SHANNON RIDGE

SECTION 33, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, BUTLER COUNTY, OHIO
MARCH, 2018

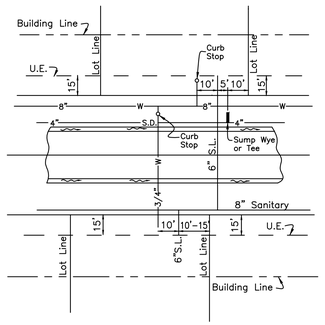
EJP 03-12-2018

INDEX TO SHEETS

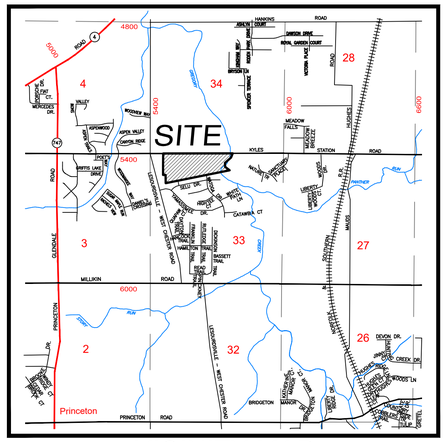
Know what's below. Call before you dig.

LEGEND

EXISTING CONTOURS
PROPOSED CONTOURS
CENTERLINE
PROPERTY LINE
EXISTING SANITARY SEWER & MANHOLE
PROPOSED SANITARY SEWER & MANHOLE
EXISTING WATER MAIN (Ex. 8" W)
FIRE HYDRANT
WATER VALVE
PROPOSED WATER MAIN (8" W)
EXISTING GAS MAIN (Ex. 4" G)
SUMP DRAIN LINE (4" S.D.)
EXISTING STORM PIPE & CATCH BASIN
STORM CATCH BASIN
STORM MANHOLE
PROPOSED STORM PIPE
EXISTING TELEPHONE
EXISTING CABLE
DIRECTION OF DRAINAGE
PROPOSED SWALE
LOT SWALE



STANDARD SERVICE DETAIL



VICINITY MAP
NOT TO SCALE

OWNER/DEVELOPER

Kyles Land Development LLC
4166 Tonya Trail
Hamilton, OH 45011
(513)- 813- 5595

BENCHMARK

Found Magnail at the Northeast Corner of the Property
Elevation = 650.09

JOB LOG

DATE	COMMENT
1-24-18	Submitted to Butler County Planning
2-6-18	Resubmitted to BCWS
3-9-18	Resubmitted to BCEO

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

C-1	
Std.MH-1A	
Std.HW-D	HW-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.)
CB-2-2-B(O.D.O.T.)	CB-2-5(O.D.O.T.)
Std.R-1	

CONSTRUCTION APPROVAL

	Date
Butler Co. Water & Sewer Dept.	2-12-18
Butler Co. Engineer's Office	

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

GENERAL NOTES

1. 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.

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 10' utility easement shall be compacted and backfilled in accordance with item 203 and 603 in the state specifications.

4. 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.

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, Armco 2000, or equivalent.

9. 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.

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 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.

11. 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.

12. 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.

13. 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 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

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.

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 regrading 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 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.

16. 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.

17. A typical five (5) foot drainage easement is to be provided on both sides of every lot line.

18. 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 #12.

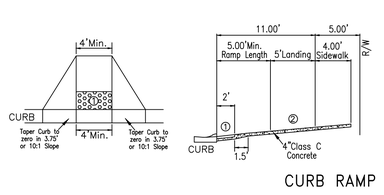
19. Provide the Butler County Engineer's Office with a forty-eight (48) hour notice prior to the start of any construction, including sanitary installation. Phone 785-4145.

20. Contractors to accept all Quantities as correct prior to beginning construction.

21. Contractor shall include the cost of County inspection and extension fees in unit price bid.

22. Existing Zoning: R-PUD
Frontage: 90'
Setbacks: Front = 30', unless otherwise noted on plan
Side = 8'Min., 20'Total
Rear = 40', unless otherwise noted on plan

23. Total Acreage: 57.9175 Acres
24. Total # Single Family Lots: 84

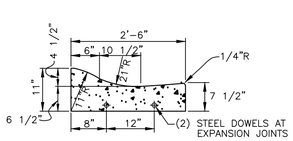


CURB RAMP DETAIL

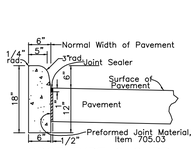
① Detectable Warning (Truncated Domes) are to be installed in the location shown. Dimensions of the domes are 24" from the back of the curb by the width of the ramp.

② Minimum Landing is to be 4' but 5' is preferred. The slope of the ramp is preferred to be 12:1 or flatter related to the horizontal, but the minimum slope shall be 12:1 relative to the existing or proposed walk slope.

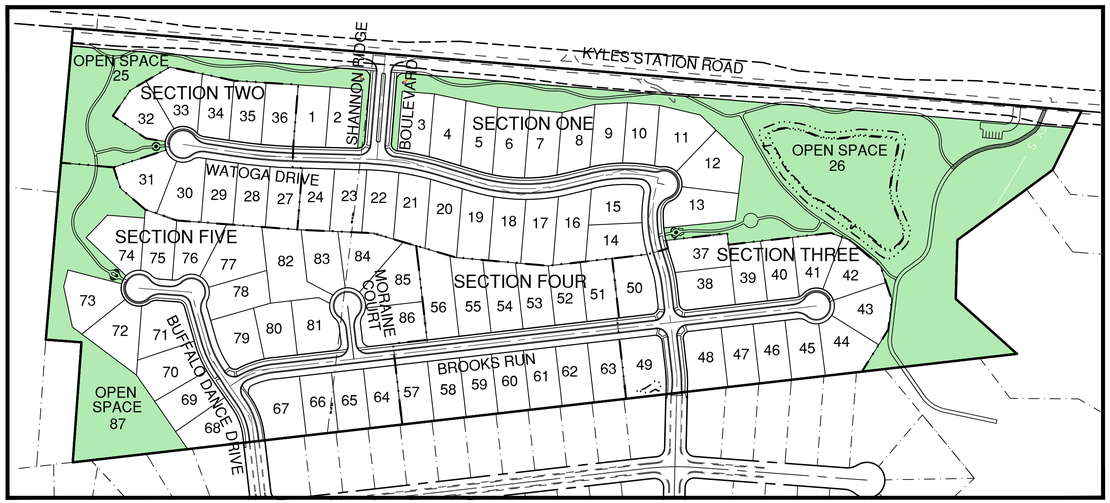
③ Curb ramps shall be design A or design B per ODOT Drawing 7-12-02, sheets 1 thru 3. Truncated domes are to meet the specifications of ODOT drawing 7-12-02 sheet 3.



STANDARD ROLL TYPE CURB & GUTTER C-1

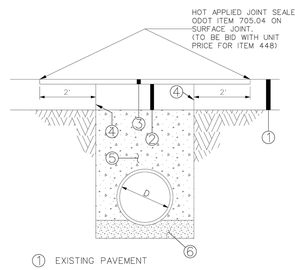


ODOT TYPE 6 CURB



PROPERTY MAP
1"=200'

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)

S:\Design\Standards\UTILITY CUT ROADWAY RESTORATION.dgn 3/1/2016 4:33:03 PM mlless 3/1/2016

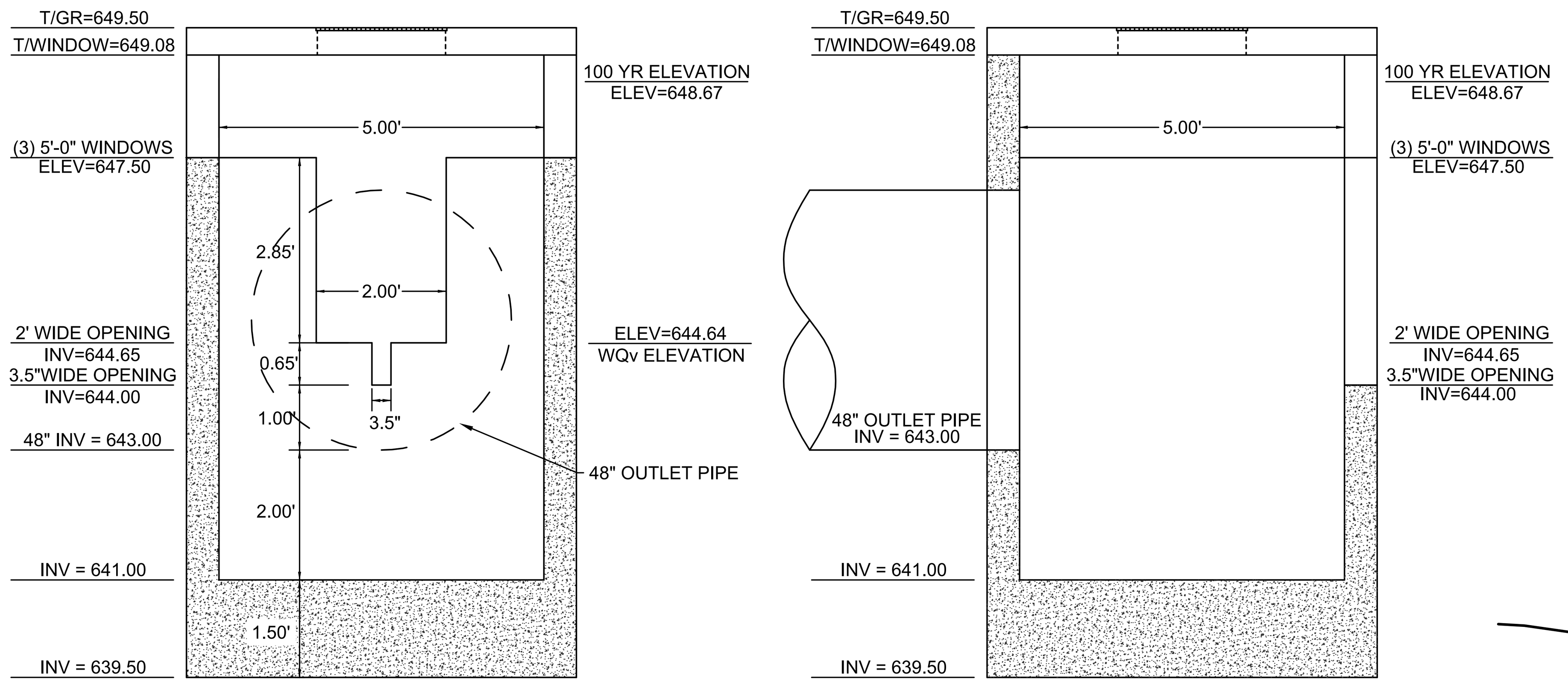
Item	Revision Description	Date	Drwn.	Chk.
1	Revised as per BCWS	2-6-18	TAC	
2	Revised as per BCEO	3-9-18	TAC	
3	Revised as per In House Review	3-15-18	TAC	
4				
5				
6				
7				
8				
9				

SHANNON RIDGE
SECTION 33, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, BUTLER COUNTY, OHIO
TITLE SHEET

bayer becker
www.bayerbecker.com
6070 Hamilton Blvd. Suite A
Mason, OH 45040 - 513.336.6600

Drawing: 17-0120 CD
Drawn by: TAC
Checked By: EMR
Issue Date: 1-24-18
Sheet: 1/15

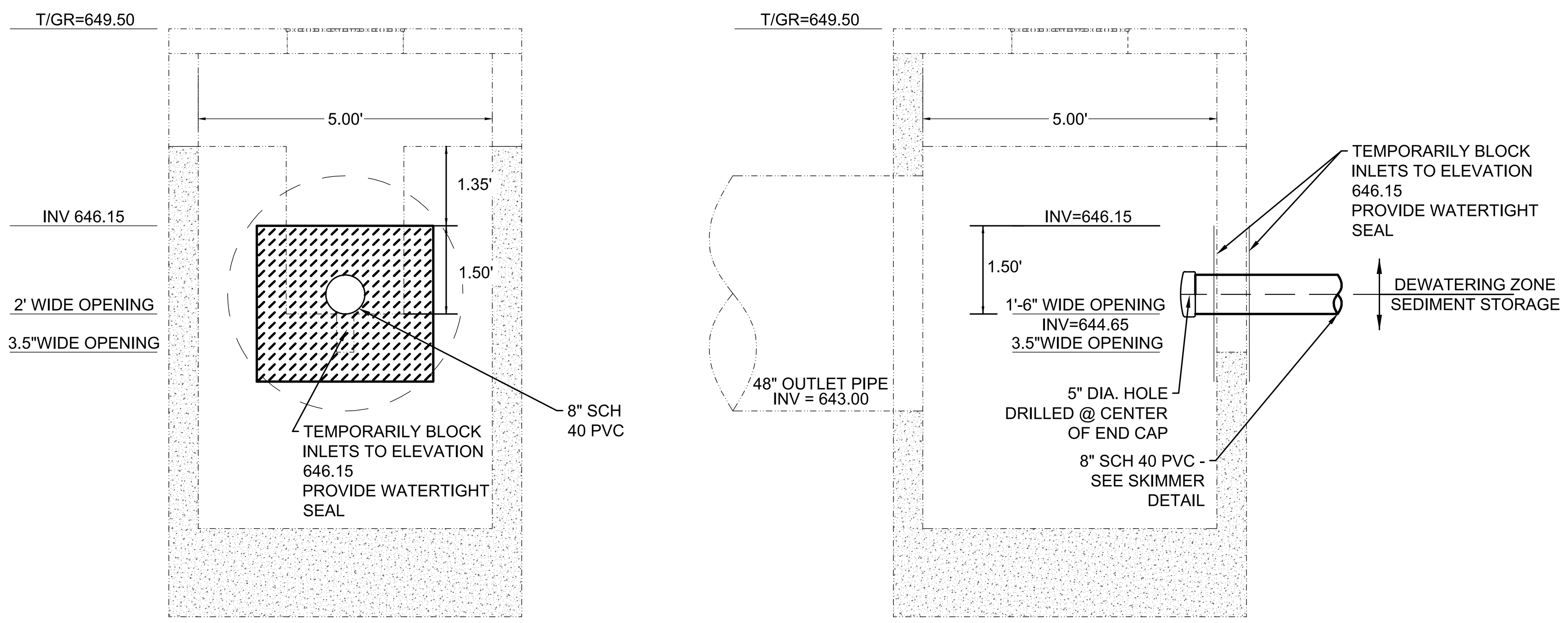
Plot time: Mar 09, 2018 - 3:24pm
Drawing name: J:\2017\17-0120\CV\DWG\17-0120 CD.dwg - Layout Tab: T1



NOTES:
1. CONCRETE BASE UPSIZED TO SERVE AS ANTI-FLOATION BLOCK,
2. CATCH BASIN SECTIONS (INCLUDING LID SECTION) TO BE ANCHORED TO STRUCTURE BASE TO RESIST BUOYANCY FORCES. CONTRACTOR TO PROVIDE SHOP DRAWING FOR ENGINEER REVIEW PRIOR TO INSTALLATION.

DETENTION BASIN OUTLET STRUCTURE - ODOT CB2-5

NOT TO SCALE



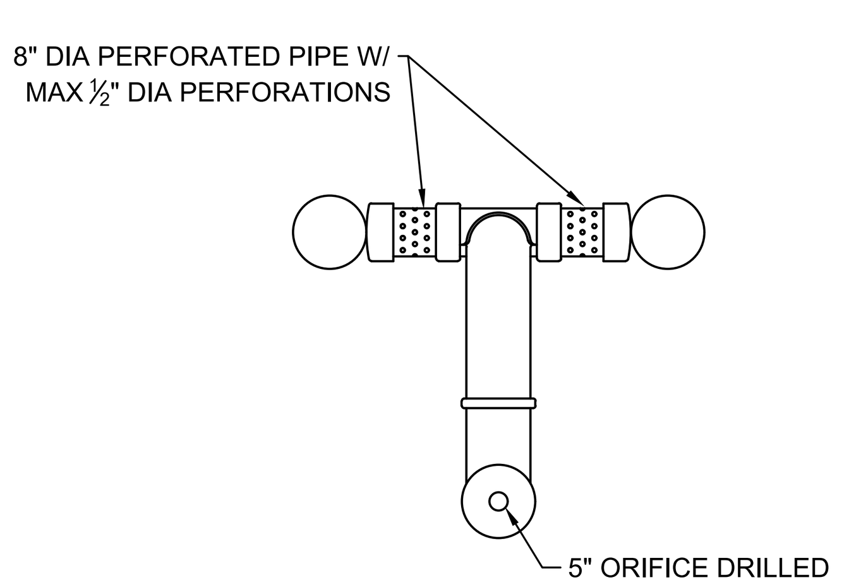
TEMPORARY SEDIMENTATION BASIN RETROFIT

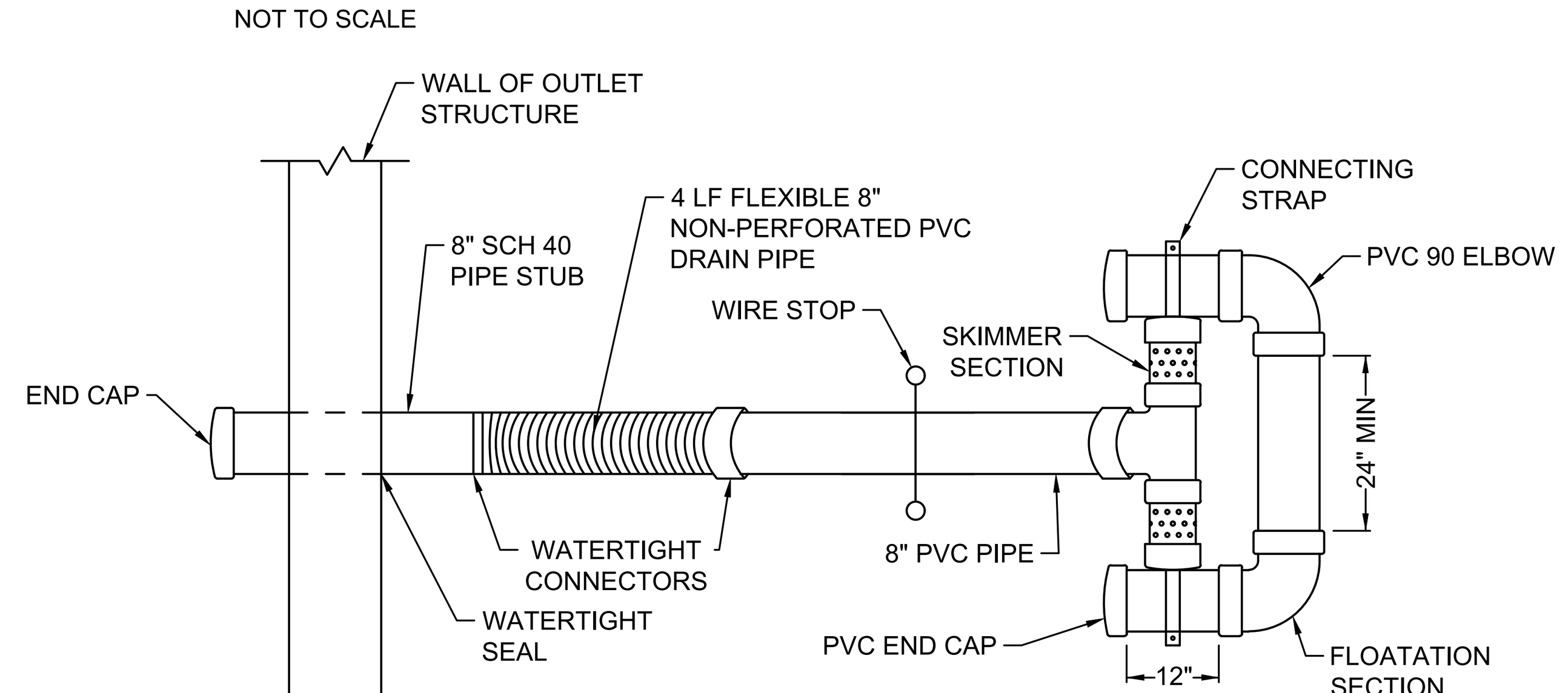
NOT TO SCALE

SKIMMER DEWATERING DEVICE

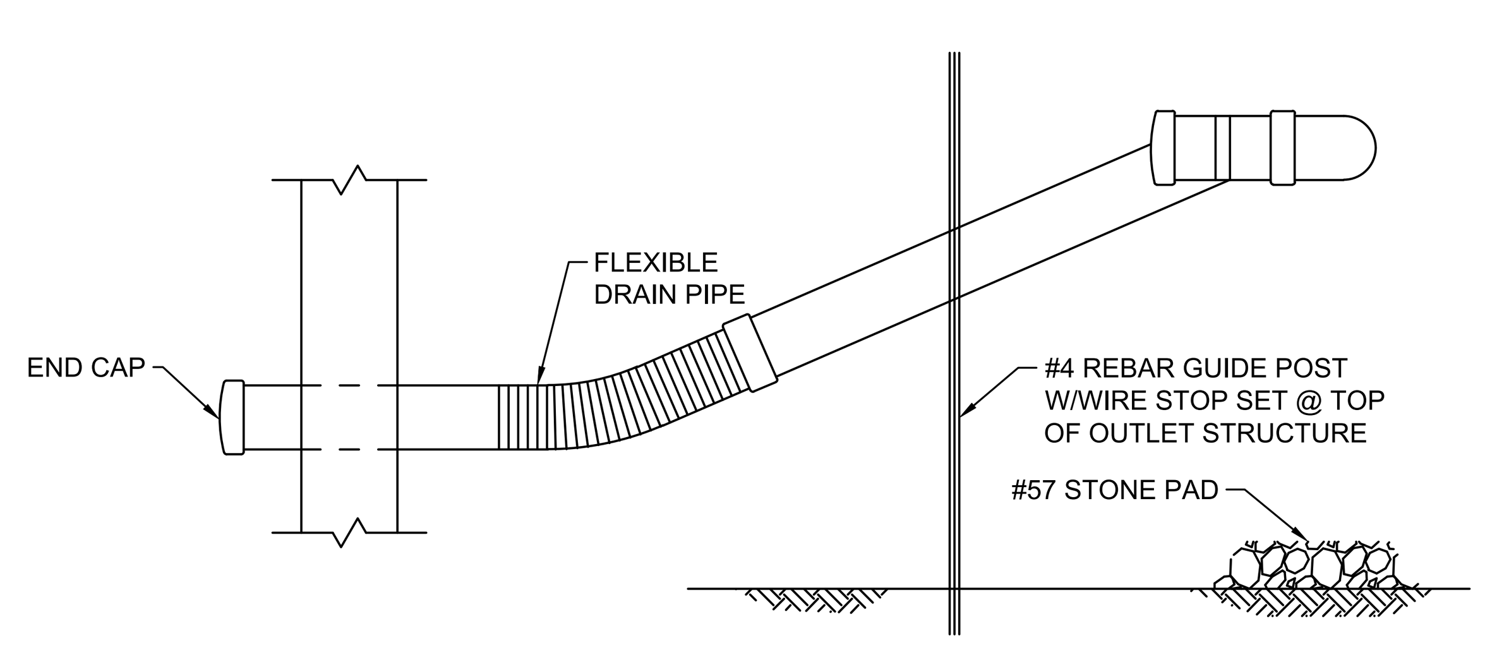
NOT TO SCALE

NOTES:
1. ALL JOINTS OF THE FLOATATION SECTION SHALL BE GLUED TOGETHER AND WATERTIGHT. JOINTS OF THE SKIMMER SECTION NEED NOT BE WATERTIGHT.
2. TO INSTALL DEWATERING PIPE STUB:
   - 2.1. FOR CORRUGATED METAL RISER, STUB SHALL BE SCH 40 STEEL PIPE TACK WELDED TO CREATE A WATERTIGHT SEAL.
   - 2.2. FOR CONCRETE RISER, STUB SHALL BE SCH 40 PVC PIPE GROUTED TO CREATE A WATERTIGHT SEAL.
3. FLEXIBLE, NON-PERFORATED HDPE DRAIN PIPE SHALL BE ATTACHED TO OUTLET STRUCTURE DEWATERING STUB WITH WATER-TIGHT CONNECTIONS.
4. ORIFICE HAS BEEN SIZED FOR A MINIMUM 48-HOUR DEWATERING TIME.

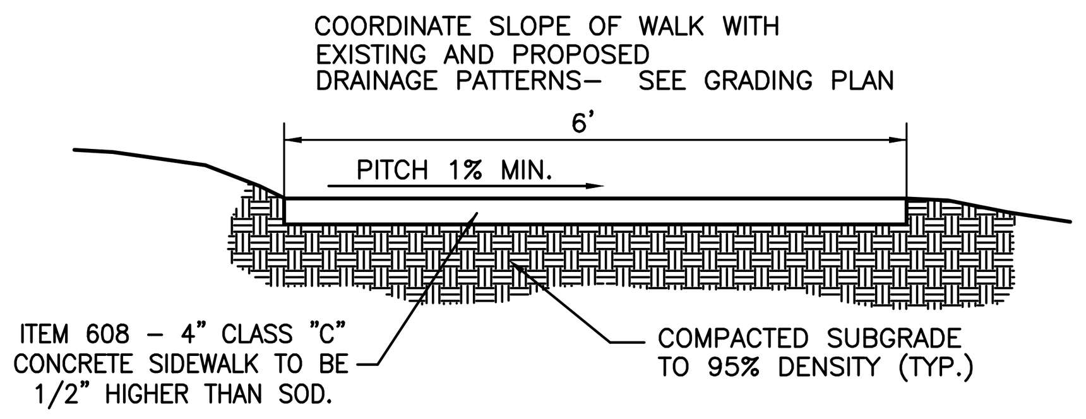




PLAN VIEW

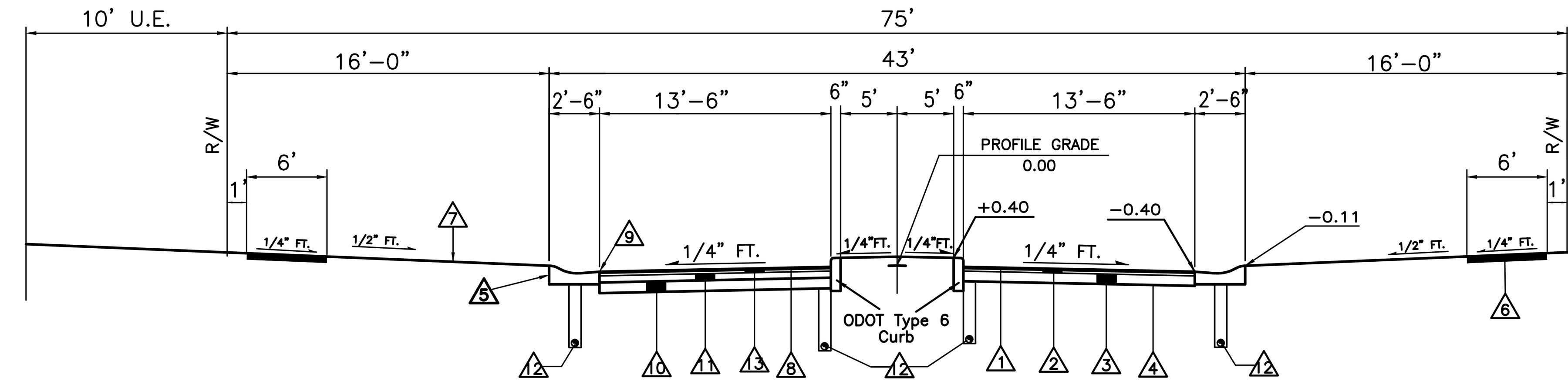


PROFILE VIEW

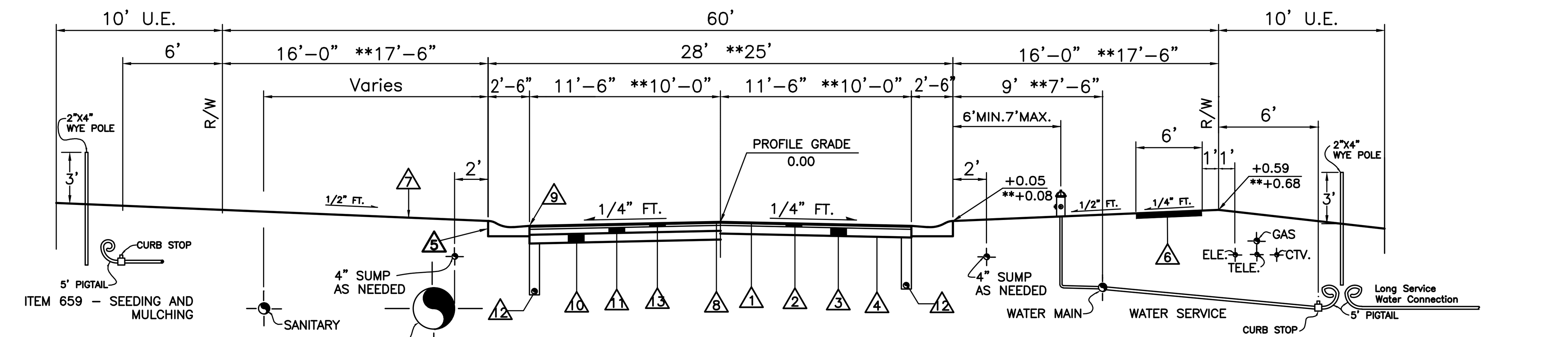


CONCRETE PATH TYPICAL SECTION

(Not to Scale)



SHANNON RIDGE BOULEVARD
TYPICAL SECTION



ITEM	DEPTH TOP OF PIPE
Underdrain	18"
Sumplines	24" – 30"
Gas	24" – 30"
Water	48" – 54"
Electric	36" – 40"
Telephone	36" – 40"
Cable TV	36" – 40"

*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

1. 1" ITEM SURFACE COURSE – 448 ASPHALTIC CONCRETE SEE * NOTE
2. 2 1/2" LEVELING COURSE – ITEM 448 ASPHALTIC CONCRETE
   ** 1 1/2" LEVELING COURSE – ITEM 448 ASPHALTIC CONCRETE
3. 6" BASE COURSE – ITEM 301 BITUMINOUS AGGREGATE BASE
4. COMPACTED SUBGRADE – ITEM 204
5. ROLL TYPE CURB & GUTTER – ITEM 609 (BUTLER COUNTY STANDARD C-1)
6. FOUR INCH THICK CLASS "C" CONCRETE SIDEWALK, SIX FEET WIDE ITEM 608 WALK TO BE 1/2" HIGHER THAN SOD.
7. SEEDING & MULCHING – ITEM 659
8. TACK COAT – ITEM 407 – TO BE APPLIED AT A RATE OF 0.05 GAL. PER SQUARE YARD, SEE * NOTE
9. TACK COAT – ITEM 407 – TO BE APPLIED TO FRONT FACE OF CURB PRIOR TO INSTALLATION OF 301 BITUMINOUS AGGREGATE BASE. ALSO TO BE APPLIED TO CURB JOINT AFTER THE INSTALLATION OF 448 LEVELING COURSE.
10. 6" BASE COURSE – ITEM 304 AGGREGATE BASE
11. 5" BASE COURSE – ITEM 301 BITUMINOUS AGGREGATE BASE
    ** 4" BASE COURSE – ITEM 301 BITUMINOUS AGGREGATE BASE
12. 4" UNDERDRAIN – ITEM 605. CONNECT UNDERDRAIN TO FRONT FACE OF NEAREST CATCH BASIN
13. 1 1/2" LEVELING COURSE – ITEM 448 ASPHALTIC CONCRETE

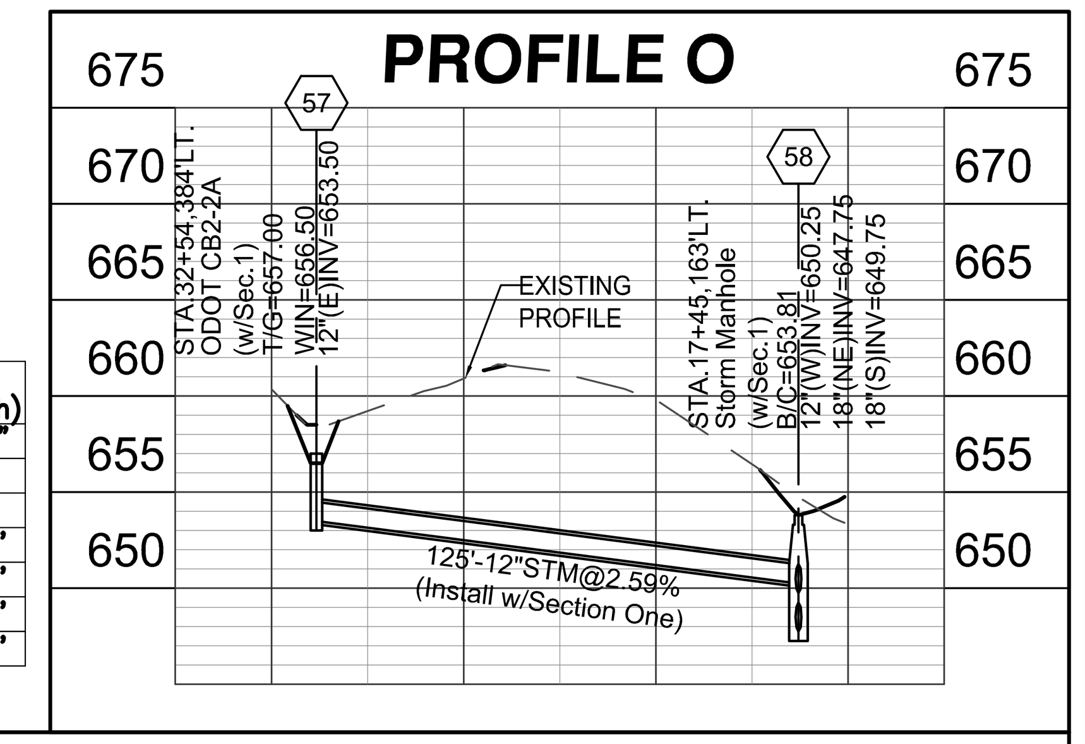
NOTES:
1. 48 hours notice to be given to affected residents before construction begins.
2. All Catch Basin B/C Elevations located within the curb are set to the Back of Curb Elevations.
3. Lower 3/4" Water Services as needed to avoid conflicts with Storm with Min. 4' Cover.
4. Location of existing utilities to be determined in the field prior to work beginning.
5. All lots Sump to Sump Drain unless otherwise noted in plan.
6. 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.
7. 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.

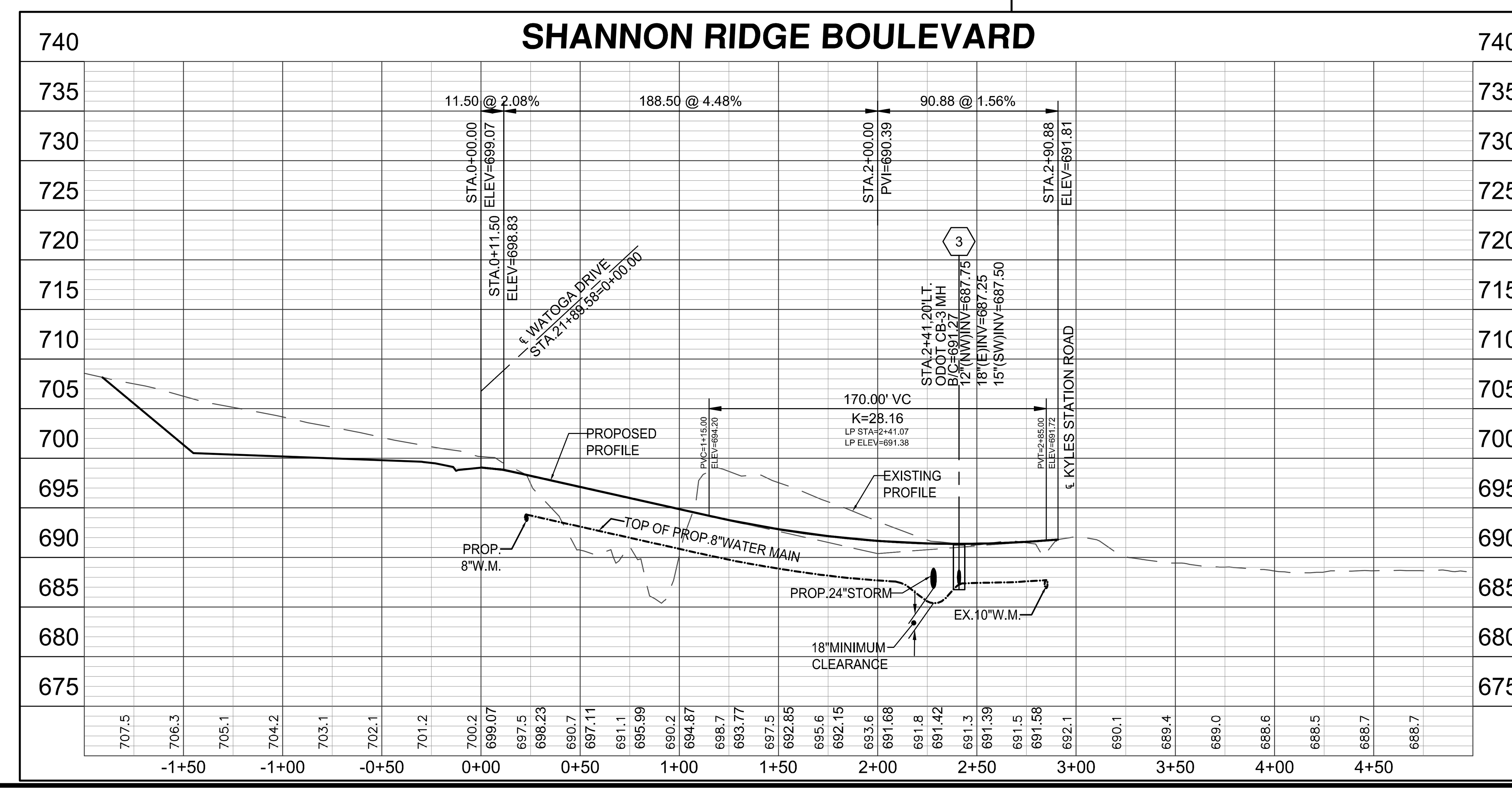
WATER MAIN RESTRAINT JOINT LOCATION CHART

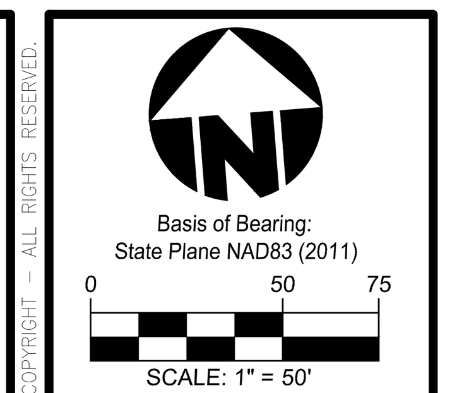
Water Main Dia.	Horizontal 45°Bends	Vertical 45°Bends Up (Lower Water Under...)	Vertical 45°Bends Down (Lower Water Under...)	Dead Ends (Permanent & Temporary)	Tees (for Tee Branch) 6"	8"	10"
6"	18' both sides	18' both sides	36' both sides	72' Back	54'		
8"	18' both sides	36' both sides	36' both sides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

PROFILE O



SHANNON RIDGE BOULEVARD





Item	Date	Drwn:	Chk:	Revision Description
1	3-8-18	TAC		Revised as per BCEO
2				
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9				

SHANNON RIDGE
SECTION 33, TOWN 3, RANGE 3
LIBERTY TOWNSHIP
BUTLER COUNTY, OHIO
DETAILS, PLAN AND PROFILE

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

Drawing: 17-0120 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 1-24-18
Sheet: 2/15

Plot time: Mar 09, 2018 – 3:25pm
Drawing name: J:\2017\17-0120\CV\DWG\17-0120 CD.dwg – Layout Tab: TYP2

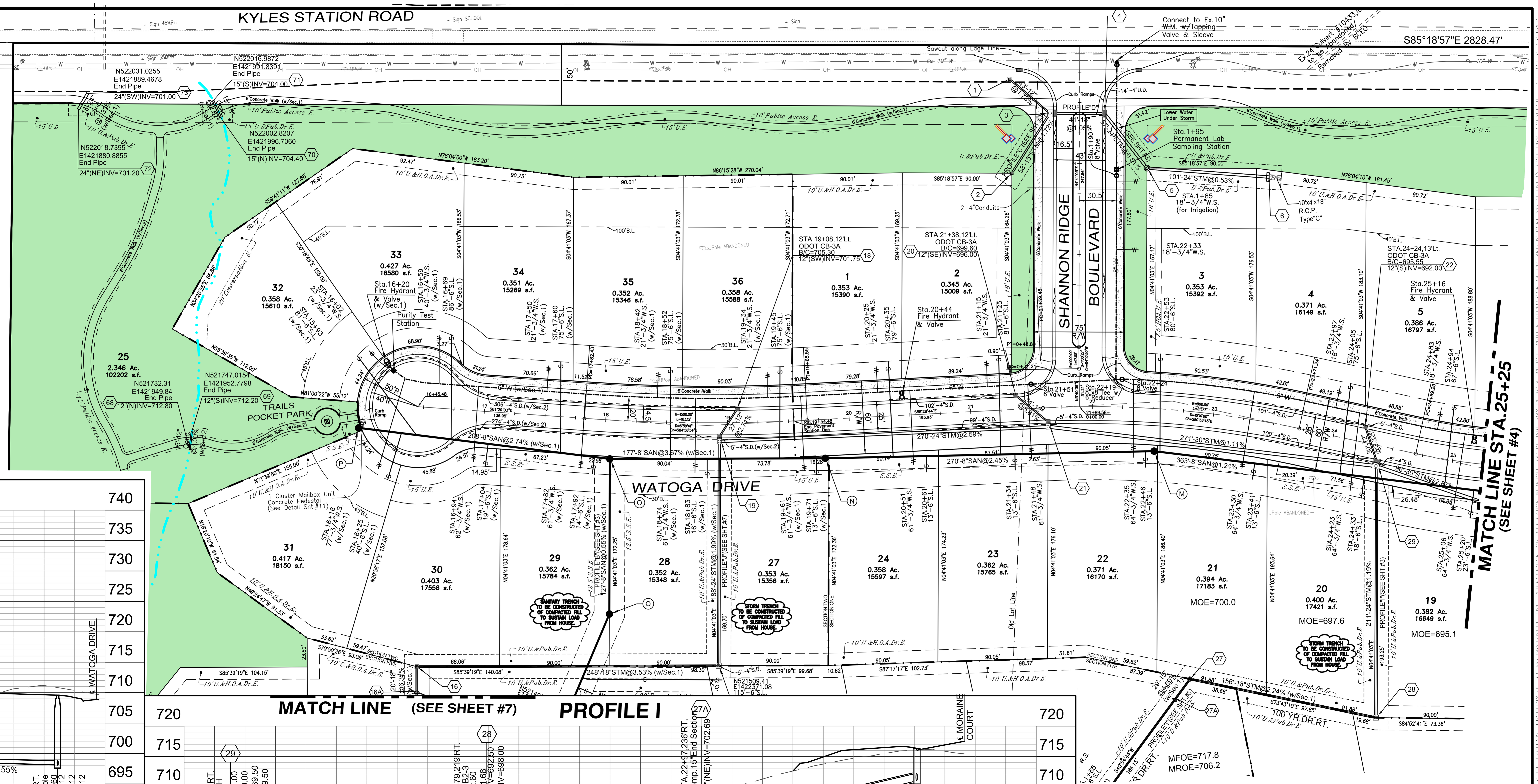
OPEN SPACE

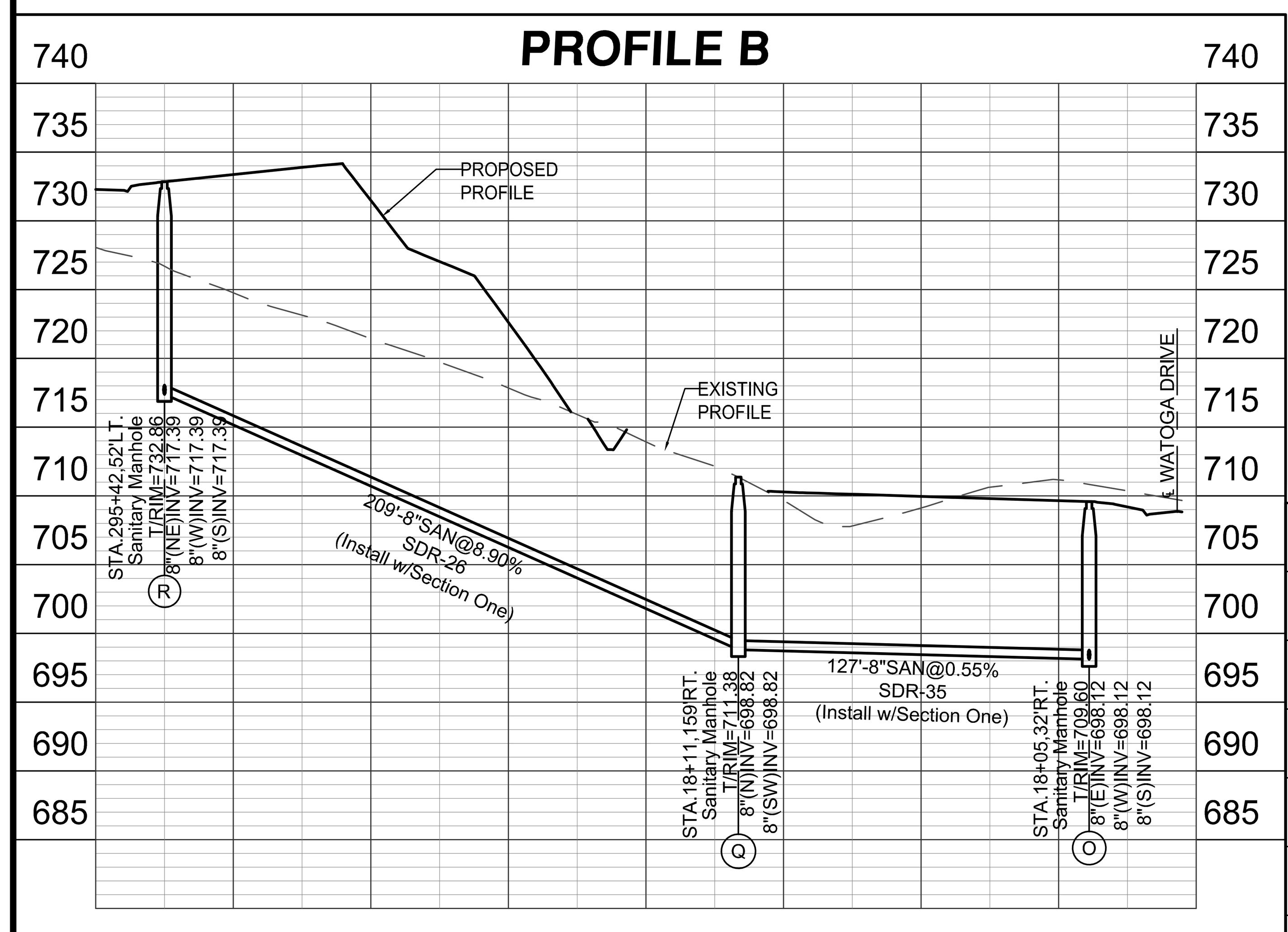
NOTES:

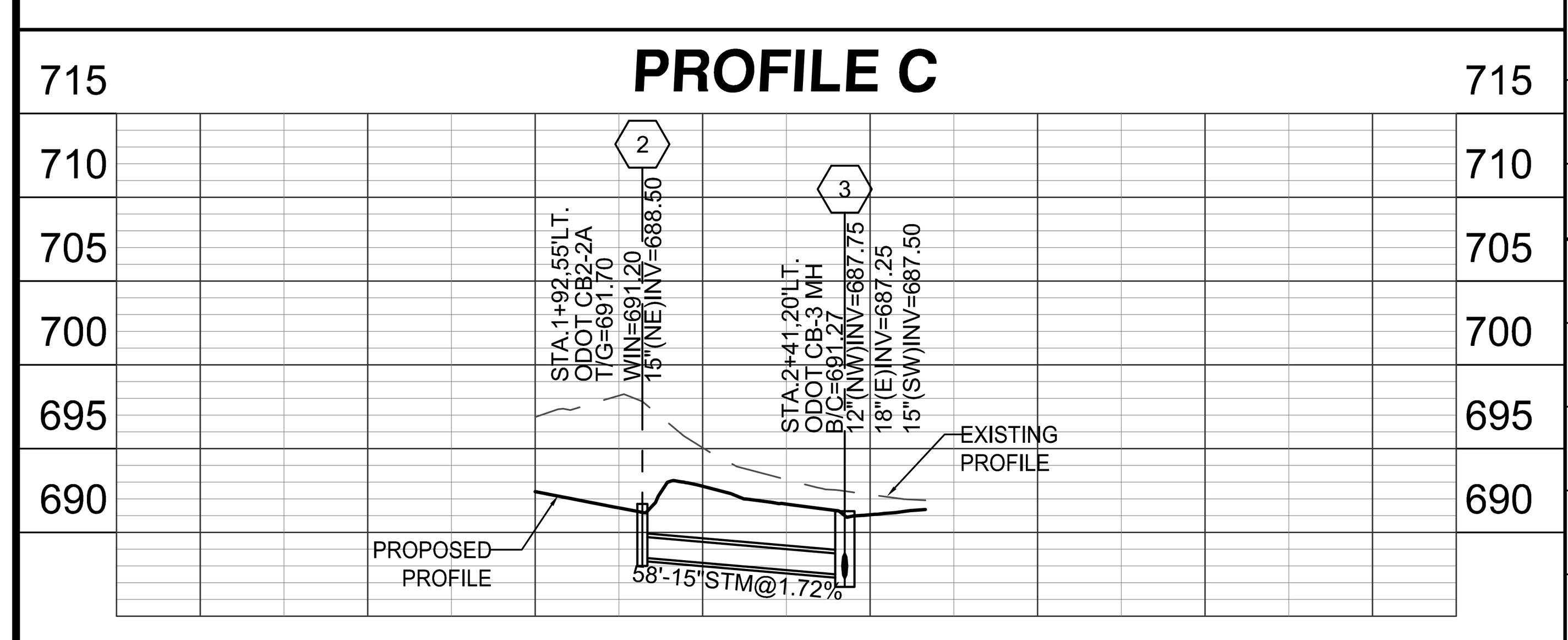
1. 48 hours notice to be given to affected residents before construction begins.
2. All Catch Basin B/C Elevations located within the curb are set to the Back of Curb Elevations.
3. Lower 3/4" Water Services as needed to avoid conflicts with Storm with Min. 4' Cover.
4. Location of existing utilities to be determined in the field prior to work beginning.
5. All lots Sump to Sump Drain unless otherwise noted in plan.
6. 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.
7. Contractors to accept all quantities as correct prior to beginning construction.
8. All abandoned utility poles on site are to be removed.

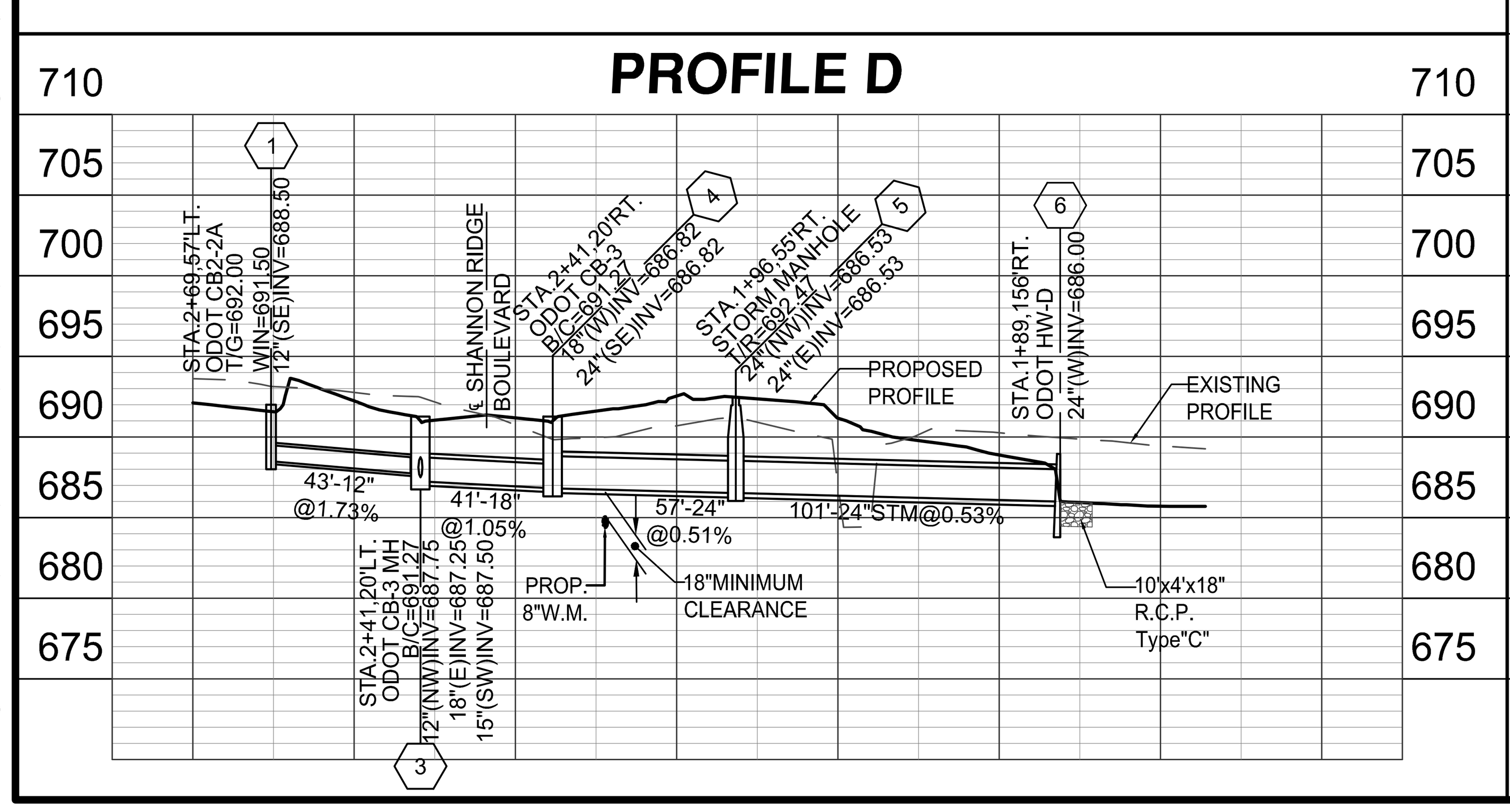
WATER MAIN RESTRAINT JOINT LOCATION CHART

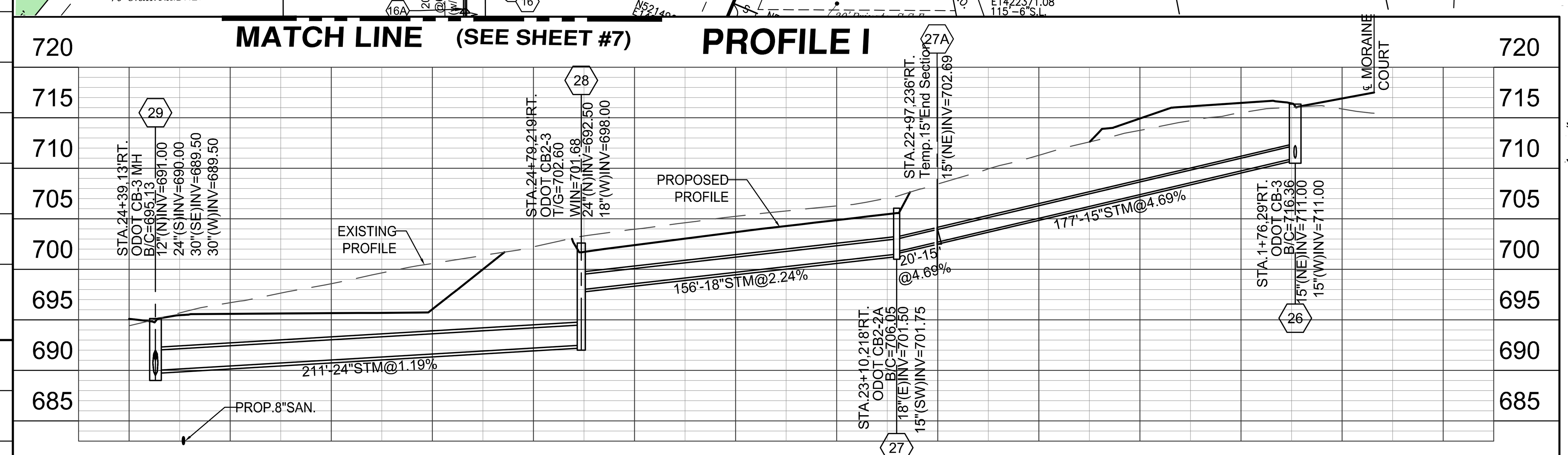
Water Main Dia.	Horizontal 45°Bends	Vertical 45°Bends Up (Lower Water Under...)	Vertical 45°Bends Down (Lower Water Under...)	Dead Ends (Permanent & Temporary)	Tees (for Tee Branch) 6"	8"	10"
6"	18' both sides	18' both sides	36' both sides	72' Back	54'		
8"	18' both sides	36' both sides	36' both sides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





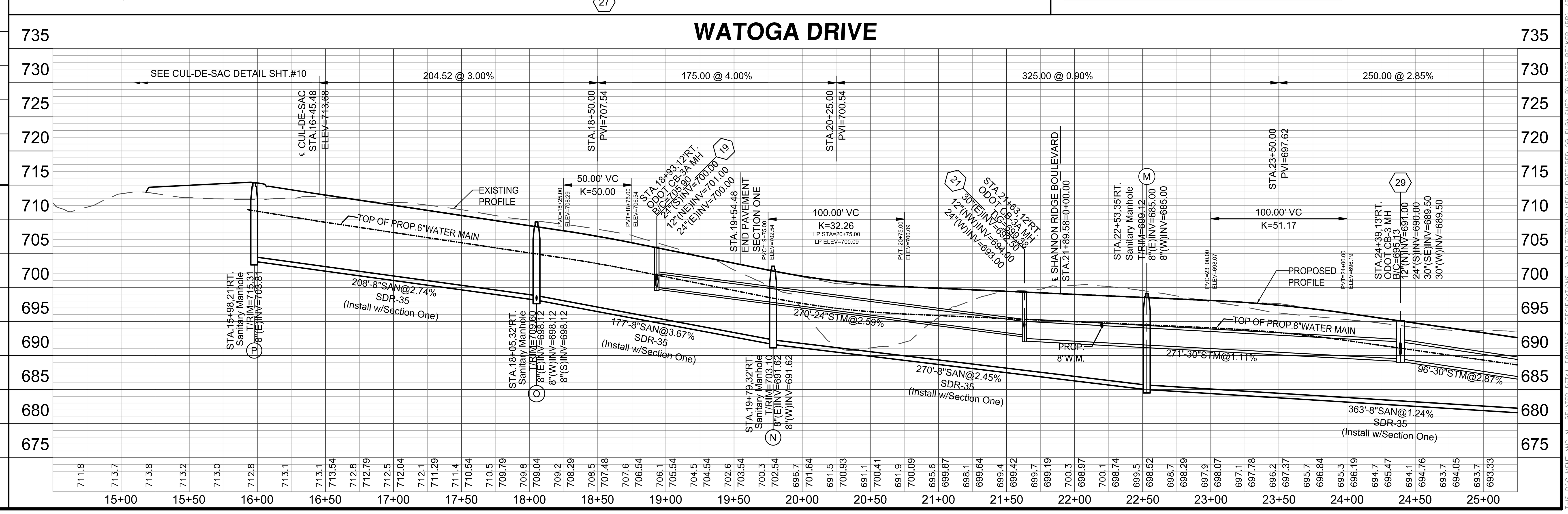






NOTE:
At Crossings, the water main shall have a minimum vertical distance of eighteen (18") inches from storm and sanitary sewers. Also, one full length of water main shall be located so the joints are as far from the storm and sanitary sewers as possible. Fittings, not joint deflection, must be used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

NOTE:
FOR SHANNON RIDGE BOULEVARD CENTERLINE PROFILE, SEE SHEET #2



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

Item	Revision Description	Date	Drwn:	Chk:
1	Revised as per BCWS	2-6-18	TAC	
2	Revised as per BCEO	3-8-18	TAC	
3	Revised as per In House Review	3-9-18	TAC	
4				
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6				
7				
8				
9				

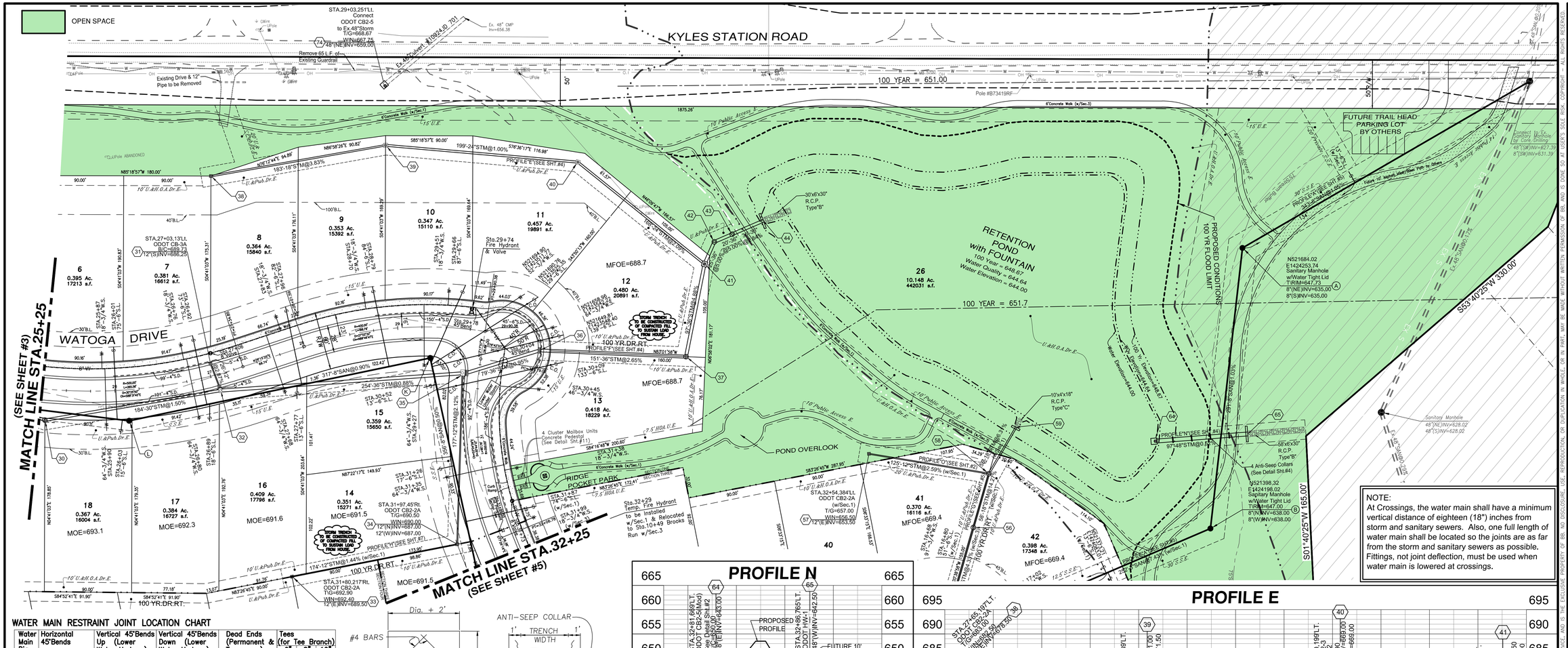
SHANNON RIDGE
SECTION 33, TOWN 3, RANGE 3
LIBERTY TOWNSHIP
BUTLER COUNTY, OHIO

PLAN AND PROFILE

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

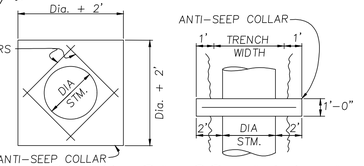
Drawing: 17-0120 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 1-24-18
Sheet: 3/15

Plot time: Mar 09, 2018 - 3:26pm
Drawing name: J:\2017\17-0120\CV\DWG\17-0120 CD.dwg - Layout Tab: PP3



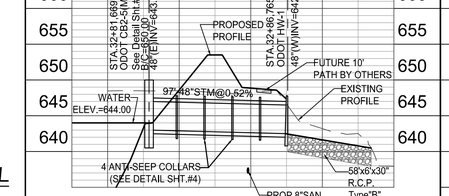
WATER MAIN RESTRAINT JOINT LOCATION CHART

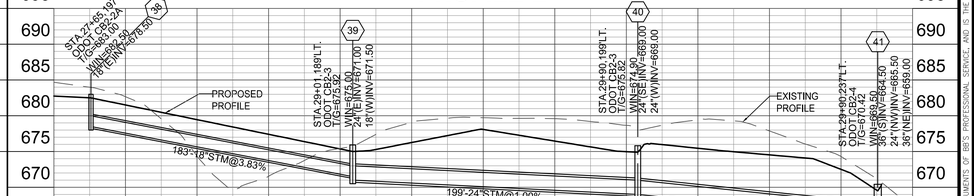
Water Main Dia.	Horizontal 45°Bends (Lower Water Under...)	Vertical 45°Bends Up (Lower Water Under...)	Vertical 45°Bends Down (Lower Water Under...)	Dead Ends (Permanent & Temporary)	Tees (for Tee Branch) 6"	8"	10"
6"	18' both sides	18' both sides	36' both sides	72' Back	54'		
8"	18' both sides	36' both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

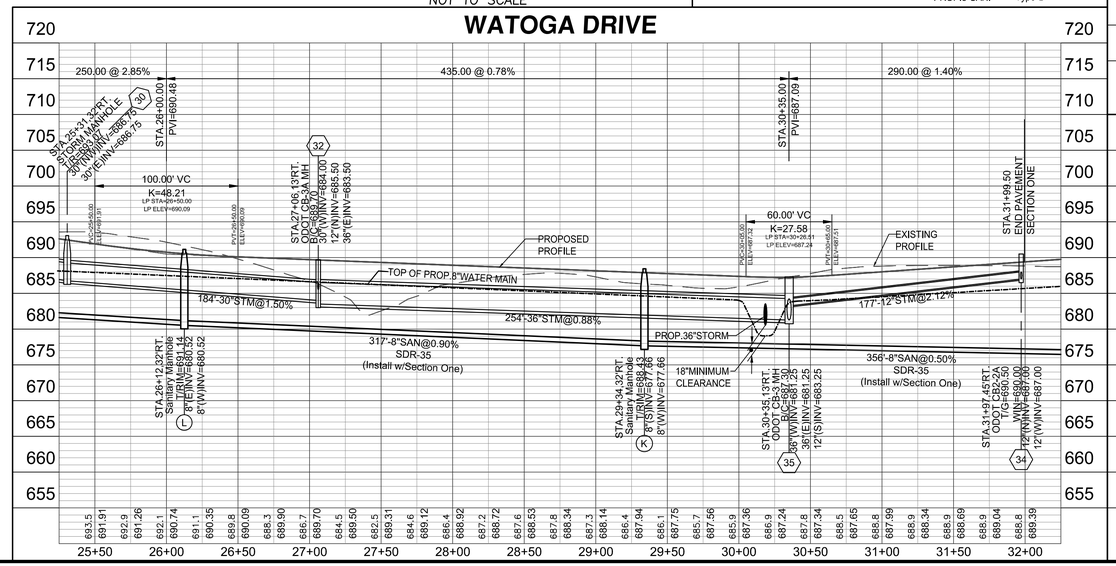


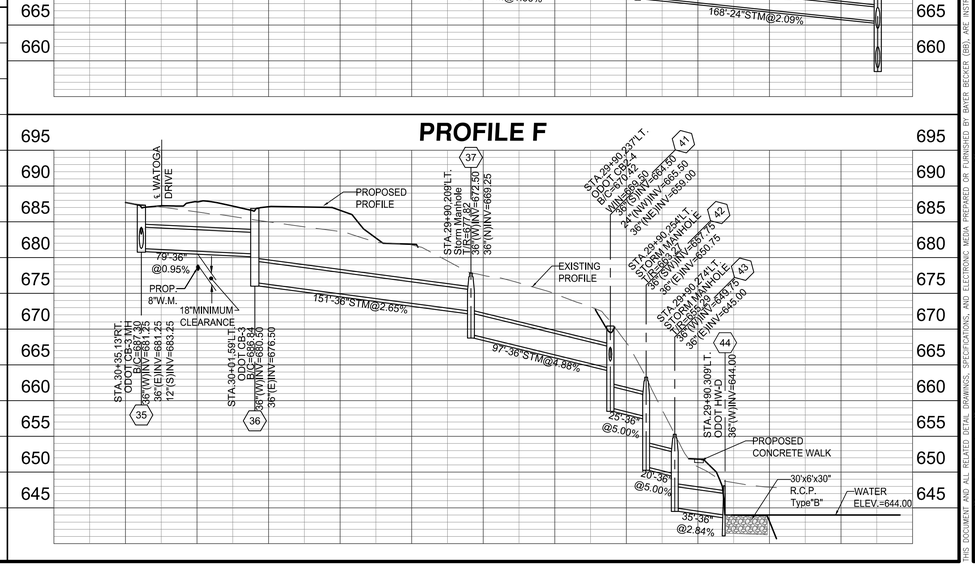
ANTI-SEEP/FLOAT COLLAR DETAIL

NOT TO SCALE









NOTES:

1. 48 hours notice to be given to affected residents before construction begins.
2. All Catch Basin B/C Elevations located within the curb are set to the Back of Curb Elevations.
3. Lower 3/4" Water Services as needed to avoid conflicts with Storm with Min. 4' Cover.
4. Location of existing utilities to be determined in the field prior to work beginning.
5. All lots Sump to Sump Drain unless otherwise noted in plan.
6. 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.
7. Contractors to accept all quantities as correct prior to beginning construction.
8. All abandoned utility poles on site are to be removed.

Basis of Bearing: State Plane NAD83 (2011)

0 50 75

SCALE: 1" = 50'

Item	Revision Description	Date	Drawn:	Chk:
1	Revised as per BCWS	2-6-18	TAC	
2	Revised as per SCEO	3-6-18	TAC	
3	Revised as per In House Review	3-9-18	TAC	
4				
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8				
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SHANNON RIDGE

SECTION 33, TOWN 3, RANGE 3
LIBERTY TOWNSHIP
BUTLER COUNTY, OHIO

PLAN AND PROFILE

bayer becker
www.bayerbecker.com
6070 Hillandale Drive, Suite A
Mason, OH 45040 - 513.336.6600

Drawing: 17-0120 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 1-24-18
Sheet: 4/15

Plot time: Mar 09, 2018 - 3:27pm
Drawing name: J:\2017\17-0120\CV\DWG\17-0120 CD.dwg - Layout Tab: PP4

NOTES:

1. 48 hours notice to be given to affected residents before construction begins.
2. All Catch Basin B/C Elevations located within the curb are set to the Back of Curb Elevations.
3. Lower 3/4" Water Services as needed to avoid conflicts with Storm with Min. 4' Cover.
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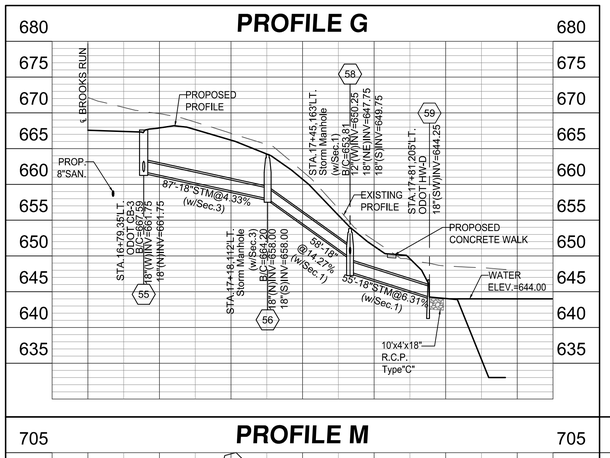
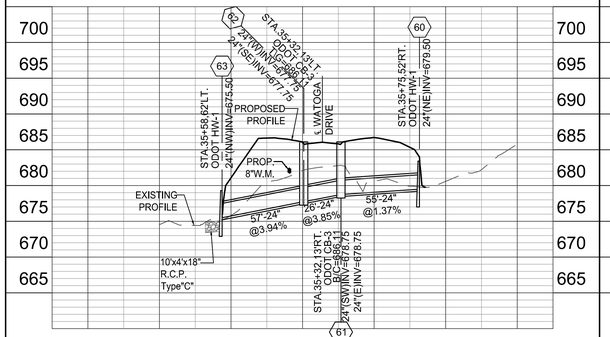
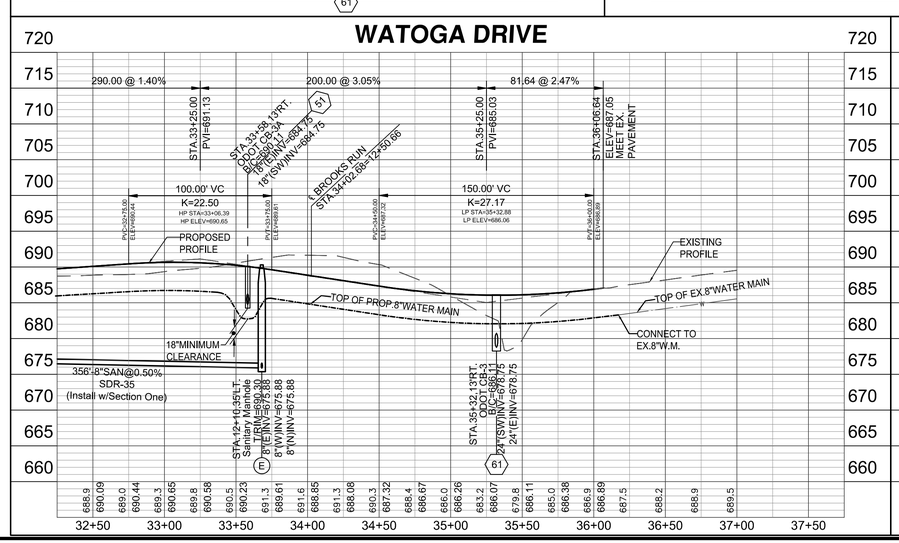
WATER MAIN RESTRAINT JOINT LOCATION CHART

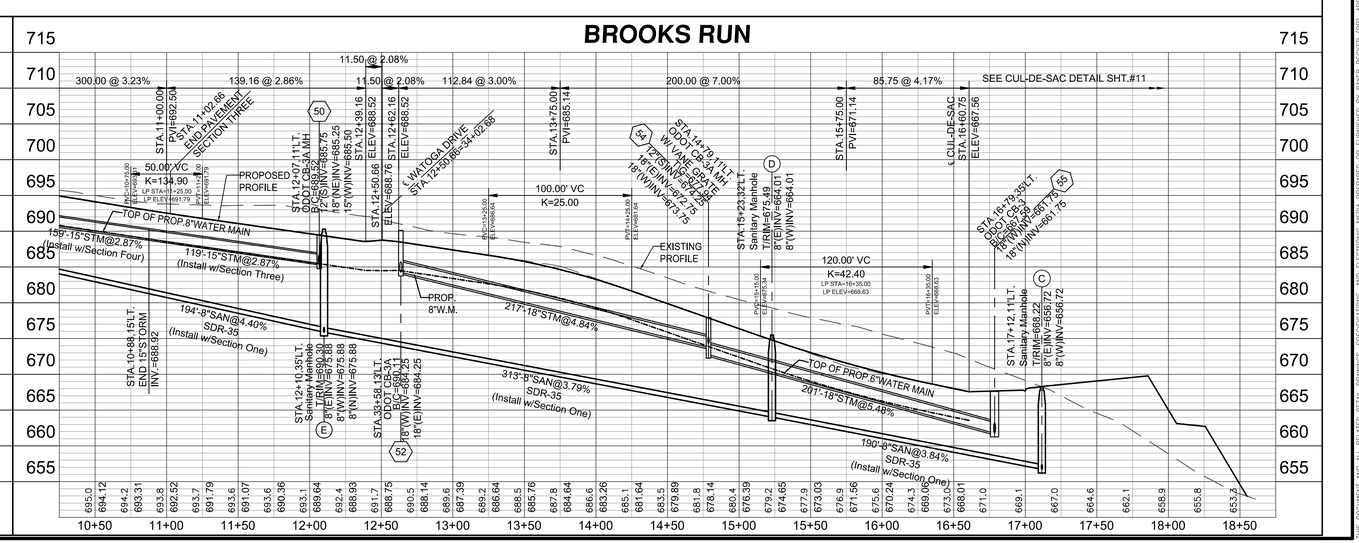
Water Main Dia.	Horizontal 45°Bends	Vertical 45°Bends Up (Lower Water Under...)	Vertical 45°Bends Down (Lower Water Under...)	Dead Ends (Permanent & Temporary)	Tees (for Tee Branch) 6"	8"	10"
6"	18' both sides	18' both sides	36' both sides	72' Back	54'		
8"	18' both sides	36' both sides	36' both sides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

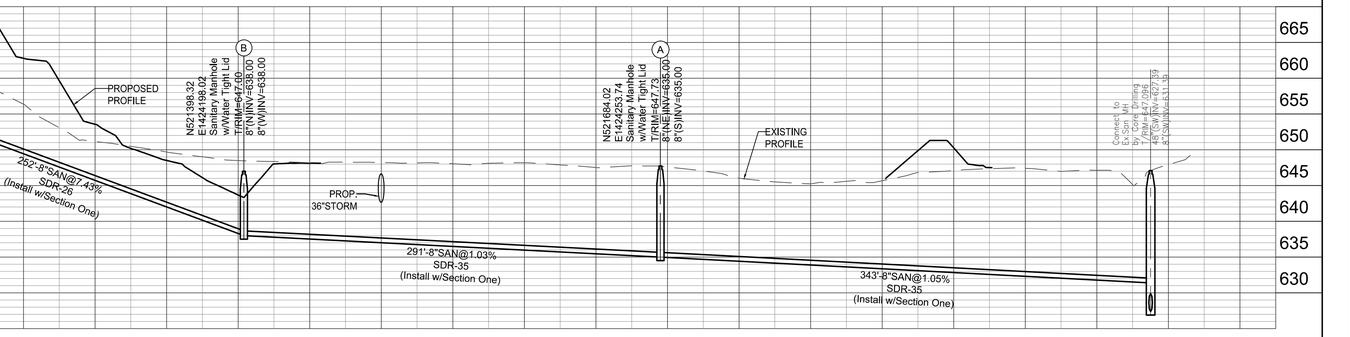
NOTE:
At Crossings, the water main shall have a minimum vertical distance of eighteen (18") inches from storm and sanitary sewers. Also, one full length of water main shall be located so the joints are as far from the storm and sanitary sewers as possible. Fittings, not joint deflection, must be used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

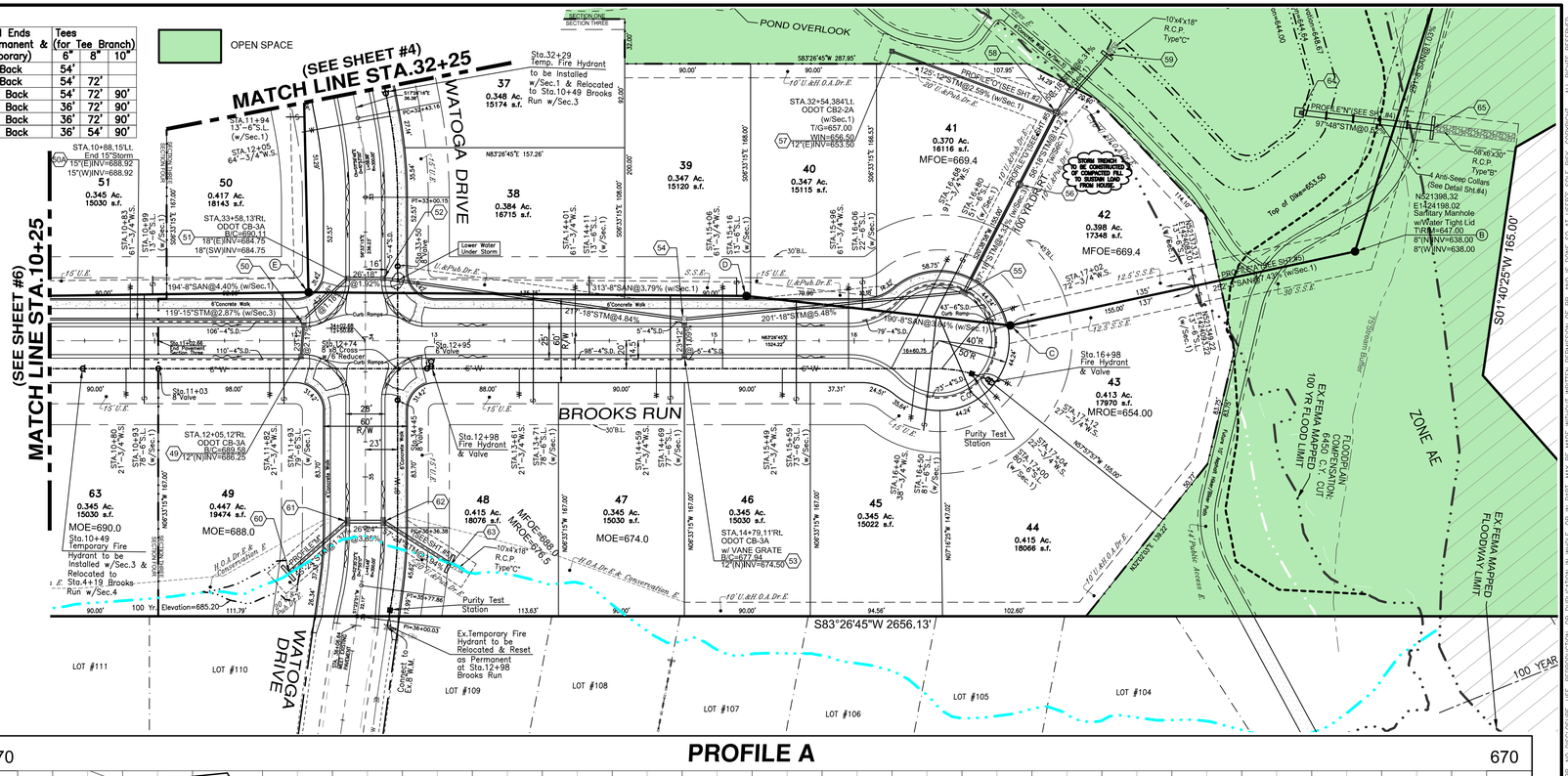












Basis of Bearing: State Plane NAD83 (2011)
0 50 75
SCALE: 1" = 50'

Item	Revision Description	Date	Drawn:	Chk:
1	Revised as per BCWS	2-6-18	TAC	
2	Revised as per BCEO	2-9-18	TAC	
3	Revised as per In House Review	3-8-18	TAC	
4				
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7				
8				
9				

SHANNON RIDGE

SECTION 33, TOWN 3, RANGE 3
LIBERTY TOWNSHIP
BUTLER COUNTY, OHIO

PLAN AND PROFILE

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

Drawing: 17-0120 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 1-24-18
Sheet: 5/15

Plot time: Mar 09, 2018 - 3:39pm
Drawing name: J:\2017\17-0120\CVL\DWG\17-0120 CD.dwg - Layout Tab: PP5

NOTES:
1. 48 hours notice to be given to affected residents before construction begins.
2. All Catch Basin B/C Elevations located within the curb are set to the Back of Curb Elevations.
3. Lower 3/4" Water Services as needed to avoid conflicts with Storm with Min. 4' Cover.
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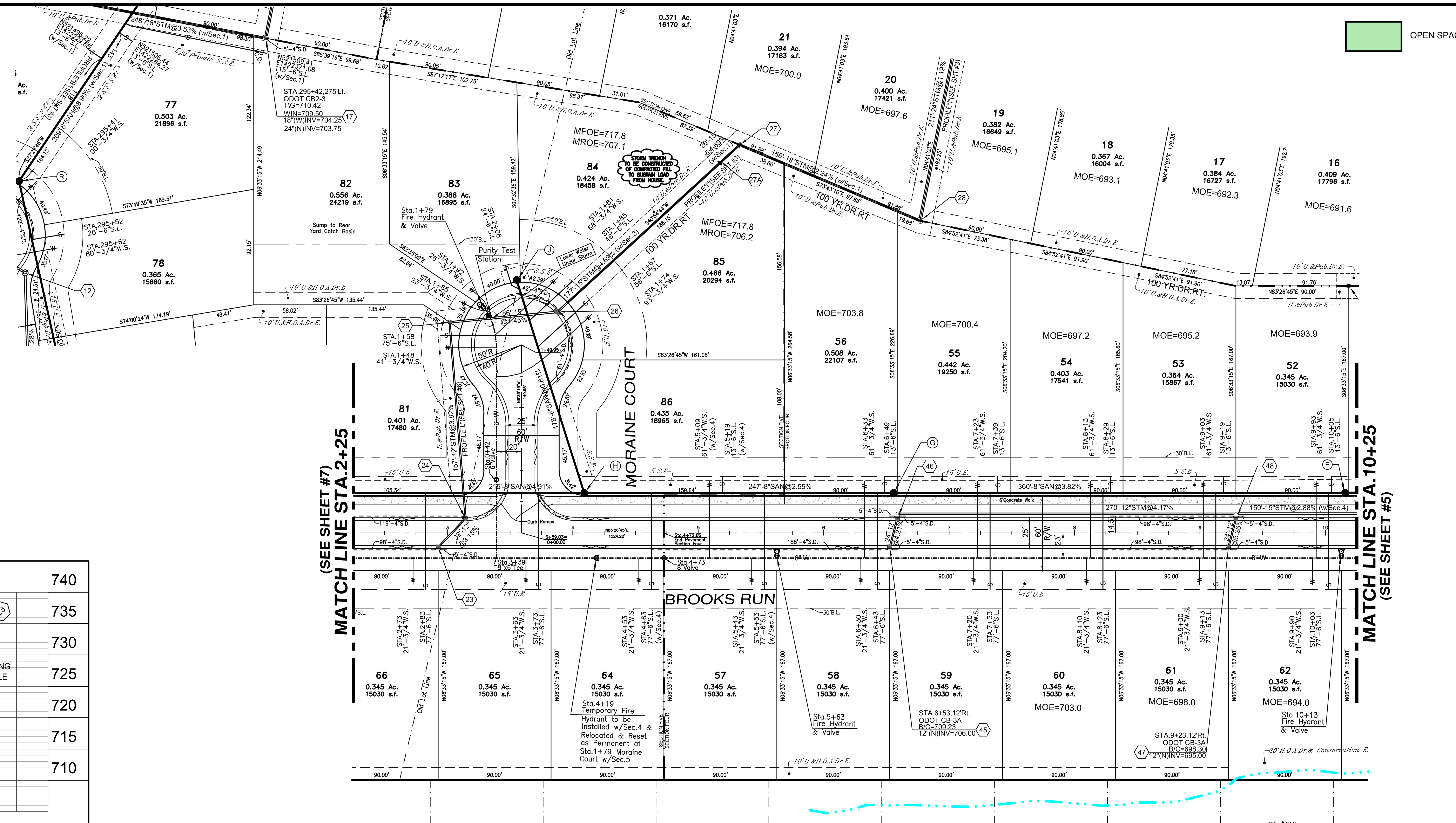
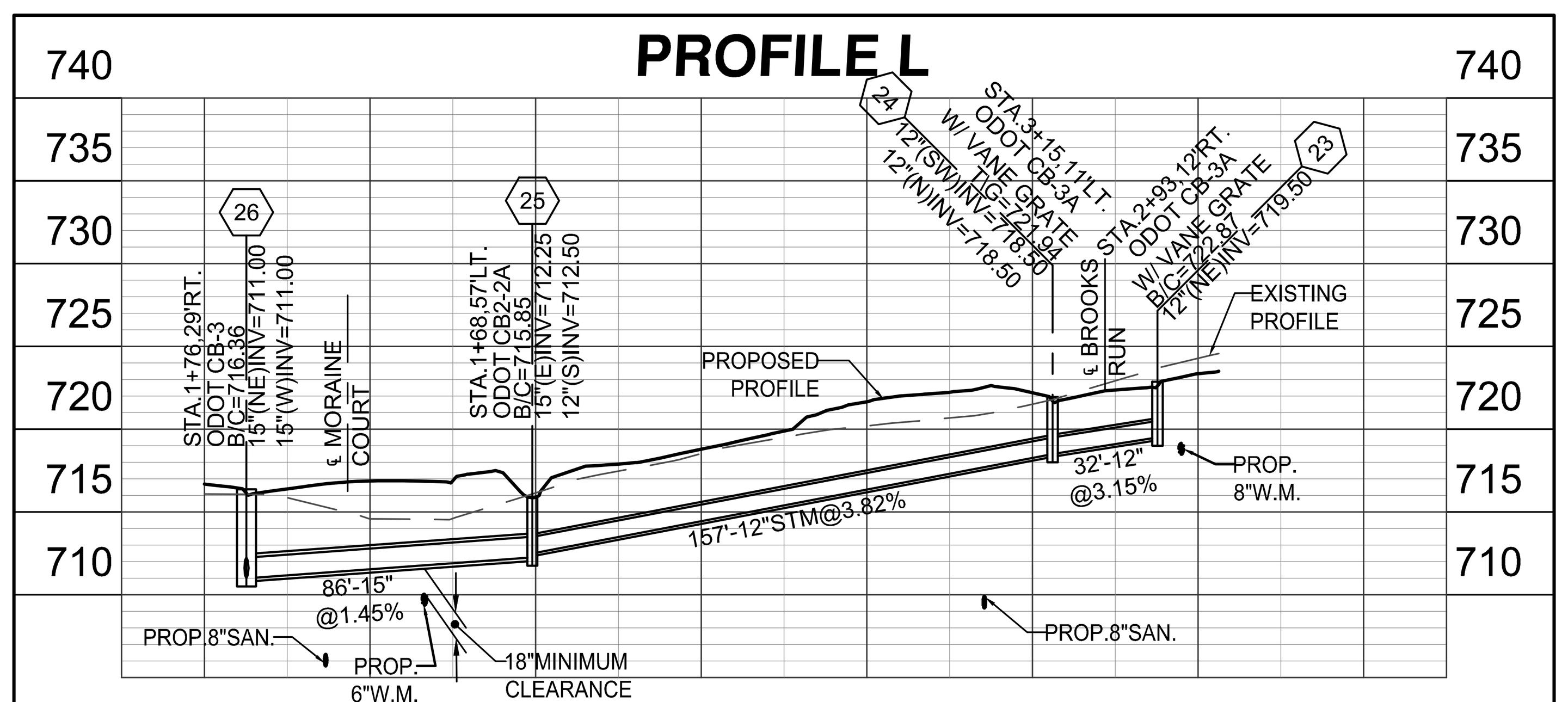
NOTE:
At Crossings, the water main shall have a minimum vertical distance of eighteen (18") inches from storm and sanitary sewers. Also, one full length of water main shall be located so the joints are as far from the storm and sanitary sewers as possible. Fittings, not joint deflection, must be used when water main is lowered at crossings.

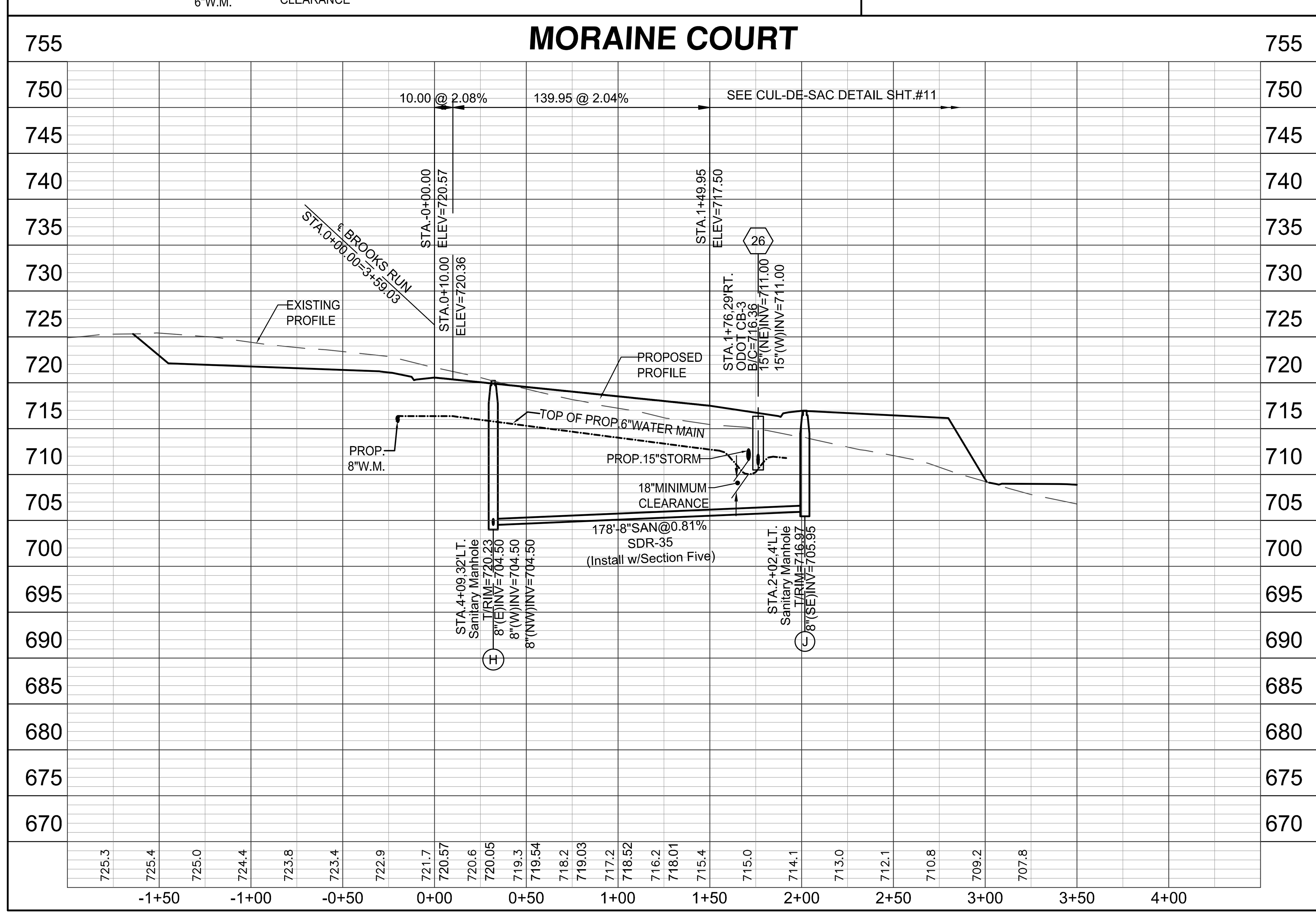
WATER MAIN RESTRAINT JOINT LOCATION CHART

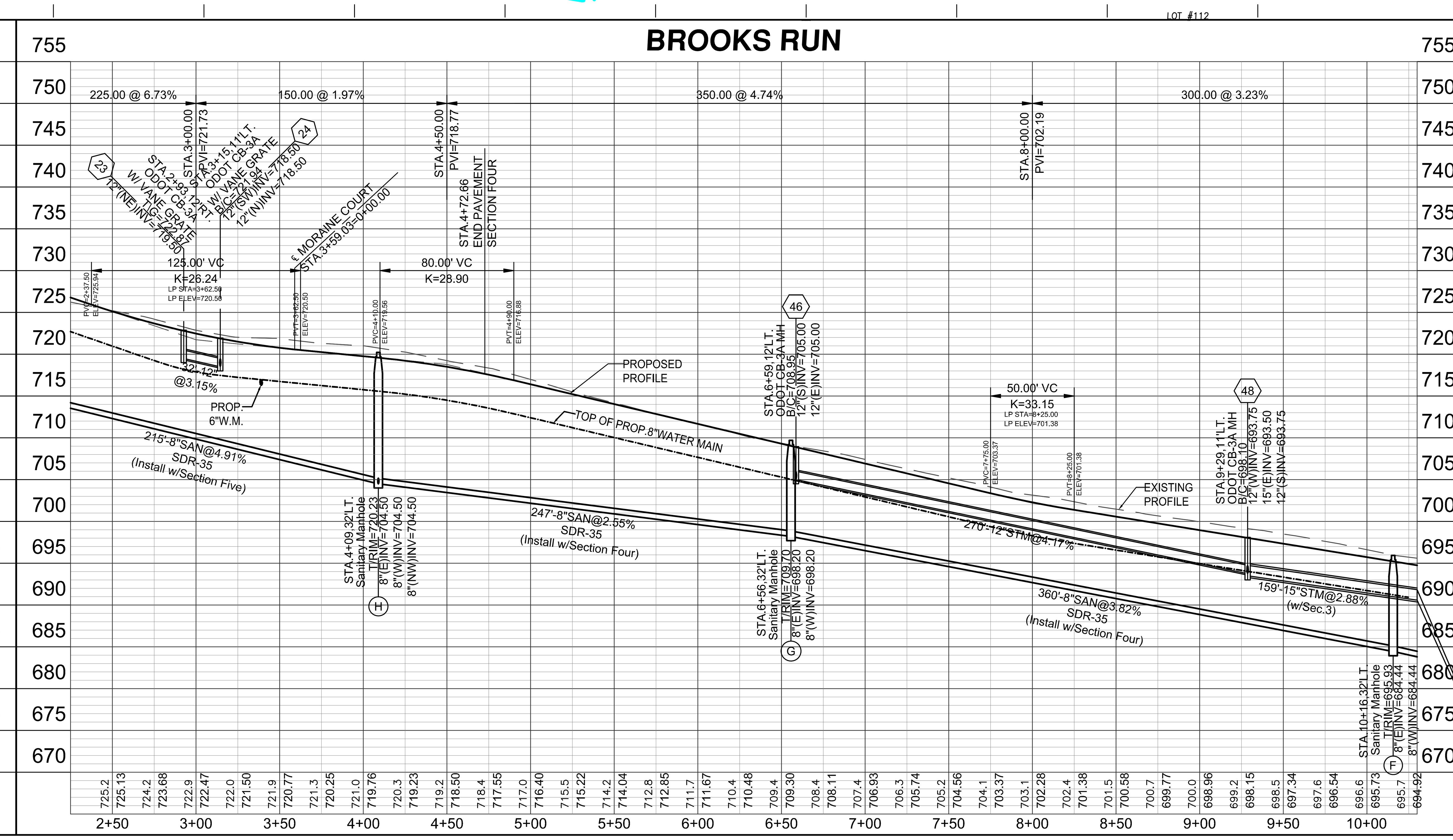
Water Main Dia.	Horizontal 45°Bends	Vertical 45°Bends Up (Lower Water Under...)	Vertical 45°Bends Down (Lower Water Under...)	Dead Ends (Permanent & Temporary)	Tees (for Tee Branch)		
					6"	8"	10"
6"	18' both sides	18' both sides	36' both sides	72' Back	54'		
8"	18' both sides	36' both sides	36' both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

🟩 OPEN SPACE









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

Item	Revision Description	Date	Drwn:	Chk:
1	Revised as per BCWS	2-6-18	TAC	
2	Revised as per In House Review	3-9-18	TAC	
3				
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9				

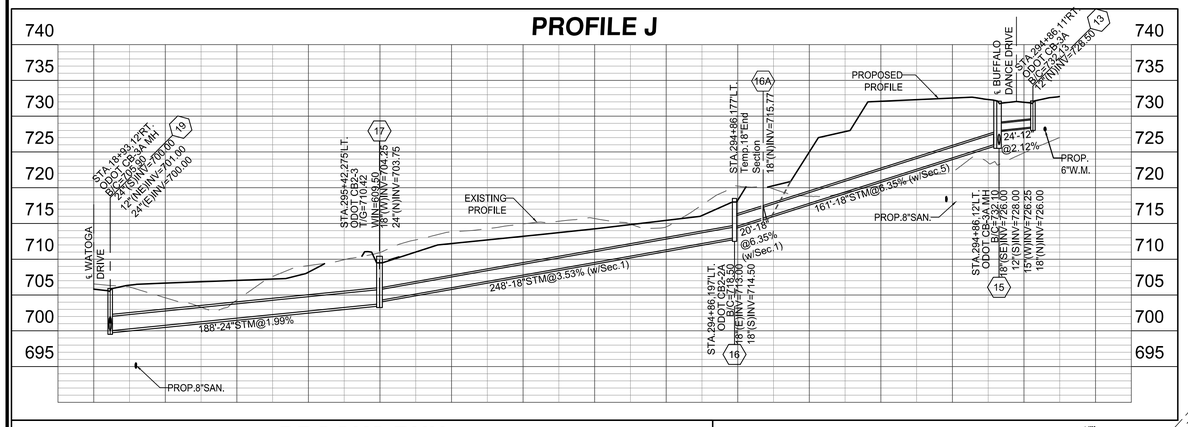
SHANNON RIDGE
SECTION 33, TOWN 3, RANGE 3
LIBERTY TOWNSHIP
BUTLER COUNTY, OHIO

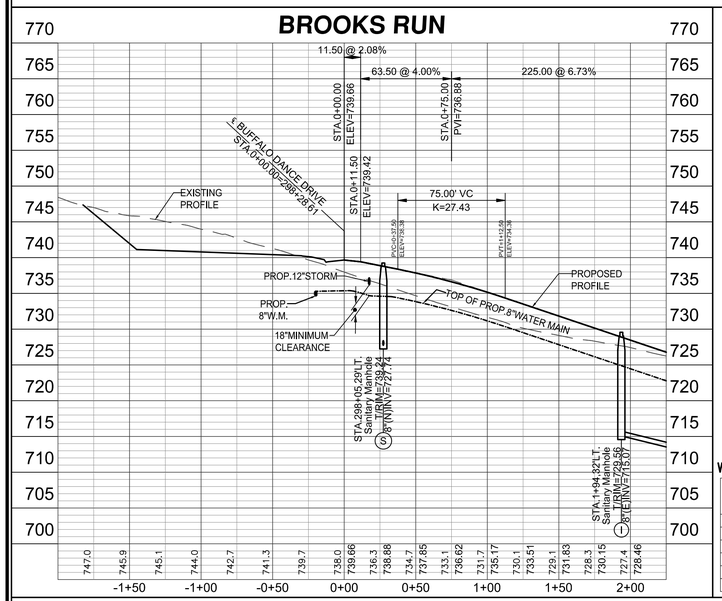
PLAN AND PROFILE

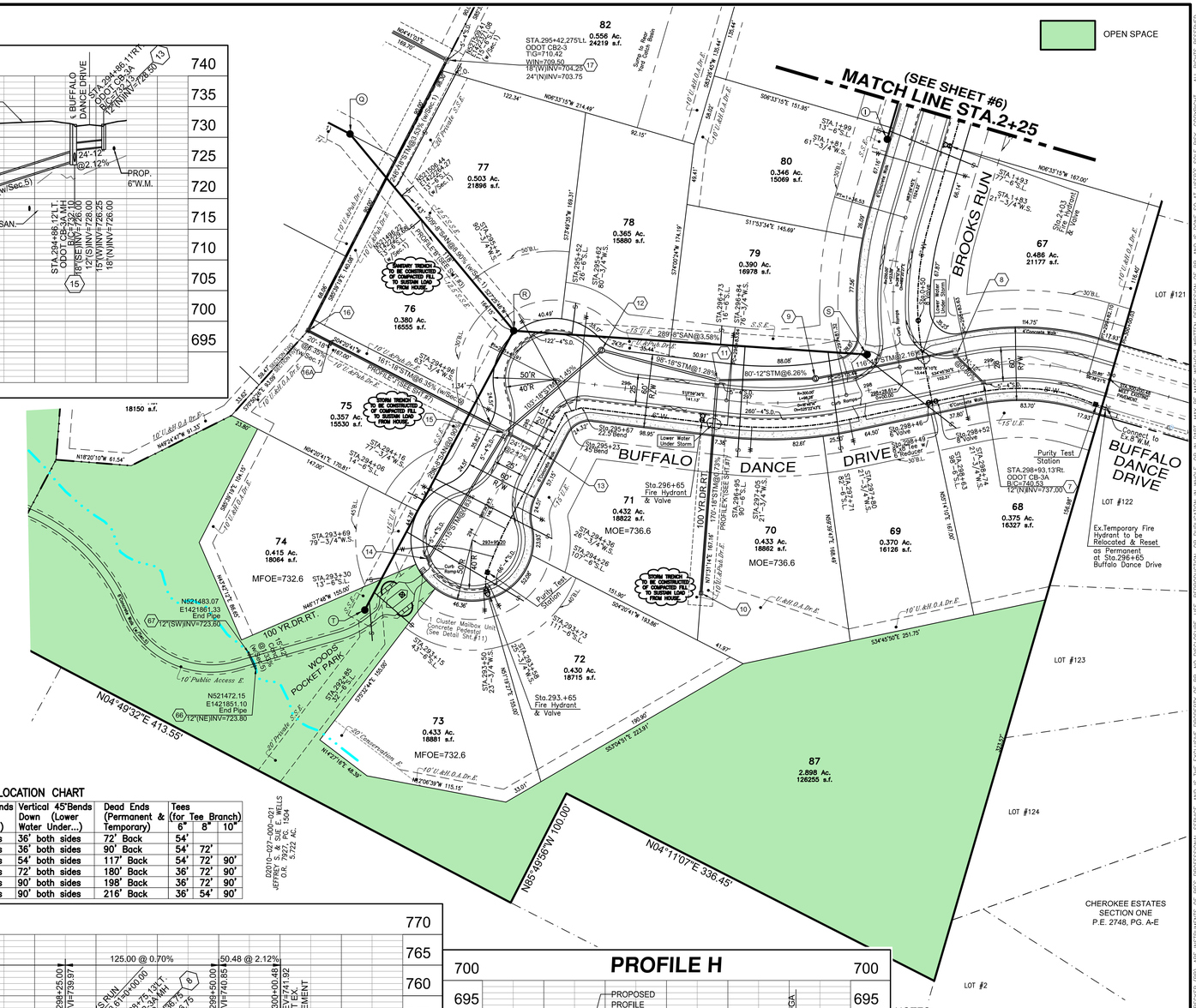
bayer becker
www.bayerbecker.com
6900 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

Drawing: 17-0120 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 1-24-18
Sheet: 6/15

Plot time: Mar 09, 2018 - 3:30pm
Drawing name: J:\2017\17-0120\CV\DWG\17-0120 CD.dwg - Layout Tab: PP6







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"
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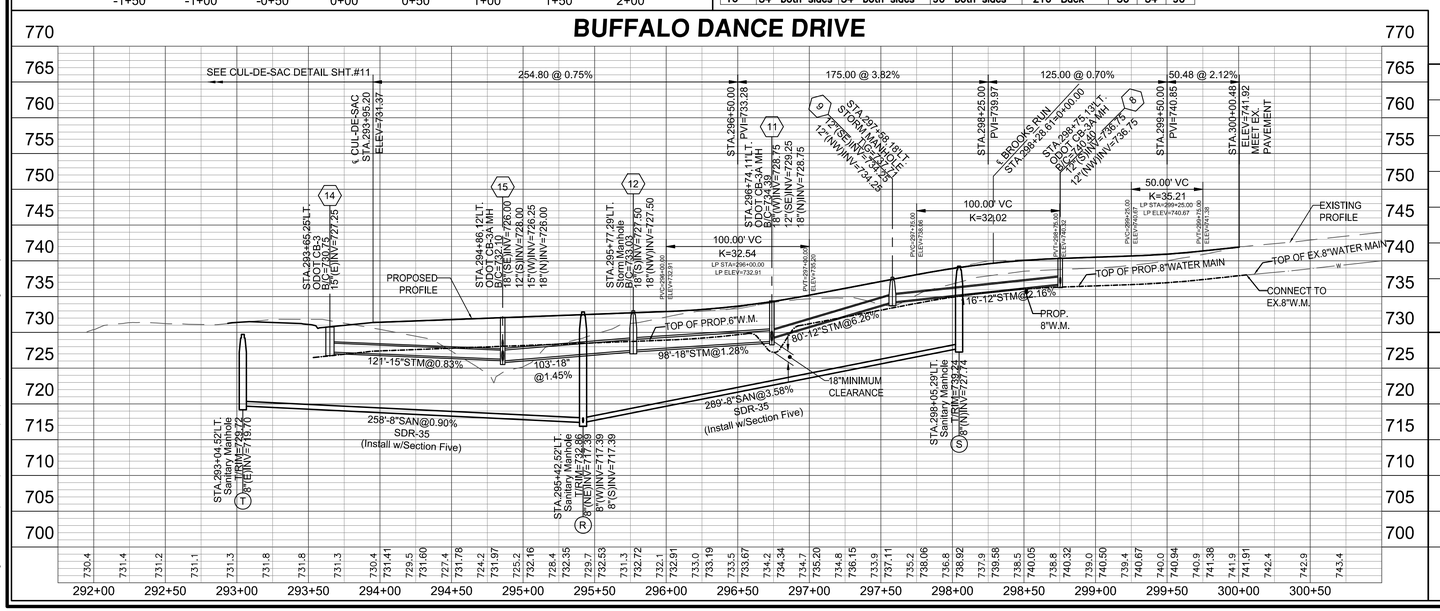
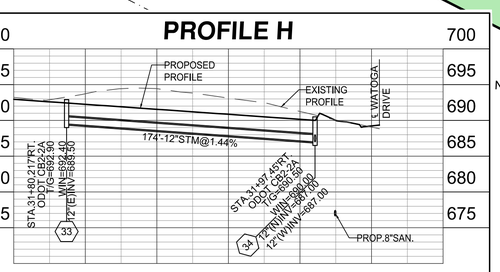
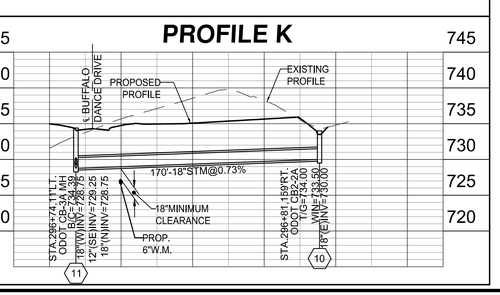
10"	36' both sides	36' both sides	54' both sides	117' Back	54'	72'	90'
12"	36' both sides	54' both sides	72' both sides	180' Back	36'	72'	90'
14"	54' both sides	54' both sides	90' both sides	198' Back	36'	72'	90'
16"	54' both sides	54' both sides	90' both sides	216' Back	36'	54'	90'







NOTES:

1. 48 hours notice to be given to affected residents before construction begins.
2. All Catch Basin B/C Elevations located within the curb are set to the Back of Curb Elevations.
3. Lower 3/4" Water Services as needed to avoid conflicts with Storm with Min. 4' Cover.
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Basis of Bearing:
State Plane NAD83 (2011)
0 50 75
SCALE: 1" = 50'

Item	Revision Description	Date	Drawn	Chk
1	Revised as per BCWS	2-5-18	TAC	
2	Revised as per H.Hosier Review	3-8-18	TAC	
3				
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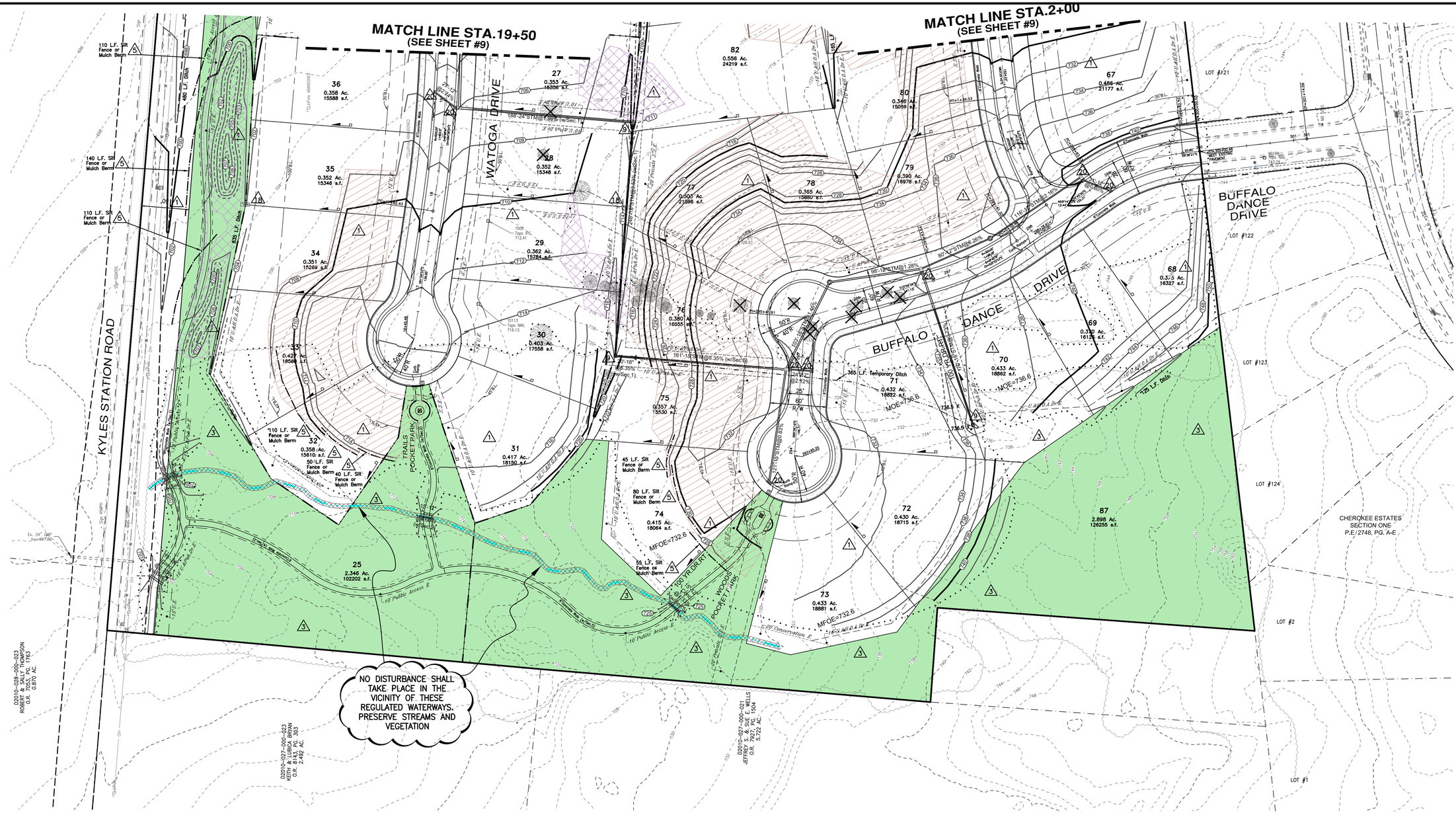
8				
9				

SHANNON RIDGE
SECTION 33, TOWN 3, RANGE 3
LIBERTY TOWNSHIP
BUTLER COUNTY, OHIO
PLAN AND PROFILE
SHEET 3

bayer becker
www.bayerbecker.com
6070 Hi Pointe Drive, Suite A
Mason, OH 45040 513.336.6600

Drawing: 17-0120 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 1-24-18
Sheet: 7/15

Plot time: Mar 09, 2018 - 3:31pm
Drawing name: J:\2017\17-0120\CV\DWG\17-0120 CD.dwg - Layout Tab: PP7



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 twenty–one (21) 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.
5. 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.
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.

NOTE:
All existing paved areas, walls, buildings, golf course appurtenances, etc. to be removed. Location of on site bury pits to be disclosed to site engineer for notation on final plat.

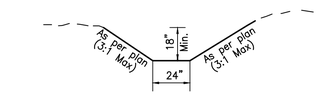
NOTE:
Contractors to accept all quantities as correct prior to beginning construction.

NOTE:
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.

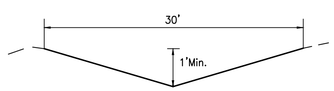
NOTE:
Sedimentation control and ditch swales are subject to change upon completion of entire set of construction drawings.

- CLEARING LIMITS
- SILT FENCE OR MULCH BERM
- 14" TOPSOIL CAP
- WASTE FILL: DO NOT STRIP
- OPEN SPACE
- REGULATED WATERWAY OF UNITED STATES
- RIPARIAN AREA: NO DISTURBANCE PERMITTED

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



TYPICAL DITCH SECTION



TYPICAL DRAINAGE ROUTE SECTION

EROSION CONTROL NOTES

1. SEEDING AND MULCHING
2. SODDING
3. PRESERVE EXISTING VEGETATION
4. STRAW BALE
5. SILT FENCE OR MULCH BERM
6. SOIL PILES
7. TEMPORARY STREAM CROSSING
8. GRAVEL CURB INLET SEDIMENT FILTER
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14. BLOCK & GRAVEL CURB INLET SEDIMENT FILTER
15. TEMPORARY SEDIMENT TRAPS & DAMS
16. DIKES & SLOPE PROTECTION
17. ROLLED GRAVEL CURB INLET SEDIMENT FILTER
18. CHECK DAM
19. TEMPORARY DETENTION SEDIMENT FILTER/BASIN
20. DANDY BAG/BEAVER DAM® OR EQUAL
21. CONSTRUCTION ENTRANCE
22. CONCRETE WASHOUT AREA

SEE SOIL EROSION & SEDIMENTATION CONTROL DETAIL SHEET (Page #15)

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

Item	Revision Description	Date	Drwn:	Chk:

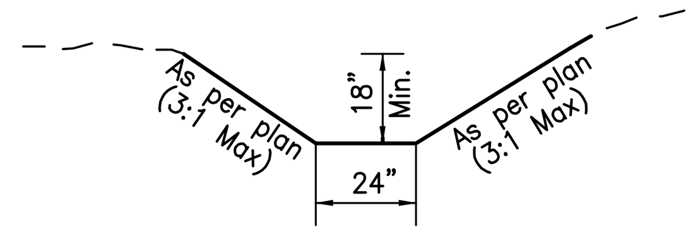
SHANNON RIDGE
SECTION 33, TOWN 3, RANGE 3
LIBERTY TOWNSHIP
BUTLER COUNTY, OHIO
GRADING PLAN

bayer becker
www.bayerbecker.com
6903 Tylersville Road, Suite A
Mason, OH 45040 - 513.336.6600

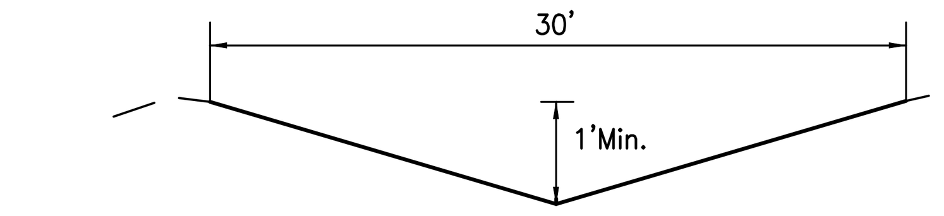
Drawing: 17-0120 CD
Drawn by: TAC
Checked By: XXX
Issue Date: 1-24-18
Sheet: 8/15

Plot time: Mar 09, 2018 - 3:32pm
Drawing name: J:\2017\17-0120\CVL\DWG\17-0120 CD.dwg - Layout Tab: GRB

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



TYPICAL DITCH SECTION



TYPICAL DRAINAGE ROUTE SECTION

· · · · · ·	CLEARING LIMITS
—·—·—	SILT FENCE OR MULCH BERM
▨	14" TOPSOIL CAP
▨	WASTE FILL: DO NOT STRIP
🟩	OPEN SPACE
+ + +	THIS FILL REQUIRES COMPACTION TESTING FULL WIDTH OF RIGHT-OF-WAY
—·—·—	REGULATED WATERWAY OF UNITED STATES
▩	RIPARIAN AREA: NO DISTURBANCE PERMITTED

EROSION CONTROL NOTES

1. SEEDING AND MULCHING
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NOTE:
All existing paved areas, walls, buildings, golf course appurtenances, etc. to be removed. Location of on site bury pits to be disclosed to site engineer for notation on final plat.

NOTE:
Contractors to accept all quantities as correct prior to beginning construction.

NOTE:
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.

NOTE:
Sedimentation control and ditch swales are subject to change upon completion of entire set of construction drawings.

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 twenty-one (21) 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.
5. 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.
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.

Basis of Bearing:
State Plane NAD83 (2011)

0 50 75
SCALE: 1" = 50'

Item	Revision Description	Date	Drwn:	Chk:
1	Revised as per BCEO	3-8-18	TAC	
2				
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SHANNON RIDGE

SECTION 33, TOWN 3, RANGE 3
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GRADING PLAN

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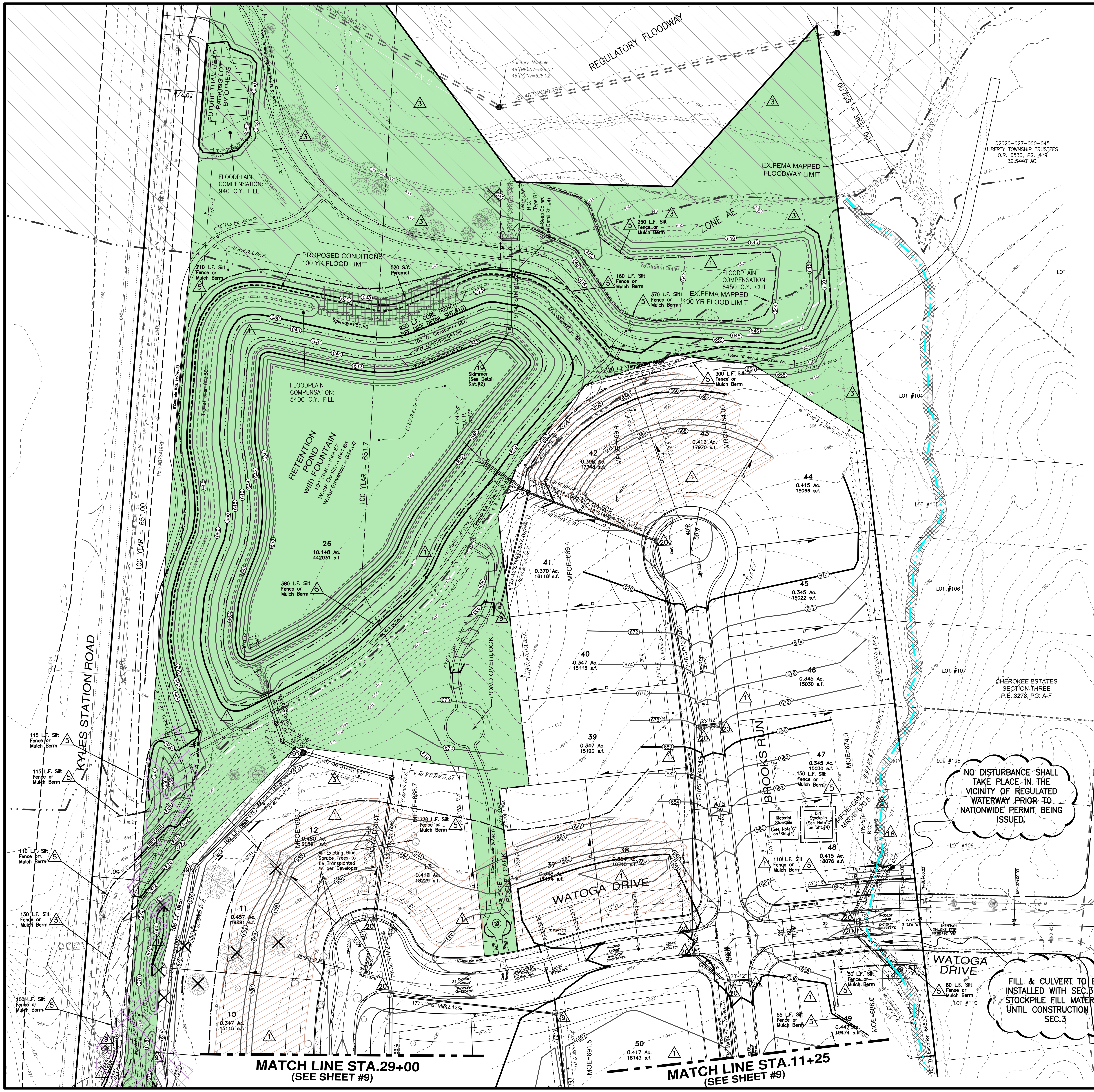
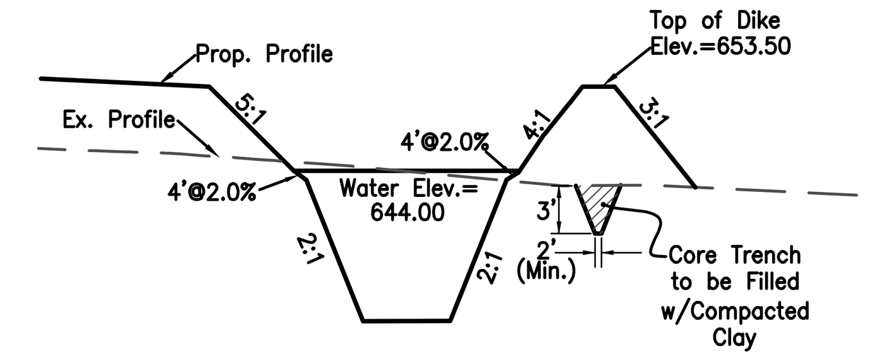
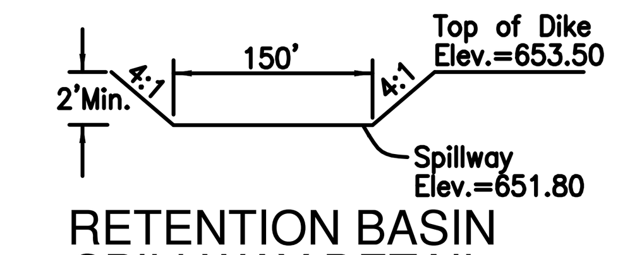
Plot time: Mar 09, 2018 – 3:32pm
Drawing name: J:\2017\17-0120\CV\DWG\17-0120 CD.dwg – Layout Tab: GR9



NOTE:
Geotechnical Engineer to be on site during construction of Retention Basin.

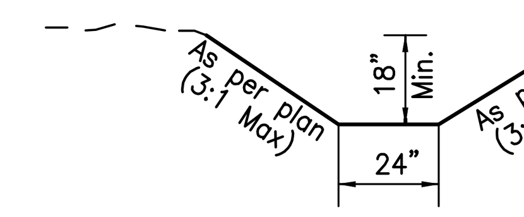


RETENTION POND DAM TYPICAL SECTION
(Not to Scale)

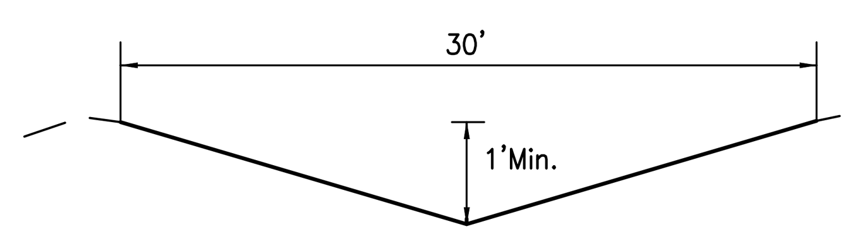


RETENTION BASIN SPILLWAY DETAIL
(Not to Scale)

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



TYPICAL DITCH SECTION



TYPICAL DRAINAGE ROUTE SECTION

⋯⋯	CLEARING LIMITS
—·—	SILT FENCE OR MULCH BERM
▨	14" TOPSOIL CAP
▨	WASTE FILL: DO NOT STRIP
🟩	OPEN SPACE
—·—	REGULATED WATERWAY OF UNITED STATES
▩	RIPARIAN AREA: NO DISTURBANCE PERMITTED

EROSION CONTROL NOTES

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NOTE:
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NOTE:
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.

NOTE:
Sedimentation control and ditch swales are subject to change upon completion of entire set of construction drawings.

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.
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8. Home builders are responsible for erosion control on each individual lot.

STREAM CROSSING DETAILS

The Ohio E.P.A. has concerns about any sanitary sewer which cross or run parallel to any flowing streams. For streams which drain one square mile or greater, communities are required to implement control practices in these areas as much as possible. For streams with less than one square mile of drainage, communities must implement control practices as much as practical. The area of concern include 2.5 times the full bank width of the stream on both sides of the stream (riparian area). For these stream crossings or other areas where the sewers are in this riparian area, the entity should specify the means for mitigating any impacts on these streams which could result from this activity. These factors would include the following:

a. The construction easements for the clearing activities should be as narrow as possible or practical depending on the size of the stream. A maximum of a 20 foot clearing limit is all that will be allowed in the riparian area. For all sanitary sewers running proposed along a stream, the clearing limit should be shifted as far from the stream as possible.

b. The construction of the stream crossing should be completed as soon as possible but should not exceed more than one day.

c. The material removed from the trench excavation should be stored outside of the riparian area. This area should be enclosed by a siltation fence.

d. Trees within the riparian area should be avoided as much as possible. Older trees along the stream should be given the greatest level of protection possible. In the event that a tree must be removed so that the sewers can be constructed, the tree should be either cut at the ground or 1 or 2 feet above the ground so that the root mass is maintained and that the tree may regrow after the project. All other vegetation in the riparian area should be cut at the ground surface.
intended for trench water.

e. Coffer dams should be used to bypass the trench excavation during the construction of the stream crossing.

f. Final bank stabilization should be completed immediately after completion of the stream crossing. The banks shall be stabilized with seeding and mulching as soon as disturbance of the area is complete. In the event that a stream bank is severely steep, jute matting may be utilized to provide bank stabilization. In most cases, the stream bank should be stabilized within one day of completion of the stream crossing.

g. The stockpile location for the materials used for the pipe bedding material and the backfill material should be shown on the detailed plans. This area should be located outside of the riparian area. (See plans for stockpile location)

h. Any locations where equipment will cross the stream should have a temporary stream crossing constructed. Construction equipment crossings should only be used when there is no other feasible method such as constructing sewers from both sides of the stream. For situations where this may not be practical, two common ways to construct a stream crossing are using tree trunks removed from other locations of the project laid lengthwise in the stream or constructing a culvert in the stream with back fill placed on top of it. The temporary stream culverts should be designed in accordance to the Ohio Department of Natural Resources, Division of Soil and Water Conservation's "Rainwater and Land Development" manual.

i. All trench dewatering shall be passed through a sediment impoundment structure. Adequate outlet protection must be provided for each impoundment. If any groundwater dewatering should occur, the contractor shall contact the Ohio Department of Nature Resources, Division of Water, to assure proper well installation and abandonment of wells. The contractor shall not direct the groundwater to the impoundment intended for trench water.

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

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Mason, OH 45040 - 513.336.6600

Drawing: 17-0120 CD
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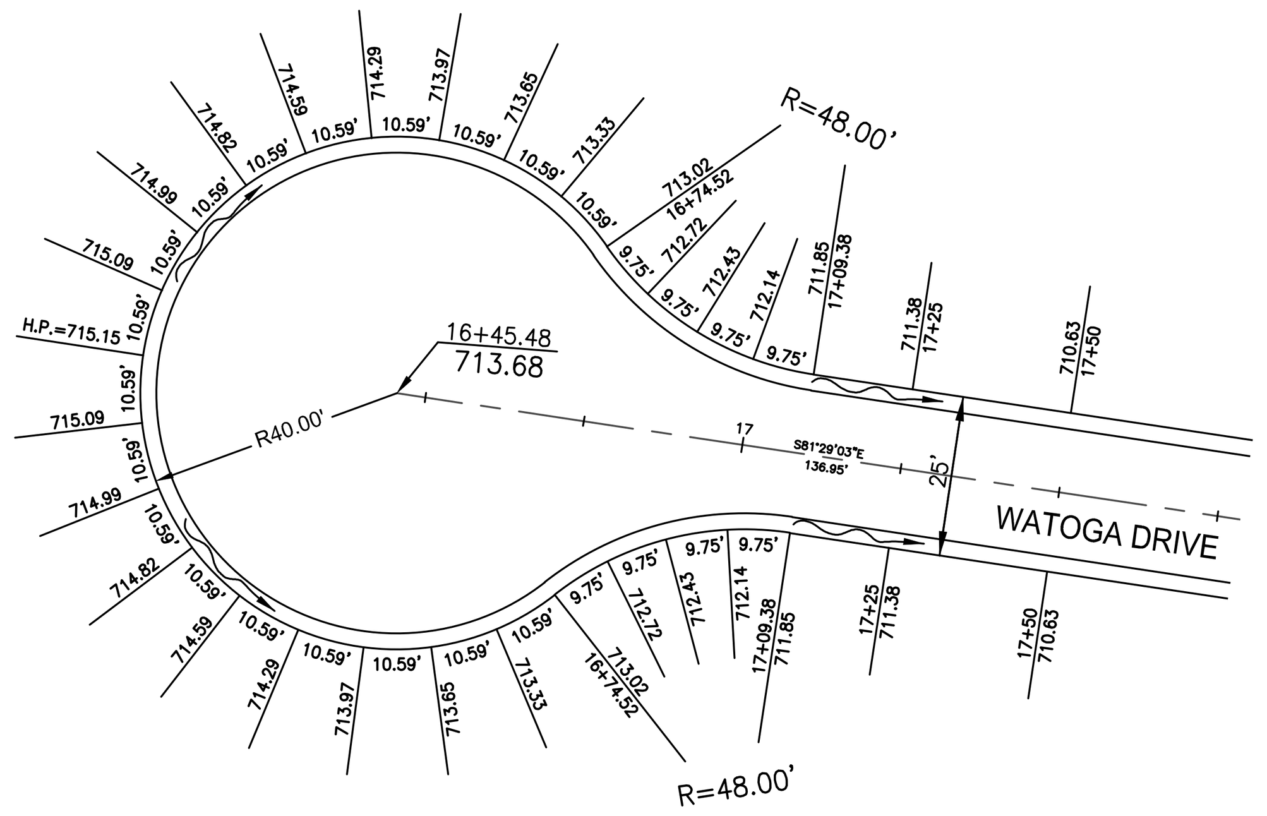
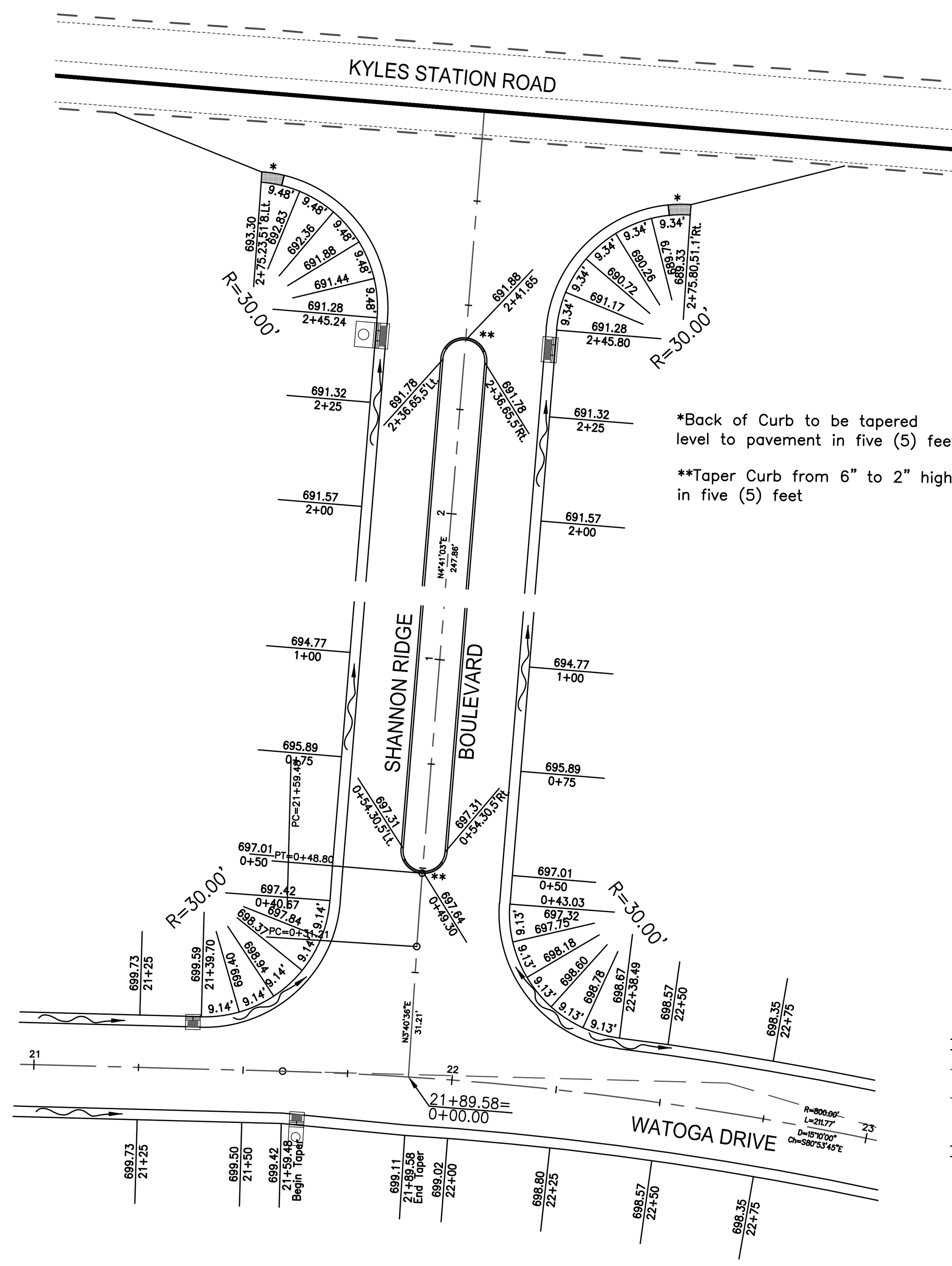
Issue Date: 1-24-18
Sheet: 10/15

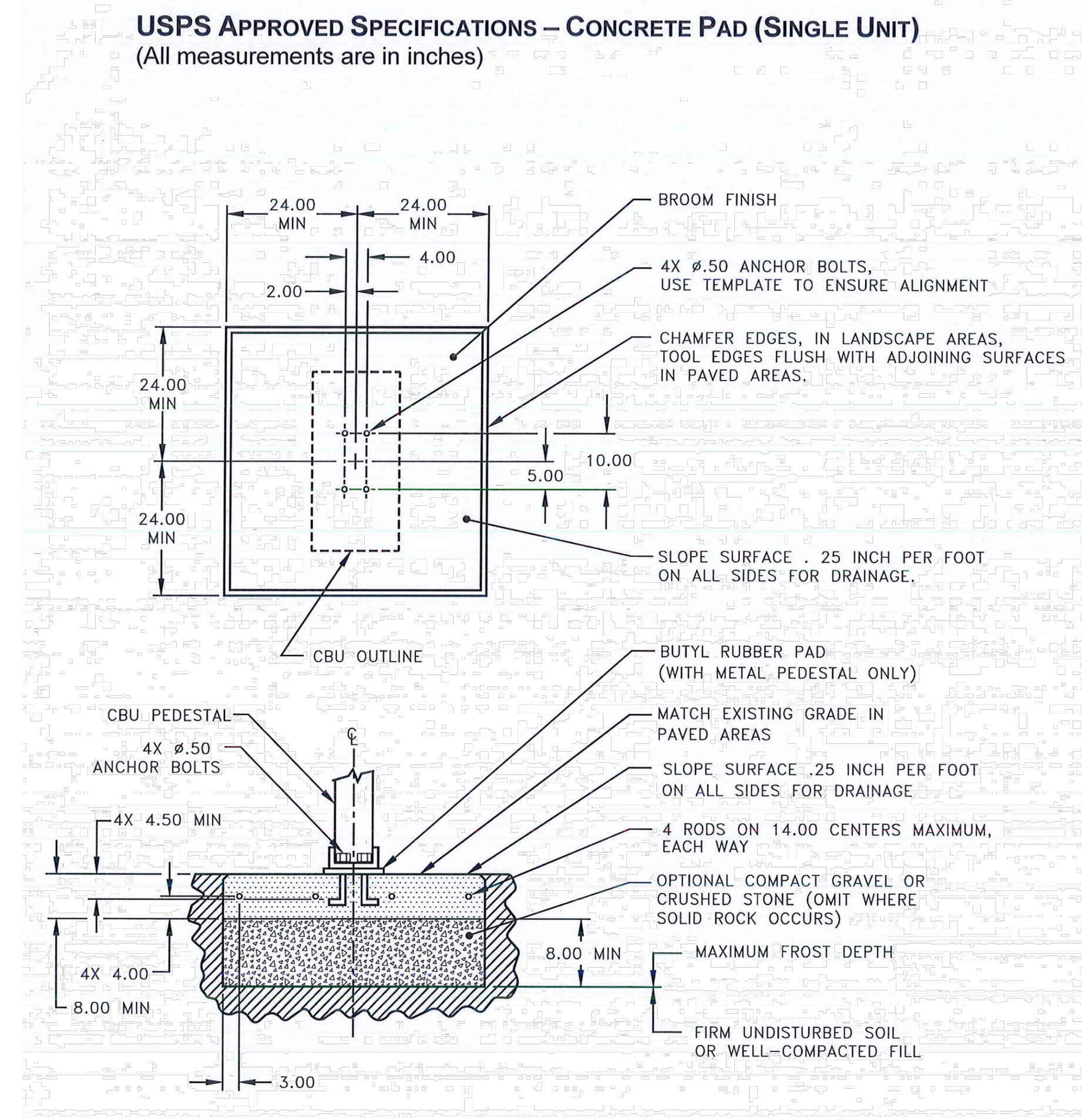
Plot time: Mar 09, 2018 – 3:33pm
Drawing name: J:\2017\17-0120\CV\DWG\17-0120 CD.dwg – Layout Tab: GR10





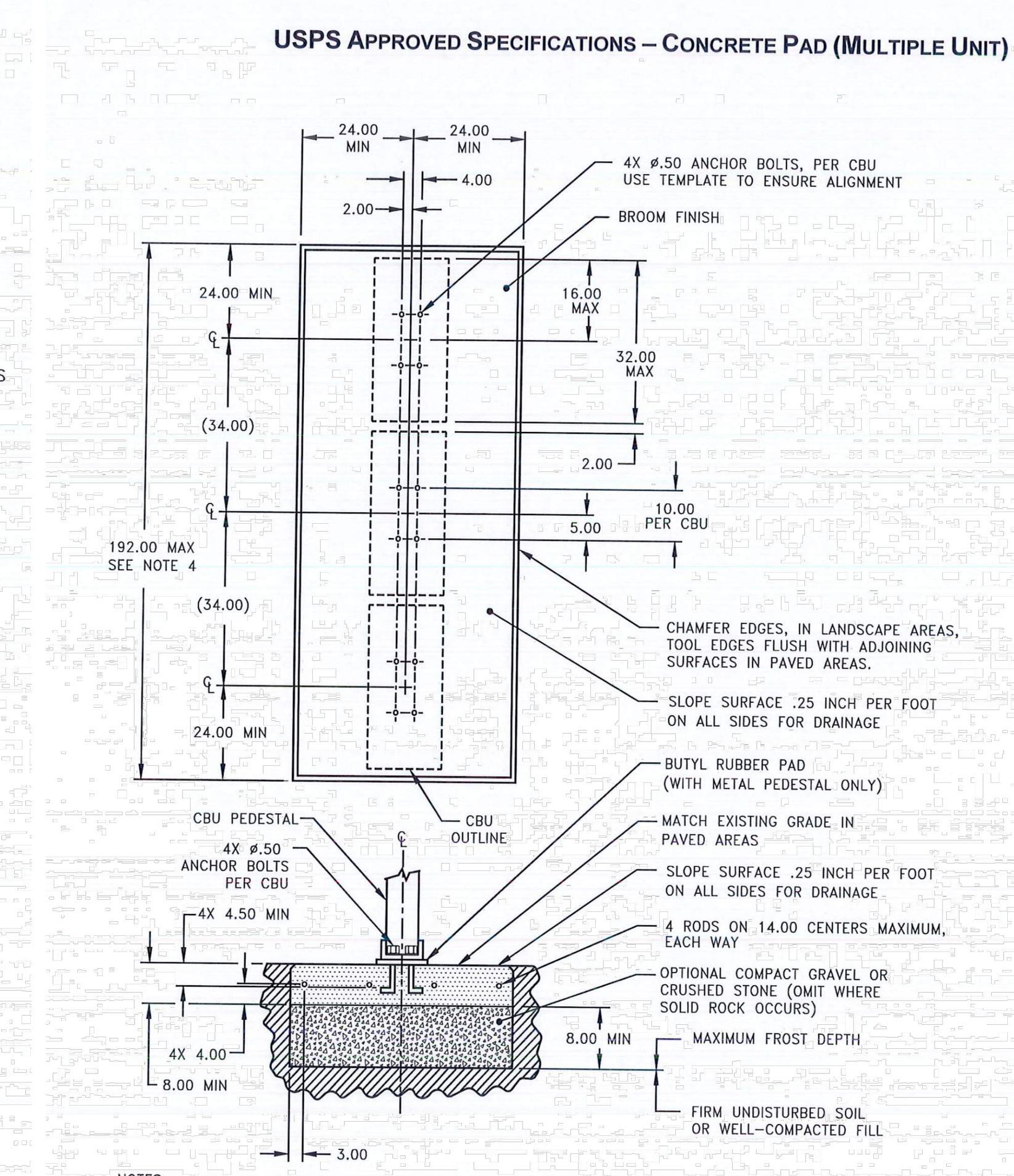
*Back of Curb to be tapered level to pavement in five (5) feet

**Taper Curb from 6" to 2" high in five (5) feet



NOTES:

1. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS, CONTAIN 4% MIN – 6% MAX AIR ENTRAINMENT AND BE PLACED WITH A 3.50 – 4.50 SLUMP IN ACCORDANCE WITH ACI 301.
2. REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
3. ANCHOR BOLTS SHALL CONFORM TO ASTM A193, GRADE B8M, TYPE 316 STAINLESS STEEL.



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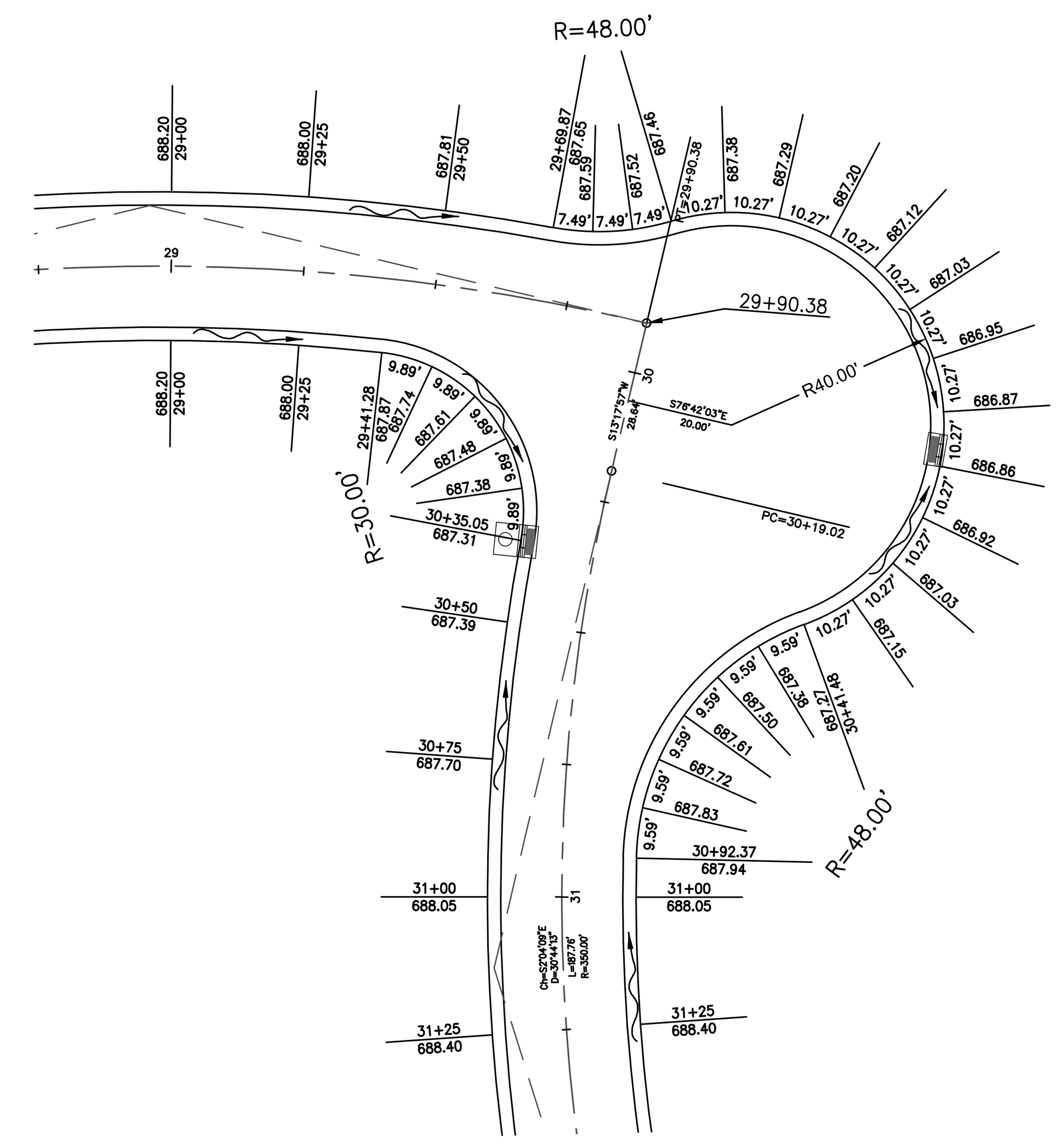
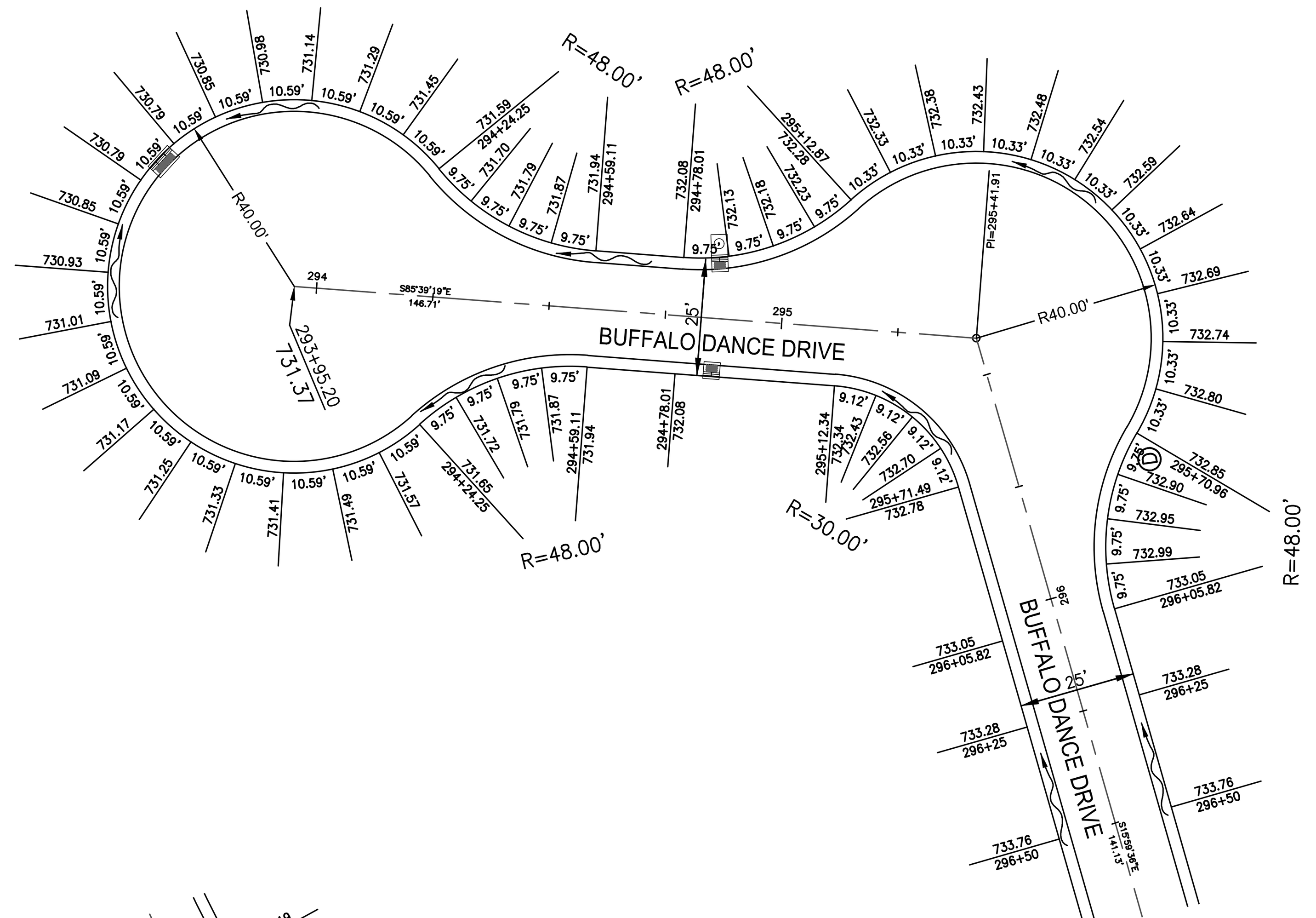
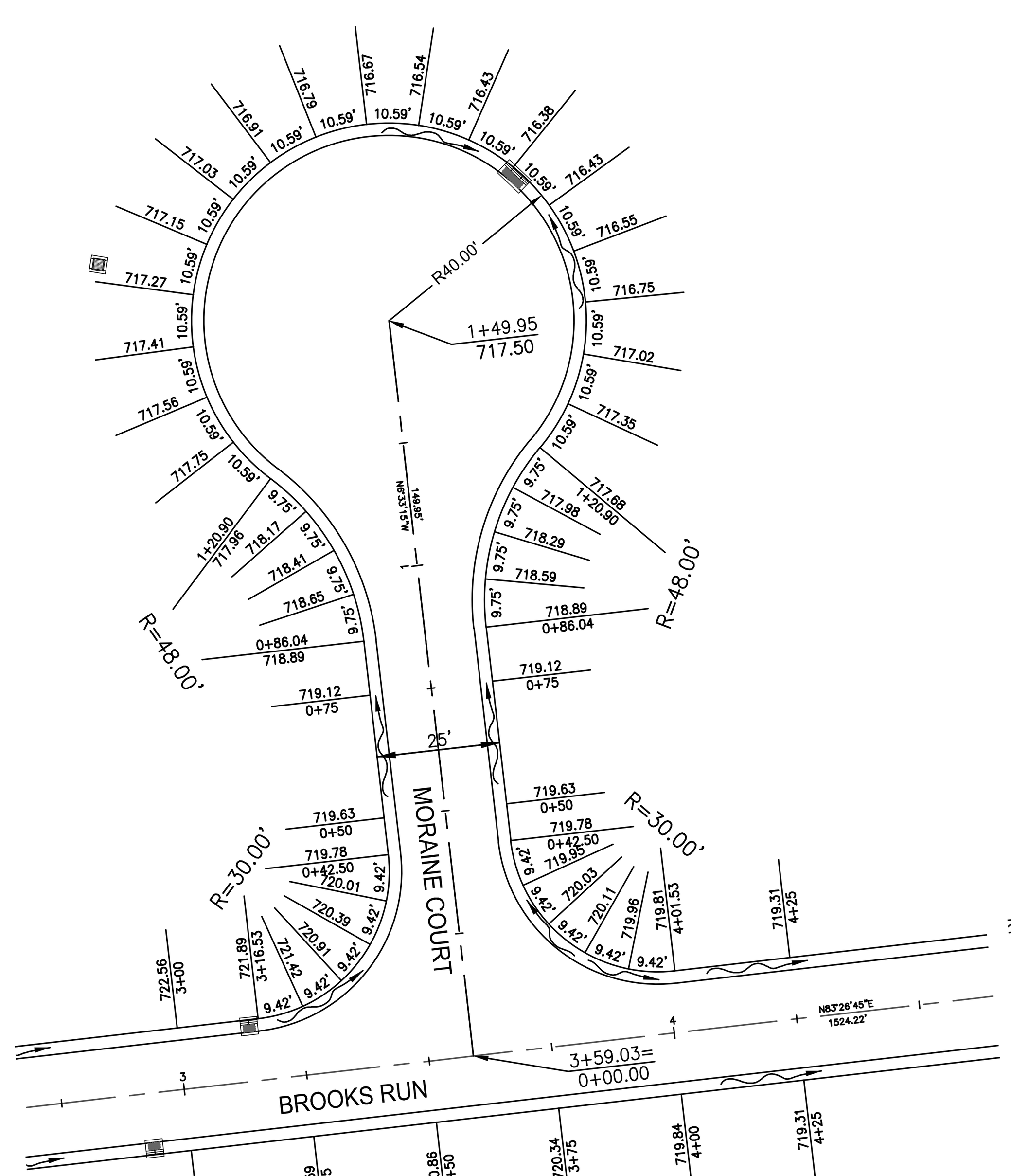
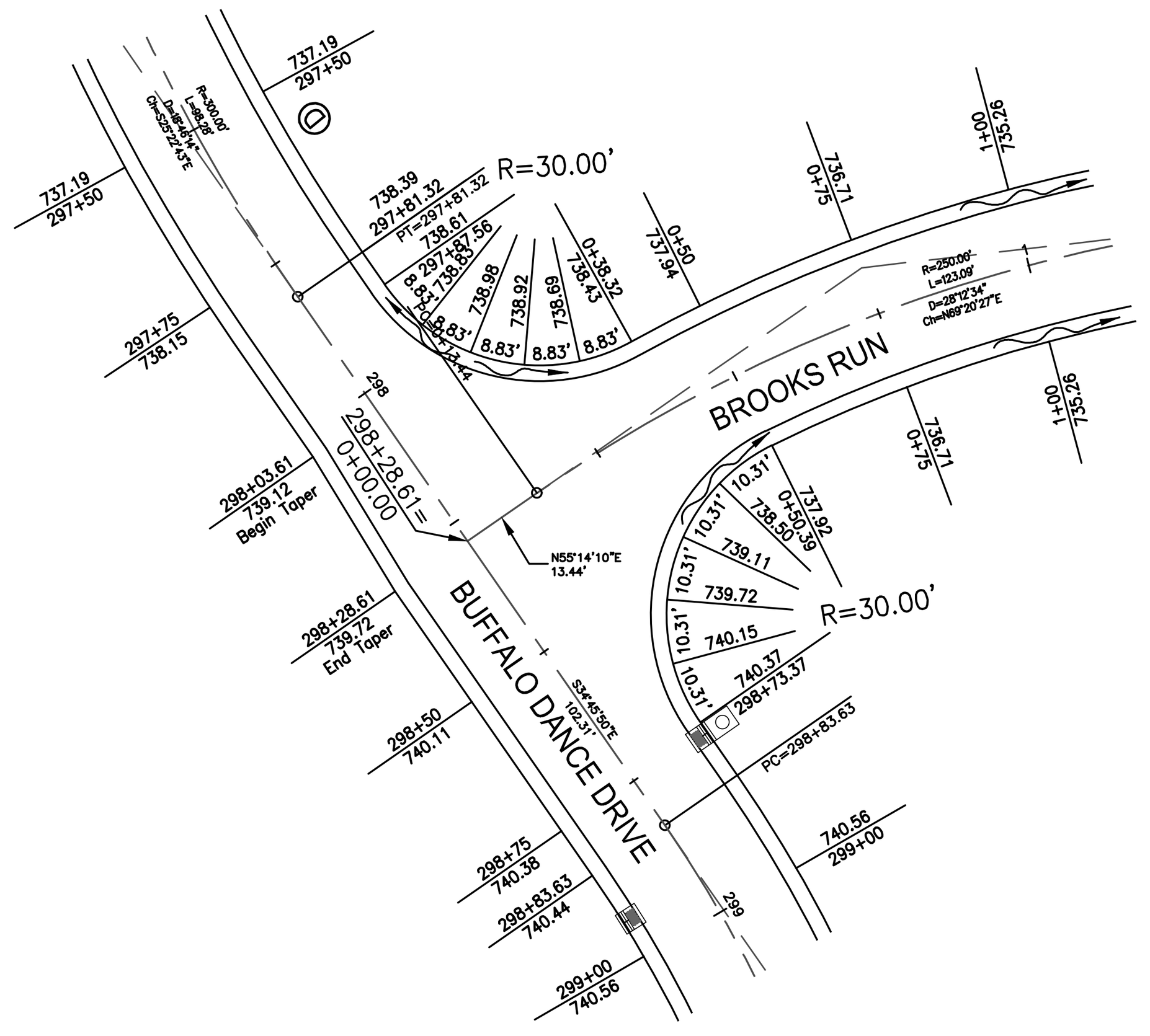
2. REINFORCING STEEL RODS SHALL CONFORM TO ASTM A615, GRADE 60.
3. ANCHOR BOLTS SHALL CONFORM TO ASTM A193, GRADE B8M, TYPE 316 STAINLESS STEEL.
4. A 3 CBU CONFIGURATION IS DEPICTED. A 2 OR 4 CBU CONFIGURATION MAY BE USED AS LONG AS THEY ARE ARRANGED IN GROUPS SUCH THAT THE OVERALL DIMENSION OF THE CONCRETE BASE DOES NOT EXCEED 192 INCHES.

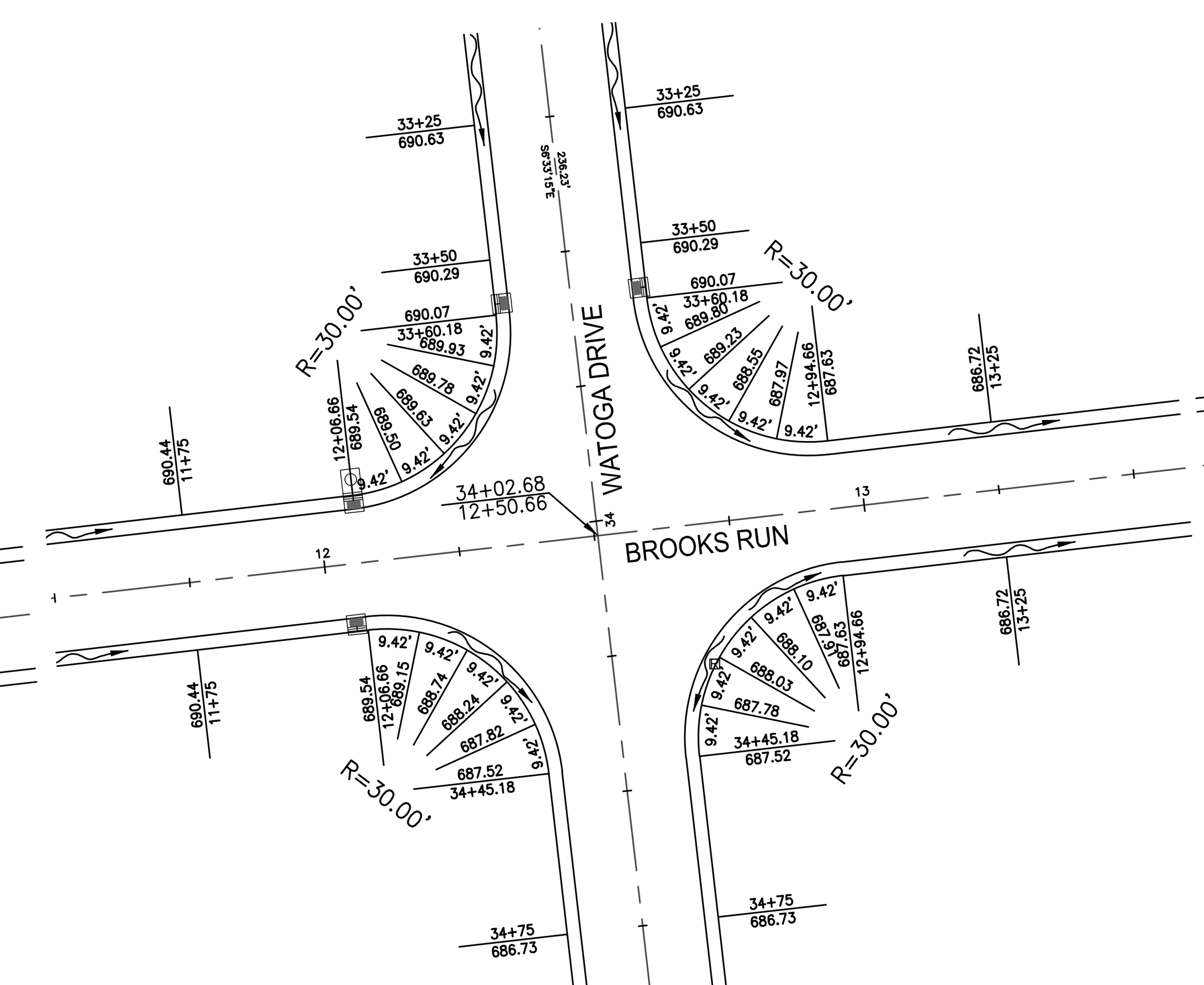
CLUSTER MAILBOX CONCRETE PAD DETAIL

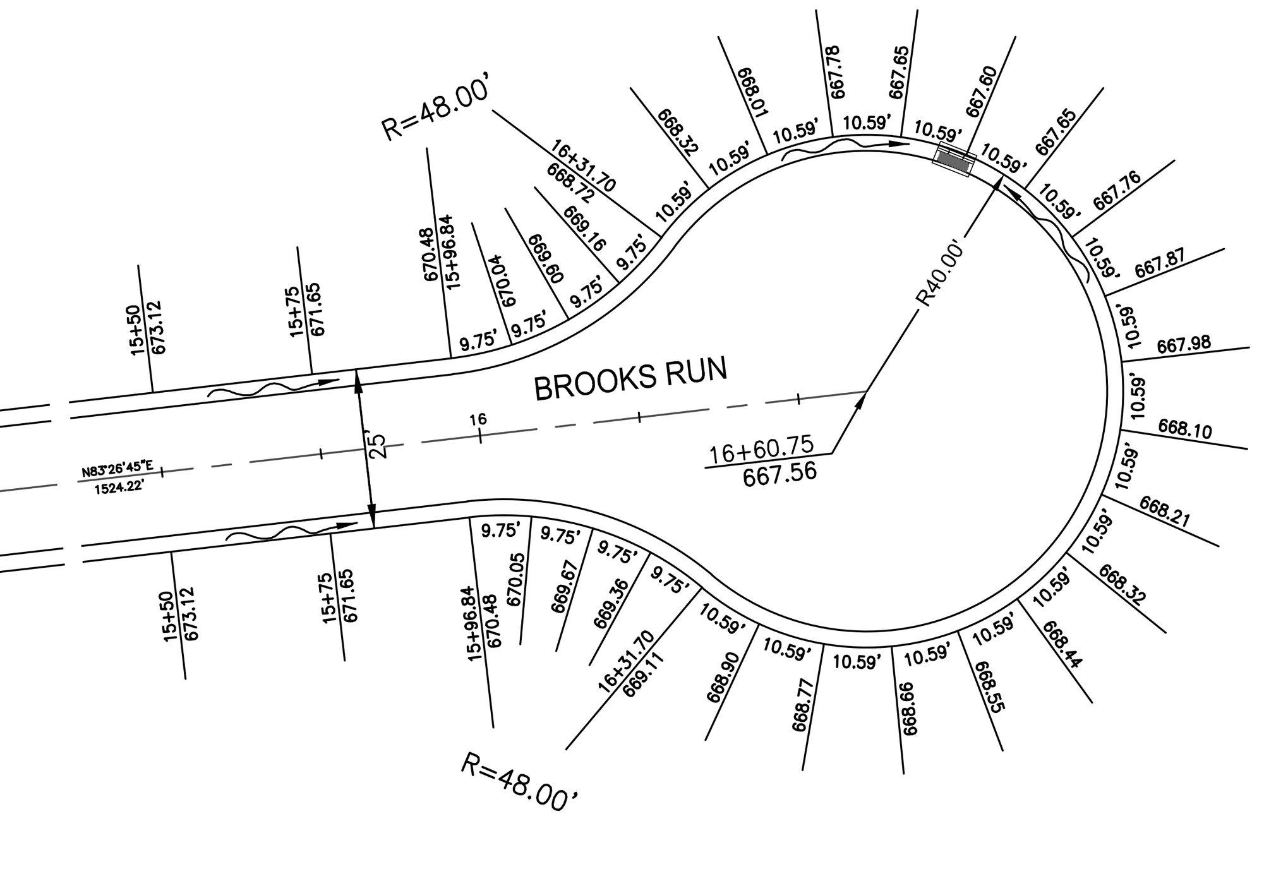












DETAIL SCALE: 1"=30'

Plot time: Mar 09, 2018 – 3:34pm
Drawing name: J:\2017\17-0120\CV\DWG\17-0120 CD.dwg – Layout Tab: INT11

Item	Revision Description	Date	Drwn:	Chk:

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INTERSECTION DETAILS

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