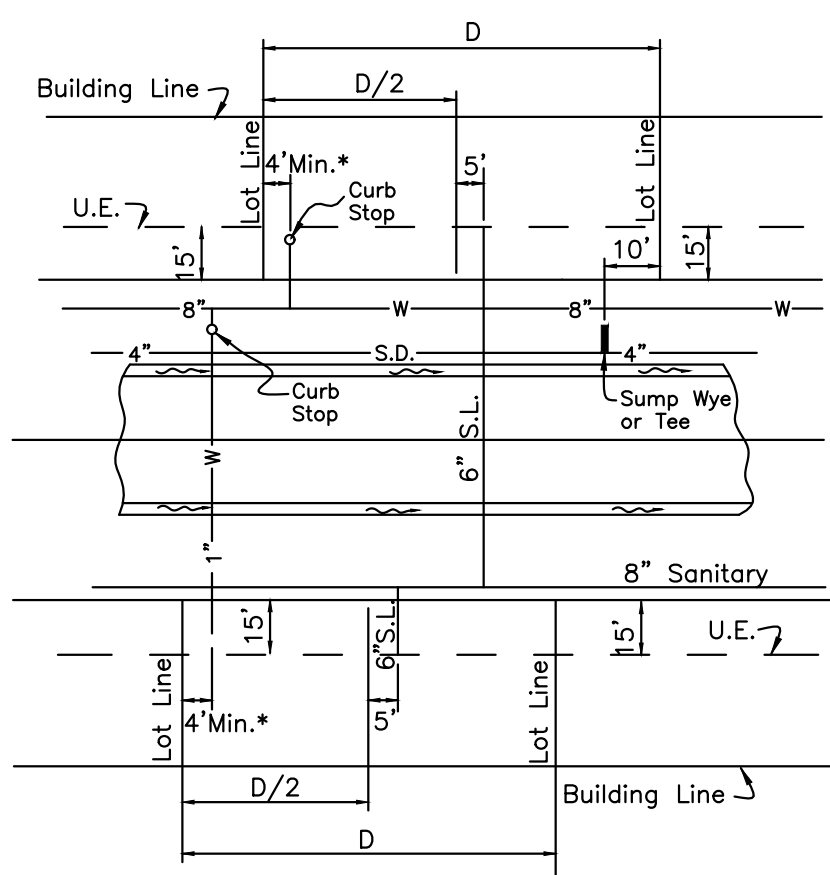


INDEX TO SHEETS

Title Sheet	1
Plan & Profile Sheets	2
Grading Plan	3
Detail Sheets	4-6
Soil Erosion & Sedimentation Control Detail Sheet	7

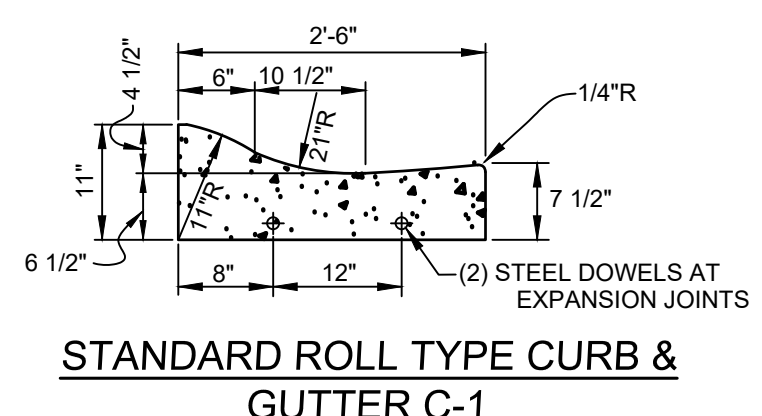
LEGEND

EXISTING CONTOURS	
PROPOSED CONTOURS	
CENTERLINE	
PROPERTY LINE	
EXISTING SANITARY SEWER & MANHOLE	
PROPOSED SANITARY SEWER & MANHOLE	
EXISTING WATER MAIN	
FIRE HYDRANT	
WATER VALVE	
PROPOSED WATER MAIN	
EXISTING GAS MAIN	
SUMP DRAIN LINE	
EXISTING STORM PIPE & CATCH BASIN	
STORM MANHOLE	
PROPOSED STORM PIPE	
EXISTING TELEPHONE	
EXISTING CABLE	
DIRECTION OF DRAINAGE	
PROPOSED SWALE	
LOT SWALE	

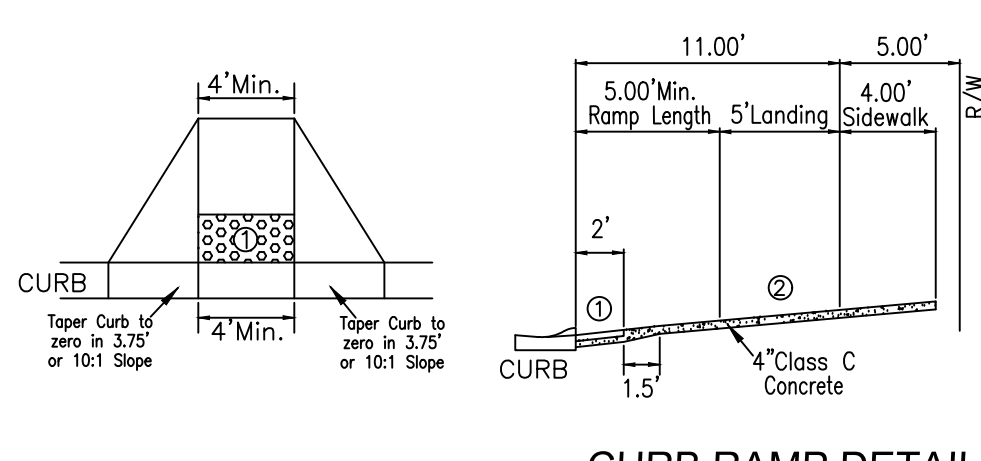


STANDARD SERVICE DETAIL

*Except Otherwise shown on plan.

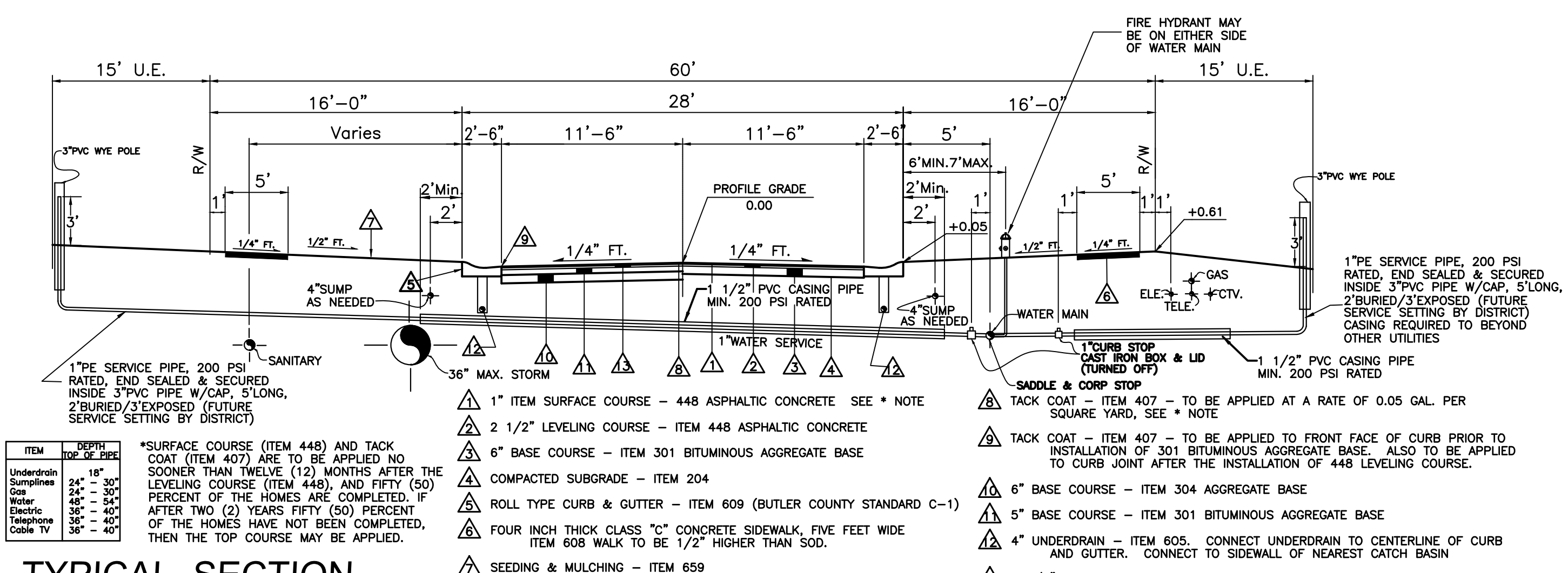


STANDARD ROLL TYPE CURB & GUTTER C-1



CURB RAMP DETAIL

1. Detectable Warning (Truncated Domes) are to be installed in the location shown. Dimensions of the domes are 24" from the back of the curb by the width of the ramp.
2. Minimum Landing is to be 4' but 5' is preferred. The slope of the ramp is preferred to be 1:2 or flatter related to the horizontal, but the minimum slope shall be 1:21 relative to the existing or proposed walk slope.
3. Curb ramps shall be design A or design B per ODOT Drawing 7-12-02, sheets 1 through 3. Truncated domes are to meet the specifications of ODOT drawing 7-12-02 sheet 3.



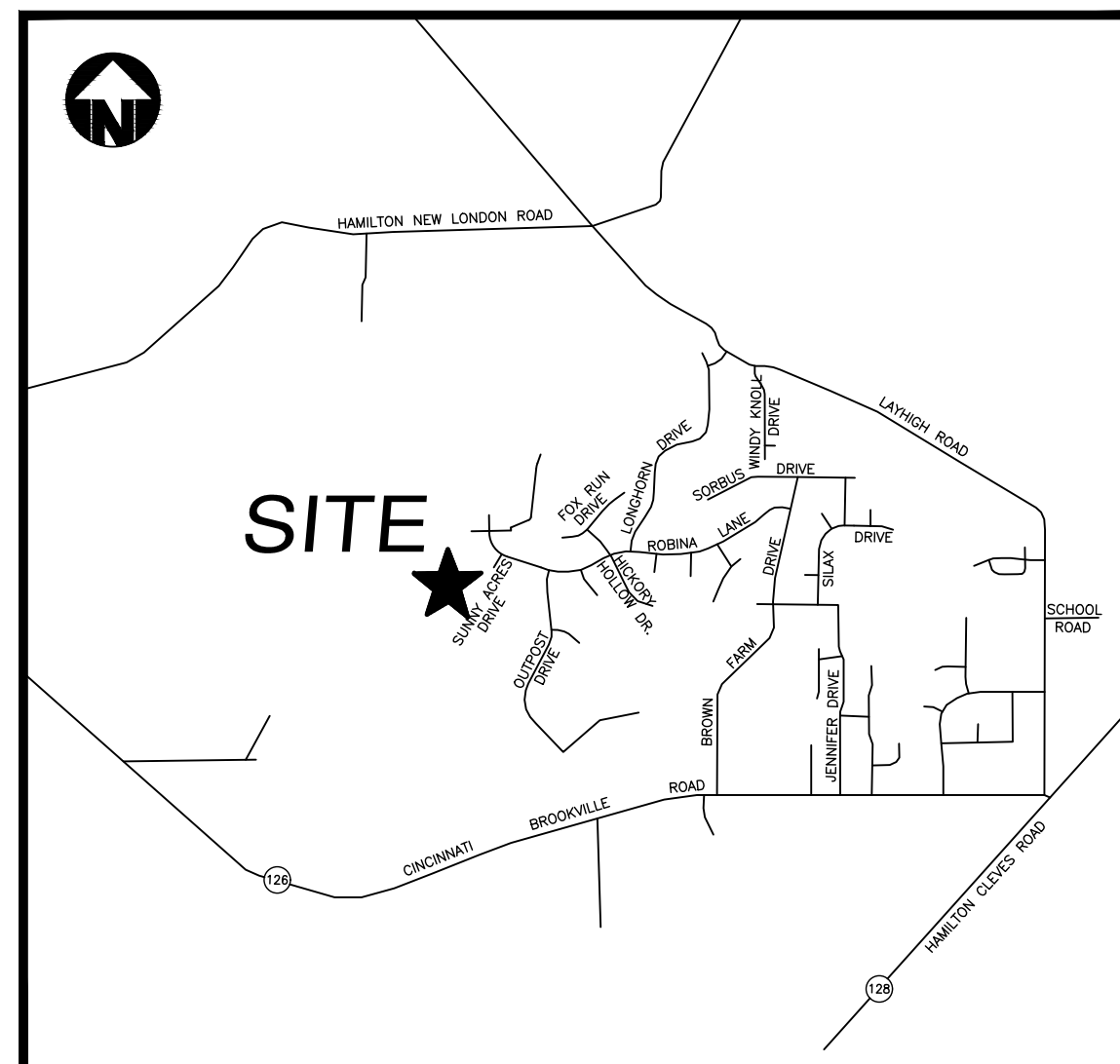
TYPICAL SECTION

ROSS TRAILS SECTION FIVE, BLOCK B

SECTION 29, TOWN 3, RANGE 2
ROSS TOWNSHIP, BUTLER COUNTY, OHIO
OCTOBER, 2020



Know what's below.
Call before you dig.



VICINITY MAP

OWNER/DEVELOPER

Ross Trails Inc.
P.O. Box 277
Ross, Ohio 45061
(513) 720-9900

BENCHMARK

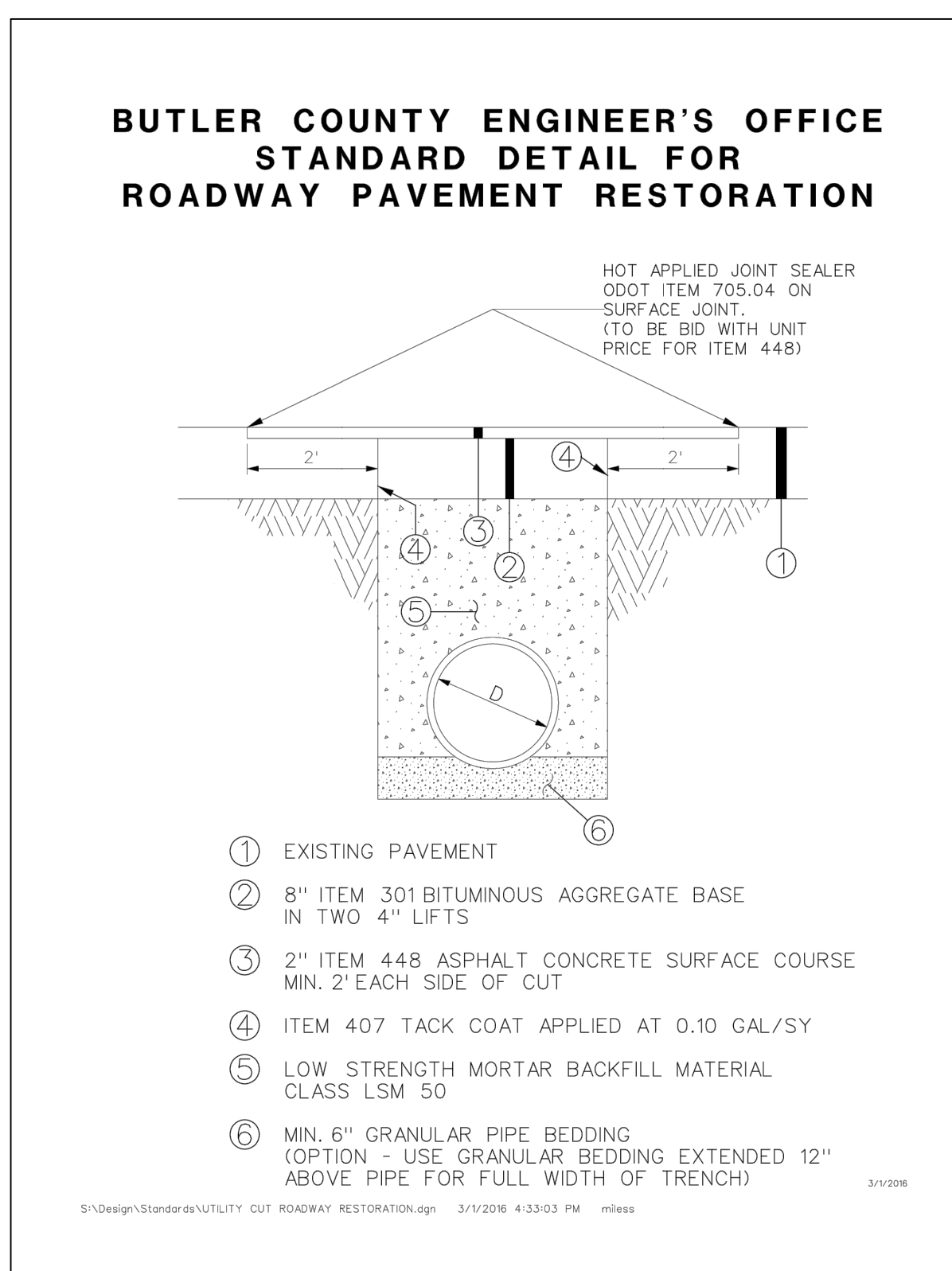
Top of Existing Sanitary Manhole
Located at the West End and to the
North of Robina Lane
Elevation= 732.31

JOB LOG	
DATE	COMMENT
8-31-20	Submitted to Butler County Planning
10-7-20	Resubmitted to BCWS & BCEO

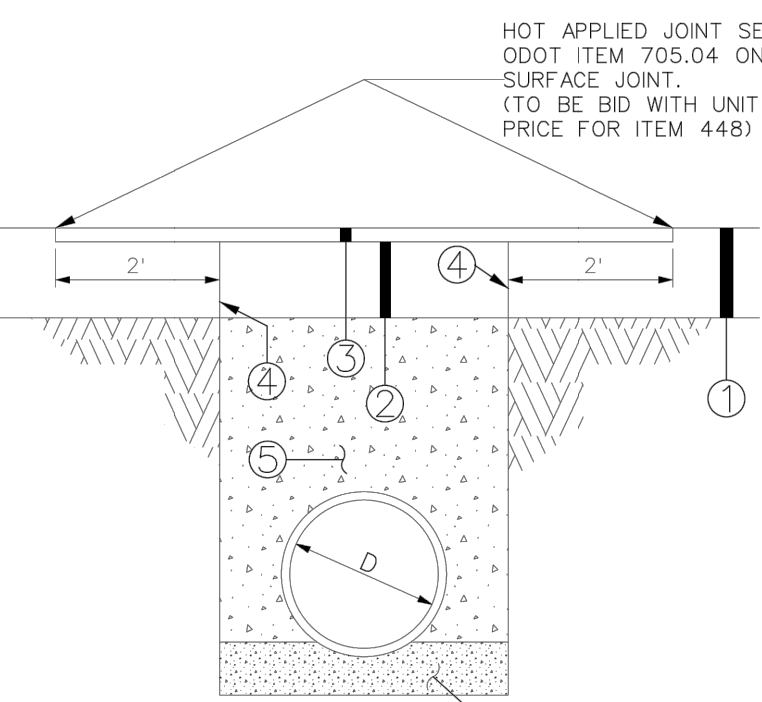
SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS	
C-1	
Std.MH-1A	
Std.HW-D	
CB-3A	
CB-3A(Mod.)	
Std.R-1	

CONSTRUCTION APPROVAL	
	Date
Butler Co. Water & Sewer Dept.	9-18-20
Butler Co. Engineer's Office	
Southwest Regional Water District	

These plans are not for construction until ALL approval dates have been filled in.



BUTLER COUNTY ENGINEER'S OFFICE STANDARD DETAIL FOR ROADWAY PAVEMENT RESTORATION



1. EXISTING PAVEMENT
2. 8" ITEM 301 BITUMINOUS AGGREGATE BASE IN TWO 4" LIFTS
3. 2" ITEM 448 ASPHALT CONCRETE SURFACE COURSE MIN. 2" EACH SIDE OF CUT
4. ITEM 407 TACK COAT APPLIED AT 0.10 GAL/SY
5. LOW STRENGTH MORTAR BACKFILL MATERIAL CLASS LSM 50
6. MIN. 6" GRANULAR PIPE BEDDING (OPTION - USE GRANULAR BEDDING EXTENDED 12" ABOVE PIPE FOR FULL WIDTH OF TRENCH)

GENERAL NOTES

1. Item numbers refer to the 2010 Ohio Department of Transportation construction and material specifications, and all construction work shall be done according to said specifications of Butler County requirements and standards for subdivisions. When in conflict, the County requirements shall prevail.
2. Items that pertain to underground utilities such as watermain pipe, sanitary sewer pipe, water valves and manhole frames and covers, etc., will remain under specifications of the utility serving the area. Storm sewers shall be designed and constructed in accordance with the requirements of the Butler County Engineer.
3. All trenches within the right-of-way and 15' utility easement shall be compacted and backfilled in accordance with item 203 and 603 in the state specifications.
4. Surface course (item 404) and tack coat (item 407) are to be applied no sooner than nine (9) months after the leveling course (item 403), and fifty (50) percent of the homes are completed. After two (2) years fifty (50) percent of the homes have not been completed, then the top course may be applied.
5. A minimum 10' utility easement shall be shown on the record plat parallel and immediately adjacent to the right-of-way line allowing for installation, operation and maintenance of sewers, water, electric and telephone conduits and any other public or quasi public utility.
6. Developer shall be responsible for the installation of conduits for the full width of the public right-of-way at a depth of 36" for use by the electric, telephone and cable services. The location of the lines shall be coordinated with utility companies by the developer.
7. All electrical transformers shall be located so that they do not interfere with the existing manholes or water main appurtenances.
8. Sump line conduits are to be SDR 35, Armo 2000.
9. WATER MAIN
 - A. Water main materials, valves, fire hydrants, fittings and appurtenances and installation to be as per Southwest Regional Water District specifications. Ductile iron water main shall be Pressure Class 350 as per AWWA C-151 with 8-mil polyethylene encasement as per AWWA C-105. PVC water main shall be DR14 as per AWWA C-900. All fittings shall be mechanical joint ductile iron with 8-mil polyethylene encasement as per AWWA C-105.
 - B. All water main valves to have a minimum depth of 2.5' and a maximum depth of 4' from proposed grade to the top of the Valve Operating Nut.
 - C. Minimum 10' horizontal, 18" vertical separation between water main and sanitary and/or storm sewer.
 - D. Service risers to be installed per Typical Section. Meter Facilities to be installed by Southwest Regional Water District.
10. SANITARY SEWER
 - A. Sanitary sewer materials and installation to be as per Butler County specifications, using Section 3110 for PVC SDR-35 & 26 pipe; Section 3140 for ABS or PVC composite pipe; Section 3410 for manholes.
 - B. Crossings Whenever a sanitary sewer and water main must cross, the sewer shall be at such an elevation that the crown of the sewer is at least 18 inches measured between the outside pipe walls, below the bottom of the water main. If it is absolutely impossible to maintain the 18 inch vertical separation, the water main shall be relocated or the sewer shall be constructed as follows:
 1. A sewer passing over and under the water main shall be enclosed or constructed of materials that are equivalent to water main standards of construction for a minimum distance of 10 feet on each side of the water main.
 2. The sewer crossing shall be constructed so that the sewer joints will be equidistant and as far as possible from the water main joints.
 3. Where a water main passes under a sewer, adequate structural support shall be provided for the sewer to prevent damage to the water main.
 - C. Sanitary laterals shall be extended to at least ten (10) feet beyond the Property / Right-of-Way or to the edge of the easement, whichever is greater.
 - D. Sanitary sewer laterals, which shall include all pipe and appurtenances from the building to the public sewer main, and the connection to the public sewer main shall be considered private and the responsibility of the property owner to maintain. The connection to the sewer would be any piping that extends out from the main barrel of the sewer main.
 - E. All buildings to be served by the public sewer system shall be constructed so as to provide a minimum of four feet (4') of vertical separation between the public sanitary sewer, at the point of connection, and the lowest building level served by a gravity sewer connection and shall not exceed a depth of 12 feet below finish grade at the end of the lateral at the right-of-way unless specifically authorized by the County. In addition, solid building level shall be at least one (1) foot above the lowest point of free-overflow (non-sealed manhole cover) upstream of any treatment facility of wastewater pumping facility that receives the discharge from solid building. Solid minimum service levels shall be recorded on the "As-Built" plans for the development which will be kept on file in the office of the Butler County Department Water and Sewer Department.
11. Butler County Water and Sewer Department and Southwest Regional Water District does not accept any responsibility for the relocation, repair, or replacement of any other utility installed within five (5) feet of the center line of any sanitary sewer main or water main.
12. STORM SEWER
 - A. Storm sewer pipe shall meet the requirements as follows:
 1. PVC pipe as per ODOT Supplemental Specification 707.42 for all diameters.
 2. HDPE pipe as per ODOT Supplemental Specification 707.33.
 3. Corrugated steel spiral rib pipe as per ODOT Supplemental Specification 707.01 or 707.02 for all diameters.
 4. Reinforced concrete pipe as per ODOT Construction and Material Specification 706.02 for all diameters. Class shall be specified at the contractor's request. (Cincinnati Concrete Pipe, Duracrete or equal).
 5. Bituminous coated corrugated steel pipe as per ODOT Specification 707.05 or 707.07.
 - B. Deflection Testing for Storm Sewers and Culverts 15% of all storm sewers shall be tested for deflection within thirty days after they are complete. Butler County Engineer or his designated representative will determine what 15% shall be tested. If any storm sewer in the original 15% is found out of compliance, deflection tests will be required on 100% of the remaining storm sewer. A vertical ring deflection greater than 5% will not be allowed. This deflection is defined as 5% reduction in the vertical base or overage inside diameter. The method of testing shall be subject to the approval of the engineer. If rigid balls or mandrels are used to test pipe deflection, no mechanical pulling devices shall be used. The deflection test may be conducted with a nine prong mandrel, a ball or a cylinder or another manner acceptable to the Butler County Engineer or his designated representative. The testing will be accomplished from manhole to manhole or catchbasin to catchbasin, following the complete flushing of the line. The contractor shall furnish all equipment required to complete the deflection testing. The deflection test shall be witnessed by the County Engineer or his designated representative. Any section of pipe that fails to meet the aforementioned requirements shall be rerounded by a procedure acceptable to the County or be excavated and either be replaced or reworked, and retested until the requirements are met.
 - C. All catch basins and manholes with a depth greater than 4' shall be provided with steps. Steps shall meet the requirements of ODOT STD. 604 and shall conform to the details as shown on Butler County Standard Drawing MH-1A.
 - D. Headwall: HW-4A to be used with Corrugated Metal pipe or HW-4B to be used with Concrete Pipe.
13. Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.
14. Any detention basin on site should be constructed prior to the clearing of topsoil and grading of the site. All trees and vegetation shall be removed from all proposed detention basins regardless of maintenance responsibility.
15. SEDIMENTATION CONTROL

The project has been designed to control erosion and prevent damage to other property. All stripping, earthwork, and grading shall be performed to minimize erosion. Natural vegetation shall be retained wherever possible. The proposed plan will allow almost all eroded material to be retained on site.

All areas disturbed by the construction of the roadways, ditches and sediment basins shall be seeded and strowed as soon as possible to limit the erosion and stabilize the soil. Payment will be by the number of square yards disturbed as per the grading plan. For additional sedimentation control details, see grading plan.
16. Private driveways, parking lots and other paved areas, earthen berms or structures should not be constructed over private water or sewer service lines within the public road right of way or within the easement areas for the public utilities. Should this occur, the property owner shall be held responsible for the protection and repair and for providing access to any curb stops, meter pits, manholes, clean-outs, etc. installed in conjunction with these private service lines and for any damage or restoration of the paved surfaces or structures that may result from the future operation, maintenance, repair or replacement of said service lines and appurtenances.
17. Butler County and Southwest Regional Water District will not be responsible for any pavement or storm sewer repairs resulting from water main and sanitary sewer repairs. Butler County and Southwest Regional Water District also will not be responsible for adjusting manholes, valves, fire hydrants, meter pits, etc. as a result of grade changes. The grantor shall be responsible for proper adjustment of manholes, valves, fire hydrants, meter pits, etc. to the satisfaction of Butler County and Southwest Regional Water District, due to grade changes, paving, repairing, etc. initiated by the grantor.
18. A typical five (5) foot drainage easement is to be provided on both sides of every lot line. For Patio Home lots, the drainage easement will be provided between the lots in the open space.
19. Any roadway settlement greater than one inch will be required to be repaired with Item 613 Low Strength Mortar Backfill (Type 1). See Detail on Sheet #4.
20. Provide the Butler County Engineer's Office with a forty-eight (48) hour notice prior to the start of any construction, including sanitary installation. Phone 785-2569 (Matt Homan).
21. Contractors to accept all Quantities as correct prior to beginning construction.
22. Contractor shall include the cost of County and Southwest Regional Water District inspection and extension fees in unit price bid.
23. Existing Zoning: A-1

Frontage: 100' (Lot Size Grandfathered)
Lot Area: 18,000 s.f. Minimum
Front = 35', unless otherwise noted on plan
Side = 10' Min., 25' Total
Rear = 40', unless otherwise noted on plan
23. Total Acreage: 8.554 Acres
24. Total # Single Family Lots: 11

THIS DOCUMENT AND ALL RELATED DETAIL DRAWINGS, SPECIFICATIONS, AND ELECTRONIC MEDIA PREPARED OR FURNISHED BY BAYER BECKER (BB), ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND IS THE EXCLUSIVE PROPERTY OF BB. NO DISCLOSURE, USE, REPRODUCTION, OR DISTRIBUTION IN WHOLE OR IN PART, MAY BE MADE WITHOUT WRITTEN PERMISSION OF BB. USER'S SOLE RESPONSIBILITY - ALL RIGHTS RESERVED.

ROSS TRAILS SECTION FIVE, BLOCK B
SECTION 29, TOWN 3, RANGE 2
ROSS TOWNSHIP, BUTLER COUNTY, OHIO

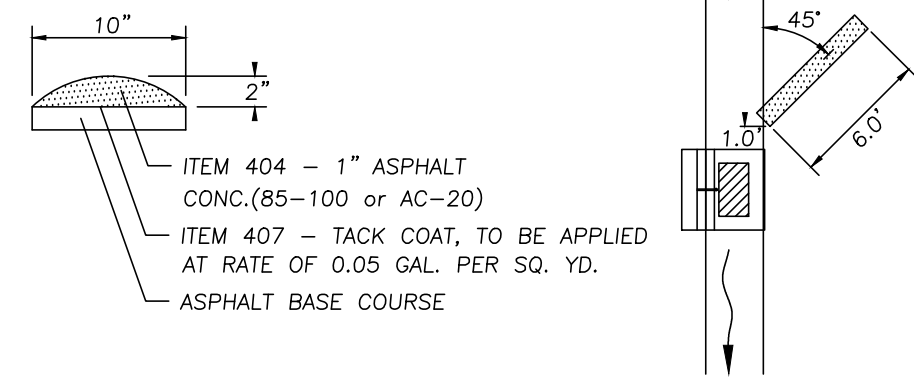
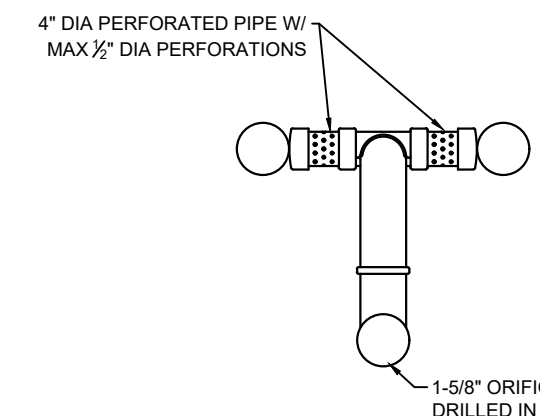
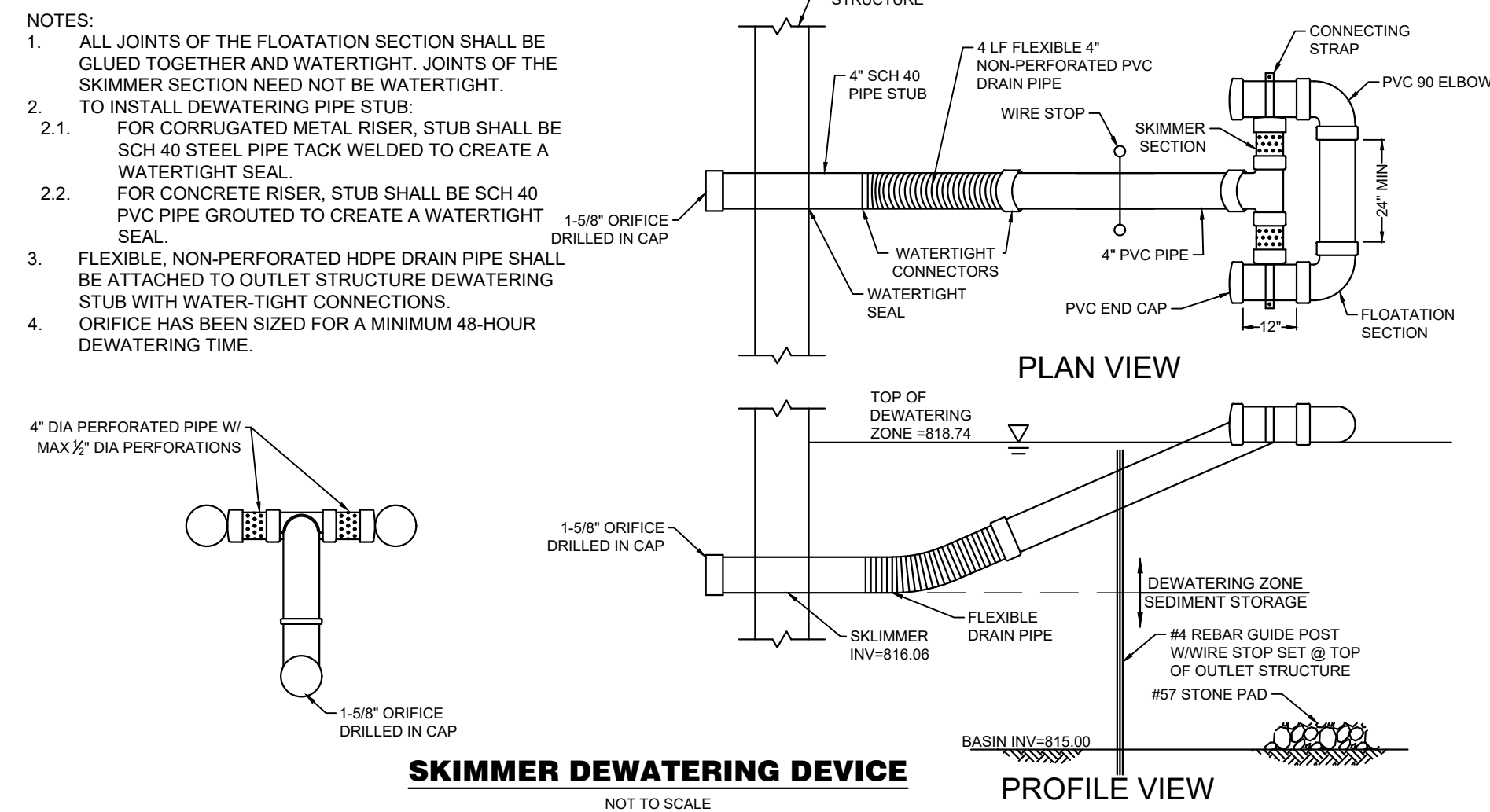
bayer becker
www.bayerbecker.com
6800 Tynesville Road, Suite A
Mason, OH 45040 - 513.336.6600

Item	Revision Description	Date	Drawn	Checked
1	Revised as per BCEO	10-5-20	TAC	
2	Revised as per BCWS	10-7-20	TAC	
3				
4				
5				
6				
7				
8				
9				

Drawing: 18-0029.CD
Drawn by: TAC
Checked by: EMR
Issue Date: 8-31-20
Sheet: 1/7

Plot time: Oct 07, 2020 - 2:50pm
Drawing name: J:\2018\18-0029\CAD\DWG\18-0029.CD.dwg - Layout: Tab: 11LT

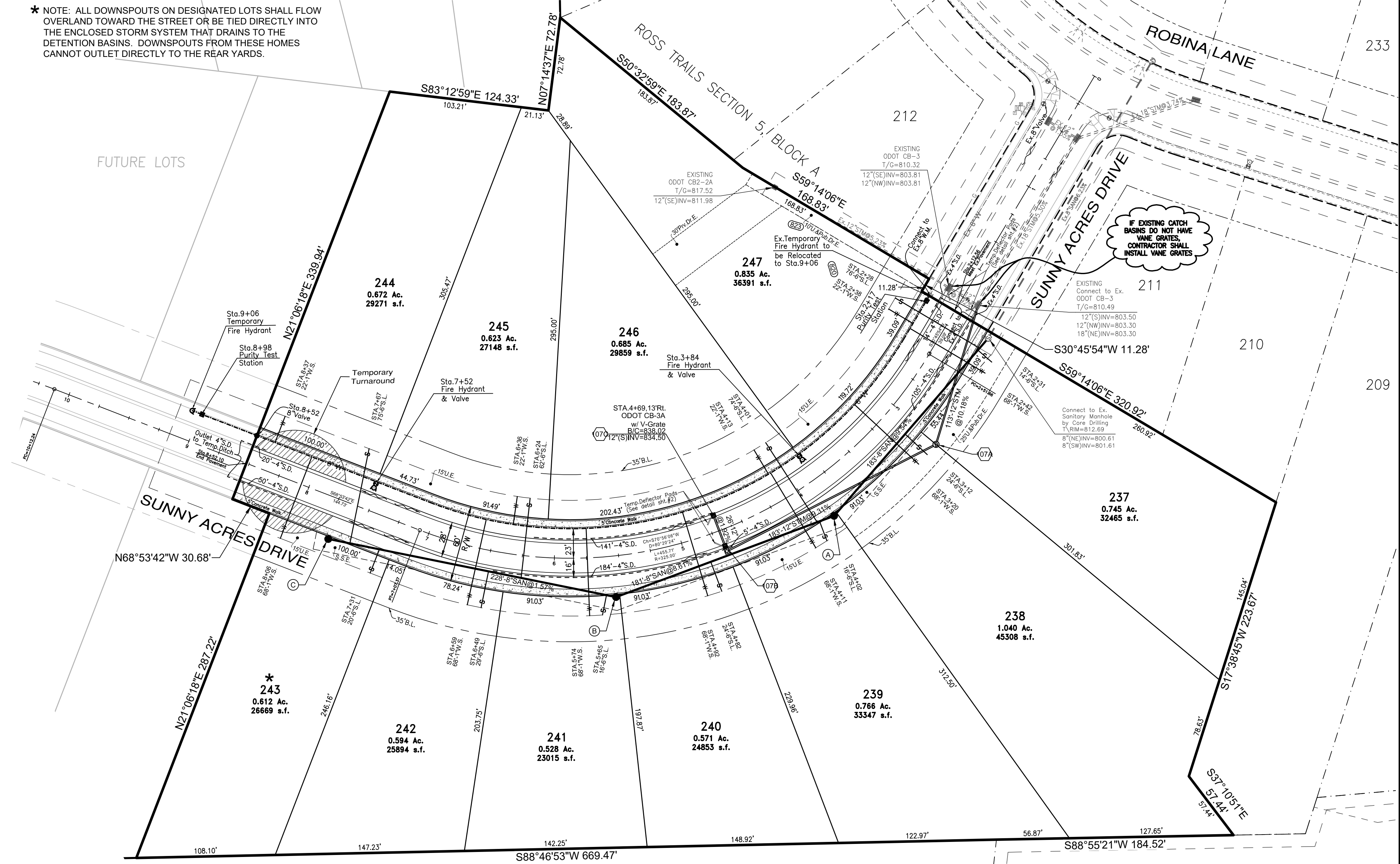
BASIN - TEMPORARY SEDIMENT BASIN RETROFIT



TEMPORARY DEFLECTOR PAD DETAIL

NOTE: To be removed prior to installing the final course of asphalt.

* NOTE: ALL DOWNSPOUTS ON DESIGNATED LOTS SHALL FLOW OVERLAND TOWARD THE STREET OR BE TIED DIRECTLY INTO THE ENCLOSED STORM SYSTEM THAT DRAINS TO THE DETENTION BASINS. DOWNSPOUTS FROM THESE HOMES CANNOT OUTLET DIRECTLY TO THE REAR YARDS.

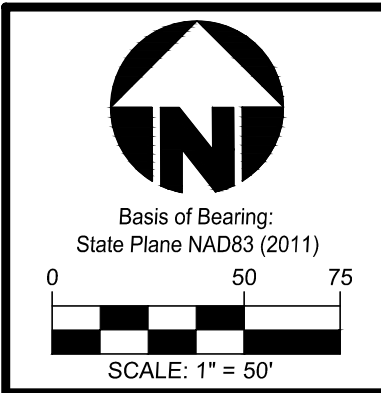
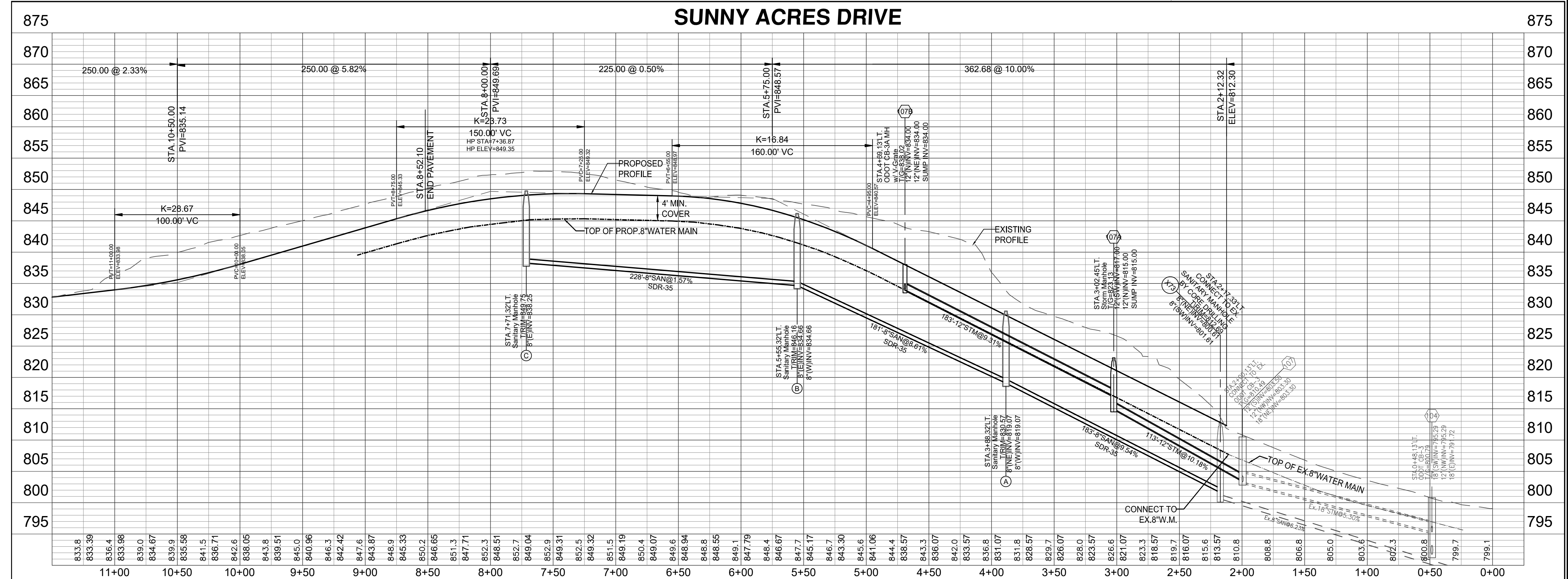


- NOTES:
- 48 hours notice to be given to affected residents before construction begins.
 - Lower 1" Water Services as needed to avoid conflicts with Storm with Min. 4" Cover.
 - Location of existing utilities to be determined in the field prior to work beginning.
 - All lots Sump to Sump Drain unless otherwise noted in plan.
 - Sump Lines to be installed as per Standard Service Detail. Wyes or Tees are to be placed ten feet past lot line, on the low side of specified lots, and marked with Wye poles.
 - Contractors to accept all quantities as correct prior to beginning construction.

NOTE:
 At Crossings, the water main shall have a minimum vertical distance of eighteen (18") inches from storm and sanitary sewers. Also, one full length of water main shall be located so the joints are as far from the storm and sanitary sewers as possible. Fittings, not joint deflection, must be used when water main is lowered at crossings.

WATER MAIN RESTRAINT JOINT LOCATION CHART

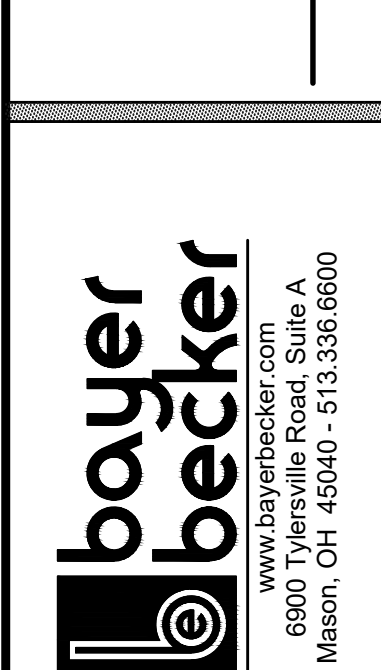
Water Main Dia.	Horizontal 45° Bends	Vertical 45° Bends Up (Lower Water Under...)	Vertical 45° Bends Down (Lower Water Under...)	Dead Ends (Permanent & Temporary)	Tees (for Tee Branch)		
					6"	8"	10"
6"	18' both sides	18' both sides	36' both sides	72' Back	54'	72'	90'
8"	18' both sides	36' both sides	36' both sides	90' Back	54'	72'	90'
10"	36' both sides	36' both sides	54' both sides	117' Back	54'	72'	90'
12"	36' both sides	54' both sides	72' both sides	180' Back	36'	72'	90'
14"	54' both sides	54' both sides	90' both sides	198' Back	36'	72'	90'
16"	54' both sides	54' both sides	90' both sides	216' Back	36'	54'	90'



Revision Description

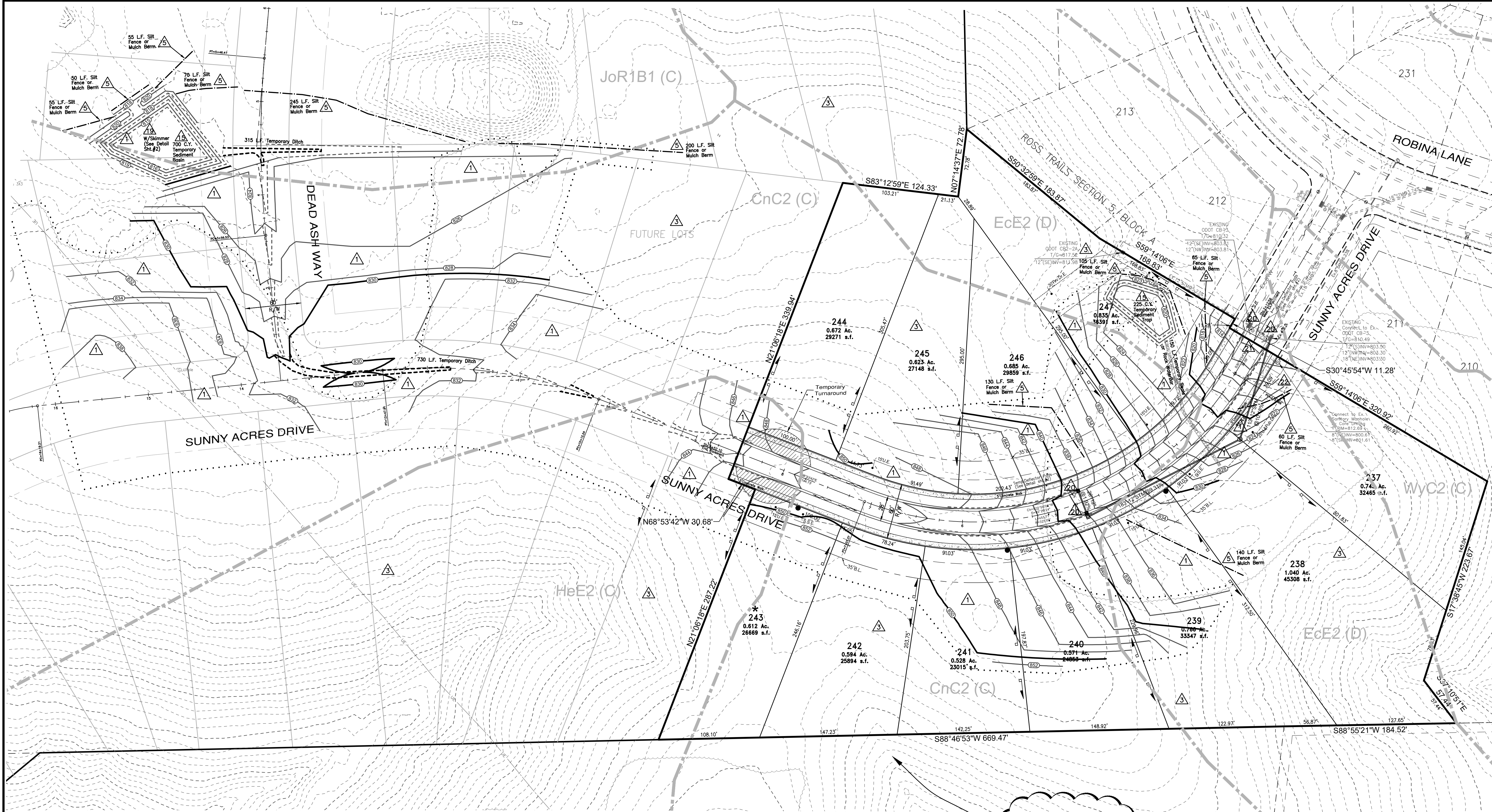
Item	Date	Drawn	Checked	Revision Description
1	10/7/20	TAC		Revised as per BCEO
2				
3				
4				
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7				
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ROSS TRAILS SECTION FIVE, BLOCK B
 SECTION 29, TOWN 3, RANGE 2
 ROSS TOWNSHIP, BUTLER COUNTY, OHIO



Drawing: 18-0029 CD
 Drawn by: TAC
 Checked by: EMR
 Issue Date: 8-31-20
 Sheet:

Plot time: Oct 07, 2020 - 2:52pm
 Drawing name: J:\2018\18-0029\CD.dwg - Layout Tab: 2PP



Item	Revision Description	Date	Drawn	Checked
1	Revised as per BCEO	10/7/20	TAC	
2				
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ROSS TRAILS SECTION FIVE, BLOCK B
SECTION 29, TOWN 3, RANGE 2
ROSS TOWNSHIP, BUTLER COUNTY, OHIO
GRADING & SEDIMENTATION CONTROL PLAN

SEQUENCE OF CONSTRUCTION

1. THE FOLLOWING SEQUENCE OF CONSTRUCTION WILL BE SIMULTANEOUSLY FOLLOWED FOR ALL AREAS EXCEPTING ONLY THOSE STEPS THAT DO NOT PERTAIN TO THAT PARTICULAR AREA.
2. INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
3. PERFORM CLEARING OPERATION, STRIP AND STOCKPILE TOPSOIL.
4. ROUGH GRADE SITE, STABILIZE EROSION PRONE AREAS, ALL SLOPES 3 TO 1 AND GREATER SHALL BE IMMEDIATELY STABILIZED WITH SEED AND MULCH OR AN EQUAL.
5. INSTALL UTILITIES, CONSTRUCT TEMPORARY SILT TRAPS WHERE SHOWN.
6. INSTALL BASE COURSE IN ROADWAYS FOLLOWING THE INSTALLATION OF IMPROVEMENTS.
7. PERFORM SOIL PROFILE RESTORATION IN ALL SOIL MANAGEMENT AREAS PER CEPA SOIL MANAGEMENT PROVISIONAL PRACTICE GUIDELINES.
8. FINE GRADE AND SEED; REMOVE EROSION CONTROL METHODS UPON COMPLETION OF ALL IMPROVEMENTS.
9. AS INDIVIDUAL HOME CONSTRUCTION IS COMPLETED, TOPSOIL REPLACEMENT SHALL BE PERFORMED IN ALL AREAS NOTED FOR SOIL MANAGEMENT AS PER CEPA SOIL MANAGEMENT PROVISIONAL PRACTICE GUIDELINES.

GRADING NOTES

1. LOCATION OF EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO BEGINNING WORK.
2. CONTRACTOR SHALL OBTAIN A COPY OF THE COMPLETE GEOTECHNICAL REPORT PRIOR TO BEGINNING THE PROJECT.
3. CONTRACTORS SHALL SET UP AN ONSITE PRE-CONSTRUCTION MEETING WITH THE DEVELOPER, PROJECT GEOTECHNICAL ENGINEER, EARTHWORK CONTRACTOR, AND SITE CIVIL ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
4. CONTRACTOR SHALL ASSUME THE TOP 8" OF EXISTING GROUND IS TOPSOIL. TOPSOIL REMOVED TO DEPTHS GREATER THAN 8" SHALL BE DONE ONLY AFTER CONSULTATION WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND APPROVAL OF THE DEVELOPER.
5. ALL EARTHWORK AND CONSTRUCTION ACTIVITY SHALL BE PERFORMED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AS DESCRIBED IN THE GEOTECHNICAL EXPLORATION REPORT AND ALL ADDENDUMS.
6. CONTRACTOR SHALL VERIFY ALL EARTHWORK QUANTITIES PRIOR TO AWARD OF CONTRACT. QUANTITIES ARE FINAL EXCEPT FOR DOCUMENTED UNDERCUT APPROVED BY DEVELOPER PRIOR TO COMPLETION OF THE EXTRA WORK. UPON REQUEST, CONTRACTORS MAY HAVE ACCESS TO THE SITE TO FIELD CHECK TOPOGRAPHY.
7. THE AREAS LABELED DENSE VEGETATION ARE WHERE THE EXISTING GROUND WAS OBTAINED FROM VIEW BY EXISTING VEGETATION. THE EXISTING CONTOURS SHOWN IN THIS AREA MAY VARY.

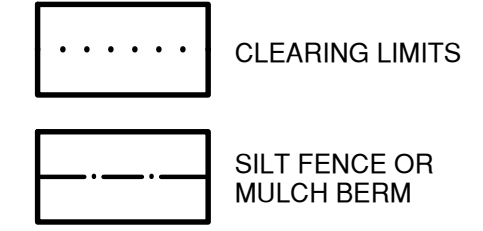
NOTES

1. Regular inspection and maintenance will be provided for all erosion and sediment control practices. Permanent records of maintenance and inspections must be kept throughout the construction period. Inspections must be made a minimum of once every seven (7) days and immediately after storm events greater than 0.5 inches of rain in a 24 hour period. Provided will be name of inspector, major observations, date of inspection and corrective measures taken.
2. All erosion and sediment control practices must conform to the specifications of Rainwater and Land Development, Ohio's standards for storm water management, land development and urban stream protection.
3. Perimeter Sedimentation control and basins/traps shall be implemented as the first step of grading and within seven (7) days of initial grubbing or grading and shall continue to function until upland areas are stabilized.
4. Disturbed areas which will remain unworked for a period of fourteen (14) days or more, shall be stabilized with seeding and mulching or other approved means within seven (7) days. All disturbed areas within fifty (50) feet of an intermittent or solid blue line stream shall be stabilized within two (2) days. All areas of a site which are of final grade shall be stabilized with seeding and mulching or other approved means within seven (7) days.
5. Quantities for Erosion Control may vary between detailed plans and field conditions during construction. Plan quantities and locations are a minimum; more erosion control may be necessary due to environmental and construction phasing conditions. It shall be the responsibility of the developer's SWPPP Superintendent to maintain and update the SWPPP during all phases of construction.
6. Sedimentation control and ditch swales are subject to change upon completion of entire set of construction drawings.
7. No solid or liquid waste shall be discharged into storm water runoff.
8. Home builders are responsible for erosion control on each individual lot.
9. Contractors to accept all quantities as correct prior to beginning construction.

NOTE:
The Temporary Sediment Basins are to be cleaned out when the sediment exceeds 50% of the minimum required storage in accordance with the Rainwater and Land Development Manual standards.

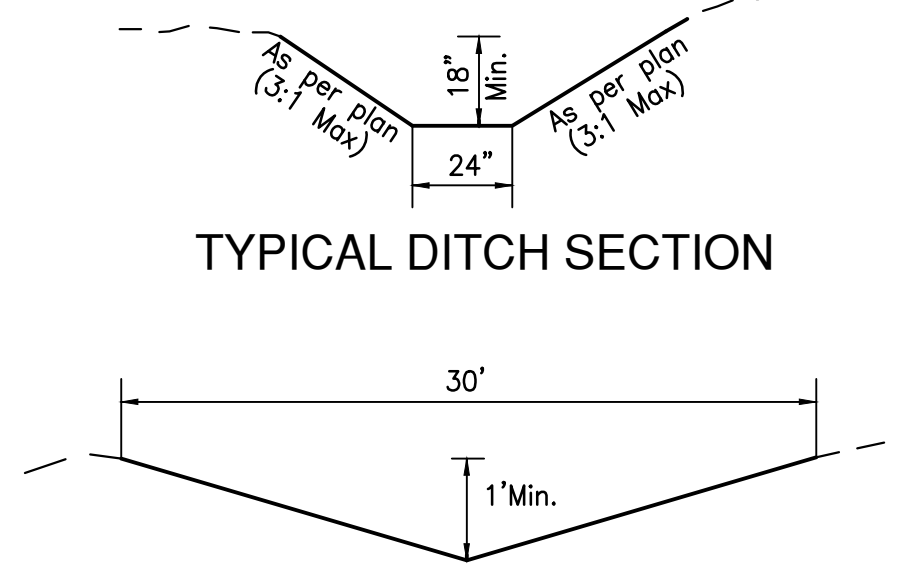
PROJECT DATA		
Total Area	8,554 Ac.	Est. 3.3 Ac.
Disturbed Tributary Area	261 Ac.	
Required Sediment Storage	4,100 c.f.	225 C.Y.
Drainage Area	8,500 Ac.	3,800 Ac.
Required Detention Storage	15,000 c.f.	
Pre-Developed Runoff Coefficient	0.38	
Post-Developed Runoff Coefficient	0.50	
Estimated Proposed Impervious Area	1,44 Ac.(16.8%)	
Immediate Receiving Waters	Unnamed Tributary to Paddy's Run & Dry Run	
Subsequent Receiving Waters	Paddy's Run Creek & Dry Run Creek	

SOIL TYPES		
Symbol	Name	Type
Cn2	Chickadee silt loam	C
Hw2	Hemlock-sitka spruce all loam	C
Ec2	Elm silt clay loam	D
Jr1B1	Jacksonburg-rosemount all loam	C
Wc2	Wheat silt loam	C
	8 to 12 percent slopes, moderately eroded	



TRIBUTARY TO WATERSHED IN WHICH KNOWN POPULATION OF CAVE SALAMANDER EXISTS. TAKE PRECAUTION TO ENSURE NO SEDIMENT LEAVES THE SITE.

Note: All ditches constructed by the Developer shall be sodded or hydra-seeded.



* NOTE: ALL DOWNSPOUTS ON DESIGNATED LOTS SHALL FLOW OVERLAND TOWARD THE STREET OR BE TIED DIRECTLY INTO THE ENCLOSED STORM SYSTEM THAT DRAINS TO THE DETENTION BASINS. DOWNSPOUTS FROM THESE HOMES CANNOT OUTLET DIRECTLY TO THE REAR YARDS.

NOTE: Required Detention Storage and Water Quality has been provided for this phase of the project within the Detention Basin that was installed in Section Five, Block A.

EROSION CONTROL NOTES

- ▲ SEEDING AND MULCHING
- ▲ SODDING
- ▲ PRESERVE EXISTING VEGETATION
- ▲ STRAW BALE
- ▲ SILT FENCE OR MULCH BERM
- ▲ SOIL PILES
- ▲ TEMPORARY STREAM CROSSING
- ▲ GRAVEL CURB INLET SEDIMENT FILTER
- ▲ GEOTEXTILE INLET SEDIMENT FILTER
- ▲ GABIONS
- ▲ STRAW BALE DROP INLET SEDIMENT FILTER
- ▲ SOD DROP INLET SEDIMENT FILTER
- ▲ GRAVEL & WIRE MESH DROP INLET SEDIMENT FILTER
- ▲ BLOCK & GRAVEL CURB INLET SEDIMENT FILTER
- ▲ TEMPORARY SEDIMENT TRAPS & DAMS
- ▲ DIKES & SLOPE PROTECTION
- ▲ ROLLED GRAVEL CURB INLET SEDIMENT FILTER
- ▲ CHECK DAM
- ▲ TEMPORARY DETENTION SEDIMENT FILTER/BASIN
- ▲ DANDY BAG/BEAVER DAM® OR EQUAL
- ▲ CONSTRUCTION ENTRANCE
- ▲ CONCRETE WASHOUT AREA
- ▲ SEE SOIL EROSION & SEDIMENTATION CONTROL DETAIL SHEET (Page #7)

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GENERAL NOTES

EROSION AND SEDIMENT CONTROLS

Vegetative Practices
Such practices may include: temporary seeding, permanent seeding, mulching, matted, sod stabilization, vegetative buffer strips, planting and protection of trees. The contractor shall initiate appropriate vegetative practices on all disturbed areas within seven (7) days if they are to remain dormant (undisturbed) for more than fourteen (14) days. Permanent or temporary soil stabilization shall be applied to disturbed areas within seven (7) days after final grade is reached on any portion of the site.

Structural Practices
Structural practices shall be used to control erosion and trap sediment from all sites remaining disturbed for more than fourteen (14) days.

Timing
Sediment control structures shall be functional throughout earth disturbing activity. Sediment ponds and perimeter sediment barriers shall be implemented as the first step of grading and within seven days from the start of grubbing. They shall continue to function until the upslope development area is reestablished.

Sediment Barriers
Sheet flow runoff from denuded areas shall be intercepted by sediment barriers. Sediment barriers, such as sediment fences or diversions direction runoff to settling facilities, shall protect adjacent properties and water resources from sediment transported by sheet flow.

Erosion and sediment control practices used to satisfy the conditions of this plan shall meet the standards and specifications in the current edition of Water Management and Sediment Control in Urbanized Areas (Soil Conservation Service.)

Waste Disposal
No solid or liquid waste, including building materials, shall be discharged in storm water runoff. Off-site water trucking of sediments shall be minimized. The plan shall ensure and demonstrate compliance and applicable State of local waste disposal, sanitary sewer or septic system regulations.

Maintenance
All temporary and permanent control practices shall be maintained and repaired as needed to assure continued performance of their intended function.

Dormant Seeding
1. Seedlings shall not be planted from October 1 through November 20. During this period the seeds are likely to germinate but probably will not be able to survive the winter.
2. The following methods may be used for "Dormant Seeding":
From October 1 through November 20, prepare the seedbed, add the required amounts of lime and fertilizer, then mulch and anchor. After November 20 or before March 15, broadcast the selected seed mixture. Increase the seeding rates by 50% for this type of seeding.
From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilize, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.

Apply seed uniformly with a cyclone seeder, drill, cut/packer seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.

Where feasible, except when a cut/packer type seeder is used, the seedbed should be formed following seeding operations with a cut/packer, roller, or light drag. On sloping land, seeding operations should be on the contour where feasible.

REVEGETATION
Seed, sod or mulch bare soil as soon as possible

SEEDING AND MULCHING
Spread 4 to 6 inches of topsoil. Fertilize according to soil test (or apply 10 lb./1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer). Seed with an appropriate mix for the site (see table). Rake lightly to cover seed with 1/4" of soil. Roll lightly. Mulch with straw (70-90 lb. or one bale per 1000 sq. ft.) Anchor mulch by punching 2 inches into the soil with a dull, weighted disk or by using netting or other measures on steep slopes, or windy areas. Water gently every day or two to keep soil moist. Less watering is needed once grass is 2 inches tall.

SODDING
Spread 4 to 6 inches of topsoil. Fertilize according to soil test (or apply 10 lb./1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer). Lightly water the soil. Lay sod. Tamp or roll lightly. On slopes, lay sod starting at the bottom and work toward the top. Peg each piece down in several places. Initial watering should wet soil 6 inches deep (or until water stands 1 inch deep in a straight-sided container). Then water lightly every day or two for 2 weeks. If construction is completed after October 31, seeding or sodding may be delayed. Applying mulch or temporary seed (such as rye or winter wheat) is recommended if weather permits. Straw bale or silt fences must be maintained until final seeding or sodding is completed in spring March 15 - May 31.

SEEDING TABLE

Moisture Content	Particle Size (99% passing 1 inch sieve etc.)	Less than 70% organics
—moisture content	—particle size (99% passing 1 inch sieve etc.)	—less than 70% organics

4. Planning considerations: most effective when combined with vegetated buffer.

MULCH BERM
1. Mulch berm should be placed along a level contour so that it will not channel runoff and create concentrated flows.
2. Upland drainage limitations (sheet flow).
3. Design Criteria:
—particle size (99% passing 1 inch sieve etc.)
—moisture content
—no less than 70% organics
4. Planning considerations: most effective when combined with vegetated buffer.

SOIL PILES
1. Located away from any downslope street, driveway, stream, lake, wetland, ditch or drainage way. Temporary seed such as annual rye is recommended for topsoil piles. Surround with straw bales or silt fence.
2. GRAVEL DRIVE
Install a single access drive using 3 to 5 inch aggregate over a geotextile material. Lay gravel 6 inches deep and 10 feet wide from the foundation to the street. Use to prevent tracking dirt onto the road by all vehicles. Maintain throughout construction until driveway is paved. Park all construction vehicles on the street and off of the site.
3. SEDIMENT CLEANUP
By the end of each work day, sweep or scrape up soil by the end of each work day, sweep or scrape up soil by the end of the next work day if the inlet is not in a depression and if runoff bypassing the inlet will not flow to a setting pond. The top of earth dikes shall be at least 6 in. higher than the top of the frame.

DOWNSCOUT EXTENDERS
Not required, but highly recommended. Install as soon as gutters and downspouts are completed. Route water to a grassed or paved area. Maintain until a lawn is established.

