

Memorandum

Department of Planning



To: Planning and Public Works Committee

From: Annisa Kumerow, Planner **AK**

Date: February 18, 2021

RE: **PZ 12-2020 The Residences at Hog Hollow (14001 Olive Blvd):** A request for a change in zoning from R-3 Residence District to PUD Planned Unit Development for a maximum of 100 residential units (16R340151).

Summary

Stock & Associates Consulting Engineers, Inc. has submitted a request for a zoning map amendment from the “R-3” Residence District to the “PUD” Planned Unit Development District.

A Public Hearing was held on December 14, 2020, and there were four (4) issues raised by the Planning Commission pertaining to this petition. The issues raised were as follows:

1. Traffic
2. Amenities
3. 14015 Olive Boulevard
4. Bioretention basin plantings

On January 25, 2021 this petition was next brought before the Planning Commission. An additional issue was raised concerning the location of single-family detached lots and the preference for these lots along the eastern border of the property. Planning Commission did not vote on the item at this meeting.

On February 8, 2021, this petition returned to the Planning Commission. The Narrative Statement was revised to note that proposed Lots 1-10 along the eastern property line be designed as single-family detached residential only; this change was also noted in the revised Draft Attachment A. The Planning Commission recommended approval by a vote of 8-1.

Attached to this report please find a copy of staff’s Planning Commission Report, Draft Attachment A, Narrative Statement, Preliminary Plan, Conceptual Landscape Plan, and Tree Stand Delineation.

Attachments: February 8, 2021 Planning Commission Report
Draft Attachment A
Narrative Statement
Response Letter
Preliminary Plan
Conceptual Landscape Plan

Tree Stand Delineation



Figure 1: Subject Site Aerial

Planning Commission Vote Report

Meeting Date: February 8th, 2021

From: Annisa Kumerow, Planner **AK**

Location: North side of Olive Boulevard

Petition: **PZ 12-2020 The Residences at Hog Hollow (14001 Olive Blvd):** A request for a change in zoning from R-3 Residence District to PUD Planned Unit Development for a maximum of 100 residential units (16R340151).

PROPOSAL SUMMARY

Stock & Associates Consulting Engineers, Inc. has submitted a request for a zoning map amendment from the “R-3” Residence District to the “PUD” Planned Unit Development District. The petitioner is requesting to zone the property “PUD” Planned Unit Development as part of a two-step zoning process. The first step in this process is to request a change of zoning to a conventional “R-3” Residence District in order to establish the development density that is being requested in conjunction with the “PUD” petition. In order to satisfy this first step, the Petitioner has submitted P.Z. 19-2019 concurrently with the “PUD” request.

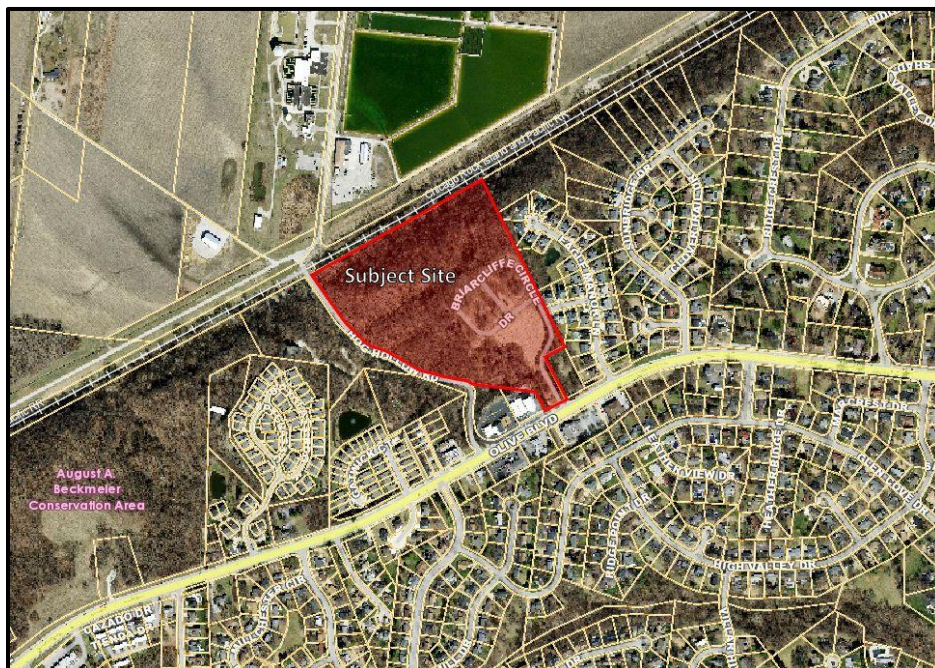


Figure 1: Subject Site Aerial

LAND USE AND ZONING

“PUD” District Regulations

The Unified Development Code Section 31-03-04.K states that “the purpose of the PUD District is to encourage flexibility to the density requirements and development standards of the zoning ordinance that will result in exceptional design, character, and quality of new homogenous and mixed use developments; to promote the most appropriate use of land; to facilitate the provision of streets and utilities; and to preserve the natural and scenic features and open space.”

The Unified Development Code requires that any zoning petition requesting a zoning map amendment to the PUD District meet four (4) **General Requirements** in order to fulfill the basic application requirements for a PUD.

- 1. All property that is at least four (4) contiguous acres shall be eligible for the PUD District designation.**

The subject site is comprised of 29.410 acres.

- 2. All property to be zoned PUD or an existing PUD Zoning District being amended shall be under single ownership, or if under multiple ownership, then by written consent of all owners who agree to be bound by the PUD District designation and regulations.**

The application is submitted with the consent of the owners of the subject site.

- 3. The detailed standards set forth herein are minimum requirements, and it is the intent of this Section that the City of Chesterfield may impose conditions and safeguards in excess of, or in addition to, the specified minimal requirements. Satisfying the minimum standards set forth herein does not per se indicate that an application is entitled to a zoning change and notice is hereby given to that effect.**

The petition meets the minimum requirements and the Petitioner is aware that meeting these minimum requirements does not entitle the requested zoning map amendment.

- 4. All utilities shall be installed underground.**

All utilities will be installed underground if this request is approved.

Once it has been determined that these four General Requirements have been met, the application is accepted and the petition is scheduled for public hearing before the Planning Commission. The project is then reviewed against the **Minimum Design Requirements** for a PUD District. There are four (4) minimum design requirements that must be met in order for the project to qualify to ask for a change of zoning to the PUD District. These four (4) items are:

- 1. Proposal has to meet the maximum residential density determined by the existing zoning district or by submitting an application for a change of zoning from the "NU" Non-Urban District to a residential zoning district.**

P.Z. 12-2020 satisfies the requirement that a petition for a change of zoning to a residential district that ultimately establishes the maximum development density be submitted.

- 2. Provision of thirty (30) percent Common Open Space to be displaced throughout the site and not concentrated in one (1) area or contain only that portion of the site that would be considered undevelopable.**

The PUD submittal proposes a minimum of 30% open space.

- 3. Provision of perimeter buffer of at least thirty (30) feet in width.**

The Preliminary Plan includes a 30 foot perimeter buffer. It should be noted that the buffer on the southmost portion of the site adjacent to Olive Boulevard is not fully planted, as it contains one of the proposed amenities (pocket park).

- 4. Proposed project has to be consistent with the purposes and intent of the Comprehensive Plan and the City of Chesterfield Municipal Code.**

Information pertaining to the Comprehensive Plan land use designation is included in the Staff Report for P.Z. 11-2020 and is further described later on in this report.

In addition to these requirements above, the Unified Development Code lists twelve (12) **Design Features** suggested to be used by developers when applying for PUD District zoning. Section 31-03-04.K of the Unified Development Code also states the following: **“Satisfaction of all or any of these design features is not mandatory, but the approval of “PUD” zoning will be predicated on the use of the below list or any other design feature deemed desirable by the City of Chesterfield.”** Below is a list of the suggested Design Features from the City Code:

- Placement of structures on most suitable sites with consideration of maintaining existing site topography, soils, vegetation, slope, etc.;
- Preservation of natural and cultural areas, as well as the creation of open space through active and passive recreation areas to include greenways, landscape gardens, plazas, and walking and cycling trails that serve to connect significant areas and various land uses;
- Preservation of existing mature trees and trees deemed extraordinary by the City of Chesterfield Tree Specialist due to but not limited to the following: size, type, origin, grouping, or number of;
- Enhanced landscaping, deeper and opaque buffers, and increased planting along public right-of-ways, open space/recreational areas, and the overall perimeter to protect and ensure compatibility with adjacent land uses;
- Utilization of mixed use buildings;
- Utilization of Traditional Neighborhood Design (TND) techniques in the layout and spatial organization of the development;
- Structures designed and constructed of an architectural vernacular that exceeds the typical building design and materials within the City of Chesterfield;

- Segregation of vehicular traffic from pedestrian/bicycle circulation networks, and other traffic mitigation measures;
- Incorporation of Transit Oriented Development (TOD) or direct access to public transportation;
- Provision of affordable housing;
- Utilization of Leadership in Energy and Environmental Design (LEED) construction practices and development standards and the proposed LEED certification of buildings and grounds by the U.S. Green Building Council within the PUD; and
- Inclusion of community facilities and the access thereto.

These desirable design features are meant to guide developers and explain the high quality standards that the City would like to attain and that are utilized to consider requests for PUD Zoning. No single proposal is expected to include each of these items; however, some of these and similar concepts should be easily identifiable in any PUD petition.

COMPREHENSIVE PLAN

The subject site is located within Ward 1 of the City of Chesterfield. The City of Chesterfield Comprehensive Land Use Plan indicates this development is within the Suburban Neighborhood land use designation along with the adjacent properties to the east and west. The Comprehensive Plan designates single-family residential as the primary land use of the Suburban Neighborhood designation.

The City of Chesterfield's Comprehensive Plan identifies specific development policies pertaining to the Suburban Neighborhood land use designation. Outlined below are the specific policies that are applicable to this request:

Development Policies – Suburban Neighborhood

- Encourage preservation of existing residential neighborhoods' identities.
- New residential development should reinforce existing residential development patterns by continuing to reinforce high-quality site and subdivision design, layout, and planning practices.
- Uncover the anticipated expense (cost of municipal infrastructure) for each new or re-developed residential development.

The City of Chesterfield's Comprehensive Plan includes overall goals for the City that complement the City's vision for the future, which are separated into five categories: 1) development, 2) residential, 3) open space, 4) transportation, and 5) resiliency. Within each of these goal categories are actionable strategies, four of which are applicable to this petition and are further described below.

The Comprehensive Plan denotes the facilitation of diversification of housing as a development strategy, and states that the emphasis should be on "multigenerational living that offers opportunities for older segments of the population to age in place while young professionals find affordable options".

The proposed petition is for a change in zoning to “PUD”, with requested residential land uses of single family attached, single family detached, and multifamily. A variety of residential land uses assists in facilitating housing diversity. With the single-family homes located on the eastern portion of the site and the multi-family located on the western portion of the site, the proposed petition creates a transition of uses to blend into existing neighborhoods.

Similarly, the Comprehensive Plan identifies the encouragement of more housing variety to recognize differences in age, income, and lifestyle preferences as a residential strategy. This strategy is furthered by the Comprehensive Plan objective to address the “missing middle.” The proposed petition requests single-family homes and multifamily in addition to single-family attached homes, increasing the variety within the development.

The Comprehensive Plan also identifies connectivity in new development as a transportation strategy, and states that while there may be opposition to adding new street connections in existing neighborhoods, “opportunities to create connections for people walking and bicycling” should be considered. There is an existing fire access within the proposed development which connects to Eagle Manor Court in the neighboring Eagle Ridge subdivision. The access is proposed to remain gated and private; however, there is a proposed pedestrian connection to the trail proposed for this development.

The Comprehensive Plan also denotes the promotion of tree preservation as a resiliency strategy, and states that the City should “enforce code requirements for tree preservation as well as protection during construction to minimize impacts to trees on developing sites.” There are approximately 20.42 acres of tree canopy on the site. The applicant has requested that a minimum of thirty percent (30%) of the existing canopy be maintained. Per the submitted Tree Preservation Plan (included in the Planning Commission Packets), approximately 6.76 acres are to be preserved, or 33.1%. The applicant has proposed 30’ landscape buffers along the perimeter of the site, in addition to the preservation of existing mature tree canopy along the north and west buffer common ground. The proposed lots are grouped towards the center, south, and eastern areas of the site in order to minimize disturbance and grading.

The topography of the subject site is complex, and the grade changes substantially from south to north, and east to west. Per the provided Narrative Statement, there is little flat area on the subject site. The proposed development is utilizing the developable areas. Grading is required, but the site will not be flattened. The proposed grading and stormwater management facilities are necessary to meet the Metropolitan St. Louis Sewer District’s requirements. Although grading is necessary, the applicant has stated that the sloped nature of the development will reflect the original topography. The proposed site work, in combination with a mix of housing types, serves to minimize both the initial development cost of the project, as well as lessen long term maintenance costs by public entities and the future homeowners association.

In reviewing the request for consistency with the Comprehensive Plan, the Commission must consider both the policy statements that the land use designation is comprised predominately of single-family residential units and the notion of permitting flexibility in housing types in the City. In order to balance these elements, the plan proposed a transition in the uses across the site with single-family (proposed attached and / or detached) abutting the existing single-family residential development to the east of

the subject site. Multi-family elements of the plan are proposed to be located on the western portion of the subject site. The proposed location of land uses on the site minimizes visual impact of the multi-family element of the proposed PUD on the existing residential land uses to the east.

PRELIMINARY PLAN

As required for a “PUD” Planned Unit Development, a Preliminary Plan is included for the Planning Commission’s review. As indicated on the Preliminary Plan, the applicant is proposing a maximum of 100 residential units – fifty-two (52) residential lots to consist of single-family attached and detached, and forty-eight (48) multifamily units. The Preliminary Plan specifies that the proposed multifamily housing will be located on the western portion of the site, whereas the single-family attached and detached housing will be located to the center and east of the site.

Notable features of the Preliminary Development Plan include, but are not limited to:

- One proposed access off of Olive Boulevard, to the east of the existing curb cut.
- The internal streets are proposed as public streets.
- Pedestrian connection to Olive Boulevard and the neighboring Eagle Ridge subdivision.
- Street trees and 30’ landscape buffers along the perimeter of the site.
- Storm water detention and water quality bioretention areas.
- Two pocket parks with associated amenities:
 - Playground equipment
 - Fitness circuits
 - Native tree identification signage
 - Eagle watching binoculars
 - Natural stone seating
 - Pet waste stations
- A gravel/crushed rock trail along the perimeter of the site and within proposed common ground areas.

The Petitioner’s Narrative Statement, attached for the Planning Commission’s consideration, includes further information regarding the design features proposed to justify the PUD request. The Petitioner will be present at the Public Hearing to present their request in detail and to answer any questions that the Planning Commission may pose.

PUBLIC HEARING

A public hearing was held at the December 14th, 2020 City of Chesterfield Planning Commission meeting. Issues associated with the request were identified by the Planning Commission, and below is a summary of the issues mentioned incorporating the applicant’s response and staff input in italics:

1. **Traffic concern:** There was discussion regarding existing traffic issues in the neighboring Eagle Ridge subdivision, specifically concerning the following topics:
 - Difficulty with making a left turn out of the subdivision onto Olive Boulevard
 - Concerns about the incremental impact of the proposed development on the overall traffic volume

The applicant has provided updated trip generation figures. Per CBB, the peak number of “AM” trips is 15 vehicles in and 49 vehicles out. The peak number of “PM” trips is 53 vehicles in and 31 vehicles out. Additionally, the applicant reached out to the Missouri Department of Transportation (MoDOT) regarding the possibility of a three lane road leading into the development, to which MoDOT has no objection. The applicant has depicted a three lane road on the revised Preliminary Plan.

2. **Amenities:** There was discussion regarding the amenities displayed on the Preliminary Plan. While the Planning Commission appreciated the amenities shown on the Preliminary Plan, there was a question as to whether it would be possible to incorporate additional amenities throughout the site, rather than having the amenities concentrated at two ends of the site in the proposed pocket parks. Provide information pertaining to the potential for additional amenities.

The applicant responded that in order to provide sustainable and maintainable amenities, the ideal location for the proposed amenities is their current position on the Preliminary Plan. The amenities are made more safe and efficient by locating them within pocket parks that are visible from the street.

3. **14015 Olive Boulevard:** There were several items discussed relating to 14015 Olive Boulevard.
 - Fencing: The property owner of 14015 Olive Boulevard requested a fence in order to screen his property from residents of the proposed development. In ensuing discussion, it was noted that there may be difficulties with sight distance should the fence be installed on the eastern boundary of 14015 Olive Boulevard, along the proposed entry road to the development. Provide information on the fence and depict on the Preliminary Plan.

The applicant responded that the landscape buffer will be maintained by the future homeowners’ association in accordance with the Unified Development Code and a future approved Site Development Plan; The applicant noted that there is currently a chain link fence separating the two properties, and they have provided photos of the fencing with their response letter. The applicant does not have any objection to the property at 14015 Olive Boulevard installing a fence on their own property.

- Propane tanks: It was noted that there may be safety issues with the propane filling that occurs at 14015 Olive Boulevard and maintaining adequate distance between the propane tanks and any structures proposed in this development. Provide information on the required safety distance between propane tanks and structures.

The applicant responded that the owners of the subject property maintain that it is the responsibility of the owners of 14015 Olive Boulevard to operate the existing liquefied petroleum tank in accordance with all City, County, State, Federal, and OSHAA guidelines. The applicant included information on the petroleum tanks from the St. Louis County

ATTACHMENT A

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

I. SPECIFIC CRITERIA

A. PERMITTED USES

1. The uses allowed in this Planned Unit Development (PUD) District shall be:
 - a. Dwellings, Single-Family Attached.
 - b. Dwellings, Single-Family Detached.
 - c. Dwellings, Multiple-Family.
2. The above uses in this Planned Unit Development (PUD) District shall be restricted as follows:
 - a. Lots 1-10 shall contain Dwellings, Single-Family Detached only.

B. DENSITY REQUIREMENTS

1. The total number of residential units shall not exceed one hundred (100) units.
2. There shall be no more than forty-eight (48) multiple-family dwelling units.

C. DEVELOPMENT STANDARDS

1. Minimum lot size for this development shall be 7,500 square feet.
2. Maximum height of all structures shall be forty-five (45) feet.
3. Structure setbacks shall be as follows:
 - a. Twenty-five (25) feet from any roadway right-of-way line.
 - b. Six (6) feet from any side property line.
 - c. Ten (10) feet from any rear property line.
4. No building or structure, other than: a freestanding project identification/ornamental entrance monument sign, light standards, retaining walls or flag poles shall be located within the above listed setbacks.

D. PARKING AND LOADING REQUIREMENTS

1. Parking and loading spaces for this development will be as required in the City of Chesterfield Code.
2. No construction related parking shall be permitted within Olive Boulevard right-of-way or any other existing roadways. All construction related parking shall be confined to the development.

E. LANDSCAPE AND TREE REQUIREMENTS

1. The development shall adhere to the Landscape and Tree Preservation Requirements of the City of Chesterfield Code.
2. Landscape Buffer requirements:
 - a. A thirty (30) foot Landscape Buffer shall be required along the perimeters of the PUD as identified on the Preliminary Plan attached hereto and marked as Attachment B.
 - b. The required Landscape Buffer shall be outside of any developed lot and shall be dedicated as Common Open Space or Common Ground as identified on the Preliminary Plan.
3. A minimum of thirty percent (30.0%) Common Open Space shall be required for this PUD.
4. A minimum of thirty percent (30.0%) tree preservation shall be required for this PUD.

F. SIGN REQUIREMENTS

1. Signs shall be permitted in accordance with the regulations of the City of Chesterfield Code.
2. Ornamental Entrance Monument construction, if proposed, shall be reviewed by the City of Chesterfield and the St. Louis County Department of Transportation for sight distance considerations prior to installation or construction.

G. LIGHT REQUIREMENTS

Provide a lighting plan and cut sheet in accordance with the City of Chesterfield Code.

H. ARCHITECTURAL

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

I. ACCESS/ACCESS MANAGEMENT

1. There shall be no access to Hog Hollow from this development. Accordingly, there are no required road improvements to Hog Hollow associated with this development.
2. Ingress and egress must conform to the Missouri Department of Transportation's (MoDOT) Access Management Guidelines and must be reviewed and approved by MoDOT. Any changes to the entrance geometrics and drainage design shall be in accordance with MoDOT standards and shall be reviewed and approved by MoDOT.
3. Access to Olive Boulevard (State Highway 340) shall be limited to one (1) street approach. The street approach shall be located as directed by the City of Chesterfield and MoDOT.
4. The nearest edge of any driveway intersecting the entrance street shall be located a minimum of 80 feet from the edge of pavement of Olive Boulevard, as directed by the City of Chesterfield.
5. No direct access to Olive Boulevard (State Highway 340) or to Hog Hollow Road will be permitted from any lot within the subdivision.
6. If adequate sight distance cannot be provided at the access location(s), acquisition of right-of-way, reconstruction of pavement and other off-site improvements may be required to provide the required sight distance as required by the City of Chesterfield and the agency in control of the right of way off which the access is proposed.
7. Provide direct right-of-way access to the proposed internal street for 13987 Olive Boulevard.
8. Provide a private fire access connection to Eagle Manor Ct. as shown on the Preliminary Plan.

J. PUBLIC/PRIVATE ROAD IMPROVEMENTS, INCLUDING PEDESTRIAN CIRCULATION

1. Any request to install a gate(s) at the entrance(s) to this development must be approved by the City of Chesterfield. No gate installation will be permitted on public right of way.
2. If a gate is installed on a street in this development, the streets within the development, or that portion of the development that is gated, shall be private and remain private forever.
3. All roadway and related improvements in each plat or phase of the development shall be constructed prior to issuance of building permits exceeding 60% for that plat or phase. Delays due to utility relocation

and/or adjustment, for which the developer is responsible monetarily, shall not constitute a cause to issue permits in excess of 60%.

4. Provide a 5 foot wide sidewalk, conforming to ADA standards, along the Olive Boulevard frontage of the site as approved and permitted by MoDOT. The sidewalk shall accommodate the extension of the sidewalk eastward to Eagle Manor Lane. The sidewalk may be located within MoDOT right-of-way, if permitted by MoDOT, or within a 6-foot wide sidewalk, maintenance, and utility easement.
5. Provide sidewalks along both sides of internal streets as directed by the City of Chesterfield.
6. Obtain approvals from the City of Chesterfield, MoDOT, and other entities as necessary for locations of proposed curb cuts and access points, areas of new dedication, and roadway improvements.
7. Provide a pedestrian connection along the proposed Fire Access Road from Eagle Manor Court to the proposed internal street.
8. Dedicate a minimum of fifty (50) feet of right-of-way or roadway easement along Hog Hollow Road to the City or the City's designee and/or accept vacation of existing Hog Hollow Road right-of-way and provide roadway easements to the City or the City's designee as directed by the City. New right-of-way or roadway easements shall be centered on the centerline of the existing roadway, with a minimum of 25 feet on either side.
9. Additional right-of-way and road improvements shall be provided, as required by the Missouri Department of Transportation and the City of Chesterfield.
10. Provide an internal pedestrian trail as shown on the Preliminary Plan.

K. POWER OF REVIEW

The development shall adhere to the Power of Review Requirements of the City of Chesterfield Code.

L. STORM WATER

1. The site shall provide for the positive drainage of storm water and it shall be discharged at an adequate natural discharge point or an adequate piped system. The adequacy and condition of the existing downstream systems shall be verified and upgraded if necessary.
2. Detention/retention and channel protection measures are to be provided in each watershed as required by the City of Chesterfield and the Metropolitan St. Louis Sewer District. The storm water

- management facilities shall be operational prior to paving of any driveways or parking areas in non-residential developments or issuance of building permits exceeding sixty (60%) of the approved dwelling units in each plat, watershed or phase of residential developments. The location and types of storm water management facilities shall be identified on all Site Development Plans.
3. Emergency overflow drainage ways to accommodate runoff from the 100-year storm event shall be provided, as directed by the City of Chesterfield and Metropolitan St. Louis Sewer District.
 4. Offsite storm water shall be piped to an adequate natural discharge point. Such bypass systems must be adequately designed.
 5. The lowest opening of all structures shall be set at least two (2) feet higher than the one hundred (100) year high water elevation in adjacent detention/retention facilities. Structures shall be set at least 30 feet horizontally from the limits of the one hundred (100) year high water.
 6. Locations of site features such as lakes and detention ponds must be approved by the City of Chesterfield and the Metropolitan Saint Louis Sewer District.
 7. Grading and stormwater systems shall be designed so as to collect surface water from the rear of the lots on the northern side of the development and the western side of the development (those units tributary to bluffs along the Missouri River valley and the steep slopes above Hog Hollow Road) and convey that surface water to an adequate discharge point where measures will be employed to dissipate energy, attenuate flows, and protect the slopes from degradation. No stormwater from the aforementioned lots shall be allowed to flow to the undisturbed or reconstructed slopes, as directed by the City of Chesterfield.
 8. The proposed storm sewer adjacent to Hog Hollow Road shall be designed to ensure there are no negative impacts to the existing roadside drainage swale.

M. SANITARY SEWER

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

N. GEOTECHNICAL REPORT

Prior to Site Development Plan approval, the developer shall provide a geotechnical report, prepared by a registered professional engineer licensed to practice in the State of Missouri, as directed by the City of Chesterfield. The report shall verify the suitability of grading and proposed

improvements with soil and geologic conditions and address the existence of any potential sinkhole, ponds, dams, septic fields, etc., and recommendations for treatment. A statement of compliance, signed and sealed by the geotechnical engineer preparing the report, shall be included on all Site Development Plans and Improvement Plans.

O. MISCELLANEOUS

1. All utilities will be installed underground.
2. Prior to record plat approval, the developer shall cause, at his expense and prior to the recording of any plat, the reestablishment, restoration or appropriate witnessing of all Corners of the United States Public Land Survey located within, or which define or lie upon, the outboundaries of the subject tract in accordance with the Missouri Minimum Standards relating to the preservation and maintenance of the United States Public Land Survey Corners, as necessary.
3. Retaining walls along public right-of-way shall be private and remain private forever and shall be located outside of right-of-way such that they are not necessary to support any public improvements.
4. Prior to final release of subdivision construction deposits, the developer shall provide certification by a registered land surveyor that all monumentation depicted on the record plat has been installed and United States Public Land Survey Corners have not been disturbed during construction activities or that they have been reestablished and the appropriate documents filed with the Missouri Department of Natural Resources Land Survey Program, as necessary.
5. Community amenities, including but not limited to trails, pocket parks, lookout stations, and fitness stations shall be provided for this development as shown on the Preliminary Plan, attached hereto and marked as Attachment B.

II. GENERAL CRITERIA

A. SITE DEVELOPMENT PLAN SUBMITTAL REQUIREMENTS

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

1. Location map, north arrow, and plan scale. The scale shall be no greater than one (1) inch equals one hundred (100) feet.
2. Outboundary plat and legal description of property.
3. Density calculations.

4. Parking calculations. Including calculation for all off street parking spaces, required and proposed, and the number, size and location for handicap designed.
5. Provide open space percentage for overall development including separate percentage for each lot on the plan.
6. Provide Floor Area Ratio (F.A.R.).
7. A note indicating all utilities will be installed underground.
8. A note indicating signage approval is separate process.
9. Depict the location of all buildings, size, including height and distance from adjacent property lines, and proposed use.
10. Specific structure and parking setbacks along all roadways and property lines.
11. Indicate location of all existing and proposed freestanding monument signs.
12. Zoning district lines, subdivision name, lot number, dimensions, and area, and zoning of adjacent parcels where different than site.
13. Floodplain boundaries.
14. Depict existing and proposed improvements within 150 feet of the site as directed. Improvements include, but are not limited to, roadways, driveways and walkways adjacent to and across the street from the site, significant natural features, such as wooded areas and rock formations, and other karst features that are to remain or be removed.
15. Depict all existing and proposed easements and rights-of-way within 150 feet of the site and all existing or proposed off-site easements and rights-of-way required for proposed improvements.
16. Indicate the location of the proposed storm sewers, detention basins, sanitary sewers and connection(s) to the existing systems.
17. Depict existing and proposed contours at intervals of not more than one (1) foot, and extending 150 feet beyond the limits of the site as directed.
18. Address trees and landscaping in accordance with the City of Chesterfield Unified Development Code.
19. Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Regulations per the City of Chesterfield Unified Development Code.

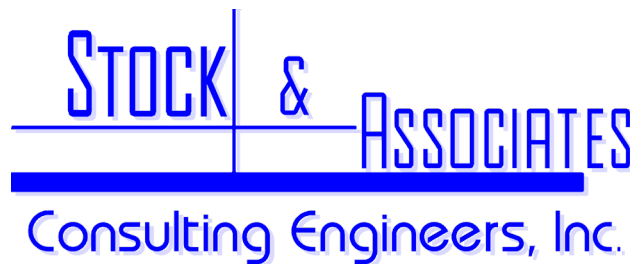
20. Signed and sealed in conformance with the State of Missouri Department of Economic Development, Division of Professional Registration, Missouri Board for Architects, Professional Engineers and Land Surveyors requirements.
21. Provide comments/approvals from the appropriate Fire District, Monarch Levee District, Spirit of St. Louis Airport and the Missouri Department of Transportation, Metropolitan St. Louis Sewer District (MSD), and St. Louis County Department of Highways and Traffic.
22. Compliance with Sky Exposure Plane.
23. Compliance with the current Metropolitan Sewer District Site Guidance as adopted by the City of Chesterfield.

III. RECORDING

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

IV. ENFORCEMENT

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



PROJECT NARRATIVE ASSOCIATED WITH
A REQUEST TO REPEAL ORDINANCE # 2213 & ESTABLISH A “PUD” PLANNED UNIT
DISTRICT IN THE “R-3” RESIDENTIAL DISTRICT

Formerly known as Briarcliffe Villas

Date: October 30, 2020, REV November 20, 2020, January 12, 2021, January 28, 2021

(Stock Project No. 219-6568)

We respectfully request to repeal City of Chesterfield Ordinance #2213. We request a Planned Unit Development (PUD) for this 29.4 Acre R-3 Zoned property and we request the permitted uses to include single family-detached, single family-attached homes/villas/townhomes, and/or three (3) story condominiums in Attachment A.

Overall density shall not exceed: (Gross Acreage / 10,000 s.f. (R-3 zoning)) = 117 Lots or 100 Residential units as depicted on the Preliminary Plan. 52 Residential Lots (60' x 125') = 7,500 s.f.

Attachment A: Requests are as Follows:

- I. Specific Criteria
 1. Permitted Uses
 - a. Single Family-Detached
 - b. Single Family – Attached (homes/villas/townhomes), except on Proposed Lots 1 through 10 as shown on the Preliminary Plan.
 - c. Condominiums as located on the Preliminary Plan
 2. Height
 - a. Maximum building height of three (3) stories or forty-five (45) feet.
 3. Building Requirements
 - a. Common Open Space: a minimum of thirty percent (30%) openspace.
 4. Structure Setbacks – minimum yard requirements
 - a. Twenty- Five (25) Feet from the right-of-way line of any roadway vs twenty (20) feet.
 - b. Six (6) feet on any side property line vs eight (8) feet.
 - c. Ten (10) Feet from the rear property line vs fifteen (15) feet.
 5. Landscape and Tree Requirements – a minimum of thirty percent (30%) of the existing tree canopy shall be maintained.

Narrative - (UDC 31-02-04B.1(b))

1. The intent of the development is to provide a public street from Olive Blvd., for a distance of approximately 200ft street. The street would provide future access to 13987 Olive Blvd to the east and be adjacent to a pocket park on the west. The development would be centrally located within the site preserving tree masses along the north & west sides, as practical. The proposed grading will create a berm along the East Property line creating a visual separation and a landscaped buffer from the Eagle Ridge Subdivision.
2. The surrounding uses to the site include:
 - a. Single Family Residential to the East.
 - b. Commercial Development and Olive Blvd to the South.
 - c. Commercial, Attached Residential Development and Hog Hollow Road to the West.
 - d. Railroad & the Howard Bend Levee District, City of Maryland Heights to the North. This Residential project is consistent with the surrounding properties & the Comprehensive Plan.
3. This property was rezoned in 2005 from R2 C.U.P. to R3 P.E.U., for a development known as Briarcliffe Villas and was to be 82 attached villa community. (Ordinances 2212 and 2213).

The Topography of the Property is difficult, dropping off substantially from South to North and East to West. The Property requires extensive grading of approximately 218,034 cubic yards of cut and 219,237 cubic yards of fill. In order to accommodate the conditions of the Property, address storm water drainage, provide utilities, public streets, common ground, buffering, and address compatibility, a Planned Unit Development is requested, vs. an amendment to the existing P.E.U. Ordinance 2213.

Site Design

4. The purpose of the PUD District is “to promote the most appropriate use of the land”. Presumably the “most appropriate use” of the subject site is Residential Single Family Attached/Detached or Condominium since that is the Comprehensive Plan designation for the subject site. Compatibility with the adjacent residential subdivision to the east is also a planning objective, and the Petitioner has considered that in proposing the PUD. The subject site cannot be developed for its “most appropriate use” without substantial clearing and grading of the subject site.
5. Sloping street design with longitudinal slopes as steep as eight percent (8%) may be required.
6. The developer has incorporated unique features to provide for exceptional site design including, but not limited to:
 - (a) Extensive professionally landscaped buffers, in addition to preservation of existing tree canopy along the north and west buffer common ground.

- (b) Expansive, restricted, and retention of heavily wooded/landscaped common open space.
- (c) Adherence to MSD stormwater requirements.
- (d) Grouping the lots and homes toward the center, south, and eastern portion of the site, to minimize disturbance and grading.
- (e) All of the proposed homes or condominiums will only have access to the internal public subdivision streets. No homes will have stand-alone driveways on Olive Boulevard.
- (f) This site design is materially impacted by adjacent developments. While extensive grading is necessitated by the existing site limitations described in more detail herein, expansive perimeter landscape buffers and extensive common open space is provided.

There is no flat area on the subject site, except where the nursing home used to stand. The site falls 204 feet from middle of the site to the north offsite railroad (elevation $656 - 452 = 204'$). Several non-jurisdictional ravines cut through the subject site from east to west. Even though substantial grading is required, the subject site will not be “flattened”. After development, the portion of the subject site devoted to developed lots will fall 32 feet from east to west (street elevation $652 - 620 = 32'$).

This sloping character of the development will be a reflection of the original topography. To further complicate the grading, a stub street connection for emergency vehicle access is required from the east (Eagle Ridge). This connection creates a “constraint” on which the grading in the west-east direction is fixed.

The extensive grading and stormwater management facilities contemplated by the proposed plan are also necessary to meet MSD requirements. The proposed grading and stormwater management facilities will improve existing runoff conditions as follows:

- (i) There will be volume reduction for the first 1.14 inch of stormwater runoff by implementation of bioretention.
- (ii) The post runoff rate for the 2 year through 100-year events will be reduced below the predevelopment condition, by installation of bioretention basins and stormwater detention basins.

General Considerations

- A. A Narrative Statement has been submitted.
- B. The proposed uses are permitted uses within the City’s applicable ordinances.

- C. The proposed density compares favorably to existing developments along Olive Boulevard (single family detached, single family attached, multifamily). The current zoning is PEU R3 - Attached Units (Ord. 2213). The development can be served by all relevant public utilities and is appropriate to the location and conditions of the Property.
- D. The development is to be constructed in a single phase.
- E. The Comprehensive Plan Designation is “Single Family Residential Attached/Detached”. The surrounding land uses are commercial and residential single family detached.
- F. Development of the Property pursuant to the Plan will promote public health, safety and general welfare. The vacant property will be replaced with new Residential Development.

Design Features - (UDC 31-03-04K.5)

- a. Placement of structures on most suitable sites with consideration of maintaining existing site topography, soils, vegetation, slope, etc.

Response: The Residential Development is centrally located within the Site to buffer from Olive Blvd. Maintain the existing Site Topography along North & West sides as practical. As noted above, the topographical condition and location of the Property and the adjacent Eagle Ridge subdivision were taken into consideration in locating the homes close to Olive Boulevard. Because of the topographical condition of the Property and stormwater drainage requirements, the existing topography is not desirable and cannot be maintained. Necessary extensive grading will result in the removal of existing vegetation but will allow for a retention of 30% minimum existing tree canopy and not disturbing the north and west slopes of the site.

- b. Preservation of natural and cultural areas, as well as the creation of open space through active and passive recreation areas to include greenways, landscape gardens, plazas, and walking and cycling trails that serve to connect significant areas and various land uses;

Response: As described in Item (a) very steep / forested slopes are being left undisturbed. These areas provide large buffers from the existing Railroad & Airport located within the Howard Bend Levee District. 14.6 acres of common ground is provided by the Plan which equates to 49.6% of the site. The perimeter landscape buffer provided by the Plan is a minimum of 30’ on the east and west property lines. These buffer areas allow for enhanced landscaping. A hiking/fitness trail is proposed around the perimeter of the site, as well as within the interior common ground. There will be multiple locations along the trail where outdoor fitness equipment will be provided. A “community recreation area” is proposed with passive recreation. A proposed sidewalk across the property frontage will be provided and will connect to the existing sidewalks.

- c. Preservation of existing mature trees and trees deemed extraordinary by the City of Chesterfield Tree Specialist due to but not limited to the following: size, type, origin, grouping, or number of;

Response: As indicated on the “TSD”, trees especially valuable to the site are those located along the North facing slope. Regarding tree removal an excess of 30% minimum tree canopy will be retained. Enhanced buffer yard plantings with native species will be provided for greater diversity of planting types. These new plantings will be located adjacent to the access trail and will utilize small signage to educate and inform trail users of the unique nature of the trees.

- d. Enhanced landscaping, deeper and opaque buffers, and increased planting along public rights-of-way, open space/recreational areas, and the overall perimeter to protect and ensure compatibility with adjacent land uses;

Response: The Residential Community is located more than 200 feet North of Olive Blvd., very large buffers exist to the North & West protecting the Development from Hog Hollow Road, the Railroad & Airport located within the City of Maryland Heights. The berm created between Eagle Ridge subdivision & this site will be landscaped. A hiking trail is proposed around the perimeter of the site as well as within interior common ground areas. The trail will include “lookout” points. Pocket Parks are proposed with passive recreation and access to the hiking trail. Play equipment and fitness equipment will be incorporated in the park areas as well as along the trail. These facilities will be available to all residents. The park areas will also include a sitting areas, gently sloping grassy areas which can be utilized as a place to walk and meet with neighbors, hold neighborhood block parties and other community events.

- e. Utilization of mixed-use buildings;

Response: This petition includes a request to allow Single Family Residential as attached homes, detached homes, and condominiums.

- f. Utilization of traditional neighborhood design (TND) techniques in the layout and spatial organization of the development;

Response: Traditional Neighborhood Design (TND):

- a. Grid-type layout.
 - b. Rectangular-shaped lots.
 - c. Openspace of heavily wooded/landscaped common ground and landscaped bioretention raingarden.
 - d. Stormwater detention and water quality bioretention.
 - e. Symmetrical lot widths.
 - f. Looped street and walk circulation.
 - g. Pedestrian walk connection to Olive Boulevard and Eagle Ridge subdivision.
 - h. Quality building materials and appealing architectural design.
 - i. Street trees and extensive landscaped buffers.
 - j. Community Recreation Areas, playground and hiking/fitness trails.
- g. Structures designed and constructed of an architectural vernacular that exceeds the typical building design and materials within the City of Chesterfield;

- h. Segregation of vehicular traffic from pedestrian/bicycle circulation networks, and other traffic mitigation measures;

Response: Sidewalks will be provided along both sides of the internal public streets.

- i. Incorporation of transit-oriented development (TOD) or direct access to public transportation;

Response: Olive Blvd. is a State Highway of which Metro provides public bus service.

- j. Provision of affordable housing;

Response: N/A

- k. Utilization of Leadership in Energy and Environmental Design (LEED) construction practices and development standards and the proposed LEED certification of buildings and grounds by the United States Green Building Council within the PUD; and

Response: Access to the bioretention basins, via a hiking trail, will be provided from the subdivision to allow for visual learning of the benefits to the environment.

- l. Inclusion of community facilities and the access thereto;

Response: Community Facilities have been added in the form of playground/tot-lot/fitness equipment, gazebo/sitting area with trellis and benches.

STOCK & ASSOCIATES
Consulting Engineers, Inc.

December 30, 2020

Via Email: (akumerow@chesterfield.mo.us)

City of Chesterfield
690 Chesterfield Parkway W
Chesterfield, MO 63017

Attention: Ms. Annisa Kumerow, City Planner

Re: P.Z. 12-2020 The Residences at Hog Hollow, 14001 Olive Blvd., City of Chesterfield, MO -
Response Letter to Comments Dated 12/16/2020 (Stock Project No. 219-6568)

Dear Annisa,

We are pleased to offer the following written responses to Planning Commission comments contained within your departmental letter, dated 12/16/2020.

General Comments

1. Traffic concern: There was discussion regarding existing traffic issues in the neighboring Eagle Ridge subdivision, specifically concerning the following topics:
 - Difficulty with making a left turn out of the subdivision onto Olive Boulevard.
 - Concerns about the incremental impact of the proposed development on the overall traffic volume.

Provide the following items:

- Updated trip generation figures.

Response: Per CBB; The Peak "AM" Trips = 15 In & 49 Out, The Peak "PM" Trips = 53 In & 31 Out.

- Explore the possibility of a three-lane section for entry into and out of the development.

Response: MoDOT has given their concurrence, attached is Mr. Lagos 12/28/2020 Email Approval (Attached).

Be advised, the Missouri Department of Transportation currently has a project for corridor improvements along Olive Boulevard between Lea Oak and Interstate 270.

Response: Acknowledged.

2. Amenities: There was discussion regarding the amenities displayed on the Preliminary Plan. While the Planning Commission appreciated the amenities shown on the Preliminary Plan, there was a question as to whether it would be possible to incorporate additional amenities throughout the site, rather than having the amenities concentrated at two ends of the site in the proposed pocket parks. Provide information pertaining to the potential for additional amenities.

Response: In order to provide a sustainable & maintainable Amenity Package, it is most efficient & safe to locate those amenities within the designated Pocket Parks that are visible from street access.

Be advised, there was discussion regarding other developments along Olive Boulevard, and how this development should incorporate exceptional design, character, and quality to ensure an aesthetically attractive development in the Olive corridor.

Be advised, Staff has concerns regarding the gravel trail and the potential for loose gravel on nearby sidewalks. Consider a paving method for the gravel trail.

Response: A Rigid Edge Treatment will be placed to hold minus chat rock trail where it abuts existing concrete & asphalt sidewalks & shoulder.

3. 14015 Olive Boulevard: There were several items discussed relating to 14015 Olive Boulevard:
 - a. Fencing: The property owner of 14015 Olive Boulevard requested a fence in order to screen his property from residents of the proposed development. In ensuing discussion, it was noted that there may be difficulties with sight distance should the fence be installed on the eastern boundary of 14015 Olive Boulevard, along the proposed entry road to the development. Provide information on the fence and depict on the Preliminary Plan.

Response: A sight proof fence is not a requirement of the 30-foot Landscape Buffer. The Landscape Buffer will be planted and maintained by the Home Owners Association in Accordance with City Code and an approved Site Development Plan. The Owner/Developer of the Residences at Hog Hollow is "Not Opposed" to the adjoining property owner (Keymer Reality & Investments, LLC) installing and maintaining a sight proof fence on their property, today a chain link fence exists between the two (2) properties (photos attached).

- b. Propane tanks: It was noted that there may be safety issues with the propane filling that occurs at 14015 Olive Boulevard and maintaining adequate distance between the propane tanks and any structures proposed in this development. Provide information on the required safety distance between propane tanks and structures.

Response: The Owner/Developer of the Residences at Hog Hollow believe that it is the responsibility of the property owner & operator of the existing Liquefied Petroleum Tank to operate in accordance with all City, County, State, Federal, & OSHA Guidelines. Attached is information from St. Louis County Department of Public Works & The Monarch Fire District regarding the LPG Tank. Attached is a 2005 Survey & Current photo of the tank's location on the 14015 Olive Blvd. Property.

- c. Trees: There was also discussion concerning unhealthy trees in an existing utility easement on the eastern side of 14015 Olive Boulevard which border the proposed development. Provide information on the decaying trees, and what plantings will be provided to fulfill the buffer in this area.

December 30, 2020

Page 3

Response: The 30-foot Landscape Buffer will be planted and maintained in Accordance with the City Code and an Approved Site Development Plan. Once the subdivision is constructed, ongoing maintenance of the buffer will be performed by the Homeowner's Association.

4. Bioretention basins, stormwater detention basins, and dry conveyance channel: Discussions were had concerning the function of these areas and how they can be designed with appropriate landscaping to minimize the burden on the future residents.
Identify and provide the potential plantings for these areas that meet MSD requirements.

Response: Attached is the MSD approved plantings list for Bio-Retention Basins.

As always, we appreciate your continued assistance and support for this project. Should you have any question or comments, please feel free to call.

Sincerely,



George M. Stock, P.E.
President

CC: Mr. Thomas Daake, Chesterfield Management LP (tdaake@gmail.com)
Mrs. Adele Daake, Chesterfield Management LP (azd326@gmail.com)
Mr. Alex A. Daake, Chesterfield Management LP (daakeac@yahoo.com)
Mr. Carl C. Lang, Rosenblum Goldenhersh, Shareholder, Management Committee (clang@rgsz.com)
Mr. Chuck Hulse, P.E., Associate (Charles.hulse@stockassoc.com)

Enclosures: 1. Email Dated 12/28/2020 from Mr. Roger Herin / Deputy Chief Fire Marshal
2. Email Dated 12/28/2020 from Mr. Bill Walterscheid, P.E., Assistant Div. Manage of Code Enforcement – St. Louis County Department of Public Works, Regarding LPG Tanks
3. Email Dated 12/28/2020 From Scott Keymer
4. MoDOT 12/28/2020 Email from Mr. Federico Lagos
5. MSD Approved Bio-Retention Planting List

Emails To & From

- 1. Mr. Roger Herin – Monarch Fire Protection District**
- 2. Mr. William Walterscheid, P.E. – St. Louis County
Department of Public Works**
- 3. Mr. Scott Keymer – Keymer Realty & Investments
LLC**
- 4. Mr. Federico Lagos – MoDOT**

Cheri Evans

MONARCH
FIRE
1 of 2

From: George M. Stock, P.E. <george.stock@stockassoc.com>
Sent: Monday, December 28, 2020 2:00 PM
To: Cheri Evans; Andrew Barker
Subject: Fwd: [EXTERNAL] RE: Propane Refill facility at Suburban Leisure Store - Olive East of HogHollow adjacent to Proposed Residences at Hog Hollow (6568)

Begin forwarded message:

From: Roger Herin <herin.r@monarchfpd.org>
Date: December 28, 2020 at 1:36:00 PM CST
To: "George M. Stock, P.E." <george.stock@stockassoc.com>
Subject: [EXTERNAL] RE: Propane Refill facility at Suburban Leisure Store - Olive East of HogHollow adjacent to Proposed Residences at Hog Hollow (6568)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

George:

I am well, and I did have a nice Christmas with my family. I hope you did the same, and are well also.

In researching the propane refill station, I believe its existence predates my tenure here. As such, it is permitted as an existing facility. It appears it is in compliance. The only operating conditions are that the installation remain compliant, and the dispensing operation be performed by a qualified attendant (no self service).

As always, please let me know if I can be of further help.



Roger N. Herin, MCP
Deputy Chief/ Fire Marshal
Monarch Fire Protection District
13725 Olive Blvd.
Chesterfield, MO 63017
314-514-0900 ext. 2206 Office
314-581-2206 Cell

From: George M. Stock, P.E. <george.stock@stockassoc.com>
Sent: Monday, December 28, 2020 6:12 AM
To: Roger Herin <herin.r@monarchfpd.org>

2017

Subject: Propane Refill facility at Suburban Leisure Store - Olive East of HogHollow adjacent to Proposed Residences at Hog Hollow (6568)

Good morning Roger, I hope this email finds you doing well and you had a nice Christmas with your family. I am writing regarding the Proposed Development that we are working on formerly known as Briarcliffe Villas not to be known as The Residences at Hog Hollow. Questions were raised by the Planning Commission regarding the propane Refill facility at Suburban Lawn and it's safety / operation and Location near residential homes. I am checking with you to see if the Monarch Fire District regulates this facility, if so does a permit with operating conditions exist? If not, that is fine too, I plan to check with St. Louis County Public Works as well. Should you have any questions or comments please feel free to let me know. Thanks, George

St. Louis County
Dept. OF

Andrew Barker

From: Andrew Barker <andrew.barker@stockassoc.com>
Sent: Monday, December 28, 2020 10:39 AM
To: Andrew Barker
Subject: FW: Propane Refill facility at Suburban Leisure Store - Olive East of HogHollow adjacent to Proposed Residences at Hog Hollow (6568)
Attachments: NFPA 58 2014 Table 6.4.1.1.pdf

Public Works
1 of 3

From: George M. Stock, P.E. <george.stock@stockassoc.com>
Sent: Monday, December 28, 2020 10:34 AM
To: Andrew Barker <andrew.barker@stockassoc.com>
Subject: FW: Propane Refill facility at Suburban Leisure Store - Olive East of HogHollow adjacent to Proposed Residences at Hog Hollow (6568)

Print and be sure my picture shows up as displayed below. Thanks, George

From: Walterscheid, Bill <BWalterscheid@stlouisco.com>
Sent: Monday, December 28, 2020 10:29 AM
To: George M. Stock, P.E. <george.stock@stockassoc.com>
Subject: [EXTERNAL] FW: Propane Refill facility at Suburban Leisure Store - Olive East of HogHollow adjacent to Proposed Residences at Hog Hollow (6568)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Good Morning, George:
Section 401.2 of the 2015 International Fuel Gas Code (IFGC) requires LPG storage to be located in accordance with the NFPA 58-2014 and the 2015 International Fire Code (IFC).

We issue these LPG tanks as a mechanical permit. The attached Table 6.4.1.1 of the NFPA Standard regulates the distance of these tanks to the property line and buildings.

Please let me know if you have any other questions.

Bill Walterscheid, PE
Assistant Division Manager of Code Enforcement
St. Louis County Department of Public Works
41 S. Central Avenue, 6th Floor
Clayton, Missouri 63105
Phone: 314-615-7145
Fax: 314-615-7085
bwalterscheid@stlouisco.com

From: George M. Stock, P.E. [<mailto:george.stock@stockassoc.com>]
Sent: Monday, December 28, 2020 9:52 AM
To: Walterscheid, Bill <BWalterscheid@stlouisco.com>
Subject: Fwd: Propane Refill facility at Suburban Leisure Store - Olive East of HogHollow adjacent to Proposed Residences at Hog Hollow (6568)

Begin forwarded message:

From: "George M. Stock, P.E." <george.stock@stockassoc.com>
Date: December 28, 2020 at 6:12:18 AM CST
To: "Roger Herin, MCP" <herin.r@monarchfpd.org>
Subject: Propane Refill facility at Suburban Leisure Store - Olive East of HogHollow adjacent to Proposed Residences at Hog Hollow (6568)

Good morning Roger, I hope this email finds you doing well and you had a nice Christmas with your family. I am writing regarding the Proposed Development that we are working on formerly known as Briarcliffe Villas not to be known as The Residences at Hog Hollow. Questions were raised by the Planning Commission regarding the propane Refill facility at Suburban Lawn and it's safety / operation and Location near residential homes. I am checking with you to see if the Monarch Fire District regulates this facility, if so does a permit with operating conditions exist? If not, that is fine too, I plan to check with St. Louis County Public Works as well. Should you have any questions or comments please feel free to let me know. Thanks, George



- (8) Cylinders awaiting use, resale, or exchange when stored in accordance with Sections 8.2 and 8.3

6.3 Location of Containers Not Connected for Use.

6.3.1 Cylinders awaiting use, resale, or exchange shall be stored in accordance with Chapter 8.

6.3.2 ASME containers of 4,000 gal (15.2 m³) or less that have been removed from service but that contain LP-Gas shall be stored outside of buildings in accordance with either (1) or (2):

- (1) Containers shall be located either at a bulk plant or in an approved area.
- (2) Containers not complying with (1) shall comply with the following:
 - (a) Containers shall be located in a manner that will minimize exposure to physical damage.
 - (b) Containers shall be oriented so that the pressure relief valve remains in communication with the vapor space.
 - (c) Containers shall not be located on roofs of buildings.
 - (d) Valve outlets on ASME containers shall be plugged or capped.
 - (e) Where screw-on-type caps or collars are utilized on ASME containers, they shall be in place whenever this type of container is stored regardless of the fill level of the container.
 - (f) The location of ASME containers shall comply with the "Aboveground Containers" column and the "Between Containers" column of Table 6.4.1.1 with respect to important buildings and lines of adjoining property that can be built upon.
 - (g) Where the provisions of (f) are impractical, alternative storage locations for containers shall be approved by the authority having jurisdiction.

6.4 Container Separation Distances.

6.4.1 Aboveground Containers.

6.4.1.1* Containers installed outside of buildings, whether of the portable type replaced on a cylinder exchange basis or permanently installed and refilled at the installation, shall be located with respect to the adjacent containers, important building, group of buildings, or line of adjoining property that can be built upon, in accordance with Table 6.4.1.1, Table 6.5.1.2, 6.4.1.2 through 6.4.1.3, 6.4.3, 6.4.4.1 through 6.4.4.4, and 6.5.3.6 through 6.5.3.11.

6.4.1.2 When the provisions of 6.30.3 through 6.30.5 are met, the minimum distance from an ASME container to a building or adjoining property line that can be built upon shall be reduced by one-half for ASME containers of 2001 gal through 30,000 gal (7.6 m³ through 114 m³) water capacity.

6.4.1.3 The 25 ft (7.6 m) minimum distance from aboveground ASME containers of 501 gal through 2000 gal (1.9 m³ through 7.6 m³) water capacity to buildings, a group of buildings, or the line of adjoining property that can be built upon shall be reduced to 10 ft (3 m) for a single ASME container of 1200 gal (4.5 m³) or less water capacity where such container is at least 25 ft (7.6 m) from any other LP-Gas container of more than 125 gal (0.5 m³) water capacity.

6.4.2 Underground or Mounded ASME Containers.

6.4.2.1 Minimum distances for underground or mounded ASME containers of 2001 gal through 30,000 gal (7.6 m³ through 114 m³) water capacity, incorporating all the provisions of Section 6.30, shall be reduced to 10 ft (3 m).

6.4.2.2 Distances for all underground and mounded ASME containers shall be measured from the container surface.

Table 6.4.1.1 Separation Distances Between Containers, Important Buildings, and Line of Adjoining Property That Can Be Built Upon

Water Capacity per Container		Minimum Distances					
		Mounded or Underground Containers ^a		Aboveground Containers		Between Containers ^b	
gal	m ³	ft	m	ft	m	ft	m
<125 ^c	<0.5 ^c	10	3	0 ^d	0 ^d	0	0
125–250	0.5–1.0	10	3	10	3	0	0
251–500	>1.0–1.9	10	3	10	3	3	1
501–2,000	>1.9–7.6	10	3	25 ^e	7.6	3	1
2,001–30,000	>7.6–114	50	15	50	15	5	1.5
30,001–70,000	>114–265	50	15	75	23		
70,001–90,000	>265–341	50	15	100	30		
90,001–120,000	>341–454	50	15	125	38		
120,001–200,000	>454–757	50	15	200	61		
200,001–1,000,000	>757–3,785	50	15	300	91		
>1,000,000	>3,785	50	15	400	122		

^aSee 6.4.2.1.

^bSee 6.4.4.5.

^cSee 6.4.4.4.

^dSee 6.4.4.1, 6.4.4.2, 6.4.4.3, and 6.4.4.4.

^eSee 6.4.1.3.

Keymer
1 of 1

Cheri Evans

From: George M. Stock, P.E. <george.stock@stockassoc.com>
Sent: Monday, December 28, 2020 12:47 PM
To: Dwaine Coleman; Cheri Evans; Andrew Barker
Subject: Fwd: [EXTERNAL] Re: LPG Tank at 14015 Olive Blvd. Property (6568)

Begin forwarded message:

From: scott_keymer@yahoo.com
Date: December 28, 2020 at 12:46:36 PM CST
To: "George M. Stock, P.E." <george.stock@stockassoc.com>
Cc: Dwaine Coleman <dwaine.coleman@stockassoc.com>, Cheri Evans <cheri.evans@stockassoc.com>, "Chuck Hulse, P.E., P.L.S." <charles.hulse@stockassoc.com>, Harvey Keymer <hakco1@aol.com>
Subject: [EXTERNAL] Re: LPG Tank at 14015 Olive Blvd. Property (6568)

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George,

I am checking on the requested items.

I spoke recently to Rich Daugherty who is the inspector for the State of Missouri Propane Safety Commission. The state requirements are that buildings must be 20 feet from the dispensing station. This was asked by one of the commission members.

Scott

On Dec 28, 2020, at 11:01 AM, George M. Stock, P.E. <george.stock@stockassoc.com> wrote:

Hello Scott, can you forward me a copy of your St. Louis County Permit for your LPG Tank? Also, can you confirm How many Gallons the Tank holds? I need to respond to the issues you raised at the Public Hearing, thus your assistance is appreciated. Thanks, George

MODOT
1 of 3

George M. Stock, P.E.

From: Federico Lagos <Federico.Lagos@modot.mo.gov>
Sent: Monday, December 28, 2020 12:38 PM
To: George M. Stock, P.E.
Subject: [EXTERNAL] Re: The Residences at Hog Hollow formerly known at Briarcliffe Villas (14001 Olive Road) - 6568

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George,

The three lane width is certainly acceptable with a max width of 39' which would provide three 13' lanes. In terms of being clear about the median reduction request, is this a condition being placed on the development to determine who bears the cost? My understanding is that Chesterfield originally requested the medians when they were installed almost 20 years ago. We are discussing this possibility internally, but as you alluded in your email the city should make this request formally.

FEDERICO "FRED" LAGOS
Senior Traffic Specialist
Missouri Department of Transportation
St. Louis District-Highway Safety and Traffic
1590 Woodlake Dr, Chesterfield, MO 63017
636-208-3423 (mobile)
Monday-Friday 8:00 a.m. to 4:30 p.m.
www.modot.org

On Dec 28, 2020, at 11:13 AM, george.stock.stockassoc.com <george.stock@stockassoc.com> wrote:

Hello Fred, I hate to be a pest, just checking if you are working this week, if so will you be able to get to my request below? Thanks and Hope you had a Great Christmas. George

From: George M. Stock, P.E. <george.stock@stockassoc.com>
Sent: Wednesday, December 23, 2020 8:50 AM
To: Fred Lagos - Traffic Specialist <federico.lagos@modot.mo.gov>
Cc: Cheri Evans <cheri.evans@stockassoc.com>
Subject: RE: The Residences at Hog Hollow formerly known at Briarcliffe Villas (14001 Olive Road) - 6568

Hello Fred, can you give me an idea when you may get to this request? I hope all is well and you and your family have a Merry Christmas! Thanks, george

George M. Stock, P.E.
President

Stock & Associates Consulting Engineers, Inc.
257 Chesterfield Business Pkwy.
St. Louis, MO 63005
Desk: 636.681.2403

2 of 3

From: George M. Stock, P.E. <george.stock@stockassoc.com>
Sent: Thursday, December 17, 2020 10:02 AM
To: Fred Lagos - Traffic Specialist <federico.lagos@modot.mo.gov>
Subject: The Residences at Hog Hollow formerly known at Briarcliffe Villas (14001 Olive Road) - 6568

Good morning Fred, I hope all is well. We continue to move forward on the above project. You last knew the project as Briarcliffe Villas. The name has changed to The Residences at Hog Hollow. You last reviewed and gave your concurrence on 4/13/2020.

We continue the process thru the City, we had a Public Hearing Monday night and couple questions comments came from that meeting that I want to relay to you and ask for your thoughts.

First, it was suggested that our proposed street at Olive be a 3 lane section to allow 1 inbound and 2 outbound, see sketch in "RED", is this acceptable to MODoT?

Secondly, the existing center median east of our project and just east of Eagle Manor Lane apparently impedes eastbound lefts from that street. There was discussion that MoDot has a resurfacing project for Olive sometime in the near future. We were asked if we could inquire to MoDot about reducing the length of that island to the east. I suspect the City and residents of Eagle Ridge may ask the same question of MoDot. If you have thoughts you can share with me that would be great. Thanks, George

George M. Stock, P.E.
President
Stock & Associates Consulting Engineers, Inc.
257 Chesterfield Business Pkwy.
St. Louis, MO 63005
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<http://www.stockassoc.com>

- ### ABBREVIATIONS
- ADJ - ADJUST TO GRADE
 - BL - BACK OF CURB
 - CL - CLEANOUT
 - CR - CURED ROUGH
 - DR - DRAIN
 - ELEV. - ELEVATION
 - EX - EXISTING
 - F.C. - FACE OF CURB
 - FL - FLOWLINE
 - FT - FEET
 - IND - INDIAN
 - G - GAS
 - H.W. - HIGH WATER
 - L.F. - LOW FLOW BLOCKED
 - M.H. - MANHOLE
 - N.F. - NOW OR FORMERLY
 - PL - PLAT BOOK
 - PC - FACE
 - PROP - PROPOSED
 - P.V.C. - POLYVINYL CHLORIDE PIPE
 - R.C.P. - REINFORCED CONCRETE PIPE
 - R.O.W. - RIGHT-OF-WAY
 - SO - SQUARE
 - T - TELEPHONE CABLE
 - T.B.A. - TO BE ABANDONED
 - T.B.R. - TO BE REMOVED
 - T.B.R.M. - TO BE REMOVED AND REPLACED
 - T.R. - TYPICALLY
 - U.S. - USE IN PLACE
 - U.G.N. - UNLESS OTHERWISE NOTED
 - V.C.P. - VIBRATED CLAY PIPE
 - W - WATER
 - (8876) - RIGHT-OF-WAY WIDTH

- ### LEGEND
- EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - EXISTING TRAIL
 - EXISTING BUILDING
 - EXISTING CONTOUR
 - SPOT ELEVATION
 - EXISTING UTILITIES
 - FOUND 1/2" IRON PIPE
 - SET IRON PIPE
 - FOUND CROSS
 - FOUND STONE
 - FIRE HYDRANT
 - LIGHT STANDARD
 - BUSH
 - SNOW
 - NOTED PARKING SPACES
 - CITY WALK
 - POWDER POLE
 - WATER VALVE
 - DEMOTES RECORD INFORMATION
 - ACCESSIBLE PARKING
 - PROPOSED CONTOUR
 - PROPOSED SPOT
 - PROPOSED STORM
 - PROPOSED SANITARY
 - PROPOSED SPORT COURT FENCE

- ### GENERAL NOTES
- BOUNDARY AND TOPOGRAPHIC SURVEY BY STOK & ASSOCIATES CONSULTING ENGINEERS, INC.
 - ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONFIRMED APPROPRIATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION TO HAVE EXISTING UTILITIES FIELD LOCATED.
 - NO GRADE SHALL EXCEED 3:1 SLOPE.
 - GRADING AND STORM WATER FOR M.S.D., WOODST, AND THE CITY OF CHESTERFIELD.
 - STORMWATER SHALL BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINT. SWIMHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
 - ALL UTILITIES WILL BE INSTALLED UNDERGROUND.
 - SITE DEVELOPMENT SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL REPORT AND ALL ITS SUPPLEMENTAL PROVISIONS AND ADDENDUMS.
 - A PROVISION FOR COMMON OPEN SPACE SHALL BE PROVIDED IN THE PLO AT A MINIMUM OF THIRTY PERCENT (30%) OF THE TOTAL SITE ACREAGE, TO BE DISTRIBUTED THROUGHOUT THE PLO AND NOT CONCENTRATED IN ONE (1) AREA NOR SHALL IT CONTAIN ONLY THAT PORTION OF THE PROPOSED PLO THAT WOULD BE CONSIDERED UNDEVELOPABLE DUE TO TOPOGRAPHY OR ANY OTHER SITE SPECIFIC RELATED MATTER. ALL COMMON OPEN SPACE AREAS SHALL BE SHOWN ON ALL PRELIMINARY PLANS, SITE DEVELOPMENT PLANS, SITE DEVELOPMENT CONCEPT PLANS, SITE DEVELOPMENT SECTION PLANS, AND RECORD PLANS AND SHALL BE PRESERVED AND DEED RESTRICTED AS COMMON OPEN SPACE.

- ### STANDARD NOTES
- ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO CITY OF CHESTERFIELD AND/OR WOODST STANDARDS.
 - NO SLOPES WITHIN CITY OF CHESTERFIELD AND/OR WOODST RIGHT-OF-WAY SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL).
 - KNOWN WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SWIMHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
 - ALL PROPOSED ROADS TO WOODST ROADS SHALL MEET MINIMUM WOODST SIGHT DISTANCE REQUIREMENTS.
 - ALL GRADING AND DRAINAGE SHALL BE IN CONFORMANCE WITH CITY OF CHESTERFIELD, WOODST, AND MSD STANDARDS.

DENSITY CALCULATIONS

TOTAL SITE: 1,281,082 S.F.
 RIGHT-OF-WAY (R.O.W.): 116,385 S.F.
 AS LOT SIZE: 10,000 S.F.
 DENSITY: (1,281,082 S.F.) / (10,000 S.F.) = 128 LOTS

PARKING CALCULATIONS

REQUIRED PARKING:

MULTI-FAMILY 3-3 STORY (CONDO) (12 UNITS EA)	1.75 SPACE PER UNIT
TOTAL = 48 CONDOS	(1.75 x 48 CONDOS) = 84 SPACES
TOTAL PERMITTED (MINIMUM)	84 SPACES
PROVIDED TOTAL SPACES:	84 SHARED SPACES N/16 ACCESSIBLE (4 PER BUILDING)
SINGLE FAMILY LOTS (60'x120' = 7,200 SF) = 52	
TOTAL LOTS = 100	

ST. LOUIS COUNTY BENCHMARK

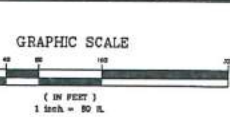
BM 19-18 - ELEV. 820.22 - NAD 83 (U.S.G.S.)
 1" = 40' FOR THE BACK OF CURB OF EAST BEARD CLAY BLVD. ON THE CENTERLINE PRODUCED OF EAGLE MAJOR LANE.

CONTRACTOR'S INSURANCE REQUIREMENTS

PRIOR TO OBTAINING A CONSTRUCTION PERMIT FROM THE METROPOLITAN ST. LOUIS SENIOR DISTRICT, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE THE DISTRICT WITH A COPY OF AN EXCLUDED CERTIFICATE OF NON-RESPONSIBILITY THAT THE PERMITTEE HAS OBTAINED AND WILL CONTINUE TO CARRY COMMERCIAL GENERAL LIABILITY AND COMPREHENSIVE AUTO LIABILITY INSURANCE. THE REQUIREMENTS AND LIMITS SHALL BE AS STATED IN THE "RULES AND REGULATIONS AND ENGINEERING DESIGN REQUIREMENTS FOR SANITARY AND STORMWATER DRAINAGE FACILITY," SECTION 1.0 (GENERAL NOTES).

UTILITY NOTE

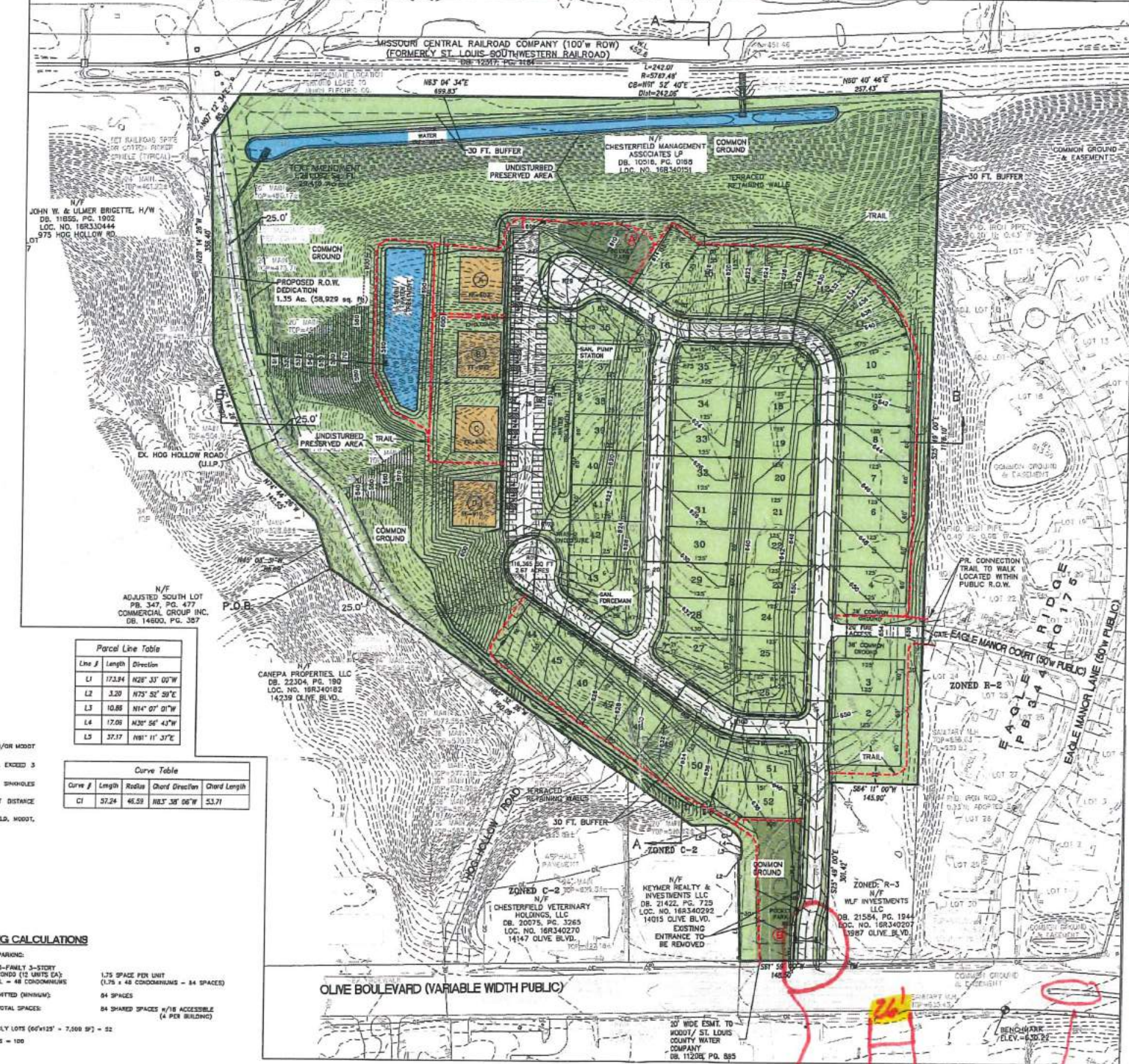
UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEY RECORDS AND INFORMATION, AND THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL LOCATION, DEPTH, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, OTHER THAN AS SET FORTH ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROCEDURES SHALL BE IN NO WAY ABOLISH ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.



PRELIMINARY PLAN FOR THE RESIDENCES AT HOG HOLLOW, R-3 WITH P.U.D.

A TRACT OF LAND BEING IN LOT 11 OF D.J. TALBOT SUBDIVISION IN U.S. SURVEY 2030 AS RECORDED IN PLAT BOOK 7 PAGE 43, TOWNSHIP 46 NORTH, RANGE 4 EAST OF THE 5TH PRINCIPAL MERIDIAN, CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI

INDEX OF SHEETS
 1 PRELIMINARY PLAN
 2 SITE SECTIONS

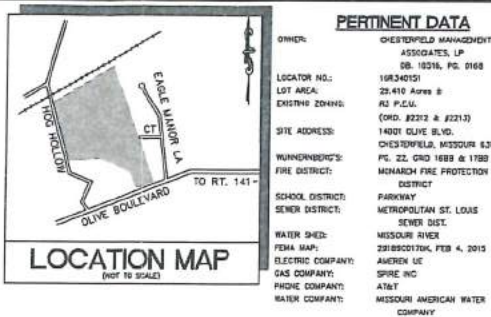


Parcel Line Table

Line #	Length	Direction
L1	173.84	N28°33'00"W
L2	3.20	N75°52'50"E
L3	10.85	N14°07'01"W
L4	17.00	N30°56'43"W
L5	37.37	N81°11'37"E

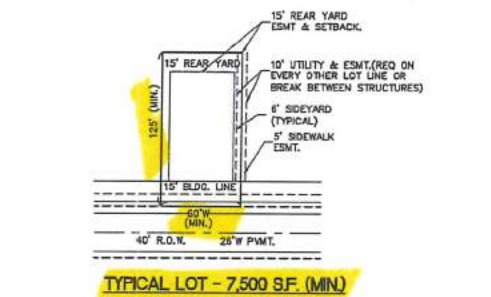
Curve Table

Curve #	Length	Radius	Chord Direction	Chord Length
C1	37.24	46.53	N83°33'06"W	53.71



PERTINENT DATA

OWNER: CHESTERFIELD MANAGEMENT ASSOCIATES, LP
 DB: 10216, PG. 0108
 LOCATION NO.: 16R340201
 LOT AREA: 29.410 Acres ±
 EXISTING ZONING: R-3 P.U.D.
 SITE ADDRESS: (ORD. 82312 & 82313)
 14015 OLIVE BLVD.
 CHESTERFIELD, MISSOURI 63017
 HUNDWIND'S: HUNDWIND'S
 FIRE DISTRICT: HUNDWIND FIRE PROTECTION DISTRICT
 SCHOOL DISTRICT: METROPOLITAN ST. LOUIS SEWER DIST.
 SEWER DIST.: SEWER DIST.
 WATER SHED: MISSOURI RIVER
 2850000000 FEB 4, 2013
 ELECTRIC COMPANY: ANDREW LEC
 GAS COMPANY: SPIRE INC
 PHONE COMPANY: AT&T
 WATER COMPANY: MISSOURI AMERICAN WATER COMPANY



PREPARED BY: **STOK & ASSOCIATES**
 Consulting Engineers, Inc.
 257 Chesterfield Business Parkway
 St. Louis, MO 63017
 TEL: (314) 357-1200
 FAX: (314) 357-1205
 www.stokandassociates.com

PRELIMINARY PLAN FOR: **THE RESIDENCES AT HOG HOLLOW, R-3 WITH P.U.D.**
 PREVIOUSLY KNOWN AS BRARCLIFFE VILLAS
 14015 OLIVE BLVD.
 CHESTERFIELD, MO 63017

DATE: 11/25/20
 GEORGE M. STOK, C-23118
 OR. ENGINEER
 COMMISSIONER OF JURISDICTION
 NUMBER: PE-21014

REVISIONS:
 1-15-2020 REV PER CITY COMMISSIONER 11-07-2020

PROJECT NO.: C1.0

30F3

OLIVE. 3-LANES
TRIM MEDIUM BACK
(REQUEST TO BE MADE OF MODOT BY TRUSLEAD OF EAGLE RIDGE OR CITY

5. MSD Plant List from Bio Retention Basins

7. Plant List

The following pages present grasses, sedges, forbs, shrubs and trees native to Missouri and suitable for planting in stormwater BMPs. The lists are intended as a basic guide for general planting purposes and planning considerations. Knowledgeable landscape architects, designers and nursery suppliers may provide additional information for considering specific conditions for successful plant establishment and accounting for the variable nature of stormwater hydrology.

The plants in these lists were selected to be readily available in the nursery trade. Often overlooked in plant selection is the availability and the cost of plant material. There are many plants listed in landscape books that are not readily available from local nurseries. Without knowledge of what is available, time spent researching and finding the one plant that meets all the needs is wasted.

The planting lists are organized by stormwater BMP, then by plant type – grasses/sedges, forbs and trees/shrubs – and, finally, in alphabetical order according to the scientific name, with the common name provided. The lists are in Microsoft Excel to make sorting and creation of project plant lists easy. Each plant species has a corresponding landscape zone noted to indicate the most suitable planting location or locations for successful establishment.

Where the frequency, depth or duration of flooding that a plant will tolerate is known, that information is provided. Pollution tolerance and salt tolerance information are indicated to identify plantings that would be most appropriate in pollution hot spots. Because individual plants often have unique requirements difficult to convey in a general listing, additional research is recommended to ensure successful plant establishment.

Because of the limited area for which this plant list is to be used, hardiness zone information is not provided. All plants on the list are hardy in the St. Louis Region.



Figure 11: From left: *Cephalanthus occidentalis*, *Iris fulva*, *Coreopsis lanceolata* Courtesy Missouri Botanical Garden Plantfinder

Latin Name	Common Name	Submerged & Emergent (water depth in feet)		Height (feet)	Spacing (feet)	Seasonal Interest - Color and Months	Sun	Pl Sun	Pl Shade	Dry	Medium	Wet	Birds	Butterflies	Fall Color	Winter Interest	Flood frequency	Flood height	Salt tolerance	Aggressiveness	Silt tolerance	
		Pond Edge & Permanent Water	Over sand																			Lower slopes
		J	F	M	A	M	J	J	A	S	O	N	D									
Grasses/Sedges																						
<i>Andropogon virginicus</i>	Broomsedge	x		x	1-2	1.5	orange															
<i>Bouteloua curtipendula</i>	Sideoats grama		x	x	1-2	1	tan															
<i>Carex muskingumensis</i>	Palm sedge	x	x	x	1-2	1.5	tan															
<i>Carex praegracilis*</i>	Tollway sedge				1-2	2	tan															
<i>Carex vulpinoidea</i>	Fox sedge	x	x	x	1-2	2	tan															
<i>Panicum virgatum</i>	Switchgrass				2-3	1.5	tan															
<i>Schizachyrium scoparium</i>	Little bluestem				3-6	2.5	pink	x	x													
<i>Sporobolus heterolepis</i>	Prairie dropseed				2-4	1.5	bronze															
Forbs					2-3	1.5	tan															
<i>Asclepias tuberosa</i>	Butterfly milkweed		x		1-2	1.5	orange															
<i>Baptisia australis</i>	Blue wild indigo				3-4	3-4	blue															
<i>Blephilia ciliata</i>	Ohio horsemint				1-2	1.5	pink															
<i>Coreopsis lanceolata</i>	Lanceleaf coreopsis				1-2	1.5	yellow															
<i>Echinacea purpurea</i>	Purple coneflower				2-3	1.5	lt. purple															
<i>Eryngium yuccifolium</i>	Rattlesnake master				4-5	1.5	green															
<i>Pycnanthemum tenuifolium</i>	Slender mountain mint		x	x	2-3	1.5	white															
<i>Ratibida pinnata</i>	Yellow/Grey coneflower		x	x	3-5	1.5	yellow															
<i>Rudbeckia subtomentosa</i>	Sweet coneflower				3-4	2	yellow															
<i>Scutellaria incana</i>	Hoary skullcap				2	2	yellow															
<i>Solidago rigida</i>	Stiff goldenrod				3-5	1.5	yellow															
<i>Verbesina helianthoides</i>	Yellow wingstem		x	x	2-3	1.5	yellow															
<i>Zizia aurea</i>	Golden alexander				1-3	1.5	yellow															
Trees/Shrubs																						
<i>Cornus florida</i>	Flowering dogwood		x	x	10-20	15	white															
<i>Diospyros virginiana</i>	Persimmon		x	x	30-40	20	orange															
<i>Ostrya virginiana</i>	Hophornbeam				20-30	20	green															
<i>Quercus muhlenbergii</i>	Chinquapin oak		x	x	40-50	35	green															

Requirements

Local Ecotype Rule: Plants of Missouri or Southern Illinois ecotype are required.

It is recommended that a minimum of 5 grass/sedge species and 8 forb species be provided for each BMP. It is recommended that this list be provided to landscape contractors/buyers in case substitutions are required.

Where a diverse landscape is desired, each species should consist of between 5% - 15% of the total plant count for each BMP.

Refer to Planting, Water, and Mulch Requirements for Stormwater BMP's for plant sizes and irrigation requirements

Biodegradable erosion blanket must be used on slopes greater than 10%.

Erosion blankets must be coarse to allow varying leaf sizes (examples include Geojute, Curlex #1 and North American Green S75 single net straw blanket, or equivalent)

*Experimental for practice and/or limited availability in commercial trade

Latin Name	Common Name	Submerged & Emergent (water depth in feet)	Pond Edge & Permanent Water	Over sand	Lower slopes & bioretention base	Upper slopes	Height (feet)	Spacing (feet)	Seasonal Interest - Color and Months	J F M A M J J A S O N D												Sun	Pl. Sun	Pl. Shade	Shade	Dry	Medium	Wet	Birds	Butterflies	Fall Color	Winter Interest	Flood frequency tolerance	Flood height tolerance	Flood duration tolerance	Salt tolerance	Aggressiveness	Soil tolerance
										J	F	M	A	M	J	J	A	S	O	N	D																	
Grasses/Sedges																																						
<i>Andropogon gerardii</i>	Big bluestem		x	x	x	4-6	2	plum	x	x						x						x	x	x	M	12	2		M									
<i>Bouteloua curtipendula</i>	Sideoats grama		x			1-2	1	tan								x						x	x															
<i>Carex praegracilis*</i>	Tollway sedge			x	x	1-2	1.5	tan								x						x	x		L				L									
<i>Carex grayi</i>	Bur sedge		x			1-2	1.5	tan		x	x	x				x						x	x		H	12	2	H	H									
<i>Carex shortiana</i>	Short's sedge		x		x	2	1.5	bluish		x	x	x				x						x	x		H	24	3		L									
<i>Carex vulpinoidea</i>	Fox sedge		x			2-3	1.5	tan								x						x	x		M	24	3		L									
<i>Chasmanthium latifolium</i>	River oats			x	x	2-4	1.5	green								x						x	x		H	24	3		L									
<i>Schizachyrium scoparium</i>	Little bluestem			x		2-3	1.5	bronze	x	x						x						x	x		M	12	1		H									
<i>Sporobolus heterolepis</i>	Prairie dropseed			x	x	2-3	1.5	tan								x						x	x					M	L									
Forbs																																						
<i>Amsonia illustris</i>	Shining bluestar		x	x		2-3	2.5	ll. blue								x						x	x		H	36	5		L									
<i>Aster novae-angliae</i>	New England aster		x			3-4	2	violet								x						x	x		M	24	3		L									
<i>Chelone obliqua</i>	Rose turtlehead		x			3-4	2	use/purple								x						x	x		M	12	1		M									
<i>Coreopsis lanceolata</i>	Lanceleaf coreopsis		x			1-2	1.5	yellow		x	x	x				x						x	x		L		1		L									
<i>Echinacea pallida</i>	Pale purple coneflower				x	2-3	1.5	violet								x						x	x		L				L									
<i>Echinacea purpurea</i>	Purple coneflower				x	2-3	1.5	ll. purple								x						x	x		L				L									
<i>Eryngium yuccifolium</i>	Rattlesnake master			x		4-5	1.5	green								x						x	x		L				L									
<i>Eupatorium coelestinum</i>	Mist flower; wild ageratum		x	x	x	1-2	1.5	lavender								x						x	x		M	12	2		M									
<i>Hibiscus lasiocarpus</i>	Rose mallow		x	x		3-7	2.5	white/pink								x						x	x		H	12	3		M									
<i>Iris virginica</i>	Southern blueflag iris		x			2-3	2	blue								x						x	x		H	36	4		M									
<i>Pycnanthemum tenuifolium</i>	Slender mountain mint		x	x	x	2-3	1.6	white								x						x	x		H	36	4		M									
<i>Ratibida pinnata</i>	Yellow/Grey coneflower		x	x	x	3-5	1.5	yellow								x						x	x		L		1		M									
<i>Rudbeckia fulgida</i>	Orange coneflower		x			2	2	yellow								x						x	x		M	12	1		M									
<i>Rudbeckia hirta</i>	Black-eyed Susan					2-3	1.5	yellow								x						x	x		L				M									
<i>Solidago rugosa</i>	Rough-leaved goldenrod		x	x		2-3	1.5	yellow								x						x	x		L				M									
<i>Solidago speciosa</i>	Showy goldenrod		x	x		2-3	1.5	yellow								x						x	x		L				M									
<i>Verbesina helianthoides</i>	Yellow wingstem					2-3	1.5	yellow								x						x	x		L				M									
<i>Zizia aurea</i>	Golden alexander				x	1-3	1.5	yellow								x						x	x		L				M									
Trees/Shrubs																																						
<i>Carpinus caroliniana</i>	Musclewood			x	x	15-20	20	yellow	x	x	x					x						x	x		M	6	1		L									
<i>Cercis canadensis</i>	Redbud		x	x	x	10-20	15	pink		x	x					x						x	x		L				L									
<i>Hamamelus virginiana</i>	Eastern witchazel		x		x	10-15	15	yellow								x						x	x		L				L									
<i>Quercus alba</i>	White oak			x	x	40-80	30	green		x	x					x						x	x		L				H									

Requirements

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Latin Name	Common Name	Submerged & Emergent (water depth in feet)	Pond Edge & Permanent Water	Over sand	Lower slopes & bioretention base	Upper slopes	Height (feet)	Spacing (feet)	Seasonal Interest - Color and Months	J	F	M	A	M	J	J	A	S	O	N	D	Sun	Pt Sun	Pt Shade	Shade	Dry	Wet	Birds	Butterflies	Fall Color	Winter Interest	Flood frequency tolerance	Flood height tolerance	Salt tolerance	Aggressiveness	Soil tolerance	
<i>Dirca palustris</i>	Leatherwood				x	5-7	5	lt. yel		x	x											x	x	x	x												
<i>Hamamelus virginiana</i>	Eastern witchhazel		x		x	10-15	15	yellow														x	x	x	x												
<i>Hydrangea arborescens</i>	Wild Hydrangea				x	5-7	5	white														x	x	x	x												
<i>Ilex verticillata</i>	Winterberry holly		x	x	x	5-10	10	red														x	x	x	x												
<i>Neviusia alabamense** ***</i>	Alabama snowreath				x	8-10	7	white		x	x											x	x	x	x												
<i>Nyssa sylvatica</i>	Black gum			x	x	40-50	25	white														x	x		x												
<i>Quercus bicolor</i>	Swamp white oak		x		x	40-50	25	white														x	x	x	x												
<i>Quercus muehlenbergii</i>	Chinquapin oak				x	40-50	35	white														x	x	x	x												
<i>Quercus phellos</i>	Willow oak		x		x	40-50	25	white														x	x	x	x												
<i>Quercus shumardi</i>	Shumard oak					40-50	25	white														x	x	x	x												
<i>Ribes odoratum</i>	Golden current				x	5-7	5	yellow		x	x	x										x	x	x	x												
<i>Taxodium disticum</i>	Bald cypress		x	x	x	40-60	20	orange														x	x	x	x												
<i>Tilia americana</i>	American linden		x		x	50-60	30	cream														x	x	x	x												

Requirements

Local Ecotype Rule: Plants of Missouri or Southern Illinois ecotype are required.

It is recommended that a minimum of 5 grass/sedge species and 8 forb species be provided for each BMP. Deviation to this is acceptable for aesthetic variation if desired for more formal planting areas.

Refer to Planting, Water, and Mulch Requirements for Stormwater BMP's for plant sizes and irrigation requirements

Biodegradable erosion blanket must be used on slopes greater than 10%.

Erosion blankets must be coarse to allow varying leaf sizes (examples include Geojute, Curlex #1 and NorthAmerican Green S75 single net straw blanket or equivalent)

This plant list was created for more formal aesthetics; plants have been selected for 3-4 season interest (foliage, flowers, fruits), long-lived and compact habit. See notations below for exceptions.

Exceptions:

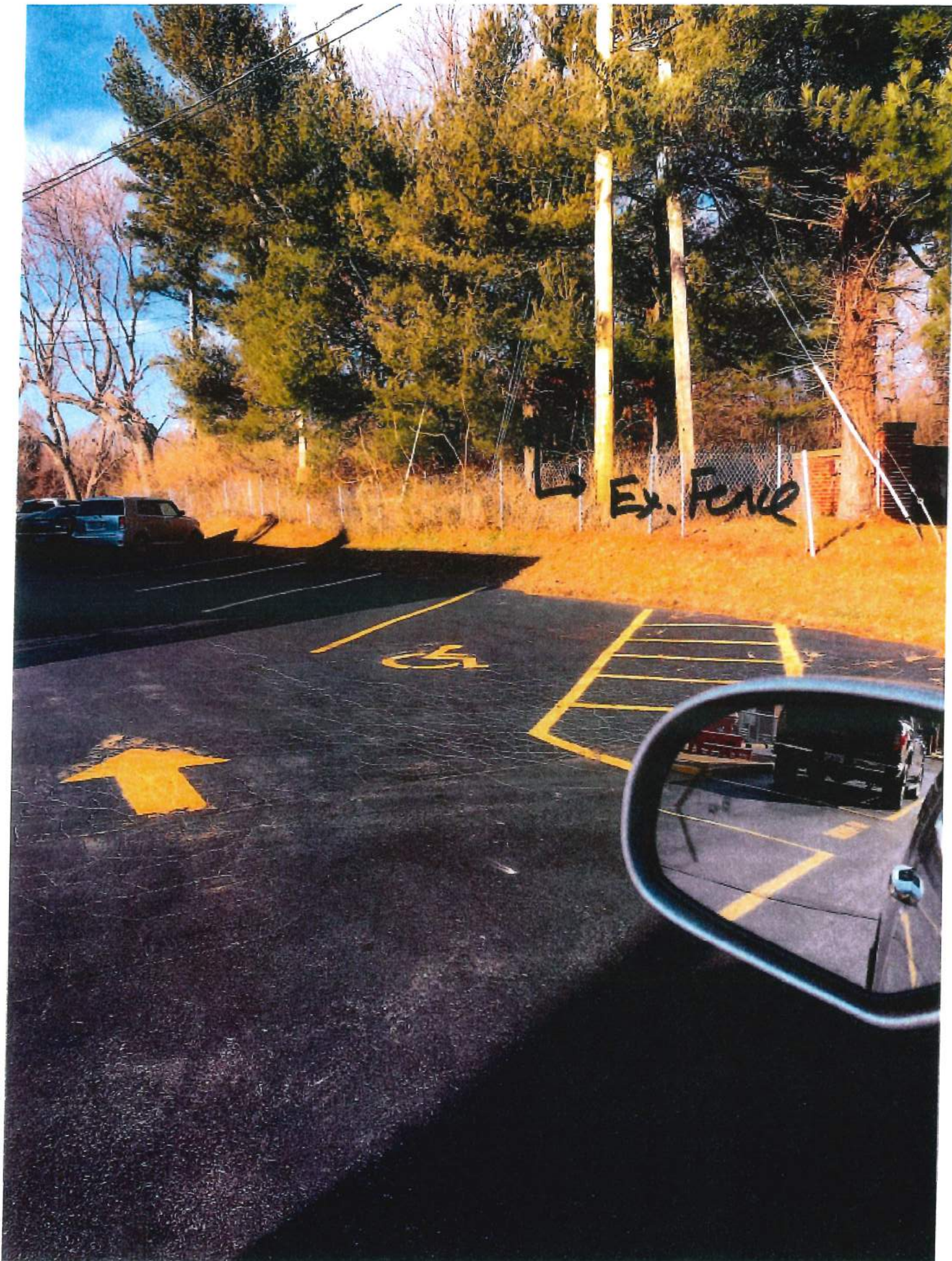
* not long-lived

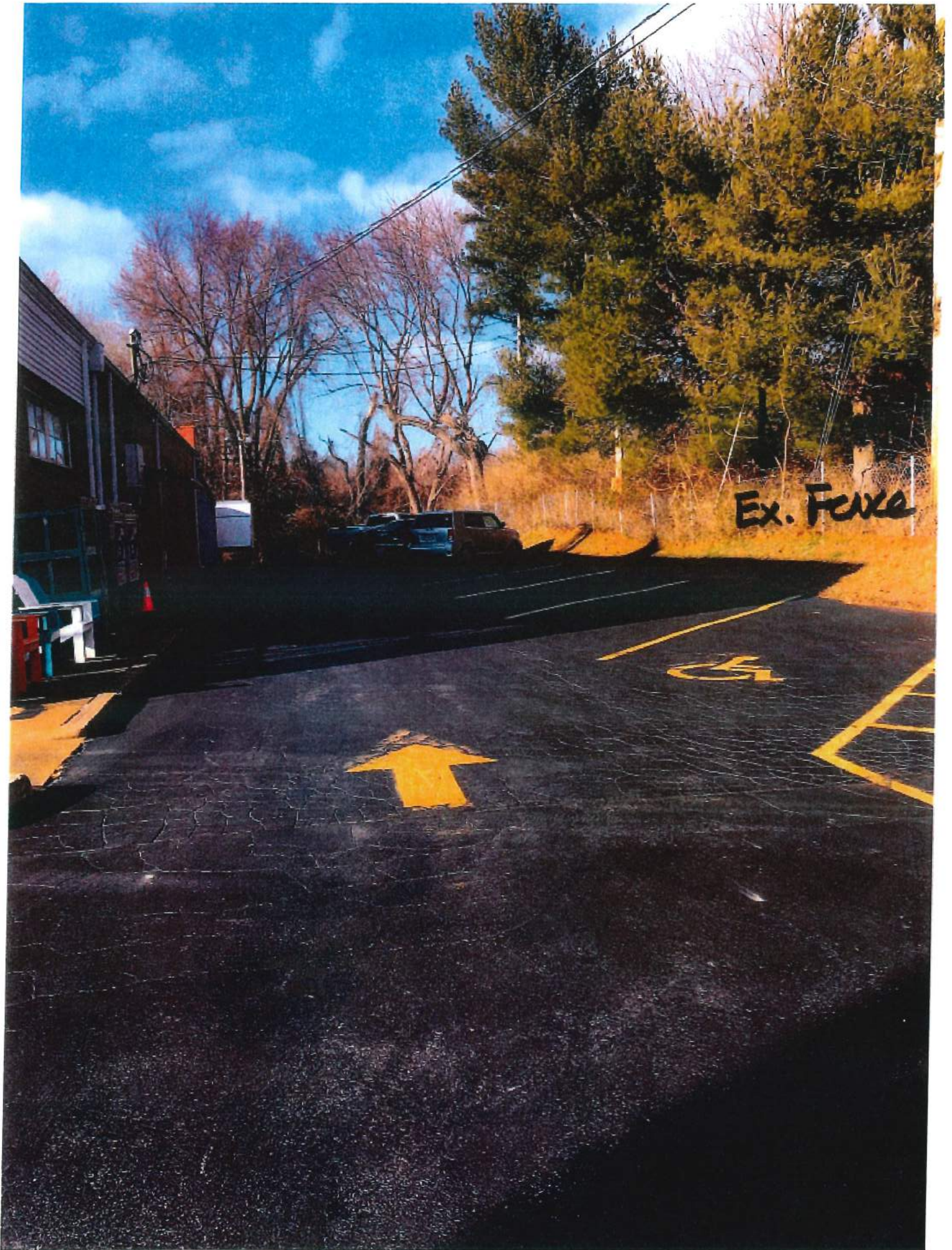
** habit not compact

*** not readily available from nurseries

**Two(2) Photos of Existing Chain Link Fence Along
West Property Line of Chesterfield Management
Associates, LP & East Property Line of Keymer
Realty & Investments LLC**

**One (1) Photo of Existing “LPG” Tank & 2005 Survey
Showing Location on the 14015 Olive Blvd. Property**





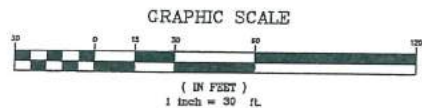
Ex. Faxe

Existing TANK

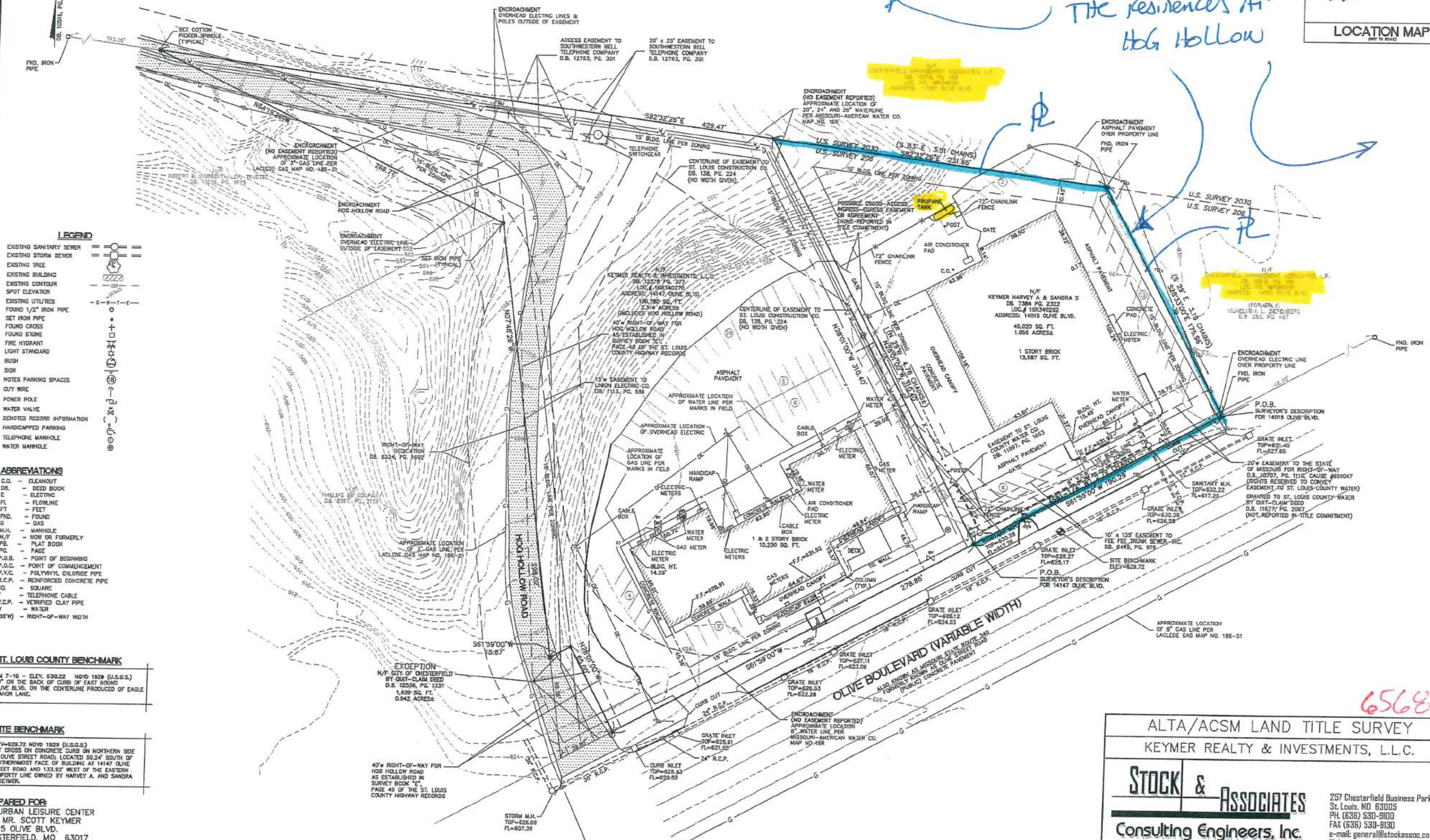


ALTA/ACSM LAND TITLE SURVEY

A TRACT OF LAND BEING PART OF U.S. SURVEY 206
TOWNSHIP 46 NORTH, RANGE 6 EAST OF THE 5TH PRINCIPAL MERIDIAN
CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI



*Proposed
The Residences At
Hog Hollow*



- LEGEND**
- EXISTING SANITARY SEWER
 - EXISTING STORM SEWER
 - EXISTING TREE
 - EXISTING BUILDING
 - EXISTING CONTOUR
 - SPOT ELEVATION
 - EXISTING UTILITIES
 - FOUND 1/2" IRON PIPE
 - SET IRON PIPE
 - FOUND CROSS
 - FOUND STONE
 - FIRE HYDRANT
 - LIGHT STANDARD
 - BUSH
 - SIGN
 - NOTES PARKING SPACES
 - CLAY WIRE
 - POWER POLE
 - WATER VALVE
 - DIMOTED RECORD INFORMATION
 - HANDICAPPED PARKING
 - TELEPHONE MANNHOLE
 - WATER MANNHOLE

- ABBREVIATIONS**
- C.O. - CLEANOUT
 - DB. - DEED BOOK
 - E - ELECTRIC
 - FL - FLOWLINE
 - FT - FEET
 - FND. - FOUND
 - G - GAS
 - M.H. - MANNHOLE
 - N/F - NOW OR FORMERLY
 - PE. - PLAT BOOK
 - P.C. - PAGE
 - P.O.B. - POINT OF BEGINNING
 - P.O.C. - POINT OF COMMENCEMENT
 - P.V.C. - POLYVINYL CHLORIDE PIPE
 - R.C.P. - REINFORCED CONCRETE PIPE
 - SO. - SQUARE
 - T - TELEPHONE CABLE
 - V.C.P. - VERIFIED CLAY PIPE
 - W - WATER
 - (80'W) - RIGHT-OF-WAY WIDTH

ST. LOUIS COUNTY BENCHMARK
BM 7-15 - ELEV. 630.22 NVD 1928 (U.S.G.S.)
"J" ON THE BACK OF CURB OF EAST BOUND OLIVE BLVD. ON THE CENTERLINE PRODUCED OF EAGLE MANOR LANE.

SITE BENCHMARK
ELEV=629.72 NVD 1928 (U.S.G.S.)
"J" ON THE BACK OF CURB OF EAST BOUND CUT CROSS ON CONCRETE CURB ON NORTHERN SIDE OF OLIVE STREET ROAD; LOCATED 56.24' SOUTH OF SOUTHERNMOST FACE OF BUILDING AT 14147 OLIVE STREET ROAD AND 133.62' WEST OF THE EASTERN PROPERTY LINE OWNED BY HARVEY A. AND SANDRA S. KEYMER.

PREPARED FOR:
SUBURBAN LEISURE CENTER
C/O MR. SCOTT KEYMER
14045 OLIVE BLVD.
CHESTERFIELD, MO 63017
314-469-5100

6568

ALTA/ACSM LAND TITLE SURVEY
KEYMER REALTY & INVESTMENTS, L.L.C.

Stock & Associates

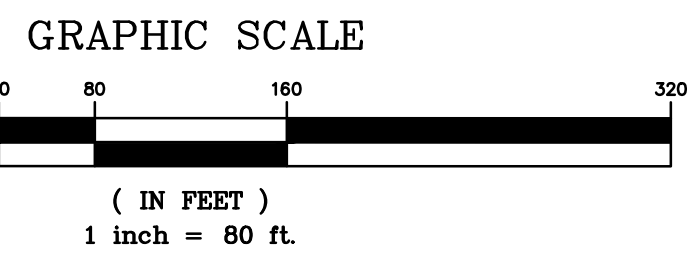
Consulting Engineers, Inc.

257 Chesterfield Business Parkway
St. Louis, MO 63005
PH. (636) 530-9100
FAX (636) 530-9130
e-mail: general@stockassoc.com
Web: www.stockassoc.com

DRAWN BY: J.L.K.	DATE: 12/29/05	CHECKED BY: D.W.T.	DATE: 12/29/05	JOB NUMBER: 204-3305.1	SHEET: 1 of 2
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ABBREVIATIONS

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



LEGEND

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

GENERAL NOTES

1. BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK & ASSOCIATES CONSULTING ENGINEERS, INC.
2. ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.
3. NO GRADE SHALL EXCEED 3:1 SLOPE.
4. GRADING AND STORM WATER PER M.S.D., MODOT, AND THE CITY OF CHESTERFIELD.
5. STORMWATER SHALL BE DISCHARGED AT ADEQUATE NATURAL DISCHARGE POINT. SINHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
6. ALL UTILITIES WILL BE INSTALLED UNDERGROUND.
7. SITE DEVELOPMENT SHALL BE IN ACCORDANCE WITH RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL REPORT AND ALL ITS SUPPLEMENTAL PROVISIONS AND ADDENDUMS.
8. A PROVISION FOR COMMON OPEN SPACE SHALL BE PROVIDED IN THE PUD AT A MINIMUM OF THIRTY PERCENT (30%) OF THE TOTAL SITE ACREAGE, TO BE DISTRIBUTED THROUGHOUT THE PUD AND NOT CONCENTRATED IN ONE (1) AREA NOR SHALL IT CONTAIN ONLY THAT PORTION OF THE PROPOSED PUD THAT WOULD BE CONSIDERED UNDEVELOPABLE DUE TO TOPOGRAPHY OR ANY OTHER SITE SPECIFIC RELATED MATTER. ALL COMMON OPEN SPACE AREAS SHALL BE SHOWN ON ALL PRELIMINARY PLANS, SITE DEVELOPMENT PLANS, SITE DEVELOPMENT CONCEPT PLANS, SITE DEVELOPMENT SECTION PLANS, AND RECORD PLATS AND SHALL BE RESERVED AND DEED RESTRICTED AS COMMON OPEN SPACE.

STANDARD NOTES

1. ALL PROPOSED IMPROVEMENTS SHALL BE CONSTRUCTED TO CITY OF CHESTERFIELD AND/OR MODOT STANDARDS.
2. NO SLOPES WITHIN CITY OF CHESTERFIELD AND/OR MODOT RIGHT-OF-WAY SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL).
3. STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT. SINHOLES ARE NOT ADEQUATE DISCHARGE POINTS.
4. ALL PROPOSED ACCESS TO MODOT ROADS SHALL MEET MINIMUM MODOT SIGHT DISTANCE REQUIREMENTS.
5. ALL GRADING AND DRAINAGE SHALL BE IN CONFORMANCE WITH CITY OF CHESTERFIELD, MODOT, AND MSD STANDARDS.

DENSITY CALCULATIONS:

TOTAL SITE: 1,281,082 S.F.
 CONDO (12 UNITS EA): 116,365 S.F.
 RIGHT-OF-WAY (R.O.W.): 116,365 S.F.
 R3 LOT SIZE: 10,000 S.F.
 DENSITY: (1,281,082 S.F.) / (10,000 S.F.) = 128 LOTS

PARKING CALCULATIONS

REQUIRED PARKING:
 MULTI-FAMILY 3-STORY CONDO (12 UNITS EA): 1.75 SPACE PER UNIT (1.75 x 48 CONDOMINIUMS = 84 SPACES)
 TOTAL PERMITTED (MINIMUM): 84 SPACES
 PROVIDED TOTAL SPACES: 84 SHARED SPACES w/16 ACCESSIBLE (4 PER BUILDING)
 SINGLE FAMILY LOTS (60'x125' = 7,500 SF) = 52
 TOTAL UNITS = 100

ST. LOUIS COUNTY BENCHMARK

BM 7-18 - ELEV. 630.22 NOV 1929 (U.S.G.S.)
 10' ON THE BACK OF CURB OF EAST BOUND OLIVE BLVD. ON THE CENTERLINE PRODUCED BY EAGLE MANOR LANE.

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

CONTRACTOR'S INSURANCE REQUIREMENTS

PRIOR TO OBTAINING A CONSTRUCTION PERMIT FROM THE METROPOLITAN ST. LOUIS SEWER DISTRICT, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE THE DISTRICT WITH A COPY OF AN EXECUTED CERTIFICATE OF INSURANCE INDICATING THAT THE PERMITTEE HAS OBTAINED AND WILL CONTINUE TO CARRY COMMERCIAL GENERAL LIABILITY AND COMPREHENSIVE AUTO LIABILITY INSURANCE. THE REQUIREMENTS AND LIMITS SHALL BE AS STATED IN THE "RULES AND REGULATIONS AND ENGINEERING DESIGN REQUIREMENTS FOR SANITARY AND STORMWATER DRAINAGE FACILITY", UTILITY NOTES.

UTILITY NOTES

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

PREPARED FOR:
 CHESTERFIELD MANAGEMENT ASSOCIATES LP
 25 PORTLAND PLACE
 ST. LOUIS, MO 63017
 ATTN: ADELE DAAKE
 PHONE: (513) 461-3291
 FAX: (314) 367-1206

PRELIMINARY PLAN FOR THE RESIDENCES AT HOG HOLLOW, R-3 WITH P.U.D. INDEX of SHEETS

A TRACT OF LAND BEING IN LOT 11 OF D.J. TALBOT SUBDIVISION IN U.S. SURVEY 2030 AS RECORDED IN PLAT BOOK 7 PAGE 43, TOWNSHIP 46 NORTH, RANGE 4 EAST OF THE 5TH PRINCIPAL MERIDIAN, CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI

- 1 PRELIMINARY PLAN
- 2 SITE SECTIONS

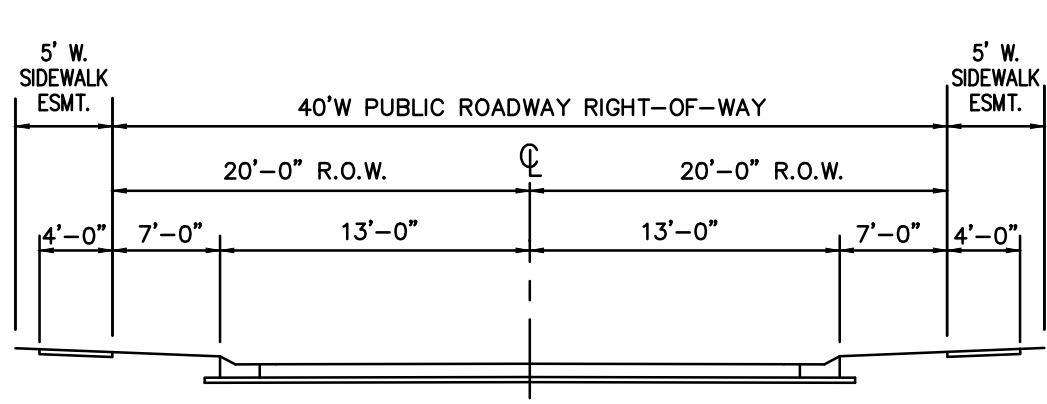


Parcel Line Table

Line #	Length	Direction
L1	173.94	N28° 33' 00" W
L2	3.20	N75° 52' 59" E
L3	10.86	N14° 07' 01" W
L4	17.06	N30° 56' 43" W
L5	37.17	N61° 11' 37" E

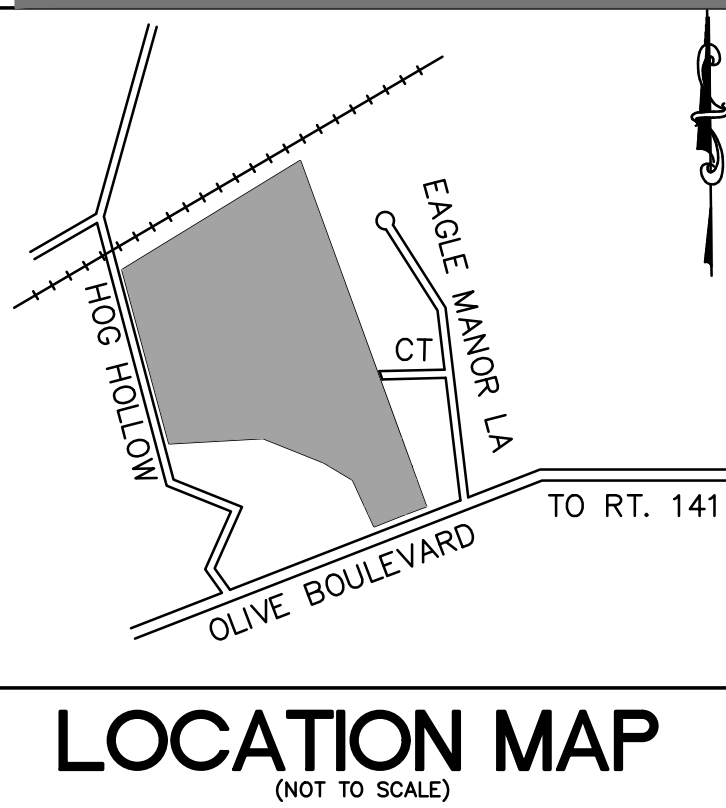
Curve Table

Curve #	Length	Radius	Chord Direction	Chord Length
C1	57.24	46.59	N83° 38' 06" W	53.71



TYPICAL STREET SECTION

INTERNAL STREETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ARTICLE 04-09 OF THE UNIFIED DEVELOPMENT CODE OF THE CITY OF CHESTERFIELD.



PERTINENT DATA

OWNER: CHESTERFIELD MANAGEMENT ASSOCIATES, LP
 DB. 10516, PG. 0168

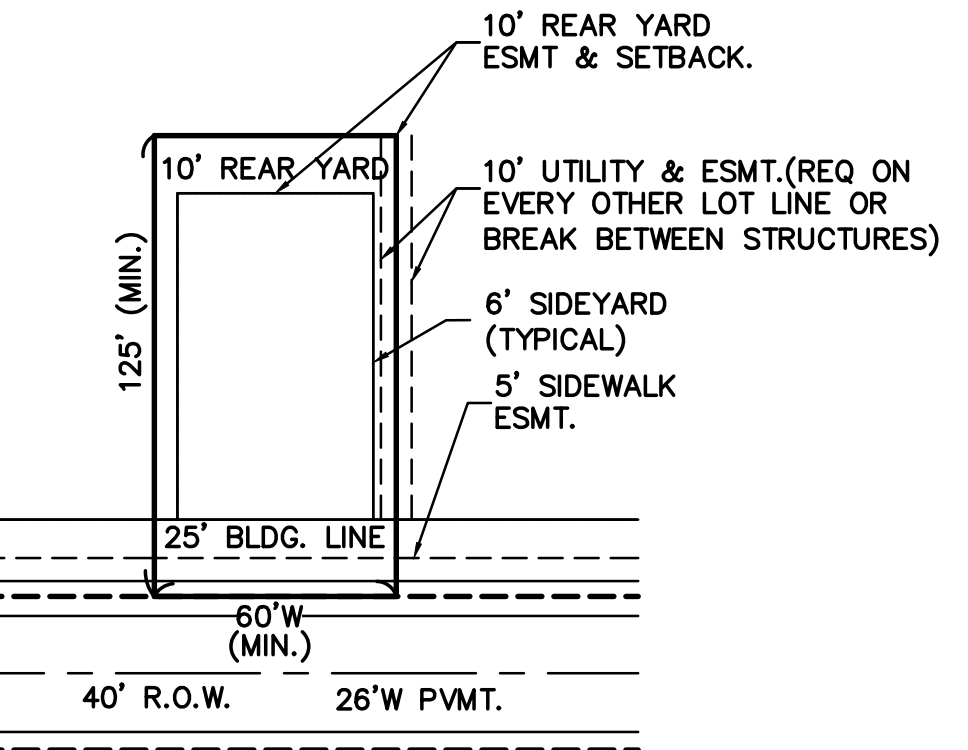
LOCATOR NO.: 16R340151
 LOT AREA: 29.410 Acres ±
 EXISTING ZONING: R3 P.U.E.
 (ORD. #2212 & #2213)
 14001 OLIVE BLVD.
 CHESTERFIELD, MISSOURI 63017

WUNNERBERG'S: PG. 22, GRID 1688 & 1788
 FIRE DISTRICT: MONARCH FIRE PROTECTION DISTRICT
 SCHOOL DISTRICT: PARKWAY
 SEWER DISTRICT: METROPOLITAN ST. LOUIS
 SEWER DIST.: SEWER DIST.
 WATER SHED: MISSOURI RIVER
 FEMA MAP: 28189C0170K, FEB. 4, 2015
 ELECTRIC COMPANY: AMEREN UE
 GAS COMPANY: SPIRE INC
 PHONE COMPANY: AT&T
 WATER COMPANY: MISSOURI AMERICAN WATER COMPANY

PROPERTY DESCRIPTION

A TRACT OF LAND IN LOT 11 OF D.J. TALBOT SUBDIVISION IN U.S. SURVEY 2030, ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 7 PAGE 43 OF THE ST. LOUIS CITY (FORMER COUNTY) RECORDS AND PARTLY IN U.S. SURVEY 206 TOWNSHIP 46 NORTH RANGE 4 EAST IN ST. LOUIS COUNTY, MISSOURI, MORE PARTICULARLY DESCRIBED AS:

BEGINNING AT A POINT IN THE CENTER LINE OF HOG HOLLOW ROAD, 40 FEET WIDE, AT ITS INTERSECTION WITH THE SOUTH LINE OF U.S. SURVEY 2030; THENCE ALONG THE CENTER LINE OF SAID ROAD, NORTH 45 DEGREES 03 MINUTES 31 SECONDS WEST, 86.89 FEET; NORTH 74 DEGREES 44 MINUTES 26 SECONDS WEST, 142.55 FEET; NORTH 47 DEGREES 14 MINUTES 26 SECONDS WEST, 211.20 FEET; AND NORTH 28 DEGREES 14 MINUTES 26 SECONDS WEST, 356.40 FEET AND NORTH 07 DEGREES 12 MINUTES 24 SECONDS EAST, 85.40 FEET TO THE SOUTH RIGHT-OF-WAY LINE OF THE MISSOURI CENTRAL RAILROAD COMPANY, 100 FEET WIDE; THENCE ALONG SAID RIGHT-OF-WAY LINE, THE FOLLOWING COURSES AND DISTANCES: NORTH 63 DEGREES 04 MINUTES 34 SECONDS EAST, 699.83 FEET TO A POINT OF CURVATURE TO THE LEFT HAVING A RADIUS OF 5,787.48 FEET, AN ARC LENGTH OF 242.07 FEET AND A CHORD WHICH BEARS NORTH 61 DEGREES 52 MINUTES 40 SECONDS EAST, 242.06 FEET AND NORTH 60 DEGREES 40 MINUTES 46 SECONDS EAST, 257.43 FEET TO ITS INTERSECTION WITH THE NORTHWESTERLY PROLONGATION OF THE WESTERN LINE OF EAGLE RIDGE, A SUBDIVISION ACCORDING TO THE PLAT THEREOF AS RECORDED IN PLAT BOOK 344, PAGE 175 OF THE ST. LOUIS COUNTY RECORDS; THENCE DEPARTING SAID RIGHT-OF-WAY LINE ALONG SAID PROLONGATION LINE AND THE WESTERN LINE OF EAGLE RIDGE, SOUTH 25 DEGREES 49 MINUTES 00 SECONDS EAST, 1,176.10 FEET TO THE NORTHERN CORNER OF A TRACT OF LAND AS CONVEYED TO WLF INVESTMENTS LLC BY INSTRUMENT RECORDED IN BOOK 21584, PAGE 1944 OF ABOVE SAID RECORDS; THENCE ALONG THE NORTHWEST LINE OF SAID WLF INVESTMENTS LLC TRACT, SOUTH 64 DEGREES 11 MINUTES 00 SECONDS WEST, 145.60 FEET TO THE WESTERN CORNER THEREOF; THENCE SOUTH 25 DEGREES 49 MINUTES 00 SECONDS EAST, 301.42 FEET TO THE WESTERN RIGHT-OF-WAY LINE OF OLIVE BOULEVARD; THENCE ALONG SAID RIGHT-OF-WAY LINE, SOUTH 61 DEGREES 59 MINUTES 00 SECONDS WEST, 148.50 FEET TO THE SOUTHEASTERN CORNER OF A TRACT OF LAND AS CONVEYED TO KEMER REALTY AND INVESTMENTS, LLC BY INSTRUMENT RECORDED IN BOOK 21422, PAGE 725 OF ABOVE SAID RECORDS; THENCE ALONG THE EASTERN LINE OF SAID KEMER TRACT, NORTH 28 DEGREES 33 MINUTES 00 SECONDS WEST, 173.84 FEET TO THE SOUTHEASTERN TRACT OF LAND AS AWARDED TO HARVEY AND SANDRA S. KEMER UNDER CAUSE NO. 09SL-0223205 FILED IN THE CIRCUIT COURT OF ST. LOUIS COUNTY; THENCE ALONG THE EASTERN AND NORTHERN LINES OF SAID CAUSE THE FOLLOWING COURSES AND DISTANCES: NORTH 75 DEGREES 52 MINUTES 59 SECONDS EAST, 3.20 FEET; NORTH 14 DEGREES 07 MINUTES 01 SECONDS WEST, 10.86 FEET; NORTH 30 DEGREES 56 MINUTES 43 SECONDS WEST, 17.06 FEET TO THE BEGINNING OF A NON-TANGENT CURVE TO THE LEFT HAVING A RADIUS OF 46.59 FEET; ALONG SAID CURVE WITH AN ARC LENGTH OF 57.24 FEET AND A CHORD WHICH BEARS NORTH 83 DEGREES 38 MINUTES 06 SECONDS WEST, 53.71 FEET AND SOUTH 61 DEGREES 11 MINUTES 37 SECONDS WEST, 37.17 FEET TO THE SOUTH LINE OF ABOVE SAID U.S. SURVEY 2030; THENCE ALONG SAID SOUTH LINE, NORTH 82 DEGREES 32 MINUTES 26 SECONDS WEST, 760.69 FEET TO THE POINT OF BEGINNING AND CONTAINING 1,281,082 SQUARE FEET OR 29.410 ACRES MORE OR LESS ACCORDING TO CALCULATIONS PERFORMED BY STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. ON JUNE 12, 2019.



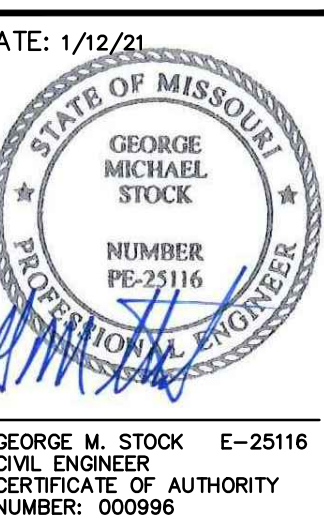
TYPICAL LOT - 7,500 SF. (MIN.)

POSSIBLE POCKET PARK AMENITIES



PREPARED BY:
Stock & Associates
 Consulting Engineers, Inc.
 757 Chesterfield Business Parkway
 St. Louis, MO 63015
 PH: (636) 558-9100
 FAX: (636) 558-9100
 e-mail: general@stockass.com
 Web: www.stockass.com

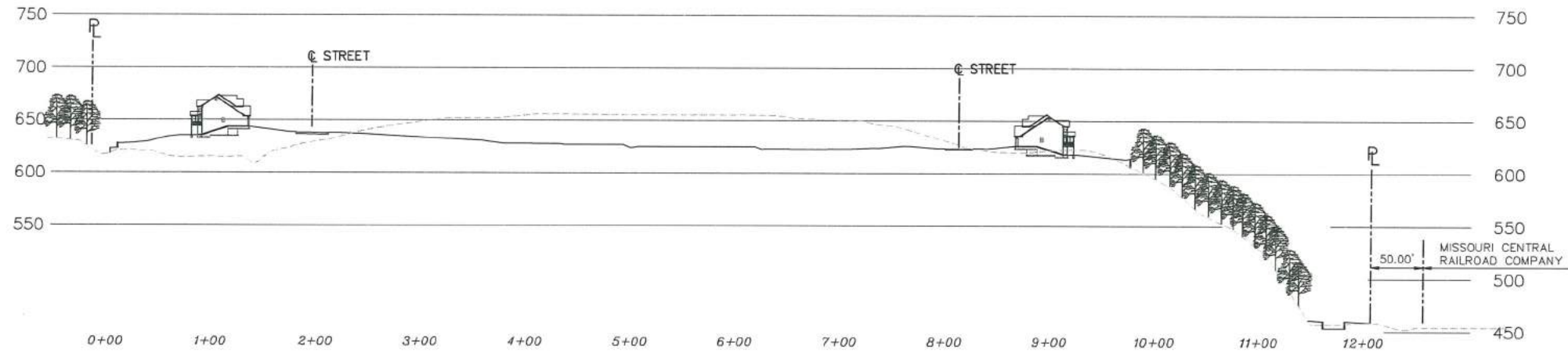
PRELIMINARY PLAN FOR:
THE RESIDENCES AT HOG HOLLOW, R-3 WITH P.U.D.
 PREVIOUSLY KNOWN AS BRARCLIFFE VILLAS
 14001 OLIVE BLVD
 CHESTERFIELD, MO 63017



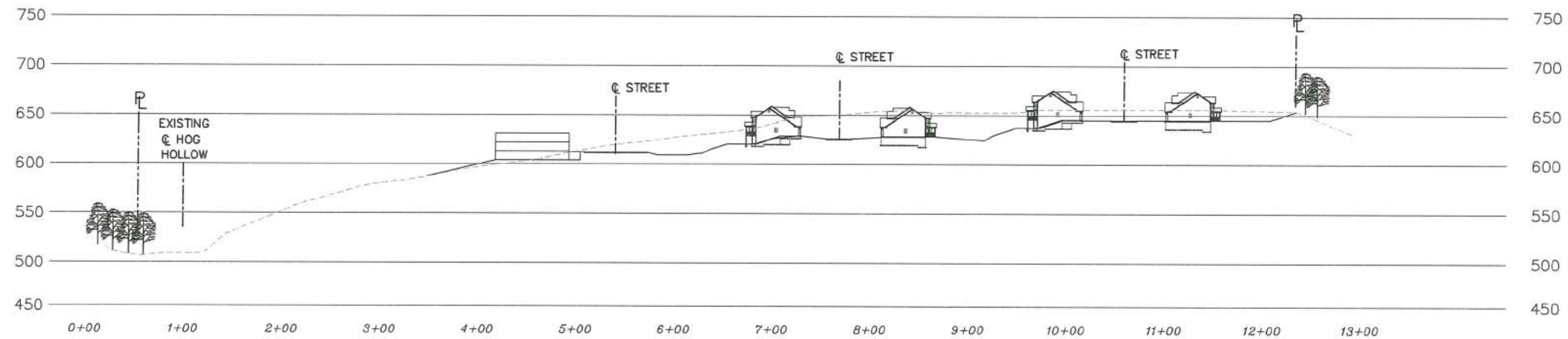
DATE: 1/12/21
 GEORGE M. STOCK
 CERTIFICATE OF AUTHORITY NUMBER: 000996

REVISIONS:
 1. 11-25-2020 REV PER CITY COMMENTS 11-17-2020
 2. 01-12-2021 REV PER CITY ADDED THREE LANE ENT. REVISED SETBACKS

DRAWN BY: C.A.H.
 CHECKED BY: G.M.S.
 DATE: 10/30/20
 JOB NO: 219-6588
 DESIGNED BY: G.M.S.
 DATE: 10/30/20
 S.D.S. # 19MSD-16R
 S.L.C. # 16R
 M.A.N.R. # -
 M.O.R.A. # -
 SHEET TITLE:
 PRELIMINARY PLAN
 SHEET NO.: C1.0



SECTION A-A
SCALE: HORIZ. 1"=50'
VERT. 1"=50'



SECTION B-B
SCALE: HORIZ. 1"=50'
VERT. 1"=50'

271 Chesterfield Business Parkway
Chesterfield, MO 63005
PH: (636) 530-0300
FAX: (636) 530-0303
e-mail: general@stuck.com
Web: www.stuck.com

STUCK & ASSOCIATES
Consulting Engineers, Inc.

PREPARED BY:

PRELIMINARY PLAN FOR:
THE RESIDENCES AT HOG HOLLOW, R-3 WITH P.U.D.
PREVIOUSLY KNOWN AS BRARCLIFFE VILLAS
14001 OLIVE BLVD
CHESTERFIELD, MO 63017



GEORGE A. STUCK E-20116
CIVIL ENGINEER
COMPOSITE OF AUTHORITY
NUMBER: 00084

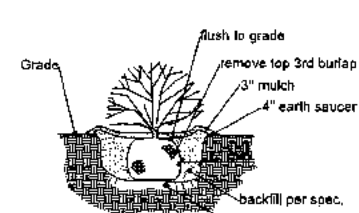
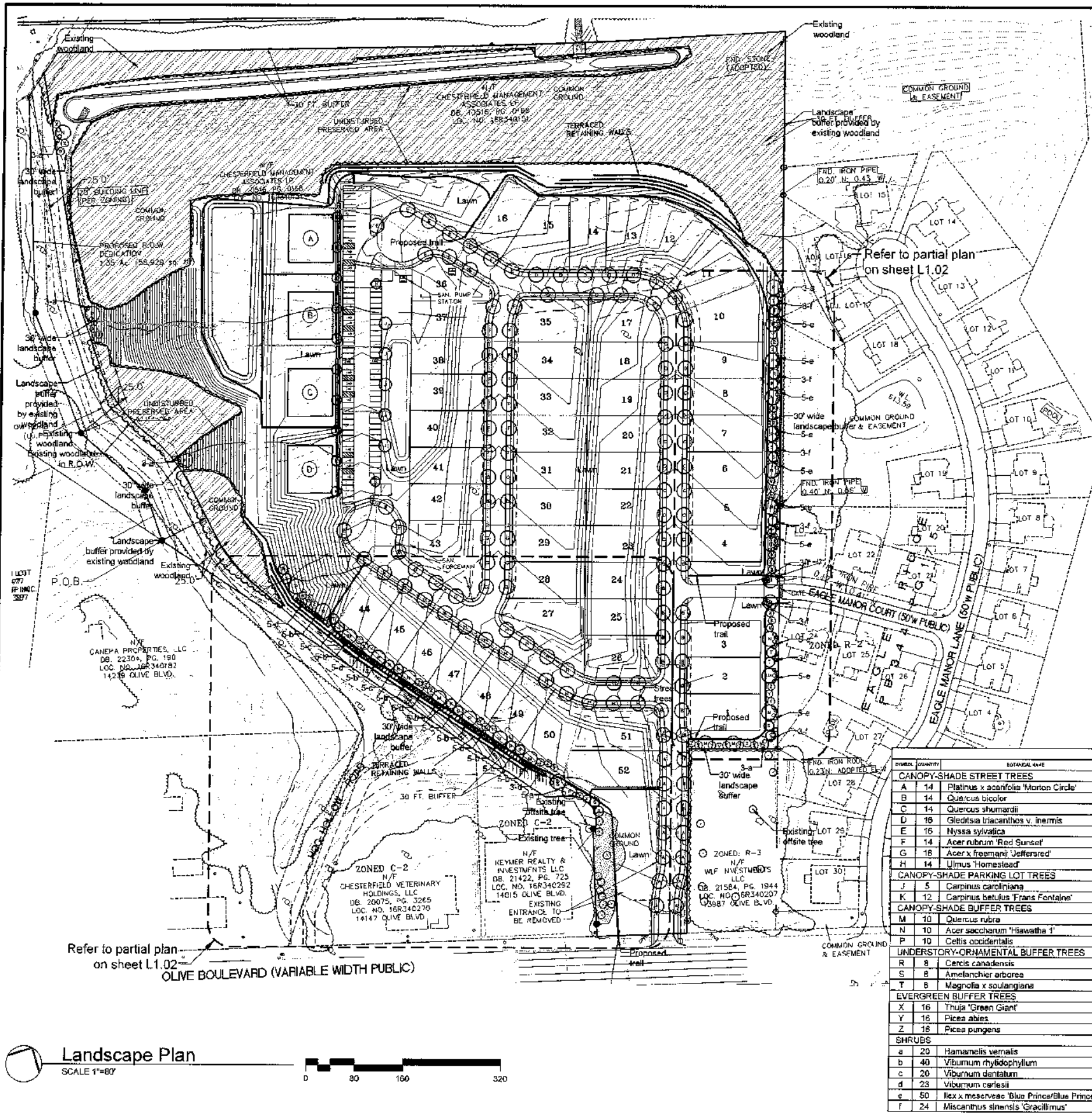
REVISIONS:

1.	11-20-2020	REV PER CITY COMMENTS 11-17-2020
2.	01-12-2021	REV PER CITY ADDED THREE LAKE ENT. REVISED SETBACKS

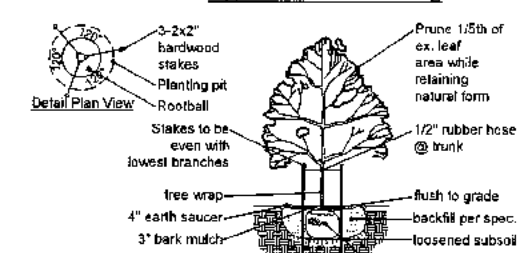
DESIGN BY:	DESIGNED BY:
G.A.S.	G.A.S.
DATE:	JOB NO.:
10/30/20	219-8368
CLASS.:	BLK. NO.:
19A50-	18A
S.C. TAB. #:	PAT. DEF. #:
1001A	
SHEET TITLE:	

SITE SECTIONS

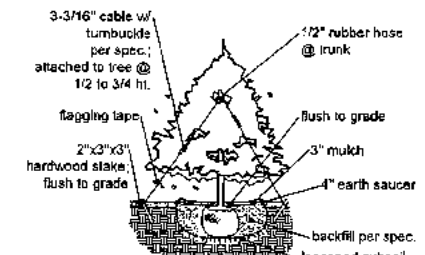
SHEET NO.: C2.0



Typical Shrub Planting



Typical Canopy Tree Planting



Typical Evergreen Planting

- Notes:
- All street trees will be located at least 3' from proposed curb.
 - All street trees will be located at least 10' from all hydrants and storm sewer structures.
 - Mulch to be double ground bark mulch.
 - All lawn areas to be seeded.
 - All 3:1 or steeper slopes shall be seeded and have erosion control blanket.
 - Topsoil in all disturbed lawn areas at 6" depth.
 - Soil mix in all shrub beds at 8" depth.
 - All landscaped areas, including islands, shall be provided with mechanical, in-ground irrigation system per the City of Chesterfield requirements. Contractor to provide design-build drawings for review by Landscape Architect.
 - A minimum of thirty percent (30%) of the (proposed) trees must be of a species with a slow or medium growth rate.
 - A variety of tree species within each category of deciduous, evergreen, and ornamental trees must be utilized with each of the three (3) categories providing a minimum of twenty percent (20%) of the total trees to be planted. No more than twenty percent (20%) of the trees selected shall be from the same species. For projects that require only street trees, no one species shall comprise more than twenty percent (20%) of the total trees to be planted. The canopy street tree species variety is shown as a separate percentage category within the Planting Schedule.

PLANTING SCHEDULE									
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS	PLANT GROWTH RATE	SLOTTED/STANDARD	MAXIMUM HEIGHT	SPEED OF GROWTH
CANOPY SHADE STREET TREES									
A	14	Platanus x aconifolia 'Morton Circle'	Exclamation! London Planetree	2.5" cal	B&B	Large/Fast		45+	11.9%
B	14	Quercus bicolor	Swamp White Oak	2.5" cal	B&B	Lg/Medium	5.9%	45+	11.9%
C	14	Quercus shumardii	Shumard Oak	2.5" cal	B&B	Lg/Med-Fast		45+	11.9%
D	19	Gleditsia triacanthos v. inermis	Honeylocust (thornless)	2.5" cal	B&B	Large/Fast		45+	13.6%
E	16	Nyssa sylvatica	Blackgum	2.5" cal	B&B	Large/Slow	6.8%	50	13.5%
F	14	Acer rubrum 'Red Sunset'	Red Sunset Maple	2.5" cal	B&B	Large/Fast		45	11.9%
G	16	Acer x freemanii 'Jeffersred'	Autumn Blaze Maple	2.5" cal	B&B	Large/Fast		50	13.5%
H	14	Ulmus 'Homestead'	Homestead Elm	2.5" cal	B&B	Lg/Med-Fast		55	11.9%
CANOPY SHADE PARKING LOT TREES									
J	5	Carpinus caroliniana	American Hornbeam	2.5" cal	B&B	Sm/Slow-M	2.1%	35	4.2%
K	12	Carpinus betulus 'Frans Fontaine'	Frans Fontaine Hornbeam	2.5" cal	B&B	Med/Slow-M	5.1%	35	10.1%
CANOPY SHADE BUFFER TREES									
M	10	Quercus rubra	Red Oak	2.5" cal	B&B	Lg/Med-Fast		45+	8.4%
N	10	Acer saccharum 'Hiawatha 1'	Oregon Trail Sugar Maple	2.5" cal	B&B	Lg/Slow-Med	4.2%	45	8.4%
P	10	Celtis occidentalis	Hackberry	2.5" cal	B&B	Lg/Med-Fast		45	8.4%
UNDERSTORY-ORNAMENTAL BUFFER TREES									
R	8	Cercis canadensis	Redbud	2.5" cal	B&B	Medium/Fast		30	6.7%
S	8	Amelanchier arborea	Serviceberry	2.5" cal	B&B	Med/Slow-M	3.4%	30	6.7%
T	8	Magnolia x soulangiana	Saucer Magnolia	2.5" cal	B&B	Med/Slow-M	3.4%	30	6.7%
EVERGREEN BUFFER TREES									
X	16	Thuja 'Green Giant'	Green Giant Arborvitae	8" ht	B&B	Large/Fast		60	13.4%
Y	16	Picea abies	Norway Spruce	8" ht	B&B	Large/Fast		60	13.4%
Z	16	Picea pungens	Colorado Blue Spruce	8" ht	B&B	Lg/Slow-Med	6.8%	60	13.4%
SHRUBS									
a	20	Hamamelis vernalis	Ozark Witchhazel	24"	Cont.				
b	40	Viburnum rhytidophyllum	Leatherleaf Viburnum	24"	Cont.				
c	20	Viburnum dentatum	Arrowwood Viburnum	24"	Cont.				
d	23	Viburnum carlesii	Koreanspice Viburnum	24"	Cont.				
e	50	Ilex x meserveae 'Blue Prince/Blue Princess'	Blue Prince/Blue Princess Holly (1:9 ratio)	24"	Cont.				
f	24	Miscanthus sinensis 'Gracillimus'	Maidengrass	3 gal.	Cont.				
							Total	37.7%	Subtotal 40%
									Total 100%

Jerad Saunders - Landscape Architect
MO License # LA-007

The Residences at Hog Hollow
R-3 with P.U.D.
14001 Olive Boulevard
Chesterfield, Missouri

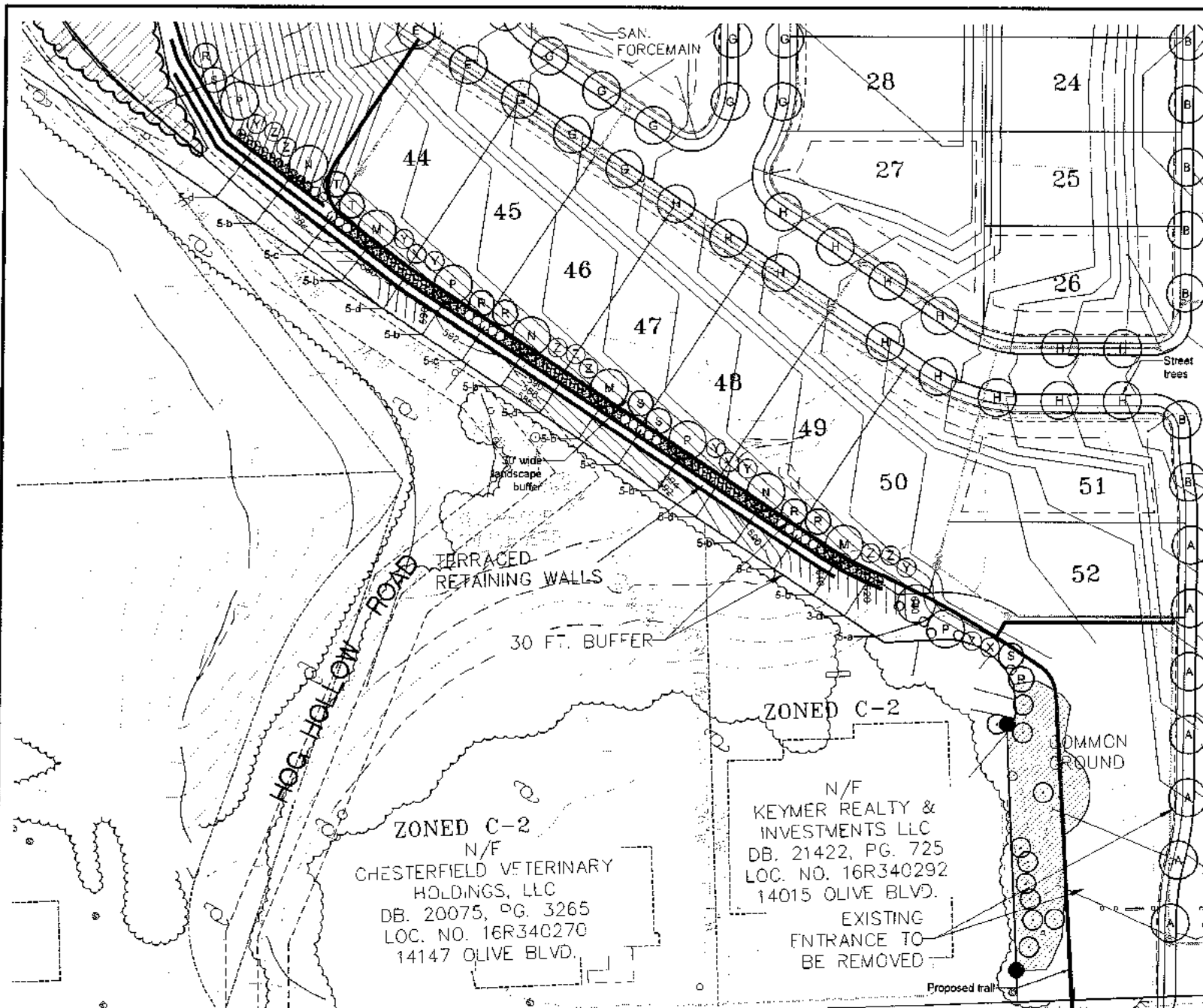
Revisions:

Date	Description	No.
11/24/20	City Comments	1

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Sheet Title:	Landscape Plan
Sheet No.:	L1.01
Date:	10/30/20
Job #:	813.080

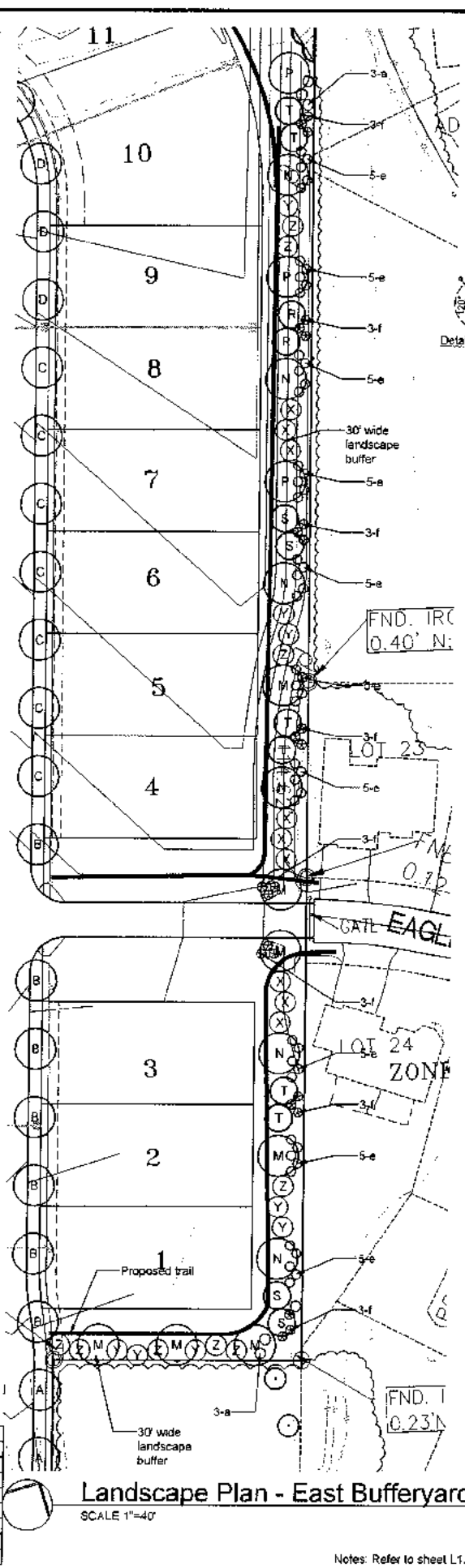




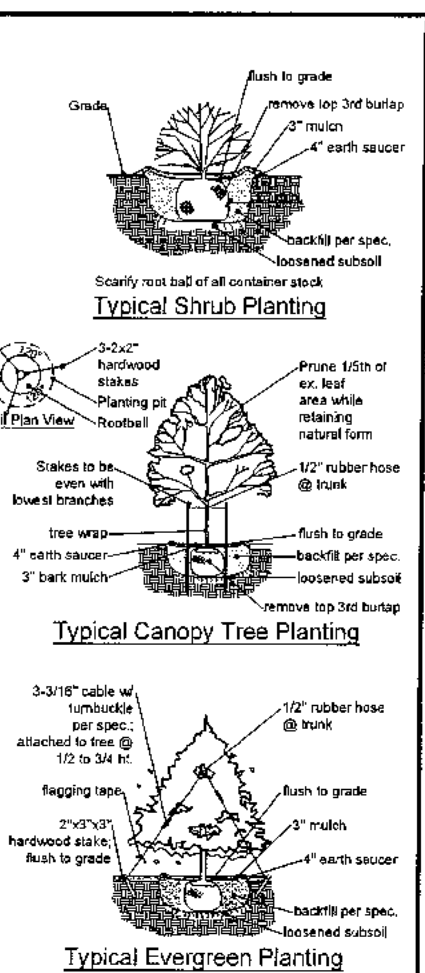
Landscape Plan - West Bufferyard
SCALE 1"=40'

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
CANOPY-SHADE STREET TREES				
A	Platanus x acerifolia 'Morton Circle'	Exclamation! London Planetree	2.5" cal	B&B
B	Quercus bicolor	Swamp White Oak	2.5" cal	B&B
C	Quercus shumardii	Shumard Oak	2.5" cal	B&B
D	Gleditsia triacanthos v. inermis	Honeylocust (thornless)	2.5" cal	B&B
E	Nyssa sylvatica	Blackgum	2.5" cal	B&B
F	Acer rubrum 'Red Sunset'	Red Sunset Maple	2.5" cal	B&B
G	Acer x freemanii 'Jeffersred'	Autumn Blaze Maple	2.5" cal	B&B
H	Ulmus 'Homestead'	Homestead Elm	2.5" cal	B&B
CANOPY-SHADE PARKING LOT TREES				
J	Carpinus caroliniana	American Hornbeam	2.5" cal	B&B
K	Carpinus betulus 'Frans Fontaine'	Frans Fontaine Hornbeam	2.5" cal	B&B
CANOPY-SHADE BUFFER TREES				
M	Quercus rubra	Red Oak	2.5" cal	B&B
N	Acer saccharum 'Hiawatha 1'	Oregon Trail Sugar Maple	2.5" cal	B&B
P	Celtis occidentalis	Hackberry	2.5" cal	B&B
UNDERSTORY-ORNAMENTAL BUFFER TREES				
R	Cercis canadensis	Redbud	2.5" cal	B&B
S	Amelanchier arborea	Serviceberry	2.5" cal	B&B
T	Magnolia x soulangiana	Saucer Magnolia	2.5" cal	B&B
EVERGREEN BUFFER TREES				
X	Thuja 'Green Giant'	Green Giant Arborvitae	8' ht	B&B
Y	Picea abies	Norway Spruce	8' ht	B&B
Z	Picea pungens	Colorado Blue Spruce	8' ht	B&B

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	REMARKS
SHRUBS				
a	Hamamelis vernalis	Ozark Witchhazel	24"	Cont.
b	Viburnum rhytidophyllum	Leatherleaf Viburnum	24"	Cont.
c	Viburnum dentatum	Arrowwood Viburnum	24"	Cont.
d	Viburnum carlesii	Koreanspice Viburnum	24"	Cont.
e	Ilex x meserveae 'Blue Prince/Blue Princess'	Blue Prince/Blue Princess Holly (1:9 ratio)	24"	Cont.
f	Miscanthus sinensis 'Gracillimus'	Maldengrass	3 gal.	Cont.



Landscape Plan - East Bufferyard
SCALE 1"=40'



Jerak Saunders - Landscape Architect
MO License # LA-007

The Residences at Hog Hollow
R-3 with P.U.D.
14001 Olive Boulevard
Chesterfield, Missouri

Revisions:

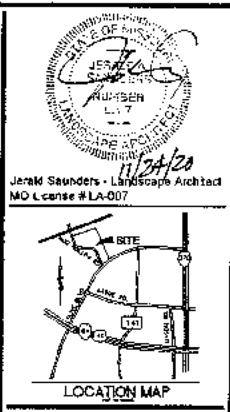
Date	Description	No.
11/24/20	City Comments	1

Drawn: KP
Checked: RS

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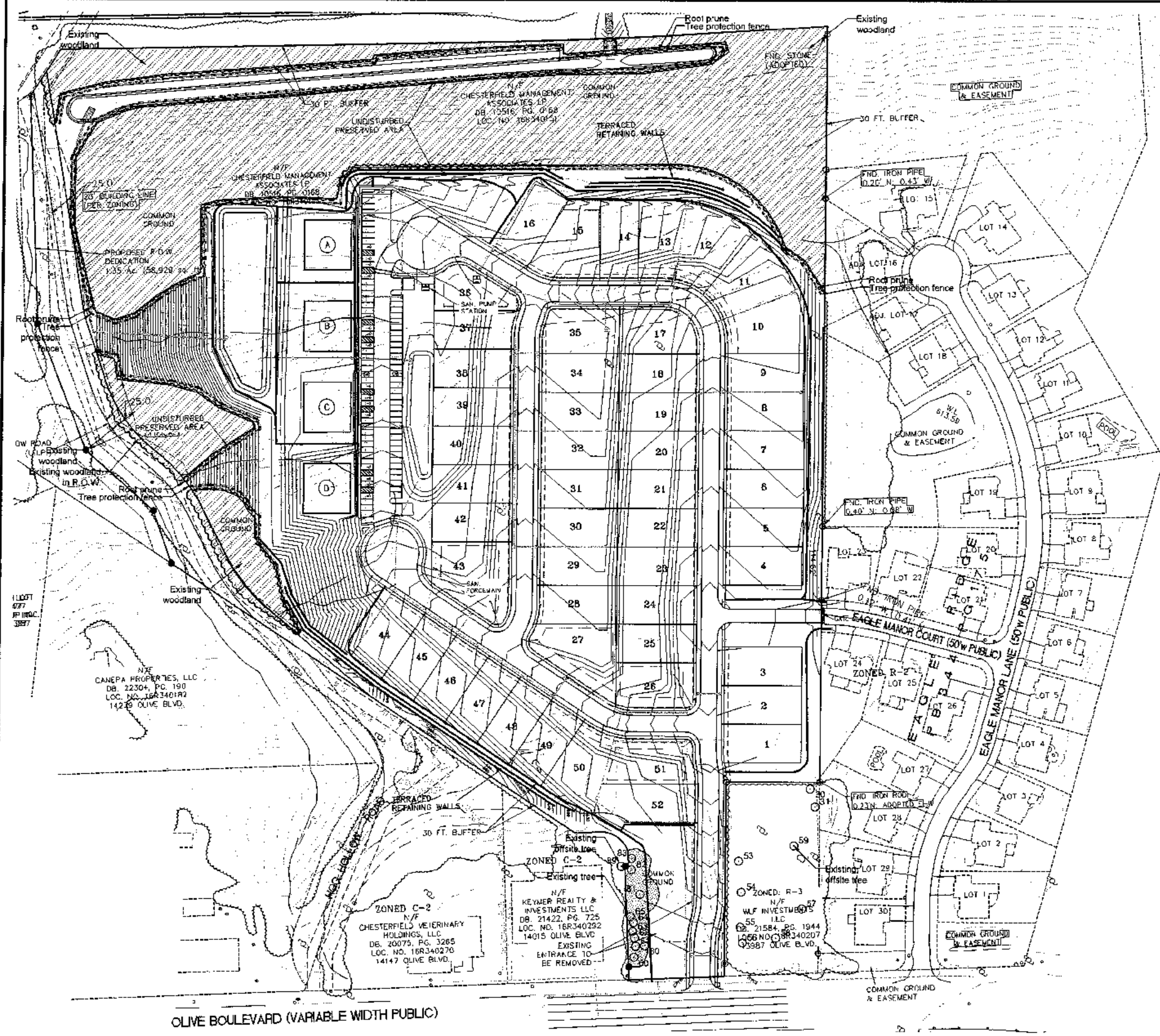
Sheet Title:	Partial Landscape Plans
Sheet No.:	L1.02
Date:	10/30/20
Job #:	813.080

Notes: Refer to sheet L1.01 for overall landscape plan, planting schedule, and notes.



The Residences at Hog Hollow R-3 with P.U.D.

14001 Olive Boulevard
Chesterfield, Missouri

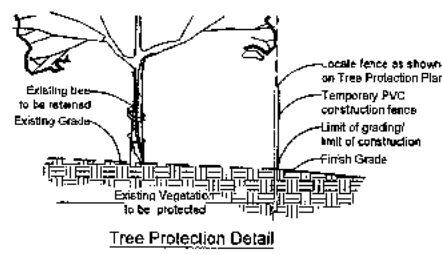


Tree Protection Notes:

- 1) Pre-construction meeting to be held on-site to include a presentation of tree protection measures to operators, construction supervisors, developer's representative, and city zoning inspector.
- 2) Clearing Limits to be rough staked in order to facilitate location for installation of protection fencing. No early maintenance schedule is required.
- 3) No clearing or grading shall begin in areas where the treatment and preservation measures have not been completed, including the installation of tree protection fencing as shown on the plan. Where necessary, Contractor may perform minor tree clearing prior to installing silt fencing and tree protection fencing provided they maintain tree protection area.
- 4) Tree Protection Fencing shall be 4-foot high temporary plastic construction fence. No equipment traffic/parking, concrete washout, material storage or other such construction activity shall be permitted to penetrate the protection fencing or disrupt the Protected Woodland Area except for the removal of dead or invasive plant material. All ground plane in planting areas shall be mulched with hardwood bark mulch. Tree Protection Signage will be placed along the Protection Fencing as shown as the dashed line on the plan.
- 5) Tree protection measures to be maintained throughout construction sequence.

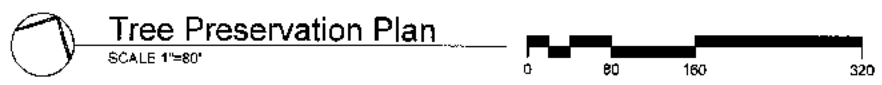
Tree Protection Action Key Sequence:

- 1) Survey limit of disturbance.
- 2) Perform root pruning.
- 3) Install tree protection fencing.
- 4) Post tree protection signage on fence. (No signs will be posted on trees).
- 5) Maintain tree protection area as an off-limits zone.



Tree #	Species	Inches	Rating	Comments
30	Maple, Silver	38	Fair	Offsite; Monarch
31	Maple, Silver	38	Fair	Offsite; Monarch
53	Pear	38	Excellent	Offsite; Monarch
54	Maple, Sugar	25	Excellent	Offsite
55	Maple, Sugar	32	Good	Offsite; Monarch
56	Spruce, Colorado	16	Good	Offsite
57	Spruce, Colorado	20	Good	Offsite
58	Oak, Pin	38	Fair	Offsite; Disease
59	Tulip	28	Good	Offsite
60	Pine, White	22	Fair	30' canopy size
61	Pine, White	18	Fair	30' canopy size
62	Pine, White	14	Fair	20' canopy size
63	Pine, White	18	Fair	20' canopy size
64	Pine, White	18	Fair	20' canopy size
65	Pine, White	24	Fair	20' canopy size; Utility piling
61	Silver Maple	28	Fair	60' canopy size
62	Pine, White	9	Fair	22' canopy size
63	Pine, White	18	Fair	25' canopy size
69	Silver Maple	24	Fair	Offsite; 40' canopy size; Utilities

Total Site Area	=	1,281,082 s.f. (29.4 acres)	Existing Tree Canopy Area To Be Removed	=	595,273 s.f. (13.66 acres) (66.9 %)
Woodland Tree Canopy Area	=	648,494 s.f. (18.48 acres)	Existing Tree Canopy Area To Be Preserved	=	284,276 s.f. (6.76 acres) (33.1 %)
Individual Tree Canopy Area	=	41,055 s.f. (0.94 acres)	(Excludes Tree Canopy Area in R.O.W.)		
Tree Canopy Area in R.O.W.	=	5,831 s.f. (0.13 acres)			
Total Existing Tree Canopy Area	=	889,549 s.f. (20.42 acres)	(Excludes Tree Canopy Area in R.O.W.)		



Revisions:

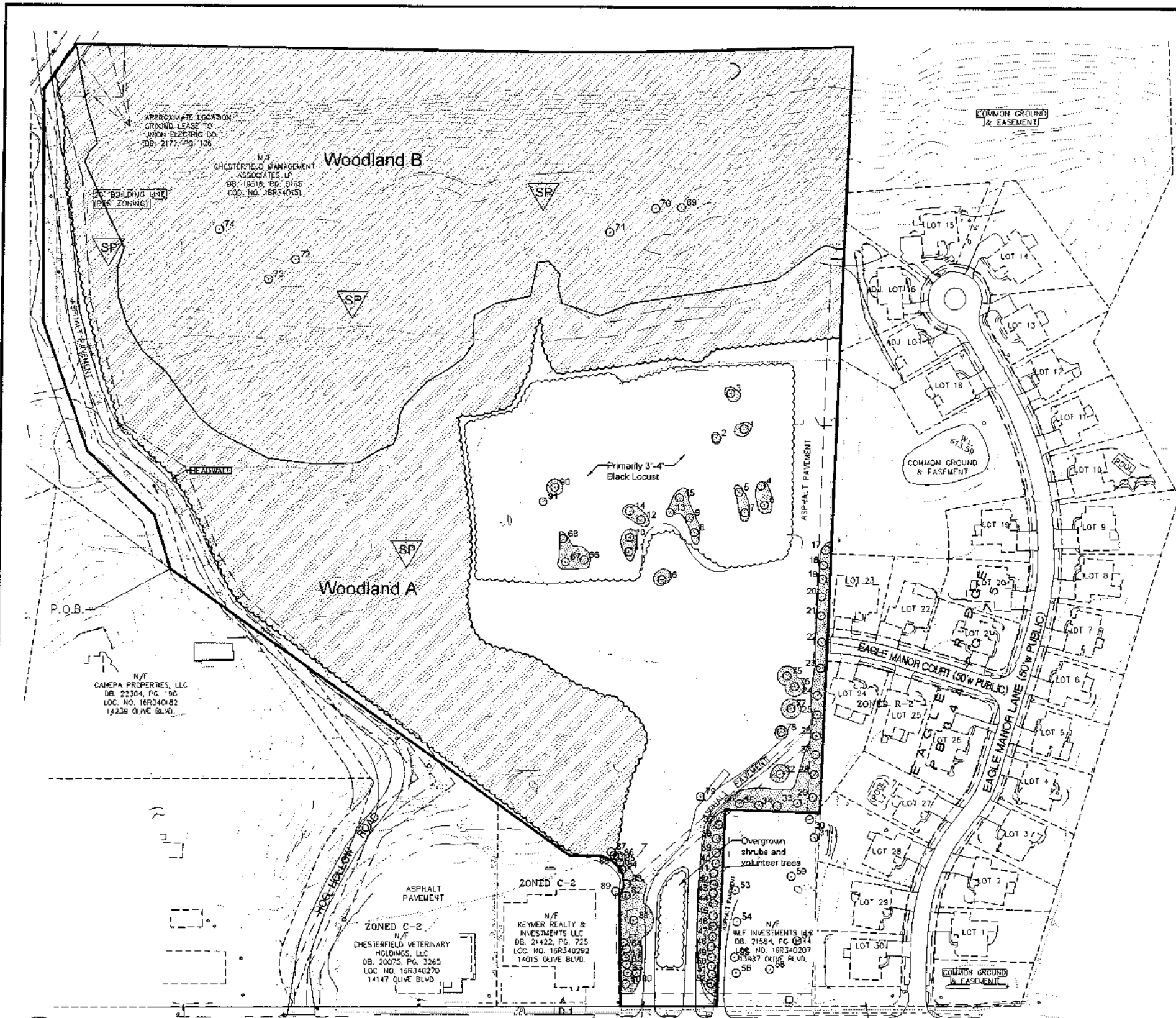
Date	Description	No.
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Missouri State Certificate of Authority # LAC #00819

Sheet Title:	Tree Preservation Plan
Sheet No.:	TPP
Date:	10/30/20
Job #:	B13.080



Tree #	Species	Inches	Rating	Comments
1	Common Apple	12	Fair	
2	Sweetgum	24	Good	
3	Sweetgum	20	Good	
4	Sweetgum	20	Good	
5	Sweetgum	25	Good	
6	Sweetgum	22	Good	
7	Sweetgum	22	Good	
8	Crabapple	10	Poor	
9	Crabapple	9	Poor	
10	Crabapple	12	Poor	
11	Crabapple	12	Poor	
12	Bradford Pear	14	Good	
13	Bradford Pear	13	Good	
14	Alder	22	Fair	
15	Alder	21	Excellent	
16	Crabapple	12	Poor	
17	Oak, Pin	18	Poor	Under Wires
18	Oak, Pin	28	Poor	Under Wires
19	Oak, Pin	28	Poor	Under Wires
20	Oak, Pin	32	Fair	Monarch
21	Oak, Pin	30	Fair	Monarch
22	Oak, Pin	26	Fair	Monarch
23	Oak, Pin	30	Fair	Monarch
24	Oak, Pin	29	Poor	Monarch
25	Oak, Pin	30	Fair	Monarch
26	Oak, Pin	30	Fair	Monarch
27	Oak, Pin	30	Poor	Monarch
28	Oak, Pin	30	Fair	Monarch
29	Oak, Pin	32	Good	Monarch
30	Maple, Silver	35	Fair	Offsite, Monarch
31	Maple, Silver	38	Fair	Offsite, Monarch
32	Pine, Austrian	15	Poor	
33	Oak, Pin	26	Poor	
34	Oak, Pin	38	Poor	
35	Oak, Pin	38	Fair	Hazard
36	Oak, Pin	36	Good	Monarch
37	Pine, White	19	Good	Monarch
38	Pine, White	24	Excellent	
39	Mulberry	24	Poor	
40	Pine, White	24	Good	Monarch
41	Pine, White	15	Excellent	
42	Pine, White	18	Excellent	
43	Pine, White	18	Fair	
44	Pine, White	20	Good	
45	Pine, White	18	Good	
46	Pine, White	25	Good	Monarch
47	Pine, White	24	Good	Monarch
48	Pine, White	28	Good	Monarch
49	Pine, White	18	Good	
50	Pine, White	28	Excellent	Monarch
51	Pine, White	13	Fair	
52	Pine, White	28	Excellent	Monarch
53	Pecan	38	Excellent	Offsite, Monarch
54	Maple, Sugar	26	Excellent	Offsite
55	Maple, Sugar	32	Good	Offsite, Monarch
56	Spruce, Colorado	16	Good	Offsite
57	Spruce, Colorado	20	Good	Offsite
58	Oak, Pin	38	Fair	Offsite, Disease
59	Tuliptree	28	Good	Offsite
60	Pine, White	22	Fair	30' canopy size
61	Pine, White	18	Fair	30' canopy size
62	Pine, White	14	Fair	20' canopy size
63	Pine, White	18	Fair	20' canopy size
64	Pine, White	19	Fair	20' canopy size
65	Pine, White	24	Fair	20' canopy size, Utility pruning
66	Sweetgum	18	Good	
67	Sweetgum	20	Good	
68	Sweetgum	20	Good	
69	Black Oak	28	Good	Monarch
70	Red Oak	28	Fair	Monarch
71	Red Oak	24	Good	Monarch
72	Chickadee Oak	25	Good	Monarch
73	Chickadee Oak	24	Good	Monarch
74	American Elm	25	Good	Monarch
75	Linden	14	Fair	30' canopy size
76	Linden	14	Fair	30' canopy size
77	Silver Maple	14	Good	30' canopy size
78	Linden	12	Fair	20' canopy size
79	Bovender	7	Poor	12' canopy size
80	Pine, White	24	Fair	20' canopy size
81	Silver Maple	28	Fair	60' canopy size
82	Pine, White	8	Fair	22' canopy size
83	Pine, White	18	Fair	25' canopy size
84	Pine, White	15	Poor	20' canopy size
85	Pine, White	16	Poor	18' canopy size
86	Pine, White	18	Poor	Twigs
87	Silver Maple	20	Poor	Dead, Twigs
88	Silver Maple	36	Fair	50' canopy size
89	Silver Maple	24	Fair	Offsite, 40' canopy size, Utilities
90	Cottonwood	28	Poor	
91	Cottonwood	12	Poor	

Tree Stand Delineation
SCALE 1"=80'

- Legend:**
- Existing Individual Trees/ Monarch Trees
 - △ Location of Sample Plots
 - Woodland Delineation

Zoning Designation:
Present Zoning: R-2, CUP

Total Site Area: 29.41 acres

Floodplain Number:
Area is outside of 500-year floodplain
Fema Map # = 29189C0145

Woodland	Forest Type	Area (sq.ft.)	Dominant and Co-dominant Species	Density (Trees/acre)	Average Diameter	Average Overstory Diameter	Frequency of Occurrence for Dominant Species	Understory Species
A	Successional/Edge	311,265.00	Black locust / Cottonwood / Sycamore / Hackberry	110	2.5"	10"	60 / 10 / 10 / 5	Black Cherry / American Elm / Dogwood / Honeylocust
B	Mixed Hardwoods	489,984.00	Green Ash / Red Oak / Sugar Maple / Walnut	80	4"	12"	20 / 20 / 20 / 10	Sugar Maple / Pinelaw

TREE NOTES:

A) Woodland A is primarily composed of successional species such as black locust and cottonwood. This area has the most potential for disturbance due to the close proximity to Olive Blvd. and Hog Hollow Road.

B) Trees especially valuable to the site are those located along the north facing slope. This woodland is comprised of a mixture of high quality hardwoods.

WOODLAND = 854,425 sq.ft.
INDIVIDUAL TREES = 41,055 sq.ft.
TOTAL SQ.FT. OF EXISTING CANOPY = 895,480 sq.ft.

Tree Stand Delineation based on plans prepared by SKA Forestry and Associates and Loomis Associates in September 2005

Tree Stand Delineation Prepared under the direction of Brian Sage
Certified Arborist MW- 5033A

The Residences at Hog Hollow

R-3 with P.U.D.

14001 Olive Boulevard
Chesterfield, Missouri

Revisions:

Date	Description	No.
11/24/20	City Comments	1

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Checked: RS

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Sheet Title:	Tree Stand Delineation
Sheet No:	TSD
Date:	8/13/19
Job #:	813.080