

VICINITY MAP  
NTS

# BRENNER WOODS SECTION EIGHT

SECTION 8, TOWN 3, RANGE 2  
WEST CHESTER TOWNSHIP,  
BUTLER COUNTY OHIO  
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**DEVELOPER:**  
BEARCAT PROPERTIES  
P.O. BOX 957  
MASON, OHIO 45040  
PHONE 513.200.2022  
513.770.0427  
ATTN: MIKE GATES

**ENGINEER / SURVEYOR:**  
CT CONSULTANTS, INC.  
7000 DIXIE HIGHWAY  
FLORENCE, KY 41042  
859.525.0544  
ATTN: JAMES SHUMATE, P.E.

**OWNER:**  
MC CAULY WOODS, LLC.  
C/O BEARCAT PROPERTIES

**EXISTING SITE DATA:**  
A. TOTAL SITE = 16.0 AC.  
B. EXISTING ZONING = R-1A  
C. R-1A ZONE CRITERIA  
MINIMUM LOT AREA = 15,000 SF  
MINIMUM LOT FRONTAGE = 90 FEET  
FRONT YARD = 30 FEET (50' ALONG MC CAULY ROAD)  
SIDE YARD = 15 FEET (25' TOTAL)  
REAR YARD = 45 FEET

**PROPOSED SITE DATA:**  
A. TOTAL NUMBER OF LOTS = 27  
B. DENSITY = 1.69 LOTS/AC  
D. TOTAL LINEAR FEET OF ROADWAY = 1435 LF  
E. SUBDIVISION:  
MINIMUM LOT AREA = 15,084 SF  
MINIMUM LOT FRONTAGE = 90 FEET  
FRONT YARD SETBACK = 30 FEET  
SIDE YARD SETBACK = 15 FEET (25 FEET TOTAL)

**LEGEND**

---	EXISTING MAJOR CONTOUR
---	EXISTING MINOR CONTOUR
---	EXISTING STORM SEWER
---	EXISTING GAS LINE
---	EXISTING WATER MAIN
---	EXISTING SANITARY SEWER
---	PROPOSED RIGHT-OF-WAY
---	PROPOSED PROPERTY LINE
---	PROPOSED WATER MAIN
---	PROPOSED 8" SANITARY SEWER
---	PROPOSED STORM SEWER PIPE
---	PROPOSED 4" SUMP LINE
---	PROPOSED UTILITY EASEMENT
---	PROPOSED BUILDING SETBACK LINE
---	100 YEAR FLOOD ROUTE
⊕	EXISTING POWER POLE
⊕	EXISTING LIGHT POLE
⊕	EXISTING ELECTRIC BOX
⊕	EXISTING TELEPHONE BOX
⊕	EXISTING WATER VALVE
⊕	EXISTING FIRE HYDRANT
⊕	PROPOSED FIRE HYDRANT
⊕	PROPOSED STORM SEWER STRUCTURES
⊕	PROPOSED SANITARY SEWER STRUCTURES
⊕	SOIL TEST BORE LOCATIONS

**SOURCE OF TOPOGRAPHIC INFORMATION**  
TOPOGRAPHIC INFORMATION SHOWN ON THESE PLANS IS BASED ON A COMBINATION OF FIELD SURVEY INTEGRATED WITH BUTLER COUNTY G.I.S. MAPPING.

UNDERGROUND UTILITIES

2 WORKING DAYS  
BEFORE YOU DIG  
CALL 1-800-362-2764 (TOLL FREE)

**CT CONSULTANTS**  
CONSULTANTS

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**TITLE SHEET / EXISTING CONDITIONS**

**BRENNER WOODS SUBDIVISION  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO**

NO.	DATE	BY	DESCRIPTION
1	4-8-15	DGAR	BUTLER CO. AND W. & S. COMMENTS
2	5-13-15	DGAR	CONSTRUCTION ISSUE

SCALE	DATE
1"=50'	2-20-15

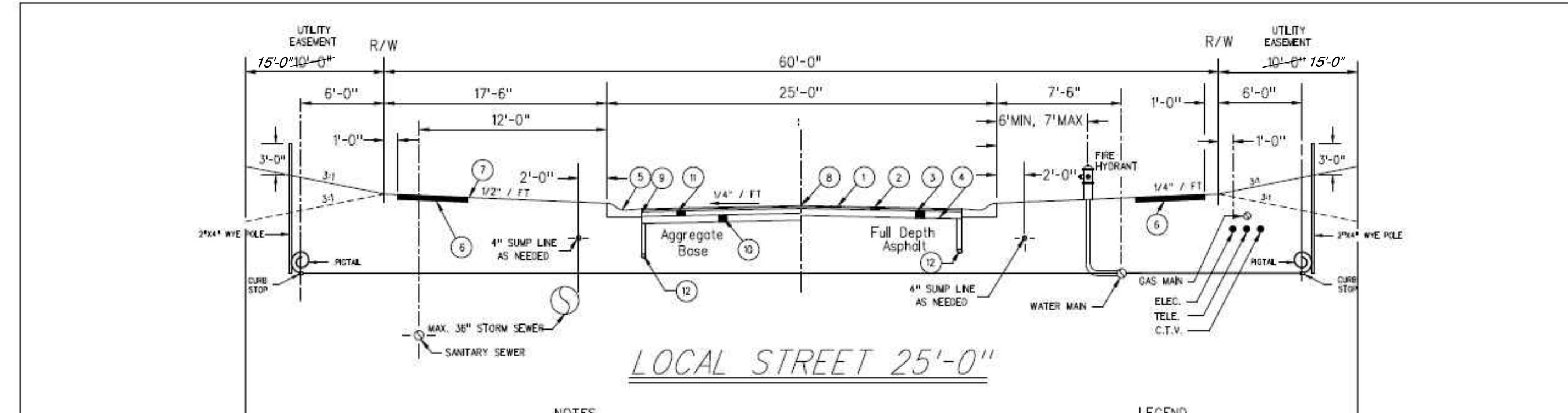
DRAWN BY	PROJECT MGR
DGAR	JSHU

PROJECT NO.	FLAT FILE
148101	KY-

DRAWING No. **C1**

SHEET 1 OF 14





- NOTES**
- Item numbers refer to the Ohio Department of Highways construction and material specifications, and all construction work shall be done according to said specifications or 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 easements shall be compacted and backfilled in accordance with Items 203 and 603 in the state specifications.
  - 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 have not been completed, then the top course may be applied.
  - A minimum 75' 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 conduit 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 TV services. The location of these lines shall be coordinated with utility companies by the developer.
  - Sanitary laterals shall be extended beyond the limits of the utility easements, but not to exceed 12' from the right of way line.
  - All electrical transformers shall be located so that they do not interfere with the existing manholes.
  - Sump line conduits are to be SDR 35.
  - The sanitary sewer shall be placed in such a manner that the sanitary manhole cover does not conflict with the sidewalk.
- LEGEND**
- One inch surface course of Item 448 asphaltic concrete, see note #4.
  - One and one half inch leveling course of Item 448 asphaltic concrete
  - Six inch base course of Item 301 bituminous aggregate base.
  - Compacted subgrade, Item 203.13.
  - Roll type curb and gutter, Item 609 (Butler County Standard C-1).
  - Four inch thick class "C" concrete sidewalk, five feet wide, Item 608.
  - Walk to be 1/2" higher than sod.
  - Seeding and mulching Item 659.
  - Tack coat, Item 407 - to be applied at a rate of 0.05 gal. per sq. yard, see note #4.
  - Tack coat shall be applied to front face of curb prior to the installation of 301 bituminous aggregate base. Also to be applied to curb joint after the installation of 448 leveling course.
  - Six inch base course of Item 301 bituminous aggregate base.
  - Four inch base course of Item 301 bituminous aggregate base.
  - Item 605, 4" underdrain.

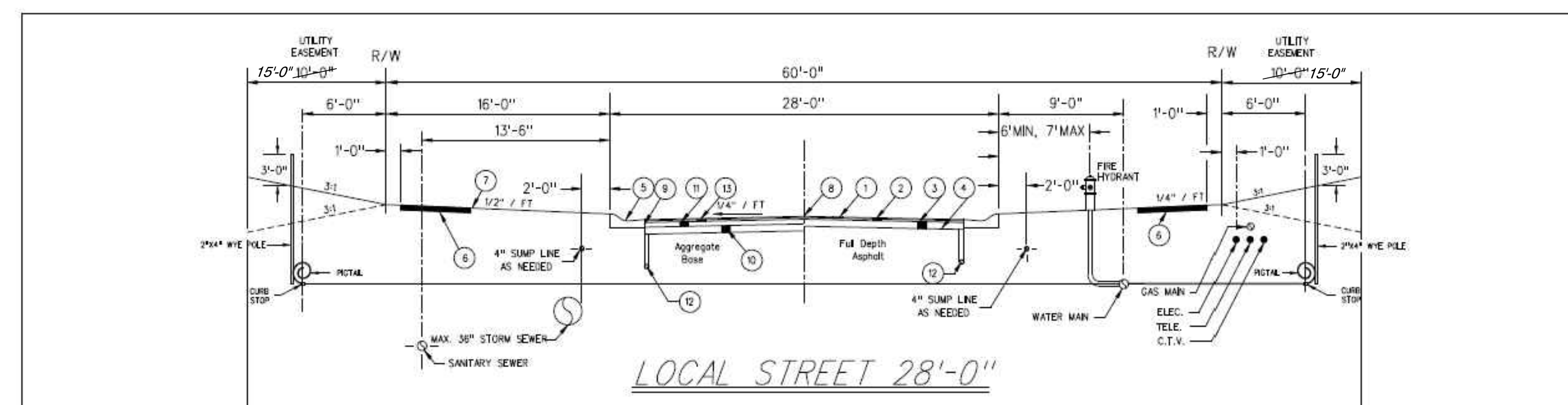
ITEM	DEPTH	TOP OF PIPE
Underdrain	18"	
Sanilines	24" - 30"	
Gos	24" - 30"	
Water	48" - 54"	
Electric	36" - 40"	
Telephone	36" - 40"	
Cable TV	36" - 40"	

REVISIONS	DATE	C-2A
Issue 1	12/15/2011	
Issue 2	1/10/2012	
Issue 3	1/10/2012	
Issue 4	1/10/2012	

TYPICAL CROSS SECTION OF 25' LOCAL STREET WITH CURB

CHK. BY: EJP EFFECTIVE DATE: 01-01-11  
 BUTLER COUNTY ENGINEERS OFFICE AND OPERATIONS FACILITY  
 801 FARMERS HERNE - WHEELER, OHIO  
 PHONE 603-3244 FAX 4500

**WEXFORD WAY / SEAN JAMES COURT**



- NOTES**
- Item numbers refer to the Ohio Department of Highways construction and material specifications, and all construction work shall be done according to said specifications or 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 easements shall be compacted and backfilled in accordance with Items 203 and 603 in the state specifications.
  - 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 have not been completed, then the top course may be applied.
  - A minimum 75' 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 conduit 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 TV services. The location of these lines shall be coordinated with utility companies by the developer.
  - Sanitary laterals shall be extended beyond the limits of the utility easements, but not to exceed 12' from the right of way line.
  - All electrical transformers shall be located so that they do not interfere with the existing manholes.
  - Sump line conduits are to be SDR 35.
  - The sanitary sewer shall be placed in such a manner that the sanitary manhole cover does not conflict with the sidewalk.
- LEGEND**
- One inch surface course of Item 448 asphaltic concrete, see note #4.
  - Two and one half inch leveling course of Item 448 asphaltic concrete
  - Six inch base course of Item 301 bituminous aggregate base.
  - Compacted subgrade, Item 203.13.
  - Roll type curb and gutter, Item 609 (Butler County Standard C-1).
  - Four inch thick class "C" concrete sidewalk, five feet wide, Item 608.
  - Walk to be 1/2" higher than sod.
  - Seeding and mulching Item 659.
  - Tack coat, Item 407 - to be applied at a rate of 0.05 gal. per sq. yard, see note #4.
  - Tack coat shall be applied to front face of curb prior to the installation of 301 bituminous aggregate base. Also to be applied to curb joint after the installation of 448 leveling course.
  - Six inch base course of Item 301 bituminous aggregate base.
  - Five inch base course of Item 301 bituminous aggregate base.
  - Item 605, 4" underdrain.
  - Connect underdrain to front face of nearest catch basin.
  - One and one half inch leveling course of Item 448 asphaltic concrete.

ITEM	DEPTH	TOP OF PIPE
Underdrain	18"	
Sanilines	24" - 30"	
Gos	24" - 30"	
Water	48" - 54"	
Electric	36" - 40"	
Telephone	36" - 40"	
Cable TV	36" - 40"	

REVISIONS	DATE	C-2B
Issue 1	12/15/2011	
Issue 2	1/10/2012	
Issue 3	1/10/2012	
Issue 4	1/10/2012	

TYPICAL CROSS SECTION OF 28' LOCAL STREET WITH CURB

CHK. BY: EJP EFFECTIVE DATE: 01-01-11  
 BUTLER COUNTY ENGINEERS OFFICE AND OPERATIONS FACILITY  
 801 FARMERS HERNE - WHEELER, OHIO  
 PHONE 603-3244 FAX 4500

**BENNINGTON DRIVE**

**GENERAL NOTES**

ALL TOPSOIL SHALL BE STRIPPED AND STOCKPILED IN THE DIRECTION OF THE OWNER. TOPSOIL SHALL BE RE-SPREAD IN THE DIRECTION OF THE OWNER.

EXTREME CARE SHALL BE EXERCISED AND SEDIMENT PROTECTION SHALL BE INSTALLED AND MAINTAINED AROUND THE PERIMETER OF THE SITE SO THAT NO SOIL LADEN RUNOFF SHALL LEAVE THE SITE. THE CONTRACTOR SHALL REMOVE ACCUMULATED SEDIMENT FROM THE DETENTION BASIN AND RE-ESTABLISH ORIGINAL DESIGN GRADES UPON COMPLETION OF THE PROJECT AND AFTER ESTABLISHED VEGETATION OF THE SITE.

ALL WORK SHALL BE DONE UNDER THE SUPERVISION OF THE BUTLER COUNTY ENGINEER AND THE AUTHORITY HAVING RESPONSIBILITY FOR UTILITIES IN THE AREA AND IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR SUBDIVISION.

ALL CONSTRUCTION WORK SHALL BE IN ACCORDANCE WITH THE OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATION" OR BUTLER COUNTY REQUIREMENTS AND STANDARDS FOR SUBDIVISION. WHEN IN CONFLICT, THE COUNTY REQUIREMENTS SHALL PREVAIL.

ALL SANITARY SEWER LATERALS SHALL NOT EXCEED A DEPTH BELOW FINISHED GRADE OF 12 FEET OR 4 FEET BELOW A PROPOSED BASEMENT FLOOR ELEVATION AT THE END OF THE LATERAL, UNLESS SPECIFICALLY AUTHORIZED BY THE COUNTY.

SANITARY SEWER MATERIALS AND INSTALLATION AS PER BUTLER COUNTY WATER AND SEWER DEPARTMENT SPECIFICATIONS, USING SECTION 3110 FOR PVC, SDR-35 & SDR-26 PIPE, SECTION 3140 FOR ABS OR PVC COMPOSITE PIPE, SECTION 3110 FOR MANHOLES.

ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

WATERMAIN MATERIALS, VALVES, FIRE HYDRANTS, FITTINGS AND APPURTENANCES, AND INSTALLATION AS PER BUTLER COUNTY WATER AND SEWER DEPARTMENT SPECIFICATIONS USING CLASS 53 DUCTILE IRON AS PER AWWA C-151 WITH A MINIMUM 4:0 COVER.

WATER MAIN SHALL HAVE 10' HORIZONTAL, & 18" VERTICAL SEPARATION (OUTSIDE EDGE TO EDGE) WITH ALL OTHER PIPE.

INLETS DESIGNATED AS CB-3 AND CB-3A ARE STATE OF OHIO DEPARTMENT OF TRANSPORTATION STANDARDS. INLETS DESIGNATED AS CB-3 MODIFIED (CB-3M) OR CB-3A MODIFIED (CB-3AM) ARE BUTLER COUNTY STANDARDS AVAILABLE AT THE BUTLER COUNTY ENGINEERS OFFICE.

ALL MANHOLES GREATER THAN 4.0' DEPTH SHALL BE PROVIDED WITH STEPS. ALL CATCH BASINS GREATER THAN 4.0' DEPTH SHALL BE PROVIDED WITH STEPS.

ALL SUMP PUMP DRAINS ARE TO BE TIED INTO CATCH BASINS, STORM MANHOLES, STORM SEWERS, DRAINAGE SWALES, OR PARALLEL COLLECTION LINES. NO SUMP PUMP DRAIN WILL OUTLET TO STREET.

THE CONTRACTOR SHALL RECOMPACT ALL AREAS OF DISTURBED FILL TO 98% COMPACTION. BUTLER COUNTY INSPECTOR REQUIRES VERIFICATION FROM GEOTECHNICAL ENGINEER.

ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH STATE OF OHIO SPECIFICATIONS, ITEM 659.

THE CONTRACTOR SHALL SEED AND MULCH DISTURBED GRASS AREAS WITH: 3 LBS. WHEAT OR RYE PER 1000 SQ. FT. 12-12-12 FERTILIZER PER 1000 SQ. FT. 2 OR 3 BALES OF STRAW PER 1000 SQ. FT.

THE CONTRACTOR SHALL ALSO PROVIDE OTHER EROSION CONTROL MEASURES AS MAY BE REQUIRED BY BUTLER COUNTY ENGINEER DURING THE CONSTRUCTION PHASE.

ALL DOWNSPOUT LINES SHALL BE ON SPLASHBLOCKS AND MAY NOT BE CONNECTED TO THE STREET.

SEEDING - SPECIFICATIONS AT DETENTION BASIN:  
 RED FESCUE 1 LB. PER 1000 SQ. FT.  
 KENTUCKY BLUEGRASS 1/2 LB. PER 1000 SQ. FT.  
 PERENNIAL RYEGRASS 1/2 LB. PER 1000 SQ. FT.  
 FERTILIZER 12-12-12  
 MULCH - 3 BALES OF STRAW PER 1000 SQ. FT.  
 MULCH THE DOWN LIQUID ASPHALT (R/C - 70, 25 OR 800) 40 GALS. PER 1000 SQ. YDS. OR PLASTIC MULCH NETTING, STAPLED IN PLACE.  
 SOD (IF REQUIRED): TO BE STAKED IN PLACE.

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 CENTERLINE OF ANY SANITARY MAIN SEWER OR WATER MAIN.

PRIVATE DRIVEWAYS, PARKING LOTS, EARTHEN BERMS, AND OTHER PAVED AREAS OR STRUCTURES SHOULD NOT BE CONSTRUCTED OVER PRIVATE WATER OR SEWER SERVICE LINES WITHIN THE PUBLIC ROAD RIGHT OF WAY OR WITHIN EASEMENT AREAS FOR THE PUBLIC UTILITIES. SHOULD THIS OCCUR, THE PROPERTY OWNER WILL BE HELD RESPONSIBLE FOR THE PROTECTION AND REPAIR OF AND FOR PROVIDING ACCESS TO ANY CURB STOPS, METER PITS, MANHOLES, CLEANOUTS, 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.

WATER SERVICES TO SINGLE FAMILY LOTS ARE 3/4". ALL WATER SERVICES ARE TO BE INSTALLED TO THE PROPOSED WATER METERS (GENERALLY LOCATED BEYOND 15' UTILITY EASEMENT)

ALL WATER MAIN VALVES TO HAVE A MINIMUM DEPTH OF 2.5' AND A MAXIMUM OF 4.0' FROM PROPOSED GRADE TO THE TOP OF THE VALVE OPERATING NUT.

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 INCLUDES ANY JISHU THAT EXTENDS OUT FROM THE MAIN BARREL OF THE SEWER MAIN.

BUTLER COUNTY ENGINEERS OFFICE AND OPERATIONS FACILITY  
 801 FARMERS HERNE - WHEELER, OHIO  
 PHONE 603-3244 FAX 4500

SANITARY SEWER TO BE TIED INTO BUTLER COUNTY SYSTEM.  
 WATER TO BE INSTALLED AND CONNECTED TO BUTLER COUNTY SYSTEM.  
 ELECTRIC TO BE SUPPLIED BY DUKE ENERGY.

ALL STREETS AND IMPROVEMENTS TO BE ACCORDING TO BUTLER COUNTY STANDARDS AND SPECIFICATIONS.  
 ALL LOTS HAVE 30' MIN FRONT YARD SETBACK UNLESS OTHERWISE NOTED.  
 ALL EXISTING BUILDINGS AND STRUCTURES TO BE REMOVED.  
 BEST MANAGEMENT PRACTICES SHALL BE USED TO CONTROL SOIL EROSION.

DEVELOPER TO COMPLY WITH OHIO ENVIRONMENTAL PROTECTION AGENCY (EPA) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

NO DRIVEWAY ACCESS TO McCAULY ROAD SHALL BE ALLOWED FOR LOTS 154, 155, 156 OR 157.

ALL WATER MAIN, SANITARY SEWER, AND STORM SEWERS, INCLUDING THE DETENTION BASIN WITHIN THIS PROPOSED DEVELOPMENT WILL BE PUBLIC AND DEDICATED TO THE APPROPRIATE GOVERNING AUTHORITY.

NO SIDEWALKS WILL BE CONSTRUCTED IN SECTION 8 TO MATCH THE EXISTING SURROUNDING RESIDENTIAL SUBDIVISION. A VARIANCE WILL BE REQUESTED FROM BUTLER COUNTY PLANNING COMMISSION AND WEST CHESTER TOWNSHIP.

THE EXISTING POND ON LOTS 167 & 168 WILL BE FILLED IN. COMPACTION TEST REPORTS WILL BE SUBMITTED FOR LOTS 167 & 168 TO BUTLER COUNTY SWDC PRIOR TO FINAL PLAT APPROVAL.

THE CONTRACTOR SHALL INSURE THAT ALL REQUIRED NOTICES ARE GIVEN AND ALL PERMITS ARE ACQUIRED BEFORE THE COMMENCEMENT OF WORK.

COMPACTION TESTING OF EMBANKMENT, GRANULAR BACKFILL, AND/OR SUBGRADE SHALL BE DONE BY AN INDEPENDENT QUALIFIED TESTING LABORATORY UNDER A CONTRACT WITH THE CONTRACTOR. EMBANKMENT SHALL MEET TESTING AS SPECIFIED IN ODOT ITEM 203.12 AND UTILITY TRENCH BACKFILL AS SPECIFIED IN ODOT ITEM 603.08.

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. IN ADDITION, SAID BUILDING LEVEL SHALL BE AT LEAST ONE FOOT (1') ABOVE THE LOWEST POINT OF FREE-OVERFLOW (NON-SEALED MANHOLE COVER) UPSTREAM OF ANY TREATMENT FACILITY OR 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.

LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY GROUND CONDITIONS AND EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.

THE UTILITIES SHOWN ARE FOR CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE OWNER ASSUMES NO RESPONSIBILITY FOR THE LOCATION OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

BUTLER COUNTY WILL NOT BE RESPONSIBLE FOR ANY PAVEMENT OR STORM SEWER REPAIRS RESULTING FROM WATER MAIN REPAIRS. BUTLER COUNTY ALSO WILL NOT BE RESPONSIBLE FOR ADJUSTING VALVES, FIRE HYDRANTS, METER PITS, ETC., AS A RESULT OF GRADE CHANGES. THE GRANTOR SHALL BE RESPONSIBLE FOR THE PROPER ADJUSTMENT OF VALVES, FIRE HYDRANTS, METER PITS, ETC., TO THE SATISFACTION OF BUTLER COUNTY, DUE TO GRADE CHANGES, PAVING, REPAIRING, ETC., INITIATED BY THE GRANTOR.

MATERIAL SPECIFICATIONS

ALL STORM SEWERS SHALL MEET THE MATERIAL AND INSTALLATION REQUIREMENTS OF ODOT ITEM #603 TYPE B CONDUITS, WITH POST CONSTRUCTION TESTING AS DEFINED BELOW.

ALL SEWER PIPE SHALL BE ADS N-12 (707.33) OR APPROVED EQUAL, UNLESS OTHERWISE SHOWN ON THE PLANS.

DEFLECTION TESTING FOR STORM SEWERS AND CULVERTS

15% OF ALL STORM SEWERS SHALL BE TESTED FOR DEFLECTION WITHIN 30 DAYS 15 AFTER THEY ARE COMPLETE. THE OWNER OR HIS DESIGNATED REPRESENTATIVE WILL DETERMINE WHAT 15% WILL 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 OWNER OR HIS DESIGNATED REPRESENTATIVE. THE TESTING WILL BE ACCOMPLISHED FROM MANHOLE TO MANHOLE OR CATCH BASIN TO CATCH BASIN, FOLLOWING 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 OWNER OR HIS DESIGNATED REPRESENTATIVE. ANY SECTION OF PIPE THAT FAILS TO MEET THE AFOREMENTIONED REQUIREMENTS SHALL BE REWORKED BY A PROCEDURE ACCEPTABLE TO THE COUNTY OR BE EXCAVATED AND EITHER RELAYED OR REPLACED, AND RETESTED UNTIL THE REQUIREMENTS ARE MET.

WATER MAIN PIPE SHALL BE DUCTILE IRON, CLASS 53.

SANITARY SEWER PIPE SHALL BE PVC SDR-35 (16" MAX DEPTH) OR SDR-26 (16"-25").

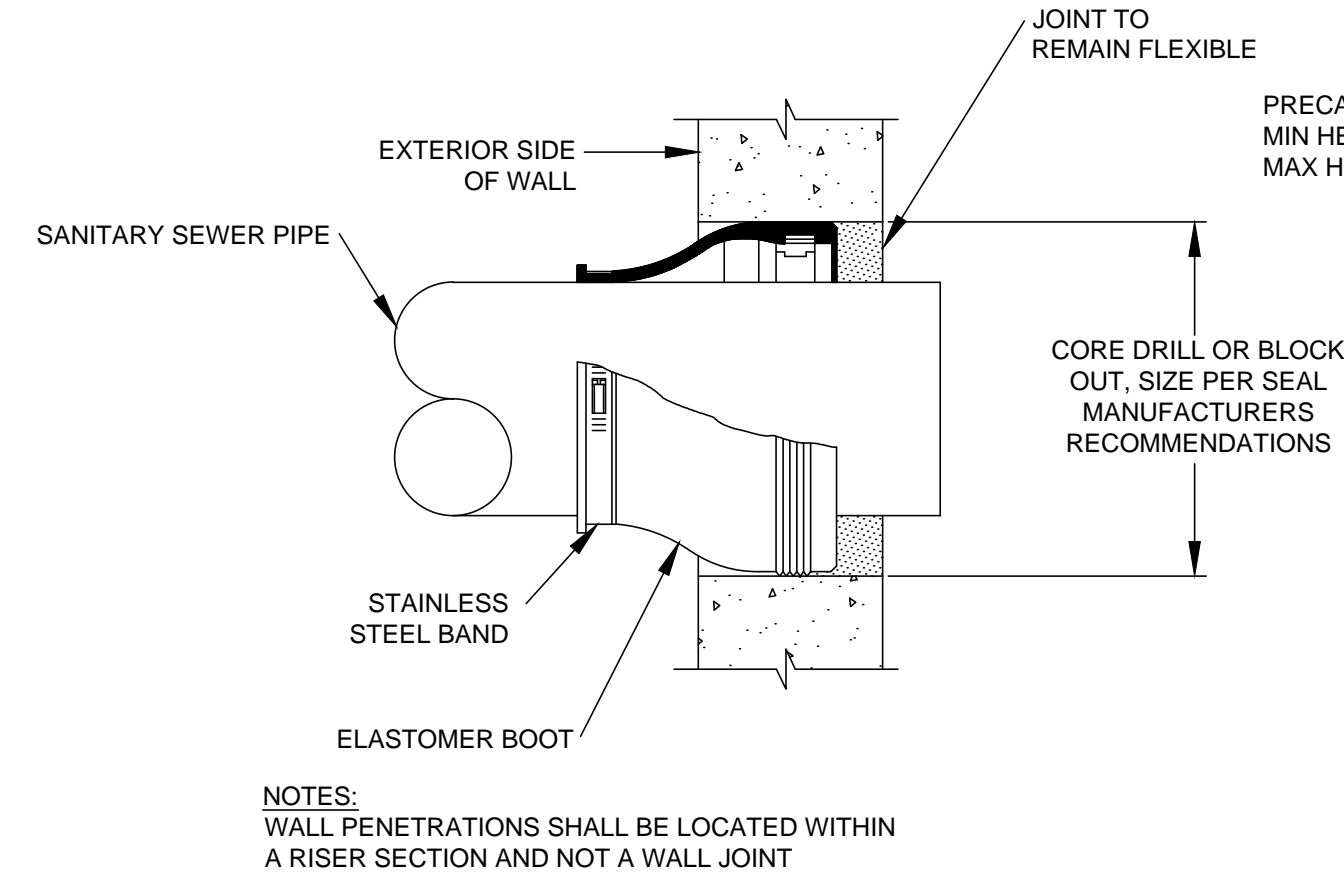
NO.	DATE	DESCRIPTION
1	12/15/2011	ISSUE 1
2	1/10/2012	ISSUE 2
3	1/10/2012	ISSUE 3
4	1/10/2012	ISSUE 4

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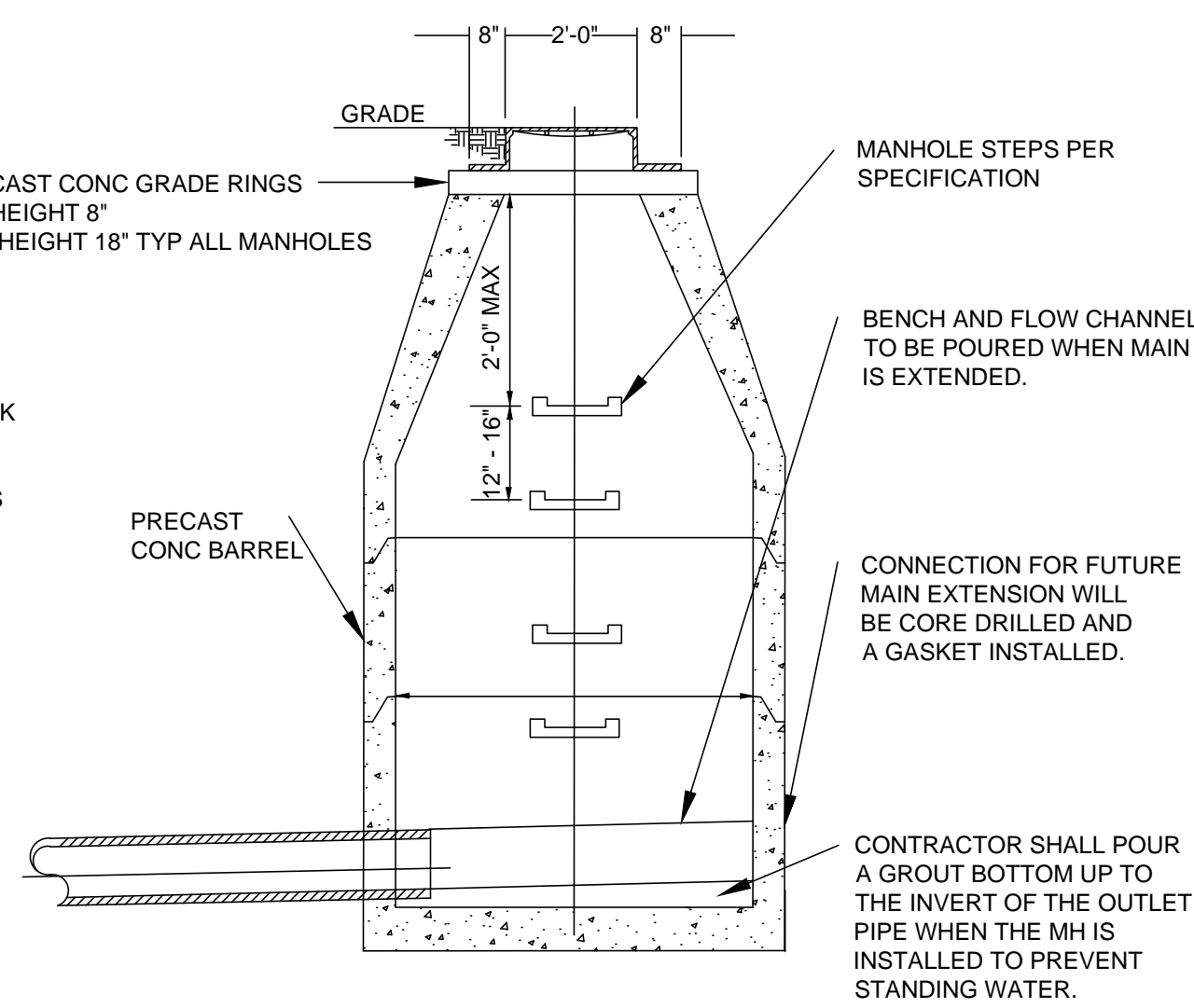
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4	1/10/2012	ISSUE 4

SCALE	N.T.S.	DATE	2-20-15
DRAWN BY	DGAR	PROJECT MGR	JSHU
PROJECT NO.	148101	FLAT FILE	KY-
DRAWING NO.	C2		
SHEET	2	OF	14

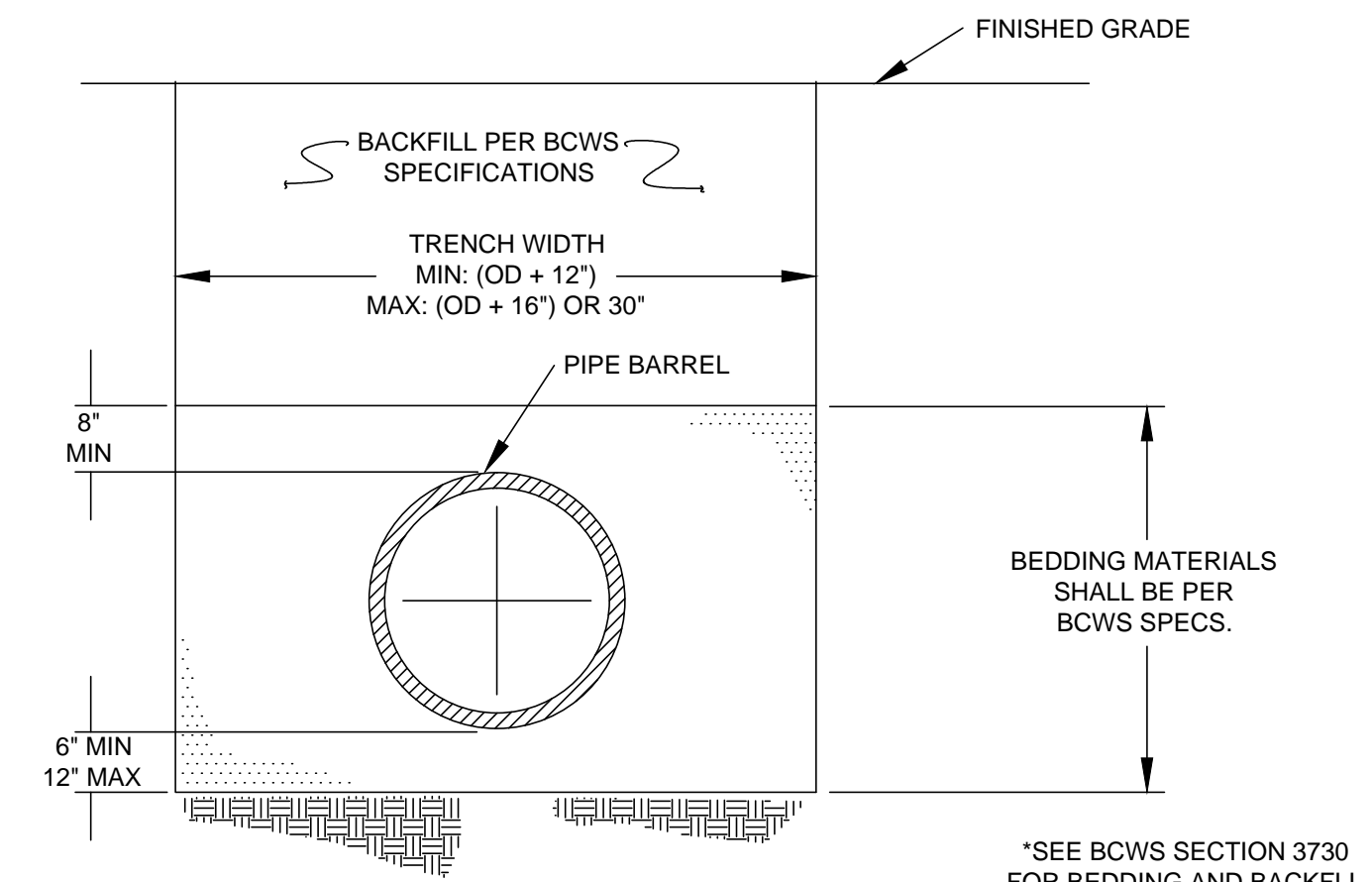




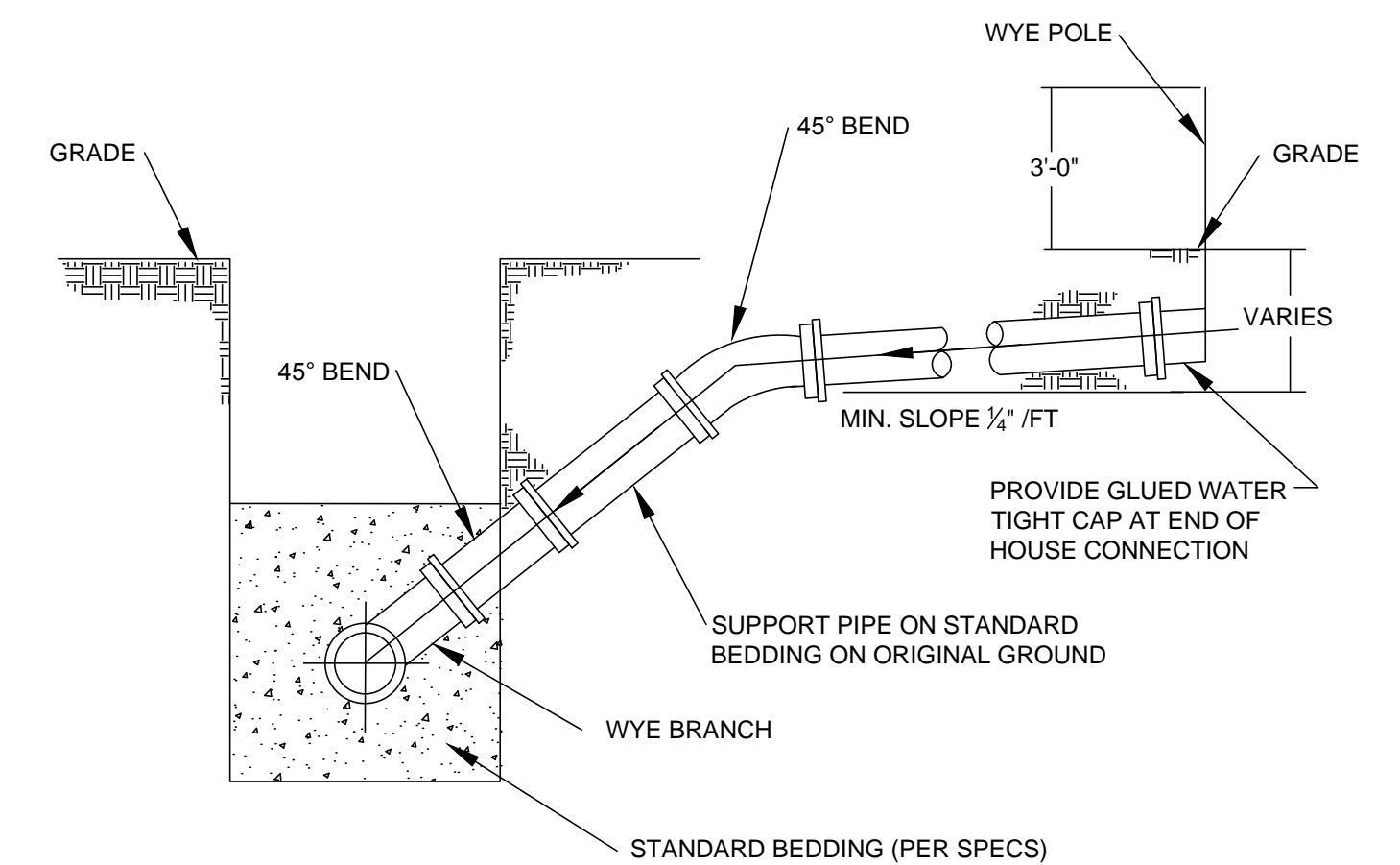
**CONNECTION TO EXISTING MANHOLE**



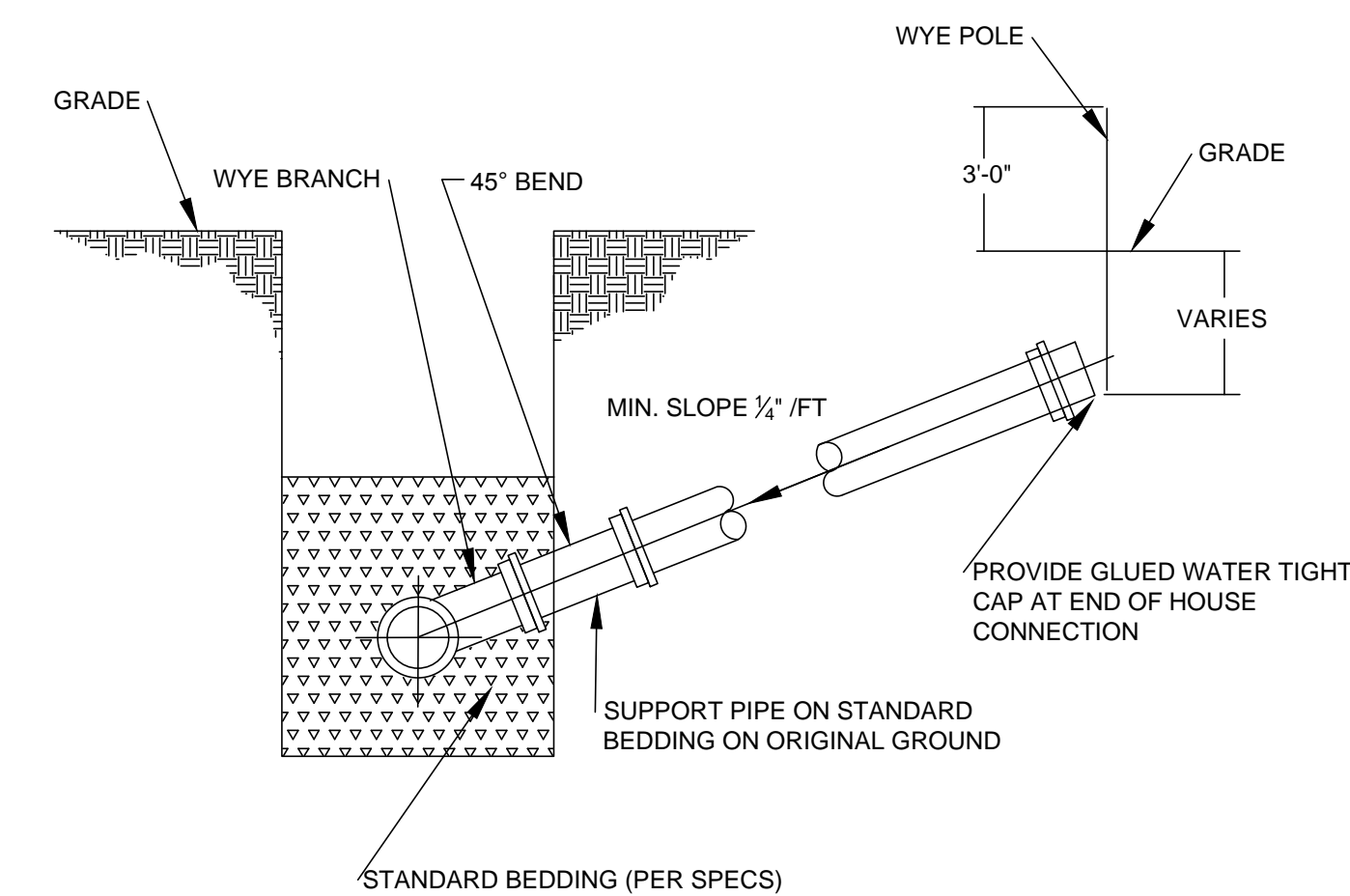
**DEAD END MANHOLE DETAIL**



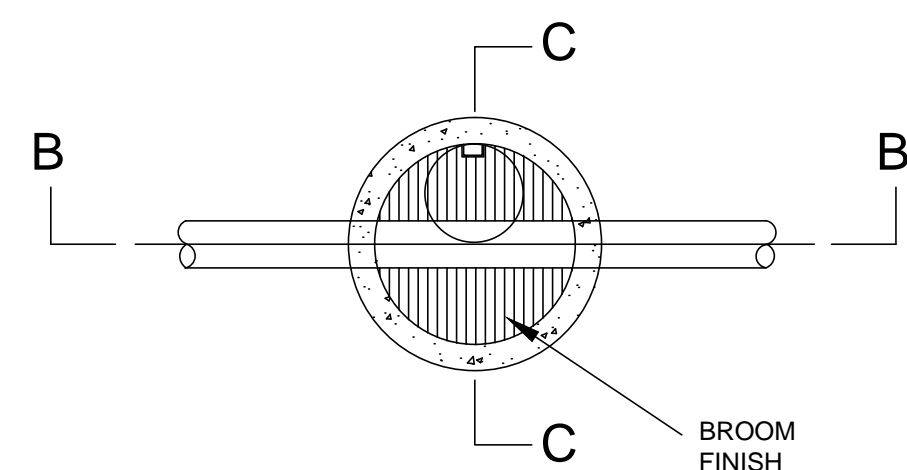
**TYPICAL TRENCH DETAIL SEWER INSTALLATION**



**HOUSE CONNECTION FOR DEEP SEWER**

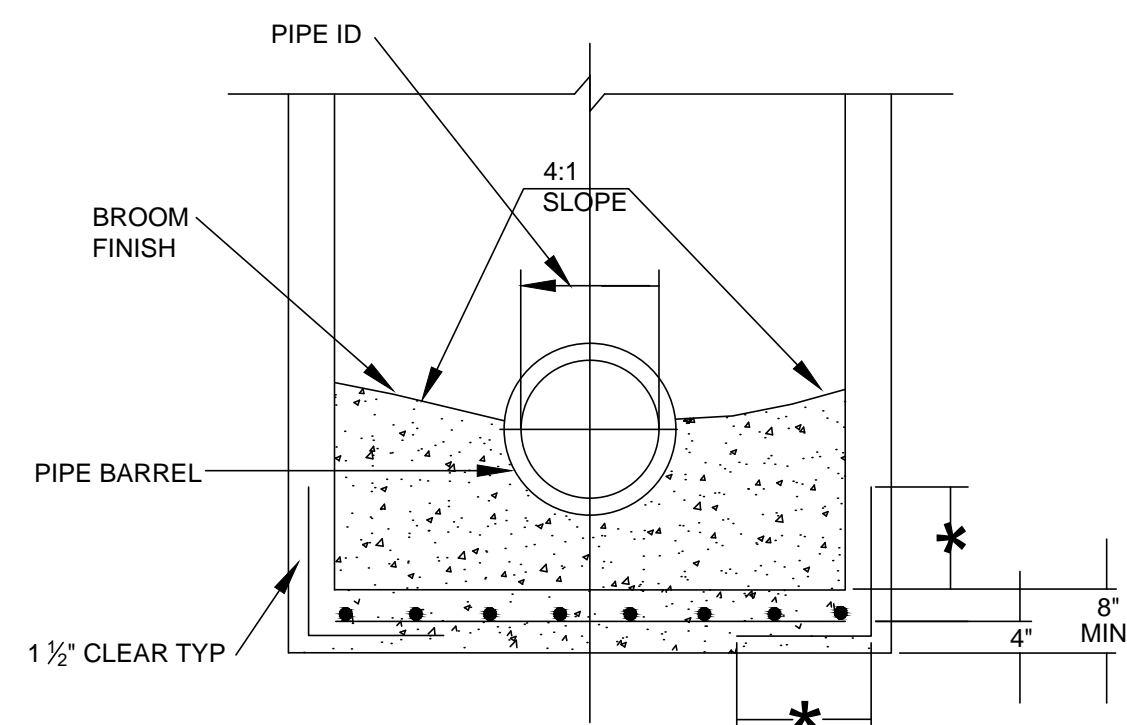


**HOUSE CONNECTION FOR SHALLOW SEWER**



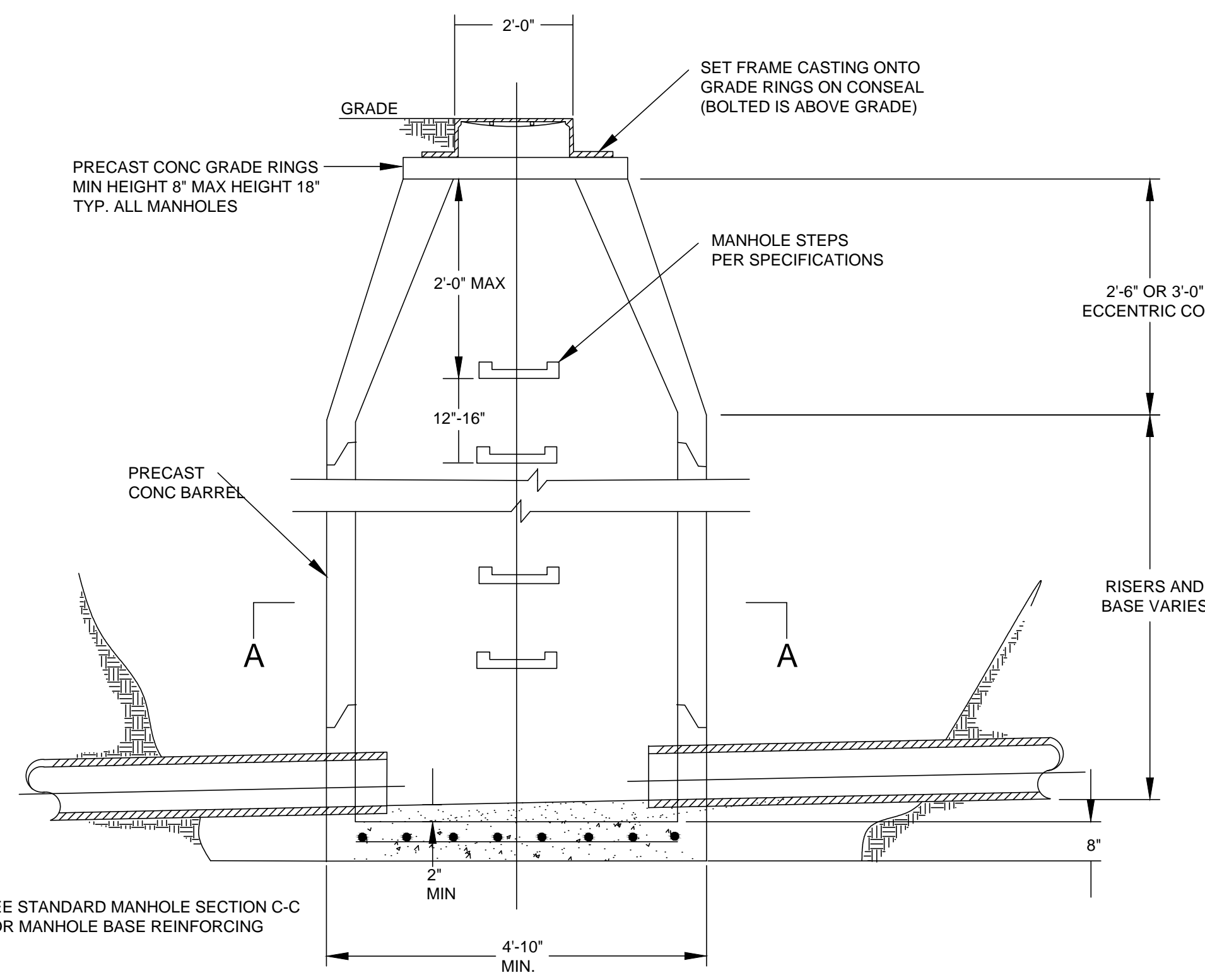
**SECTION A - A**

M.H. DEPTH	SLAB & DOWELL RESTEEL SQ. IN./FT. E.W.
0'-10"	0.17
11'-20"	0.22
21'-30"	0.27
31'-40"	0.32

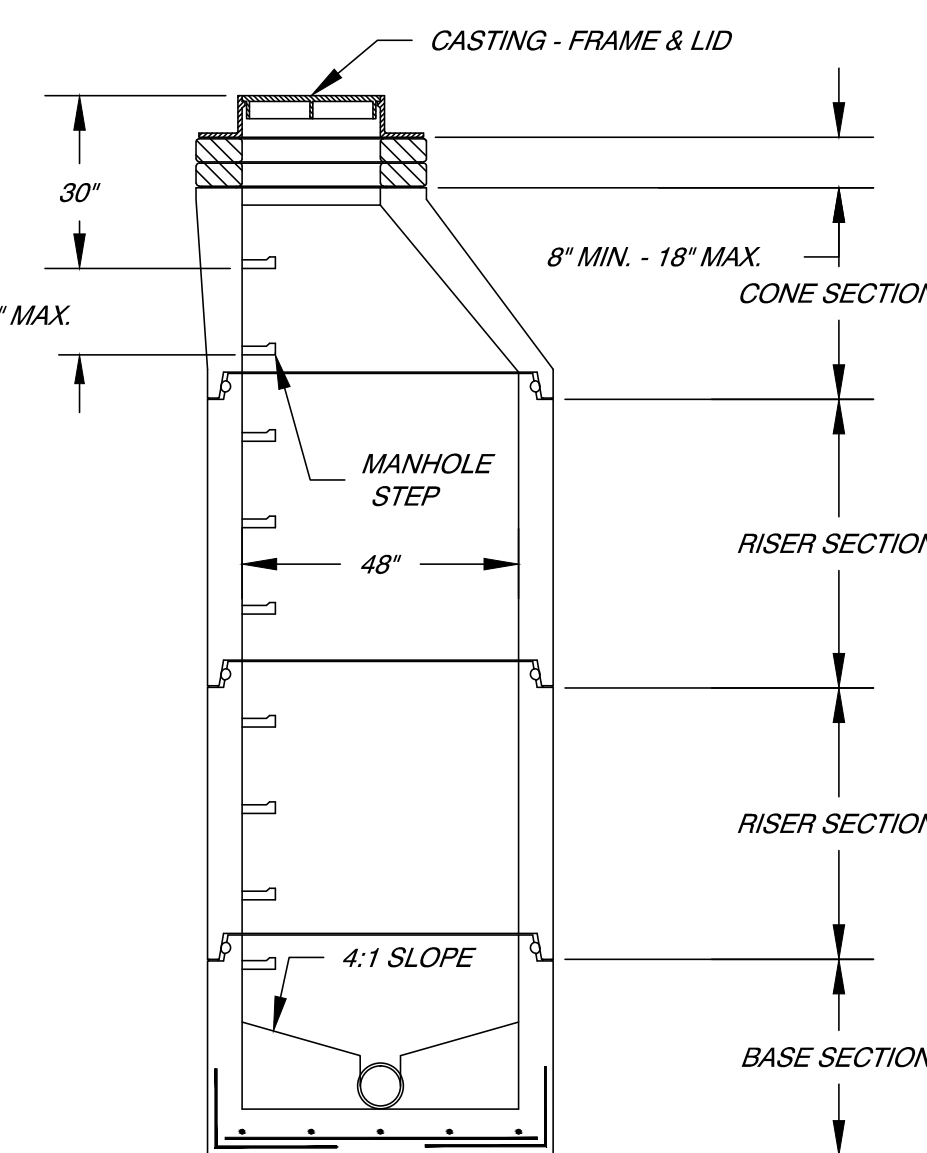


**SECTION C - C**

**STANDARD MANHOLE**



**SECTION B - B**

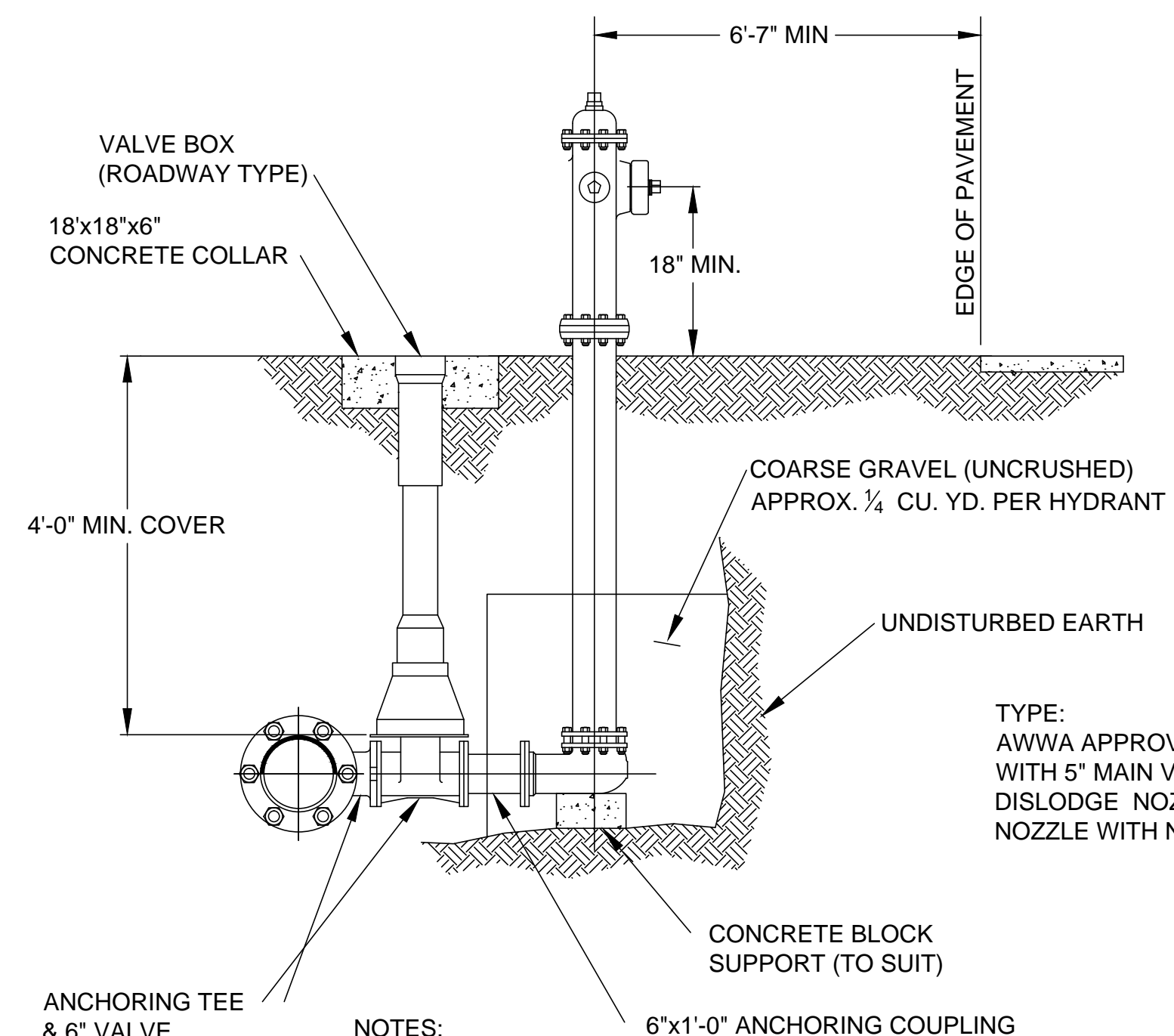
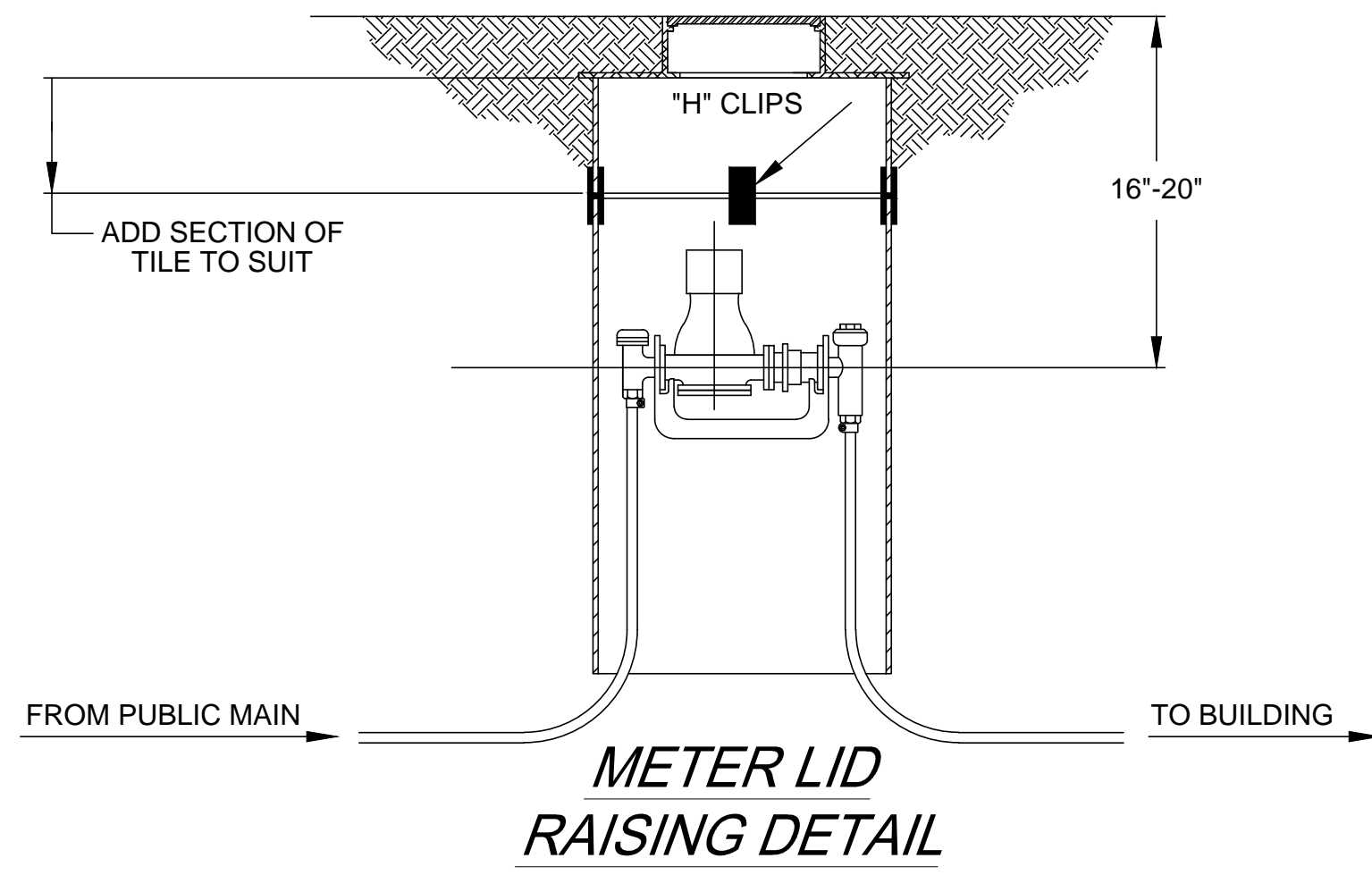


**STANDARD MANHOLE**

**NOTE:**  
ALL SANITARY SEWER CONSTRUCTION SHALL BE IN CONFORMANCE WITH BUTLER COUNTY WATER AND SEWER STANDARDS AND ARTICLE VI OF THE BUTLER COUNTY SUBDIVISION REGULATIONS.

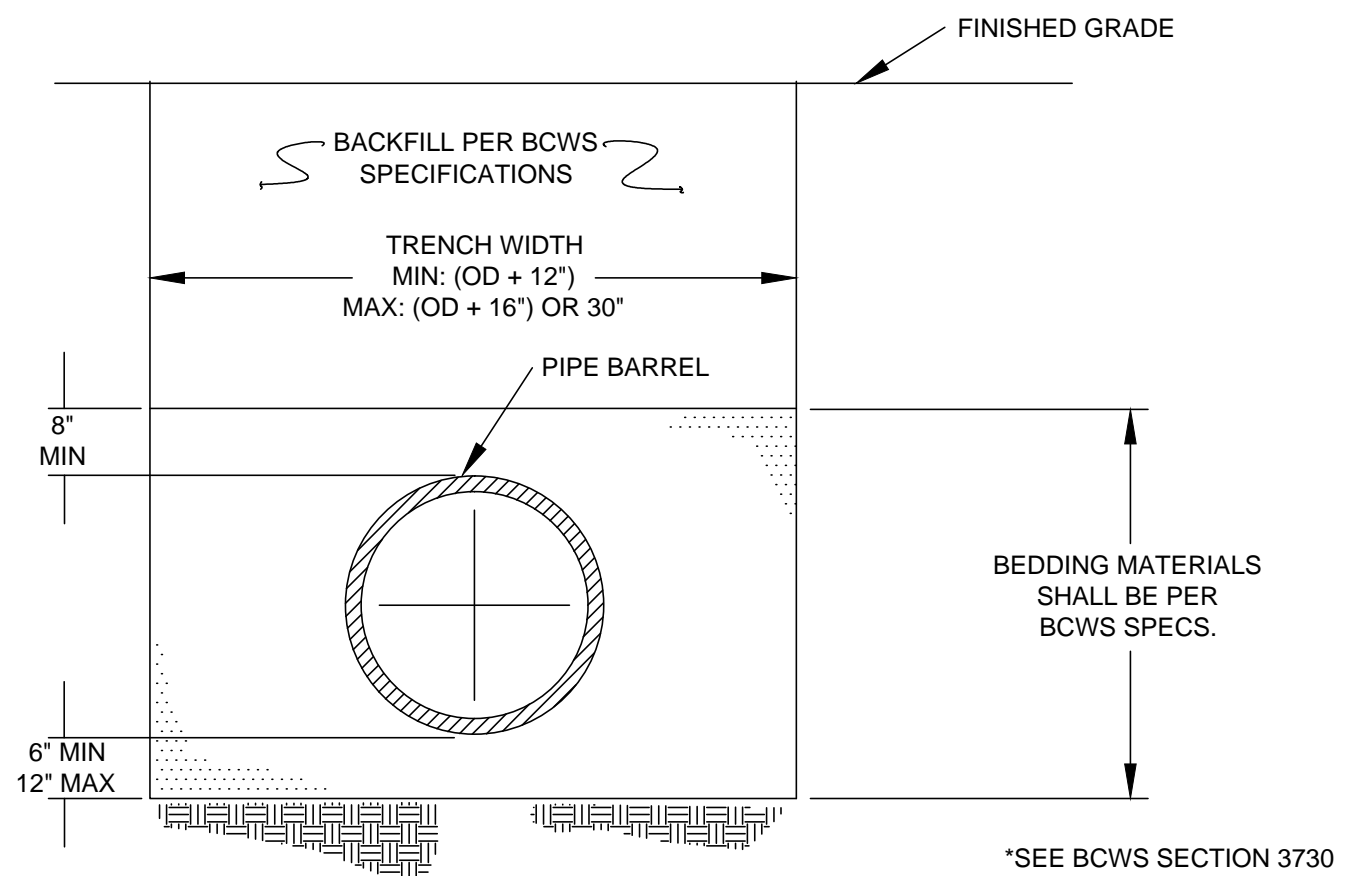
**BUTLER COUNTY WATER AND SANITARY SEWER DETAILS**  
**SEE STANDARD DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL DETAILS**



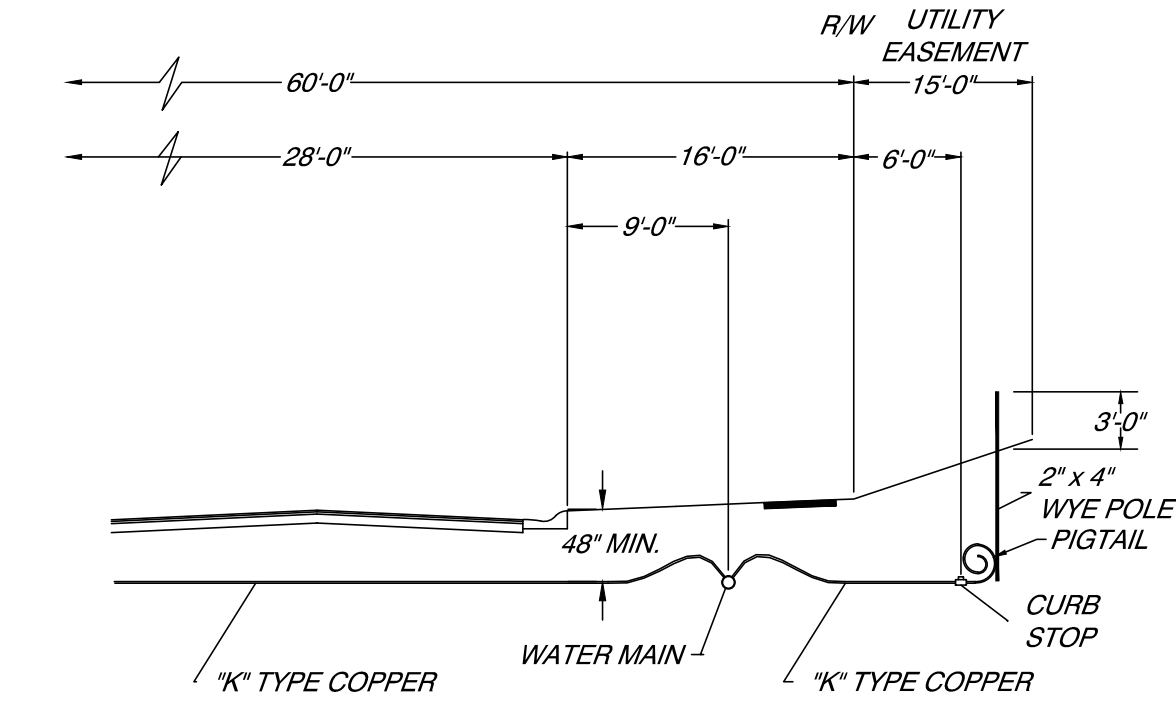


- NOTES:
- 1.) VERIFY LOCATION OF F.H. RELATIVE TO WATER MAIN ON PLANS.
  - 2.) CHECK STREET DETAILS FOR RELATIONSHIP BETWEEN MAIN, STREET AND F.H.

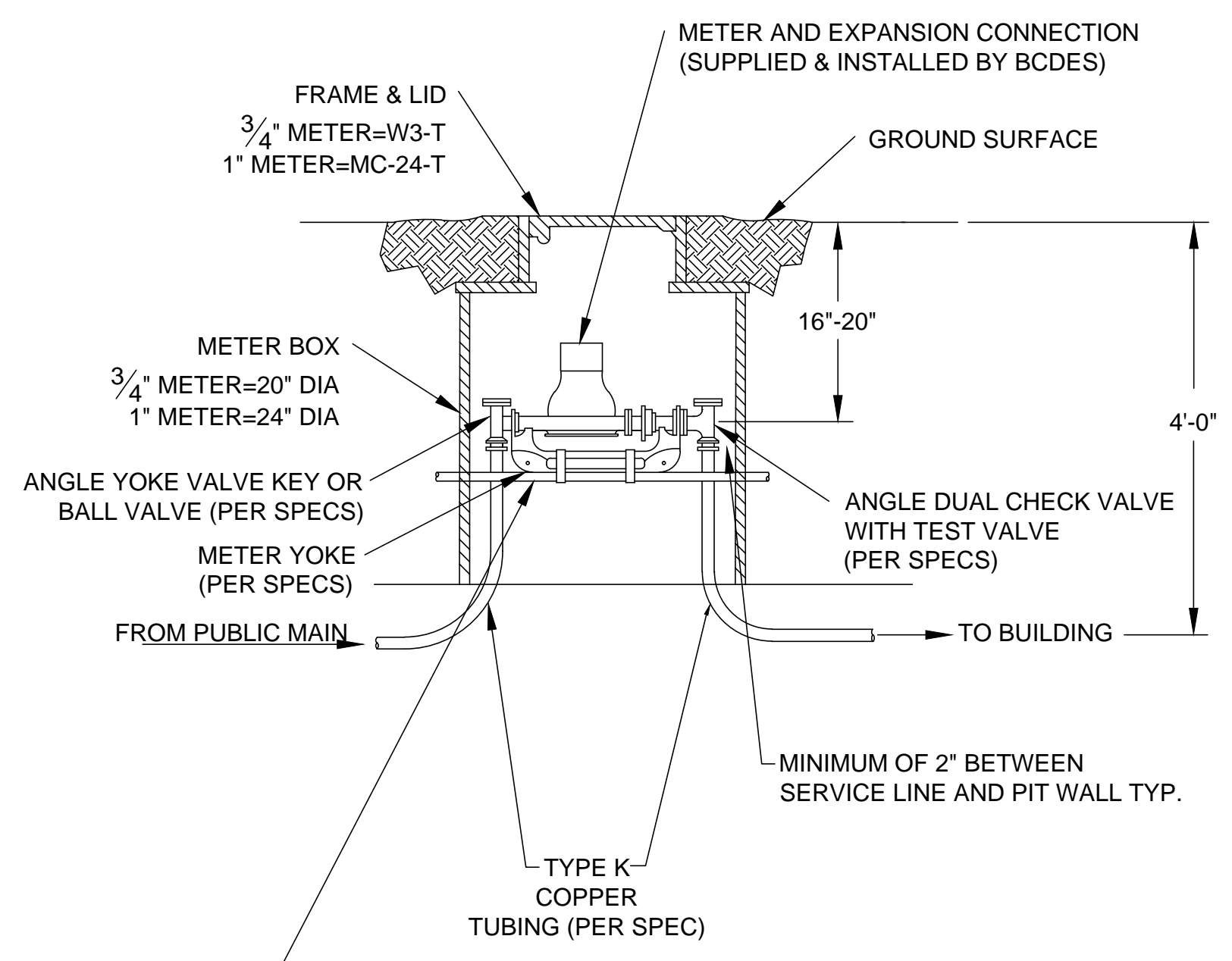
**TYPICAL FIRE HYDRANT DETAIL**



**TYPICAL TRENCH DETAIL WATER INSTALLATION**



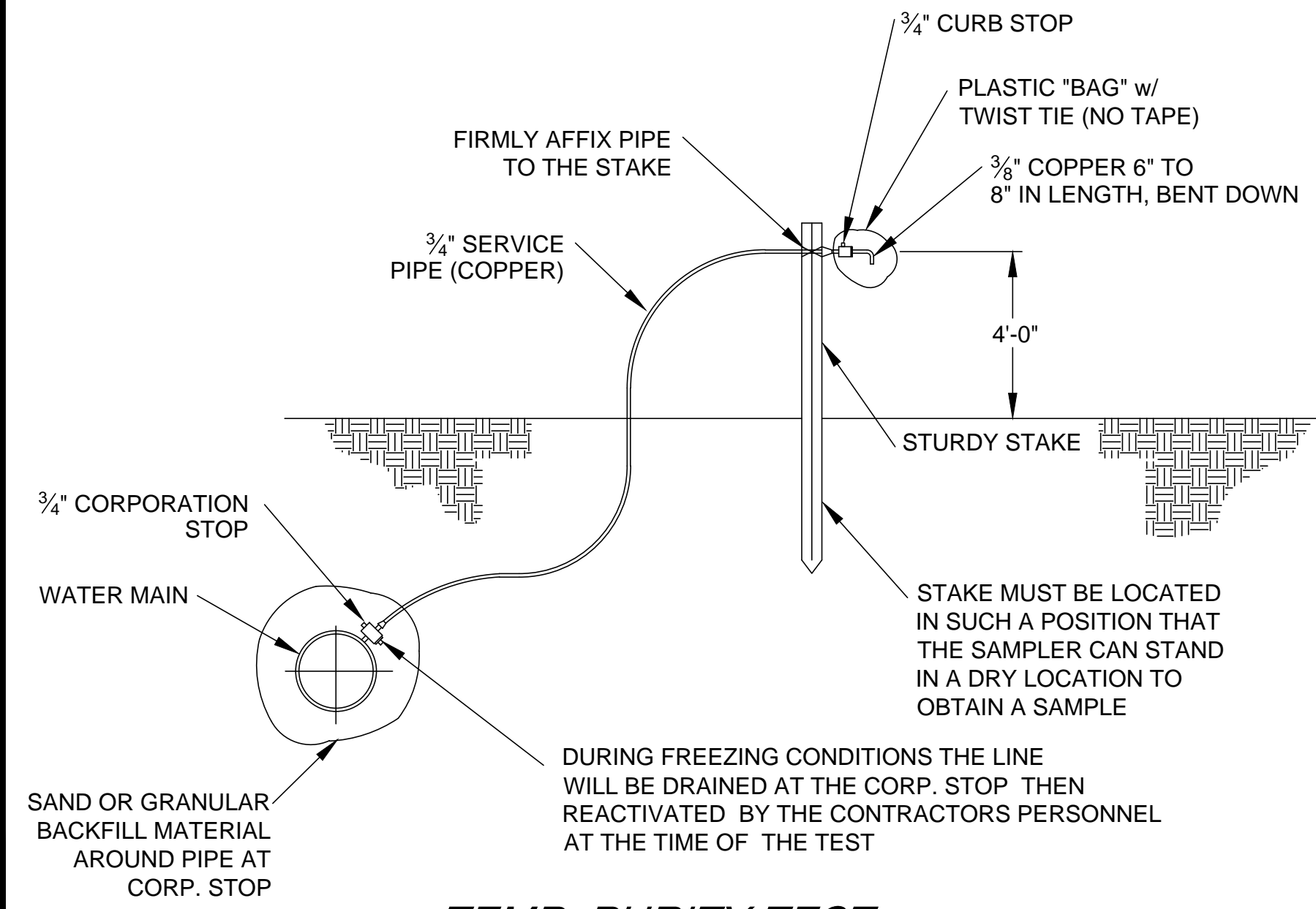
**TYPICAL WATER SERVICE DETAIL**



SUPPORT BRACKET & STAINLESS STEEL HOSE CLAMPS TO BE USED WHEN THE SERVICE PIPE ON THE BUILDING SIDE OF THE SUPPLY IS NOT COPPER TUBING AS REQUIRED ON THE PUBLIC MAIN SIDE OF THE PIT.

SUPPORT BRACKET SHOULD BE A MINIMUM OF 3" PVC PENETRATING BOTH SIDES OF THE PIT WALL AND ATTACHED SECURELY TO THE BOTTOM OF THE YOKE BAR.

**STANDARD INSTALLATION FOR 3/4" AND 1" WATER METER SETTINGS**



**TEMP. PURITY TEST STATION**

NOTE: ALL WATER MAIN CONSTRUCTION SHALL BE IN CONFORMANCE WITH BUTLER COUNTY WATER AND SEWER STANDARDS AND ARTICLE VI OF THE BUTLER COUNTY SUBDIVISION REGULATIONS.

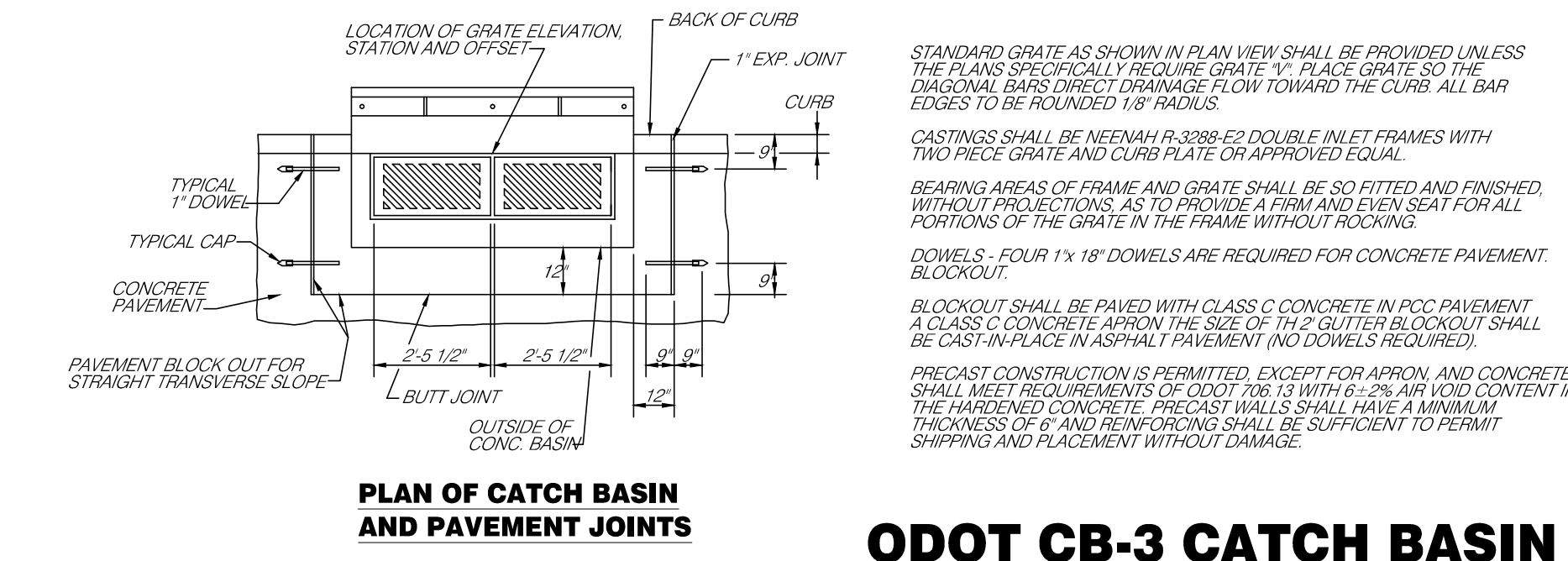
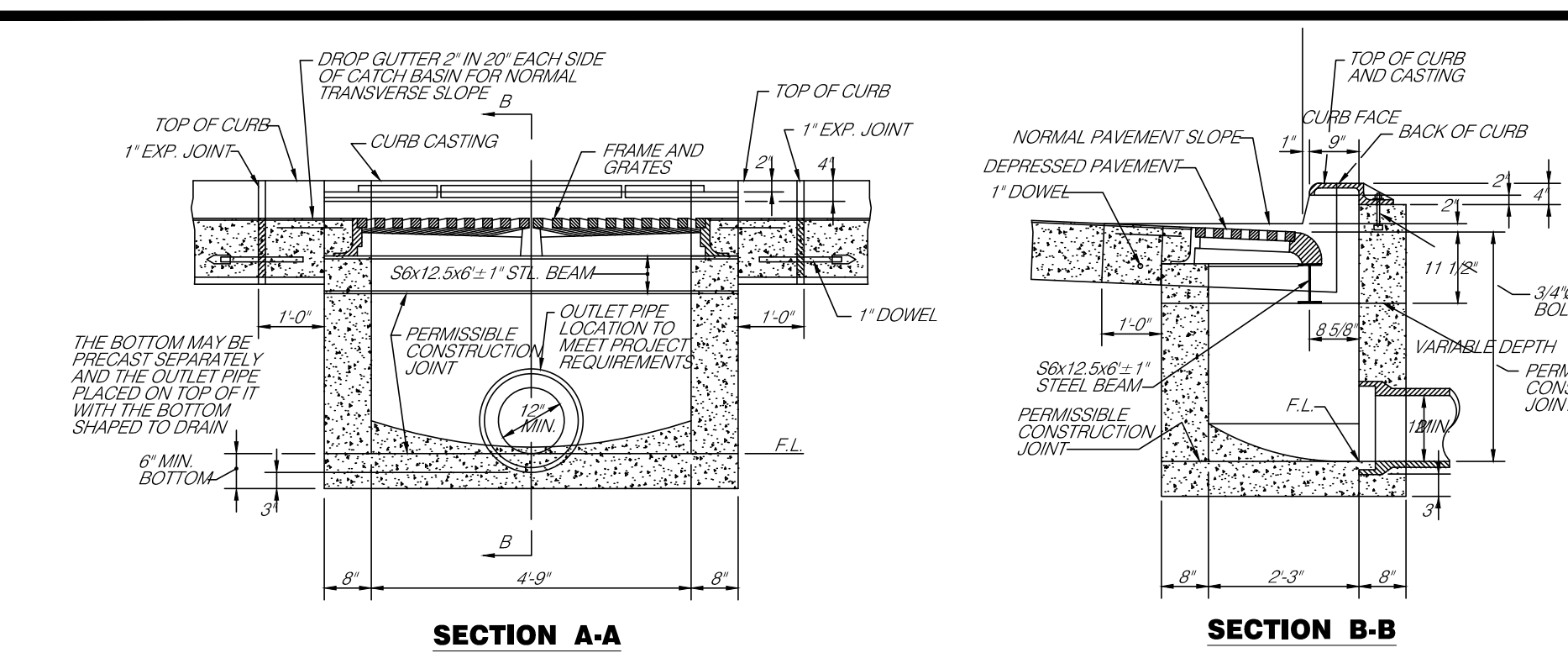
**BUTLER COUNTY WATER & SEWER  
SEE STANDARD WATER MAIN INSTALLATION  
DETAILS AND SPECIFICATIONS FOR ADDITIONAL  
DETAILS**

NO.	DATE	BY	DESCRIPTION
1	4-8-15	DGAR	BUTLER CO AND W & S COMMENTS
2	5-13-15	DGAR	CONSTRUCTION ISSUE

SCALE	DATE
NTS	2-20-15

DRAWN BY	PROJECT MGR
DGAR	JSHU
PROJECT NO.	FLAT FILE
148101	KY-





**ODOT CB-3 CATCH BASIN**

STANDARD GRATE AS SHOWN IN PLAN VIEW SHALL BE PROVIDED UNLESS THE PLANS SPECIFICALLY REQUIRE GRATE 1" PLATE GRATE SO THE DIAGONAL BARS DIRECT DRAINAGE FLOW TOWARD THE CURB. ALL BAR EDGES TO BE ROUNDED 1/8" RADIUS.

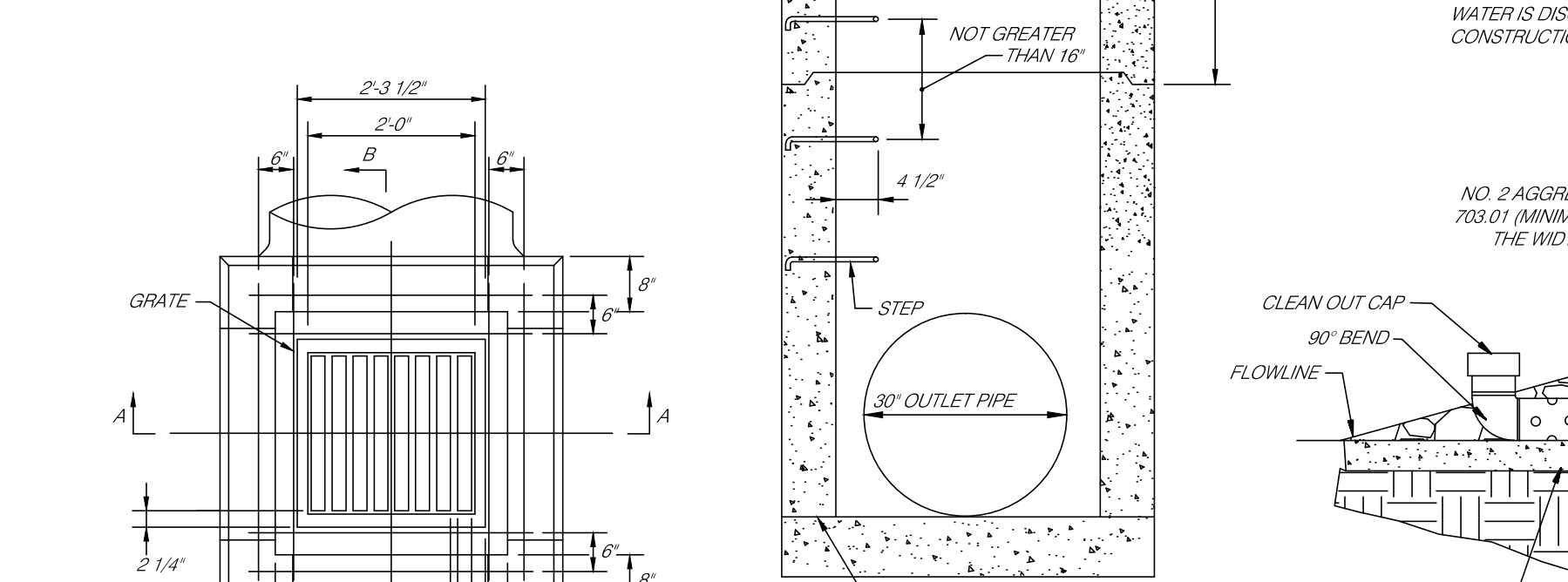
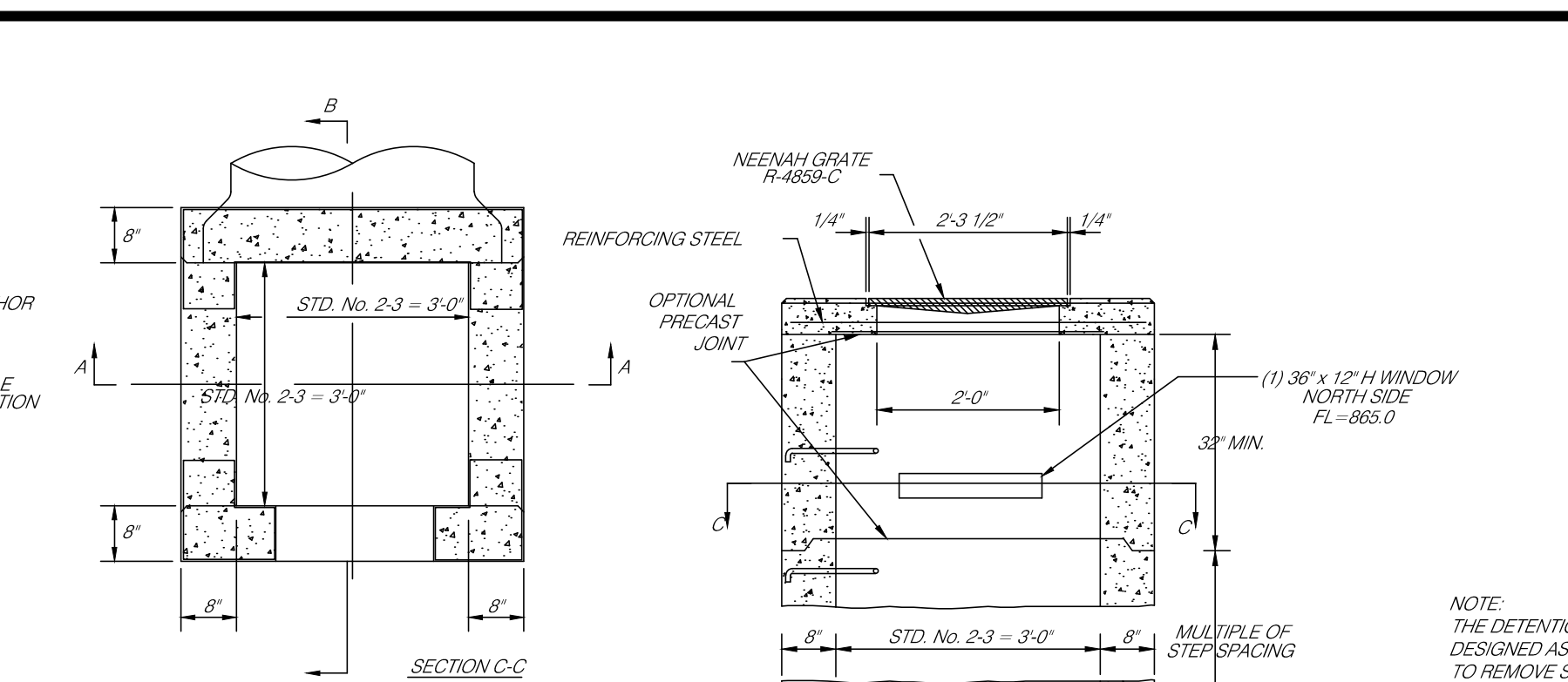
CASTINGS SHALL BE NEEHAH R-3288-F2 DOUBLE INLET FRAMES WITH TWO PIECE GRATE AND CURB PLATE OR APPROVED EQUAL.

BEARING AREAS OF FRAME AND GRATE SHALL BE SO FITTED AND FINISHED WITHOUT PROJECTIONS AS TO PROVIDE A FIRM AND EVEN SEAT FOR ALL PORTIONS OF THE GRATE IN THE FRAME WITHOUT ROCKING.

DOWELS - FOUR 1x1/8" DOWELS ARE REQUIRED FOR CONCRETE PAVEMENT BLOCKOUT.

BLOCKOUT SHALL BE PAVED WITH CLASS C CONCRETE IN PCC PAVEMENT A CLASS C CONCRETE APRON THE SIZE OF THE 12" GUTTER BLOCKOUT SHALL BE CAST IN PLACE IN ASPHALT PAVEMENT (NO DOWELS REQUIRED).

PRECAST CONSTRUCTION IS PERMITTED, EXCEPT FOR APRON AND CONCRETE SHALL MEET REQUIREMENTS OF ODOT 706.13 WITH 6-2% AIR VOID CONTENT IN THE HARDENED CONCRETE. PRECAST WALLS SHALL HAVE A MINIMUM THICKNESS OF 6" AND REINFORCING SHALL BE SUFFICIENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.



**MODIFIED CB 2-3 DETENTION CONTROL STRUCTURE #18**

NOTE: THE DETENTION WATER QUALITY POND IS DESIGNED AS A PERMANENT MEASURE TO REMOVE SEDIMENT, PHOSPHOROUS AND NITROGEN RUNOFF BEFORE STORM WATER IS DISCHARGED FROM THE CONSTRUCTION SITE.

CLEAN OUT CAP  
3/4" DIA PERFORATED PIPE W/ MAX. 1" DIA PERFORATIONS  
NO. 2 AGGREGATE PER ODOT 703.01 (MINIMUM WIDTH TO BE THE WIDTH OF THE PAVED GUTTER)

3/4" DIA PERFORATED PIPE W/ MAX. 1" DIA PERFORATIONS GROUTED INTO CATCH BASIN.

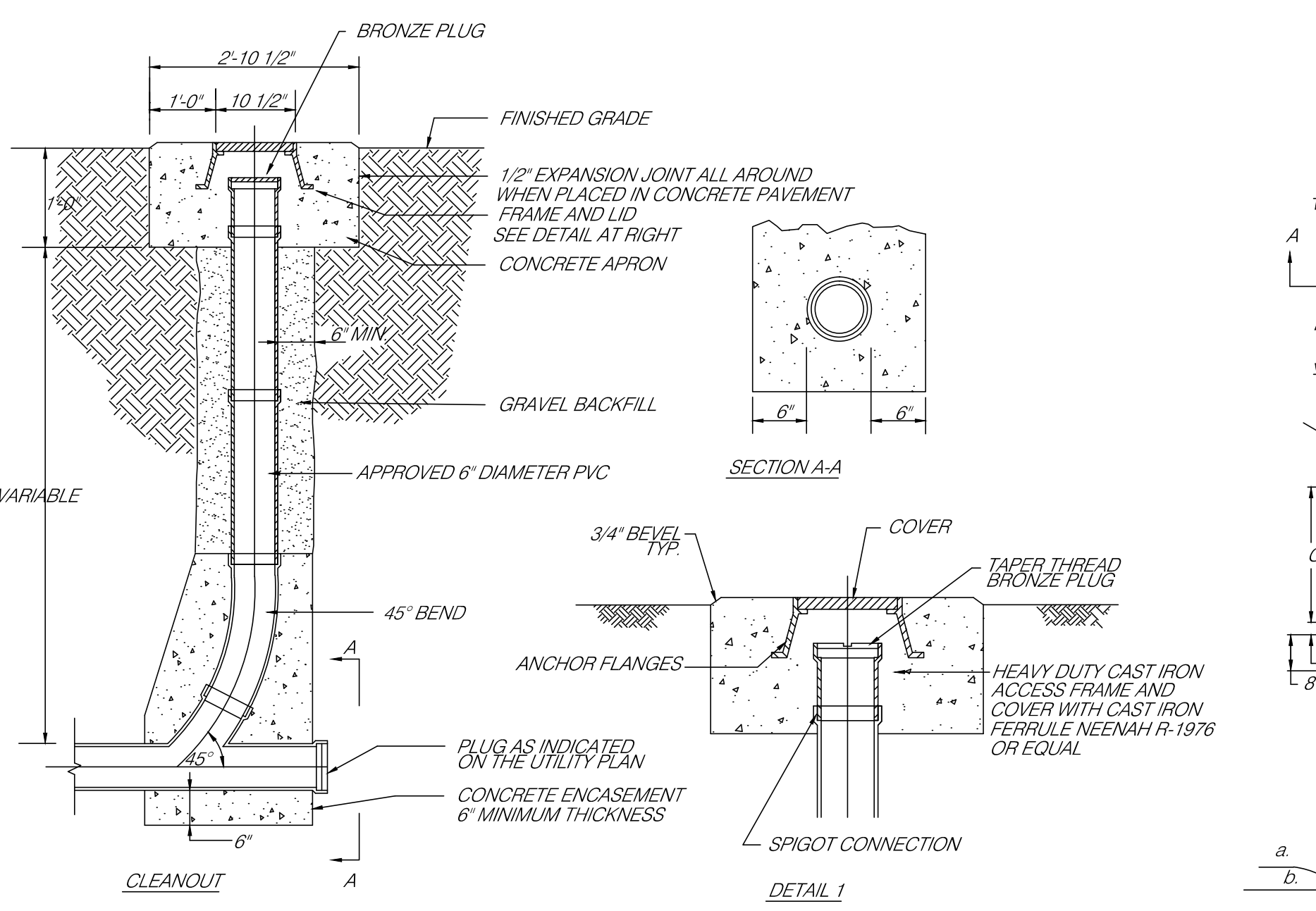
8"x8"x8" TEE  
GROUTED INTO CATCH BASIN.

30" F.L. = 861.50

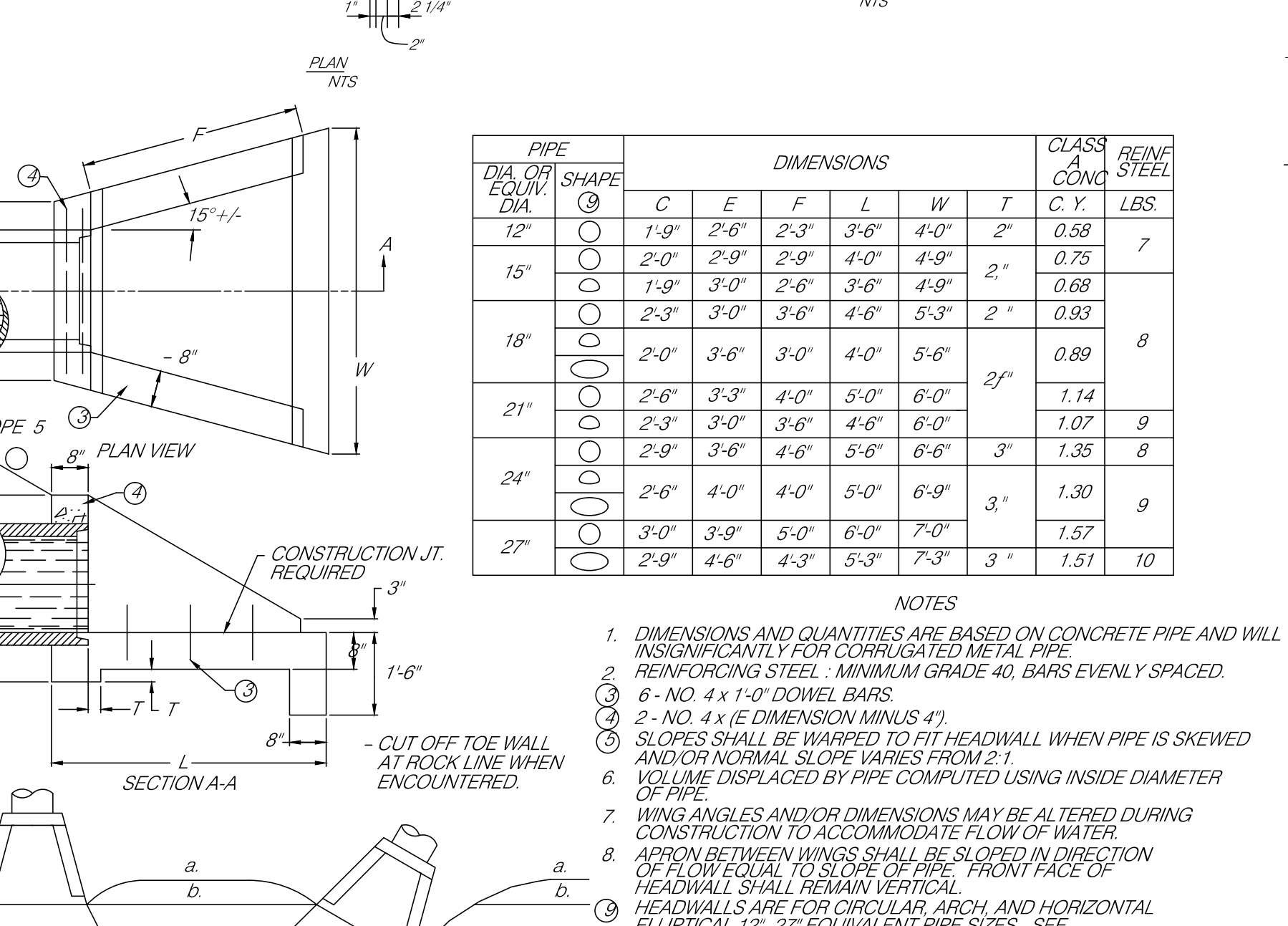
107.30' ST @ 2.40% PROVIDE ANTI-SEEPAGE COLLAR AT MIDPOINT OF DAM

\*\* ORIFICE PLATE SHALL HAVE WATER TIGHT SEAL AND AFFIXED TO CATCH BASIN WITH BOLTS.

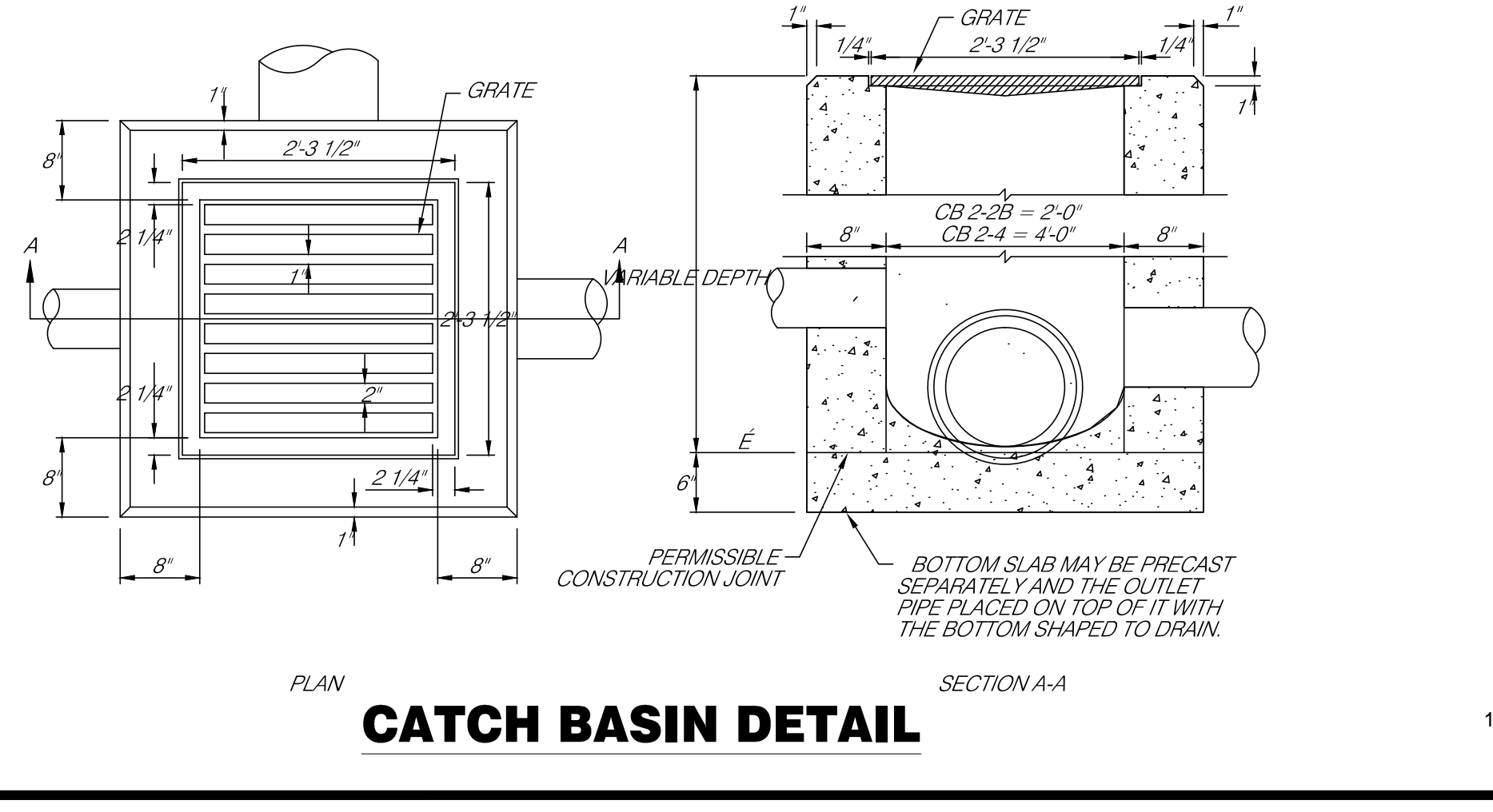
\* SEE STORM SEWER PROFILE SHEET C13 FOR ADDITIONAL INFORMATION.



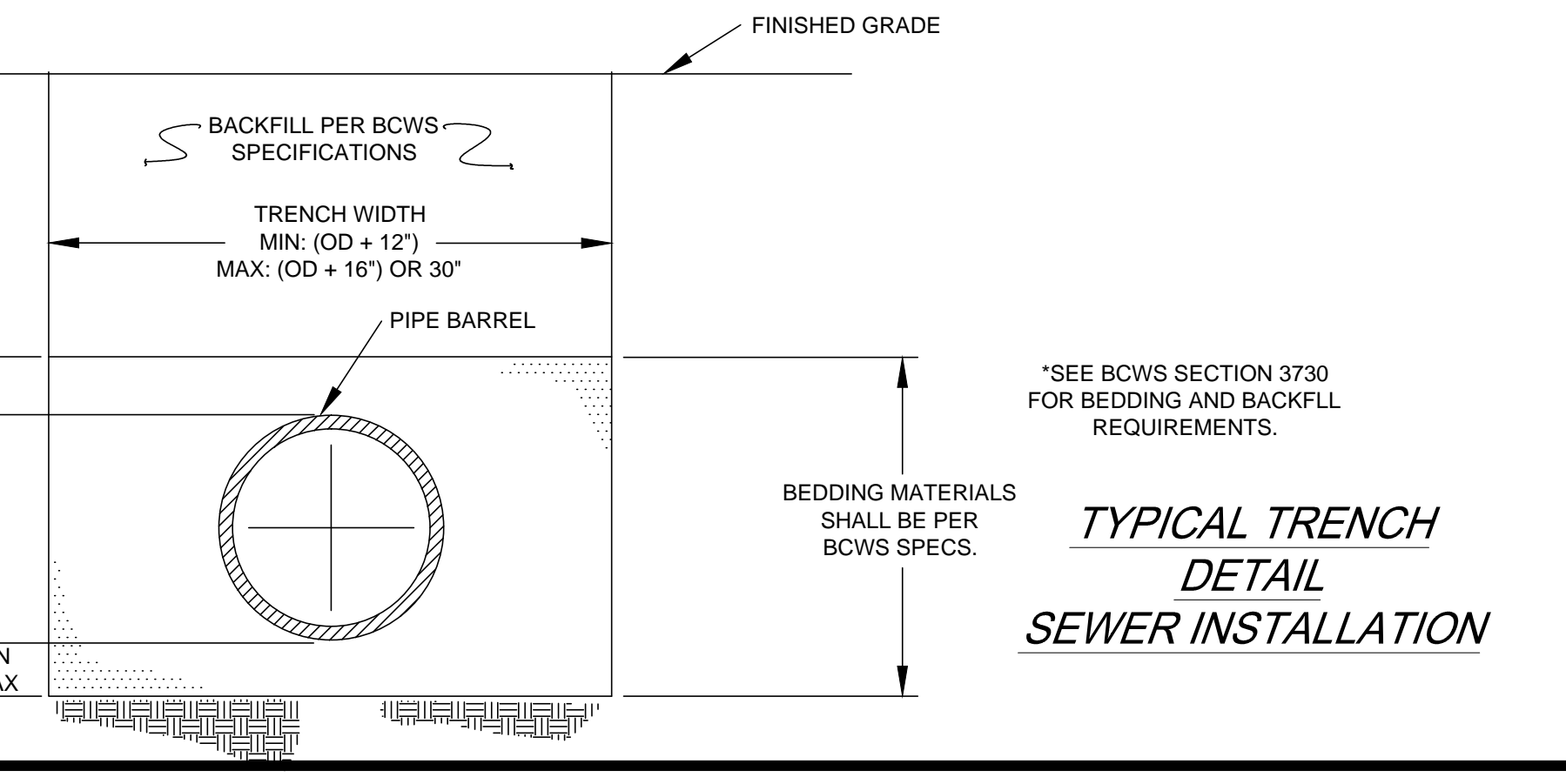
**STORM AND SANITARY SEWER CLEANOUT DETAIL**



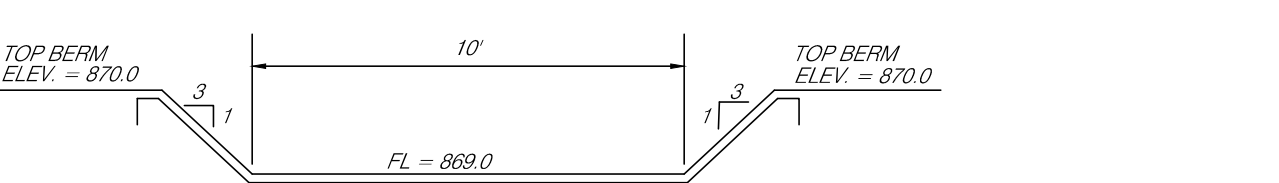
**SLOPED & FLARED HEADWALLS FOR 12"-27" PIPE**



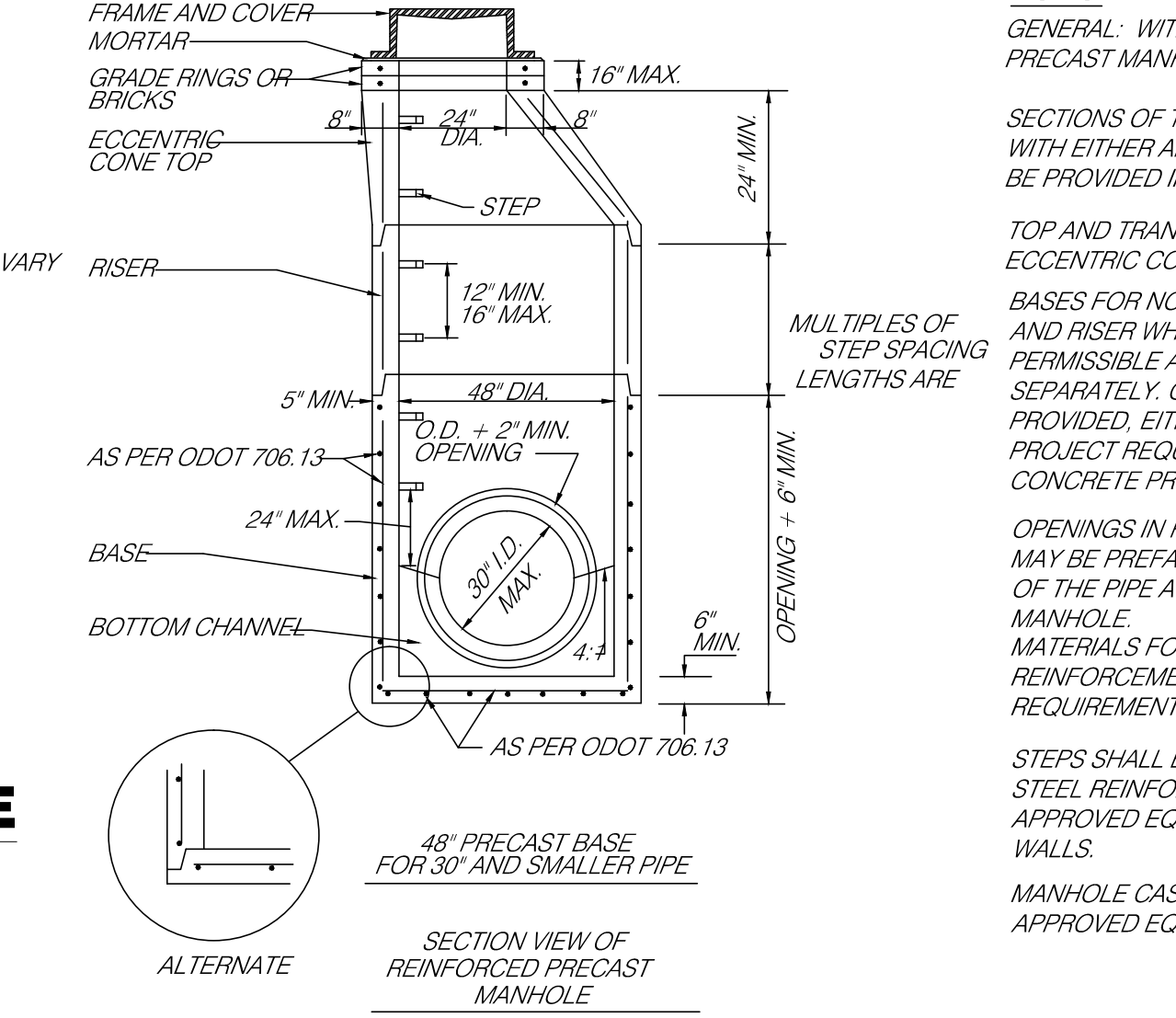
**CATCH BASIN DETAIL**



**TYPICAL TRENCH DETAIL SEWER INSTALLATION**



**EMERGENCY SPILLWAY TYPICAL SECTION**



**ODOT MH-3 MANHOLE**

NOTE: ALL STORM SEWER CONSTRUCTION SHALL BE IN CONFORMANCE WITH BUTLER COUNTY WATER AND SEWER STANDARDS AND ARTICLE VI OF THE BUTLER COUNTY SUBDIVISION REGULATIONS.

**BUTLER COUNTY ENGINEERS OFFICE STORM SEWER DETAILS**  
 SEE STANDARD DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL DETAILS

GRATING - THE DESIGN SHALL BE ESSENTIALLY THE SAME AND EQUALLY AS STRONG AS THE ONE SHOWN HEREON. MINIMUM WEIGHT 120 POUNDS TO BE CLASS C.

REINFORCING - IN THE TOP TO BE NO. 4 BARS @ CENTER TO CENTER FOR STANDARD NO. 2-3 USE 8 BARS.

OPENINGS - FOR PIPES SHALL BE O.D. - 2" WHEN PREFABRICATED OR FIELD CUT.

LOCATION - AND ELEVATION WHEN GIVEN ON THE PLANS IS TOP CENTER OF THE GRATE.

SIDE INLETS - SHALL BE PROVIDED ONLY WHEN SPECIFIED ON THE PLANS.

STEPS - SHALL BE PROVIDED WHERE THE DEPTH EXCEEDS 48"

INLETS OVER 12" IN DEPTH - SHALL BE PRECAST OR CAST-IN-PLACE CONCRETE, REINFORCED WITH NO. 4 BARS ON 12" CENTERS BOTH VERTICALLY AND HORIZONTALLY WITH 2" CLEARANCE FROM INSIDE WALL FACE.

STORM SEWER PROFILE SHEET C13 FOR ADDITIONAL INFORMATION.

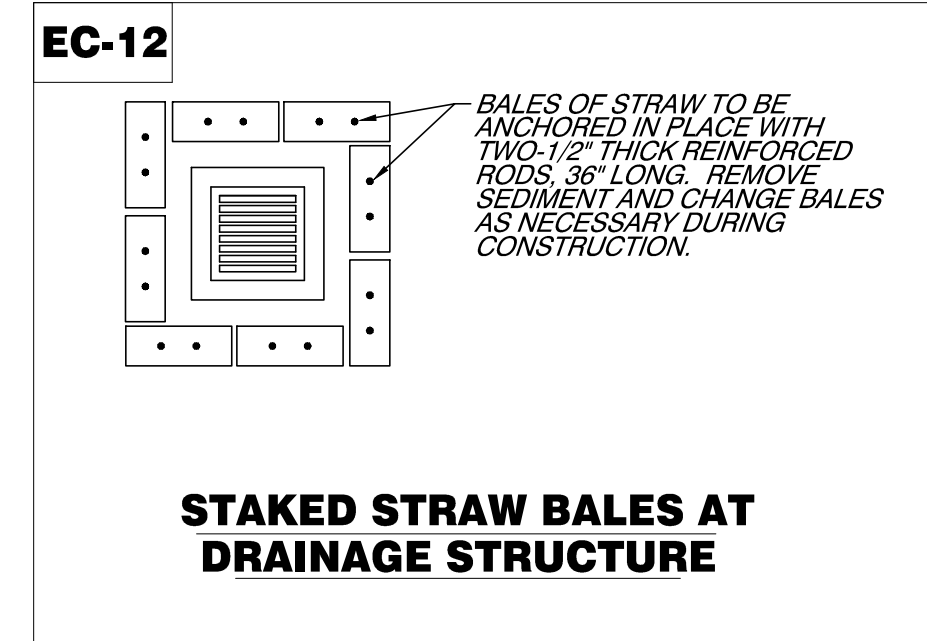
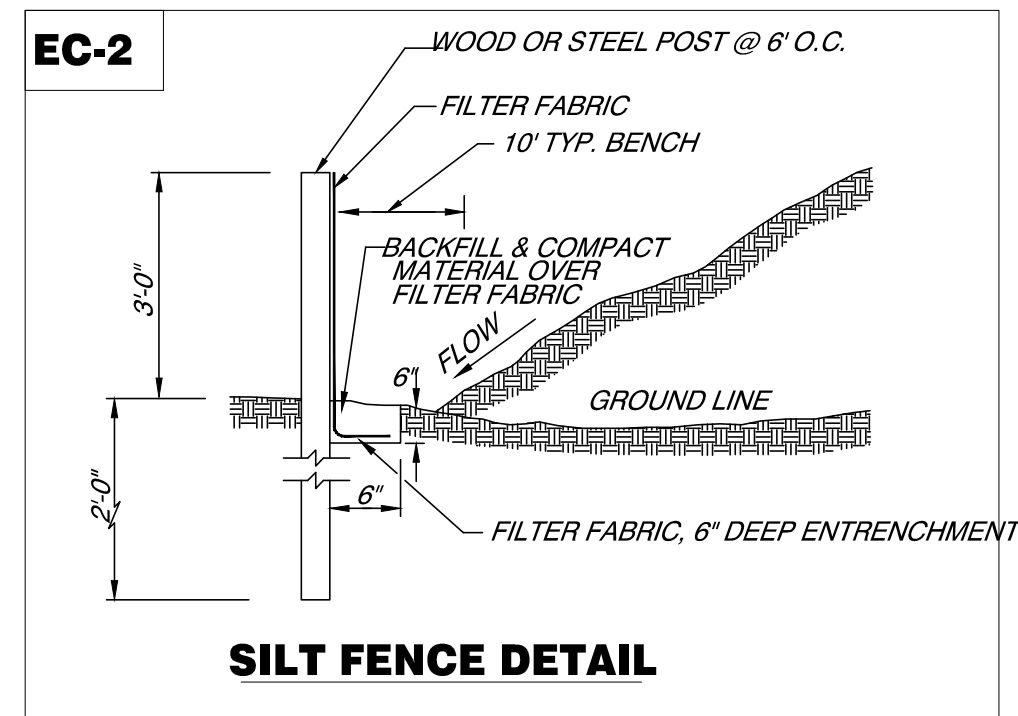
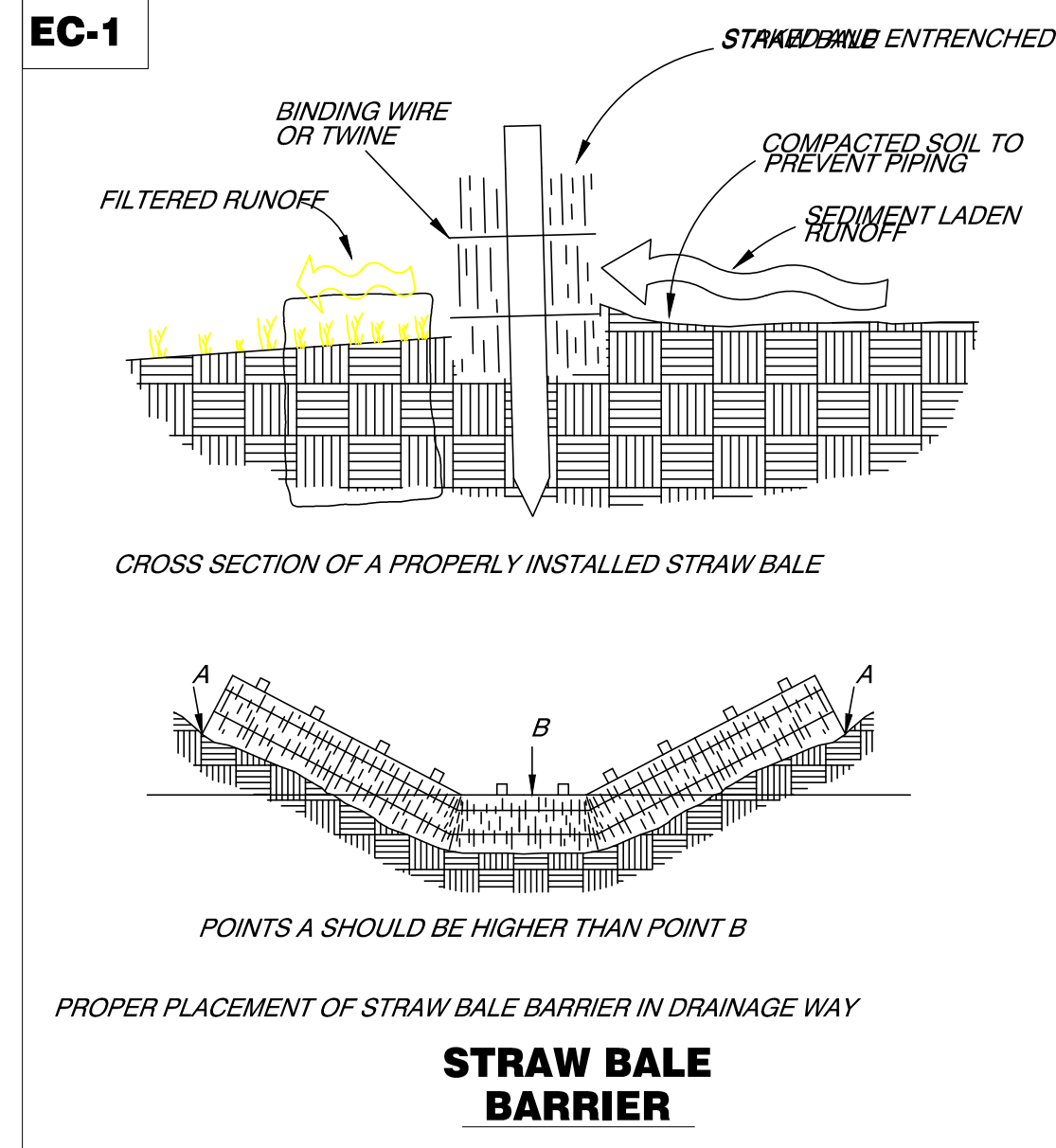
**STORM SEWER DETAIL SHEET**

**BRENNER WOODS SUBDIVISION WEST CHESTER TOWNSHIP BUTLER COUNTY, OHIO**

REVISIONS		DATE	BY	DESCRIPTION
1	DATE	4-8-15	DGAR	BUTLER CO AND W & S COMMENTS
2	DATE	5-13-15	DGAR	CONSTRUCTION ISSUE

SCALE	DATE
NTS	2-20-15
DRAWN BY	PROJECT MGR
DGAR	JSHU
PROJECT NO.	FLAT FILE
148101	KY-
DRAWING No.	
C5	
SHEET 5 OF 14	





**GENERAL NOTES**

THE INSTALLATION OF THE SPECIFIED WATER MANAGEMENT AND SEDIMENT CONTROL MEASURES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN WATER "WATER MANAGEMENT AND SEDIMENT CONTROL FOR URBANIZING AREAS" ON FILE WITH THE OFFICE OF THE COUNTY SOIL AND WATER CONSERVATION SERVICE UNLESS OTHERWISE SPECIFIED HEREIN. A COPY OF THE "WATER MANAGEMENT AND SEDIMENT CONTROL FOR URBANIZING AREAS" HANDBOOK MAY BE OBTAINED FROM THE BUTLER COUNTY BOARD OF COMMISSIONERS.

THE CONTRACTOR SHALL INSTALL TEMPORARY EROSION AND SEDIMENTATION DEVICES AS SHOWN AND REQUIRED BY THESE PLANS. SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT ON SITE SHALL BE CONSTRUCTED AS A FIRST STEP IN GRADING AND BE MADE FUNCTIONAL BEFORE UPSLOPE LAND DISTURBANCE TAKES PLACE. EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS SHALL BE SEEDED AND MULCHED WITHIN SEVEN (7) DAYS OF COMPLETION OF INSTALLATION.

EROSION AND ANY SEDIMENTATION FROM WORK ON THIS SITE SHALL BE CONTAINED ON THE SITE AND NOT ALLOWED TO COLLECT IN ANY OFF-SITE DRAINAGE COURSE, WHETHER NATURAL OR MAN-MADE.

ALL EARTH CHANGES SHALL BE CONSTRUCTED AND COMPLETED IN A MANNER WHICH SHALL LIMIT THE EXPOSED AREA OF ANY DISTURBED LAND FOR THE SHORTEST PERIOD OF TIME.

CLEARING AND STRIPPING ARE TO BE LIMITED TO AREAS IN WHICH CONSTRUCTION WILL PROCEED TO COMPLETION. AREAS NOT TO BE IMPROVED PRESENTLY ARE TO REMAIN UNDISTURBED.

DISTURBED SOILS SHALL BE STABILIZED AS QUICKLY AS PRACTICABLE WITH TEMPORARY VEGETATION AND/OR MULCHING TO PROTECT EXPOSED CRITICAL AREAS DURING DEVELOPMENT.

THE PERMANENT FINAL VEGETATION AND STRUCTURAL EROSION CONTROL AND DRAINAGE MEASURES SHALL BE INSTALLED AS SOON AS PRACTICAL IN THE DEVELOPMENT.

THE CONTRACTOR SHALL MAKE DAILY INSPECTIONS OF THE SITE TO INSURE EFFECTIVENESS OF EROSION AND SEDIMENTATION CONTROL MEASURES, AND WILL IMMEDIATELY MAKE NECESSARY REPAIRS.

PERMANENT SOIL STABILIZATION SHALL BE INSTALLED ON DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. APPLICATION PRACTICES INCLUDE VEGETATIVE ESTABLISHMENT, MULCHING, AND THE EARLY APPLICATION OF GRAVEL BASE ON AREAS TO BE PAVED. SOIL STABILIZATION MEASURES SHOULD BE SELECTED TO BE APPROPRIATE FOR THE TIME OF YEAR, SITE CONDITIONS, AND ESTIMATED TIME OF USE.

TEMPORARY SOIL STABILIZATION SHALL BE ESTABLISHED ON ANY DENUDED AREAS WHICH WILL NOT BE REGRADED FOR LONGER THAN THIRTY (30) DAYS. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS AFTER ROUGH GRADING.

A PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED ON DENUDED AREAS NOT OTHERWISE PERMANENTLY STABILIZED AFTER FINAL GRADING. PERMANENT VEGETATION SHALL NOT BE CONSIDERED ESTABLISHED UNTIL A GROUND COVER IS ACHIEVED WHICH IS MATURE ENOUGH TO CONTROL SOIL EROSION AND TO SURVIVE SEVERE WEATHER CONDITIONS.

UPON COMPLETION OF PERMANENT STABILIZATION OF THE SITE, THE CONTRACTOR SHALL REMOVE ALL ACCUMULATED SEDIMENT IN THE BOTTOM OF THE DETENTION BASIN AND RE-ESTABLISH THE ORIGINAL DESIGN GRADES FOR THE BASIN. ACCUMULATED SEDIMENT SHALL BE REMOVED PERIODICALLY DURING CONSTRUCTION AS REQUIRED BY BUTLER COUNTY SOIL AND WATER.

ALL CONSTRUCTION TRAFFIC SHALL ENTER AND LEAVE BY THE DESIGNATED ENTRANCE. THIS ENTRANCE SHALL BE CONSTRUCTED OF CRUSHED STONE TO HELP FREE TIRES OF SOIL WHEN LEAVING SITE. THE CONTRACTOR SHALL INSTRUCT ALL VEHICLES TO CLEAN AND PROMPTLY REMOVE SOIL, MISCELLANEOUS DEBRIS, OR OTHER MATERIALS SPILLED, DUMPED OR OTHERWISE DEPOSITED ON PUBLIC STREETS, HIGHWAYS, SIDEWALKS OR OTHER PUBLIC THROUGHFARES DURING TRANSIT TO AND FROM SITE.

ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY AND, IN ADDITION, AFTER EACH STORM, SEEDED AREAS SHALL BE REPAIRED, RESEEDED AND MULCHED AS SOON AS POSSIBLE AFTER BEING DAMAGED.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR SUCH MAINTENANCE UNTIL THE FINAL INSPECTION BY THE HAMILTON COUNTY BOARD OF COMMISSIONERS.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN THIRTY (30) DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED AS DETERMINED BY THE BUTLER COUNTY SOIL AND WATER DEPARTMENT. TRAPPED SEDIMENT AND OTHER DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED FURTHER EROSION AND SEDIMENTATION.

**SAFETY FENCE**

MATERIALS:  
 PLASTIC (POLYETHYLENE) FENCE:  
 COLOR "INTERNATIONAL" ORANGE  
 TENSILE YIELD: ASTM D638, AVERAGE 2000 LBS. PER 4 FT. WIDTH  
 ULTIMATE TENSILE STRENGTH: ASTM D638, AVERAGE 2900 LBS. PER 4 FT. WIDTH  
 ELONGATION AT BREAK (%): GREATER THAN 100%  
 CHEMICAL RESISTANCE: INERT TO MOST CHEMICAL AND ACIDS

CONSTRUCTION  
 SAFETY FENCES SHALL BE INSTALLED PRIOR TO EROSION AND SEDIMENTATION CONTROL MEASURES BECOMING ACCESSIBLE.  
 THE WEB SHALL BE SECURED TO A CONVENTIONAL METAL "T" OR "U" POST DRIVEN INTO THE GROUND TO A MINIMUM DEPTH OF 18" INCHES. POSTS SHALL BE SPACED AT 8-FOOT CENTERS.

MAINTENANCE  
 SAFETY FENCE SHALL BE CHECKED REGULARLY FOR WEATHER-RELATED OR OTHER DAMAGE. ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.

**EC-1 STRAW BALE PLACEMENT NOTES SHEET (OVERLAND) FLOW APPLICATIONS**

- BALES SHALL BE PLACED IN A SINGLE ROW, LENGTH ON THE CONTOUR, WITH BOTH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
- ALL BALES SHALL BE EITHER WIRE BOUND OR STRING TIED. STRAW BALES SHALL BE INSTALLED SO THAT THE BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES TO PREVENT DETERIORATION OF THE BINDINGS.
- THE BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED THE WIDTH OF ONE (1) BALE AND THE LENGTH OF THE PROPOSED BARRIER TO MINIMUM DEPTH OF FOUR (4) INCHES. AFTER THE BALES ARE STAKED AND CHINKED THE EXCAVATED SOIL SHALL BE BACKFILLED AGAINST THE BARRIER. BACKFILL SOIL SHALL CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP TO FOUR (4) INCHES AGAINST THE UPHILL SIDE OF THE BARRIER (SEE EC-1).
- EACH BALE SHALL BE SECURELY ANCHORED BY AT LEAST TWO (2) STAKES OR REBARS DRIVEN THROUGH THE BALE.
- THE GAPS BETWEEN THE BALES SHALL BE CHINKED (ILLED BY WEDGING) WITH LOOSE STRAW TO PREVENT RUNOFF LEAKAGE BETWEEN BALES.

- CHANNEL FLOW APPLICATIONS
- BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE, ORIENTED PERPENDICULAR TO THE CONTOUR, WITH ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
  - SEE STEPS 2 THROUGH 6 FOR SHEET FLOW APPLICATIONS.
  - THE BARRIER SHALL BE EXTENDED TO SUCH A LENGTH THAT THE BOTTOMS OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST MIDDLE BALE (SEE EC-1).

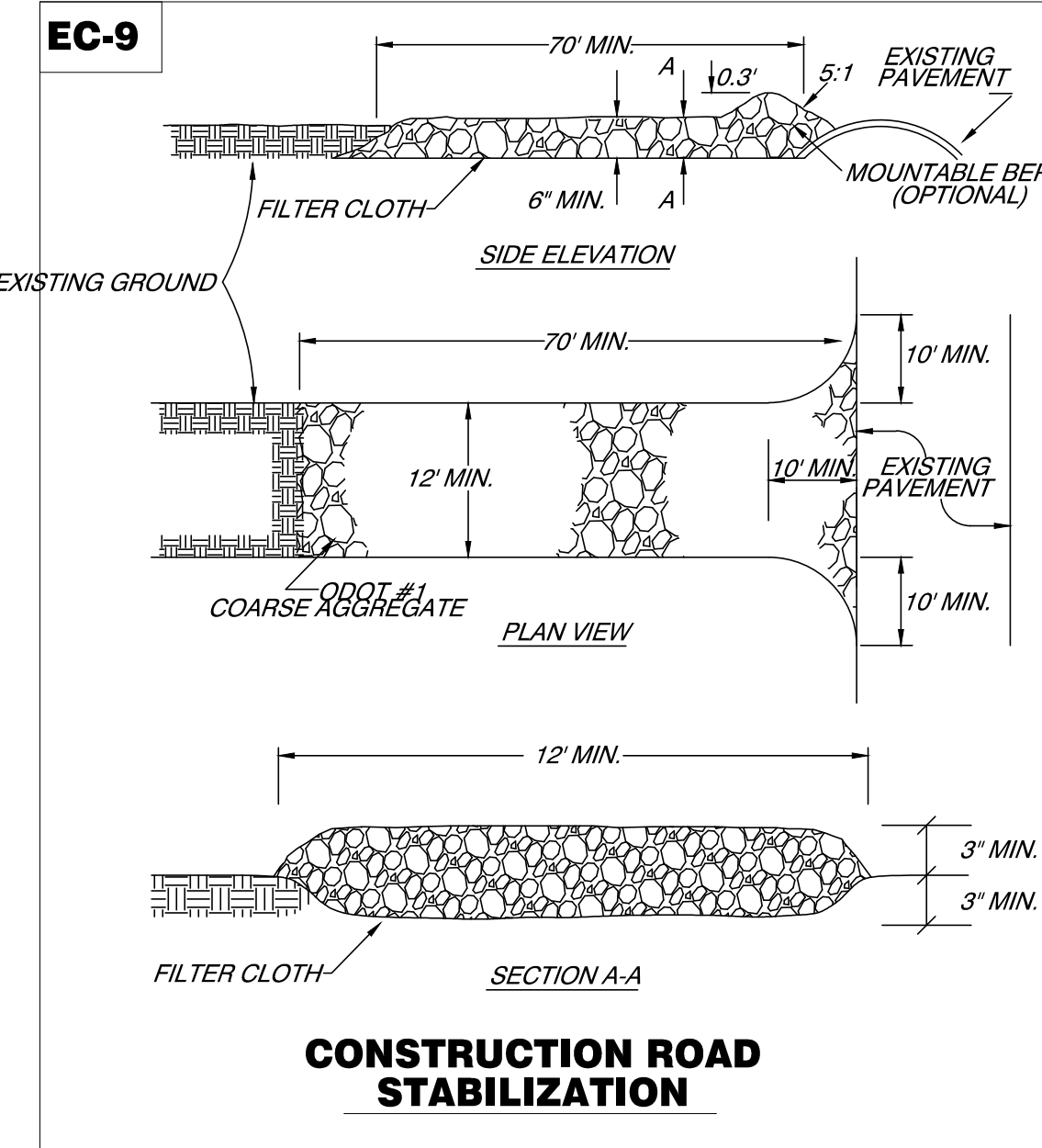
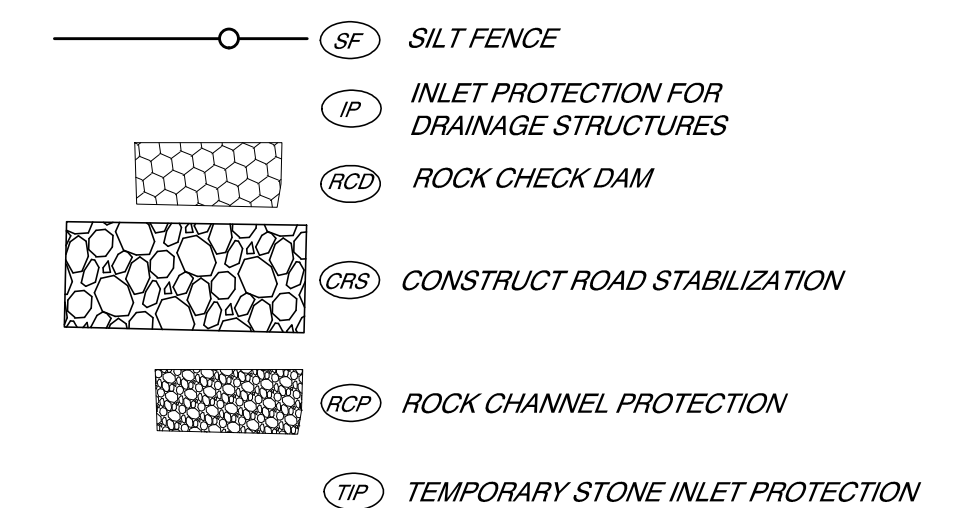
- MAINTENANCE
- INSPECTIONS SHALL BE WEEKLY AND AFTER EVERY RAINFALL THAT EXCEEDS 0.5 INCHES IN 24 HOURS.
  - CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS, AND THE UNDERCUTTING OF BARRIERS BY RUNOFF.
  - SEDIMENT DEPOSITS MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION HAS REACHED APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
  - ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED, AND SEEDED.

**EC-12 STORM DRAIN (STRAW BALE) INLET PROTECTION NOTES**

- CONSTRUCTION SPECIFICATIONS
- BALES SHALL BE EITHER WIRE BOUND OR STRING-TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
  - BALES SHALL BE PLACED LENGTHWISE IN A SINGLE ROW SURROUNDING THE INLET (SEE EC-14) WITH THE ENDS OF ADJACENT BALES PRESSED TOGETHER.
  - THE INLET PROTECTION SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED AROUND THE INLET THE WIDTH OF A BALE TO A MINIMUM DEPTH OF FOUR (4) INCHES. AFTER THE BALES ARE STAKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE STRAW BALES.
  - EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO (2) STAKES OR REBARS DRIVEN THROUGH THE BALE.
  - LOOSE STRAW SHALL BE WEDGED BETWEEN BALES TO PREVENT RUNOFF FROM ENTERING BETWEEN BALES.

- MAINTENANCE
- THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND THE NECESSARY REPAIRS MADE.
  - SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE-HALF THE DESIGN DEPTH OF THE TRAP.
  - STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

**EROSION AND SEDIMENT CONTROL LEGEND**



**CONSTRUCTION SEQUENCE**

- CLEARING AND GRUBBING FOR THOSE AREAS NECESSARY FOR THE INSTALLATION OF EROSION AND SEDIMENT PERIMETER CONTROL MEASURES.
- INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
- GRADING AND STRIPPING OF THE REMAINING AREAS OF THE DEVELOPMENT SITE OR PROJECT AREA.
- INSTALL STORMWATER MANAGEMENT SYSTEMS.
- TEMPORARY VEGETATIVE STABILIZATION OF EROSION AND SEDIMENT CONTROL MEASURES.
- GRADING OF ROADS, STREETS, OR PARKING AREAS, ETC.
- INSTALLATION OF ALL UTILITIES.
- SITE CONSTRUCTION.
- FINAL GRADING, STABILIZATION, AND LANDSCAPING.
- REMOVAL OF EROSION AND SEDIMENT CONTROL MEASURES.

**EC-9 CONSTRUCTION ROAD STABILIZATION**

**CONSTRUCTION:**  
 A 6 INCH COURSE OF ODOT NO. 1 AGGREGATE SHALL BE APPLIED IMMEDIATELY AFTER GRADING. FILTER FABRIC MAY BE APPLIED TO THE ROADBED FOR ADDITIONAL STABILITY IN ACCORDANCE WITH FABRIC MANUFACTURER'S SPECIFICATIONS.

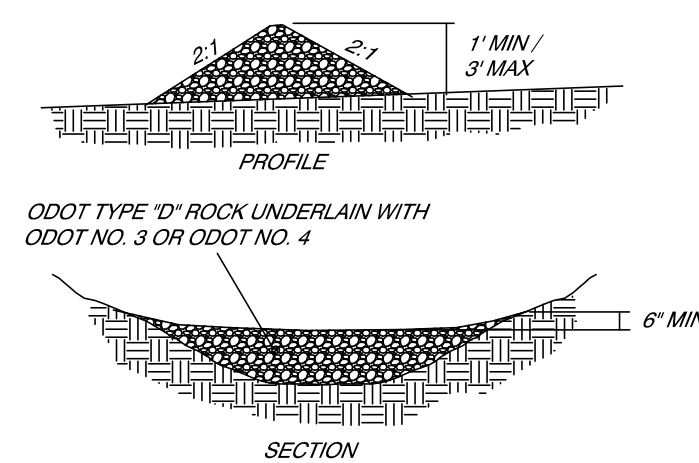
**VEGETATION:**  
 ALL ROADSIDE DITCHES, CUTS, FILLS, AND DISTURBED AREAS ADJACENT TO PARKING AREAS AND ROADS SHALL BE STABILIZED WITH APPROPRIATE SEEDING ACCORDING TO THE APPLICABLE STANDARDS AND SPECIFICATIONS CALLED FOR ON THE PLANS.

**MAINTENANCE:**  
 BOTH TEMPORARY AND PERMANENT ROADS AND PARKING AREAS MAY REQUIRE PERIODIC TOP DRESSING WITH NEW GRAVEL. SEEDED AREAS ADJACENT TO THE ROADS AND PARKING AREAS SHOULD BE CHECKED PERIODICALLY TO ENSURE THAT A VIGOROUS STAND OF VEGETATION IS MAINTAINED. ROADSIDE DITCHES AND OTHER DRAINAGE STRUCTURES SHOULD BE CHECKED REGULARLY TO ENSURE THAT THEY DO NOT BECOME CLOGGED WITH SILT OR OTHER DEBRIS.

**EC-2 SILT FENCE PLACEMENT NOTES**

FOR SHEET OR OVERLAND FLOW ONLY

- THE HEIGHT OF THE SILT FENCE SHALL NOT EXCEED THIRTY-SIX (36) INCHES.
- BURLAP OR STANDARD STRENGTH FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL TO AVOID JOINTS. A SIX-INCH LAP IS REQUIRED AT A POST FOR ALL NECESSARY JOINTS.
- STAKES FOR SILT FENCES SHALL BE FOUR (4) INCH DIAMETER WOOD OR 1.33 LBS./LIN. FT. STEEL WITH A MINIMUM LENGTH OF FIVE FEET.
- MAXIMUM POST SPACING SHALL BE TEN (10) FEET WHEN WIRE SUPPORT FENCE IS USED AND A MAXIMUM OF SIX (6) FEET WHEN NO WIRE SUPPORT IS USED.
- A FOUR-INCH BY FOUR-INCH (4" X 4") TRENCH ALONG THE LINE OF STAKES AND UPSLOPE FROM THE BARRIER.
- WHEN STANDARD STRENGTH FABRIC IS USED WITH STANDARD POST SPACING, A WIRE SUPPORT FENCE SHALL BE USED AND MUST BE EXTENDED INTO THE TRENCH A MINIMUM OF TWO (2) INCHES.
- WHEN EXTRA-STRENGTH FABRIC IS USED IN CONJUNCTION WITH CLOSER POST SPACING, THE FABRIC CAN BE STAPLED DIRECTLY TO THE POSTS WITH EIGHT (8) INCHES OF FABRIC EXTENDING INTO THE TRENCH.
- THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER MATERIAL (SEE EC-2).



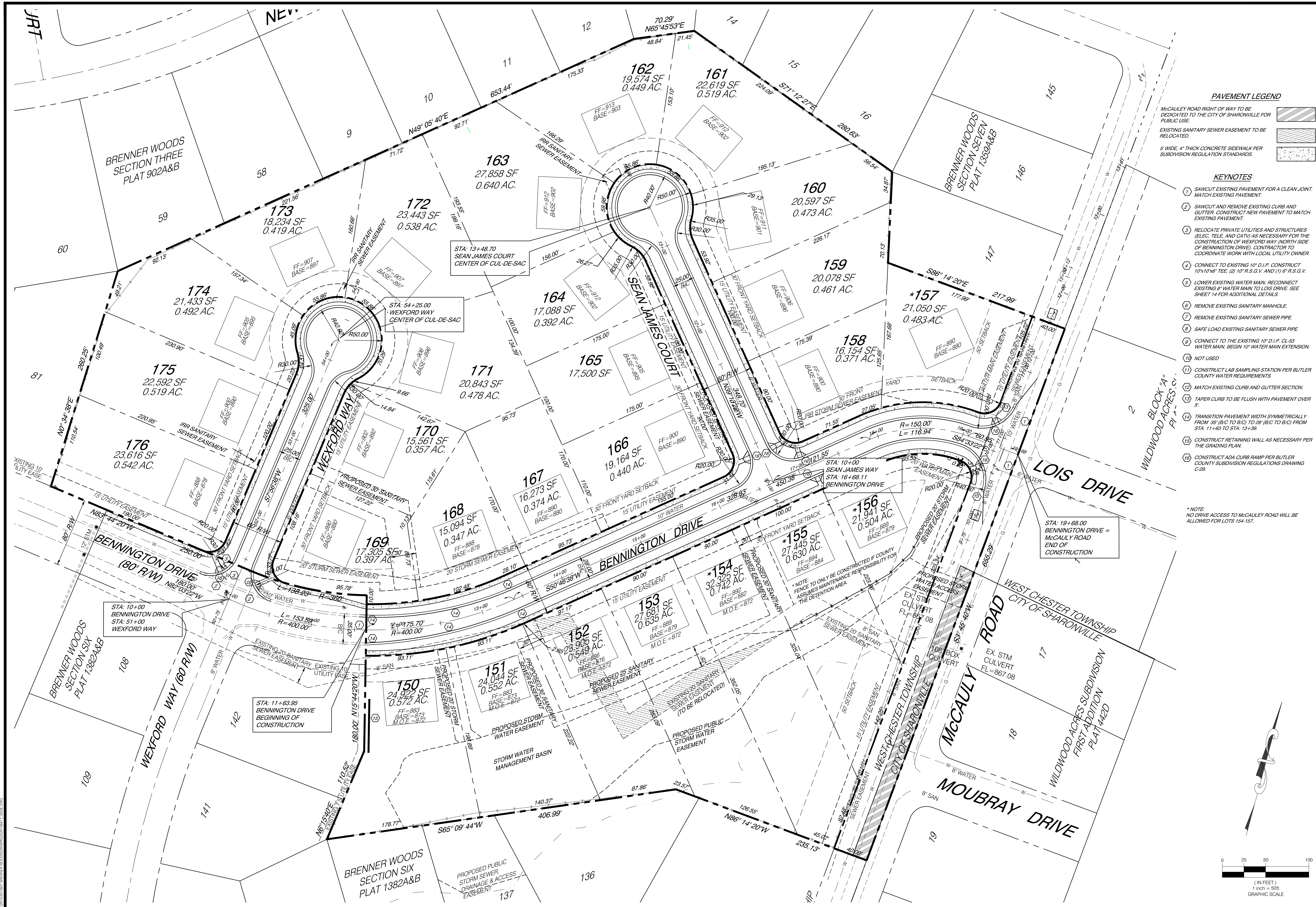
NO.	DATE	BY	DESCRIPTION
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2	5-13-15	DGAR	CONSTRUCTION ISSUE

SCALE	DATE
NTS	2-20-15
DRAWN BY	PROJECT MGR
DGAR	JSHU
PROJECT NO.	FLAT FILE
148101	KY-

DRAWING No. **C6**





**PAVEMENT LEGEND**

- McCAULEY ROAD RIGHT OF WAY TO BE DEDICATED TO THE CITY OF SHARONVILLE FOR PUBLIC USE.
- EXISTING SANITARY SEWER EASEMENT TO BE RELOCATED.
- 5' WIDE, 4" THICK CONCRETE SIDEWALK PER SUBDIVISION REGULATION STANDARDS.

**KEYNOTES**

- 1 SAWCUT EXISTING PAVEMENT FOR A CLEAN JOINT. MATCH EXISTING PAVEMENT.
- 2 SAWCUT AND REMOVE EXISTING CURB AND GUTTER. CONSTRUCT NEW PAVEMENT TO MATCH EXISTING PAVEMENT.
- 3 RELOCATE PRIVATE UTILITIES AND STRUCTURES (ELEC. TELE. AND CATV) AS NECESSARY FOR THE CONSTRUCTION OF WEXFORD WAY (NORTH SIDE OF BENNINGTON DRIVE). CONTRACTOR TO COORDINATE WORK WITH LOCAL UTILITY OWNER.
- 4 CONNECT TO EXISTING 10" D.I.P. CONSTRUCT 10"x10"x6" TEE. (2) 10" R.S.G.V. AND (1) 6" R.S.G.V.
- 5 LOWER EXISTING WATER MAIN. RECONNECT EXISTING 8" WATER MAIN TO LOIS DRIVE. SEE SHEET 14 FOR ADDITIONAL DETAILS.
- 6 REMOVE EXISTING SANITARY MANHOLE.
- 7 REMOVE EXISTING SANITARY SEWER PIPE.
- 8 SAFE LOAD EXISTING SANITARY SEWER PIPE.
- 9 CONNECT TO THE EXISTING 10" D.I.P. CL-33 WATER MAIN. BEGIN 10" WATER MAIN EXTENSION.
- 10 NOT USED
- 11 CONSTRUCT LAB SAMPLING STATION PER BUTLER COUNTY WATER REQUIREMENTS.
- 12 MATCH EXISTING CURB AND GUTTER SECTION.
- 13 TAPER CURB TO BE FLUSH WITH PAVEMENT OVER 5'.
- 14 TRANSITION PAVEMENT WIDTH SYMMETRICALLY FROM 35' (B/C TO B/C) TO 28' (B/C TO B/C) FROM STA. 11+63 TO STA. 13+38.
- 15 CONSTRUCT RETAINING WALL AS NECESSARY PER THE GRADING PLAN.
- 16 CONSTRUCT ADA CURB RAMP PER BUTLER COUNTY SUBDIVISION REGULATIONS DRAWING C-28.

\* NOTE:  
NO DRIVE ACCESS TO McCAULEY ROAD WILL BE ALLOWED FOR LOTS 154-157.



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**SITE LAYOUT PLAN**  
**BRENNER WOODS SUBDIVISION**  
**WEST CHESTER TOWNSHIP**  
**BUTLER COUNTY, OHIO**

REVISIONS	
NO.	DESCRIPTION
1	DGAR BUTLER CO. ENGINEER AND W & S COMMENTS
2	DGAR CONSTRUCTION ISSUE

DATE	BY	DATE	BY
4-8-15	DGAR	5-13-15	DGAR

SCALE	DATE
1"=50'	2-20-15

DRAWN BY	PROJECT MGR
DGAR	JSHU

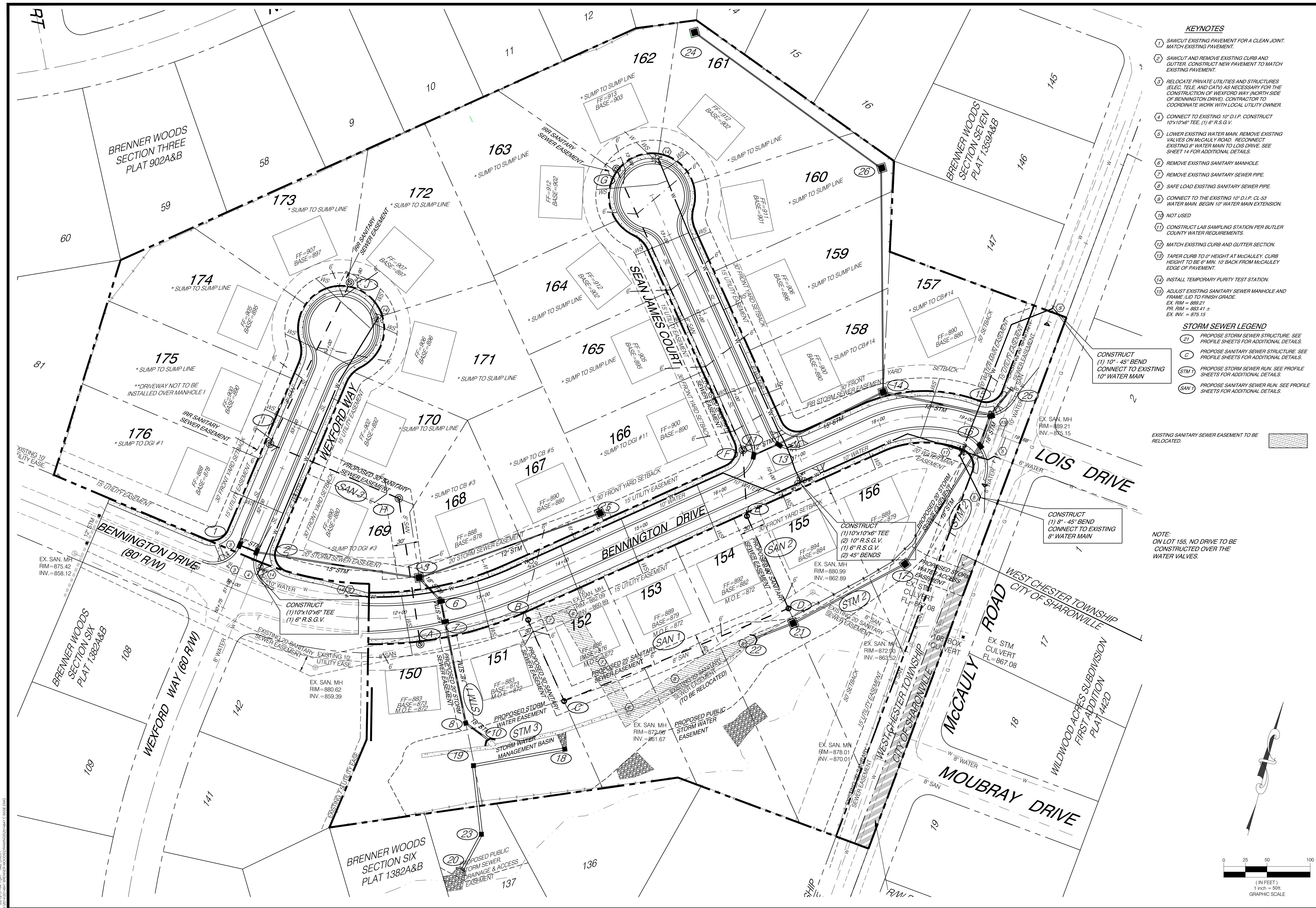
PROJECT NO.	FLAT FILE
148101	KY-

DRAWING No.

**C7**

SHEET 7 OF 14





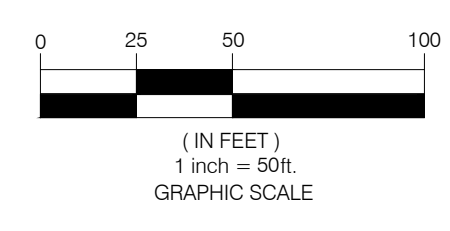
- KEYNOTES**
- 1 SAWCUT EXISTING PAVEMENT FOR A CLEAN JOINT. MATCH EXISTING PAVEMENT.
  - 2 SAWCUT AND REMOVE EXISTING CURB AND GUTTER. CONSTRUCT NEW PAVEMENT TO MATCH EXISTING PAVEMENT.
  - 3 RELOCATE PRIVATE UTILITIES AND STRUCTURES (ELEC. TELE. AND CATV) AS NECESSARY FOR THE CONSTRUCTION OF WEXFORD WAY (NORTH SIDE OF BENNINGTON DRIVE). CONTRACTOR TO COORDINATE WORK WITH LOCAL UTILITY OWNER.
  - 4 CONNECT TO EXISTING 10" D.I.P. CONSTRUCT 10"x10"x6" TEE, (1) 6" R.S.G.V.
  - 5 LOWER EXISTING WATER MAIN. REMOVE EXISTING VALVES ON McCAULEY ROAD. RECONNECT EXISTING 8" WATER MAIN TO LOG DRIVE. SEE SHEET 14 FOR ADDITIONAL DETAILS.
  - 6 REMOVE EXISTING SANITARY MANHOLE.
  - 7 REMOVE EXISTING SANITARY SEWER PIPE.
  - 8 SAFE LOAD EXISTING SANITARY SEWER PIPE.
  - 9 CONNECT TO THE EXISTING 10" D.I.P. CL-53 WATER MAIN. BEGIN 10" WATER MAIN EXTENSION.
  - 10 NOT USED.
  - 11 CONSTRUCT LAB SAMPLING STATION PER BUTLER COUNTY WATER REQUIREMENTS.
  - 12 MATCH EXISTING CURB AND GUTTER SECTION.
  - 13 TAPER CURB TO 0" HEIGHT AT McCAULEY. CURB HEIGHT TO BE 6" MIN. 10' BACK FROM McCAULEY EDGE OF PAVEMENT.
  - 14 INSTALL TEMPORARY PURITY TEST STATION.
  - 15 ADJUST EXISTING SANITARY SEWER MANHOLE AND FRAME. LID TO FINISH GRADE.  
EX. RIM = 889.21  
PR. RIM = 880.41 ±  
EX. INV. = 875.15
- STORM SEWER LEGEND**
- (21) PROPOSE STORM SEWER STRUCTURE. SEE PROFILE SHEETS FOR ADDITIONAL DETAILS.
  - (C) PROPOSE SANITARY SEWER STRUCTURE. SEE PROFILE SHEETS FOR ADDITIONAL DETAILS.
  - (STM) PROPOSE STORM SEWER RUN. SEE PROFILE SHEETS FOR ADDITIONAL DETAILS.
  - (SAN) PROPOSE SANITARY SEWER RUN. SEE PROFILE SHEETS FOR ADDITIONAL DETAILS.

EXISTING SANITARY SEWER EASEMENT TO BE RELOCATED.

CONSTRUCT (1) 10" - 45° BEND CONNECT TO EXISTING 10" WATER MAIN

CONSTRUCT (1) 8" - 45° BEND CONNECT TO EXISTING 8" WATER MAIN

NOTE: ON LOT 155, NO DRIVE TO BE CONSTRUCTED OVER THE WATER VALVES.

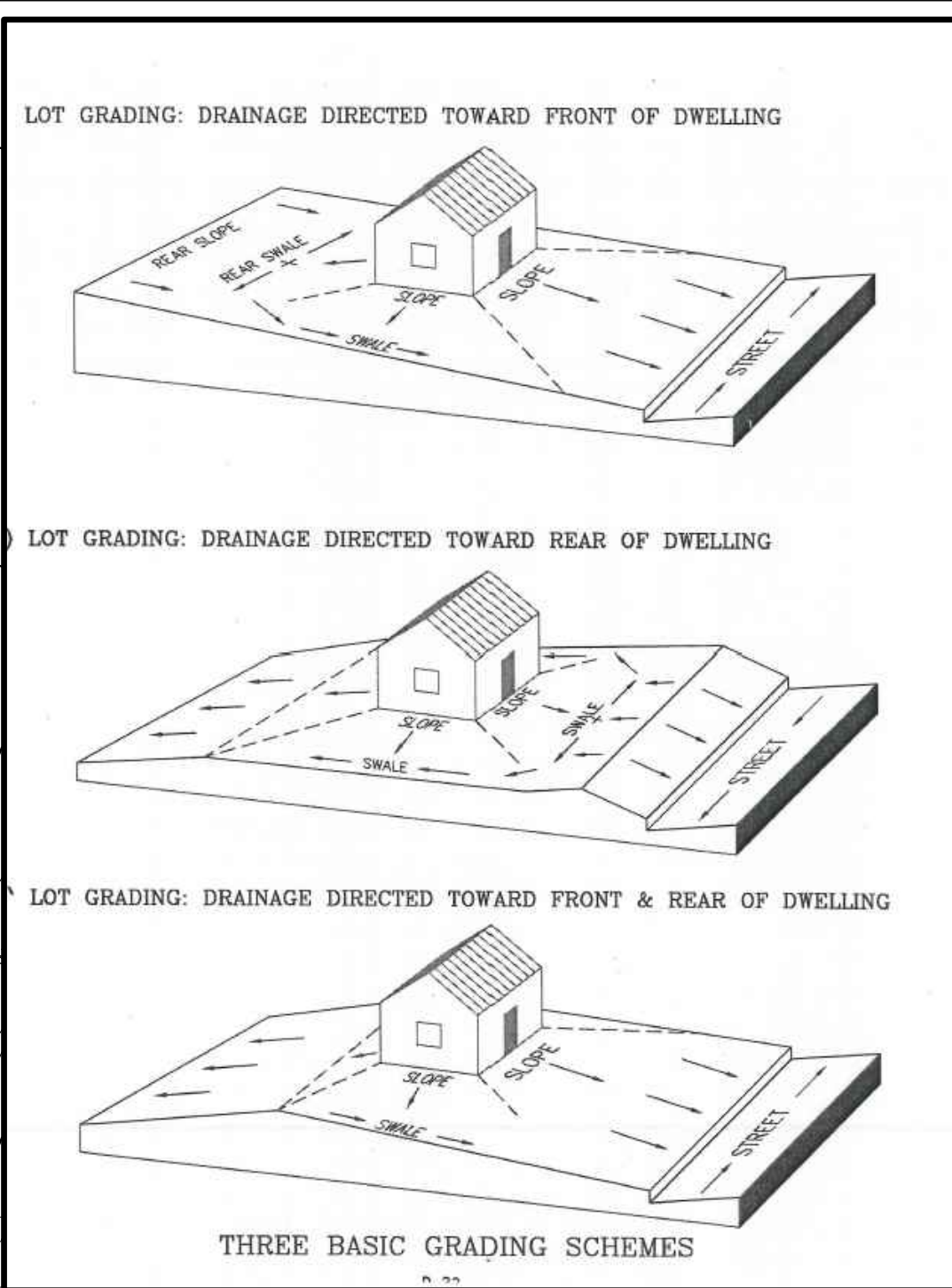
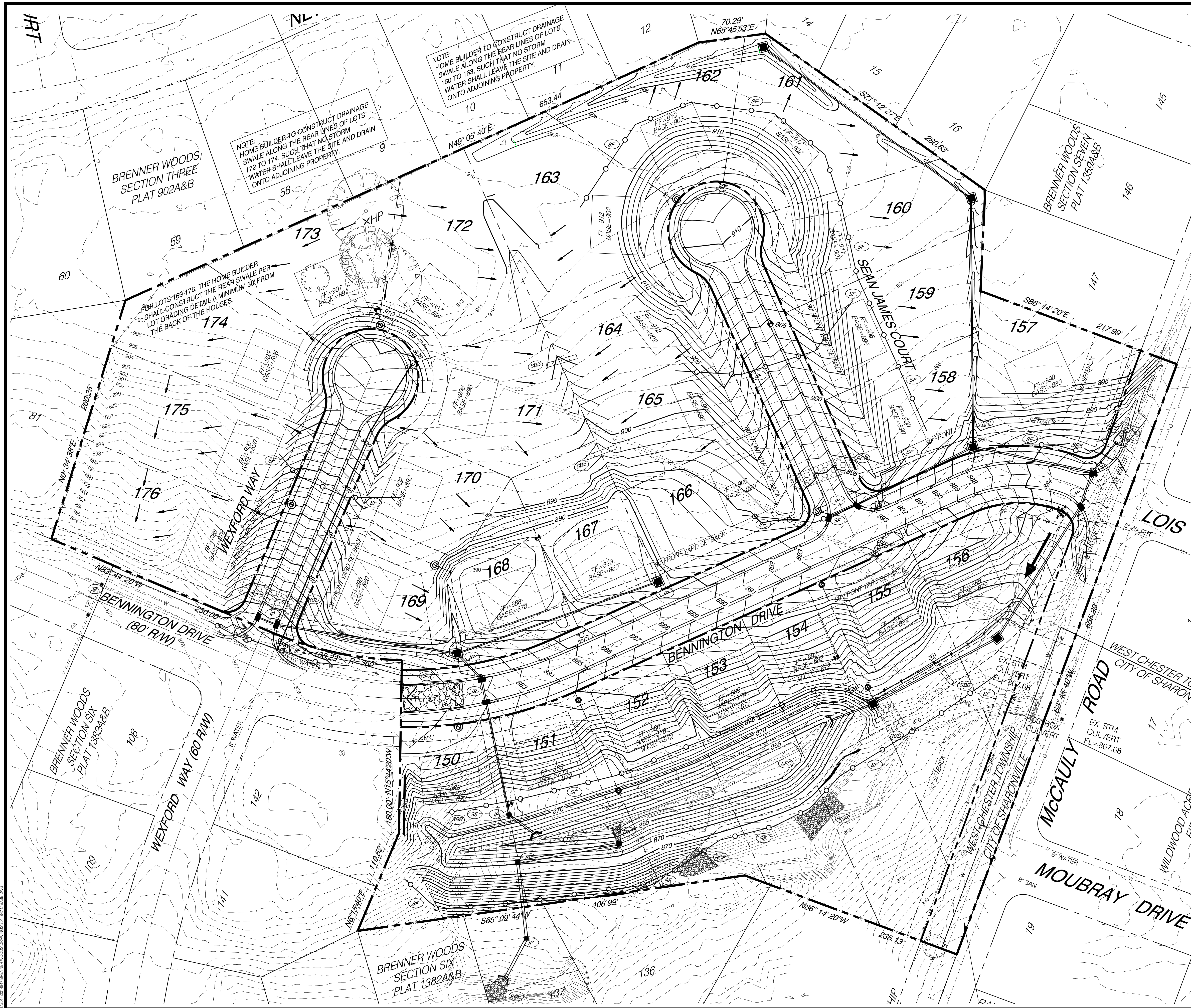


**SITE UTILITY PLAN**  
**BRENNER WOODS SUBDIVISION**  
**WEST CHESTER TOWNSHIP**  
**BUTLER COUNTY, OHIO**

REVISIONS		DATE	BY	DESCRIPTION
1		4-8-15	DGAR	BUTLER CO ENGINEER AND W & S COMMENTS
2		5-13-15	DGAR	CONSTRUCTION ISSUE

SCALE	DATE
1" = 50'	2-20-15
DRAWN BY	PROJECT MGR
DGAR	JSHU
PROJECT NO.	PLAT FILE
148101	KY-
DRAWING No.	
<b>C8</b>	
SHEET 8 OF 14	

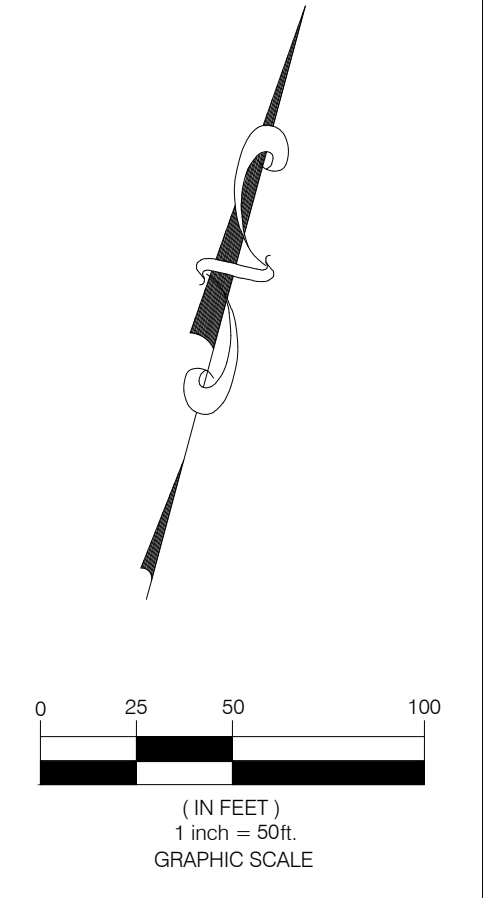




- EROSION CONTROL LEGEND**
- SILT FENCE
  - INLET PROTECTION FOR DRAINAGE STRUCTURES
  - STRAW BALE BARRIER
  - CONSTRUCT ROAD STABILIZATION
  - CONSTRUCT ROCK CHANNEL PROTECTION AT THE TOE OF SLOPE TO PROTECT FROM STREAM EROSION. COORDINATE ACTUAL LIMITS OF WORK AND DETAILS WITH B.C.E.O.
  - CONSTRUCT CONCRETE LOW FLOW CHANNEL (PAVED GUTTER TYPE 1-2) PER BUTLER COUNTY STANDARD DRAWINGS.
  - ROCK CHECK DAM
  - TEMPORARY STONE INLET PROTECTION
  - 100 YEAR FLOOD ROUTE

NOTE: BASEMENT ELEVATIONS SHOWN HEREON ARE THE MINIMUM ELEVATION FOR HOUSE TO BE SET AT IN ORDER TO MAKE THE MINIMUM SANITARY SERVICE SLOPE CONNECTIONS TO THE SANITARY SEWER MAIN.

HOME BUILDERS ON INDIVIDUAL LOTS TO CONSTRUCT LOT GRADING PER THE DETAIL THIS SHEET.

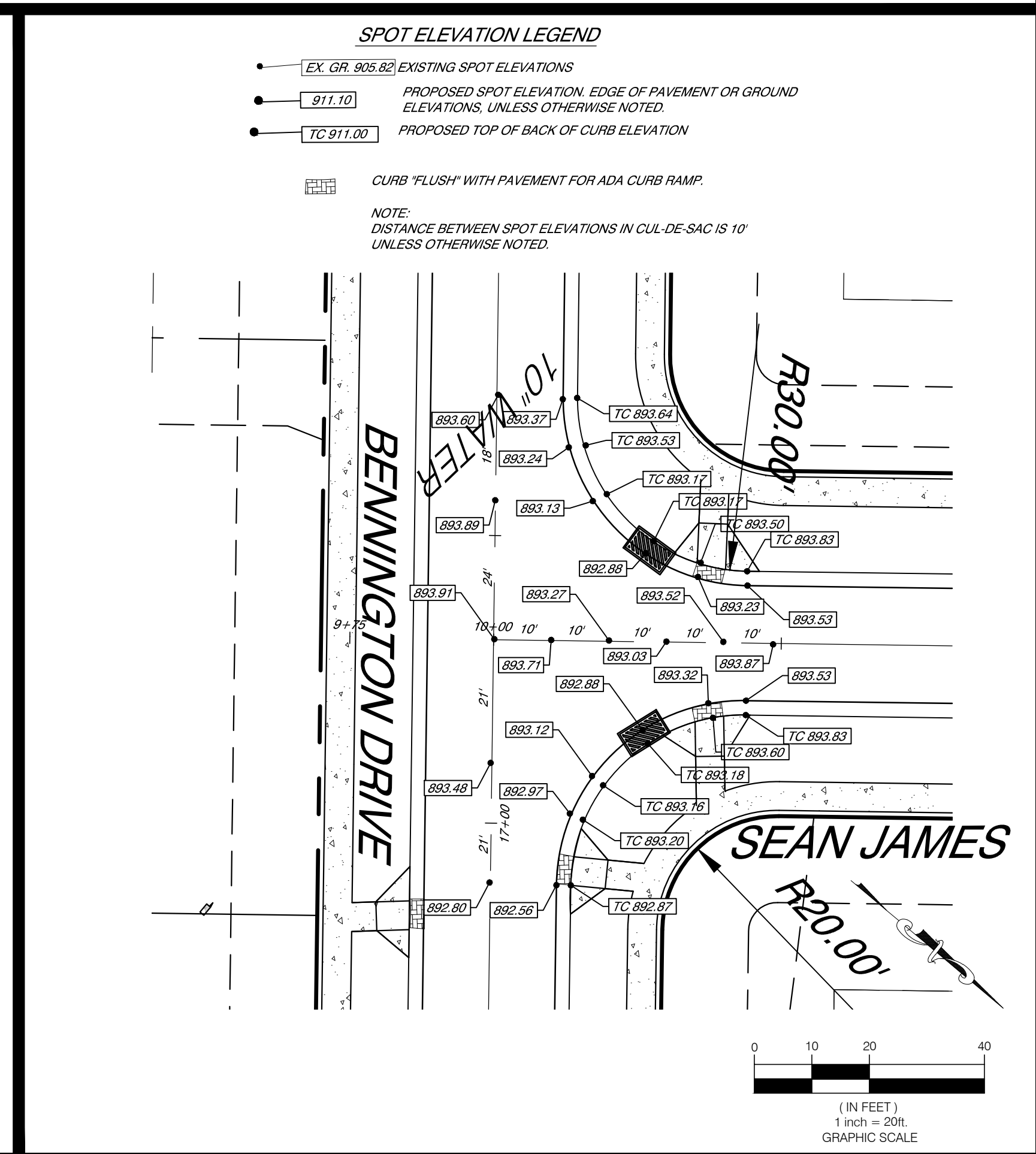
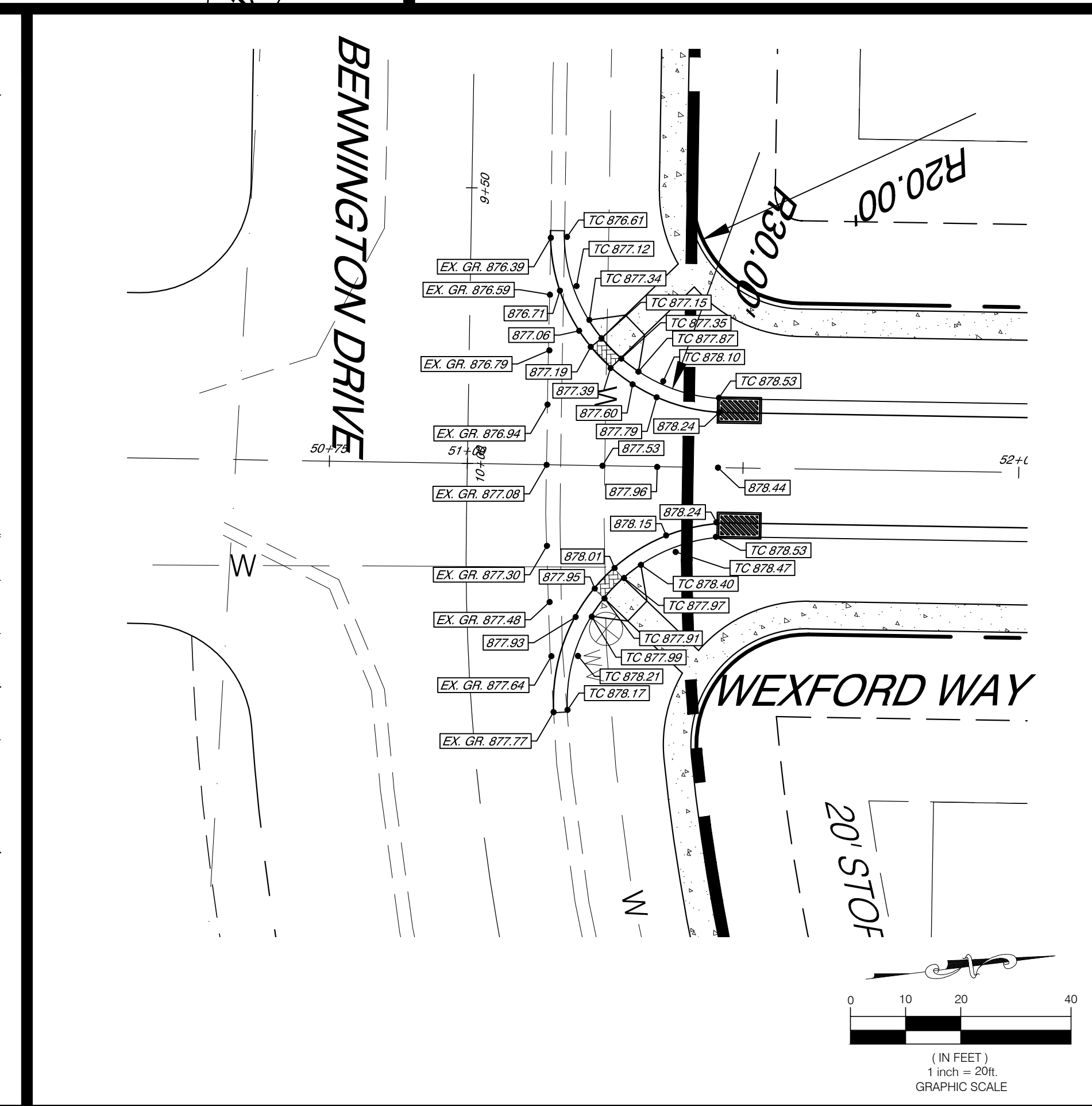
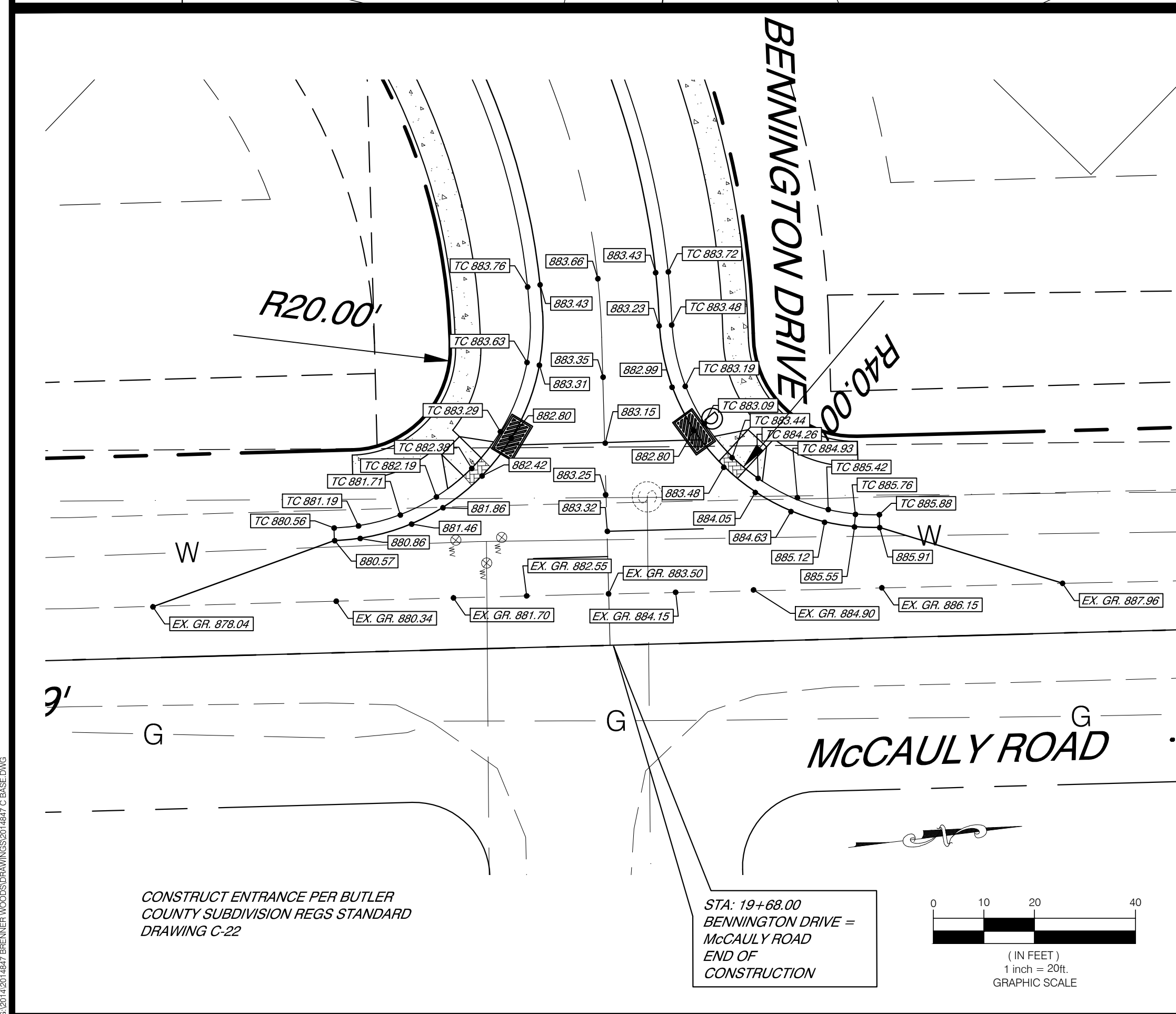
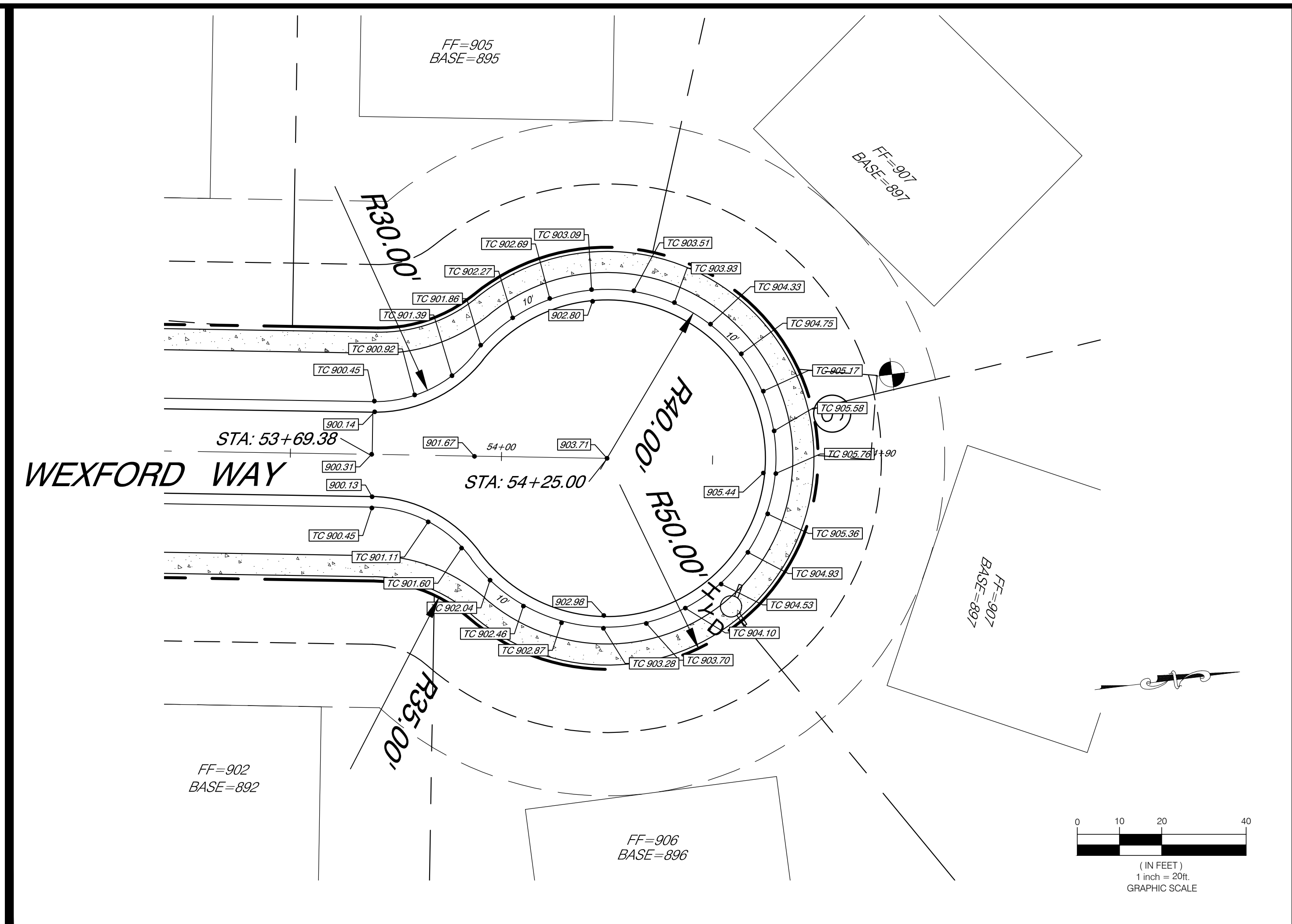
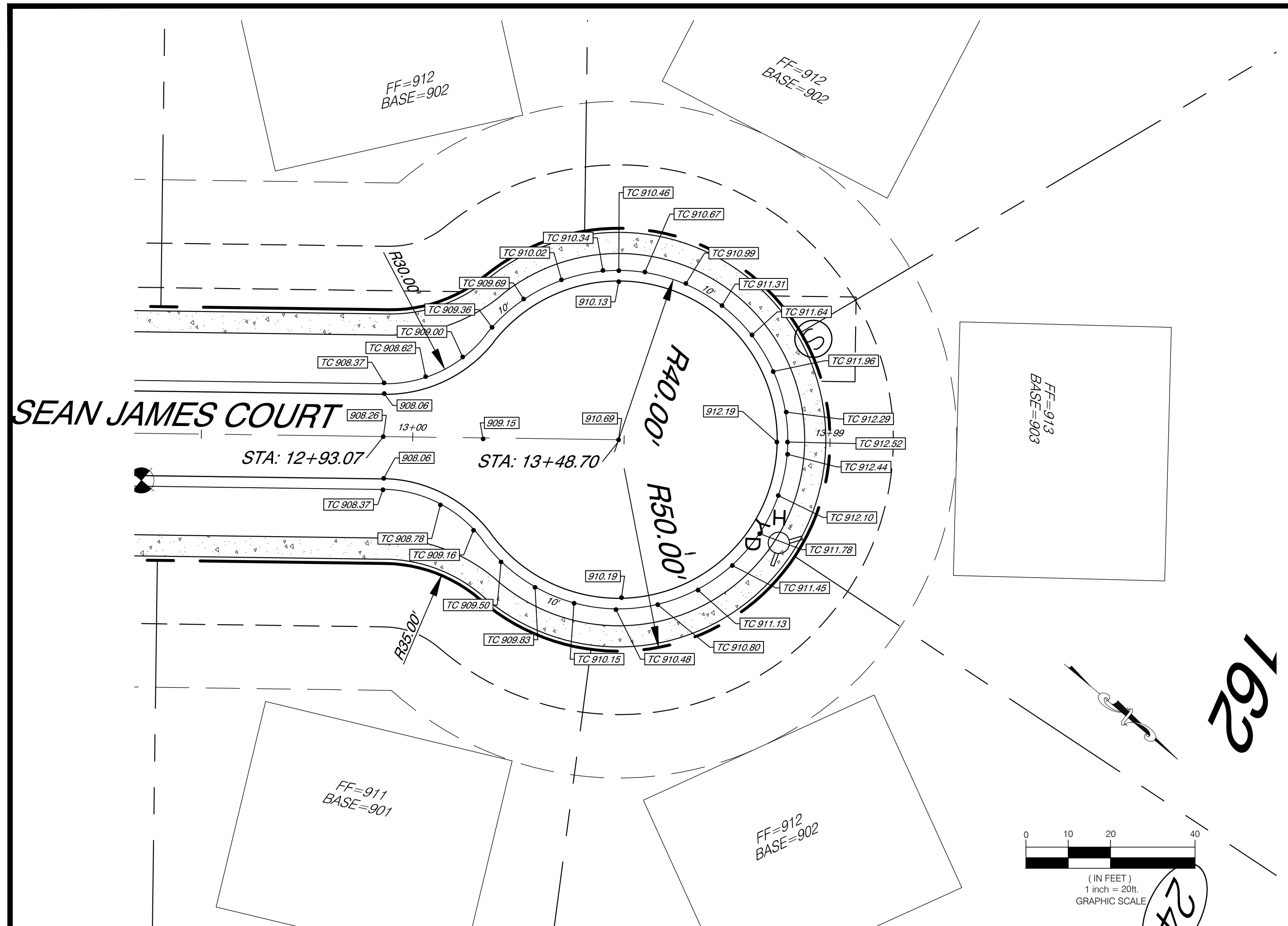


DRAWING TITLE: **GRADING AND EROSION CONTROL PLAN**  
 PROJECT TITLE: **BRENNER WOODS SUBDIVISION  
 WEST CHESTER TOWNSHIP  
 BUTLER COUNTY, OHIO**

REVISIONS	
NO.	DESCRIPTION
1	DGAR BUTLER CO ENGINEER AND W & S COMMENTS
2	DGAR CONSTRUCTION ISSUE

DATE	4-8-15	DATE	2-20-15
SCALE	1" = 50'	PROJECT MGR	JSHU
DRAWN BY	DGAR	FLAT FILE	KY-
PROJECT NO.	148101	DRAWING No.	C9
SHEET 9 OF 14			





**SPOT ELEVATION LEGEND**

- EX GR 905.82 EXISTING SPOT ELEVATIONS
- 911.10 PROPOSED SPOT ELEVATION, EDGE OF PAVEMENT OR GROUND ELEVATIONS, UNLESS OTHERWISE NOTED.
- TC 911.00 PROPOSED TOP OF BACK OF CURB ELEVATION

CURB "FLUSH" WITH PAVEMENT FOR ADA CURB RAMP.

NOTE: DISTANCE BETWEEN SPOT ELEVATIONS IN CUL-DE-SAC IS 10' UNLESS OTHERWISE NOTED.

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INTERSECTION DETAILS

**BRENNER WOODS SUBDIVISION  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO**

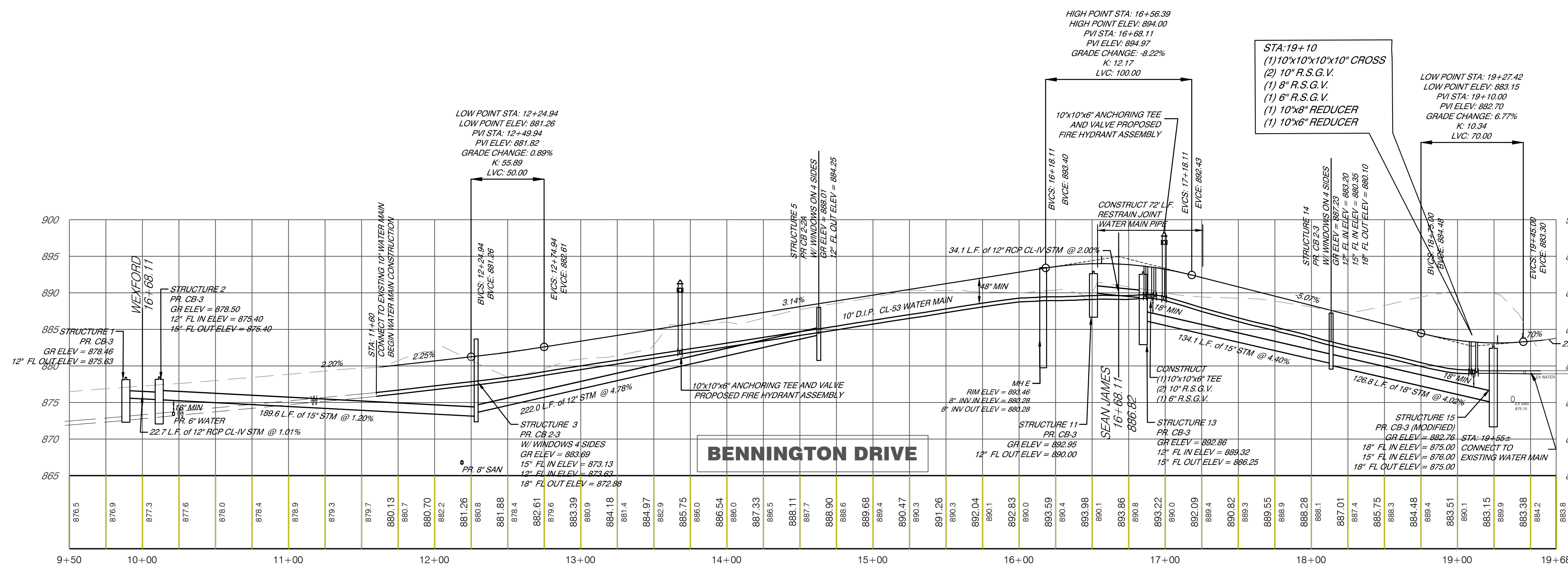
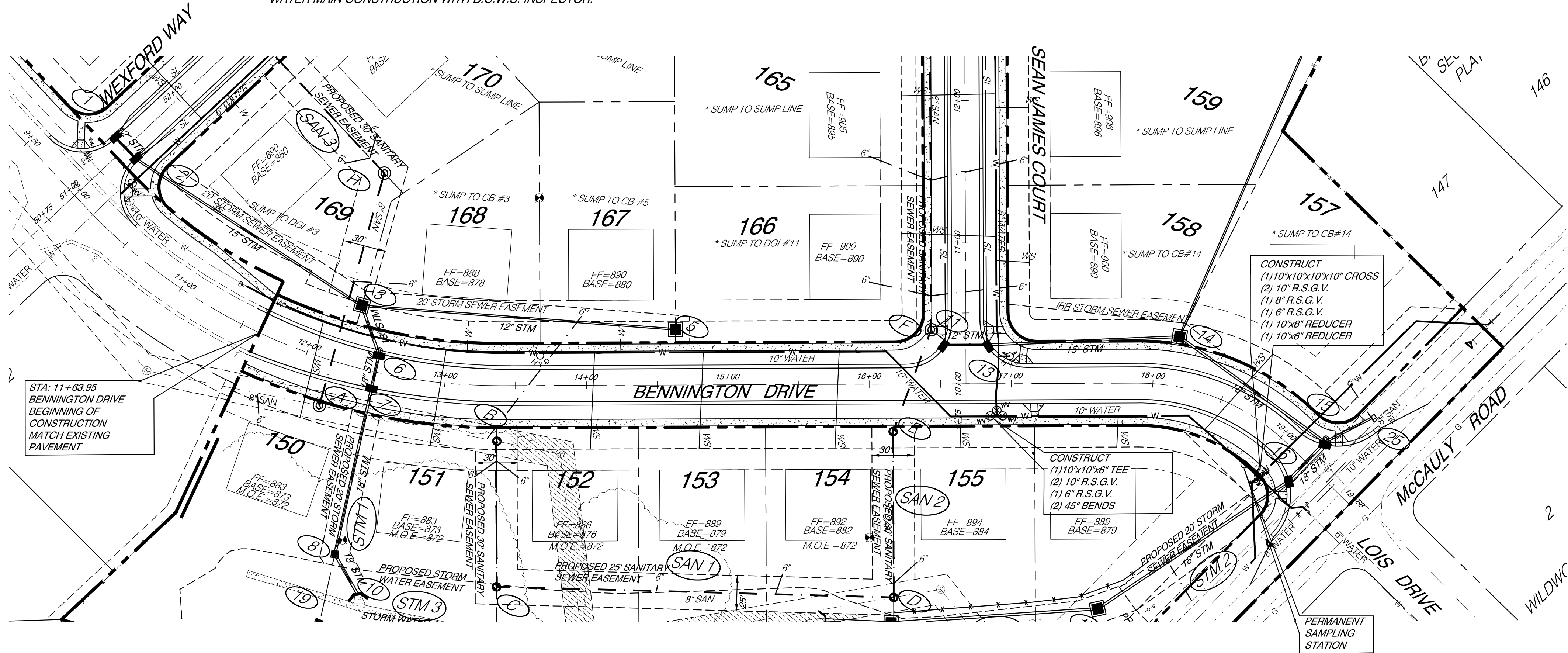
DRAWING TITLE		PROJECT TITLE	
BRENNER WOODS SUBDIVISION		WEST CHESTER TOWNSHIP	
BUTLER COUNTY, OHIO		BUTLER COUNTY, OHIO	

REVISIONS		DATE	
NO.	DESCRIPTION	DATE	DATE
1	DGAR BUTLER CO ENGINEER AND W & S COMMENTS	4-8-15	2-20-15
2	DGAR CONSTRUCTION ISSUE	5-13-15	

SCALE	DATE
1" = 20'	2-20-15
DRAWN BY	PROJECT MGR
DGAR	JSHU
PROJECT NO.	PLAT FILE
148101	KY-
DRAWING No.	
<b>C10</b>	
SHEET <b>10</b> OF <b>14</b>	



NOTE: COORDINATE ANY SHUTDOWNS REQUIRED FOR THE WATER MAIN CONSTRUCTION WITH B.C.W.S. INSPECTOR.



**PLAN AND PROFILE - BENNINGTON DRIVE**  
**BRENNER WOODS SUBDIVISION**  
**WEST CHESTER TOWNSHIP**  
**BUTLER COUNTY, OHIO**

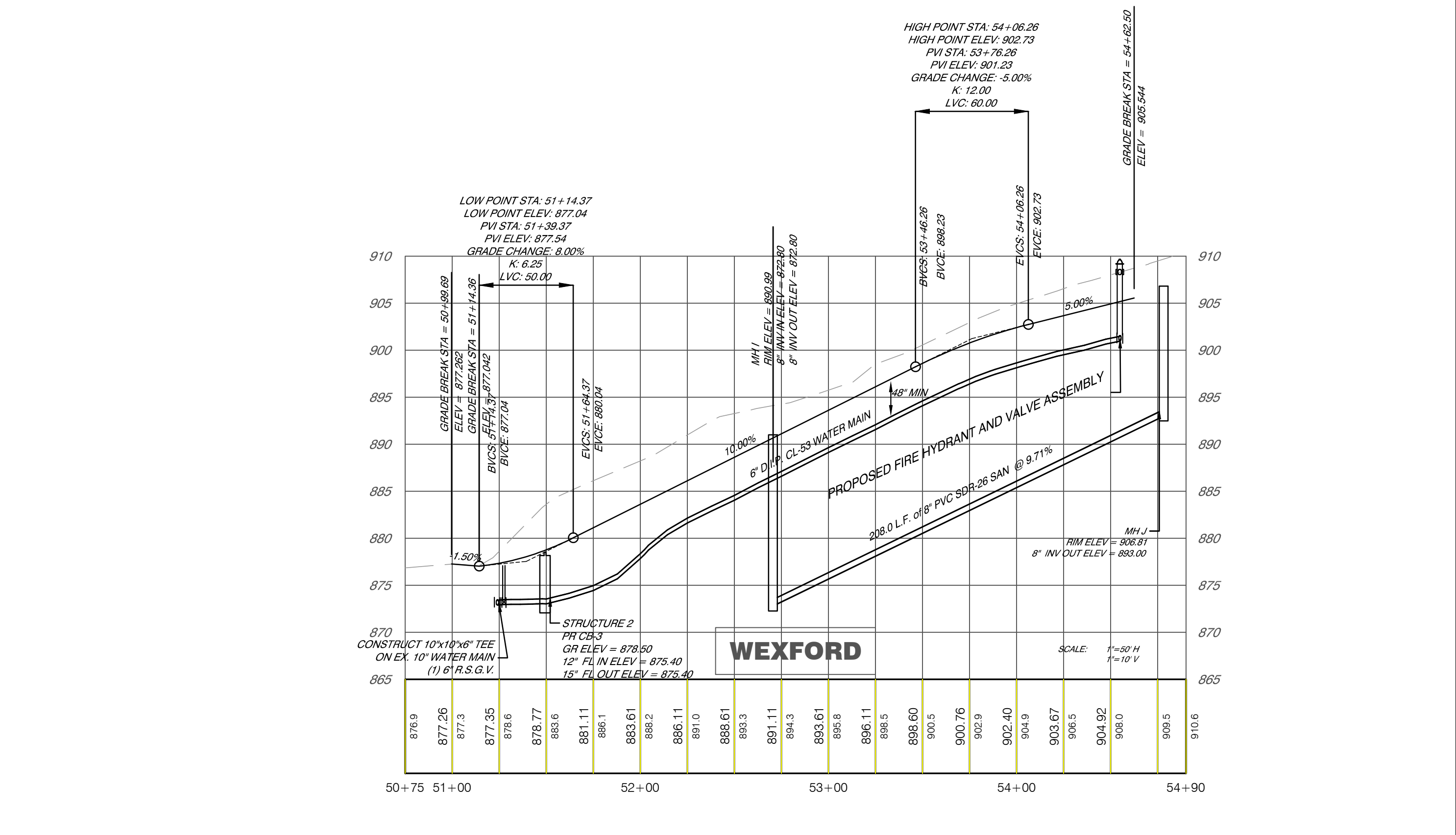
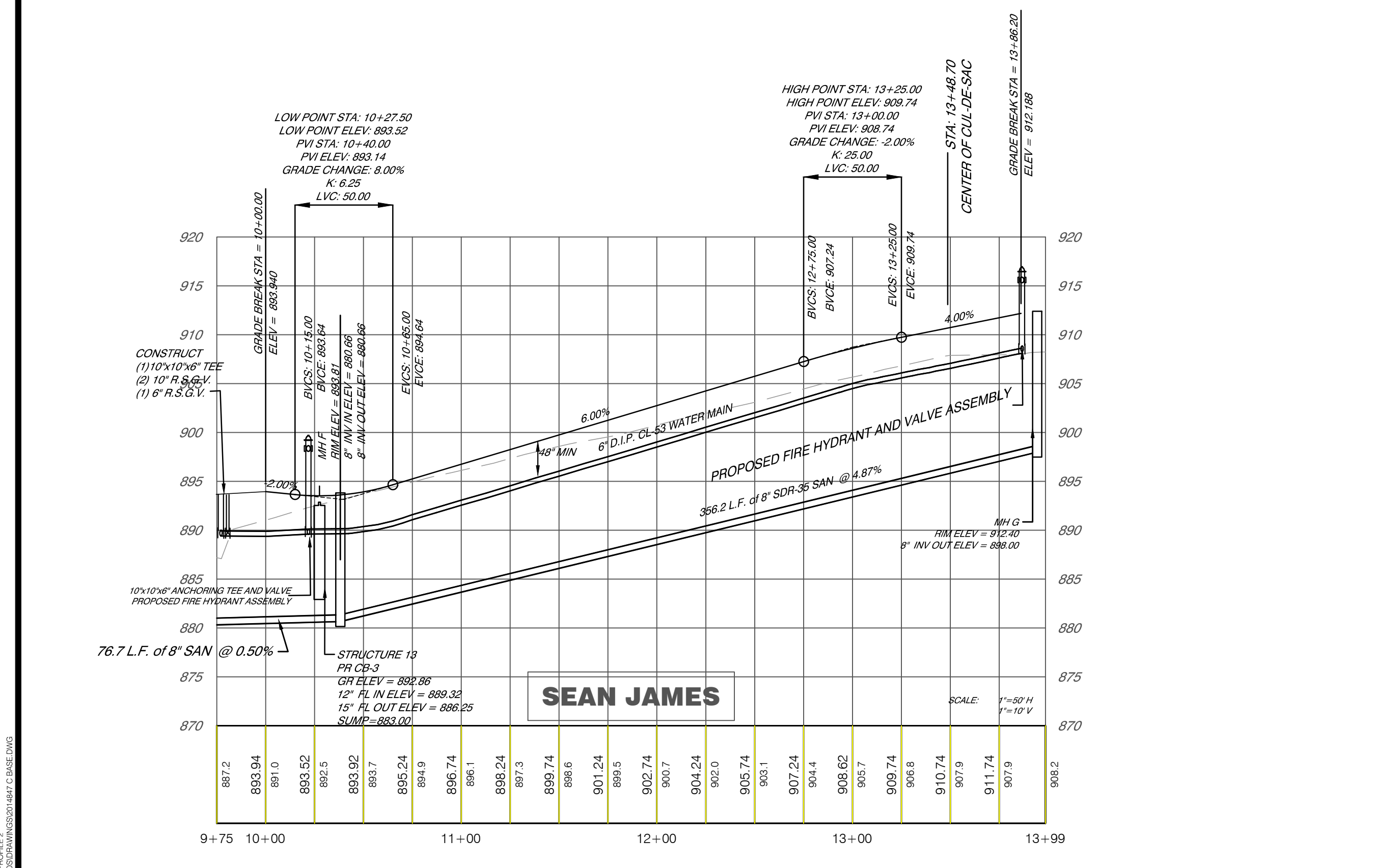
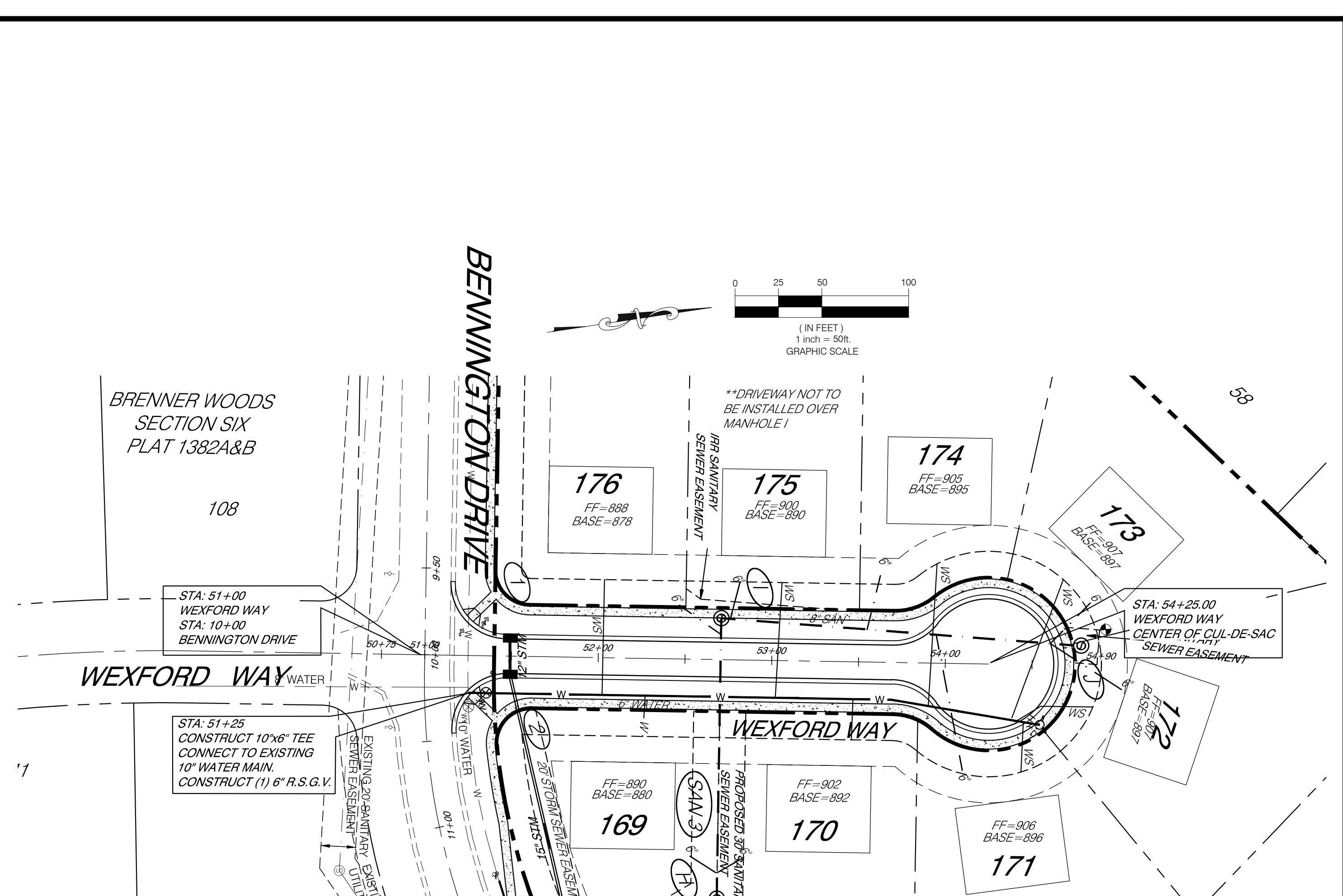
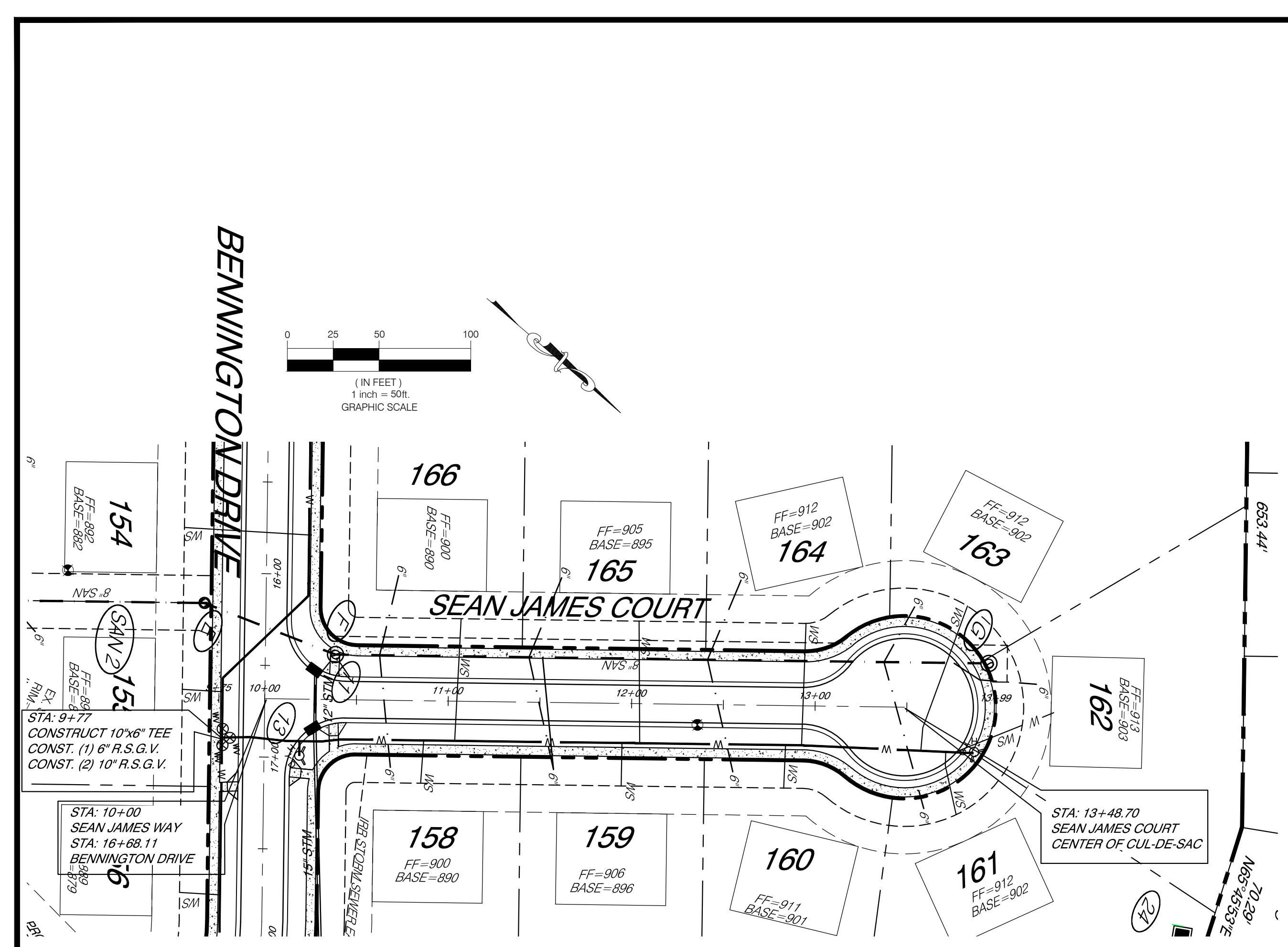
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NO.	DESCRIPTION
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2	DATE: 5-13-15 BY: DGAR CONSTRUCTION ISSUE

SCALE: 1" = 50'	DATE: 2-20-15
DRAWN BY: DGAR	PROJECT MGR: JSHU
PROJECT NO: 148101	FLAT FILE: KY-
DRAWING NO: <b>C11</b>	
SHEET <b>11</b> OF <b>14</b>	

05/03/15 10:00 AM - PLAN & PROFILE  
 C:\PROJECTS\BRENNER WOODS SUBDIVISION\DWG\C11.PLT





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DRAWING TITLE: **PLAN AND PROFILE - SEAN JAMES & WEXFORD WAY**

PROJECT TITLE: **BRENNER WOODS SUBDIVISION  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO**

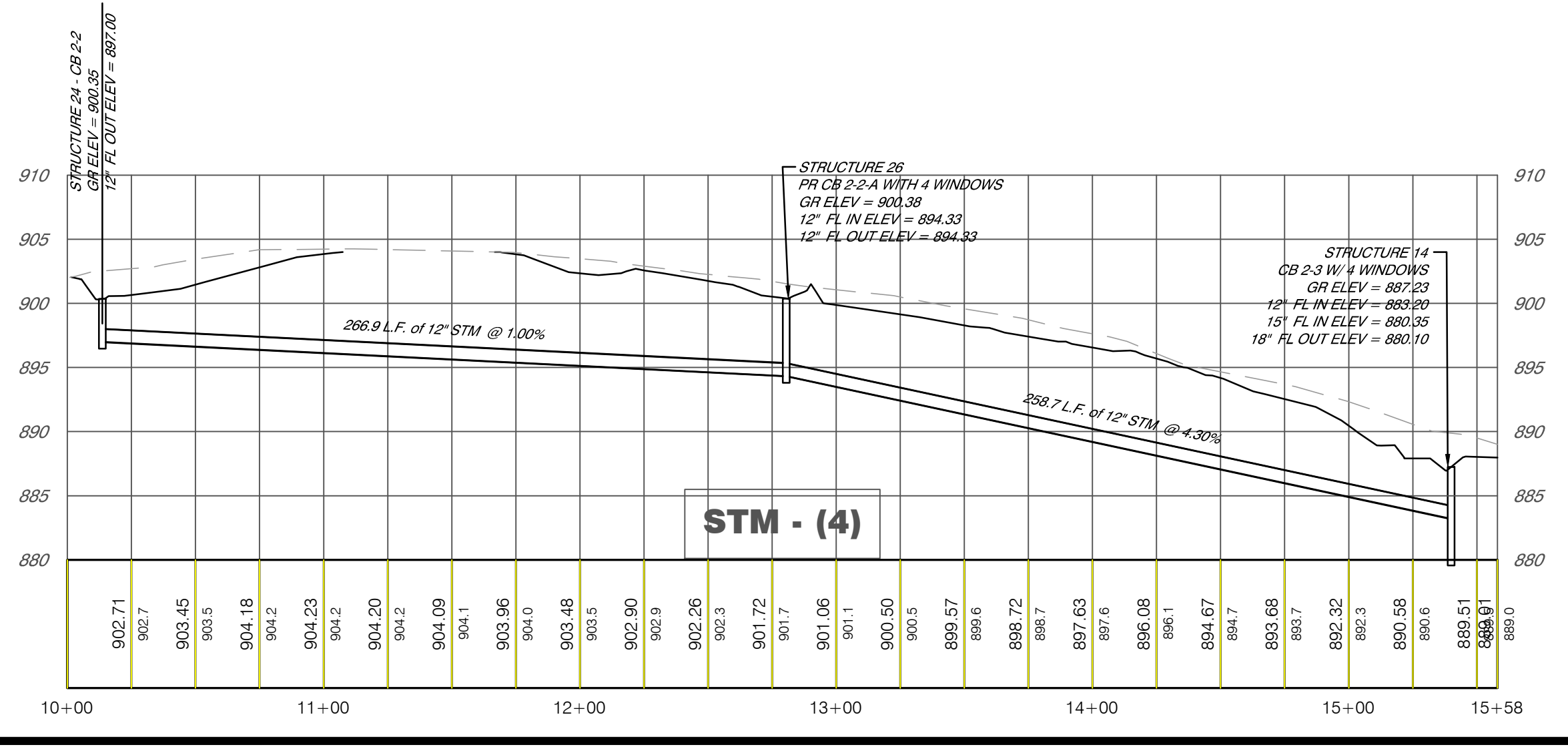
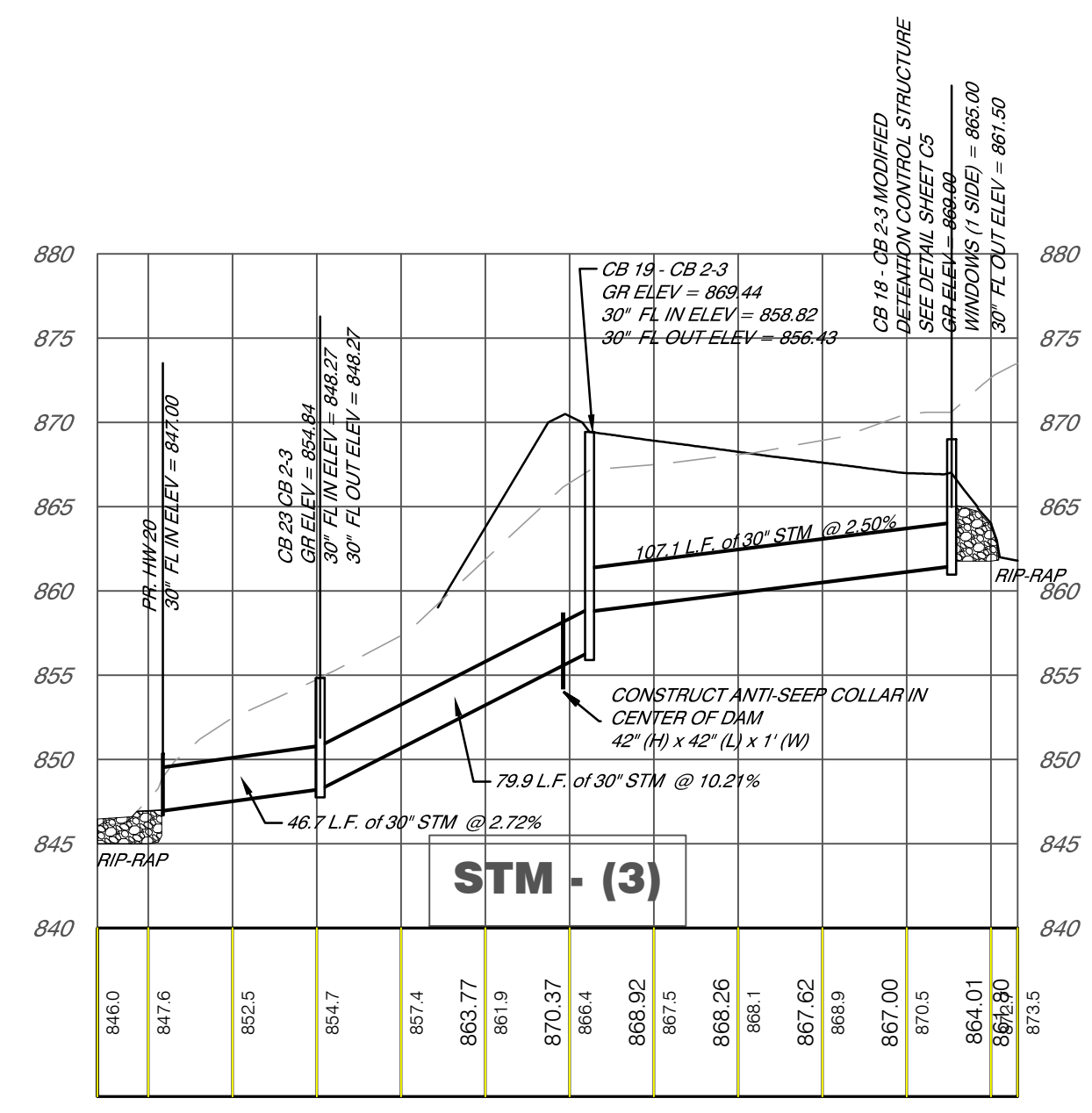
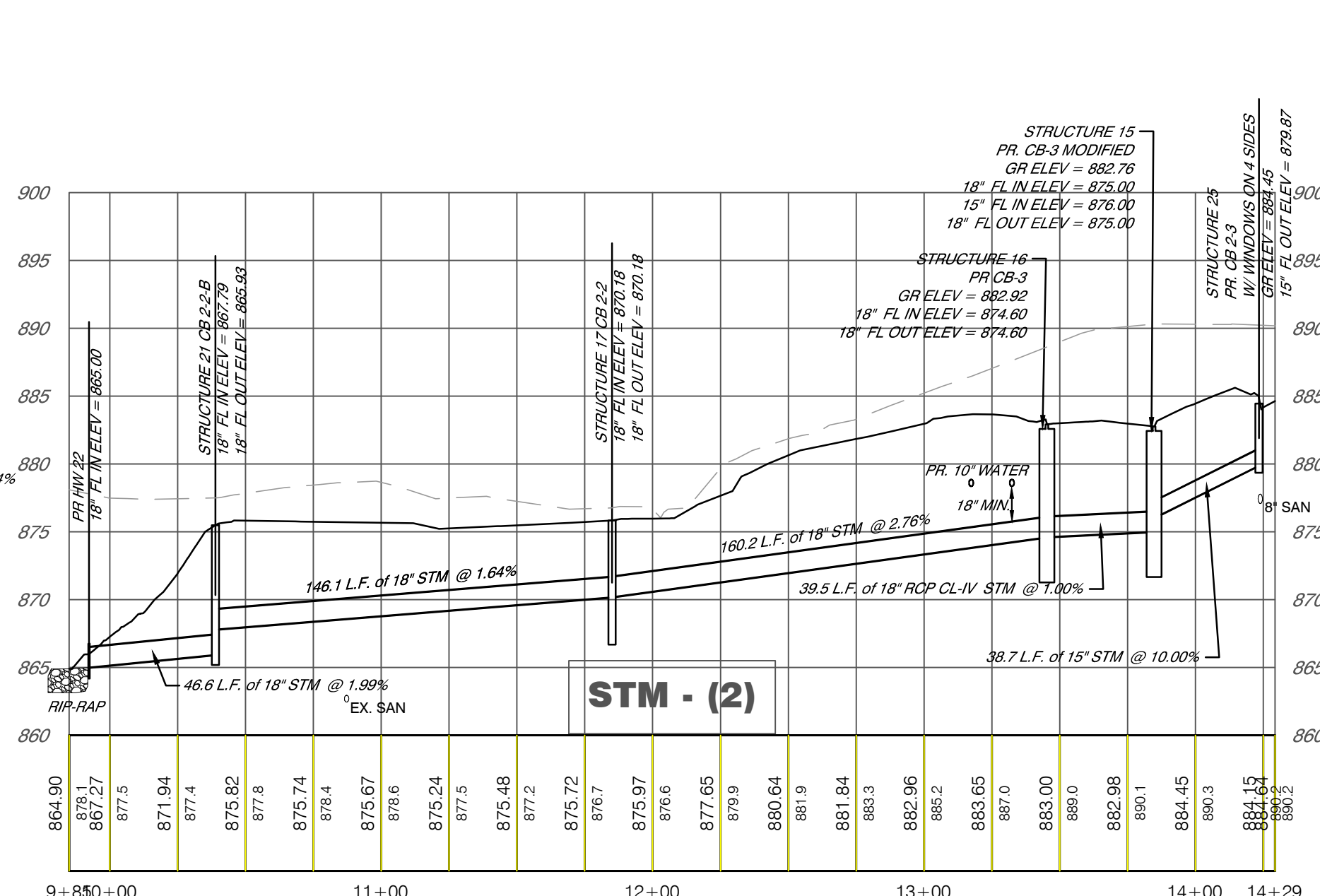
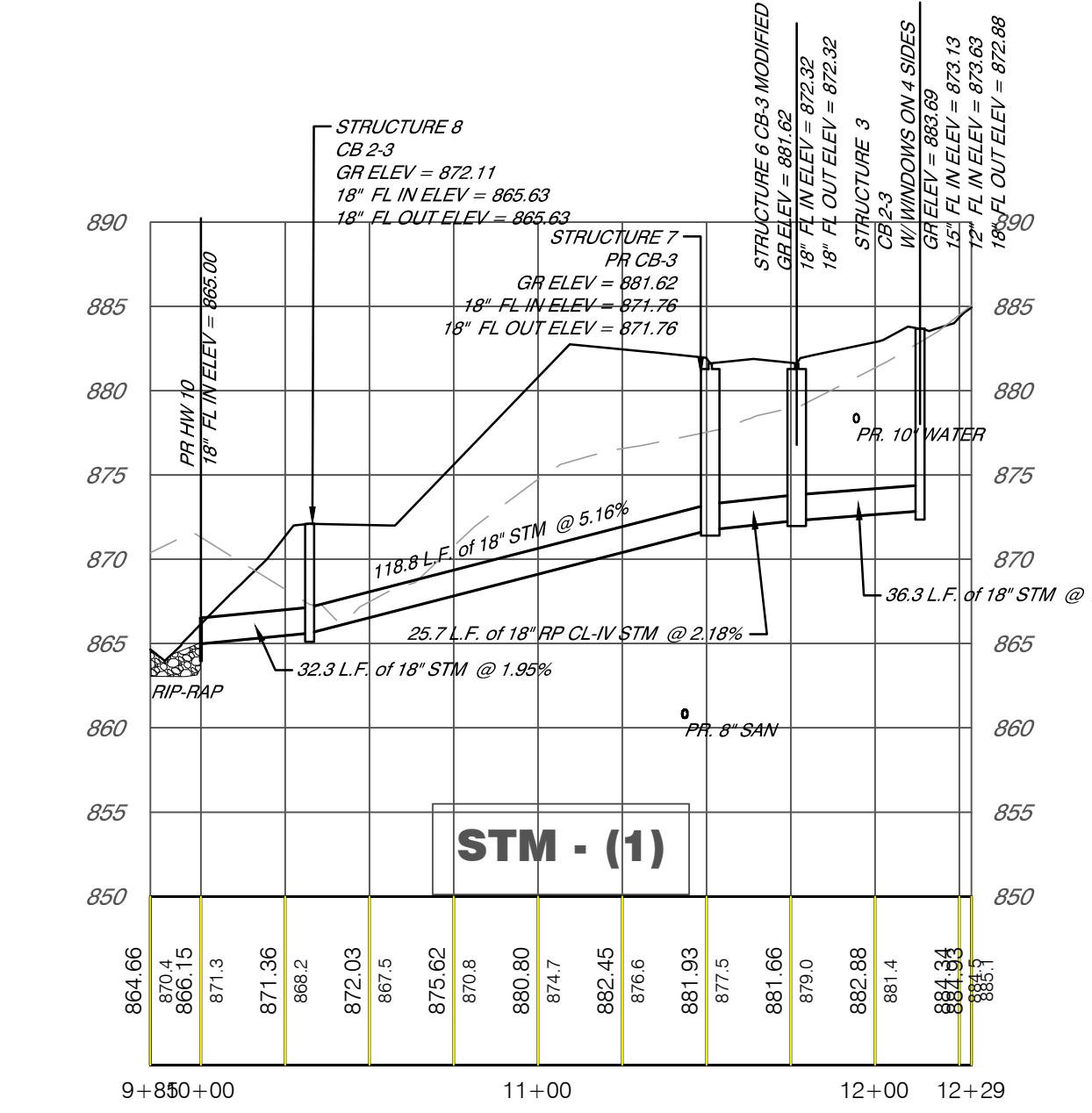
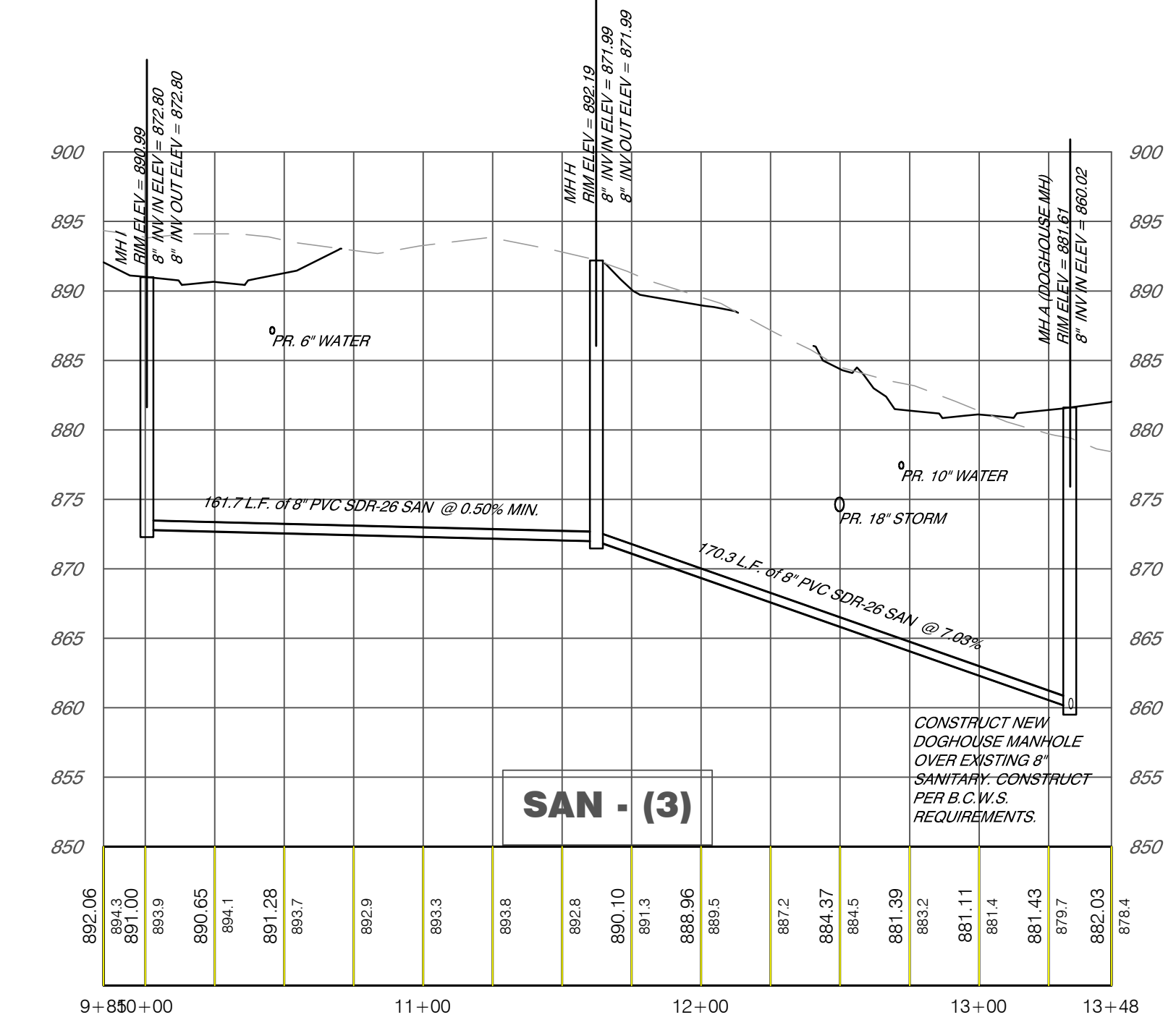
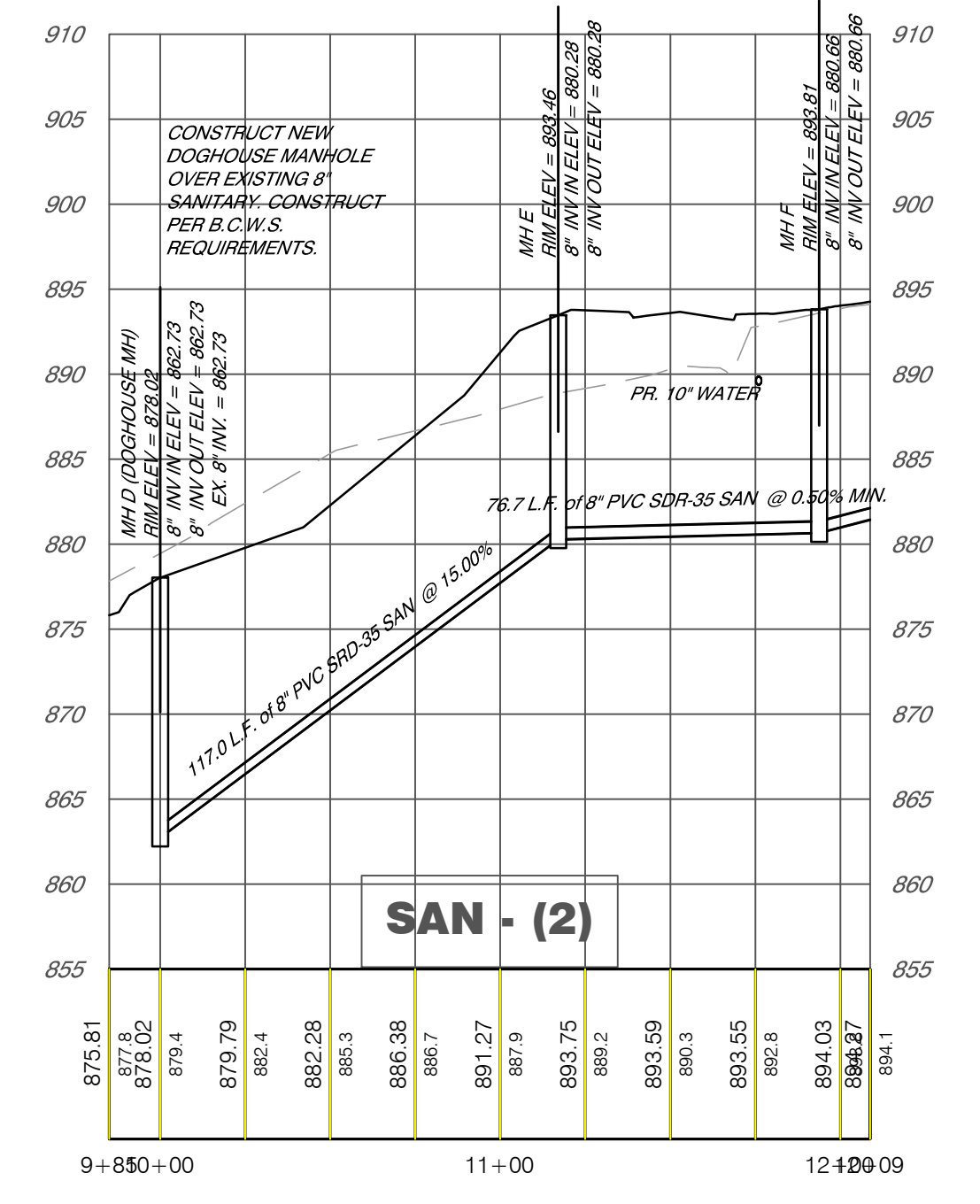
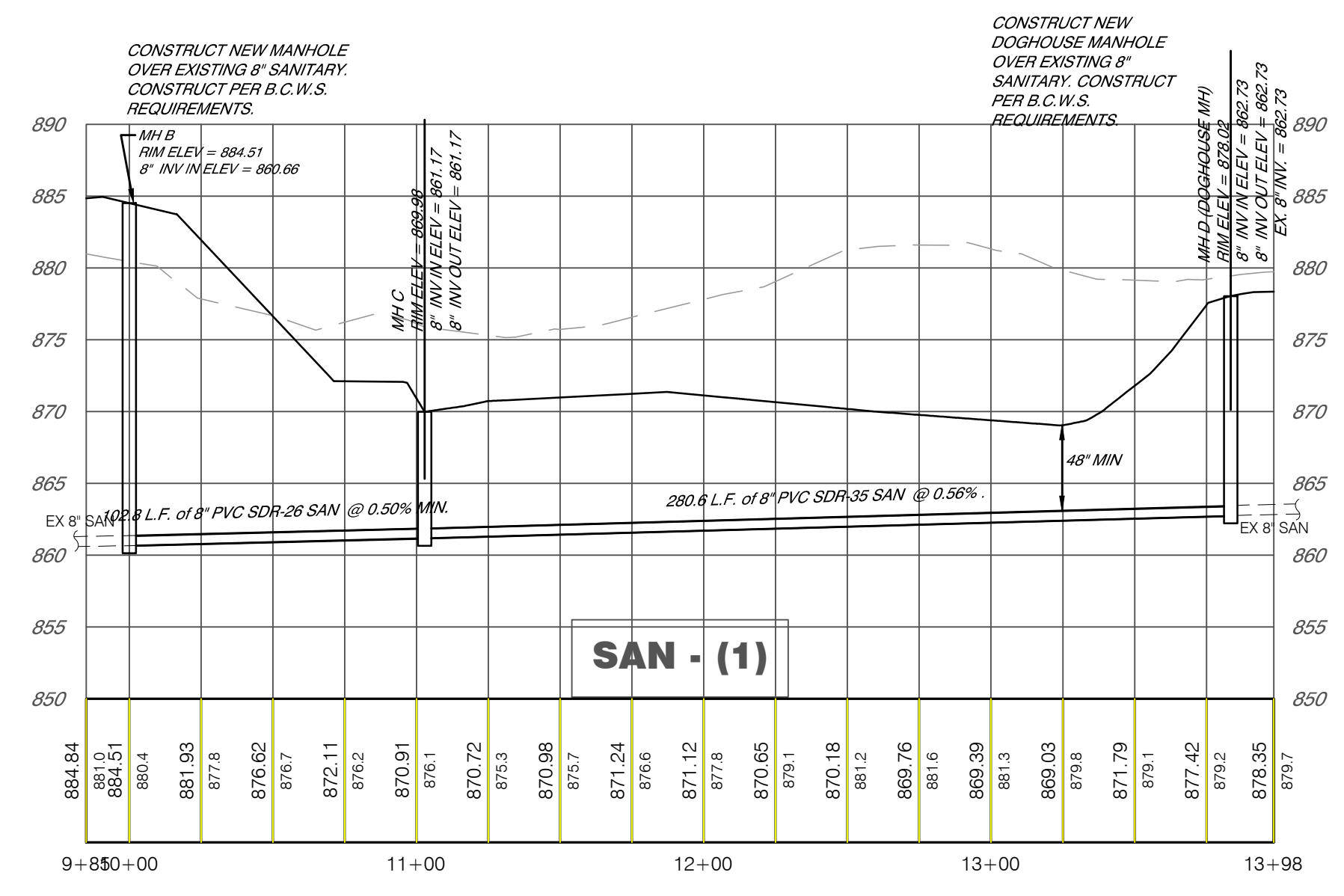
REVISIONS	
NO.	DESCRIPTION
1	DATE: 4-8-15 BY: DGAR BUTLER CO ENGINEER AND W & S COMMENTS: DGAR CONSTRUCTION ISSUE
2	DATE: 5-13-15 BY: DGAR CONSTRUCTION ISSUE

SCALE: 1"=50'	DATE: 2-20-15
DRAWN BY: DGAR	PROJECT MGR: JSHU
PROJECT NO: 148101	FLAT FILE: KY-
DRAWING No. <b>C12</b>	
SHEET <b>12</b> OF <b>14</b>	



REVISIONS	
NO.	DESCRIPTION
1	BY: [REDACTED] DATE: 4-8-15
2	BY: [REDACTED] DATE: 5-13-15

SCALE	DATE
1"=50'	2-20-15
DRAWN BY	PROJECT MGR
DGAR	JSHU
PROJECT NO.	FLAT FILE
148101	KY-



**NOTE:**  
 CONSTRUCT CB-3 MODIFIED CURB  
 INLET PER B.C.E.O. STANDARD  
 DETAILS.

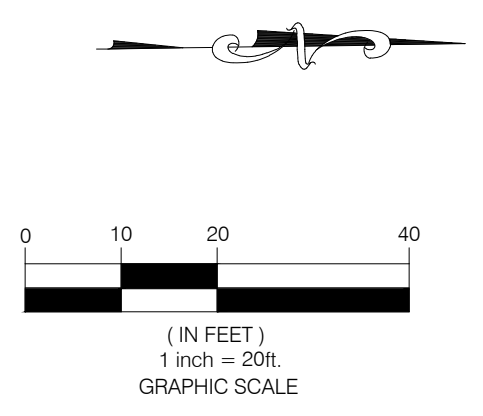
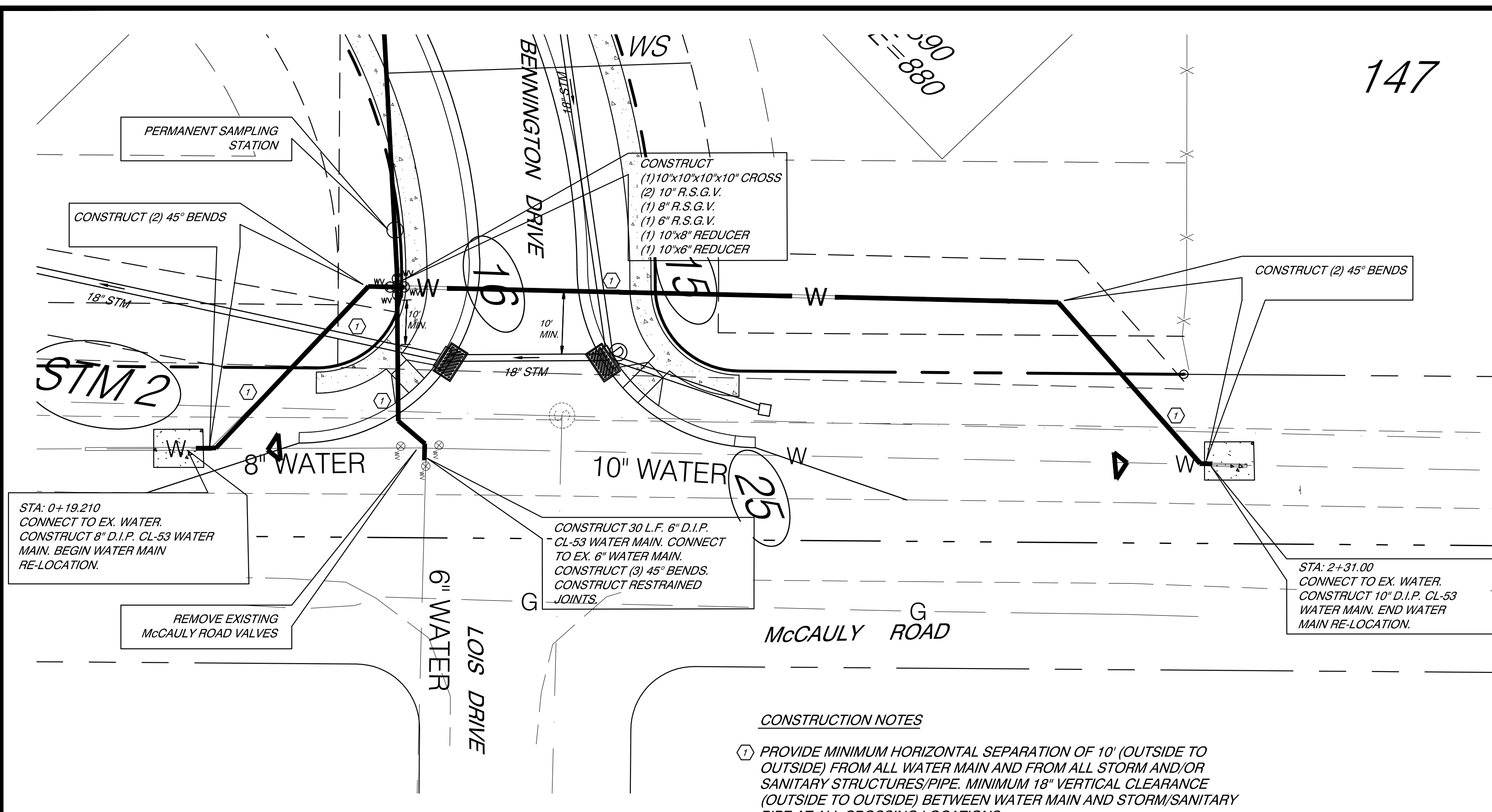
**NOTE:**  
 SANITARY SEWER  
 MIN COVER DEPTH - 48"  
 MAX COVER DEPTH - 25'

GRATE ELEVATION = CENTER OF BOX AT FACE OF CURB  
 SCALE: 1"=50' H  
 1"=10' V



147

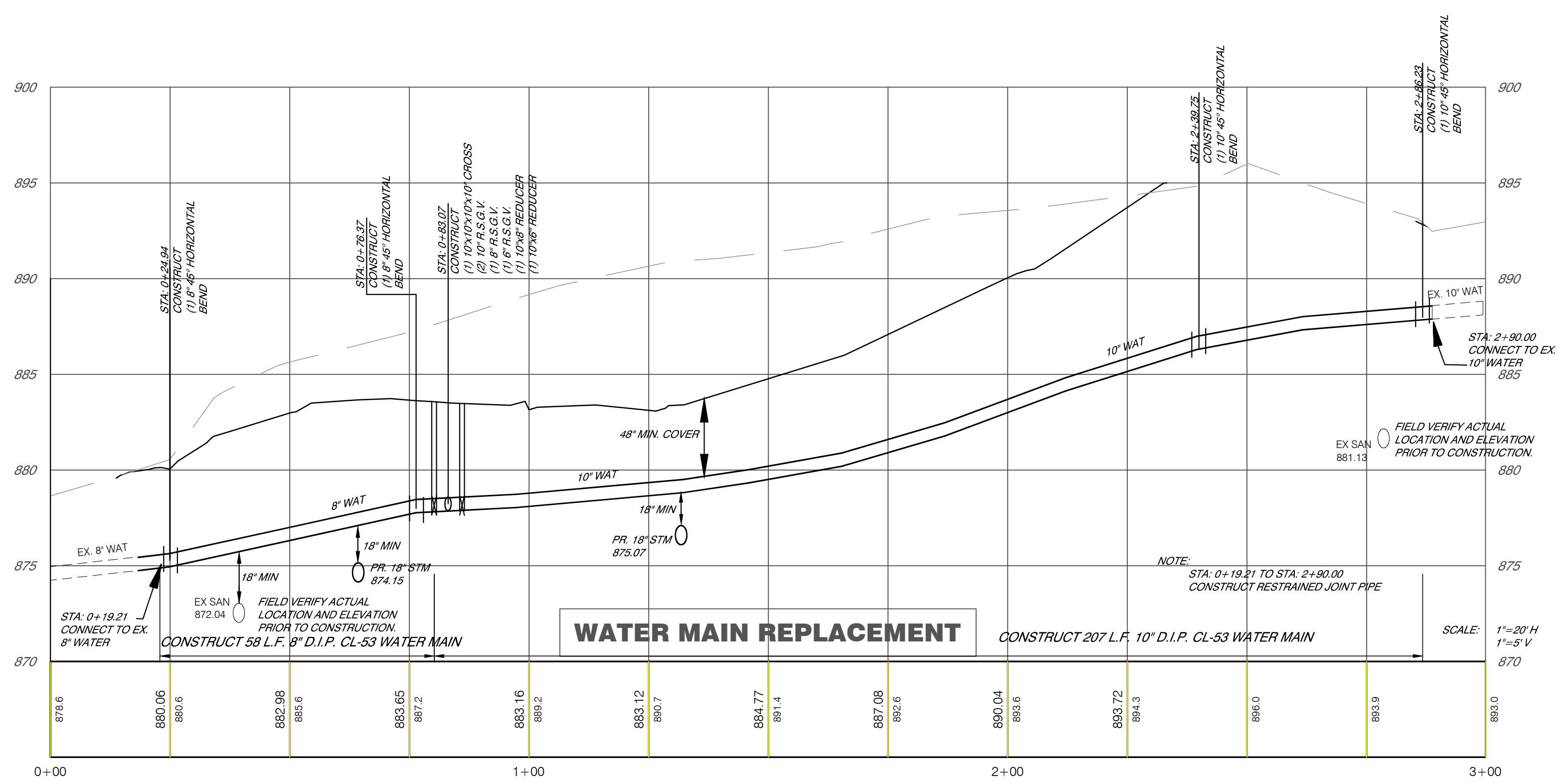
**COORDINATE WATER MAIN SHUT DOWN ON McCAULY ROAD WITH B.C.W.S. SEE GENERAL NOTES BELOW.**



- GENERAL WATER MAIN RELOCATION NOTES**
1. ALL WATER MAIN CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF BUTLER COUNTY WATER AND SEWER.
  2. THE CONTRACTOR SHALL COORDINATE WITH BUTLER COUNTY WATER AND SEWER FOR TIE-INS TO THE EXISTING MAINS.
  3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING BUTLER COUNTY WATER AND SEWER INSPECTIONS.
  4. PROPOSED WATER MAIN SHALL BE DUCTILE IRON PIPE (DIPO CLASS - 53).
  5. CONSTRUCT WATER MAIN BENNINGTON FIRST FROM EXISTING BENNINGTON MAIN (TO THE WEST) AND CONSTRUCT TO EAST. CAP AND PLUG MAIN AND TEST BEFORE CONNECTION TO McCAULY ROAD MAIN.
  6. McCAULY ROAD CONNECTIONS MUST BE MADE IN ONE (1) - 4 HOUR PERIOD.
  7. McCAULY ROAD CONNECTION TO THE EXISTING WATER MAIN, INCLUDING LOIS DRIVE, SHALL BE COORDINATED WITH B.C.W.S. CONSTRUCT (3) CAPS AND (1) CORPORATION STOP W/ 2" TAP FOR FLUSHING VALVE.

- CONSTRUCTION NOTES**
1. PROVIDE MINIMUM HORIZONTAL SEPARATION OF 10' (OUTSIDE TO OUTSIDE) FROM ALL WATER MAIN AND FROM ALL STORM AND/OR SANITARY STRUCTURES/PIPE. MINIMUM 18" VERTICAL CLEARANCE (OUTSIDE TO OUTSIDE) BETWEEN WATER MAIN AND STORM/SANITARY PIPE AT ALL CROSSING LOCATIONS.

CONSTRUCT CONCRETE KEYWAY AT CONNECTION POINTS TO THE EXISTING WATER MAIN PLAN ON McCAULY ROAD. CONSTRUCT WITH PIPE CLAMPS AND STAINLESS STEEL RODS. COORDINATE ALL WORK WITH B.C.W.S.



**WATER MAIN REPLACEMENT**



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SEAL

DRAWING TITLE  
**McCauly Water Relocation Sheet**

PROJECT TITLE  
**BRENNER WOODS SUBDIVISION  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO**

REVISIONS	
NO.	DESCRIPTION
1	DATE: 4-8-15 BY: DGAR DESCRIPTION: BUTLER CO AND W & S COMMENTS
2	DATE: 5-13-15 BY: DGAR DESCRIPTION: CONSTRUCTION ISSUE

SCALE: 1"=20' H  
1"=5' V

DATE: 2-20-15

DRAWN BY: DGAR

PROJECT MGR: JSHU

PROJECT NO: 148101

FLAT FILE: KY-

DRAWING No: **C14**