

APPROVED BY THE CITY OF MASSILLON ENGINEER THIS 16th DAY OF November, 2005

CITY OF MASSILLON ENGINEER

WATERLINE IS APPROVED BY AQUA OHIO THIS 17 DAY OF NOVEMBER 2005
SUBJECT TO AGREEMENT WITH AQUA OHIO

AQUA OHIO INC.

SANITARY SEWER PERMIT-TO-INSTALL HAS BEEN RECEIVED FROM THE OhioEPA
THIS _____ DAY OF _____, 20_____.

WATERLINE PERMIT-TO-INSTALL HAS BEEN RECEIVED FROM THE OhioEPA
THIS ____ DAY OF _____, 20____.

1. **TITLE SHEET & QUANTITIES**
2. **TYPICAL SECTIONS AND NOTES**
3. **WEST POINTE CIR. PLAN AND PROFILE & INTERSECTION DETAIL SHEET**
4. **GRADING PLAN**
5. **MISCELLANEOUS DETAILS**

CONVENTIONAL SYMBOLS

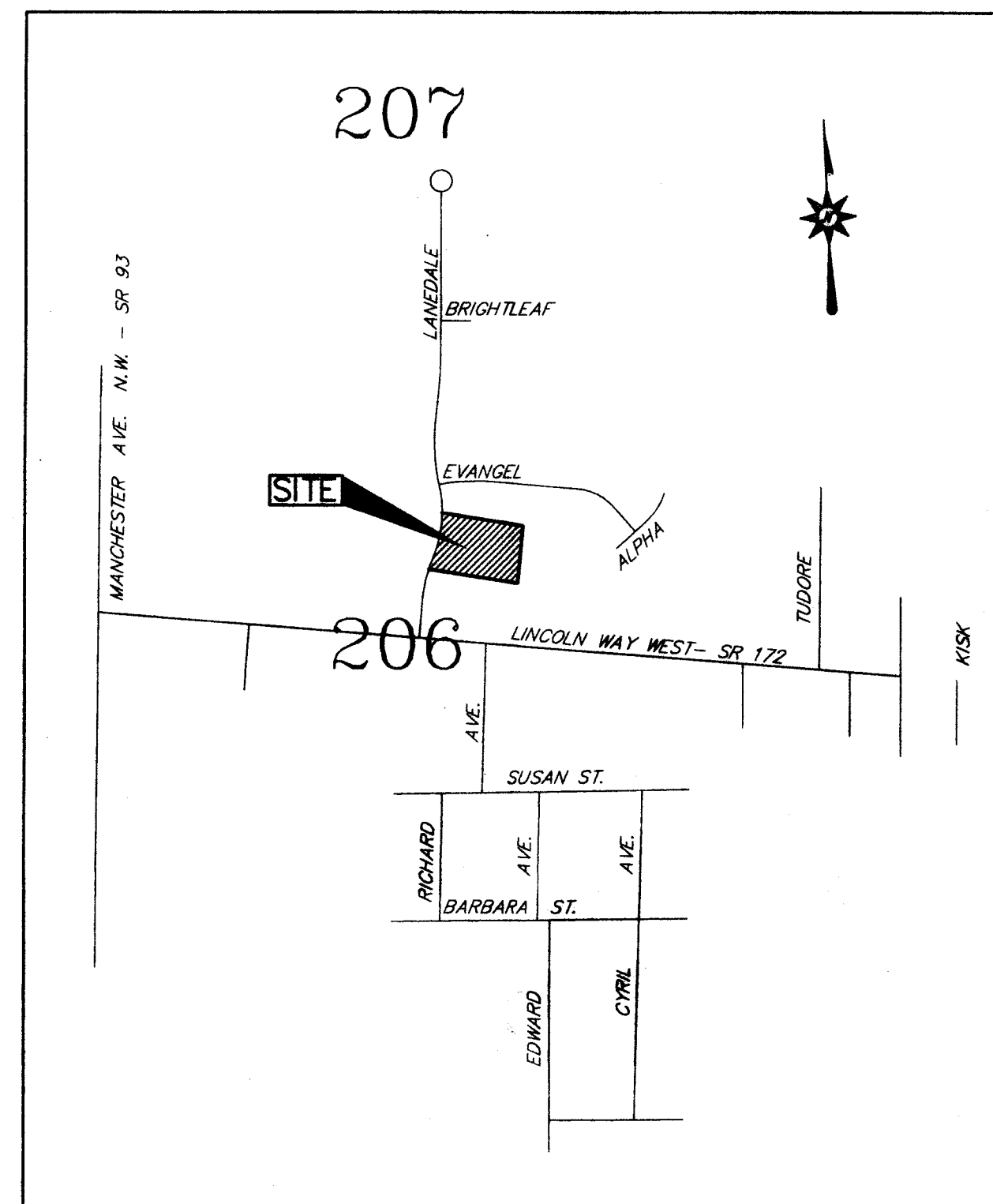
6" STORM LATERAL, COMPLETE	— D
6" SANITARY LATERAL, COMPLETE	— S
PROPOSED WATERLINE	- 8" W —
1" WATER SERVICE AND CURB BOX COMPLETE	- O - W
EXISTING WATERLINE	- EX - 8" W -
EXISTING STORM SEWER	- EX - 15" ST -
EXISTING SANITARY SEWER	- EX - 8" SAN -
EXISTING GAS LINE	- EX - GAS -
"AS-BUILT" DIMENSION OR ELEVATION	()

[illegible]

**WEST POINTE
CONDOMINIUMS**
LOCATED IN THE CITY OF MASSILLON
STARK COUNTY, OHIO

FOR: BRENDL & CROSS

8215 ARLINGTON AVE, NORTH
NORTH CANTON OHIO 44720



LOCATION MAP

2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE 800-362-2764
OHIO UTILITIES PROTECTION SERVICE

ESTIMATED QUANTITIES NOTE

ITEM NUMBERS SHOWN IN THE QUANTITY TABLE REFER TO SPECIFICATION ITEMS IN THE 1997 EDITION OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS". THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERFORMING THE PROPOSED WORK IN ACCORDANCE WITH THESE REFERENCED SPECIFICATIONS.

[illegible]

ESTIMATED QUANTITIES

ITEM	QTY.	UNIT	DESCRIPTION
ROADWAY			
201	1	LUMP	CLEARING AND GRUBBING
203	1878	CU. YD.	SITE AND ROADWAY EXCAVATION NOT INCLUDING EMBANKMENT
203	1878	CU. YD.	SITE AND ROADWAY EMBANKMENT
203	1260	SQ. YD.	SUBGRADE COMPACTION
202	63	LIN. FT.	REMOVE EXISTING CURB & GUTTER
659	1	LUMP	SEEDING AND MULCHING (ALL DISTURBED AREAS)
EROSION CONTROL			
207	1	LUMP	EROSION CONTROL
PAVEMENT			
301	121	CU. YD.	4" BITUMINOUS AGGREGATE BASE
304	210	CU. YD.	6" AGGREGATE BASE
404	45	CU. YD.	1-1/2" ASPHALT CONCRETE SURFACE COURSE
408	434	GAL.	BITUMINOUS PRIME COAT @ 0.40 GAL. PER SQ. YD.
608	871	SQ. FT.	CONCRETE WALK
608	2	EACH	CURB RAMP
609	629	LIN. FT.	MASSILLON STANDARD CURB AND GUTTER(ODOT TYPE 2)
DRAINAGE			
603	130	LIN. FT.	6" DOWNSPOUT HEADER
603	186	LIN. FT.	12" CONDUIT; TYPE B
603	213	LIN. FT.	12" CONDUIT; TYPE C
603	185	LIN. FT.	15" CONDUIT; TYPE B
604	2	EACH	CATCH BASIN; ODOT 2-2B
604	2	EACH	CATCH BASIN; TYPE A
604	1	EACH	CONNECTION TO EX. STORM C.B.
604	1	EACH	STORM M.H., ODOT MH-3, 48" DIA.
WATER WORKS			
638	260	LIN. FT.	8" WATER MAIN; DUCTILE CAST IRON (PC 350 W/POLYWRAP)
638	12	EACH	1" COPPER TYPE K SERVICE W/CURB BOX COMPLETE
638	1	EACH	HYDRANT ASSEMBLY COMPLETE; TYPE B
638	1	EACH	8" 45° BEND
638	1	EACH	8" 22-1/2° BEND
638	1	EACH	12"x8" TAPPING SLEEVE & VALVE
638	120	LF	2" HDPE TUBING W/TRACKING WIRE & MARKING TAPE
638	1	EACH	BLOW OFF ASSEMBLY COMPLETE
638	1	EACH	2" CURB STOP
SANITARY SEWER			
603	240	LIN. FT.	8" SANITARY SEWER (INCL. LANDALE PAVT REPLACEMENT)
603	6	EACH	6" SERVICE BUILDING CONNECTIONS COMPLETE
603	4	EACH	8"x6" WYE
604	1	EACH	CONNECT TO EXISTING SAN. M.H.
604	1	EACH	SAN. M.H.; STD. TYPE A; COMPLETE
TRAFFIC CONTROL			
630	1	EACH	STOP SIGN
630	1	EACH	STREET SIGN
MISCELLANEOUS			
603.03	629	LIN. FT.	TRENCHING FOR PRIVATE UTILITIES

XXXXXXXXXXXXXXXXXXXXX
SEWERAGE
APPROVED
 OHIO ENVIRONMENTAL PROTECTION AGENCY
 BY COPY OF

PTI #

02-21666

RECEIVED
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OHIO EPA NEDO

TITLE SHEET & QUANTITIES



HORIZONTAL SCALE

0

REVISIONS

BRYAN J. ASHMAN
JEROJ D. F. GEIR

COOPER & ASSOCIATES, LLP
ENGINEERS AND SURVEYORS



PHONE (330) 452-5731
FAX No. (330) 452-9110

Steven Lehman

TITLE SHEET & QUANTITIES
WEST POINT CONDOMINIUMS
LOCATED IN THE CITY OF MASSILLON

STARK COUNTY, OHIO
FOR: BRENDL & CROSS

DRAWN BY: M.J.S

CHECKED BY: B.

FIELD BOOK No.

DATE 04/12/200

SHEET

1

OF

PROJ.# 033



- 1.) THE WATER LINE SHALL BE INSTALLED SO THAT 4'-0" OF COVER, FROM GRADE TO THE TOP OF THE WATER LINE, IS MAINTAINED AS A MINIMUM.
- 2.) WATER LINE MATERIALS AND INSTALLATION PROCEDURES SHALL MEET OR EXCEED ALL APPLICABLE A.W.W.A. STANDARDS INCLUDING BUT NOT LIMITED TO C600 AND C651.
- 3.) THE CONTRACTOR SHALL CAREFULLY LAYOUT THE WATER LINE AND ALL RELATED FACILITIES TO INSURE THAT THEY ARE LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY AND/OR DESIGNATED UTILITY EASEMENTS AS INDICATED.
- 4.) MEGALUG RETAINERS REQUIRED AT ALL FITTINGS.
- 5.) THE PROPOSED FACILITIES WILL MAINTAIN A MINIMUM PRESSURE OF 35 P.S.I. DELIVERED TO THE CURB STOP DURING NORMAL OPERATING CONDITIONS.
- 6.) BOOSTER PUMPS ARE NOT PERMITTED ON SERVICE CONNECTIONS. C.O.W.C. MAY GRANT SPECIAL PERMISSION FOR BUILDINGS SIX STORIES AND HIGHER.
- 7.) A TYPE 1 TRENCH SHALL BE USED AND BACKFILLED WITH EXCAVATED MATERIAL PROVIDED THAT SAID MATERIAL CONSISTS OF LOAM, CLAY, SAND, GRAVEL, OR OTHER SUITABLE MATERIAL. BACKFILLING FOR ROAD AND DRIVEWAY CUTS SHALL BE AS A MINIMUM PROPERLY COMPACTED O.D.O.T. 304 AGGREGATE OR AS SPECIFIED BY THE LOCAL JURISDICTION.
- 8.) WATER SERVICES SHALL EXTEND 12' INTO THE LOTS OR BEYOND FURTHEST UTILITY, WHICHEVER IS GREATER, WITH THE CURB BOX INSTALLED 0.5' WITHIN THE RIGHT-OF-WAY. THE COWC POINT OF DELIVERY IS THE OUTLET SIDE OF THE CURB STOP.
- 9.) CONTRACTOR MUST CONSTRUCT ALL WATER LINES AND WATER SERVICE LINES SUCH THAT A MINIMUM OF 10' HORIZONTAL CLEARANCE, 18" VERTICAL CLEARANCE ABOVE SANITARY SEWER AND A MINIMUM OF 12" VERTICAL CLEARANCE BELOW STORM SEWER IS MAINTAINED.

- CONTRACTOR SHALL CHECK DETAIL DRAWINGS FOR MINIMUM GRADE AND BACKFILL REQUIREMENTS.
- 2.) ALL COMBINATION CONCRETE CURB AND GUTTER TO BE MASSILLON STANDARD EXCEPT WHERE VARIATIONS ARE TO BE EXTENDED OR MET - SEE SPECIFICATION BOOK AND PLANS.
- 3.) EXCAVATION FOR CONCRETE CURB AND GUTTER SHALL BE INCLUDED IN THE COST PER LINEAL FOOT OF SAID CURB AND GUTTER.
- 4.) ALL CATCH BASINS AND MANHOLES TO BE ADJUSTED TO GRADE WHERE NECESSARY.
- 5.) ALL CONCRETE TO BE 1:2:1 - 4-6 BAG MIX. 28 DAY - 3000 PSI COMPRESSIVE STRENGTH: MAX. SLUMP TO BE 4".
- 6.) CONTRACTOR SHALL PAY CITY OF MASSILLON AT THE RATE OF TIME AND ONE-HALF OF REGULAR RATE AFTER 4:30 P.M. MONDAY THROUGH FRIDAY. SATURDAYS ALL DAY AT TIME AND ONE-HALF.
- 7.) ALL MATERIALS USED WILL BE NEW - NO SALVAGED MATERIAL WILL BE ACCEPTED EXCEPT CASINGS, AS APPROVED.
- 8.) IF CONTRACTOR EXCAVATES DEEPER THAN NECESSARY FOR CURB AND GUTTER, CONTRACTOR WILL FURNISH ODOT 304 AGGREGATE AND TAMP BEFORE CURB AND GUTTER IS CONSTRUCTED.
- 9.) IF SUBGRADE IS UNSUITABLE, CONTRACTOR WILL EXCAVATE AND REPLACE SUCH MATERIAL WITH CRUSHER RUN GRAVEL, AT THE DISCRETION OF THE INSPECTOR OR CITY ENGINEER. THIS FILL TO BE PLACED IN 6" LAYERS OR LESS. SAID FILL TO BE COMPACTED TO 95% LABORATORY DRY WEIGHT BEFORE ADDITIONAL LAYERS ARE ADDED. CONTRACTOR WILL BE PAID FOR EXTRA GRAVEL AND EXCAVATION. THIS COMPACTION TO BE DONE BEFORE FORMS ARE PLACED.
- 10.) ALL EXTRA PAY ITEMS WILL HAVE THE APPROVAL OF THE BOARD OF CONTROL BEFORE EXTRA ITEMS ARE INSTALLED.
- 11.) CONTRACTOR TO BACKFILL CURB IMMEDIATELY AFTER CURB HAS BEEN IN PLACE FOR 48 HOURS.
- 12.) CONTRACTOR WILL NOTIFY ENGINEER WHEN HE IS IN NEED OF CONSTRUCTION STAKES AND THIS OFFICE WILL COMPLY WITHIN A PERIOD OF 48 HOURS.
- 13.) ALL STORM SEWER PIPES WITHIN PAVEMENT LIMITS SHALL BE REINFORCED CONCRETE PIPE (ODOT 706.02) AND SHALL BE TYPE 'B' CONDUIT IN ACCORDANCE WITH ODOT 603 CLASS 'B' BEDDING AND GRANULAR BACKFILL. ALL STORM SEWER OUTSIDE PAVEMENT LIMITS SHALL BE SMOOTH LINED CORRUGATED POLYETHYLENE (ODOT 944) OR REINFORCED CONCRETE PIPE (ODOT 706.02) AND SHALL BE TYPE 'C' CONDUIT IN ACCORDANCE WITH ODOT 603 WITH CLASS 'C' BEDDING AND SUITABLE SOIL BACKFILL.
- 14.) DOWNSPOUT HEADERS SHALL BE 6" PVC (SDR 21) PIPE (UNLESS OTHERWISE NOTED ON THE PLANS) AND SHALL BE DIRECTLY CONNECTED TO THE STORM SEWER WITH APPROVED TEE OR SADDLE CONNECTIONS. HEADERS SHALL EXTEND 12' INTO THE LOTS OR BEYOND FURTHEST UTILITY, WHICHEVER IS GREATER.
- 15.) CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES BEFORE ANY WORK IS BEGUN. THE CITY OF MASSILLON IS NOT RESPONSIBLE FOR ANY LOST TIME DUE TO UTILITY RELOCATION.
- 16.) MANHOLES AND CATCH BASINS SHALL BE CONSTRUCTED IN CONFORMANCE WITH MASSILLON CITY STANDARDS.
- 17.) CONTRACTOR SHALL CONTACT THE CITY OF MASSILLON ENGINEERING DEPARTMENT (GREG MCGUE) AT (330)830-1722 AT LEAST 2 DAYS PRIOR TO THE INITIATION OF CONSTRUCTION TO SCHEDULE A PRE-CONSTRUCTION MEETING.
- 18.) STREET LIGHTING IS REQUIRED. DEVELOPER SHALL COORDINATE WITH ELECTRIC UTILITY COMPANY FOR POLE LOCATION AND TYPE. THE DEVELOPER SHALL INSTALL AT HIS COST, STREET SIGNS REPRESENTING THE NAMES OF ALL STREETS AT ALL INTERSECTIONS. DEVELOPER ALSO RESPONSIBLE FOR STOP SIGNS AND DIRECTIONAL SIGNS AS NECESSARY. ALL SIGNS SHALL CONFORM WITH CITY OF MASSILLON REGULATIONS.
- 19.) WHEN SPECIFIED ON PLANS OR SPECIFICATIONS, CONTINGENCY ITEMS ARE TO BE PERFORMED ONLY UNDER THE DIRECTION OF THE CITY ENGINEER. THE CONTRACTOR SHALL NOT ORDER ANY CONTINGENCY MATERIAL OR PERFORM ANY WORK UNTIL DIRECTED BY THE ENGINEER. THE ACTUAL WORK LOCATION AND QUANTITIES FOR SUCH ITEMS SHALL BE DOCUMENTED BY THE CONTRACTOR AND THE ENGINEER. THE DEVELOPER IS RESPONSIBLE FOR THE COST OF SUCH ITEMS AND SHALL NOT BE PART OF THE BID DOCUMENT.
- 20a.) BEFORE ACCEPTANCE OF THE ROAD PAVEMENT SUBGRADES BY THE CITY OF MASSILLON ENGINEER, SUBGRADES SHALL BE TESTED IN ACCORDANCE WITH ODOT ITEM 203.13. IN LIEU OF SUBGRADE TESTING PER ITEM 203.13, PROOF ROLLING IN ACCORDANCE WITH ODOT ITEM 203.14 MAY BE SUBSTITUTED.
- 20b.) WHEREVER UNSTABLE SOIL SUBGRADE CONDITIONS ARE ENCOUNTERED THAT ARE UNSUITABLE PER ODOT 203 SPECIFICATIONS AND/OR DETERMINED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT, ADDITIONAL EXCAVATION AND SUBSEQUENT BACKFILLING SHALL BE DONE BY THE DEVELOPER'S CONTRACTOR AND PAID FOR BY THE DEVELOPER UNTIL SUCH CONDITIONS ARE CORRECTED AND APPROVED BY THE CITY OF MASSILLON ENGINEER.
- 20c.) SUBGRADE TESTING OR PROOF ROLLING MUST BE WITNESSED AND APPROVED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT PRIOR TO THE PLACEMENT OF THE PAVEMENT SUBBASE MATERIAL. CONTRACTOR SHALL CONTACT THE CITY ENGINEERING DEPARTMENT AT (330) 830-1722 TO SCHEDULE.
- 21.) AS BUILT DRAWINGS ARE REQUIRED AND SHALL BE SUBMITTED TO THE CITY OF MASSILLON ENGINEERING DEPARTMENT UPON COMPLETION OF THE PROJECT.
- 22.) CURBS SHALL BE DROPPED FOR HANDICAP RAMPS AT ALL INTERSECTIONS. SEE THE INTERSECTION DETAILS FOR THE GENERAL LOCATION OF THE RAMPS AND SHEET 3 FOR A HANDICAP RAMP DETAIL.
- 23.) DRIVE AND SIDEWALK PERMITS ARE REQUIRED FOR WORK IN THE RIGHT-OF-WAY OF LANEDALE ST., CONTACT MASSILLON ENGINEERING DEPARTMENT FOR LICENSE AND PERMIT REQUIREMENTS.

- 2.) SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS IN EFFECT AT TIME OF CONSTRUCTION.
- 2.) ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
- 3.) THE CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS ALONG THE ROUTE OF THE SANITARY SEWER AT LEAST THREE (3) DAYS PRIOR TO START OF CONSTRUCTION.
- 4.) THE CONTRACTOR SHALL ALERT THE UTILITIES PROTECTION SERVICE AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION.
- 5.) THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY MAINTAINING EXISTING SANITARY FLOW DURING THE CONSTRUCTION AND TESTING OF THE PROPOSED IMPROVEMENTS. THE CONTRACTOR'S METHODS FOR MAINTAINING FLOW MUST BE APPROVED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT AT THE PRE-CONSTRUCTION MEETING.
- 6.) ALL ROUGH GRADING TO WITHIN SIX (6) INCHES OF FINISHED GRADE SHALL BE COMPLETED WITHIN THE RIGHT-OF-WAY AND EASEMENTS PRIOR TO SANITARY SEWER CONSTRUCTION.
- 7.) BULKHEADS SHALL BE ERECTED IN EXISTING MANHOLES WHERE TAPS FOR NEW MAINLINE SEWERS ARE MADE AND SHALL REMAIN IN PLACE UNTIL THE NEW SEWERS ARE COMPLETE, TESTED AND APPROVED. IN CASES WHERE A BULKHEAD WOULD INTERRUPT THE FLOW FROM EXISTING SERVICE CONNECTIONS, THE BULKHEAD SHALL BE PLACED IN THE FIRST NEW MANHOLE UPSTREAM OF THE EXISTING MANHOLE.
- 8.) MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATERLINE SHALL BE 18 INCHES. MINIMUM HORIZONTAL SEPARATION SHALL BE 10 FT.
- 9.) SANITARY SEWER SERVICE LATERALS SHALL BE 6-INCH DIAMETER AND BE LAID AT NO LESS THAN 1.0% GRADE.
- 10.) FOR NEW SUBDIVISION CONSTRUCTION, SEWER SERVICE LATERALS SHALL EXTEND 12 FT. INTO EACH LOT WHEN THE MAIN SEWER IS IN A STREET RIGHT-OF-WAY, AND SHALL TERMINATE AT THE EASEMENT LINE WHEN THE MAIN SEWER IS IN AN EASEMENT. FOR OTHER SEWER EXTENSIONS, SEWER SERVICE LATERALS SHALL TERMINATE AT THE RIGHT-OF-WAY LINE OR THE EASEMENT LINE, WHICHEVER IS APPLICABLE.
- 11.) SERVICE STACKS SHALL BE DUCTILE IRON PIPE REGARDLESS OF MAIN SEWER MATERIAL. A CAST IRON TEE SHALL BE INSTALLED IN THE MAIN SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED.
- 12.) MINIMUM COVER OVER SANITARY SEWER SHALL BE 4 FT.
- 13.) ACCEPTABLE SANITARY SEWER PIPE MATERIALS ARE AS FOLLOWS:

MATERIAL DESCRIPTION	SPECIFICATIONS		
	PIPE	JOINT	INSTALLATION
PVC SMOOTH EXTERIOR	ASTM D-3034	ASTM D-3212	ASTM D-2321
VCP EXTRA STRENGTH	ASTM C-790	ASTM C-425	ASTM C-12
DCIP (CLASS 52)	AWWA C-151	AWWA C-110/C-111	AWWA C-151

14.) ALL SANITARY SEWERS, 8-INCH DIAMETER AND LARGER, MUST PASS AN INTERNAL TELEVISION INSPECTION. THE CONTRACTOR SHALL PROVIDE COMPLETE INTERNAL INSPECTION VIDEOTAPE TO THE CITY OF MASSILLON ENGINEERING DEPARTMENT. THE VIDEOTAPEING PROCEDURE SHALL BE IN ACCORDANCE WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS.

15.) A DEFLECTION TEST SHALL BE REQUIRED FOR ALL FLEXIBLE PIPE OF 8-INCH DIAMETER AND LARGER. THE TEST SHALL BE CONDUCTED AT LEAST 30 DAYS AFTER COMPLETION OF BACKFILL AND SHALL BE IN ACCORDANCE WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS. THE ALLOWABLE DEFLECTION RATE SHALL NOT EXCEED FIVE (5%) PERCENT. TESTING SHALL BE IN ACCORDANCE WITH ASTM D-3034.

16.) ALL SANITARY SEWERS MUST PASS A LOW PRESSURE AIR TEST, WHICH SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM F-1417 (PLASTIC PIPE) OR ASTM C-828 (CLAY PIPE). THE MAXIMUM ALLOWABLE TEST LEAKAGE SHALL BE 100 GAL./INCH OF DIAMETER/MILE/DAY.

17.) MANHOLE CONSTRUCTION SHALL MEET THE REQUIREMENTS OF ASTM C-478 AND C-443. ALL MANHOLES SHALL BE AIR/VACUUM TESTED IN ACCORDANCE WITH AND MEET ALL THE REQUIREMENTS OF ASTM C-1244.

18.) CONNECTIONS TO EXISTING MANHOLES SHALL BE CORE DRILLED, WITH BENCHES AND CHANNELS FORMED AND REPAIRED AS NECESSARY.

19.) ANY MANHOLE DROP ATTACHMENTS SHALL BE "OUTSIDE" TYPE.

20.) MANHOLE TOP OF CASTING ELEVATIONS MAY REQUIRE ADJUSTMENT DURING SITE GRADING. MANHOLE COVERS MAY NOT BE BURIED. UPON COMPLETION OF CONSTRUCTION AND RESTORATION, ALL MANHOLES, PROPOSED AND EXISTING, SHALL BE IN CONFORMANCE IN ALL RESPECTS WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS.

21.) ALL SANITARY SEWER TRENCHES BENEATH PROPOSED OR EXISTING PAVEMENT SHALL BE COMPACTED IN LIFTS, IN A MANNER, AND WITH MATERIAL AS SPECIFIED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT AND ALL APPLICABLE O.D.O.T. SPECIFICATIONS.

22.) SANITARY TAP PERMITS ARE REQUIRED FOR EACH UNIT, CONTACT MASSILLON ENGINEERING DEPARTMENT FOR LICENSE AND PERMIT REQUIREMENTS.

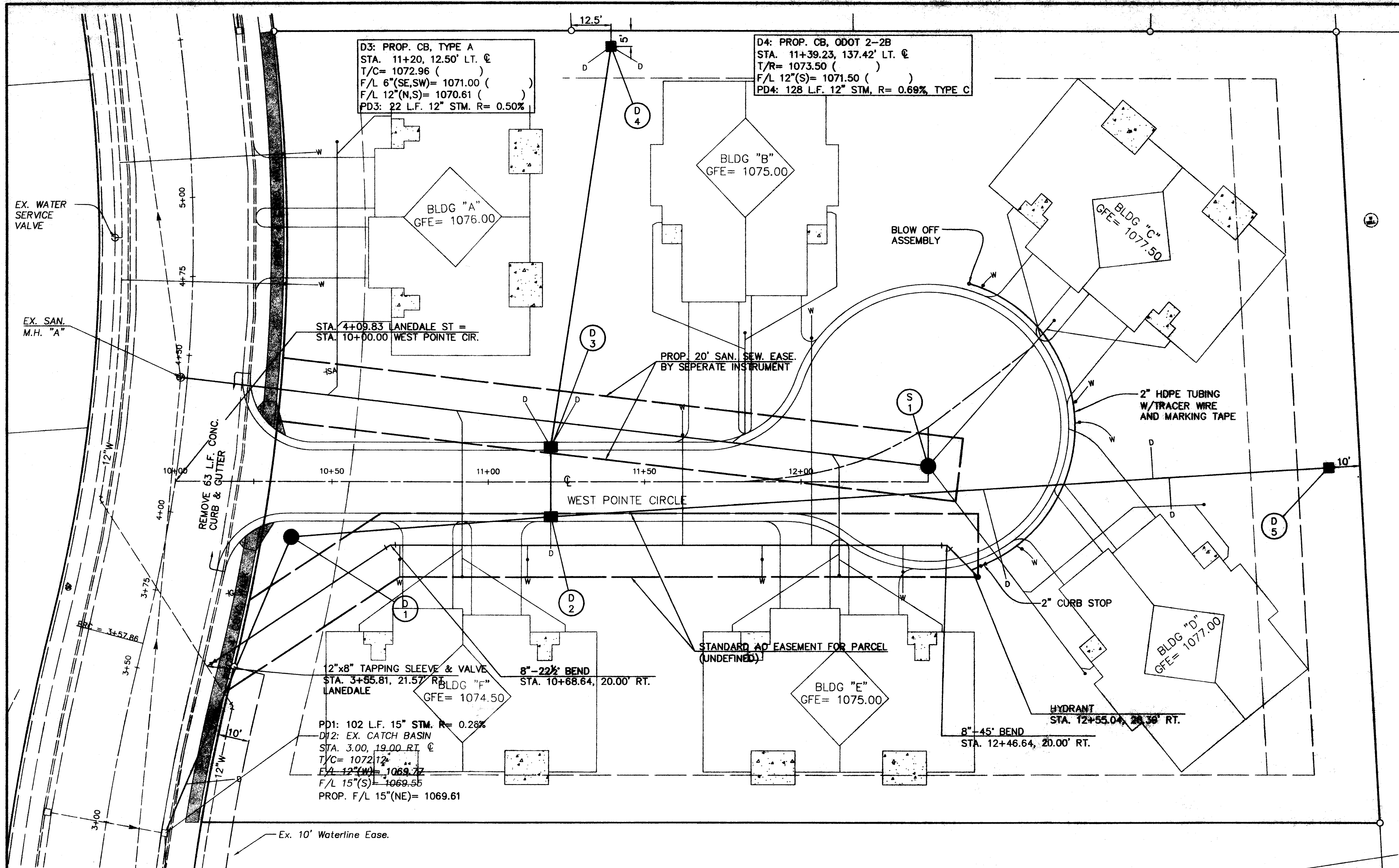
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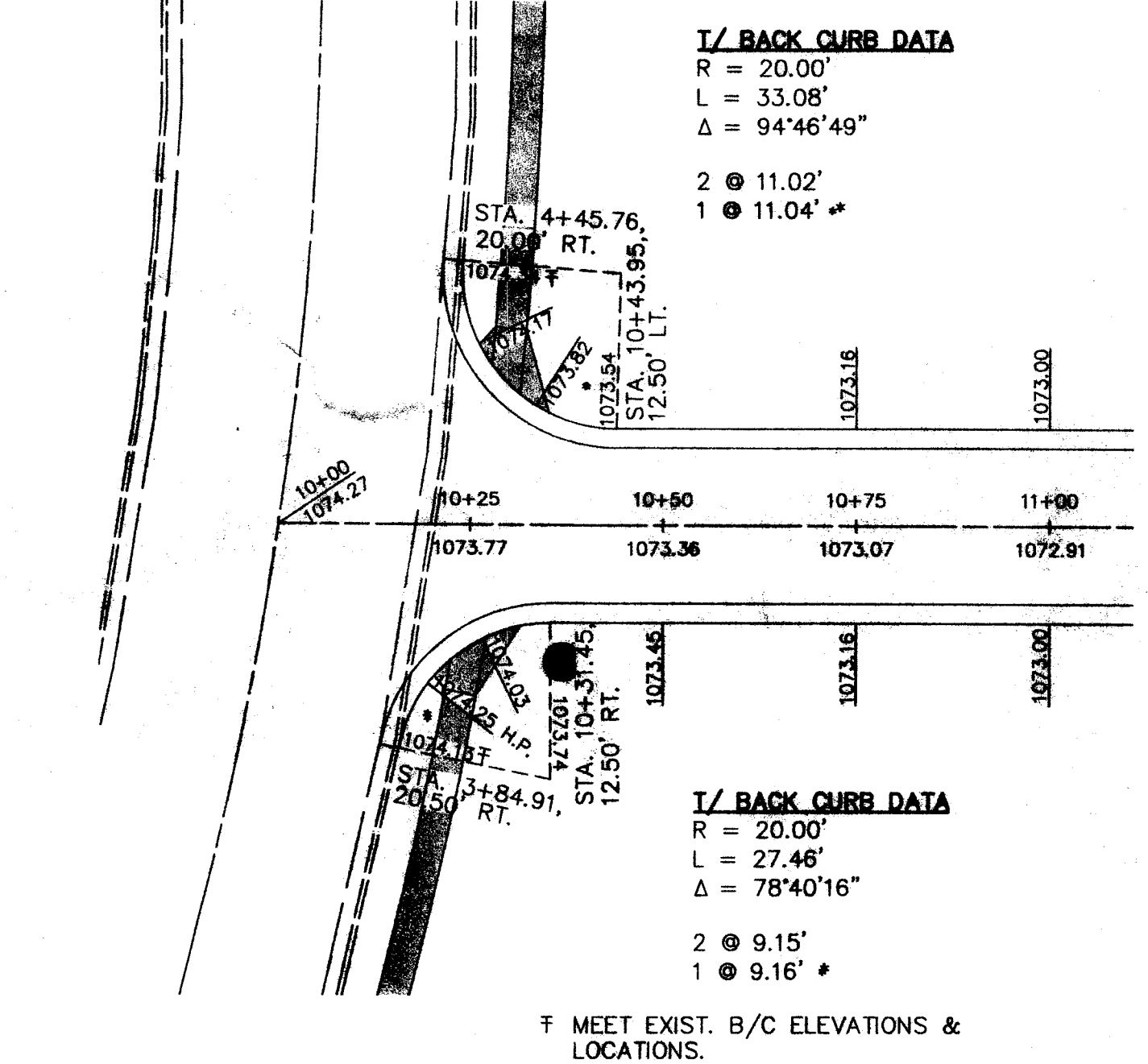
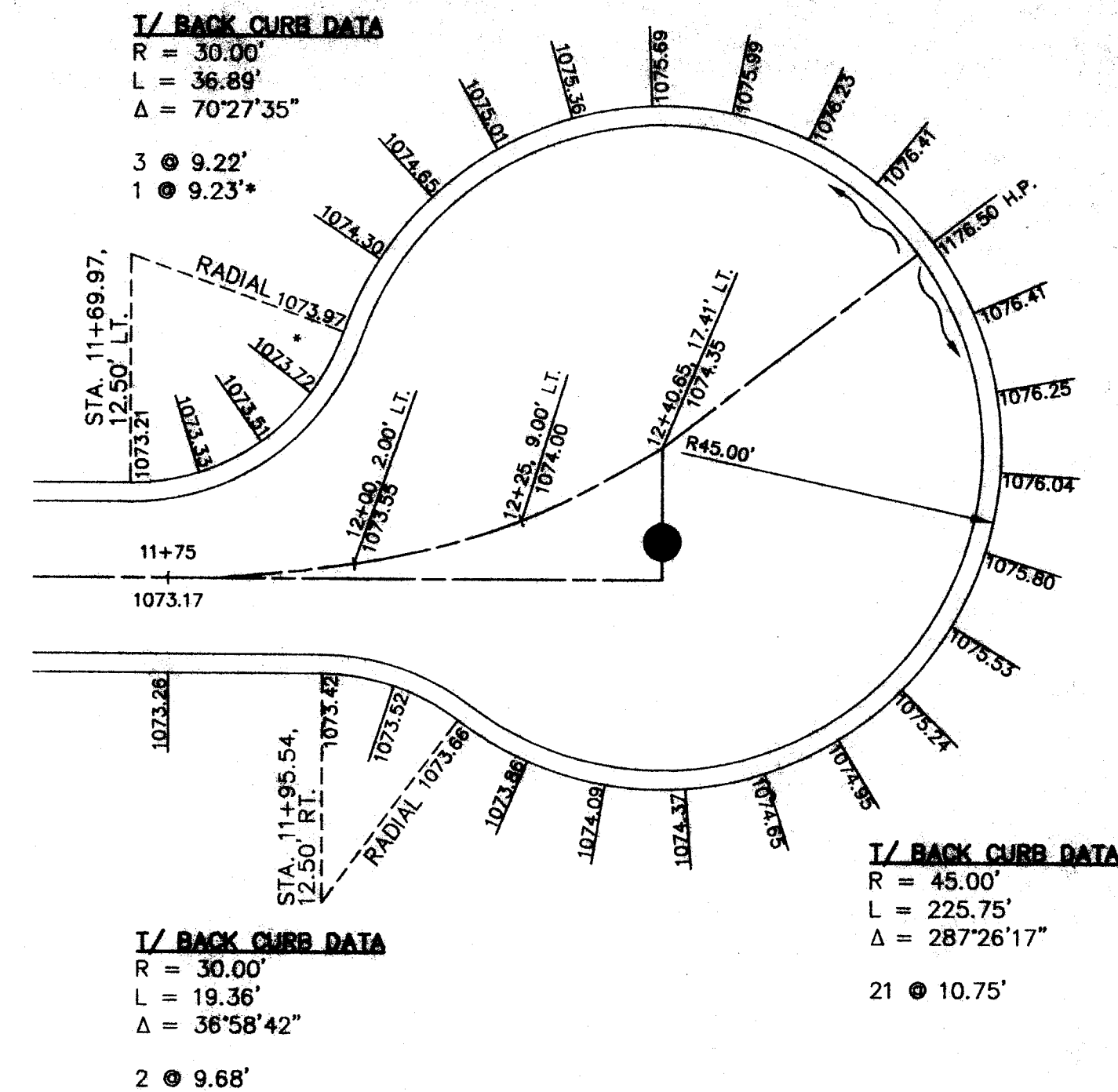
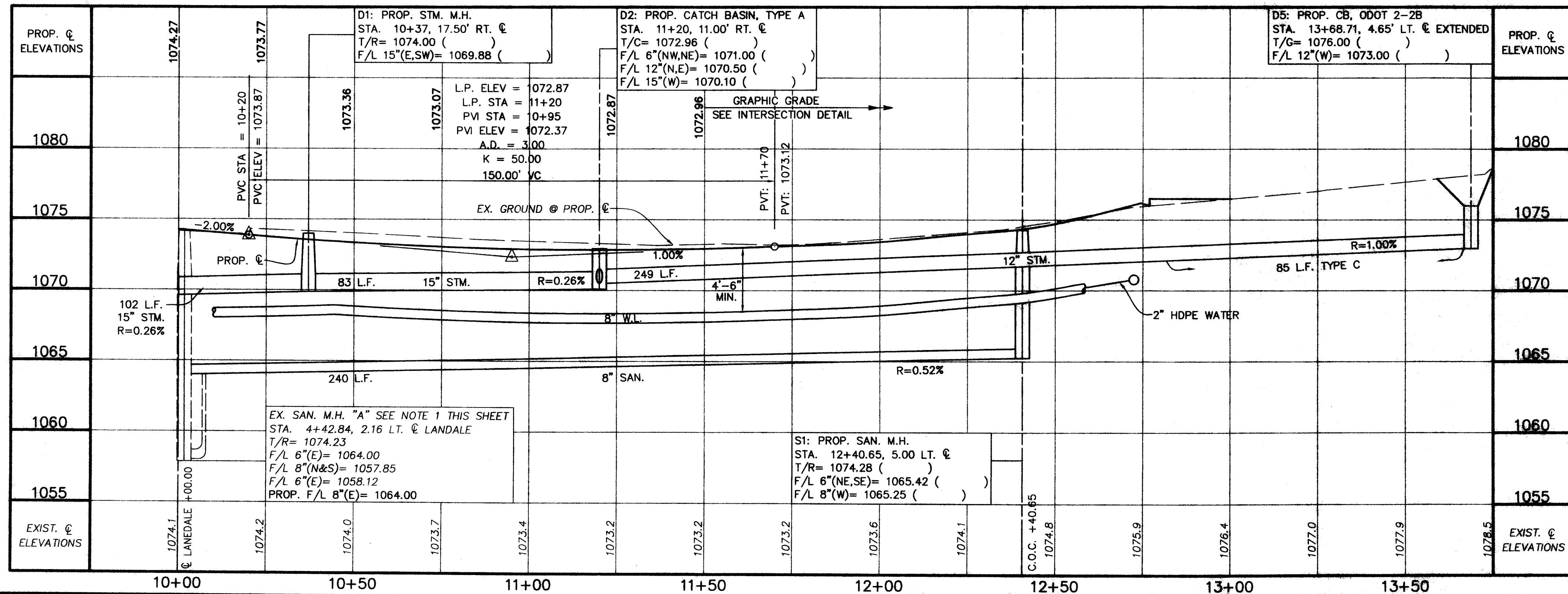
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LETTER OF APPROVAL
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HERETO ATTACHED
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WEST POINT CIR.



- NOTES:
- THE EXISTING MANHOLE IN LANDALE WAS ORIGINALLY DESIGNED FOR A 6" LATERAL CONNECTION EAST WITH DROP ATTACHMENT. THE CONTRACTOR SHALL CORE DRILL & INSTALL A NEW BOOT ASSEMBLY AT THE EXISTING SAN MANHOLE "A" FOR PROPOSED 8" CONNECTION EAST AND RECONNECT THE EXISTING MANHOLE DROP ATTACHMENT.

SEWERAGE
APPROVED
OHIO ENVIRONMENTAL PROTECTION AGENCY
AS EVIDENCED BY COPY OF
LETTER OF APPROVAL
HERETO ATTACHED

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	5/10/2004	M.J.S.	ISSUED FOR PERMIT
2	5/10/2004	M.J.S.	REVISIONS

COOPER & ASSOCIATES, LLP
ENGINEERS AND SURVEYORS

BRYAN J. ASHMAN
JEROLD E. GEB

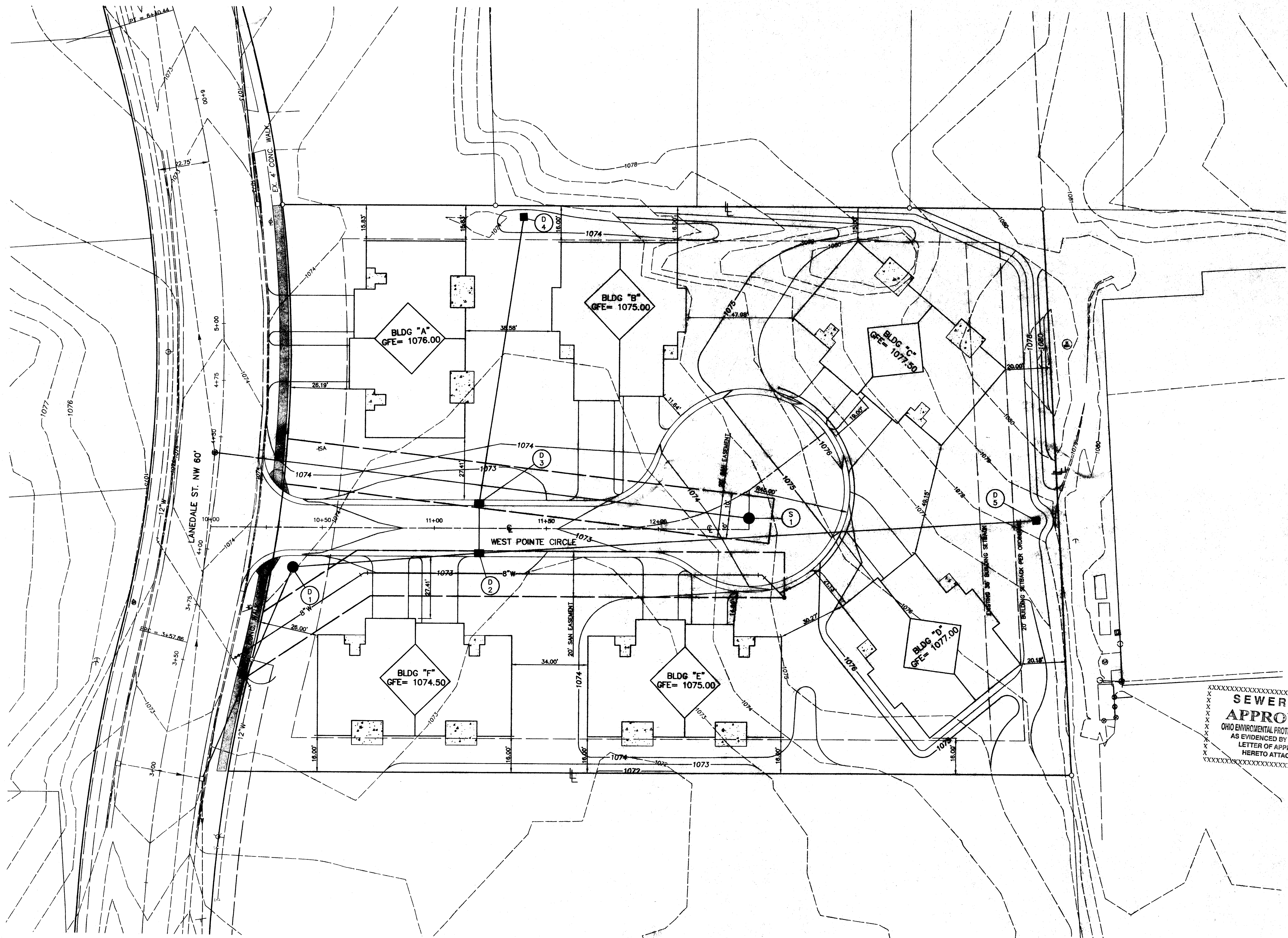
PHONE (330) 452-5731
FAX (330) 452-9110

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PLAN AND PROFILE WEST POINT CIRCLE & INTERSECTION DETAILS
WEST POINT CONDOMINIUMS
LOCATED IN THE CITY OF MASSILLON
STARK COUNTY, OHIO
FOR: BRENDL & CROSS

DRAWN BY: M.J.S.
CHECKED BY: B.J.A.
FIELD BOOK No.
DATE 04/12/2004
SHEET
3 OF 5
PROJ# 03337

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NOTE: GFE= GARAGE FLOOR ELEVATION

GRADING PLAN
WEST POINTE CONDOMINIUMS
LOCATED IN THE CITY OF MASSILLON
STARK COUNTY, OHIO
FOR: BRENDL & CROSS

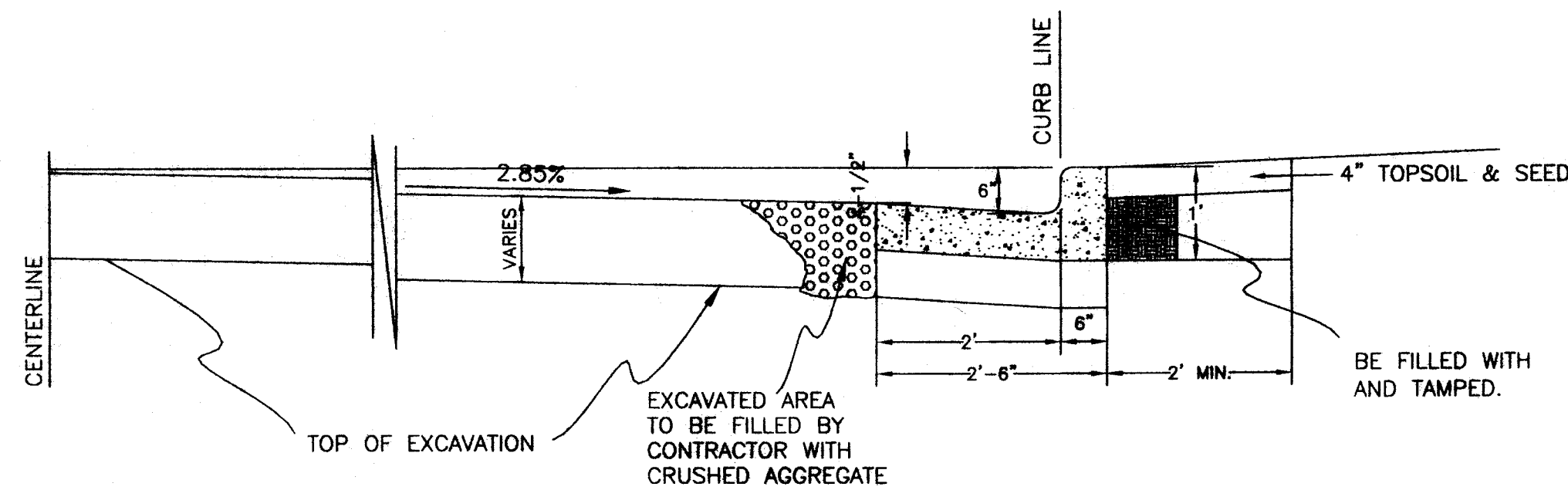
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JEROLD E. GEIB
PHONE (330) 462-5751
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AVERA, OHIO
MASSILLON, OHIO

REVISIONS

NO.	DATE	BY	DESCRIPTION
1	5/10/2004	M.J.S.	ADDITIONAL COMMENTS
2	5/10/2004	M.J.S.	MASSILLON ENGINEER COMMENTS

HORIZONTAL SCALE
0 10 20
SCALE 1"=20'

DRAWN BY: M.J.S.
CHECKED BY: B.L.A.
FIELD BOOK NO.
DATE 05/12/2004
SHEET 4 OF 5
PROJ.# 03337



MASSILLON STANDARD CURB AND GUTTER DETAIL

NOTES

GRATE
FOR A "SINGLE" STRUCTURE, GRATE, FRAME AND BACK SHALL BE EAST JORDAN IRON WORKS CATALOG No. 7030 CURB INLET FRAME, GRATE AND BACK (OR EQUIVALENT) WITH "DUMP NO WASTE" LETTERING. GRATE SHALL BE TYPE M2 AND BACK SHALL BE TYPE T1.

FOR A "DOUBLE" STRUCTURE, GRATE, FRAME AND BACK SHALL BE EAST JORDAN IRON WORKS CATALOG No. 7031 DOUBLE INLET FRAME, GRATE AND CURB BOX (OR EQUIVALENT) WITH "DUMP NO WASTE" LETTERING. GRATE SHALL BE TYPE M2 AND BACK SHALL BE TYPE T1.

APPROVED EQUIVALENT
TYPE "A": NEENAH FOUNDRY CATALOG No. R-3246 CURB INLET FRAME, GRATE, CURB BOX. GRATE SHALL BE TYPE "C" AND CURB BOX SHALL HAVE A 2" RADIUS CURB FACE.
TYPE "A" DOUBLE: NEENAH FOUNDRY CATALOG No. R-3295-A DOUBLE UNIT INLET FRAME, GRATE AND CURB BOX. GRATE SHALL BE TYPE "C" AND CURB BOX SHALL HAVE A 2" RADIUS CURB FACE.

GRATES SHALL BE BICYCLE SAFE.

CASTINGS
THE DESIGN SHALL BE ESSENTIALLY THE SAME AND EQUALLY AS STRONG AS THE SPECIFIED CASTINGS. THE MINIMUM COMBINED WEIGHT OF THE FRAME, GRATE AND BACK SHALL BE 400 LBS.

BEARING AREAS
THE FRAME AND GRATE SHALL BE SO FITTED AND FINISHED AS TO PROVIDE A FIRM AND EVEN SEAT. NO PROJECTIONS SHALL EXIST ON BEARING AREAS OF EITHER CASTING AND THE GRATE SHALL SEAT WITHOUT ROCKING.

WALLS
WHEN USED IN PLACE OF CONCRETE, BRICK SIDE WALLS SHALL BE 8" NOMINAL THICKNESS WITH 1/2 INCH CEMENT MORTAR PLASTERED INSIDE AND OUT.

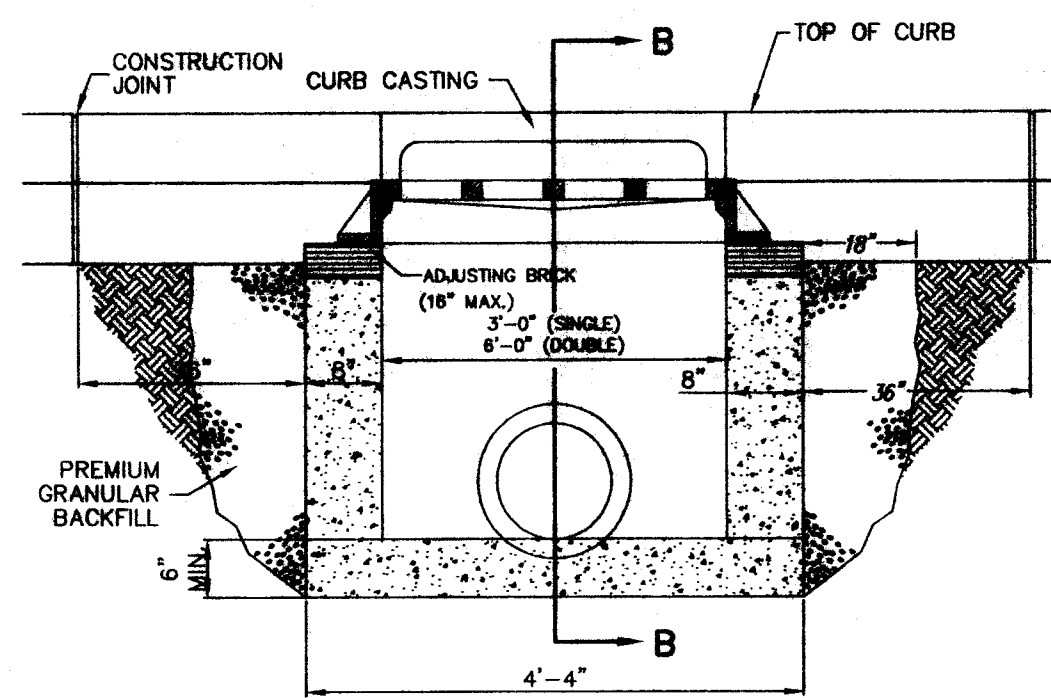
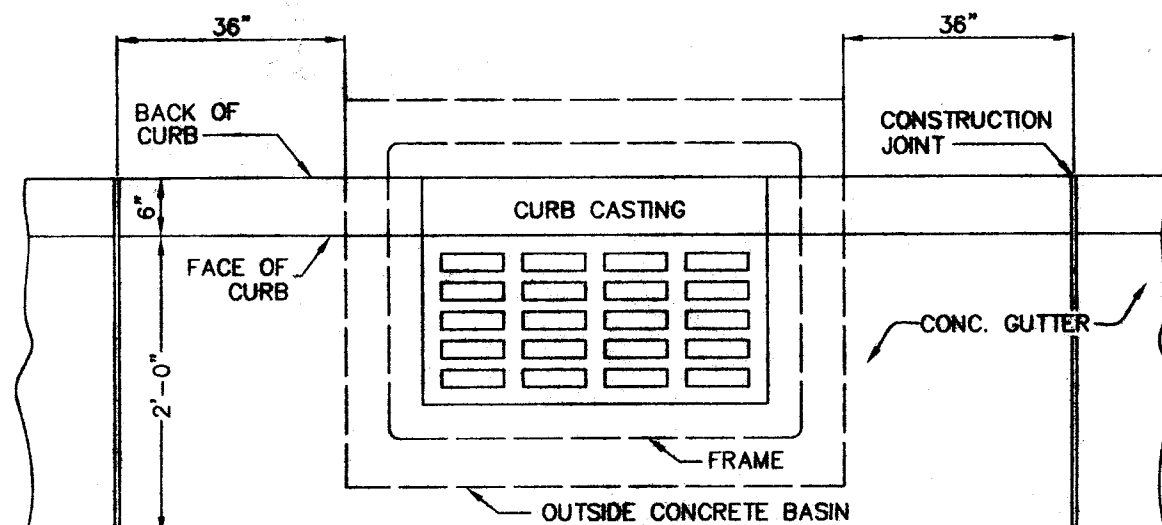
PRECAST CONSTRUCTION
CONCRETE SHALL MEET THE REQUIREMENTS OF CMS 706.13 WITH A MINIMUM OF 4% ENTRAINMENT AIR IN THE HARDENED CONCRETE. PRECAST WALLS SHALL HAVE A MINIMUM THICKNESS OF 8" AND REINFORCING SHALL BE SUFFICIENT TO PERMIT SHIPPING AND PLACEMENT WITHOUT DAMAGE.

OPENINGS
PIPE OPENINGS SHALL BE THE O.D. OF THE PIPE BEING SUPPLIED PLUS 2" WHEN FABRICATED OR FIELD CUT. THE INTERSTITIAL SPACE SHALL BE FILLED WITH GROUT PER CMS 601.

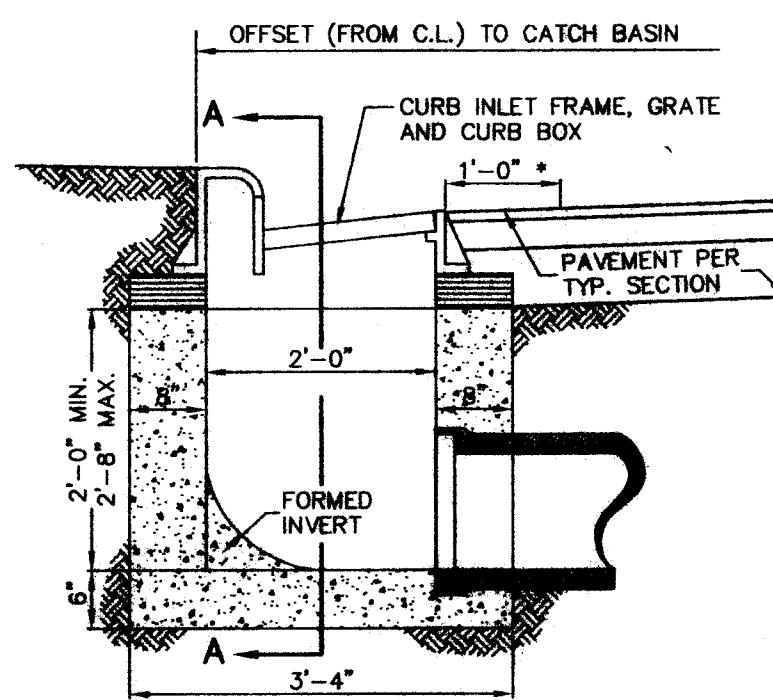
BLOCKOUT
PORTION BLOCKED OUT OF THE PAVEMENT SHALL BE PLACED AFTER THE CASTING HAS BEEN SET. PAYMENT SHALL BE INCLUDED AS PART OF THE ASPHALT PRICE.

PAYMENT
ALL MATERIALS AND LABOR, INCLUDING EXCAVATION AND BACKFILLING, SHALL BE PAID FOR UNDER ITEM 604 - CATCH BASIN, TYPE "A" OR CATCH BASIN, TYPE "A" DOUBLE.

* NOTE:
ASPHALT PAVEMENT MUST BE HAND RAKED FOR 1'-0" TRANSITION

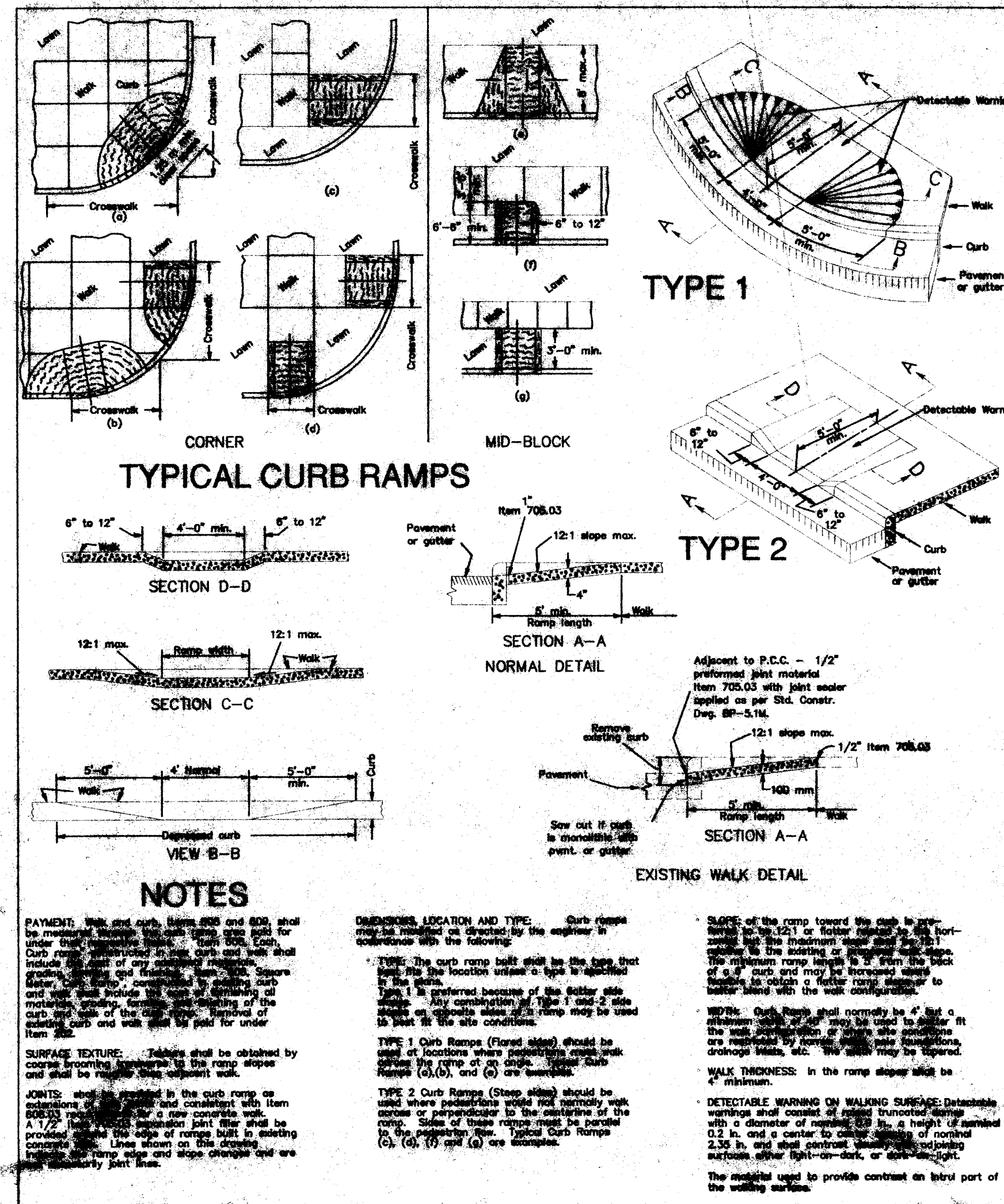


SECTION A-A



SECTION B-B

TYPE "A" CATCH BASIN



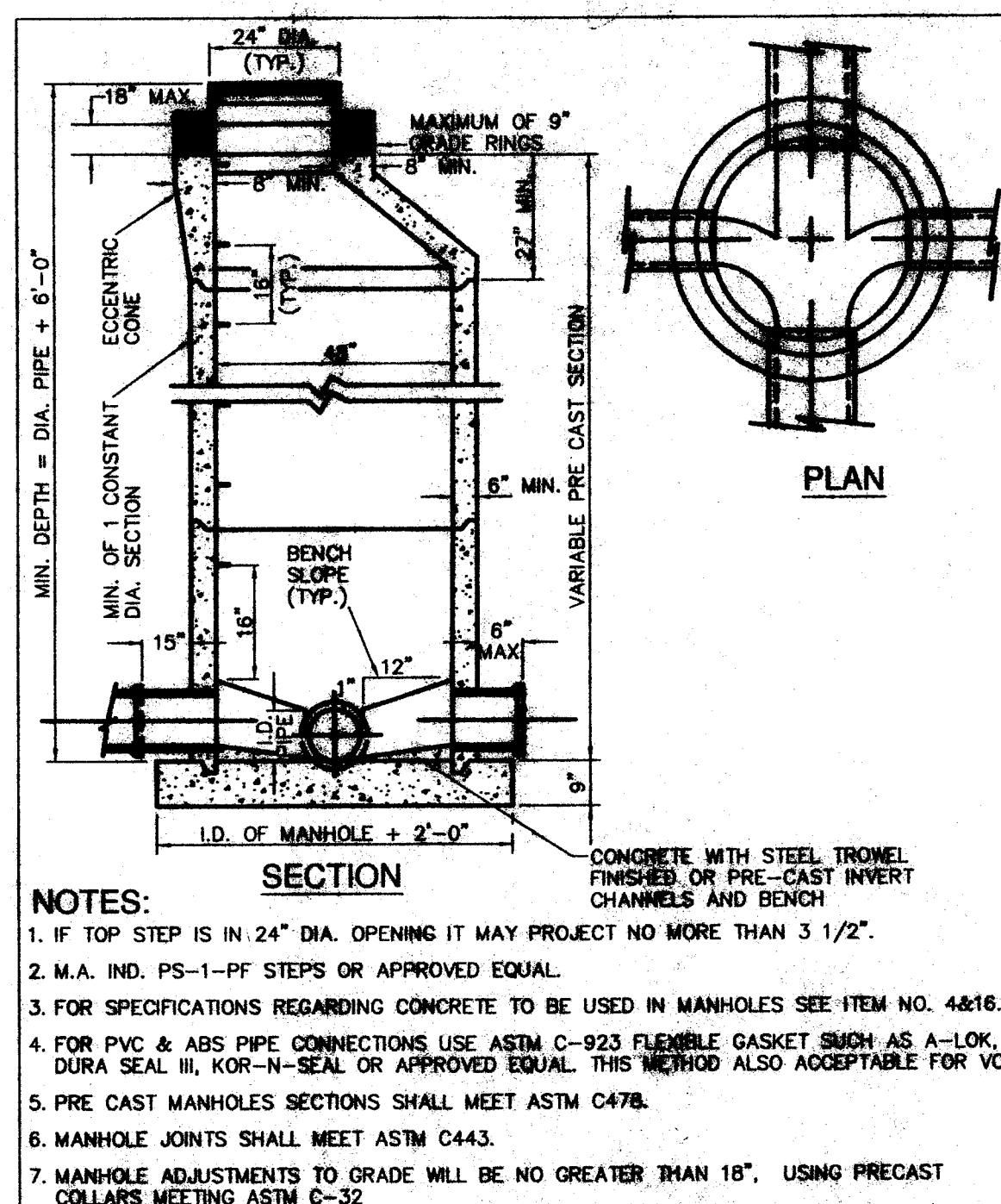
TYPICAL CURB RAMP DETAIL

NOTES

PAYMENTS shall include curb, frame and back, shall be paid for under item 604 - CATCH BASIN, TYPE "A" OR CATCH BASIN, TYPE "A" DOUBLE. PAYMENT SHALL BE INCLUDED AS PART OF THE ASPHALT PRICE.

JOINTS shall be installed in the curb ramp as follows: 1. CURB RAMP JOINTS SHALL BE 12" MAX. 2. CURB RAMP JOINTS SHALL BE 12" MAX. 3. CURB RAMP JOINTS SHALL BE 12" MAX.

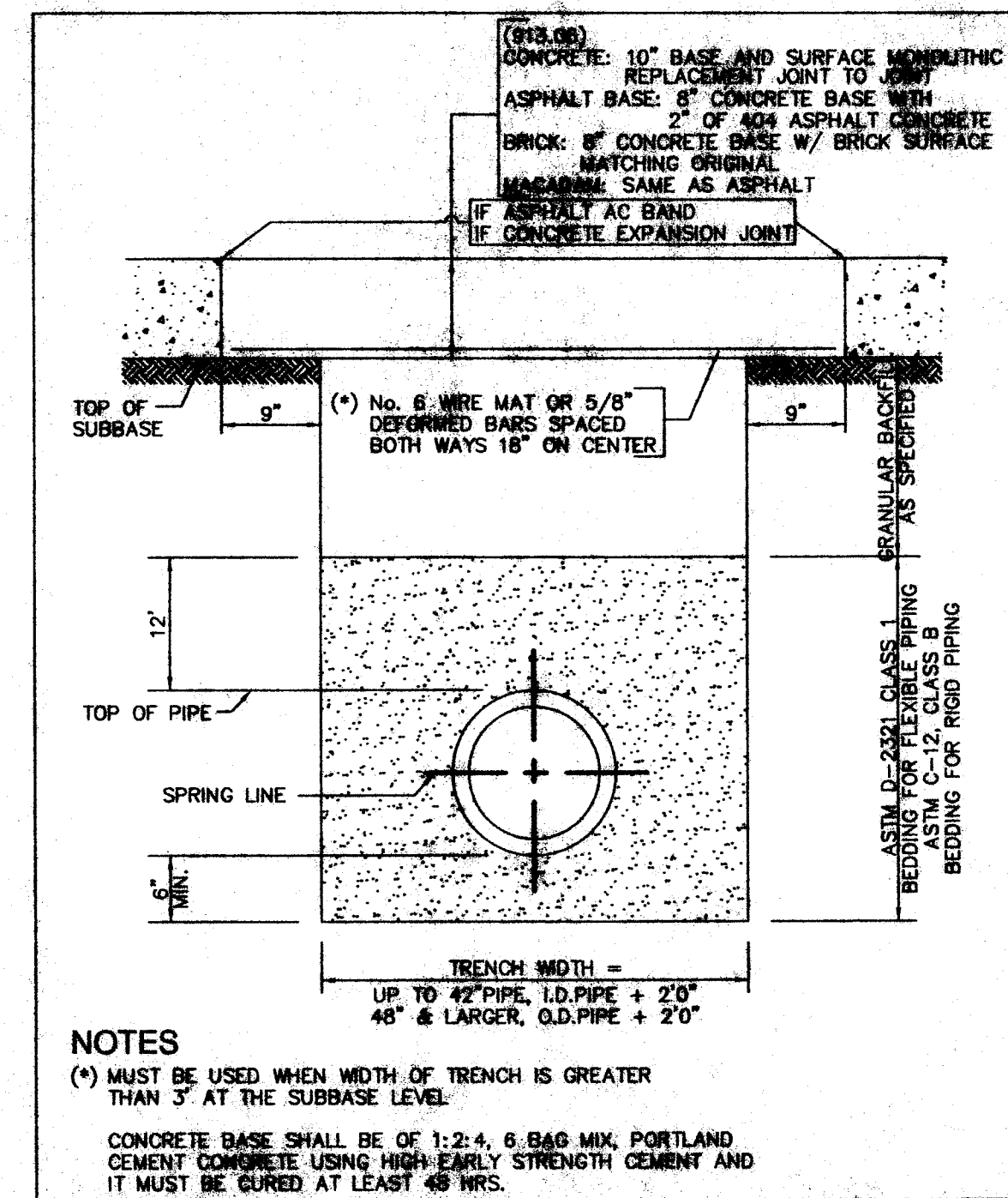
CURB RAMP DETAIL (STD. MASSILLON DETAIL)



NOTES:

- IF TOP STEP IS IN 24" DIA. OPENING IT MAY PROJECT NO MORE THAN 3 1/2".
- M.A. IND. PS-1-PF STEPS OR APPROVED EQUAL.
- FOR SPECIFICATIONS REGARDING CONCRETE TO BE USED IN MANHOLES SEE ITEM NO. 4&16.
- FOR PVC & ABS PIPE CONNECTIONS USE ASTM C-923 FLEXIBLE GASKET SUCH AS A-LOK, DURA SEAL III, KOR-N-SEAL OR APPROVED EQUAL. THIS METHOD ALSO ACCEPTABLE FOR VCP.
- PRE CAST MANHOLES SECTIONS SHALL MEET ASTM C478.
- MANHOLE JOINTS SHALL MEET ASTM C443.
- MANHOLE ADJUSTMENTS TO GRADE WILL BE NO GREATER THAN 18", USING PRECAST COLLARS MEETING ASTM C-32.

SANITARY MANHOLE TYPE 3 (STD. MASSILLON DETAIL)



NOTES

- MUST BE USED WHEN WIDTH OF TRENCH IS GREATER THAN 3' AT THE SUBBASE LEVEL.
- CONCRETE BASE SHALL BE OF 1:2:4, 6 BAG MIX, PORTLAND CEMENT CONCRETE USING HIGH-EARLY STRENGTH CEMENT AND IT MUST BE CURED AT LEAST 48 HRS.

OPEN CUT DETAIL (STD. MASSILLON DETAIL)

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THE CONTRACTOR SHALL PERFORM NO WORK ON THIS SITE UNTIL A PRE-CONSTRUCTION MEETING IS HELD ON-SITE WITH THE STARK SOIL AND WATER CONSERVATION DISTRICT, URBAN RESOURCE COORDINATOR. [Phone: (330) 830-7700 (#127)]

- (SITE STABILIZATION EXISTS WHEN NO GROUND IS LEFT EXPOSED BUT IS STABILIZED WITH PAVEMENT, ROOF AREAS AND/OR PERMANENT VEGETATIVE COVER WITH A MINIMUM OF 70% ESTABLISHED DENSITY.)

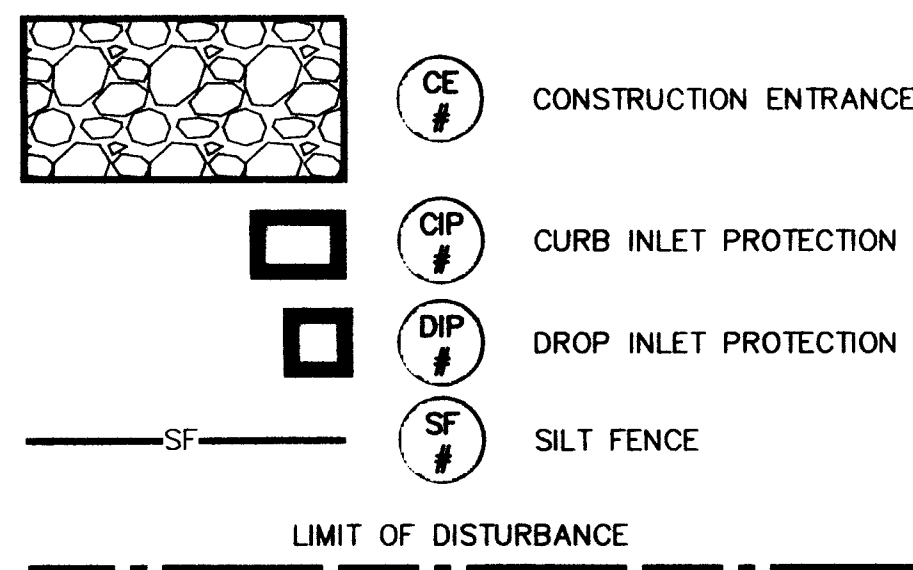
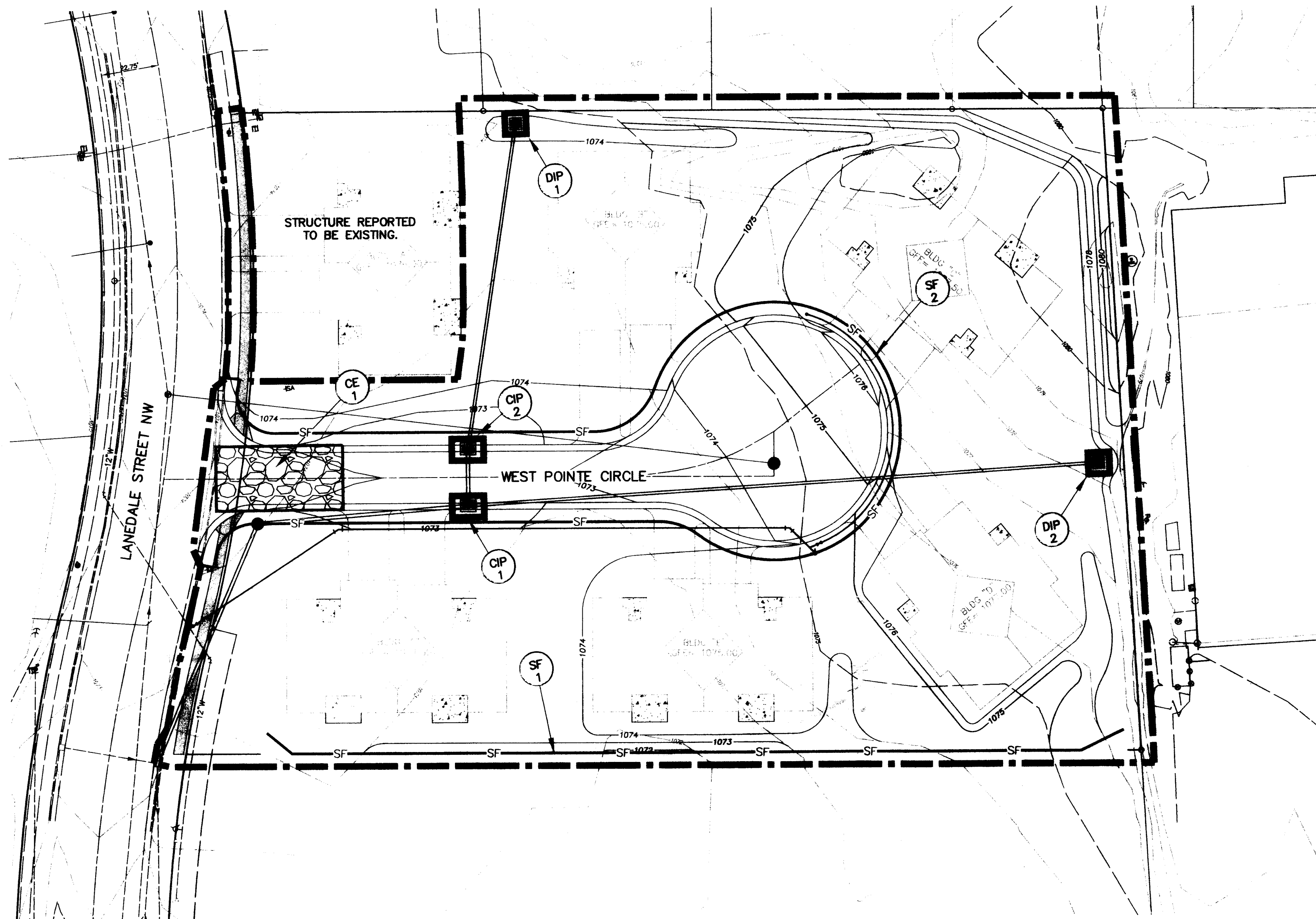
FERTILIZER SOIL PROTECTION CHART												
STABILIZATION TYPE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
PERMANENT SEEDING			A	A								
DORMANT SEEDING	B	B				*	*					
TEMPORARY SEEDING			C	C			D	D				
SODDING			E	E								
MULCHING	F	F										

* = IRRIGATION NEEDED DURING JUNE AND JULY
** = IRRIGATION NEEDED FOR 2-3 WEEKS AFTER APPLYING SOD

DRAWN BY: C.H.B.
CHECKED BY:
FIELD BOOK No.
DATE December 5, 2005
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E1 OF E3
PROJ. # 03337CP

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STORMWATER POLLUTION PREVENTION PLAN WEST POINTE CONDOMINIUMS



PERMANENT STABILIZATION	
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY AREAS THAT WILL BE DORMANT FOR ONE YEAR OR MORE.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE.
ANY AREAS WITHIN 50 FEET OF A STREAM AND AT FINAL GRADE.	WITHIN 2 DAYS OF REACHING FINAL GRADE.
ANY OTHER AREAS AT FINAL GRADE.	WITHIN 7 DAYS OF REACHING FINAL GRADE WITHIN THAT AREA.
TEMPORARY STABILIZATION	
AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY EROSION CONTROLS
ANY DISTURBED AREAS WITHIN 50 FEET OF A STREAM AND NOT AT FINAL GRADE.	WITHIN 2 DAYS OF THE MOST RECENT DISTURBANCE IF THE AREA WILL REMAIN IDLE FOR 7 DAYS OR MORE.
FOR RESIDENTIAL SUBDIVISIONS, NON-RESIDENTIAL SUBDIVISIONS (E.G., INDUSTRIAL PARKS) AND COMMERCIAL DEVELOPMENTS (E.G., SHOPPING CENTERS), ANY DISTURBED AREAS THAT WILL BE DORMANT FOR MORE THAN 21 DAYS BUT LESS THAN ONE YEAR AND NOT WITHIN 50 FEET OF A STREAM.	WITHIN 7 DAYS OF THE MOST RECENT DISTURBANCE WITHIN THE AREA.
DISTURBED AREAS THAT WILL BE IDLE OVER WINTER.	FOR RESIDENTIAL SUBDIVISIONS, DISTURBED AREAS MUST BE STABILIZED AT LEAST 7 DAYS PRIOR TO THE TRANSFER OF PERMIT COVERAGE FOR THE INDIVIDUAL LOTS.
	PRIOR TO THE ONSET OF WINTER WEATHER.

REPAIR AND MAINTENANCE TIME REQUIREMENTS
1. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE. IF INSPECTION REVEALS THAT A CONTROL PRACTICE IS IN NEED OF REPAIR OR MAINTENANCE, WITH THE EXCEPTION OF A SEDIMENT BASIN, IT MUST BE REPAIRED OR MAINTAINED WITHIN 48 HOURS OF THE INSPECTION. SEDIMENT BASINS MUST BE REPAIRED OR MAINTAINED WITHIN 7 DAYS OF THE INSPECTION.
2. WHEN PRACTICES FAIL TO PERFORM THEIR INTENDED FUNCTION. IF INSPECTION REVEALS THAT A CONTROL PRACTICE FAILS TO PERFORM ITS INTENDED FUNCTION AND THAT ANOTHER, MORE APPROPRIATE CONTROL PRACTICE IS REQUIRED, THE SWP3 MUST BE AMENDED AND THE NEW CONTROL PRACTICE MUST BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION.
3. WHEN PRACTICES DEPICTED ON THE SWP3 ARE NOT INSTALLED. IF INSPECTION REVEALS THAT A CONTROL PRACTICE HAS NOT BEEN IMPLEMENTED IN ACCORDANCE WITH THE SCHEDULE CONTAINED IN THIS PLAN, THE CONTROL PRACTICE MUST BE IMPLEMENTED PRIOR TO THE NEXT STORM EVENT WHICH PRODUCES RUNOFF FROM THE SITE, BUT IN NO CASE LATER THAN 7 DAYS FROM THE DATE OF INSPECTION.
IF THE INSPECTION REVEALS THAT THE PRACTICE IS NOT NEEDED, THE INSPECTION RECORD MUST CONTAIN A STATEMENT OF EXPLANATION AS TO WHY THE CONTROL PRACTICE IS NOT NEEDED.

SOIL STOCKPILE PROTECTION
LOCATIONS FOR TOPSOIL STOCKPILES SHOULD BE CAREFULLY SELECTED TO INSURE THAT THEY DO NOT OBSTRUCT THE NORMAL FLOW OF SURFACE WATER RUNOFF AND THAT ANY MATERIAL ERODED FROM THE STOCKPILES DOES NOT HAVE DIRECT ACCESS TO A STORM DRAIN OR DRAINAGEWAY.
THE STOCKPILES SHOULD BE PROTECTED BY EITHER BEING COVERED WITH PLASTIC SHEETING OR BY THE APPLICATION OF TEMPORARY SEEDING.
THE BASE OF THE STOCKPILES SHOULD BE PROTECTED BY A LINE OF SILT FENCE ALONG THE LOWER SIDE(S) OF THE STOCKPILE AND NO CLOSER THAN 6' FROM THE BASE.
THE STOCKPILE PROTECTION SHALL REMAIN IN PLACE AND FUNCTIONING UNTIL THE STOCKPILE HAS BEEN REMOVED.

EROSION AND SEDIMENT CONTROL ESTIMATED QUANTITIES		
PRACTICE	UNIT	QUANTITY
SAFETY		
ROAD STABILIZATION		
CONSTRUCTION ENTRANCE	EACH	1
SEDIMENT BARRIERS		
SILT FENCE	LIN. FT.	1,000
DROP INLET PROTECTION	EACH	2
CURB INLET PROTECTION	EACH	2
DIKES & DIVERSIONS		
SEDIMENT TRAPS & BASINS		
FLUMES		
WATERWAY & OUTLET PROTECTION		
For Permanent Practices See Site Engineering Plans		
STREAM PROTECTION		
SUBSURFACE DRAINAGE		
SITE PREPARATION FOR VEGETATION ESTABLISHMENT		
GRASS ESTABLISHMENT		
TEMPORARY SEEDING & MULCH	LUMP	LUMP
PERMANENT SEEDING & MULCH	LUMP	LUMP
MULCHES		
DUST CONTROL		
DUST CONTROL	LUMP	LUMP

THE ESTIMATE OF QUANTITIES LISTED ABOVE IS APPROXIMATE ONLY AND IS BASED ON THE PRACTICES INDICATED ON THE PLAN.
THE ESTIMATED QUANTITIES DO NOT INCLUDE ANY ADDITIONAL MATERIALS THAT MAY BE REQUIRED FOR:
1) MAINTENANCE, REPLACEMENT AND/OR ADJUSTMENT OF PRACTICES AS DETERMINED BY INSPECTIONS.
2) MATERIALS REQUIRED FOR ADDITIONAL PRACTICES, NOT INDICATED ON THE PLAN, WHICH MAY BE REQUIRED BY ACTUAL FIELD CONDITIONS DURING CONSTRUCTION.
FOR THESE QUANTITIES, THE CONTRACTOR MUST RELY UPON HIS EXPERIENCE IN SIMILAR CONSTRUCTION PROJECTS INVOLVING SIMILAR SLOPES, SOIL TYPES, AND SEASONAL RAINFALL.

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X AS EVIDENCED BY COPY OF X
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STORMWATER POLLUTION PREVENTION PLAN
WEST POINTE CONDOMINIUMS
FOR: BRENDL & CROSS

EROSION AND SEDIMENT CONTROL PLAN
PROJ. #03337CP

REVISIONS

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DRAWN BY: C.H.B.
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FIELD BOOK No.
DATE December 5, 2005
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E2 OF E3

