SEC. 10, TWP. 47N, RNG. 32W

### **VICINITY MAP**

SECTION 10, TOWNSHIP 47, RANGE 32

THE EAST HALF OF THE SOUTHEAST QUARTER OF SECTION 10, TOWNSHIP 47 NORTH, RANGE 32 WEST, EXCEPT THOSE PARTS PLATTED AS HIGHLAND MEADOWS FIRST PLAT, HIGHLAND MEADOWS SECOND PLAT, HIGHLANDS MEADOWS THIRD PLAT, HIGHLAND MEADOWS 4TH PLAT, SUBDIVISIONS IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.

PROPOSED CONSTRUCTION ACTIVITIES, PER THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR) PERMITTED OIL AND GAS DATABASE, DATED





### UTILITY CONTACTS:

SANITARY & WATER: CITY OF LEE'S SUMMIT JEFF THORN 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE (816) 969-1900

<u>STREETS:</u> CITY OF LEE'S SUMMIT MICHAEL PARK 220 SE GREEN STREET LEE'S SUMMIT, MO 64063

PHONE (816) 969-1900

EVERGY: DOUG DAVIN 1300 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081 PHONE (816) 347-4320

RONALD GIPFERT 500 E 8TH STREET KANSAS CITY, MO 64106 PHONE (816) 275-1550

RICHARD FROCK 3025 SW CLOVER DRIVE LEE'S SUMMIT, MO 64082 PHONE (816) 472-3489

### FEMA FLOOD INFORMATION:

THE SITE IS LOCATED IN ZONE X, AREA OF MINIMAL FLOOD HAZARD, PER FEMA FIRM MAP 29095C0418G: OF MAP AMENDMENT OR REVISIONS ARE BEING PROPOSED.

### BENCHMARK:

BM #1 N=999843.9665 E=2898946.9717 ELEV=935.04 DESCRIPTION = "JA-148" REFERENCE SYSTEM MONUMENT

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI NOT TO SCALE

### LEGAL DESCRIPTION:

### OIL AND GAS WELL NOTES:



### STORMWATER: CITY OF LEE'S SUMMIT PUBLIC WORKS 220 SE GREEN STREET LEE'S SUMMIT, MO 64063 PHONE (816) 969-1800

# MISSOURI GAS ENERGY:

EFFECTIVE DATE OF JANUARY 20, 2017. NO LETTERS

### WATERSHED: LITTLE BLUE RIVER

### SURVEY CONTROL:

DATE: 3/10/2021

COORDINATES ARE BASED ON THE MISSOURI STATE PLANE COORDINATE SYSTEM, WEST ZONE, USING JACKSON COUNTY, MISSOURI, GEOGRAPHIC REFERENCE SYSTEM MONUMENT JA-148 (2003 ADJUSTMENT) AND ARE MODIFIED FROM GRIS COORDINATES TO GROUND COORDINATES BY UTILIZING A GRID SCALE FACTOR OF 0.9999020 AT REFERENCE MONUMENT JA-148.

PROJECT ELEVATIONS ARE BASED ON JACKSON COUNTY, MISSOURI, GEOGRAPHIC REFERENCE SYSTEM MONUMENT JA-148 (2003 ADJUSTMENT).

"JA-148" - STANDARD KC METRO ALUMINUM GRS DISK SET IN CONCRETE FLUSH WITH THE GROUND AND STAMPED "JA-148, 2002" LOCATED ON THE NORTH SIDE OF 3RD STREET, 12.5 FEET NORTH OF A SIDEWALK AND 102.5 FEET WEST OF THE PARKING LOT EXIT OF CEDAR CREEK ELEMENTARY SCHOOL.

### **GENERAL NOTES:**

- CONTRACTOR SHALL SATISFY THEMSELVES AS TO THE EXISTING CONDITIONS OF THE SITE AND HAVE ALL UTILITIES MARKED PRIOR TO COMMENCING CONSTRUCTION.
- 2. CONTRACTOR SHALL POTHOLE ALL CONNECTION POINTS TO EXISTING UTILITIES AND POTENTIAL UTILITY CONFLICT LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITIES. NOTIFY ENGINEER IMMEDIATELY IF CONFLICT OR DISCREPANCY EXISTS.
- 3. CONTRACTOR SHALL PROTECT EXISTING STRUCTURES TO REMAIN FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION. ANY DAMAGE SHALL BE REPAIRED / REPLACED TO PRE-CONSTRUCTION CONDITION AT CONTRACTOR'S EXPENSE.
- 4. THE CONTRACTOR SHALL CONTACT THE CITY'S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH A FIELD ENGINEERING INSPECTOR PRIOR TO ANY LAND DISTURBANCE WORK AT (816) 969-1200.

### SHEET INDEX:

CVR — COVER SHEET

- OUTLET PROTECTION DETAILS C610 - TEMPORARY DIVERSION BERM

### PROJECT SPECIFICATIONS.

THE SPECIFICATIONS FOR THIS PROJECT SHALL BE THE FOLLOWING:

1. MOST CURRENT VERSION OF THE DESIGN AND CONSTRUCTION MANUAL OF THE CITY OF LEE'S SUMMIT AS ADOPTED BY ORDINANCE 5813.

THE STANDARD SPECIFICATIONS THROUGH AND INCLUDING THE LATEST AMENDMENTS SHALL BE PART OF THESE PROJECT DRAWINGS AND SPECIFICATIONS AND ARE INCORPORATED HEREIN BY REFERENCE. THE MORE STRINGENT OF THESE STANDARD SPECIFICATIONS AND THOSE PREPARED BY THE ENGINEER PREPARING THESE PLANS SHALL GOVERN.

DISTURBED AREA: 15.3 AC

LOTS: 134-159 (26 TOTAL)

## PREPARED & SUBMITTED BY:

ANDERSON ENGINEERING INC. KANSAS CITY, MISSOURI

### CIVIL ENGINEER:

LEE'S SUMMIT, MO 64082

BRADLEY@SUMMITHOMESKC.COM

DEVELOPER:

SUMMIT HOMES KC

(816) 927-9711

120 SE 30TH STREET

BRAD KEMPF

ZACH MYERS ANDERSON ENGINEERING, INC. 941 W 141ST TERR KANSAS CITY, MO 64145 ZMYERS@ANDERSONENGINEERINGINC.COM (816) 380-4821

ZACH MYERS, P.E.

MISSOURI P.E. NO. 2012009232

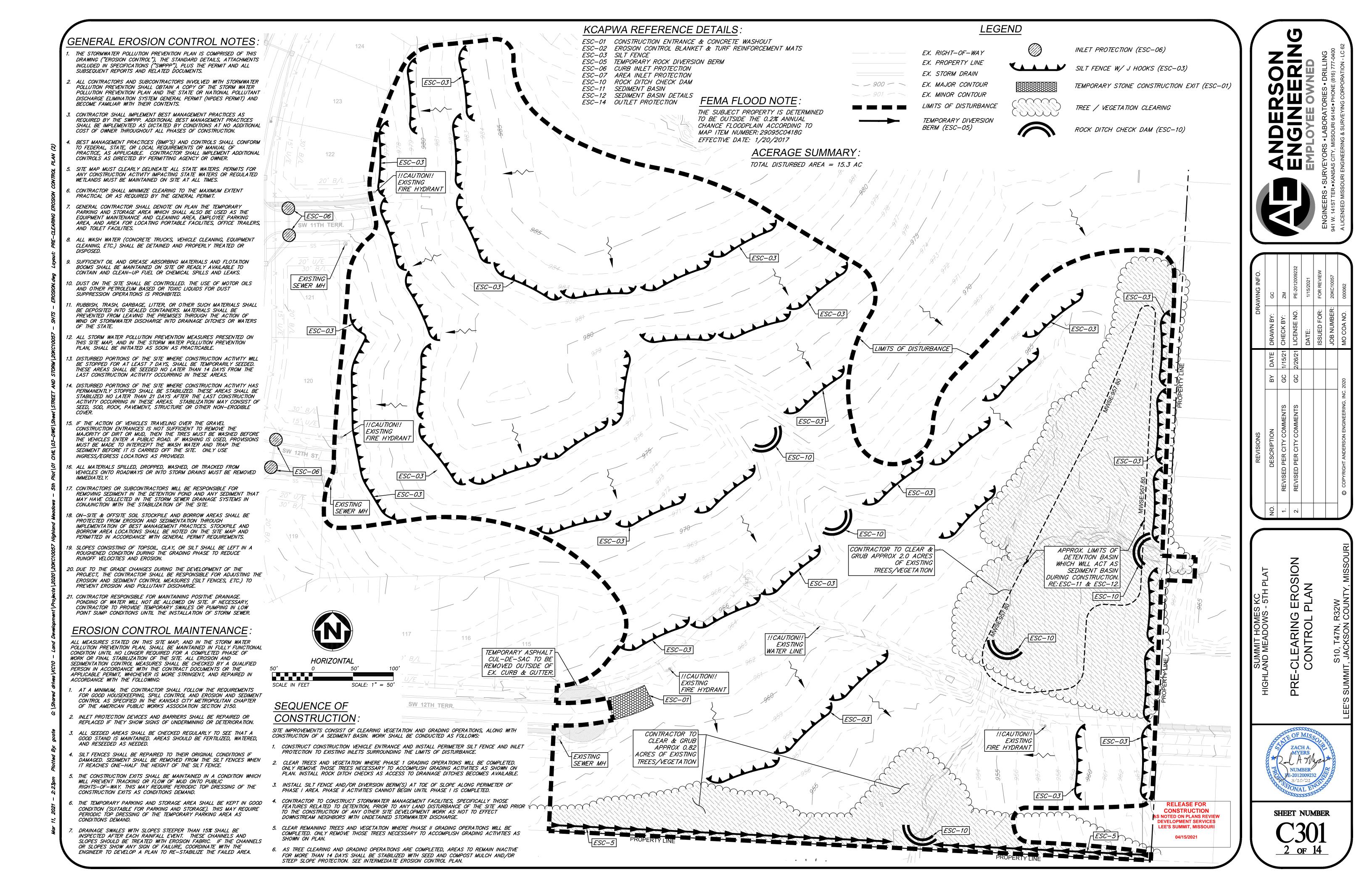
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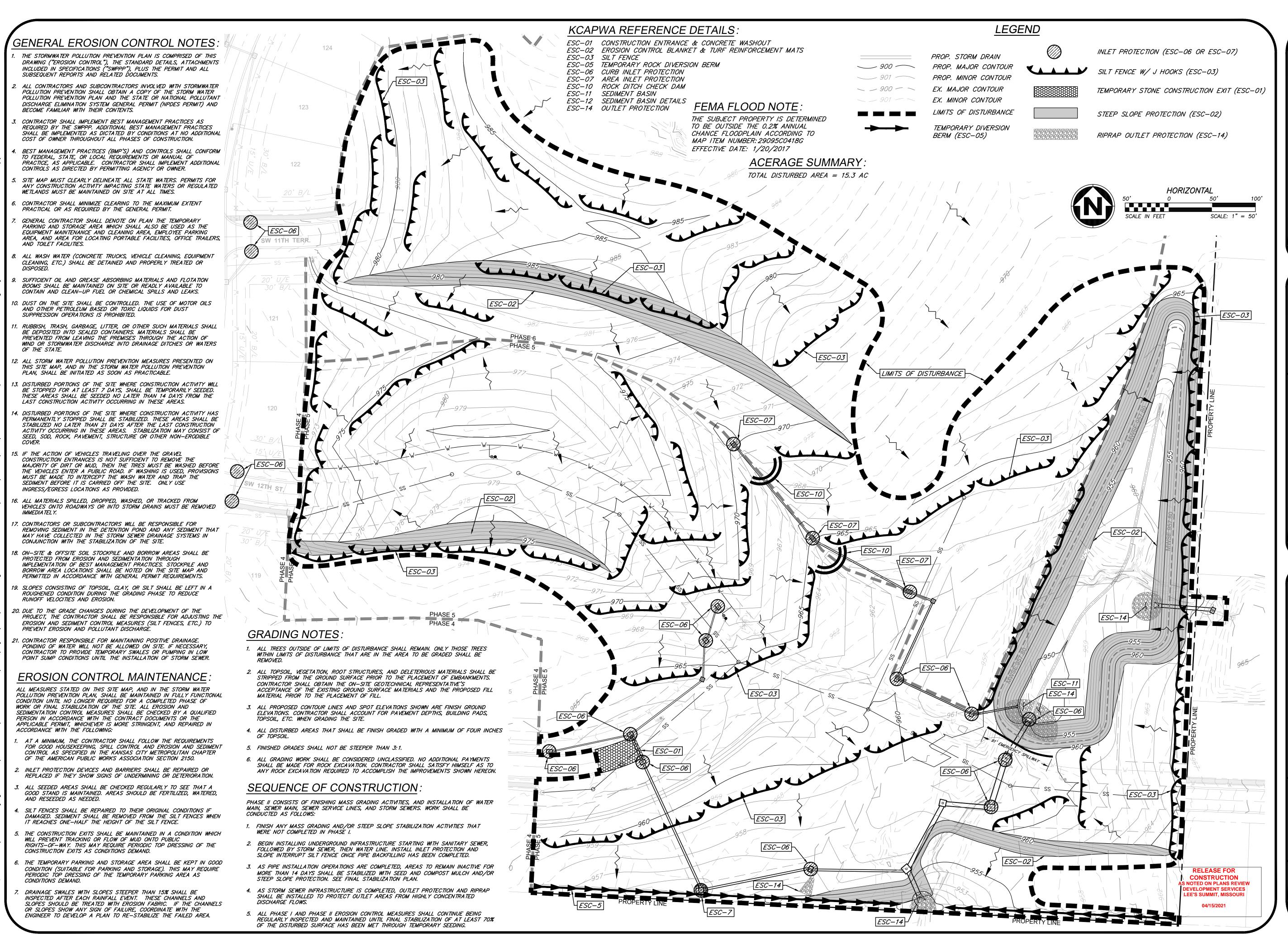
**CONSTRUCTION** AS NOTED ON PLANS REVIEW **DEVELOPMENT SERVICES** LEE'S SUMMIT, MISSOURI 04/15/2021

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SHEET NUMBER <u>of 14</u>





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ENGINEERS SURVEYORS - LABORATORIES - DRILLING
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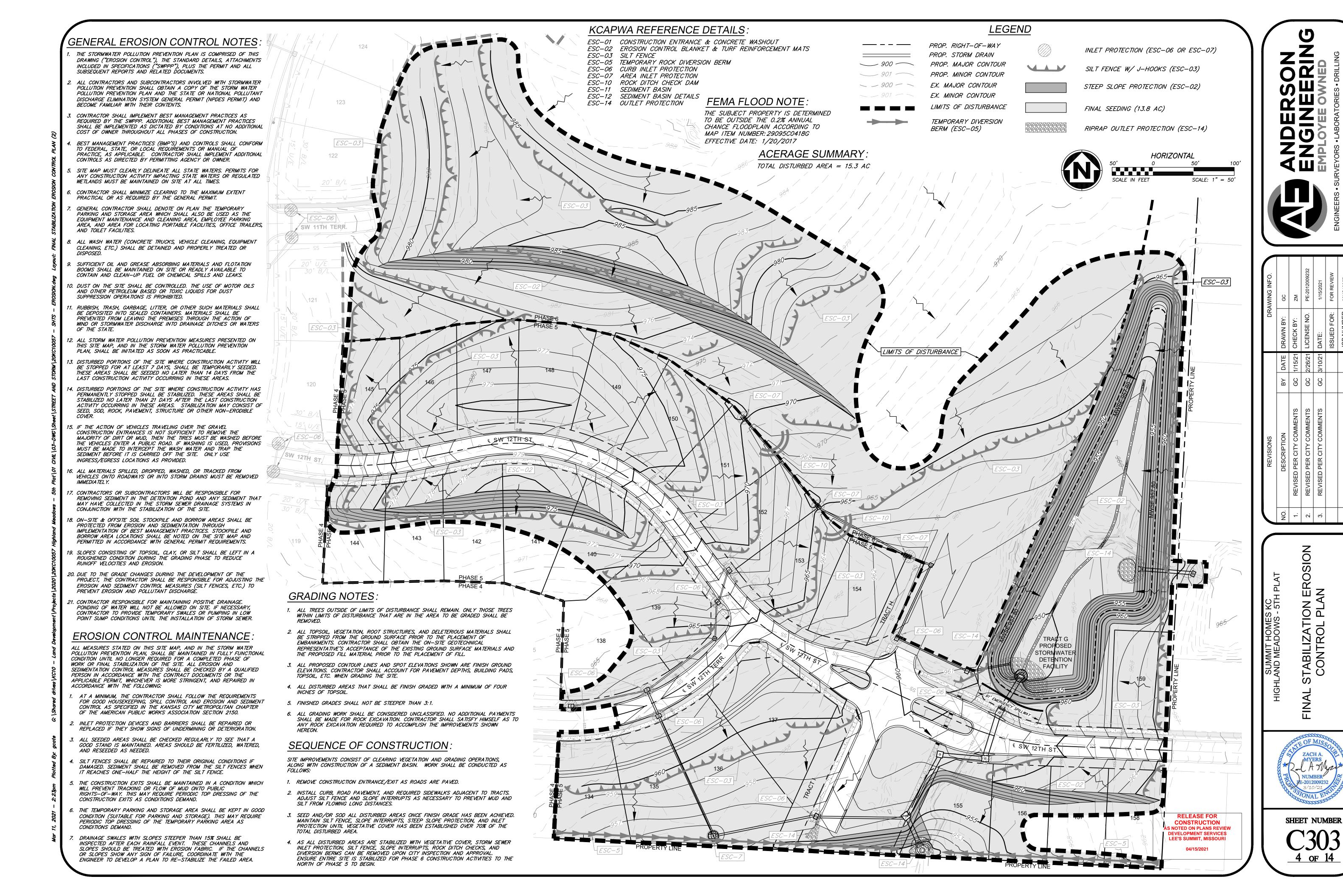
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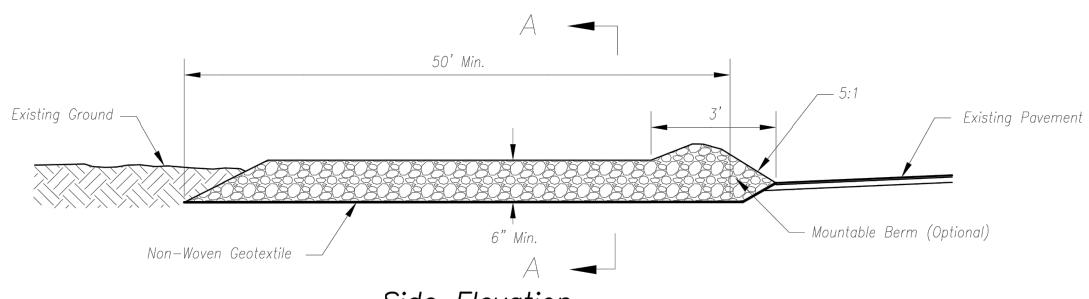
MEDIATE EROSION CONTROL PLAN

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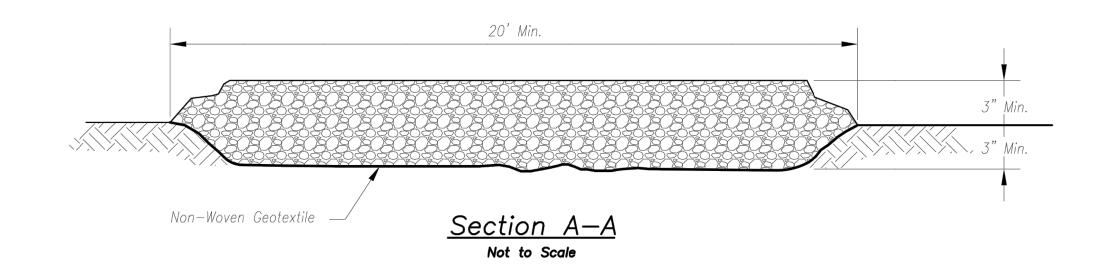
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### <u>Plan View</u>



## Side Elevation Not to Scale



### Notes for Construction Entrance:

- Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
- Remove all vegetation and other unsuitable material from the foundation area, grade, and crown 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 from it.
- Install pipe under the entrance if needed to maintain drainage ditches along public roads.
- 5. Place stone to dimensions and grade as shown on plans. Leave surface sloped for drainage.
- 6. Divert all surface runoff and drainage from the entrance to a sediment control device.
- 7. If conditions warrant, place geotextile fabric on the graded foundation to improve stability.

### Maintenance for Construction Entrance:

 Reshape entrance as needed to maintain function and integrity of Installation. Top dress with clean aggregate as needed.

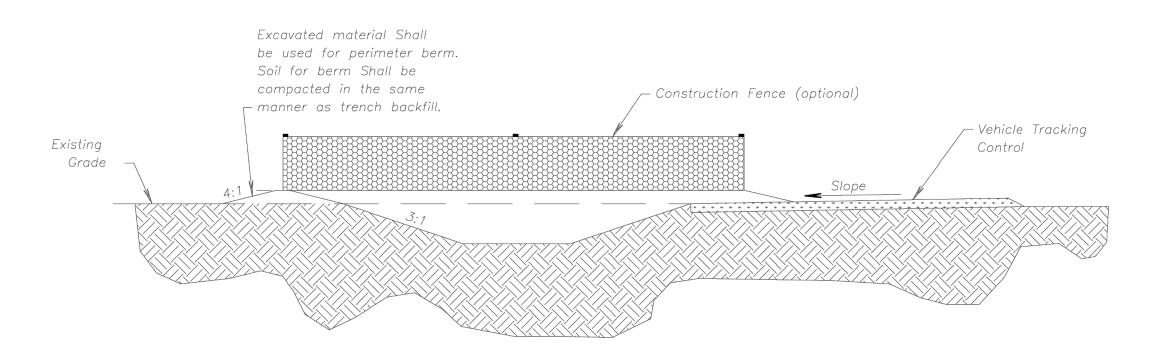
### CONSTRUCTION ENTRANCE

### Notes for Concrete Washout:

- 1. Concrete washout areas shall be installed prior to any concrete placement on site.
- 2. Concrete washout area shall include a flat subsurface pit sized relative to the amount of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking pad shall be sloped towards the concrete washout area.
- Vehicle tracking control is required at the access point to all concrete washout areas.
- 4. Signs shall be placed at the construction site entrance, washout area and elsewhere as necessary to clearly indicate the location(s) of the concrete washout area(s) to operators of concrete truck and pump rigs.
- 5. A one-piece impervious liner may be required along the bottom and sides of the subsurface pit in sandy or gravelly soils.

### Maintenance for Concrete Washout:

- Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
- 2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
- Concrete washout water, wasted pieces of concrete and all other debris in the subsurface pit shall be transported from the job site in a water—tight container and disposed of properly.
- Concrete washout areas shall remain in place until all concrete for the project is placed.
- 5. When concrete washout areas are removed, excavations shall be filled with suitable compacted backfill and topsoil, any disturbed areas associated with the installation, maintenance, and/or removal of the concrete washout areas shall be stabilized.



### CONCRETE WASHOUT

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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI
04/15/2021

### AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING
NUMBER ESC-0I
ADOPTED:
10/24/2016

ANDERSON ENGINEERIN

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				ISSUED FOR:	FOR REVIEW
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CONSTRUCTION ENTRANC DETAILS

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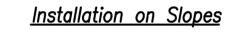
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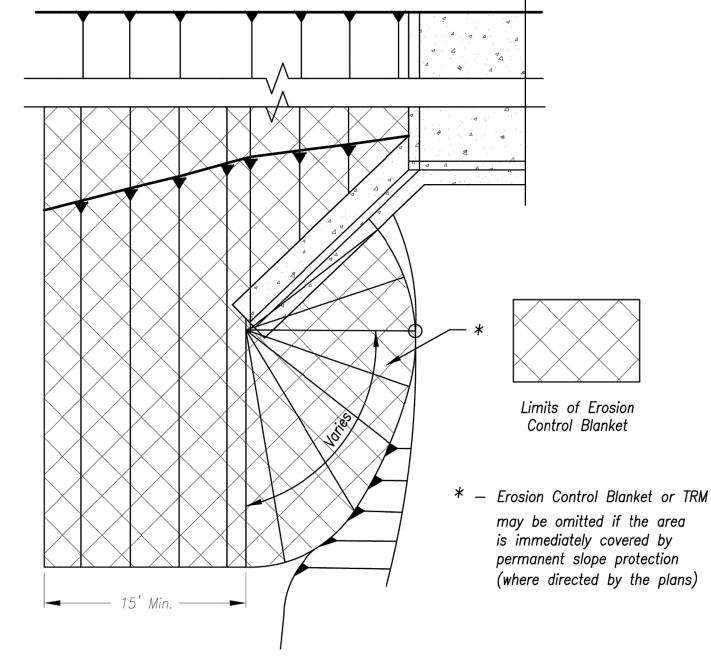
SHEET NUMBER

C601

5 of 14

Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.



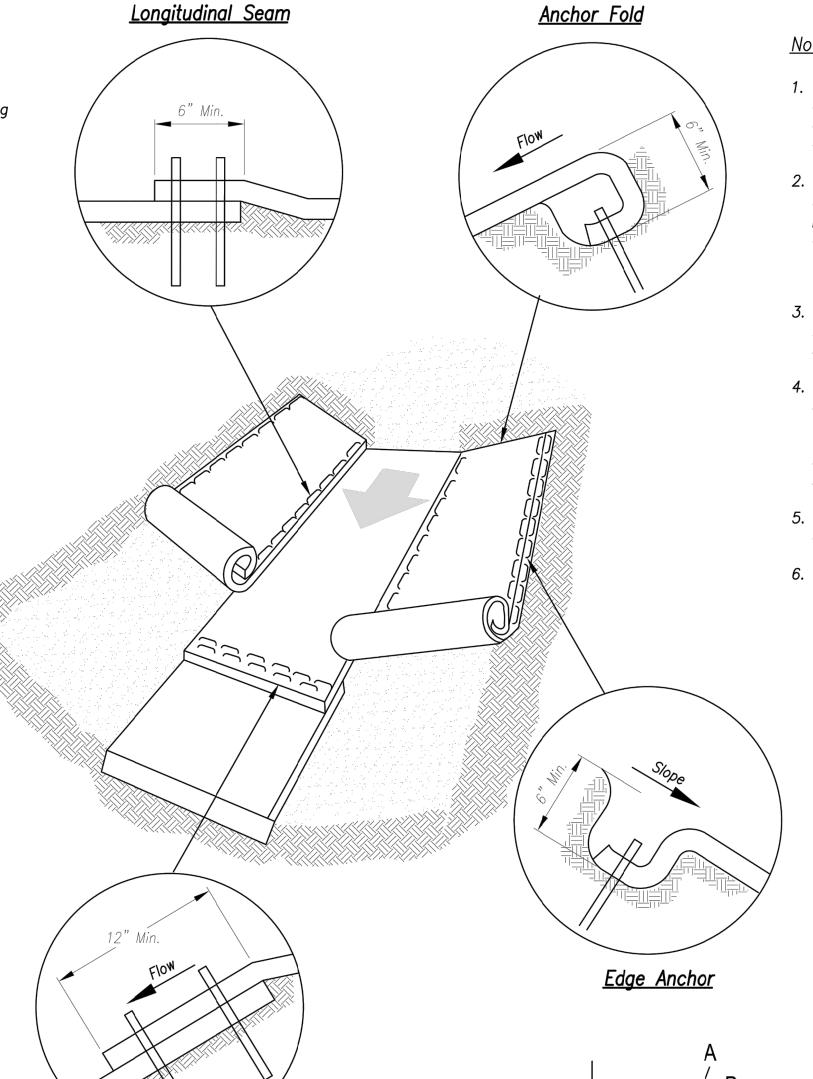


<u>Partial Box Culvert Plan</u> Not to Scale

Installation Around Culvert Slope

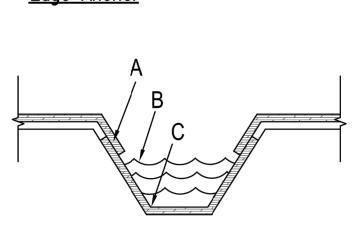
### Notes for Installation on Slopes:

- 1. Erosion Control Blankets and TRMs shall be laid in the direction of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.
- 2. ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.
- 3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 8 inches in direction of water flow. Stagger splice
- 4. TERMINAL FOLD: The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.



Notes for Installation in Channels:

- 1. Erosion Control Blankets and TRMs shall be laid in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.
- 2. ANCHOR FOLD: The top of the mat should be folded under, buried and secured with wood or other approved anchors placed 6 inches apart. The top edge of the mat should be buried in a slot 6 inches wide x 6 inches deep, anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.
- 3. SPLICE SEAM: When splices are necessary, overlap end a minimum of 12 inches in direction of water flow. Stagger splice seams.
- 4. CHECK SLOTS: Establish check slots transverse to slope every 30 feet. The slots should be 6 inches wide x 6 inches deep. The mat shall be cut to a length 12 inches beyond the slot. The top of the downstream mat shall be slotted in, secured and buried similar to the edge anchor fold. The upstream mat shall then cover the slot and be anchored as shown.
- 5. EDGE ANCHORS: Lay outside edge of mat into trench at top of the slope and anchor.
- 6. TERMINUS: The bottom edge of the mat shall be anchored.



Trapezoidal Channel

### **Critical Points:**

- A Overlaps and seams;
- B Projected water line;
- C Channel bottom / side slope vertices;

CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

<u>Installation in Channels</u>

Splice Seam

## AMERICAN PUBLIC WORKS ASSOCIATION



V Channel

KANSAS CITY METRO CHAPTER

EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS ADOPTED:

STANDARD DRAWING NUMBER ESC-02

10/24/2016

: PROTECTION AILS LOPE DETA S EP

SHEET NUMBER 6 of 14

4' min length post at 4' max spacing

Geotextile fabric 3' wide

Staples, plastic zip ties or other material approved by the field engineer, (50 lb tensile strength) located in top 8"

Tire compaction zone

Direction of Flow

Direction of Flow

Machine slice
(See Note 6.)

Machine slice
6" - 12" depth

(\*) <u>POSTS</u>

– MIN, LENGTH 4'

– HARDWOOD 1 ¾6" x 1 ¾6"

- NO.2 SOUTHERN PINE 2 %" x 2 %"

– STEEL 1.33 LB/FT

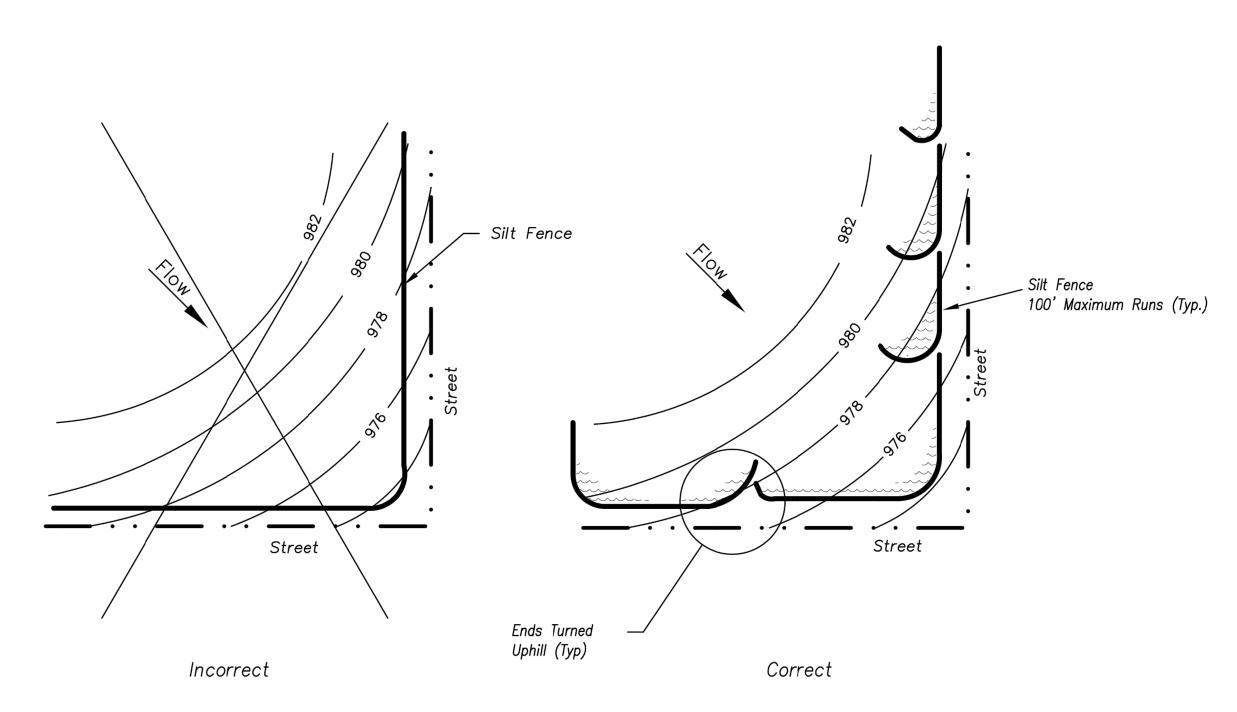
(\*\*) — Geotextile Fabric shall meet the requirements of AASHTO M288

### SILT FENCE DETAILS

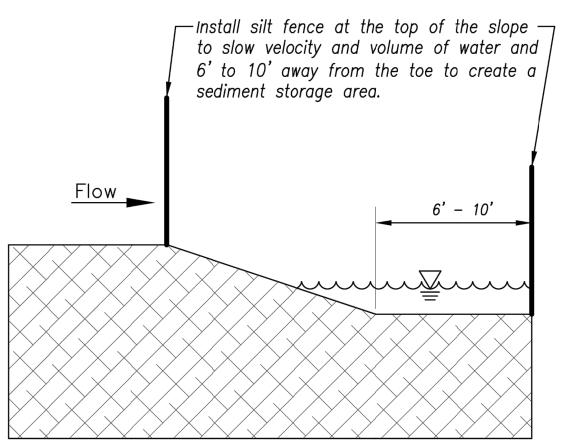
Not to Scale

SILT FENCE LAYOUT

Not to Scale



<u>Figure A</u>

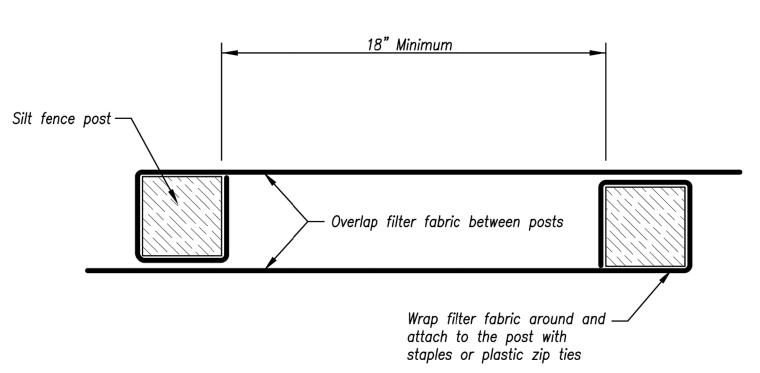


### <u>Notes:</u>

- In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
- 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).
- 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.

### <u>Maintenance:</u>

- 1. Remove and dispose of sediment deposits when the deposit approaches 1/3 the height of silt fence.
- 2. Repair as necessary to maintain function and structure.



JOINING FENCE SECTIONS

Not to Scale

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AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

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KANSAS CITY METRO CHAPTER

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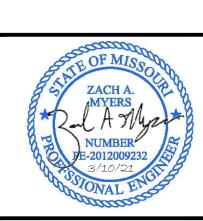
SILT FENCE

STANDARD DRAWING
NUMBER ESC-03
ADOPTED:
10/24/2016

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SILT FENCE DETAILS

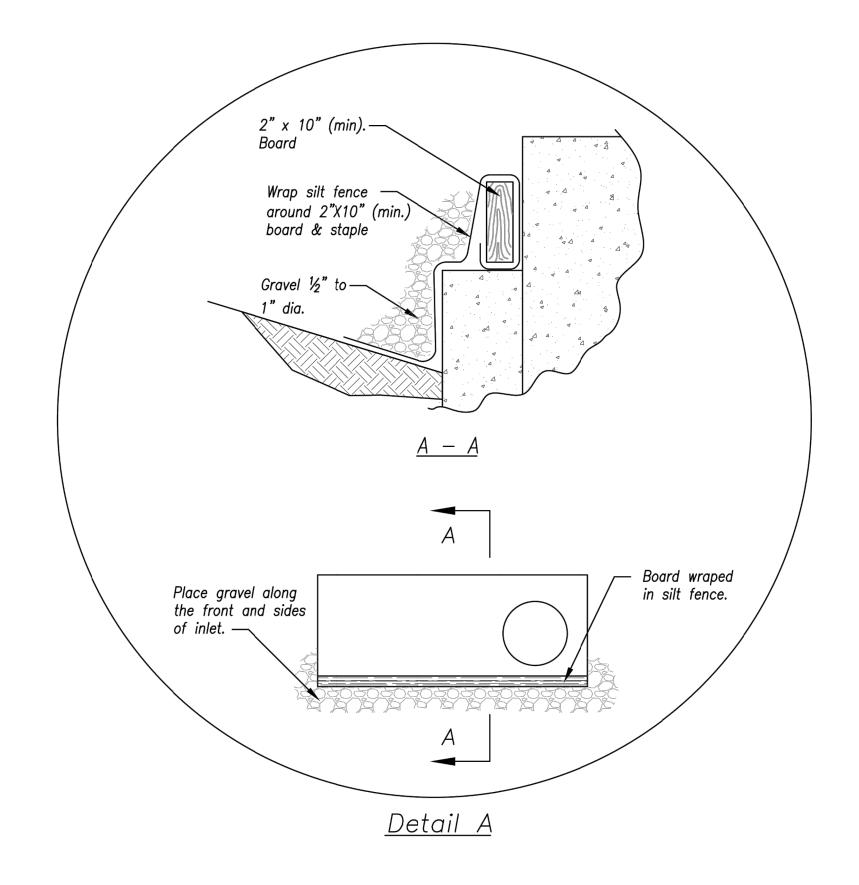


SHEET NUMBER

C603

7 of 14

On Grade Curb Inlet Protection



See Detail A below

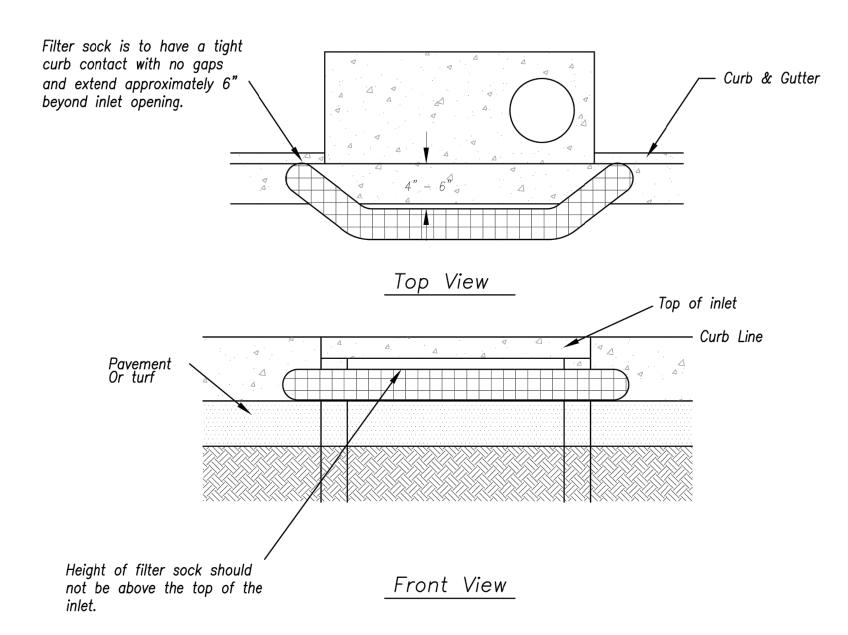
EARLY STAGE CURB INLET (Open Box and Prior to Pouring Curb and Inlet Throat)

### <u>Notes:</u>

- 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). Straw wattles are not approved for curb inlet use.
- Contractor to field verify ponding water shall not create a traffic hazard.

### <u>Maintenance:</u>

- 1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
- Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
- 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) CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES

## AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY METRO CHAPTER

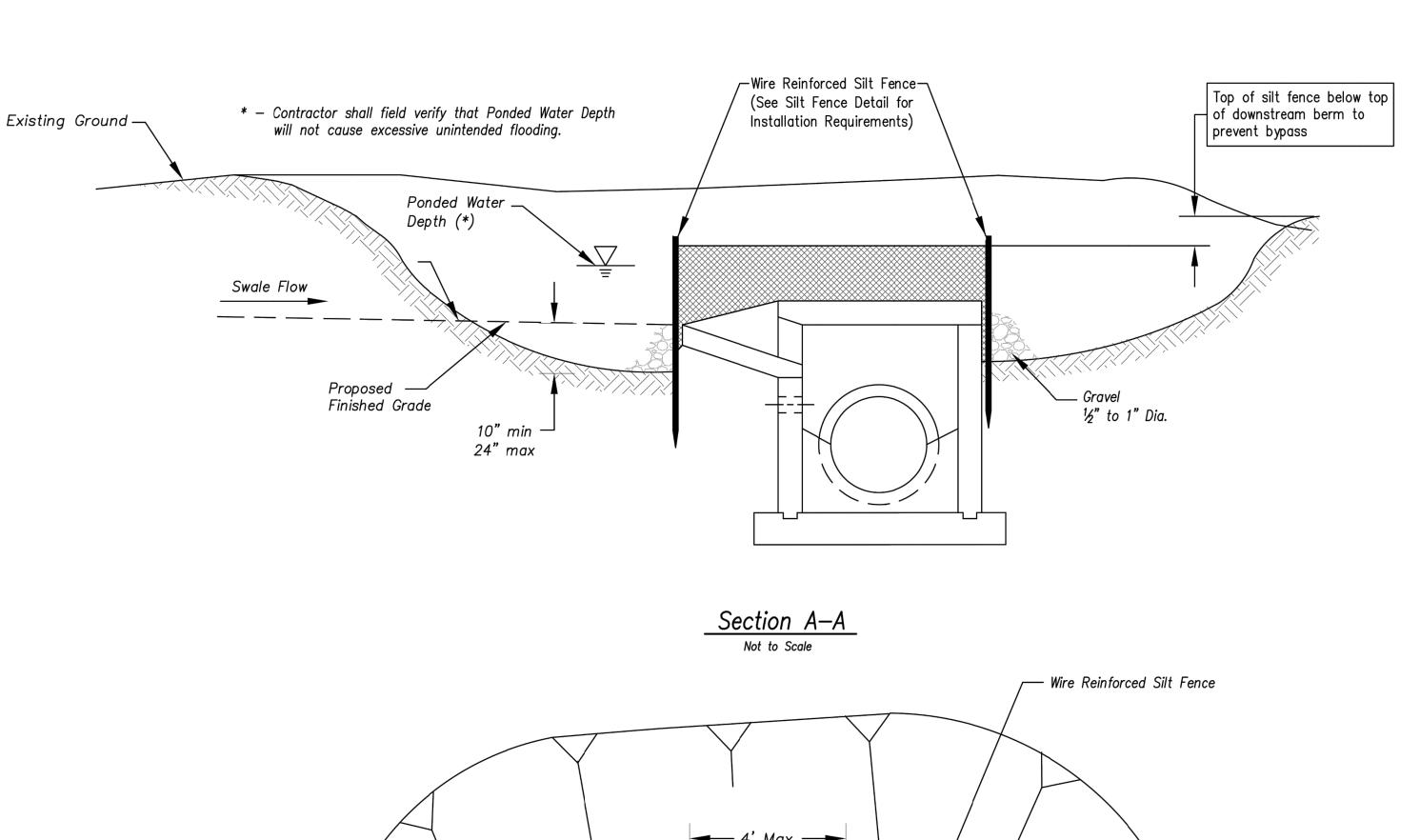
CURB INLET PROTECTION

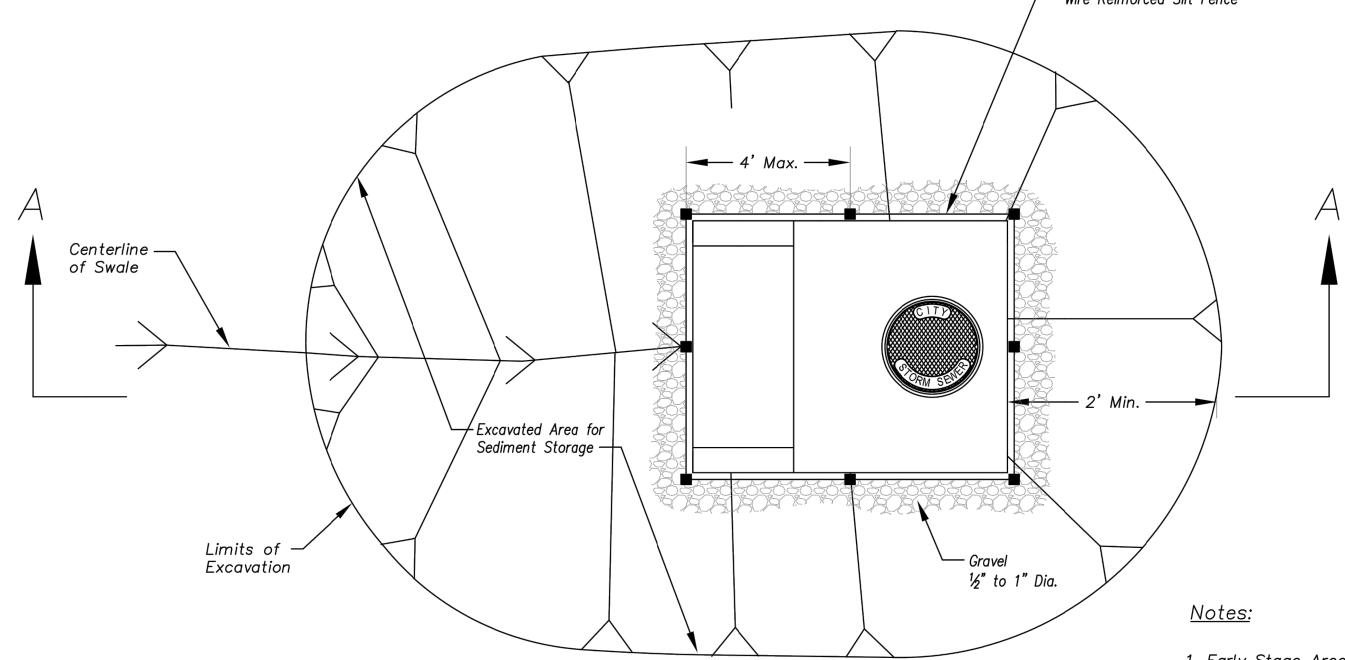
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CURB INLET PROTECTION DETAILS

SHEET NUMBER 8 of 14



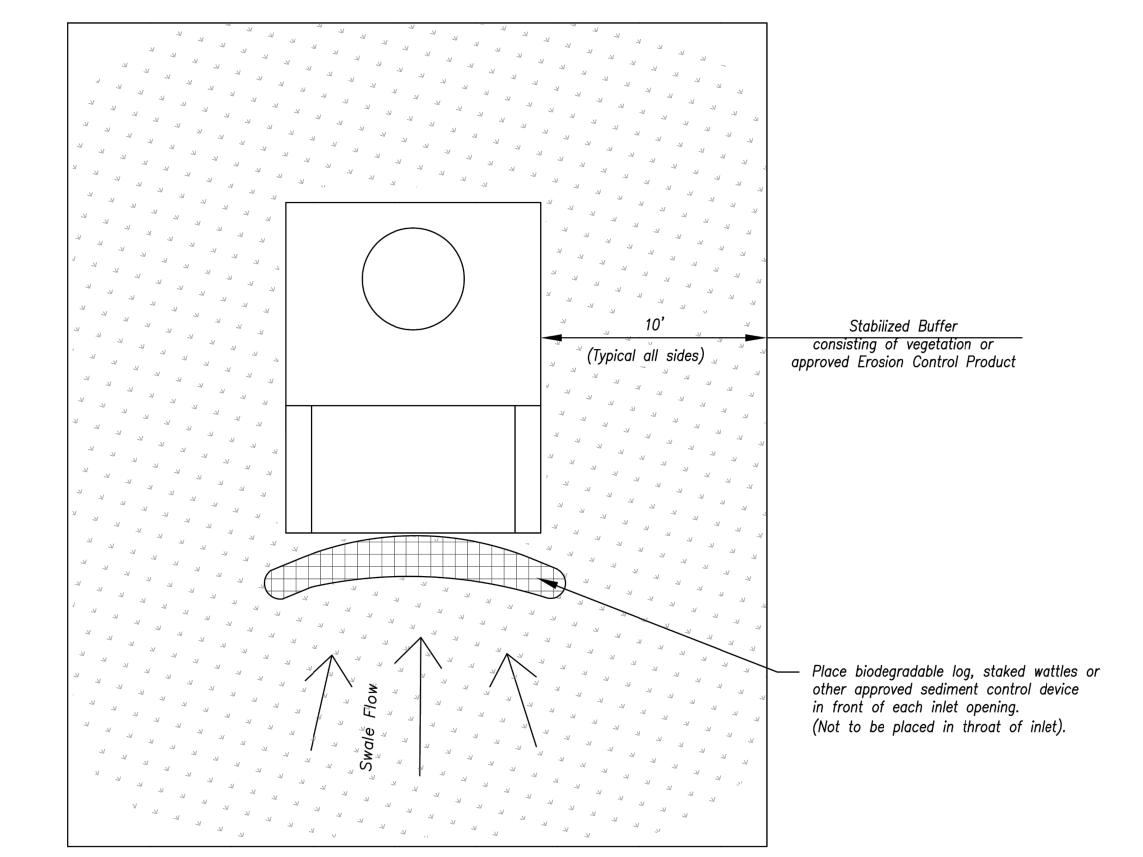


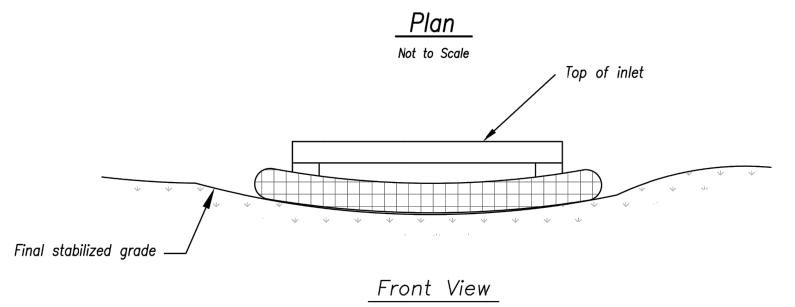
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<u>EARLY STAGE AREA INLET</u>
(All open boxes and inlets not at final grade)

- Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is
- Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
- 3. Backfill excavated area ONLY after final grading of the site. Stabilization of the site is to immediately follow.
- 4. Wire reinforced silt fence may be used in place of silt fence attached to wood frame.





## <u>LATE STAGE AREA INLET</u> (Area inlets at final grade and existing inlets)

### <u>Maintenance:</u>

- Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
- 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.

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AS NOTED ON PLANS REVIEW
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04/15/2021

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KANSAS CITY METRO CHAPTER

AREA INLET AND JUNCTION BOX PROTECTION

STANDARD DRAWING
NUMBER ESC-07
ADOPTED:
10/24/2016

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AREA INLET PROTECTION DETAILS

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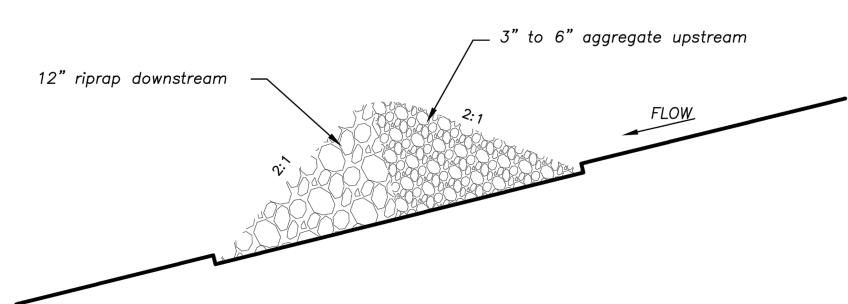
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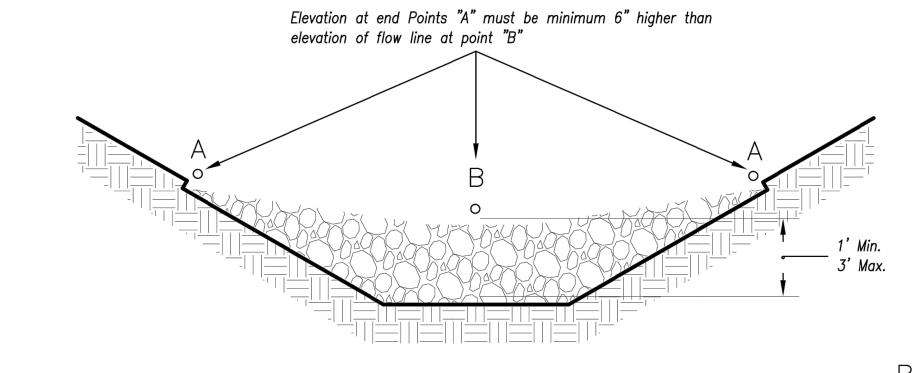
Type | (2 Acres or less of Drainage Area)

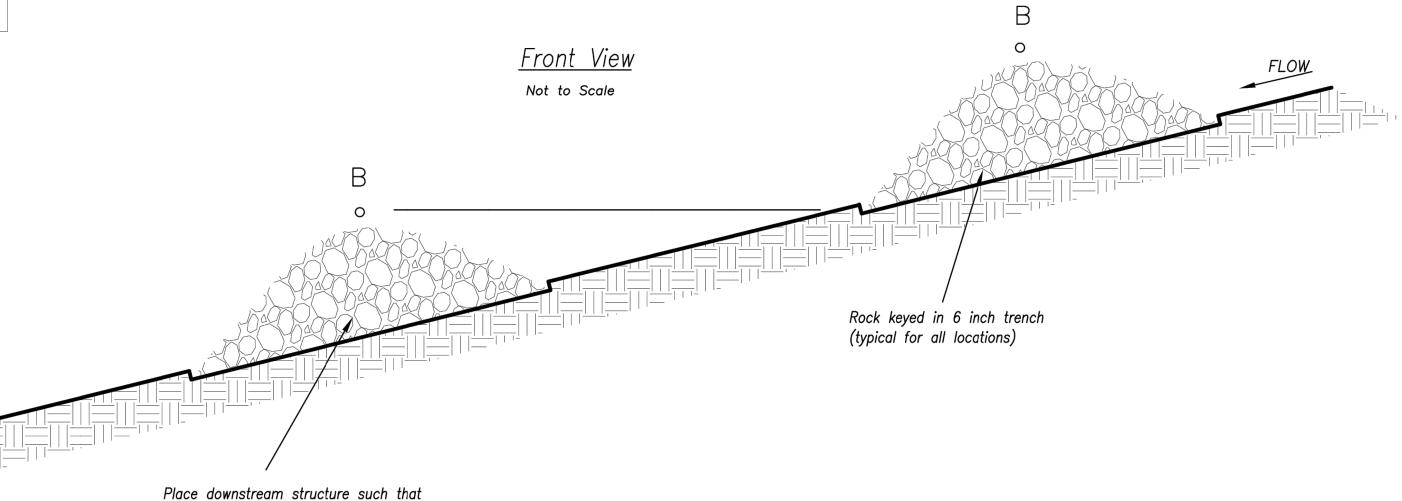


<u>Type II</u> (2–10 Acres of Drainage Area) Not to Scale

ROCK DITCH CHECK

	k Ditch Check
<u>Spa</u>	cing
Ditch Centerline Slope ( % )	Spacing Interval (Feet)
5.0	60
6.0	50
7.0	43
8.0	36
9.0	33
10.0	29
Note: Use this spa Rock Ditch (	





Spacing Between Check Dams (all types)

Not to Scale

### <u>Notes:</u>

- Rock check dams shall be used only for drainage areas less that 10 acres unless approved by the City Engineer.
- Use rock checks only in situations where the ditch slope exceeds 6%.

### <u>Maintenance:</u>

- 1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of the ditch check.
- 2. Replace and reshape as necessary to maintain function and integrity of installation.

CONSTRUCTION
AS NOTED ON PLANS REVIEW
DEVELOPMENT SERVICES
LEE'S SUMMIT, MISSOURI

04/15/2021

## AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY METRO CHAPTER

ROCK DITCH CHECKS

STANDARD DRAWING
NUMBER ESC-IO
ADOPTED:
10/24/2016

RELEASE FOR

CHECKS

NUMBER ESCADOPTED:

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REVISIONS	DESCRIPTION						© COPYRIGHT ANDERSON ENGINEERING, INC. 2020	

ROCK DITCH CHECKS

ZACH A.

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NUMBER

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3/10/21

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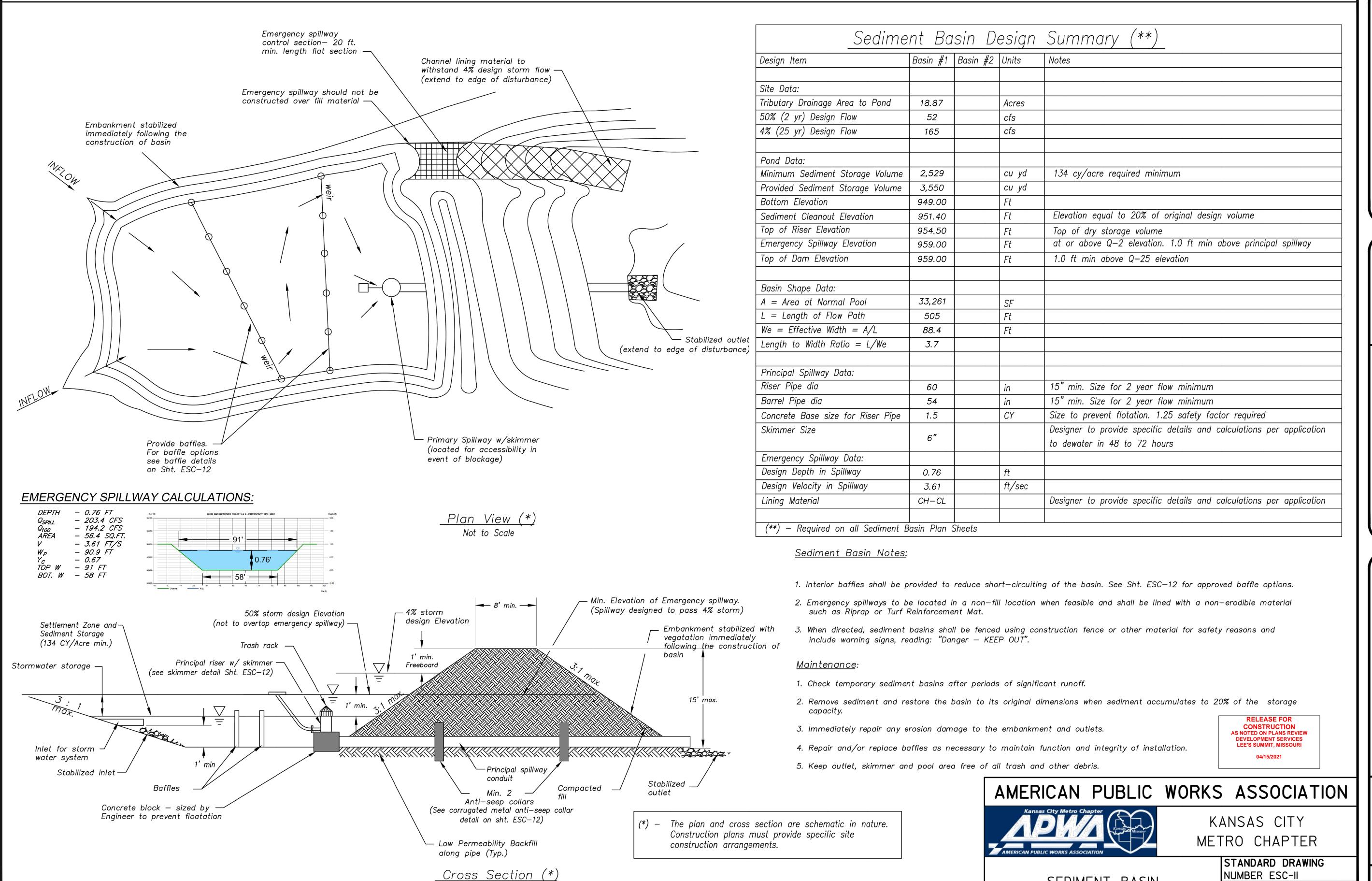
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10 of 14

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

Point "B" is approximately level with the toe elevation of the upstream

structure



Not to Scale



	REVISIONS			DR/	DRAWING INFO.
NO.	DESCRIPTION	ВУ	DATE	BY DATE DRAWN BY:	90
1.	REVISED PER CITY COMMENTS	CC	1/15/21	GC 1/15/21 CHECK BY:	ZM
2.	REVISED PER CITY COMMENTS	CC	2/26/21	GC 2/26/21 LICENSE NO.	PE-20120092
3.	REVISED PER CITY COMMENTS	29	3/10/21	GC 3/10/21 DATE:	1/15/2021
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				JOB NUMBER:	20KC10057
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SIN SEDIMENT

ZACH A.

SHEET NUMBER C607<u>11 of 14</u>

SEDIMENT BASIN

Modified from 2015 Overland Park Standard Details

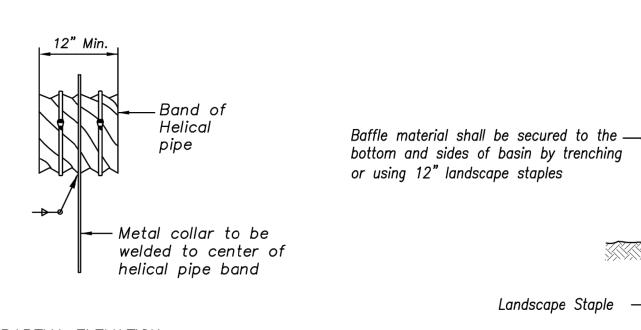
for Erosion and Sediment Control.

ADOPTED:

10/24/2016

### SKIMMER DETAIL (Typ.) \* PRINCIPAL SPILLWAY DETAIL

\* Designer to provide specific details per application (e.g. pipe sizes, screen sizes, perforation, etc.) as required.



Drape baffle material over support Maximum 4' between posts wire or rope and secure with plastic ties at posts and on wire every 12" Support wire or rope to prevent sagging Staple or trench baffle material into bottom and sides of basin Coir fiber or similar material

- 1. Connections between the anti-seepage collar
- 2. P = projection distance. Sized as required to achieve at least a 10% increase in seepage
- 3. 14xP = Max. spacing between collars.
- 5. All materials to be in accordance with construction material specifications.
- collars shall be in accordance with construction material specifications.
- 7. Unassembled collars shall be marked by

8. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at the time of

Landscape Staple

- 9. Each collar shall be furnished with two (2) ½" diameter rods with standard tank lugs for connecting the collars to the pipe.
- 10. For bands and collars, modification of the details shown may be used providing equal water tightness is maintained and detailed drawings are Submitted and approved by the Engineer prior to delivery.
- 11. Two other types of anti-seep collars are:
- a. Corrugated metal, similar to above, except shop welded to a 4 ft. section of the pipe and connected to the pipe with connecting bands.
- b. Concrete, 6 inches thick, formed around the pipe with #3 rebar spaced 15".

Modified from 2015 Overland Park Standard Details

for Erosion and Sediment Control.

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<u> Option B - Coir Fiber Material</u>

BAFFLE DETAILS

Coir fiber draped

over support wire

RELEASE FOR CONSTRUCTION AS NOTED ON PLANS REVIEW DEVELOPMENT SERVICES LEE'S SUMMIT, MISSOURI

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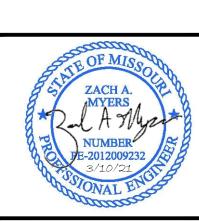
KANSAS CITY METRO CHAPTER

SEDIMENT BASIN - DETAILS

STANDARD DRAWING NUMBER ESC-12 ADOPTED: 10/24/2016

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BASIN S10, T47N, F JACKSON EDIMENT



SHEET NUMBER 12 of 14

Weld both sides.

SECTION B-B

Size and spacing of slotted openings shall be the same as shown for CM collar.

-Saturated zone

Use rods and lugs to clamp bands securely

Corrugated metal sheet

welded to center of band

Concrete Ballast

Collar to be same gauge as

the pipe with which it is

 $-\frac{1}{2}$ " x 2" slotted holes

-Slotted Holes

at 8" C.C.

for 3/4" diameter bolts

Install collar with

Rod and Lug

corrugations vertical

Continuous —

Band

∠Continuous

В ◀┛

Weld 1 1/6" x 1 1/6" angles to collar

or bend 90° angle 1 1/6" wide as shown

Sheet metal collar shall be cut to

fit corrugations of helical band and

welded with continuous weld

Weld

ISOMETRIC VIEW

ANTI-SEEPAGE COLLAR LOCATIONS

CORRUGATED METAL ANTI-SEEPAGE COLLAR DETAIL

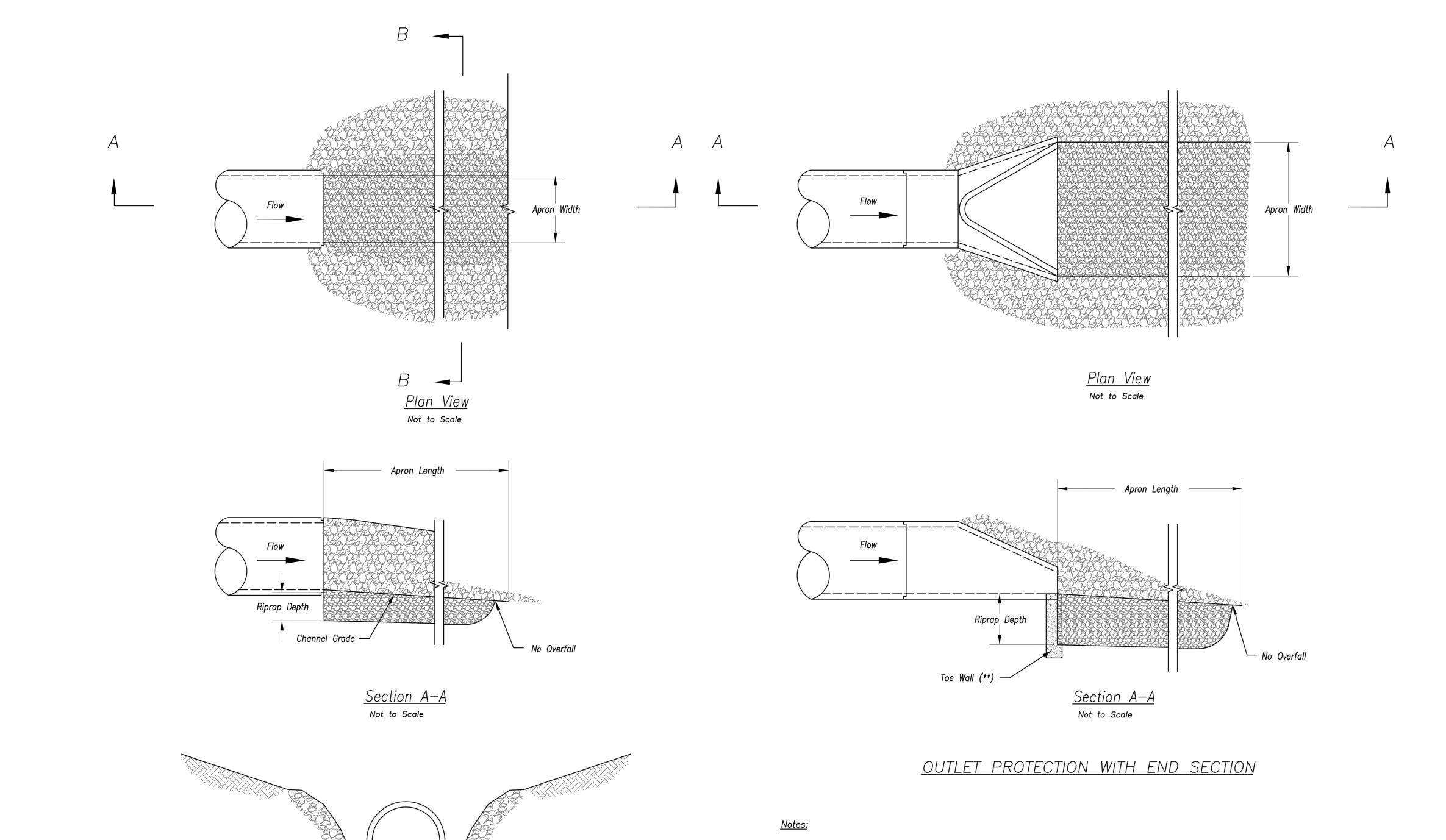
Not to Scale

PARTIAL ELEVATION

### Anti-Seepage Collar Notes:

- and the barrel must be watertight.
- 4. Collars shall generally be placed in the middle third of the embankment, and within the saturated zone.
- 6. When specified on the plans, coating of
- painting or tagging to identify matching pairs.

to outlet pipe or riser



Apron Width

<u>Section B-B</u>

Not to Scale

OUTLET PROTECTION W/O END SECTION

- 1. Rock all sides steeper than 3:1.
- 2. Stabilize all disturbed areas downstream of outlet to the limits of disturbance.
- Alternative outlet protection and slope stabilization measures may be used with approval by the Engineer.
- 4. Install riprap apron so that it is no higher than flowline of pipe.
- Reference APWA Specification 2650 for rock type, size, and placement.



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OUTLET PROTECTION

STANDARD DRAWING NUMBER ESC-14 ADOPTED: 10/24/2016

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## TYPICAL PLAN VIEW OF DIVERSION BERM AND SLOPE DRAIN

### Notes for Diversion Berm:

- 1. Slope drains are optional, but may be required by the engineer if the berm is at the top of a steep slope.
- 2. Diversion berms must be installed as a first step in the land—disturbing activity and must be functional prior to upslope land disturbance.
- 3. The berm should be adequately compacted to prevent failure.
- 4. Temporary or permanent seeding and mulch shall be applied to the berm immediately following its construction.
- Place the berm so to minimize damages by construction operations and traffic.
- The berm must discharge to a temporary sediment trap or stabilized area.
- 7. All trees, brush, stumps, obstructions and other objectionable material shall be removed and disposed of so as not to interfere with the proper functioning of diversion.
- 8. The diversion shall be excavated or shaped to line, grade and cross—section as required to meet the criteria specified herein, free of irregularities which will impede flow.
- 9. Fills shall be compacted as needed to prevent unequal settlement that would cause damage in the completed diversion. Fill shall be composed of soil which is free from excessive organic debris, rocks or other objectionable materials.

### <u>Maintenance:</u>

- Berm shall be reshaped, compacted, and stabilized as necessary to maintain its function.
- 2. Breaches in the berm shall be repaired immediately.

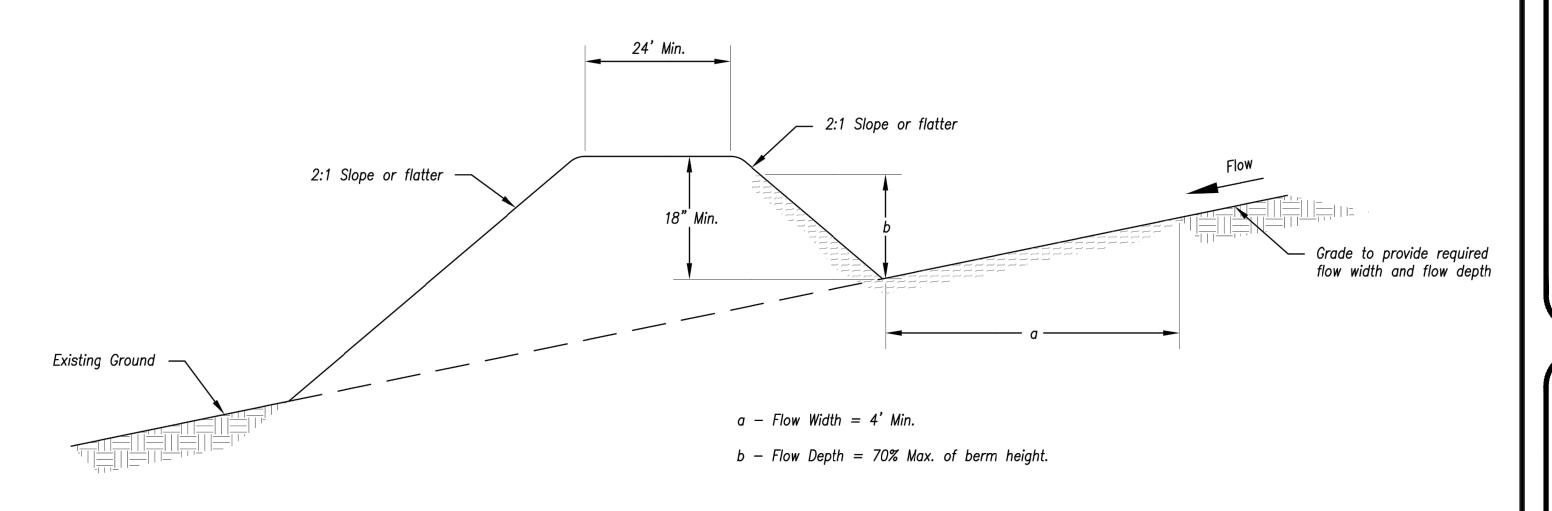
### Notes for Slope Drain:

- Slope Drain and Diversion Berm may be used on either project foreslopes or project backslopes.
- 2. Discharge of Slope Drains shall be into stabilized ditch or area, or into Sediment Basin.
- 3. Pipe shall be secured in place as approved by Engineer.

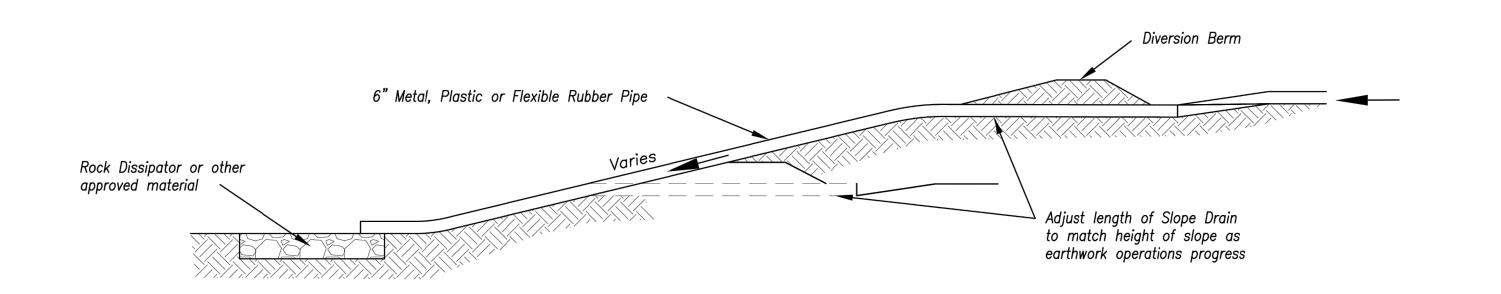
### <u>Maintenance:</u>

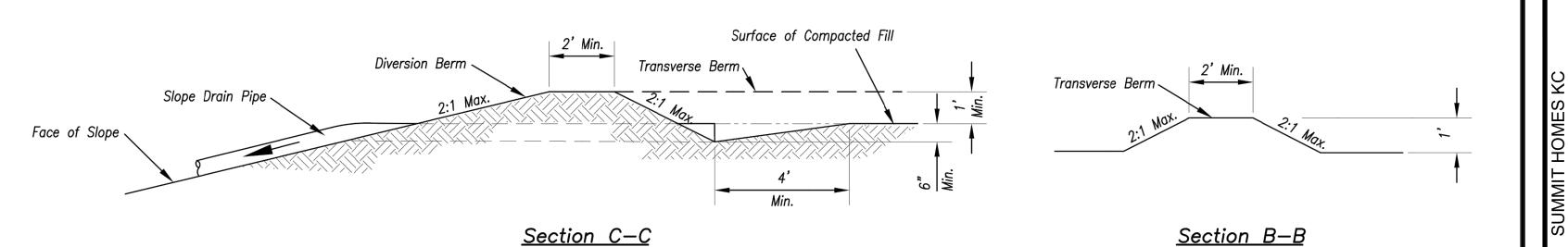
- Accumulation of any visible sediment at the inlet and outlet shall be removed promptly.
- Outlet conditions shall be repaired if scour is observed.
   Leaking or damaged section of pipe shall be repaired immediately.
- 3. Barriers directing water to the inlet shall be monitored for continuity and effectiveness.

### TYPICAL PROFILE OF DIVERSION BEAM Not to Scale



### TYPICAL PROFILE OF DIVERSION BERM





### TYPICAL PROFILE OF DIVERSION BERM WITH SLOPE DRAIN



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DIVERSION BERMS AND SLOPE DRAINS

KANSAS CITY METRO CHAPTER

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STANDARD DRAWING NUMBER ESC-05 ADOPTED: 10/24/2016 ENGINEES SURVEYORS - LABORATORIES - DRILLING

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EMPORARY DIVERSION
BERM
S10, T47N, R32W



C610
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