

CONSTRUCTION DRAWINGS FOR PUBLIC IMPROVEMENTS

WILLIAMS POINTE

PLAT 5

WAUKEE, IOWA

STORM WATER POLLUTION PREVENTION PLAN

SITE DESCRIPTION

Location: Part of SM 1/4 Sec. 35, T79N, R26W.
 Nature of Construction Activity: Industrial Park
 Total site area = 100.2 acres
 Area of disturbed area = 12.0 acres
 Runoff coefficient = 0.45
 Approximate slopes anticipated: 3:1 or flatter.
 Runoff from this project will flow into unnamed ditches.

CONTROLS

- Erosion and sediment controls
- Stabilization practices
 - Existing vegetation is preserved whenever possible.
 - Structural practices
 - Silt fences
 - Drainage swales
 - Rock outlet protection (riprap)
 - Storm water detention basins
 - Infiltration of runoff
 - Velocity dissipation devices at discharge locations to provide non-erosive velocity flows.
 - Waste disposal
 - All building material wastes must be removed from the site
 - Off-site vehicle tracking of sediments shall be minimized.

MAINTENANCE

- Maintain effective operating conditions of all protective measures identified in this plan.
- Silt fencing is cleaned when they have lost 50% of their capacity.
 - Downed swales remain undisturbed.
 - Rock outlet protection (riprap) remains intact.

INSPECTIONS

- Qualified personnel shall inspect disturbed areas of the construction site that have not been finally stabilized at least once every seven calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater.
- Inspect for evidence of erosion, pollutants entering the drainage system from stored materials.
 - Observe erosion and sediment controls to ensure that they are operating correctly.
 - Locations where vehicles enter or exit the site shall be inspected for evidence of off-site sediment tracking.
 - Control discharge locations to ascertain whether erosion control practices are effective in preventing significant impacts to receiving waters.
 - Any modifications to the plan as a result of an inspection shall be implemented within 7 calendar days of the inspection.
 - An inspection report shall be prepared and retained as part of the prevention plan until project termination, this report shall include the following:
 - A summary of the findings of the inspection.
 - Major observations relating to the implementation of the prevention plan.
 - Any actions taken.
 - Signature.

NON-STORM WATER DISCHARGES

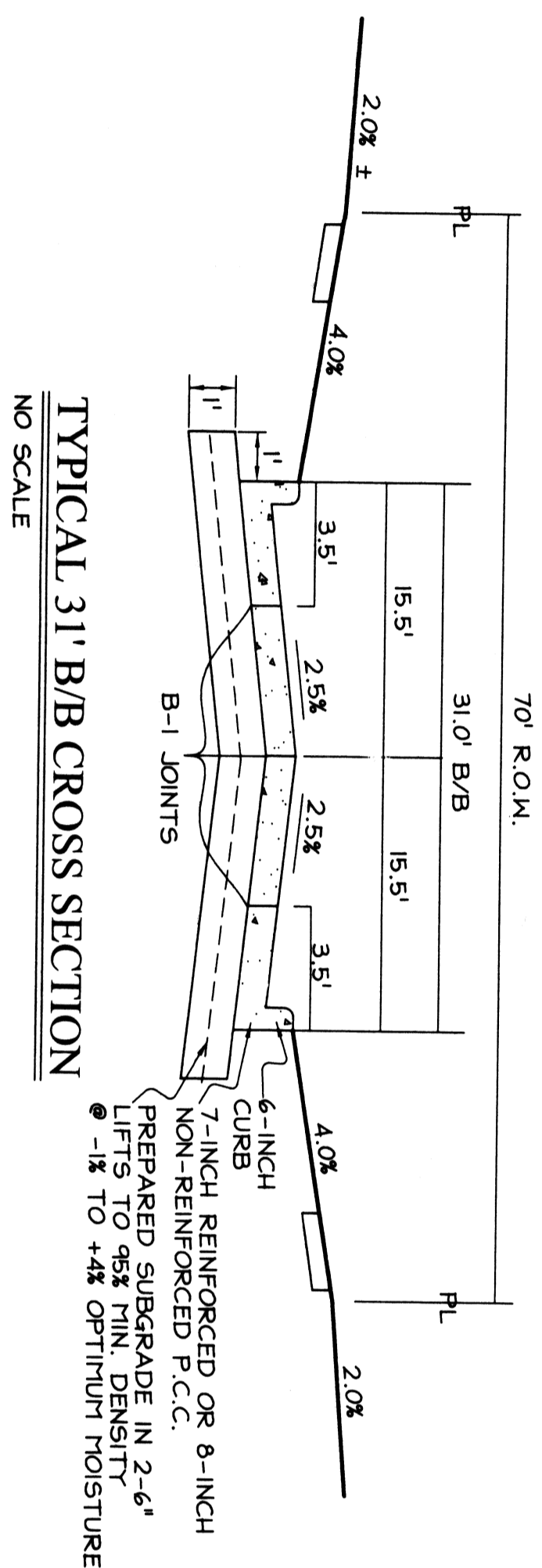
- Under no circumstances shall storm water be discharged into the storm sewer system where, when discharged, it will undergo erosion and sediment controls consisting of:
- Rock outlet protection (riprap)
 - Silt fencing
 - Existing vegetation

CONTRACTORS

- The grading contractor shall have the responsibility of implementing the measures contained in this plan.
- All contractors and subcontractors shall sign a certification statement before conducting any professional service at the site relating to the National Pollution Discharge Elimination System (NPDES) permit.

NOTES

- ONE WEEK PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY:
 - WAUKEE CITY ENGINEER
 - REGENCY LAND DEVELOPMENT
 - COOPER CRAWFORD & ASSOCIATES, LLC
 - IOWA ONE-CALL
- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF WAUKEE STANDARD SPECIFICATIONS.
- THE CONTRACTOR SHALL PROTECT ALL STRUCTURES AND SURFACE AND SUBSURFACE UTILITIES. UTILILITY COMPANIES TO LOCATE ALL UTILITIES PRIOR TO CONSTRUCTION (IOWA ONE CALL: 1-800-292-8989, 48 HOURS NOTICE). ANY DAMAGE TO UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER AT THE EXPENSE OF THE CONTRACTOR.
- STRIP TO SOIL FROM ALL AREAS WHICH ARE TO BE FILLED OR CUT.
- MAINTAIN ALL CUT AND FILL AREAS FOR SURFACE DRAINAGE AT ALL TIMES.
- ALL AREAS TO RECEIVE FILL TO BE BENCHED.
- PREPARE BOTTOM OF BENCH FOR FILL BY DIGGING TO A DEPTH OF 6-INCHES.
- ALL SITE GRADING FILL SHALL BE COMPACTED TO A DENSITY THAT IS NOT LESS THAN 98% STANDARD PROCTOR DENSITY.
- THE MOISTURE CONTENT OF THE FILL MATERIAL SHALL NOT DEVIATE FROM OPTIMUM BY MORE THAN 0% TO +4%.
- FINAL GRADES WITHIN THE STREET RIGHT-OF-WAY SHALL BE WITHIN ± 0.01 OF PLAN GRADE, ALL OTHER AREAS TO BE WITHIN $\pm 0.2'$ OF PLAN GRADE.
- THE GRADING CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL SILT FENCES.
- INSTALL SILT FENCES OR STRAW BALES AS SHOWN.
- ALL AREAS WHICH ARE DISTURBED SHALL BE SEEDED WITH EROSION CONTROL MIX.
- THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ADDITIONAL SILT FENCES DURING CONSTRUCTION IF REQUIRED BY ENGINEER OR CITY OFFICIAL.
- ALL INTAKES SHALL BE ENCOMPASSED WITH SILT FENCE UNTIL SUBGRADE PREP.
- THE CONTRACTOR SHALL VERIFY THE UTILITY LOCATES.
- ALL BUILT LOCATIONS SHALL BE RESPONSIBLE FOR RECORDING THE AS-BUILT LOCATIONS OF SERVICES.
- ALL SANITARY SEWER SERVICES AND 8-INCH STUB-OUTS SHALL BE CAPPED.
- ALL FIRE HYDRANTS SHALL BE 3.5' FROM WATER MAIN.
- CONTRACTOR SHALL VERIFY PRIOR TO CONSTRUCTION THAT FIRE HYDRANTS WILL NOT CONFLICT WITH SIDEWALK CONSTRUCTION.
- HYDRANTS, MANHOLE COVERS, AND VALVE BOXES SHALL BE SET TO CONFORM TO FINISHED PAVEMENT ELEVATIONS.
- WATER MAIN TO HAVE 5.5' BURY TYPICAL EXCEPT AT CRITICAL CROSSINGS.
- ALL INTAKES SHALL HAVE TYPE 'RI' CASTINGS.
- ALL INTAKES SHALL BE PROPOSED FINISHED GRADE AT TOP OF CURB UNLESS OTHERWISE NOTED.
- ALL REINFORCED STEEL SHALL BE EPOXY COATED.
- SUBGRADE TO BE 12-INCH THICK EARLY CONCRETE TO 98% MAX. DENSITY WITH MOISTURE CONTENT NOT MORE THAN 4% ABOVE OR 0% BELOW OPTIMUM.
- DURING SUBGRADE PREPARATION, GRADE SHALL BE PROOF-ROLLED PRIOR TO PLACEMENT OF 1 FOOT SUBGRADE AND COMPACTION.



OWNER

WILLIAMS TURF FARM
 270 88th STREET
 WAUKEE, IOWA 50263

DEVELOPER

REGENCY LAND COMPANY
 2530 79th STREET
 URbandALE, IOWA 50322
 (515) 270-1487

QUANTITIES

- SANITARY SEWER
 5 LF. 8-INCH SANITARY SEWER
 583 LF. 10-INCH SANITARY SEWER
 2 EA. TYPE 'A' MANHOLE
 1 EA. TYPE '1' MANHOLE
- WATER MAIN
 109 LF. 8-INCH WATER MAIN
 3310 LF. 12-INCH WATER MAIN
 2 EA. 8-INCH VALVE
 9 EA. 12-INCH VALVE
 1 EA. 12" TO 8" REDUCER
 1 EA. 12" X 24" TEE
 2 EA. 12" X 24" TEE
 10 EA. HYDRANT, TEE & 6-INCH VALVE

STORM SEWER

- 670 LF. 18-INCH RCP CLASS III
 506 LF. 16-INCH RCP CLASS III
 134 LF. 24-INCH RCP CLASS III
 43 LF. 18-INCH CMP
 3 EA. TEMPORATED RISER
 3 EA. TYPE '1'-C' CORB INTAKE
 1 EA. TYPE '1'-D' DOUBLE INTAKE
 1 EA. TYPE '1'-E' DOUBLE CORB INTAKE
 2 EA. TYPE '1'-B' MANHOLE
 2 EA. 18-INCH F.E.S.
 2 EA. 18-INCH F.E.S.
 25 TONS CLASS 'D' RIPRAP

PAVING

- 6143 ST. 7-INCH REINFORCED OR 8-INCH NON-REINFORCED P.C.C.
 6940 ST. SUBGRADE PREP.

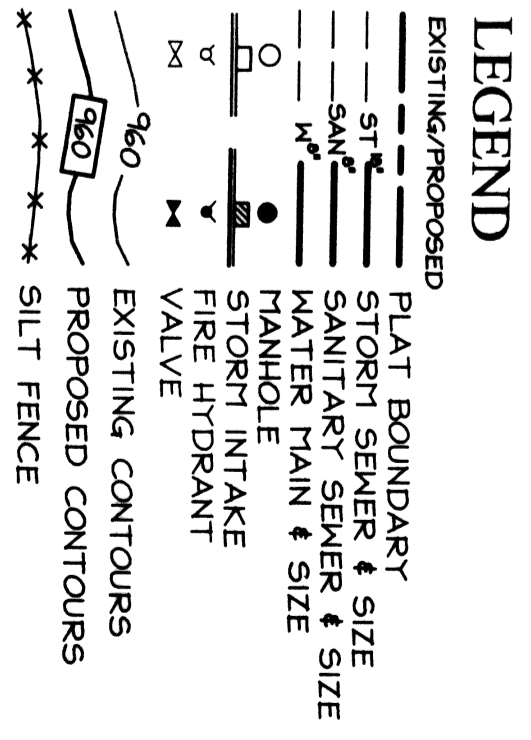
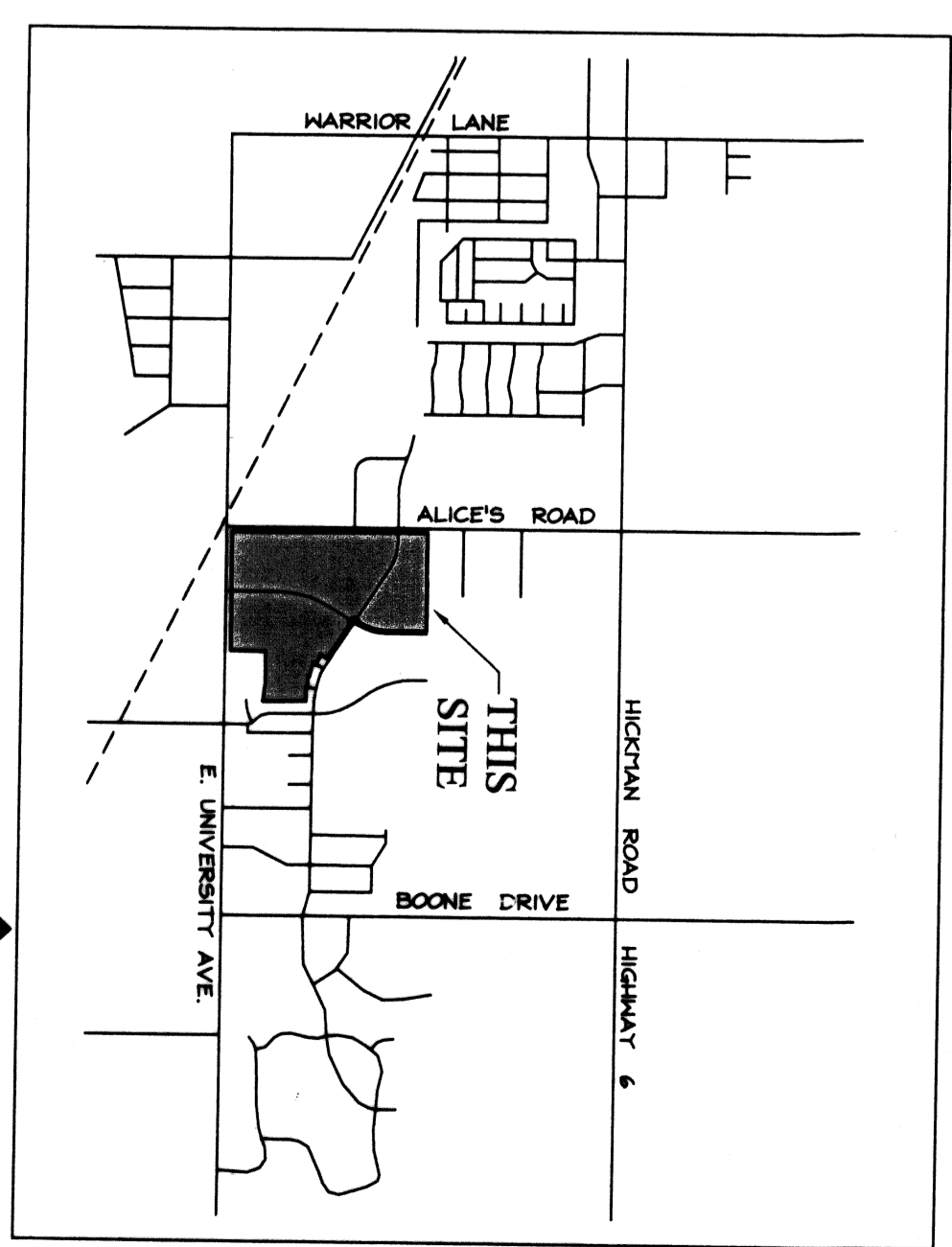
BENCHMARK

200 FEET WEST OF ALICE'S ROAD ON UNIVERSITY AVENUE, N.M. BOLT OF RAILROAD SIGNAL BASE ON NORTH RIGHT-OF-WAY OF UNIVERSITY AVENUE.

ELEVATION: 1047.83

DRAWING INDEX

- COVER SHEET
- GRADING PLAN
- SANITARY SEWER
- WATER PLAN
- STORM SEWER
- PAVING PLAN



CERTIFICATION

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

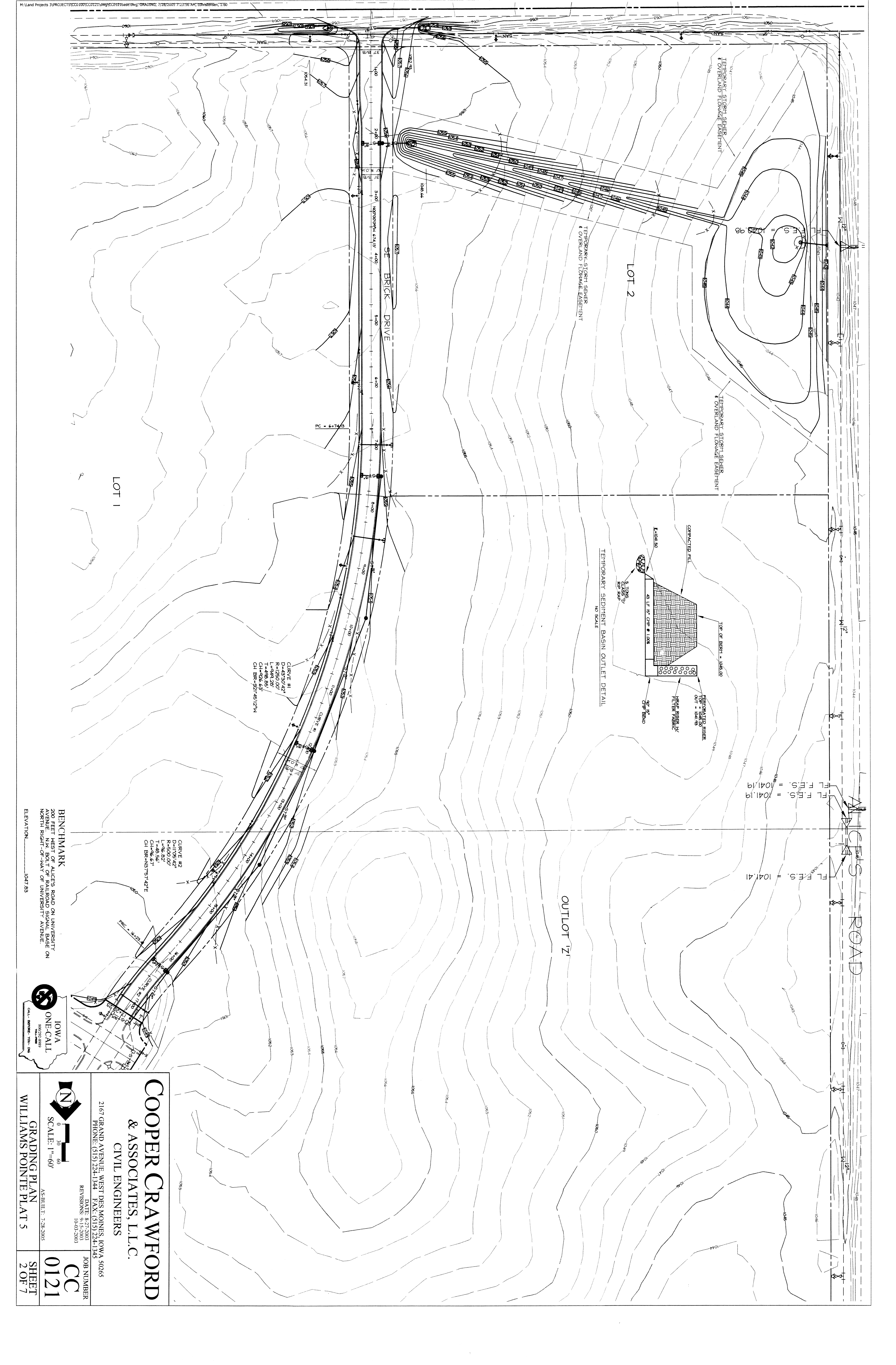
BRADLEY R. COOPER, IOWA LICENSE NO. 12980
 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2009
 PAGES OR SHEETS COVERED BY THIS SEAL: SHEETS 1 THRU 7

COOPER CRAWFORD & ASSOCIATES, L.L.C.

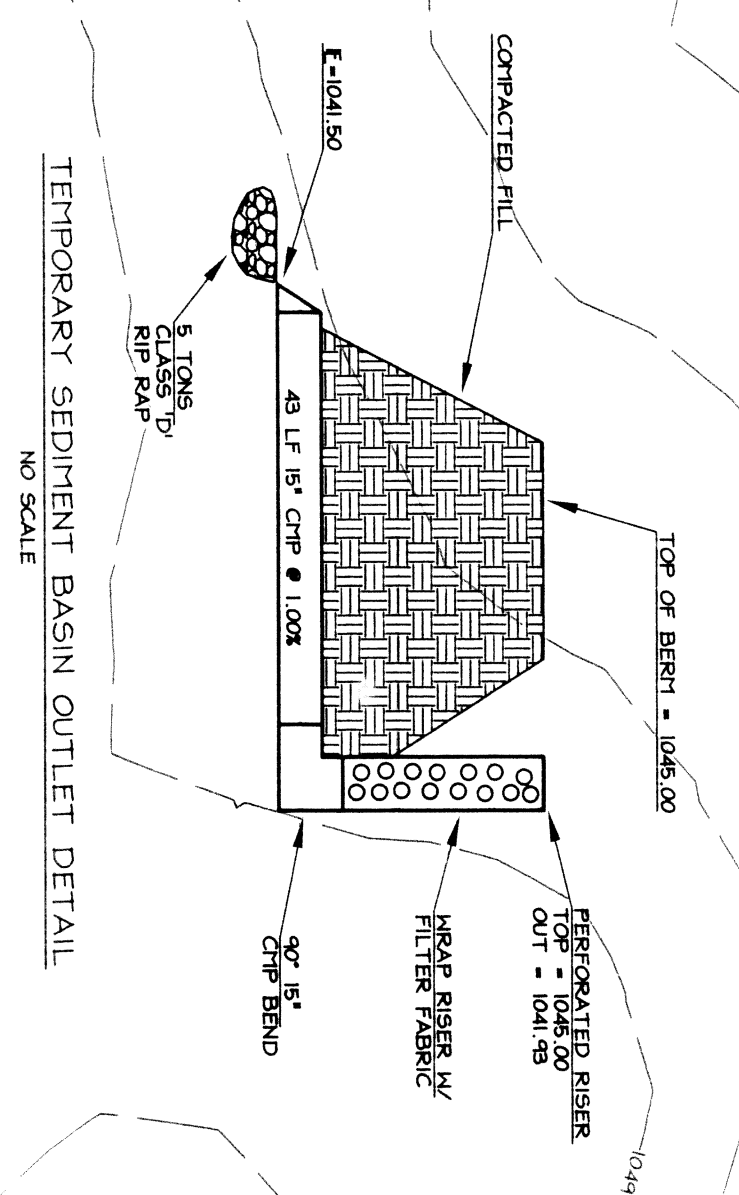
CIVIL ENGINEERS

2167 GRAND AVENUE, WEST DES MOINES, IOWA 50265
 PHONE: (515) 224-1344 FAX: (515) 224-1345
 DATE: 8-27-2008
 REVISIONS: 9-15-2003 10-03-2003

COVER SHEET
 WILLIAMS POINTE PLAT 5
 AS-BUILTS: 7-28-2005
 SHEET
 1 OF 7
 JOB NUMBER
 CC
 0121



FL F.F.S. = 1041.41
 FL F.F.S. = 1041.19
 FL F.F.S. = 1041.19



CURVE #1
 D=4330.42'
 L=444.28'
 T=448.85'
 CH=926.63'
 CH BR=521.451/274

CURVE #2
 D=1105.42'
 R=500.00'
 L=46.52'
 T=46.52'
 CH=96.67'
 CH BR=437.1427E

LOT 1

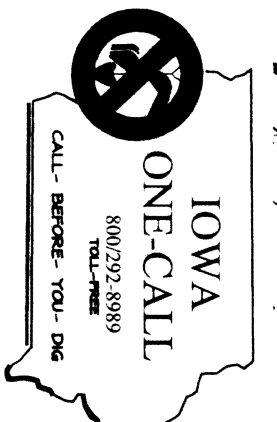
LOT 2

SE BRICK DRIVE

ALICE'S ROAD

OUTLET 'Z'

BENCHMARK
 200 FEET WEST OF ALICE'S ROAD ON UNIVERSITY AVENUE. N.M. BOLT OF RAILROAD SIGNAL BASE ON NORTH RIGHT-OF-WAY OF UNIVERSITY AVENUE.
 ELEVATION 1047.83



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GRADING PLAN
 WILLIAMS POINTE PLAT 5

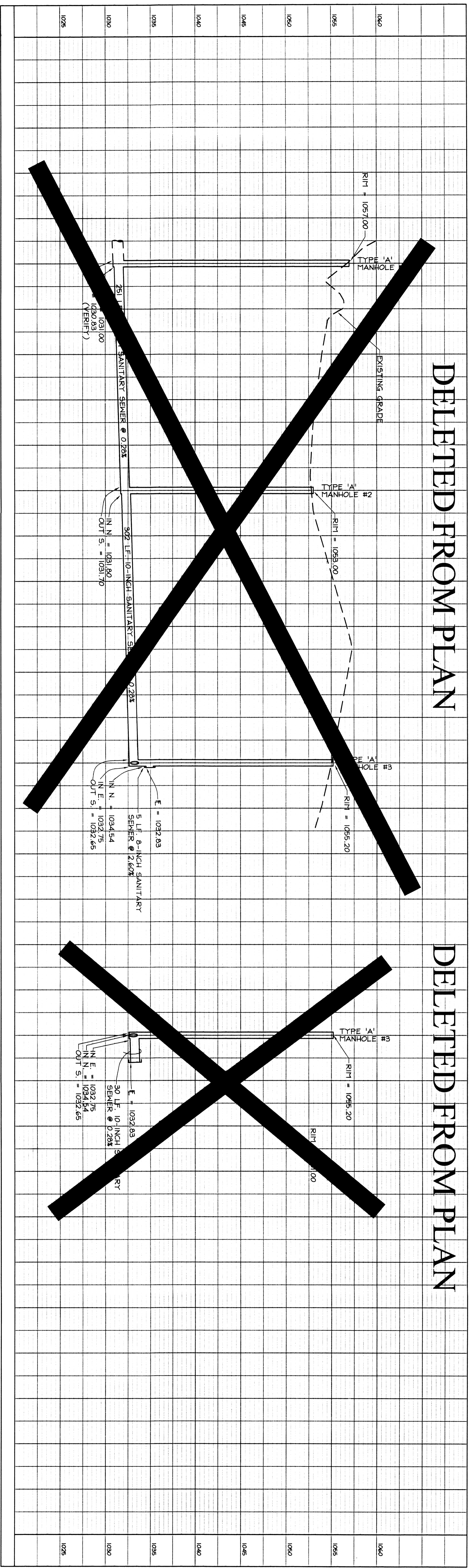
SCALE: 1"=60'

JOB NUMBER
CC 0121

SHEET
2 OF 7

DELETED FROM PLAN

DELETED FROM PLAN

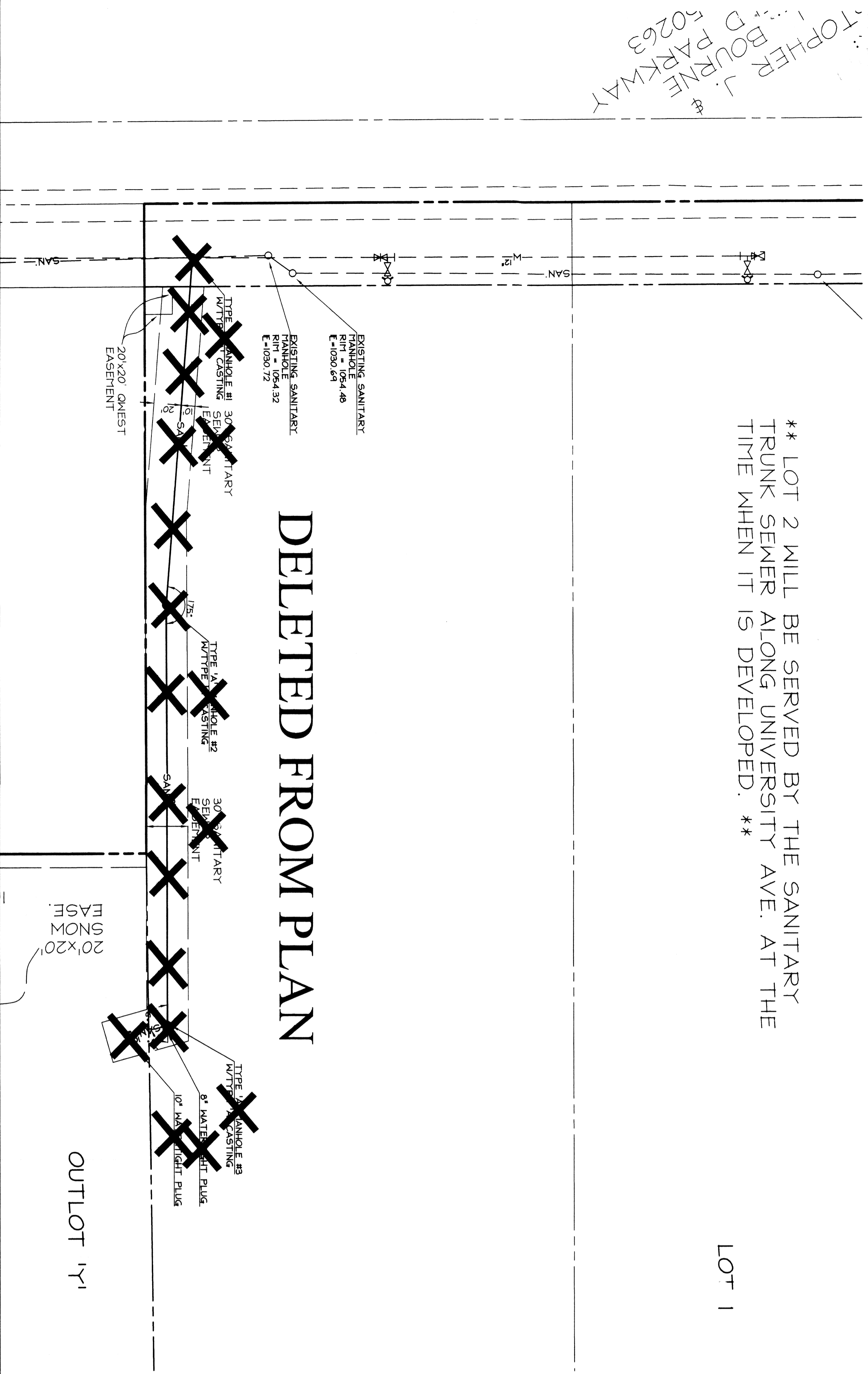


** LOT 2 WILL BE SERVED BY THE SANITARY TRUNK SEWER ALONG UNIVERSITY AVE. AT THE TIME WHEN IT IS DEVELOPED. **

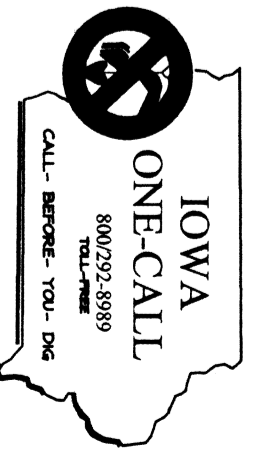
LOT 1

TOPHER J. BOURNE
50263
D PARKWAY

DELETED FROM PLAN



BENCHMARK
200 FEET WEST OF ALGERS, ROAD ON UNIVERSITY AVENUE, N.W. CORNER OF RAILROAD SIGNAL BASE ON NORTH RIGHT-OF-WAY OF UNIVERSITY AVENUE.
ELEVATION 1047.83



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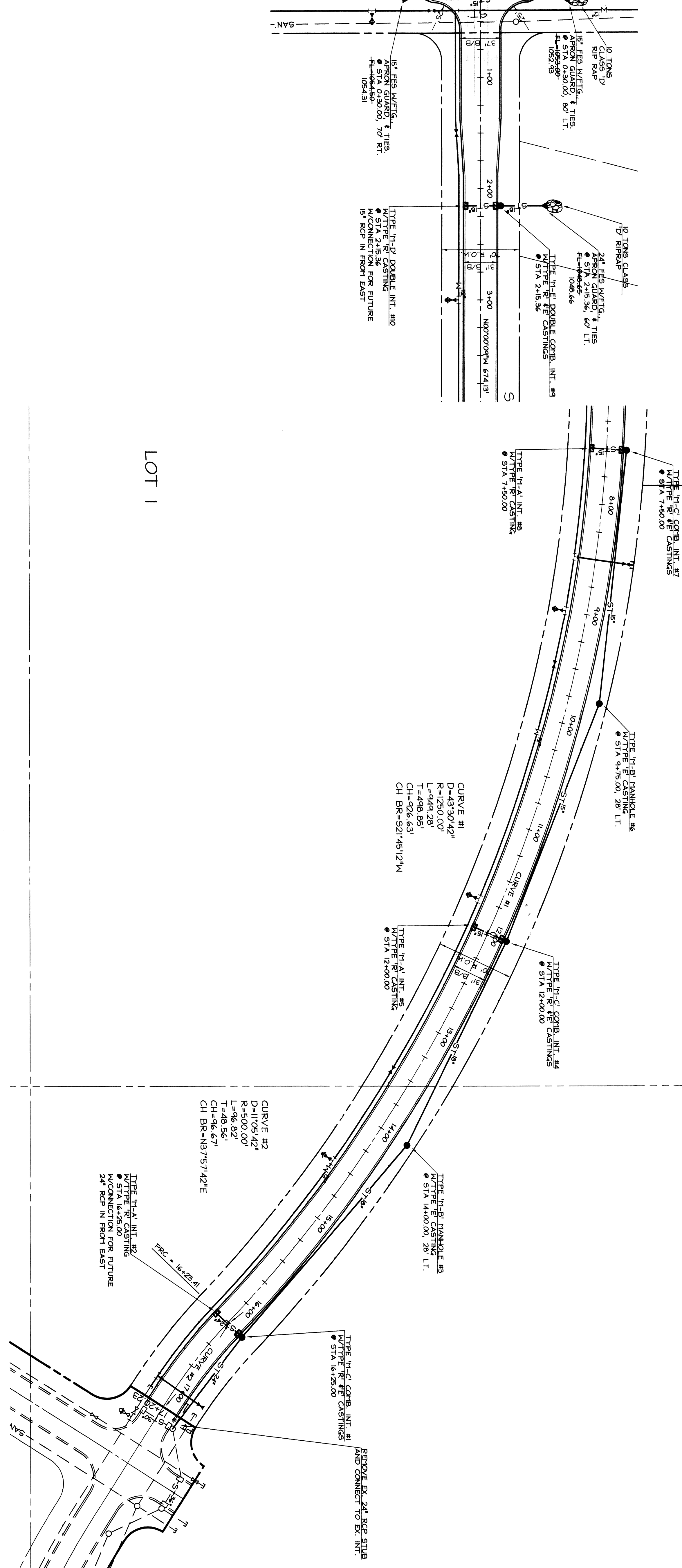
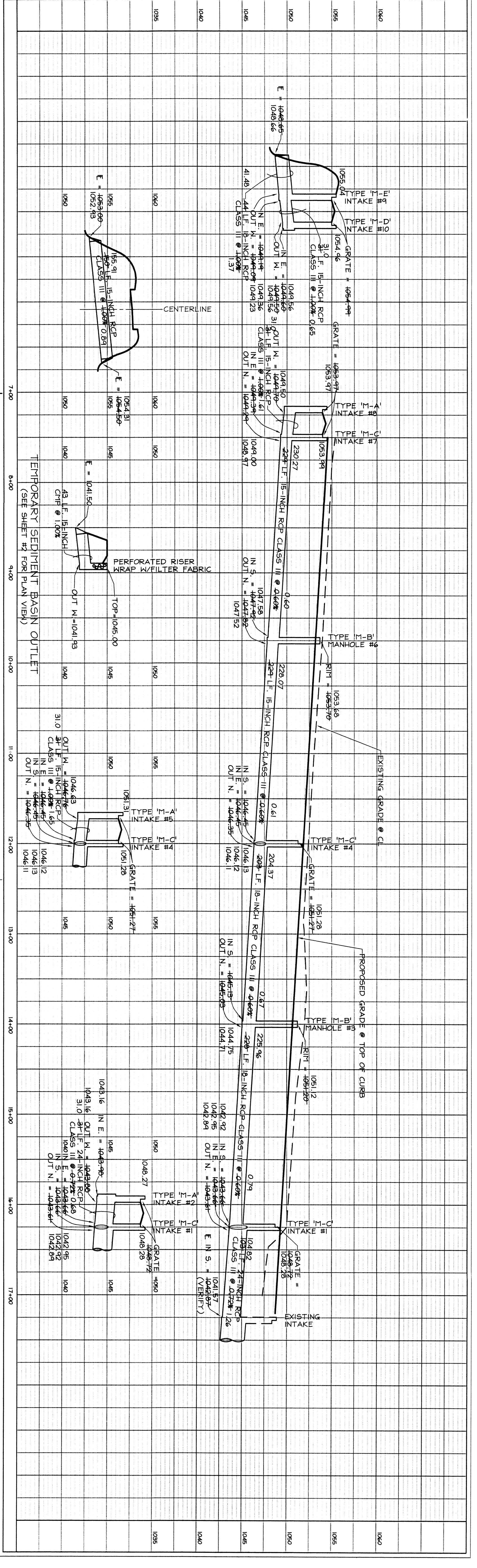
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REVISIONS: 01-15-2003
10-09-2003

JOB NUMBER
CC 0121

SANITARY SEWER
WILLIAMS POINTE PLAT 5

AS-BUILT: 7-28-2005

SHEET
3 OF 7



BENCHMARK
 200 FEET WEST OF ALICE'S ROAD ON UNIVERSITY AVENUE N.W. SOUL OF FAIRROAD SIGNAL EAST ON NORTH RIGHT-OF-WAY OF UNIVERSITY AVENUE.
 ELEVATION.....1047.83

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STORM SEWER
 WILLIAMS POINTE PLAT 5

JOB NUMBER
CC 0121

SHEET
5 OF 7

IOWA ONE-CALL
 800.272.8889
 CALL BEFORE YOU DIG

LOT 1

