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Planning Commission Issues Report

Subject: Change of Zoning Issues Report

Meeting Date: July 22, 2013

From: John Boyer, Senior Planner

Location: North of the intersection of Church Rd. and Strecker Rd.

Petition: P.Z. 01 & 02-2013 Arbors at Kehrs Mill (17015 Church Rd.).

Proposal Summary

McBride and Son Homes, on behalf of JHB Properties, Inc. has submitted a request for a zoning map amendment to rezone a vacant parcel for a proposed 44 lot single-family residential development. The subject parcel (58.149 acres) is currently within three separate zoning districts (E-1, E-2 and LLR). The applicant is proposing to rezone the E-2 and LLR areas to E-1 (application P.Z. 01-2013), and then rezone the entire 58.149 acre tract to a PUD designation (application P.Z. 02-2013). The purpose of rezoning the E-2 and LLR area to E-1 is to establish the overall density of the overall development under the proposed PUD to one unit per acre (1.0 density).

While this report combines two applications for discussion/review, two separate votes for each application will be required when this proposal seeks a recommendation from the Commission. Since P.Z. 01-2013 is requesting the E-1 District, no Attachment A is required or presented (only the PUD). A rezoning to a "straight" district (non-planned development) does not require any additional conditions or development standards since that approval would only require compliance with the minimum standards approved under City Code for the zoning district.

Department Input

This petition is before the Commission following up on issues that were raised on both applications during the Public Hearing on May 29, 2013. After the meeting, an Issues Letter was sent to the petitioner. This letter included concerns identified at the Public Hearing, Staff issues and selected development criteria to which this development will be required to adhere. A written response to those issues was received by Staff, which is included for your review as an attachment to this report. Based upon these items, Staff has prepared a draft planned district ordinance associated with P.Z. 02-2013 which is attached for the Commission's review and comment.

Site History

The subject property was originally zoned “NU” Non-Urban. In 1998 the property was rezoned “LLR” Large Lot Residential (Ordinance #1472). Associated with this development, no single family units were proposed or allowed (only permitted schools and the cultivation of crops). In 2006, Ordinance #2322 approved the rezoning of a portion of subject site to “E-1” Estate One Acre District and “E-2” Estate Two Acre District (40.6 acres). This ordinance also approved the density for a proposed development (Tuscany Reserve) of 36 single family lots. This is the current ordinance authority for the site.

Surrounding Land Uses

The land use and zoning for the properties surrounding this parcel are as follows:

North: The land uses of the properties to the north are single family residential (Pacland Estates which is zoned “NU” Non-Urban and Westland Acres which is zoned “E-1/2” Estate Half Acre District).

South: The properties to the south are within the City of Wildwood, zoned “NU” Non-Urban and are single family residential.

East: Properties east of the site have a land use of single family residential (Upper Kehrs Mill subdivision which is zoned “NU” Non-Urban and Country Place which is zoned “R-1” Single Family Residential).

West: The properties to the west are within the City of Wildwood and are zoned “R-1” Single Family Residential.

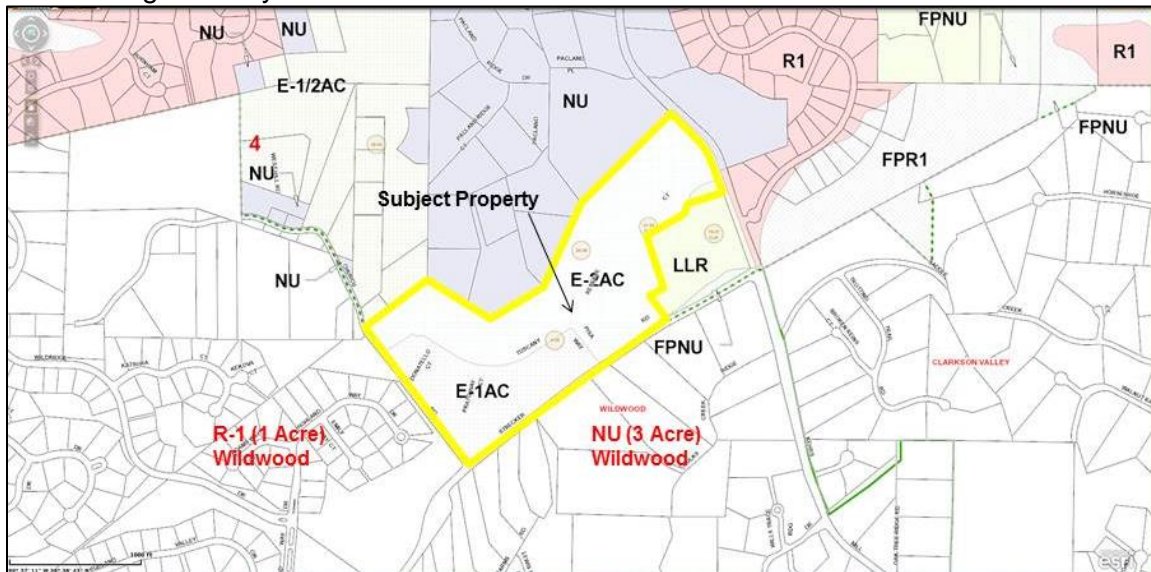


Figure 1: Area Zoning



Figure 2: Site Location



Figure 3: Site Photo from Strecker Rd.



Figure 4: Site Photo from Church Rd.



Figure 5: Intersection of Kehrs Mill and Strecker



Figure 6: West of Site from Church Rd.

Analysis

Zoning

The rezoning of this property from the existing three districts to one via application P.Z. 01-2013 would establish the density requirements for the PUD process (P.Z. 02-2013). Within the area, similar one acre zoning/density can be found to the northwest, west and east (see above zoning map). Half acre development, while not constructed, has been approved to the northwest of the subject property within the Westland Acres subdivision by Ord. #2321 in 2005. Three acre developments are also prevalent in the area with properties to the north and south (adjacent to the proposed development).

The addition of the PUD designation to this request would allow flexibility in the development of this property. The purpose of the "PUD" Planned Unit Development District is to encourage flexibility in the development standards that will result in exceptional design, character and quality of new developments. The intent of the PUD is to also encourage the preservation of natural and scenic features and open space. The applicant is seeking to negotiate minimum lot size within the PUD in order to preserve additional open space (purpose of the PUD). The ability to develop with the smaller lots size would enable the preservation of open space and limit required grading.

Preliminary Plan

The following are additional items which represent a summary of the Preliminary Plan;

- 44 lots are proposed on the submitted plan
 - Min lot size of 22,000 sqft.
 - Average lot size of 30,926 sqft.
 - Max lot size of 3.99 acres
- Density of 0.75 units/acre (E-1 would allow 1 unit/acre).
- As submitted, the combination of proposed density and number of lots would allow for 35% of the site (20.2 acres) to be reserved as Common Open Space (Tree Manual requires 30%). Total common ground for the site is 20.5 acres (35.6% of the site).
- Landscape buffers (some extensive) along the property boundaries. A minimum of 30 feet is required by the PUD. The Preliminary Plan indicates this is achieved by both common ground and landscape easements. Some of the buffers proposed exceed the 30 foot buffer requirement.
- Two access points to the site; 1) from Kehrs Mill Rd. to the east and 2) from Church Rd. to the west.
- 40 foot dedication along Church for future road improvements.

Comprehensive Plan Analysis

The subject site is located within Ward 4 of the City of Chesterfield. The City of Chesterfield Land Use Plan indicates this parcel is within the Residential Single Family (Attached/Detached), specifically within the one-acre density area. Proposed uses and density of the PUD (0.75 units/acre within 1 units/acre minimum area) and the E-1 District would be compliant with the Land Use Plan. This subject site is not located in

any sub-area identified by the Comprehensive Plan; therefore there are no additional development guidelines for this site.

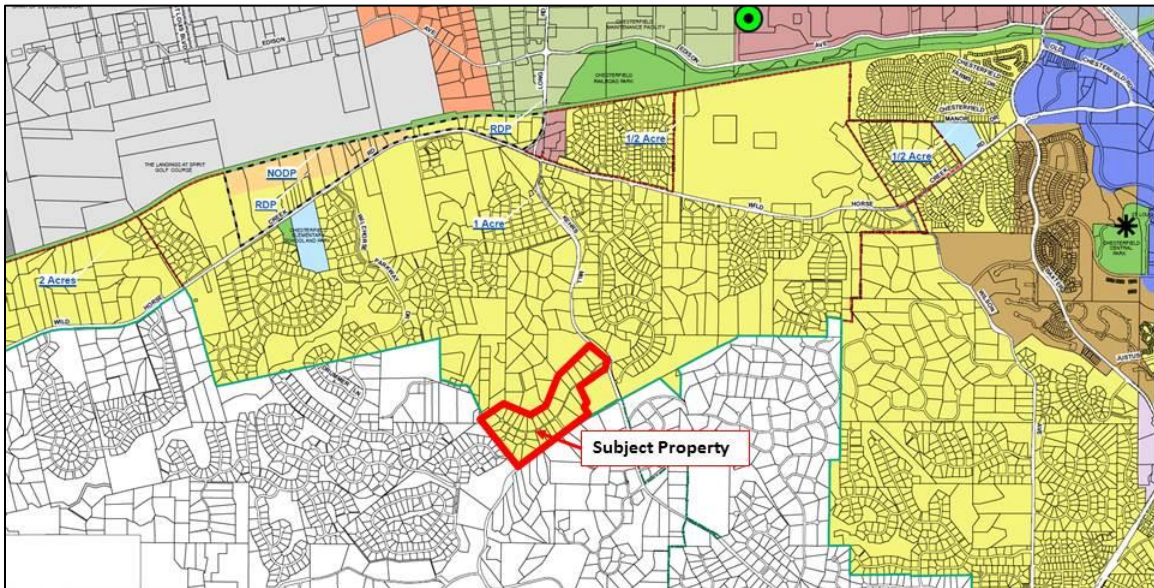


Figure 7: Land Use Plan

Issues

The Commission, with input from the public, identified multiple issues at the May 29, 2013 Public Hearing on this petition. Additionally, Staff identified several items that were included with the Commission’s and sent to the Petitioner. The Petitioner has submitted a formal response to each of these issues which is attached to the Commission’s packet for review. Comments from all required agencies have been received and are included in the draft planned district ordinance.

Public Comment

Three members of the public spoke during the Public Hearing about the proposed zoning request. Concerns raised by the public included;

- The inclusion and number of smaller lots within the proposed development and belief this is incompatible with surrounding development.
 - The development proposes 22,000 square foot lots as a minimum. The average lot size is 30,926 sqft. The minimum lot size allows for the overall density of the development to remain under one acre (0.75 units/acre) and to preserve the amount of open space proposed (20.2 acres or 35%). One acre densities are within the area and adjacent of the proposed development (see above zoning map).
 - Associated with PUD developments, smaller lots are encouraged. Including smaller lots within a development, while still meeting the overall density standards, allows further preservation of open space generally not

achievable under standard development practices; accomplishing the intent of the PUD.

- A concern by the public was brought up regarding proposed access point off Church Rd. The concern focused on lighting from vehicular movements on properties to the west and future road improvement impacts.
 - To assist addressing the lighting issue concerning traffic movements and adjoining properties, an exhibit has been prepared by the developer which identifies the proposed access for this development and properties to the west. This exhibit has been included for your review and comment within the packet. Specific road improvements are not shown; however will be required during site plan review.
 - Additional right-of-way is proposed which will allow for all necessary road improvements to be within City of Chesterfield right-of-way and not City of Wildwood (right-of-way is split between the two jurisdictions). The City of Wildwood has been contacted concerning this project and the City of Chesterfield will remain in communication concerning necessary improvements which may affect outside jurisdictions.

Request

This meeting is for discussion of issues concerning the rezoning to E-1 (P.Z. 01-2013), and PUD (P.Z. 02-2013) with the subsequent planned development ordinance only (no vote is requested at this time for this project for either application). The intent of the Issues meeting is to receive feedback on the draft planned district ordinance, analysis of the suitability of the zoning requests and to examine if any further issues need to be resolved prior to requesting a recommendation from the Planning Commission.

Respectfully Submitted,



John Boyer, Senior Planner

Attachments:

1. Draft Planned District Ordinance
2. Response to Issues Letter
3. Preliminary Plan

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 PUD District shall be:
 - a. Dwellings, Single Family Detached

B. DENSITY REQUIREMENTS

- a. The total number of single family residential density units shall not exceed forty-four (44) units

C. DEVELOPMENT STANDARDS

- a. Minimum lot size for this development shall be 22,000 sf.
- b. Setbacks shall be as shown on the Preliminary Plan and made a part of this Ordinance as Exhibit 1.
- c. Maximum height of all structures shall be fifty (50) feet.

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 the Kehrs Mill Road, Strecker Road, or Church Road rights-of-way.
3. Temporary construction parking on non-paved surfaces shall be prohibited to limit mud from construction activities being tracked onto the pavement causing hazardous roadway and driving conditions.

E. LANDSCAPE AND TREE REQUIREMENTS

1. The developer shall adhere to the Landscape and Tree Preservation Requirements of the City of Chesterfield Code.
2. Landscaping Easements are established as a protected area for vegetative landscaping only. Structures of any size, whether temporary or permanent,

are not permitted within landscape easements. Landscaping as approved by the City of Chesterfield during site plan review is required to be maintained and preserved indefinitely by the resident or a Home Owners Association. Failure to maintain or preserve landscape easements may result in inspection and issuance of fines by the City of Chesterfield. This language shall be included on all plans, plats, ordinances, subdivision indentures and other appropriate (written) documents for this development.

3. A minimum of 30% Common Open Space 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/or the St. Louis County Department of Highways and Traffic (or MoDOT), 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

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

I. ACCESS/ACCESS MANAGEMENT

1. Access to this development shall be by no more than one (1) street approach onto Church Road as directed by the City of Chesterfield and one (1) street approach onto Kehrs Mill Road as directed by the St. Louis County Department of Highways and Traffic.
2. No lot shall be allowed direct access to Kehrs Mill Road, Strecker Road, or Church Road.
1. If required sight distance cannot be provided at the access locations, acquisition of right-of-way, reconstruction of pavement including correction to the vertical alignment and other off-site improvements may be required to provide adequate sight distance as directed by the St. Louis County Department of Highways and Traffic.

J. PUBLIC/PRIVATE ROAD IMPROVEMENTS, INCLUDING PEDESTRIAN CIRCULATION

1. Any request to install a gate at the entrance to this development must be approved by the City of Chesterfield and the St. Louis County Department of Highways and Traffic and the Missouri Department of Transportation. 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. Provide a five (5) foot sidewalk, conforming to ADA standards, along the improved Kehrs Mill Road and provide any additional right of way along the entire frontage of the site as directed by the St. Louis County Department of Highways and Traffic.
4. Improve Church Road along the entire frontage of the site to City of Chesterfield standards, including pavement, required tapers, storm drainage facilities, and sidewalk as directed by the City of Chesterfield. Improvements shall be wholly contained within the City of Chesterfield limits as directed by the City of Chesterfield. Improvements along Church Road from Strecker Road to the development entrance shall be completed prior to the issuance of building permits exceeding 60% of the approved dwelling units. A cash escrow may be provided in lieu of constructing the improvements for the portion of Church Road from the entrance to the development to the northwest corner of the subdivision. 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%.
5. Obtain approvals from the City of Chesterfield, St. Louis County Department of Highways and Traffic, and the City of Wildwood for locations of proposed curb cuts, areas of new dedication, and roadway improvements.

K. TRAFFIC STUDY (IF APPLICABLE)

1. Provide a traffic study as directed by the City of Chesterfield and/or St. Louis County Department of Highways and Traffic. The scope of the study shall include internal and external circulation and may be limited to site specific impacts, such as the need for additional lanes, entrance configuration, geometrics, sight distance, traffic signal modifications or other improvements required, as long as the density of the proposed development falls within the parameters of the City's traffic model. Should the density be other than the density assumed in the model, regional issues shall be addressed as directed by the City of Chesterfield.

L. POWER OF REVIEW

Either Councilmember of the Ward where a development is proposed or the Mayor may request that the plan for a development be reviewed and approved by the entire City Council. This request must be made no later than twenty-four (24) hours after Planning Commission review. The City Council will then take appropriate action relative to the proposal. The plan for a development, for purposes of this section, may include the site development plan, site development section plan, site development concept plan, landscape plan, lighting plans, architectural elevations, sign package or any amendment thereto.

M. 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 connected to an adequate piped system.
2. Detention/retention and channel protection measures are to be provided in each watershed as required by the City of Chesterfield. The storm water management facilities shall be operational prior to paving of any driveways or parking areas in non-residential development or issuance of building permits exceeding sixty percent (60%) of 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 the Site Development Plan(s).
3. Emergency overflow drainage ways to accommodate runoff from the 100-year storm event shall be provided for all storm sewers, as directed by the City of Chesterfield.
4. Offsite storm water shall be picked up and 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 detention/retention facilities. All 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. Provide all necessary storm water and detention calculations to the City of Wildwood.

N. SANITARY SEWER

1. Provide public sewer service for this site in accordance with the Metropolitan St. Louis Sewer.

O. GEOTECHNICAL REPORT

Prior to Site Development Plan approval, provide a geotechnical report, prepared by a registered professional engineer licensed to practice in the State of Missouri, as directed by the Department of Public Services. 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.

R. MISCELLANEOUS

1. All utilities will be installed underground. The development of this parcel will coordinate the installation of all utilities in conjunction with the construction of any roadway on site.
2. If any development in, or alteration of, the floodplain is proposed, the Developer shall submit a Floodplain Study and Floodplain Development Permit/Application to the City of Chesterfield and the City of Wildwood for approval. The Floodplain Study must be approved by the City of Chesterfield prior to the approval of the Site Development Plan, as directed. The Floodplain Development Permit must be approved prior to the approval of a grading permit or improvement plans. If any change in the location of the Special Flood Hazard Area is proposed, the Developer shall be required to obtain a Letter of Map Revision (LOMR) from the Federal Emergency Management Agency. The LOMR must be issued by FEMA prior to the final release of any escrow held by the City of Chesterfield for improvements in the development. Elevation Certificates will be required for any structures within the Special Flood Hazard Area or the Supplemental Protection Area. All new roads within and adjacent to this site shall be constructed at least one (1) foot above the base flood elevation of the Special Flood Hazard Area. Improvements to existing roadways shall be required as necessary to provide at least one access route to each lot that is at least one (1) foot above the base flood elevation. Consult Chapter 14 of the City Code for specific requirements.
3. Road improvements and right-of-way dedication shall be completed prior to the issuance of an occupancy permit. If development phasing is anticipated, the developer shall complete road improvements, right-of-way dedication, and access requirements for each phase of development as directed by the Saint Louis County Department of Highways and Traffic. As previously noted, the delays due to utility relocation and adjustments will not constitute a cause to allow occupancy prior to completion of road improvements.

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

- A.** The developer shall submit a concept plan within eighteen (18) months of City Council approval of the change of zoning.
- B.** In lieu of submitting a Site Development Concept Plan and Site Development Section Plans, the petitioner may submit a Site Development Plan for the entire development within eighteen (18) months of the date of approval of the change of zoning by the City.
- C.** Failure to comply with these submittal requirements will result in the expiration of the change of zoning and will require a new public hearing.
- D.** Said Plan shall be submitted in accordance with the combined requirements for Site Development Section and Concept Plans. The submission of Amended Site Development Plans by sections of this project to the Planning Commission shall be permitted if this option is utilized.
- E.** Where due cause is shown by the developer, this time interval for plan submittal may be extended through appeal to and approval by the Planning Commission.

III. COMMENCEMENT OF CONSTRUCTION

- A.** Substantial construction shall commence within two (2) years of approval of the Site Development Concept Plan or Site Development Plan, unless otherwise authorized by ordinance.
- B.** Where due cause is shown by the developer, the Commission may extend the period to commence construction for not more than one additional year.

IV. GENERAL CRITERIA

A. SITE DEVELOPMENT CONCEPT PLAN

1. Any Site Development Concept Plan shall show all information required on a preliminary plat as required in the City of Chesterfield Code.
2. Include a Conceptual Landscape Plan in accordance with the City of Chesterfield Code to indicate proposed landscaping along arterial and collector roadways.
3. Include a Lighting Plan in accordance with the City of Chesterfield Code to indicate proposed lighting along arterial collector roadways.
4. Provide comments/approvals from the appropriate Fire District, the St. Louis County Department of Highways and Traffic, Monarch Chesterfield Levee

District, Spirit of St. Louis Airport and the Missouri Department of Transportation.

5. Compliance with the current Metropolitan Sewer District Site Guidance as adopted by the City of Chesterfield.

B. 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 openspace 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 Code.
19. Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Regulations per the City of Chesterfield 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, Metropolitan St. Louis Sewer District (MSD) and the Missouri Department of Transportation.
22. Compliance with Sky Exposure Plane.
23. Compliance with the current Metropolitan Sewer District Site Guidance as adopted by the City of Chesterfield.

C. SITE DEVELOPMENT SECTION PLAN SUBMITTAL REQUIREMENTS

The Site Development Section Plan shall adhere to the above criteria and 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. Parking calculations. Including calculation for all off street parking spaces, required and proposed, and the number, size and location for handicap designed.
3. Provide openspace percentage for overall development including separate percentage for each lot on the plan.
4. Provide Floor Area Ratio (F.A.R.).
5. A note indicating all utilities will be installed underground.

6. A note indicating signage approval is separate process.
7. Depict the location of all buildings, size, including height and distance from adjacent property lines and proposed use.
8. Specific structure and parking setbacks along all roadways and property lines.
9. Indicate location of all existing and proposed freestanding monument signs.
10. Zoning district lines, subdivision name, lot number, lot dimensions, lot area, and zoning of adjacent parcels where different than site.
11. Floodplain boundaries.
12. 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.
13. 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.
14. Indicate the location of the proposed storm sewers, detention basins, sanitary sewers and connection(s) to the existing systems.
15. 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.
16. Address trees and landscaping in accordance with the City of Chesterfield Code.
17. Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Regulations per the City of Chesterfield Code.
18. 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.
19. Provide comments/approvals from the appropriate Fire District, Monarch Levee District, Spirit of St. Louis Airport, St. Louis Department of Highways and Traffic, Metropolitan St. Louis Sewer District (MSD) and the Missouri Department of Transportation.
20. Compliance with Sky Exposure Plane.

21. Compliance with the current Metropolitan Sewer District Site Guidance as adopted by the City of Chesterfield.

V. TRUST FUND CONTRIBUTION

The developer shall be required to contribute to the Traffic Generation Assessment (TGA) to the Eatherton – Kehrs Mill Road Trust Fund (Trust Fund No. 552). Traffic generation assessment contributions shall be deposited with St. Louis County prior to the issuance of building permits. If development phasing is anticipated, the developer shall provide the traffic generation assessment contribution prior to issuance of building permits for each phase of development.

A. ROADS

The roadway improvement contribution is based on land and building use. The roadway contributions are necessary to help defray the cost of engineering, right-of-way acquisition, and major roadway construction in accordance with the Chesterfield Valley Road Improvement Plan on file with the St. Louis County Department of Highways and Traffic. The amount of the developer's contribution to this fund shall be computed based on the following:

<u>Type of Development</u>	<u>Required Contribution</u>
Single Family	\$1,025.36/Parking Space

(Parking spaces as required by the City of Chesterfield Code.)

If types of development differ from those listed, St. Louis County Department of Highways and Traffic will provide rates.

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

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

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

The amount of the required contribution, if not approved for construction by January 1, 2014, shall be adjusted on that date and on the first day of January in each succeeding year thereafter in accord with the construction cost index as determined by the Saint Louis County Department of Highways and Traffic.

B. SANITARY SEWER

Caulks Creek surcharge of \$2,750 per acre shall apply to this area. On this basis of 58.15 acres, the total fee is \$159,912.50. There are no other sub-district/recoupment fees associated with this site.

Trust Fund contributions shall be deposited with St. Louis County in the form of a cash escrow prior to the issuance of building permits.

VI. 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.

VII. 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.

Arbors at Kehrs Mill, LLC

**5091 New Baumgartner Road
St. Louis, MO 63129**

July 15, 2013

Mr. John Boyer, Senior Planner
City of Chesterfield
Department of Planning and Development Services
690 Chesterfield Parkway West
Chesterfield, MO 63017

Re: The Arbors at Kehrs Mill/ P.Z. 01 & 02-2013

Dear Mr. Boyer,

Thank you for letter to us dated June 6, 2013. I am writing this letter on behalf of the Arbors at Kehrs Mill, LLC (the “**Arbors**”) as a supplemental response to your letter dated June 6, 2013. The numbers below correspond to the items in your letter.

Public Hearing:

1. Church Road Access: We analyzed the Church Road access and headlight pattern. We prepared a diagram and pictures detailing this analysis. We are including copies of this diagram and pictures with this letter. A landscape buffer and berm are located across Church from the proposed entrance. Based on our analysis (please see the attached materials), we believe that the grade of the access point will project the headlights directly into the berm and landscaping and, therefore, provide an effective buffer from the homes located across Church. The Church Road access will not be the primary entrance to the subdivision. We anticipate that the residents of the Arbors at Kehrs Mill will use the Kehrs Mill entrance as their primary ingress/egress to the site.
2. Lot Size: The most important goal that we had when we set out to design the site was to preserve as many trees as possible and provide large buffers around the perimeter of the project. The large buffers act as a natural transition from the site to adjacent developments and preserve the existing tree canopy in these areas. In order to accomplish this design feature, we clustered the lots in the middle of the site and reduced the size of some of the lots so that we can achieve large areas of preservation buffers which will not be disturbed by future homeowners. Homeowners cannot erect fences, construct improvements such as decks and cannot remove trees in these areas. The overall density is 44 lots on over 58 acres which is less than one acre density. The lots

that are smaller than one acre are created in order to preserve the tree canopy and create large buffers around the perimeter of the project. It is also important to note that all of the homes will be side-entry garages. So, despite the fact that a ten foot side yard setback is requested, the homes, due to the side-entry drives, will generally be 30-40 feet apart due to the side-entry drives. There will only be a few limited instances where the homes will be 20' apart. It is also important to note that only 13 of the lots are in the 22,000 square foot range.

Staff Comments to Preliminary Plan:

1. 30% Open Space: The Preliminary Plan has been revised to depict deduction of the area for the entry monuments in the calculation of the open space percentage.
2. 30' Buffer: Only 5 lots contain some portion of preserved areas. We were able to successfully accommodate this issue at our recent Wild Horse community. We took the following steps in order to ensure that everyone was fully informed about the preservation areas in order to protect the preservation areas and avoid any future issues: (1) we noted, labeled and disclosed these areas on the record plat for the community; (2) we described these areas in the subdivision indenture and prohibited homeowners from erecting any structures in these areas and obligated the HOA to maintain these areas and any landscaping therein; and (3) McBride & Son (the homebuilder) created a separate contract disclosure document for each homebuyer for a lot that contained these preservation areas which described and disclosed the existence of these areas and the prohibition on disturbing these areas. This "belts and suspenders" approach has been enormously successful with the homebuyers at Wild Horse and we plan to utilize this same approach and process for the 5 affected lots at the Arbors at Kehrs Mill.
3. Depict full Existing Easements: The Preliminary Plan has been revised with clear notes depicting these easements.
4. Slopes: The actual and final slope calculations will be done concurrent with the preparation of the improvement plans. We understand that approval of the zoning and Preliminary Plan does not constitute approval of slopes.
5. "No-Rise" Study: We understand that the City will require a "No-Rise" study in this instance and we will comply with all flood plain development permit requirements concurrent with improvement plan preparation and review.
6. Church Road Dedication: The portion of Church road located within the City of Chesterfield will be 40' wide after the approximately 20' right-of-way dedication that we will be granting along with this project. This right-of-way and dedication is accurately depicted on the enclosed revised Preliminary Plan.

7. Internal Street Width: The width of the right-of-way and installation of sidewalks on one side of the street is being requested for two reasons: (1) reduction in impervious area; and (2) reduction in right-of-way width in order to preserve more tree canopy on the site.
8. Street Slope: Street slope calculations will be conducted as we proceed through the more detailed design phase.
9. Easements for box culvert: We understand that easements will be required for the box culvert and we will work to obtain any necessary easements before we submit improvement plans to the City.
10. Natural Resource Map/MSD: We understand that a "Natural Resource Map" as requested by MSD must be provided prior to adoption of the zoning ordinance. We believe that the "Natural Resource Map" is finalized and can be submitted and processed in the very near future.
11. Tree Stand Delineation: The revised Tree Stand Delineation was recently resubmitted to the City.

Conditions:

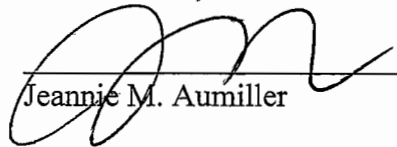
We have a few questions or clarifications regarding the conditions outlined in your letter.

1. #6, third bullet point: Is the approval from the City of Wildwood only required for curb cuts, dedications and roadway improvements that are located within the City of Wildwood?
2. #7, last bullet point: Do we provide copies of the MSD and Chesterfield approved calculations to the City of Wildwood?
3. #9, second bullet point: Can we clarify that the City of Wildwood's approval for floodplain issues is only related to those improvements within Wildwood's jurisdictional limits (i.e. the box culvert)?

We hope that this letter and the enclosed revised Preliminary Plan are responsive to all of your questions. We are hoping that this project can be discussed at the July 22nd meeting of the Planning Commission. In the meantime, please do not hesitate to call me should you have any questions or need any further information.

Very Truly Yours,
Arbors at Kehrs Mill, LLC

By:

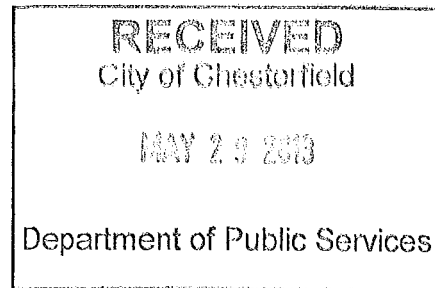

Jeannie M. Aumiller

cc:

Mr. Al Hicks (via e-mail)

CHESTERFIELD LAND COMPANY, LLC.

John F. Eilermann, Jr.
Arbors at Kehrs Mill, LLC
5091 New Baumgartner Road
St. Louis, MO 63129



RE: The Arbors at Kehrs Mill (the "Arbors")

The Goddard School

Dear Mr. Eilermann,

We have received and reviewed your letter to us dated May 16, 2013. We have also reviewed your letter to the trustees of Pacland Place of the same date. Moreover, we have spent considerable time reviewing and comparing the approved City of Chesterfield plan for the property in question formerly known as "Tuscany Reserve"

We support the proposed changes to the Tuscany Reserve plan in accordance with the following comments:

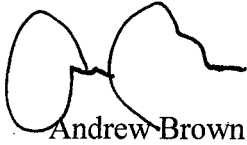
1. The subdivision declaration indentures, contract disclosures and record plat includes reference to the school, its future plans to expand the west school building, its frequently occurring night activities and that the school grounds are private and not to be used by the residents. We want neighbors who understand the exact use they are moving next to. Full disclosure makes for good neighbors.
2. The property line along proposed lots 5, 6 & 7 shall have a minimum of 30ft landscape buffer. Plantings shall be heavily disbursed throughout the buffer. Safeguards shall be put in place so that future lot Owners shall not be allowed to remove plantings to expand their yards into the buffer. Buffers to be properly maintained.
3. The north property line shall also have a minimum 30ft landscaped buffer in accordance with the comments listed above in 2.
4. In addition, the north property line shall have a minimum 10'-20' non disturbance area from a grading perspective which will allow for a better transition water collection & landscape buffer.
5. We would prefer that lot 4 would be relocated to somewhere else in the development to provide a more uniform grade transition and because the grade change for this particular lot starts right at the property line. If the lot could be re-engineered to comply with 3 & 4 above then it would help mitigate our concerns.
6. The storm water detention basin at the north property line should be safe guarded with either a fence or a landscape buffer that is difficult to penetrate.
7. Grading activities along the north property line shall be considerate of the schools operation. Toddlers and infants nap and play outside near the north property line. We would like to

minimize the noise, dust and disturbance in this area and take extra precautions to ensure the safety of the children.

8. We will release any claim we may have over the playground area/parcel.

9. We want to review and approve the language to be used in item 1 and we would like to review the landscape.

Cordially,

A handwritten signature in black ink, appearing to read "Andrew Brown". The signature is stylized with a large, rounded initial 'A' and a long, sweeping horizontal stroke that extends to the right.

Andrew Brown

Arbors at Kehrs Mill

A TRACT OF LAND BEING ADJUSTED LOT 8 OF "ST. MARY'S/McGEE BOUNDARY ADJUSTMENT PLAT (P.B. 342, PG. 7)
PART OF LOT 'D' OF "McKENNA PACLAND LAKE" (P.B. 187, PG. 70)
AND PART OF FRACTIONAL SECTION 18 AND U.S. SURVEYS 124 AND 886
TOWNSHIP 45 NORTH, RANGES 3 AND 4 EAST OF THE FIFTH PRINCIPAL MERIDIAN
CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI

PRELIMINARY DEVELOPMENT PLAN

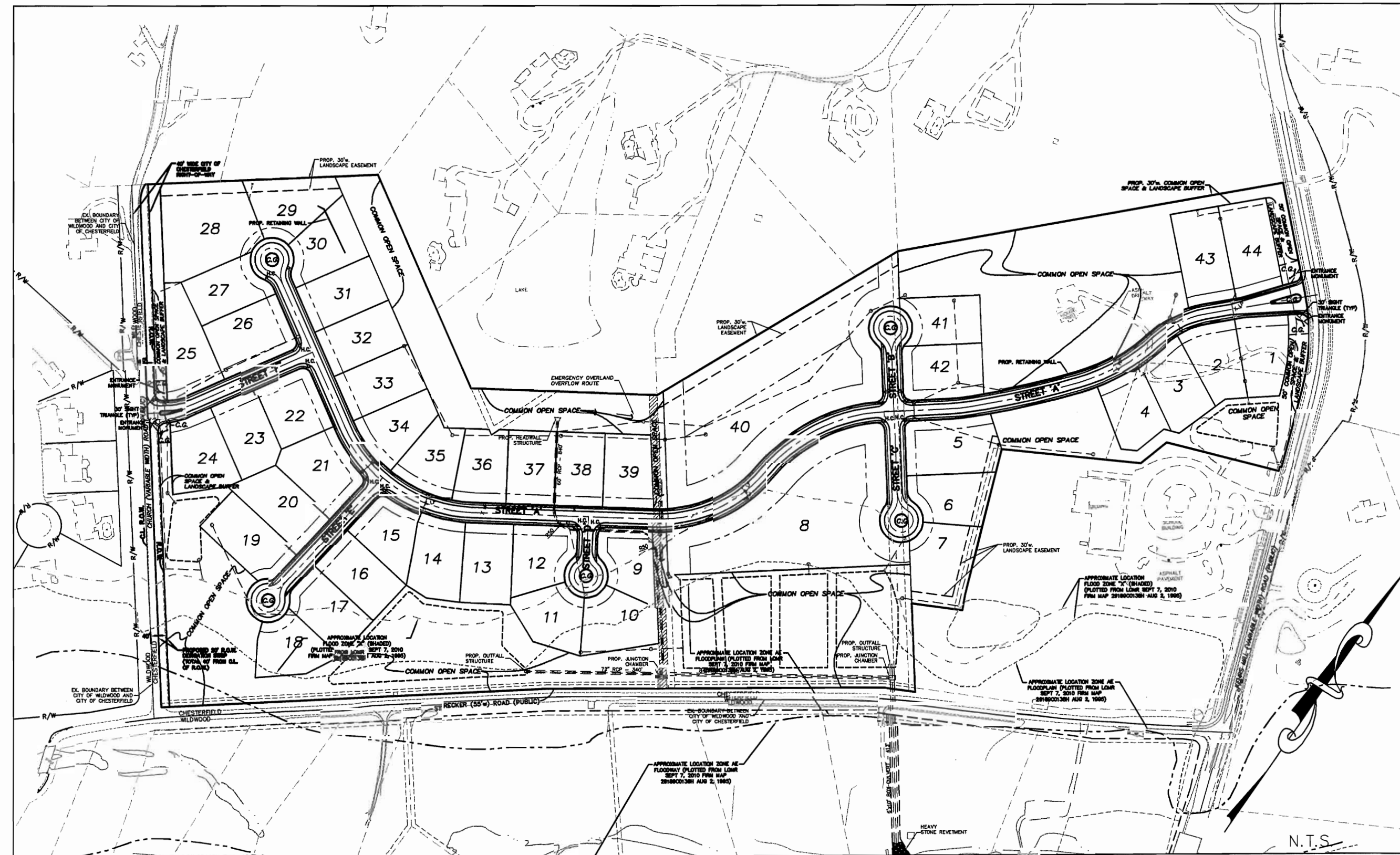
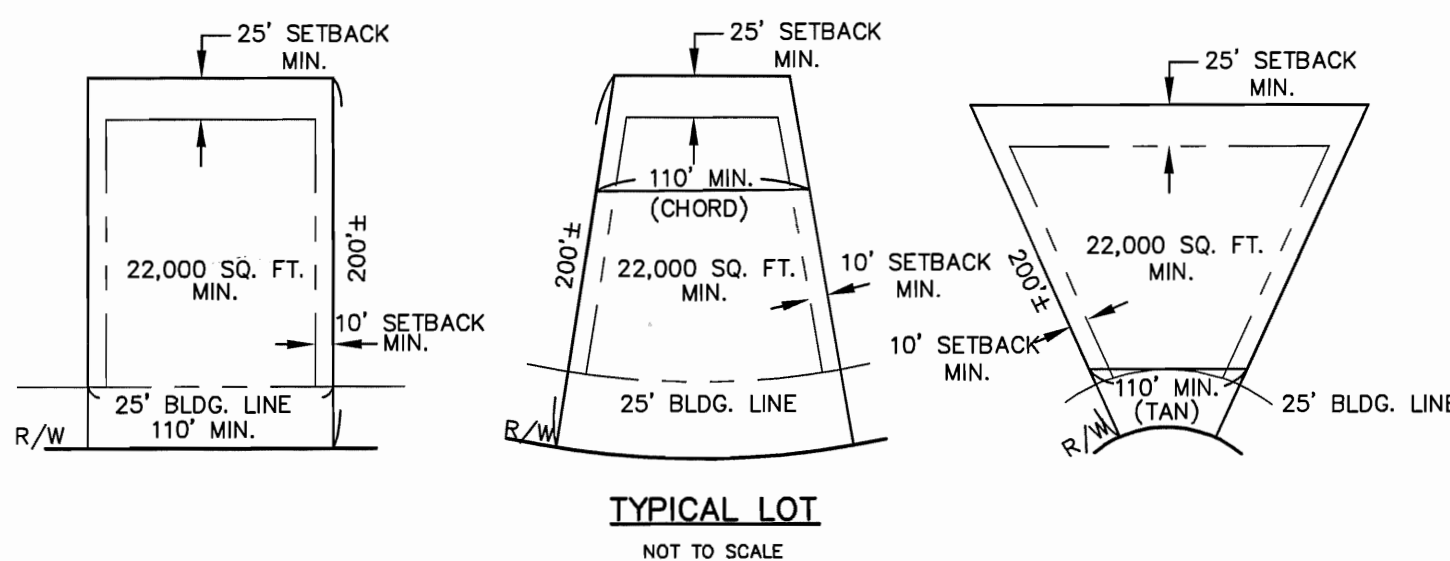
GENERAL NOTES:

- THIS SITE IS IN THE FOLLOWING SERVICE DISTRICTS:
METROPOLITAN ST. LOUIS SEWER DISTRICT
MONARCH FIRE PROTECTION DISTRICT
ROCKWOOD R-6 SCHOOL DISTRICT
MISSOURI AMERICAN WATER COMPANY
AMEREN UE
AT&T
LACLEDE GAS COMPANY
CHARTER COMMUNICATIONS
- THIS SITE PLAN WILL MEET ALL CITY OF CHESTERFIELD REQUIREMENTS.
- SANITARY SEWER CONSTRUCTION AND CONNECTIONS SHALL BE AS APPROVED BY THE METROPOLITAN ST. LOUIS SEWER DISTRICT AND IN ACCORDANCE WITH THE STANDARD CONSTRUCTION SPECIFICATIONS FOR SEWERS AND DRAINAGE FACILITIES.
- STORM WATER SYSTEM SHALL BE DESIGNED PURSUANT TO THE CITY OF CHESTERFIELD AND METROPOLITAN ST. LOUIS SEWER DISTRICT REQUIREMENTS AND DISCHARGE AT AN ADEQUATE NATURAL DISCHARGE POINT.
- ALL NATURAL WATERCOURSES AND WETLANDS SHALL BE BUFFERED AS REQUIRED UNDER CHAPTER 12 OF THE CITY OF CHESTERFIELD MUNICIPAL CODE.
- NO SLOPES SHALL EXCEED 3 (HORIZONTAL) TO 1 (VERTICAL), UNLESS JUSTIFIED BY GEOTECHNICAL REPORT WHICH HAS BEEN ACCEPTED/APPROVED BY THE CITY OF CHESTERFIELD. APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF SLOPES IN EXCESS OF 3:1. STEEP SLOPES ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE CITY OF CHESTERFIELD. REVIEW OF THE PROPOSED STEEP SLOPE WILL BE CONCURRENT WITH THE REVIEW OF THE GRADING PERMIT OR IMPROVEMENT PLANS FOR THE PROJECT.
- THE LOCATION OF STORM SEWER IMPROVEMENTS ARE APPROXIMATE ONLY. ACTUAL LOCATION SHALL BE DETERMINED BY FIELD CONDITIONS AND SHALL BE INDICATED ON THE IMPROVEMENT PLANS.
- GRADING SHALL BE PER CITY OF CHESTERFIELD STANDARDS. SOURCE OF TOPOGRAPHY MSD ORTHOTOPO.
- STREET TREES AND STREET LIGHTS (UNLESS OTHERWISE DEPICTED) SHALL BE PER CITY OF CHESTERFIELD STANDARDS.
- NEAREST MAJOR INTERSECTION IS WILDHORSE CREEK ROAD AND KEHRS MILL ROAD.
- ALL SIDEWALKS SHALL BE CONSTRUCTED TO ADA AND THE CITY OF CHESTERFIELD STANDARDS.
- EXISTING OWNERS: CATHOLIC CEMETERIES OF THE ARCHDIOCESE
17015 CHURCH RD
CHESTERFIELD, MO 63005-4319
- SITE TO CONFORM TO THE CITY OF CHESTERFIELD TREE REQUIREMENTS.
- MAXIMUM HEIGHT OF THE RESIDENCES WILL NOT EXCEED 50 FEET.
- SITE PLAN WILL MEET ALL CITY REQUIREMENTS.
- LANDSCAPE EASEMENTS ARE ESTABLISHED AS A PROTECTED AREA FOR VEGETATIVE LANDSCAPING ONLY. STRUCTURES OF ANY SIZE, WHETHER TEMPORARY OR PERMANENT, ARE NOT PERMITTED WITHIN LANDSCAPE EASEMENTS. LANDSCAPING AS APPROVED BY THE CITY OF CHESTERFIELD DURING SITE PLAN REVIEW IS REQUIRED TO BE MAINTAINED AND PRESERVED INDEFINITELY BY THE RESIDENT OR A HOME OWNERS ASSOCIATION. FAILURE TO MAINTAIN OR PRESERVE LANDSCAPE EASEMENTS MAY RESULT IN INSPECTION AND ISSUANCE OF FINES BY THE CITY OF CHESTERFIELD. THIS LANGUAGE SHALL BE INCLUDED ON ALL PLANS, PLATS, ORDINANCES, SUBDIVISION INDENTURES, AND OTHER APPROPRIATE (WRITTEN) DOCUMENTS FOR THIS DEVELOPMENT.

SITE INFORMATION

LOCATOR NUMBERS: 19U420248
EXISTING ZONING: E-1, E-2 AND LLR
PROPOSED ZONING: E-1 WITH A P.U.D. - PLANNED UNIT DEVELOPMENT
GROSS AREA OF SITE: 58.15 ACRES
DENSITY CALCULATIONS: 58.15 AC X 43,560 SQ.FT./AC. = 58 LOTS ALLOWED
(43,560 SQ.FT./LOT)
AVERAGE LOT SIZE: 30,926 S.F.
MAXIMUM NUMBER OF UNITS ALLOWED: 58
NUMBER OF UNITS PROPOSED: 44
LOT DEVELOPMENT REQUIREMENTS:
FRONT YARD SETBACK 25'
SIDE YARD SETBACK 10'
REAR YARD SETBACK 25'
MIN. LOTS SIZE 22,000 SQ. FT.

NUMBER OF PARKING SPACES: TWO PER UNIT = 88 SPACES.
PROPOSED STREETS SHALL BE PUBLIC AND BUILT TO THE CITY OF CHESTERFIELD STANDARDS.
STREET AREA = 4.7 ACRES
TOTAL TREE AREA = 15.2 ACRES
TOTAL TREE AREA REQUIRED TO BE RETAINED = 30% OR 4.56 ACRES
TOTAL TREE AREA RETAINED = 6.6 ACRES OR 43%
COMMON OPEN SPACE = 20.2 ACRES WHICH EQUALS 35% OF THE SITE.
COMMON GROUND = 0.30 ACRES WHICH EQUALS 0.6% OF THE SITE.
TOTAL COMMON GROUND = 20.5 ACRES WHICH EQUALS 35.6% OF THE SITE.
FLOOD MAP: FIRM NO. 29189C0139H DATED 08-02-95



PROJECT ZIP CODE: 63005

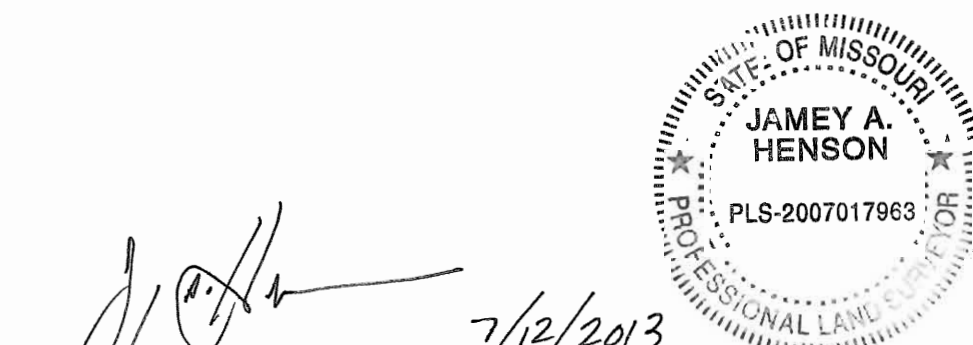
SHEET INDEX

- 1.1 COVER SHEET
- 2.1 PRELIMINARY PLAN

SURVEYORS CERTIFICATION

THIS IS TO CERTIFY THAT WE HAVE, DURING THE MONTH OF JANUARY, 2013, AT THE REQUEST OF ARBORS AT KEHRS MILL LLC, PREPARED A PRELIMINARY DEVELOPMENT PLAN OF "ARBORS AT KEHRS MILL", A TRACT OF LAND BEING ADJUSTED LOT 8 OF "ST. MARY'S/McGEE BOUNDARY ADJUSTMENT PLAT (P.B. 342, PG. 7) PART OF LOT 'D' OF "McKENNA PACLAND LAKE" (P.B. 187, PG. 70) AND PART OF FRACTIONAL SECTION 18 AND U.S. SURVEYS 124 AND 886, TOWNSHIP 45 NORTH, RANGES 3 AND 4 EAST OF THE FIFTH PRINCIPAL MERIDIAN, CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI. THIS PLAN IS NOT A SURVEY AND DOES NOT MEET THE "MISSOURI MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS" (10 CSR 30-2 AND 4 CSR 30-16 EFFECTIVE DATE DECEMBER 30, 1994).

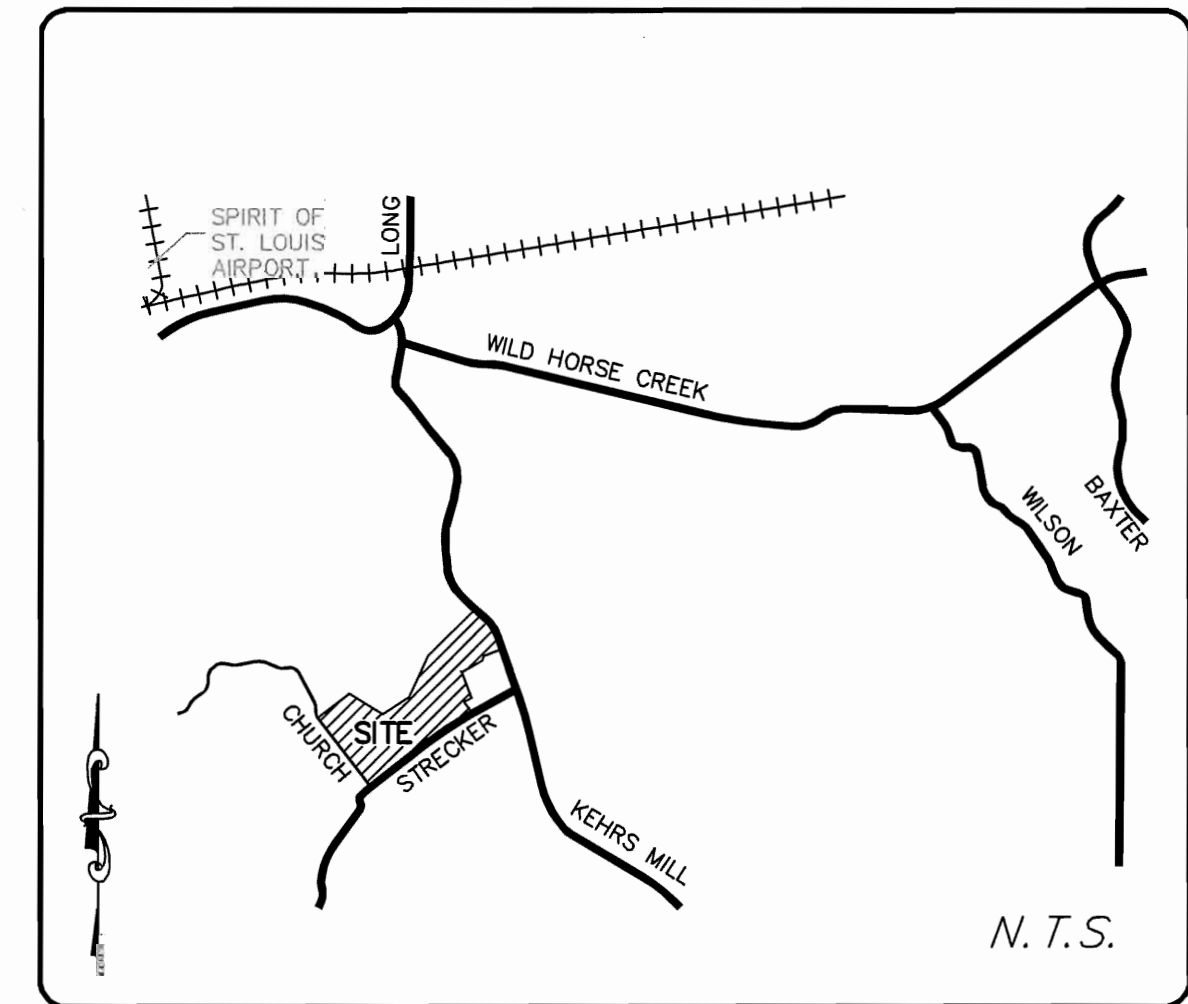
THE STERLING COMPANY



JAMES A. HENSON, PLS
MO. REG. PLS #2007017963

7/12/2013

MSD Base Map - 19U
MSD P #
Highway & Traffic #



LEGEND

EXISTING	PROPOSED
(-4.2)	(+4.2)
SPOT ELEVATIONS	SPOT ELEVATIONS
CENTER LINE	CENTER LINE
BUILDINGS, ETC.	BUILDINGS, ETC.
TREE LINE	TREE LINE
FENCE	FENCE
STORM SEWERS	STORM SEWERS
SANITARY SEWERS	SANITARY SEWERS
CATCH BASIN	CATCH BASIN
AREA INLET	AREA INLET
GRATED INLET	GRATED INLET
STORM MANHOLE	STORM MANHOLE
SANITARY MANHOLE	SANITARY MANHOLE
FLARED END SECTION	FLARED END SECTION
CLEANOUT	CLEANOUT
LATERAL CONNECTION	LATERAL CONNECTION
UTILITY OR POWER POLE	UTILITY OR POWER POLE
FIRE HYDRANT	FIRE HYDRANT
TEST HOLE	TEST HOLE
PAVEMENT	PAVEMENT
GAS MAIN & SIZE	GAS MAIN & SIZE
WATER MAIN & SIZE	WATER MAIN & SIZE
TELEPHONE	TELEPHONE
ELECTRIC (U) UNDERGROUND	ELECTRIC (U) UNDERGROUND
ELECTRIC (O) OVERHEAD	ELECTRIC (O) OVERHEAD
FLOW LINE	FLOW LINE
TO BE REMOVED	TO BE REMOVED
TOP OF CURB	TOP OF CURB
SWALE	SWALE
LIGHT STANDARD	LIGHT STANDARD
STREET SIGN	STREET SIGN
P.S. PARKING STALLS	P.S. PARKING STALLS
YARD LIGHT	YARD LIGHT
C.G. COMMON GROUND	C.G. COMMON GROUND
NO REFUSAL	NR

ISSUE	REMARKS/DATE	REVISIONS/CITY OF CHESTERFIELD COMMENTS
2		

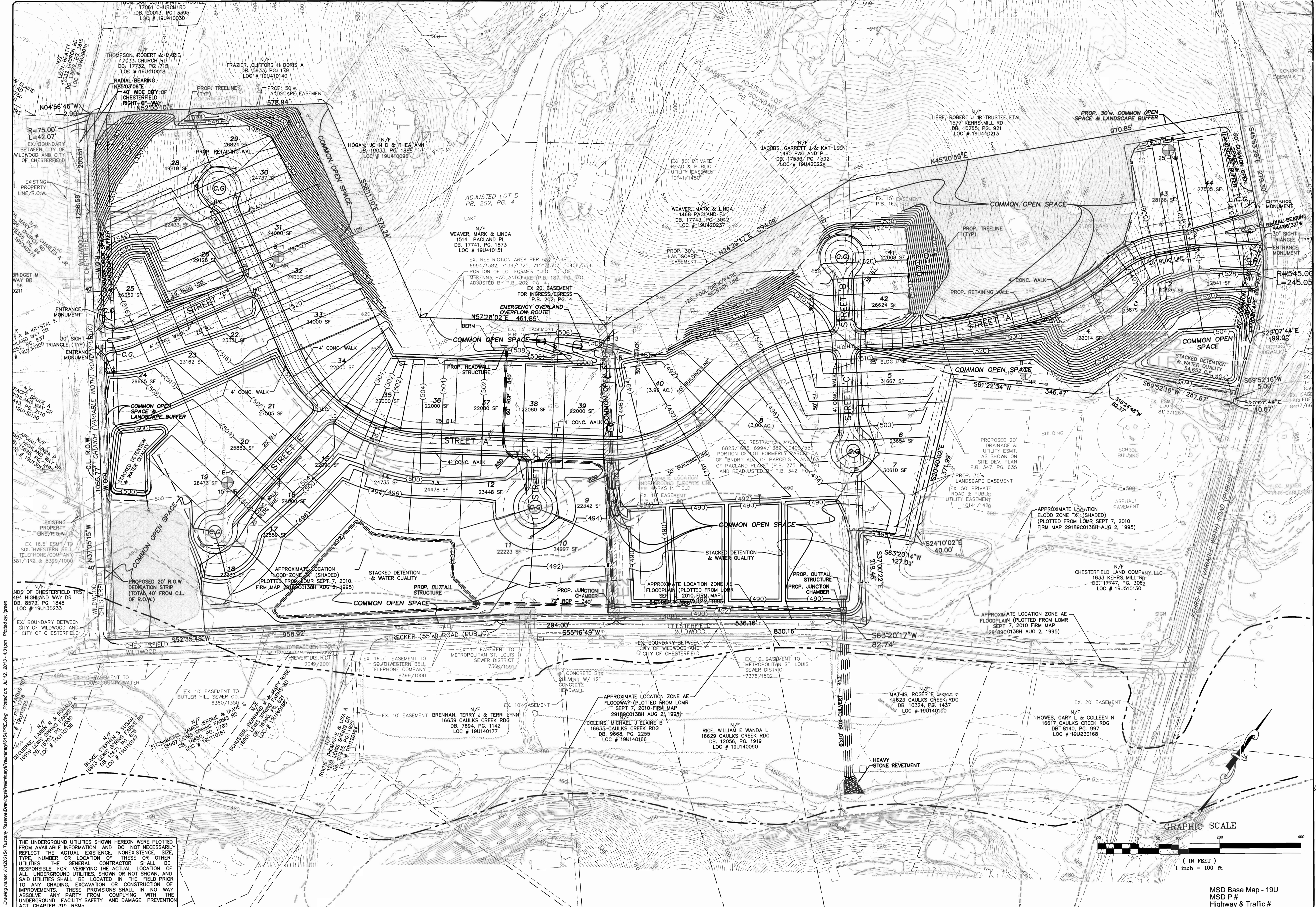
Arbors at Kehrs Mill LLC
5091 New Baumgartner Road
St. Louis, Missouri 63129
Ph: (314) 487-4677

THE STERLING CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph: (314) 487-4677
www.sterling-co.com
Corporate Certificate of Authority #001348

Arbors at Kehrs Mill
Chesterfield, Missouri
COVER SHEET

Date: 07-12-13
MICHAEL G. BOERDING
License No. MO E-28643
Civil Engineer

Job Number: 12-06-154
Date: 07-12-13
Designed: MF Sheet
Drawn: LG
Checked: PRE



THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID 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.

ISSUE	REMARKS/DATE
1	08/13-CITY OF CHESTERFIELD COMMENTS
2	7/8/13-CITY OF CHESTERFIELD COMMENTS

Arbors at Kehrs Mill LLC
 5091 New Baumgartner Road
 St. Louis, Missouri 63129
 Ph: (314) 487-6717

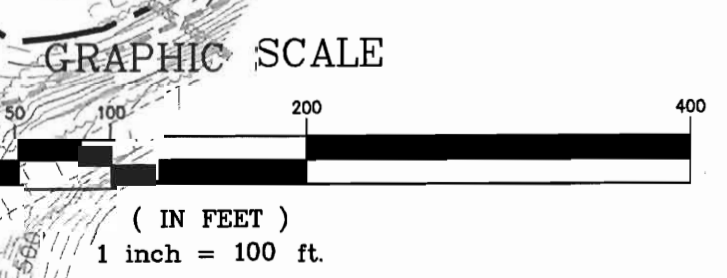
THE STERLING CO.
ENGINEERS & SURVEYORS
 5055 New Baumgartner Road
 St. Louis, Missouri 63129
 Ph: 314-487-0440 Fax: 314-487-8944
 www.sterling-eng-srv.com
 Corporate Certificate of Authority #001348

Arbors at Kehrs Mill
 Chesterfield, Missouri
 PRELIMINARY PLAN

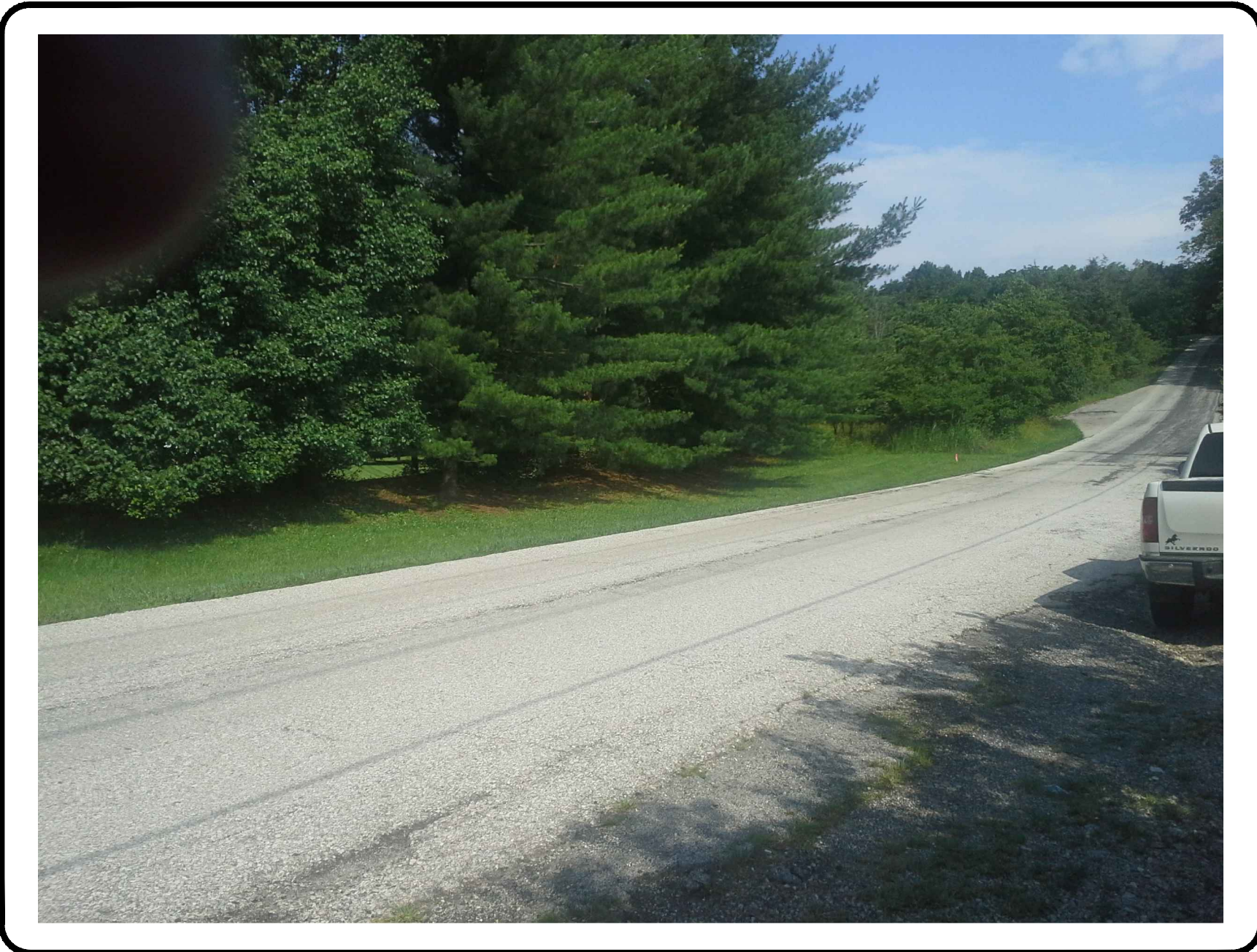
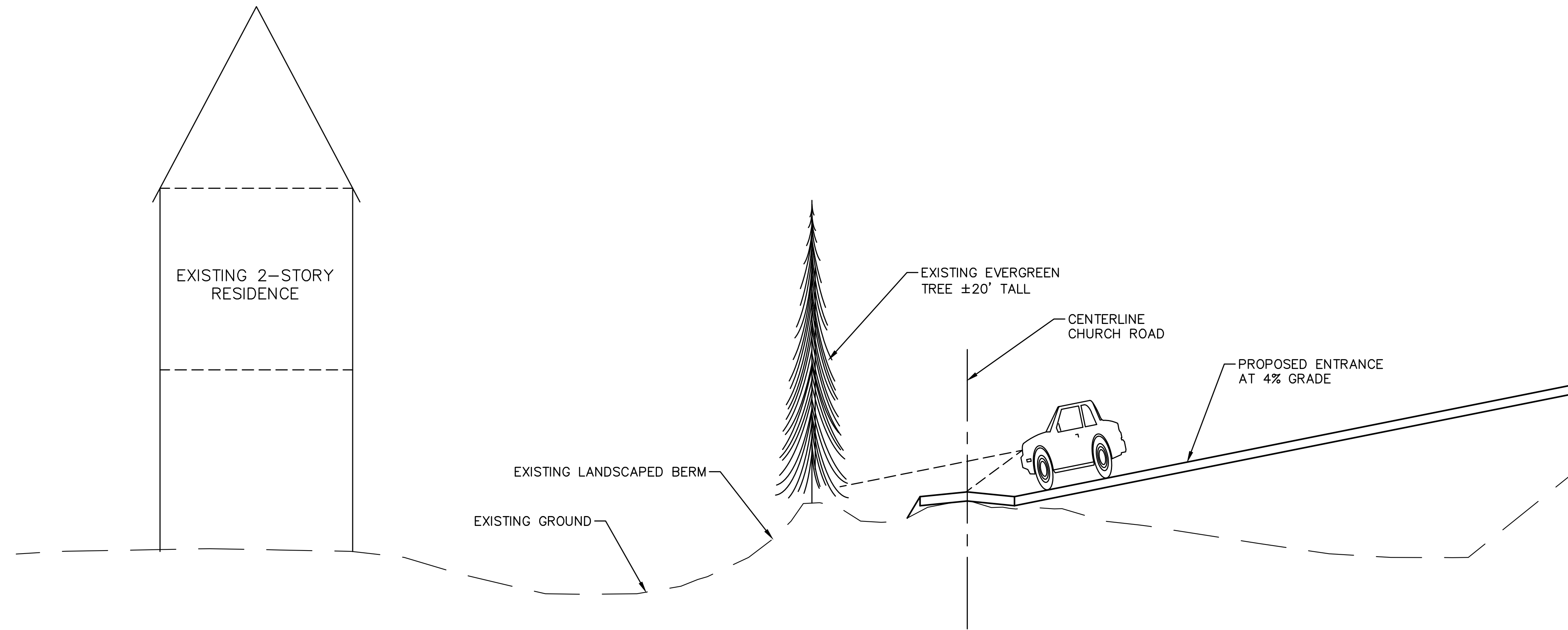
The Professional Engineer's seal and signature are required for the final approval of this drawing and shall remain on this sheet. All drawings, instruments or other documents not including the seal and signature shall not be considered prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such plans, drawings or documents not exhibiting this seal and signature.

Date: 07-12-13
 MICHAEL G. BOERDING
 License No. MO E-28643
 Civil Engineer

Job Number: 12-06-154
 Date: 07-12-13
 Designed: MF Sheet
 Drawn: LG 2.1
 Checked: PRE



MSD Base Map - 19U
 MSD P#
 Highway & Traffic #



Drawing name: V:\1206154_Tuscany Reserve\Drawings\Preliminary\6154PSE.dwg Plotted on: Jul 12, 2013 - 5:23pm Plotted by: jgmn

MSD Base Map - 19U
MSD P #
Highway & Traffic #

ISSUE	REMARKS/DATE
1	CITY OF CHESTERFIELD COMMENTS
2	CITY OF CHESTERFIELD COMMENTS

Arbors at Kehrs Mill LLC
5091 New Baumgartner Road
St. Louis, Missouri 63129
Ph. (314) 487-6717

THE STERLING CO.
ENGINEERS & SURVEYORS
5055 New Baumgartner Road
St. Louis, Missouri 63129
Ph. 314-487-0440 Fax 314-487-8944
www.sterling-eng-surr.com
Corporate Certificate of Authority #001348

Arbors at Kehrs Mill
Chesterfield, Missouri
ENTRANCE EXHIBIT

This Professional Engineer's seal and signature shall be placed on this sheet and shall apply only to the material and items shown on this sheet. All drawings, instruments or other documents not including this seal and signature shall not be considered as prepared by this engineer, and the engineer expressly disclaims any and all responsibility for such plans, drawings or documents not including this seal and signature.

Date: 07-12-13
MICHAEL G. BOERDING
License No. MO E-28643
Civil Engineer

Job Number	12-06-154
Date	07-12-13
Designed: MF	Sheet
Drawn: LG	3.1
Checked:	PRE

"ARBORS AT KEHRS MILL"

A TRACT OF LAND LYING PARTLY IN U.S. SURVEY 124, TOWNSHIP 45 NORTH - RANGE 3 EAST, AND TOWNSHIP 45 NORTH - RANGE 4 EAST, IN U.S. SURVEY 886 AND FRACTIONAL SECTION 18, TOWNSHIP 45 NORTH - RANGE 5 EAST, CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI

"Upland Forest" areas (Sample Points 1 & 2):

1. Acreage: 19.5 ac (1/2) total
2. Forest Type: "Upland Forest" - typical mature woods
3. Species: Oaks, primarily black and white oak plus other oak varieties, are the dominant tree species, with a much smaller number of hickory (shagbark and sugar). Other species include some persimmon, dogwood, and a few redbud, with an occasional sugar maple or black walnut.
4. Density: 112 trees per acre (based upon average of typical sample plots)
5. Average Diameter: 12.0" DBH average (based upon average of 2 - 50' x 50' typical sample areas)
6. Ave. overstory DBH: 16.2" DBH average (based upon 372 total DBH inches divided by 23 trees total from 2 sample points)
7. Dominate species: Approx. 90% of stand is oak
8. Understory: Sample Point #1: Understory trees include dogwood, redbud and some pawpaw, with an occasional cherry or sassafras. Shrubs include cornus and virginia creeper, with occasional areas of raspberry and multiflora rose. Groundcovers include large areas of May apple and ferns, and scattered areas of poison ivy, lichens and mosses, with other shade-tolerant herbaceous plants and wildflowers. Sample Point #2: All understory growth has been removed and areas under existing trees are now maintained in a park-like setting with mowed lawn areas.
9. Apparent health: Generally good, except that many of the large older trees along top of ridges have some deadwood and broken crowns.

"Bottomland Forest" area (NE corner of Church & Strecker)

1. Acreage: 1.7 ac (1/2) total
2. Forest Type: "Bottomland Forest" - generally the woods area in flood plain and along drainage ways.
3. Species: Silver maple appears to be the dominant tree species, followed closely by cottonwood and boxelder. Other common species include sycamore, ash and elm. There is also a group of bluffs.
4. Density: Estimated at about 90 trees per acre (generally more sparse than normal due to the nature of the area - previous cropland and pasture)
5. Average Diameter: Not calculated - this area is not typical forest area
6. Ave. overstory DBH: Approx. 50% of stand is silver maple, with 25% being cottonwood.
7. Dominate species: Trees include many small caliper boxelder, elm and maple.
8. Understory: None
9. Valuable stands: None
10. Apparent health: Fair

Monarch Trees

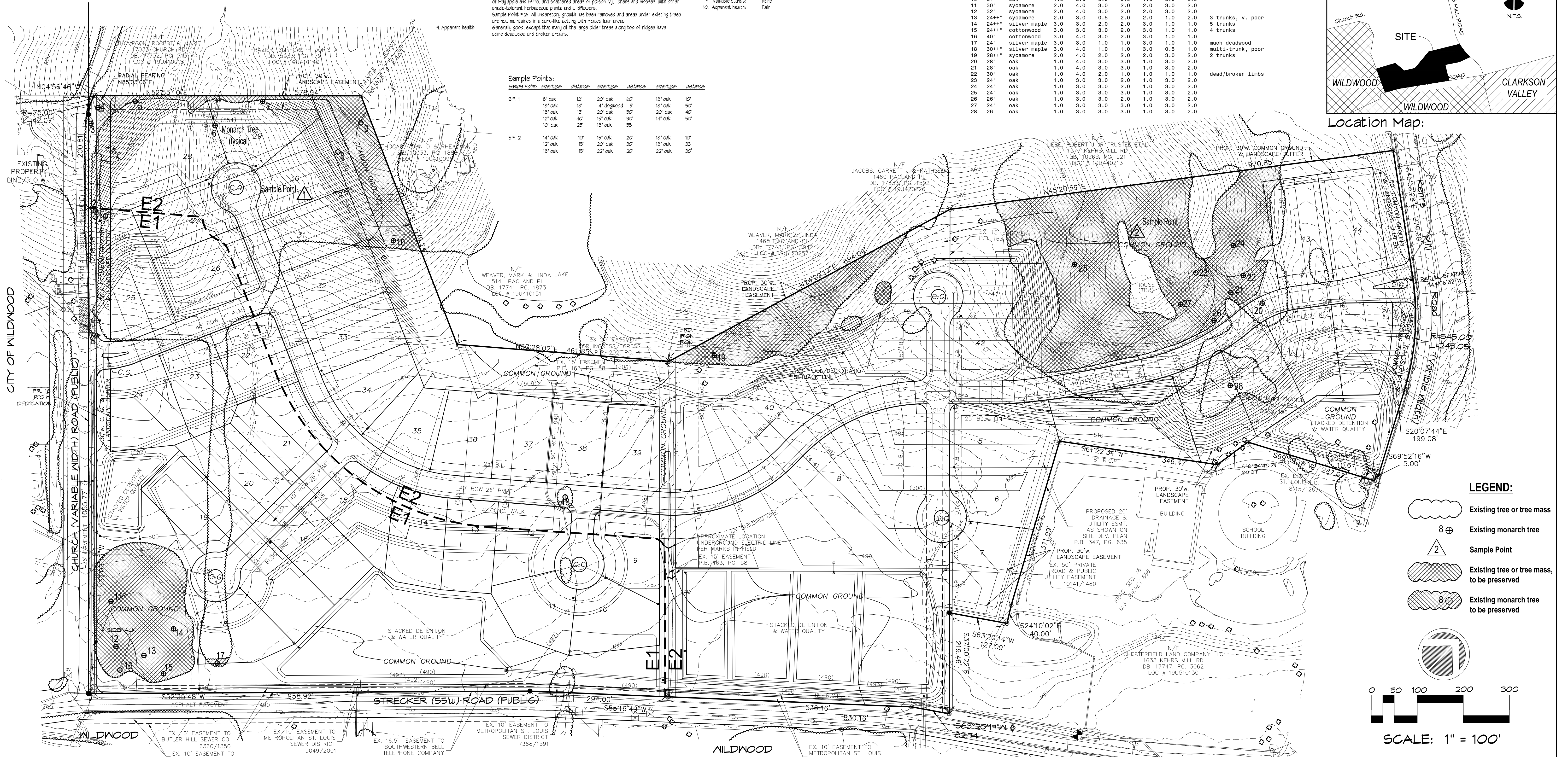
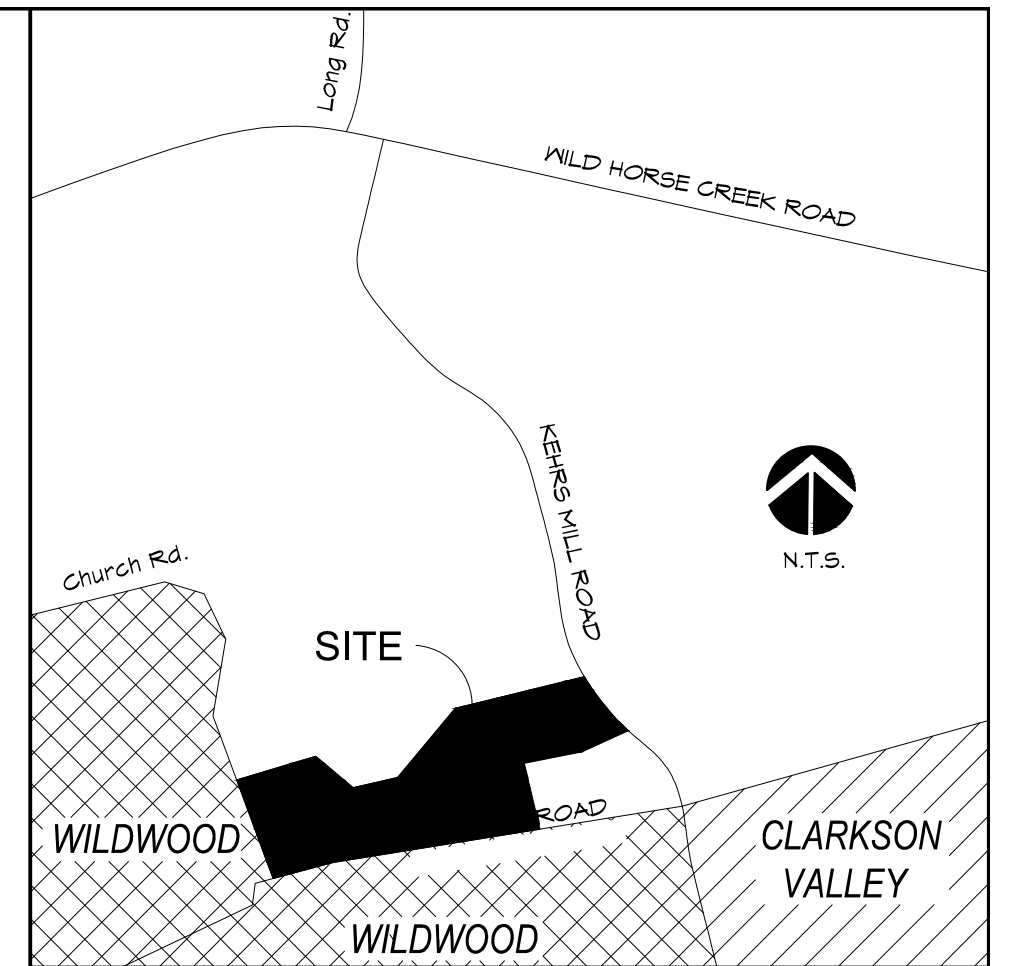
1 = Poor, 2 = Fair, 3 = Good, 4 = Excellent

No.	DBH	Type	Adapt.	DBH	Health	Canopy	Roots	Value	Other	Comments
1	28"	oak	1.0	4.0	3.0	3.0	1.0	3.0	2.0	
2	24"	oak	1.0	3.0	3.0	3.0	1.0	3.0	2.0	
3	24"	oak	1.0	3.0	3.0	3.0	1.0	3.0	2.0	
4	24"	oak	1.0	3.0	0.5	0.5	1.0	1.0	1.0	1/2 dead, crown v. poor
5	28"	oak	1.0	4.0	3.0	2.0	1.0	2.0	2.0	
6	24"	oak	1.0	3.0	3.0	2.5	1.0	3.0	2.0	
7	28"	oak	1.0	4.0	3.0	3.0	1.0	3.0	2.0	
8	24"	oak	1.0	3.0	3.0	2.0	1.0	2.0	2.0	
9	24"	oak	1.0	3.0	3.0	3.0	1.0	3.0	2.0	
10	24"	oak	1.0	3.0	3.0	3.0	1.0	3.0	2.0	
11	30"	sycamore	2.0	4.0	3.0	2.0	2.0	3.0	2.0	
12	32"	sycamore	2.0	4.0	3.0	2.0	2.0	3.0	2.0	
13	24++	sycamore	2.0	3.0	0.5	2.0	2.0	1.0	2.0	3 trunks, v. poor
14	24++	silver maple	3.0	3.0	2.0	2.0	3.0	1.0	1.0	5 trunks
15	24++	cottonwood	3.0	3.0	3.0	2.0	3.0	1.0	1.0	4 trunks
16	40"	cottonwood	3.0	4.0	3.0	2.0	3.0	1.0	1.0	
17	24"	silver maple	3.0	3.0	1.0	1.0	3.0	1.0	1.0	much deadwood
18	30++	silver maple	3.0	4.0	1.0	1.0	3.0	0.5	1.0	multi-trunk, poor
19	28++	sycamore	2.0	4.0	2.0	2.0	2.0	3.0	2.0	2 trunks
20	28"	oak	1.0	4.0	3.0	3.0	1.0	3.0	2.0	
21	28"	oak	1.0	4.0	3.0	3.0	1.0	3.0	2.0	
22	30"	oak	1.0	4.0	2.0	1.0	1.0	1.0	1.0	dead/broken limbs
23	24"	oak	1.0	3.0	3.0	2.0	1.0	3.0	2.0	
24	24"	oak	1.0	3.0	3.0	2.0	1.0	3.0	2.0	
25	24"	oak	1.0	3.0	3.0	3.0	1.0	3.0	2.0	
26	26"	oak	1.0	3.0	3.0	2.0	1.0	3.0	2.0	
27	24"	oak	1.0	3.0	3.0	3.0	1.0	3.0	2.0	
28	26"	oak	1.0	3.0	3.0	3.0	1.0	3.0	2.0	

Sample Points:

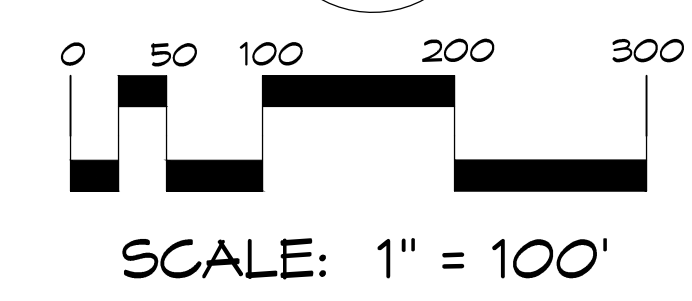
Sample Point	size/type	distance	size/type	distance	size/type	distance
S.P. 1	8' oak	12'	20' oak	60'	10' oak	10'
	18' oak	19'	4' dogwood	5'	18' oak	50'
	18' oak	19'	20' oak	50'	20' oak	40'
	12' oak	42'	19' oak	30'	14' oak	50'
	10' oak	25'	18' oak	95'		
S.P. 2	14' oak	10'	15' oak	20'	18' oak	10'
	12' oak	15'	20' oak	30'	18' oak	95'
	18' oak	15'	22' oak	20'	22' oak	30'

Location Map:



LEGEND:

- Existing tree or tree mass
- Existing monarch tree
- Sample Point
- Existing tree or tree mass, to be preserved
- Existing monarch tree to be preserved



Tree Stand Delineation Notes:

1. TSD study method: The Aerial Photography BAF 10 Study method of preparing the Tree Stand Delineation was used.
2. Aerial photo: Provided by the Starnom Map Company, Inc. Job no. 06-132K enclosure no. GDE 32-36, March 2004, scale 1" = 200'
3. Flood Plain: Flood plain is present along the Strecker Road frontage of the site, per FIRN Flood Insurance Rate Map, map number 26184C013B-N, with effective date of 8-25-05.
4. Vegetation types:
 - 19.5 ac. (1/2) Upland Forest area
 - 1.7 ac. (1/2) Bottomland Forest area
 - 19.2 ac. (1/2) total tree canopy area
5. Monarch trees (hardwood trees 24" DBH+) have been approximately located.
6. There were 2 Sample Points recorded, as shown on Plan and as described elsewhere.
7. Two distinct vegetation types were found, as follows:
 - a. Upland Forest (Sample Points 1 & 2)
 - b. Bottomland Forest (NE corner of Church & Strecker)
8. Other observations:
 - a. Most of site is open and has been used as farmland (pasture and/or crops).
 - b. As site has been cleared for farming, trees are generally, at the perimeter of field, open areas, in low drainage areas, and on slope areas (areas not suitable to farm).

Tree Preservation:

1. Size of Tract: 99.15 acres (1/2)
2. Development Proposed: 44 detached single family lots
3. Existing tree canopy: 19.2 acres (1/2)
4. Trees required to be retained: 4.6 acres (30% of existing tree canopy)
5. Total trees to be removed: 0.7 acres (1/2)
6. Total trees to be retained: 6.5 acres (Approx. 49% of existing tree canopy)

** Note that calculations are based upon available information and preliminary engineering. All calculations are subject to final engineering design being performed. Final plans may show more or less trees being saved. As a minimum, there shall be at least 30% of the existing trees retained.

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Arbors at Kehrs Mill

Tree Stand Delineation

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 LAND PLANNING
 LANDSCAPE ARCHITECTURE

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Drawn by: JRH	Checked by:	Project Number: 13002	Sheet Number: 1 OF 1
Date: 1-18-13			
Revisions: 1-21-13			