

- 1. All excavations, grading, or filling shall have a finished approved by the designated official if the excavation is through rock or the excavation or the fill is adequately section(s) of the adopted BOCA Codes.
- 2. Sediment and erosion control plans for sites that exceed waters. Temporary siltation control measures shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- shall be re-established in such a density as to prevent been completed.
- when seeded.
- rock riprap or concrete or other suitable materials. shall be constructed to prevent velocities above 5 fps.
- 6. The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted.
- lot lines, commercial or industrial improvements, parking of the existing stream bank. The watercourse shall be maintained and made the responsibility of the subdivision include designed stream bank erosion control measures. FEMA and U.S. Army Corps of Engineers guidelines shall designated as flood plains and wetlands.
- 8. All lots shall be seeded and mulched or sodded before an conditions.

REFERENCE BENCHMARK R.M. #45 - ELEV.=526.16 (U.S.G.S. DATUM)

4. When grading operations are completed or suspended for more than 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. All finished grades (areas not to be disturbed by future improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 100 pounds per 1,000 square feet 5. Provisions shall be made to accommodate the increased runoff caused by changed soils and surface conditions during and

A SET OF CONSTRUCTION PLANS FOR SANITARY/WATER AT PERUQUE CROSSING

TWO TRACTS OF LAND IN U.S. SURVEY 54, AND FRACTIONAL SECTION 26, TOWNSHIP 47 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN ST. CHARLES COUNTY, MISSOURI

PRINCIPALS & STANDARDS

grade not to exceed a 3:1 slope (33%). Steeper grades may be protected (a designed head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards as identified in the appropriate section(s) of the adopted BOCA Codes and must be approved by the City Building Department. Permanent safety guards will be constructed in accordance with the appropriate

20,000 square feet of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales or other approved measures to remove sediment from run-off

Where natural vegetation is removed during grading, vegetation erosion. Permanent type grasses shall be established as soon as possible during the next seeding period after grading has

after grading. Unvegetated open channels shall be designed so that gradients result in velocities of 2 fps (feet per second) or less. Open channels with velocities more than 2 fps and less that 5 fps shall be established in permanent vegetation by use of commercial erosion control blankets or lined with Detention basins, diversions or any other appropriate structures

surface water, silt from erosion, and any other consequence of erosion. Run-off water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete

7. Development along natural watercourses shall have residential areas or driveways set back a minimum of 25 feet from the top trustees or in the case of a site plan by the property owner. Permanent vegetation should be left intact. Variances will be followed where applicable regarding site development areas

occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Building Department in cases of undue hardship because of unfavorable ground

CHISELED SQUARE ON THE SOUTHEAST WINGWALL OF THE LAKE ST. LOUIS BOULEVARD BRIDGE OVER THE SPILLWAY OF LAKE ST. LOUIS.

VEGETATIVE ESTABLISHMENT For Urban Development Sites APPENDIX A

Seeding Rates: Permanent:

Tall Fescue - 30 lbs./ac.

Smooth Brome - 20 lbs./ac. Combined Fescue @ 15 lbs./ac. and Brome @ 10 lbs./ac.

Temporary: Wheat or Rye - 150 lbs./ac. (3.5 lbs. per square foot) - 120 lbs./ac. (2.75 lbs. per square foot) Oats

Seeding Periods: Fescue or Brome - March 1 to June 1

Oats

August 1 to October 1 Wheat or Rye - March 15 to November 1 - March 15 to September 15

Mulch Rates: 100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)

Fertilizer Rates: Nitrogen 30 lbs./ac. Phosphate 30 lbs./ac. Potassium 30 lbs./ac. 600 lbs./ac. ENM* Lime

> * ENM = effective neutralizing material as per State evaluation of guarried rock.

SHEET INDEX

1.....COVER SHEET 2 SITE PLAN 3.....GRADING PLAN 4 SILTATION CONTROL SHEET 5.....DRAINAGE MAP 6.....PROFILES 7.....PROFILES 8.....PROFILES 9.....DETAILS 10.....DETAILS 11.....DETAILS 12....DITCH SECTIONS 13.....DITCH DETAILS 14.....SEDIMENTATION DETAILS

DEVELOPMENT NOTES

1. 2. 3. 4.	Area of Tract: Existing Zoning: Proposed Use: Setbacks:	13.19 Acres C-2 (City of O'Fallon) Commercial Development 25' Front O' Side O' Rear
5.	Current Owner & Developer	50' Maximum Building Height of Property: S.S. & D. PROPERTIES, L.L.C. 501 FIRST CAPITOL DR. ST. CHARLES, MO 63301 (636) 946-9753
5.	Site is served by: AmerenU Lacclede Missouri Verizon Wentzville	E Gas Company American Public Water District No. 2 Telephone Company e School District

Lake St. Louis Fire Protection District City of O'Fallon Sewers 7. No Flood Plain exists on this site per F.I.R.M. #29183 C 0220,

dated March 17, 2003

8. Topographic information is per Bax Engineering.

9. Boundary information is per Bax Engineering Survey during June 2001.

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GRADING NOTES

- 1. A Geotechnical Engineer shall be employed by the owner and be on site during grading operations. All soils tests shall be verified by the Geotechnical Engineer concurrent with the grading and backfilling operations. The developer must supply the city construction inspectors with soil reports prior to or during site soil testing.
- 2. The grading contractor shall perform a complete grading and compaction operation as shown on the plans, stated in these notes, or reasonably implied there from, all in accordance with the plans and notes as interpreted by the Geotechnical Engineer.
- 3. The Contractor shall notify the Soils Engineer at least two days in advance of the start of the grading operation.
- 4. All areas shall be allowed to drain. All low points shall be provided with temporary ditches.
- 5. All fill placed under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 90% of maximum density as determined by the MOdified AASHTO T-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. Allfill placed in proposed roads shall be compacted from bottom of the fill up. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. The soils engineer to ensure the moisture content of the soil in fill areas is to correspond 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. Proof rolling may be required to verify soil stability at the discretion of the City of O'fallon.
- 6. A sediment control plan that includes monitored and maintained sediment control basins and/or straw bales should be implemented as soon as possible. No graded area is to be allowed to remain bare without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage systems. All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rain storm resulting in 1/2 inch of rain or more.
- 7. 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.
- 8. All trash and debris on site, either existing or from construction, must be removed and properly disposed of off-site.
- 9. Soft soil in the bottom and banks of any existing or former pond sites or tributaries or on any sediment basins or traps should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or on any storm sewer locations.
- 10. Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surace obstructions from the site; and the demolition and removal of any man-made structures. The material shall be properly disposed of cff-site. Topsoil and grass in the fill areas shall be thoroughly discod prior to the placement of any fill. The Soils Engineer shall approve the discing operation.
- 11. 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 roller shall be designed so as to woid the creation of a layered fill without proper blending of successive fill layers.
- 12. 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.
- 13. The Soils Engineer shall notify the Contractor of rejection 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.
- 14. All areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted in accordance with the specifications given below. 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 loosely 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.
- 15. 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.



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PREPARED FOR:				
S.S.&D. PROPERTIES, L.L.C	501 FIRST CAPITOL DRIVE	ST. CHARLES, MISSOURI 6.	(636) 946-9753	



ENGINEERING PLANNING SURVEYING

1052 South Cloverleaf Driv St. Peters, MO. 63376-6445 636-928-5552 FAX 928-1718

5-26-04 DATE 00-11282C PROJECT NUMBER OF 14 SHEET OF 11282CMODOT-UTILITY FILE NAME SWR

DRAWN SWR RLF DESIGNED CHECKED