



TENNESSEE DEPARTMENT OF ENVIRONMENT AND CONSERVATION
Division of Water Resources
William R. Snodgrass Tennessee Tower, 312 Rosa L. Parks Avenue, 11th Floor,
Nashville, Tennessee, 37243
1-888-891-8332 (TDEC)

Rcd
DWR em
4.21.2022

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Certification

OFFICIAL STATE USE ONLY	Site #:	Permit #:	NR2204.117
Section 1. Applicant Information (individual responsible for site, signs certification below)			
Applicant Name (company or individual): 3BC, LLC		SOS #: 00087227 Status: Active	
Primary Contact/Signatory: Howard George		Signatory's Title or Position: President	
Mailing Address: 702 Prince Edward Ct.		City: Murfreesboro	State: TN Zip: 37067
Phone: 615-513-1173	Fax:	E-mail: budgeorge67@gmail.com	
Section 2. Alternate Contact/Consultant Information (a consultant is not required)			
Alternate Contact Name: Jeremy Moody			
Company: Moody Excavating, LLC		Title or Position: Contractor	
Mailing Address: 111 Forbus Dr		City: Christiana	State: TN Zip: 37037
Phone: 615-542-0491	Fax:	E-mail: Jeremy.Moody@moody-llc.com	
Section 3. Fee (application will be incomplete until fee is received)			
<input type="checkbox"/> No Fee		<input checked="" type="checkbox"/> Fee Submitted with Application	
		Amount Submitted: \$ <u>500</u>	
Current application fee schedules can be found at the Division of Water Resources webpage at: https://www.tn.gov/environment/permit-permits/water-permits/1/aquatic-resource-alteration-permit--arap-.html or by calling (615) 532-0625. Please make checks payable to "Treasurer, State of Tennessee".			
Billing Contact (if different from Applicant):		Name:	Email:
Address:		Phone:	
Section 4. Project Details (fill in information and check appropriate boxes)			
Site or Project Name: Clearview Acres, Section 4		Nearest City, Town or Major Landmark:	
Street Address or Location (include zip): along Walnut Grove Road, West of Shelbyville Pike (37037)			
County(ies): Rutherford		MS4 Jurisdiction:	Latitude (dd.dddd): 35.7251
			Longitude (dd.dddd): -86.4361
Resources Proposed for Alteration: <input checked="" type="checkbox"/> Stream / River <input type="checkbox"/> Wetland <input type="checkbox"/> Reservoir			
Name of Water Resource (for more information, access http://tdeconline.tn.gov/dwr): Misc Tribs to West Fork Stones River (TN05130203018_0999)			
Brief Project Description (a more detailed description is required under Section 8): <div style="text-align: right; font-size: 1.2em;">Bank grading for pond outlet</div>			
Does the proposed activity require approval from the U.S. Army Corps of Engineers, the Tennessee Valley Authority, or any other federal, state, or local government agency? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If Yes, provide the permit reference numbers:			
Will the activity require a 401 Water Quality Certification: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
If Yes, attach any 401 WQC pre-filing meeting request documentation			
Is the proposed activity associated with a larger common plan of development: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
If Yes, submit site plans and identify the location and overall scope of the common plan of development.			
Plans attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
If applicable, indicate any other federal, state, or local permits that are associated with the overall project site (common plan of development) that have been obtained in the past (e.g., construction general permit and/or other ARAP):			

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Certification

Section 5. Project Schedule (fill in information and check appropriate boxes)		
Proposed start date: June 2022	Estimated end date: June 2023	
Is any portion of the activity complete now?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
If yes, describe the extent of the completed portion:		

The required information in Sections 6-11 must be submitted on a separate sheet(s) and submitted in the same numbered format as presented below. If any question is not applicable, state the reason why it is not applicable.

Section 6. Description	Attached Yes No	
6.1 A narrative description of the scope of the project	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.2 USGS topographic map indicating the exact location of the project (can be a photographic copy)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.3 Photographs of the resource(s) proposed for alteration with location description (photo locations should be noted on map)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.4 A narrative description of the existing stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.5 A narrative description of the proposed stream and/or wetland characteristics including, but not limited to, dimensions (e.g., depth, length, average width), substrate and riparian vegetation	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.6 In the case of wetlands, include a wetland delineation with delineation forms and site map denoting location of data points	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6.7 A copy of all hydrologic or jurisdictional determination documents issued for water resources on the project site	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Section 7. Project Rationale	Attached Yes No	
Describe the need for the proposed activity, including, but not limited to the purpose, alternatives considered and rationale for selection of least impactful alternative, and what will be done to avoid or minimize impacts to water resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>


Section 8. Technical Information	Attached Yes No	
8.1 Detailed plans, specifications, blueprints, or legible sketches of present site conditions and the proposed activity. Plans must be 8.5.x 11 inches. Additional larger plans may also be submitted to aid in application review. The detailed plans should be superimposed on existing and new conditions (e.g., stream cross sections where road crossings are proposed)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.2 For the proposed activity and compensatory mitigation, provide a discussion regarding the sequencing of events and construction methods and any proposed monitoring	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8.3 Depiction and narrative on the location and type of erosion prevention and sediment control (EPSC) measures for the proposed alterations and any other measures to treat, control, or manage impacts to waters	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Section 9. Water Resources Degradation (degree of proposed impact)
<p>Note that in most cases, activities that exceed the scope of the General Permit limitations are considered greater than <i>de minimis</i> degradation to water quality.</p> <p>Please provide your basis for concluding the proposed activity will cause one of the following levels of water quality degradation:</p> <p><input checked="" type="checkbox"/> a. <i>De minimis</i> degradation, no appreciable permanent loss of resource values</p> <p><input type="checkbox"/> b. Greater than <i>de minimis</i> degradation (if greater than <i>de minimis</i> complete Sections 10-11)</p> <p><i>For information and guidance on the definition of de minimis and degradation, refer to the Antidegradation Statement in Chapter 0400-40-03-.06 of the Tennessee Water Quality Criteria Rule:</i> https://publications.tnsosfiles.com/rules/0400/0400-40/0400-40.htm</p> <p><i>For more information on specifics on what General Permits can cover, refer to the Natural Resources Unit webpage at:</i> https://www.tn.gov/environment/permit-permits/water-permits/1/aquatic-resource-alteration-permit--arap-.html</p>

Application for Aquatic Resource Alteration Permit (ARAP) & State §401 Water Quality Certification

Section 10. Detailed Alternatives Analysis		Attached Yes No	
10.1	Analyze all reasonable alternatives and describe the level of degradation and permanent loss of resource value caused by each alternative. Assessment must consider options other than the "Preferred" and "No Action" alternatives. Provide associated rationale for selecting or rejecting all alternatives considered and demonstration that the least impactful practicable alternative was selected.	<input type="checkbox"/>	<input type="checkbox"/>
10.2	Discuss the social and economic consequences of each alternative	<input type="checkbox"/>	<input type="checkbox"/>
10.3	Demonstrate that the degradation associated with the preferred alternative will not violate water quality criteria for uses designated in the receiving waters, and is necessary to accommodate important economic and social development in the area	<input type="checkbox"/>	<input type="checkbox"/>

Section 11. Compensatory Mitigation		Attached Yes No	
11.1	A detailed discussion of the proposed compensatory mitigation. Provide evidence of credit reservation if proposing to utilize a third-party provider.	<input type="checkbox"/>	<input type="checkbox"/>
11.2	Analysis of any proposed appreciable loss of resource value using the TN Stream Mitigation Guidelines. Provide Stream Quantification Tool (SQT) results if applicable. Include Existing Condition Score (ECS) and debit/credit calculations.	<input type="checkbox"/>	<input type="checkbox"/>
11.3	Describe how the compensatory mitigation would result in no net loss of resource value	<input type="checkbox"/>	<input type="checkbox"/>
11.4	Provide a detailed monitoring plan for the compensatory mitigation site if permittee-responsible project is proposed	<input type="checkbox"/>	<input type="checkbox"/>
11.5	Describe the long-term protection measures for the compensatory mitigation site if permittee-responsible project is proposed (e.g., deed restrictions, conservation easement)	<input type="checkbox"/>	<input type="checkbox"/>

Certification and Signature			
<p>An application submitted by a corporation must be signed by a principal executive officer; from a partnership or proprietorship, by the partner or proprietor respectively; from a municipal, state, federal or other public agency or facility, the application must be signed by either a principal executive officer, ranking elected official, or other duly authorized employee.</p> <p><i>I certify under penalty of law that this document and all attachments were prepared by me, or under my direction or supervision. The submitted information is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. As specified in Tennessee Code Annotated Section 39-16-702(a)(4), this declaration is made under penalty of perjury. The project proponent hereby requests that the certifying authority review and take action on this CWA 401 certification request within the applicable reasonable period of time.</i></p>			
Howard George	President		4.5.28
Printed Name	Official Title	Signature	Date

Note that this form must be signed by the principal executive officer, partner or proprietor, or a ranking elected official in the case of a municipality; for details see **Certification and Signature** statement above. For more information, contact your local EFO at the toll-free number 1-888-891-8332 (TDEC). Submit the completed ARAP Application form (keep a copy for your records) to the appropriate EFO for the county(ies) where the proposed activity is located, addressed to **Attention: ARAP Processing**. You may also electronically submit the complete application and all associated attachments to water.permits@tn.gov.

EFO	Street Address	Zip Code	EFO	Street Address	Zip Code
Memphis	8383 Wolf Lake Drive, Bartlett	38133-4119	Cookeville	1221 South Willow Ave.	38506
Jackson	1625 Hollywood Drive	38305-4316	Chattanooga	1301 Riverfront Pkwy., Ste. 206	37402
Nashville	711 R S Gass Boulevard	37243	Knoxville	3711 Middlebrook Pike	37921
Columbia	1421 Hampshire Pike	38401	Johnson City	2305 Silverdale Road	37601



SEC, Inc.

SITE ENGINEERING CONSULTANTS

Engineering • Surveying • Land Planning
850 Middle Tennessee Blvd, Murfreesboro, TN 37129
www.sec-civil.com • 615-890-7901 • fax 615-895-2567

April 14, 2022

Attention ARAP Processing
Nashville EFO
Water.permits@tn.gov
711 R.S. Gass Blvd.
Nashville, TN 37243

RE: Clearview Acres, Section 4
Rutherford County, TN
SEC Project No. 14300

To Whom It May Concern:

On behalf of our client, 3BC, LLC, enclosed is an application for an *Aquatic Resource Alteration Permits* for an Clearview Acres, Section 4 on their property off Walnut Grove Road.

This ARAP application is for covering the detention pond outlet. The ARAP application form has the supplemental sections 6 to 8 and a ½ size set of the larger common plan of development have been included. Also, included is the application fee of \$500 for a General Permit requiring notification for each new permit.

If you have any questions, comments, or if any additional information is required, please contact me. Please send a copy of the Notice of Coverage (NOC) to me via mail or email at jcolson@sec-civil.com.

Sincerely,

Joshua Colson, E.I.
SEC, Inc.

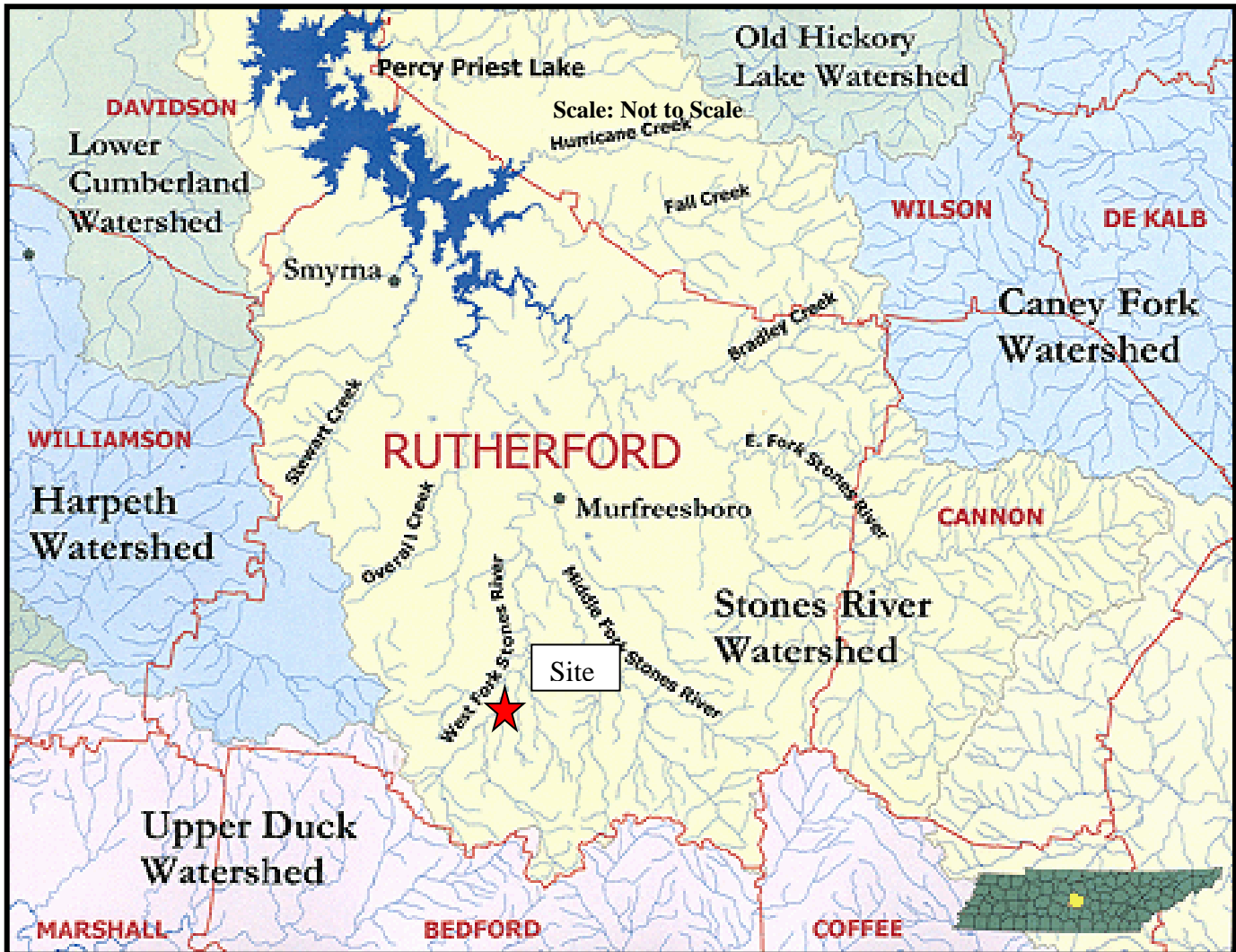
Enclosures: ARAP (Electronically)
Set of Construction Plans (Electronically)
Supplemental Sections (Electronically)
Review Fee Check (via Mail)

Application for Aquatic Resource Alteration Permit (ARAP) for Clearview Acres – Section 4, Pond Outlet

Section 6: Project Description

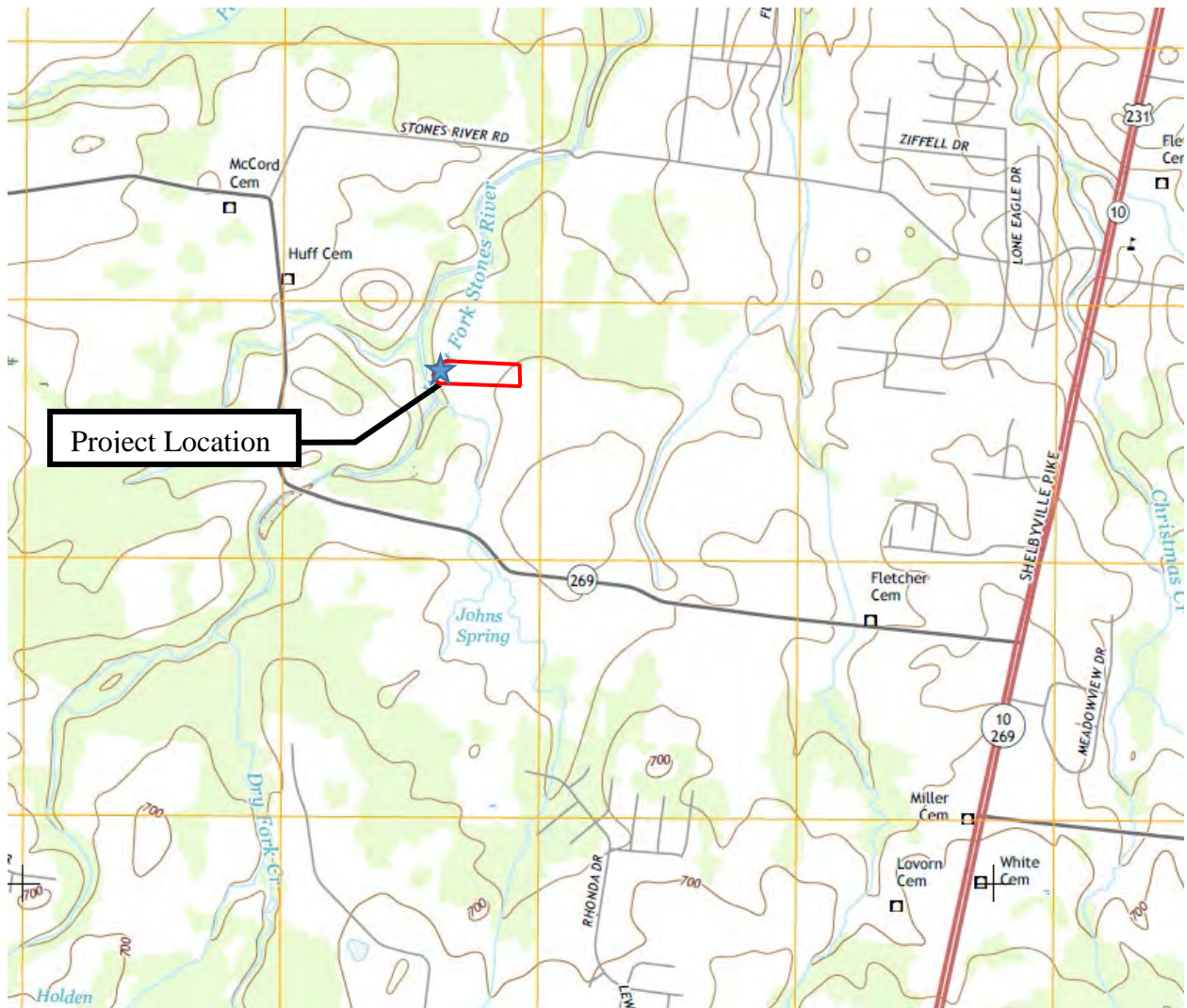
6.1 A narrative description of the scope of the project:

3BC, LLC is requesting bank grading of an Unnamed Tributary to West Fork Stones River in order to provide drainage to the subdivisions of Clearview Acres using a detention pond on the Western portion of the site. The proposed site is located along Walnut Grove Road, West of Shelbyville Pike in Rutherford County (Tax Map 159, Parcel 6.00 and 6.01). The stream bank modification would take place approximately at Latitude 35.7243 and Longitude -86.4382 of the Unnamed Tributary to West Fork Stones River (see attached maps).



6.2 USGS topographic map indicating the exact location of the project:

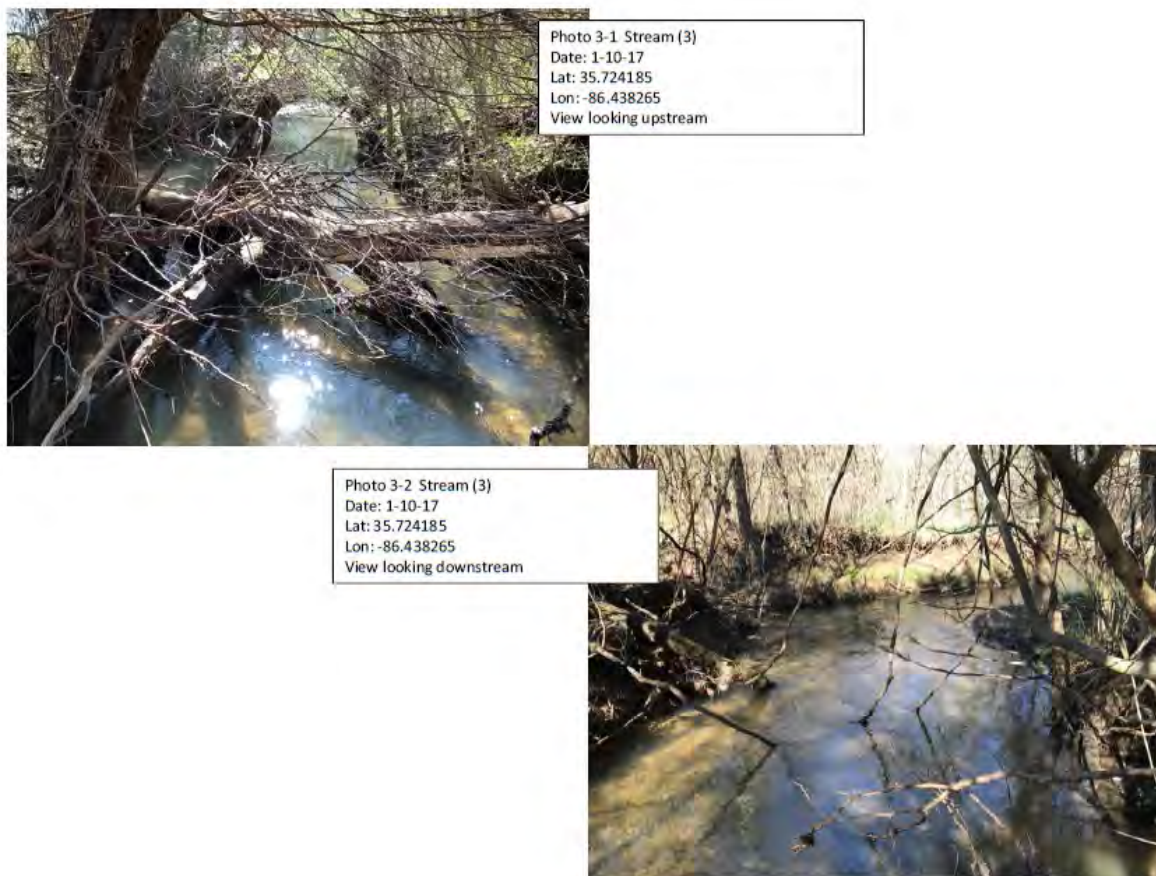
Fosterville, TN Quadrangle USGS TOPO



Bank Modification - ★



6.3 Photograph of the resource(s) proposed for alteration with location description:



Picture of the Unnamed Tributary to West Fork Stones River near the bank modification/pond outlet

6.4 A narrative description of the existing stream:

This section of West Fork Stones River (Segment ID: TN05130203018_0999) is located in the limits of Rutherford County, TN. The *TDEC Tennessee Stream Assessment Map* shows this section of West Fork Stones River as an impaired stream, and therefore not supporting. The vegetation lining the stream bank are grasses and trees common to stream banks in the area. There are no known wetlands to exist in the area of the bank modification, as shown in the attached HD Report (DWR ID No. 8778).

6.5 A narrative description of the proposed stream:

The proposed detention pond outlet will be standard construction, with grading to allow the site to drain. The areas where backfill will be required will be primarily replacing the removed soil. The vegetation in the area of the crossing will be removed and replaced with sedimentation prevention cover. Areas disturbed for installation will be stabilized to prevent erosion with appropriate erosion control measures during construction. After the outlet structure is completed, these areas will be vegetated as a permanent erosion control measure. The total impact will be approximately 25 feet for the construction of the pond outlet/bank modification.

6.6 Wetland Delineation:

This section of the unnamed tributary is not classified as a wetland per the U.S. Fish & Wildlife wetlands inventory map and by the Hydrologic Determination Report (DWR ID No. 8778).

6.7 Hydrologic Determination:

This section of the Unnamed Tributary to West Fork Stones River is not regulated in the Federal Emergency Management Agency (FEMA) as listed in the Flood Insurance Rate Map number 47149C0377H and 47149C0381H, dated January 5th, 2007. The area of the outlet structure is indicated as Zone “AE” – inside the 100-year flood zone. These sections of the stream do have floodway designation. The stream is in the Stones River Watershed (Hydrologic Unit Code 05130203).

Section 7: Project Rationale

7. Describe the need for the proposed activity and overall project:

The purpose of the bank modification is to allow the detention pond/site to drain. This project is considered to be a minor impact as the construction of the outlet structure/bank modification will not contribute to any permanent loss of resource values.

Section 8: Technical Information

8.1 Detail plans, blueprints, or legible sketches of present site conditions and the proposed activity.

See attached 8½” x 11” plans.

8.2 For the proposed activity and mitigation provide a discussion regarding the sequencing of events.

Best Management Practices (BMP’s) including construction exit, erosion eels and silt fence are to be erected on-site prior to clearing activities. Some areas may require light clearing before BMP’s can be installed.

No excavating equipment should be operated in flowing waters. This work should be performed in the “dry” or during low flows. A Temporary Stream Crossing is not expected.

Once all BMP’s are installed and the site is cleared, the channel banks will be excavated to the width required to allow the pond outlet pipes to drain. The construction method will be dependent on the stream conditions at the time of construction. One of two methods will be used to cross the stream. Method #1 will be used for crossing the stream with flowing water. Method #2 will be used if the stream has little to no flow.

Bank Modification/Pond Outlet

Method #1:

A rock check dam will be used to protect the bank from erosion and prevent sediment from the disturbance from entering the stream.

The side slopes for the embankments should be seeded and mulched immediately following final grading of the approaches.

Method #2: Silt fence may be used to trap sediment if there is little to no flow in the stream.

The side slopes for the embankments should be seeded and mulched immediately following final grading of the approaches.

8.3 Depiction and Narrative on the location and type of erosion prevention and sediment control measures for the proposed alterations.

See the construction plans for required BMP’s and their locations

Construction Exit – to be located off the existing Compass Way.

Silt fence – to be located along both banks for the limits of disturbance. Erosion eels (Tubes and Wattles) may be a substitute item if frequent relocations are necessary.

Permanent Seeding and Mulch – to be located on any areas disturbed by construction that is not stabilized with other means. The type of seed and the application rate should follow TDOT requirements.



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES

Nashville Environmental Field Office
711 R.S. Gass Boulevard
Nashville, TN

Phone 615-687-7000 Statewide 1-888-891-8332 Fax 615-687-7078

May 15, 2017

Gilbert Barbar
1002 Walnut Grove Road
Christiana, TN 37037

Re: Hydrologic Determination (DWR ID No. 8778)
 Clearview Estates
 West Fork Stones Watershed

Dear Mr. Barbar:

On March 23, 2017, the Division of Water Resources (division) received a jurisdictional waters determination of hydrologic features report submitted on your behalf by Tony Grow of Grow Environmental, LLC. Mr. Grow submitted this report as a Qualified Hydrologic Professional (TN QHP No. 1128-TN15) .This report concerns water features located on the Clearview Estates property Lat. 35.722547 Long. -86.431101, at 1004 Walnut Grove Road, Christiana, TN, Tennessee. Please note that all geographic coordinates provided in this letter have a limited precision and should be considered approximate.

Based on the information and documentation submitted and the division's rules and guidance regarding hydrologic determinations, the division partially accepts the jurisdictional determination of the water features as portrayed in the submitted report and attached map (Map Attachment). Only the water features shown below and on the attached map were assessed during this determination.

Classification	From Lat	From Long	To Lat	To Long	Description
Wet Weather Conveyance	35.722058	-86.431454	35.724575	-86.429554	WWC-2
Wet Weather Conveyance	35.718396	-86.431155	35.721339	-86.431713	WWC-1
Stream	35.724265	-86.441138	35.72504	-86.44075	STR-4
Stream	35.722358	-86.431454	35.72519	-86.440468	STR-3
Jurisdictional pond	35.721654	-86.431556			Pond-1

Alterations to wet weather conveyances typically may be performed without application or notification to the division, as long as they conform to the provisions of the *General Aquatic Resource Alteration Permit for the Alteration of Wet Weather Conveyances*.

Any alterations to streams or wetlands may only be performed under the coverage of, and conformance to, a valid *Aquatic Resource Alteration Permit (ARAP)* issued by the division. ARAP applications and provisions are available on-line at <http://www.tn.gov/environment/article/permit-water-aquatic-resource-alteration-permit>.

If the disturbed area of this project is one acre or greater, coverage under the *General NPDES Permit for Stormwater Discharges from Construction Activities (CGP)* will be required from this division before any clearing or earth moving activities are started. Information on the construction stormwater permit is available online at <http://www.tn.gov/environment/article/permit-water-npdes-stormwater-construction-permit>. Please be advised that effective erosion prevention and sediment control measures must be used during the construction phase of this project to prevent the discharge of pollutants to waters of the State.

Hydrologic determinations are advised and governed by Tennessee Department of Environment and Conservation (TDEC) rules and regulations, and therefore only apply to the State's permitting process. Because these and other various water features on-site may potentially also be considered jurisdictional Waters of the United States, any alterations to them should only be performed after consultation with the U.S. Army Corps of Engineers.

I appreciate the opportunity to assess the site prior to site plan finalization and initiation of construction activities. Because natural variation and human activities can alter hydrologic conditions, the division reserves the right to reassess the status of the water features in the future.

Thank you for your interest in water quality in Tennessee. If you have any questions or need additional information, please contact me at 615-687-7101 or by email at Brandon.Yates@tn.gov.

Sincerely,



Brandon Yates
Division of Water Resources

cc: Tony Grow
U.S. Army Corp of Engineers, NashvilleRegulatory@usace.army.mil

Enclosure: Map Attachment



Mr. Barbar

May 15, 2017

Page 4 of 3 – Map Attachment

Anthony A. Grow, PG
TNQHP 1128-TN15
1406 Wilson Avenue
Tullahoma, TN 37388
macduff1@charter.net
(931) 273-4681 cell

February 10, 2017

Division of Water Resources
Tennessee Department of Environment and Conservation
711 R.S. Gass Boulevard
Nashville, TN 37216

RE: Hydrological Determination (HD) Report – Clearview Estates, 1004 Walnut Grove Road, Christiana, Rutherford County

The attached hydrologic determination (HD) report (Attachment 1) is submitted **to qualify for treatment provided for in §69-3-108(r)**. A determination was conducted of four channels draining to West Fork Stones River northwest of the site to identify water resource impacts of developing the site. There is a small non-jurisdictional pond in the center of the site. The attached HD report identified the following water resource features:

- 1 (Wet Weather Conveyance) – Start: 35.718396, -86.431155; End: 35.721339, -86.431713
- 2 (Wet Weather Conveyance) – Start: 35.722058, -86.431454; End: 35.724575, -86.429554
- 3 (Stream) – Start: 35.722358, -86.438791; End: 35.725190, -86.440468
- 4 (Stream) – Start: 35.724265, -86.441138; End: 35.725040, -86.440750
- Pond (0.40 acre) - 35.721654, -86.431556

The residential development proposes (see attached Site Plan) re-routing one wet weather conveyance and filling the pond.

The property owner is Clearview Acres, LP, property owner. A signed property access permission letter is attached to this report.

Please contact me via my cell phone or by email if you have any questions. All submitted information is true, accurate and complete.

Sincerely,



Anthony A. Grow, PG
TNQHP 1128-TN15

Attachments

- 1. Hydrologic Determination Report – Clearview Estates Property
- 2. Clearview Estates Site Plan
- 3. Property Access Permission Letter

Attachment 1 - Hydrologic Determination Report – Clearview Estates Property

Hydrologic Determination Report

Clearview Estates Property – 1004 Walnut Grove
Christiana, Tennessee

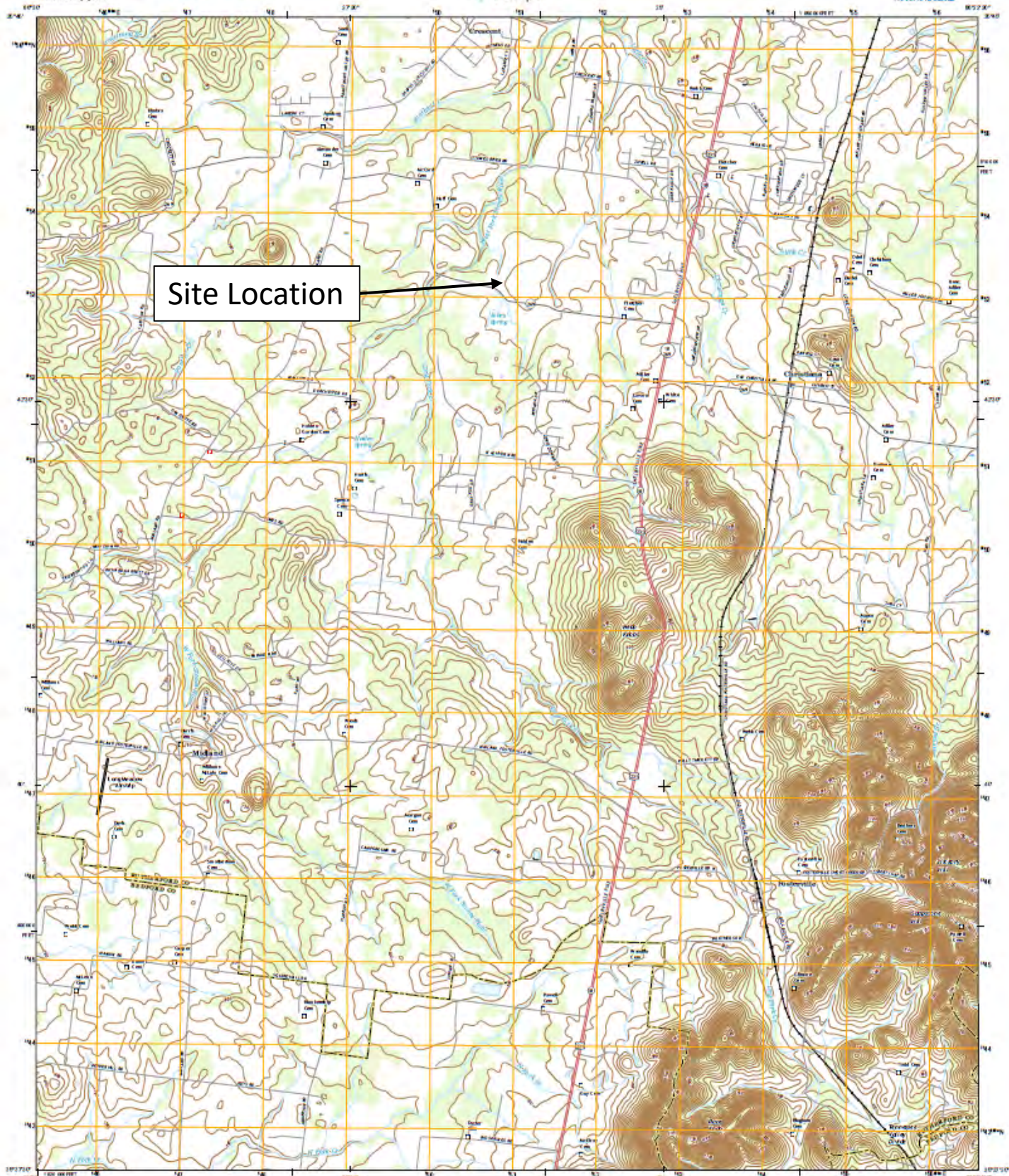
Prepared by
Anthony A. Grow, PG
TNQHP 1128-TN15

February 10, 2017

Contents

Topographic Map Showing Site Location
Vicinity Map
Hydrologic Determined Features Map
HD Field Data Sheets and Photographs
USDA Soils Map Data
Calculation of Weather Conditions

TOPOGRAPHIC MAP SHOWING
SITE LOCATION



Site Location

Produced by the United States Geological Survey
This map was produced by the United States Geological Survey
and is published by the United States Geological Survey
under the authority of the Secretary of the Interior.
This map is a reproduction of the original map.
The map is a reproduction of the original map.
The map is a reproduction of the original map.

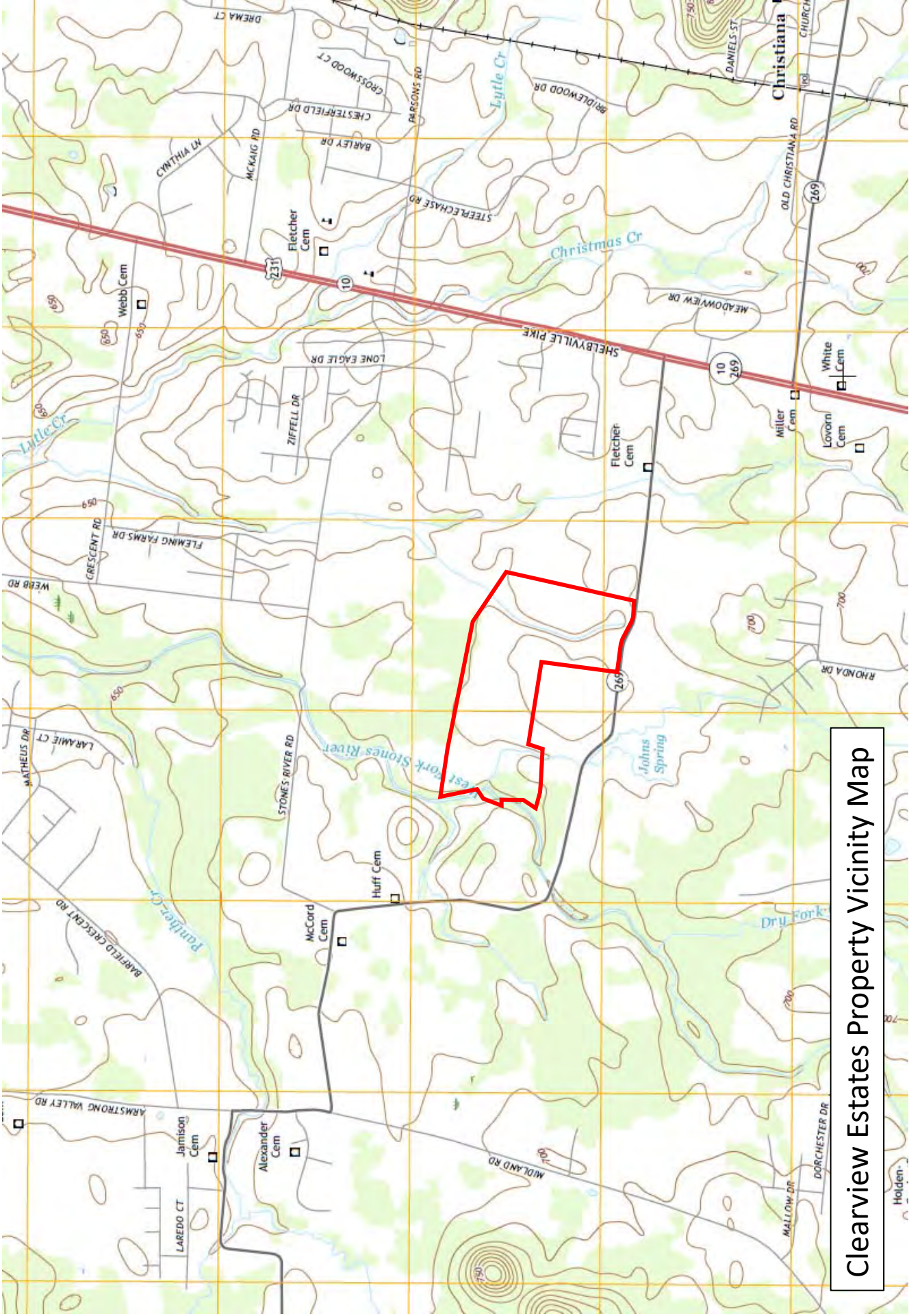
UNITED STATES GEOLOGICAL SURVEY
WASHINGTON, D.C. 20508
FOSTERVILLE, TN
2016

SCALE 1:24,000
FOOT
METER
This map was produced by the United States Geological Survey
and is published by the United States Geological Survey
under the authority of the Secretary of the Interior.
This map is a reproduction of the original map.
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ROAD CLASSIFICATION
Expressway
Secondary Road
Tertiary Road
Local Road
Unimproved Road
Railroad
Waterway
Canal
Ditch
Drainage
Irrigation
Other

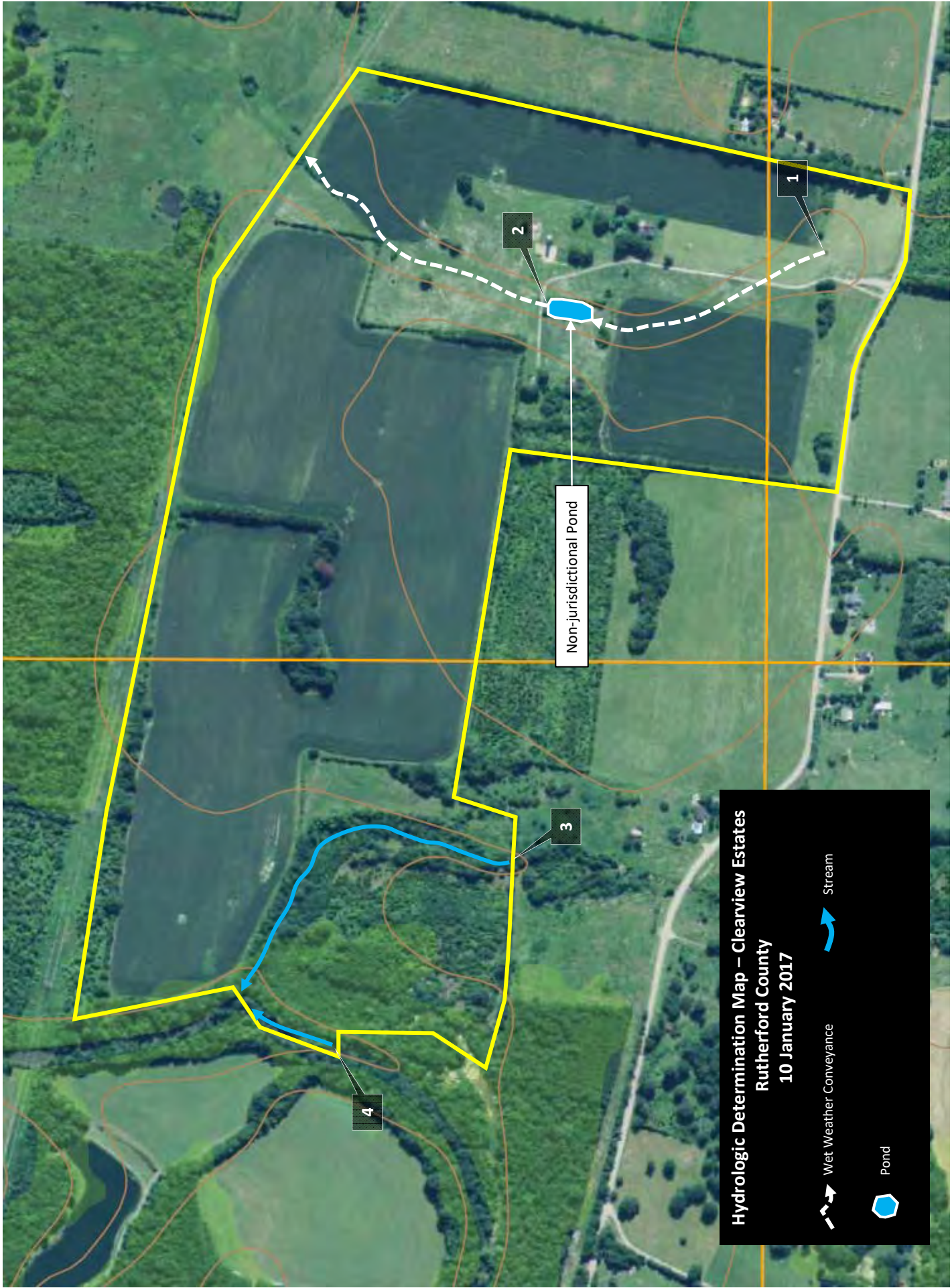
FOSTERVILLE, TN
2016

VICINITY MAP





Clearview Estates Property Vicinity Map


HYDROLOGIC DETERMINATION FEATURES MAP

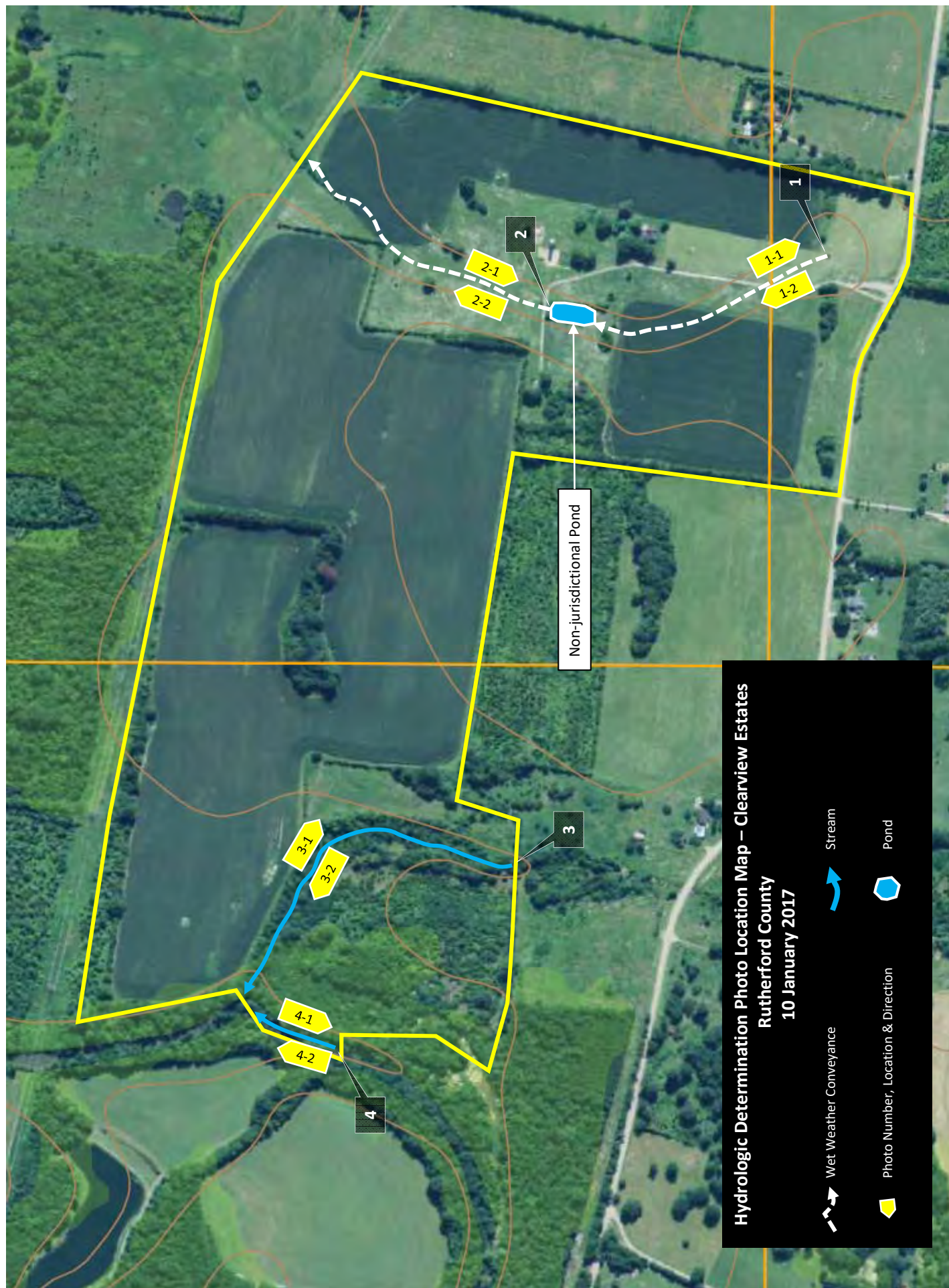


Hydrologic Determination Map – Clearview Estates
Rutherford County
10 January 2017

 Wet Weather Conveyance

 Stream

 Pond



HYDROLOGIC DETERMINATION
FIELD DATA SHEETS & PHOTOGRAPHS

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Pollution Control, Version 1.4

1-WWC

County: Rutherford	Named Waterbody: Unnamed Tributary	Date/Time: 1/10/17
Assessors/Affiliation: Anthony A. Grow, TNQHP # 1128-TN15		Project ID :
Site Name/Description: Clearview Estates Property		
Site Location: 1004 Walnut Grove Road, Christiana, TN		
USGS quad: Fosterville	HUC (12 digit):	Lat/Long: Start: 35.718396, -86.431155 End: 35.721339, -86.431713
Previous Rainfall (7-days) : 0.64 inch		
Precipitation this Season vs. Normal : very wet wet <average> dry drought unknown		
Source of recent & seasonal precip data : CoCoRah Station TN-RD-8		
Watershed Size : 11 acres	Photos:<Y>or N (circle) Number : 1-1, 1-2	
Soil Type(s) / Geology : Egam silt loam	Source: USDA	
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate <Slight> Absent		

Primary Field Indicators Observed

Primary Indicators	NO	YES
1. Hydrologic feature exists solely due to a process discharge	X	WWC
2. Defined bed and bank absent, dominated by upland vegetation / grass		<WWC>
3. Watercourse dry anytime during February through April 15th, under normal precipitation / groundwater conditions		WWC
4. Daily flow and precipitation records showing feature only flows in direct response to rainfall		WWC
5. Presence of multiple populations of obligate lotic organisms with ≥ 2 month aquatic phase		Stream
6. Presence of fish (except <i>Gambusia</i>)		Stream
7. Presence of naturally occurring ground water table connection		Stream
8. Flowing water in channel and 7 days since last precipitation in local watershed		Stream
9. Evidence watercourse has been used as a supply of drinking water		Stream

NOTE : If any Primary Indicators 1-9 = "Yes", then STOP; absent directly contradictory evidence, determination is complete.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in *TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.4*

Overall Hydrologic Determination = Wet Weather Conveyance (1-WWC)

Secondary Indicator Score (if applicable) =

Justification / Notes : Numerous sinkholes along channel.



Photo 1-1 Wet Weather Conveyance (1)

Date: 1-10-17

Lat: 35.719276

Lon: -86.430973

[View looking upstream](#)



Photo 1-2 Wet Weather Conveyance (1)

Date: 1-10-17

Lat: 35.719276

Lon: -86.430973

[View looking downstream](#)

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Pollution Control, Version 1.4

2-WWC

County: Rutherford	Named Waterbody: Unnamed Tributary	Date/Time: 1/10/17
Assessors/Affiliation: Anthony A. Grow, TNQHP # 1128-TN15		Project ID :
Site Name/Description: Clearview Estates Property		
Site Location: 1004 Walnut Grove Road, Christiana, TN		
USGS quad: Fosterville	HUC (12 digit):	Lat/Long: Start: 35.722058, -86.431454 End: 35.724575, -86.429554
Previous Rainfall (7-days) : 0.64 inch		
Precipitation this Season vs. Normal : very wet wet <average> dry drought unknown		
Source of recent & seasonal precip data : CoCoRah Station TN-RD-8		
Watershed Size : 5 acres	Photos:<Y>or N (circle) Number : 2-1, 2-2	
Soil Type(s) / Geology : Egam silt loam	Source: USDA	
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate <Slight> Absent		

Primary Field Indicators Observed

Primary Indicators	NO	YES
1. Hydrologic feature exists solely due to a process discharge	X	WWC
2. Defined bed and bank absent, dominated by upland vegetation / grass		<WWC>
3. Watercourse dry anytime during February through April 15th, under normal precipitation / groundwater conditions		WWC
4. Daily flow and precipitation records showing feature only flows in direct response to rainfall		WWC
5. Presence of multiple populations of obligate lotic organisms with ≥ 2 month aquatic phase		Stream
6. Presence of fish (except <i>Gambusia</i>)		Stream
7. Presence of naturally occurring ground water table connection		Stream
8. Flowing water in channel and 7 days since last precipitation in local watershed		Stream
9. Evidence watercourse has been used as a supply of drinking water		Stream

NOTE : If any Primary Indicators 1-9 = "Yes", then STOP; absent directly contradictory evidence, determination is complete.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in *TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.4*

Overall Hydrologic Determination = Wet Weather Conveyance (2-WWC)

Secondary Indicator Score (if applicable) =

Justification / Notes : Two sinkholes along length of channel.



Photo 2-1 Wet Weather Conveyance (2)

Date: 1-10-17

Lat: 35.722547

Lon: -86.431101

View looking upstream



Photo 2-2 Wet Weather Conveyance (2)

Date: 1-10-17

Lat: 35.722547

Lon: -86.431101

View looking downstream

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Pollution Control, Version 1.4

3-Stream

County: Rutherford	Named Waterbody: Unnamed Tributary	Date/Time: 1/10/17
Assessors/Affiliation: Anthony A. Grow, TNQHP # 1128-TN15		Project ID :
Site Name/Description: Clearview Estates Property		
Site Location: 1004 Walnut Grove Road, Christiana, TN		
USGS quad: Fosterville	HUC (12 digit):	Lat/Long: Start: 35.722358, -86.438791 End: 35.725190, -86.440468
Previous Rainfall (7-days) : 0.64 inch		
Precipitation this Season vs. Normal : very wet wet <average> dry drought unknown		
Source of recent & seasonal precip data : CoCoRah Station TN-RD-8		
Watershed Size : 17 acres	Photos:<Y>or N (circle) Number : 3-1, 3-2	
Soil Type(s) / Geology : Egam silt loam	Source: USDA	
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate <Slight> Absent		

Primary Field Indicators Observed

Primary Indicators	NO	YES
1. Hydrologic feature exists solely due to a process discharge	X	WWC
2. Defined bed and bank absent, dominated by upland vegetation / grass	X	WWC
3. Watercourse dry anytime during February through April 15th, under normal precipitation / groundwater conditions	N/A	WWC
4. Daily flow and precipitation records showing feature only flows in direct response to rainfall	N/A	WWC
5. Presence of multiple populations of obligate lotic organisms with ≥ 2 month aquatic phase	X	Stream
6. Presence of fish (except <i>Gambusia</i>)	X	Stream
7. Presence of naturally occurring ground water table connection		<Stream>
8. Flowing water in channel and 7 days since last precipitation in local watershed		Stream
9. Evidence watercourse has been used as a supply of drinking water		Stream

NOTE : If any Primary Indicators 1-9 = "Yes", then STOP; absent directly contradictory evidence, determination is complete.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in *TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.4*

Overall Hydrologic Determination = Stream (3-Stream)

Secondary Indicator Score (if applicable) =

Justification / Notes :



Photo 3-1 Stream (3)
Date: 1-10-17
Lat: 35.724185
Lon: -86.438265
View looking upstream



Photo 3-2 Stream (3)
Date: 1-10-17
Lat: 35.724185
Lon: -86.438265
View looking downstream

Hydrologic Determination Field Data Sheet

Tennessee Division of Water Pollution Control, Version 1.4

4-Stream

County: Rutherford	Named Waterbody: Unnamed Tributary	Date/Time: 1/10/17
Assessors/Affiliation: Anthony A. Grow, TNQHP # 1128-TN15		Project ID :
Site Name/Description: Clearview Estates Property		
Site Location: 1004 Walnut Grove Road, Christiana, TN		
USGS quad: Fosterville	HUC (12 digit):	Lat/Long: Start: 35.724265, -86.441138 End: 35.725040, -86.440750
Previous Rainfall (7-days) : 0.64 inch		
Precipitation this Season vs. Normal : very wet wet <average> dry drought unknown		
Source of recent & seasonal precip data : CoCoRah Station TN-RD-8		
Watershed Size : 24 acres	Photos:<Y>or N (circle) Number : 4-1, 4-2	
Soil Type(s) / Geology : Arrington silt loam		Source: USDA
Surrounding Land Use : Agricultural		
Degree of historical alteration to natural channel morphology & hydrology (circle one & describe fully in Notes) : Severe Moderate <Slight> Absent		

Primary Field Indicators Observed

Primary Indicators	NO	YES
1. Hydrologic feature exists solely due to a process discharge	X	WWC
2. Defined bed and bank absent, dominated by upland vegetation / grass	X	WWC
3. Watercourse dry anytime during February through April 15th, under normal precipitation / groundwater conditions	N/A	WWC
4. Daily flow and precipitation records showing feature only flows in direct response to rainfall	N/A	WWC
5. Presence of multiple populations of obligate lotic organisms with ≥ 2 month aquatic phase	X	Stream
6. Presence of fish (except <i>Gambusia</i>)	X	Stream
7. Presence of naturally occurring ground water table connection		<Stream>
8. Flowing water in channel and 7 days since last precipitation in local watershed		Stream
9. Evidence watercourse has been used as a supply of drinking water		Stream

NOTE : If any Primary Indicators 1-9 = "Yes", then STOP; absent directly contradictory evidence, determination is complete.

In the absence of a primary indicator, or other definitive evidence, complete the secondary indicator table on page 2 of this sheet, and provide score below.

Guidance for the interpretation and scoring of both the primary & secondary indicators is provided in *TDEC-WPC Guidance For Making Hydrologic Determinations, Version 1.4*

Overall Hydrologic Determination = Stream (4-Stream)

Secondary Indicator Score (if applicable) =

Justification / Notes :



Photo 4-1 Stream (4)

Date: 1-10-17

Lat: 35.725042

Lon: -86.440665

View looking upstream



Photo 4-2 Stream (4)

Date: 1-10-17

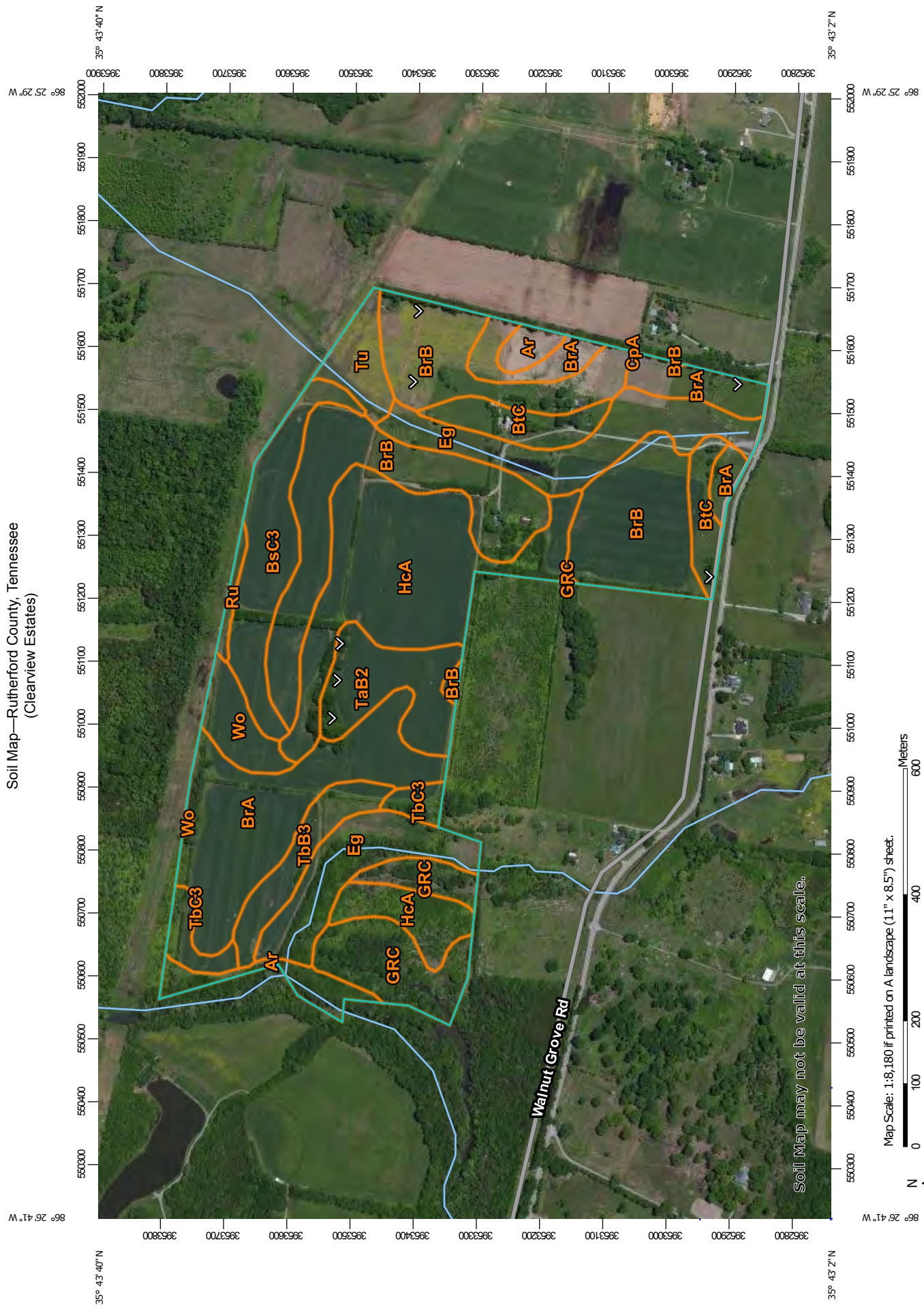
Lat: 35.725042

Lon: -86.440665

View looking downstream

USDA SOILS MAP DATA

Soil Map—Rutherford County, Tennessee (Clearview Estates)



Map Scale: 1:8,180 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons

Soil Map Unit Lines

Soil Map Unit Points

Special Point Features

Blowout

Borrow Pit

Clay Spot

Closed Depression

Gravel Pit

Gravelly Spot

Landfill

Lava Flow

Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot

Severely Eroded Spot

Sinkhole

Slide or Slip

Sodic Spot

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

Spoil Area

Stony Spot

Very Stony Spot

Wet Spot

Other

Special Line Features

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rutherford County, Tennessee
Survey Area Data: Version 13, Sep 12, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 17, 2011—May 5, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Rutherford County, Tennessee (TN149)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ar	Arrington silt loam, 0 to 2 percent slopes, occasionally flooded	3.9	2.7%
BrA	Bradyville silt loam, 0 to 2 percent slopes	22.0	15.3%
BrB	Bradyville silt loam, 2 to 5 percent slopes	33.7	23.5%
BsC3	Bradyville silty clay loam, 5 to 12 percent slopes, severely eroded	9.0	6.3%
BtC	Bradyville-Rock outcrop complex, 2 to 12 percent slopes	5.9	4.1%
CpA	Capshaw silt loam, 0 to 2 percent slopes	0.0	0.0%
Eg	Egam silt loam	16.7	11.6%
GRC	Gladeville-Rock outcrop complex, 2 to 15 percent slopes, extremely stony	8.5	5.9%
HcA	Harpeth silt loam, 0 to 2 percent slopes	22.7	15.8%
Ru	Roellen silty clay	0.7	0.5%
TaB2	Talbott silt loam, 2 to 5 percent slopes, eroded	6.9	4.8%
TbB3	Talbott silty clay loam, 2 to 5 percent slopes, severely eroded	4.3	3.0%
TbC3	Talbott silty clay loam, 5 to 12 percent slopes, severely eroded	2.9	2.0%
Tu	Tupelo silt loam	3.2	2.2%
Wo	Woodmont silt loam	3.3	2.3%
Totals for Area of Interest		143.8	100.0%

CALCULATION OF WEATHER CONDITIONS

Table 1. Calculation of Weather Conditions - Clearview Estates

	Month	Long-term rainfall records			Actual Rainfall	Condition (dry, wet, normal)	Condition value	Month weight value	Product of previous two columns
		Minus One Std. Dev. (DRY)	Normal (Mean inches)	Plus One Std. Dev. (WET)					
1 st prior month*	Dec 2016	4.95	5.23	5.50	7.19	WET	3	x 3	9
2 nd prior month*	Nov 2016	4.58	4.80	5.01	1.97	DRY	1	x 2	2
3 rd prior month*	Oct 2016	3.28	3.45	3.62	0.47	DRY	1	x 1	1
								Sum =	12

Note:

If sum is:	
6-9	then prior period has been drier than normal
10-14	then prior period has been normal
15-18	Then prior period has been wetter than normal

Condition value:	
Dry =	1
Normal =	2
Wet =	3

Conclusions: Normal weather conditions.

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- [Station Precip Summary](#)
- [Station Snow Summary](#)
- [Rainy Days Report](#)
- [Total Precip Summary](#)
- [List Stations](#)

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- [Frost](#)
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- [Home](#)
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- [Help Needed](#)
- [Printable Forms](#)
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- [Message of the Day](#)
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Station Report SummaryStation 1 : Example: CO-LR-273Station 2 : Station 3 : Start Date: End Date: **Stations:**

TN-RD-8
Murfreesboro 3.2 WSW
Lat: 35.831422
Lon: -86.44507

* indicates Multi-Day Accumulation Report

Station**TN-RD-8**

Date	Precip in.
01/03/2017	0.51
01/04/2017	0.00
01/05/2017	0.00
01/06/2017	T
01/07/2017	0.13
01/08/2017	0.00
01/09/2017	0.00
Totals :	0.64 in.

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- [Water Year Summary](#)
- [Station Precip Summary](#)
- [Station Snow Summary](#)
- [Rainy Days Report](#)
- [Total Precip Summary](#)
- [List Stations](#)

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- [Frost](#)
- [Optics](#)
- [Snowflake](#)
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- [Home](#)
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- [Education](#)
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- [Condition Monitoring](#)
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- [Volunteer Coordinators](#)
- [Hail Pad Distribution/Drop-off](#)
- [Help Needed](#)
- [Printable Forms](#)
- [The Catch](#)
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- [Publications](#)
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- [Web Groups](#)
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Station Report Summary

Station 1 :	<input type="text" value="TN-RD-8"/>	Example: CO-LR-273
Station 2 :	<input type="text"/>	
Station 3 :	<input type="text"/>	
Start Date:	<input type="text" value="12/1/2016"/>	End Date: <input type="text" value="12/31/2016"/>
<input type="button" value="Get Summary"/>		

Stations:

TN-RD-8
Murfreesboro 3.2 WSW
Lat: 35.831422
Lon: -86.44507

* indicates Multi-Day Accumulation Report

Station**TN-RD-8**

Date	Precip in.
12/01/2016	0.01
12/02/2016	0.00
12/03/2016	0.00
12/04/2016	0.46
12/05/2016	0.20
12/06/2016	0.93
12/07/2016	T
12/08/2016	T
12/09/2016	0.00
12/10/2016	0.00
12/11/2016	0.00
12/12/2016	1.16
12/13/2016	0.04
12/14/2016	0.00
12/15/2016	0.00
12/16/2016	0.00
12/17/2016	0.07
12/18/2016	1.92
12/19/2016	T
12/20/2016	0.00
12/21/2016	0.00
12/22/2016	0.00
12/23/2016	0.00
12/24/2016	0.87
12/25/2016	0.25
12/26/2016	0.00
12/27/2016	0.92
12/28/2016	T
12/29/2016	0.34
12/30/2016	0.00
12/31/2016	0.02
Totals :	7.19 in.

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- [Station Hail Reports](#)
- [Station Precip Summary](#)

- [Water Year Summary](#)
- [Station Precip Summary](#)
- [Station Snow Summary](#)
- [Rainy Days Report](#)
- [Total Precip Summary](#)
- [List Stations](#)

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- [Hail Pad Distribution/Drop-off](#)
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- [Printable Forms](#)
- [The Catch](#)
- [Message of the Day](#)
- [Publications](#)
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Station Report SummaryStation 1 : Example: CO-LR-273Station 2 : Station 3 : Start Date: End Date: **Stations:**

TN-RD-8
Murfreesboro 3.2 WSW
Lat: 35.831422
Lon: -86.44507

* indicates Multi-Day Accumulation Report

Station**TN-RD-8**

Date	Precip in.
11/01/2016	0.00
11/02/2016	0.00
11/03/2016	0.00
11/04/2016	0.00
11/05/2016	0.00
11/06/2016	0.00
11/07/2016	0.00
11/08/2016	0.00
11/09/2016	0.00
11/10/2016	0.00
11/11/2016	0.00
11/12/2016	0.00
11/13/2016	0.00
11/14/2016	0.00
11/15/2016	0.00
11/16/2016	0.00
11/17/2016	0.00
11/18/2016	0.00
11/19/2016	0.14
11/20/2016	0.00
11/21/2016	0.00
11/22/2016	0.00
11/23/2016	0.00
11/24/2016	T
11/25/2016	0.00
11/26/2016	0.00
11/27/2016	0.00
11/28/2016	0.00
11/29/2016	0.93
11/30/2016	0.90
Totals :	1.97 in.

View Data : Station Report Summary US Units ▾

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- [Station Hail Reports](#)
- [Station Precip Summary](#)

- [Water Year Summary](#)
- [Station Precip Summary](#)
- [Station Snow Summary](#)
- [Rainy Days Report](#)
- [Total Precip Summary](#)
- [List Stations](#)

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- [Frost](#)
- [Optics](#)
- [Snowflake](#)
- [Thunder](#)

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- [Home](#)
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- [FAQ / Help](#)
- [Education](#)
- [Training Slide-Shows](#)
- [Videos](#)
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- [Evapotranspiration](#)
- [Volunteer Coordinators](#)
- [Hail Pad Distribution/Drop-off](#)
- [Help Needed](#)
- [Printable Forms](#)
- [The Catch](#)
- [Message of the Day](#)
- [Publications](#)
- [CoCoRaHS Blog](#)
- [Web Groups](#)
- [State Newsletters](#)
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- [March Madness](#)
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Station Report SummaryStation 1 : Example: CO-LR-273Station 2 : Station 3 : Start Date: End Date: **Stations:**

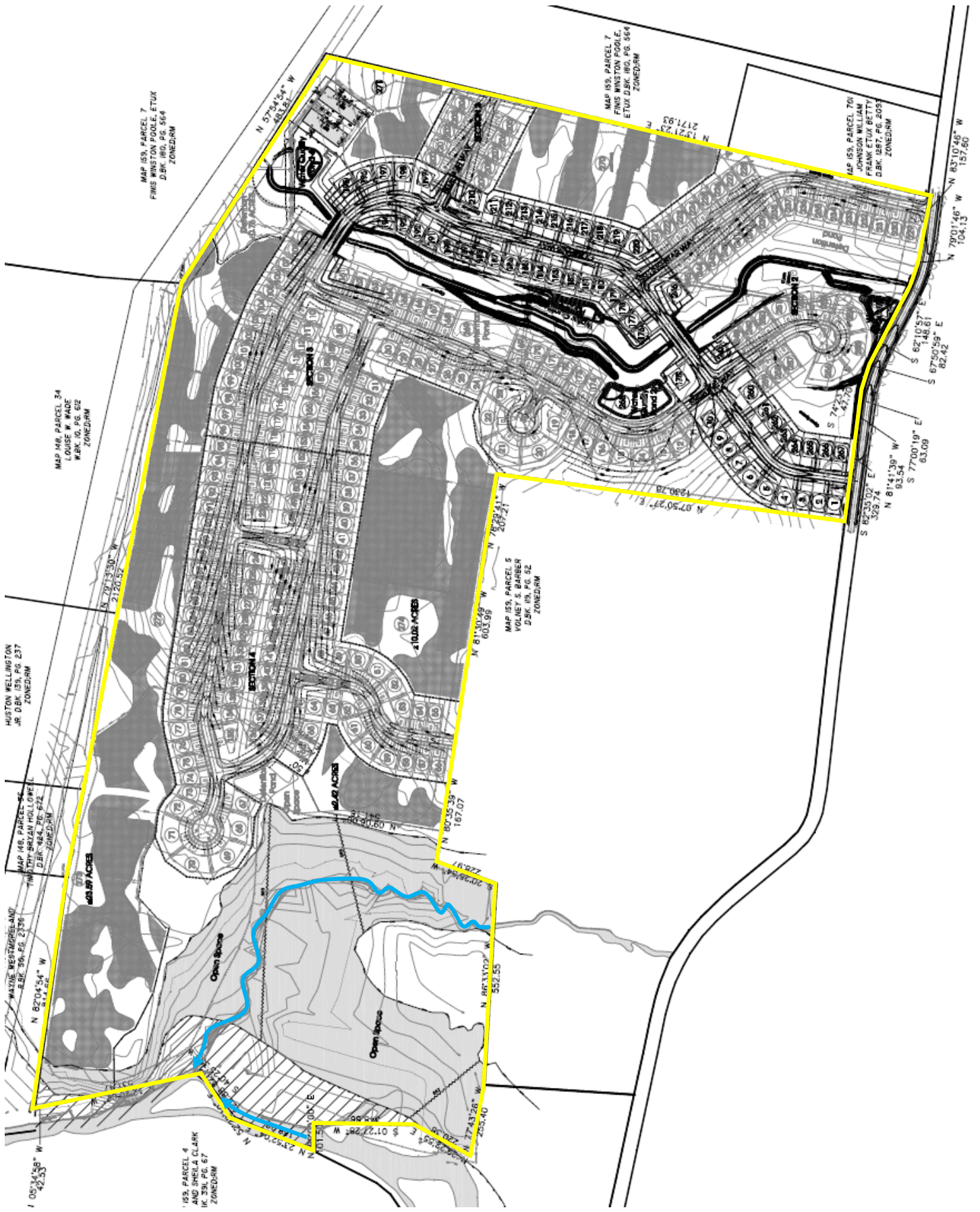
TN-RD-8
Murfreesboro 3.2 WSW
Lat: 35.831422
Lon: -86.44507

* indicates Multi-Day Accumulation Report

Station**TN-RD-8**

Date	Precip in.
10/01/2016	0.00
10/02/2016	0.00
10/03/2016	0.00
10/04/2016	0.00
10/05/2016	0.00
10/06/2016	0.00
10/07/2016	0.00
10/08/2016	0.00
10/09/2016	0.00
10/10/2016	0.00
10/11/2016	0.00
10/12/2016	0.00
10/13/2016	0.00
10/14/2016	0.00
10/15/2016	T
10/16/2016	0.00
10/17/2016	0.00
10/18/2016	0.00
10/19/2016	0.00
10/20/2016	0.00
10/21/2016	0.47
10/22/2016	0.00
10/23/2016	0.00
10/24/2016	0.00
10/25/2016	0.00
10/26/2016	0.00
10/27/2016	0.00
10/28/2016	T
10/29/2016	0.00
10/30/2016	0.00
10/31/2016	0.00
Totals :	0.47 in.

Attachment 2. Clearview Estates Site Development Plan



HUSTON WELLINGTON
JR D.B.K. 150, PG. 237
ZONED RM

MAP 146, PARCEL 52
JIMMY BRIAN HOLLOWAY
D.B.K. 184, PG. 672
ZONED RM

MAP 148, PARCEL 34
LOUISE W. WADE
W.B.K. 10, PG. 512
ZONED RM

MAP 153, PARCEL 7
FINIS WINSTON POOLE, ETUX
D.B.K. 180, PG. 564
ZONED RM

MAP 153, PARCEL 4
AND SHELIA CLARK
IK 391, PG. 67
ZONED RM

MAP 155, PARCEL 5
VOLNEY S. BARBER
D.B.K. 119, PG. 62
ZONED RM

MAP 155, PARCEL 7
FINIS WINSTON POOLE,
ETUX D.B.K. 180, PG. 564
ZONED RM

MAP 155, PARCEL 701
JOHNSON WILLIAM
FRANK ETUX BETTY
D.B.K. 180, PG. 205
ZONED RM

Attachment 3. Property Access Permission Letter

Date: 2/9/17

Division of Water Resources
Tennessee Department of Environment and Conservation (TDEC)
711 R.S. Gass Boulevard
Nashville, TN 37216

RE: Permission to Access Property for Hydrological Determination for Clearview Acres, 1004 Walnut Grove, Christiana, (Rutherford County)


TDEC has my permission to access the property located at 1004 Walnut Grovet as referenced in the Hydrological Determination Report conducted by Mr. Anthony Grow.

Please contact me via my cell phone or email if you have any questions.

Sincerely,

Company Name (if applicable): Clearview Acres, LP

Name: Gilbert Barbar

Signature: 

Address: 1002 Walnut Grove Road, Christiana, TN

Phone: (615) 893-3552

Email:

Cc:
Anthony A. Grow, PG, TNQHP

Storm Water Pollution Prevention Notes:

Before starting demolition or construction operations, refer to the initial EPSC, Intermediate EPSC and SWPPP Plan sheets.

1. The site contractor is responsible for establishing and maintaining suitable erosion and sediment control devices on-site during construction as required to prevent silt from leaving site. Silt will not be allowed beyond construction limits.

2. The contractor is responsible for removing silt from site if not reusable on-site and ensuring plan alignment and grade in all ditches at completion of construction.

3. Erosion control measures shall be provided for all cut and fill operations within the limits of the construction site, throughout the construction period to provide the site with maximum protection from erosion at all times.

4. Erosion control measures are to be installed prior to any grading on-site and are to be maintained in place until stabilization of erodible soils has been accomplished.

5. The Storm Water Pollution Prevention Plan (SWPPP) is an integral part of the Erosion Prevention and Sediment Control (EPSC) Plan and should be followed during all phases of construction (bidding, site work, final stabilization).

6. Any graded or disturbed areas shall have 4 inches of topsoil, seed, mulch, fertilizer and water applied until a healthy stand of grass is obtained unless otherwise noted on plans. The restoration shall closely follow construction.

7. The construction drawings shall be made available on site at all times and presented upon request. If unforeseen stormwater pollution prevention is encountered, additional Storm Water Pollution Prevention (SWPPP) measures may be requested by the owner, city engineer, project engineer, or soil conservation service representative at anytime. Such requests shall be implemented immediately at contractor's expense.

8. All Storm Water Pollution Prevention items shall be installed as shown or noted in these plans.

9. Apply temporary seeding and mulching in all areas that shall be inactive for 15 days or more. All disturbed and eroded earth shall be regraded and seeded within 7 days, as defined above and as shown on the table below to establish stability and provided sediment control.

10. Permanent vegetation shall be installed within 7 days of the completion of any graded area, weather permitting.

11. At such time rough grading or the site is complete and drainage diverts to inlets, inlet sediment filters shall be installed at all inlet structures to keep piping systems free of silt.

12. Silt barriers shall be installed around all existing or new storm inlets, catch basins, yard drains. Install rock check dams for headwall inlets for storm water pollution prevention.

13. Storm water pollution prevention measures shall be installed around all dirt or topsoil stockpiles and other temporarily disturbed areas.

14. Contractor shall inspect all SWPPP measures daily and repair as necessary to prevent erosion. Siltation shall be removed from areas where failures have occurred and corrective action taken within 24 hours to maintain all SWPPP items.

15. Silt barriers, construction entrances, and silt fences shall remain in place until a good stand of grass has been obtained and/or paving operations are complete. Contractor shall keep silt from entering any storm drainage system. Once site has been completely stabilized, silt in pipes and drainage swales shall be removed within 10 days.

16. Temporary sedimentation and stormwater pollution prevention measures must be inspected and logged by the contractor for inspection, inspections and logging shall be weekly and after rain storms.

17. Utility companies must comply with all stormwater pollution prevention measures as defined on the storm water pollution prevention plans, details and notes.

18. The total area of disturbance for the project is 17.15 Acres.

19. All stormwater pollution prevention practices shall be installed before any other earth moving occurs.

20. The contractors shall use temporary sediment filter bags as necessary to control sediment runoff.

21. The following stormwater pollution prevention and sediment control measures will be used on this site:

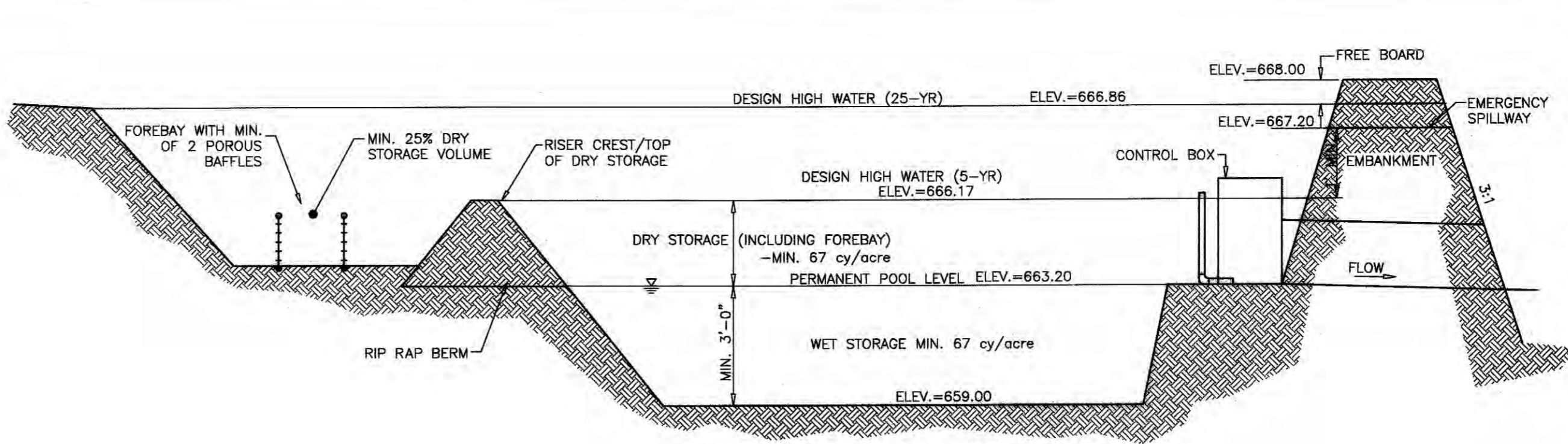
- A) Sediment control barrier
B) Filter fabric inlet protection
C) Check dams
D) Temporary seeding
E) Erosion control blanket
F) Permanent seeding or sodding
G) Concrete washout facility
H) Permanent seeding or sodding

22. Sediment shall be removed from sediment controls as necessary but at least when the design capacity of the control has been reduced by 50%.

Construction Sequence:

1. Stake and/or flag limits of clearing.
2. During preconstruction meeting all erosion and sediment control facilities and procedures shall be discussed.
3. Clear and grub, as necessary, for installation of perimeter controls.
4. Install perimeter sediment controls as shown on plans.
5. Install construction entrance and concrete washout facility, if conditions are such that mud is collecting on vehicle tires, the tires must be cleaned before the vehicles enter the public roadway. The site entrance shall be maintained in a condition that will prevent the tracking or flow of mud onto the public right-of-way. All materials spilled, dropped, washed or tracked from vehicles onto the roadway must be removed promptly.
6. Clear and grub the remaining site as necessary.
7. Refer to construction SWPPP plan sheet.

Seeding Dates	Seed Type	Application Rate Per 1,000 Sq.Ft.
March 1 - August 15	Perennial Ryegrass Or Tall Fescue	3#
August 16 - November 1	Rye, Wheat or Perennial Ryegrass Tall Fescue	1#
After November 1	Straw or Hay Mulch	2-3 Bales
Seed Bed Preparation	Line 10-10-10 or 12-12-12 Fertilizer	100# 12-15#



SEDIMENT/DETENTION POND

SCALE NONE

SEDIMENT BASIN CALCULATIONS

WET STORAGE	67 yd ³ /AC Drainage x 39.50 Acres = 2647cy = 1.64 AC-FT Required, 1.64 AC-FT Provided
DRY STORAGE	67 yd ³ /AC Drainage x 39.50 Acres = 2647cy = 1.64 AC-FT Required, 8.16 AC-FT Provided

Basin #1

PROPOSED BMP'S

BMP	TYPE
SILT FENCE	TEMPORARY, SEDIMENT CONTROL
CONSTRUCTION ENTRANCE	TEMPORARY, SEDIMENT CONTROL
VEGETATION	PERMANENT, EROSION PREVENTION
INLET PROTECTION	TEMPORARY, SEDIMENT CONTROL
DETENTION POND	PERMANENT, WATER QUALITY
TREE PROTECTION	TEMPORARY, PROTECTION
EROSION EEL	TEMPORARY, SEDIMENT CONTROL

EXISTING ON-SITE CONDITIONS

COVER	SCS CLASSIFICATION	AREA (Ac)
ROW CROPS	ROW CROPS: GOOD CONDITION B-SOILS, CN=78	6.16
ROW CROPS	ROW CROPS: GOOD CONDITION C-SOILS, CN=85	10.99
		COMPOSITE CN=83

PROPOSED ON-SITE CONDITIONS

COVER	SCS CLASSIFICATION	AREA (Ac)
RESIDENTIAL 1/2 ACRE LOTS	RESIDENTIAL 65% IMPERVIOUS B-SOILS, CN=85	6.16
RESIDENTIAL 1/2 ACRE LOTS	RESIDENTIAL 65% IMPERVIOUS C-SOILS, CN=90	10.99
		COMPOSITE CN=89

Contour Legend

Proposed Contour
Previous Section Contour
Existing Contour

Survey Control

Field Survey performed from: 09-6 to 09-27, 2016.
Horizontal and vertical survey control is tied to the Tennessee State Plane coordinate system (NAD83/NAVD88), referenced from Rutherford County Control monument number RCC-020.

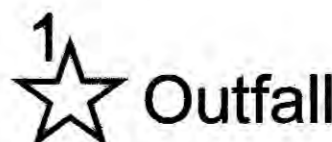
BENCHMARK #1: CHISELED X ON HW ELEV: 672.23 NAVD88	BENCHMARK #2: TPS ELEV: 678.68 NAVD88	BENCHMARK #3: TPS ELEV: 678.10 NAVD88
---	--	--

OUTFALLS

NUMBER	DESCRIPTION	DRAINAGE AREA DISTURBED PASS THRU	TOTAL	RECEIVING FEATURE
1	TEMP. CONSTRUCTION EXIT	0.10 Ac.	0.00 Ac.	0.10 Ac. WEST FORK STONES RIVER UPPER
2	EXISTING STREAM WEST OF THE SITE	39.50 Ac.	0.00 Ac.	39.50 Ac. WEST FORK STONES RIVER UPPER

EPSC Phasing

- Initial: Silt Fence Along Downgradient
Perimeter Construction Entrance
Check Dams In Existing Ditches
Filter Fabric Inlet Protection
- Intermediate: Temporary Seeding
Filter Fabric Inlet Protection
Check Dams In Proposed Ditches
Silt Fence To Protect Ditches
Erosion Control Blanket Installation
At Prescribed Locations
- Final: Seeding And Stabilization Of All
Disturbed Areas



Outfall

--- LIMITS OF DISTURBANCE

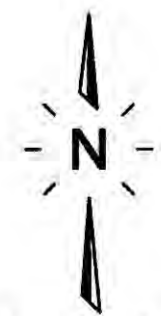
Legend:

EXIST. CONCRETE MONUMENT	BENCHMARK
IRON PIN SET (I.P.S.)	HANDICAP RAMP SYMBOL
IRON PIN FOUND (I.P.F.)	V.A. VAN ACCESSIBLE HANDICAP DESIGNATION
EXIST. SIGN POST	HC SIGN
EXIST. SEWER CLEANOUT	PROPOSED SIGN POST
EXIST. MANHOLE (SEWER AND PHONE)	CONCRETE BOLLARD
EXIST. CATCH BASIN (STORM SEWER)	WHEEL STOP
EXIST. WATER/GAS VALVE	CONCRETE SIDEWALK
EXIST. TELEPHONE RISER	EXTRUDED CURB
EXIST. GAS RISER	CURB AND GUTTER
ELECTRICAL ENCLOSURE	TRAFFIC ARROW
EXIST. WATER METER	TURN LANE ARROWS
EXIST. UTILITY POLE	REVISION NUMBER
EXIST. FIRE HYDRANT	#1 DRAINAGE STRUCTURE DESIGNATION
POST INDICATOR VALVE	DRAINAGE PIPE DESIGNATION
BLOW OFF VALVE	RIP RAP
REDUCER	RUNOFF FLOW ARROW
REMOTE FIRE DEPT. CONNECTION	INLET FILTER PROTECTION
CONCRETE THRUST BLOCK	63.25 x PROPOSED SPOT ELEVATION
DOUBLE DETECTOR CHECK VALVE	(63.25) x EXIST. SPOT ELEVATION
FIRE DEPT. CONNECTION	SEWER/STORM FLOW DIRECTION
FIRE HYDRANT	CATCH BASIN
GATE VALVE and BOX	CURB INLET
WATER METER	AREA DRAIN
GAS METER	HEADWALL
GREASE TRAP	WINGED HEADWALL
EXTERIOR CLEANOUT	CONCRETE SWALE
MANHOLE	TYPE- X- HEADWALL

EXISTING PHONE	PH
EXISTING ELECTRIC	OH
PROPERTY LINE	
EASEMENTS	
RIGHT OF WAY	ROW
EROSION CONTROL SILT FENCE	SF SF
EROSION EEL	E E E
EXISTING TREELINE	
EXISTING FENCELINE	X X
MINIMUM BUILDING SETBACK LINE	MBSL
PHASE BOUNDARY	
EXISTING GAS LINE	GAS
PROPOSED GAS LINE	GAS
EXISTING STORM	STM
PROPOSED STORM	STM
EXISTING CONTOUR LINES	-601-
PROPOSED CONTOUR LINES	-601
EXISTING SANITARY SEWER	SS SS
PROPOSED SANITARY SEWER	SS SS
EXISTING WATER	W W
PROPOSED WATER	W W



Know what's below.
Call before you dig.



100' 0 100' 200'
SCALE: 1"= 100'

SITE ENGINEERING CONSULTANTS

SEC, Inc.



Clearview Acres

Section 4

Rutherford County, TN

Existing Condition and
Initial EPSC Plan
C2.0

Storm Water Pollution Prevention Notes:

Before starting demolition or construction operations, refer to the initial EPSC, Intermediate EPSC and SWPPP Plan sheets.

1. The site contractor is responsible for establishing and maintaining suitable erosion and sediment control devices on-site during construction as required to prevent silt from leaving site. Silt will not be allowed beyond construction limits.

2. The contractor is responsible for removing silt from site if not reusable on-site and ensuring plan alignment and grade in all ditches at completion of construction.

3. Erosion control measures shall be provided for all cut and fill operations within the limits of the construction site, throughout the construction period to provide the site with maximum protection from erosion at all times.

4. Erosion control measures are to be installed prior to any grading on-site and are to be maintained in place until stabilization of erodible soils has been accomplished.

5. The Storm Water Pollution Prevention Plan (SWPPP) is an integral part of the Erosion Prevention and Sediment Control (EPSC) Plan and should be followed during all phases of construction (bidding, site work, final stabilization).

6. Any graded or disturbed areas shall have 4 inches of topsoil, seed, mulch, fertilizer and water applied until a healthy stand of grass is obtained unless otherwise noted on plans. The restoration shall closely follow construction.

7. The construction drawings shall be made available on site at all times and presented upon request. If unforeseen stormwater pollution prevention is encountered, additional Storm Water Pollution Prevention (SWPPP) measures may be requested by the owner, city engineer, project engineer, or soil conservation service representative at anytime. Such requests shall be implemented immediately at contractor's expense.

8. All Storm Water Pollution Prevention items shall be installed as shown or noted in these plans.

9. Apply temporary seeding and mulching in all areas that shall be inactive for 15 days or more. All disturbed and eroded earth shall be regraded and seeded within 7 days, as defined above and as shown on the table below to establish stability and provided sediment control.

10. Permanent vegetation shall be installed within 7 days of the completion of any graded area, weather permitting.

11. At such time rough grading or the site is complete and drainage divers to inlets, inlet sediment filters shall be installed at all inlet structures to keep piping systems free of silt.

12. Silt barriers shall be installed around all existing or new storm inlets, catch basins, yard drains. Install rock check dams for headwall inlets for storm water pollution prevention.

13. Storm water pollution prevention measures shall be installed around all dirt or topsoil stockpiles and other temporarily disturbed areas.

14. Contractor shall inspect all SWPPP measures daily and repair as necessary to prevent erosion. Siltation shall be removed from areas where failures have occurred and corrective action taken within 24 hours to maintain all SWPPP items.

15. Silt barriers, construction entrances, and silt fences shall remain in place until a good stand of grass has been obtained and/or paving operations are complete. Contractor shall keep silt from entering any storm drainage system. Once silt has been completely stabilized, silt in pipes and drainage swales shall be removed within 10 days.

16. Temporary sedimentation and stormwater pollution prevention measures must be inspected and logged by the contractor for inspection, inspections and logging shall be weekly and after rain storms.

17. Utility companies must comply with all stormwater pollution prevention measures as defined on the storm water pollution prevention plans, details and notes.

18. The total area of disturbance for the project is 17.15 Acres.

19. All stormwater pollution prevention practices shall be installed before any other earth moving occurs.

20. The contractors shall use temporary sediment filter bags as necessary to control sediment runoff.

21. The following stormwater pollution prevention and sediment control measures will be used on this site:

- A) Sediment control barrier
B) Filter fabric inlet protection
C) Construction entrance
D) Concrete washout facility
E) Check dams
F) Temporary seeding
G) Erosion control blanket
H) Permanent seeding or sodding

22. Sediment shall be removed from sediment controls as necessary but at least when the design capacity of the control has been reduced by 50%.

Construction Sequence:

1. Stake and/or flag limits of clearing.
2. During preconstruction meeting all erosion and sediment control facilities and procedures shall be discussed.
3. Clear and grub, as necessary, for installation of perimeter controls.
4. Install perimeter sediment controls as shown on plans.
5. Install construction entrance and concrete washout facility, if conditions are such that mud is collecting on vehicle tires, the tires must be cleaned before the vehicles enter the public roadway. The site entrance shall be maintained in a condition that will prevent the tracking or flow of mud onto the public right-of-way. All materials spilled, dropped, washed or tracked from vehicles onto the roadway must be removed promptly.
6. Clear and grub the remaining site as necessary.
7. Refer to construction SWPPP plan sheet.

Seeding Dates	Seed Type	Application Rate Per 1,000 Sq.Ft.
March 1 - August 15	Ort Perennial Rye Grass Or Tall Fescue	3#
August 16 - November 1	Rye, Wheat, or Perennial Rye Grass Tall Fescue	1#
After November 1	Straw or Hay Mulch	2-3 Bales 100#
Seed Bed Preparation	Lime 10-0-10 or 12-12-12 Fertilizer	12-15#

Survey Control

Field Survey performed from: 09-6 to 09-27, 2016.
Horizontal and vertical survey control is tied to the Tennessee State Plane coordinate system (NAD83/NAVD88), referenced from Rutherford County Control monument number RCC-020.

BENCHMARK #1:
CHISELED X ON HW
ELEV: 672.23
NAVD88

BENCHMARK #2:
TPS
ELEV: 678.68
NAVD88

BENCHMARK #3:
TPS
ELEV: 678.10
NAVD88

EPSC Phasing

Initial: Silt Fence Along Downgradient
Construction Entrance
Concrete Washout Area
Detention Pond/Temp. Sediment Trap

Intermediate: Temporary Seeding
Filter Fabric Inlet Protection
Check Dams In Proposed Ditches
Erosion Control Blanket Or Grass Sod
Installation At Prescribed Locations

Final: Seeding And Stabilization Of All
Disturbed Areas

PROPOSED BMP'S

BMP	TYPE
SILT FENCE	TEMPORARY, SEDIMENT CONTROL
CONSTRUCTION ENTRANCE	TEMPORARY, SEDIMENT CONTROL
VEGETATION	PERMANENT, EROSION PREVENTION
INLET PROTECTION	TEMPORARY, SEDIMENT CONTROL
DETENTION POND	PERMANENT, WATER QUALITY
TREE PROTECTION	TEMPORARY, PROTECTION
EROSION EEL	TEMPORARY, SEDIMENT CONTROL

EXISTING ON-SITE CONDITIONS

COVER	SCS CLASSIFICATION	AREA (Ac)
ROW CROPS	ROW CROPS: GOOD CONDITION B-SOILS, CN=78	6.16
ROW CROPS	ROW CROPS: GOOD CONDITION C-SOILS, CN=85	10.99
		COMPOSITE CN=83

PROPOSED ON-SITE CONDITIONS

COVER	SCS CLASSIFICATION	AREA (Ac)
RESIDENTIAL 1/2 ACRE LOTS	RESIDENTIAL 65% IMPERVIOUS B-SOILS, CN=85	6.16
RESIDENTIAL 1/2 ACRE LOTS	RESIDENTIAL 65% IMPERVIOUS C-SOILS, CN=90	10.99
		COMPOSITE CN=89

Contour Legend

Proposed Contour
Previous Section Contour
Existing Contour

OUTFALLS

NUMBER	DESCRIPTION	DRAINAGE AREA			RECEIVING FEATURE
		DISTURBED (PASS THRU)	TOTAL		
1	TEMP. CONSTRUCTION EXIT	0.10 Ac.	0.00 Ac.	0.10 Ac.	WEST FORK STONES RIVER UPPER
2	PROPOSED DETENTION POND/SEDIMENT BASIN	39.50 Ac.	0.00 Ac.	39.50 Ac.	WEST FORK STONES RIVER UPPER

1 ☆ Outfall



Know what's below.
Call before you dig.



100' 0 100' 200'
SCALE: 1"= 100'

Legend:

EXIST. CONCRETE MONUMENT	BENCHMARK
IRON PIN SET (I.P.S.)	HANDICAP RAMP SYMBOL
IRON PIN FOUND (I.P.F.)	VAN ACCESSIBLE HANDICAP DESIGNATION
EXIST. SIGN POST	HC SIGN
EXIST. SEWER CLEANOUT	PROPOSED SIGN POST
EXIST. MANHOLE (SEWER AND PHONE)	CONCRETE BOLLARD
EXIST. CATCH BASIN (STORM SEWER)	WHEEL STOP
EXIST. WATER/GAS VALVE	CONCRETE SIDEWALK
EXIST. TELEPHONE RISER	EXTRUDED CURB
EXIST. GAS RISER	CURB AND GUTTER
ELECTRICAL ENCLOSURE	TRAFFIC ARROW
EXIST. WATER METER	TURN LANE ARROWS
EXIST. UTILITY POLE	REVISION NUMBER
EXIST. FIRE HYDRANT	DRAINAGE STRUCTURE DESIGNATION
POST INDICATOR VALVE	DRAINAGE PIPE DESIGNATION
BLOW OFF VALVE	RIP RAP
REDUCER	RUNOFF FLOW ARROW
REMOTE FIRE DEPT. CONNECTION	INLET FILTER PROTECTION
CONCRETE THRUST BLOCK	PROPOSED SPOT ELEVATION
DOUBLE DETECTOR CHECK VALVE	EXIST. SPOT ELEVATION
FIRE DEPT. CONNECTION	SEWER/STORM FLOW DIRECTION
FIRE HYDRANT	CATCH BASIN
GATE VALVE AND BOX	CURB INLET
WATER METER	AREA DRAIN
GAS METER	HEADWALL
GREASE TRAP	WINGED HEADWALL
EXTERIOR CLEANOUT	CONCRETE SWALE
MANHOLE	TYPE- X- HEADWALL

EXISTING PHONE	PH
EXISTING ELECTRIC	OH
PROPERTY LINE	
EASEMENTS	
RIGHT OF WAY	ROW
EROSION CONTROL SILT FENCE	SF SF
EROSION EEL	E E E
EXISTING TREELINE	
EXISTING FENCELINE	X X
MINIMUM BUILDING SETBACK LINE	MBSL
PHASE BOUNDARY	
EXISTING GAS LINE	GAS
PROPOSED GAS LINE	GAS
EXISTING STORM	STM
PROPOSED STORM	STM
EXISTING CONTOUR LINES	-601-
PROPOSED CONTOUR LINES	-601-
EXISTING SANITARY SEWER	SS SS
PROPOSED SANITARY SEWER	SS SS
EXISTING WATER	W W
PROPOSED WATER	W W

SITE ENGINEERING CONSULTANTS

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LANDSCAPE ARCHITECTURE
850 MIDDLE TENNESSEE BOULEVARD
MURFREESBORO, TENNESSEE 37129
PHONE: (615) 890-7501 E-MAIL: MTAYLOR@SEC-CIVIL.COM FAX: (615) 895-2567
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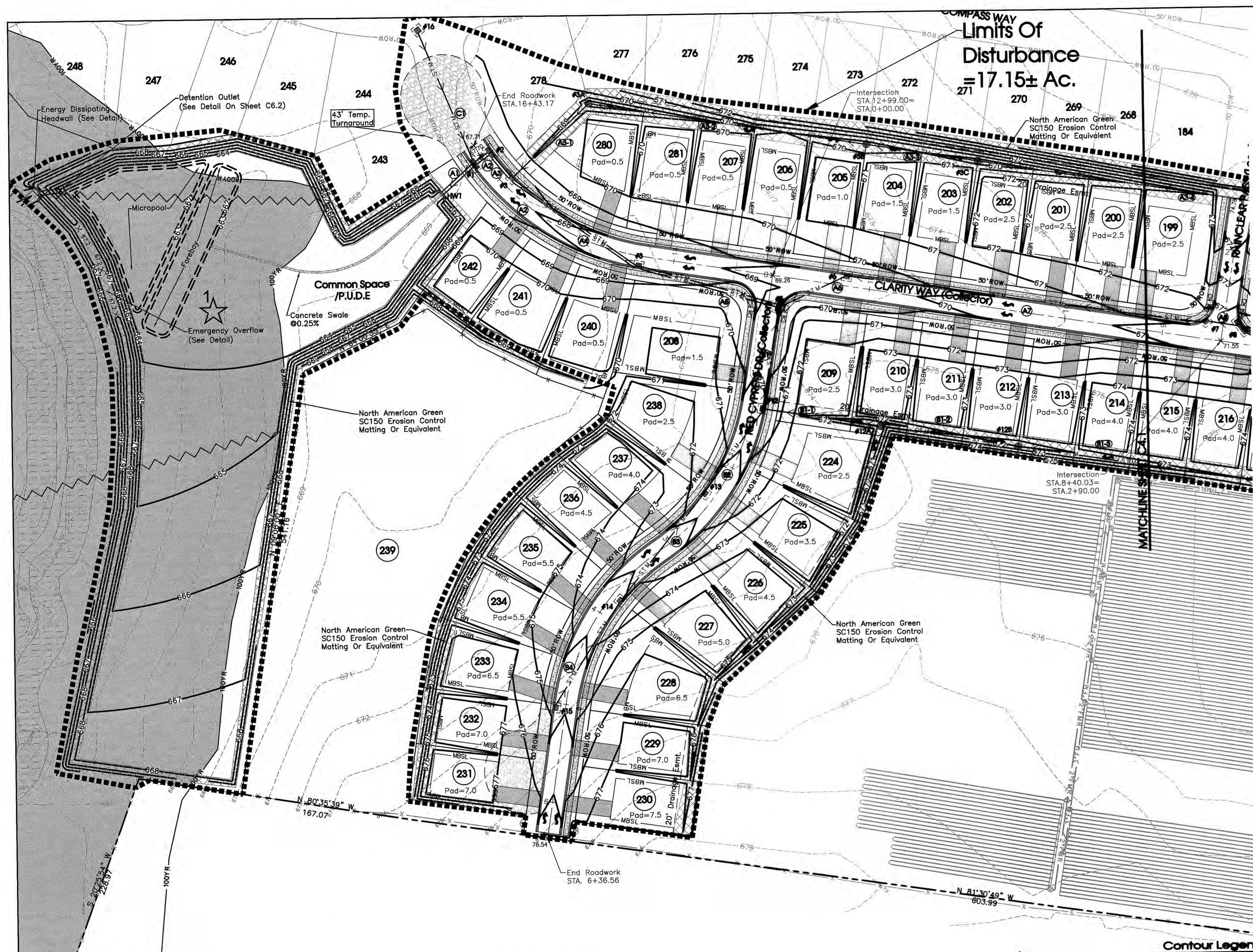


Clearview Acres
Section 4

Rutherford County, TN

INTERMEDIATE EPSC PLAN
REVISED:
DRAWN: JLM
DATE: 9-28-2021
CHECKED:
RH
FILE NAME:
14300ProjectP4
SCALE:
1"=100'
JOB NO.
14300
SHEET:

C3.0



100-Year Floodplain:
Cut: 6,317 CY
Fill: 2,924 CY
Net Cut: 3,393 CY

EXISTING ON-SITE CONDITIONS		
COVER	SCS CLASSIFICATION	AREA (Ac)
ROW CROPS	ROW CROPS: GOOD CONDITION B-SOILS, CN=78	6.16
ROW CROPS	ROW CROPS: GOOD CONDITION C-SOILS, CN=85	10.99
		COMPOSITE CN=83
PROPOSED ON-SITE CONDITIONS		
COVER	SCS CLASSIFICATION	AREA (Ac)
RESIDENTIAL 1/4 ACRE LOTS	RESIDENTIAL 65% IMPERVIOUS B-SOILS, CN=85	6.16
RESIDENTIAL 1/4 ACRE LOTS	RESIDENTIAL 65% IMPERVIOUS C-SOILS, CN=90	10.99
		COMPOSITE CN=89

OUTFALLS			
NUMBER	DESCRIPTION	DRAINAGE AREA DISTURBED (PASS THRU) TOTAL	RECEIVING FEATURE
1	PROPOSED DETENTION POND	39.50 Ac. 0.00 Ac. 39.50 Ac.	WEST FORK STONES RIVER UPPER

Contour Legend	
	Proposed Contour
	Previous Section Contour
	Existing Contour

Legend:	
	EXIST. CONCRETE MONUMENT
	IRON PIN SET (I.P.S.)
	IRON PIN FOUND (I.P.F.)
	EXIST. SIGN POST
	EXIST. SEWER CLEANOUT
	EXIST. MANHOLE (SEWER AND PHONE)
	EXIST. CATCH BASIN (STORM SEWER)
	EXIST. WATER/GAS VALVE
	EXIST. TELEPHONE RISER
	EXIST. GAS RISER
	ELECTRICAL ENCLOSURE
	EXIST. WATER METER
	EXIST. UTILITY POLE
	EXIST. FIRE HYDRANT
	POST INDICATOR VALVE
	BLOW OFF VALVE
	REDUCER
	REMOTE FIRE DEPT. CONNECTION
	CONCRETE THRUST BLOCK
	DOUBLE DETECTOR CHECK VALVE
	FIRE DEPT. CONNECTION
	FIRE HYDRANT
	GATE VALVE AND BOX
	WATER METER
	GAS METER
	GREASE TRAP
	EXTERIOR CLEANOUT ECO
	MANHOLE
	BENCHMARK
	HANDICAP RAMP SYMBOL
	V.A. VAN ACCESSIBLE HANDICAP DESIGNATION
	HC SIGN
	PROPOSED SIGN POST
	CONCRETE BOLLARD
	WHEEL STOP
	CONCRETE SIDEWALK
	EXTRUDED CURB
	CURB AND GUTTER
	TRAFFIC ARROW
	TURN LANE ARROWS
	REVISION NUMBER
	#1 DRAINAGE STRUCTURE DESIGNATION
	A DRAINAGE PIPE DESIGNATION
	RIP RAP
	RUNOFF FLOW ARROW
	INLET FILTER PROTECTION
	PROPOSED SPOT ELEVATION
	EXIST. SPOT ELEVATION
	SEWER/STORM FLOW DIRECTION
	CATCH BASIN
	CURB INLET
	AREA DRAIN
	HEADWALL
	WINGED HEADWALL
	CONCRETE SWALE
	TYPE- X- HEADWALL
EXISTING PHONE PH	
EXISTING ELECTRIC OH	
PROPERTY LINE	
EASEMENTS	
RIGHT OF WAY ROW	
EROSION CONTROL SILT FENCE SF SF	
EROSION EEL E E E	
EXISTING TREELINE	
EXISTING FENCELINE X X	
MINIMUM BUILDING SETBACK LINE MBSL	
PHASE BOUNDARY	
EXISTING GAS LINE GAS	
PROPOSED GAS LINE GAS	
EXISTING STORM STM	
PROPOSED STORM STM	
EXISTING CONTOUR LINES -601	
PROPOSED CONTOUR LINES -601	
EXISTING SANITARY SEWER SS SS	
PROPOSED SANITARY SEWER SS SS	
EXISTING WATER W W	
PROPOSED WATER W W	

Know what's below.
Call before you dig.

50' 0 50' 100'
SCALE: 1"= 50'

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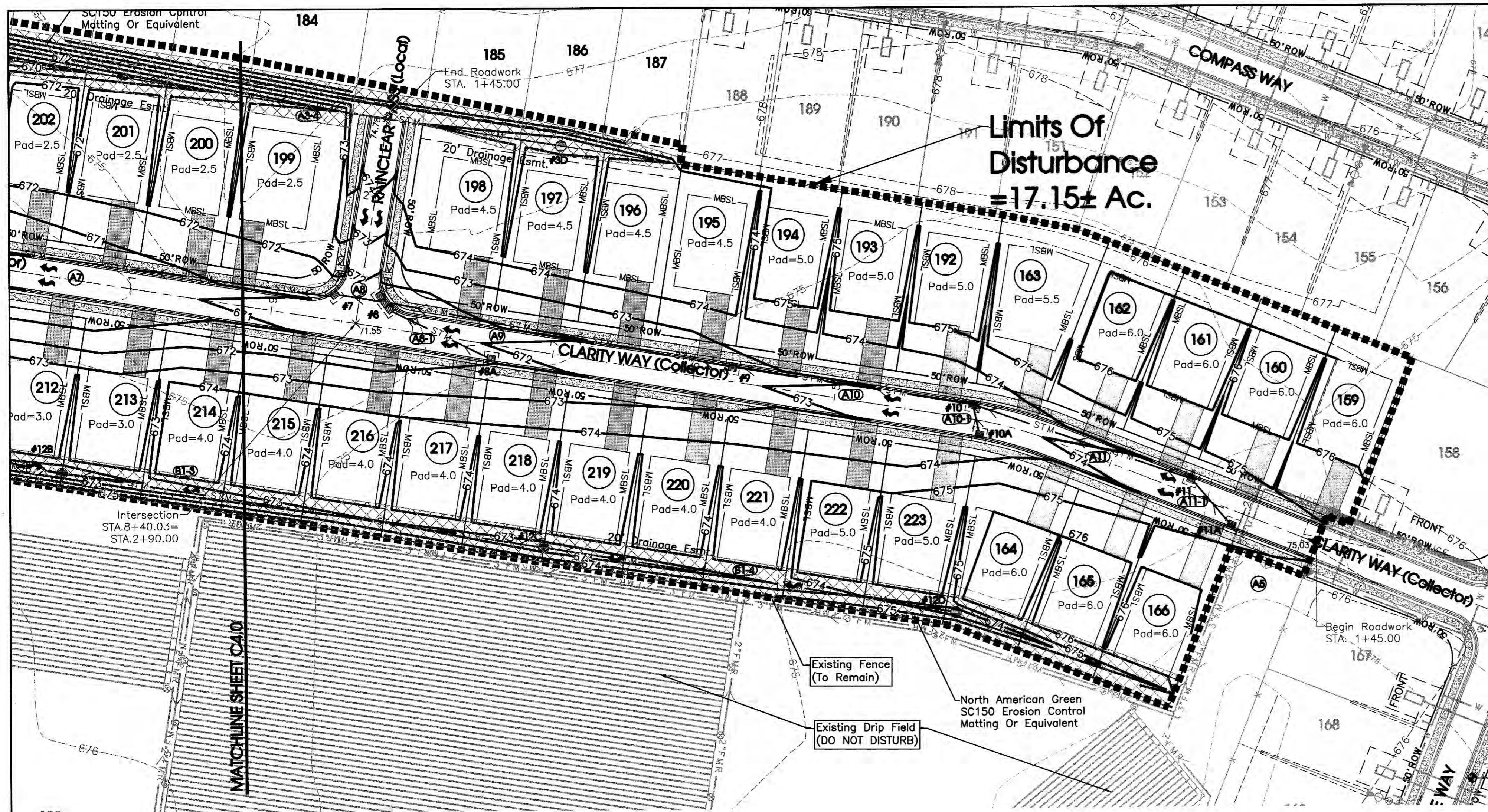
SEC, Inc.
REGISTERED PROFESSIONAL ENGINEER
STATE OF TENNESSEE
No. 0000000000

Clearview Acres
Section 4
Rutherford County, TN

Grading and Drainage and
Final EPSC Plan

REVISION:
DRAWN: JLM
DATE: 9-28-2021
CHECKED:
RH
FILE NAME:
14300ProjectP4
SCALE:
1"=50'
JOB NO.
14300
SHEET:
C4.0

Structure Table See Sheet C4.1



Contour Legend		
	Proposed Contour	
	Previous Section Contour	
	Existing Contour	

EXISTING ON-SITE CONDITIONS		
COVER	SCS CLASSIFICATION	AREA (Ac)
ROW CROPS	ROW CROPS: GOOD CONDITION B-SOILS, CN=78	6.16
ROW CROPS	ROW CROPS: GOOD CONDITION C-SOILS, CN=85	10.99
		COMPOSITE CN=83

PROPOSED ON-SITE CONDITIONS		
COVER	SCS CLASSIFICATION	AREA (Ac)
RESIDENTIAL 1/4 ACRE LOTS	RESIDENTIAL 65% IMPERVIOUS B-SOILS, CN=85	6.16
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		COMPOSITE CN=89

★ Outfall

NUMBER	DESCRIPTION	DRAINAGE AREA			RECEIVING FEATURE
		DISTURBED	PASS THRU	TOTAL	
1	PROPOSED DETENTION POND	39.50 Ac.	0.00 Ac.	39.50 Ac.	WEST FORK STONES RIVER UPPER

Survey Control
Field Survey performed from: 09-6 to 09-27, 2016.
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BENCHMARK #1:
CHISELED 'X' ON HW
ELEV: 672.23
NAV088

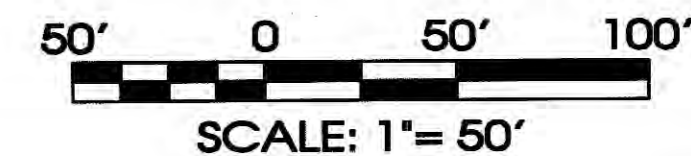
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TPS
ELEV: 678.68
NAV088

BENCHMARK #3:
TPS
ELEV: 678.10
NAV088

Legend:		
	EXIST. CONCRETE MONUMENT	BENCHMARK
	IRON PIN SET (I.P.S.)	HANDICAP RAMP SYMBOL
	IRON PIN FOUND (I.P.F.)	V.A. VAN ACCESSIBLE HANDICAP DESIGNATION
	EXIST. SIGN POST	HC SIGN
	EXIST. SEWER CLEANOUT	PROPOSED SIGN POST
	EXIST. MANHOLE (SEWER and PHONE)	CONCRETE BOLLARD
	EXIST. CATCH BASIN (STORM SEWER)	WHEEL STOP
	EXIST. WATER/GAS VALVE	CONCRETE SIDEWALK
	EXIST. TELEPHONE RISER	EXTRUDED CURB
	EXIST. GAS RISER	CURB and GUTTER
	ELECTRICAL ENCLOSURE	TRAFFIC ARROW
	EXIST. WATER METER	TURN LANE ARROWS
	EXIST. UTILITY POLE	REVISION NUMBER
	EXIST. FIRE HYDRANT	#1 DRAINAGE STRUCTURE DESIGNATION
	POST INDICATOR VALVE	A DRAINAGE PIPE DESIGNATION
	BLOW OFF VALVE	8 RIP RAP
	REDUCER	5 RUNOFF FLOW ARROW
	REMOTE FIRE DEPT. CONNECTION	INLET FILTER PROTECTION
	CONCRETE THRUST BLOCK	63.25 x PROPOSED SPOT ELEVATION
	DOUBLE DETECTOR CHECK VALVE	(63.25) x EXIST. SPOT ELEVATION
	FIRE DEPT. CONNECTION	> SEWER/STORM FLOW DIRECTION
	FIRE HYDRANT	CATCH BASIN
	GATE VALVE and BOX	CURB INLET
	WATER METER	AREA DRAIN
	GAS METER	HEADWALL
	GREASE TRAP	WINGED HEADWALL
	EXTERIOR CLEANOUT	CONCRETE SWALE
	MANHOLE	TYPE- X- HEADWALL
EXISTING PHONE PH		
EXISTING ELECTRIC OH		
PROPERTY LINE		
EASEMENTS		
RIGHT OF WAY ROW		
EROSION CONTROL SILT FENCE SF SF		
EROSION EEL E E E		
EXISTING TREELINE		
EXISTING FENCELINE X X		
MINIMUM BUILDING SETBACK LINE MBSL		
PHASE BOUNDARY		
EXISTING GAS LINE GAS		
PROPOSED GAS LINE GAS		
EXISTING STORM STM		
PROPOSED STORM STM		
EXISTING CONTOUR LINES -601-		
PROPOSED CONTOUR LINES -601-		
EXISTING SANITARY SEWER SS SS		
PROPOSED SANITARY SEWER SS SS		
EXISTING WATER W W		
PROPOSED WATER W W		



Know what's below.
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SEC, Inc.

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THE SITE AS SHOWN ON THESE CONSTRUCTION DRAWINGS IS INTENDED TO ACHIEVE SPECIFIC ENGINEERING DESIGN CRITERIA AND OBJECTIVES. IT IS THE SOLE RESPONSIBILITY OF THE OWNER/DEVELOPER TO OBTAIN ALL NECESSARY PERMITS AND TO OBTAIN ALL NECESSARY CONSENTS FROM ALL AFFECTED PARTIES. THE ENGINEER ASSUMES NO ADMINISTRATIVE LIABILITY OR RESPONSIBILITY IN THE ASSURANCE THAT THE SITE IS CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION PLANS.

SITE ENGINEERING CONSULTANTS

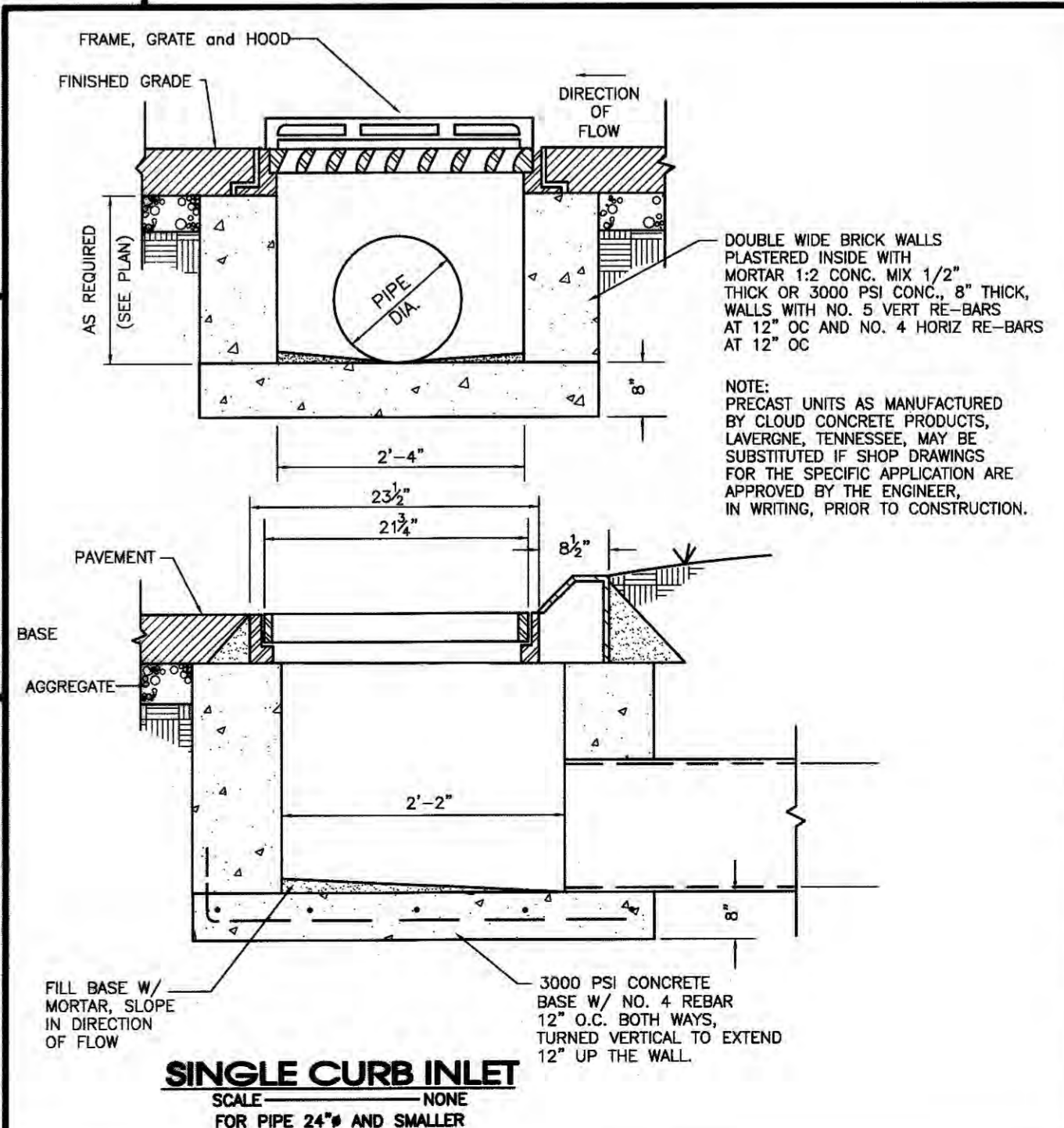
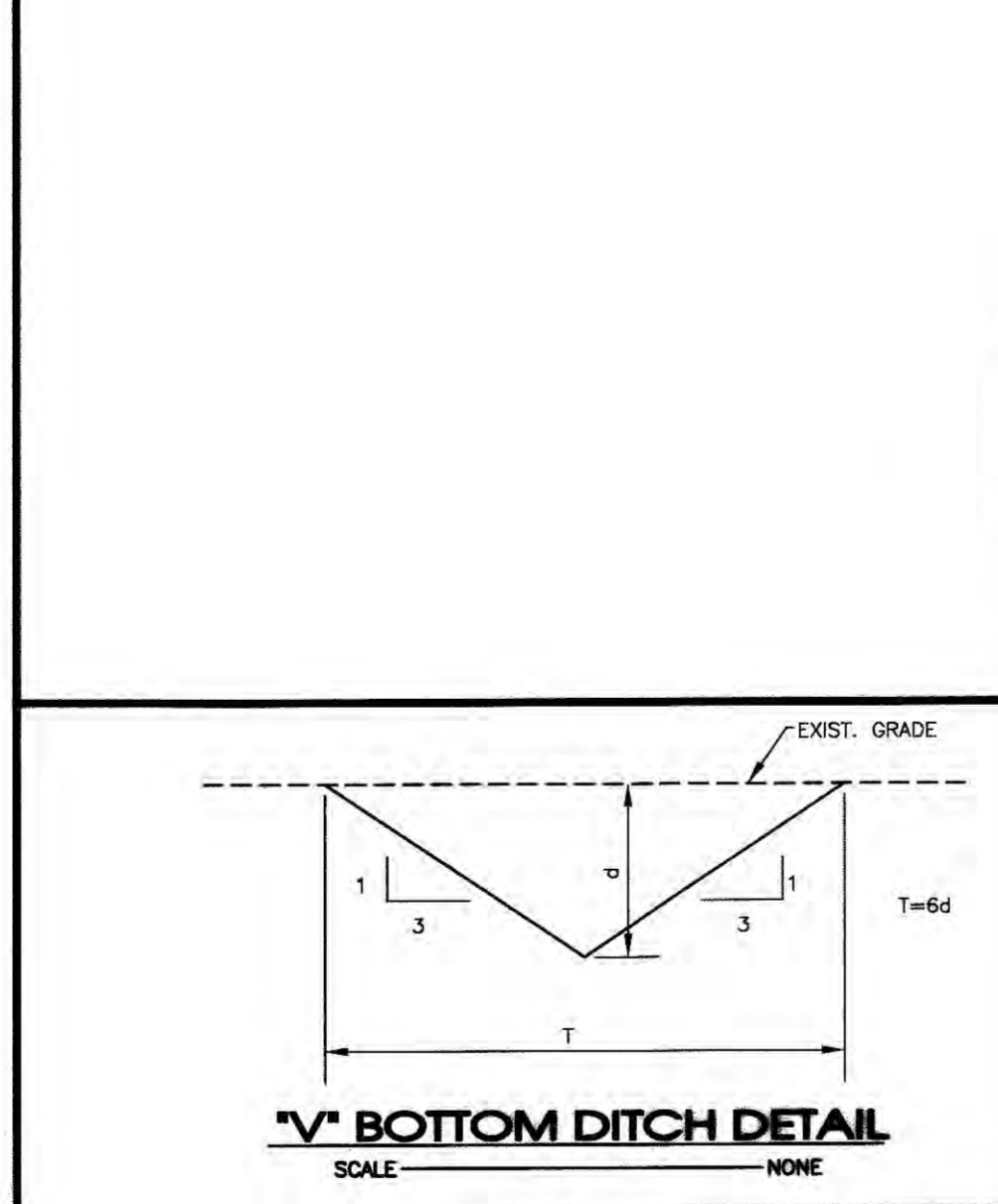
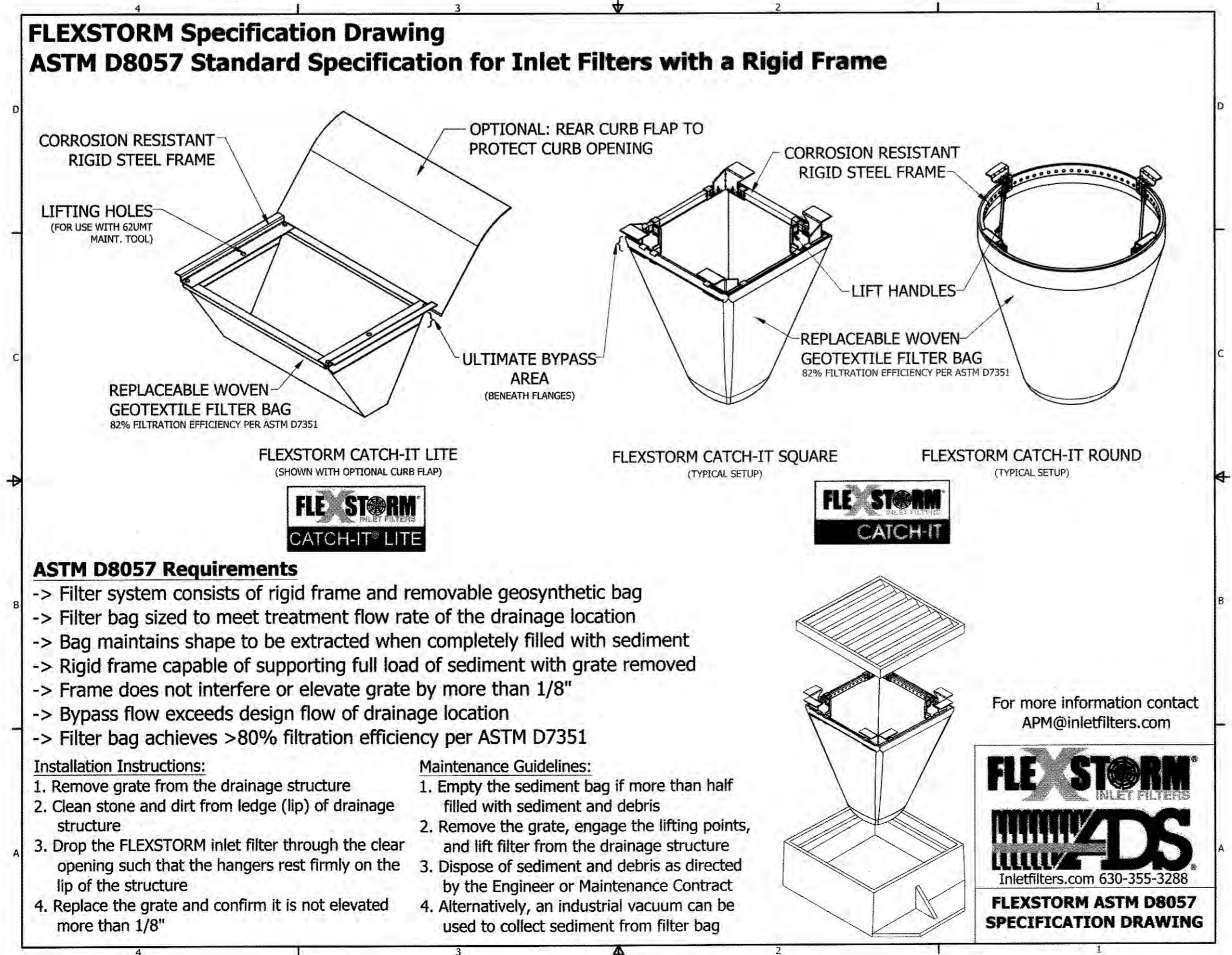
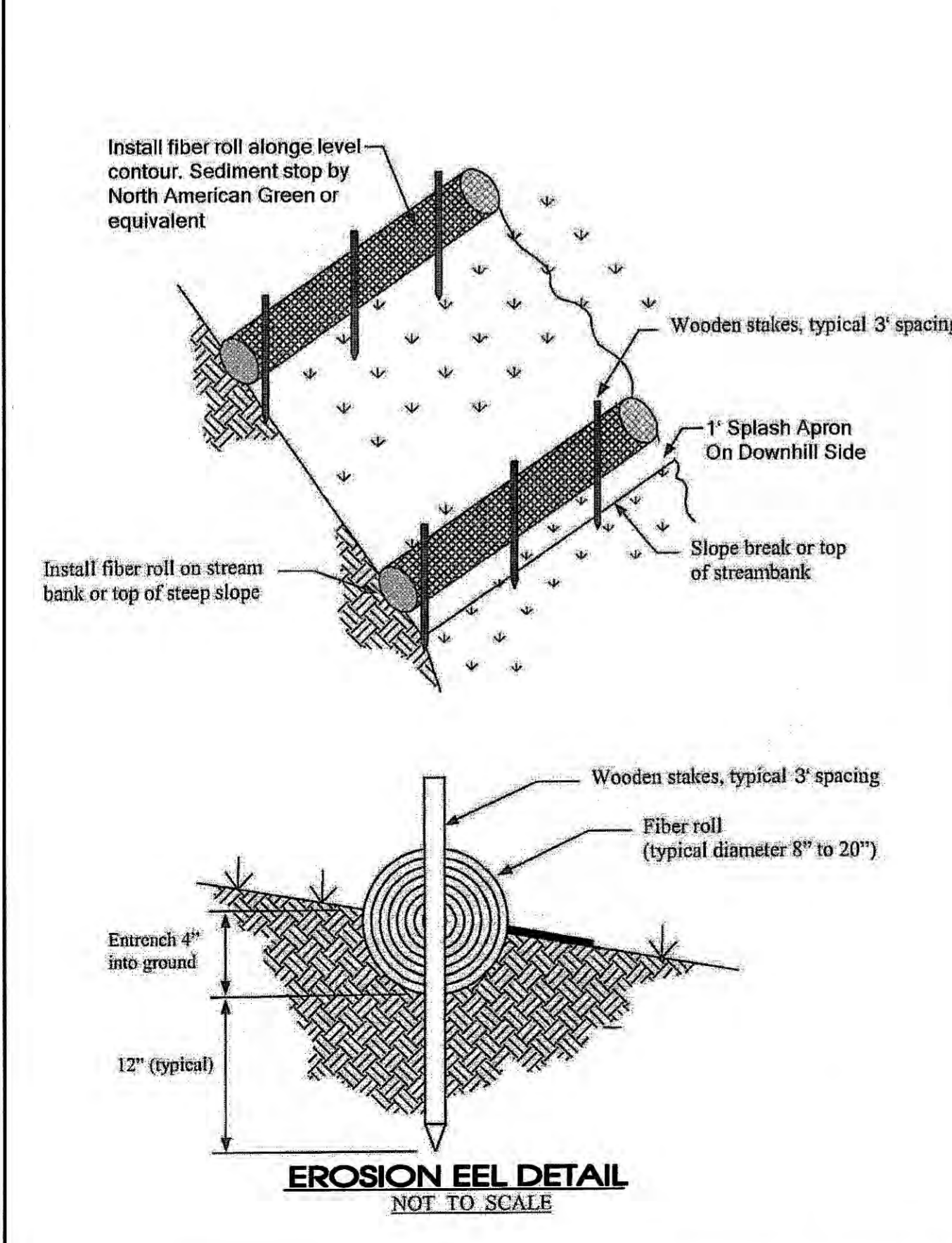
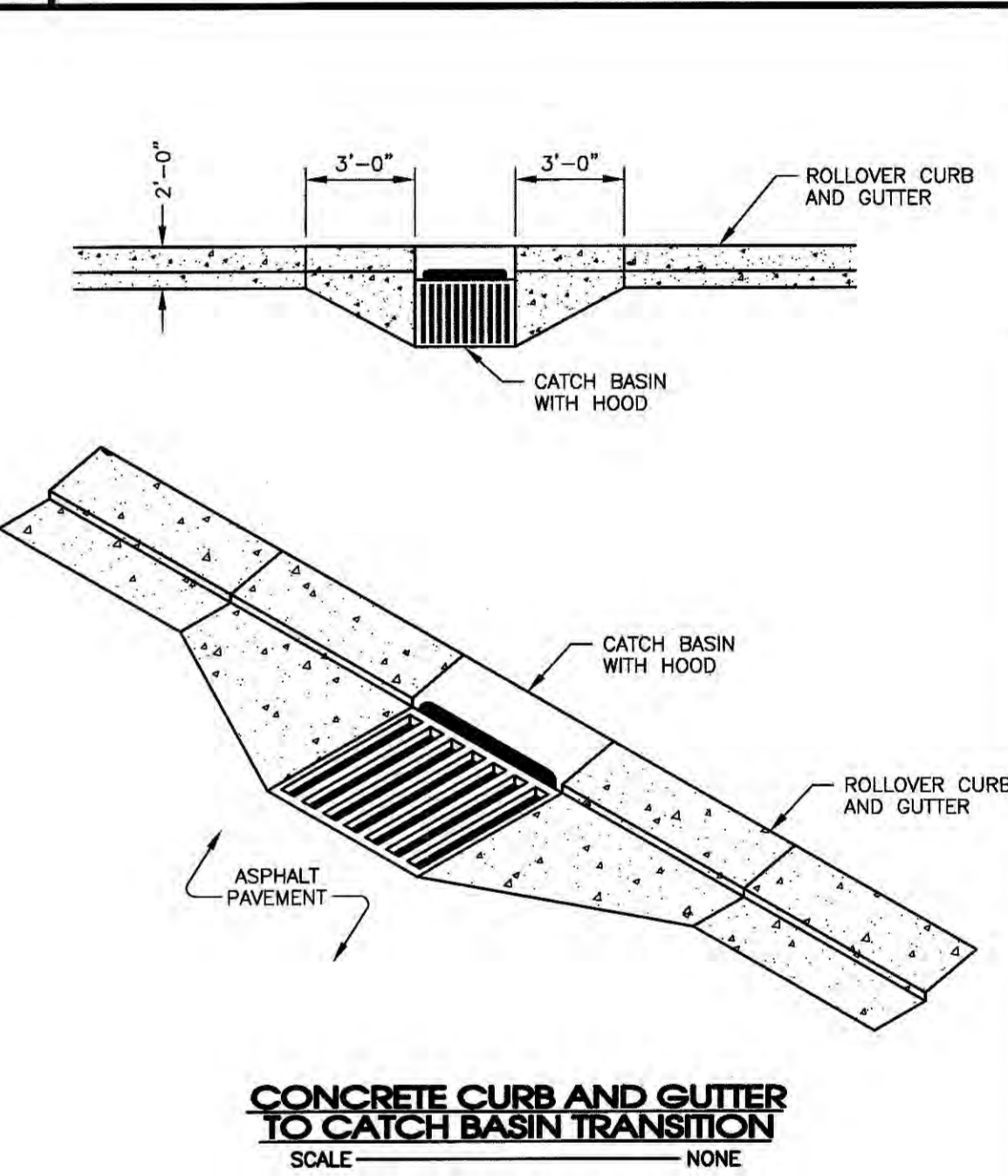
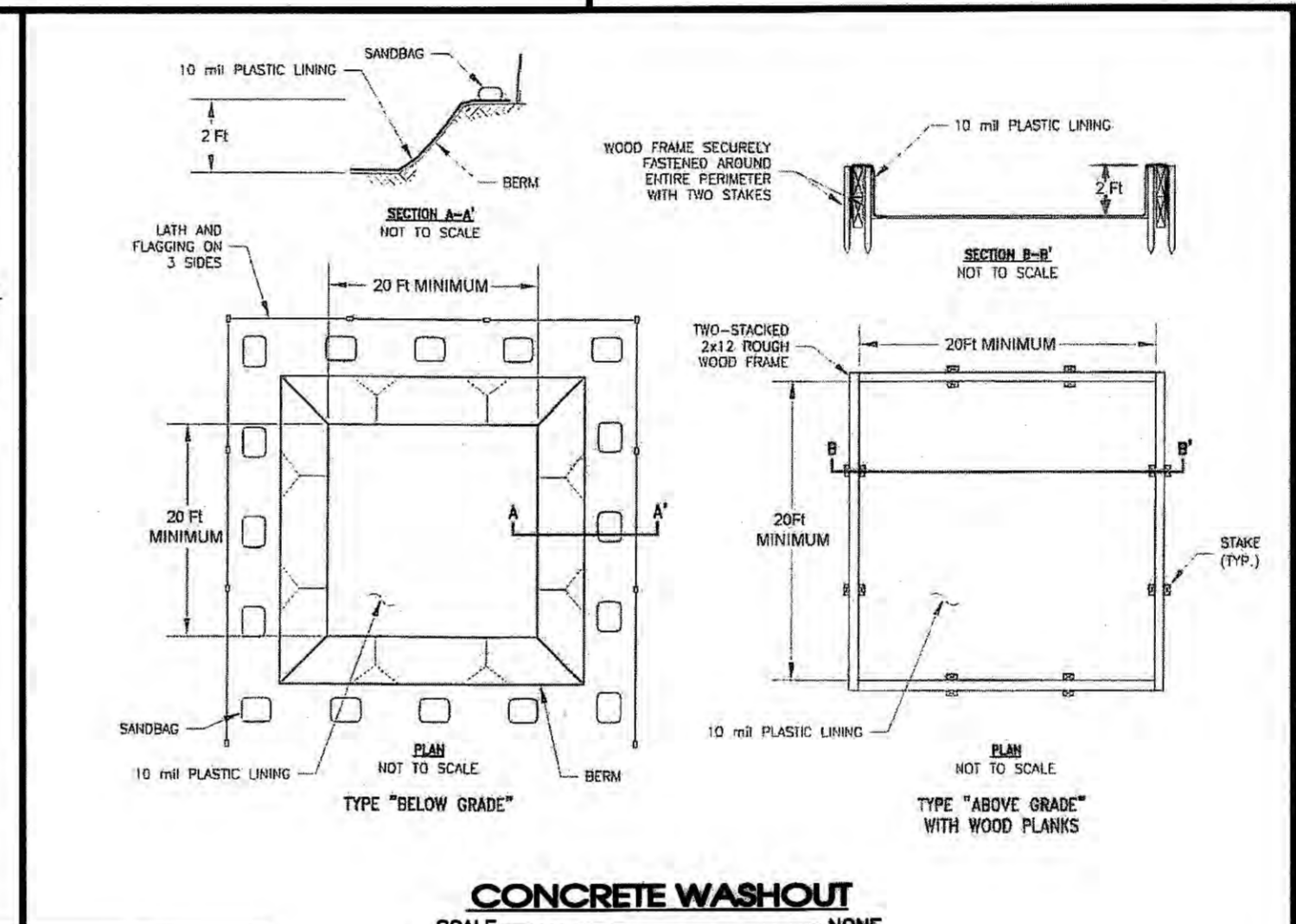
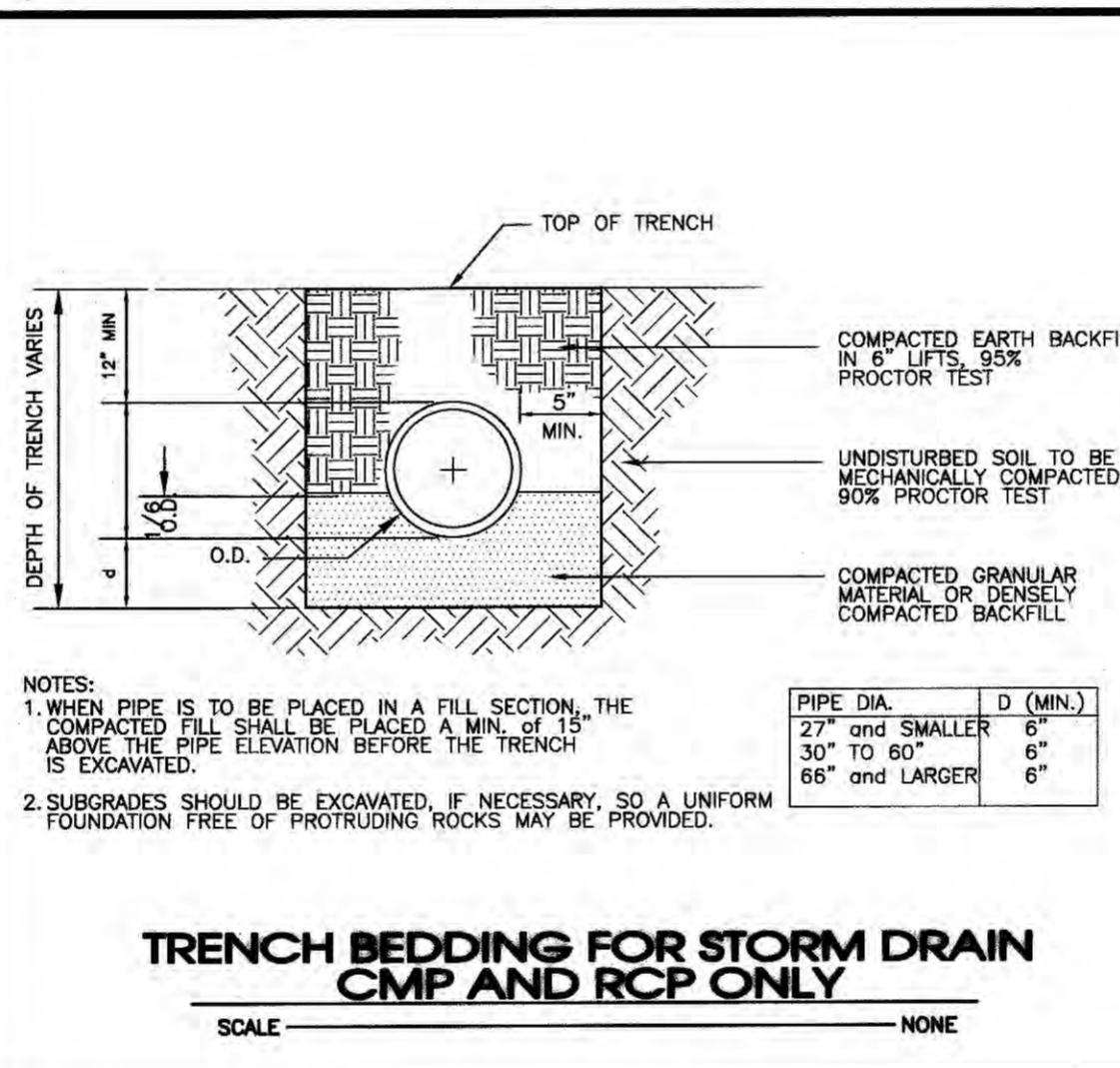
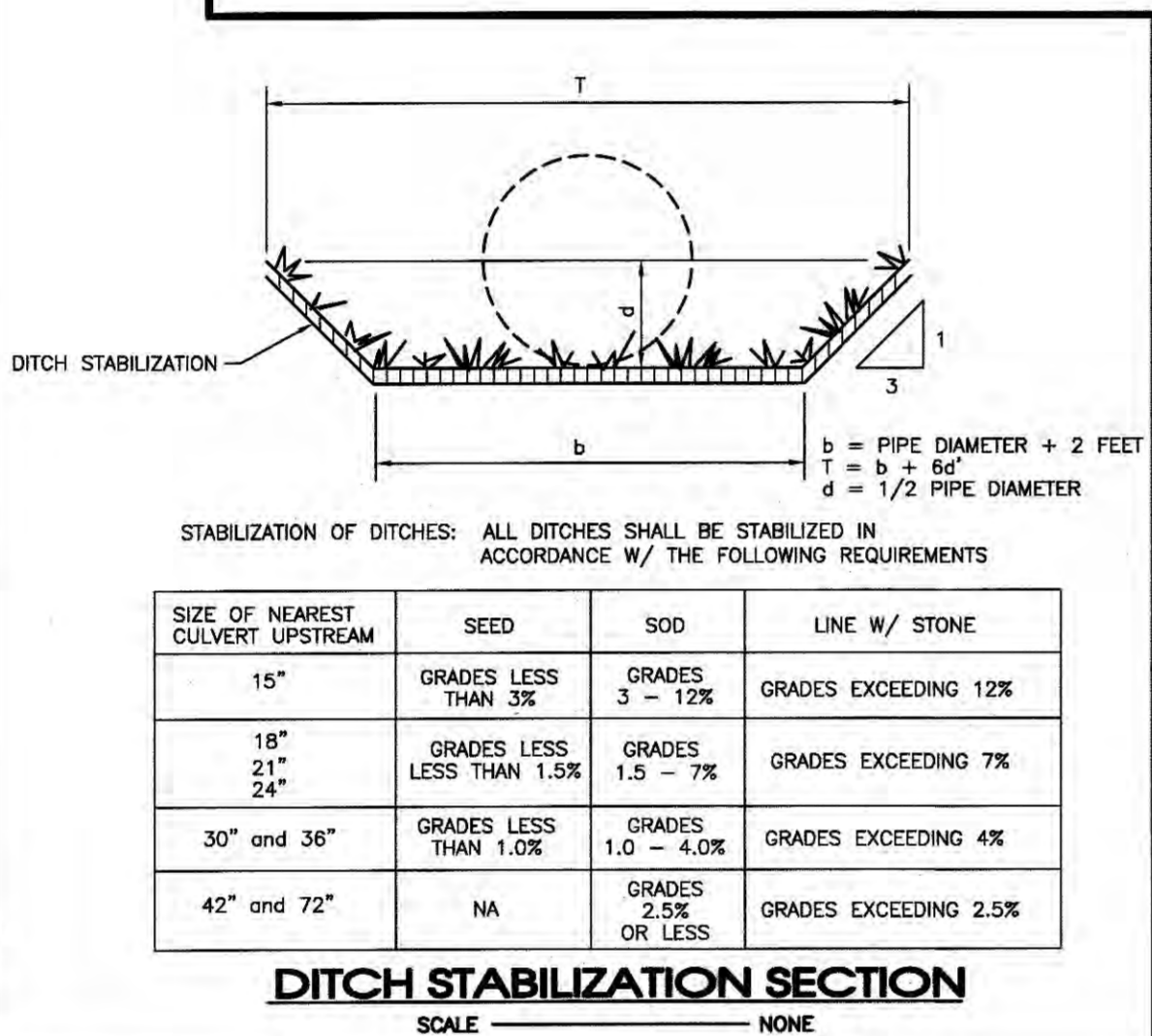
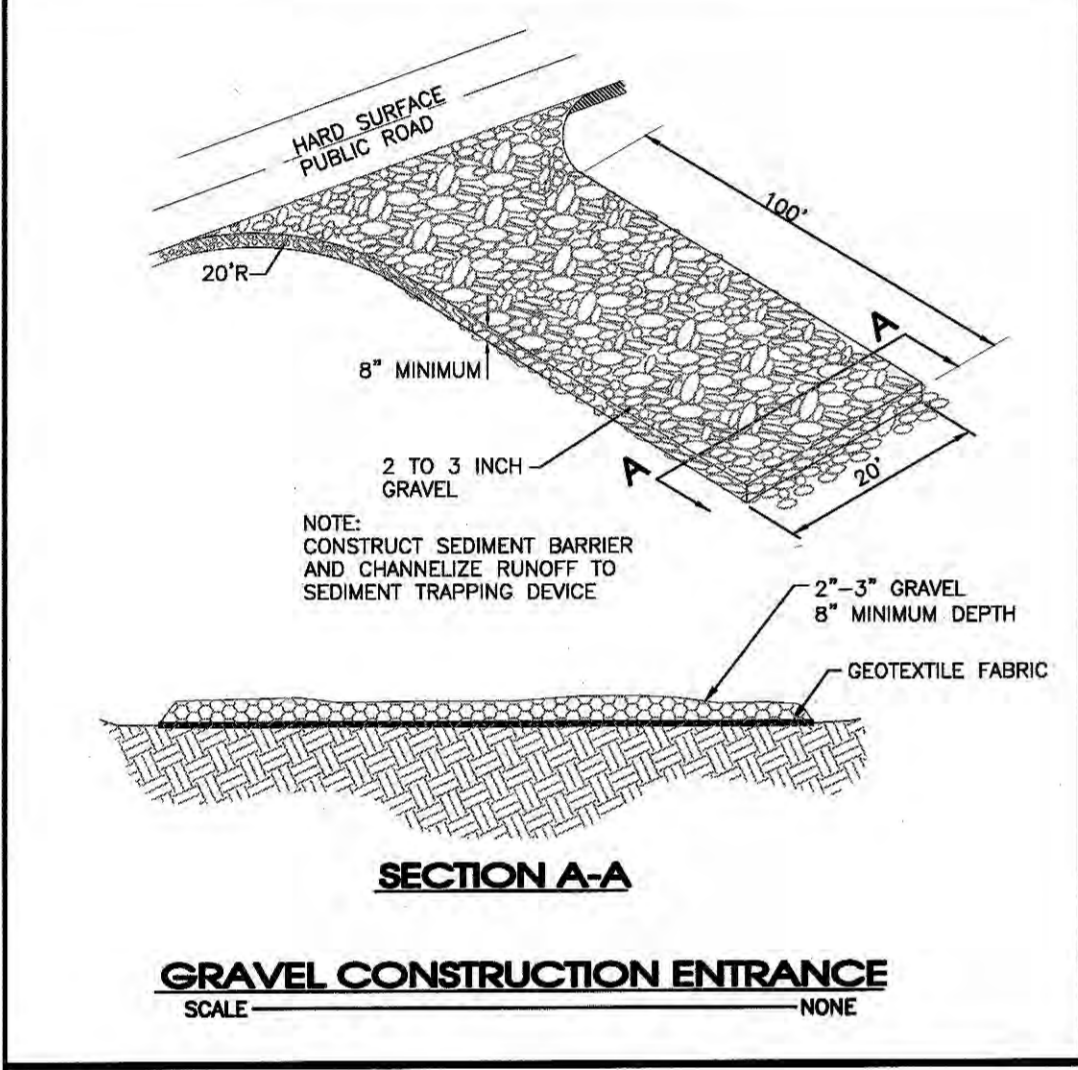
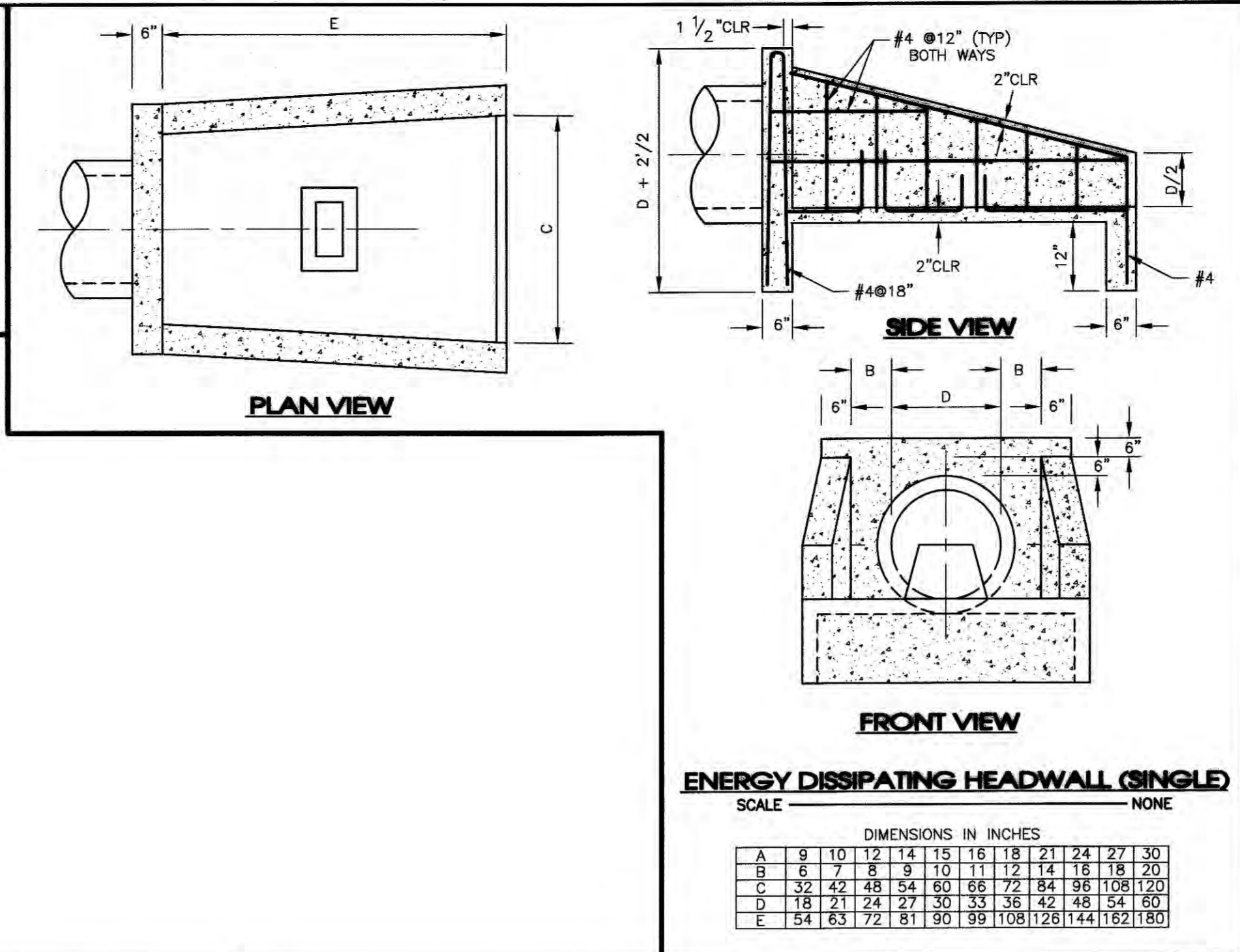
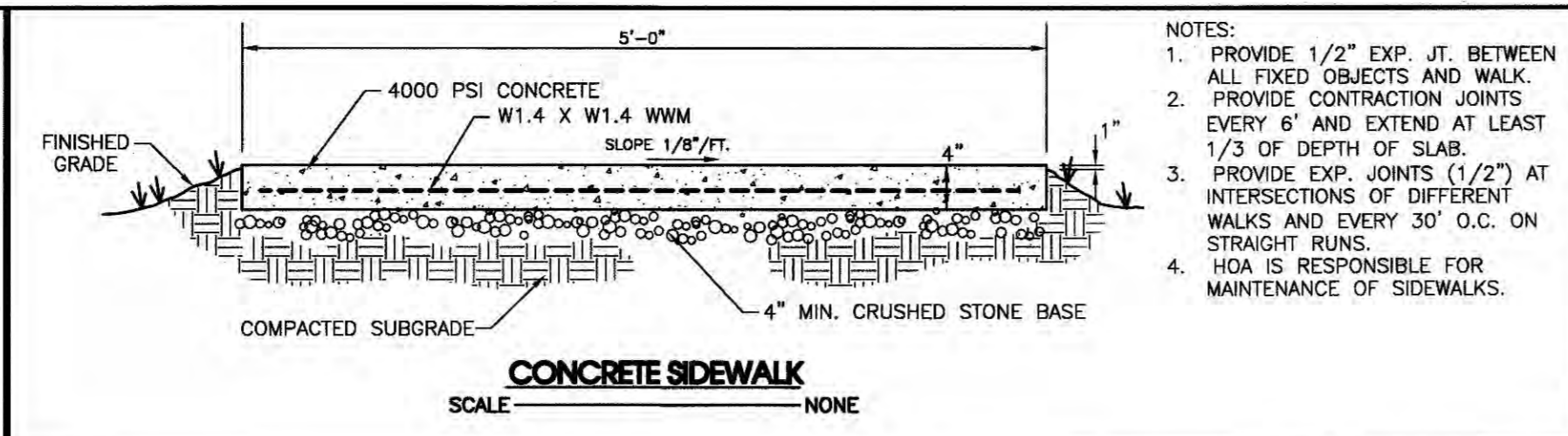
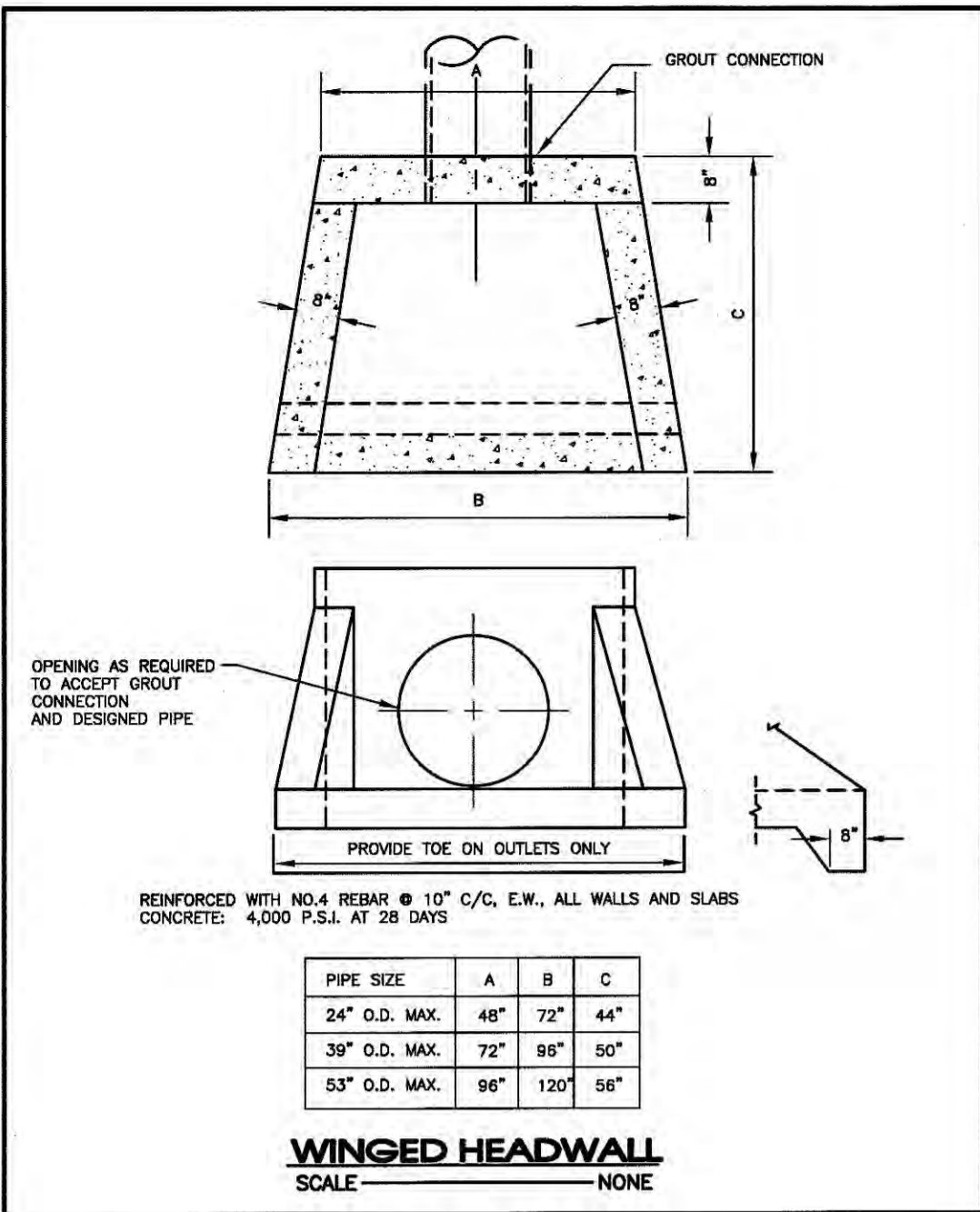
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REVISIONS

DRAWN: JLM
DATE: 9-28-2021
CHECKED:
RH
FILE NAME:
14300ProjectP4
SCALE:
1"=50'
JOB NO.
14300
SHEET:
C4.1

Clearview Acres
Section 4
Rutherford County, TN

Grading and Drainage and
Final EPSC Plan



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FAX: 615.891.1112
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The site as shown on these construction drawings is intended to achieve specific engineering design criteria and objectives. It is the responsibility of the engineer to ensure that the design is in accordance with the design as noted, described, and illustrated. The engineer assumes no administrative liability or responsibility in the assurance that the site is constructed in accordance with the construction plans.

KATHLEEN A. TAYLOR
REGISTERED PROFESSIONAL ENGINEER
AGRICULTURAL MECHANICAL
STATE OF TENNESSEE
NO. 10000

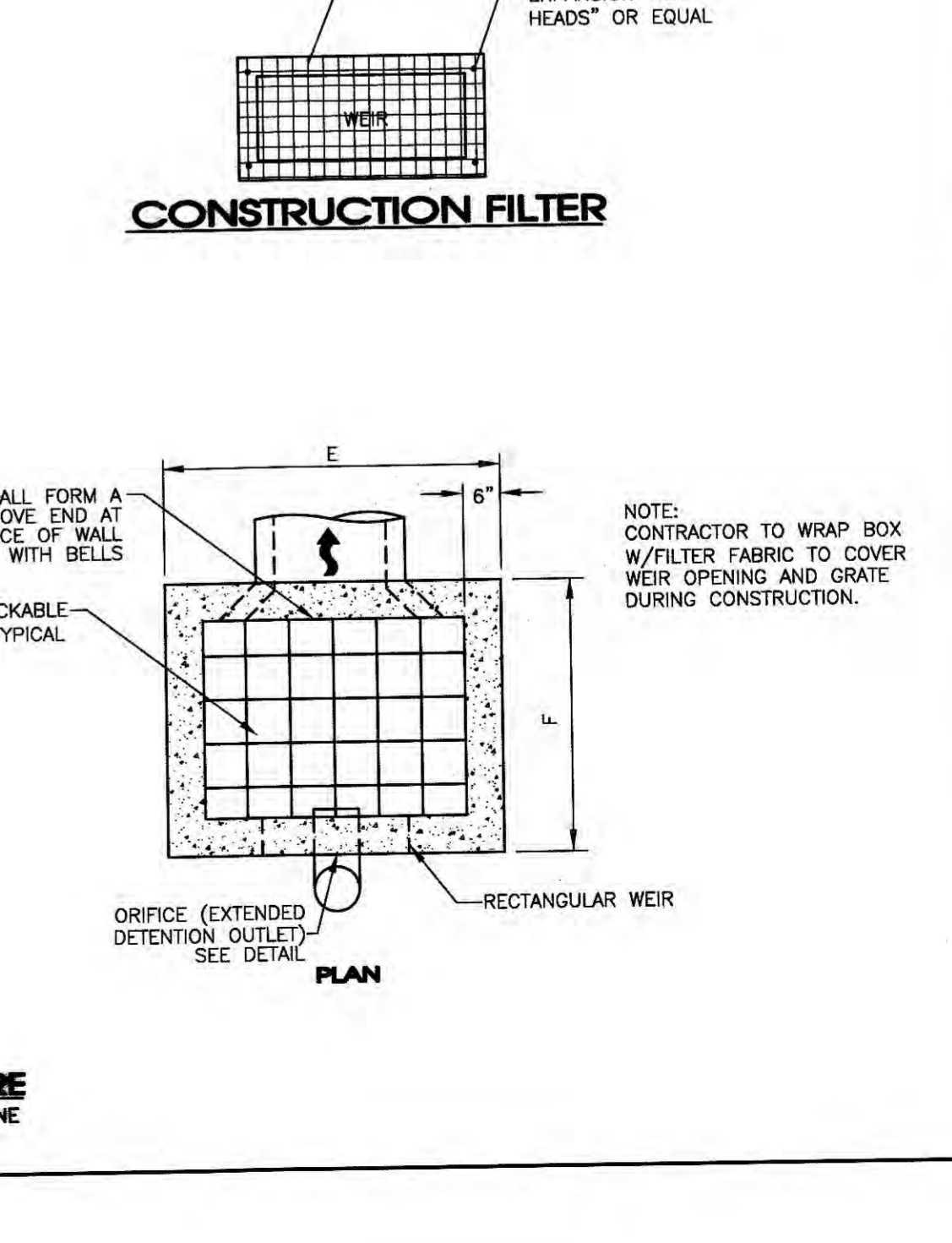
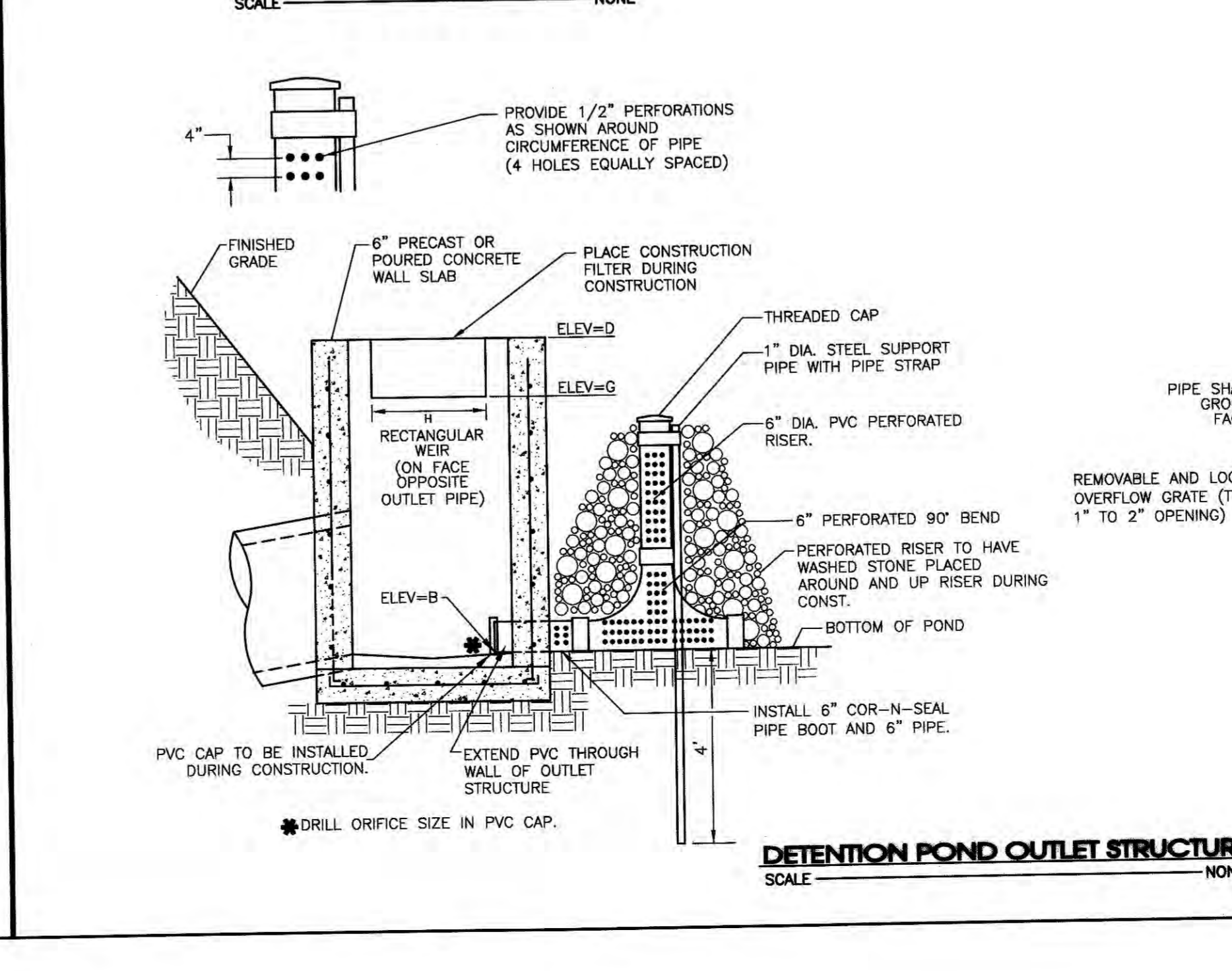
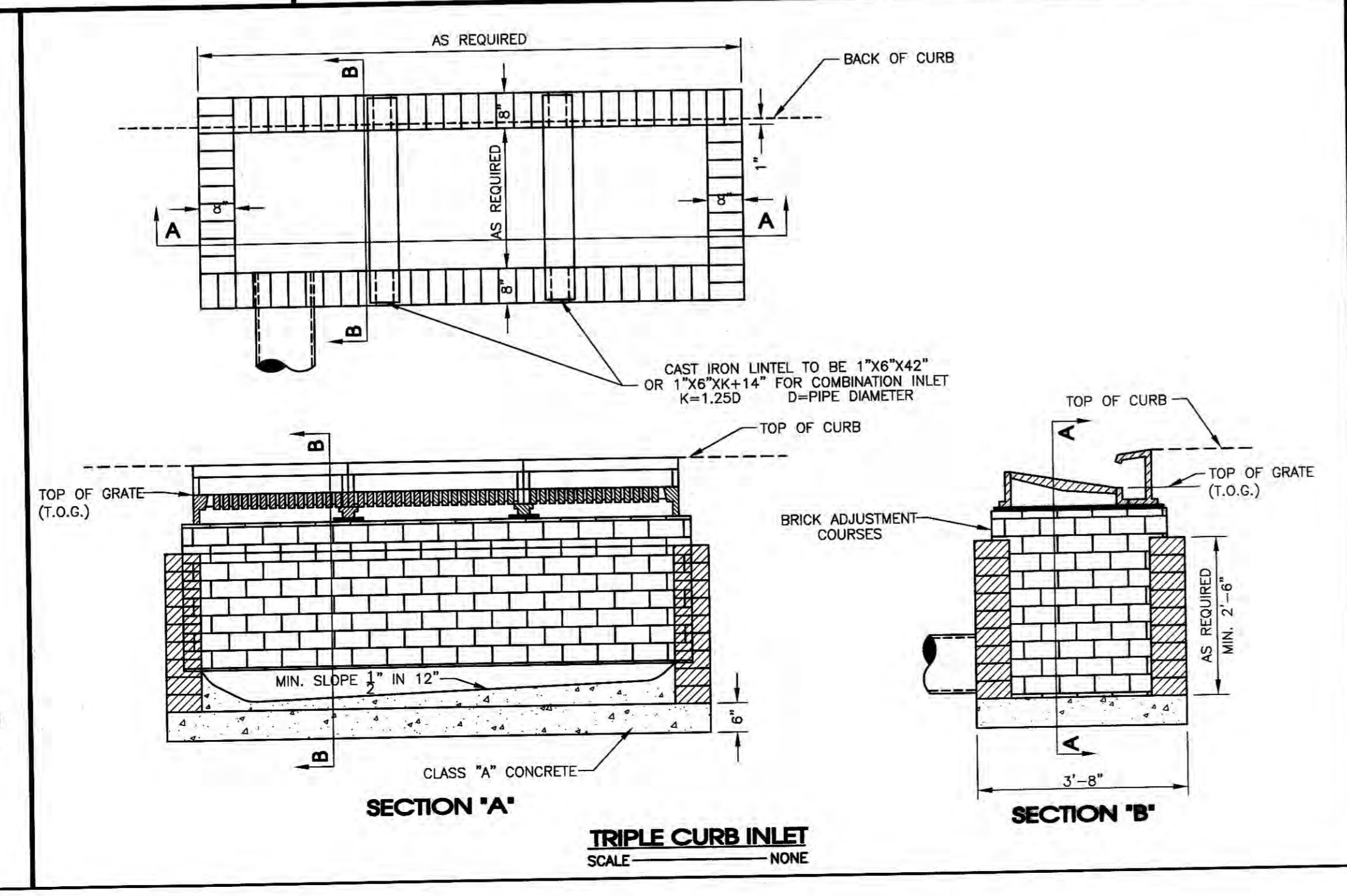
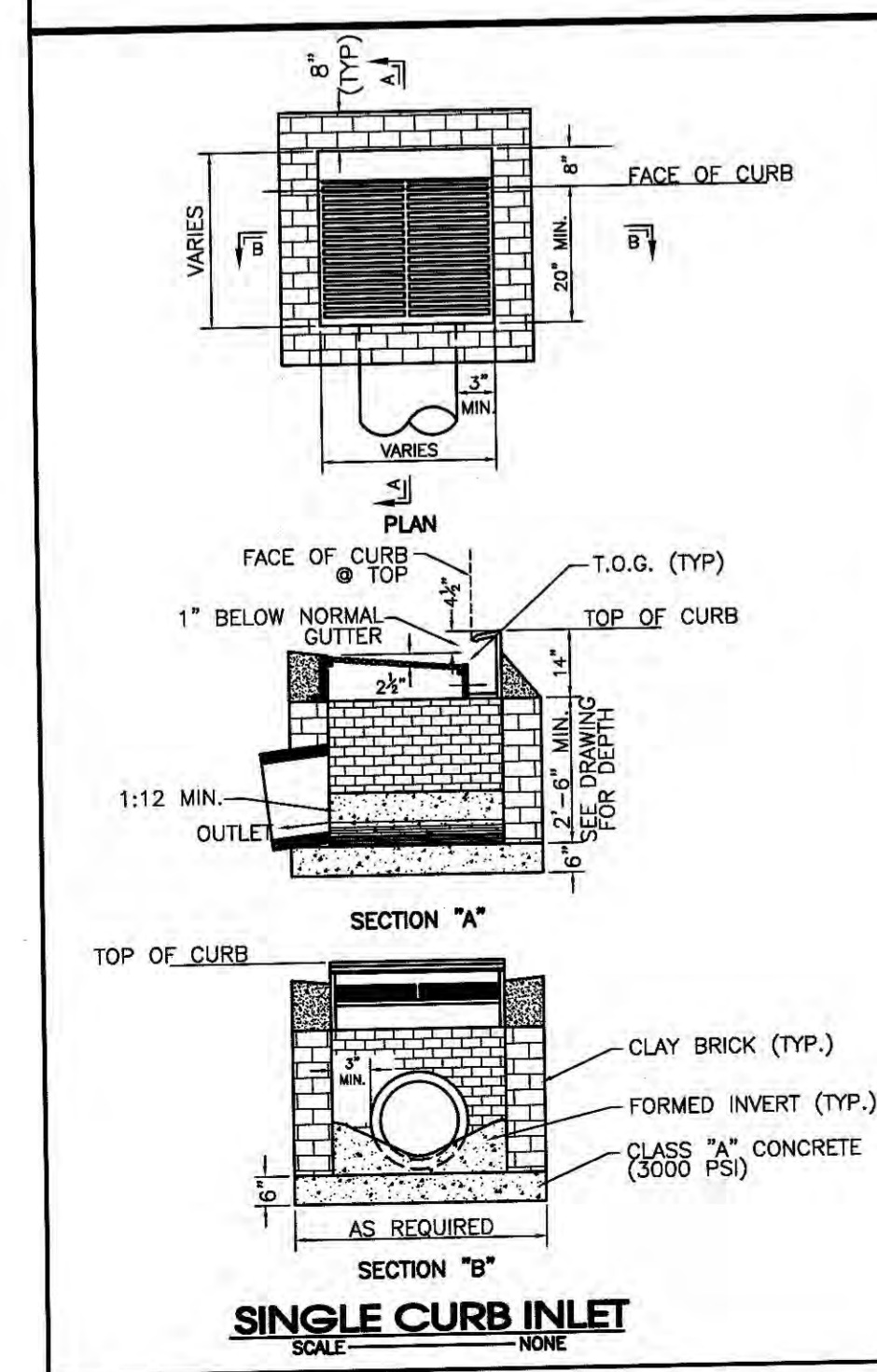
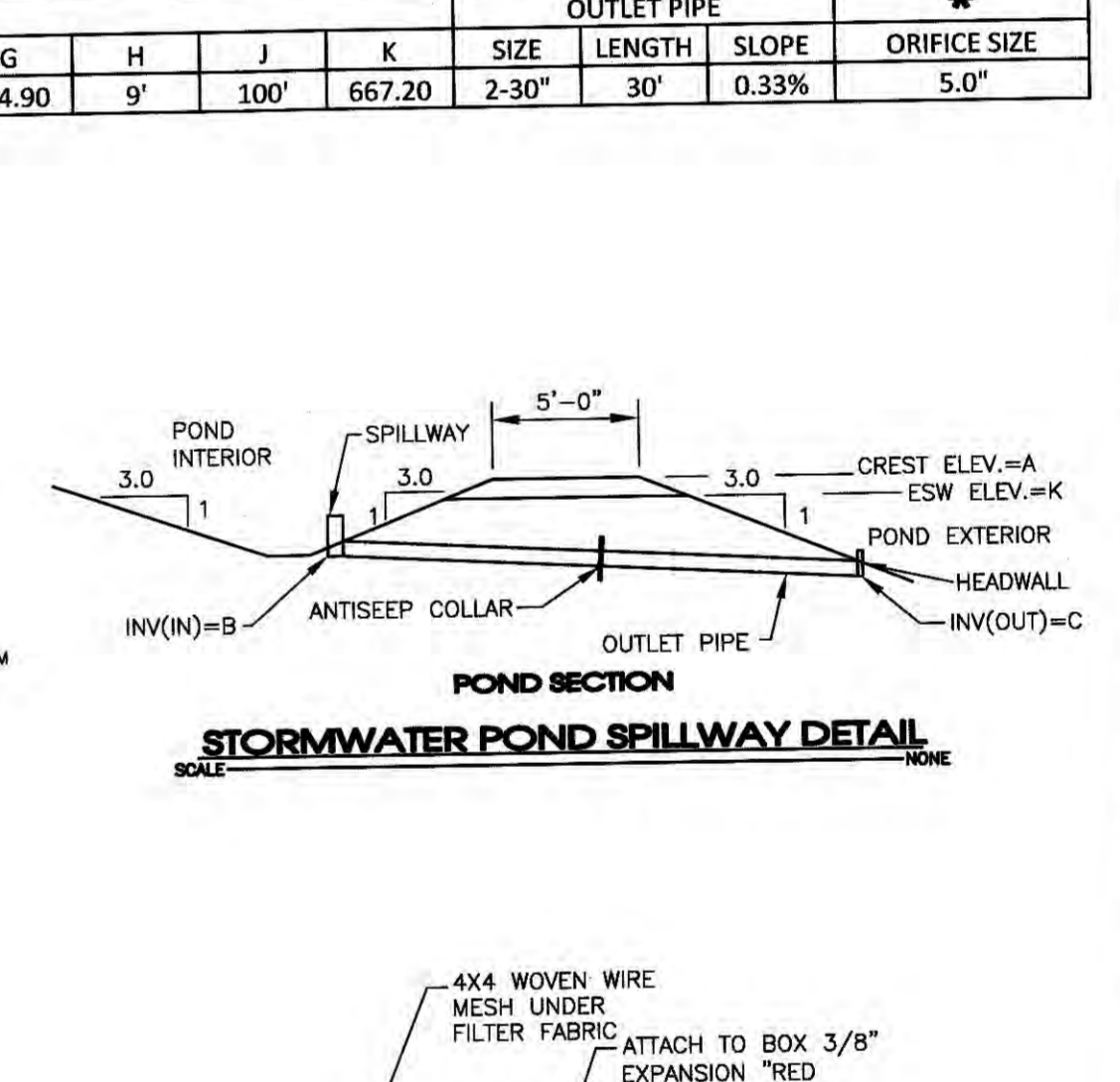
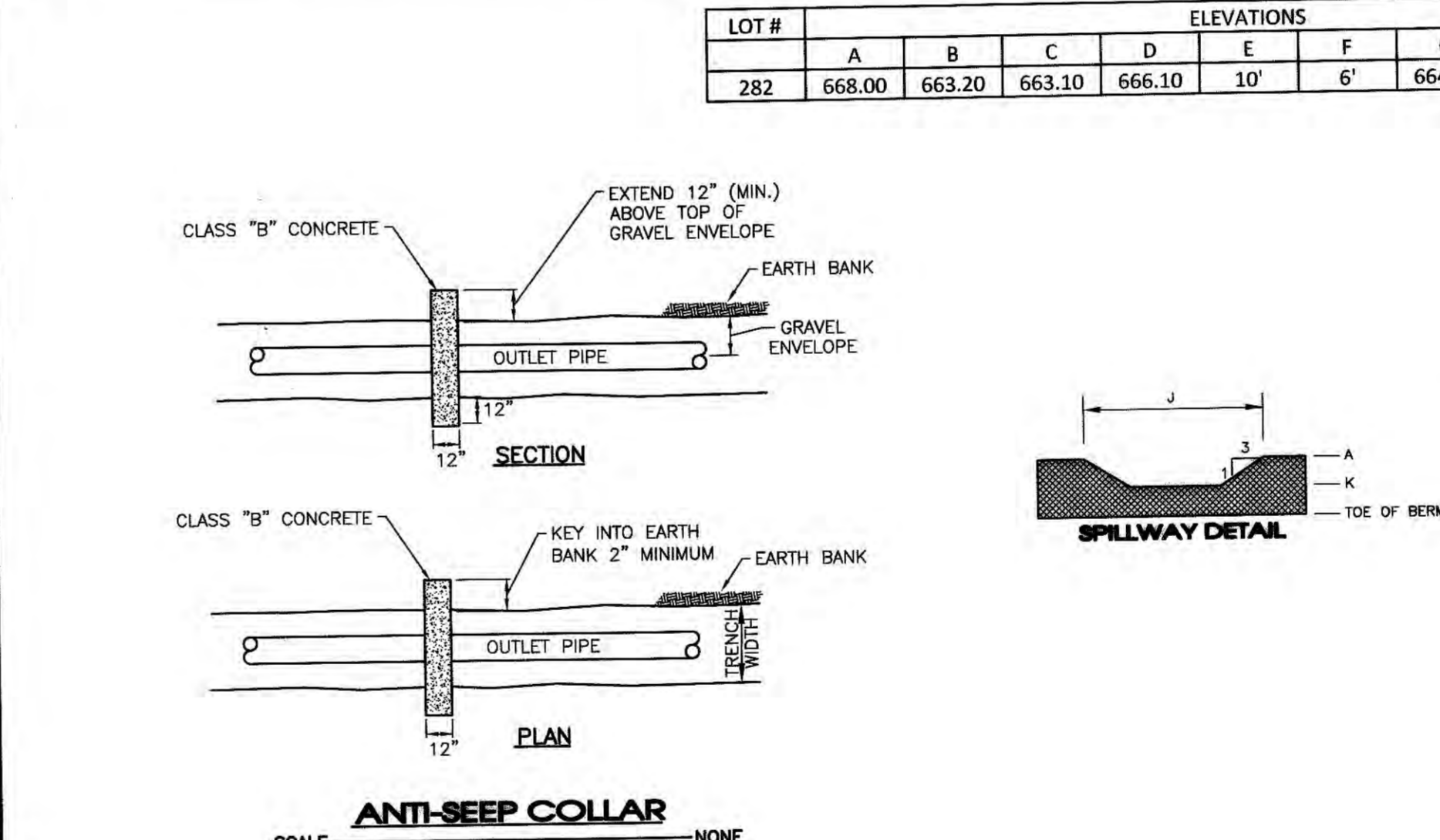
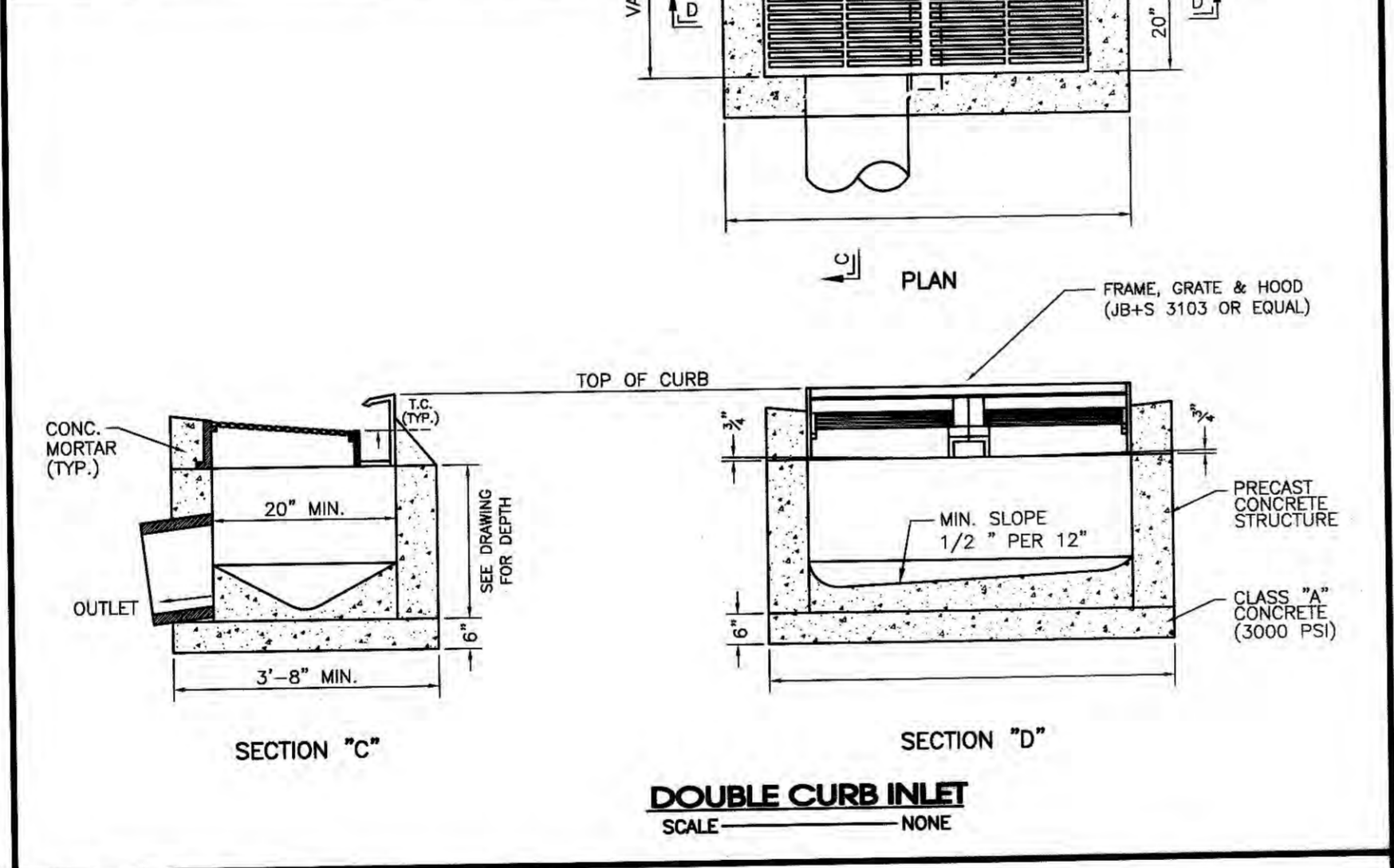
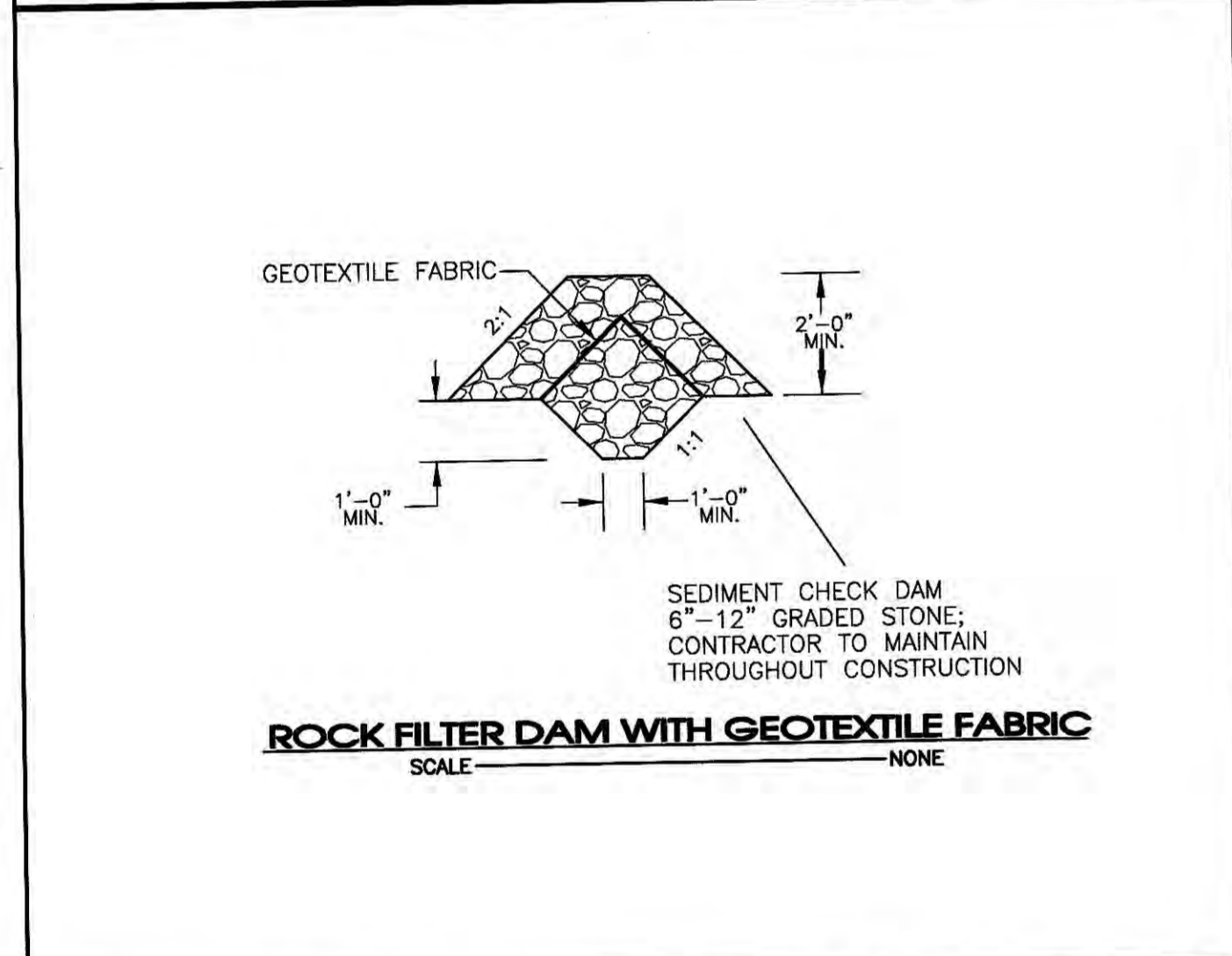
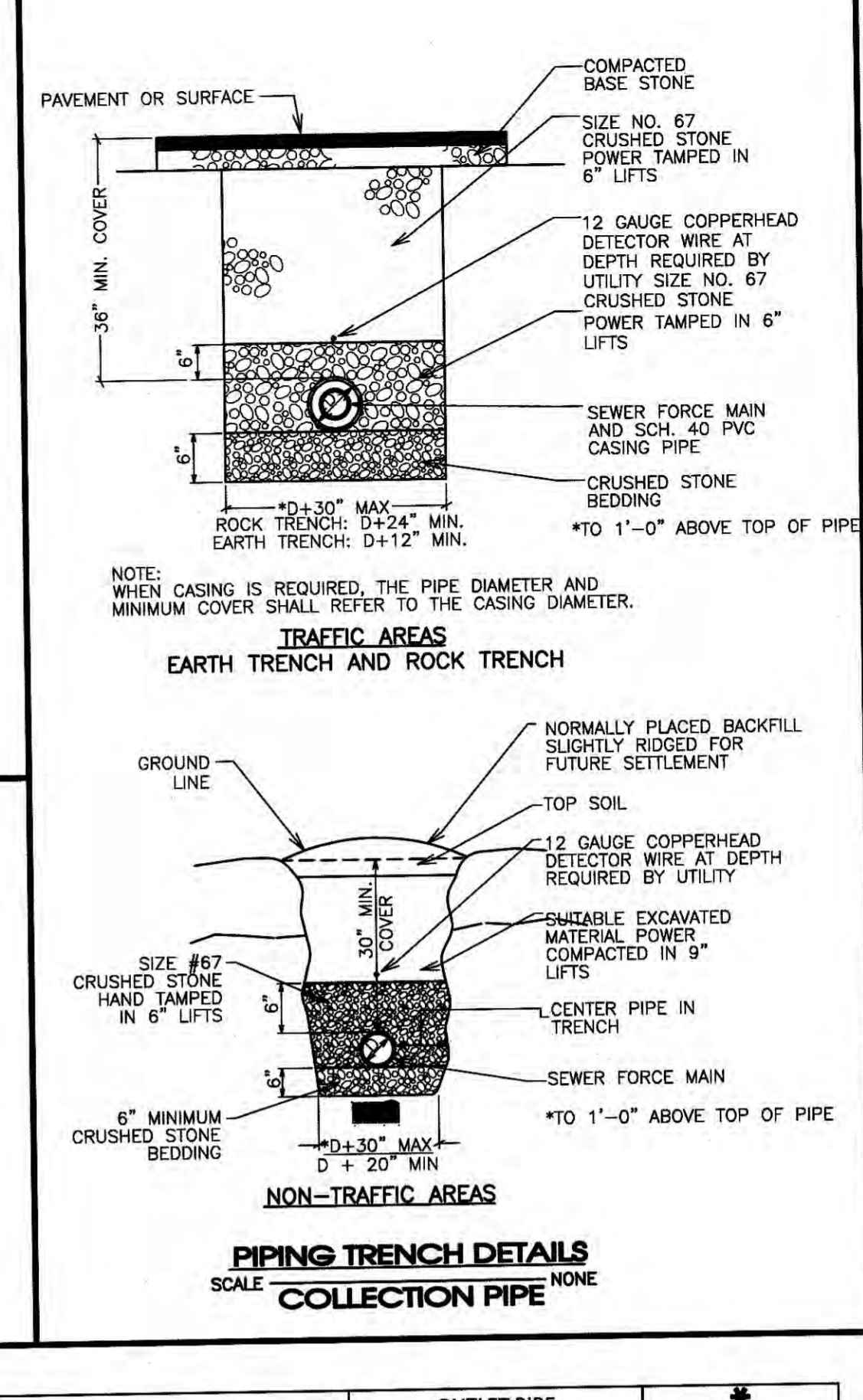
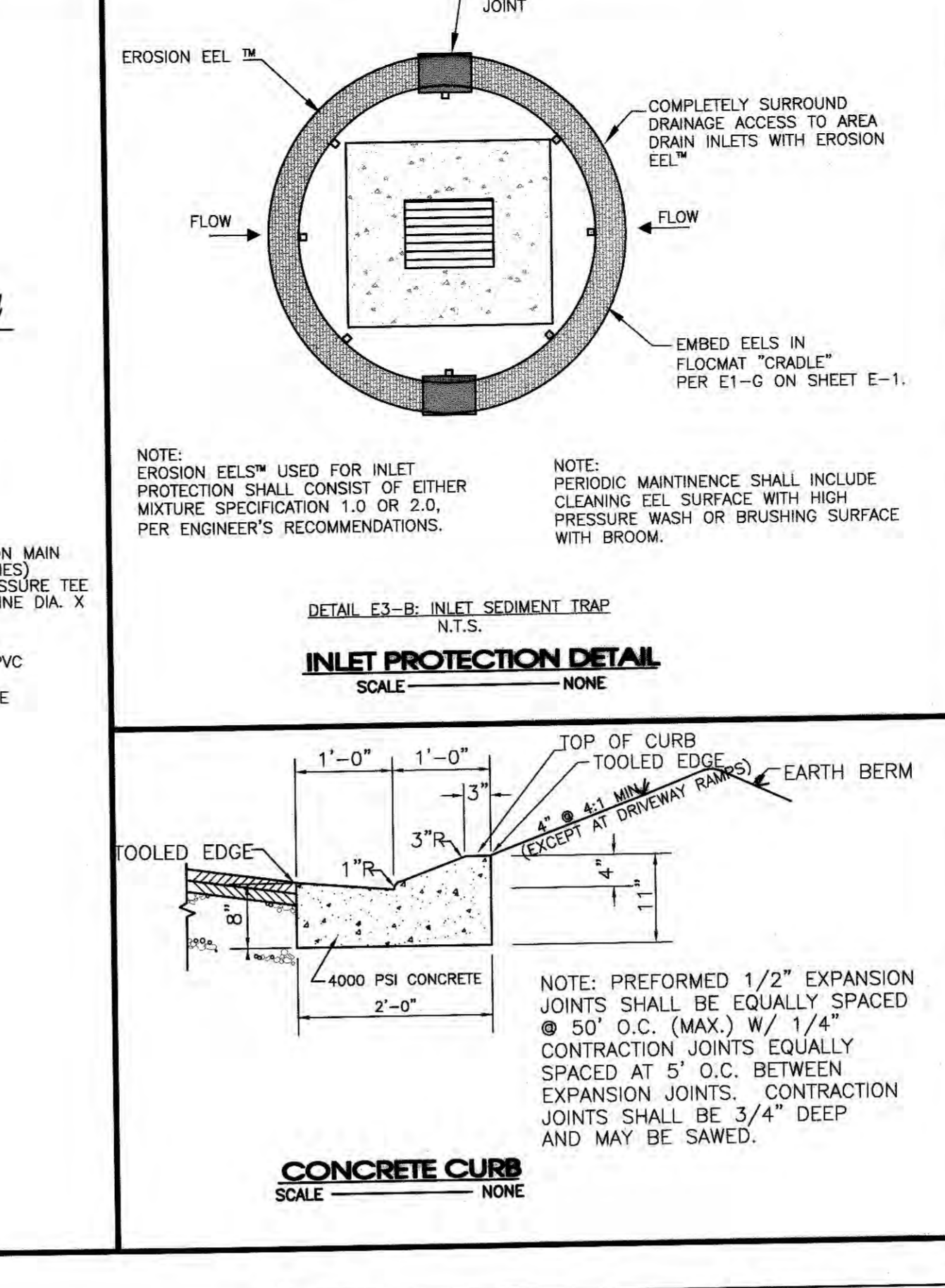
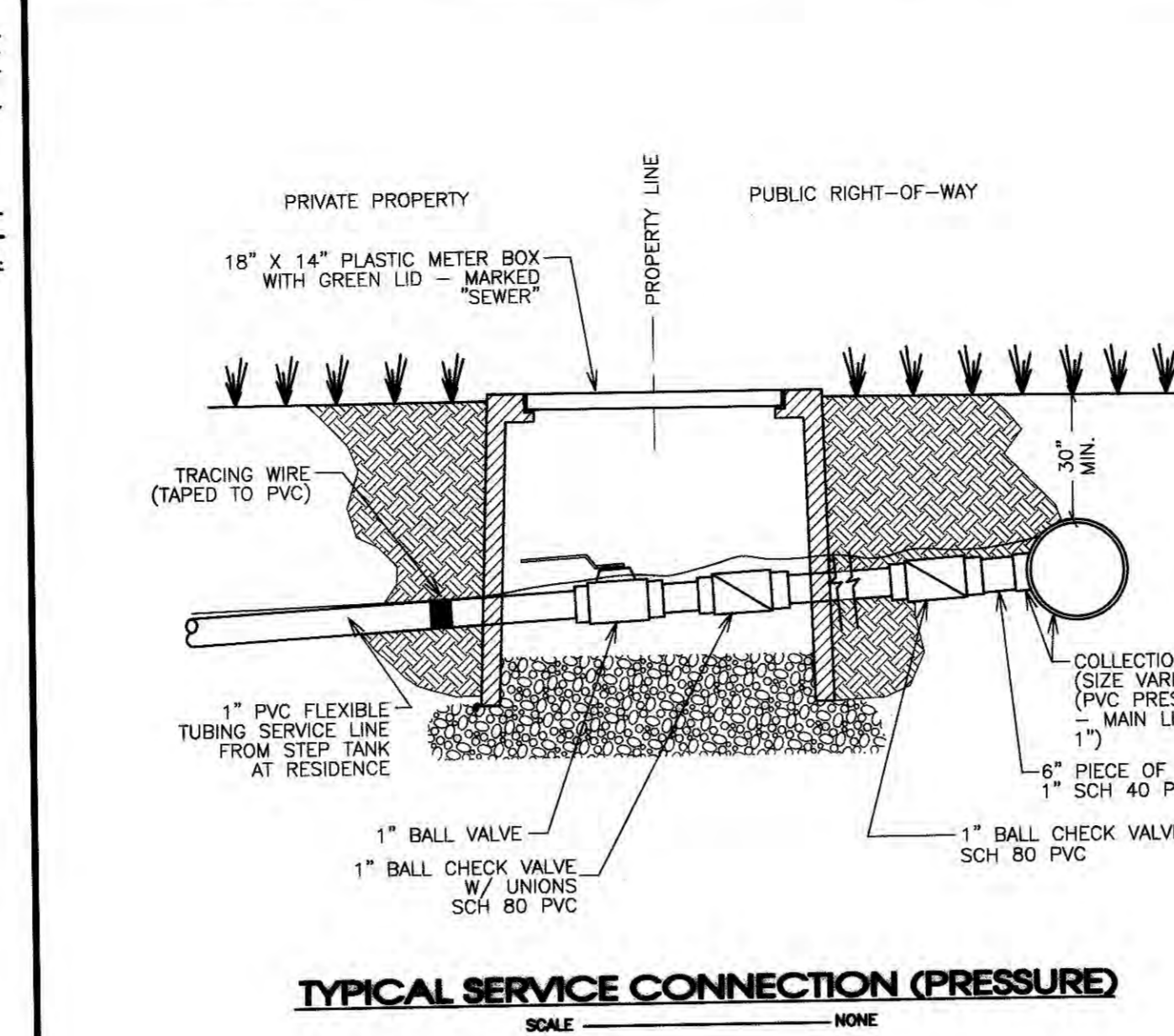
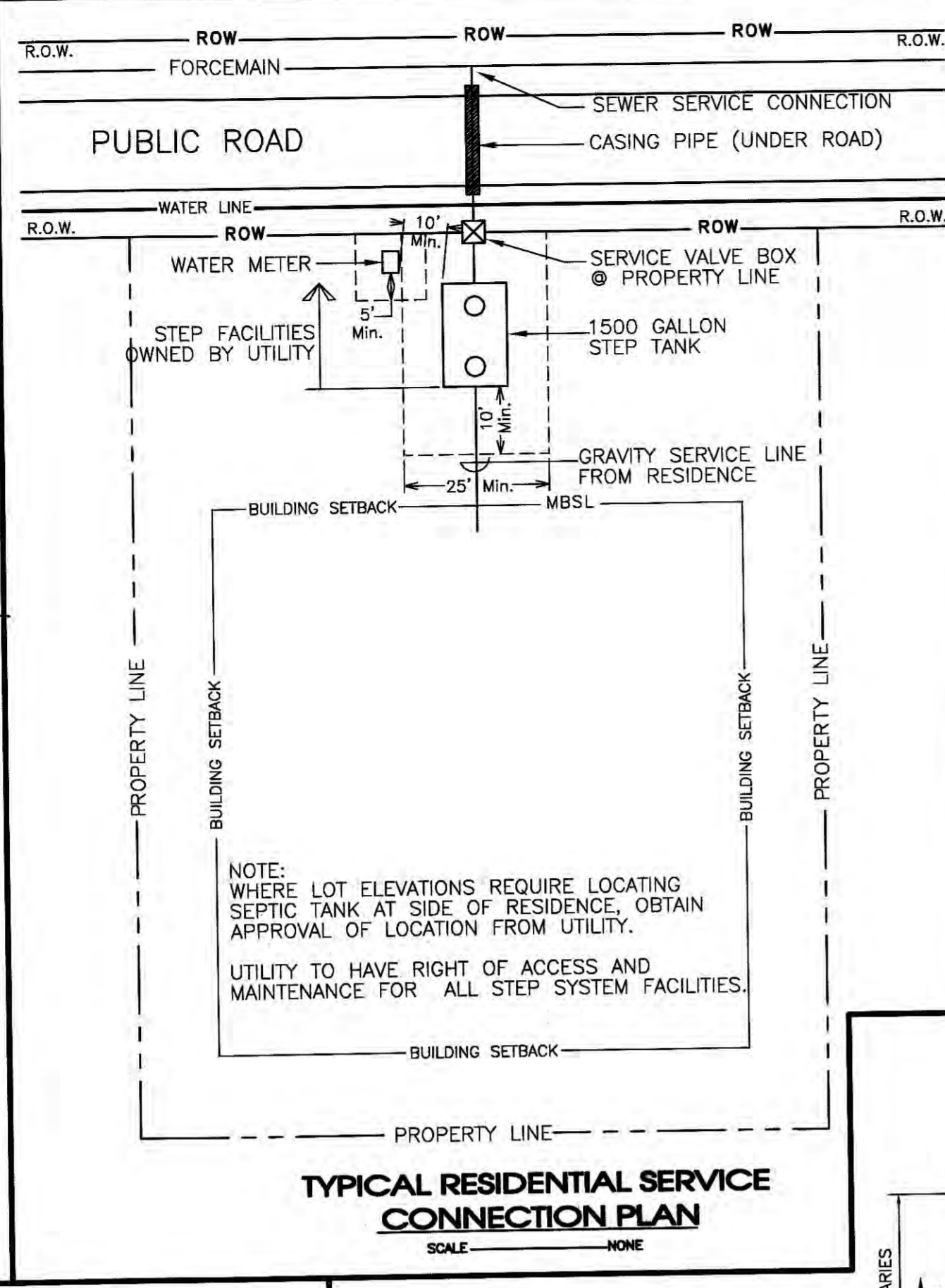
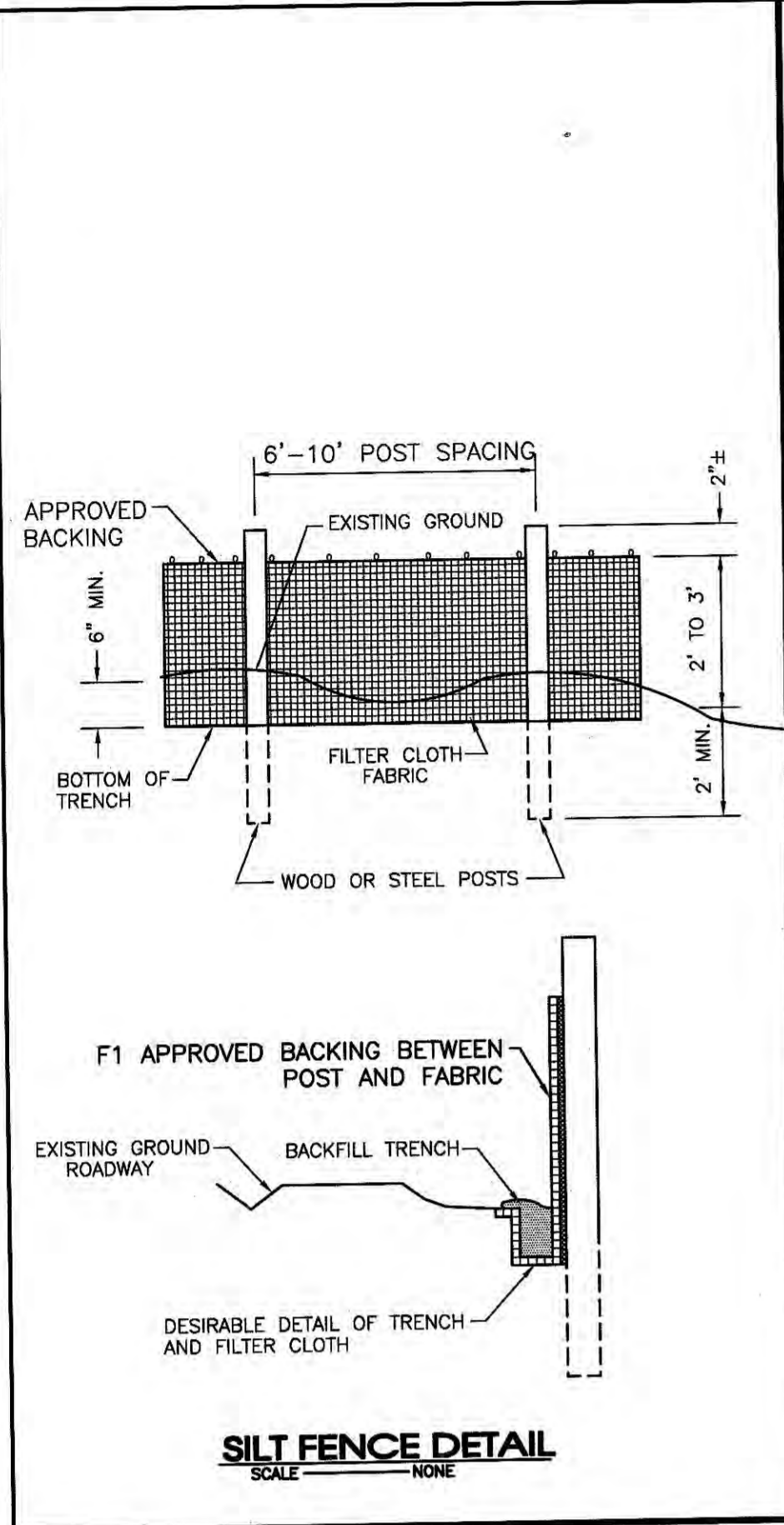
Clearview Acres
Section 4
Rutherford County, TN

Details

REVISIONS:

NO.	DATE	DESCRIPTION
1	9-28-2021	DATE: 9-28-2021
2		CHECKED: RH
3		FILE NAME: 14300ProjectP4
4		SCALE: None
5		JOB NO. 14300
6		SHEET: C6.1

DRAWN: JLM



LOT #	ELEVATIONS										OUTLET PIPE			
	A	B	C	D	E	F	G	H	J	K	SIZE	LENGTH	SLOPE	ORIFICE SIZE
282	668.00	663.20	663.10	666.10	10'	6'	664.90	9'	100'	667.20	2-30"	30'	0.33%	5.0"

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PHONE: (615) 890-7901
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Clearview Acres
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Rutherford County, TN

Details

REVISIONS:
DRAWN: JLM
DATE: 9-28-2021
CHECKED: RH
FILE NAME: 14300ProjectP4
SCALE: None
JOB NO. 14300
SHEET: C6.2