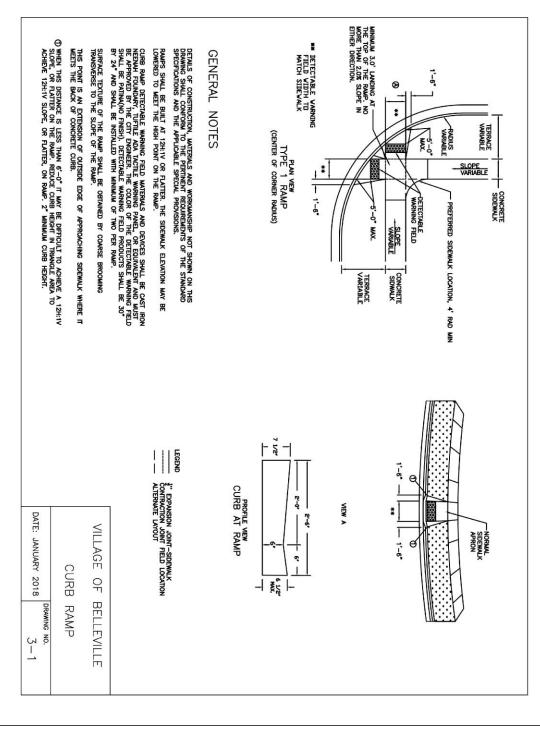
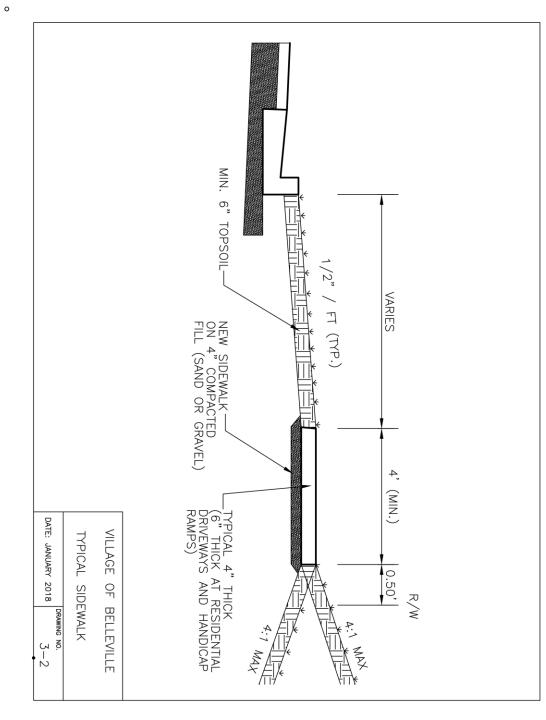
STANDARD DETAIL DRAWINGS

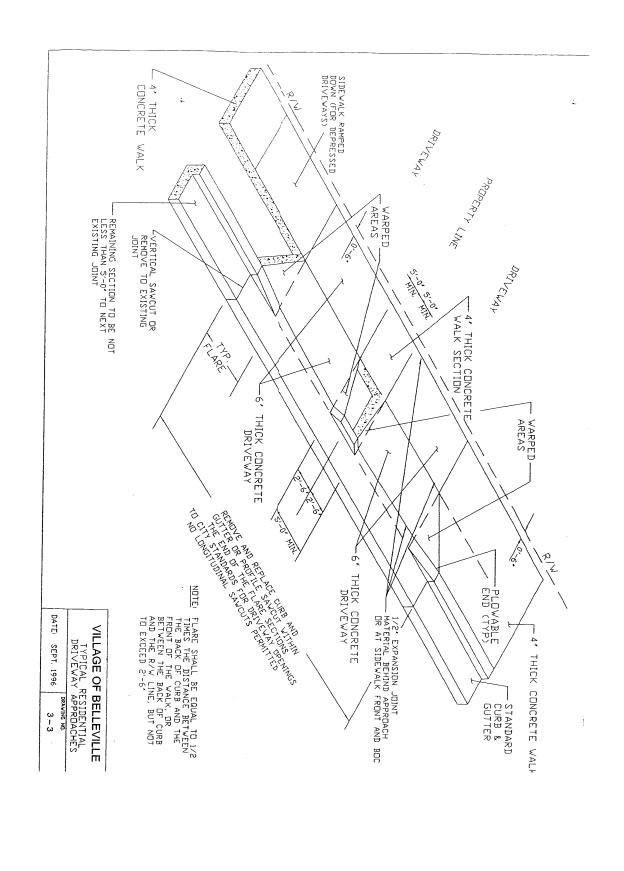
DESCRIPTION	PAGE
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TYPICAL RESIDENTIAL DRIVEWAY APPROACH	3-3
STANDARD RESIDENTIAL DRIVEWAY OPENING	3-4
SIDEWALK DRIVEWAY DETAIL	3-5
CONCRETE RETAINING WALL DETAIL	3-6
CONCRETE CURB & GUTTER DETAILS	3-7
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WATER VALVE BOX DETAIL	6-3
TRACER WIRE INSTALLATION FOR PVC WATERMAIN DETAIL	6-4
WATER SERVICE DETAIL	6-5

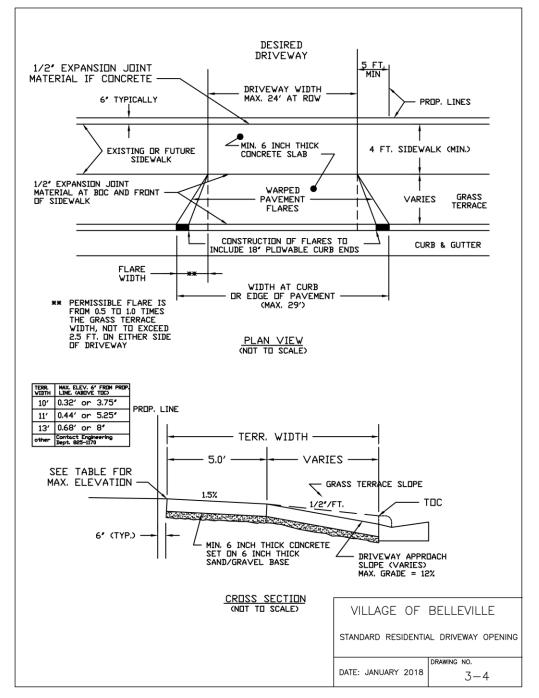


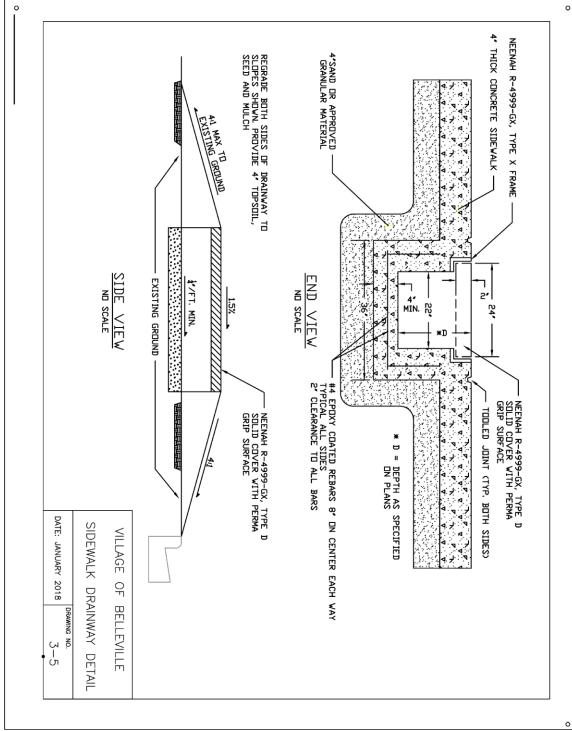


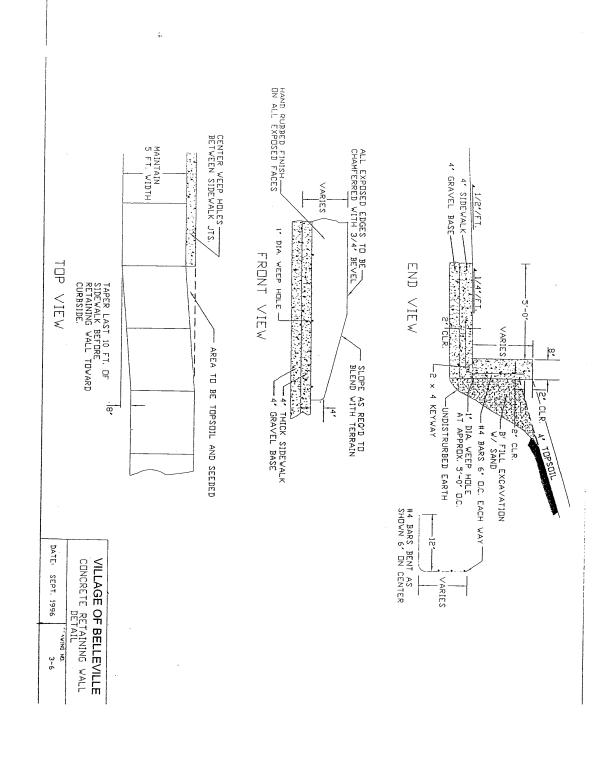


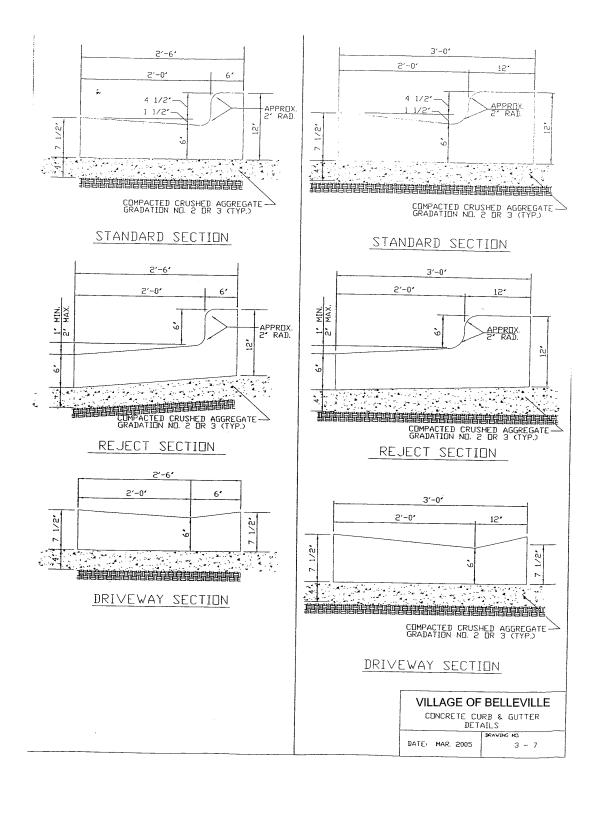
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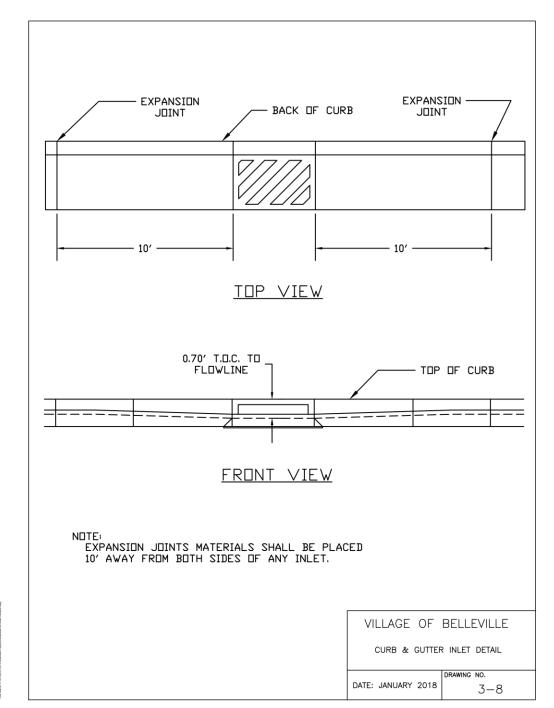


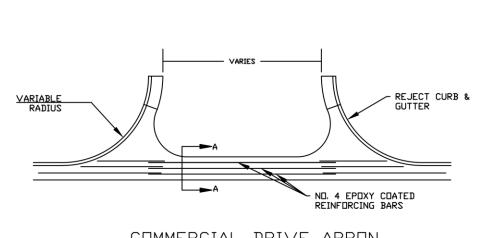






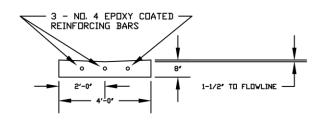






COMMERCIAL DRIVE APRON

NO SCALE



WATERWAY SECTION A - A

CROSS SECTION (NOT TO SCALE)

VILLAGE OF BELLEVILLE

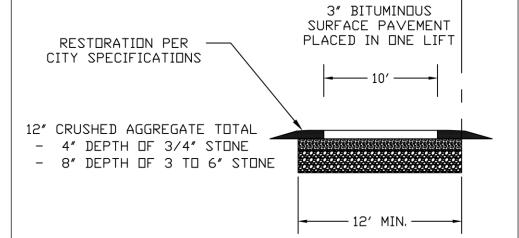
COMMERCIAL DRIVEWAY OPENING

DRAWING NO. DATE: JANUARY 2018 3-9

0



R.O.W. LINE



NOTES:

- 1.) CROSS SLOPE OF PATH SHALL BE 1.5% 2.) WIDTH OF BASECOURSE MATERIAL TO BE A MINIMUM OF 12 FEET.

VILLAGE OF BELLEVILLE

TYPICAL ASPHALT BIKE/PEDESTRIAN PATH

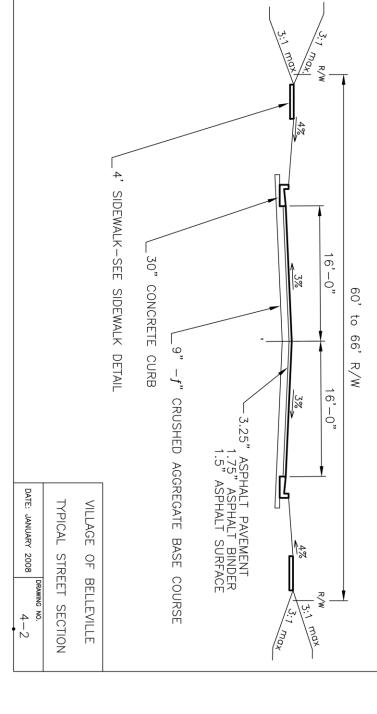
DRAWING NO. DATE: JANUARY 2018

4 - 1

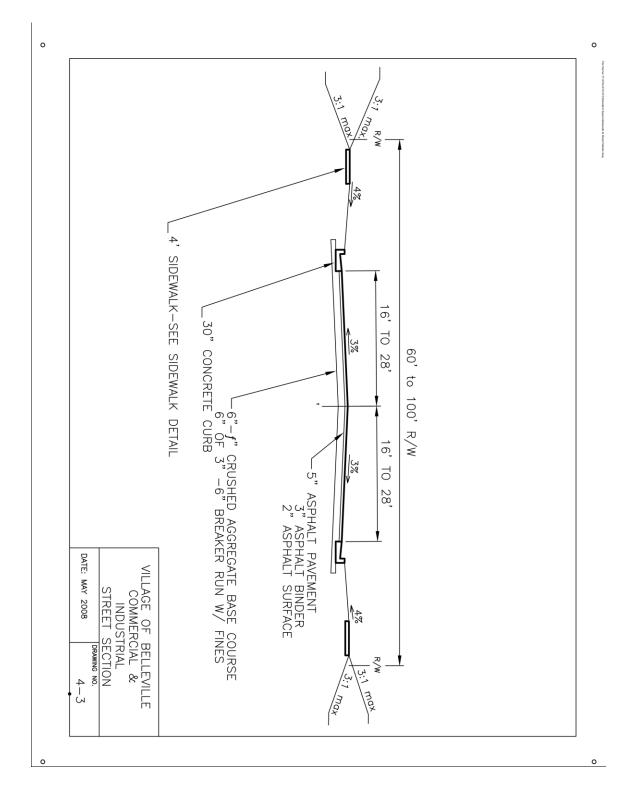
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NOTE: ASPHALT CONCRETE PAVEMENT SHALL BE 3 MT S FOR BINDER COURSE AND 4 MT S FOR SURFACE COURSE ON ARTERIAL STREETS. ASPHALT CONCRETE PAVEMENT SHALL BE TYPE $3\,$ LT S FOR BINDER COURSE AND $4\,$ LT S FOR SURFACE COURSE ON ALL RESIDENTIAL STREETS.

ASPHALTIC MATERIAL SHALL BE PG58-28 UNLESS OTHERWISE NOTED.



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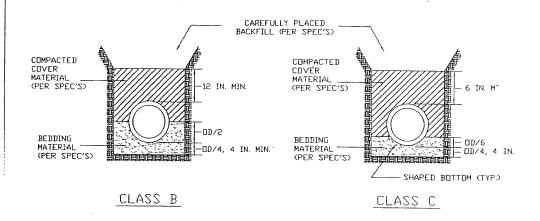


NOTE - MINIMUM WIDTH OF CONCRETE CRADLE = $\Box D$ + 8 IN.

NOTE - MINIMUM WIDTH OF CONCRETE ARCH = $\Box D$ + 8 IN.

CLASS A
CONCRETE CRADLE

CLASS A-1
CONCRETE ARCH



NOTES: ALL PVC AND ABS SEWER MAINS AND LATERALS SHALL BE CLASS 'B' MIN., OR AS CALLED FOR IN THE SPECIAL PROVISIONS.

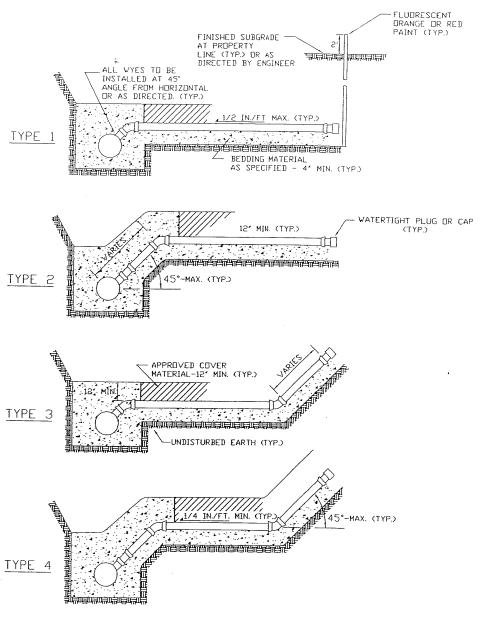
ALL BEDDING AND COVER MATERIALS SHALL BE AS SPECIFIED AND SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

UNDERCUT SHALL BE IN ACCORDANCE WITH SECTION 3 OF THE STORM AND SANITARY SEWER STANDARD SPECIFICATIONS.

VILLAGE OF BELLEVILLE
STORM AND SANITARY SEWE
BEDDING STANDARDS

DATE: SEPT. 1996 S 5 - 1

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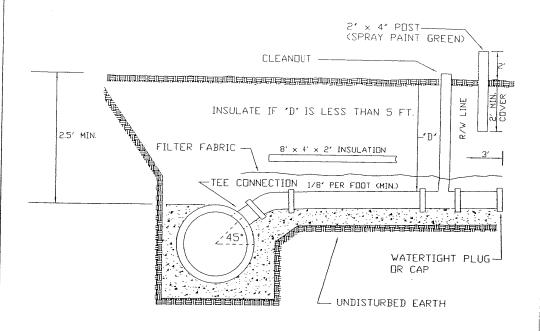
NOTES: 1.) BEDDING MATERIAL SHALL BE ENGINEER APPROVED, CLASS 'B' MINIMUM.

- 2.) ENDS OF ALL LATERALS TO BE 10 FT. MIN. COVER AT END, AND BE MARKED BOTH BELOW AND ABOVE SURFACE WITH 4' LONG 2' \times 4'.
- ALL NEW CONSTRUCTION TO BE PLACED ON UNDISTURBED GROUND OR SAND COMPACTED TO 95% MAXIMUM DENSITY.
- 4.) LATERAL MATERIAL INCLUDING FITTINGS SHALL BE OF SAME MATERIAL AS THE SEVER MAIN, OR AS DIRECTED BY ENGINEER.

VILLAGE OF BELLEVILLE SANITARY SEWER LATERALS STANDARD DETAILS TRANSING NO.

DATE: SEPT. 1996

5 - 2



- NOTES: 1.) NEW CONNECTIONS SHALL CONSIST OF A FACTORY SUPPLIED 4' DIAMETER TEE CONNECTION WITH AN ENGINEER APPROVED METHOD AND MATERIAL.
 - 2.) LATERAL PIPE SHALL BE SCHEDULE 40 PVC DR EQUAL.
 - 3.) LATERAL PIPE SHALL HAVE CLASS 'B' BEDDING. BEDDING AND COVER MATERIAL SHALL CONSIST OF 3/4 INCH CLEAR STONE.
 - 4.) LATERAL SHALL BE INSULATED AT ALL LOCATIONS WITH LESS THAN 5 FT. OF COVER MATERIAL.
 - 5.) EXISTING STORM SEWER SHALL BE CORED USING PORTABLE CORE DRILL AND THE CONNECTION SHALL BE MADE USING STRAPPED ON SADDLE AS APPROVED BY CITY ENGINEER.

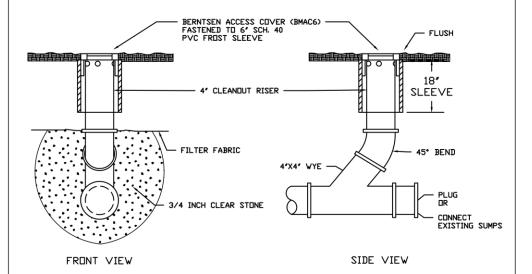
VILLAGE OF BELLEVILLE

TYPICAL STORM SEWER

LATERAL

DATE: JANUARY 2000 5 - 3

STORM LATERAL CLEANOUT CONNECTION



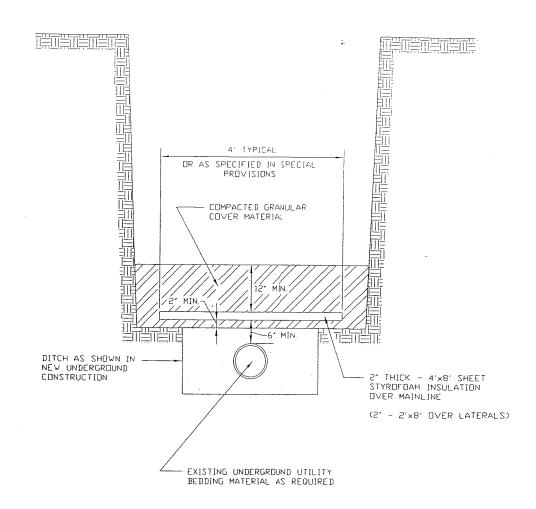
NOTES:

- 1.) THE TOP OF THE CLEANOUT RISE SHALL NOT EXTEND ABOVE EXISTING GROUND ELEVATION
- 2.) THE CONTRACTOR SHALL DRILL FOUR 1 INCH DIAMETER HOLES WITHIN CLEANOUT RISER APPROXIMATELY 43 INCHES BELOW EXISTING GROUND ELEVATION.
- 3.) THE CONTRACTOR SHALL REMOVE THE EXISTING SUMP PUMP DISCHARGE PIPE WITHIN THE STREET RIGHT-OF-WAY AND CONNECT EXISTING SUMP LINE, 3' PAST R.D.W.
- 4.) THE CLEANDUT RISER SHALL BE ENCASED IN A 6 INCH SCH. 40 PVC FROST SLEEVE WITH A BERNTSEN ACCESS COVER (BMAC6).
- 5.) THE CLEANOUT RISER SHALL BE INSTALLED 1' DUTSIDE OF R.O.W.

VILLAGE OF BELLEVILLE

STORM LATERAL CLEANOUT CONNECTION

DATE: JANUARY 2018 5-4



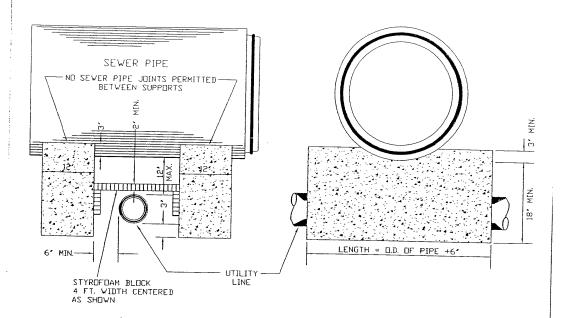
PIPE INSULATION DETAIL

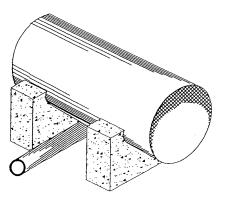
NOTE: INSULATION STANDARDS SHALL BE AS FOLLOWS:
WATER MAIN: INSULATED AT DEPTHS LESS THAN 6.5 FEET
WATER MAIN SERVICES: INSULATE AT DEPTHS LESS THAN 6.5 FEET
SANITARY MAIN SERVICES: INSULATE AT DEPTHS LESS THAN 5.0 FEET

VILLAGE OF BELLEVILLE
PIPE INSULATION DETAIL

DATE: Apr. 2005

DRAVING NO. 5-5





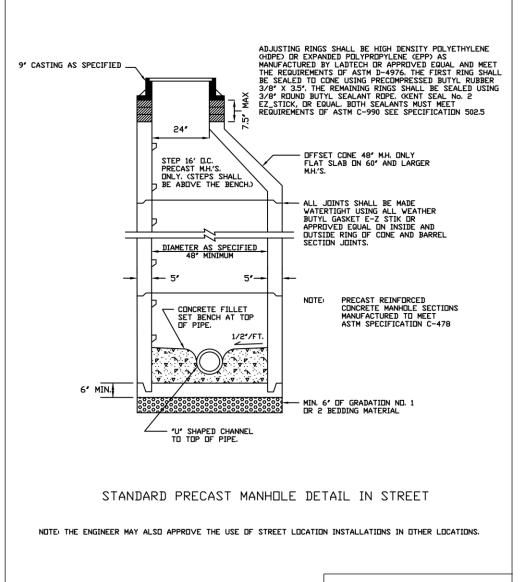
EACH PAIR OF SUPPORTS IN ANY SIZE IS ONE PAY ITEM

VILLAGE OF BELLEVI	1	1 =	
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CONCRETE PIPE SUPPORT DETAIL

DATE: SEPT. 1996

5 - 6



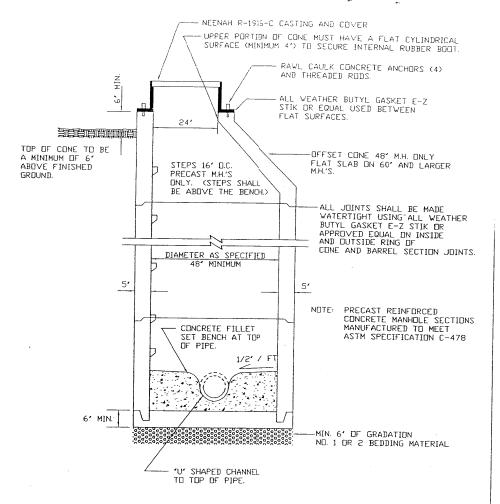
VILLAGE OF BELLEVILLE

SANITARY MANHOLES IN STREET LOCATIONS

DATE: JANUARY 2018 DRAWING NO. 5-7

0

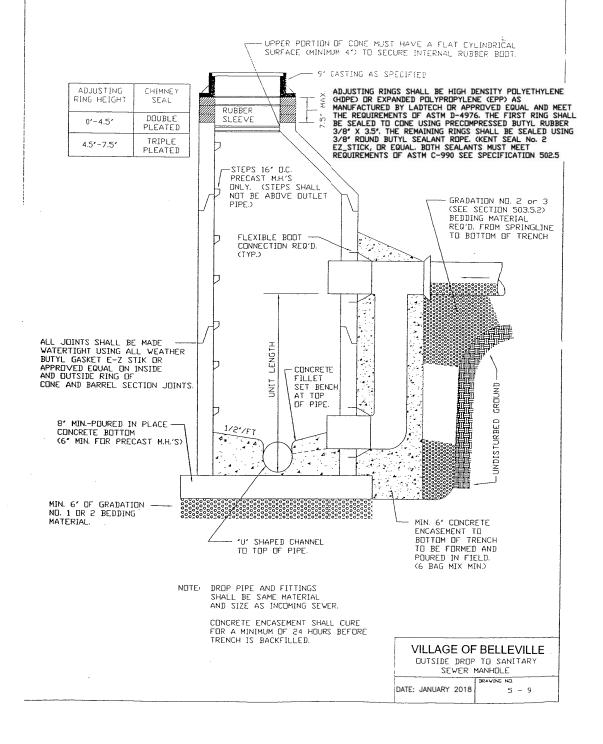
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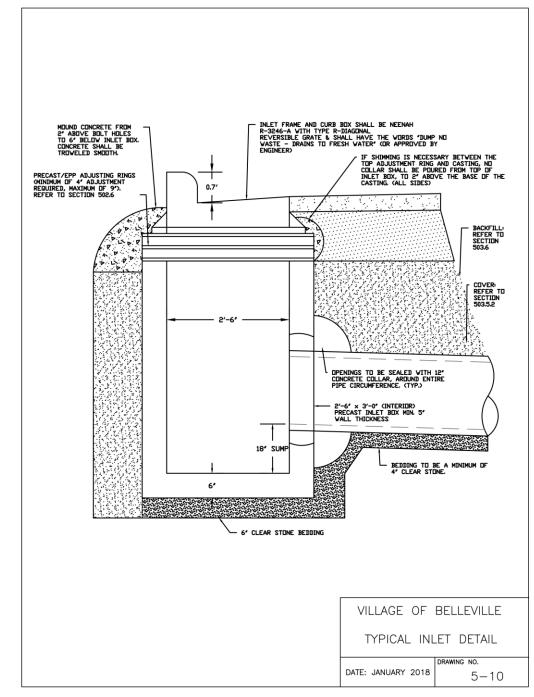


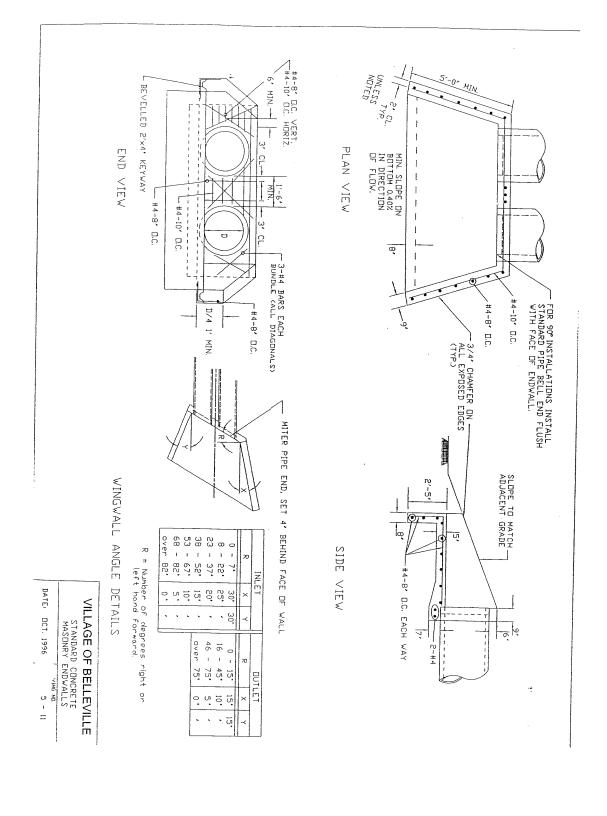
STANDARD PRECAST MANHOLE DETAIL IN REMOTE LOCATIONS

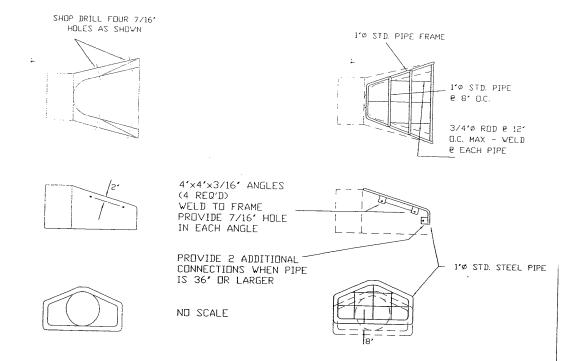
NOTE: THE ENGINEER MAY ALSO APPROVE THE USE OF REMOTE LOCATION INSTALLATIONS IN OTHER LOCATIONS.

VILLAGE OF	BELLEVILLE
	MANHOLES LOCATIONS
DATE: JAN. 1999	DRAVING NO. 5 - 8









THE CONTRACTOR SHALL BOLT THE PIPE GATE TO THE CONCRETE ENDWALL WITH FOUR $3/8^{\prime}\times6^{\prime}$ MACHINE BOLTS WITH NUTS ON INSIDE WALL.

PAINTING SPECIFICATIONS

THE PIPE GATE SHALL RECIEVE THE FOLLOWING PREPARATION & PAINTING. SEE NOTES: FIRST COAT-RUST-OLEUM X-60 RED BARE METAL PRIMER OR EQUAL. SECOND COAT-RUST-OLEUM 960 ZINC CHROMATE PRIMER OR EQUAL. THIRD COAT-RUST-OLEUM 1282 HIGH GLOSS & METALIC FINISH OR EQUAL.

NOTES:

i. BARE SURFACES - AFTER THROUGH SCRAPING, WIRE BRUSHING & CLEANING APPLY THE THREE COAT SYSTEM LISTED.

2. EACH COAT AN OVERALL COAT.

- - ALLOW 24-48 HOURS DRYING TIME BETWEEN COATS.

VILLAGE OF BELLEVILLE

MADISON STANDARD PIPE GATE FOR REINFORCED CONCRETE APRON ENDWALL

DATE: MAY 1997

DRAVING NO. 5 - 12

DRAVING INFORMATION PROVIDED BY CITY OF MADISON, WI ENGINEERING DEPT. - REV.2-28-91

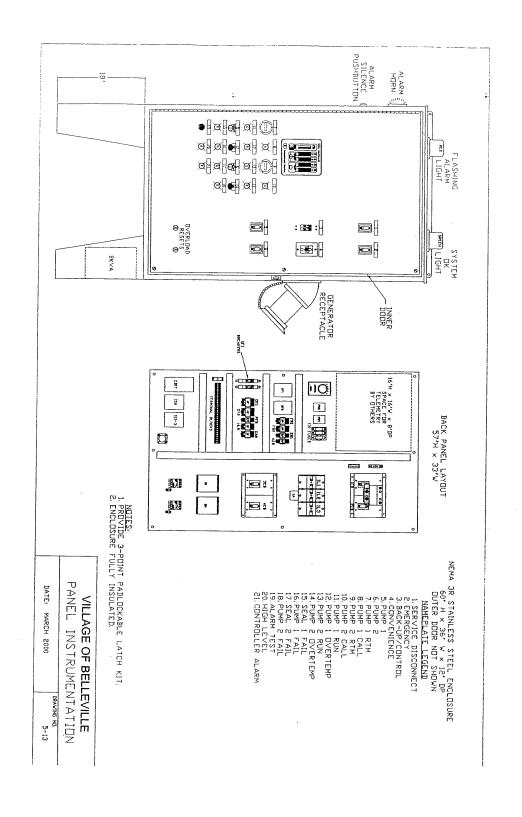


TABLE OF QUANTITIES RIPRAP AT RCP OUTLETS

		CLASS II d50=6"	CLASS III d50=9"	CLASS IV d50=12"
DIA OF ROUND PIPE (IN.)	L (FT.)	12" DEPTH RIPRAP (CU YDS.)	18" DEPTH RIPRAP (CU YDS.)	24" DEPTH RIPRAP (CU YDS.)
12	8	2.8	4.1	5.5
15	8	2.9	4.4	5.8
18	10	3.9	5.9	7.8
21	10	4.2	6.3	8.4
24	12	5.5	8.3	11.0
27	12	5.8	8.7	11.6
30	14	7.3	10.9	14.5
36	16	9.2	13.8	18.3
42	18	10.9	16.3	21.7
48	20	12.9	19.4	25.8

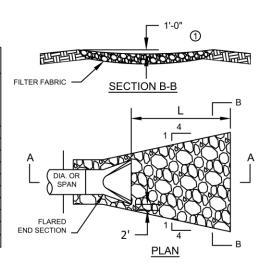
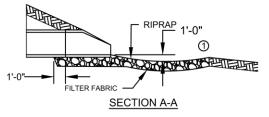


TABLE OF QUANTITIES RIPRAP AT RCP-A OUTLETS OR BOXES OF EQUIVALENT SPAN WIDTH

ARCH (IN.) (FT.) (CU YDS.) RIPRAP (CU YDS.) (CU YD S.)			CLASS II d50=6"	CLASS III d50=9"	CLASS IV d50=12"
28 12 5.5 8.2 10.9 36 14 7.2 10.8 14.3	OF PIPE ARCH	L (FT.)	DEPTH RIPRAP	DEPTH RIPRAP	24" DEPTH RIPRAP (CU YDS.)
36 14 7.2 10.8 14.3	22	10	3.9	5.9	7.8
	28	12	5.5	8.2	10.9
	36	14	7.2	10.8	14.3
43 16 9.2 13.7 18.3	43	16	9.2	13.7	18.3
51 18 10.9 16.3 21.7	51	18	10.9	16.3	21.7
58 20 12.7 19.0 25.4	58	20	12.7	19.0	25.4



NOTES:

PIPES SIZES LARGER THAN THOSE SHOWN REQUIRE A SPECIAL DESIGN.

GEOTEXTILE FILTER FABRIC SHALL BE TYPE "HR" UNLESS OTHERWISE SPECIFIED. REFER TO SECTION 401.4.1

1) FOR PIPES GREATER THAN OR EQUAL TO 30" USE 1.5'.

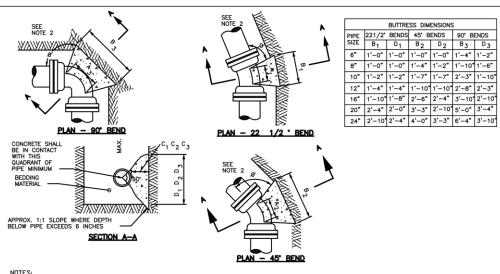
RIP RAP AT OUTLETS

NO SCALE

VILLAGE OF BELLEVILLE

RIP-RAP & FABRIC DETAIL FOR ENDWALL

DATE: JANUARY 2018 | DRAWING NO. 5-14



- NOTES:

 1. DIMENSIONS IN TABLE ARE BASED ON A WATER PRESSURE OF 150 PSI AND AN EARTH RESISTANCE OF 2 TONS PER SQ. FT. INFORM THE ENGINEER IF PRESSURES EXCEED 150 PSI OR ON-SITE SOIL DOES NOT MEET THIS CONDITION.

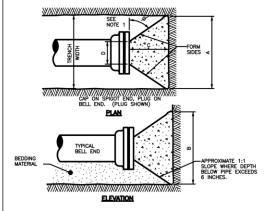
 2. DIMENSION C1, C2, C3 SHOULD BE LARGE ENDUGH TO MAKE ANGLE Ø EQUAL TO DR LARGER THAN 45°.

 3. DIMENSION A1, A2, A3 SHOULD BE AS LARGE AS POISSIBLE WITHOUT INTERFERING WITH THE MECHANICAL JOINTS.

 4. BUTTRESS TO BE POURED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM DIS57

 5. ALL BUTTRESS TITITINGS SHALL BE WRAPPED IN POLYETHYLENE.

 6. CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.



BUTTRESS DIMENSIONS					
DIA.	Α	В	С	D	
6"	1'-6"	1'-2"			
8"	2'-0"	1'-4"		. 2	
12"	2'-5"	1'-10"	_ 0N _	_ 8 _	
16"	3'-4"	2'-4"	 NOTE 	NOTE	
20"	4'-3"	2'-10"			
24"	5'-2"	3'-4"	SEE	SEE	
30"	6'-9"	4'-0"			

NOTES:

- NOTES:
 1. DIMENSION "C" SHOULD BE LARGE ENDUGH TO MAKE ANGLE Ø GREATER THAN DR EQUAL TO 45".
 2. CONCRETE SHOULD BEAR ON THIS QUADRANT OF PIPE AT A MINIMUM.
 3. DIMENSISN "O" SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHOULD NOT INTERFERE WITH MECHANICAL JOINTS.
 4. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SO. FT. AND A WATER PRESSURE OF 150 PSI. INFORM THE ENGINEER IF ON-SITE SOIL DOES NOT MEET THIS CONDITION OR PRESSURES.
 5. BUTTRESS TO BE POURED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM DIS57.
 6. CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.

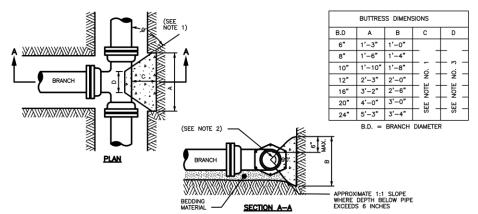
- 2000 PSI.
 7. ALL BUTTRESSED FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.

VILLAGE	OF	BELLEVILLE

BUTTRESS FOR BENDS AND PLUG

0

			DRAWING	NO.
DATE:	JANUARY	2018		6-1



- NOTES:
 1. DIMENSION 'C' SHOULD BE LARGE ENDUGH TO MAKE ANGLE Ø GREATER THAN OR EQUAL TO 45*.
 2. CONCRETE SHOULD BEAR ON THIS QUADRANT OF PIPE AT A MINIMUM.
 3. DIMENSION 'G' SHOULD BE AS LARGE AS POSSIBLE BUT CONCRETE SHOULD NOT INTERFERE WITH MECHANICAL JOINTS.
 4. BUTTRESS DIMENSIONS ARE BASED ON A SOIL RESISTANCE OF TWO TONS PER SQ. FT. AND A WATER PRESSURE OF 150 PSI. INFORM THE ENGINEER IF ON-SITE SOIL DOES NOT MEET THIS CONDITION OF PRESSURES EXCEED 150 PSI.
 5. BUTTRESS TO BE POURED AGAINST FIRM UNDISTURBED SOIL, OR DISTURBED SOIL COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY, ASTM DIS57.
 6. CONCRETE SHALL HAVE A MINIMUM 7-DAY COMPRESSIVE STRENGTH OF 2000 PSI.
 7. ALL BUTTRESSED FITTINGS SHALL BE WRAPPED IN POLYETHYLENE.

