

HIGHLAND MEADOWS - 5TH PLAT

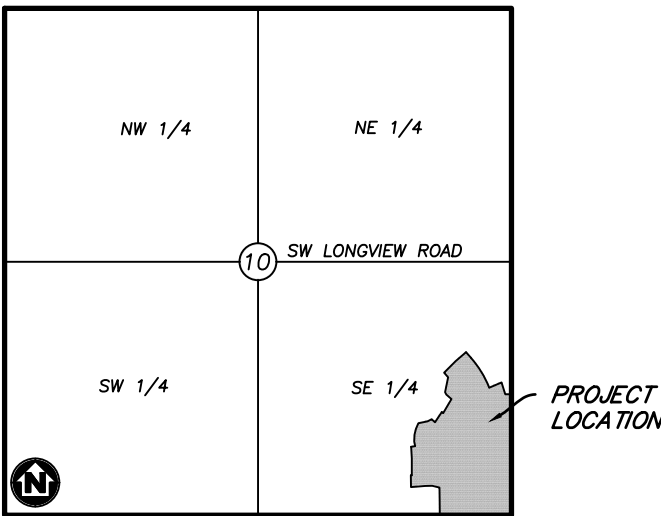
STREET AND STORM SEWER PLANS

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

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

DATE: 11/11/2020

LOTS: 134-159 (26 TOTAL)



VICINITY MAP

SECTION 10, TOWNSHIP 47, RANGE 32
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI
NOT TO SCALE

LEGAL DESCRIPTION:

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, HIGHLAND MEADOWS THIRD PLAT,
HIGHLAND MEADOWS 4TH PLAT, SUBDIVISIONS IN
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.



Know what's below.
Call before you dig.



UTILITY CONTACTS:

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

STORMWATER:
CITY OF LEE'S SUMMIT
GENE WILLIAMS
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE (816) 969-1900

STREETS:
CITY OF LEE'S SUMMIT
MICHAEL PARK
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE (816) 969-1900

AT&T:
RONALD GIFFERT
500 E 8TH STREET
KANSAS CITY, MO 64106
PHONE (816) 275-1550

KCP&L:
DOUG DAVIN
1300 SE HAMBLIN ROAD
LEE'S SUMMIT, MO 64081
PHONE (816) 347-4320

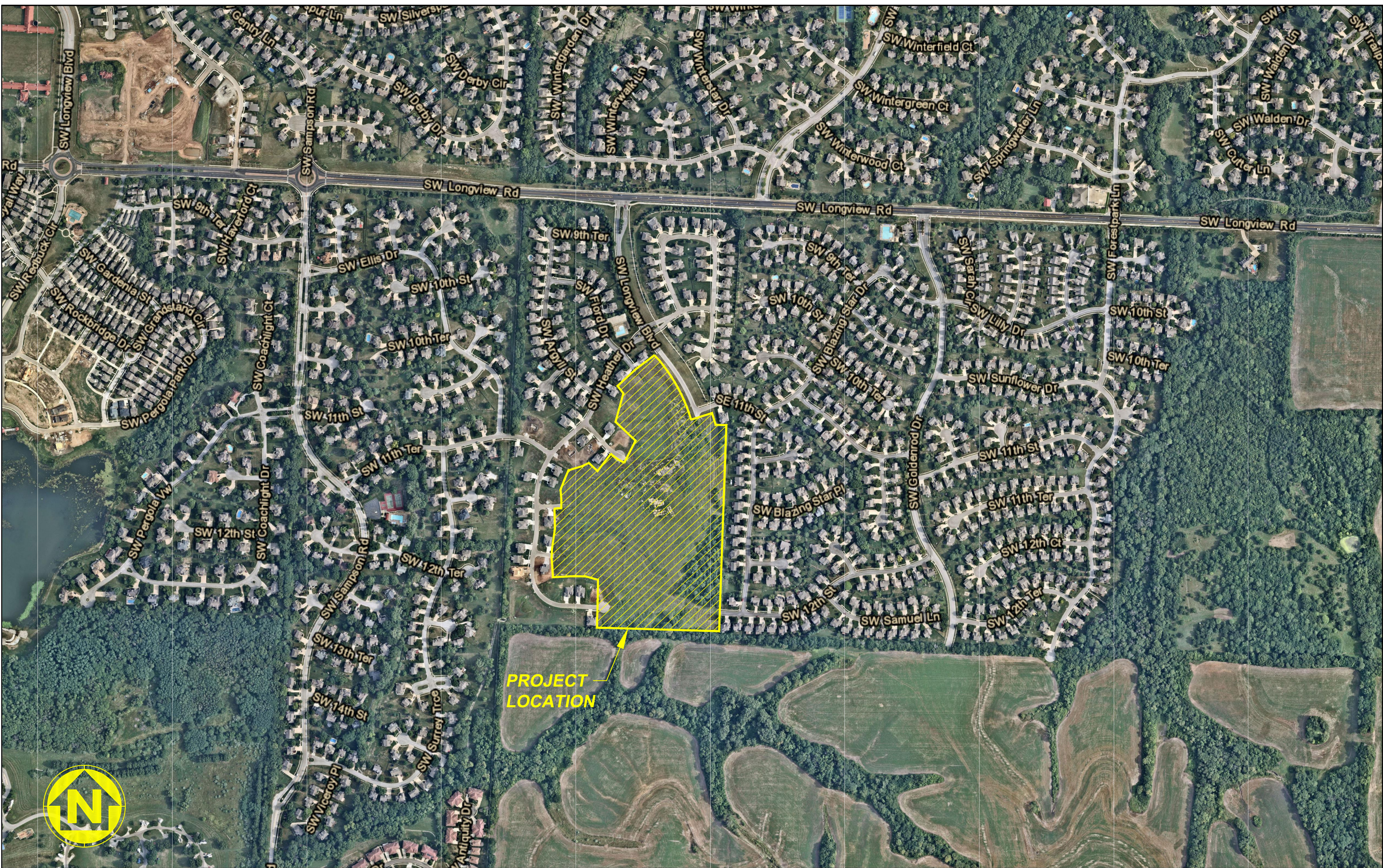
MISSOURI GAS ENERGY:
RICHARD FROCK
3025 SW CLOVER DRIVE
LEE'S SUMMIT, MO 64082
PHONE (816) 472-3489

FEMA FLOOD INFORMATION:

THE SITE IS LOCATED IN ZONE X, AREA OF MINIMAL
FLOOD HAZARD, PER FEMA FIRM MAP 29095C0418G;
EFFECTIVE DATE OF JANUARY 20, 2017. NO LETTERS
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



WATERSHED: LITTLE BLUE RIVER

DISTURBED AREA: 14.9 AC

SURVEY CONTROL:

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.
- 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.
- 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.

DEVELOPER:

VINCENT WALKER
SUMMIT HOMES KC
120 SE 30TH STREET
LEE'S SUMMIT, MO 64082
VINCENT@SUMMITHOMESKC.COM
(816) 246-6700

CIVIL ENGINEER:

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

PREPARED & SUBMITTED BY:
ANDERSON ENGINEERING INC.
KANSAS CITY, MISSOURI

ZACH MYERS, P.E.
MISSOURI P.E. NO. 2012009232

APPROVED BY:
CITY OF LEE'S SUMMIT, MISSOURI

AUTHORIZING POSITION

DATE

SHEET INDEX:

CVR - COVER SHEET
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C102 - GENERAL LAYOUT
C103 - 12TH STREET PLAN & PROFILE
C104 - 12TH TERRACE PLAN & PROFILE
C105 - GRADING PLAN
C201 - DRAINAGE AREA PLAN
C202 - DRAINAGE CALCULATIONS
C203 - STORM SEWER PLAN & PROFILE
C204 - STORM SEWER PLAN & PROFILE (2)
C301 - PRE-CLEARING EROSION CONTROL PLAN
C302 - INTERMEDIATE EROSION CONTROL PLAN
C303 - FINAL STABILIZATION EROSION CONTROL PLAN
C401 - STORM SEWER DETAILS
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C405 - ADA RAMP DETAILS
C406 - CONSTRUCTION ENTRANCE DETAILS
C407 - STEEP SLOPE PROTECTION DETAILS
C408 - SILT FENCE DETAILS
C409 - CURB INLET PROTECTION DETAILS
C410 - AREA INLET PROTECTION DETAILS
C411 - SEDIMENT TRAP DETAILS
C412 - SEDIMENT BASIN DETAILS
C413 - OUTLET PROTECTION DETAILS

PROJECT SPECIFICATIONS:

THE SPECIFICATIONS FOR THIS PROJECT SHALL BE
THE FOLLOWING:

- MOST CURRENT VERSION OF THE DESIGN AND
CONSTRUCTION MANUAL OF THE CITY OF LEE'S
SUMMIT, MISSOURI.
- MOST CURRENT EDITION OF AMERICAN PUBLIC
WORKS ASSOCIATION (APWA) KANSAS CITY
METROPOLITAN CHAPTER "STANDARD
SPECIFICATIONS AND DESIGN CRITERIA"

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.



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DRAWING INFO.		REVISIONS	
NO.	DESCRIPTION	BY	DATE
1	GC		
2	ZM		
3	FE-2012009232		
4	11/11/2020		
5	FOR REVIEW		
6	20K010057		
7	000062		

SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

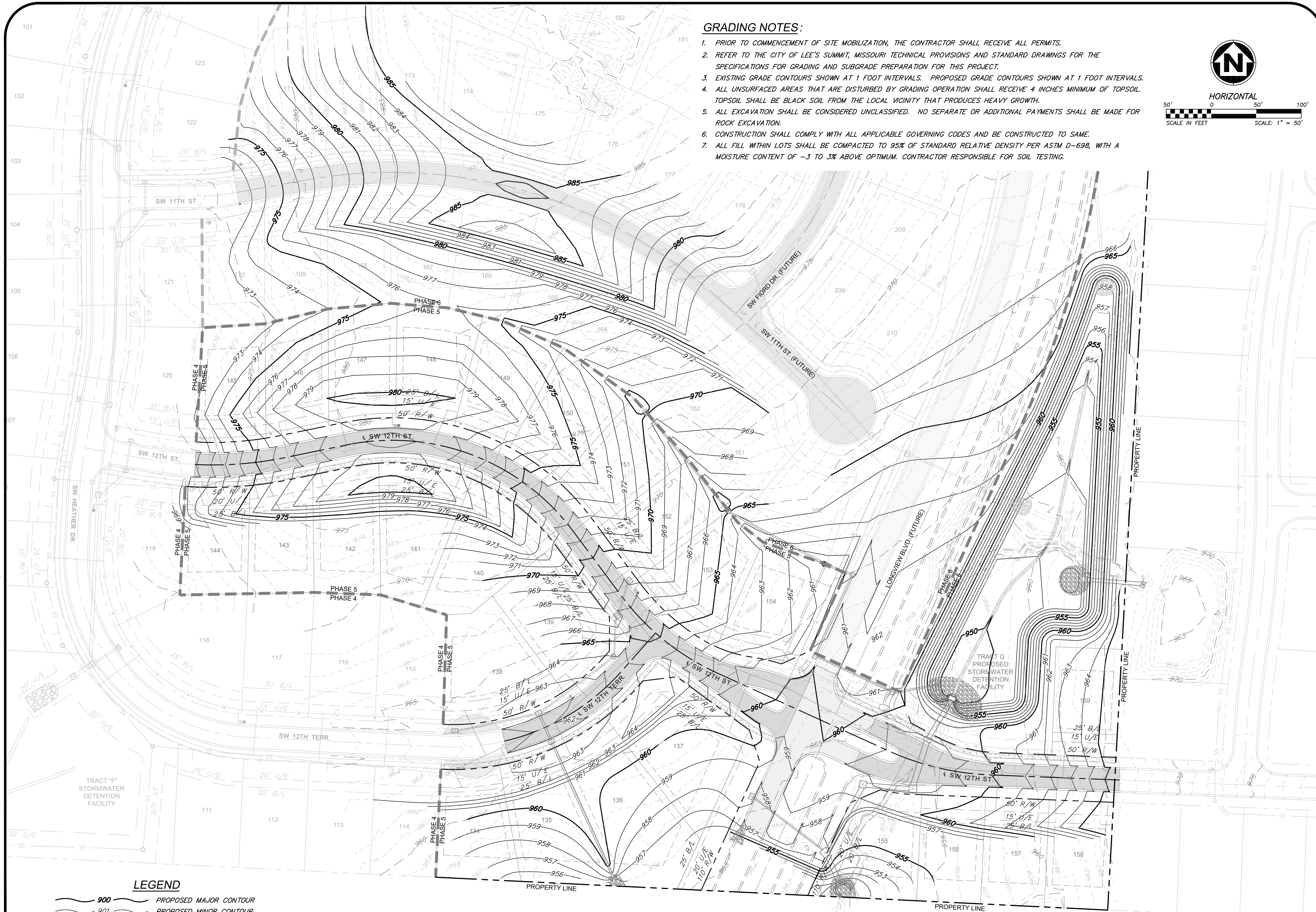
COVER SHEET

S10, T47N, R32W

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

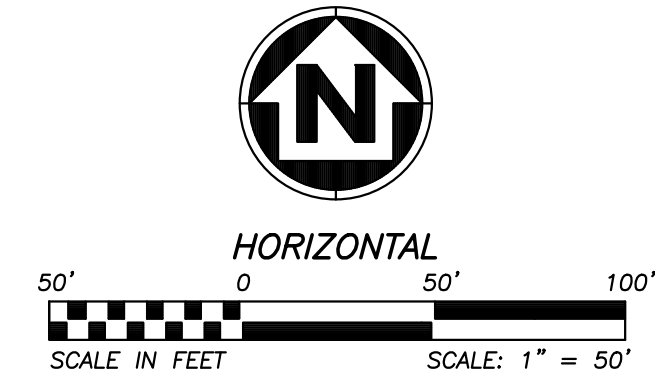


SHEET NUMBER
CVR
1 OF 26











GRADING NOTES:

1. PRIOR TO COMMENCEMENT OF SITE MOBILIZATION, THE CONTRACTOR SHALL RECEIVE ALL PERMITS.
2. REFER TO THE CITY OF LEE'S SUMMIT, MISSOURI TECHNICAL PROVISIONS AND STANDARD DRAWINGS FOR THE SPECIFICATIONS FOR GRADING AND SUBGRADE PREPARATION FOR THIS PROJECT.
3. EXISTING GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS. PROPOSED GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS.
4. ALL UNSURFACED AREAS THAT ARE DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES MINIMUM OF TOPSOIL. TOPSOIL SHALL BE BLACK SOIL FROM THE LOCAL VICINITY THAT PRODUCES HEAVY GROWTH.
5. ALL EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED. NO SEPARATE OR ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION.
6. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
7. ALL FILL WITHIN LOTS SHALL BE COMPACTED TO 95% OF STANDARD RELATIVE DENSITY PER ASTM D-698, WITH A MOISTURE CONTENT OF -3 TO 3% ABOVE OPTIMUM. CONTRACTOR RESPONSIBLE FOR SOIL TESTING.



LEGEND

- | | | | |
|---|------------|---|------------------------|
|  | 900 |  | PROPOSED MAJOR CONTOUR |
|  | 901 |  | PROPOSED MINOR CONTOUR |
|  | 900 |  | EXISTING MAJOR CONTOUR |
|  | 901 |  | EXISTING MINOR CONTOUR |

SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

GRADING PLAN

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



SHEET NUMBER
C105
6 OF 26

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				ISSUED FOR: FOR REVIEW
				JOB NUMBER: 20KCI0057
				MO COA NO. 000362

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CORVBICHT ANDERSON ENGINEERING INC 2020

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

- LEGEND

Diagram illustrating the components of a stormwater detention facility, including various types of slopes, property lines, storm drains, contours, and structural elements.

Legend:

- PROP. RIGHT-OF-WAY
- PROP. PROPERTY LINE
- PROP. STORM DRAIN
- PROP. MAJOR CONTOUR
- PROP. MINOR CONTOUR
- EX. MAJOR CONTOUR
- EX. MINOR CONTOUR
- LIMITS OF DISTURBANCE
- (IP1) INLET PROTECTION
- (SF) SEDIMENT FENCE
- (SI) SLOPE INTERRUPT — COMPOST BERM, GRAVEL BERM, COMPOST SOCK — PLACED AT 75 FT INTERVALS WHERE FLATTER THAN 15% SPACED EVERY 10 VERTICAL FEET ON STEEP SLOPES
- TEMPORARY STONE CONSTRUCTION EXIT

Facility Label: TRACT "F" STORMWATER DETENTION FACILITY



HORIZONTAL

50' 0 50' 100'



SCALE IN FEET SCALE: 1" = 50'



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				MO COA NO. 0000682

S10, 147N, R32W
EE'S SUMMIT, JACKSON COUNTY, MISSOURI

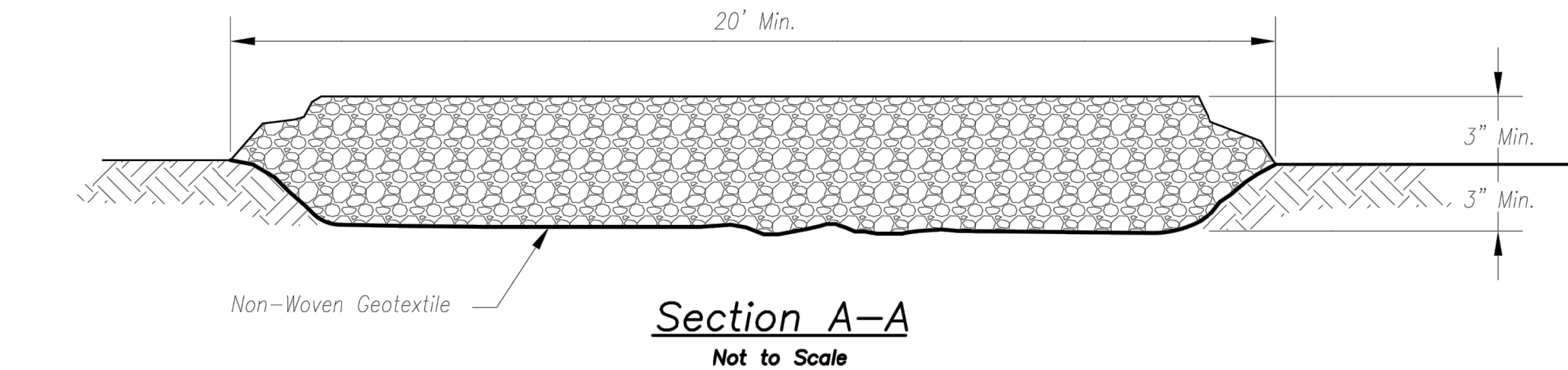
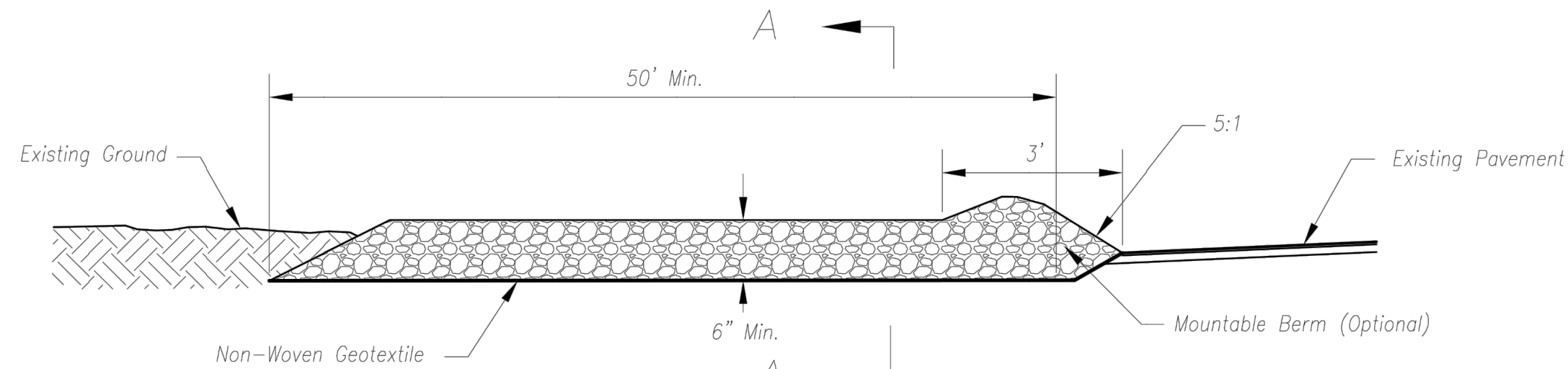
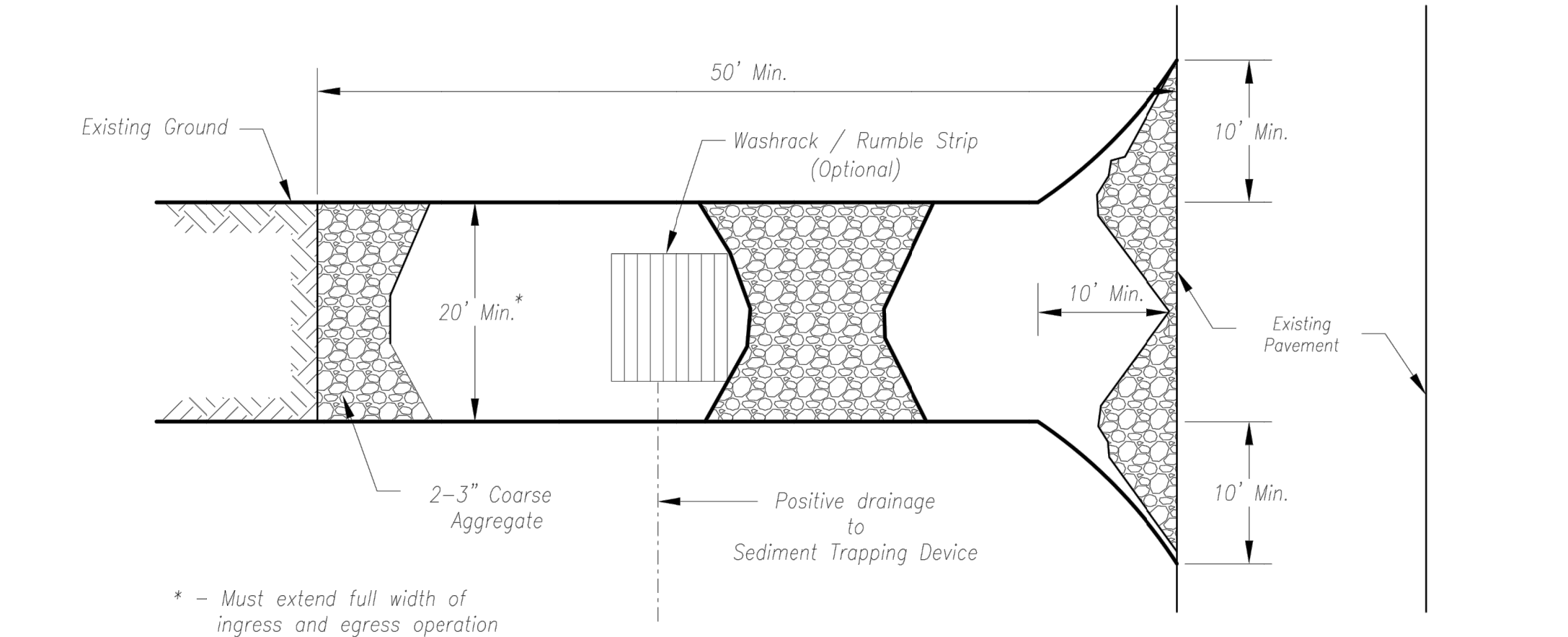
SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

FINAL STABILIZATION EROSION CONTROL PLAN



SHEET NUMBER
C303
13 OF 26

Nov 11, 2020 - 11:58am Plotted By: gcs
G:\Shared drives\KC10 - Land Development\Projects\2020\20KCT0057 Highland Meadows - 5th Plat\01 CIVL\03-DWG\Sheet\STREET AND STORM\20KCT0057 - SH15 - DETAILS.dwg Layout: CONSTRUCTION ENTRANCE DETAILS



Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or downhill of disturbed area.
2. 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.
4. 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:

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

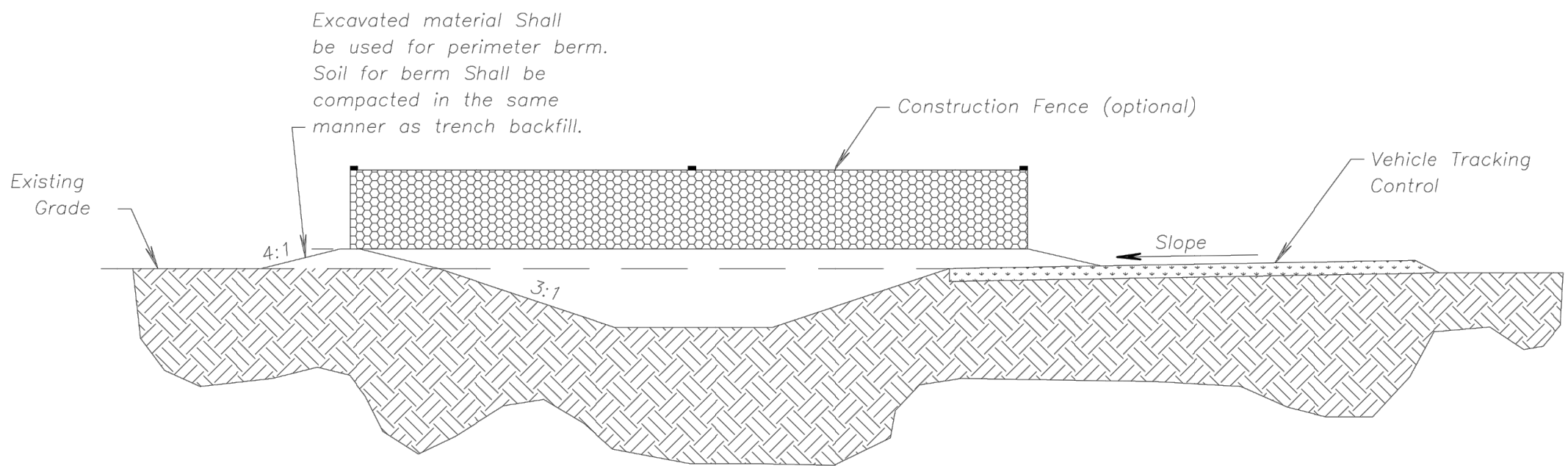
CONSTRUCTION ENTRANCE

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.
3. 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:

1. 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.
3. 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.
4. 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

AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY
METRO CHAPTER

CONSTRUCTION ENTRANCE
AND CONCRETE WASHOUT

STANDARD DRAWING
NUMBER ESC-01
ADOPTED:
10/24/2016

SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

CONSTRUCTION
ENTRANCE DETAILS

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



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C406
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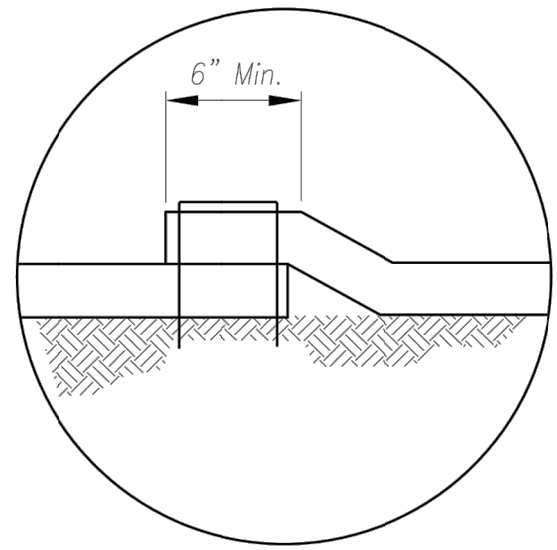
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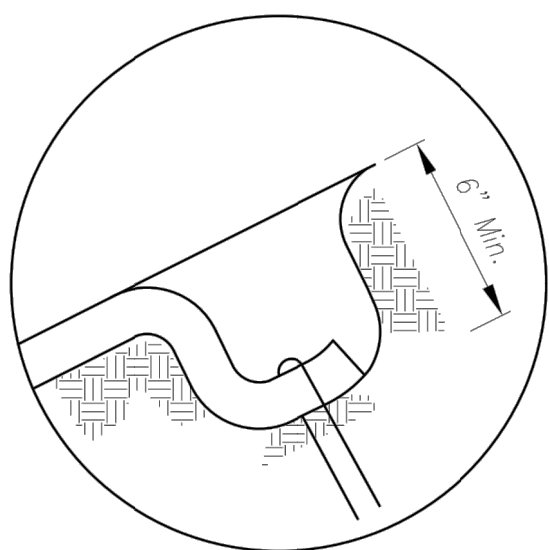
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Nov 11, 2020 - 11:58am Plotted by: gcs Shared drives\KC10 - Land Development\Projects\2020\20KCT0057 Highland Meadows - 5th Plat\01 CIVIL\03-DWG\Sheet\STREET AND STORM\20KCT0057 - SH15 - DETAILS.dwg Layout: STEEP SLOPE PROTECTION DETAILS

Longitudinal Seam



Anchor Slot



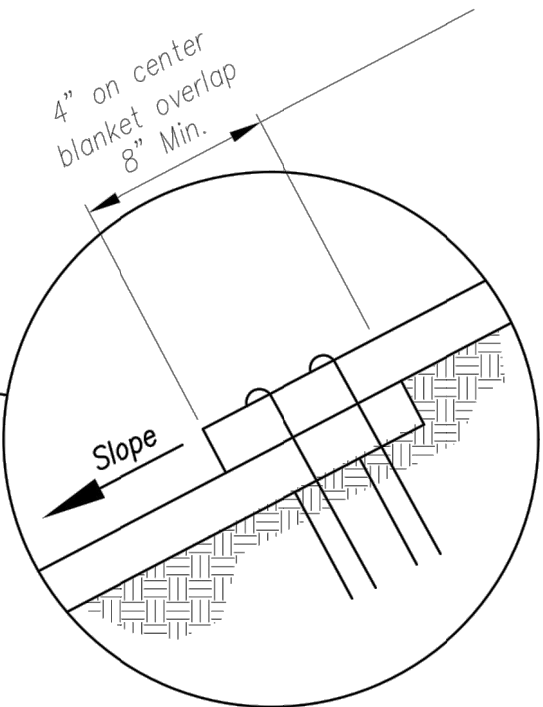
General Notes:

1. APWA Specifications 2150 and Design Guidance 5100 shall be referenced to select type of blanket or mat to be used.
2. Typical anchors and pattern/spacing shall be installed according to the manufacturers instructions.
3. LONGITUDINAL SEAMS: The edges of the blanket or mat should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.

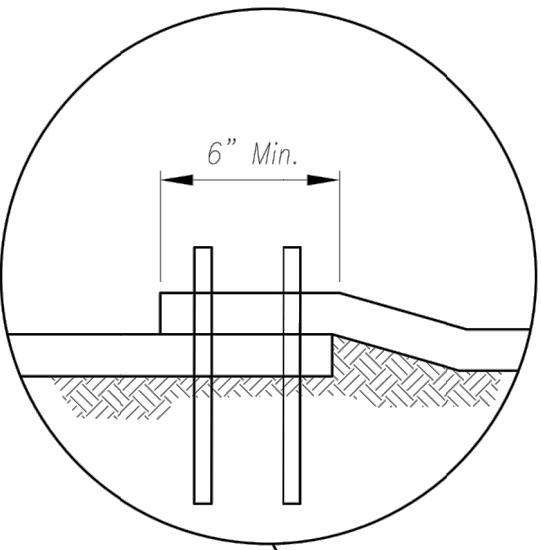
Maintenance:

1. Torn or degraded product shall be repaired or replaced, unless such degradation is within the functional longevity specified by the manufacturer.
2. Edges or seams that are loose or frayed shall be secured.

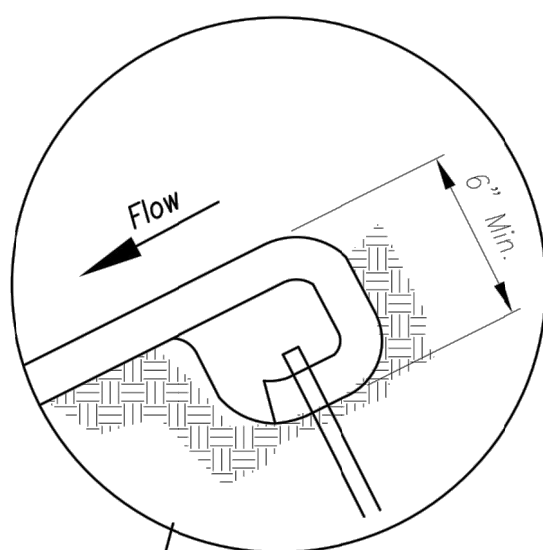
Splice Seam



Longitudinal Seam



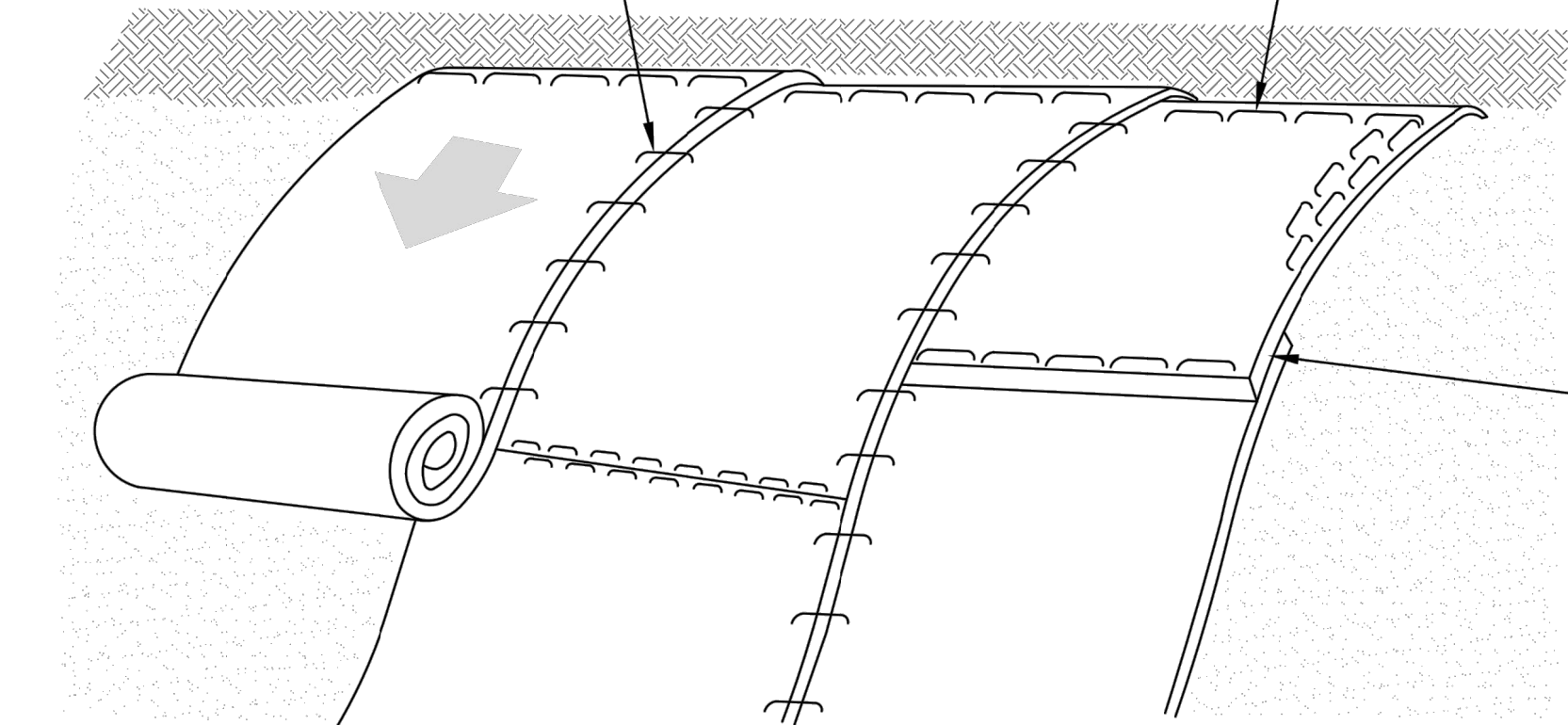
Anchor Fold



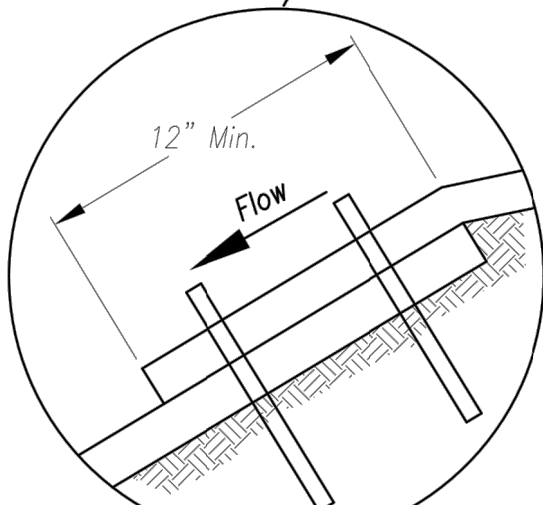
Notes for Installation in Channels:

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.

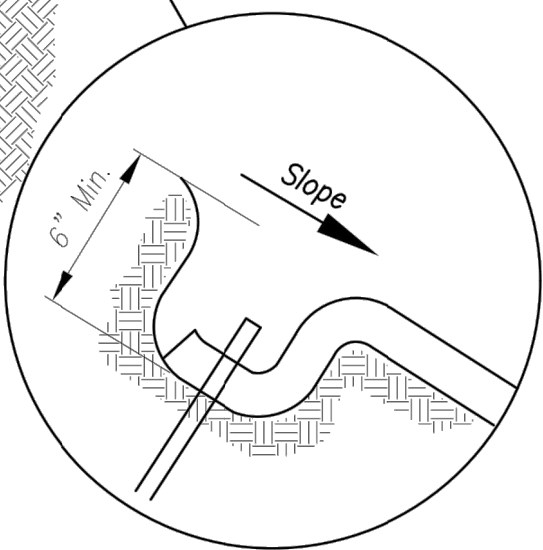
Installation on Slopes



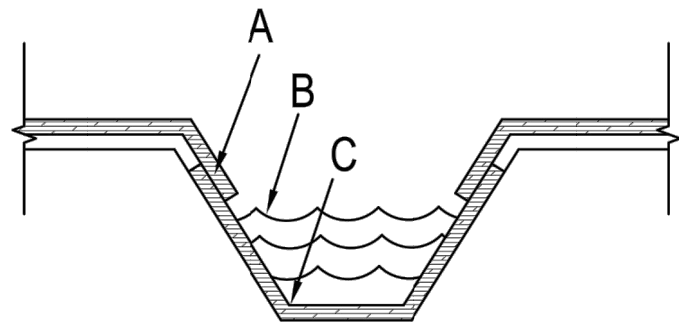
Splice Seam



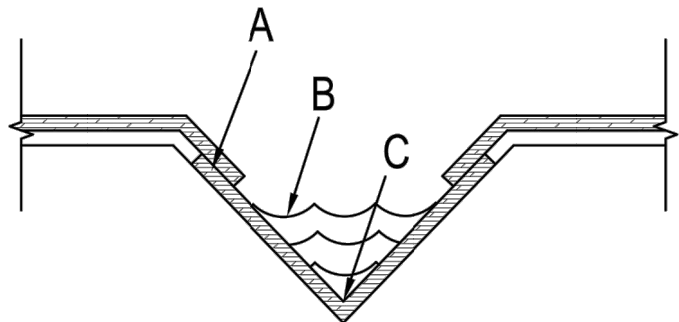
Edge Anchor



Trapezoidal Channel



V Channel



Critical Points:

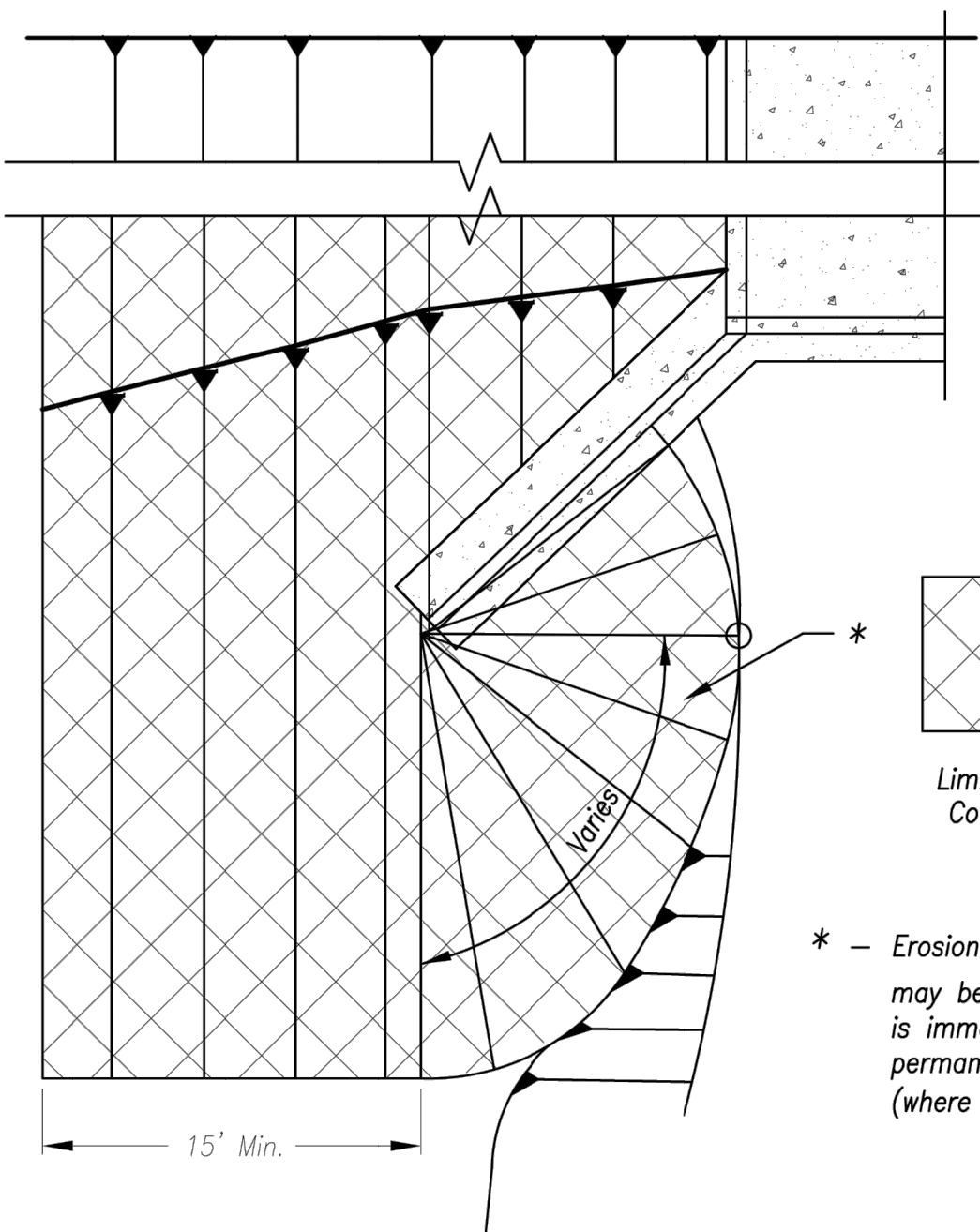
- A - Overlaps and seams;
B - Projected water line;
C - Channel bottom / side slope vertices;

Notes for Installation on Slopes:

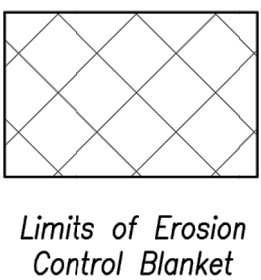
1. Erosion Control Blankets and TRMs shall be laid in the direction of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.
2. ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 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 seams.
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.

Partial Box Culvert Plan

Not to Scale



Installation Around Culvert Slope



* - Erosion Control Blanket or TRM may be omitted if the area is immediately covered by permanent slope protection (where directed by the plans)

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

AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY
METRO CHAPTER

EROSION CONTROL BLANKETS
AND TURF REINFORCEMENT MATS

STANDARD DRAWING
NUMBER ESC-02
ADOPTED:
10/24/2016

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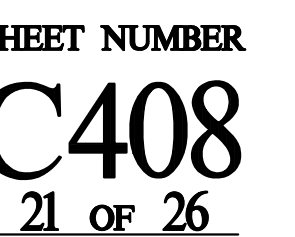
SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

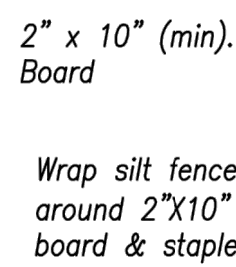
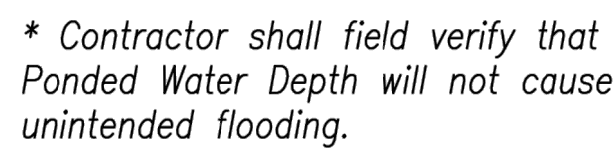
STEEP SLOPE
PROTECTION DETAILS

S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



SHEET NUMBER
C407
20 OF 26



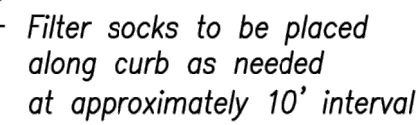


Detail A

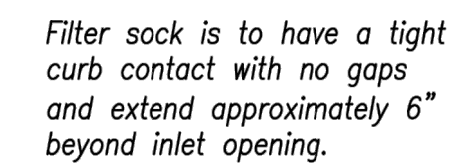
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring
Curb and Inlet Throat)

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

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.




On Grade Curb Inlet Protection



Sump Inlet Sediment Filter

LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

<p>AMERICAN PUBLIC WORKS ASSOCIATION</p> <p><i>Kansas City Metro Chapter</i></p> 		<p>KANSAS CITY METRO CHAPTER</p>
<p>CURB INLET PROTECTION</p>		<p>STANDARD DRAWING NUMBER ESC-06</p> <p>ADOPTED: 10/24/2016</p>



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SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

CURB INLET PROTECTION DETAILS

STU, 147°N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI



SHEET NUMBER
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Centerline of Swale

Wire Reinforced Silt Fence

4' Max.

2' Min.

Excavated Area for Sediment Storage

Limits of Excavation

Gravel $\frac{1}{2}$ " to 1" Dia.

CITY
STORM DRAIN

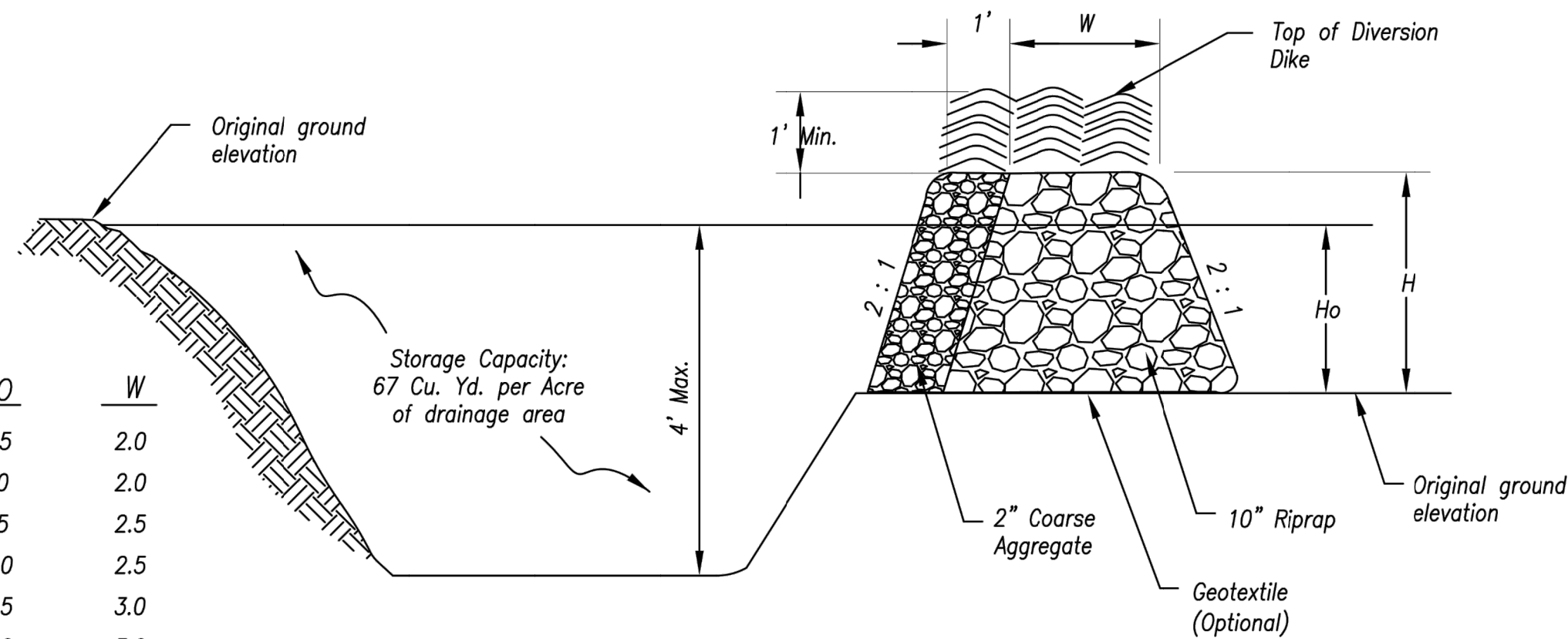
Notes:

The diagram illustrates a cross-section of a construction site. A rectangular structure, likely a building or foundation, is shown with a circular feature on its upper portion. To the right of this structure, a horizontal line indicates a "Stabilized Buffer" consisting of vegetation or approved Erosion Control Product, with a width of "10' (Typical all sides)". Below the structure, a curved, grid-patterned area represents a sediment control device, such as a biodegradable log or staked wattles. Arrows labeled "Slope Flow" point towards this device. A callout line points to the device with the text: "Place biodegradable log, staked wattles or other approved sediment control device in front of each inlet opening. (Not to be placed in throat of inlet)."

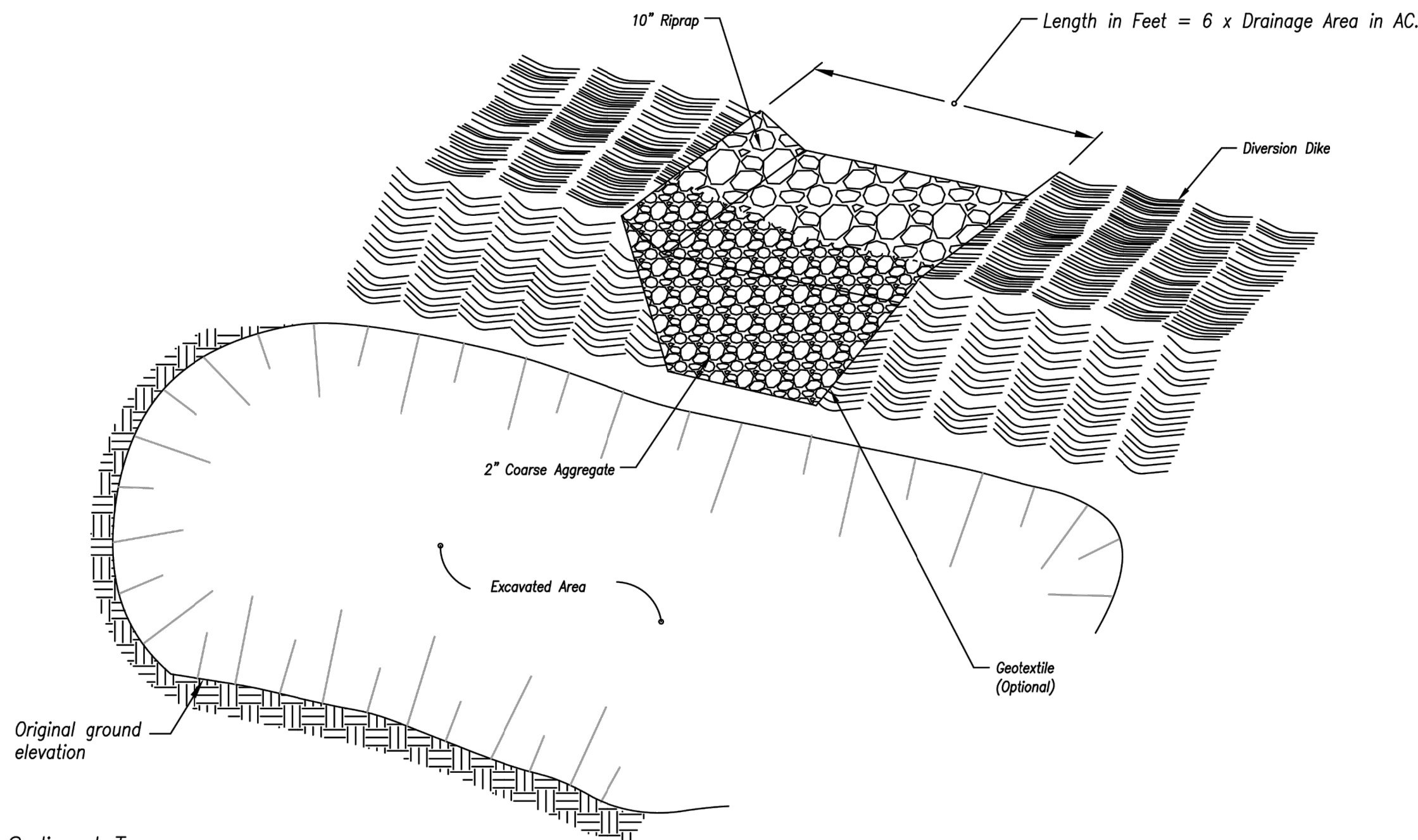
SHEET NUMBER
C410
23 OF 26

Nov 11, 2020 - 12:00pm Plotted by: gao
G:\Shared drives\KC10 - Land Development\Projects\2020\20K010057 Highland Meadows - 5th Plat\01 CIVIL\03-DWG\Sheet\STREET AND STORM\20K010057 - SH15 - DETAILS.dwg Layout: SEDIMENT TRAP DETAILS

H	H ₀	W
1.5	0.5	2.0
2.0	1.0	2.0
2.5	1.5	2.5
3.0	2.0	2.5
3.5	2.5	3.0
4.0	3.0	3.0
4.5	3.5	4.0
5.0	4.0	4.5



(*) Cross Section of Outlet
Not to Scale



(*) Perspective View of Outlet
Not to Scale

Notes for Sediment Trap:

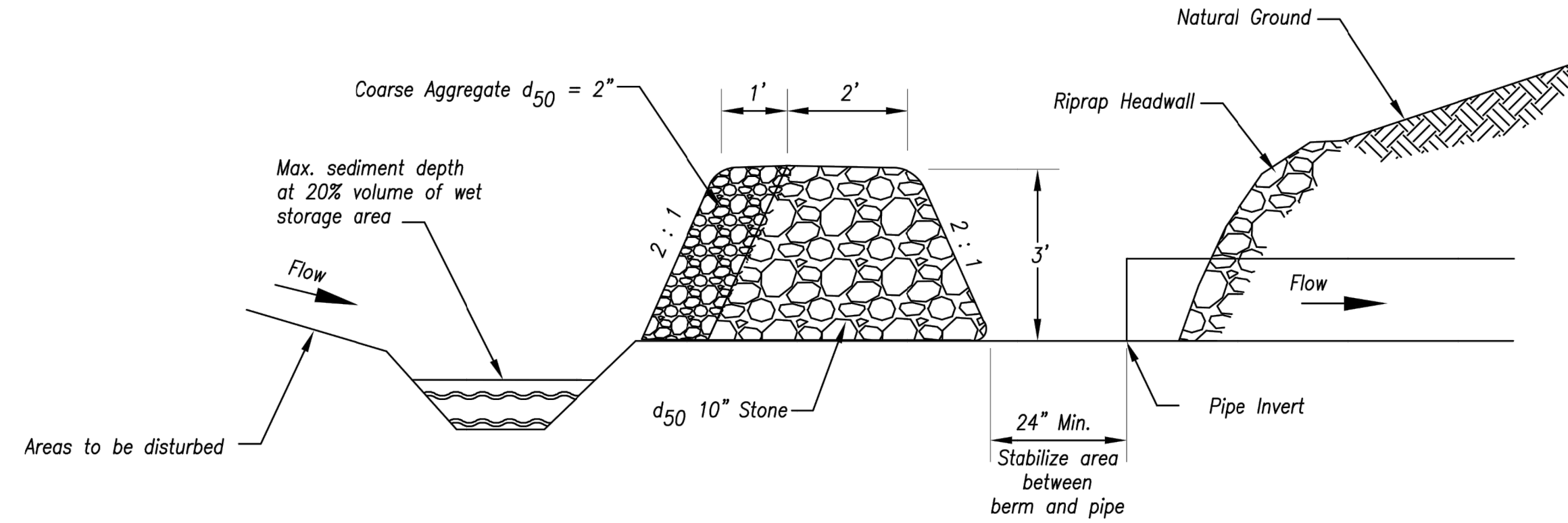
1. The area under the embankment shall be cleared, grubbed, and stripped of any vegetation and root mat.
2. Fill material for the embankment shall be free of roots or other woody vegetation, organic material, large stones, and other objectionable material. The embankment should be compacted in 6-inch layers by traversing with construction equipment.
3. The earthen embankment shall be stabilized immediately after installation.
4. Construction operations shall be carried out to minimize erosion and water pollution.
5. The structure shall be removed and the area stabilized when the upslope drainage area has been stabilized.
6. All cut and fill slopes shall be 2H : 1V or flatter, except for excavated, wet storage areas which may be at a maximum 1H : 1V grade.

SEDIMENT TRAP

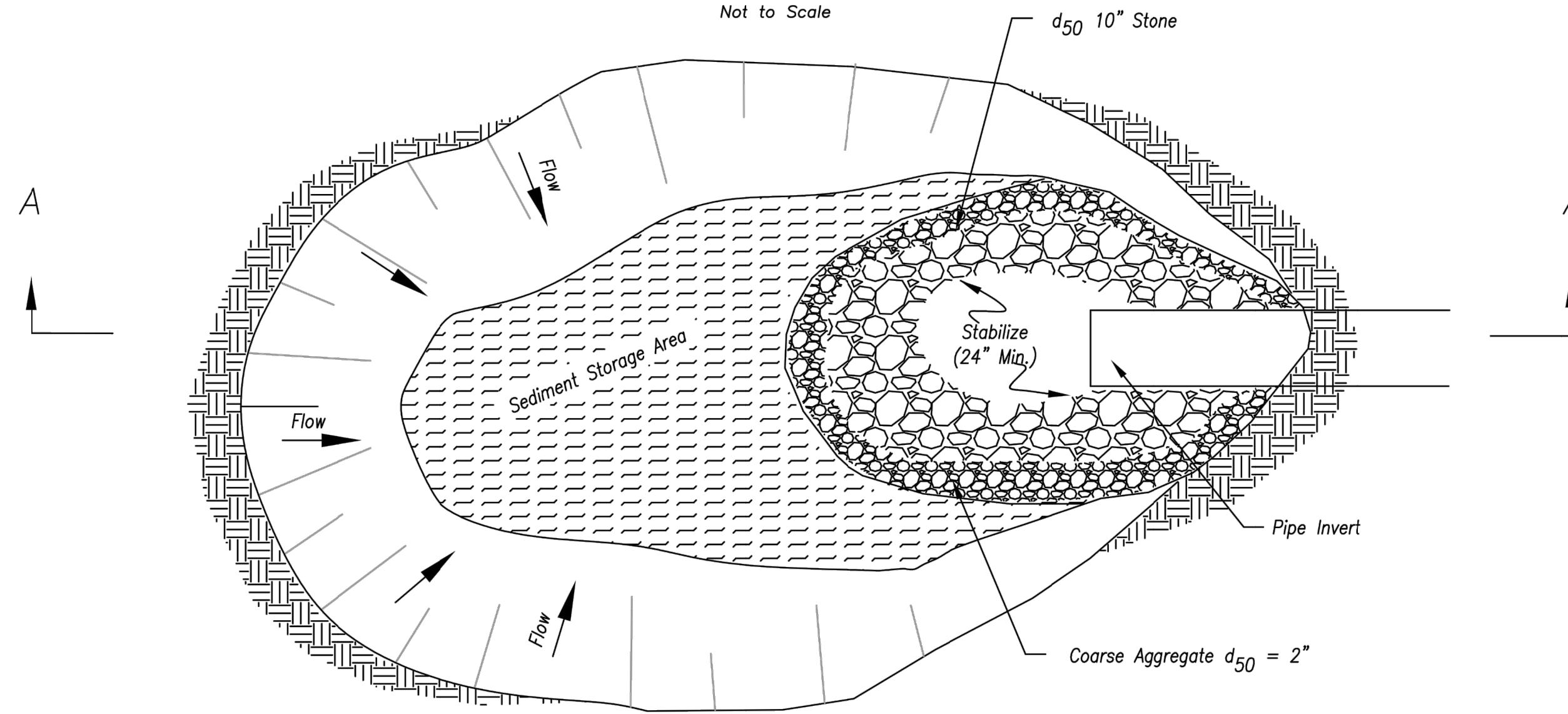
(*) - The perspective view and cross section are schematic in nature. Construction plans must provide specific site construction arrangements.

Maintenance for Sediment Trap:

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.



Section A-A
Not to Scale



Plan View
Not to Scale

Notes for Sediment Trap at Culvert Opening:


1. The inlet protection device shall be constructed in a manner that will facilitate clean-out and disposal of trapped sediment and minimize interference with construction activities.
2. The inlet protection devices shall be constructed in such manner that any resultant ponding stormwater will not cause excessive inconvenience or damage to adjacent areas or structures.
3. Geometry of the design will be a horseshoe shape around the culvert inlet.
4. The toe of the riprap shall be no closer than 24" from the culvert opening to provide an acceptable emergency outlet for flows from larger storm events.
5. Storage requirements equivalent to that of temporary sediment trap.
6. 67 C.Y./Acre wet storage below base of stone.
7. 67 C.Y./Acre dry storage from base of stone to top of stone berm.

Maintenance for Sediment Trap at Culvert Opening:

1. Check sediment traps after periods of significant runoff.
2. Remove sediment and restore the trap to its original dimensions when sediment accumulates to 20% of the storage capacity.
3. Immediately repair any erosion damage to the embankment and outlet.
4. Keep outlet and pool area free of all trash and other debris.

SEDIMENT TRAP AT CULVERT OPENING

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

AMERICAN PUBLIC WORKS ASSOCIATION	
	KANSAS CITY METRO CHAPTER
SEDIMENT TRAPS	STANDARD DRAWING NUMBER ESC-08 ADOPTED: 10/24/2016

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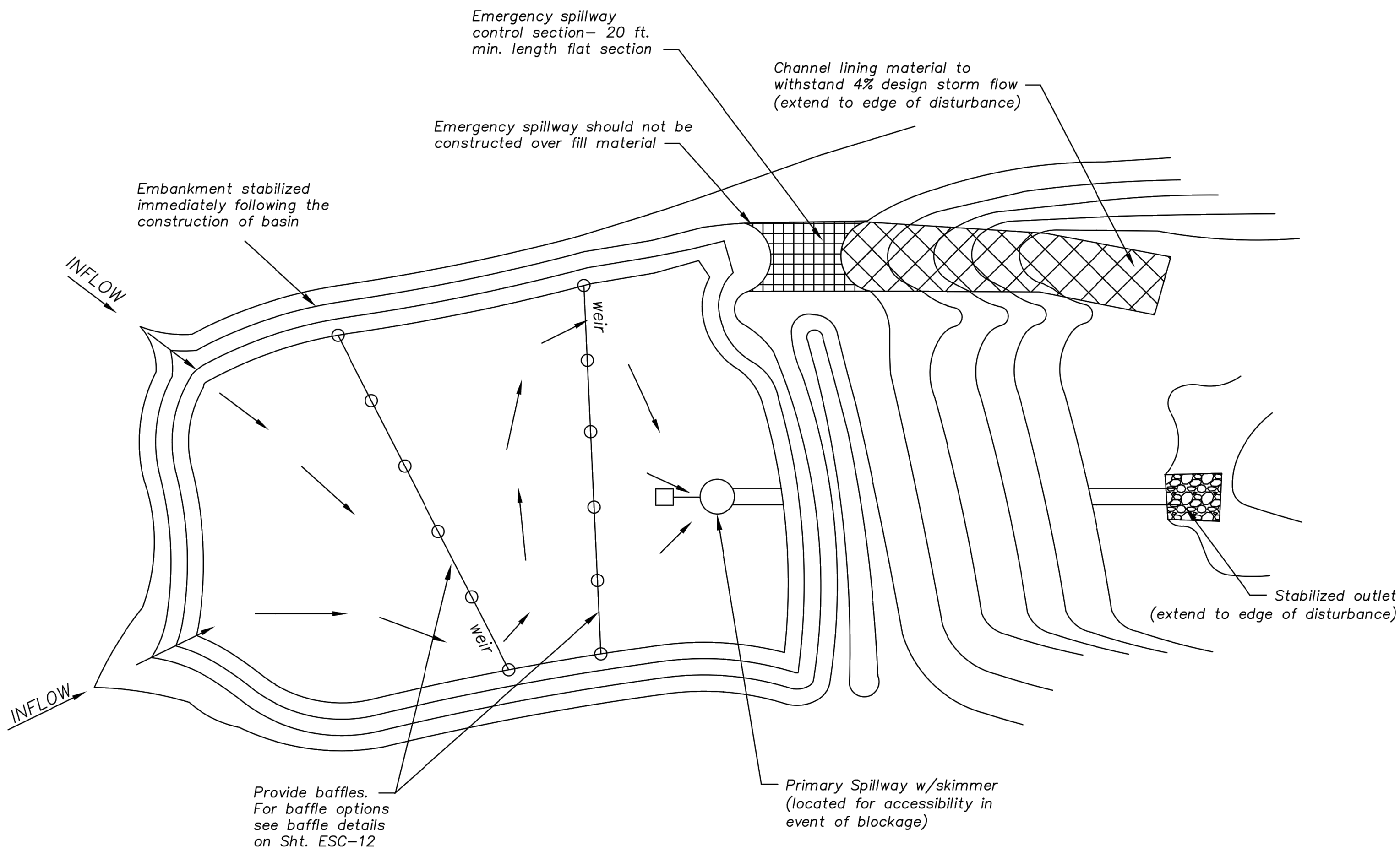
SUMMIT HOMES KC
HIGHLAND MEADOWS - 5TH PLAT

SEDIMENT TRAP DETAILS

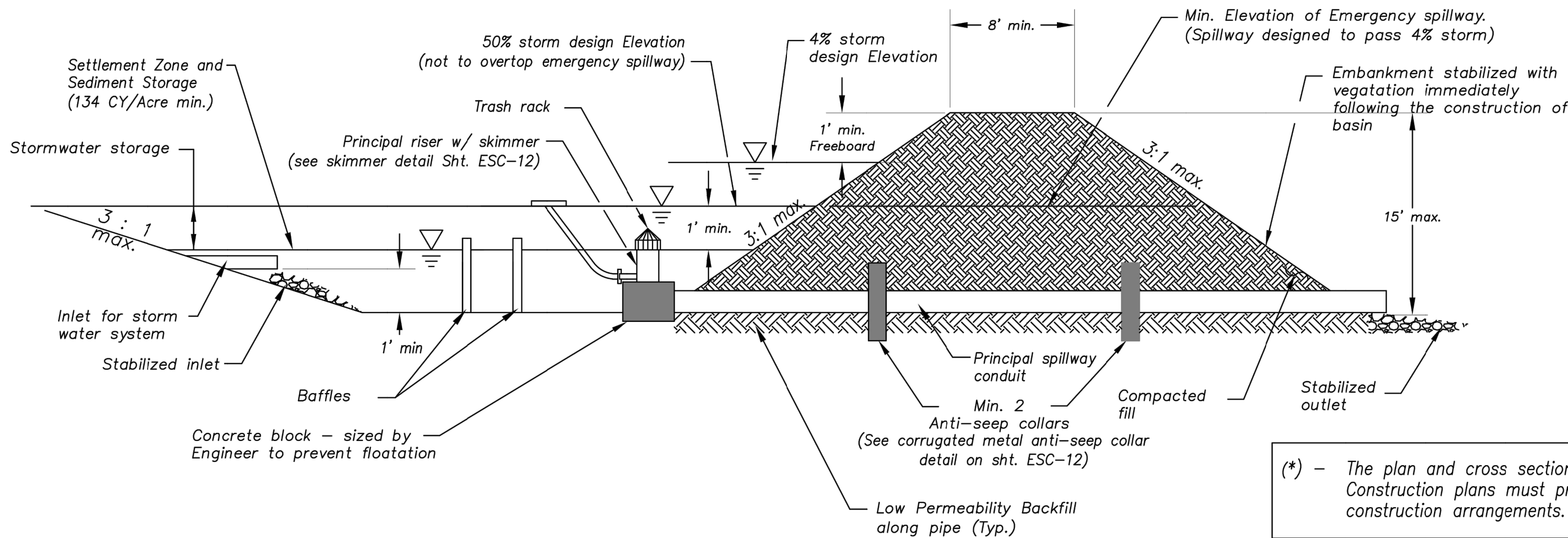
S10, T47N, R32W
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

STATE OF MISSOURI
ZACH A. MYERS
NUMBER
FE-2012009232
11/11/2020
PROFESSIONAL ENGINEER

SHEET NUMBER
C411
24 OF 26



Plan View (*)
Not to Scale



Cross Section (*)
Not to Scale

(*) - The plan and cross section are schematic in nature. Construction plans must provide specific site construction arrangements.

Sediment Basin Design Summary (**)				
Design Item	Basin #1	Basin #2	Units	Notes
Site Data:				
Tributary Drainage Area to Pond			Acres	
50% (2 yr) Design Flow			cfs	
4% (25 yr) Design Flow			cfs	
Pond Data:				
Minimum Sediment Storage Volume			cu yd	134 cy/acre required minimum
Provided Sediment Storage Volume			cu yd	
Bottom Elevation			Ft	
Sediment Cleanout Elevation			Ft	Elevation equal to 20% of original design volume
Top of Riser Elevation			Ft	Top of dry storage volume
Emergency Spillway Elevation			Ft	at or above Q-2 elevation. 1.0 ft min above principal spillway
Top of Dam Elevation			Ft	1.0 ft min above Q-25 elevation
Basin Shape Data:				
A = Area at Normal Pool			SF	
L = Length of Flow Path			Ft	
We = Effective Width = A/L			Ft	
Length to Width Ratio = L/We				
Principal Spillway Data:				
Riser Pipe dia			in	15" min. Size for 2 year flow minimum
Barrel Pipe dia			in	15" min. Size for 2 year flow minimum
Concrete Base size for Riser Pipe			CY	Size to prevent flotation. 1.25 safety factor required
Skimmer Size				Designer to provide specific details and calculations per application to dewater in 48 to 72 hours
Emergency Spillway Data:				
Design Depth in Spillway			ft	
Design Velocity in Spillway			ft/sec	
Lining Material				Designer to provide specific details and calculations per application
(**) - Required on all Sediment Basin Plan Sheets				

Sediment Basin Notes:

- Interior baffles shall be provided to reduce short-circuiting of the basin. See Sht. ESC-12 for approved baffle options.
- Emergency spillways to be located in a non-fill location when feasible and shall be lined with a non-erodible material such as Riprap or Turf Reinforcement Mat.
- When directed, sediment basins shall be fenced using construction fence or other material for safety reasons and include warning signs, reading: "Danger - KEEP OUT".

Maintenance:

- Check temporary sediment basins after periods of significant runoff.
- Remove sediment and restore the basin to its original dimensions when sediment accumulates to 20% of the storage capacity.
- Immediately repair any erosion damage to the embankment and outlets.
- Repair and/or replace baffles as necessary to maintain function and integrity of installation.
- Keep outlet, skimmer and pool area free of all trash and other debris.

AMERICAN PUBLIC WORKS ASSOCIATION



KANSAS CITY
METRO CHAPTER

SEDIMENT BASIN

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

HIGHLAND MEADOWS DEVELOPERS, LLC
HIGHLAND MEADOWS SUBDIVISION

SEDIMENT BASIN DETAILS



SHEET NUMBER
25
OF 26

LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

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JOB NUMBER:	JOB NUMBER:				
21442-17	21442-17				
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