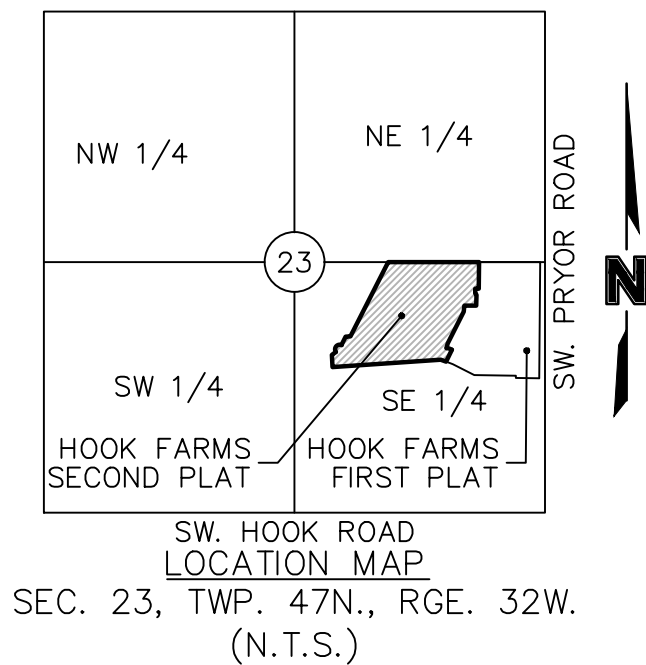
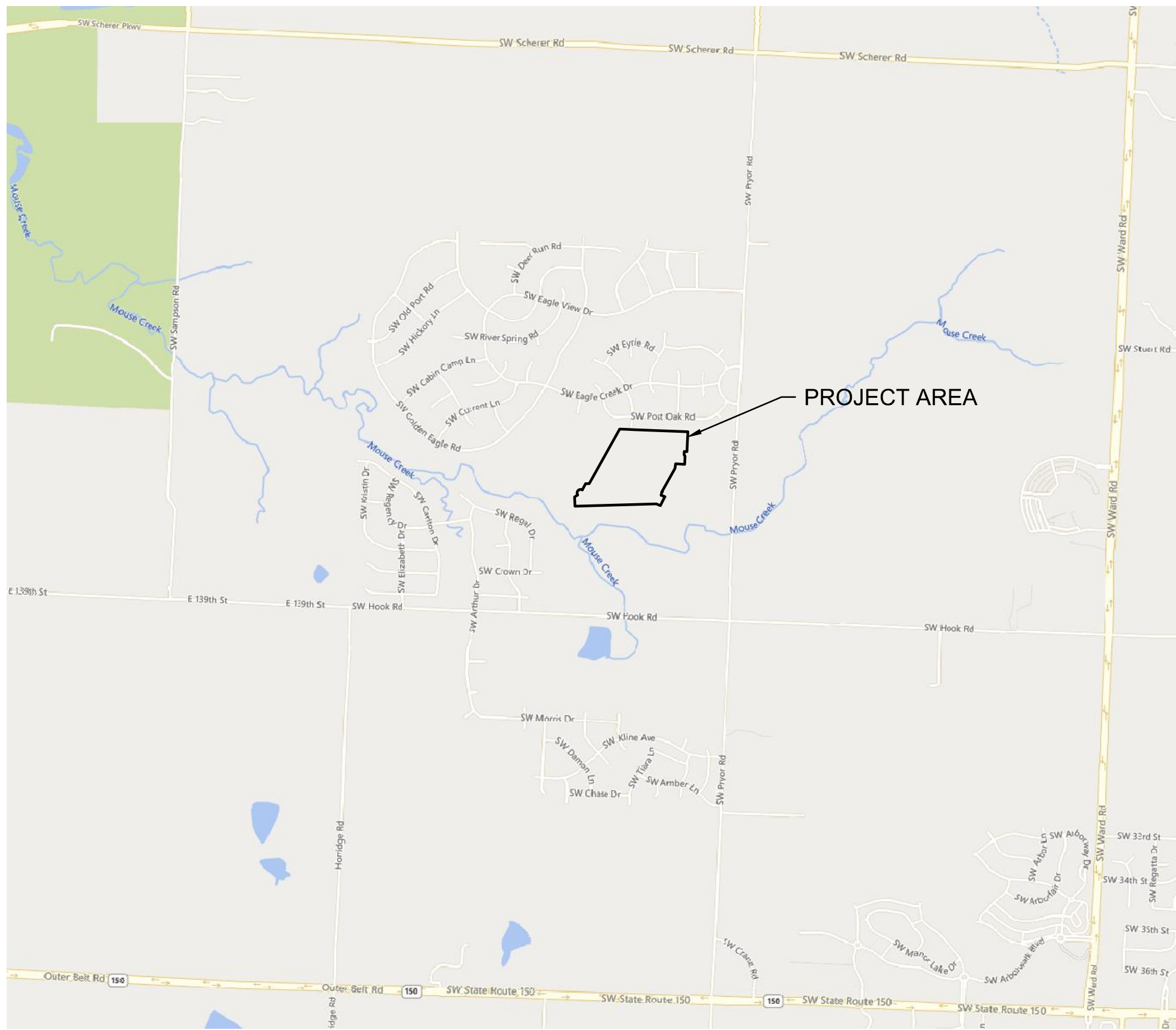


# HOOK FARMS SECOND PLAT SITE DISTURBANCE PLANS

SECTION 23, TOWNSHIP 47 N, RANGE 32 W  
IN LEE'S SUMMIT, JACKSON COUNTY, MO  
AREA DISTURBED = 37.04 AC.



PROJECT TEAM & UTILITY CONTACT LIST	
<u>OWNER / DEVELOPER</u> HUNT MIDWEST REAL ESTATE DEVELOPMENT, INC. 8300 NE UNDERGROUND DRIVE KANSAS CITY, MO 64161 CONTACT: AARON SCHMIDT PHONE: 816.455.2500	<u>UTILITY SERVICE NUMBERS</u> NAME: LEE'S SUMMIT PUBLIC WORKS PHONE: 816-969-1800  NAME: LEE'S SUMMIT WATER & SERVICES DEPARTMENT PHONE: 816-969-1940  NAME: SPIRE (MGE) PHONE: 314-342-0500  NAME: AT&T PHONE: 800-286-8313  NAME: EVERGY PHONE: 816-471-5275  NAME: SPECTRUM (TWC) PHONE: 877-772-2253
<u>ENGINEER</u> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JULIE E. SELLERS, P.E. PHONE: 816.361.1177 EMAIL: JSSELLERS@OLSSON.COM	NAME: GOOGLE FIBER PHONE: 877-454-6959
<u>SURVEYOR</u> OLSSON 1301 BURLINGTON, SUITE 100 NORTH KANSAS CITY, MO 64116 CONTACT: JASON ROUDEBUSH, P.L.S. PHONE: 816.361.1177 EMAIL: JROUDEBOUSH@OLSSON.COM	



SHEET LIST	
Sheet Number	Sheet Title
C401	TITLE SHEET
C402	GENERAL NOTES
C403	GENERAL LAYOUT
C404	GRADING PLAN
C405	GRADING PLAN
C406	SITE DISTURBANCE PLAN - PHASE A
C407	SITE DISTURBANCE PLAN - PHASE A
C408	SITE DISTURBANCE PLAN - PHASE A TRAP DETAILS
C409	SITE DISTURBANCE PLAN - PHASE A BASIN DETAILS
C410	SITE DISTURBANCE PLAN - PHASE B
C411	SITE DISTURBANCE PLAN - PHASE B
C412	SITE DISTURBANCE PLAN - PHASE C
C413	SITE DISTURBANCE PLAN - PHASE C
C414	SITE DISTURBANCE PLAN - PHASE D
C415	SITE DISTURBANCE PLAN - PHASE D
C416	DETAIL SHEET
C417	DETAIL SHEET

OIL/GAS WELLS:

NO OIL OR GAS WELLS ARE LOCATED WITHIN PROJECT LIMITS.  
INFORMATION OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES,  
GEOLOGICAL SURVEY GEOSCIENCES TECHNICAL RESOURCE ASSESSMENT TOOL (GEOSTRAT).

FLOOD CERTIFICATION:

PORTIONS OF THE SITE ARE LOCATED WITHIN ZONE AE "BASE FLOOD ELEVATIONS DETERMINED", ZONE X (SHADED) "AREAS OF 0.2% CHANCE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD; AND ZONE X (UNSHADED) \* AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS DEPICTED ON THE FEMA FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 29095C0531G, REVISION DATE JANUARY 20, 2017.


OLSSON HAS BEEN RETAINED TO PROVIDE AS-BUILT DRAWINGS FOR THIS PROJECT.

*Brock Worthley*  
BROCK M. WORTHLEY, P.E.  
CIVIL ENGINEER  
MO # PE-2019000237

9/30/2021  
DATE



drawn by: _____ B.M.W./J.A.A. checked by: _____ B.M.W./J.E.S. designed by: _____ J.E.S. project no.: _____ B19-4061 date: _____ 01-08-2021		TITLE SHEET SITE DISTURBANCE PLANS  HOOK FARMS SECOND PLAT  LEE'S SUMMIT, MO		2021	
				REVISIONS	
REV. NO.	DATE	REVISIONS DESCRIPTION	BY		
1	03-23-2021	REVISED PER CITY COMMENTS			
2	04-16-2021	REVISED PER CITY COMMENTS			
3	05-30-2021	CHANGES TO APPROVED PLANS			



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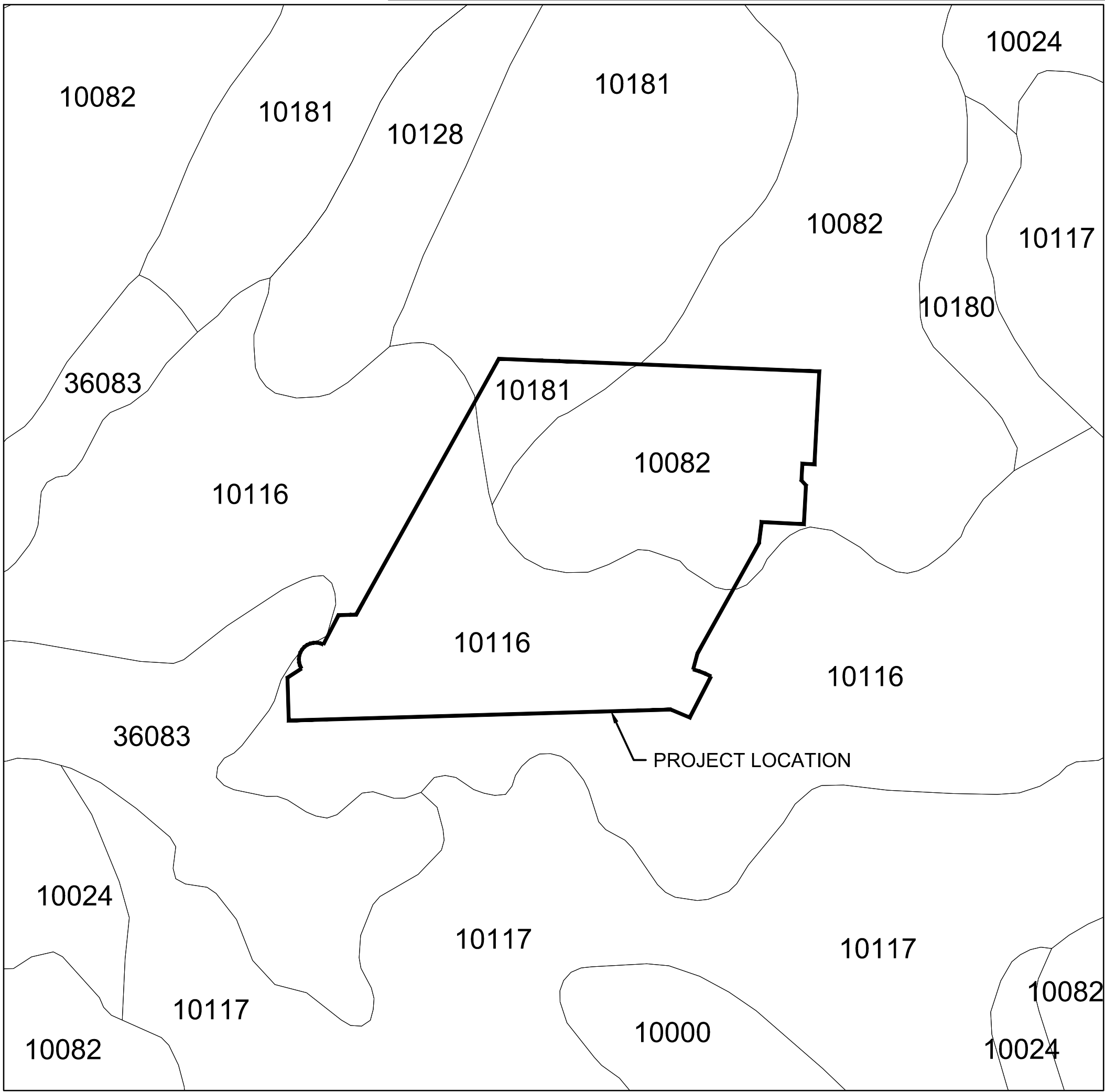
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 1301 Burlington Street  
 North Kansas City, MO 64116  
 TEL 816.361.1177  
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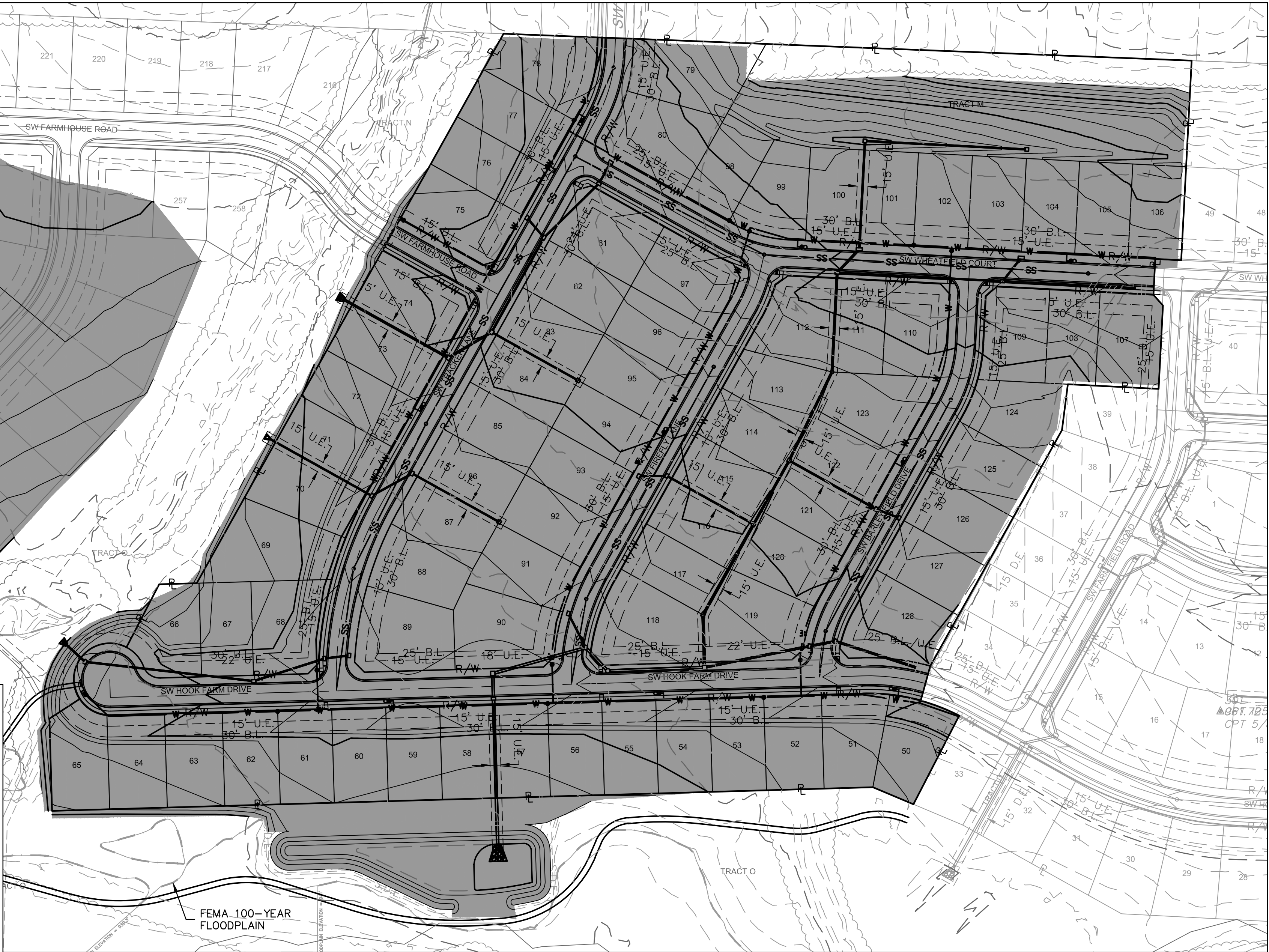




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USER: bworthley

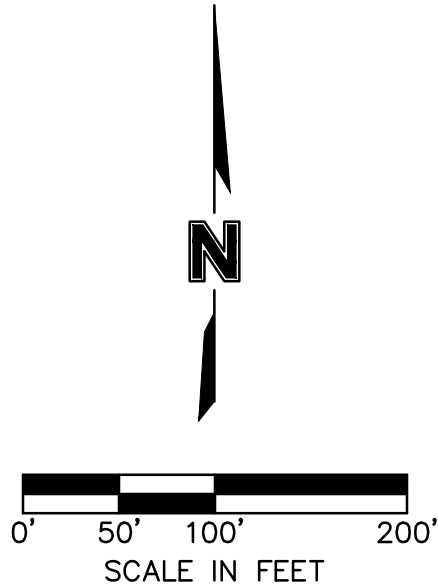


SOILS MAP



DISTURBED AREA & PRESERVED VEGETATION

SOILS LEGEND			
MAP SYMBOL	SOIL TYPE	HYDROLOGIC SOIL GROUP	SLOPES
10000	ARISBURG SILT LOAM	C	1-5%
10024	GREENTON-URBAN LAND COMPLEX	D	5-9%
10082	ARISBURG-URBAN LAND COMPLEX	C	1-5%
10116	SAMPEL SILTY CLAY LOAM	C/D	2-5%
10117	SAMPEL SILTY CLAY LOAM	C/D	5-9%
10120	SHARPSBURG SILT LOAM	C	2-5%
10128	SHARPSBURG-URBAN LAND COMPLEX	D	2-5%
10180	UDARENTS-URBAN LAND SAMPEL COMPLEX	C	2-5%
10181	UDARENTS-URBAN LAND SAMPEL COMPLEX	C	5-9%
36083	KENNEBEC SILT LOAM	C	1-4%, OCCASIONALLY FLOODED



LEGEND	
-100-	EXISTING INDEX CONTOURS
-100-	EXISTING INTERMEDIATE CONTOURS
-100-	PROPOSED INDEX CONTOURS
-100-	PROPOSED INTERMEDIATE CONTOURS

GENERAL LAYOUT  
SITE DISTURBANCE PLANS

HOOK FARMS  
SECOND PLAT

LEE'S SUMMIT, MO

2021

REVISIONS

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drawn by: B.M.W./A.A.  
checked by: B.M.W./A.A.  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
date: 01-08-2021

SHEET  
C403



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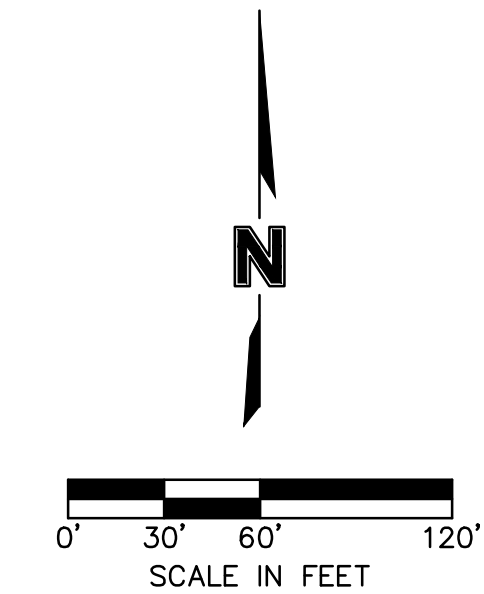
GENERAL NOTES:

1. CONTRACTOR SHALL ADHERE TO THE "DESIGN AND CONSTRUCTION MANUAL" SECTION 2100 AS ADOPTED BY THE CITY OF LEE'S SUMMIT (LATEST EDITION), FOR EXCAVATION AND EMBANKMENT WORK WITHIN THE PROPOSED RIGHT-OF-WAY.
2. AREAS OF CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC MATTER AND TOPSOIL TO A DEPTH AS RECOMMENDED BY GEOTECHNICAL ENGINEER AND OR TESTING AGENCY. SOILS REMOVED DURING SITE STRIPPING SHOULD BE EVALUATED TO DETERMINE IF PORTIONS OF THE TOPSOIL STRATUM MAY BE UTILIZED AS STRUCTURAL FILL WITHIN PAVEMENT AREAS. ANY MATERIAL NOT DEEMED AS SUITABLE FILL MATERIAL BY THE GEOTECHNICAL ENGINEER AND OR TESTING AGENCY SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR AT HIS EXPENSE.
3. ALL EMBANKMENT OUTSIDE OF RIGHT-OF-WAY SHOULD BE PLACED IN CONTROLLED LIFTS HAVING A MAXIMUM LOOSE LIFT THICKNESS OF 8". EMBANKMENT SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR COMPACTION). MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION SHALL BE WITHIN A RANGE OF -0 TO +4 PERCENT OF OPTIMUM MOISTURE CONTENT.

EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	26,149	25,993
SITE	117,707	77,137
FUTURE PHASE	0	54,547
TOTAL	143,856	157,677

EARTHWORK QUANTITIES NOTES:

1. EARTHWORK QUANTITIES BASED ON FINISHED GRADE SURFACE AND DO NOT INCLUDE ADJUSTMENTS FOR TOPSOIL AND SHRINKAGE.
2. EARTHWORK QUANTITIES DO NOT TAKE INTO CONSIDERATION EXCAVATION, REMOVAL AND DISPOSAL OF MATERIAL DEEMED UNSUITABLE BY A GEOTECHNICAL ENGINEER. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND FOR REPLACING IT WITH SUITABLE MATERIAL.



LEGEND	
- - - 100 - -	EXISTING INDEX CONTOURS
- - - 100 - -	EXISTING INTERMEDIATE CONTOURS
- - - 100 - -	PROPOSED INDEX CONTOURS
- - - 100 - -	PROPOSED INTERMEDIATE CONTOURS

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Brockm  
Professional Engineer  
PE-2019000237  
4/30/2021

GRADING PLAN  
SITE DISTURBANCE PLANS  
HOOK FARMS  
SECOND PLAT

LEE'S SUMMIT, MO

2021

drawn by: B.M.W./A.A.  
checked by: B.M.W./A.A.  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
date: 01-08-2021

SHEET  
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BY

REV. NO.

DATE

REVISIONS DESCRIPTION

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2 04-16-2021 REVISED PER CITY COMMENTS

3 09-30-2021 CHANGES TO APPROVED PLANS

REVISIONS



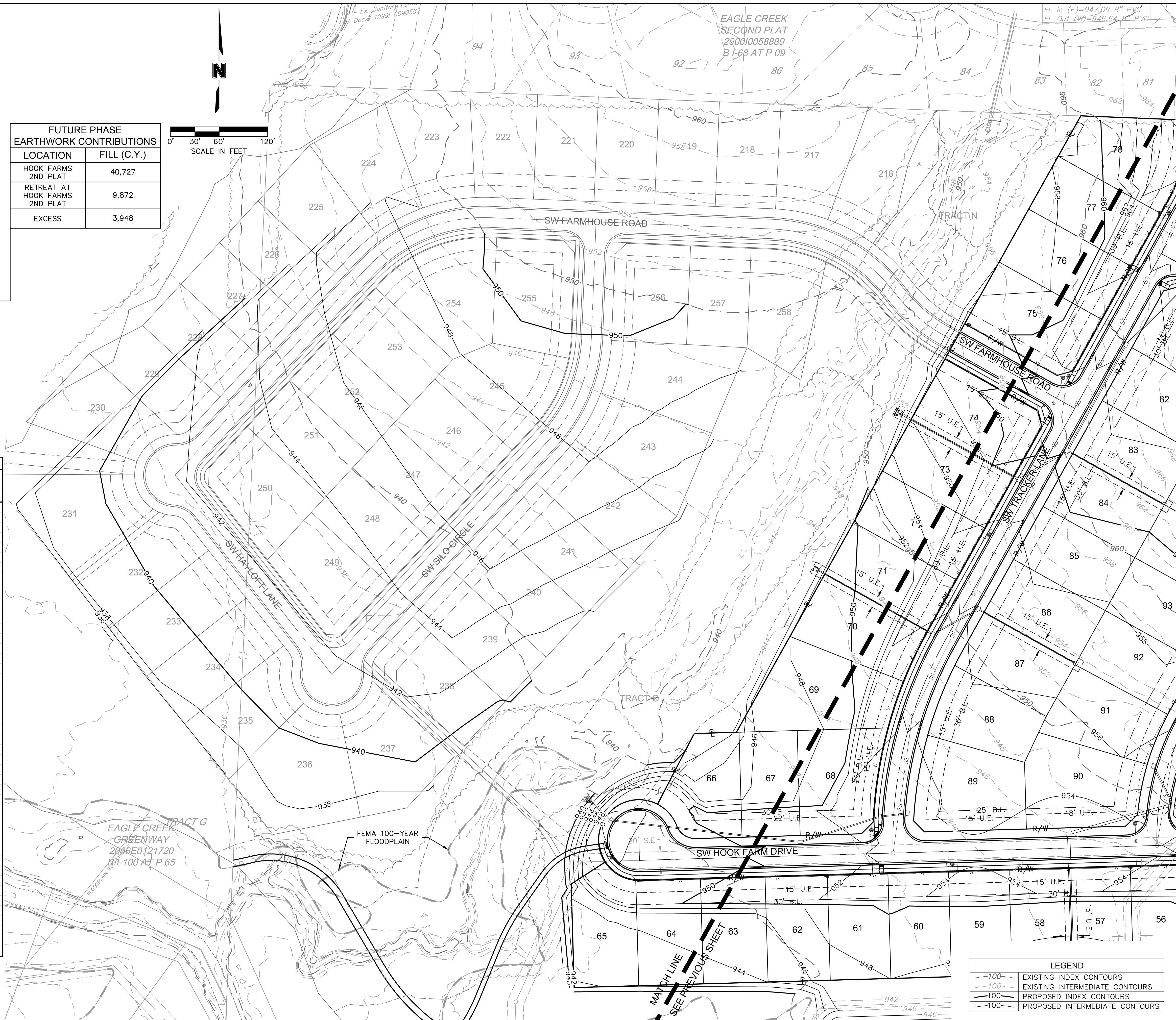
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SITE	117,707	77,137
FUTURE PHASE	0	54,547
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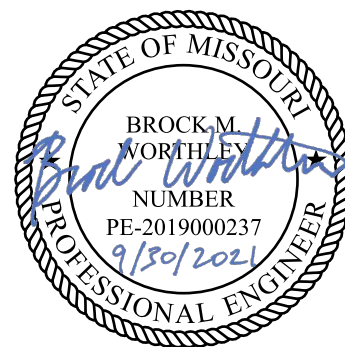
LOT FILL INFORMATION			
LOT NUMBER	MAX DEPTH OF FILL (OVER 2' PLACED)	FILL PLACED ON EXISTING SLOPES > 5:1	PROPOSED SLOPES > 3:1
50	5.5'		
51	4.8'		
52	4.9'		
53	5.2'		
54	7.5'		
55	8.2'		
56	9.7'	X	
57	8.7'	X	
58	10.7'		
59	11.6'		
60	11.6'		
61	11.4'		
62	11.1'		
63	11.0'		
64	10.8'		
65	10.8'		
66	9.8'		
67	10.0'		
68	11.2'		
69	10.7'		
70	9.1'		
71	8.3'		
72	7.1'		
73	5.9'		
74	5.7'		
75	4.7'		
76	3.5'		
77	2.9'		
78	3.1'		
84	2.5'		
85	3.5'		
86	5.8'		
87	6.8'		
88	8.6'		
89	10.3'		
90	8.2'		
91	6.7'		
92	4.3'		
107	8.1'	X	
108	7.8'	X	
118	7.3'	X	
119	7.5'	X	
120	2.7'		
128	8.4'	X	
X Indicates condition applies to lot			

X Indicates condition applies to lot

FUTURE PHASE EARTHWORK CONTRIBUTIONS	
LOCATION	FILL (C.Y.)
HOOK FARMS 2ND PLAT	40,727
RETREAT AT HOOK FARMS 2ND PLAT	9,872
EXCESS	3,948



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2021			REVISIONS	

## GRADING PLAN SITE DISTURBANCE PLANS

## HOOK FARMS SECOND PLAT

LEE'S SUMMIT MO

drawn by: B.M.W./A.A.  
checked by: B.M.W.  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
date: 01-08-2021

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C405

USER: bworthley  
C\_PUTIL\_B194061  
C\_FBASE\_B194061



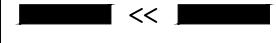

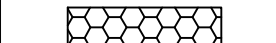


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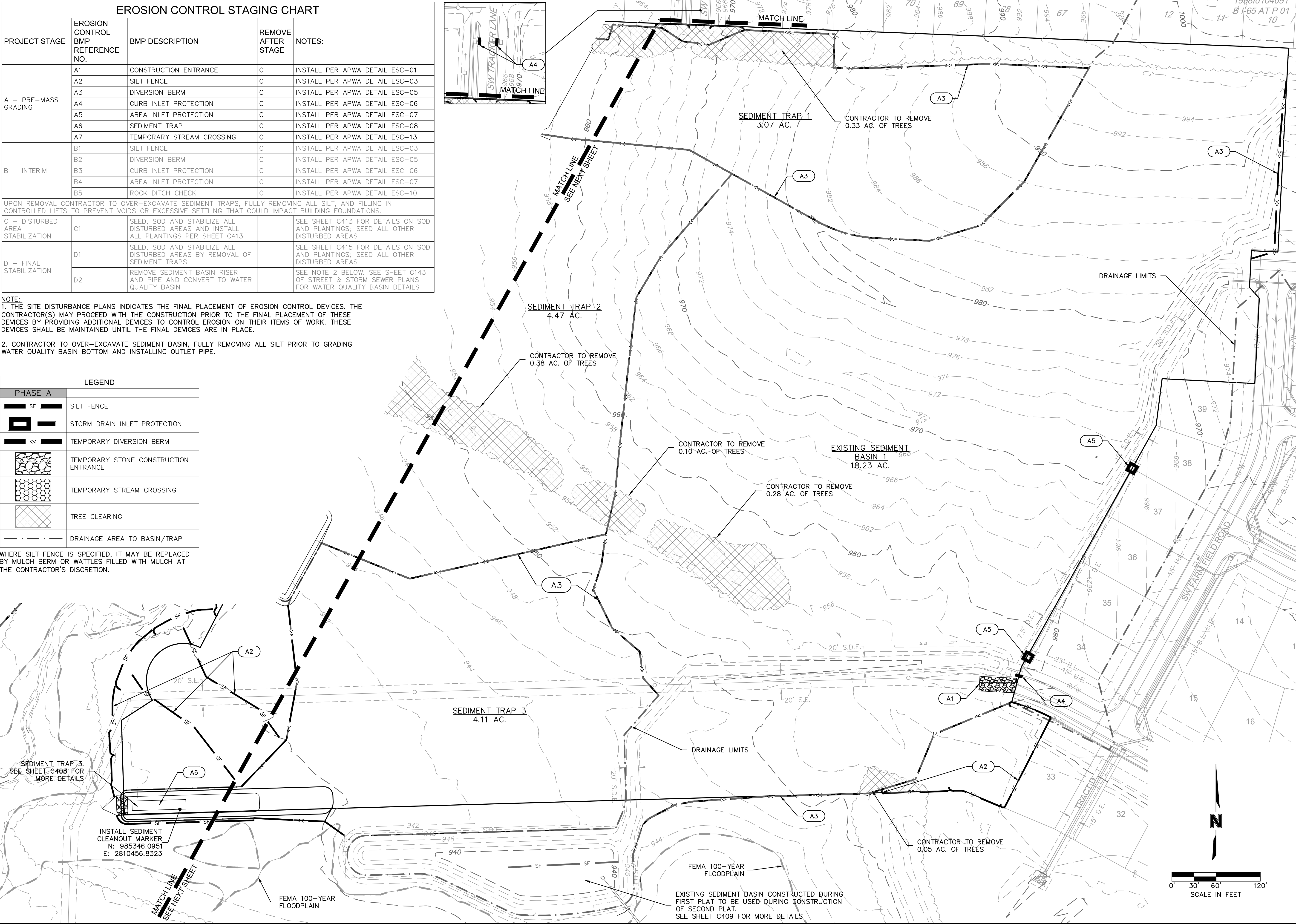
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USER: bworthley C\_DBASE\_B194061

EROSION CONTROL STAGING CHART				
PROJECT STAGE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRE-MASS GRADING	A1	CONSTRUCTION ENTRANCE	C	INSTALL PER APWA DETAIL ESC-01
	A2	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	A3	DIVERSION BERM	C	INSTALL PER APWA DETAIL ESC-05
	A4	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
	A5	AREA INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-07
	A6	SEDIMENT TRAP	C	INSTALL PER APWA DETAIL ESC-08
B – INTERIM	A7	TEMPORARY STREAM CROSSING	C	INSTALL PER APWA DETAIL ESC-13
	B1	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	B2	DIVERSION BERM	C	INSTALL PER APWA DETAIL ESC-05
	B3	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
	B4	AREA INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-07
C – DISTURBED AREA STABILIZATION	B5	ROCK DITCH CHECK	C	INSTALL PER APWA DETAIL ESC-10
	C1	SEED, SOD AND STABILIZE ALL DISTURBED AREAS AND INSTALL ALL PLANTINGS PER SHEET C413		SEE SHEET C413 FOR DETAILS ON SOD AND PLANTINGS; SEED ALL OTHER DISTURBED AREAS
	D1	SEED, SOD AND STABILIZE ALL DISTURBED AREAS BY REMOVAL OF SEDIMENT TRAPS		SEE SHEET C415 FOR DETAILS ON SOD AND PLANTINGS; SEED ALL OTHER DISTURBED AREAS
D – FINAL STABILIZATION	D2	REMOVE SEDIMENT BASIN RISER AND PIPE AND CONVERT TO WATER QUALITY BASIN		SEE NOTE 2 BELOW, SEE SHEET C143 OF STREET & STORM SEWER PLANS FOR WATER QUALITY BASIN DETAILS

NOTE:  
1. THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE 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.  
2. CONTRACTOR TO OVER-EXCAVATE SEDIMENT BASIN, FULLY REMOVING ALL SILT PRIOR TO GRADING WATER QUALITY BASIN BOTTOM AND INSTALLING OUTLET PIPE.

LEGEND	
PHASE A	
	SILT FENCE
	STORM DRAIN INLET PROTECTION
	TEMPORARY DIVERSION BERM
	TEMPORARY STONE CONSTRUCTION ENTRANCE
	TEMPORARY STREAM CROSSING
	TREE CLEARING
	DRAINAGE AREA TO BASIN/TRAP

WHERE SILT FENCE IS SPECIFIED, IT MAY BE REPLACED BY MULCH BERM OR WATTLES FILLED WITH MULCH AT THE CONTRACTOR'S DISCRETION.



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BROCK M. BROCK  
NORTH  
NUMBER  
PE-2019000237  
4/8/2021  
PROFESSIONAL ENGINEER

BY

REVISIONS DESCRIPTION

DATE

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1

03-23-2021

2

04-16-2021

3

09-30-2021

REVISIONS

SITE DISTURBANCE PLAN - PHASE A  
SITE DISTURBANCE PLANS  
HOOK FARMS  
SECOND PLAT  
2021






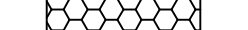
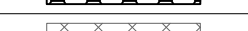
LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.  
checked by: B.M.W.  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
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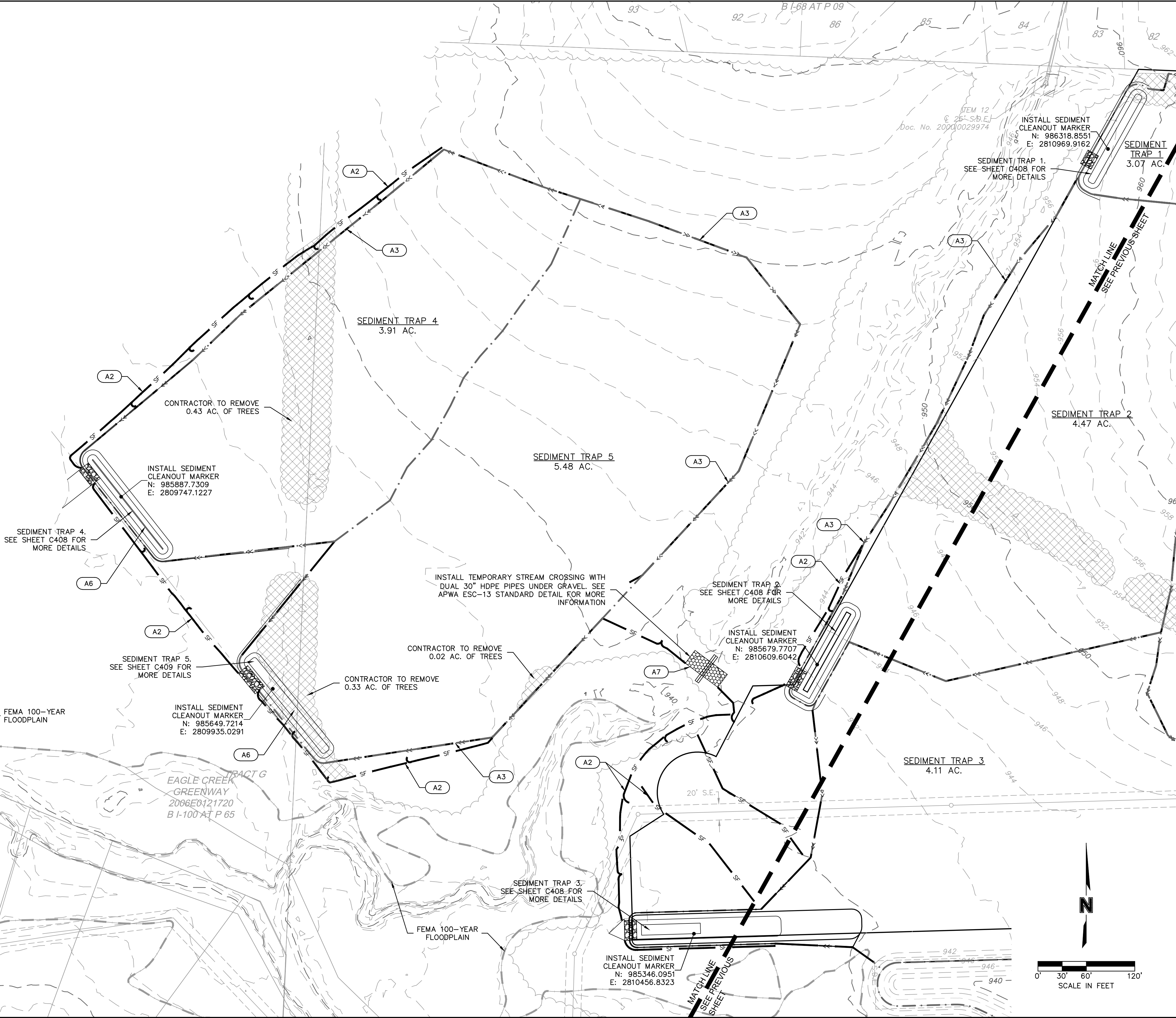
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USER: bworthley  
C\_DBASE\_B194061

LEGEND	
PHASE A	
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	STORM DRAIN INLET PROTECTION
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	TEMPORARY STONE CONSTRUCTION ENTRANCE
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CHANGES TO APPROVED PLANS

SITE DISTURBANCE PLAN - PHASE A  
SITE DISTURBANCE PLANS

HOOK FARMS  
SECOND PLAT

LEE'S SUMMIT, MO

2021

drawn by: B.M.W./A.A.  
checked by: B.M.W./A.A.  
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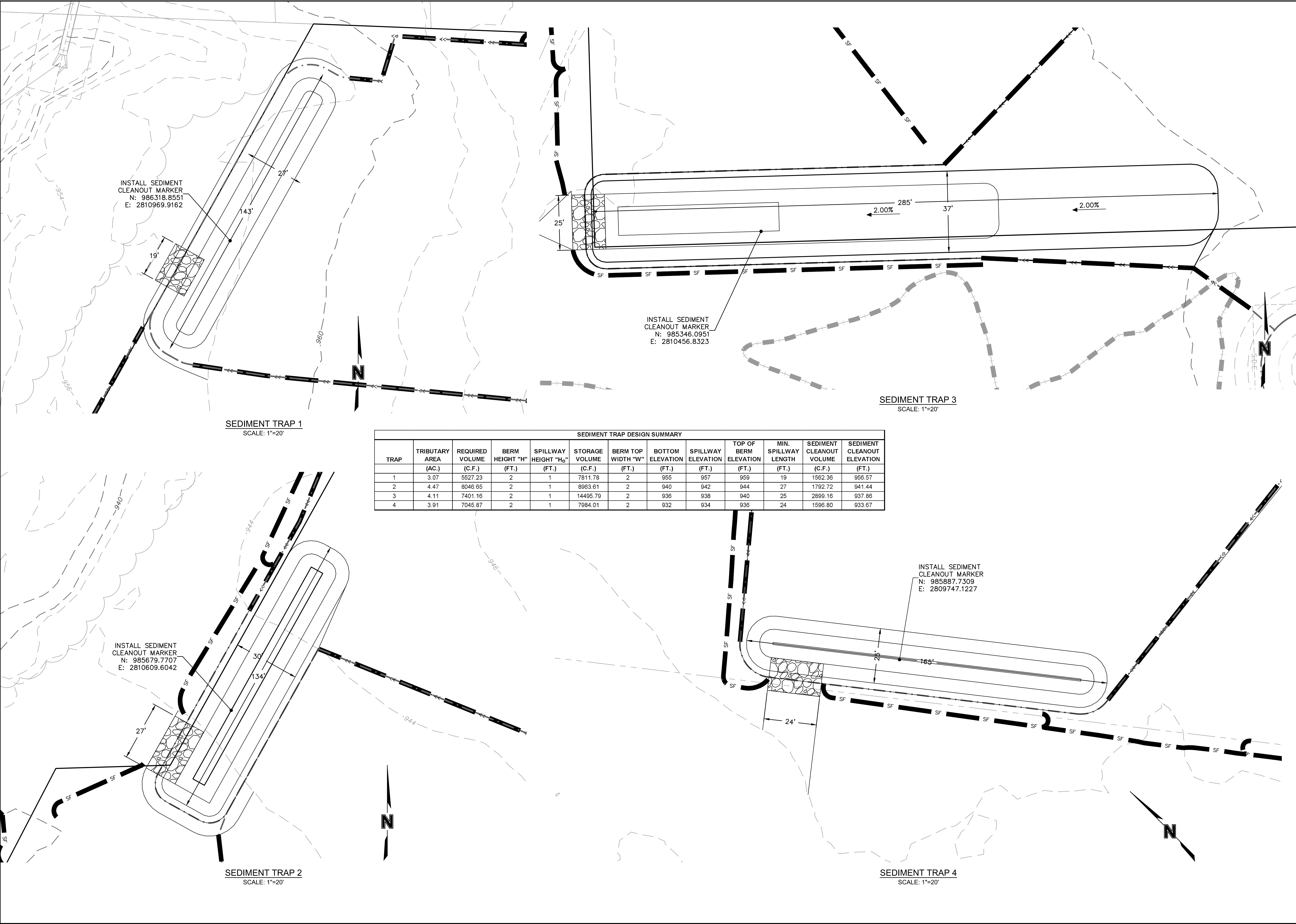
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STATE OF MISSOURI  
BROCK M. WORTHLEY  
NORTH  
NUMBER  
PE-2019000237  
4/30/2021  
PROFESSIONAL ENGINEER

SITE DISTURBANCE PLAN - PHASE A TRAP DETAILS  
SITE DISTURBANCE PLANS

HOOK FARMS  
SECOND PLAT

LEE'S SUMMIT, MO

2021

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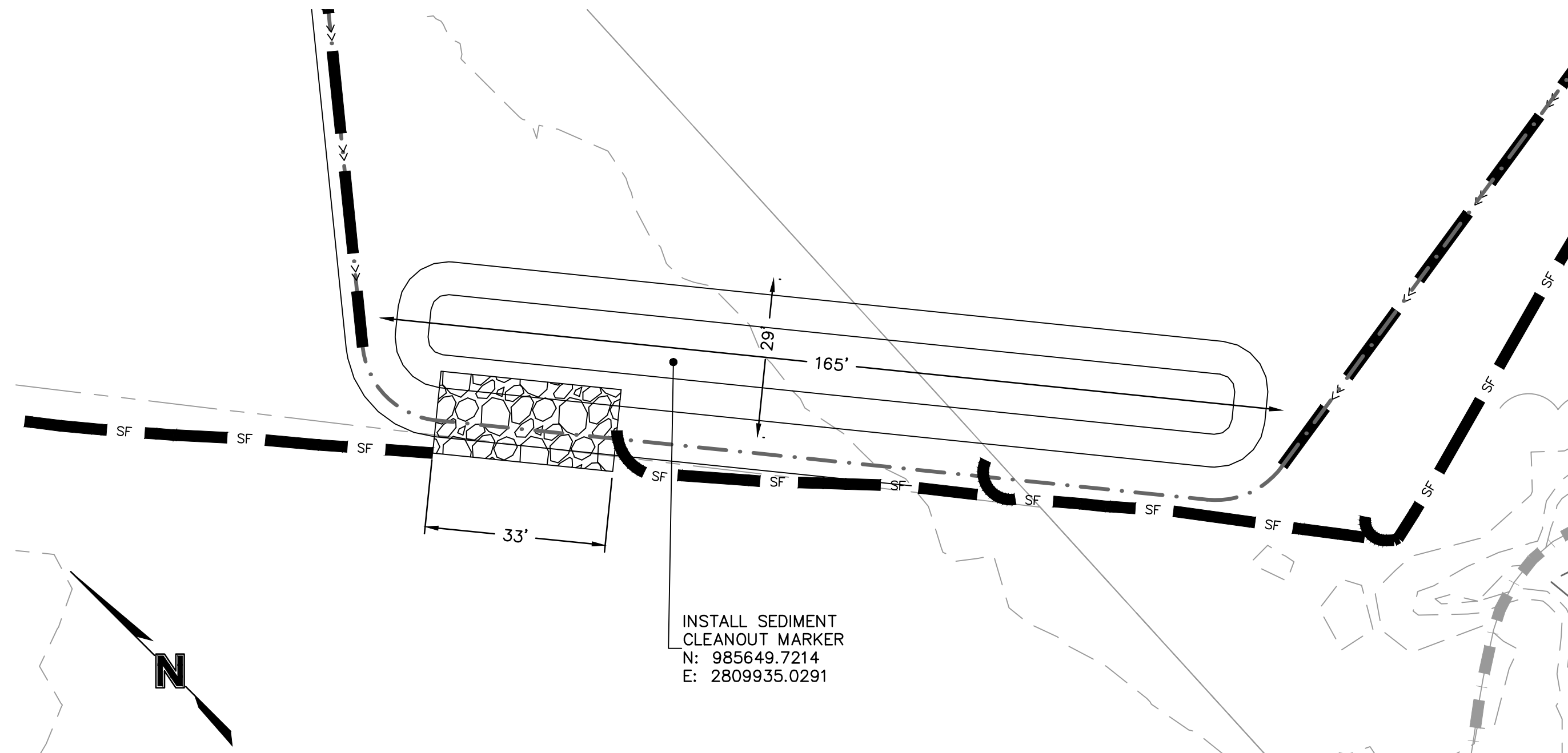
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CHANGES TO APPROVED PLANS

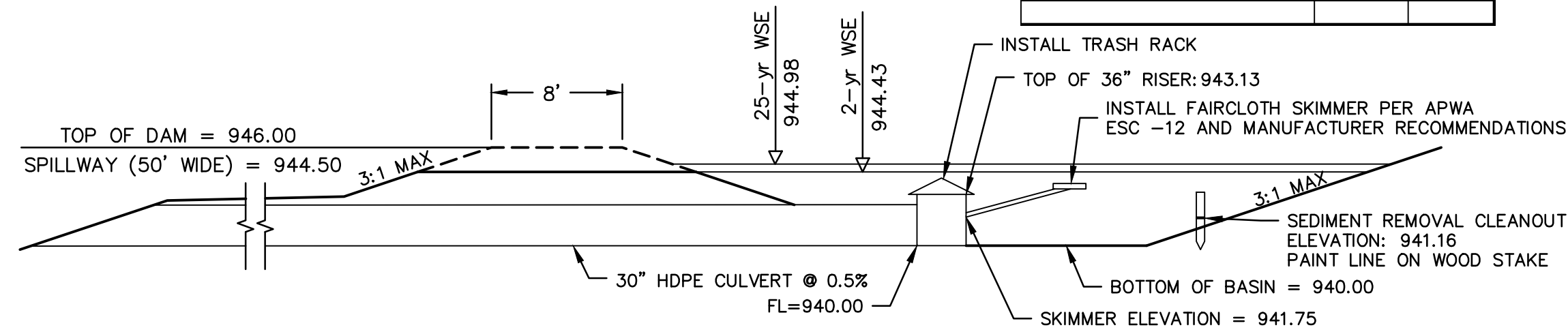
SHEET  
C408



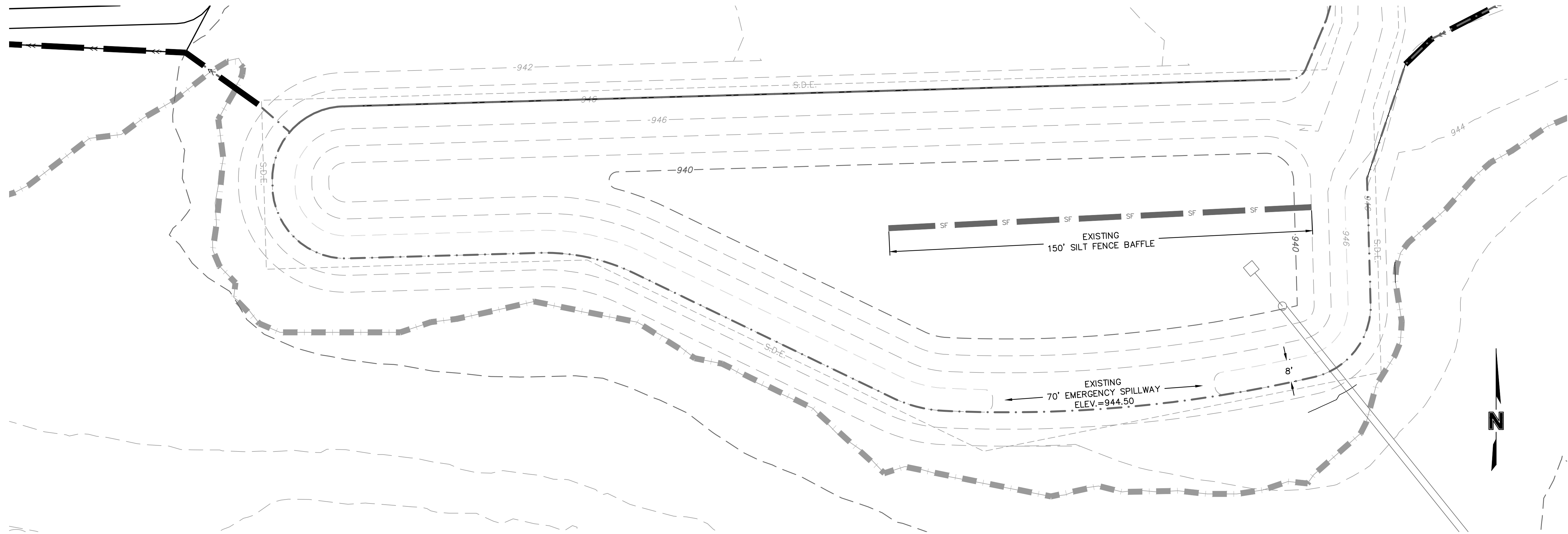


SEDIMENT TRAP DESIGN SUMMARY												
TRAP	TRIBUTARY AREA	REQUIRED VOLUME	BERM HEIGHT "H" (FT.)	SPILLWAY HEIGHT "H <sub>0</sub> " (FT.)	STORAGE VOLUME (C.F.)	BERM TOP WIDTH "W" (FT.)	BOTTOM ELEVATION (FT.)	SPILLWAY ELEVATION (FT.)	TOP OF BERM ELEVATION (FT.)	MIN. SPILLWAY LENGTH (FT.)	SEDIMENT CLEANOUT VOLUME (C.F.)	SEDIMENT CLEANOUT ELEVATION (FT.)
5	5.48	9871.45	2	1	10415.42	2	933	935	937	33	2083.08	934.46

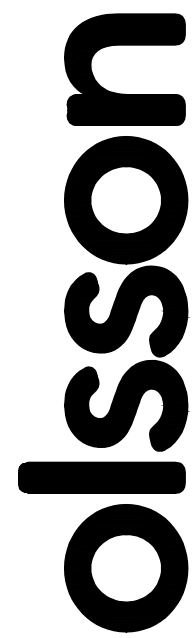
**SEDIMENT TRAP 5**  
SCALE: 1"=20'



SEDIMENT BASIN 1 DESIGN SUMMARY			
Design Item	Quantity	Units	
Site Data			
Tributary Drainage Area To Pond	18.23	ac	
50% (2 Year) Design Flow	51.84	cfs	
10% (10 Year) Design Flow	71.82	cfs	
4% (25 Year) Design Flow	91.64	cfs	
1% (100 Year) Design Flow	127.24	cfs	
Pond Data			
Minimum Sediment Storage Volume	65970	cu ft	
Provided Sediment Storage Volume	112669	cu ft	
Bottom Elevation	940.00	ft	
Sediment Cleanout Elevation	941.16	ft	
Top of Riser Elevation	943.13	ft	
Emergency Spillway Elevation	944.50	ft	
Top of Dam Elevation	946.00	ft	
Basin Shape Data			
A = Area at Normal Pool	18939	sq ft	
L = Length of Flow Path	30	ft	
WE = Effective Width = A/L	631	ft	
Principal Spillway Data			
Riser Pipe DIA	36	in	
Barrel Pipe DIA.	30	in	
Skimmer Size	3	in	
Emergency Spillway Data			
Design Depth in Spillway	0.48	ft	
Design Velocity in Spillway	1.82	ft/sec	
Lining Material	6" Rip Rap		
Spillway Width	70	ft	
Water Surface Elevations			
2-year	944.43	ft	
10-year	944.90	ft	
25-year	944.98	ft	
100-year	945.10	ft	



**EXISTING SEDIMENT BASIN 1**  
SCALE: 1"=20'



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North Kansas City, MO 64116  
TEL 816.361.1177  
FAX 816.361.1888  
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




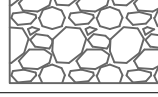
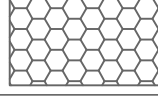


drawn by: _____ B.M.W./A.A. checked by: _____ B.M.W. designed by: _____ B.M.W./A.A. OAKOC by: _____ J.E.S. project no.: _____ B19-4061 date: _____ 01-08-2021	<b>SITE DISTURBANCE PLAN - PHASE A BASIN DETAILS</b> <b>SITE DISTURBANCE PLANS</b>		REV.	DATE	REVISIONS DESCRIPTION	BY
			1	03-23-2021	REVISED PER CITY COMMENTS	
			2	04-16-2021	REVISED PER CITY COMMENTS	
			3	09-30-2021	CHANGES TO APPROVED PLANS	
		<b>HOOK FARMS</b> <b>SECOND PLAT</b>				
		<b>LEE'S SUMMIT, MO</b> <b>2021</b>	<b>REVISIONS</b>			
<div style="text-align: center;"> <b>SHEET</b>  <b>C409</b> </div>						



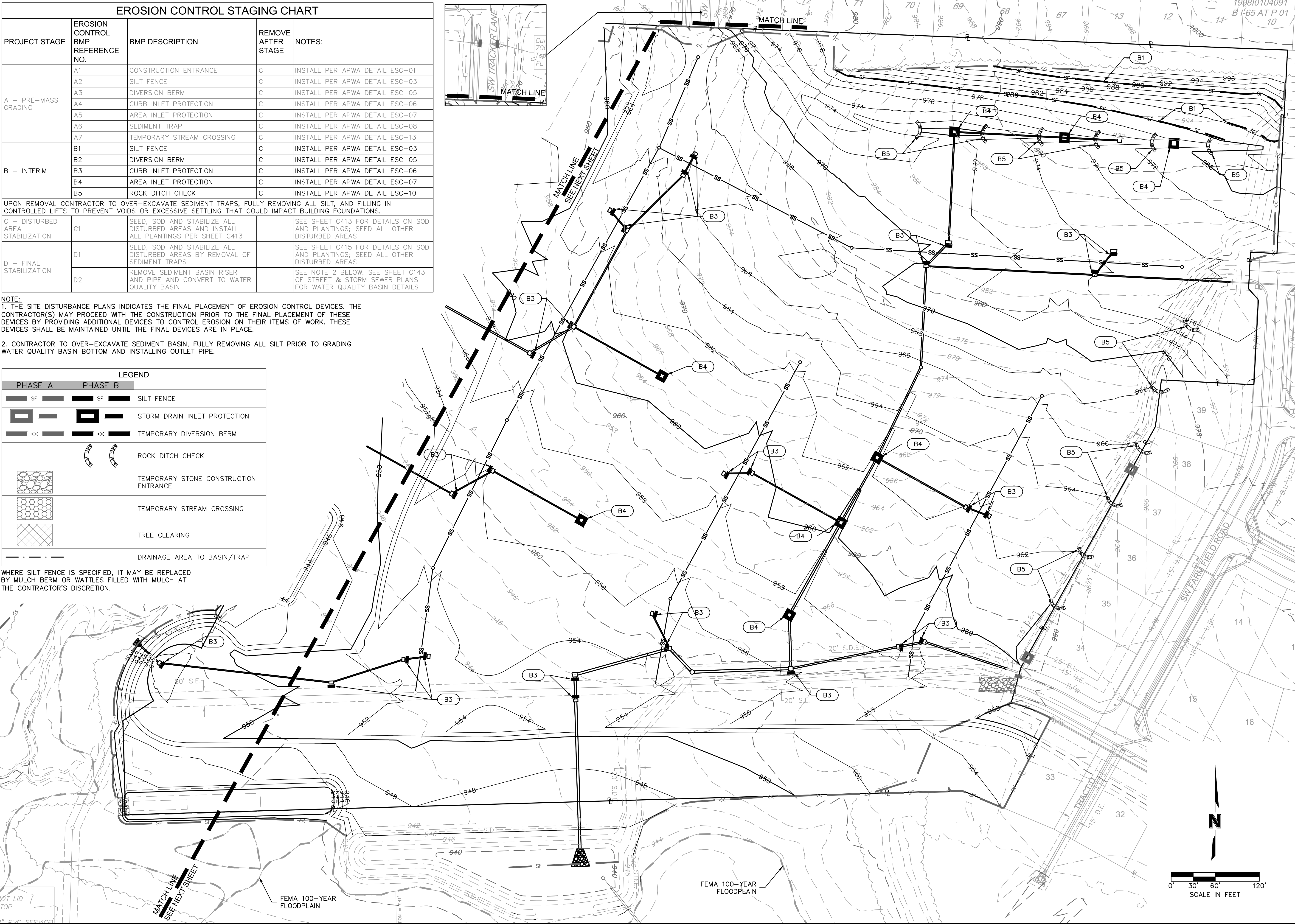
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DATE: Sep 30, 2021 5:19pm  
XREFS: C\_PTBULK\_B194061 C\_XBASE\_B194061 C\_PUTIL\_B194061 C\_PEROS\_B194061  
USER: bworthley

EROSION CONTROL STAGING CHART				
PROJECT STAGE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRE-MASS GRADING	A1	CONSTRUCTION ENTRANCE	C	INSTALL PER APWA DETAIL ESC-01
	A2	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	A3	DIVERSION BERM	C	INSTALL PER APWA DETAIL ESC-05
	A4	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
	A5	AREA INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-07
	A6	SEDIMENT TRAP	C	INSTALL PER APWA DETAIL ESC-08
	A7	TEMPORARY STREAM CROSSING	C	INSTALL PER APWA DETAIL ESC-13
B – INTERIM	B1	SILT FENCE	C	INSTALL PER APWA DETAIL ESC-03
	B2	DIVERSION BERM	C	INSTALL PER APWA DETAIL ESC-05
	B3	CURB INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-06
	B4	AREA INLET PROTECTION	C	INSTALL PER APWA DETAIL ESC-07
	B5	ROCK DITCH CHECK	C	INSTALL PER APWA DETAIL ESC-10
UPON REMOVAL CONTRACTOR TO OVER-EXCAVATE SEDIMENT TRAPS, FULLY REMOVING ALL SILT, AND FILLING IN CONTROLLED LIFTS TO PREVENT VOIDS OR EXCESSIVE SETTLING THAT COULD IMPACT BUILDING FOUNDATIONS.				
C – DISTURBED AREA STABILIZATION	C1	SEED, SOD AND STABILIZE ALL DISTURBED AREAS AND INSTALL ALL PLANTINGS PER SHEET C413		SEE SHEET C413 FOR DETAILS ON SOD AND PLANTINGS; SEED ALL OTHER DISTURBED AREAS
	D1	SEED, SOD AND STABILIZE ALL DISTURBED AREAS BY REMOVAL OF SEDIMENT TRAPS		SEE SHEET C415 FOR DETAILS ON SOD AND PLANTINGS; SEED ALL OTHER DISTURBED AREAS
	D2	REMOVE SEDIMENT BASIN RISER AND PIPE AND CONVERT TO WATER QUALITY BASIN		SEE NOTE 2 BELOW. SEE SHEET C143 OF STREET & STORM SEWER PLANS FOR WATER QUALITY BASIN DETAILS

NOTE:  
1. THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE 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.  
2. CONTRACTOR TO OVER-EXCAVATE SEDIMENT BASIN, FULLY REMOVING ALL SILT PRIOR TO GRADING WATER QUALITY BASIN BOTTOM AND INSTALLING OUTLET PIPE.

LEGEND		
PHASE A	PHASE B	
 SF 	 SF 	SILT FENCE
 	 	STORM DRAIN INLET PROTECTION
 << 	 << 	TEMPORARY DIVERSION BERM
	 	ROCK DITCH CHECK
		TEMPORARY STONE CONSTRUCTION ENTRANCE
		TEMPORARY STREAM CROSSING
		TREE CLEARING
		DRAINAGE AREA TO BASIN/TRAP

WHERE SILT FENCE IS SPECIFIED, IT MAY BE REPLACED BY MULCH BERM OR WATTLES FILLED WITH MULCH AT THE CONTRACTOR'S DISCRETION.



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www.olsson.com

STATE OF MISSOURI  
BROCK M. BORTH  
Professional Engineer  
PE-2019000237  
4/30/2021

REVISIONS

REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	
3	09-30-2021	CHANGES TO APPROVED PLANS	

SITE DISTURBANCE PLAN - PHASE B  
SITE DISTURBANCE PLANS  
HOOK FARMS  
SECOND PLAT  
LEE'S SUMMIT, MO  
2021

drawn by: B.M.W./A.A.  
checked by: B.M.W.  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
date: 01-08-2021

SHEET  
C410









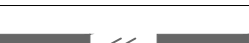





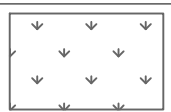




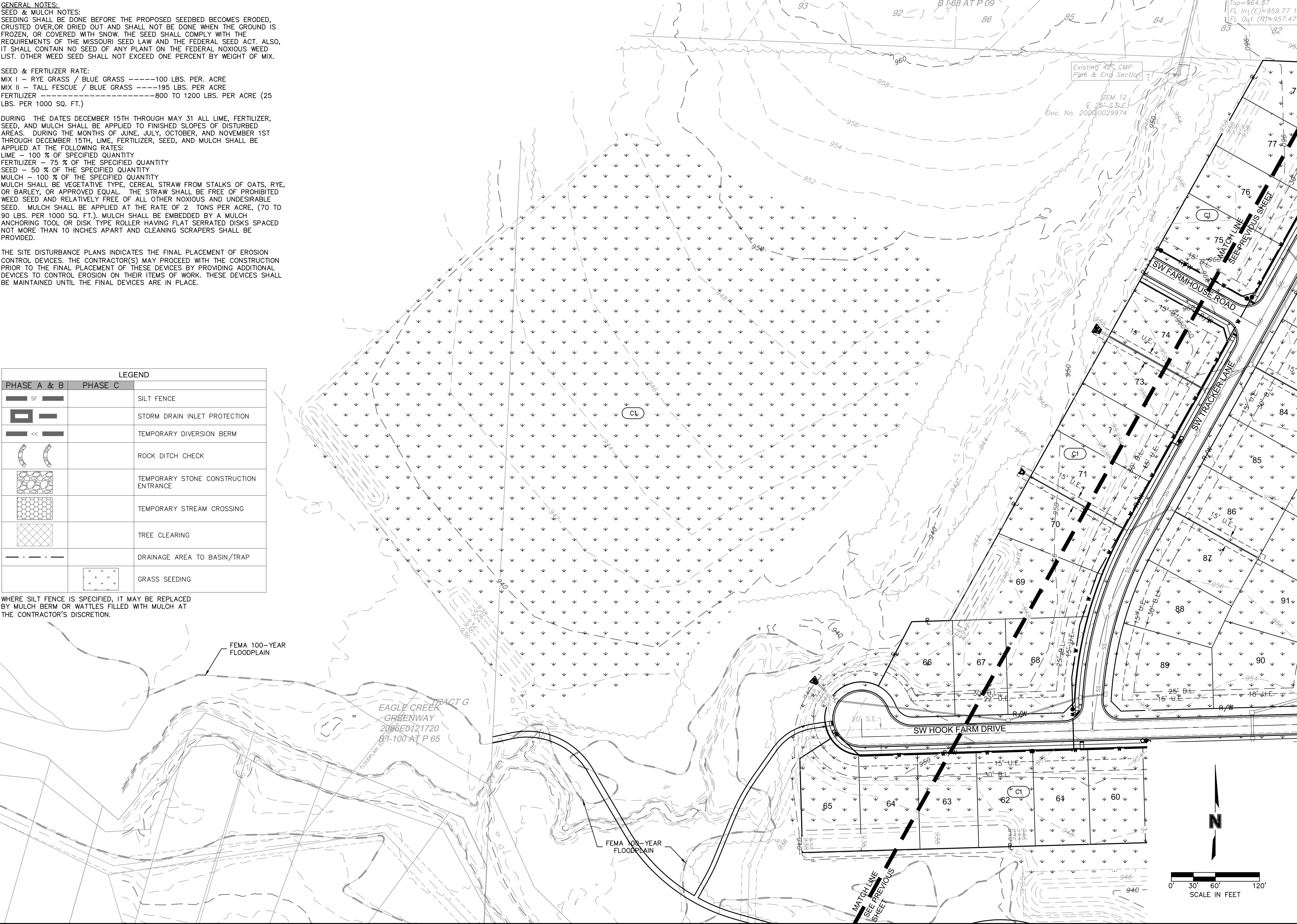
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GENERAL NOTES:  
SEED & MULCH NOTES:  
SEEDING SHALL BE DONE BEFORE THE PROPOSED SEEDBED BECOMES ERODED, CRUSTED OVER,OR DRIED OUT AND SHALL NOT BE DONE WHEN THE GROUND IS FROZEN, OR COVERED WITH SNOW. THE SEED SHALL COMPLY WITH THE REQUIREMENTS OF 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 SEED SHALL NOT EXCEED ONE PERCENT BY WEIGHT OF MIX.  
SEED & FERTILIZER RATE:  
MIX I - RYE GRASS / BLUE GRASS -----100 LBS. PER. ACRE  
MIX II - TALL FESCUE / BLUE GRASS -----195 LBS. PER ACRE  
FERTILIZER -----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 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.

THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE 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.

LEGEND		
PHASE A & B	PHASE C	
		SILT FENCE
		STORM DRAIN INLET PROTECTION
		TEMPORARY DIVERSION BERM
		ROCK DITCH CHECK
		TEMPORARY STONE CONSTRUCTION ENTRANCE
		TEMPORARY STREAM CROSSING
		TREE CLEARING
		DRAINAGE AREA TO BASIN/TRAP
		GRASS SEEDING

WHERE SILT FENCE IS SPECIFIED, IT MAY BE REPLACED BY MULCH BERM OR WATTLES FILLED WITH MULCH AT THE CONTRACTOR'S DISCRETION.



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STATE OF MISSOURI  
BROCK M. NORTH  
PROFESSIONAL ENGINEER  
NUMBER  
PE-2019000237  
4/8/2021

BY

DATE

REV. NO.

REVISIONS DESCRIPTION

1

03-23-2021

1

REVISED PER CITY COMMENTS

2

04-16-2021

2

REVISED PER CITY COMMENTS

3

09-30-2021

3

CHANGES TO APPROVED PLANS

SITE DISTURBANCE PLAN - PHASE C  
SITE DISTURBANCE PLANS  
HOOK FARMS  
SECOND PLAT  
LEE'S SUMMIT, MO












2021

drawn by: B.M.W./A.A.  
checked by: B.M.W.  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
date: 01-08-2021

SHEET  
C413



EROSION CONTROL STAGING CHART				
PROJECT STAGE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
A – PRE-MASS GRADING	A1	CONSTRUCTION ENTRANCE	C	INSTALL PER APWA DETAIL ESC-01
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C – DISTURBED AREA STABILIZATION	C1	SEED, SOD AND STABILIZE ALL DISTURBED AREAS AND INSTALL ALL PLANTINGS PER SHEET C413		SEE SHEET C413 FOR DETAILS ON SOD AND PLANTINGS; SEED ALL OTHER DISTURBED AREAS
D – FINAL STABILIZATION	D1	SEED, SOD AND STABILIZE ALL DISTURBED AREAS BY REMOVAL OF SEDIMENT TRAPS		SEE SHEET C415 FOR DETAILS ON SOD AND PLANTINGS; SEED ALL OTHER DISTURBED AREAS
	D2	REMOVE SEDIMENT BASIN RISER AND PIPE AND CONVERT TO WATER QUALITY BASIN		SEE NOTE 2 BELOW. SEE SHEET C143 OF STREET & STORM SEWER PLANS FOR WATER QUALITY BASIN DETAILS

LEGEND	
<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;">PHASE A, B &amp; C</div> </div>	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;">PHASE D</div> </div>
	SILT FENCE
	STORM DRAIN INLET PROTECTION
	TEMPORARY DIVERSION BERM
	ROCK DITCH CHECK
	TEMPORARY STONE CONSTRUCTION ENTRANCE
	TEMPORARY STREAM CROSSING
	TREE CLEARING
	DRAINAGE AREA TO BASIN/TRAP
	GRASS SEEDING

[illegible]

0' 30' 60' 120'

SCALE IN FEET

**olsón**



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Missouri Certificate of Authority #001592  
1301 Burlington Street  
North Kansas City, MO 64116

## REVISIONS

2021

LEE'S SUMMIT, MO

## SITE DISTURBANCE PLAN - PHASE D SITE DISTURBANCE PLANS

HOOK FARMS  
SECOND PLAT

drawn by: B.M.W./A.A.  
checked by: B.M.W.  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
date: 01-08-2021

SHEET  
C414



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 USER: bworthley

**GENERAL NOTES:**  
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CRUSTED OVER, OR DRIED OUT AND SHALL NOT BE DONE WHEN THE GROUND IS  
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REQUIREMENTS OF THE MISSOURI SEED LAW AND THE FEDERAL SEED ACT. ALSO,  
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LIST. OTHER WEED SEED SHALL NOT EXCEED ONE PERCENT BY WEIGHT OF MIX.









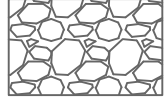
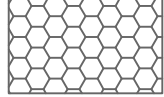



SEED & FERTILIZER RATE:  
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MIX II - TALL FESCUE / BLUE GRASS -----195 LBS. PER ACRE  
FERTILIZER -----800 TO 1200 LBS. PER ACRE (25  
LBS. PER 1000 SQ. FT.)

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:

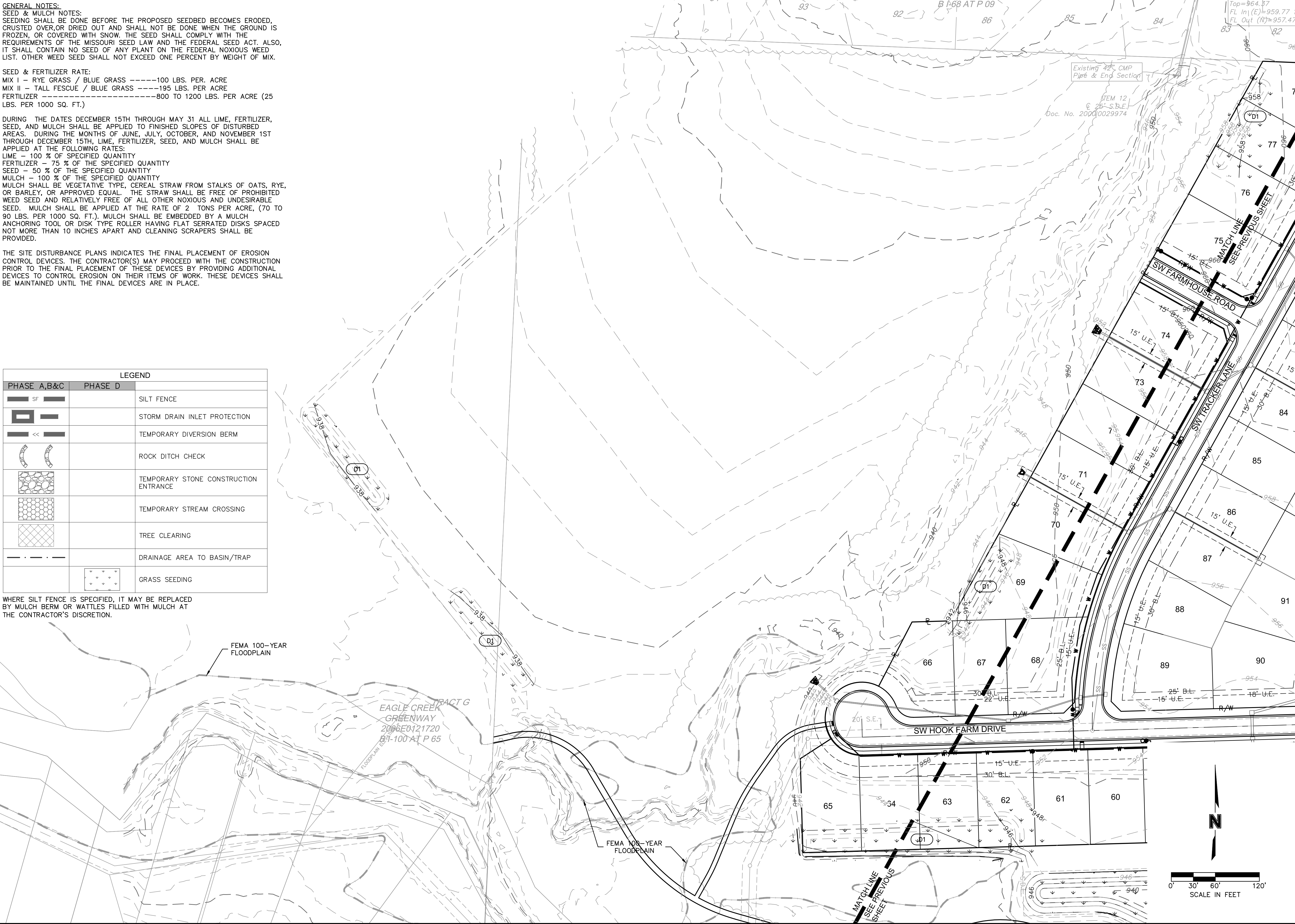
LIME - 100 % OF SPECIFIED QUANTITY  
FERTILIZER - 75 % OF THE SPECIFIED QUANTITY  
SEED - 50 % OF THE SPECIFIED QUANTITY  
MULCH - 100 % OF THE SPECIFIED QUANTITY


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.

THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE 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.

PHASE A,B&C		PHASE D	LEGEND
 SF 			SILT FENCE
 			STORM DRAIN INLET PROTECTION
 << 			TEMPORARY DIVERSION BERM
 			ROCK DITCH CHECK
			TEMPORARY STONE CONSTRUCTION ENTRANCE
			TEMPORARY STREAM CROSSING
			TREE CLEARING
			DRAINAGE AREA TO BASIN/TRAP
			GRASS SEEDING

WHERE SILT FENCE IS SPECIFIED, IT MAY BE REPLACED BY MULCH BERM OR WATTLES FILLED WITH MULCH AT THE CONTRACTOR'S DISCRETION.

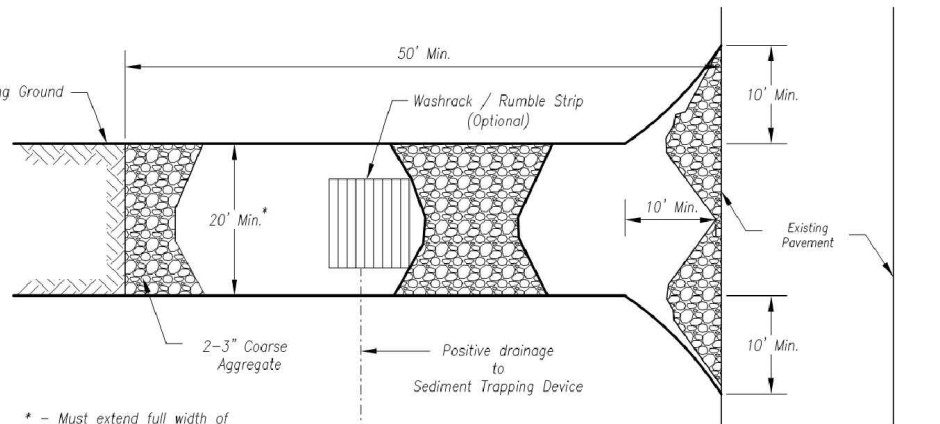


<h1 style="margin: 0;">olsson</h1> <p style="margin: 0;">Olsson - Civil Engineering  Missouri Certificate of Authority #001592  1301 Burlington Street  North Kansas City, MO 64116  TEL 816.361.1177  FAX 816.361.1888  www.olson.com</p>				
				
<h2 style="margin: 0;">SITE DISTURBANCE PLAN - PHASE D SITE DISTURBANCE PLANS</h2>	REV. NO.	DATE	REVISIONS DESCRIPTION	BY
	1	03-23-2021	REVISED PER CITY COMMENTS	
	2	04-16-2021	REVISED PER CITY COMMENTS	
	3	09-30-2021	CHANGES TO APPROVED PLANS	
<h2 style="margin: 0;">HOOK FARMS SECOND PLAT</h2>				
<h2 style="margin: 0;">LEE'S SUMMIT, MO</h2>		2021	<h2 style="margin: 0;">REVISIONS</h2>	
<p>drawn by: _____ B.M.W./J.A.  checked by: _____ B.M.W./  designed by: _____ B.M.W./J.A.  QA/QC by: _____ J.E.S.  project no.: _____ B19-4061  date: _____ 01-08-2021</p>				
<h1 style="margin: 0;">SHEET</h1> <h2 style="margin: 0;">C415</h2>				

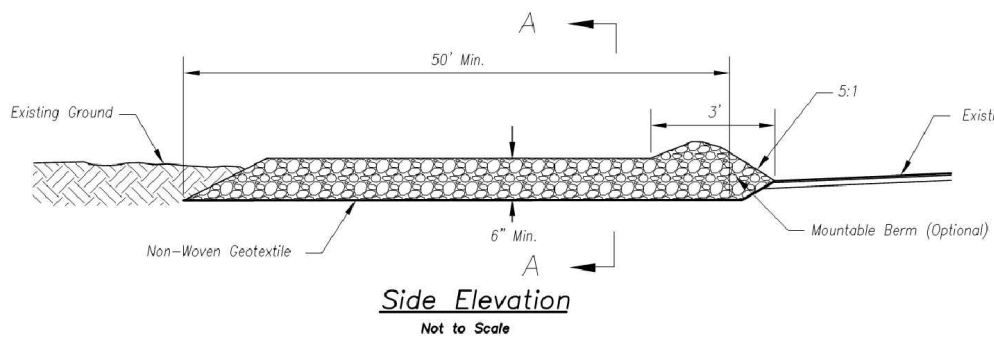


USER: bworthley

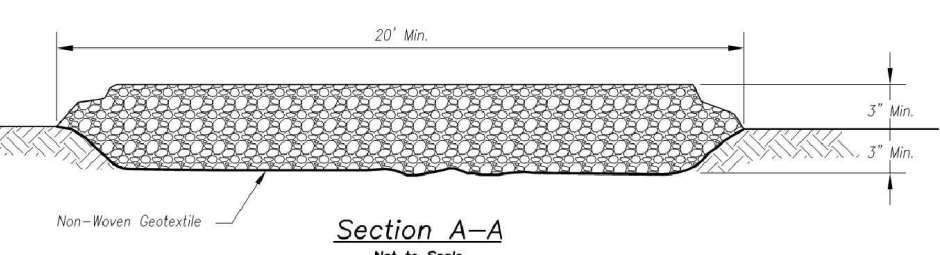
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DATE: Sep 30, 2021 5:23pm XREFS: C:\PTBLK\_B194061



Plan View  
Not to Scale



Side Elevation  
Not to Scale



Section A-A  
Not to Scale

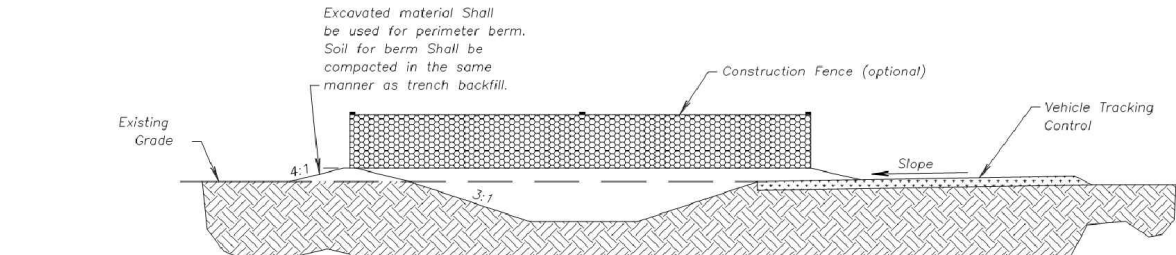
Notes for Construction Entrance:

1. Avoid locating on steep slopes, at curves on public roads, or down-drift 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 3:1 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



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.

Notes for Concrete Washout:

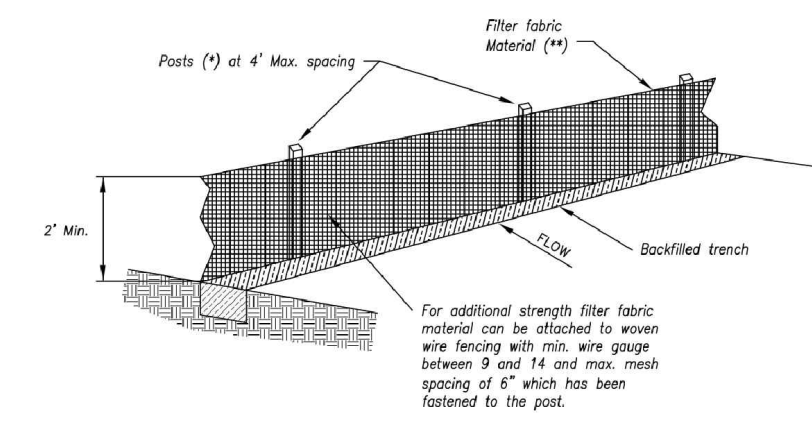
1. Concrete washout areas shall be installed prior to any concrete placement on site.
2. Concrete washout area shall include a flat subsurface pit sloped relative to the removal of concrete to be placed on site. The slopes leading out of the subsurface pit shall be 3:1. The vehicle tracking post shall 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 trucks 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 topped, 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



- (\*) FGDIS
- MIN. LENGTH 4'
  - HARDWOOD 1 3/4" x 1 3/4"
  - NO.2 SOUTHERN PINE 2 3/8" x 2 3/8"
  - STEEL 1.33 LB/FT

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

SILT FENCE DETAILS

Not to Scale

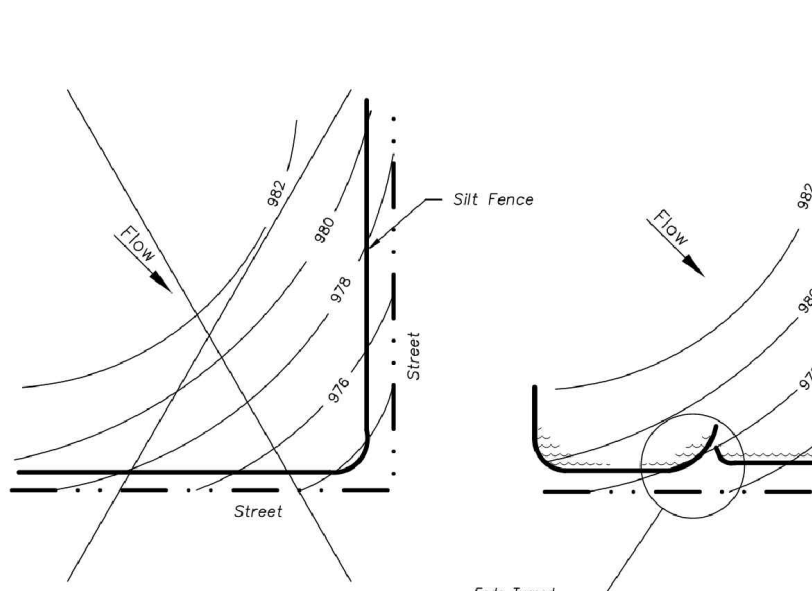
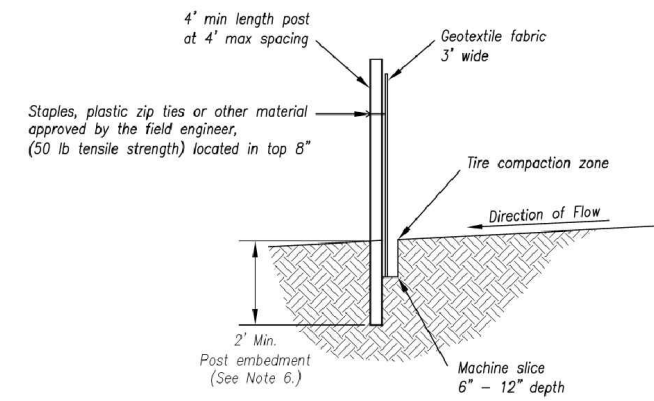


Figure A

SILT FENCE LAYOUT

Not to Scale

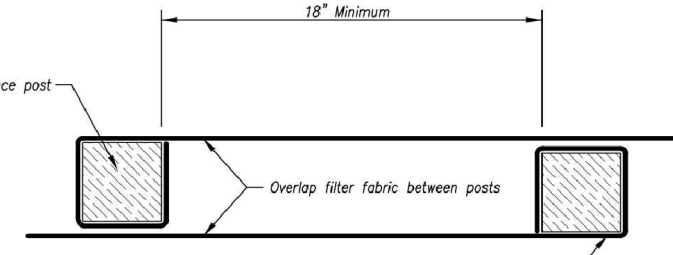


Notes:

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:

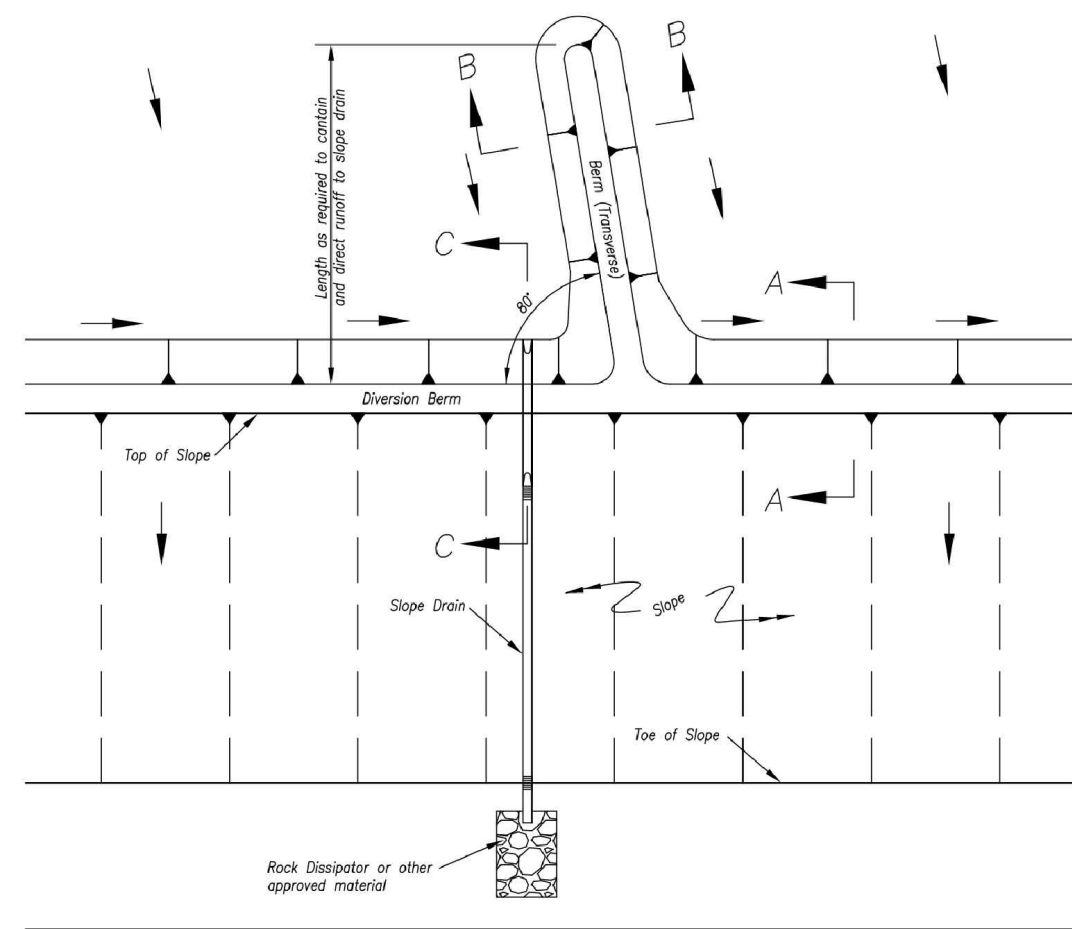
1. Remove and dispose of sediment deposits when the deposit approaches 1/2 the height of silt fence.
2. Repair as necessary to maintain function and structure.



JOINING FENCE SECTIONS

Not to Scale

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



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.
5. Place the berm so to minimize damages by construction operations and traffic.
6. 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 low, 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.

Maintenance:

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

Notes for Slope Drain:

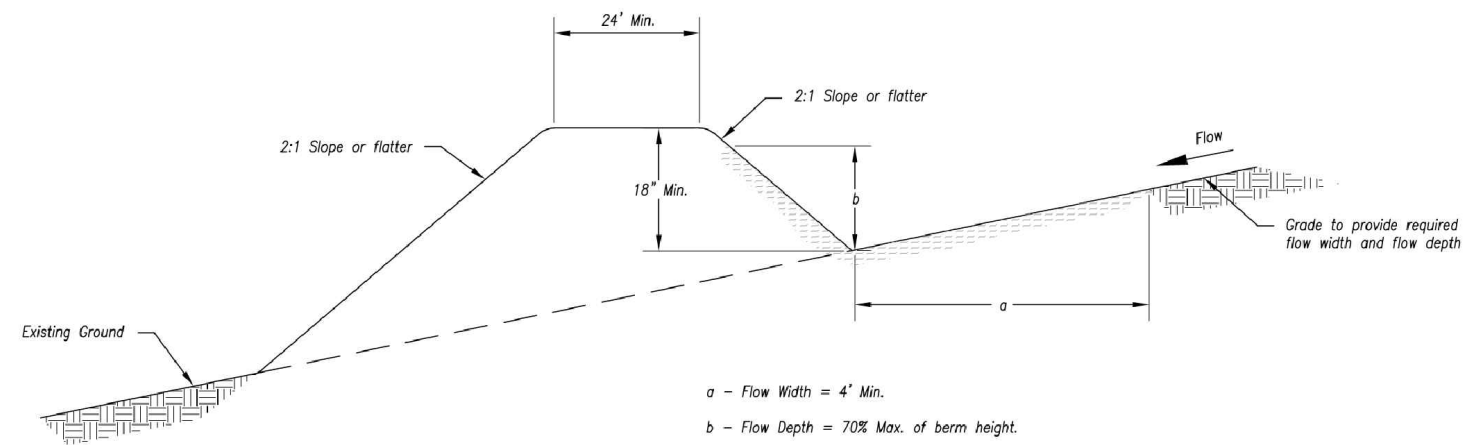
1. Slope Drain and Diversion Berm may be used on either project foreslopes or project backlopes.
2. Discharge of Slope Drains shall be into stabilized ditch or area, or into Sediment Basin.
3. Pipe shall be secured in place as approved by Engineer.

Maintenance:

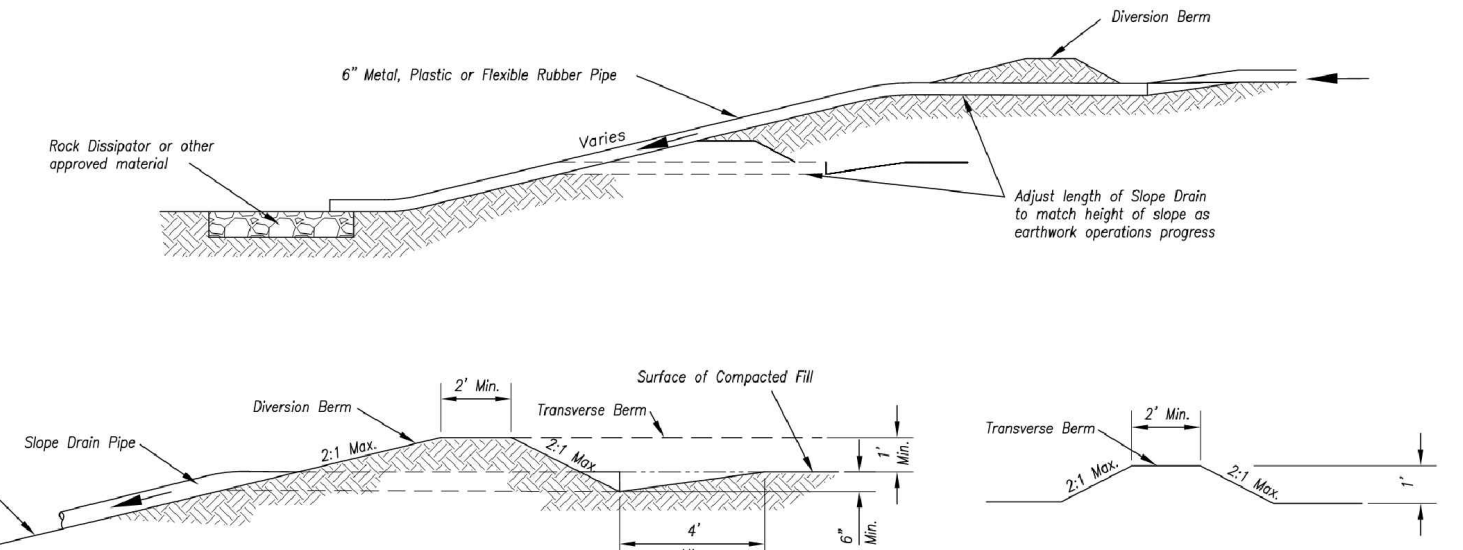
1. Accumulation of any visible sediment at the inlet and outlet shall be removed promptly.
2. Outlet conditions shall be repaired if scour is observed. Leaking or damaged section of pipe shall be repaired immediately.
3. Barriers directing water to the inlet shall be monitored for continuity and effectiveness.

TYPICAL PROFILE OF DIVERSION BERM

Not to Scale



TYPICAL PROFILE OF DIVERSION BERM



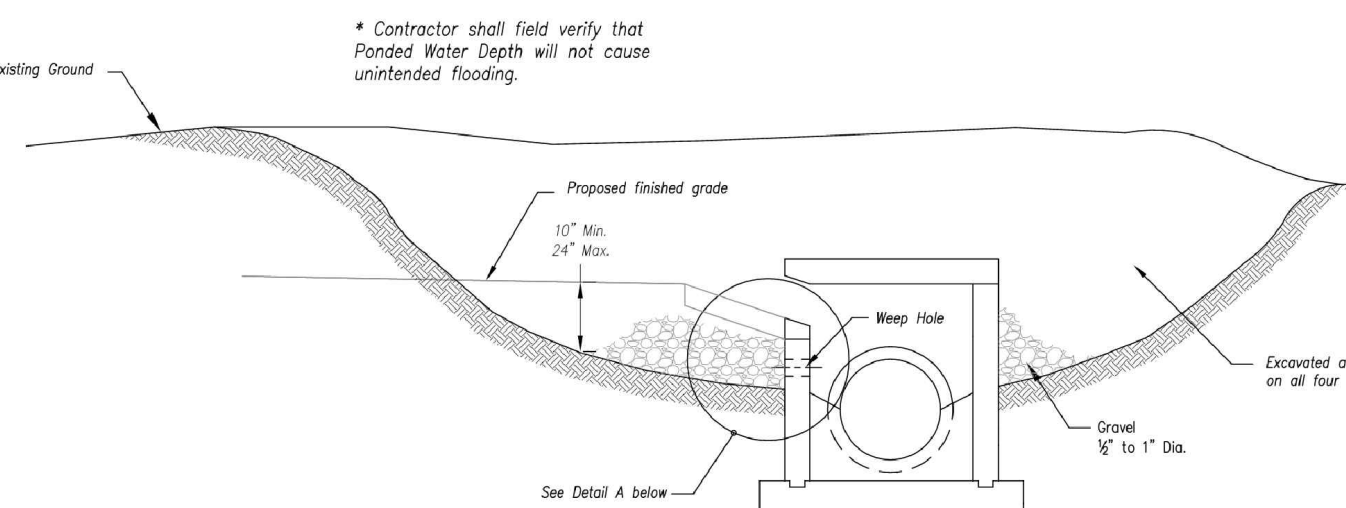
Section C-C

Section B-B

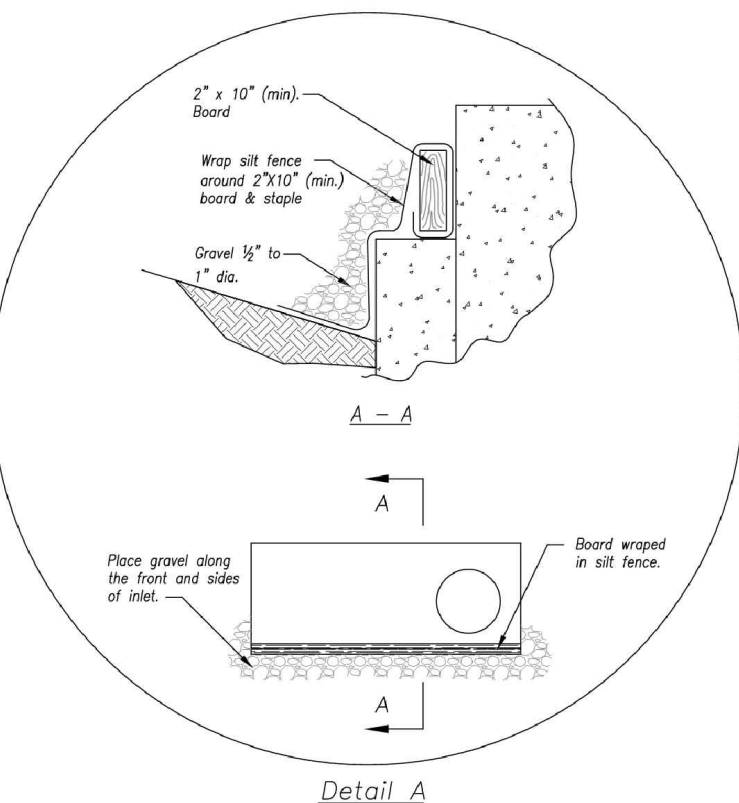
TYPICAL PROFILE OF DIVERSION BERM WITH SLOPE DRAIN

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

AMERICAN PUBLIC WORKS ASSOCIATION  
KANSAS CITY METRO CHAPTER  
DIVERSION BERMS AND SLOPE DRAINS  
STANDARD DRAWING NUMBER ESC-05  
ADOPTED: 10/24/2016



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

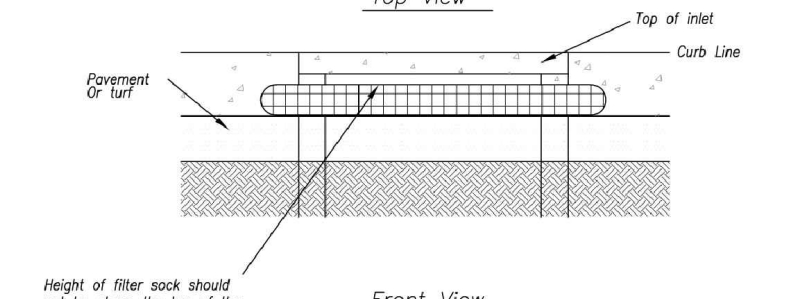
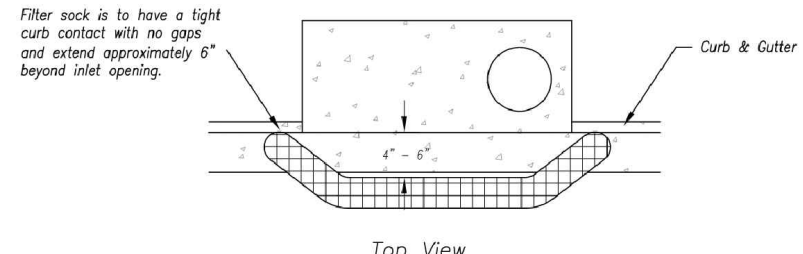
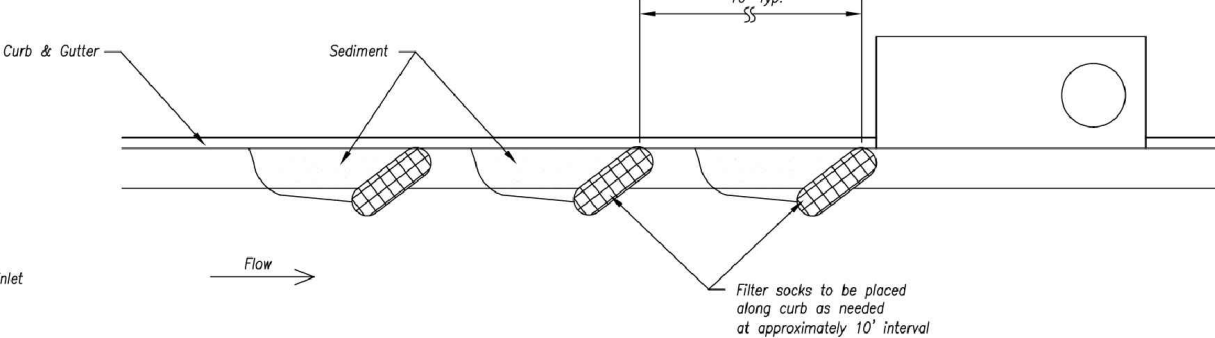
Maintenance:

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.

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

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

On Grade Curb Inlet Protection



Sump Inlet Sediment Filter

LATE STAGE CURB INLET

(After Pouring Curb and Inlet Throat)

DETAIL SHEET  
SITE DISTURBANCE PLANS

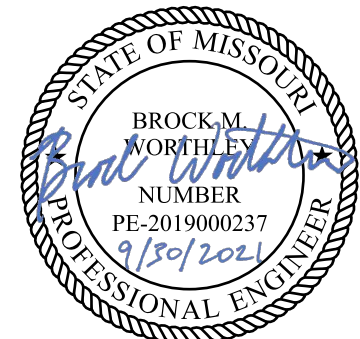
HOOK FARMS  
SECOND PLAT

2021

LEE'S SUMMIT, MO

drawn by: B.M.W./A.A.  
checked by: B.M.W./  
designed by: B.M.W./A.A.  
QA/QC by: J.E.S.  
project no.: B19-4061  
date: 01-08-2021

SHEET  
C416



REV. NO.	DATE	REVISIONS DESCRIPTION	BY
1	03-23-2021	REVISED PER CITY COMMENTS	
2	04-16-2021	REVISED PER CITY COMMENTS	
3	09-30-2021	CHANGES TO APPROVED PLANS	

REVISIONS

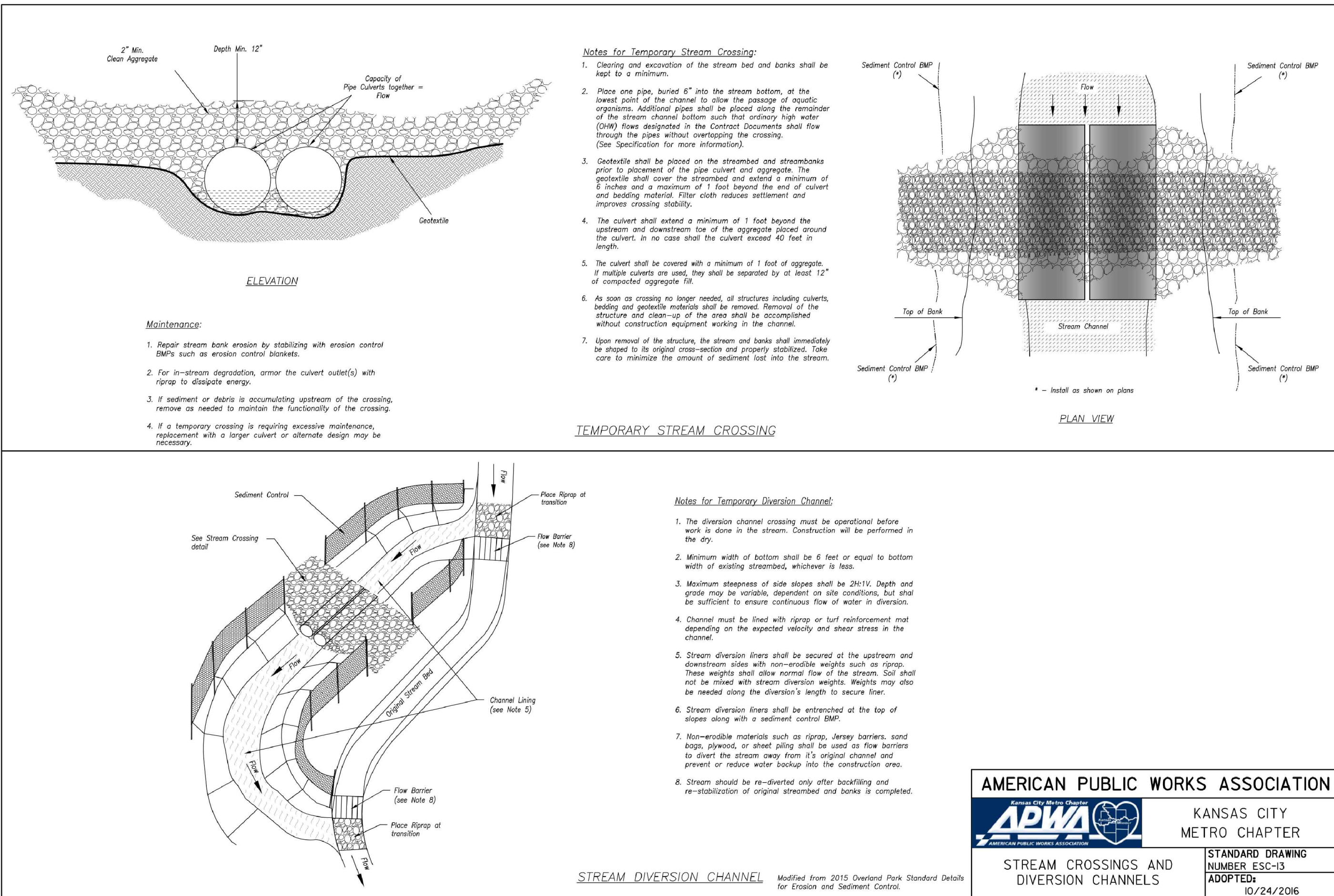
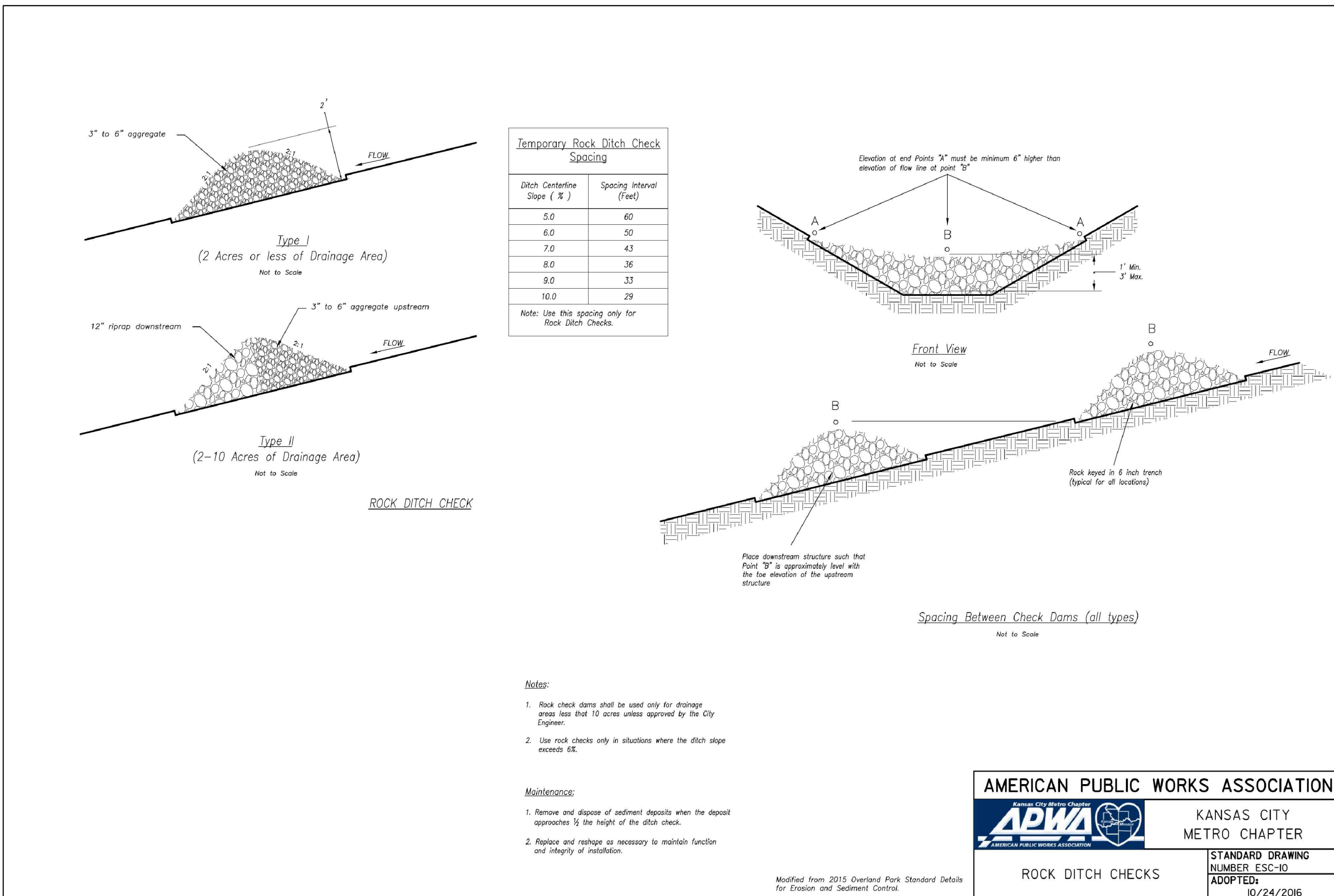
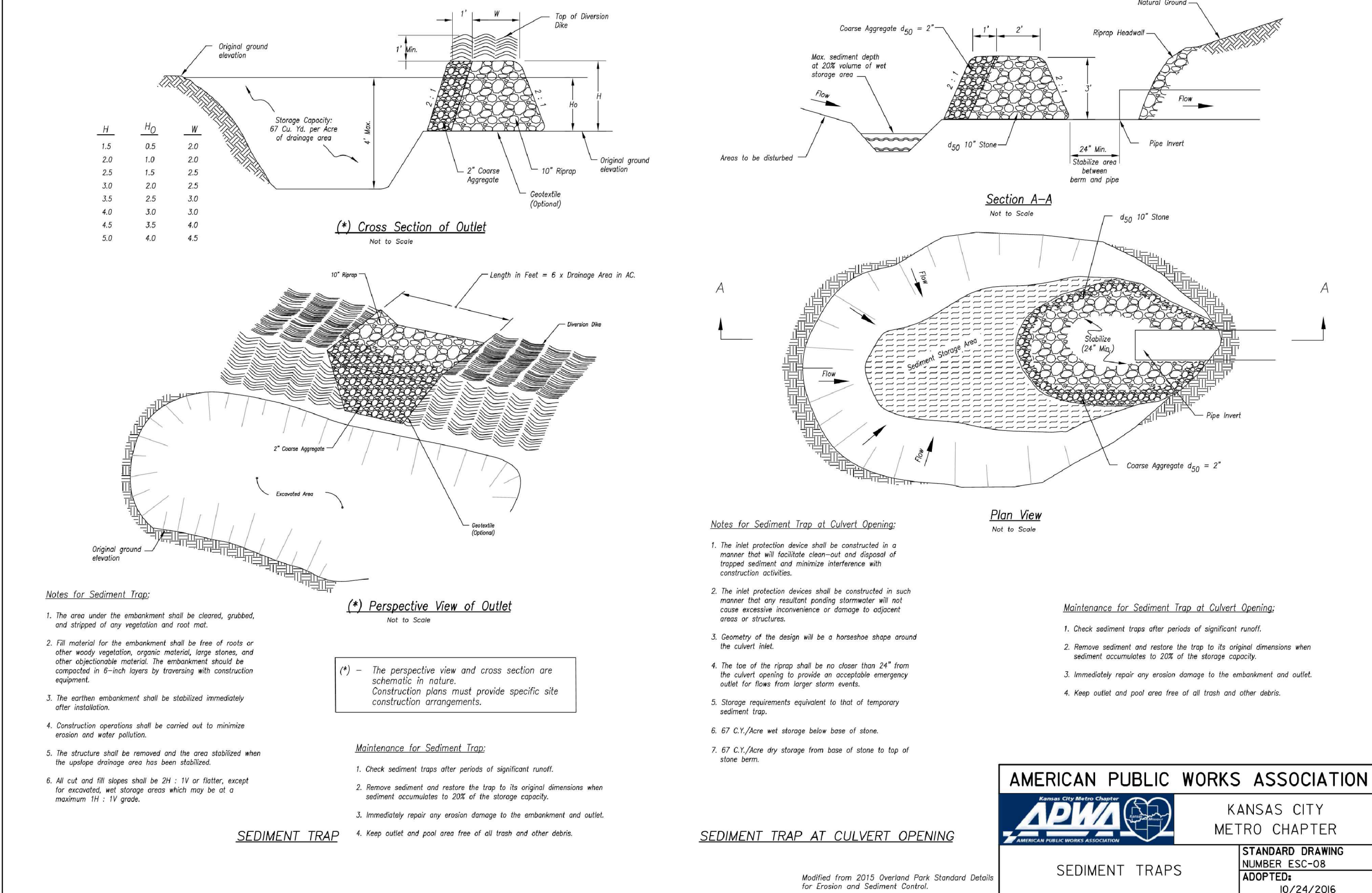
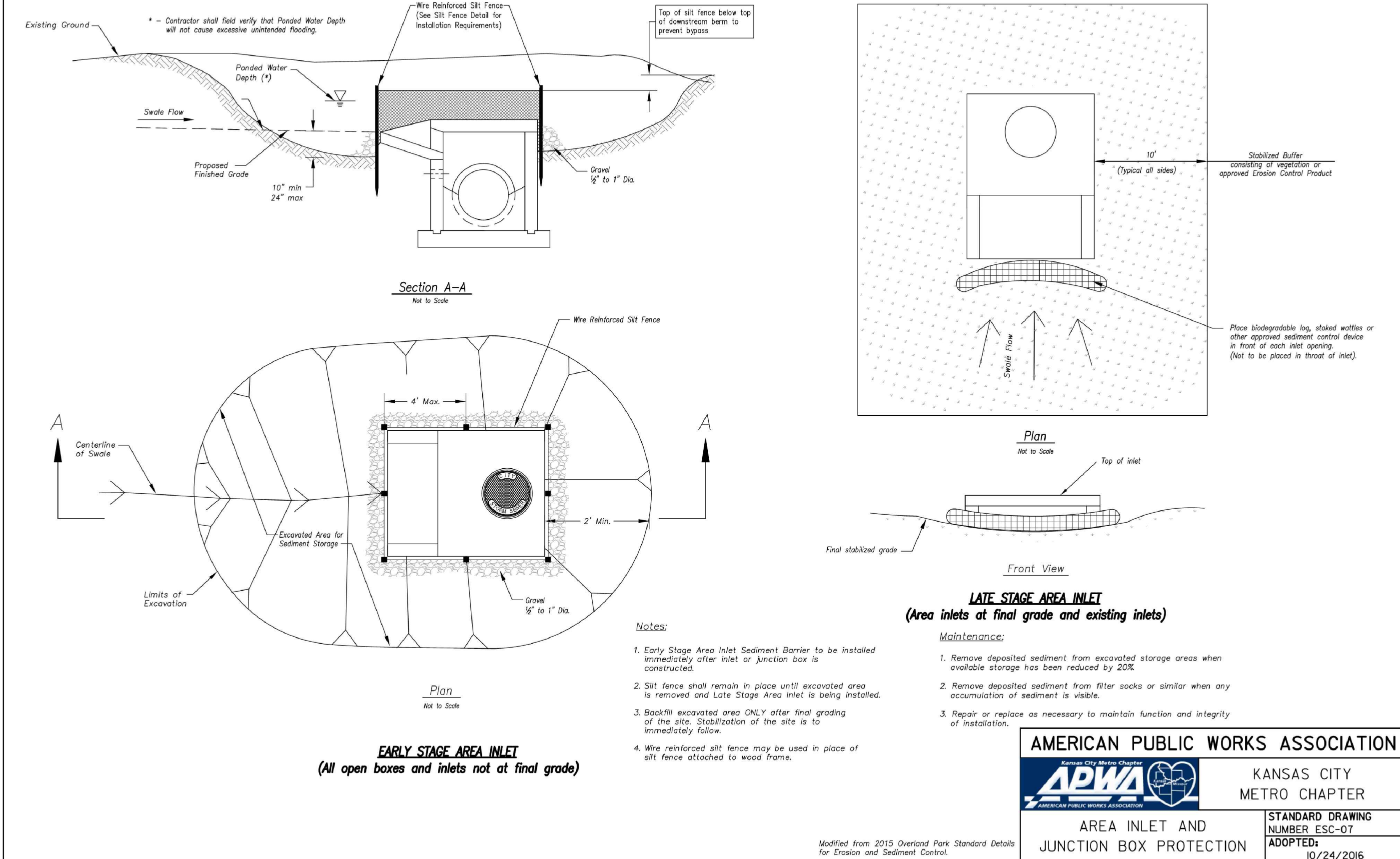
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DWG: F:\2019\4001-4500\019-4061-BV40-Design\AutoCAD\Final Plans\Sheets\GNCV\Site Disturbance Plans\C\_DTL01\_B194061.dwg  
DATE: Sep 30, 2021 5:23pm XREFS: C\_PTBK\_B194061



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STATE OF MISSOURI  
BROCK M. BROCK  
Professional Engineer  
NUMBER  
PE-2019000237  
4/8/2021

BY

REVISIONS DESCRIPTION

DATE

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