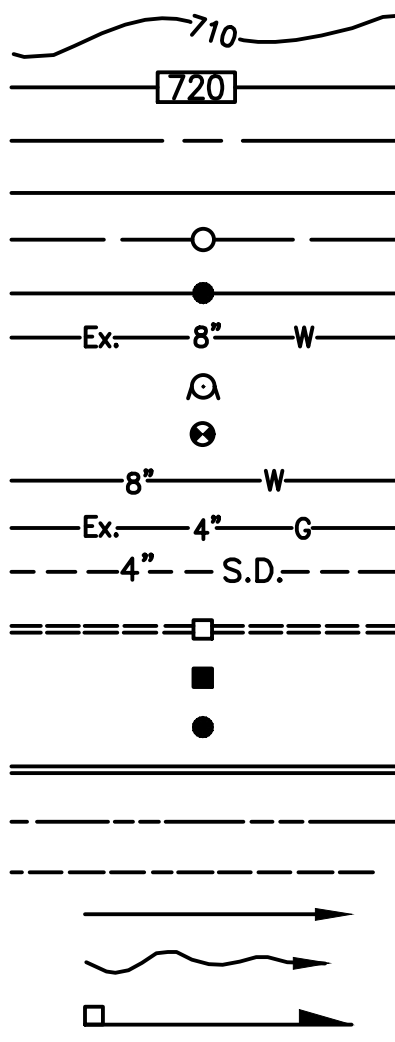


INDEX TO SHEETS

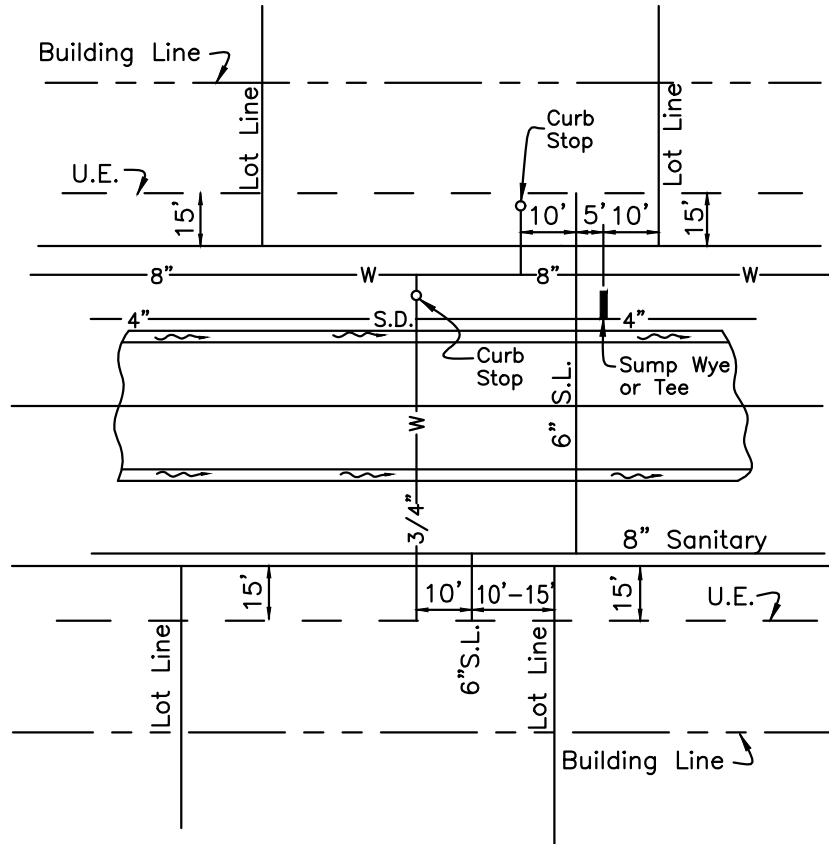
Title Sheet	1
Overall Layout	2
Plan & Profile Sheets	3-8
Intersection Details	9
Drainage Structure Details	10
Grading Plan	11-13A
Detail Sheets	14-16
Soil Erosion & Sedimentation Control Detail Sheet	17

LEGEND

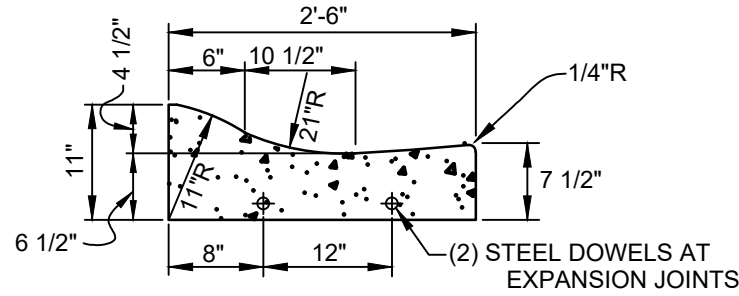
EXISTING CONTOURS
PROPOSED CONTOURS
CENTERLINE
PROPERTY LINE
EXISTING SANITARY SEWER & MANHOLE
PROPOSED SANITARY SEWER & MANHOLE
EXISTING WATER MAIN
FIRE HYDRANT
WATER VALVE
PROPOSED WATER MAIN
EXISTING GAS MAIN
SUMP DRAIN LINE
EXISTING STORM PIPE & CATCH BASIN
STORM CATCH BASIN
STORM MANHOLE
PROPOSED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



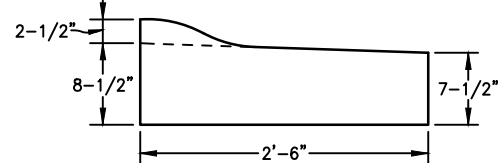
Know what's below.
Call before you dig.



STANDARD SERVICE DETAIL



STANDARD ROLL TYPE CURB & GUTTER C-1



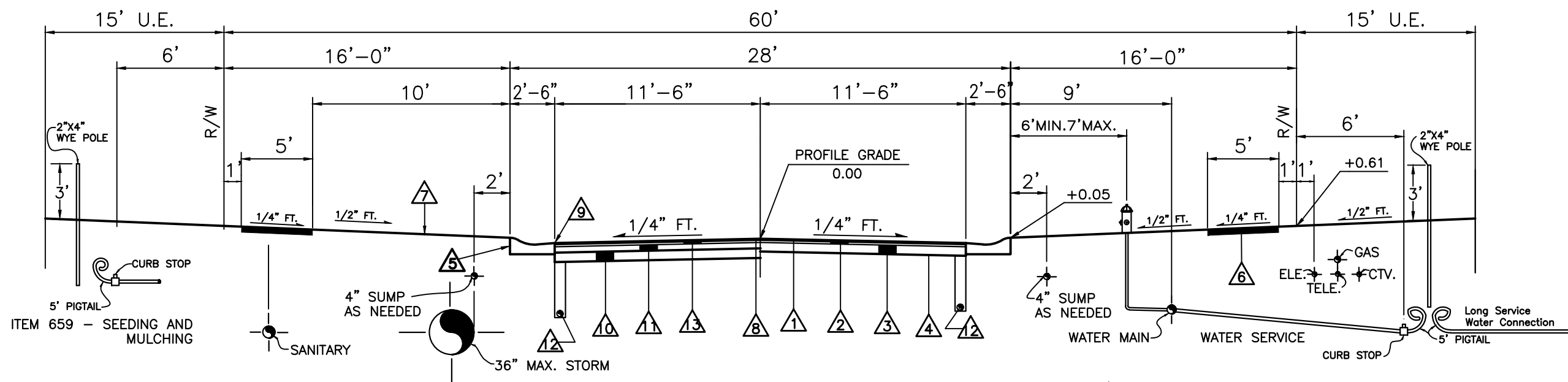
MODIFIED ROLL TYPE CURB & GUTTER C-1 FOR ISLAND

CURB RAMP SPECIFICATIONS

- Curb ramps shall be design A or design B per ODOT Drawing BP-7.1, sheets 1 through 3.
- Truncated domes are to meet the specifications of ODOT drawing BP-7.1, sheet 3, and span the entire width of the sidewalk.

8' HIKER/BIKER TRAIL SPECIFICATIONS

- The trail along the east side of Timberhill Drive shall be constructed in accordance with Butler County specifications for sidewalk.
- The trail shall be constructed on the east side of Timberhill Drive from approximate Sta.8+25 to Sta.24+76.
- Where the trail crosses through the driveway aprons, it shall be constructed at a thickness of 6".
- It shall be the responsibility of the homeowner for each individual lot to install the 8' wide trail as shown on the plan.



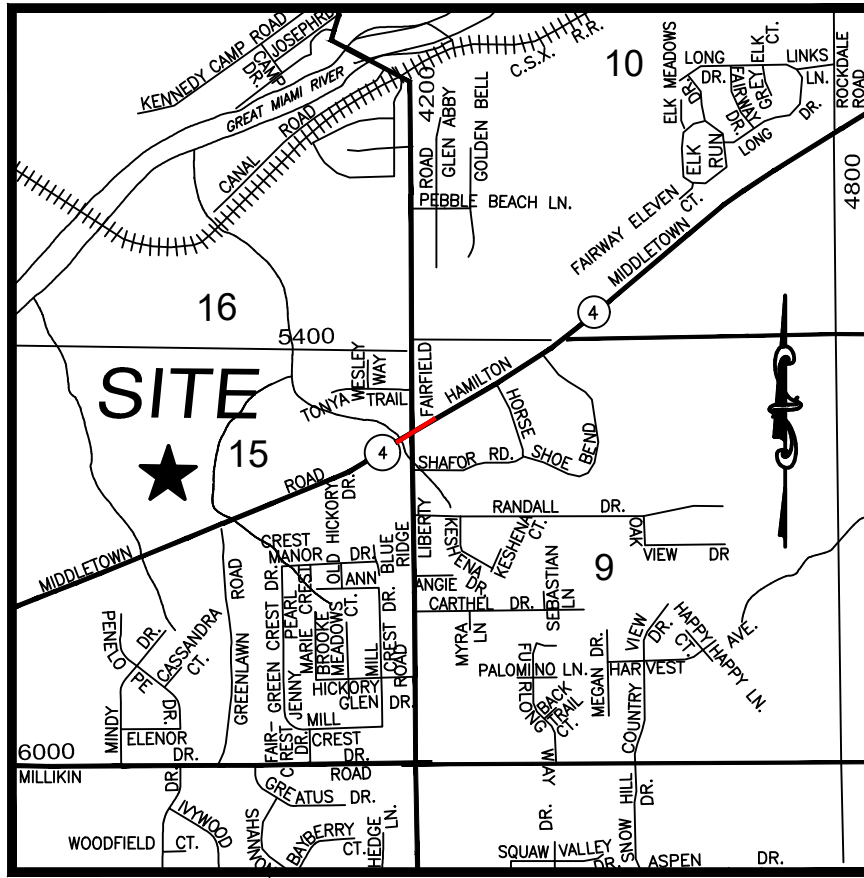
ITEM	DEPTH INCHES	REMARKS
Underdrain	24"	18"
Surplines	24"	30"
Gas	48"	30"
Water	48"	30"
Electric	48"	30"
Cable TV	48"	30"

*SURFACE COURSE (ITEM 448) AND TACK COAT (ITEM 407) ARE TO BE APPLIED NO SOONER THAN TWELVE (12) MONTHS AFTER THE LEVELING COURSE (ITEM 448), AND FIFTY (50) PERCENT OF THE HOMES ARE COMPLETED. IF AFTER TWO (2) YEARS FIFTY (50) PERCENT OF THE HOMES HAVE NOT BEEN COMPLETED, THEN THE TOP COURSE MAY BE APPLIED.

TYPICAL SECTION

TIMBERHILL SECTION ONE

SECTION 15, TOWN 2, RANGE 3 FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO MAY, 2022



VICINITY MAP NOT TO SCALE

OWNER & DEVELOPER

MI Homes of Cincinnati, LLC
9349 Waterstone Blvd., Suite 100
Cincinnati, OH 45249
513-248-5400

BENCHMARK

Mag Spike @ the Intersection
of Foxglove Drive &
Cumberland Drive
Elevation = 708.50

JOB LOG

DATE	COMMENT
3-7-22	Submitted to Butler County Planning
5-19-22	Resubmitted to BCWS & BCEO

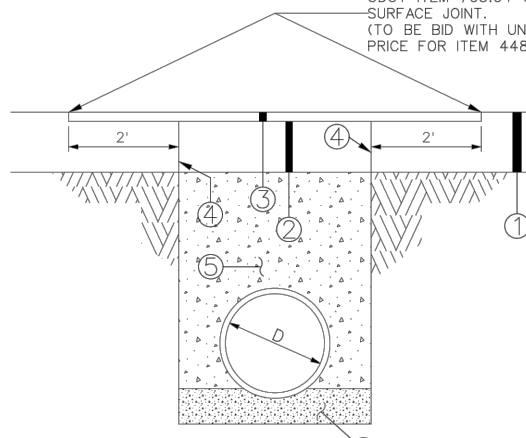
SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

C-1	
Std.MH-1A	
Std.HW-D	HW1.1 (O.D.O.T.)
CB-3	
CB-3(Mod.)	
CB-3A	
CB-3A(Mod.)	CB-2-4(O.D.O.T.)
CB-2-2-A(O.D.O.T.)	CB-2-3(O.D.O.T.)
Std.R-1	

CONSTRUCTION APPROVAL

	Date
Butler Co. Water & Sewer Dept.	
Butler Co. Engineer's Office	
Army Corps of Engineers/OEPA	
OEA NPDES NOI #	
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



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

SEQUENCE OF CONSTRUCTION

THE FOLLOWING SEQUENCE OF CONSTRUCTION WILL BE SIMULTANEOUSLY FOLLOWED FOR ALL AREAS ELIMINATING ONLY THOSE STEPS THAT DO NOT PERTAIN TO THAT PARTICULAR AREA:

- STEP 1: INSTALL EROSION AND SEDIMENT CONTROL MEASURES
- STEP 2: PERFORM CLEARING OPERATION, STRIP AND STOCKPILE TOPSOIL, CONSTRUCT TEMPORARY SILT TRAPS WHERE SHOWN.
- STEP 3: 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.
- STEP 4: INSTALL UTILITIES
- STEP 5: INSTALL BASE COURSE IN ROADWAYS FOLLOWING THE INSTALLATION OF IMPROVEMENTS.
- STEP 6: FINE GRADE AND SEED; REMOVE EROSION CONTROL METHODS UPON COMPLETION OF ALL IMPROVEMENTS.

GENERAL NOTES

- Item numbers refer to the 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.
- 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.
- All trenches within the right-of-way and 10' utility easement shall be compacted and backfilled in accordance with item 203 and 611 in the state specifications.
- Surface course (item 448) and tack coat (item 407) are to be applied no sooner than nine (9) months after the leveling course, (item 448), and fifty (50) percent of the homes are completed. If after two (2) years fifty (50) percent of the homes have not been completed, then the top course may be applied.
- 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.
- 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.
- All electrical transformers shall be located so that they do not interfere with the existing manholes or water main appurtenances.
- Sump line conduits are to be SDR 35, Armo 2000, or equivalent.
- WATER MAIN
A. Water main materials, valves, fire hydrants, fittings and appurtenances and installation to be as per Butler County specifications, using class 53 Ductile Iron as per AWWA C-151 with minimum 4' cover.
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. If meter pits cannot be initially installed at the location shown on the typical section, a curb stop can be set up at this location.
E. For Fairfield Township projects, Fire Hydrants shall be installed with 5" Storz fittings instead of threaded connection on the steamer fitting.
- 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 or under the water main shall be encased 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, said 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 said building. Said 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 of Environmental Services.
- Butler County Water and Sewer Department 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.
- 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 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.
- STORM SEWER
A. Storm sewer pipe shall meet the requirements as follows:
1. PVC pipe as per ODOT Specification 707.42 for all diameters
2. HDPE pipe as per ODOT Specification 707.33
3. Corrugated steel pipe as per ODOT Specification 707.01 or 707.02 for all diameters
4. Reinforced concrete pipe as per ODOT Construction and Material Specification 708.02 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
Installation shall meet Butler County Specifications. All joints shall be soil seal joints unless specifically noted on the plans.
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 average 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 relayed or replaced, 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.
- Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.
- 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.
- SEDIMENTATION CONTROL
The project has been designed to control erosion and prevent damage to other property. All stripping, earthwork, and regrading shall be done in a manner to minimize erosion. No exposed soil 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 strawed 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.
- 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.
- Butler County will not be responsible for any pavement or storm sewer repairs resulting from water main and sanitary sewer repairs. Butler County 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, due to grade changes, paving, repairing, etc. initiated by the grantor.
- A typical five (5) foot drainage easement is to be provided on both sides of every lot line.
- 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 #14.
- Contractors to accept all Quantities as correct prior to beginning construction.
- Contractor shall include the cost of County inspection and extension fees in unit price bid.
- Contractor shall coordinate the disconnection and removal of all existing utility services to existing homes on site with corresponding utility providers. Permits shall be required by Butler County Board of Health before any abandonment of existing septic systems or private water wells can take place.
- Proposed development is in a lift station drainage area and is subject to additional lift station fees (per lot).
- Sidewalk was waived along S.R.#4 by Planning Commission on July, 26, 2021.

- Existing Zoning: R-PUD
- Frontage: 41.5'
- Lot Area: 8,680 s.f. (Min.)
- Setbacks: (Unless otherwise noted on plan)
Front 30'
Side 5' Min., 10' Total
Rear 30'
27. Total Acreage: 36.5810 Acres
28. Total # Lots: 87

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17-0090.CD

Drawn by: TAC

Checked By: XXX

Issue Date: 3-7-22

Sheet: 1/17

TIMBERHILL
SECTION ONE

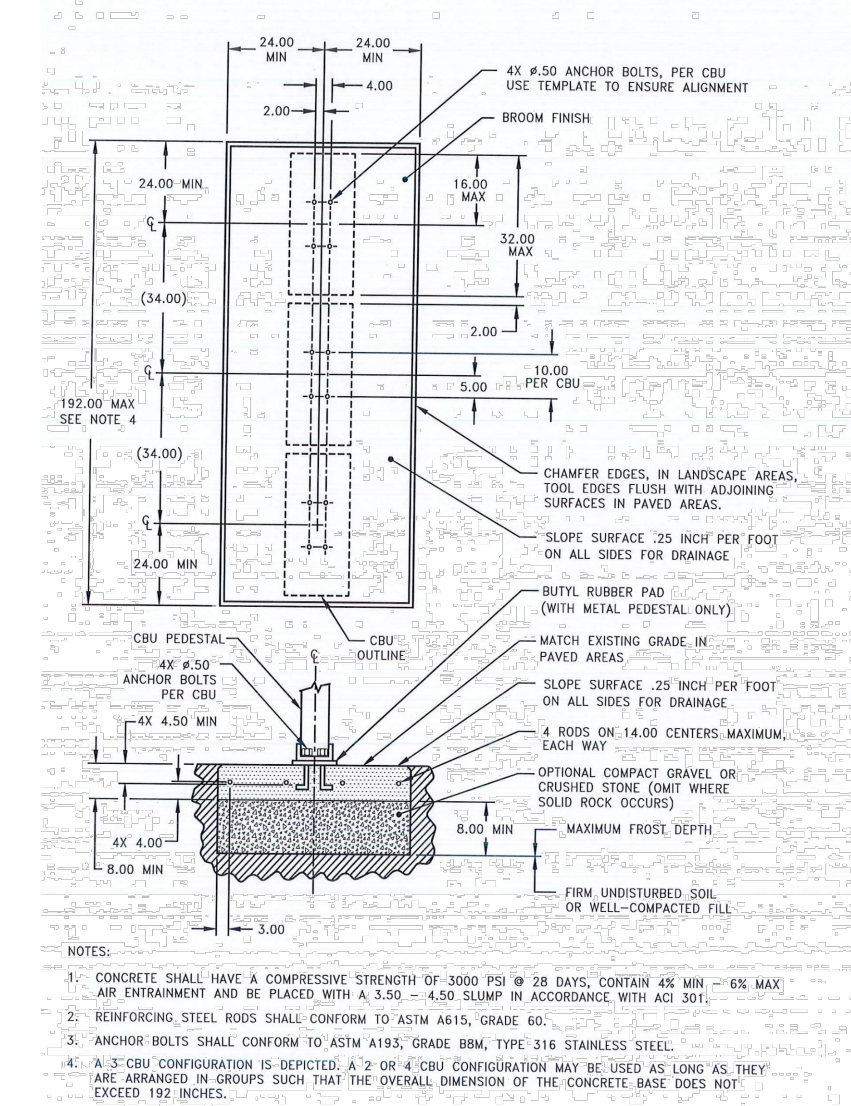
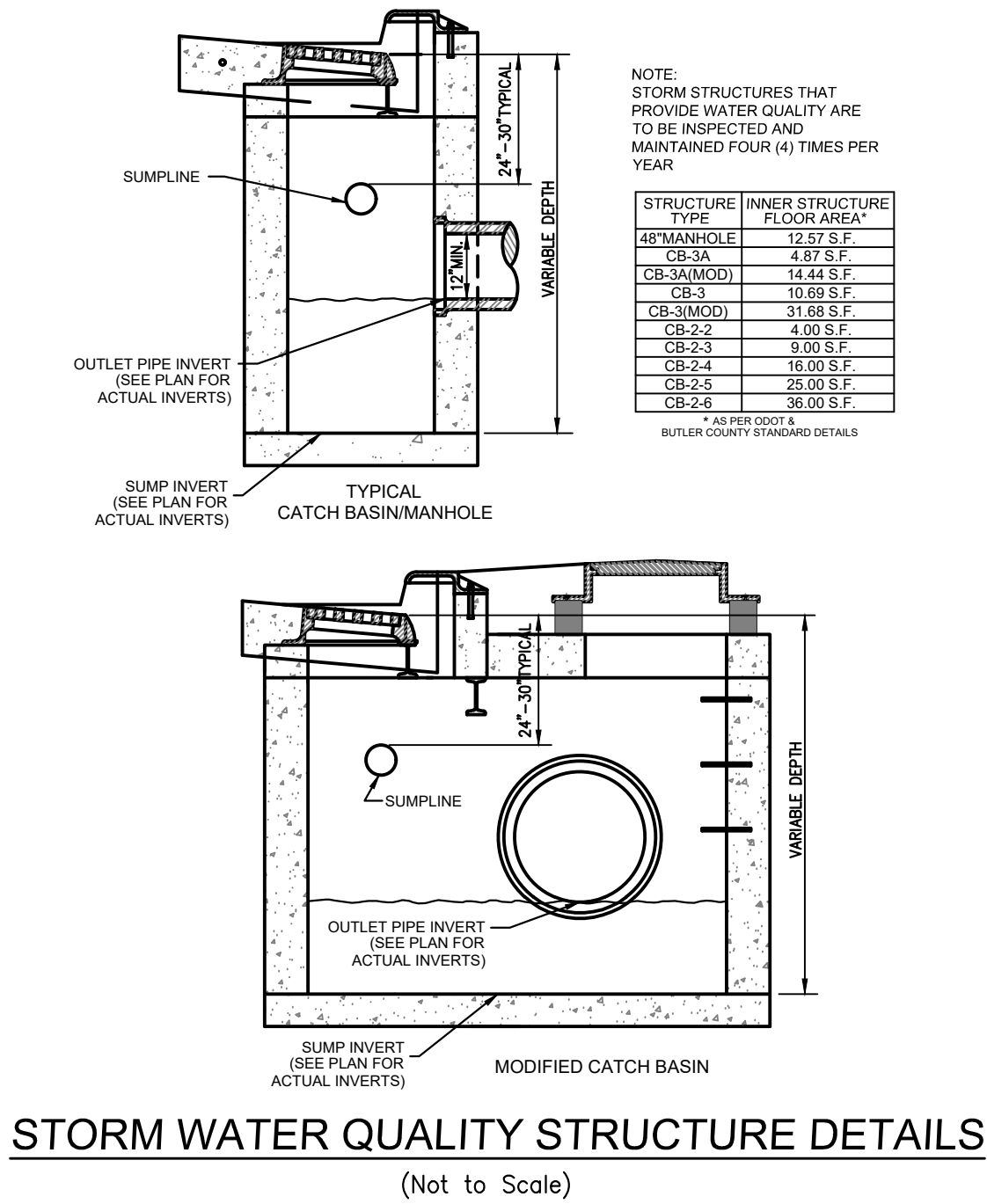
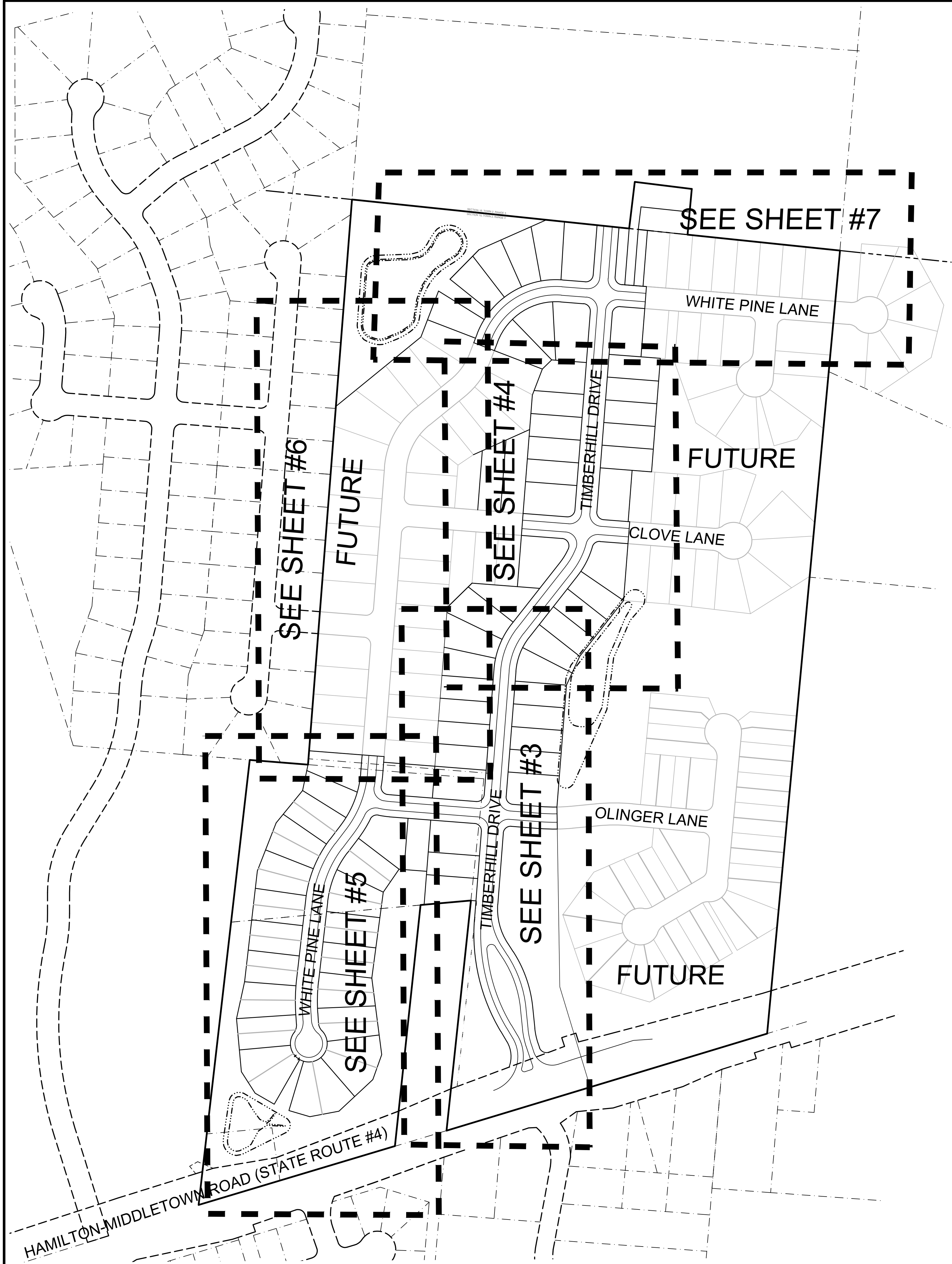
SECTION 15, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO

TITLE SHEET

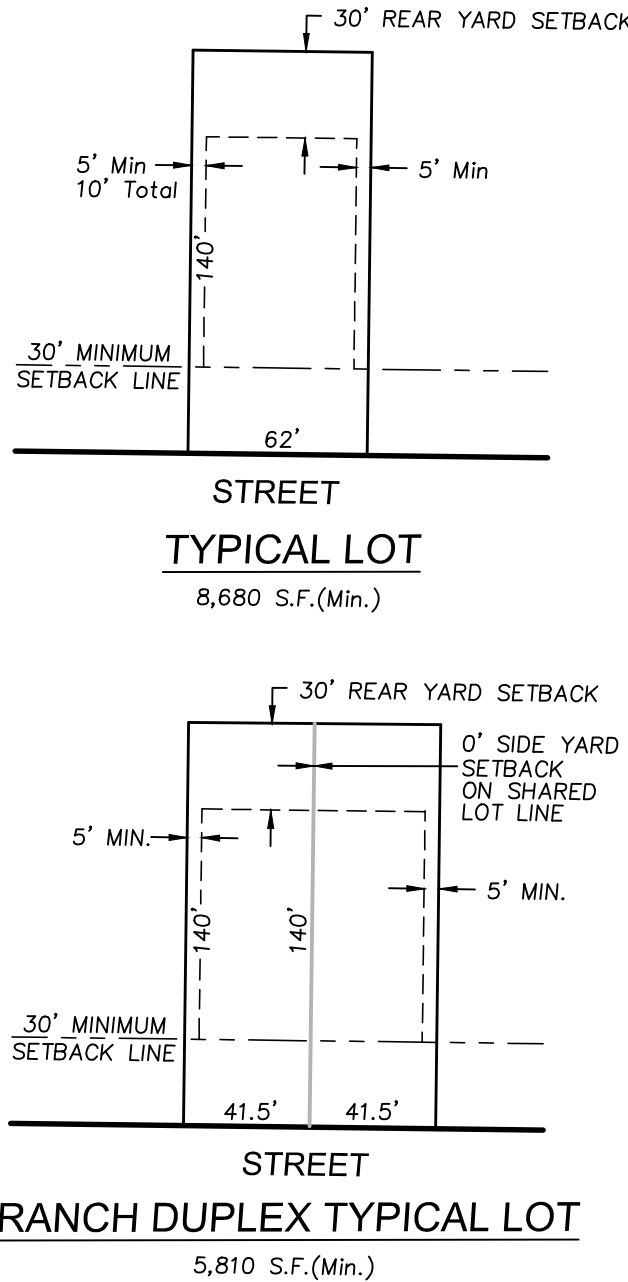
bayer
becker

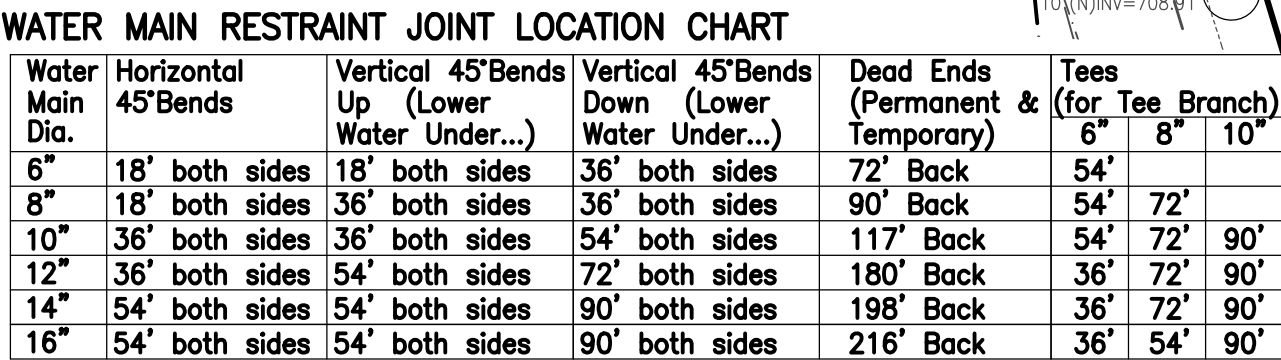
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

Plot time: May 20, 2022 - 11:53am
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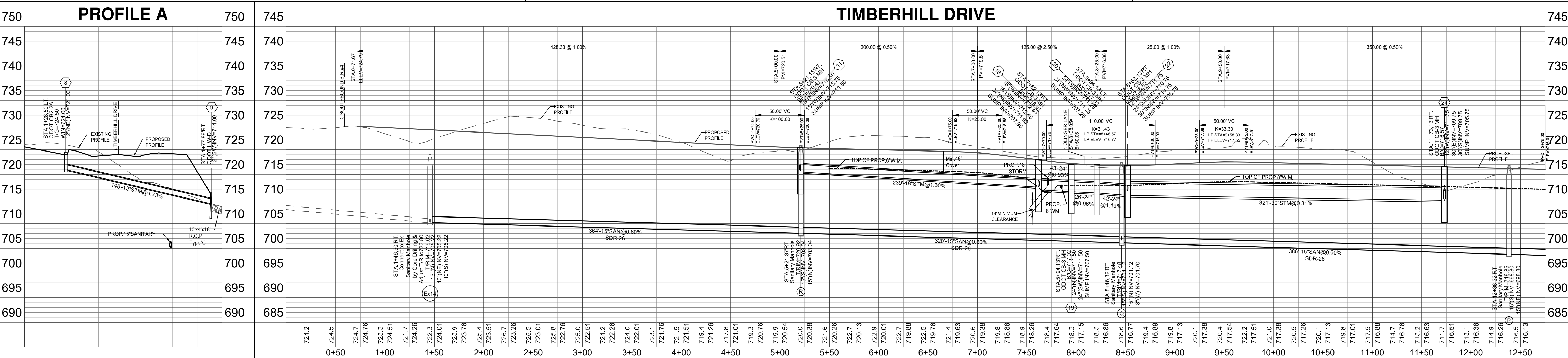
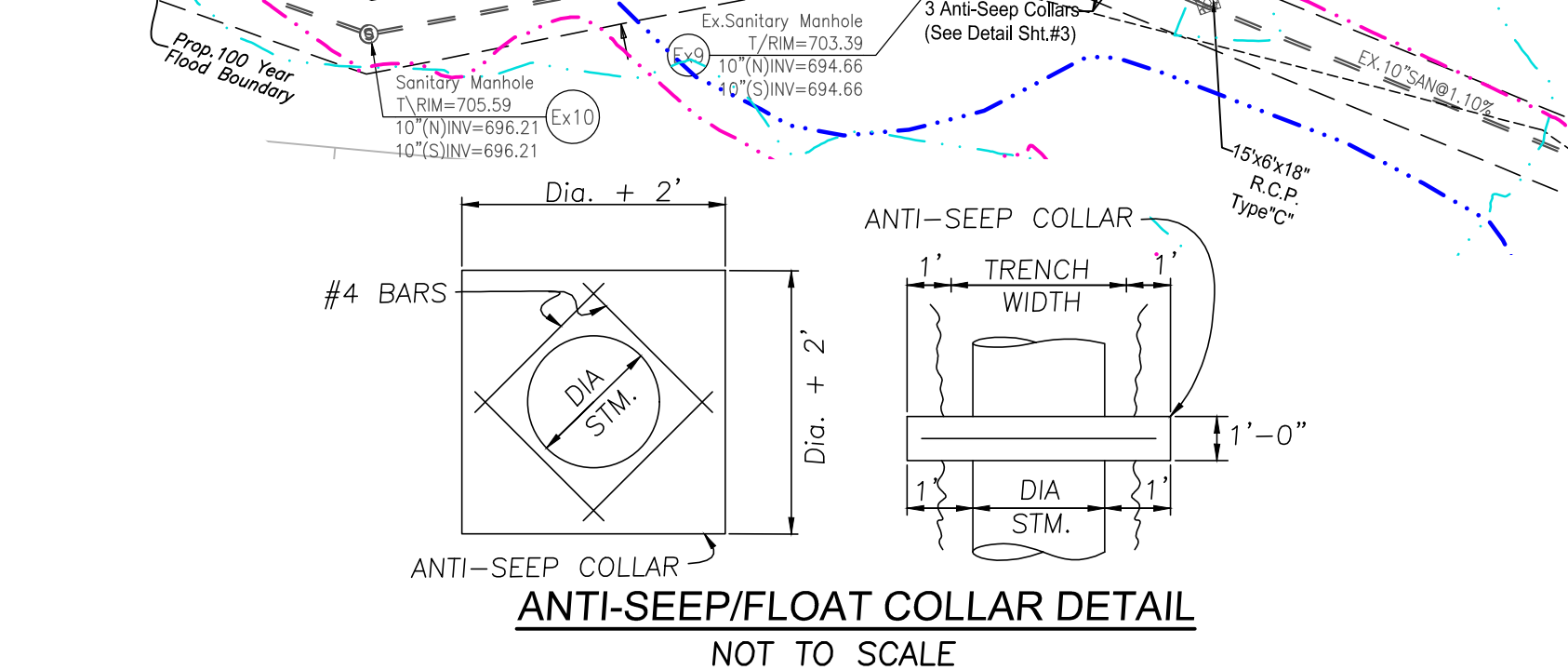
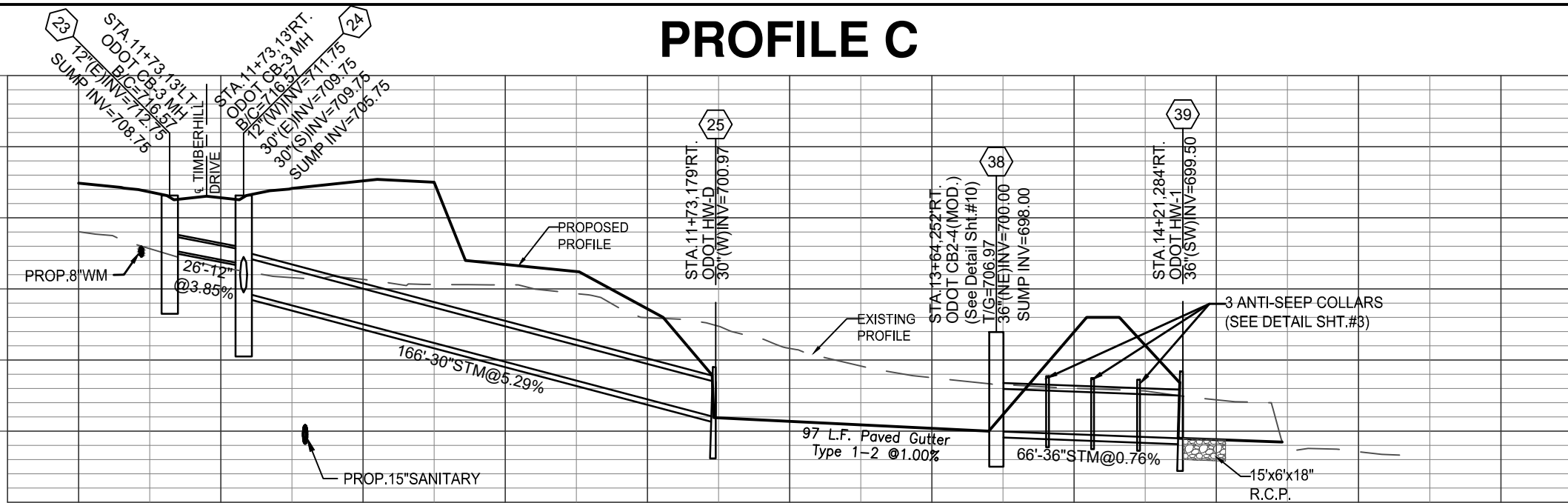


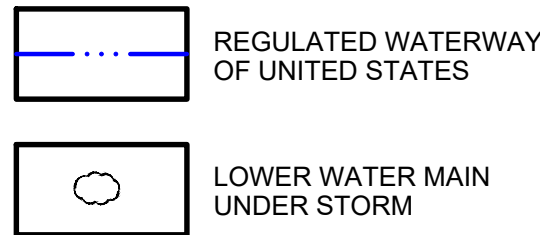
CLUSTER MAILBOX PAD DETAIL
NOT TO SCALE





NOTE:
ALL BUILDINGS, DRIVES, CONCRETE
FENCES, ETC. ON SITE SHALL BE
REMOVED BY CONTRACTOR.





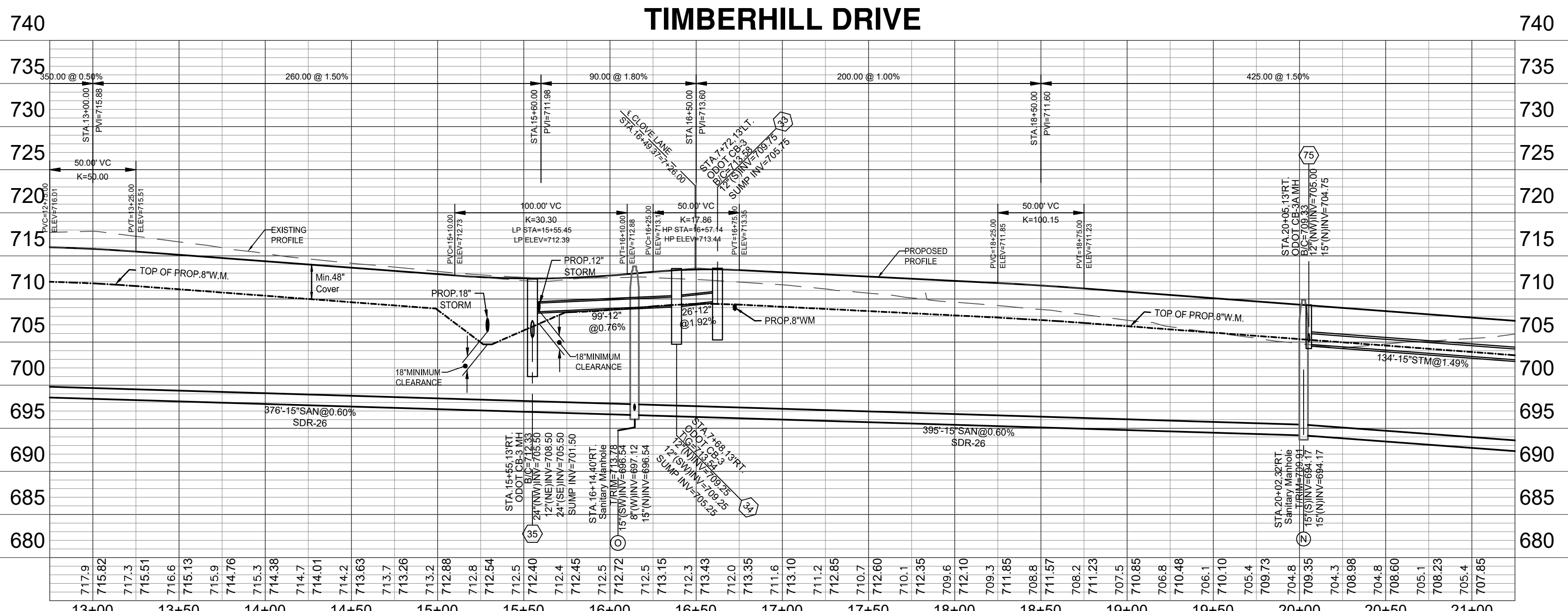
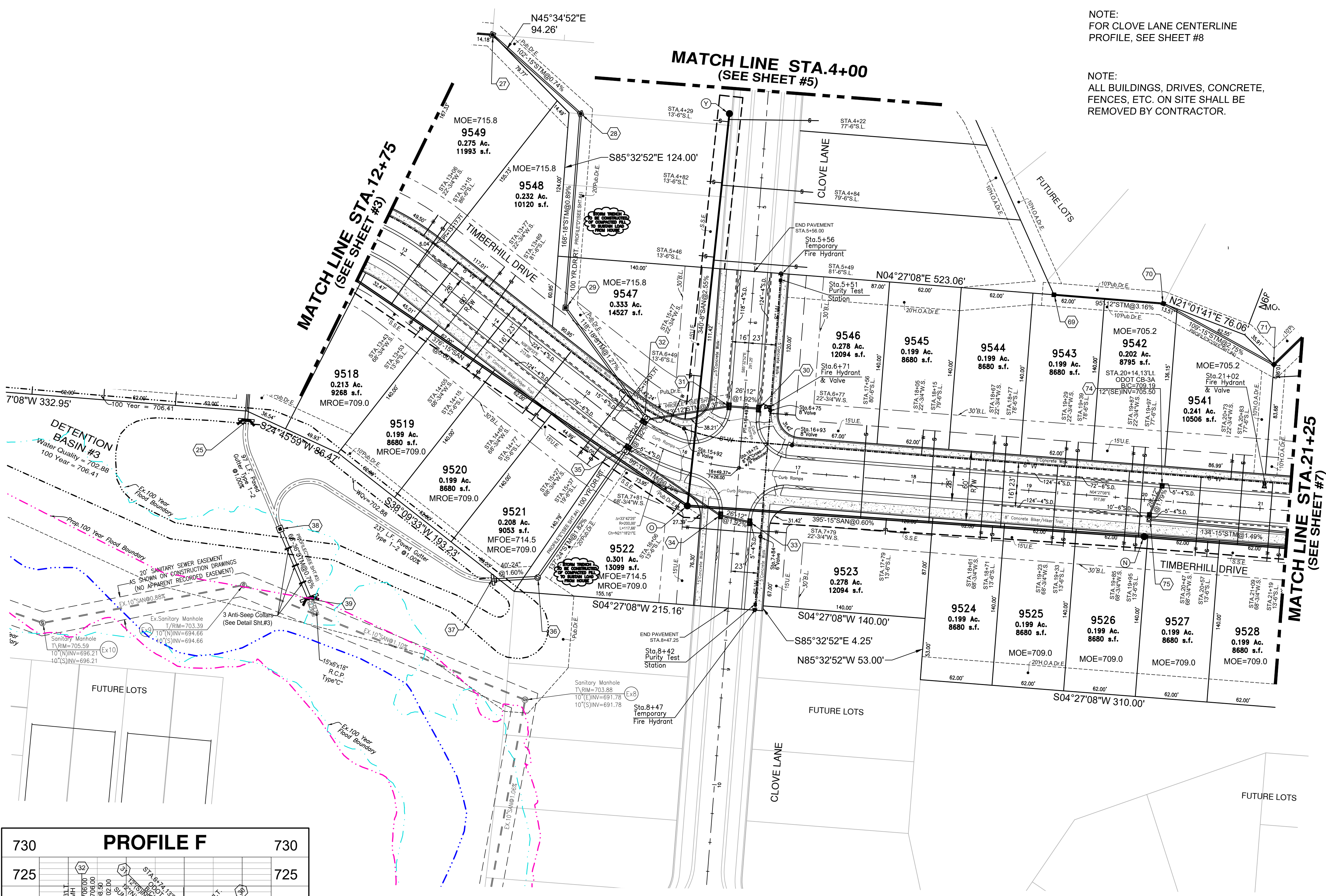
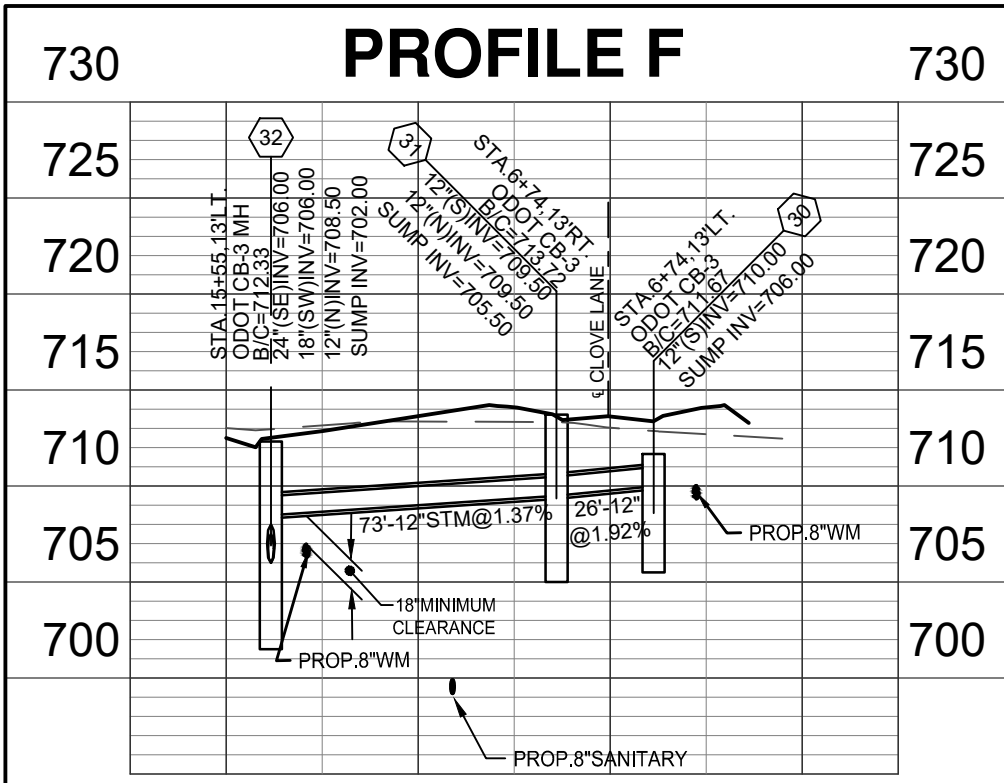
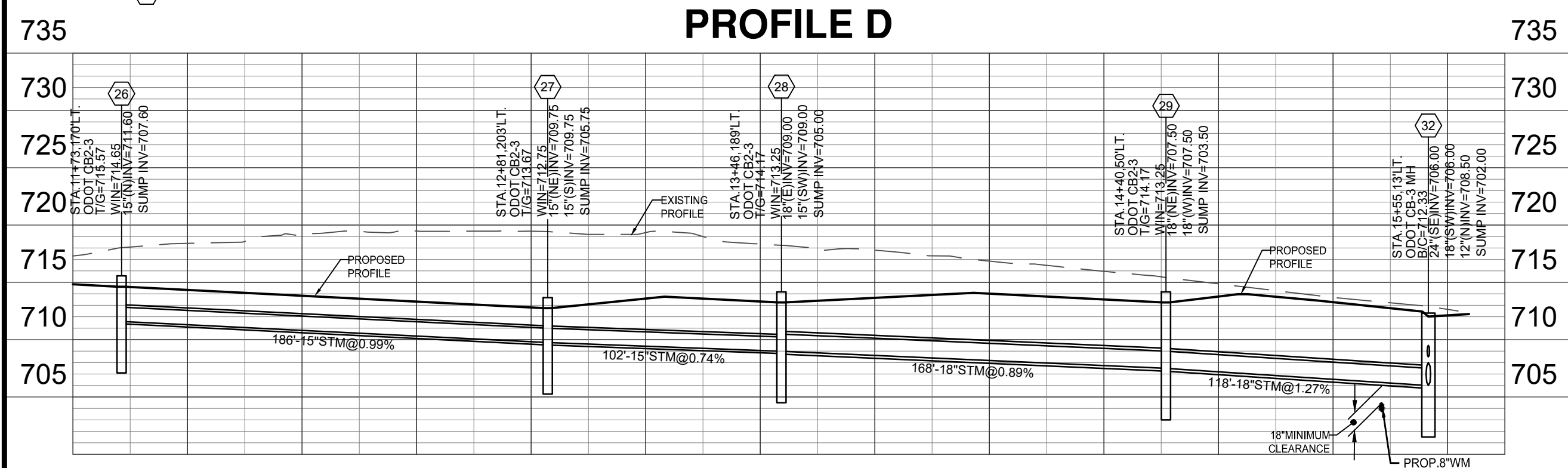
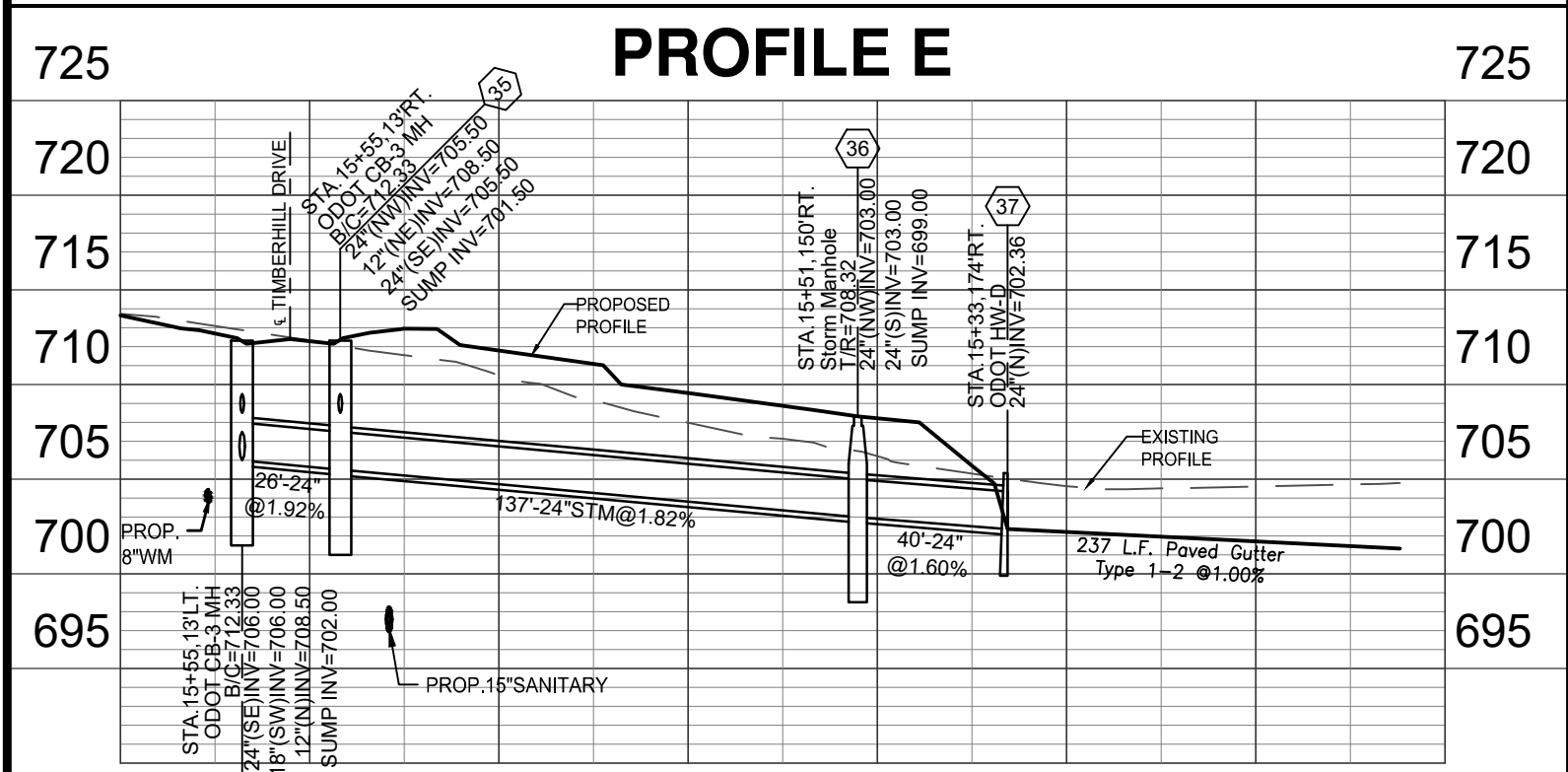
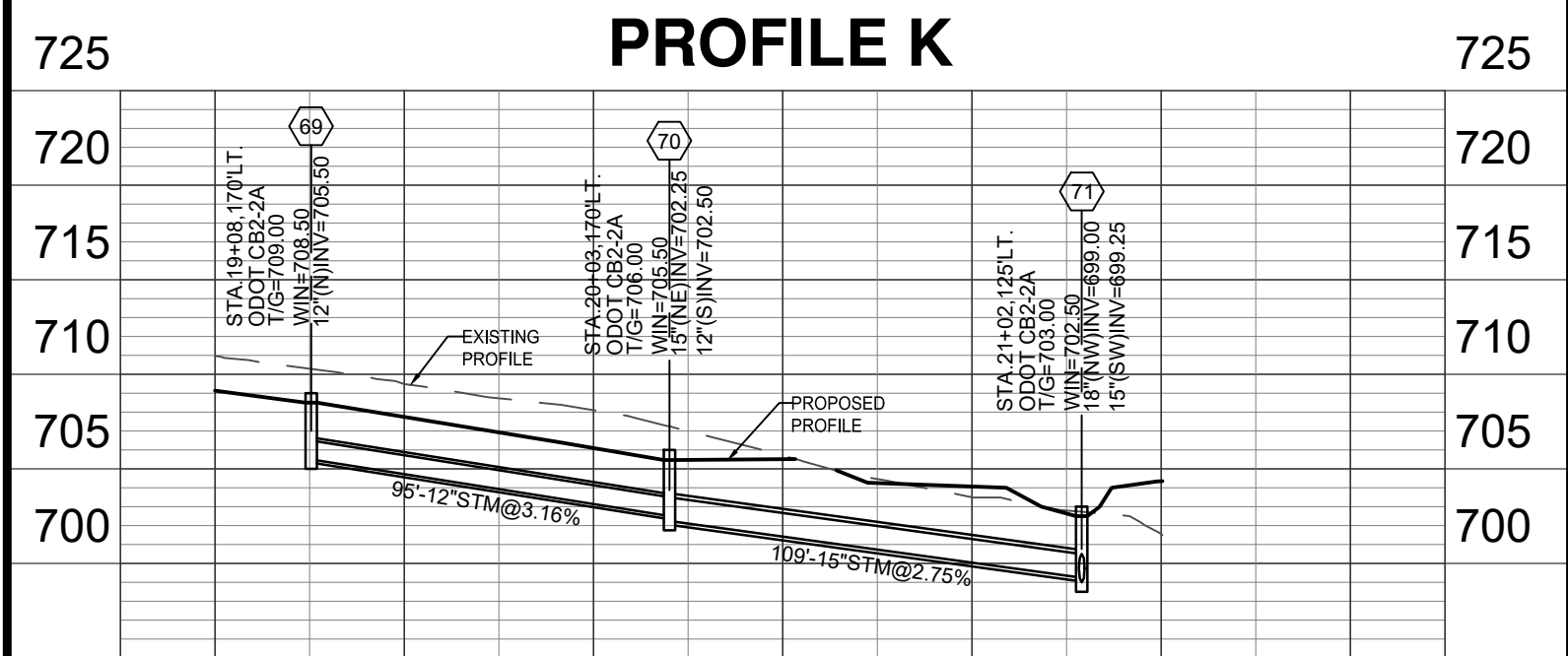
NOTE: CONTRACTOR SHALL COORDINATE
LOCATIONS OF PURITY TEST
STATIONS WITH BCWS INSPECTOR

- NOTES:
- 48 hours notice to be given to affected residents before construction begins.
 - Lower 3/4" 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.

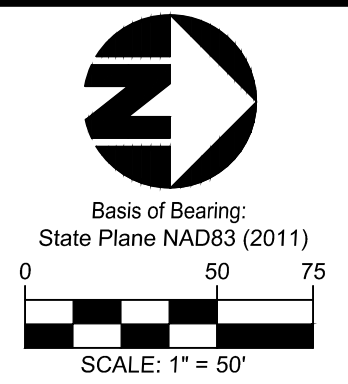
WATER MAIN RESTRAINT JOINT LOCATION CHART

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"	18' both sides	18' both sides	36' both sides	72' Back	54' 6" 8" 10"
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'



NOTE:
FOR CLOVE LANE CENTERLINE
PROFILE, SEE SHEET #8

NOTE:
ALL BUILDINGS, DRIVES, CONCRETE,
FENCES, ETC. ON SITE SHALL BE
REMOVED BY CONTRACTOR.



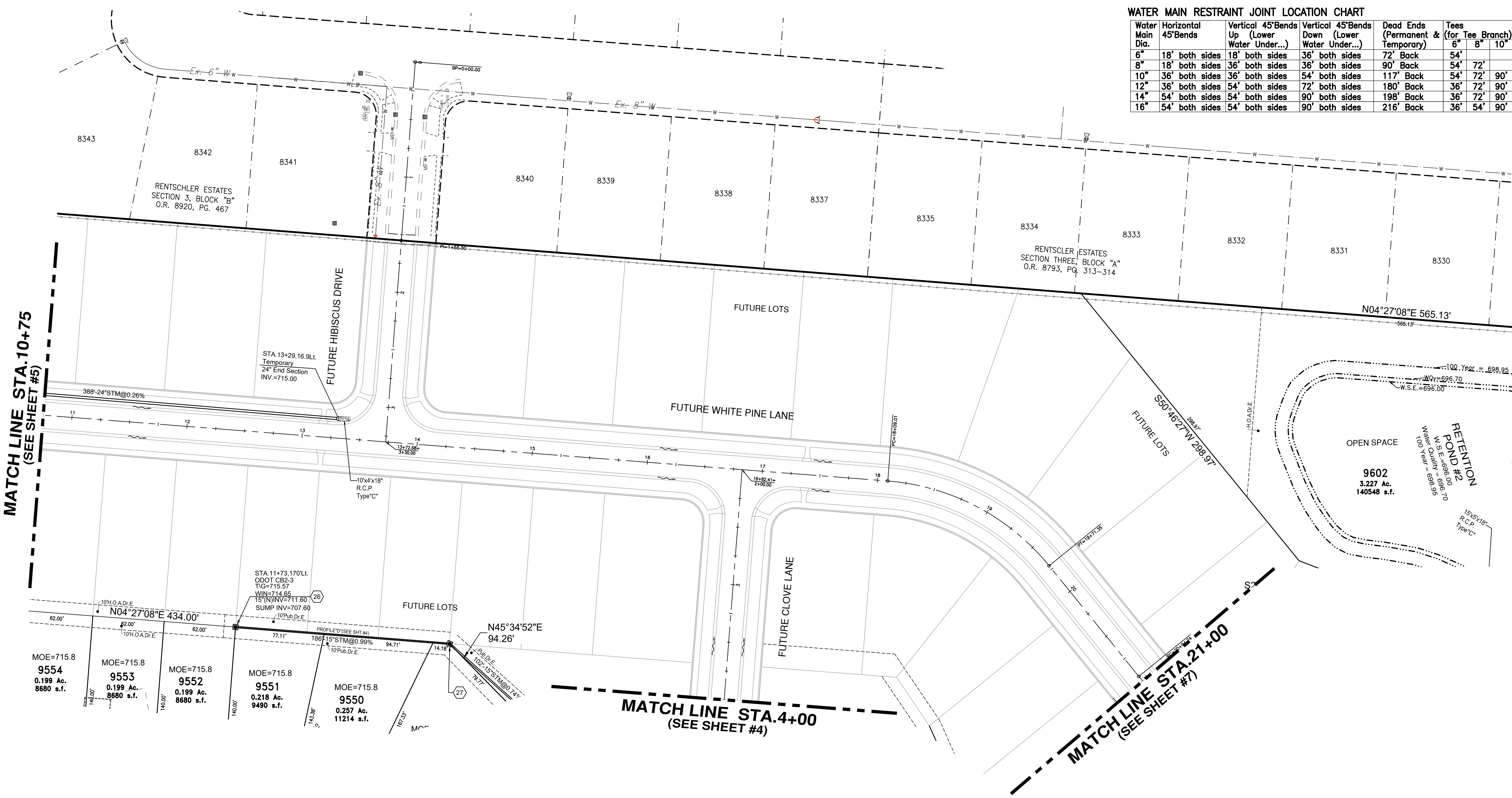
Date	Chk	Rev	Rev Description
5-19-22	JMW	1	Revised as per BCWS & BCOE
	TAC	2	
		3	
		4	
		5	
		6	
		7	
		8	
		9	

TIMBERHILL
SECTION ONE
SECTION 15, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO

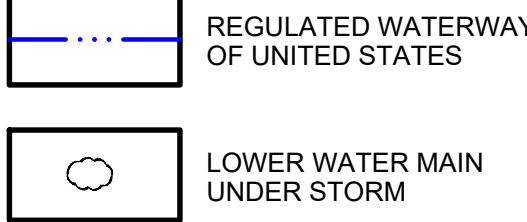


Drawing: 17-0090 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 3-7-22

MATCH LINE STA.10+75
(SEE SHEET #5)



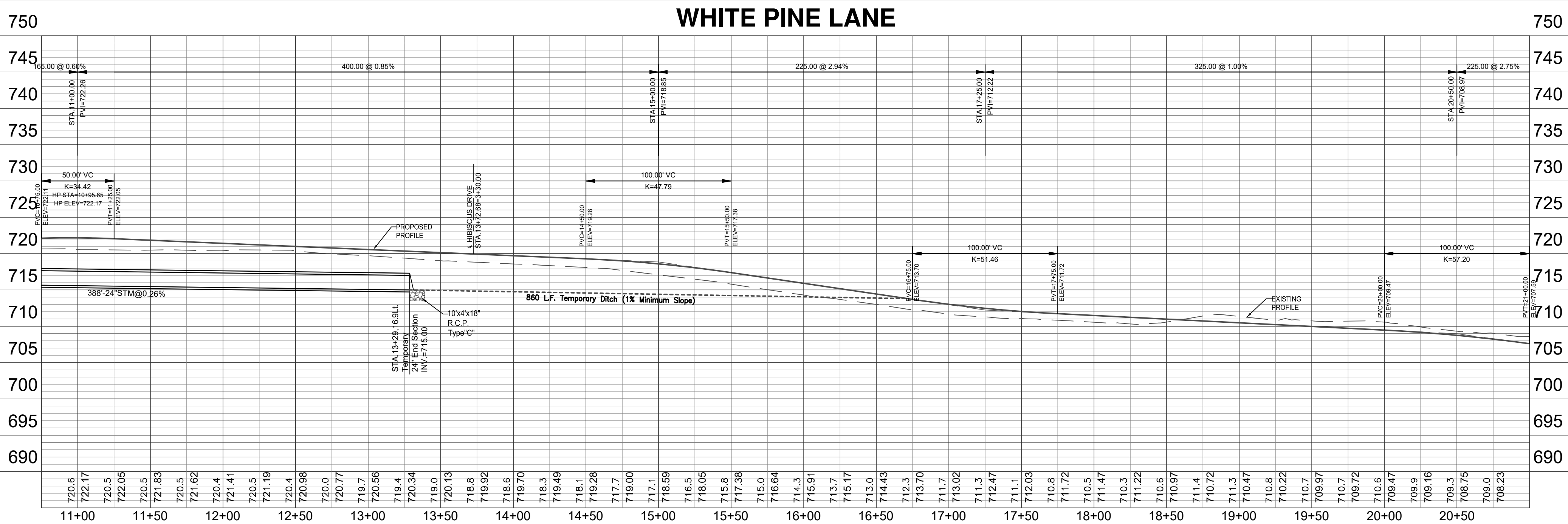
WATER MAIN RESTRAINT JOINT LOCATION CHART					
Water Main Dia.	Horizontal 45° Bends	Vertical 45° Bends Up (Lower Water Under...)	Vertical 45° Bends Down (Lower Water Under...)	Dead Ends (Permanent & Temporary)	Tees (for Tee Branch)
6"	18" both sides	18" both sides	36" both sides	72" Back	54" 8" 10"
8"	18" both sides	36" both sides	36" both sides	90" Back	54" 8" 10"
10"	36" both sides	36" both sides	64" both sides	117" Back	54" 8" 10"
12"	36" both sides	54" both sides	72" both sides	180" Back	54" 8" 10"
14"	54" both sides	54" both sides	90" both sides	198" Back	54" 8" 10"
16"	54" both sides	54" both sides	90" both sides	216" Back	54" 8" 10"



NOTE: CONTRACTOR SHALL COORDINATE LOCATIONS OF PURITY TEST STATIONS WITH BCWS INSPECTOR

- NOTES:
- 48 hours notice to be given to affected residents before construction begins.
 - Lower 3/4" 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. Wytes 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.



Basis of Bearing:
State Plane NAD83 (2011)
0 50 75
SCALE: 1" = 50'

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TIMBERHILL
SECTION ONE
SECTION 15, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO

PLAN & PROFILE

bayer becker
www.bayerbecker.com
6900 Tiersville Road, Suite A
Mason, OH 45040 - 513.335.6600

Drawing: 17-0090 CD

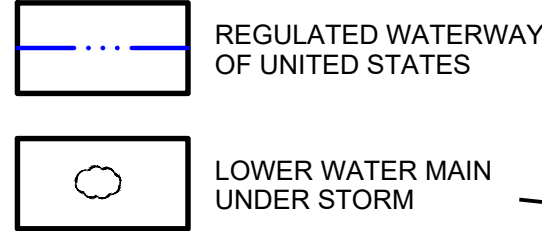
Drawn by: TAC

Checked by: XXX

Issue Date: 3-7-22

Sheet:

6/17



NOTE:
ALL BUILDINGS, DRIVES, CONCRETE,
FENCES, ETC. ON SITE SHALL BE
REMOVED BY CONTRACTOR.

LOT #428
METRO PARKS OF BUTLER COUNTY
O.R. 7643, PG. 1739
15.642 AC.

NOTE:
FOR TIMBERHILL DRIVE
CENTERLINE PROFILE,
SEE SHEET #8

* NOTE:
Existing sanitary flow needs to be diverted
and/or pumped and directed around the
proposed 15" replacement of the existing
12" sanitary main until proposed
replacement 15" sanitary sewer is
accepted by BCWS for use.

Contractor is to coordinate By-Pass
Pumping and Connections with BCWS
Staff. Suggested by-pass pumping to
occur from Ex.Manhole #4 (south of #3)
to Ex.Manhole #1 (north of #2) due to
extreme depths.

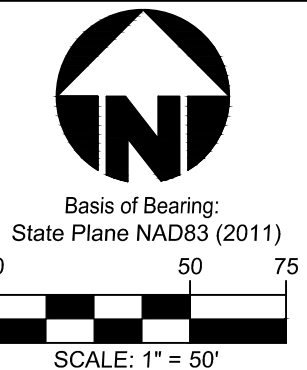
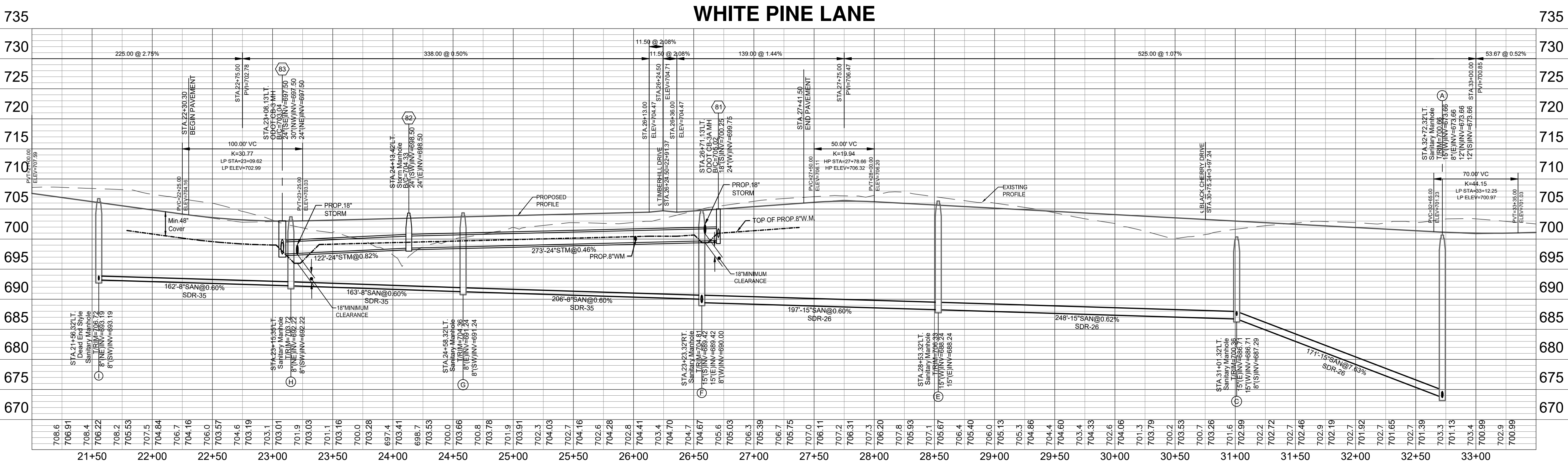
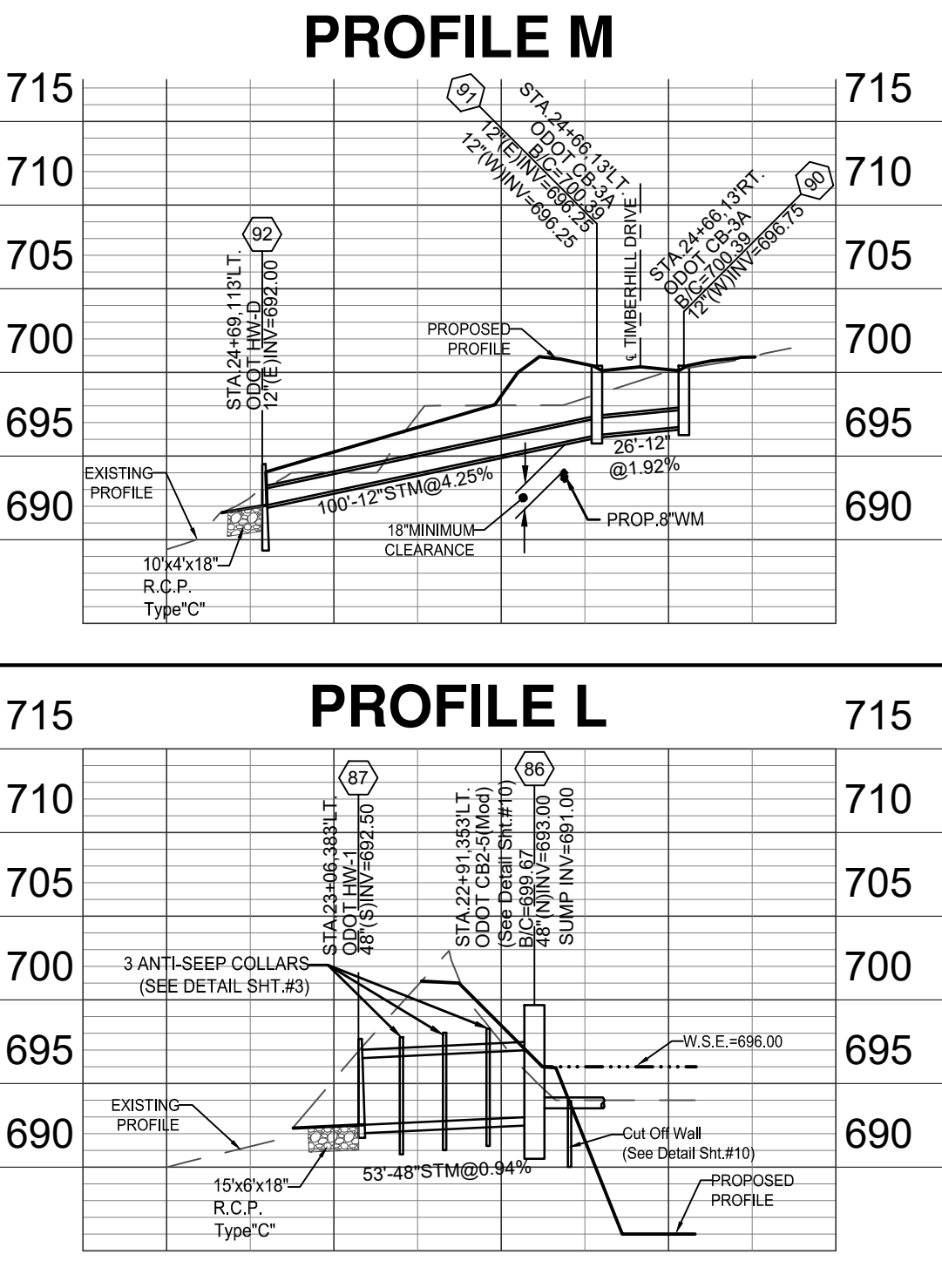
NOTE: CONTRACTOR SHALL COORDINATE
LOCATIONS OF PURITY TEST
STATIONS WITH BCWS INSPECTOR

- NOTES:
- 48 hours notice to be given to affected residents before construction begins.
 - Lower 3/4" 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.

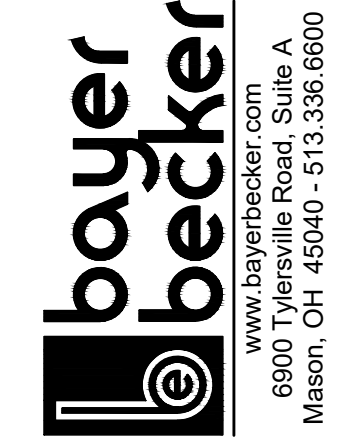
WATER MAIN RESTRAINT JOINT LOCATION CHART

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"	18' both sides	18' both sides	36' both sides	72' Back	54' 8" 72'
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'



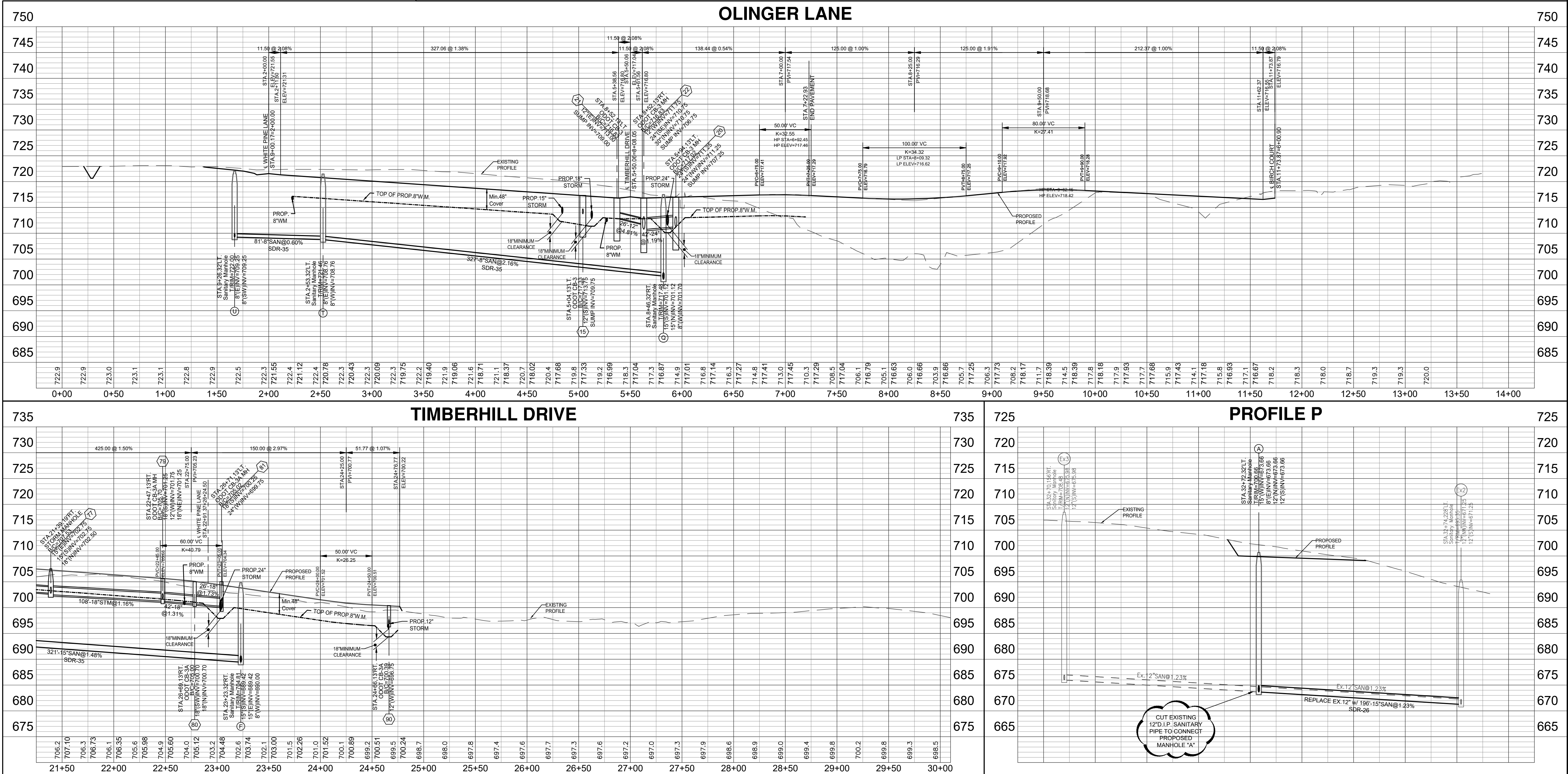
Date	Drawn	Chk	Item	Revision Description
5-18-22	JMW	TAC	1	Revised as per BCWS
			2	
			3	
			4	
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			6	
			7	
			8	
			9	

TIMBERHILL
SECTION ONE
SECTION 15, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO



Drawing: 17-0090 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 3-7-22

7/17



Basis of Bearing:
State Plane NAD83 (2011)

SCALE: 1" = 50'

Date: 5-19-22

Drawn: JMW

Checked: TAC

Item

Revision Description

1

Revised as per BCMS

2

3

4

5

6

7

8

9

TIMBERHILL

SECTION ONE

SECTION 15, TOWN 2, RANGE 3

FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO

**bayer
becker**

www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

Drawing: 17-0090 CD

Drawn by: TAC

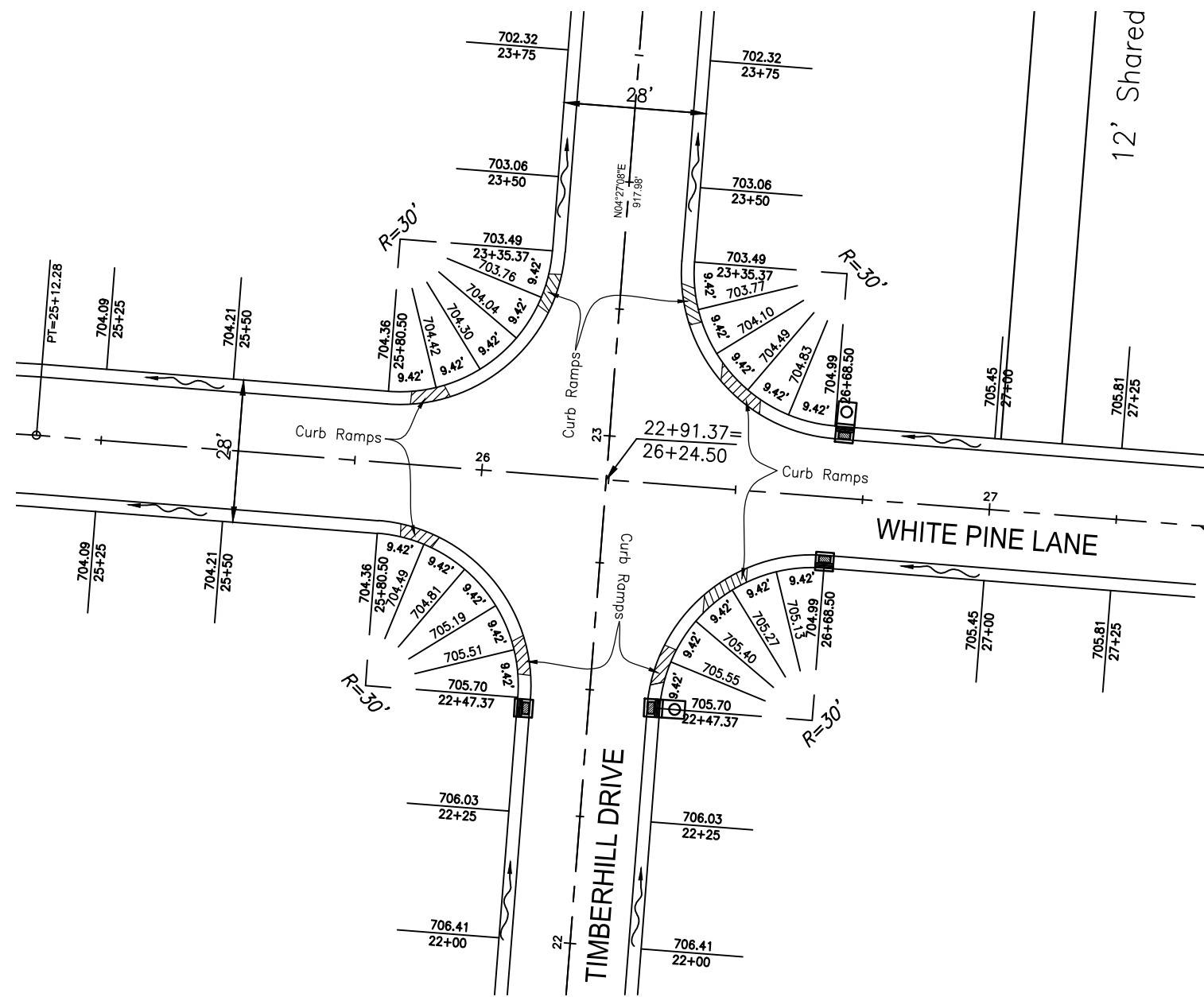
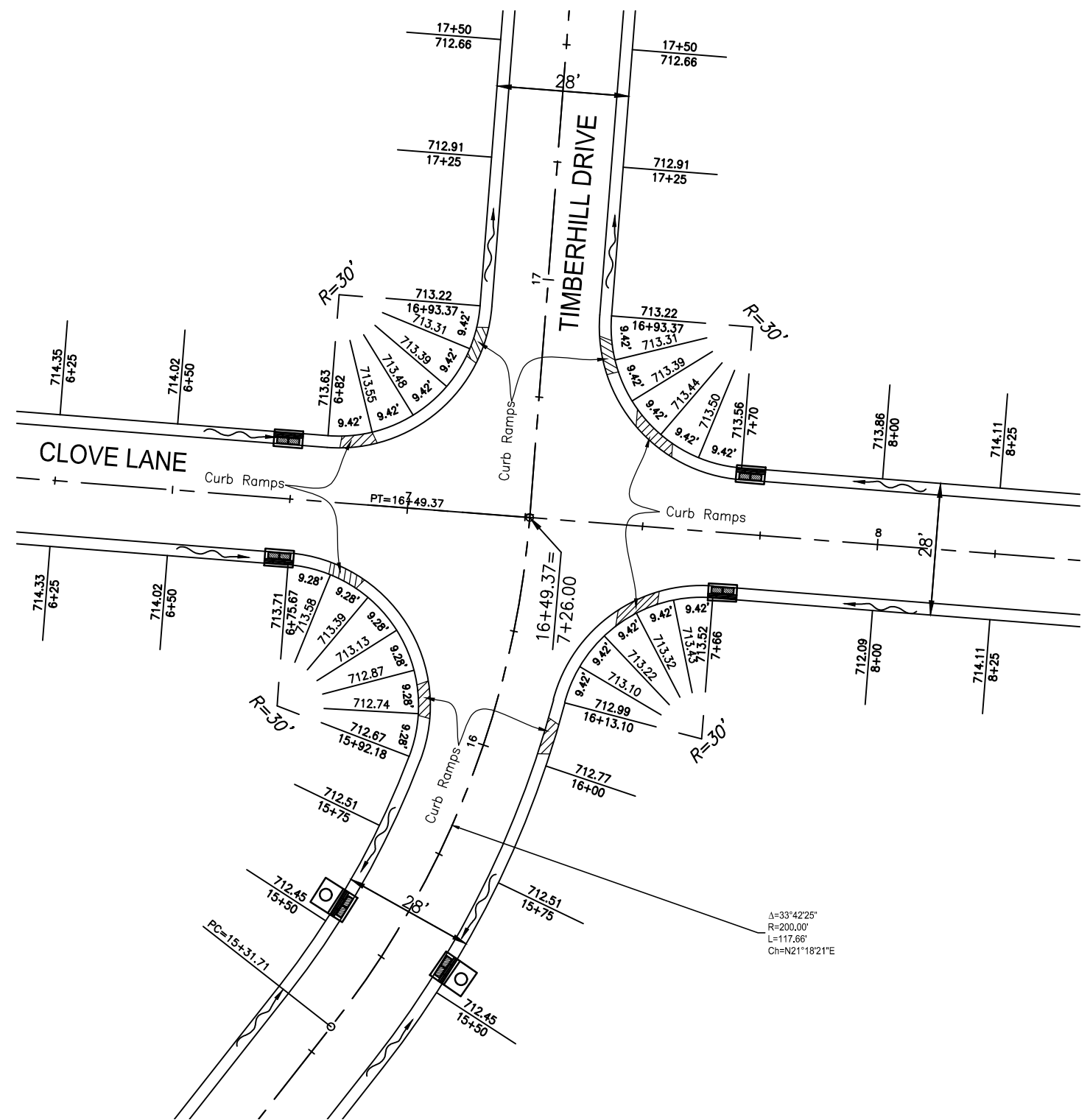
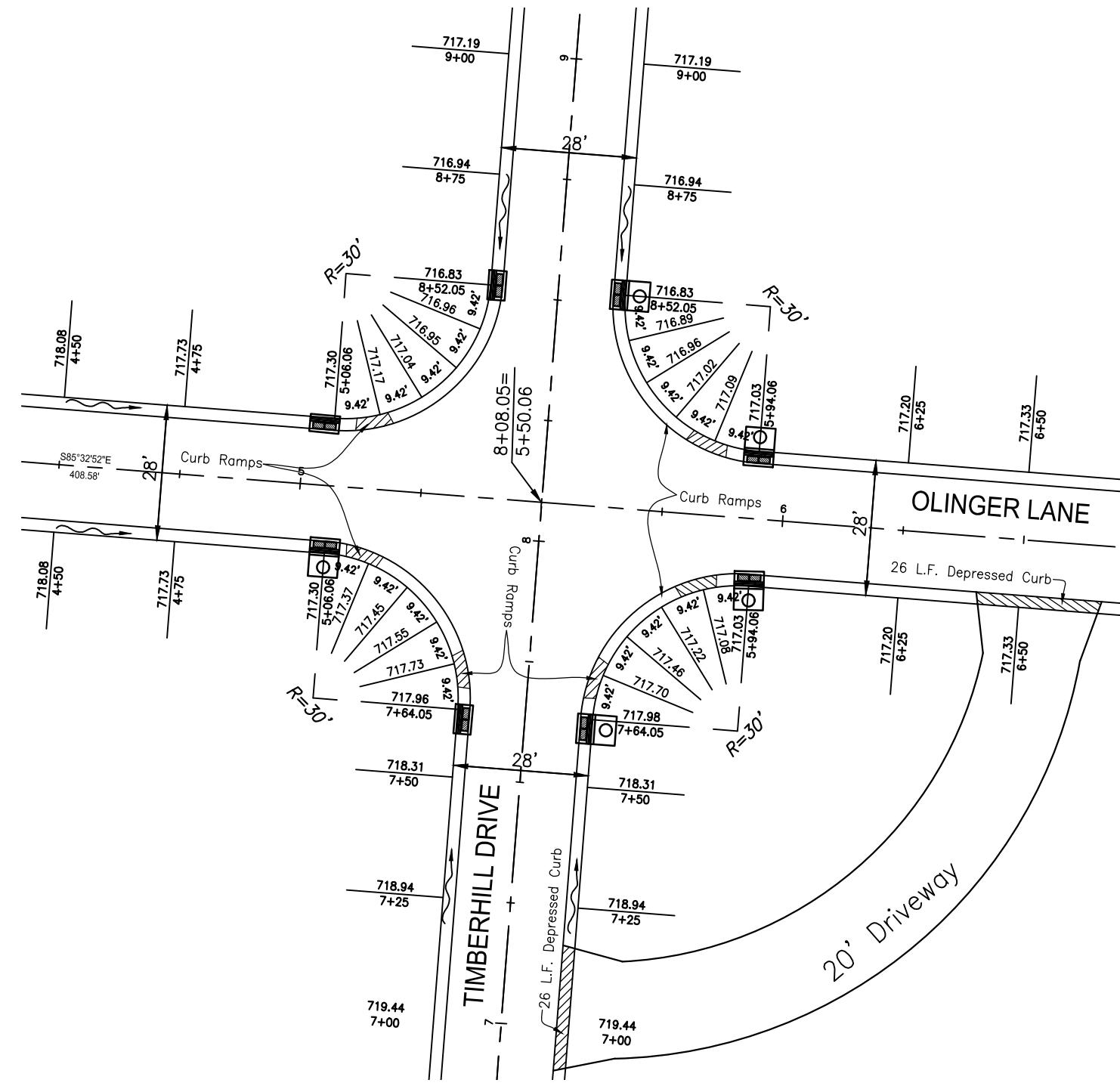
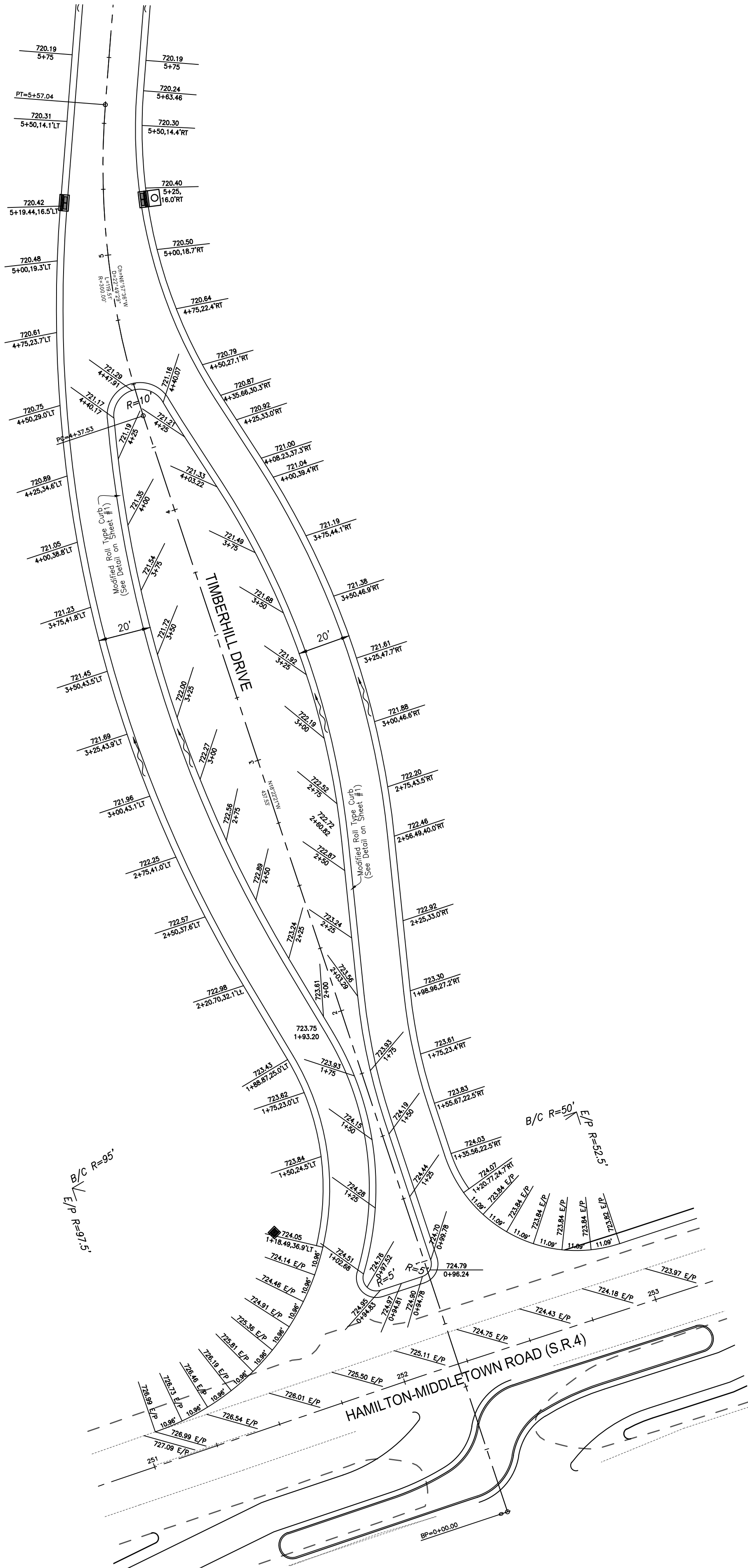
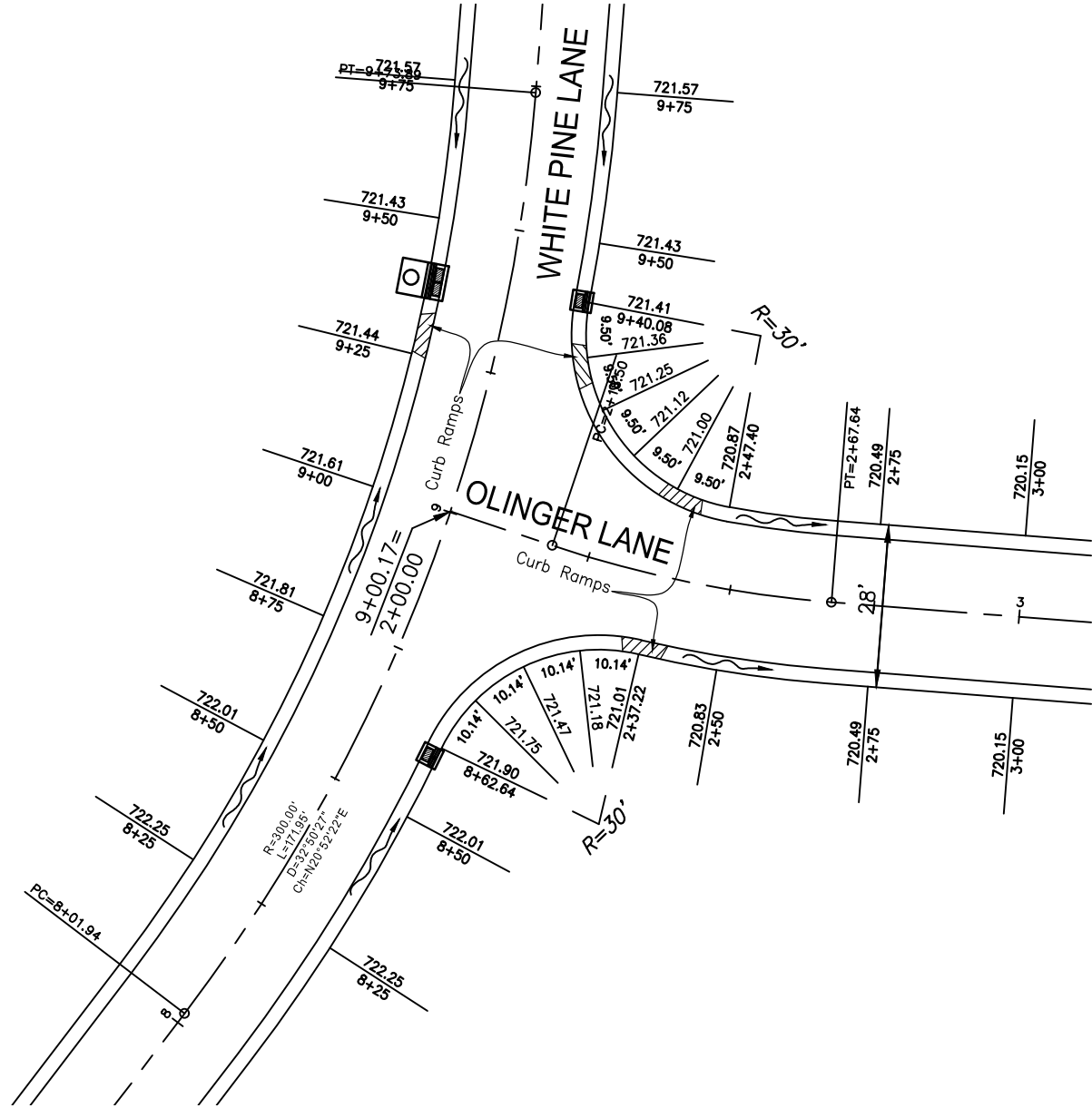
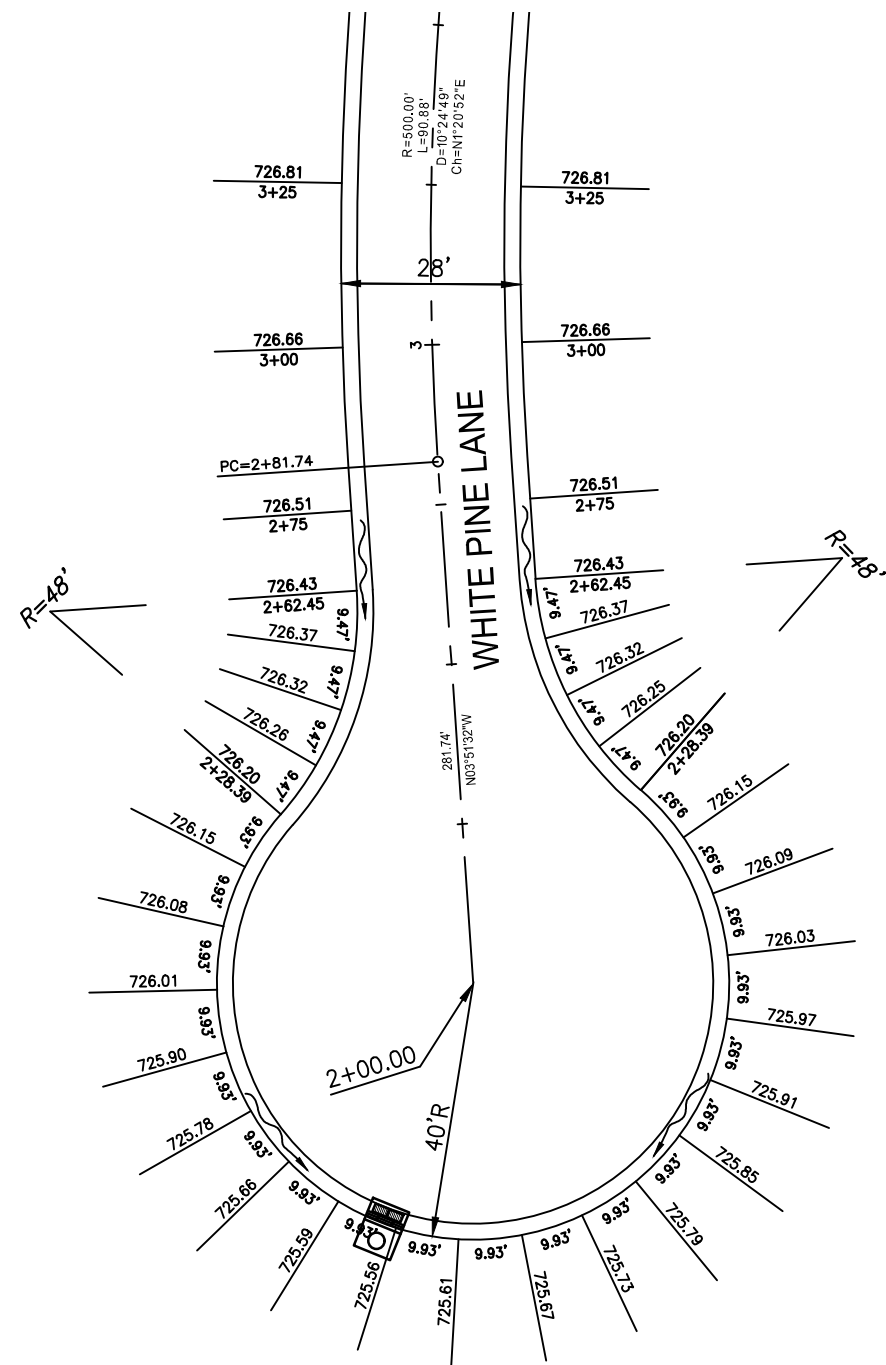
Checked By: XXX

Issue Date: 3-7-22

Sheet:

8/17

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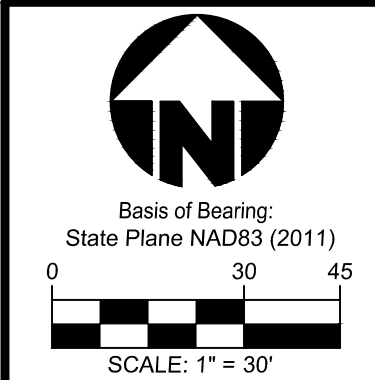


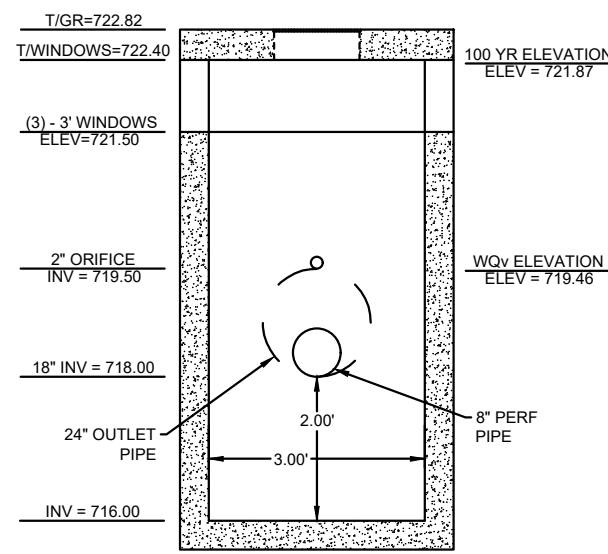
Drawing: 17-0090 CD
Drawn by: TAC
Checked by: XXX
Issue Date: 3-7-22

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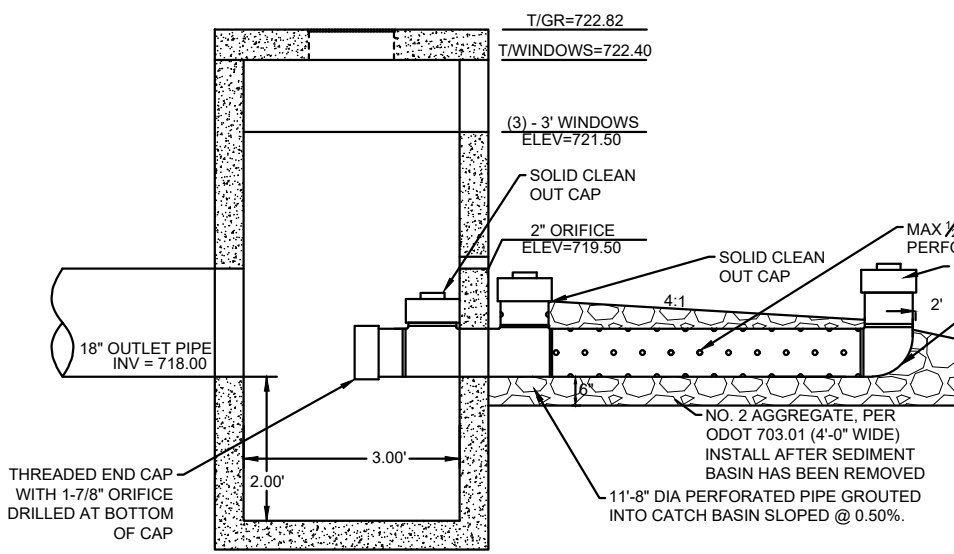
**TIMBERHILL
SECTION ONE**
SECTION 15, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO
INTERSECTION DETAILS

Item	Revision Description	Date	Drawn	Chk
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2				
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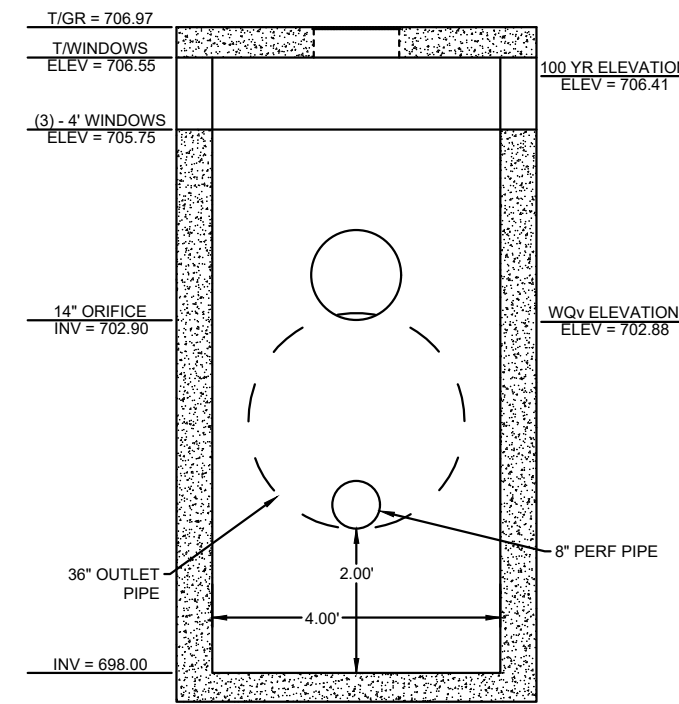
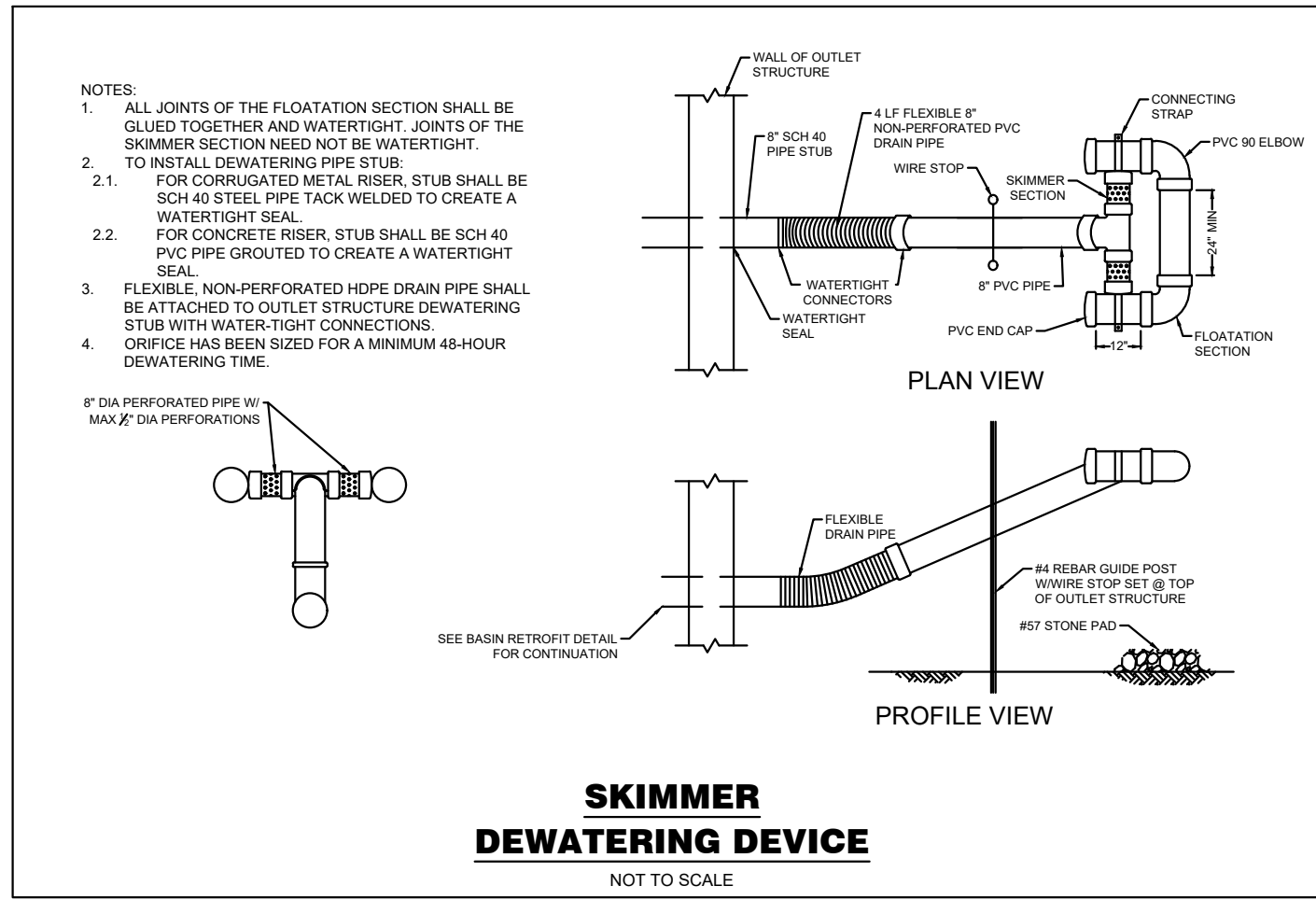
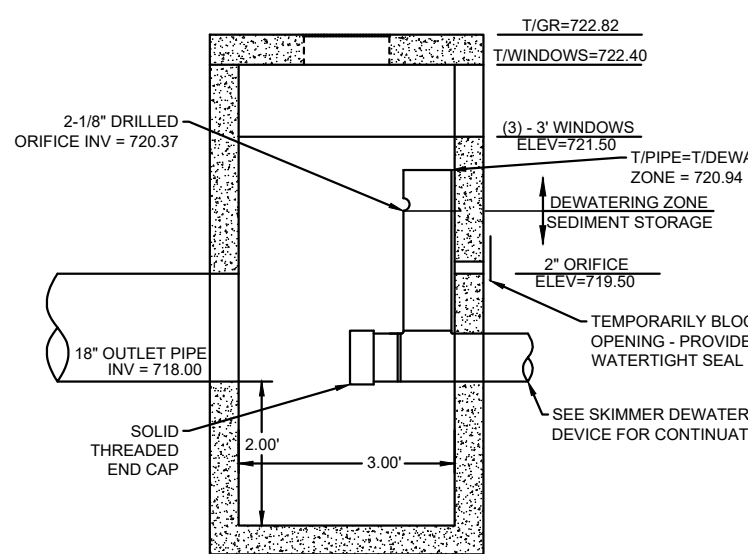
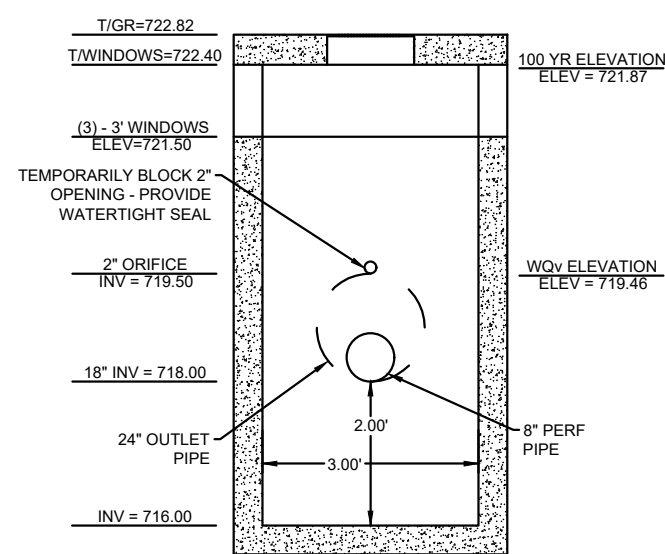




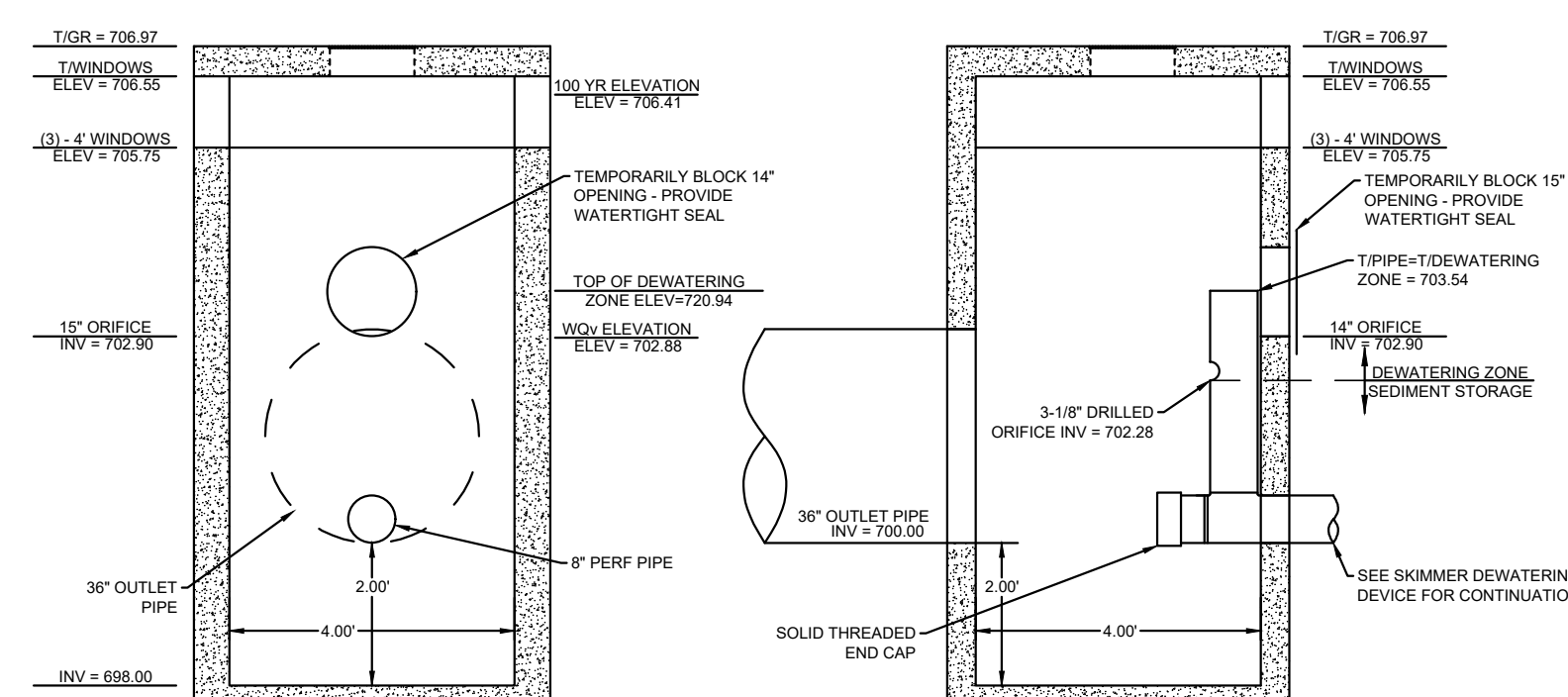
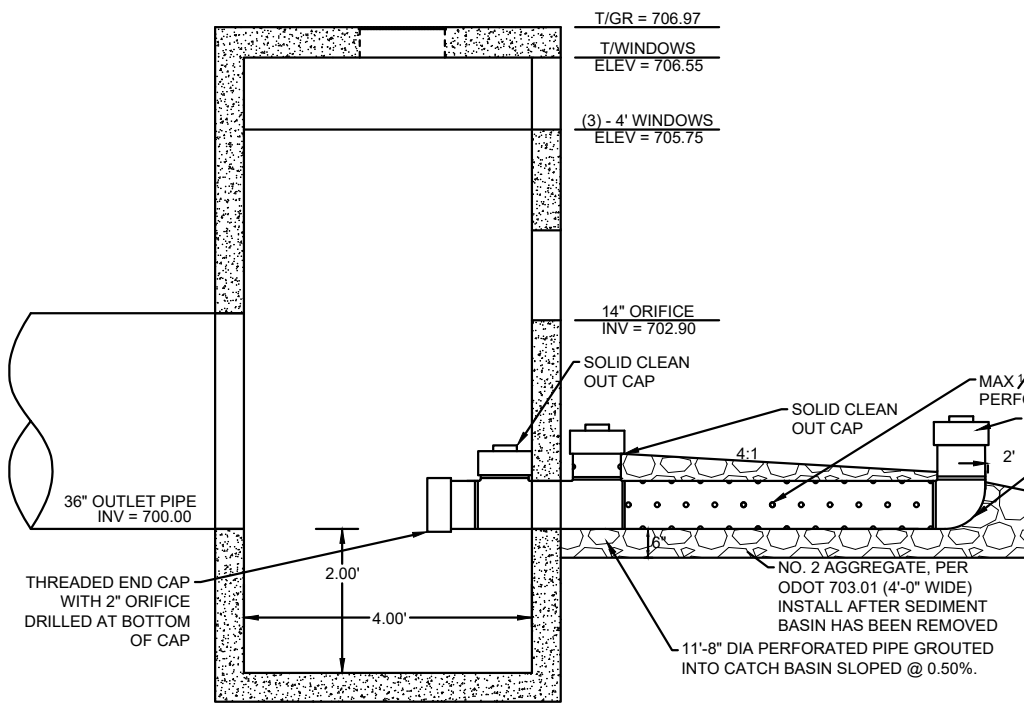
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POST CONSTRUCTION DETAIL**
NOT TO SCALE



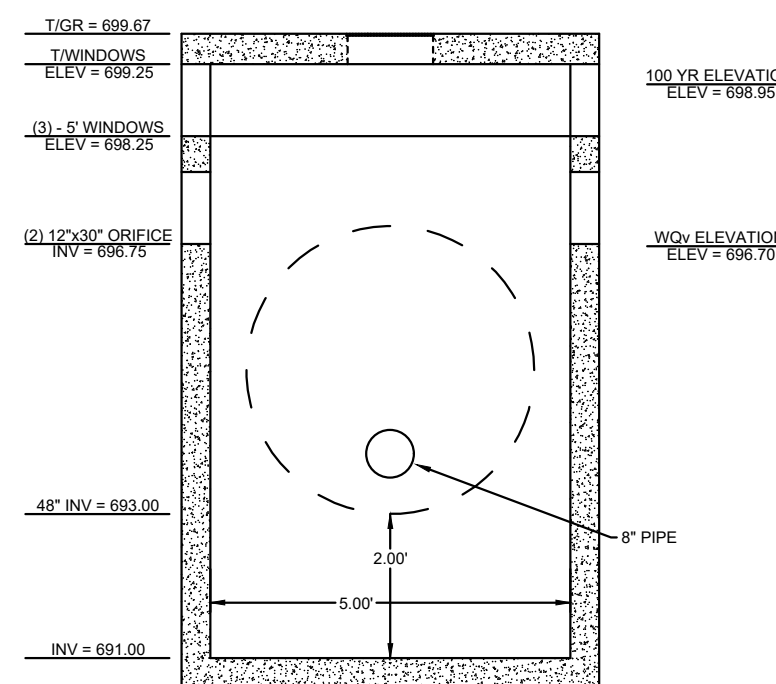
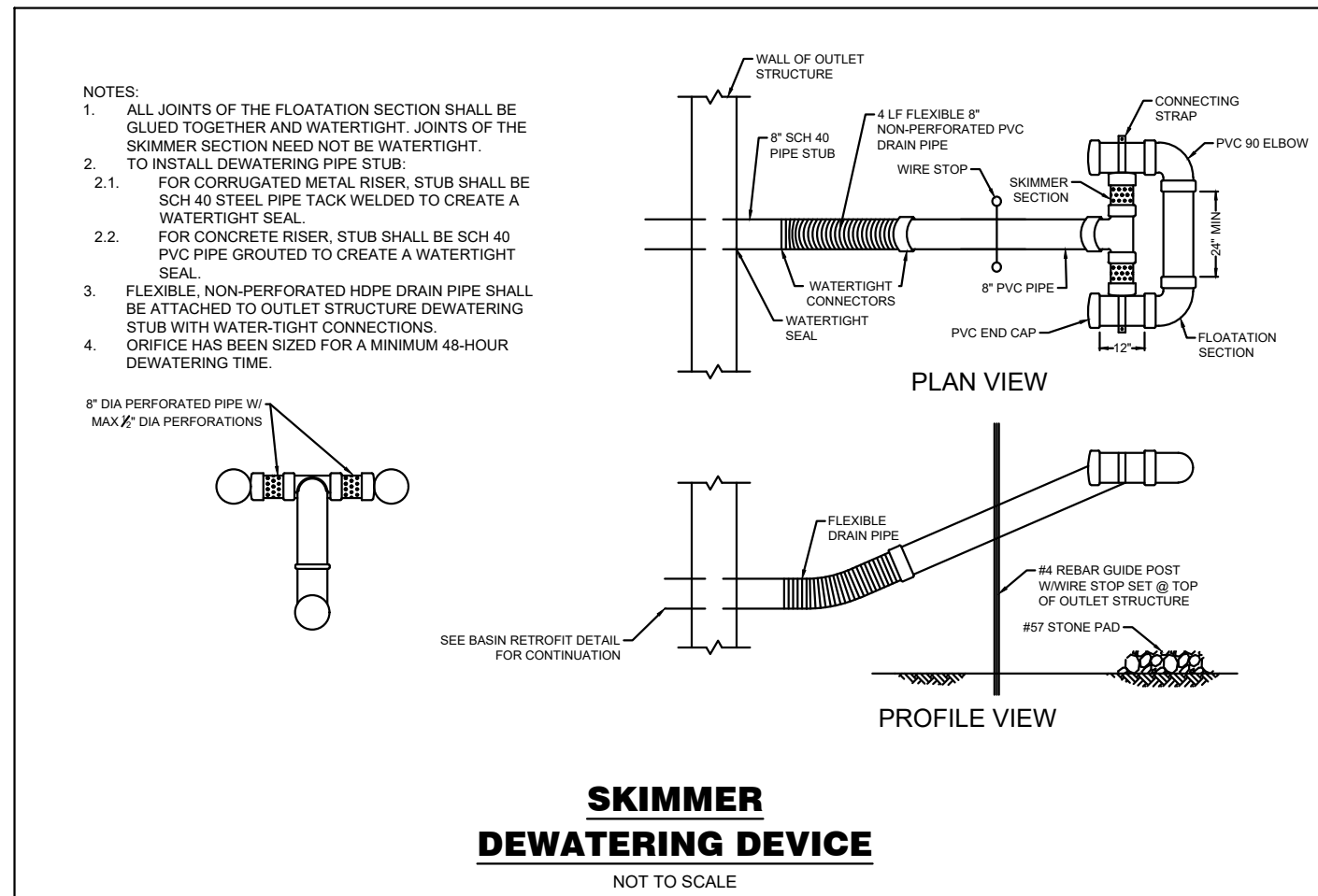
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DURING CONSTRUCTION DETAIL
SEDIMENT BASIN RETROFIT**
NOT TO SCALE



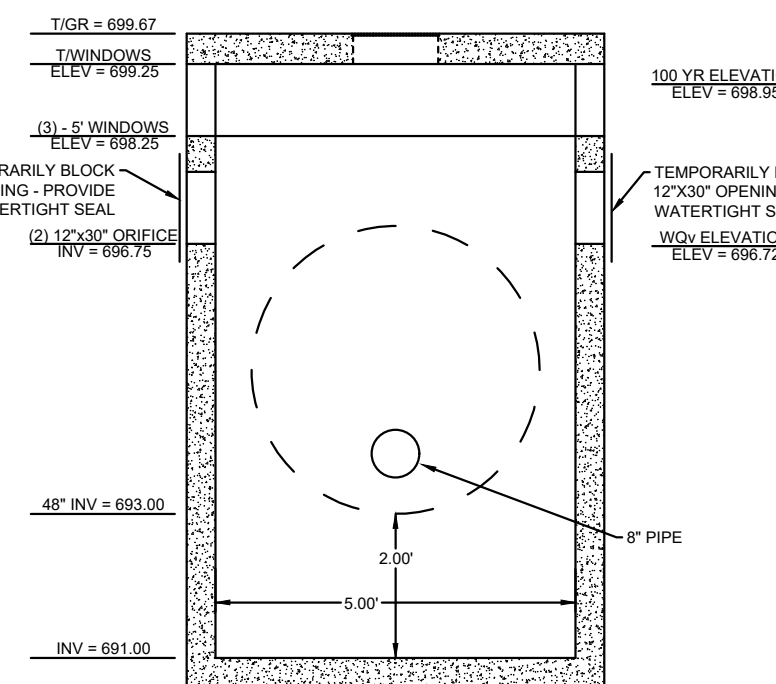
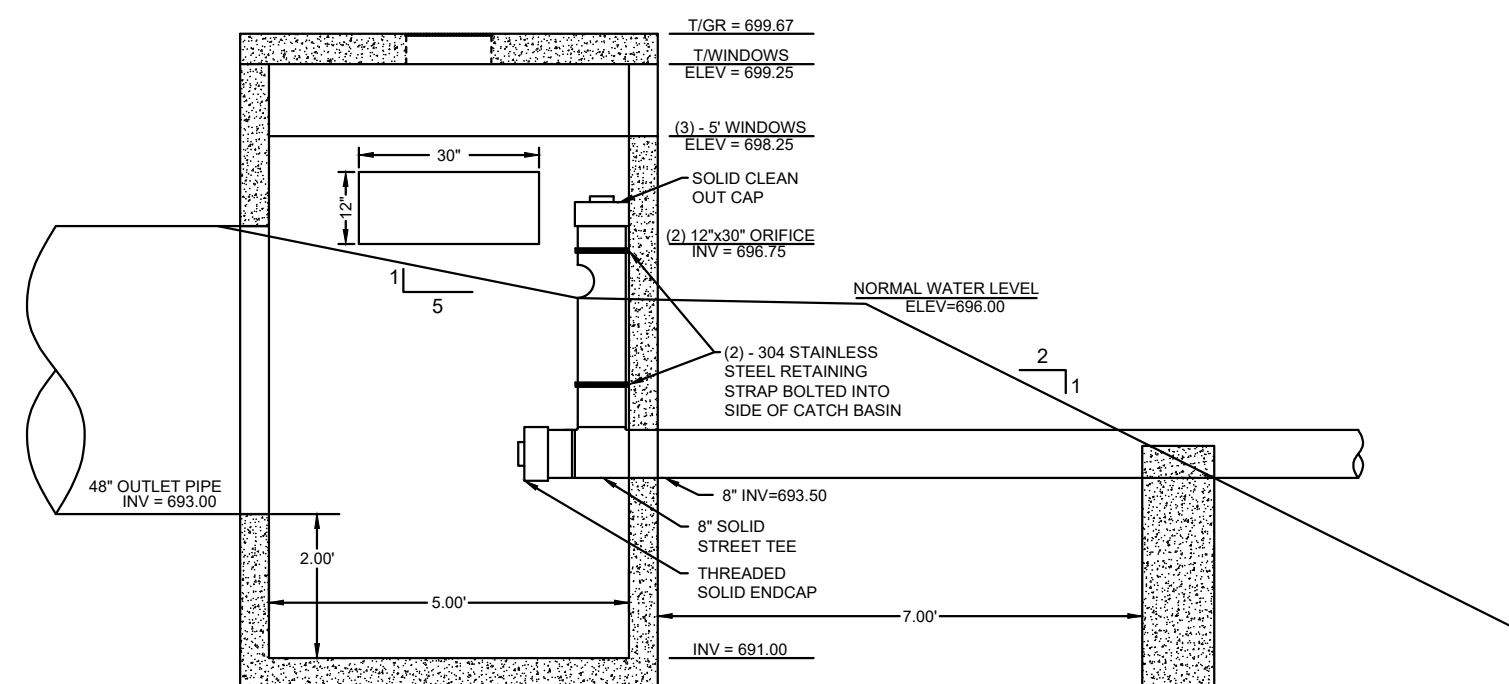
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POST CONSTRUCTION DETAIL**
NOT TO SCALE



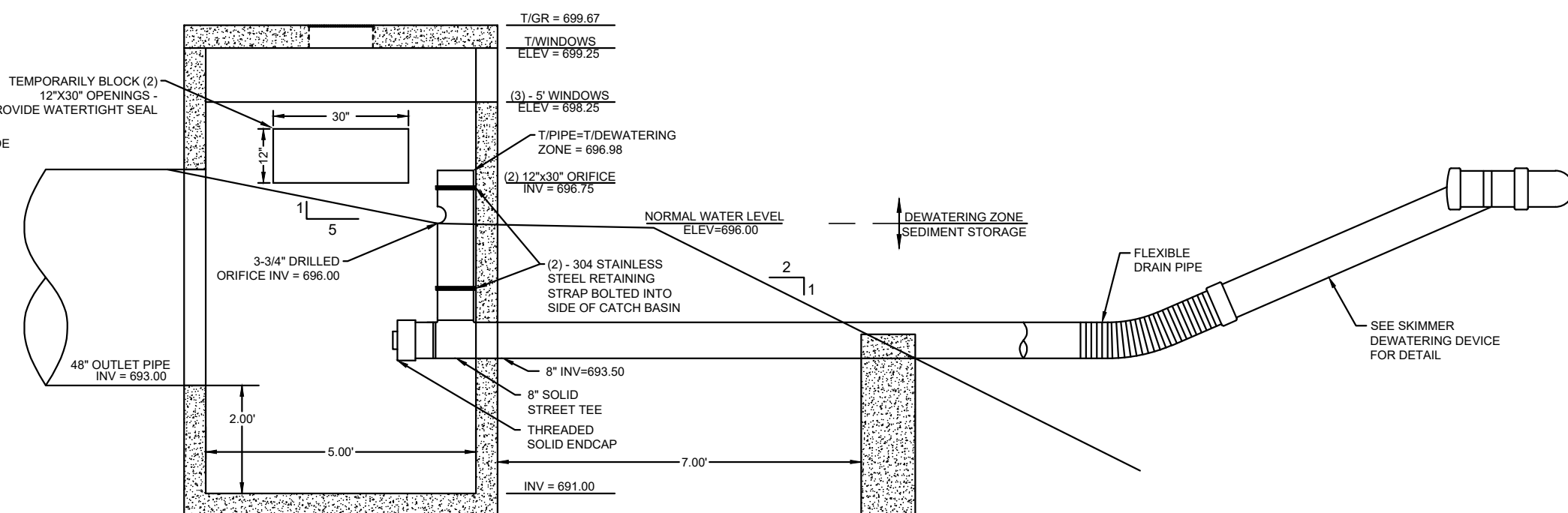
**STRUCTURE 38 ODOT CB2-4
DURING CONSTRUCTION DETAIL
SEDIMENT BASIN RETROFIT**
NOT TO SCALE



**STRUCTURE 86 ODOT CB2-5
POST CONSTRUCTION DETAIL**
NOT TO SCALE



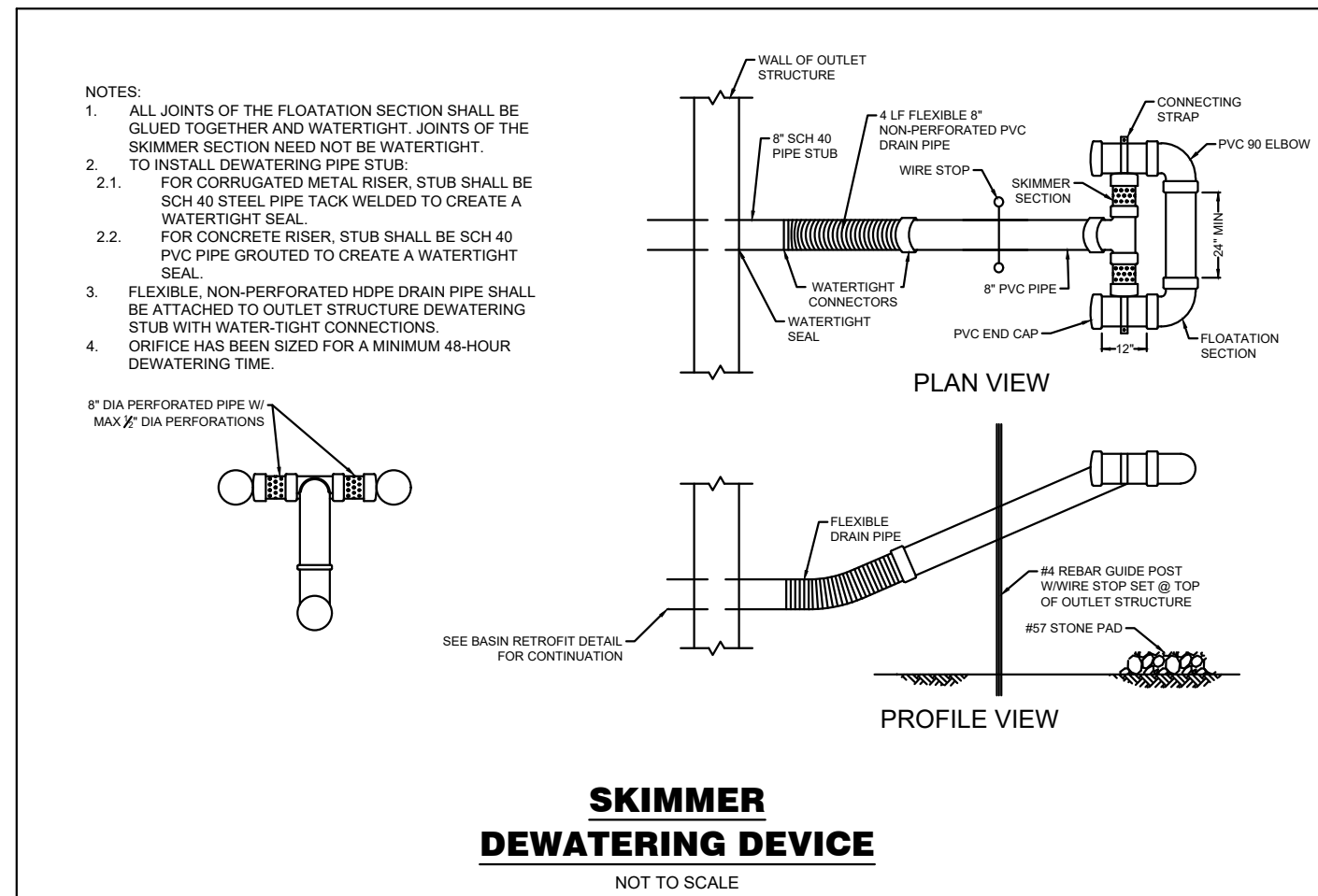
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DURING CONSTRUCTION DETAIL
SEDIMENT BASIN RETROFIT**
NOT TO SCALE



CUT-OFF WALL DETAIL
NOT TO SCALE

Normal Pool=Varies

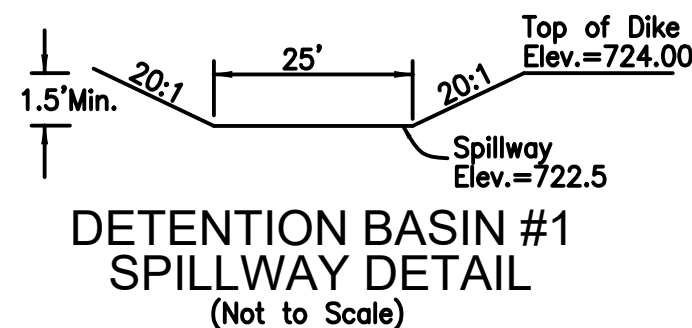
PIPE SIZE	WIDTH	PIPE SIZE	WIDTH
3"	1'0"	27"	4'6"
6"	1'0"	30"	5'0"
8"	2'0"	33"	5'6"
12"	2'0"	36"	6'0"
15"	2'6"	39"	6'6"
18"	3'0"	42"	7'0"
24"	4'0"	48"	8'0"



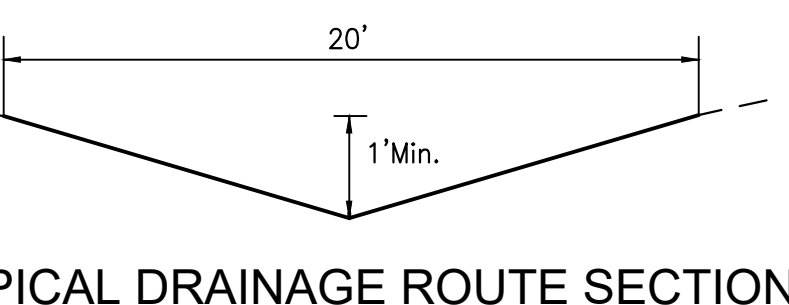
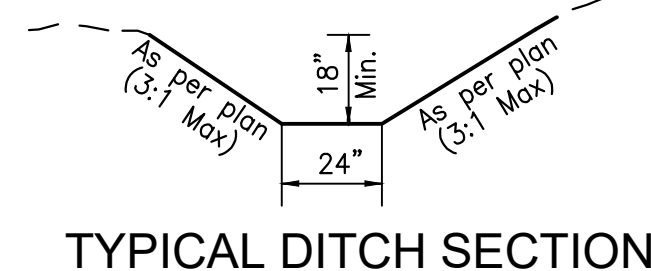
- SOIL TYPES
- CLEARING LIMITS
- SILT FENCE OR MULCH BERM
- REGULATED WATERWAY OF STATE OF OHIO
- RIPARIAN AREA: NO DISTURBANCE PERMITTED

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
- 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 #17)



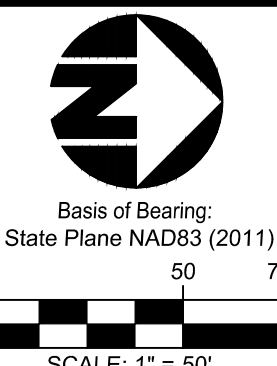
Note: All ditches constructed by the Developer shall be sodded or hydra-seeded.



NOTES:

- 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.
- 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.
- 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.
- 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 at final grade shall be stabilized with seeding and mulching or other approved means within seven (7) days.
- Quantities for Erosion Control may vary between detailed plans and field conditions during construction. Plan quantities are a minimum; more erosion control may be necessary due to environmental conditions.
- Sedimentation control and ditch swales are subject to change upon completion of entire set of construction drawings.
- No solid or liquid waste shall be discharged into storm water runoff.
- Home builders are responsible for erosion control on each individual lot.
- Contractors to accept all quantities as correct prior to beginning construction.

NOTE:
ALL BUILDINGS, DRIVES, CONCRETE, FENCES, ETC. ON SITE SHALL BE REMOVED BY CONTRACTOR.



Item	Revision Description	Date	Drawn	Chk
1	Revised as per BCWS	5-18-22	TAC	
2				
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TIMBERHILL
SECTION ONE
SECTION 15, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO
GRADING PLAN



Drawing: 17-0090 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 3-7-22
Sheet:

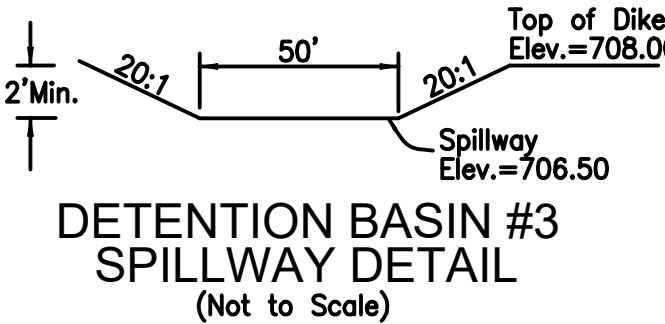
11/17

	SOIL TYPES
	CLEARING LIMITS
	SILT FENCE OR MULCH BERM
	REGULATED WATERWAY OF STATE OF OHIO
	RIPARIAN AREA: NO DISTURBANCE PERMITTED

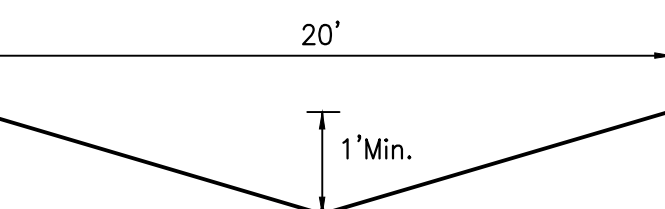
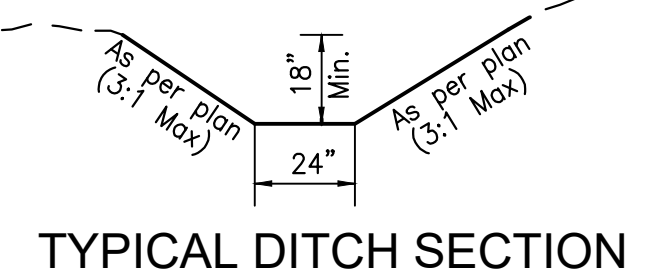
EROSION CONTROL NOTES

- SEEDING AND MULCHING
- SODDING
- PRESERVE EXISTING VEGETATION
- STRAW BALE
- SILT FENCE OR MULCH BERM
- SOIL PILES
- TEMPORARY STREAM CROSSING
- GRAVEL CURB INLET SEDIMENT FILTER
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- STRAW BALE DROP INLET SEDIMENT FILTER
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- 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 #17.)



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



TYPICAL DRAINAGE ROUTE SECTION

- NOTES:
- 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.
 - 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.
 - 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.
 - 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 at final grade shall be stabilized with seeding and mulching or other approved means within seven (7) days.
 - Quantities for Erosion Control may vary between detailed plans and field conditions during construction. Plan quantities are a minimum; more erosion control may be necessary due to environmental conditions.
 - Sedimentation control and ditch swales are subject to change upon completion of entire set of construction drawings.
 - No solid or liquid waste shall be discharged into storm water runoff.
 - Home builders are responsible for erosion control on each individual lot.
 - Contractors to accept all quantities as correct prior to beginning construction.

PROJECT DATA			
Total Site Area	36.58 Ac.		
Sediment Basin Calculations:	Basin #1	Basin #2	Basin #3
Drainage Area	5.19 Ac.	21.17 Ac.	18.18 Ac.
Disturbed Tributary Area	4.35 Ac.	21.17 Ac.	16.01 Ac.
Required Sediment Storage	0.10 Ac./Ft.	0.49 Ac./Ft.	0.37 Ac./Ft.
Required Dewatering Storage	0.21 Ac./Ft.	0.87 Ac./Ft.	0.75 Ac./Ft.
Water Quality Volume Required	0.06 Ac./Ft.	0.29 Ac./Ft.	0.15 Ac./Ft.
Estimated Proposed Impervious Area	1.12 Ac.(22%)	7.41 Ac.(33%)	8.20 Ac.(34%)
Pre-Developed Runoff Coefficient	0.32		
Post-Developed Runoff Coefficient	0.50		
Immediate Receiving Waters	Unnamed Tributary to Great Miami River		
Subsequent Receiving Waters	Great Miami River		
SOIL TYPES			
Symbol	Name	Type	
EcE2	Eden silty clay loam, 15 to 25 percent slopes, moderately eroded	D	
FcA	Fincastle silt loam, 0 to 2 percent slopes	C	
Gn	Genesee loam	B	
MdD2	Miamian-Russell silt loams 12 to 18 percent slopes, moderately eroded	C	
RwB2	Russell-Miamian silt loams, bedrock substratum 2 to 6 percent slopes, moderately eroded	B	
WyC2	Wynn silt loam, 6 to 12 percent slopes, moderately eroded	B	
XeB2	Xenia silt loam, 2 to 6 percent slopes, moderately eroded	B	

NOTE:
The Temporary Sediment Basins are to be cleaned out in accordance with the Rainwater and Land Development Manual and Butler County standards.

GRADING NOTES

- LOCATION OF EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO BEGINNING WORK.
- CONTRACTOR SHALL OBTAIN A COPY OF THE COMPLETE GEOTECHNICAL REPORT PRIOR TO BIDDING THE PROJECT.
- CONTRACTORS SHALL SET UP AN ONSITE PRE-CONSTRUCTION MEETING WITH THE BUTLER COUNTY STORM WATER DISTRICT/BCDO, DEVELOPER, PROJECT GEOTECHNICAL ENGINEER, EARTHWORK CONTRACTOR, AND SITE CIVIL ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
- CONTRACTOR SHALL ASSUME THE TOP 7" OF EXISTING GROUND IS TOPSOIL. TOPSOIL REMOVED TO DEPTHS GREATER THAN 7" SHALL BE DONE ONLY AFTER CONSULTATION WITH THE PROJECT GEOTECHNICAL ENGINEER AND APPROVAL OF THE DEVELOPER.
- ALL EARTHWORK AND CONSTRUCTION ACTIVITY SHALL BE PERFORMED PER THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER AS DESCRIBED IN THE GEOTECHNICAL EXPLORATION REPORT AND ALL ADDENDUMS.
- CONTRACTOR SHALL VERIFY ALL EARTHWORK QUANTITIES PRIOR TO AWARD OF CONTRACT. PAY 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.
- THE AREAS LABELED DENSE VEGETATION ARE WHERE THE EXISTING GROUND WAS OBSCURED FROM VIEW BY EXISTING VEGETATION. THE EXISTING CONTOURS SHOWN IN THIS AREA MAY VARY.

NOTE:
ALL BUILDINGS, DRIVES, CONCRETE, FENCES, ETC. ON SITE SHALL BE REMOVED BY CONTRACTOR.



Basis of Bearing:
State Plane NAD83 (2011)
0 50 75
SCALE: 1" = 50'

Date	Drawn	Chk.
5-18-22	TAC	

Revision	Description
1	Revised as per BCDO
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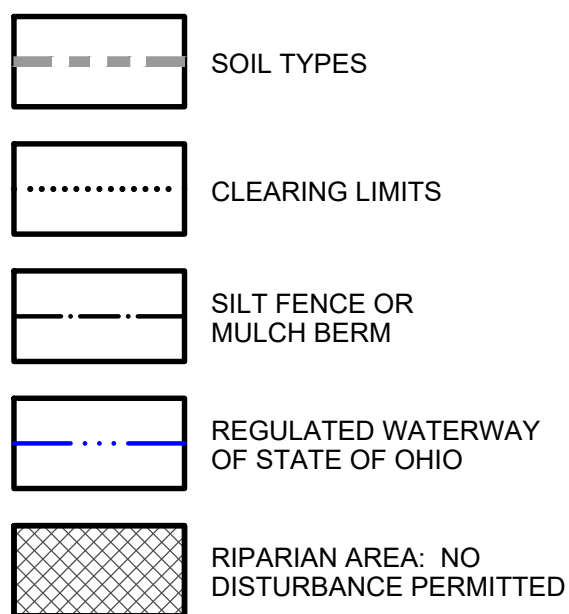
TIMBERHILL
SECTION ONE

SECTION 15, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO

GRADING PLAN

bayer becker
www.bayerbecker.com
6900 Tiersville Road, Suite A
Mason, OH 45040 • 513.338.6600

Drawing: 17-0090.CD
Drawn by: TAC
Checked By: XXX
Issue Date: 3-7-22
Sheet: 12/17

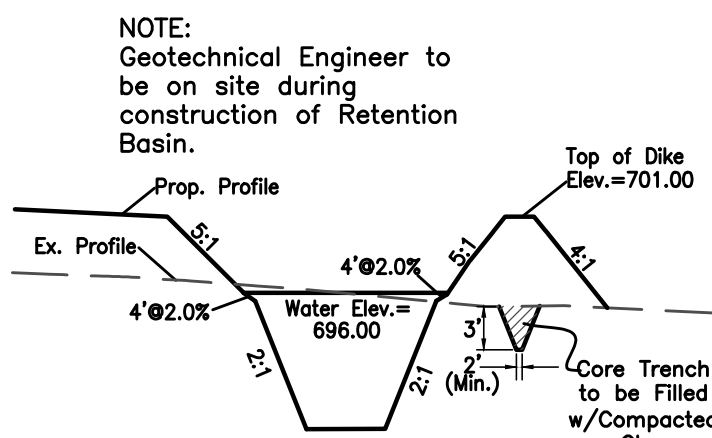


NOTE:
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EROSION CONTROL NOTES

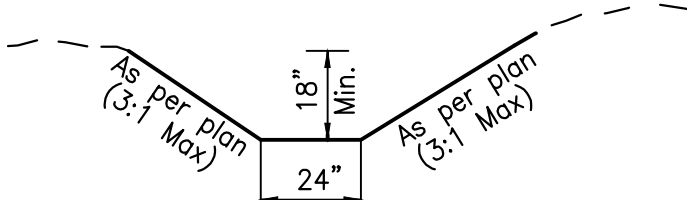
- SEEDING AND MULCHING
 - SODDING
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 - STRAW BALE
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 - GRAVEL CURB INLET SEDIMENT FILTER
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 - TEMPORARY SEDIMENT TRAPS & DAMS
 - DIKES & SLOPE PROTECTION
 - 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 #17)

RETENTION POND #3 SPILLWAY DETAIL (Not to Scale)

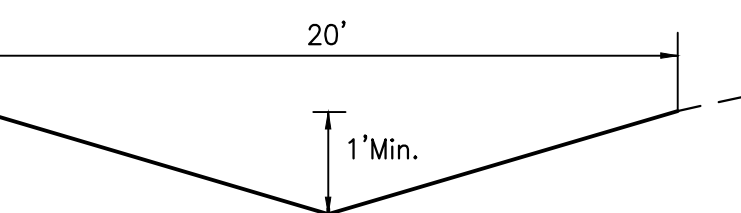


RETENTION POND DAM TYPICAL SECTION (Not to Scale)

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



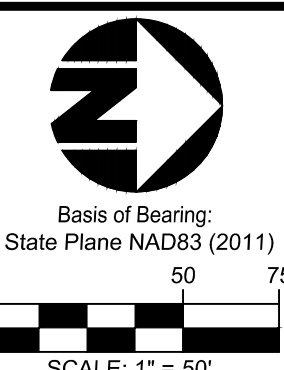
TYPICAL DITCH SECTION



TYPICAL DRAINAGE ROUTE SECTION

NOTES:

- 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.
- 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.
- 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.
- 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 at final grade shall be stabilized with seeding and mulching or other approved means within seven (7) days.
- Quantities for Erosion Control may vary between detailed plans and field conditions during construction. Plan quantities are a minimum; more erosion control may be necessary due to environmental conditions.
- Sedimentation control and ditch swales are subject to change upon completion of entire set of construction drawings.
- No solid or liquid waste shall be discharged into storm water runoff.
- Home builders are responsible for erosion control on each individual lot.
- Contractors to accept all quantities as correct prior to beginning construction.

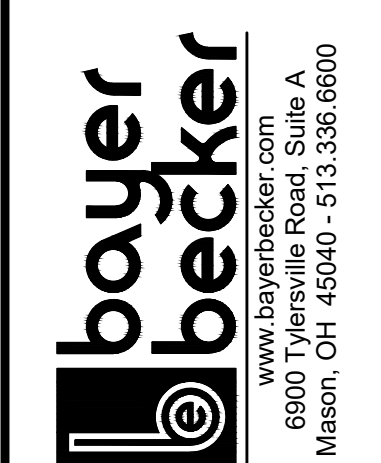


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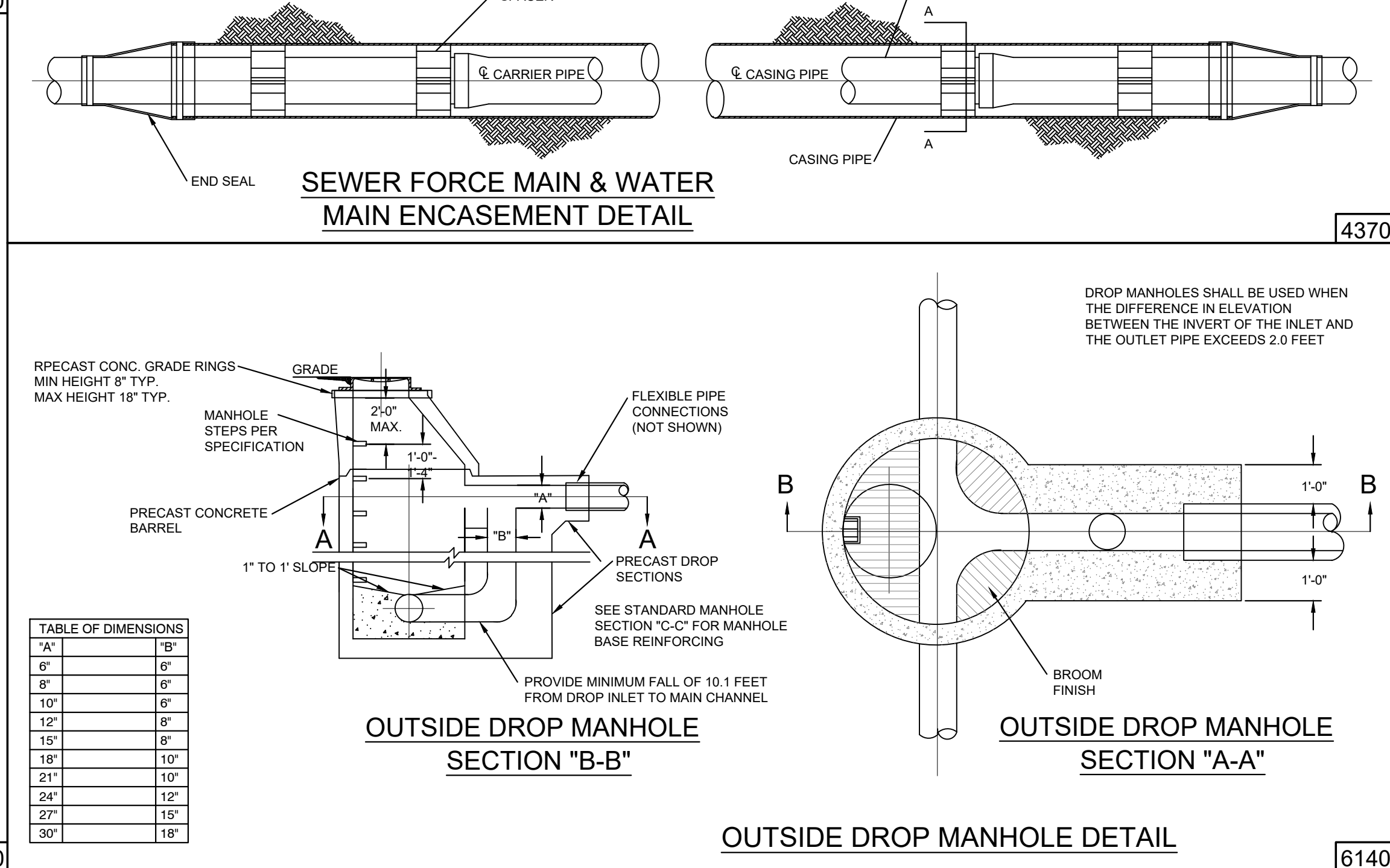
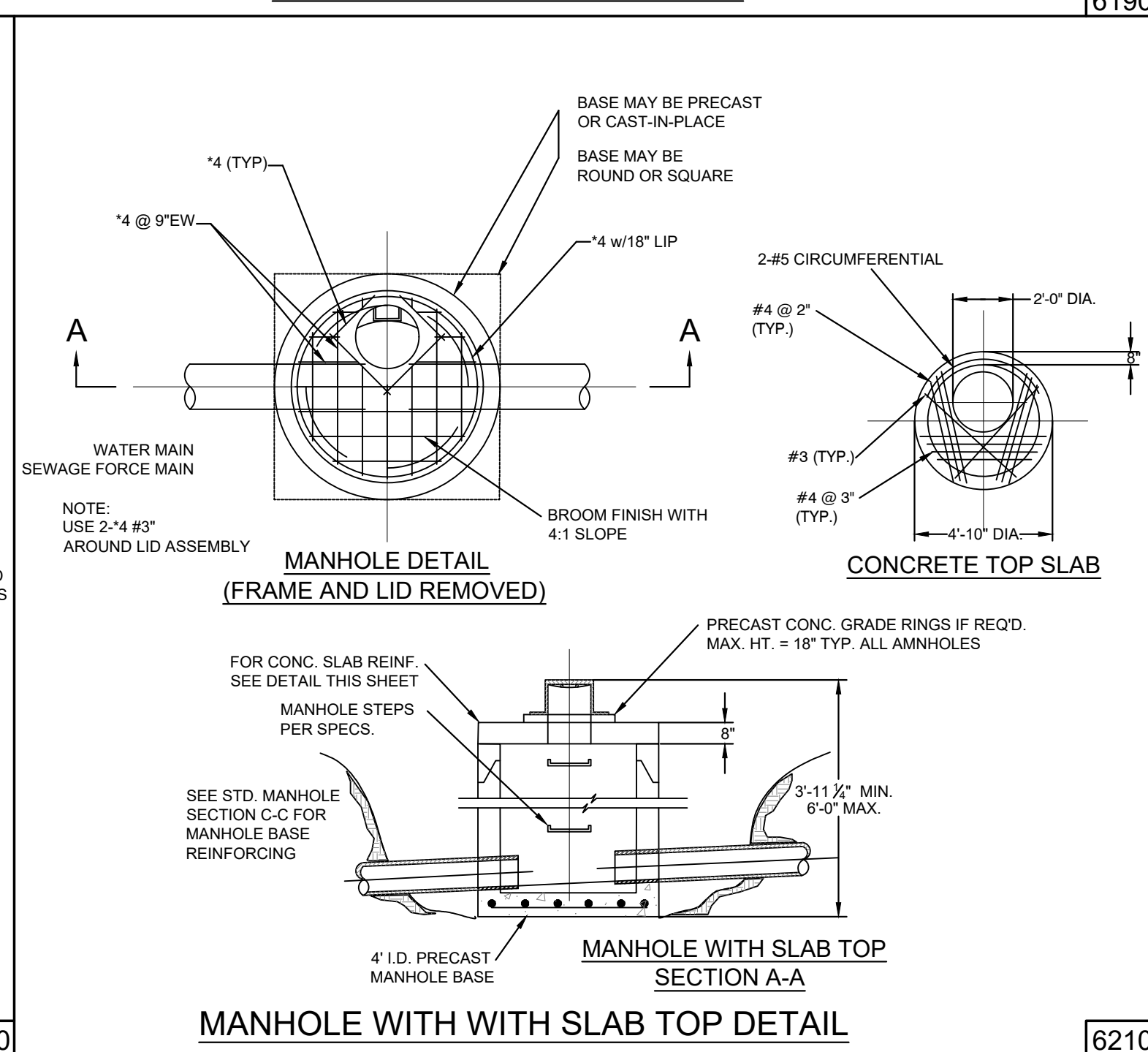
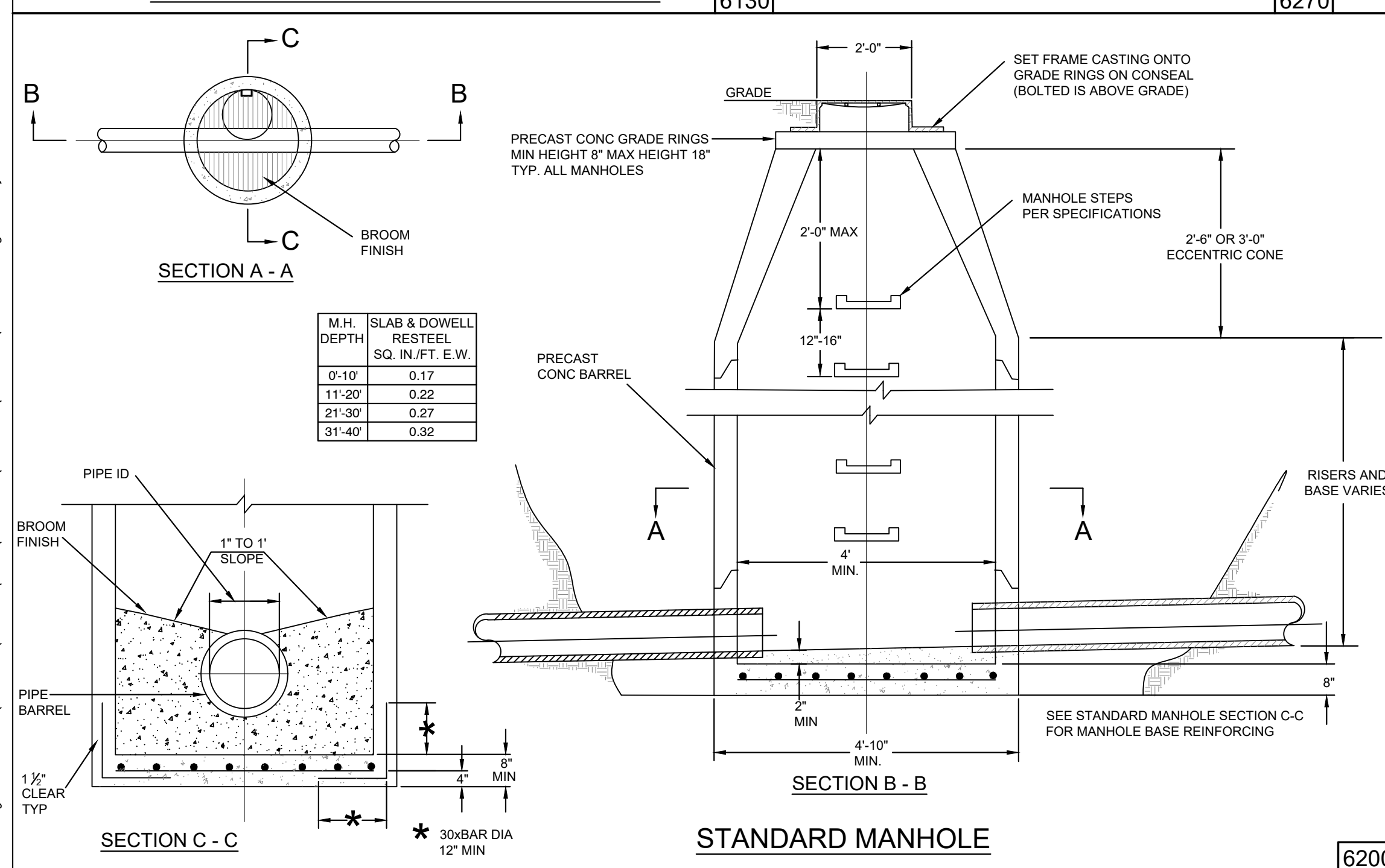
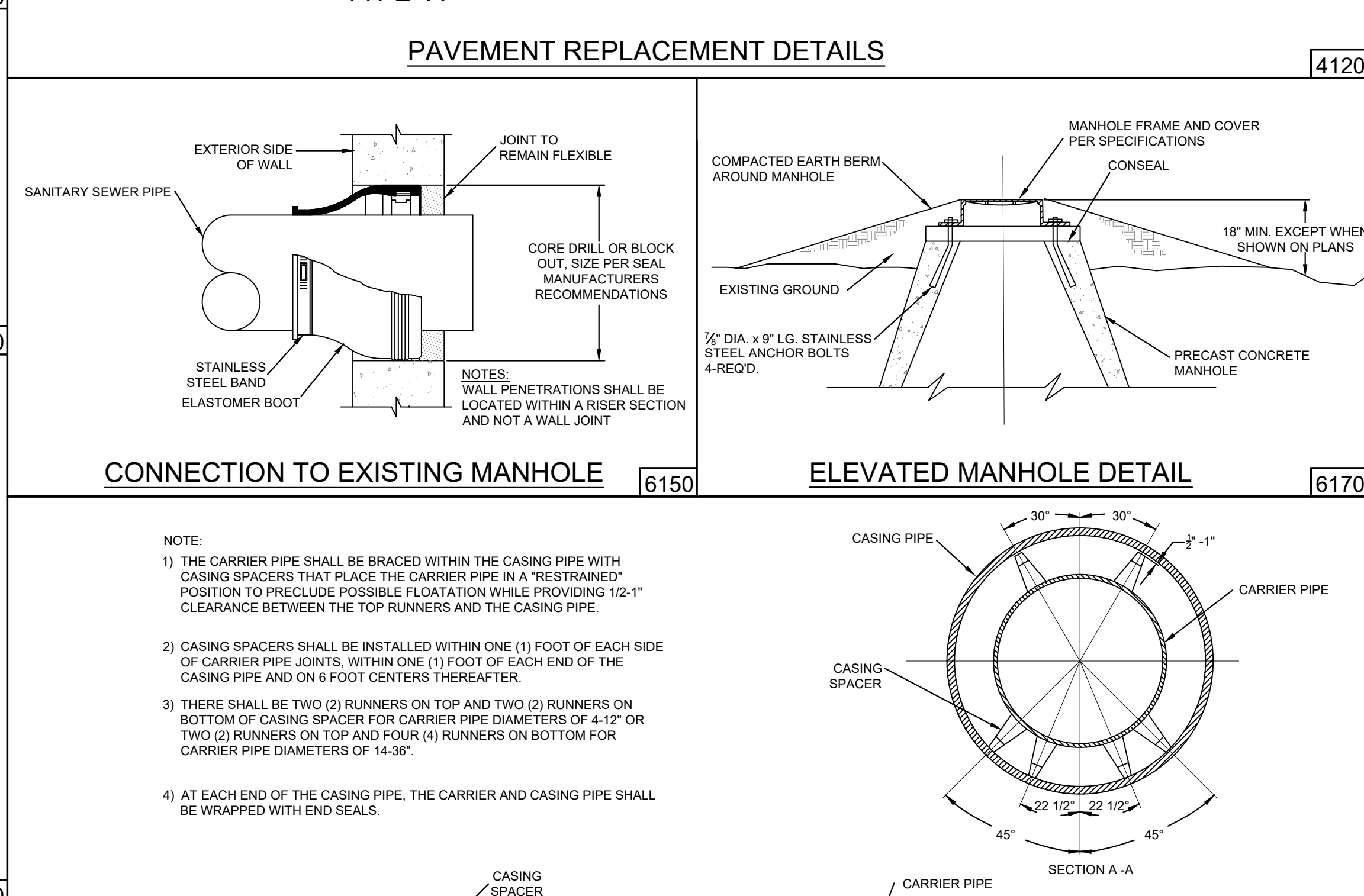
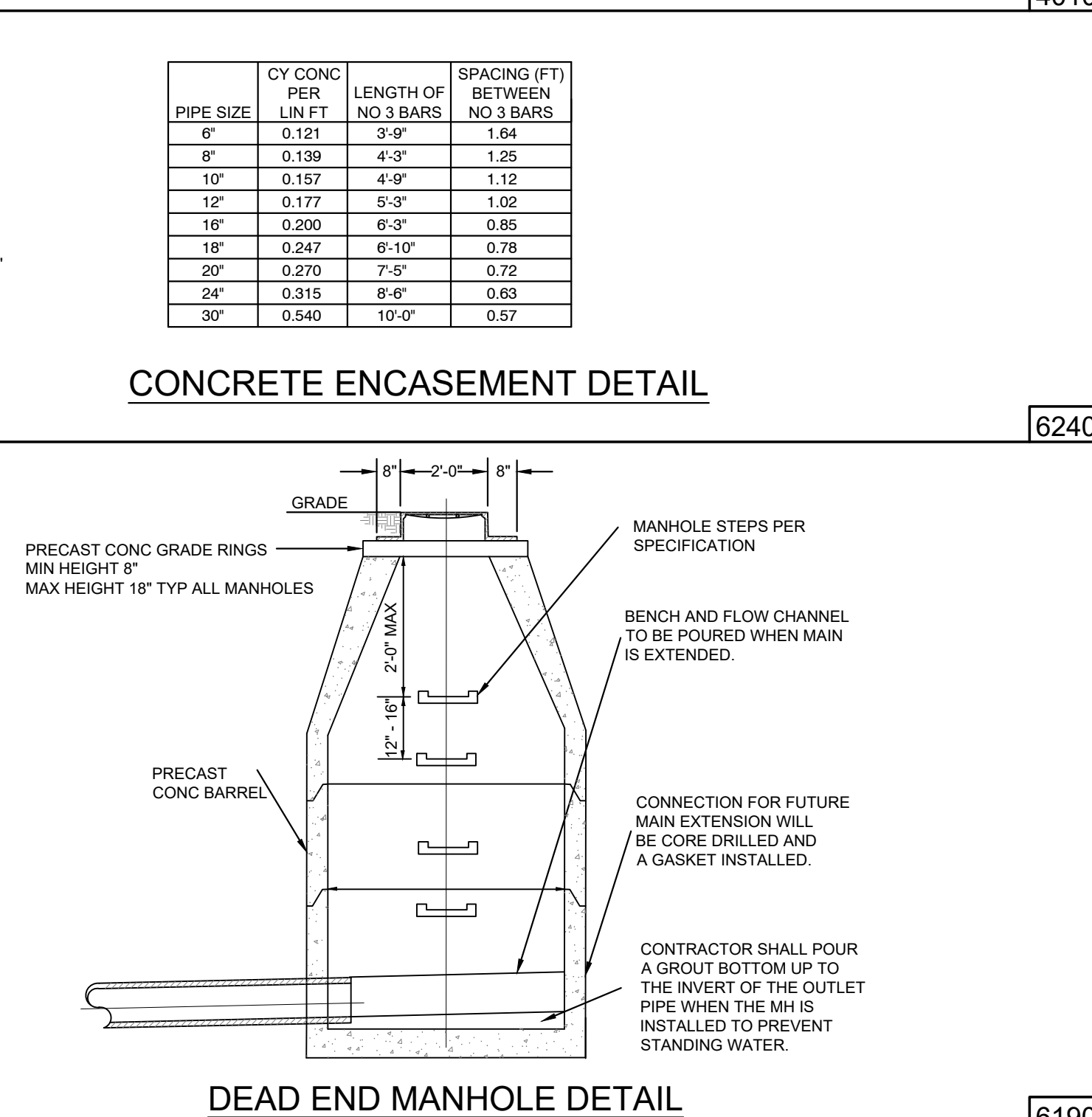
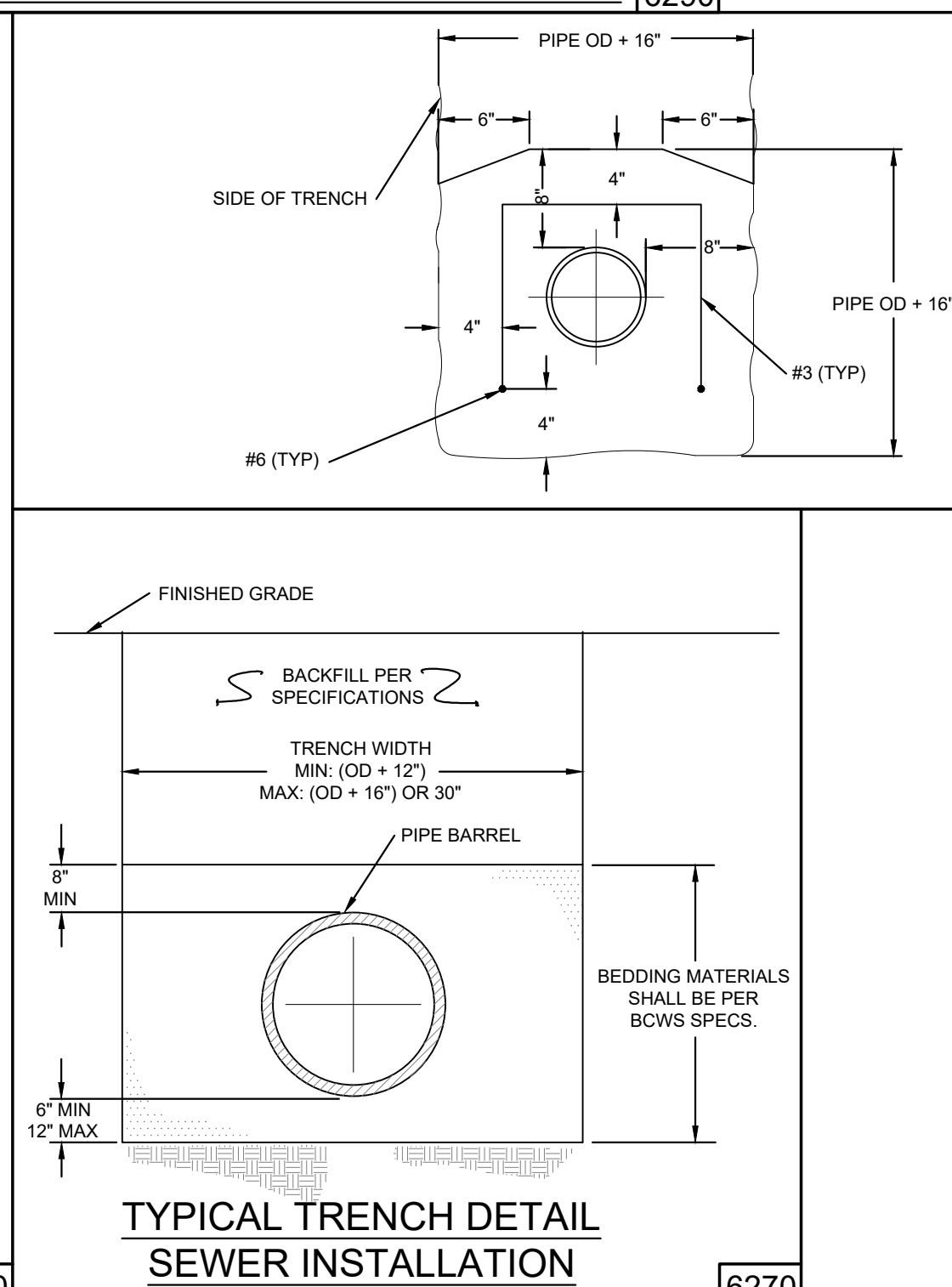
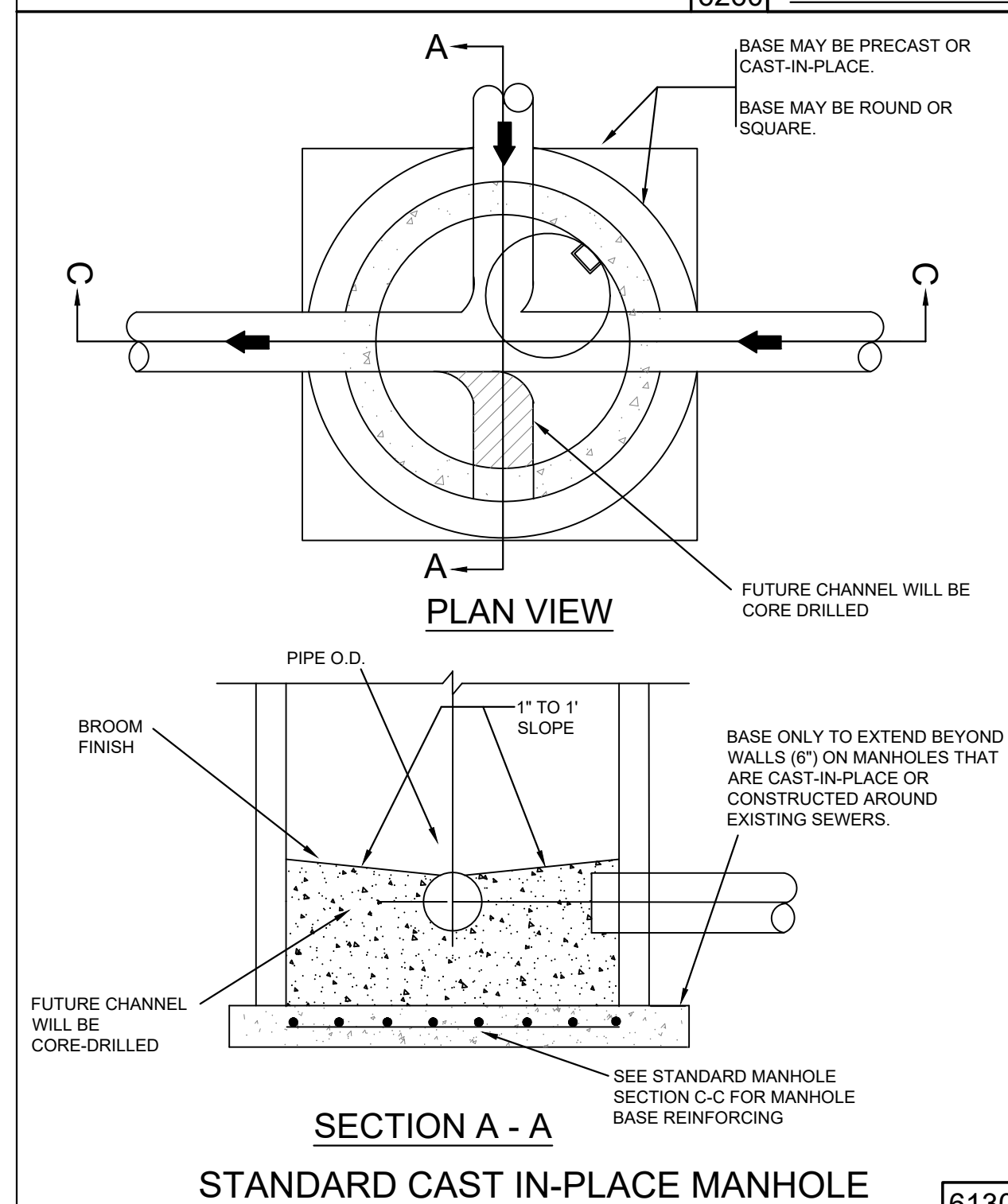
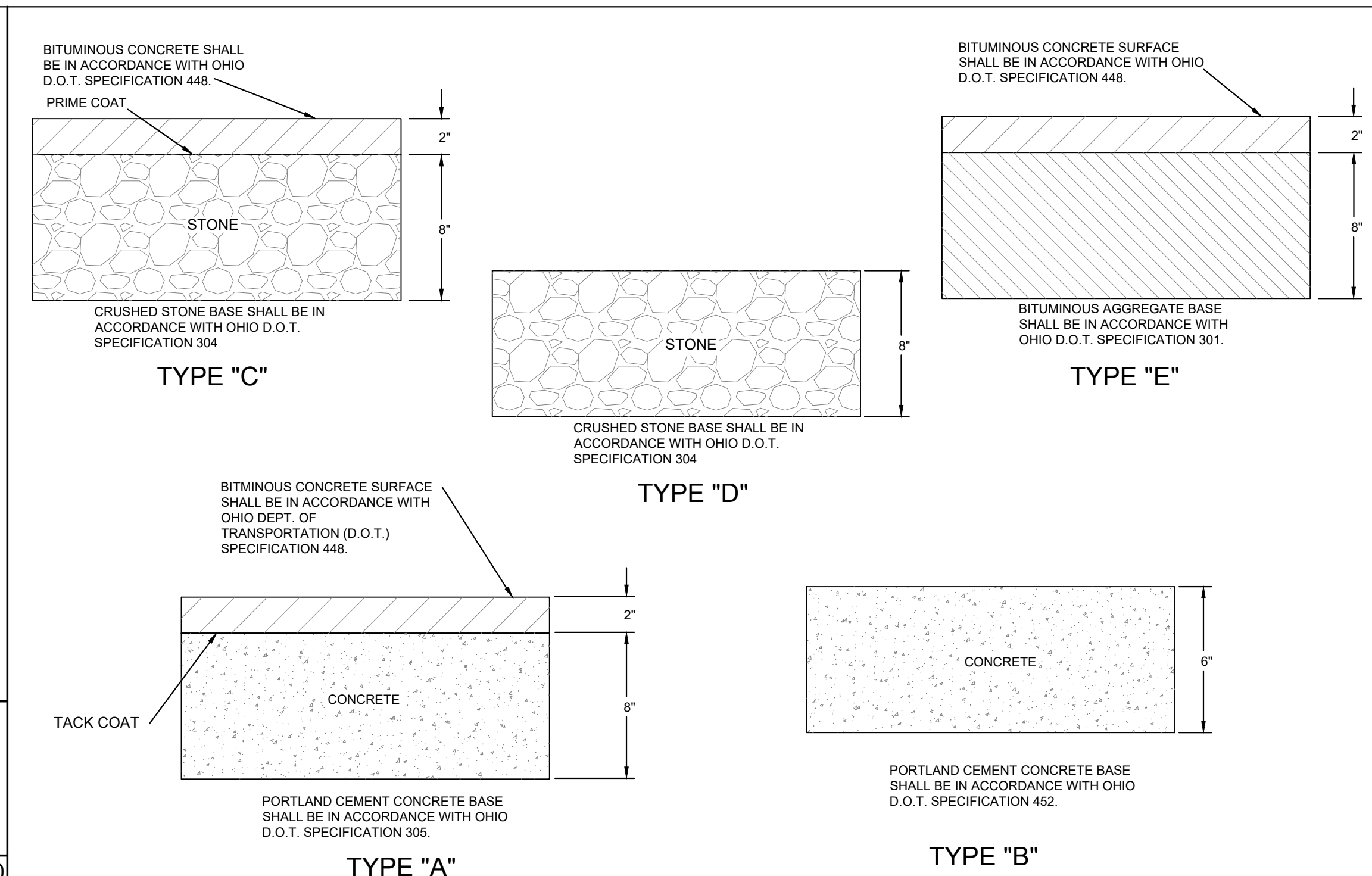
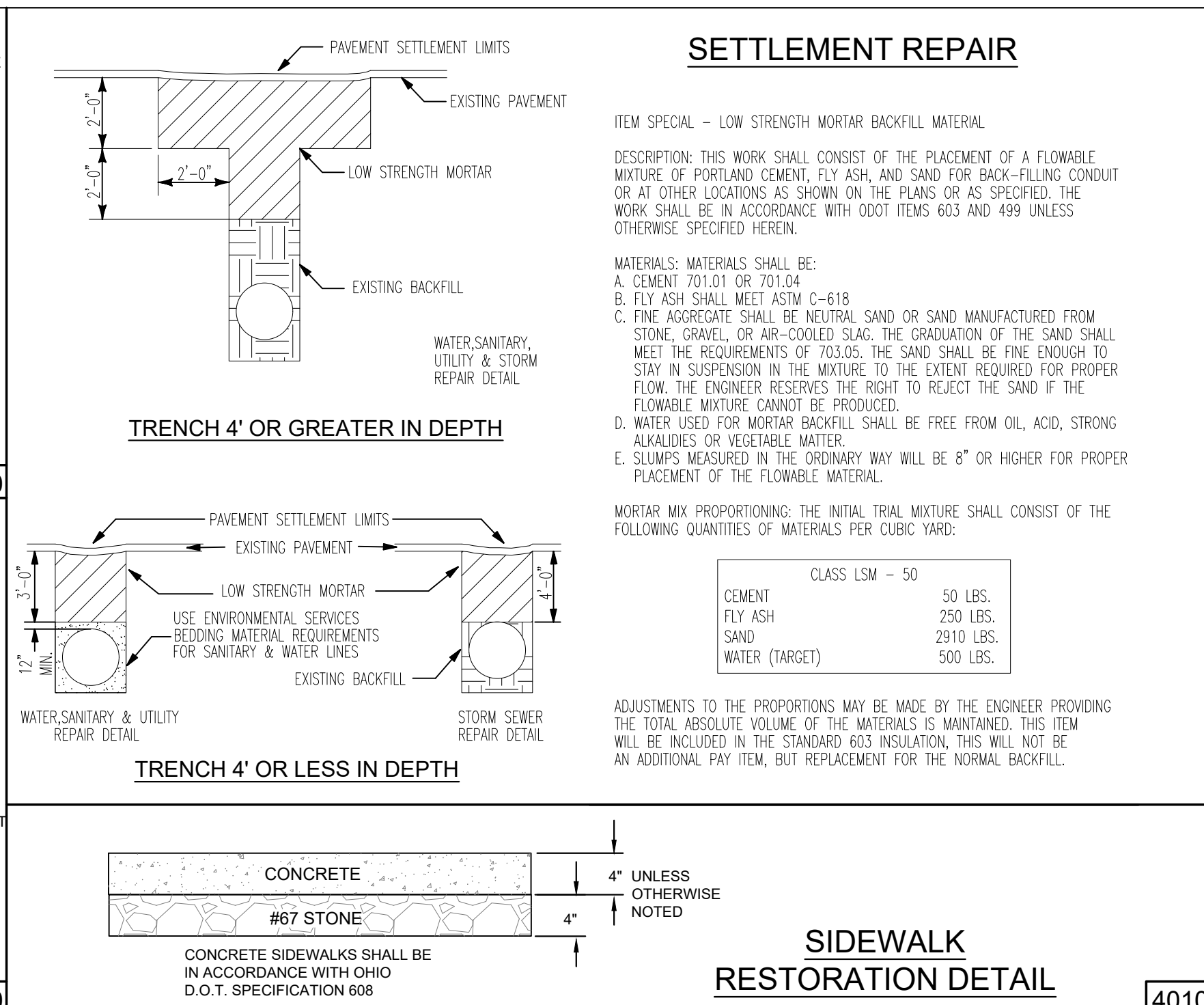
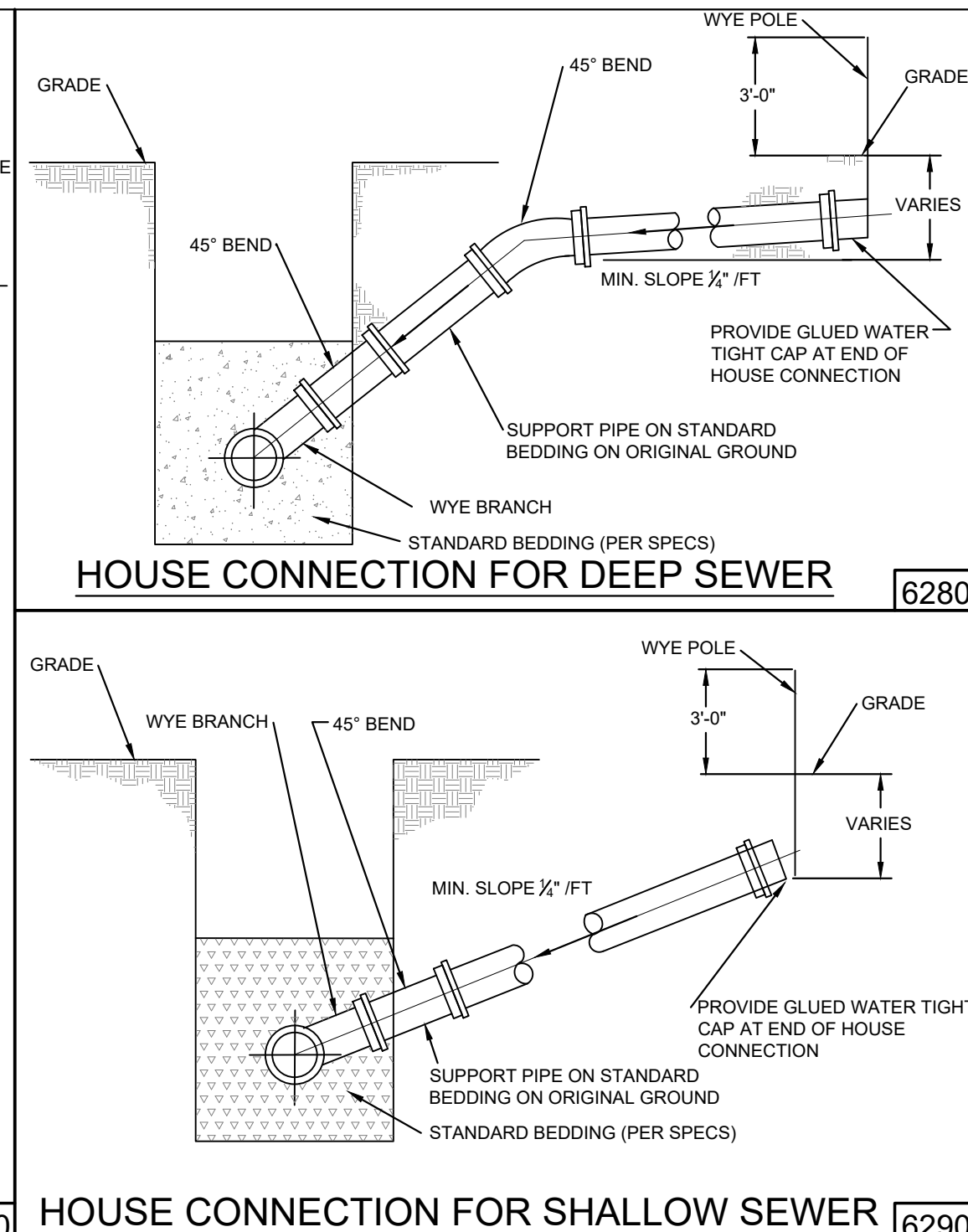
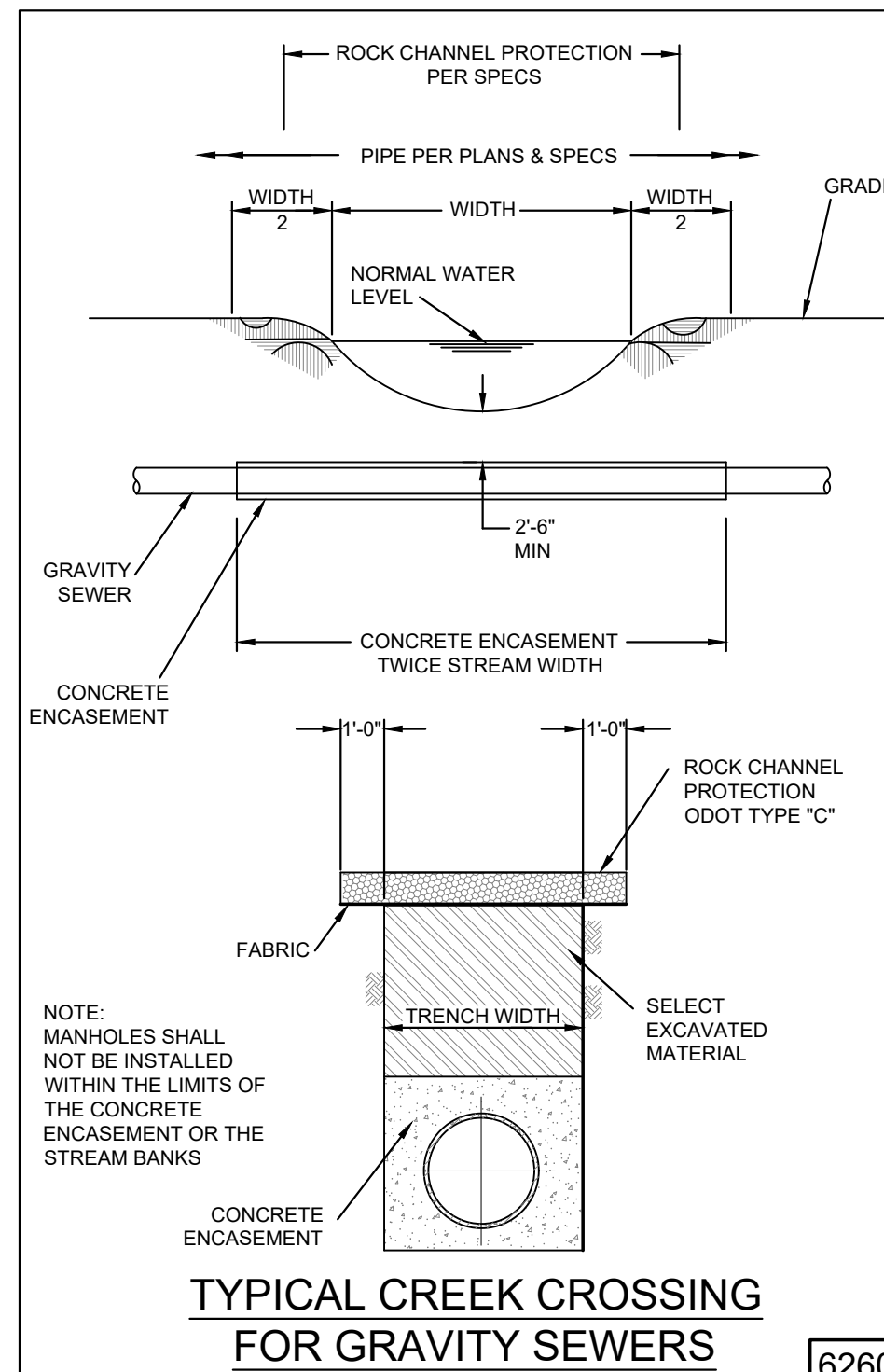
**TIMBERHILL
SECTION ONE**

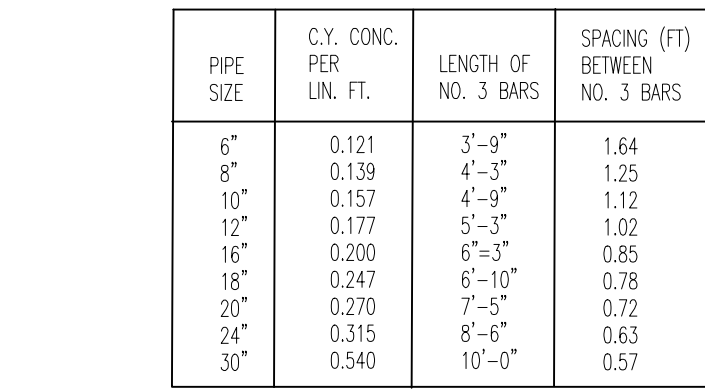
SECTION 15, TOWN 2, RANGE 3
FAIRFIELD TOWNSHIP, BUTLER COUNTY, OHIO

GRADING PLAN

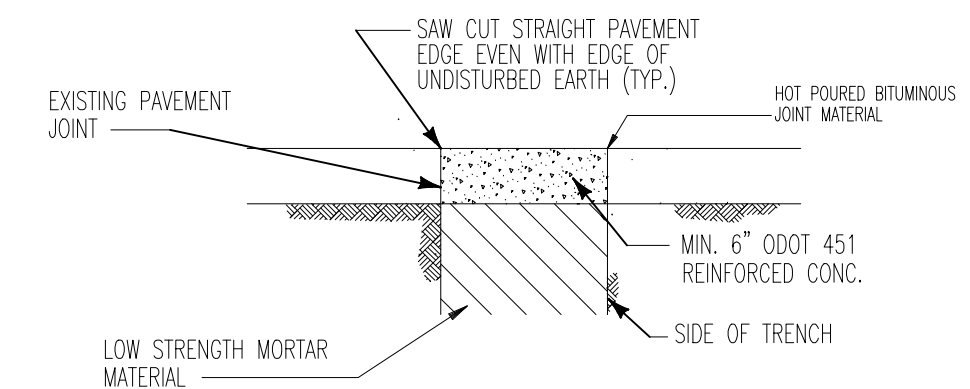


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Drawn by: TAC
Checked By: XXX
Issue Date: 3-7-22





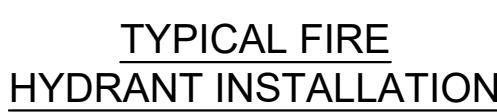
CONCRETE ENCASEMENT



ASPHALTIC CONCRETE ROADWAY

CONCRETE ROADWAY

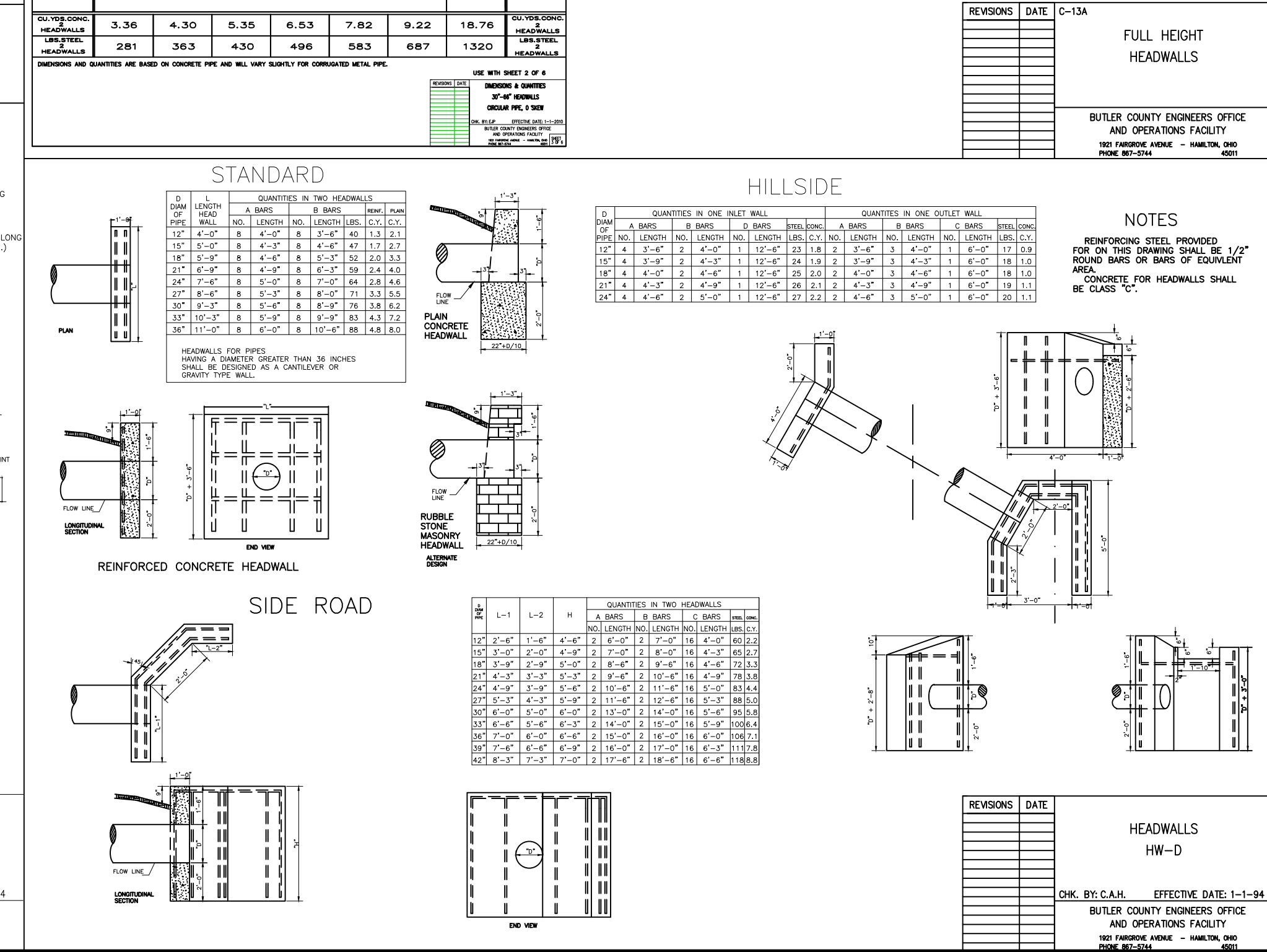
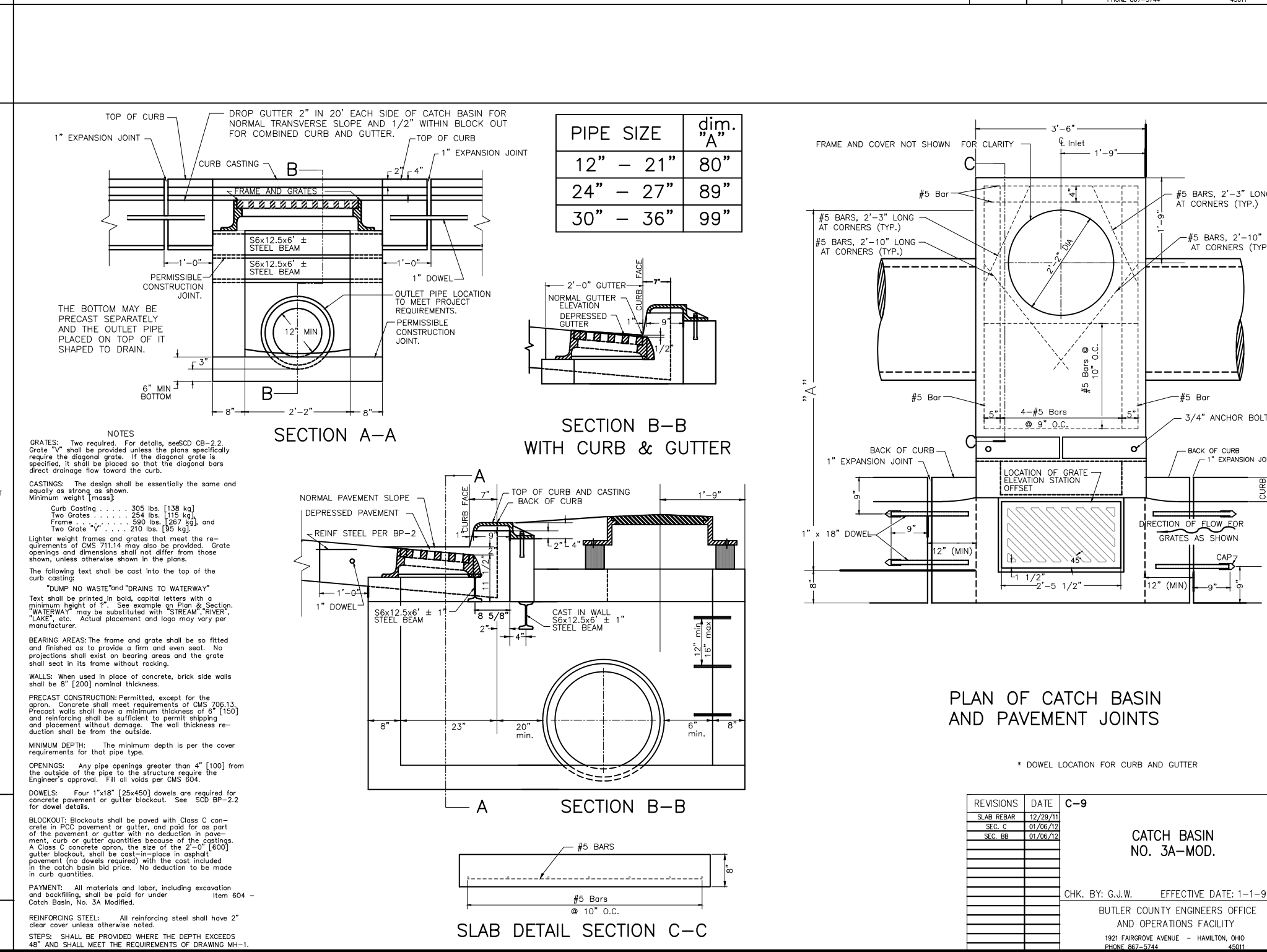
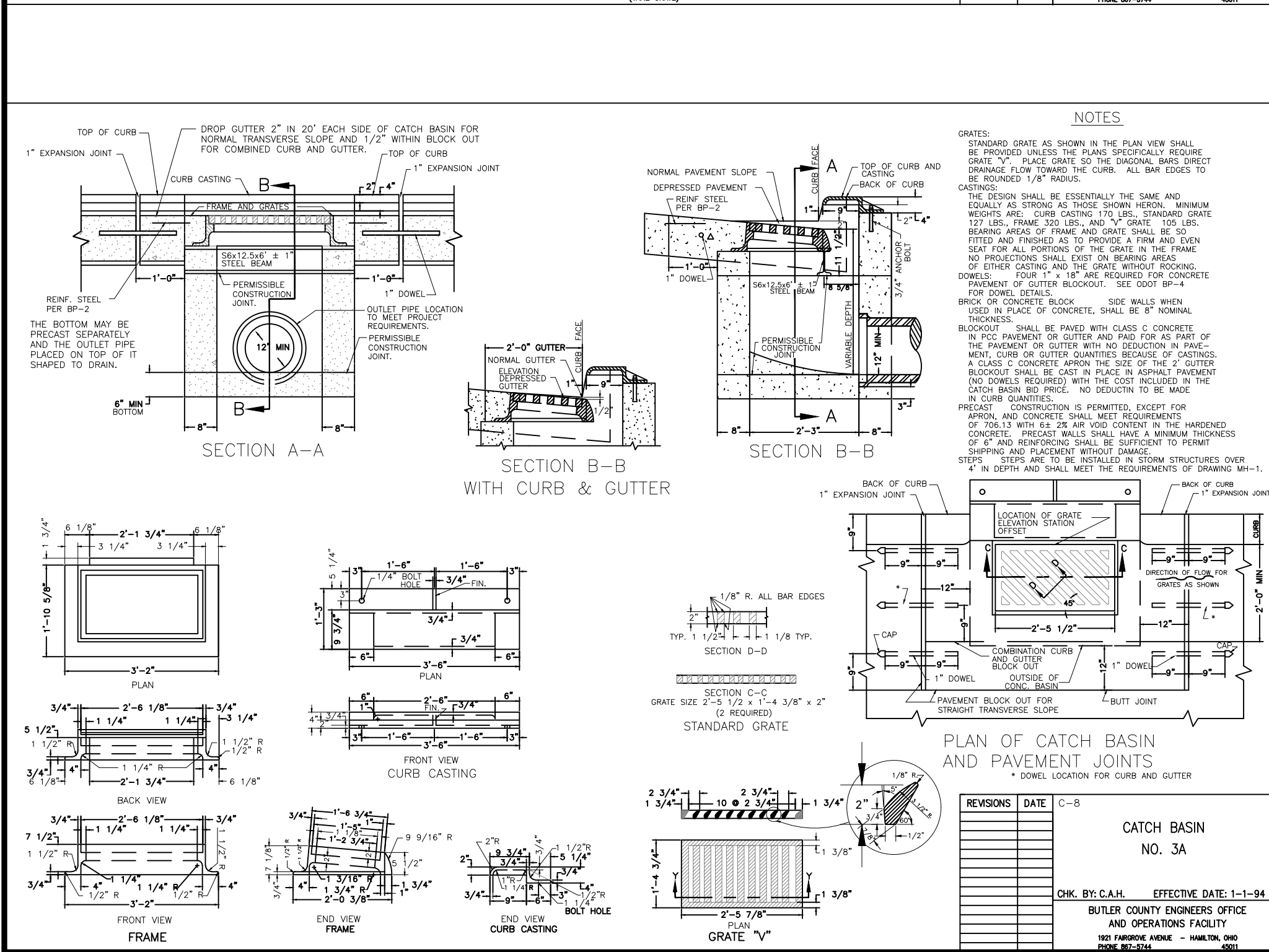
PAVEMENT REPLACEMENT DETAILS



TYPICAL FIRE HYDRANT INSTALLATION

TYPICAL FIRE HYDRANT INSTALLATION

[illegible]



GENERAL NOTES

EROSION AND SEDIMENT CONTROLS

Vegetative practices

Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing 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.

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 vehicle tracking 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 and 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, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.

Where feasible, except when a cultipacker type seeder is used, the seedbed should be firmed following seeding operations with a cultipacker, 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.

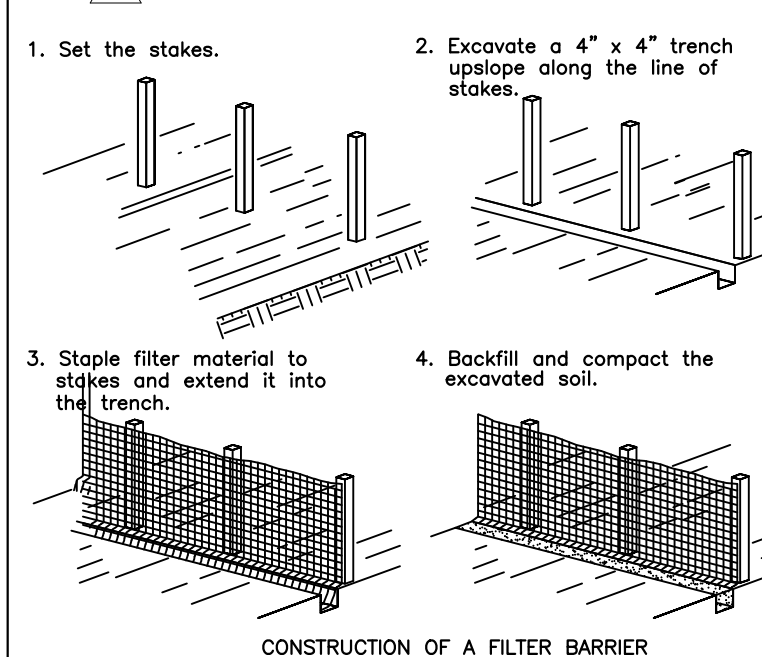
SODDING

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.

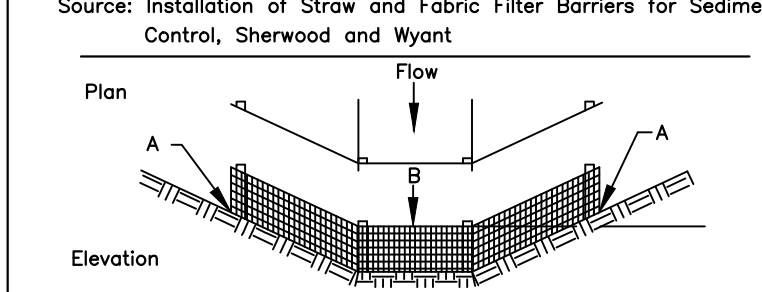
MULCH BERM

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 sizes (99% passing 1 inch sieve etc.)
- moisture content
- no less than 70% organics
4. Planning considerations: most effective when combined with vegetated buffer.

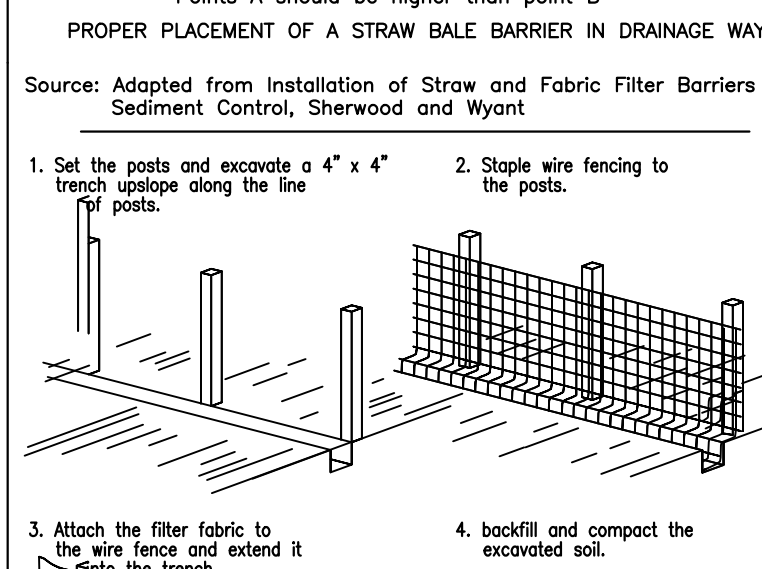
5. SILT FENCE OR MULCH BERM DETAILS



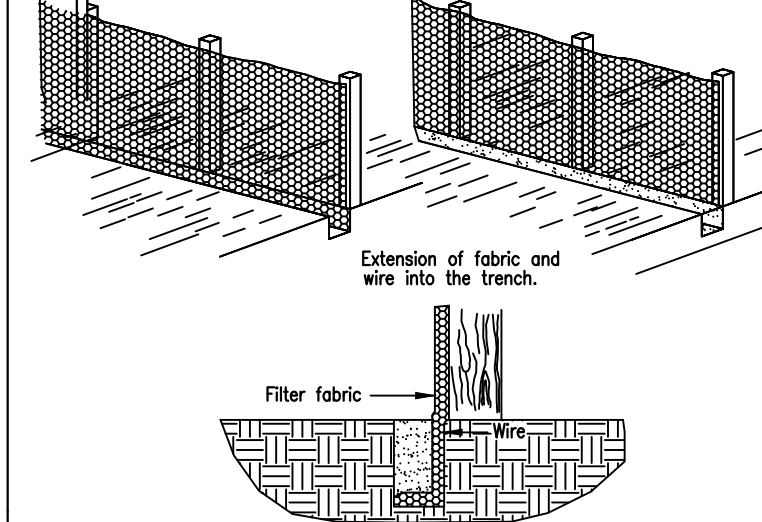
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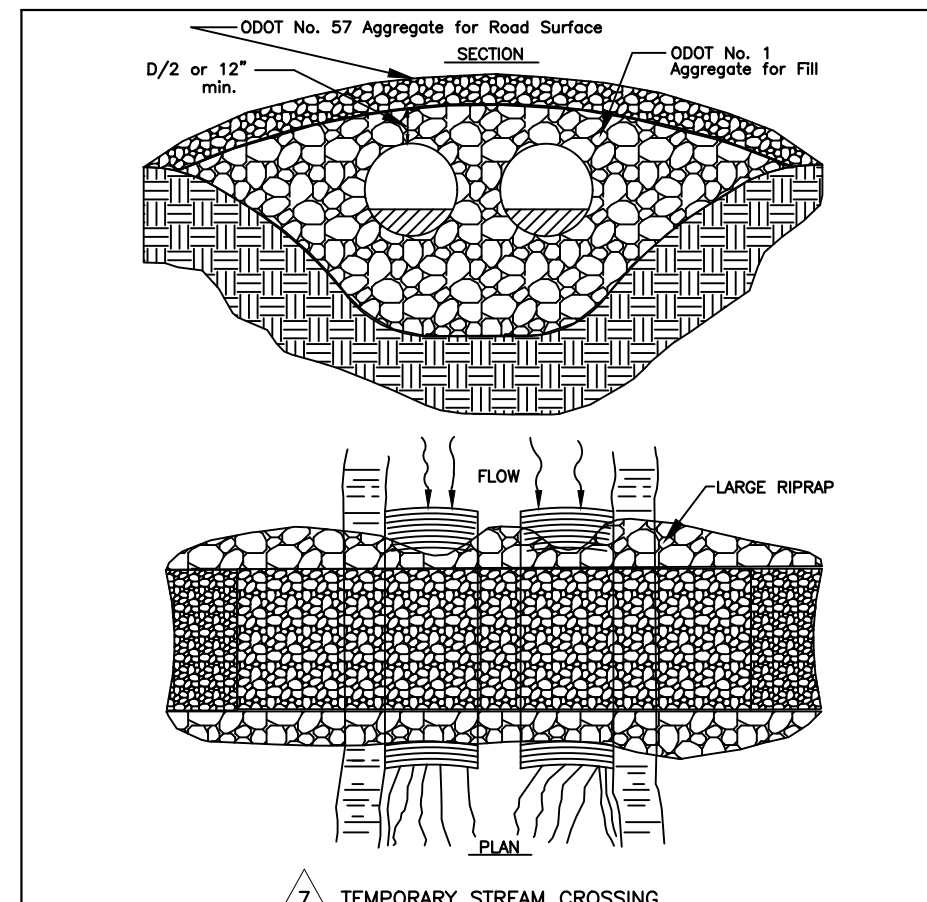
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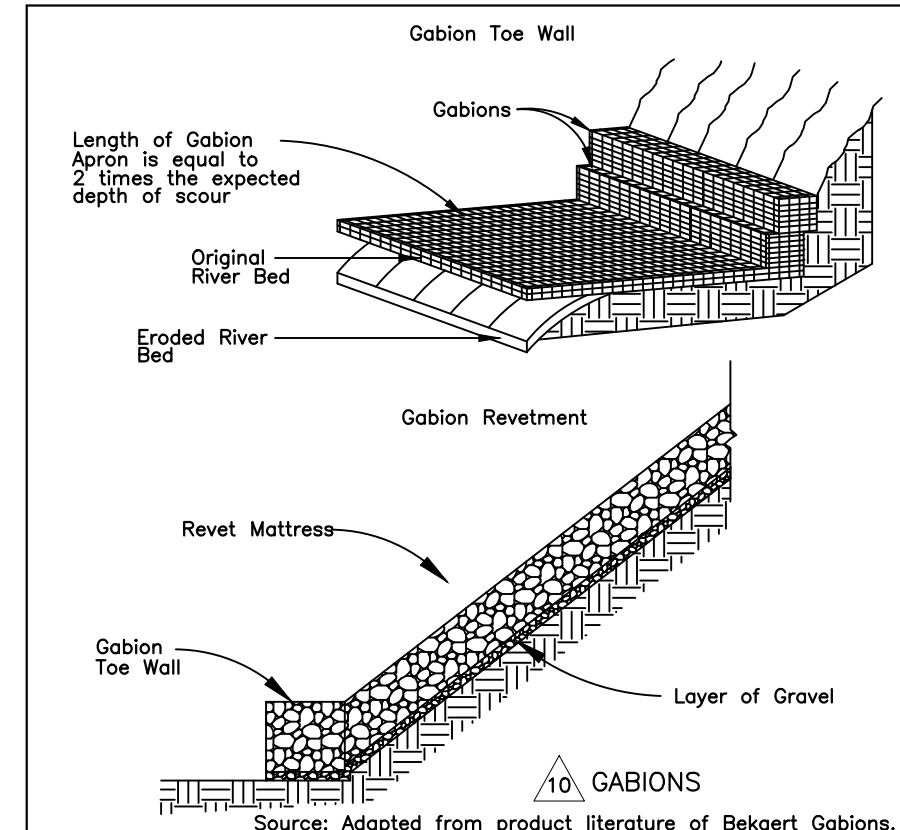
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