



### SWPPP Cut Sheet

Last Updated: 7-1-07

#### Section 1: Erosion and Sediment Control - Construction Activities

##### 1.1 Filtrex SiltSoxx™ Sediment & Perimeter Control Technology

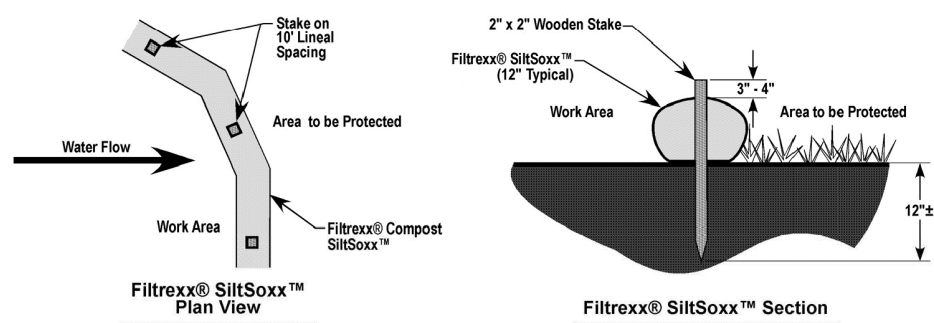
**PURPOSE & DESCRIPTION**  
Filtrex SiltSoxx™ are three-dimensional tubular sediment control and storm water runoff filtration devices typically used for perimeter control of sediment and other soluble pollutants (such as phosphorus and petroleum hydrocarbons), on and around construction activities.

- APPLICATION**  
Filtrex SiltSoxx™ are to be installed down slope of any disturbed area requiring erosion and sediment control and filtration of soluble pollutants from runoff. SiltSoxx™ are effective when installed perpendicular to sheet or low concentrated flow. Acceptable applications include:
- Site perimeter
  - Above and below disturbed areas subject to sheet runoff, intertidal and fill erosion
  - Above and below exposed and erodible slopes
  - Around areas to be left in place as a "mound"
  - On compacted soils where trenching of fill fence is difficult or impossible
  - Around sensitive trees where trenching of fill fence is not beneficial for tree survival or may unnecessarily disturb established vegetation.
  - On frozen ground where trenching of fill fence is impossible.
  - On paved surfaces where trenching of fill fence is impossible.

- INSTALLATION**
1. SiltSoxx™ used for perimeter control of sediment and soluble pollutants in storm runoff shall meet Filtrex SiltSoxx™ Material Specifications and use Certified Filtrex FiltrexMedia™.
  2. Certification is required to be Filtrex Certified™ as determined by Filtrex International, LLC (440-926-2407 or visit website at www.filtrex.com). Certification shall be considered current if appropriate identification is shown during time of bid or at time of application (current listing can be found at www.filtrex.com). Look for the Filtrex Certified™ Seal.
  3. SiltSoxx™ will be placed at locations indicated on plans as directed by the Engineer.
  4. SiltSoxx™ shall be installed parallel to the base of the slope or other disturbed area. In extreme conditions (i.e., 2:1 slopes), a second SiltSoxx™ shall be constructed at the top of the slope.
  5. Chains shall be installed through the middle of the SiltSoxx™ (as 18" (1.5m) center, using 2 in (50mm) by 2 in (50mm) by 1/8" (10) wooden stakes. In the event making is not possible, i.e., when SiltSoxx™ are used on pavement, heavy concrete blocks shall be used behind the SiltSoxx™ to help stabilize during rainfall/runoff events.
  6. Staking depth for sand and silt loam soils shall be 12 in (300mm), and 8 in (200mm) for clay soils.
  7. Loose compost may be backfilled along the upslope side of the SiltSoxx™, filling the seam between the soil surface and the device, improving filtration and sediment retention.
  8. If the SiltSoxx™ is to be left as a permanent filter or part of the natural landscape, it may be seeded at time of installation for establishment of permanent vegetation. The Engineer will specify seed requirements.
  9. Filtrex SiltSoxx™ are not to be used in perennial, ephemeral, or intermittent streams.
  10. Free design drawing schematic for correct Filtrex SiltSoxx™ installation (Figure 1.1).

**INSPECTION AND MAINTENANCE**  
Regular inspections shall be conducted within 24 hours of a runoff event or as designated by the regulatory authority. SiltSoxx™ should be regularly inspected to make sure they maintain their shape and are producing adequate hydraulic flow through. If ponding becomes excessive, additional SiltSoxx™ may be required to reduce effective slope length or sediment removal may be necessary. SiltSoxx™ shall be inspected until area above has been permanently stabilized and construction activity has ceased.

1. The Contractor shall maintain the SiltSoxx™ in a functional condition at all times and it shall be routinely inspected.
2. If the SiltSoxx™ has been damaged, it shall be repaired, or replaced if beyond repair.
3. The Contractor shall remove debris at the base of the up-slope side of the SiltSoxx™ when accumulation has reached 1/2 of the effective height of the SiltSoxx™, or as directed by the Engineer. Alternatively, a new SiltSoxx™ can be placed on top of and slightly behind the original one creating more sediment storage capacity without soil disturbance.
4. SiltSoxx™ shall be maintained until disturbed area above the device has been permanently stabilized and construction activity has ceased.
5. The FiltrexMedia™ will be dispersed on the one disturbed area has been permanently stabilized, construction activity has ceased, or as determined by the Engineer.
6. For long term sediment and pollution control applications, SiltSoxx™ can be seeded at the time of installation to create a vegetative filtering system for prolonged and increased filtration of sediment and soluble pollutants (maintained vegetative filter strip). The appropriate seed mix shall be determined by the Engineer.



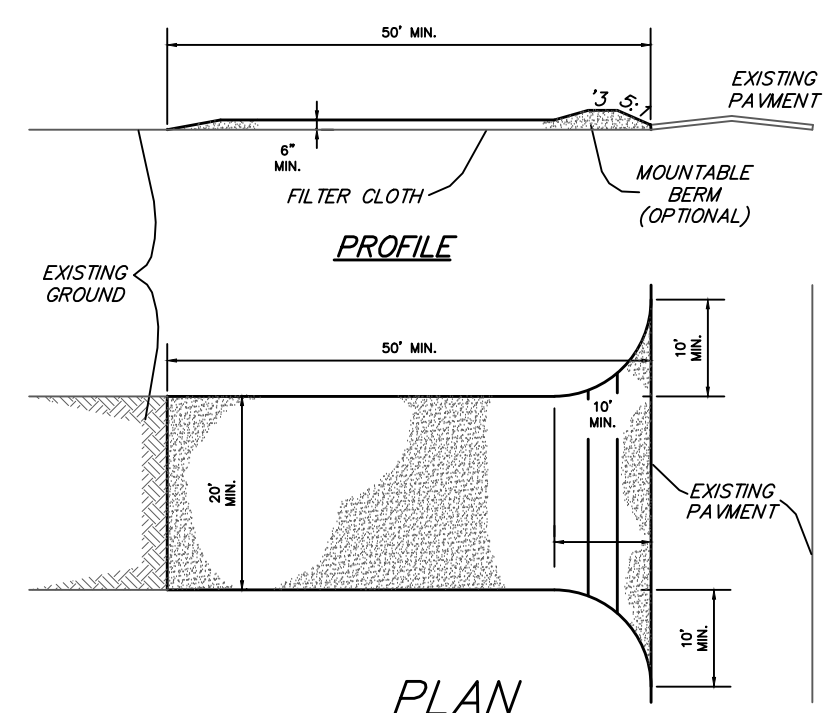
Slope Percent	Maximum Slope Length Above SiltSoxx™ in Feet (meters)*				
	8 in (200 mm) SiltSoxx™	12 in (300 mm) SiltSoxx™	18 in (450 mm) SiltSoxx™	24 in (600 mm) SiltSoxx™	32 in (800 mm) SiltSoxx™
2 (or less)	600 (180)	750 (225)	1000 (300)	1300 (400)	1650 (500)
3	400 (120)	500 (150)	550 (165)	650 (200)	750 (225)
10	200 (60)	250 (75)	300 (90)	400 (120)	500 (150)
15	140 (40)	170 (50)	200 (60)	325 (100)	450 (140)
20	100 (30)	125 (38)	140 (42)	260 (80)	400 (120)
25	80 (24)	100 (30)	110 (33)	200 (60)	275 (85)
30	60 (18)	75 (23)	90 (27)	130 (40)	200 (60)
35	60 (18)	75 (23)	80 (24)	115 (35)	150 (45)
40	60 (18)	75 (23)	80 (24)	100 (30)	125 (38)
45	40 (12)	50 (15)	60 (18)	80 (24)	100 (30)
50	40 (12)	50 (15)	55 (17)	65 (20)	75 (23)

\*Based on a failure point of 36 in (0.9 m) super silt fence (wire reinforced) at 1000 lb (303 m) of slope, watershed width equivalent to receiving length of sediment control device, 1 in 24 (25 mm/24 hr) rain event. \*\*Effective height of Silt Soxx™ after installation and with constant head from runoff as determined by Ohio State University.

### VEGETATION 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 1,000 s.f.) Oats - 120 lbs./ac. (2.75 lbs. per 1,000 s.f.)
- SEEDING PERIODS:**  
Fescue or Brome - March 1 to June 1 August 1 to October 1 Oats - March 15 to September 15
- MULCH RATES:**  
100 lbs. per 1,000 sq. ft. (4,356 lbs. per ac.)
- FERTILIZER RATES:**  
Nitrogen 30 lbs./ac. Phosphate 30 lbs./ac. Potassium 30 lbs./ac. Lime 600 lbs./ac. ENM\*
- \* ENM = effective neutralizing material as per State evaluation of quarried rock.

### STABILIZED CONSTRUCTION ENTRANCE

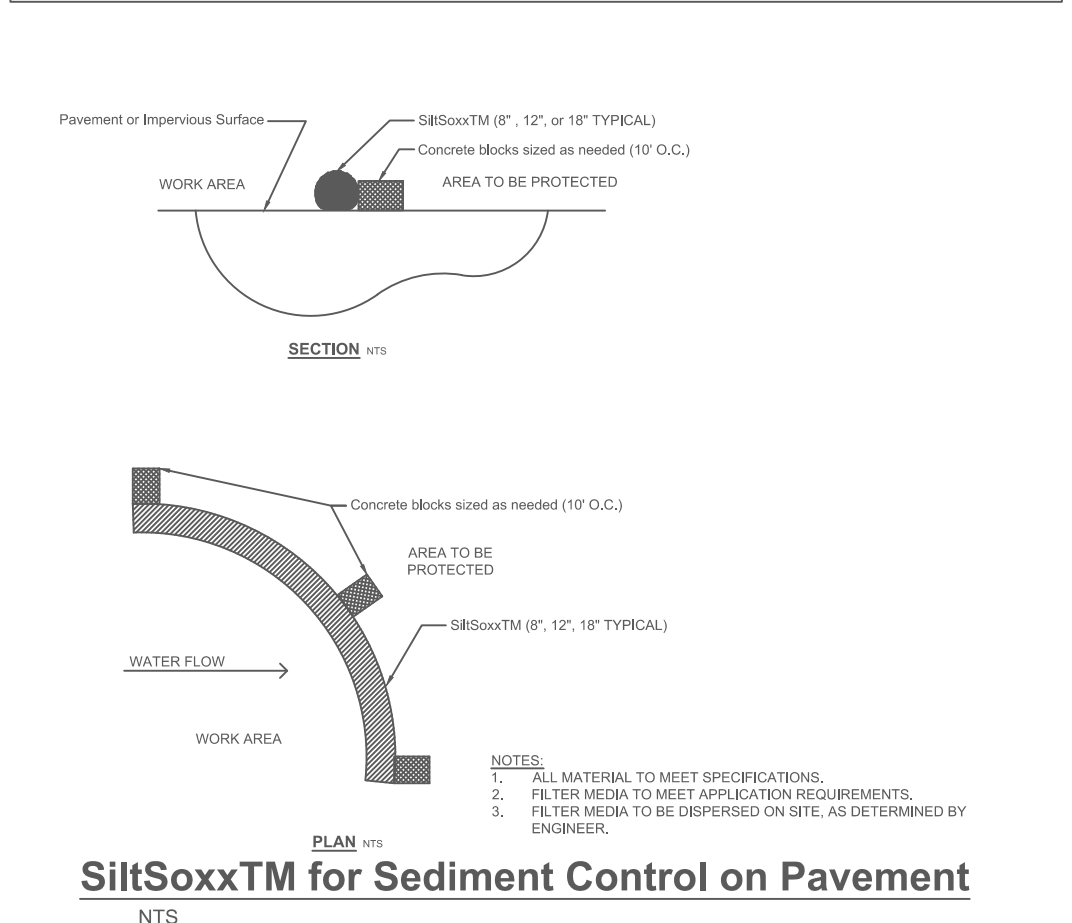
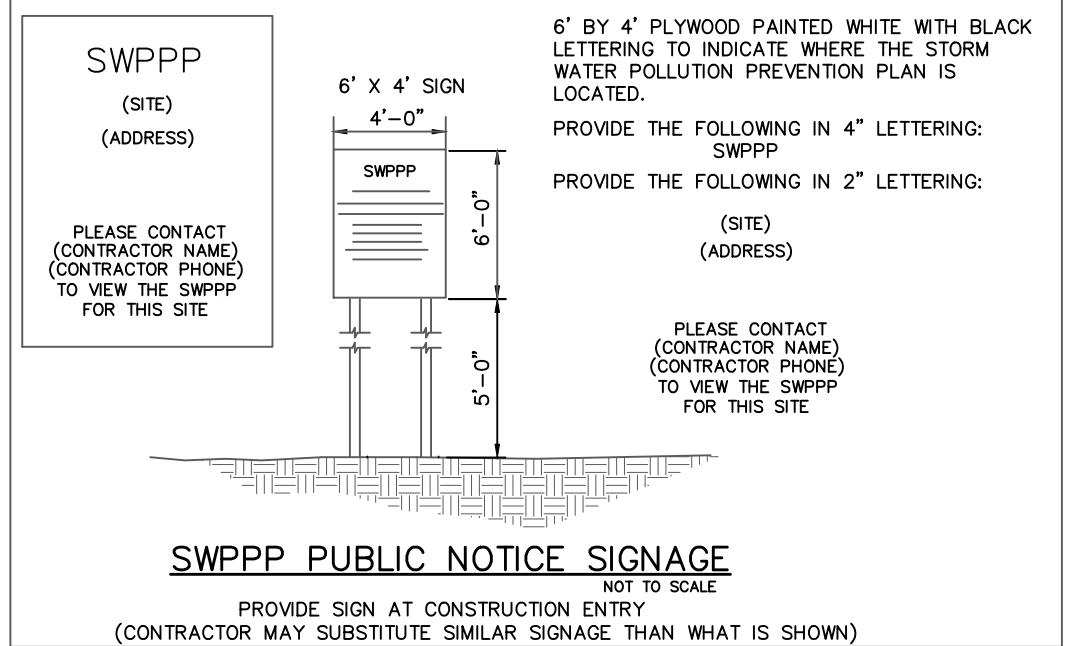


- CONSTRUCTION SPECIFICATIONS**
1. Stone Size - Use 2" stone, or reclaimed or recycled concrete equivalent.
  2. Length - As required, but not less than 50 feet (except on a single residence lot where a 30 foot minimum length would apply).
  3. Thickness - Not less than six (6) inches.
  4. Width - Twenty (20) foot minimum, but not less than the full width at points where ingress or egress occurs.
  5. Filter Cloth - Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
  6. Surface Water - All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable gate with 5:1 slopes will be permitted.
  7. Maintenance - The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-of-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights-of-way must be removed immediately.
  8. Washing - Wheels shall be cleaned to remove sediment prior to entrance onto public rights-of-way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
  9. Periodic inspection and needed maintenance shall be provided after each rain.

### Storm Water Pollution Prevention Plan

- A. PURPOSE:**  
The purpose of the Storm Water Pollution Prevention Plan (SWPPP) is to inform the Developer/Contractor of the following objectives they are required to meet:
- Prevent erosion where construction activities shall occur.
  - Prevent pollutants from mixing with storm water.
  - Prevent pollutants from being discharged by trapping them on-site, before they can affect the receiving waters.
  - All regulations of Missouri Department of Natural Resources are met.
  - All regulations of the Environmental Protection Agency are met.
  - All regulations of the local municipality are met.
- B. PROJECT DESCRIPTION:**  
The project is located in the Belleau Creek watershed in St. Charles County, Missouri. This project disturbs approximately 0.64 acres.
- The project activities consist of the construction of a building addition and installing pavement over existing gravel parking. The site will be protected by the various erosion protection measures listed below.

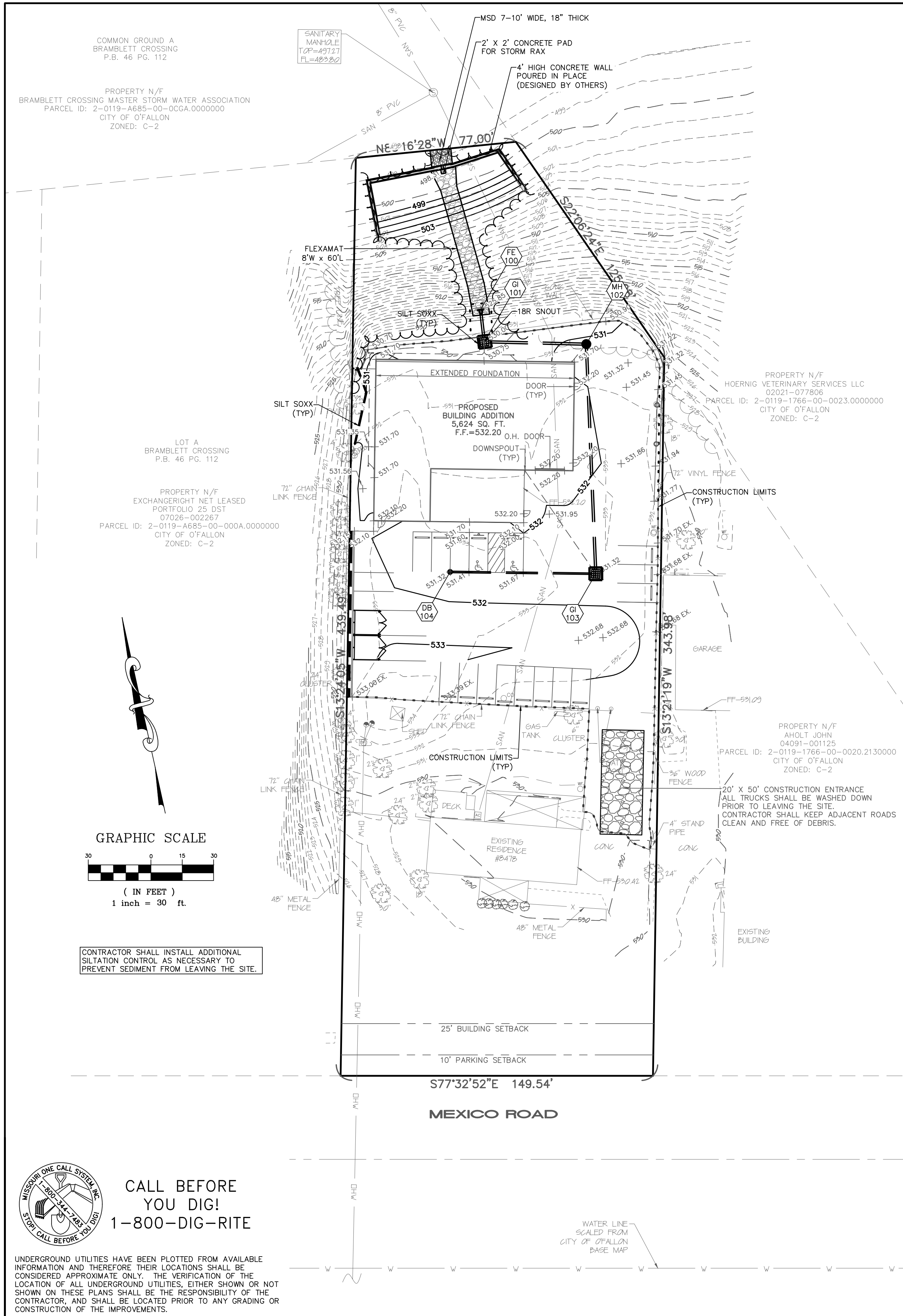
- C. MAINTENANCE AND INSPECTION:**
- Regular Maintenance:** Weekly inspections of the project will include: (a) The repair of any sediment (silt) fence and/or staked straw bale barriers damaged or out of place; (b) The removal of accumulated trash and/or debris; and (c) The removal of any externally deposited waste materials.
- Periodic Inspections:** Following each rain of more than 0.25 inch in 24 hours, the site will be inspected, and any necessary maintenance will be provided for a period of one year following the completion of the above remediation measures. Summaries of the maintenance and the inspections will be maintained and shall be kept available from the owner. An inspection report shall be filed and kept on site for every inspection. The report shall detail the findings of the inspection and if any action was required. The inspection form needs to include name of the site, name of the inspector, permit number, date of inspection, major observations and actions taken to correct problems and the signature of the inspector. The inspection reports need to be kept on file by the permittee for three years after the project is completed.
- The field inspections will be conducted in a systematic manner to minimize the possibility of any significant feature being overlooked. A detailed checklist will be developed and followed for the examination. Particular attention will be given to detecting evidence of erosion, slope instability, undue settlement, displacement, and tilting. Photographs and drawings will be used freely to record conditions in order to minimize descriptions. The field inspection will include appropriate features and items, including potential hazards to human life or property.
- The condition of the slopes and vegetative cover will be evaluated and erosion.
- Measures will be taken to promote the growth of vegetation and repair of damage caused by erosion and sedimentation. The inspection will also provide recommendations for measures that need to be undertaken immediately, based on the experience and judgment of the inspector. Necessary follow up inspections will be made as necessary to verify that any maintenance, alteration, or repair measures are accomplished by methods acceptable by standard engineering practice.



**MISSOURI ONE CALL SYSTEM INC.**  
1-800-4-A-FAST  
STOP CALL BEFORE YOU DIG!

**CALL BEFORE YOU DIG!**  
1-800-DIG-RITE

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 OR CONSTRUCTION OF THE IMPROVEMENTS.



ENGINEER SEAL DOES NOT APPLY TO FILTREXX DETAILS

**PROJECT TITLE:**  
CONSTRUCTION PLANS FOR Progressive Installations  
Building Addition  
8478 Mexico Road  
O'Fallon, MO 63376

**ENGINEERING FIRM/INCH SURVEYING**  
22 Point View Blvd.  
St. Charles, MO 63301  
636-928-5662  
FAX 636-928-1718

**DISCLAIMER OF RESPONSIBILITY**  
I, hereby certify that this document is intended to be a final design and that I hereby disclaim any responsibility for any errors, omissions, or inaccuracies in this document. I am not responsible for any errors, omissions, or inaccuracies in this document or any instruments relating to or attached to be used for any part or parts of the architectural or engineering project (ANYWHERE).

Copyright © 2007  
Box Engineering Company, Inc.  
Authority No. 000000  
All Rights Reserved

**REVISIONS**

NO.	DATE	DESCRIPTION
09-16-22	CITY COMMENTS	
10-18-22	CITY COMMENTS	

**Developer / Owner:**  
Raytech, L.L.C.  
25 Skye Court  
O'Fallon, MO 63368  
(314) 565-8053

**P+Z No.** 21-010104  
Approved: 12-02-21

**City No.** #

**Page No.**