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#### **Planning Commission Staff Report**

Meeting Date: June 26, 2017

From: Jessica Henry, Senior Planner

Location: North side of Wild Horse Creek Road

Petition: P.Z. 03-2017 Fienup Farms (McBride & Sons): A request for a zoning map amendment from

an "E-1" Estate One-Acre District to a "PUD" Planned Unit Development for 223.02 acres located on the north side of Wild Horse Creek Road approximately 3,250 feet east of its intersection with Kehrs Mill Road and 4,400 feet west of its intersection with Baxter Road

(18U640049, 18U630028, 18U330454, 17U310093, 17U320070, & 17T110201).

#### **SUMMARY**

Wild Horse Residential, LLC, has submitted a request for a zoning map amendment from the "E-1" Estate One-Acre 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 "E" 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. 02-2017 concurrently with the "PUD" request. A Public hearing was held for these requests on April 10, 2017.



Figure 1: Subject Site Aerial

#### **"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 request meets this requirement. Further information is found in the Public Hearing section of this report.

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 subject properties included in the petition share a common legal ownership/interest.

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. Additionally, the Petitioner is aware that requirements and conditions exceeding the minimum requirements may be imposed.

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.

Next, the project is 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. 02-2017 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 draft ordinance for the PUD proposal requires a minimum of 30% common open space.

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

The Preliminary Plan includes a 30 foot perimeter buffer.

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. 02-2017 and the PUD purpose statement from the Unified Development Code is cited at the outset of this section.

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. Proposed inclusion of these design features within a "PUD" can increase the flexibility of design standards and the ability of the developer to negotiate the mitigation of other requirements." 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-ofways, 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.

#### **PUBLIC HEARING**

A Public Hearing was held on this Petition on April 10, 2017. There were two speakers at the meeting who spoke neutrally about the proposed zoning map amendment but noted concerns regarding potential traffic impacts and the nature of the proposed landscape buffers; these items are discussed in the Petitioner's response letter, which is included in the meeting packet.

Further, the Planning Commission requested that Staff provide additional information regarding several items. These items along with the requested information are addressed below.

1. Differentiation between Common Open Space and Common Ground with a PUD: The UDC defines these items in the following manner (<a href="http://ecode360.com/29485166">http://ecode360.com/29485166</a>):

<u>COMMON GROUND</u>: That land set aside for open space, including stormwater, retention lakes, ponding, or recreational use for the owners of lots in a subdivision, which land is conveyed in trust for the benefit, use, and enjoyment of the lot owners.

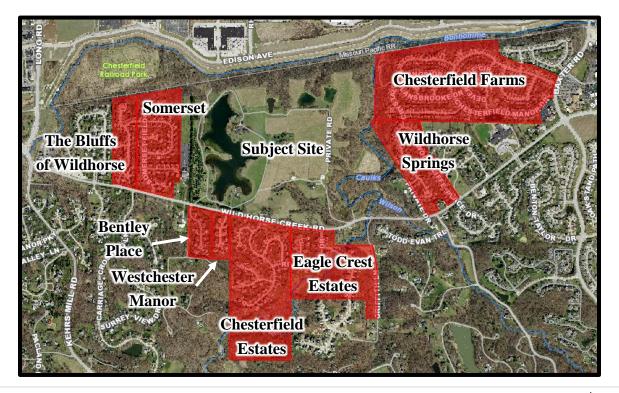
<u>COMMON OPEN SPACE</u>: A parcel or area of land or an area of water or a combination of both within the planned unit development (PUD) which is designed and intended for the use or enjoyment of the residents. This area may include stream corridors, agricultural lands, archeological sites or other elements to be protected from development as well as easements for public utilities. It also includes any improvements as are necessary and appropriate for the benefit and enjoyment of the residents or land owners. Common open space does not include any portion of an improved lot dedicated to buildings or vehicular navigation.

Based on these definitions, Common Open Space is the City's term that is specific to the PUD District and sets a higher standard for land set apart for the use and enjoyment of the residents of a PUD development. In this case, the Petitioner has noted that that 122.6 acres of common ground will be established and conveyed in the subdivision indentures; of this, 107.3 acres meets the stricter definition of common open space. The UDC requires that a minimum of 30% common open space be provided for a PUD; however, the petitioner is proposing to provide 48.1% common open space. When common ground is also considered, 54.9% of the total land area is being preserved.

#### 2. Surrounding lot sizes:

The Petitioner is requesting the "PUD" Planned Unit Development designation for 223.02 acres to develop 223 single-family detached dwelling units on lots which range in size from 9,400 square feet to 42,209 square feet in size. As shown in the table below, the proposed lot size is consistent with that of surrounding developments on the north side of Wild Horse Creek Road. Developments on the south side of Wild Horse Creek Road have a larger minimum lot size, which is typical of subdivisions located westward on Wild Horse Creek Road. However, in terms of density, the proposed development is less dense than all surrounding developments, with the exception of Eagle Crest Estates. The proposed development is able to maintain the 1:1 lot to acre ratio while proposing a relatively small minimum lot size due the large amount—54.9%—of the overall land area that is being dedicated as common ground. Stated in other terms, the private yard area on some lots is reduced in favor of devoting land to community amenities and preserving natural areas.

Development	Lots	Acres	Minimum Lot Size (Square Feet)	Density (Lots per Acre)
Somerset	79	39.47	12,000	2.0
The Bluffs of Wildhorse	45	18.7	10,000	2.4
Wildhorse Springs	36	19.1	12,000	1.88
Chesterfield Farms	366	147.9	7,320	2.47
Eagle Crest Estates	37	47.11	20,000	0.78
Chesterfield Estates	76	65.3	15,000	1.16
Westchester Manor	10	7.49	25,002	1.33
Bentley Place	12	10.53	28,000	1.13
Fienup Farms (proposed)	223	223.02	9,400	1.0



# 3. Provide revised calculations on the density considering the removal of the three smaller parcels from the request:

Three subject site consists of three large tracts and three smaller tracts located on the north side of the railroad tracks. During the Public Hearing, these three smaller parcels were pointed out as not meeting the four contiguous acres requirement which made them not eligible for inclusion in the PUD zoning request.

Following the Public Hearing, the Petitioner researched these three parcels and submitted an opinion indicating that intermediate railway property separating the three parcels from the larger tract is actually "owned in right-of-way" and has been since the property was conveyed to the railroad in 1890. This is significant because legal precedent precludes right-of-way from interrupting the contiguity of ownership and all benefits of ownership except those expressly granted through the right-of-way interest. The City Attorney has reviewed this information and has concurred with the Petitioner's findings on this matter. Therefore, these parcels are eligible for the PUD District designation and remain in the request.

#### 4. Provide information regarding traffic impacts of the development:

The Petitioner is aware that a Traffic Impact Study will be required during the Site Development Plan review phase of development. The Attachment A drafted for this request also reflects that requirement. The Petitioner has also engaged a professional traffic engineering consulting firm and provided a high-level feasibility analysis indicating that Wild Horse Creek Road has the capacity to serve the development and that required road improvements would be determined in conjunction with the Traffic Impact Study. Additionally, Staff has participated in an initial scoping meeting with the St. Louis County Department of Transportation and the Petitioner's traffic consultant which served as a preliminary discussion of the expectations and parameters of the anticipated Traffic Impact Study. This is typical of information provided regarding traffic at the zoning phase of development, and the Traffic Impact Study would be fully reviewed by the City and St. Louis County Department of Transportation before the Site Development Plan is brought to the Planning Commission for action.

#### PRELIMINARY PLAN

As required for a "PUD" Planned Unit Development, a Preliminary Plan is included for your review. As shown on the Preliminary Plan, the applicant is proposing a total of 223 lots which are broken down into five different lot types: A, B, C, D, and E. Two primary access points from Wild Horse Creek Road are proposed to serve the development and a third gated emergency-only access is also proposed. As noted in the Petitioner's Narrative Statement, attached for the Planning Commission's consideration, the 26 acre lake on the property will be preserved. The narrative also includes information regarding the design features proposed to justify the PUD request.

#### **ADDITIONAL INFORMATION**

For additional information on the site history, surrounding land uses, and Comprehensive Plan land use designation, please refer to the Staff Report for P.Z. 02-2017, which was submitted in conjunction with this request as part of a two-step zoning process in order to obtain entitlements to develop this tract of land as a single-family residential subdivision.

#### **REQUEST**

Staff has completed review of this petition and all agency comments have been received. Staff requests action on P.Z. 03-2017 Fienup Farms (McBride & Sons).

Respectfully submitted,

Jessica Henry, AICP Senior Planner

Attachments

- 1. Petitioner's Response Letter
- 2. Project Narrative
- 3. Attachment A
- 4. Preliminary Plan Packet

cc: Justin Wyse, Director of Planning and Development Services

# Wild Horse Residential, LLC

16091 Swingley Ridge Road, Suite 300 Chesterfield, MO 63017 (636) 537-2000 Fax: (636) 537-2546

May 22, 2017

Jessica Henry, Senior Planner Senior Planner City of Chesterfield 690 Chesterfield Parkway W Chesterfield, Missouri 63017 jhenry@chesterfield.mo.us

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Department of Public Services

Re: Fienup Farms/P.Z. 03-2017

Dear Ms. Henry:

This letter is in response to your letter dated April 28, 2017 regarding the Fienup Farms project. This response is submitted on behalf of McBride & Son Homes and JHB Properties, Inc., acting together as Wild Horse Residential, LLC (referred to jointly herein as "McBride"). The numbers below correspond to the items in your letter.

#### Comments from the Public Hearing:

- 1. <u>Provide a response to the City's April 4. 2017 Correspondence</u>: Pursuant to the City's correspondence dated May 12, 2017, the three parcels in question are now deemed to be contiguous to the larger tract and, therefore, this is no longer an issue.
- 2. Plantings in Buffer Areas: McBride will continue to work with the City and the project's landscape architect on plant selection. Natives are not intended for this project's buffer areas, but they may be used in less visible areas in conjunction with MSD storm water requirements. The revised Landscape Plan enclosed herewith for the City's review.
- 3. Future Maintenance of the Amenities: As with all of McBride's residential developments, a homeowners association ("HOA") will be formed to manage the Fienup Farms subdivision pursuant to a recorded Declaration of Covenants, Conditions and Restrictions ("CCRs"). McBride will ensure that a proper capitalization rate and assessment structure is contained in the CCRs, prior to the first closing of a residential lot, to adequately enable the HOA to maintain the development's amenities. The CCRs will also include specific requirements for amenity maintenance. McBride will also retain an independent third-party property management company to analyze the amenities included in Fienup Farms to determine whether the CCRs call for appropriate assessment

amounts for the HOA to maintain the amenities in perpetuity and build an adequate reserve for such maintenance purposes.

- 4. Access to Adjacent Properties Not Included in the Project: The "Navarro" parcel, which is adjacent to the site and located at the northwest corner of the project, will be provided full access from Wildhorse Creek Road via a driveway, as depicted on the Fienup Farms Preliminary Development Plan. The 2 parcels located along Wildhorse Creek Road along the project's southern boundary and which are not incorporated into this project, will remain accessible from Wildhorse Creek Road. Fienup Farms will provide for future alignment and dedicate right-of-way for the realignment of the project's east entrance across the 2 Wildhorse Creek Road parcels to align with Riverdale Drive at such time as those 2 parcels are developed.
- 5. <u>Traffic</u>: CBB is already evaluating this project's potential traffic impacts and coordinating discussions with St. Louis County. A traffic study has been commenced and will be submitted to the City no later than the Site Development Plan phase of this project.
- 6. Monument Signs: McBride intends to construct 4 monument signs (2 larger signs at the western entrance and 2 smaller signs at the eastern entrance) as part of the Fienup Farms development, but we have not yet finalized the design of such signs. However, McBride intends to design the monument signs in a manner that will complement the character of Wildhorse Creek Road and will be similar in size and design to those recently constructed in the Arbors at Wildhorse Creek and the Arbors at Kehrs Mill subdivisions. Enclosed herewith you will find photographs of the types of monument signs McBride is considering for Fienup Farms.
- 7. Exterior Building Materials: Each of the luxury single-family homes to be constructed at Fienup Farms by McBride, and the other well-known area homebuilders, will consist of brick, stone elements, and/or hardie board siding, and architectural shingles. These luxurious homes will also offer 2 to 4 car garages with both side and front-entry options available.
- 8. <u>Trail Connection</u>: While McBride explored connecting Fienup Farms to the City's trail system to the north of the project site, our consulting engineer has concluded that such a connection is not feasible. A connection at this point is not feasible due to topographic constraints (approximately 70' elevation difference in 220'), the location of the railroad crossing, and the location of Bonhomme Creek. The "clear zone" for the railroad and the elevation changes significantly impact any possible connection. However, McBride is amenable to dedicating some ground to the City if the City believes it might want to pursue such a connection in the future.
- 9. <u>Differentiation Between Common Ground and Common Open Space</u>: In accordance with our understanding of how the City interprets and applies the definitions contained in

the Unified Development Code, the Fienup Farms revised Preliminary Development Plan accurately reflects 52.7 acres of "common ground" (which permits the construction of amenities) or 23.5% of the project site and 69.9 acres of "common open space" (does not permit any vertical construction including signage) or 31.3% of the development. Therefore, Fienup Farms contains a combined 54.8% of open space and common ground, including Fienup Lake, making less than half the site developed lots, which is a tremendous attribute of this project plan.

#### Comments to the Preliminary Development Plan:

- 1. <u>Natural Watercourse Protection Requirements:</u> The top of the bank and natural watercourse protection areas have been depicted on the plan for Caulks Creek and Bonhomme Creek. There is no defined watercourse downstream of the lake, thus there is no protection area to show on the plan. Please also note that there is no anticipated disturbance in this area.
- 2. Special Flood Hazard Areas: The limits of all Special Flood Hazard Areas have been added to the plan.
- 3. <u>Internal Right-of-Way and Sidewalks:</u> The Preliminary Development Plan has been modified to reflect 40' wide right-of-ways with a 5' wide sidewalk, maintenance, utility, and roadway widening easement on either side. The building lines have been increased to 25'.
- 4. <u>Sidewalks Along Wildhorse Creek Road:</u> A 5' wide sidewalk has been added to the plan along the Wildhorse Creek Road frontage. This sidewalk will be located on private property within a 6' wide sidewalk, maintenance, and utility easement.
- 5. Pavement and Island Widths: A typical roadway section depicting the pavement and island width for "Street A" has been added to Preliminary Development Plan Sheet 1.2.
- 6. <u>"Street A" Sidewalks:</u> The sidewalk width on both sides of "Street A" has been increased to 5' on the plan.
- 7. <u>Stormwater Control Easement:</u> A minimum of a 20' wide Stormwater Control Easement will be provided for access to all detention/water quality basins located in the Fienup Farms development.
- 8. <u>Trail Connection:</u> See McBride's response to Item Number 8 above, which is the "Comments from the Public Hearing" section of this letter.
- 9. Trail Materials: The trail proposed for Fienup Farms will be asphalt.

#### Advisory Comments:

- 1. Special Flood Hazard Areas: McBride will comply with the City and MSD's floodplain requirements.
- 2. Stormwater Discharge: This project's stormwater discharge points will comply with the City and MSD's requirements.
- 3. Retaining Walls: This project's retaining walls will be constructed in common ground or in easements to be maintained by the HOA, as appropriate for their location.
- 4. Stormwater Control Easements: All required stormwater control easements will be provided.
- 5. Tree Preservation: McBride respectfully requests that the City include a 60% minimum tree preservation requirement in "Ordinance Attachment A" because this will be a safer estimate and account for any minor variances that may arise in actual field conditions.
- 6. Amendment to Architectural Standards: McBride understands that if the proposed Development Requirements and Design Standards for Residential Architecture are adopted by the City, it will be required to extend the primary building material, brick or siding as applicable, so that no more than 12 inches of concrete wall is exposed above grade.

We hope that this letter and the enclosed revised Preliminary Development Plan, Landscape Plan, and monument sign photographs are responsive to all of your questions. We are hoping that Fienup Farms can be discussed at the June 12, 2017 meeting of the Planning Commission. In the meantime, please do not hesitate to call me should you have any questions or comments about this submittal.

> Very Truly Yours, Wild Horse Residential, LLC

Katherine R. Moore

Enclosures

Justin Wyse at jwyse@chesterfield.mo.us cc:

#### FIENUP FARMS ZONING NARRATIVE STATEMENT

#### a. General Description of the Proposal:

The employee owners of McBride & Son Homes, along with JHB Properties, Inc., acting together as Wild Horse Residential, LLC, (referred to jointly herein as "McBride") are proud to have the opportunity to unveil their newest project to the City of Chesterfield, Fienup Farms. McBride is proposing to develop 223 acres of property along Wild Horse Creek Road and is requesting an E-1AC PUD zoning, from NU zoning, in order to permit the development. The project consists of 223 residential home sites on 223 acres, which is a one house per acre density. Open space, trails, docks, a playground, tot lots, large lake and other recreational amenities are dispersed throughout the development. McBride and other builders will be constructing their luxury home product lines on the property, most of which will feature enhanced architectural features and luxury finishes. McBride researched the densities, site development characteristics and architectural elements of the homes in surrounding subdivisions in order to create a project that is compatible with the surrounding communities. In addition, McBride has made every effort to preserve the many existing natural resources located on the site, most importantly the preservation of the 26-acre lake that currently exists on the property. Councilmembers Dan Hurt and Tom DeCampi organized two meetings with the trustees of the surrounding subdivisions, where McBride was able to introduce them to this project. The trustees are pleased with how McBride addressed their concerns and the changes incorporated into the plan that McBride is submitting to the City. This project meets and exceeds all of the City's relevant PUD requirements.

#### b. List of requested uses:

McBride is requesting single-family detached residential use for the entire site. The site will also contain common ground (including common ground amenities) and public streets.

# c. Proposed Land Uses and development standards, density and height limitations, yard requirements (compatible with nearby uses and Comprehensive Plan):

McBride is requesting a single-family detached residential land use for the site. The development standards are noted throughout this application and identified on the plan. The proposed density is one dwelling per one-acre, as the plan includes 223 lots on 223 acres. The site is surrounded by residential land uses and the plan is compatible with those uses.

Maximum building height will be less than fifty feet which is consistent with the E-1AC district.

The minimum front yard setback will be twenty-five feet (25'). The minimum rear yard setback will be fifteen feet (15'), and the minimum side yard setback will be varied from six feet (6') to eight feet (8'), dependent upon the size of the lot.

The project is consistent with the City's Comprehensive Plan and is expressly consistent with the following Comprehensive Plan Policies:

- 2.1.1 Conservation of Existing Quality of Life Preserve and enhance the quality of life in Chesterfield as exemplified by its existing neighborhoods and the development that now exists.
- 2.1.5 Provide Buffer for Existing Residential Development New higher density residential development and non-residential development adjacent to existing residential subdivisions should provide for a substantial landscape buffer and landscaped area between the uses so as not to alter the conditions and environment of existing residential neighborhoods.
- 2.1.12 Residential Subdivision Access Residential developments should have more than one (1) access route into and out of the development site or subdivision in order to provide adequate service ability to emergency vehicles...
- 2.1.6 Reinforce Existing Residential Development Pattern New residential development should reinforce existing residential neighborhood patterns by continuing to enforce high quality site and subdivision design, layout, and planning practices.
- 2.1.9 Encourage Planned Residential Development Planned residential developments that allow for innovative and flexible site planning, preservation of open space, and a variety of housing opportunities should be encouraged.
- 2.1.10 Encourage Diversity in Housing Opportunities Encourage a range of housing opportunities within the City of Chesterfield.
- 7.2 Multi-Modal Transportation Design Sites should be designed for all types of transportation choices including pedestrian, bicycle, mass transit, and vehicular. Sites should be designed to provide for pedestrian, bicycle, mass transit, and vehicular interconnectivity to adjacent sites.
- 10.1 Open Space Preservation and Creation Open space plays a major role in
  making the City a more desirable place to live. Preservation of open space and
  expansion of city parks and recreation opportunities should be encouraged. Public
  and private places should include design elements and features that create and add
  to the desirability of individual developments and the City of Chesterfield.
- 10.1.2 Encourage Clustering within Planned Environmental Units Planned developments that cluster new construction while preserving natural features and open space should be encouraged by the City of Chesterfield.

- 10.1.3 Landscape Buffers Landscape buffers should be provided between dissimilar uses or uses that adjoin arterial roadways for the creation of an uncluttered appearance.
- 10.2 Preservation of Natural Features and Open Space Preservation of the
  existing natural features, vegetation, open spaces and stream valleys in
  Chesterfield should be encouraged to maintain a suburban and rural character for
  portions of Chesterfield. The land to be preserved should be coordinated with an
  open space plan.

#### d. List of Permitted uses for each tract:

As stated above, McBride is requesting a single-family detached residential land use for the entire site.

#### e. Exceptions or variations from the requirement of the Zoning Ordinance:

Pursuant to the City's Zoning Code, the purpose of a PUD is to encourage flexibility in the application of the density requirements and development standards contained in the Zoning Ordinance. The proposed lots for Fienup Farms will be smaller than one-acre in size; however, all of the lots will exceed 9,400 square feet, which is consistent with the surrounding communities. It should be noted that some surrounding communities have lot sizes that are less than 9,400 square feet, even as small as 7,321 square feet in size. The lot sizes planned for this project allow for the inclusion of more common ground and amenities within the development, along with the preservation of the property's existing natural features. The plan includes minimum setbacks that allow for clustering in order to preserve the 26-acre lake, which is encouraged by the City's Comprehensive Plan. In addition, the proposed setbacks create more interspersed recreational opportunities within the project and provide for more concentrated open space.

In addition, the plan for Fienup Farms was designed with internal right-of-ways measuring 40 feet wide, which does not meet the strict application of the City Code (Exception: Street A will have 60-foot wide right-of-way). However, this modification is in-line with the intent of PUD zoning because it will also permit McBride the opportunity to incorporate more open space into the plan, better concentrate the project's green space, and exceed the City's standards with regard to undisturbed land and tree preservation. The 40-foot right-of-way will have the same functionality as the 50-foot right-of-way required by the City Code, but will carry less of an environmental impact, which is in-line with the purposes and expectations of PUD zoning.

# f. Table Showing Number of Acres in the proposed development and each proposed land use including public facilities:

This site contains 223 acres and will be entirely devoted to residential land use. The public streets will consist of 44 acres. Fienup Lake is 26 acres in size, and the property also features an additional ½ acre pond and 1 acre pond on-site.

# g. Proposed dedication or reservation of land for public use, including streets and easements.

The project includes 44 acres of public streets and all of the necessary utility easements. Additionally, McBride is planning on a 15-foot dedication strip along Wildhorse Creek Road.

# h. Plans for parking, loading, access ways, and means of protecting adjacent areas from lighting and other potential, adverse effects.

The site design features two access points along Wild Horse Creek Road, along with the new internal streets discussed above, that will provide proper access for this new residential development.

#### i. Phases for Construction:

McBride anticipates that the entire site will be developed in two phases. Phase 1 of site development is anticipated to begin in the Spring of 2018 and forecasted for completion during the Fall of 2018. Phase 2 of site development is predicted to begin in the Summer of 2019 and continue through the Spring of 2020. The foregoing phasing plan is McBride's best estimate at this time and is subject to market conditions.

#### j. Landscaping and Tree Preservation:

McBride is proposing to preserve 70% of the existing trees located on the site, which is more than double the City's 30% tree preservation requirement. The preservation of these trees will be an important characteristic of the overall community and is also identified by the City's Zoning Code as a key design feature for PUD projects.

In addition to the planned tree preservation, McBride intends to preserve Fienup Lake and install extensive landscaping throughout the community. McBride is proposing enhanced landscape buffers along the perimeters of the development, including Wildhorse Creek Road. Existing trees and vegetation along the perimeter will also be retained. The planned buffer is to be 30 feet wide along the Eastern and Western portions of the site and will include a walking trail providing pedestrian connectivity to the sidewalks and interior recreational amenities and greenways. The buffer area along the Northern property line is a minimum of 65 feet in width, which includes the required perimeter landscape buffer and common open space. The perimeter landscape buffer

along the Southern boundary of the site also exceeds the City's standards. All of the foregoing buffer areas are located on common open space and not located within any lots.

Furthermore, the Zoning Code requires 30% of the total site acreage to be kept as open space, and the Fienup Farms plan slightly exceeds this goal by including 31.5% of open space as a key feature of this project.

The Zoning Code also requires not less than 70% of all areas exceeding a 30% slope be protected and remain undisturbed. This project meets this standard, because the plan provides that 85% of all such areas will remain undisturbed.

#### k. Character of and rationale for the PUD:

The City's zoning code states that the purpose of a 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 development; 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. Therefore, McBride had three primary considerations when it designed this project.

First, McBride wanted the project to compliment the existing communities in the area. After a careful study of the surrounding area and conducting 2 meetings with the Trustees of neighboring subdivisions, McBride determined that one-acre density was desired by the neighboring property owners. While the one-acre density does not yield as many homes for McBride, it was important to neighboring property owners that one-acre density be maintained (note - many communities in the area exceed 1-acre density), so McBride designed the plan with 1-acre density. The City's Zoning Code identifies compatibility with surrounding land uses and the Comprehensive Plan as a "general consideration" for the PUD, and the proposed E-1AC PUD zoning is consistent and compatible with the communities in the vicinity of the project.

Some of the neighboring subdivisions are zoned R-1 PEU, which is the same density and the same type of zoning as the Fienup Farms project. And, since the City's Comprehensive Plan appears to classify this area as "One Acre Residential Development," this proposal is entirely consistent with the Comprehensive Plan.

Second, the site contains many beautiful natural features and McBride is seeking to preserve many of these features. These natural features will enhance the desirability of the location which contributes to the sustainability of the community. The environmental benefits of preserving these natural resources are numerous. The natural vegetation will cleanse and filter storm water and recharge the groundwater, and the lake preservation provides aesthetic, functional, and recreational benefits for the project and its future residents. The preservation of the trees along Wild Horse Creek Road will preserve the natural sightlines along the road and provide a nice buffer for the community. The current view of the property from Wild Horse Creek Road will remain largely unchanged by the new Fienup Farms development. In addition to the many environmental benefits,

these features serve to provide residents with an identity to their community, which will further promote sustainability, outdoor recreation, and social opportunities. Preservation of natural features is also a design feature required by the City's Zoning Code.

Finally, McBride wanted to design the Fienup Farms community to be worthy of its luxurious product lines. McBride and other builders will be offering homes with many upgraded architectural and interior features at this site. McBride is also designing unique amenities and features (described below) to help to create a country estate inspired community for McBride's future residents. These features and amenities are consistent with the City's Zoning Code which identifies the creation of open space through passive recreation areas as a design feature to be included in PUD projects.

PUD zoning is necessary for the Fienup Farms project in order to allow for flexibility in some of the design standards in the E-1AC zoning category while preserving many of the natural features of the site. Most notably, the lots sizes will be less than one-acre; however, the lot sizes will all exceed 9,000 square feet. The overall density of the site is actually one-acre density because the project consists of only 223 lots on 223 acres.

The PUD section of the City's Zoning Code states that maintaining existing topography, soils and vegetation is a design feature for PUD developments. As shown on the Fienup Farms plan, McBride anticipates that nearly 43% of the site will be left in its natural state. These natural areas will not be graded and natural slopes and vegetation will remain in tact.

The design and construction of homes with an architectural vernacular that exceeds the typical building designs is also noted as a design feature in the PUD section of the City's Zoning Code. This design feature is achieved by offering McBride's and other builders' luxury housing products on this site. McBride believes that the proposed variety of home products to be offered (ranging from \$500,000.00 to \$1,750,000.00+) will be marketable and help keep area real estate values high. Brick and stone elements are included on most of the elevations, two and three car garage options will be offered, and each home will have a fully sodded yard and landscaping package.

The City's Zoning Code identifies environmentally conscious building techniques as a design feature of the PUD. McBride is committed to this concept as well. McBride is proposing to offer several sustainable and environmentally conscious options in its homes, including: energy efficient appliances, low-e windows, low-flow toilets, low-flow faucets and high efficiency HVAC systems. McBride is also utilizing many water quality features as part of the site design.

#### l. Description of Amenities or Recreational Facilities:

McBride is excited to present the comprehensive and unique amenities package planned for the Fienup Farms development, as described herein. The highlight of this project is the preservation of Fienup Lake and the peninsula located thereon, which will feature 2 large fountains, fishing docks, a boat dock for paddleboat usage, and be surrounded by a

trail located in common ground that will have a connection to both the development's internal sidewalks and to Wildhorse Creek Road. Furthermore, Fienup Farms will boast 3 pavilions with seating and barbeque pits, pickle ball courts, a fire pit with seating area, restroom facilities, 2 tot lots, and 1 larger playground facility. Another unique amenity planned for this project is the community garden proposed to be located on the West side of Fienup Lake. The community garden amenity will also feature an adjacent building with locker facilities for the storage of gardening tools. McBride designed each of these amenities with a focus on the lake, but to also disperse the amenities throughout the development to make them, along with the various common ground areas, easily accessible to all residents. All of the common areas, amenities and landscape buffers will be maintained by the homeowners' association.

All of the project's amenities and recreational areas will be connected by the trail and/or internal sidewalk system, both of which will connect to Wildhorse Creek Road. This interconnectivity will allow every future homeowner to easily walk to each recreational area within the project.

McBride is also planning to construct two entrances to the Fienup Farms development. This plan exceeds to 30-foot wide landscape buffer required along Wildhorse Creek Road, which will create an impressive sense of arrival to the community, to include an upscale lighted monument sign. This entrance will compliment the other community entrances in this area and have a cohesive design. Also, the enhanced landscaping, deeper buffers and plantings along Wildhorse Creek Road are compliant with the design features contained in the PUD section of the City's Zoning Code.

#### m. Description of any Lands to be Dedicated for Public Facilities:

See Section "g" above.

#### n. Phasing:

See Section "i" above.

#### o. Phasing and time schedule for Lands to be Dedicated for Public Facilities:

McBride anticipates that the lands to be dedicated for public facilities anticipated for this project will be developed in two phases, as discussed in Section "i" above.

#### 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 Detached.

#### **B. DENSITY REQUIREMENTS**

1. The total number of single family residential units shall not exceed two hundred and twenty-three (223) units.

#### C. DEVELOPMENT STANDARDS

- 1. Minimum lot size for this development shall be 9,400 square feet.
- 2. Maximum height of all structures shall be fifty (50) feet.
- 3. Structure setbacks shall be as follows:
  - a. Twenty-five (25) feet from the front yard.
  - b. Six (6) feet from the side yard for "A" Lots as depicted on the Preliminary Plan attached hereto as Attachment "B".
  - c. Seven (7) feet from the side yard for "B" Lots as depicted on the Preliminary Plan attached hereto as Attachment "B".
  - d. Eight (8) feet from the side yard for "C, D, and E" Lots as depicted on the Preliminary Plan attached hereto as Attachment "B".
  - e. Fifteen (15) feet from the rear yard.
- 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 right of way or established cross access or ingress/egress easements on any existing roadways. All construction related parking shall be confined to the development.
- 3. Provide adequate temporary off-street parking for construction employees. Parking on non-surfaced areas shall be prohibited in order to eliminate the condition whereby mud from construction and employee vehicles is tracked on to the pavement causing hazardous roadway and driving conditions.

#### 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 sixty percent (60.0%) 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. Each of the two access points from Wild Horse Creek Road shall be permitted two ornamental entrance monument signs, with one sign located on each side of the entry, as shown on the Preliminary Plan, attached hereto and marked as Attachment B.

3. 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

- 1. Provide a lighting plan and cut sheet in accordance with the City of Chesterfield Code.
- 2. Street lights shall be provided along Wild Horse Creek Road in accordance with the City of Chesterfield Unified Development Code and as directed by the City of Chesterfield.

#### H. ARCHITECTURAL

- 1. The development shall adhere to the Architectural Review Standards of the City of Chesterfield Code.
- 2. The exterior building materials for this development shall consist of brick, stone, and/or hardie board siding, and architectural shingles.

#### I. ACCESS/ACCESS MANAGEMENT

- 1. Access to the development from Wild Horse Creek Road shall be restricted to two (2) residential street entrances, as directed by St. Louis County Department of Transportation and City of Chesterfield and as shown on the Preliminary Plan.
- 2. One gated emergency access point shall be allowed at the existing driveway location approximately 600 feet west of the intersection of Street "A" and Wild Horse Creek Road, as shown on the Preliminary Plan.
- 3. The existing private driveway connection that will serve 17095 Wild Horse Creek Road may remain in place as shown on the Preliminary Plan and as approved by the St. Louis County Department of Transportation.
- 4. The existing private driveway entrance that serves 17041 Wild Horse Creek Road may remain in place and shall connect to Street "A" as shown on the Preliminary Plan. If possible, the access point shall be modified such that the connection point will be directly across from Street "O". Continuous access to this property shall be provided throughout the duration of construction unless otherwise approved by the resident/owner and City of Chesterfield.

- 5. Provide for future alignment and dedicate right-of-way for the realignment of the development's easternmost access across 16931 and 16939 Wild Horse Creek Road to align with Riverdale Drive at such time as those parcels develop, as directed by the City of Chesterfield and St. Louis County Department of Transportation.
- 6. If required sight distance cannot be provided at the access location(s), acquisition of right-of-way, reconstruction of pavement including correction to the vertical alignment and other off-site improvements may be required to provide the required sight distance as required by the City of Chesterfield and St. Louis County Department of Transportation.
- 7. No lot of this development shall be allowed direct access to Wild Horse Creek Road.

# 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 and the agency in control of the right of way off of which the entrance is constructed. 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 all Wild Horse Creek Road frontage. The sidewalk shall provide for future connectivity to adjacent developments and/or roadway projects. The sidewalk may be located within right-of-way controlled by another agency, if permitted by that agency or on private property within a 6 foot wide sidewalk, maintenance and utility easement. A special cash escrow may be required by the City of Chesterfield for any sidewalk that cannot feasibly be constructed in conjunction with this development. The amount of the special cash escrow will be based on the anticipated construction costs as determined by the design engineer and approved by the City of Chesterfield and St. Louis County Department of Transportation.

- 5. Provide a 5 foot wide sidewalk, conforming to ADA standards, on both sides of Street "A" and 4 foot wide sidewalk, conforming to ADA standards, on both sides of all other internal streets. Sidewalk along Street "A" and Street "E" shall connect to sidewalk along Wild Horse Creek Road or terminate at the edge of pavement of Wild Horse Creek Road, as appropriate and approved by the City of Chesterfield and St. Louis County Department of Transportation.
- 6. Obtain approvals from the City of Chesterfield and the St. Louis County Department of Transportation of Transportation and other entities as necessary for locations of proposed curb cuts and access points, areas of new dedication, and roadway improvements.
- 7. Additional right-of-way and road improvements shall be provided, as required by St. Louis County Department of Transportation and the City of Chesterfield.
- 8. Provide an on-site pedestrian walking trail and community recreation areas throughout the development as shown on the Preliminary Plan. The existing and proposed portions of the trail shall conform or be improved to meet ADA standards, as necessary.
- 9. If streets are phased, platted, or constructed in such a way that temporary stub streets are created, stub street signage, in conformance with City Code Section 31-04-09, shall be posted within 30 days of the street pavement being placed.
- 10. Prior to Special Use Permit issuance by the St. Louis County Department of Transportation, a special cash escrow or special escrow supported by an Irrevocable Letter of Credit, must be established with the St. Lois County Department of Transportation to guarantee completion of the required roadway improvements.

#### J. TRAFFIC STUDY

1. Provide a traffic study as directed by the City of Chesterfield, St. Louis County Department of Transportation, and/or Missouri Department of Transportation. 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.

2. A scoping meeting with the City of Chesterfield, St. Louis County Department of Transportation, and/or Missouri Department of Transportation is required to discuss what type of traffic analysis will be needed to determine the necessary roadway improvements. A traffic impact study may be required to assess the impacts of the proposed development to the state highway system.

#### K. 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.

#### 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.
- 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 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 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. To comply with the region's MS4 Permit, site characteristics should be considered upfront to ensure adequate planning for storm water compliance. A pre-existing natural resources plan should be prepared and used to guide development layout and location of storm water facilities.
- 8. The receiving storm system(s) shall be evaluated to ensure adequate capacity and to ensure that the project has no negative impacts to the existing system(s).
- 9. Formal project development plans, including a flood plain study, shall be submitted to MSD for review, approval, and permits. The project is located in the Caulks Creek Impact area and subject to applicable fees.
- 10. Stormwater quality, channel protection, and flood detention requirements will apply. BMPs and detention facilities are shown on the plan, and conceptually they are consistent with practices normally applied on residential developments. MSD will review the appropriateness of their sizing and detailed configurations during formal plan review, based on calculations and specifications prepared by the developer's engineering consultant.
- 11. Drainage from the site is divided between Caulks Creek and Bonhomme Creek. Existing drainage outfalls shall be maintained in the post developed condition in terms of location and tributary acreage.
- 12. MSD does not object to the utilization of the large lake for flood detention and channel protection storage, subject to the following considerations:
  - a. Due to the height of its dam embankment, approval from MoDNR will be required prior to MSD's approval of the improvement plans.
  - b. To protect the water quality of the lake, BMPs will need to be positioned upstream from it to capture and treat runoff originating from developed areas on the property that drain to it. The current plan appears to accomplish that.

- c. As a detention facility, the lake will likely require a retrofit for an overflow structure and stabilized spillway. A geotechnical engineer will need to provide an assessment of the embankment's stability, recommendations for the outlet structure configuration as it relates to the embankment's stability, and recommendations for scour protection in areas from the lake's control outlet to the site's natural discharge point.
- d. Utilizing the lake as a detention facility will also expose it to fluctuating water surface levels during storm events. A geotechnical engineer will also need to investigate and affirm the lake's suitability to retain water above its bottom under the fluctuating head conditions within its natural impoundment area.
- e. It is also suggested that the lake's water balance be analyzed in order for the site designers and the developer to determine and assess its viability as a storm water management facility, resource, and amenity for the end users.
- 13. Site layout and grading shall provide for an overland flow path should the onsite storm sewer system capacity be exceeded or become blocked.
- 14. A 404/401 permit may be required from the U.S. Army Corps of Engineers and Missouri Department of Natural Resources. The developer should investigate for and assess the presence of any jurisdictional features on the site, and confirm with these two agencies the applicability of any requirements. If applicable, approvals from these agencies will be required prior to formal MSD plan approval.

#### M. SANITARY SEWER

- 1. Receiving sanitary sewers will need to be analyzed for capacity. The developer may be required to improve downstream capacity if the new development cannot be accommodated within the existing sanitary sewer system's current levels of service.
- 2. Sanitary sewers shall be as approved by the Metropolitan St. Louis Sewer District, the City of Chesterfield, and other entities as necessary.

#### 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. 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.
- 4. 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 Missouri Department of Transportation and/or the City of Chesterfield. 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.
- 5. Obtain any and all necessary determinations, approvals, and permits from USACE, the Missouri Department of Natural Resources, and other entities, as necessary, for work impacting or in close proximity to jurisdictional waterways and/or wetlands.

- 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 for approval. The Floodplain Study must be approved by the City of Chesterfield prior to the approval of the Site Development Plan, as 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 Elevation Certificates will be required for any development. structures within the Special Flood Hazard Area 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 Article 5 of the Unified Development Code for specific requirements.
- 7. Retaining walls along public right of way shall be private and remain private forever and shall be located such that it is not necessary to support any public improvements.
- 8. Retaining walls that serve multiple properties must be located within common ground or special easements, including easements needed for future access, maintenance, and inspection.
- 9. Community amenities, including but not limited to boat docks, fishing docks, pickle ball courts, community gardens, playgrounds, fire pit circles with seating, pavilions, and tot lots shall be provided for this development as shown on the Preliminary Plan, attached hereto and marked as Attachment B.

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

- **A.** The developer shall submit a Site Development Plan within eighteen (18) months of City Council approval of the change of zoning.
- **B.** In lieu of submitting a Site Development Plan, the petitioner may submit a Site Development Concept Plan and Site Development Section Plans 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.** A Site Development 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, the City Council may extend the period to submit a Site Development Concept Plan or Site Development Plan for eighteen (18) months.

#### 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 City Council may extend the period to commence construction for not more than two (2) additional years.

#### 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 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.

#### 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 open space 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

**A.** The developer shall contribute a Traffic Generation Assessment (TGA) to the Eatherton – Kehrs Mill Road Trust Fund (No. 552). This contribution shall not exceed an amount established by multiplying the required parking spaces by the following rate schedule:

# Type of Development TGA Category Single Family Dwelling

#### **Required Contribution**

Contribution \$1,243.04/Parking Space

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

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

If a portion of the improvements required herein are needed to provide for the safety of the traveling public, their completion as a part of this development is mandatory.

Allowable credits for required roadway improvements will be awarded as directed by the St. 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.

- **B.** As this development is located within a trust fund area established by St. 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.
- **C.** Traffic generation assessment contributions shall be deposited with St. Louis County Department of Transportation. The deposit shall be made prior to the issuance of a Special Use Permit (S.U.P) by St. Louis County Department of Transportation or prior to issuance of building permits in the case where no Special Use Permit is required. 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. Funds shall be payable to Treasurer, St. Louis County.
- **D.** The amount of these required contributions for the roadway, storm water and primary water line improvements, if not submitted by January 1, 2018, shall be adjusted on that date and on the first day of January in each succeeding year thereafter in accordance with the construction cost index as determined by the St. Louis County Department of Highways and Traffic.

#### 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.

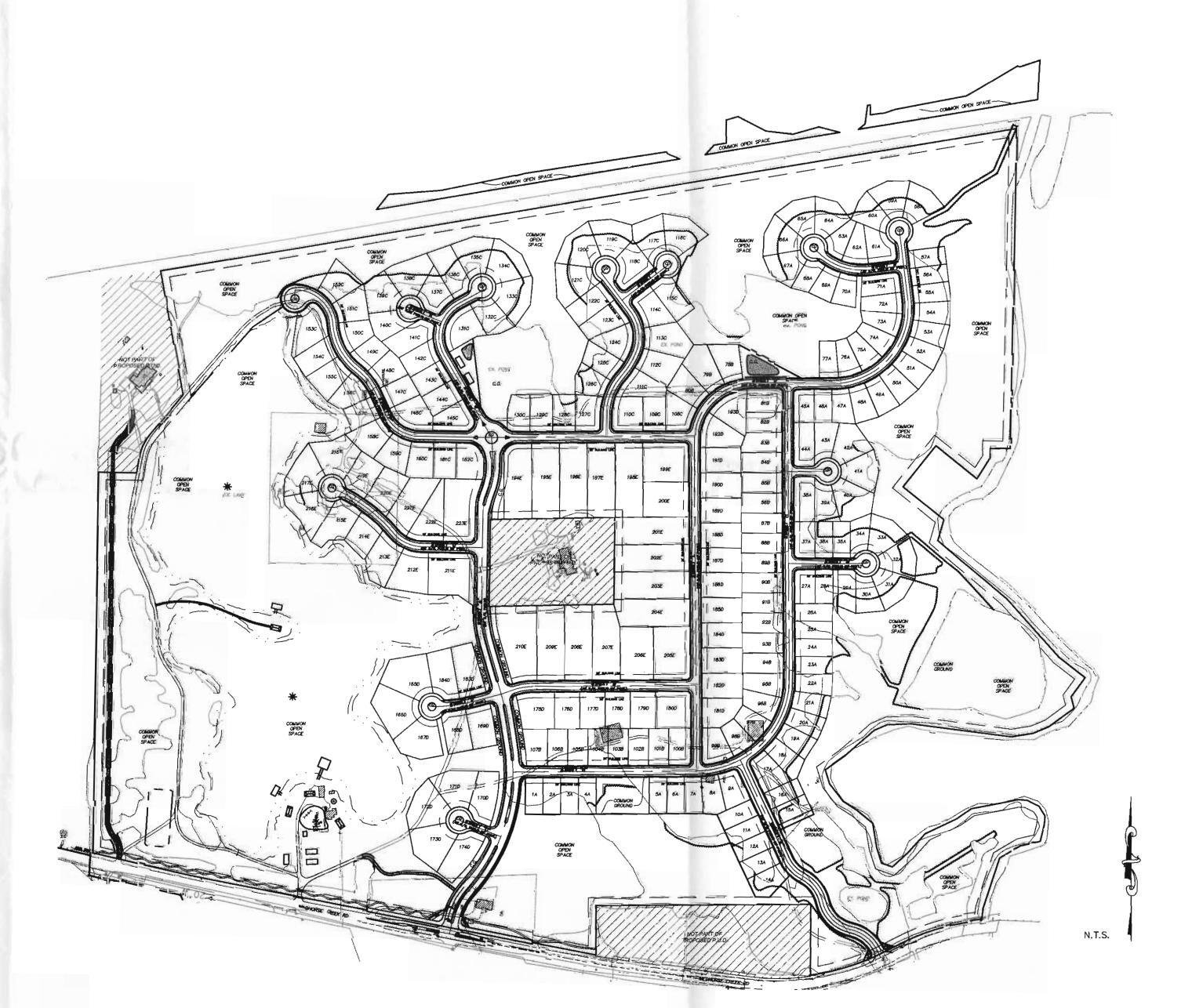
#### VII. ENFORCEMENT

- **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.

# Fienup Farms

TRACTS OF LAND BEING PART OF "TRACTA" OF A RESUBDIVISION OF LOT "A" OF FIENUP TRACT, A MINOR SUBDIVISION ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 227 PAGE 99 AND BEING PART OF U.S. SURVEY 125, 886 AND 2031 IN TOWNSHIP 45 NORTH, RANGE 4 EAST OF THE FIFTH PRINCIPAL MERIDIAN, CITY OF CHESTERFIELD, SAINT LOUIS COUNTY, MISSOURI

# Preliminary Development Plan



SHEET INDEX

**COVER SHEET** 

SITE DETAILS

OVERALL SITE PLAN

PRELIMINARY DEVELOPMENT PLAN

NATURAL RESOURCES MAP

TREE STAND DELINEATION

2.1

4.1

TSD

## SURVEYOR'S CERTIFICATION:

THIS IS TO CERTIFY THAT WE HAVE, DURING THE MONTH OF JANUARY, 2017, AT THE REQUEST OF WILD HORSE RESIDENTIAL, LLC, PREPARED A PRELIMINARY DEVELOPMENT PLAN OF "FIENUP FARMS".
TRACTS OF LAND BEING PART OF 'TRACT A' OF A RESUBDIVISION OF LOT "A" OF FIENUP TRACT, A
MINOR SUBDIVISION ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 227 PAGE 99 AND BEING PART OF U.S. SURVEY 125, 886 AND 2031 IN TOWNSHIP 45 NORTH, RANGE 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 "MISSOUR! MINIMUM STANDARDS FOR PROPERTY BOUNDARY

LOCATION MAP

PROJECT ZIP CODE 63005

UTILITY OR POWER POLE

FLOW LINE TO BE REMOVED

TOP OF CURB SWALE

LIGHT STANDARD

STREET SIGN

**PROPOSED** 

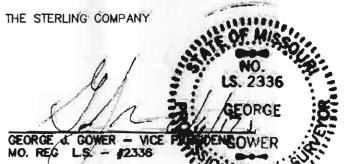
<u>536.0</u>

\_\_\_\_\_

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\_\_\_\_(6"W) \_\_\_\_

(TC)





**GENERAL NOTES:** 

 THIS SITE IS IN THE FOLLOWING DISTRICTS: METROPOLITAN ST. LOUIS SEWER DISTRICT MONARCH FIRE PROTECTION DISTRICT ROCKWOOD R-6 SCHOOL DISTRICT

2. THIS SITE IS IN THE FOLLOWING UTILITY SERVICE AREAS: MISSOURI AMERICAN WATER COMPANY AMEREN UE

> LACLEDE GAS COMPANY CHARTER COMMUNICATIONS

3. 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.

4. 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

6. 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

7. THE LOCATION OF STORM AND SANITARY SEWER IMPROVEMENTS ARE APPROXIMATE ONLY. ACTUAL LOCATION SHALL BE DETERMINED BY FIELD CONDITIONS AND SHALL BE INDICATED ON THE IMPROVEMENT

8. GRADING SHALL BE PER CITY OF CHESTERFIELD STANDARDS. SOURCE OF TOPOGRAPHY FIELD SURVEY AND LIDAR TOPOGRAPHIC DATA.

9. STREET TREES AND STREET LIGHTS (UNLESS OTHERWISE DEPICTED) SHALL BE PER CITY OF CHESTERFIELD

10. NEAREST MAJOR INTERSECTION IS WILDHORSE CREEK ROAD AND LONG ROAD.

11. ALL SIDEWALKS SHALL BE CONSTRUCTED TO ADA AND THE CITY OF CHESTERFIELD STANDARDS.

12. EXISTING OWNERS: FIENUP FARMS, INC. 17047 WILDHORSE CREEK ROAD

CHESTERFIELD, MISSOURI 63005 WILBUR G. FIENUP REVOCABLE TRUST

17047 WILDHORSE CREEK ROAD CHESTERFIELD, MISSOURI 63005 HELEN FIENUP UNITED CREDIT TRUST 17047 WILDHORSE CREEK ROAD

CHESTERFIELD, MISSOURI 63005

13. SITE TO CONFORM TO THE CITY OF CHESTERFIELD TREE REQUIREMENTS

14. MAXIMUM HEIGHT OF THE RESIDENCES WILL NOT EXCEED 50 FEET.

15. SITE PLAN WILL MEET ALL CITY OF CHESTERFIELD REQUIREMENTS.

16. 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. TRAILS SHALL BE ALLOWED WITHIN THE 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.

17. THIS PROJECT IS APPROXIMATELY 2,000 FEET AWAY FROM SPIRIT'S RUNWAY 26L AND THEREFORE AIRCRAFT NOISE WILL BE NOTICEABLE AT THE SITE ON A DAILY BASIS.

### SITE INFORMATION

LOCATOR NUMBERS:

18U640049, 18U630028, 18U330454, 17U310093, 17U320070, 17T110201

= 223 LOTS ALLOWED

EXISTING ZONING:

PROPOSED ZONING: PUD (PLANNED UNIT DEVELOPMENT)

GROSS AREA OF SITE:

223.02 ACRES

DENSITY CALCULATIONS:

(43,560 SQ.FT./LOT)

MINIMUM LOT SIZE: 9,400 S.F.

MAXIMUM LOT SIZE: 42,209 S.F.

MAXIMUM NUMBER OF UNITS ALLOWED:

NUMBER OF UNITS PROPOSED:

LOT DEVELOPMENT REQUIREMENTS: SEE SHEET 1.2

TWO PER UNIT = 446 SPACES NUMBER OF PARKING SPACES REQUIRED: NUMBER OF PARKING SPACES PROVIDED:

PROPOSED STREETS SHALL BE PUBLIC 40'W. R.O.W. WITH 26'W. PVMT. EXCEPT FOR STREET A WHICH WILL BE

STREET AREA = 44.4 ACRES

WLDHORSE CREEK ROAD R/W DEDICATION = 0.23 ACRES

COMMON GROUND = 122.6 ACRES WHICH EQUALS 54.9% OF THE SITE

COMMON OPEN SPACE = 107.3 ACRES WHICH EQUALS 48.1% OF THE SITE (107.3 ACRES IS A PORTION OF THE 122.6 ACRES OF COMMON GROUND)

PARTIALLY A 70' WIDE R.O.W., PARTIALLY A 60' WIDE R.O.W., AND BUILT TO THE CITY OF CHESTERFIELD

FLOOD MAP: FEMA PANEL 29189C0163K DATED: FEB. 4, 2015

<u>TREE INFORMATION</u>

SEE TREE STAND DELINEATION

LOT TABLE

"A" 70' LOTS ~ 77

"B" 80' LOTS ~ 30

"C" 90' LOTS ~ 55

"D" 100' LOTS ~ 31 "E" 110' LOTS ~ 30

TOTAL LOTS ~ 223

SURVEYS" IN EFFECT AT THE DATE OF THIS PLAN.



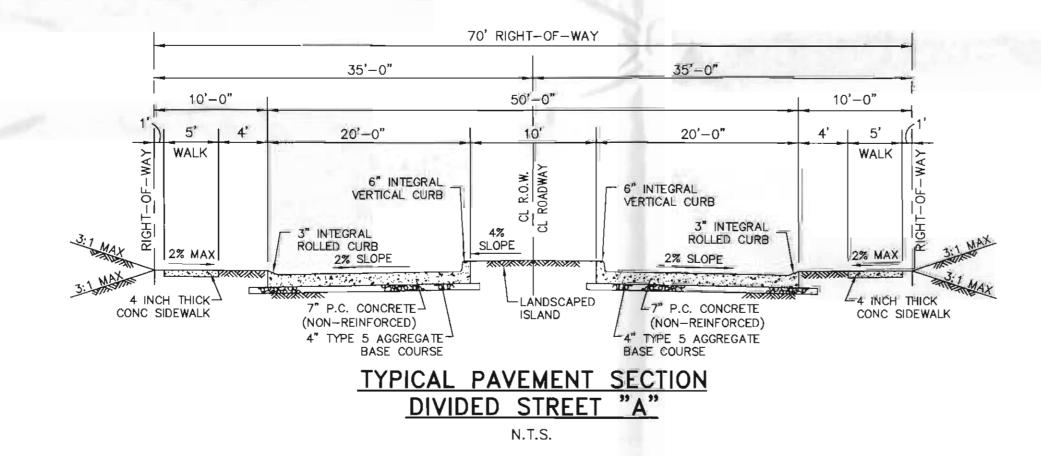
MSD Base Map - 25J

PE-2002016612:8

RODNEY ARNOLD License No. PE 2002016612 Civil Engineer

14-06-196 6/16/2017 Designed: MF | Sheet

Drawn: SL Checked:



60' RIGHT-OF-WAY

NON-DIVIDED STREET "A"

N.T.S.

19**'**-0"

2% SLOPE

3" INTEGRAL

ROLLED CURB

NO ACCOUNT OF THE PARTY OF THE

19'-0"

3" INTEGRAL

7" P.C. CONCRETE-

(NON-REINFORCED)

4" TYPE 5 AGGREGATE-

BASE COURSE

ROLLED CURB

NOT TO SCALE

11'-0"

WALK

4 INCH THICK-

CONC SIDEWALK

## **PROPERTY DESCRIPTION:**

TRACTS OF LAND BEING PART OF "TRACT A" OF A RESUBDIVISION OF LOT "A" OF FIENUP TRACT, A MINOR SUBDIVISION ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 227 PAGE 99 AND TRACTS OF LAND BEING PART OF U.S. SURVEY 125, 886 AND 2031 IN TOWNSHIP 45 NORTH, RANGE 4 EAST OF THE FIFTH PRINCIPAL MERIDIAN, CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A STONE LOCATED AT THE NORTHWEST CORNER OF A TRACT CONVEYED TO ZH ASSET MANAGEMENT INC., BY INSTRUMENT RECORDED IN DEED BOOK 17170, PAGE 765 OF THE ST. LOUIS COUNTY RECORDS, SAID POINT BEING ON THE COMMON LINE OF U.S. SURVEY 125 AND U.S. SURVEY 886; THENCE SOUTH 00 DEGREES 04 MINUTES 36 SECONDS WEST, A DISTANCE OF 197.66 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF WILD HORSE CREEK ROAD AS SHOWN ON THE "FIENUP TRACT - A MINOR SUBDIVISION" A SUBDIVISION RECORDED IN PLAT BOOK 219. PAGE 48 AND PLAT BOOK 227, PAGE 99 OF SAID COUNTY RECORDS; THENCE WITH SAID RIGHT-OF-WAY LINE ALONG A CURVE TO THE RIGHT BEING NON-TANGENTIAL TO THE PREVIOUS COURSE, WITH A RADIUS OF 2,829.93 FEET, WHOSE CHORD BEARS NORTH 79 DEGREES 23 MINUTES 43 SECONDS WEST, A CHORD DISTANCE OF 43.33 FEET, AN ARC LENGTH OF 43.33 FEET TO A POINT; THENCE NORTH 78 DEGREES 56 MINUTES 45 SECONDS WEST, ALONG SAID RIGHT-OF-WAY LINE, A DISTANCE OF 213.00 FEET TO THE EAST LINE OF A 2.848 ACRE TRACT CONVEYED TO FIENUP FARM INC. BY INSTRUMENT RECORDED IN DEED BOOK 13401, PAGE 1842 OF SAID RECORDS; THENCE WITH THE EAST, SOUTH AND WEST LINES OF SAID FIENUP TRACT AND SAID NORTH RIGHT-OF-WAY LINE, THE FOLLOWING COURSES AND DISTANCES: SOUTH 01 DEGREES 51 MINUTES 09 SECONDS WEST, A DISTANCE OF 5.04 FEET; NORTH 78 DEGREES 54 MINUTES 52 SECONDS WEST, A DISTANCE OF 668.36 FEET; THENCE NORTH 00 DEGREES 44 MINUTES 21 SECONDS EAST, A DISTANCE OF 4.68 FEET: THENCE LEAVING THE WEST LINE OF SAID FIENUP TRACT AND CONTINUING WITH THE NORTH RIGHT-OF-WAY LINE OF SAID WILD HORSE CREEK ROAD, NORTH 78 DEGREES 57 MINUTES 24 SECOND WEST, A DISTANCE OF 619.57 FEET TO A POINT OF CURVATURE; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 5,699.65 FEET, AN ARC LENGTH OF 195.64 FEET, AND A CHORD WHICH BEARS NORTH 77 DEGREES 58 MINUTES 24 SECONDS WEST, A CHORD DISTANCE OF 195.63 FEET; THENCE NORTH 76 DEGREES 59 MINUTES 24 SECONDS WEST. A DISTANCE OF 295.60 FEET TO A POINT IN THE WEST LINE OF A TRACT CONVEYED TO FIRST BAPTIST CHURCH OF CHESTERFIELD BY INSTRUMENT RECORDED IN DEED BOOK 10998, PAGE 1382 OF THE ST. LOUIS COUNTY RECORDS; THENCE LEAVING SAID ROAD LINE CONTINUING NORTH 00 DEGREES 50 MINUTES 20 SECONDS EAST ALONG THE WEST LINE OF FIRST BAPTIST CHURCH OF CHESTERFIELD TRACT A DISTANCE OF 1,523.28 FEET TO A POINT; THENCE LEAVING SAID WEST LINE SOUTH 89 DEGREES 09 MINUTES 40 SECONDS EAST, A DISTANCE OF 150.53 FEET TO A POINT; THENCE NORTH 09 DEGREES 46 MINUTES 26 SECONDS EAST, A DISTANCE OF 57.18 FEET TO A POINT OF CURVATURE; THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 211.49 FEET, AN ARC LENGTH OF 110.45 FEET, AND A CHORD WHICH BEARS NORTH 24 DEGREES 44 MINUTES 07 SECONDS EAST, A CHORD DISTANCE OF 109.20 FEET TO A POINT; THENCE NORTH 39 DEGREES 41 MINUTES 49 SECONDS EAST, A DISTANCE OF 202.63 FEET TO A POINT; THENCE NORTH 10 DEGREES 22 MINUTES 30 SECONDS WEST, A DISTANCE OF 503.71 TO A POINT AT THE NORTH EAST CORNER OF A TRACT CONVEYED TO ELAINE NAVARRO BY INSTRUMENT RECORDED IN DEED BOOK 7511, PAGE 1392 OF THE ABOVE MENTIONED RECORDS AND IN THE SOUTH LINE OF THE UNION PACIFIC RAILROAD (FORMERLY THE ST. LOUIS, KANSAS CITY AND COLORADO RAILROAD) RIGHT-OF-WAY (100 FEET WIDE); THENCE ALONG THE SOUTH LINE OF SAID RAILROAD RIGHT-OF-WAY; NORTH 80 DEGREES 30 MINUTES 54 SECONDS EAST, A DISTANCE OF 876.90 FEET TO A POINT; THENCE NORTH 80 DEGREES 30 MINUTES 03 SECONDS EAST, A DISTANCE OF 2569.67 FEET TO THE NORTHWEST CORNER OF THE CHESTERFIELD FARMS PLAT TWO, A SUBDIVISION RECORDED IN PLAT BOOK 326, PAGES 18 TO 20 OF SAID RECORDS; THENCE, SOUTH 01 DEGREES 06 MINUTES 32 SECONDS WEST, ALONG THE WEST LINE OF SAID CHESTERFIELD FARMS PLAT TWO, A DISTANCE OF 1276.19 FEET TO A POINT ON THE NORTH LINE OF WILDHORSE SPRINGS PLAT TWO, A SUBDIVISION RECORDED IN PLAT BOOK 344, PAGES 66 AND 67 OF SAID RECORDS; THENCE ALONG THE NORTH AND WEST LINES OF SAID WILDHORSE SPRINGS PLAT TWO THE FOLLOWING, NORTH 89 DEGREES 16 MINUTES 37 SECONDS WEST, A DISTANCE OF 80.71 FEET; THENCE SOUTH 02 DEGREES 12 MINUTES 35 SECONDS EAST, A DISTANCE OF 36.61 FEET TO THE MOST NORTHERN CORNER OF "CITTANDINO PLACE, LARGE LOT SUBDIVISION PLAT" A SUBDIVISION RECORDED IN PLAT BOOK 345, PAGE 613 OF SAID RECORDS: THENCE WITH THE NORTH AND WEST LINES OF SAID SUBDIVISION THE FOLLOWING COURSES AND DISTANCES: SOUTH 32 DEGREES 18 MINUTES 40 SECONDS WEST, A DISTANCE OF 99.40 FEET; NORTH 51 DEGREES 10 MINUTES 00 SECONDS WEST, A DISTANCE OF 208.70 FEET; SOUTH 38 DEGREES 50 MINUTES 00 SECONDS WEST, A DISTANCE OF 208,74 FEET: SOUTH 51 DEGREES 10 MINUTES 00 SECONDS EAST, A DISTANCE OF 208.70 FEET; SOUTH 16 DEGREES 14 MINUTES 59 SECONDS WEST, A DISTANCE OF 87.37 FEET; SOUTH 49 DEGREES 00 MINUTES 12 SECONDS EAST, A DISTANCE OF 114.12 FEET; SOUTH 49 DEGREES 26 MINUTES 52 SECONDS EAST, A DISTANCE 251.69 FEET; SOUTH 41 DEGREES 32 MINUTES 52 SECONDS EAST, A DISTANCE 305.91 FEET; SOUTH 52 DEGREES 14 MINUTES 47 SECONDS EAST, A DISTANCE OF 132.62 FEET; SOUTH 36 DEGREES 07 MINUTES 56 SECONDS WEST, A DISTANCE OF 94.92 FEET; SOUTH 13 DEGREES 52 MINUTES 01 SECONDS EAST, A DISTANCE OF 47.48 FEET TO A POINT IN THE

CENTER OF CAULKS CREEK; THENCE, WITH THE MEANDERING CENTERLINE OF SAID CAULKS CREEK, BEING THE COMMON LINE BETWEEN THE AFORESAID FIENUP TRACT AND LOT 1 IN "GAMMA SUBDIVISION" RECORDED IN PLAT BOOK 349, PAGE 668 OF SAID RECORDS, THE FOLLOWING COURSES AND DISTANCES:

SOUTH 53 DEGREES 54 MINUTES 57 SECONDS WEST, A DISTANCE OF 124.13 FEET; SOUTH 67 DEGREES 38 MINUTES 24 SECONDS WEST, A DISTANCE OF 69.71 FEET; SOUTH 80 DEGREES 50 MINUTES 47 SECONDS WEST, A DISTANCE OF 84.98 FEET; NORTH 82 DEGREES 38 MINUTES 09 SECONDS WEST, A DISTANCE OF 401.88 FEET; SOUTH 88 DEGREES 07 MINUTES 02 SECONDS WEST, A DISTANCE OF 95.48 FEET; SOUTH 66 DEGREES 40 MINUTES 33 SECONDS WEST, A DISTANCE OF 57.03 FEET; SOUTH 48 DEGREES 05 MINUTES 31 SECONDS WEST, A DISTANCE OF 152.79 FEET; SOUTH 53 DEGREES 59 MINUTES 12 SECONDS WEST, A DISTANCE OF 95.31 FEET; SOUTH 17 DEGREES 02 MINUTES 16 SECONDS EAST, A DISTANCE OF 58.05 FEET; SOUTH 37 DEGREES 24 MINUTES 53 SECONDS EAST, A DISTANCE OF 87.39 FEET; SOUTH 56 DEGREES 56 MINUTES 10 SECONDS EAST, A DISTANCE OF 64.97 FEET; SOUTH 50 DEGREES 03 MINUTES 11 SECONDS EAST, A DISTANCE OF 81.84 FEET; SOUTH 09 DEGREES 05 MINUTES 09 SECONDS EAST, A DISTANCE OF 97.78 FEET; SOUTH 17 DEGREES 38 MINUTES 18 SECONDS EAST, A DISTANCE OF 65.93 FEET; SOUTH 70 DEGREES 22 MINUTES 17 SECONDS EAST, A DISTANCE OF 44.57 FEET; NORTH 47 DEGREES 29 MINUTES 36 SECONDS EAST, A DISTANCE OF 81.79 FEET; NORTH 42 DEGREES 01 MINUTES 39 SECONDS EAST, A DISTANCE OF 103.85 FEET; NORTH 64 DEGREES 18 MINUTES 10 SECONDS EAST, A DISTANCE OF 137.92 FEET; NORTH 54 DEGREES 56 MINUTES 38 SECONDS EAST, A DISTANCE OF 72.15 FEET; NORTH 79 DEGREES 23 MINUTES 13 SECONDS EAST, A DISTANCE OF 91.73 FEET; NORTH 78 DEGREES 39 MINUTES 13 SECONDS EAST, A DISTANCE OF 97.32 FEET; SOUTH 86 DEGREES 56 MINUTES 31 SECONDS EAST, A DISTANCE OF 34.60 FEET; SOUTH 63 DEGREES 39 MINUTES 55 SECONDS EAST, A DISTANCE OF 53.92 FEET; SOUTH 31 DEGREES 16 MINUTES 48 SECONDS EAST, A DISTANCE OF 46.40 FEET; SOUTH 05 DEGREES 05 MINUTES 09 SECONDS WEST, A DISTANCE OF 34.68 FEET; SOUTH 13 DEGREES 33 MINUTES 00 SECONDS EAST, A DISTANCE OF 68.81 FEET; SOUTH 77 DEGREES 01 MINUTES 24 SECONDS WEST, A DISTANCE OF 82.18 FEET; SOUTH 59 DEGREES 25 MINUTES 21 SECONDS WEST, A DISTANCE OF 94.63 FEET; SOUTH 18 DEGREES 04 MINUTES 53 SECONDS WEST, A DISTANCE OF 212.80 FEET; AND SOUTH 06 DEGREES 31 MINUTES 31 SECONDS WEST, A DISTANCE OF 48.47 FEET TO A POINT ON THE NORTH RIGHT-OF-WAY LINE OF WILD HORSE CREEK ROAD AS SHOWN ON SAID "FIENUP TRACT - A MINOR SUBDIVISION"; THENCE LEAVING THE SAID CENTERLINE OF CAULKS CREEK BEING THE AFORESAID COMMON LINE OF THE FIENUP TRACT AND SAID "GAMMA SUBDIVISION", WITH THE NORTH RIGHT-OF-WAY LINE OF SAID WILD HORSE CREEK ROAD THE FOLLOWING COURSES, DISTANCES AND CURVES: SOUTH 83 DEGREES 10 MINUTES 36 SECONDS WEST, A DISTANCE OF 30.47 FEET TO A POINT OF CURVATURE; THENCE ALONG A CURVE TO THE LEFT, WITH A RADIUS OF 854.02 FEET, WHOSE CHORD BEARS SOUTH 72 DEGREES 40 MINUTES 37 SECONDS WEST, A CHORD DISTANCE OF 311.26 FEET, AN ARC LENGTH OF 313.01 FEET; THENCE SOUTH 62 DEGREES 10 MINUTES 36 SECOND WEST, A DISTANCE OF 52.15 FEET; THENCE ALONG A CURVE TO THE RIGHT WITH A RADIUS OF 920.37 FEET, WHOSE CHORD BEARS SOUTH 72 DEGREES 08 MINUTES 29 SECONDS WEST, A CHORD DISTANCE OF 318.53 FEET, AN ARC LENGTH OF 320.14 FEET TO THE SOUTHEAST CORNER OF A TRACT CONVEYED TO ZH ASSET MANAGEMENT INC., BY INSTRUMENT RECORDED IN DEED BOOK 17886, PAGE 5118 OF SAID RECORDS; THENCE LEAVING THE NORTHERN RIGHT-OF-WAY LINE OF SAID WILD HORSE CREEK ROAD, WITH THE EAST, NORTH AND WEST LINES OF SAID ZH ASSET MANAGEMENT INC. TRACT THE FOLLOWING COURSES AND DISTANCES: NORTH 00 DEGREES 20 MINUTES 00 SECONDS EAST, A DISTANCE OF 281.98 FEET; SOUTH 89 DEGREES

AND, A TRACT, OR TRACTS, OF LAND IN U.S. SURVEY 125 AND 886, TOWNSHIP 45 NORTH, RANGE 4 EAST, IN ST. LOUIS COUNTY, MISSOURI, BEING PART OF THE TRACT OF LAND AS DESCRIBED IN A DEED TO FIENUP FARMS, INC. AS RECORDED IN DEED BOOK 8950, PAGE 1259 OF THE ST. LOUIS COUNTY RECORDS, AND BEING ALL THAT PART OF SAID FIENUP FARMS, INC. TRACT LYING NORTH OF THE SOUTHERN RIGHT-OF-LINE OF THE UNION PACIFIC RAILROAD (FORMERLY THE ST. LOUIS, KANSAS CITY AND COLORADO RAILROAD) RIGHT-OF-WAY AND CONTAINING 3.0 ACRES, MORE OR LESS;

39 MINUTES 36 SECONDS WEST, A DISTANCE OF 856.17 FEET TO THE POINT OF BEGINNING

AND CONTAINING 224.0 ACRES, MORE OR LESS.

LESS AND EXCEPTING TRACT "C" OF A RESUBDIVISION OF PART "A" OF FIENUP TRACT, A MINOR SUBDIVISION ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 227 PAGE 99. CONTAINING 173,250 SQUARE FEET OR 3.98 ACRES MORE OR LESS.

THE TOTAL NET OF THE ABOVE PARCELS BEING 223.02 ACRES, MORE OR LESS, ACCORDING TO CALCULATIONS BY THE STERLING COMPANY DURING DECEMBER, 2016 BASED UPON RECORD AND AVAILABLE INFORMATION AND SUBJECT TO THE RESULTS OF A FUTURE PROPERTY BOUNDARY SURVEY.

ASPHALTIC CONCRE

(NOT TO SCALE)

ASPHALT WALKING/JOGGING PATH

|z|ienup

his sheet applies only to the meterial and items shown this sheet. All drawing, instruments or other documents is exhibiting this seal and signeture shall not be considered prepared by this anginear, and the anginear expressly disclaims any and all responsibility for such plans, drawing documents not exhibiting this seal and signature. Date: 6/16/2017

RODNEY ARNOLD License No. PE 2002016612 Civil Engineer

14-06-196 6/16/2017 Designed: MF | Sheet Drawn: SL

Checked:

5'-0" SIDEWALK. 5'-0" SIDEWALK, MAINTENANCE, UTILITY. -- MAINTENANCE, UTILITY, 40' RIGHT-OF-WAY AND ROADWAY AND ROADWAY WIDENING EASEMENT WIDENING EASEMENT 20'-0" 20'-0" 13'-0" 13'-0" WALK WALK 3" INTEGRAL ROLLED CURB ROLLED CURB 2% MAX 2% SLOPE 2% SLOPE 4 INCH THICK-4 INCH THICK L7" P.C. CONCRETE 7" P.C. CONCRETE CONC SIDEWALK CONC SIDEWALK (NON-REINFORCED) (NON-REINFORCED) 4" TYPE 5 AGGREGATE 4" TYPE 5 AGGREGATE BASE COURSE BASE COURSE

TYPICAL PAVEMENT SECTION RESIDENTIAL STREETS

N.T.S.

L7" P.C. CONCRETE CONC SIDEWALK (NON-REINFORCED) -4" TYPE 5 AGGREGATE BASE COURSE TYPICAL PAVEMENT SECTION

11'-0"

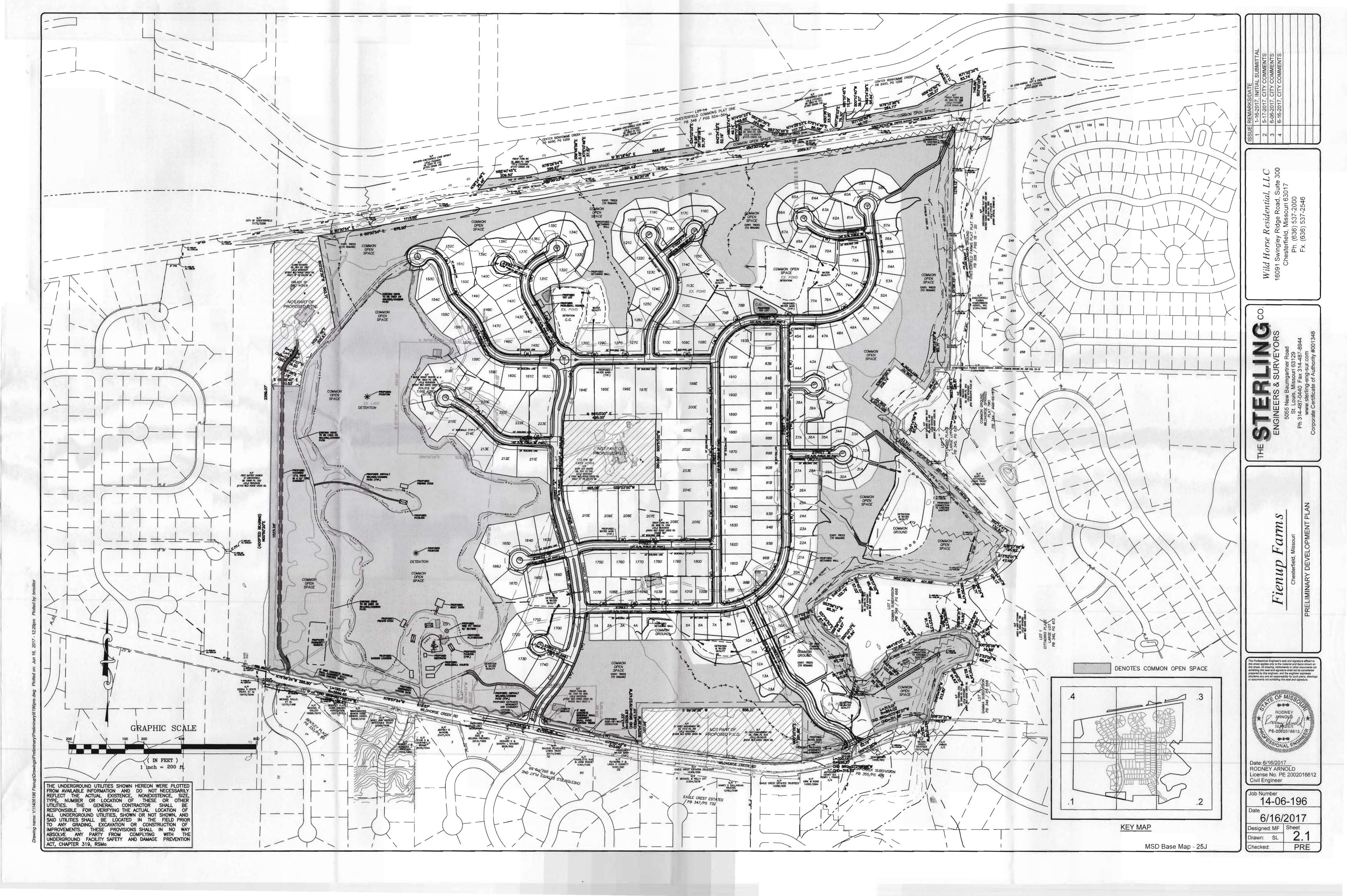
5' | 5'

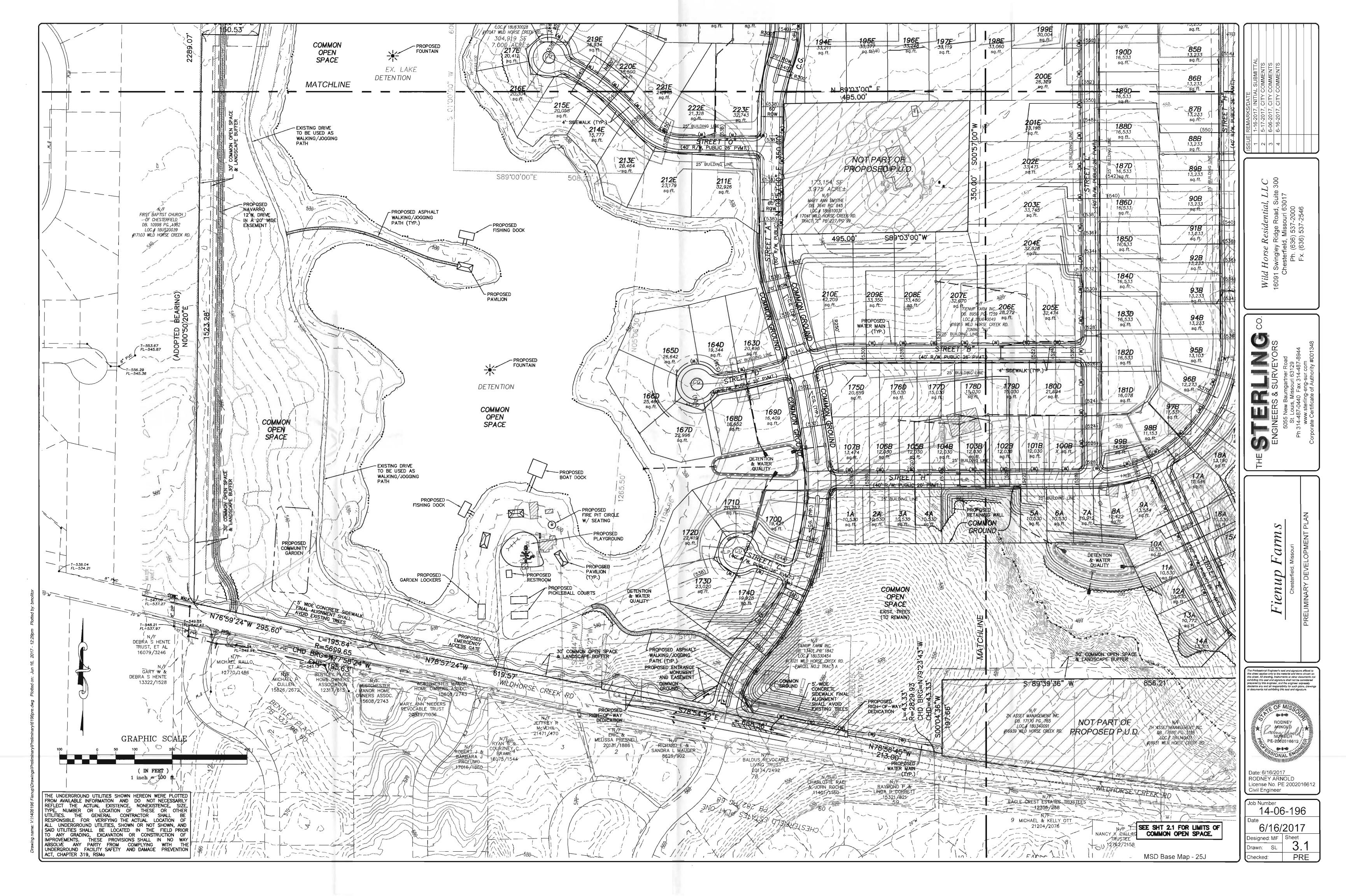
WALK

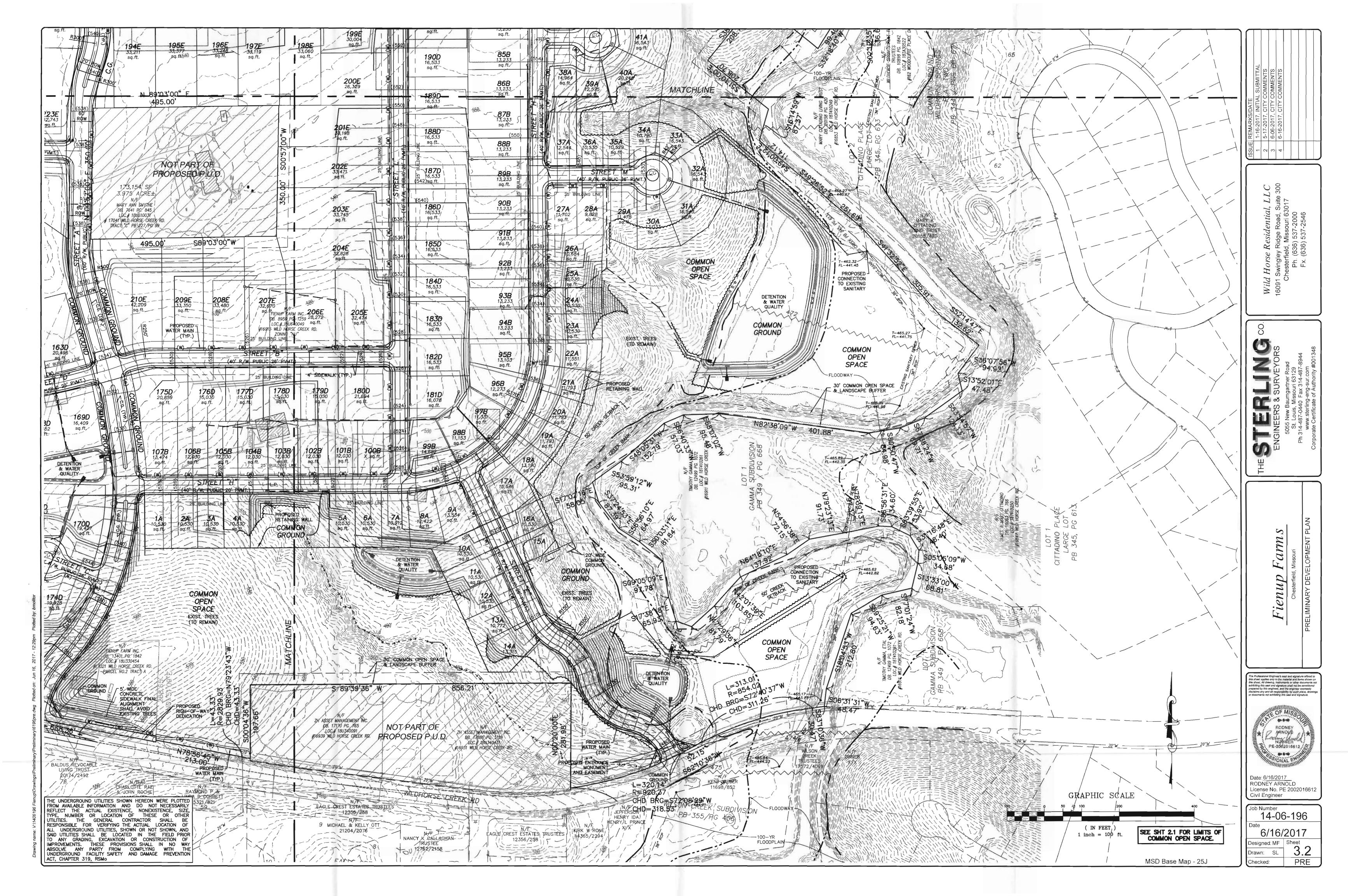
2% MAX

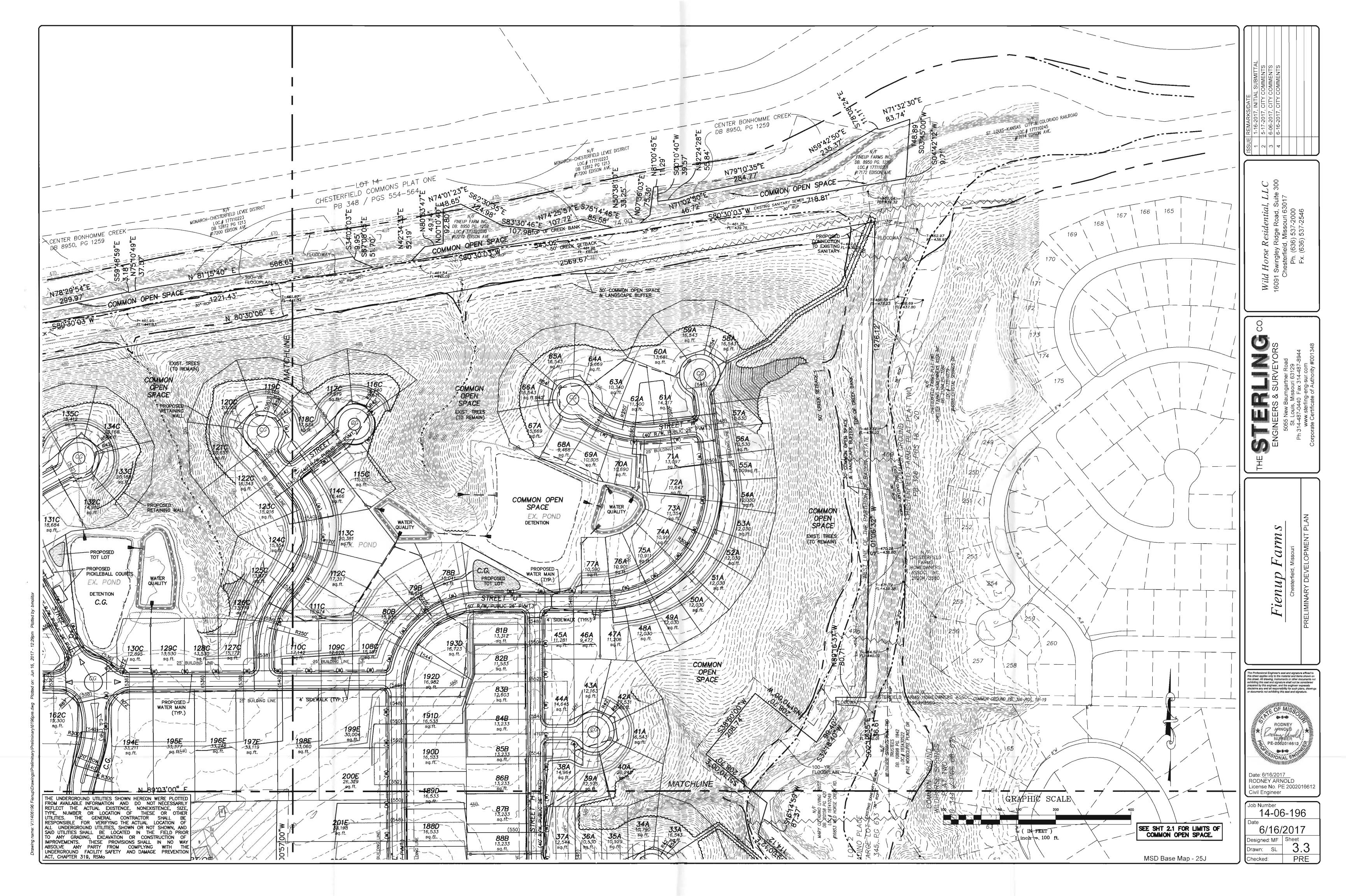
4 INCH THICK

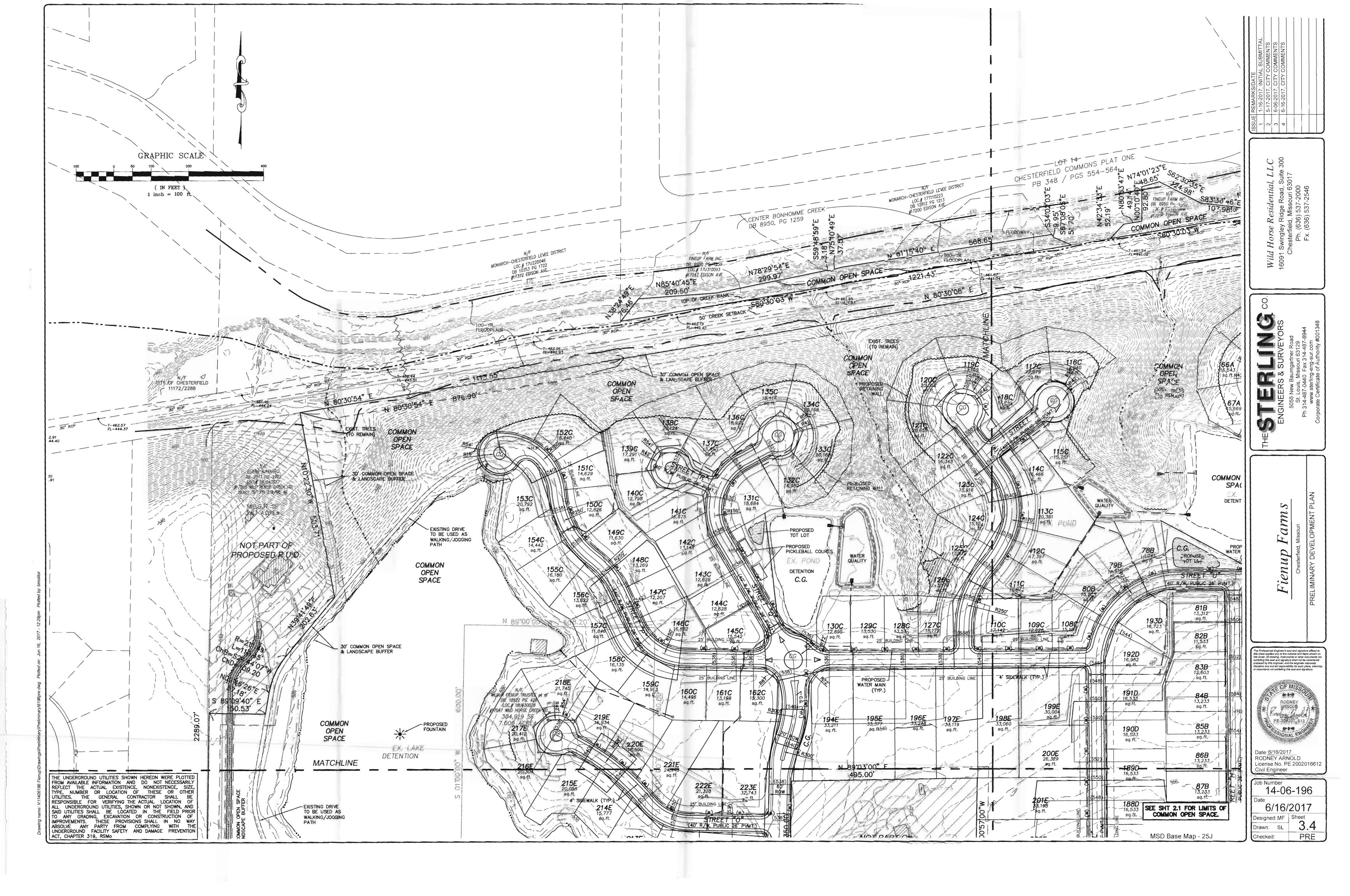
MSD Base Map - 25J

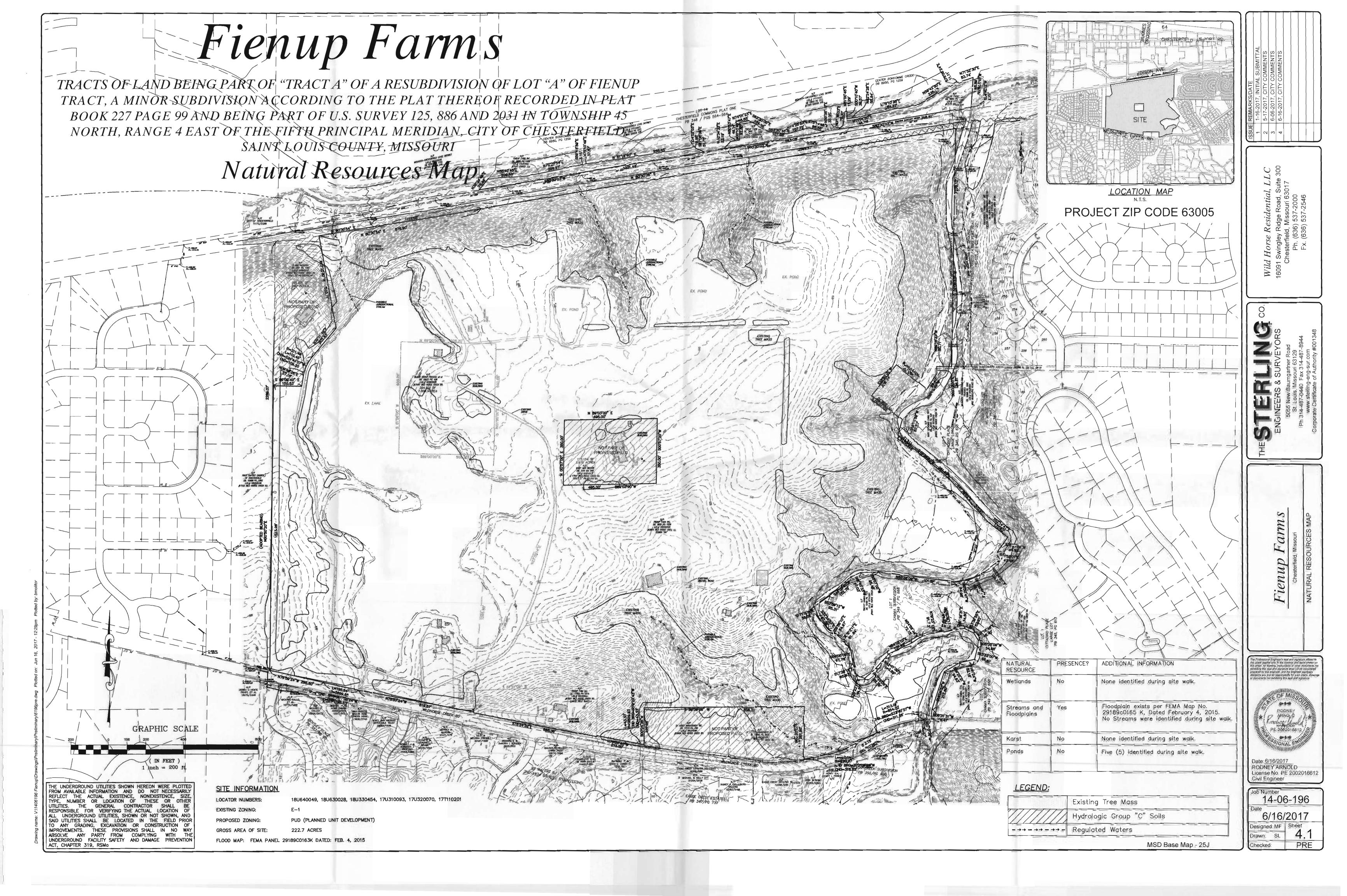


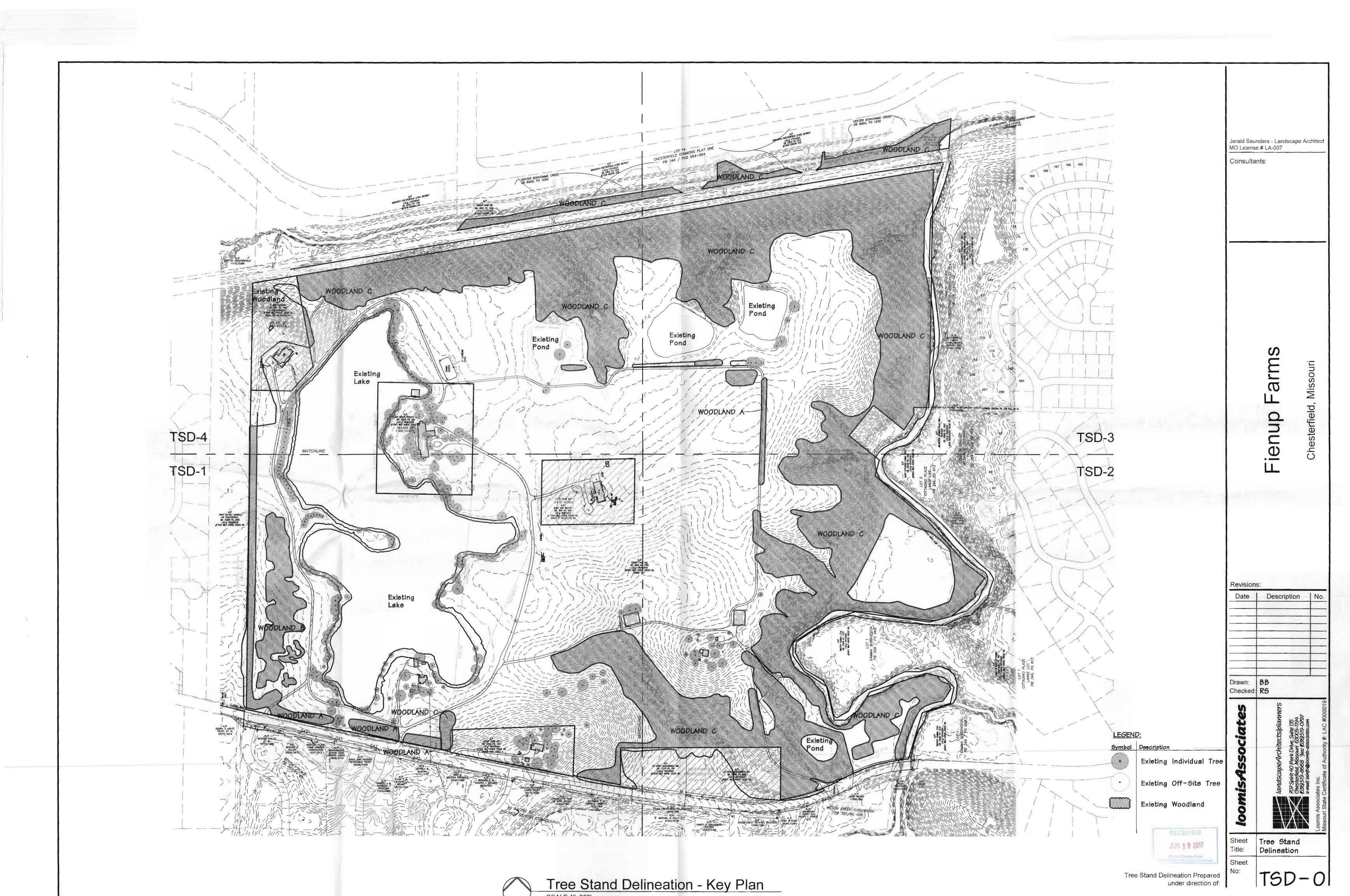


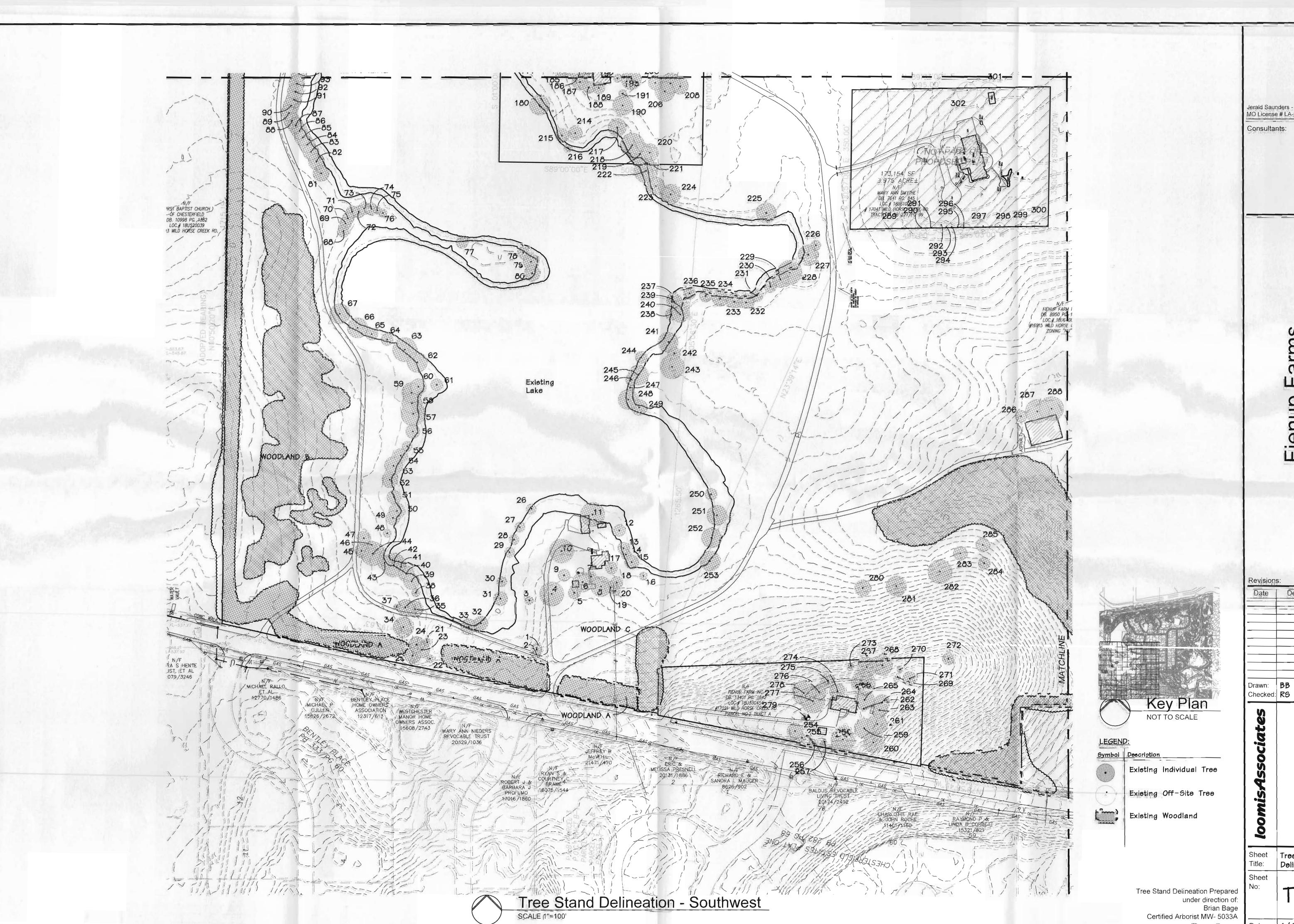












Jerald Saunders - Landscape Architect MO License # LA-007 Consultants:

Fienup

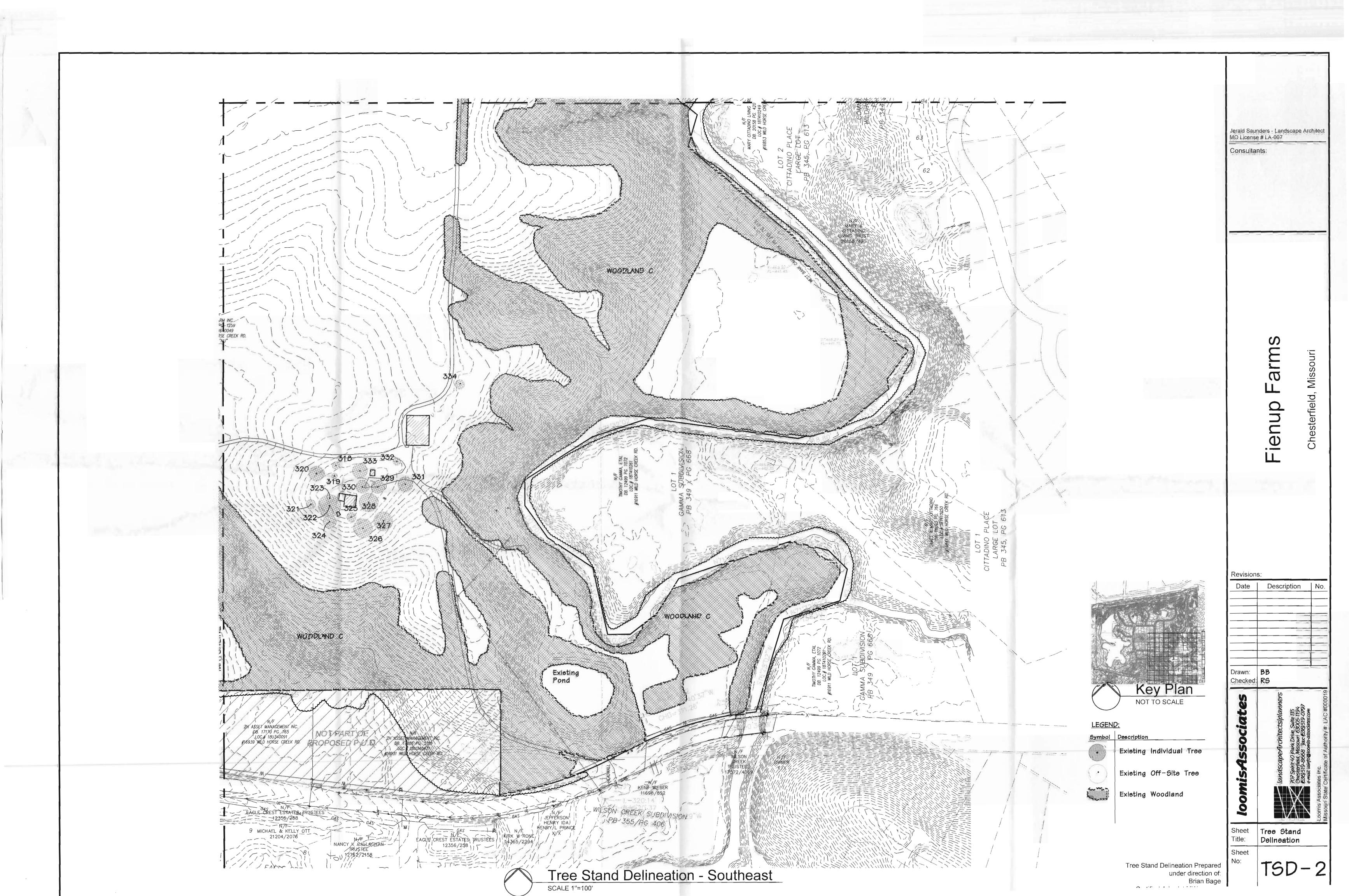
Drawn: BB

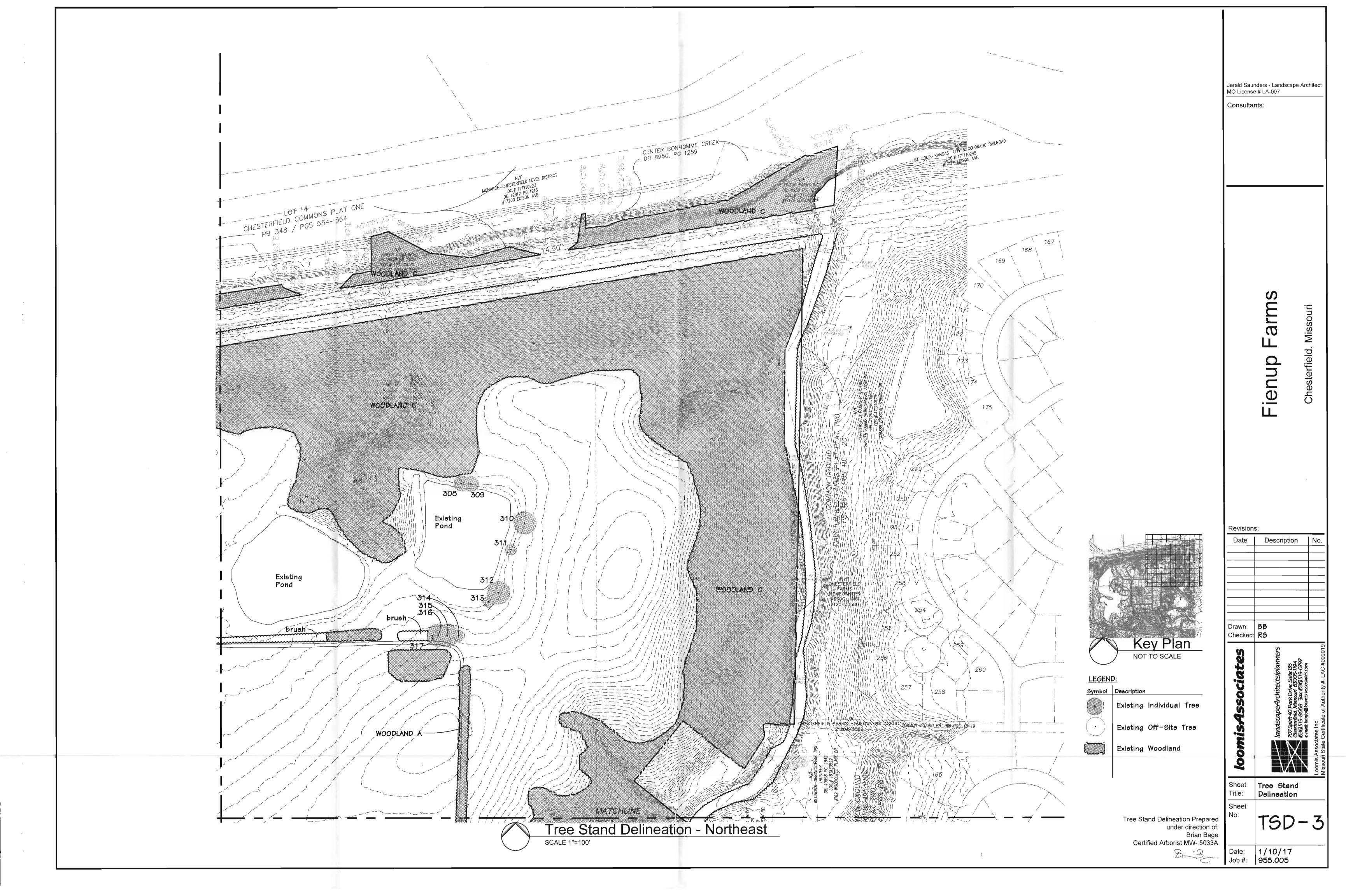
Tree Stand

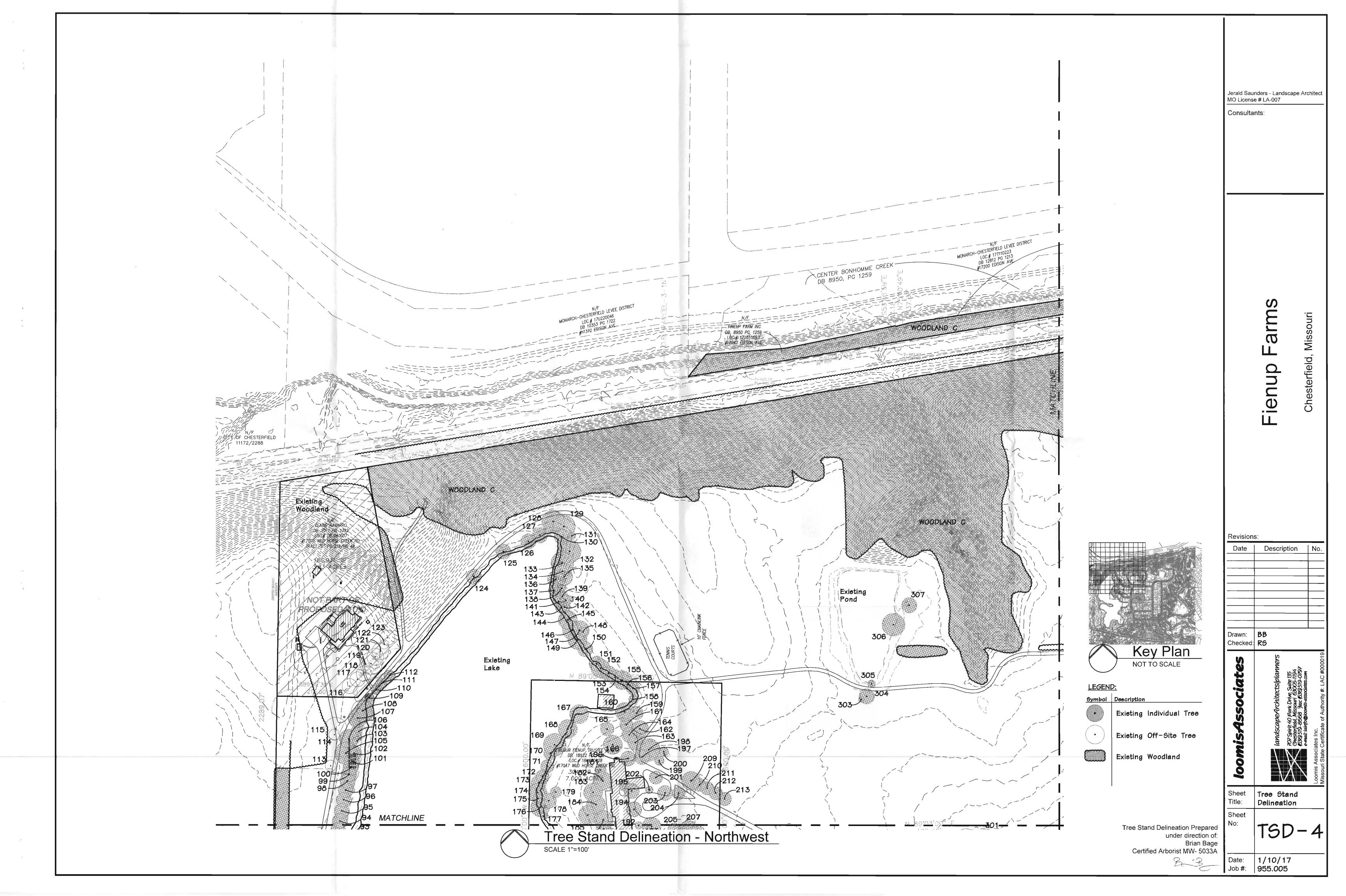
Delineation

TSD-1

1/10/17







## EXISTING INDIVIDUAL TREES

| <u>ID</u> | Tree Name                    | DBH              | Canopy<br>Diam. | Condition<br>Rating | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------|------------------------------|------------------|-----------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1         | Pine                         | 23               | 30              | 3                   | some deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2         | Pine                         | 12               | 20              | 2                   | deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 3         | Cedar                        | 14               | 20              | 2                   | some deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4         | Elm                          | 35               | 60              | 2                   | broken limbs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 5         | Cedar<br>Sugar Maple         | 1 <u>4</u><br>28 | 30<br>50        | 2 2                 | some deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 7         | Red Oak                      | 6                | 25              | 4                   | some deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 8         | Red Oak                      | 18               | 50              | 4                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 9         | Sugar Maple                  | 12               | 30              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 10        | Silver Maple                 | 37               | 70              | 2                   | broken limbs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 11        | Silver Maple                 | 37               | 70              | 1                   | some deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 12        | Ash                          | 14               | 30              | 2                   | 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 13<br>14  | Ash<br>Ash                   | 10<br>8          | 30<br>25        | 2                   | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 15        | Ash                          | 12               | 35              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 16        | Ash                          | 10               | 18              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 17        | Sugar Maple                  | 10               | 30              | 3                   | decay, deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 18        | Maple                        | 12               | 30              | 1                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 19        | Redbud                       | 14               | 30              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 20        | Cedar                        | 20               | 25              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 21<br>22  | Cedar<br>Mulberry            | 14<br>6          | 18<br>20        | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 23        | Ash                          | 14               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 24        | Ash                          | 18               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 25        | Ash                          | 14               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 26        | Ash _                        | 10               | 25              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 27        | Ash                          | 10               | 25              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 28        | Ash                          | 10               | 25              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 29        | Ash                          | 10               | 25              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 30<br>31  | Ash_                         | 14<br>14         | 35<br>35        | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 31        | Ash<br>Ash                   | 14               | 40              | 3                   | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 32<br>33  | Ash<br>Ash                   | 18               | 40              |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 34        | Black Cherry                 | 14               | 50              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 35        | Silver Maple                 | 20               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 36        | Elm                          | 25               | 40              | 2                   | some deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 37        | Persimmon                    | 10               | 15              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 38        | Silver Maple                 | 8                | 20              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 39        | Silver Maple                 | 20               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 40        | Silver Maple<br>Silver Maple | 18               | 20              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 41        | Silver Maple                 | 36               | 70              | 1                   | decay, deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 43        | Silver Maple                 | 14               | 35              | 2                   | acous, acadyood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 44        | Silver Maple                 | 24               | 60              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 45        | Silver Maple                 | 15               | 35              | 2                   | fork at 2'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 46        | Silver Maple                 | 10               | 20              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 47        | Silver Maple                 | 24               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 48        | Silver Maple                 | 12               | 20              | 2                   | 1 100 100                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 50        | Silver Maple<br>Silver Maple | 20               | 35<br>40        | 3                   | V.00                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 51        | Ash                          | 10               | 30              | 2                   | 1 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 52        | Ash                          | 14               | 40              | 2                   | Yellow                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 53        | Ash                          | 14               | 45              | 3                   | A STATE OF THE STA |
| 54        | Ash                          | 12               | 30              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 55        | Ash                          | 6                | 25              | 2                   | multistem                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 56        | Ash                          | 12               | 30              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 57        | Elm<br>Silver Maple          | 35               | 60              | 3                   | faul. at O                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 58<br>59  | Silver Maple<br>Red Oak      | 30               | 50              | 3                   | fork at 2'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 60        | Red Oak                      | 24               | 40              | 2                   | fgalls<br>galls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 61        | Sassafras                    | 12               | 30              | 1                   | grove x 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 62        | Red Oak                      | 30               | 50              | 2                   | galls, deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 63        | Red Oak                      | 28               | 60              | 3                   | galls, deadwood                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 64        | Red Oak                      | 24               | 30              | 2                   | trunk damage, topped                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 65        | Red Oak                      | 24               | 30              | 2                   | galls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 66        | Red Oak                      | 28               | 50              | 3                   | galls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 67<br>68  | Red Oak                      | 24<br>14         | 50<br>30        | 3                   | galls                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 69        | Pine<br>Pine                 | 14               | 30              |                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 70        | Pine                         | 10               | 30              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 71        | Pine                         | 24               | 30              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 72        | Pine                         | 24               | 30              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 73        | Pine                         | 18               | 30              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 74        | Pine                         | 18               | 30              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 75        | Pine Austrian Pina           | 10               | 20              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 76<br>77  | Austrian Pine<br>Ash         | 10               | 30              | 2                   | fork at 3'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 78        | Ash                          | 8                | 30              | 2                   | IOIK at 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 79        | Ash                          | 12               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 80        | Ash                          | 14               | 40              | 2                   | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 81        | Red Oak                      | 22               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 82        | Red Oak                      | 22               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 83        | Red Oak                      | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 84        | Red Oak                      | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 85        | Red Oak                      | 22               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 86        | Red Oak<br>Red Oak           | 22               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 88        | Red Oak                      | 22               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 89        | Red Oak                      | 22               | 40              | 3                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 90        | Red Oak                      | 22               | 40              | 2                   | _                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 91        | Red Oak                      | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 92        | Red Oak                      | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 93        | Red Oak                      | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 94        | Red Oak                      | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 95        | Red Oak                      | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 96<br>97  | Red Oak<br>Red Oak           | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 98        | Red Oak                      | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|           |                              | 22               | 40              | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 99        | Red Oak                      |                  | <del>-</del>    | 2                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

100 Red Oak 22 40 2

| <u>ID</u><br>101 | <u>Tree Name</u><br>Silver Maple | <u>рвн</u><br>15 | Diam.    | Condition<br>Rating | Comment         |
|------------------|----------------------------------|------------------|----------|---------------------|-----------------|
| 102              | Sugar Maple                      | 20               | 45       | 2                   |                 |
| 103              | Silver Maple                     | 18               | 25       | 2                   |                 |
| 104<br>105       | Silver Maple<br>Elm              | 18<br>24         | 40<br>60 | 3                   |                 |
| 106              | Red Oak                          | 18               | 50       | 4                   |                 |
| 107              | Red Oak                          | 18               | 50       | 3                   |                 |
| 108              | Elm                              | 18               | 60       | 3                   |                 |
| 109<br>110       | Bald Cypress<br>Willow Oak       | 10<br>8          | 25<br>20 | 3                   |                 |
| 111              | Willow Oak                       | 12               | 30       | 4                   |                 |
| 112              | Willow Oak                       | 12               | 35       | 3                   |                 |
| 113              | Ash                              | 10               | 30       | _ 3                 | Offsite         |
| 114              | Red Oak                          | 24               | 60       | 3                   | Offsite         |
| 115<br>116       | Pine<br>Golden Raintree          | 20<br>12         | 30<br>35 | 3                   | Offsite Offsite |
| 117              | Golden Raintree                  | 12               | 35       | 3                   | Offsite         |
| 118              | Sycamore                         | 24               | 60       | 3                   | Offsite         |
| 119              | Black Cherry                     | 18               | 45       | 3                   | Offsite         |
| 120<br>121       | Red Oak                          | 12<br>10         | 40<br>15 | 3                   | Offsite Offsite |
| 122              | Red Oak<br>Beech                 | 12               | 30       | 1                   | Offsite         |
| 123              | Beech                            | 12               | 30       | 3                   | Offsite         |
| 124              | Ash                              | 14               | 25       | 2                   |                 |
| 125              | Elm                              | 12               | 40       | 2                   |                 |
| 126              | Ash                              | 14               | 35       | 2                   |                 |
| 127<br>128       | Elm<br>Sassafras                 | 18<br>14         | 50<br>50 | 3 2                 | fork of 01      |
| 128              | Sassafras<br>Sassafras           | 14               | 40       | 3                   | fork at 2'      |
| 130              | Persimmon                        | 7                | 20       | 3                   |                 |
| 131              | Sassafras                        | 18               | 50       | 2                   |                 |
| 132              | Walnut                           | 33               | 60       | 3                   |                 |
| 133              | Walnut                           | 25               | 45       | 2                   |                 |
| 134<br>135       | Walnut<br>Walnut                 | 26<br>18         | 45<br>45 | 2 2                 |                 |
| 136              | Walnut                           | 12               | 30       | 2                   |                 |
| 137              | Walnut                           | 8                | 15       | 2                   |                 |
| 138              | Walnut                           | 12               | 30       | 2                   |                 |
| 139              | Walnut                           | 18               | 45       | 2                   | multistem       |
| 140              | Walnut                           | 12               | 30       | 2                   | w.c.            |
| 141<br>142       | Walnut<br>Walnut                 | 12<br>18         | 30<br>40 | 2 2                 |                 |
| 143              | Walnut                           | 8                | 15       | 2                   |                 |
| 144              | Elm                              | 22               | 50       | 2                   |                 |
| 145              | Ash                              | 24               | 50       | 3                   |                 |
| 146              | Ash                              | 12               | 25       | 2                   |                 |
| 147<br>148       | Elm<br>Ash                       | 24               | 50<br>50 | 2 2                 |                 |
| 149              | Silver Maple                     | 24               | 40       | 2                   |                 |
| 150              | Silver Maple                     | 18               | 40       | 2                   | -               |
| 151              | Silver Maple                     | 22               | 50       | 2                   |                 |
| 152              | Silver Maple                     | 24               | 40       | 2                   |                 |
| 153              | Silver Maple                     | 18               | 40       | 3                   |                 |
| 154<br>155       | Silver Maple<br>Ash              | 20<br>10         | 50<br>20 | 3 2                 |                 |
| 156              | Ash                              | 14               | 35       | 2                   |                 |
| 157              | Ash                              | 12               | 20       | 1                   | 44              |
| 158              | Ash                              | 12               | 35       | 1                   |                 |
| 159              | Birch                            | 16               | 60       | 2                   |                 |
| 160<br>161       | Birch<br>Ash                     | 14<br>24         | 35<br>45 | 3 2                 |                 |
| 162              | Sugar Maple                      | 12               | 40       | 3                   |                 |
| 163              | Sugar Maple                      | 14               | 40       | 2                   |                 |
| 164              | Ash                              | 12               | 35       | 2                   |                 |
| 165              | Ash                              | 18               | 50       | 3                   |                 |
| 166              | Sugar Maple                      | 22               | 50       | 2                   | <u> </u>        |
| 167<br>168       | Ash<br>Red Oak                   | 18<br>39         | 50<br>70 | 3                   | <del>-</del>    |
| 169              | Sycamore                         | 6                | 30       | 4                   |                 |
| 170              | Red Oak                          | 14               | 35       | 3                   |                 |
| 171              | Sugar Maple                      | 14               | 35       | 3                   |                 |
| 172              | Red Oak                          | 18               | 40       | 3                   |                 |
| 173              | Red Oak                          | 24               | 55       | 3                   |                 |
| 174<br>175       | Red Oak<br>Red Oak               | 20               | 25<br>50 | 2                   |                 |
| 176              | Dogwood                          | 8                | 20       | 2                   |                 |
| 177              | Red Oak                          | 20               | 40       | 3                   |                 |
| 178              | Golden Raintree                  | 14               | 30       | 1                   |                 |
| 179              | Red Oak                          | 28               | 50       | 3                   | _ n             |
| 180<br>181       | Red Oak<br>Maple                 | 12<br>30         | 30<br>50 | 2                   | galls           |
| 182              | Maple                            | 36               | 60       | 3                   | <u> </u>        |
| 183              | Basswood                         | 36               | 50       | 2                   | topped          |
| 184              | Sugar Maple                      | 28               | 50       | 2                   |                 |
| 185              | Red Oak                          | 30               | 60       | 2                   |                 |
| 186              | Sugar Maple                      | 20               | 40       | 2                   |                 |
| 187<br>188       | Sugar Maple<br>Sugar Maple       | 20<br>18         | 30       | 2                   |                 |
| 189              | Red Oak                          | 20               | 70       | 3                   |                 |
| 190              | Spruce                           | 10               | 20       | 3                   |                 |
| 191              | Spruce                           | 10               | 20       | 3                   |                 |
| 192              | Red Oak                          | 24               | 70       | 2                   |                 |
| 193              | Sugar Maple                      | 20               | 40<br>50 | 2 2                 | _               |
| 194<br>195       | Sugar Maple<br>Sugar Maple       | 20<br>18         | 40       | 2                   |                 |
| 196              | Sugar Maple                      | 14               | 35       | 2                   |                 |
| 197              | Maple                            | 20               | 50       | 2                   |                 |
| 198              | Spruce                           | 14               | 20       | 3                   |                 |
| 199              |                                  | 14               | 25       | 3                   |                 |

| <u>ID</u><br>201 | Tree Name                    | DBH<br>8 | Canopy<br>Diam. | Rating | Comment            |
|------------------|------------------------------|----------|-----------------|--------|--------------------|
| 201              | Holly<br>Sugar Maple         | 8<br>18  | 15<br>50        | 2      |                    |
| 203              | Birch                        | 22       | 35              | 1      |                    |
| 204              | Birch                        | 12       | 35              | 3      | <del></del>        |
| 205              | Red Oak                      | 24       | 50              | 1      | galls              |
| 206              | Red Oak                      | 24       | 50              | 2      | galls              |
| 207              | Red Oak                      | 24       | 40              | 2      | galls              |
| 208              | Red Oak                      | 24       | 50              | 3      | galls              |
| 209              | Birch                        | 12<br>12 | 35<br>35        | 2 2    |                    |
| 211              | Birch Birch                  | 12       | 35              | 2      |                    |
| 212              | Birch                        | 12       | 35              | 2      |                    |
| 213              | Birch                        | 10       | 25              | 2      |                    |
| 214              | Sassafras                    | 14       | 25              | 2      | _                  |
| 215              | Sassafras                    | 18       | 25              | 2      | fork at 3'         |
| 216              | Persimmon                    | 22       | 45              | 3      |                    |
| 217              | Red Oak                      | 18       | 50              | 2      |                    |
| 218              | Elm                          | 22       | 60              | 1      |                    |
| 219              | Red Oak                      | 18       | 35              | 2 2    |                    |
| 220              | Persimmon<br>Elm             | 12<br>24 | 20<br>60        | 2      |                    |
| 222              | Maple                        | 18       | 35              | 3      |                    |
| 223              | Maple                        | 24       | 50              | 2      |                    |
| 224              | Ash                          | 24       | 50              | 1      |                    |
| 225              | Maple                        | 12       | 25              | 1      |                    |
| 226              | Elm                          | 32       | 50              | 1      |                    |
| 227              | Elm                          | 24       | 60              | 2      |                    |
| 228              | Silver Maple                 | 28       | 40              | 2      |                    |
| 229              | Silver Maple                 | 14       | 30              | 2      |                    |
| 230              | Silver Maple                 | 18       | 30              | 2      |                    |
| 231              | Silver Maple                 | 24       | 40              | 2      |                    |
| 232 <sub>2</sub> | Silver Maple                 | 24<br>24 | 40              | 2 2    |                    |
| 234              | Silver Maple<br>Silver Maple | 18       | 30              | 2      |                    |
| 235              | Silver Maple                 | 18       | 30              | 2      |                    |
| 236              | Red Oak                      | 24       | 40              | 2      | galls              |
| 237              | Red Oak                      | 18       | 35              | 2      | galls              |
| 238              | Red Oak                      | 24       | 40              | 2      | galls              |
| 239              | Red Oak                      | 24       | 40              | 2      | galls              |
| 240              | Red Oak                      | 30       | 50              | 2      | galls              |
| 241              | Ash                          | 12       | 35              | 2      |                    |
| 242              | Red Oak                      | 28       | 60              | 2      |                    |
| 243              | Maple                        | 18       | 30              | 3      |                    |
| 244              | Linden                       | 30       | 50              | 1 2    | es lls             |
| 245<br>246       | Red Oak<br>Ash               | 10       | 30<br>15        | 2      | galls              |
| 247              | Silver Maple                 | 24       | 50              | 1      |                    |
| 248              | Tulip                        | 24       | 40              | 2      |                    |
| 249              | Silver Maple                 | 14       | 30              | 2      |                    |
| 250              | Red Oak                      | 24       | 50              | 1      | galls              |
| 251              | Red Oak                      | 28       | 50              | 2      | galls              |
| 252              | Red Oak                      | 24       | 50              | 3      | galls              |
| 253              | Red Oak                      | 24       | 40              | 3      | galls              |
| 254              | Redbud                       | 12       | 20              | 3      |                    |
| 255<br>256       | Pine                         | 8        | 15              | 3      |                    |
| 257              | Pine<br>Sweetgum             | 30       | 15              | 3      |                    |
| 258              | Sweetgum                     | 28       | 50              | 3      |                    |
| 259              | red                          | 30       | 50              | 2      |                    |
| 260              | Walnut                       | 18       | 50              | 3      | -                  |
| 261              | Spruce                       | 12       | 20              | 3      |                    |
| 262              | Sweetgum                     | 18       | 40              | 2      |                    |
| 263              | Black Cherry                 | 12       | 30              | 2      |                    |
| 264              | Walnut                       | 24       | 50              | 1      |                    |
| 265              | Sweetgum                     | 30       | 60              | 3      |                    |
| 266              | Bald Cypress                 | 26       | 50              | 2      |                    |
| 267<br>268       | Walnut                       | 16<br>8  | 50              | 3      |                    |
| 269              | Dogwood<br>Walnut            | 5        | 20<br>15        | 1      |                    |
| 270              | Walnut                       | 14       | 35              | 2      |                    |
| 271              | Walnut                       | 12       | 30              | 2      | <u>-</u>           |
| 272              | Cedar                        | 10       | 20              | 2      | chains             |
| 273              | Elm                          | 14       | 40              | 1      |                    |
| 274              | Cedar                        | 12       | 30              | 2      | multistem          |
| 275              | Cedar                        | 18       | 30              | 3      |                    |
| 276              | Maple                        | 36       | 60              | 1      |                    |
| 277              | Maple                        | 30       | 60              | 2      | -1- •              |
| 278              | Redbud<br>Red Oak            | 10       | 20              | 1 3    | chains             |
| 279<br>280       | Red Oak<br>Sassafras         | 24<br>18 | 40<br>50        | 3 2    |                    |
| 281              | Sassafras                    | 14       | 60              | 2      | multistem          |
| 282              | Ash                          | 12       | 35              | 2      | grove x 7          |
| 283              | Cedar                        | 14       | 30              | 2      | 3.7.7.7            |
| 284              | Sassafras                    | 14       | 35              | 2      |                    |
| 285              | Cedar                        | 14       | 30              | 3      |                    |
| 286              | Sycamore                     | 18       | 50              | 3      |                    |
| 287              | Sycamore                     | 18       | 50              | 3      |                    |
| 288              | Sycamore                     | 18       | 50              | 3      | 20.20.00           |
| 289              | Pine                         | 28       | 30              | 2      | Offsite            |
| 290              | Pine                         | 24       | 30              | 3      | Offsite            |
| 291<br>292       | Pine<br>Bald Cypress         | 24       | 30              | 3 4    | Offsite Offsite    |
| 292              | Bald Cypress<br>Pine         | 22<br>24 | 30              | 2      | Offsite<br>Offsite |
| 293              | Pine                         | 24       | 30              | 2      | Offsite            |
| 295              | Redbud                       | 8        | 25              | 2      | Offsite            |
| 296              | Pine                         | 24       | 30              | 3      | Offsite            |
| 297              | Pine                         | 24       | 30              | 2      | Offsite            |
| 298              | Red Oak                      | 18       | 30              | 3      | Offsite            |
| 299              | Sugar Maple                  | 18       | 40              | 3      | Offsite            |

299 Sugar Maple 18 40 3

300 Sugar Maple 18 40 2

Offsite

Offsite

|           | ~            | nn   |       | Condition |            |
|-----------|--------------|------|-------|-----------|------------|
| <u>ID</u> | Tree Name    | DBH  | Diam. | Rating    | Comment    |
| 301       | Tulip        | 24   | 50    | 3         | Offsite    |
| 302       | Maple        | 10   | 15    | 2         | Offsite    |
| 303       | Persimmon    | 10   | 20    | 2         | galls      |
| 304       | Red Oak      | 14   | 40    | 3         |            |
| 305       | Persimmon    | 10   | 20    | 2         |            |
| 306       | Willow Oak   | 12   | 40    | 2         | fork at 2' |
| 307       | Silver Maple | 28   | 60    | 2         |            |
| 308       | Silver Maple | 12   | 40    | 2         |            |
| 309       | Sycamore     | 12   | 40    | 2         |            |
| 310       | Sycamore     | 16   | 50    | 2         |            |
| 311       | Maple        | 12   | 30    | 2         |            |
| 312       | Sycamore     | 18   | 50    | 2         |            |
| 313       | Sycamore     | 12   | 30    | 2         |            |
| 314       | Sycamore     | 12   | 30    | 2         |            |
| 315       | Sassafras    | 12   | 40    | 2         | grove x 4  |
| 316       | Black Cherry | 22   | 50    | 2         | fork at 2' |
| 317       | Boxelder     | 12 · | 25    | 2         |            |
| 318       | Pine         | 10   | 20    | 2         |            |
| 319       | Pine         | 10   | 15    | 2         |            |
| 320       | Birch        | 18   | 40    | 1         |            |
| 321       | Maple        | 16   | 25    | 3         |            |
| 322       | Red Oak      | 30   | 60    | 3         |            |
| 323       | Ash          | 10   | 20    | 1         |            |
| 324       | Maple        | 12   | 35    | 2         |            |
| 325       | Maple        | 12   | 35    | 2         | _          |
| 326       | Walnut       | 18   | 50    | 2         |            |
| 327       | Maple        | 22   | 50    | 1         |            |
| 328       | Red Oak      | 26   | 50    | 2         | _          |
| 329       | Red Oak      | 12   | 30    | 3         |            |
| 330       | Maple        | 12   | 30    | 3         |            |
| 331       | Mulberry     | 12   | 40    | 1         | multistem  |
| 332       | Maple        | 14   | 20    | 2         |            |
| 333       | Walnut       | 20   | 40    | 2         |            |
|           | Trans        |      | - '-  | 2         |            |

Tree Stand Delineation Narrative January 10, 2017

Total site area:

Woodland canopy: 2,926,761 sq.ft. (67.19 Ac.) Individual tree canopy: 330,065 eq.ft. (7.58 Ac.)

Total existing canopy: 3,256,826 eq.ft. (74.77 Ac.)

Woodland A:
Ornamentally planted buffers of White Pine, evenly spaced, in good condition averaging 14-18" DBH.

Woodland B:
The remnants of an strategically planted evergreen tree farm with species of pine and spruce in good condition ranging from 6-10" DBH.

Woodland C:
Moderate to steep slopes along the edges of the site bordering an existing creek and railroad. Large Hardwoods along the slopes featuring Oaks, Maples, Hackberry, and Black Cherry with sizes averaging 12–18" DBH in good condition.

Along the creek the woodland features bottomland species like Sycamore, Boxelder, Cottonwood, and Elm in fair condition with an understory of mostly honeysuckle with some Redbud and Dogwood.

Averaging 18-24 DBH.

There are no state champion or Monarch trees found on this site.

Tree Rating: 1 = In Decline
2 = Poor Quality
3 = Average Quality
4 = Good Quality
5 = Excellent Quality

Jerald Saunders - Landscape Architect MO License # LA-007

Consultants:

Revisions:

Date Description

Drawn: BB Checked: **R**5

Sheet Title: Tree Stand Delineation

Date: 1/16/17 Job #: 955.005

Sheet

Tree Stand Delineation Prepared under direction of: Certified Arborist MW- 5033A

Brian Bage