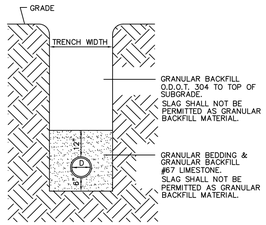
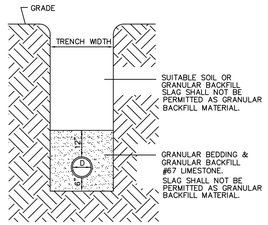


TRENCH DETAIL
UNDER PAVEMENT

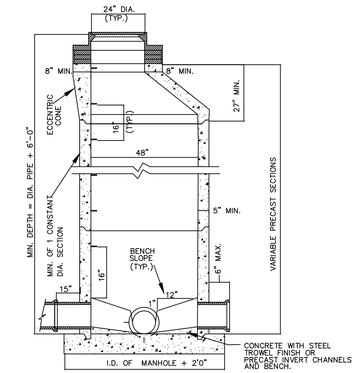


TRENCH DETAIL
OUTSIDE PAVEMENT

– NOT TO SCALE –

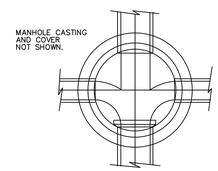
MAXIMUM ALLOWABLE TRENCH WIDTH
(AS MEASURED AT TOP OF PIPE)

PIPE DIAMETER	ALL PIPE, EXCEPT ASTM C76 CONCRETE PIPE	ASTM C76 CONCRETE PIPE	
		CLASSES II, III & IV	CLASS V
4"	2'-3"	–	–
6"	2'-3"	–	–
8"	2'-3"	–	–
10"	2'-6"	–	–
12"	2'-9"	2'-9"	3'-0"
15"	3'-0'	3'-0"	3'-3"
18"	3'-3"	3'-3"	3'-6"
21'	3'-6"	3'-6"	3'-9"
24"	4'-0"	4'-0"	4'-3"
27"	4'-3"	4'-6"	4'-9'
30"	4'-9'	4'-9'	5'-0"
33"	5'-0"	5'-3"	5'-6"
36"	5'-6"	5'-9"	6'-0"
42"	–	6'-3"	6'-6"
48"	–	6'-9"	7'-0"
54"	–	7'-6"	8'-0"
60"	–	8'-0"	8'-6"
66"	–	9'-0"	9'-6"
72"	–	9'-6"	10'-0"



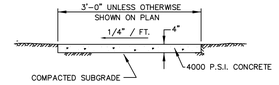
NOTE;
M.A. IND. PS=1-PF
REINFORCED PLASTIC STEPS OR APPROVED EQUAL

SECTION

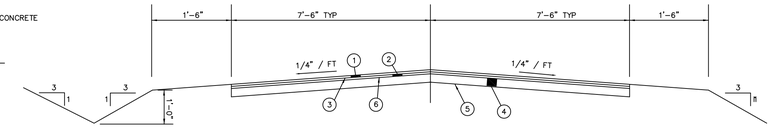


PLAN

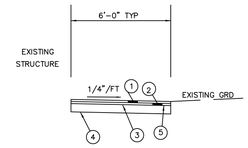
MANHOLE NO. 3
SCALE: NONE



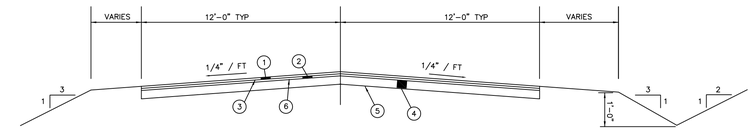
TYPICAL SIDEWALK DETAIL
SCALE: NONE



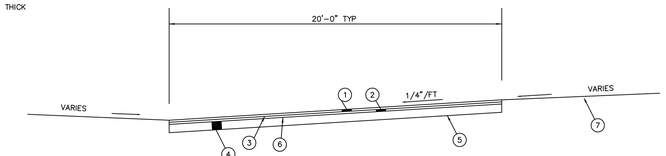
INTRAPLANT ACCESS ROAD – TYPICAL SECTION
SCALE: NONE



CART PATH – TYPICAL SECTION
CART PATH BETWEEN DIKE AND EX STRUCTURE
SCALE: NONE



ENTRANCE ROAD – TYPICAL SECTION
SCALE: NONE

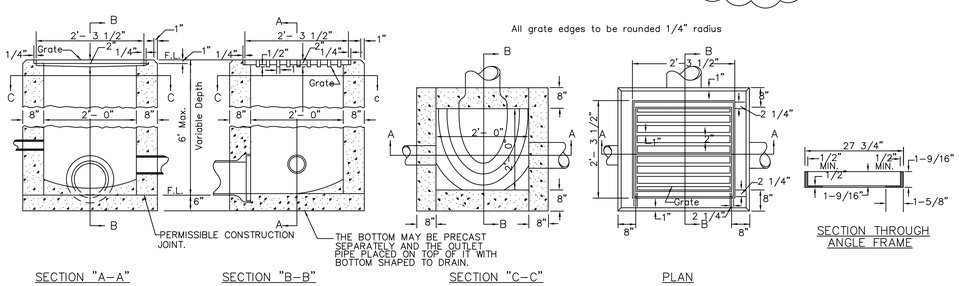


DRIVE – TYPICAL SECTION
SCALE: NONE

1. ITEM 404 – ASPHALT CONCRETE SURFACE COURSE 1-1/4" THICK
2. ITEM 402 – ASPHALT CONCRETE INTERMEDIATE COURSE 1-3/4" THICK
3. ITEM 407 – TACK COAT (0.1 GAL./S.Y.)
4. ITEM 304 – LIMESTONE BASE 6" THICK
5. ITEM 408 – BITUMINOUS PRIME COAT (0.4 GAL./S.Y.)

GRATE AND FRAME – The design shall be essentially the same and equally as strong as the one shown hereon.
Weight of grate, minimum, 120 lbs.
Weight of frame, minimum, 40 lbs.

All grate edges to be rounded 1/4" radius

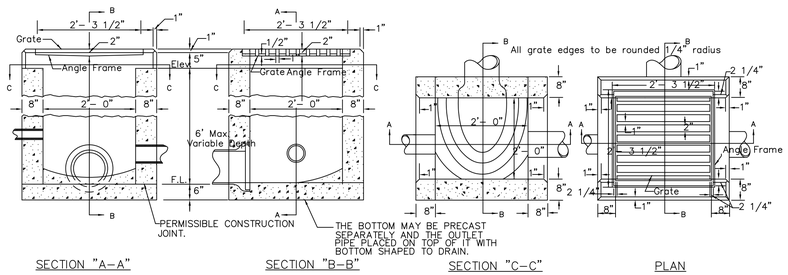


SECTION "A–A" SECTION "B–B" SECTION "C–C" PLAN SECTION THROUGH ANGLE FRAME

STANDARD NO. 2–2–B CATCH BASIN
SCALE: NONE

CONCRETE, cast-in-place, to be Class C. All precast concrete shall meet the requirements of 706.13 with 6 ±2% air void content in the hardened concrete and be marked with catch basin number.

OPENINGS for pipes shall be O.D. +2" when fabricated or field cut.

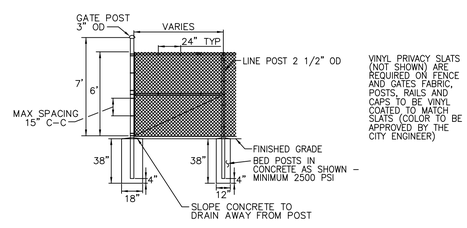


SECTION "A–A" SECTION "B–B" SECTION "C–C" PLAN

STANDARD NO. 2–2–A CATCH BASIN
SCALE: NONE

2–2–A SIDE INLETS to be placed 4 to 6 inches below normal elevations of median or ditch flow line returning to normal 10 feet each side of basin. side of basin.
2–2–B GRATE elevation to be placed 4 to 6 inches below normal ditch returning to normal 10 feet each

SIDE INLETS shall be provided on both sides of the No. 2–2–A catch basin in sags and on upstream side only where the ditch has a continuous down grade past the catch basin.



VINYL PRIVACY SLATS (NOT SHOWN) ARE REQUIRED ON FENCE AND GATES FABRIC, POSTS, RAILS AND CAPS TO BE VINYL COATED TO MATCH SLATS (COLOR TO BE APPROVED BY THE CITY ENGINEER)

FENCE DETAIL
SCALE: NONE

LEGEND

1. ITEM 404 – ASPHALT CONCRETE SURFACE COURSE 1-1/2" THICK
2. ITEM 402 – ASPHALT CONCRETE INTERMEDIATE COURSE 4-1/2" THICK
3. ITEM 407 – TACK COAT (0.1 GAL./S.Y.)
4. ITEM 304 – AGGREGATE BASE 8" THICK (ENTRA PLANT ACCESS WIDTH 12' BOTH SIDES C/L)
5. ITEM 203 – SUBGRADE COMPACTION
6. ITEM 408 – BITUMINOUS PRIME COAT (0.4 GAL./S.Y.)
7. ITEM 659 – SEEDING AND MULCHING

SANITARY / STORM WORK

THE FOLLOWING CONDUIT TYPES MAY BE USED FOR SANITARY SEWER: 707.44 SDR35, 706.08, 706.03, 706.02 WITH JOINTS SHALL MEET ASTM–3212

THE FOLLOWING CONDUIT TYPES MAY BE USED FOR STORM SEWER WITH MORE THAN (1) ONE FOOT OF COVER: 707.42, 706.08, 706.02, WITH JOINTS AS PER 706.10 OR 706.11.

THE FOLLOWING CONDUIT TYPES MAY BE USED FOR STORM SEWER WITH LESS THAN (1) ONE FOOT OF COVER: 706.02 WITH JOINTS AS PER 706.10 OR 706.11

MAINTAIN MINIMUM 10 FEET HORIZONTAL AND 18 INCHES VERTICAL SEPARATION AT ALL POINT BETWEEN WATER AND SAINTARY SEWER LINES

MINIMUM VERITICAL CLEARANCE BETWEEN SANITARY SEWER AND STORM SEWER IS 12 INCHES.

SANITARY MANHOLE SPECIFICATIONS SHALL MEET ASTM C–478 AND C–443

BEDDING SPECIFICATIONS SHALL MEET ASTM D–2321, CLASS II

CONNECTION TO EXISTING SEWERS

CONSTRUCTION OF THE NEW SEWER SHALL BE SCHEDULED AND PERFORMED SUCH THAT ALL NEW SEWER IS IN PLACE TESTED AND FOUND READY FOR ACCEPTANCE BEFORE THE ACTUAL CUTTING AND TIENG INTO THE EXISTING SEWER IS PERFORMED.

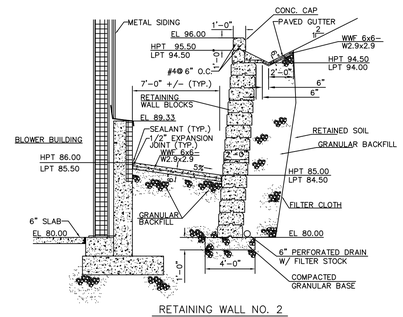
SEWER INSPECTIONS AND TESTS

ALL SANITARY SEWERS 8" DIAMETER AND LARGER, MUST PASS INTERNAL TELE–VISION INSPECTION. THE CONTRACTOR SHALL PROVIDE COMPLETE, INTERNAL INSPECTION VIDEOTAPE TO THE CITY OF MASSILLON ENGINEERING DEPARTMENT.

ALL SANITARY MANHOLES SHALL BE AIR/VACUUM TESTED IN ACCORDANCE WITH ASTM C–1244.

PIPE DEFLECTION TESTS SHALL BE PERFORMED ACCORDING TO GLUMRB SECTION 33.85 AND ASTM SPECIFICATION FOR THE PIPE BEING TESTED. THE ALLOWABLE DEFLECTION RATE SHALL NOT EXCEED 5%

AIR TEST SPECIFICATIONS SHALL MEET ASTM F–1417



RETAINING WALL NO. 2
SCALE : NONE

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REVISIONS

NO.	DESCRIPTIONS	DATE	BY	APP'D
1	ADDENDUM	9/14	AJP	WAD
2	ADDENDUM	9/21	AJP	WAD
3	SEE SK–30–001	10/01	ELR	WAD
4	RECORD DRAWING	12/15	RWR	WAD

DESIGNED BY ELR
DRAWN BY SWL/ELR
CHECKED BY WAD
APPROVED BY WAD

ENVIRONMENTAL, INC.
ENGINEERS IN WATER AND EARTH SCIENCES
UNIONTOWN, OHIO

CITY OF MASSILLON, OHIO
WWTP UPGRADE 2000
SITE PLAN DETAILS

JOB NO. E9031
DATE 10/14/01
SCALE NONE
SHEET C30

E: /E9031/2000–SITE/9031DET–SITE.DWG