines, subdivision name, lot number, dimensions, and area, and zoning of adjacent parcels where different than site.
- Floodplain boundaries.
- Depict existing and proposed improvements within 150 feet of the site as directed. Improvements include, but are not limited to, roadways, driveways and walkways adjacent to and across the street from the site, and significant natural features, such as wooded areas and rock formations, that are to remain or be removed.
- Depict all existing and proposed easements and rights-of-way within 150 feet of the site and all existing or proposed off-site easements and rights-of-way required for proposed improvements.
- Indicate the location of the proposed storm sewers, detention basins, sanitary sewers and connection(s) to the existing systems.

provide the traffic generation assessment contribution prior to issuance of building permits for each phase of development.

The amount of these required contributions/improvements, if not submitted by January 1, 2009 shall be adjusted on that date and on the first day of January in each succeeding year thereafter in accordance with the construction cost index as determined by the Saint Louis County Department of Highways and Traffic.

VII. RECORDING

Within 60 days of approval of any development plan by the City of Chesterfield, the approved Plan will be recorded with the St. Louis County Recorder of Deeds. Failure to do so will result in the expiration of approval of said Plan and require re-approval of a plan by the Planning Commission.

VIII. ENFORCEMENT

- The City of Chesterfield, Missouri will enforce the conditions of this ordinance in accordance with the Plan approved by the City of Chesterfield and the terms of this Attachment A.
- Failure to comply with any or all the conditions of this ordinance will be adequate cause for revocation of approvals/permits by reviewing Departments and Commissions.
- Non-compliance with the specific requirements and conditions set forth in this ordinance and its attached conditions or other ordinances of the City of Chesterfield shall constitute an ordinance violation, subject, but not limited to, the penalty provisions as set forth in the City of Chesterfield Code.
- Waiver of Notice of Violation per the City of Chesterfield Code.
- This document shall be read as a whole and any inconsistency to be integrated to carry out the overall intent of this Attachment A.

M. STORMWATER

- The site shall provide for the positive drainage of storm water and it shall be discharged at an adequate natural discharge point or connected to an adequate piped system.
- Detention/retention and channel protection measures are to be provided in each watershed as required by the City of Chesterfield. The storm water management facilities shall be operational prior to paving of any driveways or parking areas. The location and types of storm water management facilities shall be identified on the Site Development Plan(s).
- Detention may be required for the entire project site such that the allowable release rates will not be exceeded for the post developed peakflow of the two (2) year and one hundred (100) year, 24 hour storm event. Stormwater must be discharged at an adequate natural discharge point. Wetland mitigation will not be allowable within the detention basins.
- Treatment may be required for water quality and channel protection in accordance with Metropolitan St. Louis Sewer District regulations dated February 2006.

N. SANITARY SEWER

- Internal parking garage floor drains shall discharge via sand/oi separator and sampling tee to a sanitary sewer.
- Stormwater BMP's including pretreatment forebays and wet lake detention shall meet all the requirements of 2000 Maryland Stormwater Design Manual Vol. 1 Chapter 3 and current MSD rules and regulations and should be located within the property boundaries.
- The developer's engineer shall demonstrate an adequate watershed budget to keep the water quality/detention lakes wet. Generally, 10 acres is required.

O. GEOTECHNICAL REPORT

Prior to Site Development Plan approval, provide a geotechnical report, prepared by a registered professional engineer licensed to practice in the State of Missouri, as directed by the Department of Planning and Public Works. The report shall verify the suitability of grading and proposed improvements with soil and geologic conditions and address the existence of any potential sinkholes, ponds, dams, septic fields, etc., and

- Depict existing and proposed contours at intervals of not more than one (1) foot, and extending 150 feet beyond the limits of the site as directed.
- Address trees and landscaping in accordance with the City of Chesterfield Code.
- Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Regulations per the City of Chesterfield Code.
- Signed and sealed in conformance with the State of Missouri Department of Economic Development, Division of Professional Registration, Missouri Board for Architects, Professional Engineers and Land Surveyors requirements.
- Provide comments/approvals from the appropriate Fire District, the Metropolitan St. Louis Sewer District, the St. Louis County Department of Highways and Traffic, and the Missouri Department of Transportation.
- Compliance with Sky Exposure Plane.

B. SITE DEVELOPMENT SECTION PLAN SUBMITTAL REQUIREMENTS

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

- Location map, north arrow, and plan scale. The scale shall be no greater than one (1) inch equals one hundred (100) feet.
- Parking calculations, including calculation for all off street parking spaces, required and proposed, and the number, size and location for handicap designed.
- Provide open space percentage for overall development including separate percentage for each lot on the plan.
- Provide Floor Area Ratio (F.A.R.).
- A note indicating all utilities will be installed underground.
- A note indicating signage approval is separate process.
- Depict the location of all buildings, size, including height and distance from adjacent property lines and proposed use.

recommendations for treatment. A statement of compliance, signed and sealed by the geotechnical engineer preparing the report, shall be included on all Site Development Plans and Improvement Plans.

P. MISCELLANEOUS

- All utilities will be installed underground.
- An opportunity for recycling will be provided. All provisions of Chapter 25, Article VII, and Section 25-122 thru Section 25-128 of the City of Chesterfield, Missouri Code shall be required where applicable.
- The Owner is required to grant the City of Chesterfield an option to acquire by conveyance a 120 foot or less strip of land not to exceed 120 feet parallel to the existing Conway Road right-of-way to the City of Chesterfield. The terms and conditions of this grant shall be governed by a separate recordable written option agreement as directed by the City of Chesterfield. The conveyance of said strip of land will be at no cost to the City. The option agreement will address the ownership, use and maintenance of the emergency access roadway, retaining walls and any other improvements to the land within the 120 foot (or less) strip of land, existing utility easements and utility easements necessary to service the Owner's property to the South of the 120 foot (or less) strip of land. The option shall terminate if not exercised by the City of Chesterfield prior to the expiration of ten (10) years after the effective date of this ordinance.
- Provide a water feature for approval of location and appearance on the Site Development Concept and Site Development Section Plans.

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

- The developer shall submit a concept plan within eighteen (18) months of City Council approval of the change of zoning.
- In lieu of submitting a Site Development Concept Plan and Site Development Section Plans, the petitioner may submit a Site Development Plan for the entire development within eighteen (18) months of the date of approval of the change of zoning by the City.
- Failure to comply with these submittal requirements will result in the expiration of the change of zoning and will require a new public hearing.

- Specific structure and parking setbacks along all roadways and property lines.
- Indicate location of all existing and proposed freestanding monument signs.
- Zoning district lines, subdivision name, lot number, dimensions, and area, and zoning of adjacent parcels where different than site.
- Floodplain boundaries.
- Depict existing and proposed improvements within 150 feet of the site as directed. Improvements include, but are not limited to, roadways, driveways and walkways adjacent to and across the street from the site, and significant natural features, such as wooded areas and rock formations, that are to remain or be removed.
- Depict all existing and proposed easements and rights-of-way within 150 feet of the site and all existing or proposed off-site easements and rights-of-way required for proposed improvements.
- Indicate the location of the proposed storm sewers, detention basins, sanitary sewers and connection(s) to the existing systems.
- Depict existing and proposed contours at intervals of not more than one (1) foot, and extending 150 feet beyond the limits of the site as directed.
- Address trees and landscaping in accordance with the City of Chesterfield Code.
- Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Regulations per the City of Chesterfield Code.
- Signed and sealed in conformance with the State of Missouri Department of Economic Development, Division of Professional Registration, Missouri Board for Architects, Professional Engineers and Land Surveyors requirements.
- Provide comments/approvals from the appropriate Fire District, the Metropolitan St. Louis Sewer District, the St. Louis County Department of Highways and Traffic, and the Missouri Department of Transportation.
- Compliance with Sky Exposure Plane.

- Said Plan shall be submitted in accordance with the combined requirements for Site Development Section and Concept Plans. The submission of Amended Site Development Plans by sections of this project to the Planning Commission shall be permitted if this option is utilized.
- Where due cause is shown by the developer, this time interval for plan submittal may be extended through appeal to and approval by the Planning Commission.

III. COMMENCEMENT OF CONSTRUCTION

- Substantial construction shall commence within two (2) years of approval of the site development concept plan or site development plan, unless otherwise authorized by ordinance.
- Where due cause is shown by the developer, the Commission may extend the period to commence construction for not more than one additional year.

IV. GENERAL CRITERIA

A. Site Development Concept Plan.

- Any site development concept plan shall show all information required on a preliminary plat as required in the City of Chesterfield Code.
- Include a conceptual landscape plan in accordance with the City of Chesterfield Code to indicate proposed landscaping along arterial and collector roadways.
- Include a lighting plan in accordance with the City of Chesterfield Code to indicate proposed lighting along arterial and collector roadways.
- Provide comments/approvals from the appropriate Fire District, the Metropolitan St. Louis Sewer District, the St. Louis County Department of Highways and Traffic, and the Missouri Department of Transportation.

A. SITE DEVELOPMENT PLAN SUBMITTAL REQUIREMENTS

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

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

V. TRUST FUND CONTRIBUTION

- The developer shall be required to contribute a Traffic Generation Assessment (TGA) to the Highway Route 40 (Interstate 64) (No. 553) Corridor Trust Fund.

Type of Development	Required Contribution
---------------------	-----------------------

General Office \$556.13

(Parking Space as required by the site-specific ordinance or by section 1003.165 of the Saint Louis County Zoning Ordinance.)

If types of development proposed differ from those listed, rates shall be provided by the Saint Louis County Department of Highways and Traffic.

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

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

The amount of the required contribution/improvements, if not approved for construction by January 1, 2009, shall be adjusted on that date and on the first day of January in each succeeding year thereafter in accord with the construction cost index as determined by the Saint Louis County Department of Highways and Traffic.

Credits for roadway improvements required will be awarded as directed by St. Louis County Highways and Traffic. Any portion of the roadway improvement contribution that remains, following completion of road improvements required by the development, shall be retained in the appropriate Trust Fund. Credits for roadway improvements will be approved by the City of Chesterfield and/or St. Louis County Department of Highways and Traffic.

The roadway improvement contribution shall be deposited with the St. Louis County Department of Highways and Traffic. The deposit shall be made before the issuance any a Special Use Permit (SUP) by St. Louis County Highways and Traffic or a Building Permit by St. Louis County Public Works Department. Funds shall be payable to "Treasurer, St. Louis County." If development phasing is anticipated, the developer shall

Stock & Associates
Consulting Engineers, Inc.

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e-mail: general@stockassoc.com
Web: www.stockassoc.com

REGISTRATION

11.17.2015
GEORGE M. STOCK E-25116

ISSUE RECORD

1.) CITY COMMENTS	2015.10.08
2.) CITY COMMENTS	2015.10.28
3.) CITY COMMENTS	2015.11.17

DESIGN NUMBER

PROJECT NUMBER
214-5370

DATE
09/03/15

PROJECT MANAGER

DRAWN BY
R.E.S.
CHECKED BY
G.M.S.

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Prepared For

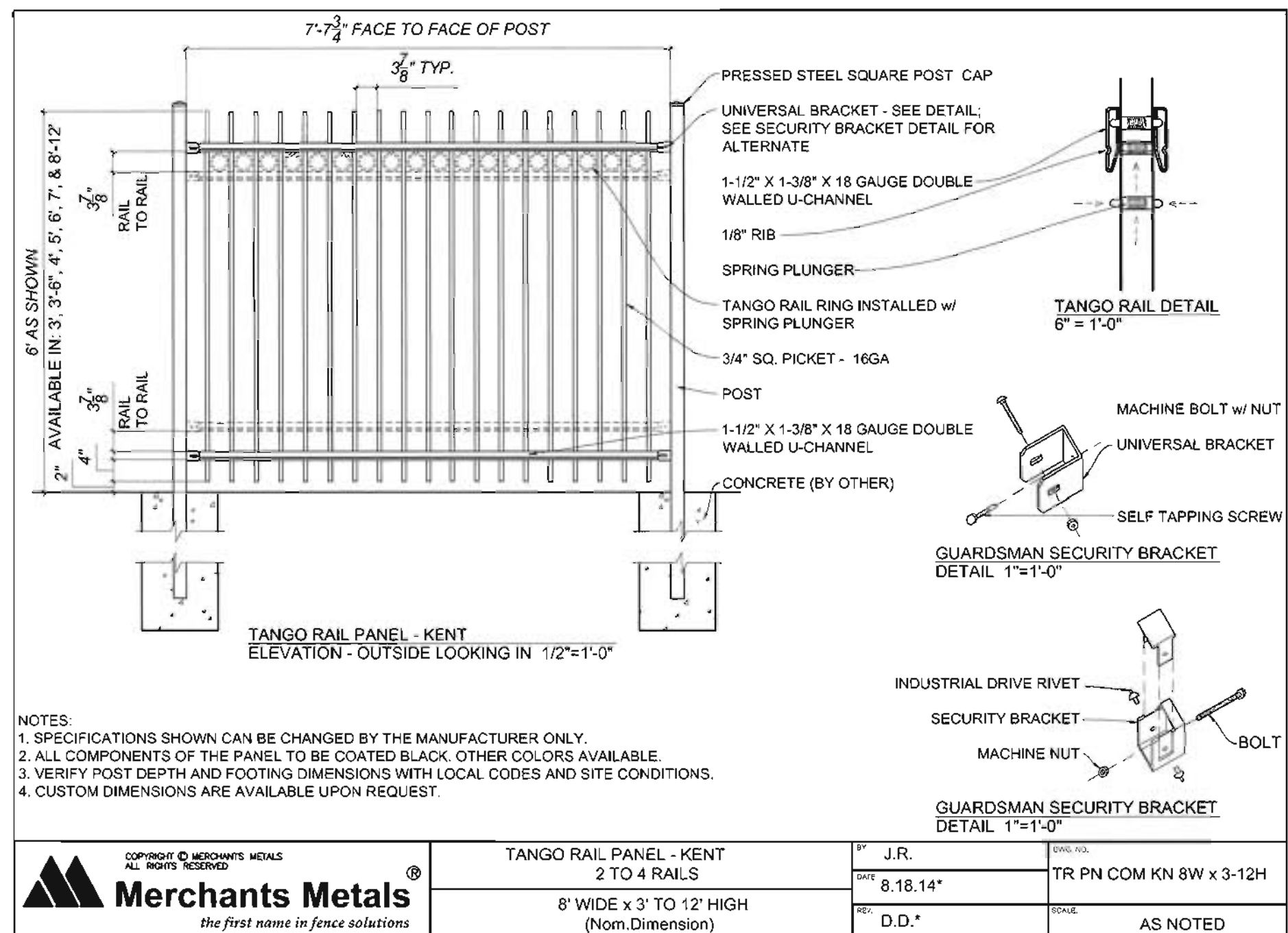
The Opus Group
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Suite 1100
St. Louis, MO 63105
314-288-9100

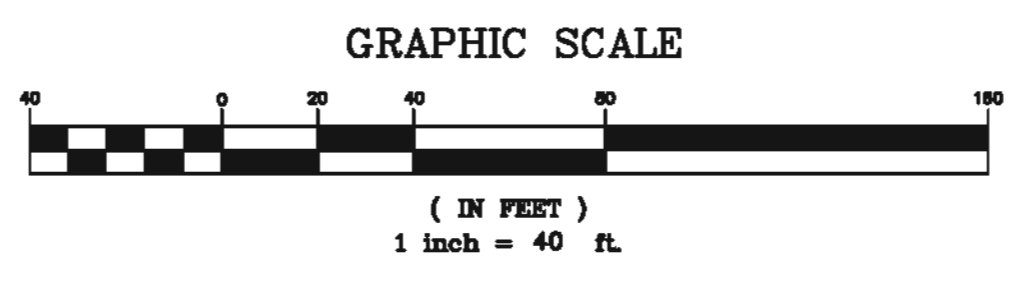
PROJECT
OPUS I
at KRAUS FARM
OFFICE CENTER

LOCATION
1391 Timberlake Manor Pkwy.
Chesterfield, MO 63017

SHEET TITLE
SITE
ORDINANCE
SHEET

SHEET NUMBER
C5.0



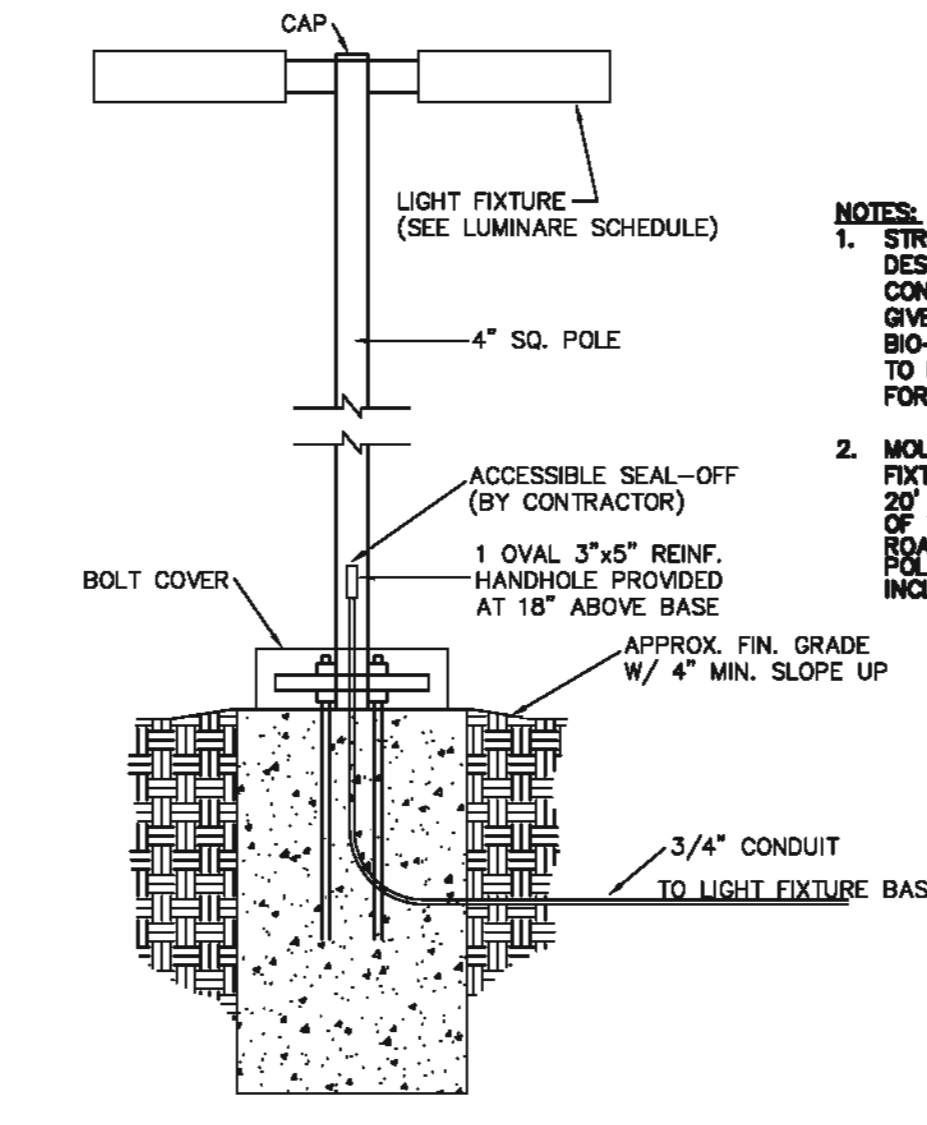


POLE FIXTURE MOUNTING HEIGHT INCLUDES BASE
PARKING GARAGE TOP DECK POLES MOUNTED 20' ABOVE DECK
ALL LIGHT LEVELS CALCULATED ON THE GROUND

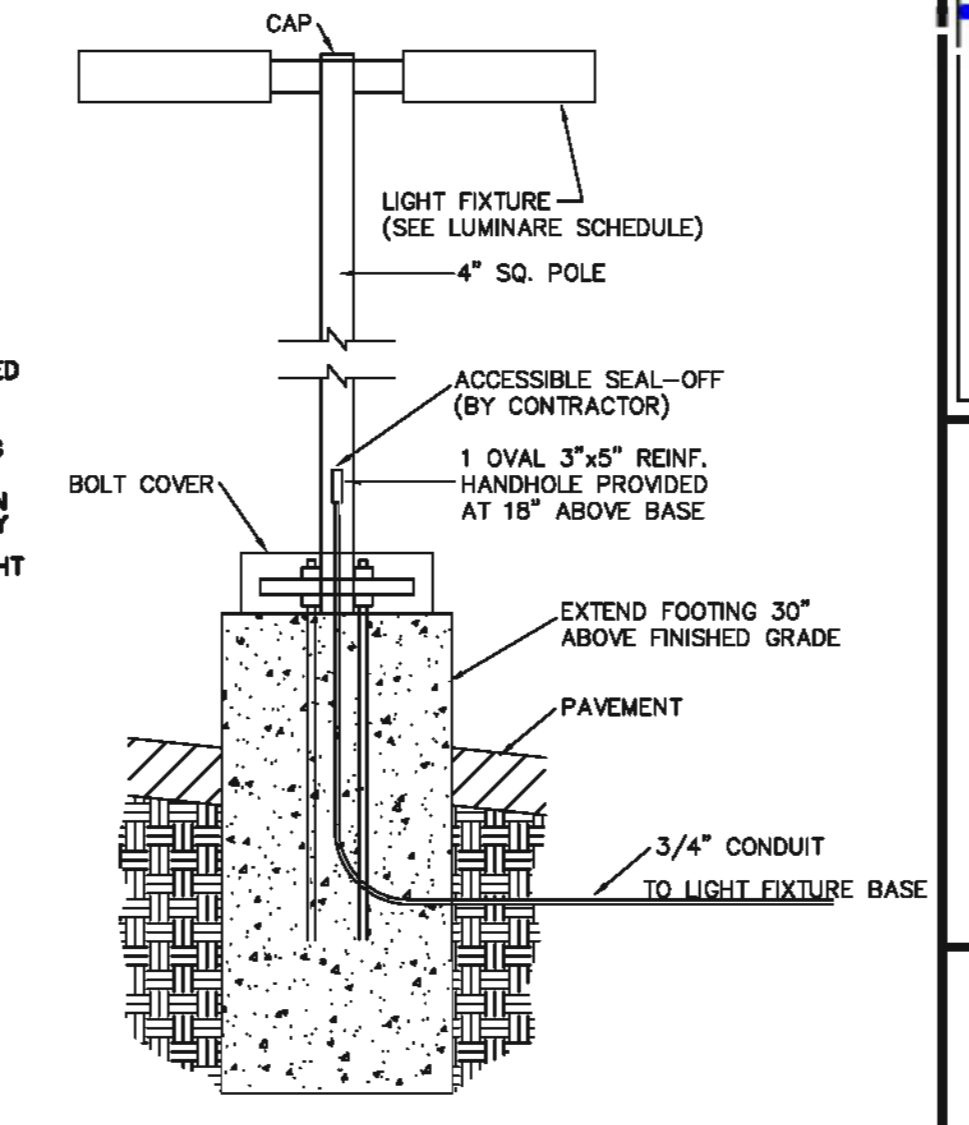
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ENTRANCE 2	Illuminance	Fc	12.15	12.5	11.8	1.03	1.06
ENTRANCE 3	Illuminance	Fc	11.50	13.5	10.0	1.15	1.35
ENTRANCE 4	Illuminance	Fc	10.06	13.3	7.0	1.44	1.90
ENTRANCE 5	Illuminance	Fc	11.18	14.0	8.8	1.27	1.59
ENTRANCE 6	Illuminance	Fc	12.35	13.6	11.3	1.09	1.20
ENTRANCE 7	Illuminance	Fc	12.78	13.7	11.9	1.07	1.15
GARAGE LEVEL 1	Illuminance	Fc	5.34	11.7	2.0	2.67	5.85
PROPERTY LINE	Illuminance	Fc	0.56	3.6	0.0	N.A.	N.A.
SIDEWALK 1	Illuminance	Fc	3.21	9.3	0.5	6.42	18.60
SIDEWALK 2	Illuminance	Fc	2.16	7.4	0.2	10.80	37.00
SIDEWALK 3	Illuminance	Fc	1.74	6.1	0.2	8.70	30.50
SIDEWALK 4	Illuminance	Fc	1.51	6.1	0.1	15.10	61.00
SITE	Illuminance	Fc	2.27	8.9	0.5	4.54	17.80
TOP DECK Top	Illuminance	Fc	1.76	4.7	0.3	5.87	15.67

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	Lum. Lumens	LLF	Description
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[Symbol]	8	F2	SINGLE	34000	22106	1.000	GSM-AM-320-MP-MT-3V-FG
[Symbol]	6	WP1	SINGLE	14000	10541	1.000	VWS-150-MP-MT-4S
[Symbol]	6	F5	SINGLE	22000	11451	1.000	GSM-AM-250-MP-MT-3S-FG-HS
[Symbol]	7	WP2	SINGLE	9000	6777	1.000	VWS-100-MP-MT-4S
[Symbol]	16	F6	SINGLE	6000	2386	1.000	BSL-42-70-MP-MT
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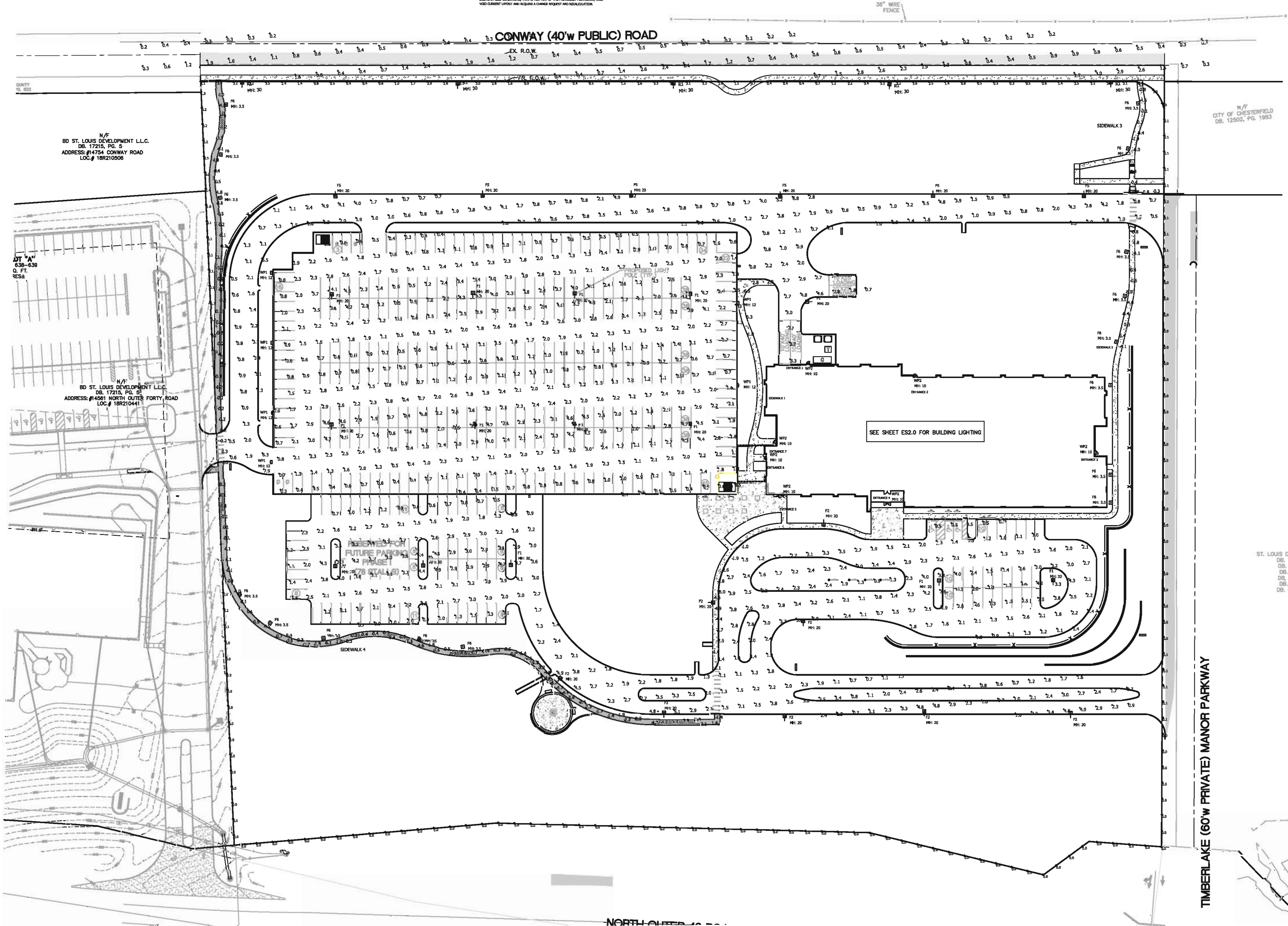
DESIGN IS BASED ON CURRENT INFORMATION PROVIDED AT THE TIME OF REQUEST.
THE ENGINEER HAS RELIED UPON THE ACCURACY OF THE INFORMATION PROVIDED AND HAS NOT CONDUCTED FIELD SURVEYS TO VERIFY THE INFORMATION. THE USER SHALL VERIFY THE INFORMATION AND MAKE ANY NECESSARY ADJUSTMENTS TO THE DESIGN.
THIS DOCUMENT IS NOT TO BE USED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.



LIGHT POLE DETAIL (GRASS)
(n.t.s.)



LIGHT POLE DETAIL (PAVEMENT)
(n.t.s.)



LIGHTING NOTE
ALL LIGHT STANDARDS, OTHER THAN THOSE FOR SECURITY PURPOSES, SHALL BE TURNED OFF BY 9:01 PM, SEVEN DAYS A WEEK.

DRAWING FILE: P:\Projects\2015\1391 Timberlake Manor Pkwy\ES1.0.dwg DATE: 11/19/15 9:42 AM PLOT DATE: 11/19/15 9:42 AM

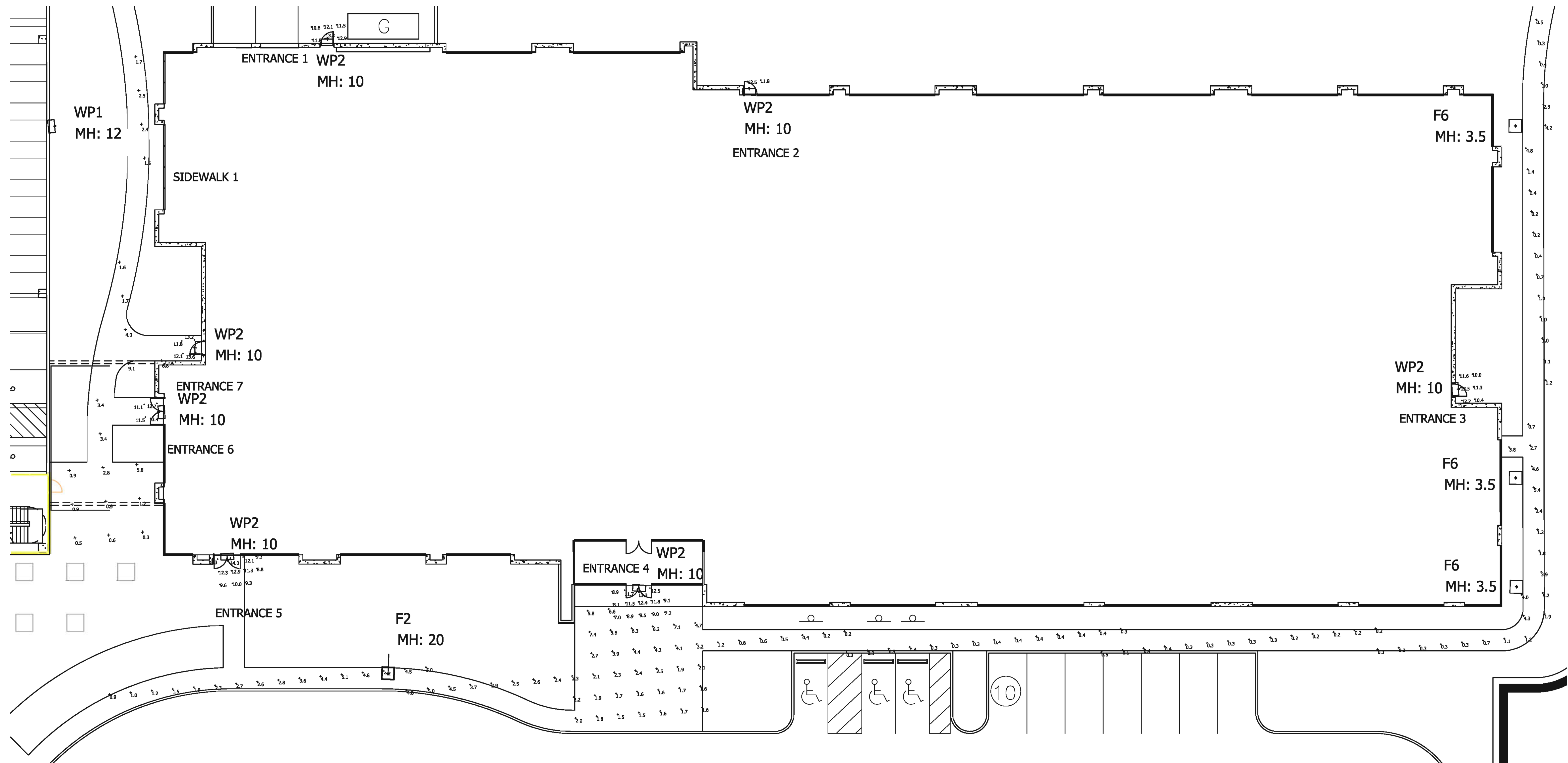


POLE FIXTURE MOUNTING HEIGHT INCLUDES BASE
PARKING GARAGE TOP DECK POLES MOUNTED 20' ABOVE DECK
ALL LIGHT LEVELS CALCULATED ON THE GROUND

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CONWAY ROAD	Illuminance	Fc	1.22	3.5	0.3	4.07	11.67
ENTRANCE 1	Illuminance	Fc	12.13	13.9	10.6	1.14	1.31
ENTRANCE 2	Illuminance	Fc	12.15	12.5	11.8	1.03	1.06
ENTRANCE 3	Illuminance	Fc	11.50	13.5	10.0	1.15	1.35
ENTRANCE 4	Illuminance	Fc	10.06	13.3	7.0	1.44	1.90
ENTRANCE 5	Illuminance	Fc	11.18	14.0	8.8	1.27	1.59
ENTRANCE 6	Illuminance	Fc	12.35	13.6	11.3	1.09	1.20
ENTRANCE 7	Illuminance	Fc	12.78	13.7	11.9	1.07	1.15
GARAGE LEVEL 1	Illuminance	Fc	5.34	11.7	2.0	2.67	5.85
PROPERTY LINE	Illuminance	Fc	0.11	0.6	0.0	N.A.	N.A.
SIDEWALK 1	Illuminance	Fc	3.21	9.3	0.5	6.42	18.60
SIDEWALK 2	Illuminance	Fc	2.16	7.4	0.2	10.80	37.00
SIDEWALK 3	Illuminance	Fc	1.49	6.0	0.2	7.45	30.00
SIDEWALK 4	Illuminance	Fc	1.48	6.1	0.1	14.80	61.00
SITE	Illuminance	Fc	2.27	8.9	0.5	4.54	17.80
TOP DECK_Top	Illuminance	Fc	1.76	4.7	0.3	5.87	15.67

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
[Symbol]	14	F1	SINGLE	34000	1.000	GSM-AM-320-MP-MT-AS-FG
[Symbol]	8	F2	SINGLE	34000	1.000	GSM-AM-320-MP-MT-3V-FG
[Symbol]	6	WP1	SINGLE	14000	1.000	VWS-150-MP-MT-4S
[Symbol]	6	F5	SINGLE	22000	1.000	GSM-AM-250-MP-MT-3S-FG-HS
[Symbol]	7	WP2	SINGLE	9000	1.000	VWS-100-MP-MT-4S
[Symbol]	16	F6	SINGLE	6000	1.000	BSL-42-70-MP-MT
[Symbol]	5	R1	SINGLE	N.A.	1.000	PRV-A40-D-UNV-T2-BZ
[Symbol]	111	G1	SINGLE	N.A.	1.000	TT-B3-LED-E1-WQ

DESIGN IS BASED ON CURRENT INFORMATION PROVIDED AT THE TIME OF REQUEST.
ANY CHANGES IN REQUIREMENTS OR CONDITIONS, LAMP TYPES, LAMP TYPES AND
COURTING FIELD CONDITIONS, THAT AFFECT ANY OF THE PREVIOUSLY MENTIONED, WILL
VOID CURRENT LAYOUT AND REQUIRE A CHANGE REQUEST AND RE-CALCULATION.



BUILDING LIGHTING

ISSUE RECORD
1.) CITY COMMENTS 2015.10.08
2.) CITY COMMENTS 2015.10.28
3.) CITY COMMENTS 2015.11.17

DESIGN NUMBER
PROJECT NUMBER
214-5370
DATE
09/03/15
PROJECT MANAGER
DRAWN BY
R.E.S.
CHECKED BY
G.M.S.

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Prepared For
OPUS
The Opus Group
7733 Forsyth Blvd.
Suite 1100, St. Louis, MO 63105
314-298-6100

PROJECT
OPUS I
at KRAUS FARM
OFFICE CENTER
LOCATION
1391 Timberlake Manor Pkwy.
Chesterfield, MO 63017

SHEET TITLE
SITE LIGHTING PLAN

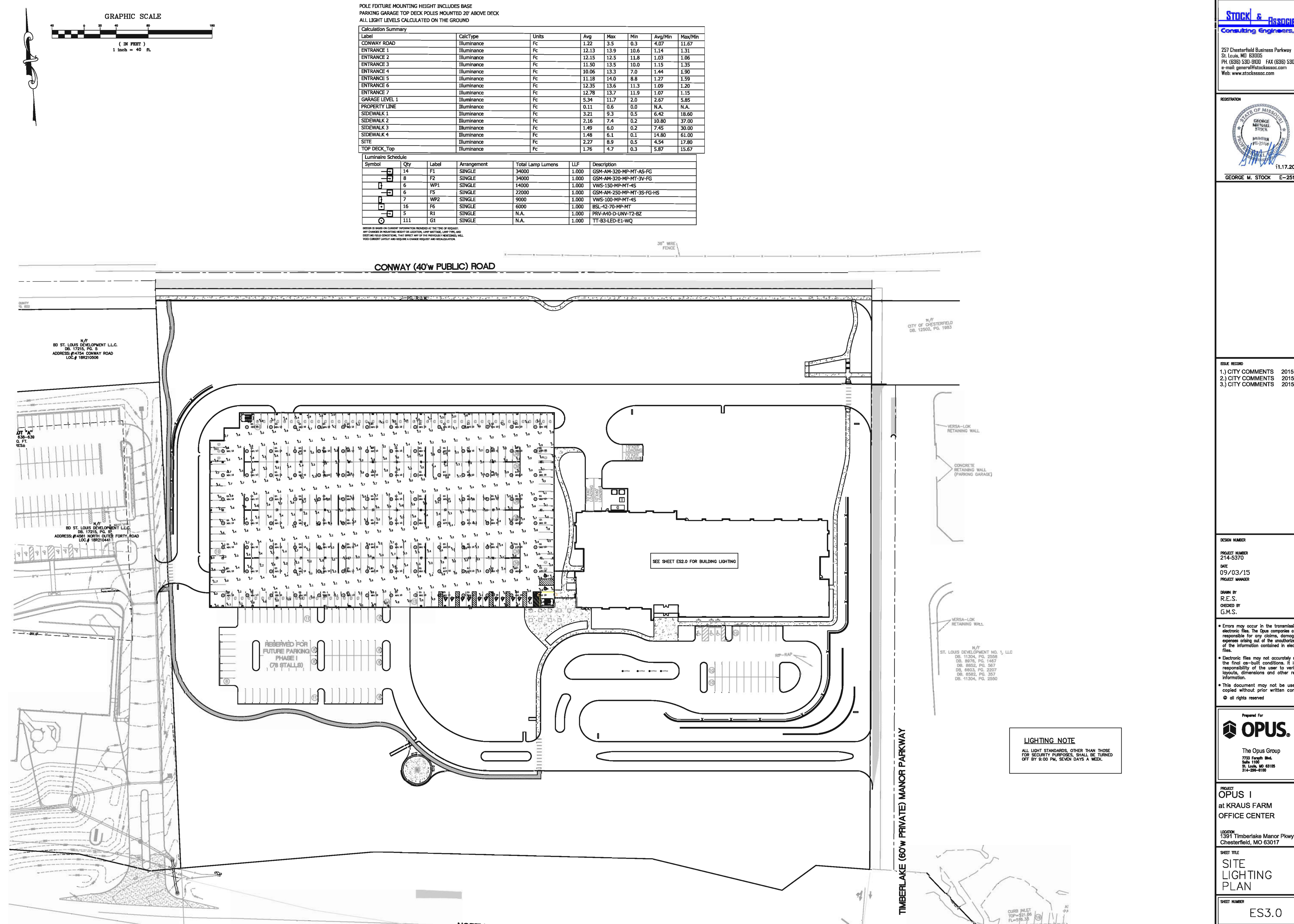
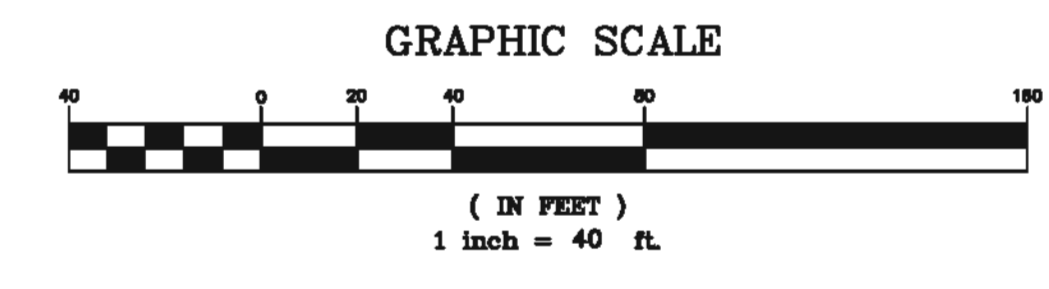
SHEET NUMBER
ES2.0

POLE FIXTURE MOUNTING HEIGHT INCLUDES BASE
PARKING GARAGE TOP DECK POLES MOUNTED 20' ABOVE DECK
ALL LIGHT LEVELS CALCULATED ON THE GROUND

Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
CONWAY ROAD	Illuminance	Fc	1.22	3.5	0.3	4.07	11.67
ENTRANCE 1	Illuminance	Fc	12.13	13.9	10.6	1.14	1.31
ENTRANCE 2	Illuminance	Fc	12.15	12.5	11.8	1.03	1.06
ENTRANCE 3	Illuminance	Fc	11.50	13.5	10.0	1.15	1.35
ENTRANCE 4	Illuminance	Fc	10.06	13.3	7.0	1.44	1.90
ENTRANCE 5	Illuminance	Fc	11.18	14.0	8.8	1.27	1.59
ENTRANCE 6	Illuminance	Fc	12.35	13.6	11.3	1.09	1.20
ENTRANCE 7	Illuminance	Fc	12.78	13.7	11.9	1.07	1.15
GARAGE LEVEL 1	Illuminance	Fc	5.34	11.7	2.0	2.67	5.85
PROPERTY LINE	Illuminance	Fc	0.11	0.6	0.0	N.A.	N.A.
SIDEWALK 1	Illuminance	Fc	3.21	9.3	0.5	6.42	18.60
SIDEWALK 2	Illuminance	Fc	2.16	7.4	0.2	10.80	37.00
SIDEWALK 3	Illuminance	Fc	1.49	6.0	0.2	7.45	30.00
SIDEWALK 4	Illuminance	Fc	1.48	6.1	0.1	14.80	61.00
SITE	Illuminance	Fc	2.27	8.9	0.5	4.54	17.80
TOP DECK_Top	Illuminance	Fc	1.76	4.7	0.3	5.87	15.67

Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	14	F1	SINGLE	34000	1.000	GSM-AM-320-MP-MT-AS-FG
	8	F2	SINGLE	34000	1.000	GSM-AM-320-MP-MT-3V-FG
	6	WP1	SINGLE	14000	1.000	VWS-150-MP-MT-4S
	6	F5	SINGLE	22000	1.000	GSM-AM-250-MP-MT-3S-FG-HS
	7	WP2	SINGLE	9000	1.000	VWS-100-MP-MT-4S
	16	F6	SINGLE	6000	1.000	BSL-42-70-MP-MT
	5	R1	SINGLE	N.A.	1.000	PRV-A40-D-UNV-T2-BZ
	111	G1	SINGLE	N.A.	1.000	TT-83-LED-E1-WQ

SECTION IS BASED ON CURRENT INFORMATION PROVIDED AT THE TIME OF RECORDING.
ANY CHANGES IN REGULATIONS, HEIGHT OR LOCATION, LAMP WATTAGE, LAMP TYPE, AND
FIXTURE HANGING CONDITIONS, SHALL BE THE RESPONSIBILITY OF THE USER. THE USER
WILL VOID CURRENT LAYOUT AND REQUIRE A CHANGE REQUEST AND RE-CALCULATION.



LIGHTING NOTE
ALL LIGHT STANDARDS, OTHER THAN THOSE FOR SECURITY PURPOSES, SHALL BE TURNED OFF BY 8:00 PM, SEVEN DAYS A WEEK.

DRAWING FILE: P:\Projects\2015\1391 Timberlake Manor Pkwy\Lighting\Lighting Plan.dwg PLOTTED: Nov 17, 2015 - 3:32pm PLOTTED BY: ryan.schubert

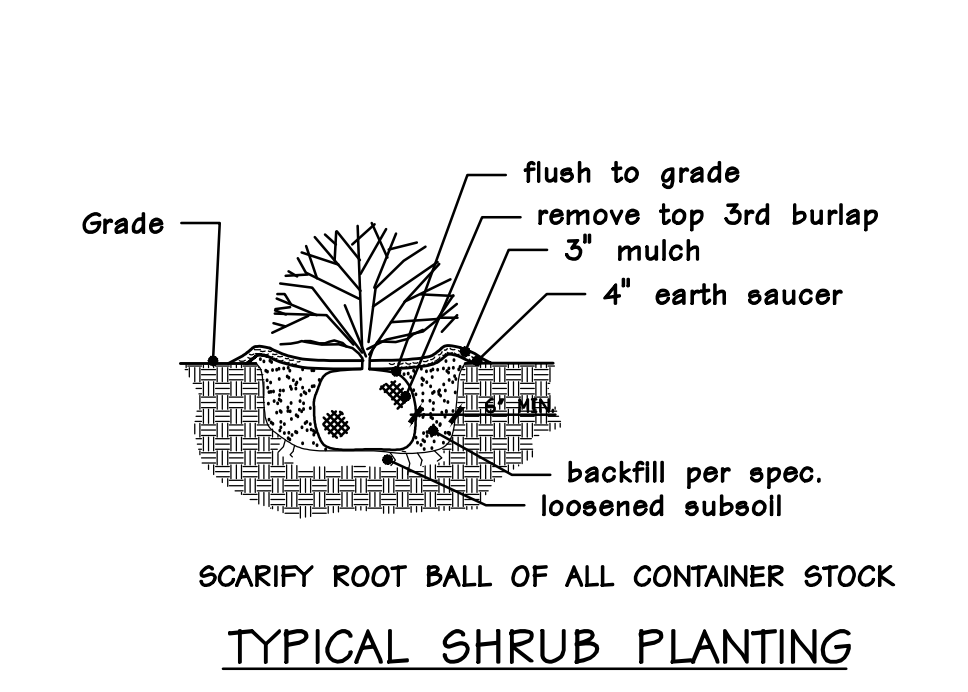
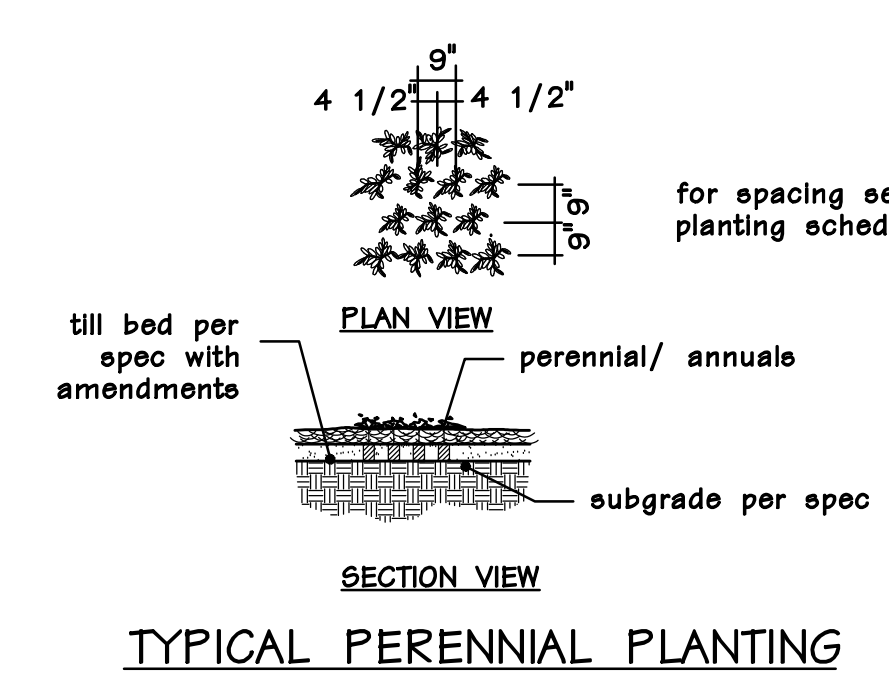
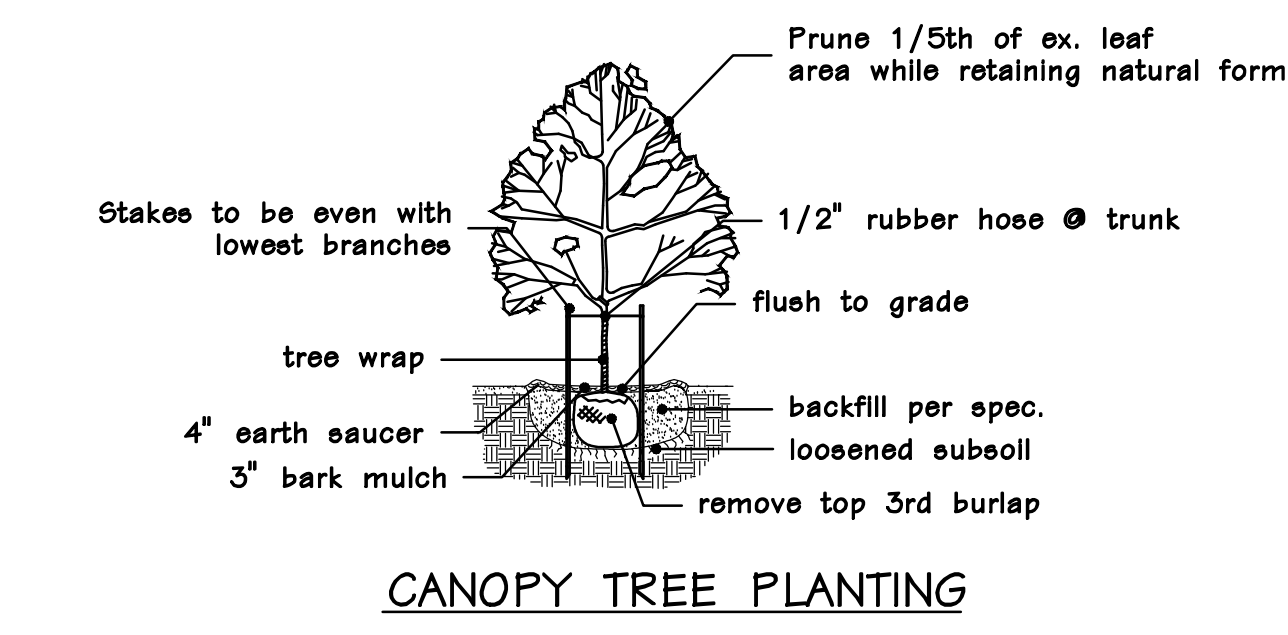
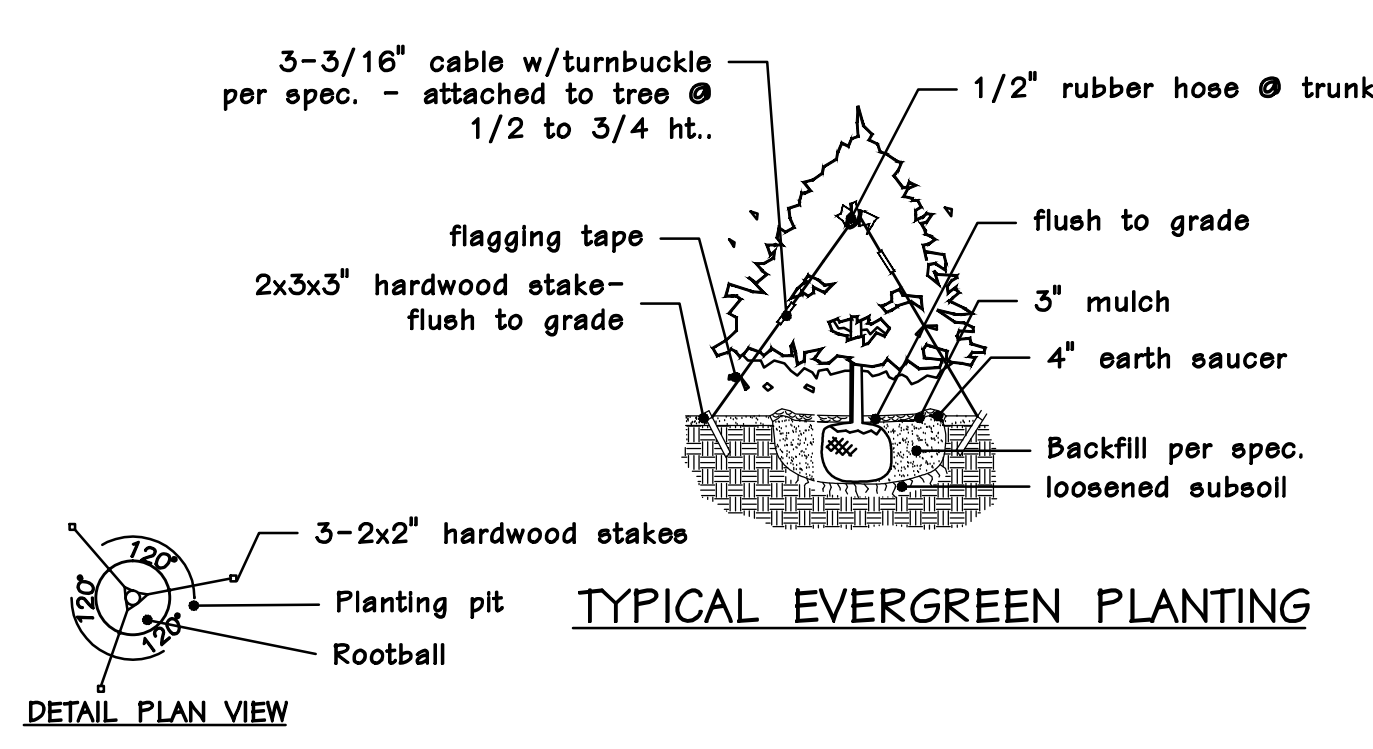
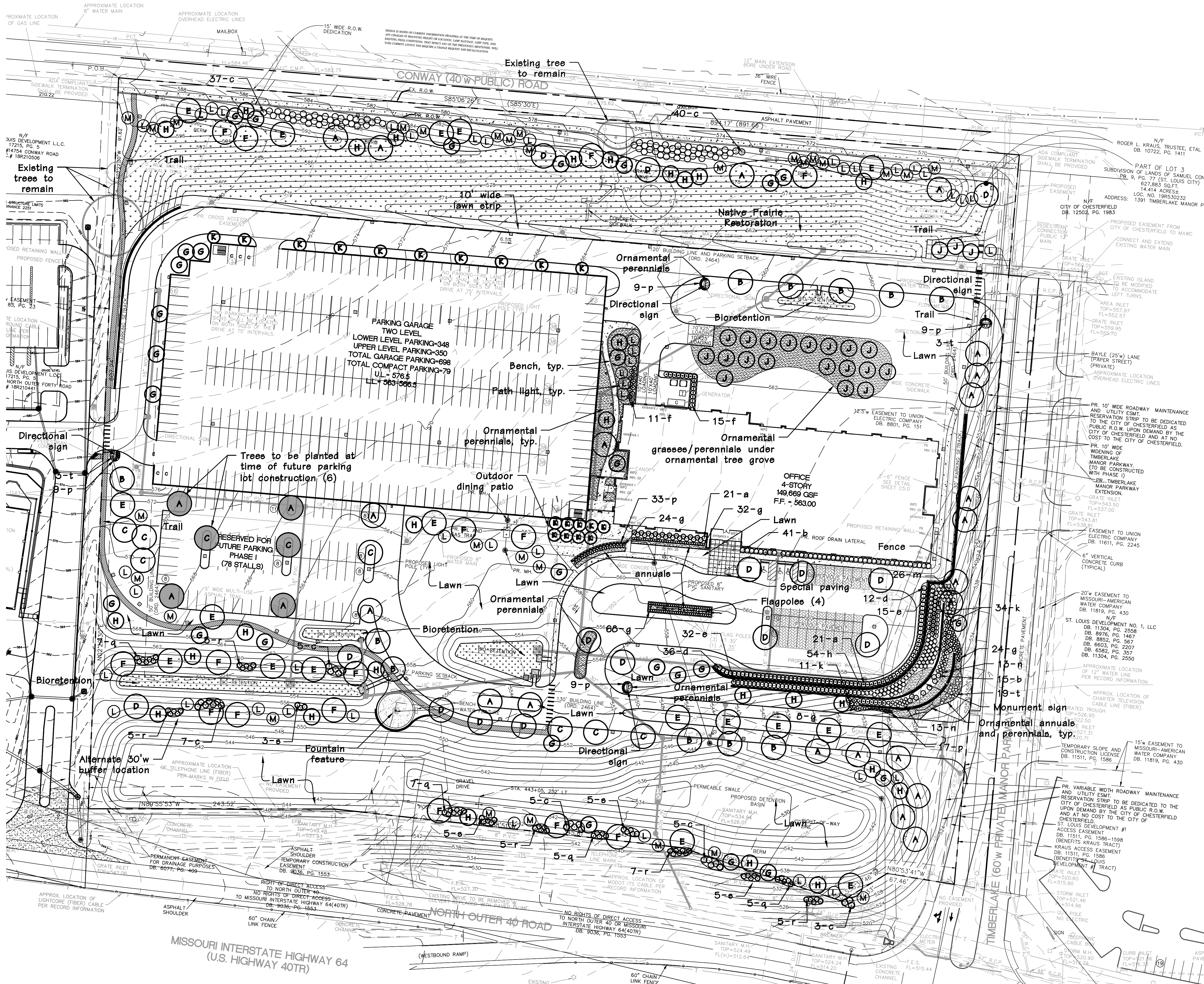
TREE PLANTING SCHEDULE							
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	TYPE	SIZE CLASS
DECIDUOUS TREES							
A	26	Quercus rubra	Northern Red Oak	2.5' cal	B&B	Deciduous	Large
B	11	Ginkgo biloba 'Autumn Gold'	Autumn Gold Ginkgo	2.5' cal	B&B	Deciduous	Large
C	9	Gleditsia triacanthos f. inermis 'Skycole'	Skyline Honeylocust	2.5' cal	B&B	Deciduous	Large
D	15	Acer x freemanii 'Jeffersred'	Autumn Blaze Maple	2.5' cal	B&B	Deciduous	Large
E	18	Quercus bicolor	Swamp White Oak	2.5' cal	B&B	Deciduous	Large
F	15	Zelkova serrata 'Green Vase'	Green Vase Zelkova	2.5' cal	B&B	Deciduous	Large
G	28	Amelanchier arborea	Downy Serviceberry	2.5' cal	B&B	Ornamental	Medium
H	27	Cercis canadensis	Eastern Redbud	2.5' cal	B&B	Ornamental	Medium
J	22	Prunus serrulata 'Kwanzan'	Kwanzan Cherry	2.5' cal	B&B	Ornamental	Medium
K	19	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	2.5' cal	B&B	Deciduous	Large
EVERGREEN TREES							
L	43	Pinus strobus	Eastern White Pine	6' ht	B&B	Evergreen	Large
M	29	Picea pungens	Colorado Blue Spruce	6' ht	B&B	Evergreen	Medium

TREE PERCENTAGE CALCULATIONS:
TOTAL TREES = 262 TREES
DECIDUOUS CANOPY TREES = 113 TREES (43.1%)
ORNAMENTAL TREES = 77 TREES (29.4%)
EVERGREEN TREES = 72 TREES (27.5%)

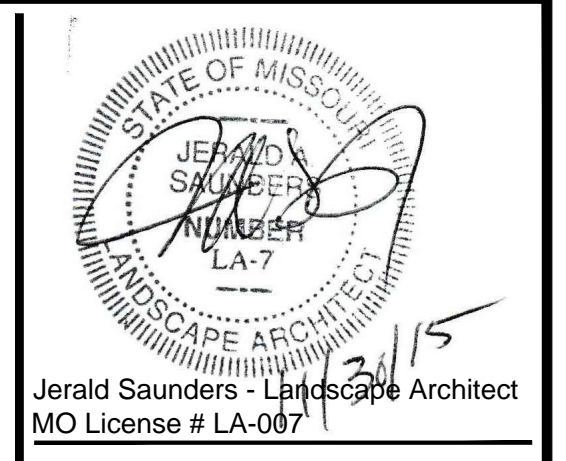
Openspace area = 369,572 s.f. (58.6%)

SHRUBS, PERENNIALS, AND SEED MIX PLANTING SCHEDULE							
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	TYPE	SIZE CLASS
SHRUBS							
a	42	Hydrangea paniculata 'Jane'	Little Lime Hydrangea	24"			
b	49	Juniperus virginiana 'Grey Owl'	Grey Owl Juniper	24"			
c	102	Juniperus x pfitzeriana	Pfizer Juniper	24-36"			
d	45	Ilex x meserveae 'Meadob/Mesog'	China Boy/Girl Holly (1:9 ratio)	24"			
e	47	Ligustrum 'Vicaryi'	Vicaryi Golden Privet	24"			
f	26	Thuja occidentalis 'Emerald'	Emerald Green Arborvitae	6'			
g	156	Buxus sinica var. inularis 'Winter Gem'	Winter Gem Boxwood	24"			
h	54	Viburnum dentatum 'Blue Muffin'	Blue Muffin Viburnum	24"			
k	45	Weigela florida 'Alexandra'	Wine & Rosee Weigela	24"			
m	26	Forysthia 'Courtasol'	Gold Tide Forsythia	24"			
n	26	Micanthus sinensis 'Gracillimus'	Malden Grass	5 gal.			
p	96	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	5 gal.			
q	24	Viburnum x burkwoodii	Burkwood Viburnum	24"			
r	27	Hamamelis vernalis	Ozark Witchhazel	24"			
e	18	Viburnum rhytidophyllum	Leatherleaf Viburnum	24"			
t	25	Juniperus horizontalis 'Wiltonii'	Blue Rug Juniper	24"			
Ornamental annuals and perennials							plugs/gals/gal
Native Prairie Restoration (see below for varieties)							seed mix
Bioretention plantings per MSD requirements							plugs

PRAIRIE RESTORATION SEED MIX (planted at 8lb. PL5 per acre):
Grasses (3.5lb. per acre):
Big Bluestem, Canada Wild Rye, Switch Grass, Indian Grass, Little Bluestem, Mixed prairie sedges
Forbs (4.5lb. per acre):
Butterfly Milkweed, New England Aster, White False Indigo, Lance-leaved Coreopsis, Tall Coreopsis, Pale Purple Coneflower, Rattlesnake Master, False Sunflower, Western Sunflower, Round-head Bushclover, Prairie Blazing Star, Wild Bergamot, Gray-headed Coneflower, Black-eyed Susan, Stiff Goldenrod, Sweet Coneflower, Ironweed, Ohio Spiderwort



Section Landscape Plan
SCALE 1"=50'



Jerald Saunders - Landscape Architect
MO License # LA-087
Consultants:

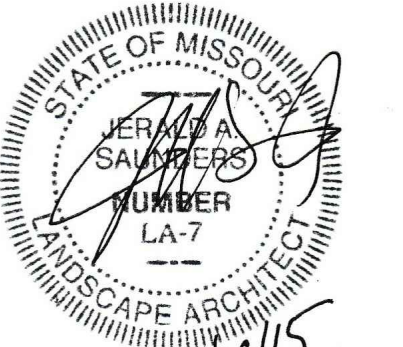
Opus I at Kraus Farm Office Center
Chesterfield, MO

Date	Description	No.
10-8-15	City Comments	1
10-28-15	City Comments	2
11-18-15	City Comments	3
11-30-15	City Comments	4

Drawn: LWH
Checked: JAS

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landscape architects/planners
2000 West 10th Street
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Loomis Associates Inc.
Missouri State Certificate of Authority #: LAC #00019

Sheet Title: Section Landscape Plan
Sheet No: L-1
Date: 09/03/15
Job #: 742.007



Jerald Saunders - Landscape Architect
MO License # LA-601

Consultants:

Tree Number	Species	Diameter (Inches)	Condition Factor	Crown Spread (feet)	Canopy Area (sqft)	Comments	Disposition
1	Cedar	18	65	25	491		Remove
2	Maple, Sugar	24	25	40	1256	50% dead	Remove
3	Maple, Sugar	24	75	40	1256	Monarch Tree	To Remain
4	Cedar	16	50	25	491		Remove
5	Cedar	8	50	25	491		Remove
6	Cedar	20	70	25	491	Multistem	Remove
7	Cedar	22	60	30	707		Remove
8	Cedar	16	60	25	491	Multistem	Remove
9	Sassafras	16	45	20	314		To Remain
10	Redbud	12	35	15	177	overgrown with grape vines	To Remain
11	Oak, Shingle	40	50	60	2826	in decline	To Remain
12	Maple, Sugar	16	60	36	1017		Remove
13	Hackberry	16	65	30	707		Remove
14	Sassafras	6	55	11	95		Remove
15	Sassafras	6	55	11	95		Remove
16	Sassafras	5	55	10	79		Remove
17	Sassafras	5	55	10	79		Remove
18	Sassafras	7	55	12	113		Remove
19	Hackberry	5	55	10	79		Remove
20	Hackberry	5	55	10	79	DBL trunk	Remove
21	Hackberry	5	55	10	79		Remove
22	Elm, Siberian	5	30	10	79	Trimmed by Utility	Remove
23	Cherry, Black	12	0	0	0	dead trunk	Remove
24	Cherry, Black	8	20	10	79	Trimmed by Utility	Remove
25	Hackberry	5	50	10	79		Remove
26	Maple, Sugar	18	50	30	707	Multistem	Remove
27	Cherry, Black	10	30	15	177	Trimmed by Utility	Remove
28	Cherry, Black	10	30	15	177	Trimmed by Utility	Remove
29	Elm, American	10	30	20	314	Trimmed by Utility	Remove
30	Cherry, Black	10	40	20	314	Trimmed by Utility	Remove
31	Maple, Sugar	14	60	20	314	Trimmed by Utility	Remove
32	Cherry, Black	12	30	15	177	Trimmed by Utility	Remove
33	Ailanthus	14	55	15	177	Trimmed by Utility	Remove
34	Oak, White	22	55	30	707	Trimmed by Utility	Remove
35	Ash, White	5	55	20	314	Trimmed by Utility	Remove
36	Oak, Shingle	22	50	35	962	Trimmed by Utility	Remove
37	Elm, Siberian	5	50	10	79	Trimmed by Utility	Remove

Symbol	Description
⊕	Existing individual tree to remain
⊗	Existing individual tree TBR
⊘	Existing individual tree standing dead TBR
—	Tree protection fence and areas of root pruning

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.

Clearing Limits to be rough staked in order to facilitate location for installation of protection fencing. No early maintenance schedule is required. Required siltation devices to be installed along limit of disturbance line.

No clearing or grading shall begin in areas where the treatment and preservation measures have not been completed including the installation of tree protection fencing along all "Limit of Disturbance" lines shown on the map.

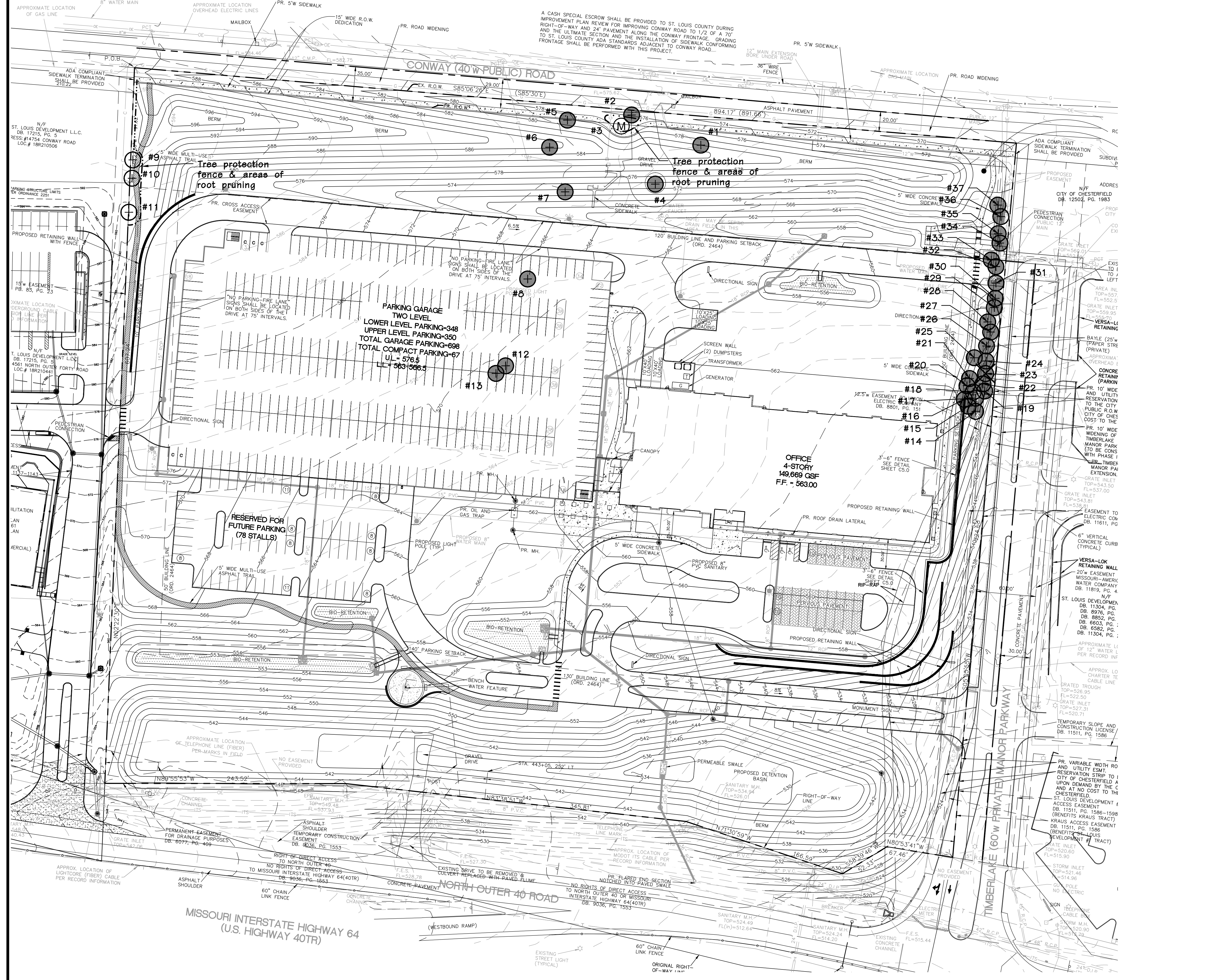
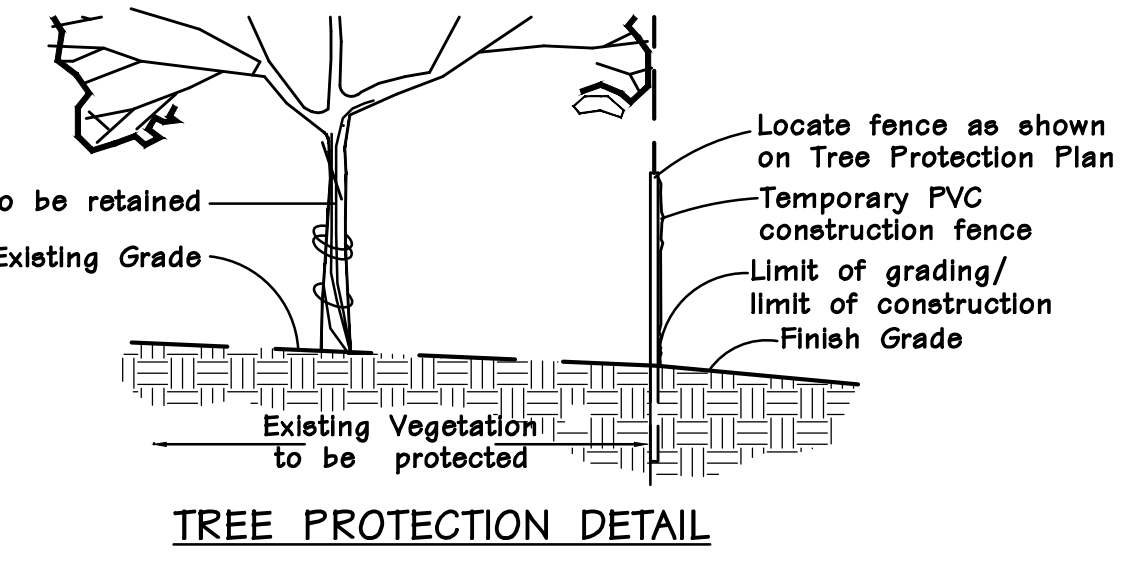
Tree Protection Fencing shall be 4-foot tall, plastic, orange fencing. No equipment traffic/parking, concrete washout, material storage or other such construction activity shall be permitted to penetrate the protection fencing or disrupt the Protected Area. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the map.

Perform root pruning prior to any work in the critical root zone. Where root injury has occurred, the branches and the tops of the tree shall be cut or thinned to reduce the demand on the roots for moisture and minerals, and a low nitrogen, high phosphorous fertilizer shall be applied as determined by the Consulting Landscape Architect.

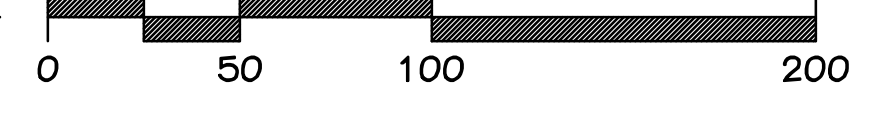
- Tree Protection Action Key Sequence:**
1. Survey Limit of Disturbance
 2. Install Tree Protection Fencing
 3. Post Tree Protection Signage on Fence; no signs will be posted on any trees
 4. Maintain Tree Protection Area as off-limits zone

CALCULATIONS:

Total Site Area: 627,853 s.f. (14.414 acres)
 Existing Tree Canopy Coverage: 8,219 s.f.
 Tree Canopy proposed for removal: 6,756 s.f.
 Tree Canopy proposed for preservation: 2,997 s.f. (36.5%)
 8,219 s.f. x 30% = 2,466 s.f. of tree canopy preservation required



Tree Protection Plan
SCALE 1" = 50'



Revisions:

Date	Description	No.
10-8-15	City Comments	1
10-28-15	City Comments	2
11-18-15	City Comments	3

Drawn: LWH
Checked: JAS

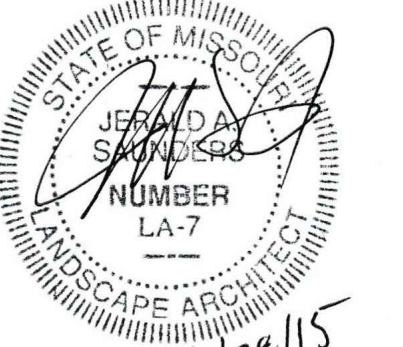
Ioomis Associates
 landscape architects/planners
 2000 West 10th Street
 St. Louis, MO 63103
 (314) 591-8668
 www.ioomis.com
 Missouri State Certificate of Authority #: LAC #00019

Sheet Title:	Tree Protection Plan
Sheet No.:	TPP
Date:	09/03/15
Job #:	742.007

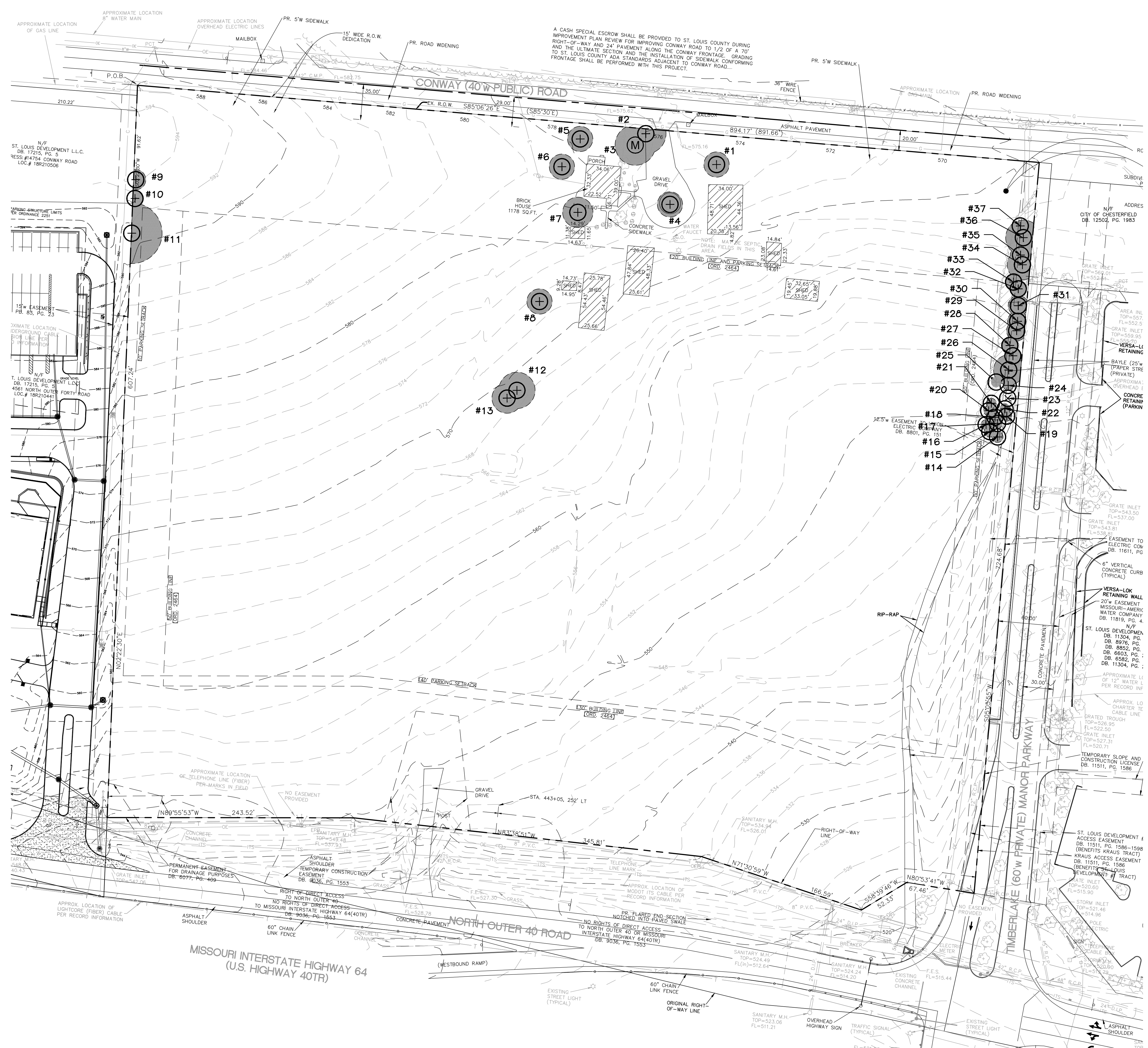
Tree Protection Plan Reviewed and updated Aug. 25, 2015
 by Douglas A. DeLong
 Certified Arborist MW-4826A

Douglas A. DeLong

Opus I at Kraus Farm Office Center
Chesterfield, MO



Jerald Saunders - Landscape Architect
 MO License # LA-007
 Consultants:



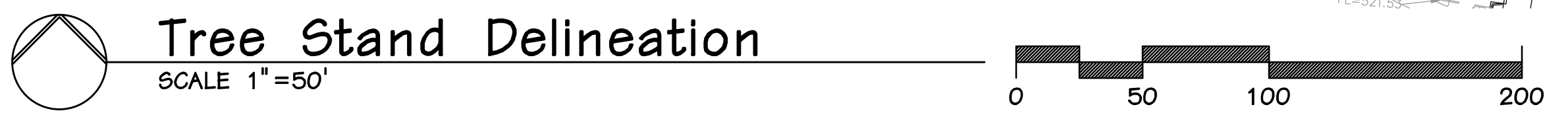
Tree Number	Species	Diameter (inches)	Condition Factor	Crown Spread (feet)	Canopy Area (sqft)	Comments	Additional Comments
1	Cedar	18	65	25	491		
2	Maple, Sugar	24	25	40	1256	50% dead	
3	Maple, Sugar	24	75	40	1256	Monarch Tree	
4	Cedar	16	50	25	491		
5	Cedar	8	60	25	491	Multistem	
6	Cedar	20	70	25	491		
7	Cedar	22	60	30	707		
8	Cedar	16	60	25	491	Multistem	
9	Sassafras	16	45	20	314		
10	Redbud	12	35	15	177	overgrown with grape vines	
11	Oak, Shingle	40	50	60	2826	in decline	
12	Maple, Sugar	16	60	36	1017		
13	Hackberry	16	65	30	707		
14	Sassafras	6	55	11	95		
15	Sassafras	6	55	11	95		
16	Sassafras	5	55	10	79		
17	Sassafras	5	55	10	79		
18	Sassafras	7	55	12	113		
19	Hackberry	5	55	10	79		exclude from canopy calc.
20	Hackberry	5	55	10	79	DBL trunk	
21	Hackberry	5	55	10	79		
22	Elm, Siberian	5	30	10	79	Trimmed by Utility	exclude from canopy calc.
23	Cherry, Black	12	0	0	0	dead trunk	exclude from canopy calc.
24	Cherry, Black	8	20	10	79	Trimmed by Utility	exclude from canopy calc.
25	Hackberry	5	50	10	79		
26	Maple, Sugar	18	50	30	707	Multistem	exclude from canopy calc.
27	Cherry, Black	10	30	15	177	Trimmed by Utility	exclude from canopy calc.
28	Cherry, Black	10	30	15	177	Trimmed by Utility	exclude from canopy calc.
29	Elm, American	10	30	20	314	Trimmed by Utility	exclude from canopy calc.
30	Cherry, Black	10	40	20	314	Trimmed by Utility	exclude from canopy calc.
31	Maple, Sugar	14	60	20	314	Trimmed by Utility	exclude from canopy calc.
32	Cherry, Black	12	30	15	177	Trimmed by Utility	exclude from canopy calc.
33	Ailanthus	14	55	15	177	Trimmed by Utility	exclude from canopy calc.
34	Oak, White	22	55	30	707	Trimmed by Utility	exclude from canopy calc.
35	Ash, White	5	55	20	314	Trimmed by Utility	exclude from canopy calc.
36	Oak, Shingle	22	50	35	962	Trimmed by Utility	exclude from canopy calc.
37	Elm, Siberian	5	50	10	79	Trimmed by Utility	exclude from canopy calc.

LEGEND:
 Symbol Description
 # (circle with cross) Existing Individual Tree
 # (circle with M) Existing Monarch Tree
 # (circle with X) Existing Individual Tree Standing Dead TBR

Total Site Area: 627,663 s.f. (14.414 acre)
 Existing Tree Canopy Coverage: 8,219 s.f.

Tree Condition Factor Rating System

Excellent: 80-100%
 Good: 60-79%
 Fair: 40-59%
 Poor: 20-39%
 Very Poor: 0-19%



TREE STAND DELINEATION
 Tree Data Prepared 12/6/07 By:
 Skip Kincaid (ISA Certified Arborist #MW-0155)
 Skip Kincaid & Associates
 1609 Missouri Avenue
 St. Louis, MO 63104
 (314)822-7700

Tree Stand Delineation Plan Reviewed and updated
 Aug. 25, 2015
 by Douglas A. DeLong
 Certified Arborist MW-4826A
Douglas A. DeLong

Revisions:

Date	Description	No.
10-8-15	City Comments	1
10-28-15	City Comments	2

Drawn: LH
 Checked: JS

Ioomis Associates
 landscape architects/planners
 2000 S. Brentwood Blvd., Suite 100
 St. Louis, MO 63104
 (314) 591-8668
 www.ioomis.com

Sheet Title: Tree Stand Delineation

Sheet No: TSD

Date: 09/03/15
 Job #: 742.007

Opus I at Kraus Farm Office Center
 Chesterfield, MO

Opus I at Kraus Farm Office Center

Architect Statement of Design Intent

October 29th, 2015

The proposed building is scheduled to be a four-story 149,669 square foot office building. The project is located on the site north of Highway 40 and west of Timberlake Manor Parkway.

I. Site Layout

A. Physical Features

1. The existing site is currently a vacant farm and grounds with a small house and 4-5 out-buildings located on the property.
2. There is a significant amount of slope on the site from the northwest corner, (598) sloping down toward the southeast corner (522). The project design attempts to maintain this unique characteristic of the site, tucking the parking structure into the hillside at the northeast corner, reducing its visual height and mass, and creating a landscaped tier of walls stepping the site down at the southeast corner, all while balancing the soils on the site, minimizing the environmental impact of the development.

B. Vegetation

1. The site is currently a field with several vacant buildings. There is a limited amount of trees and brush on the perimeter of the property with several "yard" trees located around the vacant home and out-buildings. We will be preserving a Monarch tree along Conway road and 3 trees along the western property line. We have achieved compliance with the 30% preservation requirement of the Tree Preservation and Landscape Requirements. See attached Landscape plan.

C. Site Relationship

1. The building site is bordered on the north by Conway Road, to the east by Timberlake Manor Parkway, to the south by North Outer Forty Road and to the west by a private access drive to Mercy Rehabilitation Hospital. The main visitor, employee and service site entrance will be from Timberlake Manor Parkway and a new shared access drive that will be constructed as part of the new development.

D. Vehicular Circulation

1. The entries/exits for the site will be located along Timberlake Manor to the east and the shared access drive of Mercy Rehabilitation Hospital to the west. Both of these drives join North Outer Forty Road. The vehicles will enter the site and circulate to the parking garage on drives both to the south and north of the building, reducing the traffic flow and congestion on either road. The visitor parking and drop-off area is separated from these drives, creating a safe area for the visitor and visitor handicap parking in front of the building. Employee handicapped parking is located at the premium spots on the first level of the parking structure, closest to the employee entry.
2. Delivery vehicles will be able to enter from the shared access drive and proceed directly to the loading area located at the northwest corner of the office of building
3. A fire lane/access drive has been incorporated into the front entry drive and visitor parking area at the request of Monarch Fire Protection District.

E. Pedestrian Circulation

1. The visitor and visitor accessible parking spaces will be located directly in front of the building to allow easy, close, access to the main entry, separate from the main access drive through the site.
2. The employee entry to the building is linked to the parking garage with decorative paving and a canopy to provide safe and covered access from the parking ramp to the building for employees.
3. An employee walking/jogging path loops the site, connecting to the sidewalk along Conway Road, providing an enjoyable outdoor amenity for the project.

II. Building Structure

A. Scale and Design

1. The office building will be a four-story, contemporary design with an exciting vocabulary of materials including architectural precast panels, pre-finished aluminum accent metal panels, high efficiency glass windows and curtainwall elements in prefinished aluminum frames, and functional prefinished sunscreens on the east, west and south facades.
2. The office building is designed to provide sculpted, off-set massing to add visual interest and reduce the sense of scale. This is reinforced by the stepping at the building corners, and the recessed entry at the 1st level.
3. The buildings vertical length is broken by the architectural framing element and vertical glass entry expression, along with the recessed glass and column expressions at the first level creating a building base. Architectural precast color changes at individual massing areas create unique massing elements.
4. The architectural framing element visually connects the main entry and fourth floor balcony adding a strong point of interest from the highway view.
5. The main south entry will be recessed and sheltered by a canopy, creating a sense of pedestrian scale and providing a protected entrance.
6. The building presents a strong sustainable statement with horizontal sunscreens and large areas of high performance vision glass. The sunscreens also enhance the building image through a constantly changing play of light and shadow throughout the day.
7. The two story parking structure will be tucked into the hillside at the northwest corner of the site, creating an "on grade" appearance from the north and reducing the overall sense of scale and mass for the structure.
8. The ramp will utilize the same high quality architectural precast, glass and metal as the office building for its exterior finishes.
9. There will be a covered pedestrian link between the parking structure and the office building.
10. The buildings will be compatible in scale with the other adjacent commercial developments along North Outer Forty Road.
11. The screen wall surrounding the roof type equipment will be a combination of architectural precast and metal panel and will integrate into the design of the building through the use of color and material.

B. Relationship to Adjacent Development

1. This development with its contemporary style, architectural pre-cast concrete and high performance glass design will tie in nicely with the adjoining Timberlake Corporate Center buildings to the east and the Mercy Rehabilitation Hospital to west. Both of these buildings are also contemporary, architectural pre-cast concrete and glass in style.

C. Materials and Colors

1. The exterior of the building will be predominately architectural pre-cast concrete, pre-finished aluminum panels, and high performance tinted insulated glass in aluminum curtain wall and both strip and punched window systems.
2. The architectural pre-cast concrete will be comprised of three compatible, complimentary colors ranging from a white to dark gray. The pre-finished aluminum accent "wrap" will be white in color. The entry canopies will be clad in a prefinished metal to match the window systems.
3. The curtainwall window system will have pre-finished silver frames with a light gray tinted insulated glass. Spandrel glass will be the same glass as the vision glass with a ceramic frit on the number 4 surface.
4. Soffits and other architectural elements will be finished with materials compatible with the other exterior materials.
5. Please refer to the exterior rendering and to the larger samples to be submitted at the Architectural Review Board meeting.

Non-Residential Architecture

A. General

1. The two sides and rear façades will be designed with similar detailing as the front/primary façade. The south elevation will have a pre-finished aluminum accented "wrap". Please see attached colored exterior building elevations for more information.
2. The parking garage will be designed with similar detailing, materials and colors as the building to create an overall uniform development. The parking structure is tucked into the hillside to minimize the scale and height presented to the residential area to the north.

B. Building Equipment and Service

1. Delivery vehicles will enter from cross access road off of the shared Timberlake Manor Drive to the east and proceed directly to the loading areas located to the northwest of the building. The intent is to separate these areas from the parking areas and the main circulation of vehicles and pedestrians.
2. Screening elements including landscaping and screen walls will be used to screen exterior equipment as required.

C. Chesterfield Guidelines

1. All utilities will be installed underground.
2. The two sides and rear façades will be designed with similar detailing as the front/primary façade with the south elevation having a pre-finished aluminum accented "wrap", which faces North Outer Forty Road and Interstate 64/US Highway 40.
3. This project will be designed to meet the required open space requirements as stated in the *City of Chesterfield Unified Development Code*. See attached Site Plan.
4. This project will be designed to meet the required landscape requirements as stated in the *City of Chesterfield Unified Development Code*. See attached Landscape plan.

III. Landscape Design

1. A simple yet refined landscape treatment has been created to enhance the visual appearance of the building and parking structure from the public thoroughfares of North Outer Forty Road and Timberlake Manor Drive. Plantings are utilized to frame views of the buildings, reduce the linear nature of the parking structure and to assist with way-finding for visitors to the facility.
2. A landscaped berm will stretch from west to east along the northern border of the site, with buffer plantings located at the crest of the berm. The berm and planting will provide privacy to the area north of Conway Road. The south side of the berm will be converted into a native prairie planting in order to re-establish native habits beneficial to birds and butterfly populations.
3. On campus users will appreciate the garden located on the day-to-day pedestrian route from the parking structure into the building as well as the groves of shade trees located at the dining patio. Another grove of ornamental trees will be created north of the office building as a landscape feature visible from all of the north facing offices.
4. Three distinct water quality bio-retention basins will be constructed in accordance with MSD specifications. These basins will be planted with grasses, sedges and forbs in distinctive mass plantings to provide water quality benefits as well as aesthetic appeal.

IV. Miscellaneous

A. Signage

A comprehensive signage package will be submitted to the planning commission.

B. Lighting

1. To maintain the sleek, modern look of the building and reduce dark sky light trespass, building lighting has been kept to a minimum. Wall pack units illuminate the building service area and exits. Down lights, integrated into the canopy designs, illuminate the visitor and employee entrances.
2. The site lighting will be oriented toward the building and parking areas to avoid affecting adjacent properties.
3. The proposed monument sign will be ground lit individual letters.

C. Utilities

1. All utilities will be installed underground.
2. Landscaping and or screen walls will be used to screen exterior electrical transformers, gas meters or other equipment required to be screened.

D. Storm Water Drainage

1. Storm water will be drained from the rooftop of the building and parking garage with interior roof drains.
2. The parking area will be sloped to allow storm water to drain away from the building and off the parking area to the storm water collection inlets or directly to bio-retention basins.
3. The storm water will be treated with pervious pavement areas and bio-retention basins prior to discharging to the detention basin. See the civil plan for more detailed information.

E. Energy Conservation

1. The building shall be designed and constructed to meet or exceed energy guidelines that are enforced at the current time.

F. Screening (Fences & Walls)

1. A painted horizontal ribbed, architectural metal panel roof screen, compatible with the building architecture, will be located in the center bays of the roof to screen all roof top equipment.
2. The trash dumpsters will be screened from view by a two-sided architectural precast wall to match the building. This enclosure will be enhanced with plant materials to allow this element to blend into the landscape, including enhance planting and landscaping along the west side of the service drive to screen views from the west. Please see the Landscape Plan for details.
3. The series of retaining walls along the southeast corner of the site will be softened and screened by a variety of plant materials where these walls do not function as architectural or "entry statement" elements.

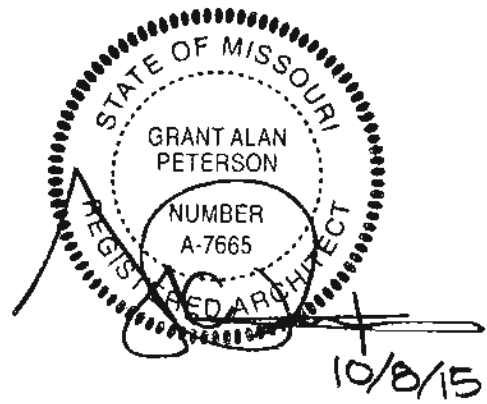
G. Water Feature

1. Located in a prominent location as a focal point to the main visitor entry drive, the water feature will consist of a hard splash surface (concealed water basin) with a 12 to 14 foot high vertical water jet. The water feature is placed to be visible from on site and also enjoyed by the public driving on North Outer 40. It will have an understated elegance for those viewing from off the property as well as visitors and guests arriving at the building visitor's entry. See representative photos.

Sincerely,



Grant A. Peterson, AIA
Vice President
Opus AE Group, L.L.C.



1 NORTH ELEV.
1" = 30'-0"

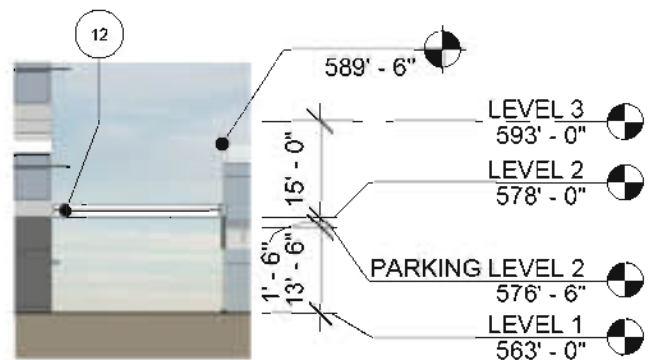


2 SOUTH ELEV.
1" = 30'-0"

ELEVATION KEY NOTES

- 1 PRECAST COLOR- DARK GRAY
- 2 PRECAST COLOR- MEDIUM GRAY
- 3 PRECAST COLOR- LIGHT GRAY
- 4 VISION GLASS- VE1-85 CLEAR LOW E
- 5 INSULATED SPANDREL GLASS- VE-908 GRAY
- 6 FLAT METAL PANEL- (BM) CHANTILLY LACE
- 7 RIBBED METAL PANEL- (BM) ANCHOR GRAY
- 8 METAL SUNSCREEN- CLEAR ANODIZED ALUMINUM
- 9 GLASS RAILING
- 10 MULLIONS- CLEAR ANODIZED ALUMINUM
- 11 EXTERIOR LIGHTING
- 12 METAL CANOPY- CLEAR ANODIZED ALUMINUM

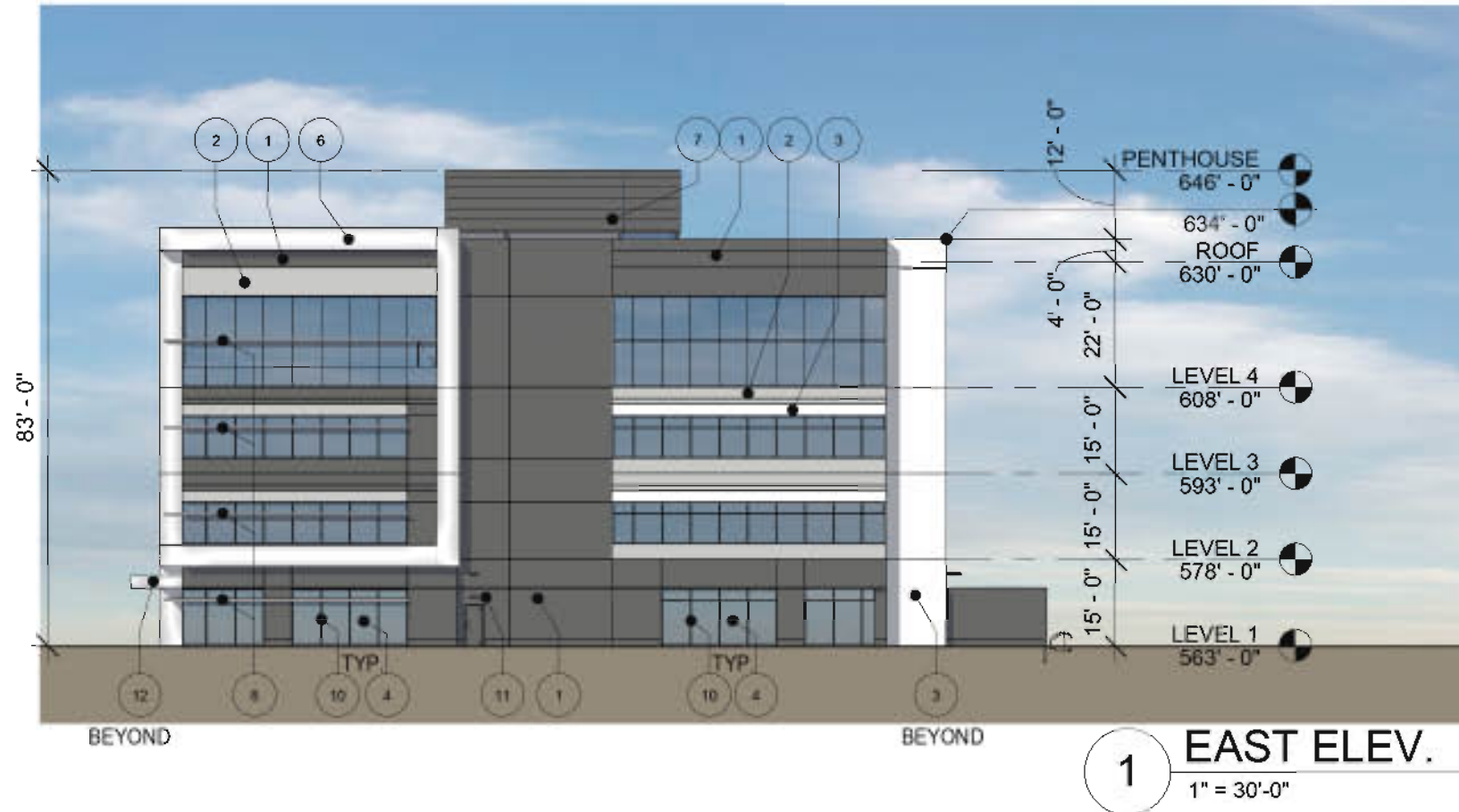
3 CANOPY NORTH ELEV.
1" = 30'-0"



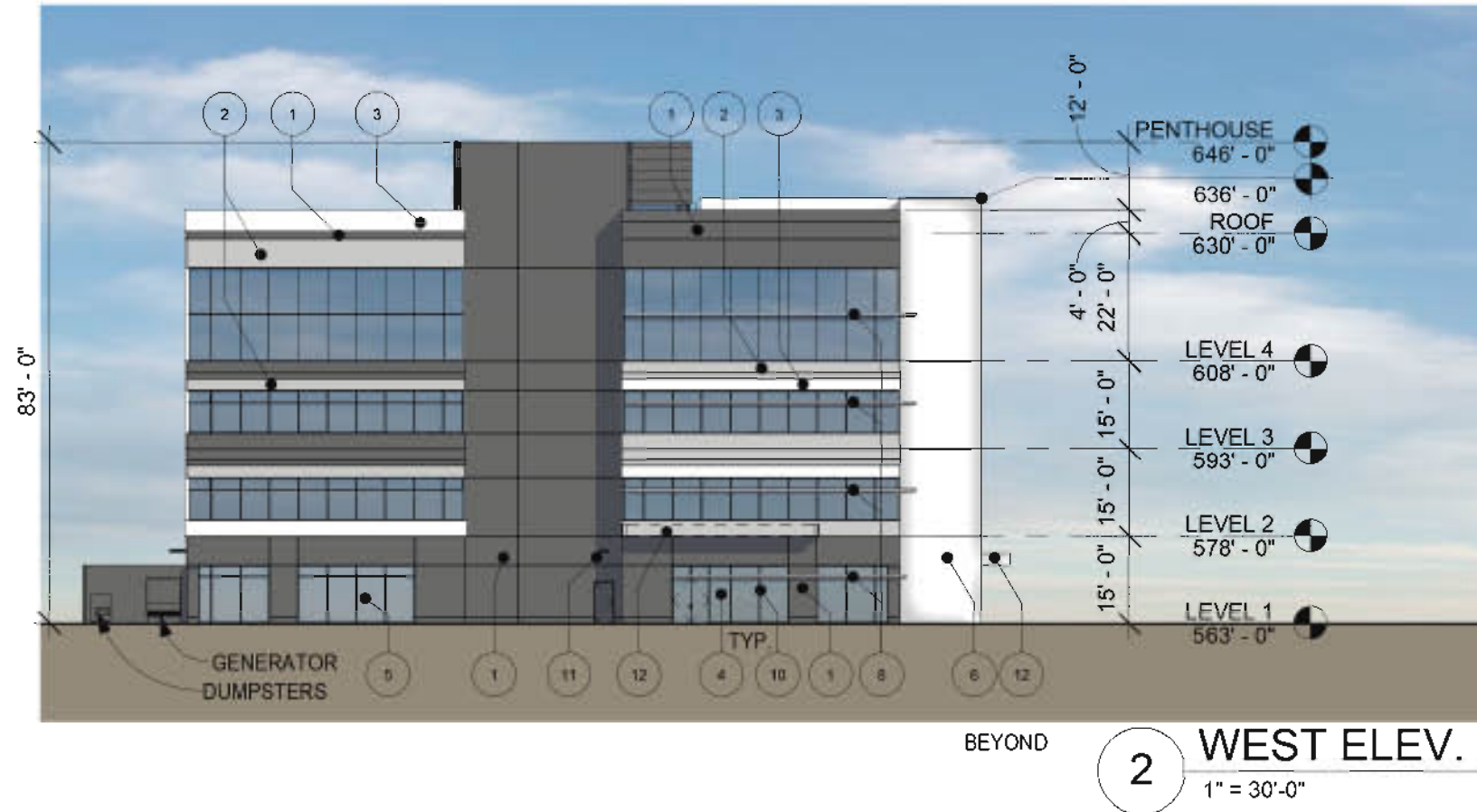
4 CANOPY SOUTH ELEV.
1" = 30'-0"



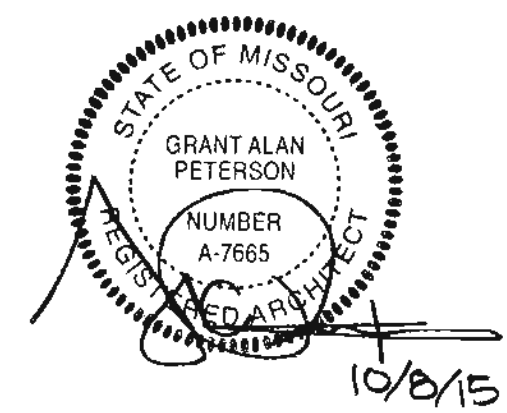
ELEVATION KEY NOTES	
1	PRECAST COLOR- DARK GRAY
2	PRECAST COLOR- MEDIUM GRAY
3	PRECAST COLOR- LIGHT GRAY
4	VISION GLASS- VE1-85 CLEAR LOW E
5	INSULATED SPANDREL GLASS- VE-908 GRAY
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12	METAL CANOPY- CLEAR ANODIZED ALUMINUM

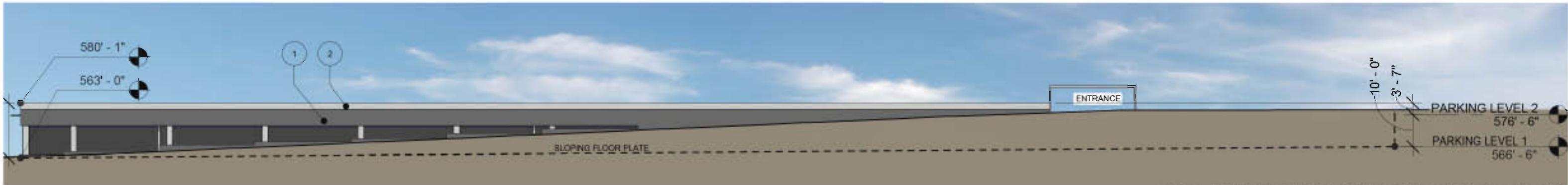


1 EAST ELEV.
1" = 30'-0"

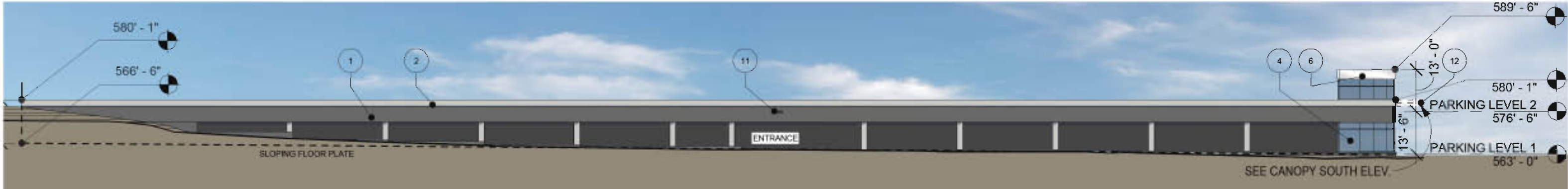


2 WEST ELEV.
1" = 30'-0"



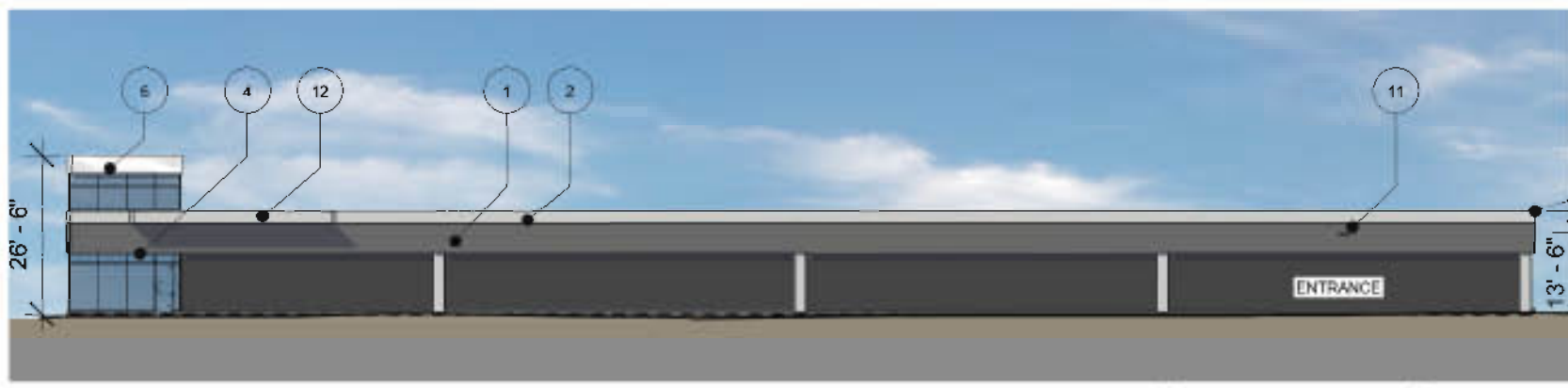


1 PARKING RAMP NORTH ELEV.
1" = 30'-0"

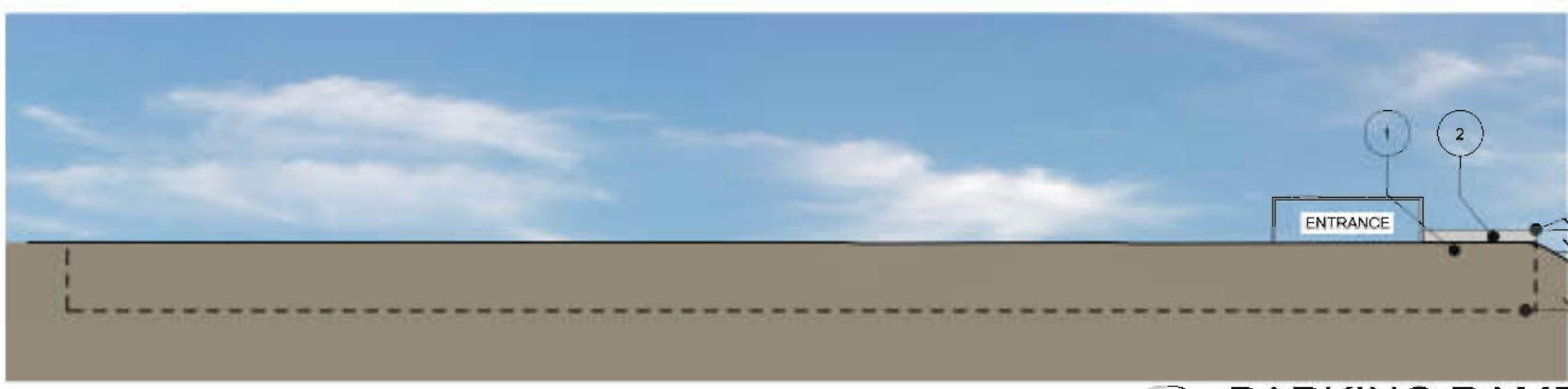


2 PARKING RAMP SOUTH ELEV.
1" = 30'-0"

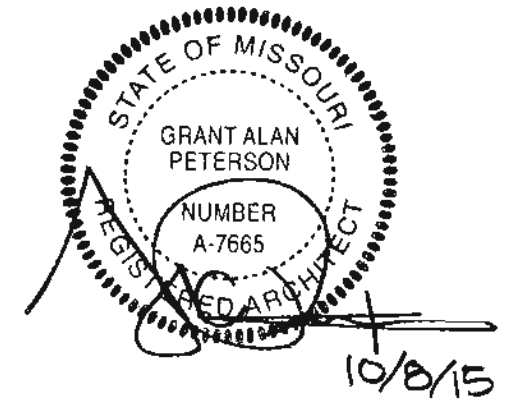
ELEVATION KEY NOTES	
1	PRECAST COLOR- DARK GRAY
2	PRECAST COLOR- MEDIUM GRAY
3	PRECAST COLOR- LIGHT GRAY
4	VISION GLASS- VE1-85 CLEAR LOW E
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9	GLASS RAILING
10	MULLIONS- CLEAR ANODIZED ALUMINUM
11	EXTERIOR LIGHTING
12	METAL CANOPY- CLEAR ANODIZED ALUMINUM



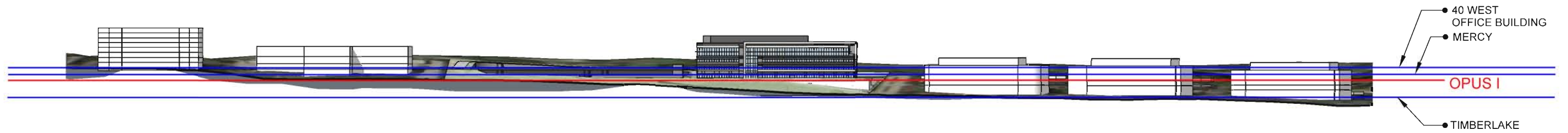
3 PARKING RAMP EAST ELEV.
1" = 30'-0"



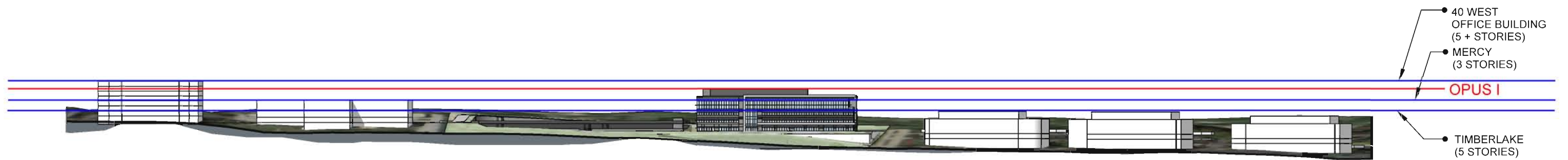
4 PARKING RAMP WEST ELEV.
1" = 30'-0"



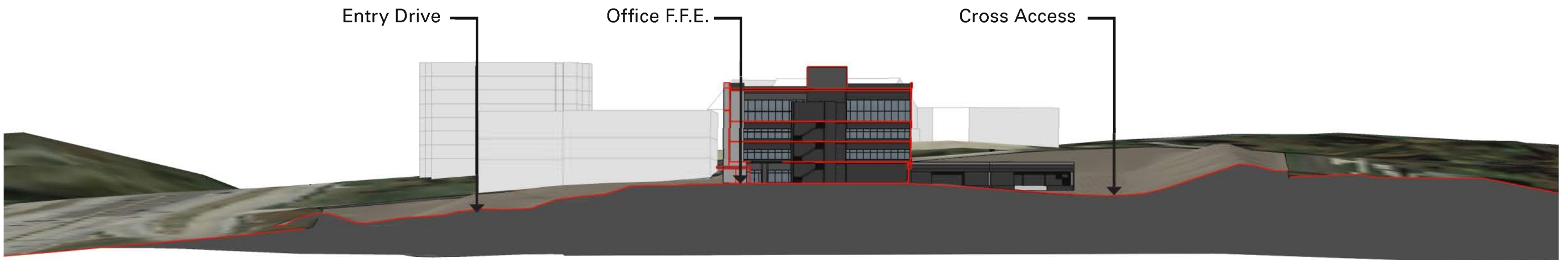




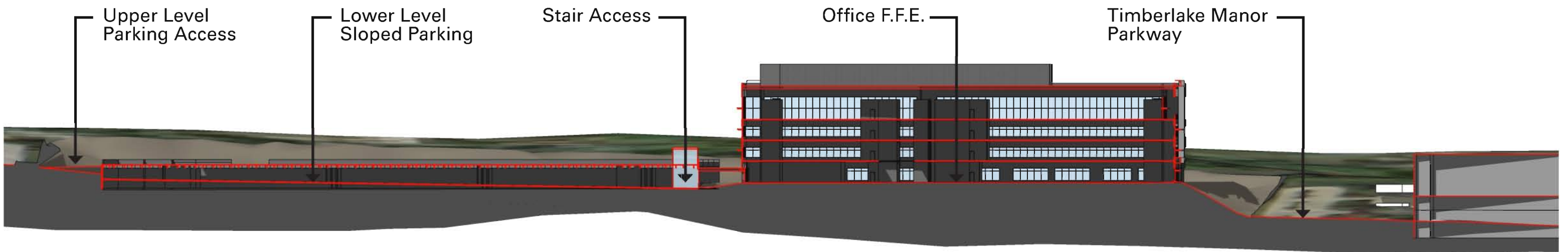
GROUND LEVEL SECTION ANALYSIS



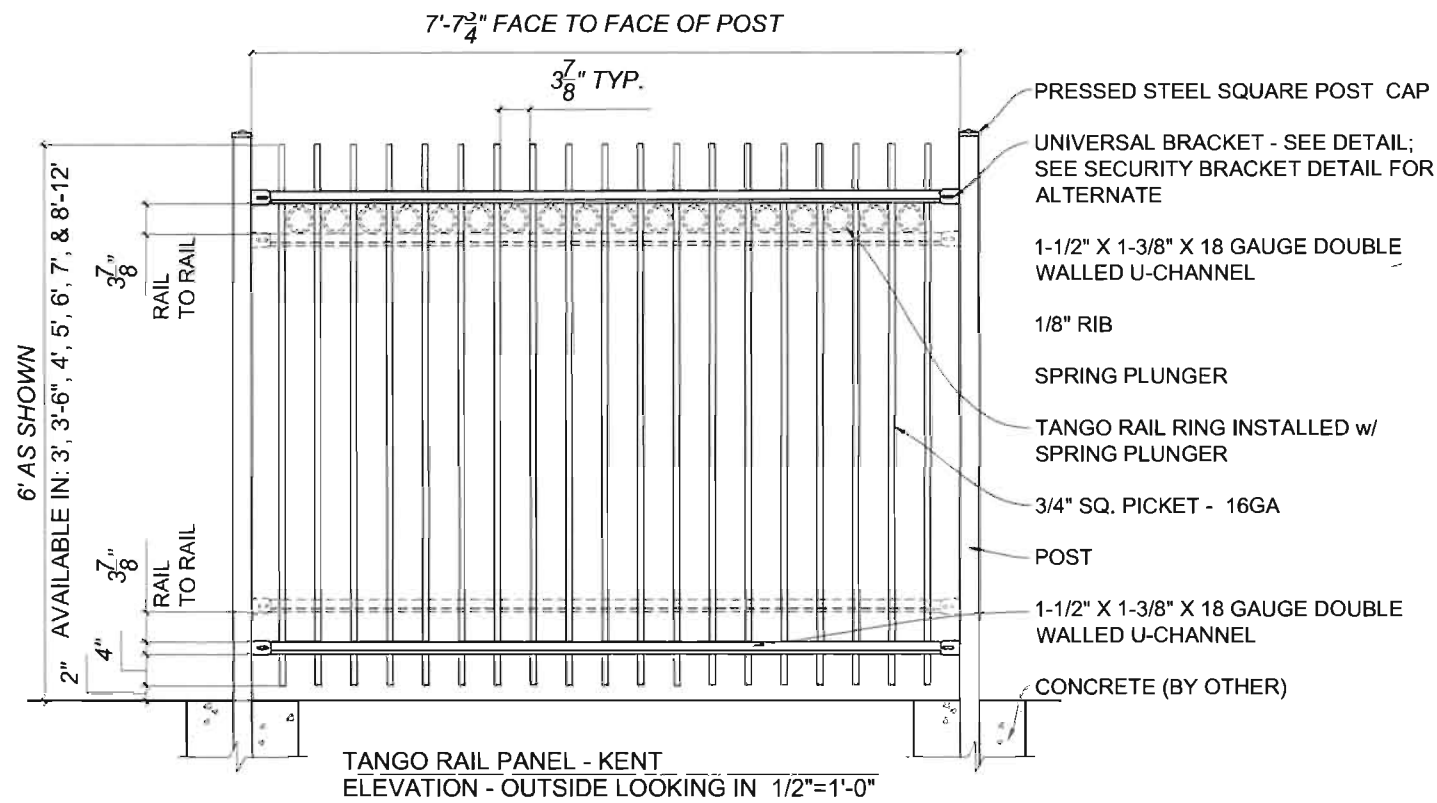
ROOF LEVEL SECTION ANALYSIS



North-South Section Through Office Entry

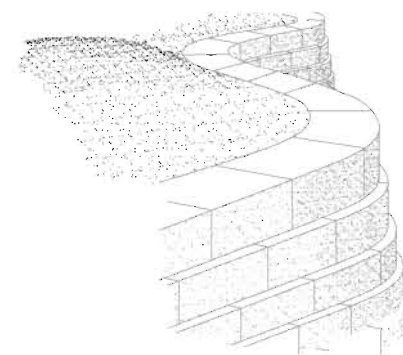


East-West Section Through Parking and Office

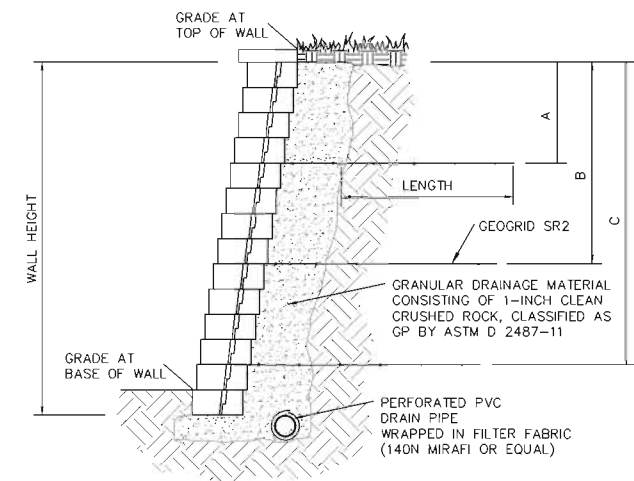


NOTES:

- 1.) ALL CONSTRUCTION SHALL BE PER THE MANUFACTURERS RECOMMENDATION.
- 2.) THE ABOVE INFORMATION IS A CONCEPT ONLY. ACTUAL DESIGN OF RETAINING WALL SHALL BE BY A LICENSED PROFESSIONAL ENGINEER & SUBMITTED TO STOCK AND ASSOCIATES FOR GENERAL COMPLIANCE WITH GRADING PLAN.
- 3.) ACCEPTED ALTERNATE WALL SYSTEM: VERSA-LOK OR UNILOCK PISA.
- 4.) TW= TOP OF RETAINING WALL, BW= GRADE AT BASE OF WALL.
- 5.) VERTICAL WALL SYSTEM ASSUMED FOR THIS PROJECT. ZERO BATTER.
- 6.) WALL DESIGNER SHALL CONSULT GEOTECHNICAL ENGINEER FOR GLOBAL STABILITY.
- 7.) RETAINING WALL WILL REQUIRE A SEPARATE PERMIT (BUILDING PERMIT) PRIOR TO CONSTRUCTION

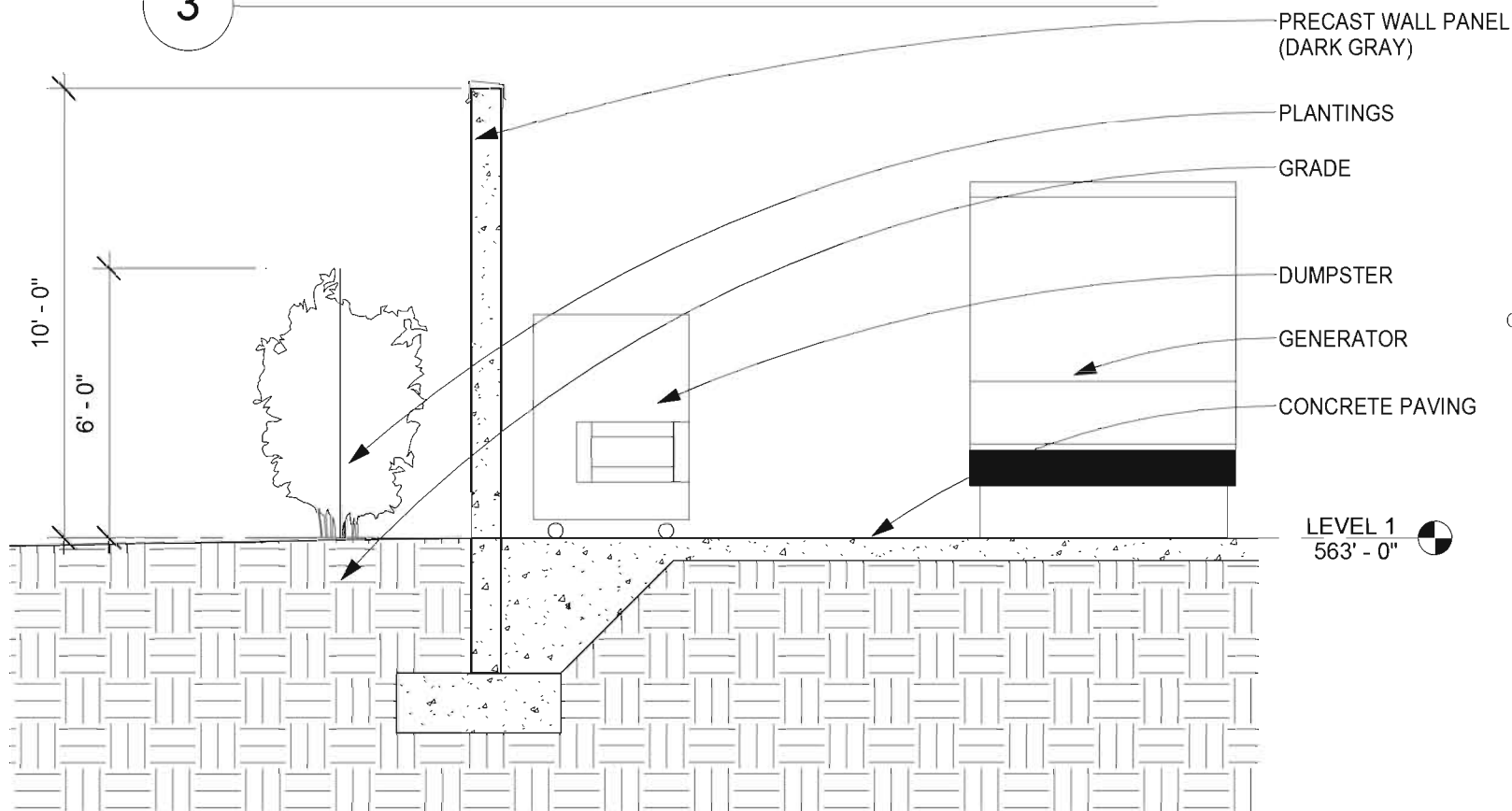


ISOMETRIC VIEW



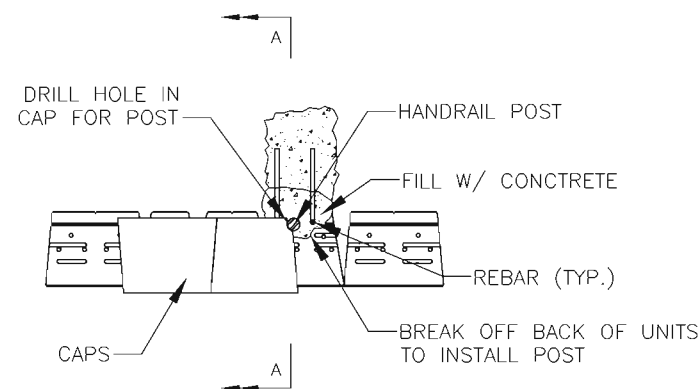
SECTION "A-A"

3 GUARDRAIL DETAIL



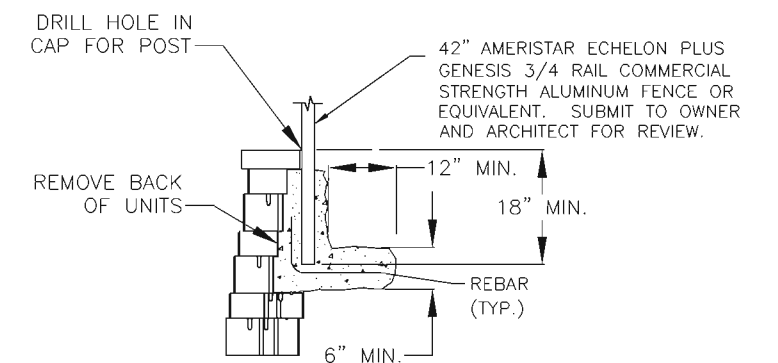
1 SERVICE AREA SCREEN WALL SECTION

1/4" = 1'-0"



POST DETAIL-PLAN VIEW

MOSAIC-TYPICAL HANDRAIL AND/OR FENCE POST
SCALE: NONE



POST DETAIL-SECTION A-A

MOSAIC-TYPICAL HANDRAIL AND/OR FENCE POST
SCALE: NONE

**VERSA-LOK RETAINING WALL
TYPICAL SECTION**

2 RETAINING WALL DETAILS



DESCRIPTION

The classic lines and sophisticated construction of the Vision Wall luminaire make it an ideal complement to architectural site design. IP65 Ingress Rating standard. U.L. Listed and CSA Certified for wet locations in up or down mounting applications with no necessary modifications to the door or housing.

SPECIFICATION FEATURES

Construction HOUSING: One piece die-cast aluminum construction for precise tolerance control and repeatability in manufacturing. **DOOR:** One piece die-cast aluminum with continuous silicone gasket accommodates either up or down mounting configurations. Door frame is hinged and secured to the housing via four (4) captive stainless steel Allen head fasteners. Lens is impact-resistant 1/8" thick tempered clear or optional frosted flat glass, sealed to the door with a one-piece silicone gasket.

Optical OPTICAL SYSTEM: Choice of five (5) high efficiency optical systems. Type II, III, IV, and FX optical systems constructed of premium 96% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a heavy-wall aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs, or other means of attachment which may

cause streaking in the light distribution. TS optic constructed of spun and polished specular anodized aluminum. All reflector modules feature toolless removal, quick disconnect wiring plugs, and are field rotatable in 90 degree increments. HID lamp sources in VWS small housing optics feature medium-base lampholders. **OPTICAL ASSEMBLY:** Optical systems are secured to an internal rotating assembly that allows up to 10 degrees of outward adjustment. A concealed stainless steel adjustment screw is provided on the exterior surface of the housing to allow for tilt adjustment of the optical module while under full power without accessing internals or affecting the outward appearance of the luminaire.

Mounting Standard zinc plated attachment plate fits directly to 4" J-Box. Two (2) threaded studs with locking nuts allow for fixture mounting via keyhole slots on backside of housing. Mounting plate features one-piece EPDM gasket on either side of plate to firmly seal fixture to wall surface, forbidding entry of moisture and particulates. Optional mounting arrangements include an embedded mount bracket, or cast aluminum surface conduit adapter, each available as accessories.

Finish Housing and door finished in a 5 stage premium TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum, and graphite metallic. RAL and custom color matches available. Consult your INVUE Lighting Systems Representative for more information.

Catalog #		Type	
Project			
Comments		Date	
Prepared by			



VWS VISION WALL SMALL

20 - 170W
Pulse Start Metal Halide
Metal Halide
High Pressure Sodium
Compact Fluorescent

ARCHITECTURAL WALL LUMINAIRE



FCO is downlight applications only.

CERTIFICATION DATA

IP65 Rated
U.L. 1000 Listed
CSA Listed
25°C Ambient Temperature Rating
ISO 9001
Full Cutoff

SHIPPING DATA

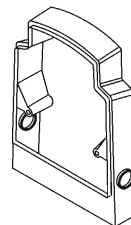
(Approximate)
Net Weight (lbs.): 25
Volume (cu. ft.): 4.5



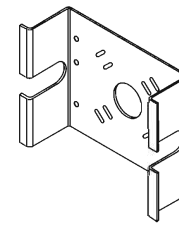
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ACCESSORIES (ORDER SEPARATELY)

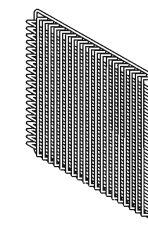
Thru-way Mounting Box



Embedded Mount

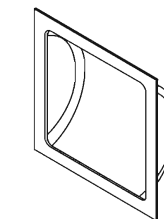


Wire Guard



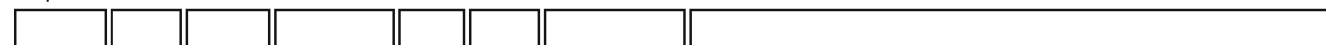
OPTIONS (ADD AS SUFFIX)

Polycarbonate Vandal Shield



ORDERING INFORMATION

Sample Number: VWS-175-MH-MT-3S-BK-L



Product Family
VWS=Vision Wall Small

Lamp Wattage
MP
50=50W
70=70W
100=100W
150=150W
MH
175=175W
HPS
50=50W
70=70W
100=100W
150=150W
Compact Fluorescent
26=26W
32=32W
42=42W
57=57W⁴

Voltage⁶
120=120V
208=208V
240=240V
277=277V
347=347V
480=480V
DT=Dual-Tap⁷
wired 277V
MT=Multi-Tap⁸
wired 277V
TT=Triple-Tap⁹
wired 347V
UNV=120-277V
Universal Electronic Ballast

Optical System
2S=Type II
3S=Type III
4S=Type IV
FX=Wall Grazing Optic
TS=Tight Spot

Color¹⁰
BK=Black
AP=Grey
BZ=Bronze
WH=White
DP=Dark Platinum
GM=Graphite Metallic

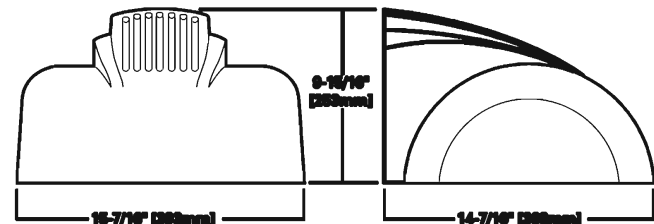
Options¹¹
F=Single Fuse (120, 277 or 347V)
Specify Voltage
FF=Double Fuse (208, 240 or 480V)
Specify Voltage
Q=Quartz Restrike¹²
EM=Quartz Restrike w/ Time Delay¹²
(Also Strikes at Cold Start)
EM/SC=Quartz Emergency Separate¹²
Circuit
PC=Button Type Photocontrol (Specify Voltage)
HS=House Side Shield¹³
VS=Polycarbonate Vandal Shield
FR=Frosted Flat Glass Lens
L=Lamp Included

Accessories¹⁴
VWS/EM=Embedded Mount
VWS/TB-XX=Thru-way Box¹⁵
VWS/WG-XX=Wire Guard

Lamp Type
MP=Pulse Start Metal Halide
MH=Metal Halide
HPS=High Pressure Sodium
CF=Compact Fluorescent⁵

- Notes: 1 All HID lamps are medium-base.
2 MH products available for non-U.S. markets only.
3 Available in Type 3S, 4S, and 5S distributions only.
4 Nominal M.O.L lamp length of 57W CFL not to exceed 7".
5 CF ballasts are 120 through 277V. Specify with UNV voltage designation.
6 Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information.
7 Dual-tap is 120/277V wired 277V.
8 Multi-tap is 120/208/240/277V wired 277V.
9 Triple-tap is 120/277/347V wired 347V.
10 Custom and RAL color matching available upon request. Consult your INVUE Lighting Systems Representative for further information.
11 Add as suffix in the order shown.
12 Quartz options not available with FX or TS distributions.
13 House side shield not available with FX and TS optics.
14 Order separately, replace XX with color suffix.
15 For use in down lighting applications only.

DIMENSIONS



WATTAGE TABLE

Lamp Type	Wattage
Pulse Start Metal Halide (MP)	50, 70, 100, 150W
High Pressure Sodium (HPS)	50, 70, 100, 150W
Metal Halide (MH)	175W
Compact Fluorescent (CF)	26, 32, 42, 57W



JOB #



OPUS I at Kraus Farm Office Center
Chesterfield, Missouri



NOTE: Specifications and dimensions subject to change without notice.
Visit our web site at www.cooperlighting.com
Customer First Center 1121 Highway 74 South Peachtree City, GA 30269 770.486.4800 FAX 770.486.4801

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Exterior Lighting
10.29.2015

McGraw-Edison®

DESCRIPTION

The McGraw-Edison BSL / BRL Bollard Series, available in heights from 24" to 42", has crisp, clean lines which blend with any architectural setting. Constructed of seamless, heavy-duty aluminum and finished with a tough polyester powder coat finish, the McGraw-Edison Louvered Bollard Series is gasketed to seal out external contaminants. U.L. 1688 listed and CSA certified for wet locations.

Bollards are designed for walkways, entrances, drives and other small-area lighting applications where low mounting heights are desirable.

SPECIFICATION FEATURES

Construction
TOP: Rugged, minimum 5/32" thick cast aluminum top cap secured via a concealed stainless steel allen screw with twist removal mechanism for lamp access. Flow through ventilation assure cool to the touch top. **LOUVERS:** Cast Aluminum Louver blades provide sharp cutoff delivering no direct light above 90°. Louvers are secured to the shaft via tamper stainless steel rods and fasteners. **LOWER HOUSING:** Nominal 1/8" thick aluminum extruded housing. Bollard housing is secured to the base with flathead, counter-sunk screws for smooth, uncluttered appearance. **BASE:** Rugged cast aluminum. Completely concealed.

Electrical
HID High Power Factor ballast for -20°F starting. CFL Electronic ballast for 0°F starting. Product is factory mounted to the base. Quick disconnects provided between lamp and electrical assembly. Metal Halide and High Pressure Sodium lamp sources up to 100W and up to 42W Compact Fluorescent sources.

Optical
LAMP ENCLOSURE: One piece tempered glass with internal flutes for even disbursement of illumination. Decorative colored glass optional. Globe is fully gasketed via EPDM material. Socket is porcelain, medium-base for HID lamp sources and

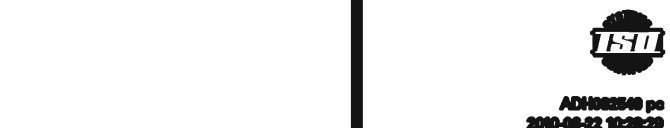
polycarbonate/PBT GX24q-3/q-4 base for compact fluorescent lamps.

Mounting
 Base mounts onto foundation with three (3) 1/2" x 12 1/2" anchor bolts on a 5" Dia. bolt circle (a centrally located 2 7/8" x 3 1/2" wire entrance opening provided).

Finish
 Premium fade and abrasion resistant, TGIC Polyester Powder Coat Finish. Standard colors are Black, Grey, Bronze, White, Dark Platinum and Graphite Metallic. Other finish colors available including all RAL matches.

Lamp Type	Wattage
Pulse Start Metal Halide (MP)	50, 70, 100W
High Pressure Sodium (HPS)	35, 50, 70, 100W
Compact Fluorescent (CF)	(1) 26, (1) 32, (1) 42W
Incandescent (IC)	100W

SHIPPING DATA
 Approximate Net Weight:
 26 lbs. (12 kgs.)



OPUS I at Kraus Farm Office Center
 Chesterfield, Missouri

Catalog #		Type	
Project		Date	
Comments			
Prepared by			



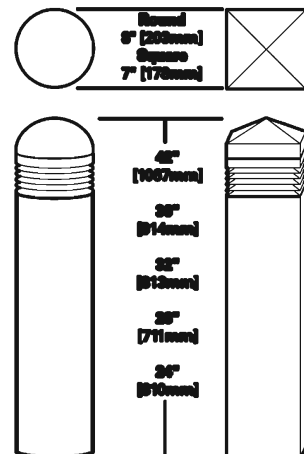
BSL/BRL BOLLARD

26 - 100W
 Pulse Start Metal Halide
 High Pressure Sodium
 Compact Fluorescent
 Incandescent
 PATHWAY LUMINAIRE



NOTE: In select finishes only.

DIMENSIONS

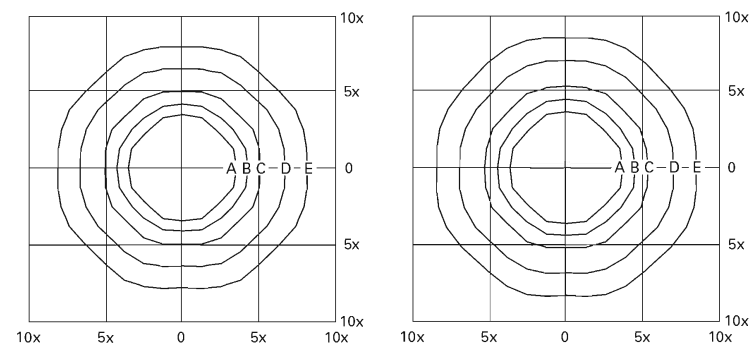


WATTAGE TABLE

Lamp Type	Wattage
Pulse Start Metal Halide (MP)	50, 70, 100W
High Pressure Sodium (HPS)	35, 50, 70, 100W
Compact Fluorescent (CF)	(1) 26, (1) 32, (1) 42W
Incandescent (IC)	100W

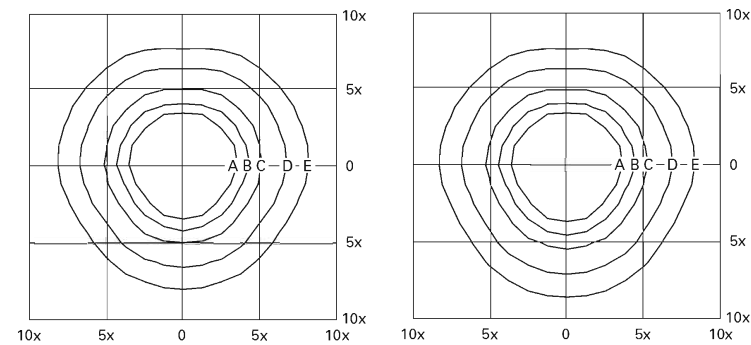
Energy Data
Reactor Ballast Input Watts
 35W HPS HFF (46 Watts)
High Reactance Ballast Input Watts
 50W HPS HFF (62 Watts)
 60W MP HFF (68 Watts)
 70W HPS HFF (88 Watts)
 70W MP HFF (84 Watts)
 100W HPS HFF (116 Watts)
 100W MP HFF (128 Watts)
 100W HPS HFF (170 Watts)
 100W MP HFF (165 Watts)

PHOTOMETRICS



BSL-36-100-MP
 100-Watt MP
 7,900-Lumen Lamp (Coated ED-17)

BSL-36-100-HPS
 100-Watt HPS
 8,800-Lumen Lamp (Coated ED-17)



BRL-36-100-MP
 100-Watt MP
 7,900-Lumen Lamp (Coated ED-17)

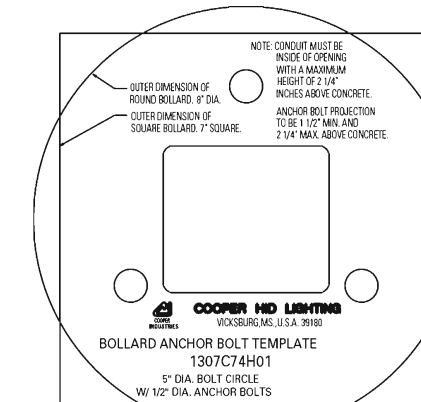
BRL-36-100-HPS
 100-Watt HPS
 8,800-Lumen Lamp (Coated ED-17)

Footcandle Table

Select mounting height and read across for footcandle values of each isofootcandle line. Distance in units of mounting height.

Mounting Height	Footcandle Values for Isofootcandle Lines				
	A	B	C	D	E
42"	1.20	0.60	0.30	0.12	0.06
36"	2.00	1.00	0.50	0.20	0.10
32"	2.40	1.20	0.60	0.24	0.12
28"	3.20	1.60	0.80	0.32	0.16
24"	4.40	2.20	1.10	0.44	0.22

ANCHOR BOLT TEMPLATE (NOT TO SCALE)



ORDERING INFORMATION

Sample Number: BSL-36-100-MH-MT-BK

Product Family	Fixture Height	Lamp Wattage	Lamp Type	Voltage	Color	Options
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Product Family BSL=Square Bollard with Stacked Louvers and Pyramidal Top BRL=Round Bollard with Stacked Louvers and Dome Top	Fixture Height 24=24" 28=28" 32=32" 36=36" 42=42"	Lamp Wattage MP 50=50W 70=70W 100=100W HPS 35=35W ² 50=50W 70=70W 100=100W CF 26= (1) 26W 32= (1) 32W 42= (1) 42W IC 100= 100W	Lamp Type MP=Pulse Start Metal Halide HPS=High Pressure Sodium CF=Compact Fluorescent IC=Incandescent	Voltage ³ 120=120V 208=208V 240=240V 277=277V 347=347V MT=Multi-Tap ⁴ TT=Triple-Tap ⁴ UNV=Universal ⁵ 120-277V	Color ⁶ AP=Grey BZ=Bronze BK=Black WH=White DP=Dark Platinum GM=Graphite Metallic	Options ⁷ F=Single Fuse (120, 277 or 347V) FF=Double Fuse (208, 240 or 480V) L=Lamp Included ⁸ R1=Provisional cut for GFI Receptacle ⁹ R2=Installed GFI Receptacle ⁹ CF/EM=Emergency Battery Pack ¹⁰ AB=Aqua Marine Blue Glass Jar HG=Hunter Green Glass Jar OR=Orange Glass Jar RB=Royal Blue Glass Jar RE= Red Glass Jar
-------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

- Notes: 1 HID lamps are medium base. 175W MH is available for non-U.S. markets only.
 2 35W HPS available in 120V only.
 3 Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information.
 4 Multi-Tap ballast is 120/208/240/277V wired 277V. Triple-Tap ballast is 120/277/347V wired 347V.
 5 Compact Fluorescent only Electronic ballast universal voltage 120-277V.
 6 Other finish colors available, including a full line of RAL color matches. Consult your Cooper Lighting Representative.
 7 Add as suffix in the order shown.
 8 Coated lamp standard. Must specify clear lamp if desired.
 9 Location of R1 and R2 option on housing subject to height of luminaire.
 10 CF lamps only, rated minimum operating temperature 32° F (0° C).

NOTE: Specifications and dimensions subject to change without notice.
 Visit our web site at www.cooperlighting.com



Customer First Center 1121 Highway 74 South Peachtree City, GA 30269 770.486.4800 FAX 770.486.4801

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 2010-06-22 10:28:29
 2010-06-22 10:06:25

Exterior Lighting
 10.29.2015

JOB #



OPUS I at Kraus Farm Office Center
 Chesterfield, Missouri



DESCRIPTION

The Galleria luminaire beauty and versatility make it an excellent choice for roadway and general area lighting applications. An aesthetic reveal in the formed aluminum housing gives the Galleria luminaire a distinctive look while a variety of mounting options and lamp wattages provide maximum flexibility.

The Galleria luminaire superior light distributions makes it the optimum choice for almost any small, medium or large area lighting application.

SPECIFICATION FEATURES

Construction

HOUSING: Formed aluminum housing with stamped reveal has interior-welded seams for structural integrity and is finished in premium TGIC polyester powder coat. U.L. listed and CSA certified for wet locations. **DOOR:** Formed aluminum door has heavy-duty hinges, captive retaining screws and is finished in premium TGIC polyester powder coat. (Spider mount unit has steel door.)

Electrical

BALLAST TRAY: Ballast tray is hard-mounted to housing interior for cooler operation.

Optics

REFLECTOR: Choice of fourteen high efficiency optical systems utilizing horizontal and vertical lamp orientations. Optional high efficiency segmented optical systems constructed of premium 95% reflective anodized aluminum sheet. Optical segments are rigidly mounted inside a thick gauge aluminum housing for superior protection. All segment faces are clean of rivet heads, tabs or other means of attachment which may cause streaking in the light distribution. Standard with mogul-base socket. All optical modules feature quick disconnect wiring plugs and are field rotatable in 90° increments. **LENS:** Convex tempered glass lens or flat glass.

Mounting

Extruded aluminum arm includes internal bolt guides allowing for easy positioning of fixture during assembly. Specify arm-included mounting for contractor-friendly single carton packaging of housing and arm.

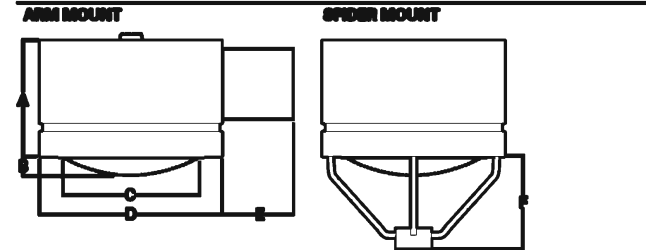
Catalog #		Type	
Project		Date	
Comments			
Prepared by			



GSM/GSL GALLERIA SQUARE

100 - 1000W
Pulse Start Metal Halide
High Pressure Sodium
Metal Halide
ARCHITECTURAL AREA LUMINAIRE

DIMENSIONS

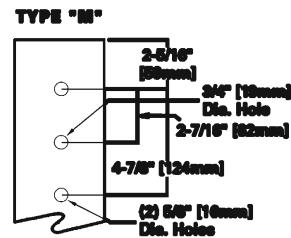


DIMENSIONAL DATA

Fixture	A	B	C	D	E	F
GSM	11" [279mm]	9-1/2" [241mm]	10-1/4" [260mm]	21-3/4" [552mm]	6" [152mm] 14" [354mm]	16" [406mm] 18" [457mm]
GSL	14-1/2" [368mm]	4-1/4" [108mm]	25-7/8" [657mm]	27" [686mm]	6" [152mm] 14" [354mm]	18-3/4" [476mm] 20-3/4" [521mm]

NOTE: Top cap used on GSM with 1000W flat glass vertically lamped optics only.

ARM DRILLING



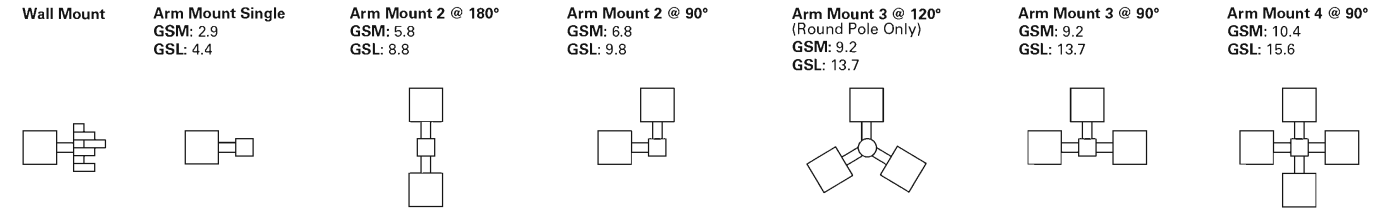
ENERGY DATA

- CSMA Ballast Input Watts
- 150W MP HFF (185 Watts)
- 175W MP HFF (185 Watts) @
- 200W MP HFF (255 Watts) @
- 250W HPS HFF (255 Watts)
- 400W MP HFF (482 Watts) @
- 400W HPS HFF (457 Watts)
- 700W MP HFF (820 Watts)
- 1000W MH HFF (1000 Watts)
- 1000W HPS HFF (1100 Watts)

EPA
Effective Projected Area (Sq. Ft.)
(Without Arm)
GSM: 2.40 GSL: 3.90
(Spider Mount)
GSM: 2.98 GSL: 4.45

SHIPPING DATA
Approximate Net Weight:
GSM: 79 lbs. (36 kgs.)
GSL: 88 lbs. (40 kgs.)

MOUNTING CONFIGURATIONS AND EPAS



ORDERING INFORMATION

Sample Number: GSM-AM-400-MP-MT-3V-SG-BZ-L

Product Family	Mounting Method	Lamp Wattage ⁴	Lamp Type	Voltage ⁹	Distribution ⁶	Lens Type	Color ¹⁷	
GSM=Galleria Square Medium GSL=Galleria Square Large	Arm Mount AM=Arm Mount ¹ AIR=Arm Included for Round Pole ² AIS=Arm Included for Square Pole ² Spider Mount SM2=Spider Mount (3" O.D. Tenon) SM3=Spider Mount (3-1/2" O.D. Tenon) ³	Pulse Start Metal Halide 150=150W 175=175W 200=200W 250=250W 320=320W 350=350W 400=400W ⁵ 450=450W ⁶ 750=750W 875=875W 1000=1000W ⁷	High Pressure Sodium 100=100W 150=150W 250=250W 400=400W 750=750W 1000=1000W ⁷ Metal Halide ⁸ 175=175W 250=250W 400=400W 1000=1000W ⁷	MP=Pulse Start Metal Halide HPS=High Pressure Sodium MH=Metal Halide ⁹	120V=120V 208V=208V 240V=240V 277V=277V 347V=347V 480V=480V MT=Multi-Tap ¹⁰ TT=Triple-Tap ¹⁰ 5T=5-Tap ¹¹	Horizontal Lamp 1F=Type I Formed ¹² 2F=Type II Formed 2S=Type II Segmented ¹³ 3F=Type III Formed 3S=Type III Segmented ¹³ 4S=Type IV Segmented ¹³ 5S=Type V Segmented ¹³ FT=Forward Throw SL=Spill Light Eliminator ¹⁴ CA=Cutoff Asymmetric w/EHS Vertical Lamp AR=Area Round AS=Area Square 3V=Type III Vertical RW=Rectangular Wide ¹⁵	FG=Flat Glass ¹⁶ SG=Sag Glass	AP=Grey BZ=Bronze BK=Black WH=White DP=Dark Platinum GM=Graphite Metallic
Options (Add as Suffix)		Accessories (Order Separately) ²²						
CEC=California Title 20 Compliant Ballast (Applies to 175-320W and 400W MP Only) F=Single Fuse (120, 277 or 347V) FF=Double Fuse (208, 240 or 480V) L=Lamp Included EM=Quartz Restrike w/Delay ¹⁸ Q=Quartz Restrike ¹⁸ R=NEMA Twistlock Photocontrol Receptacle EHS=External Adjustable House Side Shield HS=House Side Shield ^{19,20} VS=Vandal Shield ²¹		GSM-EXTHS=External House Side Shield - 2.24 EPA GSL-EXTHS=External House Side Shield - 2.46 EPA MA1004XX=14" Arm for Square Pole - 1.0 EPA ²³ MA1005XX=6" Arm for Square Pole - 0.5 EPA MA1006XX=Direct Mount Kit for Square Pole MA1007XX=14" Arm for Round Pole - 1.0 EPA ²³ MA1008XX=6" Arm for Round Pole - 0.5 EPA MA1009XX=Direct Mount Kit for Round Pole MA1029XX=Wall Mount Bracket with 10" Arm MA1208XX=11-1/2" Arm and Round Pole Adapter - 0.8 EPA OA1066XX=Mast Arm Adapter MA1010XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1011XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon MA1012XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1013XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon		MA1014XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1015XX=2@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1016XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1017XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1018XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon MA1019XX=3@120° Tenon Adapter for 2-3/8" O.D. Tenon MA1045XX=4@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1048XX=2@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1049XX=3@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1061=House Side Shield for GSM - Field Installed ²⁴ MA1062=House Side Shield for GSL - Field Installed ²⁴ OA/RA1016=NEMA Twistlock Photocontrol - Multi-Tap OA/RA1027=NEMA Twistlock Photocontrol - 480V OA/RA1201=NEMA Twistlock Photocontrol - 347V				

Notes:

- Arm not included. See Accessories.
- Arm length varies based on housing size: 11-1/2" for GSM and 14" for GSL.
- Available on GSL housing only.
- Standard with mogul-base lamp sockets. Wattage availability varies by housing size, see wattage table.
- Requires reduced envelope ED-28 lamp when used with GSM housing and flat glass vertically lamped optics.
- 450W Pulse start metal halide only available in vertical lamp orientations (AR, AS, 3V or RW distributions).
- Requires reduced envelope BF-37 lamp when used with GSM housing.
- 175, 250 and 400W Metal halide available for non-US markets only.
- Products also available in non-US voltages and 50Hz for international markets. Consult factory for availability and ordering information.
- Multi-Tap ballast is 120/208/240/277/480V wired 277V. Triple-Tap ballast is 120/277/347V wired to 347V.
- 5-Tap ballast is 120/208/240/277/480V wired 480V. Only available in 400-1000W.
- Medium housing fixture only.
- Maximum wattage on segmented optical distributions is 400W. 400W Metal Halide lamp must use reduced envelope ED-28 lamp. Not available in GSL housing.
- Must use reduced envelope lamp, not available in GSL housing.
- RW optic not available with flat glass.
- 1000W GSL with flat glass requires BF-37 lamp and is not available in AS, RW, SL or 3V distributions.
- Other finish colors available, including a full line of RAL color matches. Consult your Eaton's Cooper Lighting business representative.
- Quartz options not available with SL optics.
- House side shield not available with 5S, RW, AS, AR, SL and CA optics.
- Not available in 1000W.
- Arm mount only, 400W maximum.
- Replace XX with color suffix.
- Use for mounting fixtures at 90° increments.
- Compatible with sag lens vertical optics only.



JOB #



OPUS I at Kraus Farm Office Center
Chesterfield, Missouri



TD500016EN
2015-03-25 15:04:10



Eaton
1000 Eaton Boulevard
Cleveland, OH 44122
United States
Eaton.com

Eaton's Cooper Lighting Business
1121 Highway 74 South
Peachtree City, GA 30269
P: 770-486-4800
www.cooperlighting.com

Specifications and dimensions subject to change without notice.

TD500016EN
2015-03-25 15:04:10

Exterior Lighting
10.29.2015

DESCRIPTION

The Prevail LED area, site luminaire combines optical performance, energy efficiency and long term reliability in an advanced, patent pending modern design. Utilizing the latest LED technology, the Prevail luminaire delivers unparalleled uniformity resulting in greater pole spacing. A versatile mount standard arm facilitates ease of installation for both retrofit and new installations. With energy savings greater than 62%, the Prevail fixture replaces 150-400W metal halide fixtures in general area lighting applications such as parking lots, walkways, roadways and building areas.

SPECIFICATION FEATURES

Construction

Construction is comprised of a heavy-duty, single-piece die-cast aluminum housing. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. The die-cast aluminum door is tethered to provide easy access to the driver if replacement is required. A one-piece silicone gasket seals the door to the fixture housing. The optics is mounted on a versatile, aluminum plate that dissipates heat from the LEDs resulting in longer life of the fixture. The fixture is IP66 and 3G vibration rated (ANSI C136.31) to insure strength of construction and longevity in the selected application.

Optics

Precision molded, high efficiency optics are precisely designed to shape the distribution, maximizing efficiency and application spacing. Available in Type II, III, IV and V distributions with lumen packages ranging from 6,100 to 15,100 nominal lumens. Light engine configurations consist of 1 or 2 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L92/60,000 hours at 25°C) per IESNA TM-21. For the ultimate level of spill light control, an optional house side shield accessory can be field or factory installed.

Electrical

LED drivers are mounted to the fixture for optimal heat sinking and ease of maintenance. Thermal management incorporates both conduction and convection to transfer heat rapidly away from the LED source for optimal efficiency and light output. Class 1 electronic drivers have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Available in 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. 10kV/10 kA surge protection standard. 0-10V dimming driver is standard with leads external to the fixture to accommodate controls capability such as dimming and occupancy. Suitable for ambient temperatures from -40°C to 40°C. Optional 50°C HA (high ambient) available. Standard NEMA 3-PIN twistlock photocontrol receptacle and NEMA 7-PIN twistlock photocontrol receptacles are available as options.

Controls

The Prevail LED luminaire control options are designed to be simple and cost-effective ASHRAE and California Title 24 compliant solutions. The ANSI C136.41 compliant NEMA 7-PIN receptacle enables wireless dimming when used with compatible photocontrol. An integrated dimming and occupancy sensor is a standalone control option available in on/off (MSP) and bi-level dimming

Catalog #		Type	
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Comments		Prepared by	

(MSP/DIM) operation. The optional LumaWatt system is best described as a peer-to-peer wireless network of luminaire-integral sensors that operate in accordance with programmable profiles. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication.

Mounting

Standard pole mount arm is bolted directly to the pole and the fixture slides onto the arm and locks in place with a bolt facilitating quick and easy installation. The versatile, patent pending, standard mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8". Removal of the door on the standard mounting arm enables wiring of the fixture without having to access the driver compartment. A knock-out on the standard mounting arm enables round pole mounting. Wall mount and mast arm mounting options are available. Mast arm adapter fits 2-3/8" O.D. tenon.

Finish

Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard color is bronze. Additional colors available in white, grey, black, dark platinum and graphite metallic.

Warranty

Five-year warranty.



PRV PREVAIL

LED

AREA / SITE / ROADWAY
LUMINAIRE



CERTIFICATION DATA

UL and cUL Wet Location Listed
IP66-Rated
3G Vibration Rated
ISO 9001
DesignLights Consortium™ Qualified*

ENERGY DATA

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

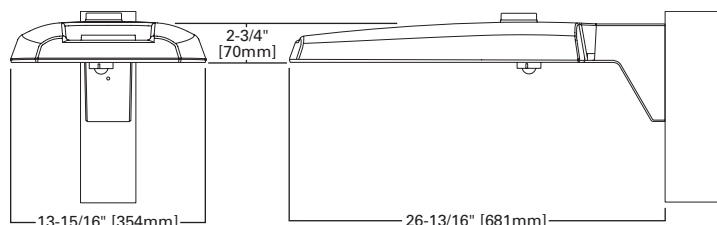
EPA

Effective Projected Area (Sq. Ft.): 0.75

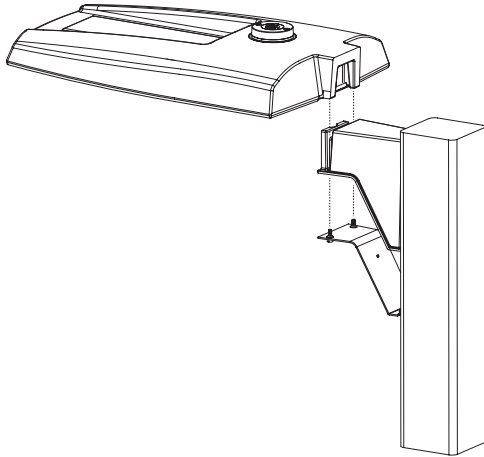
SHIPPING DATA

Approximate Net Weight:
20 lbs. (9.09 kgs.)

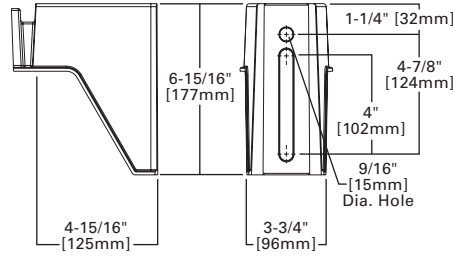
DIMENSIONS



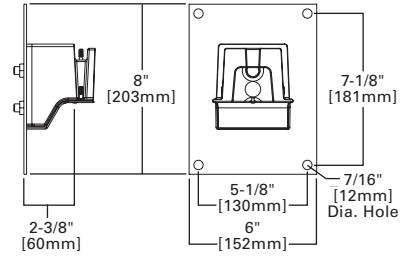
VERSATILE MOUNT SYSTEM



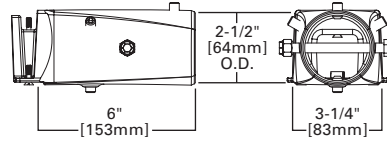
POLE MOUNT ARM (SA)



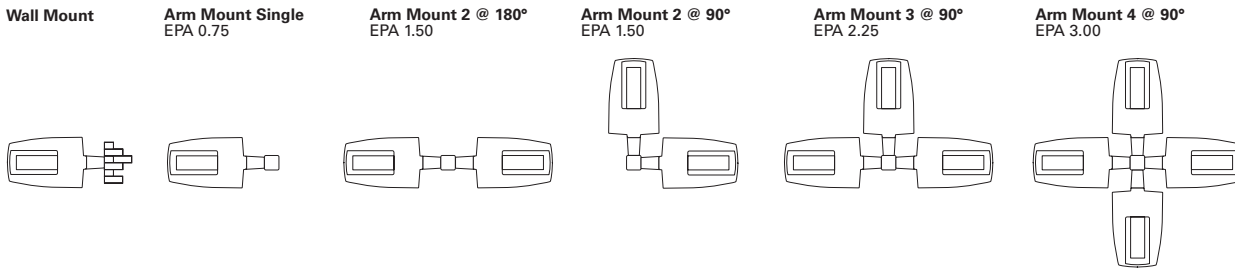
WALL MOUNT (WM)



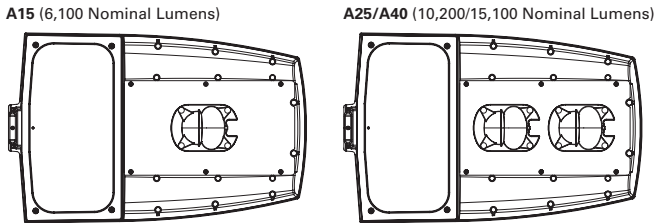
MAST ARM MOUNT (MA)



MOUNTING CONFIGURATIONS AND EPAS



OPTICAL CONFIGURATIONS



POWER AND LUMENS

Light Engine		A15	A25	A40
Nominal Power (Watts)		57W	87W	143W
Input Current @ 120V (A)		0.49	0.76	1.23
Input Current @ 277V (A)		0.22	0.35	0.54
Input Current @ 347V (A)		0.18	0.28	0.45
Input Current @ 480V (A)		0.13	0.21	0.33
Type II	Lumens	6,139	10,204	15,073
	BUG Rating	B1-U0-G1	B2-U0-G2	B3-U0-G3
Type III	Lumens	6,192	10,292	15,203
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3
Type IV	Lumens	6,173	10,261	15,157
	BUG Rating	B1-U0-G3	B2-U0-G3	B2-U0-G4
Type V	Lumens	6,393	10,627	15,697
	BUG Rating	B3-U0-G3	B4-U0-G3	B4-U0-G4

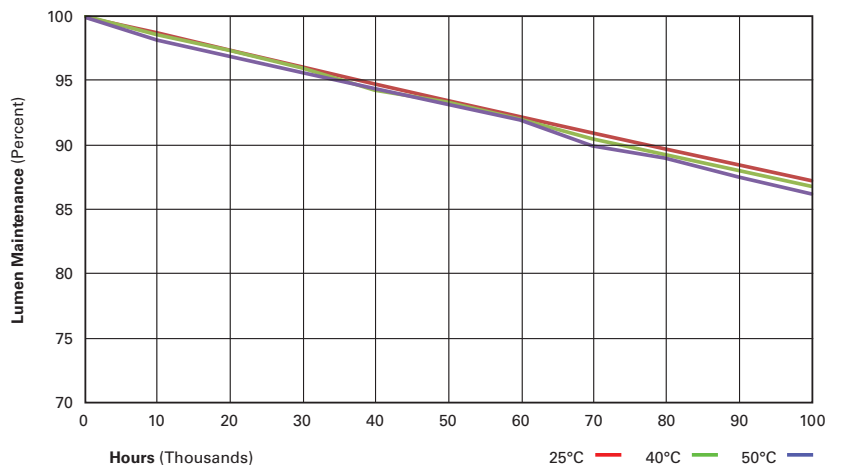
NOTE: Lumen output for standard bronze fixture color. Different housing colors impact lumen output. IES files for the non-standard colors are available upon request.

LUMEN MAINTENANCE

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	Theoretical 100,000 Hours	Theoretical L70 (Hours)*
25°C	> 96%	> 93%	> 92%	> 87%	> 260,000
40°C	> 96%	> 93%	> 92%	> 87%	> 255,000
50°C	> 95%	> 92%	> 91%	> 86%	> 250,000

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99



ORDERING INFORMATION

Sample Number: PRV-A25-D-UNV-T3-SA-BZ

Product Family ¹	Light Engine ²	Driver ³	Voltage	Distribution	Mounting	Color ⁵
PRV=Prevail	A15=(1 LED) 6,100 Nominal Lumens A25=(2 LEDs) 10,200 Nominal Lumens A40=(2 LEDs) 15,100 Nominal Lumens	D=Dimming (0-10V)	UNV=Universal (120-277V) 347=347V 480=480V ⁴	T2=Type II T3=Type III T4=Type IV T5=Type V	SA=Standard Versatile Arm MA=Mast Arm WM=Wall Mount Arm	AP=Grey BZ=Bronze (Standard) BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Options (Add as Suffix)				Accessories (Order Separately) ¹⁰		
7030=70 CRI / 3000K CCT ⁶ 7050=70 CRI / 5000K CCT ⁶ 10K=10kV/10kA UL 1449 Fused Surge Protective Device DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Height ^{7,8} DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height ^{7,8} MSP/DIM-L12=Integrated Sensor for Dimming Operation, 8' - 12' Mounting Height MSP/DIM-L30=Integrated Sensor for Dimming Operation, 12' - 30' Mounting Height MSP-L12=Integrated Sensor for ON/OFF Operation, 8' - 12' Mounting Height MSP-L30=Integrated Sensor for ON/OFF Operation, 12' - 30' Mounting Height PER=NEMA 3-PIN Twistlock Photocontrol Receptacle ⁹ PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle ⁹ HSS=House Side Shield HA=50°C High Ambient Temperature				WM-XX=Wall Mount Kit MA-XX=Mast Arm Mounting Kit SA-XX=Standard Arm Mounting Kit HS/VERD=House Side Shield MA1010-XX=Single Tenon Adapter for 3-1/2" O.D. Tenon MA1011-XX=2@180° Tenon Adapter for 3-1/2" O.D. Tenon MA1012-XX=3@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1013-XX=4@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1014-XX=2@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1015-XX=2@120° Tenon Adapter for 3-1/2" O.D. Tenon MA1016-XX=3@90° Tenon Adapter for 3-1/2" O.D. Tenon MA1017-XX=Single Tenon Adapter for 2-3/8" O.D. Tenon MA1018-XX=2@180° Tenon Adapter for 2-3/8" O.D. Tenon MA1019-XX=3@120° Tenon Adapter for 2-3/8" O.D. Tenon MA1045-XX=4@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1048-XX=2@90° Tenon Adapter for 2-3/8" O.D. Tenon MA1049-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 OA/RA1013=Photocontrol Shorting Cap OA/RA1014=NEMA Photocontrol - 120V OA/RA1016=NEMA Photocontrol - Multi-Tap 105-285V OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V ISHH-01=Integrated Sensor Programming Remote		

NOTES:

- DesignLights Consortium™ Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
- Standard 4000K CCT and 70 CRI.
- Consult factory for driver surge protection values.
- 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).
- Different housing colors impact lumen output. IES files for the non-standard colors are available upon request.
- Extended lead times apply. Use dedicated IES files for 3000K and 5000K when performing layouts. These files are published on the Prevail luminaire product page on the website.
- LumaWatt wireless sensors are factory installed and require network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See website for LumaWatt application information.
- LumaWatt wireless system is not available with photocontrol receptacle (Not needed).
- Not available with MSP or DIMRF options.
- Replace XX with paint color.

STOCK ORDERING INFORMATION

Stock Sample Number: PRVS-A25-UNV-T3

Product Family	Light Engine	Voltage	Distribution	Options (Add as Suffix)
PRVS=Prevail	A15=(1 LED) 6,100 Nominal Lumens A25=(2 LEDs) 10,200 Nominal Lumens A40=(2 LEDs) 15,100 Nominal Lumens	UNV=Universal (120-277V) 347=347V	T3=Type III T4=Type IV	MSP/DIM-L30=Integrated Sensor for Dimming Operation, Maximum 30' Mounting Height

NOTE: Bronze only, 4000K CCT, 120-277V, 347V, standard mounting arm, standard non-fused 10kV MOV and 0-10V dimming.

DESCRIPTION

The TopTier™ parking garage, canopy and low-bay luminaire is an innovative solution that delivers an unparalleled combination of performance and visual comfort. The patented WaveStream™ optical technology blocks the line of sight from the LED light sources to the observer, while extracting the maximum amount of light on task. This approach results in a high level of uniformity and vertical footcandles that enhances safety in the application environment. The TopTier luminaire is UL/cUL listed for wet locations, IP66 and 3G vibration rated.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

One-piece, low copper die-cast aluminum housing provides a clean and symmetric housing. Formed aluminum top is sloped to prevent bird nesting. Metal electrical tray allows for easy electrical access for field servicing.

Optics

Unique optical distributions are accomplished using various combinations of reflective backing plates and WaveStream optical technology. The optical Waveguide is manufactured using precision injection molded acrylic. The optics contain features that form a repeatable and redundant pattern to direct light in a precisely prescribed distribution. For the ultimate level of glare control and visual comfort, specify the SG option which adds a Solite® glass lens that works in combination with the Waveguide lens and reflective backing plate. Offered standard in 4000K (+/- 275K) CCT, optional 3000K and 6000K. Minimum 70 CRI.

Electrical

LED driver(s) are mounted to metal electrical tray for optimal thermal performance. 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 driver(s), specify 5LTD for Fifth Light DALI driver(s) Shipped standard with Cooper Lighting proprietary circuit module designed to withstand 10kV of transient line surge. Greater than 90% lumen maintenance expected at 60,000 hours, based off LM-80 test data and TM-21. Suitable for ambient temperature applications from -40°C (-40°F) to 40°C (104°F). For 50°C (122°F) applications, specify the HA high ambient option. IP66 rated against the ingress of dust and water.

Mounting

Standard fixture mounts to a square or octagonal 4" surface or recessed j-box via heavy-gauge quick mount bracket. With the addition of a field supplied wet location j-box, the luminaire can be pendant mounted to a rigid or free swinging pendant. Optional mounting methods include trunnion mount and wall mount.

Finish

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

Warranty

Five-year warranty.



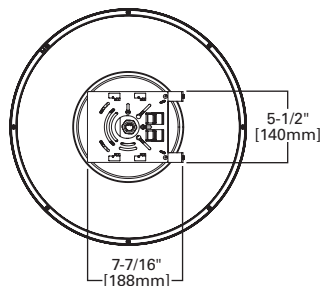
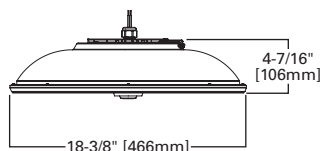
TT TOPTIER LED

Solid State LED

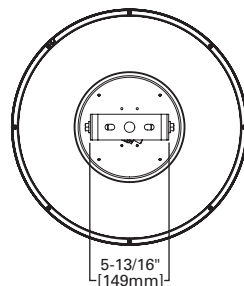
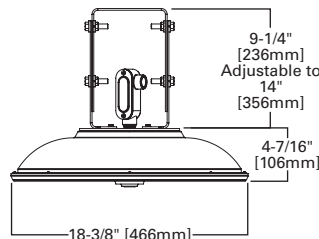
PARKING GARAGE/
CANOPY/
LOW-BAY LUMINAIRE

DIMENSIONS

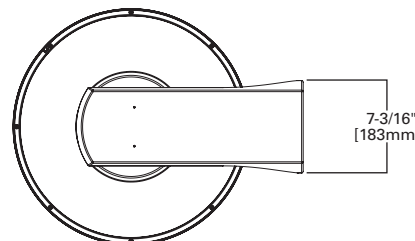
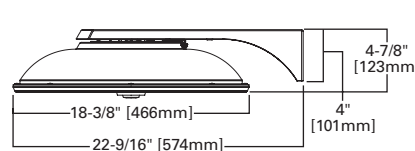
SURFACE OR PENDANT MOUNT



TRUNNION MOUNT



WALL MOUNT



CERTIFICATION DATA

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

ENERGY DATA

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

SHIPPING DATA

Approximate Net Weight:
16 lbs. (7.2 kgs.)

POWER AND LUMENS

Lumen Package			B1	B2	B3	B4	B5	B6
Power (Wattage)			28	34	45	58	77	108
Current @ 120V (A)			0.63	0.31	0.41	0.52	0.69	0.95
Current @ 277V (A)			0.13	0.14	0.19	0.24	0.30	0.41
3000K CCT	Lumens	CQ Concentrated	2,933	3,631	4,613	5,518	7,272	9,438
	Lumens per Watt		105	107	103	95	94	87
	BUG Rating		B1-U0-G1	B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1
	Lumens	MQ Medium	2,890	3,577	4,545	5,436	7,165	9,298
	Lumens per Watt		103	105	101	94	93	86
	BUG Rating		B2-U0-G1	B2-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G2
	Lumens	WQ Wide	2,670	3,305	4,199	5,022	6,619	8,590
	Lumens per Watt		95	97	93	87	86	80
	BUG Rating		B2-U0-G1	B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3
4000K CCT	Lumens	CQ Concentrated	3,334	4,133	5,581	7,198	8,730	11,138
	Lumens per Watt		119	122	124	124	113	103
	BUG Rating		B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G2
	Lumens	MQ Medium	3,285	4,072	5,498	7,091	8,601	10,973
	Lumens per Watt		117	120	122	122	112	102
	BUG Rating		B2-U0-G1	B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3
	Lumens	WQ Wide	3,035	3,762	5,079	6,551	7,946	10,137
	Lumens per Watt		108	111	113	113	103	94
	BUG Rating		B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3
6000K CCT	Lumens	CQ Concentrated	3,390	4,104	5,701	7,157	8,672	11,369
	Lumens per Watt		121	121	127	123	113	105
	BUG Rating		B1-U0-G1	B2-U0-G1	B2-U0-G1	B2-U0-G1	B3-U0-G1	B3-U0-G2
	Lumens	MQ Medium	3,339	4,043	5,617	7,051	8,544	11,201
	Lumens per Watt		119	119	125	122	111	104
	BUG Rating		B2-U0-G1	B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3
	Lumens	WQ Wide	3,085	3,735	5,189	6,514	7,893	10,348
	Lumens per Watt		110	110	115	112	103	96
	BUG Rating		B2-U0-G1	B2-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3

NOTE: Nominal data. For configurations that include glass or occupancy sensor options refer to the specific IES files for lumen output data.

LUMEN MAINTENANCE

Ambient Temperature	Lumen Maintenance				
	25,000 Hours	50,000 Hours	60,000 Hours TM-21 Rating	100,000 Hours	Theoretical L70 (Hours) Per TM-21 Data
B1 Lumen Package					
25°C	> 96%	> 95%	> 95%	> 93%	> 500,000
40°C	> 96%	> 94%	> 94%	> 93%	> 500,000
50°C	> 95%	> 94%	> 93%	> 93%	> 400,000
B2 Lumen Package					
25°C	> 96%	> 95%	> 95%	> 93%	> 500,000
40°C	> 95%	> 94%	> 93%	> 91%	> 500,000
50°C	> 95%	> 93%	> 92%	> 90%	> 400,000
B3 Lumen Package					
25°C	> 96%	> 93%	> 93%	> 89%	> 300,000
40°C	> 95%	> 91%	> 90%	> 85%	> 240,000
50°C	> 95%	> 90%	> 89%	> 83%	> 200,000
B4 Lumen Package					
25°C	> 96%	> 95%	> 95%	> 93%	> 500,000
40°C	> 95%	> 92%	> 92%	> 88%	> 300,000
50°C	> 94%	> 91%	> 90%	> 85%	> 250,000
B5 Lumen Package					
25°C	> 96%	> 93%	> 92%	> 88%	> 300,000
40°C	> 94%	> 90%	> 89%	> 83%	> 200,000
B6 Lumen Package					
25°C	> 95%	> 92%	> 90%	> 86%	> 250,000
40°C	> 95%	> 92%	> 91%	> 86%	> 250,000

ORDERING INFORMATION

Sample Number: TT-B2-LED-E1-WQ-AP

Product Family ¹	Lumen Package	Lamp Type	Voltage	Distribution	Mounting	Color
TT=TopTier	B1=Nominal 3,000 Lumens B2=Nominal 4,000 Lumens B3=Nominal 5,000 Lumens B4=Nominal 7,000 Lumens B5=Nominal 9,000 Lumens ^{2,3,4} B6=Nominal 11,000 Lumens ^{2,3,4}	LED=Solid State Light Emitting Diodes	E1=Electrical (120-277V) ⁵ 347=347V 480=480V ⁶	CQ=Concentrated MQ=Medium WQ=Wide	[BLANK]=Surface or Pendant Mount TMB=Trunnion Mount with Connection Box WM=Wall Mount	[BLANK]=White AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic
Options (Add as Suffix)				Accessories (Order Separately)		
7060=70 CRI / 6000K ⁷ 8030=80 CRI / 3000K ⁷ 30L=Extra Long 30" Wires ⁸ HA=50°C High Ambient ^{2,9} CG=Clear Glass ¹⁰ SG=Solite [®] Glass ¹¹ TR=Tamper Resistant Hardware X=Driver Surge Protection Only 5LTD=Fifth Light DALI Driver(s) ^{5, 7, 8, 12, 13, 14} IBP=Integral Battery Pack (Specify 120V or 277V. Must Specify Voltage) ^{3,9} ICP=Integral Cold Weather Battery Pack (Specify 120V or 277V. Must Specify Voltage) ^{4,9} DOS=Dimming Occupancy Sensor (8' - 20' Mounting) ¹⁵ DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens (8' - 16' Mounting) ¹⁶ DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens (16' - 40' Mounting) ¹⁶				FSIR-100=Wireless Configuration Tool for Occupancy Sensor ¹⁵ MA1252=10kV Circuit Module Replacement		

- NOTES:**
- DesignLights Consortium[®] Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details.
 - The B5 and B6 lumen packages are not available with the HA high ambient option.
 - The IBP option is only available in 120V or 277V, must specify voltage. 0°C minimum, 25°C maximum ambient temperature. Not available with B6 lumen package.
 - The ICP option is only available in 120V or 277V, must specify voltage. -20°C minimum, 25°C maximum ambient temperature. Not available with B6 lumen package.
 - Replace E1 with specific voltage when selecting the 5LTD option (120, 208, 240 or 277V).
 - 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).
 - Extended lead times apply.
 - Not available with WM or TMB mounting options.
 - The 5LTD, IBP and ICP options are not available with dimming (DIM, DOS, DIMRF-LN or DIMRF-LW) or the HA high ambient option.
 - CG clear glass option only available with MQ and WQ distributions.
 - SG (Solite[®] glass) – Included as standard with the CQ distribution. Only available with WQ distribution.
 - Not available in combination with the IBP and ICP options.
 - Multiply published IES files by .95 when 5LTD is used with the B5 or B6 lumen package.
 - Not available with B6 lumen package.
 - 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.
 - DIMRF-LN and DIMRF-LW are not available in 347 or 480V.



FOUNTAIN FEATURE EXAMPLES
Opus I at Kraus Farm Office Center