



Municipal Planning & Design Review Commission
Regular Meeting Agenda
Thursday, May 20, 2021, 5:30 PM
City Hall, Lakeland, Tennessee 38002

- I. CALL TO ORDER:
- II. ROLL CALL:
- III. APPROVAL OF MINUTES OF PREVIOUS MEETING:
 1. March 24, 2021
 2. April 15, 2021 (for the record)
- IV. PUBLIC DISCUSSION:
- V. REPORTS OF OFFICERS AND COMMITTEES:
- VI. OLD BUSINESS:
 1. Action on a recommendation to Amend the Land Development Regulations of Lakeland, Tennessee, to make interim amendments to the Land Development Regulations concerning allowed uses for multi-family and vehicular services; impervious, semi-pervious, and building coverages; and commercial building type B.
- VII. NEW BUSINESS:
 1. Action on a recommendation to the Board of Commissioners for an Outline Plan – Chapel Lakes Planned Development.
 2. Action on approval of a Site Plan – Lot 7 Lakeland Commons.
 3. Discussion on a Planned Development Sketch Plan – Lakeland Park Planned Development.
- VIII. ANNOUNCEMENTS:
- IX. ADJOURNMENT:

**LAKELAND MUNICIPAL PLANNING COMMISSION
MEETING MINUTES
WEDNESDAY, MARCH 24, 2021, 5:30 PM
CITY HALL, LAKELAND, TN.**

- I. **CALL TO ORDER:** The meeting was called to order at 5:30 PM by Chairman Susan Mitchell

II. **ROLL CALL BY ACTING RECORDER:**

Jeff Adams	Absent	(excused)
Commissioner Jim Atkinson	Present	
Scott Carmichael	Present	
Mayor Mike Cunningham	Present	
Todd Laessig	Absent	(excused)
Clint Starnes	Present	
(C) Susan Mitchell	Present	

Others present:

Shane Horn, City Manager
Richard Donovan, Planning Director
Emily Harrell, City Engineer
Will Patterson, City Attorney

For the record: Commissioner Richard Gonzales and Commissioner Wesley Wright were present in the audience.

III. **PUBLIC HEARING:**

1. Action to Amend Article II. Neighborhood Development Regulations, Figure 1.B-1 Neighborhood Types Map from Type IV to Type II at 9905 Memphis Arlington Road.
2. Action to Amend Article II. Neighborhood Development Regulations, Section 3; and Section 10.C.8 to amend the Neighborhood Type II and Stormwater Management Sections.

For the record: No comments were heard.

III. **APPROVAL OF MEETING MINUTES:**

Commissioner Atkinson moved to approve the regular meeting minutes of February 24, 2021 as written.

Mr. Starnes seconded the motion.

Motion passed, voice vote, 4 in favor 0 against 1 abstention (*Carmichael abstained*).

IV. **PUBLIC DISCUSSION:**

For the record: No comments were heard.

**LAKELAND MUNICIPAL PLANNING COMMISSION
MEETING MINUTES
WEDNESDAY, MARCH 24, 2021, 5:30 PM
CITY HALL, LAKELAND, TN.**

V. REPORTS OF OFFICERS AND COMMITTEES: *None*

VI. OLD BUSINESS: *None*

VII. NEW BUSINESS:

- 1. *Action to Amend Article II. Neighborhood Development Regulations, Figure 1.B-1 Neighborhood Types Map from Type IV to Type II at 9905 Memphis Arlington Road.***

Commissioner Atkinson moved to bring this item to the floor.

Vice Chairman Carmichael seconded the motion.

Motion passed unanimously, voice vote, 5 in favor 0 against.

After conclusion of the discussion, Mr. Starnes moved to approve the amendment to Article II. Neighborhood Development Regulations, Figure 1.B-1 Neighborhood Types Map from IV to Type II at 9905 Memphis Arlington Road.

Seconded by Commissioner Atkinson.

Motion passed unanimously, roll call vote, 5 in favor 0 against.

Atkinson	Yea
Carmichael	Yea
Cunningham	Yea
Starnes	Yea
(C) Mitchell	Yea

- 2. *Action on a recommendation to the Board of Commissioners to amend the Official Zoning Map to rezone property from AG to RE located at 9905 Memphis Arlington Road.***

Commissioner Atkinson moved to bring this item to the floor.

Vice Chairman seconded the motion.

Motion passed unanimously, voice vote, 5 in favor 0 against.

After conclusion of the discussion, Commissioner Atkinson moved to recommend to the Board of Commissioners to amend the Official Zoning Map to rezone property from AG to RE located at 9905 Memphis Arlington Road as recommended by staff.

**LAKELAND MUNICIPAL PLANNING COMMISSION
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CITY HALL, LAKELAND, TN.**

Mayor Cunningham seconded the motion.

Motion passed unanimously, roll call vote, 5 in favor 0 against.

Atkinson	Yea
Carmichael	Yea
Cunningham	Yea
Starnes	Yea
(C) Mitchell	Yea

3. Action on approval of Fence Height Special Exception for a fence to exceed 6' in height at 9650 Green Spruce Drive.

Mr. Starnes moved to bring this item to the floor.

Mayor Cunningham seconded the motion.

Motion passed unanimously, voice vote, 5 in favor 0 against.

For the record: Public comments were heard from the following:

- Jason Collins, Applicant
- Becky Collins, Applicant (*present in audience*)

After conclusion of the discussion, Mr. Starnes moved to approve the fence height special exception for a fence to exceed 6' in height at 9650 Green Spruce Drive due to a slope in the backyard.

Mayor Cunningham seconded the motion.

Motion passed unanimously, roll call vote, 5 in favor 0 against.

Atkinson	Yea
Carmichael	Yea
Cunningham	Yea
Starnes	Yea
(C) Mitchell	Yea

VIII. ANNOUNCEMENTS:

IX. ADJOURNMENT:

Mayor Cunningham moved to adjourn the meeting. Mr. Starnes seconded the motion.

Motion passed unanimously, voice vote, 5 in favor 0 against.

The meeting was adjourned at 7:48 p.m.

**LAKELAND MUNICIPAL PLANNING COMMISSION
MEETING MINUTES
WEDNESDAY, MARCH 24, 2021, 5:30 PM
CITY HALL, LAKELAND, TN.**

Clint Starnes, *Secretary*

ATTEST:

Debra Murrell, *City Recorder*

These minutes were approved on May 20, 2021.

LAKELAND MUNICIPAL PLANNING COMMISSION

MEETING MINUTES

THURSDAY, APRIL 15, 2021, 5:30 PM

CITY HALL, LAKELAND, TN.

- I. **CALL TO ORDER:** The meeting was called to order at 5:39 PM by Acting Chairman Clint Starnes

II. ROLL CALL BY ACTING RECORDER:

Jeff Adams	Absent	(excused)
Commissioner Jim Atkinson	Present	
Scott Carmichael	Absent	(excused)
Mayor Mike Cunningham	Absent	(excused)
Todd Laessig	Absent	(excused)
Clint Starnes	Present	
(C) Susan Mitchell	Absent	(excused)

Others present:

Shane Horn, City Manager

Richard Donovan, Planning Director (via phone)

For the record: Commissioner Richard Gonzales and Commissioner Wesley Wright were present in the audience.

ADJOURNMENT:

For the record: The meeting was adjourned at 5:40 p.m. due to the lack of a quorum.

Clint Starnes, *Secretary*

ATTEST:

Debra Murrell, *City Recorder*

These minutes were approved on May 20, 2021.

Meeting Cycle: Thursday, May 20, 2021

Subject: Action on a recommendation to Amend the Land Development Regulations of Lakeland, Tennessee, to make interim amendments to the Land Development Regulations concerning allowed uses for multi-family and vehicular services; impervious, semi-pervious, and building coverages; and commercial building type B.

Staff Contact: Richard Donovan, Planning Consultant

STAFF RECOMMENDATION

Staff recommends approval of the proposed amendments.

DISCUSSION

BACKGROUND:

Below are three of the six original amendments to the Zoning Regulations to address issues that have manifested in the last several months. These three amendments were held over last month for further study by Staff and the MPC. BOC discussed and requested that Staff add an additional amendment on the Commercial Building Type B.

PROPOSED AMENDMENTS:

Vehicular Service:

This amendment will be to the Zoning Regulations. This amendment will seek to limit the locations of vehicular service uses with the City provide some additional design criteria. The vehicular service use will affect automobile service stations, automotive repairs, car washes, and tire sales and mounting. This amendment will not affect the approvals of any existing PD or existing businesses.

A supplemental document has been prived for MPC review. The document contains staff research into gas stations. This will provide you an idea of how other Cities in Tennessee addresses gas stations.

Text highlighted text below will be added to the vehicular service portion of the LDRs.

Uses	Regional Commercial	Light Manufacturing
	C2	M1
Vehicle Service	○	○

16. Vehicular Service. In the district where Vehicle Service requires a Conditional Use Permit (I.4.N) (“○”), the following apply:

- a. When a Conditional Use Permit is required, it is the Applicant’s burden to prove that granting the permit will not negatively impact the neighborhood or that the site is designed in such a way as to mitigate any such impacts, including traffic, noise, and light.
- b. Use Limitation. Repair and wash facilities for semi-trucks, recreational vehicles, boats, and other oversized vehicles are only permitted in the M1 District.
- c. Structures: Principal Structure. Principal Structures shall be constructed using one of the permitted Building Types in the District. The Pitched Cap Type and Parapet are the only permitted Cap Type for this Use.
- d. Structures: Canopies. Canopies shall be developed using the following:
 - (1) Canopies, including the roof, shall be no taller than twenty-eight feet.
 - (2) Canopy roof structures shall match the roof structure of the Principal Structure on the Lot. Refer to permitted Cap Types per non- Residential Building Types in III.3.H through M.
 - (3) Columns shall be located on the outer edges of the pump islands, outside of and partially screening the pumps.
 - (4) Columns shall be a minimum of 18” in width in all directions and a maximum of fifteen (15) feet in height.
 - (5) Column and canopy materials shall meet the requirements of III.3.A(5) Non- Residential Building Materials.
- e. Service Bays. Vehicular service bays, including garages and car wash bays, shall not be located on the Front Facade. This is illustrated in Figure 2.M-1

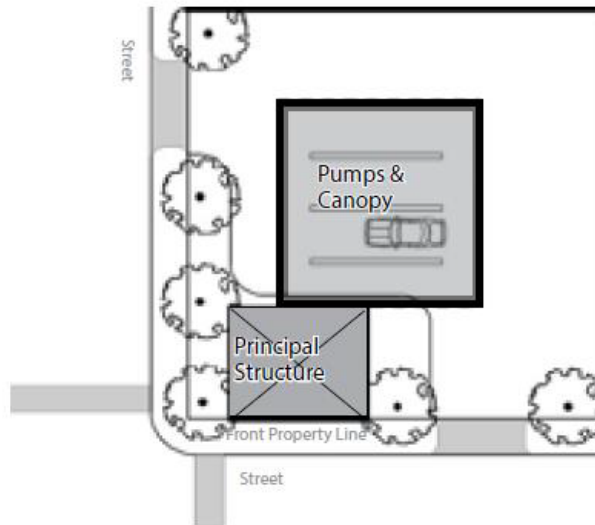


Figure 2.M-1. Relationship between the Principal Structure and the pump islands.

- f. Outdoor Storage. Disabled or inoperable vehicles and those awaiting pick-up may be stored outdoors if:
 - (1) The vehicles are not stored for more than two days.
 - (2) The storage area is in the Rear Yard screened from view of the Front Property Line.
 - (3) The storage area is screened using the Heavy Side or Rear Yard Buffer outlined in III.5.K regardless of the adjacent land Uses.
 - (4) Car sales are not permitted.
- g. Outdoor Activities.
 - (1) All repairs or washing activities shall occur inside a building.
 - (2) Vacuuming activities may occur in open air, but shall be in the Side or Rear Yards, screened from the Front Property Line.
 - (3) Outdoor sales are prohibited except for temporary outdoor display of seasonal items, such as windshield wiper fluid or salt, permitted during business hours under the canopy and adjacent to the Principal Structure.
- h. Vehicular Service shall be located within 500 feet of the intersection of two (2) arterials or the intersection of an arterial and collector.
- i. Vehicular Service shall not be allowed on along Canada Road or Highway 70, unless explicitly approved as part of a Planned Development or as an existing (constructed) vehicular service use.
- j. Vehicular Service shall not be located adjacent to a residential, open space, or conservation lot, unless approved a part of a planned development. If approved as a part of a planned development a solid fence or wall of at least four (4) feet in height shall be erected along all property lines separating the site from any lot allowed to have a residential use, open space, or conservation area and along all alley property lines where the property opposite allows for residential uses.

- k. The primary building shall have a useable/active pedestrian entrance on the arterial façade.
- l. Motor vehicle service and fuel center canopies and their associated columns and supports shall be removed at such time that the fuel center pumps and tanks are removed. New uses of the property, other than those for motor vehicle service and fuel centers, shall not be allowed to utilize the canopies previously constructed. New uses of the property, other than those for motor vehicle service and fuel centers, shall remove the canopies and their associated support columns and supports previously constructed prior to being allowed to occupy the site with the new use.

Multi-family in Commercial Districts:

This amendment will be to the Zoning Regulations. This amendment will remove multi-family uses from all commercial districts in the City.

The table that follows will be amended to only allow apartments in the R7 district.

	Neighborhood C	Neighborhood Community Commercial 1	Regional Commercial 2	Neighborhood Office O	Office O	Institutional P	Exurban R E	Suburban Estate R 1	Suburban Manor R 2	Suburban Cottage R 3	Urban Estate R 4	Urban Manor R 5	Attached R 6	Multi-Family R 7	Neighborhood Civic S 1	Neighborhood Open S 2	General Open Space S 3	Outdoor Recreation S 4	Conservation S 5	Agriculture A	Light Manufacturing M 1	Manufacturing M 2	Infrastructure M 3
Multi-family	●	●	●	●									●										

Impervious, Semi-pervious and Building Coverage:

This amendment will remove the impervious surface requirements for residential districts. This removal is consistent with other Cities in the immediate area and statewide. Most do have a maximum building coverage area; that standard is currently in place for Lakeland. The issue with the impervious surface requirement has come to light in the last several months with numerous appeals to the Board of Appeals. Many existing neighborhoods have difficulty meeting this requirement because driveways, houses, accessory structures, etc. cover larger portions of the lots. This requirement has been part of at least three appeals in the last five months. It is Staff's opinion that this many appeals mean the Code needs to be amended to resolve the issues.

Text highlighted and stricken through are being removed.

	Buildable Area	
	Maximum Building Coverage	Maximum Impervious + Semi Pervious Coverage
Residential Buildings		
Agriculture	4%-6%	7% impervious + 3% semi-pervious
Exurban	6%	10% impervious + 5% semi-pervious
Suburban Estate	20%	30% impervious + 10% semi-pervious
Suburban Manor	35%	45% impervious + 10% semi-pervious
Suburban Cottage	40%	45% impervious + 10% semi-pervious
Urban Estate	40%	50% impervious + 10% semi-pervious
Urban Manor	45%	60% impervious + 10% semi-pervious
Attached House	45%	60% impervious + 15% semi-pervious
Multifamily	45%	65% impervious + 15% semi-pervious

Section 3.N – Residential Building Type Standards: Agriculture

1. Building Siting. (Refer to Figure 3.N-1)

Buildable Area.

1.g Maximum Building Coverage shall be four (4) six (6) percent of the Lot Area.

~~1.h Maximum Impervious Site Coverage shall be seven (7) percent of Lot Area and an additional three (3) percent of the site may be Semi Pervious.~~

Section 3.O – Building Type Standards: Exurban

1. Building Siting. (Refer to Figure 3.O-1)

Buildable Area.

1.g Maximum Building Coverage shall be six (6) percent of the Lot Area.

~~1.h Maximum Impervious Site Coverage shall be ten (10) percent of Lot Area and an additional five (5) percent of the site may be Semi-Pervious.~~

Section 3.P – Building Type Standards: Suburban Estate

1. Building Siting. (Refer to Figure 3.P-1)

Buildable Area.

1.g Maximum Building Coverage shall be twenty (20) percent of the Lot Area.

~~1.h Maximum Impervious Site Coverage shall be thirty (30) percent of Lot Area and an additional ten (10) of the site may be Semi-Pervious.~~

Section 3.Q – Building Type Standards: Suburban Manor

1. Building Siting. (Refer to Figure 3.Q-1)

Buildable Area.

1.g Maximum Building Coverage shall be thirty-five (35) percent of the Lot Area.

~~1.h Maximum Impervious Site Coverage shall be forty-five (45) percent of Lot Area and an additional ten (10) of the site may be Semi-Pervious.~~

Section 3.R – Building Type Standards: Suburban Cottage

1. Building Siting. (Refer to Figure 3.R-1)

Buildable Area.

1.f Maximum Building Coverage shall be forty (40) percent of the Lot Area.

~~1.g Maximum Impervious Site Coverage shall be forty-five (45) percent of Lot Area and an additional ten (10) percent of the site may be Semi-Pervious.~~

Section 3.S – Building Type Standards: Suburban Cottage

1. Building Siting. (Refer to Figure 3.S-1) Street Frontage.

Buildable Area.

1.g Maximum Building Coverage shall be forty (40) percent of the Lot Area.

~~1.h Maximum Impervious Site Coverage shall be fifty (50) percent of Lot Area and an additional ten (10) percent of the site may be Semi-Pervious.~~

Section 3.T – Building Type Standards: Urban Manor

1. Building Siting. (Refer to Figure 3.T-1) Street Frontage.

Buildable Area.

1.f Maximum Building Coverage shall be forty-five (45) percent of the Lot Area.

~~1.g Maximum Impervious Site Coverage shall be sixty~~

~~1.h (60) percent of Lot Area and an additional ten (10) percent of the site may be Semi-Pervious.~~

Section 3.U – Building Type Standards: Attached House

. Building Siting. (Refer to Figure 3.U-1)

Buildable Area.

1.j Maximum Building Coverage shall be forty-five (45) percent of the Lot area.

~~1.k Maximum Impervious Site Coverage shall be sixty (60) percent of Lot Area and an additional fifteen (15) percent of the site may be Semi Pervious.~~

Section 3.V – Building Type Standards: Multifamily Building

1. Building Siting. (Refer to Figure 3.V-1)

Buildable Area.

~~1.f Maximum Impervious Site Coverage shall be 65%; an additional 15% of the site may be Semi Pervious.~~

1.i Maximum Building Coverage shall be forty-five (45) percent of the Lot area.

Commercial Building Type B:

The BOC discussed making changes to this building type at their April 8th meeting. The discussion included removing the building type from usage on Canda Road and Highway 70. There was also a discussion about adjusting the setbacks for this building type where it is allowed. There are several ways to accomplish this:

Option 1) is the use of a contextual setback to prescribe the setback based on the existing commercial buildings around a proposed building and

Option 2) would be only allow the Building Type B on certain segments of Highway 64.

Option 2 could be approached by using a map or by segmenting Highway 64 based on intersecting street. MPC can further discuss this at the meeting. Below is a proposed amendment to address changing the locations that Commercial Building Type B can be used.

III. Zoning Regulations

Section 3.I – Building Type Standards: Commercial Building Type B

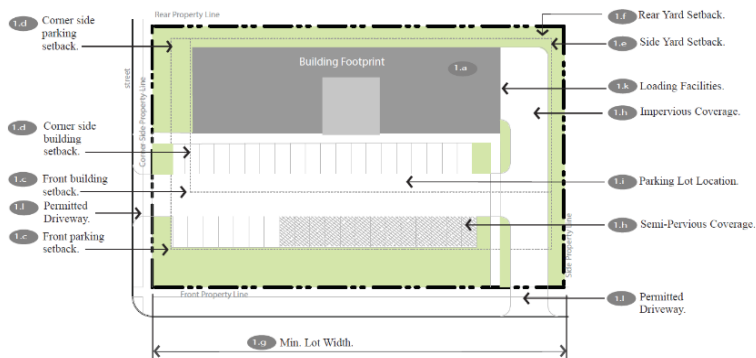


Figure 3.Ib-1: Building Siting

1. Building Siting. (See Figure 3.I-1)

1.a Multiple Principal Buildings may be constructed on a single Lot; however, all buildings shall meet the requirements of III.3.Ib.

1.b The building Type is permitted in districts per Table 3.A-1 and on lots with frontage on a Connector, Avenue, or Boulevard Street per Figure 8.B found in Article II. and on lots with frontage on Highway 64 and no other frontage on a connector, avenue, or boulevard according to Figure 8.B found in Article II.

Street Frontage.

1.c Front building facades shall be setback a minimum of fifty (50) feet from the front and twenty (20) feet from the Corner Property Lines.

1.d Parking shall be set back a minimum of twenty (20) feet from the Front and ten (10) feet from the Corner Side Property Lines.

Gas Station Research

Hendersonville

10.3.7 | MOTOR VEHICLE SERVICE STATION

- A. Motor vehicle service station and fuel center canopies shall be designed with luminaires full recessed into the ceiling of the canopy to minimize light pollution. Light intensity directly under the canopy shall not exceed thirty (30) footcandles at any location. All lighting mounted under the canopy, including auxiliary lighting within signage and panels over pumps, shall be included in the thirty (30) footcandle limit. For service stations and fuel centers adjacent to residential zones, see Chapter 11.3.3 (Light Trespass).
- B. All motor vehicle service station driveways must be located and designed to ensure that they will not adversely affect the safety and efficiency of traffic circulation on adjoining streets.
- C. Motor Vehicle service stations may offer convenience items for sale as secondary activity.
- D. Motor vehicle service stations may also include an automatic car wash with one (1) bay. Stacking spaces shall be in accordance with Chapter 11.2 (Off-Street Parking and Loading). More than one (1) bay constitutes a separate principal use and requires compliance as such.
- E. In addition, Minor Motor Vehicle Repair Shops may be included as part of a Motor Vehicle Service Station. However, they shall be subject to the provisions of this Chapter and the standards of Chapter 10.3.10 (Motor Vehicle Service and Repair, Major or Minor) below.
- F. Motor vehicle service and fuel center canopies and their associated columns and supports shall be removed at such time that the fuel center pumps and tanks are removed. New uses of the property, other than those for motor vehicle service and fuel centers, shall not be allowed to utilize the canopies previously constructed. New uses of the property, other than those for motor vehicle service and fuel centers, shall remove the canopies and their associated support columns and supports previously constructed prior to being allowed to occupy the site with the new use.

Jackson

GASOLINE SERVICE STATIONS

1. Gasoline pump islands, compressed air connections, and similar equipment shall be set back a minimum of fifteen (15) feet from any right-of-way line.
2. Canopies for the gasoline pump islands may be permitted provided: no canopy shall be located closer than seven (7) feet to any street right-of-way line; a minimum ten (10) feet clearance shall be provided between the ground elevation and the canopy; no advertising or signs of any nature shall be attached to the canopy; and the width of the canopy shall not exceed the width of the gasoline pump island by more than forty percent (40%).
3. The length of curb openings shall not exceed fifty (50) feet.
4. No driveway or curb cut for a driveway shall be located within ten (10) feet of an adjoining property line, as extended to the curb or pavement, or within twenty (20) feet of an exterior (corner) lot line as extended.
5. Any two (2) driveways providing access to a single street shall be separated by an island with a minimum dimension of twenty (20) feet at both the right-of-way line and the curb or edge of the pavement.
6. A raised curb of at least six (6) inches in height shall be erected along all of the streets' property lines, except for driveway openings.
7. The entire service area shall be paved with a permanent surface of concrete or asphalt. Any unpaved areas of the site shall be landscaped and separated from the paved areas by a curb or other barrier.
8. A solid fence or wall four (4) feet in height shall be erected along all property lines separating the site from any lot zoned for residential use, and along all alley property lines where the property opposite is zoned for residential purposes.
9. Off street parking of one parking space for each two employees (with a minimum of two (2) employee spaces) plus one (1) space for each service bay shall be provided. Exterior lighting shall be arranged so that it is deflected away from adjacent properties.

Franklin

Gas Stations

1. Gas stations shall not be located on a lot at a street intersection composed of two or more arterial streets.
2. Gas stations on lots at intersections, where permitted, shall be designed so that any fueling pumps and associated canopies are located away from the intersection and to the side or rear of the building.
3. Gas stations shall not be located adjacent to a residential lot, unless approved by the BOMA as a part of a development plan.
4. Gas stations shall have a pitched roofs for buildings and canopies.
5. Canopies shall have a maximum clearance height of 15 feet from the finished grade to the underside of the canopy.
6. Canopies shall use the same exterior materials and architectural style as the principle building. Each column or pier shall have a base of brick, natural stone, or cultured stone.
7. Canopy lighting shall comply with Subsection 14.3.5, Canopy and Awing Lights.
8. A gas station canopy is permitted one sign that does not exceed 15 percent of the canopy face that does not project above or below the canopy or roofline.

Columbia

E. Convenience Stores with Gasoline Sales Facilities

1. Convenience stores with gasoline sales facilities shall be permitted in accordance with the use table in Sec. 8.1, subject to the following:
2. Fuel pumps shall be located at least 15 feet from the property line.
3. No outdoor storage shall be allowed.
4. Storage of vehicles for 15 days or more shall be prohibited.
5. A spill prevention and counter measures plan shall be provided prior to construction plan approval that includes, at a minimum:
 - a. Clean up procedures for fuel (or other hazardous material) spills occurring inside and outside the building;
 - b. Counter measures for use in preventing fuel (or other hazardous material) spills from entering the stormwater collection system; and
 - c. Routine cleanup procedures for work areas and parking areas. Washdown water shall not be permitted to enter the stormwater collection system.
6. Pump island canopies shall be so located that a vertical downward projection of the edge nearest the front lot line shall not be closer than 1/2 the building setback for the district in which the use is located.
7. Within the CBD district, the maximum number of fueling stations shall be limited to eight district-wide

Gallatin

08.04.060 Special Conditions for Convenience Sales and Services Commercial Activities

- A. Personal convenience services, as described in Section 03.07.090, shall be exempt from this special condition section.
- B. Convenience Sales and Service structures shall be designed to be compatible with the character of residential structures in the surrounding area. Scale of materials and building forms are considered important elements of compatibility.
- C. In order to determine compatibility, the applicant shall provide information concerning building design and materials, including elevations of all sides of the proposed buildings and structures. The features shown in the elevations shall include information concerning building materials, heights, scale, door and window openings, façade offsets, roof pitch and colors.
- D. The design of such facilities shall comply with the requirements of Section 13.08, Architectural Character and Compatibility Standards. In addition, the following architectural standards shall apply:
 - 1. Building height and design shall be in keeping with the character and scale of the proposed and surrounding development.
 - a. Building colors should be subdued, with natural earth tones and colors compatible with surrounding development predominating.
 - b. Building rooflines and pitches should be comparable to typical residential roofline styles. To harmonize with residential structures, convenience sales and service structures should have roofs that are visible from the street, preferably with a pitch not less than 1-foot rise in 2-foot run. Roofs should be a dark earth tone in color.
 - 2. Canopy height and design shall be in keeping with the character and scale of the proposed development. The canopies shall have pitched rooftops compatible with the design of the proposed building(s).
 - 3. Canopies over gas pumps shall use colors and materials that blend with proposed and surrounding building facades. The use of earth tones or dark colors is encouraged.
 - 4. The use of primary, secondary or other bright, bold colors on building facades, canopies and awnings shall be avoided.
 - 5. Heating and cooling equipment, solid waste disposal equipment and facilities and mechanical equipment and facilities shall be adequately screened so as not to be visible from streets and adjacent properties. In addition, mechanical equipment placed on rooftops should be concealed from view from public streets and adjacent properties.
- E. The number of gasoline pumps, if any, permitted with this use shall be determined by the Planning Commission. In making this determination the

Planning Commission shall consider the location, size, and design of such facilities so that the proposed development will be compatible with the development within the surrounding area, thus reducing the impact upon the surrounding area.

Farragut

Sec. IX. - Gasoline/fuel service stations.

- A. The intent of this section is to provide for facilities that fuel and service automobiles and light trucks only. The design criteria used as a guide to construct such facilities are biased towards automobile and light truck traffic only. Service stations shall not be designed to refuel and/or service trucks with more than three axles or more than ten wheels.

The principal building used in conjunction with the service stations shall conform to the setback requirements for principal buildings for the district in which they are located.

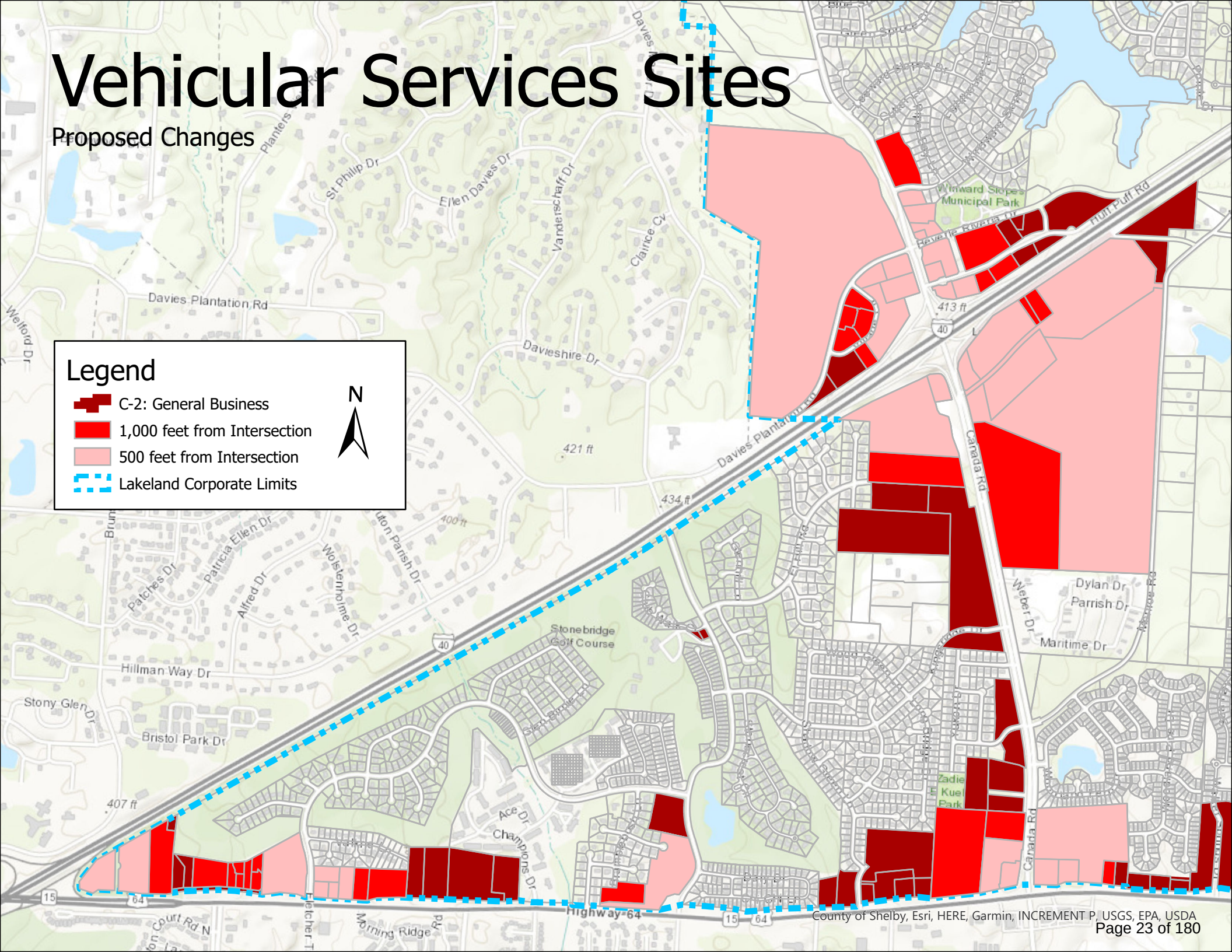
- B. Fuel pump islands shall:
1. Be designed and oriented for automobile and light truck service only.
 2. Be located not closer than 30 feet to any street right-of-way.
 3. Be separated by a driveway of at least 22 feet in width when two islands are located parallel to each other.
 4. Be separated from the principal building by a driveway of at least 20 feet where the islands are constructed parallel to the building, excluding a service attendant building constructed as a part of a pump island.
 5. Be separated from the principal building by a driveway of at least 30 feet in width where the islands are constructed perpendicular to the building.
 6. Be set back at least 30 feet from all property lines other than street rights-of-way.
- C. Canopies shall be designed for automobiles, light trucks, and recreational vehicles. They shall not be constructed closer than 20 feet from any street right-of-way.
- D. A raised curb at least six inches in height shall be constructed along boundaries of the driveways, except at the openings. On-site drainage may not be discharged through the driveway openings into the public right-of-way.
- E. Access to the public right-of-way shall be governed by the Farragut Municipal Code. Sites are not automatically granted multiple access points.

Vehicular Services Sites

Proposed Changes

Legend

-  C-2: General Business
-  1,000 feet from Intersection
-  500 feet from Intersection
-  Lakeland Corporate Limits



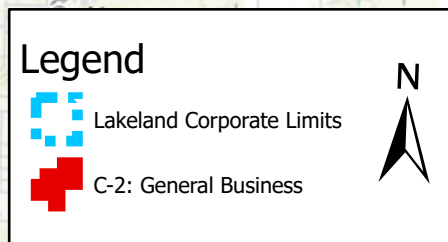
EXISTING C2 ZONING

Legend

- Lakeland Corporate Limits
- C-2: General Business

Map showing Lakeland Corporate Limits (blue dashed line) and C-2: General Business (red areas). The map includes major roads (Barrett Pkwy, Long Rd, Highway 64, Highway 15), water bodies (Crooked Creek, Rocky Branch, Oliver Creek, Buckhead Creek), and parks (Blue Lagoon Park, Stonebridge Golf Course). The map is titled "EXISTING C2 ZONING".

Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA
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Meeting Cycle: Thursday, May 20, 2021

Subject: Action on a recommendation to the Board of Commissioners for an Outline Plan – Chapel Lakes Planned Development.

Staff Contact: Richard Donovan, Planning Consultant

STAFF RECOMMENDATION

The Staff recommend approval of the Chapel Lakes Outline Plan with the following conditions:

1. Cluster mailbox locations shall be approved by MPC/DRC prior to installation.
2. The approval of this request should be contingent upon the Clear Creek sewer interceptor being constructed.

DISCUSSION

SITE INFORMATION:

LOCATION:	Champers Chapel Road
PARCEL ID:	L151 00483 & L151 00049
ZONING:	R1 (Suburban Estate), R2 (Suburban Manor), OS2 (Neighborhood Open Space), and OS5 (Conservation)
AREA:	126.4 Acres
APPLICANT/OWNER:	Cummings, LLC.
REPRESENTATIVE:	Michelle Ye, DT Design Studio

ANALYSIS & BACKGROUND:

Chapel Lakes PD is a planned residential development having a combined area of 126.4-acres. The subject property is bound generally on the east by Lakeland Trace future ROW, the west by Chambers Chapel, the north by Oakwood Grove, and the south by the future site of the Estates at Chambers Chapel PD.

Cummings, LLC intends to develop the combined 126-acre property as a planned residential development offering 268 single-family residential lots with common open space to include walking trails, ponds, and guest parking. The proposed lot sizes will range from 55-foot wide (5,500 sf) cottage lots to 70-foot wide (10,000 sf) suburban manor lots to 100-foot wide (17,500 sf) suburban estate lots as delineated by the site data table. The proposed overall density is 2.1 dwelling units per acre. The overall green space contemplated is 21.16 acres.

LAND USE PLAN:

Lakeland's Comprehensive Land Use Plan Update, adopted March of 2006, recommends "Suburban Neighborhood" and "Conservation Overlay" for the property.

"Suburban Neighborhood" is defined as "Primarily single-family residential lots with a maximum density of 2.5 dwelling units per acre, but may contain religious facilities, schools, and public buildings. Development requires public water and sanitary sewer service. Streets shall be designed with an urban cross section".

"Conservation Overlay" is defined as "Primarily Planned Developments containing single family residential lots that require conservation development practices in the design and preservation of natural resources. Areas shall contain substantial passive open space and possibly come limited active open space. Development requires public water and sanitary sewer services. Streets may be designed with a rural or urban cross-section as approved by the Municipal Planning Commission and Board of Commissioners.

DEVELOPMENT REGULATIONS:

The subject properties are currently zoned R1 (Suburban Estate), R2 (Suburban Manor), OS2 (Neighborhood Open Space), and OS5 (Conservation) as defined and regulated by the Lakeland Land Development Regulations. This is different than most PDs before the MPC and BOC as there are currently zoning entitlements in place for the property and the property could develop through the traditional subdivision process.

However, in the Spring of 2014 the City adopted a planned development ordinance to allow for flexibility in all zoning districts with a PD. The planned development ordinance allows greater flexibility of design and relief from various provisions of the Lakeland Development Regulations (Zoning Ordinance) when the standards and criteria of the planned development ordinance are met. When a planned development is approved, the underlying zoning of the property remains unchanged, but the conditions of the planned development regulate the uses and bulk regulations of the property as opposed to the zoning provisions.

DISCUSSION ITEMS:

- A. Does the proposed planned development have access to all utilities including sanitary sewer?
Staff's Opinion: The main concern with extending approval of developments in this part of the City is the lack of capacity in the Clear Creek Interceptor. Once the new interceptor construction has begun, there will not be an issue. As such, the MPC and BOSC can grant approval contingent on the construction of the Interceptor.
- B. Does the proposed planned development meet the standards and criteria of the planned development ordinance?
Staff's Opinion: Yes, the proposed planned development provides greater design flexibility, protects the natural resources of the property, promotes an efficient use of land, provides more useable provisions for public and common area facilities, provides an efficient traffic circulation pattern, and provides a safe and desirable living environment.
- C. Does the proposed planned development comply with the various recommendations of the Comprehensive Land Use Plan?

Staff's Opinion: Yes, the proposed planned development (as reviewed at outline plan level) complies with the various plans and recommendations of the Comprehensive Land Use Plan.

- D. Does the proposed planned development comply with all applicable provisions of the Lakeland Development Regulations?

Staff's Opinion: Yes, as proposed the planned development generally complies. Additional review is necessary at the Preliminary Development Plan approval level to ascertain complete compliance.

The applicant has provided a list of the items they are seeking to vary from in the LDRs. This is in the spirit of complying with our soon to be requirement for stating what exception they need and why and where they seek to exceed the LDRs.

Below is the applicants list of exceptions from the LDRs. The packet provided to the MPC also has the letter stating these requests and why they are needed. Each request has staff's take on the request.

- 1) Provide less than 20% of lost as R1.
 - a. Applicant is providing 11.5% of the site in R1 lots
 - b. Staff has been working with the Applicant prior to the most recent changes to the LDRs for the Zoning Mix
 - c. The pre-application meeting was held in January of 2021.
 - d. Sketch Plan feedback was received in March of 2020.
- 2) Utilization of 55-foot right-of-way with a 5-foot sidewalk on rural neighborhood streets.
 - a. Staff requested the applicant provide a sidewalk instead of a 10-foot-wide trail.
 - b. Staff supports this request as the connection between the 5-foot-wide sidewalk and 10-foot-wide trail would have been odd. The 10-foot trail is also limited in the development and provides a more consistent look for the development.
 - c. The additional 5 foot in right-of-way is due to the reduction in trail to sidewalk.
- 3) Request to use a 5' rear setback in for R3 lots
 - a. The LDRs require a 10' setback for R3 lots. This would lessen that requirement for 5' which is allowed for detached accessory structures.
 - b. 5' setbacks are not uncommon for alley loaded products in jurisdictions throughout the state and country.
- 4) Request to use a 50' lot with vs. 55' with no maximum.
 - a. In Staff's opinion the 5-foot request is minor in nature and will be difficult to tell in the field.
 - b. Maximum lot width are atypical requirements and are typically required to promote a compact building form that in the PD case is controlled with the outline plan.
- 5) Request to use the Common Open Spaces to satisfy the Conservation Area Requirements of the LDRs.
 - a. The City's Conservation Index does identify several areas along the southern boundary that should be preserved.
 - b. The applicant has provided a less dense pattern for these areas vs. preserving them as required by the Conservation sections of the LDRs.

PROPOSED (EXAMPLE) MOTIONS:

1. Recommend approval of the Outline Plan for Chapel Lake with the following conditions:
 - a. Commission's discussion.
 - b. Staff comments and conditions in the staff report.
2. Recommend approval of the Outline Plan for Chapel Lake without conditions.
3. Recommend approval of denial the Outline Plan for Chapel Lake.
 - a. State the reason for denial.



CITY OF LAKE LAND
Application for Planned Developments

Case No. _____ Date of Application 04/15/2021

Name of Applicant DT Design Studio (Michelle Ye)

Address 6465 N. Quail Hollow Rd. Ste 401, Memphis, TN 38120

Daytime Telephone Number 901-646-5077 Fax Number _____

Name of Property Owner Cummings, LLC. (Owner/Developer)

Address 803 Mt. Moriah Rd, Suite 201, Memphis, TN 38117 Telephone Number 901-233-1591

Name of Project Planning/Engineering Firm DT Design Studio

Name of Project Manager or Contact Person Michelle Ye

Address 6465 N. Quail Hollow Rd. Ste 401, Memphis, TN 38120

Telephone Number 901-646-5077 Fax Number _____

E-mail michelle@dt-designstudio.com

Name of Planned Development Chapel Lakes Parcel ID# L0151 00483 & 00049

Site Location Chambers Chapel Road South of Mt. McKenzie Rd.

Site Acreage 126.4 Zoning District(s) R-1, R-2, OS-2, OS-5

Proposed Use(s) Single-Family Residential and Open Space

Proposed Number of Lots/Dwelling Units 261 Proposed Gross Floor Area N/A Sq. ft.

Multiple Phases? Yes If yes, total number of phases and schedule Approx. 6 phases

Approval requested: ☒ Outline Plan ☐ Preliminary Development Plan ☐ Final Development Plan

Application for Planned Developments

Michelle Ye
Applicants Signature

04/15/2021

Date

[Signature]
Property Owners Signature (if different from applicant)

4.15.2021
Date

Please contact the Planning Department Staff for meeting dates and times, number of copies of all required materials, and the required filling fee to be submitted with the application.

CITY OF LAKELAND

10001 Highway 70

Lakeland, TN 38002

Office: (901) 867-2717 Fax: (901) 867-2063

Email: dmurrell@lakelandtn.org

www.lakelandtn.gov

OBJECTIVES

The Board of Commissioners may, upon proper application, grant a special permit for a Planned Development to facilitate the use of flexible techniques of land development and site design providing relief from zoning requirements designed for conventional developments. Planned developments shall be permitted in all zoning districts except for the FW-Floodway District.

PRE-APPLICATION CONFERENCE WITH CITY STAFF

At least thirty (30) days prior to filing any application for a Planned Development, the prospective applicant shall request a pre-application conference with the City. A preliminary development plan shall be submitted to the Planning Commission with the application for the Planned Development within six (6) months of the pre-application conference.

EFFECT OF APPROVAL OF DEVELOPMENT PLANS

The approved preliminary development plan shall bind the applicant, owner and mortgagee, if any, with respect to the contents of such plan. The preliminary development plan shall be used in lieu of a Master Subdivision Plan to comply with the provisions of the Subdivision Regulations pertaining to Master Plans. A Planned Development and the approved preliminary development plan may be amended in accordance with the procedure which governed its approval. If any application for a Planned Development is denied by the Board of Commissioners, a reapplication pertaining to the same property and requesting the same Planned Development may not be filed within twelve (12) months of the date final action was taken on the previous application, unless such reapplication is initiated by the Planning Commission or authorized by the Board of Commissioners.

GENERAL PROVISIONS

No action of the Board of Zoning Appeals shall be required in the approval of a special permit for a Planned Development. The preliminary and final development plans shall contain a certification that the services of a Certified Planner (AICP or equivalent), Landscape Architect, Architect, and/or Civil Engineer were utilized in the design and planning of the project and related plan documents.

DEVELOPMENT AGREEMENT

Following approval of the Final Development Plan by the Planning Commission and prior to construction, the developer and/or owner must enter into a Development Agreement with and satisfactory to the City of Lakeland Board of Commissioners relative to all required public and private improvements. Construction including land preparation will not be permitted to commence until a Development Agreement has been fully executed by the City and developer.

DEVELOPMENT PERIOD, STAGING

The Planning Commission may recommend and the Board of Commissioners may establish a reasonable period of time for the completion of the Planned Development at the time the Special Permit is granted.

Each stage of development shall be planned and related to existing surrounding and available public facilities and services such that failure to proceed to subsequent stages will not have an adverse impact on the development or its surroundings at any stage of the development.

If no actual construction has begun or no use has been established in the Planned Development within the approved time period, the Board of Commissioners may, in its discretion, terminate the final development plan by giving written notice to the applicant. Actual construction is defined to include the placing of construction materials in a permanent position and fastened permanently or extensive grading including demolition or removal of existing structures necessary for the development. If actual construction is not commenced within this approved time period, the final development plan may be terminated.

Upon the request of the applicant and review of the recommendation of the Planning Commission, the Board of Commissioners may extend for a reasonable time, not to exceed one (1) year, the period for the commencement of actual construction of the Planned Development.

If the Final Development Plan is terminated, the Planned Development designation shall be removed from the Official Zoning Map and a notice of revocation shall be filed on the recorded development plan.

RECORDING OF FINAL DEVELOPMENT PLAN WITH REGISTERS OFFICE

After a final development plan is approved by the Planning Commission, the plan shall be recorded in the Shelby County Register’s Office after receipt of any necessary bonds, fees, and execution of Development Agreements relative to the provision of public and/or private improvements. All required certificates of approval shall be properly executed prior to recording of the final development plan and related documents.

PLANNED DEVELOPMENT SUBMISSION CHECKLIST

		For Office Use Only
Written Documents		
Outline Plan		
Following a pre-application conference with City staff, the applicant shall submit a request for an Outline Plan to the Planning Commission with the application for a Planned Development, all required fees and associated documentation. If the planned development is less than fifty (50) acres, the applicant may exclude this step and begin with the Preliminary Development Plan. The Preliminary Development Plan shall include as a minimum:		
a) A legal description prepared by and certified by a licensed surveyor or civil engineer in a form acceptable to the City of Lakeland of the total site proposed for development. b) A statement of current and proposed ownership and existing and proposed zoning. c) A statement of planning objectives to be achieved by the Planned Development through the design and use mixture approach proposed by the applicant. This statement should include a detailed description of the character development; d) Quantitative data for the following: i) Total acreage of the development and acreages devoted to specific uses. Any proposed phases shall be indicated. ii) Requested uses shall be designated by references to appropriate Lakeland Zoning Districts, including permitted use sections, densities, and bulk and area requirements. Deviations from the specific district regulations shall be requested in writing. iii) Approximate densities of development shall be indicated on the application and required plan. iv) Approximate acreage to be maintained as common acres and proposed maintenance plans. v) Appropriate studies, if applicable, (depending on the size and complexity of the development as determined by the Planning Director and Engineer) used in the development of the Outline Plan, such as but not limited to soils analysis, an economic feasibility study, a transportation impact study, an environmental inventory and impact analysis, a housing study, market analysis, and utility and infrastructure requirements. e) The Outline Plan shall include one or more graphic presentation maps. The Plan map shall include as a minimum the following: i) A property survey prepared and certified by a licensed surveyor or civil engineer in a form or other description acceptable to the Lakeland Planning Commission on a scale approved by the Planning Commission;		

ii) A contour map on two (2')-foot intervals noting water courses, designated floodplains, identified aquifers or wetlands, and areas with slopes in excess of ten (10%) percent; iii) Aerial photographs or a surveyed drawing noting major natural features such as forested areas, lakes, streams, and existing uses and transportation features; iv) A Transportation Plan showing all existing and proposed arterial and collector status streets, as well as existing minor residential streets, and design concepts to be utilized such as frontage roads and internal circulation concepts should be submitted in the written documents and illustrations provided; v) A drainage analysis and plan; vi) Location of existing utilities, public facilities, proposed open space, and recreational or natural preservation areas; vii) A General Plan for provisions of utilities; viii) Proposed zoning scheme noting areas for residential, commercial, and industrial uses; ix) A Tree Preservation Plan; and, ix) Conceptual lot lines and plot designs.		
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Preliminary Development Plan Approval Process and Effect of Approval		
1. <u>Application Deadline</u> -An optional application / submission for approval of a Preliminary Development Plan of the entire Planned Development, if it is to be completed in one phase, or of a portion of the Planned Development, if it consists of more than one phase, shall be submitted, when complete, by the applicant on a date and time no later than the corresponding filing deadline for the Planning Commission meeting at which it is to be considered, as indicated in the approved Annual Planning Commission Filing and Meeting Schedule, and insufficient time so that the applicant may develop the Planned Development in accordance with the phasing schedule, if any, of the approved Preliminary Development Plan. An application shall not be considered complete and available for docketing at the Planning Commission until all of the filing requirements of this article are provided and on file with the City of Lakeland on or prior to the applicable filing deadline as stated herein. 2. <u>Application / Submission Materials</u> - The application /submission for Preliminary Development Plan approval shall be filed with the Planning Commission and shall include, but not be limited to the following, if not supplied previously with the Preliminary Development Plan: a. Tree survey per the Lakeland Tree Management Ordinance. b. Selected Stream Management Buffer requirements, as stated in Section 2 of this article. c. Preliminary Plat d. Subdivision covenants and restrictions. e. All quantitative and data requirements of the Preliminary Development Plan, shall be presented in final form, unless a specific requirement is expressly waived and deferred to a subsequent approval step by the Planning Commission. f. Detailed design guidelines including, but not limited to, building elevations, architectural renderings, design standards, and floor plans, for structures and improvements, in accordance with the documentation provided with the preliminary development plan, unless a specific requirement is expressly waived and deferred to a subsequent approval step by the Planning Commission. If necessary, any refinements to the standards and guidelines submitted with the preliminary development plan shall be provided with the detailed design guidelines, so that building permits subsequently approved shall be in substantial compliance with the detailed design guidelines. Standards, renderings, and proposed elevations shall be in substantial compliance with Lakeland Municipal Code, Chapter 14, Chapter 11, Architectural Design Standards, if applicable. The Planning Commission may waive Chapter 11 requirements for a mixed use development. For a mixed use development for which waivers of Chapter 11 are considered, each applicable standard that is waived shall be individually and expressly waived in writing. For each item waived, the applicant shall be required to provide alternative written standards, renderings, and elevations, or a written rationale as to why compliance cannot be achieved for the applicable item.		

g. The general location, arrangement, and design of architectural, wall, or pole lighting, typical specifications and fixture types, pole types, and lighting levels. Plans shall be in compliance with Article III, Section 13 of the Land Development Regulations regarding, Site Lighting Standards, if applicable. If waivers are requested and an item is waived, each applicable standard that is waived shall be individually and expressly waived in writing. h. The general location, arrangement, and standards for signs that are part of a consistent design theme, in compliance with the Lakeland Sign Ordinance. Plans shall be in compliance with the Lakeland Sign Regulations. If waivers are requested and item is waived, each applicable standard that is waived shall be individually and expressly waived in writing. i. All textual information (such as descriptions, objectives, quantitative data, tabulations, bulk standards, and conditions) of the Preliminary Development Plan, and all other conditions of approval stated as part of the Special Permit granted by the Board of Commissioners, shall be provided on a separate plan sheet(s).		
Final Development Plan Approval Process		
1. Application /Submission Deadline -An application /submission for approval of a Final Development Plan of the entire Planned Development, if it is to be completed in one phase, or of a portion of the Planned Development, if it consists of more than one phase, shall be submitted by the applicant on a date and time no later than the corresponding filing deadline for the Planning Commission meeting at which it is to be considered, as indicated in the approved Annual Planning Commission Filing and Meeting Schedule, and in sufficient time so that the applicant may develop the Planned Development in accordance with the phasing schedule, if any, of the approved Preliminary Development Plan. An application shall not be considered complete and available for docketing at the Planning Commission until all of the filing requirements of this article are provided and on file with the City of Lakeland on or prior to the Applicable filing deadline as stated herein. 2. Application /Submission Materials-The application/submission for Final Development Plan approval shall be filed with the Planning Commission and shall include, but not be limited to the following: a. A plan suitable for recording with the Shelby County Register's Office b. Proof referred to on the plan and satisfactory to the City Attorney as to the provision and maintenance of common open space c. All certificates, seals and signatures required for the dedication of land and recordation of documents d. Location and type of existing and proposed landscaping e. Location and dimensions of utility and drainage facilities f. All textual information (such as descriptions, objectives, quantitative data, tabulations, bulk standards, and conditions) of the Preliminary Development Plan, and all other known conditions of approval stated as part of the Special Permit granted by the Board of Commissioners, shall be provided on a separate plan sheet(s). g. All other requirements of a Final Plan and Final Plat under the Lakeland Subdivision Regulations and/or this Ordinance		

May 14, 2021

Ms. Emily Harrell
City Engineer
City of Lakeland
10001 Highway 70
Lakeland, TN 38002

**RE: Chapel Lakes Planned Development
Outline Plan Submittal**

Dear Ms. Harrell,

The developer and design team reviewed the City of Lakeland's comments for our Outline Plan submittal April 15, 2021 and have provided the responses below. Along with modifications to the original submittal documents, we have included items 07 – Comment Response Letter (this document) and 08 – Summary of Exceptions to LDR. Please don't hesitate to contact us if we can provide any additional information ahead of the MPC meeting.

Page 3: This is not yet a requirement but I believe it will go a long way with the MPC and BOC in helping them understand the development. The City is also working to codify this as a requirement. Provide a letter that states what sections of the LDR you are seeking relief from and why and where you are exceeding the LDRs. I can almost guarantee this questions will be asked at the MPC & BOC meeting. I would recommend this be done in a bulleted format so that it is easy for both boards to read. (Richard Donovan)

Response: This summary has been provided as 08 – Summary of Exceptions to LDR.

Page 10: This portion of the site is most very high or high proximity on the City's Conservation Preservation Index Map. I would expect numerous questions about the use of the land in this area. very high areas are required to be preserved. I would review Article II Section 11 in detail prior to the meeting. (Richard Donovan)

Response: Lakeland's Conservation Preservation Index Map was taken into consideration in the early stages of planning for this project. However, in order to follow other City requirements and priorities, we were not able to preserve all the Very High Priority areas as is exactly shown in this map. We kindly request that the City allow the conceptual development plan, tree preservation plan, and other information that has been presented in the Outline Plan submittal to satisfy the requirements of Article II Section 11 of the ordinance, without the need for additional surveying. Please see the full justification in 08 – Summary of Exceptions to LDR.

Page 13: Add a table with the following data:

Zoning Acreage Percentage

R-1 AC. %

R-2 AC. %

R-3 AC. %

COS AC. %

Ensuring that PD meet the Neighborhood Type has become highly scrutinized. I will help if this information is simple and concise for the MPC. (Richard Donovan)

Response: A table has been added under the Site Data in the booklet.

Page 14: Strike the Max. Impervious and Semi-Previous Coverages these are in the process of being removed from the zoning ordinance. (Richard Donovan)

Response: This has been struck from the text.

Page 18: Add connection to existing 10ft trail from The Grove at north end of COS 1. Extend facilities south through COS1 to connect to Lakeland Trace and Gillespie Oak Dr. (Emily Harrell)

Response: We do not believe the connections described would be appropriate. The primary reason is that making the connection requires at least one stream crossing and putting the asphalt trail within the stream buffer. This would be subject to TDEC approval and may negatively impact the stream. Another reason is that the trail would be along the backside of the lots within the Oakwood Grove neighborhood. Without feedback from those residents, we cannot commit to adding public access in that location which may be a safety concern for them. There are already ample sidewalk connections throughout Chapel Lakes that would connect to the trail via Lakeland Trace Road without compromising the sensitive environment in COS 1 and potentially causing safety issues. There would not be a benefit to adding the proposed trails for either Chapel Lakes or the surrounding neighborhoods.

Page 18: Lets change this to a 5 foot sidewalk that wraps around the cove. This will prevent an odd transition to the sidewalk. (Richard Donovan)

Response: We have replaced the 10 ft sidewalk with a 5 ft sidewalk.

Page 18: Typical sections show sidewalk on both sides of all roadways (except rural section). Please include sidewalks on this plan where not shown.

Response: We have added sidewalk where not previously shown.

Page 20: Add "Common Open Space" needs to be clear the buffer will be in COS (Richard Donovan)

Response: We have added "Common Open Space" to the 86' ROW street section.

Page 20: 14ft median required (Emily Harrell)

Response: We have revised the median on Chambers Chapel Rd to be 14 ft.

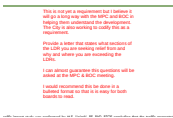
Page 22: Change this to a 5 sidewalk per the comment on the circulation plan. (Richard Donovan)

Response: We have replaced the 10 ft sidewalk with a 5 ft sidewalk.

Following is a copy of the original set of staff comments for your reference.

02_BOOKLET.pdf Markup Summary

3 (1)



Page Label: 3
Author: Richard Donovan

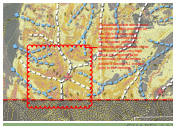
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Provide a letter that states what sections of the LDR you are seeking relief from and why and where you are exceeding the LDRs.

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I would recommend this be done in a bulleted format so that is is easy for both boards to read.

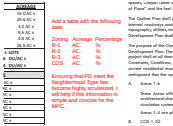
10 (1)



Page Label: 10
Author: Richard Donovan

This portion of the site is most very high or high proximity on the City's Conservation Preservation Index Map. I would expect numerous questions about the use of the land in this area. very high areas are required to be preserved. I would review Article II Section 11 in detail prior to the meeting.

13 (1)



Page Label: 13
Author: Richard Donovan

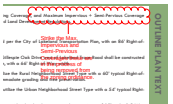
Add a table with the following data:

Zoning	Acreage	Percentage
R-1	AC.	%
R-2	AC.	%
R-3	AC.	%
COS	AC.	%

Ensuring that PD meet the Neighborhood Type has become highly scrutinized. I will help if this information is simple and concise for the MPC.

Strike the Max. Impervious and Semi-Previous Coverages these are in the process of being removed from the zoning ordinance.

14 (1)



Page Label: 14
Author: Richard Donovan

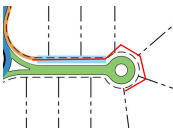
Add connection to existing 10ft trail from The Grove at north end of COS 1. Extend facilities south through COS1 to connect to Lakeland Trace and Gillespie Oak Dr.

18 (4)

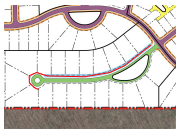


Page Label: 18
Author: EHarrell

Lets change this to a 5 foot sidewalk that wraps around the cove. This will prevent an odd transition to the sidewalk.



Page Label: 18
Author: Richard Donovan



Page Label: 18
Author: Richard Donovan

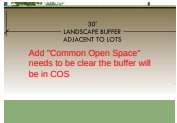
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Page Label: 18
Author: EHarrell

Typical sections show sidewalk on both sides of all roadways (except rural section). Please include sidewalks on this plan where not shown.

20 (2)



Page Label: 20
Author: Richard Donovan

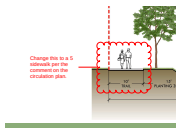
Add "Common Open Space" needs to be clear the buffer will be in COS



Page Label: 20
Author: EHarrell

14ft median required

22 (1)



Page Label: 22
Author: Richard Donovan

Change this to a 5 sidewalk per the comment on the circulation plan.

RE: Chapel Lakes Planned Development Outline Plan Submittal

The following lists the sections of the Lakeland Land Development Regulations that Chapel Lakes Planned Development is seeking exceptions from:

1. Section II. 3. Neighborhood Type II Requirements
 - a. Request to remove the requirement of minimum 20% R1 lots
2. Section II. 8. H. Street Type Standards: Rural Neighborhood Street
 - a. Request to utilize a 55' ROW (60' required) and a 5' sidewalk on one side (10' trail on one side required) for a Rural Neighborhood Street
3. Section III. 3. Building Type Standards: Residential Summary Table
 - a. Request to use a 5' rear setback (10' required) and 50' lot width (55' required) within the R3 Suburban Cottage areas
 - b. Request to not utilize maximum lot widths
4. Section II. 11. Conservation Area Requirements
 - a. Request to allow the tree survey and approximate Common Open Spaces presented in this Outline Plan submittal to satisfy the Conservation Area requirements of the LDR.

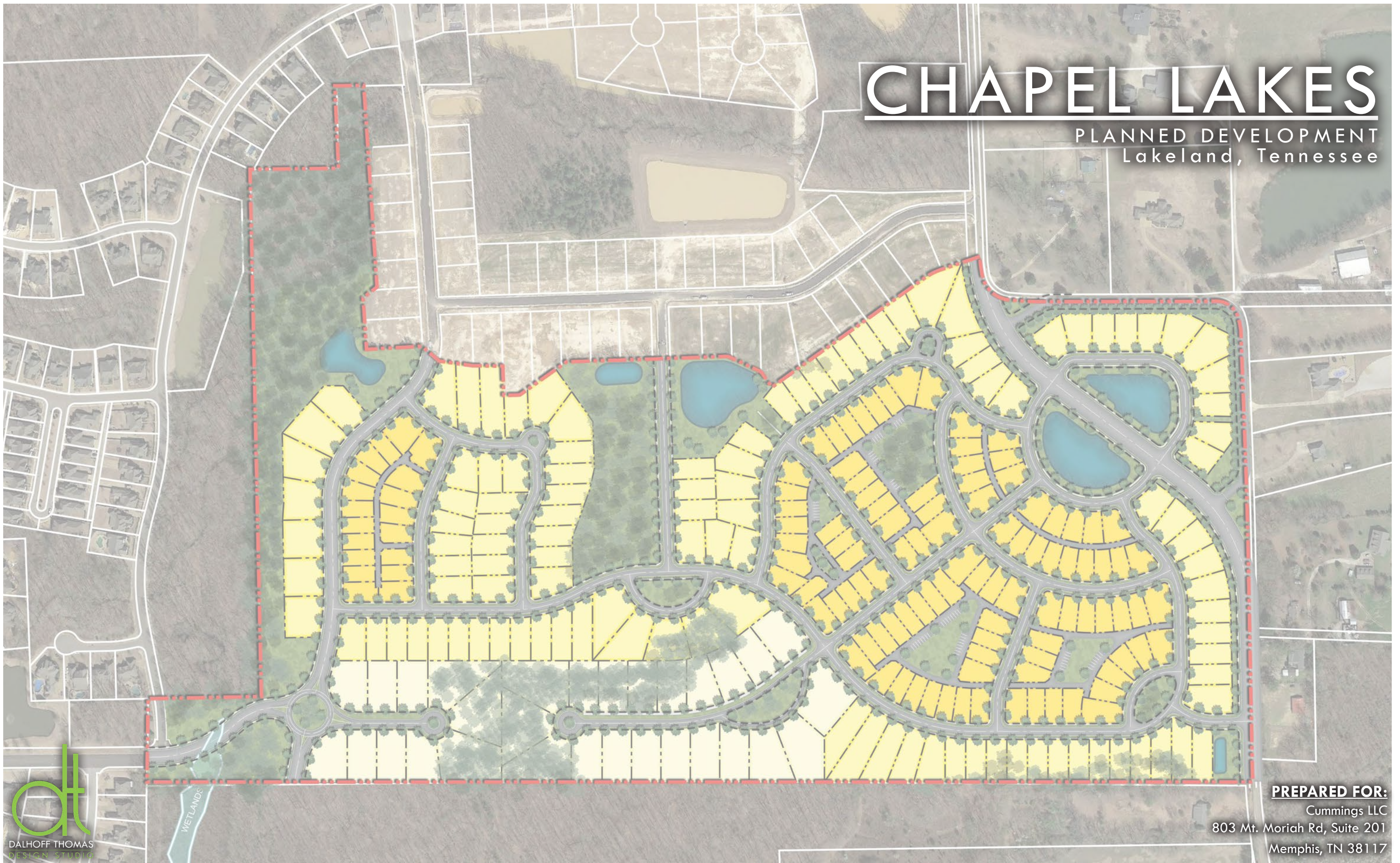
Below are justifications for each exception:

1. Request to provide less than 20% of lots as R1 lots
 - The development was planned using Traditional Neighborhood Development principles and with sensitivity to the unique natural features of the site. The area designated for R1 lots is along the south of the property as a transition to the R1 lots in the Estates of Chambers Chapel. The R3 areas with the rear-loaded Suburban Cottage lots are concentrated on the interior of the development, with an area along Lakeland Trace Road to reduce the number of driveways accessing that road (a request by the MPC). The R2 areas are primarily located on the perimeter of the site and along major streets.
 - Although only $\pm 11.5\%$ of the lots are within the "R1" area, $\pm 20\%$ of the lots do meet the 17,500 SF minimum lot size requirement of the R1 district, as shown by the Lot Size Diagram in the booklet. The reason these are not all R1 lots is in order to provide a consistent setback and compatible home sizes along the street. Some of the lots that meet the minimum size requirement to qualify as an R1 lot fall into an R2 area, and should follow those same bulk regulations to achieve a harmonious development.
 - Additionally, Lakeland's neighborhood types map shows a small portion of the property is designated as Type III, which has no minimum percentage of R1 lots.
2. Request to utilize a 55' ROW (60' required) and a 5' sidewalk on one side (10' trail on one side required) for a Rural Neighborhood Street
 - The Rural Neighborhood Street type is only utilized in the two R1 Suburban Estate area cul-de-sacs. The street type originally showed the 10' trail requirement, but staff requested that this be changed to a 5' sidewalk in order to smoothly transition into the sidewalks along the rest of the development. The 15' planting strip already allows ample room for street trees and does not need to be expanded to 20', so we have reduced the total ROW width of this street type from 60' to 55' to account for the different in sidewalk width. This would allow even more flexibility for grading on the north side of the R1 area, where we are keeping as much ungraded as possible to maximize tree preservation.

3. Request to use a 5' rear setback (10' required) and 50' lot width (55' required) within the R3 Suburban Cottage areas; Request to not utilize maximum lot widths
 - The slightly smaller rear setback and minimum lot widths allow the flexibility needed to fit lots and homes onto the challenging topography of the site while maximizing tree preservation. This rear setback and lot width are used regularly elsewhere in Lakeland (in the Urban Estate district) and other municipalities. With the current plan, most of the R3 lots will be at least 55' wide, and less than 10 lots are between 50' and 55' wide.
 - The development proposes bulk regulations that only require lots to meet a minimum lot width, with no maximums. One of the primary reasons is that we received a request from the Sketch Plan review to limit the number of driveways accessing Lakeland Trace Rd. Therefore, we chose to impose a minimum lot width of 100' for all R2 lots fronting Lakeland Trace Rd, which exceeds the 70' minimum required by the LDR and is the 100' maximum allowed by the LDR.
4. Request to allow the tree survey and approximate Common Open Spaces presented in this Outline Plan submittal to satisfy the Conservation Area requirements of the LDR.
 - Lakeland's Conservation Preservation Index Map was taken into consideration in the early stages of planning for this project. This is evidenced by the decision to locate the larger R-1 lots in the southern portion of the site to try to prevent grading in this area. However, in order to follow other City requirements and priorities, we were not able to preserve all the Very High Priority areas as is exactly shown in this map.
 - One limitation is that the City's Transportation Plan shows a connection between Gillespie Oaks Drive and Chambers Chapel Road as well as the extension of Lakeland Trace Road north-south through our site. These two road connections alone would require us to carve up the areas of High and Very High Priority, restricting the ability to create a truly high-functioning conservation area.
 - The sketch plan that we presented to the MPC received positive feedback overall with the direction to proceed on with the Outline Plan process with some minor tweaks (which we have made). The plan that was presented in March of 2020 contained ± 268 lots and $\pm 17.7\%$ of greenspace. After this step of the process was completed, we received the arborist's tree survey, which shows a high density of large specimen trees located in the north-central portion of the site, showing a different priority area for targeted conservation than the City's map. This area is also easier for us to preserve as open space without interfering with the transportation network.
 - We know the preservation of specimen trees is very important to the City of Lakeland, and it is not possible for the development to preserve all the trees in the area surveyed by the arborist and the Very High Priority conservation areas indicated on the City's map. Given that the arborist's information is much more accurate to our site, we adjusted our site plan using this information. The current concept reduced the lot count by 7 and raised the total greenspace to $\pm 23.4\%$ in order to preserve the highest number of specimen trees possible.
 - A few pieces of site data illustrate the results that we have been able to achieve with the development. The development is only required to have a Site Density Factor of 2442 based on the site acreage, but the existing trees we are keeping on site provide more than 2.5x this requirement at 6316, not even accounting for additional new trees that will be planted. With the current plan, we are able to preserve $\pm 26.5\%$ of specimen trees on site, with some of the areas of Very High or High Conservation priority included.
 - The developer and design team have made our best effort to meet the intent of the ordinance with the most accurate information available for our specific site. We have achieved a much higher percentage of tree preservation and common open space than is typical for most developments. For example, the Estates at Chambers Chapel, which has a higher percentage of land within Very High and High Conservation priority than this property, was approved with only 18.9% of COS and no tree survey required. We kindly request that the City allow the conceptual development plan, tree preservation plan, and other information that has been presented in the Outline Plan submittal to satisfy the requirements of Article II Section 11 of the ordinance, without the need for additional surveying.

CHAPEL LAKES

PLANNED DEVELOPMENT
Lakeland, Tennessee



DEVELOPER:

Cummings LLC
803 Mt. Moriah Rd, Suite 201
Memphis, TN 38117
901.233.1591

contact: Mr. Trent Crowley - trent@astorfinebuilders.com

PLANNER / LANDSCAPE ARCHITECT:



DALHOFF THOMAS design | studio
6465 North Quail Hollow | Suite 401
Memphis, Tennessee 38120
901.646.5070
www.dt-designstudio.com

contacts: Bob Dalhoff - bob@dt-designstudio.com
Michelle Ye - michelle@dt-designstudio.com

CIVIL ENGINEER:



The Reaves Firm
6800 Poplar Avenue | Suite 101
Memphis, TN 38138
901.761.2016
www.reavesfirm.com

contact: Dave Watkins - sdw@reavesfirm.com

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DISCLAIMER:
Graphics, images, and photographs included in this booklet are solely to convey form and character within Chapel Lakes Planned Development and are not intended to be a final product design. All site design, engineering, graphics, and images are subject to final design and approvals. Some images used in this booklet are not property of DALHOFF THOMAS design studio. A full list of photo credits can be provided if needed.

April 15, 2021

Ms. Emily Harrell
City Engineer
City of Lakeland
10001 Highway 70
Lakeland, TN 38002

**RE: Chapel Lakes Planned Development
Outline Plan Submittal**

Dear Ms. Harrell,

We are pleased on behalf of Cummings LLC, the Owner & Developer, to submit this Outline Plan application for the property located on the west side of Chambers Chapel Road, just north of I-40, and currently referred to as Chapel Lakes Planned Development (PD). The team received positive feedback on the preliminary plan submitted for Sketch Plan review in March 2020, and we have worked diligently on plan adjustments in response to the Municipal Planning Commission’s priorities and tree survey data. This Outline Plan submittal represents an improved version of the original Sketch Plan concept that prioritizes the preservation of specimen trees on the property and reduces the number of driveways accessed from Lakeland Trace Road.

Chapel Lakes PD encompasses 126.4± acres and 261 proposed single-family lots located on the west side of Chambers Chapel Road, east of Grove and Oakwood Subdivisions, and South of the Oakwood Grove Subdivision. Roughly 4.4 acres will be comprised of the existing and proposed realignment of Chambers Chapel Road, resulting in a net acreage of 122.1± acres. Close attention was paid to the natural features of the site including topography and vegetation. Three lot types are proposed for the development to offer residents different lifestyle options while accommodating the various natural features of the site. The largest of these is the R-1 Suburban Estate lot which will be complemented with a rural street cross-section. R-2 Suburban Manor lot is the next smallest lot type. Although this product type is currently allowed to be 70’ minimum width in Lakeland’s Land Development Regulations, the Developer has put a restriction on those R-2 lots facing Lakeland Trace Road to be 100’ minimum width in order to limit the number of driveways that access this road. In addition, there are a number of proposed lots within the R-2 Areas which would meet the minimum size requirement to be an R-1 lot (17,500 SF), but require the R-2 setbacks in order to maintain consistency in neighborhood and streetscape character. These lots bring the total percent of lots with a minimum size of 17,500 SF to 20.0%, as shown in the Lot Size Diagram. The smallest lot type is the R-3 Suburban Cottage lot. This product type is required by the Land Development Regulations to be 55’ minimum width with a 5,500 SF lot size. To achieve the proposed tree preservation targets, we are asking for an exception that allows these R-3 lots to be 50’ minimum width. It is currently anticipated that less than 10 lots will fall under the 55’ minimum width standard. The lots in Chapel Lakes PD represent a gross density of about 2.06 DU/AC, which is well under the 2.5 DU/AC recommended by the Suburban Neighborhood designation for this property in the Lakeland Future Land Use Plan.

Over 7,000 trees were identified by a certified arborist on site, including 533 specimen trees. After receiving the tree survey locations, the design team adjusted the conceptual development plan that was previously submitted for the Sketch Plan with the goal of saving as many specimen trees as possible. Through this exercise, it is estimated that at least 80 more specimen trees could now be preserved compared to the original plan, resulting in a total of about 141 specimen trees projected to be preserved, or about 26.5% of all specimen trees on site. Over 1,700 total trees are projected to remain, or about 24.2%. The conceptual development plan provides an Existing Density Factor of about 6,300, well over the 2,442 Site Density Factor that is required, even without accounting for any new trees which will be planted as part of the streetscape or within common open spaces. The full arborist report and tree data has been provided as a separate document in the submittal for reference.

A traffic impact study was performed by M.E. Lipinski, PE, PhD, PTOE concluding that the traffic generated by the development would not require any modifications to the existing roadway network in terms of geometric design or control. Even if development increases beyond expectations along Chambers Chapel Road, the site’s driveways would continue to operate at high levels of service. The study was performed using an estimate of 270 lots, which represents a worst-case scenario of the 261-lot conceptual development plan.

The design character of Chapel Lakes PD will be implemented by architectural regulations and guidelines, which will be utilized by the Developer’s Design Review Committee to ensure architectural and aesthetic continuity throughout the life of the development. To set the tone for the overall development, the main entrances from Chambers Chapel Road are flanking a moderately sized pond that appears to carry from one side of the road to the other. Streetscape along Chambers Chapel Road will include sidewalks, landscape, and hardscape materials that highlight the naturalistic feeling of the current site. Common open space is provided throughout rather than bulked together in one area of the site. By doing this, residents are never too far from a park-like setting, and overall walkability of the neighborhood is improved.

We feel that Chapel Lakes Planned Development will create an extraordinary neighborhood which the City of Lakeland and the Developer will be proud to have, and will provide the City a shining example of high-quality, site-sensitive development. The Developer’s commitment to this neighborhood is sincere in pledging to make Chapel Lakes an integral part of the growth and prominence of the City of Lakeland. If we can be of any help with regards to this application, please do not hesitate to contact us.

Sincerely,



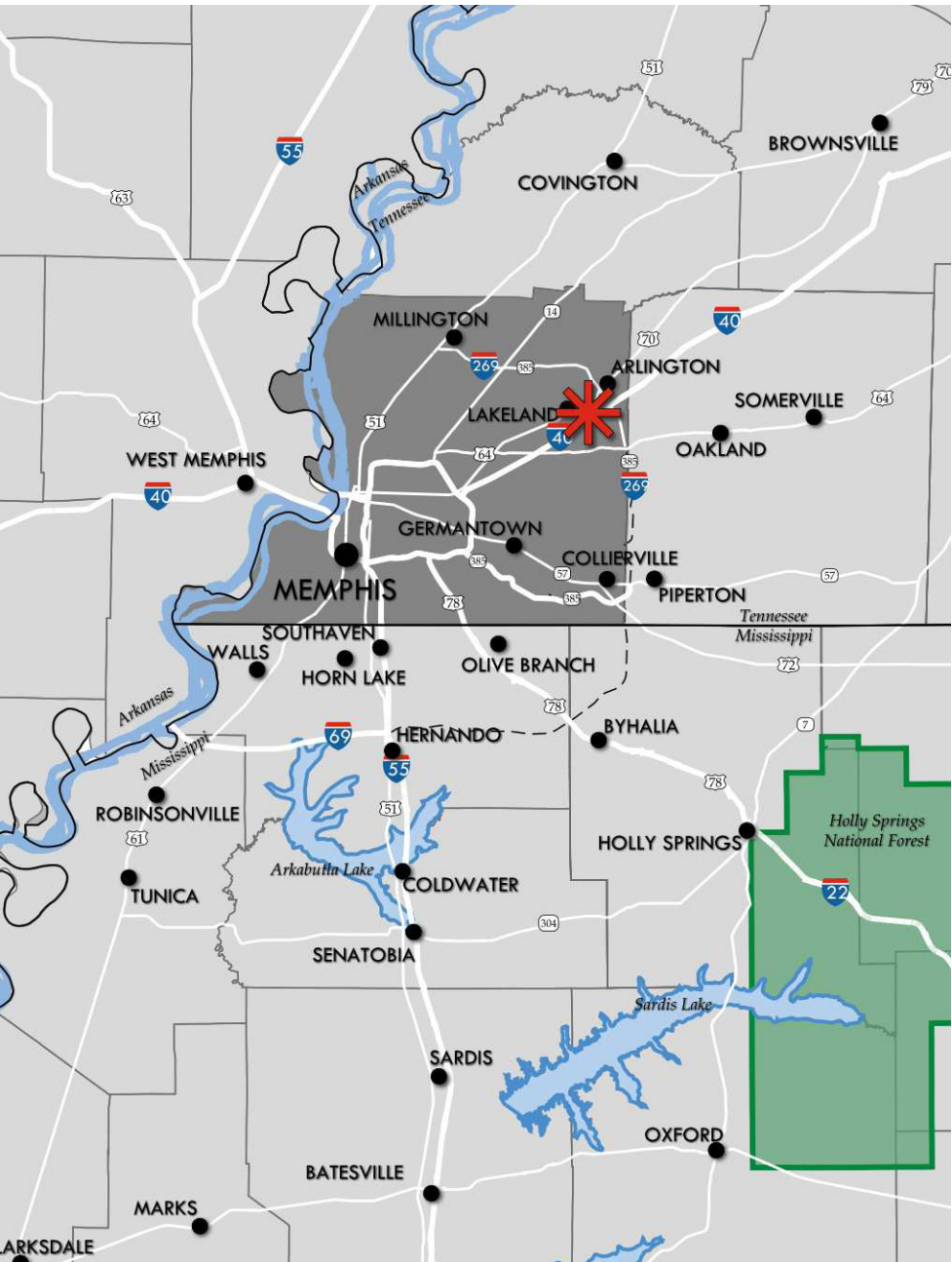
Michelle Ye, PLA

Senior Associate

DT design studio

REGIONAL LOCATION

Chapel Lakes Planned Development is located in the northeastern portion of Shelby County, Tennessee and is in the limits of the City of Lakeland. The property is inside the realm of the Memphis Metropolitan Area boasting a population of over 1.29 million. Metropolitan Memphis is also known as the Mid-South. Chapel Lakes PD contains 126.40 acres ±.

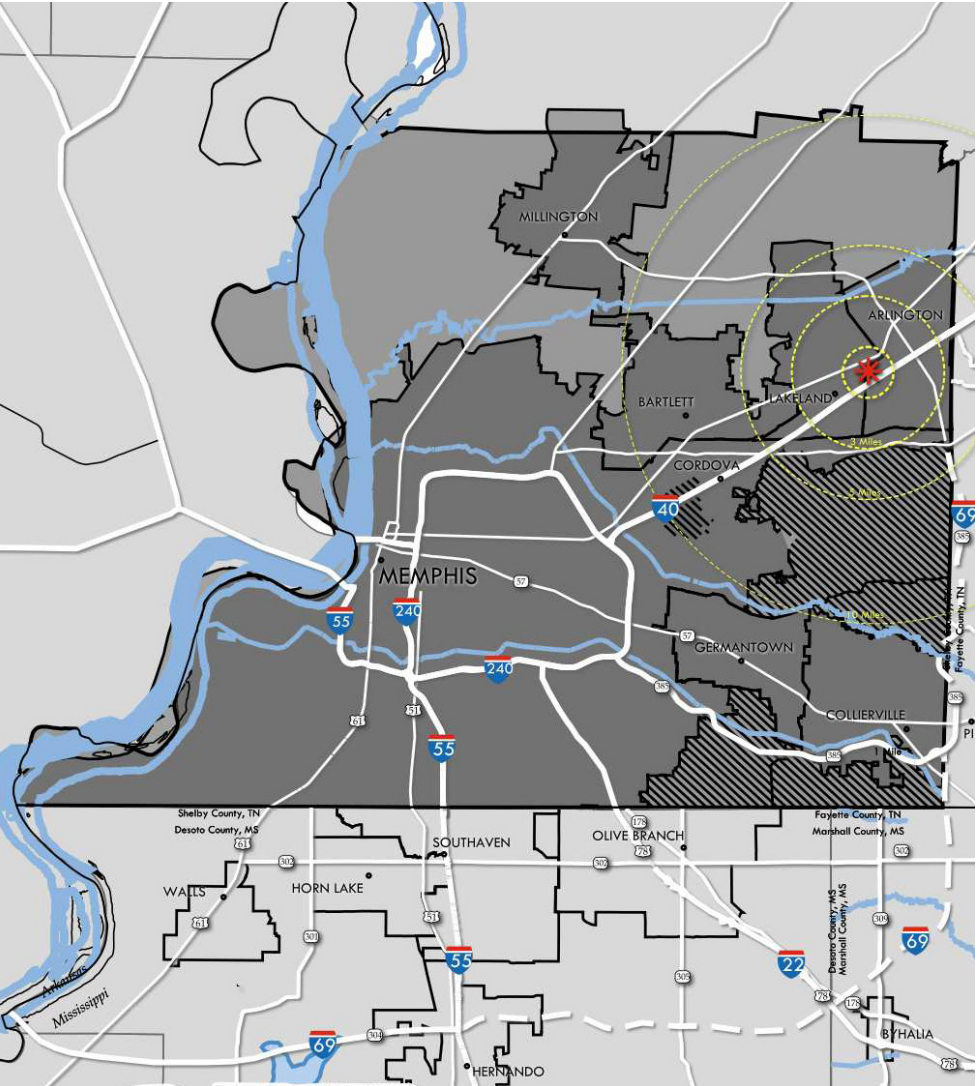


IMMEDIATE LOCATION

More specifically defined, the Chapel Lakes Planned Development is located in the eastern portion of the City of Lakeland. The subject property is bound by single family residential developments to the north and south, Chambers Chapel Road to the east, and Maple Walk Drive to the west. The site consists of approximately 122.1 acres ± after accounting for right-of-way dedications expected for improvements to Chambers Chapel Road.

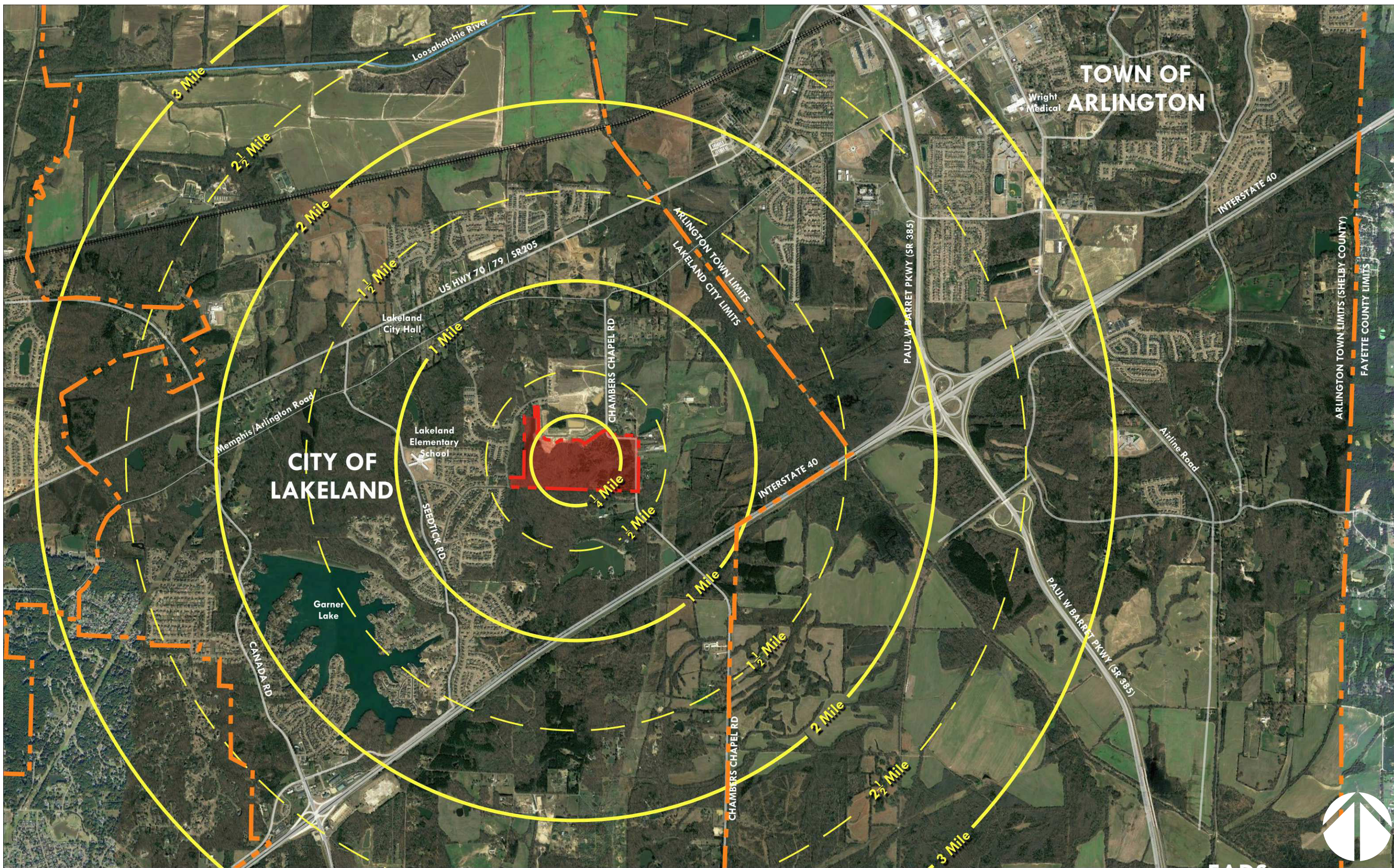
CURRENT MUNICIPALITIES

Chapel Lakes Planned Development falls entirely within the Lakeland municipal boundary. The US Census Bureau estimates the current population within the City of Lakeland to be approximately 12,617. The City is located in the northeastern portion of Shelby County. The County itself has a population of over 935,000.



MILEAGE TO SURROUNDING MUNICIPALITIES (±)

Lakeland.....	2.5
Bartlett	10.6
Germantown	17.8
Collierville	20.4
Memphis.....	27.6
Olive Branch	34.8
Southaven	37.1
Jackson, TN	63.5
Little Rock, AR	163.0
Nashville, TN	189.0
Measured to City/Town Hall	



BOUNDARY SURVEY & LEGAL DESCRIPTION

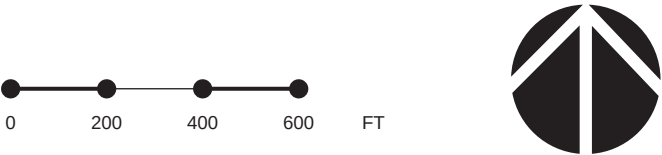
Boundary survey and legal description provided by Lawson Engineering on 11/8/17. Note: The survey has been modified from its original format and scale to fit this page. A full-size copy of the survey is available by request.

Beginning at a point having coordinates of N:355803.91, E:861405.68 said point being in the centerline of Chambers Chapel Road 3990 feet South of the intersection of Chambers Chapel Road and Memphis Arlington Road; thence along the centerline of Chambers Chapel Road with a bearing of S 86°08'58" E a distance of 673.98 feet to a point; thence in a southeasterly direction with a tangent curve turning to the right with a radius of 85.00 feet, having a chord bearing of S 42°00'05" E and a chord distance of 118.41, having a central angle of 88°17'54" and an arc length of 130.99 to a point; thence with a bearing of S 02°08'48" W a distance of 775.44 feet to a point; thence with a bearing of S 02°50'11" W a distance of 778.99 feet to a point in the North line of the Bank of Bartlett Property (Instrument No. 11000708); thence along said north property line with a bearing of N 86°00'08" W a distance of 3760.47 feet to a point in the East property line of the Steven and Mikki Gibson Property (Instrument No. 06085432); thence with a bearing of N 04°46'46" E a distance of 283.66 feet to a point in the South property line of the Bruce and Alison Nelson property (Instrument No. 09104215); thence with a bearing of S 87°02'33" E a distance of 385.20 feet to a point in the East property line of the Grove at Lakeland Homeowners Association LLC (Instrument No. 14083333); thence following said property line with a bearing of N 02°45'35" E a distance of 1793.97 feet to a point; thence with a bearing of S 86°43'24" E a distance of 300.95 feet to a point; thence with a bearing of N 02°54'04" E a distance of 280.02 feet to a point; thence with a bearing of S 86°42'54" E a distance of 90.98 feet to a point in the West property line of the TFB LLC property (Instrument No. 16035351); thence along said property line in a southeasterly direction with a tangent curve turning to the right with a radius of 0.50 feet, having a chord bearing of S 43°14'24" E and a chord distance of 0.69, having a central angle of 86°57'01" and an arc length of 0.76 to a point; thence with a bearing of S 00°14'07" W a distance of 686.27 feet to a point; thence with a bearing of S 55°55'03" W a distance of 60.06 feet to a point; thence with a bearing of S 00°14'07" W a distance of 175.53 feet to a point; thence with a bearing of S 89°13'54" E a distance of 188.52 feet to a point; thence with a bearing of S 45°32'01" E a distance of 76.77 feet to a point; thence with a bearing of S 78°01'41" E a distance of 117.86 feet to a point; thence with a bearing of S 85°26'05" E a distance of 100.10 feet to a point; thence with a bearing of S 02°03'27" W a distance of 100.10 feet to a point; thence with a bearing of S 87°56'33" E a distance of 54.65 feet to a point; thence with a bearing of N 58°40'53" E a distance of 194.73 feet to a point; thence with a bearing of S 87°50'10" E a distance of 277.83 feet to a point; thence with a bearing of S 88°02'49" E a distance of 271.60 feet to a point; thence with a bearing of S 60°57'57" E a distance of 123.97 feet to a point; thence with a bearing of S 31°34'21" E a distance of 64.23 feet to a point; thence with a bearing of N 58°25'39" E a distance of 638.40 feet to a point; thence in a northeasterly direction with a tangent curve turning to the right with a radius of 212.00 feet, having a chord bearing of N 67°05'00" E and a chord distance of 63.81, having a central angle of 17°18'41" and an arc length of 64.05 to a point; thence with a bearing of N 75°25'04" E a distance of 138.59 feet to a point; thence with a bearing of S 00°32'32" W a distance of 33.27 feet to a point; thence in a southeasterly direction with a non-tangent curve turning to the left with a radius of 125.00 feet, having a chord bearing of S 42°11'32" E and a chord distance of 173.53, having a central angle of 87°54'51" and an arc length of 191.80 to the point of beginning; containing 5505810.87 square feet or 126.396 acres.

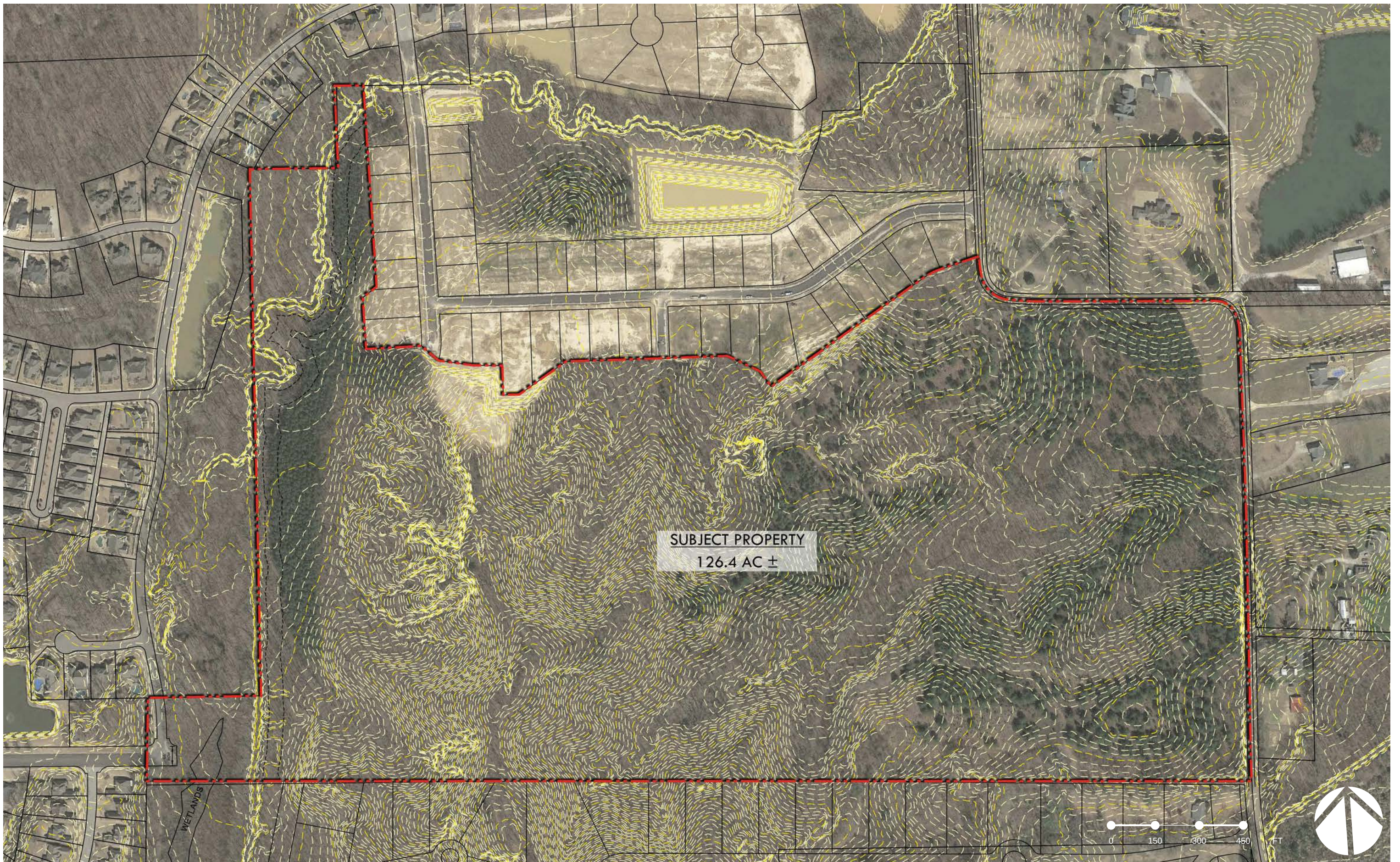
The Northing and Easting coordinates as referred to in this description are relative to the Tennessee State Plane Coordinate System (North American Datum 1983).

Parcel Line Table		
Line #	Length	Direction
L1	90.98	S86° 42' 54.14"E
L2	686.27	S0° 14' 07.00"W
L3	60.06	S55° 55' 03.00"W
L4	175.53	S0° 14' 07.00"W
L5	188.52	S89° 13' 54.07"E
L6	76.77	S45° 32' 01.00"E
L7	117.86	S78° 01' 40.95"E
L8	100.10	S85° 26' 04.72"E
L9	100.10	S2° 03' 27.09"W
L10	54.65	S87° 56' 32.91"E
L11	194.73	N58° 40' 53.00"E
L12	277.83	S87° 50' 10.00"E
L13	271.60	S88° 02' 49.00"E
L14	123.97	S60° 57' 57.00"E
L15	64.23	S31° 34' 21.00"E
L16	638.40	N58° 25' 39.00"E
L17	138.59	N75° 25' 04.40"E

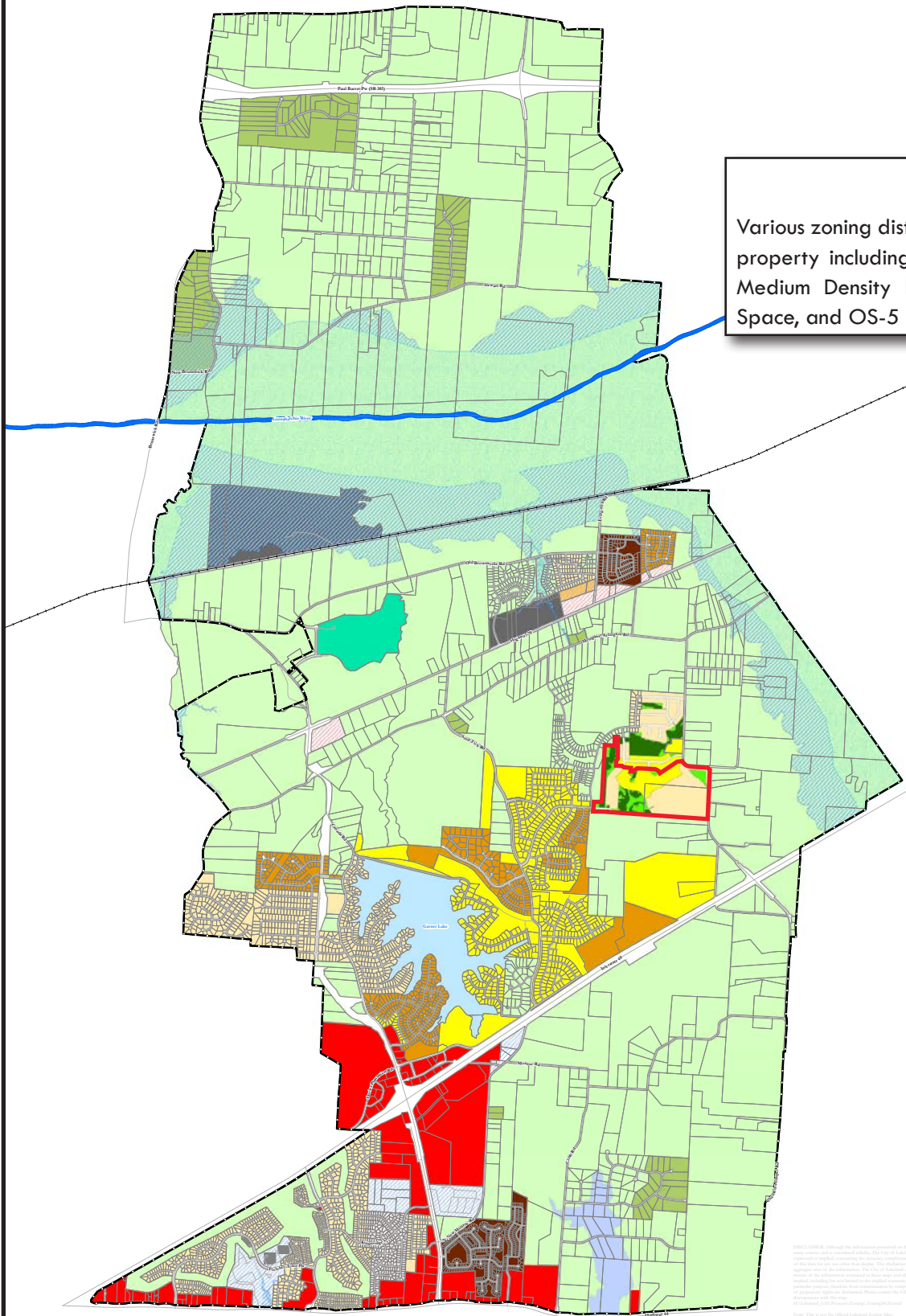
Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	64.05	212.00	17.31	N67° 05' 00"E	63.81
C2	191.80	125.00	87.91	S42° 11' 32"E	173.53
C3	130.99	85.00	88.30	S42° 00' 05"E	118.41



PROPERTY SURVEY		
CHAPEL WOODS SUBDIVISION LAKELAND, TENNESSEE		
TOTAL AREA: 126.40 Ac.	NUMBER OF LOTS: 214	
ZONING DISTRICT: R1, R2, OS2, OS5	WARD 64, BLOCK 51, PARCEL 483 AND 49	
DEVELOPER: EVOLVE BANK& TRUST 6070 POPLAR AVE. SUITE 200 MEMPHIS, TN 38119 PHONE: (901)334-0980	ENGINEER: LAWSON ENGINEERING AND CONSULTING, INC. 5909 POLK ST. ARLINGTON, TN 38002 PHONE: (901)383-3278 FAX: (901)867-5546	
100 YEAR FLOOD ELEVATION: N/A	FEMA MAP PANEL NUMBER: 47157C0215 G	FEMA MAP DATE: FEBRUARY 6, 2013
DATE: 11/8/17	SCALE: 1"=400'	SHEET 1



City of Lakeland Zoning Map

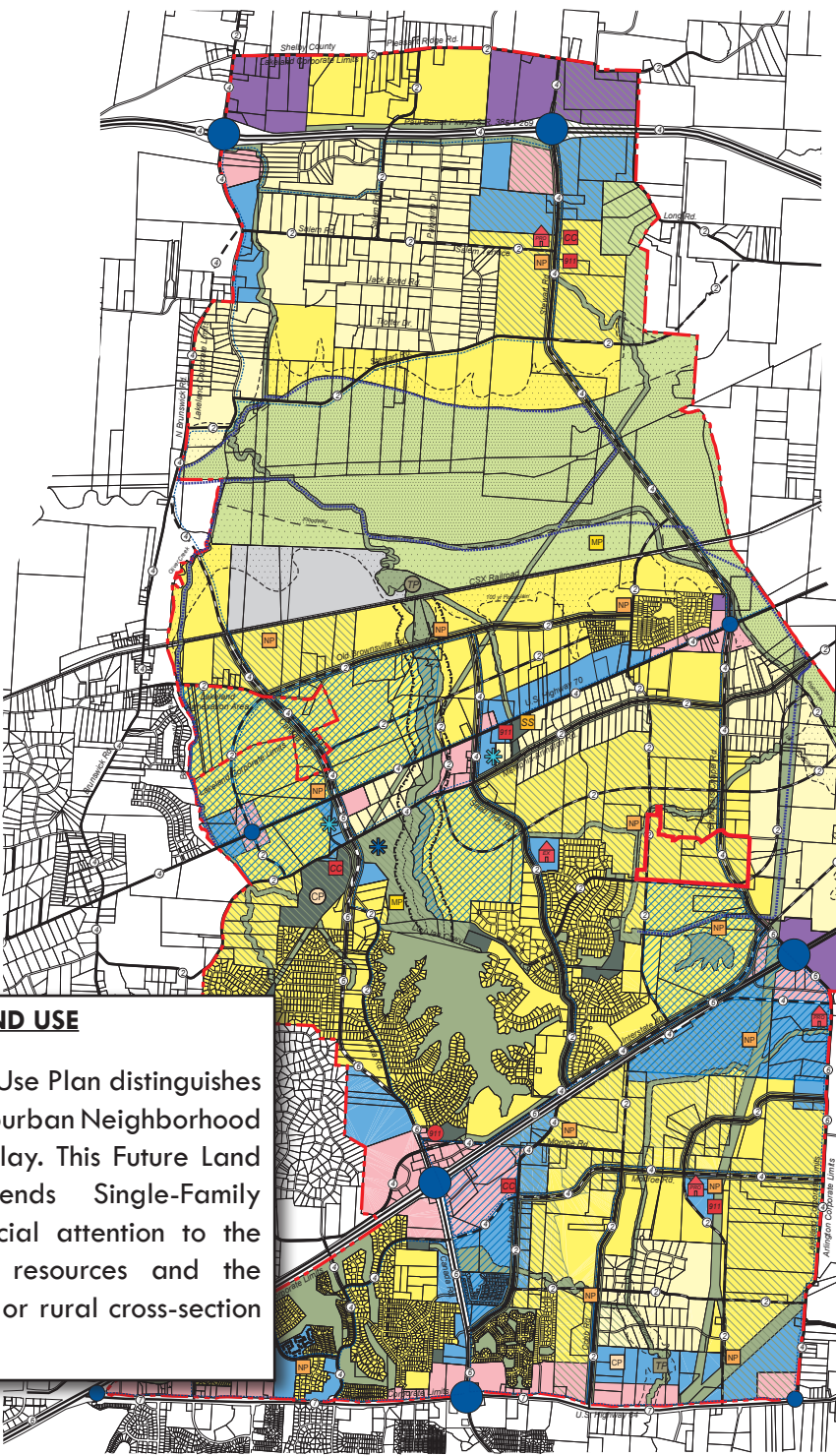


ZONING

Various zoning districts are included within the subject property including R-1 Low Density Residential, R-2 Medium Density Residential, OS-2 General Open Space, and OS-5 Conservation area.



CITY OF LAKELAND, TENNESSEE
COMPREHENSIVE LAND USE PLAN UPDATE



- OPEN SPACE**
PUBLIC AND PRIVATE RECREATION FACILITIES AND GREENWAYS
- EXISTING PUBLIC PARKS**
- RURAL**
PRIMARILY AGRICULTURAL USES THAT MAY CONTAIN RESIDENTIAL LOTS GREATER THAN 5 ACRES. DEVELOPMENT DOES NOT REQUIRE PUBLIC WATER OR SANITARY SEWER SERVICE. STREETS ARE DESIGNED IN ACCORDANCE WITH A RURAL CROSS-SECTION.
- EX-URBAN NEIGHBORHOOD**
PRIMARILY LARGE LOTS RESIDENTIAL LOTS GREATER THAN 5 ACRES. TRACTS MAY CONTAIN AGRICULTURAL USES. DEVELOPMENT DOES NOT REQUIRE PUBLIC WATER OR SANITARY SEWER SERVICE. STREETS ARE DESIGNED WITH A RURAL CROSS-SECTION.
- SUBURBAN NEIGHBORHOOD**
PRIMARILY SINGLE-FAMILY RESIDENTIAL LOTS WITH A MINIMUM DENSITY OF 2.0 LOTS PER ACRE BUT MAY CONTAIN RESIDENTIAL LOTS GREATER THAN 5 ACRES. TRACTS MAY CONTAIN AGRICULTURAL USES. DEVELOPMENT DOES NOT REQUIRE PUBLIC WATER OR SANITARY SEWER SERVICE. STREETS ARE DESIGNED WITH AN URBAN CROSS-SECTION.
- MIXED USE CENTER**
PRIMARILY RESIDENTIAL LOTS GREATER THAN 5 ACRES THAT MAY CONTAIN SINGLE-FAMILY DETACHED, SINGLE-FAMILY ATTACHED, AND LIMITED COMMERCIAL USES TO SERVE THE PLANNED DEVELOPMENT. DEVELOPMENT REQUIRES PUBLIC WATER AND SANITARY SEWER SERVICE. STREETS ARE DESIGNED WITH AN URBAN CROSS-SECTION.
- RESIDENTIAL SUPPORT CENTER**
PRIMARILY PLANNED DEVELOPMENTS CONTAINING NEIGHBORHOOD COMMERCIAL USES WITH ONE USER HAVING GREATER THAN 10,000 SQUARE FEET. LIMITED OFFICE, RECREATION FACILITIES, SCHOOL PUBLIC BUILDINGS, AND LIMITED COMMERCIAL USES TO SERVE THE PLANNED DEVELOPMENT. DEVELOPMENT REQUIRES PUBLIC WATER AND SANITARY SEWER SERVICE. STREETS ARE DESIGNED WITH AN URBAN CROSS-SECTION.
- EMPLOYMENT CENTER**
OFFICE, WAREHOUSE, COMMERCIAL BUILDINGS, RESEARCH AND DEVELOPMENT USES, AND FLEXIBLE USES. DEVELOPMENT REQUIRES PUBLIC WATER AND SANITARY SEWER SERVICE. STREETS ARE DESIGNED WITH AN URBAN CROSS-SECTION.
- LIGHT INDUSTRIAL**
INDUSTRIES THAT REQUIRE LIMITED PUBLIC WATER AND SANITARY SEWER SERVICE. DEVELOPMENT REQUIRES PUBLIC WATER AND SANITARY SEWER SERVICE. STREETS ARE DESIGNED WITH AN URBAN CROSS-SECTION.
- TND OVERLAY**
AREAS ACCEPTABLE FOR PLANNED DEVELOPMENTS SUBSCRIBING TO THE PRINCIPLES OF TRADITIONAL NEIGHBORHOOD DEVELOPMENT. AREAS MAY CONTAIN SINGLE-FAMILY DETACHED AND SINGLE-FAMILY ATTACHED RESIDENTIAL, AT A DENSITY OF LESS THAN 10 LOTS PER ACRE. AREAS MAY ALSO CONTAIN LIMITED COMMERCIAL, LIMITED OFFICE, PUBLIC USES, RECREATION FACILITIES, SCHOOLS, AND INSTITUTIONAL USES. AREAS SHALL CONTAIN SUBSTANTIAL OPEN SPACE AND TREED AREAS. DEVELOPMENT REQUIRES PUBLIC WATER AND SANITARY SEWER SERVICE. STREETS SHALL BE DESIGNED WITH AN URBAN CROSS-SECTION.
- CONSERVATION OVERLAY**
AREAS DESIGNATED FOR CONSERVATION OF NATURAL RESOURCES. AREAS SHALL CONTAIN SUBSTANTIAL OPEN SPACE AND TREED AREAS. DEVELOPMENT REQUIRES PUBLIC WATER AND SANITARY SEWER SERVICE. STREETS SHALL BE DESIGNED WITH AN URBAN CROSS-SECTION.
- MAJOR ROADS AND R.O.W.**
- PUBLISHED FLOODWAY**
- PUBLISHED FLOODPLAIN**
- MAJOR GATEWAY TO LAKELAND**
AREAS DESIGNATED TO IDENTIFY SIGNIFICANT ENTRANCES INTO THE CITY OF LAKELAND OR A SECTION OF THE CITY.
- MINOR GATEWAY TO LAKELAND**
AREAS DESIGNATED TO IDENTIFY SIGNIFICANT ENTRANCES INTO THE CITY OF LAKELAND OR A SECTION OF THE CITY.
- SCENIC CORRIDOR**
PUBLIC RIGHT-OF-WAY REQUIRING SPECIALIZED DESIGN CONSIDERATIONS TO MAINTAIN THE EXISTING CHARACTER OF THE TRAIL. WAY FOR BOTH VEHICULAR AND PEDESTRIAN USES.
- POTENTIAL GARNER LAKE DAM BREACH AREA**
AN AREA 100 YARDS WIDE ON EACH SIDE OF THE EXISTING GARNER LAKE DAM CENTERLINE THAT MAY OR MAY NOT BE SUBJECT TO BREACH FLOODING. ADDITIONAL STUDY REQUIRED.
- PUBLIC FACILITIES**
- EXISTING SANITARY SEWER TREATMENT PLANT**
- PROPOSED SANITARY SEWER TREATMENT PLANT**
- EXISTING SCHOOL**
- PROPOSED SCHOOL**
- EXISTING FIRE STATION**
- PROPOSED FIRE STATION**
- PROPOSED SHERIFF SUBSTATION**
- MUNICIPAL PUBLIC FACILITIES**
- MUNICIPAL PUBLIC FACILITIES**
- EXISTING COMMUNITY PARK**
- PROPOSED MUNICIPAL PARK**
- PROPOSED COMMUNITY PARK**
- PROPOSED NEIGHBORHOOD PARK**
- PROPOSED COMMUNITY CENTER**
- BICYCLE / PEDESTRIAN PATHS**
- EQUESTRIAN PATHS**

FUTURE LAND USE

The Lakeland Future Land Use Plan distinguishes the subject property as Suburban Neighborhood with a Conservation Overlay. This Future Land Use category recommends Single-Family Residential Lots with special attention to the preservation of natural resources and the utilization of either urban or rural cross-section streets.

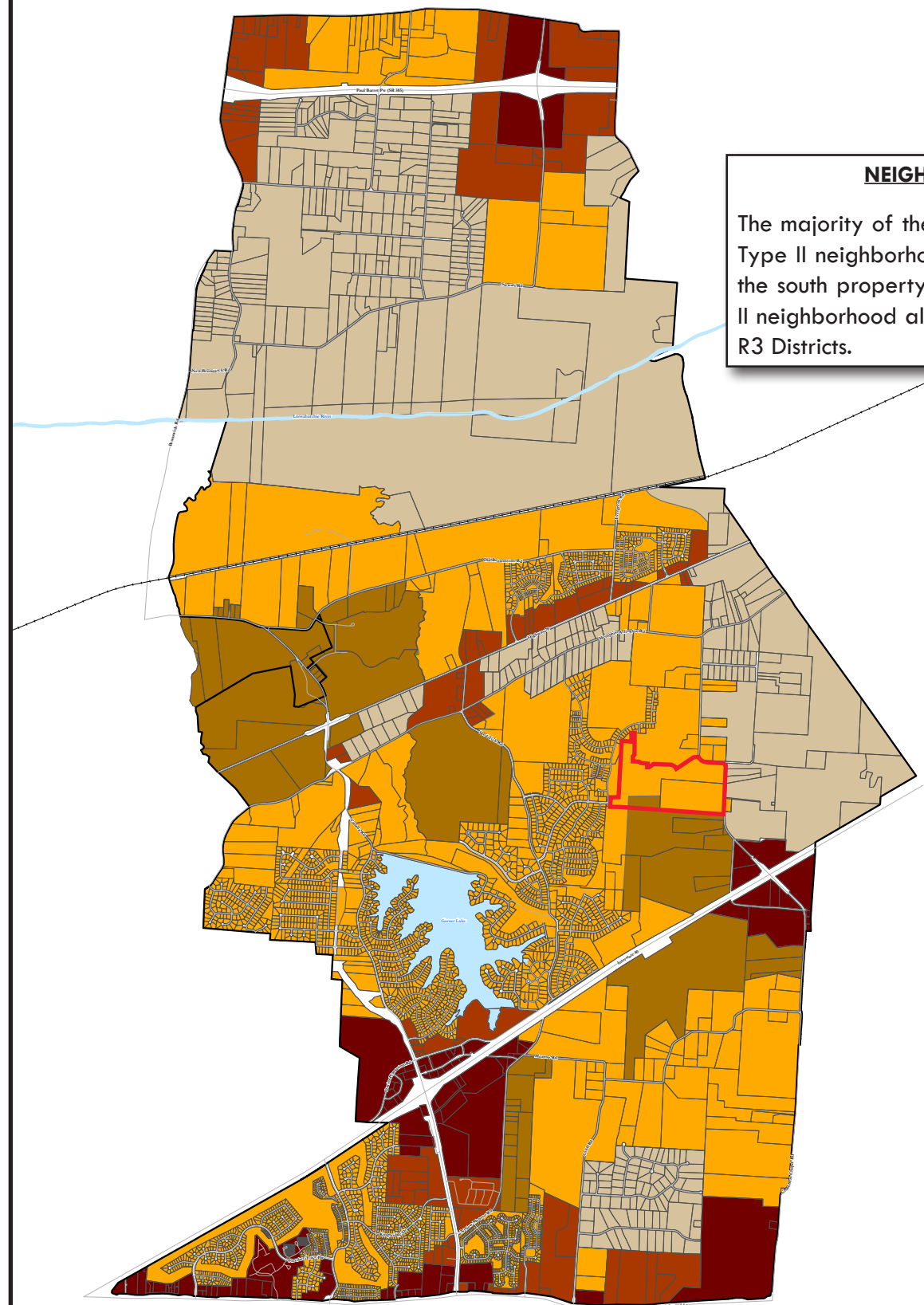


LAND USE PLAN

Brenda P. Solomito
Land Planner
10145 Mackwood Drive • Lakeland, TN 38002
brendasolomito@bellsouth.net

DUGAN DESIGN GROUP, LLC
planning, landscape architecture, design
5100 WHEELERS DRIVE, SUITE 110 MEMPHIS, TN 38117
TEL: 901.680.0080 FAX: 901.680.0097
WWW.DUGANDESIGNGROUP.COM
March 20, 2006 E0247lakelandLandUsePlan.dwg

City of Lakeland Neighborhood Types



NEIGHBORHOOD TYPES

The majority of the property is designated as a Type II neighborhood, with a small portion near the south property line being Type III. The Type II neighborhood allows a mixture of R1, R2, and R3 Districts.

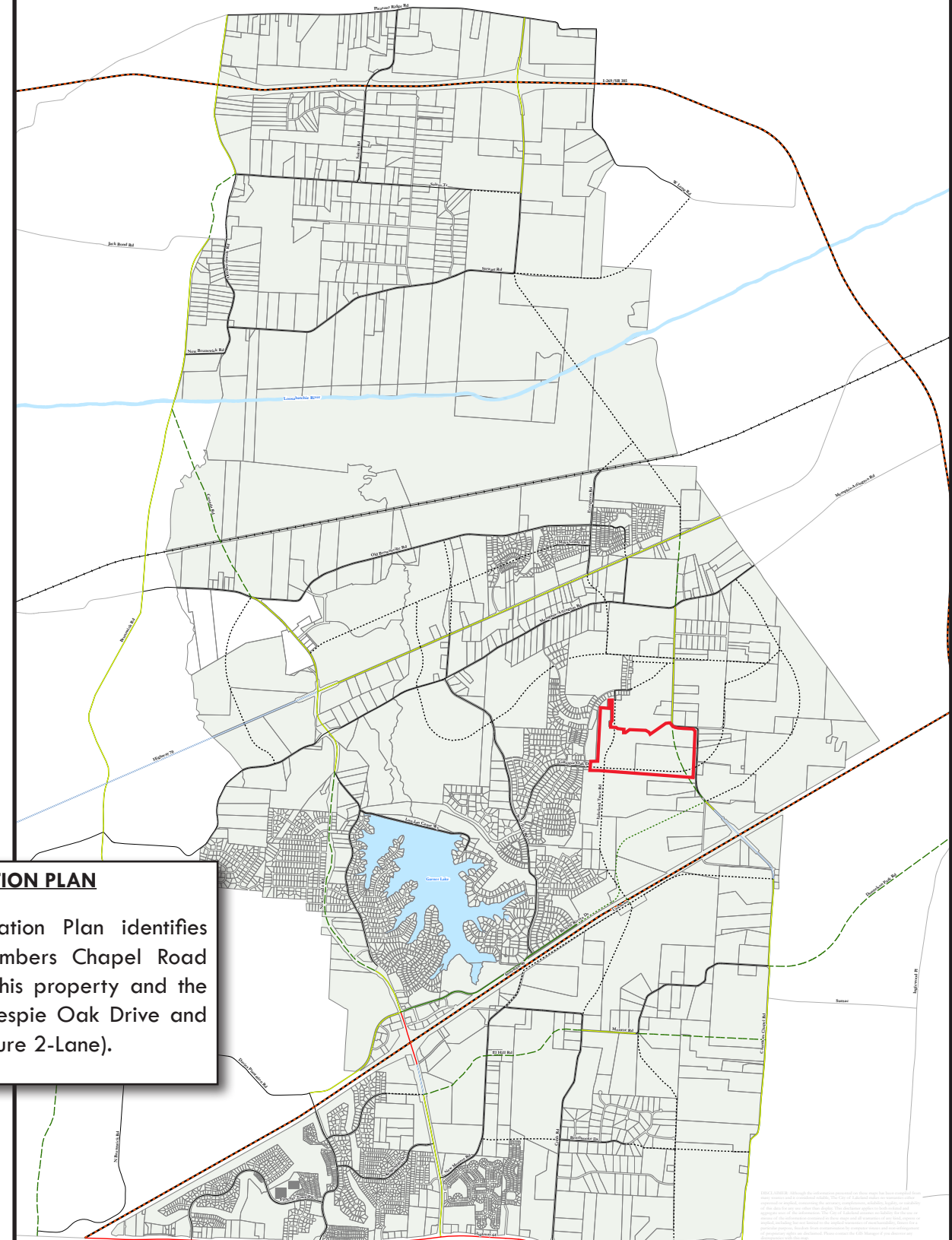
Neighborhood Types
Type I
Type II
Type III
Type IV
Type V
Railroad
City Limits
Loosahatchie River
Corner Lake
Parcels

1 inch = 0.25 miles
0 0.125 0.25 0.5 0.75 Miles

CITY OF LAKELAND

This map is intended to provide a general overview of the City of Lakeland's neighborhood types. It is not intended to be used as a legal document. The City of Lakeland reserves the right to change the neighborhood types at any time without notice. The map is based on the most current information available to the City of Lakeland as of the date of publication.

City of Lakeland Transportation Plan



TRANSPORTATION PLAN

The Lakeland Transportation Plan identifies the realignment of Chambers Chapel Road (Future 4-Lane) through this property and the connections made to Gillespie Oak Drive and Lakeland Trace Road (Future 2-Lane).

Transportation Plan (2009)
Street
2-Lane
4-Lane (Divided)
4-Lane (Undivided)
6-Lane (Divided)
7-Lane (TWLTL)
Future 2-Lane
Future 4-Lane (Divided)
Future 4-Lane (Undivided)
Freeway
Loosahatchie River
Railroad
Parcels

1 inch = 0.25 miles
0 0.125 0.25 0.5 0.75 Miles

CITY OF LAKELAND

This map is intended to provide a general overview of the City of Lakeland's transportation plan. It is not intended to be used as a legal document. The City of Lakeland reserves the right to change the transportation plan at any time without notice. The map is based on the most current information available to the City of Lakeland as of the date of publication.

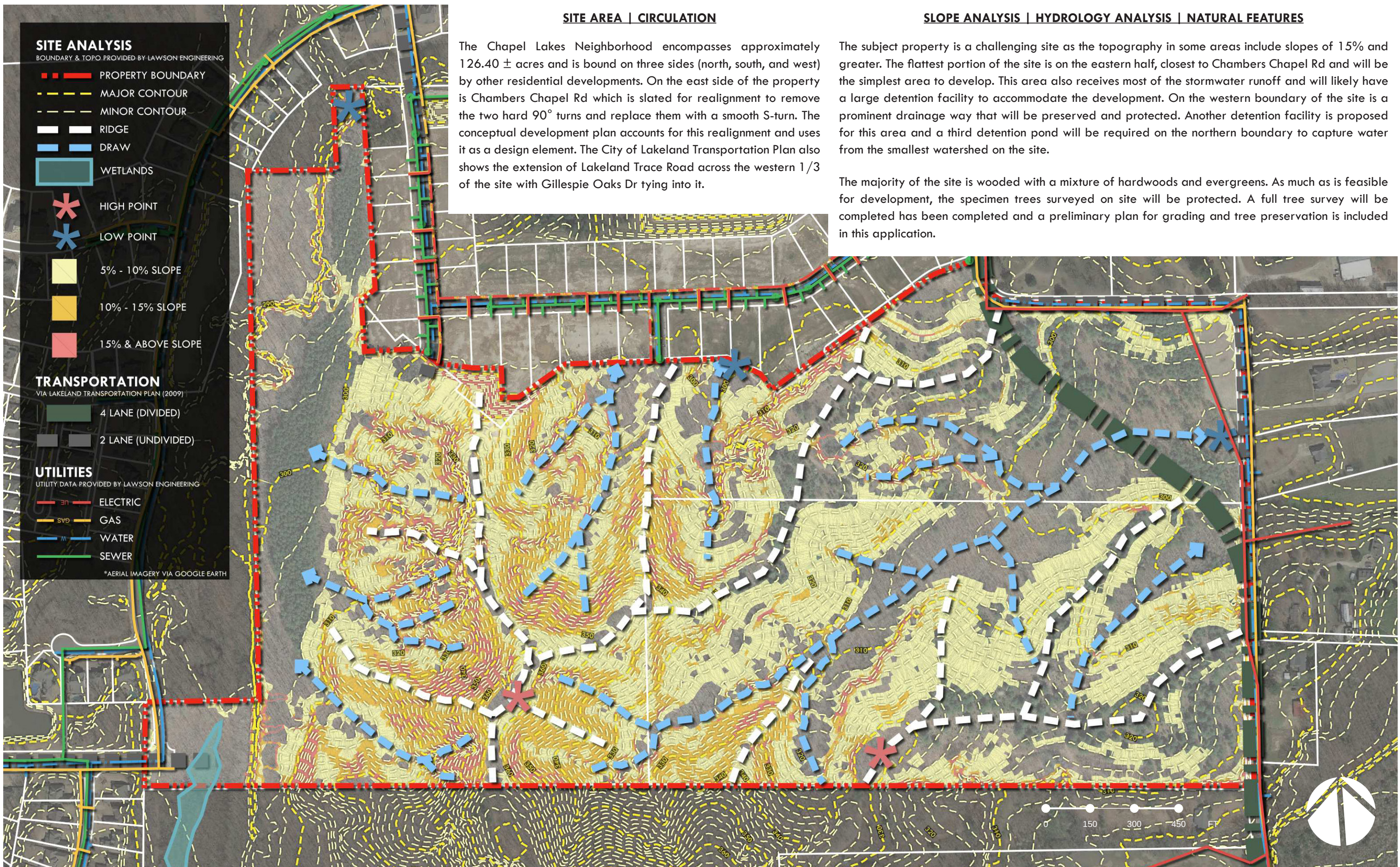
SITE AREA | CIRCULATION

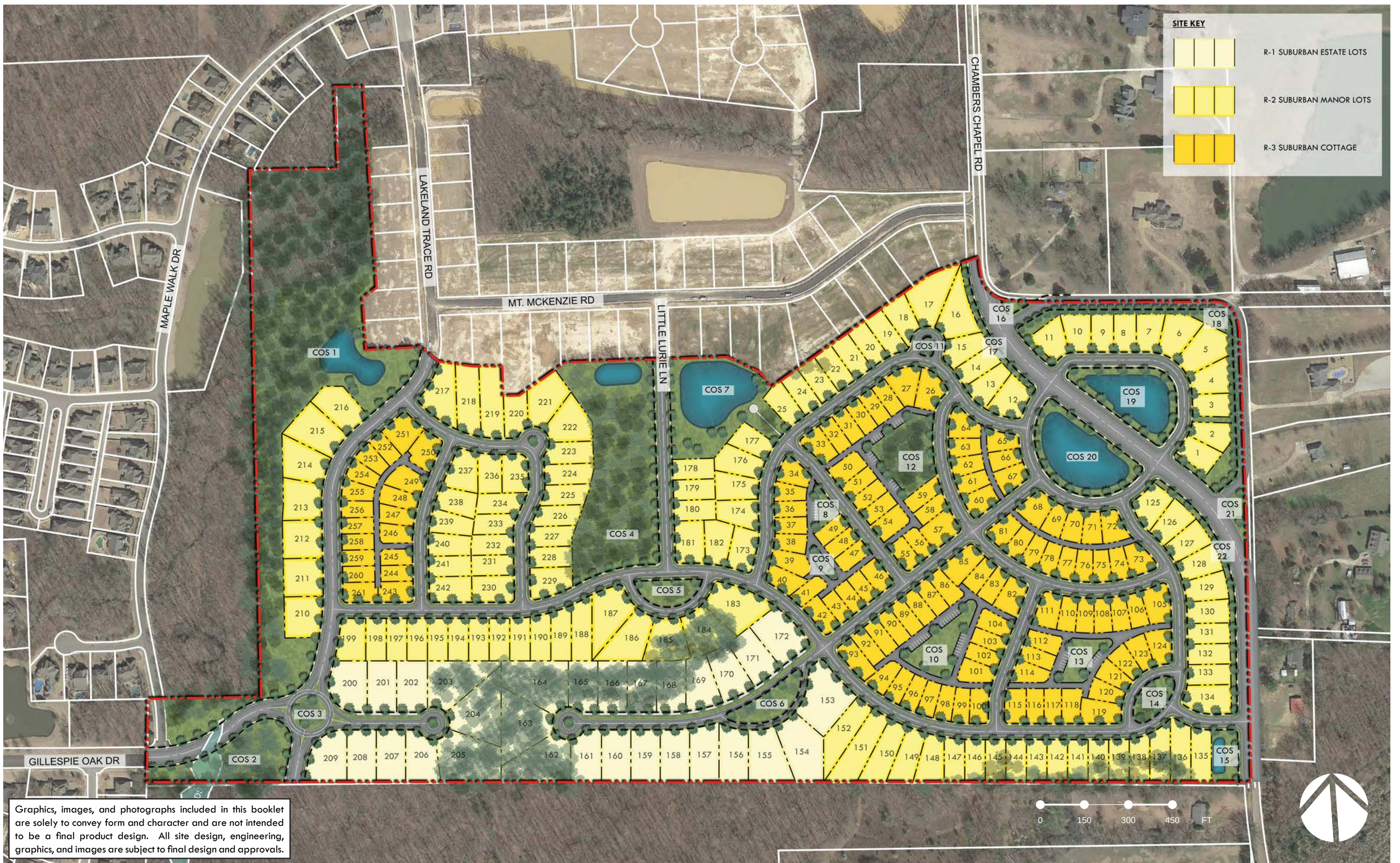
The Chapel Lakes Neighborhood encompasses approximately 126.40 ± acres and is bound on three sides (north, south, and west) by other residential developments. On the east side of the property is Chambers Chapel Rd which is slated for realignment to remove the two hard 90° turns and replace them with a smooth S-turn. The conceptual development plan accounts for this realignment and uses it as a design element. The City of Lakeland Transportation Plan also shows the extension of Lakeland Trace Road across the western 1/3 of the site with Gillespie Oaks Dr tying into it.

SLOPE ANALYSIS | HYDROLOGY ANALYSIS | NATURAL FEATURES

The subject property is a challenging site as the topography in some areas include slopes of 15% and greater. The flattest portion of the site is on the eastern half, closest to Chambers Chapel Rd and will be the simplest area to develop. This area also receives most of the stormwater runoff and will likely have a large detention facility to accommodate the development. On the western boundary of the site is a prominent drainage way that will be preserved and protected. Another detention facility is proposed for this area and a third detention pond will be required on the northern boundary to capture water from the smallest watershed on the site.

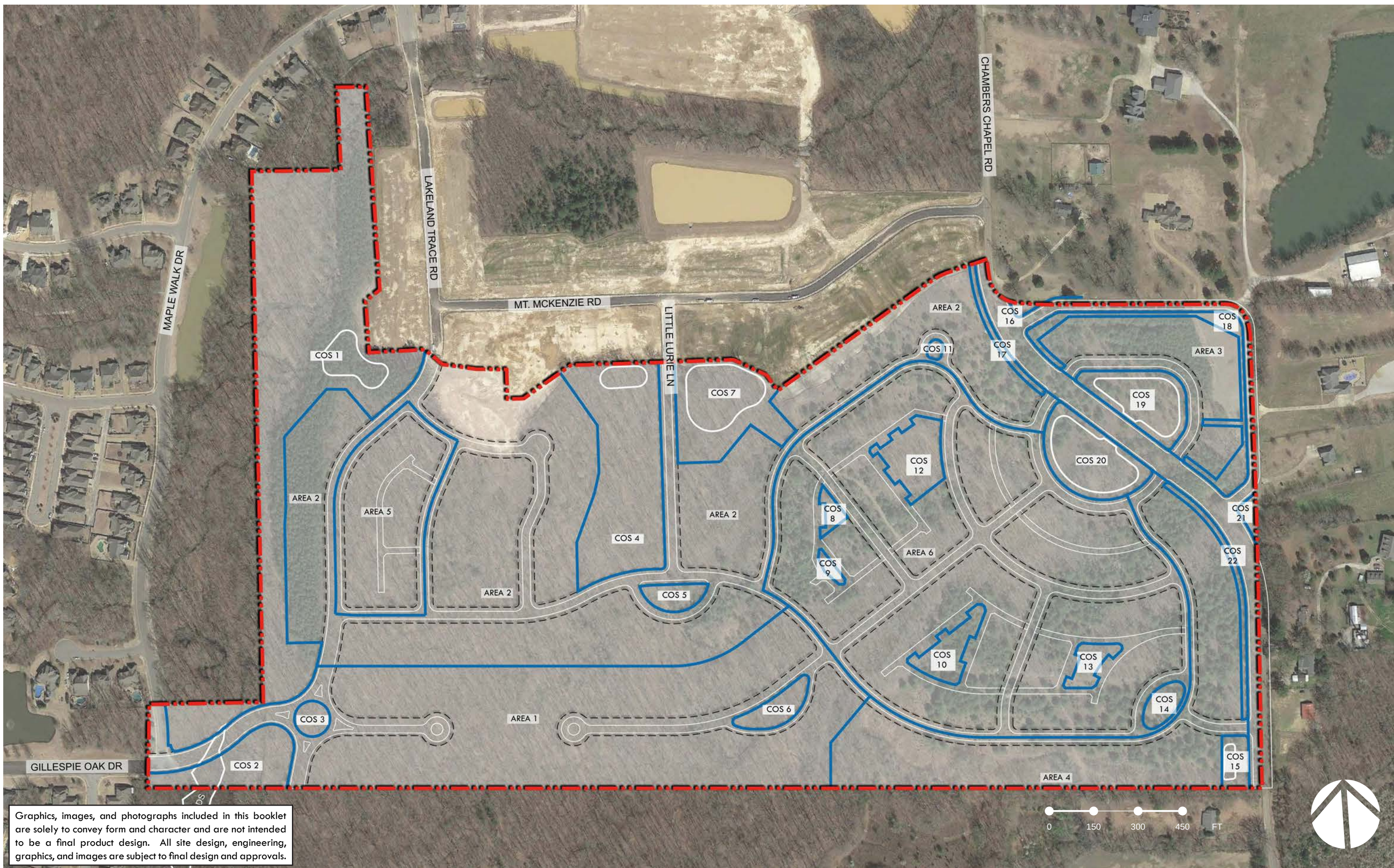
The majority of the site is wooded with a mixture of hardwoods and evergreens. As much as is feasible for development, the specimen trees surveyed on site will be protected. A full tree survey will be completed has been completed and a preliminary plan for grading and tree preservation is included in this application.





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CHAPEL LAKES PLANNED DEVELOPMENT



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SITE DATA			
GENERAL SITE INFO			
GROSS ACREAGE		126.4 AC ±	
ROW DEDICATION		4.4 AC ±	
NET ACREAGE		122.1 AC ±	
RESIDENTIAL			
AREA	QTY	MIN. LOT SIZE	ACREAGE
1	30 ±	17,500 SF	19.0 AC ±
2	74 ±	10,000 SF	29.6 AC ±
3	11 ±	10,000 SF	4.0 AC ±
4	28 ±	10,000 SF	9.6 AC ±
5	19 ±	5,500 SF	4.8 AC ±
6	99 ±	5,500 SF	26.6 AC ±
TOTAL		261 ± LOTS	
GROSS DENSITY		2.06 DU/AC ±	
NET DENSITY		2.14 DU/AC ±	
COMMON OPEN SPACE			
COS 1		11.6 AC ±	
COS 2		1.4 AC ±	
COS 3		0.3 AC ±	
COS 4		4.2 AC ±	
COS 5		0.4 AC ±	
COS 6		0.5 AC ±	
COS 7		2.3 AC ±	
COS 8		0.2 AC ±	
COS 9		0.1 AC ±	
COS 10		0.6 AC ±	
COS 11		0.1 AC ±	
COS 12		1.0 AC ±	
COS 13		0.4 AC ±	
COS 14		0.3 AC ±	
COS 15		0.4 AC ±	
COS 16		0.1 AC ±	
COS 17		0.2 AC ±	
COS 18		1.0 AC ±	
COS 19		1.4 AC ±	
COS 20		1.6 AC ±	
COS 21		0.1 AC ±	
COS 22		0.4 AC ±	
TOTAL COS		28.6 AC ±	23.4% ±

ZONING	AREA NO.	TOTAL ACREAGE	PERCENTAGE OF TOTAL ACREAGE*	PERCENTAGE OF TOTAL LOTS
SUBURBAN ESTATE (R1)	1	19.0 AC ±	15.5% ±	11.5% ±
SUBURBAN MANOR (R2)	2, 3, 4	43.2 AC ±	35.4% ±	43.3% ±
SUBURBAN COTTAGE (R3)	5, 6	31.3 AC ±	25.7% ±	45.2% ±
COMMON OPEN SPACE		28.6 AC ±	23.4% ±	

*BASED ON NET ACREAGE OF 122.1 AC ±

CHAPEL LAKES PLANNED DEVELOPMENT

MAY 12, 2021

OUTLINE PLAN TEXT

I. GENERAL STATEMENT

Chapel Lakes Planned Development, a 126.4 acre ± tract of land located in Lakeland, Tennessee, is a Planned Development that provides a mixture of residential products and open spaces that complement the unique natural features of the area. It is the intent to develop Chapel Lakes with a cohesive neighborhood character through the use of unifying architectural guidelines and landscaping criteria. With distinctive entrances into the neighborhood, as well as various types of open spaces, Chapel Lakes will establish itself as a highly attractive and carefully planned neighborhood with its own “Sense of Place” and the feel of a quality community.

The Outline Plan shall serve as the land use and transportation plan for development of the site. It is understood that internal roadways and lot arrangements may be adjusted somewhat at the time of final design to take advantage of topography, utilities, storm drainage, detention, and market conditions along with other site considerations. The Conceptual Development Plan shall serve as a graphic illustration of the conceptual vision for the development.

The purpose of this General Statement is to set forth the conceptual vision of Chapel Lakes as depicted in the Conceptual Development Plan. The actual permitted uses, dimensional regulations, access and circulation and design criteria for the project shall at all times be governed by the Outline Plan and any Conditions of Approval, along with the Declaration of Covenants, Conditions, and Restrictions. The community will contain a mix of residential products, which not only reflects current residential market demands, but also exemplifies a complementary development to the surrounding area. It is anticipated that the various Areas may be developed as depicted on the Outline Plan to include:

A. Areas 1-6

These Areas offer compatible and complementary residential products, all single-family dwellings, with quality architectural character, vivid streetscapes, and common area amenities. The well-planned pedestrian and vehicular circulation system accentuates natural views, enhances pedestrian safety, and connects neighborhood amenities.

Areas 1-4 are planned to have Street-Access lots. Areas 5 and 6 are planned to have Rear-Access lots only.

B. COS 1-22

Common open space areas located within Chapel Lakes Planned Development are intended to be common neighborhood amenities for Chapel Lakes residents. Some of these areas provide an open and friendly place for neighbors to gather and recreate whereas others soften transitions from surrounding streets and neighborhoods.

II. USES PERMITTED

A. Area 1

Single-Family detached, street-access homes as regulated by the R-1 Suburban Estate district of the Lakeland Land Development Regulations, as modified herein, are allowed throughout these areas.

B. Areas 2-4

Single-Family detached, street-access homes as regulated by the R-2 Suburban Manor district of the Lakeland Land Development Regulations, as modified herein, are allowed throughout these areas.

C. Areas 5-6 (Suburban Cottage)

Single-Family detached, rear-access homes as regulated by the R-3 Suburban Cottage district of the Lakeland Land Development Regulations, as modified herein, are allowed throughout these areas.

D. Common Open Spaces 1-22

Passive park areas, landscape areas, and common neighborhood amenities such as lakes (detention or retention), walking trails, sidewalks, open lawn areas, benches, and pavilions are allowed throughout these areas.

III. BULK REGULATIONS

Development of the neighborhood will be guided by the Outline Plan and the area use descriptions provided above. Development of individual parcels must be in compliance with the provisions for dimensional regulations and access and circulation conditions provided below.

Other restrictions not specifically addressed here or elsewhere in the conditions (and its attachments) including, but not limited to, setbacks, side and rear yard requirements, minimum lot areas, accessory uses, and parking and loading areas shall be as defined in the City of Lakeland Land Development Regulations (LDR) as applicable to the referenced District for the Area per section II. of this Outline Plan. Where provisions of this Outline Plan are in conflict with the above-referenced LDR, these provisions shall apply.

- A. Design Standards for Single-Family Detached Homes
1. All single-family detached residences shall follow the architectural guidelines within the City of Lakeland Land Development Regulations for the referenced District.
- B. Minimum Building Setbacks per Area
1. Area 1

a. Minimum Front Yard Setback30'

b. Minimum Side Yard Setback 10'

c. Minimum Rear Yard Setback30'

2. Areas 2-4

a. Minimum Front Yard Setback30'

b. Minimum Side Yard Setback 5'

c. Minimum Rear Yard Setback25'

3. Areas 5-6

1. Minimum Front Yard Setback..... 15'

2. Minimum Side Yard Setback 5'

3. Minimum Rear Yard Setback..... 5'

4. Fence Setback Against Service Drive..... 5'
- C. Minimum Lot Widths per Area
1. Area 1 100'

2. Areas 2-4.....70'

3. Area 2, fronting Lakeland Trace Rd..... 100'

4. Areas 5-6.....50'
- NOTE: Lot widths shall be measured at the designated front yard building setback. The developer may include lots wider than the minimum in order to provide a more diverse product mix.
- D. Minimum Lot Size per Area
1. Area 117,500 SF

2. Areas 2-4..... 10,000 SF

3. Areas 5-6..... 5,500 SF

- E. Maximum Building Heights and Maximum Building Coverage shall be as regulated by the City of Lakeland Land Development Regulations.

IV. ROADWAYS, ACCESS, AND PARKING

- A. Chambers Chapel Road shall be constructed per the City of Lakeland Transportation Plan, with an 86’ Right-of-Way width.
- B. Lakeland Trace Road and the extension of Gillespie Oak Drive west of Lakeland Trace Road shall be constructed per the City of Lakeland Transportation Plan, with a 66’ Right-of-Way width.
- C. Interior public streets within Area 1 may utilize the Rural Neighborhood Street Type with a 60’ typical Right-of-Way width. Medians are permitted to accommodate grading and tree preservation.
- D. Interior public streets within Areas 2-6 may utilize the Urban Neighborhood Street Type with a 54’ typical Right-of-Way width.
- E. All corner radii at intersections of public streets within the development may be a minimum of 15’ at the R.O.W.
- F. Head-in parking may be provided directly off of any interior public street or private service drive adjacent to a Common Open Space to facilitate resident access to common amenities.
- G. Service drives shall be a minimum of 20 feet in width.
- H. All service drives shall be owned and maintained by the Homeowners’ Association.
- I. The minimum driveway clearance for corner lots shall be 10’ from the point of tangency of the radius curvature of the ROW to the edge of driveway.

V. LANDSCAPING, SCREENING, AND OPEN SPACE

- A. All public streets shall have street trees per the Streetscape Cross-Sections of the Chapel Lakes PD booklet.
- B. A 30’ landscape buffer shall be provided between Chambers Chapel Road and adjacent lots, per the Landscape Plan and 86’ ROW Streetscape Cross-Section of the Chapel Lakes PD booklet.
- C. All new landscaped areas, except for Common Open Spaces intended to become naturalized, must be irrigated with a subsurface irrigation system.
- D. All required landscaping shall be located on the property such that it shall not interfere with any utility easements and may be altered according to MLGW requirements.
- E. A Homeowners’ Association shall be established at the time of recording of any final plat. Any buffer areas, retention basins, landscape areas, open areas, street medians, entrance signs, pedestrian areas/easements, and any other common elements and/or easements proposed to be dedicated to the Homeowners’ Association in that phase shall be deeded over to the Homeowners’ Association with the recording of the final plat of that respective phase. A copy of the finalized incorporation papers and any deeds transferring common elements to the Homeowners’ Association shall be submitted to the City of Lakeland for inclusion in the file.
- F. All Common Open Space areas, internal medians, streetscape areas, and neighborhood greens/parks shall be privately owned and maintained by a Homeowners’ Association..
- G. All Common Open Space may include amenities such as walking trails, sidewalks, open lawn areas, shelter structures, bike racks, lighting, and benches where appropriate.

VI. SIGNAGE

- A. All signage (temporary and permanent) will follow the City of Lakeland Land Development Regulations.

VII. DRAINAGE FACILITIES & SERVICES

- A. The stormwater drainage system shall be designed and constructed to the design standards required by the City of Lakeland.
- B. A Storm Water Pollution Prevention Plan (SWPPP) will be filed with the state authorities prior to commencement of construction.
- C. According to the FEMA Flood Insurance Rate Map, this property does not lie in any Special Flood Hazard Areas as identified in Community Panel Numbers 47157 C0215G and 47157 C0330G, dated February 6, 2013.
- D. Grading and storm drainage plans shall be established per the City of Lakeland Land Development Regulations.
- E. All public stormwater drainage shall require a public easement.

VIII. SANITARY SEWER & SERVICES

- A. A Master Sanitary Sewer Concept Plan shall be submitted at the time a Phase One Preliminary Plan is submitted for review and approval.
- B. The City of Lakeland will provide sanitary sewer service.
- C. Sanitary sewer improvements shall be provided under contract in accordance with the City of Lakeland Land Development Regulations and the State of Tennessee regulations.
- D. Sizes of sanitary sewer lines shall be determined at the time a Final Plan is submitted to the Town Engineer.
- E. Sanitary Sewer Plans shall be submitted to the Tennessee Department of Environmental Conservation (TDEC) for written approval.
- F. All sanitary sewer located in a private drive or otherwise outside of public right-of-way shall be within a public easement.

IX. WATER SERVICE / UTILITIES

- A. Public water improvements shall be provided by the Developer under contract in accordance with the City of Lakeland Land Development Regulations and the State of Tennessee regulations.
- B. All utilities and services to be installed underground, with the exception of three-phase electric.
- C. All water services located in a private drive or otherwise outside of public right-of-way shall be within a public easement.

X. DEVELOPMENT PHASING

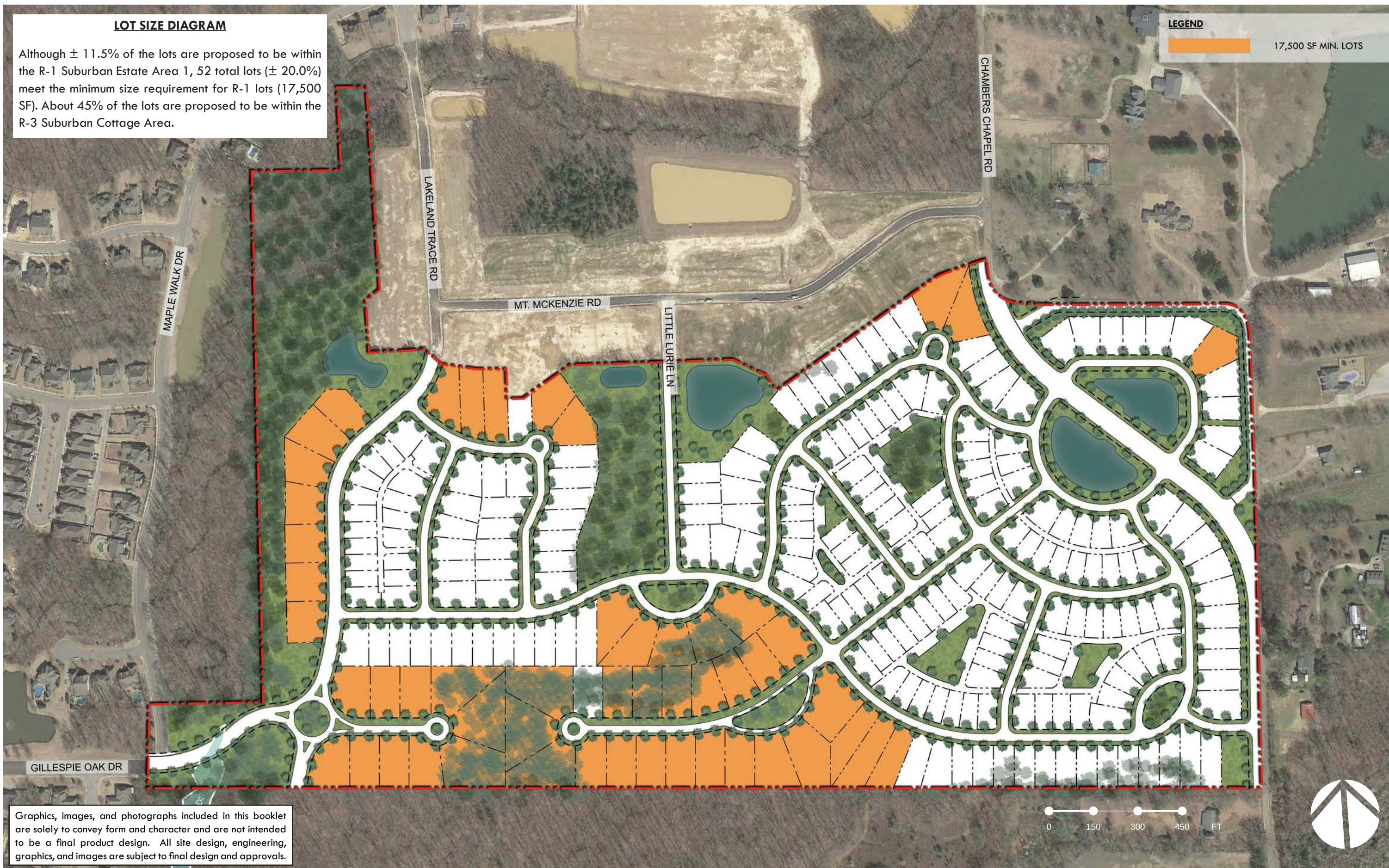
- A. The Development is planned to be constructed in 6 phases, with the first phase planned to begin construction in 2021. See the Preliminary Phasing Plan for more details.
- B. The Preliminary Phasing Plan is subject to change as plans are finalized and as market demands fluctuate. Construction of phases may be singular or a mix to meet current and future market demands.
- C. The synchronization of Phases of Chapel Lakes Planned Development may be modified by the Developer at any time to allow for current and future market demands.
- D. Minor changes to lot configuration may occur with the final plans.

LOT SIZE DIAGRAM

Although $\pm 11.5\%$ of the lots are proposed to be within the R-1 Suburban Estate Area 1, 52 total lots ($\pm 20.0\%$) meet the minimum size requirement for R-1 lots (17,500 SF). About 45% of the lots are proposed to be within the R-3 Suburban Cottage Area.

LEGEND

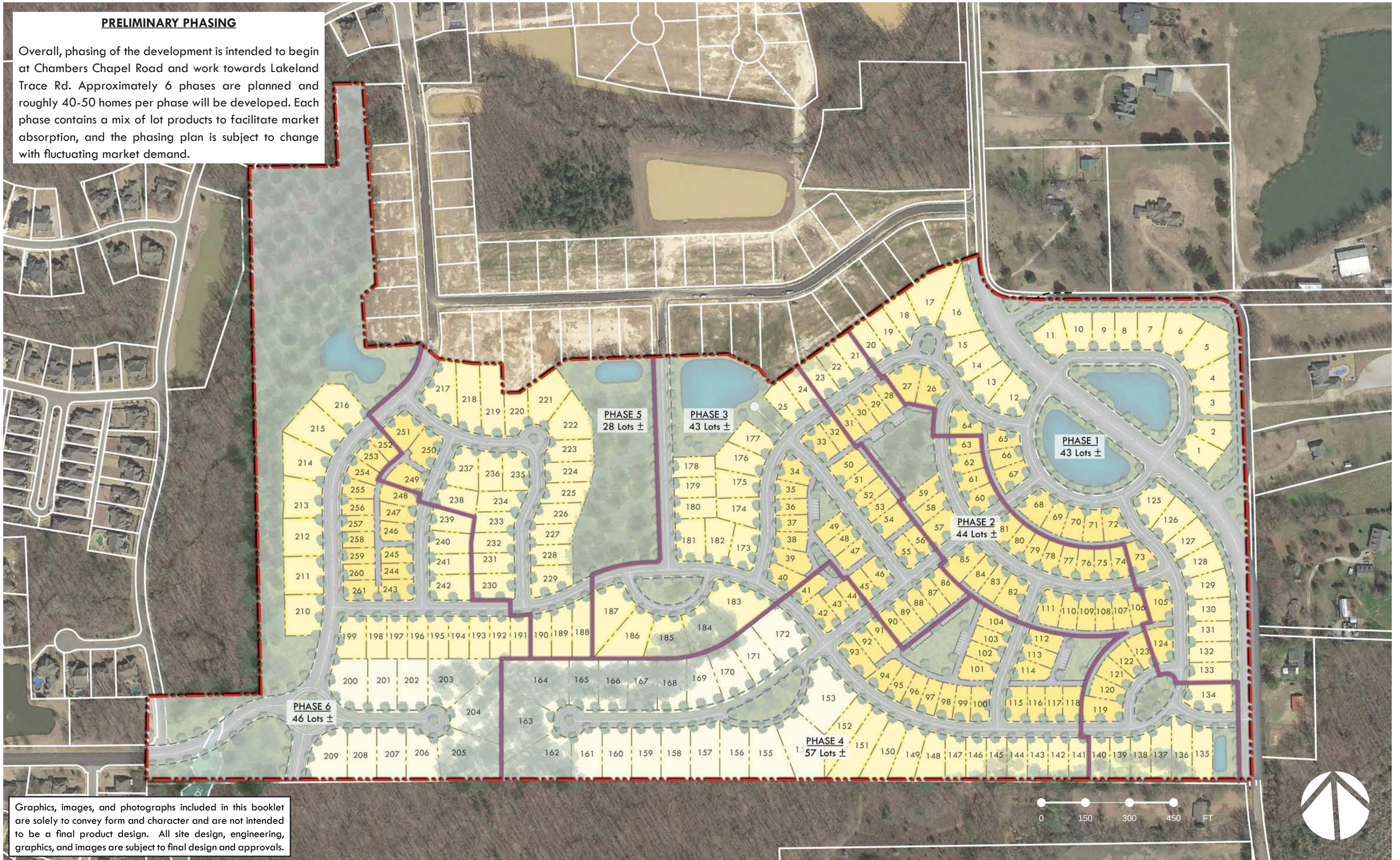
17,500 SF MIN. LOTS



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PRELIMINARY PHASING

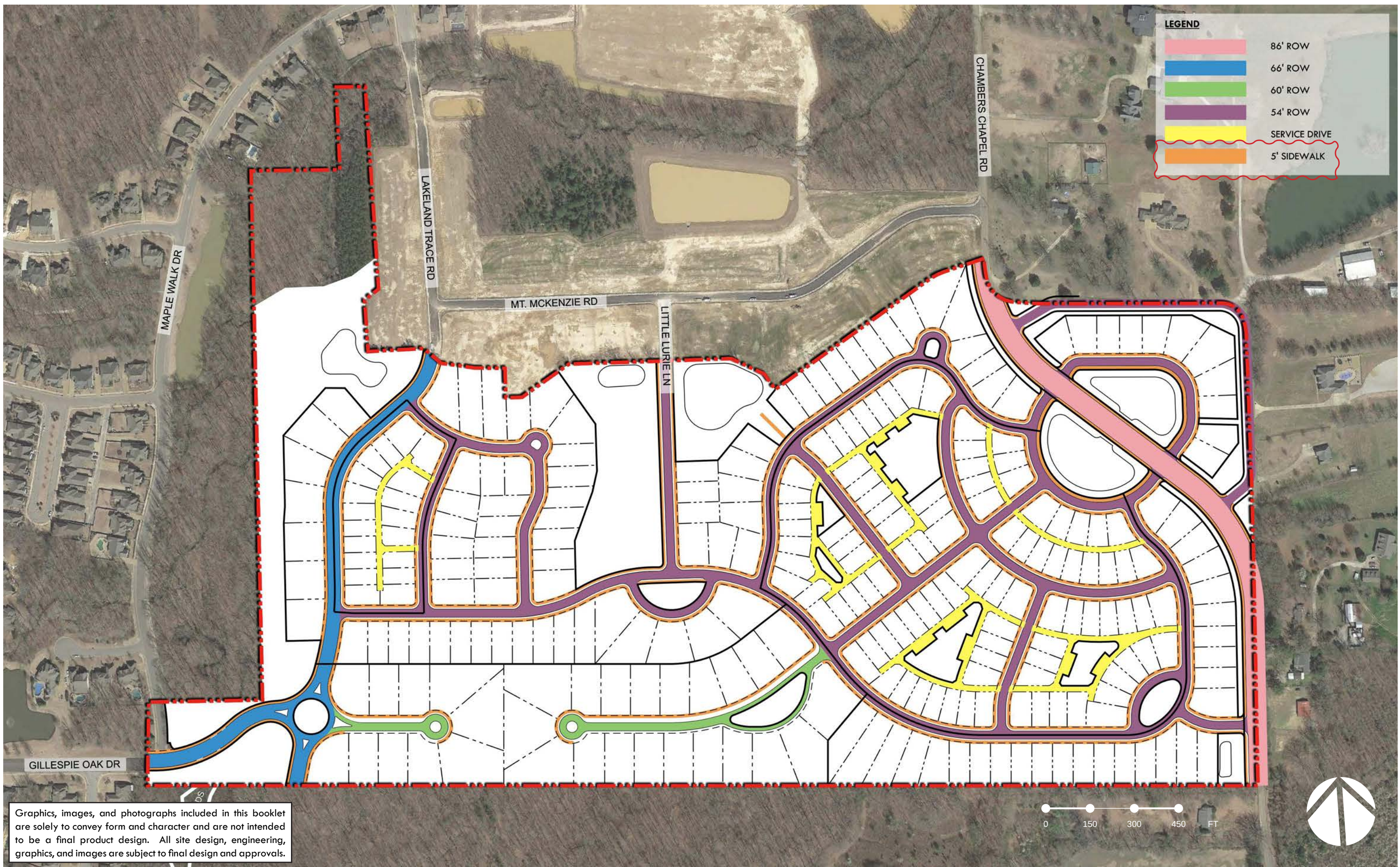
Overall, phasing of the development is intended to begin at Chambers Chapel Road and work towards Lakeland Trace Rd. Approximately 6 phases are planned and roughly 40-50 homes per phase will be developed. Each phase contains a mix of lot products to facilitate market absorption, and the phasing plan is subject to change with fluctuating market demand.



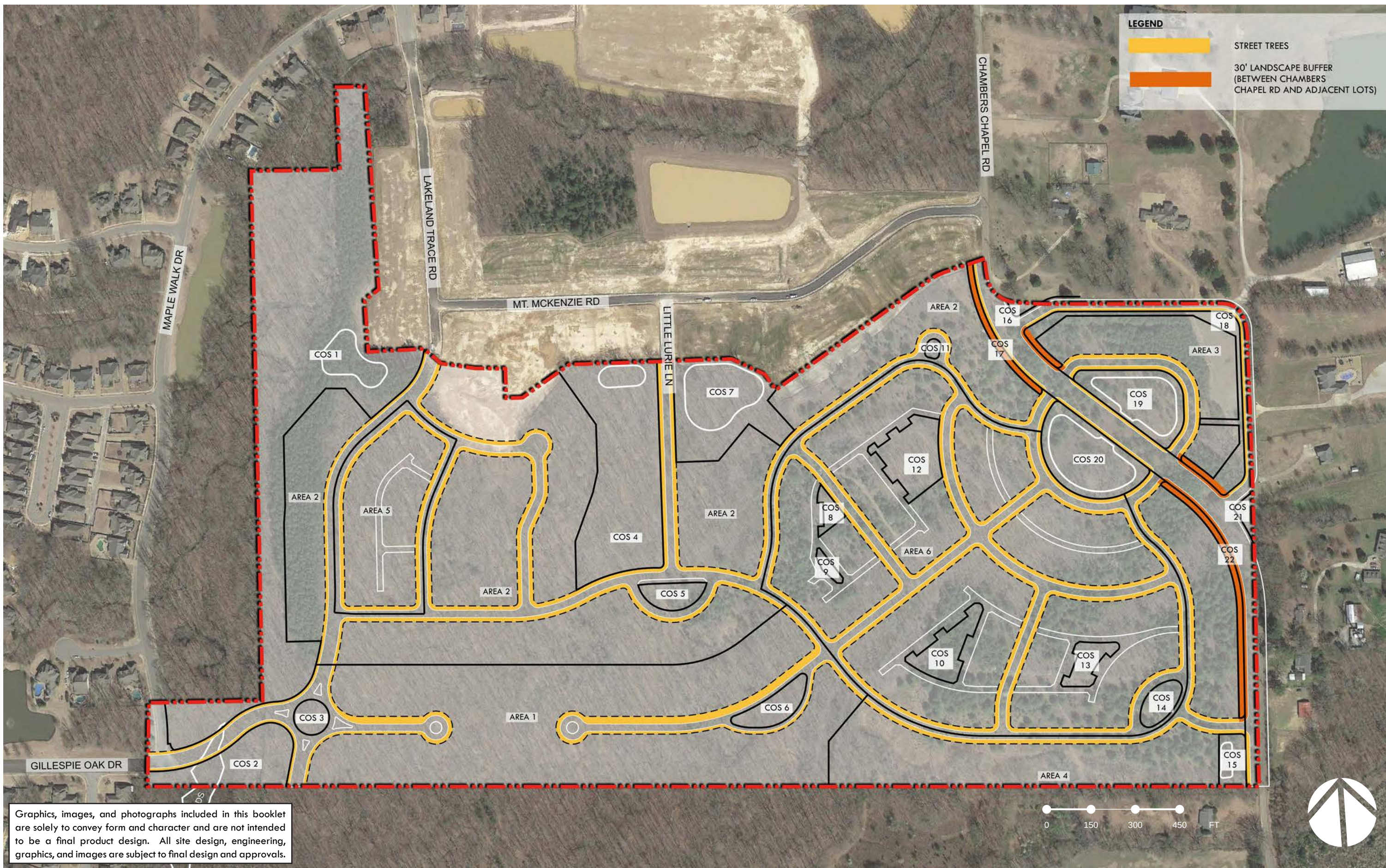
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0 150 300 450 FT

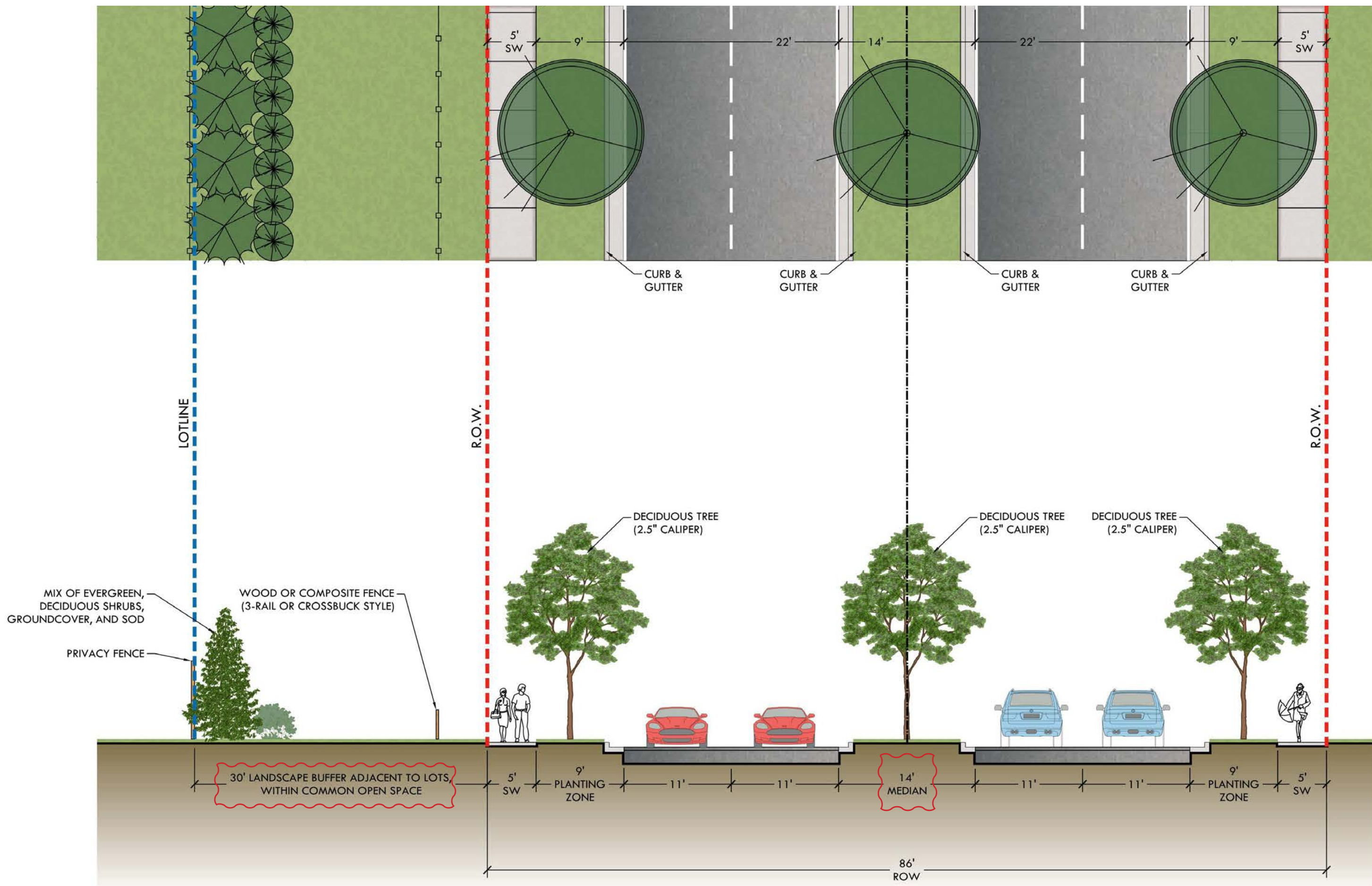


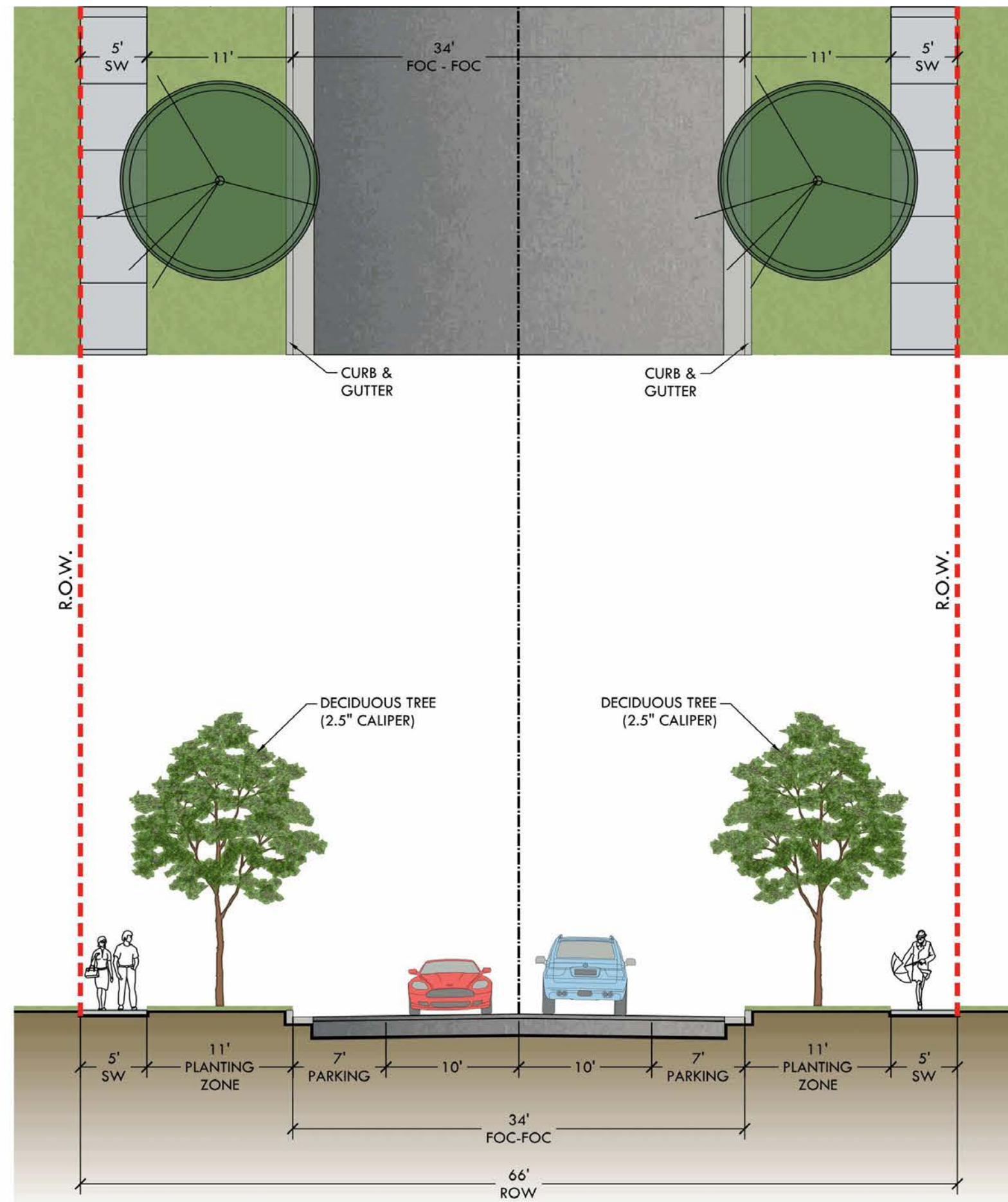


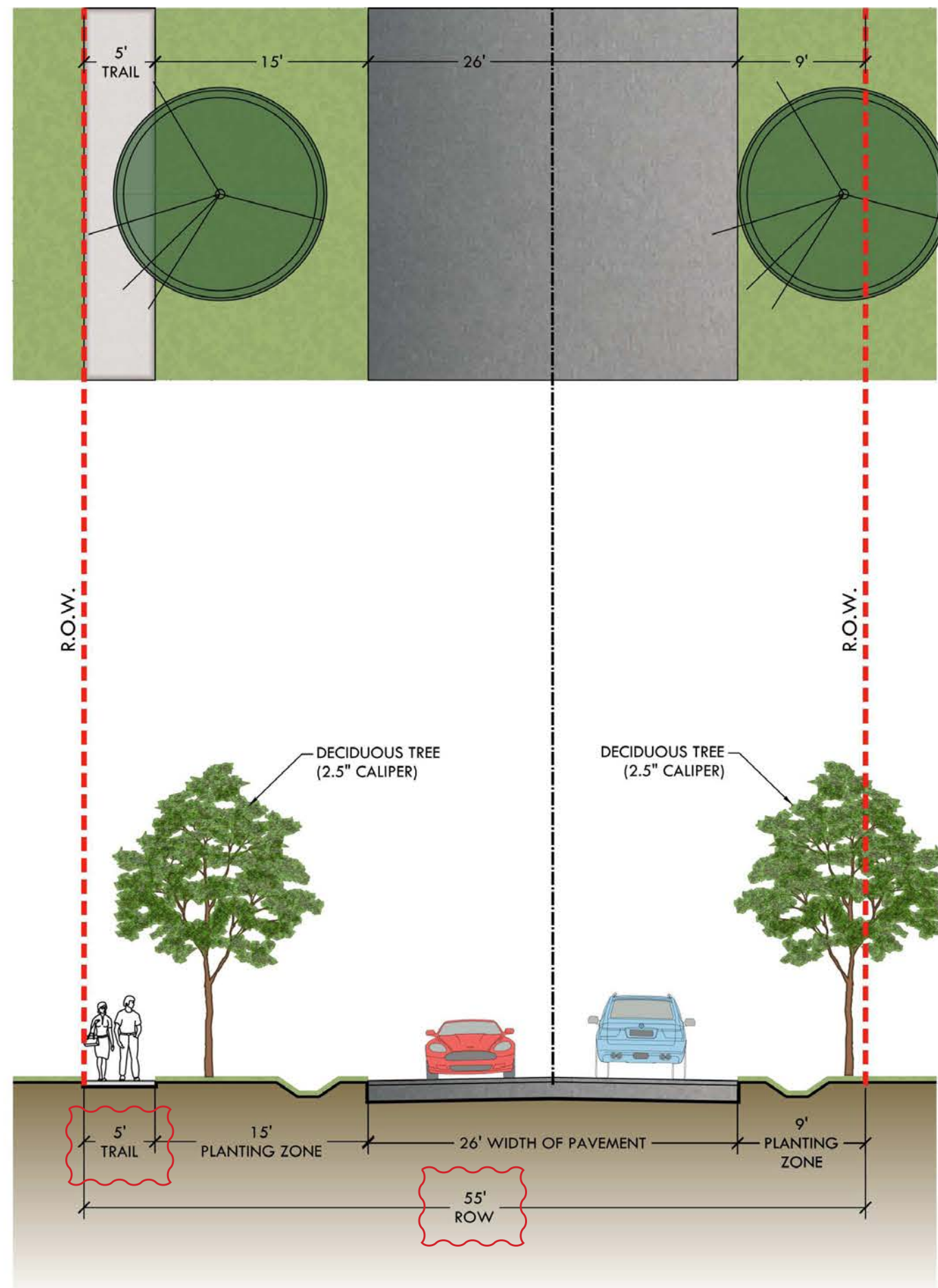
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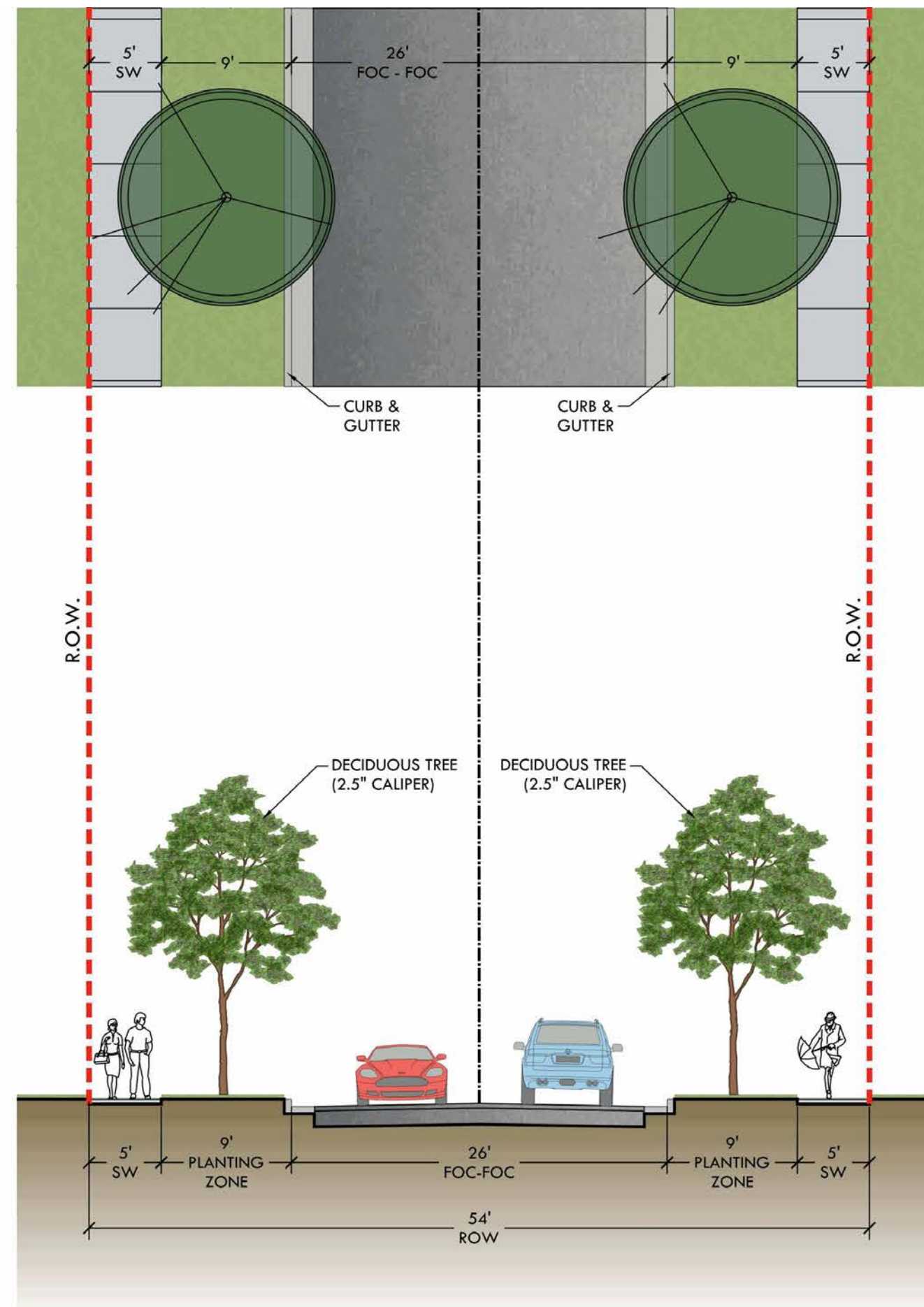


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COMMON OPEN SPACE		
COS 1	11.6 AC ±	
COS 2	1.4 AC ±	
COS 3	0.3 AC ±	
COS 4	4.2 AC ±	
COS 5	0.4 AC ±	
COS 6	0.5 AC ±	
COS 7	2.3 AC ±	
COS 8	0.2 AC ±	
COS 9	0.1 AC ±	
COS 10	0.6 AC ±	
COS 11	0.1 AC ±	
COS 12	1.0 AC ±	
COS 13	0.4 AC ±	
COS 14	0.3 AC ±	
COS 15	0.4 AC ±	
COS 16	0.1 AC ±	
COS 17	0.2 AC ±	
COS 18	1.0 AC ±	
COS 19	1.4 AC ±	
COS 20	1.6 AC ±	
COS 21	0.1 AC ±	
COS 22	0.4 AC ±	
TOTAL COS	28.6 AC ±	23.4% ±

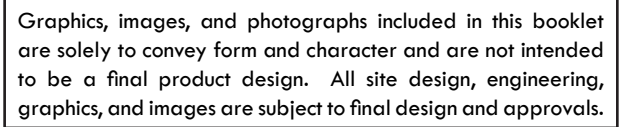
GREENSPACE

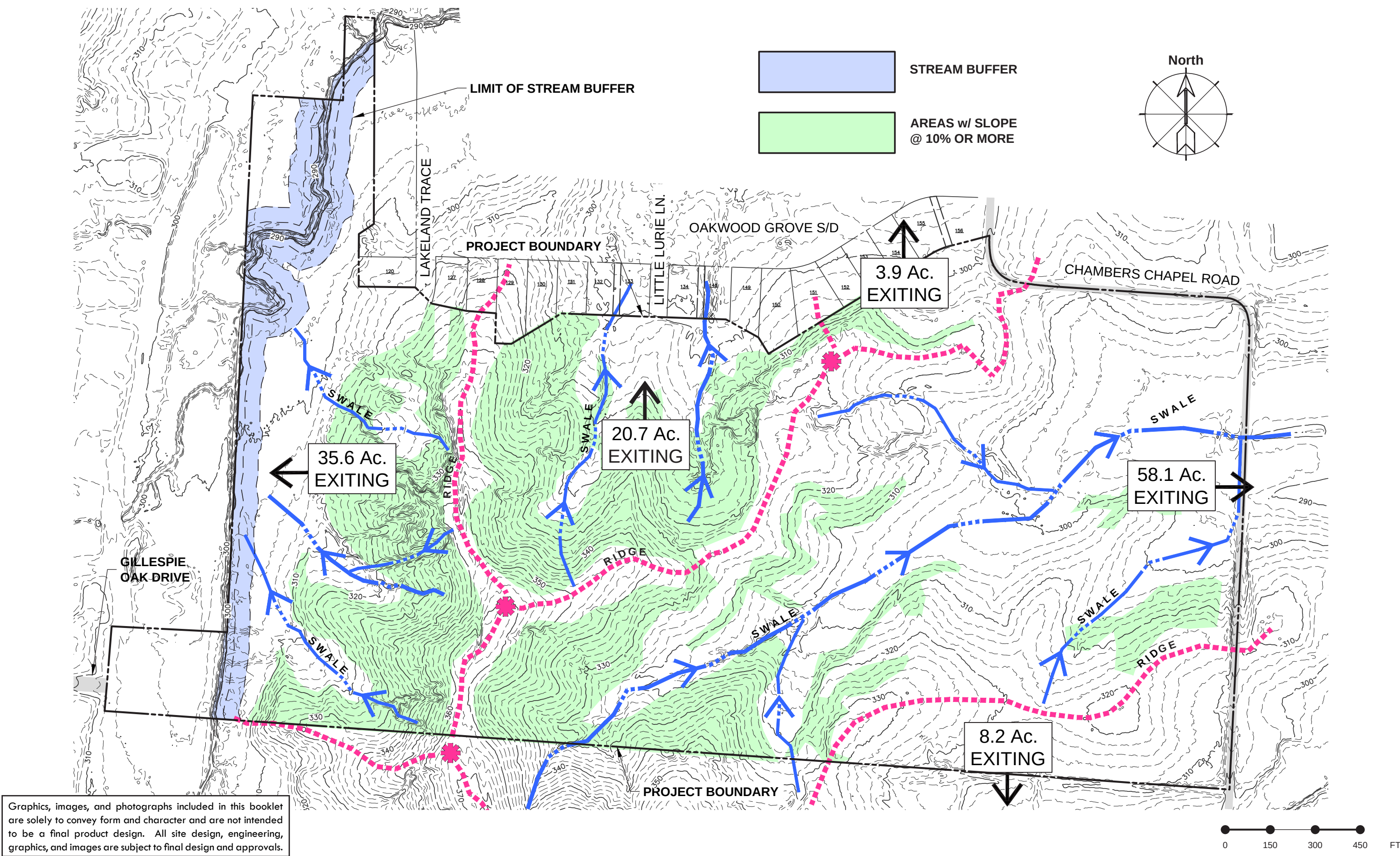
Twenty-two Common Open Space areas are proposed for the development ranging from small greenspace medians of ± 0.1 ac. to large natural areas up to ± 11.6 ac. These Common Open Spaces were planned as a network to connect as many residents as possible to the outdoors. As a result, approximately 132 lots (51%) will be facing or adjacent to Common Open Space. This not only increases the marketability of the homes but also facilitates social interactions between neighbors and promotes stewardship of Lakeland's natural resources.

LEGEND

LOTS ADJACENT TO GREENSPACE

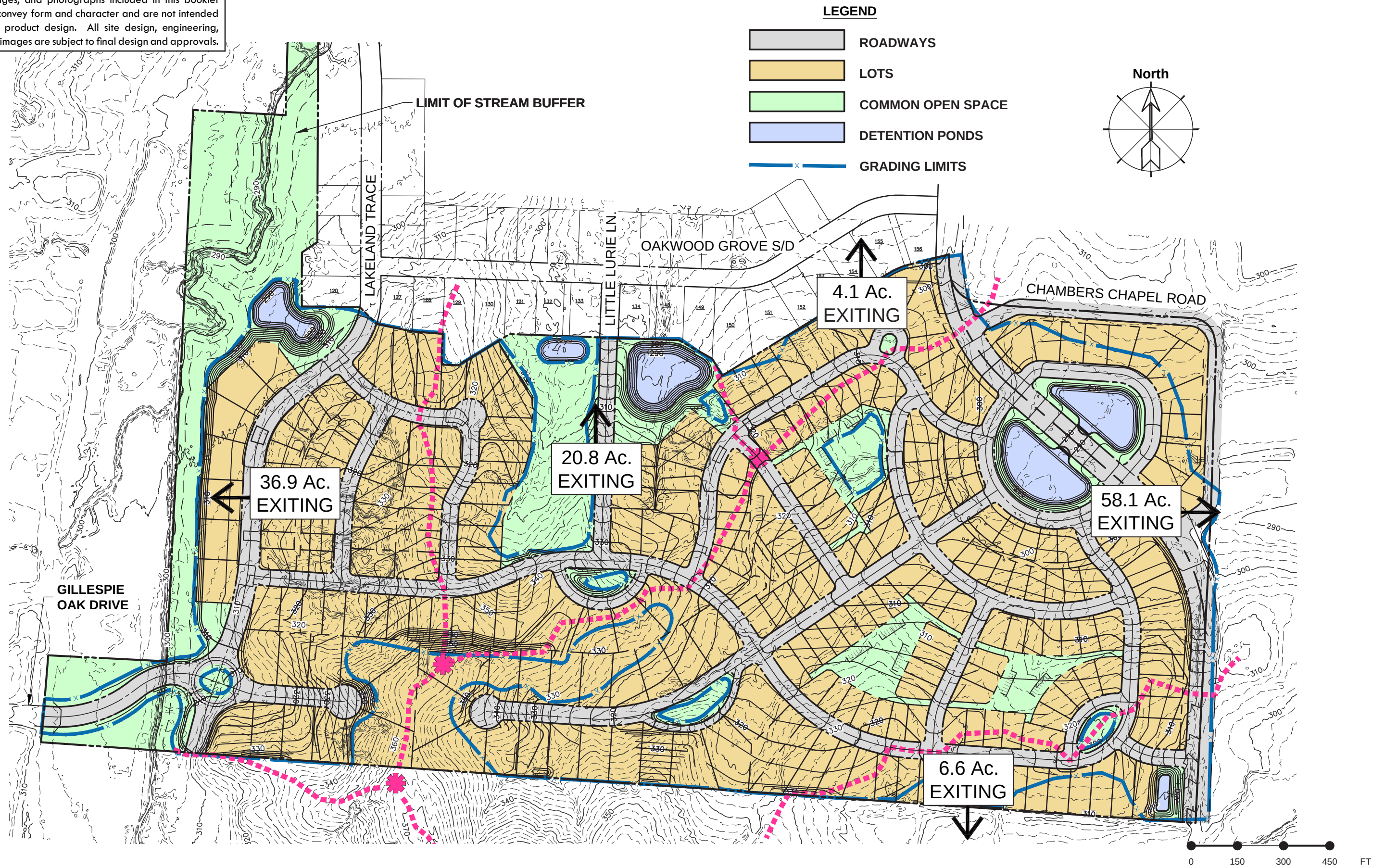






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Tree Density Calculation				
	Development Net Acreage	122.1	Ac.	
	Site Density Factor (SDF)	2442		
	Existing Density Factor (EDF)	6316		
	Replacement Density Factor (RDF)	0		
Summary of Data				
	Existing Trees (Arborist)	7178	Trees	
	Existing Trees (Not Survey Located)	516	Trees	Assumed Remove for Calculations
	Existing Trees (On-Site)	7132	Trees	
	Trees to Remain (On-Site)	1725	Trees	
	Percent of Trees to Remain (On-Site)	24.2%		
	Existing Specimen Trees (On-Site)	533	Trees	
	Specimen Trees to Remain (On-Site)	141	Trees	
	Percent of Specimen Trees to Remain (On-Site)	26.5%		

LEGEND

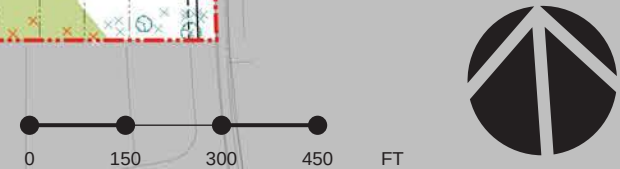
PROPOSED TREE SAVE AREAS
OUTSIDE LIMITS OF GRADING

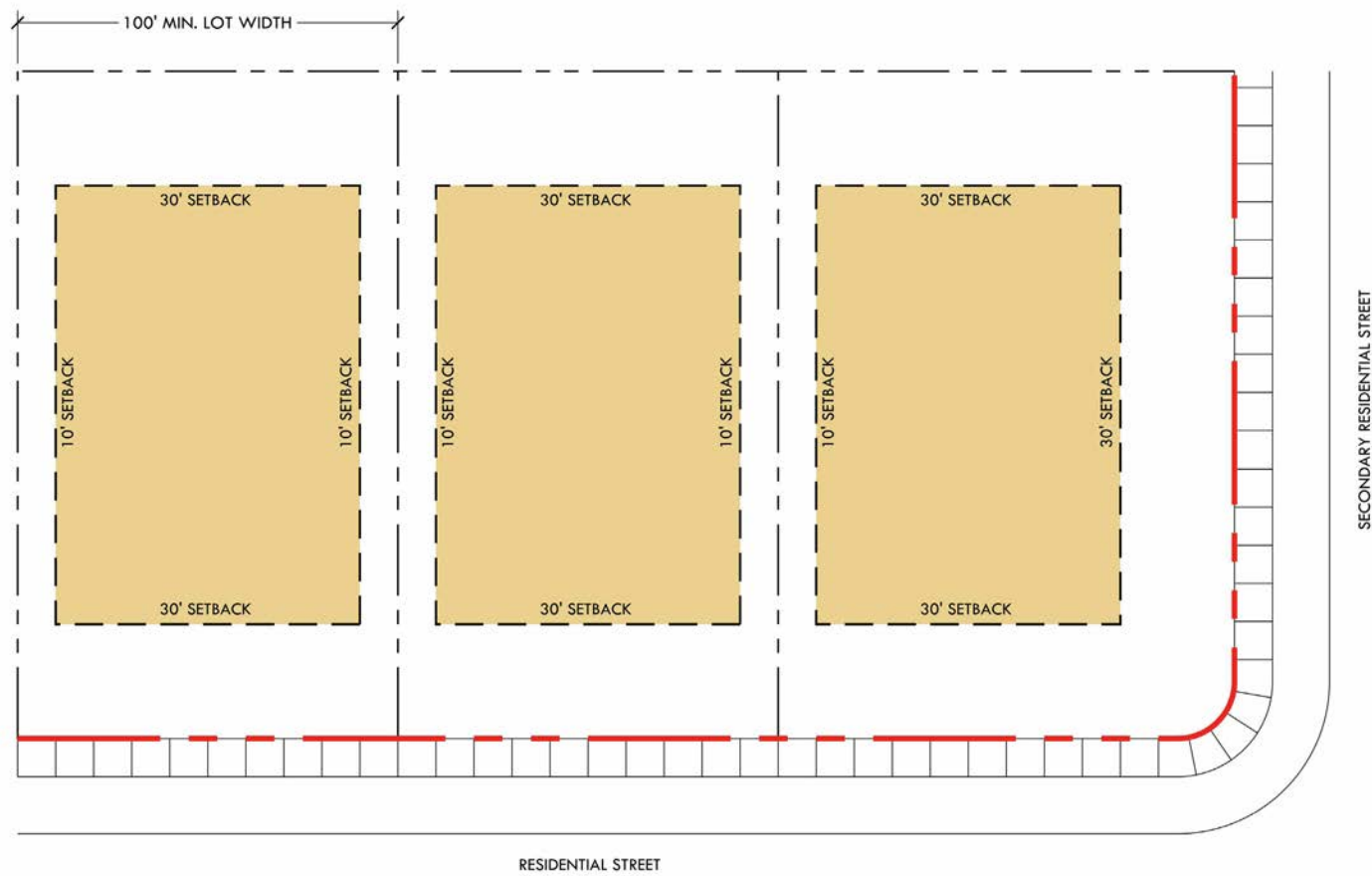
SPECIMEN TREE SAVED

NON-SPECIMEN TREE SAVED

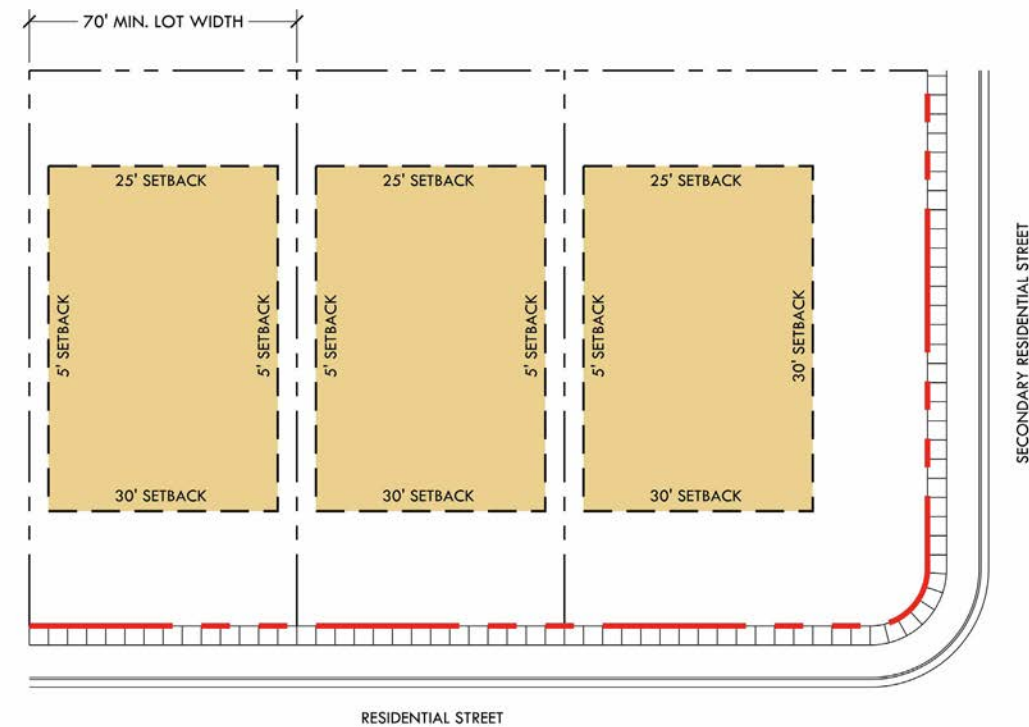
Note: A full tree survey and data chart of all trees is attached as a separate document.

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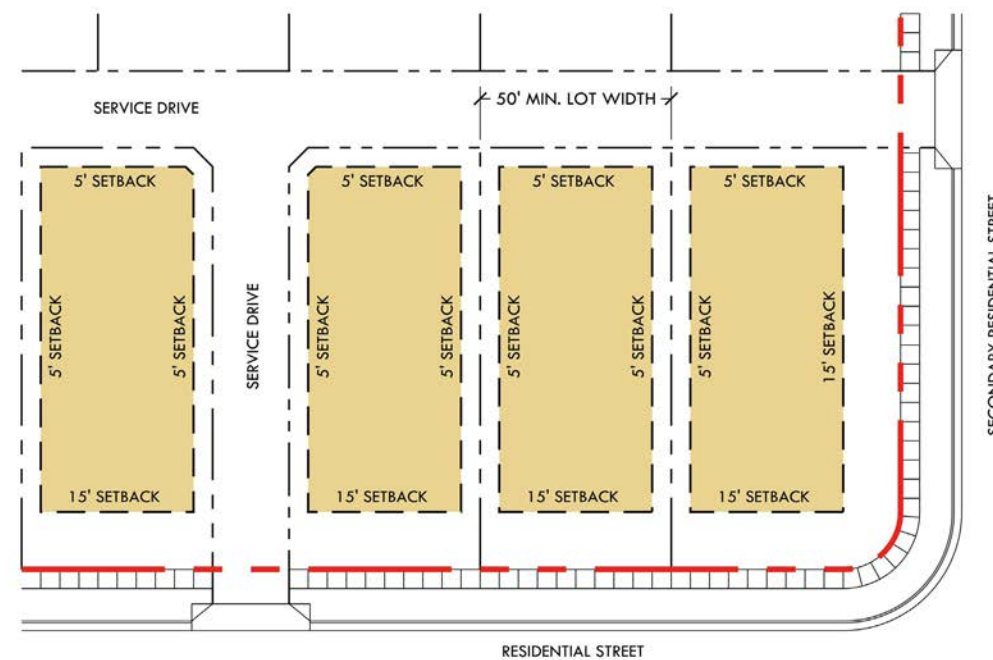




R-1 SUBURBAN ESTATE - AREA 1 (STREET-ACCESS)



R-2 SUBURBAN MANOR - AREAS 2, 3, & 4 (STREET-ACCESS)

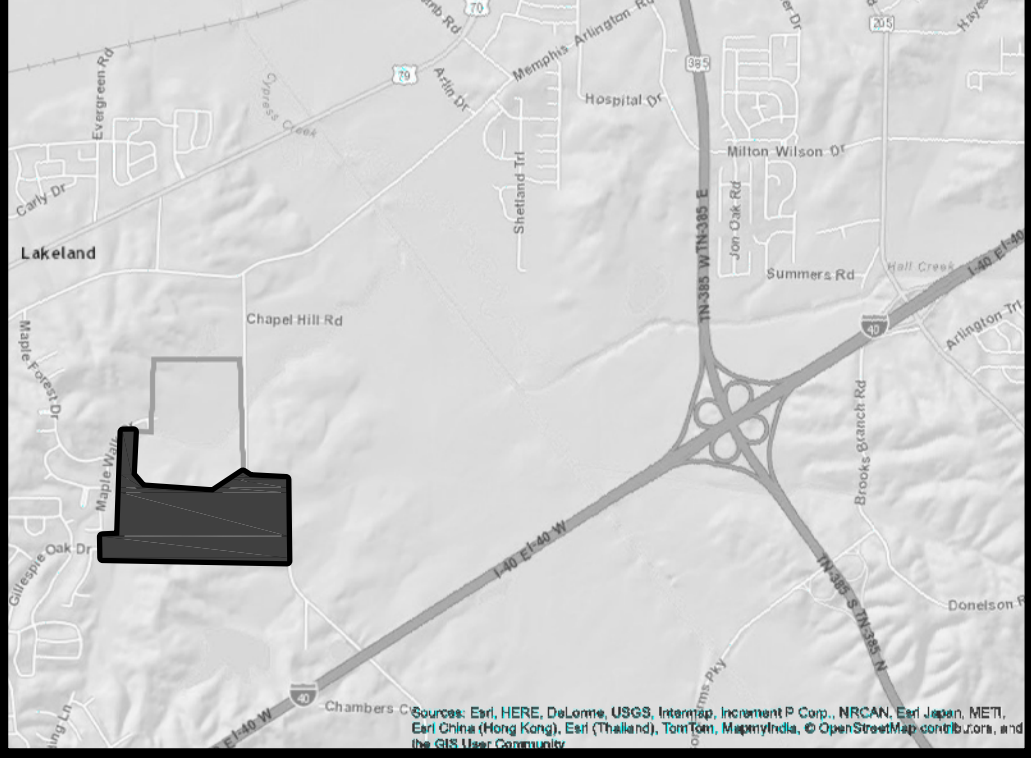
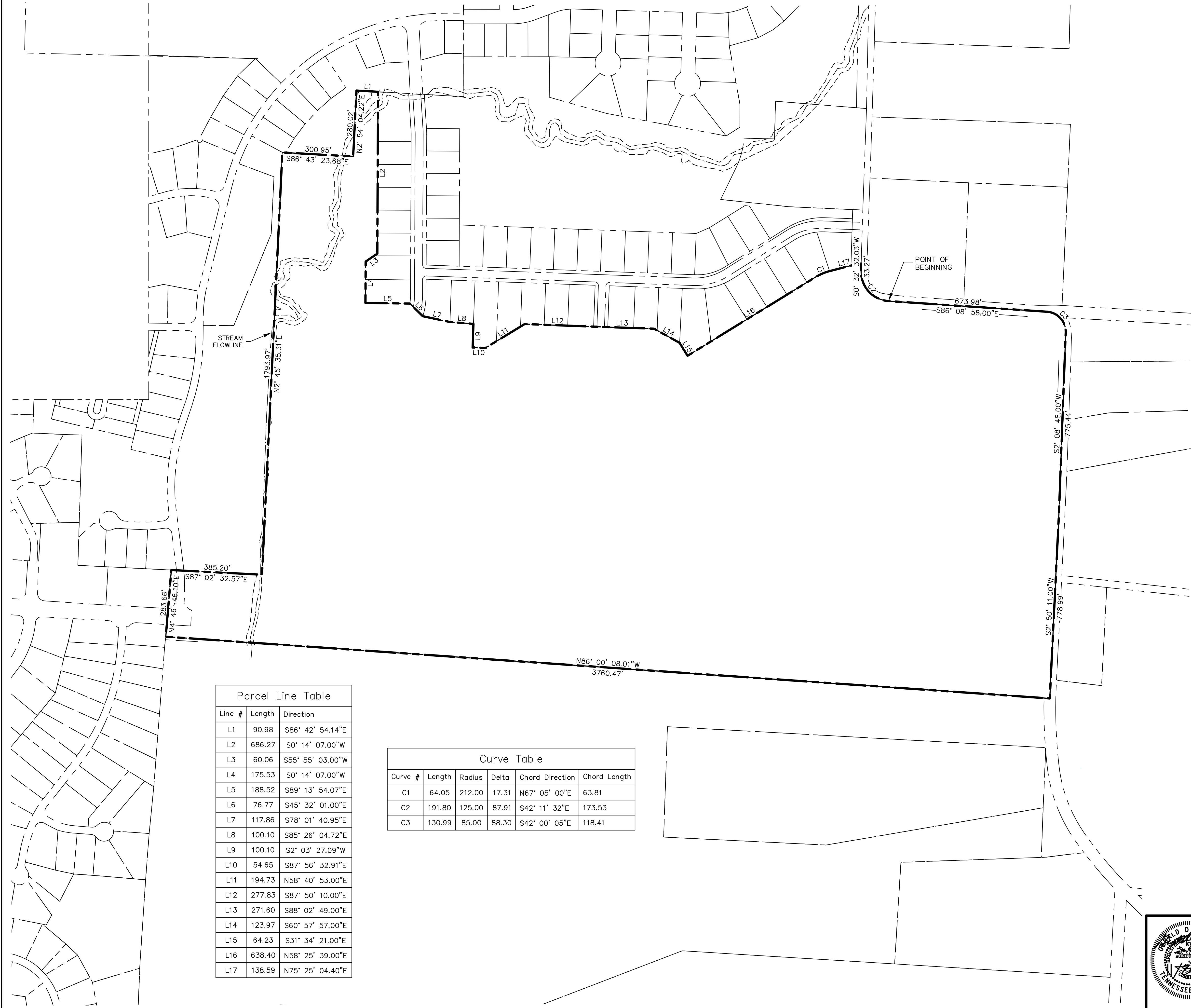


R-3 SUBURBAN COTTAGE - AREAS 5 & 6 (REAR-ACCESS)

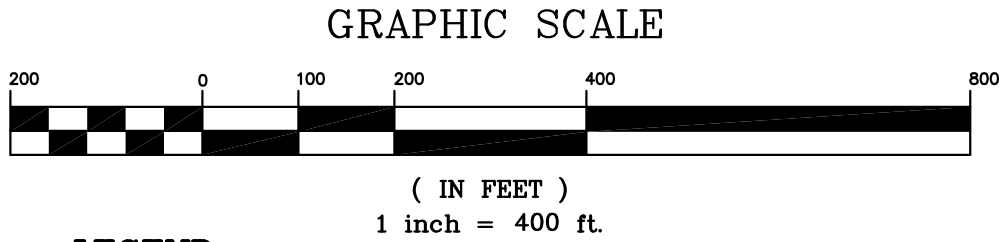
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VICINITY MAP
NTS



LEGEND

- PROPERTY LINE
- EXISTING STREAM
- EXISTONG ROAD

LEGAL DESCRIPTION

Beginning at a point having coordinates of N:355803.91, E:861405.68 said point being in the centerline of Chambers Chapel Road 3990 feet South of the intersection of Chambers Chapel Road and Memphis Arlington Road; thence along the centerline of Chambers Chapel Road with a bearing of S 86°08'58" E a distance of 673.98 feet to a point; thence in a southeasterly direction with a tangent curve turning to the right with a radius of 85.00 feet, having a chord bearing of S 42°00'05" E and a chord distance of 118.41, having a central angle of 88°17'54" and an arc length of 130.99 to a point; thence with a bearing of S 02°08'48" W a distance of 775.44 feet to a point; thence with a bearing of S 02°50'11" W a distance of 778.99 feet to a point in the North line of the Bank of Bartlett Property (Instrument No. 11000708); thence along said north property line with a bearing of N 86°00'08" W a distance of 3760.47 feet to a point in the East property line of the Steven and Mikki Gibson Property (Instrument No. 06085432); thence with a bearing of N 04°46'46" E a distance of 283.66 feet to a point in the South property line of the Bruce and Alison Nelson property (Instrument No. 09104215); thence with a bearing of S 87°02'33" E a distance of 385.20 feet to a point in the East property line of the Grove at Lakeland Homeowners Association LLC (Instrument No. 14083333); thence following said property line with a bearing of N 02°45'35" E a distance of 1793.97 feet to a point; thence with a bearing of S 86°43'24" E a distance of 300.95 feet to a point; thence with a bearing of N 02°54'04" E a distance of 280.02 feet to a point; thence with a bearing of S 86°42'54" E a distance of 90.98 feet to a point in the West property line of the TFB LLC property (Instrument No. 16035351); thence along said property line in a southeasterly direction with a tangent curve turning to the right with a radius of 0.50 feet, having a chord bearing of S 43°14'24" E and a chord distance of 0.69, having a central angle of 86°57'01" and an arc length of 0.76 to a point; thence with a bearing of S 00°14'07" W a distance of 686.27 feet to a point; thence with a bearing of S 55°55'03" W a distance of 60.06 feet to a point; thence with a bearing of S 00°14'07" W a distance of 175.53 feet to a point; thence with a bearing of S 89°13'54" E a distance of 188.52 feet to a point; thence with a bearing of S 45°32'01" E a distance of 76.77 feet to a point; thence with a bearing of S 78°01'41" E a distance of 117.86 feet to a point; thence with a bearing of S 85°26'05" E a distance of 100.10 feet to a point; thence with a bearing of S 02°03'27" W a distance of 100.10 feet to a point; thence with a bearing of S 87°56'33" E a distance of 54.65 feet to a point; thence with a bearing of N 58°40'53" E a distance of 194.73 feet to a point; thence with a bearing of S 87°50'10" E a distance of 277.83 feet to a point; thence with a bearing of S 88°02'49" E a distance of 271.60 feet to a point; thence with a bearing of S 60°57'57" E a distance of 123.97 feet to a point; thence with a bearing of S 31°34'21" E a distance of 64.23 feet to a point; thence with a bearing of N 58°25'39" E a distance of 638.40 feet to a point; thence in a northeasterly direction with a tangent curve turning to the right with a radius of 212.00 feet, having a chord bearing of N 67°05'00" E and a chord distance of 63.81, having a central angle of 17°18'41" and an arc length of 64.05 to a point; thence with a bearing of N 75°25'04" E a distance of 138.59 feet to a point; thence with a bearing of S 00°32'32" W a distance of 33.27 feet to a point; thence in a southeasterly direction with a non-tangent curve turning to the left with a radius of 125.00 feet, having a chord bearing of S 42°11'32" E and a chord distance of 173.53, having a central angle of 87°54'51" and an arc length of 191.80 to the point of beginning.; containing 5505810.87 square feet or 126.396 acres.

The Northing and Easting coordinates as referred to in this description are relative to the Tennessee State Plane Coordinate System (North American Datum 1983).

Parcel Line Table			
Line #	Length	Direction	
L1	90.98	S86° 42' 54.14"E	
L2	686.27	S0° 14' 07.00"W	
L3	60.06	S55° 55' 03.00"W	
L4	175.53	S0° 14' 07.00"W	
L5	188.52	S89° 13' 54.07"E	
L6	76.77	S45° 32' 01.00"E	
L7	117.86	S78° 01' 40.95"E	
L8	100.10	S85° 26' 04.72"E	
L9	100.10	S2° 03' 27.09"W	
L10	54.65	S87° 56' 32.91"E	
L11	194.73	N58° 40' 53.00"E	
L12	277.83	S87° 50' 10.00"E	
L13	271.60	S88° 02' 49.00"E	
L14	123.97	S60° 57' 57.00"E	
L15	64.23	S31° 34' 21.00"E	
L16	638.40	N58° 25' 39.00"E	
L17	138.59	N75° 25' 04.40"E	

Curve Table					
Curve #	Length	Radius	Delta	Chord Direction	Chord Length
C1	64.05	212.00	17.31	N67° 05' 00"E	63.81
C2	191.80	125.00	87.91	S42° 11' 32"E	173.53
C3	130.99	85.00	88.30	S42° 00' 05"E	118.41



PROPERTY SURVEY		
CHAPEL WOODS SUBDIVISION LAKELAND, TENNESSEE		
TOTAL AREA: 126.40 Ac.	NUMBER OF LOTS: 214	
ZONING DISTRICT: R1, R2, OS2, OS5	WARD 64, BLOCK 51, PARCEL 483 AND 49	
DEVELOPER: EVOLVE BANK& TRUST 6070 POPLAR AVE. SUITE 200 MEMPHIS, TN 38119 PHONE: (901)334-0980	ENGINEER: LAWSON ENGINEERING AND CONSULTING, INC. 5909 POLK ST. ARLINGTON, TN 38002 PHONE: (901)383-3278 FAX: (901)867-5546	
100 YEAR FLOOD ELEVATION: N/A	FEMA MAP PANEL NUMBER: 47157C0215 G	FEMA MAP DATE: FEBRUARY 6, 2013
DATE: 11/8/17	SCALE: 1"=400'	SHEET 1

TRAFFIC IMPACT STUDY

CHAPEL LAKES PUD

LAKELAND, TN

Prepared By: M. E. Lipinski, PE, Ph.D., PTOE

SEPTEMBER, 2020

Introduction

The objective of this study is to determine the traffic impacts of a proposed new residential development, Chapel Lakes PUD, in Lakeland, TN. Specifically, the study will address the future laneage needs and need for other improvements on Chambers Chapel Road resulting from this project. A previous study, ***Traffic Impact Study – Oakwood Grove/Evolve Bank Site***, which included this property was completed in June, 2015. A copy of that study is appended to this report. In that study, the site now identified as Chapel Lakes PUD was called the Evolve Bank site.

The focus of this study will be on the changes to the amount and location of the traffic generated resulting from the modifications made to the previous plan. These modifications included revisions to the number of residential homes within the site and the location and number of access points to the development.

Base Assumptions

It is assumed that the assumptions made in the previous study regarding background traffic, future traffic growth, etc. will not change. Rather than repeat that information, one is referred to the June, 2015 Traffic Impact Study. The only changes to be evaluated are those resulting from the modifications from the previous Evolve Bank Site to the Chapel Lakes PUD.

The Site

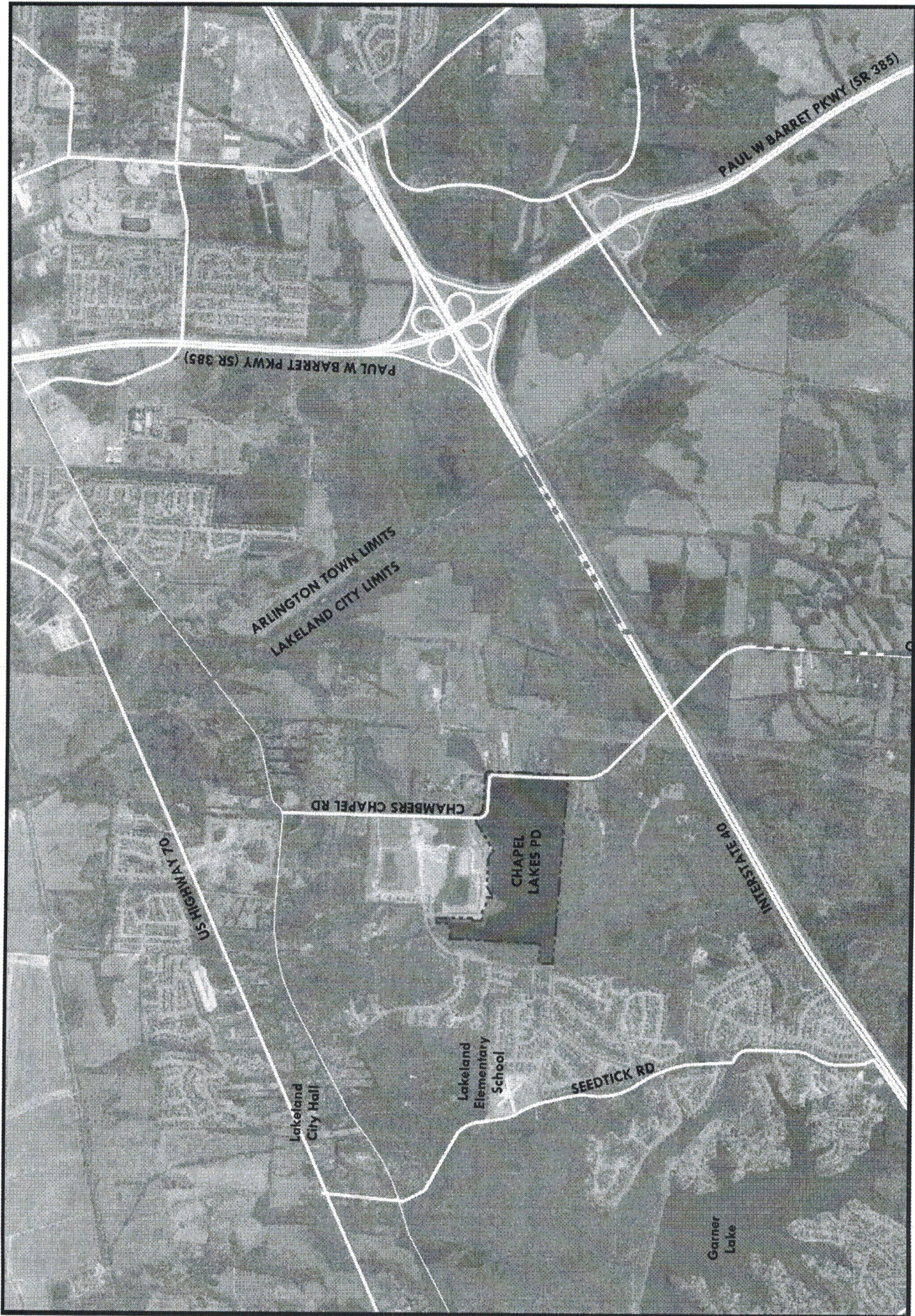
The development is to be located along Chambers Chapel Road south of Memphis-Arlington Road and north of I-40. The location of the site is shown in Figure 1. The site plan is shown in Figure 2. The development will consist of 270 single family homes. Access will be provided by two drives on Chambers Chapel Road, both which will serve the homes on both sides of Chambers Chapel, one drive to the south serving the site on the west side of Chambers Chapel, and one entrance drive on the west side of the property intersection with the existing Gillespie Oaks Drive.

Trip Generation

The number of trips generated by the proposed development was calculated using the trip generation rates for single family residential development in the ITE Trip Generation Manual (10th Edition, 2017). Table 1 contains the number of trip generated for each of the two parcels for the daily, am peak, and pm peak periods.

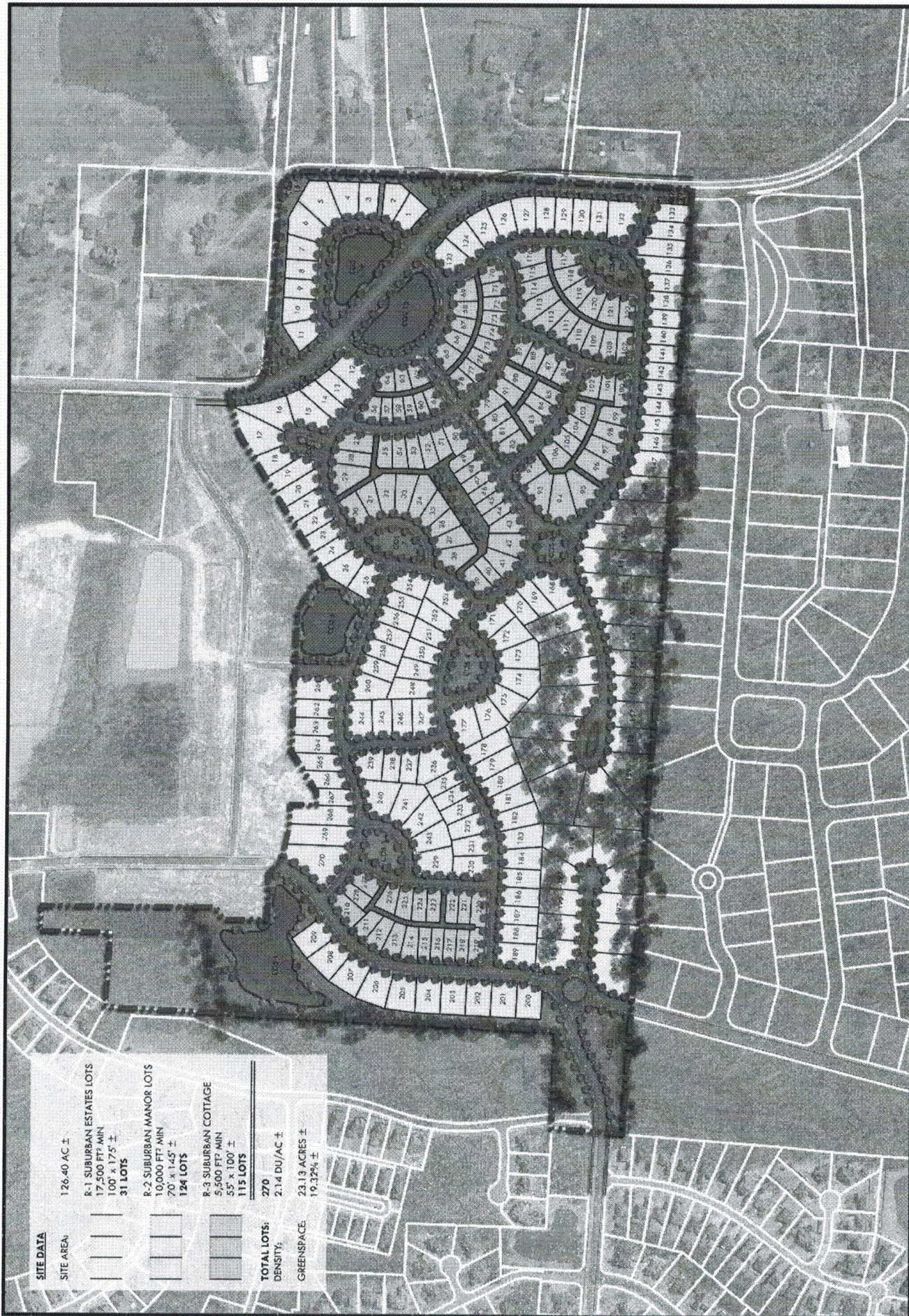
Directional Distribution

The proposed development is residential and both the am and pm peak hour trips will be primarily home to/from work and home to/from school. Given the surrounding



NOT TO SCALE

CHAPEL LAKES PLANNED DEVELOPMENT
FIGURE 1: VICINITY MAP



CHAPEL LAKES PLANNED DEVELOPMENT

FIGURE 2: SITE PLAN



TABLE 1
TRIP GENERATION

Land Use	ITE Code	Basis	Units	Daily		AM		PM	
				IN	OUT	IN	OUT	IN	OUT
Single Family Residential	210	Homes	270	1296	1296	49	147	166	98

roadway network and the connectivity to the major roadways, the following directional distribution of site-oriented trips was assumed:

- to/from the north 85%
- to/from the south 5%
- to/from the west 10%

This distribution was based on the assumption that commuters would be oriented to Memphis-Arlington Road to connect to I-40, that school-related trips would travel subdivision streets to reach Seed Tick Road and the school, and that only a small percentage of trips would travel to the south and Highway 64 and/or via other roadways to the Canada Road interchange. Figure 3 shows the percentage assignment of traffic to the various site access points.

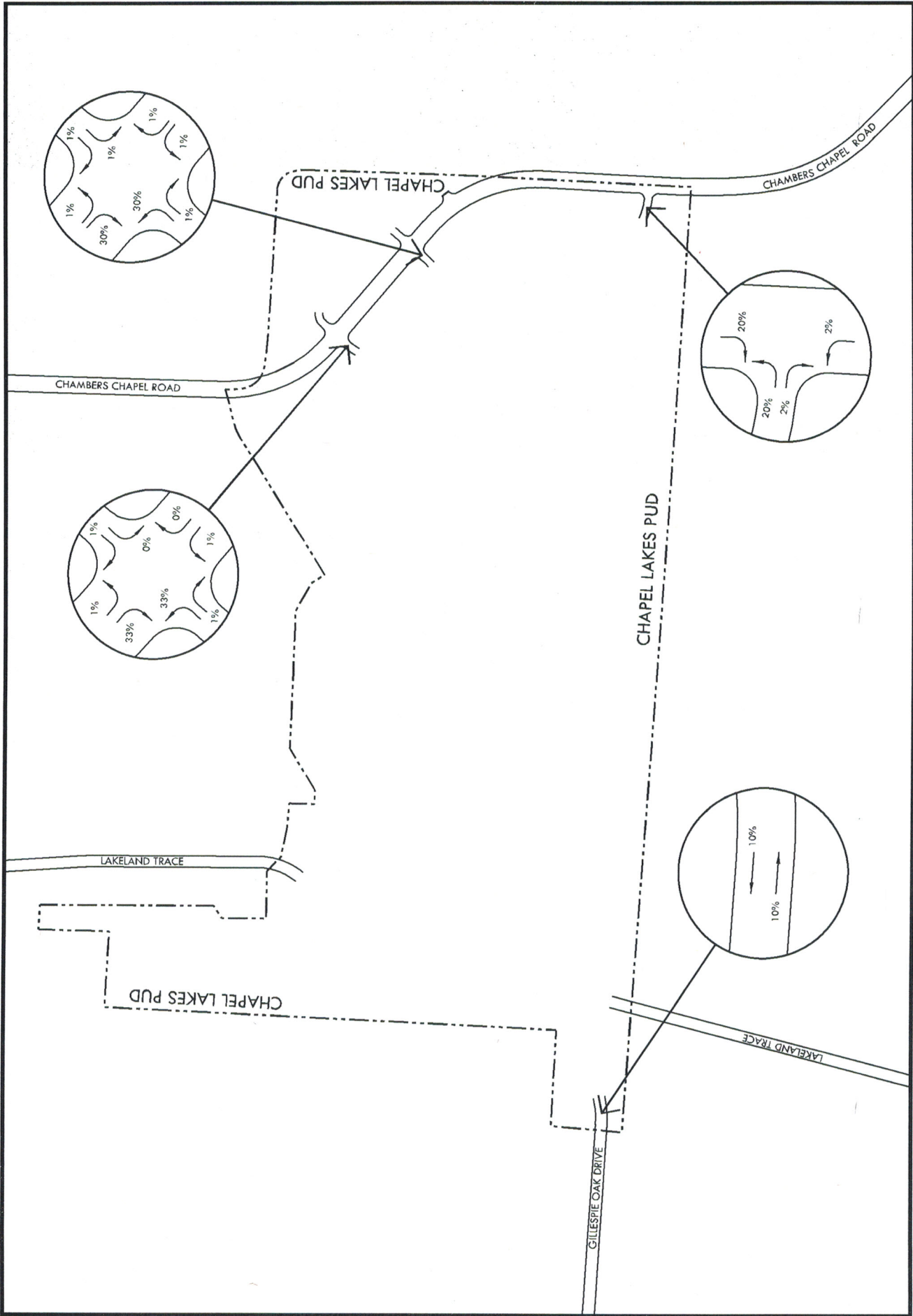
Access Point Assignments

Based on the assumption mentioned above, projected site traffic for the am and pm peak periods was assigned to the entrance drives. Figures 4 and 5 contain driveway traffic assignments based on the location of the drives shown on the site plans.

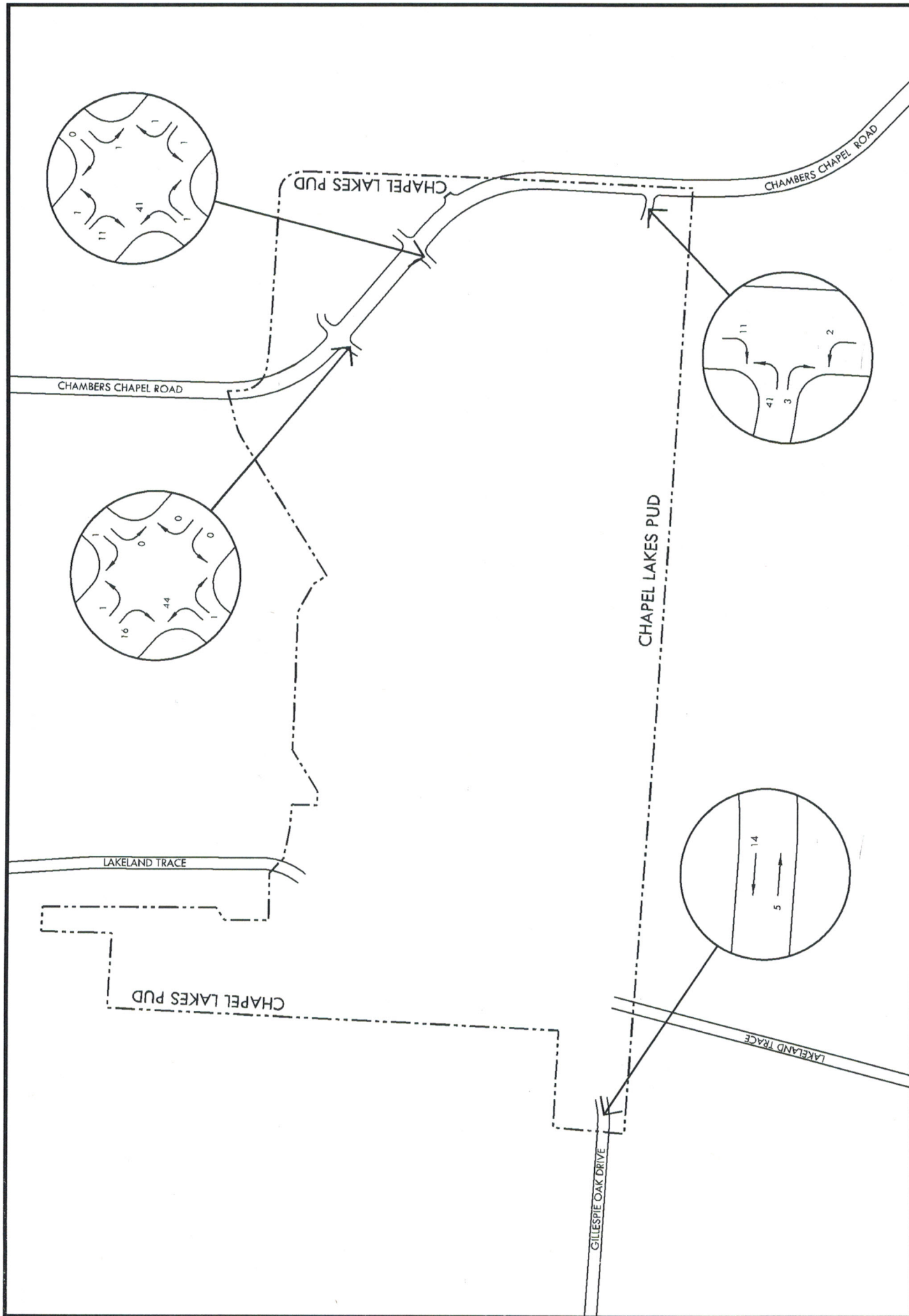
Analysis of Driveway Operations

The operations at each of the site driveways on Chambers Chapel Road were evaluated using the Synchro, Version 9, analysis procedures. These are based on the Highway Capacity Manual procedures for unsignalized intersections. As mentioned previously, the design year selected for this study was 2040. First, it was assumed that background traffic on Chambers Chapel Road would grow at a rate of 2 percent per year until the year 2025. While very little growth has taken place in the past decade, this assumption would allow for some now, unplanned development along Chambers Chapel road to be accounted for. A growth rate of 2 percent per year, compounded annual translates into a 22 percent increase in traffic. To this growth was added the traffic discussed in the section, **Background Traffic**, in the previous study, **Traffic Impact Study – Oakwood Grove/Evolve Bank Site**. Figures 6 and 7 show the total traffic assignments at the three entrances to the Chapel Lakes site along Chambers Chapel Road. the Oakwood Grove north and south drives and the Evolve site for the am and pm peak periods. The connection to the subdivision to the west were not analyzed because the projected volumes were insignificant.

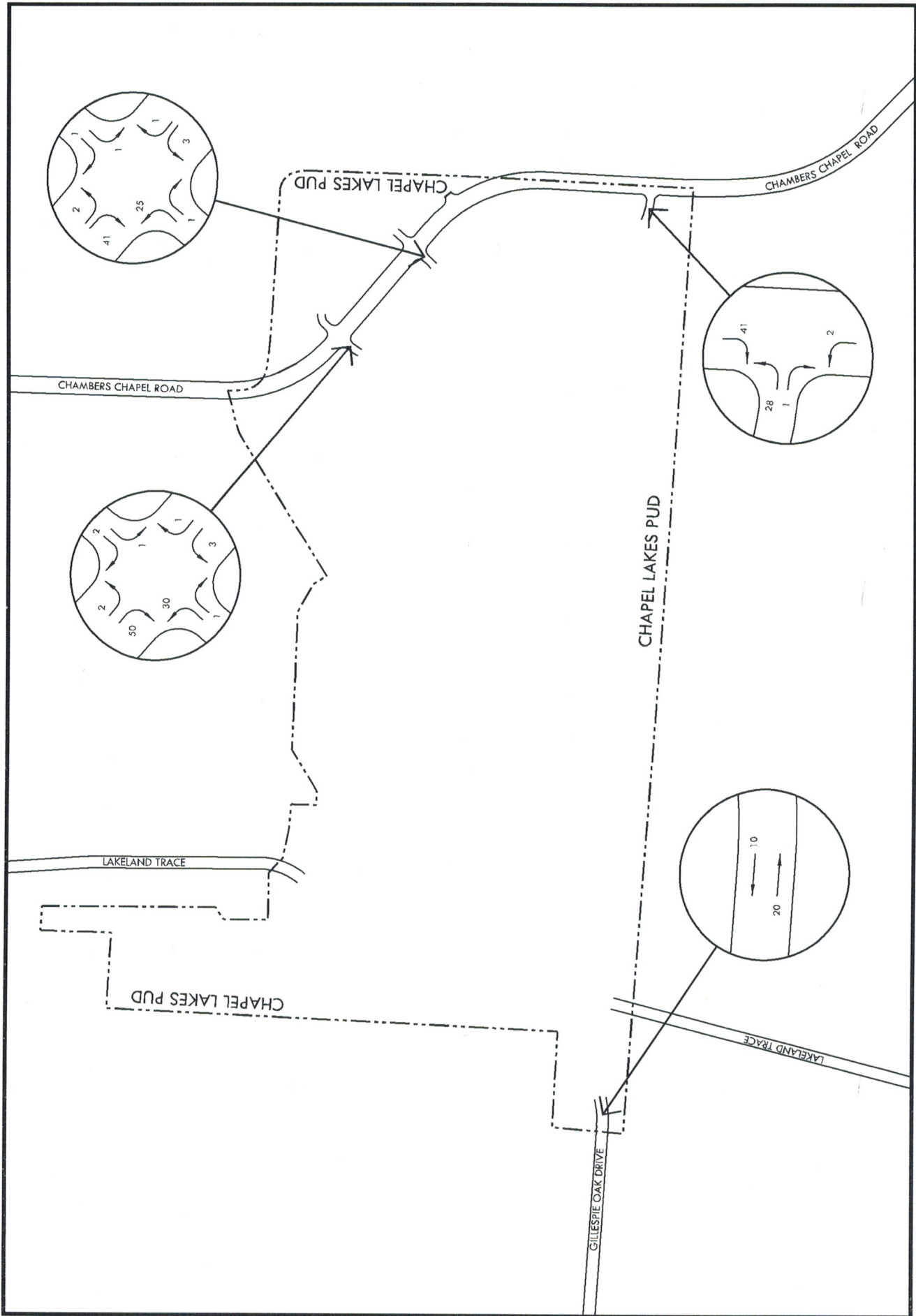
Intersection operation is defined by “level of service”. Level of Service (LOS) is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, represented by LOS ‘A’, to very poor, represented by LOS ‘F’. For the



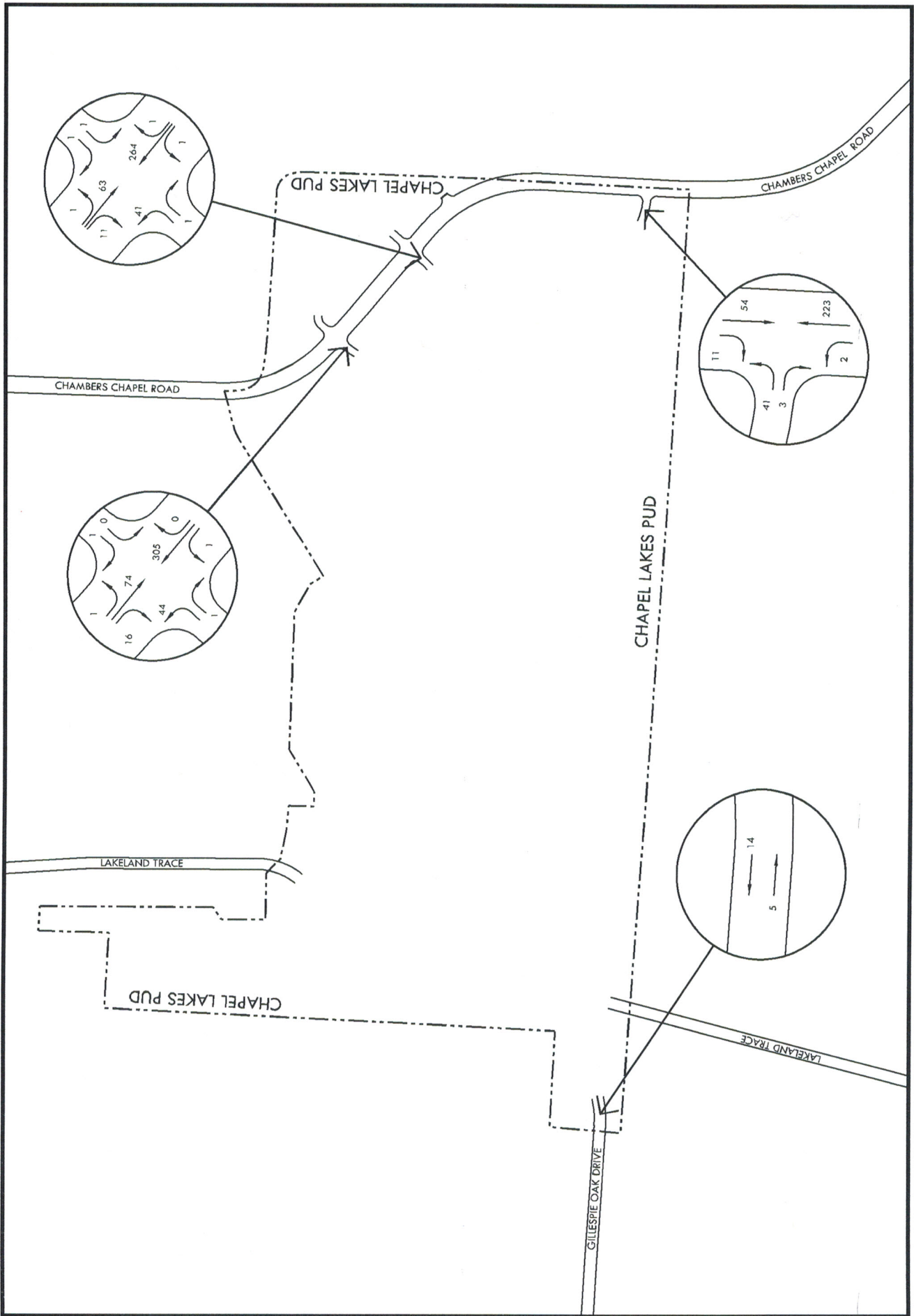
CHAPEL LAKES PLANNED DEVELOPMENT
 FIGURE 3: PERCENTAGE ACCESS POINT ASSIGNMENTS



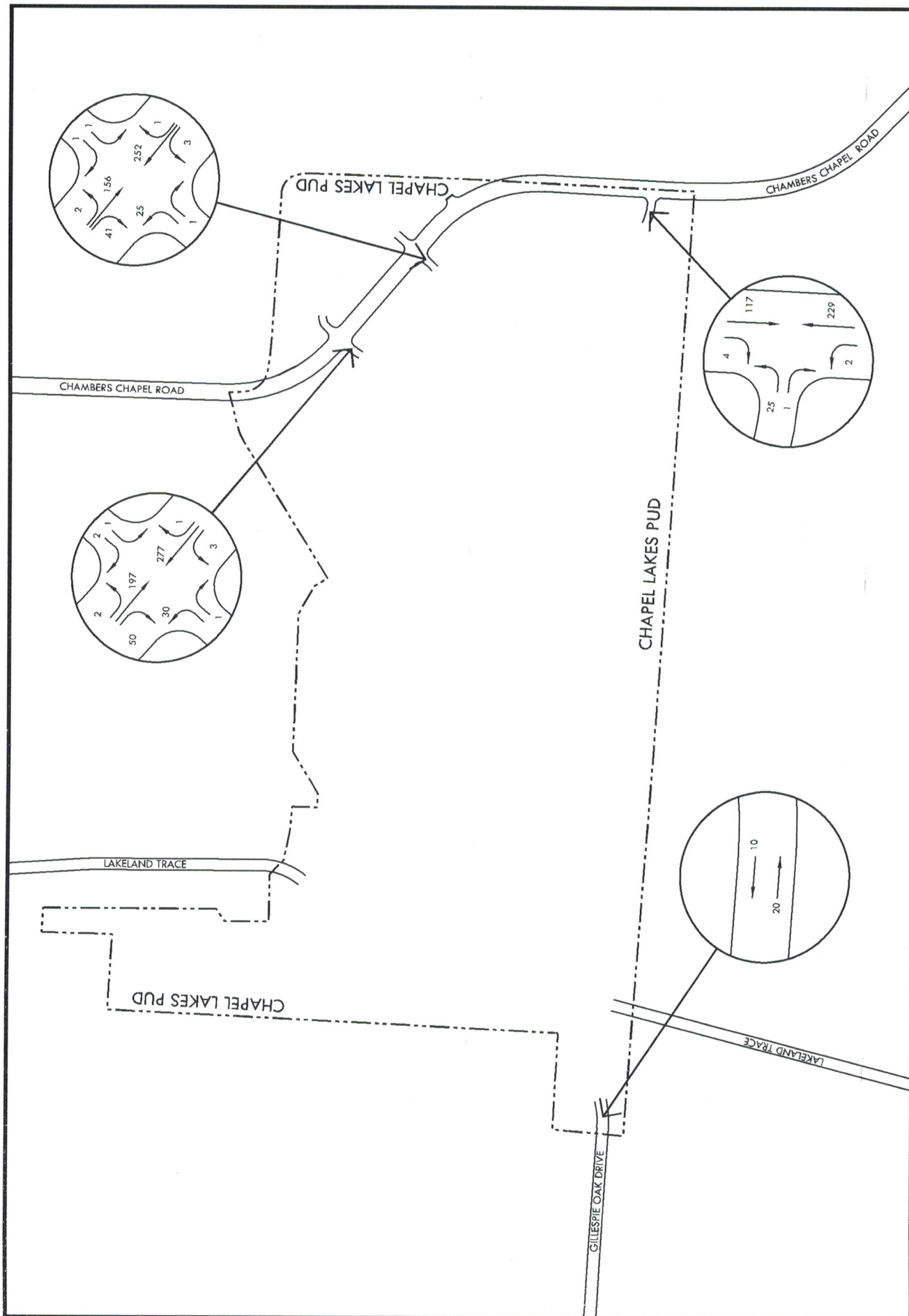
CHAPEL LAKES PLANNED DEVELOPMENT
 FIGURE 4: AM PEAK SITE INTERSECTION ASSIGNMENTS 2040



CHAPEL LAKES PLANNED DEVELOPMENT
 FIGURE 5: PM PEAK SITE INTERSECTION ASSIGNMENTS 2040



CHAPEL LAKES PLANNED DEVELOPMENT
 FIGURE 6: AM PEAK INTERSECTION VOLUMES 2040



purpose of this traffic study, LOS A-D was used to define acceptable peak hour operating conditions. Descriptions of the various levels of service are as follows:

LOS A is the highest level of service that can be achieved. Under this condition, intersection approaches appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation. At signalized intersections, average delays are less than 10 seconds. At unsignalized intersections, average delays are less than 10 seconds.

LOS B represents stable operation. At signalized intersections, average vehicle delays are 10 to 20 seconds. At unsignalized intersections, average delays are 10 to 15 seconds.

LOS C still represents stable operation, but periodic backups of a few vehicles may develop behind turning vehicles. Most drivers begin to feel restricted, but not objectionably so. At signalized intersections, average vehicle delays are 20 to 35 seconds. At unsignalized intersections, average delays are 15 to 25 seconds.

LOS D represents increasing traffic restrictions as the intersection approaches instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but periodic clearance of long lines occurs, thus preventing excessive backups. At signalized intersections, average vehicle delays are 35 to 55 seconds. At unsignalized intersections, average delays are 25 to 35 seconds.

LOS E represents the capacity of the intersection. At signalized intersections, average vehicle delays are 55 to 80 seconds. At unsignalized intersections, average delays are 35 to 50 seconds.

LOS F represents jammed conditions where the intersection is over capacity and acceptable gaps for unsignalized intersections in the mainline traffic flow are minimal. At signalized intersections, average vehicle delays exceed 80 seconds. At unsignalized intersections, average delays exceed 50 seconds.

The capacity analyses using both the Highway Capacity 2000 and 2010 procedures, indicated that all three driveway locations would operate at level of service (LOS) A for

purpose of this traffic study, LOS A-D was used to define acceptable peak hour operating conditions. Descriptions of the various levels of service are as follows:

LOS A is the highest level of service that can be achieved. Under this condition, intersection approaches appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation. At signalized intersections, average delays are less than 10 seconds. At unsignalized intersections, average delays are less than 10 seconds.

LOS B represents stable operation. At signalized intersections, average vehicle delays are 10 to 20 seconds. At unsignalized intersections, average delays are 10 to 15 seconds.

LOS C still represents stable operation, but periodic backups of a few vehicles may develop behind turning vehicles. Most drivers begin to feel restricted, but not objectionably so. At signalized intersections, average vehicle delays are 20 to 35 seconds. At unsignalized intersections, average delays are 15 to 25 seconds.

LOS D represents increasing traffic restrictions as the intersection approaches instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but periodic clearance of long lines occurs, thus preventing excessive backups. At signalized intersections, average vehicle delays are 35 to 55 seconds. At unsignalized intersections, average delays are 25 to 35 seconds.

LOS E represents the capacity of the intersection. At signalized intersections, average vehicle delays are 55 to 80 seconds. At unsignalized intersections, average delays are 35 to 50 seconds.

LOS F represents jammed conditions where the intersection is over capacity and acceptable gaps for unsignalized intersections in the mainline traffic flow are minimal. At signalized intersections, average vehicle delays exceed 80 seconds. At unsignalized intersections, average delays exceed 50 seconds.

The capacity analyses using both the Highway Capacity 2000 and 2010 procedures, indicated that all three driveway locations would operate at level of service (LOS) A for

Analysis of Intersection Operation

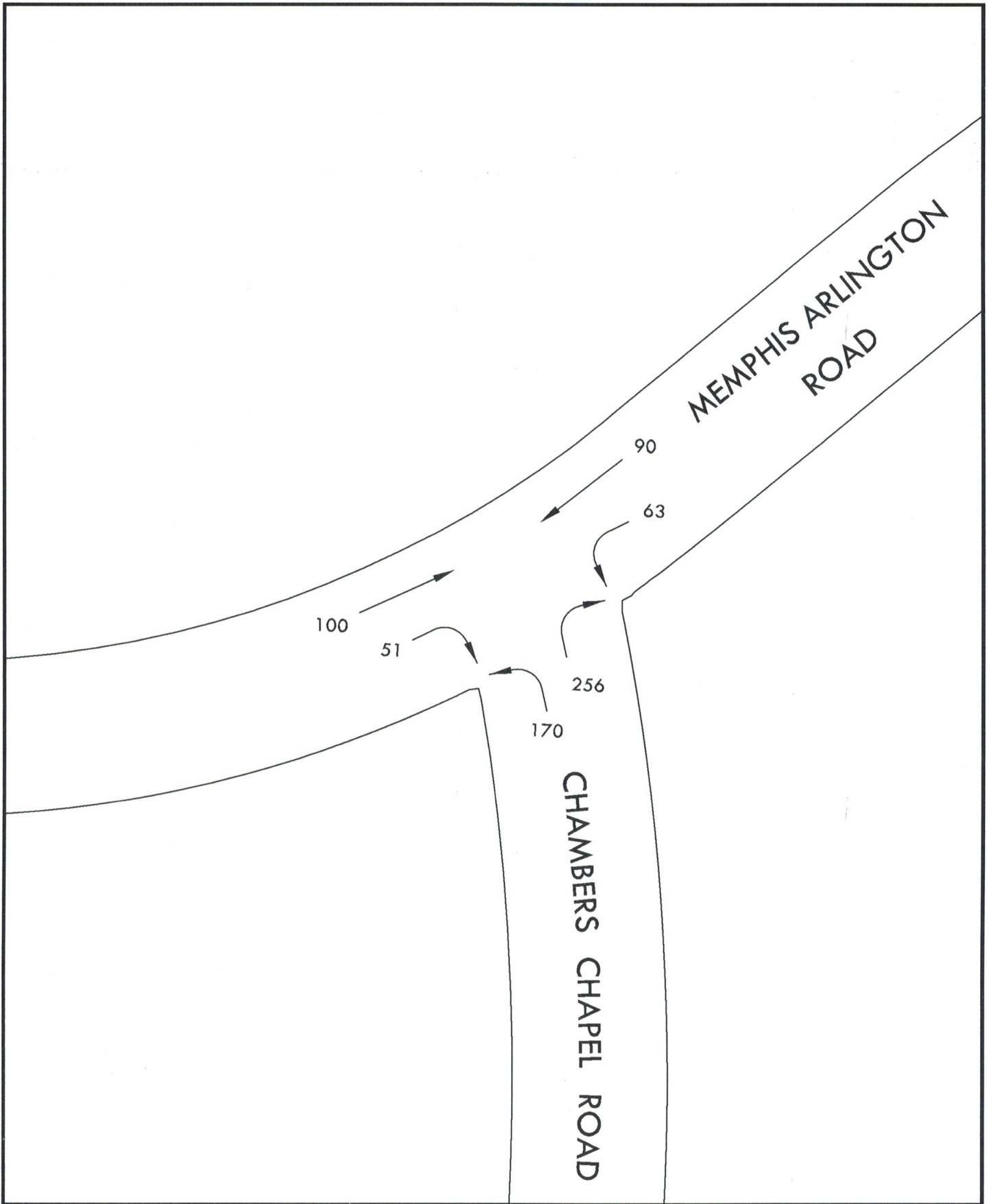
The one intersection impacted directly by the developments is the intersection of Chambers Chapel Road and Memphis-Arlington Road. While the City of Lakeland Transportation Plan indicated that Chambers Chapel Road would eventually be extended to the north, it is listed in the Memphis MPO Long Range Transportation Plan as a "Vision" project, with a timeframe of post 2040. Therefore, this intersection was assumed to be a "tee" intersection. The growth in traffic assumed for this analysis was that assumed in the analysis of the operation at the driveway locations at the proposed developments along Chambers Chapel. Traffic increase on Memphis-Arlington was assumed to be 50 percent. As mentioned previously, historical and recent traffic counts indicated little growth in traffic on either Chambers Chapel Road or Memphis-Arlington Road. For the capacity analysis, the traffic generated by the site development and the traffic projected to be generated by the Kensington Manor development was added to the growth in background traffic. The assigned volumes for the AM and PM peaks are shown in Figures 8 and 9.

The level of service analysis indicated that for both peak periods the intersection would operation at an overall LOS A for the AM peak and LOS C for the PM peak. The northbound movement would be at LOS C in the AM peak period and LOS E in the PM peak. At LOS D the delay to to northbound vehicles would be less than 30 seconds per vehicle. Table 5 summarizes the LOS for key movements. The calculations are in the Appendix.

Table 5
Level of Service Analysis
Memphis-Arlington Road and Chambers Chapel Road

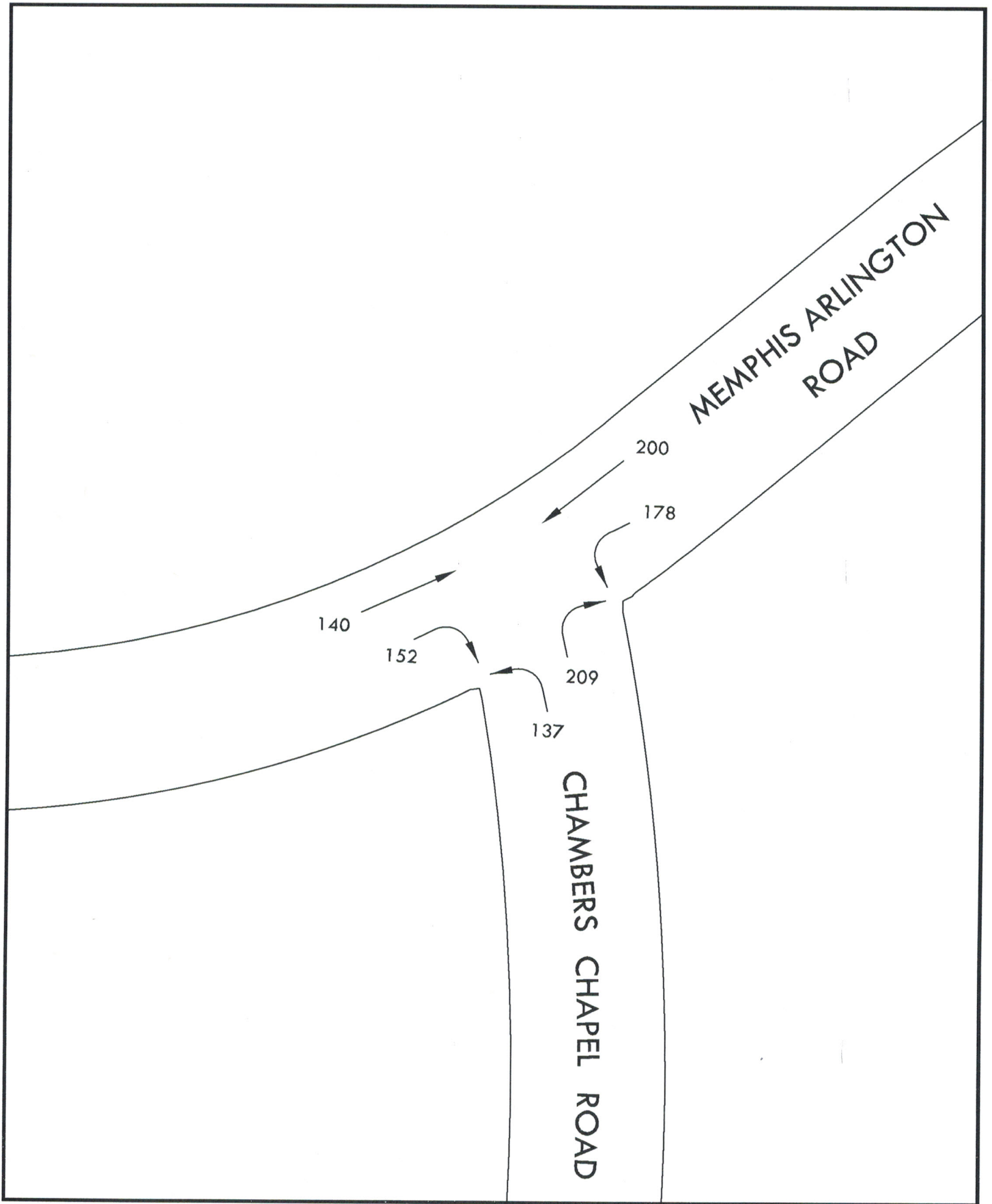
		NB	WB Thru	WB Left
Memphis- Arlington/	AM	C	A	A
Chambers Chapel	PM	E	A	A

A sensitivity analysis similar to one done for the Chambers Lakes driveways with increase traffic on chambers Chapel was performed. This analysis indicated that the intersection would operate at an overall LOS E in the AM peak and LOS F in the PM peak. Table 6 shows the LOS for this condition.



CHAPEL LAKES PLANNED DEVELOPMENT

FIGURE 8: AM PEAK INTERSECTION ASSIGNMENT 2040



CHAPEL LAKES PLANNED DEVELOPMENT

FIGURE 9: PM PEAK INTERSECTION ASSIGNMENT 2040

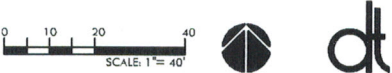


Table 6
Level of Service Analysis
Memphis-Arlington Road and Chambers Chapel Road

		NB	WB Thru	WB Left
Memphis- Arlington/	AM	F	A	A
Chambers Chapel	PM	F	A	A

Mitigation Alternatives – Memphis-Arlington/Chambers Chapel Intersection

The analysis of the Memphis-Arlington/Chambers Chapel intersection was based on very basic existing conditions – each approach was only 2 lanes and the northbound approach was stop controlled. Operations would be greatly improved with some simple treatments such as adding right turn lanes or left turns. Table 7 shows the level of service analysis with 2 lanes in each direction on Memphis-Arlington, a left turn lane southbound on Memphis-Arlington, and a left and a right turn lane on Chambers Chapel. For both periods the overall intersection LOS is A. These improvements could be part of the construction if and when Chambers Chapel is extended to the north. If unexpected high growth occurs in the future, the intersection could be signalized.

Table 7
Level of Service Analysis
Memphis-Arlington Road and Chambers Chapel Road

		NB Left	NB Right	WB Left
Memphis- Arlington/	AM	E	B	A
Chambers Chapel	PM	F	B	A

Summary

The objective of this study was to determine the impact of the traffic generated by the new residential development, Chapel Lakes. The study projected the amount of traffic to be generated by the development, assigned the traffic to site entrance points and the

intersection of Chambers Chapel and Memphis-Arlington, and evaluated the level of service to be provided at these locations in the design year of 2040.

Based on the analysis, the existing roadway network would operate at a high level of service at all locations. The traffic generated by the development would not require any modifications to the existing roadway network in term of geometric design or control.

A sensitivity analysis was conducted which indicated that even if development increases beyond expectations along Chambers Chapel, the site driveways would operation at high levels of service.

The sensitivity analysis indicated that the intersection of Memphis-Arlington and Chambers Chapel may need improvements with high area redevelopment but that may be accomplished as part of other improvements to Memphis-Arlington.

One geometric change that will be made as part of the development will be the realignment of Chambers Chapel through the site. This will eliminate the two right-angle intersections and replace them with a gentle reverse curve.

APPENDIX

CAPACITY CALCULATIONS

Chapel Woods Tree Survey Report

Project Description

Mr. James Trent Crowley with Cummings, LLC requested the assistance of Urban Forestry in providing a tree survey for a development project in Lakeland Tennessee. The property is located within the Lakeland city limits near Chambers Chapel Road, more specifically within Shelby County Tennessee Parcels L0151 00483 and L0151 00049 consisting of approximately 126.4 acres, more or less. This tree survey is intended to assist Mr. Crowley in meeting part of the requirements of the City of Lakeland Tree Management Ordinance and to provide an accurate depiction of trees on the above-mentioned properties such that future tree removal and tree retention can be determined. The items performed in this Tree Survey were those specifically requested by Mr. Crowley and as described in the Lakeland Tree Management Ordinance. This tree survey was performed on the project area as depicted on a map provided by Lawson Engineering and Consulting, Inc. Pre-construction tree densities have been determined for the most of the property.

Tree Survey Methodology

The tree survey was completed using the tally method. Trees, generally 6 inches and greater in diameter at 4.5 feet above ground (DBH) were measured for diameter, identified to species, and given a brief visual inspection for condition of health and vigor. Each measured tree was assigned a unique number that was written on fluorescent green flagging and attached to the tree to facilitate location by surveyors. In certain areas of pine plantation, trees 10" DBH and greater were tallied to prevent map cluttering due to the high volume of stems.

Determination of Tree Density Units/Acre

Tree density units were determined using the data gathered from the tree survey. The City of Lakeland, TN provided a table from the Lakeland Tree Management Ordinance listing the density units for each size (dbh) tree. The specific density unit was assigned to each individual tree and then summed to provide a total for all trees located. These calculations give the density value of the trees as located on the project area prior to development. The trees that measured 6" dbh and greater represent a total of 25,694.9 density units.

As per the Lakeland Tree Management Ordinance, the required Site Density Factor for the project is 20 density units per acre. This dictates a Site Density Factor for the project of approximately 2,528 density units (126.4 acres * 20 density units/acre). The Lakeland Tree Management Ordinance calls for a calculation of the density of trees to be preserved on the site, termed the Existing Density Factor (EDF). This value can be calculated at a later date once proposed clearing and other proposed disturbance limits are known.

SDF	Pre-Const. DF	EDF	RDF
2,528	25,694.9	TBD	TBD

Forest Stand Description

The property is heavily wooded composed of mixed upland hardwood forest and pine plantation. The topography ranges from nearly level to very steep allowing a wide variety of species to occur. A total 33 species were found ranging from bottomland to dry site species and including 9 species of oak. The majority of the trees were in fair to good condition. There was some evidence of storm damage especially in the pines. The most common trees were pine (roughly 28%), sweetgum (roughly 28%), and oaks (roughly 22% when combining all 9 species). There were 552 trees that met the Lakeland Tree Management Ordinance qualifications for “specimen trees.” A total of 7,178 trees were tallied for this tree survey. The largest tree discovered was Cherrybark oak with a diameter of 64 inches.

Species	Count
Ash	76
Black cherry	115
Black gum	9
Black oak	9
Black walnut	3
Blackjack oak	2
Boxelder	4
Callery pear	1
Cedar	99
Cherrybark oak	778
Cottonwood	2
Dogwood	1
Elm	289
Hackberry	3
Honey locust	19
Hornbeam	2
Loblolly pine	1,999
Maple	196
Pecan	33
Persimmon	13
Pignut hickory	111
Post oak	96
River birch	17
Sassafras	19
Shagbark hickory	19
Southern red oak	461
Shumard oak	1
Sweetgum	2,033
Sycamore	152
Tulip poplar	399
Water oak	118
White oak	52
Willow oak	47

Statement of Contingent and Limiting Conditions Concerning the Use and Formation of Timber Cruise Information

1. Urban Forestry does not assume any liability for use of this tree survey information for any party other than Mr. James Trent Crowley.
2. The tree survey information gathered is based on conditions and observations apparent to Urban Forestry when the survey was done. Changes due to mortality, growth or other loss from environmental factors must be considered any time this information is used.
3. The data gathered and figures presented in this report are subject to sampling errors. These errors are a function of measurement and stand variability error and must be considered.
4. Urban Forestry did not conduct an investigation on a legal survey of the property and the only maps used to determine property lines were provided by Lawson Engineering and Consulting, Inc.
5. The information and figures presented in this tree survey report may be different from those gathered by others or from results of selling the property or clearing and harvesting trees. Urban Forestry does not guarantee the figures against such differences.
6. Urban Forestry will not duplicate this report for or discuss it with anyone other than Mr. Crowley or the City of Lakeland without the written or verbal authorization from Mr. Crowley.
7. Anyone using this report is advised to contact Urban Forestry before such use occurs.

Bobbi Hopper

Date

Arborist's Certification:

I, Eric Bridges, do hereby certify that the information presented in this Tree Survey Report is accurate and complete to the best of my knowledge based on the evidence, conditions, and observations apparent at the time of the survey.

Eric Bridges, Certified Arborist #SO-2670am

Date

Meeting Cycle: Thursday, May 20, 2021

Subject: Action on approval of a Site Plan – Lot 7 Lakeland Commons.

Staff Contact: Richard Donovan, Planning Consultant

STAFF RECOMMENDATION

Staff recommends approval based on compliance with the Lakeland Commons PD, LDRs, and previously approved preliminary site plan.

DISCUSSION

SITE INFORMATION:

LOCATION:	9833 US Highway 70
PARCEL ID:	L0150 00553
ZONING:	A (Agriculture) with Lakeland Commons PD Overlay
AREA:	1.67 Acres
APPLICANT/OWNER:	Saint Rita Real Estate Company, LLC.
REPRESENTATIVE:	David Smith, P.E.

BACKGROUND:

Lot 7 is part of the larger Lakelands Commons development and one of five outparcels located along Highway 70. The Lakeland Commons has been an approved PD since 2011, with multiple amendments occurring since that approval. The most recent amendment was approved in November of 2020. The same month MPC approved the 5 lot plat creating Lot 7. The MPC approved a preliminary site plan in February of 2021. The PD allows convenience stores with fuel pumps in Area A, B, and C with additional requirements discussed further in the Planned Development Regulations section below.

ANALYSIS & DISCUSSION ITEMS:

Accessory structures:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Architecture, façade materials, and rooflines:

The site plan complies with this requirement in the PD, and the applicant has provided a letter from the Architectural Review Board for Lakeland Commons.

Fences, gates, walls, and hedges:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

General content of site plans:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Landscaping, screening, and buffering:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Mechanical equipment, dumpsters, and storage:

- At the request of Staff, the applicant added additional screening to the rear of the dumpster enclosure but could not add additional screening behind the electric bank south of the dumpster enclosure to meet the requirements set by MLGW.
 - In Staff's opinion, the additional screening behind the dumpster enclosure adds screening for the electric bank even with being directly behind the electric bank. Visibility should be limited from Highway 70 by the dumpster enclosure and the additional screening.

Orientation of structures:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Parking, parking lot design standards, and loading area:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Pedestrian circulation:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Required notes:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Setbacks and Other Bulk Requirements:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Shared Access:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Signage:

A sign application was not included with this submittal. No signage is requested from the MPC/DRC at this time.

Site Lighting:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

Utilities:

Staff has reviewed this item, and it meets the requirements of the PD & LDRs.

PLANNED DEVELOPMENT REGULATIONS:

The Lakeland Commons PD has several specific standards that are reviewed at the site plan phase. The proposed site plan is meeting all setback/bulk requirements in the PD. Below are the excerpts from the PD regarding the location, access, access, parking, setbacks. Staff has also provided comments on each item, and those comments are bolded and italicized below.

9. Convenience Store with Automotive Fuel Sales shall be defined as a retail establishment offering indoor sales of convenience merchandise and outdoor, automotive fuel dispensaries. Convenience Stores with Automotive Fuel Sales may be attached to neighborhood or general retail buildings.
 - a. Only one (1) Convenience Store with Automotive Fuel Sales shall be permitted within Lakeland Commons Planned Development.
 - b. Permitted at public street intersections only.
 - c. Development Standards are specified herein.

Staff Comments: The site plan complies with this requirement in the PD and the approved preliminary site plan. This location will be the only fuel sales site within the overall development.

C. Parking Requirement:

Parking shall be in accordance with §III.6 of the Lakeland Land Development Regulations except where otherwise noted or modified herein.

3. Commercial Parking:
 - a. Useable Floor Area for Computing Parking, Commercial Building: 75% of gross square of floor area.
 - b. Maximum Permitted Parking – 4.5 spaces/1000 useable floor area.
 - c. Actual parking count shall be determined by use distribution.

Staff Comments: The site plan complies with this requirement in the PD and the approved preliminary site plan..

G. Drive through services.

The following requirements apply:

1. No drive through services shall be permitted within Areas B, and D as defined on the Outline Plan.
2. No “drive-in” restaurants, i.e. restaurants where dining service is rendered in the vehicle, shall be permitted in any area of this planned development.
3. All drive through services and queuing spaces shall be located at the side or rear of the proposed building or structure adjoining a public way.
4. Drive through service areas shall be designed to mimic and/or blend with the architectural features of the primary façade.
5. Drive through stacking lanes shall be minimized and integrated into the overall landscape and streetscape concept.

Staff Comments: The site plan complies with this requirement in the PD and the approved preliminary site plan. The proposed drive through is allowed on this site and placed in the best location for a site with three frontages.

- H. Fuel Pumps. The placement of fuel pumps (if proposed) shall be such that the pumps are oriented to minimize their impact and exposure, and so that they are placed to be partially

hidden by columns. Design shall substantially conform to the Design Guidelines attached herein and the overall architectural character of the development.

Staff Comments: The preliminary site plan complies with this requirement in the PD and the approved preliminary site plan. This is one area where we could request design consideration for the fuel pumps.

- O. Convenience store with Automotive Fuel Sales. Convenience store with Automotive Fuel Sales (if proposed) shall be designed in compatible character consistent with the unified architectural appearance established with the overall planned development. The principal building and fuel canopy shall exhibit consistent materials, colors, and design features on all sides. The fuel canopy shall complement their associated buildings in scale, methods and materials and be integrated in the buildings' overall design. All signage shall comply with the City of Lakeland's Sign Ordinance.

Staff Comments: The site plan complies with this requirement in the PD and the applicant has provided a letter from the Architectural Review Board for Lakeland Commons. The signage will be reviewed by the MPC at a later date.

PROPOSED (EXAMPLE) MOTIONS:

1. To approve the Site Plan for Lakeland Commons Lot 7 with the following conditions:
 - a. Commission's discussion.
 - b. Staff comments and conditions in the staff report
2. To approve the Site Plan for Lakeland Commons Lot 7 without conditions.
3. To deny the Site Plan for Lakeland Commons Lot 7.
 - a. State the reason for denial



May 13, 2021

Richard Donovan
Lakeland City Hall
10001 Highway 70
Lakeland, TN 38002

RE: Responses to Lot 7 LC Site Plan Comments
Lot 7 Lakeland Commons

A2H # 20298

Dear Mr. Donovan,

Included below are the responses to the Site Plan Comments A2H, Inc. received May 7, 2021 for Lot 7 Lakeland Commons project.

1. Page Label: 12 - Is there anyway to move this to the east to allow for a row of Holly along this side of the enclosure. I expect this to be a request of the DRC.
RESPONSE: Dumpster wall has been revised to allow for shrubs behind it. Transformer pad cannot be adjusted due to the MLGW spacing requirements. Holly shrubs placed behind the dumpster should help with screening the transformer wall.
2. Page Label: 12 - This frontage is required to have 1 tree per 35 feet. 5 trees would be required but only 4 are present.
RESPONSE: Additional tree has been placed along frontage per comment.
3. Page Label: 12 - Sidewalks and street trees need to be provided per the landscape plates. A 5' sidewalk and 8.5'(Seed Tick) or 9.5' (Shady Village) planting strip with a tree every 40' is required.
RESPONSE: Street trees and sidewalks are now shown along Seed Tick and Shady Village. Per Section III.5.B - street trees adjacent to the OHE along Seedtick are under story trees.
4. Page Label: 12 - Add some shrubs here to help screen the electrical bank. The PD requires they be screen from public view. A shrub on this side will resolve the issue.
RESPONSE: Shrubs have been added adjacent to utilities per comment.
5. Page Label: 15 - It will be very helpful to add in the landscaping and enclosures to these drawings.
RESPONSE: Please see the attached sheet A1.4.
6. Page Label: 16 – Provide an east or west elevation of the canopy. The PD requires the pumps are screened in the east west direction.
RESPONSE: Please see the attached sheet showing east elevation of the canopy.

7. Page Label: 17 – Provide a letter from the Architectural Control Board stating the these elevations are approved.

RESPONSE: Please see the attached letter dated 4/28/2021 from Cory Brady (Lakeland Town Center Architectural Review Committee)

8. Page Label: 17 - Provide a table that states the Required transparency (25%) for each facade that is street facing and the provided transparency.

RESPONSE: Please see the attached sheet showing elevations and transparency.

Sincerely,

A2H, Inc.



Stan Rowland, RA
Project Manager

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ANY CHANGES MADE TO THIS DOCUMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF A2H, INC. SHALL BE PROHIBITED AND ARE SUBJECT TO LEGAL
PROSECUTION IF CHARGES ARE FILED WITHOUT CONSENT. THE LIABILITY OF ANY CLAIM IS ACCEPTED BY THE RESPONSIBLE PARTY REGARDING THE CHANGE.

BIM 360//20298 - Saint Rita Real Estate/20298 Architecture.rvt
5/13/2021 3:08:41 PM

SAINT RITA REAL ESTATE. LLC

Lot 7 Lakeland Commons

4915 SEED TICK RD



DRC SUBMITTAL
MAY 14, 2021
PROJECT NUMBER 20298

ARCHITECT		CIVIL ENGINEER
STRUCTURAL ENGINEER	MP / FP ENGINEER	ELECTRICAL ENGINEER

A2H, INC.
3009 DAVIES PLANTATION ROAD
LAKELAND, TN 38002
P. 901.372.0404
WWW.A2H.COM

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Thu, 13 May 2021 - 1:39pm
PLOT SCALE: 1"=1' LATEST REV.:

LAYOUT NOTES

5. ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE PERMANENTLY STABILIZED AS REQUIRED TO EFFECTIVELY PREVENT SOIL EROSION PER CITY OF LAKELAND AND STATE REGULATIONS.
6. ALL CONSTRUCTION WITHIN PUBLIC EASEMENTS AND RIGHT-OF-WAYS SHALL MEET THE CITY OF LAKELAND STANDARDS.
7. THE CONTRACTOR MUST HAVE WRITTEN APPROVAL FROM THE PROJECT ENGINEER BEFORE ANY CHANGE IN DESIGN IS MADE.
8. THE CONTRACTOR SHALL NOT ENTER UPON NOR CAUSE DAMAGE TO ANY ADJACENT PROPERTIES WITHOUT WRITTEN PERMISSION FROM SAID PROPERTY OWNERS.
9. UTILITY SERVICES INCLUDING BUT NOT LIMITED TO POWER, SEWER, WATER, GAS, COMMUNICATION, ETC. SHALL BE PROTECTED AND MAINTAINED IN WORKING ORDER TO ALL ADJACENT PROPERTIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PHASING UTILITY DEMOLITION AND CONSTRUCTION AND/OR PROVIDING TEMPORARY SERVICES TO AFFECTED PROPERTIES.
10. PROTECT ALL EXISTING BENCHMARKS, IRON PINS, SURVEY CONTROL POINTS, OR OTHER MONUMENTS TO REMAIN.

LAYOUT NOTES

1. CLEARING AND GRUBBING IS TO BE HELD TO THE MINIMUM WIDTH NECESSARY TO ACCOMMODATE SLOPES, UNNECESSARY CANOPY REMOVAL (TREES, SHRUBS, ETC.) IS PROHIBITED.
2. REFER TO EROSION CONTROL PLAN, FOR MINIMAL EROSION CONTROL MEASURES AND REQUIREMENTS.
3. THE CONTRACTOR SHALL PROTECT ANY EXISTING STRUCTURES, PAVEMENTS, CURBS, SIDEWALKS, FENCES OR OTHER ELEMENTS DESIGNATED TO REMAIN. ANY EXISTING ELEMENT NOT INDICATED TO BE REMOVED WHICH IS DAMAGED DURING THE COURSE OF DEMOLITION OR CONSTRUCTION, SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR REPLACED IN KIND, AT NO ADDITIONAL COST TO THE OWNER.
4. THE CONTRACTOR SHALL MAINTAIN FIRE DEPARTMENT ACCESS TO ALL FIRE HYDRANTS OR PROVIDE TEMPORARY HYDRANTS WHERE ACCESS IS BLOCKED.
5. THE CONTRACTOR AT NO TIME SHALL ENCROACH UPON OR CAUSE DISRUPTIONS TO TRAFFIC FLOW ON ADJACENT STREET RIGHT-OF-WAY WITHOUT SECURING THE PROPER PERMITS PRIOR TO COMMENCING DEMOLITION OR CONSTRUCTION OPERATIONS.
6. THE CONTRACTOR SHALL INSTALL AND MAINTAIN ALL SAFETY BARRIERS, TEMPORARY CONTROLS AND PROTECTION DEVICES TO COMPLY WITH CITY, COUNTY, STATE OR FEDERAL REQUIREMENTS THROUGHOUT THE ENTIRE PROJECT CONSTRUCTION PERIOD.
7. ALL DEMOLITION LINES BETWEEN PROPOSED AND REMAINING PAVEMENTS SHALL BE CUT STRAIGHT AND SMOOTH. ALL RADIAL CUTS SHALL BE CONSISTENT TO THE ARC AND COME TO A SMOOTH AND COMPLETE TRANSITION TO THE TANGENT.
8. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES TO REMAIN IN SERVICE. ANY EXISTING UTILITY OR UNDERGROUND STRUCTURE TO REMAIN, WHETHER SHOWN ON THE PLANS OR NOT, WHICH IS DAMAGED BY THE CONTRACTOR'S OPERATIONS, SHALL BE IMMEDIATELY RESTORED AT NO ADDITIONAL COST TO THE OWNER.
9. THE CONTRACTOR SHALL MARK AND PROTECT ALL TREES AND VEGETATION INDICATED TO REMAIN, AND SHALL INSTALL AND MAINTAIN TREE PROTECTION FENCES AT THE DRIP LINE OF ALL EXISTING TREES TO REMAIN; AND PREVENT PARKING, STORING OF MATERIALS, AND ENTRY OF VEHICLES AND CONSTRUCTION EQUIPMENT WITHIN THE DRIP LINES OF THE TREES TO BE SAVED.
10. EXISTING DRAINAGE SYSTEMS (SURFACE AND SUB-SURFACE) SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES DURING DEMOLITION AND CONSTRUCTION OPERATIONS.
11. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED. COORDINATE WITH EROSION CONTROL PLAN.

PROOF ROLL NOTES

1. ALL GRADING AND DRAINAGE WORK SHALL BE PERFORMED IN SUCH A MANNER THAT ADJACENT FACILITIES ARE NOT TO BE DAMAGED OR ADVERSELY AFFECTED.
2. FINISH GRADE SHALL BE SLOPED AWAY FROM THE FUTURE FOUNDATION FOR DRAINAGE.
3. ALL PROPOSED GRADES REFER TO THE TOP OF THE FINAL SURFACE OF GRASS, MULCH, CONCRETE, ETC. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE POSITIVE DRAINAGE IN ALL AREAS. THE CONTRACTOR SHALL VERIFY THIS REQUIREMENT IS MET AFTER ALL CONSTRUCTION IS COMPLETE AND ALL LANDSCAPING IS INSTALLED.
4. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO GRADE AND SHAPE AROUND DRAINAGE STRUCTURES TO PROVIDE SATISFACTORY OPERATION OF THE STRUCTURE.
5. ANY AREA THAT IS DISTURBED OUTSIDE LIMITS OF CONSTRUCTION DURING THE LIFE OF THE PROJECT SHALL BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE.
6. ANY FILL PLACED ON THIS PROJECT SHALL BE LAID IN A MAXIMUM OF 8" LOOSE LIFTS AND COMPACTED TO 95% STANDARD PROCTOR BEFORE ADDITIONAL MATERIAL IS PLACED. ALL FILL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CITY AND COUNTY CONSTRUCTION CODES.
7. AVOID MAJOR GRADING ACTIVITIES DURING MONTHS OF HIGHLY EROSION RAINFALL.
8. CONTRACTOR SHALL PROMPTLY BACKFILL AND STABILIZE TRENCHES AND/OR PITS.
9. CONTRACTOR SHALL KEEP CONSTRUCTION DEBRIS FROM ENTERING ANY DRAINAGE CHANNEL.
10. DO NOT PLACE EXCAVATED MATERIAL FROM THE PIPE TRENCH BETWEEN THE TRENCH AND OPEN DRAINAGE WAY. PLACE MATERIAL ON THE UPSLOPE SIDE OF THE EXCAVATION SUCH THAT ANY EROSION FROM IT IS CAUGHT BY THE TRENCH.

PROOF ROLL NOTES

IN ADDITION TO THE QUALITY CONTROL TESTING, TO DETERMINE THAT EACH LAYER OF A PAVEMENT SECTION HAS BEEN PROPERLY COMPACTED AND STABILIZED, A PERFORMANCE TEST IN THE FORM OF PROOF ROLLING SHALL BE CONDUCTED, THE PROOF ROLLING WILL BE PERFORMED IN THE PRESENCE OF THE DESIGN ENGINEER (OR AUTHORIZED REPRESENTATIVE); THE GENERAL CONTRACTOR, CITY OF LAKELAND REPRESENTATIVE AND ANY SUB-CONTRACTORS THAT ARE RESPONSIBLE FOR THE LAYER BEING TESTED AND THE NEXT SECTION OF PAVEMENT TO BE INSTALLED.

- PROOF ROLLING WILL BE PERFORMED IN THE FOLLOWING SEQUENCE:
1. ON THE SUBGRADE PRIOR TO INSTALLING THE BASE COURSE OR CONCRETE PAVEMENT
 2. ON THE BASE COURSE PRIOR TO INSTALLING THE ASPHALT BASE OR BINDER COURSE
 3. IF THE FINAL SURFACE COURSE OF ASPHALT IS NOT INSTALLED WITHIN 30 DAYS OF THE INSTALLATION OF THE BASE OR BINDER COURSE, THEN THE BASE ASPHALT SHALL BE PROOF ROLLED.

PROOF ROLLING SHALL BE PERFORMED USING A FULLY LOADED TANDEM AXLE DUMP TRUCK. THE TRUCK SHALL BE DRIVEN OVER THE PAVING AREA AT SUCH SPEED THAT THE OBSERVERS CAN WALK BEHIND THE REAR AXLE. WHEN THE OBSERVERS SEE THE AREA UNDER THE WHEELS PUMPING OR RUTTING THEY SHALL MARK IT ON THE SURFACE. PUMPING SHALL BE DEFINED AS THE VERTICAL MOVEMENT AND REBOUND OF THE SURFACE BEING TESTED. THE PROCESS SHALL BE REPEATED UNTIL A WHEEL LOAD HAS BEEN OBSERVED TO PASS OVER ALL AREAS OF THE PAVEMENT SECTION. THE AREAS MARKED SHALL BE CONSIDERED TO HAVE FAILED. THE OBSERVERS SHALL DISCUSS AND DETERMINE THE REMEDIAL ACTION(S) TO BE UNDERTAKEN TO STABILIZE THE AREAS OF FAILURE BEFORE THE NEXT LAYER IN THE PAVEMENT IS INSTALLED.

EROSION AND SEDIMENTATION CONTROL NOTES

THE FOLLOWING CONDITIONS APPLY TO ALL DISTURBANCE WORK CONDUCTED UNDER TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION (TDEC) CONSTRUCTION GENERAL PERMIT.

CONSTRUCTION MANAGEMENT TECHNIQUES

1. CLEARING AND GRUBBING MUST BE HELD TO THE MINIMUM NECESSARY FOR GRADING AND EQUIPMENT OPERATION.
2. CONSTRUCTION MUST BE SEQUENCED TO MINIMIZE THE EXPOSURE TIME OF CLEARED SURFACE AREA.
3. CONSTRUCTION MUST BE STAGED OR PHASED FOR LARGE PROJECTS. AREAS OF ONE PHASE MUST BE STABILIZED BEFORE ANOTHER PHASE CAN BE INITIATED. STABILIZATION SHALL BE ACCOMPLISHED BY TEMPORARILY OR PERMANENTLY PROTECTING THE DISTURBED SOIL SURFACE FROM RAINFALL IMPACTS AND RUNOFF. REFER TO THE TDEC GENERAL PERMIT FOR TEMPORARY STABILIZATION GUIDELINES.
4. EROSION AND SEDIMENT CONTROL MEASURES MUST BE IN PLACE AND FUNCTIONAL BEFORE EARTH MOVING OPERATIONS BEGIN, AND MUST BE CONSTRUCTED AND MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. TEMPORARY MEASURES MAY BE REMOVED AT THE BEGINNING OF THE WORK DAY, BUT MUST BE REPLACED AT THE END OF THE WORK DAY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING COPIES OF ALL INSPECTION REPORTS AS WELL AS A COPY OF THE APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON THE JOB SITE AT ALL TIMES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING A RAIN GAGE ON SITE IN ACCORDANCE WITH STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR POSTING A COPY OF THE NOTICE OF COVERAGE (NOC) NEAR THE MAIN ENTRANCE OF THE CONSTRUCTION SITE SO THAT IT MAY BE VIEWED BY THE PUBLIC IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING THE NOTICE OF TERMINATION (NOT) TO TDEC UPON FINAL STABILIZATION OF THE SITE. THE CONTRACTOR SHALL ENSURE THAT THE SITE MEETS THE TDEC CRITERIA FOR TERMINATION OF COVERAGE.
9. ALL CONTROL MEASURES SHALL BE CHECKED AND REPAIRED AS REQUIRED BY THE TDEC GENERAL PERMIT. EPSC INSPECTIONS SHALL BE TWICE A WEEK AND AT LEAST 72 HOURS APART. A WEEK IS FROM SUNDAY TO SATURDAY. THE PERMITEE SHALL MAINTAIN RECORDS ON-SITE OF CHECKS AND REPAIRS AND BE ABLE TO PROVIDE THESE RECORDS IMMEDIATELY UPON REQUEST.
10. STABILIZATION MUST, AT A MINIMUM, BE INITIATED WHENEVER ANY CLEARING, EXCAVATION OR OTHER EARTH DISTURBED ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
11. STEEP SLOPES SHALL BE TEMPORARILY STABILIZED NOT LATER THAN 7 DAYS AFTER CONSTRUCTION ACTIVITIES ON THE SLOPE HAS TEMPORARILY OR PERMANENTLY CEASED.
12. A QUALIFIED INDIVIDUAL SHALL BE DESIGNATED TO BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROLS ON EACH PROJECT SITE.

VEGETATION CONTROL:

1. PRE-VEGETATIVE GROUND COVER SHALL NOT BE DESTROYED, REMOVED OR DISTURBED MORE THAN 15 CALENDAR DAYS PRIOR TO GRADING OR EARTH MOVING.
2. PERMANENT SOIL STABILIZATION WITH PERENNIAL VEGETATION SHALL BE APPLIED WITHIN 14 DAYS AFTER FINAL GRADING HAS BEEN PERFORMED ON SPECIFIED AREAS OF THE SITE.

STRUCTURAL CONTROL:

1. ALL SURFACE WATER FLOWING TOWARD THE CONSTRUCTION AREAS SHALL BE DIVERTED BY USING BERMS, CHANNELS, OR SEDIMENT TRAPS, AS NECESSARY.
2. EROSION AND SEDIMENT CONTROL MEASURES SHALL DETAIN RUNOFF AND TRAP SEDIMENT FROM DISTURBED AREAS OF THE SITE. THE DESIGN OF THESE CONTROL MEASURES SHALL BE BASED UPON SIZE AND SLOPE OF THE DISTURBED AREAS AND THE DRAINAGE AREA THAT CONTRIBUTES TO THE RUNOFF.
3. DISCHARGES FROM SEDIMENT BASINS AND TRAPS MUST BE THROUGH A PIPE OR LINED CHANNEL SO THAT THE DISCHARGE DOES NOT CAUSE EROSION.
4. MUDDY WATER TO BE PUMPED FROM EXCAVATION AND WORK AREAS MUST BE HELD IN SETTLING BASINS OR TREATED BY FILTRATION PRIOR TO DISCHARGE INTO SURFACE WATERS. WATER MUST BE DISCHARGED THROUGH A PIPE OR LINED CHANNEL SO THAT THE DISCHARGE DOES NOT CAUSE EROSION AND SEDIMENTATION.

DISCHARGE QUALITY:

1. THERE SHALL BE NO DISTINCTLY VISIBLE FLOATING SCUM, OIL, OR OTHER MATTER CONTAINED IN THE STORM WATER DISCHARGE.
2. THE STORM WATER DISCHARGE MUST NOT CAUSE AN OBJECTIONABLE COLOR CONTRAST IN THE RECEIVING STREAM.
3. THE STORM WATER DISCHARGE MUST RESULT IN NO MATERIALS IN CONCENTRATION SUFFICIENT TO BE HAZARDOUS OR OTHERWISE DETRIMENTAL TO HUMANS, LIVESTOCK, WILDLIFE, PLANT LIFE, OR FISH AND AQUATIC LIFE IN THE RECEIVING STREAM.

BUFFER ZONE:

1. BUFFER ZONE ADJACENT TO ALL STREAMS AT THE CONSTRUCTION SITE SHALL BE PRESERVED WITH AN EXCEPTION FOR STREAMS DESIGNATED AS IMPAIRED OR EXCEPTIONAL TENNESSEE WATERS AND AS DELINEATED ON THE CONSTRUCTION DRAWINGS.

SANITARY SEWER NOTES

1. THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
2. ALL SANITARY SEWER TO BE CONSTRUCTED AS PER CITY OF LAKELAND CONSTRUCTION SPECIFICATIONS.
3. ALL SANITARY SEWER, INCLUDING SERVICE CONNECTIONS, WHICH HAS LESS THAN 1.5' CLEARANCE (OUTSIDE OF PIPES) WITH DRAINAGE BE CLASS 50 DUCTILE IRON PIPE (D.I.P.) OR CONCRETE ENCASED, 10' MINIMUM BOTH SIDES OF CROSSING, ALL DUCTILE IRON PIPE (D.I.P.) SHALL BE POLYETHYLENE LINED OR SHALL BE TREATED WITH PROTECTO 401, TNEMC 403, OR APPROVED EQUIVALENT.
4. THE CITY OF LAKELAND SHALL HAVE INGRESS/EGRESS RIGHTS TO USE PRIVATE DRIVES AND YARDS FOR THE PURPOSE OF MAINTAINING ALL PUBLIC SEWER LINES AND SHALL BEAR NO RESPONSIBILITY FOR THE MAINTENANCE OF SAID PRIVATE DRIVES AND YARDS.
5. NO TREES, SHRUBS, PERMANENT STRUCTURES OR OTHER UTILITIES (EXCEPT FOR CROSSINGS) WILL BE ALLOWED WITHIN SANITARY SEWER EASEMENT. NO OTHER UTILITIES OR SERVICES MAY OCCUPY SANITARY SEWER EASEMENTS IN PRIVATE DRIVES AND YARDS EXCEPT FOR CROSSINGS.
6. PRIOR TO BRINGING ANY PART OF THE NEWLY INSTALLED SANITARY SEWER SYSTEM ONLINE, ALL LINES AND MANHOLES SHALL PASS LEAK TESTING AND DEFLECTION TESTING.

WATER SPECIFICATION NOTES

1. ALL MATERIALS AND INSTALLATION SHALL CONFORM TO THE STANDARDS OF MEMPHIS LIGHT GAS AND WATER AND THE STATE OF TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION.
2. WATER LINES, VALVES, FITTINGS, AND HYDRANTS SHALL BE INSTALLED, DISINFECTED, PRESSURE TESTED, AND LEAKAGE TESTED IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.
3. ALL TRENCHES TO BE BACK-FILLED ACCORDING TO CONSTRUCTION SPECIFICATIONS.
4. ALL TIES TO EXISTING WATER LINES MUST BE MADE STARTING WITH A VALVE IF NO VALVE EXISTS.
5. THE LOCATION OF THE FIRE DEPARTMENT CONNECTION, PIV, AND FIRE LINE SIZES SHALL BE RECORDED ON THE AS-BUILT DRAWING AFTER COMPLETION OF THE PROJECT.

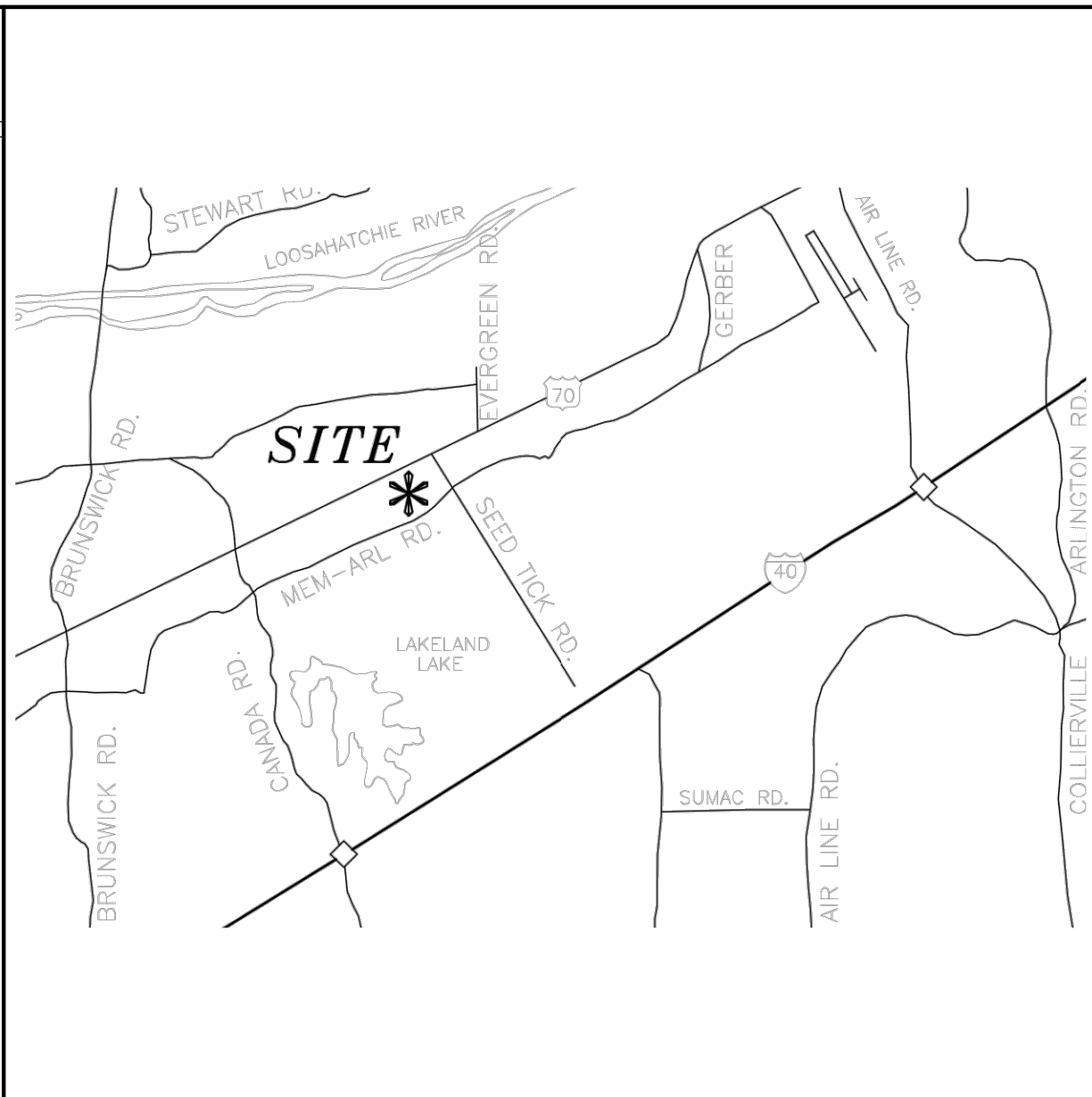
WATER LINE TESTING

1. AT THE END OF CONSTRUCTION WHEN THE NEW WATER LINES ARE TO BE FILLED FOR FLUSHING AND PRESSURE TESTING, THE CONTRACTOR SHALL COORDINATE WITH MEMPHIS LIGHT GAS AND WATER (MLG&W) TO ENSURE THAT LOW PRESSURE PROBLEMS DO NOT ARISE IN OTHER AREAS OF THE WATER SYSTEM DURING THIS PROCESS.
2. ALL NEW WATER LINES ARE TO BE PRESSURE TESTED AND BACTERIAL SAMPLES ARE TO BE TAKEN AND APPROVED BEFORE CONNECTION TO SYSTEM.

D1	GENERAL NOTES
NTS	

PLANS NOT VALID UNTIL APPROVED
BY CITY ENGINEER

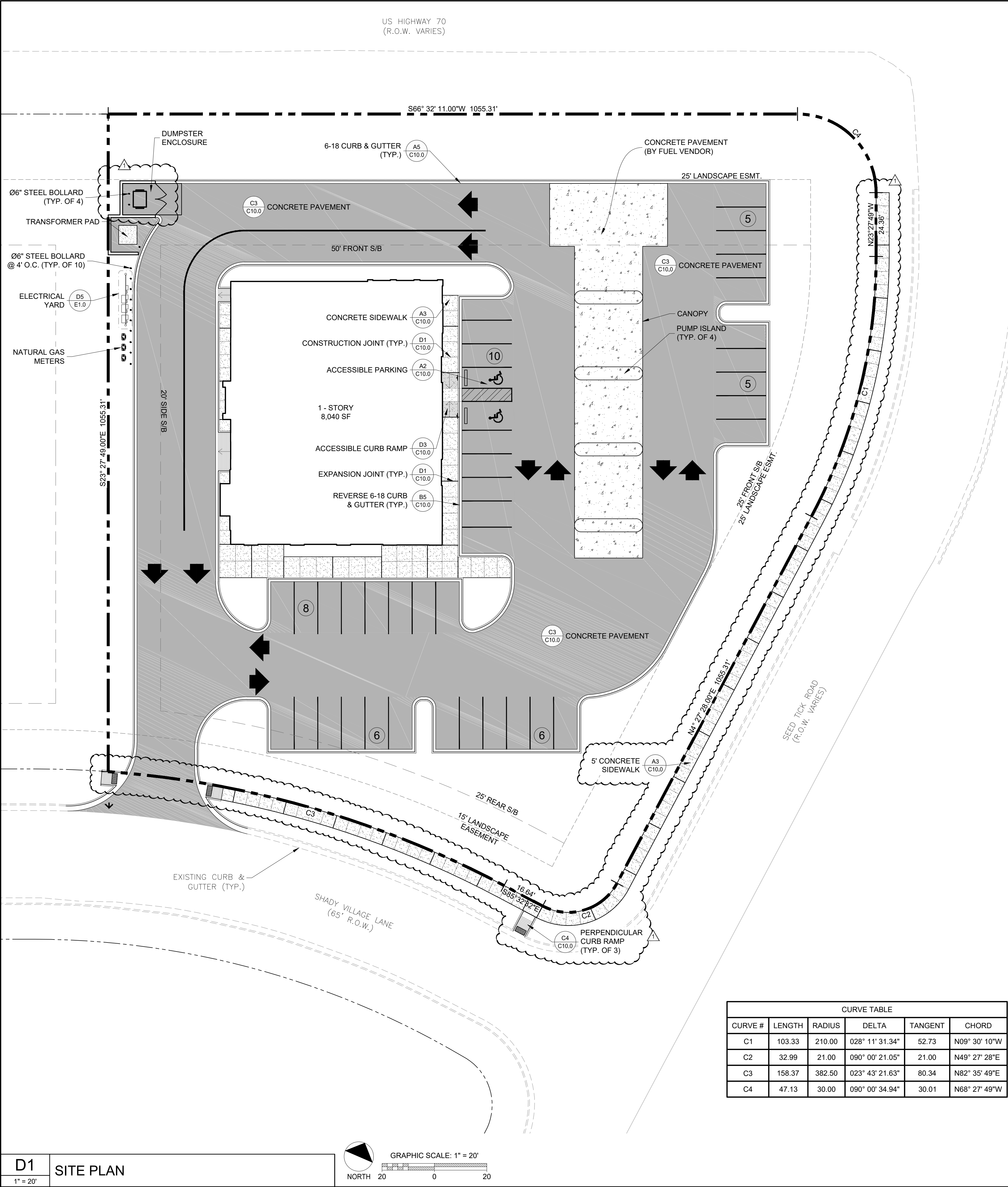
CITY ENGINEER _____ DATE _____



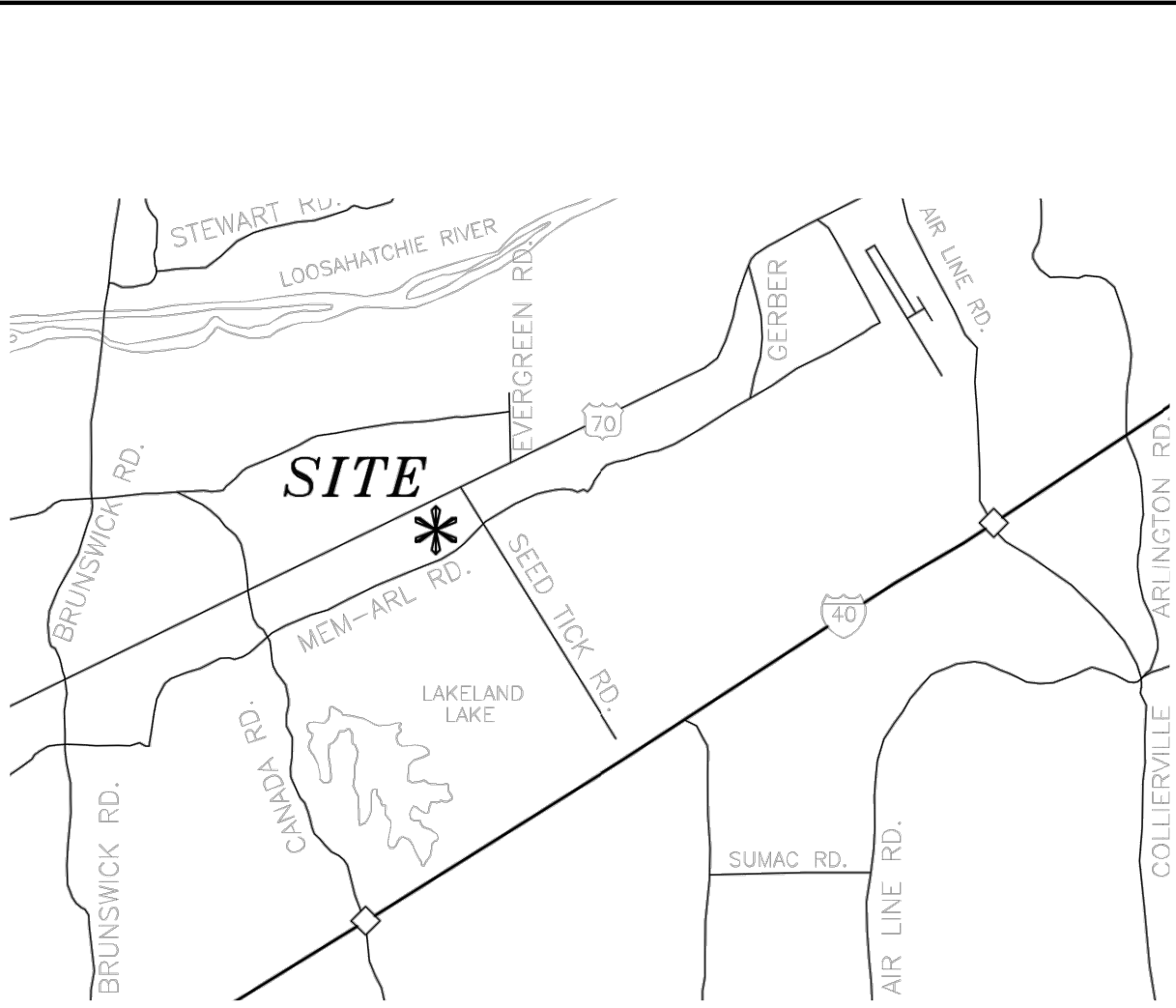
PLANS NOT VALID UNTIL APPROVED BY CITY ENGINEER	
CITY ENGINEER _____	DATE _____

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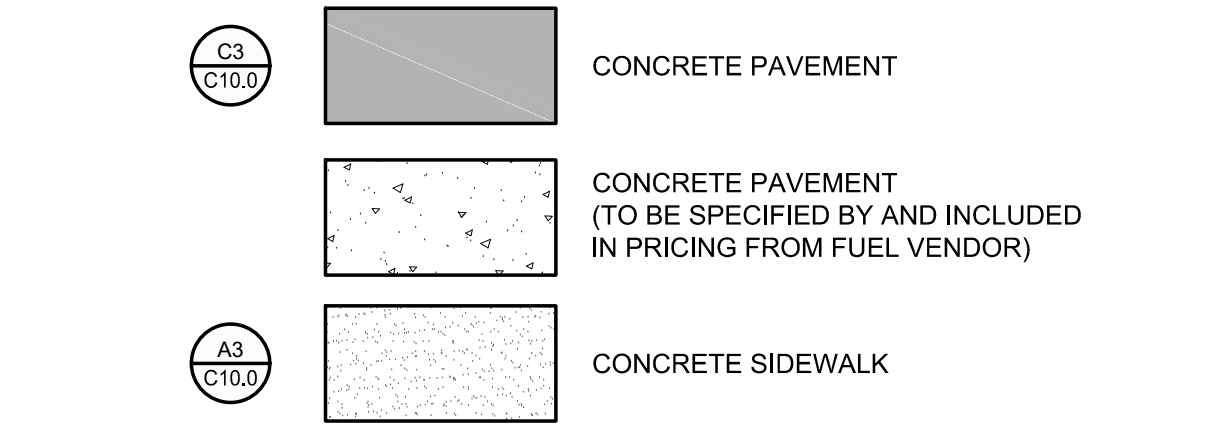
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PLOT SCALE: 1" = 20' 12:58pm
LATEST REV: 1



SITE DATA	
ZONING:	AG (P.D. OVERLAY)
LAND USE:	GENERAL RETAIL
BUILDING SETBACKS:	FRONT: 50 FEET SIDE: 20 FEET BACK: 25 FEET
PARCEL AREA:	72,726 SQUARE FEET
IMPERVIOUS SURFACES ALLOWED:	50,908 SQUARE FEET (70%)
IMPERVIOUS SURFACE PROVIDED:	46,048 SQUARE FEET (63.3%)
PERVIOUS SURFACE PROVIDED:	26,678 SQUARE FEET (36.7%)
BUILDING FLOOR AREA:	8,040 SQUARE FEET
PARKING DATA	
PARKING RATIO:	4/1,000 SQUARE FEET
PARKING REQUIRED:	33 SPACES
MAX PARKING ALLOWED:	36 SPACES
PARKING PROVIDED:	40 SPACES (36 SPACE + 10%)
ADA PARKING REQUIRED:	2 SPACES
ADA PARKING PROVIDED:	2 SPACES



A5 VICINITY MAP
NTS



D5	LEGEND
NTS	
PLANS NOT VALID UNTIL APPROVED BY CITY ENGINEER	
CITY ENGINEER	DATE

A2HENGINEERS
ARCHITECTS
PLANNERS

A2H, INC.
3009 DAVIES PLANTATION ROAD
LAKELAND, TN 38002
P. 901.372.0404
WWW.A2H.COM

SAINT RITA REAL
ESTATE, LLC

LOT 7
LAKELAND
COMMONS

4915 SEED TICK RD.

DRC SUBMITTAL

REVISIONS
5/12/21 CITY COMMENTS

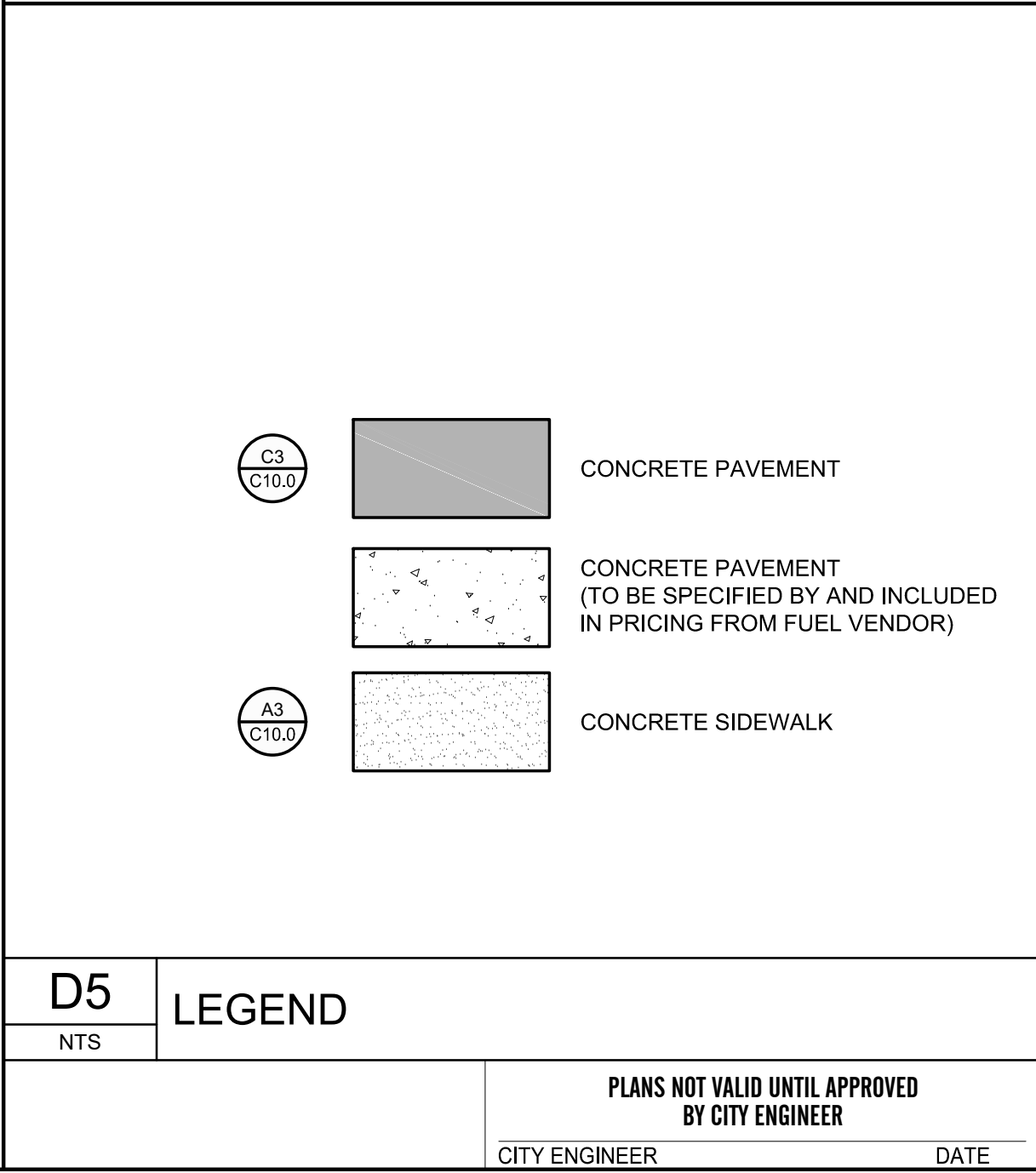
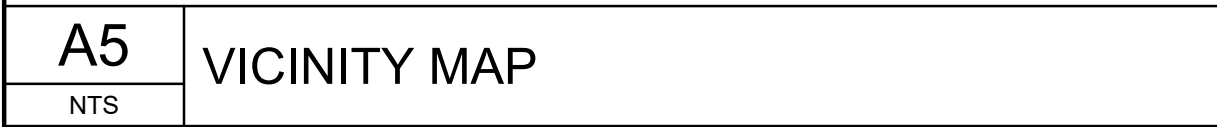
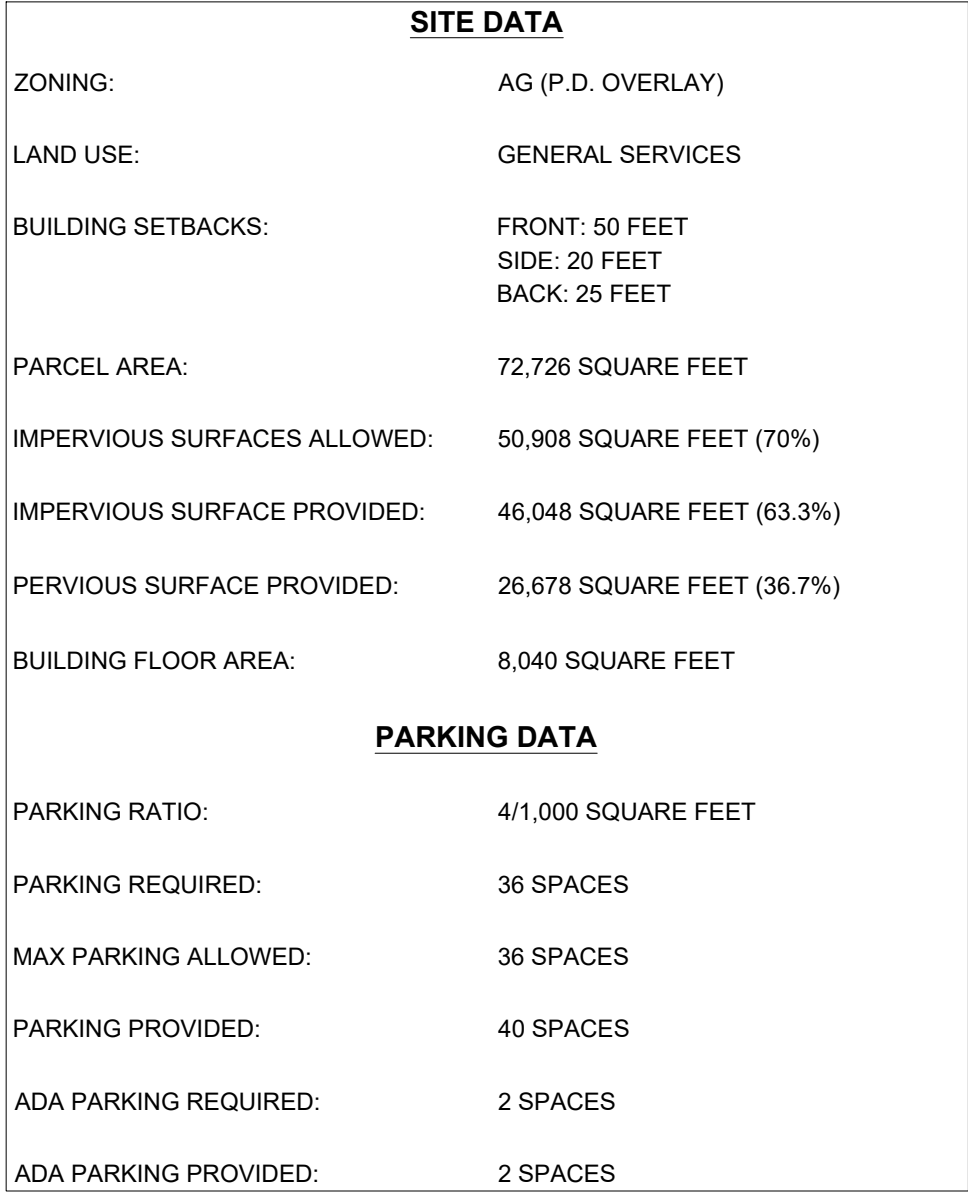
PROJECT NO. 20298
DATE MAY 14, 2021

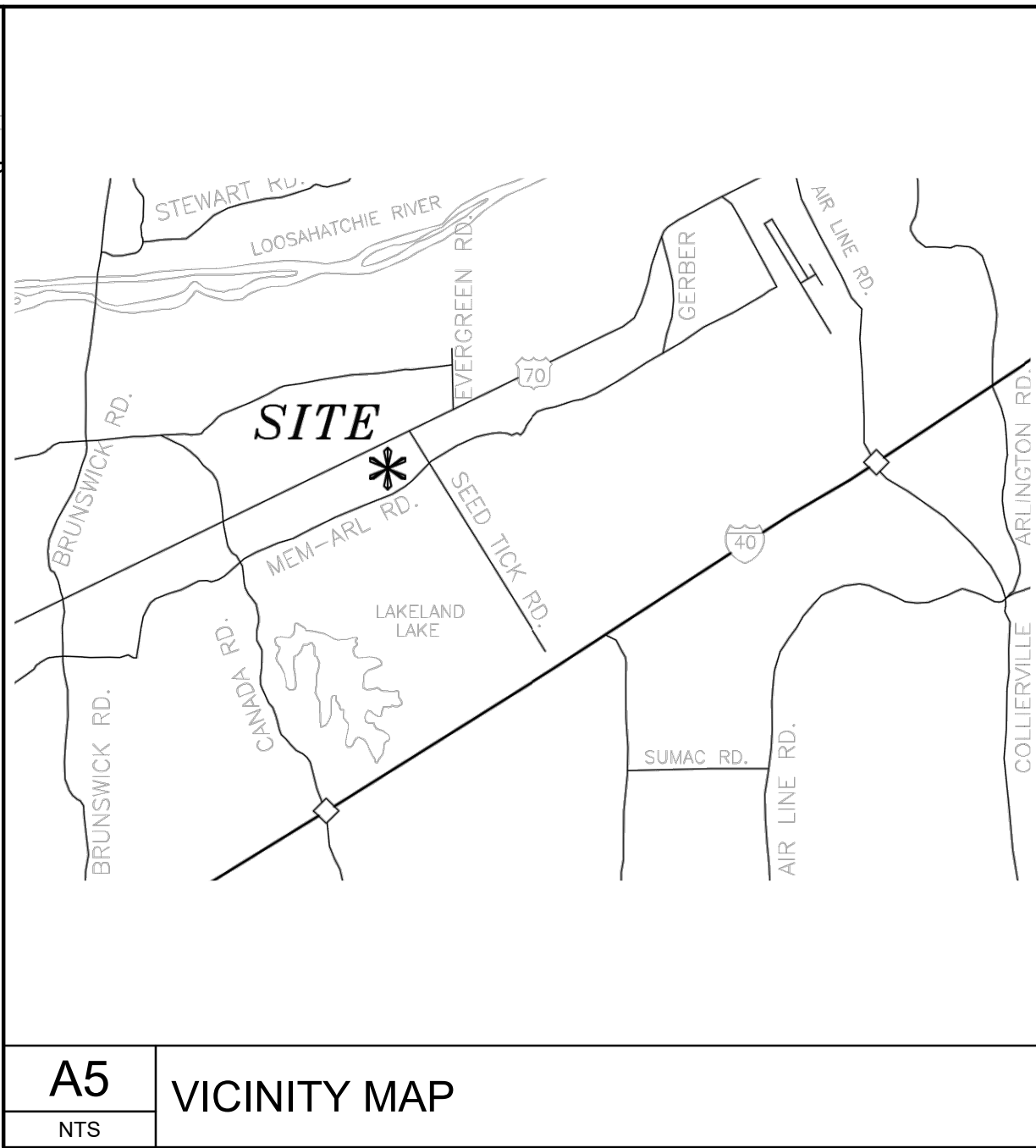
DRAWN APL
CHECKED WPE

SITE PLAN

C2.0

andrew
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 Thu, 13 May 2021 - 1:00pm
 PLOT SCALE: 1"=1' LATEST REV





DRAIN STRUCTURE TABLE						
NO.	TYPE	TC/RIM ELEV.	FL IN:	FL OUT	DA (AC)	Q10 (CFS)
00	EX.TDOT #14	313.37	15" 306.83	15" 306.75		
01	#10 INLET	314.29	15" 307.87	15" 307.87	0.86	3.51
02	#10 INLET	314.01		15" 309.55	0.69	3.39

D4	DRAINAGE TABLES
NTS	



— SF — SILT FENCE

NTS

LEGEND

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BY CITY ENGINEER**

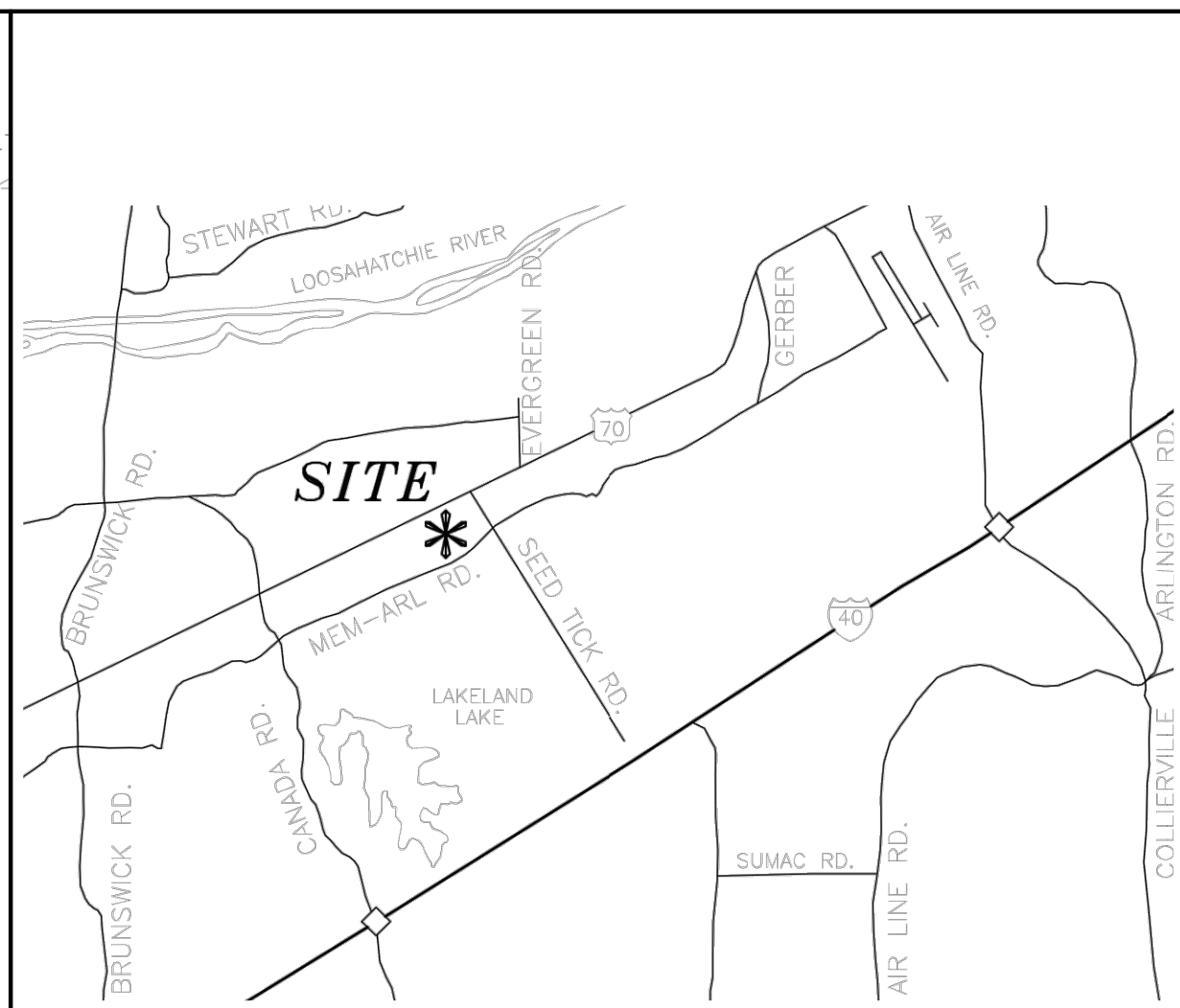
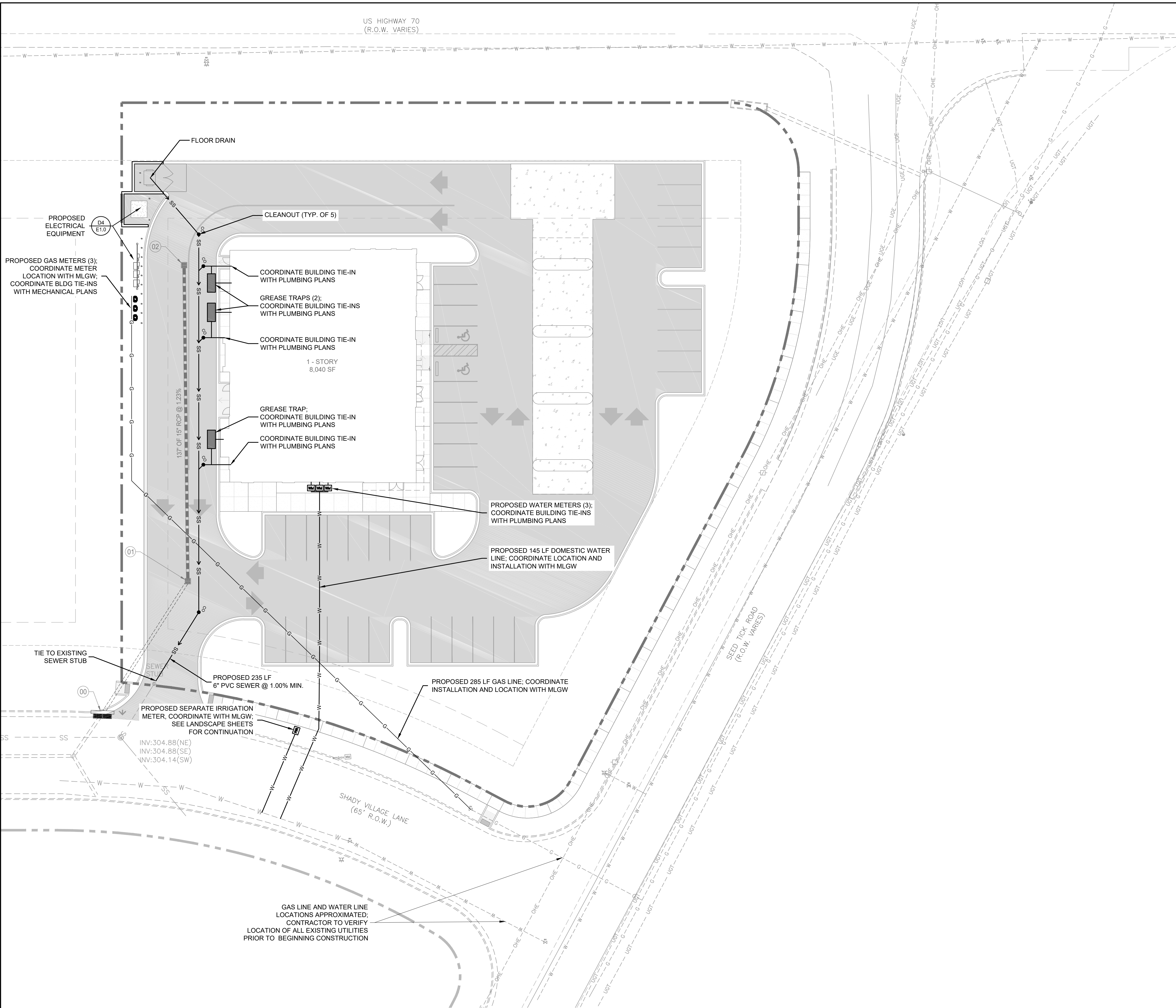
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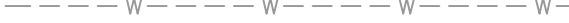
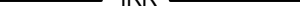
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D1

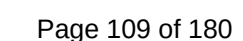
EROSION CONTROL PLAN



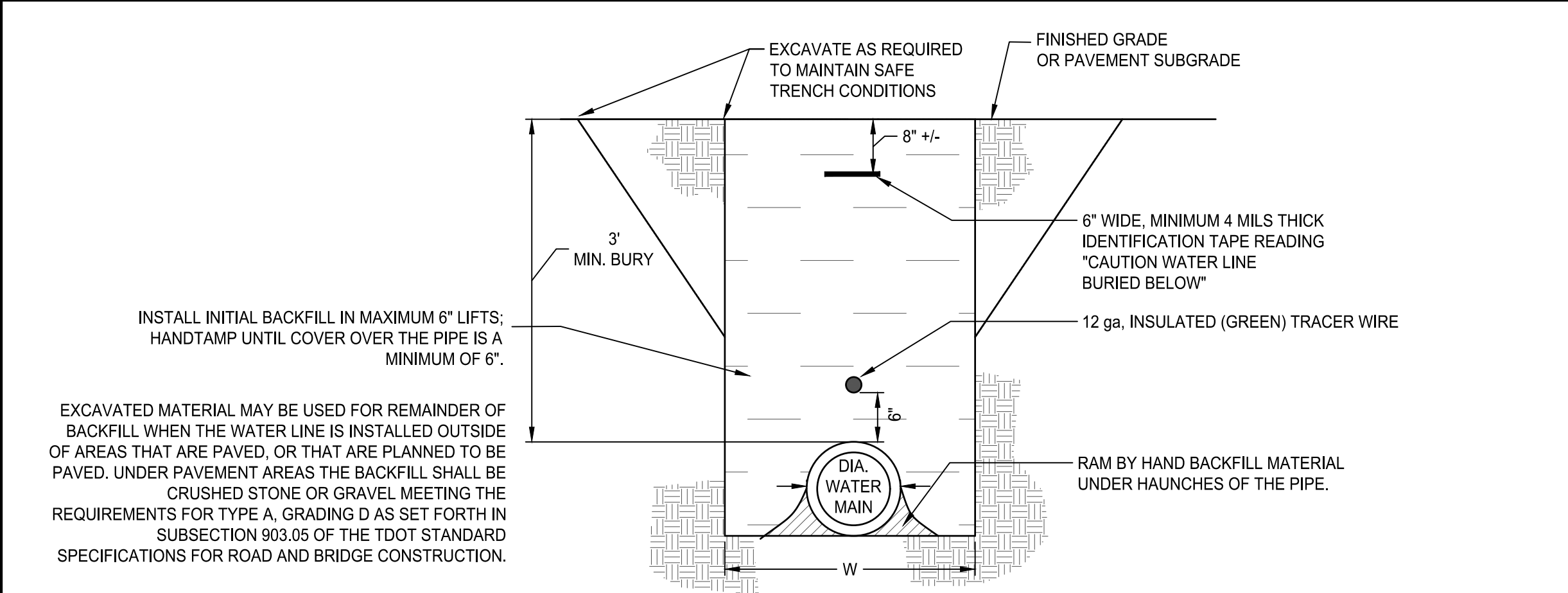
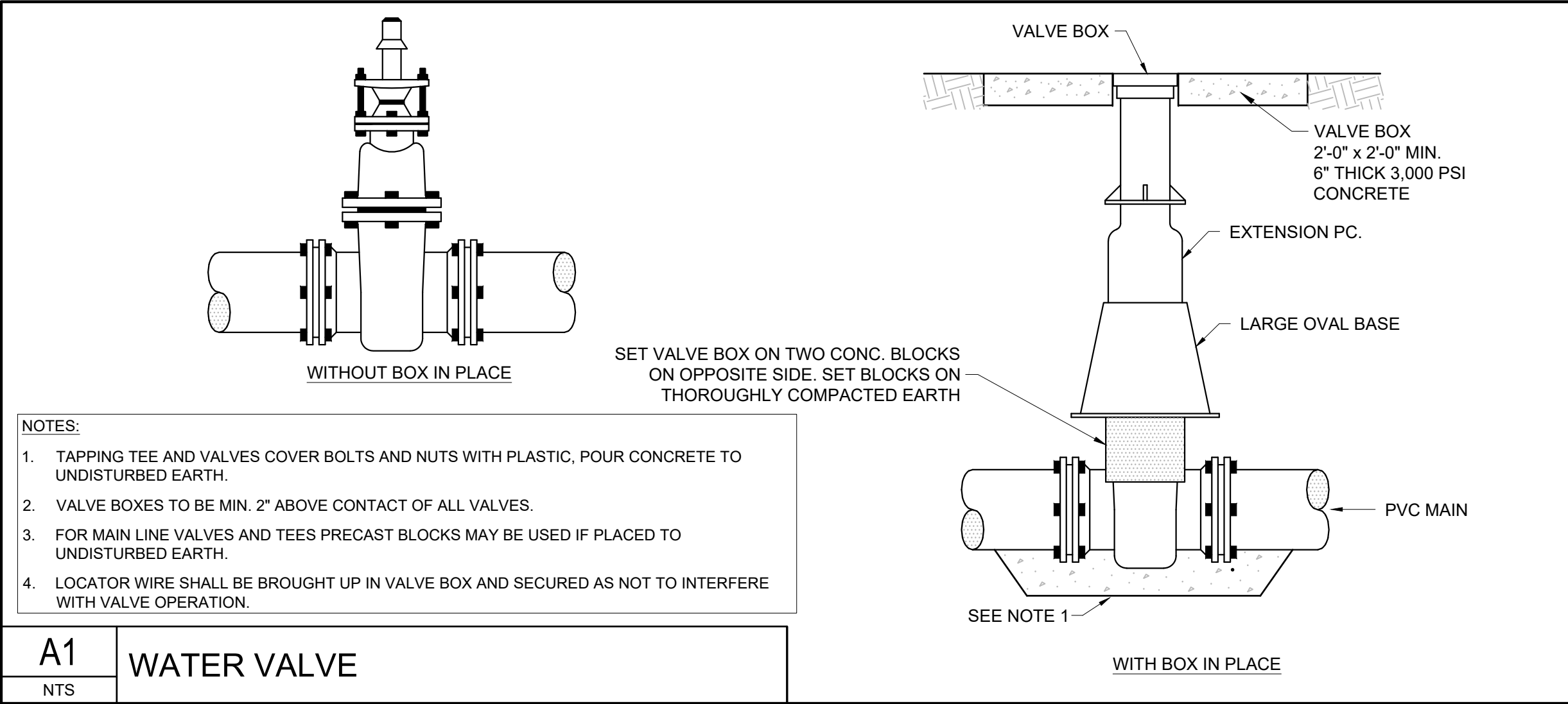
A5	VICINITY MAP
NTS	

EXISTING		PROPOSED		
				GAS METER
				GAS VALVE
				SEWER CLEANOUT
				SEWER MANHOLE
				FIRE DEPT. CONNECTION
				POST INDICATOR VALVE
				FIRE HYDRANT ASSEMBLY
				WATER VALVE
				WATER METER
				DRAINAGE STRUCTURE
 				EXISTING SANITARY SEWER
 				EXISTING WATER LINE (SIZE VARIES)
 				EXISTING GAS LINE
 				PROPOSED SANITARY SEWER
 				PROPOSED WATER LINE (SIZE VARIES)
 				PROPOSED IRRIGATION LINE (SIZE VARIES)
 				PROPOSED GAS MAIN

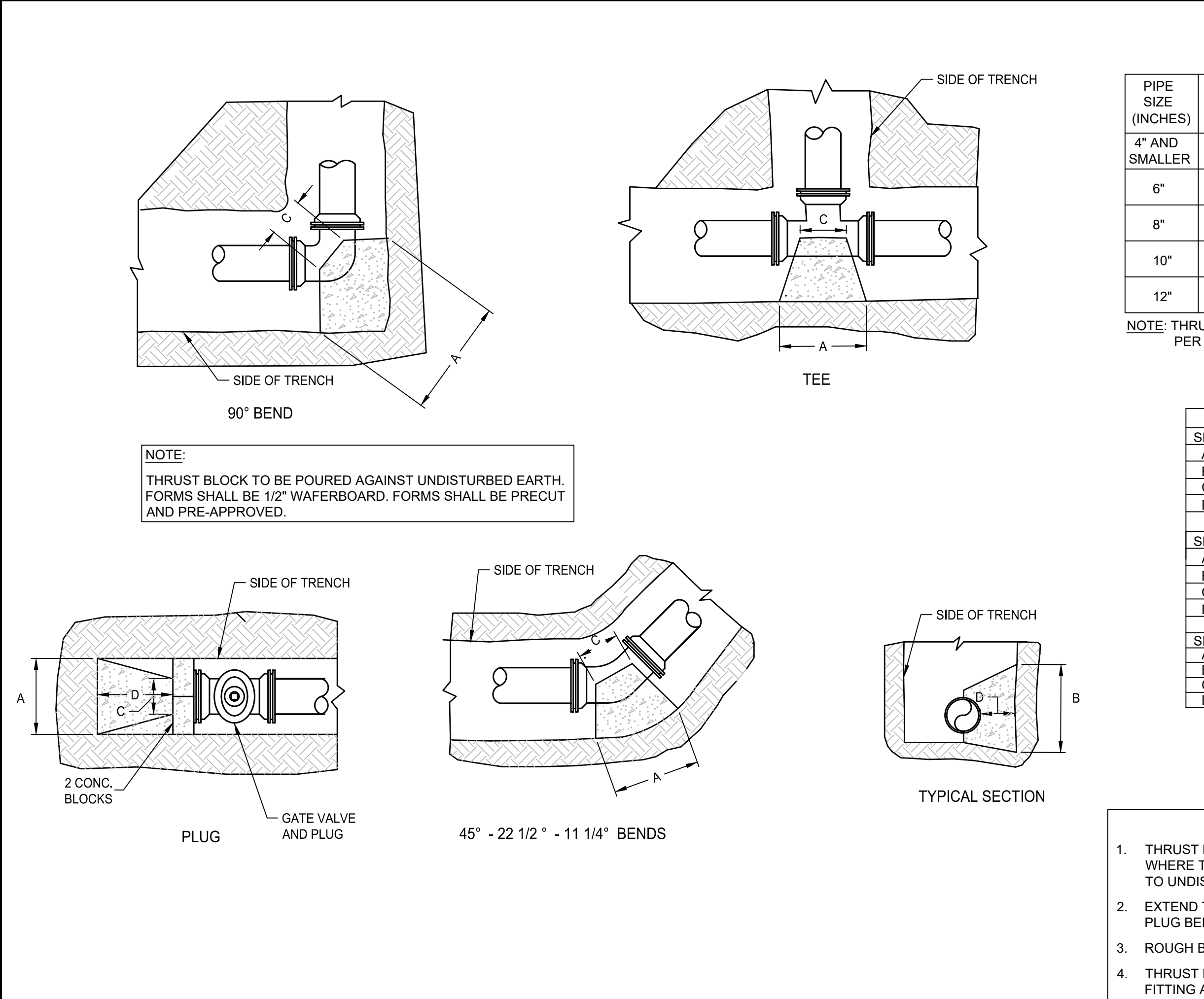
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	NTS	
		PLANS NOT VALID UNTIL APPROVED BY CITY ENGINEER
		CITY ENGINEER _____ DATE _____



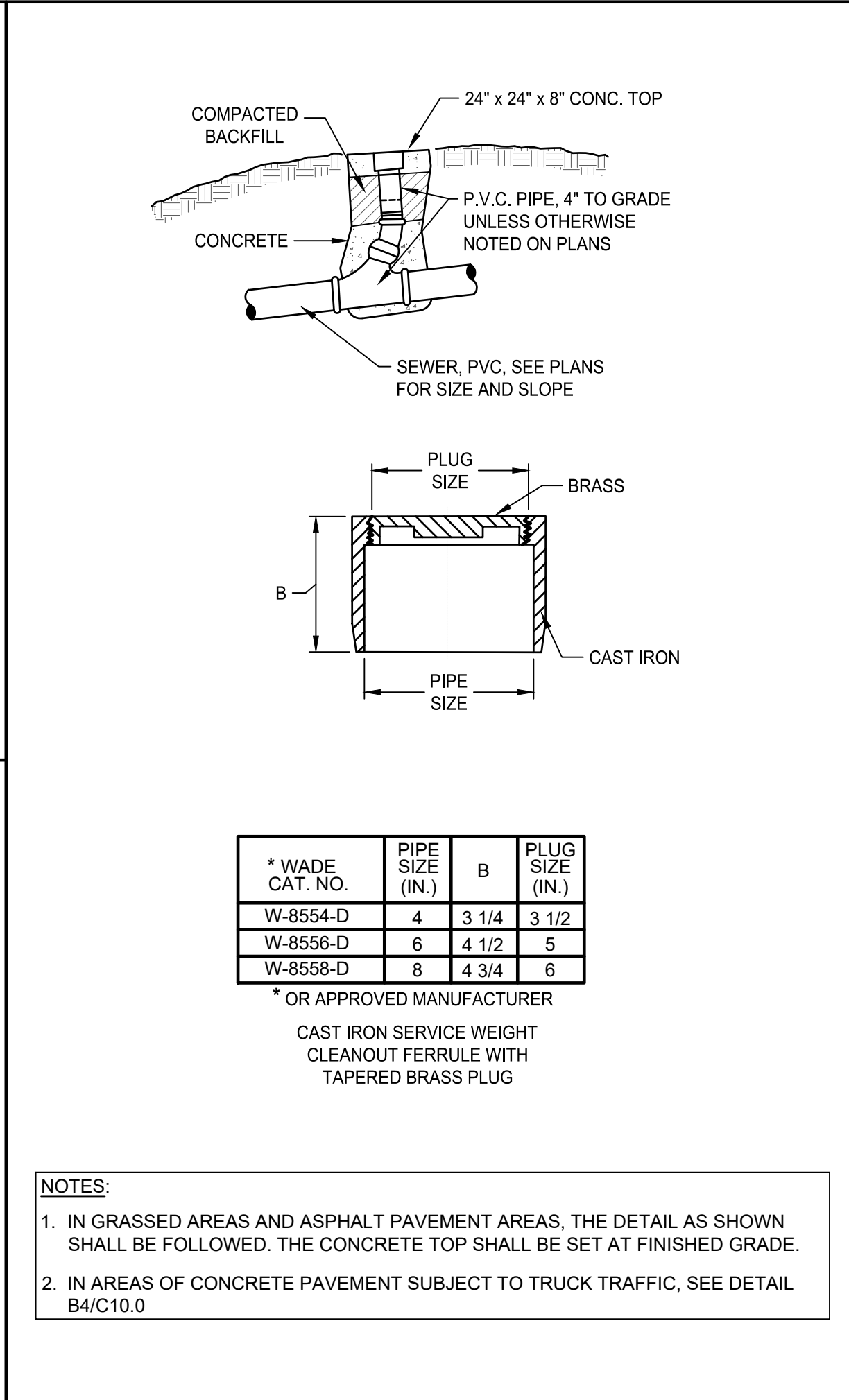
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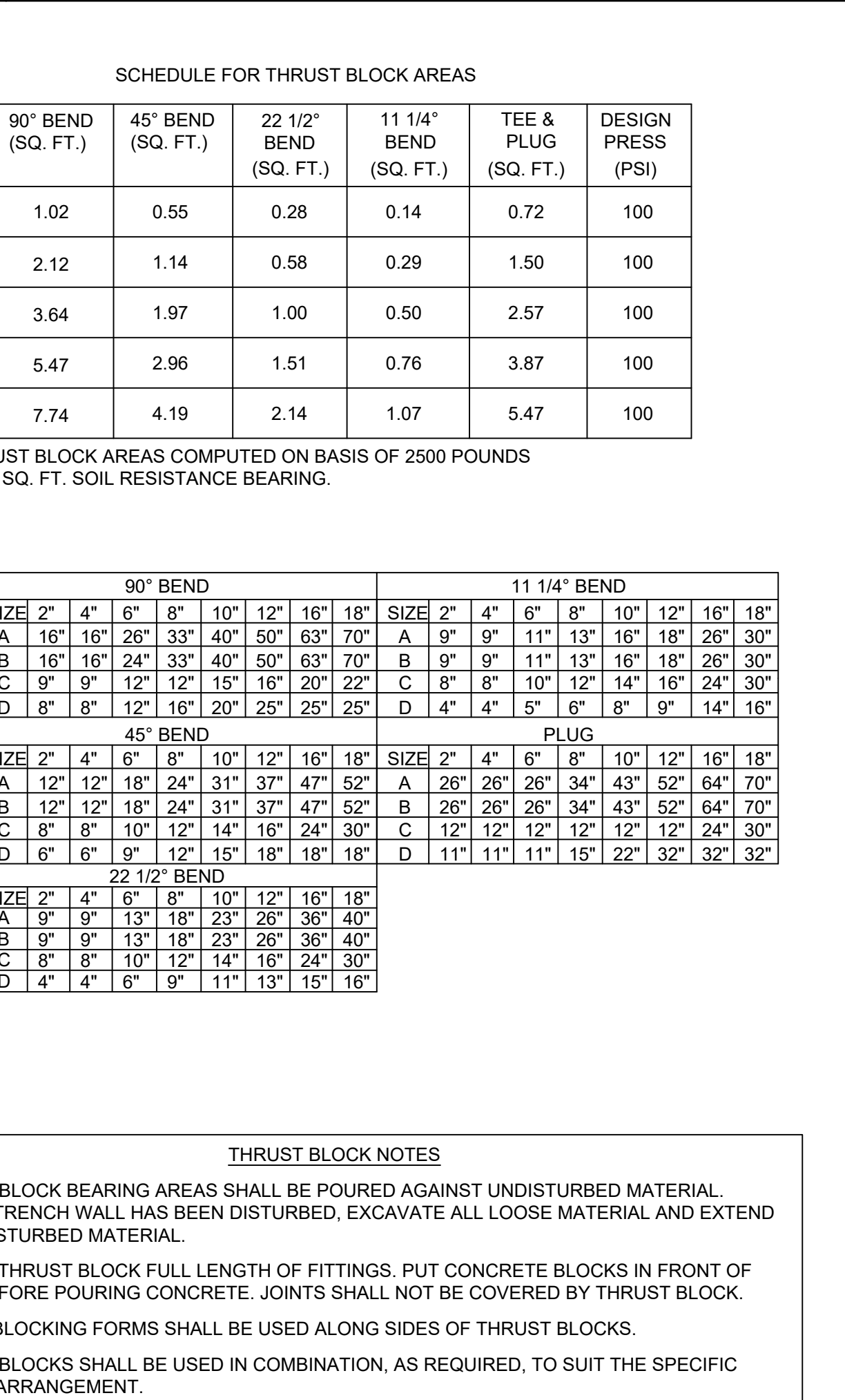
B1
NTS
WATER MAIN TRENCH



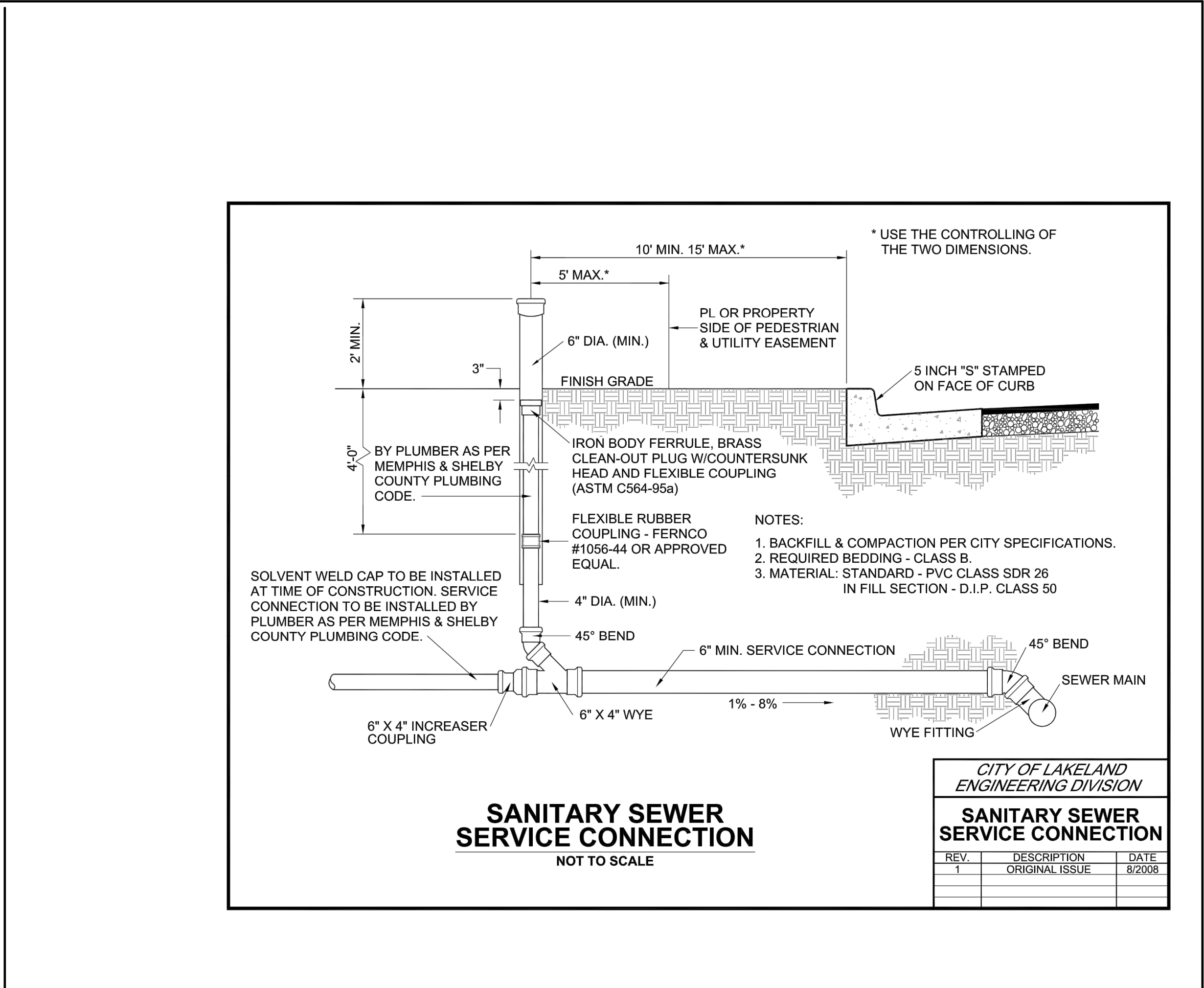
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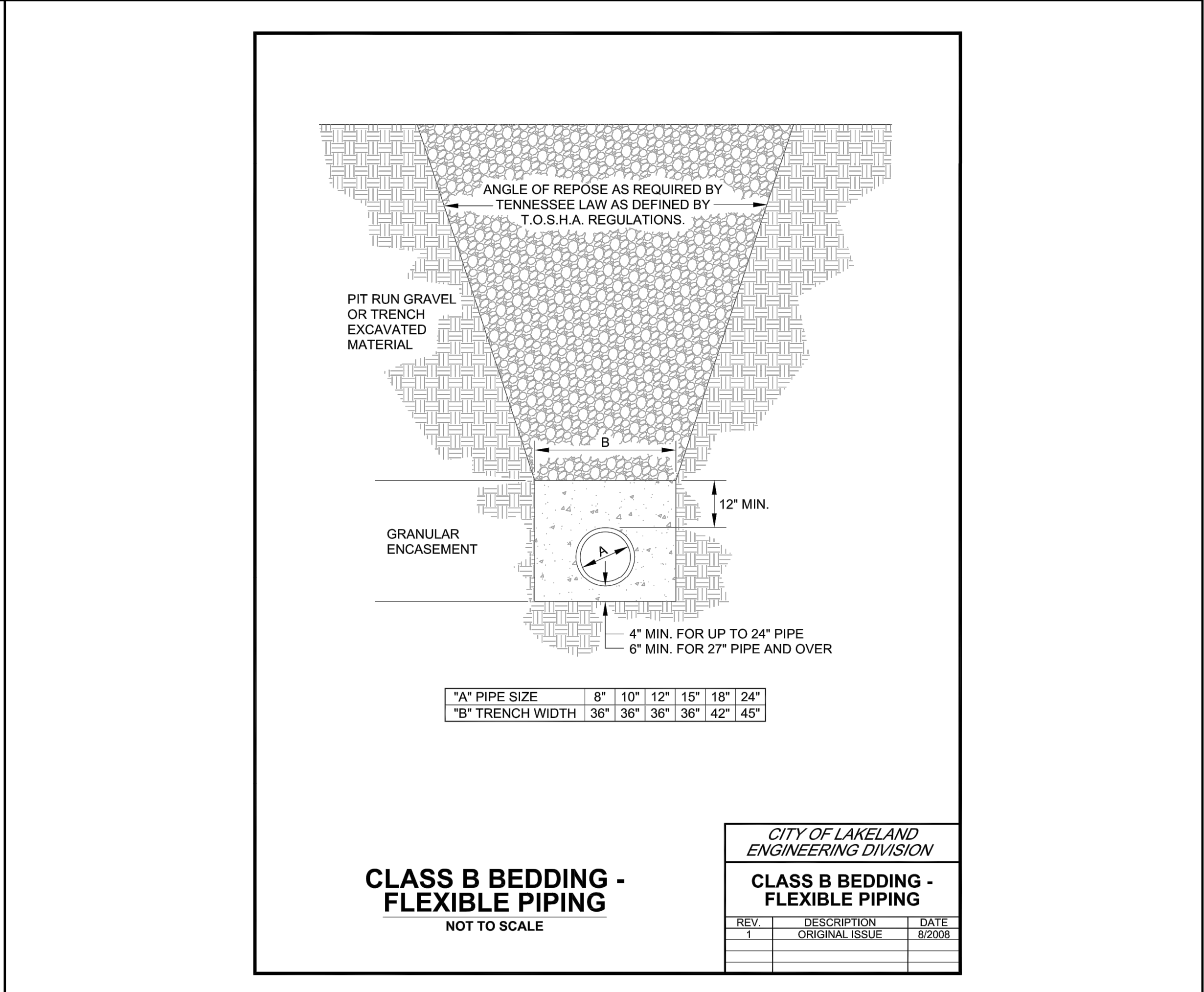
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NTS
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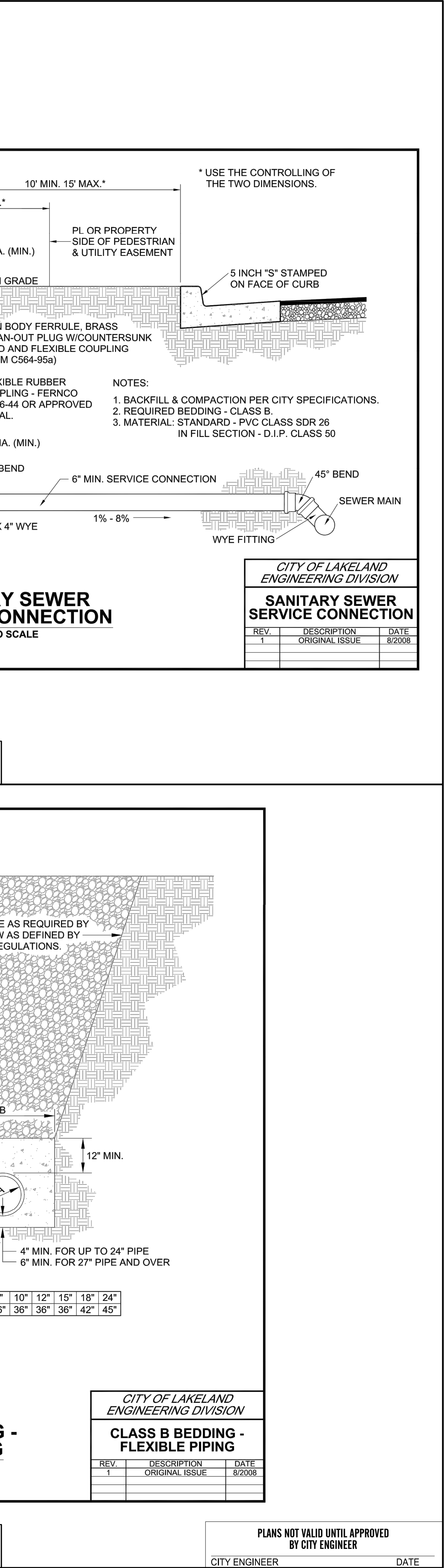
D4
NTS
SANITARY SEWER PIPE BEDDING



B4
NTS
SANITARY SEWER SERVICE CONNECTION



D4
NTS
SANITARY SEWER PIPE BEDDING



D4
NTS
SANITARY SEWER PIPE BEDDING

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SAINT RITA REAL ESTATE, LLC

LOT 7 LAKELAND COMMONS

4915 SEED TICK RD.

DRC SUBMITTAL

REVISIONS

REV.	DESCRIPTION	DATE
1	ORIGINAL ISSUE	8/2008

PROJECT NO. 20298 **DATE** MAY 14, 2021

DRAWN A2H **CHECKED** A2H

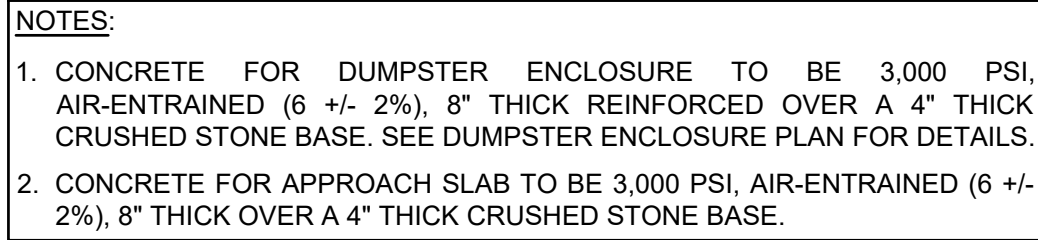
DETAILS

C10.1

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CITY ENGINEER DATE

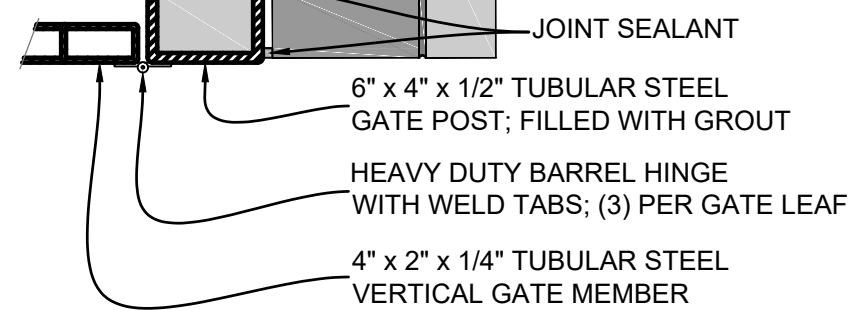
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D1	SECTION B
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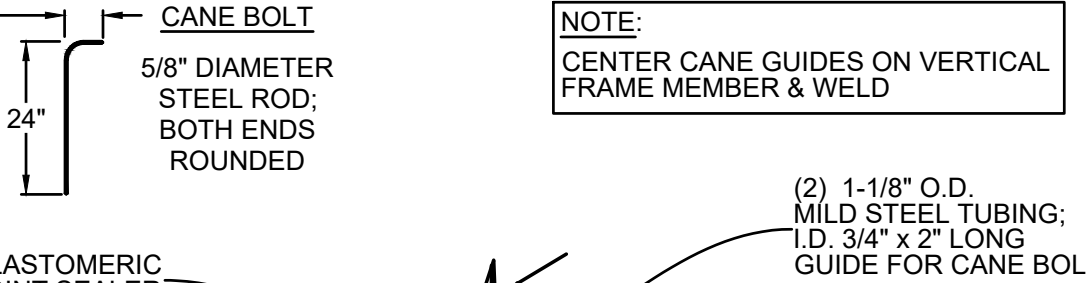
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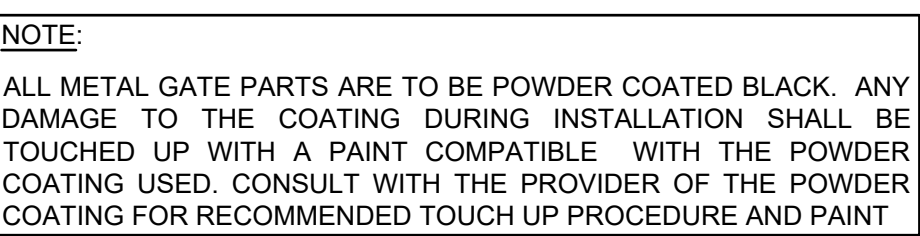
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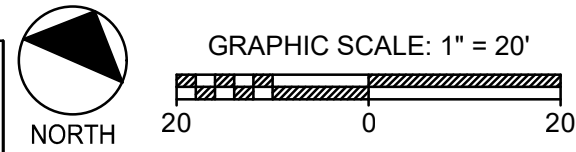
GATE FACING DETAIL - 3



GATE FACING DETAIL - 3



jonib
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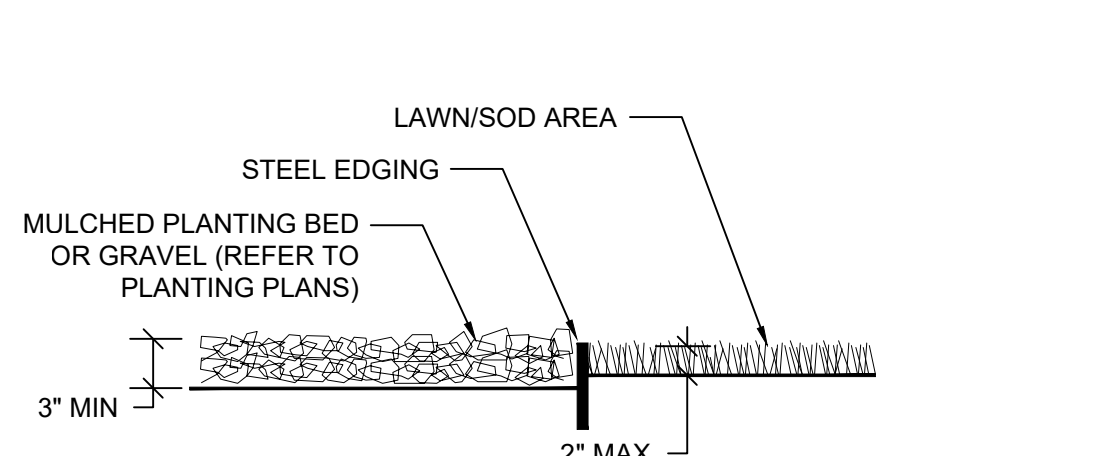
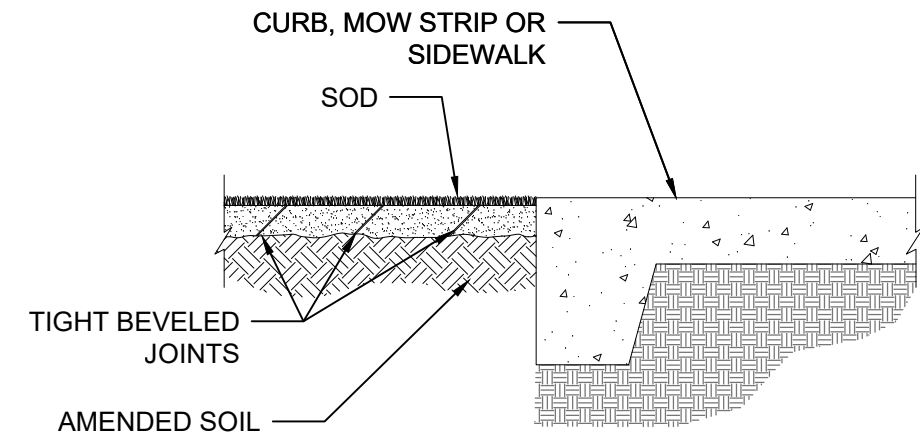
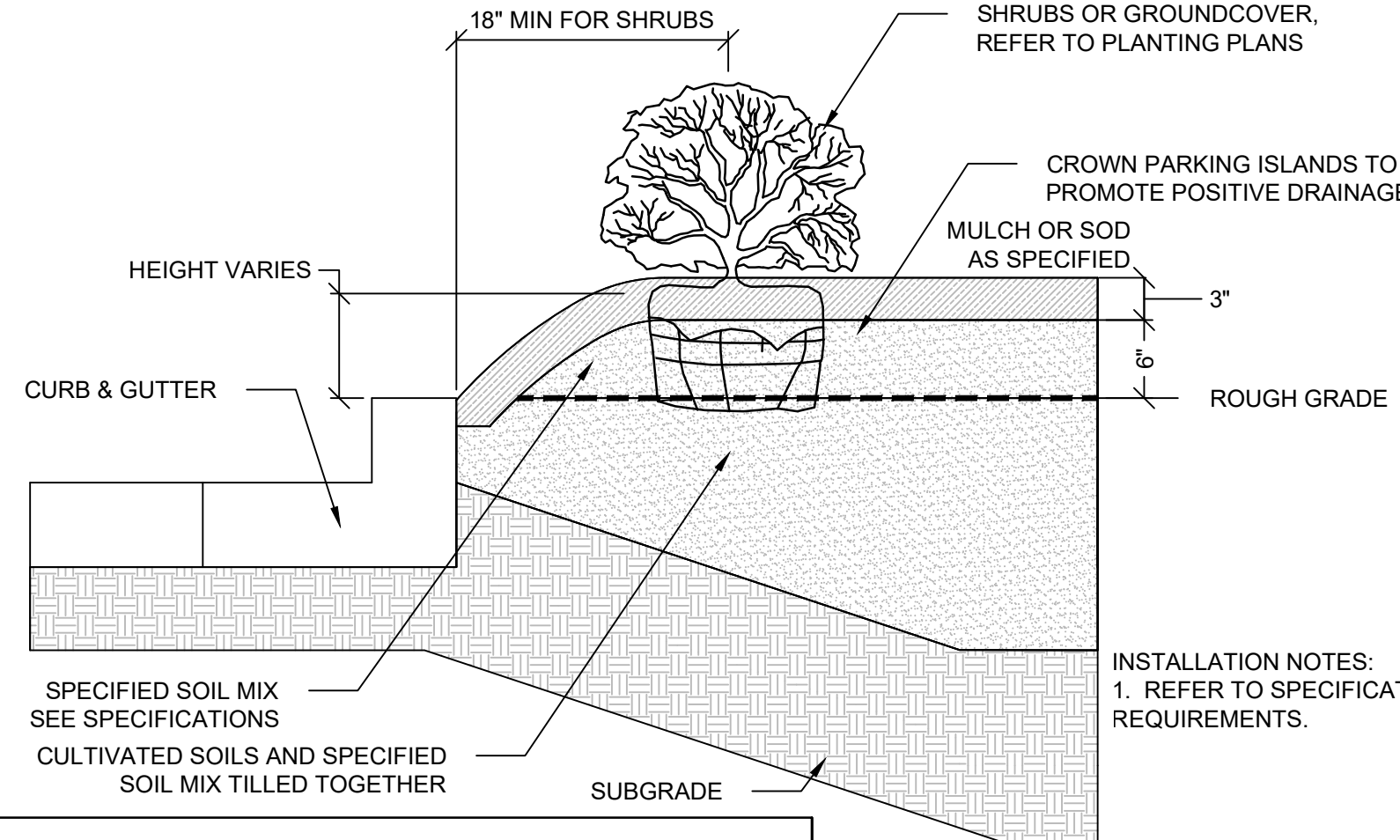
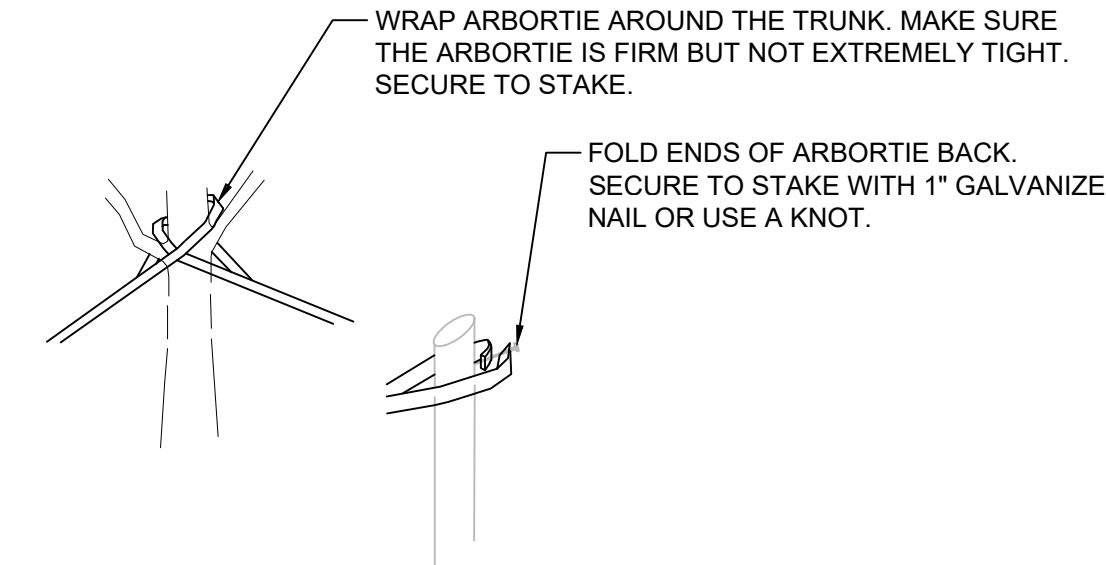
D3	PLANT SCHEDULE
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PLANS NOT VALID UNTIL APPROVED
BY CITY ENGINEER

CITY ENGINEER _____ DATE _____

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LATEST REV.

 NOTES: 1. USE EDGING ALONG PLANTING BED ADJACENT TO SOD AND STONE 2. EDGING SHALL BE INSTALLED PER MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS.		 CURB, MOW STRIP OR SIDEWALK SOD TIGHT BEVELED JOINTS AMENDED SOIL		 12" MIN FOR GROUND COVER 18" MIN FOR SHRUBS SHRUBS OR GROUNDCOVER, REFER TO PLANTING PLANS CROWN PARKING ISLANDS TO PROMOTE POSITIVE DRAINAGE MULCH OR SOD AS SPECIFIED 3" ROUGH GRADE HEIGHT VARIES CURB & GUTTER SPECIFIED SOIL MIX SEE SPECIFICATIONS CULTIVATED SOILS AND SPECIFIED SOIL MIX TILLED TOGETHER SUBGRADE INSTALLATION NOTES: 1. REFER TO SPECIFICATIONS FOR FERTILIZATION REQUIREMENTS.		1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ANY UTILITY COMPANY WHICH MAINTAINS A UTILITY LINE WITHIN THE BOUNDARIES OF THE PROJECT PRIOR TO THE INITIATION OF ANY CONSTRUCTION ON THE PROJECT OR IN THE STREETS BORDERING THE PROJECT. THE CONTRACTOR SHALL ALSO ASSUME RESPONSIBILITY FOR ANY DAMAGE INCURRED TO UTILITY LINES, SITE STRUCTURES, ETC., RESULTING FROM ANY LANDSCAPE CONSTRUCTION WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING WORK ON THE PROJECT. 2. ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE SODDED, FERTILIZED, AND MULCHED AS REQUIRED TO EFFECTIVELY PREVENT SOIL EROSION. COSTS SHALL BE INCLUDED IN CONTRACT. 3. THE CONTRACTOR MUST HAVE WRITTEN APPROVAL FROM THE LANDSCAPE ARCHITECT AND THE OWNER BEFORE ANY CHANGE IN DESIGN IS MADE. 4. THE CONTRACTOR SHALL NOT ENTER UPON NOR CAUSE DAMAGE TO ANY ADJACENT PROPERTIES WITHOUT WRITTEN PERMISSION FROM SAID PROPERTY OWNERS. 5. THE LANDSCAPE ARCHITECT AND OWNER RETAIN THE RIGHT TO REJECT ANY PLANT MATERIAL AT ANY TIME, IF IT DOES NOT MEET THE SPECIFICATIONS OF THE PLANT SCHEDULE. 6. A MINIMUM OF 1 IN 10 PLANTS OF EACH PLANT SPECIES SHALL HAVE A LABEL ATTACHED PROVIDING THE COMMON AND SCIENTIFIC NAME OF SAID PLANT. 7. MULCH ALL BEDS AND TREE RINGS WITH A MINIMUM OF 3" HARDWOOD MULCH. IN BEDS ADJACENT TO BUILDINGS, FINISH MULCH SURFACE SHALL BE LOWER THAN THE FINISHED FLOOR ELEVATION. 8. REMOVE ALL BUILDING WASTE, WEEDS, ROCKS, DEBRIS AND EXISTING TURF OF ANY KIND FROM AREAS TO BE PLANTED OR SODDED. 9. REMOVE ALL WEEDS, TURF, AND NUT GRASS FROM PLANTING BEDS. PREPARE PLANTING BEDS BY TILLING PLANTING SOIL MIXTURE INTO THE NATIVE SOIL TO 12" DEPTH MINIMUM. PLANTING SOIL MIXTURE SHALL BE ONE CUBIC YARD OF FINELY CRUSHED PINE BARK SOIL CONDITIONER, NINE CUBIC FEET OF FINELY SHREDDED PEAT MOSS, (COCOPEAT, REED-SEDGE PEAT, OR RICE HULL ASH ARE ALSO ACCEPTABLE) AND 1/2 TON OF DRY SAND PER 100 SQUARE FEET OF BED SPACE. ASSURE PROPER DRAINAGE AND PERCOLATION. 10. TEST pH AND PERCENTAGE OF ORGANIC CONTENT OF SOIL AND AMEND ALL BED AREAS WITH CHEMICALS AND FERTILIZER AS REQUIRED TO REMEDY DEFICIENCIES REVEALED BY SOIL TEST. 11. PRE-EMERGENT HERBICIDE SHALL BE APPLIED IN ALL BED AREAS PRIOR TO PLANTING TO AVOID WEED GROWTH. PRE-EMERGENT HERBICIDE TO BE SNAPSHOT BY DOW AGROSCIENCES OR APPROVED EQUAL. 12. PRUNE PLANTS AFTER PLANTING TO ASSURE CONSISTENCY IN GROWTH HABIT AND APPEARANCE. 13. ALL PLANTS SHALL BE VIGOROUS, HEALTHY MATERIAL, FREE OF PESTS AND DISEASE. 14. CONTRACTOR TO GUARANTEE ALL PLANT MATERIAL INCLUDING SOD FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE. 15. REPLACEMENTS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER INSTALLATION. 16. ANY MATERIAL WHICH DIES, OR DEFOLIATES PRIOR TO ACCEPTANCE OF THE WORK WILL BE PROMPTLY REMOVED AND REPLACED. 17. ANY TREE WITH SCARS OVER 1" SHALL BE REJECTED AND TREE SHALL BE REPLACED. 18. LOCATIONS OF PLANTS AND/OR OUTLINES OF AREAS TO BE PLANTED ARE TO BE STAKED OUT AT THE SITE. APPROVAL IN WRITING OF LAYOUT BY THE LANDSCAPE ARCHITECT IS REQUIRED BEFORE EXCAVATION BEGINS. 19. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENTS OF LAYOUT IN ORDER TO AVOID UTILITIES. NOTIFY THE LANDSCAPE ARCHITECT OF CONTEMPLATED ADJUSTMENTS TO THE LAYOUT AND RECEIVE WRITTEN APPROVAL BEFORE COMMENCING. 20. GRADE THE SURFACE OF ALL PLANTED AREAS ADJACENT TO BUILDING TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND TO ACCOMMODATE MULCH AT FINISHED GRADE. THE MULCH SHALL NOT COVER UP WEEP HOLES ON BUILDING. 21. PROVIDE FOR POSITIVE DRAINAGE FROM ALL AREAS TOWARD THE EXISTING INLETS AND DRAINAGE STRUCTURES. 22. PROVIDE SMOOTH TRANSITIONS BETWEEN SLOPES OF DIFFERENT GRADIENTS AND DIRECTION. MODIFY THE GRADE SO THAT THE FINISH GRADE IS FLUSH WITH ALL PAVING SURFACES OR AS DIRECTED BY THE DRAWINGS. 23. FILL ALL DIPS AND REMOVE ANY BUMPS IN THE OVERALL PLANE OF THE SLOPE. 24. ALL FINE GRADING SHALL BE OBSERVED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PLANTING, MULCHING, OR SODDING. 25. DETERMINE THE ELEVATION OF THE TRUNK FLARE AND ENSURE THAT IT IS PLANTED 2" ABOVE SURROUNDING FINISHED GRADE AFTER SETTLING. 26. REMOVE ALL LABELS, STRINGS, ETC. FROM ALL PLANTS. AFTER FINAL WALK THROUGH, REMOVE ALL PLANT NAME TAGS. 27. ANY TREE WITH SCARS OVER 1" SHALL BE REJECTED AND TREE SHALL BE REPLACED. 28. THOROUGHLY WATER PLANTS IMMEDIATELY AFTER PLANTING. APPLY WATER BY HOSE DIRECTLY TO THE ROOT BALL AND THE ADJACENT SOIL. 29. FOR ALL PLANTS PLANTED IN BEDS OF PREPARED SOIL, ADD REQUIRED SOIL AMENDMENTS TO THE SOILS, AND AGRIFORM 21 GRAM SLOW RELEASE FERTILIZER TABLET, AND PHC TREE SAVER TRANSPANT AS THE MATERIAL IS BEING BACKFILLED AROUND THE PLANT. ENSURE THAT THE AMENDMENTS ARE THOROUGHLY MIXED INTO THE BACKFILL. 30. ALL SOD SHALL MEET THE REQUIREMENTS OF THE TENNESSEE DEPARTMENT OF AGRICULTURE, AND NO "BELOW STANDARD" SOD WILL BE ACCEPTED. 31. SITE WILL HAVE AN IRRIGATION SYSTEM.	
A1 NTS	EDGING DETAIL	A2 NTS	SOD INSTALLATION DETAIL	A3 NTS	PARKING ISLAND PLANTING DETAIL	VII. TREE MANAGEMENT, STREET SCAPE, ORNAMENTAL LANDSCAPING, AND PERIMETER BUFFERS. B. STREETSCAPE LANDSCAPING: (REFER TO LANDSCAPE PLATES FOR DETAILS) 1. US HIGHWAY 70 FRONTAGE A 25' WIDE LANDSCAPE EASEMENT SHALL BE REQUIRED ALONG THE PLANNED DEVELOPMENT'S US HIGHWAY 70 FRONTAGE WITH THE INTENT TO ESTABLISH A UNIFIED STREETSCAPE APPEARANCE. THE FOLLOWING STREETSCAPE IMPROVEMENTS SHALL BE REQUIRED: A. ONE (1) OVER-STORY DECIDUOUS SHADE TREE, 2"-2.5" CALIPER AT PLANTING SHALL BE INSTALLED AT 40' O.C. OR EQUIVALENT THEREOF; B. WHERE PARKING FIELDS ARE LOCATED BETWEEN THE BUILDING AND PUBLIC RIGHT-OF-WAY, A CONTINUOUS ROW OF EVERGREEN SHRUBS, 24" HEIGHT AT PLANTING, SHALL BE INSTALLED AT 3' O.C. WITH THE INTENT IS TO ESTABLISH AND MAINTAIN A CONTINUOUS 42" TALL MATURE HEDGE, PLUS, ONE (1) ORNAMENTAL TREE, 2"-2.5" CALIPER AT PLANTING SHALL BE INSTALLED IN A RANDOM FASHION AT A RATIO EQUIVALENT TO OR GREATER THAN 40' O.C. OR EQUIVALENT THEREOF. 2. SEED TICK ROAD, NORTH OF THE TWIN OAKS PLAZA NO 3 LLC PROPERTY A 25' WIDE LANDSCAPE EASEMENT SHALL BE REQUIRED ALONG THE PLANNED DEVELOPMENT'S SEED TICK ROAD FRONTAGE TO ESTABLISH A UNIFIED STREETSCAPE APPEARANCE MATERIALLY CONSISTENT WITH THE US HIGHWAY 70 FRONTAGE AND COMPATIBLE WITH THE PREVIOUSLY APPROVED LAKELAND MEADOWS PLANNED DEVELOPMENT "SEED TICK ROAD LANDSCAPE PLATE 1" IMPROVEMENTS SPECIFIED. THE FOLLOWING STREETSCAPE IMPROVEMENTS SHALL BE REQUIRED: A. ONE (1) OVER-STORY DECIDUOUS SHADE TREE, 2"-2.5" CALIPER AT PLANTING SHALL BE INSTALLED AT 40' O.C. OR EQUIVALENT THEREOF; B. WHERE PARKING FIELDS OR PRIVATE DRIVES ARE LOCATED BETWEEN THE BUILDING AND PUBLIC RIGHT-OF-WAY, A CONTINUOUS ROW OF EVERGREEN SHRUBS, 24" HEIGHT AT PLANTING, SHALL BE INSTALLED AT 3' O.C. WITH THE INTENT IS TO ESTABLISH AND MAINTAIN A CONTINUOUS 42" TALL MATURE HEDGE. 6. SHADY VILLAGE LANE A. AREA A AND AREA B: A 10' WIDE LANDSCAPE EASEMENT SHALL BE REQUIRED ALONG THE PLANNED DEVELOPMENT'S SHADY VILLAGE LANE FRONTAGE WITH THE INTENT TO PROVIDE A UNIFIED STREETSCAPE MATERIALLY CONSISTENT WITH THE OVERALL PLANNED DEVELOPMENT WHILE PROVIDING ADDITIONAL LANDSCAPE BUFFER TO THE REAR SERVICE AREAS, MECHANICAL AREAS, AND SECONDARY FACADES OF THE DEVELOPED OUT LOTS FRONTING US HIGHWAY 70. THE FOLLOWING STREETSCAPE IMPROVEMENTS SHALL BE REQUIRED: I. ONE (1) OVER-STORY DECIDUOUS SHADE TREE, 2"-2.5" CALIPER AT PLANTING, SHALL BE INSTALLED AT 40' O.C. OR EQUIVALENT THEREOF, WITHIN THE RIGHT-OF -WAY BETWEEN THE SIDEWALK AND CURB; II. WHERE PARKING FIELDS ARE LOCATED BETWEEN THE BUILDING AND PUBLIC RIGHT-OF-WAY, A CONTINUOUS ROW OF EVERGREEN SHRUBS, 24" HEIGHT AT PLANTING, SHALL BE INSTALLED AT 3' O.C. WITH THE INTENT IS TO ESTABLISH AND MAINTAIN A CONTINUOUS 42" TALL MATURE HEDGE, PLUS, ONE (1) ORNAMENTAL TREE, 2"-2.5" CALIPER AT PLANTING SHALL BE INSTALLED IN A RANDOM FASHION AT A RATIO EQUIVALENT TO OR GREATER THAN 40' O.C. OR EQUIVALENT THEREOF. C. ORNAMENTAL LANDSCAPING, RETAINING WALLS, AND FENCING: 1. ORNAMENTAL LANDSCAPING: THE LANDSCAPING REQUIREMENTS OUTLINED IN §111.5 OF THE LAKELAND LAND DEVELOPMENT REGULATIONS SHALL APPLY AS MODIFIED HEREIN. A. LANDSCAPE MATERIALS AND SPECIFICATIONS. THE LANDSCAPE MATERIALS AND METHODS SPECIFIED SHALL BE CONSISTENT AND COMPATIBLE THROUGHOUT THE DEVELOPMENT TO ESTABLISH A UNIFIED LANDSCAPE TREATMENT ACROSS ALL PHASES OF IMPLEMENTATION. B. ALL ORNAMENTAL LANDSCAPED AREAS SHALL BE IRRIGATED WITH AN AUTOMATED SYSTEM HAVING PROPER HEAD TO HEAD COVERAGE. STREAMSIDE MANAGEMENT BUFFERS AND TREE PRESERVATION AREAS AREA EXCLUDED. C. ALL ENTRIES TO DEVELOPMENTS SHALL BE HIGHLIGHTED WITH SHRUBS, GROUND COVER, AND SMALL ORNAMENTAL TREES IN ADDITION TO THE REQUIRED STREETSCAPE LANDSCAPING. D. FOUNDATION PLANTING. EXCEPT WHERE A COMMERCIAL STOREFRONT, ENTRYWAY, PATIO EXISTS, BUILDINGS SHALL INCLUDE A MINIMUM 4-FOOT WIDE LANDSCAPE AREA BETWEEN THE BUILDING FOUNDATION AND ANY SIDEWALK OR IMPERVIOUS FEATURE. A WIDER LANDSCAPE AREA IS RECOMMENDED FOR TALLER BUILDINGS. THE BUILDING SHALL BE SOFTENED WITH FOUNDATION PLANTINGS TOTALING A MINIMUM OF 40% OF THE BUILDING'S PERIMETER WITH PRIORITY GIVEN TO THOSE AREAS VISIBLE FROM ANY PUBLIC OR SHARED DRIVE. WHERE A COMMERCIAL STOREFRONT, ENTRYWAY, PATIO IS VISIBLE FROM ANY PUBLIC OR SHARED DRIVE, ANY COMBINATION OF POTS, RAISED PLANTERS, HANGING BASKETS, WINDOW BOXES, ESPALIER, TRELLIS STRUCTURES OR CABLE SYSTEMS, TREE PITTS, OR TREE WELLS, SHALL BE PROVIDED TO SERVE AS FOUNDATION LANDSCAPING.	
B1 NTS	GROUNDCOVER PLANTING DETAIL	B2 NTS	SHRUB PLANTING DETAIL				
C1 NTS	MULTI-TRUNK TREE PLANTING DETAIL	C2 NTS	DECIDUOUS TREE PLANTING DETAIL				
D1 NTS	ARBORTIE DETAILS FOR GUYING			D4 NTS	P.D. LANDSCAPE REQUIREMENTS		
 WRAP ARBORTIE AROUND THE TRUNK. MAKE SURE THE ARBORTIE IS FIRM BUT NOT EXTREMELY TIGHT. SECURE TO STAKE. FOLD ENDS OF ARBORTIE BACK. SECURE TO STAKE WITH 1" GALVANIZED NAIL OR USE A KNOT.				D5 NTS	PLANTING NOTES		
						PLANS NOT VALID UNTIL APPROVED BY CITY ENGINEER	
						CITY ENGINEER	
						DATE	

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ARCHITECTS
PLANNERS

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SAINT RITA REAL ESTATE, LLC

LOT 7
LAKELAND COMMONS

4915 SEED TICK RD.

DRC SUBMITTAL

REVISIONS

PROJECT NO.
20208

DATE
MAY 14, 2021

DRAWN
JMB

CHECKED
JMB

PLANTING DETAILS

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Page 113 of 180

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**SAINT RITA REAL
ESTATE, LLC**

**Lot 7 Lakeland
Commons**

4915 SEED TICK RD

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REVISIONS

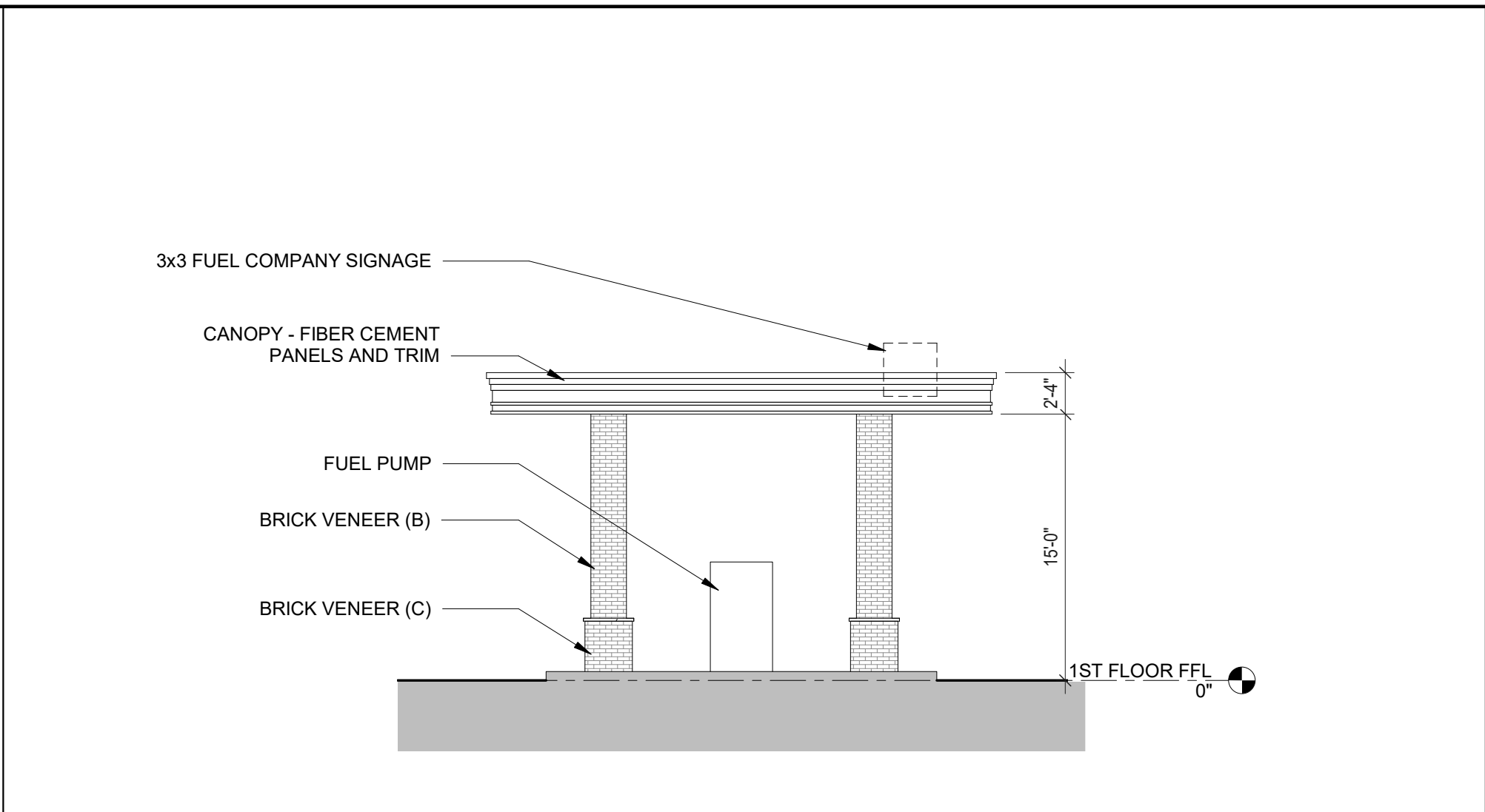
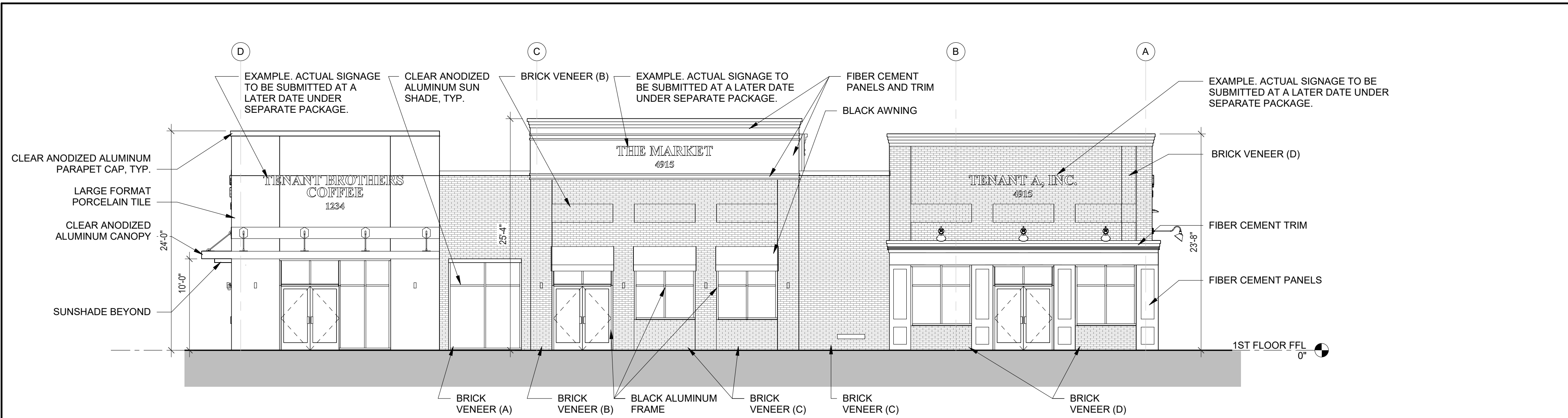
PROJECT NO. 20298	DATE MAY 14, 2021
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PERSPECTIVES

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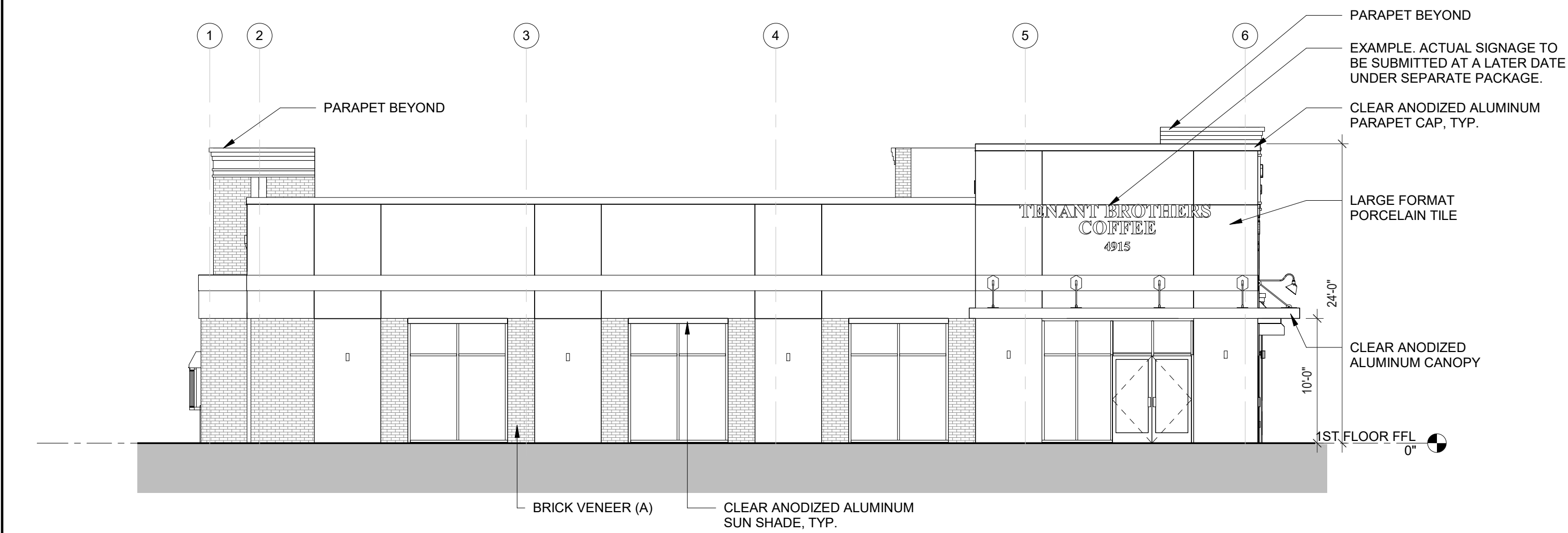
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TOTAL SURFACE AREA 10'x101'	= 1010.00 SF
TRANSPARENCY SURFACE AREA	= 493.18 SF
TRANSPARENCY PERCENTAGE	= 48.83%

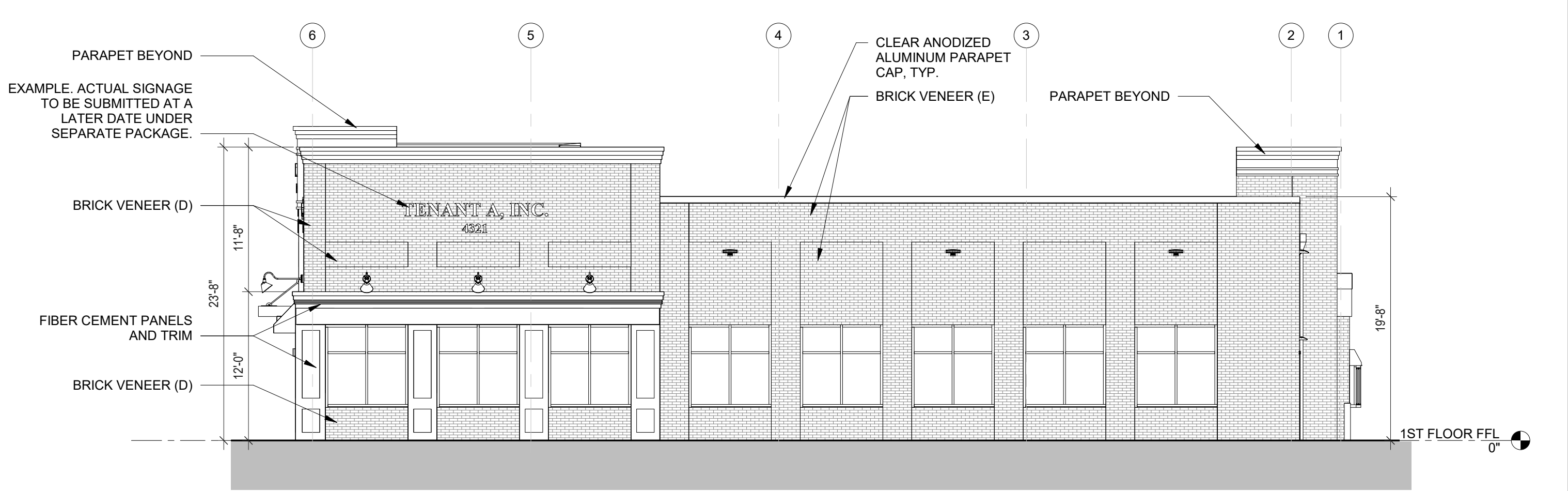
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1/8" = 1'-0"

A5 EXTERIOR ELEVATION - NORTH CANOPY
1/8" = 1'-0"



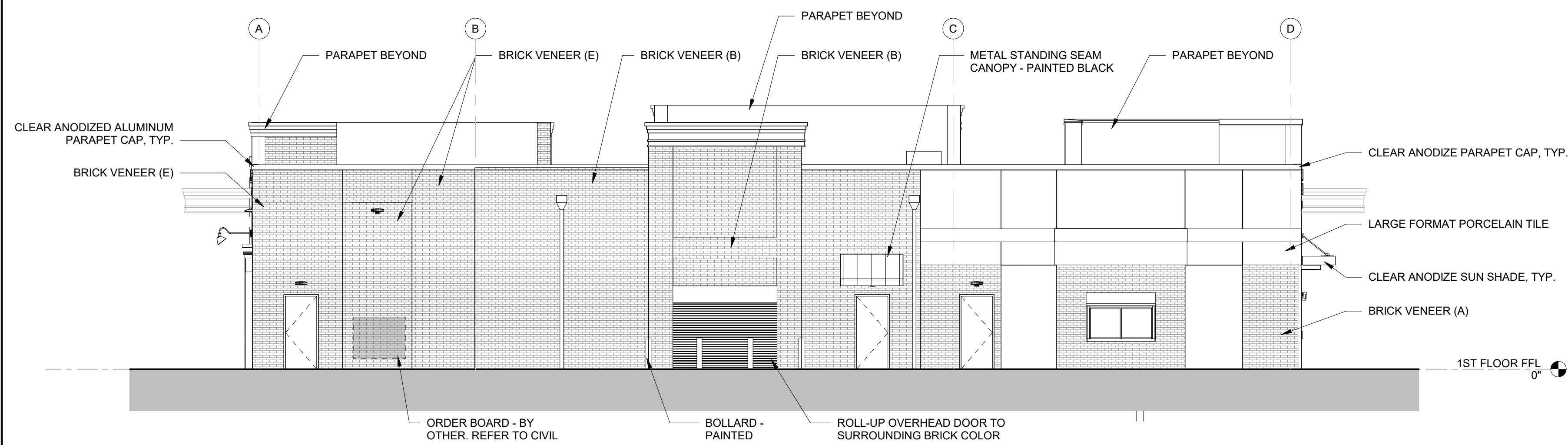
TOTAL SURFACE AREA 10'x81'	= 810.00 SF
TRANSPARENCY SURFACE AREA	= 361.67 SF
TRANSPARENCY PERCENTAGE	= 44.65%

C1 EXTERIOR ELEVATION - SOUTH
1/8" = 1'-0"

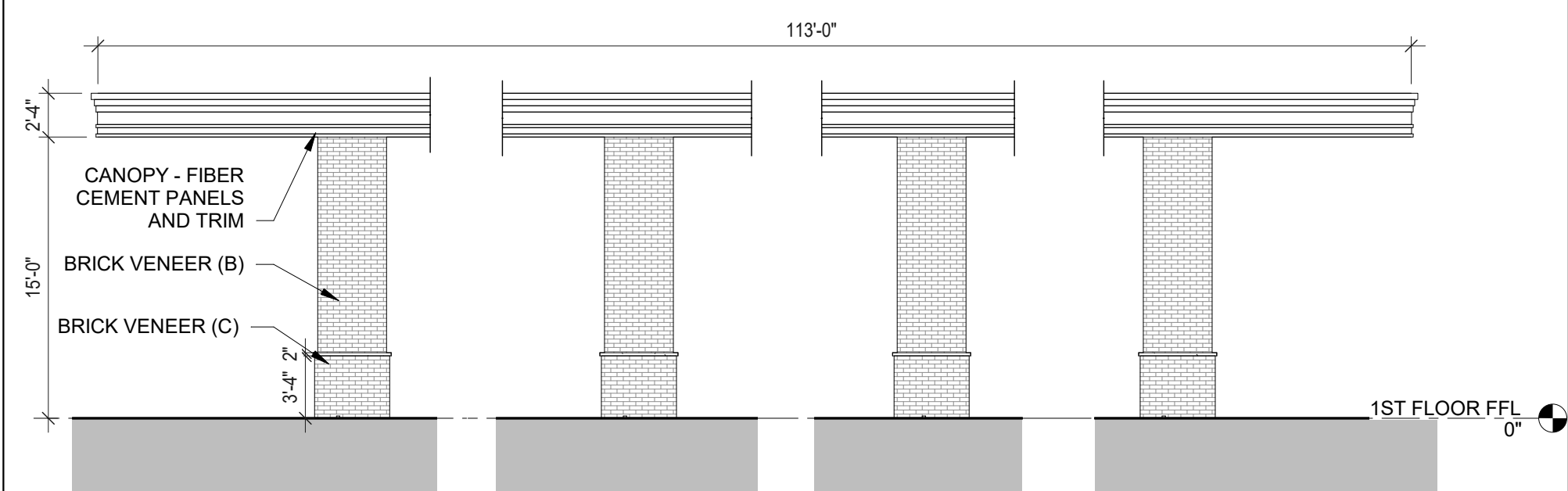


TOTAL SURFACE AREA 10'x81'	= 810.00 SF
TRANSPARENCY SURFACE AREA	= 355.56 SF
TRANSPARENCY PERCENTAGE	= 43.90%

C4 EXTERIOR ELEVATION - NORTH
1/8" = 1'-0"



D1 EXTERIOR ELEVATION - WEST
1/8" = 1'-0"



D5 EXTERIOR ELEVATION - EAST CANOPY
1/8" = 1'-0"

TENANT BROTHERS COFFEE



LARGE FORMAT TILE
DAL TILE - SUMILITE TERRA
STONE TP54



BRICK VENEER A
MERIDIAN BRICK
ATHENS ARCH. SERIES
V500

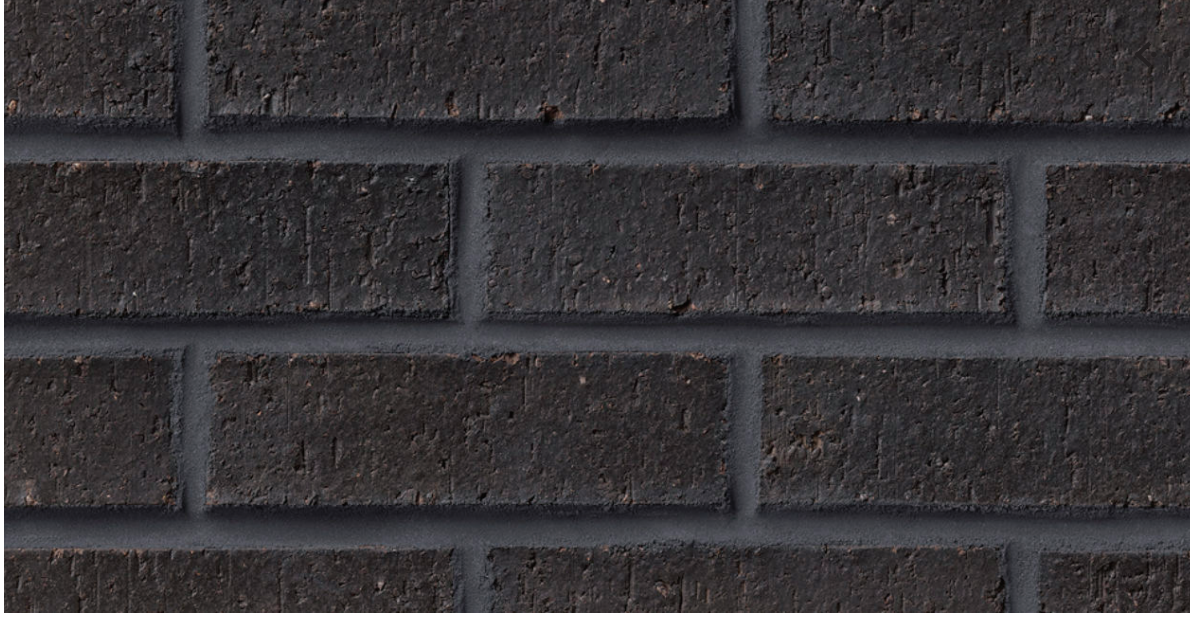


METAL CANOPY / SUN SHADES
MAPES CANOPIES
CLEAR ANODIZED ALUMINUM

THE MARKET



BRICK VENEER B
MERIDIAN BRICK
MICHIGAN COLLECTION
BLOOMFIELD



BRICK VENEER C
MERIDIAN BRICK
COLUMBIA, SC ARCH. SERIES
BLACK MATTE

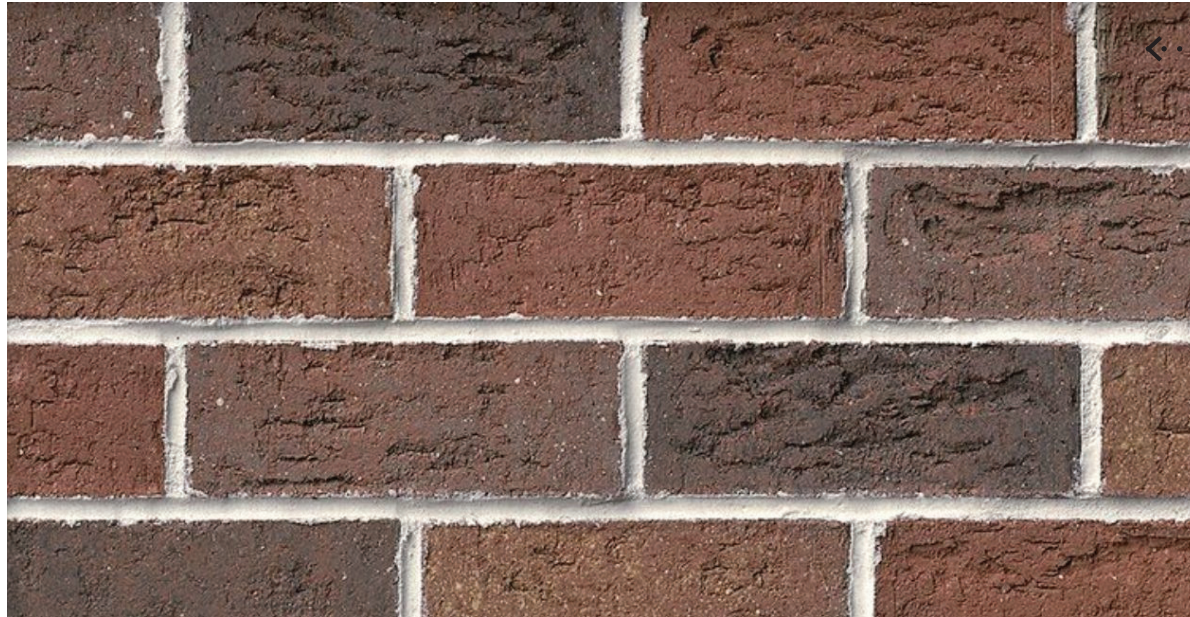


AWNING
PARASOL AWNINGS
BLACK FABRIC

TENANT A, INC.



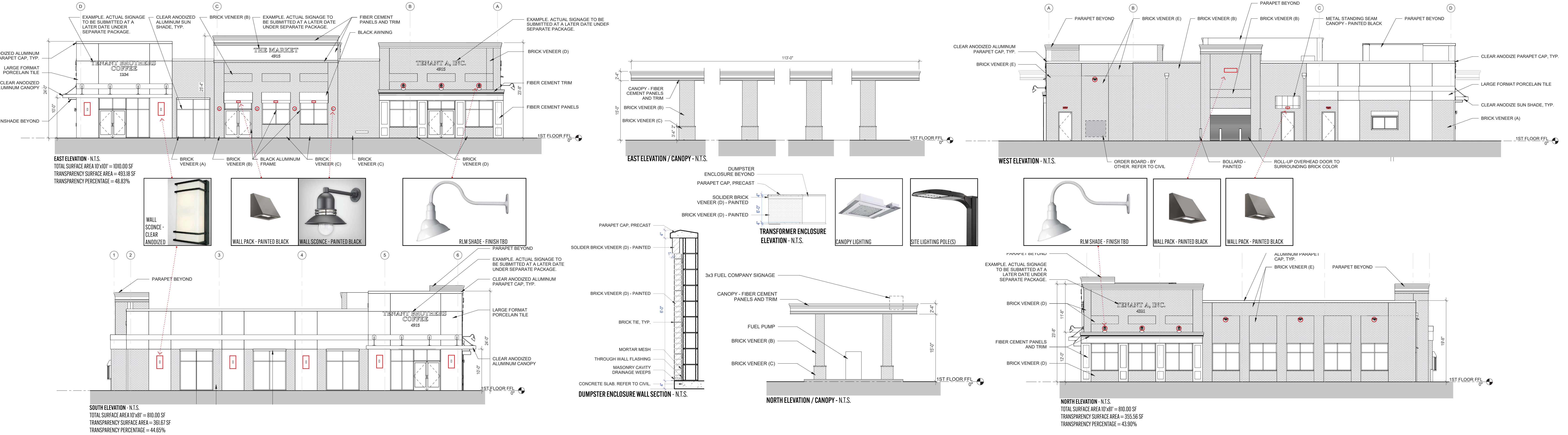
FIBER CEMENT
JAMES HARDIE
HARDIE PANEL VERTICAL SIDING
SMOOTH - ARCTIC WHITE



BRICK VENEER D
MERIDIAN BRICK
SALISBURY COLLECTION
CRAGGY MOUNTAIN

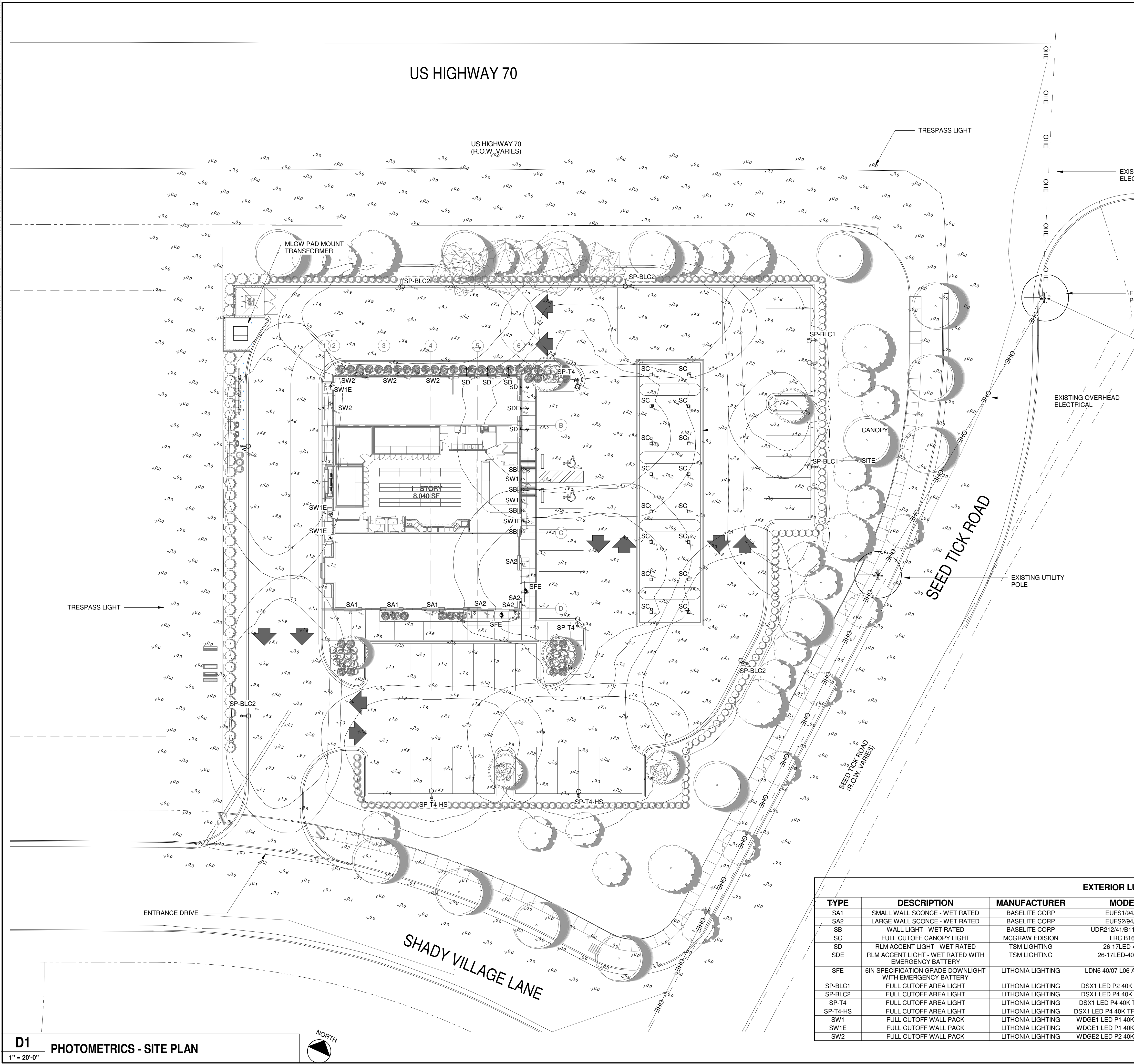


BRICK VENEER E
MERIDIAN BRICK
ATHENS ARCH. SERIES
V330



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5/13/2021 12:15:16 PM
BM 360/20298 - Saint Rita Real Estate/20298 - Electrical.rvt



LED EXTERIOR LIGHTING
LETTER ADJACENT TO LUMINAIRE DENOTES TYPE. SEE LUMINAIRE SCHEDULE.
EM DENOTES LUMINAIRE WITH INTEGRAL EMERGENCY BATTERY BACKUP

SYMBOL	DESCRIPTION
	AREA LIGHT ON POLE.
	RLM SHADE LUMINAIRE
	WALL PACK
	WALL PACK - EM
	CANOPY LIGHT
	WALL SCONCE

EXTERIOR PHOTOMETRICS					
AREA	AVG	MAX	MIN	MAX/MIN	AVG/MIN
CANOPY	8.2 FC	10.8 FC	4.4 FC	2.5:1	1.9:1
ENTRANCE DRIVE	0.1 FC	0.3 FC	N/A	N/A	N/A
SITE	3.0 FC	7.7 FC	0.8 FC	9.6:1	3.8:1
TRESPASS LIGHT	0.0 FC	0.2 FC	0.0 FC	N/A	N/A

EXTERIOR LUMINAIRE SCHEDULE						
TYPE	DESCRIPTION	MANUFACTURER	MODEL NUMBER	CCT	INPIT WATT	MOUNTING
SA1	SMALL WALL SCONCE - WET RATED	BASELITE CORP	EUFS1/94/25W/4K/LDM120	4000K	25 VA	WALL MOUNT 7FT ABOVE FINISHED GRADE
SA2	LARGE WALL SCONCE - WET RATED	BASELITE CORP	EUFS2/94/25W/4K/LDM120	4000K	25 VA	WALL MOUNT 7FT ABOVE FINISHED GRADE
SB	WALL LIGHT - WET RATED	BASELITE CORP	UDR212/41/B11/12W/4K/LDM120/CL4	4000K	12 VA	WALL MOUNT 7FT ABOVE FINISHED GRADE
SC	FULL CUTOFF CANOPY LIGHT	MCGRAW EDISON	LRC B16 7 LED E1 MST	4000K	37 VA	RECESS IN CANOPY
SD	RLM ACCENT LIGHT - WET RATED	TSM LIGHTING	26-17LED-40K-WM-BR-DIML	4000K	10 VA	WALL MOUNT 15FT ABOVE FINISHED GRADE
SDE	RLM ACCENT LIGHT - WET RATED WITH EMERGENCY BATTERY	TSM LIGHTING	26-17LED-40K-WM-BR-DIML-EM	4000K	10 VA	WALL MOUNT 15FT ABOVE FINISHED GRADE
SFE	6IN SPECIFICATION GRADE DOWNLIGHT WITH EMERGENCY BATTERY	LITHONIA LIGHTING	LDN6 40/07 L06 AR LSS MVOLT GZ10 EL	3500K	9 VA	
SP-BLC1	FULL CUTOFF AREA LIGHT	LITHONIA LIGHTING	DSX1 LED P2 40K BLC MVOLT SPA DDBXD	4000K	70 VA	MOUNT TO 18FT POLE WITH 2FT ROUND CONCRETE BASE
SP-BLC2	FULL CUTOFF AREA LIGHT	LITHONIA LIGHTING	DSX1 LED P4 40K BLC MVOLT SPA DDBXD	4000K	125 VA	MOUNT TO 18FT POLE WITH 2FT ROUND CONCRETE BASE
SP-T4	FULL CUTOFF AREA LIGHT	LITHONIA LIGHTING	DSX1 LED P4 40K TFTM MVOLT SPA DDBXD	4000K	125 VA	MOUNT TO 18FT POLE WITH 2FT ROUND CONCRETE BASE
SP-T4-HS	FULL CUTOFF AREA LIGHT	LITHONIA LIGHTING	DSX1 LED P4 40K TFTM MVOLT SPA DDBXD HS	4000K	125 VA	MOUNT TO 18FT POLE WITH 2FT ROUND CONCRETE BASE
SW1	FULL CUTOFF WALL PACK	LITHONIA LIGHTING	WDGE1 LED P1 40K 80CRI VW MVOLT DDBXD	4000K	10 VA	WALL MOUNT 8FT AFF UNLESS NOTED OTHERWISE
SW1E	FULL CUTOFF WALL PACK	LITHONIA LIGHTING	WDGE1 LED P1 40K 80CRI VW MVOLT DDBXD	4000K	10 VA	WALL MOUNT 8FT AFF UNLESS NOTED OTHERWISE
SW2	FULL CUTOFF WALL PACK	LITHONIA LIGHTING	WDGE2 LED P2 40K 80CRI VW MVOLT DDBXD	4000K	15 VA	WALL MOUNT 15FT AFF UNLESS NOTED OTHERWISE

A2H ENGINEERS
ARCHITECTS
PLANNERS

A2H, INC.
3009 DAVIES PLANTATION ROAD
LAKELAND, TN 38002
P. 901.372.0404
WWW.A2H.COM

**SAINT RITA REAL
ESTATE, LLC**

**LOT 7
LAKELAND
COMMONS**

4915 SEED TICK RD.

DRC SUBMITTAL

REVISIONS

PROJECT NO. 20298 DATE May 14, 2021

DRAWN CDR CHECKED MCL

PHOTOMETRIC SITE PLAN

E6.0

April 28, 2021

Stan Rowland, RA
Project Architect
A2H, Inc.
3009 Davies Plantation Road
Lakeland, TN 38002

Re: Review of April 15, 2021 DRC Submittal
Area A, Lot 7 Lakeland Town Center

Mr. Rowland,

This letter is intended to inform you that the Architectural Review Committee has reviewed the revised plans and specifications submitted April 15, 2021. The plans are APPROVED as submitted. If you should have any questions please do not hesitate to contact me.

Respectfully,



Cory Brady, PLA, AICP
Integrated Land Solutions, pllc
Lakeland Town Center Architectural Review Committee.

SAINT RITA REAL ESTATE, LLC

Lot 7 Lakeland Commons
Site Lighting Cutsheets

DRC Submittal

May 14, 2021

A2H Project # 20298

Prepared By:



ENGINEERS • ARCHITECTS • PLANNERS

3009 Davies Plantation Road
Lakeland, TN 38002

901.372.0404
www.A2H.com

A2H, Inc.



BASELITE - CRESCENT – LED – SPECIFICATION SHEET



PROJECT NAME: _____ PROJECT TYPE: _____

MODEL # / / / / / / / / / / /

EXAMPLE: A B C D E F G H I J K
UDR12 41 E16 CB 3/4" 43 45W 3K PR3 GR12 44 LDM120

*SKIP SECTION IF OPTION DOES NOT APPLY

NOTES:

TYPE SB

A - SHADES

CRESCENT

UDR12 - 12WLED (MAX)

UDR212 - 12WLED (MAX)

UDR16 - 12WLED (MAX)

UDR216 - 25WLED (MAX)

UDR18 - 25WLED (MAX)

UDR218 - 25WLED (MAX)

B - FINISH OPTIONS

(SEE WEBSITE FOR SWATCH COLORS)

(*SEE NOTES FOR LIMITATIONS*)

14, 15, 16, 17, 18, 19P, 20P, 21P, 22P, 23P,
38, 39, 40, **41**, 41.5, 42, 43, 44, 45, 46, 48,
49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61,
62, 63, 64, 65, 66, 70, 71, 72, 73, 74, 75, 76,
77, 78, 79, 80, 81, 82, 83, **84**, 85, 86, 87, 88,
89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99,
100, MG.

C - MOUNTING OPTIONS

1/2" ARM EXTENSIONS

E1, E2, E3, E4, B1, E16, E17, E27

3/4" ARM EXTENSIONS

E3A, E4A, E5, E6, E7, E8, E9,
E10, E11, E12, E13, B15, B15S,
E19, E20, E21, E25

E14 - CREATE YOUR OWN

(BASELITE WILL TAKE YOUR SKETCH AND
FABRICATE A CUSTOM ARM EXTENSION TO
MEET YOUR NEEDS).

1/2" WALL MOUNT

B10, **B11**, B101, B13, WM13, WM13R,
WM13X

3/4" WALL MOUNT

B9, B9C, B12, WM14, WM14X, WM15,
WM18, WM35, WM35X, WM55,
WM55X, WM60, WM60X, WM61,
WM61X WM70, WM70X, WM71,
WM71X

LED CORD MOUNT

LBLC, LWHC, LTCB, LTCW, LTCHB, LTCHW,
LTLB, LTLW, LTLB, LTLW, LRCB, LRCW, LRCHB,
LRCHW, LFHB, LFHW, LHBLC, LHWHC, LCBL,
LCWHC

STEM MOUNT

ST6, ST12, ST18, ST24, ST36, ST48, STXX

D - MOUNTING ADD-ONS

LED ADD-ONS

LWTM, LSLC, LSTC

UNIVERSAL ADD-ONS

SQ 1/2", SQ 3/4", FH 1/2", FH 3/4", TRB 1/2", TRB 3/4",
SWL, LGSWL, CNK, INB, RINB

E - MOUNTING COLOR

SEE SECTION "B" FOR COLOR OPTIONS.

F - LIGHT SOURCE

(SEE PAGE 4 FOR WATTAGE LIMITATIONS)

LIGHT EMITTED DIODE (LED)

12W 25W

G - LED COLOR TEMP

27K - 2700 K

3K - 3000 K

35K - 3500 K

4K - 4000 K

5K - 5000 K

H - ELECTRICAL OPTION

(SEE PAGE 4 FOR DIMMING OPTION
SPECIFICATIONS)

LDM120

LDM277

LDM0-10

I - GLASS OPTIONS

CL3, **CL4**, CLT3, CLT4, BL3, BL4, RE3, RE4,
GR3, GR4, AH3, AH4, FR3, FR4, FRT3, FRT4,
PR3, PR4

J - ACCESSORIES

GR12, GR16, GR18, UGR GU-1, GU-2, WG-1,
WG-2

K - ACCESSORY COLOR

SEE SECTION "B" FOR COLOR
OPTIONS.

NOTES

(1). FINISH OPTIONS 75, 76, 77, 83, 84, 93
AND 98 ARE APPLIED BY HAND. THESE
FINISHES WILL VARY IN CONSISTENCY.

(2). FINISH OPTIONS 38, 39, 40, 49, 54,
57, 58, 61, 62, 63, 70, 71, 72, 73, 78, 83,
84, 92, 93, 98 ONLY AVAILABLE INSIDE
AND OUT OF FIXTURE.

(3). FINISH OPTIONS 61, 62, 70, 71, 72,
73 ARE FINISHED WITH A SUPERCHROME
ON THE INSIDE FOR ALL LED LIGHT
SOURCE OPTIONS.

*ALL ARMS COME WITH A CAST
BACKPLATE (CB1/2", CB3/4", LWTM,
CFWTM, ECT.).

*ACCORDING TO THE LIGHT SOURCE THE
BACKPLATE MAY VARY IN SIZE.

(EXAMPLE: LED LIGHT SOURCE WILL
HAVE A DEEPER BACKPLATE TO HOUSE
THE DRIVER.).

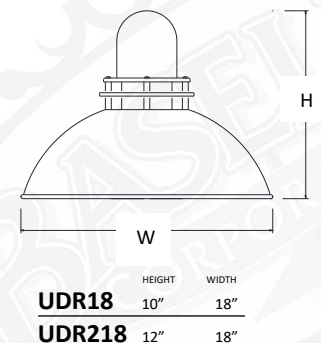
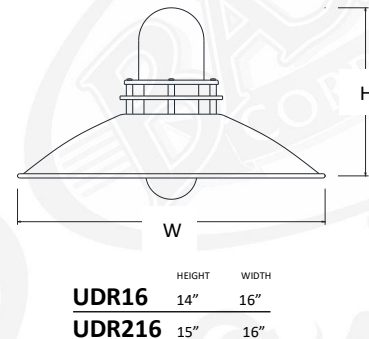
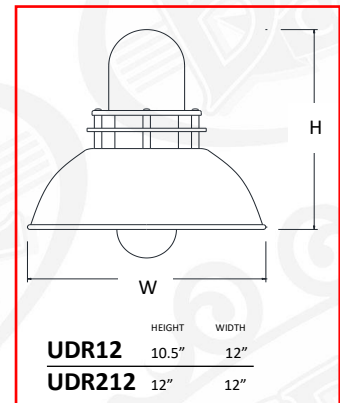
*ALL FIXTURES MOUNT TO A 4-0
JUNCTION BOX.

*FIXTURE DIMENSIONS MAY VARY
± 0.25.

BLACK FINISH



UDR212/74/B11/74/CL4

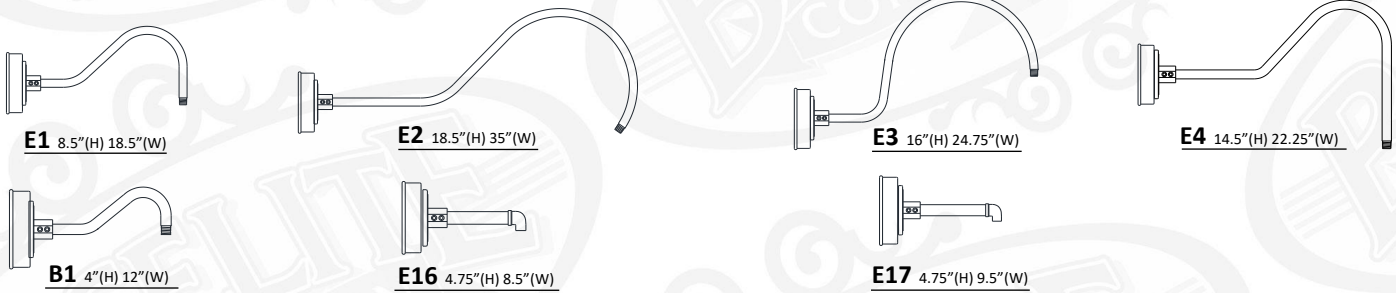




C - MOUNTING OPTIONS

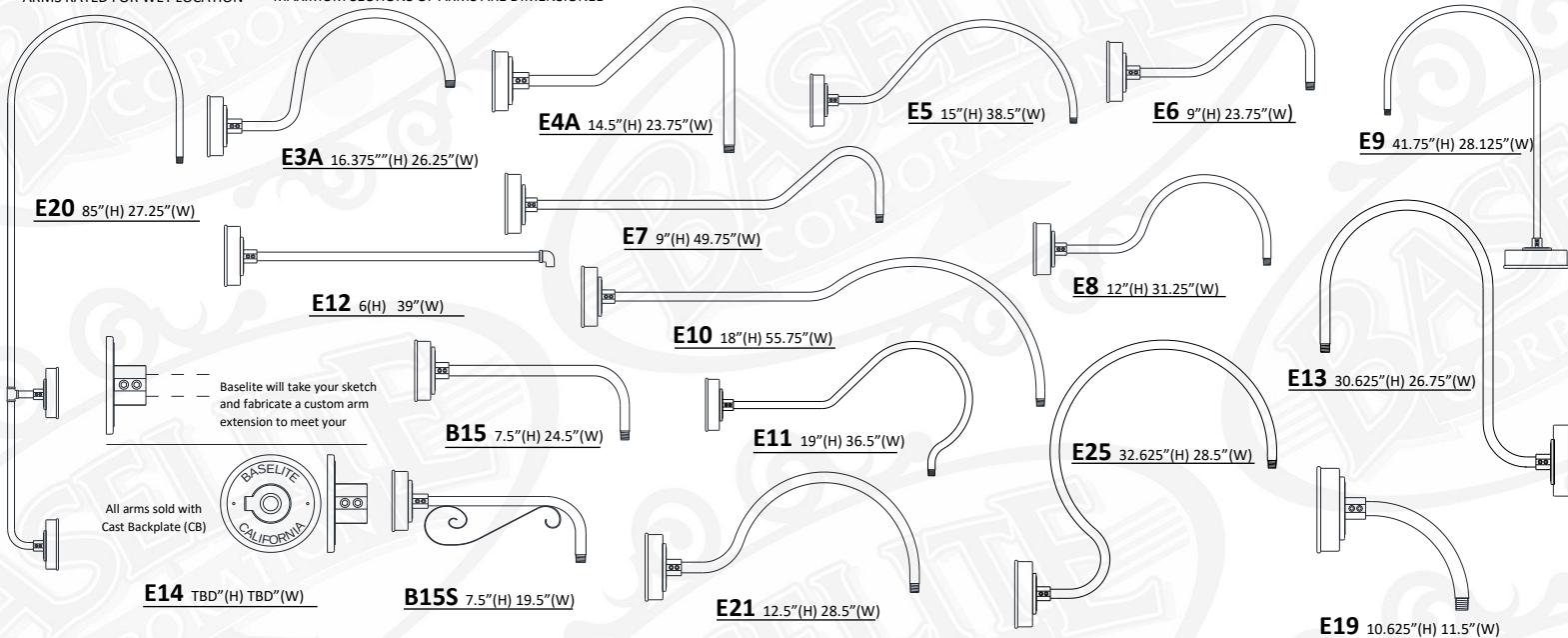
1/2" ARM EXTENSIONS

*ARMS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF ARMS ARE DIMENSIONED



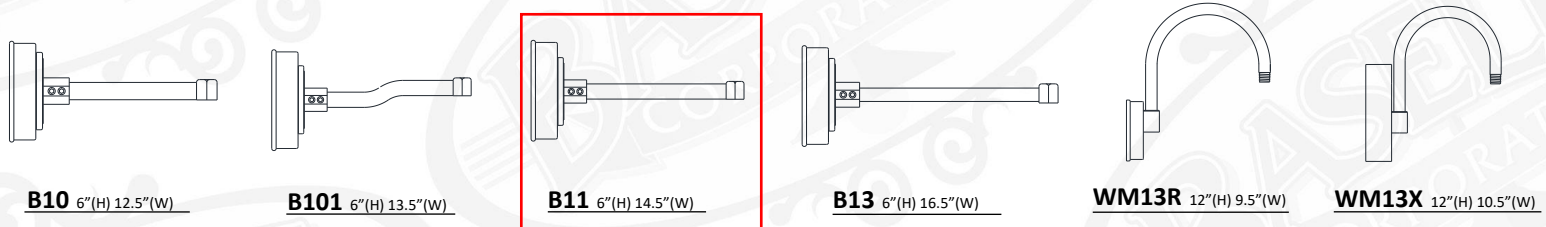
3/4" AR M EXTENSIONS

*ARMS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF ARMS ARE DIMENSIONED



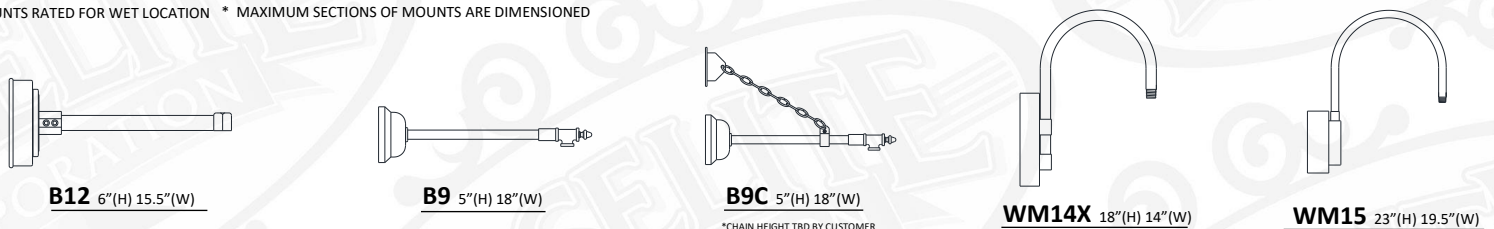
1/2" WALL MOUNTS

*MOUNTS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF MOUNTS ARE DIMENSIONED



3/4" WALL MOUNTS

*MOUNTS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF MOUNTS ARE DIMENSIONED





C - MOUNTING OPTIONS (CONTINUED)

3/4" WALL MOUNTS

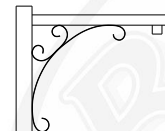
*MOUNTS RATED FOR WET LOCATION * MAXIMUM SECTIONS OF MOUNTS ARE DIMENSIONED



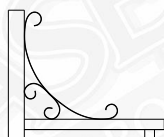
WM35X 26"(H) 22"(W)



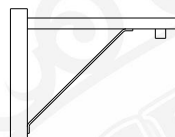
WM55X 19"(H) 27"(W)



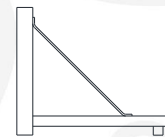
WM60X 18"(H) 22"(W)



WM61X 18"(H) 22"(W)



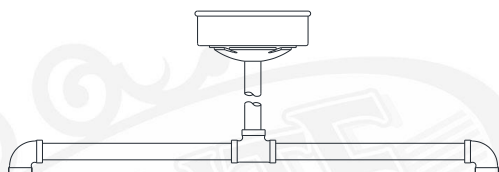
WM70X 18"(H) 22"(W)



WM71X 18"(H) 22"(W)

STEM MOUNTS

*STEMS RATED FOR DAMP LOCATION



DP24 DOUBLE PENDANT 20"(H) 24"(W)

*DP24 COMES STANDARD WITH LSTC AND ST18



ST(XX) STEM- 1/2" NPT

XX = LENGTH OF STEM
(EXAMPLE - "ST18" = STEM MOUNT 18" LENGTH)
*CANOPY NOT INCLUDED, ADD IN SECTION D
* 1/4" NPT AND 3/4" NPT AVAILABLE UPON REQUEST



SC24 SCROLL STEM 33"(H) 26"(W)

*SC24 COMES STANDARD WITH LSTC

LED CORD MOUNTS

FOR LED & COMPACT FLUORESCENT OPTIONS, CANOPIES WILL VARY IN SIZE DUE TO SIZE OF THE DRIVER/BALLAST THAT WILL BE LOCATED INSIDE OF THE CANOPY. *CORDS RATED FOR DRY LOCATION *CANOPY DIMENSIONS: 3" (H) 6" (W)



LBLC 8' BLACK CORD

LWHC 8' WHITE CORD



LTCB 8' BLACK CORD, CABLE, and LOOP

LTCW 8' WHITE CORD, CABLE, and LOOP



LTCHB 8' BLACK CORD, 3" CHAIN, and LOOP

LTCHW 8' WHITE CORD, 3" CHAIN, and LOOP



LTLB 8' BLACK TELEPHONE CORD AND CABLE

LTLW 8' WHITE TELEPHONE CORD AND CABLE

* Not available with compact fluorescent



LRCB 8' BLACK CORD, CABLE, and LOOP

LRCW 8' WHITE CORD, CABLE, and LOOP



LRCHB 8' BLACK CORD, 3" CHAIN, and LOOP

LRCHW 8' WHITE CORD, 3" CHAIN, and LOOP



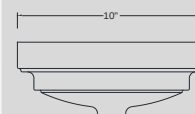
LFHB 8' BLACK CORD WITH FLAT HUB

LFHW 8' WHITE CORD WITH FLAT HUB



LCBLC 8' BLACK CORD and CABLE

LCWHC 8' WHITE CORD and CABLE



NOTES:

*DISTANCE TO LAMP (CF) 10"

*All compact fluorescent and LED housings may vary in size according to light source chosen.



I – GLASS OPTIONS

*NOTE: MUST USE TEMPERED GLASS FOR LIGHT FIXTURES USING HIGH INTENSITY DISCHARGE (HID) LIGHT SOURCE OPTION.



CL3 3" CLEAR GLASS

CL4 4" CLEAR GLASS

CLT3 3" CLEAR TEMPERED

CLT4 4" CLEAR TEMPERED



PR3 3" PRISMATIC GLASS

PR4 4" PRISMATIC GLASS



RE3 3" RED GLASS

RE4 4" RED GLASS



BL3 3" BLUE GLASS

BL4 4" BLUE GLASS



FR3 3" FROSTED GLASS

FR4 4" FROSTED GLASS

FRT3 3" FROSTED TEMPERED

FRT4 4" FROSTED TEMPERED



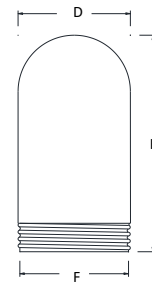
AH3 3" AMBER HYDE GLASS

AH4 4" AMBER HYDE GLASS



GR3 3" GREEN GLASS

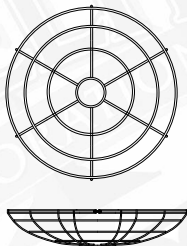
GR4 4" GREEN GLASS



GLASS – DIMENSIONS	
3" GLASS	
Diameter	3.34"
Height	6.93"
Fitter	3.29"
4" GLASS	
Diameter	4.34"
Height	8.37"
Fitter	4.29"

GLASS – MAX WATTAGE	
3" GLASS	100W INC / LED12W
4" GLASS	200W INC / LED25W

J – ACCESSORIES



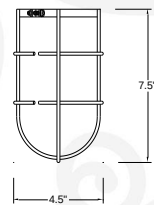
GR12 12" WIRE GRILL

GR16 16" WIRE GRILL

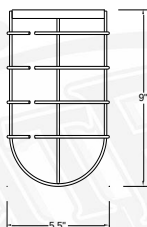
GR18 18" WIRE GRILL



UGR U- WIRE GUARD

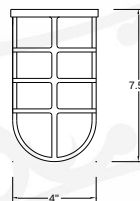


WG-1 WIRE GUARD

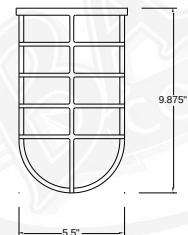


WG-2 WIRE GUARD

Available for shades
12" or higher



GU-1 CAST ALUMINUM GUARD



GU-2 CAST GUARD

Available for shades
12" or higher

DESCRIPTION

The LRC LED Recessed Canopy Luminaire is specifically designed for recessed applications in single or double skin canopies. Three specialized optics are optimized for efficiency and uniformity, delivering high light levels on task. Typical applications include retail gas stations, convenience stores, banks and pharmacy drive thru canopies. UL/cUL listed for wet locations.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Heavy-duty cast aluminum housing with aluminum mounting frame. Wet location driver enclosure is elevated to prevent water ingress. 1/2" knockouts provided for wiring connections. IP66 Rated.

Optics

Dedicated optical cavities for the array of 16 individual LEDs to maximize the efficiency and control of the distribution out of each module. To enhance visual comfort, a glare-reducing optical system is utilized to maximize delivered lumens while minimizing glare. Scalable in 1, 2 or 4 Light Square LED modules to optimize cost and lumen output. Each reflector is precision manufactured via injection molding and coated with a highly reflective optical coating via vacuum metallization. Two symmetric optics and one asymmetric optic are specifically designed for efficiency and uniformity. Offered standard in

4000K (+/- 275K) CCT and nominal 70 CRI. Optional 6000K CCT with nominal 70 CRI, and 3000K with nominal 80 CRI.

Electrical

LED driver is enclosed in a wet location box, designed to manage thermals for longevity. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. Optional proprietary circuit module designed to withstand 10kV of transient line surge. 90% lumen maintenance expected at 60,000 hours. The LRC LED Recessed Canopy Luminaire is suitable for operation in -40°C to 40°C ambient operations.

Mounting

Designed to recess in single or double skin canopies, thickness can not exceed 4mm or 5/32". Luminaire can be installed from above or below canopy, through 14" square cutout in the canopy.

Finish

Housing and lens frame are finished in super TGIC polyester powder cost paint, 2.5 mil nominal thickness for superior protection against fade and wear. Standard housing and lens frame trim finished in true white color. Optional lens frame trim colors include white, grey, black, bronze, dark platinum, and graphite metallic. RAL and color matches available.

Warranty

Five-year warranty.



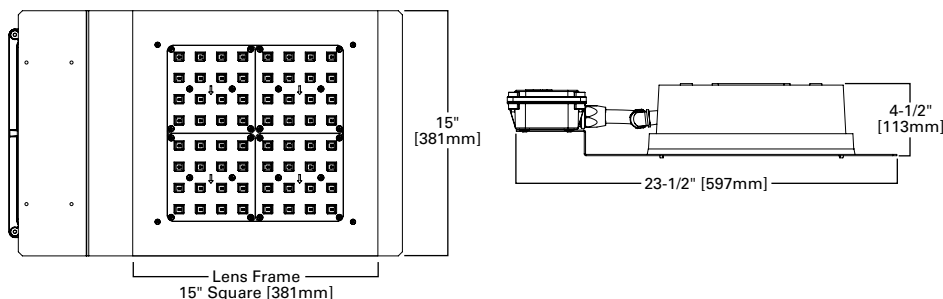
LRC LED RECESSED CANOPY

1, 2 or 4 Light Squares

Solid State LED

CANOPY LUMINAIRE

DIMENSIONS



CERTIFICATION DATA

UL/cUL Listed
LM79 / LM80 Compliant
ISO 9001

ENERGY DATA

Electronic LED Driver

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

SHIPPING DATA

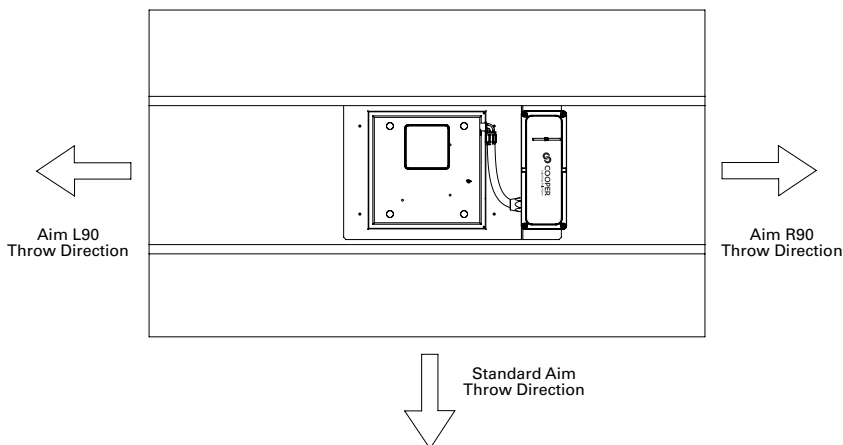
Approximate Net Weight:
20-29 lbs. (9.07-13.15 kgs.)

POWER AND LUMENS BY NUMBER OF LEDS

Number of LEDs	LED Drive Current	Input Wattage	Input Current (Amps)		Optics	MST	VAT	WST
			120V	277V				
16	700mA	37W	0.33	0.15	Lumens	3,099	2,987	3,026
					BUG Rating	2-0-0	2-0-0	1-0-0
	950mA	50W	0.41	0.19	Lumens	3,841	3,702	3,751
					BUG Rating	2-0-1	2-0-0	2-0-0
32	350mA	35W	0.30	0.14	Lumens	3,448	3,323	3,367
					BUG Rating	2-0-0	2-0-0	2-0-0
	450mA	46W	0.40	0.18	Lumens	4,285	4,130	4,184
					BUG Rating	2-0-1	2-0-0	2-0-0
	700mA	73W	0.62	0.23	Lumens	6,048	5,829	5,906
					BUG Rating	3-0-1	3-0-0	2-0-0
64	350mA	69W	0.59	0.28	Lumens	6,679	6,439	6,524
					BUG Rating	3-0-1	3-0-0	2-0-0
	450mA	88W	0.77	0.36	Lumens	8,212	8,019	8,125
					BUG Rating	3-0-1	3-0-0	3-0-0

NOTE: Lumen values tested at 4000K CCT.

VAT OPTIC ORIENTATION



LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
25°C	> 94%	> 350,000
40°C	> 93%	> 250,000

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
10°C	1.04
15°C	1.03
25°C	1.00
40°C	0.96

ORDERING INFORMATION

Sample Number: LRC-B64-4-LED-E1-VAT

Product Family	Generation	Number of LEDs	Drive Current ¹	Lamp Type	Voltage	Distribution	Trim Color
LRC=LED Recessed Canopy	8=B	16=16 32=32 64=64	1=950mA 3=350mA 4=450mA 7=700mA	LED=Solid State Light Emitting Diodes	E1=Electronic 120-277V 347=347V 480=480V ²	VAT=Vertical Asymmetric WST=Wide Symmetric MST=Medium Symmetric	[Blank]=True White AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
Option (Add as Suffix)						Accessories (Order Separately)	
10K=10kV Surge Module 2L=Two Circuits ³ L90=Optics Rotated 90° Left ⁴ R90=Optics Rotated 90° Right ⁴ 7060=70 CRI/6000K CCT ⁵ 8030=80 CRI/3000K CCT ⁵						MA1253=10kV Circuit Module Replacement	

Notes:

- 950mA available only in 16 LEDs. 700mA available in 16 or 32 LEDs. 450mA available only in 32 or 64 LEDs. 350mA only available in 32 or 64 LEDs.
- 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).
- Not available in 347V or 480V. Not available with 16 LEDs. Not available with 32 LEDs in 350mA or 450mA.
- Only applies with VAT distribution. MST and WST distributions are symmetrical.
- Consult factory for lead times and lumen multiplier.

Sign 26

TMSLIGHTING

ESTABLISHED 1923

Construction

High grade aluminum reflector and mounting arm, with stainless steel hardware.

Lamp

Operates with Cree™ LED (19W max.) and incandescent (100W max., A-19) light sources. Specify 3000K, 3500K, or 4000K CCT for LED systems.

A dimmable 17W LED lamp is also available (120V, PAR 38, E26 base, CCT 4000K, 60° beam).

Note: LED systems use 120-277V supply voltage, and are not compatible with 347V. Incandescent systems, and those using the 17W LED PAR 38 lamp, use a medium base socket (E26). LED modules do not require a socket, and are wired directly to the integral driver.

Diffuser

Globe: clear and prismatic glass globes are available for greater diffusion and lamp protection.

Note: G3 is available with 15LED and 100IN max.

Only prismatic globes are available with LED systems.

Globes are not available with the 17W LED PAR 38 lamps.

Option

Wire Guard: a steel, chrome-plated wire guard is available for lamp protection against light projectiles, wildlife, and serves as a vandal deterrent.

Ballast / Driver

Integral and remote, ballasts and drivers are available for indoor and outdoor locations.

Ballasts are integral and electronic; efficient with a high power factor greater than 90%, and quiet with an "A" sound rating.

The LED source is controlled by an advanced electronic driver that delivers consistent power.

Surge Suppressor

All 120V, 277V, and universal voltage LED luminaires are equipped with an integral, 6kV surge suppressor.

Dimming

The LED dimming option is the 0-10V current-sinking type.

Note: The dimming option is available to systems with 120-277V supply voltage only.

Use a current-sinking dimming system (by others) for LED dimming.

Compatibility of this product is not guaranteed with all control systems.



Features

- Asymmetrical reflector provides wide area coverage
- Approved for indoor and outdoor applications
- Surge suppressor protects the internal components
- Practical options for application and design flexibility
- Quality components for extended lamp and component life

Applications

Sign 26 is ideal for illuminating signage at close range. It is designed to project at a 60° angle of incidence to cover the full height of the target area.



Sign 26

TMSLIGHTING

ESTABLISHED 1923

Emergency

For LED systems, integral and remote emergency back-ups are available, in the standard temperature and cold temperature type. See "Emergency Back-ups for Sign Lights".

Note: The emergency back-up option is available with 120-277V systems only.

The test switch and indicator light would be remote.

EM Integral LED: (min. operating temp. +5C/+40F)

EMR Remote LED: (20 ft. / 6.096 m max. distance from EM to LED; min. operating temp. +5C/+40F; dry location mounting)

EMC Integral LED with Cold Pack: (min. operating temp. -20C/-4F)

EMCR Remote LED with Cold Pack: (20 ft. / 6.096 m max. distance from EM to LED; min. operating temp. -20C/-4F)

Finish

Available in several TMS specialty brushed, and powder-coated finishes; see page 3, and the TMS "Finishes and Diffusers" chart.

Custom RAL finishes are available by special order.

Note: The reflector would be finished with white on the inside, and the specified color on the outside.

Textured finishes are applied to all areas of the reflector.

Mounting

Mount on a flat surface, directly over a standard 4" electrical junction box.

Follow the installation instructions and adhere to your local electrical code.

Mounting Accessories

Aiming Knuckle: ratcheted aiming knuckle allows vertical adjustment of the reflector (115° range in each direction; fits 3/4" NPT mounting arm).

Compliances

QPS-C/US, or UL-C/US certified to UL1598 standards. Rated IP20 for use in dry, indoor locations, or IP23 for use in dry to wet locations, indoor and outdoor. The Consultants Europe (CE) listing is available upon request.



Features

- Asymmetrical reflector provides wide area coverage
- Approved for indoor and outdoor applications
- Surge suppressor protects the internal components
- Practical options for application and design flexibility
- Quality components for extended lamp and component life



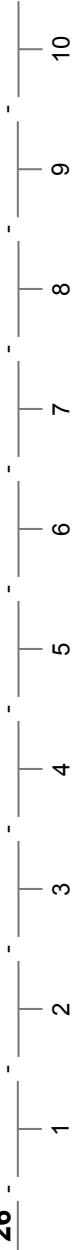


Sign 26

TMSLIGHTING

ESTABLISHED 1923

26



Project: _____

Type: _____

Quantity: _____

Notes: _____

1 • Lamping

100IN: 100W INC (A-19)

17LED: 17W LED (supplied)

15LED: 15W LED (CRI 80)

19LED: 19W LED (CRI 80)

2 • LED CCT (color temp.)

---: None

30K: 3000K

35K: 3500K

40K: 4000K

3 • Voltage

120: 120V

277: 277V

347: 347V

4 • Ballast / Driver

---: None

WM: Wall mount (integral)

N1: Remote, indoor mount (NEMA 1)

N4: Remote, outdoor mount (NEMA 4)

5 • Finish

Specialty

BR: Brushed aluminum

AN: Anodized

Powder-coated

F05: White

F06: Clay brown

F08: Midnight blue

F09: Pewter

F10: Fire red

F13: Forest green

F14: Sunshine yellow

F15: Matte black

F16: Gloss black

F18: Flat aluminum

F19: Mirror silver

F21: Architectural bronze

F24: Melted platinum (textured)

F25: Melted gold (textured)

F26: Melted copper

F31: Silver metallic

F32: Bronze metallic

F33: Pyrite bronze

F34: Burnt orange

RAL: RAL custom color (specify)

6 • Dimming

---: None

DIML: LED dimming

7 • Emergency

---: None

EM: Integral LED

EMC: Integral LED with cold pack

EMR: Remote LED

EMCR: Remote LED with cold pack

8 • Globe

---: None

G1: Clear, elongated globe

G3: Prismatic, elongated globe

9 • Wire Guard

---: None

W10: Wire guard - 10"

10 • Accessories

---: None

AK: Aiming knuckle

Note: Some options may not be compatible with others. To ensure compatibility between options, go to tmslighting.com, on the "details" page of this luminaire, and use the configuration tool.

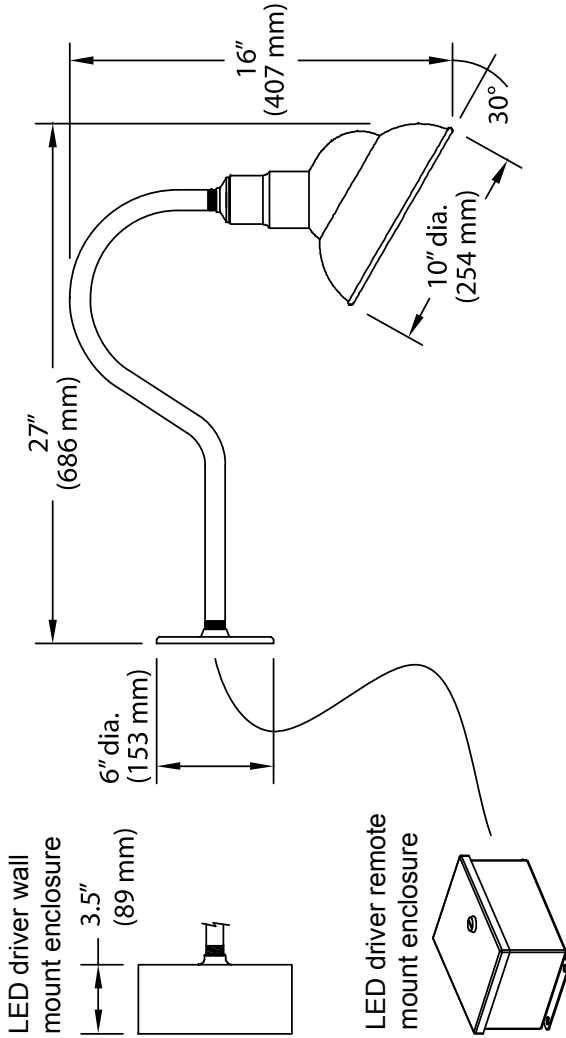


Sign 26

TMSLIGHTING

ESTABLISHED 1923

Dimensions



Custom

TMS Lighting can customize this and many of our standard fixtures. The dimensions, lamp types, enclosure and colors could be modified to suit your lighting and architectural requirements. Contact your local representative for more details: <http://www.tmslighting.com/info/agents>

Specifications are subject to change without notice.

TMS Lighting Inc.
247A Summerlea Road,
Brampton, Ontario,
Canada. L6T 4E1
Web Site: tmslighting.com

North America: (905) 793-1174
Toll-free: (866) 793-1174
Fax: (905) 793-1175
UK & Europe: 44-1474-250-654



D-Series Size 1 LED Area Luminaire



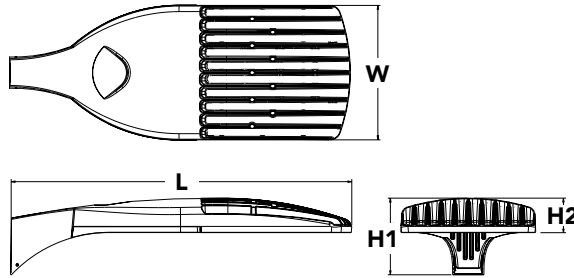
d#series

Catalog Number
Notes
Type SP

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

EPA:	1.01 ft ² (0.09 m ²)
Length:	33" (83.8 cm)
Width:	13" (33.0 cm)
Height H1:	7-1/2" (19.0 cm)
Height H2:	3-1/2"
Weight (max):	27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment. The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing up to 750W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information			EXAMPLE: DSX1 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD			
DSX1 LED						
Series	LEDs	Color temperature	Distribution		Voltage	Mounting
DSX1 LED	Forward optics P1 ¹ P4 ¹ P7 ¹ P2 ¹ P5 ¹ P8 P3 ¹ P6 ¹ P9 ¹ Rotated optics P10 ² P12 ² P11 ² P13 ^{1,2} SP-T4, SP-T4-HS	30K 3000 K 40K 4000 K 50K 5000 K	T1S Type I short (Automotive) T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium	T5VS Type V very short ³ T5S Type V short ³ T5M Type V medium ³ T5W Type V wide ³ BLC Backlight control ⁴ LCCO Left corner cutoff ⁴ RCCO Right corner cutoff ⁴	MVOLT ⁵ XVOLT (277V-480V) ^{6,7,8} 120 ⁹ 208 ⁹ 240 ⁹ 277 ⁹ 347 ⁹ 480 ⁹	Shipped included SPA Square pole mounting RPA Round pole mounting ¹⁰ WBA Wall bracket ³ SPUMBA Square pole universal mounting adaptor ¹¹ RPUMBA Round pole universal mounting adaptor ⁹ Shipped separately KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) ¹²

Control options	Other options	Finish (required)
Shipped installed NLTAIR2 nLight AIR generation 2 enabled ¹³ PIRHN Network, high/low motion/ambient sensor ¹⁴ PER NEMA twist-lock receptacle only (controls ordered separate) ¹⁵ PER5 Five-pin receptacle only (controls ordered separate) ^{15,16} PER7 Seven-pin receptacle only (controls ordered separate) ^{15,16} DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷ DS Dual switching ^{18,19,20}	Shipped installed HS House-side shield ²³ SF Single fuse (120, 277, 347V) ⁹ DF Double fuse (208, 240, 480V) ⁹ L90 Left rotated optics ² R90 Right rotated optics ² HA 50°C ambient operations ¹ Shipped separately BS Bird spikes ²⁴ EGS External glare shield	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLTXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ²⁵
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ²⁵
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ²⁵
DSHORT SBK U	Shorting cap ²⁵
DSX1HS 30C U	House-side shield for P1, P2, P3, P4 and P5 ²³
DSX1HS 40C U	House-side shield for P6 and P7 ²³
DSX1HS 60C U	House-side shield for P8, P9, P10, P11 and P12 ²³
PUMBA DOBXD U*	Square and round pole universal mounting bracket (specify finish) ²⁵
KMA8 DOBXD U	Mast arm mounting bracket adaptor (specify finish) ¹²
DSX1EGS (FINISH) U	External glare shield

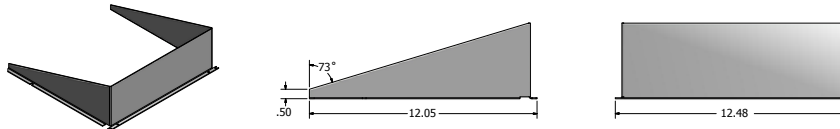
For more control options, visit [DTL](#) and [ROAM](#) online.

NOTES

- HA not available with P4, P5, P6, P7, P9 and P13.
- P10, P11, P12 or P13 and rotated optics (L90, R90) only available together.
- Any Type 5 distribution with photocell, is not available with WBA.
- Not available with HS.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- XVOLT only suitable for use with P3, P5, P6, P7, P9 and P13.
- XVOLT works with any voltage between 277V and 480V.
- XVOLT not available with fusing (SF or DF) and not available with PIR, PIRH, PIR1FC3V, PIRH1FC3V.
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).
- Suitable for mounting to round poles between 3.5" and 12" diameter.
- Universal mounting brackets intended for retrofit on existing, pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8.
- Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
- Must be ordered with PIRHN. Sensor cover available only in dark bronze, black, white and natural aluminum colors.
- Must be ordered with NLTAIR2. For more information on nLight Air 2 visit [this link](#).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting cap included.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming.
- DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
- Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available P1, P2, P3, P4 or P5.
- Requires (2) separately switched circuits with isolated neutral.
- Reference Controls Option Default settings table on page 4.
- Reference Motion Sensor table on page 4 to see functionality.
- Not available with other dimming controls options.
- Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER, PER5 or PER7 option. See Control Option Table on page 4.
- For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8.

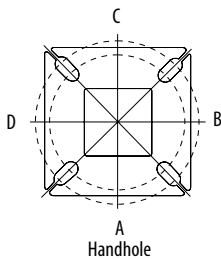
Options

EGS - External Glare Shield



Drilling

HANDHOLE ORIENTATION



Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

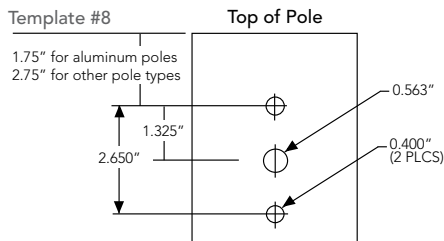
Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

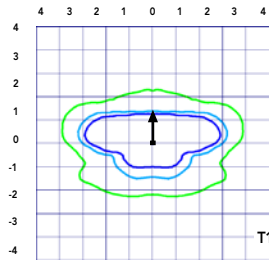
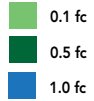
Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX1 LED	1.013	2.025	1.945	3.038	2.850	3.749

	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

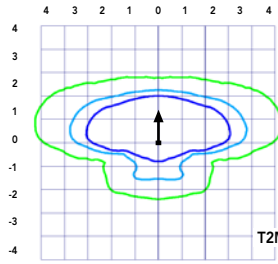


Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (25').

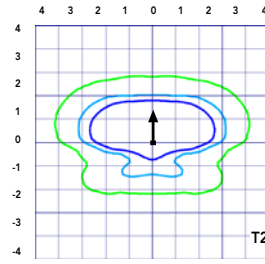
LEGEND



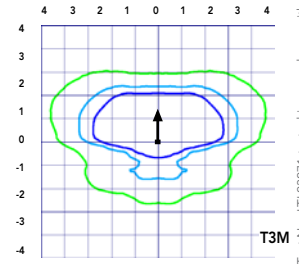
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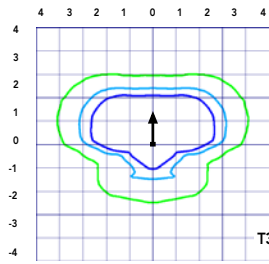
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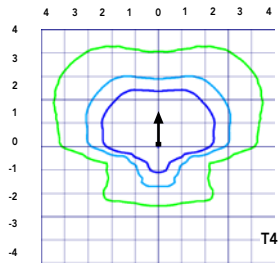
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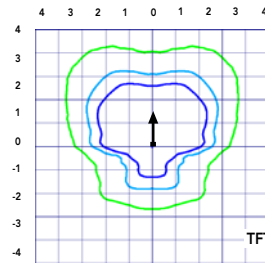
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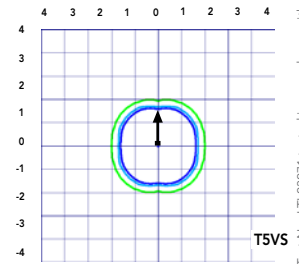
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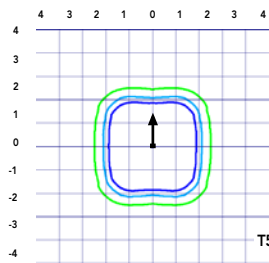
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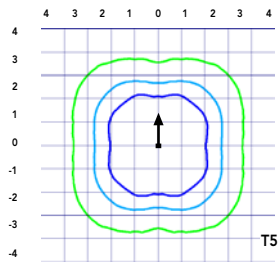
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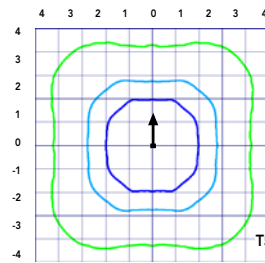
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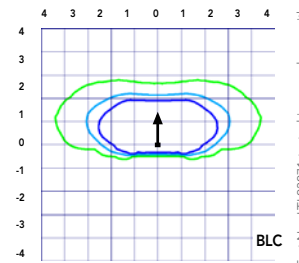
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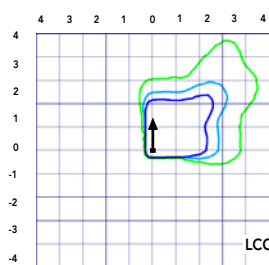
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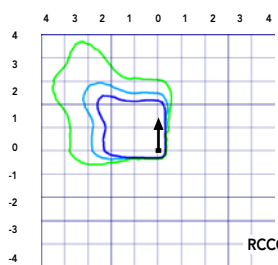
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Test No. LTL23211 tested in accordance with IESNA LM-79-08.



Test No. LTL23164B tested in accordance with IESNA LM-79-08.

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.96
50,000	0.92
100,000	0.85

Motion Sensor Default Settings						
Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

*for use when motion sensor is used as dusk to dawn control.

Electrical Load

					Current (A)					
	Performance Package	LED Count	Drive Current	Wattage	120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	30	530	54	0.45	0.26	0.23	0.19	0.10	0.12
	P2	30	700	70	0.59	0.34	0.30	0.25	0.20	0.16
	P3	30	1050	102	0.86	0.50	0.44	0.38	0.30	0.22
	P4	30	1250	125	1.06	0.60	0.52	0.46	0.37	0.27
	P5	30	1400	138	1.16	0.67	0.58	0.51	0.40	0.29
	P6	40	1250	163	1.36	0.78	0.68	0.59	0.47	0.34
	P7	40	1400	183	1.53	0.88	0.76	0.66	0.53	0.38
	P8	60	1050	207	1.74	0.98	0.87	0.76	0.64	0.49
	P9	60	1250	241	2.01	1.16	1.01	0.89	0.70	0.51
Rotated Optics (Requires L90 or R90)	P10	60	530	106	0.90	0.52	0.47	0.43	0.33	0.27
	P11	60	700	137	1.15	0.67	0.60	0.53	0.42	0.32
	P12	60	1050	207	1.74	0.99	0.87	0.76	0.60	0.46
	P13	60	1250	231	1.93	1.12	0.97	0.86	0.67	0.49

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FA0	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FA0 device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclipse.	nLight AIR rSDGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts Contact factory for performance data on any configurations not shown here.

Forward Optics																			
LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30	530	P1	54W	T1S	6,457	2	0	2	120	6,956	2	0	2	129	7,044	2	0	2	130
				T2S	6,450	2	0	2	119	6,949	2	0	2	129	7,037	2	0	2	130
				T2M	6,483	1	0	1	120	6,984	2	0	2	129	7,073	2	0	2	131
				T3S	6,279	2	0	2	116	6,764	2	0	2	125	6,850	2	0	2	127
				T3M	6,468	1	0	2	120	6,967	1	0	2	129	7,056	1	0	2	131
				T4M	6,327	1	0	2	117	6,816	1	0	2	126	6,902	1	0	2	128
				TFTM	6,464	1	0	2	120	6,963	1	0	2	129	7,051	1	0	2	131
				TSVS	6,722	2	0	0	124	7,242	3	0	0	134	7,334	3	0	0	136
				TSS	6,728	2	0	1	125	7,248	2	0	1	134	7,340	2	0	1	136
				TSM	6,711	3	0	1	124	7,229	3	0	1	134	7,321	3	0	2	136
				TSW	6,667	3	0	2	123	7,182	3	0	2	133	7,273	3	0	2	135
				BLC	5,299	1	0	1	98	5,709	1	0	2	106	5,781	1	0	2	107
				LCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
				RCCO	3,943	1	0	2	73	4,248	1	0	2	79	4,302	1	0	2	80
30	700	P2	70W	T1S	8,249	2	0	2	118	8,886	2	0	2	127	8,999	2	0	2	129
				T2S	8,240	2	0	2	118	8,877	2	0	2	127	8,989	2	0	2	128
				T2M	8,283	2	0	2	118	8,923	2	0	2	127	9,036	2	0	2	129
				T3S	8,021	2	0	2	115	8,641	2	0	2	123	8,751	2	0	2	125
				T3M	8,263	2	0	2	118	8,901	2	0	2	127	9,014	2	0	2	129
				T4M	8,083	2	0	2	115	8,708	2	0	2	124	8,818	2	0	2	126
				TFTM	8,257	2	0	2	118	8,896	2	0	2	127	9,008	2	0	2	129
				TSVS	8,588	3	0	0	123	9,252	3	0	0	132	9,369	3	0	0	134
				TSS	8,595	3	0	1	123	9,259	3	0	1	132	9,376	3	0	1	134
				TSM	8,573	3	0	2	122	9,236	3	0	2	132	9,353	3	0	2	134
				TSW	8,517	3	0	2	122	9,175	4	0	2	131	9,291	4	0	2	133
				BLC	6,770	1	0	2	97	7,293	1	0	2	104	7,386	1	0	2	106
				LCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
				RCCO	5,038	1	0	2	72	5,427	1	0	2	78	5,496	1	0	2	79
30	1050	P3	102W	T1S	11,661	2	0	2	114	12,562	3	0	3	123	12,721	3	0	3	125
				T2S	11,648	2	0	2	114	12,548	3	0	3	123	12,707	3	0	3	125
				T2M	11,708	2	0	2	115	12,613	2	0	2	124	12,773	2	0	2	125
				T3S	11,339	2	0	2	111	12,215	3	0	3	120	12,370	3	0	3	121
				T3M	11,680	2	0	2	115	12,582	2	0	2	123	12,742	2	0	2	125
				T4M	11,426	2	0	3	112	12,309	2	0	3	121	12,465	2	0	3	122
				TFTM	11,673	2	0	2	114	12,575	2	0	3	123	12,734	2	0	3	125
				TSVS	12,140	3	0	1	119	13,078	3	0	1	128	13,244	3	0	1	130
				TSS	12,150	3	0	1	119	13,089	3	0	1	128	13,254	3	0	1	130
				TSM	12,119	4	0	2	119	13,056	4	0	2	128	13,221	4	0	2	130
				TSW	12,040	4	0	3	118	12,970	4	0	3	127	13,134	4	0	3	129
				BLC	9,570	1	0	2	94	10,310	1	0	2	101	10,440	1	0	2	102
				LCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
				RCCO	7,121	1	0	3	70	7,671	1	0	3	75	7,768	1	0	3	76
30	1250	P4	125W	T1S	13,435	3	0	3	107	14,473	3	0	3	116	14,657	3	0	3	117
				T2S	13,421	3	0	3	107	14,458	3	0	3	116	14,641	3	0	3	117
				T2M	13,490	2	0	2	108	14,532	3	0	3	116	14,716	3	0	3	118
				T3S	13,064	3	0	3	105	14,074	3	0	3	113	14,252	3	0	3	114
				T3M	13,457	2	0	2	108	14,497	2	0	2	116	14,681	2	0	2	117
				T4M	13,165	2	0	3	105	14,182	2	0	3	113	14,362	2	0	3	115
				TFTM	13,449	2	0	3	108	14,488	2	0	3	116	14,672	2	0	3	117
				TSVS	13,987	4	0	1	112	15,068	4	0	1	121	15,259	4	0	1	122
				TSS	13,999	3	0	1	112	15,080	3	0	1	121	15,271	3	0	1	122
				TSM	13,963	4	0	2	112	15,042	4	0	2	120	15,233	4	0	2	122
				TSW	13,872	4	0	3	111	14,944	4	0	3	120	15,133	4	0	3	121
				BLC	11,027	1	0	2	88	11,879	1	0	2	95	12,029	1	0	2	96
				LCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
				RCCO	8,205	1	0	3	66	8,839	1	0	3	71	8,951	1	0	3	72
30	1400	P5	138W	T1S	14,679	3	0	3	106	15,814	3	0	3	115	16,014	3	0	3	116
				T2S	14,664	3	0	3	106	15,797	3	0	3	114	15,997	3	0	3	116
				T2M	14,739	3	0	3	107	15,878	3	0	3	115	16,079	3	0	3	117
				T3S	14,274	3	0	3	103	15,377	3	0	3	111	15,572	3	0	3	113
				T3M	14,704	2	0	3	107	15,840	3	0	3	115	16,040	3	0	3	116
				T4M	14,384	2	0	3	104	15,496	3	0	3	112	15,692	3	0	3	114
				TFTM	14,695	2	0	3	106	15,830	3	0	3	115	16,030	3	0	3	116
				TSVS	15,283	4	0	1	111	16,464	4	0	1	119	16,672	4	0	1	121
				TSS	15,295	3	0	1	111	16,477	4	0	1	119	16,686	4	0	1	121
				TSM	15,257	4	0	2	111	16,435	4	0	2	119	16,644	4	0	2	121
				TSW	15,157	4	0	3	110	16,328	4	0	3	118	16,534	4	0	3	120
				BLC	12,048	1	0	2	87	12,979	1	0	2	94	13,143	1	0	2	95
				LCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71
				RCCO	8,965	1	0	3	65	9,657	1	0	3	70	9,780	1	0	3	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Forward Optics																			
LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
40	1250	P6	163W	T1S	17,654	3	0	3	108	19,018	3	0	3	117	19,259	3	0	3	118
				T2S	17,635	3	0	3	108	18,998	3	0	3	117	19,238	3	0	3	118
				T2M	17,726	3	0	3	109	19,096	3	0	3	117	19,337	3	0	3	119
				T3S	17,167	3	0	3	105	18,493	3	0	3	113	18,727	3	0	3	115
				T3M	17,683	3	0	3	108	19,049	3	0	3	117	19,290	3	0	3	118
				T4M	17,299	3	0	3	106	18,635	3	0	4	114	18,871	3	0	4	116
				TFTM	17,672	3	0	3	108	19,038	3	0	4	117	19,279	3	0	4	118
				TSVS	18,379	4	0	1	113	19,800	4	0	1	121	20,050	4	0	1	123
				T5S	18,394	4	0	2	113	19,816	4	0	2	122	20,066	4	0	2	123
				T5M	18,348	4	0	2	113	19,766	4	0	2	121	20,016	4	0	2	123
				T5W	18,228	5	0	3	112	19,636	5	0	3	120	19,885	5	0	3	122
				BLC	14,489	2	0	2	89	15,609	2	0	3	96	15,806	2	0	3	97
				LCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
				RCCO	10,781	1	0	3	66	11,614	1	0	3	71	11,761	2	0	3	72
40	1400	P7	183W	T1S	19,227	3	0	3	105	20,712	3	0	3	113	20,975	3	0	3	115
				T2S	19,206	3	0	3	105	20,690	3	0	3	113	20,952	3	0	3	114
				T2M	19,305	3	0	3	105	20,797	3	0	3	114	21,060	3	0	3	115
				T3S	18,696	3	0	3	102	20,141	3	0	3	110	20,396	3	0	4	111
				T3M	19,258	3	0	3	105	20,746	3	0	3	113	21,009	3	0	3	115
				T4M	18,840	3	0	4	103	20,296	3	0	4	111	20,553	3	0	4	112
				TFTM	19,246	3	0	4	105	20,734	3	0	4	113	20,996	3	0	4	115
				TSVS	20,017	4	0	1	109	21,564	4	0	1	118	21,837	4	0	1	119
				T5S	20,033	4	0	2	109	21,581	4	0	2	118	21,854	4	0	2	119
				T5M	19,983	4	0	2	109	21,527	5	0	3	118	21,799	5	0	3	119
				T5W	19,852	5	0	3	108	21,386	5	0	3	117	21,656	5	0	3	118
				BLC	15,780	2	0	3	86	16,999	2	0	3	93	17,214	2	0	3	94
				LCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
				RCCO	11,742	2	0	3	64	12,649	2	0	3	69	12,809	2	0	3	70
60	1050	P8	207W	T1S	22,490	3	0	3	109	24,228	3	0	3	117	24,535	3	0	3	119
				T2S	22,466	3	0	4	109	24,202	3	0	4	117	24,509	3	0	4	118
				T2M	22,582	3	0	3	109	24,327	3	0	3	118	24,635	3	0	3	119
				T3S	21,870	3	0	4	106	23,560	3	0	4	114	23,858	3	0	4	115
				T3M	22,527	3	0	4	109	24,268	3	0	4	117	24,575	3	0	4	119
				T4M	22,038	3	0	4	106	23,741	3	0	4	115	24,041	3	0	4	116
				TFTM	22,513	3	0	4	109	24,253	3	0	4	117	24,560	3	0	4	119
				TSVS	23,415	5	0	1	113	25,224	5	0	1	122	25,543	5	0	1	123
				T5S	23,434	4	0	2	113	25,244	4	0	2	122	25,564	4	0	2	123
				T5M	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				T5W	23,221	5	0	4	112	25,016	5	0	4	121	25,332	5	0	4	122
				BLC	18,458	2	0	3	89	19,885	2	0	3	96	20,136	2	0	3	97
				LCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,735	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
60	1250	P9	241W	T1S	25,575	3	0	3	106	27,551	3	0	3	114	27,900	3	0	3	116
				T2S	25,548	3	0	4	106	27,522	3	0	4	114	27,871	3	0	4	116
				T2M	25,680	3	0	3	107	27,664	3	0	3	115	28,014	3	0	3	116
				T3S	24,870	3	0	4	103	26,791	3	0	4	111	27,130	3	0	4	113
				T3M	25,617	3	0	4	106	27,597	3	0	4	115	27,946	3	0	4	116
				T4M	25,061	3	0	4	104	26,997	3	0	4	112	27,339	3	0	4	113
				TFTM	25,602	3	0	4	106	27,580	3	0	4	114	27,929	3	0	4	116
				TSVS	26,626	5	0	1	110	28,684	5	0	1	119	29,047	5	0	1	121
				T5S	26,648	4	0	2	111	28,707	5	0	2	119	29,070	5	0	2	121
				T5M	26,581	5	0	3	110	28,635	5	0	3	119	28,997	5	0	3	120
				T5W	26,406	5	0	4	110	28,447	5	0	4	118	28,807	5	0	4	120
				BLC	20,990	2	0	3	87	22,612	2	0	3	94	22,898	2	0	3	95
				LCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71
				RCCO	15,619	2	0	4	65	16,825	2	0	4	70	17,038	2	0	4	71

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Rotated Optics

LED Count	Drive Current	Power Package	System Watts	Dist. Type	30K (3000 K, 70 CRI)					40K (4000 K, 70 CRI)					50K (5000 K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
60	530	P10	106W	T1S	13,042	3	0	3	123	14,050	3	0	3	133	14,228	3	0	3	134
				T2S	12,967	4	0	4	122	13,969	4	0	4	132	14,146	4	0	4	133
				T2M	13,201	3	0	3	125	14,221	3	0	3	134	14,401	3	0	3	136
				T3S	12,766	4	0	4	120	13,752	4	0	4	130	13,926	4	0	4	131
				T3M	13,193	4	0	4	124	14,213	4	0	4	134	14,393	4	0	4	136
				T4M	12,944	4	0	4	122	13,945	4	0	4	132	14,121	4	0	4	133
				TFTM	13,279	4	0	4	125	14,305	4	0	4	135	14,486	4	0	4	137
				TSVS	13,372	3	0	1	126	14,405	4	0	1	136	14,588	4	0	1	138
				TSS	13,260	3	0	1	125	14,284	3	0	1	135	14,465	3	0	1	136
				TSM	13,256	4	0	2	125	14,281	4	0	2	135	14,462	4	0	2	136
				TSW	13,137	4	0	3	124	14,153	4	0	3	134	14,332	4	0	3	135
				BLC	10,906	3	0	3	103	11,749	3	0	3	111	11,898	3	0	3	112
				LCCO	7,789	1	0	3	73	8,391	1	0	3	79	8,497	1	0	3	80
				RCCO	7,779	4	0	4	73	8,380	4	0	4	79	8,486	4	0	4	80
60	700	P11	137W	T1S	16,556	3	0	3	121	17,835	3	0	3	130	18,061	4	0	4	132
				T2S	16,461	4	0	4	120	17,733	4	0	4	129	17,957	4	0	4	131
				T2M	16,758	4	0	4	122	18,053	4	0	4	132	18,281	4	0	4	133
				T3S	16,205	4	0	4	118	17,457	4	0	4	127	17,678	4	0	4	129
				T3M	16,748	4	0	4	122	18,042	4	0	4	132	18,271	4	0	4	133
				T4M	16,432	4	0	4	120	17,702	4	0	4	129	17,926	4	0	4	131
				TFTM	16,857	4	0	4	123	18,159	4	0	4	133	18,389	4	0	4	134
				TSVS	16,975	4	0	1	124	18,287	4	0	1	133	18,518	4	0	1	135
				TSS	16,832	4	0	1	123	18,133	4	0	2	132	18,362	4	0	2	134
				TSM	16,828	4	0	2	123	18,128	4	0	2	132	18,358	4	0	2	134
				TSW	16,677	4	0	3	122	17,966	5	0	3	131	18,193	5	0	3	133
				BLC	13,845	3	0	3	101	14,915	3	0	3	109	15,103	3	0	3	110
				LCCO	9,888	1	0	3	72	10,652	2	0	3	78	10,787	2	0	3	79
				RCCO	9,875	4	0	4	72	10,638	4	0	4	78	10,773	4	0	4	79
60	1050	P12	207W	T1S	22,996	4	0	4	111	24,773	4	0	4	120	25,087	4	0	4	121
				T2S	22,864	4	0	4	110	24,631	5	0	5	119	24,943	5	0	5	120
				T2M	23,277	4	0	4	112	25,075	4	0	4	121	25,393	4	0	4	123
				T3S	22,509	4	0	4	109	24,248	5	0	5	117	24,555	5	0	5	119
				T3M	23,263	4	0	4	112	25,061	4	0	4	121	25,378	4	0	4	123
				T4M	22,824	5	0	5	110	24,588	5	0	5	119	24,899	5	0	5	120
				TFTM	23,414	5	0	5	113	25,223	5	0	5	122	25,543	5	0	5	123
				TSVS	23,579	5	0	1	114	25,401	5	0	1	123	25,722	5	0	1	124
				TSS	23,380	4	0	2	113	25,187	4	0	2	122	25,506	4	0	2	123
				TSM	23,374	5	0	3	113	25,181	5	0	3	122	25,499	5	0	3	123
				TSW	23,165	5	0	4	112	24,955	5	0	4	121	25,271	5	0	4	122
				BLC	19,231	4	0	4	93	20,717	4	0	4	100	20,979	4	0	4	101
				LCCO	13,734	2	0	3	66	14,796	2	0	4	71	14,983	2	0	4	72
				RCCO	13,716	4	0	4	66	14,776	4	0	4	71	14,963	4	0	4	72
60	1250	P13	231W	T1S	25,400	4	0	4	110	27,363	4	0	4	118	27,709	4	0	4	120
				T2S	25,254	5	0	5	109	27,205	5	0	5	118	27,550	5	0	5	119
				T2M	25,710	4	0	4	111	27,696	4	0	4	120	28,047	4	0	4	121
				T3S	24,862	5	0	5	108	26,783	5	0	5	116	27,122	5	0	5	117
				T3M	25,695	5	0	5	111	27,680	5	0	5	120	28,031	5	0	5	121
				T4M	25,210	5	0	5	109	27,158	5	0	5	118	27,502	5	0	5	119
				TFTM	25,861	5	0	5	112	27,860	5	0	5	121	28,212	5	0	5	122
				TSVS	26,043	5	0	1	113	28,056	5	0	1	121	28,411	5	0	1	123
				TSS	25,824	4	0	2	112	27,819	5	0	2	120	28,172	5	0	2	122
				TSM	25,818	5	0	3	112	27,813	5	0	3	120	28,165	5	0	3	122
				TSW	25,586	5	0	4	111	27,563	5	0	4	119	27,912	5	0	4	121
				BLC	21,241	4	0	4	92	22,882	4	0	4	99	23,172	4	0	4	100
				LCCO	15,170	2	0	4	66	16,342	2	0	4	71	16,549	2	0	4	72
				RCCO	15,150	5	0	5	66	16,321	5	0	5	71	16,527	5	0	5	72

FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.01 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 30 feet.

nLIGHT AIR CONTROLS

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found here.

INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIST™ series pole drilling pattern (template #8). NEMA photocontrol receptacle are also available.

LISTINGS

UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/customer-support/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.



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DSX1-LED

Rev. 11/16/20

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WDGE1 LED

Architectural Wall Sconce



Buy American

Catalog
Number

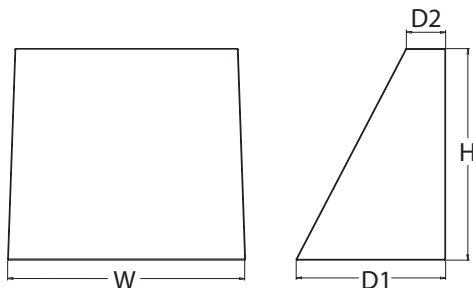
Notes

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SW1

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1): 5.5"
Depth (D2): 1.5"
Height: 8"
Width: 9"
Weight: 9 lbs
 (without options)



Introduction

The WDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing true site-wide solution.

WDGE1 delivers up to 2,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. The compact size of WDGE1, with its integrated emergency battery backup option, makes it an ideal over-the-door wall-mounted lighting solution.

WDGE LED Family Overview

Luminaire	Standard EM, 0°C	Cold EM, -20°C	Sensor	Lumens (4000K)					
				P1	P2	P3	P4	P5	P6
WDGE1 LED	4W	--	--	1,200	2,000	--	--	--	--
WDGE2 LED	10W	18W	Standalone / nLight	1,200	2,000	3,000	4,500	6,000	--
WDGE3 LED	15W	18W	Standalone / nLight	7,500	8,500	10,000	12,000	--	--
WDGE4 LED	--	--	Standalone / nLight	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WDGE1 LED P2 40K 80CRI VF MVOLT SRM PE DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WDGE1 LED	P1 P2	27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K ¹ 5000K	80CRI 90CRI	VF Visual comfort forward throw VW Visual comfort wide	MVOLT 347 ²	Shipped included SRM Surface mounting bracket ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only) ⁵ Shipped separately AWS 3/8inch Architectural wall spacer PBBW Surface-mounted back box (top, left, right conduit entry) Use when there is no junction box available.

Options	Finish
E4WH ³ Emergency battery backup, Certified in CA Title 20 MAEDBS (4W, 0°C min) PE ⁴ Photocell, Button Type DS Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details) DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately) BCE Bottom conduit entry for back box (PBBW). Total of 4 entry points.	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DSSXD Sandstone DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white DSSTXD Textured sandstone

Accessories

Ordered and shipped separately.

WDGEAWS DDBXD U WDGE 3/8inch Architectural Wall Spacer (specify finish)
 WDGE1PBBW DDBXD U WDGE1 surface-mounted back box (specify finish)

NOTES

- 50K not available in 90CRI.
- 347V not available with E4WH, DS or PE.
- E4WH not available with PE or DS.
- PE not available with DS.
- Not qualified for DLC. Not available with E4WH.



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WDGE1 LED
 Rev. 03/17/21

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	27K (2700K, 80 CRI)					30K (3000K, 80 CRI)					35K (3500K, 80 CRI)					40K (4000K, 80 CRI)					50K (5000K, 80 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P1	10W	VF	1,120	112	0	0	0	1,161	116	0	0	0	1,194	119	0	0	0	1,227	123	0	0	0	1,235	123	0	0	0
		VW	1,122	112	0	0	0	1,163	116	0	0	0	1,196	120	0	0	0	1,229	123	0	0	0	1,237	124	0	0	0
P2	15W	VF	1,806	120	1	0	0	1,872	125	1	0	0	1,925	128	1	0	0	1,978	132	1	0	0	1,992	133	1	0	0
		VW	1,809	120	1	0	0	1,876	125	1	0	0	1,929	128	1	0	0	1,982	132	1	0	0	1,996	133	1	0	0

Electrical Load

Performance Package	System Watts	Current (A)				
		120V	208V	240V	277V	347V
P1	10W	0.082	0.049	0.043	0.038	--
	13W	--	--	--	--	0.046
P2	15W	0.132	0.081	0.072	0.064	--
	18W	--	--	--	--	0.056

Lumen Multiplier for 90CRI

CCT	Multiplier
27K	0.845
30K	0.867
35K	0.845
40K	0.885
50K	0.898

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Dist. Type	Lumens
E4WH	VF	646
	VW	647

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.95	>0.91



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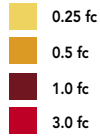
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WDGE1 LED
Rev. 03/17/21

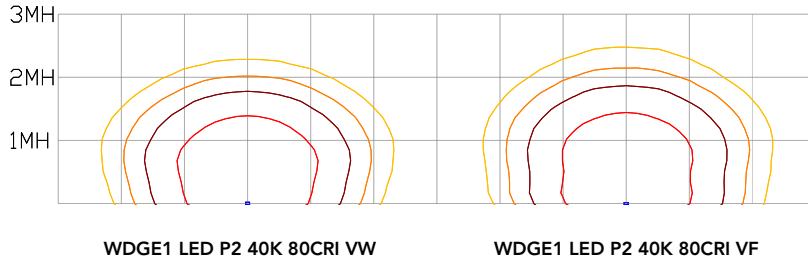
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WDGE LED homepage.
Tested in accordance with IESNA LM-79 and LM-80 standards.

LEGEND



MH = 8ft
Grid = 8ft x 8ft



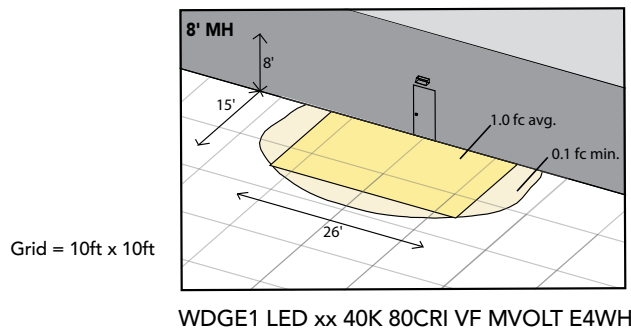
Emergency Egress Options

Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90 minutes.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

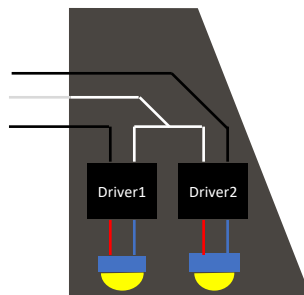
The example below shows illuminance of 1 fc average and 0.1 fc minimum in emergency mode with E4WH and VF distribution.



Dual Switching (DS) Option

The dual switching option offers operational redundancy that certain codes require. With this option the luminaire comes integrated with two drivers and two light engines. These work completely independent to each other so that a failure of any individual component does not cause the whole luminaire to go dark. This option is typically used with a back generator or inverter providing emergency power.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9





E4WH – 4W Emergency Battery Backup

D = 5.5"

H = 8"

W = 9"



PBBW – Surface-Mounted Back Box

Use when there is no junction box available.

D = 1.75"

H = 8"

W = 9"



AWS – 3/8inch Architectural Wall Spacer

D = 0.38"

H = 4.4"

W = 7.5"

FEATURES & SPECIFICATIONS

INTENDED USE

Common architectural look, with clean rectilinear shape, of the WDGE LED was designed to blend with any type of construction, whether it be tilt-up, frame or brick. Applications include commercial offices, warehouses, hospitals, schools, malls, restaurants, and other commercial buildings.

CONSTRUCTION

The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP66 rating for the luminaire.

FINISH

Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS

Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WDGE LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L91/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire comes with built in 6kV surge protection, which meets a minimum Category C low exposure (per ANSI/IEEE C62.41.2).

INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections. The 3/8" Architectural Wall Spacer (AWS) can be used to create a floating appearance or to accommodate small imperfections in the wall surface. The ICW option can be used to mount the luminaire inverted for indirect lighting in dry and damp locations. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS

CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. PIR options are rated for wet location. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 2700K and 3000K color temperature only and SRM mounting only.

BUY AMERICAN

This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FARS, DFARS and DOT. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



WEDGE2 LED

Architectural Wall Sconce



Catalog
Number

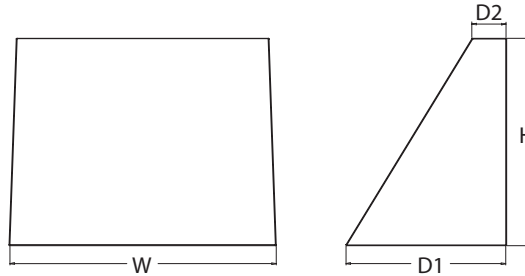
Notes

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SW2

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Specifications

Depth (D1): 7"
Depth (D2): 1.5"
Height: 9"
Width: 11.5"
Weight: 13.5 lbs
(without options)



Introduction

The WEDGE LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-wide solution. Embedded with nLight® AIR wireless controls, the WEDGE family provides additional energy savings and code compliance.

WEDGE2 delivers up to 6,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WEDGE2 becomes the ideal wall-mounted lighting solution for pedestrian scale applications in any environment.

WEDGE LED Family Overview

Luminaire	Standard EM, 0°C	Cold EM, -20°C	Sensor	Lumens (4000K)					
				P1	P2	P3	P4	P5	P6
WEDGE1 LED	4W	--	--	1,200	2,000	--	--	--	--
WEDGE2 LED	10W	18W	Standalone / nLight	1,200	2,000	3,000	4,500	6,000	--
WEDGE3 LED	15W	18W	Standalone / nLight	7,500	8,500	10,000	12,000	--	--
WEDGE4 LED	--	--	Standalone / nLight	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WEDGE2 LED P3 40K 80CRI VF MVOLT SRM DDBXD

Series	Package		Color Temperature		CRI	Distribution	Voltage	Mounting	
WEDGE2 LED	P1 ¹	P1SW	27K	2700K	80CRI	VF Visual comfort forward throw	MVOLT	SRM	Shipped included
	P2 ¹	P2SW	30K	3000K	90CRI		347 ³		Shipped separately
	P3 ¹	P3SW	35K	3500K		VW Visual comfort wide	480 ³	ICW	
	P4 ¹	Door with small window (SW) is required to accommodate sensors. See page 2 for more details.		40K	4000K				
	P5 ¹		50K ²	5000K					

Options			Finish
E4WH	Emergency battery backup, Certified in CA Title 20 MAEDBS (4W, 0°C min)	Standalone Sensors/Controls (only available with P1SW, P2SW & P3SW) PIR Bi-level (100/35%) motion sensor for 8-15' mounting heights. Intended for use on switched circuits with external dusk to dawn switching. PIRH Bi-level (100/35%) motion sensor for 15-30' mounting heights. Intended for use on switched circuits with external dusk to dawn switching PIR1FC3V Bi-level (100/35%) motion sensor for 8-15' mounting heights with photocell pre-programmed for dusk to dawn operation. PIRH1FC3V Bi-level (100/35%) motion sensor for 15-30' mounting heights with photocell pre-programmed for dusk to dawn operation.	DDBXD Dark bronze
E10WH	Emergency battery backup, Certified in CA Title 20 MAEDBS (10W, 5°C min)		DBLXD Black
E20WC	Emergency battery backup, Certified in CA Title 20 MAEDBS (18W, -20°C min)		DNAXD Natural aluminum
PE ⁴	Photocell, Button Type		DWHXD White
DS ⁵	Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)		DSSXD Sandstone
DMG ⁶	0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)	Networked Sensors/Controls (only available with P1SW, P2SW & P3SW) NLTAIR2 PIR nLightAIR Wireless enabled bi-level motion/ambient sensor for 8-15' mounting heights. NLTAIR2 PIRH nLightAIR Wireless enabled bi-level motion/ambient sensor for 15-30' mounting heights. See page 4 for out of box functionality	DBBTXD Textured dark bronze
BCE	Bottom conduit entry for back box (PBBW). Total of 4 entry points.		DBLBXD Textured black
			DNATXD Textured natural aluminum
			DWHGXD Textured white
			DSSTXD Textured sandstone



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WEDGE2 LED
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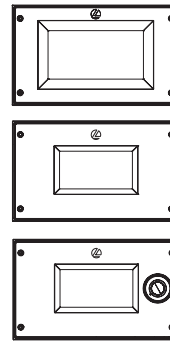
Accessories

Ordered and shipped separately.

WDGEAWS DDBXD U	WDGE 3/8inch Architectural Wall Spacer (specify finish)
WDGE2P8BW DDBXD U	WDGE2 surface-mounted back box (specify finish)

NOTES

- 1 P1-P5 not available with sensors/controls. Sensors/controls only available with P1SW, P2SW and P3SW.
- 2 50K not available in 90CRI
- 3 347V and 480V not available with E4WH, E10WH, E20WC or DS.
- 4 PE not available in 480V or with sensors/controls
- 5 DS option not available with E4WH, E10WH, E20WC or sensors/controls.
- 6 DMG option not available with sensors/controls
- 7 Not qualified for DLC. Not available with emergency battery backup or sensors/controls



Default configuration with no sensors/controls.

Power Packages: P1, P2, P3, P4, P5

Small Window (SW) configuration

Power Packages: P1SW, P2SW, P3SW

Configuration with sensors/controls

Power Packages: P1SW, P2SW, P3SW

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	27K (2700K, 80 CRI)					30K (3000K, 80 CRI)					35K (3500K, 80 CRI)					40K (4000K, 80 CRI)					50K (5000K, 80 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P1 / P1SW	10W	VF	1,166	119	0	0	0	1,209	123	0	0	0	1,251	128	0	0	0	1,256	128	0	0	0	1,254	128	0	0	0
		VW	1,197	122	0	0	0	1,241	126	0	0	0	1,284	131	0	0	0	1,289	131	0	0	0	1,286	131	0	0	0
P2 / P2SW	15W	VF	1,878	129	1	0	0	1,947	134	1	0	0	2,015	139	1	0	0	2,023	139	1	0	0	2,019	139	1	0	0
		VW	1,927	133	1	0	0	1,997	137	1	0	0	2,067	142	1	0	0	2,075	143	1	0	0	2,071	143	1	0	0
P3 / P3SW	23W	VF	2,908	129	1	0	0	3,015	134	1	0	0	3,119	138	1	0	0	3,132	139	1	0	0	3,126	139	1	0	0
		VW	2,983	132	1	0	0	3,093	137	1	0	0	3,200	142	1	0	0	3,213	143	1	0	0	3,206	142	1	0	0
P4	35W	VF	4,096	117	1	0	1	4,247	121	1	0	1	4,394	126	1	0	1	4,412	126	1	0	1	4,403	126	1	0	1
		VW	4,202	120	1	0	0	4,357	125	1	0	1	4,508	129	1	0	1	4,526	129	1	0	1	4,517	129	1	0	1
P5	48W	VF	5,567	115	1	0	1	5,772	119	1	0	1	5,972	123	1	0	1	5,996	124	1	0	1	5,984	124	1	0	1
		VW	5,711	118	1	0	1	5,921	122	1	0	1	6,127	126	1	0	1	6,151	127	1	0	1	6,139	127	1	0	1

Electrical Load

Performance Package	System Watts	Current (A)					
		120V	208V	240V	277V	347V	480V
P1 / P1SW	10W	0.082	0.049	0.043	0.038	--	--
	13W	--	--	--	--	0.046	0.033
P2 / P2SW	15W	0.132	0.081	0.072	0.064	--	--
	18W	--	--	--	--	0.056	0.041
P3 / P3SW	23W	0.195	0.114	0.100	0.088	--	--
	26W	--	--	--	--	0.079	0.058
P4	35W	0.302	0.175	0.152	0.134	--	--
	38W	--	--	--	--	0.115	0.086
P5	48W	0.434	0.241	0.211	0.184	--	--
	52W	--	--	--	--	0.157	0.119

Lumen Multiplier for 90CRI

CCT	Multiplier
27K	0.845
30K	0.867
35K	0.845
40K	0.885
50K	0.898

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Dist. Type	Lumens
E4WH	VF	646
	VW	647
E10WH	VF	1,658
	VW	1,701
E20WC	VF	2,840
	VW	2,913

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.95	>0.91



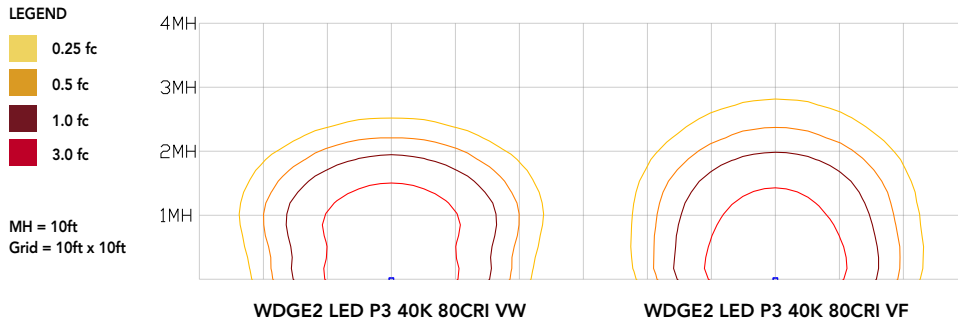
COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
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WDGE2 LED
Rev. 03/17/21

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WDGE LED homepage. Tested in accordance with IESNA LM-79 and LM-80 standards.



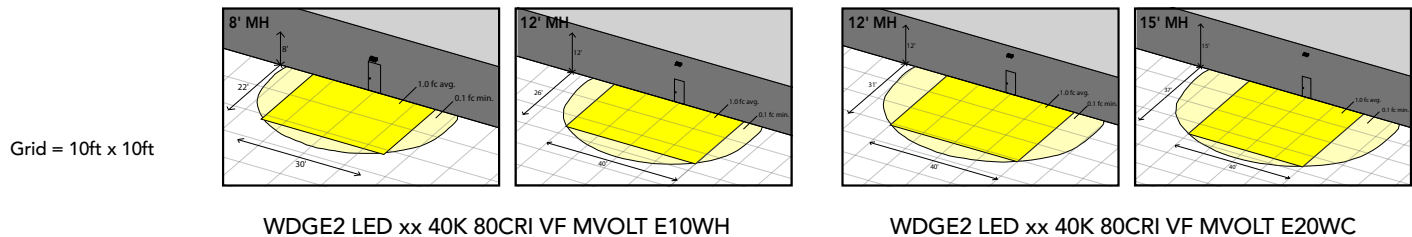
Emergency Egress Options

Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90 minutes.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

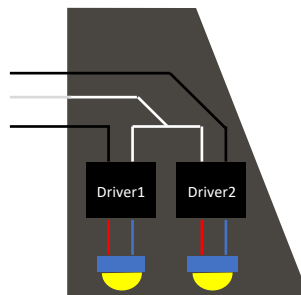
The examples below show illuminance of 1 fc average and 0.1 fc minimum in emergency mode with E10WH or E20WC and VF distribution.



Dual Switching (DS) Option

The dual switching option offers operational redundancy that certain codes require. With this option the luminaire comes integrated with two drivers and two light engines. These work completely independent to each other so that a failure of any individual component does not cause the whole luminaire to go dark. This option is typically used with a back generator or inverter providing emergency power.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

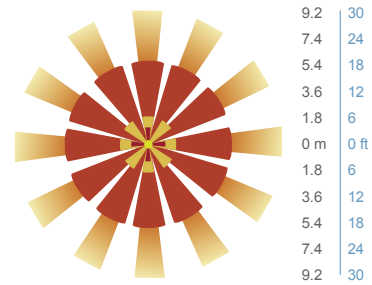
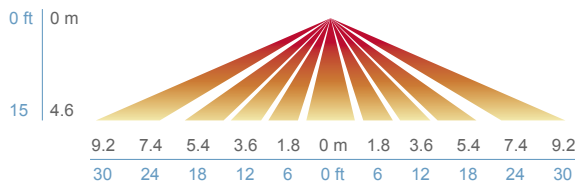
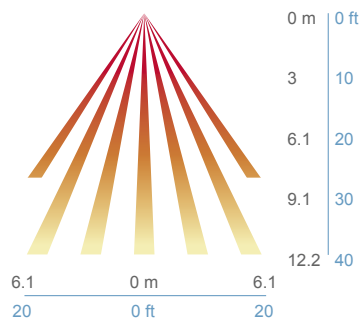
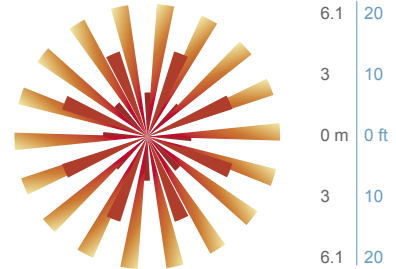


Motion/Ambient Sensor (PIR, PIRH)

Motion/Ambient sensor (Sensor Switch MSOD) is integrated into the the luminaire. The sensor provides both Motion and Daylight based dimming of the luminaire. For motion detection, the sensor utilizes 100% Digital Passive Infrared (PIR) technology that is tuned for walking size motion while preventing false tripping from the environment. The integrated photocell enables additional energy savings during daytime periods when there is sufficient daylight. Optimize sensor coverage by either selecting PIR or PIRH option. PIR option comes with a sensor lens that is optimized to provide maximum coverage for mounting heights between 8-15ft, while PIRH is optimized for 15-40ft mounting height.

Networked Control (NLTAIR2)

nLight® AIR is a wireless lighting controls platform that allows for seamless integration of both indoor and outdoor luminaires. Five-tier security architecture, 900 MHz wireless communication and app (CLAIRITY™ Pro) based configurability combined together make nLight® AIR a secure, reliable and easy to use platform.

PIR**HIGH VIEW****PIRH****SIDE VIEW****TOP VIEW**

Option	Dim Level	High Level (when triggered)	Photocell Operation	Motion Time Delay	Ramp-down Time	Ramp-up Time
PIR or PIRH	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 5fc	5 min	5 min	Motion - 3 sec Photocell - 45 sec
PIR1FC3V, PIRH1FC3V	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 1fc	5 min	5 min	Motion - 3 sec Photocell - 45 sec
NLTAIR2 PIR, NLTAIR2 PIRH (out of box)	Motion - 3V (37% of full output) Photocell - 0V (turned off)	10V (100% output)	Enabled @ 5fc	7.5 min	5 min	Motion - 3 sec Photocell - 45 sec



**NLTAIR2 PIR – nLight AIR
Motion/Ambient Sensor**

D = 7"

H = 11"

W = 11.5"



PBBW – Surface-Mounted Back Box
Use when there is no junction box available.

D = 1.75"

H = 9"

W = 11.5"



AWS – 3/8inch Architectural Wall Spacer

D = 0.38"

H = 4.4"

W = 7.5"

FEATURES & SPECIFICATIONS

INTENDED USE

Common architectural look, with clean rectilinear shape, of the WDGE LED was designed to blend with any type of construction, whether it be tilt-up, frame or brick. Applications include commercial offices, warehouses, hospitals, schools, malls, restaurants, and other commercial buildings.

CONSTRUCTION

The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP66 rating for the luminaire.

FINISH

Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS

Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WDGE LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine consists of high-efficiency LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L91/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire comes with built in 6kV surge protection, which meets a minimum Category C low exposure (per ANSI/IEEE C62.41.2).

INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections. The 3/8" Architectural Wall Spacer (AWS) can be used to create a floating appearance or to accommodate small imperfections in the wall surface. The ICW option can be used to mount the luminaire inverted for indirect lighting in dry and damp locations. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS

CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. PIR options are rated for wet location. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 2700K and 3000K color temperature only and SRM mounting only.

BUY AMERICAN

This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FARS, DFARS and DOT. Please refer to www.acuitybrands.com/resources/buy-american for additional information.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.



BASELITE ARCHITECTURAL LIGHTING



PROJECT NAME: _____ PROJECT TYPE: _____

MODEL # / / / / / / / / / / /

EXAMPLE: EUAR1 41 C D E F G H I J K
45W 3K LDM120

*SKIP SECTION IF OPTION DOES NOT APPLY

NOTES:

TYPE SA2

TYPE SA1

A - SHADES

ARCHITECTURAL

EUAR1	EUAR2	EUCS1
EUCS2	EUES1	EUES2
EUER1	EUER2	EUF1
EUF2	EUFR1	EUFR2
EUGS1	EUGS2	EUGR1
EUGR2	EUHS1	EUHS2
EUHR1	EUHR2	EUIR1
EUIR2	EUIS1	EUIS2
EUKR1	EUKR2	WDY14
WWM8	SAL8	

B - FINISH OPTIONS

14PN-POLISH NICKEL
15-POWDER BLUE
16-DISTRESSED TURQUOISE
17-DISTRESSED CHALK
18-MINT GREEN
19-ANTIQUE ALUMINUM ACID (2)(3)
19P-ANTIQUE ALUMINUM
20-RAW BRASS (1)
20P-BRASS
20PB-POLISHED BRASS
20SB-SATIN BRASS
21-OIL RUBBED BRONZE ACID (1)(2)
21P-OIL RUBBED BRONZE
22-OLD PEWTER ACID (1)(2)
22P-OLD PEWTER
23-OLD COPPER PATINA ACID (1)(2)
23P-OLD COPPER PATINA
38-COPPER TINT (3)
39-RAW COPPER (3)
40-COPPER CLEAR COAT (3)
41-GLOSS BLACK
41.5-MATTE BLACK
42-DARK GREEN
43-RED
44-WHITE
45-MEDIUM BLUE
46-YELLOW
48-POLISHED ALUMINUM
49-GALVANIZED (3)
50-NAVY BLUE
51-ARCHITECTURAL BRONZE
52-PATINA

B - FINISH OPTIONS (CONT.)

53-RUST
54-STUCCO (3)
55-SAGE
57-POLISHED ALUMINUM CC (3)
58-SATIN ALUMINUM (3)
59-COPPER TONE
60-CANAL GREEN
61-ANODIZED CHARCOAL (3)(4)
62-ANODIZED BRONZE (3)(4)
63-IRON RUST (3)
64- WROUGHT IRON
65-TERRACOTTA
66-BARK
70-TRANSPARENT RED (3)(4)
71-TRANSPARENT GREEN (3)(4)
72-TRANSPARENT WINE (3)(4)
73-TRANSPARENT NAVY (3)(4)
74-GUN METAL
75-DISTRESSED RED (2)
76-DISTRESSED BLUE (2)
77-DISTRESSED GREEN (2)
78-CHALKBOARD BLACK (3)
79-GHOST ORANGE
80-PALE GOLD
81-METALLIC BRONZE
82-BLACK GOLD
83-SHOCKER GREEN (2)(3)
84-FADDED BLUE (2)(3)
85-COBBLESTONE
86-BRONZE COPPER
87-CHAMPAGNE
88-FLAMED STEEL (2)(3)
89-TAUPE
90-LIME GREEN
91-PACIFIC PINE
92-ANTIQUE GALVANIZED (3)
93-FADDED COPPER (2)(3)
94-ANODIZED ALUMINUM
95-TURQUOISE
96-PURPLE
97-BATTLESHIP GREY
98-BLACKENED PIPE (2)(3)
99-STEEL
100-OLD STEEL
-(MG) MARINE GRADE FINISH-
AVAILABLE UPON REQUEST.

F – LIGHT SOURCE

INCANDESCENT (INC)

20W 100W

COMPACT FLOURESCENT (CF)

26W 32W 42W

LIGHT EMITTED DIODE (LED)

12W **25W** 50W

G – LED COLOR TEMP

(ONLY APPLICABLE FOR LED LIGHT SOURCE. SKIP THIS SECTION IF OPTION DOES NOT APPLY.)

27K – 2700 K (5)

3K – 3000 K

35K – 3500 K

4K – 4000 K

5K – 5000 K (5)

K – ELECTRICAL OPTION

CDM7-120/277

CDM10-120

CDM10-277

LDM120

LDM277

LDM0-10

PHCL120

PHCL277

FS – FUSING

EM – EMERGENCY BALLAST

BRC – BALLAST RETAINER CHAIN

NOTES

(1). FINISH OPTIONS 20, 21, 22, 23 ARE FOR SOLID BRASS FIXTURES ONLY.

(2). FINISH OPTIONS 19, 21, 22, 23 ARE AN ACID FINISH AND IS APPLIED BY HAND. THESE FINISHES WILL VARY IN CONSISTENCY.

(3). FINISH OPTIONS 19, 38, 39, 40, 49, 54, 57, 58, 61, 62, 63, 70, 71, 72, 73, 78, 83, 84, 88, 92, 93, 98 ONLY AVAILABLE INSIDE AND OUT OF FIXTURE.

(4). FINISH OPTIONS 61, 62, 70, 71, 72, 73 ARE FINISHED WITH A SUPERCHROME ON THE INSIDE FOR ALL LED LIGHT SOURCE OPTIONS.

(5). 27K AND 5K ARE NOT COMPATIBLE WITH 75W LED OPTION.

*ACCORDING TO THE LIGHT SOURCE THE BACKPLATE MAY VARY IN SIZE. (EXAMPLE: LED LIGHT SOURCE WILL HAVE A DEEPER BACKPLATE TO HOUSE THE DRIVER.)

*ALL FIXTURES MOUNT TO A 40 JUNCTION BOX.

*FIXTURE DIMENSIONS MAY VARY ± 0.25.



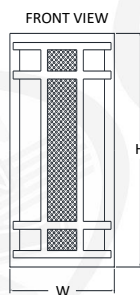


A – SHADES

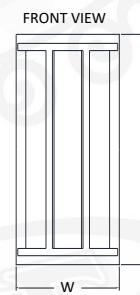
ARCHITECTURAL SHADE SERIES



	HEIGHT	WIDTH
EUAR1	16"	8"
EUAR2	22"	8"



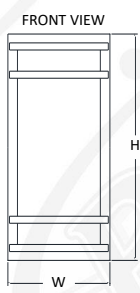
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EUCS2	22"	8"



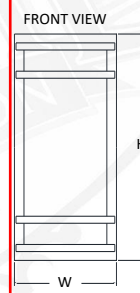
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EUER2	22"	8"



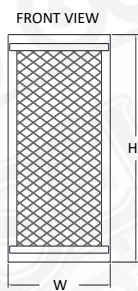
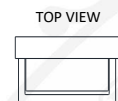
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EUES2	22"	8"



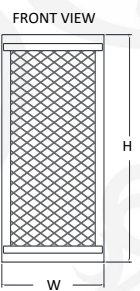
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EUFR2	22"	8"



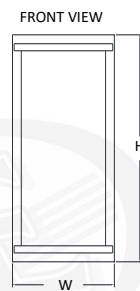
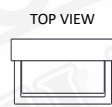
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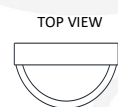
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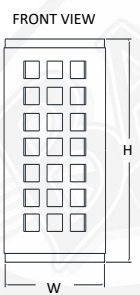
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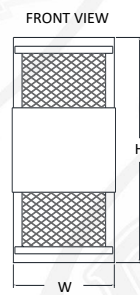
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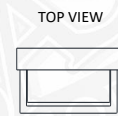
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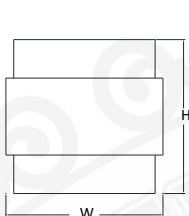
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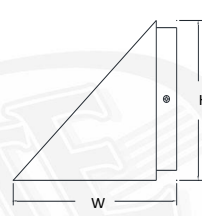
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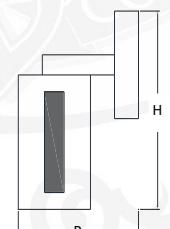
	HEIGHT	WIDTH
EUKR1	16"	8"
EUKR2	22"	8"



	HEIGHT	WIDTH
WDY14	16"	16.25"



	HEIGHT	WIDTH
WWM8	7"	8"



	HEIGHT	WIDTH	PROJ.
SAL8	14.75"	6"	10"



B – FINISH OPTIONS (SEE FINISH OPTION SWATCHES ON WEBSITE)

14PN-POLISH NICKEL **15**-POWDER BLUE **16**-DISTRESSED TURQUOISE **17**-DISTRESSED CHALK **18**-MINT GREEN **19**-ANTIQU ALUMINUM* **19P**-ANTIQU ALUMINUM **20**-RAW BRASS **20P**-BRASS **20PB**-POLISHED BRASS **20SB**-SATIN BRASS **21**-OIL RUBBED BRONZE* **21P**-OIL RUBBED BRONZE **22**-OLD PEWTER* **22P**-OLD PEWTER PC **23**-OLD COPPER PATINA* **23P**-OLD COPPER PATINA **38**-COPPER TINT **39**-RAW COPPER **40**-COPPER CLEAR COAT **41**-GLOSS BLACK **41.5**-MATTE BLACK **42**-DARK GREEN **43**-RED **44**-WHITE **45**-MEDIUM BLUE **46**-YELLOW **48**-POLISHED ALUMINUM **49**-GALVANIZED **50**-NAVY BLUE **51**-ARCHITECTURAL BRONZE **52**-PATINA **53**-RUST **54**-STUCCO **55**-SAGE **57**-POLISHED ALUMINUM CC **58**-SATIN ALUMINUM **59**-COPPER TONE **60**-CANAL GREEN **61**-ANODIZED CHARCOAL **62**-ANODIZED BRONZE **63**-IRON RUST **64**-WROUGHT IRON **65**-TERRACOTTA **66**-BARK **70**-TRANSPARENT RED **71**-TRANSPARENT GREEN **72**-TRANSPARENT WINE **73**-TRANSPARENT NAVY **74**-GUN METAL **75**-DISTRESSED RED **76**-DISTRESSED BLUE **77**-DISTRESSED GREEN **78**-CHALKBOARD BLACK **79**-GHOST ORANGE **80**-PALE GOLD **81**-METALLIC BRONZE **82**-BLACK GOLD **83**-SHOCKER GREEN **84**-FADDED BLUE **85**-COBBLESTONE **86**-BRONZE COPPER **87**-CHAMPAGNE **88**-FLAMED STEEL **89**-TAUPE **90**-LIME GREEN **91**-PACIFIC PINE **92**-ANTIQU GALVANIZED **93**-FADDED COPPER **94**-ANODIZED ALUMINUM **95**-TURQUOISE **96**-PURPLE **97**-BATTLESHIP GREY **98**-BLACKENED PIPE **99**-STEEL **100**-OLD STEEL **(MG)**- MARINE GRADE FINISH- AVAILABLE UPON REQUEST.

F – LIGHT SOURCE

BASELITE'S PUBLISHED LUMINAIRE PHOTOMETRIC TESTING WAS PERFORMED IN A 3-METER INTEGRATING SPHERE USING THE 4TT GEOMETRY METHOD. DATA IS CONSIDERED TO BE REPRESENTATIVE OF THE CONFIGURATIONS SHOWN, WITHIN THE TOLERANCES ALLOWED BY LIGHTING FACTS. TO OBTAIN AN IES FILE SPECIFIC TO YOUR PROJECT, PLEASE CONTACT THE FACTORY.

LIGHT EMITTING DIODE (LED)

LED 25W (MAX)- EUAR1, EUCS1, EUES1, EUER1, EUFS1, EUFR1, EUGS1, EUGR1, EUHS1, EUHR1, EUIR1, EUJS1, EUKR1, WDY14, WWM8

LED 50W (MAX)- EUAR2, EUCS2, EUES2, EUER2, EUFS2, EUFR2, EUGS2, EUGR2, EUHS2, EUHR2, EUIR2, EUJS2, EUKR2

***IMPORTANT** – FOR LIGHT EMITTED DIODE (LED) LIGHT SOURCE OPTION FIXTURES ARE LIMITED DUE TO SIZE OF THE FIXTURE AND THE CORD WATTAGE RESTRICTIONS. PLEASE SEE AVAILABILITY CHART TO THE LEFT.

EXAMPLE: / LED75W /

OPTION	WATTAGE	LUMENS	CRI	VOLTAGE	DIMMING
LED12W	12W	2192 @4K	>90	120-277 VAC	0-10V
LED25W	25W	3919 @4K	>90	120-277 VAC	0-10V
LED50W	50W	7838 @4K	>90	120-277 VAC	0-10V

INCANDESCENT (INC) MED E26

INC 2-20W- EUAR1, EUAR2, EUCS1, EUCS2, EUES1, EUES2, EUER1, EUER2, EUFS1, EUFS2, EUFR1, EUFR2 EUGS1, EUGS2, EUGR1, EUGR2, EUHS1, EUHS2, EUHR1, EUHR2, EUIR1, EUJS1, EUJS2, EUKR1, EUKR2, **INC 100W**- WDY14, WWM8

***IMPORTANT** – FOR INCANDESCENT (INC) LIGHT SOURCE OPTION, FIXTURES ARE LIMITED DUE TO SIZE OF THE FIXTURE AND THE CORD WATTAGE RESTRICTIONS. PLEASE SEE AVAILABILITY CHART TO THE RIGHT.

EXAMPLE: / INC150W /

OPTION	WATTAGE	LUMENS	CRI	VOLTAGE	DIMMING
20W INC	20W	PER BULB SPECS	>90	120-277 VAC	N/A

COMPACT FLOURESCENT (CF)

CF 26W(MAX)- WDY14, WWM8

CF 2-26W, 32W, OR 42(MAX)- EUAR1, EUAR2, EUCS1, EUCS2, EUES1, EUES2, EUER1, EUER2, EUFS1, EUFS2, EUFR1, EUFR2 EUGS1, EUGS2, EUGR1, EUGR2, EUHS1, EUHS2, EUHR1, EUHR2, EUIR1, EUIR2, EUJS1, EUJS2, EUKR1, EUKR2

***IMPORTANT** – FOR COMPACT FLOURESCENT (CF) LIGHT SOURCE, FIXTURES ARE LIMITED DUE TO THE SIZE OF THE SHADE. PLEASE SEE THE CHART TO THE LEFT TO SEE WHAT WATTAGE IS COMPARABLE FOR EACH FIXTURE WHEN ORDERING.

EXAMPLE: / CF42W /

OPTION	WATTAGE	LUMENS	CRI	VOLTAGE	DIMMING
CF26W	26W	PER BULB SPECS	>90	120-277 VAC	0-10V
CF32W	32W	PER BULB SPECS	>90	120-277 VAC	0-10V
CF42W	42W	PER BULB SPECS	>90	120-277 VAC	0-10V



K – ELECTRICAL OPTION

MOST BASELITE'S ELECTRICAL OPTIONS ARE ONLY COMPATIBLE FOR CERTAIN FIXTURES. PLEASE SEE NOTES BELOW AND FOR FURTHER DEATIALS CONTACT THE FACTORY.
FOR DIMMING BALLAST OPTION PLEASE CHOOSE MARK X OR MARK VII, SO RESTRICTIONS APPLY DUE TO THE SIZE OF THE BALLAST AND FIXTURE.

COMPACT FLUORESCENT DIMMING OPTIONS

PROVIDED WITH ADVANCE TRANSFORMER, PLEASE CHOOSE MARK 10 OR MARK 7 WITH SPECIFIED VOLTAGE FROM THE LIST BELOW. CONTACT BALLAST MANUFACTURER FOR SPECIFICATIONS.

CDM7-120/277 - ADVANCE MARK 7 0-10v ELECTRICAL BALLST – 120/277 VOLT

CDM10-120 - ADVANCE MARK 10 ELECTRICAL BALLST – 120 VOLT

CDM10-277 - ADVANCE MARK 10 ELECTRICAL BALLST – 277 VOLT

LED DIMMING OPTIONS

FOR TRIAC OR 0-10V OPTOIN CHOOSE FROM THE FOLLOWING. CONTACT DRIVER MANUFACTURER FOR SPECIFICATIONS.

LDM120 - TRIAC DIMMING AT 120 VOLT

LDM277 - TRIAC DIMMING AT 277 VOLT

LDM0-10V – 0 – 10v

PHCL120V – PHOTOCELL 120 VOLT

PHCL277V – PHOTOCELL 277 VOLT

FS – FUSING

EM – EMERGENCY BALLAST (ONLY AVAILABLE FOR COMPACT FLOURESCENT)

BRC – BALLAST RETAINER CHAIN

NOTES:

FOR COMPACT FLUORESCENT DIMMING OPTION:

MARK 7 – 120 THROUGH 277V. BALLASTS MAY BE REMOTE MOUNTED UP TO 6 IN. AWAY FROM LAMPS. 100% - 3% FULL RANGE CONTINUOUS DIMMING. SOME LIGHT MANUFACTURERS RECOMMEND BURNING IN NEW LAMPS 100 HOURS AT FULL LIGHT OUTPUT BEFORE DIMMING. CONSULT LIGHT MANUFACTURER.

MARK 10 – 120V ONLY. ONE AND TWO-LAMP BALLASTS MAY BE REMOTE MOUNTED UP TO 6 FT. AWAY FROM LAMPS. THREE LAMP BALLASTS MAY NOT BE REMOTE MOUNTED. 100% - 5% FULL RANGE CONTINUOUS DIMMING. SOME LIGHT MANUFACTURERS RECOMMEND BURNING IN NEW LAMPS 100 HOURS AT FULL LIGHT OUTPUT BEFORE DIMMING. CONSULT LIGHT MANUFACTURER.

FOR **EM** (EMERGENCY BALLAST) OPTION: STANDARD LUMEN OUTPUT IS 700. CALL FACTORY FOR REQUEST OF A HIGHER LUMEN OUTPUT. *IF EMERGENCY OPTION IS USED WITH DIMMING, THE BALLAST MUST BE LOCATED HALF THE DISTANCE OF THE DIMMING REQUIREMENTS.

FEATURES & SPECIFICATIONS

INTENDED USE — Typical applications include corridors, lobbies, conference rooms and private offices.
CONSTRUCTION — Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches. Reflectors are retained by torsion springs.

Vertically adjustable mounting brackets with commercial bar hangers provide 3-3/4" total adjustment. Two combination 1/2"-3/4" and four 1/2" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out). No. 12 AWG conductors, rated for 90°C.

Accommodates 12"-24" joist spacing.

Passive cooling thermal management for 25°C standard; high ambient (40°C) option available. Light engine and drivers are accessible from above or below ceiling.

Max ceiling thickness 1-1/2".

OPTICS — LEDs are binned to a 3-step SDCM; 80 CRI minimum. 90 CRI optional.

LED light source concealed with diffusing optical lens.

General illumination lighting with 1.0 S/MH and 55° cutoff to source and source image.

Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.

ELECTRICAL — Multi-volt (120-277V, 50/60Hz) 0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level available.

0-10V dimming fixture requires two (2) additional low-voltage wires to be pulled.

70% lumen maintenance at 60,000 hours.

LISTINGS — Certified to US and Canadian safety standards. Wet location standard (covered ceiling). IP55 rated. ENERGY STAR® certified product.

WARRANTY — 5-year limited warranty. Complete warranty terms located at:

www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

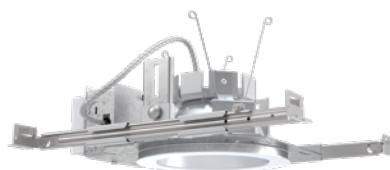
All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.



A+ Capable options indicated by this color background.

Catalog Number
Notes
Type SFE



LDN6

**6" Open and WallWash LED
Non-IC
New Construction Downlight**



ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: LDN6 35/15 L06AR LSS MVOLT EZ10

LDN6	Series	Color temperature	Lumens ¹	Aperture/Trim Color	Finish	Voltage
	LDN6 6" round	27/ 2700K 30/ 3000K 35/ 3500K 40/ 4000K 50/ 5000K	05 500 lumens 07 750 lumens 10 1000 lumens 15 1500 lumens 20 2000 lumens	25 2500 lumens 30 3000 lumens 40 4000 lumens 50 5000 lumens	L06 Downlight LW6 Wallwash AR Clear WR ² White BR ² Black	LSS Semi-specular LD Matte diffuse LS Specular MVOLT Multi-volt 120 120V 277 277V 347 ³ 347V

Driver	Options
GZ10 0-10V driver dims to 10%	SF ⁴ Single fuse
GZ1 0-10V driver dims to 1%	TRW ⁵ White painted flange
D10 Minimum dimming 10% driver for use with JOT	TRBL ⁵ Black painted flange
D1 Minimum dimming 1% driver for use with JOT	EL ⁶ Emergency battery pack with integral test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS
EZ10 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 10%	ELR ⁶ Emergency battery pack with remote test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS
EZ1 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 1%	ELSD ⁶ Emergency battery pack with self-diagnostics, integral test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS
EDAB eldoLED DALI SOLDRIIVE dim to dark	ELRSD ⁶ Emergency battery pack with self-diagnostics, remote test switch. 10W Constant Power, Not Certified in CA Title 20 MAEDBS
	E10WCP ⁶ Emergency battery pack, 10W Constant Power with integral test switch. Certified in CA Title 20 MAEDB
	E10WCPR ⁶ Emergency battery pack, 10W Constant Power with remote test switch. Certified in CA Title 20 MAEDB
	NPP16D ⁷ nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1).
	NPP16DER ⁷ nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit.
	N80 ⁸ nLight™ Lumen Compensation
	JOT ¹³ Wireless room control with "Just One Touch" pairing
	NPS80EZ ⁷ nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1).
	NPS80EZER ⁷ nLight® dimming pack controls 0-10V eldoLED drivers (EZ10, EZ1). ER controls fixtures on emergency circuit.
	HAO ¹¹ High ambient option
	CP ¹² Chicago Plenum
	RRL ¹² RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Available only in RRLA, RRLB, RRLAE, and RRLC12S. Refer to RRL spec sheet on www.acuitybrands.com for the RELOC product specifications.
	NLTAIR2 ^{9,10} nLight® Air enabled
	NLTAIRER2 ^{9,10} nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit, not available with battery pack options
	NLTAIREM2 ^{9,10} nLight® AIR Dimming Pack Wireless Controls. UL924 Emergency Operation, via power interrupt detection. Available with battery pack options.
	USPOM US point of manufacture
	90CRI High CRI (90+)

Accessories: Order as separate catalog number.	
PS1055CP	FMC Power Sentry battery pack, T20 compliant, field installable, 10w constant power
EAC ISSM 375	Compact interruptible emergency AC power system
EAC ISSM 125	Compact interruptible emergency AC power system
GRA68 JZ	Oversized trim ring with 8" outside diameter ¹

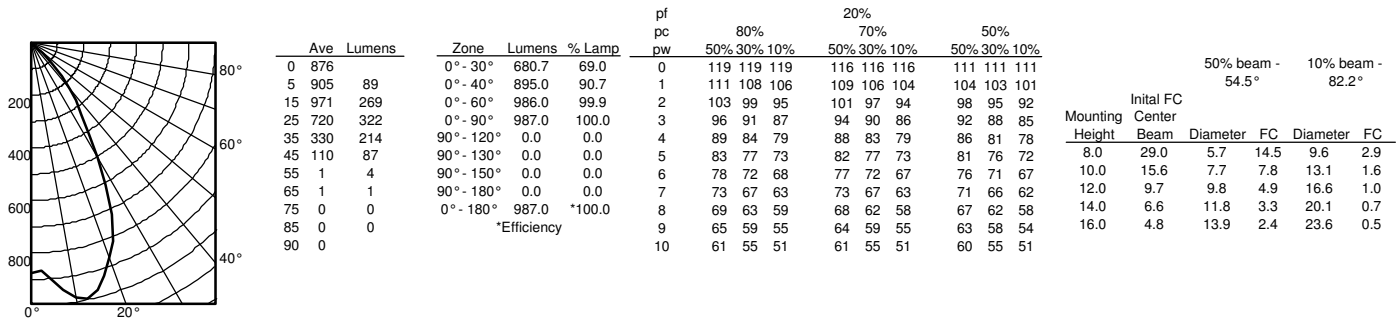
Notes

- Overall height varies based on lumen package; refer to dimensional chart on page 3.
- Not available with finishes.
- Not available with emergency options.
- Must specify voltage 120V or 277V.
- Available with clear (AR) reflector only.
- 12.5" of plenum depth or top access required for battery pack maintenance.
- Specify voltage. ER for use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
- Fixture begins at 80% light level. Must be specified with NPS80EZ or NPS80EZ ER. Only available with EZ10 and EZ1 drivers.
- Not available with CP, NPS80EZ, NPS80EZER, NPP16D, NPP16DER or N80 options.
- NLTAIR2, NLTAIRER2 and NLTAIREM2 not recommended for metal ceiling installations.
- Fixture height is 6.5" for all lumen packages with HAO.
- Must specify voltage for 3000lm and above. 5000lm with marked spacing 24 L x 24 W x 14 H. Not available with emergency battery pack option.
- Must specify D10 or D1 driver. Not available with nLight options. Not available with CP. Not recommended for metal ceiling installation. Not for use with emergency backup power systems other than battery packs.

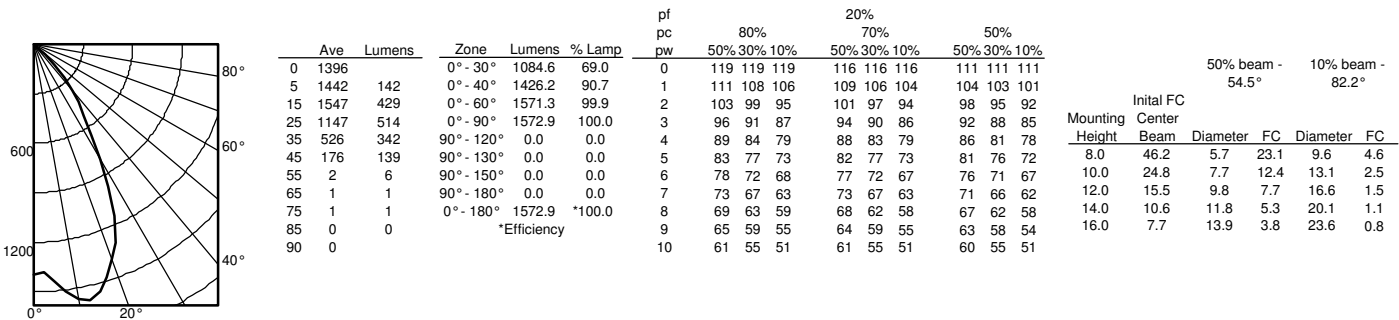
PHOTOMETRY

Distribution Curve	Distribution Data	Output Data	Coefficient of Utilization	Illuminance Data at 30" Above Floor for a Single Luminaire
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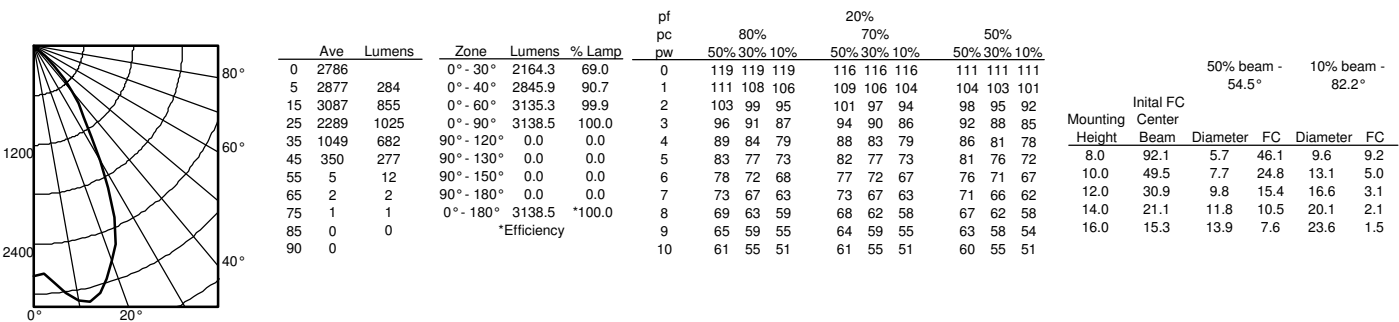
LDN6 35/10 L06AR, input watts: 10.44, delivered lumens: 987.10, LM/W = 94.54, spacing criterion at 0= 1.02, test no. ISF 30716P262.



LDN6 35/15 L06AR, input watts: 17.52, delivered lumens: 1572.9, LM/W = 89.77, spacing criterion at 0= 1.02, test no. ISF 30716P265.



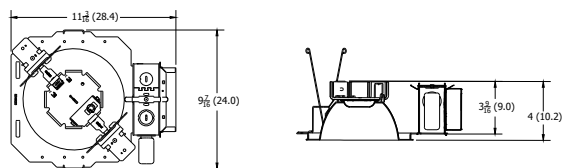
LDN6 35/30 L06AR, input watts: 34.75, delivered lumens: 3138.5, LM/W = 90.31, spacing criterion at 0= 1.02, test no. ISF 30716P274.



LDN6

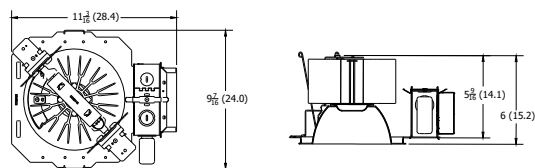
* All dimensions are inches (centimeters) unless otherwise noted.

LDN6 500 - 1500 LUMENS



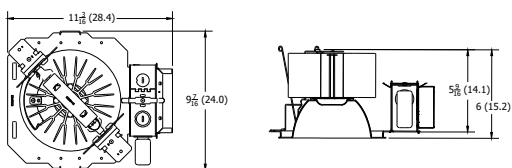
Aperture: 6-1/4" (15.9)
Ceiling Opening: 7-1/8" (18.1)
Overlap Trim: 7-1/2" (19.1)

LDN6 2000 - 3000 LUMENS



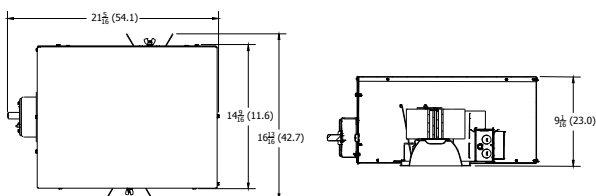
Aperture: 6-1/4" (15.9)
Ceiling Opening: 7-1/8" (18.1)
Overlap Trim: 7-1/2" (19.1)

LDN6 4000 - 5000 LUMENS



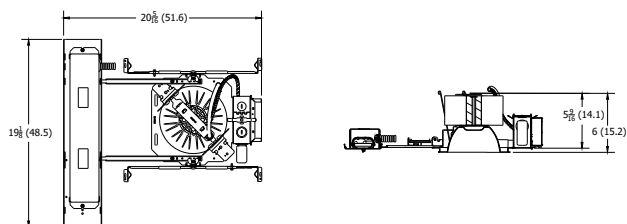
Marked Spacing: 24 x 24 x 10
Aperture: 6-1/4" (15.9)
Ceiling Opening: 7-1/8" (18.1)
Overlap Trim: 7-1/2" (19.1)

LDN6 CP



Aperture: 6-1/4" (15.9)
Ceiling Opening: 7-1/8" (18.1)
Overlap Trim: 7-1/2" (19.1)

LDN6 EL



Marked Spacing above 3000 Lumens: 24 x 24 x 10
Aperture: 6-1/4" (15.9)
Ceiling Opening: 7-1/8" (18.1)
Overlap Trim: 7-1/2" (19.1)

LDN6			
Nominal Lumens	Lumens	Wattage	Lm/W
500	527.9	5.8	90.5
750	758.1	8.9	85.1
1000	950.1	10.4	91.0
1500	1514	17.5	86.4
2000	2006	22.5	89.1
2500	2504	28.3	88.6
3000	3021	34.8	86.9
4000	4008	44.3	90.6
5000	4975	57.7	86.3

HOW TO ESTIMATE DELIVERED LUMENS IN EMERGENCY MODE

Use the formula below to estimate the delivered lumens in emergency mode

$$\text{Delivered Lumens} = 1.25 \times P \times \text{LPW}$$

P = Output power of emergency driver. P = 10W for PS1055CP

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet.

The LPW rating is also available at Designlight Consortium.

LUMEN OUTPUT MULTIPLIERS - FINISH			
	Clear (AR)	White (WR)	Black (BR)
Specular (LS)	1.0	N/A	N/A
Semi-specular (LSS)	0.950	N/A	N/A
Matte diffuse (LD)	0.85	N/A	N/A
Painted	N/A	0.87	0.73

LUMEN OUTPUT MULTIPLIERS - CCT					
	2700K	3000K	3500K	4000K	5000K
80CRI	0.950	0.966	1.000	1.025	1.101

Notes

- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- CRI: 80 typical.

ADDITIONAL DATA



The Sensor Switch JOT enabled solution offers a wireless, app-free approach to single room lighting control. JOT enabled products use Bluetooth® Low Energy (BLE) technology to enable wireless dimming and switching.

Diagram



LDN6 Series

Sensor Switch
WSXA JOT

- 1. Power:** Install JOT enabled fixtures and controls as instructed.
- 2. Pair:** Insert the pairing tool into the pinhole on the wall switch; press and hold any button for 6 seconds.
- 3. Play:** Once paired, each fixture will individually dim down to 10% brightness. All products will be fully functional.

COMPATIBLE 0-10V WALL-MOUNT DIMMERS

MANUFACTURER	PART NO.	POWER BOOSTER AVAILABLE
Lutron®	Diva® DDTV	
	Diva® DVSCCTV	
	Nova T® NTFTV	
	Nova® NDTV	
Leviton®	AWSMT-7DW	CN100
	AWSMG-7DW	PE300
	AMRMG-7DW	
	Leviton Centura Fluorescent Control System	
	IllumaTech® IP7 Series	
Synergy®	ISD BC	RDMFC
	SLD LPCS	
	Digital Equinox (DEQ BC)	
Douglas Lighting Controls	WPC-5721	
Entertainment Technology	Tap Glide TG600FAM120 (120V)	
	Tap Glide Heatsink TGH1500FAM120 (120V)	
	Oasis OA2000FAMU	
Honeywell	EL7315A1019	EL7305A1010 (optional)
	EL7315A1009	
HUNT Dimming	Preset slide: PS-010-IV and PS-010-WH	
	Preset slide: PS-010-3W-IV and PS-010-3W-WH	
	Preset slide, controls FD-010: PS-IFC-010-IV and PS-IFC-010-WH-120/277V	
	Preset slide, controls FD-010: PS-IFC-010-3W-IV and PS-IFC-010-3W-WH-120/277V	
	Remote mounted unit: FD-010	
Lehigh Electronic Products	Solitaire	PBX
PDM Electrical Products	WPC-5721	
Starfield Controls	TR61 with DALI interface port	RT03 DALInet Router
WattStopper®	LS-4 used with LCD-101 and LCD-103	

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

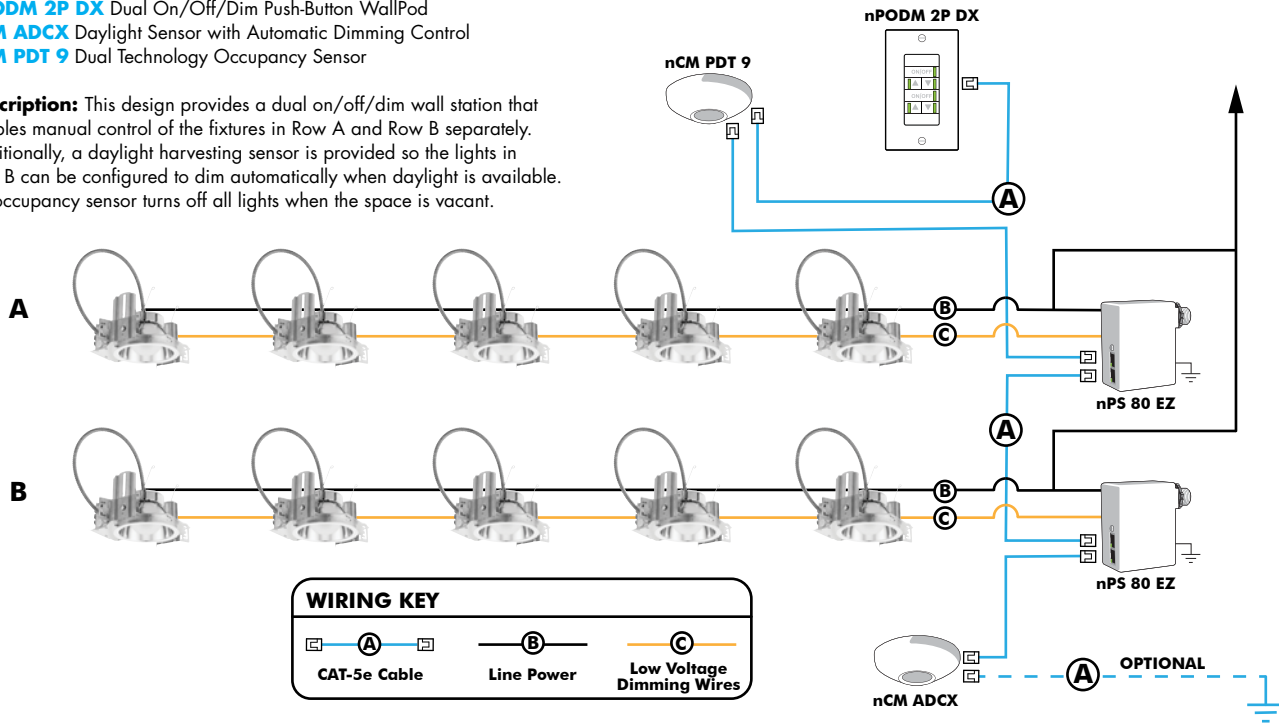
EXAMPLE

Group Fixture Control*

*Application diagram applies for fixtures with eldoLED drivers only.

nPS 80 EZ Dimming/Control Pack (qty: 2 required)**nPODM 2P DX** Dual On/Off/Dim Push-Button WallPod**nCM ADCX** Daylight Sensor with Automatic Dimming Control**nCM PDT 9** Dual Technology Occupancy Sensor

Description: This design provides a dual on/off/dim wall station that enables manual control of the fixtures in Row A and Row B separately. Additionally, a daylight harvesting sensor is provided so the lights in Row B can be configured to dim automatically when daylight is available. An occupancy sensor turns off all lights when the space is vacant.

**Choose Wall Controls**

nLight offers multiple styles of wall controls - each with varying features and user experience.



Push-Button Wallpod
Traditional tactile buttons and LED user feedback



Graphic Wallpod
Full color touch screen provides a sophisticated look and feel

nLight® Wired Controls Accessories:

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight for complete listing of nLight controls.

WallPod Stations	Model number	Occupancy sensors	Model Number
On/Off	nPODM (Color)	Small motion 360°, ceiling (PIR/dual Tech)	nCM 9 / nCM PDT 9
On/Off & Raise/Lower	nPOD DX (Color)	Large motion 360°, ceiling (PIR/dual tech)	nCM 10 / nCM PDT 10
Graphic Touchscreen	nPOD GFX (Color)	Wide View (PIR/dual tech)	nWV 16 / nWV PDT 16
Photocell controls	Model Number	Wall Switch w/ Raise/Lower (PIR/dual tech)	nWSX LV DX / nWSX PDT LV DX
Dimming	nCM ADCX	Cat-5 cables (plenum rated)	Model Number
		10', CAT5 10FT	CAT5 10FT J1
		15', CAT5 15FT	CAT5 15FT J1

nLight AIR

nLight AIR is the ideal solution for retrofit or new construction spaces where adding communication is cost prohibitive. The integrated nLight AIR rPP20 Power Pack is part of each Lithonia LDN Luminaire. These individually addressable controls offer the ultimate in flexibility during initial setup and for space repurposing.

**Simple as 1,2,3**

1. Install the nLight® AIR fixtures with embedded smart sensor
2. Install the wireless battery-powered wall switch
3. With CLAIRITY app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome

**nLight® AIR Control Accessories:**

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.

Wall switches	Model number
On/Off single pole	rPODB [color]
On/Off two pole	rPODB 2P [color]
On/Off & raise/lower single pole	rPODB DX [color]
On/Off & raise/lower two pole	rPODB 2P DX [color]
On/Off & raise/lower single pole	rPODBZ DX WH ¹

Notes

- 1 Can only be ordered with the RES7Z zone control sensor version.

Meeting Cycle: Thursday, May 20, 2021

Subject: Discussion on a Planned Development Sketch Plan – Lakeland Park
Planned Development.

Staff Contact: Richard Donovan, Planning Consultant

STAFF RECOMMENDATION

Staff recommends the following items be addressed with the outline plan:

- Provide connections at least three or more connections from the single-family portion to the retail/office portion of the development.
 - This would allow and encourage families to walk to dinner, employees to walk to work, etc., by providing a short walking distance.
 - The current proposal has a single potential connection point.
- Provide details on how the plan meets the Small Areal Plan adopted by the City in 2017 for the interstate interchange.
 - The plan currently shows how the development would comply with the current comprehensive plan and LDRs.

DISCUSSION

The applicant is seeking discussion and feedback on a sketch plan submittal for the proposed Lakeland Park PD.

SITE INFORMATION:

LOCATION:	9640 Davies Plantation Road
PARCEL ID:	L0159 00395
ZONING:	C2 (Regional Commercial)
AREA:	99.29 acres
APPLICANT/OWNER:	Kevin Hyneman
REPRESENTATIVE:	Bob Dalholff & Michelle Ye

BACKGROUND & ANALYSIS:

Lakland Park PD is a planned mixed-use development having a combined area of 99.29-acres. The subject property is bound to the east and south by Commercial Development along Canada Road and Davies Plantation Road, the west by the City of Bartlett, and the north by vacant lots along New Canda Road.

Kevin Hyneman Companies intends to develop the combined 99-acre property as a planned mixed-use development offering 172 single-family residential lots (partially age-targeted), senior

living facility, and C2 commercial along Davies Plantation Road and Canada Road with 28+ acres of common open space to include walking trails, benches, ponds, guest parking, and tree preservation areas that residents in the development will utilize. The proposed lot sizes are a minimum of 55-foot wide, as delineated by the site data table. The proposed overall density is 2.2 dwelling units per acre with 20+ acres of commercial along the existing street frontages.

DISCUSSION ITEMS:

The applicant has submitted a sketch plan to receive feedback from the MPC. The applicant has provided a sketch plan booklet for review. The LDR only require the following of sketch plans:

- a. A statement of planning objectives to be achieved by the Planned Development through the design and use mixture approach proposed by the applicant. This statement should include detailed description of the proposed development.
- b. Conceptual Site Plan with proposed land uses, approximate density, lot configuration, approximate areas for common open space, and general road alignments.

City Staff will review in greater detail with the submittal of the Outline Plan if the developer decides to proceed.

Currently, the basic elements proposed are as follows:

- R3 Suburban Cottage lots
 - 55 feet wide
 - 6,000 sq. ft.
- C2 Regional Commercial frontage along existing streets
- Senior living facilities in multi-family and cottage development.
- Preservation of challenging terrain and trees on site.

City Staff does encourage the MPC to provide feedback on any elements of the plan that may cause concern to the MPC. This could include lot size, setbacks, uses, streets, connectivity, etc.

LAKELAND PARK

PLANNED DEVELOPMENT
Lakeland, Tennessee



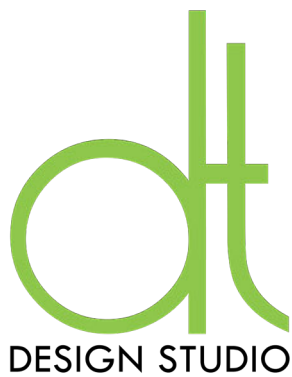
DEVELOPER:

Kevin Hyneman Companies

177 Crescent Drive
Collierville, TN 38017
901.202.1220

contact: Mr. Kevin Hyneman - kevin@kevinhyneman.com

PLANNER / LANDSCAPE ARCHITECT:



DALHOFF THOMAS design | studio

6465 North Quail Hollow | Suite 401
Memphis, Tennessee 38120
901.646.5070
www.dt-designstudio.com

contacts: Bob Dalhoff - bob@dt-designstudio.com
Michelle Ye - michelle@dt-designstudio.com

ARCHITECT:



Renaissance Group
architecture • engineering • planning • interiors

Renaissance Group

9700 Village Circle | Suite 100
Lakeland, TN 38002
901.332.5533
www.rgroup.biz

contacts: Ron Colin - RColin@rgroup.biz
Christopher Speltz - CSpeltz@rgroup.biz

COVER LETTER 3

LOCATION MAPS 4

REGIONAL AERIAL..... 5

LAKELAND ZONING & FUTURE LAND USE PLAN 6

LAKELAND NEIGHBORHOOD TYPES & TRANSPORTATION PLAN..... 7

SITE ANALYSIS..... 8

CONCEPTUAL DEVELOPMENT PLAN 9

CIRCULATION PLAN & LANDSCAPE PLATE LOCATIONS..... 10

STREET CROSS-SECTIONS & LANDSCAPE PLATES 11-13

GREENSPACE PLAN 14

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May 5, 2021

Ms. Emily Harrell
City Engineer
City of Lakeland
10001 Highway 70
Lakeland, TN 38002

**RE: Lakeland Park Planned Development
Sketch Plan Submittal**

Dear Ms. Harrell,

We are pleased, on behalf of the Hyneman family, the Owner and Developer, to submit this Sketch Plan application for the property located on the northwest corner of the I-40 and Canada Road interchange. The conceptual development plan prioritizes the concentration of commercial uses around the interchange, the preservation of natural features, and the creation of high-quality living environments for senior citizens.

Lakeland Park Planned Development encompasses 99.29 ± acres, currently zoned as C-2 and the site of an existing paintball park. It is the intent of the Developer to subdivide the commercial areas presented in this Sketch Plan application and allow the approved commercial uses to be developed first, prior to the Outline Plan for the entire property is submitted. This strategy not only allows the property to keep up with the recovery of the retail industry and attract much-needed commercial uses to a convenient location for Lakeland residents, but also provides more time for the Developer and design team to refine the plan for the rest of the property with the City’s input through the Planned Development process.

The property is currently bound on the south side by Davies Plantation Rd, with other commercial uses across the street. Along the east side is Canada Road, which will be rerouted per Lakeland’s Transportation Plan. The north side of the property is adjacent to a vacant residential parcel, and the west side is the Plantation Estates – Davieshire residential neighborhood which is in the Bartlett city limits.

The Lakeland Park conceptual development plan is organized around fitting the most appropriate uses to the site’s physical features and surrounding context. The vehicular traffic and surrounding commercial uses along Davies Plantation Road and Canada Road are fitting for the approved commercial uses to remain along these road frontages. Although it is illustrated that some of these parcels could develop as office or hotel, these are all approved uses under the existing commercial zoning, and the exact use will be determined by the market. The southeast corner of the site is on relatively flat high ground, so it is a perfect place to provide a senior community that includes a multi-story building on the corner and small senior cottage lots towards the interior of the site. The design working around the existing drainage patterns and providing adequate room for the extension of public sewer along the western and northern property line. A single-family age-targeted community is planned to work with the heavy topography and drainage challenges in the middle and northeast portion of the site. The majority of existing tree cover is in this area and care has been taken to preserve tree areas between groups of lots.

In 2017, a Lakeland Small Area Plan was completed by LRK for the properties around the I-40 and Canada Road interchange. The plan concluded that the area, although designated C-2, should be allowed more residential uses in alignment with the Type V Neighborhood designation. The potential development graphic presents a scenario where mixed-use, residential, or senior living is located along Canada Road, with two single-family neighborhoods on the west and north portions of the site. Although the design team has followed the basic framework of this plan, the proposed conceptual development plan addresses a few key issues that come up when looking at this property from a site-specific level. First, a single-family residential neighborhood would be too harsh of a transition directly across from the commercial or mixed-use buildings along Davies Plantation Rd and in close proximity to I-40. A better solution is to soften the transition with approved commercial uses along Davies Plantation Rd and to locate a multi-story senior living building on the southwest corner before transitioning into single-family toward the back and interior of the site. Another issue was the lack of detention at the low area, which has also been addressed on the conceptual development plan. Lastly, the plan shows a large building appearing to be mixed use or senior living on the eastern portion of the site. This will be challenging to construct with the grades in that area, so the proposed concept uses smaller commercial buildings along Canada Rd. We believe that this project expands on the groundwork of the Small Area Plan using a more in-depth analysis of the site, the feasibility and compatibility of different uses, and the demands of the residential market.

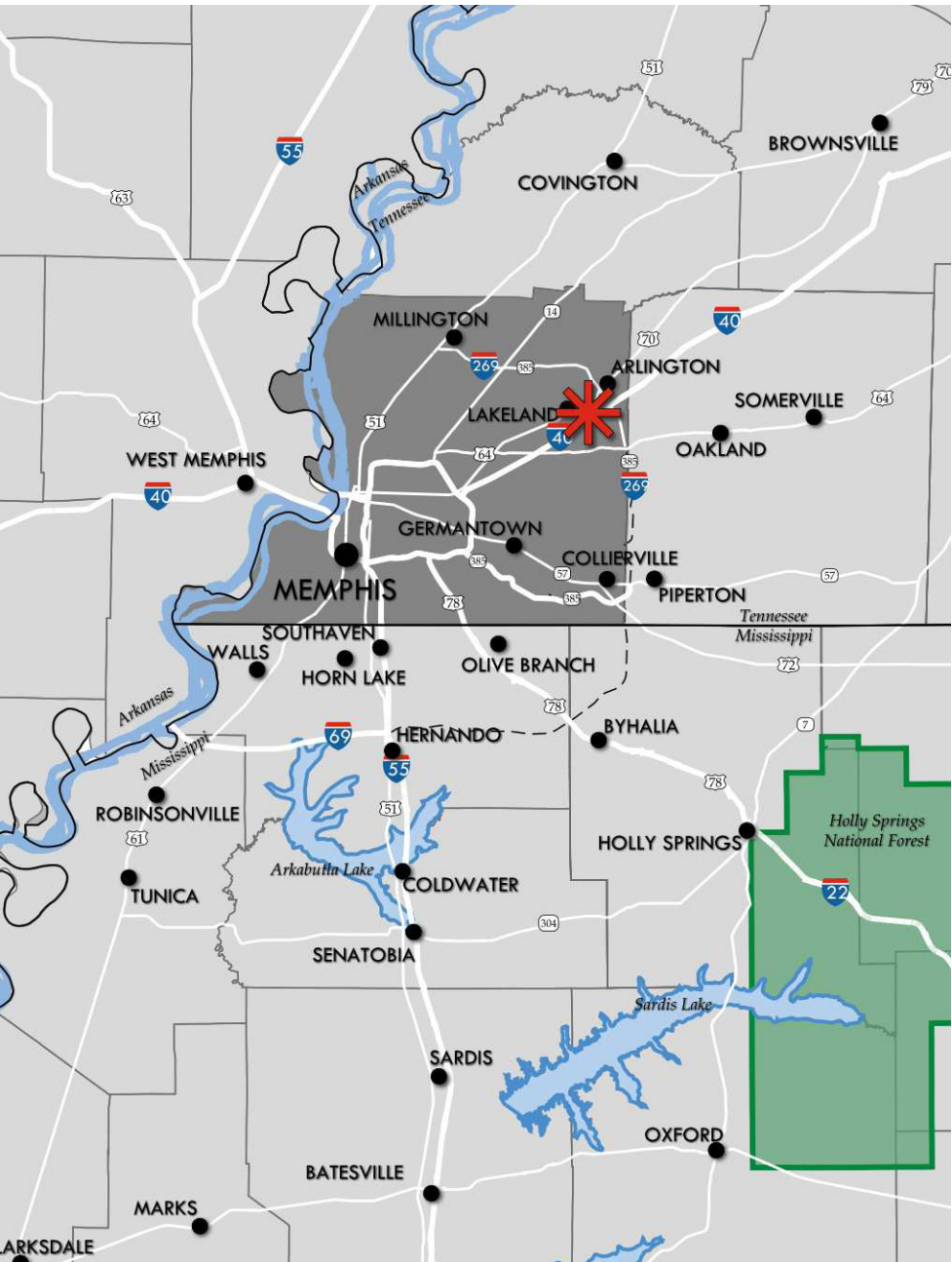
We feel that the Lakeland Park Planned Development will create a long-lasting, high-quality community that addresses the needs of the City, and represents the Developer and design team’s understanding of Lakeland’s unique assets and vision. If we can be of any help with regards to this application, please do not hesitate to contact us.

Sincerely,


Michelle Ye, PLA
Senior Associate
DT design studio

REGIONAL LOCATION

Lakeland Park Planned Development is in the northeastern portion of Shelby County, Tennessee and is in the limits of the City of Lakeland. The property is inside the bounds of the Memphis Metropolitan Area boasting a population of over 1.34 million. Metropolitan Memphis is also known as the Mid-South. Lakeland Park PD contains 99.29 ± acres.

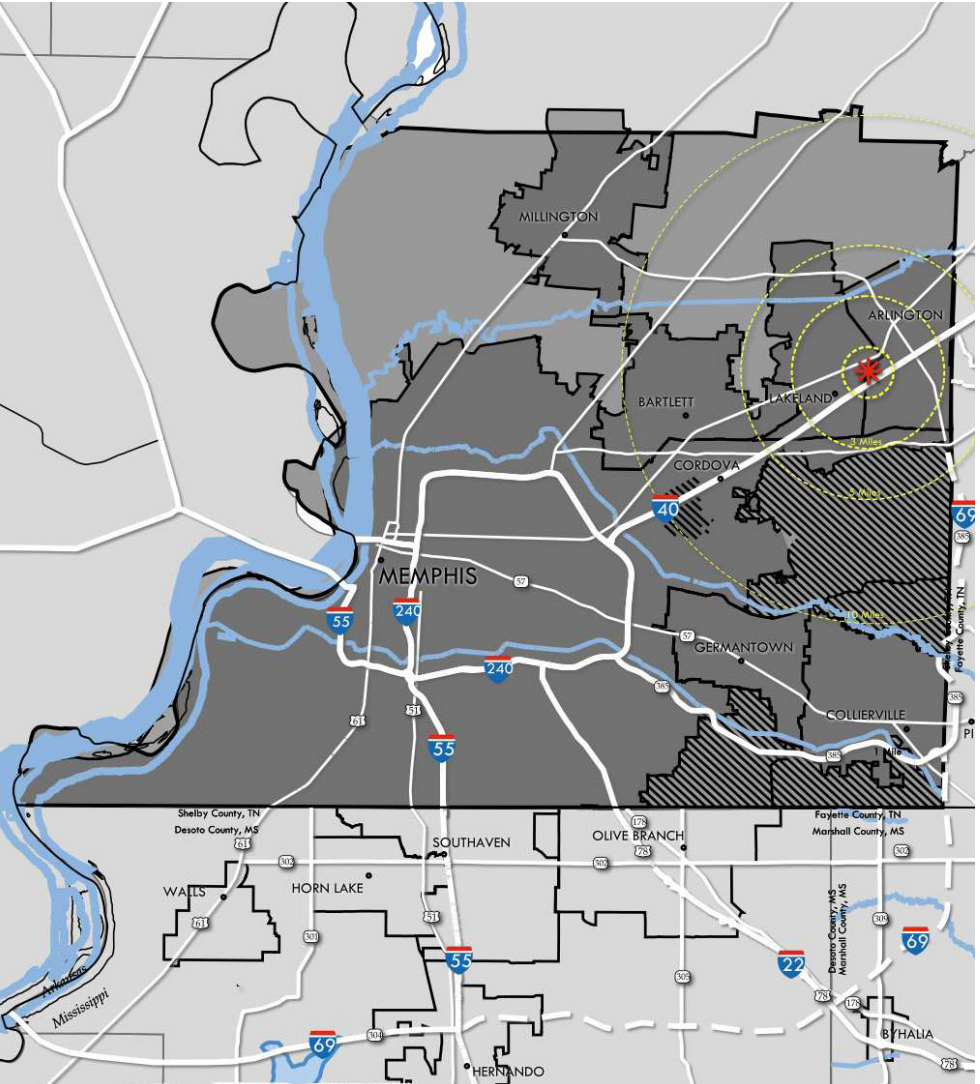


IMMEDIATE LOCATION

More specifically defined, the Lakeland Park Planned Development is in the southwest portion of the City of Lakeland. The subject property is bound by single-family residential parcels to the north, west, and south. Davies Plantation Road borders the southeast portion of the site and Canada Road extends along the northeast boundary.

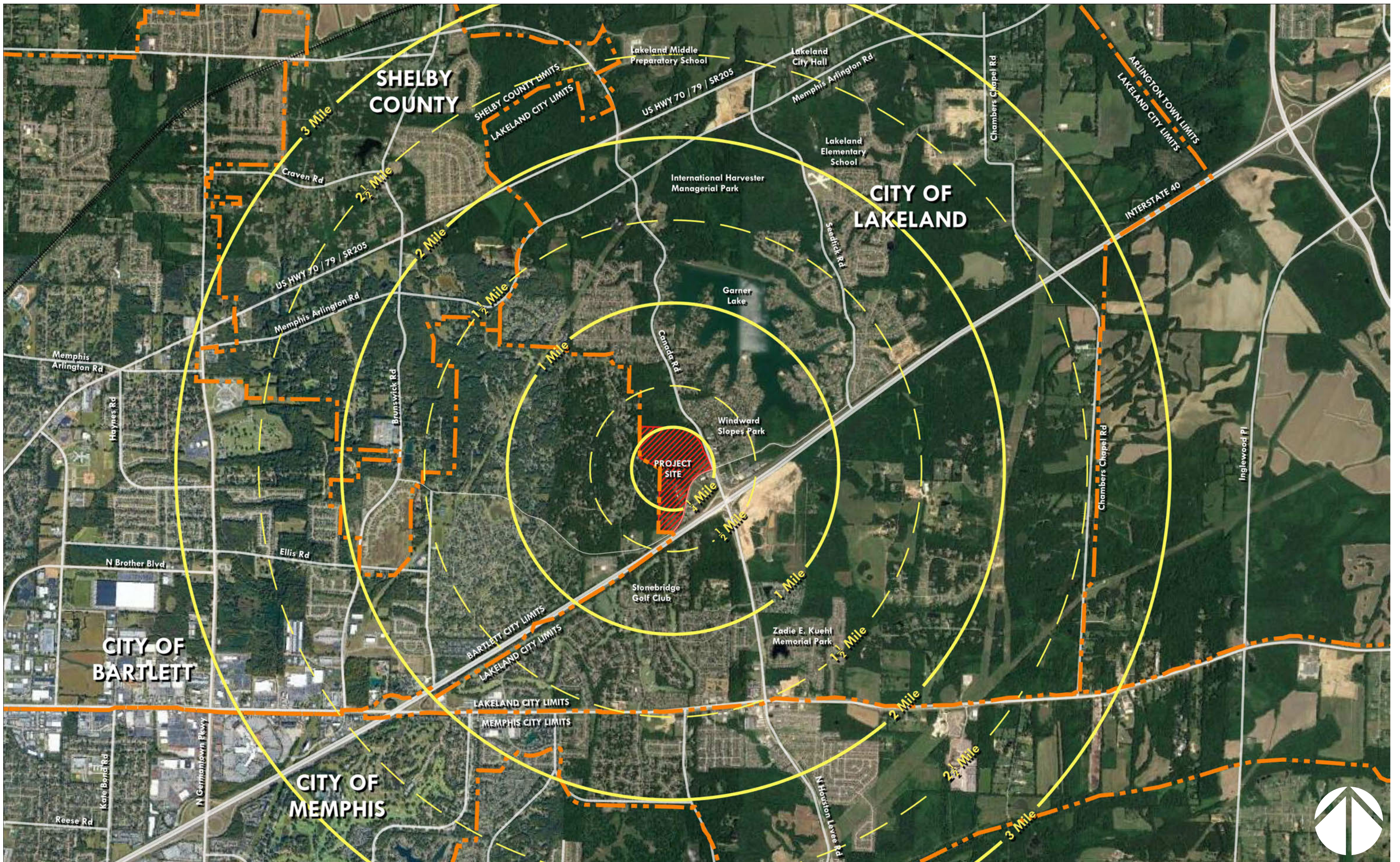
CURRENT MUNICIPALITIES

Lakeland Park Planned Development falls entirely within the Lakeland municipal boundary. The US Census Bureau estimates the current population within the City of Lakeland to be approximately 12,642. The City is in the northeast portion of Shelby County. The County itself has a population of over 937,000. The Memphis Metropolitan area boasts a population of approximately 1.34 million.



MILEAGE TO SURROUNDING MUNICIPALITIES (±)

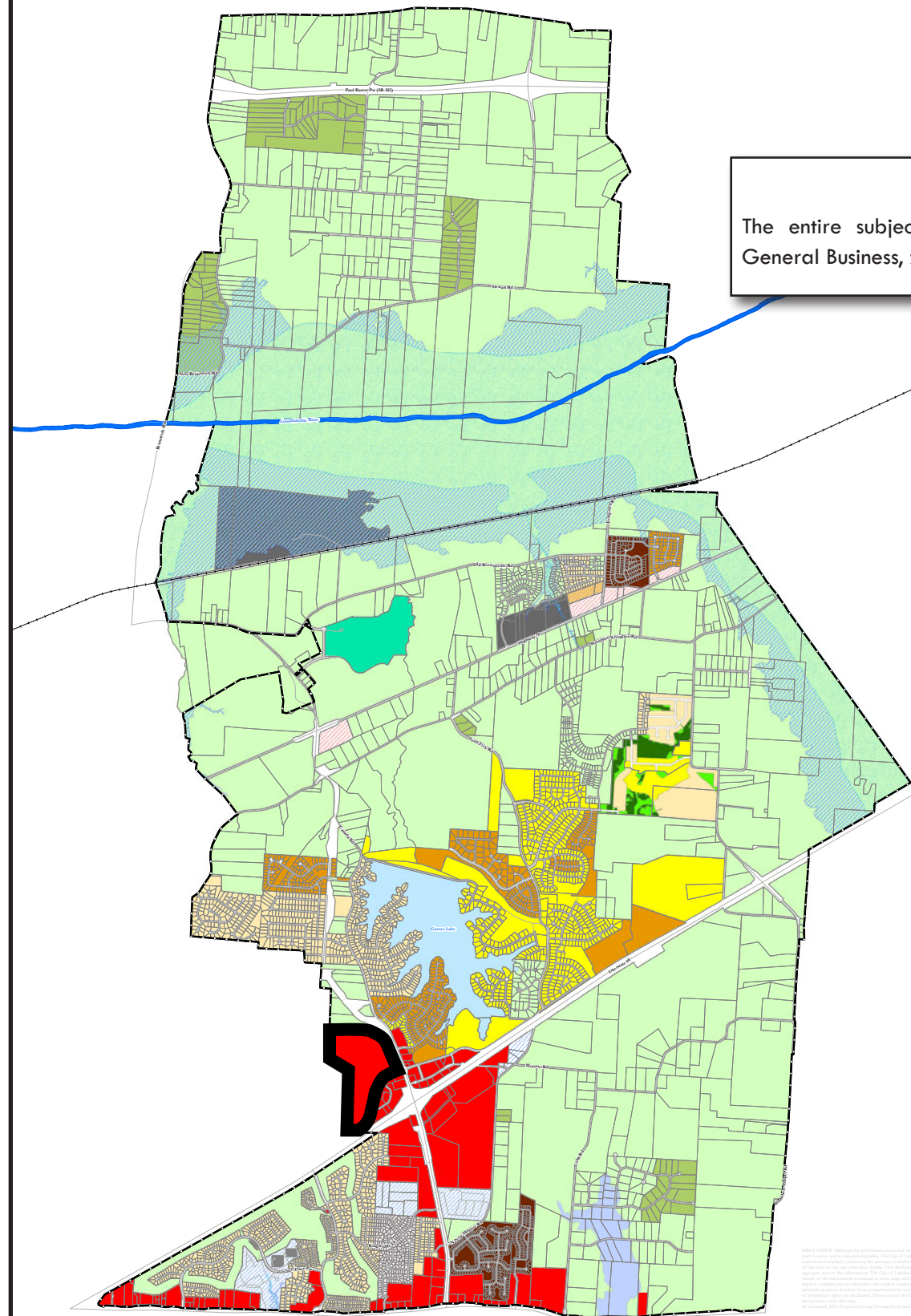
Lakeland.....	4
Bartlett.....	8
Germantown.....	12
Collierville.....	15
Memphis.....	21
Olive Branch.....	26
Southaven.....	30
Jackson, TN.....	64
Measured to City/Town Hall	



LAKELAND PARK PLANNED DEVELOPMENT

Lakeland, Tennessee

City of Lakeland Zoning Map

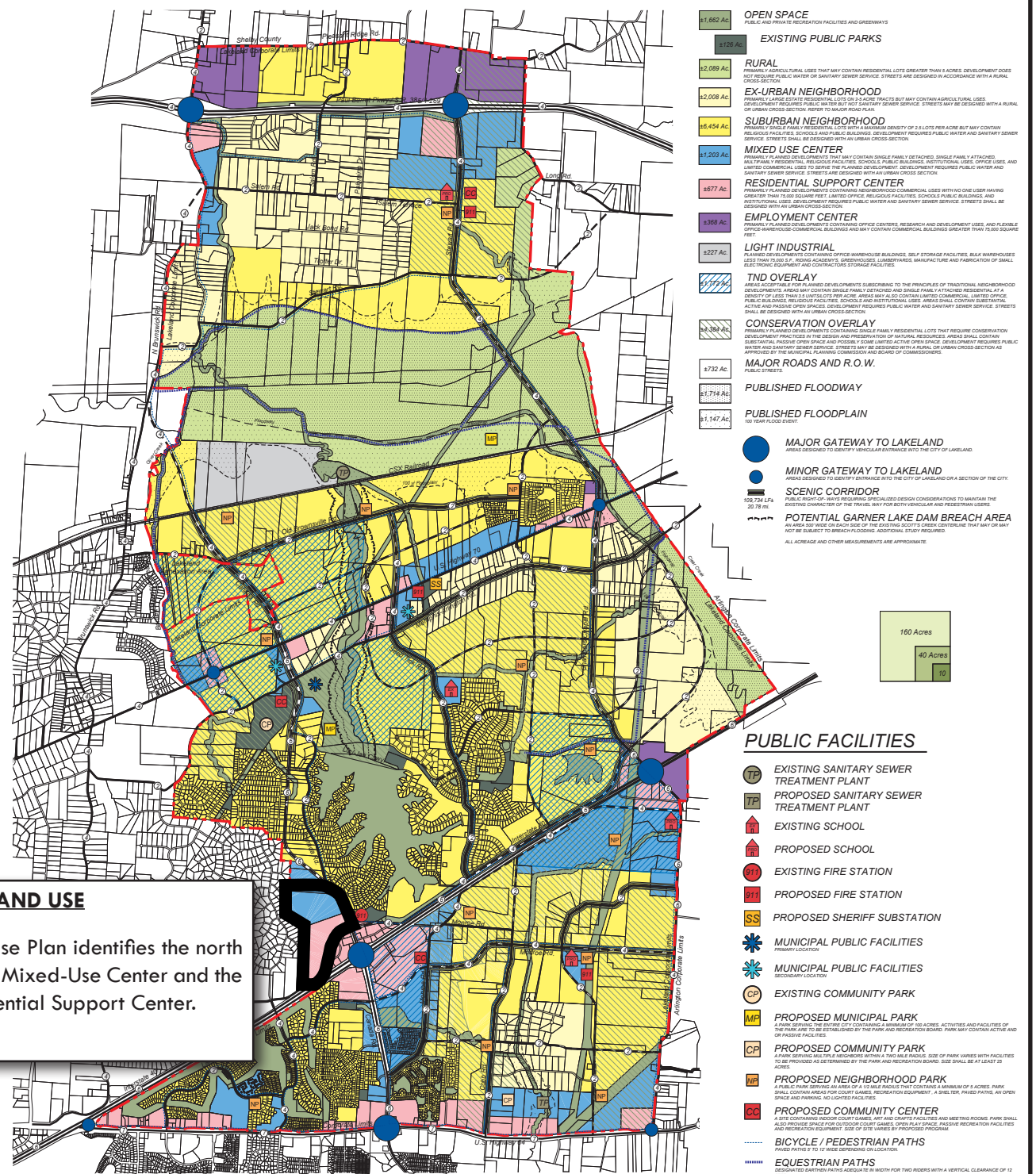


ZONING

The entire subject property falls within the C-2, General Business, zoning category.

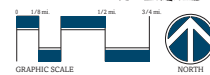


CITY OF LAKELAND, TENNESSEE COMPREHENSIVE LAND USE PLAN UPDATE



FUTURE LAND USE

The Lakeland Future Land Use Plan identifies the north section of the property as a Mixed-Use Center and the southern portion as a Residential Support Center.

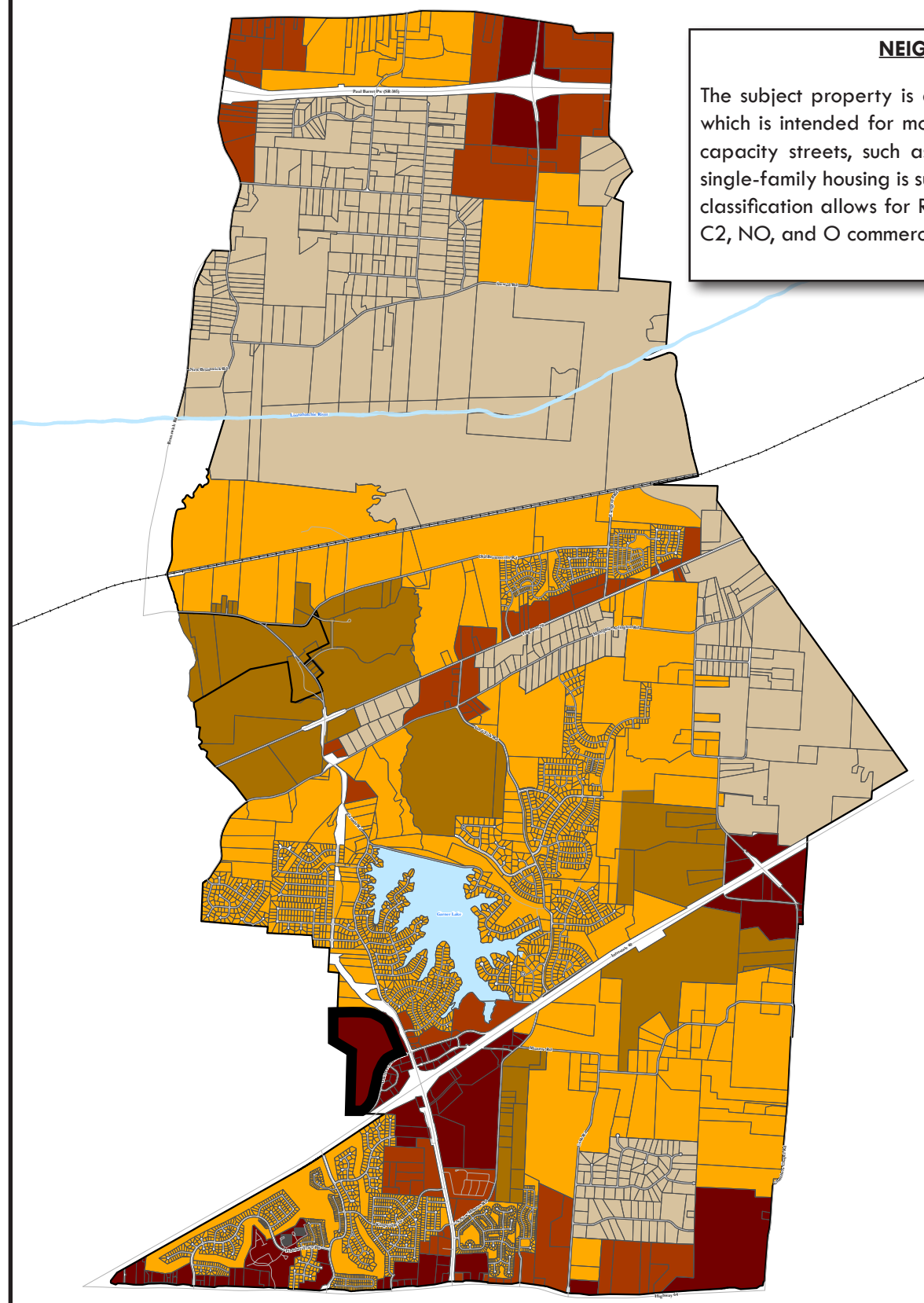


LAND USE PLAN

Brenda P. Solomito
Land Planner
10145 Mackwood Drive • Lakeland, TN 38002
brendasolomito@bellsouth.net

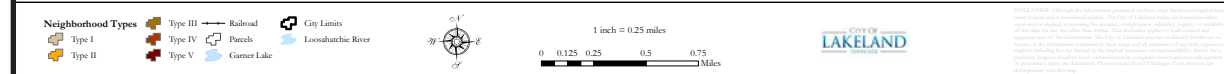
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WWW.DUGANDESIGNGROUP.COM
March 20, 2006 E0247LandUsePlan.dwg

City of Lakeland Neighborhood Types

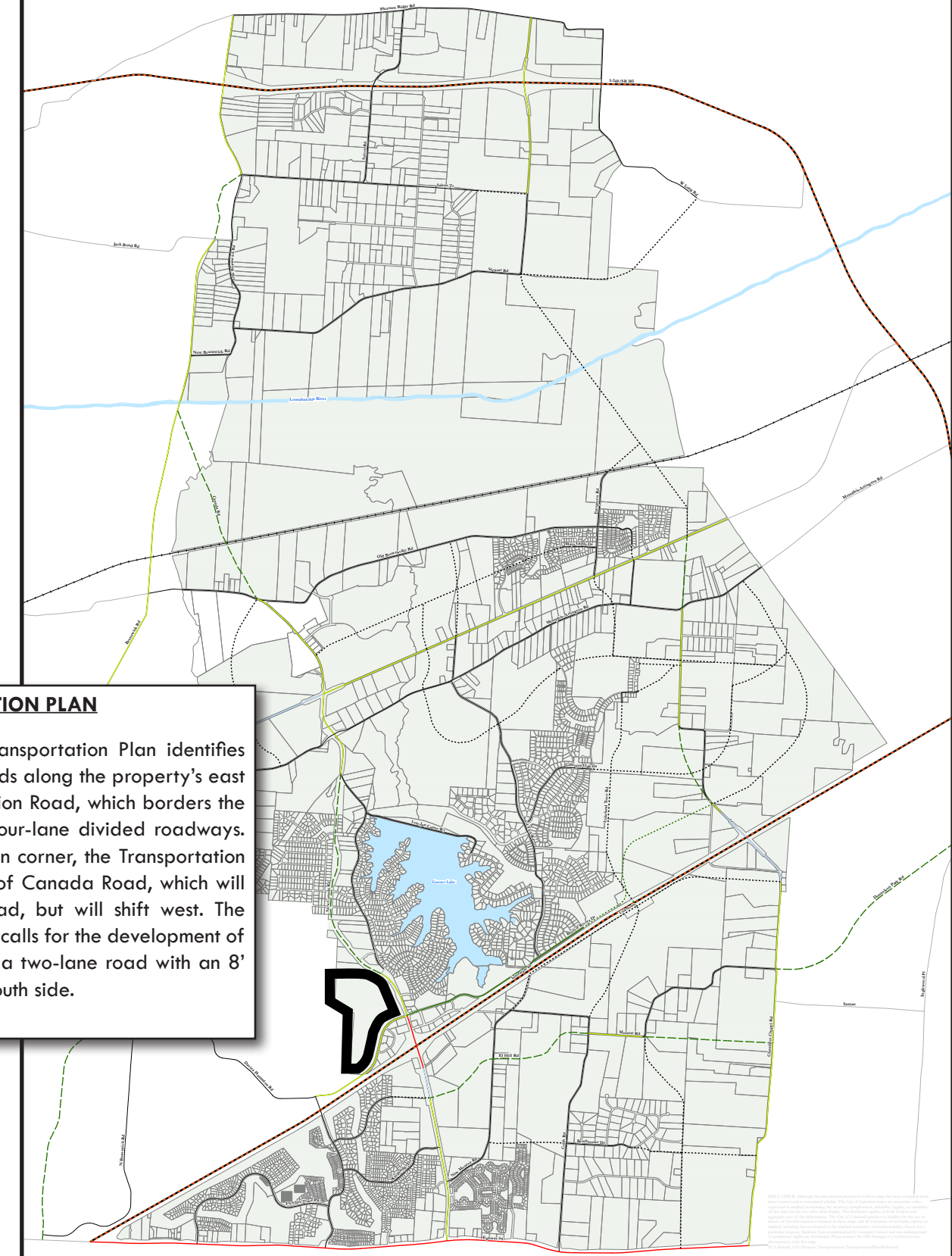


NEIGHBORHOOD TYPES

The subject property is designated as a Type V neighborhood, which is intended for more intense commercial use along higher capacity streets, such as Canada Road. In larger subdivisions, single-family housing is suitable beyond commercial uses. Type V classification allows for R1 – R7 residential districts and NC, C1, C2, NO, and O commercial districts.

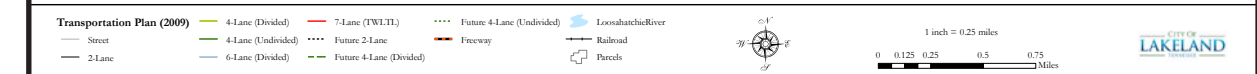


City of Lakeland Transportation Plan



TRANSPORTATION PLAN

The 2009 City of Lakeland Transportation Plan identifies both Canada Road, which extends along the property's east section, and East Davies Plantation Road, which borders the property's southeast edge, as four-lane divided roadways. Near the property's northeastern corner, the Transportation Plan illustrates the realignment of Canada Road, which will remain a four-lane divided road, but will shift west. The 2017 Lakeland Small Area Plan calls for the development of East Davies Plantation Road as a two-lane road with an 8' parking lane along the road's south side.



SITE ANALYSIS

SURVEY BY HARRIS AND ASSOCIATES

- PROPERTY BOUNDARY
- MAJOR CONTOUR
- MINOR CONTOUR
- RIDGE
- DRAW
- HIGH POINT
- LOW POINT
- STEEP SLOPES

TRANSPORTATION

VIA LAKELAND TRANSPORTATION PLAN (2009)

- 2 LANE
- 4 LANE (DIVIDED)
- 4 LANE (UNDIVIDED)
- 4 LANE (DIVIDED, FUTURE)
- 7 LANE
- FREEWAY

UTILITIES

UTILITY DATA PROVIDED BY LAWSON ENGINEERING

- OVERHEAD ELECTRIC
- GAS (VALVE)
- SEWER MANHOLE
- SEWER LIFT STATION

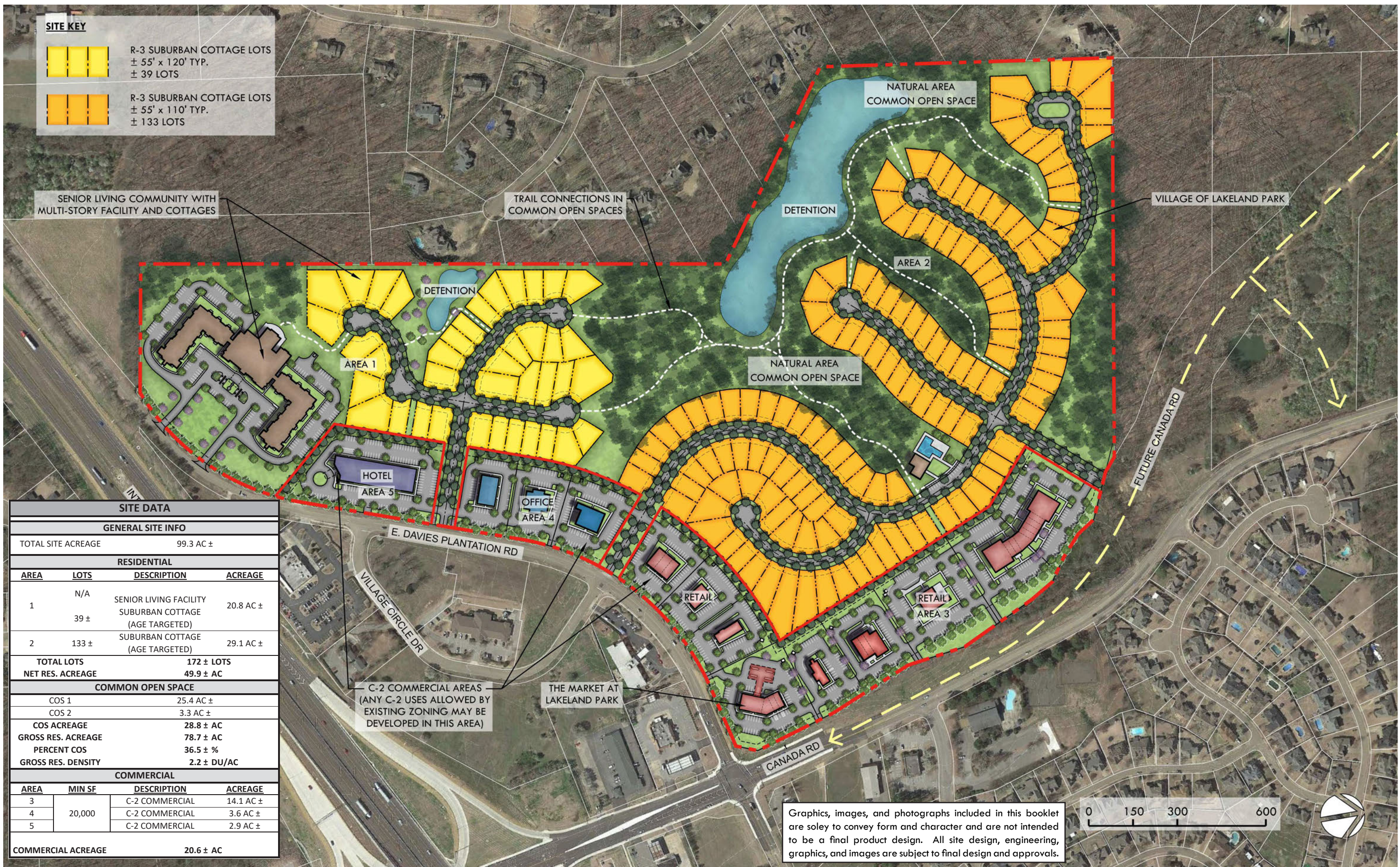
TRANSPORTATION AND UTILITIES

The Lakeland Park Planned Development's east boundary is defined by the intersection of Canada Road and East Davies Plantation Road, both four-lane divided streets. This corner is 0.4-mile ± from Interstate 40 and is easily accessed by Canada Road from Lakeland's existing residential communities to the north. The future construction of New Canada Road, as identified in the City of Lakeland Transportation Plan, will further increase connectivity from the north and facilitate bike and pedestrian travel to the subject property by a proposed 10'-wide multi-use path. Overhead electric lines are located along the property's east edge, adjacent to Canada Road and East Davies Plantation Road. Gas and sewer infrastructure extend along these roadways, with potential to serve the Lakeland Park neighborhood.

SLOPE ANALYSIS | HYDROLOGY ANALYSIS | NATURAL FEATURES

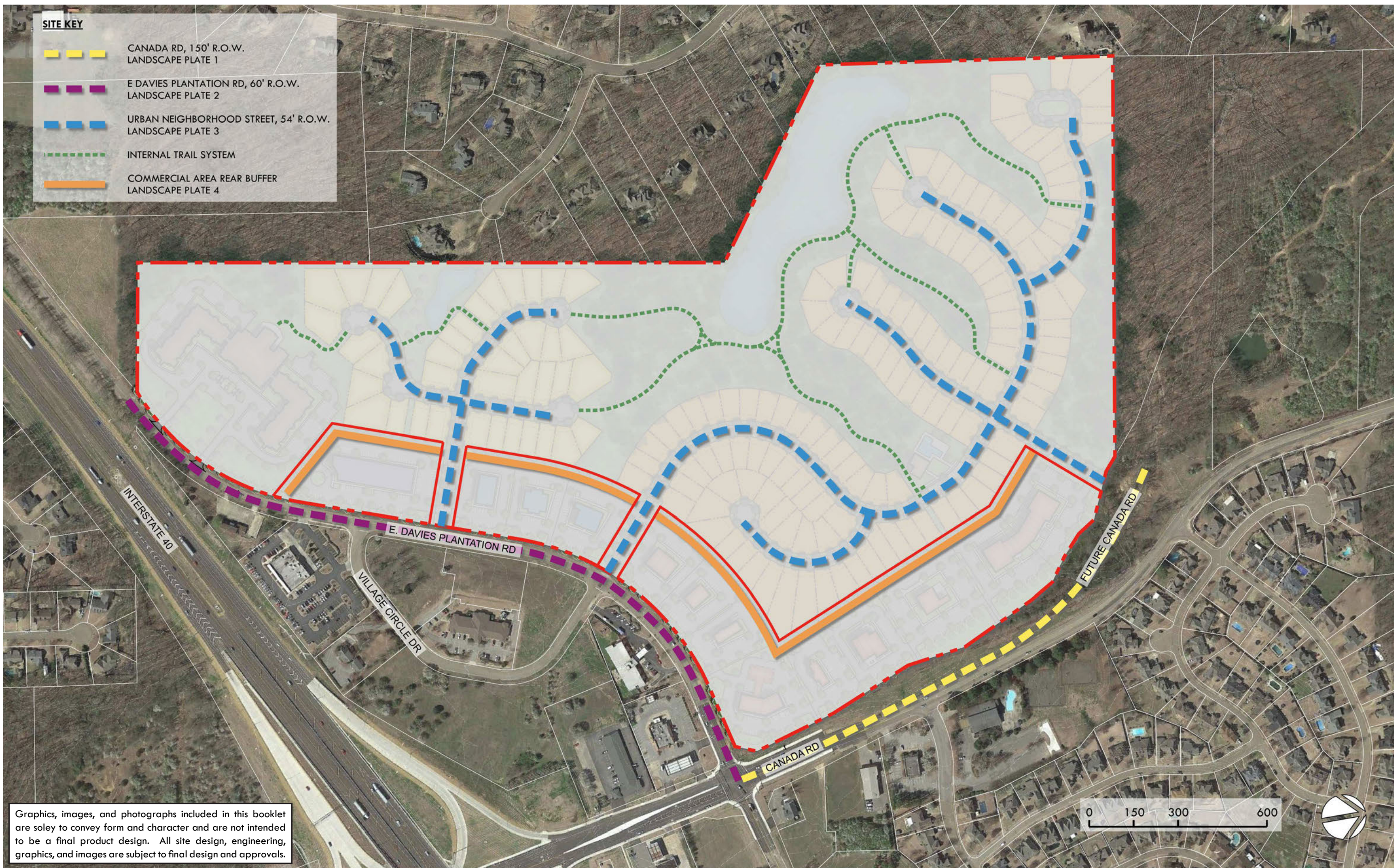
The site slopes from east to west. Ridges extend into the property from East Davies Plantation Road and Canada Road. The topography rises and falls from south to north, with slopes exceeding 15%. While this change in topography can be challenging, these landforms present an opportunity to integrate the topography of the property into the design of Lakeland Park. Home sites will be placed on ridge tops where possible to preserve woodland areas along the site's slopes. A tree survey will be completed prior to future detailed submittals, which will include said survey and a tree protection plan. Preserved canopy trees will provide cover for trail connections throughout common open spaces. While earthwork will be required to make the site viable for development, the natural systems and features have informed the design of Lakeland Park and will be utilized as neighborhood assets.

Stormwater flows from east to west. Two detention ponds are proposed to manage runoff. A large pond will be in the northwest portion of the site and a smaller pond will be constructed in the southwest area. Both will be built as attractive features within common open space.

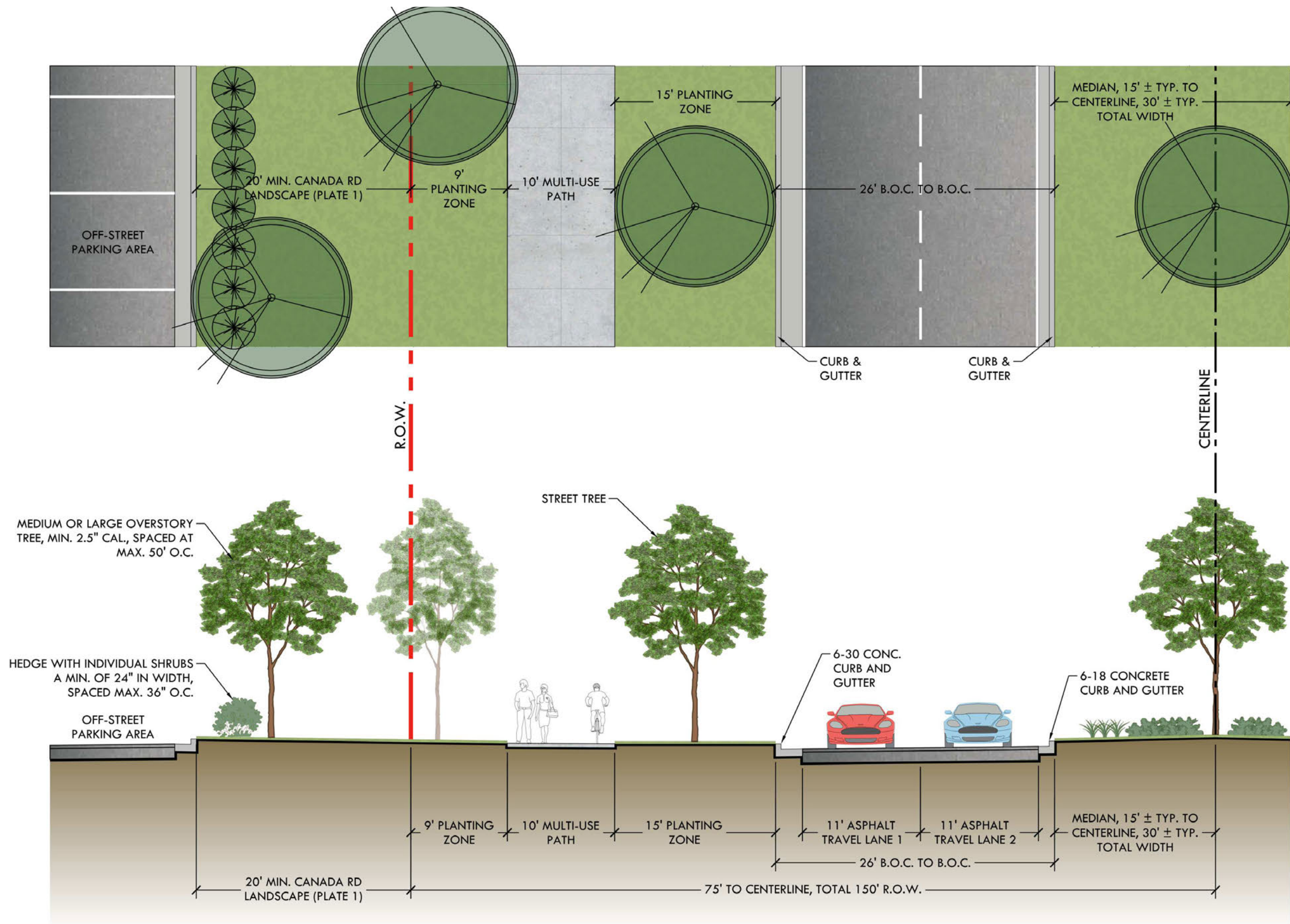


SITE DATA			
GENERAL SITE INFO			
TOTAL SITE ACREAGE		99.3 AC ±	
RESIDENTIAL			
AREA	LOTS	DESCRIPTION	ACREAGE
1	N/A	SENIOR LIVING FACILITY	20.8 AC ±
	39 ±	SUBURBAN COTTAGE (AGE TARGETED)	
2	133 ±	SUBURBAN COTTAGE (AGE TARGETED)	29.1 AC ±
TOTAL LOTS		172 ± LOTS	
NET RES. ACREAGE		49.9 ± AC	
COMMON OPEN SPACE			
COS 1		25.4 AC ±	
COS 2		3.3 AC ±	
COS ACREAGE		28.8 ± AC	
GROSS RES. ACREAGE		78.7 ± AC	
PERCENT COS		36.5 ± %	
GROSS RES. DENSITY		2.2 ± DU/AC	
COMMERCIAL			
AREA	MIN SF	DESCRIPTION	ACREAGE
3	20,000	C-2 COMMERCIAL	14.1 AC ±
4		C-2 COMMERCIAL	3.6 AC ±
5		C-2 COMMERCIAL	2.9 AC ±
COMMERCIAL ACREAGE		20.6 ± AC	

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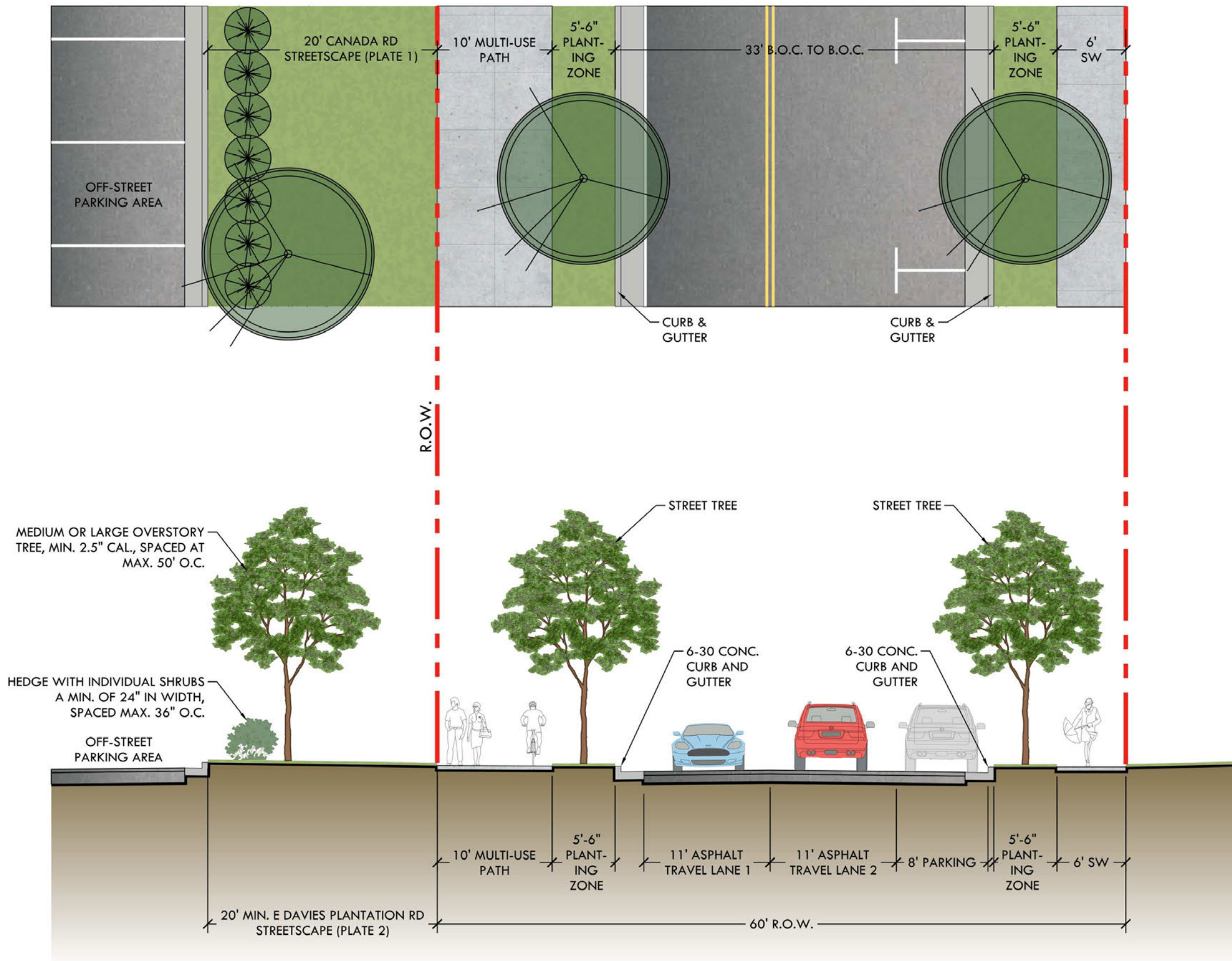


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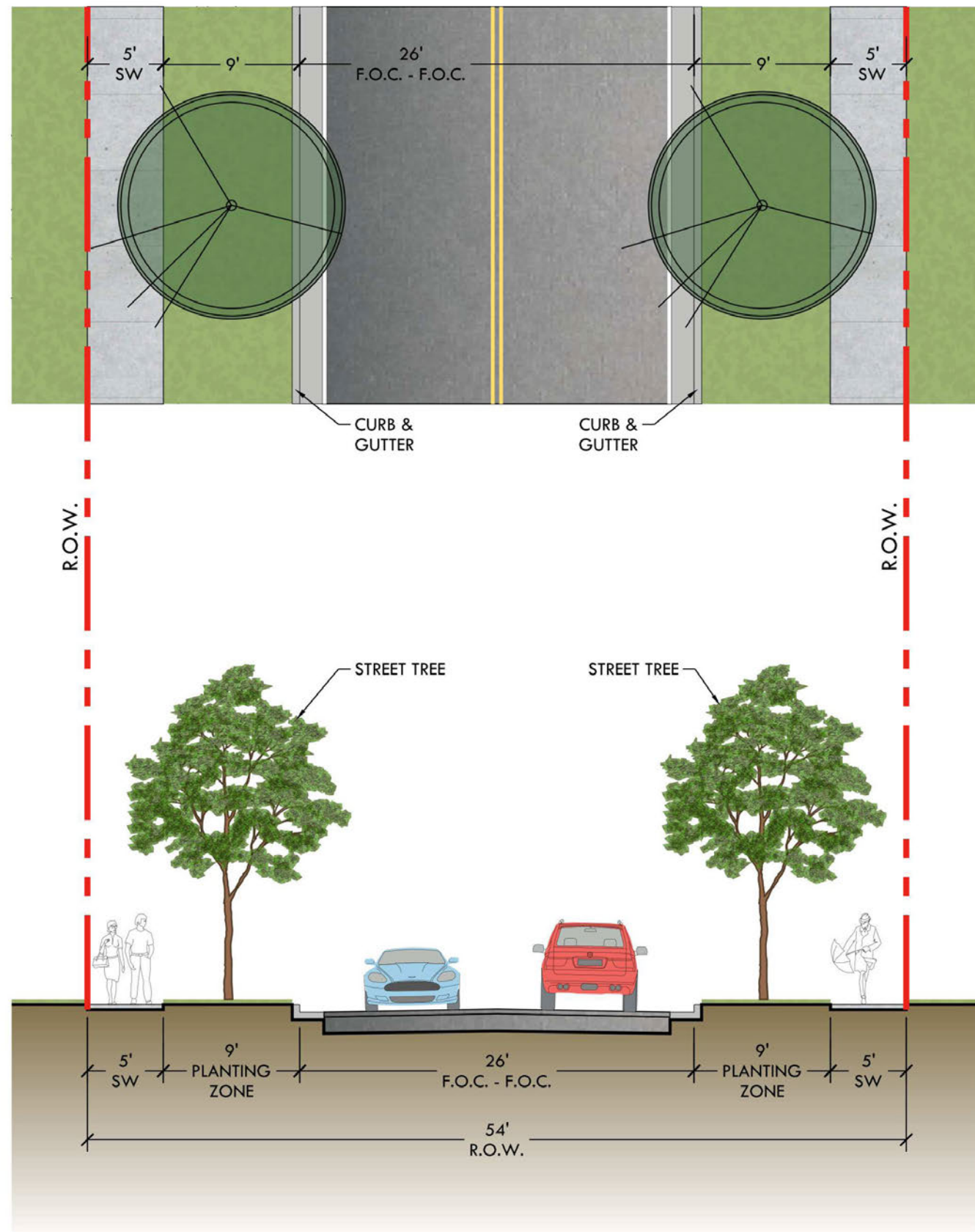
CANADA ROAD / LANDSCAPE PLATE 1
150' RIGHT-OF-WAY

NOTE:
R.O.W. SECTION BASED ON 2017 LAKELAND SMALL AREA PLAN

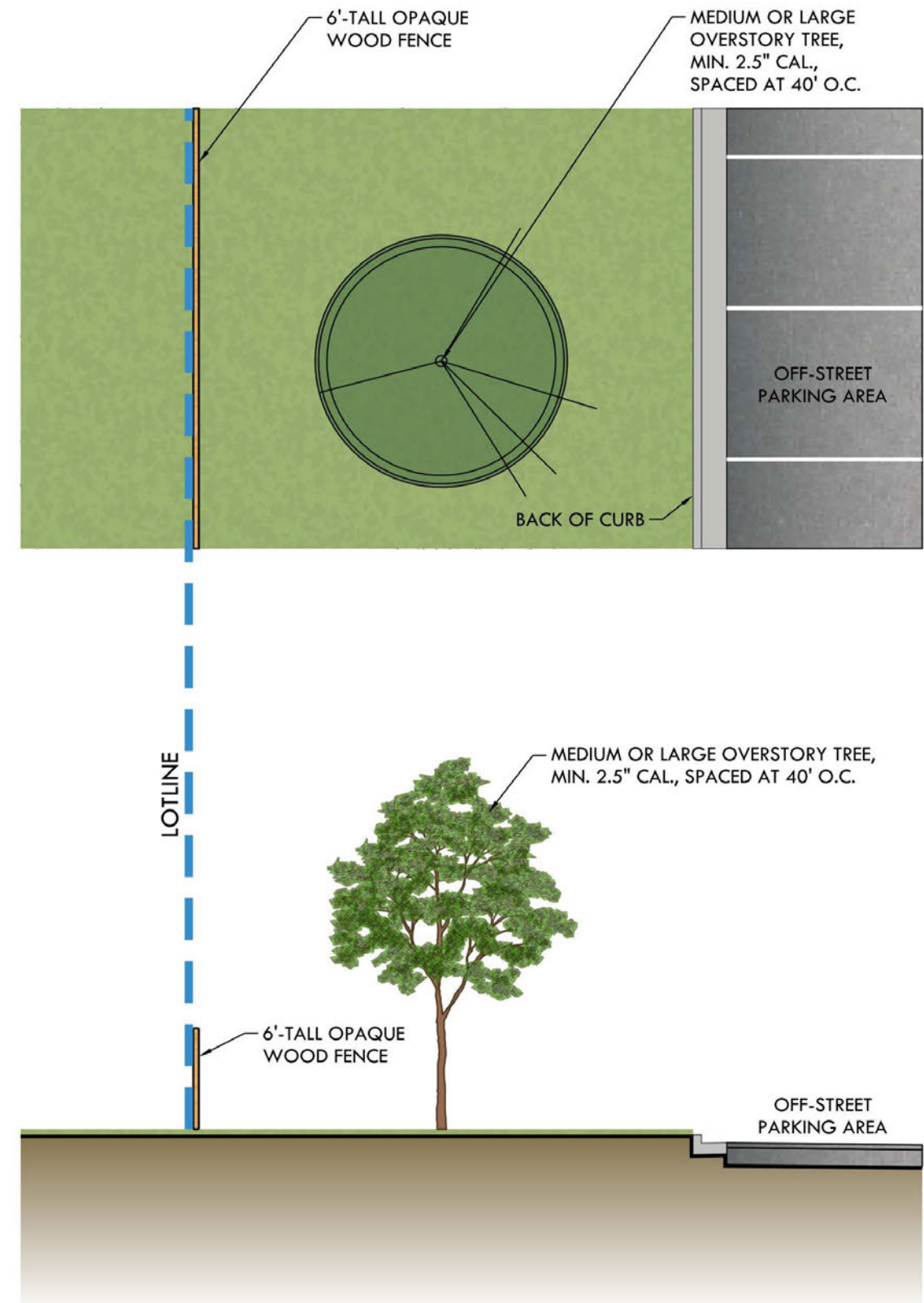


E DAVIES PLANTATION ROAD / STREETSCAPE PLATE 2
60' RIGHT-OF-WAY

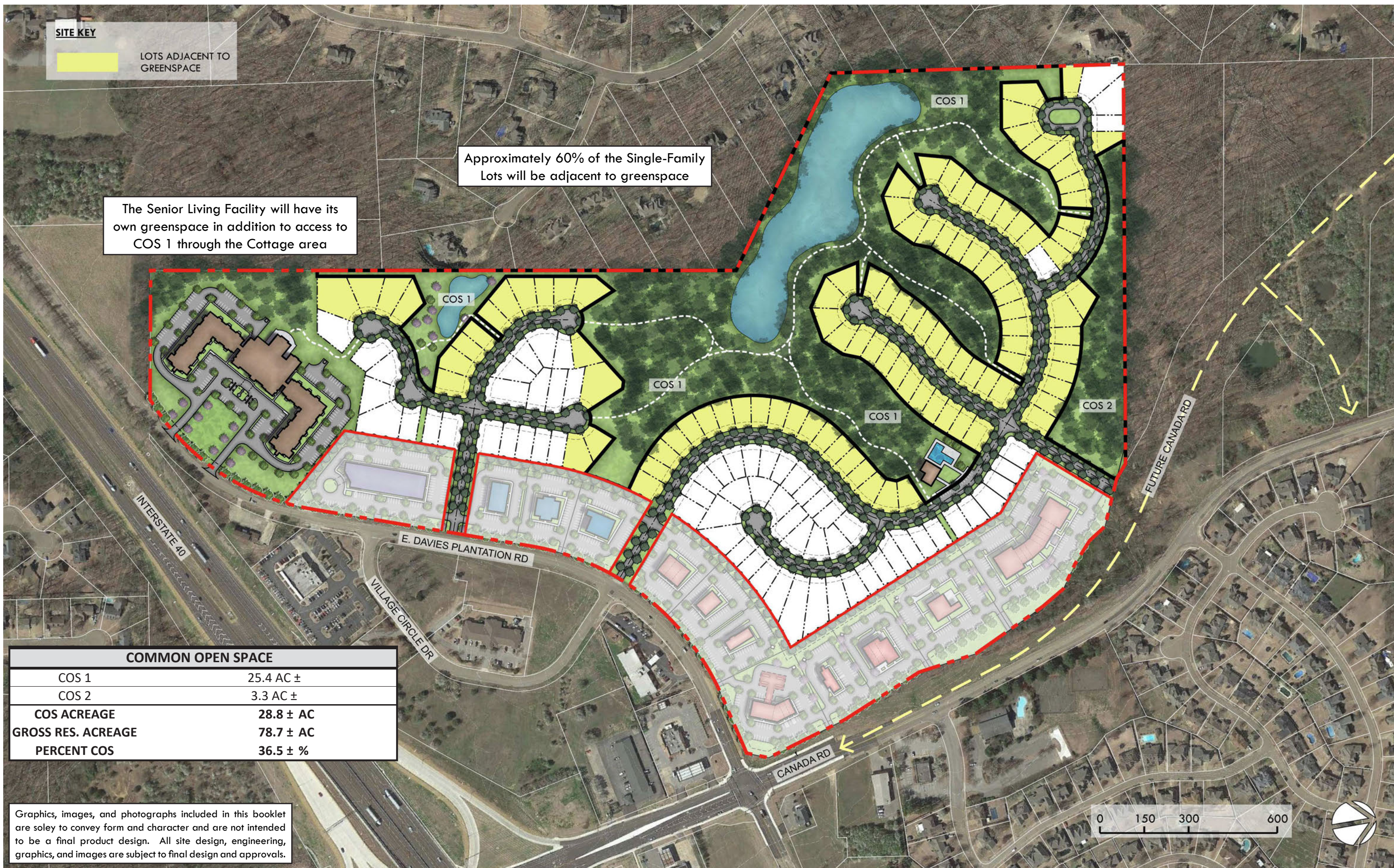
NOTE:
R.O.W. SECTION BASED ON
2017 LAKELAND SMALL AREA PLAN



URBAN NEIGHBORHOOD STREET / STREETScape PLATE 3
54' RIGHT-OF-WAY



BUFFER BEHIND COMMERCIAL USE AREAS / LANDSCAPE PLATE 4



COMMON OPEN SPACE	
COS 1	25.4 AC ±
COS 2	3.3 AC ±
COS ACREAGE	28.8 ± AC
GROSS RES. ACREAGE	78.7 ± AC
PERCENT COS	36.5 ± %

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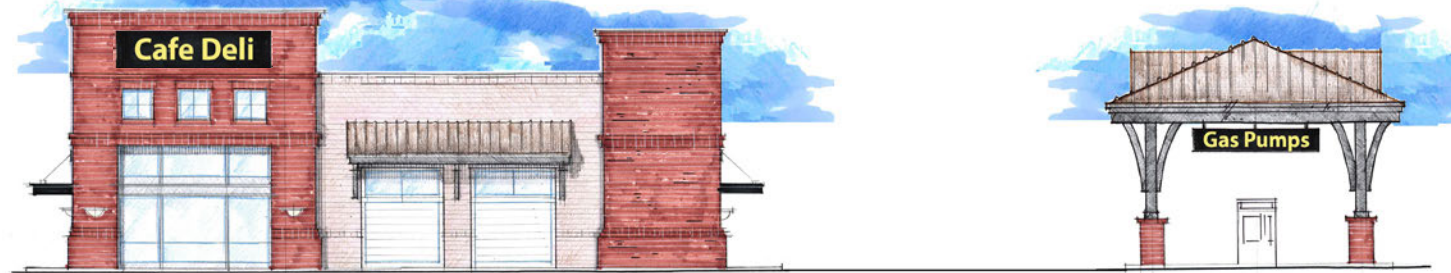


LAKELAND PARK PLANNED DEVELOPMENT

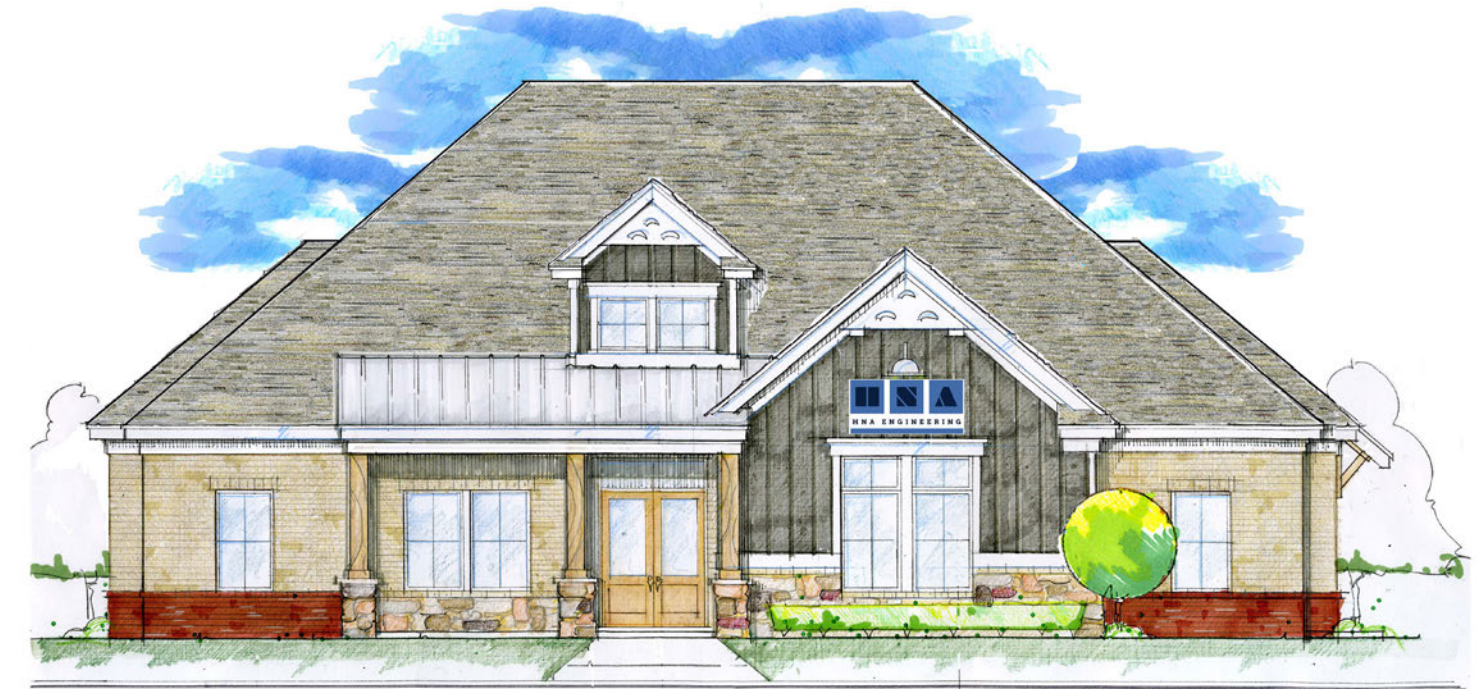
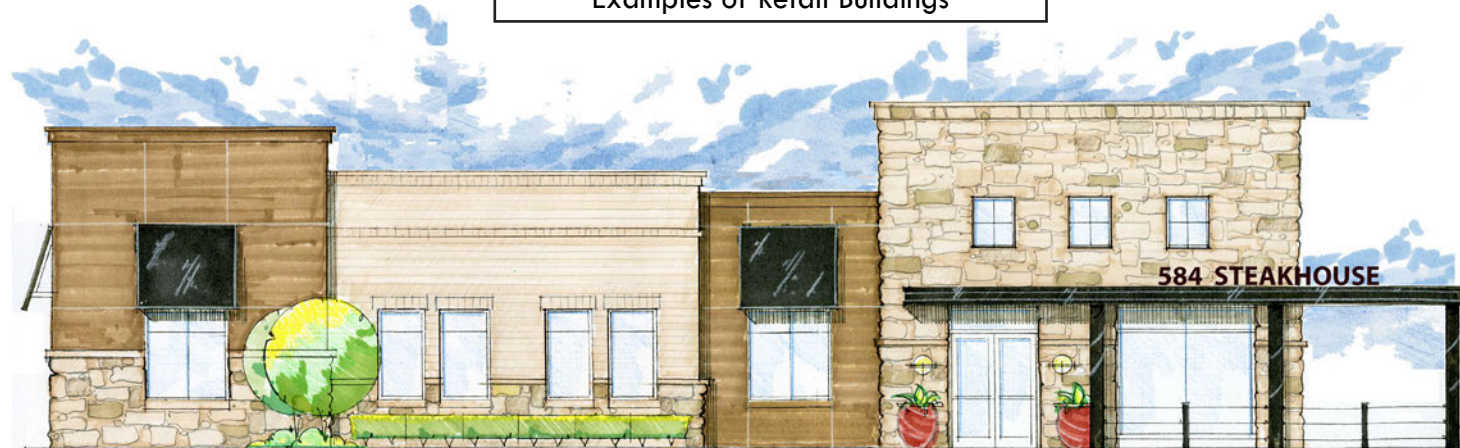
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Examples of The Market at Lakeland Park



Examples of Retail Buildings



Example of Office Building

Example of Hotel Building





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