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## **Planning Commission Staff Report**

Project Type:	Amended Site Development Section Plan	
Meeting Date:	December 10, 2018	
From:	Andrew Stanislav, Planner	
Location:	14647 Ladue Road	
Description:	Trails West Village of Green Trails (Chesterfield Community Church): An Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations and Architect's Statement of Design for an 8.47 acre tract of land zoned "NU" Non-Urban and "R-2" Residence (15,000 square feet) located at the eastern corner of the intersection of Olive Boulevard and Ladue Road.	

#### **PROPOSAL SUMMARY**

Civil Engineering Design Consultants (CEDC), on behalf of Chesterfield Community Church, has submitted a request for an 8,750 square foot addition to Chesterfield Community Church, an existing place of worship located at the eastern corner of the intersection of Olive Boulevard and Ladue Road. The subject site is zoned "NU" Non-Urban and "R-2" Residence (15,000 square feet). The exterior building materials will primarily consist of EIFS with a brick veneer wainscoting and areas of fiber cement lap siding accents. Rooftop-mounted mechanical equipment will be screened by parapet walls and a trash enclosure will be six feet in height and match the fiber cement lap siding material used on the building's façade. The overall design proposed for the building addition is intended to complement rather than replicate the existing sanctuary building.



Figure 1: Site Aerial Image

#### **HISTORY OF SUBJECT SITE**

The subject site was zoned "NU" Non-Urban and "R-2" Residence (15,000 square feet) by St. Louis County prior to the City's incorporation. According to St. Louis County records, the existing building was built in 1970 with an addition in 1985. Figure 2 below depicts the historic nature and delineation of the split zoning of "NU" and "R-2" on the subject site, as well as the historic zoning of surrounding areas. The larger base map in figure 2 is from a petition filed in 1968, and the zoomed-in perspective identified in red is from a petition filed in 1976, both of which depict a consistent split zoning as is the current status of the subject site. Since the City's incorporation, there have been no requests to rezone the property nor submittals of any development plans for review.

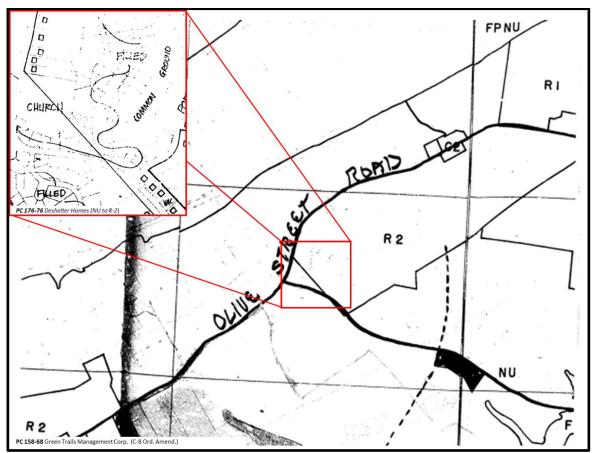


Figure 2: Historic Zoning Map Imagery of Subject Site

A Boundary Adjustment Plat (BAP) was recorded in 1984 to consolidate multiple lots into two separate larger parcels. Currently, the two parcels comprising the subject site are proposed for further consolidation to create one large parcel for the church property. The existing property boundaries and easements are recognized on the Amended Site Development Section Plan (as seen in Figure 5 on page five of this report) and are noted to indicate the intention of the applicant to consolidate these parcels. A Boundary Adjustment Plat for this consolidation is anticipated to be submitted for review by City Staff and considered by City Council in the near future. The consolidated property boundaries are also depicted in the property outline area in Figure 1 above.

## LAND USE AND ZONING OF SURROUNDING PROPERTIES

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

Direction	Zoning	Land Use
North	"R-2" Residence (15,000 sq.ft.) District	Single-family residential, detached
South	"NU" Non-Urban District	Single-family residential, detached
East	"R-2" Residence (15,000 sq.ft.) District	Single-family residential, detached
West	"R-3" Residence (10,000 sq.ft.) District	Single-family residential, attached

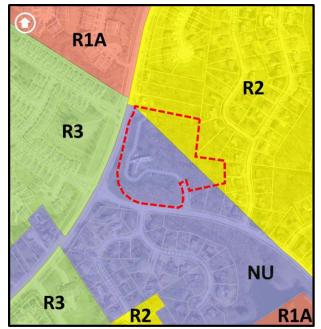




Figure 3: Zoning Map

Figure 4: Comprehensive Land Use Plan

#### **COMPREHENSIVE PLAN ANALYSIS**

The subject site is located at the eastern corner of the intersection of Olive Boulevard and Ladue Road within the Trails West Village of Green Trails subdivision and is adjacent to residential uses on all sides. This site is also located within Ward 1 of the City of Chesterfield and is within the "Residential Single-Family (Attached/Detached)" land use designation, as well as all surrounding properties per the City's Land Use Plan as seen in Figure 4 above. The Comprehensive Plan identifies this designation as incorporating detached single-family dwellings, and 2 or 3 attached single-family dwellings; however, the proposed development fits within its surrounding context as churches and places of worship are permitted as a public use within all residential zoning districts.

The Comprehensive Plan includes policies that apply to non-residential developments, including policies that account for the location of non-residential developments near or adjacent to existing residential neighborhoods:

• <u>3.1.1 Quality of Design</u> – Overall design standards should provide 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.

The Comprehensive Plan recognizes the pressure for new or additional development in the City and includes policies, such as that stated above, in order to ensure high-quality design and development standards are maintained. The proposed building addition at Chesterfield Community Church intends to produce a complementary design to the original structure while also providing greater pedestrian circulation, enhancing the existing landscaping and parking areas, and remaining thoughtful of the development's location near residential uses and the existing woodland area.

• <u>**3.1.2 Buffering of Neighborhoods</u>** – Development should substantially buffer the neighboring residential uses in all directions by employing good site design, addressing vehicular access, building materials selection, tree preservation, and expanded setbacks.</u>

This policy intends to enhance the compatibility of a non-residential development adjacent to existing residential uses both functionally and visually. The proposed development intends to adhere to this policy with significant tree preservation (approximately 93 percent) and by preserving the central location of the building along the western portion of the site fronting Olive Boulevard. Preservation of existing trees and woodlands is proposed to the north, south, and east, with additional landscaping proposed along the Olive Boulevard frontage. Other than additional parking spaces to meet the capacity of the addition, vehicular access and circulation will remain unchanged on the subject site.

 <u>3.3.1 Development Between Nodes</u> – Development along arterial roads between welldefined nodes of commercial development should include single-family residential or institutional uses that do not require rezoning.

This policy intends to preserve existing residential and institutional areas along arterial roads or corridors between more dense nodes of commercial development. Along this arterial of Olive Boulevard, the proposed development complies with this requirement as rezoning is not required and the existing institutional use of Chesterfield Community Church will remain consistent.

 <u>7.2.4 Encourage Sidewalks</u> – Sidewalks should be required of all new developments and encouraged along existing roads in the City of Chesterfield, allowing creative placement to protect the natural environment.

The Comprehensive Plan recognizes the significance of pedestrian connectivity through the incorporation and placement of sidewalk infrastructure. In conformance with this policy, the proposed development will enhance both on- and off-site pedestrian access. The proposed development plans to provide a connection between the existing sidewalk along Ladue Road and

the future sidewalk improvements planned by MoDOT along Olive Boulevard. A connection between the existing sidewalk along Ladue Road and the existing cross walk at the intersection of Ladue Road and Olive Boulevard is also proposed, as well as a continuation of the existing Ladue Road sidewalk onto the subject property to provide pedestrian access to the new entry gathering plaza. The proposed sidewalk layout can be referenced in Figure 5 below.

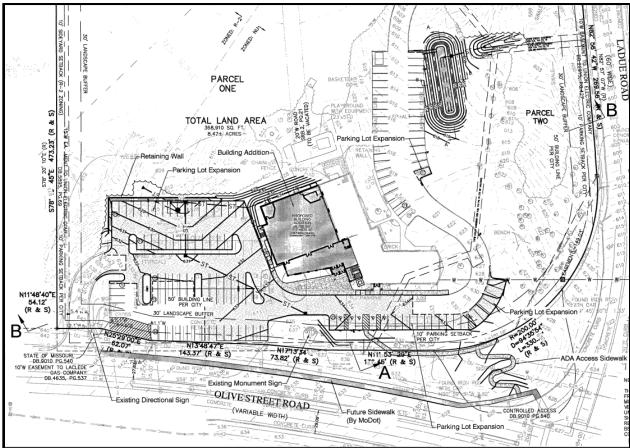


Figure 5: Portion of Site Development Section Plan (Plan Sheet SDP2)

#### **STAFF ANALYSIS**

#### Zoning

The subject site is zoned "NU" Non-Urban and "R-2" Residence (15,000 square feet). The majority of the site is zoned "NU" Non-Urban, which comprises the entirety of the proposed building addition, with only the northeast corner of the proposed parking area expansion (about three parking spaces) located within the "R-2" Residence portion of the subject site. The boundary line between the "NU" and "R-2" zoning districts is delineated on the submitted plan sheets as depicted in Figure 5 above, which can also be referenced on the zoning map in Figure 3 above.

The submittal was reviewed against all applicable City Code requirements and the proposed development adheres to these requirements.

#### **Circulation System & Access**

The subject site is currently served by a single access point at the north end of the property from Olive Boulevard, a MoDOT maintained roadway, and by one additional eastern access point leading to Ladue Road which is maintained by the City. Both existing access drives are proposed to remain unchanged, and no additional access points are proposed. Circulation within the site along the main drive aisles will also remain unchanged, although additional parking spaces are proposed on the east side of the existing northern parking area as well as converting a former row of parallel parking spaces to additional 90 degree parking spaces to the west of the existing sanctuary.

There is an existing sidewalk along the frontage of Ladue Road that follows the large right-of-way boundary and wraps away from the paved roadway to a dead end. This sidewalk is proposed to continue to lead onto the subject property and provide pedestrian access to the building and entry plaza. The applicant has also been working with MoDOT to coordinate installation of sidewalk along Olive Boulevard and connections to the existing sidewalk on Ladue Road. Future sidewalk installation plans proposed by MoDOT are depicted on the plans for this development as illustrated in Figure 5 above.

#### Topography, Parking, & Retaining Walls

The site has a generous slope to the east that allows for the existing building to have a walk-out lower level. When on the site, areas for parking and along the western elevation of the existing building are generally flat. The driveway connecting the two parking areas follows the mentioned slope before reaching the relatively flat eastern parking area on the same level as the walk-out basement. Two existing retaining walls provide relief from the sloping terrain near the parking area to the west along Olive Boulevard and on the eastern elevation of the existing building near the playground.

In total, 138 parking spaces are proposed for the subject site. Additional parking spaces required as part of this development will be located to the east of the existing northern parking area and to the west of the existing building in place of some existing parallel parking spaces. A versa-lok retaining wall of approximately 17 feet in height is proposed to accommodate the parking spaces expanding the northern parking area where the slope of the site interferes with having a level grade. The existing woodland area surrounding this retaining wall provides screening to the north and east. Five ADA parking spaces are located within the new parking area to the west of the existing building where the sidewalk is proposed to extend and provide access onto the site.

#### Landscape Design and Screening

Several different areas of landscaping are proposed for the site. Existing trees and woodland areas on the site are proposed to remain as buffers, most notably along Ladue Road to the south as well as to adjacent residential properties to the north and east. This existing landscaping will be enhanced along Olive Boulevard by incorporating street trees and a landscape buffer. Trees and landscaping are also proposed throughout the parking areas, as well as along the south and west elevations of the building between the parking area and walkways.

A written request was received and approved by the Department of Planning and Development Services, in accordance with Section 31-04-02 of the Unified Development Code (UDC), to modify the 30-foot landscape buffer requirement along Olive Boulevard. One part of the request is to provide five feet of the required 30-foot buffer within the MoDOT right-of-way along Olive Boulevard in order to reorient the existing parallel parking spaces to 90-degree spaces. The second portion of the request is also in regard to the required 30-foot buffer along Olive Boulevard. The existing parking area on the north end of the site was constructed prior to the adoption of the current landscape buffer requirements and is not capable of complying. While there is not adequate spacing for the 30-foot buffer, street trees and other plantings will be installed in this area. The applicant has received approval from MoDOT to plant in the right-ofway in order to mitigate these constraints.

Screening systems for the mechanical units and trash enclosure are proposed to match or be integrated within the building's design. Rooftop-mounted mechanical units are screened by parapet walls of the new sanctuary and entry tower feature, and a six-foot sight-proof trash enclosure is proposed on the far end of the eastern parking area with fiber cement lap siding and trim to match the accent features of the new sanctuary addition.

#### Lighting

Lighting is planned in association with the proposed development as required by the City of Chesterfield. The proposed lighting plan consists of fixtures proposed in the parking area and western building façade near the new gathering entry plaza for navigating the site. All proposed exterior lighting fixtures are flat lensed, utilitarian, and are directed downward. In total, there are eleven proposed locations around the entire parking area for fixtures and four wall-mounted sconces near the doorways of the gathering entry plaza.

#### **Architectural Elevations**

The primary exterior material of the building is EIFS in two different complementary colors to the existing building. The primary EIFS color will be similar to the existing building, and a blue/gray EIFS is proposed on upper wall areas of the proposed sanctuary space to complement features of the existing building. A brick veneer wainscoting is proposed to surround the addition on all exposed elevations, and fiber cement lap siding is proposed to serve as a darker accent material on the entry plaza's tower feature as well as the northwest corner of the new sanctuary mass and other parapet walls or screening. Metal-clad canopies are also proposed as accent features over certain windows of the proposed addition as well as over the doorways forming the new gathering entry plaza. The Architect notes of these materials in the Statement of Design that the "EIFS and brick veneer pick up on existing material, with the brick wainscot providing durability near the ground, while the brick color is different to provide a complement rather than trying to make a difficult color match." The application of these materials and the color choices are illustrated in the elevations in Figure 6 below.

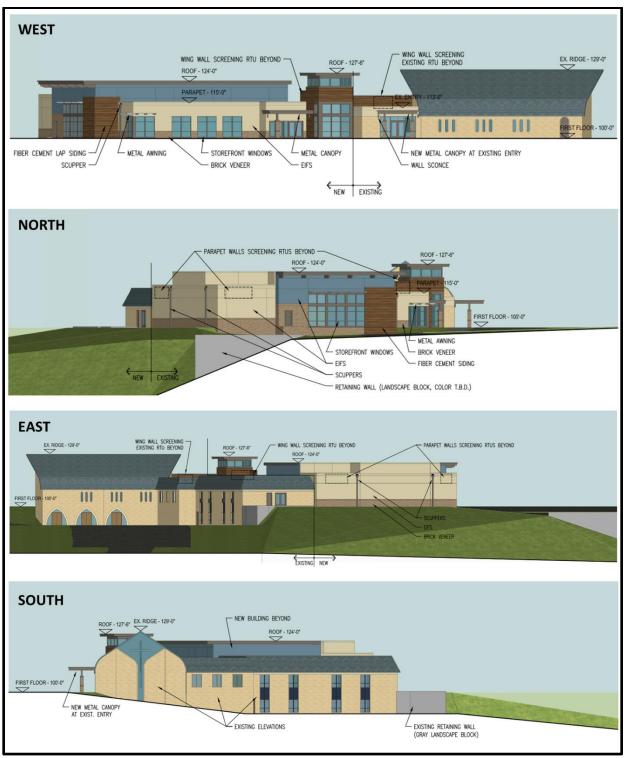


Figure 6: Building Elevations

### **ARCHITECTURAL REVIEW BOARD INPUT**

This project was reviewed by the Architectural Review Board on November 8, 2018. At that meeting, the Board recommended approval with three conditions.

• Incorporate more articulation to the front plaza area to break down the vast amount of concrete.

The applicant has since revised their plans to incorporate more articulation at the proposed outdoor entry plaza gathering area. The modified concrete design in this area is depicted in Figure 5 on page five of this report.

• Revise the elevations to accurately show the windows on the front elevation.

The applicant has revised the building elevations and rendering to better reflect the existing conditions of the current sanctuary building that are proposed to remain unchanged. Specifically, these revisions are noticed on the West elevation in Figure 6 on the prior page depicting a series of smaller oval-shaped windows on the existing portion of the building that will remain unaffected as part of this project.

• Provide railing details for the emergency stairway as shown on the color rendering and incorporate the proposed brick veneer on the sides of the stairway.

The applicant has since revised their architectural elevations and rendering to incorporate the brick veneer on the sides of the emergency stairway exiting the proposed addition along the north elevation of the building, and a detail of the emergency stairway railing has also been added to the plans.

#### **STAFF RECOMENDATION**

Staff has reviewed the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design and has found the proposal to be in compliance with the Comprehensive Plan and City Code requirements. Staff recommends approval of the proposed development of the Chesterfield Community Church building addition.

#### 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, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for the Chesterfield Community Church building addition."
- 2) "I move to approve (or deny) the Amended Site Development Section Plan, Landscape Plan, Lighting Plan, Architectural Elevations, and Architect's Statement of Design for the Chesterfield Community Church building addition with the following conditions..." (Conditions may be added, eliminated, altered, or modified).

Attachments: Amended Site Development Section Plan Landscape Plan Tree Stand Delineation Tree Preservation Plan Lighting Plan Lighting Cut Sheets Architect's Statement of Design Color Elevations Rendering



6014 DELMAR BOULEVARD

SAINT LOUIS, MISSOURI 63112

314.863.1313 FAX 314.863.1393

email: stlda@stlda.com

October 25, 2018

Dept of Planning and Development Services 690 Chesterfield Pkwy W Chesterfield, MO 63017

Re: Addition to Chesterfield Community Church

To Whom It May Concern,

We are providing the following statement of design from the Architect regarding the proposed addition for Chesterfield Community Church:

The addition creates a gathering plaza at the new main entry, which connects to curb ramps providing accessible routes to parking. Parking is mostly extended to the northeast, away from Olive Boulevard, and where new spaces are added on the west side near Olive, landscaping on top of the existing berms provides a screen. Several new trees in and around the main parking lot soften the view from the road, while leaving gaps for viewing the new entry and plaza and a direct view of the new sanctuary from the north entry drive. Extensive existing wooded areas screen the church, including the new addition, from neighboring residences to the north, east and south. Landscaping areas provide color along the perimeter of the addition and screen a new transformer location. A trash enclosure will be introduced to the northeast corner of the lower level parking lot, well away from the building and with minimum visibility from Ladue Road; it will be clad with fiber cement lap siding matching the accent areas of the new addition. At the northeast corner of the extended upper parking lot, a landscape block retaining wall falls away from the parking, minimizing visibility; the drop is guarded with a black aluminum fence.

The addition itself connects to the existing building with a lower section of similar height to the existing entry, maintaining a smaller scale for the new entry. EIFS and brick veneer pick up on existing material, with the brick wainscot providing durability near the ground, while the brick color is different to provide a complement rather than trying to make a difficult color match. Fiber cement lap siding highlights the tower adjacent to the main entry, and reappears on the prominent northwest corner of the new sanctuary mass, closest to the parking lot. The fiber cement siding also serves as background to two new signs on the building. The sanctuary mass rises up taller than the entry/foyer space, balancing the existing tall sanctuary to the south. The blues and grays of the upper sanctuary walls and roof echo the blue-gray shingles of the existing sanctuary. To the east, tall parapets screen rooftop units sitting above lower-ceilinged storage rooms. Next to the new stair tower, a wing wall screens an additional rooftop unit. Metal-clad canopies cover the new entry and existing entry on the west.

Sincerely, David P. Mastin, AIA

## **CYLINDER** 6x14 LED 6" aperture open, precision optic

VR series, 1000 to 3500 lumen

City of Chesterfield Department of Public Ser

3 1/2"

2 3/4"

Mount to 4"0-bo

0

RECEIVED

architectural

2018

#### CHESTERFIELD COMM CHURCH

Architectural 6"x14" LED

Surface mount

G Catalog humber

ordering data

Type:

SERIES

SI EDG14

## LED cylinder | 120-277 Volt

Spun aluminum cylinder and trim offered in matching finishes. Trim also offered in Haze. Inner optic is in six beam angles and is only offered in a faceted ultra-bright finish.

Textured polyester powdercoat on exterior finish available in black, white, bronze or metallic silver. Other finishes available consult factory.

Pendant fixtures feature a 5/8" OD mounting stem with a swivel canopy that self-adjusts up to 45° to accommodate slope ceilings. Factory standard stem length is 12". Pendant mount for indoor applications only.

Cord mount fixtures have a standard 6-foot black power cord. White cord supplied on white fixtures only. L - Factory standard cord is 6 feet, field adjustable to shorter lengths. Dimming not available with coil cord options.

Wall mount fixtures have a cast aluminum mounting arm that is 4 5/8"W x 4 7/8"H.

5-vear LED component warranty details at atlantic-lighting.com/main/support.

#### **Bridgelux Vero 18 Array Series**

- 80 CRI is standard and a 90 CRI option is offered. With the 90 CRI option, lower lumen output and reduced lumens per watt will be experienced.
- Rated Life: 50,000 hours at 70% lumen maintenance (L70) when maintained in a 35°C ambient environment with open air flow. Ambient temperatures lower than 35°C may extend life.

#### **Electronic Driver**

 0-10V dimming to 1% (Dimming not offered with coil cord options)

#### Heat Sink

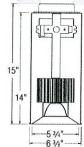
 Black anodized passive heat sink designed for maximum heat dissipation.

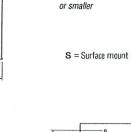
Listed to UL 1598 and Canadian standards for Damp Location. Intended for indoor applications only. Available photometrics at atlantic-lighting.com.

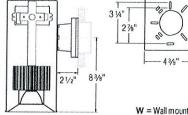
Specifications and dimensions subject to change without notice.

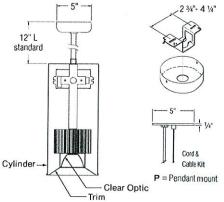












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10W	80	945	800-1145	
15W	80	1310	1105-1585	
20W	80	1830	1550-2218	
25W	80	2485	2105-3005	
35W	80	3470	2935-4200	
10W	90	795	670-960	
15W	90	1100	930-1330	
20W	90	1535	1300-1855	
25W	90	2085	1765-2525	
35W	90	2915	2470-3530	

Lumens shows true delivered values for 35K color temp, adjusted shows the range from 27K-5K

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	B60	60° beam angle
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	VR15	15 watts
	VR20	20 watts
	VR25	25 watts
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	ЗК	3000K (80 CRI)
	35K	3500K (80 CRI)
	4K	4000K (80 CRI)
	5K	5000K (80 CRI)
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	2WR	2-wire. TRIAC forward-phase or
		ELV reverse-phase (100%-1%)
		(120V only)
1/4"	DAL	DALI (Type 6, IEC62386)
74		Driver; Dimming to 0.1%
	DMX	DMX Driver with RDM
		capability; Dimming to 0.1%
		(not available on cord mount)
	347V	Contact factory
	TRIM	COLORS
	WH	White
	BL	Black
	BR	Bronze
	MS	Metallic silver
/4"	HZ	Haze clear (etched)
	CC	Custom color (consult factory)
	CYLIN	IDER FINISHES
	WH	White
	BL	Black
unt	BR	Bronze
	MS	Metallic silver
	CC	Custom color (consult factory)
	OPTIC	
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	NTING OPTIONS
P18	18" pendant length
P24	24" pendant length
P36	36" pendant length
P48	48" pendant length
FC	Field cut kit
Cxx	Cord mount with custom length replace xx with length in feet
CA	Cord and cable, 6 ft. standard
CAxx	Cord and cable, custom length replace xx with length in feet
CCA	Coil cord and cable, adjustable from 2 to 8 feet in length

9CR

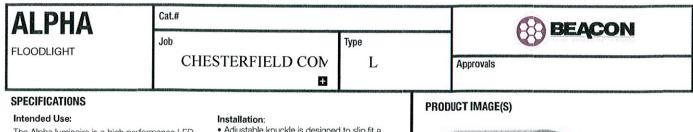
90 CRI, effects lumens per watt



#### P/N Example: SLED614-B35-VR15-27K-WH-WH

#### SLED614-B35-VR15-27K-WH-WH

surface mount	watts	temp		cylinder finish	r
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The Alpha luminaire is a high performance LED lighting solution designed with optical versatility. It is intended to be used to reduce energy and maintenance costs associated with legacy HID lighting technology. Markets include large areas requiring perimeter lighting, security lighting, truck terminals, car lots, recreational sports lighting, airport ramp lighting, and building flood lighting.

#### Construction:

 Housing, electrical compartment and fitter are all made from die case aluminum that is pre-treated and powder-coated to meet the most rugged industry standards.

#### LED/Optics:

- Provides the best combination of vertical and horizontal illumination while reducing light behind the poles.
- Features revolutionary individual LED optical control based on high performance TIR optical designs.
- Features a protective lens cover.
- The precisely-designed optics result in fewer poles and fixtures that use less energy, leading to lower life-cycle costs along with lower up front installation costs.

#### Electrical:

- Fixture electrical compartment contains all LED driver components and is provided with a push-button terminal block for AC power connections.
- Optional 7-pin ANSI C136.41-2013 twist-lock photo control receptacle that is compatible with ANSI C136.41 external wireless control devices.
- 20kA surge protection
- Lifeshield<sup>TM</sup> Circuit protects luminaire from excessive temperature by interfacing with the O-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits are designed to ensure maximum hours of operation to assure L70 rated lumen maintenance.

#### Controls/Options:

- Available with Energeni for optional set dimming, timed dimming with simple delay, or timed dimming based on time of night (see www.beaconproducts.com/ products/energen).
- In addition, Alpha can be specified with SiteSync<sup>TM</sup> wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit <u>http://www.hubbelliighting.com/sitesync/</u> for more details

- Adjustable knuckle is designed to slip fit a 2 3/8" to 3" O.D. tenon.
- Specialized knuckle provides continuous aiming adjustment without the use of cast serrations.
- Luminaire can adjust from -30° to 90° from horizontal when in the upright position (only
- when Twist Lock photocell is not being used). • Photo control option can only be used when
- fixture is aimed below horizontal position.The luminaire must be mounted in the upright position as pictured.

#### Finish:

- IFS polyester powder-coat electro-
- statically applied and thermocured.IFS finish consists of a five stage
- pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish.
- The finish meets the AAMA 2604 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds.

#### Listings:

- The luminaire is NRTL certified to UL 1598 and 8750 standards for wet locations.
  OCA 02 0#050 10 14
- CSA 22.2#250.13-14

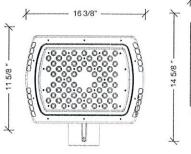
#### Warranty:

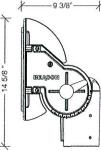
Five year limited warranty for more information visit:

www.hubbelllighting.com/resources/warranty

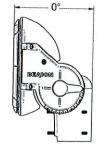


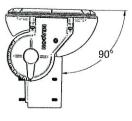
#### DIMENSIONS

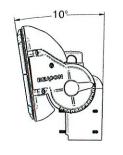


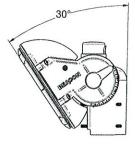


Standard SF3 mount Slips 2 3/8" to 3" O.D. Tenon









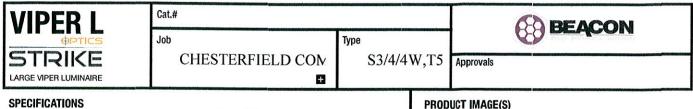




**CERTIFICATIONS/LISTINGS** 

US

Beacon Products • 2041 58th Avenue Circle East Bradenton, FL 34203 • Phone: 800-345-4928 Due to our continued efforts to improve our products, product specifications are subject to change without notice. © 2016 BEACON PRODUCTS, All Rights Reserved • For more information visit our website: www.beaconproducts.com • Printed in USA June 18, 2018 3:54 PM



#### SPECIFICATIONS Intended Use:

The Beacon Viper luminaire is available in two sizes with a wide choice of different LED wattage configurations and optical distributions designed to replace HID lighting up to 1000W MH or HPS. Luminaires are suitable for wet locations.

#### Construction:

- · Manufactured with die cast aluminum.
- · Coated with a polyester finish that meets ASTM B117 corrosion test requirements and ASTM D522 cracking and loss of adhesion test requirements.
- External hardware is corrosion resistant.
- · One piece optical cartridge system consisting of an LED engine, LED lamps, optics, gasket and stainless steel bezel.
- · Cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece optical system.
- Two-piece silicone and microcellular polyurethane foam gasket ensures a weather-proof seal around each individual optic.

#### **Electrical:**

- · Luminaire accepts 100V through 277V, 50 Hz to 60 Hz (UNV), 347V, or 480V input.
- Power factor is ≥ .90 at full load.
- · Dimming drivers are standard, but must contact factory to request wiring leads for purpose of external dimming controls.
- Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is certified by UL for use at 600VAC at 90°C or higher.
- · Plug disconnects are certified by UL for use at 600 VAC, 13A or higher. 13A rating applies to primary (AC) side only.
- · Fixture electrical compartment shall contain all LED driver components and shall be provided with a push-button terminal block for AC power connections.
- Optional 7-pin ANSI C136.41-2013 twist-lock photo control receptacle available. Compatible with ANSI C136.41 external wireless control devices.
- Ambient operating temperature -40°C to 40°C Surge protection - 20kA.
- Lifeshield<sup>™</sup> Circuit protects luminaire from excessive temperature. The device shall activate at a specific, factory-preset temperature, and progressively reduce power

over a finite temperature range. Operation shall be smooth and undetectable to the eye. Thermal circuit is designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers. The device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.).

#### Controls/Options:

- · Available with an optional passive infrared (PIR) motion sensor capable of detecting motion 360° around the luminaire. When no motion is detected for the specified time. the motion response system reduces the wattage to factory preset level, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration. · Available with Energeni for optional set
- dimming, timed dimming with simple delay, or timed dimming based on time of night (see www.beaconproducts.com/products/energeni).
- In addition, Viper can be specified with SiteSync<sup>™</sup> wireless control system for reduction in energy and maintenance costs while optimizing light quality 24/7. For more details, see ordering information or visit: www.hubbelllighting.com/sitesync

#### Installation:

· Mounting options for horizontal arm, vertical tenon or traditional arm mounting available. Mounting hardware included.

#### Finish:

- IFS polyester powder-coat electrostatically applied and thermocured. IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish.
- . The finish meets the AAMA 2604 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds.

#### Certifications/Ratings:

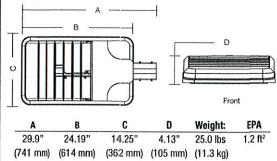
- · DesignLights Consortium (DLC) qualified, consult DLC website for more details: http://www.designlights.org/QPL
- Certified to UI 1598, UL 8750, and CSA C22.2
- 3G rated for ANSI C136.31 high vibration
- applications with MAF mounting IDA approved
- This product is approved by the Florida Fish and Wildlife Conservation Commission. Separate spec available at: http://www.beaconproducts.com/products/viper\_large

#### Warranty:

Five year limited warranty for more information visit: www.hubbelllighting.com/resources/warranty



#### DIMENSIONS





Side View

Side View



Rectangular Arm (A)

Accepts 2 3/8" OD

tenon, min 4" long.

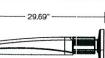




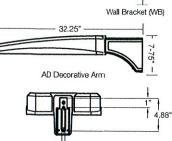
2-3/8" OD Slip Fitter (MAF)



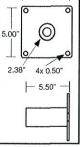








0.56



- 6.00"





BEACON



Beacon Products • 2041 58th Avenue Circle East Bradenton, FL 34203 • Phone: 800-345-4928 Due to our continued efforts to improve our products, product specifications are subject to change without notice.

HUBBELL HUBBELL Lighting

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6014 DELMAR BLVD. 314.863.1313

SAINT LOUIS, MO 63112 www.stlda.com

# CHESTERFIELD COMMUNITY CHURCH

14647 Ladue Rd, Chesterfield, MO 63017







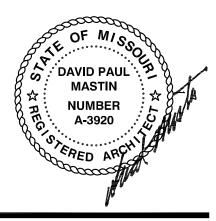


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14647 Ladue Rd, Chesterfield, MO 63017





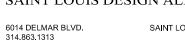




# CHESTERFIELD COMMUNITY CHURCH

SCALE: 1"=20'

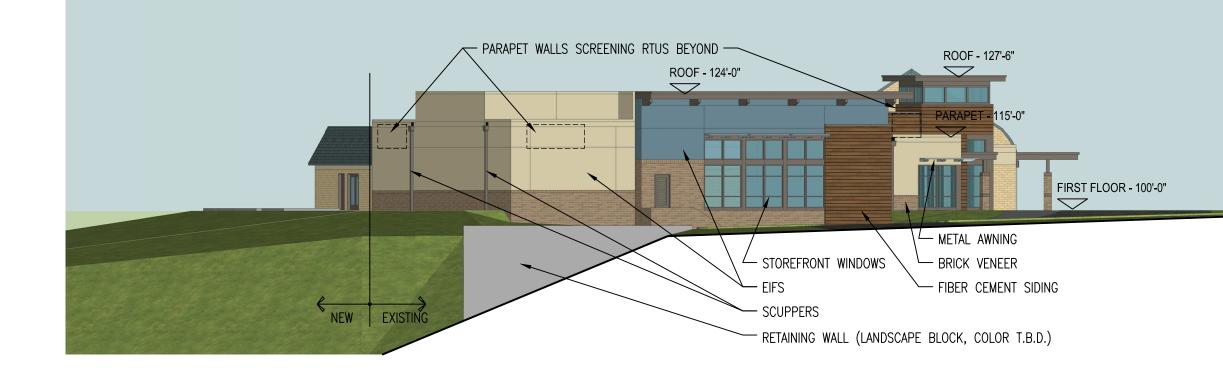




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14647 Ladue Rd, Chesterfield, MO 63017

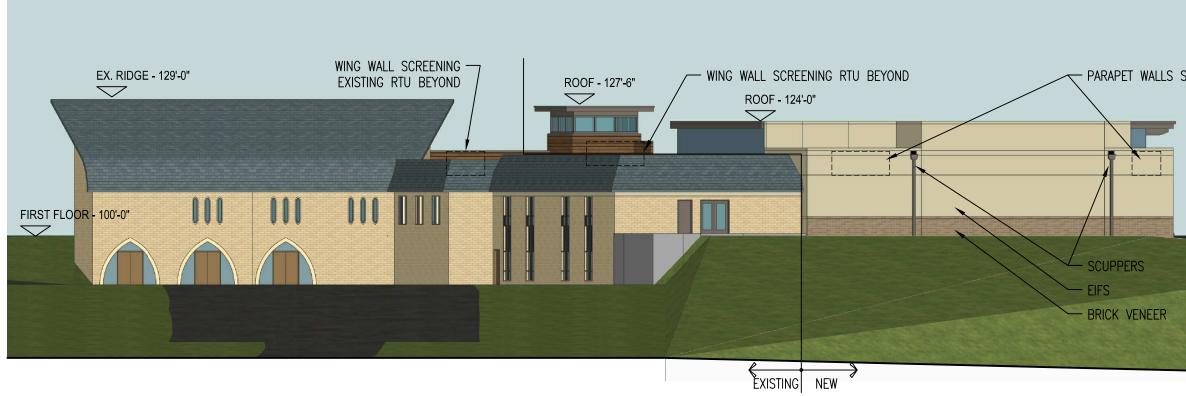














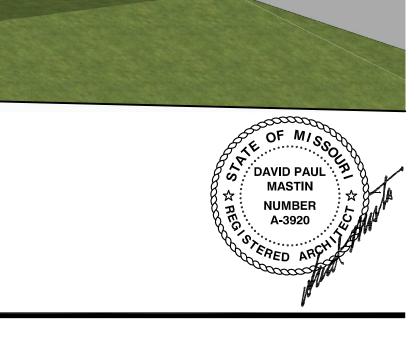


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# CHESTERFIELD COMMUNITY CHURCH

14647 Ladue Rd, Chesterfield, MO 63017

#### PARAPET WALLS SCREENING RTUS BEYOND







#### • SOUTH ELEVATION SCALE: 1"=20'



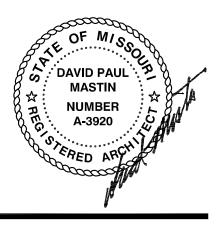
SAINT LOUIS DESIGN ALLIANCE

SAINT LOUIS, MO 63112 www.stlda.com

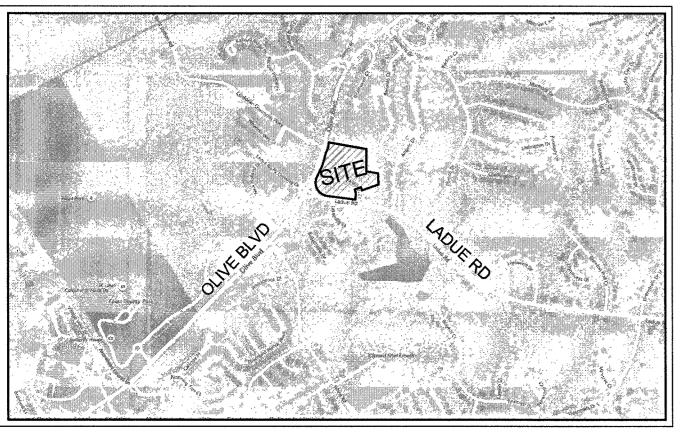
# CHESTERFIELD COMMUNITY CHURCH

14647 Ladue Rd, Chesterfield, MO 63017

6014 DELMAR BLVD. SA 314.863.1313







# AMENDED SITE DEVELOPMENT SECTION PLAN CHESTERFIELD COMMUNITY CHURCH ADDITION

BOUNDARY ADJUSTMENT PLAT OF PART OF LOTS 4, 5, & 6 OF THE SUBDIVISION OF MOSS HUTON'S LAND, LOTS 1, 2, 3, 4 & 4A OF TRAILS WEST SECTION OF THE VILLAGE OF GREEN TRAILS PLAT ONE, U.S. SURVEY 120, 121 & 1911 TOWNSHIP 45 NORTH, RANGE 4 EAST CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI

## LOCATION MAP

(NOT TO SCALE)

## LEGEND

EXISTING CONTOURS	
PROPOSED CONTOURS	433
EXISTING STORM SEWER	
PROPOSED STORM SEWER	ST
existing sanitary sewer	
PROPOSED SANITARY SEWER	SAN SAN
RIGHT-OF-WAY	
EASEMENT	
CENTERLINE	
EXISTING TREE	(12)
EXISTING SPOT ELEVATION	× 4 53.23
PROPOSED SPOT ELEVATION	4 <u>33.28</u> ×
SWALE	<u>~</u>
to be removed	T.B.R.
to be removed & relocated	T.B.R.& R.
to be used in place	U.I.P.
ADJUST TO GRADE	A. T. G.
BACK OF CURB	B.C.
FACE OF CURB	F.C.
WATER MAIN	W W
gas Main	GAS
UNDERGROUND TELEPHONE	T
overhead wire	OHE
UNDERGROUND ELECTRIC	—— Е —— Е —
SILTATION CONTROL	x
FIRE HYDRANT	*
POWER POLE	С Ч
WATER VALVE	¥¥ X
LIGHT STANDARD	<b>\$</b>

## LEGAL DESCRIPTION

(FROM TITLE COMMITMENT)

PARCEL ONE:

A TRACT OF LAND IN U.S. SURVEYS 120, 121 AND 1911 IN TOWNSHIP 45 NORTH, RANGE 4 EAST OF THE 5TH PRINCIPAL MERIDIAN, IN ST. LOUIS COUNTY, MISSOURI BEING PART OF LOTS 4, 5 AND 6 OF THE SUBDIVISION OF MOSS HUTTON'S LAND, ACCORDING TO THE SURVEY THEREOF RECORDED IN SURVEYOR'S RECORDS BOOK 2 PAGE 21, BEING ALSO PART OF A TRACT CONVEYED TO GREENTRAILS MANAGEMENT CORPORATION BY DEED RECORDED IN BOOK 5267 PAGE 74 OF THE ST. LOUIS COUNTY MISSOURI RECORD AND BEING MORE FULLY DESCRIBED IN QUIT CLAIM DEED RECORDED IN BOOK 6396 PAGE 198 OF THE ST. LOUIS COUNTY RECORDS.

PARCEL TWO: LOTS 1, 2, 3,4 AND 4A OF TRAILS WEST SECTION OF THE VILLAGE OF GREEN TRAILS PLAT ONE, A SUBDIVISION ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 114 PAGES 18, 19, 20 AND 21 OF THE ST. LOUIS COUNTY RECORDS.

EXCEPTING FROM THE ABOVE PARCELS THAT PART CONVEYED TO STATE OF MISSOURI, ACTING BY AND THROUGH THE MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION, BY GENERAL WARRANTY DEED RECORDED RECORDED IN BOOK 9010 PAGE 543.

NOTE: THE ABOVE TRACTS ARE DEPICTED ON BOUNDARY ADJUSTMENT PLAT FILED OF RECORDED IN PLAT BOOK 230 PAGE 92 OF THE ST. LOUIS LOUIS COUNTY RECORDS.

## SITE BENCHMARK

NAVD88 ELEV. - 614.48' FTUS "O" IN THE WORD OPEN ON A FIRE HYDRANT ON THE INTERSECTION OF LADUE ROAD AND LAKE TRAILS COURT, AS SHOWN ON SURVEY.

**PREPARED FOR:** 

# St. Louis Design Alliance

6014 DELMAR BLVD. ST. LOUIS, MISSOURI 63112 (314) 863–1313 CONTACT: STEFAN NOVSEL

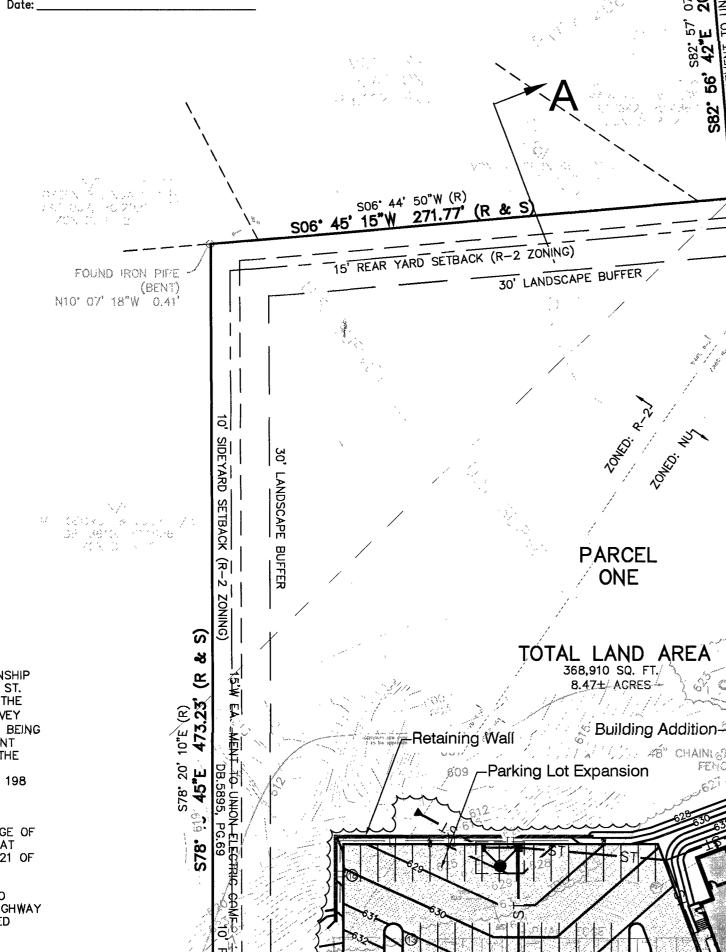
## PREPARED BY:

CIVIL ENGINEERING 314.729.1400 Fax: 314.729.1404 DESIGN CONSULTANTS www.cedc.net

10820 Sunset Office Drive Suite 200 St. Louis, Missouri 63127

## GEOTECHNICAL ENGINEER'S STATEMENT This plan has been reviewed by the undersigned for \_\_\_\_\_\_ regarding compliance with our geotechnical recommendations. It is our professional opinion that earth slopes and grades constructed in accordance with the plans and specifications will be stable with an adequate factor of safety. \_\_\_\_\_\_ must be involved during the construction phase to determine that subsurface conditions are as anticipated and that recommendations relative to construction are implemented.

FOUND IRON PIPE



BUII D

30' LANDSCAPE BUFFER

-62.07

AT ID and the

Existing Directional Sign

PER CITY

N13'48'47"E

6.34

143.37' (R & S)

- Contraction of the second se

N11'48'40"E

54.12'

(R & S)

STATE OF MISSOUR

DB.9010 PG.540

10'W EASEMENT TO LACLEDE -

GAS COMPANY

DB.4635, PG.537

B

APPROXIMATE

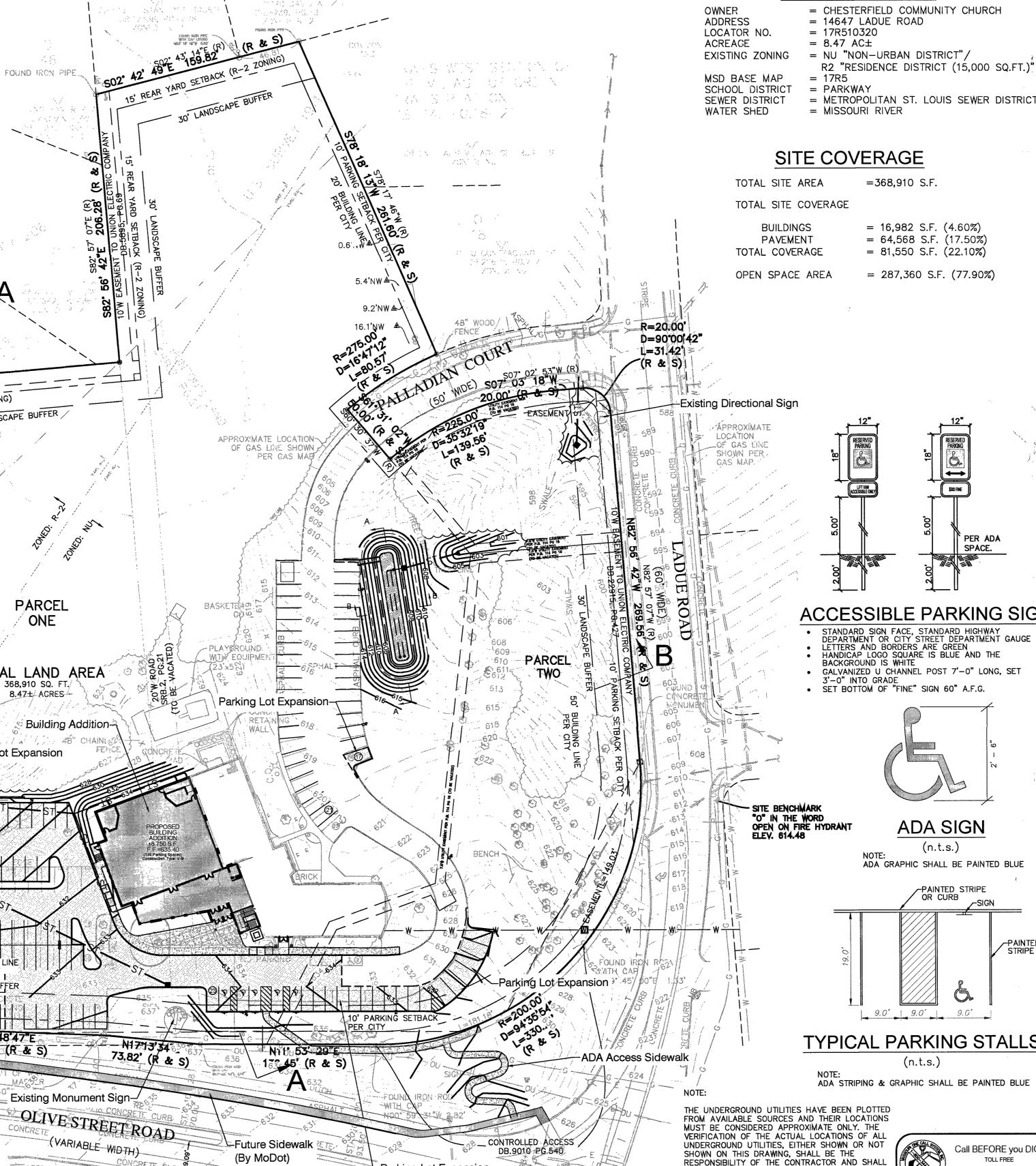
OF GAS LINE

PER GAS MAP

LOCATION

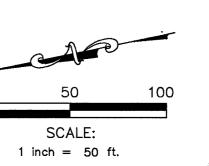
SHOWN

# **PROPERTY DATA**



Parking Lot Expansion

BE LOCATED PRIOR TO GRADING OR CONSTRUCTION OF IMPROVEMENTS. MISSOURI ONE CALL TICKET NUMBER 181371360

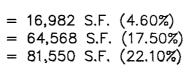


- BASIS OF BEARING: GRID NORTH NAD 1983 MISSOURI, EAST ZONE
- DENOTES SET 1/2" x 18" REBAR WITH CAP STAMPED "MARLER L.S.-347-D" O - DENOTES FOUND 1/2" IRON PIPE
- O DENOTES FOUND IRON ROD
- $\triangle$  DENOTES FOUND RIGHT OF WAY MARKER
- ☑ DENOTES FOUND CONCRETE MONUMENT

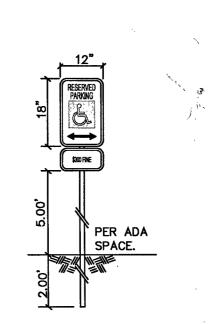
= CHESTERFIELD COMMUNITY CHURCH

- R2 "RESIDENCE DISTRICT (15,000 SQ.FT.)"
- = METROPOLITAN ST. LOUIS SEWER DISTRICT

=368,910 S.F.

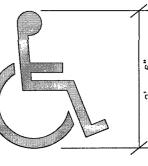


= 287,360 S.F. (77.90%)



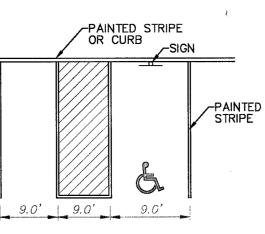


HANDICAP LOGO SQUARE IS BLUE AND THE



**ADA SIGN** (n.t.s.)

ADA GRAPHIC SHALL BE PAINTED BLUE



TYPICAL PARKING STALLS (n.t.s.)

TOLL FREE

ADA STRIPING & GRAPHIC SHALL BE PAINTED BLUE



	SHEET INDEX
SDP1 SDP2	OVERALL SITE DEVELOPMENT PLAN SITE DEVELOPMENT PLAN
SDP3	SITE SECTIONS
L-1 TSD-1	LANDSCAPE PLAN TREE STAND DELINEATION
TPP-1	TREE PRESERVATION PLAN
E-1	PHOTOMETRIC PLAN
	GENERAL NOTES

ALL UTILITIES SHOWN HAVE BEEN LOCATED FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED. THE CONTRACTOR SHALL BE ON RECORD WITH THE MISSOURI ONE CALL SYSTEM. ALL PROPOSED UTILITIES SHALL BE UNDERGROUND.

- ALL ELEVATIONS ARE BASED ON BENCHMARK SHOWN. 3. BOUNDARY SURVEY BY MARLER SURVEYING COMPANY
- 4. ALL ON-SITE MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF CHESTERFIELD.
- 5. ALL GRADED AREAS SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES AND/OR SEEDING AND MULCHING AS REQUIRED BY THE CITY OF CHESTERFIELD
- 6. PRIOR TO BEGINNING ANY WORK ON THE SITE, THE SUBCONTRACTOR SHALL CONTACT THE GENERAL CONTRACTOR FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING OF WORK.
- 7. GRADING CONTRACTOR SHALL INSTALL SILTATION CONTROL PRIOR TO STARTING THE GRADING. ADDITIONAL SILTATION CONTROL DEVICES SHALL BE INSTALLED AS DIRECTED BY THE CITY OF CHESTERFIELD. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE
- FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS
- 9. GRADING CONTRACTOR SHALL KEEP EXISTING ROADWAYS CLEAN OF MUD AND DEBRIS AT ALL TIMES. 10. PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED AREAS.
- 11. ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH THE CITY OF CHESTERFIELD AND M.S.D.
- 12. SIDEWALKS ALONG THE ACCESSIBLE ROUTE SHALL NOT HAVE A SLOPE EXCEEDING 1'V: 20'H. SLOPES GREATER THAN 1'V: 20'H MUST BE DESIGNED AS A RAMP. SIDEWALKS TO BE CONSTRUCTED TO ADA STANDARDS.
- 13. SIDEWALKS, CURB RAMPS, RAMPS AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAG) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE. IF ANY CONFLICT OCCURS BETWEEN THE ADAA GUIDELINES AND THE INFORMATION ON TH PLANS, THE ADAA GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER PRIOR TO ANY CONSTRUCTION.
- 14. NO GRADE SHALL EXCEED 3(H):1(V) UNLESS JUSTIFIED BY GEOTECHNICAL REPORT THAT HAS BEEN APPROVED BY THE CITY OF CHESTERFIELD.
- 15. STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINKHOLES ARE NOT ADEQUATE NATURAL DISCHARGE POINTS.
- 16. ALL LANDSCAPED AREAS TO BE FILLED WITH A MINIMUM OF 6" OF TOPSOIL
- 17. ALL LANDSCAPED AREAS DISTURBED BY OFF-SITE WORK SHALL BE IMMEDIATELY SEEDED OR SODDED, AS DIRECTED BY THE CITY OF CHESTERFIELD UPON COMPLETION OF WORK IN THE AREA AFFECTED.
- 18. ADEQUATE TEMPORARY OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES SHALL BE PROVIDED. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEES' VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVEWAY CONDITIONS.
- 19. ALL SEWER CONSTRUCTION AND MATERIALS TO BE IN ACCORDANCE WITH THE METROPOLITAN ST. LOUIS SEWER DISTRICT STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWER AND DRAINAGE FACILITIES, (LATEST EDITION)
- 20. NO ON-SITE ILLUMINATION SOURCE SHALL BE SO SITUATED THAT LIGHT IS CAST DIRECTLY ON ADJOINING PROPERTIES OR ROADWAYS. ILLUMINATION LEVELS SHALL COMPLY WITH THE PROVISIONS OF ARTICLE IV OF CITY OF CHESTERFIELD UNIFIED DEVELOPMENT CODE. LIGHT STANDARDS SHALL BE SHIELDED AND MAINTAIN A CUT OFF ANGLE OF NOT MORE THAN 85 DEGREES.
- 21. A LAND DISTURBANCE PERMIT WILL BE REQUIRED. SITE PLAN/PLAT APPROVAL IS NOT TO BE CONSTRUED AS APPROVAL OF A LAND DISTURBANCE PERMIT
- 22. THE PERMIT PROCESS REQUIRES IMPROVEMENT PLAN SUBMITTAL TO THE CITY OF CHESTERFIELD.
- 23. ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO THE CITY OF CHESTERFIELD STANDARDS. 24. LIGHT STANDARDS SHALL NOT EXCEED 20 FEET IN HEIGHT.
- 25. BY GRAPHIC PLOTTING ONLY, THIS PROPERTY LIES WITHIN UNSHADED ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) ACCORDING TO THE FLOOD INSURANCE RATE MAP PANEL NUMBER 29189C0345K WHICH BEARS AN EFFECTIVE OF FEBRUARY 4, 2015.
- 26. ANY LAND DISTURBANCE ACTIVITY INVOLVING ONE (1) ACRE OR MORE OF LAND A MAJOR LAND DISTURBANCE (MLD) AND A LAND DISTURBANCE PERMIT FOR THE ALD MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS. ANY LAND DISTURBANCE ACTIVITY INVOLVING LESS THAN ONE ACRE OF LAND IS AN ORDINARY LAND DISTURBANCE AND THE APPROPRIATE PERMITS MUST BE OBTAINED FROM THE DEPARTMENT OF PUBLIC WORKS. SITE PLAN/PLAT APPROVAL IS NOT TO BE CONSTRUED AS APPROVAL OF A LAND DISTURBANCE PERMIT.
- 27. 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.
- 28. NO STEP AT ACCESSIBLE ENTRANCE DOORS.

41. FLOOR AREA RATIO (F.A.R. CALCULATION)

<u>25,497 S.F</u> 368,910 S.F

F**.A**.R.

= 0.07

- 29. A PERMIT SHALL BE OBTAINED FROM MODOT FOR ANY WORK PROPOSED IN MODOT RIGHT-OF-WAY.
- 30. ALL SIDEWALK AND PEDESTRIAN FACILITIES WITHIN MODOT RIGHT-OF-WAY MUST MEET THE ADA STANDARDS. 39. SET

	BUILDING	•				F
E	EAST	= 15'	SIDEYARD PER R-2 ZON	•	No.	De
	SOUTH* WEST*			RECEIVED	City	
N E S	EAST SOUTH	= 10' = 10'	MINIMUM MINIMUM MINIMUM MINIMUM	NOV 21 2018. City of Chesterfield Department of Public Services	City	,
SETBA 40. PARKIN (CHURC	ACKS PER	SECTION ATIONS		TRICT REGULATIONS & PARKI COUNTY CODE DATED 6/97	0	N E∨
1 1	1 SPACE F 1 SPACE F	FOR EVEN	RY 4 SEATS IN THE LARG RY 3 SEATS IN THE CHAP	EST ASSEMBLY AREA (MIN.) EL OR ASSEMBLY AREA (MAX	()	
T	TOTAL SP	ACES RE	QUIRED	= 430 SEATS = 107 SPACES (MIN.) = 143 SPACES (MAX)		0
٦	TOTAL SP	ACES PR	OVIDED	= 138 SPACES (INCLUDING 5 ADA SPACES)		

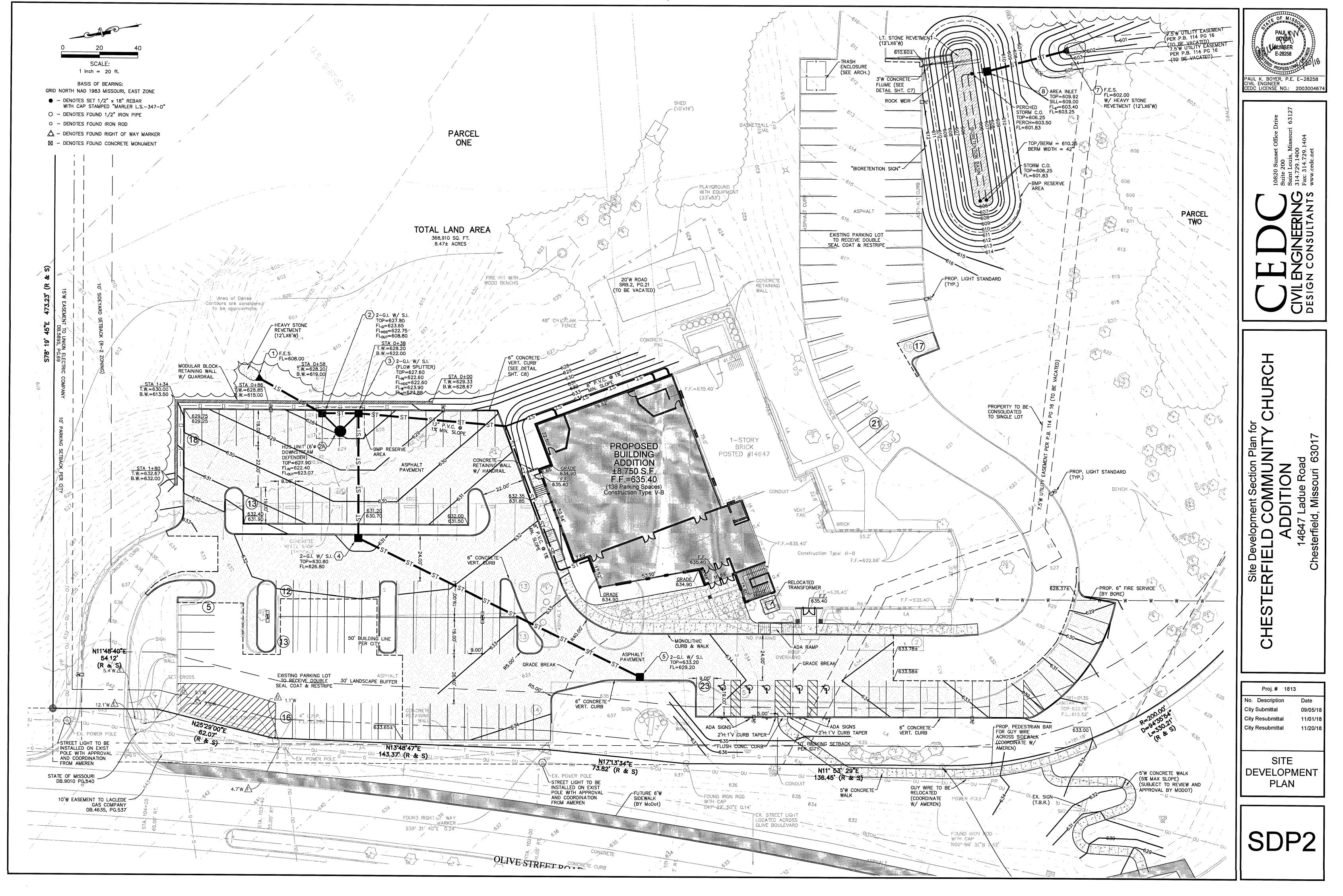
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**NUMBER** E-28258

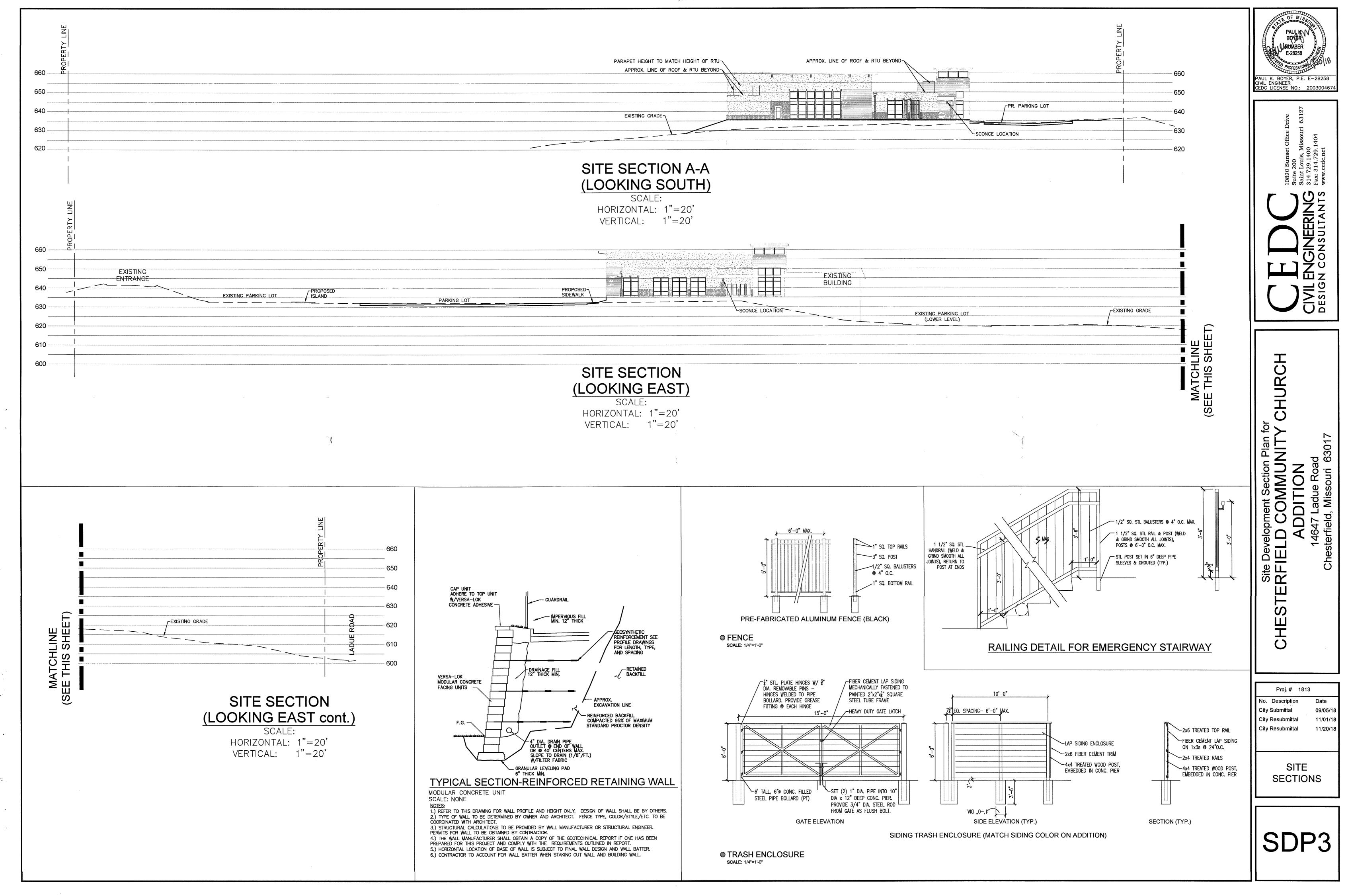
PAUL K. BOYER, P.E. E-28258 CIVIL ENGINEER

EDC LICENSE NO .: 2003004674

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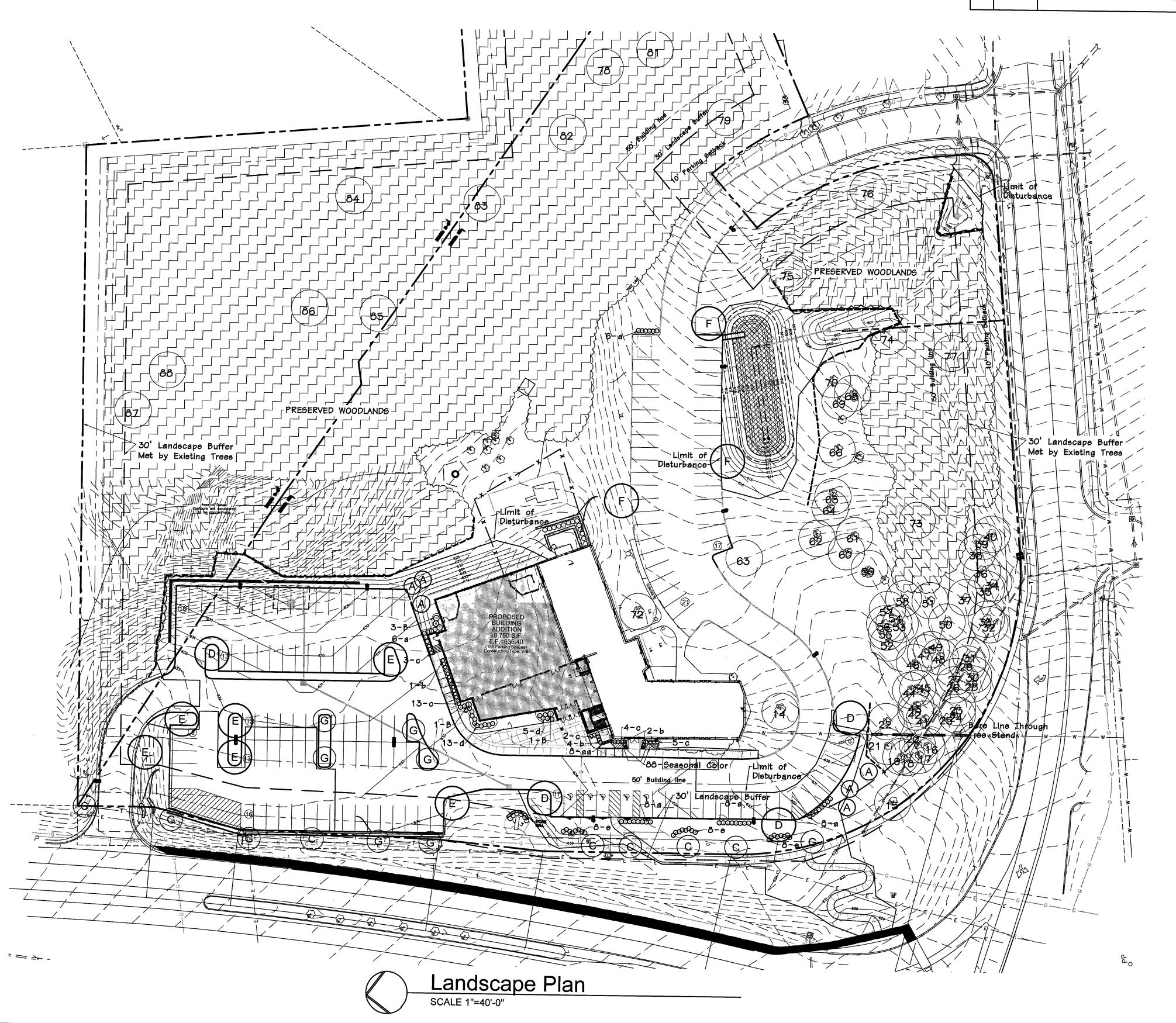
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## GENERAL NOTES:

- 1) Openspace ratio is 77.9% Total Site 368,910 SF/Openspace 287,359 SF 2) All trees will be located at least 3' from proposed curb. 3) All trees will be located at least 10' from all storm sewer structures. 4) All trees will be located at least 25' from all Street lights, Signs, and intersections. 5) An in-ground irrigation system shall be provided for landscape areas. 6) All lawn distururbed areas to be sodded. 7) Street Trees along Olive Street Rd.: 536 If / 50 = 10.7 or 11 8) Street Trees along Ladue Road: 599.77 If / 50 = 11.99 or 12 Requirement met by existing trees.



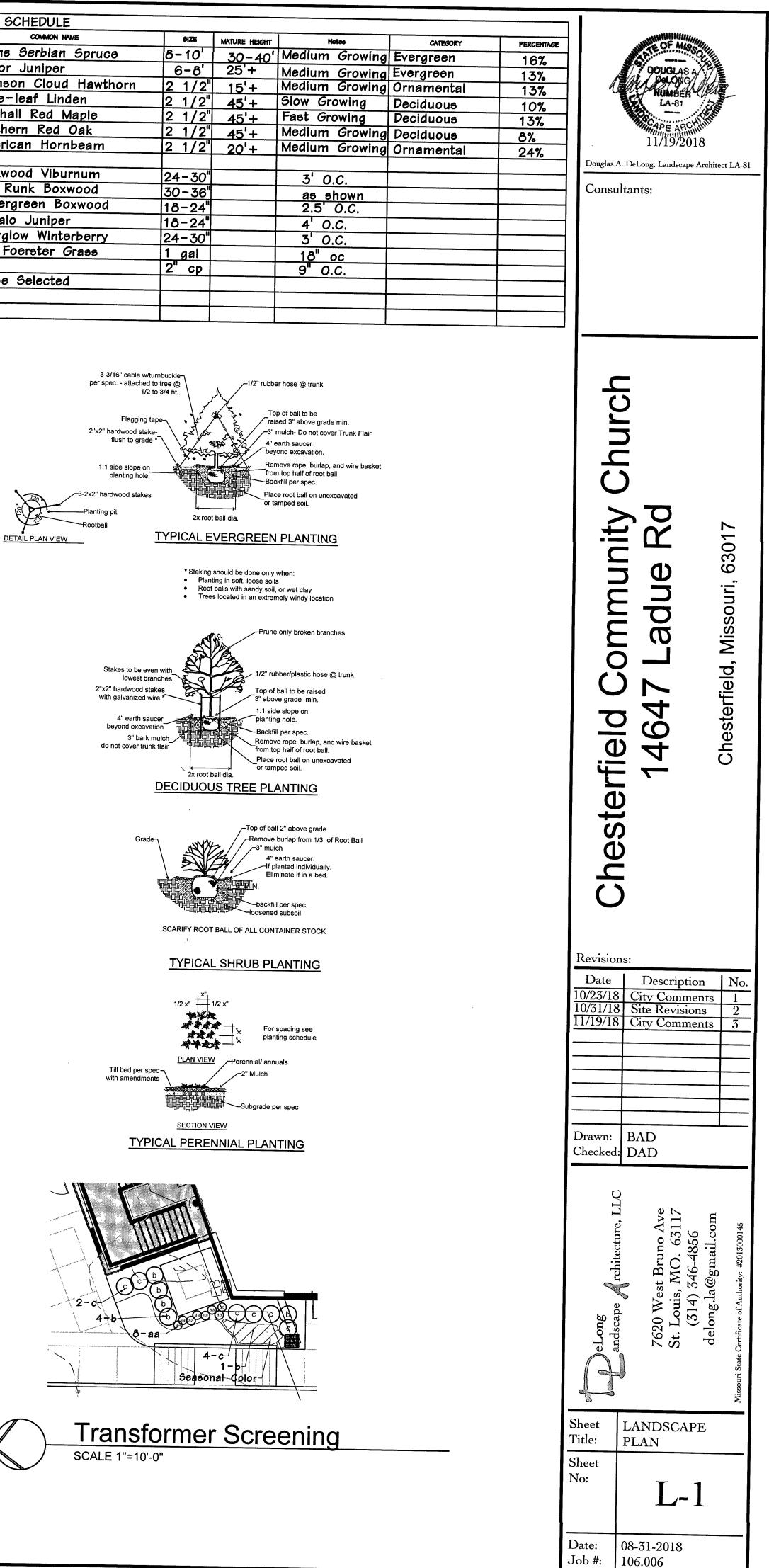
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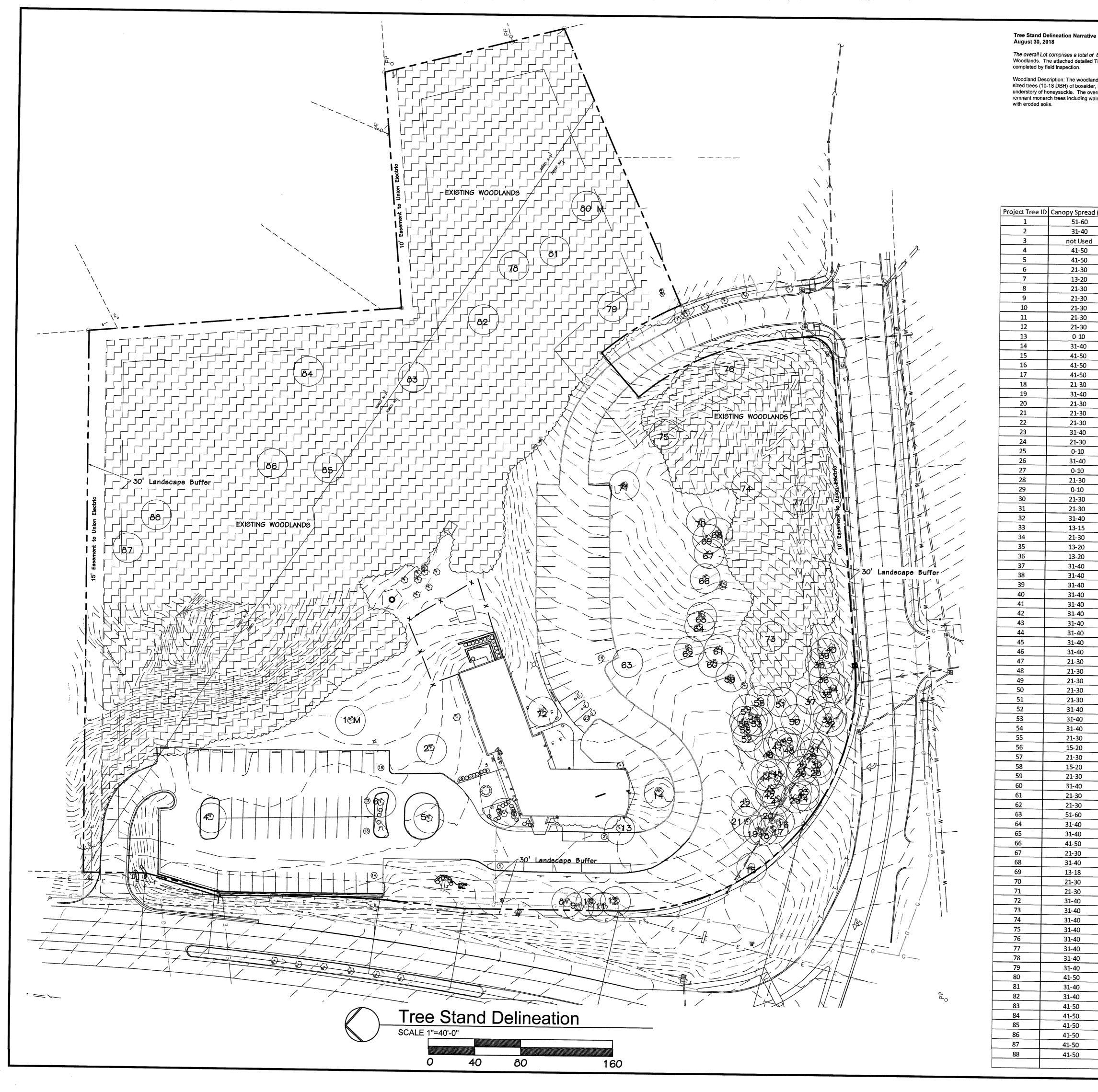
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	-	PL/	NTING SCHE
SYMBOL	QUANTITY	BOTANICAL NAME	00
A	6	Picea omorika 'Bruns'	Brune Ser
В	5	Juniperus virginiana 'Taylor'	Taylor Jur
С	5	Crataegus laeigata 'Superba'	Crimson (
D	4	Tillia Cordata 'Greenspire'	Little-leaf
E	6	Acer rubrum 'Bowhall'	Bowhall R
F	3	Quercus rubra	Northern
G	9	Carpinue caroliniana	American
a	30	Viburnum x burkwoodii	Burkwood
Ь	7	Buxus sempervirens 'Dee Runk'	Dee Runk
C	27	Buxus sinica var. 'Wingergreen'	Wintergree
d	18	Juniperus sabina 'Buffalo'	Buffalo Ju
0	24	llex verticillata 'Afterglow'	Afterglow
aa	<u>ð</u>	Calamagrostis a. 'Karl Foerster'	Karl Foers
$\overline{D}$	රිරි	Seasonal Color to be Selected	
		Bioretention Plantings per MSD	to be Sele





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4

31-40 3 not Used 4 41-50 5 41-50 6 21-30 7 13-20 21-30 8 21-30 9 10 21-30 21-30 11 12 21-30 13 0-10 14 31-40 15 41-50 16 41-50 17 41-50 18 21-30 19 31-40 20 21-30 21 21-30 22 21-30 23 31-40 24 21-30 25 0-10 26 31-40 27 0-10 28 21-30 29 0-10 30 21-30 31 21-30 32 31-40 33 13-15 34 21-30 35 13-20 36 13-20 37 31-40 38 31-40 31-40 39 40 31-40 31-40 41 42 31-40 43 31-40 44 31-40 31-40 45 31-40 46 21-30 47 48 21-30 21-30 49 21-30 50 21-30 51 52 31-40 31-40 53 54 31-40 55 21-30 56 15-20 57 21-30 58 15-20 21-30 59 60 31-40 21-30 61 21-30 62 63 51-60 64 31-40 65 31-40 66 41-50 67 21-30 68 31-40 69 13-18 70 21-30 71 21-30 72 31-40 73 31-40 74 31-40 75 31-40 76 31-40 77 31-40 78 31-40 79 31-40 80 41-50 81 31-40 82 31-40 83 41-50 84 41-50 85 41-50 86 41-50 87 41-50 88 41-50

51-60

The overall Lot comprises a total of 8.47 Ac and has a total of 6.09 AC. of Woodlands. The attached detailed Tree Stand Delineation map was

Woodland Description: The woodland is scattered second growth of medium sized trees (10-18 DBH) of boxelder, black locust, and hackberry with a strong understory of honeysuckle. The overstory is punctuated with a few scattered remnant monarch trees including walnut and cottonwood. Slopes are steep

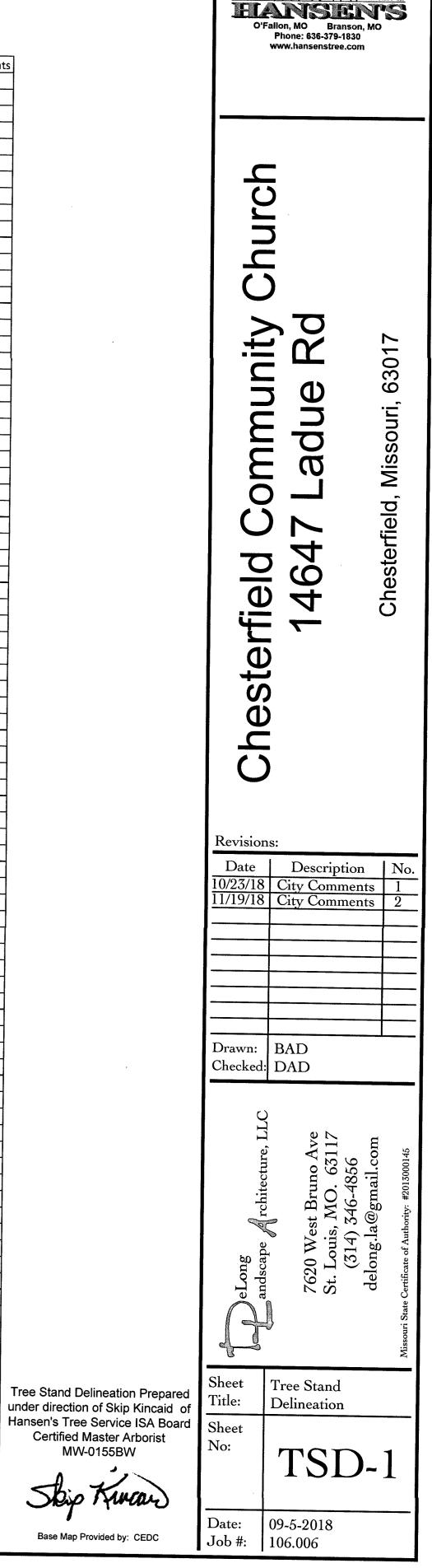
WOODLAND = INDIVIDUAL TREES = 1.7 Ac (75,155 sq. ft.)

4.37 Ac. (190,491.9 sq. ft.) TOTAL EXISTING CANOPY = 6.07 Ac (265,646.9 sq. ft.)

LEGEND

------ Location 109— Referance Number

d (ft.)	Common Name	Condition	DB		
	pecan spruce norway	Good (70-79) Excellent (90-100	26		Monarch
	sycamore American ash green	Fair (60-69) Fair (60-69)	20		EAD
·· ····	maple sugar	Fair (60-69)	10		EAB
·	redbud	Good (70-79)	8	314	
	pear callery pear callery	Fair (60-69) Fair (60-69)	24 16		
	pear callery	Fair (60-69)	14		
	pear callery	Fair (60-69)	14		
	pear callery dogwood flowering	Fair (60-69) Poor (50-59)	22	314	
	pine austrian	Poor (50-59)	16		Tip blight
	maple sugar locust black	Poor (50-59)	28		Decay
	locust black	Poor (50-59) Poor (50-59)	28 32		Decay Decay
	locust black	Poor (50-59)	14		Decay
	locust black mulberry	Poor (50-59)	14		Decay
	mulberry	Poor (50-59) Poor (50-59)	12 12	706	Decay Decay
	cherry black	Fair (60-69)	14	706	Decay
	locust black locust black	Fair (60-69)	12	1,017	
	locust black	Poor (50-59) Critical (10-49)	18 10	706	Decay Decay
	locust black	Fair (60-69)	24	1,017	
	locust black locust black	Critical (10-49)	12	78	Dead top
	locust black	Poor (50-59) Critical (10-49)	10 12	706	Decay Dead top
	mulberry	Fair (60-69)	10	706	
	cherry black locust black	Fair (60-69)	10	706	
	locust black	Fair (60-69) Poor (50-59)	21 6	1,017 615	Decay Decay
	locust black	Poor (50-59)	14	706	Decay
	boxelder mulberry	Poor (50-59) Poor (50-59)	14	615	Decay
	locust black	Poor (50-59)	8 22	615 1,017	Decay Decay
	locust black	Poor (50-59)	16	1,017	Decay
	locust black	Critical (10-49)	12	1,017	Decay
	locust black	Poor (50-59) Poor (50-59)	16 18	1,017	Decay Decay
	locust black	Critical (10-49)	10	1,017	Decay
	boxelder locust black	Poor (50-59)	10	1,017	Decay
	locust black	Poor (50-59) Poor (50-59)	18 13	1,017 1,017	Decay Decay
	locust black	Poor (50-59)	14	1,017	Decay
	locust black locust black	Poor (50-59)	10	706	Decay
	boxelder	Poor (50-59) Critical (10-49)	12 8	706	Decay Decay
	hackberry	Fair (60-69)	8	706	<u> </u>
	cherry black locust black	Poor (50-59) Critical (10-49)	9	706	Decay
	locust black	Critical (10-49)	34 32	706 706	Decay Decay
	locust black	Critical (10-49)	20	1,017	Decay
	cherry black cherry black	Poor (50-59) Poor (50-59)	8 6	706	Decay
	cherry black	Critical (10-49)	10	254 706	Decay Decay
	cherry black	Fair (60-69)	8	254	
	persimmon cherry black	Fair (60-69) Critical (10-49)	10	706	D
	boxelder	Poor (50-59)	24 9	1,017 706	Decay Decay
	boxelder	Poor (50-59)	12	706	Decay
	oak black hackberry	Fair (60-69) Fair (60-69)	40 15	2,122	Dead limbs
	persimmon	Fair (60-69)	4	1,017 1,017	Hanging limb
	hackberry	Poor (50-59)	32	1,256	Decay
	boxelder boxelder	Poor (50-59) Poor (50-59)	9 16	706	Decay
	boxelder	Poor (50-59)	6	200	Decay Decay
	boxelder	Poor (50-59)	12	706	Decay
	persimmon maple sugar	Poor (50-59) Fair (60-69)	10 18	706 1,017	Decay
	locust black	Pair (60-69) Poor (50-59)	23	1,017	Decay
	locust black	Poor (50-59)	22	1,017	Decay
	locust black	Poor (50-59) Poor (50-59)	28 22	1,017 1,017	Decay
	locust black	Poor (50-59)	22	1,017	Decay Decay
	walnut black	Fair (60-69)	24	1,017	
	cottonwood walnut black	Poor (50-59) Fair (60-69)	26 36	1,017	Decay
	hackberry	Fair (60-69)	28	1,519 1,017	Monarch
	walnut black	Fair (60-69)	26	1,017	
	walnut black boxelder	Fair (60-69) Poor (50-59)	26	1,519	
	hackberry		23 23	1,519 1,519	<u></u>
	walnut black	Fair (60-69)	28	1,519	
	cottonwood		28	1,519	
	cottonwood	Fair (60-69)	26	<u>1,519</u> 75,155	Total
t	<u>_</u>	l_		•••••	iotal



Douglas A. DeLong, Landscape Architect LA-81

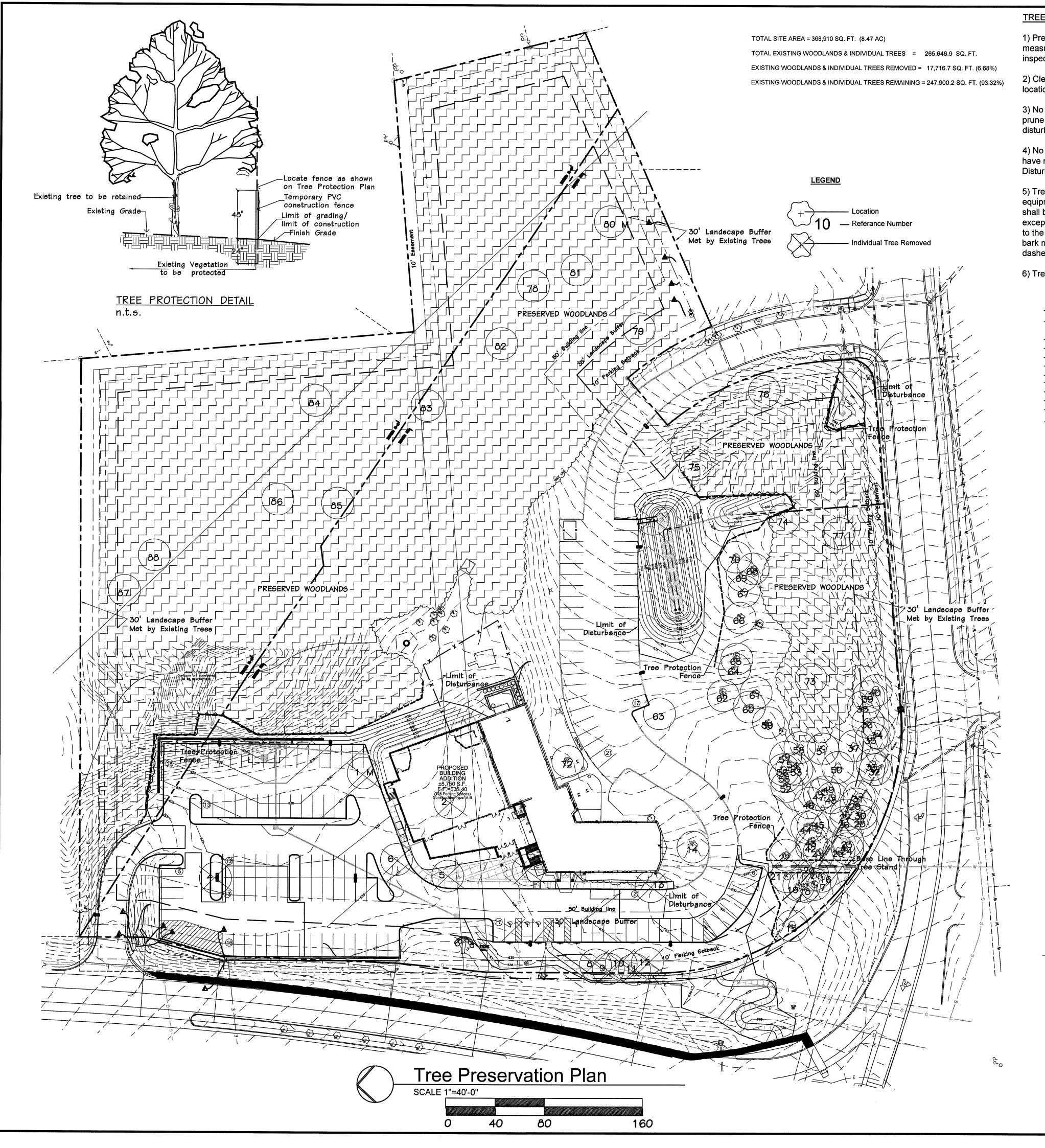
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Consultants:

Base Map Provided by: CEDC

Ship Kincan



## TREE PROTECTION NOTES:

inspector.

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

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

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

5) Tree Protection Fencing shall be 4-foot high temporary plastic construction fence. No equipment traffic/parking, concrete washout, material storage or other such construction activity shall be permitted to penetrate the protection fencing or disrupt the Protected Woodland Area except for the removal of dead or invasive plant material. Any proposed plantings shall be subject to the review and approval of the City Arborist. All ground plane shall be mulched with hardwood bark mulch. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the plan.

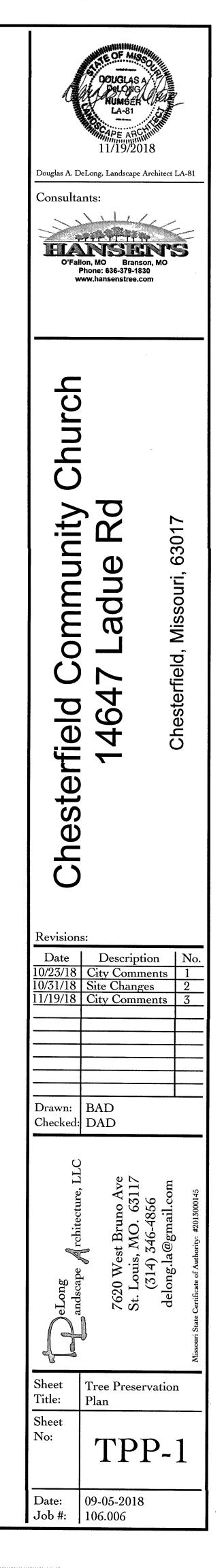
6) Tree protection measures to be maintained throughout construction sequence.

#### Project Tree ID Canopy Spread (ft.)

	Canopy Spread (ft
1 2	51-60 31-40
3	not Used
4	<u> </u>
6	21-30
7	13-20
8	<u>21-30</u> 21-30
10	21-30
11 12	21-30 21-30
	0-10
14	31-40
15 16	41-50 41-50
17	41-50
<u>18</u> 19	21-30
20	<u>31-40</u> 21-30
21	21-30
22	21-30 31-40
24	21-30
25	0-10
26	<u>31-40</u> 0-10
28	21-30
<u>. 29</u> 30	0-10 21-30
30	21-30
32	31-40
33	<u>13-15</u> 21-30
35	13-20
<u>36</u> 37	<u>13-20</u> 31-40
38	31-40
39	31-40
40	<u>31-40</u> 31-40
42	31-40
43	31-40
44 45	31-40 31-40
46	31-40
47	21-30 21-30
49	21-30
50	21-30
<u>51</u> 52	21-30 31-40
53	31-40
<u>54</u> 55	<u>31-40</u> 21-30
56	15-20
57 58	21-30 15-20
59	21-30
60	31-40
61 62	21-30 21-30
63	51-60
64 65	<u>31-40</u> 31-40
66	41-50
67 68	21-30 31-40
69	13-18
70	21-30
71 72	<u>21-30</u> 31-40
73	31-40
74 75	<u> </u>
76	31-40
77	31-40
78 79	<u>31-40</u> 31-40
80	41-50
81 82	<u> </u>
83	41-50
84	41-50
<u>85</u> 86	<u>41-50</u> 41-50
87	41-50
88	41-50
L	

1) Pre-construction meeting to be held on-site to include a presentation of tree protection measures to operators; construction supervisors; developer's representative; and city zoning

D		Canopy Area		Condition	Common Name
Remo	Monarch	<u>1,952</u> 706	26 14	Good (70-79) Excellent (90-100)	pecan spruce norway
-Remo					
-Remo	E4.2	<u> </u>	20	Fair (60-69)	/camore American
Remo Remo	EAB	<u>-1,256</u> 	32 10	Fair (60-69) Fair (60-69)	ash green maple sugar
-Remo		314	-8	Good (70-79)	redbud
	· · · · · · · · · · · · · · · · · · ·	314	24	Fair (60-69)	pear callery
Remo		314 314	16 14	Fair (60-69) Fair (60-69)	pear callery pear callery
-Remo		314	14	Fair (60-69)	pear callery
-Remo		314	22	Fair (60-69)	pear callery ogwood flowering-
Remo	Tip blight	<del>78</del> 706	5 16	<u>Poor (50-59)</u> Poor (50-59)	pine austrian
	Decay	1,256	28	Poor (50-59)	maple sugar
	Decay	1,256	28 32	Poor (50-59) Poor (50-59)	locust black locust black
	Decay Decay	1,256 706	14	Poor (50-59)	locust black
	Decay	1,017	14	Poor (50-59)	locust black
	Decay Decay	706 706	12 12	Poor (50-59) Poor (50-59)	mulberry mulberry
	Decay	706	14	Fair (60-69)	cherry black
		1,017	12	Fair (60-69)	locust black
	Decay Decay	706 78	18 10	Poor (50-59) Critical (10-49)	locust black locust black
	Decay	1,017	24	Fair (60-69)	locust black
	Dead top	78	12	Critical (10-49)	locust black
	Decay Dead top	706 78	10 12	Poor (50-59) Critical (10-49)	locust black locust black
		706	10	Fair (60-69)	mulberry
		706	10	Fair (60-69)	cherry black locust black
	Decay Decay	<u>1,017</u> 615	21 6	Fair (60-69) Poor (50-59)	locust black
	Decay	706	14	Poor (50-59)	locust black
	Decay	615 615	14 8	Poor (50-59) Poor (50-59)	boxelder mulberry
	Decay Decay	1,017	22	Poor (50-59)	locust black
	Decay	1,017	16	Poor (50-59)	locust black
	Decay Decay	<u>1,017</u> 1,017	12 16	Critical (10-49) Poor (50-59)	locust black locust black
	Decay	1,017	18	Poor (50-59)	locust black
	Decay	1,017	10	Critical (10-49)	locust black
	Decay Decay	1,017 1,017	10 18	Poor (50-59) Poor (50-59)	boxelder locust black
	Decay	1,017	13	Poor (50-59)	locust black
	Decay	1,017	14	Poor (50-59)	locust black
	Decay Decay	706 706	10 12	<u>Poor (50-59)</u> Poor (50-59)	locust black locust black
	Decay	706	8	Critical (10-49)	boxelder
		706	8	Fair (60-69)	hackberry
	Decay Decay	706 706	9 34	Poor (50-59) Critical (10-49)	cherry black locust black
	Decay	706	32	Critical (10-49)	locust black
	Decay	1,017	20 8	Critical (10-49)	locust black cherry black
	Decay Decay		6	Poor (50-59) Poor (50-59)	cherry black
	Decay	706	10	Critical (10-49)	cherry black
		254	8	Fair (60-69) Fair (60-69)	cherry black persimmon
	Decay	706 1,017	10 24	Critical (10-49)	cherry black
	Decay	706	9	Poor (50-59)	boxelder
	Decay Dead limbs	706 2,122	12 40	Poor (50-59) Fair (60-69)	boxelder oak black
	Hanging limb	1,017	15	Fair (60-69)	hackberry
		1,017	4	Fair (60-69)	persimmon
	Decay Decay	<u>1,256</u> 706	32 9	Poor (50-59) Poor (50-59)	hackberry boxelder
	Decay	1,017	16	Poor (50-59)	boxelder
	Decay	200	6	Poor (50-59)	boxelder
	Decay	706 706	12	Poor (50-59) Poor (50-59)	boxelder persimmon
-Remov	Decay		10	Fair (60-69)	maple sugar
	Decay	1,017	23	Poor (50-59)	locust black
	Decay Decay	<u>1,017</u> 1,017	22 28	Poor (50-59) Poor (50-59)	locust black locust black
	Decay Decay	1,017	28	Poor (50-59) Poor (50-59)	locust black
	Decay	1,017	23	Poor (50-59)	locust black
	Decay	1,017	24 26	Fair (60-69) Poor (50-59)	walnut black cottonwood
	Decay Monarch	1,017 1,519	36	Fair (60-69)	walnut black
		1,017	28	Fair (60-69)	hackberry
		1,017	26	Fair (60-69) Fair (60-69)	walnut black walnut black
		1,519 1,519	26 23	Fair (60-69) Poor (50-59)	boxelder
		1,519	23	Fair (60-69)	hackberry
			201	Fair (60-69)	walnut black
		1,519	28		
		1,519 1,519 <u>1,519</u>	28 28 26	Fair (60-69) Fair (60-69)	cottonwood cottonwood



3.1 4.9 5.5 4.0 4.8 3.3 2.5 1.5 1.1 1.4 1.4 0.7 PROPOSED BUILDING ADDITION 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 1.0 1.0 5.0 5.1 1/2 😳 0.6 1.2 1.8 1.8 1.7 1.7 1.8 1.5 1.3 1.6 1.2 1.0 0.8 S4W .3 0.9 1.1 1.3 1.6 t.o t.o t.o t.o t.o t.o t.o t.o f.o t.o t.o t.o 1.3 0.3 0.1 0.1 0.2 0.4 0.2 0.1 0.1 0.1 0.3 

2.3 1.7 1.6 1.8 2.0 1.6 1.2 4.7 2.6 2.2 2.0 1.5 0.9 .4 2.2 1.3 8.8 8.1 8.1 8.1 8.2 8.1 8.1 8.2 8.1 8.1 8.1 8.1 8.1 8.3 8.5 3.2 8.5 8.3 1.4 3.4 2.1 

Label			CalcType	Un	
PARKING LOT & DRIVES			Illuminance	Fc	
SITE CALCS			Illuminance	Fc	
			•		
Luminaire Sch	edule				
Symbol	Qty	Label	Description		
+	4	L	BEACON AL-D-36L-80-3K7-6X6-UNV-SF3-		
	2	S3	BEACON VP-L-64L-135-3K7-3-UNV-FINISH		
	2	S4	BEACON VP-L-64L-135-3K7-4-UNV-FINISH		
-81	5	S4W	BEACON VP-L-64L-135-3K7-4W-UNV-FINI		
	2	T5	BEACON VP-L-64L-135-34	(7-5W-UNV-FINI	
0	4	G	ATLANTIC WLED614-B40-VR10-35K		

