

APPENDIX: A
DATE: MAY 2005



ENGINEERING/ARCHITECTURE/SURVEYING, P.C.
2480 BROWNCROFT BLVD. ROCHESTER, N.Y. 14625

VILLAGE OF AVON

LETTER OF CREDIT
SUMMARY SHEET

Based on Engineer's Estimate dated _____

Attached Hereto for the _____
Development

Earthwork	\$ _____	
Contingency (10%)	\$ _____	
TOTAL EARTHWORK		\$ _____
Sanitary Sewers	\$ _____	
Contingency (10%)	\$ _____	
TOTAL SANITARY SEWERS		\$ _____
Storm Sewers	\$ _____	
Contingency (10%)	\$ _____	
TOTAL STORM SEWERS		\$ _____
Water Mains	\$ _____	
Contingency (10%)	\$ _____	
TOTAL WATER MAINS		\$ _____
Roadways	\$ _____	
Contingency (10%)	\$ _____	
TOTAL ROADWAYS		\$ _____
Sub Total Construction Cost		\$ _____
Inspection (3% MIN.)		\$ _____
Road Signs & Clean Up		\$ _____
Design Engineering & Surveying Fees		\$ _____
TOTAL LETTER OF CREDIT		\$ _____

APPENDIX: B
DATE: MAY 2005

MRB | *group*

ENGINEERING/ARCHITECTURE/SURVEYING, P.C.
2480 BROWNCROFT BLVD. ROCHESTER, N.Y. 14625

VILLAGE OF AVON

LETTER OF CREDIT RELEASE

PROJECT NAME _____

ESTIMATE NO. _____

DATE _____

PROJECT NO. _____

Total Construction To Date \$ _____

Less Retainage \$ _____

A. Construction Value To Be Released \$ _____

B. Engineering Costs \$ _____

C. Construction Observation Costs \$ _____

D. Other Costs \$ _____

Amount Previously Released Through Estimate No. _____ \$ _____

Amount Authorized For Release \$ _____

LETTER OF CREDIT INFORMATION

1) Original Amount
\$ _____

2) Authorized For Release Per Estimate Nos.

_____ \$ _____

_____ \$ _____

_____ \$ _____

_____ \$ _____

_____ \$ _____

Subtotal \$ _____

* Balance Remaining In Letter Of Credit Through This Statement

\$ _____

* The balance amount shall be sufficient to insure satisfactory completion of the remainder of the development.

Project Engineer

Date

Owner

Date

Municipal Engineer or V. Representative

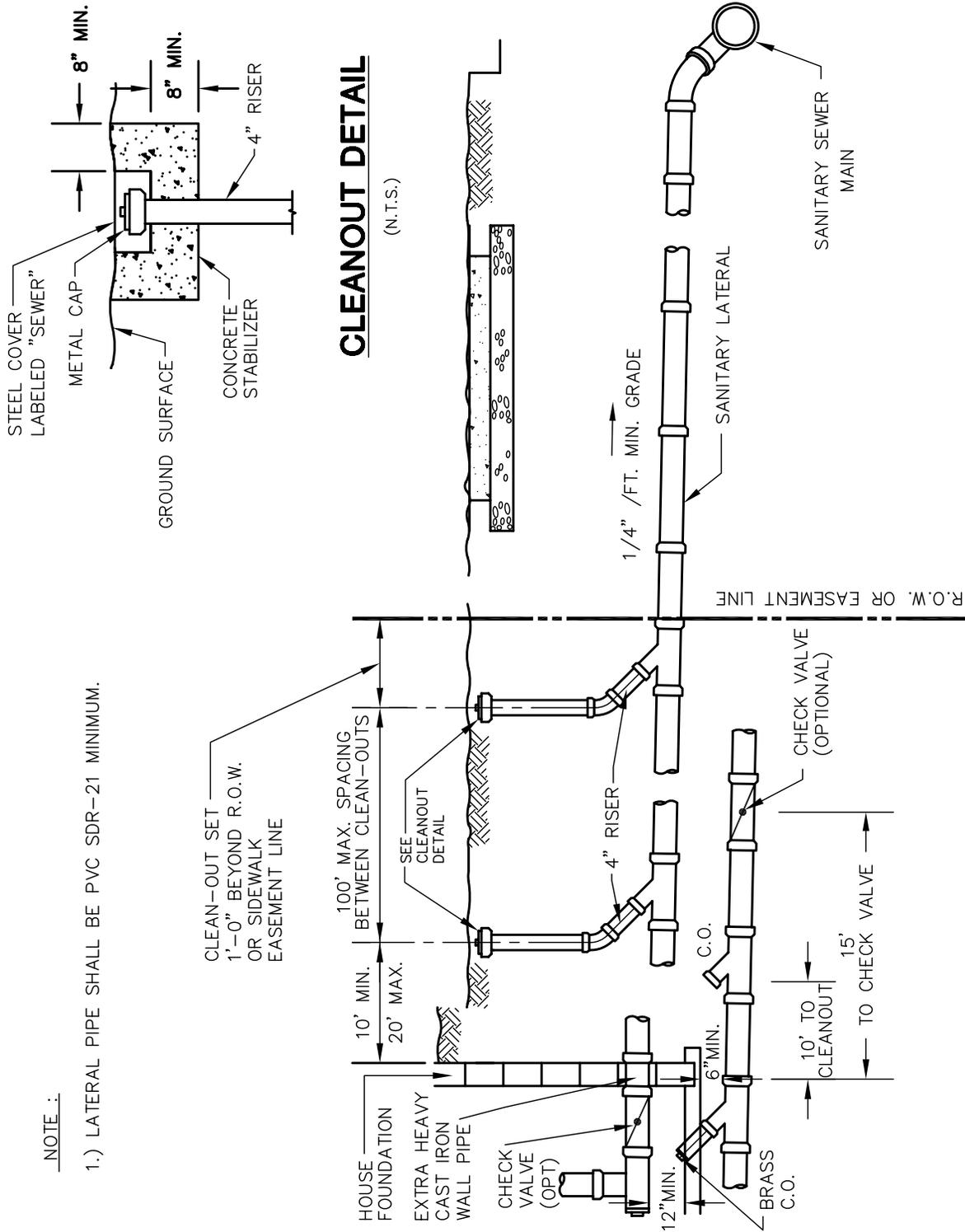
Date

Village Clerk

Date

LETTER OF CREDIT EXPIRES _____

VILLAGE OF AVON



NOTE . :

1.) LATERAL PIPE SHALL BE PVC SDR-21 MINIMUM.

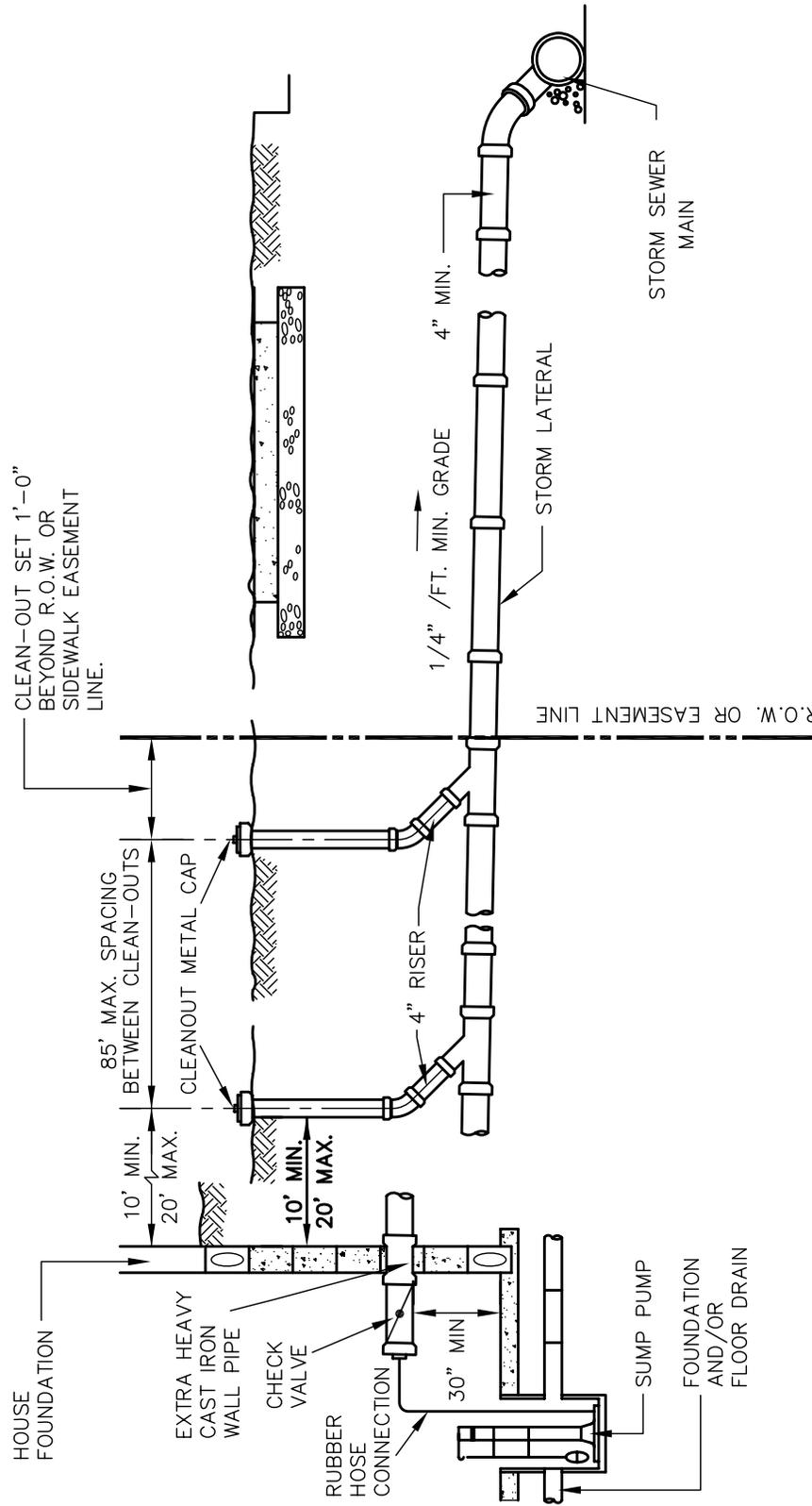
TYPICAL SANITARY CONNECTION & CLEANOUT DETAIL

(N.T.S.)

VILLAGE OF AVON

NOTE:

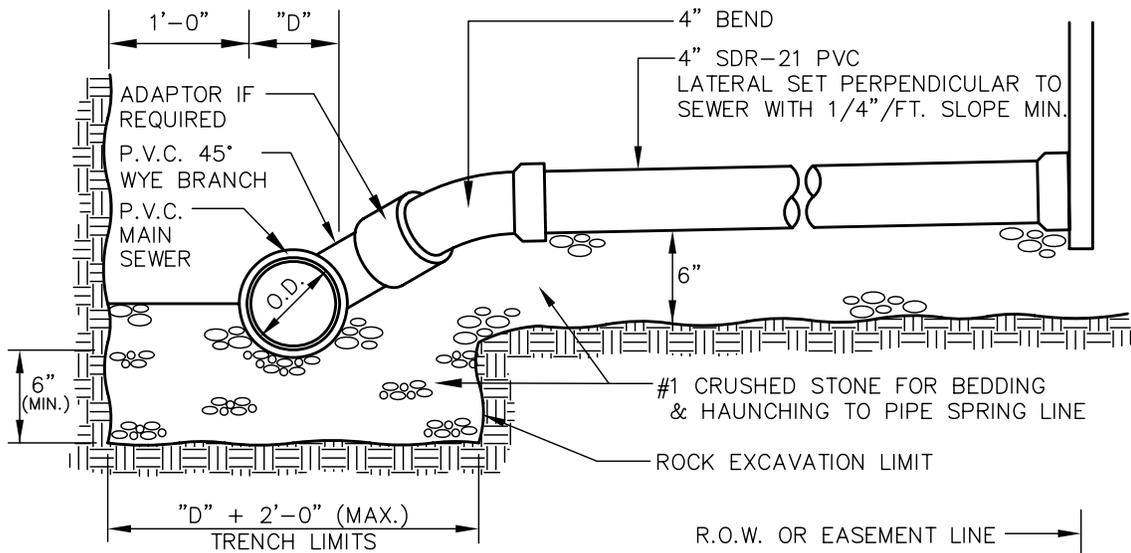
- 1.) MIN. 4" STORM SEWER LATERAL MATERIAL SHALL BE PVC SDR-21



TYPICAL STORM SEWER LATERAL

(N.T.S.)

VILLAGE OF AVON



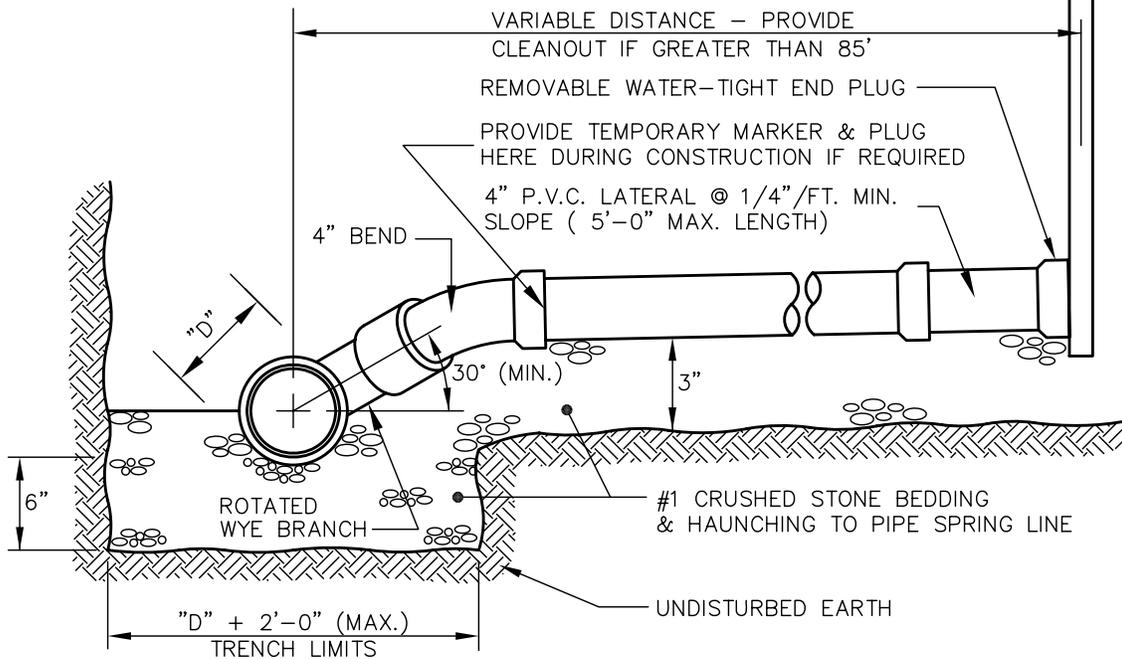
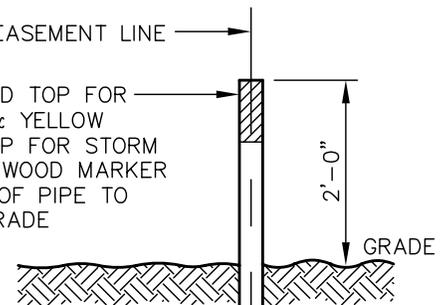
ROCK EXCAVATION

NOTE :

STORM SEWER LATERAL SHALL BE SIMILAR TO SANITARY SEWER DETAILS SHOWN HEREON EXCEPT THAT PIPE SHALL BE 4" AND SADDLE SLANTS MUST BE USED FOR ANY CONNECTION MADE TO SEWERS WHERE A WYE BRANCH IS NOT AVAILABLE.

R.O.W. OR EASEMENT LINE

RED PAINTED TOP FOR SANITARY & YELLOW PAINTED TOP FOR STORM
2"x4" HARDWOOD MARKER FROM END OF PIPE TO FINISHED GRADE

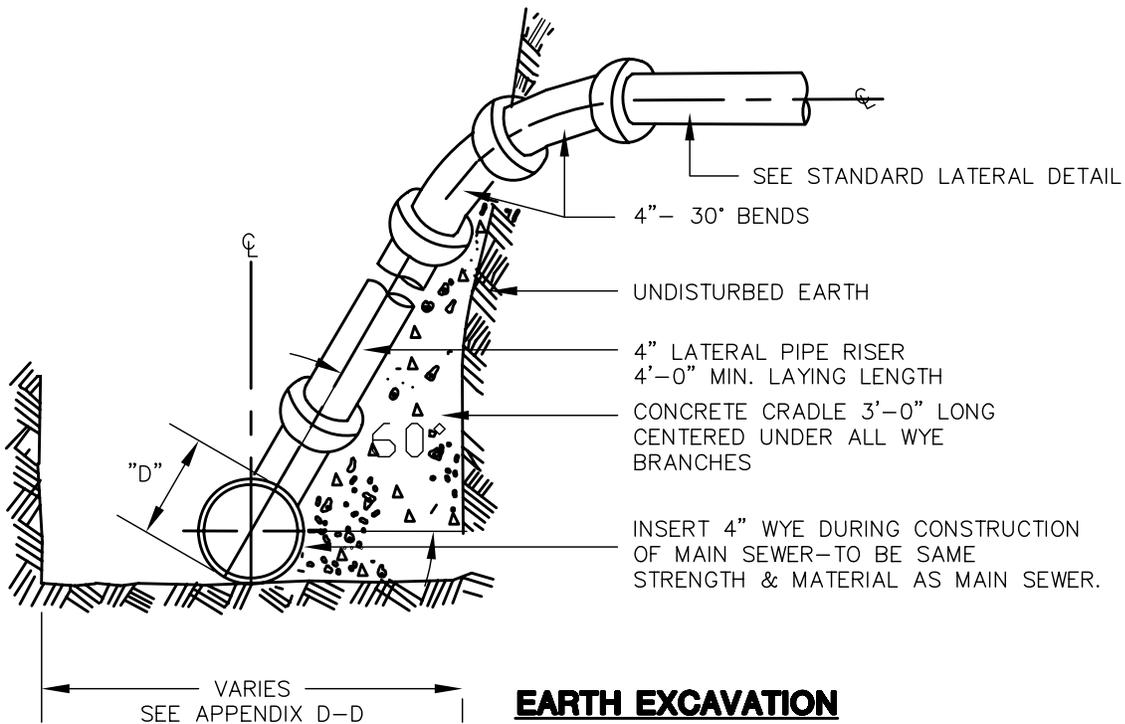
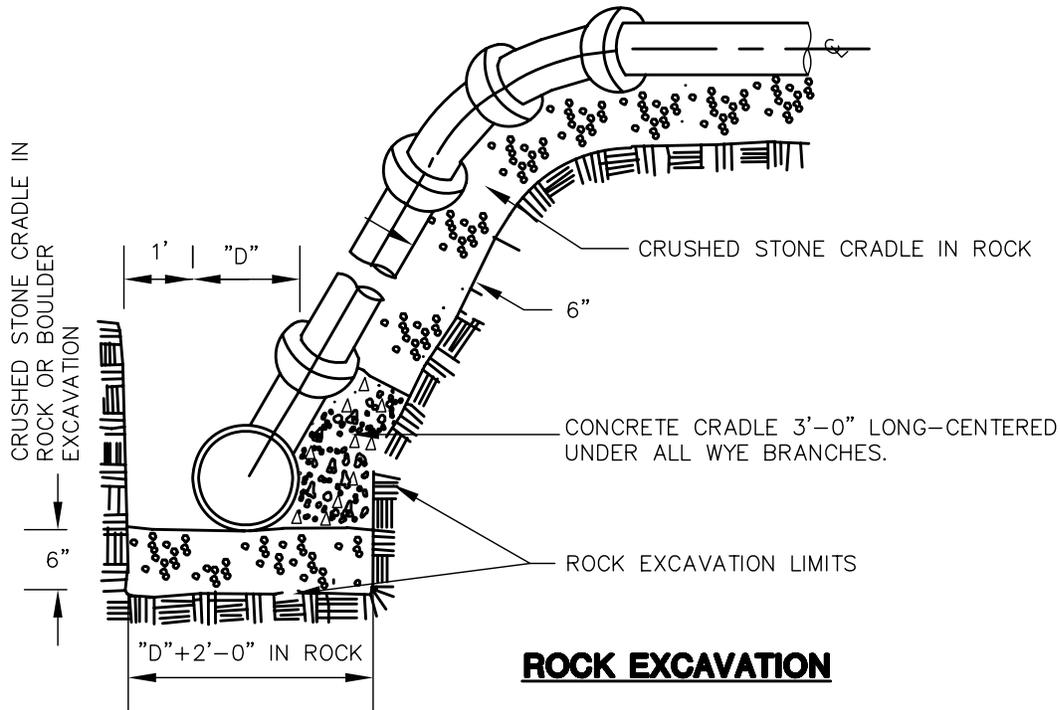


EARTH EXCAVATION

**STANDARD STORM SEWER,
SANITARY SEWER LATERAL DETAIL**

(N.T.S.)

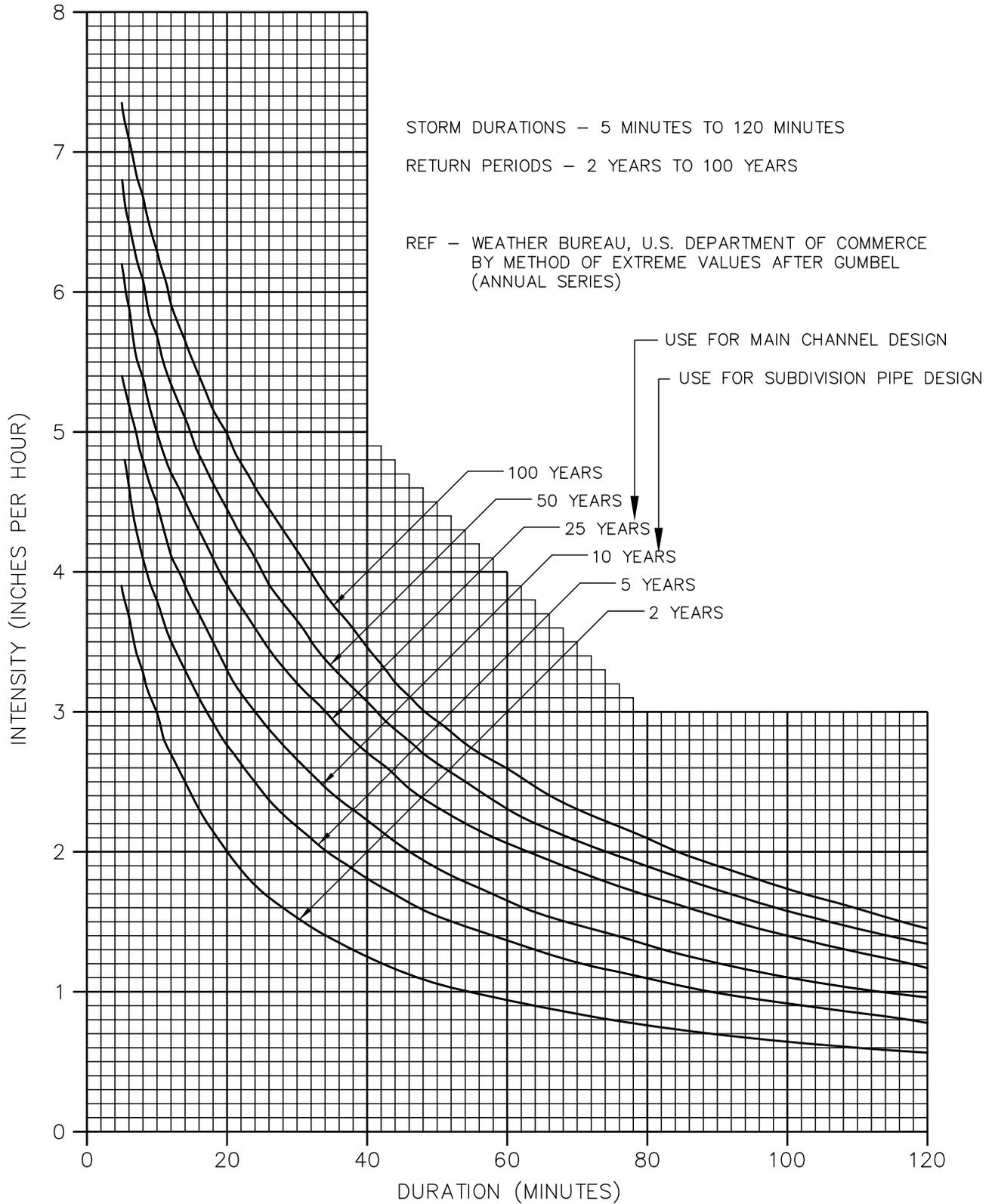
VILLAGE OF AVON



**STANDARD STORM SEWER &
SANITARY SEWER RISER DETAIL**

(N.T.S.)

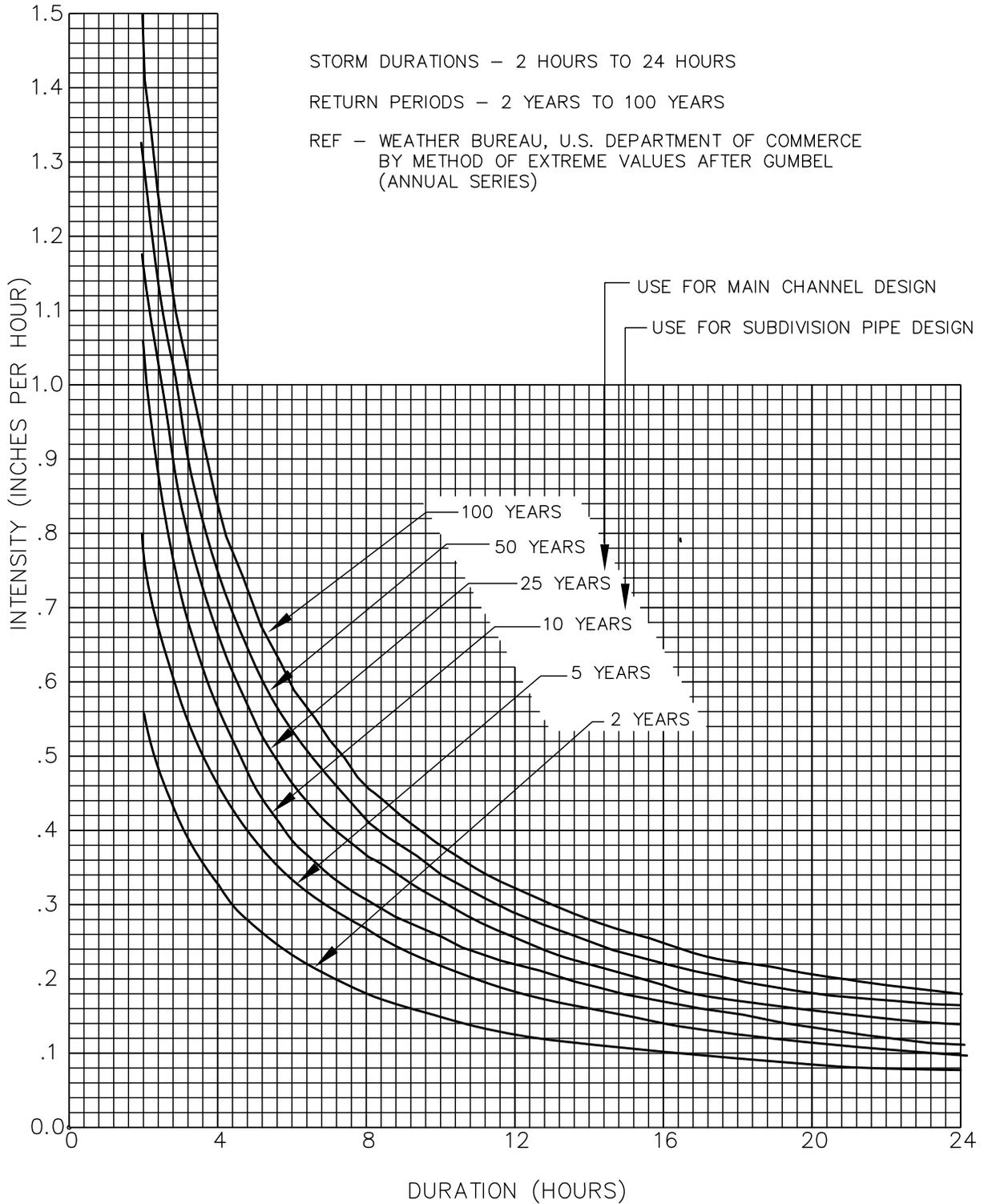
VILLAGE OF AVON



RAINFALL INTENSITY CURVES

(THE ABOVE CURVES WERE DEVELOPED FOR MONROE COUNTY AND ARE APPLICABLE TO LIVINGSTON COUNTY FOR THE PURPOSE OF DEVELOPMENT REGULATION.)

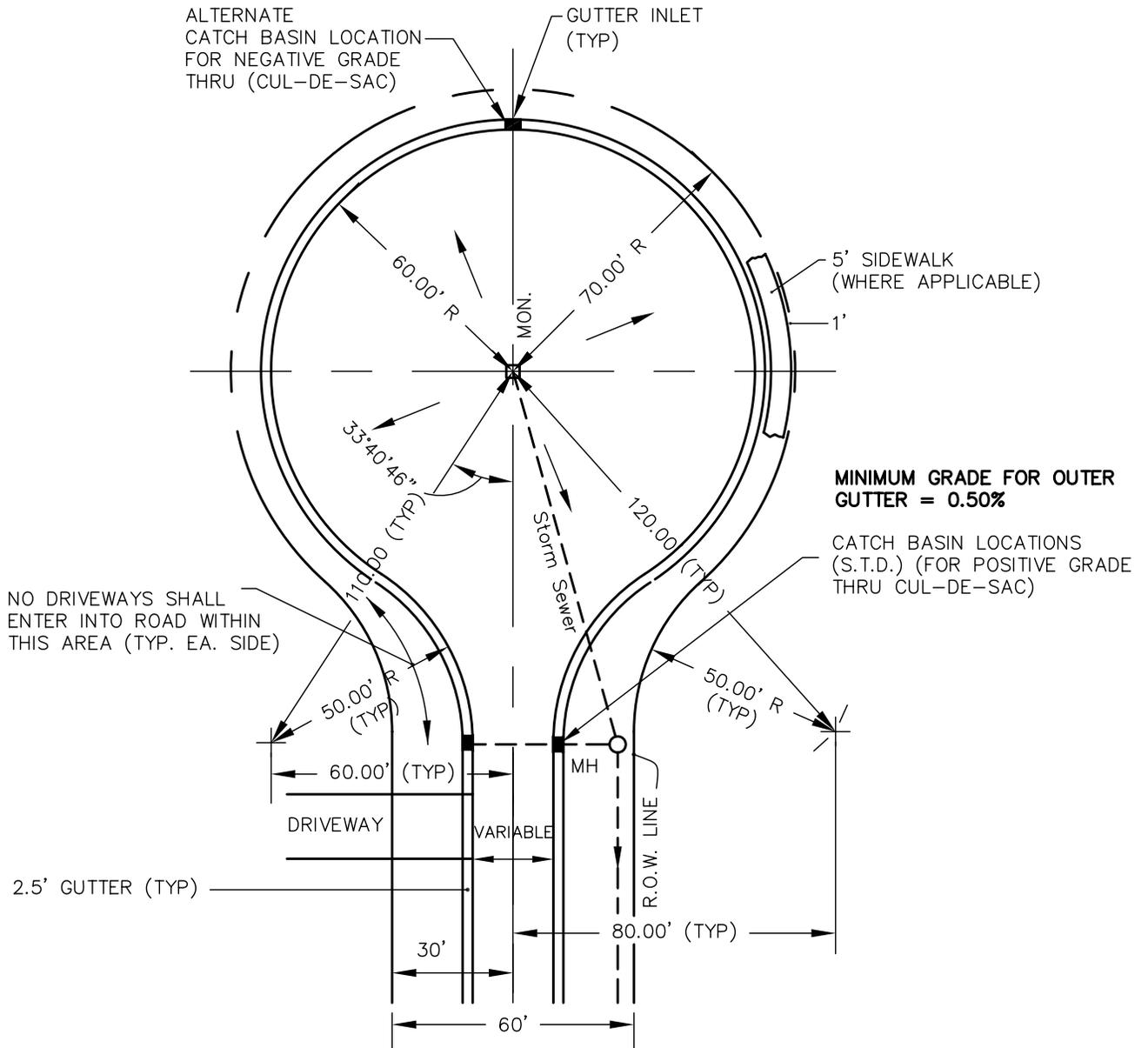
VILLAGE OF AVON



RAINFALL INTENSITY CURVES

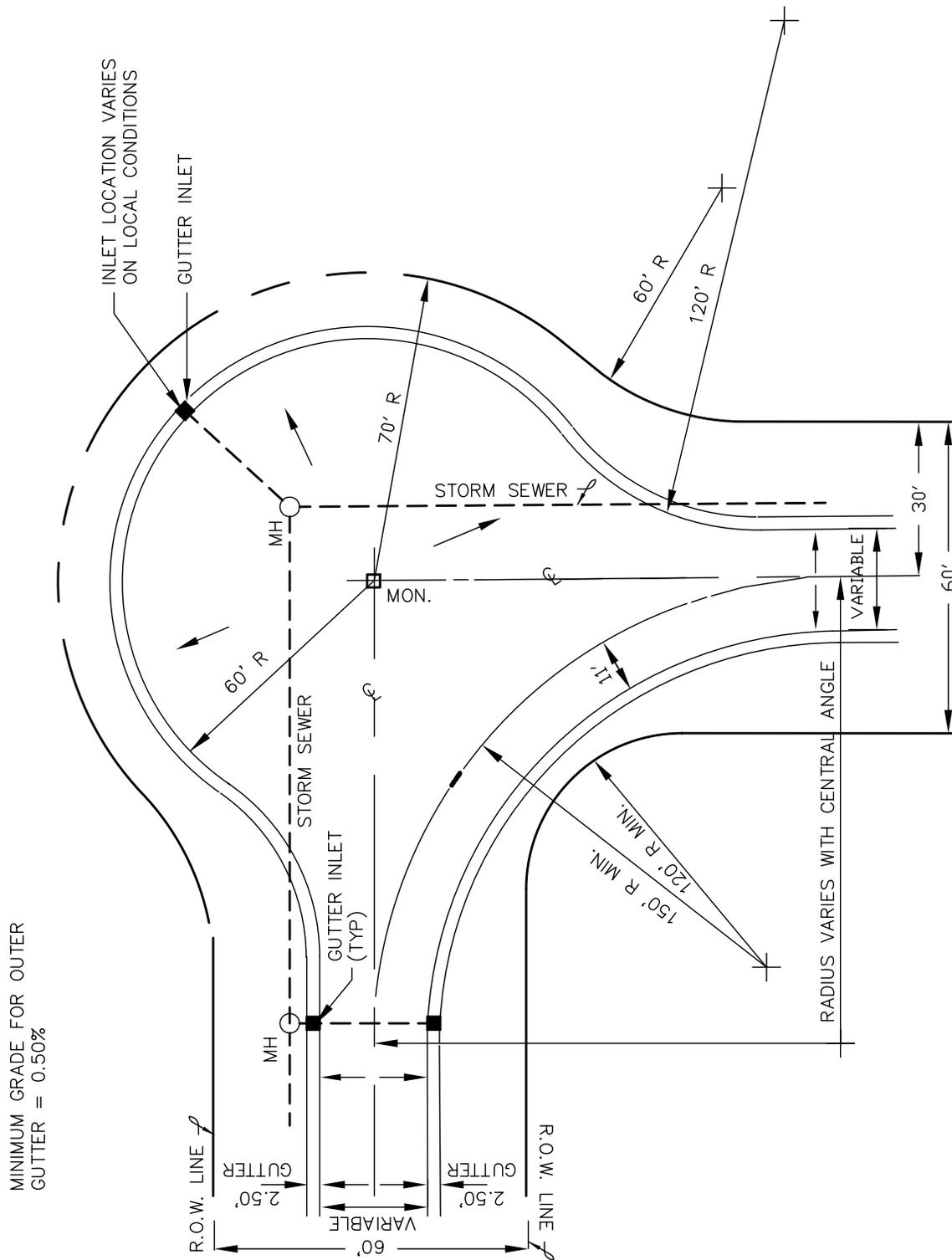
(THE ABOVE CURVES WERE DEVELOPED FOR MONROE COUNTY AND ARE APPLICABLE TO LIVINGSTON COUNTY FOR THE PURPOSE OF DEVELOPMENT REGULATION.)

VILLAGE OF AVON



STANDARD CUL-DE-SAC DETAIL

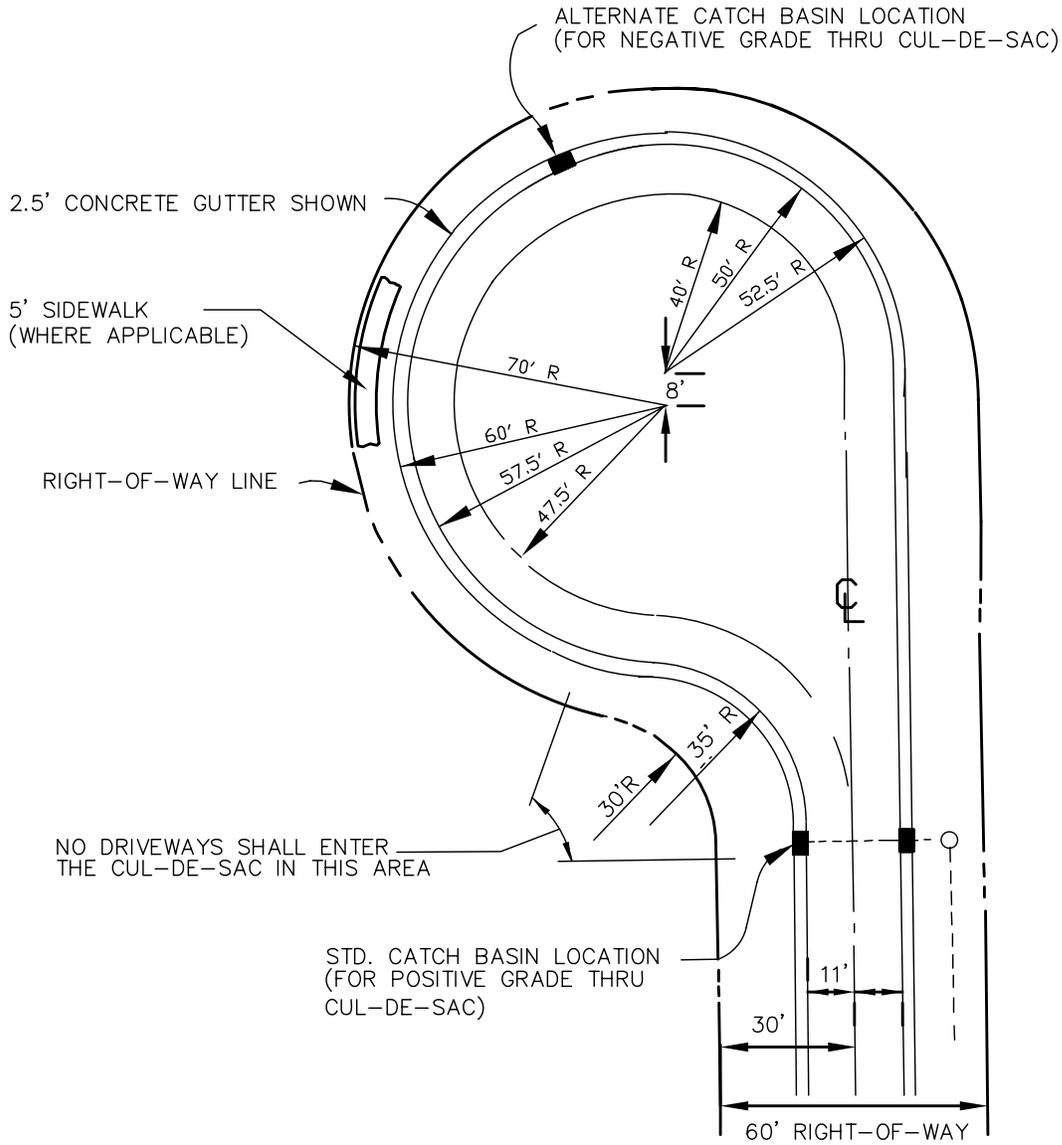
VILLAGE OF AVON



TYPICAL "BUBBLE" DETAIL

N.T.S.

VILLAGE OF AVON

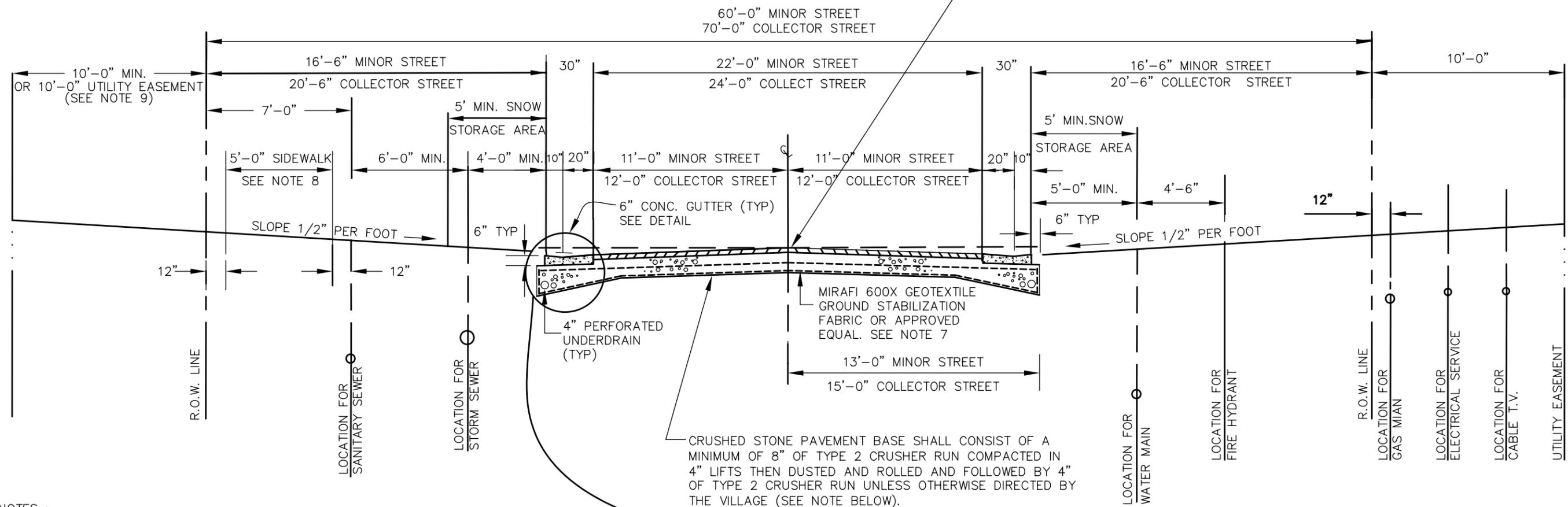


STANDARD TEAR-DROP CUL-DE-SAC

(N.T.S.)

VILLAGE OF AVON

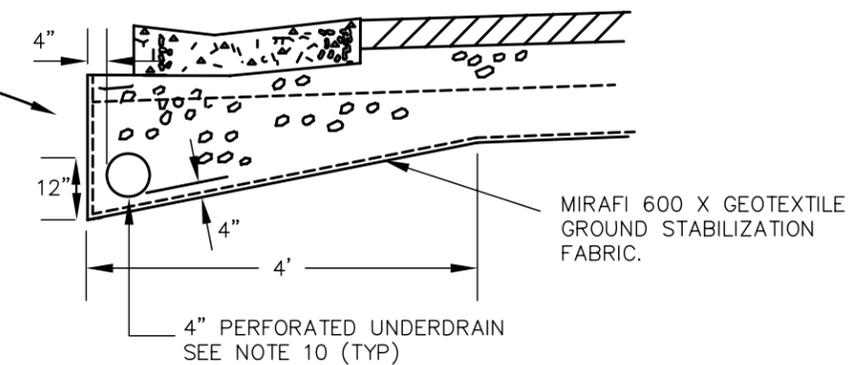
ASPHALT CONCRETE SURFACE SHALL CONSIST OF 1" COMPACTED THICKNESS OF NYS DOT TYPE 7 TOP COURSE & 2" COMPACTED THICKNESS OF NYS DOT TYPE 3 BINDER COURSE. CONSTRUCTION SHALL BE IN ACCORDANCE WITH NYS DOT GENERAL SPECIFICATIONS FOR BITUMINOUS CONCRETE EXCEPT THAT THE TOP COURSE SHALL BE LAID IN THE YEAR FOLLOWING THE INSTALLATION OF THE BINDER SURFACING.



CRUSHED STONE PAVEMENT BASE SHALL CONSIST OF A MINIMUM OF 8" OF TYPE 2 CRUSHER RUN COMPACTED IN 4" LIFTS THEN DUSTED AND ROLLED AND FOLLOWED BY 4" OF TYPE 2 CRUSHER RUN UNLESS OTHERWISE DIRECTED BY THE VILLAGE (SEE NOTE BELOW).

NOTES :

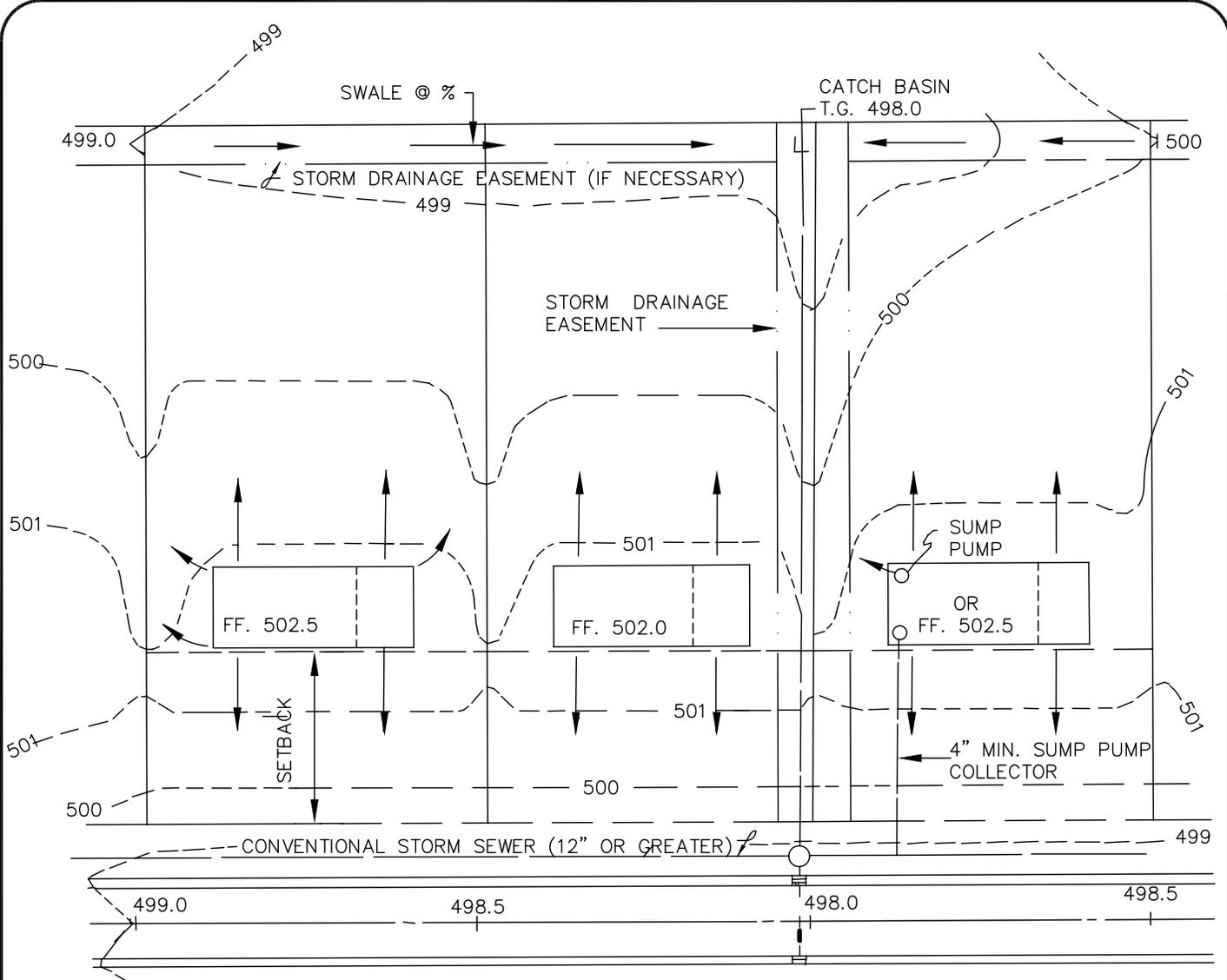
- 1.) Minimum laying temperature of asphalt shall be 50° Fahrenheit.
- 2.) Base shall be rolled and compacted with a vibrator roller capable of producing a minimum dynamic vibration force of 27,000 lbs. or equivalent 3 wheel 10-12 ton roller.
- 3.) All stone fill lifts under road sections shall be compacted to a min. of 95% modified A.A.S.H.T.O. density.
- 4.) All top soil, stumps, roots, or other organic material shall be removed prior to placing fill or shaping of road box.
- 5.) Gutter curve radius shall be 35 feet for local streets and 50 feet for collector streets.
- 6.) Minimum road grade shall be 0.50%.
- 7.) Ground stabilization fabric shall be installed as approved by The Village Engineer and/or Highway Superintendent.
- 8.) Sidewalks are required. Sidewalks may be on both sides of the road or street per Village requirements.
- 9.) Minimum distance of 10' to R.O.W. or a permanent utility easement is to be provided.
- 10.) Road construction season shall be from May 15 to October 15 unless otherwise approved by the Village Highway Superintendent.
- 11.) The road base depths illustrated above are minimum requirements for minor streets. Minimum thickness requirements for collector streets are outlined in Section 2.5.3 in Part II of the Development Regulations. Actual constructed depths shall be as ordered by the Village Highway Superintendent and Village Engineer.
- 12.) Gutters are shown for the purpose of this detail (as a minimum), however, curbing may be required, concrete or granite, as determined by the Village.



TYPICAL ROAD SECTION (w/ gutters)

(N.T.S.)

VILLAGE OF AVON



DETAIL OF GRADING PLAN

REQUIRED INFORMATION

- 1.) ORIGINAL GROUND CONTOURS
- 2.) SPOT ELEVATIONS OF PROPOSED GRADES AT KEY LOCATIONS
- 3.) ARROWS INDICATING DIRECTION OF FLOW
- 4.) MAIN FLOOR ELEVATION TO BE SHOWN ON DRAWINGS.

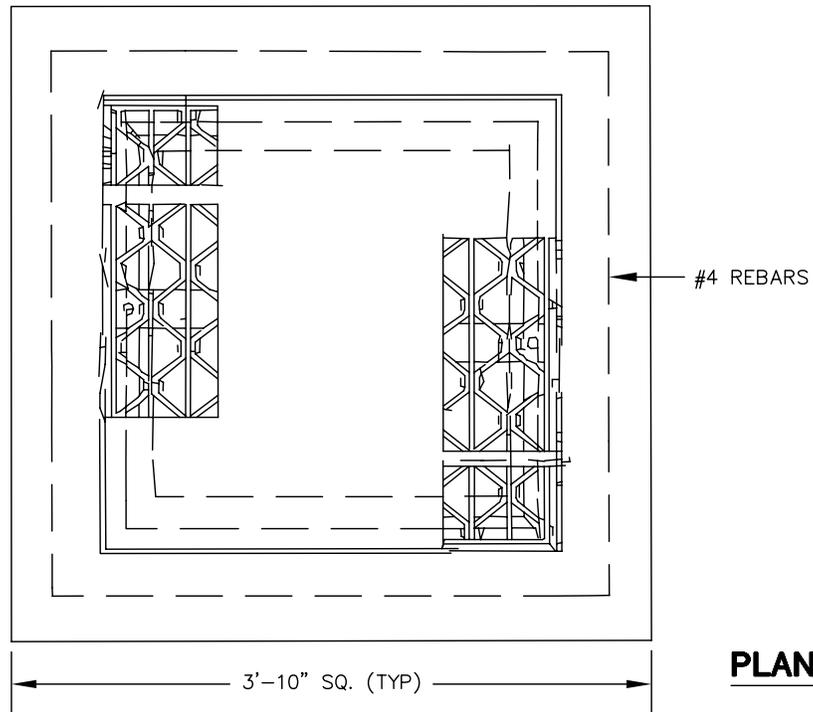
LEGEND

- 502 — ORIGINAL CONTOURS
- - 501 - - PROPOSED CONTOURS
- FLOW ARROWS
- 498.50 SPOT ELEVATIONS
- STORM SEWER & MANHOLE

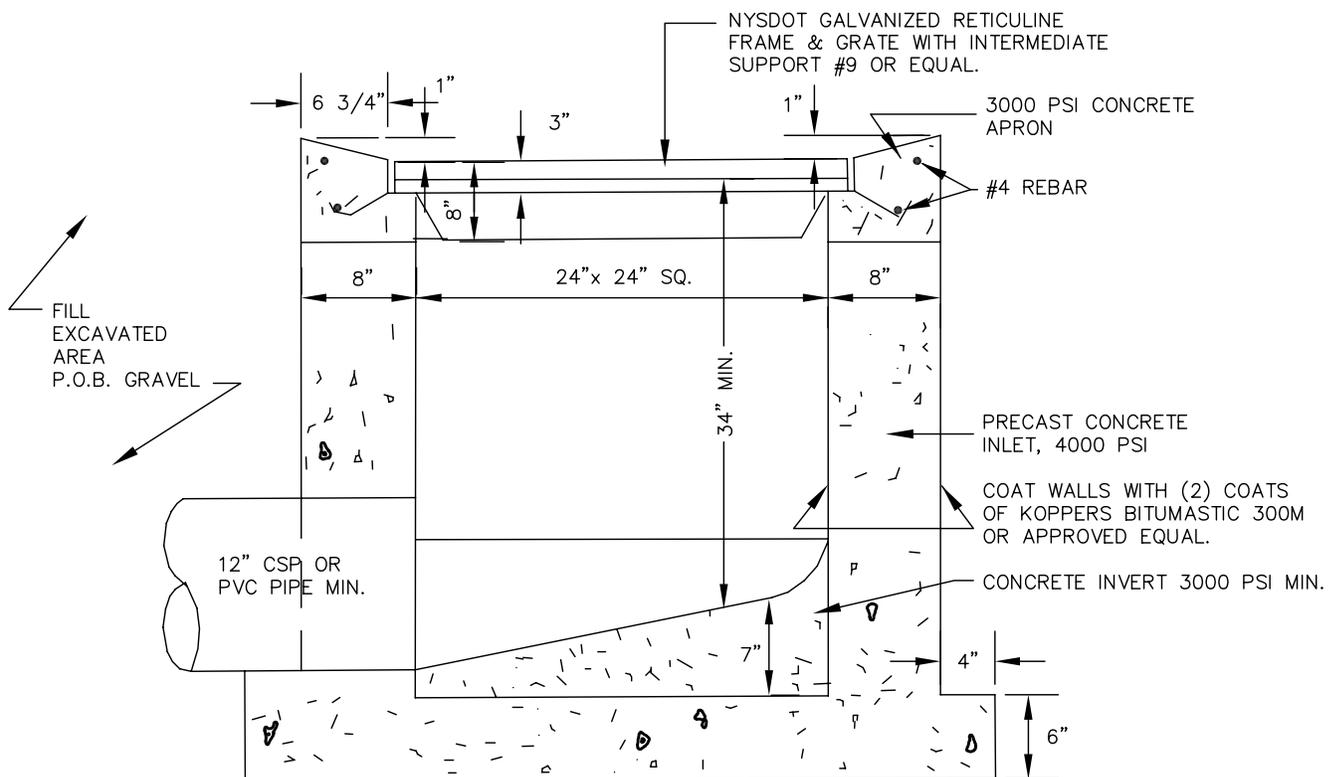
TYPICAL GRADING PLAN

N.T.S.

VILLAGE OF AVON



PLAN

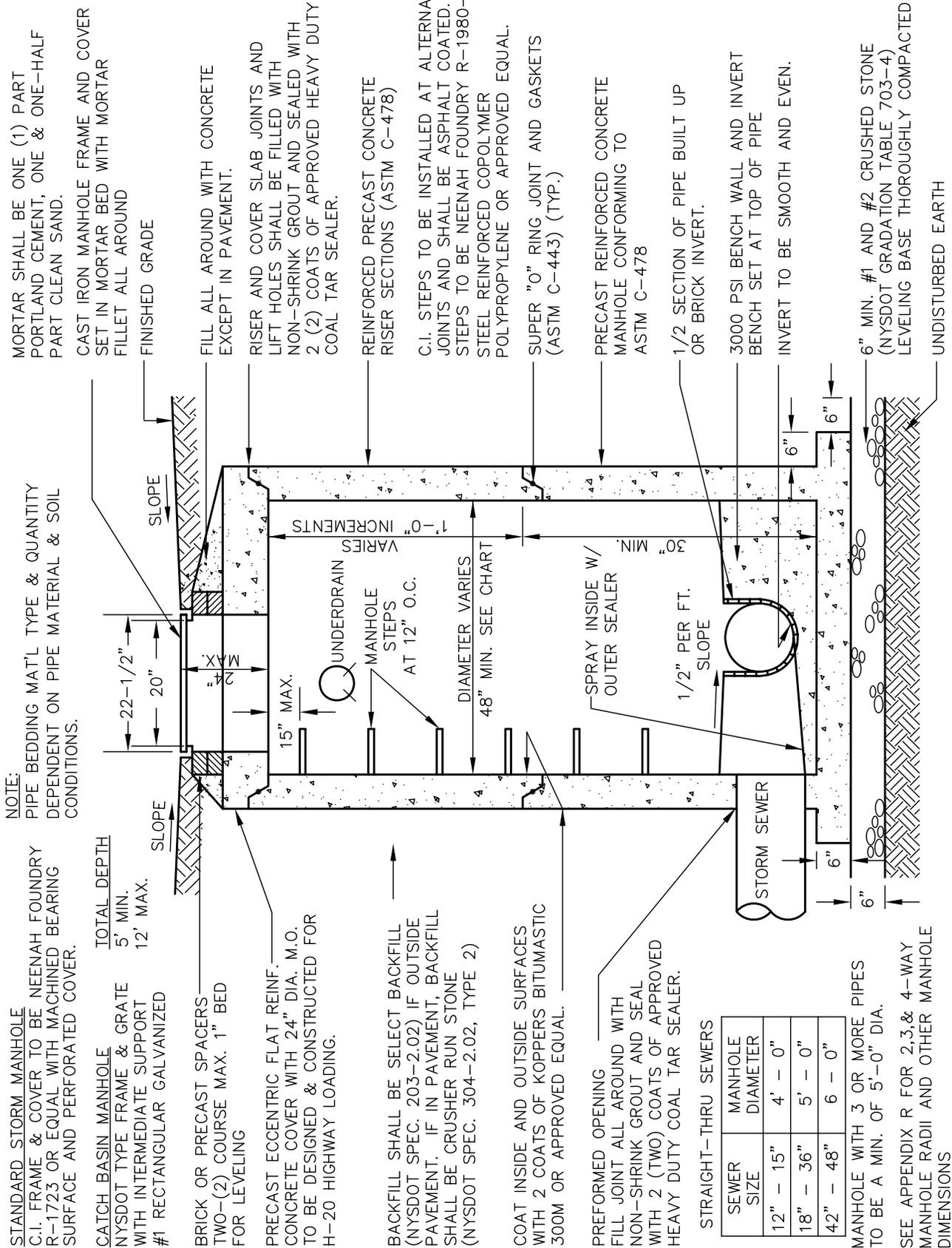


SECTION

STANDARD FIELD INLET

NTS

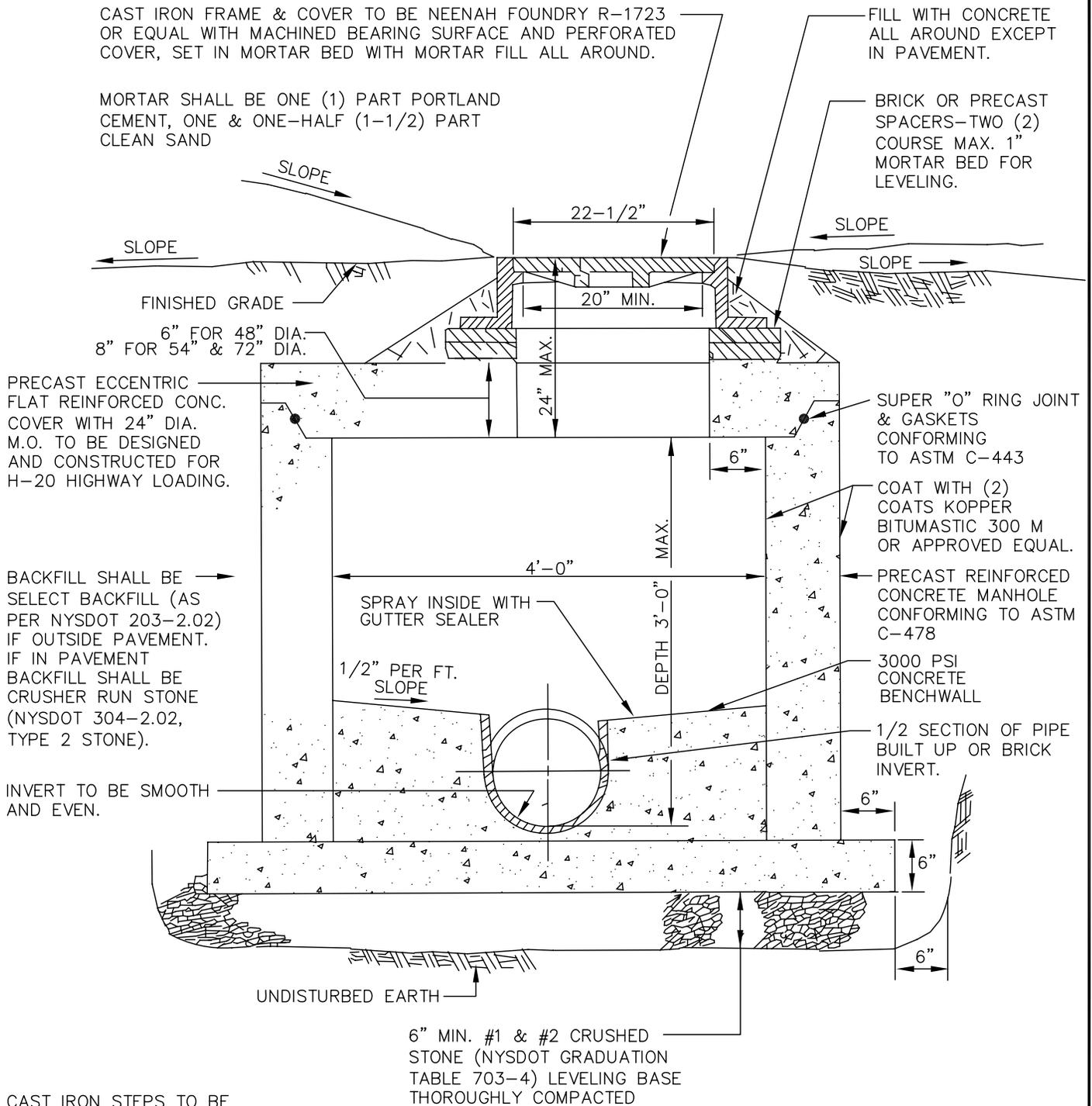
VILLAGE OF AVON



STORM SEWER MANHOLE AND CATCH BASIN MANHOLE

(N.T.S.)

VILLAGE OF AVON



PRECAST ECCENTRIC FLAT REINFORCED CONC. COVER WITH 24" DIA. M.O. TO BE DESIGNED AND CONSTRUCTED FOR H-20 HIGHWAY LOADING.

BACKFILL SHALL BE SELECT BACKFILL (AS PER NYSDOT 203-2.02) IF OUTSIDE PAVEMENT. IF IN PAVEMENT BACKFILL SHALL BE CRUSHER RUN STONE (NYSDOT 304-2.02, TYPE 2 STONE).

INVERT TO BE SMOOTH AND EVEN.

SUPER "O" RING JOINT & GASKETS CONFORMING TO ASTM C-443

COAT WITH (2) COATS KOPPER BITUMASTIC 300 M OR APPROVED EQUAL.

PRECAST REINFORCED CONCRETE MANHOLE CONFORMING TO ASTM C-478

3000 PSI CONCRETE BENCHWALL

1/2 SECTION OF PIPE BUILT UP OR BRICK INVERT.

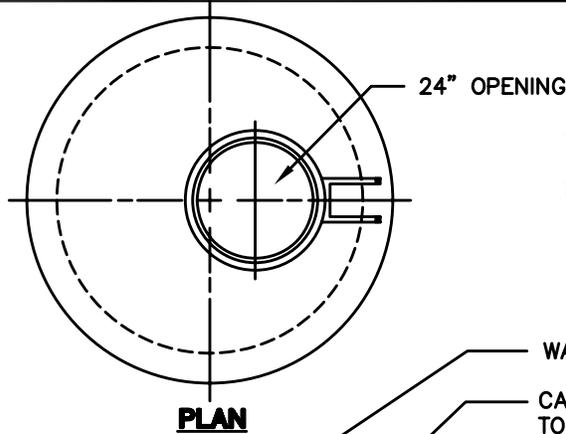
CAST IRON STEPS TO BE INSTALLED AT ALTERNATE JOINTS & SHALL BE ASPHALT COATED. STEPS TO BE NEENAH FOUNDRY R-1980-1 OR EQUAL UNLESS OTHERWISE SPECIFIED AT 12" O.C.

NOTE: RISER & COVER SLAB JOINTS AND LIFT HOLES SHALL BE FILLED WITH NON-SHRINK GROUT & SEALED WITH TWO (2) COATS OF APPROVED HEAVY DUTY COAL TAR SEALER.

STANDARD SHALLOW STORM MANHOLE

(N.T.S.)

VILLAGE OF AVON



PRECAST REINFORCED CONCRETE ECCENTRIC FLAT SLAB COVER
 A. S. T. M. C-478

MANHOLE COVER SLAB & MANHOLE FRAME TO BE SET IN PORTLAND CEMENT MORTAR.

SLAB OPENING AND STEPS TO BE OVER INVERT.

WATERTIGHT PICK HOLE

CAST IRON FRAME AND COVER TO BE NEENAH R-1726 OR EQUAL WITH MACHINED BEARING SURFACE & SMALL PICK HOLES.

FILL ALL AROUND WITH CONCRETE EXCEPT IN PAVEMENT. COAT WITH APPROVED BITUMASTIC COAL TAR SEALER.

REINFORCED PRECAST CONCRETE FLAT COVER SLAB WITH 24" DIA. ECCENTRIC MASONRY OPENING CONSTR. H-20 HIGHWAY LOADING

REINFORCED PRECAST CONCRETE RISER SECTION (ASTM C-478)

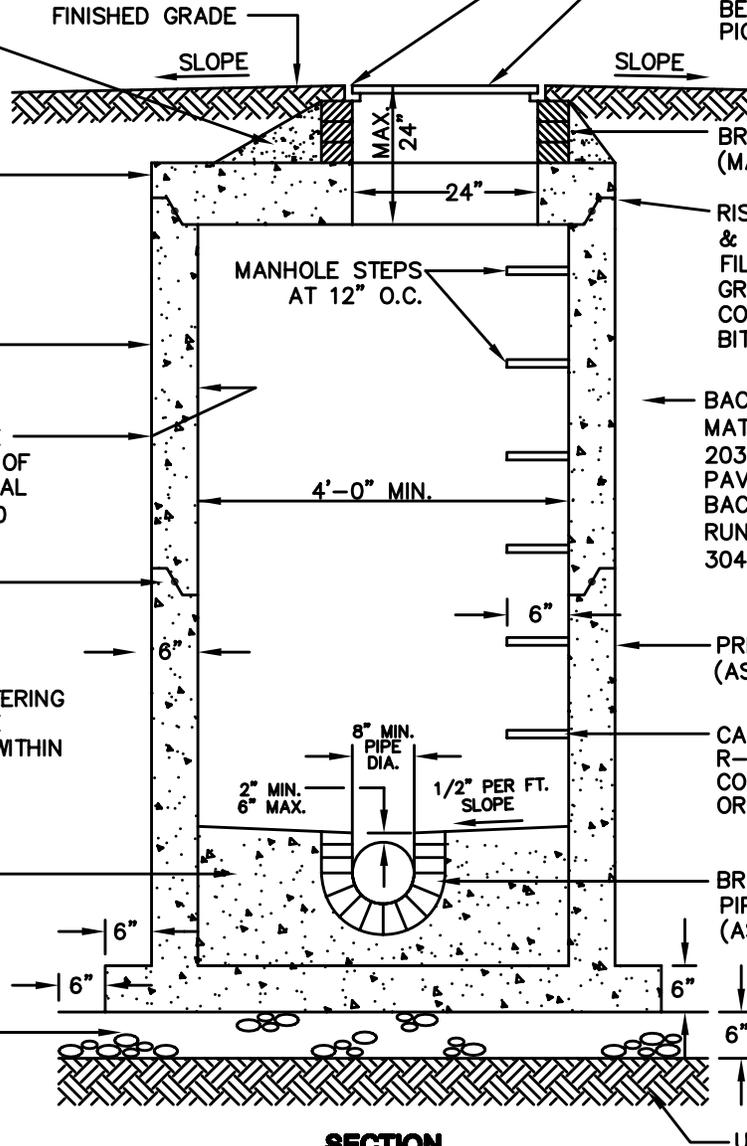
COAT INSIDE AND OUTSIDE SURFACES WITH 2 COATS OF APPROVED BITUMASTIC COAL TAR SEALER (ASTM D-450 TYPE B)

SUPER "O" RING JOINT & GASKETS (ASTM C-443)

NOTE: ALL PIPES ENTERING OR LEAVING MANHOLE SHALL HAVE JOINTS WITHIN 5' OF MANHOLE.

3000 PSI CONCRETE BENCH WALL

6" MIN. #1 AND #2 CRUSHED STONE (NYS DOT GRADATION TABLE 703-4) LEVELING BASE THOROUGHLY COMPACTED.



BRICK OR PRECAST SPACERS (MAX. 3 COURSES)

RISER & COVER SLAB JOINTS & LIFT HOLES SHALL BE FILLED WITH NON-SHRINK GROUT & SEALED WITH TWO COATS OF APPROVED BITUMASTIC COAL TAR SEALER

BACKFILL SHALL BE SELECT MATERIAL (NYS DOT SPEC. 203-2.02) IF OUTSIDE PAVEMENT. IF IN PAVEMENT BACKFILL SHALL BE CRUSHER RUN STONE (NYS DOT SPEC. 304-2.02, TYPE 2)

PRECAST MANHOLE BASE (ASTM C-478)

CAST IRON STEP NEENAH R-1890-1, STEEL REINFORCED COPOLYMER POLYPROPYLENE OR APPROVED EQUAL.

BRICK SEWER INVERT OR HALF PIPE SET AT TOP OF PIPE (ASTM C-32)

SECTION

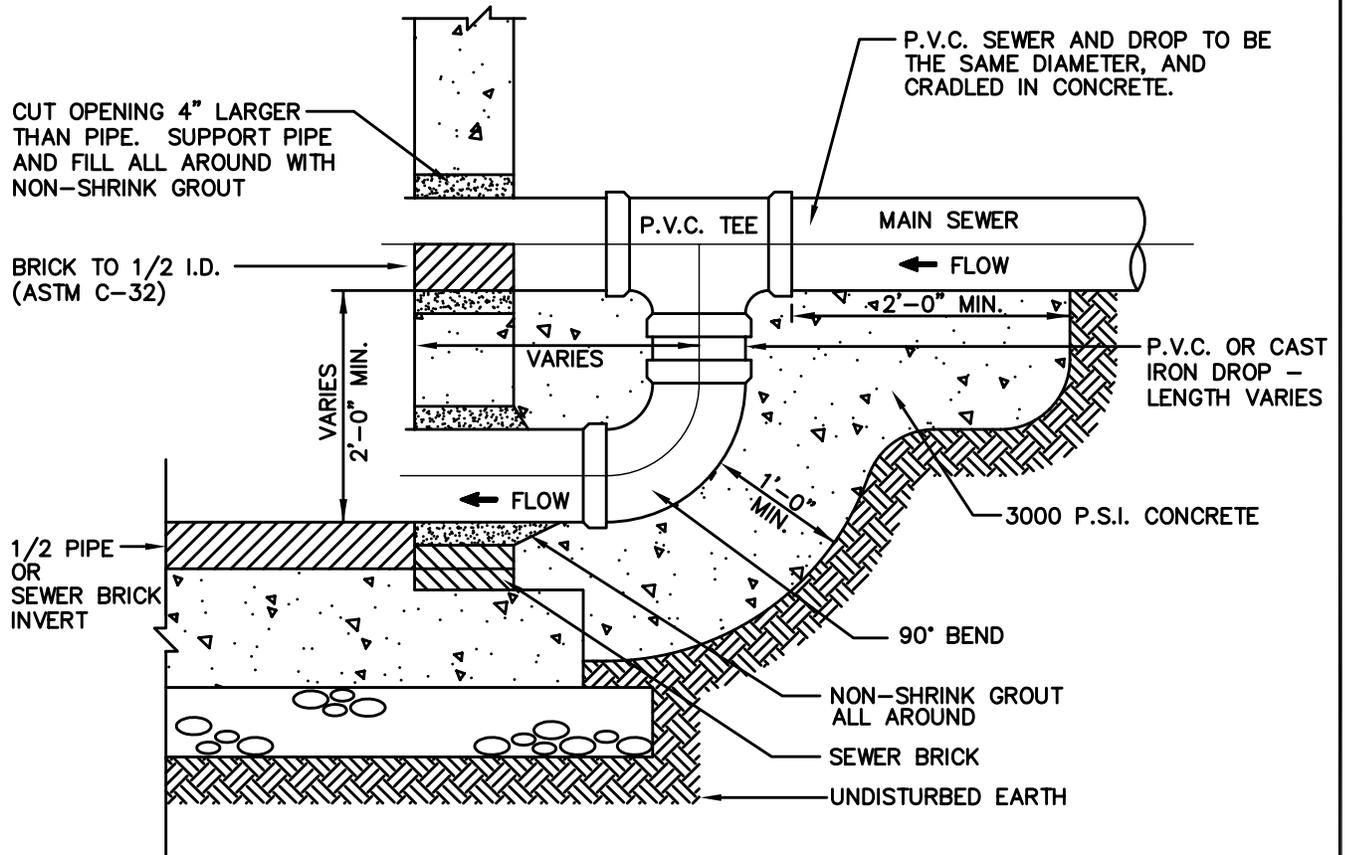
STANDARD SANITARY MANHOLE

(N.T.S.)

VILLAGE OF AVON

NOTE: SEE STANDARD SANITARY MANHOLE DETAIL APPENDIX P FOR ALL OTHER CONSTRUCTION FEATURES NOT SHOWN HEREON.

CONCRETE CASING SURROUNDING RISER SHALL BE MINIMUM 6" THICKNESS ON ALL SIDES OF THE PIPE WALL.



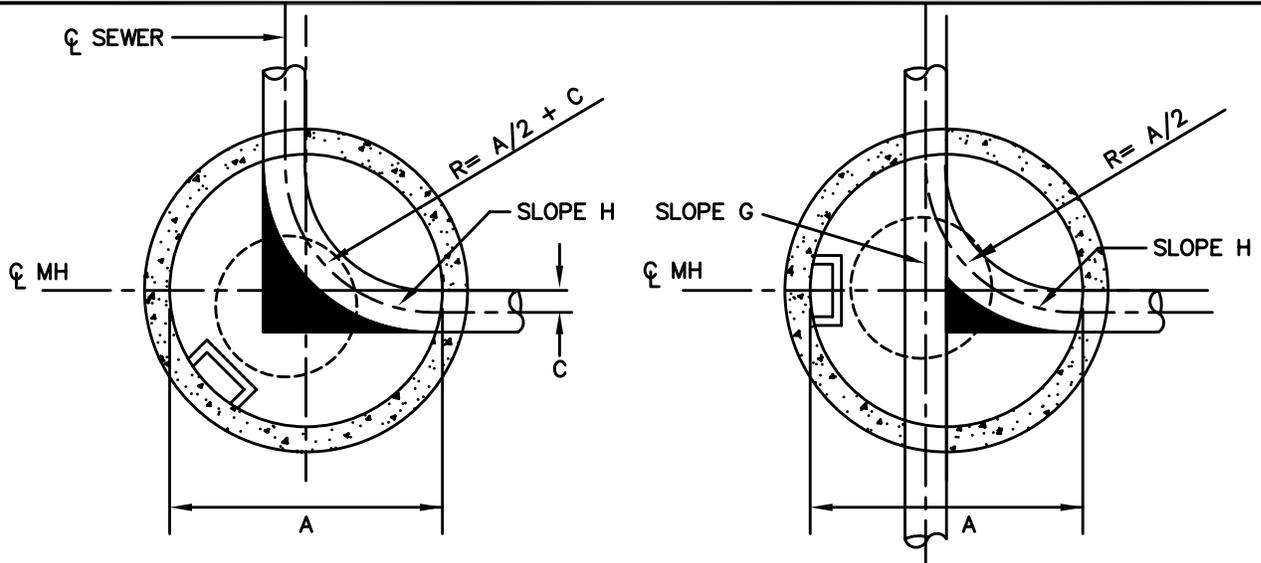
NOTE:

- 1) CAST IRON PIPE AND FITTINGS MAY BE USED IN LIEU OF P.V.C. PIPE AND FITTINGS.
- 2) APPLY JOINT COMPOUND ALL AROUND.
- 3) NON-SHRINK GROUT JOINT.
- 4) CONSTRUCT A MASONRY DAM FROM INVERT TO ϕ OF PIPE AT CLEANOUT.

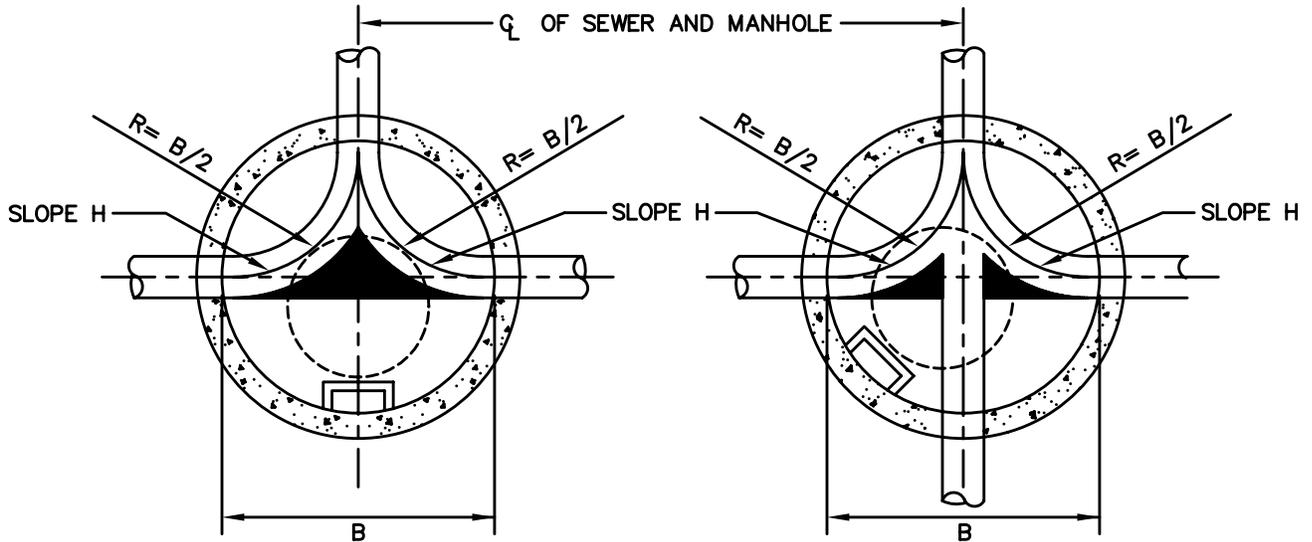
STANDARD DROP CONNECTION

(N.T.S.)

VILLAGE OF AVON



WHEN A SMALLER SEWER JOINS A LARGER ONE,
 PLACE THE 0.8 DEPTH POINT OF BOTH SEWERS
 AT THE SAME ELEVATION.



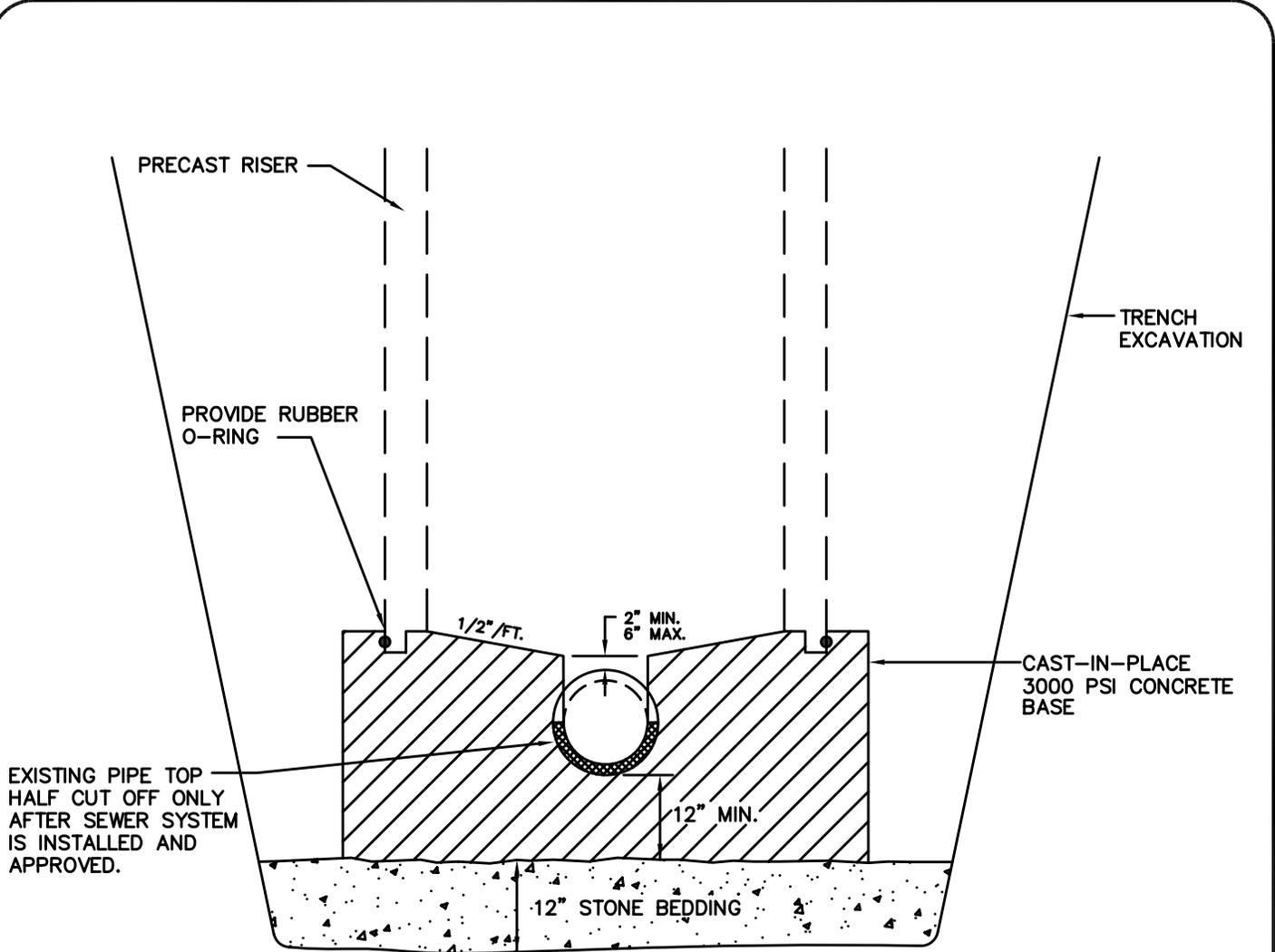
NOTE: DESIGN ENGINEER SHALL PROVIDE SPECIAL DESIGN DETAILS SHOWING MANHOLE SIZE, MATERIAL, INVERT, BENCHWALLS AND ANY OTHER PERTINENT FEATURES FOR VILLAGE APPROVAL. BENCH CUT DOWN TO ϕ OF PIPE IN ALL SHADED AREAS.

MAX. PIPE DIA.	8"	10"	12"	14"	16"	18"	20"	24"	27"	30"	36"	42"	48"
A	4'-0"	4'-0"	4'-0"	5'-0"	5'-0"	5'-0"	5'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"
B	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	5'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"
C	4"	5"	6"	7"	8"	9"	10"	12"	13.5"	15"	18"	21"	24"
G	.05'	.05'	.05'	.04'	.02'	.02'	.02'	.02'	.02'	.02'	.02'	.02'	.02'
H	.10'	.10'	.10'	.07'	.05'	.05'	.05'	.05'	.05'	.05'	.05'	.05'	.05'

STANDARD MANHOLE DIMENSIONS

(N.T.S.)

VILLAGE OF AVON



ALL OTHER ASPECTS OF THE MANHOLE CONSTRUCTION SHALL BE AS SHOWN ON THE OTHER SANITARY MANHOLE DETAILS

IF MANHOLE BASE IS TO REST ON SOLID ROCK NO STONE BEDDING WILL BE REQUIRED

**DETAIL OF SANITARY MANHOLE
BUILT OVER EXISTING SEWER LINE**

(N.T.S.)

VILLAGE OF AVON

CLEANING AND TESTING OF SANITARY SEWERS**GENERAL**

All testing of gravity sewers shall be completed under the observation of the Engineer. The Contractor shall furnish all labor and testing equipment including hoses, pumps, plugs, temporary connections, gauges, etc. necessary to perform the required tests. Water for cleaning and testing shall be furnished by the Contractor through a metered connection as shown in Appendix "T".

CLEANING

Each section of gravity sewer shall be flushed to remove all silt, sand, gravel and other debris prior to testing. If any sections of pipe cannot be flushed clean, mechanical methods shall be used to dislodge any deposits in the pipe.

TESTING GRAVITY SEWERS

Air testing may be the method used for the final acceptance of each section of gravity sewer unless otherwise designated by the Engineer. Gravity sewers shall be tested in sections not exceeding 1,000 feet in length. Any section of gravity sewer which does not give satisfactory test results must be replaced and retested until a satisfactory test is completed.

AIR TEST: Low pressure air test may be used to test a section of sewer pipe or locate areas requiring replacement. The following procedures shall be used for low pressure air test.

1. The test shall be conducted between two (2) consecutive manholes, as directed by the Engineer.
2. The test section of the sewer line shall be plugged at each end. One of the plugs used at the manhole must be tapped and equipped for the air inlet connection for filling the line from the air compressor.
3. All service laterals, stubs and fittings into the sewer test section shall be properly capped or plugged and carefully braced against the internal pressure to prevent air leakage by slippage and blowouts.

VILLAGE OF AVON

CLEANING AND TESTING OF SANITARY SEWERS

AIR TEST: (CONTINUED)

4. An air hose shall be connected to tapped plug selected for the air inlet. The other end of the air hose shall be connected to the portable air control equipment which shall include valves and pressure gages used to control:
 - a. The air entry rate to the sewer test section, and
 - b. to monitor the air pressure in the pipe line.
5. A second air hose shall be connected between the air compressor and the air control equipment.
6. Supply air to the test section slowly, filling the pipe line until a constant pressure of 4.0 PSIG is maintained. The air pressure shall be regulated to prevent the pressure inside the pipe from exceeding 5.0 PSIG.
7. When constant pressure of 4.0 PSIG is reached, throttle the air supply to maintain the internal pressure above 3.5 PSIG for at least five (5) minutes. This time permits the temperature of the entering air to equalize with the temperature of the pipe wall. During this stabilization period, it is advisable to check all capped and plugged fittings with a soap solution to detect any leakage at these connections.
8. After the stabilization period, the air pressure shall be adjusted to 4.0 PSIG and the air supply disconnected. At 4.0 PSIG commence timing with a stop watch which is allowed to run until the line pressure drops to 3.5 PSIG at which time the stop watch shall be stopped. The time required for a pressure loss of 0.5 PSIG shall be used to compute the air loss.
9. An air pressure correction shall be required when the prevailing ground is above the sewer line being tested. Under this condition, the air test pressure shall be increased to 0.433 psi for each foot the ground water level is above the invert of the pipe.

VILLAGE OF AVON

CLEANING AND TESTING OF SANITARY SEWERS

AIR TEST: (CONTINUED)

Any time which is less than shown in the following table shall be cause for rejection:

TIME REQUIREMENTS FOR AIR TESTING

PIPE SIZE (Inches)	TIME	
	(Minutes)	(Seconds)
4	2	32
6	3	50
8	5	6
10	6	22
12	7	39
14	8	56
15	9	35
16	10	12
18	11	34
20	12	45
21	13	30

For larger diameter pipe:

Minimum time in seconds =
462 x pipe diameter in feet

VILLAGE OF AVON

WATERMAIN PRESSURE TEST

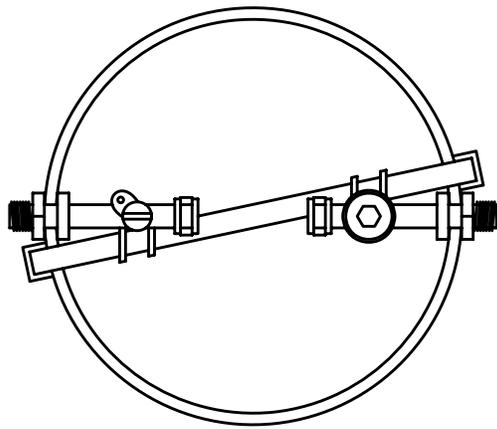
ALLOWABLE LEAKAGE (G.P.H.)

		TEST PRESSURE (P.S.I.)					
		100	125	150	175	200	225
		PIPE DIA. (INCHES)	ALLOWABLE LEAKAGE (G.P.H.)				
D.I.P. PER 1,000 L.F. OF LINE	6	0.45	0.50	0.55	0.59	0.64	0.68
	8	0.60	0.67	0.74	0.80	0.85	0.90
	10	0.75	0.84	0.92	0.99	1.06	1.13
	12	0.90	1.01	1.10	1.19	1.28	1.35
P.V.C. PER 1,000 L.F. OF LINE	6	0.41	0.45	0.50	0.53	0.57	0.61
	8	0.54	0.60	0.66	0.71	0.76	0.81
	10	0.68	0.75	0.83	0.90	0.96	1.02
	12	0.81	0.89	0.99	1.07	1.15	1.22

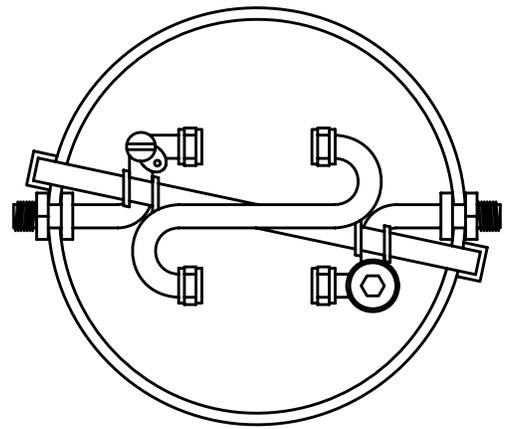
NOTES:

1. PRESSURE TESTS SHALL BE CONDUCTED SO THE PIPE SECTIONS ARE WITHIN 10 PSI OF THE TEST PRESSURE LOCATION.
2. PRESSURE TESTS SHALL BE CONDUCTED FOR A MINIMUM OF 2 HOURS.
3. LEAKAGE TESTS AT LINE PRESSURE SHALL BE CONDUCTED OVER A 24 HOUR PERIOD.

VILLAGE OF AVON

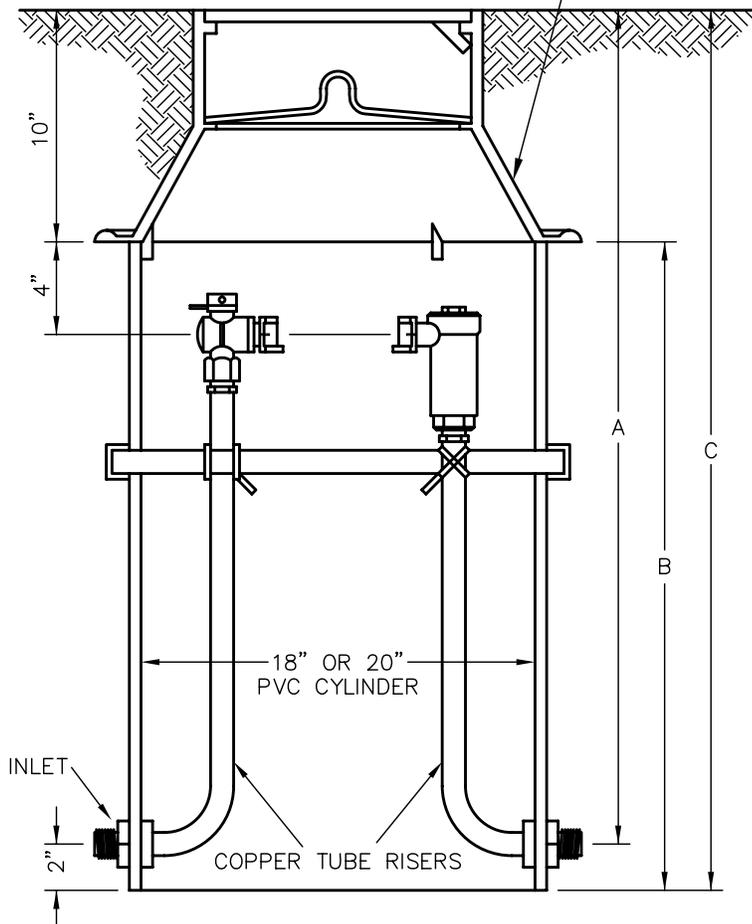


SINGLE METER SETTING



TANDEM SETTING

FORD TYPE "W" WABASH
DOUBLE LID COVER
WITH A 10" DEPTH



VERTICAL MEASUREMENTS
(PIT DIAMETER IS 18" OR 20")

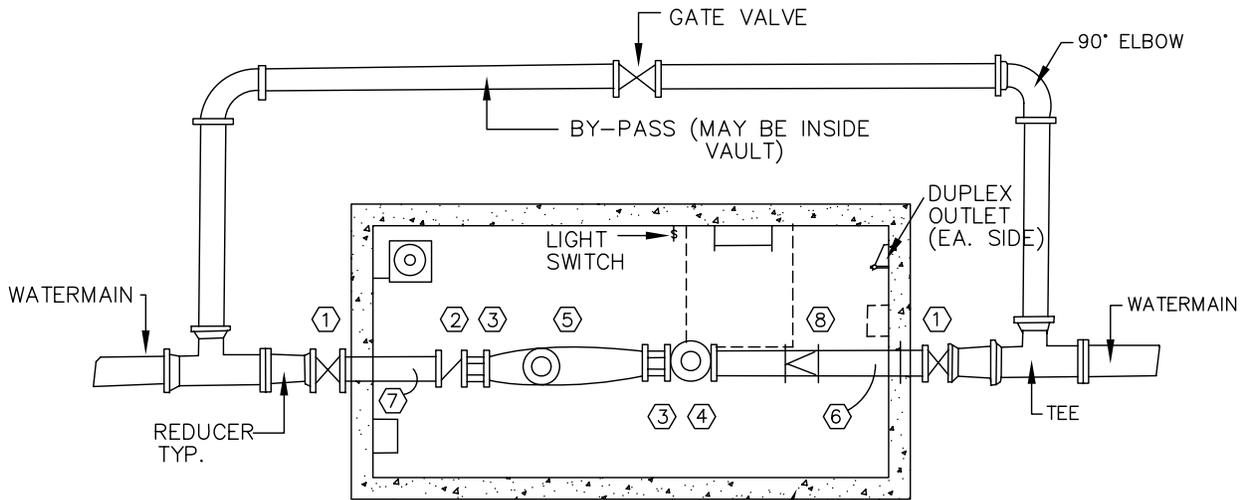
PIT DEPTH	SERVICE LINE DEPTH "A"	PVC CYLINDER LENGTH "B"	TOTAL PIT DEPTH "C"
5 FT.	60"	52"	62"
6 FT.	72"	64"	74"

USE FORD PLASTIC METER SETTER, TANDEM SETTING, DESIGNED WITH "S" TUBE TO ACCOMMODATE VILLAGE-APPROVED METER AND/OR PRESSURE REGULATOR. PIT SHALL BE EQUIPPED WITH STANDARD DOUBLE LID COVER, ANGLE BALL VALVE INLET VALVE AND ANGLE CHECK VALVE OUTLET VALVE. PIT SHALL BE FOR FIVE (5) FEET BURY DEPTH AND BE 20 INCHES IN DIAMETER. FRAME AND COVER SHALL BE FORD WABASH DOUBLE LID COVER, MODEL W3, AND SHALL FIT 20" DIAMETER FORD PLASTIC METER SETTER. ASSEMBLY SHALL BE LOCKING, WITH PLASTIC INNER LID.

METER PIT DETAIL

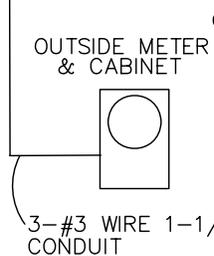
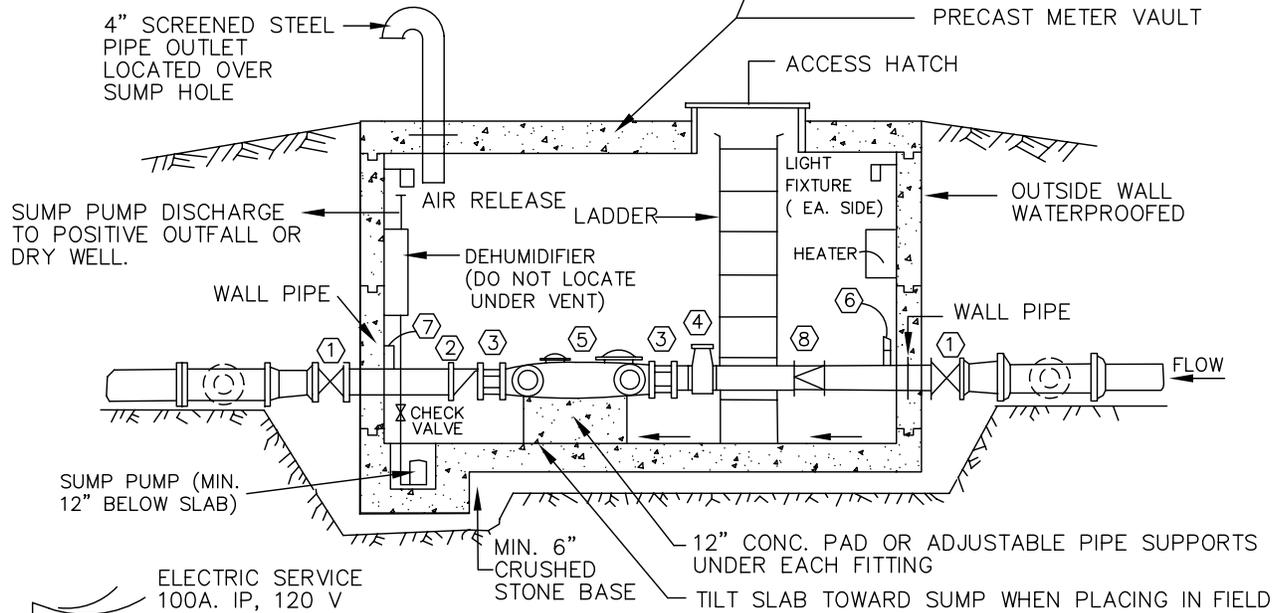
(N.T.S.)

VILLAGE OF AVON



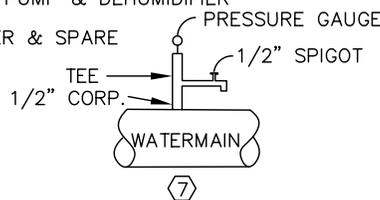
A STRAIGHT PIECE OF PIPE SHALL BE PROVIDED 8x DIAMETER OF PIPE OR AS REQUIRED BY MFR.

ATTACH OUTSIDE METER & CABINET SUPPORT LEGS TO THE PRECAST CONCRETE WALLS WITH LAG BOLTS
PRECAST METER VAULT



CIRCUIT BREAKER PANEL	
#1 15A	—
#2 15A	— SUMP PUMP & DEHUMIDIFIER
#3 15A	— HEATER & SPARE
BLANK	
BLANK	
BLANK	

SECTION



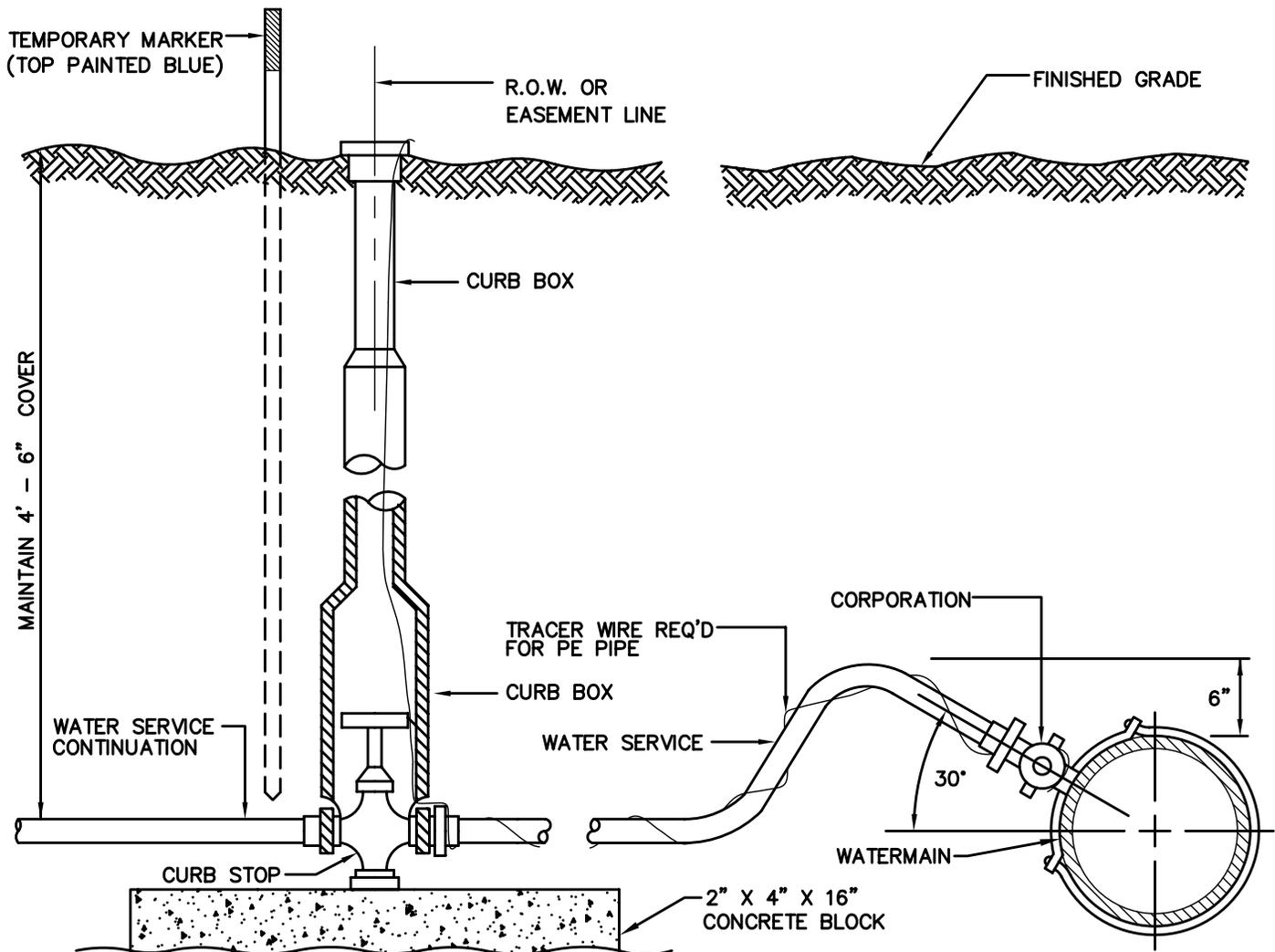
- ① GATE VALVE (O.S & Y)
- ② CHECK VALVE
- ③ COUPLING ADAPTER
- ④ STRAINER
- ⑤ WATER METER
- ⑥ PRESSURE GAUGE (ASHCROFT LIQUID FILLED MODEL 220, 1/4" TAP & 2 1/2" FACE)
- ⑦ PRESSURE GAUGE (SEE ⑥ & WATER SAMPLE POINT)
- ⑧ PRESSURE REDUCING VALVE (AS NEEDED)

SERVICE ENTRANCE & DISTRIBUTION SCHEMATIC

TYPICAL WATER METER VAULT

(N.T.S.)

VILLAGE OF AVON



NOTES:

1) ALL WATER SERVICES SHALL BE MIN. 200 PSI TYPE K COPPER OR POLYETHYLENE PRESSURE PIPE/TUBING, ENCASED ALL AROUND WITH SELECT EARTH.

2) SPECIFICATIONS FOR POLYETHYLENE PRESSURE PIPE/TUBING SHALL BE AS FOLLOWS:

FOR 1/2 INCH THROUGH 3 INCH, REQUIREMENTS PER AWWA SPECIFICATIONS. POLYETHYLENE MATERIALS SHALL BE DESIGNED BY STANDARD P.E. CODES 2406, 3406, AND 3408, AND SHALL CONFORM TO ASTM D3350.

TESTS ON THE PIPE SHALL BE MADE IN ACCORDANCE WITH REQUIREMENTS THAT ARE NO LESS RESTRICTIVE THAN NATIONAL SANITATION FOUNDATION (NSF) NO. 14 REQUIREMENTS.

PIPE/TUBING SHALL BE HOMOGENOUS THROUGHOUT, FREE FROM VOIDS, CRACKS, INCLUSIONS, AND OTHER DEFECTS.

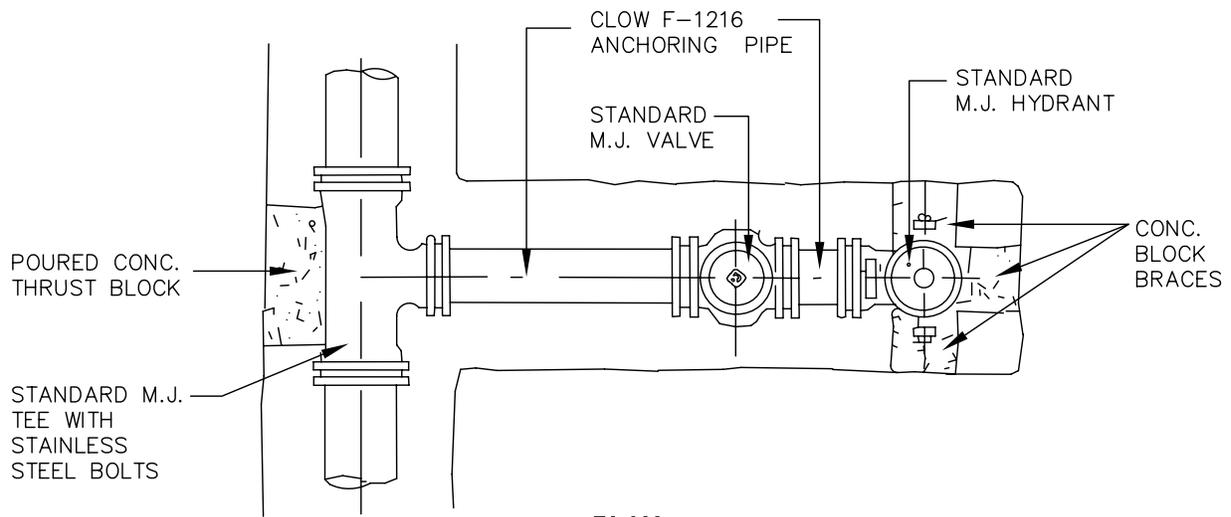
DIMENSIONS OF PIPE/TUBING SHALL CONFORM TO COPPER TUBE SIZE COMPRESSION FITTINGS AND MUST HAVE STAINLESS STEEL INSERTS INCLUDED.

REQUIREMENTS FOR TESTS AND DIMENSIONS SHALL ALSO CONFORM TO AWWA C901-88.

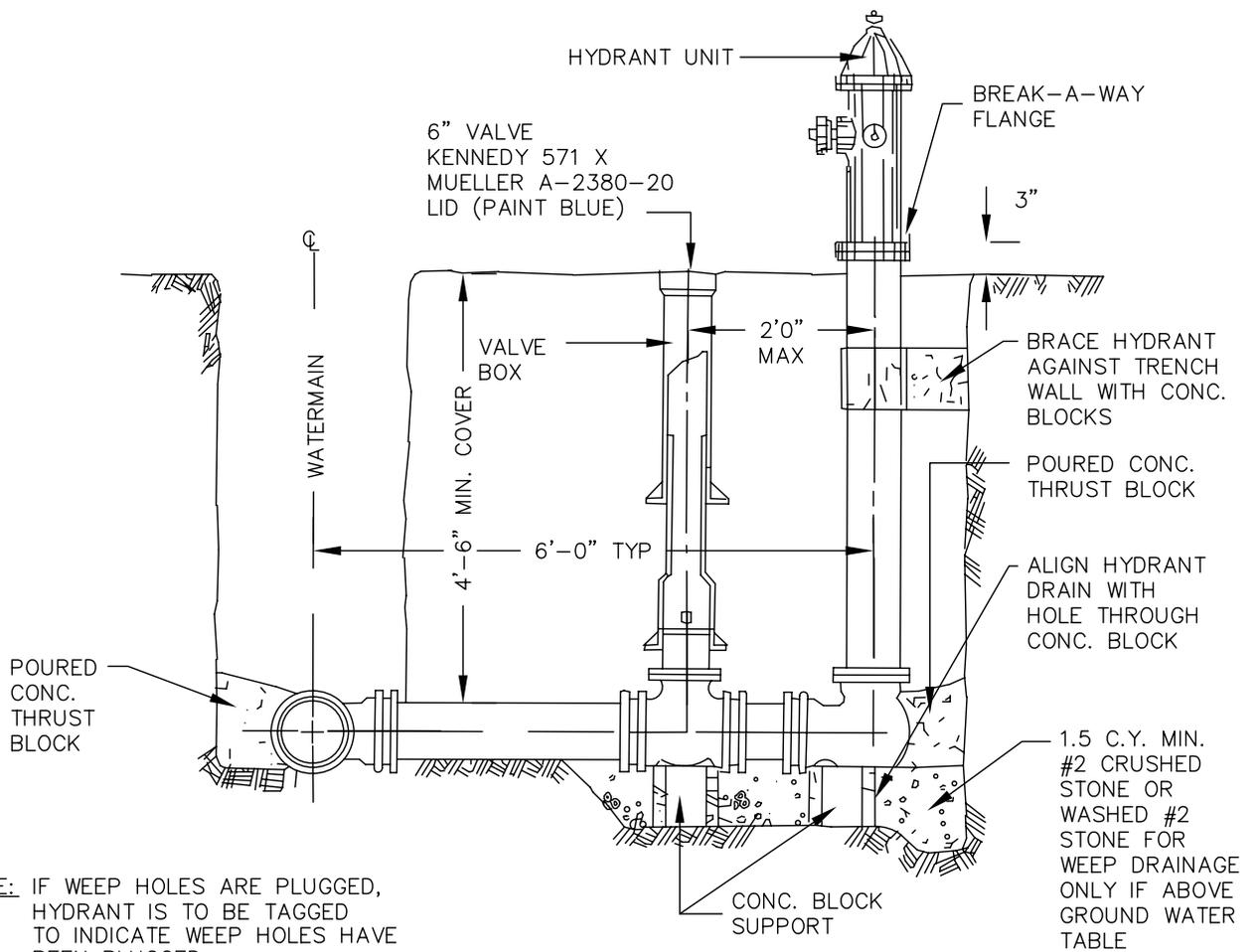
TYPICAL WATER SERVICE

(N.T.S.)

VILLAGE OF AVON



PLAN



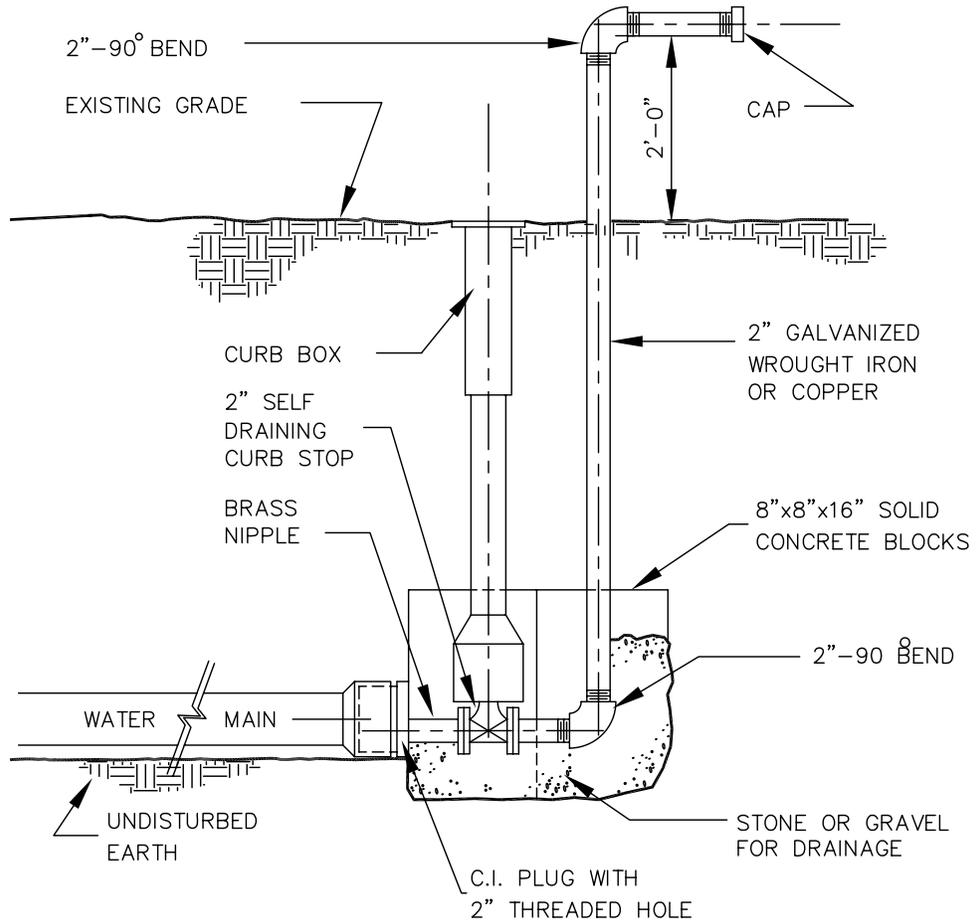
NOTE: IF WEEP HOLES ARE PLUGGED, HYDRANT IS TO BE TAGGED TO INDICATE WEEP HOLES HAVE BEEN PLUGGED.

SECTION

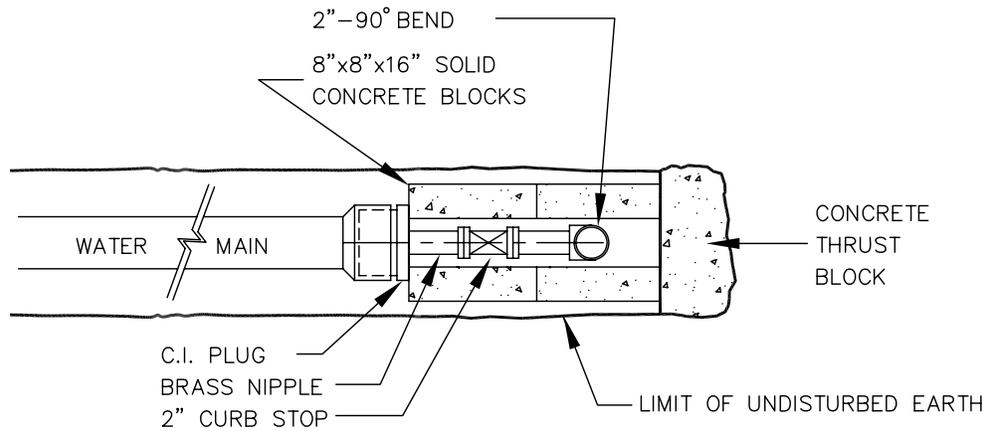
STANDARD HYDRANT UNIT

(N.T.S.)

VILLAGE OF AVON



SECTION

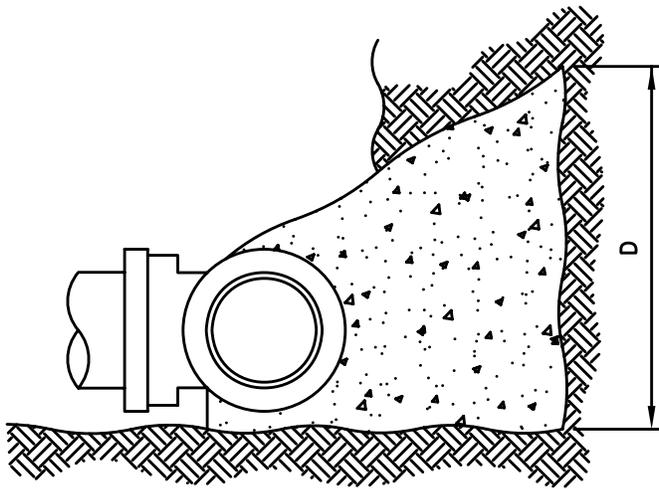


PLAN

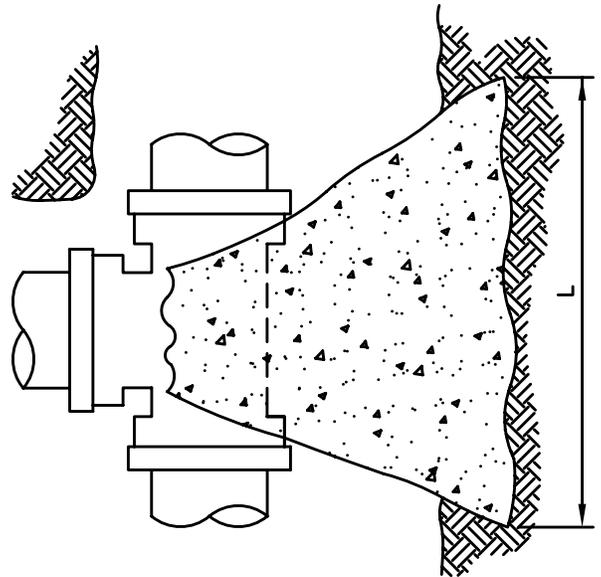
WATERMAIN BLOWOFF DETAIL

(N.T.S.)

VILLAGE OF AVON

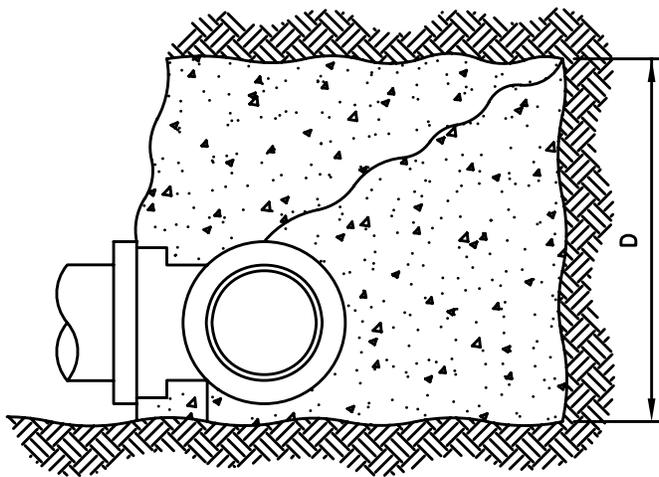


SECTION

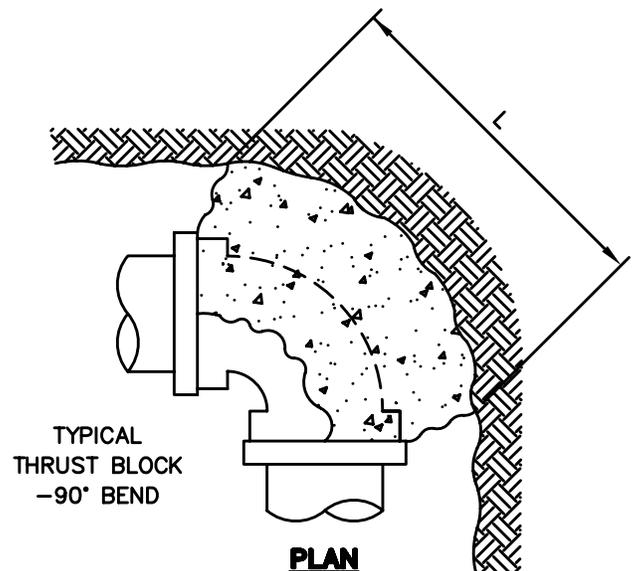


PLAN

TEE



SECTION



PLAN

BEND

THRUST BLOCK DETAIL

(N.T.S.)

VILLAGE OF AVON

PIPE SIZE (INCHES)	WORKING PRESSURE (PSIG)	TEE OF PLUG		90° BEND		45° BEND		22-1/2° BEND	
		L	D	L	D	L	D	L	D
4	150	1.50	0.67	1.50	0.67	1.50	0.67	1.50	0.67
	250	1.50	0.67	1.67	0.75	1.50	0.67	1.50	0.67
6	150	1.67	0.75	2.00	1.00	1.50	0.67	1.50	0.67
	250	2.00	1.25	2.00	1.50	1.75	1.00	1.50	0.67
8	150	2.00	1.25	2.00	1.50	1.75	1.00	1.50	0.67
	250	2.25	1.75	3.00	2.00	2.00	1.50	1.67	1.00
10	150	2.00	1.75	2.50	2.00	1.75	1.50	1.67	1.00
	250	3.00	2.00	3.67	2.50	2.50	2.00	1.75	1.50
12	150	2.50	2.00	3.00	2.50	2.25	1.75	1.75	1.25
	250	3.67	2.50	4.00	3.00	3.00	2.33	2.00	1.75
14	150	3.00	2.33	4.00	2.50	2.75	2.00	2.00	1.50
	250	4.00	3.00	5.00	3.50	3.75	2.67	2.50	2.00
16	150	3.75	2.67	5.00	3.00	3.00	2.50	2.25	1.75
	250	5.00	3.25	6.00	3.50	4.00	3.00	3.25	2.00
18	150	4.00	3.00	5.50	3.25	3.67	2.50	2.50	2.00
	250	6.00	3.33	7.00	4.00	5.00	3.25	3.50	2.50
20	150	5.00	3.00	6.00	3.50	4.00	2.75	3.00	2.00
	250	6.50	4.00	8.00	4.50	6.00	3.25	4.00	2.50
24	150	6.00	3.33	7.00	4.25	5.00	3.25	3.67	2.50
	250	8.00	4.50	9.00	5.50	6.50	4.00	5.00	3.00

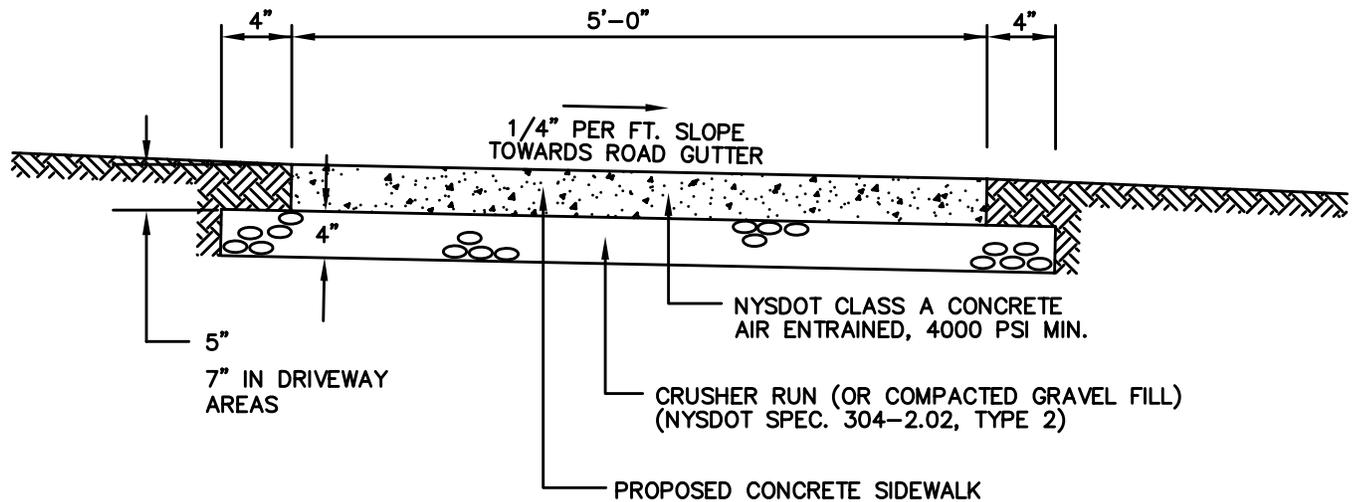
NOTES:

1. ALL DIMENSIONS ARE IN FEET.
2. BEARING AREAS ARE BASED ON ALLOWABLE SOIL BEARING PRESSURE OF 3000 PSF.
3. HEIGHT OF THRUST BLOCK SHOULD BE EQUAL TO OR LESS THAN 1/2 THE DEPTH FROM THE GROUND SURFACE TO THE BASE OF THE BLOCK.

THRUST BLOCK DIMENSIONS

(N.T.S.)

VILLAGE OF AVON

SEE TYPICAL ROAD SECTION FOR
HORIZONTAL AND VERTICAL ALIGNMENT**NOTE:**

CONCRETE SIDEWALKS THROUGH DRIVEWAYS SHALL BE INCREASED TO A 7" THICKNESS AND SHALL INCLUDE 6"X6" WIRE MESH (10 GAUGE) FOR REINFORCEMENT.

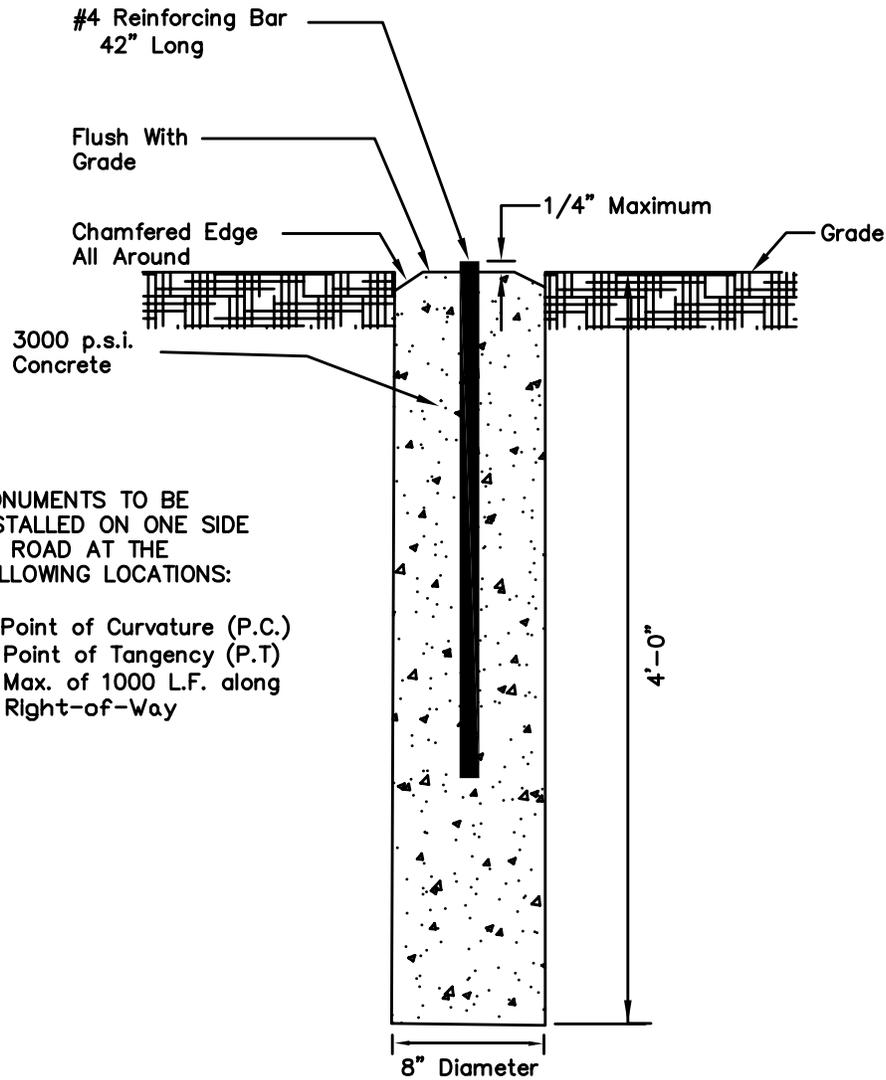
- 1.) EXPANSION JOINTS SHALL BE PROVIDED EVERY 20 FEET.
- 2.) DUMMY JOINTS SHALL BE 1" DEEP PROVIDED EVERY 5 FEET.
- 3.) CONCRETE SHALL BE 4,000 PSI , CLASS A* AIR ENTRAINED CONCRETE AGGREGATE SHALL BE CRUSHED DOLOMITE STONE.
- 4.) EXPOSED CONCRETE SURFACE TO BE BROOM FINISHED & ALL EDGES TO BE TROWELED.
- 5.) ALL EXPOSED CONCRETE TO RECEIVE TWO COATS OF A COMBINATION CURING COMPOUND-SEALER SUCH AS "ACCUSEAL", CURE-N-HAND "POLYCLEAR" OR APPROVED EQUAL.

* NYS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS OR EQUAL.

TYPICAL SIDEWALK SECTION

(N.T.S.)

VILLAGE OF AVON



MONUMENTS TO BE
INSTALLED ON ONE SIDE
OF ROAD AT THE
FOLLOWING LOCATIONS:

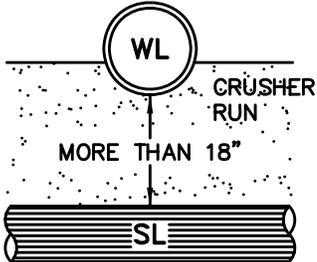
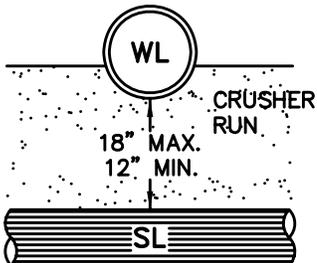
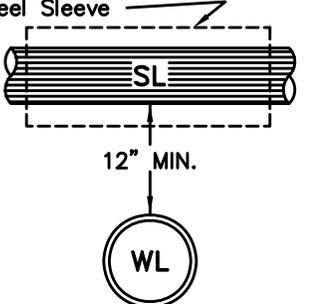
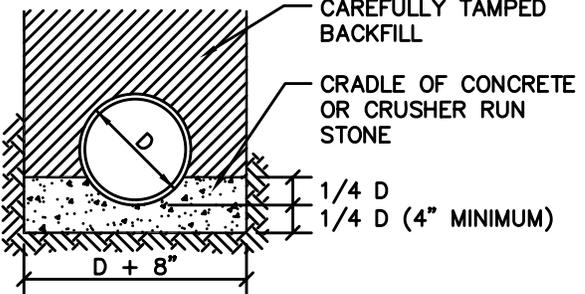
- 1) Point of Curvature (P.C.)
- 2) Point of Tangency (P.T)
- 3) Max. of 1000 L.F. along
Right-of-Way

NOTE: VILLAGE MAY REQUIRE VILLAGE INSIGNIA
MOLDED ON THE TOP.

STANDARD MONUMENT DETAIL

(N.T.S.)

VILLAGE OF AVON

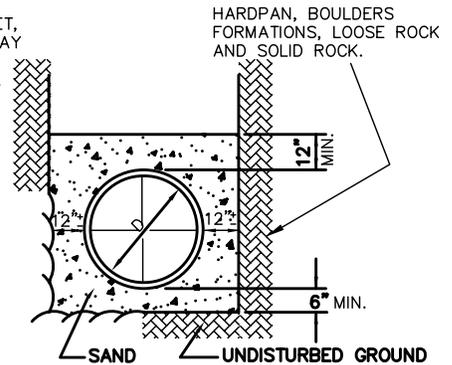
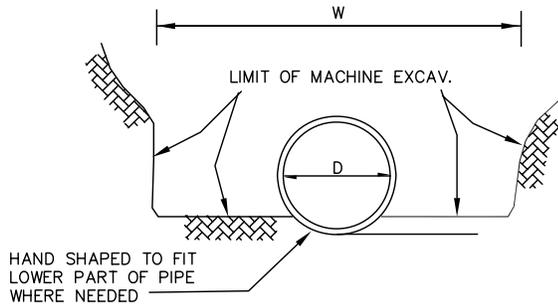
CONDITION	SCHEMATIC	REQUIREMENTS
<p>I WATER LINE ABOVE SEWER LINE</p>		<p>A) WATER LINE AND SEWER LINE PIPE LENGTHS TO BE CENTERED AT CROSSING. EACH LENGTH OF PIPE TO BE 10 FT. MINIMUM. B) BACKFILL WITH COMPACTED CRUSHER RUN STONE.</p>
<p>II WATER LINE ABOVE SEWER LINE</p>		<p>A) WATER LINE AND SEWER LINE PIPE LENGTHS TO BE CENTERED AT CROSSING. EACH LENGTH OF PIPE TO BE 10 FT. MINIMUM. B) WHEN BOTH WATER LINE AND SEWER LINE ARE NEW, SLEEVE SEWER LINE WITH STEEL CASING FOR 10 FT. EACH SIDE OF CROSSING. C) WHEN ONE LINE IS EXISTING, SLEEVE PIPE BEING INSTALLED WITH STEEL CASING FOR 10 FT. EACH SIDE OF CROSSING.</p>
<p>III SEWER LINE ABOVE WATER LINE</p>		<p>A) WATER LINE AND SEWER LINE PIPE LENGTHS TO BE CENTERED AT CROSSING. EACH LENGTH OF PIPE TO BE 10 FT. MINIMUM. B) SLEEVE SEWER LINE WITH STEEL CASING FOR 10 FT. EACH SIDE OF CROSSING. C) PROVIDE CRUSHER RUN STONE (SEE TRENCH DETAIL BELOW) FOR WATER LINE 10 FEET EACH SIDE OF CROSSING.</p>
<p style="text-align: center;">NOTES</p> <p>WL (WATER LINE) SL (SEWER LINE, SANITARY OR STORM) D (OUTSIDE DIAMETER OF PIPE)</p> <p>IN NO CASE SHALL PIPES BE CLOSER THAN 12" APART. DISTANCES ARE MEASURED BETWEEN OUTSIDES OF PIPE.</p>		

WATERMAIN/SEWER CROSSING DETAIL

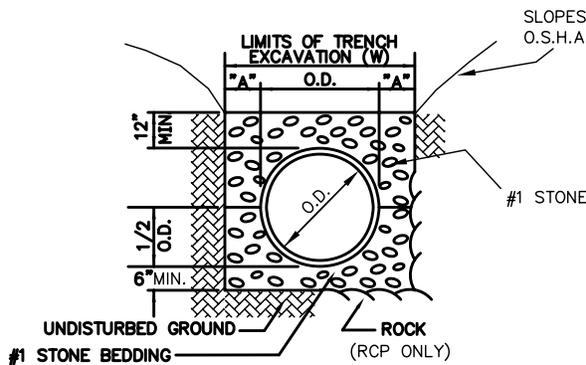
(N.T.S.)

VILLAGE OF AVON

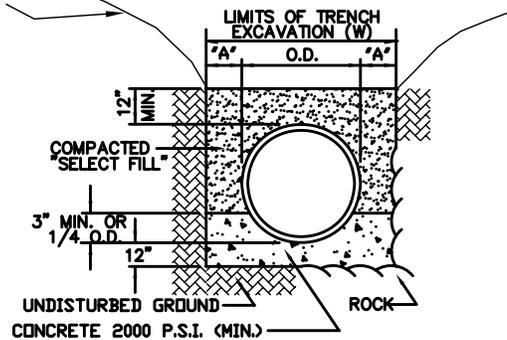
IF TRENCH CONDITIONS ARE WET,
#1 AND #2 CRUSHED STONE MAY
BE USED IN PLACE OF SAND,
HOWEVER, THE SAME MATERIAL
SHALL BE USED THROUGHOUT
THE ENTIRE LENGTH OF PIPE
BETWEEN MANHOLES.



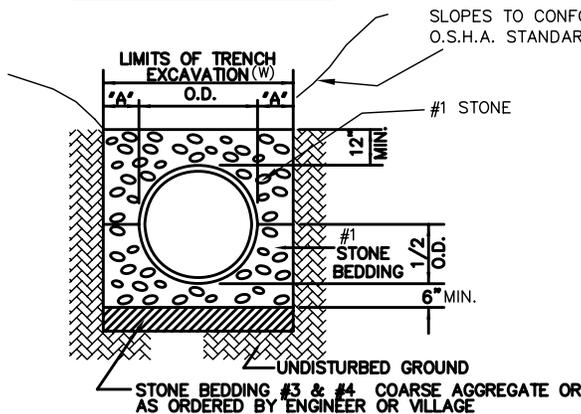
SAND ENCASEMENT



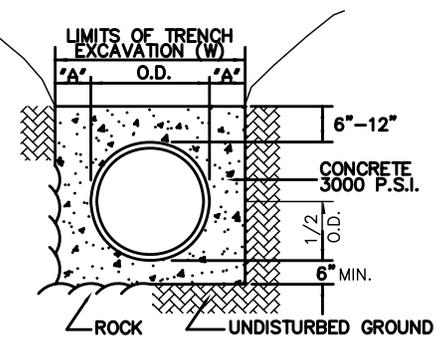
CLASS B BEDDING



CONCRETE GRADE CLASS "A"



SPECIAL BEDDING IN UNSTABLE MATERIAL



CONCRETE ENCASEMENT

"D" Inside Pipe DIAMETER

8"
10"
12"
14"
16"
18"
20"
24"

"W" Maximum Trench Width At Top Of Pipe

3'-0"
3'-0"
3'-0"
3'-0"
3'-3"
3'-6"
4'-0"
4'-6"

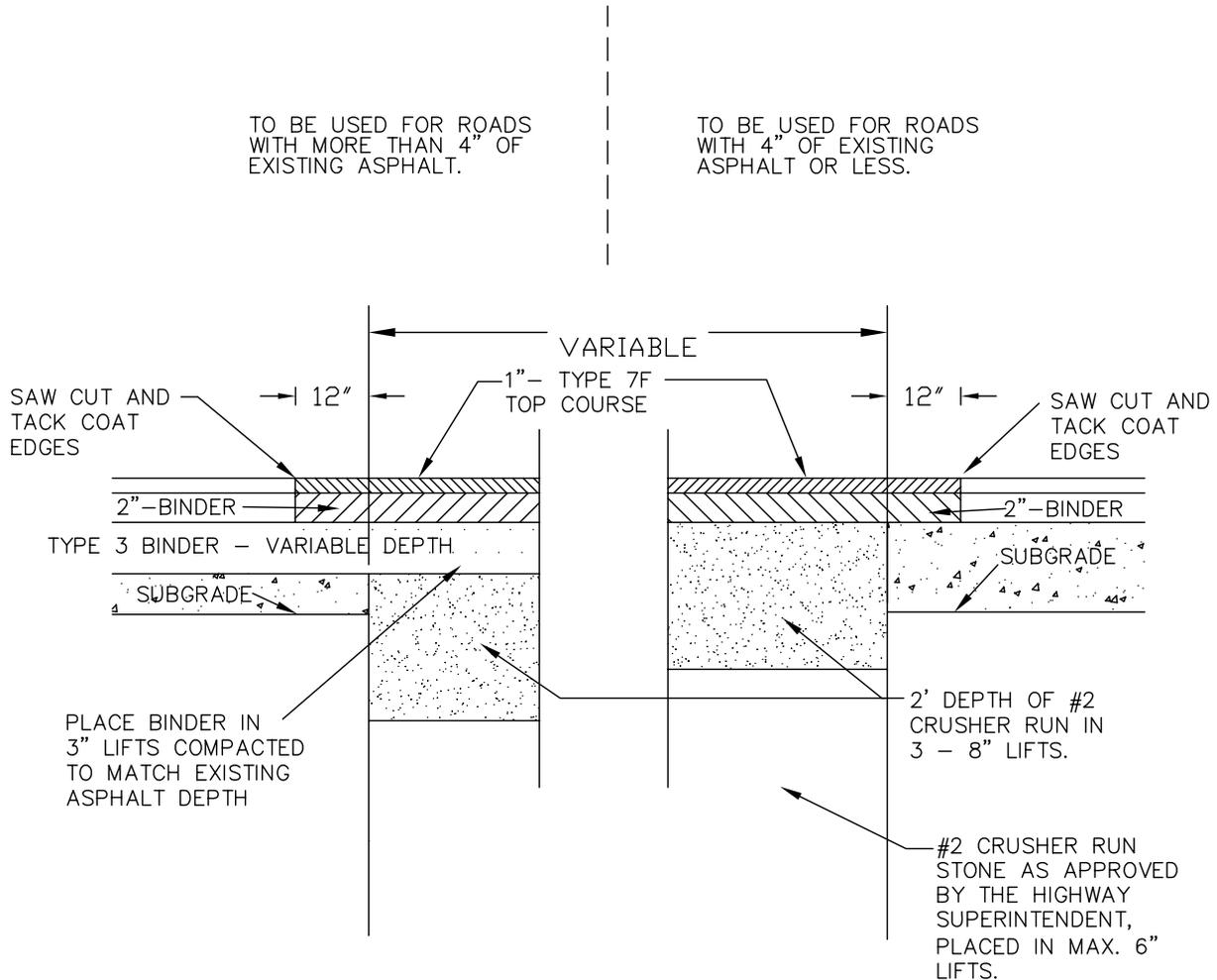
"A" Depth Of Hand Shaping Where Needed

2"
2"
2"
3"
3"
4"
4"
5"

TRENCH EXCAVATION DETAIL

(N.T.S.)

VILLAGE OF AVON



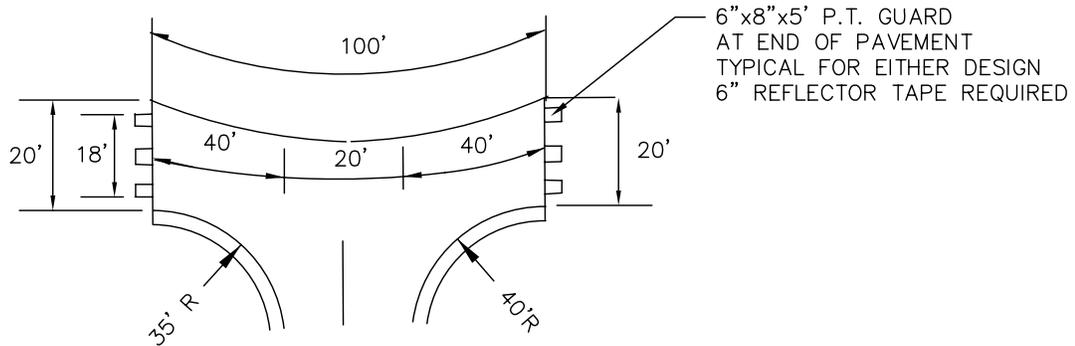
NOTE: ALL JOINTS TO BE SAW-CUT AND TACK COATED.

THE CONTRACTOR SHALL PROVIDE ONE TRAFFIC LANE DURING WORKING PERIODS AND TWO TRAFFIC LANES DURING NON-WORKING PERIODS FOR THE OPEN CUT CROSSING. WORK SHALL BE LIMITED TO THE HOURS FROM 9:00 A.M. TO 4:00 P.M. FOR PAVEMENT CROSSINGS. FLAGMEN AND SIGNS, LIGHTS, BARRICADES AND OTHER SAFETY DEVICES WILL BE REQUIRED AS DIRECTED BY THE VILLAGE SUPERINTENDENT OF HIGHWAYS AND SHALL COMPLY WITH NYS DOT REGULATIONS. CONTRACTOR TO NOTIFY THE VILLAGE OF SENECA FALLS OFFICE AT LEAST 48 HOURS PRIOR TO INSTALLATION.

PAVEMENT RESTORATION DETAIL

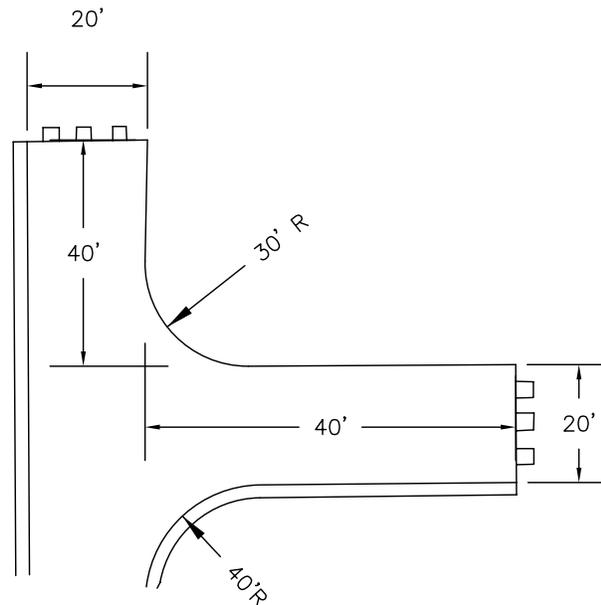
(N.T.S.)

VILLAGE OF AVON



MATERIAL NOTE:
TURNAROUND TO BE CONSTRUCTED WITH TYPE 3 BINDER TO BE USED FOR ROADS WHICH WILL REQUIRE SEASONAL MAINTENANCE PRIOR TO COMPLETION OF ROAD SYSTEM.

NOTE:
IN ALL CASES THE TURNAROUNDS ARE TO HAVE SAME R.O.W. WIDTHS AS THE STREET. ENTERING R.O.W. TO EXTEND A MIN. OF 10' BEYOND PAVEMENT. NO PRIVATE DRIVEWAYS TO EXIT ONTO OR WITHIN 20' OF TURNAROUND.



TEMPORARY TURNAROUND DETAILS

(N.T.S.)

APPENDIX: H-H
DATE: MAY 2005

MRB | *group*

ENGINEERING/ARCHITECTURE/SURVEYING, P.C.
2480 BROWNCROFT BLVD. ROCHESTER, N.Y. 14625

VILLAGE OF AVON

!! CALL !!

**BEFORE
YOU DIG, DRILL OR BLAST**

1-800-962-7962

UNDER STATE INDUSTRIAL CODE RULE 53 ALL CONTRACTORS MUST NOTIFY
ALL UTILITY COMPANIES IN THE AREA 72 HOURS BEFORE EXCAVATING.

UTILITY COMPANIES KNOWN TO BE IN THE AREA INCLUDE:

- FRONTIER TELEPHONE
- ROCHESTER GAS & ELECTRIC CORPORATION
- AMERICAN TELEPHONE AND TELEGRAPH
- BUCKEYE PIPE LINE COMPANY
- NIAGARA MOHAWK / ENERGY EAST
- NATIONAL FUEL GAS DISTRIBUTION CORP.
- CABLE TV (TIME WARNER)
- TENNESSEE GAS CO.
- VILLAGE OF AVON PUBLIC WORKS DEPT.
- NEW YORK STATE ELECTRIC AND GAS (NYSEG)
- LENAPE GAS SERVICES