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Historic & Landmark Preservation Committee Staff Report

Meeting Date: December 12, 2022

From: Alyssa Ahner, Planner

Location: 14319 Olive Blvd

Description: 14319 Olive Blvd (Queatham House, LLC): A Certificate of Appropriateness for a 2-acre tract of land located north of Olive Blvd, east of Spyglass Summit Dr., and west of Paddington Hill Dr.

PROPOSAL SUMMARY

Queatham House, LLC has submitted an application for a Certificate of Appropriateness for modifications to a historic structure/site located on Olive Blvd. The modifications include alteration of shutters, addition of a mural, addition of a patio, fence installation, and landscaping installation.



Figure 1: Subject Site

HISTORY OF SUBJECT SITE

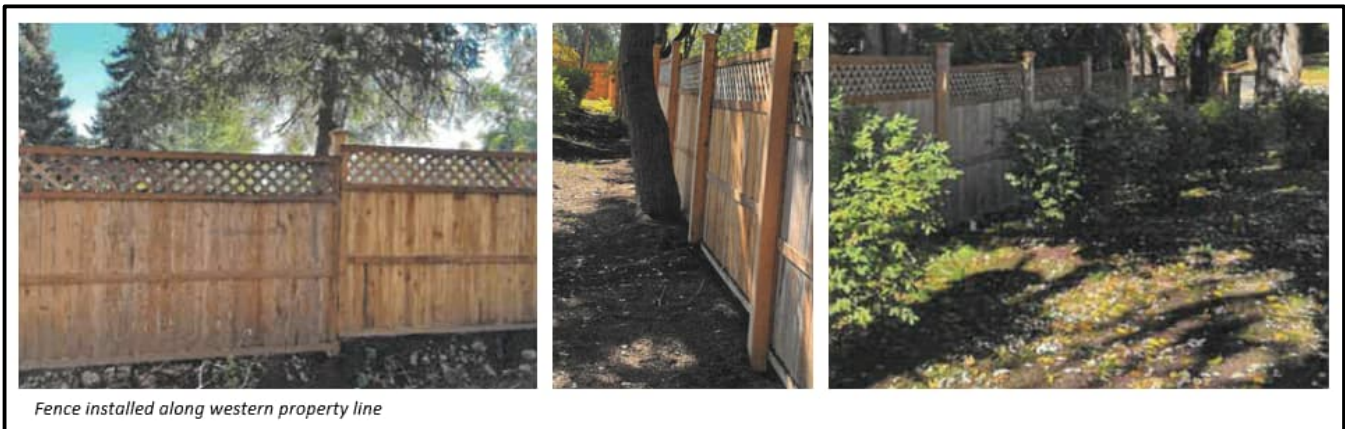
- 1965: Site was zoned "NU" Non-Urban District with the adoption of the St. Louis County Zoning Ordinance.
- 1981: A request to rezone from "NU" Non-Urban to "C8" Planned Commercial District was denied "due to the desire not to establish a precedent for commercial rezoning along this portion of Olive Blvd".
- 1983: A Landmark and Preservation Area (LPA) was requested in conjunction with P.C. 77-83 to allow retail shops and a restaurant in the existing residence. The proposal included an outdoor garden seating area as well as the sale of wine and beer. Planning Commission recommended approval by a vote 6-3 with the majority noting the landmark characteristics of the property. The proposal was referred to Public Improvements Committee (PIC) and a recommendation of denial was made.
- 1984: Petitioner met with members of neighborhood associations in the area and modified their original request. P.C. 120-84 requested a Landmark and Preservation Area (LPA) in addition to permitting retail and restaurant uses. The restaurant was limited to 25 seats and would be located entirely within the residence. The hours of operation would be 10:00 a.m. to 4:00 p.m. Monday through Saturday. Planning Commission recommended approval. On October 16th, 1984, St. Louis County Council made a motion to approve Ordinance No. 11,734.
- 1990: Ordinance 444 was approved by City of Chesterfield City Council. The ordinance approved amendments to the original ordinance which allowed the expansion of the tea room area from 25 seats to 45 seats; restricted the specified total commercial area to a maximum of 2,004 square feet; permitted a maximum of 4 parking spaces along the north side of the existing structure; specified that the parking area landscape screening was to include evergreen trees; and, amended the hours of operation from 10:00 a.m. to 4:00 p.m. Monday through Saturday to 7:00 a.m. to 4:00 p.m. seven days a week. Ordinance 482 was approved later that year permitting the sale of wine and beer, by the drink, for consumption on the premises.
- 1993: After switching ownership, a request was made to amend the hours of operation. For a limited time, the hours of operation for the retail use would be from 7:00 a.m. to 5:00 p.m. Upon completion of Olive Blvd improvements, the hours of operations for the retail use would be from 7:00 a.m. to 6:00 p.m. The hours of operation for the restaurant use would be limited from 7:00 a.m. to 4:00 p.m. seven days a week. Planning Commission passed a motion to approve by a vote of 8-0. The proposal was referred to Planning and Zoning Committee (now Planning & Public Works Committee) and a motion to approve passed by a vote of 3-0. City Council passed a motion to approve on August 16th.
- 2001: Ordinance 1719 established a Landmarks and Preservation Ordinance of the City of Chesterfield to include a Landmarks Preservation Committee.
- 2003: Ordinance 1960 establishing a landmark designation and design guidelines for the subject site was approved.
- 2022: Application for a change in zoning request was submitted.

STAFF ANALYSIS

Queatham House, LLC submitted a Change of Zoning application in early 2022 and a Public Hearing was held for the project on September 12, 2022. Since the Public Hearing, a Notice of Violation has been sent to the property owners for work completed without an approved Site Plan, Landscape Plan, or Certificate of Appropriateness. This work included the addition of a mural on the north elevation of the historic structure, addition of a patio in the rear of the property, fence installation, and the alteration of the shutters.

Per the Unified Development Code, the following items are subject to a Certificate of Appropriateness: 1) Any construction, alteration, or removal requiring a building permit from the City of Chesterfield; 2) Any demolition in whole or in part requiring a demolition permit from the City of Chesterfield; 3) Any construction, alteration, demolition or removal affecting a significant exterior architectural feature or appearance as specified in the ordinance designating the landmark or historic designation; 4) Any construction, alteration, or removal involving earth-disturbing activities that might affect archeological resources; 5) Any actions to correct a violation of a minimum maintenance standard.

In an effort towards remediating the open violations, the property owners have submitted an application for a Certificate of Appropriateness to have the completed work reviewed retroactively. The Certificate of Appropriateness does not approve the proposed site plan or change in zoning request. The Certificate of Appropriateness provides additional review for a property and/or structure that has been deemed a landmark by the City of Chesterfield Historic & Landmark Preservation Committee. The following images depict the work that has been completed and will require review by CHLPC to ensure compliance with the historical significance of the structure/site:



MOTION

The following options are provided to the Historic & Landmark Preservation Committee for consideration relative to this application:

- 1) "I move to approve (or deny) the Certificate of Appropriateness for 14319 Olive Blvd (Queatham House, LLC) as presented.

- 2) "I move to approve the Certificate of Appropriateness for 14319 Olive Blvd (Queatham House, LLC) with the following conditions..."

(Conditions may be added, eliminated, altered or modified)

Attachments:

- 1) Site Plan

EMERGENCY CONTACT INFORMATION:

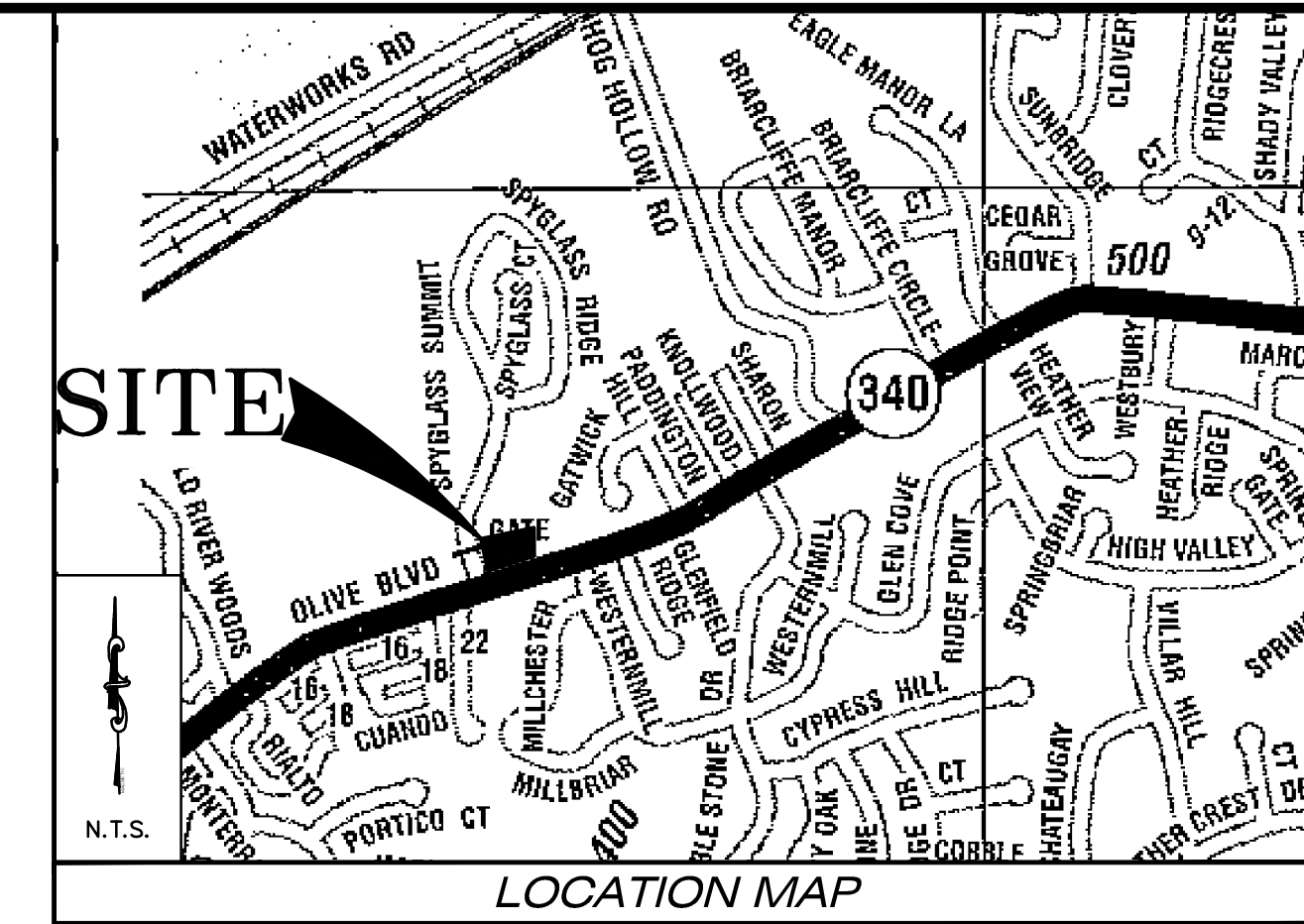
Name: Heather Everett
 Company: Old House in Hog Hollow.
 Address: 14319 Olive Blvd.
 Chesterfield, MO 63017
 Cell: 1-801-649-8437
 email: heverett.oldhouse@outlook.com

A SITE PLAN FOR 14319 OLIVE BLVD.

A TRACT OF LAND BEING PART OF U.S. SURVEY 206,
 TOWNSHIP 45 AND 46 NORTH, RANGE 4 EAST,
 ST. LOUIS COUNTY, MISSOURI

SHEET INDEX

1. TITLE SHEET
2. CONSTRUCTION NOTES
3. EXISTING CONDITIONS & DEMO PLAN
4. SITE DEVELOPMENT PLAN
5. STORMWATER POLLUTION PREVENTION PLAN
6. SWPPP DETAILS
7. TREE IDENTIFICATION PLAN



DEVELOPMENT NOTES:

1. Site Address: 14319 Olive Blvd., Chesterfield, MO 63017, Loc.# 16R310974
2. Owner Information: Statesman Properties LLC, 13 Bellevere Country Club Grounds, St. Louis, MO 63141
3. Area of Tract: 87,120 SQ.FT. or 2.00 Acres more or less
4. Present Zoning: "NU" Non-Urban District Regulations (City of Chesterfield)
 - "NU" Non-Urban District Regulations Dimensional Requirements
 - Front Yard Setback: 50 Feet
 - Side Yard Setback: 20 Feet
 - Rear Yard Setback: 20 Feet
 - Minimum Site Area: 3 Acres
5. Utility Provider Districts:

Water:	Missouri American Water	Situs Served	Yes
Sewer:	MSD	Yes	Yes
Telephone:	AT&T Distribution	Yes	Yes
Gas:	Spire Missouri East	Yes	Yes
Electric:	Ameren Missouri Electric	Yes	Yes
Fire District:	Monarch		
School District:	Parkway		
6. According to the FIRM Flood Insurance Rate Map 29189C0177K Dated February 4, 2015, this development is located in Zone X unshaded, Areas determined to be outside the 0.2% chance annual floodplain.
7. The existing utilities shown hereon are field collected data and per available utility maps and are considered approximate only.
8. The contours shown hereon are per field collected data and DEM file download from the Missouri Spatial Data Information System Lidar (MSDIS). Contours outside of the limits of topographic survey shown hereon are considered approximate only.
9. The boundary information shown hereon is per a survey performed by Altea Land Surveyors.
10. Current Use: Office General
11. Proposed Use: Retail Sales Establishment, Neighborhood
12. Parking Requirements: Retail Sales Establishment, Neighborhood - 4 spaces/1,000 sq.ft. of gross floor area
13. Parking Calculation: Required Parking = 2,400 sq.ft. x 4 spaces/1,000 sq.ft. = 9 spaces
 Accessible Parking Req.= 1 Van Accessible Space
14. Parking Provided: Provided Parking Space = 24 Space, 1 of which is van accessible
15. The proposed development does not disturb more than an acre of ground, therefore MSD water quality volume reduction has not been provided.
16. The proposed development does not generate a differential runoff of 2.0 cfs or greater, therefore channel protection volume and flood protection has not been provided.

Existing	Area (s.f.)	Area (Ac)	PI	Q
Building	2,753	0.063	3.54	0.22 cfs
Pavement	14,526	0.333	3.54	1.18 cfs
Green Space	69,821	1.603	1.7	2.72 cfs
Total	87,100	2.000		4.13 cfs

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Building	2,753	0.063	3.54	0.22 cfs
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Total	87,100	2.000		4.13 cfs

Differential Runoff = **0.00 cfs**

Existing	Area (s.f.)	Percentage
Building	2,753	3.2%
Pavement	14,526	16.7%
Green Space	69,821	80.2%
Total	87,100	
Existing Impervious Coverage		19.8%

Proposed	Area (s.f.)	Percentage
Building	2,753	3.2%
Pavement	14,526	16.7%
Green Space	69,821	80.2%
Total	87,100	
Proposed Impervious Coverage		19.8%

LAND DESCRIPTION:

A Tract of land being part of U.S. Survey 206, Township 46 North, Range 4 East and being more particularly described as follows:
 Beginning at a point on the North line of Olive Street Road, variable width, said point also being on the East line of the record plot of The Mansions at Spyglass Summit, as recorded in Plat Book 268 Page 90, of the St. Louis County Records; thence along said east line, North 12 degrees 07 minutes 02 seconds West, a distance of 247.75 feet to a point on the South line of said Mansions at Spyglass Summit Plat; thence along said South line North 78 degrees 23 minutes 12 seconds East, a distance of 706.16 feet to the Southeast corner of said Mansions at Spyglass Plat; thence South 00 degrees 28 minutes 09 seconds East, a distance of 210.53 feet to a point on the North line of the aforementioned Olive Street Road; thence along said North line South 71 degrees 12 minutes 27 seconds West, a distance of 92.95; thence South 72 degrees 09 minutes 43 seconds West, a distance of 272.67 feet to the point of beginning, containing 87,120 square feet or 4.00 acres, more or less. As per the survey performed by Altea Land Surveyors during December, 2021.

PROJECT BENCHMARK:

This project was performed with the use of Global Positioning System (GPS) equipment and the use of a Continuous Operating Reference Station (CORS) as part of the Missouri Department of Transportation (MoDOT) Virtual Reference System (VRS) Network. Data was obtained with the use of a Trimble R10 GPS Receiver and a TSC7 Data Collector.
 Horizontal Datum is Grid North, Missouri State Plane Coordinate System NAD'83 (2401), East Zone
 Vertical Datum is NAVD'88. Horizontal and Vertical data observation tolerance is 0.10 feet, horizontal and vertical Control point (CORS).

ABBREVIATIONS

AC	ACRE	XSEC	CROSS SECTION	DAI	DOUBLE AREA INLET	GI	GRATE INLET	PVMT	PAVEMENT	TBP	TO BE PROTECTED
AI	AREA INLET	XING	CROSSING	DS	DOWNSPOUT	HDPEHIGH	DENSITY POLYETHYLENE	PDE	PERMANENT DRAINAGE	TBR	TO BE REMOVED
ATG	ADJUST TO GRADE	CFS	CUBIC FEET PER SECOND	ESMT	EASEMENT	HW	HIGH WATER	TBR&R	TO BE REMOVED & RELOCATED	TBR&R	TO BE REMOVED & REPLACED
APPROX	APPROXIMATELY	CI	CURB INLET	ELEV	ELEVATION	HYD	HYDRANT	TW	TOP OF WALL ELEVATION	TYP	TYPICAL
ASPH	ASPHALT	CO	CLEANOUT	EP	END OF PIPE	IMP	IMPROVEMENT	UYP	USE IN PLACE	VCP	VITRIFIED CLAY PIPE
BW	BASE OF WALL ELEVATION	C&G	CURB & GUTTER	EX	EXISTING	IP	IRON PIPE OR PIN	WV	WATER VALVE	WV	WATER VALVE
BM	BENCHMARK	CO	CLEANOUT	FPS	FEET PER SECOND	LS	LAND SURVEYOR	WV	WATER VALVE	WV	WATER VALVE
BMP	BEST MANAGEMENT PRACTICE	CMP	CORRUGATED METAL PIPE	FF	FINISH FLOOR	MH	MANHOLE	YD	YARD DRAIN	YD	YARD DRAIN
BLDG	BUILDING	CONC	CONCRETE	FH	FIRE HYDRANT	MSD	METROPOLITAN ST. LOUIS SEWER DISTRICT				
CATV	CABLE TELEVISION	DCI	DOUBLE CURB INLET	FE	FLARED END	NTS	NOT TO SCALE	SCH	SCHEDULE		
CALC	CALCULATED	DIP	DUCTILE IRON PIPE	FBD	FLAT BOTTOM DITCH	OC	ON CENTER	SWPPP	STORMWATER POLLUTION PREVENTION PLAN		
CIP	CAST IRON PIPE	DIA	DIAMETER	FD	FLOOR DRAIN	OC	ON CENTER	TBA	TO BE ABANDONED		
CL	CENTERLINE	Q	DISCHARGE	FL	FLOW LINE	OH	OVERHEAD				
CP	CLAY PIPE			FTG	FOOTING						

PROPERTY OWNER/DEVELOPER CERTIFICATION:

The Property Owner/Developer hereby certifies that he is familiar with the SWPPP and assumes full responsibility for the performance and maintenance of the SWPPP as stated on the approved plans. He will ensure that all contractors understand and are familiar with the SWPPP for the site and that each contractor agrees to implement and protect elements of the SWPPP as the relate to its work. The Property Owner's/Developer's onsite representative shall be responsible for the performance and maintenance of the SWPPP. In addition, the undersigned Owner/Developer assures that all City property or roads will be adequately protected.

Property Owner/Developer

Call BEFORE you DIG
 TOLL FREE
 1-800-344-7483
 MISSOURI ONE-CALL SYSTEM, INC.

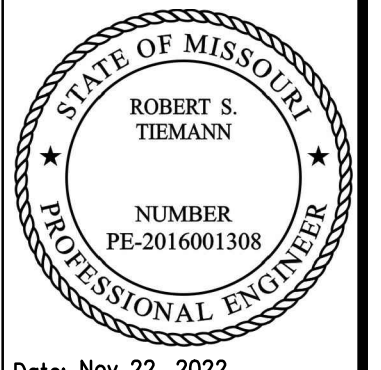
UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING AND/OR CONSTRUCTION OF IMPROVEMENTS.

SYMBOL LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED
X	FOUND CROSS	TV	CABLE TV BOX
●	FOUND IRON PIPE	⊗	LIGHT STANDARD
○	SET IRON ROD	⊗	CLEAN OUT
⊕	BENCHMARK	⊕	SANITARY MANHOLE
X 500	SPOT GRADE	⊕	SAMPLING TEE
TS	TRAFFIC SIGNAL BOX	⊕	SEPTIC TANK ACCESS
□	PHONE BOX	⊕	STORM SEWER MANHOLE
○	UTILITY MANHOLE	⊕	GRATE INLET
○	BOLLARD	⊕	AREA INLET
⊗	MAILBOX	⊕	DOWNSPOUT
+	SIGN	—S16—	DRAINAGE SWALE
+	POST	—S16—	SURFACE CONTOUR
○	SHRUB	—8" PVC—	TREE LINE
○	DECIDUOUS TREE	—12" CMP—	SAN. SEWER
○	EVERGREEN TREE	—12" CMP—	STORM SEWER
□	ELECTRIC BOX	—OH—	OVERHEAD ELECTRIC LINE
□	ELECTRIC METER	—UE—	UNDERGROUND ELECTRIC
○	UTILITY POLE	—G—	GAS LINE
○	GUY WIRE	—W—	WATER LINE
○	GAS METER	—T—	TELEPHONE LINE
○	GAS VALVE	—FOL—	FIBER OPTIC LINE
○	WATER METER	—UTV—	CABLE TV
○	WATER VALVE	—G—	GUARDRAIL
○	HYDRANT	—X—	WIRE FENCE
○	WATER SHUT OFF	—O—	WROUGHT IRON FENCE
○	SPRINKLER HEAD	—O—	CHAIN LINK FENCE
⊗	IRRIGATION VALVE BOX	⊗	SANITARY DESIGNATOR
○	WELL	⊗	STORM DESIGNATOR
○	TEST HOLE	⊗	

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14319 OLIVE BLVD
 SITE PLAN
 TITLE SHEET



Date: Nov 22, 2022
 Robert Tiemann
 License No. PE-2016001308
 Civil Engineer

PROJECT NUMBER: 21-5118

DATE: 11/22/2022

DRAWN BY: MLP

GENERAL NOTES:

1. Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor, and shall be located prior to any grading and/or construction of improvements.
2. Erosion control shall not be limited to what is shown on the plans. The contractor shall take whatever means necessary to prevent siltation from entering adjacent roadways, properties, and ditches. Such control might include channeling runoff into sediment basins, channeling runoff into areas where an extra row of straw bales are used. A silt fence might be considered, if necessary.
3. No area shall be cleared without permission of the developer.
4. Owner/Developer assumes full responsibility as to the performance of the grading operation and assurance that all properties and City, County and State roads will be adequately protected.
5. Soil preparation and re-vegetation shall be performed according to City of Chesterfield requirements.
6. Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed.
7. Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The unsuitable material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly discing prior to the placement of any fill. The Soils Engineer shall approve the discing operation.
8. Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory rollers or high speed impact type drum rollers acceptable to the Soils Engineer. The rollers shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
9. The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals.
10. The Soils Engineer shall notify the Contractor of rejections of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.
11. All areas to receive fill shall be scarified to a depth of not less than 8-10 inches and then compacted to at least 85 percent of the maximum density as determined by the Modified AASHTO T-180 Compaction Test (ASTM-D1557). Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.
12. The sequence of operation in the fill areas will be: fill, compact, verify acceptable soil density, and repetition of the sequence. The acceptable moisture contents during the filling operation are those at which satisfactory dry densities can be obtained.
13. The surface of the fill shall be finished so that it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.
14. All cut and fill slopes should be a maximum of 33% slope (3:1) after grading.
15. All cohesive fill including filled places under proposed buildings and storm and sanitary sewer lines and paved areas including trench backfills within and off the road right-of-way shall be compacted to 90% for cohesive fill and 95% for granular fill of maximum density as determined by the Modified AASHTO T-180 Compaction Test (ASTM D1557)". All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during proof rolling and compaction.
16. Fill placed within proposed roadway easement shall be compacted to 90% M.O.D. Proctor and be 2% below to 4% above optimum moisture content.
17. Soft soil in the bottom and banks of any existing or former pond site should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed right-of-way locations or on sewer & building locations without approval by a Soils Engineer.
18. Any wells and/or springs which may exist on this property should be located and sealed in a manner acceptable to City of Chesterfield and St. Louis County.
19. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
20. If straw bales or silt fences are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by contractor.
21. When grading operations are completed or suspended for more than thirty (30) days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the Designated Official's recommendation. All finished grades (areas not to be disturbed by improvement) in excess of 23% slopes (5:1) shall be mulched and tacked at the rate of 120 pounds per 1000 square feet when seeded.
22. All existing trash and debris on-site must be removed and disposed of off-site.
23. Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.
24. The total yardage of this project is based on a 15% shrinkage factor.
25. The shrinkage factor is subject to change, due to soil conditions (types and moisture content), weather conditions, and the percentage of compaction actually achieved at the time of the year grading is performed. As a result, adjustments in final grade may be required. If adjustments need to be made, the contractor shall contact THD Design Group prior to completion of the grading.
26. Earth quantities were obtained from comparison of the proposed subgrade condition with the existing condition survey performed by THD Design Group on October 16, 2018.
27. The vertical grading tolerance shall be plus or minus 0.2 feet for all rough grading.
28. All construction and materials shall conform to City of Chesterfield Standards.
29. All storm sewers shall be Reinforced A.S.T.M. C-76, Class III minimum, unless otherwise shown on the plans.
30. All storm sewer pipe in the roadway easement shall be reinforced concrete pipe (A.S.T.M. C-76, Class III minimum).

31. All corrugated steel pipe shall conform to the requirements of AASHTO M-36 and shall be fully coated with bituminous material conforming to the requirements of AASHTO M-190. Corrugated steel pipe shall be helical pipe with reformed ends. Pipes shall be joined using either hugger bands with rubber o-ring gaskets or universal corrugated bands with sponge neoprene gaskets. All gasket materials shall conform to ASTM D-1056.
32. All standard curb inlets are to have front-of-inlet 2' (two feet) behind curb.
33. Concrete Pipe Joints shall be M.S.D. Type "A" Approved Compression Joints and shall conform to the requirements of the Specification for Joints and Circular Concrete Sewer and Culvert Pipe, using flexible, watertight, rubber-type gaskets A.S.T.M. C-443. Band-Type Gaskets depending entirely on cement for adhesion and resistance to displacement during jointing shall not be used.
34. No grout shall be used in rip-rap. See plans for details.
35. 8" P.V.C. sanitary sewer pipe shall meet the following standards: A.S.T.M. D-3034 SDR35, with wall thickness compression joint A.S.T.M. D-3212. An appropriate rubber seal waterstop as approved by the sewer district shall be installed between P.V.C. pipe and masonry structures.
36. The Contractor shall prevent all storm/surface water, mud or construction debris from entering the existing sanitary sewer system.
37. The minimum vertical distance from the low point of the basement to the flowline of the sanitary sewer at the corresponding house connection shall not be less than two and one half feet (2 1/2') plus the diameter of the sanitary sewer.
38. All sanitary laterals shown on plan are to be constructed of 12 inch P.V.C. pipe.
39. All P.V.C. sanitary sewer pipe is to be SDR35 or equal with "clean 1/2" to 1" granular stone bedding", uniformly graded. This bedding shall be installed per MSD standard requirements.
40. Brick shall not be used on sanitary manholes.
41. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri D.N.R. Specification 10CSR-8.120 (7) (E).
42. All sanitary and storm sewer construction shall conform to current Metropolitan Sewer District Standards and Specifications unless otherwise directed by the City of Chesterfield.
43. All pipes shall have positive drainage through manholes. No flat base structures are allowed.
44. All trench backfills under paved areas shall be granular backfill, and shall be water jetted. All other trench backfills may be earth material (free of large clods or stones) and shall be water jetted.
45. All sewer tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.
46. Easements shall be provided for all proposed public storm sewers, sanitary sewers, and utilities.
47. Gas, water, and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including house laterals.
48. All waterline construction shall conform to current Missouri American Water Company Standards and Specifications.
49. The Metropolitan Sewer District shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspections.
50. All streets within this set of improvement plans shall be Publicly maintained. (After being built to the City standards and specifications & accepted by the City).
51. The most stringent of the above requirements shall apply.
52. All service lines under streets are to have a 2 inch casing installed.
53. All water mains should have a 12 gauge solid core tracer wire taped to the top of water main.
54. All drop manholes are to be 48 inches, waterproofed.
55. Final testing: a mandrel must be pulled through and an air test may be required.
56. As-built locations of laterals must be provided to the MSD.
57. 42" manholes/Waterproofed for 8" sewers only. 48" manholes/waterproofed for sewers over 8"
58. The developer or municipality is advised that utility companies will require compensation for relocation of their utility facilities within public road right-of-way. Utility relocation cost shall be considered the developer's responsibility. The developer should also be aware of extensive delays in utility company relocation and adjustments. Such delays will not constitute a cause to allow occupancy prior to completion of road improvements.
59. Right-of-way and/or easement dedication(s) shall be completed prior to issuance of a Special Use Permit. Road improvements shall be completed prior to the issuance of an occupancy permit. If development phasing is anticipated, the development shall complete road improvements, rights-of-way dedication, and access requirements of each phase of development as directed by the Department of Transportation. 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.
60. Provide adequate temporary off-street parking for construction employees. Parking on non-surfaced areas shall be prohibited in order to eliminate the conditions whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driving conditions.
61. All storm water shall be discharged at an adequate natural discharge point. Sinkholes are not adequate discharge points.
62. Interim storm drainage control in the form of siltation control measures shall be provided.
63. The developer is required to provide adequate storm water systems in accordance with the City of Chesterfield and M.S.D. Standards.

64. All disturbed areas within the City of Chesterfield and St. Louis County right-of-way shall be sodded. Sinkholes are not adequate discharge points.
65. All work within the City of Chesterfield and St. Louis County right-of-way shall be constructed to City and County standards.
66. Additional siltation control shall be installed as required by the City of Chesterfield Public Works Department.
67. Contractor shall Maintain at least a ten foot (10') horizontal separation of water mains from any existing or proposed sanitary sewer. The distance must be measured edge-to-edge. Installation of the water main closer to a sanitary sewer is acceptable where the water main is laid in a separate trench or on an undisturbed earth shelf located on one (1) side of the sanitary sewer at an elevation so the bottom of the water main is at least eighteen inches (18") above the top of the sanitary sewer. (b) Providing a minimum vertical distance of eighteen inches (18") between the outside of the water main and the outside of the sanitary sewer where water mains cross sanitary sewer mains. This shall be the case where the water main is either above or below the sanitary sewer. At crossings, one (1) full length of water pipe must be located so both joints will be as far from the sanitary sewer line as possible. Special structural support for the water and sanitary sewer pipes may be required.
68. All sediment shall be washed from all vehicles at Wash-Down Station prior to leaving the site so that no sediment is tracked onto City of County roads.
69. A Permit shall be obtained from the City of Chesterfield of Public Works for construction of retaining walls.
70. Applicant shall use extreme caution in areas where traffic signal facilities are existing. It is the responsibility of the contractor/developer to contact the St. Louis County Department of Transportation at (314) 615-0215 a minimum of 78 hours in advance of construction work for locating and spotting existing traffic signal conduit. In the event the contractor damages any traffic signal facilities, repairs shall be made at the contractor's expense by an electrical contractor as directed by St. Louis County.
71. All affected offsite property owners shall be given notice 48 hours in advance of any work.
72. Any disturbed off site property (i.e. bushes, fences, mailboxes, etc.) shall be replaced in kind at the developer's expense.
73. All construction shall be per most current details located in City of Chesterfield sediment and erosion control manual.
74. Any entity that performs work on City of Chesterfield and St. Louis County maintained properties shall provide the City and or County with a Certificate of Insurance evidencing general liability coverage (bodily injury and property damage) in the amounts specified as the limits of liability set by the State for public entities. Such certificate shall include "the City of Chesterfield" or St. Louis County" as an additional insured and shall be provided prior to the issuance of any permit. Certificate shall provide for a 30 day policy cancellation notice to the City or County. Upon request, the City or County will provide the specific amounts for both per person and per occurrence limits.
75. Continuous pedestrian access shall be provided during the construction process. Prior to the start of construction, adequate pedestrian access around the site shall be provided and verified. No existing sidewalk shall be removed without providing adequate pedestrian facilities and routes during construction activities.
76. The contractor shall maintain existing traffic control signs (Street Name, Stop, No Parking, One-Way, Turn, etc) until such time as they need to be removed/relocated for construction operations. Temporary signing shall be in accordance with the current version of MUTCD Chapter 6F (Temporary Traffic Control Zone Devices). Existing signs shall not lie on the ground for any period of time. Portable supports shall not be located on sidewalks or areas designated for pedestrian traffic. Signs shall be crashworthy and properly maintained for cleanliness, visibility, and proper positioning, and shall be coordinated with the City of Chesterfield Public Works Department at (636) 537-4762.
77. Removal and replacement of sidewalk, curb, pavement, etc. shall be to the next joint.

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14319 OLIVE BLVD
SITE PLAN
CONSTRUCTION NOTES

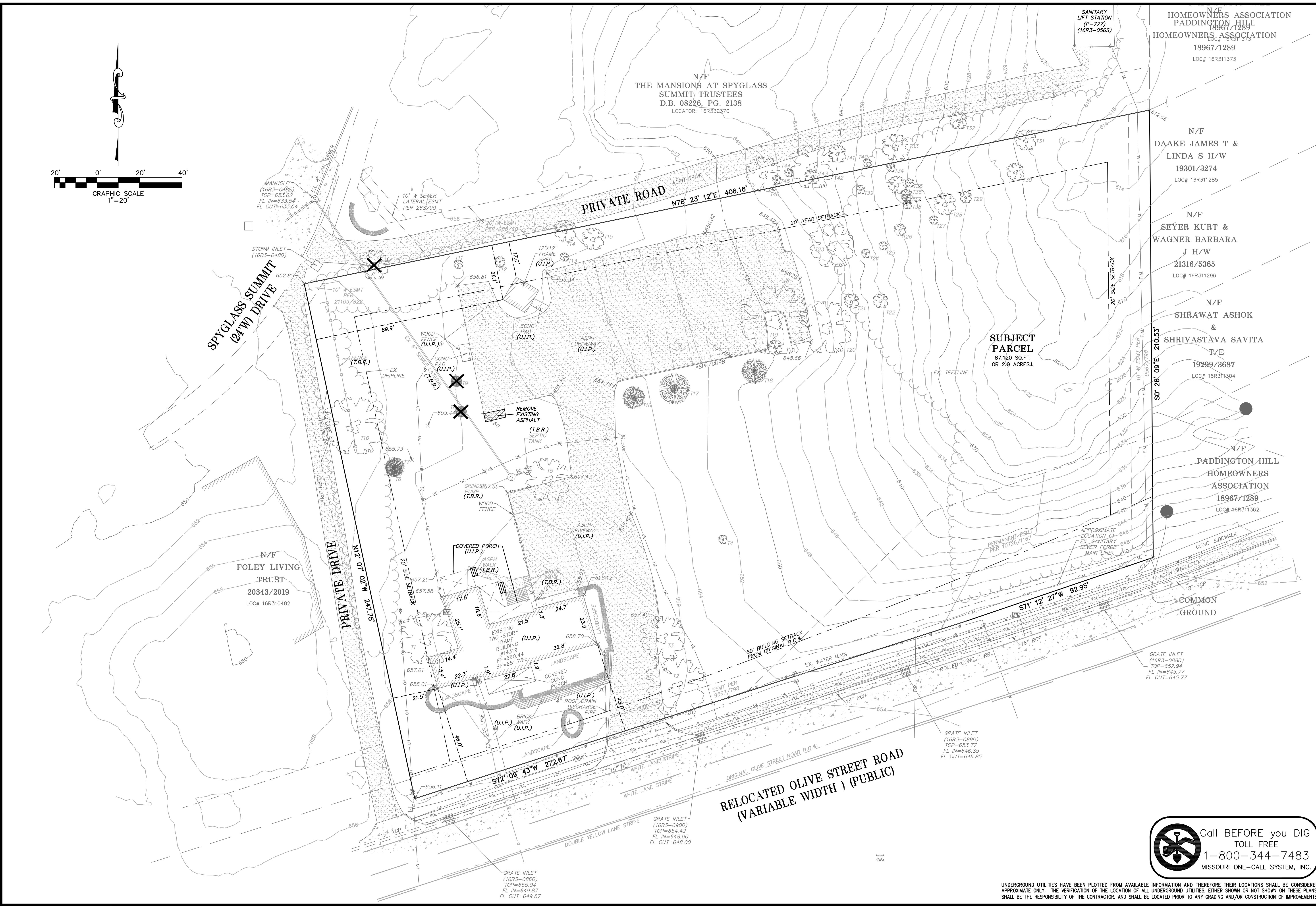
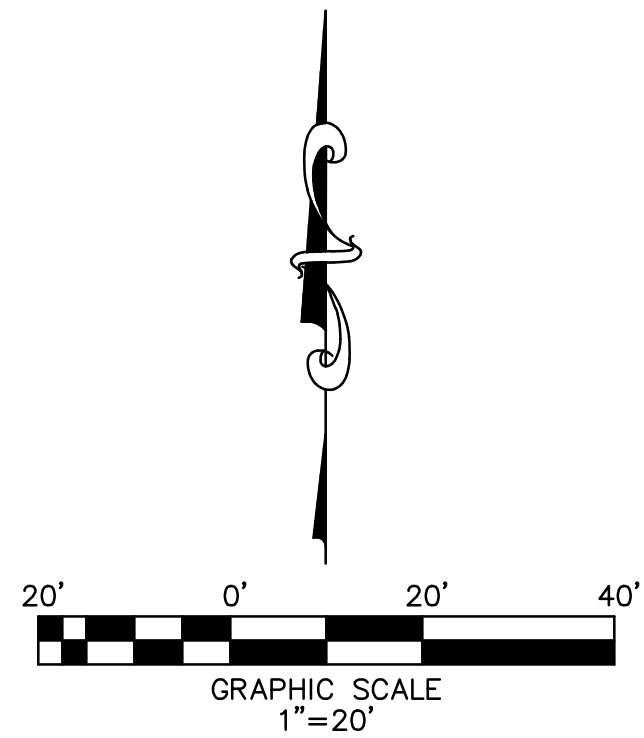


Date: Nov 22, 2022
 Robert Tiemann
 License No. PE-2016001308
 Civil Engineer

PROJECT NUMBER: 21-5118

DATE: 11/22/2022

DRAWN BY: MLP



N/F HOMEOWNERS ASSOCIATION
PADDINGTON HILL
HOMEOWNERS ASSOCIATION
18967/1289
LOC# 16R311373

N/F THE MANSIONS AT SPYGLASS
SUMMIT TRUSTEES
D.B. 08226, PG. 2138
LOCATOR: 16R330370

N/F DAAKE JAMES T &
LINDA S H/W
19301/3274
LOC# 16R311285

N/F SEYER KURT &
WAGNER BARBARA
J H/W
21316/5365
LOC# 16R311296

N/F SHRAWAT ASHOK &
SHRIVASTAVA SAVITA
T/E
19299/3687
LOC# 16R311304

N/F PADDINGTON HILL
HOMEOWNERS ASSOCIATION
18967/1289
LOC# 16R311362

MANHOLE (16R3-0485)
TOP=653.62
FL IN=633.54
FL OUT=633.64

STORM INLET (16R3-0480)

10' W SEWER LATERAL ESMT PER 268/90

12'X12' FRAME SHED (U.I.P.)

CONC PAD (U.I.P.)

REMOVE EXISTING ASPHALT (T.B.R.)

SEPTIC TANK (T.B.R.)

GRIND 887.55 PUMP (T.B.R.)

COVERED PORCH (U.I.P.)

BRICK WALK (U.I.P.)

LANDSCAPE (U.I.P.)

COVERED CONC PORCH (U.I.P.)

ROOF DRAIN DISCHARGE PIPE (U.I.P.)

BRICK WALK (U.I.P.)

LANDSCAPE (U.I.P.)

LANDSCAPE (U.I.P.)

LANDSCAPE (U.I.P.)

LANDSCAPE (U.I.P.)

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LANDSCAPE (U.I.P.)

LANDSCAPE (U.I.P.)

SUBJECT PARCEL
87,120 SQ.FT.
OR 2.0 ACRES±

SANITARY LIFT STATION (P-777) (16R3-0565)

GRATE INLET (16R3-0880) TOP=652.94 FL IN=645.77 FL OUT=645.77

GRATE INLET (16R3-0890) TOP=653.77 FL IN=646.85 FL OUT=646.85

GRATE INLET (16R3-0900) TOP=654.42 FL IN=648.00 FL OUT=648.00

GRATE INLET (16R3-0860) TOP=655.04 FL IN=649.87 FL OUT=649.87

RELOCATED OLIVE STREET ROAD (VARIABLE WIDTH) (PUBLIC)

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14319 OLIVE BLVD
SITE PLAN
TITLE SHEET

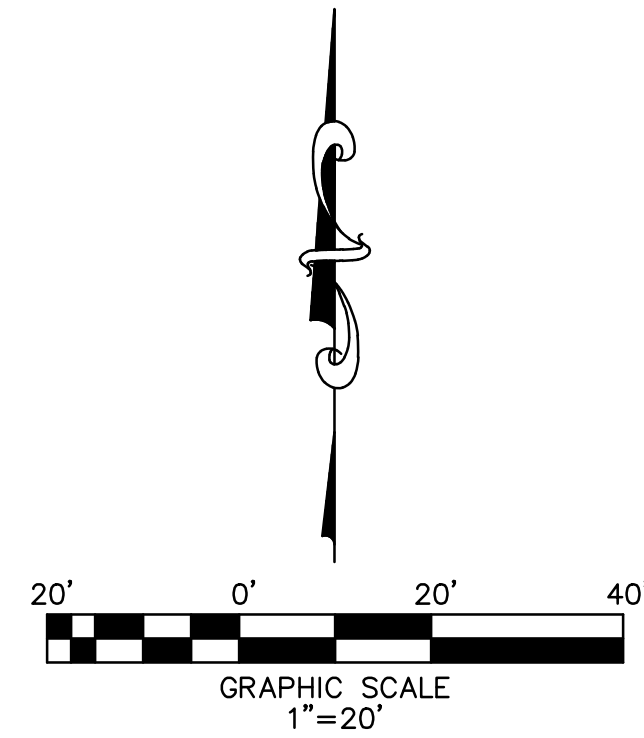
STATE OF MISSOURI
ROBERT S. TIEMANN
PROFESSIONAL ENGINEER
NUMBER PE-2016001308

Date: Nov 22, 2022
Robert Tiemann
License No. PE-2016001308
Civil Engineer

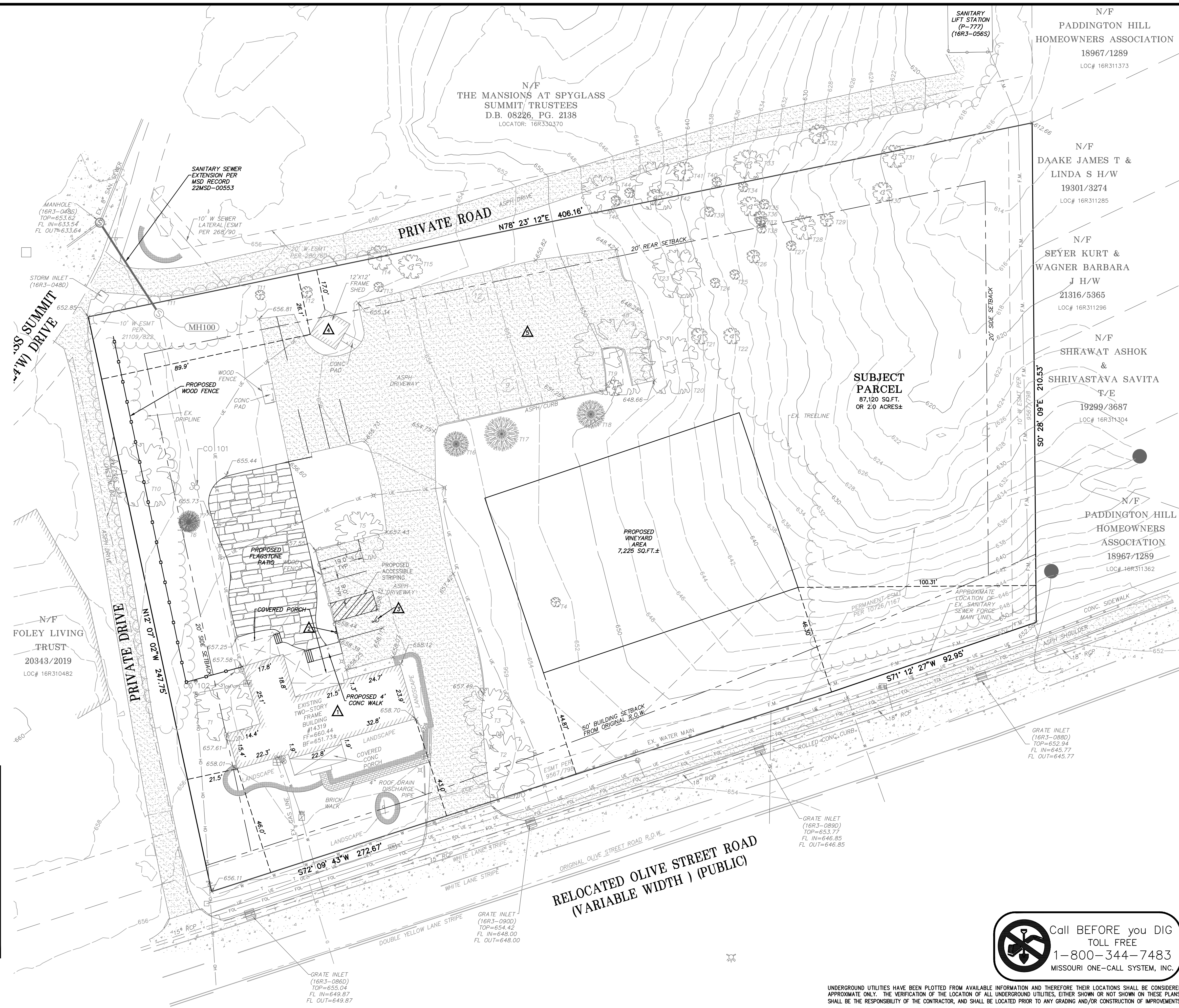
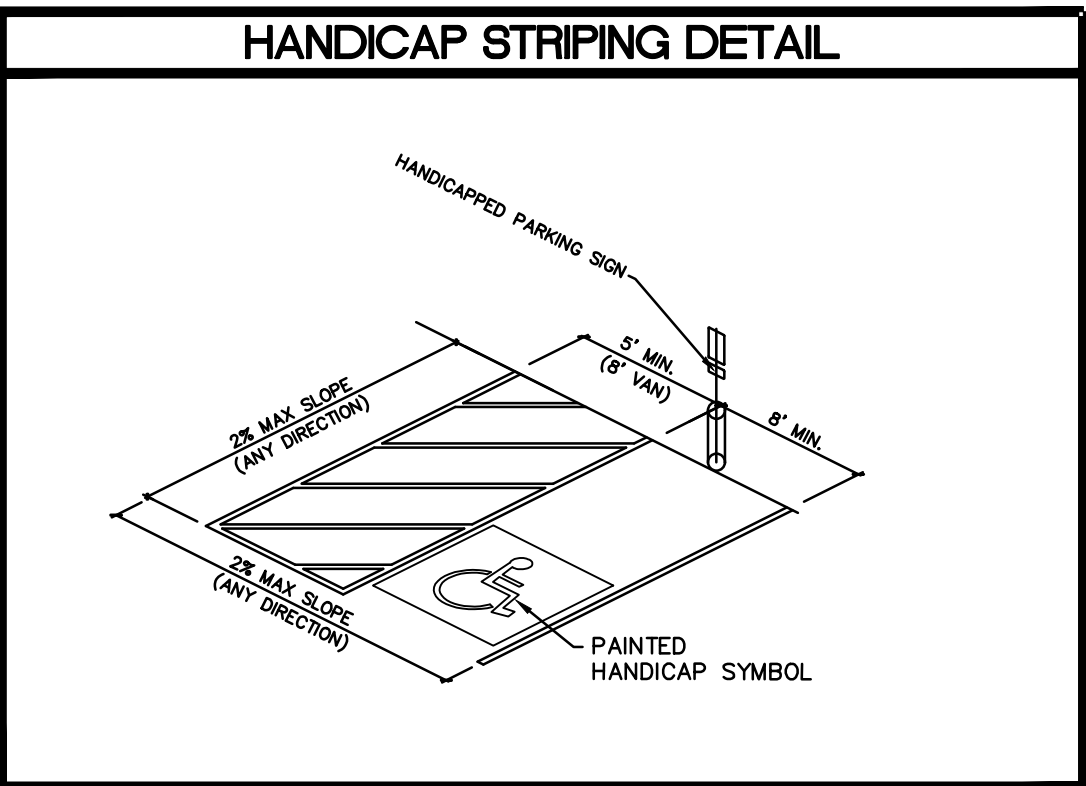
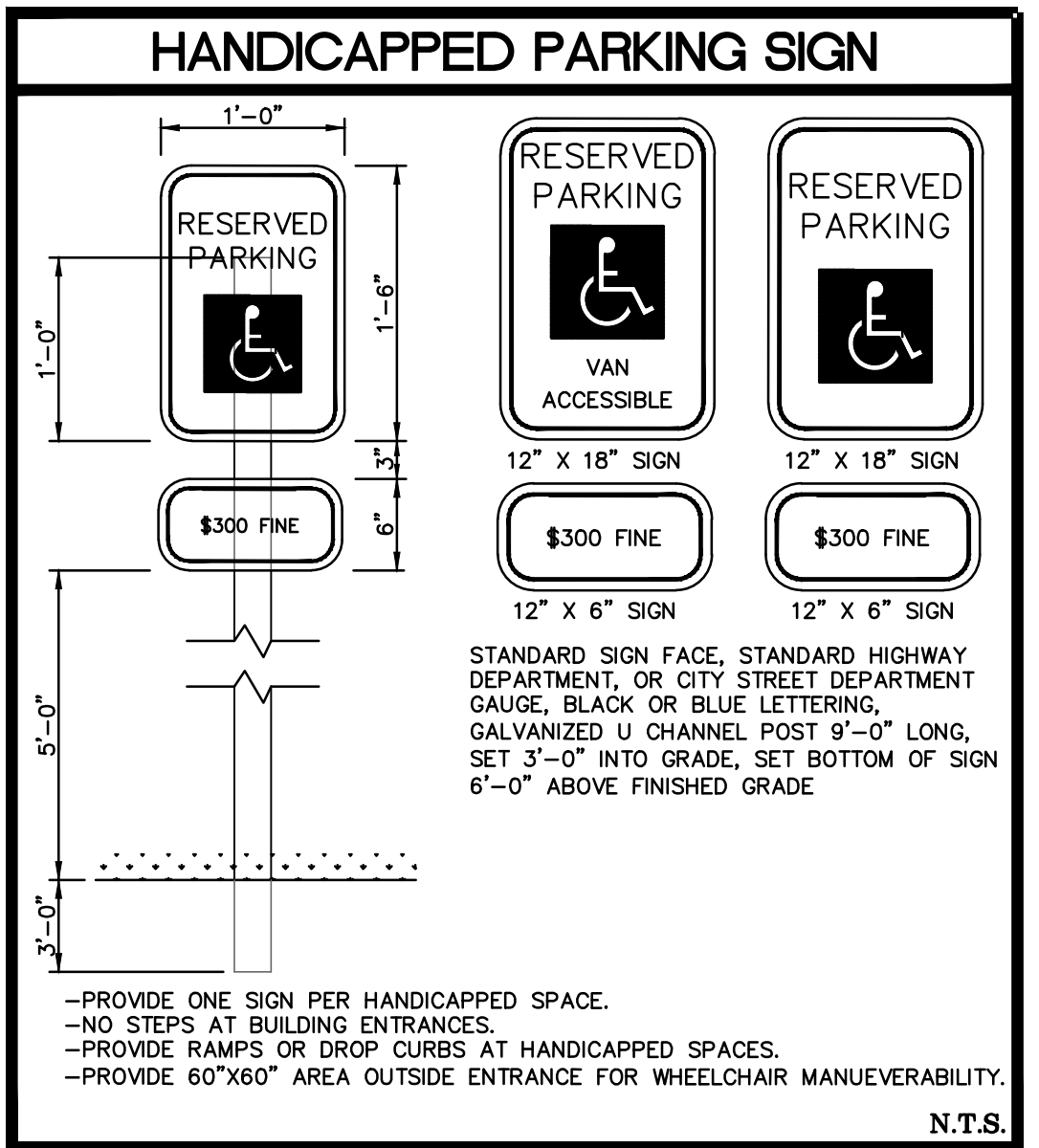
PROJECT NUMBER: 21-5118
DATE: 1/22/2022
DRAWN BY: MLP

3 OF 7

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING AND/OR CONSTRUCTION OF IMPROVEMENTS.



- KEYED NOTES**
- ▲ EXISTING BUILDING WITH PROPOSED INTERIOR RENOVATION FOR RETAIL SHOP WITH OFFICE AND STORAGE AREA FOR OPERATIONS OF BUSINESS
 - ▲ PROPOSED ACCESSIBLE PARKING SIGN WITH VAN ACCESSIBLE PLAQUE. SEE DETAIL ON THIS SHEET
 - ▲ PROPOSED ACCESSIBLE PARKING STRIPING. SEE DETAIL ON THIS SHEET
 - ▲ EXISTING ACCESSORY STRUCTURE TO BE USED FOR STORAGE OF RETAIL PRODUCTS.
 - ▲ EXISTING PARKING LOT TO BE USED IN PLACE



N/F PADDINGTON HILL HOMEOWNERS ASSOCIATION 18967/1289 LOC# 16R311373

N/F DAAKE JAMES T & LINDA S H/W 19301/3274 LOC# 16R311285

N/F SEYER KURT & WAGNER BARBARA J H/W 21316/5365 LOC# 16R311296

N/F SHRAWAT ASHOK & SHRIVASTAVA SAVITA T/E 19299/3687 LOC# 16R311304

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14319 OLIVE BLVD
SITE PLAN
SITE DEVELOPMENT PLAN

STATE OF MISSOURI
ROBERT S. TIEMANN
NUMBER PE-2016001308
PROFESSIONAL ENGINEER

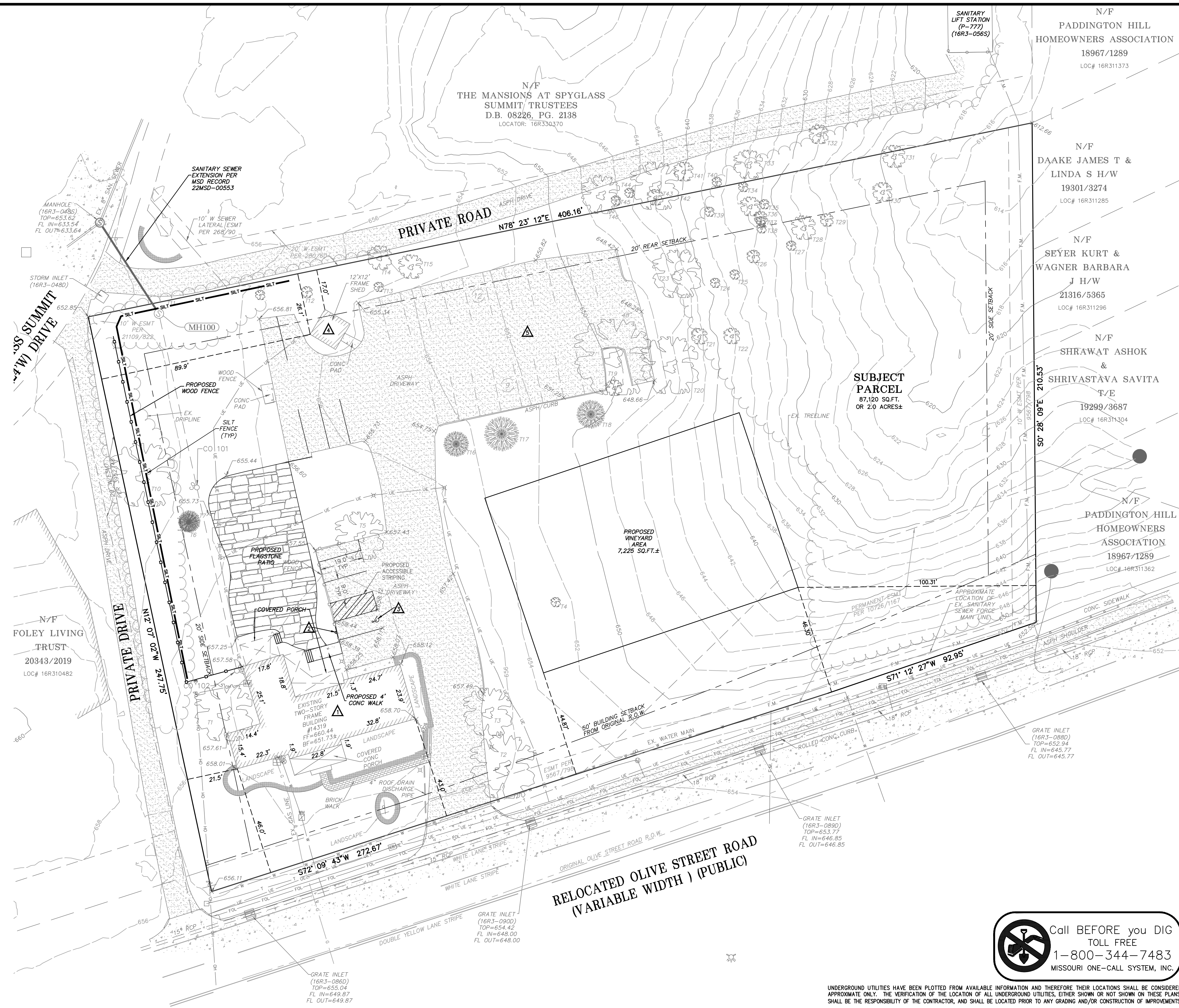
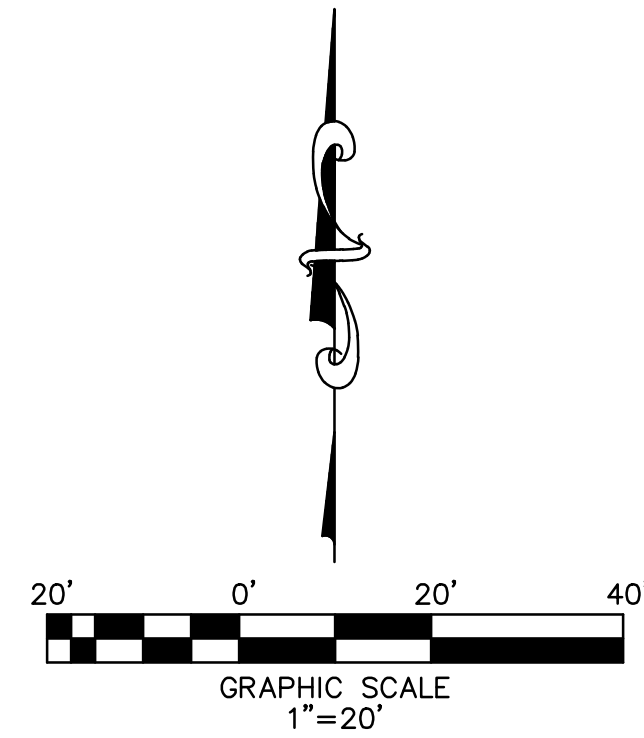
Date: Nov 22, 2022
Robert Tiemann
License No. PE-2016001308
Civil Engineer

PROJECT NUMBER: 21-5118
DATE: 1/12/2022
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N/F
PADDINGTON HILL
HOMEOWNERS ASSOCIATION
18967/1289
LOC# 16R311373

N/F
DAAKE JAMES T &
LINDA S H/W
19301/3274
LOC# 16R311285

N/F
SEYER KURT &
WAGNER BARBARA
J H/W
21316/5365
LOC# 16R311296

N/F
SHRAWAT ASHOK
&
SHRIVASTAVA SAVITA
T/E
19299/3687
LOC# 16R311304

N/F
PADDINGTON HILL
HOMEOWNERS
ASSOCIATION
18967/1289
LOC# 16R311362

N/F
FOLEY LIVING
TRUST
20343/2019
LOC# 16R310482

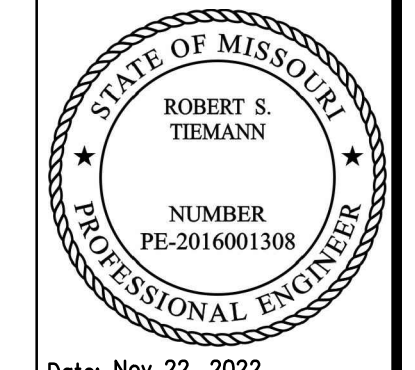
N/F
THE MANSIONS AT SPYGLASS
SUMMIT TRUSTEES
D.B. 08226, PG. 2138
LOCATOR: 16R330370

**SUBJECT
PARCEL**
87,120 SQ.FT.
OR 2.0 ACRES±

**RELOCATED OLIVE STREET ROAD
(VARIABLE WIDTH) (PUBLIC)**

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14319 OLIVE BLVD
SITE PLAN
STORMWATER POLLUTION PREVENTION PLAN



Date: Nov 22, 2022
Robert Tiemann
License No. PE-2016001308
Civil Engineer
PROJECT NUMBER: 21-5118
DATE: 1/22/2022
DRAWN BY: MLP

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UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING AND/OR CONSTRUCTION OF IMPROVEMENTS.

SILTATION CONTROL NOTES:

- Siltation control shall be installed prior to any grading or construction operation and shall be inspected and maintained as necessary to insure their proper function until sufficient vegetation has been established to prevent erosion control.
- The maintenance of all siltation controls shall be the responsibility of the developer.
- Additional siltation control may be required as directed by the local governing authority.
- All grading areas shall be protected from erosion by erosion control devices and/or seeding and mulching as required by the local governing authority.
- Additional siltation control devices may be required as directed by the local governing authority.

CONSTRUCTION SCHEDULE OF BMP'S:

- Install construction entrance, parking and washdown area. Construction parking area to be utilized as designated equipment, maintenance and fuel area. Remove when vehicles no longer access unpaved areas.
- Prior to clearing, siltation fences are to be installed at the perimeter of the land as shown. Remove when permanent vegetation of slope is established and approved by the local governing authority.
- Install inlet protection around existing area inlet prior to land disturbance. Remove after contributing drainage areas have been adequately stabilized and approved by the local governing authority.
- Construct rock check dams once drainage swale is constructed. Remove when upstream areas are stabilized with vegetation and approved by the local governing authority.
- Seed and mulch all disturbed areas when grading operations are completed.

EROSION CONTROL REQUIREMENTS:

- Soil stabilization shall be completed with five days of clearing or inactivity in construction.
- If seeding or another vegetative erosion control method is used it shall become established within two weeks or the local governing authority may require the site to be reseeded or a non-vegetative option employed.
- Techniques shall be employed to ensure stabilization on steep slopes and in drainage ways.
- Soil stockpiles must be stabilized or covered at the end of each workday, or perimeter controls must be in place to prevent silt from the stockpile from leaving the site.
- The entire site must be stabilized, using a heavy mulch layer or another method that does not require germination to control erosion, at the close of the construction season.
- Techniques shall be employed to prevent the blowing of dust or sediment from the site.
- Techniques shall be employed to divert upland runoff past disturbed slopes.

SEEDING SCHEDULE:

Vegetation shall be established on exposed soil after a phase of rough or finished grading has been completed or areas where no activity will occur for 30 days. See seeding rates on sheet 16 of this plan.

ROUTINE INSPECTIONS & MAINTENANCE:

At least once every week, and after every rainfall event of 0.25 inches or more, erosion and siltation control devices shall be inspected for damage and amount of sediment accumulated. Corrective actions must be taken when problems are found. Reports of these inspections and corrective actions shall be prepared on the forms provided by the City and submitted to the Department of Public Works within 5 days of the date of the inspection via email at SWPPP@chesterfield.mo.us

CONTAINMENT FAILURE PLAN:

In the event of any loss of contained sediment:

- Repair any damaged siltation fences.
- Clean up any necessary silted areas.
- Restore any necessary silted areas.
- Provide documentation of actions & mandatory reporting to St. Louis County Public Works.

ESTIMATED BMP QUANTITIES:

Item	Quantity	Unit
Siltation fence:	235	L.F.
Parking & Washdown area:	0	Ea.
Seeding, mulch and fertilizer areas:	0.10	Ac.
Sandbag Check Dam:	0	Ea.
Rock Check Dam:	0	Ea.

CONTROL REQUIREMENTS FOR CONSTRUCTION MATERIALS:

- Spill prevention and control facilities for materials such as paint, solvents, petroleum products, chemicals, toxic or hazardous substances, substances regulated under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), and any wastes generated from the use of such materials and substances, including their containers. Any containment systems employed to meet this requirement shall be constructed of materials compatible with the substances contained and shall be adequate to protect both surface and ground water.
- Collection and disposal of discarded building materials and other construction site wastes.
- Litter control.
- Control of concrete truck washouts.
- Assurance that on-site fueling facilities will adhere to applicable federal and state regulations concerning storage and dispensers.
- Provision of sufficient temporary toilet facilities to serve number of workers.

PERMITTEE(OWNER/DEVELOPER) SHALL AMEND THE SWPPP WHENEVER:

- Design, operation or maintenance of BMP's is changed.
- Design of the construction project is changed that could significantly affect the quality of the storm water discharges.
- Site operator's inspections indicate deficiencies in the SWPPP or any BMP.
- Inspections by the local governing authority or by the Missouri Department of Natural Resources indicate deficiencies in the SWPPP or any BMP.
- The SWPPP is determined to be ineffective in significantly minimizing or controlling erosion or excessive sediment deposits in streams or lakes.
- The SWPPP is determined to be ineffective in preventing pollution of waterways from construction wastes, chemicals, fueling facilities, concrete truck washouts, toxic or hazardous materials, site litter or other substances or wastes likely to have an adverse impact on water quality.
- Total settleable solids from a storm water outfall exceeds 0.5 mL/L/hr if the discharge is within the prescribed proximity of a "Valuable Resource Water" as defined by the MDNR.
- Total settleable solids from a storm water outfall exceeds 2.5 mL/L/hr for any other outfall.
- The local governing authority or Missouri Department of Natural Resources determines violations of water quality standards may occur or have occurred.

PERMITTEE (OWNER/DEVELOPER) SHALL:

- Notify all contractor and other entities (including utility crews, government employees, or their agents) who will perform work at the site, of the existence of the SWPPP and what actions or precautions shall be taken while onsite to minimize the potential for erosion and the potential for damaging any BMP.
- Determine the need for and establish training programs to ensure that all site workers have been trained, at a minimum, in erosion control, material handling & storage and housekeeping.
- Provide copies of the SWPPP to all parties who are responsible for installation, operation or maintenance of any BMP.
- Maintain a current copy of the SWPPP on the site at all times

ESTIMATED SCHEDULE OF OPERATIONS:

Proposed start of operations – October, 2021

Approximate durations:

Install construction parking and washdown area	1 day	(December 2022)
Install perimeter silt fence	2 days	(December 2022)
Clearing	2 days	(December 2022)
Rough Grading	2 weeks	(December 2022)
Install rock check dams	1 day	(December 2022)
Sewer Installation	1 week	(Dec2022–Jan2023)
Install inlet protection	1 day	(January 2021)
Final grading & vegetation	1 week	(January 2021)
Removal of BMP's	When conditions are met	

Note: Schedule durations are subject to change due to weather conditions. Some operations will have overlapping time frames.

GENERAL NOTES:

- All existing improvements are to remain unless otherwise noted.
- See sheet 1 and 2 for additional notes, legend and abbreviations.
- Maximum slope permitted on the project is 3:1.
- Existing elevations shown are approximate and shall be confirmed by the contractor prior to construction.

SWPPP NOTES:

- Any land clearing, construction, or development involving the movement of earth shall be in accordance with the Storm Water Pollution Prevention Plan, and the person issued a Land Disturbance Permit assumes and acknowledges responsibility for compliance with the St. Louis County Land Disturbance Code and the approved Storm Water Pollution Prevention Plan at the site of the permitted activity.
- There are no known sink holes, springs, seeps, or karst features on the subject property.
- Locate State and County land disturbance permits, BMP inspection reports, etc. with the SWPPP.
- There are no planned non-stormwater discharge points with the stock pile operations.
- Upon the event that stormwater run-off occurs on-site the client or contractor shall immediately notify by email and phone call to the Special Inspector to inform him of the stormwater runoff and to inspect the repaired/replaced BMP.
- Special Inspector: Bob Sudholt
148 Chesterfield, Ind. Blvd. Ste E.
Chesterfield, MO 63005
Ph. 636-297-2972
- There are no proposed dewatering operations proposed with the stock pile operations.



Category: POLLUTION PREVENTION
Use Group: TEMPORARY
ISSUED 6-1-03
REVISED 1-25-06

NON-SEDIMENT POLLUTION CONTROL

PHYSICAL DESCRIPTION:

Control measures designed to prohibit chemicals, hazardous materials, solid waste, human waste and construction debris from polluting stormwater. Pollutants carried in solution or as surface films on runoff will be carried through most erosion control and sediment capture BMPs. Keeping substances like fuel, oil, asphalt, paint, solvents, fertilizer, soil additives, concrete wash water, solid waste, human waste and construction debris from polluting runoff can be accomplished to a large extent through good housekeeping on the site and following the manufacturer's recommendations for disposal.

WHERE BMP IS TO BE INSTALLED:

Temporary sanitary facilities, collection, storage and fueling areas should be located onsite in an area that does not receive a substantial amount of runoff from upland areas and does not drain directly to lakes, creeks, streams, rivers, sewers, groundwater, wetlands, or road ditches.

CONDITIONS FOR EFFECTIVE USE OF BMP:

- Reduction in pollutants depends heavily on how construction personnel perform their duties. An effective management system requires training and signage to promote proper storage, handling and disposal of materials. Follow up observations of actions and inspection of storage areas by management personnel is also required.
- Plans should contain notes clearly stating requirements for addressing potential pollutants
- Fueling areas and storage areas for hazardous materials should be protected by berms or other means of catching leaks or spills

WHEN BMP IS TO BE INSTALLED:

Immediately following installation of construction entrance and wash station

INSTALLATION/CONSTRUCTION PROCEDURES:

- Place waste receptacles near area of work
- Construct protective berm or other devices around fueling and hazardous materials storage areas
- Install appropriate signage
- Post guidelines for proper handling, storage and disposal of materials, and emergency spill cleanup on site
- Provide sufficient temporary toilet facilities to serve the number of workers on the site

O&M PROCEDURES:

- Inspect activities on regular basis
- Inspect storage areas and control devices at least every week and after every storm
- Maintenance of temporary toilet facilities should be frequent and thorough
- Make necessary corrections and repairs

SITE CONDITIONS FOR REMOVAL:

Maintain practices until all construction on the site has been completed

TYPICAL DETAILS:

General pollution prevention notes attached

NON-SEDIMENT POLLUTION CONTROL PP-1



Category: POLLUTION PREVENTION
Use Group: TEMPORARY
ISSUED 6-1-03
REVISED 1-25-06

POLLUTION PREVENTION PROCEDURES

1. HANDLING AND DISPOSAL OF HAZARDOUS MATERIALS

- DO: Prevent spills
Use products up
Follow label directions for disposal
Remove lids from empty bottles and cans when disposing in trash
Recycle wastes whenever possible

- DON'T: Don't pour waste into sewers or waterways on the ground
Don't pour waste down the sink, floor drain or septic tanks
Don't bury chemicals or containers, or dispose of them with construction debris
Don't burn chemicals or containers
Don't mix chemicals together

- Containers shall be provided for collection of all waste material including construction debris, trash, petroleum products and any hazardous materials to be used onsite. All waste material shall be disposed of at facilities approved for that material.
- No waste materials shall be buried on-site.
- Mixing, pumping, transferring or otherwise handling construction chemicals such as fertilizer, lime, asphalt, concrete drying compounds, and all other potentially hazardous materials shall be performed in an area away from any watercourse, ditch or storm drain.
- Equipment fueling and maintenance, oil changing, etc., shall be performed only in an area designated for that purpose. The designated area is equipped for recycling oil and catching spills.
- Concrete wash water shall not be allowed to flow directly to storm sewers, streams, ditches, lakes, etc. without being treated. A sump or pit shall be constructed to contain concrete wash water.
- If substances such as oil, diesel fuel, hydraulic fluid, antifreeze, etc. are spilled, leaked, or released onto soil, the soil shall be dug up and disposed of at a licensed sanitary landfill (not a construction/demolition debris landfill). Spills on pavement shall be absorbed with sandmat, kitty litter or product designed for that purpose and disposed of at a licensed sanitary landfill. Hazardous or industrial wastes such as most solvents, gasoline, oil-based paints, and cement curing compounds require special handling. These materials will be removed from the site and recycled or disposed of in accordance with MoDNR requirements.
- State law requires the party responsible for a petroleum product spill in excess of 50 gallons to report the spill to MoDNR (537-634-2436) as soon as practical after discovery. Federal law requires the responsible party to report any release of oil if it reaches or threatens a sewer, lake, creek, stream, river, groundwater, wetland, or area, like a road ditch, that drains into one of the above.
- Sufficient temporary toilet facilities to serve the number of workers on the site shall be provided. The facilities shall be serviced frequently to maintain a sanitary condition.

NON-SEDIMENT POLLUTION CONTROL NOTES PP-1



Category: EROSION CONTROL
Use Group: TEMPORARY OR PERMANENT
ISSUED 6-1-03
REVISED 1-25-06

SEEDING

PHYSICAL DESCRIPTION:

Establishment of vegetation by spreading grass seed designed to protect exposed soil from erosion by eliminating direct impact of precipitation and slowing overland flow rates. Once established, the vegetative cover will also filter pollutants from the runoff.

WHERE BMP IS TO BE INSTALLED:

Exposed soil after a phase of rough or finish grading has been completed, or areas where no activity will occur for 5 days

CONDITIONS FOR EFFECTIVE USE OF BMP:

- Type of Flow: Sheet flow
Contributing Slope Length: 30 foot maximum for 3:1 slopes
50 foot maximum for slope between 3:1 and 10:1
100 foot maximum for slopes under 10%
- Minimum Rates: See attached chart(s)
Acceptable Dates: See attached chart

WHEN BMP IS TO BE INSTALLED:

Immediately after rough or finished grading is completed

INSTALLATION/CONSTRUCTION PROCEDURES:

- Install upstream BMPs to protect area to be seeded
- Rough grade area and remove all debris larger than 1 inch in diameter and concentrated areas of smaller debris
- Install stabilization grids, if needed
- Mix soil amendments (lime, fertilizer, etc.) into top 3"-6" of soil as needed
- Plant seed 1/4" - 1/2 inch deep
- Roll lightly to firm surface
- Cover seeded area with mulch unless seeding completed during optimum spring and summer dates
- Install additional stabilization (netting, bonded fiber matrix, etc.) as required
- Water immediately - enough to soak 4 inches into soil without causing runoff

O&M PROCEDURES:

- Inspect at least every week and after every storm
- Protect area from vehicular and foot traffic
- Reseed areas that have not sprouted within 21 days of planting
- Repair damaged or eroded areas and reseed and stabilize as needed
- Do not mow until 4 inches of growth occurs
- During the first 4 months, mow no more than 1/3 the grass height
- Re-fertilize during 2nd growing season

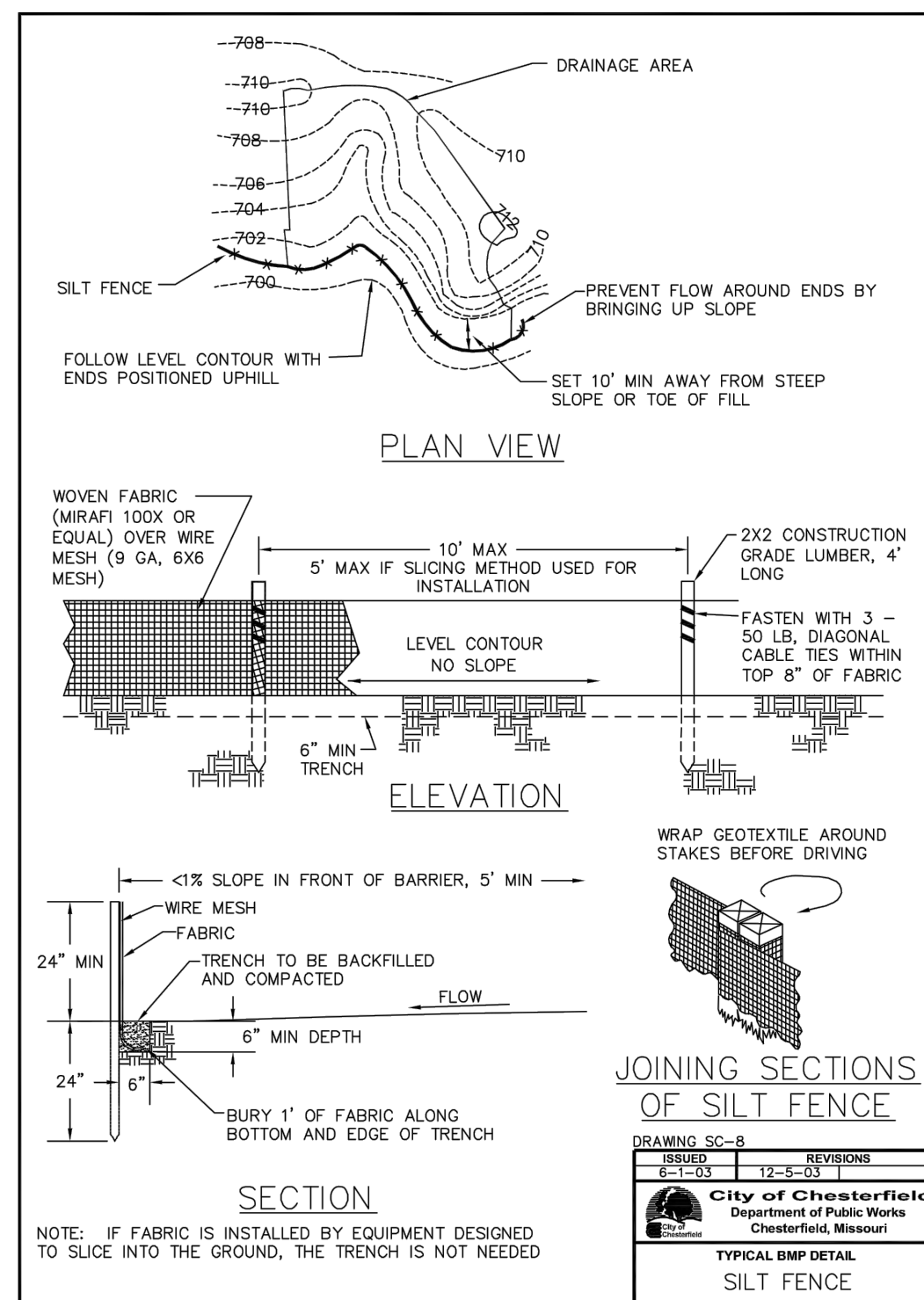
SITE CONDITIONS FOR REMOVAL:

Does not require removal, but temporary seeding can be removed immediately prior to work returning to an area

TYPICAL DETAILS:

Minimum seeding rates and acceptable dates for work attached

SEEDING EC-8



Category: EROSION CONTROL
Use Group: TEMPORARY OR PERMANENT
ISSUED 6-1-03
REVISED 1-25-06

SEEDING REQUIREMENTS

Dates For Seeding

Permanent Seeding	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Tall Fescue	O	O	O	O	O	O	O	O	O	O	O	O
Smooth Brome												
Fescue & Brome												
Fescue, Rye & Bluegrass	A	A	O	O	O	P	P	O	O	P	P	A

Temporary Seeding	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Rye or Sudan	A	A	O	O	O	O	O	O	O	O	A	A
Oats	A	A	O	O	O	O	O	O	O	O	A	A

O - Optimum seeding dates A - Acceptable seeding dates
P - Permitted seeding dates with reseeding 2 months later - Initially use 50% of seed and 75% of fertilizer. Reseed with additional 75% seed and remaining fertilizer.

Minimum Fertilizer and Seeding Rates

Permanent Seeding *	Lb./acre	Lb./1000 sq.ft.
Tall Fescue	300	7
Smooth Brome	200	4.6
Mixture #1	250	5.7
Mixture #2	210	4.8

Mixture #1 - Tall Fescue @ 150 lbs./ac. and Brome @ 100 lbs./ac.
Mixture #2 - Tall Fescue @ 100 lbs./ac., Perennial Rye Grass @ 100 lbs./ac. and Kentucky Bluegrass @ 10 lbs./ac.
* Seeding rate for slopes in excess of 20% (5:1) shall be 10 lb./1000 sq. ft.

Temporary Seeding	Lb./acre	Lb./1000 sq.ft.
Rye or Sudan	150	3.5
Oats	120	2.8

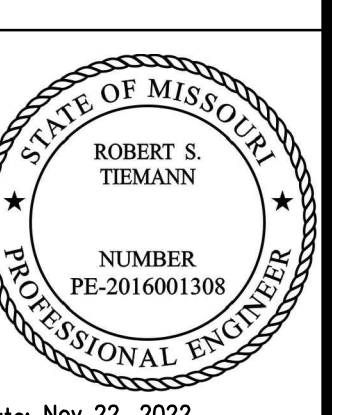
Fertilizer	Permanent Seeding (lb./acre)	Temporary Seeding (lb./acre)
Nitrogen	45	30
Phosphate	65	30
Potassium	65	30
Lime - ENM	600	600

ENM - effective neutralizing material per State evaluation of quarried rock

SEEDING EC-8

THD DESIGN GROUP, INC.
"Your solution for engineering and surveying"
148 CHESTERFIELD INDUSTRIAL BLVD. STE. E, CHESTERFIELD, MO 63005
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FAX 636-294-3027
WEB: www.thd.com
Corporate Certificate of Authority #2011000415

14319 OLIVE BLVD
SITE PLAN
SWPPP DETAILS



Date: Nov 22, 2022
Robert Tiemann
License No. PE-2016001308
Civil Engineer

PROJECT NUMBER: 21-5118

DATE: 11/22/2022

DRAWN BY: MLP

(12) 6'-7' Thuja standishii x plicata 'greengiant' arborvitae



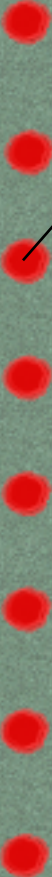
(6) Hydrangea macrophylla 'Bailmer' x bloomstruck



(12) 6'-7' Thuja standishii x plicata 'Green Giant' Arborvitae



(10) Euonymus alatus 'Compactus' Burning Bush



(9) Rosa hybrid 'Meidrifora' Driftrose

(8) Acer palmatum x 'crimson queen' Japanese Maple

(12) Liriope muscari 'variegated'

(5) Azalea 'Girard Renee Michelle'

(9) Rhododendron Encore Azalea

(4) Hydrangea macrophylla Endless Summer® 'bloomstruck'

14319 Olive Blvd

Envirogreen Landscape Design

(29) Azalea x 'girard's rose'

(7) 'Aureovariegata' variegated boxwood 'duroc' "

(10) Juniperus squamata 'Blue Star'

(1) Lagerstroemia indica Crepe Myrtle 'pocomoke'

(2) Lagerstroemia indica Crepe Myrtle 'zuni'

