

SITE USGS AND LOCATION MAP
U.S.G.S. 7.5 TOPOGRAPHIC MAP FOR WELDON SPRING QUADRANGLE, MISSOURI
DATED 2021. SCALE: 1" = 1,000'

MASTERCARD PARKING LOT F - GRADING PERMIT PLAN

A TRACT OF LAND BEING PART OF FRACTIONAL SECTION 13 AND PART OF LOT 23 OF
THE WALNUT GROVE TRACT IN U.S. SURVEY 1669, TOWNSHIP 46 NORTH, RANGE 2 EAST
AS RECORDED IN DEED BOOK 2300 PAGE 1139, ST CHARLES COUNTY, MISSOURI



BASIS OF BEARING AND ELEVATION

BASIS OF BEARING AND ELEVATIONS FOR THIS SURVEY IS MISSOURI EAST STATE PLANE. SITE WAS SCALLED TO GROUND USING A GROUND SCALE FACTOR DERIVED FROM THE CENTRAL POINT ON SITE USING TRIMBLE ACCESS SOFTWARE. THE TS1000 D4000 C2000. LAT 38°44'44.556057" N LONG 90°44'38.67264" W HEIGHT 452.793'. GROUND SCALE FACTOR=1.0000827842



REFERENCE

1. TOPOGRAPHIC INFORMATION BASED UPON SURVEY CONDUCTED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC ON 09/18/2025.

811 or 1-800-344-7483
https://missouri-811.org
ISSUED TICKET #: 133811243
TICKET DATE: 00/00/00

OWNER/TEAM INFORMATION

OWNER
NAME: MASTERCARD TECHNOLOGIES LLC
ADDRESS: 2200 MASTERCARD BLVD.
O'FALLON, MO 63385
PH: (636) 722-7747
CONTACTS: JEFFREY WILDBERGER
EMAIL: Jeffrey.Wildberger@mastercard.com

LANDSCAPE ARCHITECT
NAME: DERMODY & ASSOCIATES
ADDRESS: 2394 CHARELMAGNE DRIVE
MARYLAND HEIGHTS, MO 63043
PH: (314) 656-4542
CONTACTS: EDWARD M. DERMODY
EMAIL: Ed.Dermody@att.net

CIVIL ENGINEER
NAME: CIVIL & ENVIRONMENTAL
CONSULTANTS, INC.
ADDRESS: 1410 100TH STREET, SUITE 305,
ST. CHARLES, MO 63303
PH: (314) 656-4556
CONTACTS: DAN R. KOZIAKIEK, PE
CYNTHIA A. NAGEL, PM

WATER
PUBLIC WATER SUPPLY DISTRICT NO. 2
P.O. BOX 910
O'FALLON, MO 63385
PHONE: (636) 561-3737 EXT. 131

ELECTRIC
AMEREN MISSOURI
200 CALLAHAN ROAD
WENTZVILLE, MO 63385
PHONE: (636) 639-8312

GAS
SPIRE GAS
6400 GRAHAM ROAD
ST. LOUIS, MO 63134
CELL: (314) 522-2297

CABLE
CENTURY LINK
1151 CENTURY TEL DR.
WENTZVILLE, MO 63385
PHONE: (636) 332-7261

TELEPHONE
AT&T
12851 MANCHESTER ROAD, 2-E-214
DES PERES, MO 63131
PHONE: (314) 894-4003

STORM SEWER
DUCKETT CREEK SANITARY DISTRICT
3550 HIGHWAY K
O'FALLON, MO 63368
PHONE: (636) 441-1244

FIRE PROTECTION
WENTZVILLE FIRE DISTRICT
209 WEST PEARCE BLVD.
WENTZVILLE, MO 63385

THE FOLLOWING UTILITIES AND OWNERS ARE LOCATED WITHIN THE WORK LIMITS OF THIS PROJECT

DEVELOPER
NAME: CUSHMAN WAKEFIELD
ADDRESS: 2200 MASTERCARD BOULEVARD
O'FALLON, MO 63368
PH: (314) 280-9819
CONTACT: BARRY ALT
EMAIL: Barry.Alt@mastercard.com

ELECTRICAL & STRUCTURAL
NAME: EDDY DESIGN GROUP, LLC
ADDRESS: 18336 EDISON AVENUE, SUITE 103
CHESTERFIELD, MO 63005
PH: (314) 463-0400
CONTACT: CARA MCKEE
EMAIL: cmckee@eddydesigngroup.com

WATER
AMEREN MISSOURI
200 CALLAHAN ROAD
WENTZVILLE, MO 63385
PHONE: (636) 639-8312

STORM SEWER
CITY OF O'FALLON
100 N. MAIN ST.
O'FALLON, MO 63366
PHONE: (636) 240-2000

DEVELOPMENT NOTES

- OVERALL AREA OF TRACT: 52.08 ACRES (2,268,605 ± SQ.FT)
- PROPOSED LIMITS OF DISTURBANCE: 3.28 ACRES
- SITE ADDRESS: 2200 MASTERCARD BLVD
O'FALLON, MO 63368
- LOCATOR ID: 4-0047-5013-00-0004.2300000
- ZONING: HTCD (HIGH TECH CORRIDOR DISTRICT)
PUD (PLANNED UNIT DEVELOPMENT)
- PLANNING AND DEVELOPMENT DIVISION FILE #: 25-010702
- CURRENT USE: UNDEVELOPED WOODED LAND
PROPOSED USE: VEHICLE PARKING LOT (NO PROPOSED BUILDINGS OR TRASH CONTAINERS)
- OWNER: MISSOURI DEVELOPMENT FINANCE BOARD
- SETBACKS (HIGH TECH CORRIDOR DISTRICT):
FRONT - 30'
SIDE - 20'
REAR - 35'
MAXIMUM BUILDING HEIGHT: 50'
- FLOOD PLAIN NOTE:
ACCORDING TO THE FLOOD INSURANCE RATE MAP OF CITY OF O'FALLON, MISSOURI AND INCORPORATED AREAS, MAP PANEL NUMBER 29183C0430G & 29183C0240G DATED JANUARY 1, 2016, THIS DEVELOPMENT IS LOCATED IN ZONE X UNSHADED, AREA OF MINIMAL FLOOD HAZARD, AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN.
- THIS SITE PLAN MUST MEET THE REQUIREMENTS AND CONDITIONS OF THE O'FALLON MUNICIPAL CODE, TITLE IV: LAND USE, ARTICLE XIII: PERFORMANCE STANDARDS, ARTICLE XIV: SITE PLAN REVIEW, AND SHALL BE CONSISTENT WITH THE OVERALL COMPREHENSIVE PLAN.
- THIS SITE SHALL COMPLY WITH THE LOCAL FIRE DISTRICT, MISSOURI DEPARTMENT OF NATURAL RESOURCES, AND APPLICABLE SANITARY AND WATER DISTRICT REGULATIONS.
- THIS SITE PLAN MUST MEET THE REQUIREMENTS OF THE O'FALLON MUNICIPAL CODE, CHAPTER 402, TREES AND LANDSCAPING.
- ALL PROPOSED UTILITIES SHALL BE LOCATED UNDERGROUND UNLESS OTHERWISE APPROVED BY THE CITY.

SUBMITTAL RECORD	
NO	DATE
1	10/01/2025
2	11/01/2025
3	12/01/2025
4	12/01/2025
5	12/01/2025

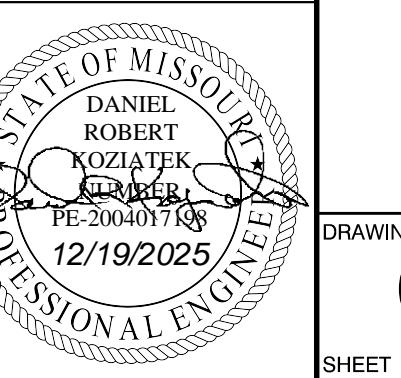
CITY OF O'FALLON
ENGINEERING DEPARTMENT
ACCEPTED FOR CONSTRUCTION
BY: **Ryan Rockwell** DATE **01/20/2026**
PROFESSIONAL ENGINEER'S SEAL
INDICATES RESPONSIBILITY FOR DESIGN

MASTERCARD PARKING LOT "F" 2200 MASTERCARD BOULEVARD O'FALLON, MO 63368	
CIVIL & ENVIRONMENTAL Consultants, Inc.	www.cedinc.com

COVER SHEET	
DATE: SEP 2025 DRAWN BY: JDG AS NOTED CHECKED BY: CAN DRAWN SCALE: 35/285 DIRK	

CITY OF O'FALLON CONSTRUCTION WORK HOURS PER CITY ORDINANCE 3429 AS SHOWN IN SECTION 500.420 OF THE MUNICIPAL CODE OF THE CITY OF O'FALLON ARE AS FOLLOWS:
October 1 through May 31
7:00 A.M. To 7:00 P.M. Monday Through Sunday
June 1 Through September 30
6:00 A.M. To 8:00 P.M. Monday Through Friday
7:00 A.M. to 8:00 P.M. Saturday and Sunday

NOTES:
1. REFER TO SHEET C001 FOR GENERAL NOTES AND ABBREVIATIONS.
2. CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY DEPICT ALL WORK ASSOCIATED WITH THIS PROJECT.
DANIEL R. KOZIAKIEK
(MO PE# 2004017198)
DRAWING NO.: C000
P&G FILE #: 25-010702
NOVEMBER 6, 2025
SHEET 01 OF 08



CITY OF O'FALLON NOTES**General Notes**

1. Driveway locations shall not interfere with the sidewalk handicap ramps, or curb inlet sumps
2. Sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
3. 2.1. Truncated domes for curb ramps located in public right of way shall meet PROWAG requirements and shall be constructed using red pre-cast truncated domes per pavement details.
3. Any proposed pavilions or playground areas will need a separate permit from the Building Division.
4. The Contractor is responsible to call Missouri One Call and The City of O'Fallon for the location of utilities. Contact the City of O'Fallon (636) 379-3814 for the location of City maintained cable for street lights and traffic signals, all other utilities call Missouri One Call 1-800-DIG-RITE. 1-800-344-7483
5. All proposed utilities and/or utility relocations shall be located underground.
6. All proposed fencing requires a separate permit through the Building Safety Division.
7. All construction operations and work zone traffic control within the right of way will follow MoDOT or M.U.T.C.D. standards whenever is more stringent.
8. (INTENTIONALLY OMITTED)
9. All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planning and Development Division.
10. Materials such as trees, organic debris, rubble, foundations, and other deleterious material shall be removed from the site and disposed of in compliance with all applicable laws and regulations. If the material listed previously are reused, a letter from a soil Engineer must clarify amount, location, depth, etc. and be approved with the construction plans. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.
11. Twenty-four (24) hours prior to starting any of the work covered by the above plans and after approval thereof, the developer shall make arrangements with the Construction Inspection Office to provide for inspection of the work, sufficient in the opinion of the City Engineer, to assure compliance with the plans and specifications as approved.
12. The City Engineer or their duly authorized representative shall make all necessary inspections of City infrastructure, escrow items or infrastructure located on the approved plans.
13. All installations and construction shall conform to the approved engineering drawings. However, if the developer chooses to make minor modifications in design and/or specifications during construction, he/she shall make such changes at his/her own risk, without any assurance that the City Engineer will approve the completed installation or construction. It shall be the responsibility of the developer to notify the City Engineer of any changes from the approved drawings. The developer may be required to correct the installed improvements so as to conform to the approved engineering drawings. The developer may request a letter from the Construction Inspection Division regarding any field changes approved by the City inspectors.
14. City approval of the construction site plans does not mean that any building can be constructed on the lots without meeting the building setbacks as required by the zoning code.

Grading Notes

1. Developer must supply City Construction Inspectors with an Engineer's soil reports prior to and during site grading. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
 - 1.1. Maximum dry density
 - 1.2. Optimum moisture content
 - 1.3. Maximum and minimum allowable moisture content
 - 1.4. Curve must be plotted to show density from a minimum of 90% Compaction and above as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M.-D-1157) or from a minimum of 95% as determined by the "Standard Proctor Test ASSHTO T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
 - 1.5. Curve must have at least 5 density points with moisture content and sample locations listed on document
 - 1.6. Specific gravity
 - 1.7. Natural moisture content
 - 1.8. Liquid limit
 - 1.9. Plastic limit

Advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.

2. All fill placed in areas other than proposed storm sewers, sanitary sewers, proposed roads, and paved areas shall be compacted from the bottom of the fill up in 8" lifts and compacted to 90% maximum density as determined by Modified AASHTO T-180 compaction test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. Ensure the moisture content of the soil in fill areas corresponds to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill.

3. The surface of the fill shall be finished so 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.
4. All sediment and detention basins are to be constructed during the initial phase of the grading operation or in accordance with the approved SWPPP.
5. When grading operations are complete or suspended for more than 14 days, permanent grass must be established at sufficient density to provide erosion control on site. Between permanent grass seeding periods, temporary cover shall be provided according to Missouri Department of Natural Resources Protecting Water Quality - a field guide to erosion, sediment and stormwater best management practices for development sites in Missouri and Kansas. All finished grades (areas not to be disturbed by improvements) in excess of 20% slopes (5:1) shall be mulched and tacked at a rate of 100 pounds per 1000 square feet when seeded.
6. No slopes shall exceed 3 (horizontal): 1 (vertical) unless otherwise approved by the soils report and specifically located on the plans and approved by the City Engineer.
7. All low places whether on site or off shall be graded to provide drainage with temporary ditches.
8. Any existing wells and/or springs which may exist on the property must be sealed in a manner acceptable to the City of O'Fallon Construction Inspection Department and following Missouri Department of Natural Resources standards and specifications.
9. (INTENTIONALLY OMITTED)
10. All trench back fills under paved areas shall be granular back fill, and compacted mechanically. All other trench back fills may be earth material (free of large clods, or stones) and compacted using either mechanical tamping or water jetting. Granular material and earth material associated with new construction outside of pavements may be jetted, taking care to avoid damage to newly laid sewers. The jetting shall be performed with a probe route on not greater than 7.5 foot centers with the jetting probe centered over and parallel with the direction of the pipe. Trench widths greater than 10 feet will require multiple probes every 7.5 foot centers.

[Section 405.210(D)(1)Outside (beyond) the pavement limits, excavations shall be jetted with water and allowed to set for a length of time satisfactory to the City Engineer.

1. Jetting. Granular materials and earth materials associated with new construction beyond the pavement may be jetted, taking care to avoid damage to newly laid sewers. The jetting shall be performed with a probe route on not greater than seven-and-one-half foot centers with the jetting probe centered over and parallel with the direction of the pipe. Trench widths greater than ten (10) feet will require multiple probes every seven-and-one-half-foot centers.]
- 10.1. Depth, trench back fill less than 8 feet deep shall be probed to a depth extending half the depth of the trench back fill, but not less than 3 feet. Trench back fill greater than 8 feet in depth shall be probed to half the depth of the trench back fill, but not greater than 8 feet.
- 10.2. Equipment, The jetting probe shall be a metal pipe with an interior diameter of 1.5 to 2 inches.
- 10.3. Method, Jetting shall be performed from the lowest surface topographic point and proceed toward the highest point, and from the bottom of the trench back fill toward the surface. The flooding of each jetting probe shall be started slowly allowing slow saturation of the soil. Water is not allowed to flow away from the trench without first saturating the trench.
- 10.4. Surface Bridging, The contractor shall identify the locations of the surface bridging (the tendency for the upper surface to crust and arch over the trench rather than collapse and consolidate during the jetting process). The contractor shall break down the bridged areas using an appropriate method such as wheels or bucket of a backhoe. When surface crust is collapsed, the void shall be back filled with the same material used as trench back fill and re-jetted. Compaction of the materials within the sunken/jetted area shall be compacted such that no further surface subsidence occurs.
11. Site grading.
- 11.1. Within City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed every two hundred fifty (250) feet along the centerline for each lift.
- 11.2. Outside of City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements. One (1) compaction test will be performed at two (2) foot vertical intervals and approximately every one thousand (1,000) cubic yards.
12. Access to the site from any other location other than the proposed construction entrance is strictly prohibited!

**CEC GENERAL NOTE**

1. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT BY HOLLAND ENGINEERS TITLED "MASTERCARD-PARKING LOT F" DATED NOVEMBER 11, 2025. NOTE: ANY DIFFERENCES WITHIN THIS REPORT AND THE NOTES HEREIN, THE CONTRACTOR SHALL ABIDE BY THE MOST RESTRICTIVE.

Roadway Notes

1. All paving (public and private) to be in accordance with St. Louis County Standards and Specifications except as modified by the City of O'Fallon ordinances.
2. If the intersecting road does not have a curb, then the curb on the new entrance shall begin 10' from the edge of the existing road.
3. Provide 6" of concrete over 5" of aggregate base rock or asphalt equivalent for minor residential streets per City Code 405.370.
- 3.1. Rock to meet the all the requirements of MoDOT type 5 rock with a tighter restriction on the fines being that no more than ten percent (10%) fines shall pass a no. 200 sieve. (City Code 405.210.B.1) The gradation of this rock needs to be submitted to the City for approval. Any deliveries made without the proper delivery ticket, including signature, will not be accepted. The delivery ticket must list the project name or jobsite location. A separate certification sheet may be provided attached to the delivery ticket with signature of the company's quality control manager. The quality control certification must be current and dated within 4 weeks of the delivery. (City Code 405.210.A.2.k)
4. Multi-use trail (when required) Shall have a minimum of 3" Type "C" Asphalt over 4" aggregate base per City requirements.
5. Type C (BP-1) Compaction requirements shall be 95% minimum density according to St. Louis Co. Standard Specifications.
6. Provide pavement striping at any point where the multi-use trail crosses existing or proposed pavement.
7. All street stub-outs over 250' in length will require a temporary turnaround.
8. All sub grade in cut or fill will need to conform to the City of O'Fallon Compaction requirements
9. Material Testing And Frequency. Materials for construction shall be tested and inspected per the appropriate ASTM code or at the City Engineer's discretion. The developer's engineer shall perform quality control guidelines, in accordance with St. Louis County requirements 501.3.1.
10. Approval Of Sub grade And Base (Sub base). The City Engineer or representative shall approve the sub grade before any base is placed thereon and shall approve the base before concrete or surface course is placed. The sub grade and base shall be so constructed that it will be uniform in density throughout.
11. In all fill areas in the roadways, soil tests shall be submitted and approved by the City Engineer for each foot of fill and at least one (1) test and an average of one (1) test within every two hundred fifty (250) feet.
12. No traffic will be allowed on new concrete pavement until it has cured for seven (7) days and it reaches three thousand five hundred (3,500) psi within 28 days.
- 12.1. Concrete pavements shall not be approved unless it reaches a strength of four thousand (4,000) psi. Cylinders/compressive strength. One (1) set of four (5) cylinders within the first fifty (50) cubic yards and one (1) set per one hundred (100) cubic yards thereafter. One (1) cylinder must be tested at seven (7) days, three (3) at twenty-eight (28) days, and one (1) held in reserve.
13. Prior to placement of aggregate base material on sub grade and prior to placement of pavement on base material, the sub grade and base must be proof-rolled with a fully loaded (ten (10) ton load) tandem truck or equivalent tire vehicle with one (1) pass down each driving lane no faster than three (3) miles per hour. If soft spots are detected, or pumping, rutting or heaving occurs greater than one (1) inch at the sub grade, the roadbed shall be considered unsatisfactory and the soil in these areas shall be remediated to the depth indicated by the contractor's testing firm and approved by a representative of the City Engineer.
14. Sub grade and base beneath pavements shall be compacted to St. Louis County Highway Department specifications. The moisture range shall be determined by the Standard or Modified Proctor Density Method AASHTO T-99 and within -2/+4 percentage points of the optimum moisture content.
15. The entire width and length will conform to line, grade and cross section shown on the plans or as established by the engineer. If any settling or washing occurs, or where hauling results in ruts or other objectionable irregularities, the contractor shall improve the sub grade or base to the satisfaction of the City before the pavement is placed. Additional rolling or methods to verify compaction shall be at the discretion of the City Engineer. Tolerance allowed on all lines, grades and cross sections shall be plus or minus four-hundredths (+0.04) feet.
16. Utility Work Prior To Base Construction. No base course work may proceed on any street until all utility excavations (storm and sanitary sewers, water, gas, electric, etc.) have been properly back filled with granular material, crushed stone or gravel mechanically tamped in ten (10) inch lifts. Utilities installed after sub grade preparation shall be bored. Compaction requirements shall follow St. Louis County standards.
17. Equipment calibration. The developer's contractors and subcontractors must have their equipment calibrated by the following minimum standards.
 - 17.1. Air meter—weekly.
 - 17.2. Cylinder compression—annually by independent calibration service.
 - 17.3. Batch scales—monthly.
 - 17.4. Nuclear testing devices—every six (6) months.
 - 17.5. Proctor equipment—every six (6) months.
 - 17.6. Stump cone—monthly.
18. All permanent traffic control will be per M.U.T.C.D. or MoDot standards. S1-1 from the M.U.T.C.D. manual will be used at all crosswalk locations accompanied with either w16-9p or w16-7p signs.
19. All traffic signals, street signs, sign post, backs and bracket arms shall be painted black using Carboline Rust Bond Penetrating Sealer SG and Carboline 133 HB paint (or equivalent as approved by City of O'Fallon and MoDot)
20. If the excavations are made in the improved portion of the right-of-way, twelve inches of granular backfill will be placed over exposed facilities and controlled low strength material (CLSM) aka flowable fill will fill the hole with eight inches of the finished surface for concrete pavement. There will be a plastic membrane placed between the rock base and the CLSM to prevent the material from bleeding into the rock base. The remaining eight inches will be restored by placing a 28 day, 4,000 psi concrete mix.

Water Notes

1. Fire hydrants shall be a maximum of 600' apart. Local fire district approval is required.
2. Coordinate with the water company on the location of water meters. For meters in the City's district, meters shall be in the right-of-way, otherwise an access easement from the right-of-way shall be provided.
3. All water main must have a minimum of 42" of cover. (City water mains)
4. Provide water valves to isolate the system.
5. All water mains shall be class 200 SDR 21 or equal with locator/tracer wires
6. If the excavations are made in the improved portion of the right-of-way, twelve inches of granular backfill will be placed over exposed facilities and controlled low strength material (CLSM) aka flowable fill will fill the hole with eight inches of the finished surface for concrete pavement. There will be a plastic membrane placed between the rock base and the CLSM to prevent the material from bleeding into the rock base. The remaining eight inches will be restored by placing a 28 day, 4,000 psi concrete mix.
7. **DISINFECTING:** Disinfecting shall be accomplished by placing sufficient hypo chlorite granule (HTH) in each section of pipe to achieve a chlorine residual in the pipeline, upon initial filling, of 50 mg/L (PPM). HT, tablets will not be allowed. Following completion of the pipeline, it shall be slowly filled with water and a sample will be taken immediately and the chlorine residual must be 50 mg/L or greater. The solution shall be allowed to stand for 24 hours and a sample shall then be taken. The chlorine residual after 24 hours shall be 30 mg/L or greater. If the piping shows insufficient chlorine residuals in either test, the piping shall be re-chlorinated by the injection of hypo chlorite solution until satisfactory results are achieved. All disinfecting shall be done by the contractor. Only the testing to determine the chlorine residual will be done by the City.
8. **PRESSURE TESTING:** Immediately following disinfection, the piping shall be pumped to a pressure (at the HIGHEST point in the project) of 150 psi or higher where the working pressure is higher than 150 PSI as determined by the City. In such cases, the pressure shall be as specified by the City and two pressure tests shall be conducted. The first test shall be with the fire hydrant auxiliary valve open and be to 50 PSI. The second test shall be with the fire hydrant auxiliary valve closed and be to the higher pressure as directed by the City. All pumping equipment and pressure gauges shall be provided by the contractor. After achieving the test pressure, the piping shall be left closed for a period of two (2) hours. At the end of this time the pressure drop shall not exceed 2 psi. In addition, if the pressure appears, in judgment of the City's representative, to be continuing to drop, the test shall be continued for another two (2) hours and if any further drops occur, the test shall be considered a failure. If the pressure test fails, the contractor will be required to find and correct the source of the leakage. If this requires draining of the pipeline, when the leakage is corrected, the pipeline must be re-disinfected and the pressure tested again until satisfactory result are achieved. Any MDNR required dechlorination will be performed by the contractor.
9. All tops for valves, meters, and manholes are to be constructed to within 1 inch (.08") of finish grade. Grading around structure tops on slopes need to be accounted for.
10. **BACTERIOLOGICAL TESTING:** After satisfactory disinfection and pressure testing, a sample shall be taken by the contractor in the presence of a City representative and submitted to a laboratory approved by the Missouri Department of Natural Resources and the City for bacteriological analysis. After 24 hours, a second sample shall be taken in a like manner and submitted for analysis. The two samples taken on consecutive days, a minimum of 24 hours apart, must be found to be "safe" by the testing laboratory, and copies of the test results must be supplied to the City. If the samples are not found to be "safe" further flushing and/or disinfection as directed by the City shall be conducted by the contractor until "safe" samples on two consecutive test days are achieved. Following successful bacteriological testing and a determination by the City that the samples are "safe", the mains may be placed into service.

Sanitary Sewer Notes

1. All sanitary sewer installation is to be in accordance with M.S.D. standards and specifications except as modified by the City of O'Fallon Ordinances.
2. Brick shall not be used in the construction of sanitary sewer structures. Pre cast concrete structures are to be used unless otherwise approved by the City of O'Fallon.
3. Connections at all sanitary structures are to be made with A-Lock joint or equal
4. All sanitary laterals shall be a minimum of 4" residential, 6" commercial diameter pipe.
5. All sanitary mains shall be a minimum of 8" diameter pipe.
6. All sanitary sewer line with a slope greater than 20% will require concrete cradle or concrete collar at each pipe joint. Sanitary line with a slope greater than 50% will require a special approved design as shown on detail sheet.
7. All manholes built within the 100 year flood plain must have lock type watertight manhole covers.
8. All sanitary sewer mains must have a minimum of 42" cover.
9. When sanitary mains cross over storm line the sanitary main must be ductile iron pipe for 10 feet on each side of the crossing.
10. Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer. Add concrete cradle to only RCP storm sewer and encase flexible storm sewer when it is more than 18 inches above sanitary line. Show on profile sheet.
11. The sanitary sewers should run diagonally through the side yards to minimize any additional utility easements required.
12. All sanitary sewer structures shall be waterproofed on the exterior in accordance to Missouri DNR specifications 10CSR-8.120 (7)(E).
13. All sanitary sewer pipe shall be SDR35 or equal. All sanitary sewer laterals shall be Schedule 40.
14. All sanitary sewer manholes and pipes will be tested to the following specifications. ASTM C1244, Standard testing method for Concrete Sewer Manhole by Negative Air Pressure (Vacuum), Latest revision ASTM F1417, Standard testing method for Installation Acceptance of Plastic Gravity Sewer Lines Using Low Pressure Air, Latest revision.
15. Add 1" minus rock back fill to all sanitary sewer and all other utilities that lie within the 1:1 shear plane of the road.

Flood plain Information

1. Refer to Section 415 for Floodplain Development Information

Additional Notes from "Commercial Construction Site Plan Application" Checklist

1. All sanitary laterals and sanitary mains crossing under pavement must have proper rock backfill and required compaction
2. Refer to Section 405.210(D)(1) under Grading Notes, this sheet.
3. Lighting values will be reviewed on site prior to the final occupancy inspection.
4. HDPE pipe is to be N-12WT or equal and to meet ASTM F1417 water tight field test
5. Rip-rap shown at flared ends will be evaluated in the field by the Engineer, Contractor and City Inspector after installation for effectiveness and field modified, if necessary, to reduce erosion on and off-site.
6. No graded areas are to remain bare for over 14 days without being seeded and mulched.

CITY OF O'FALLON STANDARD NOTES**MASTERCARD PARKING LOT "F"
2200 MASTERCARD BOULEVARD
O'FALLON, MO 63368**

DRAWING NO.: **C001**
SHEET **02** OF **08**

CITY OF O'FALLON
2200 MASTERCARD BOULEVARD
O'FALLON, MO 63368

DATE: **12/19/2025** DRAWN BY: **JDG** CHECKED BY: **CAN** APPROVED BY: **DRK**

**CIVIL & ENVIRONMENTAL
CONSULTANTS, INC.**

PH: 314.656.4566
www.cecinc.com

MISSOURI 811
A 130-2001 354-4081-0402 (Dg) 12/19/2025 11:07 AM
B 12/19/2025 - 12/19/2025 11:07 AM
C 12/19/2025 - 12/19/2025 11:07 AM
D 12/19/2025 - 12/19/2025 11:07 AM
E 12/19/2025 - 12/19/2025 11:07 AM
F 12/19/2025 - 12/19/2025 11:07 AM
G 12/19/2025 - 12/19/2025 11:07 AM
H 12/19/2025 - 12/19/2025 11:07 AM

1. CONTRACTOR SHALL REFER TO THE GEOTECHNICAL REPORT BY HOLLAND ENGINEERS TITLED "MASTERCARD-PARKING LOT F" DATED NOVEMBER 11, 2025. NOTE: ANY DIFFERENCES WITHIN THIS REPORT AND THE NOTES HEREIN, THE CONTRACTOR SHALL ABIDE BY THE MOST RESTRICTIVE.

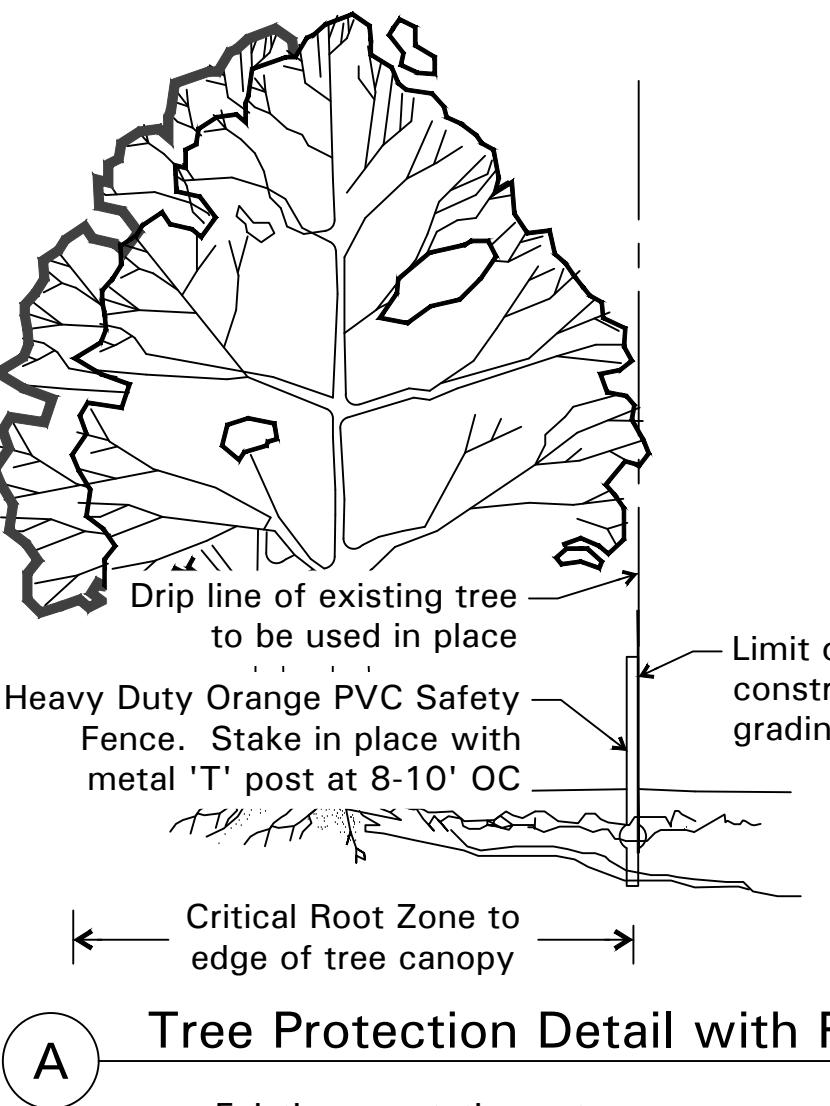
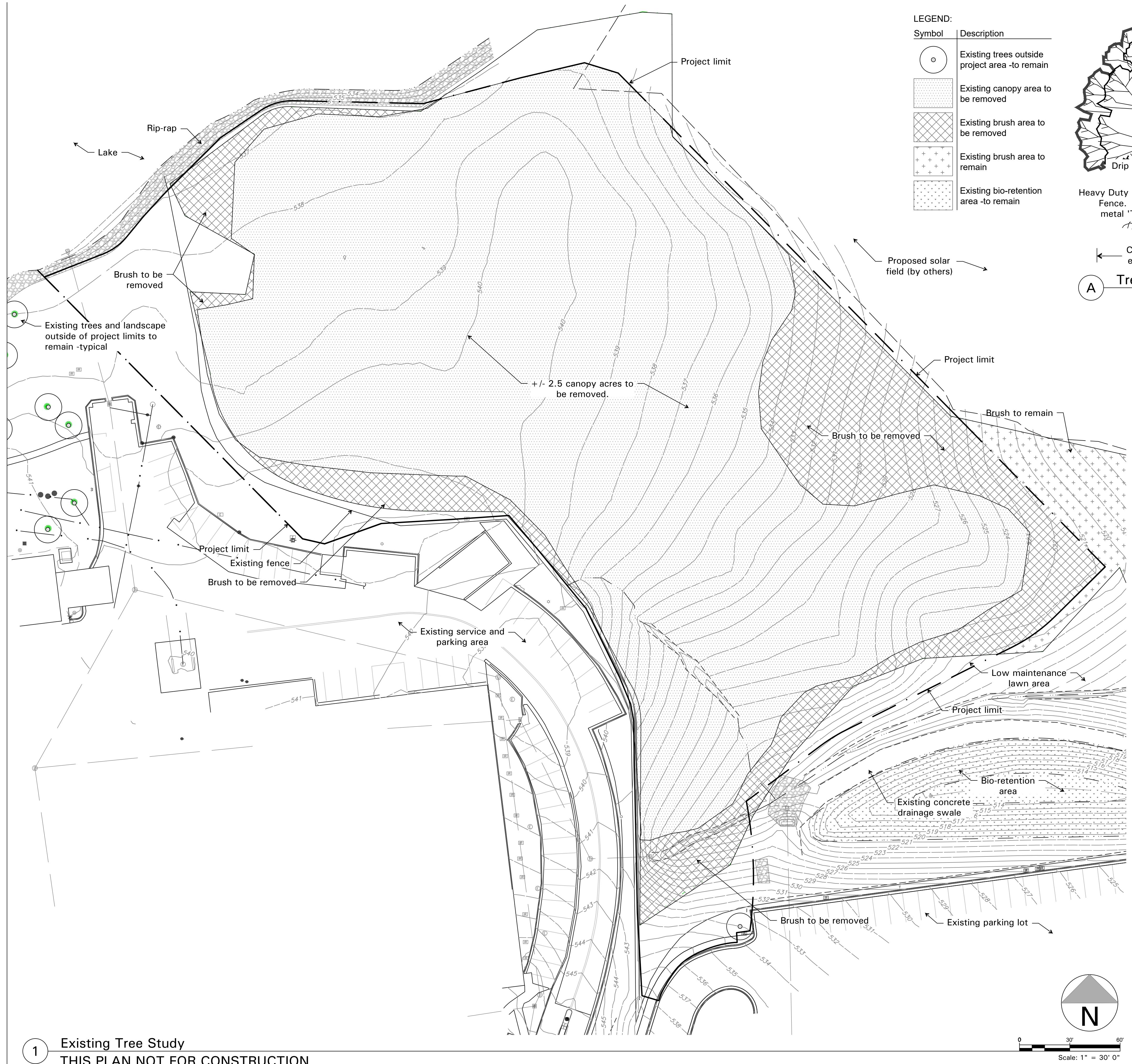
2. All paving (public and private) to be in accordance with St. Louis County Standards and Specifications except as modified by the City of O'Fallon ordinances.

3. Provide 6" of concrete over 5" of aggregate base rock or asphalt equivalent for minor residential streets per City Code 405.370.



LANDSCAPE ARCHITECTS
U s c e - b e a t h a
ph# 314.205.8871
Missouri Certificate of Authority
#200902208

Civil Engineer and Surveyor:
Civil & Environmental
Consultants, Inc
1450 Beale Street, Suite 305
St. Charles, MO 63303

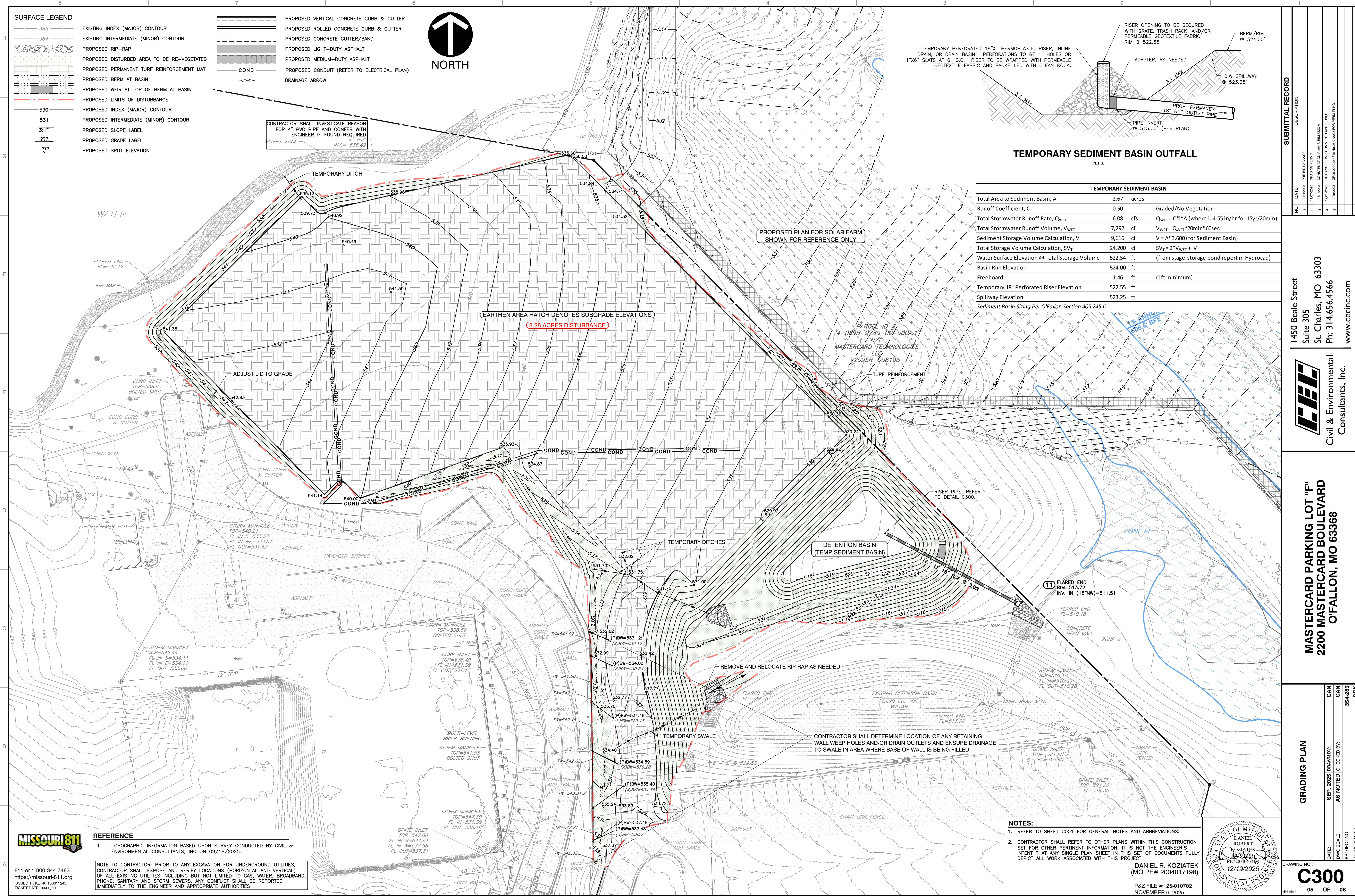


APPLICATION SPECIFIC NOTES:

- 1) A "Pre meeting" shall be held on site by the general contractor will include operators, construction supervisors, owner representative and architect. Meeting shall be held to discuss tree protection methods and limits.
- 2) Clearing limits shall be staked by general contractor prior to on site meeting, see Civil plan for limit of grading
- 3) No clearing or grading shall begin where root pruning and tree preservation measures have not been completed.
- 4) The sequence of tree treatment and preservation measures shall be:
 - a) Stake limit of grading
 - b) Install tree protection fence
- 5) General contractor shall be responsible to insure that no equipment and materials are stored with areas of protected trees. General contractor shall be responsible to repair and/ or replace trees damaged due to his/ her negligence. Owner and his/ her representatives shall judge the assessment of tree replacement or repair.

no scale

A Tree Protection Detail with Fence





CITY OF O'FALLON SWPPP NOTES

1. NO SLOPES SHALL BE STEEPER THAN 3 (HORIZONTAL) TO 1 (VERTICAL) OR AS APPROVED BY A GEOTECHNICAL ENGINEER.
2. DEVELOPER MUST SUPPLY CITY CONSTRUCTION INSPECTORS WITH SOIL REPORTS PRIOR TO AND DURING SITE SOIL TESTING. REFER TO SECTION 405.210(F) OF THE MUNICIPAL CODE OF THE CITY OF O'FALLON FOR REQUIREMENTS OF THE SOILS REPORT.
3. ALL FILL PLACED UNDER PROPOSED STORM AND SANITARY SEWER, PROPOSED ROADS AND/OR PAVED AREAS SHALL BE COMPAKTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T-180 COMPAKCTION TEST OR 95% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. ALL FILL PLACED IN PROPOSED ROADS SHALL BE COMPAKTED FROM THE BOTTOM OF THE FILL UP. ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS AND SUPPLIED TO THE CITY OF O'FALLON IN A TIMELY MANNER. THE MOISTURE CONTENT OF THE SOIL IN FILL AREAS IS TO CORRESPOND TO THE COMPAKCTIVE EFFORT AS DEFINED BY THE STANDARD OR MODIFIED PROCTOR TEST. OPTIMUM MOISTURE CONTENT SHALL BE DETERMINED USING THE SAME TEST THAT WAS USED FOR COMPAKCTION. SOIL COMPAKCTION CURVES SHALL BE SUBMITTED TO THE CITY OF O'FALLON PRIOR TO THE PLACEMENT OF FILL. PROOF ROLLING MAY BE REQUIRED TO VERIFY SOIL STABILITY AT THE DISCRETION OF THE CITY OF O'FALLON. (ORDINANCE #5242-SECTION 405.070).
4. ALL LOW PLACES WHETHER ON-SITE OR OFF-SITE ARE GRADED TO ALLOW DRAINAGE. THIS CAN BE ACCOMPLISHED WITH TEMPORARY DITCHES. ANY OFF-SITE DRAINAGE EASEMENTS WILL BE ACQUIRED BEFORE GRADING BEGINS.
5. GRADED AREAS SHALL BE SEEDED AND MULCHED (STRAWED) WITHIN FOURTEEN (14) DAYS OF STOPPING LAND DISTURBANCE ACTIVITIES. VEGETATIVE GROWTH SHALL BE ESTABLISHED WITHIN SIX (6) WEEKS OF GRADING WORK BEING STOPPED OR COMPLETED IN ANY AREA. VEGETATIVE GROWTH SHALL BE SUFFICIENT TO PREVENT EROSION (70% COVERAGE PER SQUARE FOOT) AS REQUIRED BY MDNR AND EPA. (ORDINANCE #5242-SECTION 405.070).
6. THE PERMITTEE SHALL ASSUME COMPLETE RESPONSIBILITY FOR CONTROLLING ALL SILTATION AND EROSION OF THE PROJECT AREA. THE PERMITTEE SHALL USE WHATEVER MEANS NECESSARY TO CONTROL EROSION AND SILTATION INCLUDING, BUT NOT LIMITED TO, STAKED STRAW BALES AND/OR SILTATION FABRIC FENCES (POSSIBLE METHODS OF CONTROL ARE DETAILED IN THE PLAN). CONTROL SHALL COMMENCE WITH THE CLEARING OPERATIONS AND BE MAINTAINED THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE CITY OF O'FALLON AND AS NECESSARY BY MODOT. THE PERMITTEE'S RESPONSIBILITIES SHALL INCLUDE ALL DESIGN AND IMPLEMENTATION AS REQUIRED TO PREVENT EROSION AND THE DEPOSITING OF SILT. THE CITY OF O'FALLON AND AS REQUIRED BY MODOT MAY AT THEIR OPTION DIRECT THE PERMITTEE IN HIS METHODS AS DEEMED FIT TO PROTECT PROPERTY AND IMPROVEMENTS. ANY DEPOSITING OF SILT OR MUD ON NEW OR EXISTING PAVEMENT SHALL BE REMOVED IMMEDIATELY. ANY DEPOSITING OF SILTS OR MUD IN NEW OR EXISTING STORM SEWERS OR SWALES SHALL BE REMOVED AFTER EACH RAIN AND AFFECTED AREAS CLEANED TO THE SATISFACTION OF THE CITY OF O'FALLON AND AS REQUIRED BY MODOT.
7. ALL EROSION CONTROL SYSTEMS ARE INSPECTED AND CORRECTED WEEKLY, ESPECIALLY WITHIN 48 HOURS OF ANY RAINSTORM RESULTING IN ONE-HALF INCH OF RAIN OR MORE. ANY SILT OR DEBRIS LEAVING THE SITE AND AFFECTING PUBLIC RIGHTS-OF-WAYS OR STORM WATER DRAINAGE FACILITIES SHALL BE CLEANED UP WITHIN 24 HOURS AFTER THE END OF THE STORM.
8. CLEARING LIMITS SHALL BE VISIBLY MARKED IN THE FIELD PRIOR TO REMOVAL OF TREES.
9. ALL CLEARING AND GRADING EFFORTS WILL BE IN COMPLIANCE WITH THE UNITED STATES FISH AND WILDLIFE SERVICES (USFWS). CLEARING, GRUBBING, AND GRADING WILL OCCUR BETWEEN THE REGULATORY DATES OF NOVEMBER 1ST THROUGH MARCH 8TH.

The diagram illustrates a cross-section of a drainage channel. The channel is a trapezoidal U-shaped structure. The bottom of the channel is lined with a geotextile, represented by a pattern of circles. The channel is shown in perspective, with a dashed line at the top left indicating the top edge. Two vertical dimensions are indicated: '1' on the left side and '2' on the right side. An arrow points from the text 'ONE LAYER MIRAFI 700X WOVEN GEOTEXTILE OR APPROVED EQUAL' to the geotextile liner at the bottom of the channel.

TEMPORARY DIVERSION DITCH

NTS



REFERENCE

1. TOPOGRAPHIC INFORMATION BASED UPON SURVEY CONDUCTED BY CIVIL & ENVIRONMENTAL CONSULTANTS, INC ON 09/18/2025.

NOTE TO CONTRACTOR: PRIOR TO ANY EXCAVATION FOR UNDERGROUND UTILITIES, CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL EXISTING UTILITIES INCLUDING BUT NOT LIMITED TO GAS, WATER, BROADBAND, PHONE, SANITARY AND STORM SEWERS. ANY CONFLICT SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER AND APPROPRIATE AUTHORITIES



NOTES:
REFER TO SHEET C001 FOR GENERAL NOTES AND ABBREVIATIONS.
CONTRACTOR SHALL REFER TO OTHER PLANS WITHIN THIS CONSTRUCTION
SET FOR OTHER PERTINENT INFORMATION. IT IS NOT THE ENGINEER'S
INTENT THAT ANY SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY

INVENT THAT AND SINGLE PLAN SHEET IN THIS SET OF DOCUMENTS FULLY.
DEPICT ALL WORK ASSOCIATED WITH THIS PROJECT.

SCALE IN FEET (MO PE# 2004017198)
0 30 60 P&Z FILE #: 25-010702

A circular seal with a rope-like border. The words "MISSOURI STATE FIRE MARSHAL'S OFFICE" are written in a circular pattern around the border. In the center, the name "DANIEL ROBERT KOZIATEK" is printed, with "NUMBER" written above "E-200401798". The date "2/19/2025" is printed at the bottom. A small five-pointed star is located to the right of the name. A signature is written across the center of the seal.

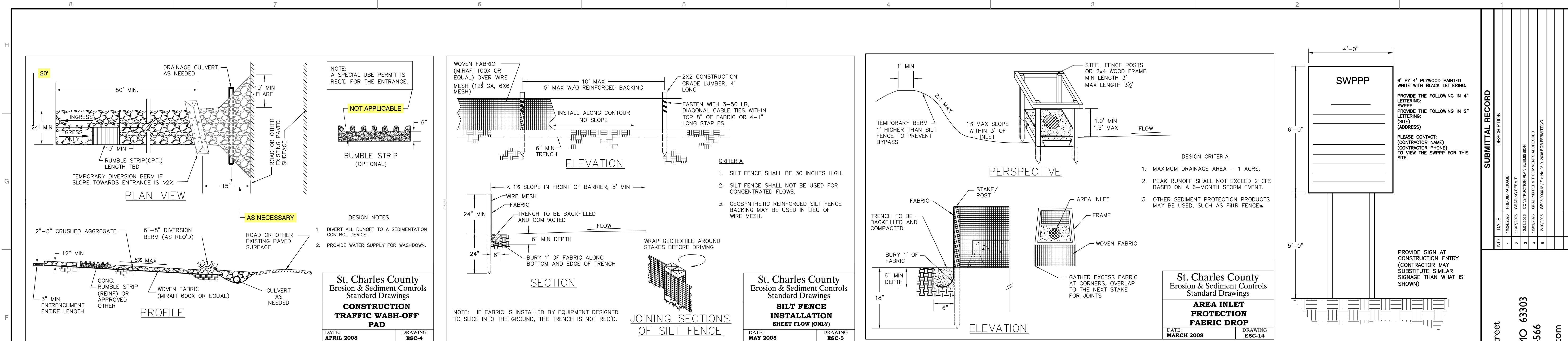
EROSION AND SEDIMENT CONTROL PLAN

**MASTERCARD PARKING LOT "F"
2200 MASTERCARD BOULEVARD
O'FALLON, MO 63368**

1450 Beale Street
Suite 305
St. Charles, MO 63301
Ph: 314.656.4566

DESCRIPTION	ACKAGE	PERMIT

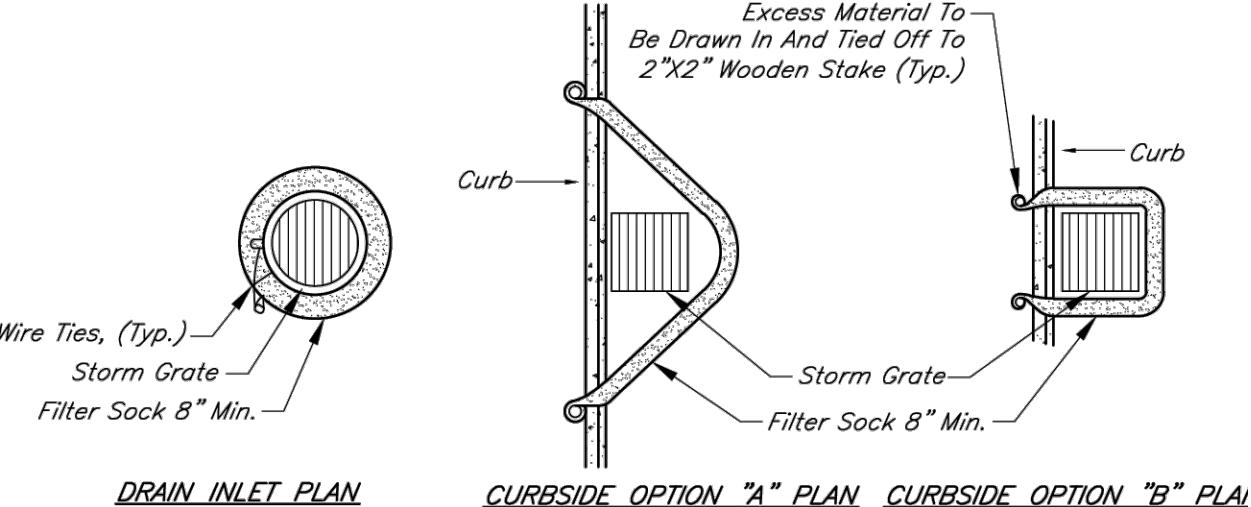
ING NO.:
C900



PER CITY OF O'FALLON: PROVIDE A 20'X50' TEMPORARY TRUCK WASH OFF AREA (MIN 6' DEPTH - 2' CLEAN ROCK) FOR USE DURING CONSTRUCTION. NOTE: IF WATER IS NOT AVAILABLE, A WATER TRUCK SHALL BE PROVIDED."

DETAIL 01 CONSTRUCTION ENTRANCE

N.T.S.



NOTES:

Installation: Filter Sock Should Maintain Solid Contact With The Surface And Be Installed In A Manner That Minimizes Gaps Between The Bottom Of The Sock And The Underlying Substrate.

Socks Placed On Unpaved Surfaces Shall Be Staked In The Center Of The Sock Or Immediately Downslope Of The Sock At The Interval Recommended By The Manufacturer. Socks Installed On Paved Surfaces Shall Have Concrete Blocks Placed Immediately Downslope Of The Sock At An Interval Recommended By The Manufacturer.

Maintenance: Traffic Shall Not Be Permitted To Cross Filter Socks.

Inspect The Structure Weekly And After Each Rainfall Event. Damaged Socks Shall Be Repaired According To The Manufacturer's Specifications Or Replaced Within 24 Hours Of Inspection.

Remove Deposited Sediment When It Reaches Half The Height Of The Filter Sock At Its Lowest Point.

Take Care To Avoid Undermining The Filter Sock During Clean Out.

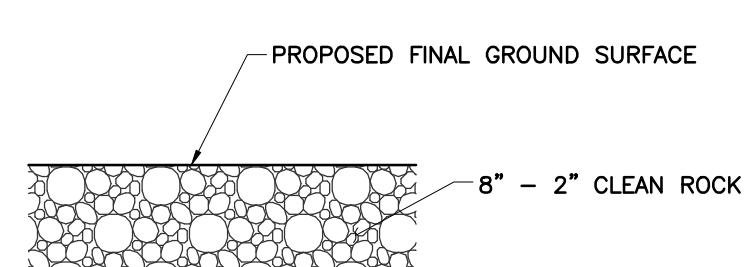
After The Contributing Drainage Area Has Been Stabilized, Remove And Properly Dispose Of Any Unstable Sediment And Construction Material, And Stabilize.

FILTER SOCK INLET PROTECTION

Not To Scale

DETAIL 05 INLET PROTECTION (OPT. 2)

N.T.S.



DETAIL 06 GRANULAR SECTION

N.T.S.

Table 60-5 Soil Stabilization Schedule

Soil Disturbance Activity or Condition	Required Stabilization Time
Soil disturbance has ceased in areas greater than 2,000 square feet.	14 days
After construction of dikes, swales, diversions, and other concentrated flow areas	5 days
When slopes are steeper than 3 horizontal to 1 vertical	7 days
When slopes are greater than 3% and longer than 150 feet.	14 days
Perimeter controls around soil stockpiles.	End of workday
Stabilization or covering of inactive stockpiles.	30 days
When land disturbance is completed, permanent soil stabilization must be installed.	30 days

60.20.2.1 Temporary Seeding

Temporary seeding and mulching shall be applied to all cleared, unvegetated, or sparsely vegetated soil surfaces where vegetative cover is required for less than 1 year.

Temporary seeding shall germinate to a density of at least 70% of the total disturbed site area. Temporary seeding may be used for diversions, dams, temporary sediment basins, temporary road banks, topsoil stockpiles, and any other exposed areas of a construction site, which meet velocity and other requirements for its use.

Temporary seeding may be suspended from individual lots located in the project area, which have an active building permit. Upon completion of the building activity, the site shall be permanently vegetated.

60.20.2.1.1 Seed

Seed must be clean, relatively free of weed seed and other contaminants, and comply with the Federal Seed Act and the Missouri State Seed Law. Seed that has become wet, moldy, or otherwise damaged in transit or storage is not acceptable.

Turf mixes can be used with no more than 10% Kentucky bluegrass and at least 20% perennial rye.

DETAIL 07 SOIL STABILIZATION

N.T.S.

Table 60-9 Mulching Materials

Material	Rate	Requirements	Installation/Uses
Straw	1.5-2.5 tons/ac (3-4 tons, if roller punched)	Dry, unchopped, unweathered; free of weed seeds & rot.	Spread by machine 1.5-2.5 inches deep; must be tacked or tied down.
Compost Blanket	1" thick	Double the application rate for embankments	Follow manufacturer's application method.
Wood fiber, wood cellulose, paper	1-2 tons/ac	Double the application rate in critical areas	Use with power mulcher or hydroseeder; may be used to tack straw on steep slopes. Cannot be used in hot dry weather.

60.20.2.5 Tackifiers & Soil Binders

Tackifiers and soil binders can increase the performance of mulch material. Binders can also be directly applied to the bare soil to provide binding of the soil particles and reduce the erosion potential of the bare soil.

60.20.2.5.1 Tackifiers & Binders

Tackifiers and binders are applied to organic mulch to reduce the potential of mulch movement by water or wind and increase the performance of the material. Substances are used to anchor straw, hay, paper, or wood mulch by causing the organic material to bind together.

60.20.2.5.2 Bonded Fiber Matrix (BFM)

A classification of erosion control products that are designed to stay in place on steep slopes. A bonded fiber matrix is a continuous layer of elongated fiber strands held together by a binding agent that is water-resistant. Once dry, the BFM forms a water absorbent protective cover that is porous and breathable and secures soil and seed while enhancing establishment of vegetation. Due to many different types of products available on the market, it is best to consult with the manufacturer for proper application rates and procedures with a minimum of 2 tons per acre.

60.20.2.5.3 Flexible Growth Medium (FGM)

FGM combines both chemical and mechanical bonding techniques to lock the engineered medium in place to bond directly to the soil. Wood fibers, crimped man-made fibers, and performance-enhancing additives form a lofty, interlocking matrix that creates air space and water absorbing cavities that accelerate germination, reduce the impact of raindrop energy, and minimize soil loss. The chemistry enables this matrix to handle higher rates of surface flow energy. As with the BFM, maximum effectiveness is achieved when the matrix has dried and has thoroughly cured.

DETAIL 08 MULCHING MATERIALS

N.T.S.

Table 60-7 Temporary Fall Seeding

Plant Species	Rate ¹ (lb/acre)	Seeding Times
Side-Oats	65	8/16 - 9/30
Winter Rye	50	8/01 - 10/15
Winter Wheat	60	8/01 - 10/15
Orchard Grass	120	8/01 - 10/15
Perennial Ryegrass	80	8/01 - 10/15
Tall fescue, Smooth Brome	80	8/01 - 10/15
K-31 Fescue	120	9/01 - 11/15
Ladino Clover	2 ²	8/15 - 9/15
Crimson Clover	6 ²	8/15 - 9/15
Orchard Grass and Oats or Rye	15 ²	8/15 - 9/15
Oats or Rye	40 ²	8/15 - 9/15

¹ If using aerial seeding or other broadcast method to apply seed without rolling or culti-packing, increase seeding rates by 50 percent.

² Pure live seed (PLS)

Table 60-8 Temporary Spring Seeding

Plant Species	Rate ¹ (lb/acre)	Seeding Dates
Winter Rye	50	3/15 - 5/31
Spring Oats	65	3/15 - 5/31
Annual Ryegrass	4 ²	3/15 - 6/15
Sudangrass	16 ²	4/15 - 6/15
K-31 Fescue	30 ²	3/15 - 5/31
Red Clover	2 ²	3/15 - 5/31
& Oats	30 ²	3/15 - 5/31

¹ If using aerial seeding or other broadcast method to apply seed without rolling or culti-packing, increase seeding rates by 50 percent.

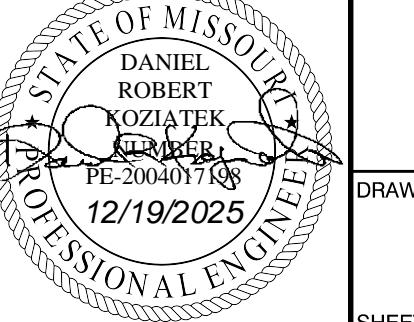
² Pure live seed (PLS)

DETAIL 09 SEEDING SCHEDULE

N.T.S.

DETAIL 10 SEEDBED PREPARATION

N.T.S.



C901

08 OF 08

E & S DETAILS

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