

**COVER SHEET**  
ORCHARD WOODS  
LEE'S SUMMIT. JACKSON COUNTY, MISSOURI

1. Existing utilities have been shown to the greatest extent possible based upon information provided to the Engineer. The Contractor is responsible for contacting the respective utility companies and field locating utilities prior to construction and identifying any potential conflicts. All conflicts shall immediately be brought to the attention of the Engineer.
2. The Contractor shall be responsible for coordinating any required utility relocations. Utilities damaged through the negligence of the contractor shall be repaired by the contractor at no cost to the Owner.
3. The Contractor shall verify flow-lines and structure tops prior to construction, and shall notify Engineer of any discrepancies. Provide shop drawings for all precast and manufactured utility structures for review by the Engineer prior to construction of the structures.
4. Utility Separation: Waterlines shall have a minimum of 10 feet horizontal and 2 feet vertical separation from all sanitary sewer lines, manholes, and sanitary sewer service laterals, as measured from edge to edge. If minimum separations cannot be maintained, concrete encasement shall be provided. The concrete shall be 12" thick and extend 12" in each direction of the trench.
5. Payment for trenching, backfilling, pipe embedment, flowable fill, backfill materials, clean up, seeding, sodding and any other items necessary for the construction of the utility line shall be included in the contract price for the utility installation.
6. The Contractor shall be responsible for contacting respective utility companies 48-hours in advance for the inspection of any proposed utility material installation or service line or service connection to any existing main.
7. Trench spoil shall be neatly placed onsite adjacent to the trench, and compacted to prevent saturation and excess surface runoff. Unsuitable materials, excavated rock and shale, small, concrete, rebar, brush etc. shall be properly disposed of offsite. Materials may be wasted onsite at the direction of the Owner or his appointed representative.
8. All excavation is considered unclassified, unless noted otherwise. Unclassified excavation for utility trenching is subsidiary to the unit price provided for the pipe. Any quantity provided for rock excavation is estimated based on the best information provided to the Project Engineer. The Engineer has the authority to identify and define the physical characteristics to classify excavation. The unit price for excavation work shall be paid at a trench width of 48" and a nominal pipe diameter of the installed main plus 18 inches. Contractor is required to dispose of excess rock from their trenches by disposing it in areas as specified by the Project Engineer.

1. ALL STREET CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF LEE'S SUMMIT DESIGN AND CONSTRUCTION MANUAL. ALL APPLICABLE AASHTO STANDARDS HAVE BEEN MET.
2. ALL INSPECTION OF STREET CONSTRUCTION TO BE PERFORMED BY THE CITY OF LEE'S SUMMIT DEVELOPMENT ENGINEERING.
3. CURB RETURN RADII SHALL BE 25' AT BACK OF CURB UNLESS OTHERWISE NOTED.
4. SUBGRADE TO BE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
5. ASSUMED DESIGN SPEED = 25 MPH (COLLECTOR).
6. MINIMUM STOPPING SIGHT DISTANCE = 155 FEET.
7. MINIMUM K, SAG CURVE = 26 (14 WITH LIGHTING), CREST CURVE = 12.
8. GRADE INTERSECTIONS TO DRAIN AS SHOWN.
9. SSD = STOPPING SIGHT DISTANCE.
10. ALL ADA SIDEWALK RAMPS SHALL BE CONSTRUCTED BY THE DEVELOPER WITH THE PUBLIC INFRASTRUCTURE.

ENTRES DEVELOPMENT, LLC  
ATTN: DANIEL VILLANUEVA  
424 NE BROCKTON DR  
LEE'S SUMMIT MO, 64064  
(310) 760-6205

PROJECT NO.	No.	Date	Revisions:	By	App.
211142					
DATE: 11-14-2021	DRAWINGS:				
CHECKED: DEU / APPROVED: DEU					
DESIGNED BY: JEFFREY HAN					
KANSAS ENGINEERING - PC					
KANSAS ENGINEERING - E-397					
ESTIMATE OF AUTHORIZATION					
NO. 186-00000000000000000000					
AND STATE: MO-0000000000					
NO. 128					



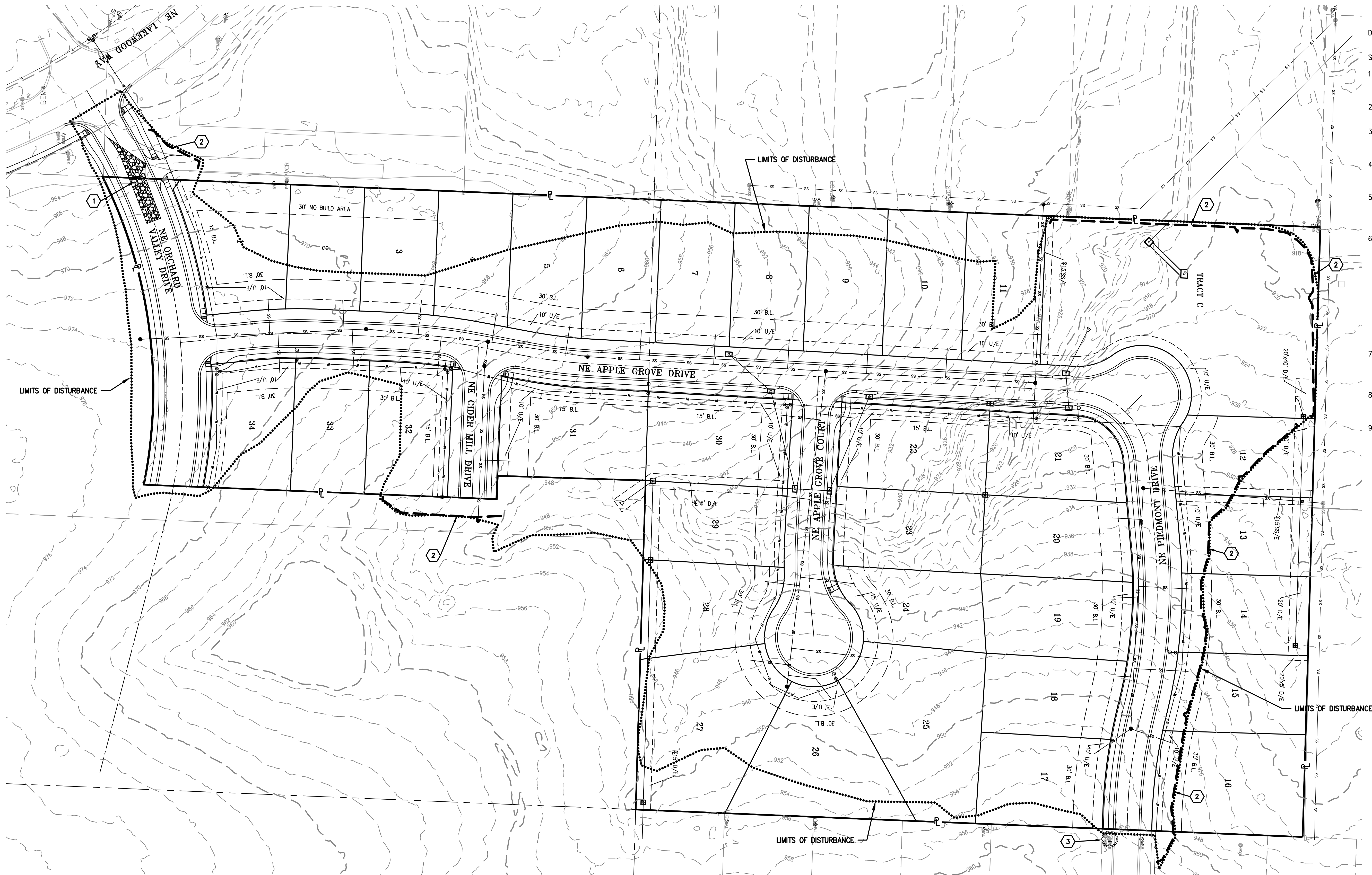
**UTILITY NOTES:**  
VISUAL INDICATIONS OF UTILITIES ARE AS SHOWN.  
UNDERGROUND LOCATIONS SHOWN, AS FURNISHED BY THEIR  
LESSORS, ARE APPROXIMATE AND SHOULD BE VERIFIED IN  
THE FIELD AT THE TIME OF CONSTRUCTION. FOR ACTUAL  
FIELD LOCATIONS OF UNDERGROUND UTILITIES CALL 811.

SHEET

1



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DISTURBED AREA = 11.0 ACRES

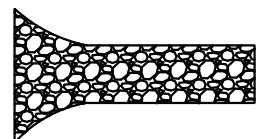
SITE SPECIFIC NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXISTING UTILITY LOCATIONS PRIOR TO EXCAVATION.
2. THERE ARE NO WETLANDS, NATURAL WATER STORAGE DETENTION AREAS IN THE PROJECT AREA.
3. NO PART OF THE PROJECT LIES WITHIN THE 100 YEAR FLOOD PLAIN PER FEMA FLOOD INSURANCE RATE MAP NUMBER ----- DATED -----
4. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IMPLEMENTED ACCORDING TO THE BMP STAGING CHART.
5. ADDITIONAL EROSION CONTROL MAY BE REQUIRED BY THE CITY ENGINEER AT ANY TIME EXISTING MEASURES ARE FOUND TO BE INEFFECTIVE OR PROBLEMATIC AREAS ARE NOTED IN THE FIELD.
6. STABILIZATION OF DISTURBED AREAS MUST, AT A MINIMUM, BE INITIATED IMMEDIATELY WHENEVER ANY CLEARING, GRADING, EXCAVATING, OR OTHER SOIL DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE, OR TEMPORARILY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS. THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE SOIL STABILIZING BMPs. INITIAL STABILIZATION ACTIVITIES MUST BE COMPLETED WITHIN 14 DAYS AFTER DISTURBING ACTIVITIES CEASE.
7. ALL PERIMETER SILT FENCE, EARTH DIKES, SEDIMENT BASINS, AND ROCK CONSTRUCTION ENTRANCES WILL BE INSTALLED BEFORE GRADING OPERATIONS BEGIN.
8. SILT FENCE AND EARTH DIKES THAT ARE PLACED BEFORE GRADING BEGINS WILL BE MAINTAINED BY THE GRADING CONTRACTOR.
9. AREAS WITHIN PUBLIC RIGHT-OF-WAY SHALL BE SODDED IMMEDIATELY AFTER CONSTRUCTION IS COMPLETE.

STAGING CHART

	Project Stage	BMP Plan Ref No.	BMP Description	Remove after Stage:	Notes:
Pre Clearing Phase	A. Prior to Land Disturbance	①	Construction Entrance & Staging Area	D	Maintain, repair, or replace as necessary.
		②	Silt Fence with Woven Wire Fencing	D	Place downstream project site perimeter.
		③	Existing Inlet Protection	D	Install gravel filter bags prior to land disturbance.
Construction Phase	B. Mass Grading	④	Sediment Basin	C	Remove only after storm sewer installation.
		⑤	Diversion Berm	C	
	C. Utility Construction	⑥	Inlet Protection	E	Install silt fence inlet protection with wire support.
Final Stabilization Phase	D. After Paving	⑦	End-Section Protection	N/A	Install rip-rap at end-section immediately after installation.
		⑧	Inlet Protection	E	Install gravel filter bags.
	E. Until closure of Land Disturbance Permit	⑨	Silt Fence	E	Place sediment fence back of curb.
			Seed	N/A	Seed & Landscape Disturbed Area upon completion of construction.

LEGEND



Stabilized Rock Entrance



Silt Fence with Woven Wire (Prior to Disturbance)



Silt Fence (During Construction)



Limits of Disturbed Area



Existing Inlet Protection



Proposed Curb Inlet Protection



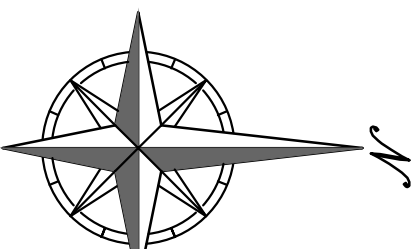
Proposed Area Inlet Protection



Rock Ditch Check



Existing Inlet Protection

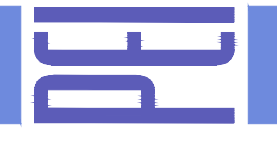


SCALE: 1"=50'



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PLANNING  
ENGINEERING  
IMPLEMENTATION



PRE CONSTRUCTION EROSION CONTROL PLAN  
ORCHARD WOODS  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

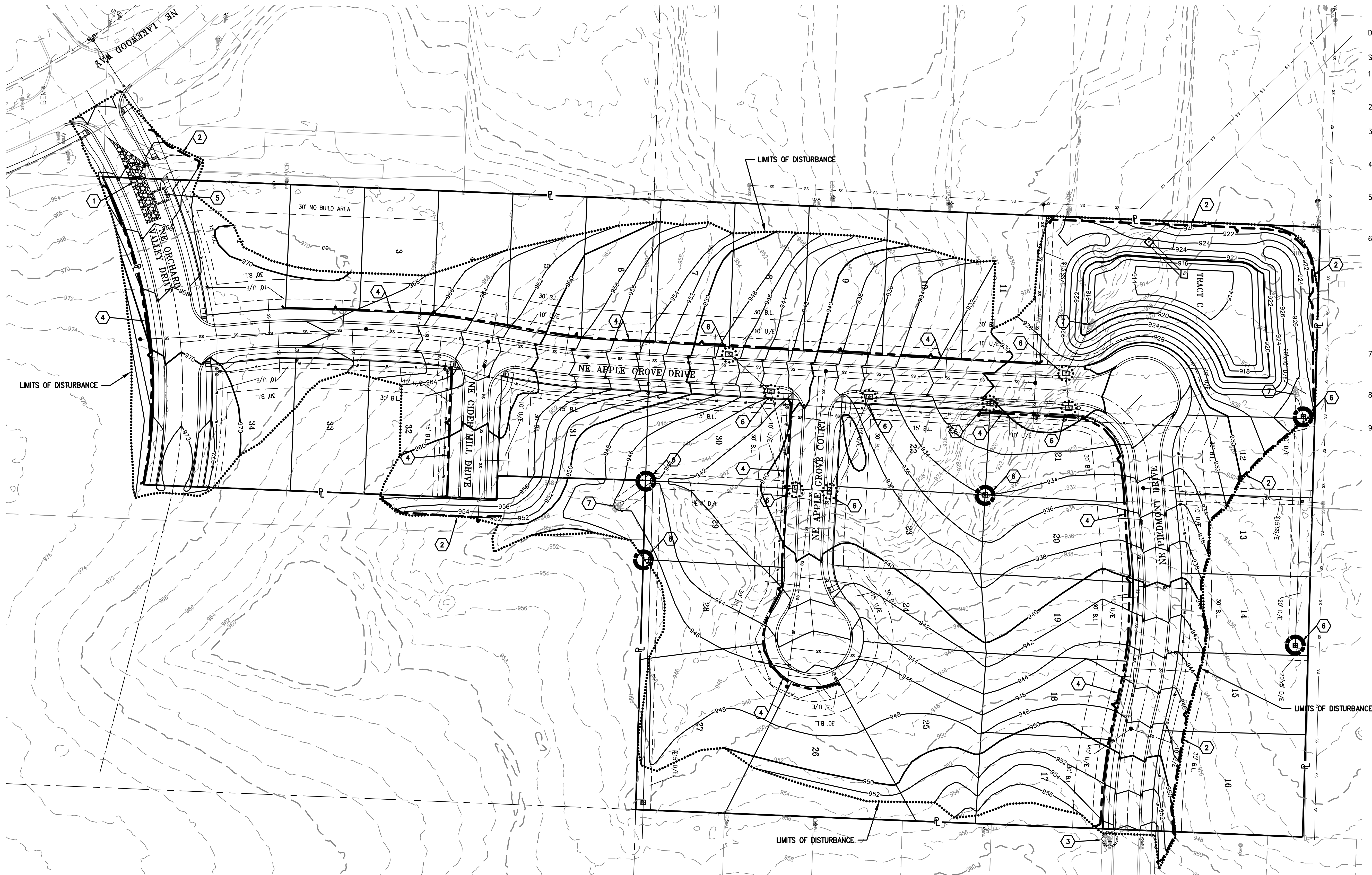
PROJECT NO.	211142	No.	Date	Revisions:	By	App.
DATE: 11-14-2022	DRAWN: KSJ					
CHECKED: DEU	APPROVED: DEU					
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING - LS-82						
ENGINEERING - E-361						
CERTIFICATE OF AUTHORIZATION						
LAND SURVEYING-200701028						
ENGINEERING-200700028						

SHEET

2



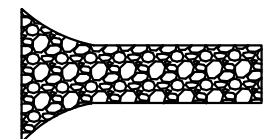
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STAGING CHART

		BMPs			
	Project Stage	BMP Plan Ref No.	BMP Description	Remove after Stage:	Notes:
Pre-Clearing Phase	A. Prior to Land Disturbance	①	Construction Entrance & Staging Area	D	Maintain, repair, or replace as necessary.
		②	Silt Fence with Woven Wire Fencing	D	Place downstream project site perimeter. Repair, or replace as necessary.
		③	Existing Inlet Protection	D	Install gravel filter bags prior to land disturbance. Repair, or replace as necessary.
Construction Phase	B. Mass Grading	④	Silt Fence (During Construction)	D	Place where indicated. Repair, or replace as necessary.
	C. Utility Construction	⑤	Concrete Washout	D	Maintain, repair, or replace as necessary.
		⑥	Inlet Protection	D	Install silt fence inlet protection with wire support.
		⑦	End-Section Protection	N/A	Install rip-rap at end-section immediately after installation.
Final Stabilization Phase	D. After Paving	⑧	Inlet Protection	E	Install gravel filter bags.
	E. Until closure of Land Disturbance Permit	⑨	Seeding and Mulching	E	All disturbed areas after 14 days of construction inactivity.

LEGEND



Stabilized Rock Entrance



Silt Fence with Woven Wire (Prior to Disturbance)



Silt Fence (During Construction)



Limits of Disturbed Area



Existing Inlet Protection



Proposed Curb Inlet Protection



Proposed Area Inlet Protection



Rock Ditch Check

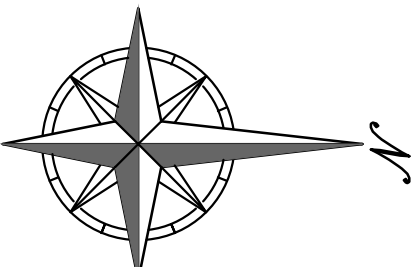


Existing Inlet Protection

DISTURBED AREA = 11.0 ACRES

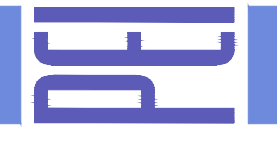
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PLANNING  
ENGINEERING  
IMPLEMENTATION



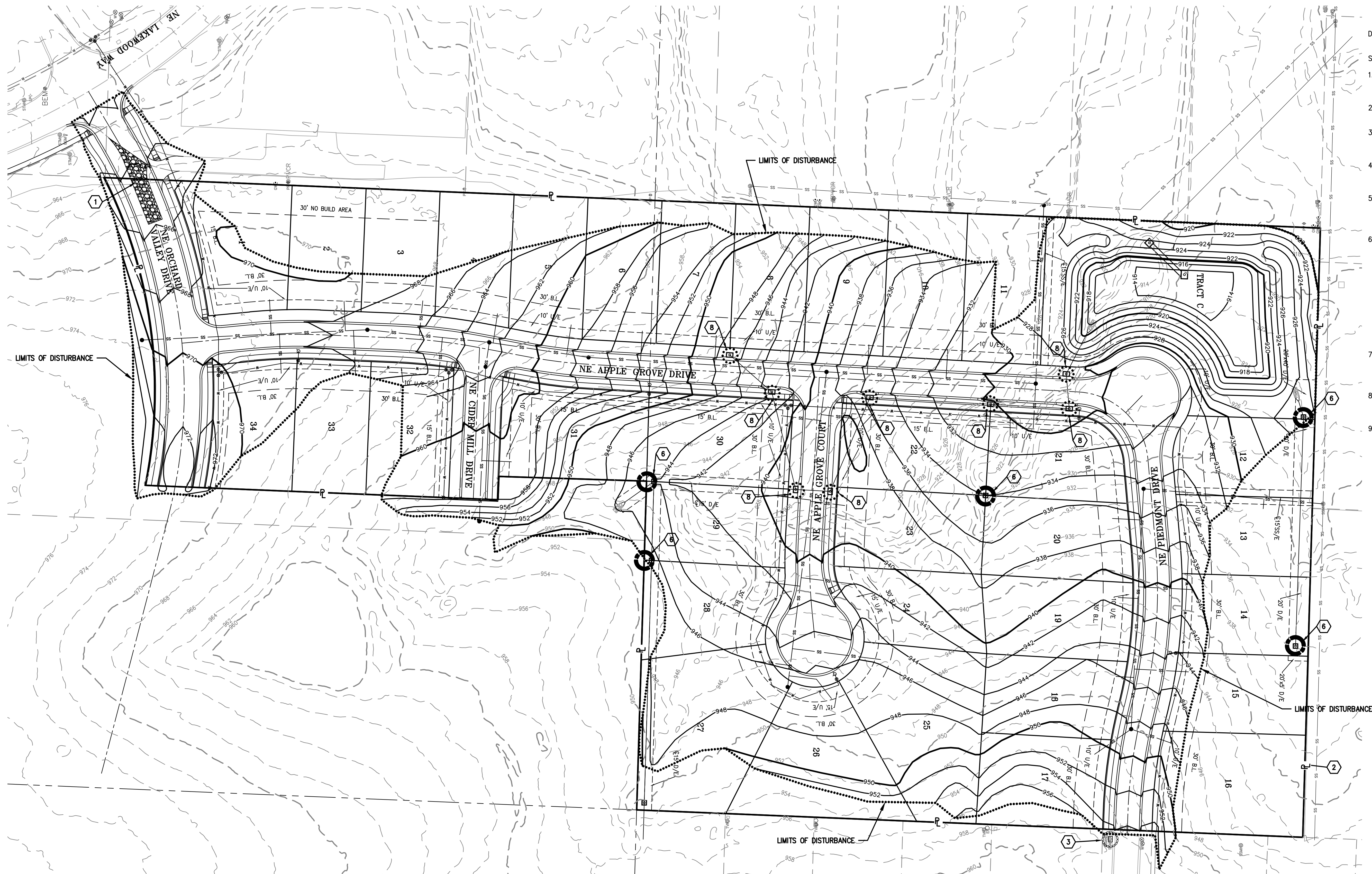
EROSION CONTROL PLAN  
ORCHARD WOODS  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

PROJECT NO.	211142	No.	Date	Revisions:	By	App.
DATE: 11-14-2022	DRAWN: KSJ					
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ENGINEERING - E-361						
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LAND SURVEYING-200701028						
ENGINEERING-200700029						

SHEET

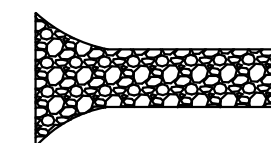
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STAGING CHART					
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### LEGEND

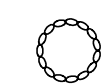


Stabilized Rock Entrance

### Silt Fence with Woven Wire

Silt Fence (During Construction)

### Limits of Disturbed Area



### Existing Inlet Protection



### Proposed Curb Inlet Protection



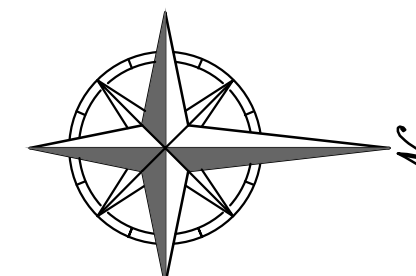
### Proposed Area Inlet Protection




Rock Ditch Check



### Existing Inlet Protection



SCALE: 1"=50'

A horizontal graphic scale bar with alternating black and white segments. It is marked with '0'', '50'', and '100' at the beginning, middle, and end respectively.

DISTURBED AREA = 11.0 ACRES

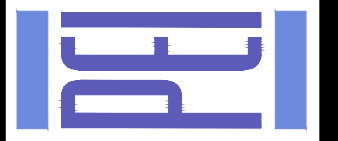
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1270 N. Winchester  
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Fax (913) 393-1166  
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## PLANNING ENGINEERING IMPLEMENTATION



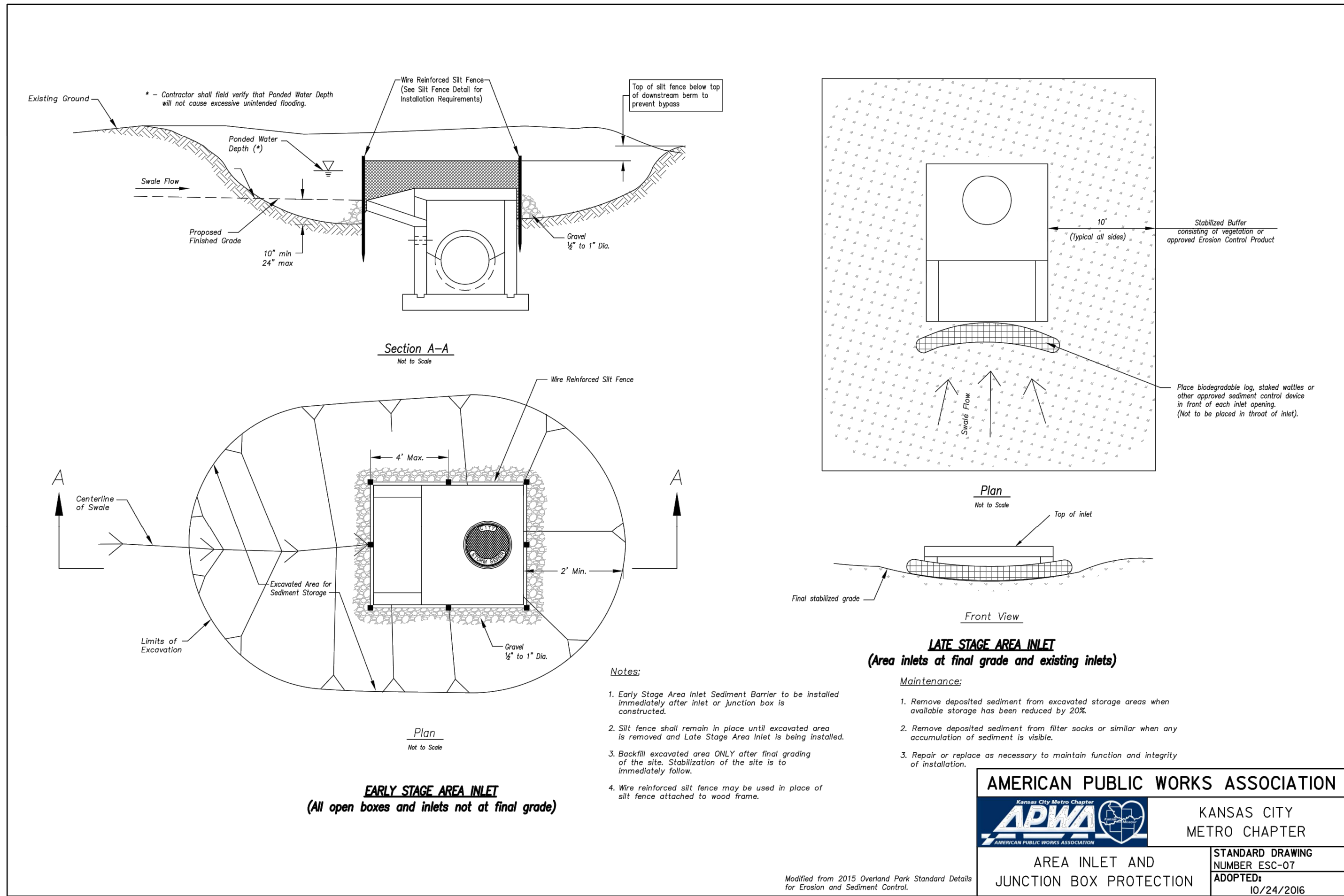
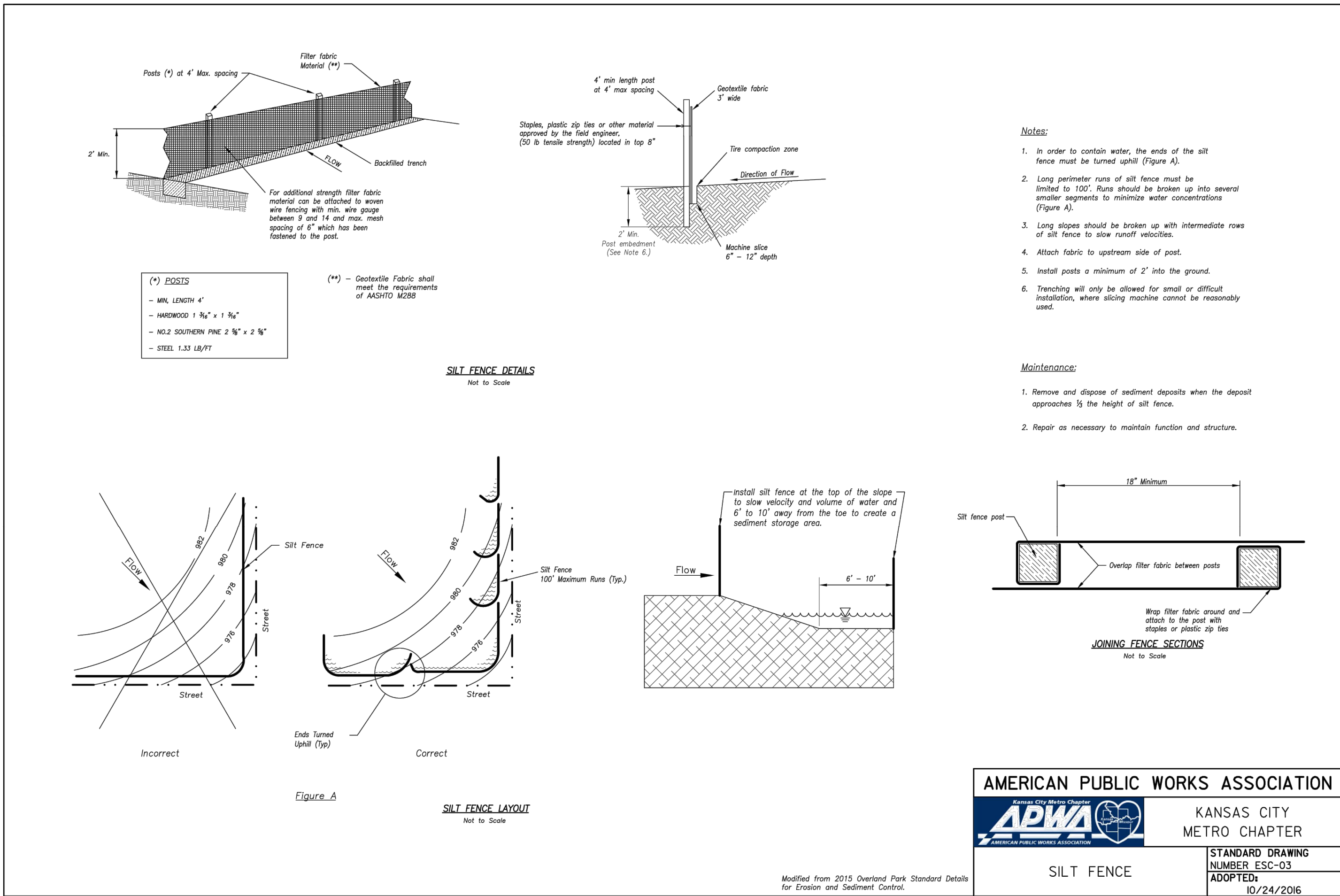
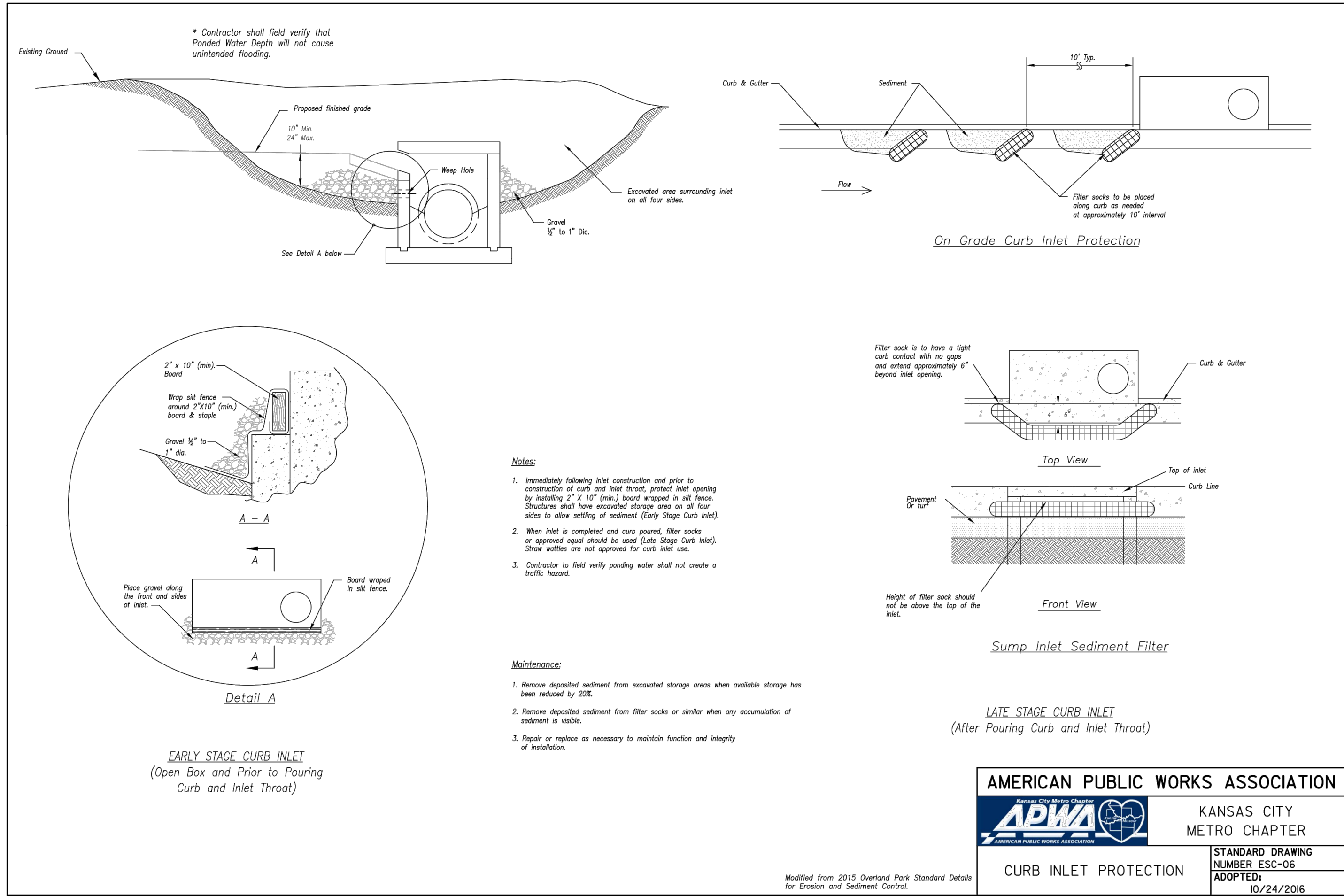
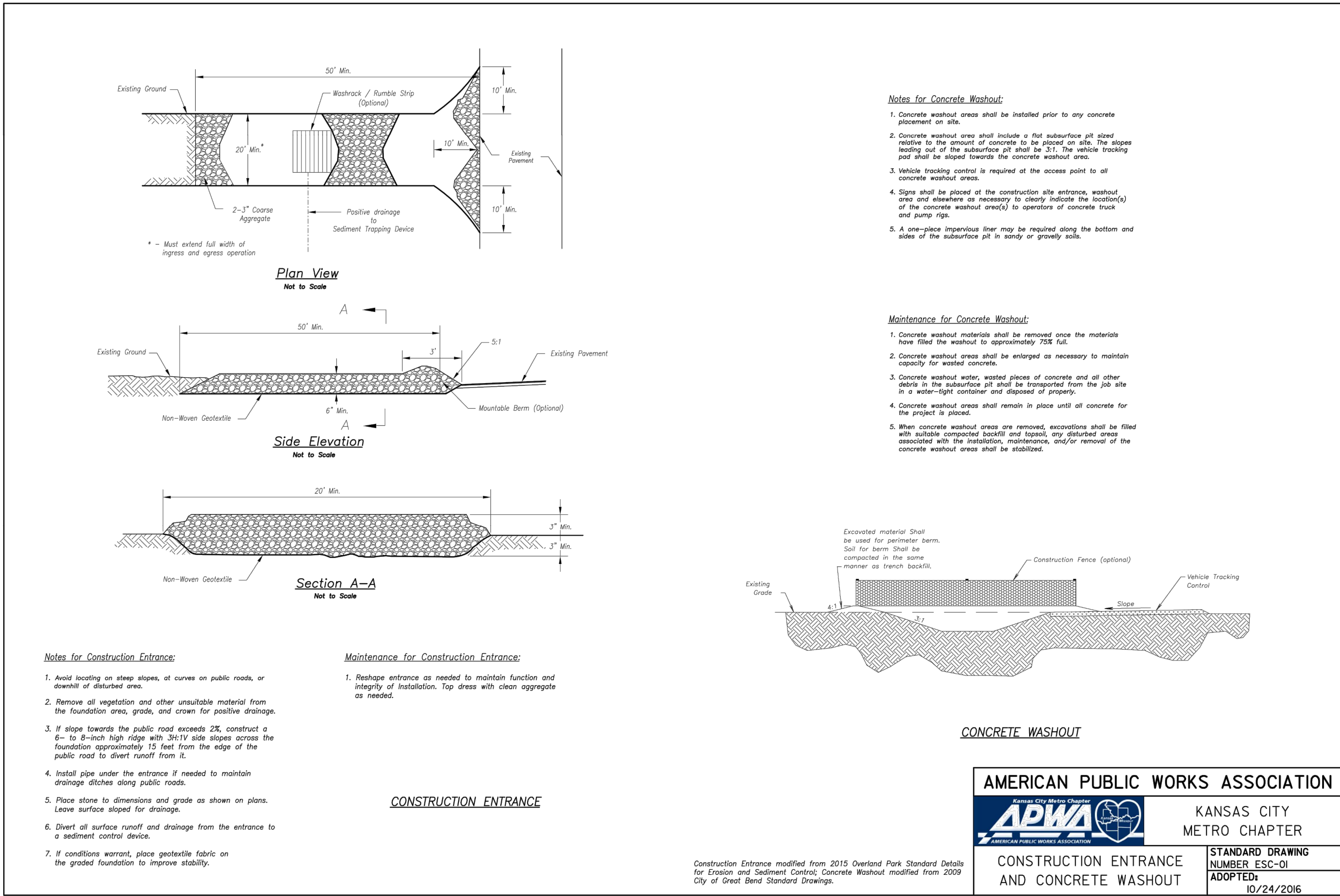
**POST CONSTRUCTION EROSION CONTROL PLAN**  
ORCHARD WOODS  
LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

PROJECT NO.	No.	Date	Revisions:	By	App.
211142					
DATE: 11-14-2022					
CHECKED: DEU					
CERTIFICATE OF AUTHORIZATION					
LAND SURVEYING - LS-82					
ENGINEERING - E-391					
CERTIFICATE OF AUTHORIZATION					
LAND SURVEYING - 2007001728					
ENGINEERING - 2007003285					

SHEET

4





PROJECT NO.	DATE	BY	APP.
211142	11-14-2022	DRW/KKSJ	
CHECKED: DEU	APPROVED: DEU		
CERTIFICATE OF AUTHORIZATION			
LAND SURVEYING - LS-82			
ENGINEERING - E-361			
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