

TID DEVELOPMENT COX ROAD AND LIBERTY WAY

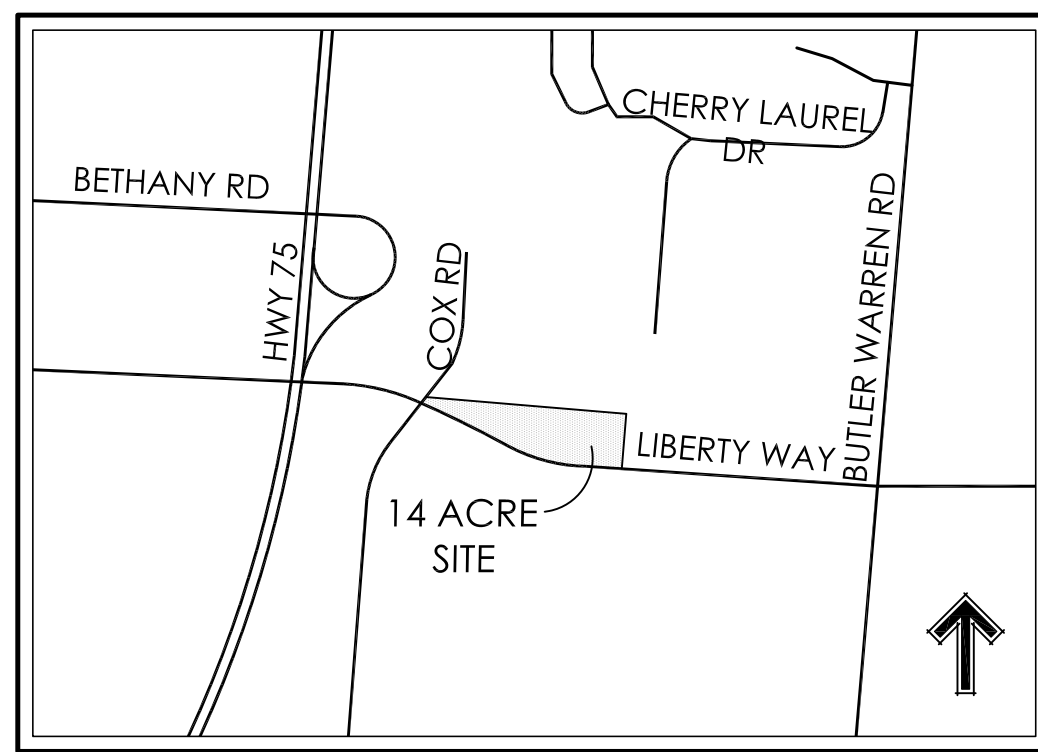


MSP
DESIGN
McGill Smith Punshon

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REVISED 07/23/2018
PER DISCUSSIONS AT
PRE-CONSTRUCTION
MEETING 07/19/2018

SECTION 12, TOWN 3, RANGE 3
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO



VICINITY MAP
N.T.S.

PROJECT AREA	14.752 ACRES
AREA IN LOTS	13.329 ACRES
AREA IN R/W	1.423 ACRES

SETBACKS			
FRONT	SIDE	TOTAL	REAR
		BOTH SIDES	
25'	N/A	N/A	30'

CURRENT ZONE:	C-PUD
PROPOSED ZONE:	C-PUD

GENERAL GUIDELINE

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.

STORM SEWERS SHALL BE A MATERIAL WITH A MANUFACTURER'S MANNINGS "N" OF 0.011 OR LOWER AND A MATERIAL AS NOTED IN APPENDIX D, TABLE D-6 IN THE BUTLER COUNTY SUBDIVISION REGULATIONS ADOPTED NOVEMBER 24, 1997. (NOTE - CORRUGATED METAL PIPE NOT INCLUDED).

STEPS SHALL BE INSTALLED IN CATCH BASINS AND MANHOLES IN EXCESS OF FOUR FEET.

CONSTRUCTION WORK SHALL BE IN ACCORDANCE WITH THE OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (ODOT 1997) STANDARDS OR BUTLER COUNTY REQUIREMENTS AND STANDARDS FOR SUBDIVISIONS. WHEN IN CONFLICT, THE COUNTY REQUIREMENTS SHALL PREVAIL.

SUMP COLLECTOR LINES SHALL BE CONSTRUCTED SDR 35 PVC, ARMO 2000 OR APPROVED EQUAL.

A PRE-CONSTRUCTION MEETING IS REQUIRED WITH THE BUTLER COUNTY ENGINEER'S OFFICE PRIOR TO THE START OF CONSTRUCTION.

SANITARY LATERALS SHALL BE EXTENDED TO AT LEAST TEN (10) FEET BEYOND THE PROPERTY/RIGHT-OF-WAY LINE OR TO THE EDGE OF THE EASEMENT WHICHEVER IS GREATER.

WATER MAIN MATERIALS, VALVES, FIRE HYDRANTS, FITTINGS AND APPURTENANCES AND INSTALLATION SHALL BE PER BUTLER COUNTY SPECIFICATIONS, USING CLASS 53 DUCTILE IRON AS PER AWWA C-151 WITH MINIMUM 4" COVER.

SANITARY SEWER MATERIALS AND INSTALLATION SHALL BE PER BUTLER COUNTY WATER AND SEWER SPECIFICATIONS, USING: SECTION 3110 FOR PVC, SDR-35 & 26 PIPE; SECTION 3140 FOR ABS OR PVC COMPOSITE PIPE; SECTION 3410 FOR MANHOLES.

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

ALL BUILDINGS TO BE SERVED BY THE PUBLIC SEWER SYSTEM SHALL BE CONSTRUCTED SO AS TO PROVIDE A MINIMUM OF FOUR FEET OF VERTICAL SEPARATION BETWEEN THE PUBLIC SANITARY SEWER, AT THE POINT OF CONNECTION AND THE LOWEST BUILDING LEVEL SERVED BY GRAVITY SEWER CONNECTION. 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 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 WATER & SEWER DEPARTMENT.

BUTLER COUNTY WATER & 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.

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

PRIVATE DRIVEWAYS, PARKING LOTS AND OTHER PAVED AREAS, EARTHEN BERMS OR STRUCTURES SHOULD NOT BE CONSTRUCTED OVER PRIVATE WATER OR SEWER SERVICE LINES WITHIN THE PUBLIC ROAD RIGHT OF WAY OR WITHIN THE EASEMENT AREAS FOR THE PUBLIC UTILITIES. SHOULD THIS OCCUR, THE PROPERTY OWNER SHALL BE HELD RESPONSIBLE FOR THE PROTECTION AND REPAIR AND FOR PROVIDING ACCESS TO ANY CURB STOPS, METER PITS, MANHOLES, CLEAN-OUTS, ETC. INSTALLED IN CONJUNCTION WITH THESE PRIVATE SERVICE LINES AND FOR ANY DAMAGE OR RESTORATION OF PAVED SURFACES OR STRUCTURES THAT MAY RESULT FROM THE FUTURE OPERATION, MAINTENANCE, REPAIR OR REPLACEMENT OF SAID SERVICE LINES AND APPURTENANCES.

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 MAIN WOULD BE ANY PIPING THAT EXTENDS OUT FROM THE MAIN BARREL TO THE SEWER MAIN.

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

ALL DOWNSPOUT LINES SHALL BE ON SPLASH BLOCKS AND MAY NOT BE CONNECTED TO THE CURB.

ALL TRENCHES WITHIN THE RIGHT-OF-WAY AND UTILITY EASEMENTS SHALL BE COMPACTED AND BACKFILLED IN ACCORDANCE WITH ITEM 203 AND 603 IN THE CURRENT OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS MANUAL.

THE DEVELOPER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONDUITS OF THE FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY AS CALLED FOR ON THE TYPICAL SECTION FOR USE BY THE ELECTRIC, TELEPHONE, AND CABLE TELEVISION SERVICES. THE DEVELOPER SHALL COORDINATE THE LOCATION OF THE LINES WITH EACH UTILITY COMPANY.

ALL ELECTRICAL TRANSFORMERS SHALL BE LOCATED SO THAT THEY DO NOT INTERFERE WITH EXISTING MANHOLES OR WATER MAIN APPURTENANCES.

STORM SEWER PIPE SHALL BE TYPE "B" & "C" CONDUIT, 707.42 PVC, ALL DIA. (CONTECH A200 OR EQUAL), 707.33 PVC, UP TO & INCLUDING 24" DIA (HANCOR, ADS, OR EQUAL), 707.01 CMP, ALL DIA., 706.02, REINFORCED CONCRETE PIPE, ALL DIA.

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

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 441 TYPE 1) AND TACK COAT (ITEM 407) ARE TO BE APPLIED NO SOONER THAN NINE (9) MONTHS AFTER THE LEVELING COURSE (ITEM 403), AND THE HOTEL AND TRI-HEALTH BUILDINGS ARE COMPLETED.

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 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, ARMO 2000, OR OF EQUIVALENCE.

THE SANITARY SEWER SHALL BE PLACED IN SUCH A MANNER THAT THE SANITARY MANHOLE COVER DOES NOT CONFLICT WITH THE SIDEWALK.

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, PAWING, REPAVING, ETC., INITIATED BY THE GRANTOR.

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

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 SANITARY ENGINEER.

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.

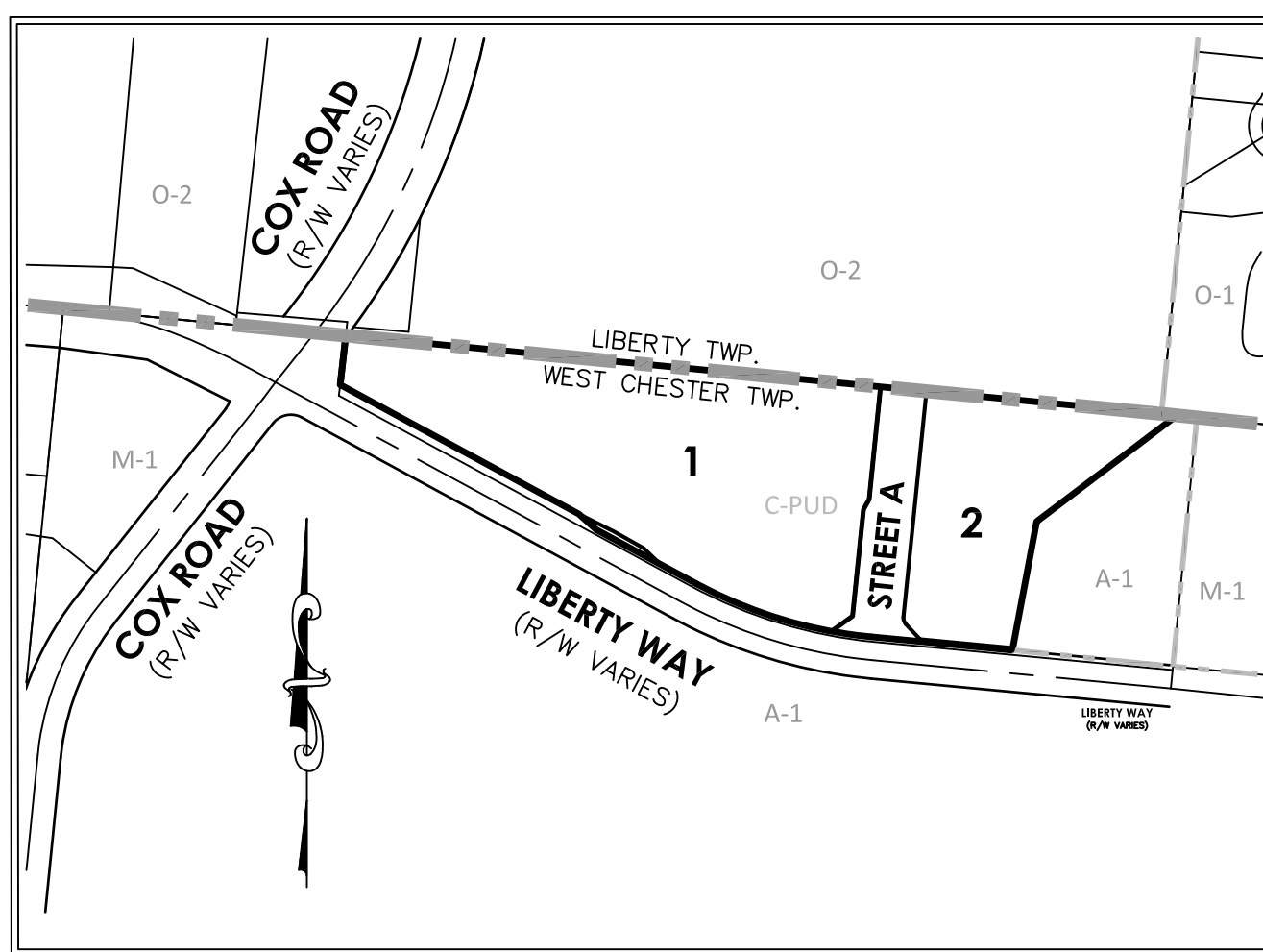
ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH STATE OF OHIO SPECIFICATIONS, ITEM 659.

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

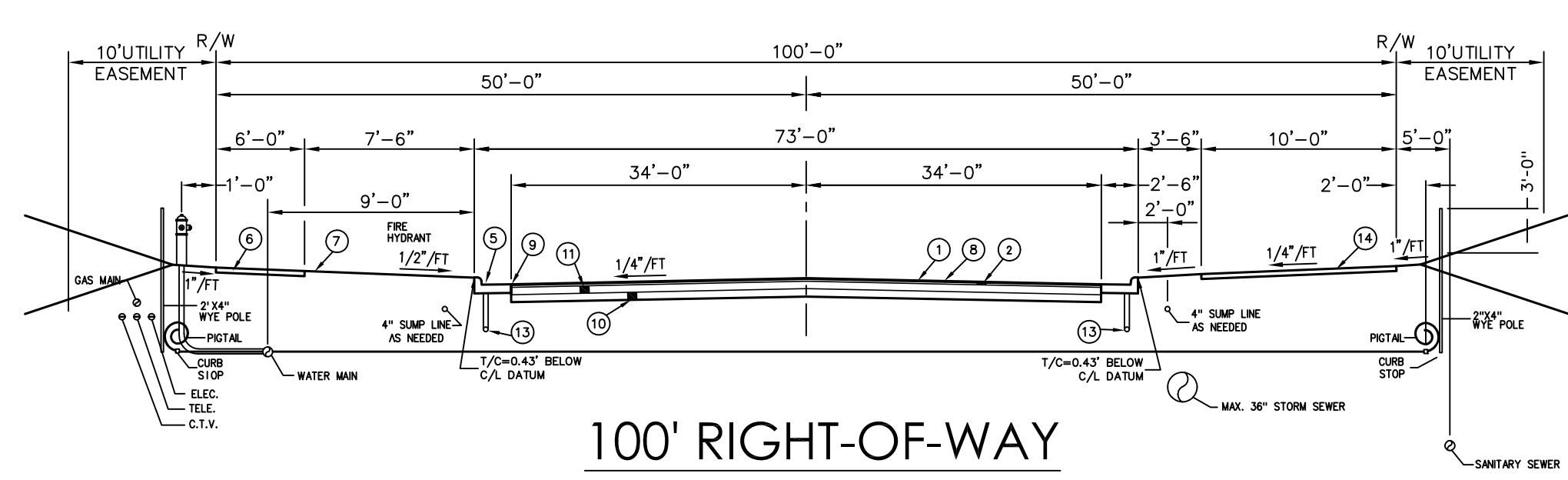
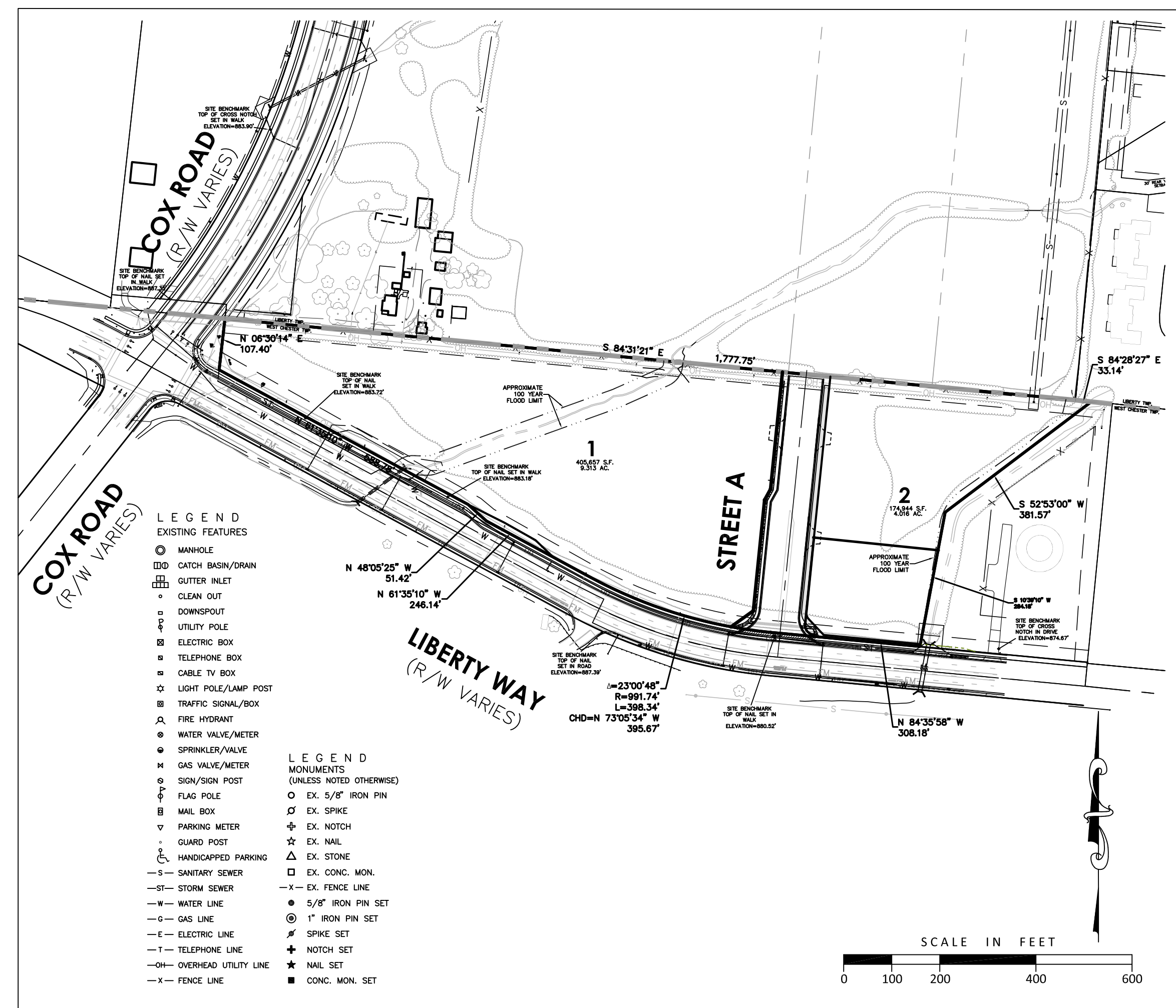
THE CONTRACTOR SHALL ALSO PROVIDE OTHER EROSION CONTROL MEASURES AS MAY BE REQUIRED BY BUTLER COUNTY ENGINEER DURING THE CONSTRUCTION PHASE.

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.
LIQUID ASPHALT (R.C. 70, 25 OR 800) 40GALS. PER 1000 SQ. YDS. OR PLASTIC MULCH NETTING, STAPLED IN PLACE.

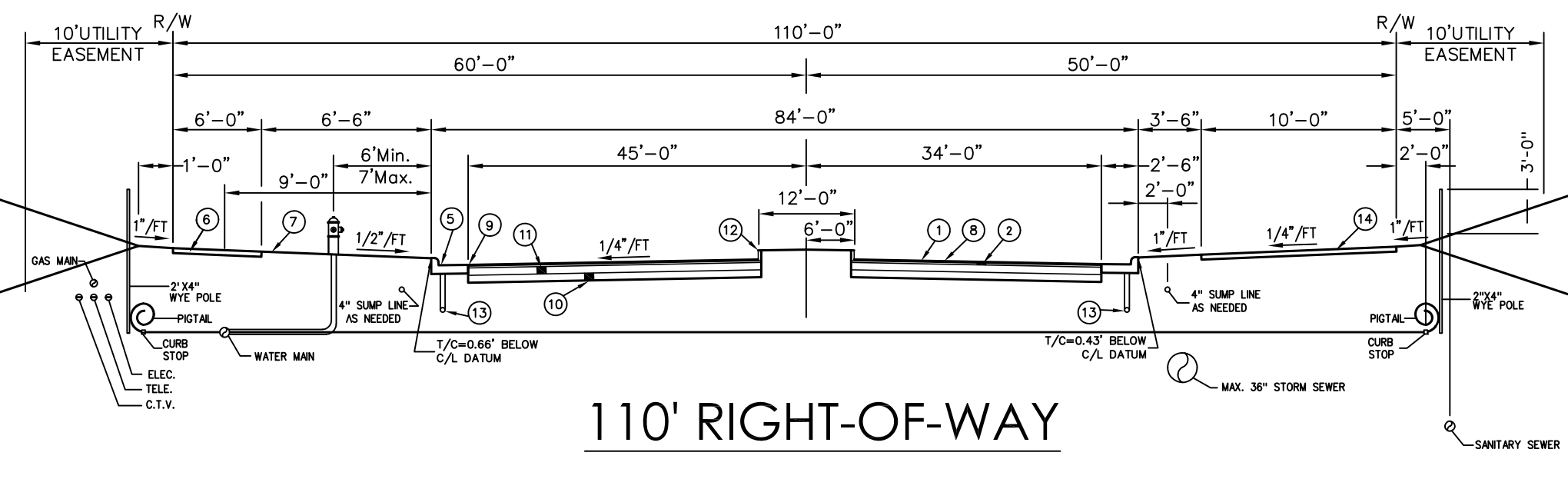
SOD: TO BE STAKED IN PLACE.



OVERALL PROJECT MAP
1" = 400'



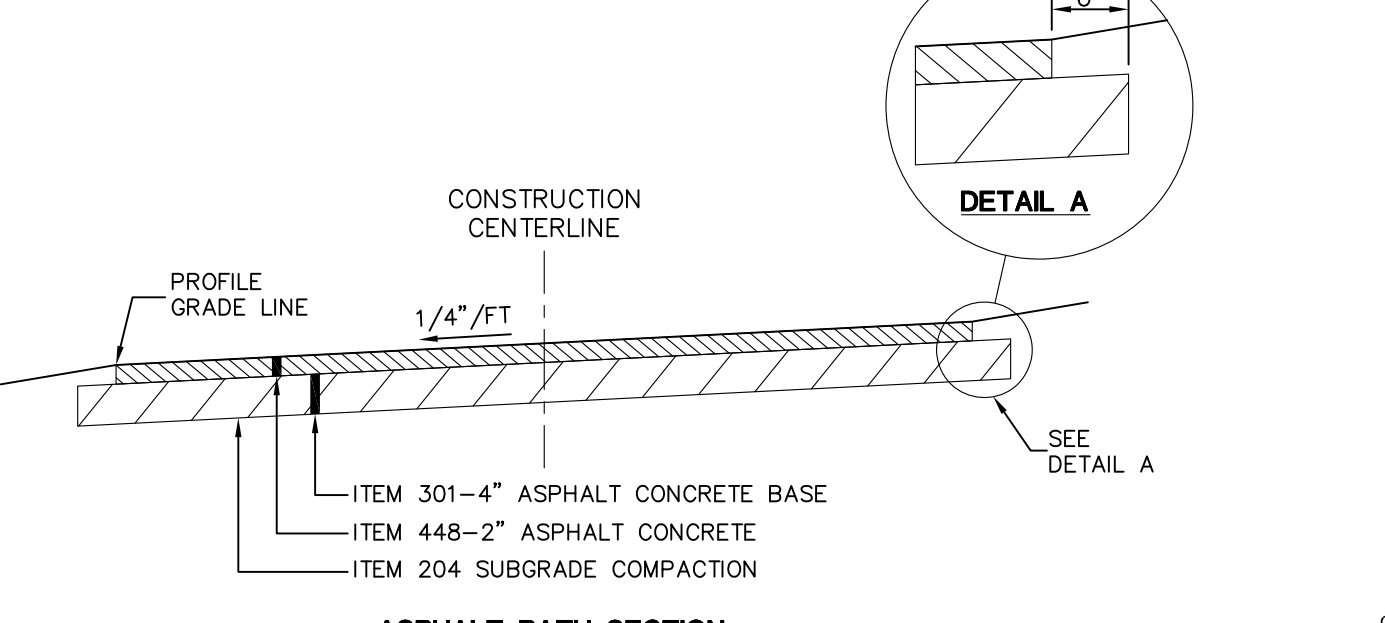
100' RIGHT-OF-WAY



110' RIGHT-OF-WAY

NOTES

- BEARINGS BASED ON US STATE PLANE, OHIO SOUTH 3402 (NAD83). -00°00'04" TO DEED BEARING SYSTEM IN OFFICIAL RECORD 7739, PAGE 1123.
- ELEVATIONS BASED ON NAVD88, ESTABLISHED USING BUTLER COUNTY MONUMENT No. 99FC51, AS SHOWN ON CONTROL MONUMENT RECORDS AT THE BUTLER COUNTY, OHIO ENGINEER'S OFFICE.
- SITE BENCHMARKS SET ALONG LIBERTY WAY AS SHOWN HEREON.
- OCCUPATION IN GENERAL FITS SURVEY EXCEPT AS SHOWN.
- MONUMENTS GENERALLY IN GOOD CONDITION UNLESS NOTED OTHERWISE.
- SURVEY BASED ON FIELD EVIDENCE AND DEEDS & PLATS OF RECORD NOTED HEREON.
- THE UNDERGROUND UTILITIES SHOWN ARE BASED ON A COMBINATION OF SURFACE EVIDENCE AND AVAILABLE PLANS & RECORDS; THEY HAVE NOT BEEN PHYSICALLY LOCATED. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES ON THE PREMISES, EITHER IN SERVICE OR ABANDONED. NOR IS IT GUARANTEED THAT THEY ARE IN THE EXACT LOCATION INDICATED, ONLY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.
- DASHED CONTOURS SHOWN HEREON ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED IN CRITICAL AREAS.
- BEING PART OF THE SAME PREMISES CONVEYED TO THE BUTLER COUNTY TRANSPORTATION IMPROVEMENT DISTRICT IN OFFICIAL RECORD 7739, PAGE 1123, RECORDS OF THE BUTLER COUNTY, OHIO RECORDER'S OFFICE.
- NO BUILDINGS EXISTING ON THE SURVEYED PROPERTY.



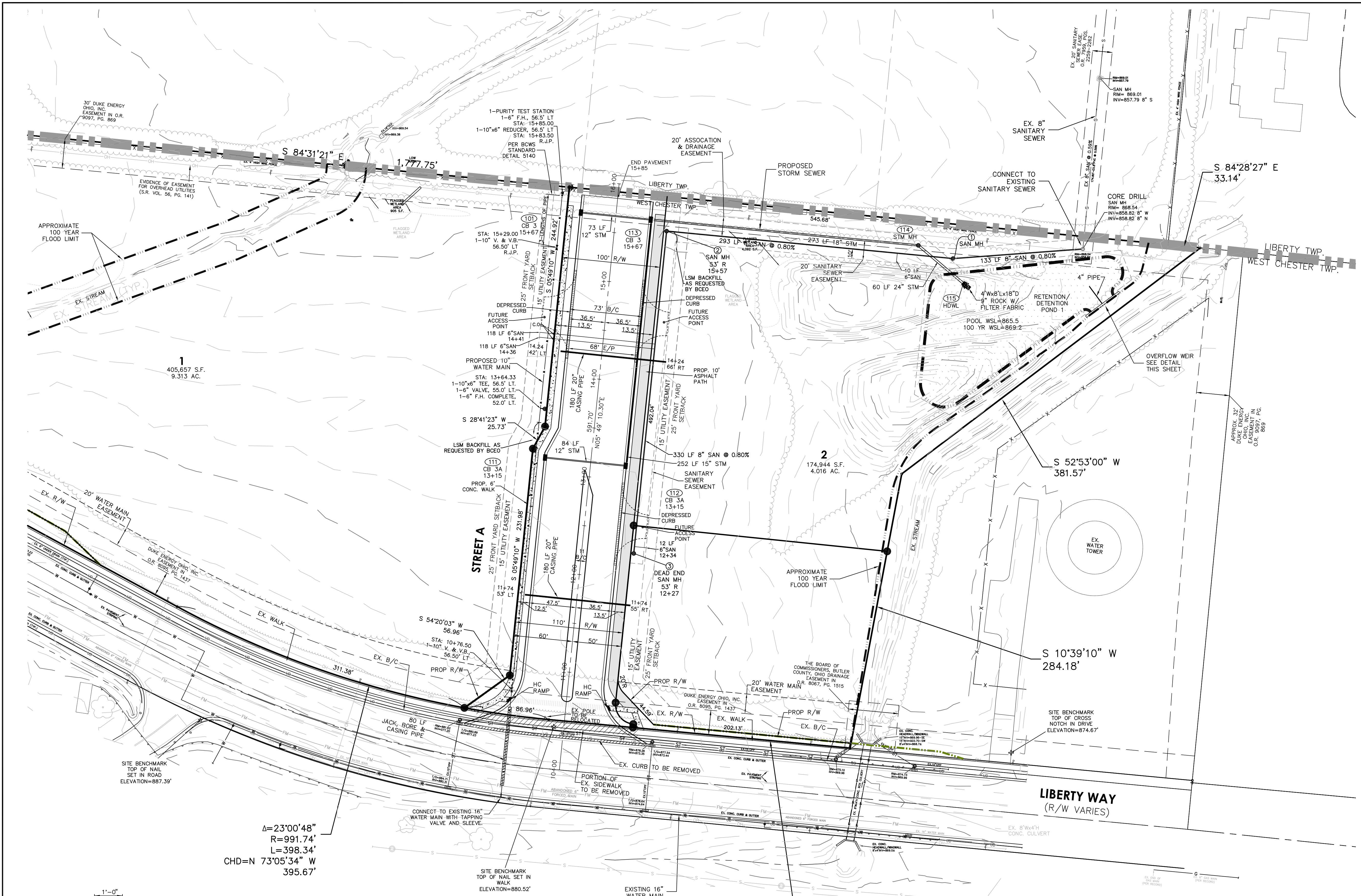
ASPHALT PATH SECTION
N.T.S.

TID DEVELOPMENT
COX ROAD AND LIBERTY WAY
SECTION 12, TOWN 3, RANGE 2
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO

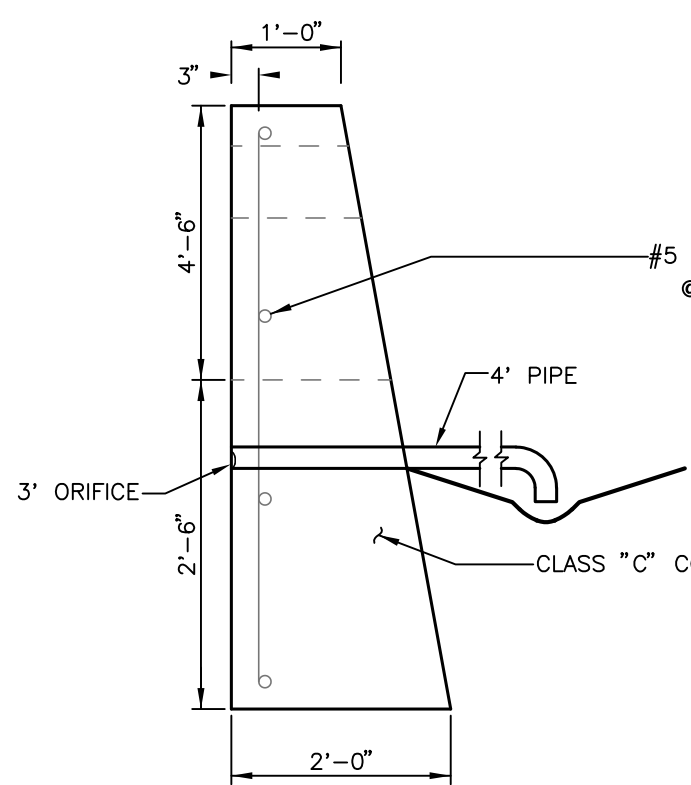
Project Manager	RA
Drawn By	DA
DWG	15352214-IMP_ROAD-00
X-Ref(s)	15352103-BDY-00 15352106-BAS-00
Issue/Revision	No. Date
CONSTRUCTION SET	07/13/18
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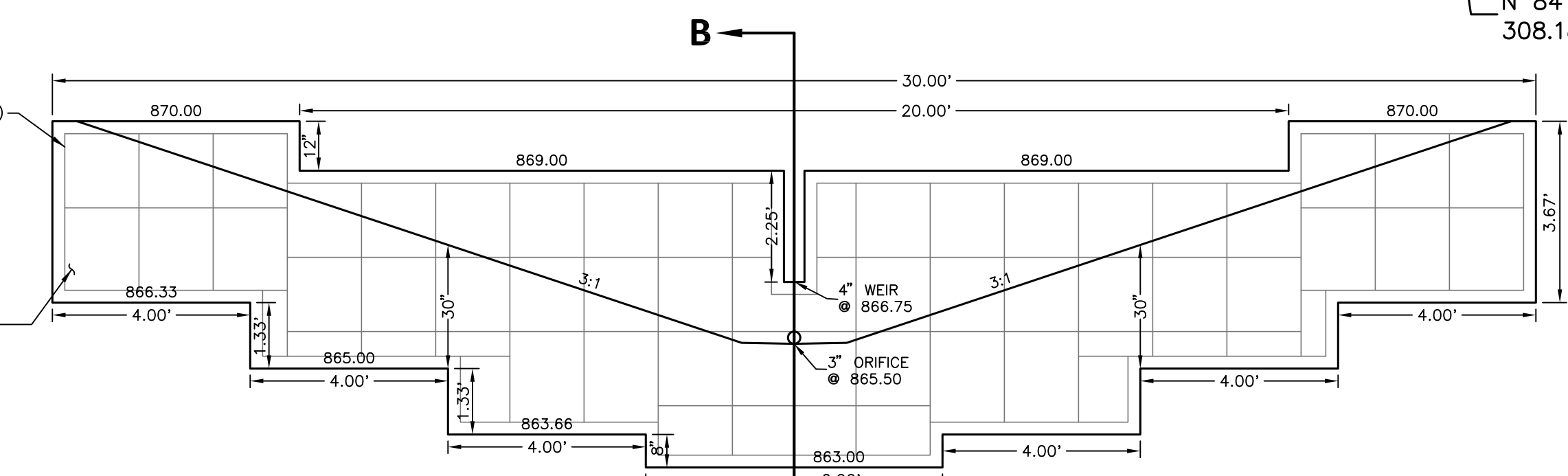
Sheet Title	COVER
Project Number	15352.21
Drawing Scale	AS NOTED
Sheet Number	1 / 8
File Number	15352



$\Delta = 23'00''48''$
 $R = 991.74'$
 $L = 398.34'$
 $CHD = N 73'05''34'' W 395.67'$



SECTION B-B
TYPICAL OVERFLOW WEIR
NO SCALE



RETENTION/DETENTION POND
NO SCALE

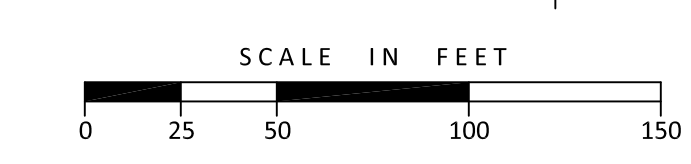
NO DRIVEWAY MAY BE PLACED OVER WATER SERVICE.
NO DRIVEWAY MAY BE PLACED OVER SANITARY SEWER MANHOLE.

R.J.P. = RESTRAINED JOINT PIPE

DESCRIPTION	10"
11 1/4' UP BEND	7'
11 1/4' DOWN BEND	13'
22 1/2' UP BEND	14'
22 1/2' DOWN BEND	26'
45' UP BEND	30'
145' DOWN BEND	65'
DEAD END	67'

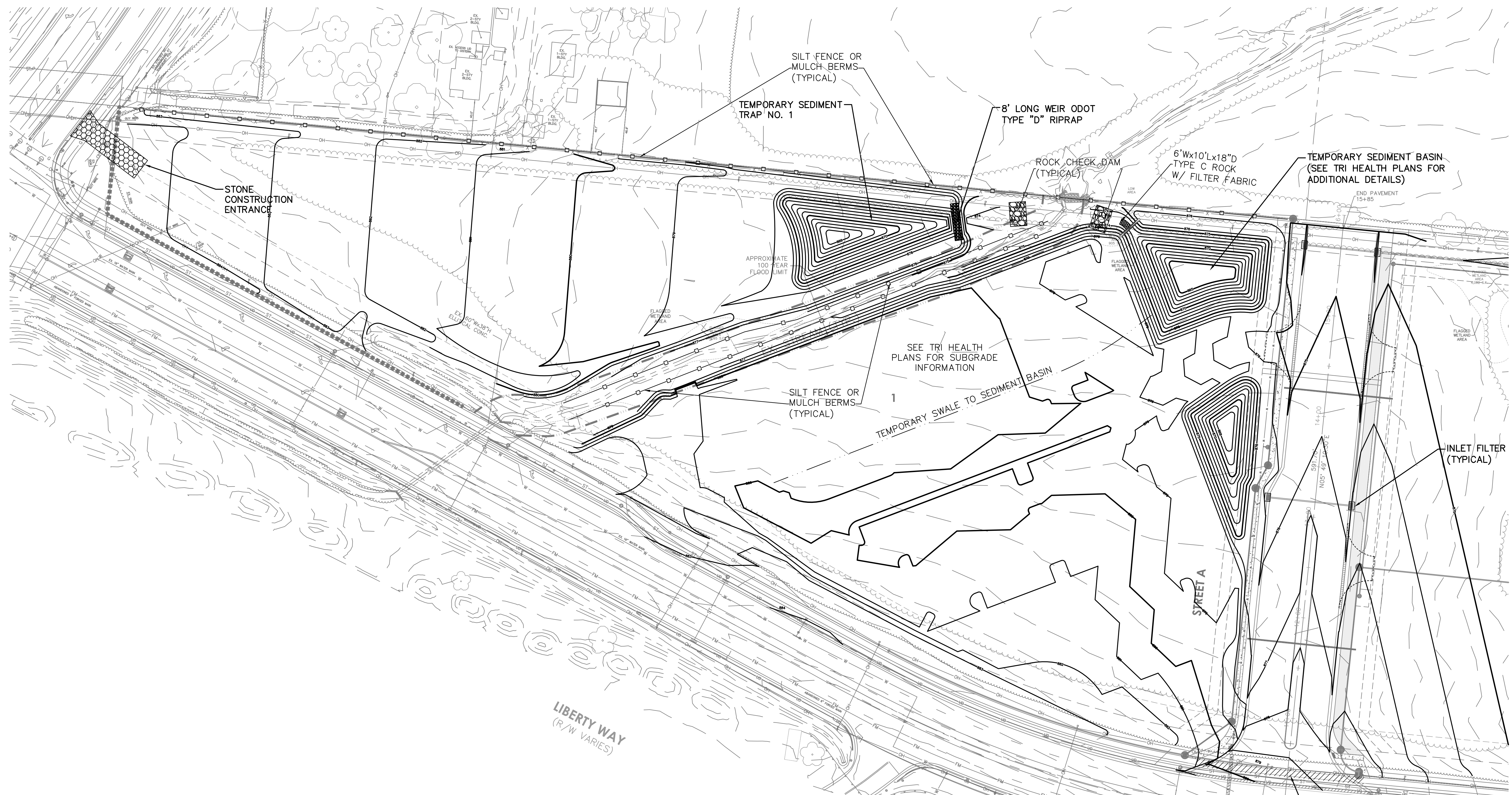
DESCRIPTION	10"
90° BEND	72'
45° BEND	30'
22 1/2° BEND	14'
11 1/4° BEND	7'

VERTICAL PIPE RESTRAINTS SCHEDULE FOR JOINTS



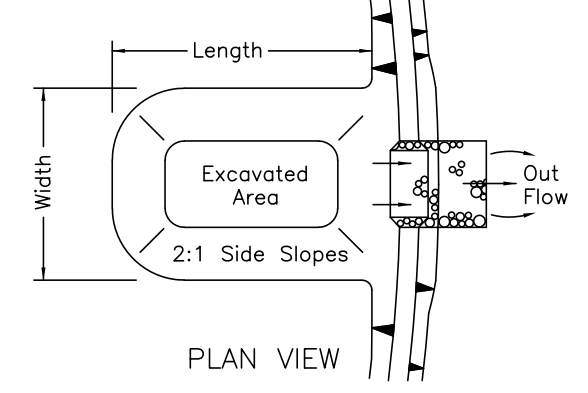
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TID DEVELOPMENT
COX ROAD AND LIBERTY WAY
SECTION 12, TOWN 3, RANGE 2
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TID DEVELOPMENT
COX ROAD AND LIBERTY WAY
SECTION 12, TOWN 3, RANGE 2
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO

Specifications for Sediment Traps



Specifications for Sediment Traps

- Sediment traps shall be constructed and operational before upslope land disturbance begins.
- The area under the embankment shall be cleared, grubbed, and stripped of any vegetation and root mat. The pool area shall be cleared as needed to facilitate sediment cleanout.
- Fill material used for the embankment shall be free of roots or other woody vegetation as well as oversized stones, rocks, organic material or other objectionable material. The embankment shall be compacted by traversing with equipment while it is being constructed. Maximum height of the embankment shall be 5 ft. as measured from the surrounding ground.
- Cut-and-fill slopes shall be 2:1 or flatter.
- Dikes directing water to the trap shall be higher than the height of the embankment.
- Temporary seeding shall be established on all nonsubmerged areas of the sediment trap.
- The storage volume shall be achieved to the dimensions shown in the plans to achieve 67 cu. yd. of storage volume below the crest of the outlet for every acre of contributing drainage area.
- The outlet spillway shall be constructed to the dimensions shown on the plans.
- Geotextile shall be placed over the outlet spillway. Geotextile shall continue downstream of the embankment to form an apron on the surrounding ground. To prevent runoff from flowing under the geotextile, the sections placed nearest the front shall overlap following sections. Sections of geotextile shall overlap at least 2 ft.
- Rock used in the outlet spillway shall be placed 1 ft. thick on the geotextile. The rock shall be between Type C and Type D rock where D_{50} is about 8 in.
- Sediment shall be removed and the sediment trap restored to its original dimensions when the sediment has filled one-half the pond's original depth. Removed sediment shall be spread in a suitable area and stabilized so it will not erode.
- The structure and accumulated sediment shall be permanently stabilized when the drainage area has been stabilized.

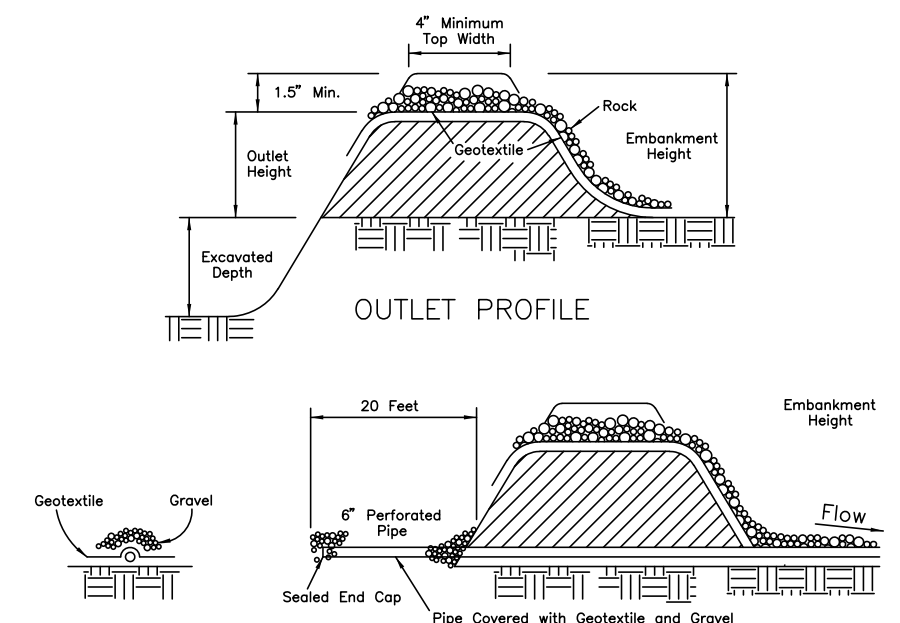
TEMPORARY SEDIMENT TRAP NO. 1		
DRAINAGE AREA:	3.0	AC.
DISTURBED AREA :	3.0	AC.
WATER QUALITY ULUME:	5,400	CF
SEDIMENTATION VOLUME:	3,000	CF
PRACTICE SURFACE AREA:	0.24	AC.
TOP ELEVATION	878.0	FT
GEOTEXTILE ELEVATION	875.0	FT
BOTTOM ELEVATION	874.0	FT

ESTABLISH VEGETATION ON ALL BARE AREAS AS PER O.E.P.A. N.P.D.E.S. REGULATIONS.

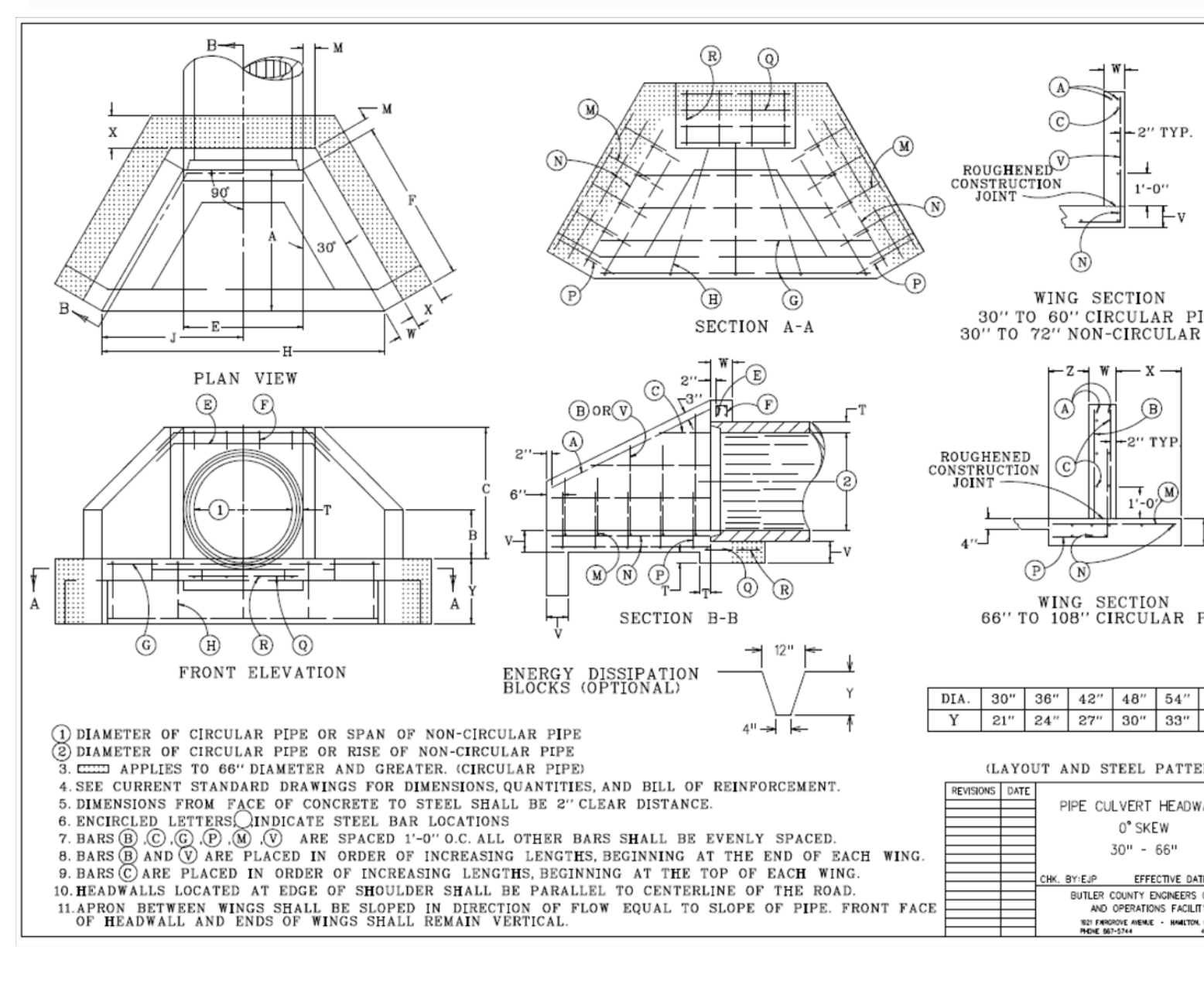
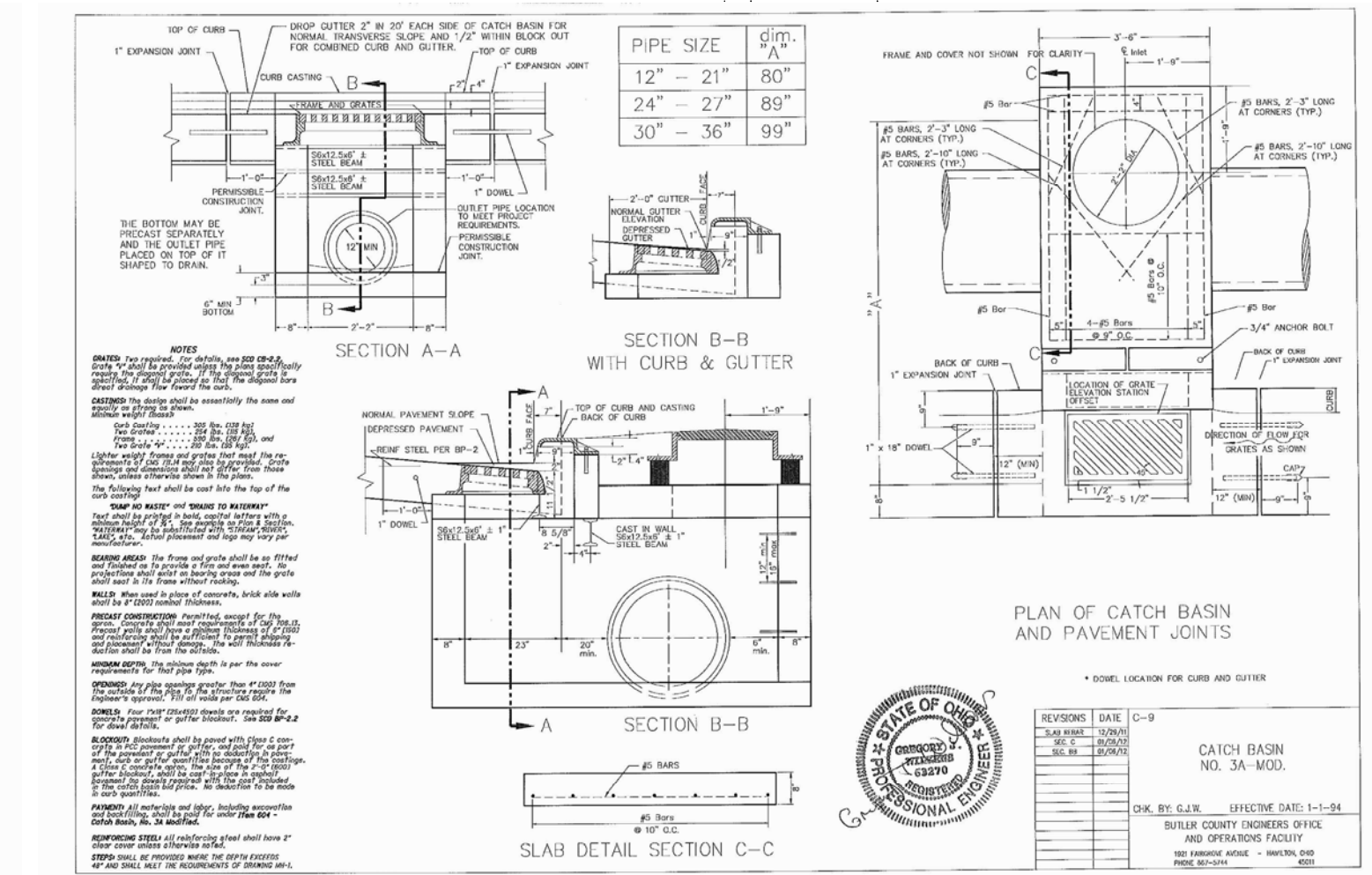
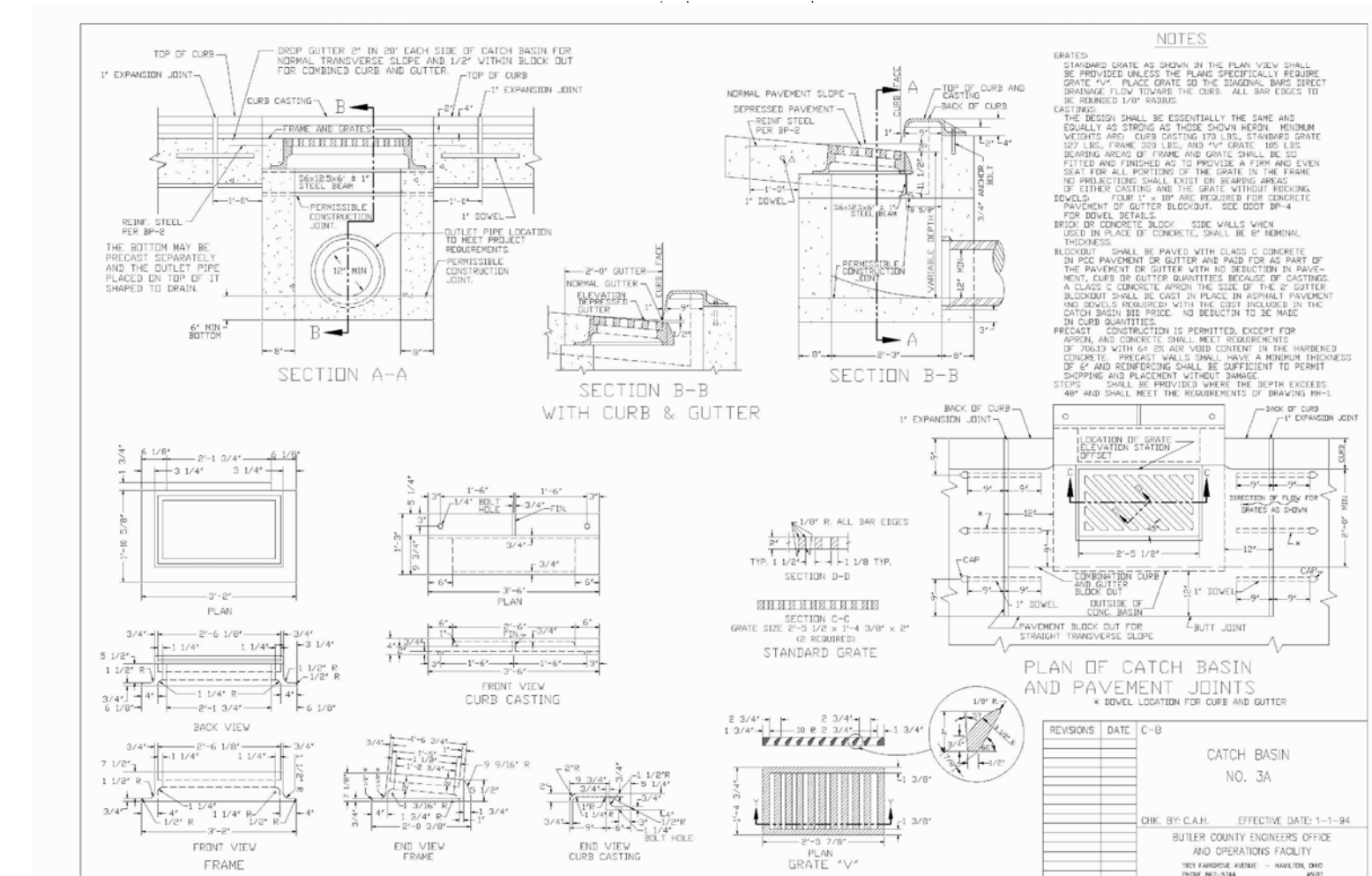
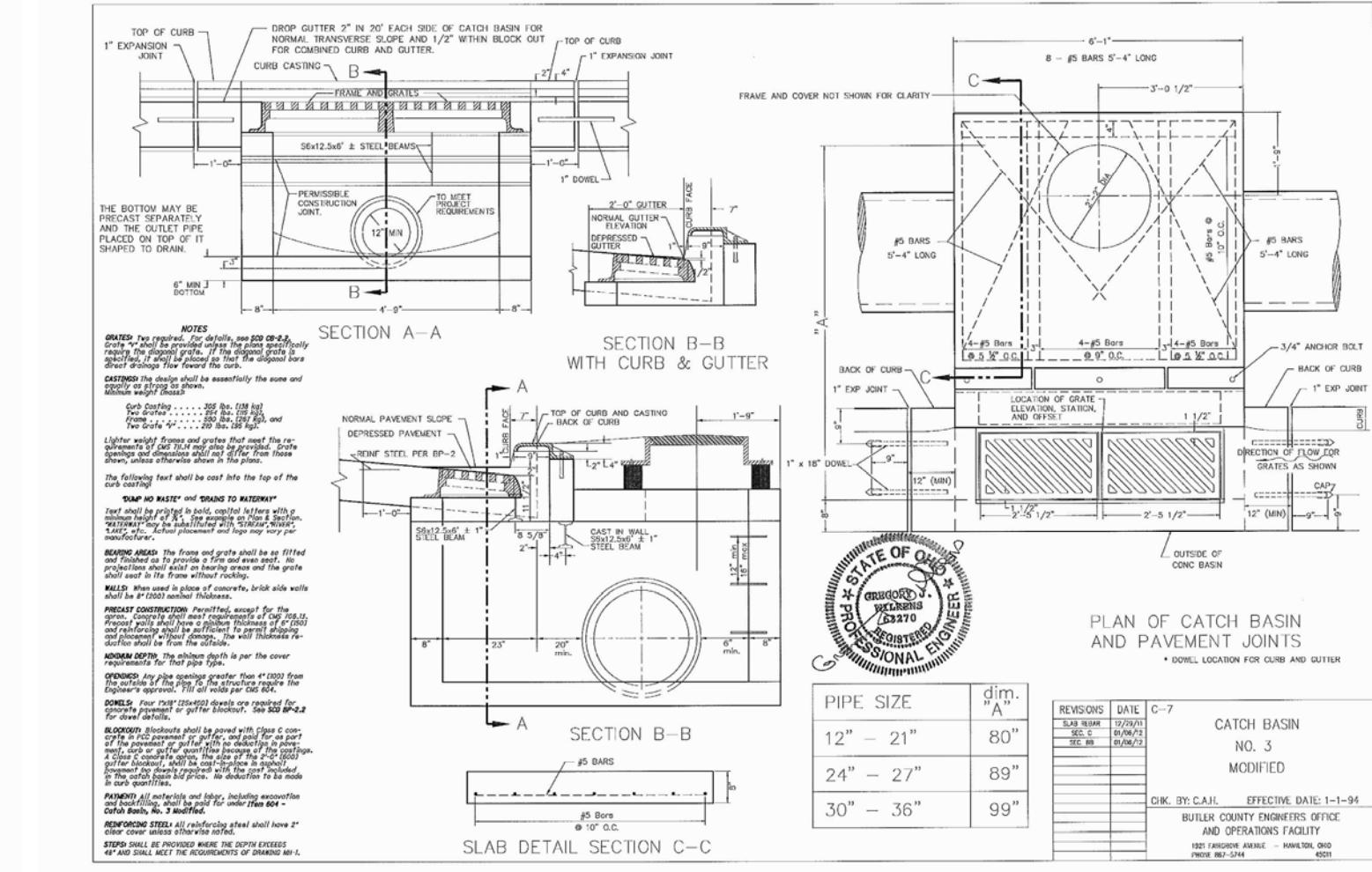
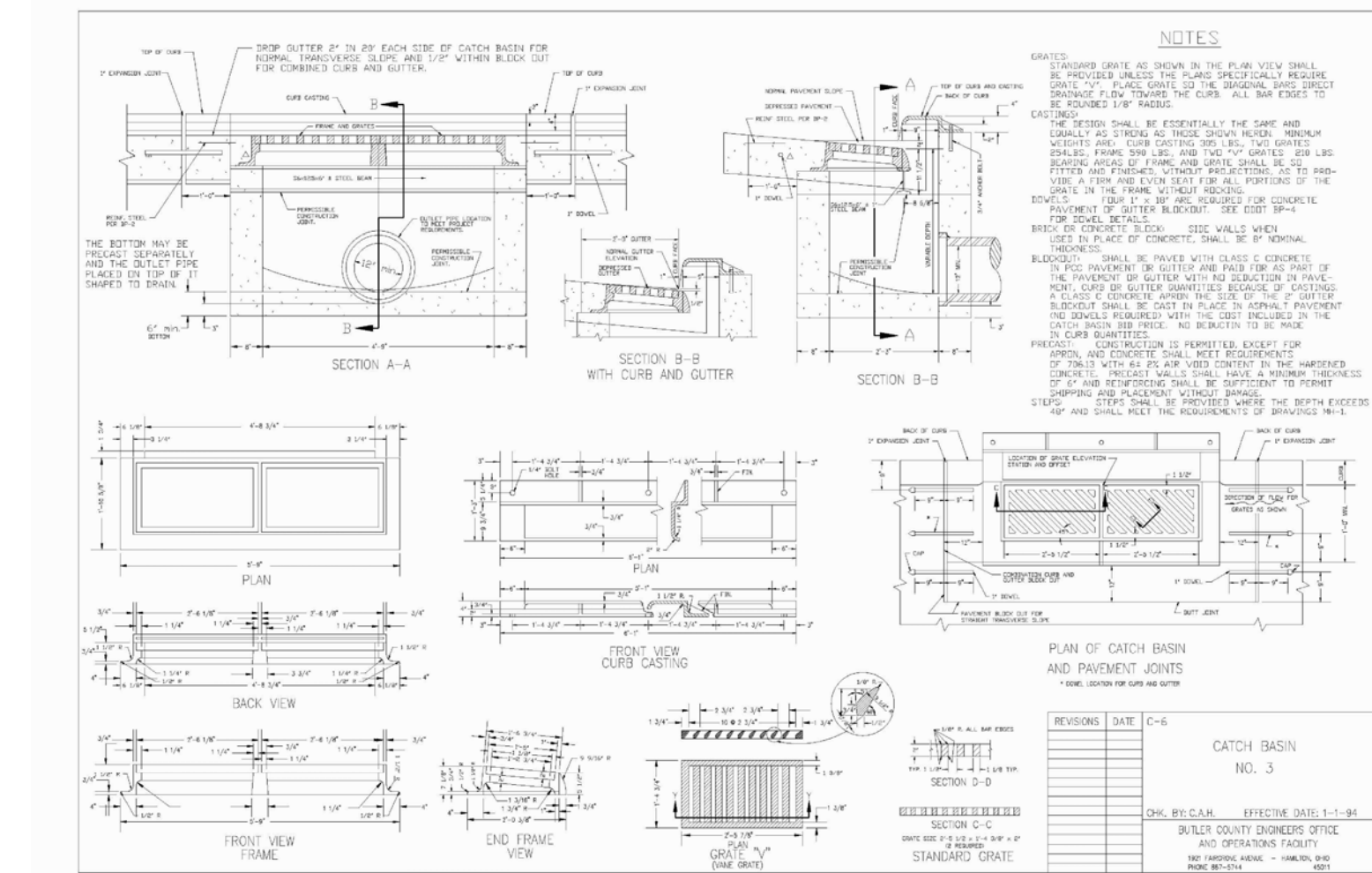
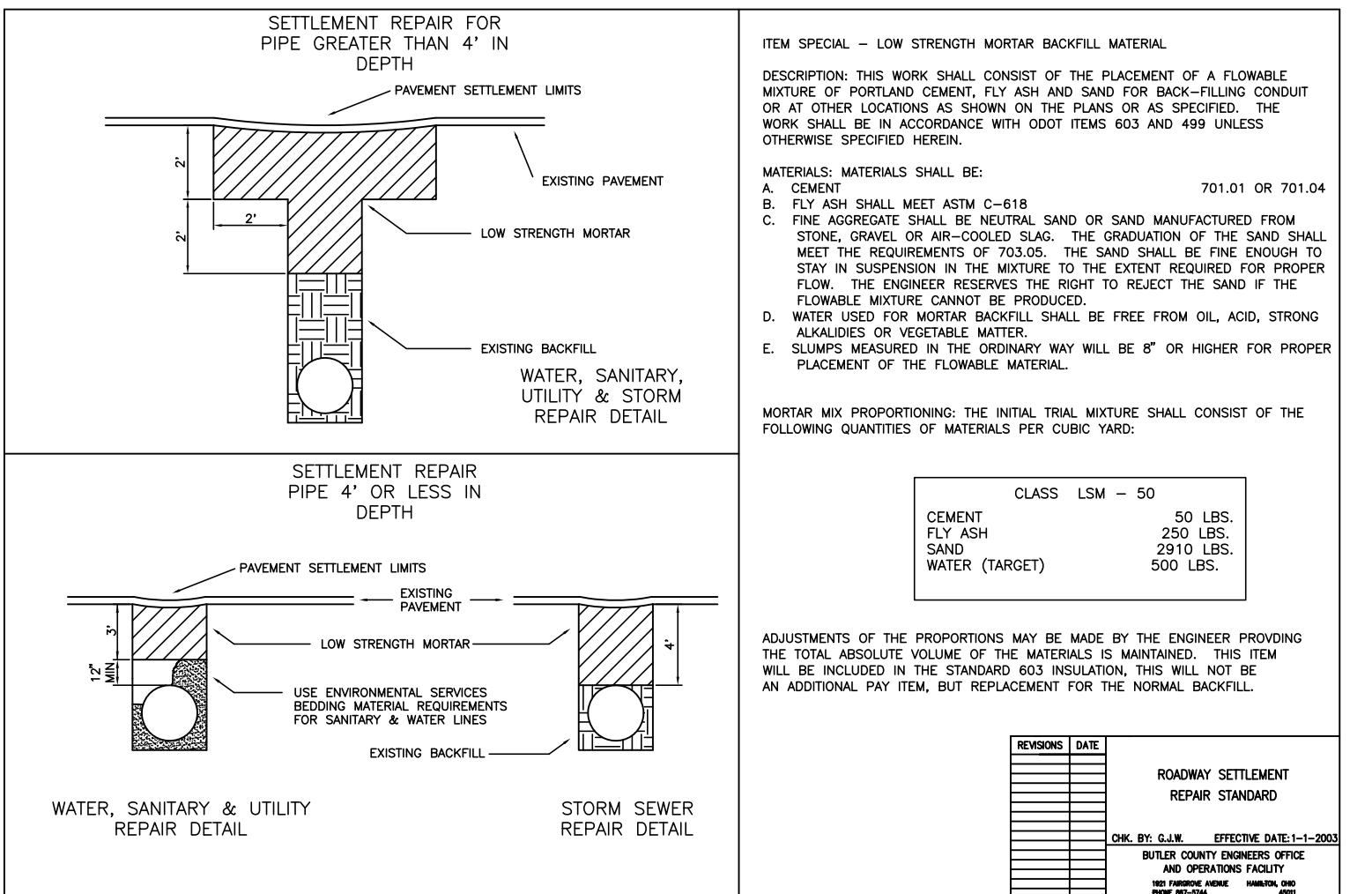
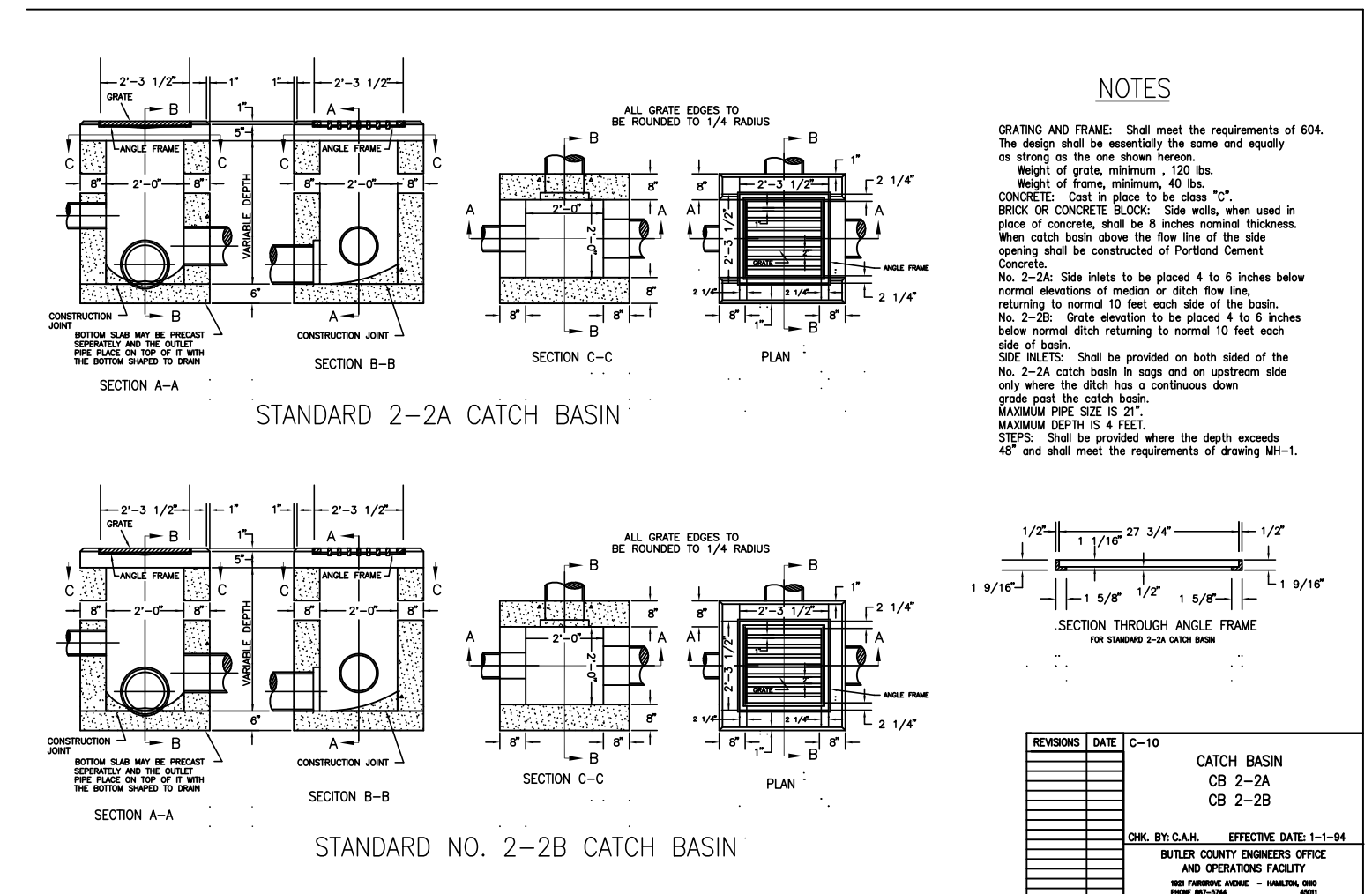
CONTRACTOR IS RESPONSIBLE FOR N.P.D.E.S. INSPECTIONS DURING CONSTRUCTION PERIOD.



DEWATERING PIPE SECTION

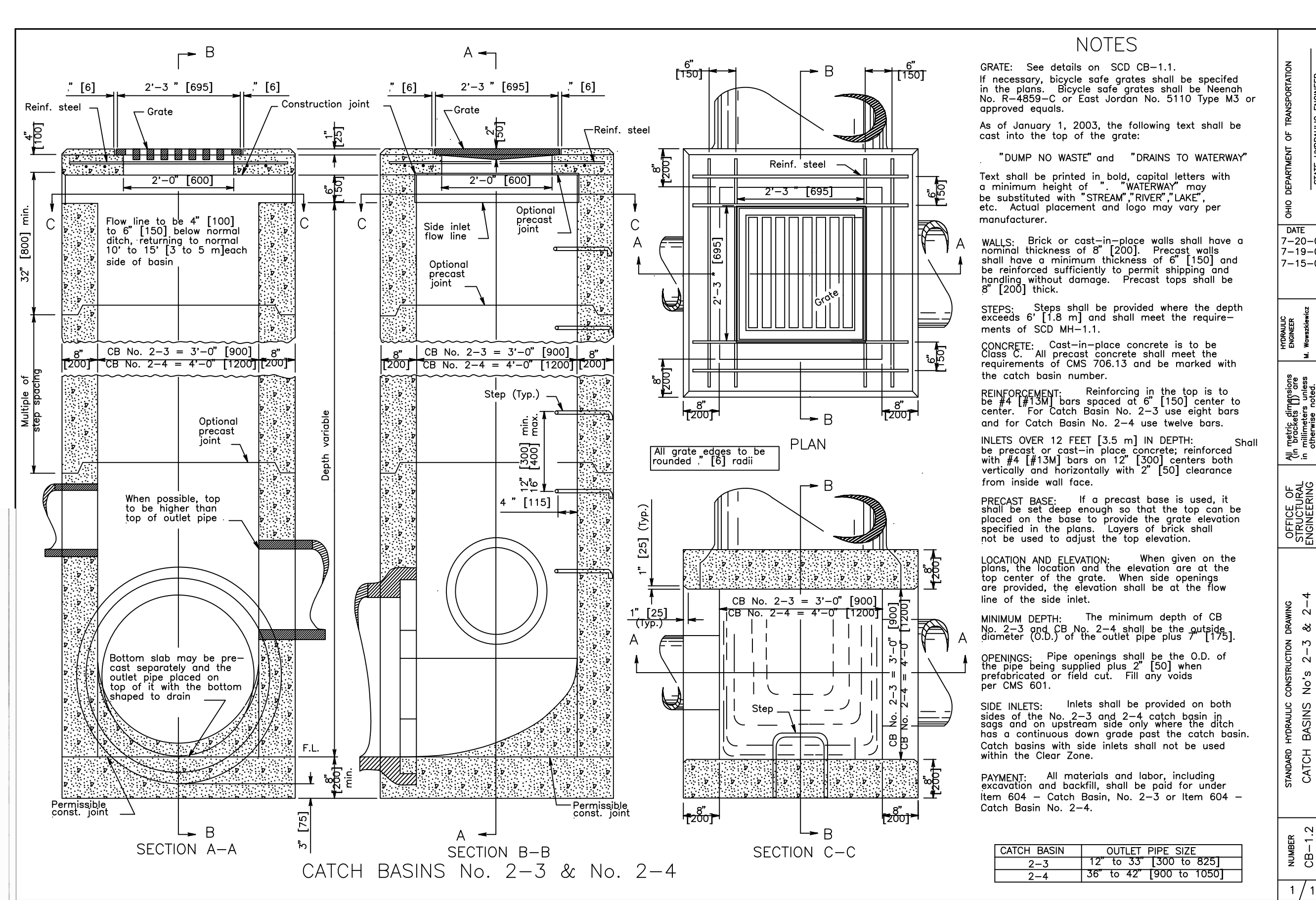


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DIMENSION	DIAMETER OF PIPE							DIMENSION
	30"	36"	42"	48"	54"	60"	66"	
A	3'-9"	4'-4"	4'-11"	5'-6"	6'-1"	6'-8"	7'-5"	A
B	1'-3"	1'-6"	1'-9"	2'-0"	2'-3"	2'-6"	2'-9"	B
C	3'-6"	4'-0"	4'-7"	5'-1"	5'-8"	6'-2"	7'-0"	C
E	3'-1"	3'-8"	4'-3"	4'-10"	5'-5"	6'-0"	6'-7"	E
F	4'-4"	5'-0"	5'-8"	6'-4"	7'-0"	7'-8"	8'-7"	F
H	7'-6"	8'-8"	10'-0"	11'-2"	12'-6"	13'-8"	15'-2"	H
J	3'-9"	4'-4"	5'-0"	5'-7"	6'-3"	6'-10"	7'-7"	J
M	0'-5"	0'-5"	0'-5"	0'-5"	0'-5"	0'-5"	0'-5"	M
T	0'-3.5"	0'-4.0"	0'-4.5"	0'-5.0"	0'-5.5"	0'-6.0"	0'-6.5"	T
V	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	V
W	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	W
X	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	X
Y	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	Y
Z	1'-3"	1'-3"	1'-3"	1'-3"	1'-3"	1'-3"	1'-3"	Z
CU YDS CONC HEADWALLS	3.36	4.30	5.35	6.53	7.82	9.22	18.76	CU YDS CONC HEADWALLS
LB STEEL HEADWALLS	281	363	430	496	583	687	1320	LB STEEL HEADWALLS

DIMENSIONS AND QUANTITIES ARE BASED ON CONCRETE PIPE AND WILL VARY SLIGHTLY FOR CORRUGATED METAL PIPE.



STATE DEPARTMENT OF TRANSPORTATION
STATE HYDRAULIC ENGINEER

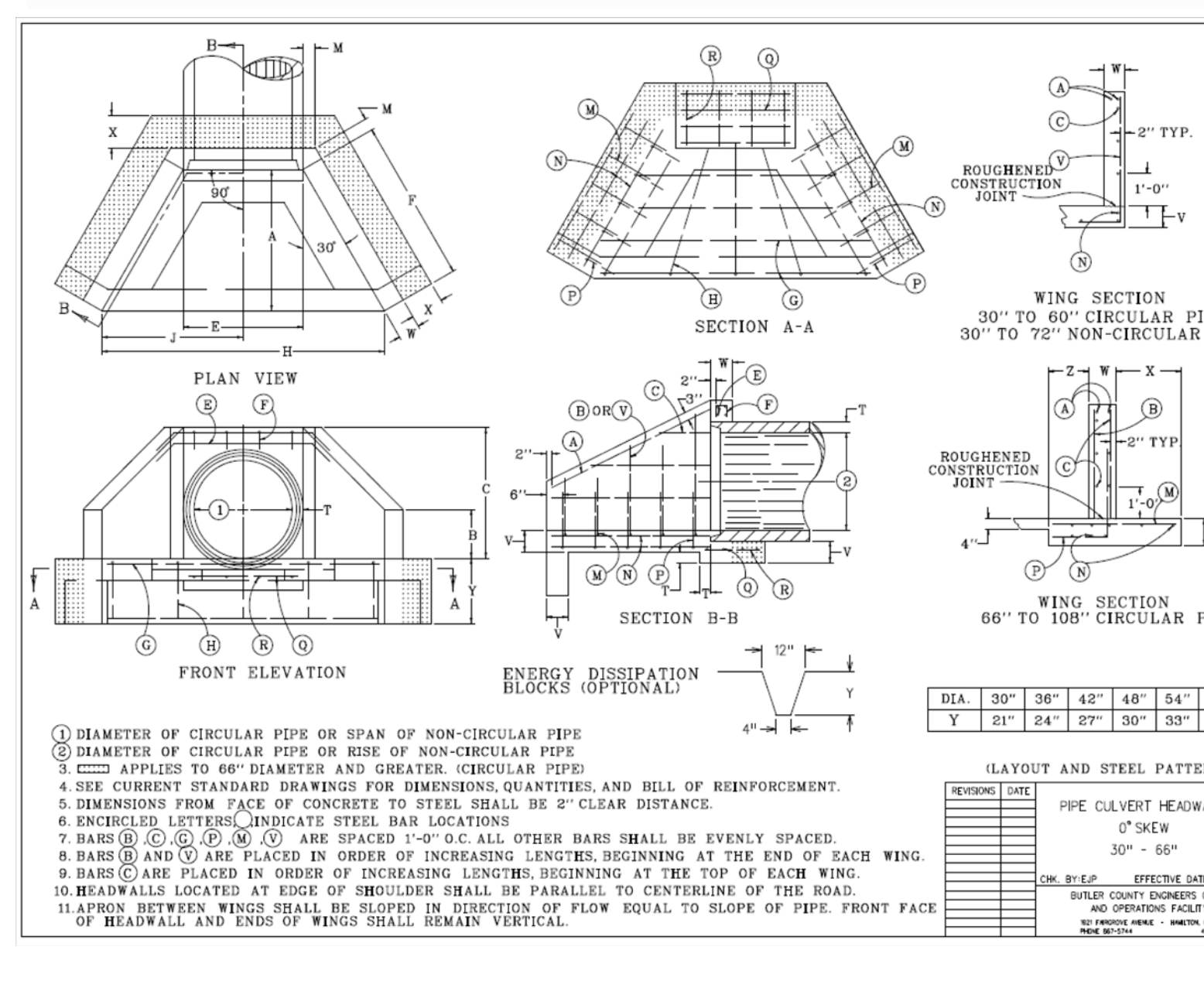
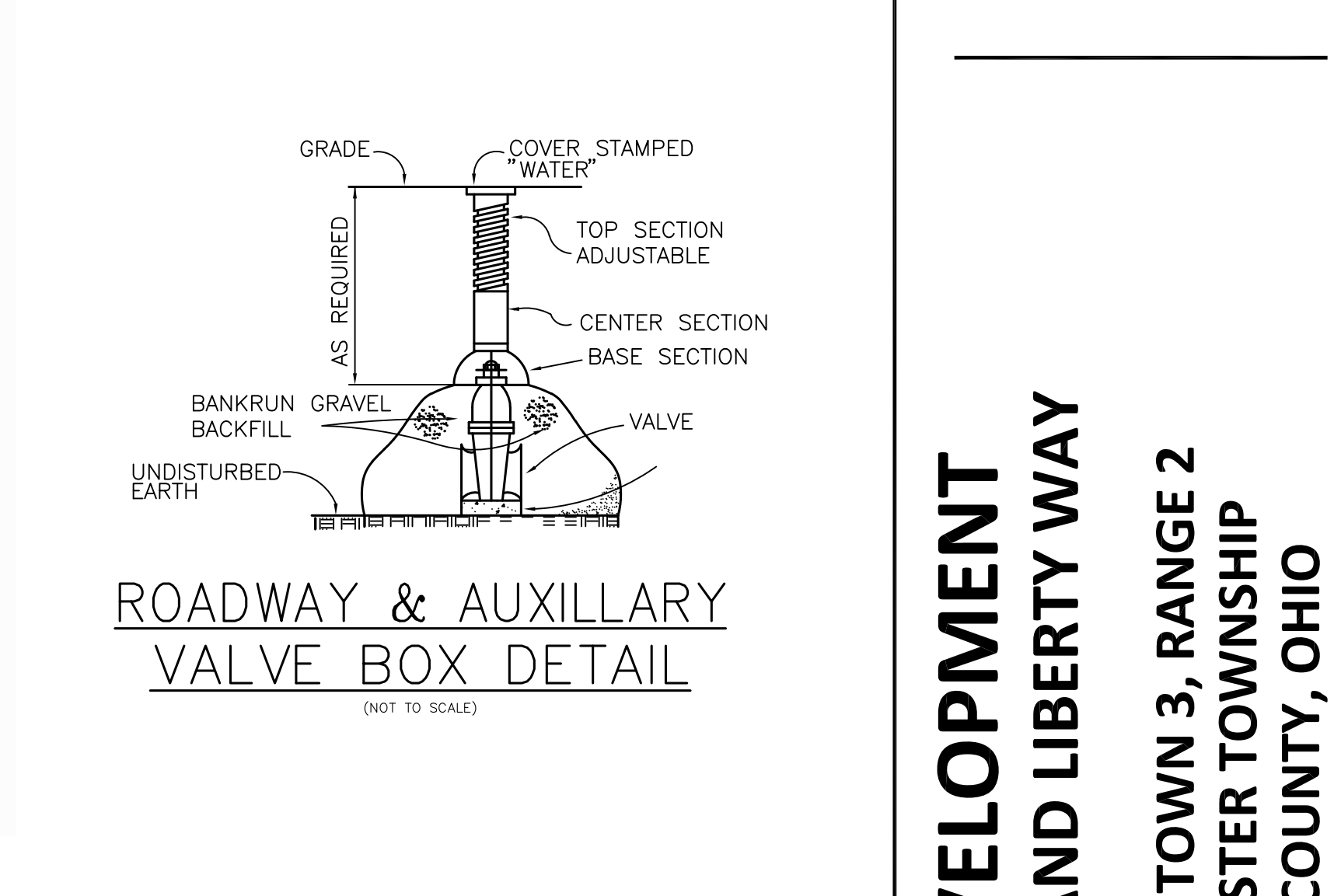
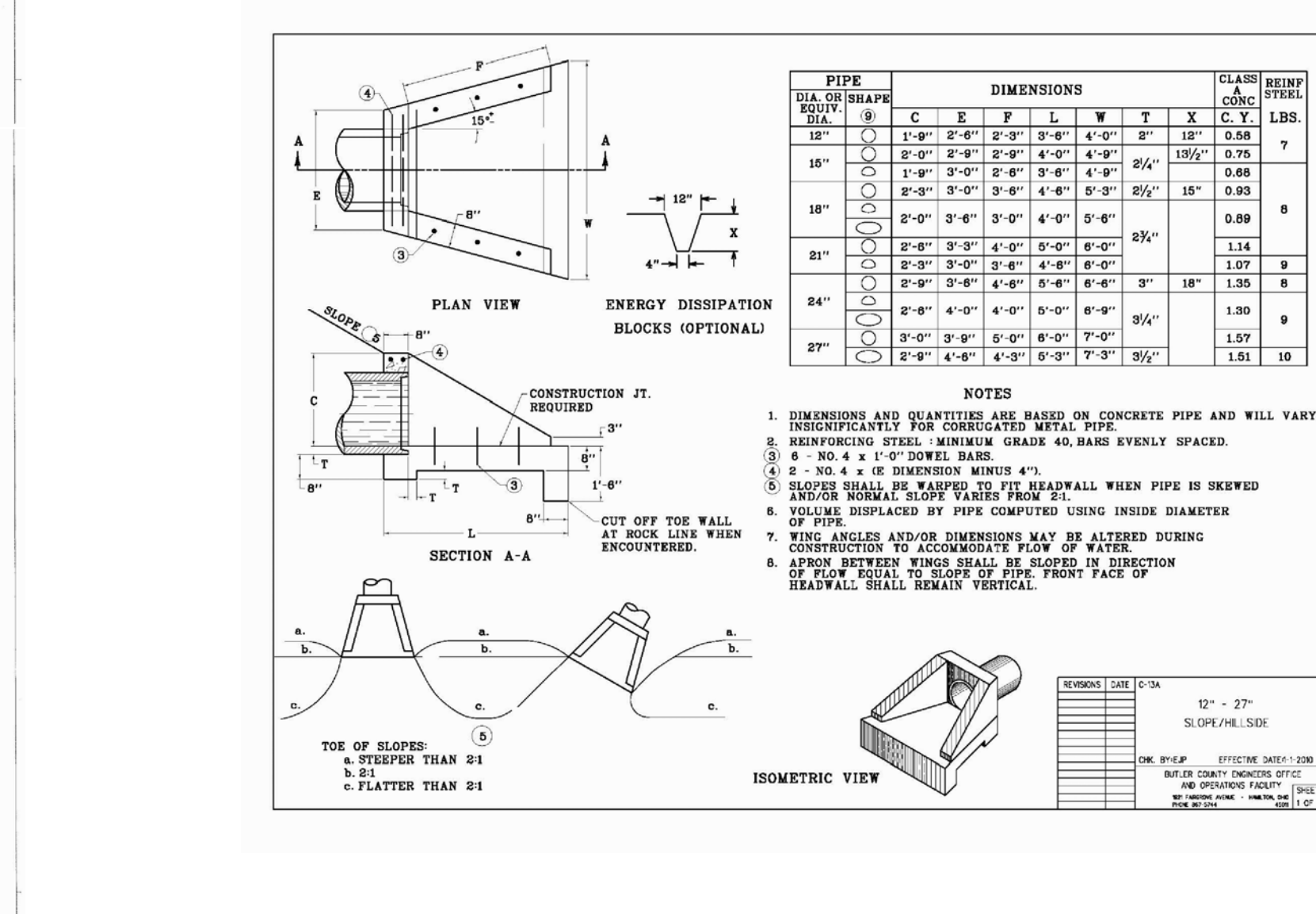
DATE: 7-20-01
7-19-02
7-15-05

OFFICE OF ENGINEERING

STANDARD HYDRAULIC CONSTRUCTION DRAWING
CATCH BASINS No. 2-3 & 2-4

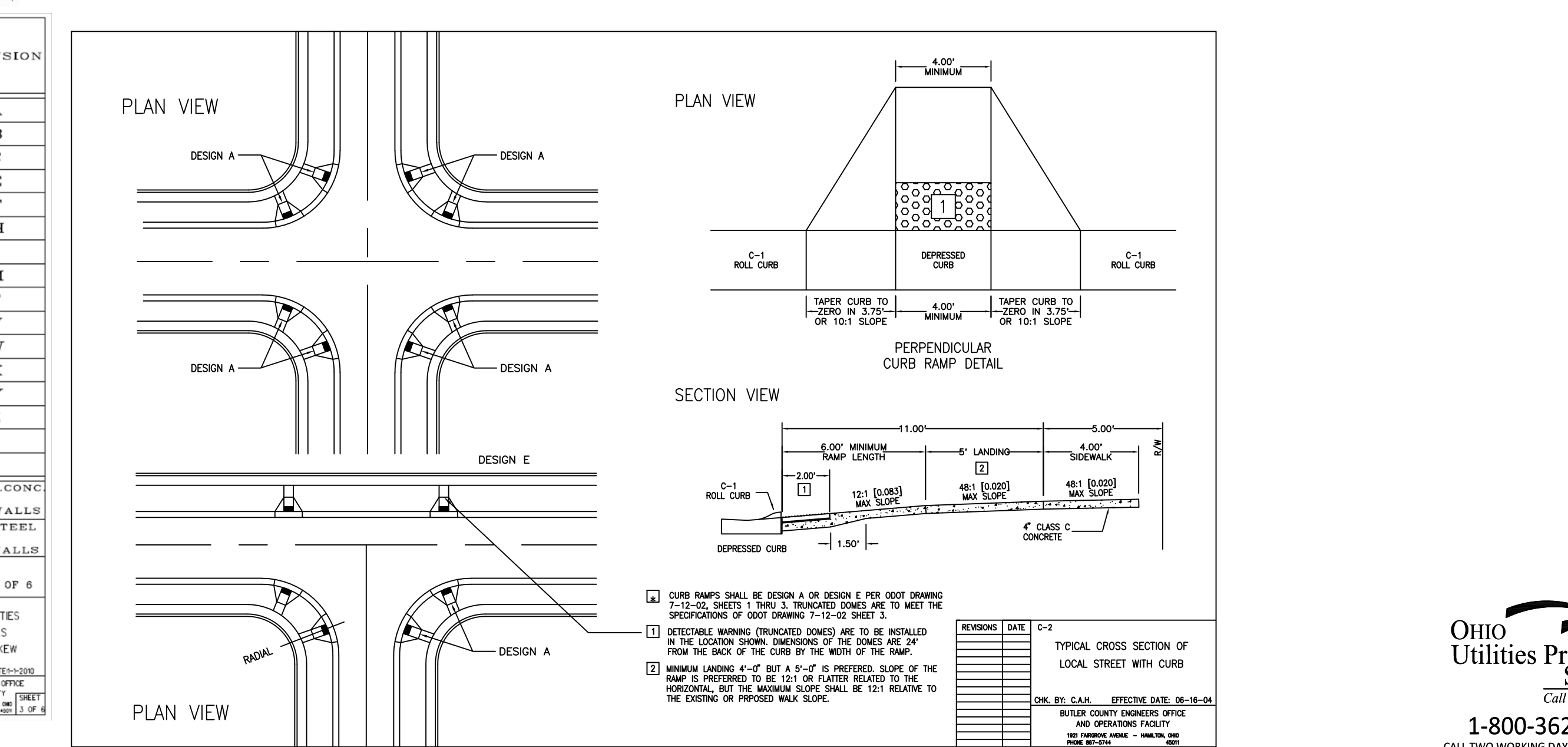
NUMBER: 1/1

CATCH BASIN	OUTLET PIPE SIZE
2-3	12" to 33" (300 to 825)
2-4	36" to 42" (900 to 1050)



DIMENSION	DIAMETER OF PIPE							DIMENSION
	30"	36"	42"	48"	54"	60"	66"	
A	3'-9"	4'-4"	4'-11"	5'-6"	6'-1"	6'-8"	7'-5"	A
B	1'-3"	1'-6"	1'-9"	2'-0"	2'-3"	2'-6"	2'-9"	B
C	3'-6"	4'-0"	4'-7"	5'-1"	5'-8"	6'-2"	7'-0"	C
E	3'-1"	3'-8"	4'-3"	4'-10"	5'-5"	6'-0"	6'-7"	E
F	4'-4"	5'-0"	5'-8"	6'-4"	7'-0"	7'-8"	8'-7"	F
H	7'-6"	8'-8"	10'-0"	11'-2"	12'-6"	13'-8"	15'-2"	H
J	3'-9"	4'-4"	5'-0"	5'-7"	6'-3"	6'-10"	7'-7"	J
M	0'-5"	0'-5"	0'-5"	0'-5"	0'-5"	0'-5"	0'-5"	M
T	0'-3.5"	0'-4.0"	0'-4.5"	0'-5.0"	0'-5.5"	0'-6.0"	0'-6.5"	T
V	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	V
W	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	0'-8"	W
X	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	X
Y	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	Y
Z	1'-3"	1'-3"	1'-3"	1'-3"	1'-3"	1'-3"	1'-3"	Z
CU YDS CONC HEADWALLS	3.36	4.30	5.35	6.53	7.82	9.22	18.76	CU YDS CONC HEADWALLS
LB STEEL HEADWALLS	281	363	430	496	583	687	1320	LB STEEL HEADWALLS

DIMENSIONS AND QUANTITIES ARE BASED ON CONCRETE PIPE AND WILL VARY SLIGHTLY FOR CORRUGATED METAL PIPE.



OHIO Utilities Protection SERVICE
Call Before You Dig

1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG (NON MEMBERS MUST BE CALLED DIRECTLY)

Project Number 15352.21
Drawing Scale 1" = 100'
Sheet Number 5 / 8
File Number 15352

TID DEVELOPMENT
COX ROAD AND LIBERTY WAY
SECTION 12, TOWN 3, RANGE 2
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO

HOUSE CONNECTION FOR DEEP SEWER

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777

6280

HOUSE CONNECTION FOR SHALLOW SEWER

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777

6290

STANDARD MANHOLE

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777

6200

DEAD END MANHOLE DETAIL

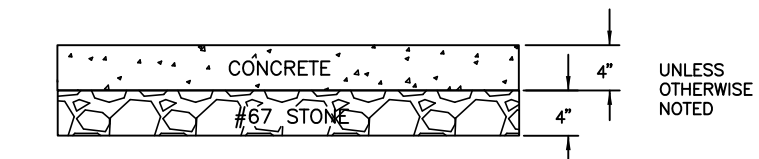
BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777

6190

ELEVATED MANHOLE DETAIL

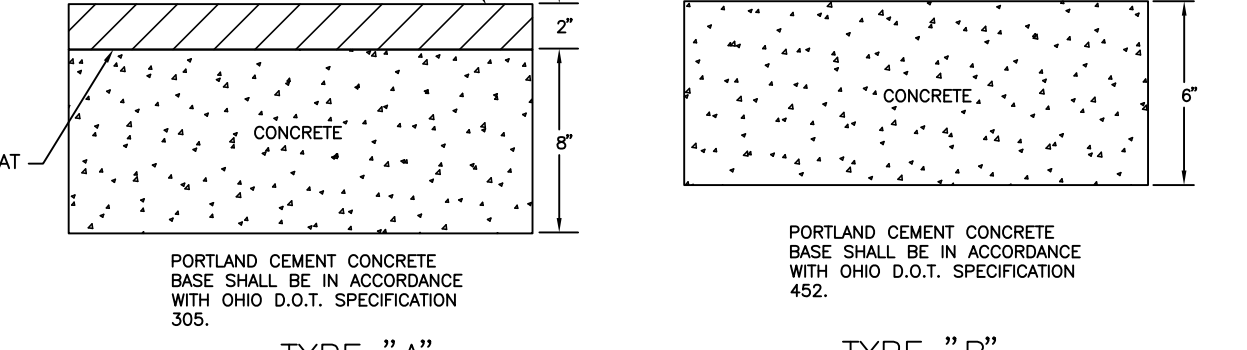
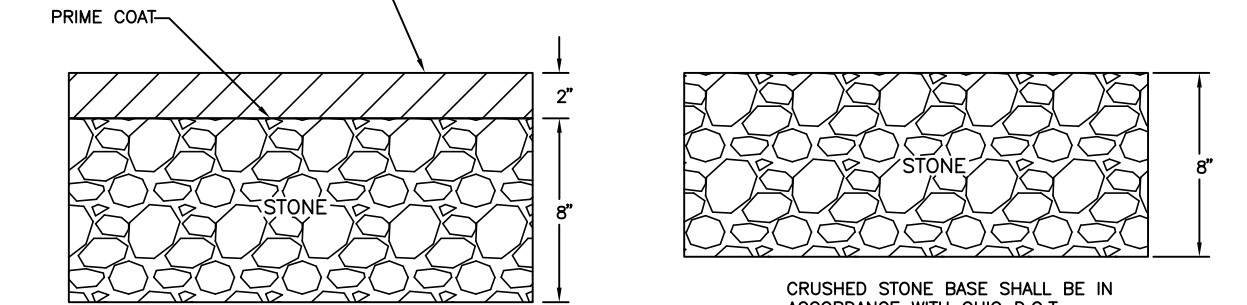
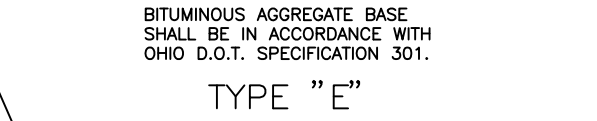
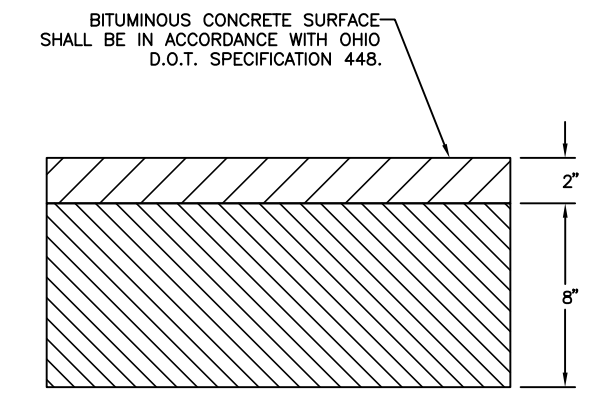
BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777

6170



WALK REPLACEMENT DETAILS

NOT TO SCALE



TYPICAL TRENCH DETAIL

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777

6270

STANDARD CAST IN-PLACE MANHOLE

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777

6150

CONNECTION TO EXISTING MANHOLE

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777

6150

PAVEMENT REPLACEMENT DETAILS

NOT TO SCALE

TID DEVELOPMENT
COX ROAD AND LIBERTY WAY
SECTION 12, TOWN 3, RANGE 2
WEST CHESTER TOWNSHIP
BUTLER COUNTY, OHIO

