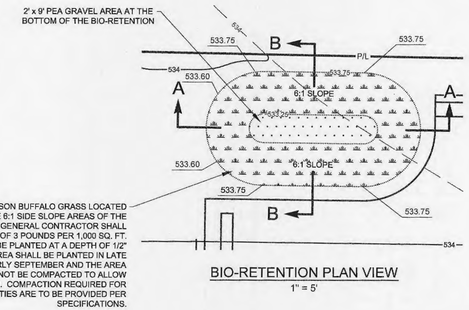
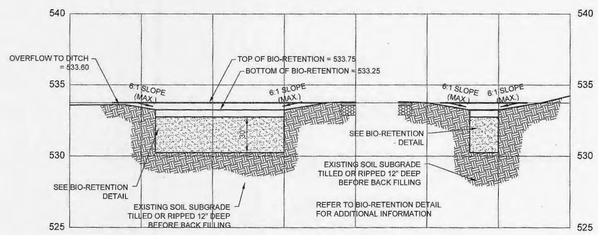


BIO-RETENTION PLAN VIEW
1" = 5'

NOTES:
1. ENTIRE AREA OF BIO-RETENTION SHALL BE PLANTED WITH BISON BUFFALO GRASS OR HAVE PEA GRAVEL PLACED AS INDICATED. (SEE DETAIL ON THIS SHEET)

CONSTRUCTION SITE RUNOFF SHALL NOT FLOW INTO BMP AREAS. ALL STORMWATER FLOW TO BMP SHALL BE DIVERTED, PLUGGED, OR DISCONNECTED UNTIL THE CONSTRUCTION SITE IS STABLE AND THE INSPECTOR PROVIDES APPROVAL TO PLACE BMP(S) ONLINE.

PLANTING SOIL REQUIREMENTS	
PARAMETER	VALUE
PH RANGE	5.2 TO 8.00
ORGANIC MATTER	1.5 TO 5.0%
MAGNESIUM	35 LBS. PER ACRE, MIN.
PHOSPHORUS (P2O5)	75 LBS. PER ACRE, MIN.
POTASSIUM (K2O)	85 LBS. PER ACRE, MIN.
SOLUBLE SALTS	≤ 500 PPM

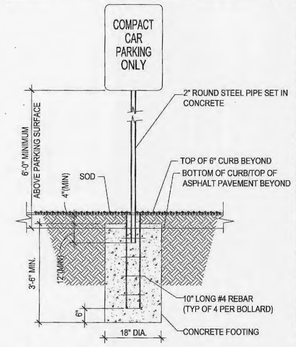


SECTION A-A
1" = 5' HORIZONTAL
1" = 5' VERTICAL

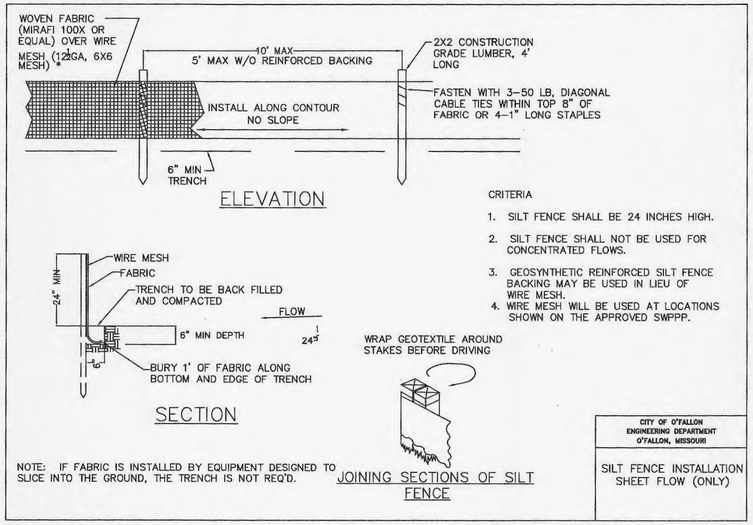
SECTION B-B
1" = 5' HORIZONTAL
1" = 5' VERTICAL

NOTE: SIGNAGE SHOWN IS AN EXAMPLE, FOR REFERENCE ONLY. SIGN VENDOR SHALL VERIFY ALL SIGN TEXT, COLORS, DIMENSIONS, ETC. WITH LOCAL CODES, TYPICAL.

NOTE: ALL SIGNS ARE TO BE PAINTED IN ACCORDANCE WITH NOTE RN#19 AS SEEN ON SHEET 2.



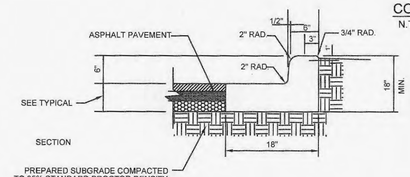
COMPACT CAR PARKING SIGN DETAIL
N.T.S.



NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT REQ'D.

CITY OF O'FALLON ENGINEERING DEPARTMENT O'FALLON, MISSOURI

SILT FENCE INSTALLATION SHEET FLOW (ONLY)

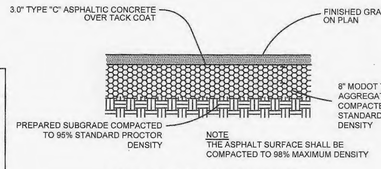


CONCRETE NOTES
1. AIR CONTENT TO BE 5% TO 7%
2. COMPRESSIVE STRENGTH=4,000 P.S.I. @ 28 DAYS
3. MAXIMUM SLUMP SHALL BE 4"

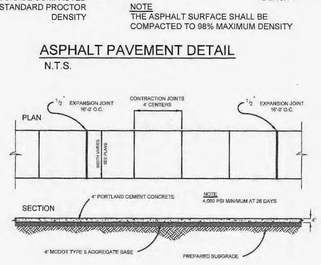
1.5' CONCRETE CURB & GUTTER
N.T.S.

NOTE: ALL SIGNS ARE TO BE PAINTED IN ACCORDANCE WITH NOTE RN#19 AS SEEN ON SHEET 2.

NOTE: SIGNAGE SHOWN IS AN EXAMPLE, FOR REFERENCE ONLY. SIGN VENDOR SHALL VERIFY ALL SIGN TEXT, COLORS, DIMENSIONS, ETC. WITH LOCAL CODES, TYPICAL.

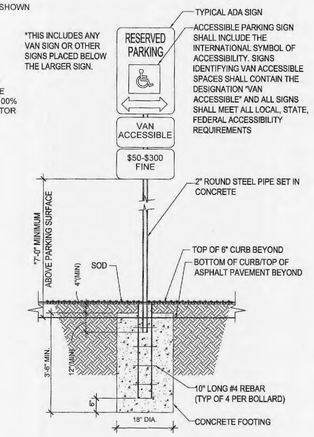


ASPHALT PAVEMENT DETAIL
N.T.S.

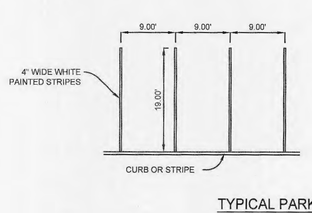


CONCRETE SIDEWALK DETAIL
N.T.S.

CROSS STRIPING DETAIL
N.T.S.



ACCESSIBLE SIGN DETAIL
N.T.S.



TYPICAL PARKING DIMENSIONS
N.T.S.

ACCESSIBLE PARKING MARKING
N.T.S.

SILTATION CONTROL NOTES

1. INSTALLATION OF ALL SEDIMENT AND EROSION CONTROL SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN TWO (2) DAYS OF ANY REMOVAL OF EXISTING VEGETATION OR IMPROVEMENTS.
2. INSPECTION OF SILTATION CONTROL SHALL TAKE PLACE AT LEAST ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF ANY RAIN EVENT. ANY REPAIRS REQUIRED SHALL BEGIN IMMEDIATELY OF THE ROOT ZONE. A WRITTEN REPORT SHALL BE SUBMITTED TO THE CITY OF O'FALLON WITHIN SEVENTY TWO (72) HOURS OF STORM EVENT.
3. A MISSOURI STATE OPERATING PERMIT THAT SPRECIFICALLY INDENTIFIES THE SITE MUST BE OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES PRIOR TO ANY CLEARING, GRUBBING OR GRADING THAT RESULTS IN DESTRUCTION
4. THE CONTRACTOR SHALL KEEP AND MAINTAIN RECORDS OF ALL SILTATION CONTROL INSPECTIONS, REPAIRS, INSTALLATION OR RELEVANT ACTIVITIES ON THE JOBSITE OR MAIN OFFICE FOR A PERIOD OF THREE YEARS. THESE RECORDS SHALL BE AVAILABLE FOR INSPECTION BY MISSOURI DEPARTMENT OF NATURAL RESOURCES OR LOCAL AUTHORITIES HAVING JURISDICTION.
5. ALL DISTURBED AREAS WHICH REMAIN UNWORKED FOR 30 DAYS OR MORE SHALL BE STABILIZED WITH SEEDING AND MULCHING PER APPENDIX A OR PER THE PROJECT SPECIFICATIONS WHICHEVER IS MORE STRINGENT. IF SEASONAL CONDITIONS PROHIBIT SEEDING OR MULCHING, MATTING SHALL BE INSTALLED
6. ALL SLOPES OR DRAINAGE CHANNELS, ONCE CONSTRUCTED TO FINAL GRADE SHALL BE SEEDED AND MULCHED OR OTHERWISE STABILIZED WITHIN 7 DAYS. EVERY EFFORT SHALL BE MADE TO PREVENT EROSION IN THESE AREAS.
7. SILT FENCES INLET PROTECTION DEVICES SHALL BE INSTALLED IMMEDIATELY AROUND EACH INLETONCE INLET CONSTRUCTION IS COMPLETED.
8. ALL SILTATION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

SILT FENCE MAINTENANCE:

1. SILT FENCE SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
2. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE BARRIERS, END RUNS AND BARRIER UNDERCUTTING.
3. SHOULD SILT FENCE BECOME INEFFECTIVE PRIOR TO THE END OF CONSTRUCTION AND ARE STILL NECESSARY, THE STRAW BALES SHALL BE PROMPTLY REPLACED.
4. SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE - HALF OF THE HEIGHT OF THE FENCE.
5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

Plastic Parking Block Installation Instructions

Lag Bolt Method: Recommended for Asphalt or Concrete Traffic Lanes where drilling holes are permitted.

Hardware Supplied:
½" x 8" lag bolt for each hole
(2) ½" washers each
½" lag anchor

Tools Required:
High speed hammer drill with ½" masonry bit
Impact wrench or heavy ratchet with ½" socket

1. Clean the surface so that it is free from dirt.
2. Place the parking block in its installation position and mark the location of each hole using the pre-drilled holes as a template.
3. Remove the parking block. Using a high-speed hammer drill with a ½" masonry bit, drill a hole at each marked location to a depth of 3 ½" below the surface.
4. Insert lag anchor into each hole (large anchor opening on top). Tap the anchor into the hole with a hammer so that the anchors are set flush with the surface. Place a washer over each anchor hole.
5. Reposition the parking block in its installation position. Slip a washer onto a lag bolt, insert the bolt through a pre-drilled hole in the parking block and tighten the bolt about three quarters of the way with the ½" socket. Repeat for each hole in the parking block. Finish tightening each bolt until just snug. DO NOT OVER TIGHTEN! Excessive tightening may damage the bump and void the product warranty.

Steel Spike Method: Recommended for use on Asphalt or wood Block Surfaces only.

Hardware Supplied:
½" x 12" steel spike for each hole

Tools Required:
High speed hammer drill with 3/8" masonry bit
Sledge hammer for driving spikes

1. Clean the surface so that it is free from dirt.
2. Place the parking block in its installation position and mark the location of each hole using the pre-drilled holes as a template.
3. Remove the parking block. Using a high-speed hammer drill with a 3/8" masonry bit, drill a hole at each marked location to avoid fracturing the asphalt with the spike.
4. Reposition the parking block in its installation position. Drive the spike through the parking block and into the drilled hole until the spike is snug against the counter bored surface of the speed bump's pre-drilled hole. DO NOT DRIVE BEYOND "SNUG"! If driven too far the spike may damage the speed bump and void the product warranty.

INNOPLAST™ Innovative Polymer Products
10120 Gottschalk Parkway
Chagrin Falls, OH 44023
phone 800.516.9287 fax 440.543.8661
INNOPLAST.com

Table 60-6 Soil Amendment Rates

Soil Amendment Material		Application Rate (Lb per Acre)
Fertilizer	Nitrogen (N)	30 [1]
	Phosphate (P_2O_5)	90 [1]
	Potash (K_2O)	90 [1]
Lime		1,000 [2]

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] 40 [2]	8/15 – 9/15

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 & Oats	2 [2] 30 [2]	3/15 – 5/31

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.

NOTE:
UNDERGROUND UTILITIES AND STRUCTURES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE, THEIR LOCATION MUST BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL CONTRACTORS TO NOTIFY THE UTILITY COMPANIES BEFORE ACTUAL CONSTRUCTION.

PROJECT TITLE
ARTS ON ELM, LLC
201 E. ELM STREET
O'FALLON, MO 63366

CONSULTANT:
PREMIER CIVIL ENGINEERING
308 TCW Court
Lake Saint Louis, MO 63367
Phone: (314) 925-7444 Fax: (314) 925-7457
Missouri Certificate of Authority # E-2011000031
Missouri Certificate of Authority # LS-2012007849

ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after this date unless reauthenticated.

STATE OF MISSOURI STEVE MARDEN NUMBER PE2006007195 PROFESSIONAL ENGINEER
STEVE MARDEN, P.E.
ENGINEER
PE2006007195

Developer / Owner Information
Justin Dobsch
201 E. ELM STREET
O'FALLON, MO 63366

Parking and Erosion Details

P+Z No. 12-14
APPROVED 2.06.14
CITY No.

SHEET NUMBER:
6
PCE PROJECT NO. 137101

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