

PLAN APPROVALS

APPROVED BY THE CITY OF MASSILLON ENGINEER THIS 30th DAY OF September
2002.


CITY OF MASSILLON ENGINEER

WATERLINE IS APPROVED BY CONSUMERS OHIO WATER COMPANY THIS 17 DAY OF OCT., 2002

Donald Snyder
CONSUMERS OHIO WATER COMPANY

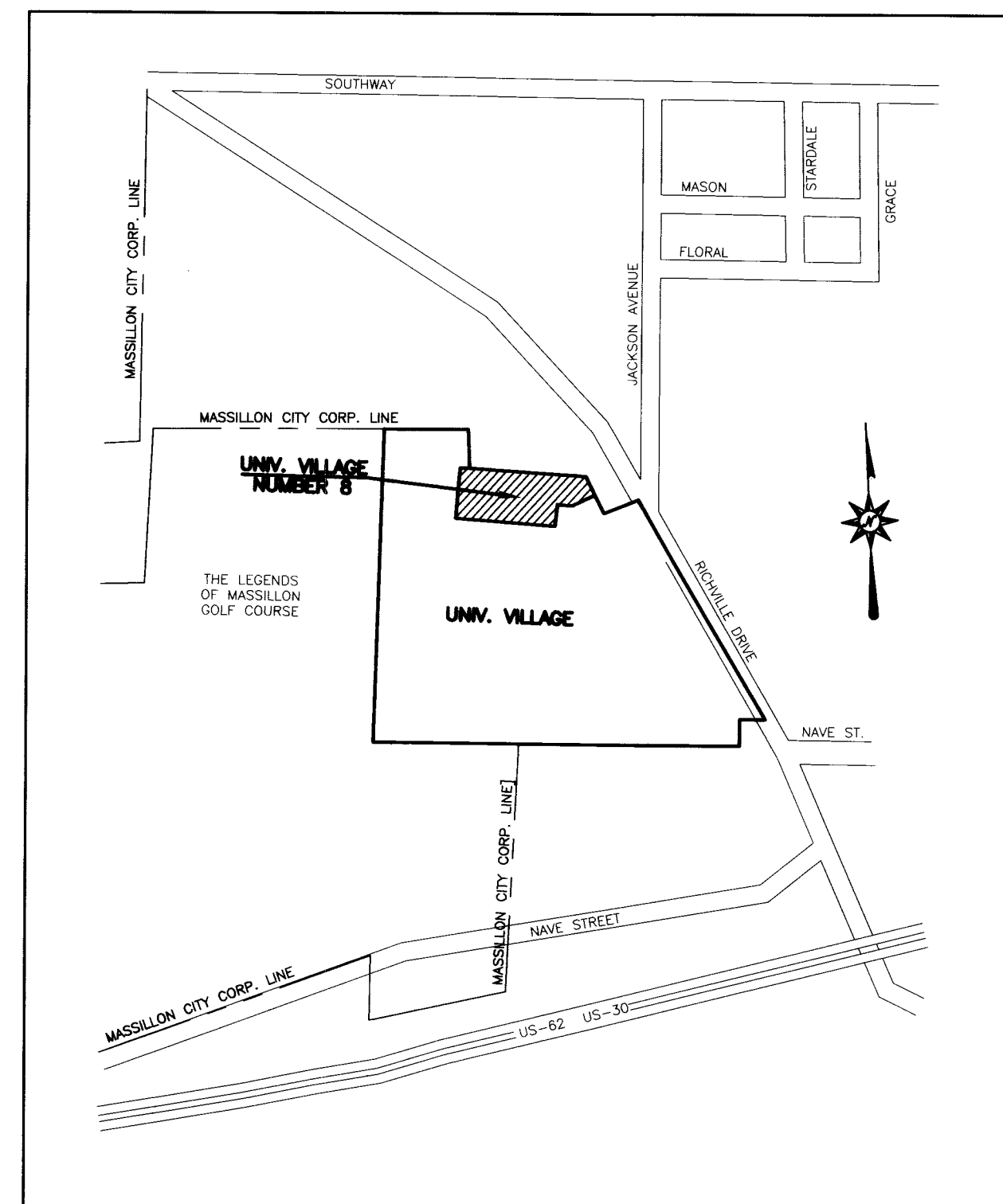
SANITARY SEWER PERMIT-TO-INSTALL HAS BEEN RECEIVED FROM THE OhioEPA THIS
18th DAY OF DECEMBER, 2002.

WATERLINE PERMIT-TO-INSTALL HAS BEEN RECEIVED FROM THE OhioEPA THIS 13th DAY OF NOVEMBER, 2002.

UNIVERSITY VILLAGE No. 8
PART OF OUTLOT 557 IN THE CITY OF MASSILLON
STARK COUNTY, OHIO

FOR: P.R.M.D.C. LTD.

OWNER AND DEVELOPER
P.R.M.D.C. LTD./A LIMITED PARTNERSHIP
7694 STRAUSSER STREET N. W.
NORTH CANTON, OHIO 44720
CONTACT: FRED TOBIN
PHONE: 330-497-9744
FAX: 330-497-9006



LOCATION MAP

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

CONVENTIONAL SYMBOLS

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

I HEREBY CERTIFY THAT THESE IMPROVEMENTS HAVE BEEN COMPLETED, AS INDICATED BY THE "AS-BUILT" DIMENSIONS SHOWN ON THESE PLANS.

THIS 25 DAY OF August, 2003


BRYAN J. ASHMAN
REGISTERED ENGINEER No. E-043804

[illegible]

SUPPLEMENTAL PRINTS OF STANDARD CONSTRUCTION DRAWINGS				
CITY OF MASSILLON		O.D.O.T.		CONSUMERS OHIO WATER COMPANY
TRENCH DETAIL		M.H. No. 3		TYPICAL BLOWOFF DETAIL
		CATCH BASIN 2-2B		LONG SERVICE LINE TAP
				SHORT SERVICE LINE TAP
				CONCRETE THRUST BLOCK DETAIL
				TYP. FIRE HYDRANT ASSY. TYPE I

INDEX OF SHEETS

1. **TITLE SHEET**
2. **PROJECT SCHEMATIC**
3. **TYPICAL SECTIONS, QUANTITIES AND MISC. DETAILS**
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5. **BOWLING GREEN PLAN AND PROFILE & INTERSECTION DETAIL SHEET**
6. **MT. UNION & BASELINE 'B' PLAN AND PROFILE & INTERSECTION DETAIL SHEET**
7. **HEIDELBERG & BASELINE 'A' PLAN AND PROFILE & INTERSECTION DETAIL SHEET**
8. **GRADING PLAN**
- 1E-2E. **STORMWATER POLLUTION PREVENTION PLANS**

TITLE SHEET	PROJ# 02110
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SCALE	
HOR. N/A	VERT. N/A
DATE: August 2002	
FIELD BOOK No. N/A	
SHEET	
1	OF 8

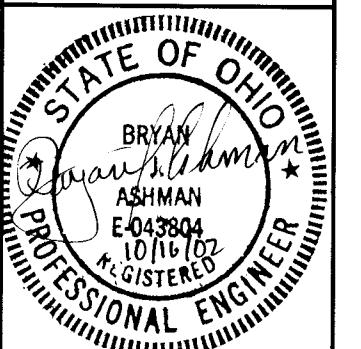
BRYAN J. ASHMAN
JEROLD E. GEIB

COOPER & ASSOCIATES, L.L.P.
ENGINEERS AND SURVEYORS

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



TITLE SHEET
UNIVERSITY VILLAGE
PHASE 8
CITY OF MASSILLON
STARK COUNTY, OHIO
FOR : P.R.M.D.C. LTD.

[illegible]

E SHEET No. 7

[illegible]

COOPER & ASSOCIATES, L.L.P.

PROJECT SCHEMATIC
UNIVERSITY VILLAGE
PHASE 8
CITY OF MASSILLON
STARK COUNTY, OHIO
FOR : P.R.M.D.C. LTD.

REVISIONS		
DESCRIPTION	DATE	BY
COMC COMMENTS	10/10/02	M/JH

OWN BY: C.H.B. CHK'D BY: B.D.B.

PROJ. 02110

PROJ. 02110

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CITY OF MASSILLON GENERAL NOTES

- 1.) 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: 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 McCUE) 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.

SANITARY SEWER NOTES

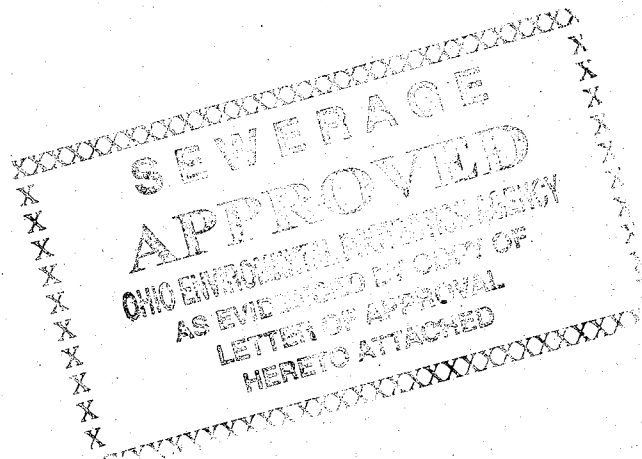
- 1.) SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS IN EFFECT AT TIME OF CONSTRUCTION.
- 2.) ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER ARE PROHIBITED.
- 3.) THE CONTRACTOR 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-700	ASTM C-425	ASTM C-12
DCIP (CLASS 52)	AWWA C-151	AWWA C-110/C-111	AWWA C-151

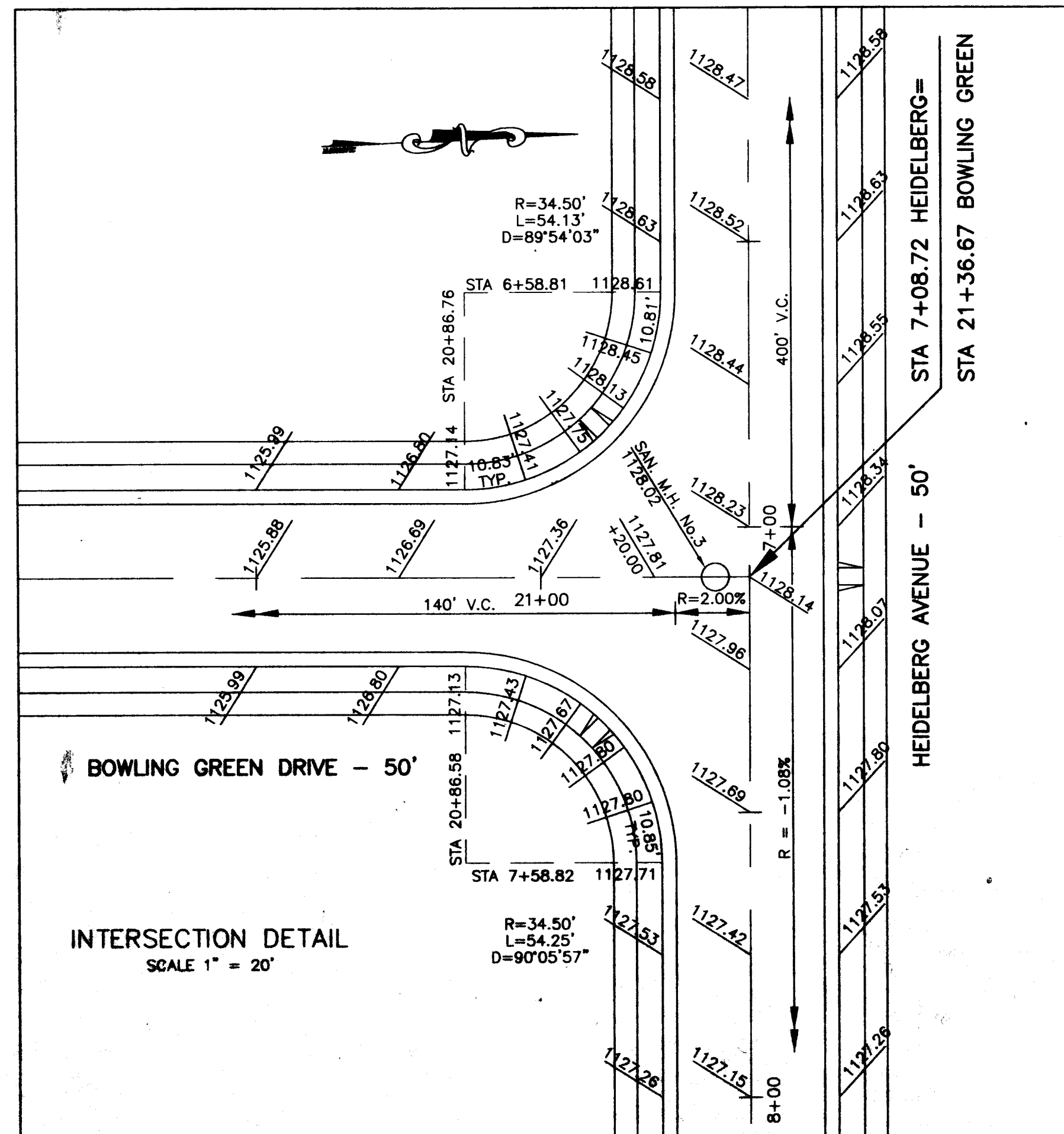
- 14.) ALL SANITARY SEWERS, 8-INCH DIAMETER AND LARGER, MUST PASS AN INTERNAL TELEVISION INSPECTION. THE CONTRACTOR SHALL PROVIDE COMPLETE INTERNAL INSPECTION VIDEOTAPE TO THE CITY OF MASSILLON ENGINEERING DEPARTMENT. THE VIDEOTAPING PROCEDURE SHALL BE IN ACCORDANCE WITH CITY OF MASSILLON ENGINEERING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

WATERLINE NOTES

- 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 0.50' 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.



BENCH MARK
60d SPIKE FOUND 0.5' UP NORTH SIDE
OF A TWIN 15" OAK TREE; 42' S 12' W
OF THE 5/8" IRON BAR FOUND WITH 'DEIBEL'
6673 PLASTIC YELLOW CAP.
ELEV **1074.63**



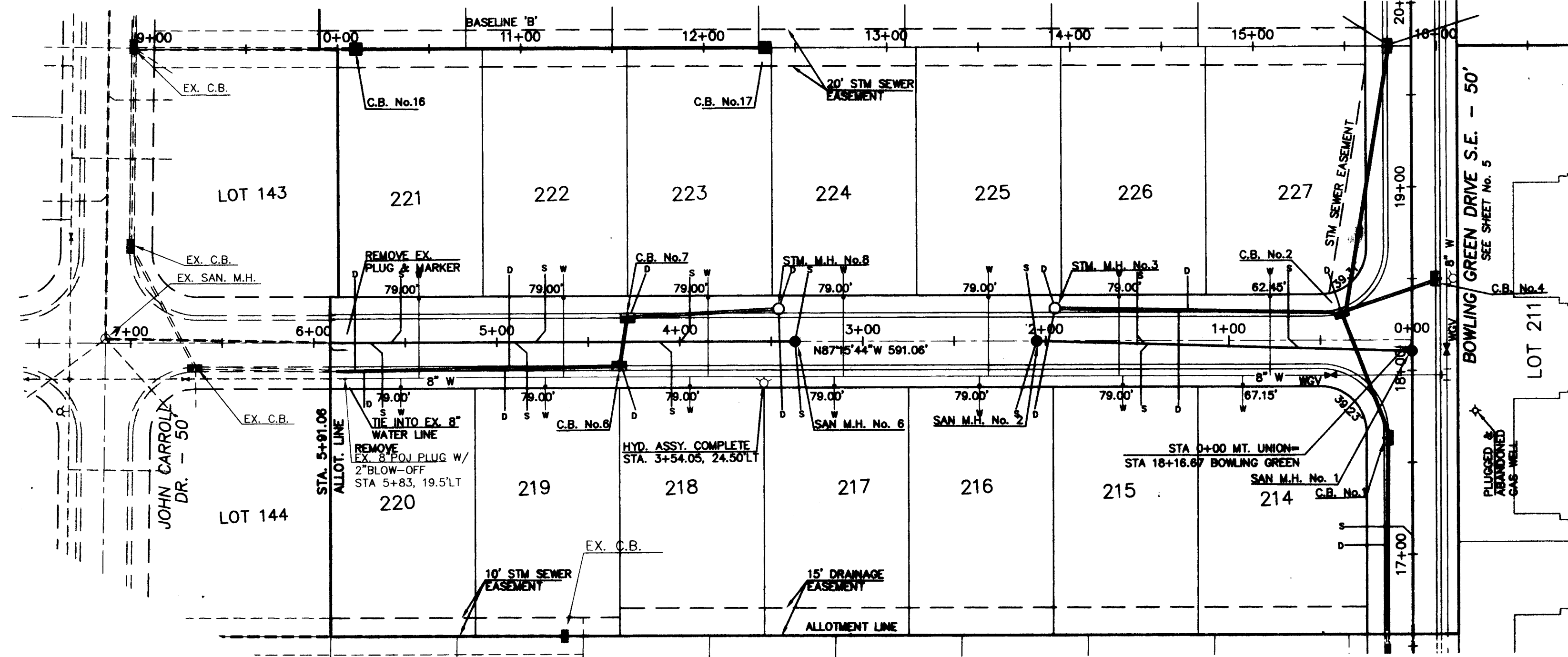
BOWLING GREEN DRIVE S.E. - 50'



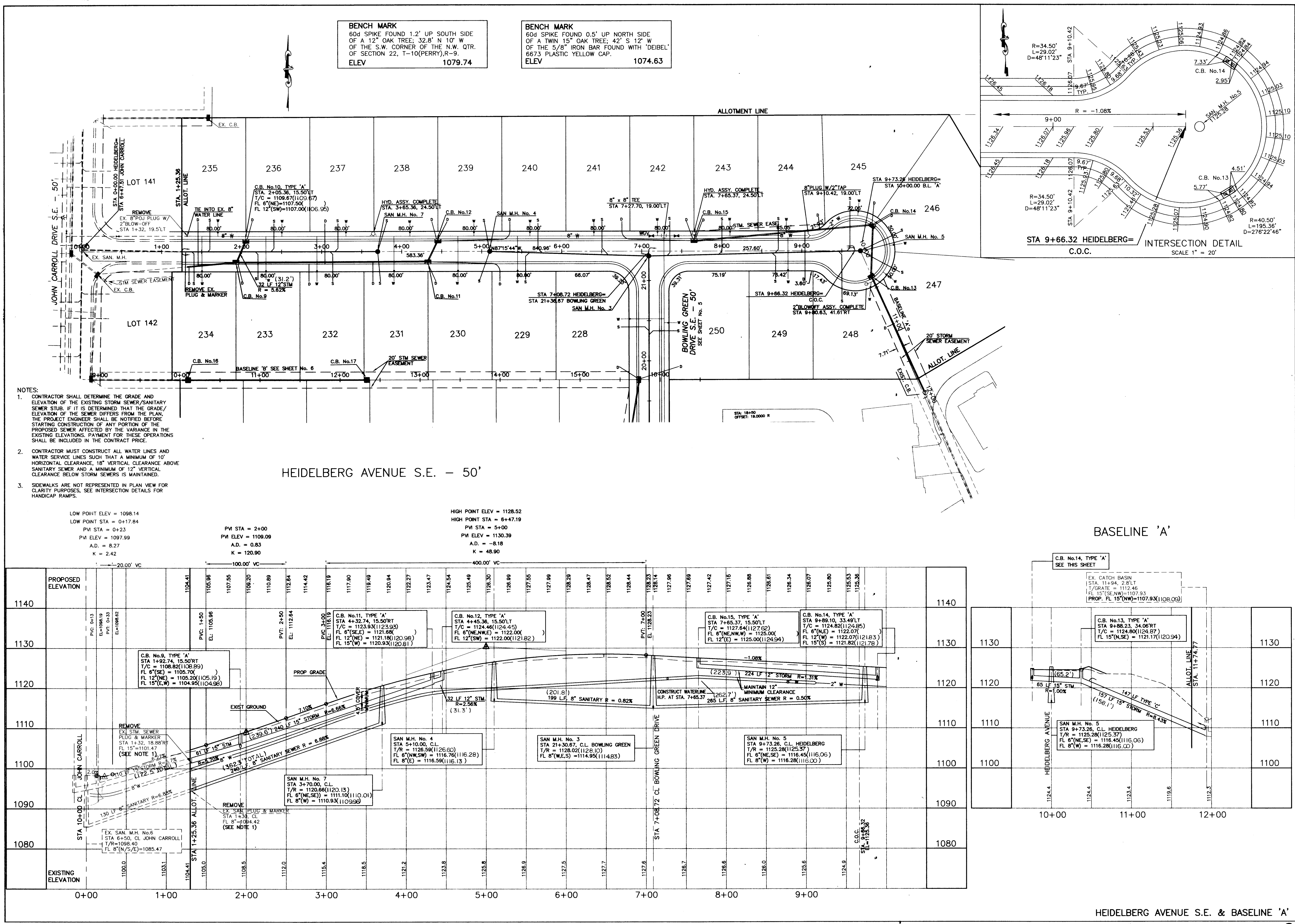


BENCH MARK
60d SPIKE FOUND 1.2' UP SOUTH SIDE
OF A 12" OAK TREE; 32.8' N 10' W
OF THE S.W. CORNER OF THE N.W. QTR.
OF SECTION 22, T-10(PERRY),R-9.
ELEV 1079.74

BENCH MARK
60d SPIKE FOUND 0.5' UP NORTH SIDE
OF A TWIN 15" OAK TREE; 42' S 12' W
OF THE 5/8" IRON BAR FOUND WITH 'DEIBEL'
6673 PLASTIC YELLOW CAP.
ELEV 1074.63



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PLAN & PROFILE SHEET
UNIVERSITY VILLAGE
PHASE 8
CITY OF MASSILLON
STARK COUNTY, OHIO
FOR : P.R.M.D.C. LTD.

COOPER & ASSOCIATES, L.L.P.
ENGINEERS AND SURVEYORS
1359 MARKET AVENUE, NORTH CANTON, OHIO 44714
PHONE (330) 452-5731
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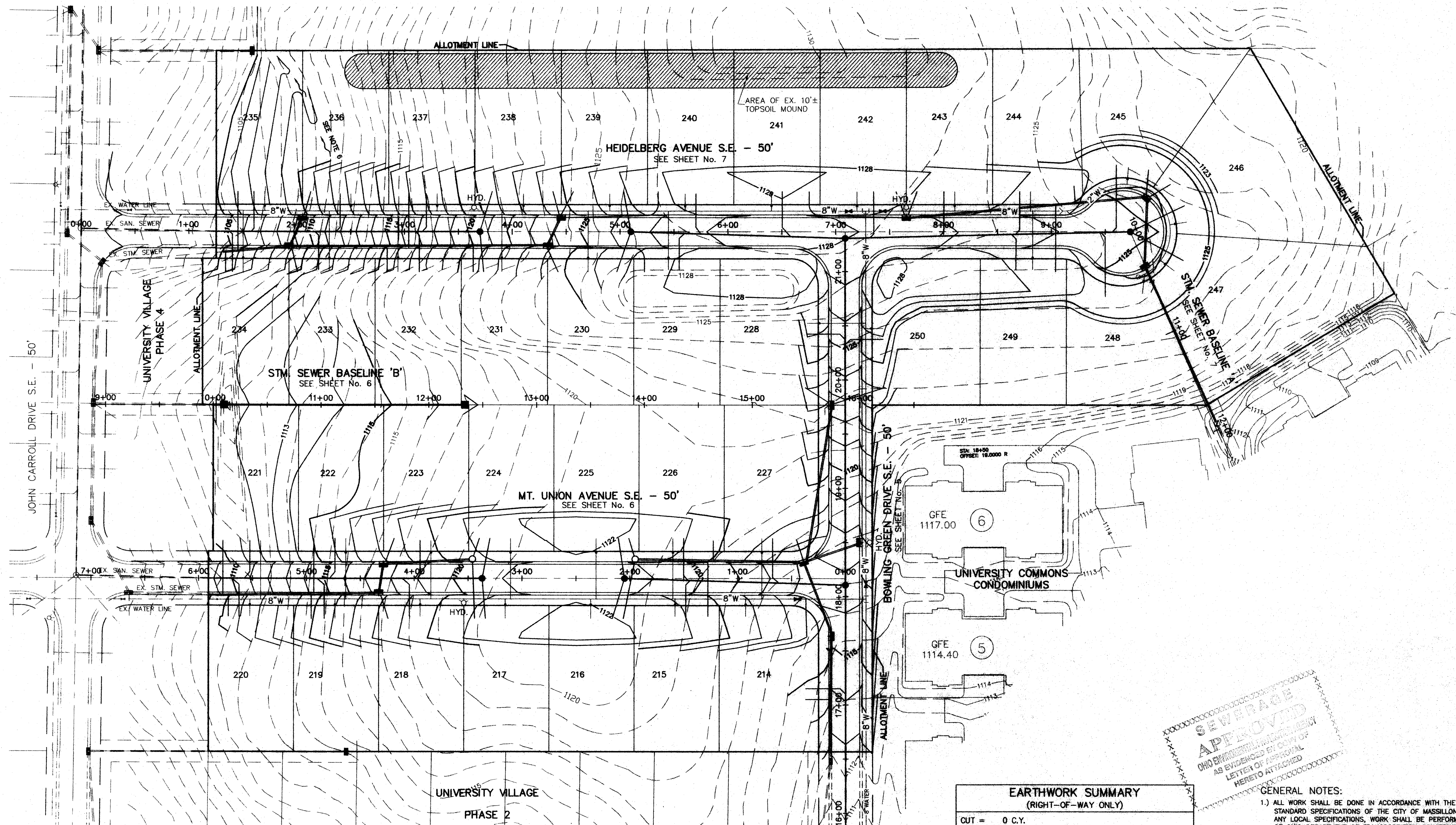
BRYAN J. ASHMAN
JEROLD E. GEIB

DATE: August 2002
FIELD BOOK No.: N/A
SHEET: 7 OF 8

COMMENTS
10/10/02 MJH
DESCRIPTION DATE BY
REVISIONS
DWN BY: C.H.B., CHK'D BY: B.D.B.

02110

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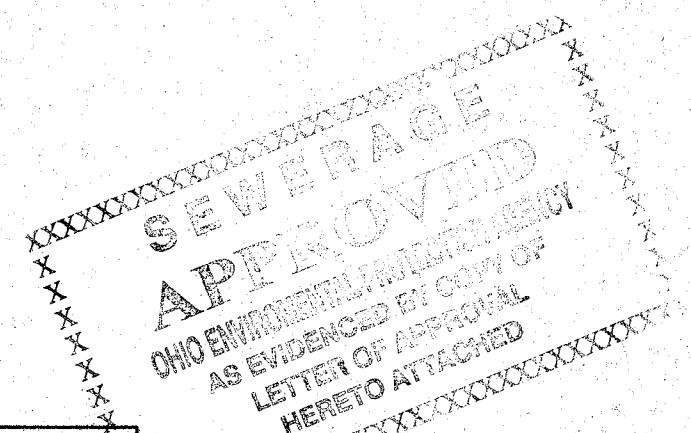


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OF A TWIN 15" OAK TREE; 42' S 12' W
OF THE S/8" IRON BAR FOUND WITH 'DEIBEL'
6673 PLASTIC YELLOW CAP.
ELEV 1074.63

EARTHWORK SUMMARY
(RIGHT-OF-WAY ONLY)
CUT = 0 C.Y.
FILL = 3,100 C.Y. x 1.1 = 3,410 C.Y.
NET = 3,410 C.Y. FILL REQUIRED TO FINISHED GRADE
NET = 910 C.Y. FILL REQUIRED TO SUBGRADE
THE EARTHWORK SUMMARY IS TAKEN FROM EXISTING GROUND TO
PROPOSED FINISHED GRADE. NO FILL ABOVE SUBGRADE WITHIN
PAVEMENT LIMITS IS REQUIRED, THEREFORE DEDUCT 2500± C.Y.

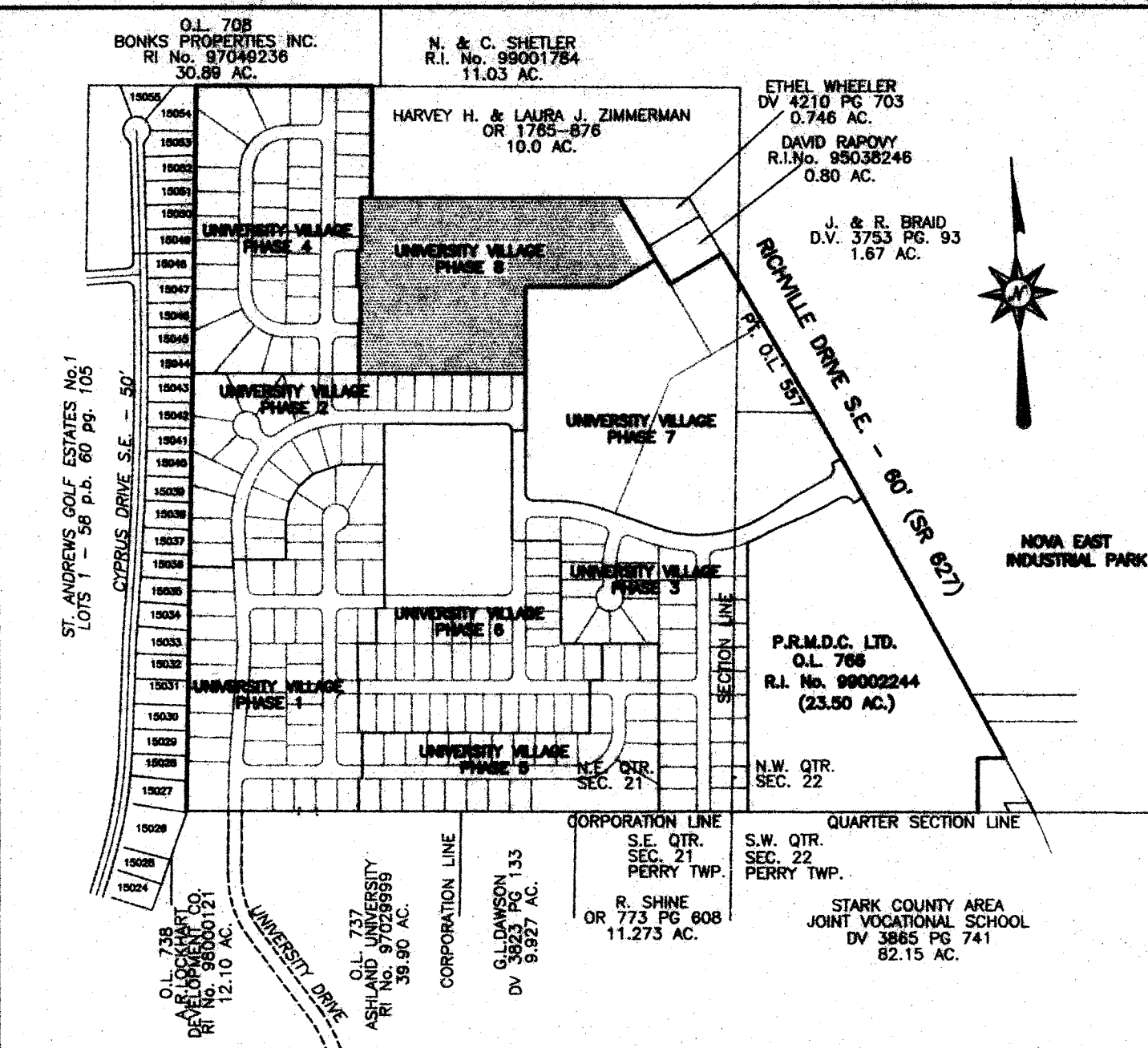
EARTHWORK SUMMARY
(ENTIRE SITE INCLUDING RIGHT-OF-WAY)
CUT = 250 C.Y.
FILL = 9,700 C.Y. x 1.1 = 10,670 C.Y.
NET = 10,420 C.Y. FILL REQUIRED TO FINISHED GRADE
NET = 7,920 C.Y. FILL REQUIRED TO SUBGRADE
THE EARTHWORK SUMMARY IS TAKEN FROM EXISTING GROUND TO
PROPOSED FINISHED GRADE. NO FILL ABOVE SUBGRADE WITHIN
PAVEMENT LIMITS IS REQUIRED, THEREFORE DEDUCT 2500± C.Y.



- GENERAL NOTES:**
- 1) ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE CODES, ORDINANCES, AND STANDARD SPECIFICATIONS OF THE CITY OF MASSILLON ENGINEERING DEPARTMENT. IN LIEU OF ANY LOCAL SPECIFICATIONS, WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS MOST RECENT EDITION.
 - 2) IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO CONSTRUCT THE GRADING REPRESENTED ON THIS PLAN USING CONSTRUCTION MEANS AND METHODS THAT WILL PREVENT BODILY INJURY AND/OR DEATH. THE CONTRACTOR SHALL TAKE ANY NECESSARY SAFETY PRECAUTIONS TO COMPLY WITH THE SAFETY REQUIREMENTS OF THE CITY, STATE AND FEDERAL GOVERNMENTS.
 - 3) EMBANKMENT CONSTRUCTION AND SUBGRADE COMPACTION SHALL BE IN GENERAL CONFORMANCE WITH ODOT SPECIFICATIONS AND SHALL BE 95% STANDARD PROCTOR FOR GENERAL SITE GRADING.
 - 4) CONTOURS REPRESENTED ON THIS PLAN ARE TO THE PROPOSED FINISHED GRADE (PG):
A. PAVEMENT SUBGRADE = PG - 11.5" (PAVEMENT)
B. SITE SUBGRADE = PG - 3" (TOPSOIL)
 - 5) SEE THE STORM WATER POLLUTION PREVENTION PLANS FOR EROSION CONTROL MEASURES.
 - 6) CONTRACTOR SHALL CONSTRUCT A SWALE TO DIRECT STORM WATER RUNOFF FROM LOTS 235-241 INTO THE EXISTING CATCH BASIN LOCATED ALONG THE REAR LOT LINE OF LOT 235.
 - 7) CENTERLINE OF ROADS AND BASELINE PROFILES SURVEYED ON MAY 23, 2003. CONTOURS WERE COMPUTER GENERATED WITH ADJUSTMENTS MADE PER VISUAL INSPECTION. CONTRACTOR SHALL COORDINATE WITH OWNER AND ENGINEER FOR A BALANCED EARTHWORK SITE.

SCALE: 1"=50'		DATE: AUGUST 2002		BRYAN J. ASHMAN JEROLD E. GEB		COOPER & ASSOCIATES, L.L.P. ENGINEERS AND SURVEYORS		PHONE (330) 452-5731 FAX (330) 452-9110		SHEET 8 OF 8	
GRADING PLAN UNIVERSITY VILLAGE PHASE 8 CITY OF MASSILLON STARK COUNTY, OHIO FOR: P.R.M.D.C. LTD.											
COW COMMENTS		DATE		BY		REVISIONS		DRAWN BY: B.D.B.		CHECKED BY:	
02110		10/10/02		JAH							

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LOCATION MAP
N.T.S.

NON-SEDIMENT POLLUTION CONTROL

CONSTRUCTION PERSONNEL, INCLUDING SUBCONTRACTORS WHO MAY USE OR HANDLE HAZARDOUS OR TOXIC MATERIALS, MUST BE MADE AWARE OF THE FOLLOWING GUIDELINES:

1. CONTAINERS SHALL BE PROVIDED FOR COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM PRODUCTS AND ANY HAZARDOUS MATERIALS TO BE USED ON SITE. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL.
2. NO WASTE MATERIALS SHALL BE BURIED ON-SITE. SITE PERSONNEL, INCLUDING SUBCONTRACTORS SHALL BE NOTIFIED THAT NO CONSTRUCTION-RELATED MATERIALS ARE TO BE BURIED ON-SITE.
3. MIXING, PUMPING, TRANSFERRING OR OTHERWISE HANDLING CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.
4. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILL.
5. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW INTO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A SUMP OR PIT SHALL BE CONSTRUCTED IF NEEDED TO CONTAIN CONCRETE WASH WATER.
6. IF HAZARDOUS SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEAKED, OR RELEASED ONTO THE SOIL, THE SOIL SHOULD BE DUG UP AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAND/DOUST OR KITTY LITTER AND DISPOSED OF WITH THE TRASH AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, AND CEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. CONTACT OHIO EPA (1-800-282-9378).
7. SPILLS OF 25 GAL OR MORE OF PETROLEUM PRODUCTS SHALL BE REPORTED TO OHIO EPA (1-800-282-9378), THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE WITHIN 30 MIN. OF THE DISCOVERY OF THE RELEASE.

SEDIMENT CONTROL:

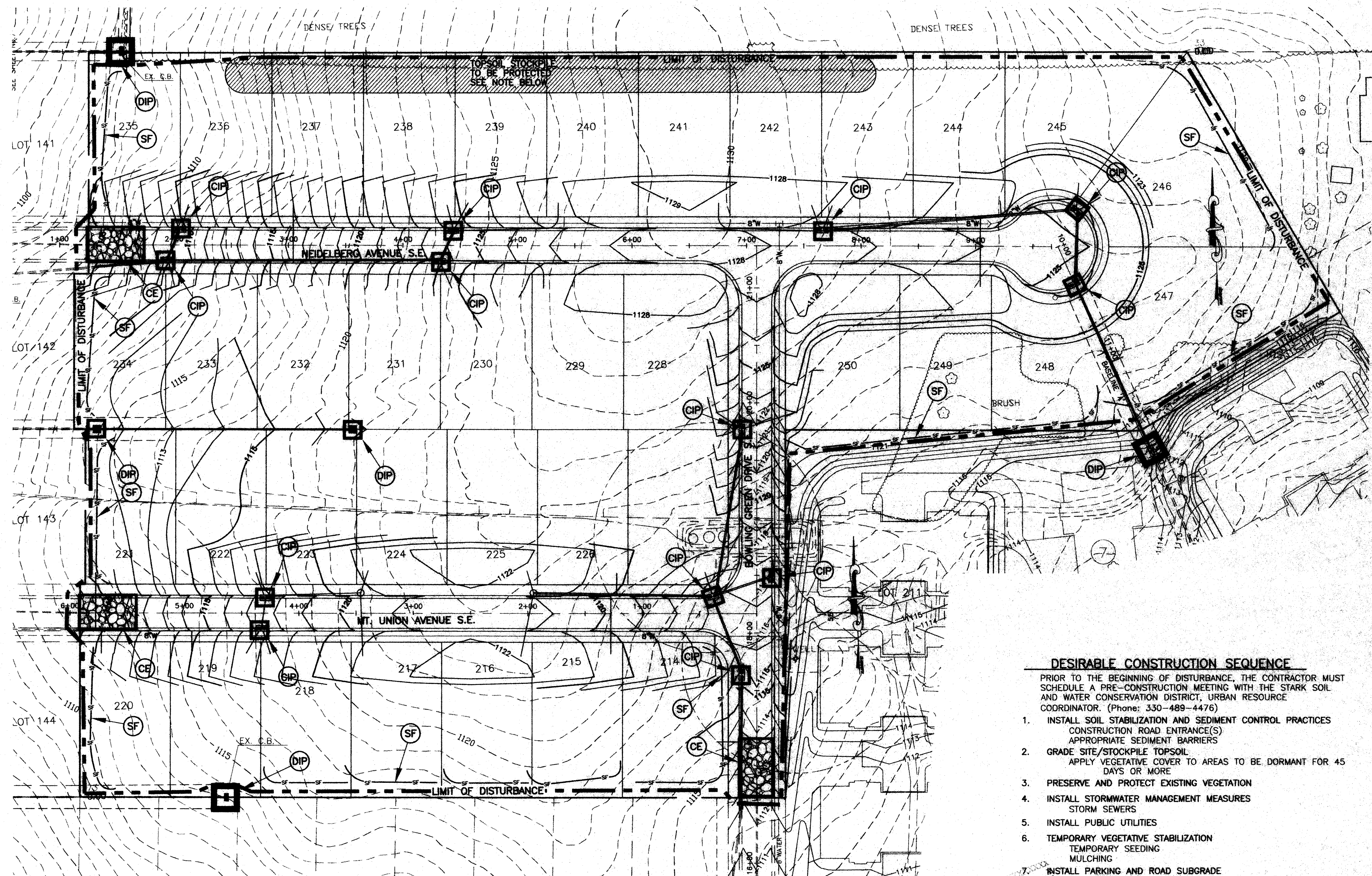
BECAUSE NO SEDIMENT TRAPPING FACILITY REMAINS DOWNSTREAM OF THIS AREA OF DEVELOPMENT AND NO SEDIMENT TRAPPING FACILITY IS TO BE INSTALLED, IT WILL BE NECESSARY TO FOLLOW ALL EROSION CONTROL REQUIREMENTS INDICATED ON THIS PLAN AS WELL AS THE INDICATED LOCAL SEDIMENT CONTROL PRACTICES.

IF SITE INSPECTIONS DETERMINE THAT ADDITIONAL PRACTICES ARE NECESSARY, THE CONTRACTOR SHALL COMPLY WITH THE RECOMMENDATIONS OF THE STARK SOIL AND WATER CONSERVATION DISTRICT, URBAN RESOURCE COORDINATOR.

STORM WATER POLLUTION PREVENTION PLAN

UNIVERSITY VILLAGE No. 8

(NPDES PERMIT No. OHR 107020)



TEMPORARY CONSTRUCTION ENTRANCE:

A TEMPORARY CONSTRUCTION ENTRANCE IS REQUIRED TO BE INSTALLED WHEREVER CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION SITE ONTO EXISTING PAVEMENT.

IF THE CONTRACTOR CONTROLS AND LIMITS CONSTRUCTION VEHICLE ACCESS TO ONE OR TWO POINTS, ONLY ONE OR TWO CONSTRUCTION ENTRANCE NEED BE INSTALLED.

SEE SHEET No. 2E FOR TEMPORARY CONSTRUCTION ENTRANCE DETAIL.

TOPSOIL STOCKPILE PROTECTION

LOCATIONS FOR TOPSOIL STOCKPILES SHOULD BE CAREFULLY SELECTED TO INSURE THAT ANY MATERIAL ERODED FROM THE STOCKPILES DOES NOT HAVE DIRECT ACCESS INTO A STORM DRAIN OR DRAINAGEWAY.

THE STOCKPILES SHOULD BE PROTECTED BY EITHER BEING COVERED WITH PLASTIC SHEETING OR BY THE APPLICATION OF TEMPORARY SEEDING.

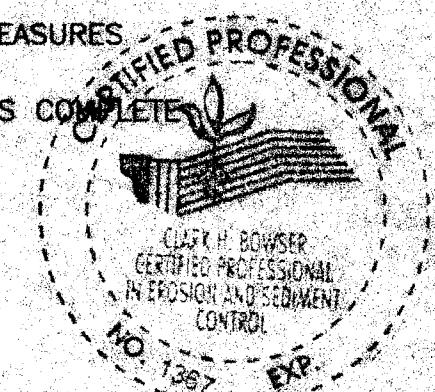
THE BASE OF THE STOCKPILES SHOULD BE PROTECTED BY A LINE OF SILT FENCE ALONG THE LOWER SIDE(S) OF THE STOCKPILE AND NO CLOSER THAN 6' FROM THE BASE.

THE STOCKPILE PROTECTION SHALL REMAIN IN PLACE AND FUNCTIONING UNTIL THE STOCKPILE HAS BEEN REMOVED.

DESIRABLE CONSTRUCTION SEQUENCE

PRIOR TO THE BEGINNING OF DISTURBANCE, THE CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE STARK SOIL AND WATER CONSERVATION DISTRICT, URBAN RESOURCE COORDINATOR. (Phone: 330-489-4476)

1. INSTALL SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES CONSTRUCTION ROAD ENTRANCE(S) APPROPRIATE SEDIMENT BARRIERS
2. GRADE SITE/STOCKPILE TOPSOIL APPLY VEGETATIVE COVER TO AREAS TO BE DORMANT FOR 45 DAYS OR MORE
3. PRESERVE AND PROTECT EXISTING VEGETATION
4. INSTALL STORMWATER MANAGEMENT MEASURES STORM SEWERS
5. INSTALL PUBLIC UTILITIES
6. TEMPORARY VEGETATIVE STABILIZATION TEMPORARY SEEDING MULCHING
7. INSTALL PARKING AND ROAD SUBGRADE AGGREGATE COVER
8. SITE CONSTRUCTION WORK CURB AND GUTTER RESIDENTIAL/COMMERCIAL CONSTRUCTION RIGHT OF WAY GRADING TEMPORARY SEEDING CURB INLET PROTECTION
9. SURFACE ROADS AND PARKING (PAVING)
10. PERMANENT VEGETATIVE STABILIZATION PERMANENT OR DORMANT SEEDING SODDING (WHERE REQUIRED)
11. FINAL SITE STABILIZATION FINAL LANDSCAPING DISPOSE OF TRAPPED SEDIMENT REMOVE TEMPORARY SEDIMENT CONTROL MEASURES
12. FINAL SITE INSPECTION 45 DAYS AFTER FINAL SITE STABILIZATION IS COMPLETE



EROSION AND SEDIMENT CONTROL PLAN

STORM WATER POLLUTION PREVENTION PLAN

UNIVERSITY VILLAGE No. 8

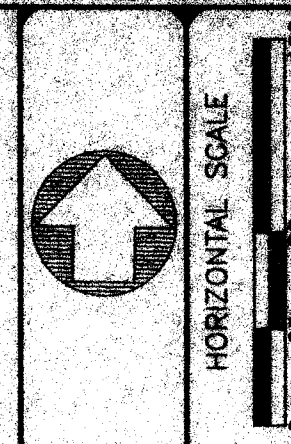
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COOPER & ASSOCIATES, LLP
ENGINEERS AND SURVEYORS



BRYAN J. ASHMAN
JEROLD E. DEIB



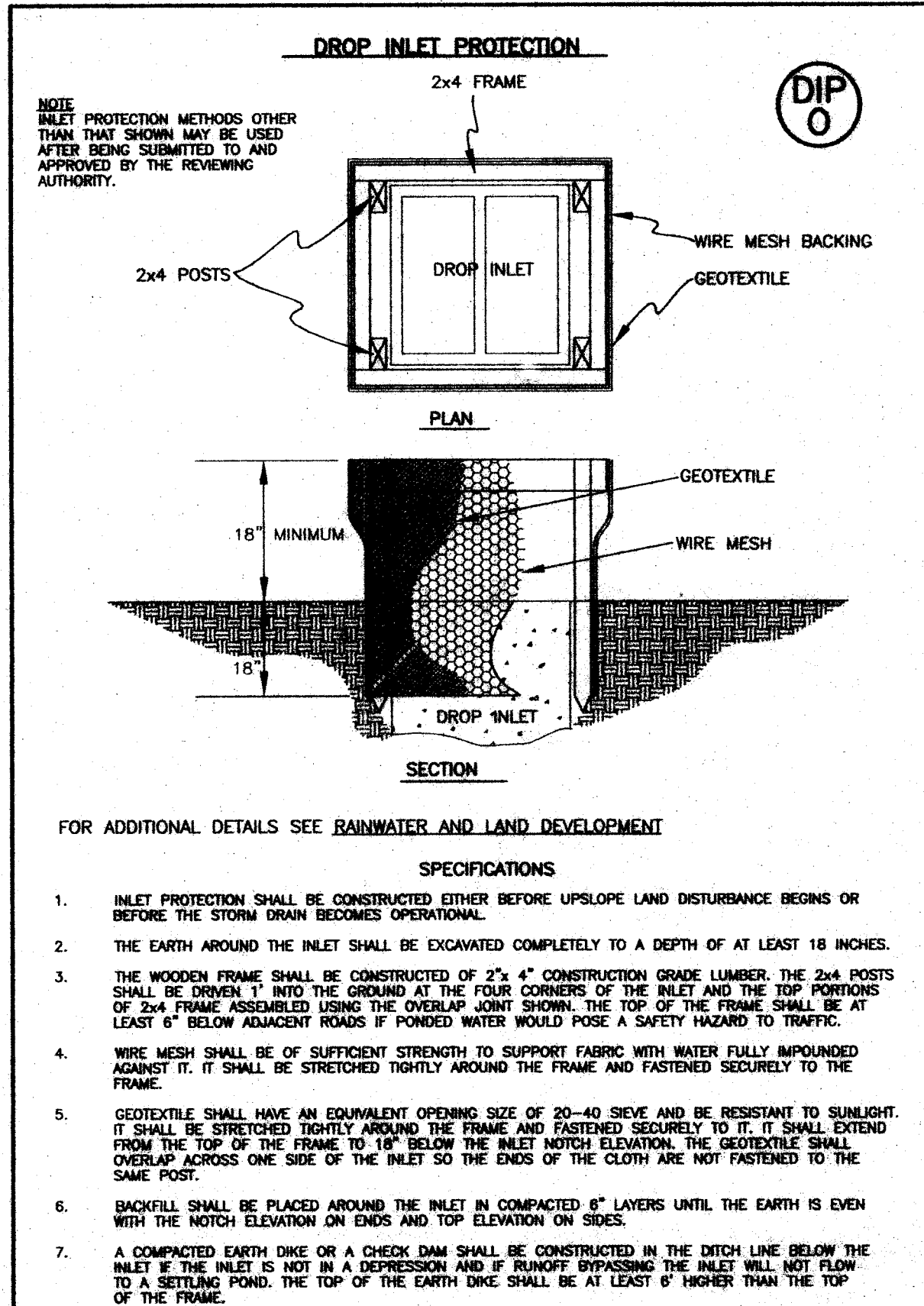
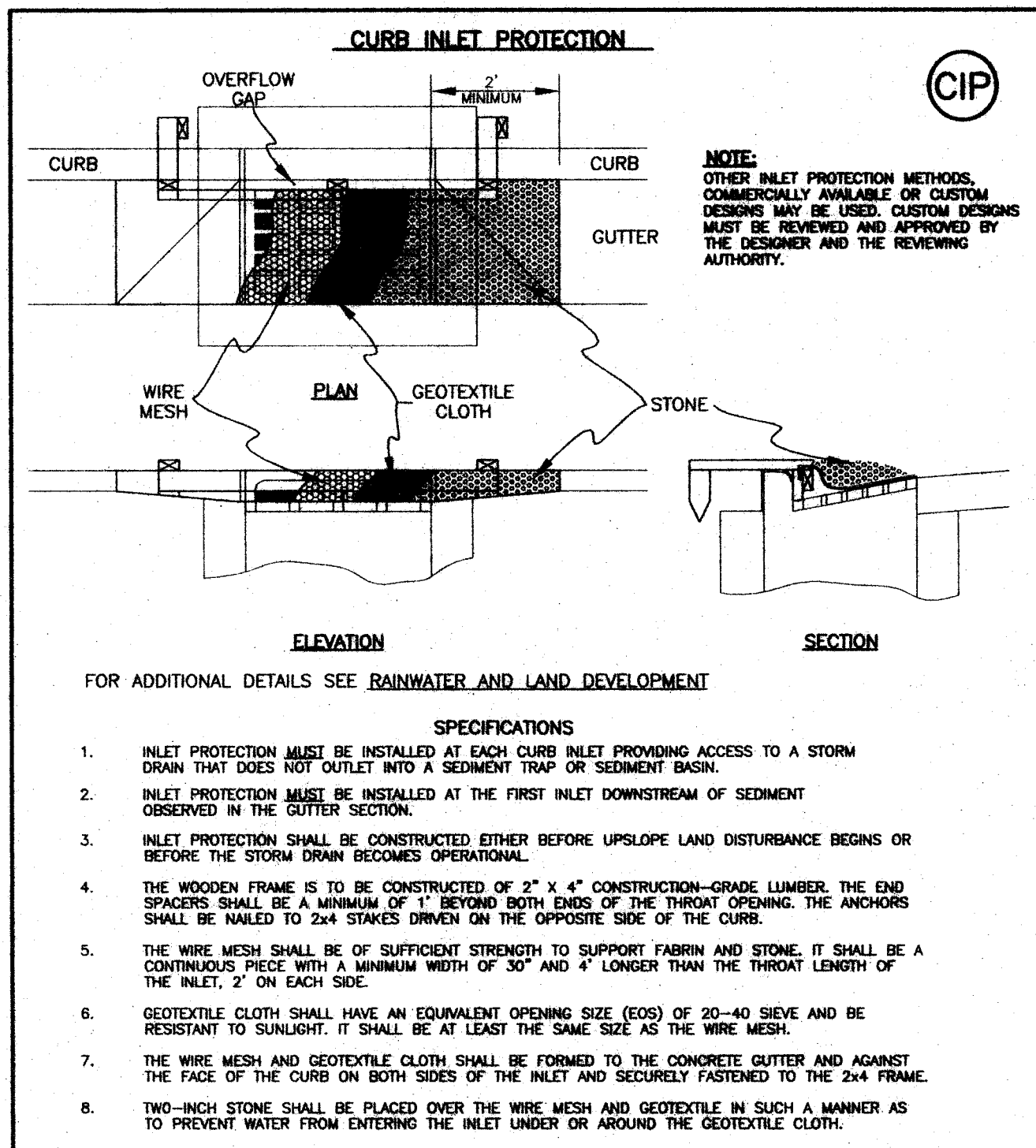
STORM WATER POLLUTION PREVENTION PLAN

UNIVERSITY VILLAGE No. 8

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PERMANENT SEEDING

PS



TEMPORARY SEEDING

TS

1. STRUCTURAL EROSION --- AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS AND SEDIMENT TRAPS SHALL BE INSTALLED AND STABILIZED WITH TEMPORARY SEEDING PRIOR TO GRADING THE REST OF THE CONSTRUCTION-SITE.
2. TEMPORARY SEED SHALL BE APPLIED BETWEEN CONSTRUCTION OPERATIONS ON SOIL THAT WILL NOT BE GRADED OR REMOVED FOR 45 DAYS OR MORE. THESE DUE AREAS SHOULD BE SEED AS SOON AS POSSIBLE AFTER GRADING OR SHALL BE SEED WITHIN 7 DAYS. SEVERAL APPLICATIONS OF TEMPORARY SEEDING ARE NECESSARY ON TYPICAL CONSTRUCTION PROJECTS.
3. THE SEEDING SHOULD BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION. HOWEVER, TEMPORARY SEEDING SHALL NOT BE POSTPONED IF IDEAL SEEDING IS NOT POSSIBLE.
4. SOIL AMENDMENTS --- APPLICATIONS OF TEMPORARY VEGETATION SHALL ESTABLISH ADEQUATE STANDS OF VEGETATION WHICH MAY REQUIRE THE USE OF SOIL AMENDMENTS. SOIL TESTS SHOULD BE TAKEN ON THE SITE TO PREDICT THE NEED FOR LIME AND FERTILIZER.
5. SEEDING METHOD --- SEED SHALL BE APPLIED UNIFORMLY WITH A CYCLONE SPREADER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER. WHEN FEASIBLE, SEED THAT HAS BEEN BROADCAST SHALL BE COVERED BY RAKING OR DRAGGING AND THEN LIGHTLY TAMPED INTO PLACE USING A ROLLER OR CULTIPACKER. IF HYDROSEEDING IS USED, THE SEED AND FERTILIZER WILL BE MIXED ON-SITE AND THE SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

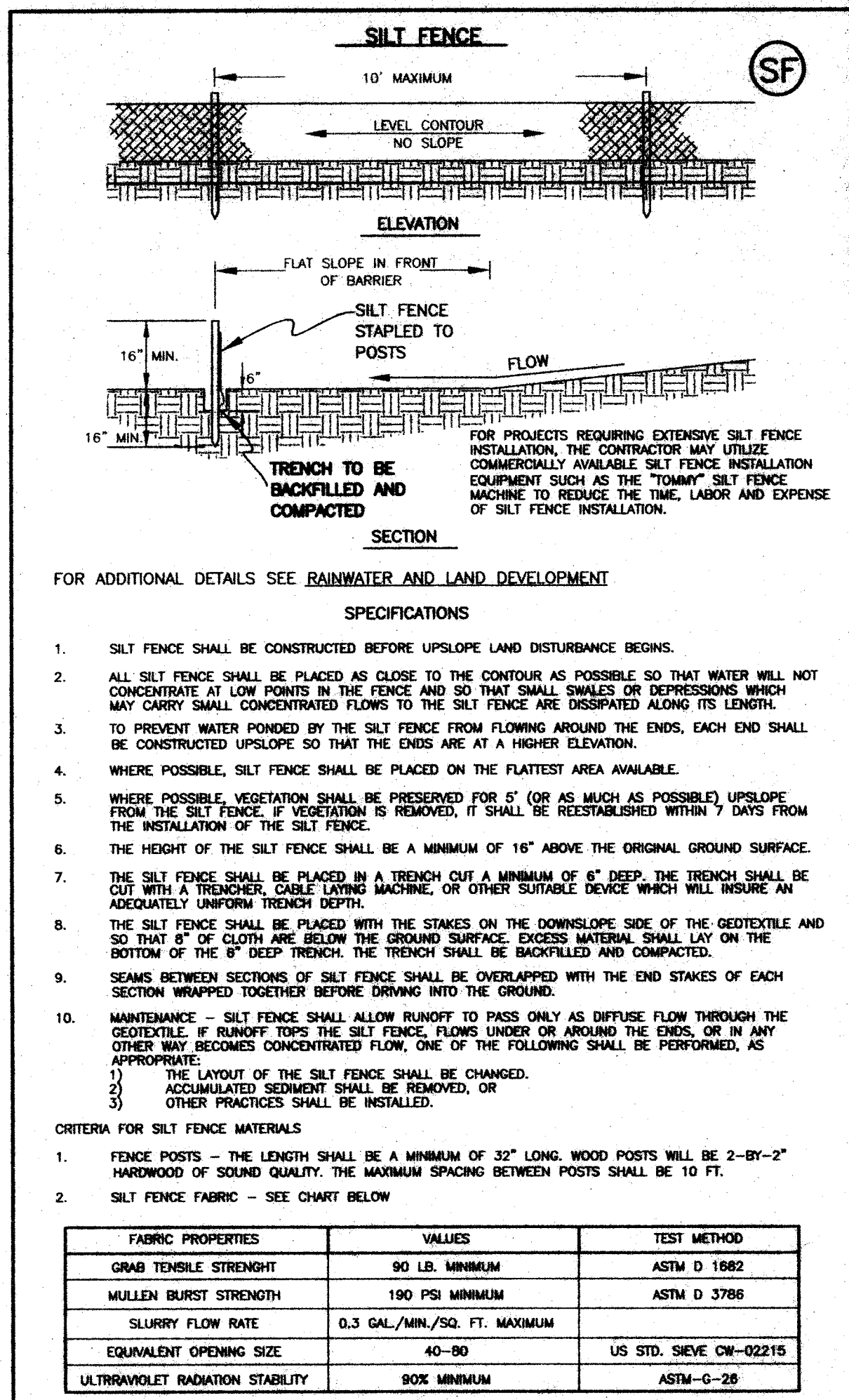
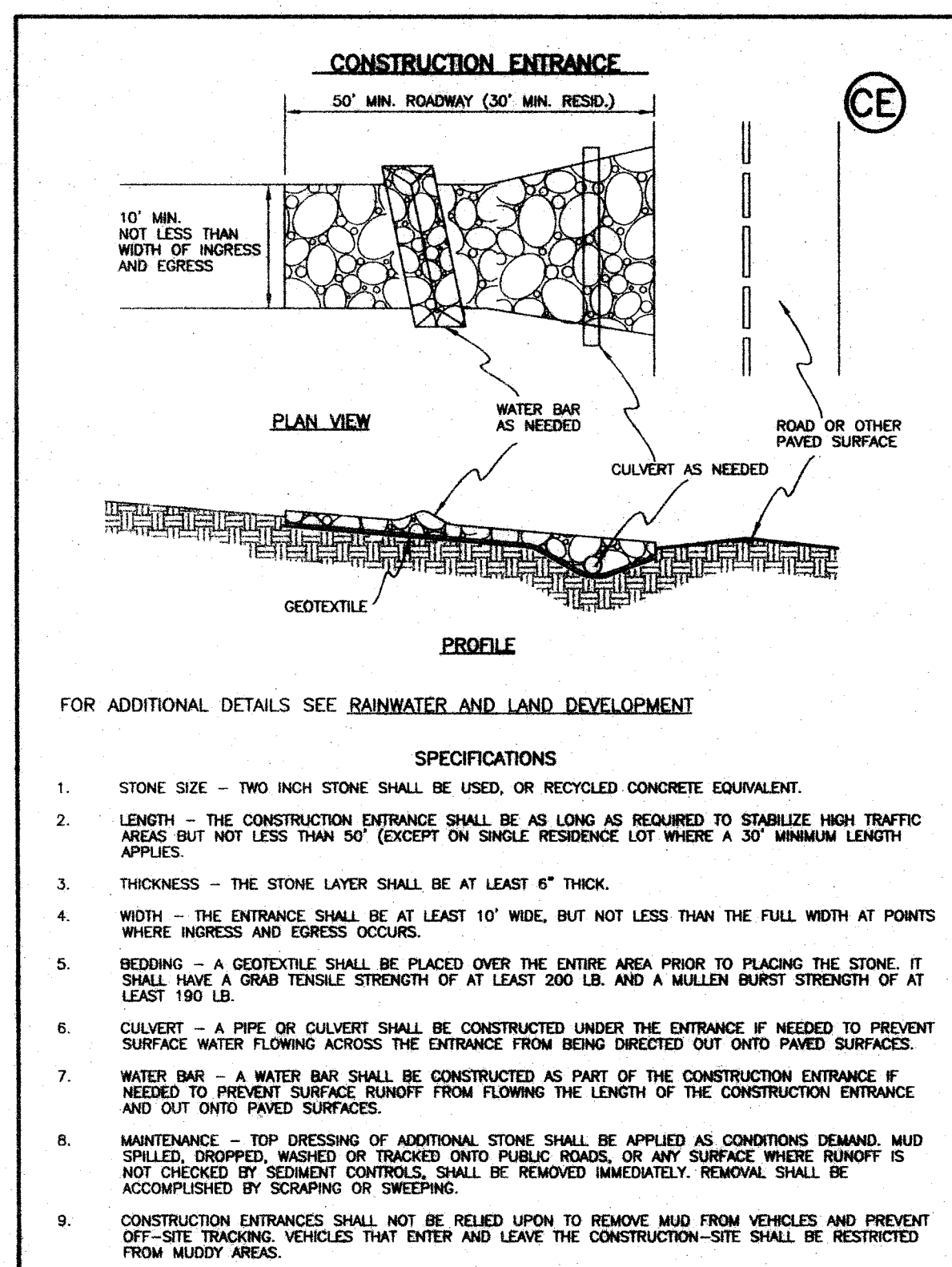
TEMPORARY SEEDING SPECIES SELECTION			
SEEDING DATES	SPECIES	LB./1,000 SQ. FT.	PER ACRE
MARCH 1 TO AUGUST 15	DAK. FESCUE	3	2 BUSHEL
	TALL FESCUE	1	40 LBS.
	ANNUAL RYE GRASS	1	40 LBS.
	PERENNIAL RYE GRASS	1	40 LBS.
AUGUST 16 TO NOVEMBER 1	DAK. FESCUE	3	2 BUSHEL
	TALL FESCUE	1	40 LBS.
	ANNUAL RYE GRASS	1	40 LBS.
	PERENNIAL RYE GRASS	1	40 LBS.
NOV. 1 TO SPRING SEEDING	DAK. FESCUE	3	2 BUSHEL
	TALL FESCUE	1	40 LBS.
	ANNUAL RYE GRASS	1	40 LBS.
	PERENNIAL RYE GRASS	1	40 LBS.

NOTE: OTHER APPROVED SPECIES MAY BE SUBSTITUTED

MULCH

M

1. MULCH AND/OR OTHER APPROPRIATE VEGETATIVE PRACTICES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 7 DAYS OF GRADING IF THE AREA IS TO REMAIN DORMANT (UNDISTURBED) FOR MORE THAN 45 DAYS OR ON AREAS AND PORTIONS OF THE SITE WHICH CAN BE BROUGHT TO FINAL GRADE.
2. MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
 - STRAW --- STRAW UNROTTED SMALL GRAIN STRAW APPLIED AT THE RATE OF 2 TONS/AC. OR 90 LB./1,000 SQ. FT. (TWO TO THREE BALES). THE STRAW MULCH SHALL BE SPREAD UNIFORMLY BY HAND OR MECHANICALLY SO THE SOIL SURFACE IS COVERED.
 - HYDROSEEDERS --- WOOD CELLULOSE FIBER SHOULD BE USED AT 2,000 LB./AC. OR 46 LB./1,000 SQ. FT.
 - OTHER --- OTHER ACCEPTABLE MULCHES INCLUDE MULCH MATTING APPLIED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS OR WOOD CHIPS APPLIED AT 10-20 TONS/AC.
3. MULCH ANCHORING --- MULCH SHALL BE ANCHORED IMMEDIATELY TO MINIMIZE LOSS BY WIND OR RUNOFF. THE FOLLOWING ARE ACCEPTABLE METHODS FOR ANCHORING MULCH.
 - MECHANICAL --- USE A DISK, CRIMPER, OR SIMILAR TYPE TOOL SET STRAIGHT TO PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL. STRAW MECHANICALLY ANCHORED SHALL NOT BE FINELY CHOPPED BUT BE LEFT GENERALLY LONGER THAN 6 IN.
 - MULCH NETTINGS --- USE ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS, FOLLOWING ALL PLACEMENT AND ANCHORING INSTRUCTIONS. USE IN AREAS OF WATER CONCENTRATION AND STEEP SLOPES TO HOLD MULCH IN PLACE.
 - ASPHALT EMULSION --- FOR STRAW MULCH, APPLY AT THE RATE OF 160 GAL./AC. (0.1 GAL./SQ. YD.) INTO THE MULCH AS IT IS BEING APPLIED OR AS RECOMMENDED BY THE MANUFACTURER.
 - SYNTHETIC BINDERS --- FOR STRAW MULCH, SYNTHETIC BINDERS SUCH AS ACRYLIC OLR (AGRI-TAC), DCA-70, PETROSET, TERRA TACK OR EQUAL MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER.
 - WOOD CELLULOSE FIBER --- WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER BINDER SHALL BE APPLIED AT A NET DRY WEIGHT OF 750 LB./ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LB./GAL. OF WOOD CELLULOSE FIBER.



PERMANENT SEEDING			
SEED MIX	SEEDING RATE	LB./ACRE	LB./1,000 S.F.
GENERAL USE			
CREEPING RED FESCUE	20-40	1/2 - 1	
DOMESTIC RYE GRASS	10-20	1/4 - 1/2	
KENTUCKY BLUEGRASS	10-20	1/4 - 1/2	
TALL FESCUE	40	1	
DWARF FESCUE	40	1	
STEEP BANKS OR CUT SLOPES			
TALL FESCUE	40	1	
CROWN VETCH	10	1/4	NOT LATER THAN AUGUST
FLAT PEA	20	1/2	
TALL FESCUE	20	1/2	NOT LATER THAN AUGUST
ROAD DITCHES AND SWALES			
TALL FESCUE	40	1	
DWARF FESCUE	40	2 1/4	
KENTUCKY BLUEGRASS	5		
LAWNS			
KENTUCKY BLUEGRASS	60	1 1/2	
PERENNIAL RYE GRASS	60	1 1/2	
KENTUCKY BLUEGRASS	60	1 1/2	
CREEPING RED FESCUE	60	1 1/2	FOR SHADED AREAS

NOTE: OTHER APPROVED SEED SPECIES MAY BE SUBSTITUTED

MULCHING SEE MULCH

IRRIGATION

1. PERMANENT SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS AS NEEDED FOR ADEQUATE MOISTURE FOR SEED GERMINATION AND PLANT GROWTH.
2. EXCESSIVE IRRIGATION RATES SHALL BE AVOIDED AND IRRIGATION MONITORED TO PREVENT EROSION AND DAMAGE FROM RUNOFF.

MAINTENANCE OF PERMANENT SEEDING

1. PERMANENT SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF PLANTING. SEEDING AREAS SHALL BE INSPECTED FOR FAILURE AND VEGETATION REESTABLISHED AS NEEDED. DEPENDING ON SITE CONDITIONS, IT MAY BE NECESSARY TO IRRIGATE, FERTILIZE, OVERSEED, OR REESTABLISH PLANTINGS IN ORDER TO PROVIDE PERMANENT VEGETATION FOR ADEQUATE EROSION CONTROL.
2. MAINTENANCE FERTILIZATION RATES SHALL BE ESTABLISHED BY SOIL TEST RECOMMENDATIONS OR BY USING THE RATES SHOWN IN THE FOLLOWING TABLE.

FERTILIZATION AND MOWING				
MIXTURE	FORMULA	LB./AC.	LIME	MOWING
CREEPING RED FESCUE RYE GRASS KENTUCKY BLUEGRASS	10-10-10	500	FALL, YEARLY OR AS NEEDED	NOT CLOSER THAN 3"
TALL FESCUE	10-10-10	500		NOT CLOSER THAN 3"
DWARF FESCUE	10-10-10	500		NOT CLOSER THAN 2"
CROWN VETCH FESCUE	0-20-20	400	SPRING, YEARLY FOLLOWING ESTABLISHMENT AND EVERY 4-7 YEARS THEREAFTER	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400		DO NOT MOW

NOTE: SOIL TEST RECOMMENDATIONS PREFERRED OVER ABOVE

EROSION AND SEDIMENT CONTROL ESTIMATED QUANTITIES		
PRACTICE	UNIT	QUANTITY
TEMPORARY SEEDING & MULCH	LUMP	LUMP*
PERMANENT SEEDING & MULCH	ACRE	0.85**
SODDING	SQ. YD.	-
MULCHING	SQ. YD.	-
MATTING	SQ. YD.	-
RIPRAP	CU. YAD.	-
CONSTRUCTION ROAD STABILIZATION	LIN. FT.	-
CONSTRUCTION ENTRANCE	EACH	3***
SURFACE ROUGHENING	SQ. YD.	-
TEMPORARY DIVERSION DIKE	LIN. FT.	-
TEMPORARY FILL DIVERSION	LIN. FT.	-
WATER BAR	EACH	-
LEVEL SPREADER (RIPRAP)	EACH	-
LEVEL SPREADER (GRASS)	EACH	-
TEMPORARY SLOPE DRAIN	LIN. FT.	-
STORM WATER CONVEYANCE CHANNEL	LIN. FT.	-
WATERWAY DROP STRUCTURE	EACH	-
CHECK DAM	EACH	-
SUBSURFACE DRAINAGE	LIN. FT.	-
OUTLET PROTECTION	CU. YD.	-
PAVED FLUME	LIN. FT.	-
SEDIMENT BASIN (COMPLETE)	EACH	-
SEDIMENT TRAP (COMPLETE)	EACH	-
SEDIMENT BASIN/TRAP SAFETY FENCE	LIN. FT.	-
DROP INLET SEDIMENT TRAP	EACH	-
SILT FENCE	LIN. FT.	2,015
DROP INLET PROTECTION	EACH	5
CURB INLET PROTECTION	EACH	13
VEGETATIVE STREAMBANK STABILIZATION	SQ. YD.	-
STRUCTURAL STREAMBANK STABILIZATION	SQ. YD.	-
TEMPORARY VEHICLE STREAM CROSSING	EACH	-
UTILITY STREAM CROSSING	EACH	-
SEDIMENT CONTROL TRENCH	LIN. FT.	-
CONTAINMENT BERM	LIN. FT.	-
GRADIENT TERRACING	LIN. FT.	-

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, SOILS TYPES, AND SEASONAL RAINFALL.

PERMANENT SEEDING IS GENERALLY APPLIED TO THE UNPAVED PORTION OF THE ROADWAY RIGHT-OF-WAY FOLLOWING THE INSTALLATION OF UNDERGROUND UTILITIES.

TEMPORARY SEEDING IS APPLIED TO THE DISTURBED AREAS OUTSIDE OF THE RIGHT-OF-WAY.

* ALL DISTURBED AREAS OUTSIDE OF THE ROADWAY RIGHT-OF-WAY MUST BE STABILIZED WITH TEMPORARY SEEDING AND MULCH. WITHOUT A FINISHED GRADING PLAN, THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING THE AREA TO BE DISTURBED AND THE AREA OF TEMPORARY SEEDING AND MULCH TO BE INSTALLED.

** THE AREA OF THE PROPOSED ROADWAY RIGHT-OF-WAY MUST BE STABILIZED WITH PERMANENT SEEDING AND MULCH.

*** SEE "TEMPORARY CONSTRUCTION ENTRANCE" NOTE ON SHEET 1E.



COOPER & ASSOCIATES, LLP
ENGINEERS AND SURVEYORS
1820 MARKET STREET, SUITE 200
CANTON, OHIO 44705
PHONE (330) 452-9731
FAX (330) 452-9710

STORM WATER POLLUTION PREVENTION PLAN
UNIVERSITY VILLAGE No. 8
FOR: P.R.M.D.C., LTD.

DRAWN BY: C.H.B.
CHECKED BY:
FIELD BOOK NO.
DATE 07/30/2002
SHEET 2E OF 2E
PROJECT 02110