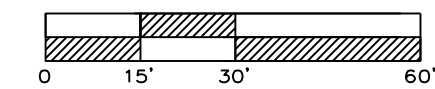


182,138 SQ. FT.

*Inlet Protection  
Gutter Buddy or Equivalent.*

☒ Inlet Protection  
Gutter Buddy or Equivalent

12  
50,130 SQ. FT.



ESC PHASE 1

SCALE: 1" = 30'



SILT FENCE PROTECTION  
TO BE MAINTAINED BY CONTRACTOR

**LEGEND**

PHASE 1 SILT FENCE

—SF-1—SF-1—

PHASE 2 SILT FENCE

—SF-2—SF-2—

### INLET PROTECTION

DURING ALL PHASES OF CONSTRUCTION, INACTIVE AREA STABILIZATION METHODS AS DESCRIBED IN APWA SECTION 5111.3 SHALL BE USED TO CONTROL EROSION AND SILTATION.

NOTES: The Land Disturbance Plans indicates the Final placement of erosion control devices. The contractor(s) may proceed with construction prior to the final placement of these devices by providing additional devices to control erosion on their items of work. These devices shall be maintained until the final devices are in place.

Perimeter Silt Fence  
Must Be Installed Prior to  
Any Land Disturbance Activities  
Per APWA Detail ESC-11. (Typ.)

Construction  
Entrance  
(Per APWA Div. III  
Standard Drawings ESC-01)

Perimeter Silt Fence  
Must Be Installed Prior to  
Any Land Disturbance Activities  
Per APWA Detail ESC-11. (Typ.)

FIELD INLET 23B  
STA. 3+ 17.02, STORM LINE 23=  
STA. 12+38.36, 272.90' LT., C/L NE AKIN DR.  
6'x6' FIELD INLET  
Top=936.50  
FL Out (NW)=929.70 48" HDPE  
FL In (SE)=931.25 36" HDPE

JUNCTION BOX 23C  
STA. 3+65.96, STORM LINE 23=  
STA. 12+47.89, 318.04' LT., C/L NE AKIN DR  
5'x5' JUNCTION BOX  
Top=938.50'  
FL Out (NW)=932.00 36" HDPE  
FL In (SE)=932.70 30" HDPE

13  
598 SQ. FT.

143,598 SQ. FT.

15C  
235,005 SQ. FT.

JUNCTION BOX 23D  
STA. 6+72.41, STORM LINE 23a  
STA. 30+90.17, 377.88' LT., (C  
6'x6' JUNCTION BOX  
Top=954.50'  
Ft. Out (Nw)=946.80 30" HDPE



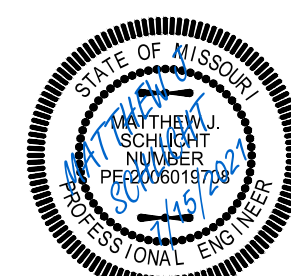
ENGINEERING  
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**Professional Registration**  
Missouri  
*Engineering 2005002186-D*  
*Surveying 2005008319-D*  
Kansas  
*Engineering E-1695*  
*Surveying LS-218*  
Oklahoma  
*Engineering 6254*  
Nebraska  
*Engineering CA2821*

Chapel Ridge Townhomes  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

Project: CHAPEL RIDGE LOT  
15, LSMO  
Issue Date: July 15, 2021

SC PHASE 1 – Pre Clearing Plan  
Construction Plans for:  
Chapel Ridge Lot 15 C  
Lee's Summit, Jackson County, Missouri

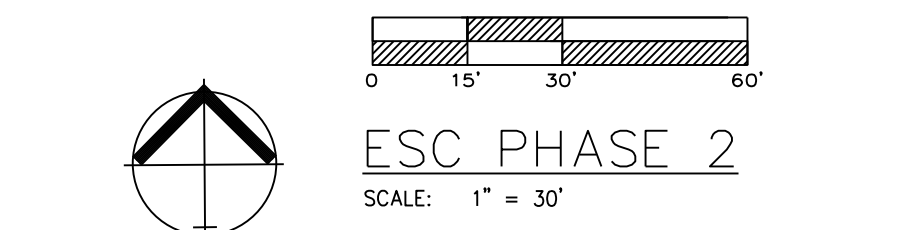
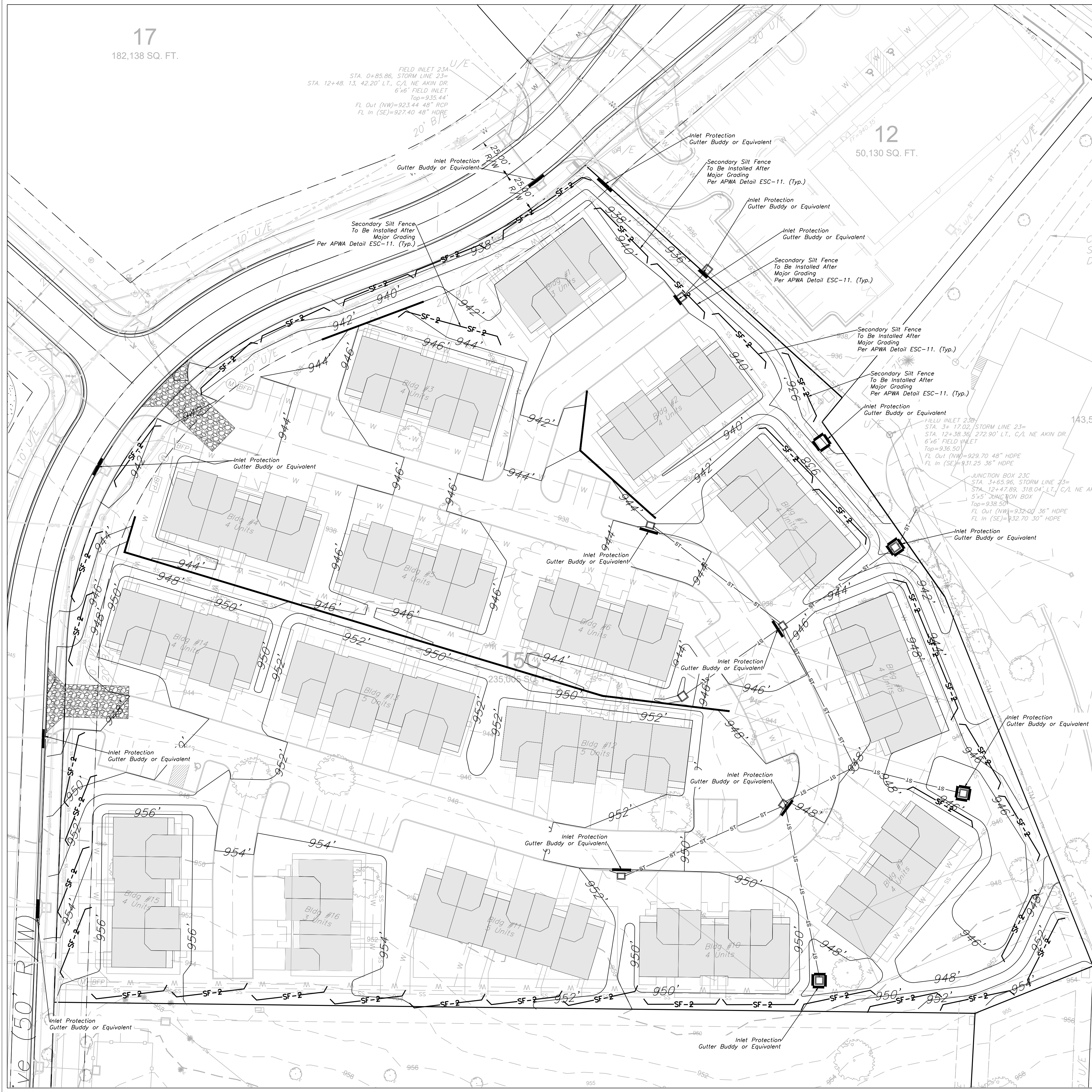


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KS PE 19071  
OK PE 25226

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SILT FENCE PROTECTION  
TO BE MAINTAINED BY CONTRACTOR

**LEGEND**

PHASE 1 SILT FENCE — SF-1 — SF-1 —

PHASE 2 SILT FENCE — SF-2 — SF-2 —

INLET PROTECTION —

DURING ALL PHASES OF CONSTRUCTION, INACTIVE AREA STABILIZATION METHODS AS DESCRIBED IN APWA SECTION 5111.3 SHALL BE USED TO CONTROL EROSION AND SILTATION.

NOTES: The Land Disturbance Plans indicates the final placement of erosion control devices. The contractor(s) may proceed with construction prior to the final placement of these devices by providing additional devices to control erosion on their items of work. These devices shall be maintained until the final devices are in place.

**EROSION CONTROL DESCRIPTION:**

1) SILT FENCE SHALL BE PLACED AT THE PERIMETER OF THE GRADING AND AT INTERMEDIATE AREAS THROUGHOUT THE SITE AS SHOWN ON THE PLAN. INLET SEDIMENT TRAPS SHALL BE PLACED SURROUNDING ALL STORM INLETS

2) INSTALL TEMPORARY CONSTRUCTION ENTRANCE AS SHOWN ON PLAN

**EROSION CONTROL PROCEDURE:**

1) SILT FENCE AND TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE PERIMETER OF THE GRADED AREAS PRIOR TO BEGINNING OF CLEARING OR DEMOLITION OPERATIONS. THE CONTRACTOR SHALL INSTALL SILT FENCE AS SHOWN ON PLANS AS GRADING PROGRESSES.

**TEMPORARY CONSTRUCTION ENTRANCE NOTES:**

A.) INSTALLATION

1.) AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC STREETS. IF POSSIBLE, LOCATE WHERE PERMANENT ROADS WILL EVENTUALLY BE CONSTRUCTED

2.) REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA. GRADE AND GROWN FOR POSITIVE DRAINAGE

3.) IF SLOPE TOWARDS THE PUBLIC ROAD EXCEEDS 2% CONSTRUCT A 6 TO 8 INCH HIGH RIDGE WITH 3H: 1V SIDE SLOPES ACROSS THE FOUNDATION APPROXIMATELY 15 FEET FROM THE EDGE OF THE PUBLIC ROAD TO DIVERT RUNOFF AWAY FROM IT.

4.) INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES ALONG PUBLIC ROADS

5.) PLACE STONE TO DIMENSIONS AND GRADES AS SHOWN ON PLANS. LEAVE SURFACE SMOOTH AND SLOPED FOR DRAINAGE

6.) DIVERT ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE

7.) IF WET CONDITIONS ARE ANTICIPATED PLACE GEOTEXTILE FABRIC ON THE GRADED FOUNDATION TO IMPROVE STABILITY

B.) TROUBLESHOOTING

1.) CONSULT WITH A QUALIFIED DESIGN PROFESSIONAL IF ANY OF THE FOLLOWING OCCUR:

- INADEQUATE RUNOFF CONTROLS TO THE EXTENT THAT WASHES OCCUR ON PUBLIC ROADS

- INSTALL DIVERSIONS OR OTHER RUNOFF CONTROL MEASURES

- SMALL STONE, THIN PAD, OR ABSENCE OF GEOTEXTILE FABRIC RESULTS IN RUTS AND MUDDY CONDITIONS AS STONE IS PRESSED INTO SOIL - INCREASE STONE SIZE OR PAD THICKNESS OR ADD GEOTEXTILE FABRIC

- PAD TOO SHORT FOR HEAVY CONSTRUCTION TRAFFIC - EXTEND PAD BEYOND THE MINIMUM 50 FOOT LENGTH AS NECESSARY

C.) INSPECTION AND MAINTENANCE

1.) INSPECT STONE PAD AND SEDIMENT DISPOSAL AREA WEEKLY AND AFTER ANY RAIN EVENT

2.) RESHAPE PAD AS NEEDED FOR PROPER DRAINAGE AND RUNOFF CONTROL

3.) TOP DRESS WITH CLEAN 2 AND 3 INCH STONE AS NEEDED

4.) IMMEDIATELY REMOVE MUD OR SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADWAY. REPAIR ANY BROKEN ROAD PAVEMENT IMMEDIATELY

5.) REMOVE ALL TEMPORARY ROAD MATERIALS FROM AREAS WHERE PERMANENT VEGETATION WILL BE ESTABLISHED

**MAINTENANCE:**

TO MAINTAIN THE EROSION AND SEDIMENT CONTROLS, THE FOLLOWING PROCEDURES WILL BE PERFORMED:

**SEDIMENT CAPTURE DEVICES:** SEDIMENT WILL BE REMOVED FROM THE UPSTREAM OR UPSLOPE SIDE OF THE FILTER FABRIC FENCES, WHEN THE DEPTH OF ACCUMULATED SEDIMENT REACHES ABOUT ONE-THIRD THE HEIGHT OF THE STRUCTURE.

**STORM SEWER INLETS:** ANY SEDIMENT IN THE STORM SEWER INLETS WILL BE REMOVED AND DISPOSED OF PROPERLY.

**TEMPORARY CONTROLS:** ALL TEMPORARY CONTROLS WILL BE REMOVED AFTER THE DISTURBED AREAS HAVE BEEN STABILIZED.

**INSPECTION PROCEDURES:**

INSPECTIONS WILL BE DONE BY THE RESPONSIBLE PERSON(S) AT LEAST ONCE EVERY WEEK AND WITHIN 24 HOURS EACH STORM EVENT PRODUCING ANY AMOUNT OF RAINFALL. AREAS THAT HAVE BEEN RESEEDED WILL BE INSPECTED REGULARLY AFTER SEED GERMINATION TO ENSURE COMPLETE COVERAGE OF EXPOSED AREAS. DISTURBED AREAS THAT HAVE NOT BEEN FINALLY STABILIZED SHALL HAVE ALL POLLUTION CONTROL MEASURES INSPECTED FOR PROPER INSTALLATION, OPERATION AND MAINTENANCE. LOCATIONS WHERE STORM WATER LEAVES THE SITE SHALL BE INSPECTED FOR EVIDENCE OF EROSION OR SEDIMENT DEPOSITION. ANY DEFICIENCIES SHALL BE NOTED IN A REPORT OF THE INSPECTION AND CORRECTED WITHIN SEVEN CALENDAR DAYS OF THE INSPECTION. THE PERMITTEE SHALL PROMPTLY NOTIFY THE SITE CONTRACTORS RESPONSIBLE FOR OPERATION AND MAINTENANCE OF POLLUTION CONTROL DEVICES OF DEFICIENCIES.

IF THE EXISTING GROUND COVER IS NATURAL GRASS, DISTURBED AREAS SHALL BE TEMPORARILY SEEDDED WITH WHEATGRASS AT A RATE OF 1.5 POUNDS PER 1000 SQUARE FEET. PERMANENT SEEDING SHALL CONSIST OF 90% IN THREE EQUAL PARTS OF THIN BLADE, TURF-TYPE, TALL FESCUE AND 10% BLUEGRASS SEED AT A RATE OF 10 POUNDS PER 1000 SQUARE FEET. BOTH TEMPORARY AND PERMANENT SEEDS SHALL BE MULCHED AND WATERED TO MAINTAIN THE PROPER MOISTURE LEVEL OF THE SOIL TO ESTABLISH GRASS. NEW GRASS SHALL BE WATERED AND MAINTAINED UNTIL IT REACHES A HEIGHT OF 3 INCHES. ANY BARE AREAS SHALL BE RESEEDDED.

ALL EROSION CONTROL DEVICES SHALL BE REMOVED BY GENERAL CONTRACTOR AFTER SITE STABILIZATION IS COMPLETE AND APPROVED BY ENGINEER.

THE DEVELOPER WILL DESIGNATE A QUALIFIED PERSON OR PERSONS TO PERFORM THE FOLLOWING INSPECTIONS:

**STABILIZATION MEASURES:** DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION WILL BE INSPECTED FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM. AFTER A PORTION OF THE SITE IS FINALLY STABILIZED, INSPECTIONS WILL BE CONDUCTED AT LEAST ONCE EVERY MONTH THROUGHOUT THE LIFE OF THE PROJECT. CONTRACTOR CAN CONTACT ENGINEERING SOLUTIONS FOR COPIES OF THE INSPECTION FORM TO BE USED FOR STABILIZATION MEASURES.

**STRUCTURAL CONTROLS:** FILTER FABRIC FENCES AND ALL OTHER EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN WILL BE INSPECTED REGULARLY FOR PROPER POSITIONING, ANCHORING, AND EFFECTIVENESS IN TRAPPING SEDIMENTS. SEDIMENT WILL BE REMOVED FROM THE UPSTREAM OR UPSLOPE SIDE OF THE FILTER FABRIC. CONTRACTOR CAN CONTACT ENGINEERING SOLUTIONS FOR COPIES OF THE INSPECTION FORM TO BE USED FOR STABILIZATION MEASURES.

**DISCHARGE POINTS:** DISCHARGE POINTS OR LOCATIONS WILL BE INSPECTED TO DETERMINE WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT AMOUNTS OF POLLUTANTS FROM ENTERING RECEIVING WATERS.

**CONSTRUCTION ENTRANCE:** LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE WILL BE INSPECTED FOR EVIDENCE OF OFF-SITE SEDIMENT TRACKING.

A LOG OF EACH INSPECTION SHALL BE KEPT. THE INSPECTION REPORT IS TO INCLUDE THE FOLLOWING MINIMUM INFORMATION: INSPECTOR'S NAME, DATE OF INSPECTION, OBSERVATIONS RELATIVE TO THE EFFECTIVENESS OF THE POLLUTION CONTROL DEVICES, ACTIONS TAKEN OR NECESSARY TO CORRECT DEFICIENCIES, AND LISTING OF AREAS WHERE LAND DISTURBANCE OPERATIONS HAVE PERMANENTLY OR TEMPORARILY STOPPED. THE INSPECTION REPORT SHALL BE SIGNED BY THE PERMITTEE OR BY THE PERSON PERFORMING THE INSPECTION IF DULY AUTHORIZED TO DO SO.

ENGINEERING  
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Professional Registration  
Missouri  
Engineering 2005002198-D  
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Kansas  
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Engineering 6254  
Nebraska  
Engineering CA2821

Chapel Ridge Townhomes  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

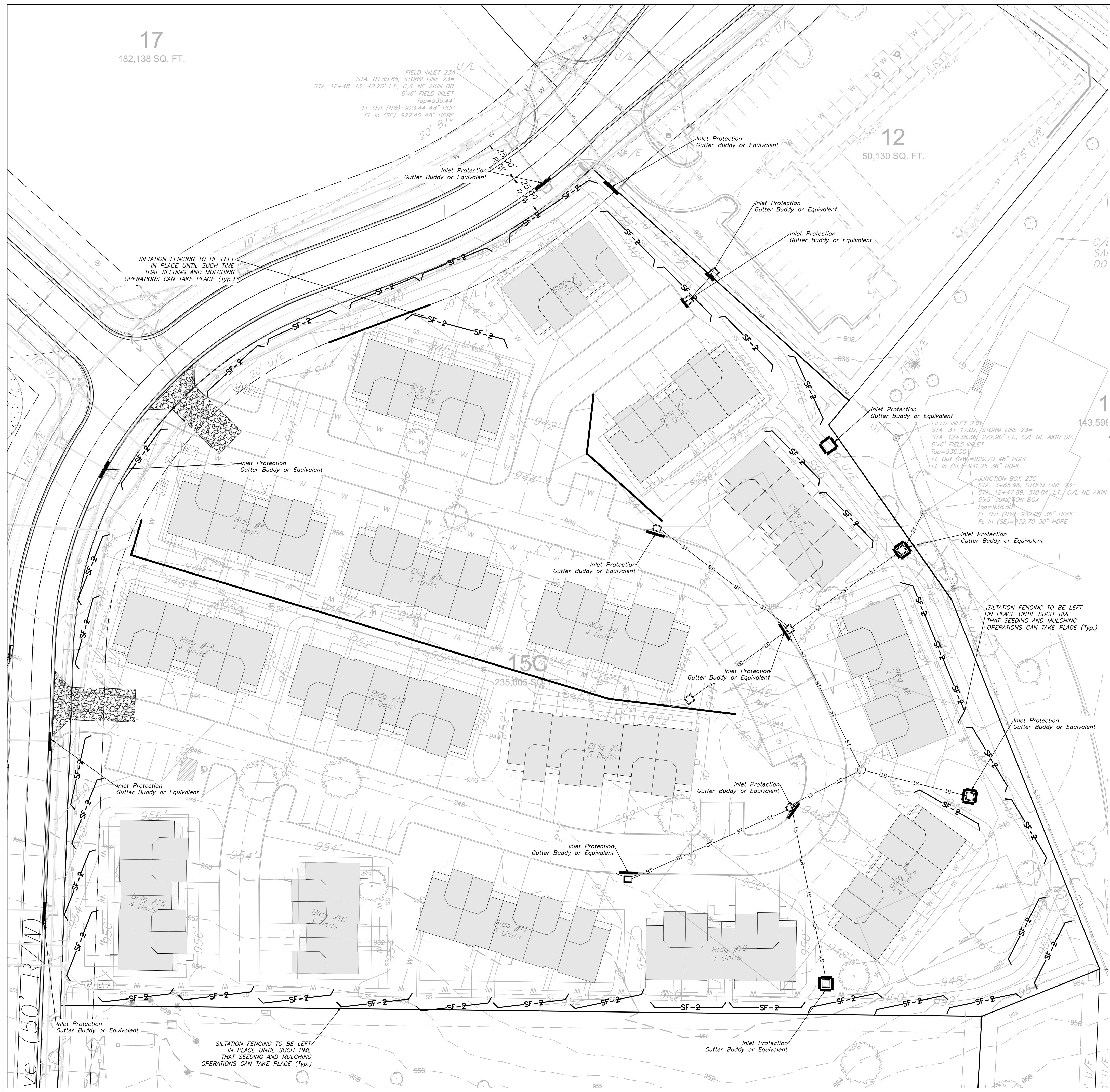
Project:  
CHAPEL RIDGE LOT  
15, L5MO  
Issue Date:  
July 15, 2021

ESC PHASE 2  
Inactive Area Stabilization Plan  
Construction Plans for:  
Chapel Ridge Lot 15 C  
Lee's Summit, Jackson County, Missouri

Matthew J. Schlicht  
MO PE 2006019708  
KS PE 19071  
OK PE 25226  
REVISIONS

C.051





SEED AND MULCH NOTES:  
All areas disturbed by construction activities shall be seeded and mulched. Seeding shall be done before the proposed seedbed becomes eroded, crusted over, or dried out and shall not be done when the ground is frozen, or covered with snow. The seed shall comply with the requirements of the Missouri Seed Law and the Federal Seed Act. Also, it shall contain no seed of any plant on the Federal Noxious Weed List. Other weed seeds shall not exceed one percent by weight of mix.

Seed and Fertilizer Rate:  
Mix I - Rye Grass / Blue Grass -----  
100 lbs. per Acre  
Mix II - Tall Fescue / Blue Grass ----- 195  
lbs. per Acre  
Lime  
lbs per Acre (50 lbs. per 1000 sq. ft.) ----- 800  
to 1200 lbs per Acre (25 lbs per 1000 sq. ft.)

During the dates December 15th through May 31 ALL lime, fertilizer, seed and mulch shall be applied to finished slopes of disturbed areas. During the months of June, July, October and November 1st through December 15th, lime, fertilizer, seed and mulch shall be applied at the following rates:  
Lime - 100% of the specified quantity  
Fertilizer - 75% of the specified quantity  
Seed - 50% of the specified quantity  
Mulch - 100% of the specified quantity

Mulch shall be Vegetative type, cereal straw from stalks of oats, rye, or barley, or approved equal. The straw shall be free of prohibited weed seed and relatively free of all other noxious and undesirable seed. Mulch shall be applied at the rate of 2 tons per acre, (70 to 90 lbs per 1000 sq. ft.). Mulch shall be embedded by a mulch anchoring tool or disk type roller having flat serrated disks spaced not more than 10 inches apart and cleaning scrapers shall be provided.

ONCE SITE IS 90% VEGETATED ALL ESC DEVICES SHALL BE REMOVED AND ANY DISTURBED AREAS SHALL BE RESTORED

ESC PHASE FINAL  
SCALE: 1" = 30'

SILT FENCE PROTECTION TO BE MAINTAINED BY CONTRACTOR

LEGEND

PHASE 1 SILT FENCE  
SF-1  
SF-2

PHASE 2 SILT FENCE  
SF-1  
SF-2

INLET PROTECTION

NOTES: The Land Disturbance Plans indicates the Final placement of erosion control devices. The contractor(s) may proceed with construction prior to the final placement of these devices by providing additional devices to control erosion on their items of work. These devices shall be maintained until the final devices are in place.

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LEES SUMMIT, MO 64082  
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Missouri  
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Engineering 6254  
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ESC PHASE 3 - Final Restoration Plan  
Construction Plans for:  
Chapel Ridge Lot 15 C  
Lee's Summit, Jackson County, Missouri

Project:  
CHAPEL RIDGE LOT 15, LSMO  
Issue Date:  
July 15, 2021

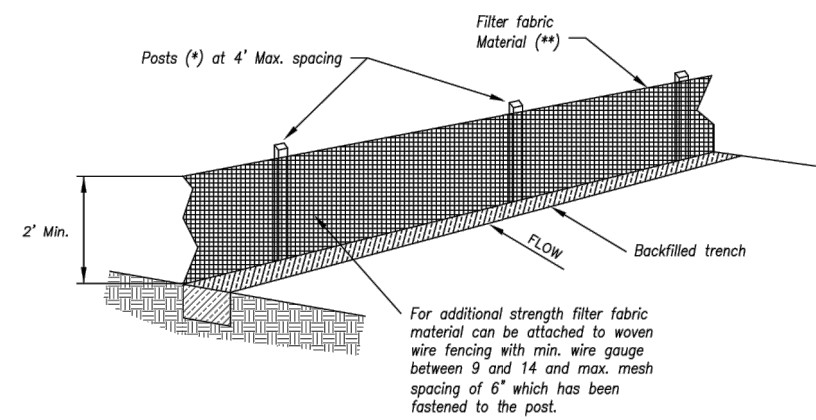
STATE OF MISSOURI  
MATTHEW J. SCHLICHT  
NUMBER  
PROFESSIONAL ENGINEER

Matthew J. Schlicht  
MO PE 2006019708  
KS PE 19071  
OK PE 25226

REVISIONS

C.052





- (\*) POSTS
- MIN. LENGTH 4'
  - HARDWOOD 1 3/4" x 1 3/4"
  - NO.2 SOUTHERN PINE 2 3/4" x 2 3/4"
  - STEEL 1.33 LB/FT

(\*\*) - Geotextile Fabric shall meet the requirements of AASHTO M288

#### SILT FENCE DETAILS

Not to Scale

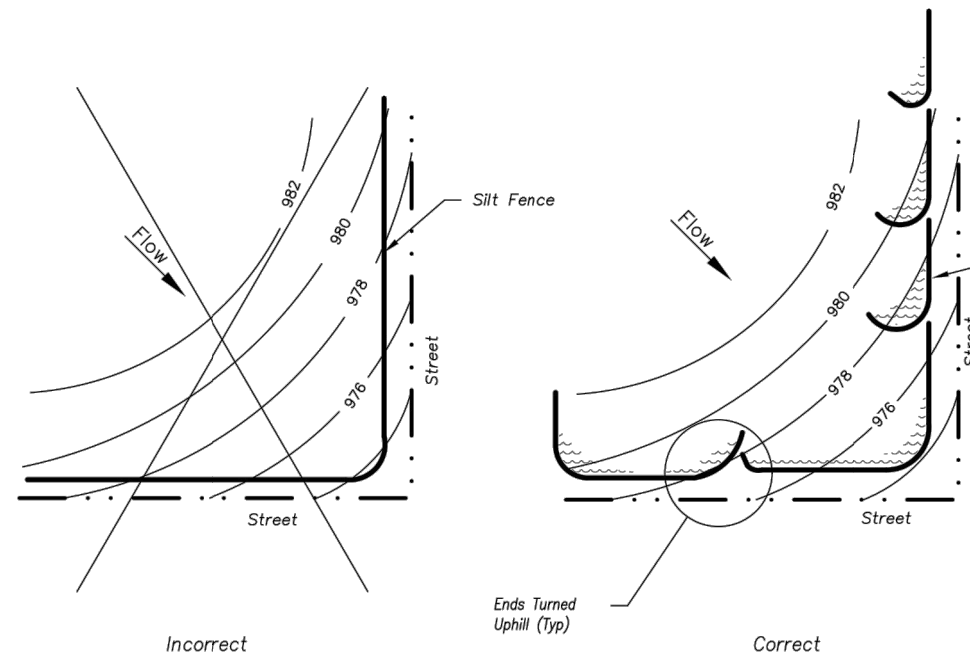
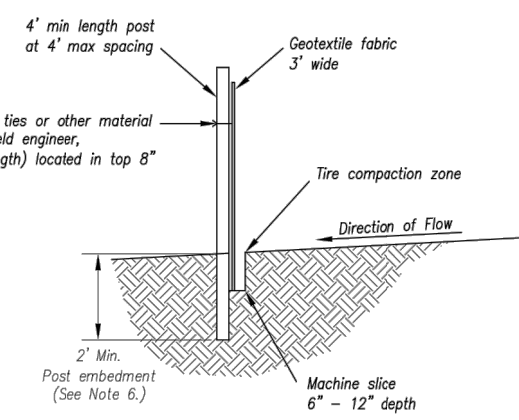


Figure A

#### SILT FENCE LAYOUT

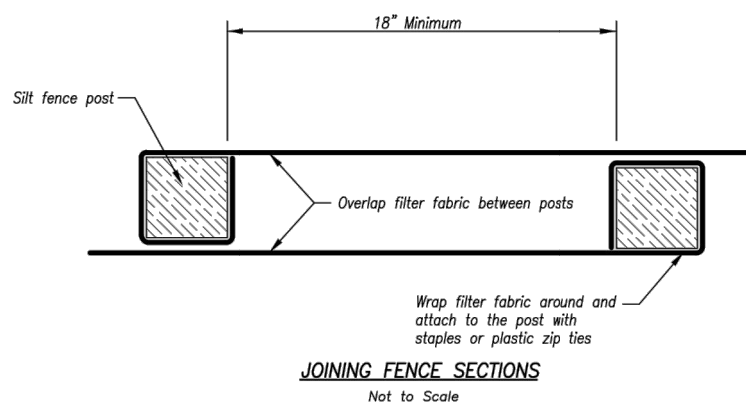
Not to Scale

#### Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 100'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

#### Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of silt fence.
2. Repair as necessary to maintain function and structure.

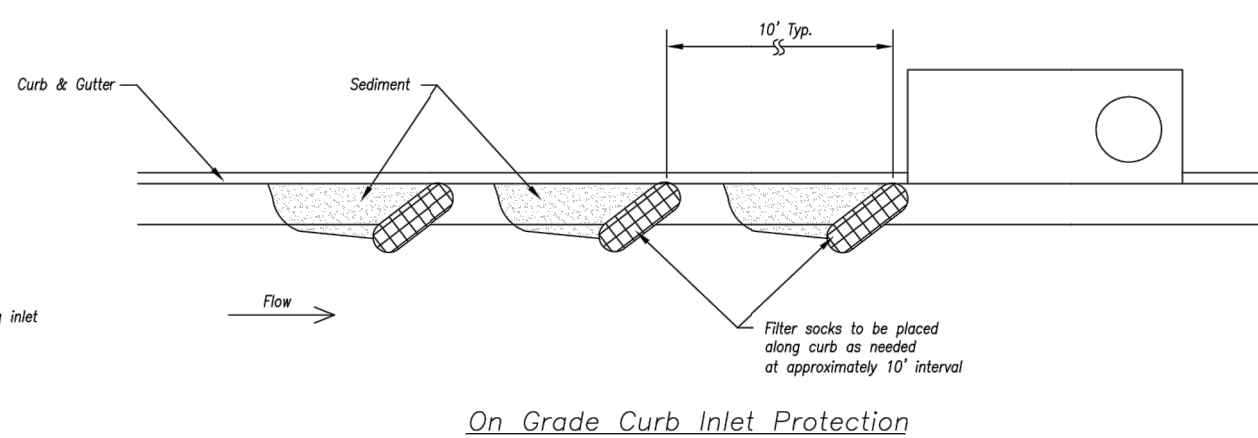
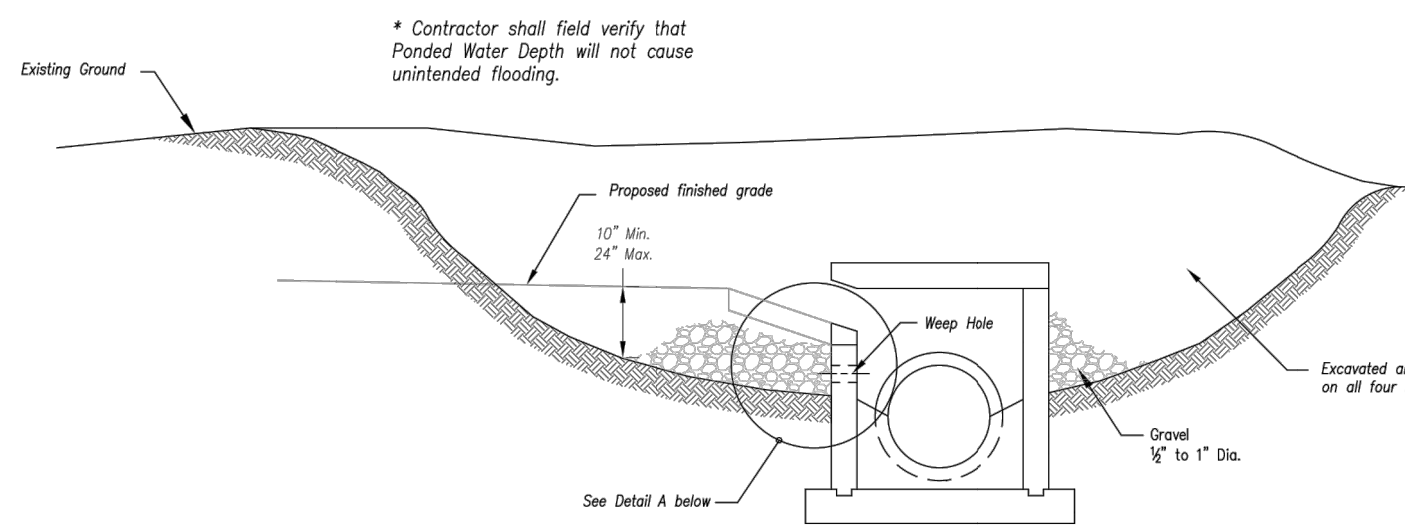


#### JOINING FENCE SECTIONS

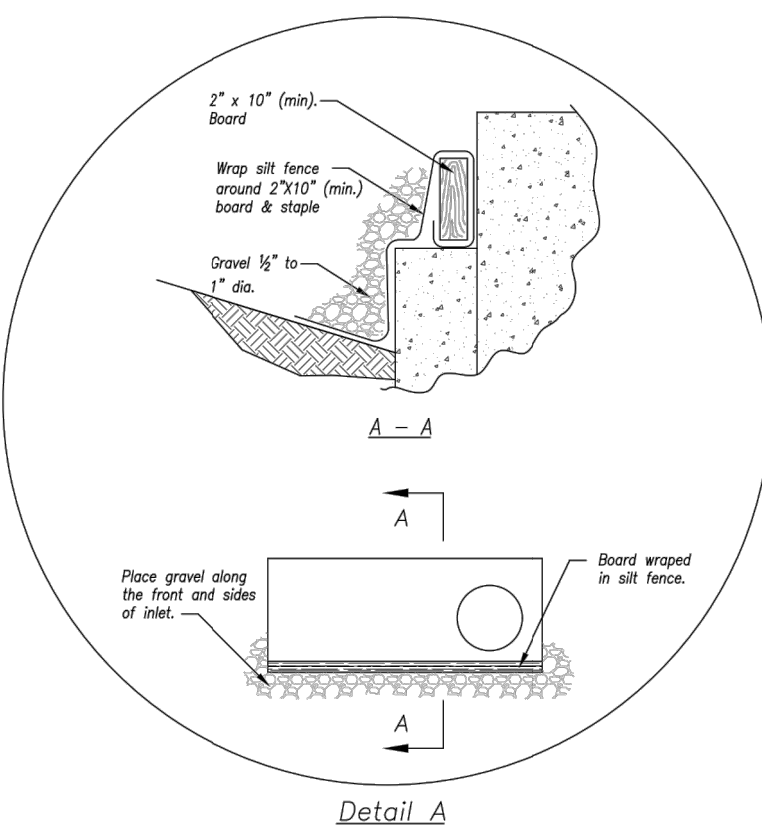
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| AMERICAN PUBLIC WORKS ASSOCIATION                                                   |                                                            |
|-------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | KANSAS CITY<br>METRO CHAPTER                               |
|                                                                                     | STANDARD DRAWING<br>NUMBER ESC-03<br>ADOPTED<br>10/24/2016 |
| SILT FENCE                                                                          |                                                            |

Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.



#### On Grade Curb Inlet Protection



Detail A

#### EARLY STAGE CURB INLET

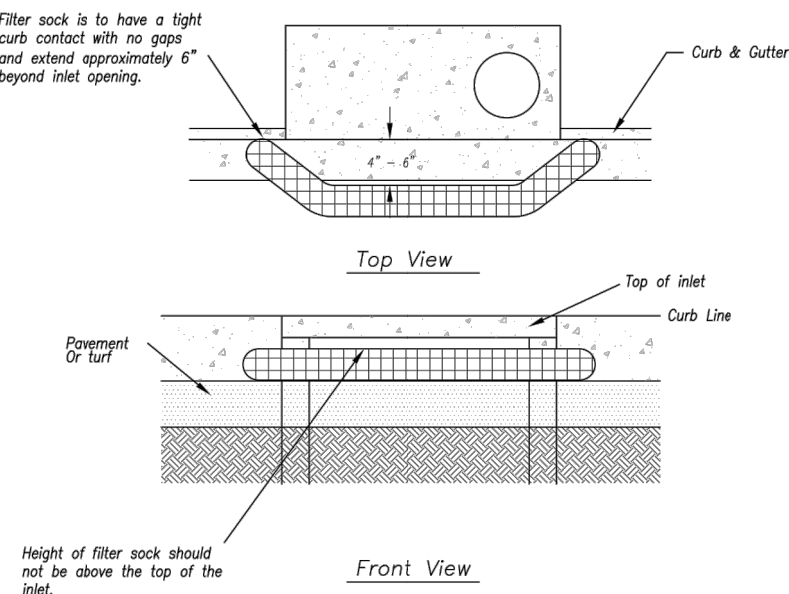
(Open Box and Prior to Pouring Curb and Inlet Throat)

#### Notes:

1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2' x 10' (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When inlet is completed and curb poured, filter socks or approved equal should be used (Late Stage Curb Inlet). Draw written are not approved for curb inlet use.
3. Contractor to field verify pouring water shall not create a traffic hazard.

#### Maintenance:

1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.



#### Sump Inlet Sediment Filter

#### LATE STAGE CURB INLET

(After Pouring Curb and Inlet Throat)

| AMERICAN PUBLIC WORKS ASSOCIATION                                                     |                                                            |
|---------------------------------------------------------------------------------------|------------------------------------------------------------|
|  | KANSAS CITY<br>METRO CHAPTER                               |
|                                                                                       | STANDARD DRAWING<br>NUMBER ESC-06<br>ADOPTED<br>10/24/2016 |
| CURB INLET PROTECTION                                                                 |                                                            |

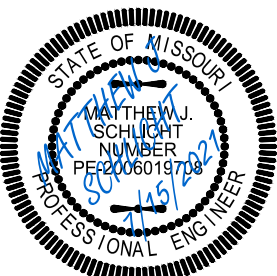
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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Chapel Ridge Townhomes  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

Project:  
CHAPEL RIDGE LOT  
15, LSMO  
Issue Date:  
July 15, 2021

ESC - Standard Details  
Construction Plans for:  
Chapel Ridge Lot 15 C  
Lee's Summit, Jackson County, Missouri



Matthew J. Schlicht  
MO PE 2006019708  
KS PE 19071  
OK PE 25526

#### REVISIONS

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