

UNDERGROUND UTILITIES
2 WORKING DAYS
BEFORE YOU DIG
Call 1-800-362-2764
UNITED UTILITY
PROTECTION SERVICE
NON MEMBERS
MUST BE CALLED DIRECTLY

BENCHMARK

TOP OF CONC. MONUMENT #833 AT S.E. CORNER
OF MCGINNIS PARK, COX RD. ELEV. = 882.78

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS

CB - 3A CATCH BASIN
CB - 3A (MOD.) CATCH BASIN
CB - 1 CATCH BASIN
CB 2-2-A CATCH BASIN
STD. MANHOLE 1A
HEADWALL HW-4

CONSTRUCTION APPROVAL

Zoning Commision	DATE
	11/18/96
These plans are not for construction until ALL approval dates have been filled in.	

PHASE 3 PROJECT SUMMARY

Number of Units	42
Clubhouse	1
Parking	
Required:	44
Provided:	59
Ratio:	1:1.34
Acreage:	
Gross (Incl. R/W)	7.17 ACRES
Right-of-Way	0 ACRES
Net	7.17 ACRES
Open Space	20%
Zoning:	R-PUD

OWNER/DEVELOPER

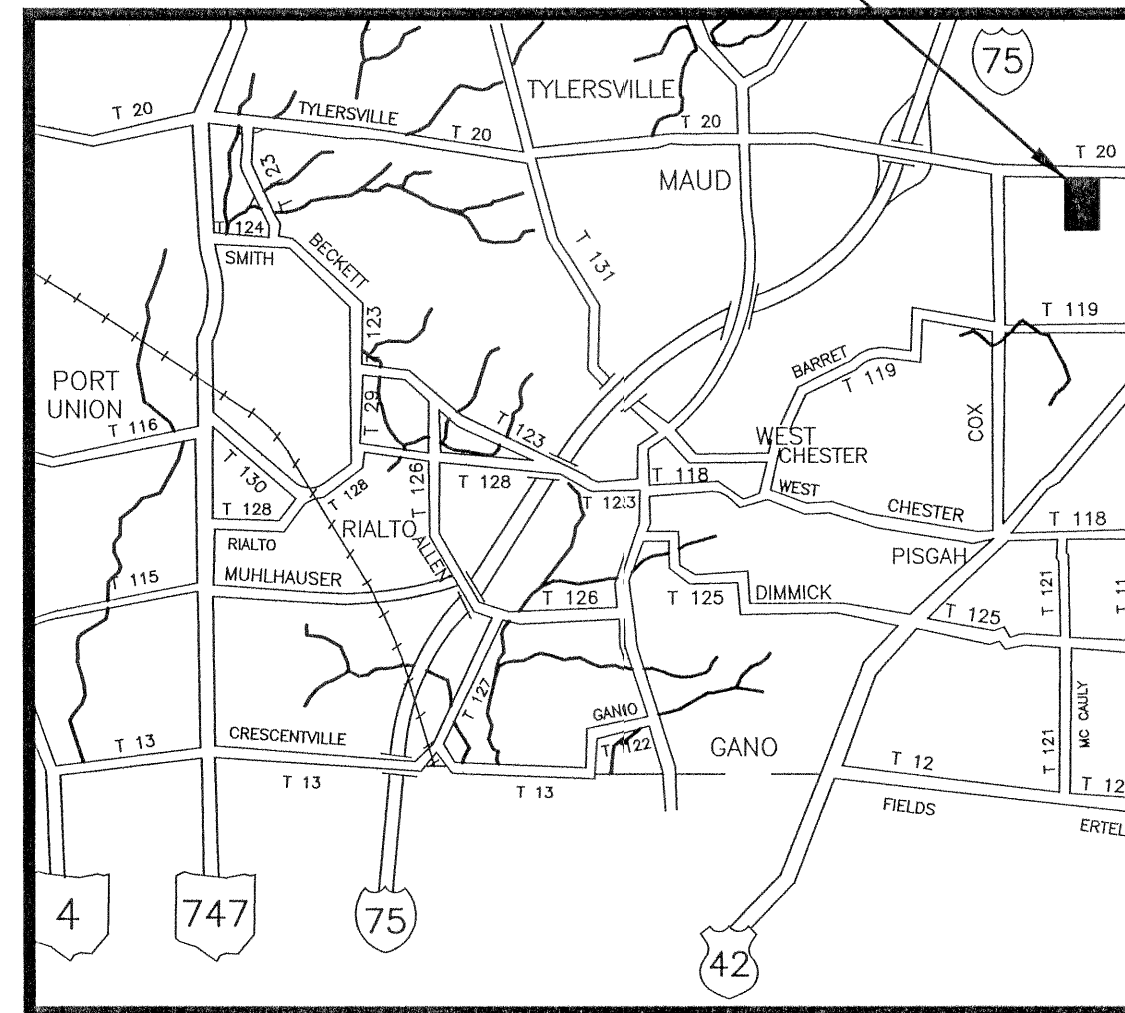
Chesterwood Village, Inc.
4195 Hamilton Mason Road
Indian Springs, Ohio 45011



FINAL PUD PLAN INDEX TO SHEETS

General Notes & Layout Plan
Utility Plan
Grading Plan
Profiles
Soil Erosion & Sedimentation Details
Standard Sanitary Detail Sheet
Standard Water Detail Sheet

SITE LOCATION

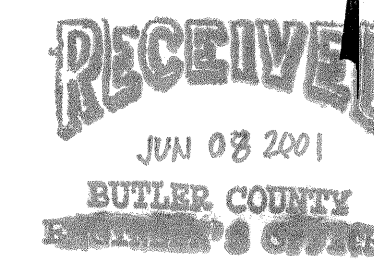


VICINITY MAP
SCALE=N.T.S.

*10' horizontal separation from outside edges of water line and sanitary/storm sewer required. If the water main crosses either over or under the sanitary/storm sewer pipe, 18" vertical distance between the outside edges of the water and sewer lines shall be provided. Where water line crosses under the sewer, structural support shall be provided for the sewer pipe to prevent damage to the water main and to maintain line and grade of the sewer pipe. Where 18" of separation is not possible, the sewer shall be either encased or constructed to water main standards for a minimum of 10" on each side of the water main.

PEPPER PIKE SUBDIVISION
BLOCK "B"
PLAT BOOK 32, PAGE 18

CASTLE
ROCK LN



0 40 80 120

MAY 22 2001

GENERAL NOTES

- Item numbers refer to the Ohio Department of Transportation construction and material specifications, and all construction work shall be done according to said specifications of Butler County requirements and standards for subdivisions. When in conflict, the County requirements shall prevail.
- Items that pertain to underground utilities such as watermain pipe, sanitary sewer pipe, water valves and manhole frames and covers, etc., will remain under specifications of the utility serving the area. Storm sewers shall be designed and constructed in accordance with the requirements of the Butler County Engineer.
- All trenches within the right-of-way and 10' utility easement shall be compacted and backfilled in accordance with item 203 and 603 in the state specifications.
- A minimum 10' utility easement shall be shown on the record plat parallel and immediately adjacent to the right-of-way line allowing for installation, operation and maintenance of sewers, water, electric and telephone conduits and any other public or quasi public utility.
- Developer shall be responsible for the installation of conduits for the full width of the public right-of-way at a depth of 36" for use by the electric, telephone and cable TV services. The location of the lines shall be coordinated with utility companies by the developer.
- All electrical transformers shall be located so that they do not interfere with the existing manholes or water main appurtenances.
- Water main materials, valves, fire hydrant, fittings and appurtenances and installation to be as per Butler County specifications using class 53 Ductile Iron as per AWWA C-151 with 4' minimum cover.
- Sanitary sewer materials and installation to be as per Butler County Environmental Services specifications using Section 3110 for PVC, SDR 35 & 26" pipe; Section 3140 for ABS or PVC composite pipe, Section 3410 for manholes.
- Minimum 10" horizontal, 18" vertical separation between Water Main and Sanitary and/or Storm Sewer.(see note * at left)
- Storm sewer pipe to be A.D.S. N-12 plastic or equal unless otherwise noted on plans. Bedding to be first class. All sewers to be installed as per Butler County specifications.
- Roof drains, foundation drains, and other clean water connections to the sanitary sewer system are prohibited.
- All catch basins with a depth greater than 4.5' 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.
- 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.
- Butler County Department of Environmental Services 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 to have a minimum depth of 2.5' and a maximum depth of 4 feet from proposed grade to the top of the Valve Operating Nut.
- 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.
- 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.
- All sanitary sewer laterals shall be at least 4 feet below a proposed basement floor elevation at the point of connection to the sewer main 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 Butler County Department of Environmental Services.

NOTES:

- A 20' Sanitary Sewer Easement, 15' Water Line Easement, and Ingress-Egress Easement to be provided on Edge of Easement Plat.
- Pedestrian walkway is to be 6' wide and composed of item 304 - 6" aggregate base, item 402 - 1 1/2" asphalt concrete, and item 404 - 1 1/2" asphalt concrete.

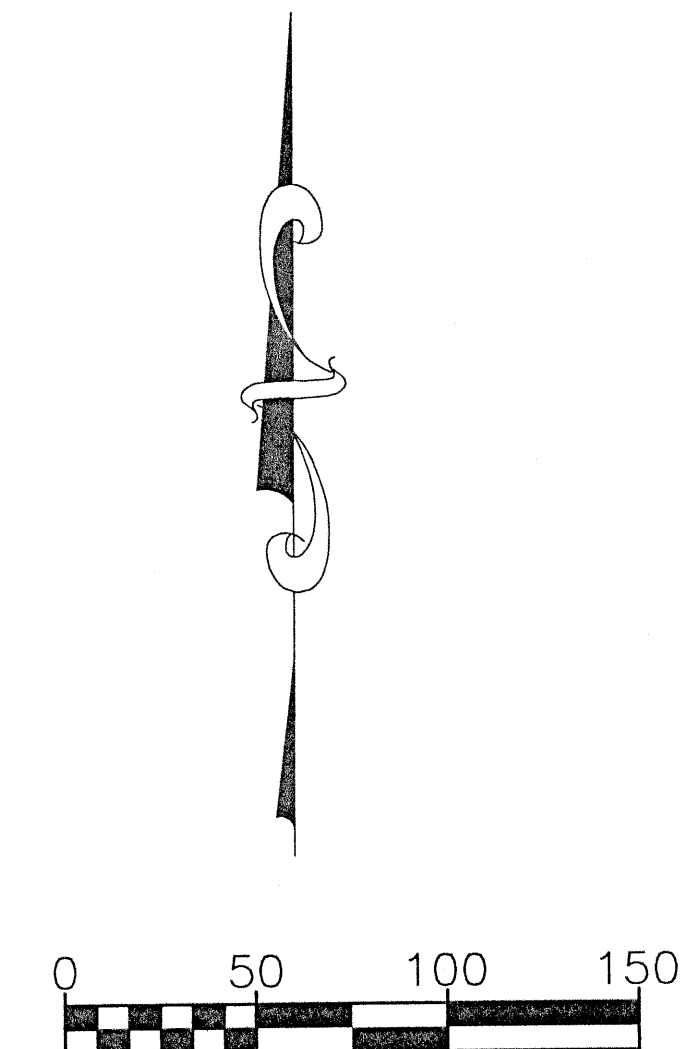
CHESTERWOOD RETIREMENT COMMUNITY
PHASE THREE
SECTION 11, TOWN 3, RANGE 2
UNION TOWNSHIP
BUTLER COUNTY, OHIO

LAYOUT PLAN

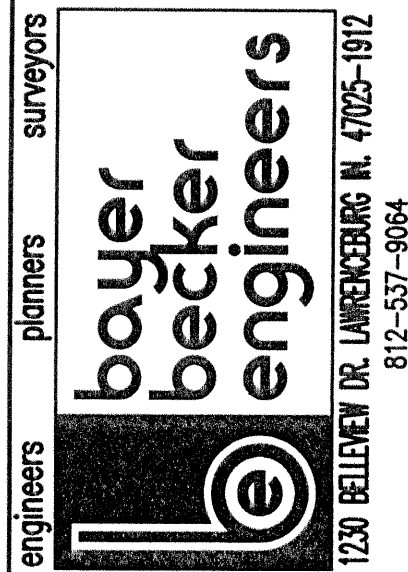
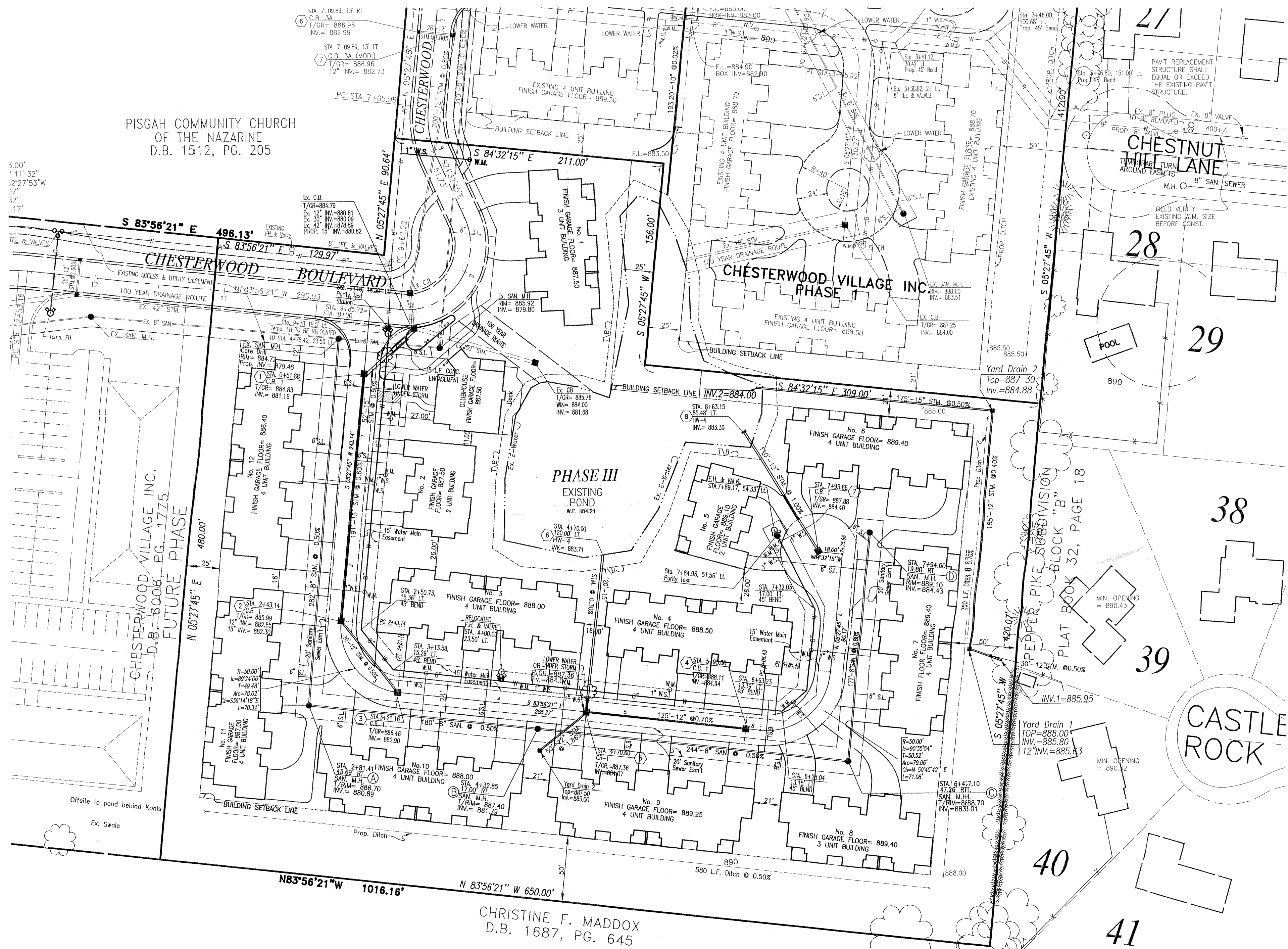
DATE:	REVISION/COMMENT
5/21/01	Revised per BCDES
5/11/01	Revised per Butler County & BCDES
3/4/97	Revised per Owners Request
DESIGNED: CLM/MAR	DRAWING: 9579-1.DWG
DRAWN: TAB	DATE: 10/31/96
CHECKED: CAR	SCALE: 1"=40'
JOB NUMBER: 9579	SHEET NO: 1 OF 7

engineers planners surveyors
**bayer
becker
engineers**
1230 belleview dr., lawrenceburg indiana 47025-1912
812-537-9064

Plans 6-8-01



- NOTE:
- (1) 18" MIN. VERTICAL CLEARANCE OD TO OD TO BE MAINTAINED BETWEEN WATER MAIN AND STORM AND SANITARY SEWERS AT CROSSOVERS.
 - (2) LOWER WATER SERVICES AS NEEDED TO AVOID CONFLICTS WITH STORM WITH MIN. 4' COVER.
 - (3) LOCATION OF ALL EXISTING UTILITIES TO BE DETERMINED IN THE FIELD PRIOR TO WORK BEGINNING.
 - (4) 48 HOUR NOTICE TO BE PROVIDED TO PROPERTY OWNERS AFFECTED BY SHUTDOWN OF WATER MAIN.



CHESTERWOOD RETIREMENT
COMMUNITY
PHASE THREE

UTILITY
PLAN

ITEM	REVISIONS	DATE
7		
6	Revised per BODES	5/21/01
5		
4	Revised per Butler County & BODES	5/11/01
3	Revised per Butler County	3/4/97
2	Revised per Owners Request	3/4/97
1	Complete for Union Township Submittal	11/4/96

AutoCAD
Drawing Name: M9579.DWG
DATE: 10-30-96

J:\05\0579\RESTORE\PH3\MS79.DWG Mon May 21 16:20:04 2001 E. L. B.



SEDIMENTATION CONTROL NOTES

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 materials to be retained on site.

All areas disturbed by the construction of the roadways, ditches and sedimentation basins shall be seeded. Payment will be by the number of square yards disturbed as per the grading plan.

METHOD

Straw bales are to be utilized to create temporary dams to catch the silt. These are to be installed at points where the flow is concentrated.

Surface water is to be directed into these temporary silt basins by means of temporary swales and ditches.

As the installation of the storm sewer progress, straw bales are to be placed at the inlet and outlet of sewers to control the silt.

Payment for the above shall be included in items Excavation, Embankment.

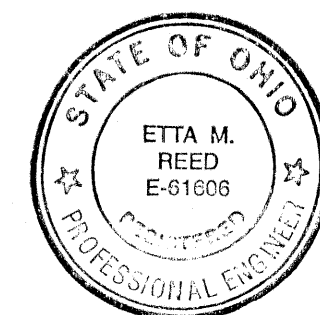
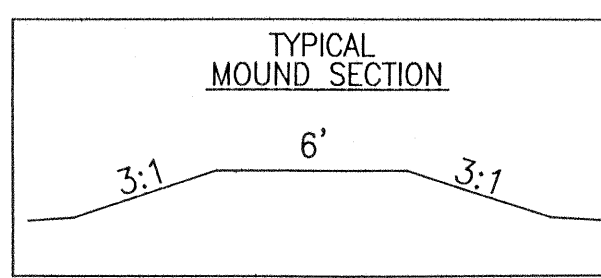
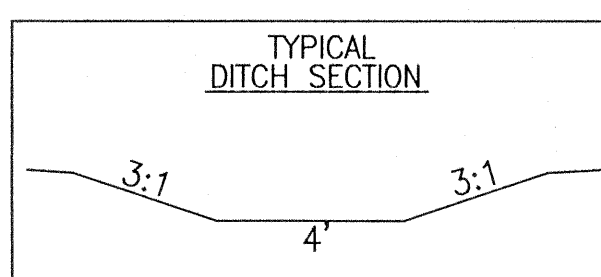
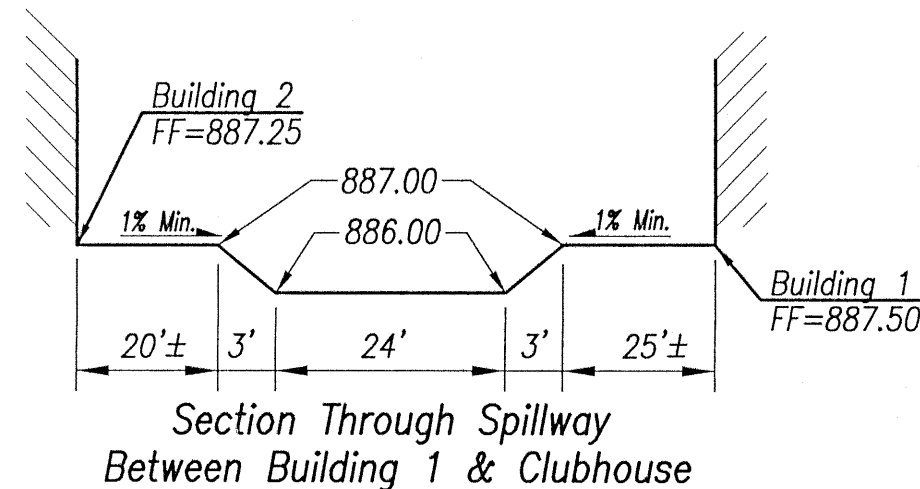
"All sediment and erosion control measures must be visually inspected and the appropriate maintenance and repair actions taken whenever precipitation exceeds 1/2 inch in any 24 hour period."

EROSION CONTROL LEGEND

- 1 SEEDING AND MULCHING
- 2 SODDING
- 3 PRESERVING EXISTING VEGETATION
- 4 STRAW BALE
- 5 SILT FENCE
- 6 SOIL PILES
- 7 TEMPORARY STREAM CROSSING
- 8 GRAVEL CURB INLET SEDIMENT FILTER
- 9 BLOCK & GRAVEL DROP INLET SEDIMENT FILTER
- 10 CABIONS
- 11 STRAW BALE DROP INLET SEDIMENT FILTER
- 12 SOD DROP INLET SEDIMENT FILTER
- 13 GRAVEL & WIRE MESH DROP INLET SEDIMENT FILTER
- 14 BLOCK & GRAVEL CURB INLET SEDIMENT FILTER
- 15 SEDIMENT BASINS & DAMS
- 16 DIKES & SLOPE PROTECTION
- 17 ROLLED GRAVEL CURB INLET SED. FILTER (SEE SOIL EROSION & SEDIMENTATION CONTROL DETAIL SHEET) SHEET 6

~ DENOTES PROPOSED SWALE

NOTE: A SILT FENCE SHALL BE PLACED DOWNHILL ALONG THE PERIMETER OF ALL GROUND TO BE DISTURBED BEFORE ANY GRADING BEGINS



CHESTERWOOD RETIREMENT COMMUNITY PHASE THREE

GRADING AND EROSION CONTROL PLAN

7	6	5	4	3	2	1	DATE
			Revised per BODES	5/21/01	Revised per Butler County & BODES	5/11/01	
			Revised per Owners Request	3/4/97	Revised per Union Township Submittal	11/4/96	
			Complete for Union Township Submittal				

AutoCAD
Drawing Name: M9579.DWG
DATE: 10-30-96

GENERAL NOTES

EROSION AND SEDIMENT CONTROLS

Vegetative practices

Such practices may include: temporary seeding, permanent seeding, mulching, matting, sod stabilization, vegetative buffer strips, phasing and protection of trees. The contractor shall initiate appropriate vegetative practices on all disturbed areas within seven (7) days if they are to remain dormant (undisturbed) for more than forty-five (45) days. Permanent or temporary soil stabilization shall be applied to disturbed areas within seven (7) days after final grade is reached on any portion of the site.

Structural Practices

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

Timing

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

Sediment Barriers

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

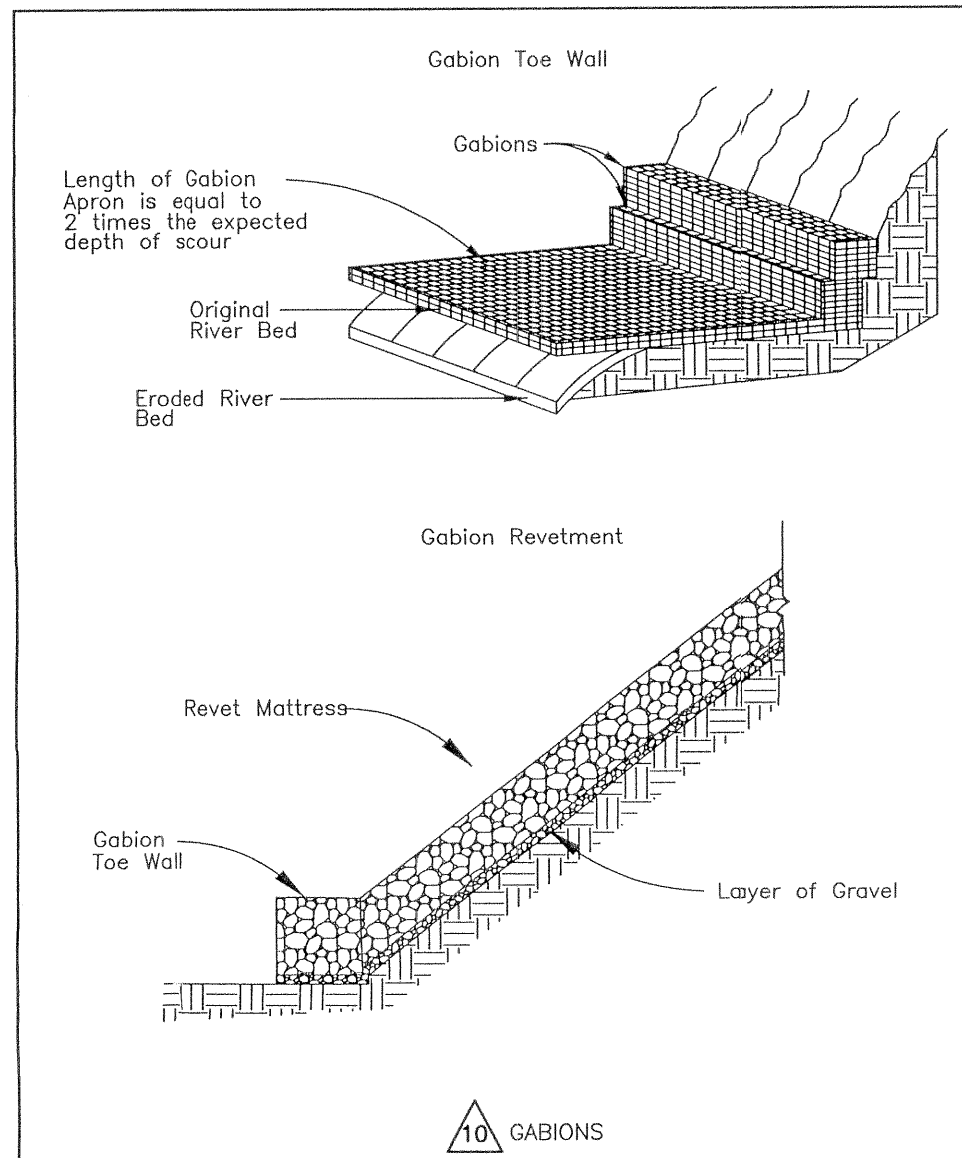
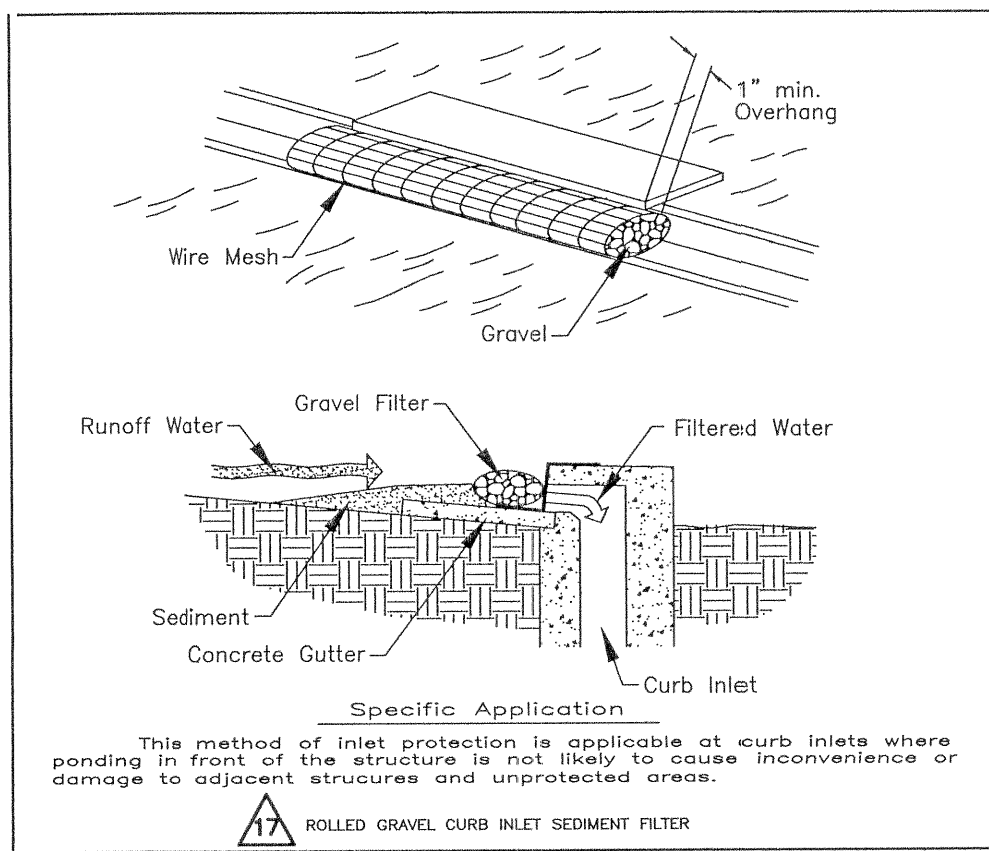
Erosion and sediment control practices used to satisfy the conditions of this plan shall meet the standards and specifications in the current edition of Water Management and Sediment Control in Urbanized Areas (Soil Conservation Service.)

Waste Disposal

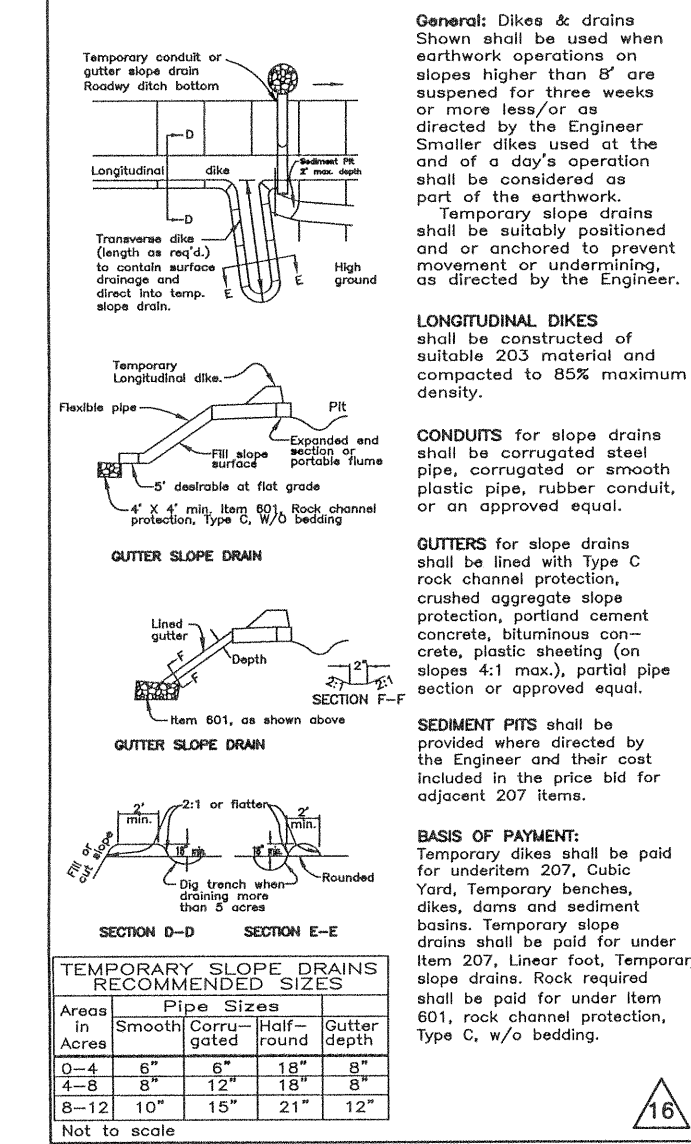
No solid or liquid waste, including building materials, shall be discharged in storm water runoff. Off-site vehicle tracking of sediments shall be minimized. The plan shall ensure and demonstrate compliance and applicable State of local waste disposal, sanitary sewer or septic system regulations.

Maintenance

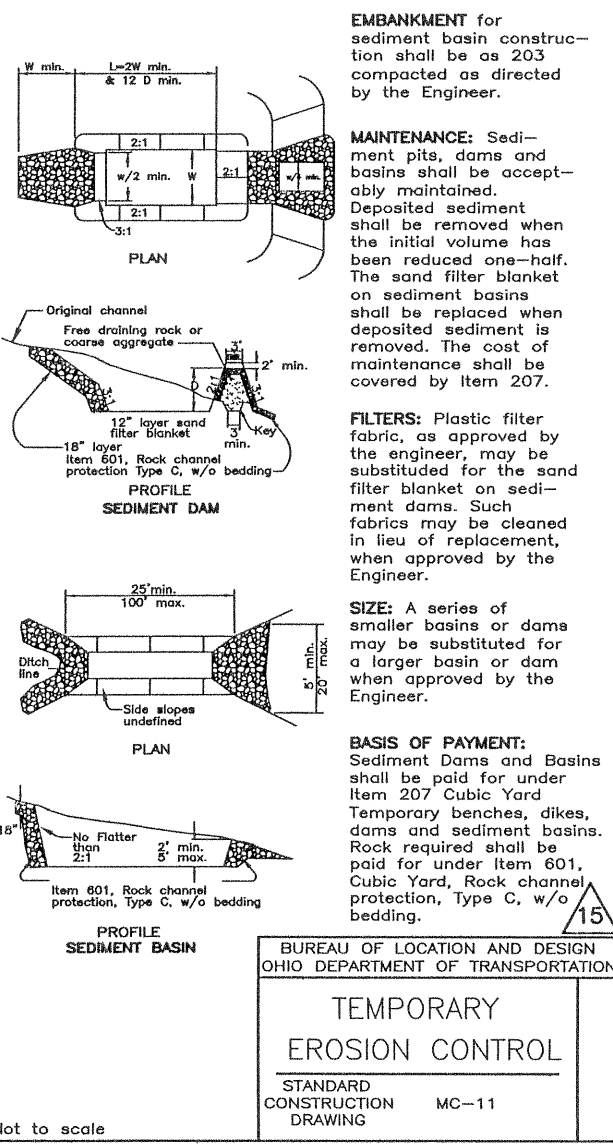
All temporary and permanent control practices shall be maintained and repaired as needed to assure continued performance of their intended function.



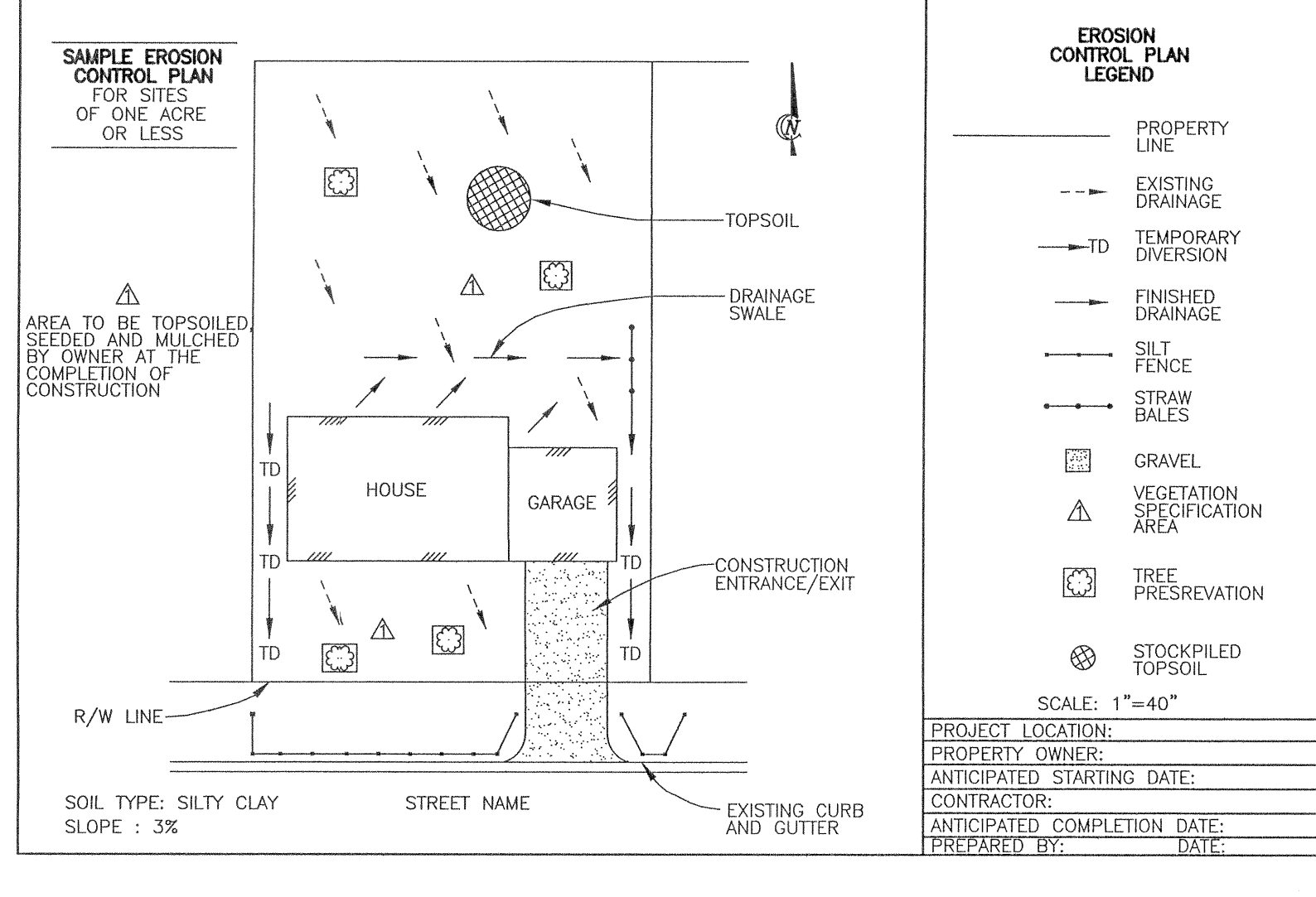
DIKES AND SLOPE PROTECTION



SEDIMENT BASINS & DAMS



EROSION CONTROL FOR SMALL SITES



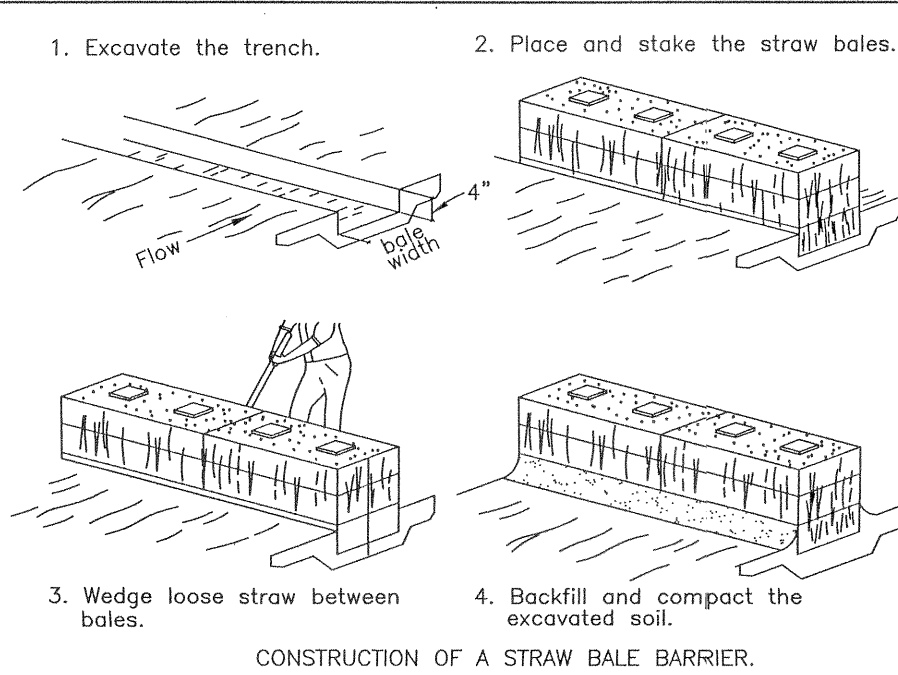
WARNING! Extra measures may be needed if your site:

- Is within 300 feet of a stream or wetland
- Is within 1000 feet of a lake
- Is steep (slopes of 12% or more)
- Receives runoff from 10,000 sq. ft. or more of adjacent land
- Has more than an acre of disturbed ground

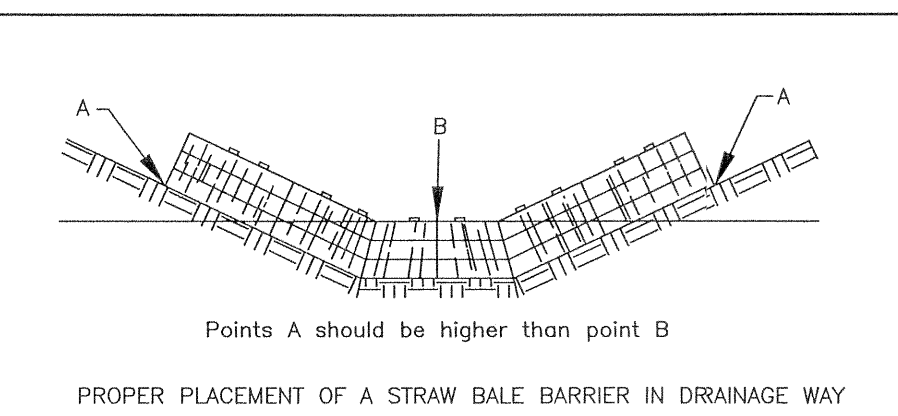
Typical Lawn Seed Mixtures

Grass	Sunny Site	Shady Site
Kentucky bluegrass	65%	15%
Fine fescue	20%	70%
Perennial ryegrass	15%	15%
Seeding rate (lb./1000 sq. ft.)	3-4	4-5

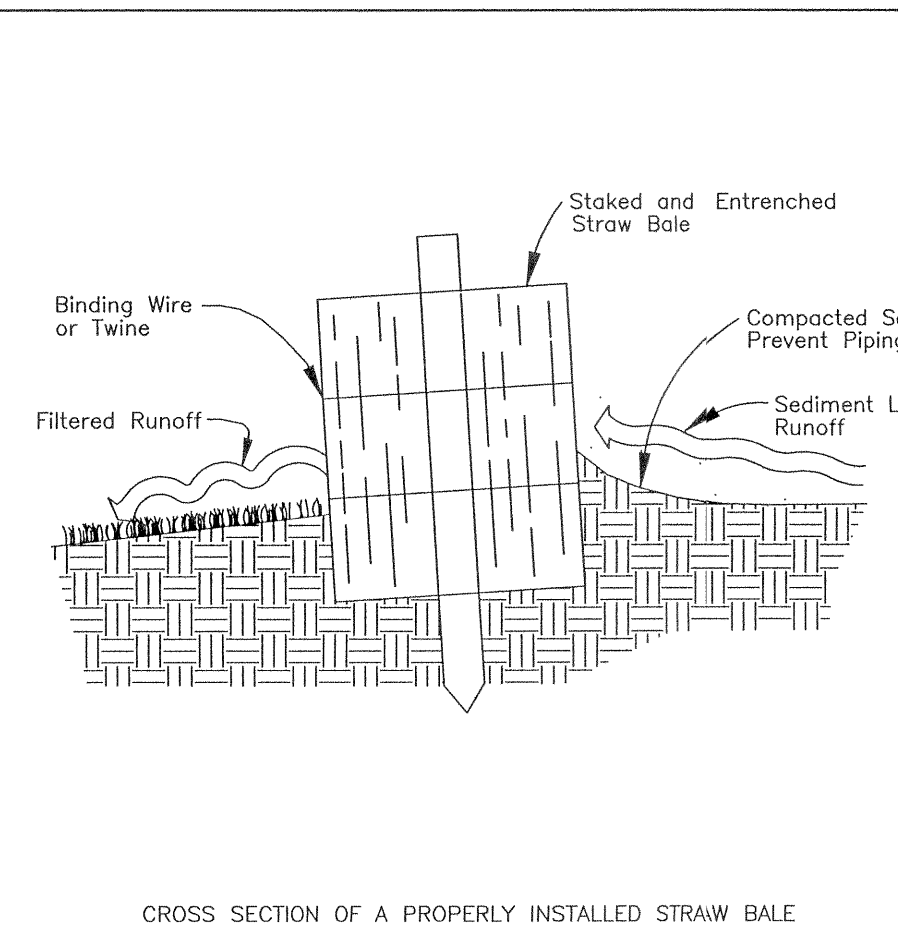
STRAW BALE DETAILS



Source: Adapted from Installation of Straw and Filter Barriers for Sediment Control, Sherwood and Wyant.

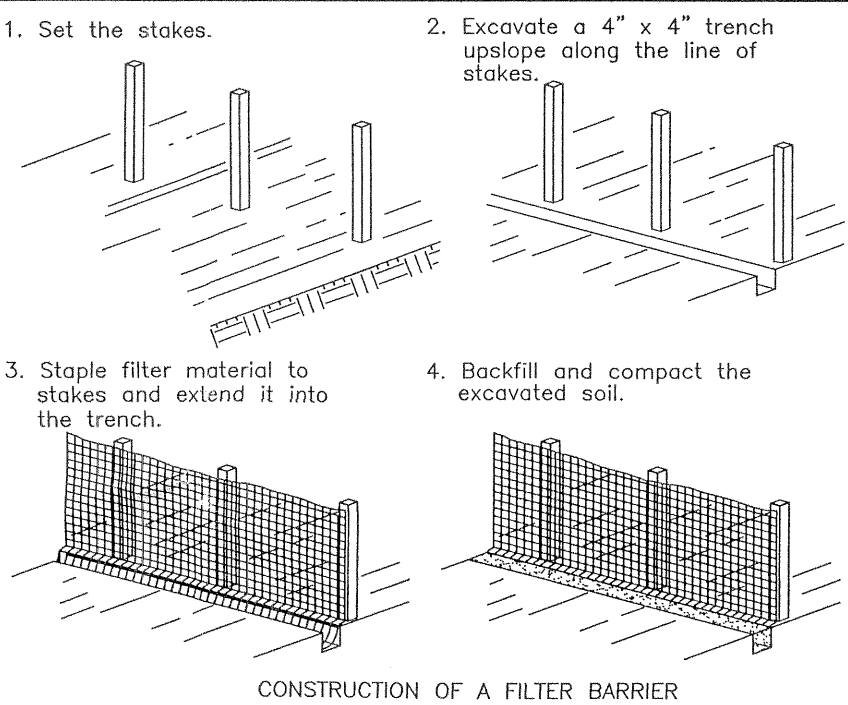


Source: Installation of Straw and Filter Barriers for Sediment Control, Sherwood and Wyant.

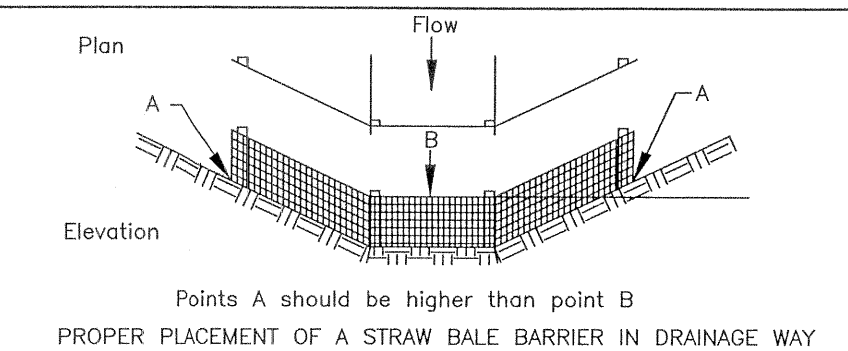


Source: Michigan Soil Erosion and Sediment Control Guidebook, 1975

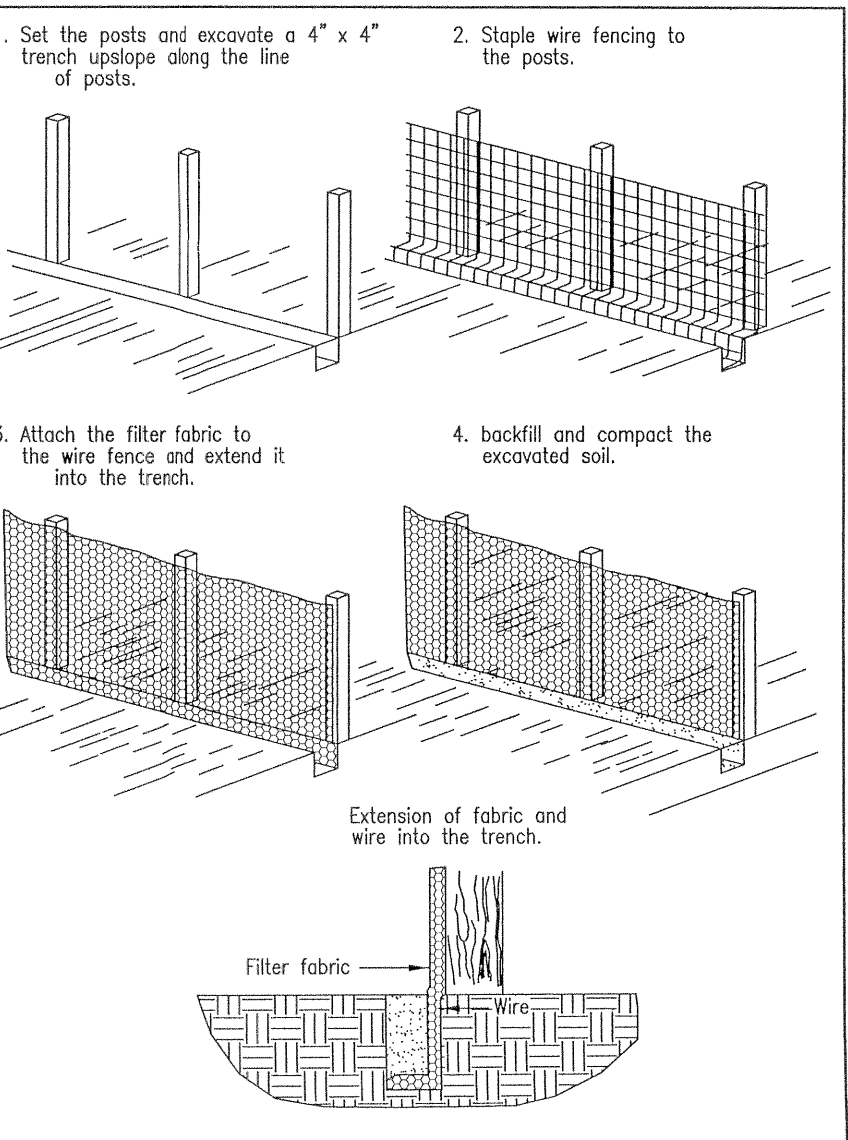
SILT FENCE DETAILS



Source: Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

REVEGETATION

Seed, sod or mulch bare soil as soon as possible

SEEDING AND MULCHING

Spread 4 to 6 inches of topsoil. Fertilize according to soil test (or apply 10 lb./1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer.)

Seed with an appropriate mix for the site (see table.) Rake lightly to cover seed with 1/4\"/>

Anchor mulch by punching 2 inches into the soil with a dull, weighted disk or by using netting or other measures on steep slopes, or windy areas. Water gently every day or two to keep soil moist. Less watering is needed once grass is 2 inches tall.

SODDING Spread 4 to 6 inches of topsoil.

Fertilize according to soil test (or apply 10lb./1000 sq. ft. of 20-10-10 or 10-10-10 fertilizer.)

Lightly water the soil.

Lay sod. Tamp or roll lightly.

On slopes, lay sod starting at the bottom and work toward the top. Peg each piece down in several places.

Initial watering should wet soil 6 inches deep (or until water stands 1 inch deep in a straight-sided container.) Then water lightly every day or two for 2 weeks.

If construction is completed after October 31, seeding or sodding may be delayed. Applying mulch or temporary seed (such as rye or winter wheat) is recommended if weather permits. Straw bale or silt fences must be maintained until final seeding or sodding is completed in spring March 15- May 31.

PRESERVING EXISTING VEGETATION

Wherever possible, preserve existing trees, shrubs, and other vegetation. To prevent root damage, do not grade, place soil piles, or park vehicles near trees marked for preservation. Place plastic mesh or snow fence barriers around trees to protect the area below their branches.

STRAW BALE or SILT FENCE

Put up before any other work is done. Install on downslope side(s) of site with ends extended up sideslopes a short distance.

Place parallel to the contour of the land to allow water to pond behind fence.

Entrench 4 inches deep (see back page.) Stake (2 stakes per bale OR 1 stake every 3 feet for silt fence.)

Leave no gaps between bales or sections of silt fence. Inspect and repair once a week and after every 1/2 inch rain. Remove sediment if deposits reach half the fence or straw bale height.

Maintain until a lawn is established.

SOIL PILES

Located away from any downslope street, driveway, stream, lake, wetland, ditch or drainage way.

Temporary seed such as annual rye is recommended for topsoil piles.

Surround with straw bales or silt fence.

GRAVEL DRIVE

Install a single access drive using 3 to 5 inch aggregate over a geotextile material. Lay gravel 6 inches deep and 10 feet wide from the foundation to the street.

Use to prevent tracking dirt onto the road by all vehicles.

Maintain throughout construction until driveway is paved.

Park all construction vehicles on the street and off of the site.

SEDIMENT CLEANUP

By the end of each work day, sweep or scrape up soil tracked onto the road.

By the end of the next work day after a storm, clean up soil washed off-site, and check straw bales and silt fence for damage or sediment buildup.

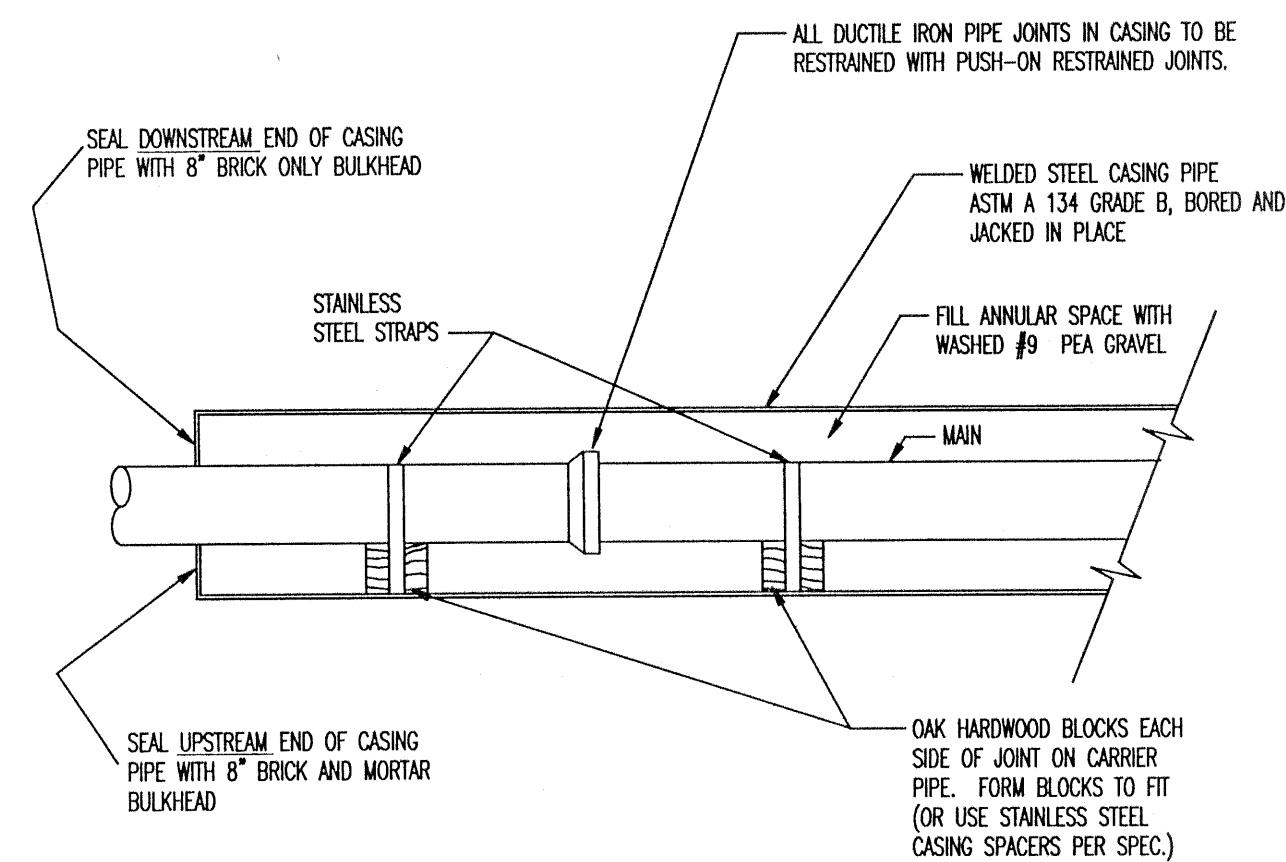
DOWNSPOUT EXTENDERS

Not required, but highly recommended.

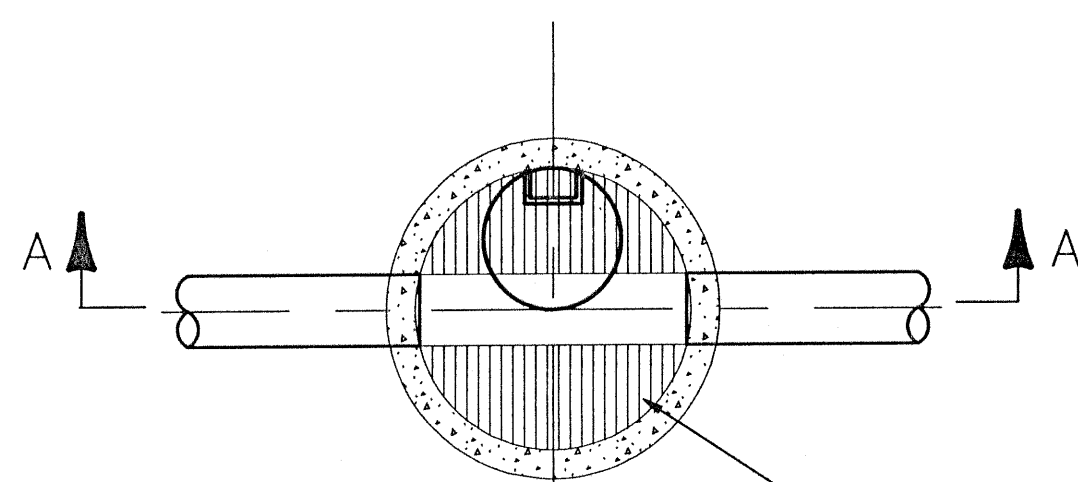
Install as soon as gutters and downspouts are completed.

Route water to a grassed or paved area. Maintain until a lawn is established.

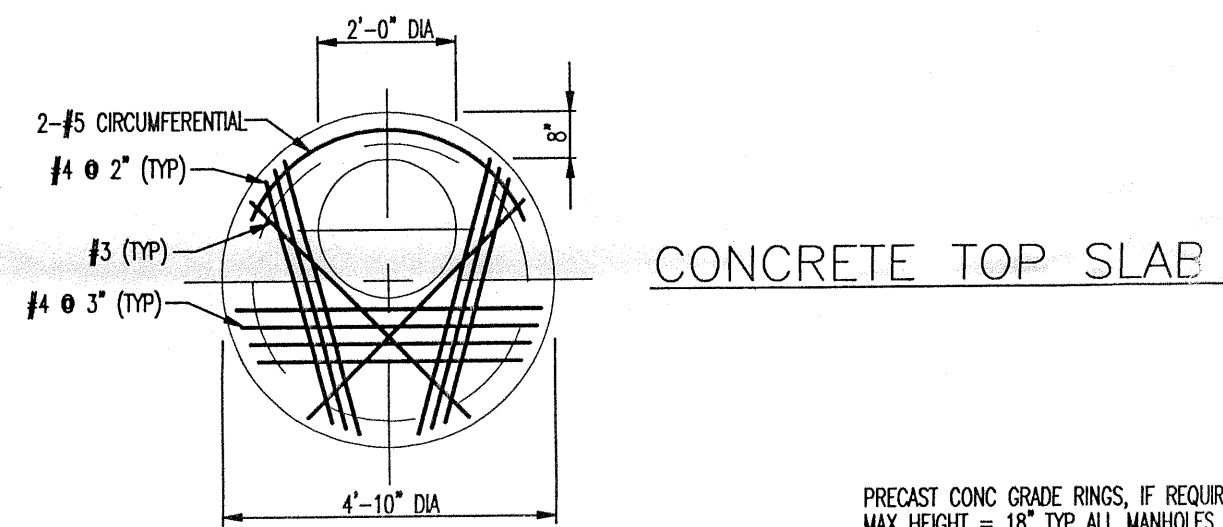




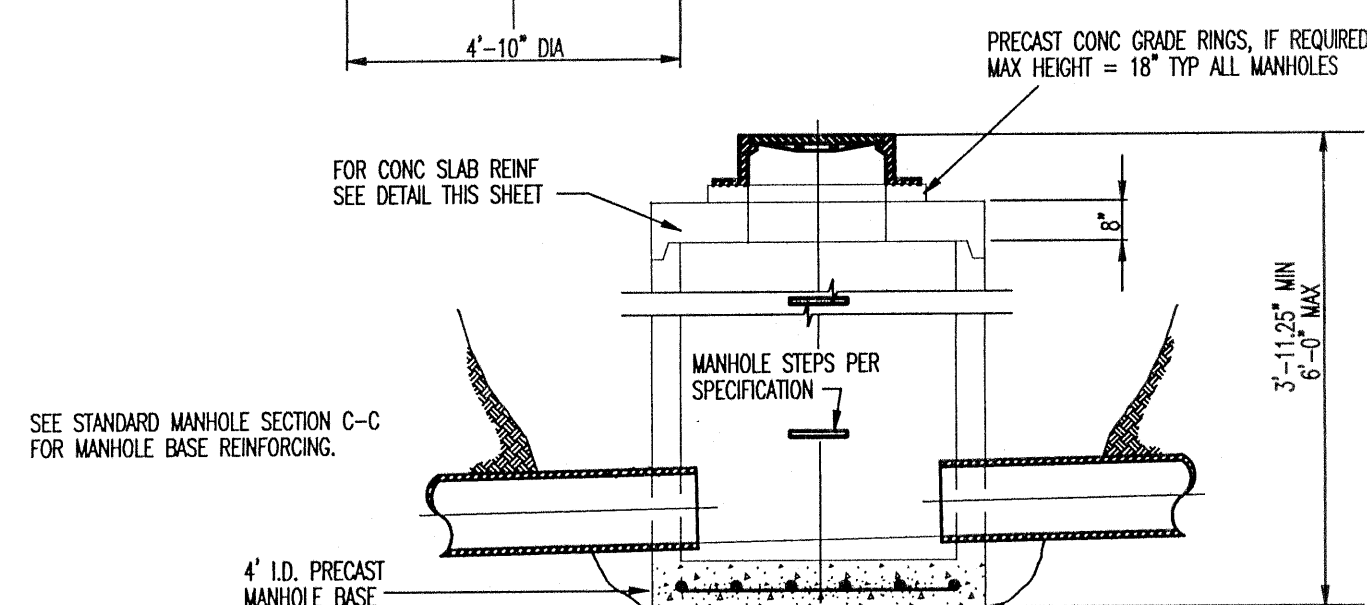
ENCASEMENT PIPE DETAIL
MIS



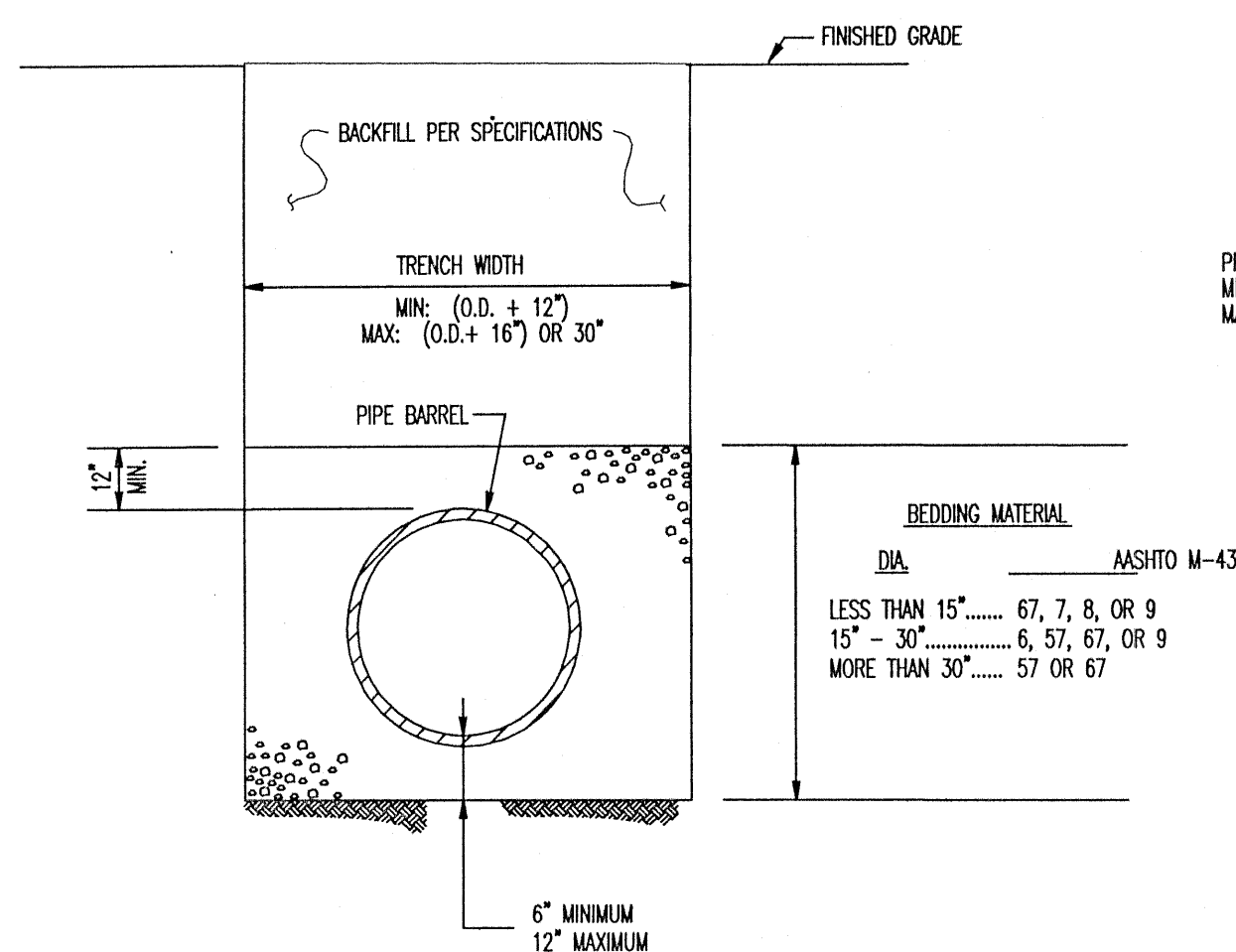
MANHOLE WITH SLAB TOP
TOP VIEW
(FRAME, LID, & SLAB TOP REMOVED)



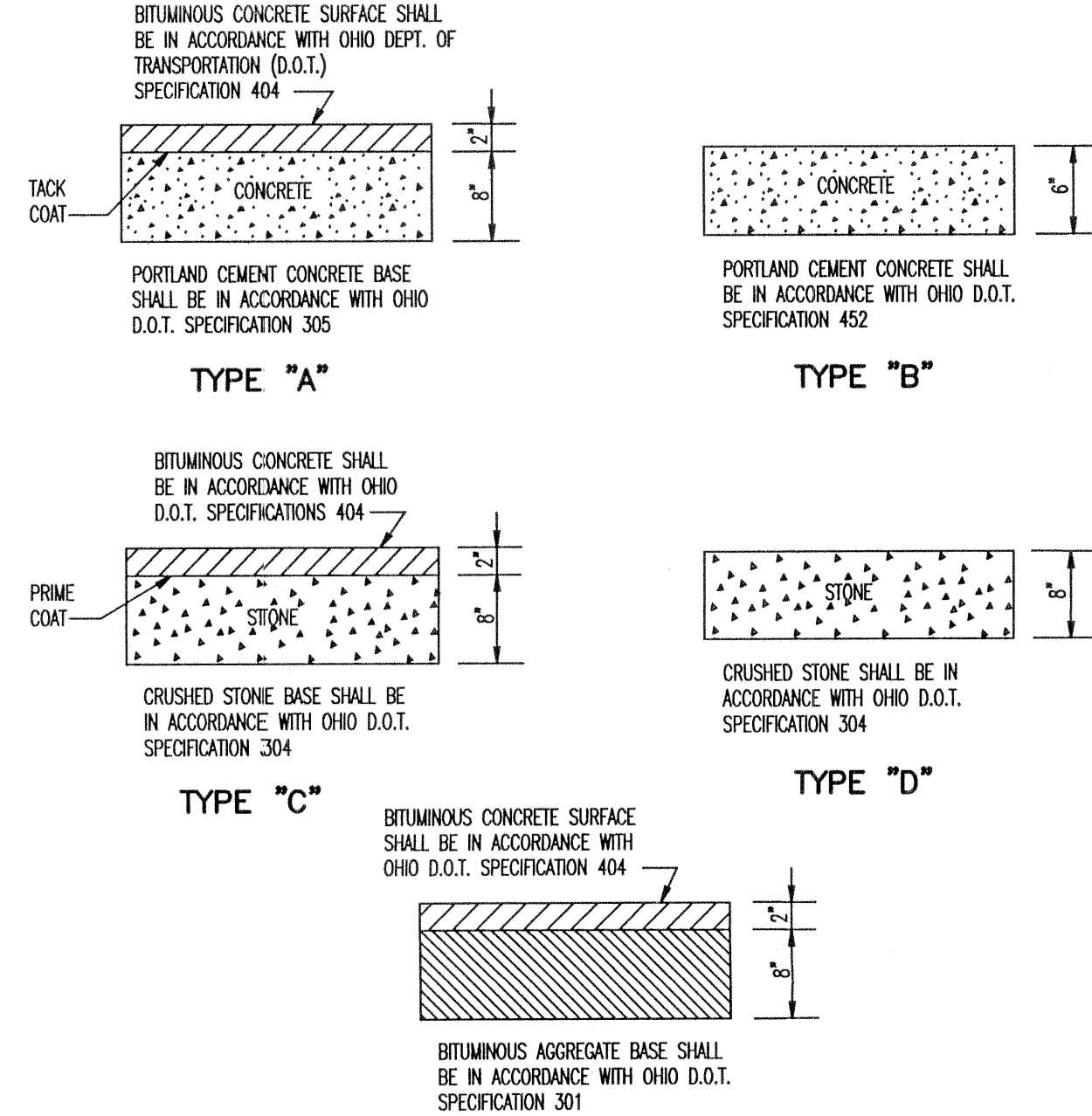
CONCRETE TOP SLAB



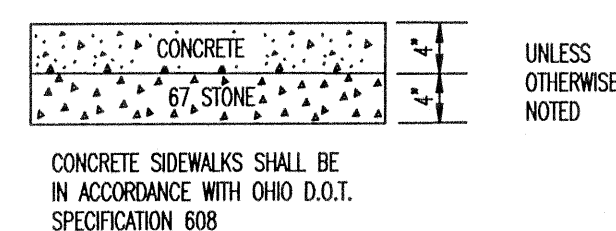
MANHOLE WITH SLAB TOP
SECTION A - A



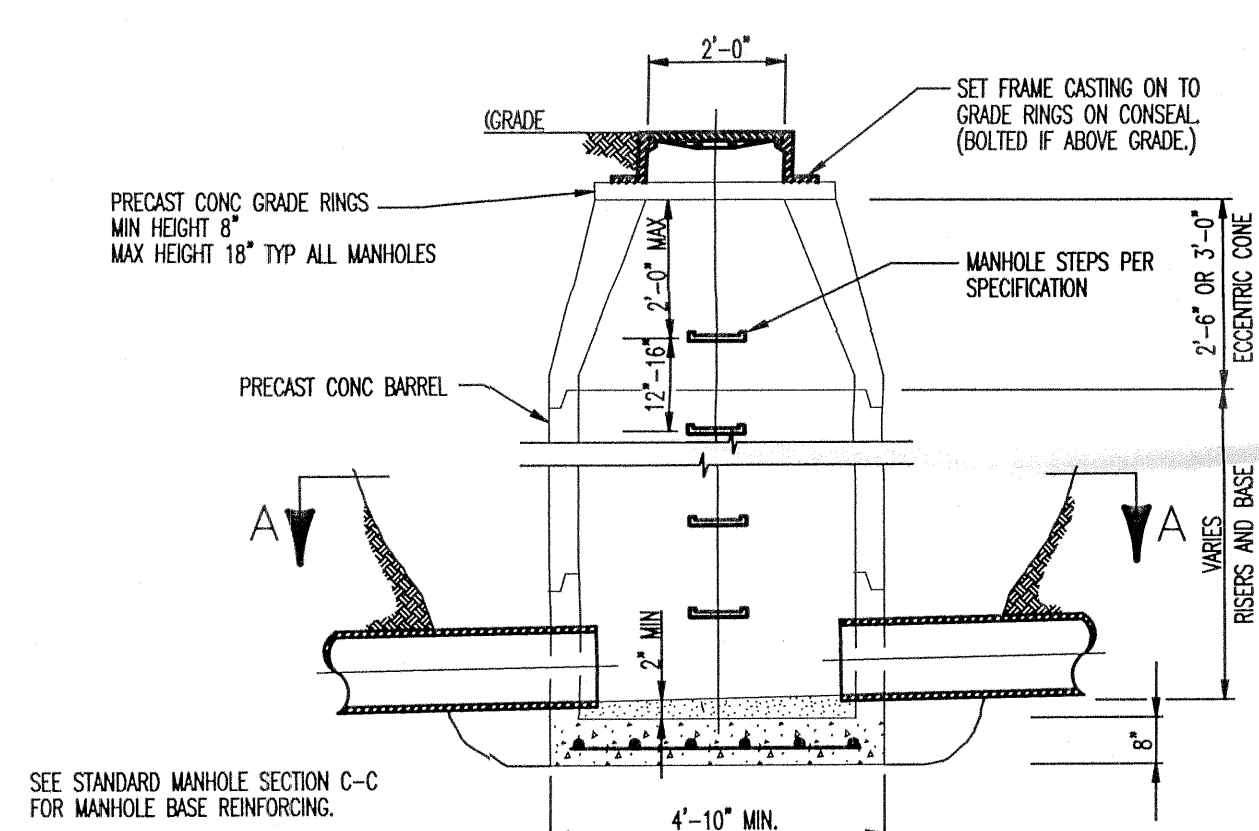
TYPICAL TRENCH DETAIL
SEWER INSTALLATION



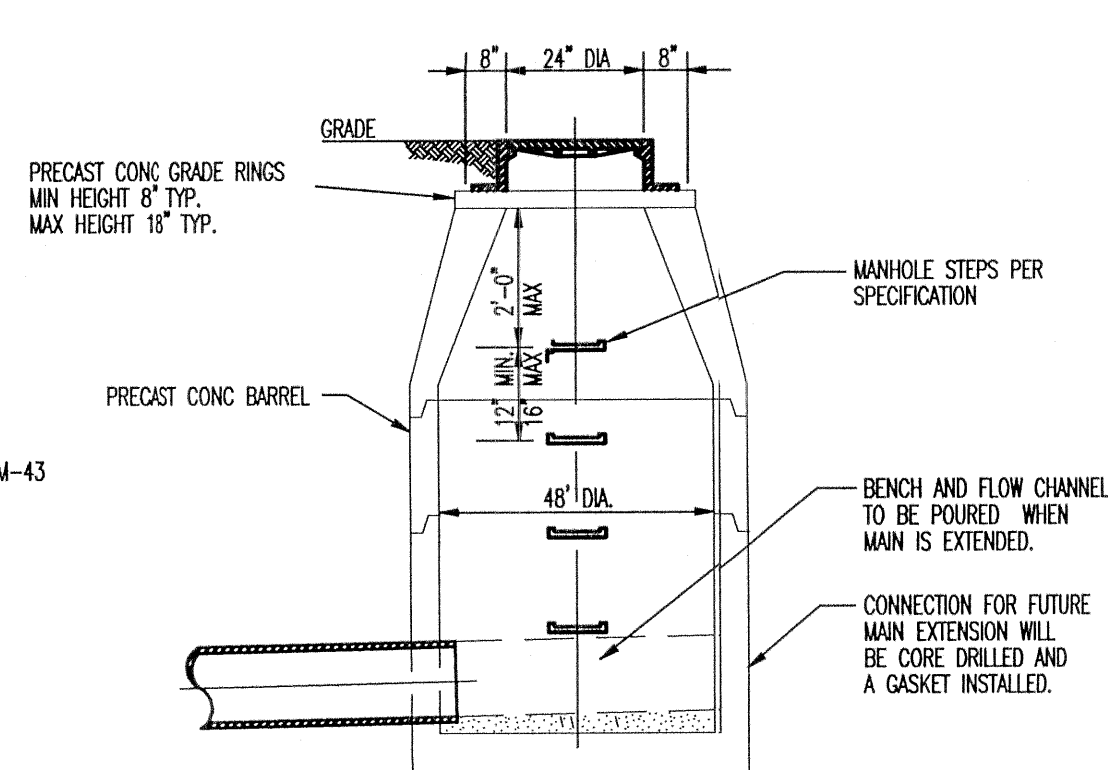
PAVEMENT REPLACEMENT DETAILS
MIS



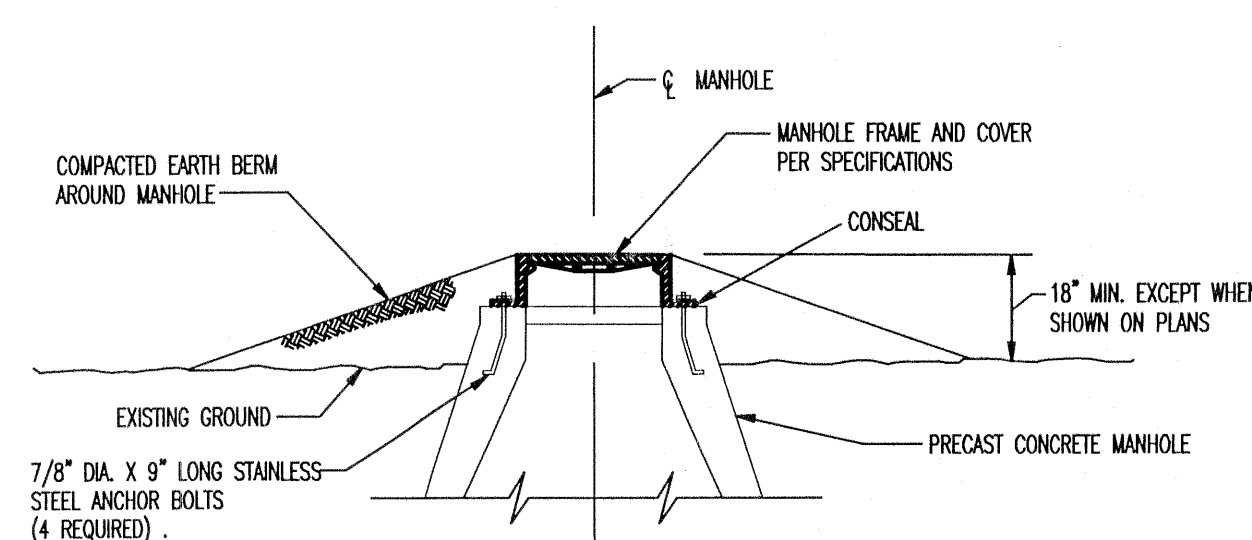
WALK REPLACEMENT DETAIL
MIS



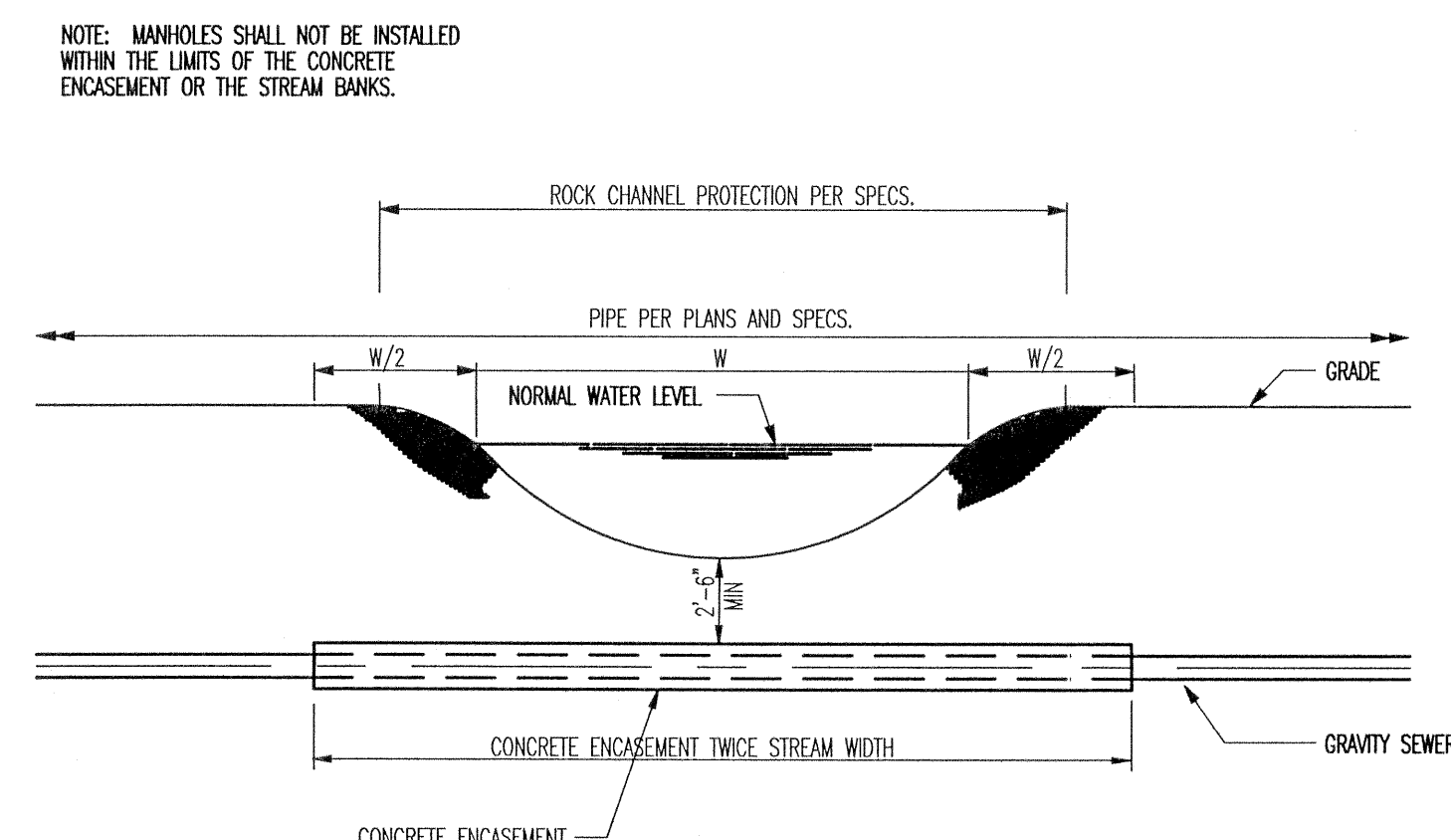
STANDARD MANHOLE
SECTION B - B



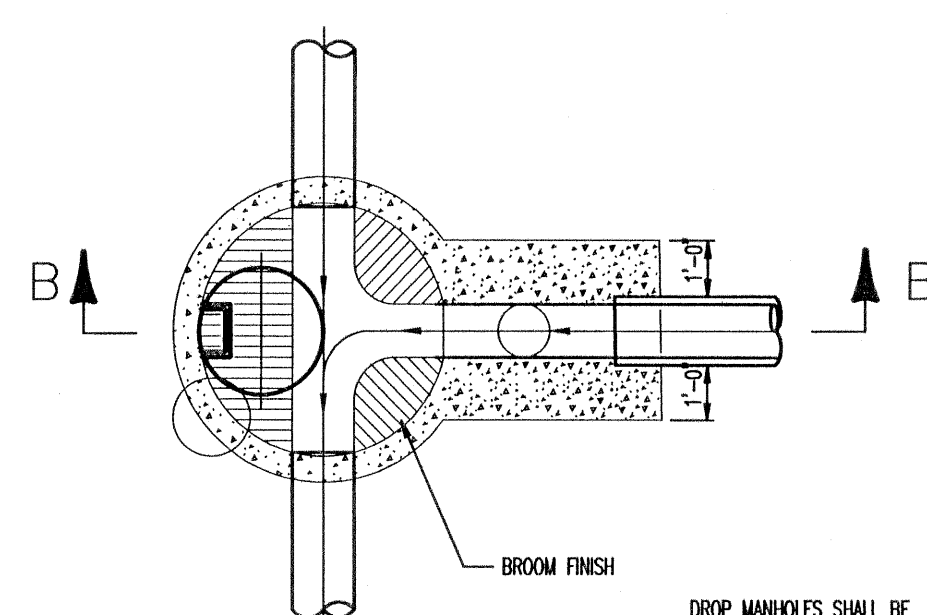
DEAD END MANHOLE DETAIL



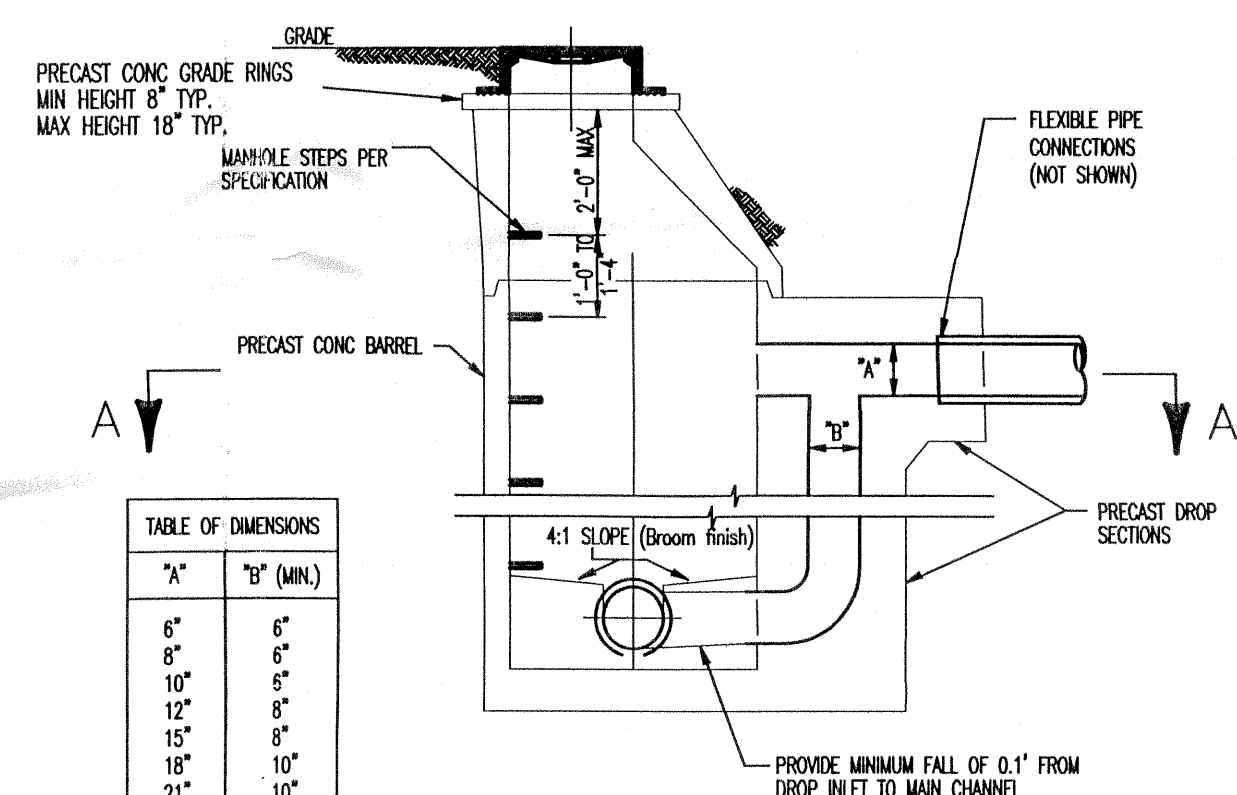
ELEVATED MANHOLE DETAIL
(OFF HIGHWAY EASEMENT AREAS)



TYPICAL CREEK CROSSING
FOR GRAVITY SEWERS
MIS

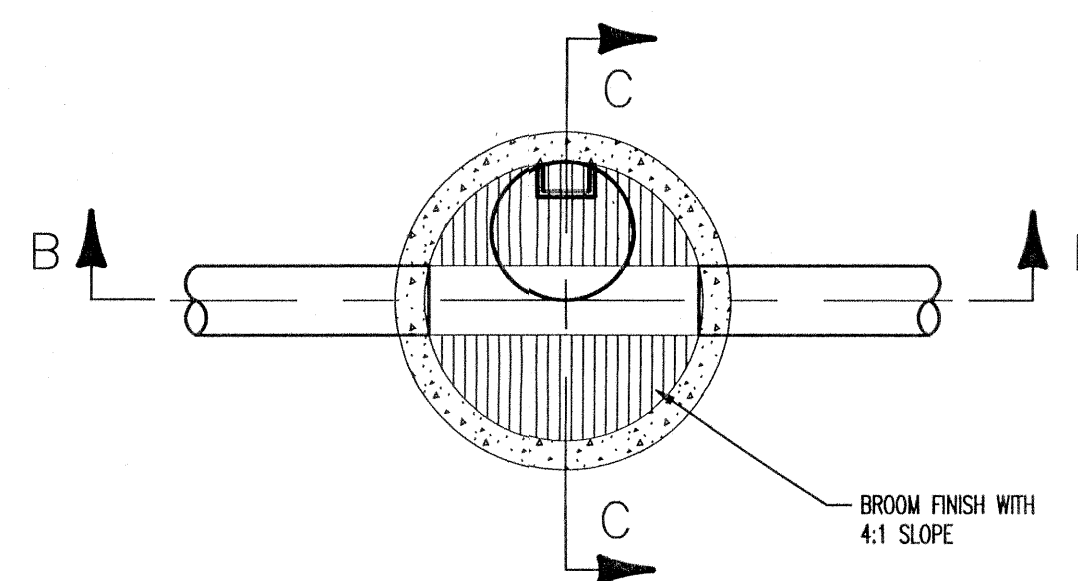


OUTSIDE DROP MANHOLE
SECTION A - A

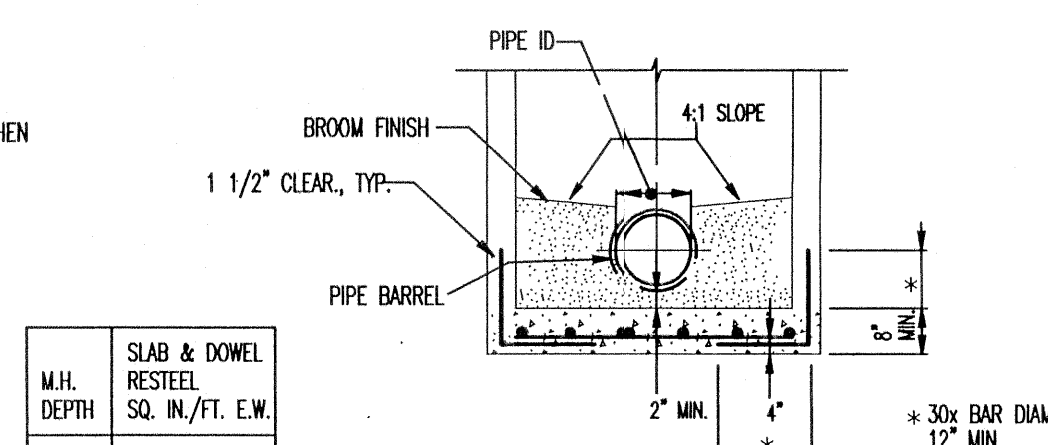


OUTSIDE DROP MANHOLE
SECTION B - B

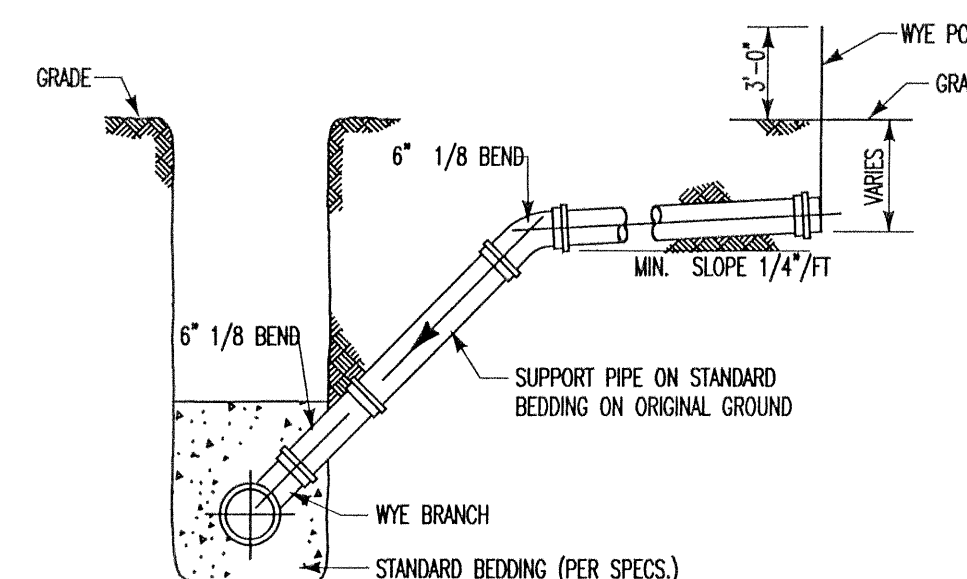
TABLE OF DIMENSIONS	
"A"	"B" (MIN.)
6"	6"
8"	6"
10"	6"
12"	8"
15"	8"
18"	10"
21"	10"
24"	12"
27"	15"
30"	18"



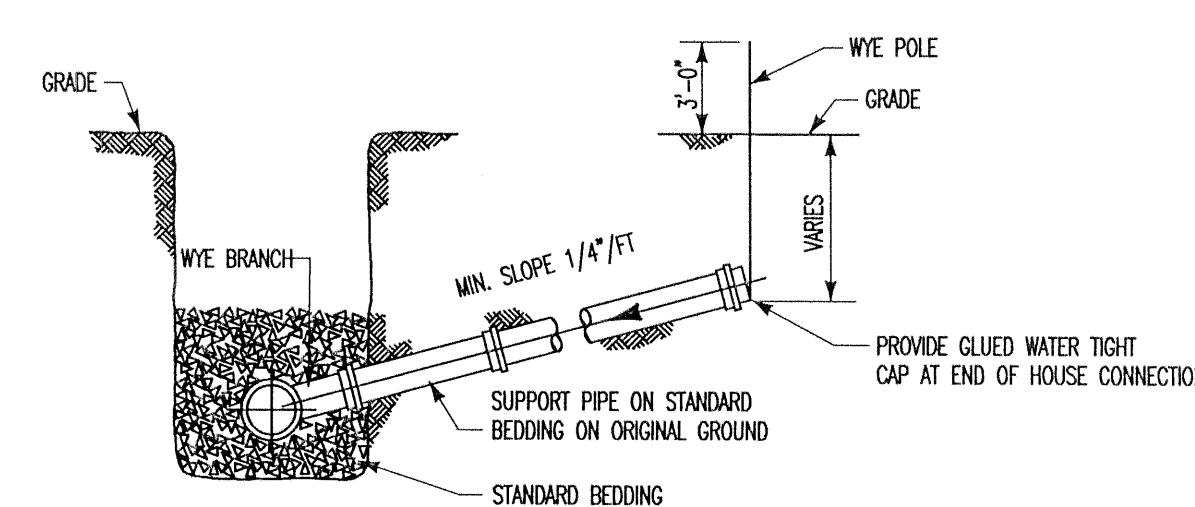
STANDARD MANHOLE
SECTION A - A



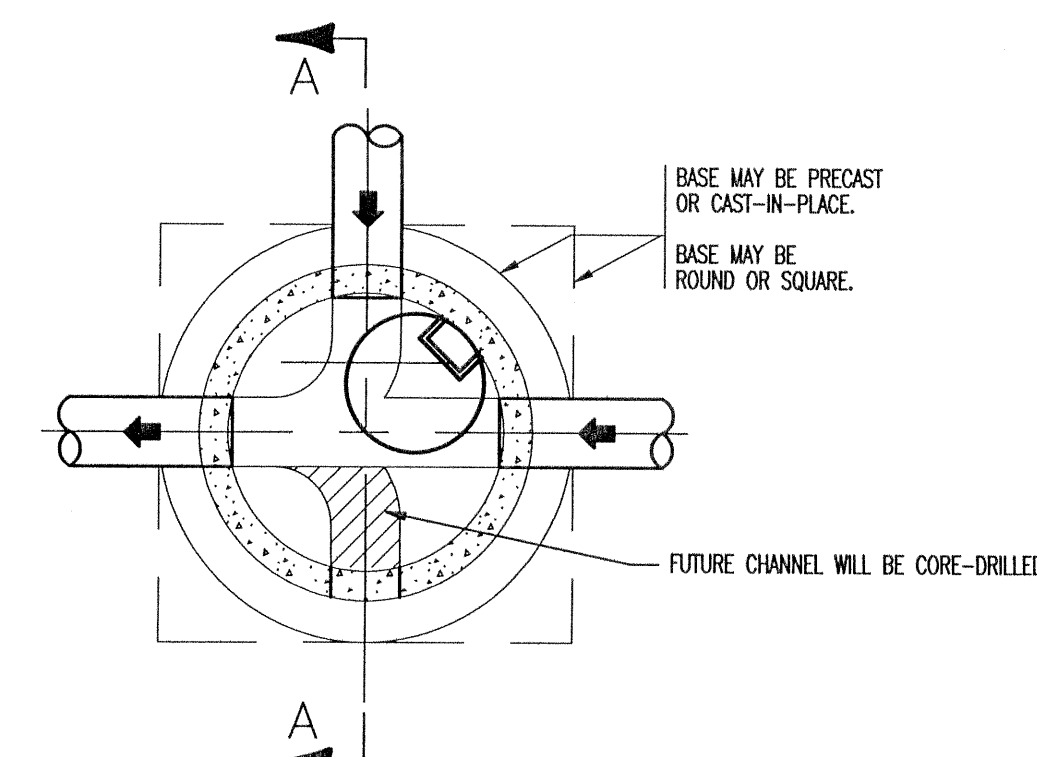
STANDARD MANHOLE
SECTION C - C



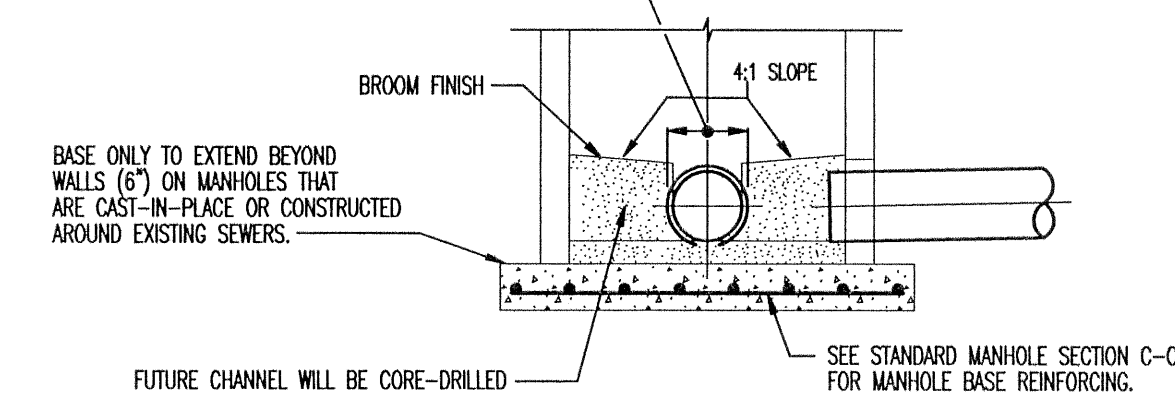
HOUSE CONNECTION FOR DEEP SEWER



HOUSE CONNECTION FOR SHALLOW SEWER

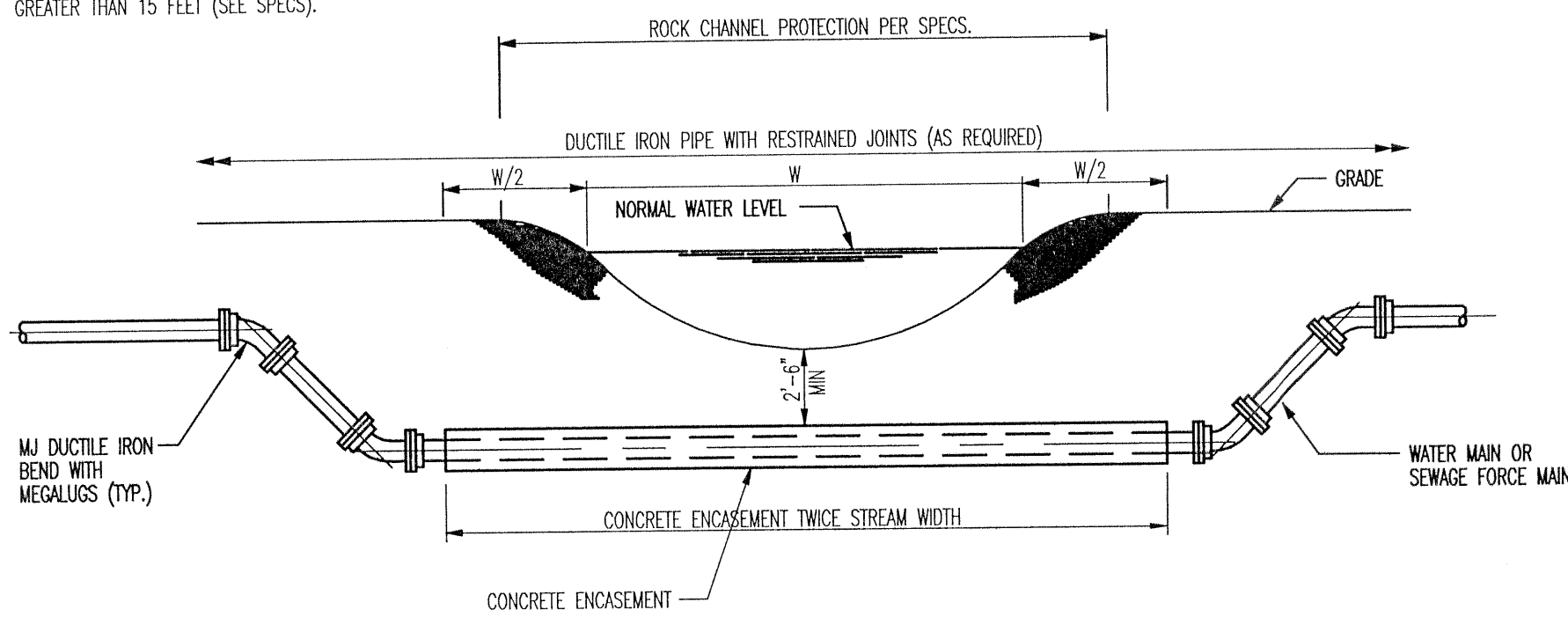


STANDARD CAST-IN-PLACE MANHOLE - PLAN
(FRAME, LID, & CONE REMOVED)

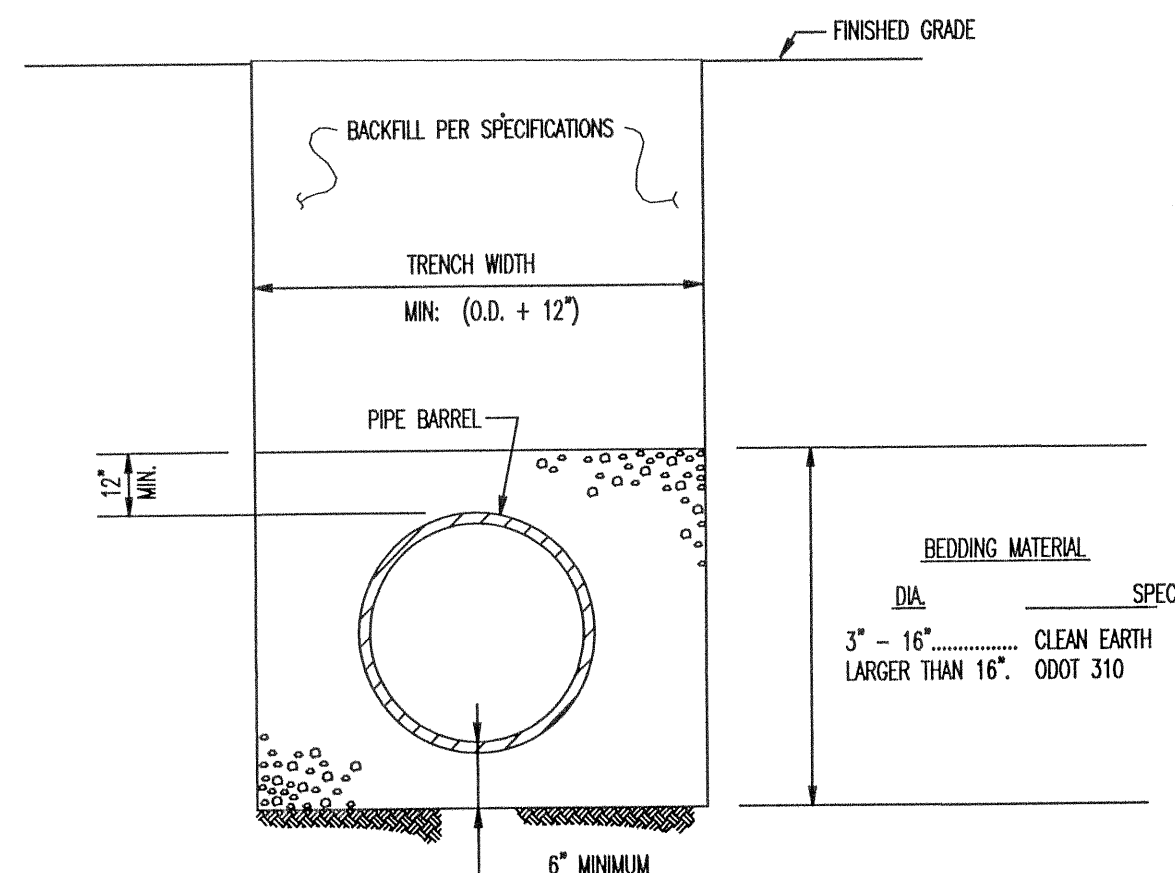


CAST-IN-PLACE MANHOLE
SECTION A - A

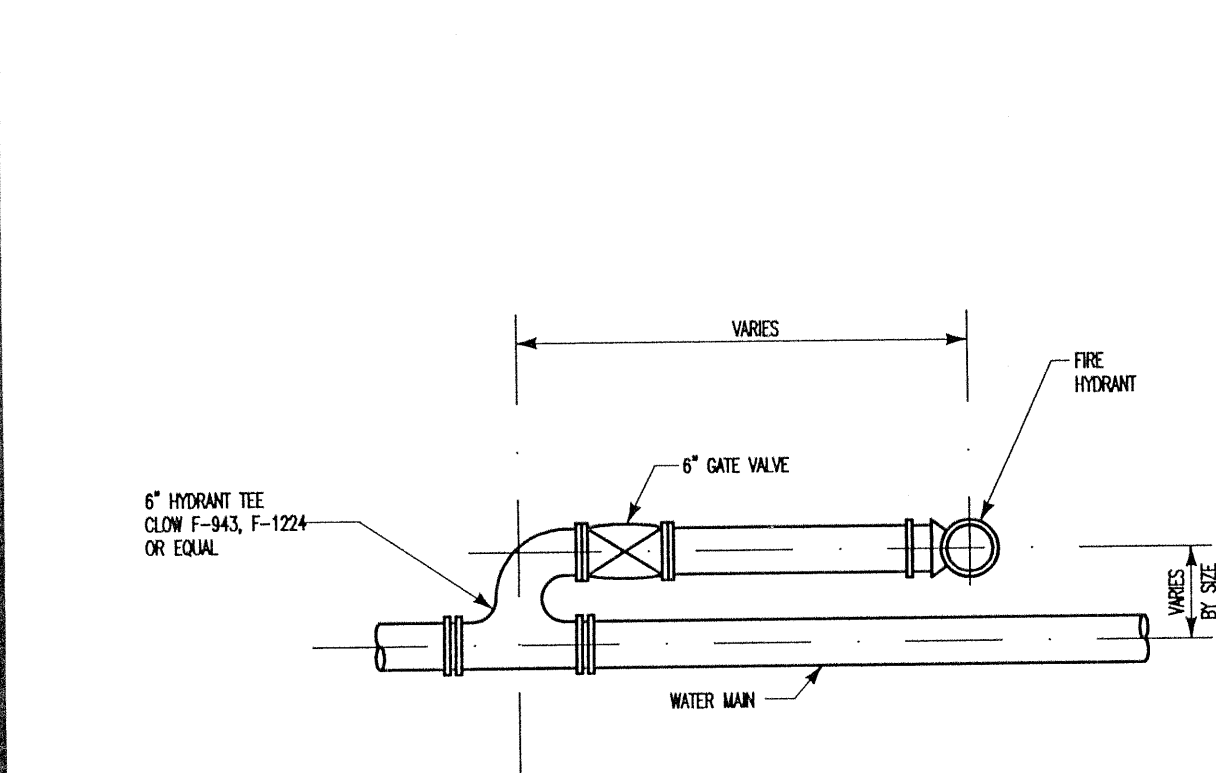
NOTE: FOR WATER MAINS ONLY, MODIFICATIONS FROM THIS DETAIL MAY BE NECESSARY IF W IS GREATER THAN 15 FEET (SEE SPECS).



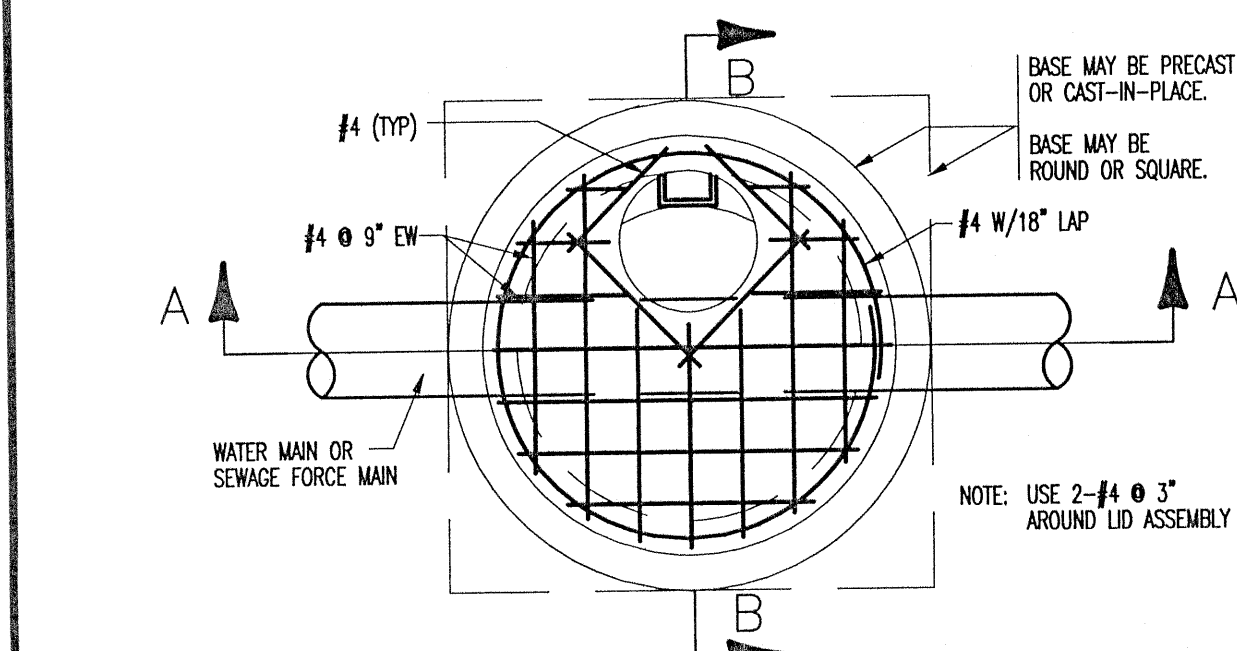
TYPICAL CREEK CROSSING
FOR WATER MAINS & SEWAGE FORCE MAINS
NTS



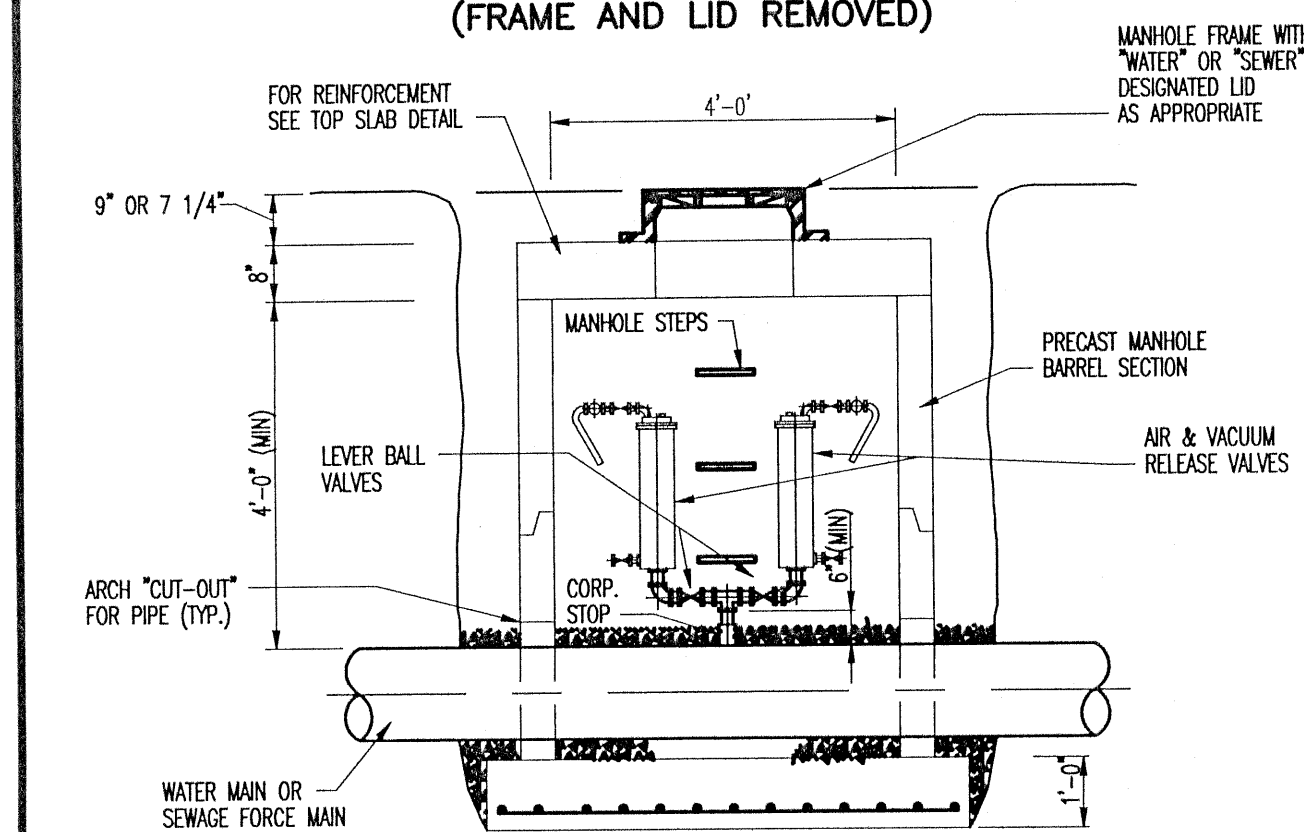
TYPICAL TRENCH DETAIL
WATER MAIN INSTALLATION
NTS



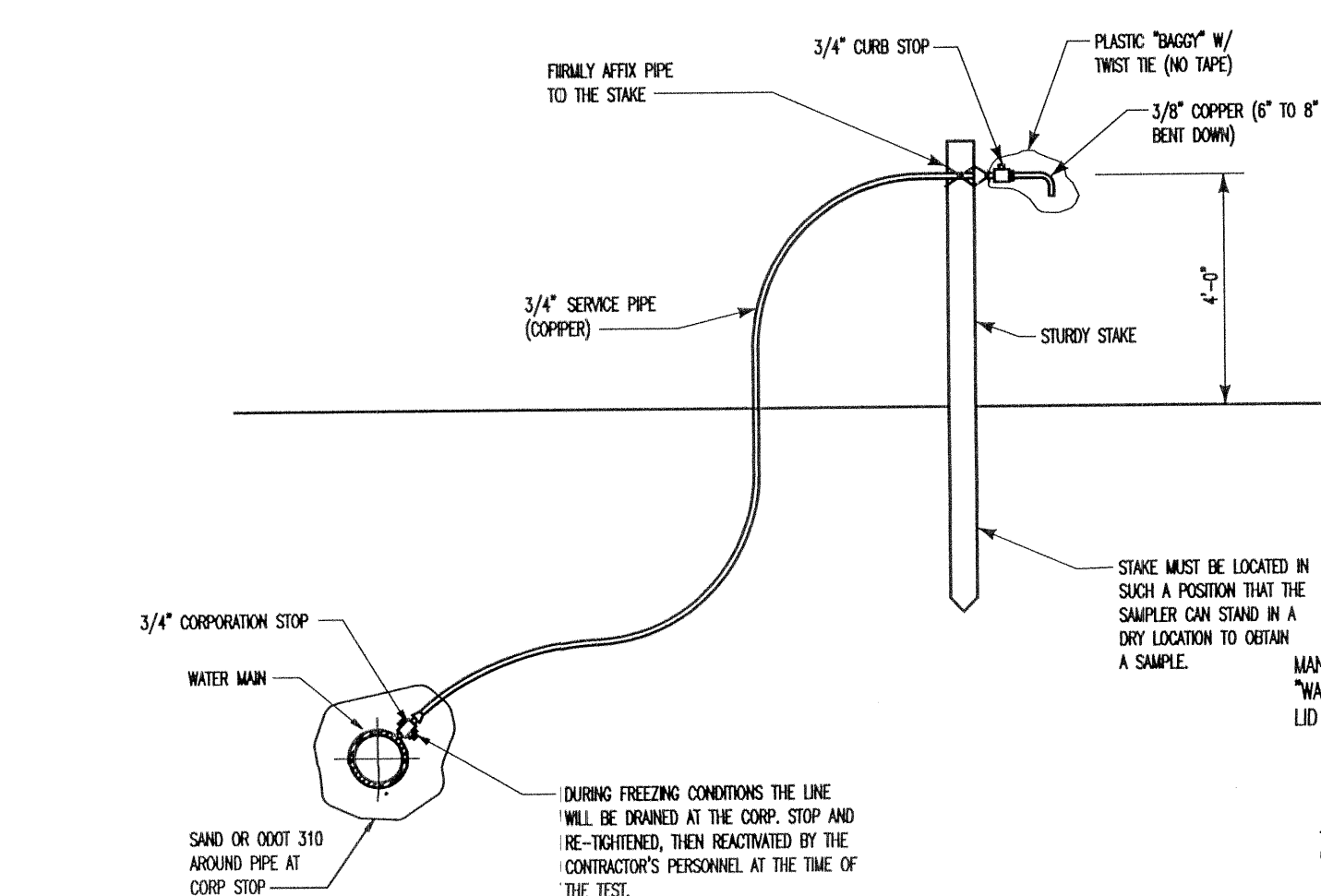
SETTING FOR HYDRANT ADJACENT TO MAIN
NTS



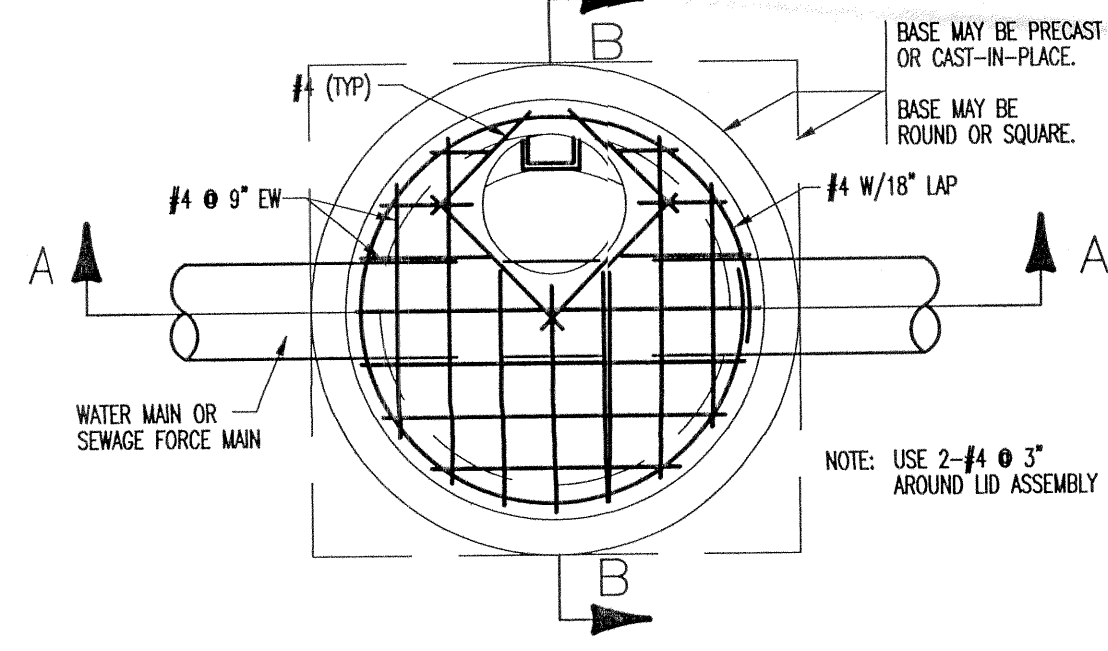
TOP SLAB DETAIL
(FRAME AND LID REMOVED)



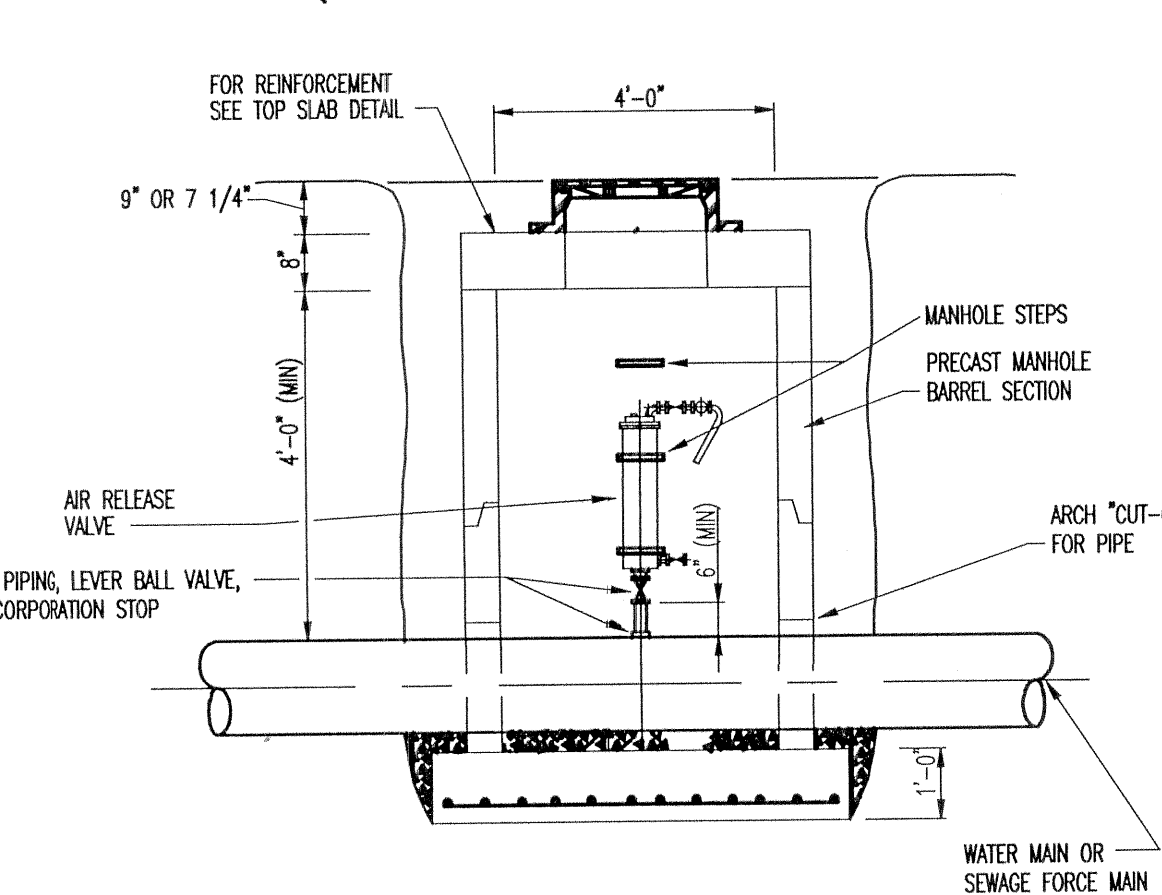
AIR & VACUUM RELEASE VALVE SETTING
SECTION A - A



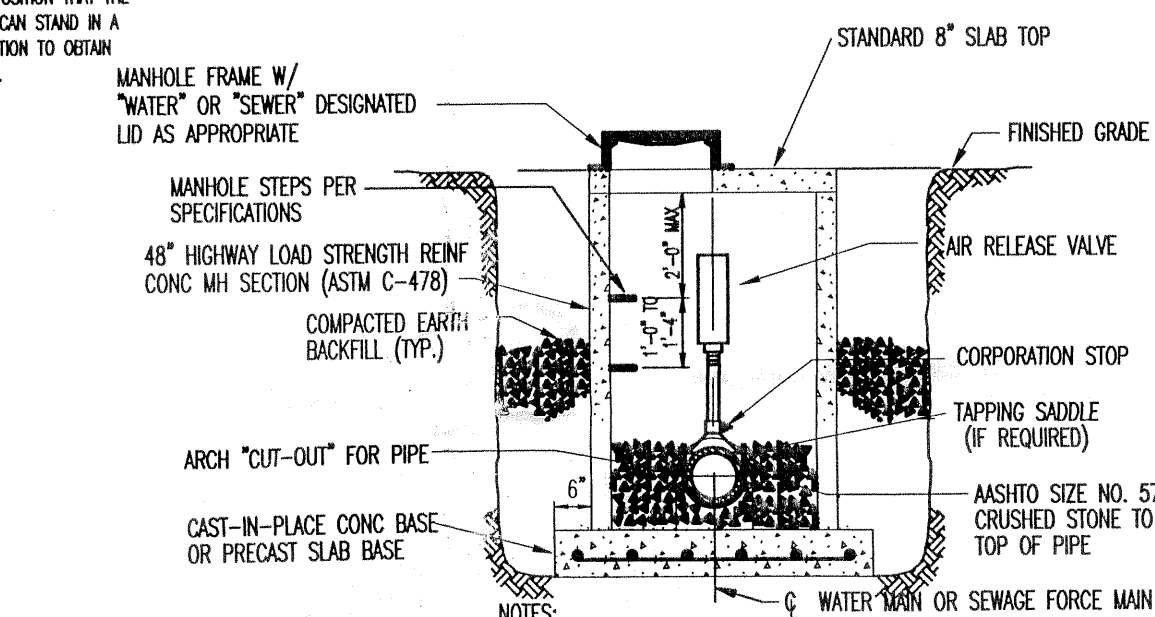
PURITY TEST STATION
NTS



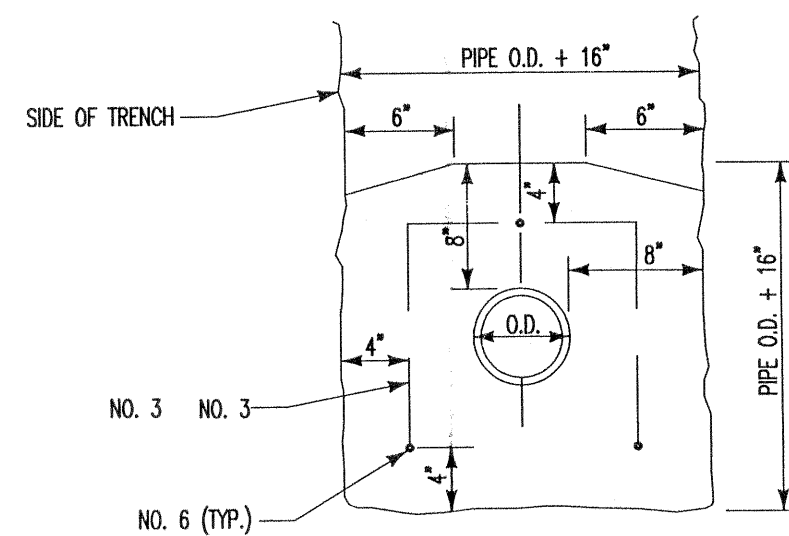
TOP SLAB DETAIL
(FRAME AND LID REMOVED)



AIR RELEASE VALVE SETTING
SECTION A - A

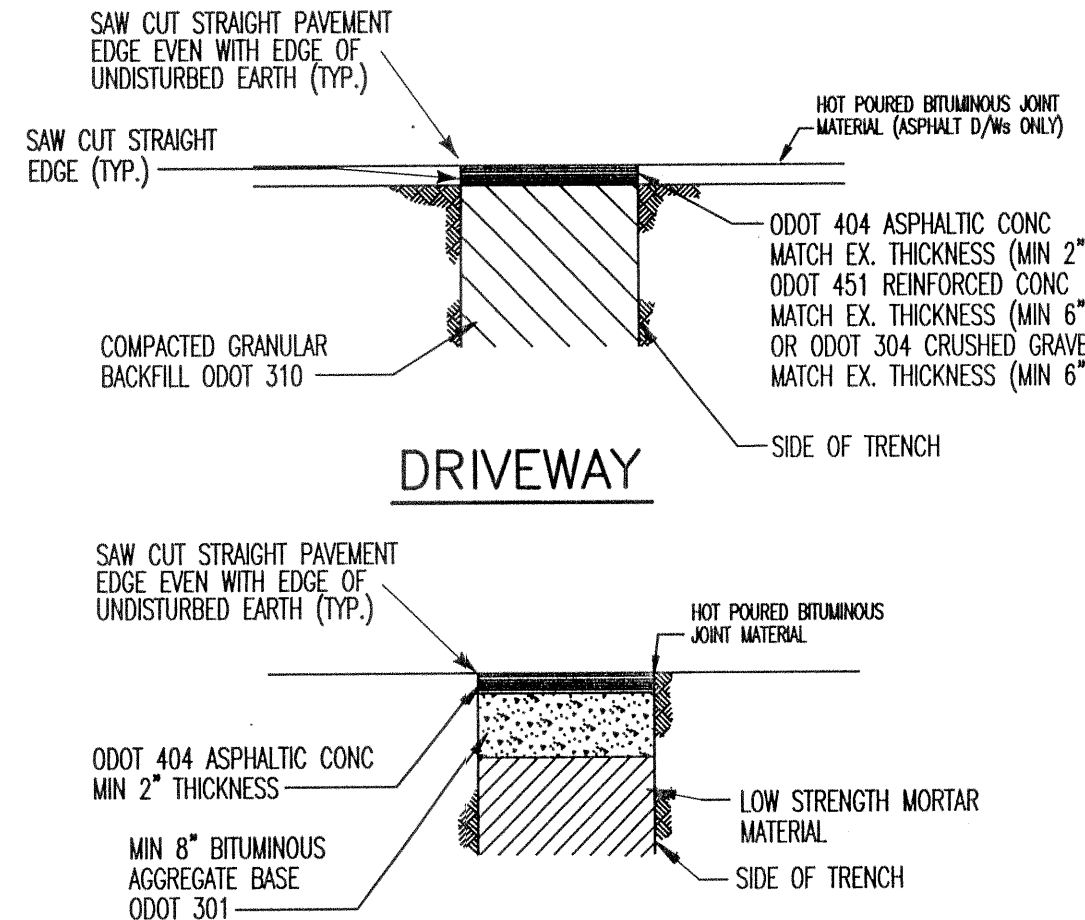


TYPICAL AIR OR AIR & VACUUM
RELEASE VALVE SETTING
SECTION B - B
NTS

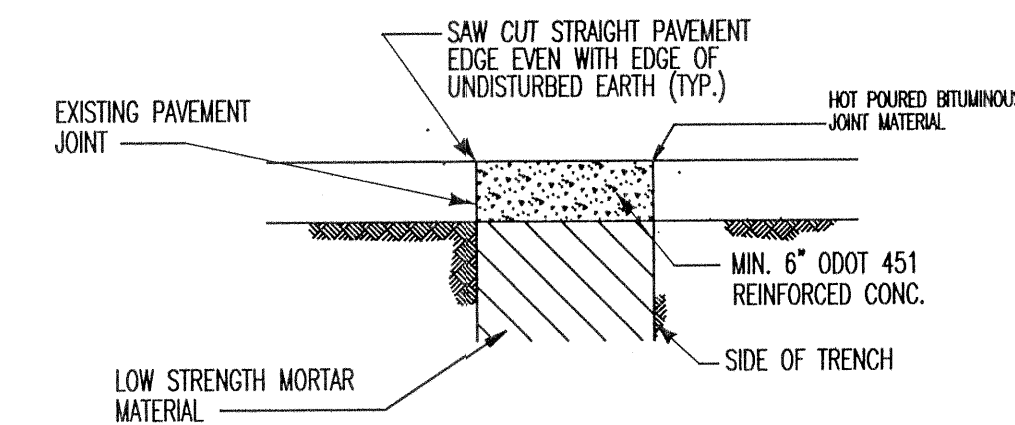


CONCRETE ENCASEMENT
NTS

PIPE SIZE	C.Y. CONC. PER LIN. FT.	LENGTH OF NO. 3 BARS	SPACING (FT) BETWEEN NO. 3 BARS
6"	0.121	3'-9"	1.84
8"	0.139	4'-3"	1.25
10"	0.157	4'-9"	1.12
12"	0.177	5'-3"	1.02
16"	0.200	6'-3"	0.85
18"	0.247	6'-10"	0.78
20"	0.270	7'-5"	0.72
24"	0.315	8'-6"	0.63
30"	0.540	10'-0"	0.57

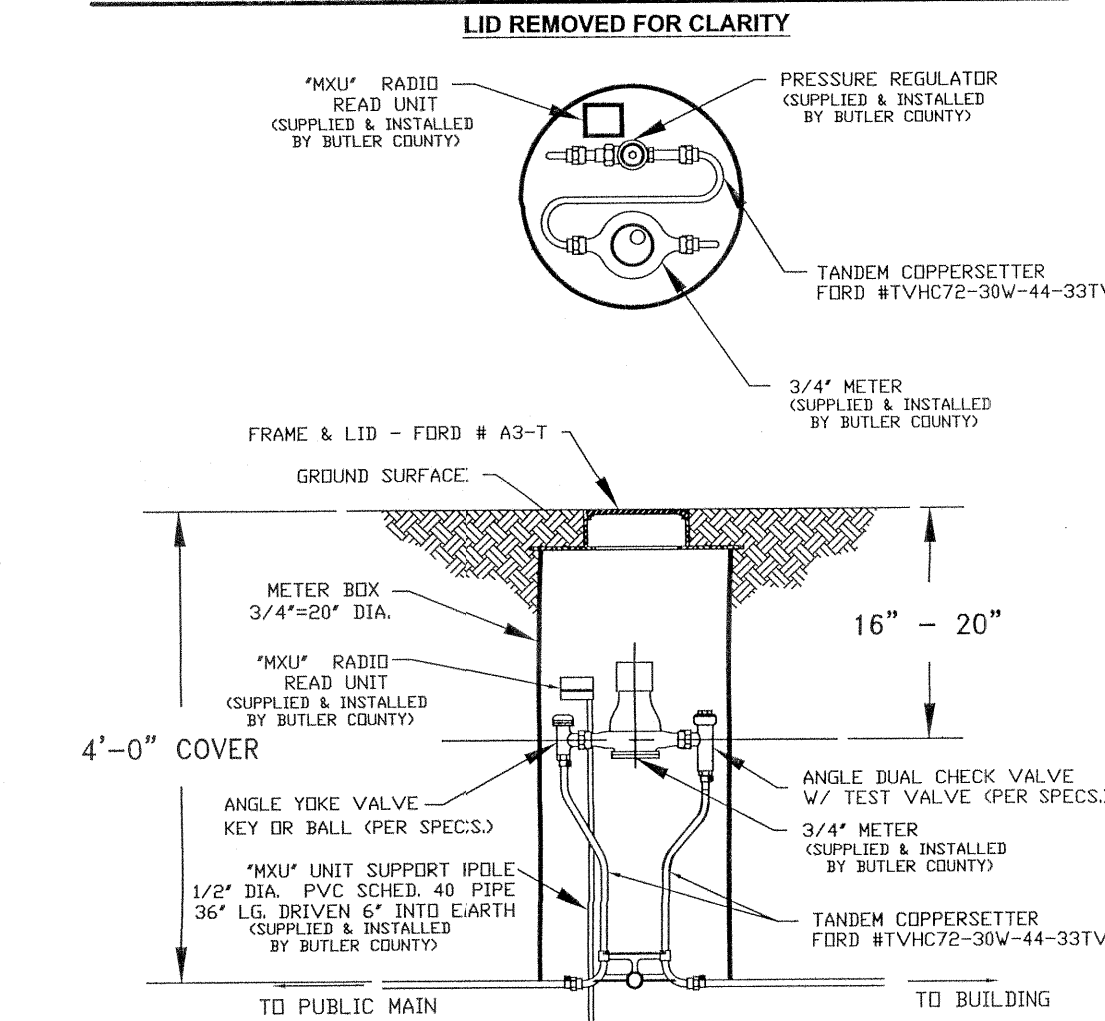


ASPHALTIC CONCRETE ROADWAY

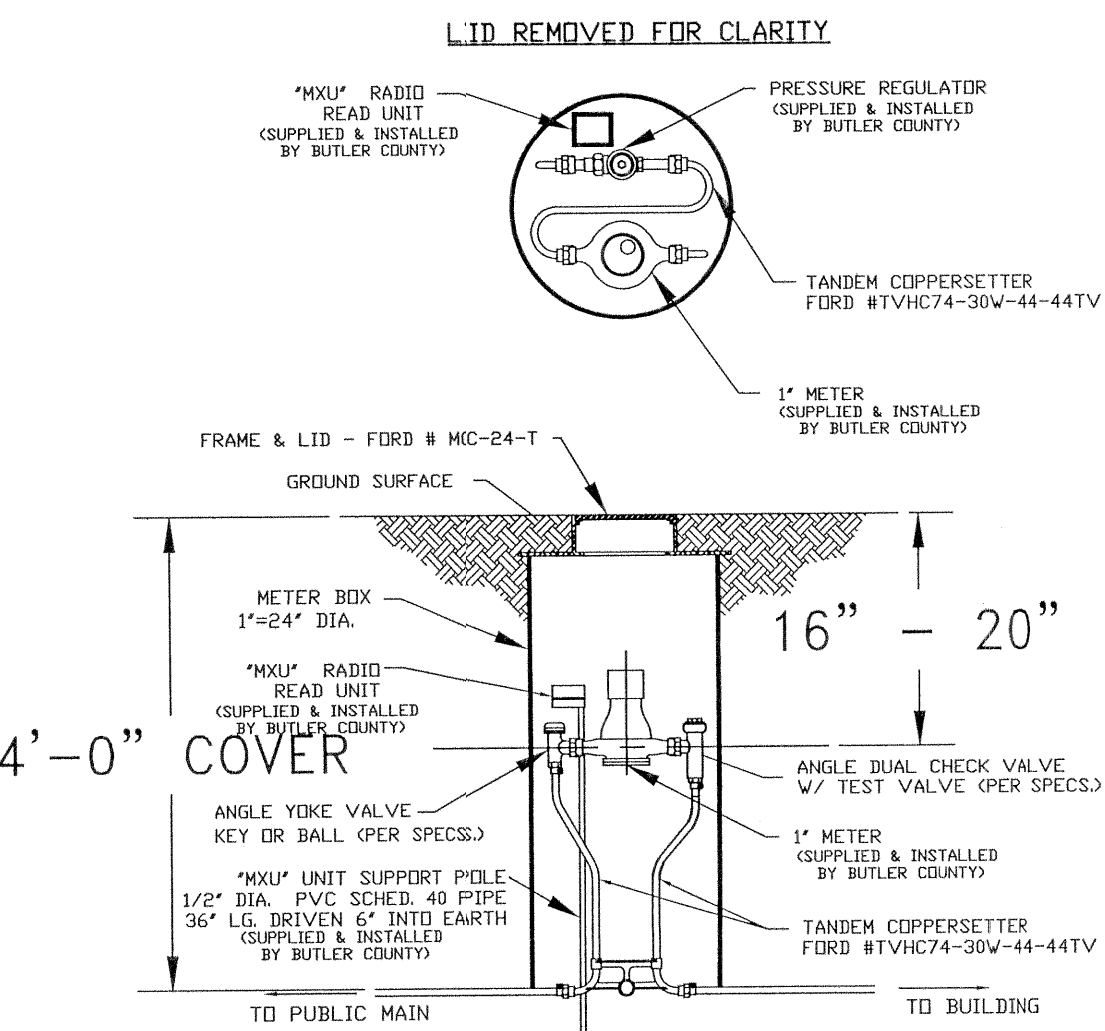


CONCRETE ROADWAY

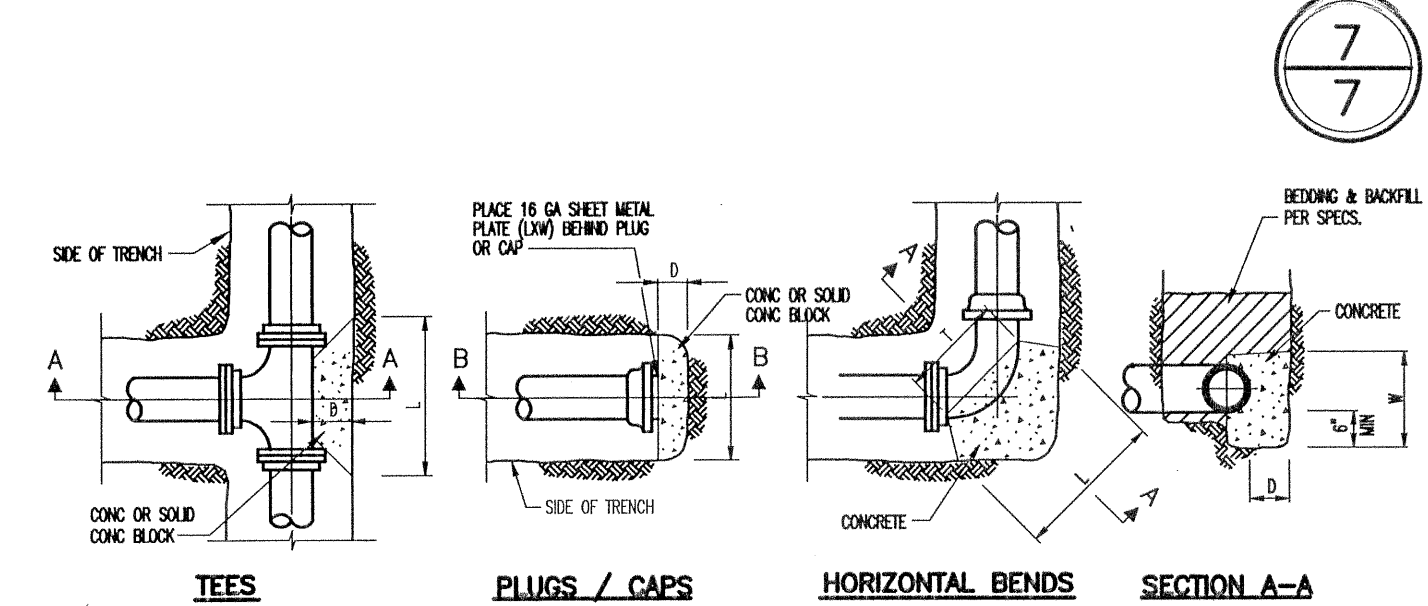
PAVEMENT REPLACEMENT DETAILS



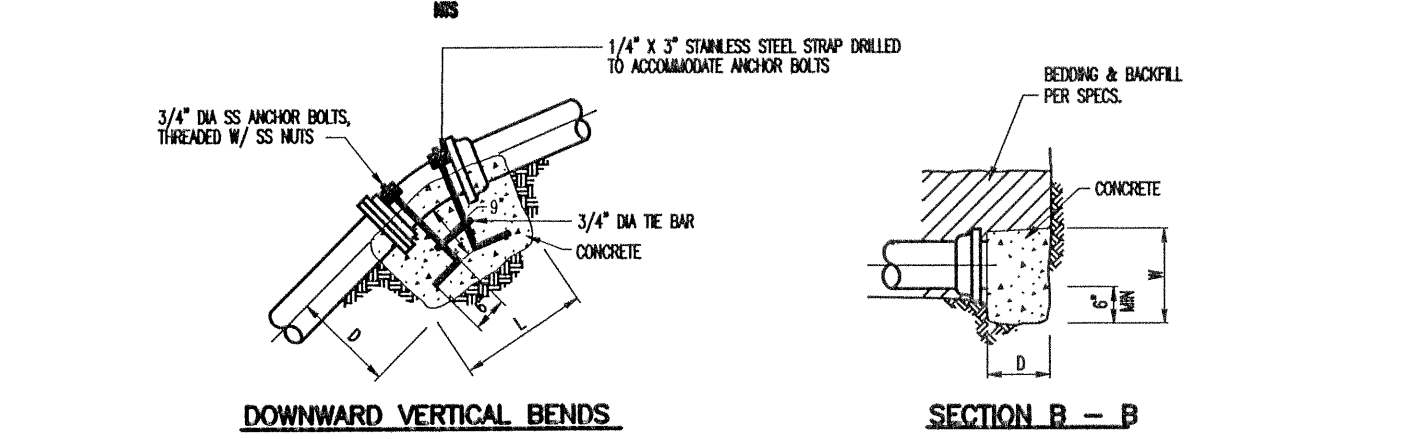
TANDEM COPPERSETTER INSTALLATION
FOR 3/4" METER & PRESSURE REGULATOR



TANDEM COPIPERSETTER INSTALLATION
FOR 1" METER & PRESSURE REGULATOR



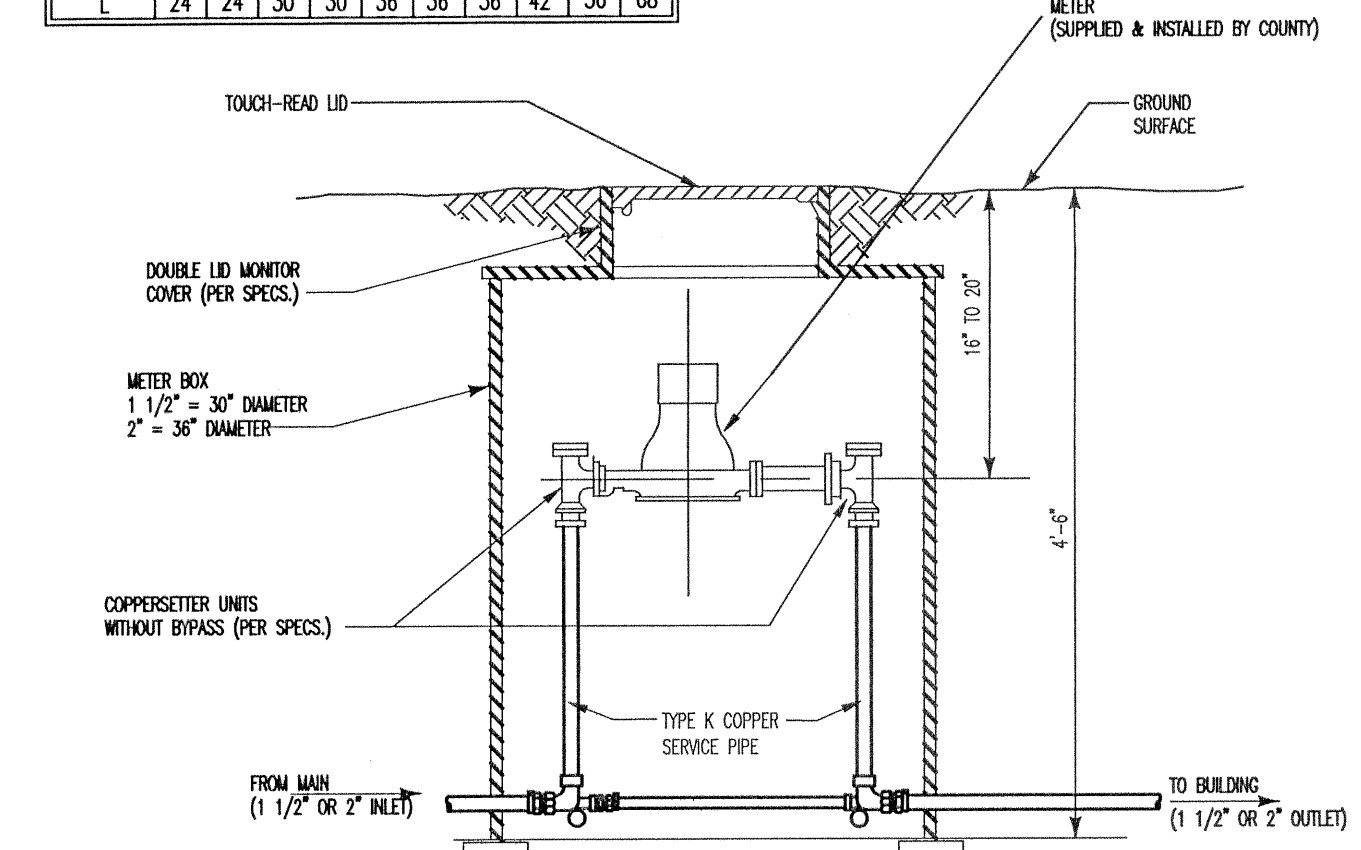
CONCRETE THRUST BLOCKS



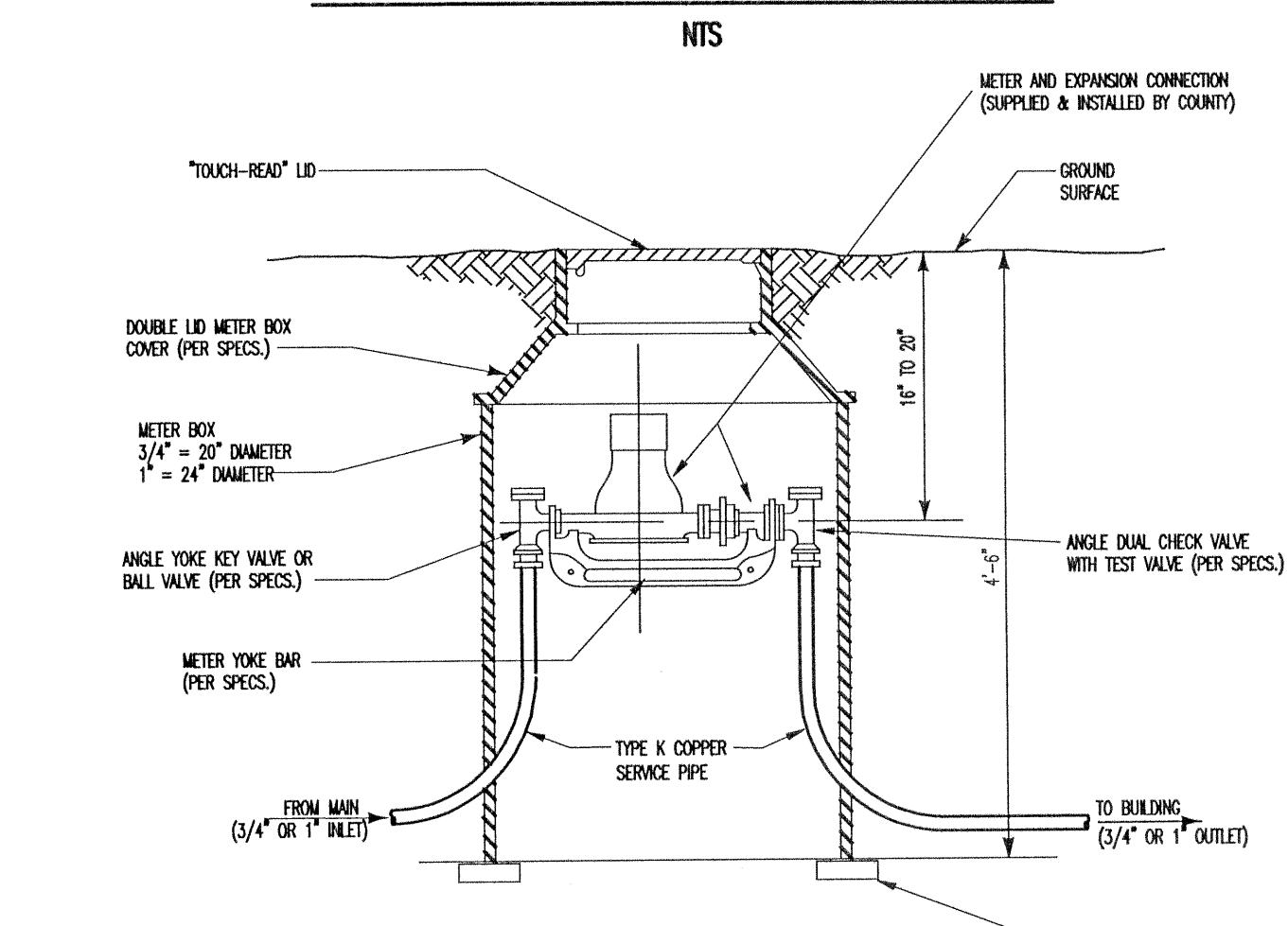
CONCRETE ANCHOR BLOCKS

PLUGS, CAPS & TEES															
SIZE	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"					
D	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"					
L & W	20"	22"	24"	24"	32"	36"	40"	54"	76"	102"					
45° EIGHTH BENDS															
SIZE	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"					
D	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"					
L	18"	20"	22"	24"	34"	40"	45"	58"	72"	98"					
T	16"	16"	18"	18"	28"	33"	37"	45"	52"	58"					
W	12"	14"	16"	18"	22"	25"	28"	36"	48"	76"					
90° QUARTER BENDS															
SIZE	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"					
D	8"	10"	12"	12"	16"	18"	20"	24"	30"	36"					
L	24"	27"	30"	34"	48"	51"	54"	78"	92"	144"					
T	16"	18"	20"	22"	36"	40"	44"	50"	56"	62"					
W	12"	16"	20"	24"	28"	34"	40"	50"	66"	96"					

VERTICAL BEND & STRAIGHT PIPE															
SIZE	6"	8"	10"	12"	16"	18"	20"	24"	30"	36"					
D	15"	15"	18"	18"	21"	21"	24"	24"	32"	36"					
L	24"	24"	30"	30"	36"	36"	36"	42"	56"	68"					



STANDARD INSTALLATION FOR 1 1/2"
AND 2" WATER METER SETTINGS
NTS



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