

PAVEMENT MARKING NOTES

- ALL STRIPING/PAVEMENT MARKING ON CONCRETE PAVEMENT SHALL BE AS FOLLOWS:
  - SYMBOLS, STOP BARS, PEDESTRIAN CROSSWALKS, ETC. SHALL CONSIST OF FURNISHING AND PLACING TYPE 2 PREFORMED PAVEMENT MARKING TAPE (HOT TAPE) AS SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY OF O'FALLON, MISSOURI. AFTER APPLICATION THE TAPE BE IMMEDIATELY READY TO RECEIVE TRAFFIC.
  - LANE LINES SHALL CONSIST OF FURNISHING AND PLACING TYPE A EPOXY PAVEMENT MARKING MATERIAL AND CROP-ON GLASS BEADS AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE CITY OF O'FALLON, MISSOURI.

- ALL STRIPING, SYMBOLS, STOP BARS, ETC. ON ASPHALT PAVEMENT SHALL BE THERMOPLASTIC PAVEMENT MARKING MATERIAL APPLIED BY THE HOT SPRAY PROCESS AT A 45-MIL (1.14mm) THICKNESS AS SPECIFIED ON THE PLANS OR AS DIRECTED BY THE CITY OF O'FALLON, MISSOURI. HOT SPRAY THERMOPLASTIC PAVEMENT MARKING SHALL BE USED ONLY ON BITUMINOUS SURFACES.

SEDIMENT AND EROSION CONTROL

- Sediment and erosion control plans for sites that exceed 20,000 square feet of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales and/or other approved measures to remove sediment from runoff waters. The design is to be approved by the city engineer or his designee. Temporary siltation control measures (structures) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site (refer to appendix "a").
- Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grass must be established as soon as possible or during the next seeding period after grading has been completed (refer to appendix "a").
- 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 according to the recommendations of the city engineer or his designee (refer to appendix "a"). 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 when seeded.
- Provisions shall be made to accommodate the increased runoff caused by changed soil and surface conditions during and 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 than 5 fps shall be established in permanent vegetation by use of commercial erosion control blankets or lined with rock riprap or concrete and other suitable materials as approved by the city engineer or his designee. Detention basins, diversions, or other appropriate structures shall be constructed to prevent velocities above 5 fps (see appendices b, c, d, e and f).
- The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequence of erosion. Runoff water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted with the approval of the city engineer or his designee (refer to appendices b, c, d, e and f).
- All lots shall be seeded and mulched at the rates defined in appendix "a" or sodded before an 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 conditions.

SEEDING NOTES

General:  
 Seeding Rate: 30# Tall Fescue per acre  
 Mulching Rate: 100# per 1,000 sq. ft.  
 Fertilizer: 30# per acre Nitrogen  
 30# per acre Phosphate  
 30# per acre Potassium  
 Lime: 600# per acre ENM

- When grading operation is complete, the site will be seeded, fertilized, limed, mulched and tacked as per above rate.
- When grading operations are ceased for 14 days or more, all disturbed areas will be seeded to wheat at the rate of 90# per acre.

VEGETATIVE ESTABLISHMENT

**Permanent:**  
 Tall Fescue - 30 lbs/ac  
 Smooth Bromes - 20 lbs/ac  
 Combined - Fescue @ 15 lbs/ac and Bromes @ 10 lbs/ac

**Temporary:**  
 Wheat or Rye - 150 lbs/ac (3.5 lbs/1,000 sq. ft.)  
 Oats - 120 lbs/ac (2.75 lbs/1,000 s. ft.)

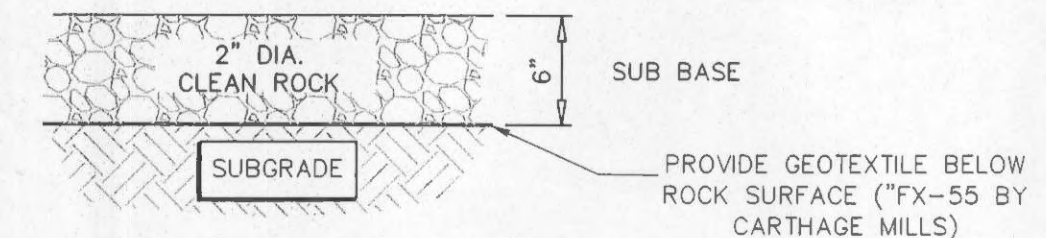
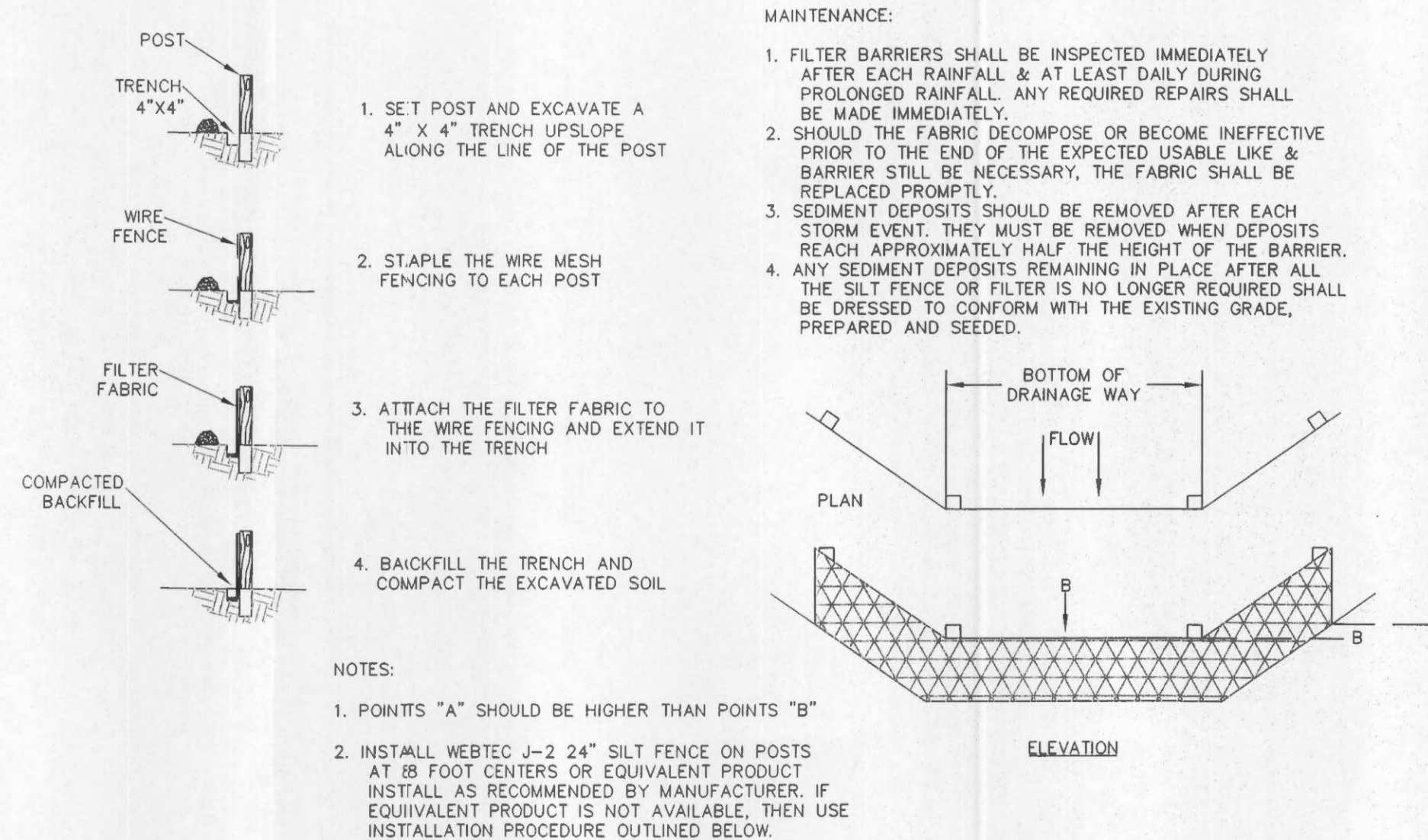
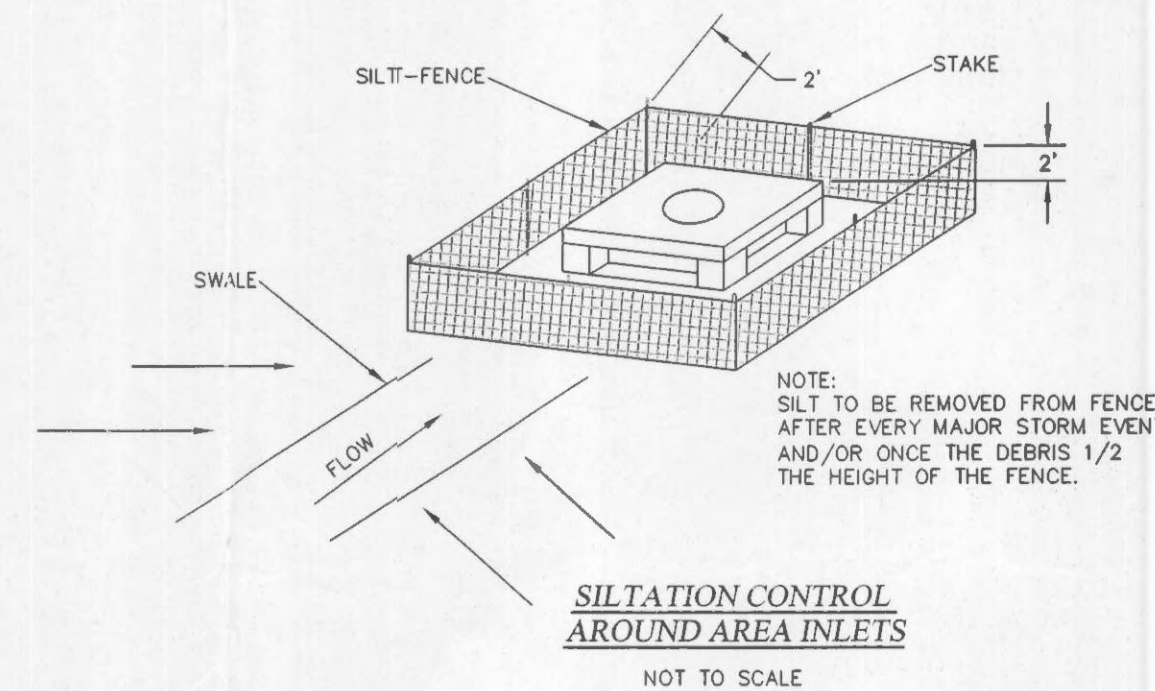
**Seeding Period:**  
 Fescue or Bromes: March 1 to June 1  
 August 1 to October 1

Wheat or Rye: March 15 to November 1  
 Oats: March 15 to September 15

Mulch Rates: 100 lbs/1,000 sq. ft. (4356 lbs/ac)

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

ENM\* = Effective neutralizing material per state evaluation of quarried rock.



- CONTRACTOR TO PROVIDE TEMPORARY 20'x50' GRAVEL WASH-DOWN PAD.
- PAD TO BE 6 INCH DEEP OF 2 INCH DIAMETER CLEAN ROCK.
- WHEN PARKING LOT IS READY FOR CONSTRUCTION, MUD AND SILT TO BE REMOVED AND ADDITIONAL ROCK TO BE ADDED TO ACHIEVE REQUIRED GRADE AND COMPACTION FOR PAVING.
- IF WATER IS NOT AVAILABLE, A WATER TRUCK WILL BE PROVIDED.
- ALL TRUCKS TO BE WASHED DOWN PRIOR TO LEAVING THE SITE.

TYPICAL WASHDOWN PAD DETAIL

NOT TO SCALE

**ENGINEERS CERTIFICATION:**  
 The following applies to ALL sheets and documents involved in the preparation of the plans and documents for this project. The responsibility for Professional Engineering liability on this project is limited to the set of plans displaying the signature and an original stamped seal of the Engineer on each sheet. ALL responsibility is Disclaimed, until ALL review agency approvals are granted; for all other plan sheets issued prior to this issue date; for this set when another set is issued after this date; if the sheets are used individually instead of a set. This applies for ALL sheets and documents involved in this project whether this certification appears on it or not. Copyright 2003. All Rights Reserved.  
 ZAVRADINOS & POLK, INC. DBA  
 ZAVRADINOS ENGINEERING & SURVEYING

STATE OF MISSOURI  
 RICHARD G. WISCHMANN  
 PROFESSIONAL ENGINEER  
 5-8-08  
 RICHARD G. WISCHMANN PE-2003015059 DATE