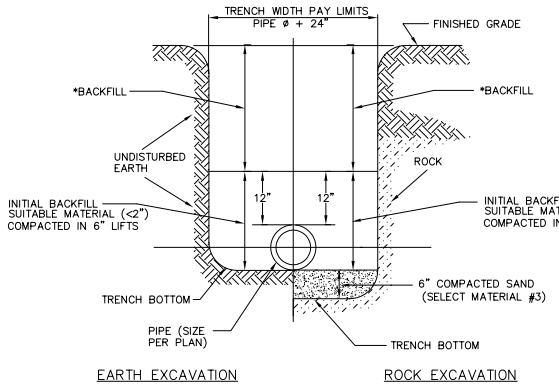
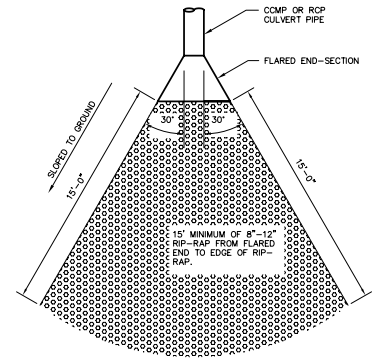


* BACKFILL TO BE COMPACTED IN 8" LIFTS WITH NO STONES OVER 6" IN ANY DIMENSION.

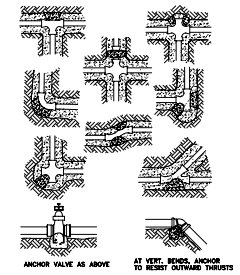
DRAINAGE TRENCH CROSS SECTION

NOT TO SCALE



FLARED CULVERT END SECTION

NOT TO SCALE



NOTE: KEEP NUTS AND BOLTS FREE OF CONCRETE THROUGH THE USE OF PLASTIC COVERS.

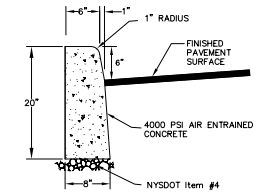
THRUST BLOCK SIZING TABLE

BEARING AREA OF THRUST BLOCK IN SQUARE FEET				
FITTINGS	TENSILE * (POUNDS)	MUCK SWAMP	SAND & GRAVEL	SOFT CLAY
TEES AND DEAD ENDS				
4"	5,700	1	2	3	6
6"	9,870	1	3.5	5	10
10"	16,125	2	5.5	8.5	16.5
12"	22,965	2.5	8	11.5	23
14"	31,150	4.5	10.5	16.5	31
16"	40,320	5	13.5	20.5	40.5
90° BEND					
4"	8,055	1	3	4	8
6"	13,900	1.5	6	7	13
10"	22,950	3.5	11	11.5	23
12"	32,460	4.5	15.0	16.5	32.5
14"	44,040	6	19.5	22.5	44.5
16"	57,015	6	19.5	29	57.5
45° BEND					
4"	4,365	1	1.5	2.5	4.5
6"	7,560	1	2.5	4	8
10"	12,360	1.5	4.5	6.5	12.5
12"	17,580	2	6	9	18
14"	23,985	2.5	8.0	12.0	24
16"	30,885	3.5	10.5	15.5	31
22 1/2° BEND					
4"	2,205	1	1	1.5	2.5
6"	3,825	1	1.5	2	4
10"	6,255	1	3	3.5	6.5
12"	8,910	1	3	4.5	9
14"	11,970	1.5	4.5	6.5	12.5
16"	15,645	2	5.5	8	16

* THRUST AT 150 PSI OF WATER PRESSURE

THRUST BLOCK DETAILS

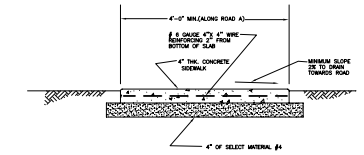
NOT TO SCALE



CONTRACTOR TO PROVIDE 1/2" PREFORMED BITUMINOUS - IMPREGNATED FIBER JOINT FILLER EVERY 10'. JOINT FILLER TO COMPLY WITH A.A.S.T.H.O. SPEC. M-213. FILLER TO BE RECESSED IN FROM FRONT FACE AND TOP OF CURB 1/4".

CONCRETE CURB

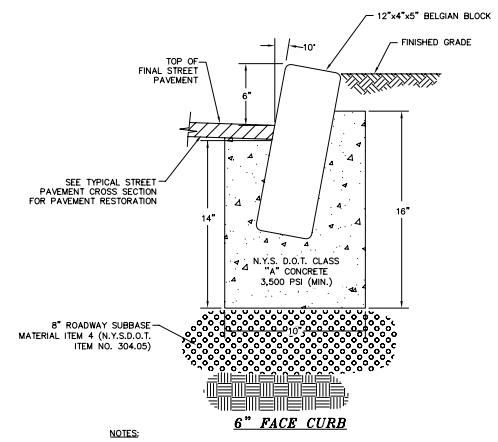
NOT TO SCALE



NOTES:
1. EXPANSION JOINTS OF 3/16" CELLULOSE OR SIMILAR APPROVED MATERIAL SHALL BE PLACED AT 15' INTERVALS.
2. CONTRACTION JOINTS 1" DEEP HAVING 1/4" RADIUS EDGES SHALL BE PLACED AT 5'-0" INTERVALS IN SIDEWALK.
3. EDGES SHALL HAVE 1/2" RADIUS.
4. USE 4000 PSI CONCRETE.
5. BROOM FINISH TOP SURFACE.

STANDARD SIDEWALK DETAIL

NOT TO SCALE



6" FACE CURB

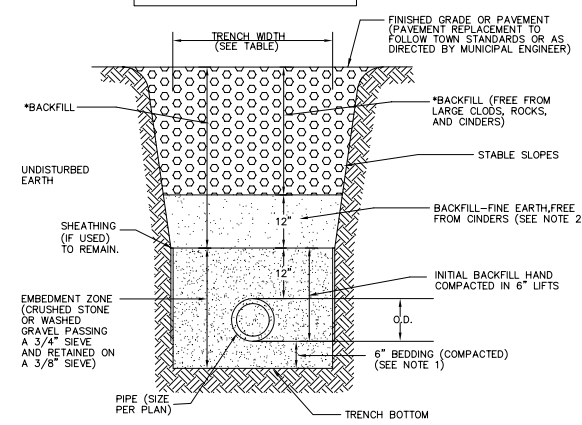
NOTES:
1. EQUIVALENT OF 5% OF BLOCK SHALL BE DELIVERED ON PALLET TO OWNER FOR FUTURE USE WITH REPLACEMENTS, MAINTENANCE AND RELOCATIONS.
2. CONCRETE JOINTS TO BE 2 PARTS SAND TO 1 PART CEMENT.

TYPICAL BELGIAN BLOCK CURB DETAIL

N.T.S.

1. PIPE BEDDING SHALL BE A CLASS I ATM D2321 EMBEDMENT MATERIALS THAT SHALL BE EITHER CRUSHED STONE OR WASHED GRAVEL PASSING A ¾" SIEVE AND RETAINED ON A ⅜" SIEVE. THE EMBEDMENT MATERIAL SHALL BE HAND TAMPED AND COMPACTED TO 90% OF THE MAXIMUM DENSITY OF THE EMBEDMENT MATERIAL AS DETERMINED BY THE STANDARD PROCTOR TEST IN ACCORDANCE WITH ASTON DESIGNATION T-99. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A GO-NO-GO TESTING GAUGE, AS DEFINED IN THE GREEN-TITE (TRADEMARK) PVC GRAVITY SEWER PIPE INSTALLATION GUIDE AS PUBLISHED BY J-M PIPE (OR APPROVED EQUAL) FOR TESTING DEFLECTION OF MAIN LINE SEWER PIPE, AS DIRECTED BY OCD. MAXIMUM MAIN LINE SEWER DEFLECTION SHALL BE NO GREATER THAN 5%.
2. BACKFILL FROM 12 IN. TO 24 IN. ABOVE THE PIPE EMBEDMENT MATERIAL SHALL BE FINE EARTH FREE FROM CINDERS AND SHALL BE MECHANICALLY COMPACTED. REMAINING BACKFILL SHALL BE FREE FROM LARGE CLODS, ROCKS AND CINDERS.
3. PLACE EMBEDMENT MATERIAL BY HAND AND HAND COMPACT UNDER AND AROUND SIDES OF PIPE. PLACE EMBEDMENT MATERIAL IN 6" LAYERS ABOVE TOP OF PIPE, AND HAND COMPACT TO A POINT 12" MINIMUM ABOVE THE TOP OF PIPE.
4. THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE A COMPETENT PERSON DURING ALL PHASES OF CONSTRUCTION WHOSE DUTY SHALL BE TO ENSURE THAT ALL PHASES OF CONSTRUCTION ARE IN FULL COMPLIANCE WITH OCSD NO.1 SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL STATUTES, CODES, RULES/REGULATIONS AND LAWS INCLUDING, BUT NOT LIMITED TO UNITED STATES DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) AND NEW YORK STATE DEPARTMENT OF LABOR FOR OSHA SECTION 1910.146 PERMIT REQUIRED CONFINED SPACE ENTRY, OSHA SECTION 1926.650 EXCAVATION GENERAL PROTECTION REQUIREMENTS AND OSHA SECTION 1926.651 TRENCHING AND SHORING, STATE OF NEW YORK UNIFORM FIRE PREVENTION AND BUILDING CODES AND NATIONAL FIRE PROTECTION ASSOCIATION CODES.
5. ALL APPROVED MAIN LINE SEWER PIPE SHALL BE THE SAME MATERIAL FROM MANHOLE TO MANHOLE.
6. FILL SECTION AREA MUST BE GRADED WITH THE PLACEMENT OF SUITABLE SOIL MATERIAL, AS DETERMINED BY THE PROJECT SITE ENGINEER, IN 12" (MAX.) LAYERS COMPACTED TO 95% OF THE MAXIMUM DENSITY OF THE SOIL AS DETERMINED BY THE STANDARD PROCTOR TEST (AASHTO DESIGNATION T-99) TO 2'-0" (MIN.) ABOVE TOP OF PIPE AT A MINIMUM WIDTH OF O.D. 4'-0" BEFORE TRENCH EXCAVATING. (ANY FILL SECTION AREA THAT DOES NOT CONFORM TO THIS FILL AREA COMPACTION STANDARD SHALL REQUIRE THE INSTALLATION OF CLASS 52 DIP, TAR COATED INSIDE AND OUT, FROM MANHOLE TO MANHOLE FOR SEWER MAINS AND ALONG THE ENTIRE SERVICE LINE RUN FOR BUILDING SEWER LATERALS.) ALL FILL SECTION AREAS SHALL REQUIRE REVIEW AND APPROVAL BY OCSD NO.1 BEFORE INSTALLING PIPE.
7. WHERE ROCK IS ENCOUNTERED IN TRENCH BOTTOM, UNDERCUT MUST BE MADE BETWEEN 12" AND 24" MAX.
8. WHERE UNSUITABLE MATERIAL IS ENCOUNTERED IN TRENCH BOTTOM, UNDERCUT TO SUITABLE MATERIAL (AS APPROVED).

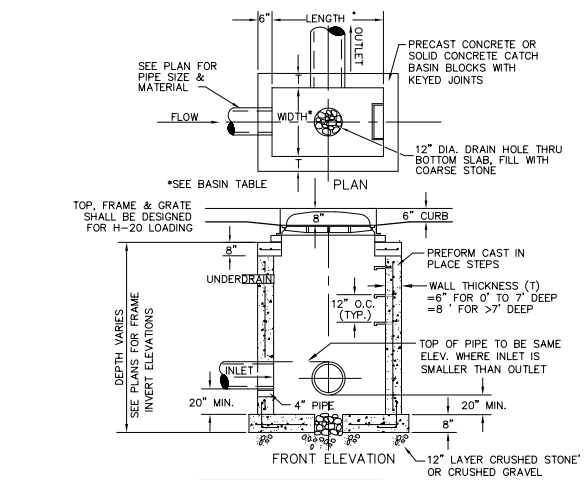
PIPE O.D.	TRENCH WIDTH
24" & SMALLER	O.D. + 1'-4"
30" & LARGER	O.D. + 2'-0"

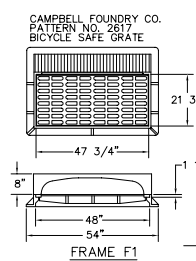


* BACKFILL TO BE COMPACTED IN 8" LIFTS WITH NO STONES OVER 6" IN ANY DIMENSION.

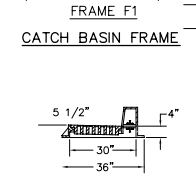
SEWER TRENCH CROSS SECTION

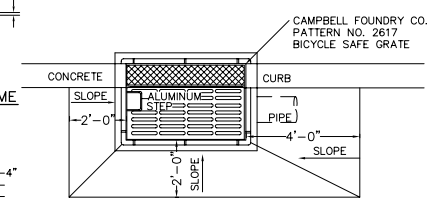
NOT TO SCALE





CATCH BASIN FRAME





PLAN VIEW CB TYPE 1

NOT TO SCALE

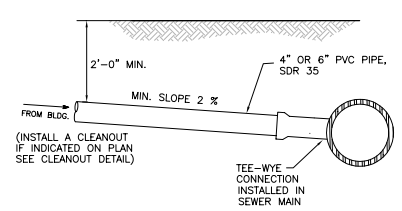
DRAINAGE STRUCTURE SCHEDULE	
TYPE	FRAME TYPE
CB-1	F1
FES-1	-

NOTE: MINIMUM CONCRETE STRENGTH SHALL BE 3500 P.S.I. AT 28 DAYS.

TYPICAL CATCH BASIN DETAIL

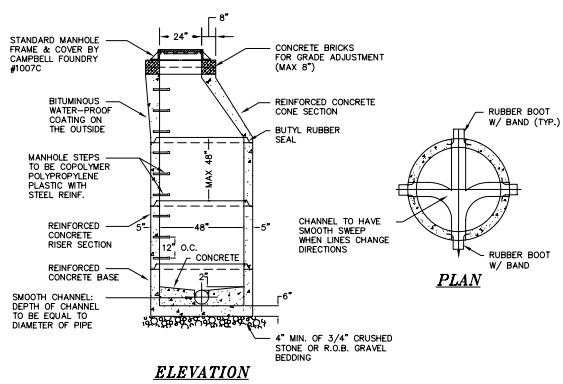
NOT TO SCALE

PRECAST BASIN SCHEDULE				
PRECAST TYPE	LARGEST PIPE	LENGTH	WIDTH	ROOF
CB-1	18"	48"	30"	NO



SEWER SERVICE DETAIL

NOT TO SCALE



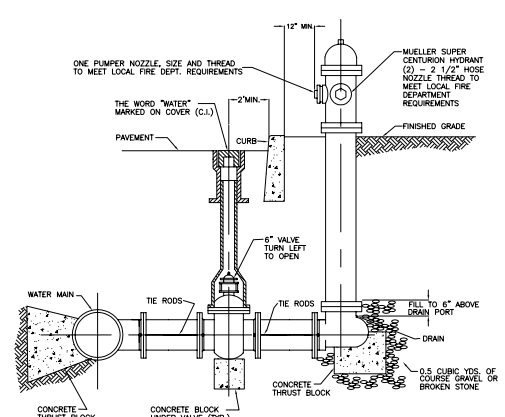
ELEVATION

PLAN

PRE-CAST MANHOLE

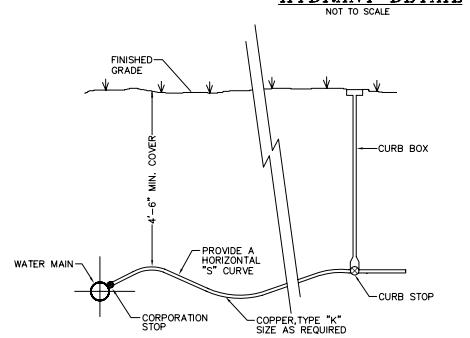
NOT TO SCALE

NOTES:
1. SMOOTH CHANNEL INVERT TO BE PAVED WITH CEMENT MORTAR.
2. PIPE JOINTS SHALL BE A MINIMUM OF 2' FROM OUTSIDE WALL OF MANHOLE.
3. SANITARY SEWER TO EXTEND INTO THE MANHOLE ONLY TO A POINT WHERE OUTSIDE OF SEWER MEETS INSIDE WALL OF MANHOLE.
4. OPENING FOR PIPE SHALL BE PRE-CAST. CONNECTIONS TO EXISTING MANHOLES SHALL BE MACHINE CORED.
5. MANHOLE COVERS TO BE STAMPED "SANITARY".
6. PRECAST REINFORCED CONCRETE MANHOLE SHALL BE DESIGNED FOR H20 LIVE LOAD.



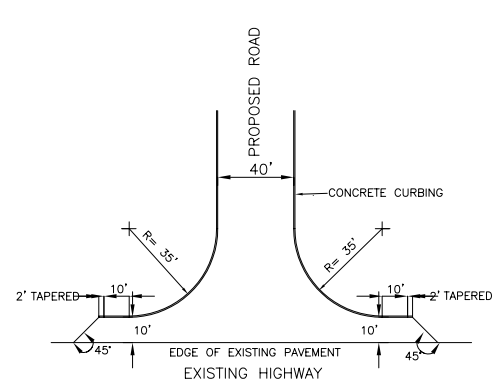
HYDRANT DETAIL

NOT TO SCALE



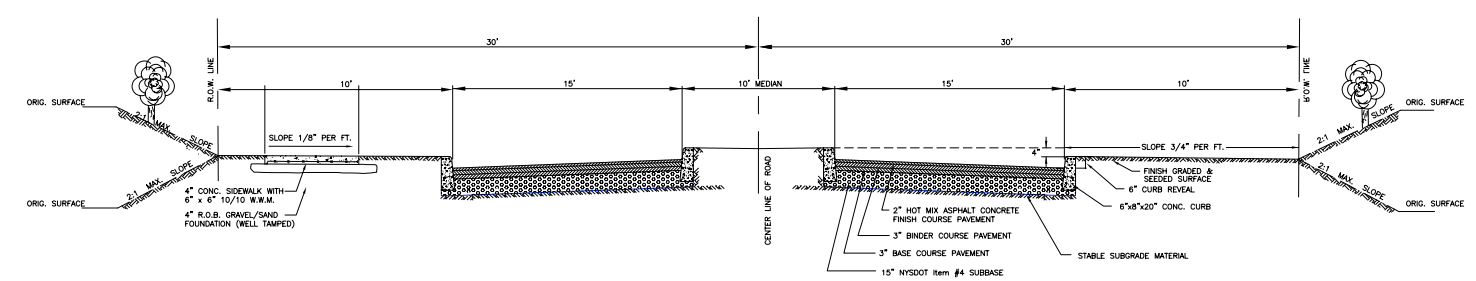
DETAIL - WATER SERVICE

NOT TO SCALE



ENTRANCE DETAIL STATE HWY.

NOT TO SCALE



NOTES:
1. ALL TREES TO BE REMOVED WITHIN R.O.W. LINES.
2. SIDEWALK NOT SHOWN BUT REQUIRED UNLESS REQUIREMENT IS WAIVED BY THE TOWN BOARD.

TOWN OF CORNWALL MAJOR STREET SPECIFICATIONS (BOULEVARD)

NOT TO SCALE

NOTE: ALL CONCRETE USED IS TO HAVE A MINIMUM STRENGTH OF 3500 P.S.I. AT 28 DAYS, UNLESS IT IS STRUCTURAL CONCRETE, WHICH IS TO HAVE A MINIMUM STRENGTH OF 4000 P.S.I. AT 28 DAYS. ALL CONCRETE IS TO CONFORM TO SECTION 12.B 3 & 4 OF THE TOWN OF CORNWALL ROAD SPECIFICATIONS.

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DETAIL SHEET

CORNWALL COMMONS

TOWN OF CORNWALL
ORANGE COUNTY, NEW YORK

Date: JANUARY 24, 2006
Revisions: MARCH 21, 2006; MAY 18, 2006; MAY 23, 2006; SEPTEMBER 19, 2006; JUNE 14, 2007; AUGUST 1, 2007; SEPTEMBER 20, 2007
CAD File: CC-CornSubdivision.DWG
Layout: DETAILS
Sheet No.: 9 OF 16

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DQP		AS NOTED	9-1-25.2 & 37-1-45.1	A - 98 - 148 - 302

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