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A SET OF AS-BUILT PLANS FOR THE WENTZVILLE SCHOOL DISTRICT " PHASE 1 MIDDLE SCHOOL " 9233 HIGHWAY 'DD' A TRACT OF LAND BEING PART OF FRACTIONAL SECTION 15, TOWNSHIP 46 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN ST. CHARLES COUNTY, MISSOURI

GENERAL NOTES:

- Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to any grading or construction of the improvements.
- All manhole tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.
- All filled places under proposed storm and sanitary sewer lines and/or paved areas including trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M. -D-1557). All tests shall be verified by a Soils Engineer concurrent with the grading and backfilling operations.
- Pre-manufactured adapters shall be used at all P.V.C. to D.I.P. connections. Rubber boot/Mission-type couplings will not be allowed.
- On-site easements shall be provided for sanitary sewers, and all utilities on the Record Plat. Off-site easement will be filed as separate instruments.
- Gas, water and other underground utilities shall not conflict with the depth of horizontal location or existing or proposed sanitary and storm sewers, including house laterals.
- All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match preconstruction conditions.
- The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer.
- All construction and materials shall conform to the current construction standards of the Duckett Creek Sanitary District.
- The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination and inspection.
- All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resources specification 10 CSR-8.120(7)(E).
- All sanitary and storm sewer trench backfills shall be water jetted. Granular backfill will be used under pavement areas.
- All pipes shall have positive drainage through manholes. No flat invert structures are allowed.
- All creek crossings shall be grouted rip-rap as directed by District inspectors. (All grout shall be high slump ready-mix concrete).
- Brick shall not be used on sanitary sewer manholes.
- All P.V.C. sanitary sewer pipe shall conform to the requirements of A.S.T.M.-D-3034 Standard Specifications for PSM Polyvinyl Chloride Sewer Pipe, SDR-35 or equal, with wall thickness compression joint A.S.T.M.-D-3212 with "clean" 1/2 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate backfill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 6 inches above the top of pipe.
- An appropriate rubber seal watertop as approved by the sewer district shall be installed between P.V.C. pipe and masonry structures.
- Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
- Existing sanitary sewer service shall not be interrupted.
- Maintain access to existing residential driveways and streets.
- "Type N" Lock-Type Cover and Locking Device (Lock-Lug) shall be used where lock-type covers are required.
- All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to the flowline of a sanitary sewer at the corresponding building connection shall not be less than the diameter of the pipe plus the vertical distance of 2-1/2 feet.

STANDARD SYMBOLS & ABBREVIATIONS	
TREE OR BUSH	○
LIGHT POLE	○
SANITARY SEWER & MANHOLE	—○—
STORM SEWER & INLET	—□—
MAILBOX	□
ELECTRIC LINE	—E—
GAS LINE	—G—
WATER LINE	—W—
TELEPHONE LINE	—T—
CABLE TV LINE	—CATV—
OVERHEAD WIRE	—OHW—
UTILITY POLE	○
UTILITY POLE W/ DOWN GUY	○
FIRE HYDRANT	○
WATER VALVE	○
WATER METER	○
GAS VALVE	○
	TEL. PED.

PRINCIPLES & STANDARDS:

- All excavations, grading, or filling shall have a finished grade not to exceed a 3:1 slope (33%). Steeper grades may be approved by the designated official if the excavation is through rock or the excavation or fill is adequately protected (a designed head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards as identified in the appropriate section(s) of the adopted BOCA Codes and must be approved by the Building Department. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.
- Sediment and erosion control plans for sites that exceed 20,000 square feet of grading shall provide for sediment debris basins, silt traps or filters, staked straw bales or other approved measures to remove sediment from run-off waters. The design to be approved by the Designated Official. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- Where natural vegetation is removed during grading, vegetation shall be reestablished in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible during the next seeding period after grading has been completed.
- When grading operations are completed or suspended for more than 30 days permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the City Engineer's recommendations. All finished grades (areas not to be disturbed by future improvement) in excess of 20% slopes (5:1) shall be mulched and locked at the rate of 100 pounds per 1,000 square feet when seeded.
- Provisions shall be made to accommodate the increased runoff caused by changed soils and surface conditions during and after grading. Unvegetated open channels shall be designed so that gradients result in velocities of 2 fps (feet per second) or less. Open channels with velocities more than 2 fps and less than 5 fps shall be established in permanent vegetation by use of commercial erosion control blankets or lined with rock rip rap or concrete or other suitable materials as approved by the City Engineer. Detention basins, diversions, or other appropriate structures shall be constructed to prevent velocities above 5 fps.
- The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequence of erosion. Run-off water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted with the approval of the City Engineer.
- Development along natural watercourses shall have residential lot lines, commercial or industrial improvements, parking areas or driveways set back a minimum of 25 feet from the top of the existing stream bank. The watercourse shall be maintained and made the responsibility of the subdivision trustees or in the case of a site plan by the property owner. Permanent vegetation should be left intact. Variances will include designed stream bank erosion control measures and shall be approved by the City Engineer. FEMA and U.S. Army Corps of Engineers guidelines shall be followed where applicable regarding site development areas designated as flood plains and wetlands.
- All lots shall be seeded and mulched at the minimum rates defined in Appendix A or sodded before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Building Department in cases of undue hardship because of unfavorable ground conditions.

SITE NOTES:

- Basis of bearings for this survey adopted from the record plat of "Weldon Springs Gardens" as recorded in plot book 4 page 179 of the St. Charles County records.
- This property is currently vested in the name of Wentzville R-IV School District, by deed recorded in book 3700 page 1333 of the St. Charles County records.
- This property is currently listed under parcel locator number 4-0046-s015-00-4 in the St. Charles County assessors office.
- All ties shown on are perpendicular to the property lines to which they are tied, unless noted otherwise.
- Only above ground utilities which have been located are shown on this plat. Underground utilities have been shown based on the respective utility company base maps only. These utilities should be verified before design or construction, if any begins on this project.
- According to the flood insurance rate map of St. Charles County, Missouri, unincorporated areas (community - panel number 290315 0410 E, dated August 2, 1996), this property lies within Zone X. A Zone X is defined as an area of minimal flood hazard.
- Reference Benchmark RM19 - Elevation 536.06 NGVD29 (USGS) datum chiseled square on wingwall at the northwest corner of county highway DD bridge over the Dardene Creek.
- Site Benchmark: Elevation 583.97 old cross on curb 42'± north of and 235'± east of the northwest property corner of subject property, at the northeast corner of the intersection of Fox Wood drive and Fox Valley drive.
- Missouri state highway DD established using plans obtained from Missouri Department of Transportation project no. AI-FAS-155-(A).

DEVELOPMENT NOTES:

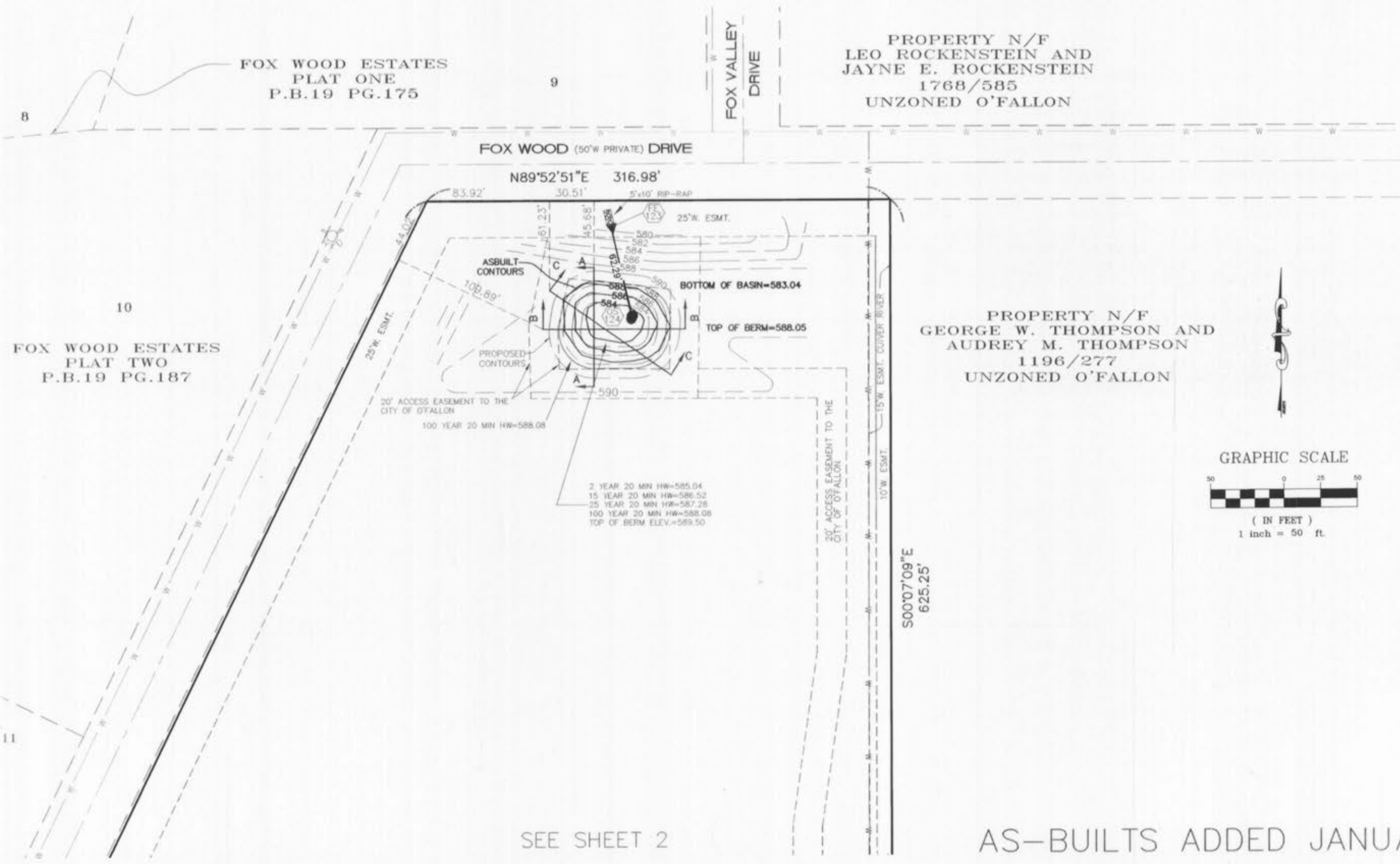
- Area of tract: 25.359 Acres
- Current Zoning: R-1 (City of O'Fallon)
- Proposed Use: Middle School
- Area of Building: Phase 1 66,520 sq ft
Phase 2 88,232 sq ft
- Current Owner: Wentzville School District
One Campus Drive
Wentzville, Mo 63385
636-327-3800
- Required building & parking setbacks:
Front yard... 25 feet
Side yard... 6 feet
Rear yard... 25 feet
Parking... 10 feet along lot perimeter
- 25 ft landscaped buffer strip with 6' minimum height solid fence is required where abutting residential zoning.
- Parking Requirements & Provisions: 2 spaces for every classroom
PHASE 1 Parking: 20 x 2 = 40 Spaces Required
PHASE 2 Parking Provided = 134 Spaces
- This property is served by the following utilities:
Electric - Cuivre River Electric Cooperative Inc.
Telephone - Verizon Telephone Company
Water - Public Water Supply District No. 2
Sewer - Duckett Creek Sanitary District
Gas - St. Charles Gas Company
Cable Company - Charter Communications
- Tree Preservation Calculations:
80% of trees being removed need not be replaced.
20% of trees being removed need to be replaced at a rate of 15 trees/acre. Site will have 4.40 acres of trees removed.
20% of 4.40 is 88 acres. So 15/88 is 17 trees to be planted in addition to what is required on site per ordinance for greenspace.
- Building is serviced by a 6" Domestic Water Line and a 6" Fire Line. Building requires a 6" Water Meter.

VEGETATIVE ESTABLISHMENT For Urban Development Sites APPENDIX A

- Seeding Rates:
- Permanent:
Tall Fescue - 30 lbs./ac.
Smooth Brome - 20 lbs./ac.
Combined Fescue - 15 lbs./ac. and Brome - 10 lbs./ac.
- Temporary:
Wheat or Rye - 150 lbs./ac. (3.5 lbs. per square foot)
Oats - 120 lbs./ac. (2.75 lbs. per square foot)
- Seeding Periods:
Fescue or Brome - March 1 to June 1
August 1 to October 1
Wheat or Rye - March 15 to November 1
Oats - March 15 to September 15
- Mulch Rates:
100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)
- Fertilizer Rates:
Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*
- * ENM = effective neutralizing material as per State evaluation of quarried rock.

SITE COVERAGE CALCULATIONS:

PHASE 1:	
BUILDINGS	68,219.75 SQ.FT.
LANDSCAPING	756,434.37 SQ.FT.
PAVEMENT	279,983.92 SQ.FT.
PHASE 2:	
BUILDINGS	81,922.68 SQ.FT.
LANDSCAPING	590,306.76 SQ.FT.
PAVEMENT	84,204.93 SQ.FT.
TOTALS:	
BUILDINGS	150,142.43 SQ.FT.
LANDSCAPING	590,306.76 SQ.FT.
PAVEMENT	364,188.85 SQ.FT.
TOTAL	1,104,638.04 SQ.FT. = 25.359 ACRES



SHEET INDEX

SHEET	COVER SHEET & SITE PLAN
SHEET 1	COVER SHEET & SITE PLAN
SHEET 2	SITE PLAN
SHEET 3-5	STORM PROFILES
SHEET 6	SANITARY PLAN/PROFILES
SHEET 7	SANITARY PLAN VIEW
SHEET 8-9	FORCE MAIN PLAN/PROFILES

SEWER MEASUREMENTS

THE EXISTING SEWER LENGTHS, SIZES, FLOWLINES, DEPTHS OF STRUCTURES AND SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED EASEMENTS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS.

ALL PUBLIC SEWERS ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS EXCEPT AS FOLLOWS:

SIGNED: *Dan Chy*
P.E.A.S.
DATE: 7/26/06

DISCLAIMER OF RESPONSIBILITY
I hereby certify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

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REVISIONS

NO.	DATE	DESCRIPTION
2-20-06	City Comments	



ENGINEERING
PLANNING
SURVEYING

221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

01/08/06	DATE
03-12495	PROJECT NUMBER
1	SHEET OF 9
03-12495ASB	FILE NAME
GMH	DESIGN
DRAWN	DESIGNED
SWR	CHECKED

CITY FILE #6403.02

SEE SHEET 2

AS-BUILTS ADDED JANUARY 2006

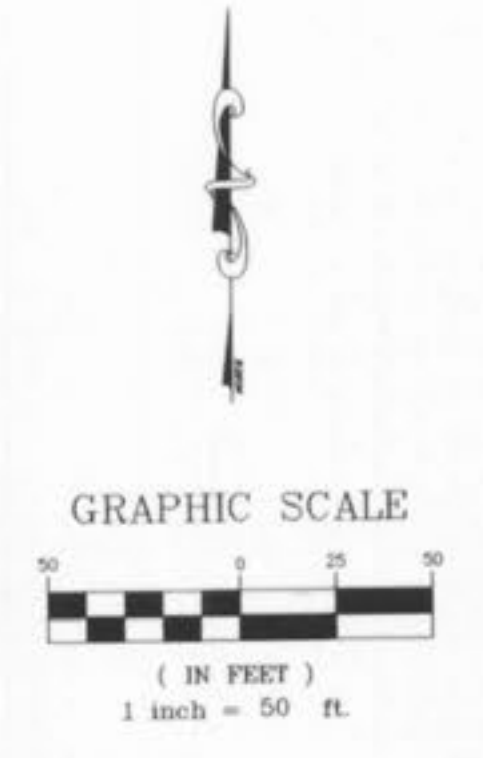
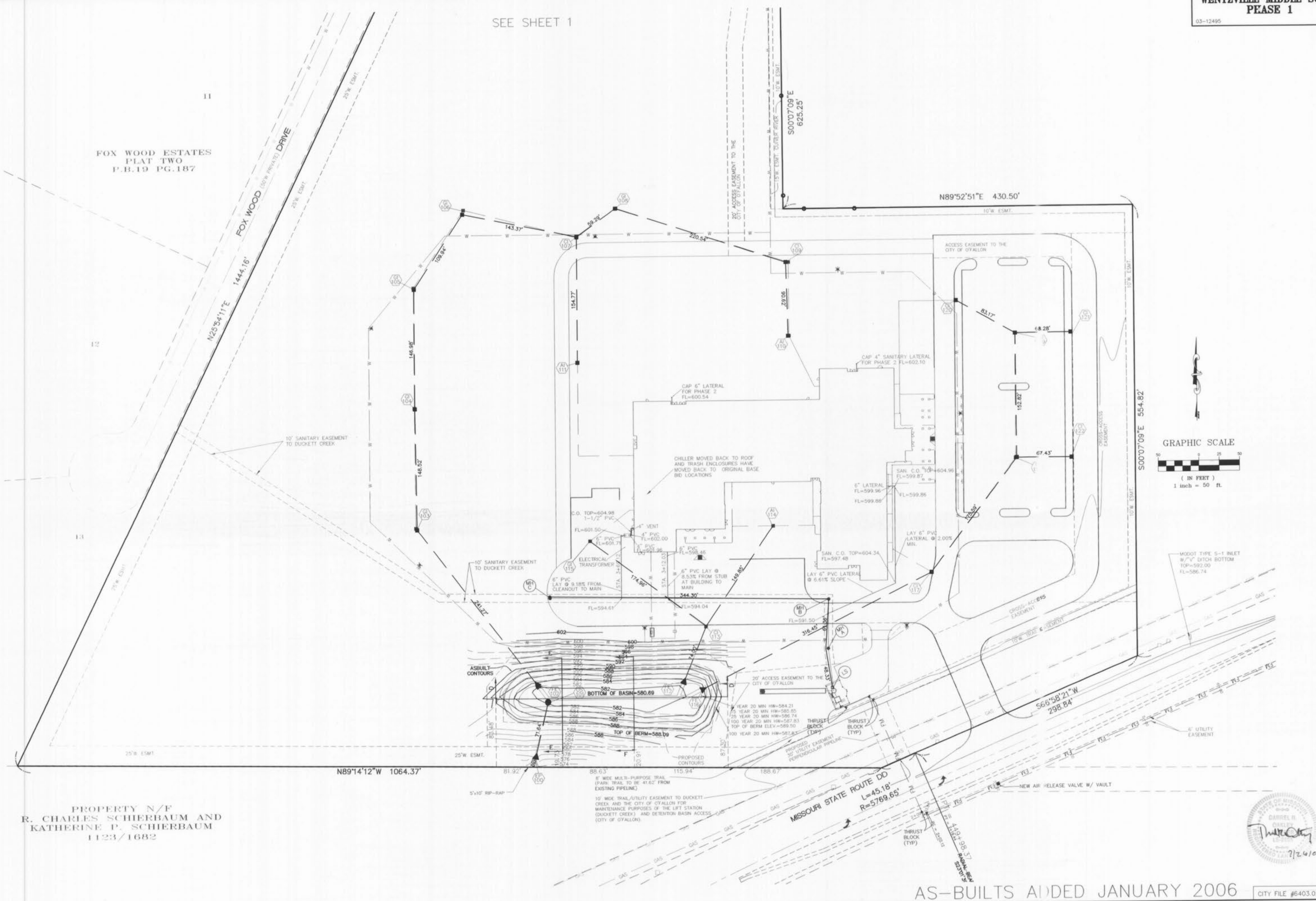
SEE SHEET 1

FOX WOOD ESTATES
 PLAT TWO
 P.B.19 PG.187

11

12

13

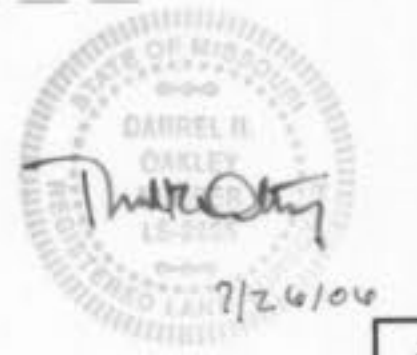


PROPERTY N/F
 R. CHARLES SCHIERBAUM AND
 KATHERINE P. SCHIERBAUM
 1123/1682

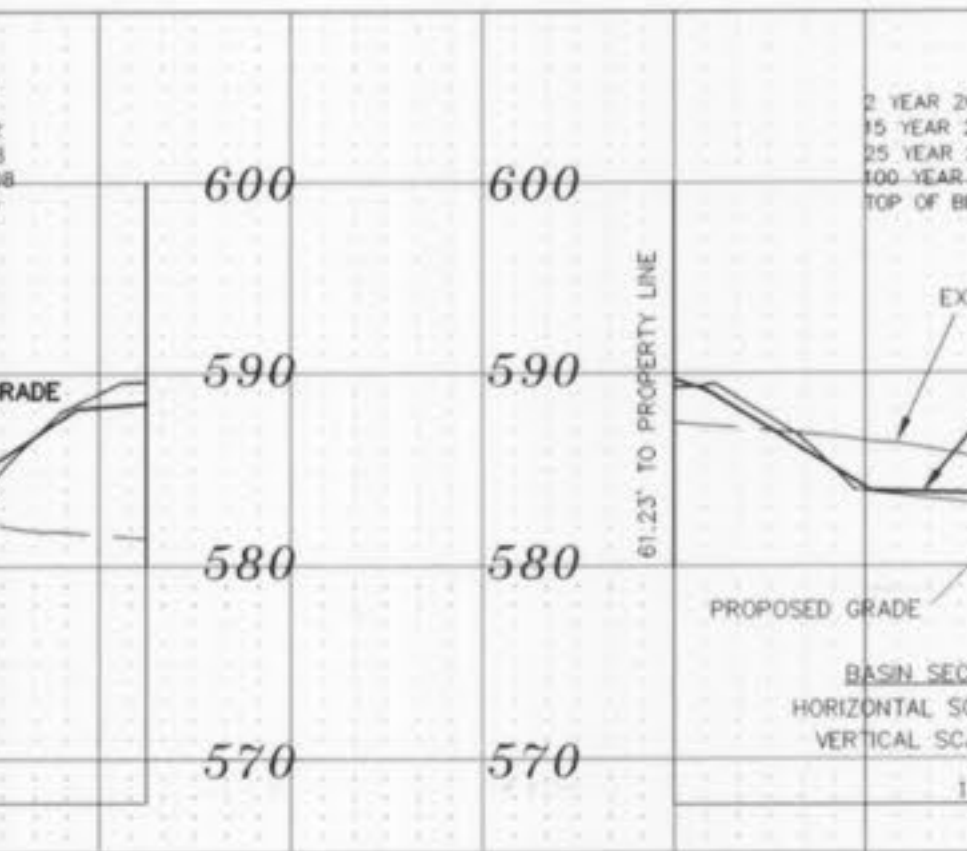
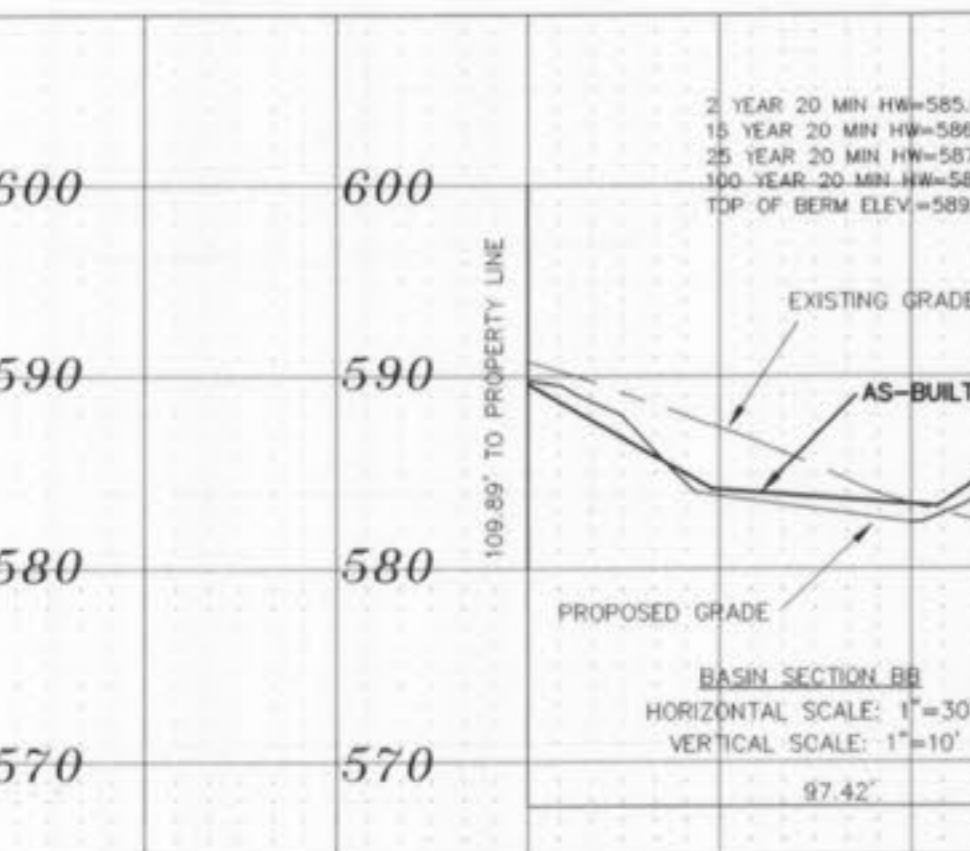
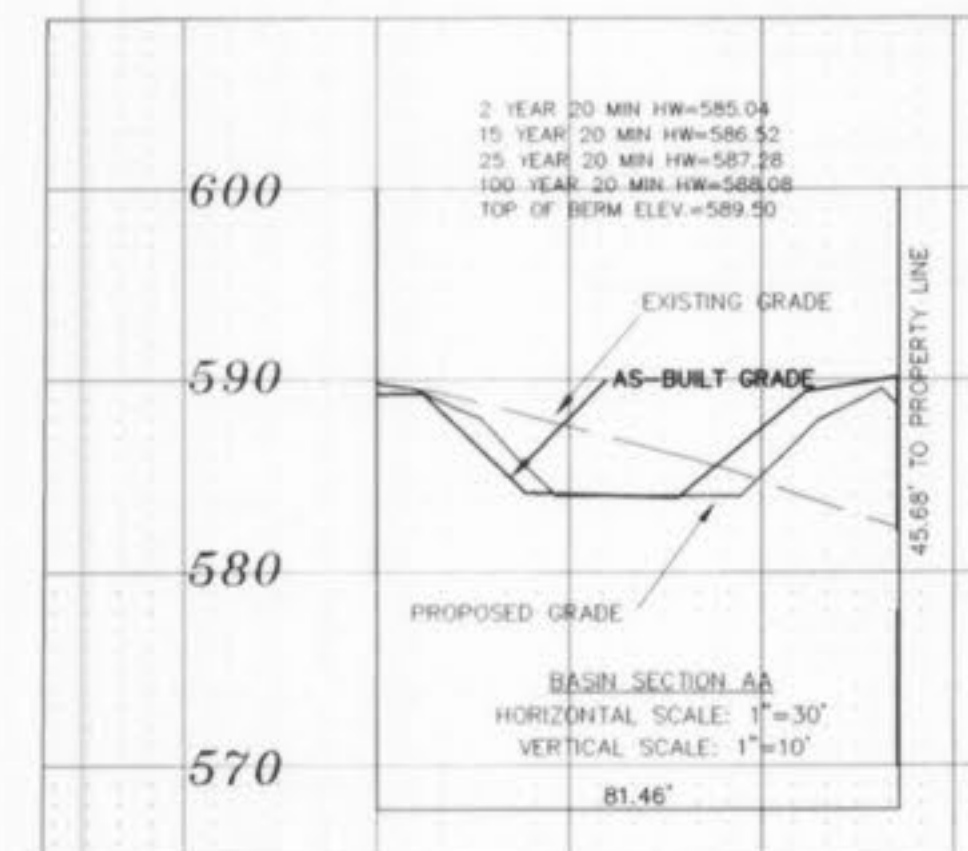
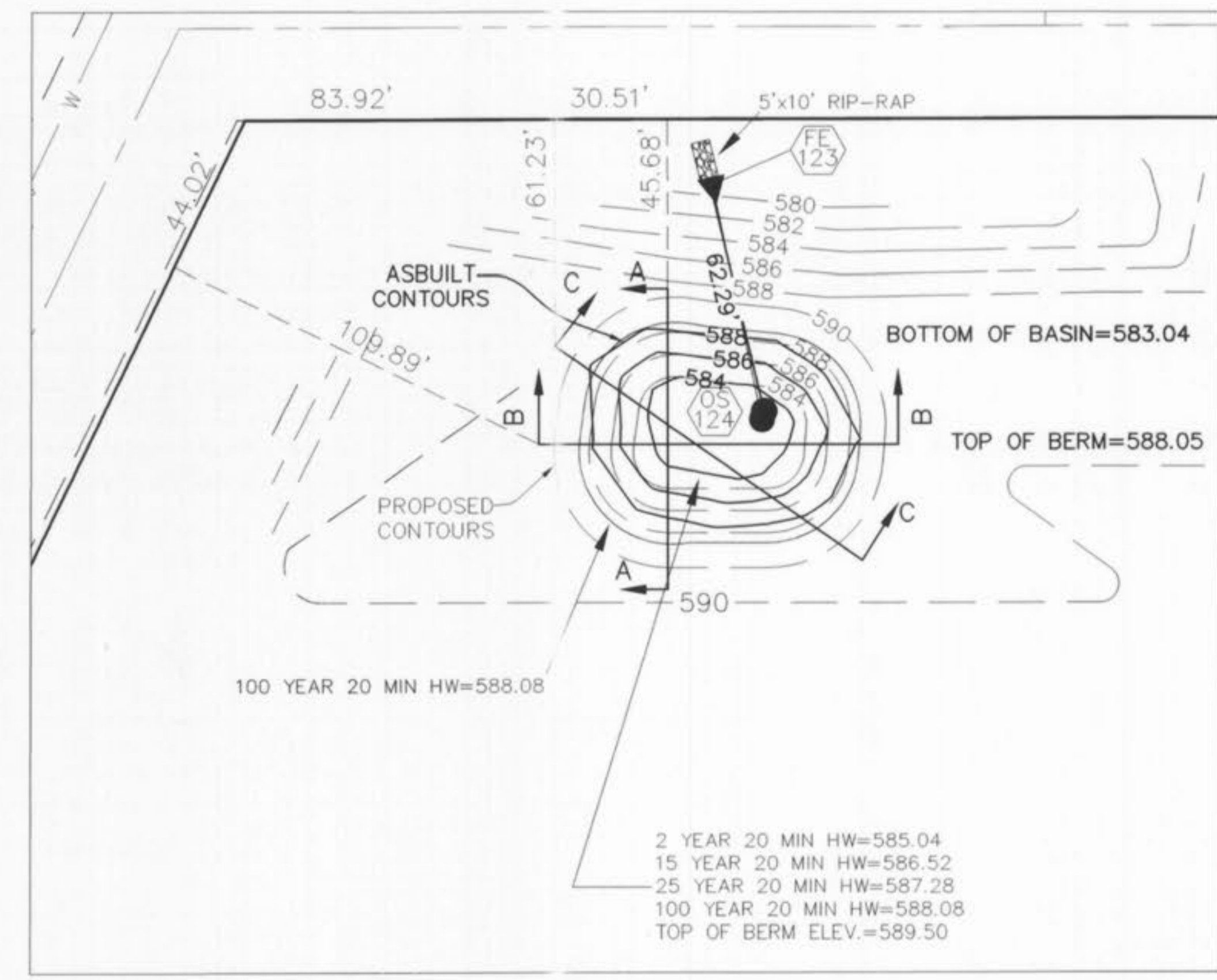
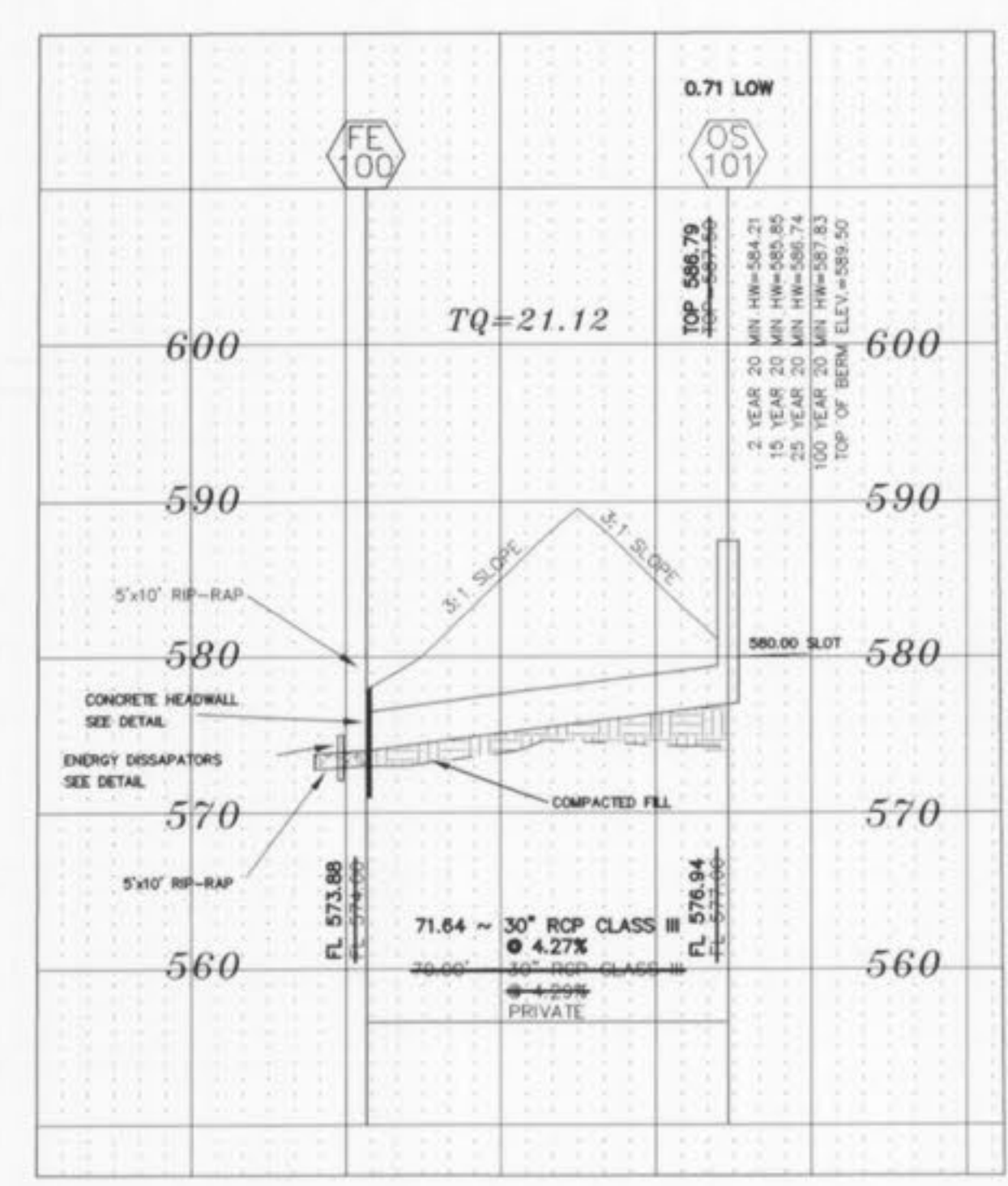
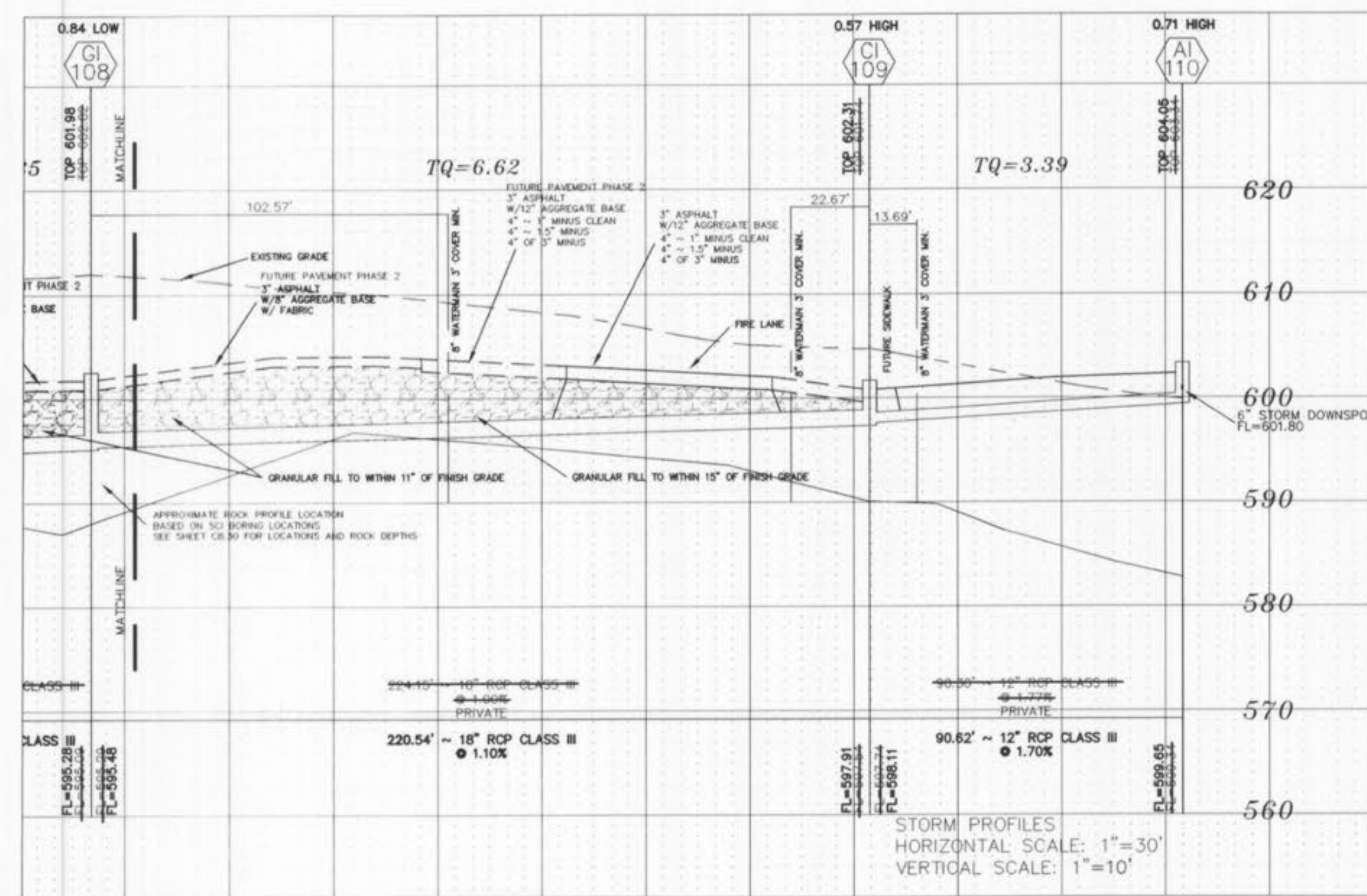
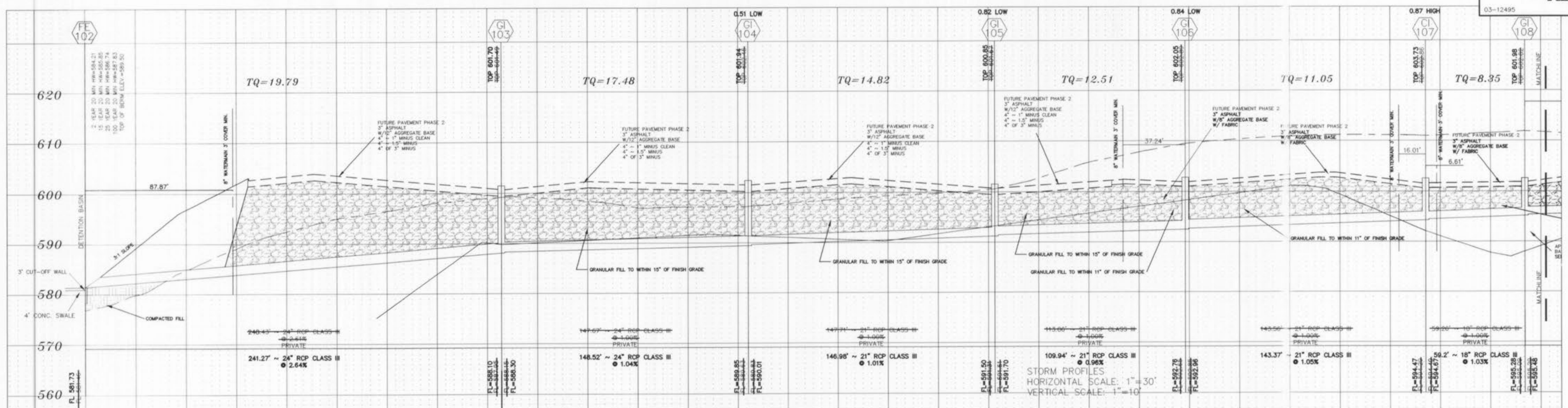
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MISSOURI STATE ROUTE DD
 L=45.18'
 R=5769.65'

AS-BUILTS ADDED JANUARY 2006



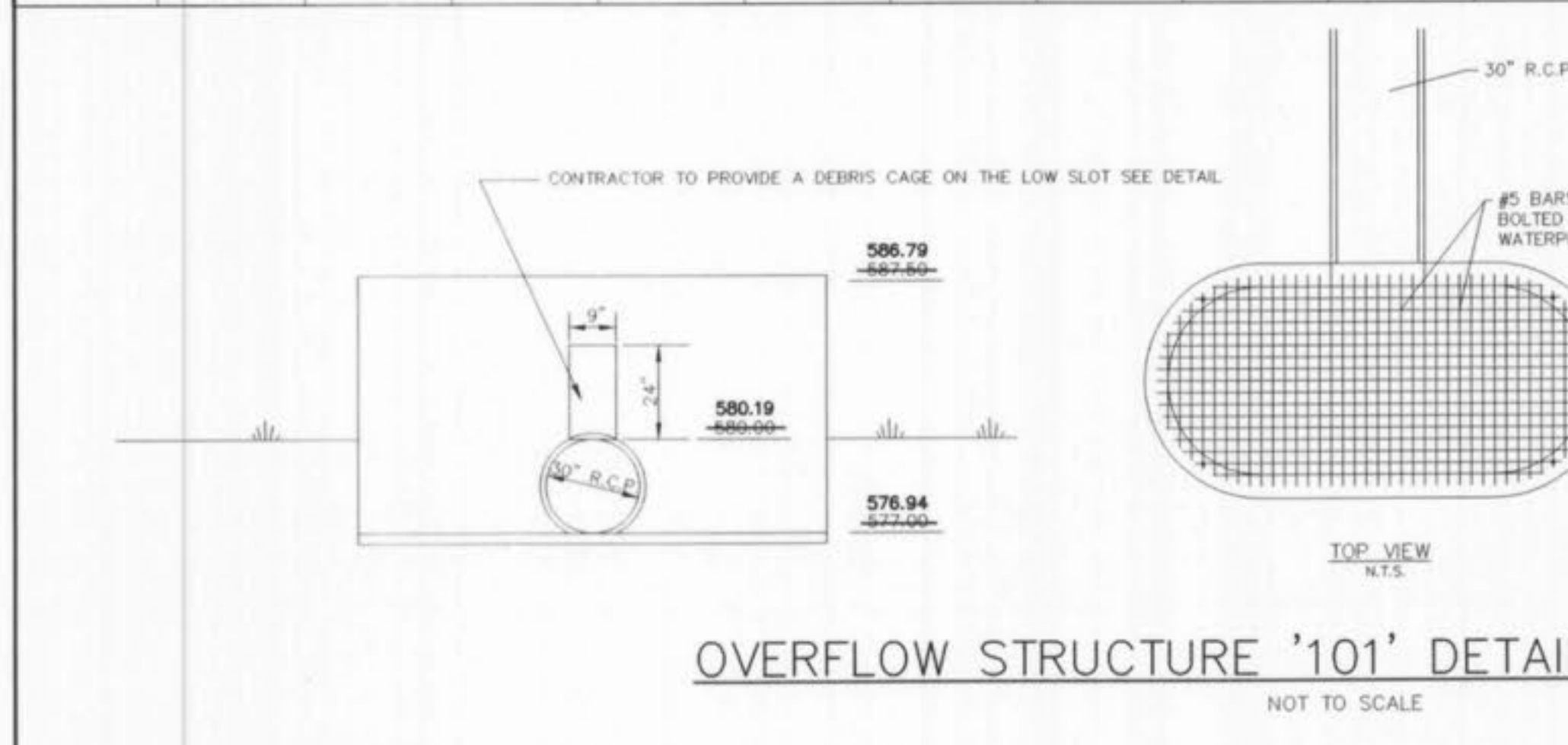
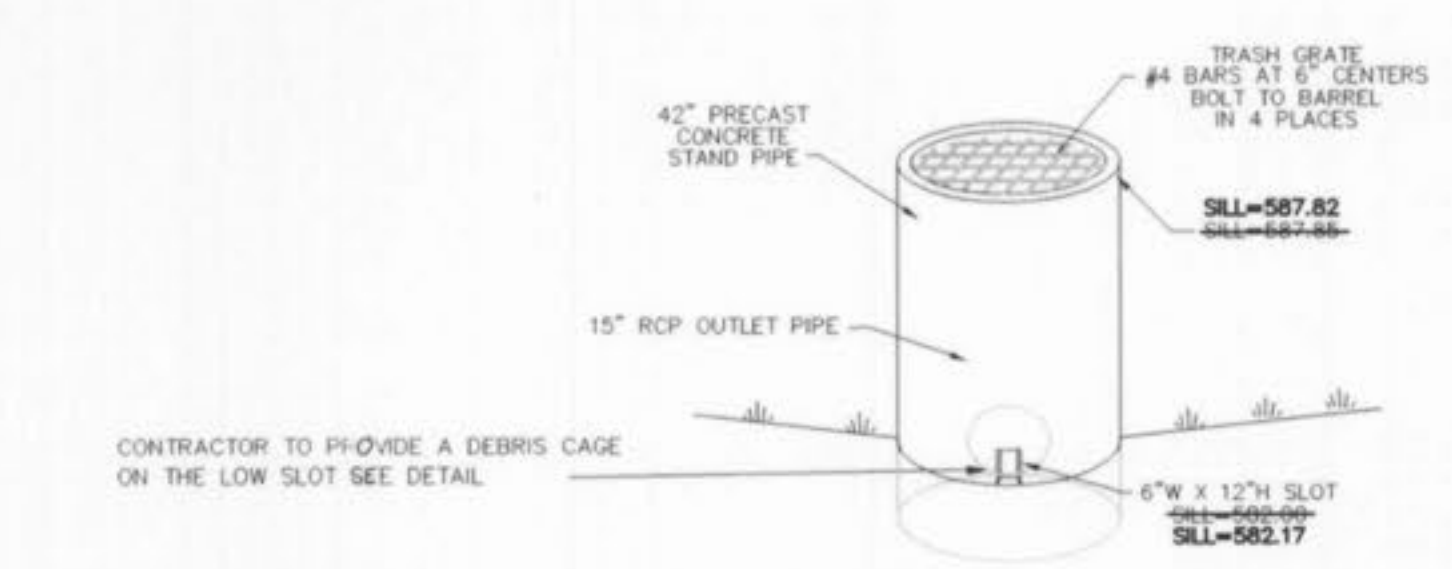
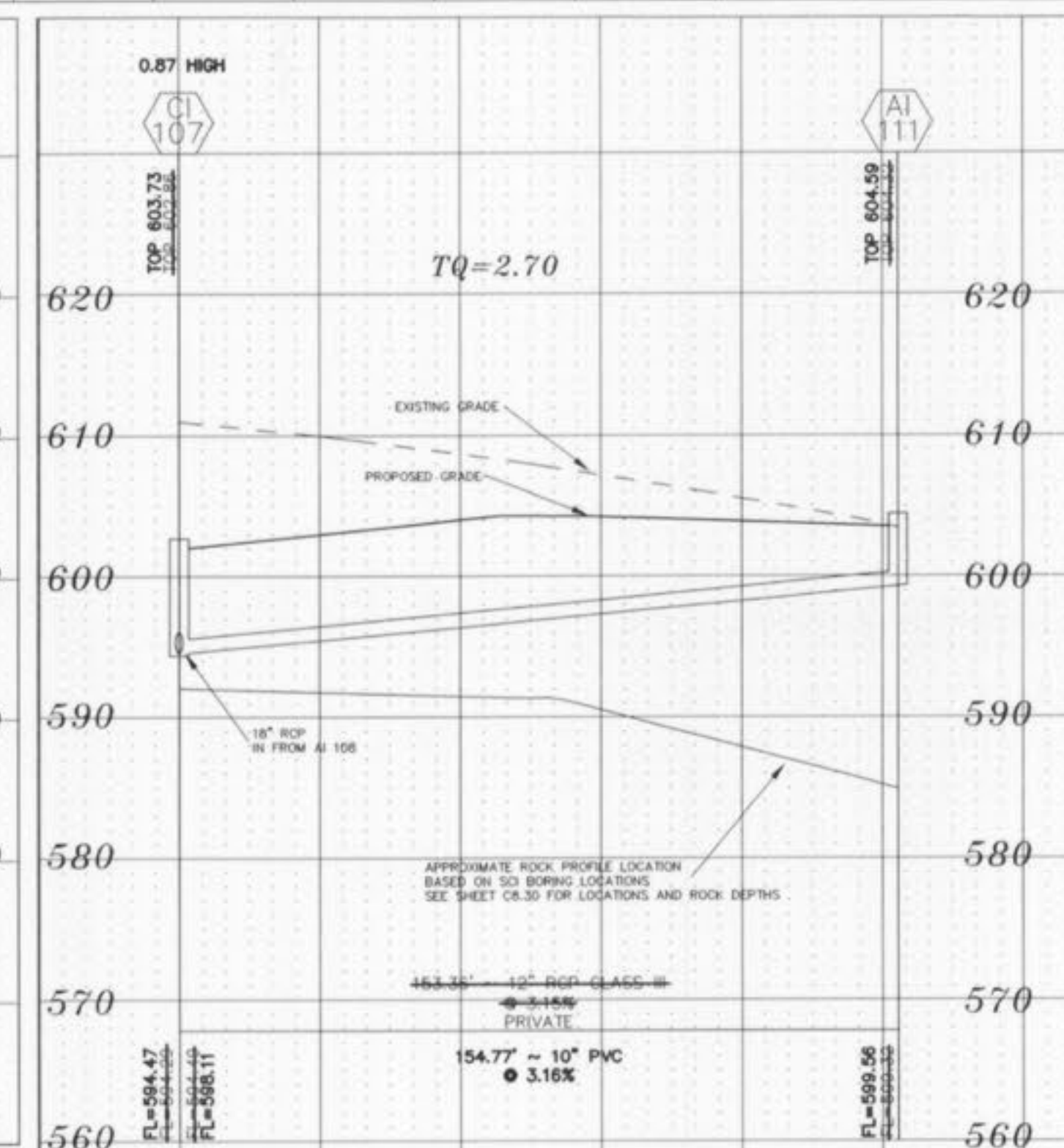
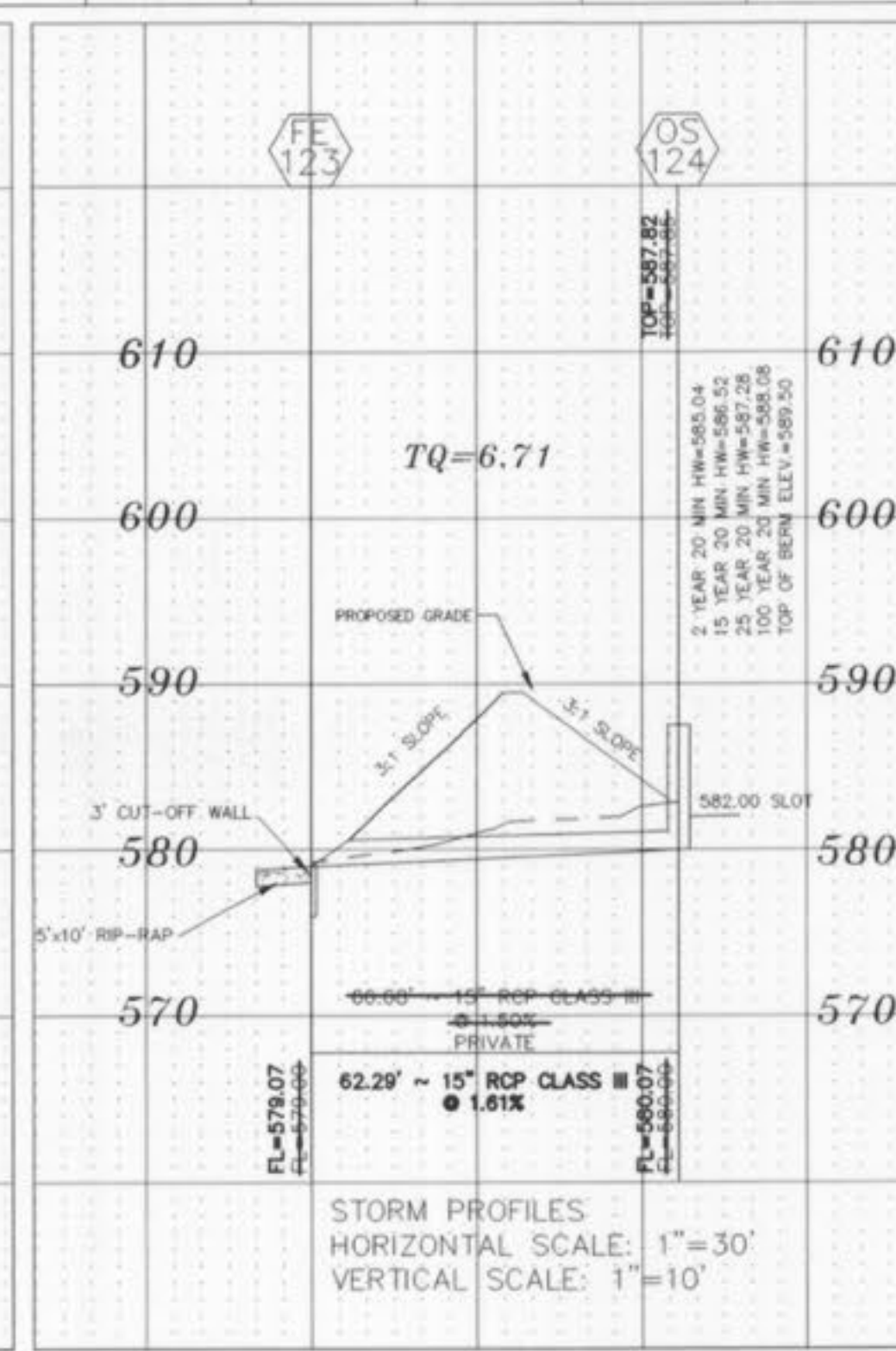
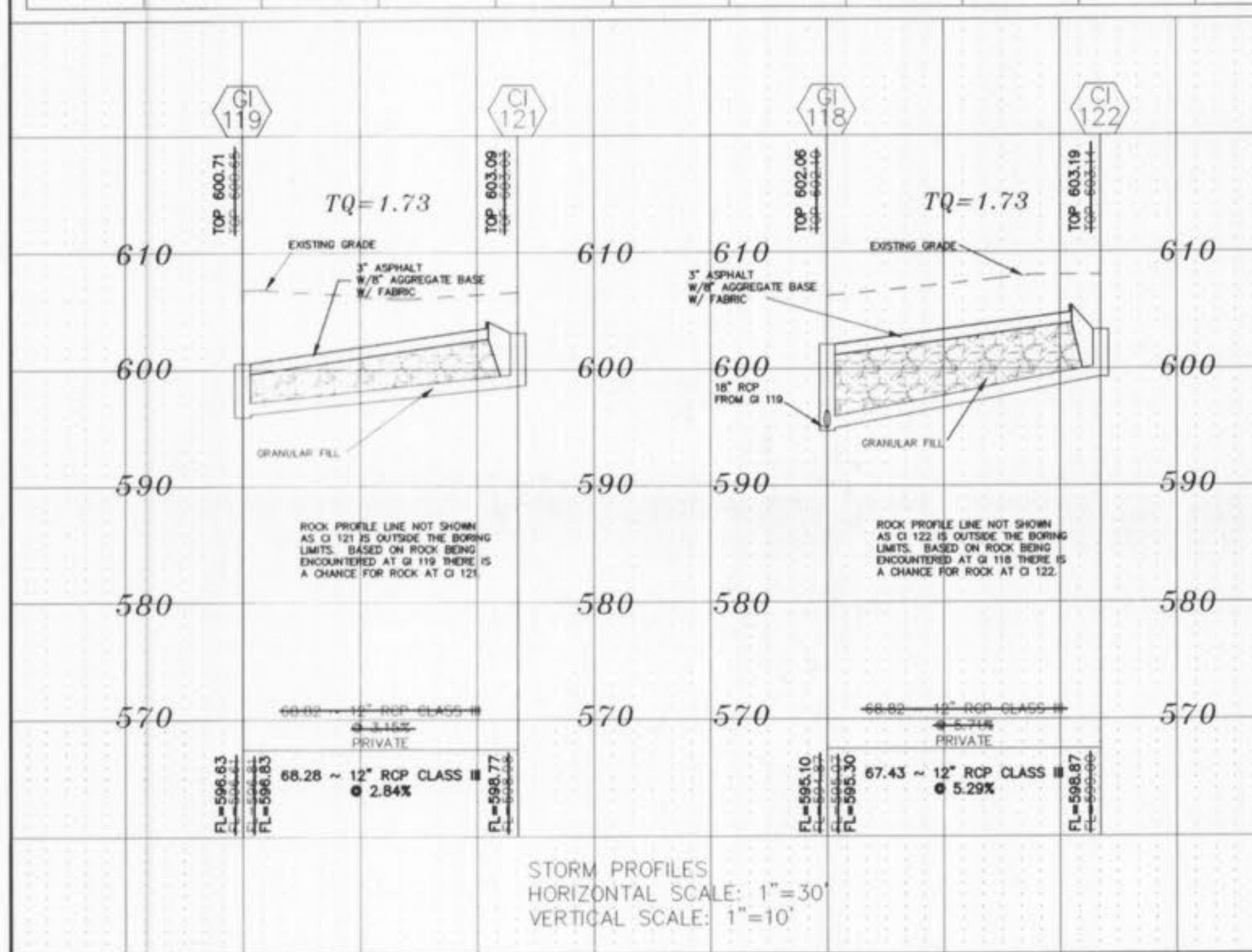
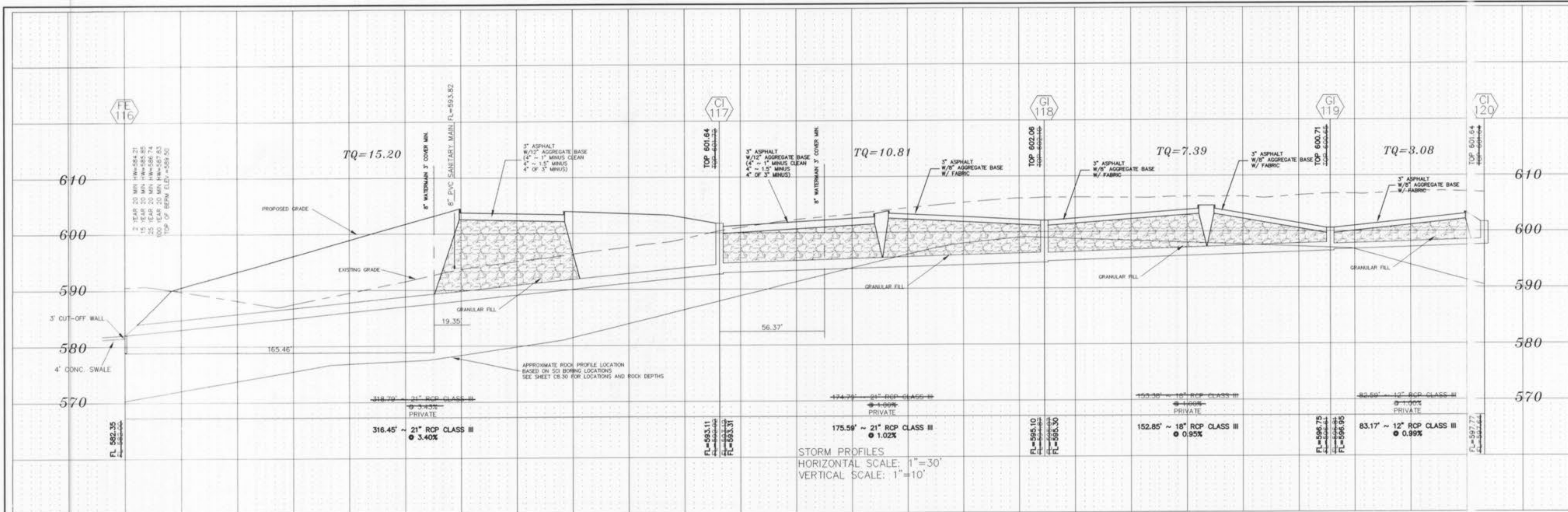
CITY FILE #6403.02



AS-BUILTS ADDED JANUARY 2006

- Storm sewer pipe that cross over existing or proposed sanitary sewer trenches shall be installed in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete grade.
- If storm and sanitary sewers are parallel and in the same trench or overlap, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the 1" minus of the upper pipe.





The Overflow Structure is to be a Standard Double Untrapped Street Inlet Precast Concrete (without top). See M.S.D. Detail 35. The bottom must be constructed to the correct height so that no brick will be used. A low-flow rectangular orifice 9" w. x 24" h with a flowline of 580.00 will be used.

AS-BUILTS ADDED JANUARY 2006

1) Storm sewer pipe that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.
 2) If storm and sanitary sewers are parallel and in the same trench or overlap, the upper pipe shall be placed in a shell and the lower pipe shall be bedded in compacted granular fill to the flowline of the upper pipe.

CITY FILE #6403.02

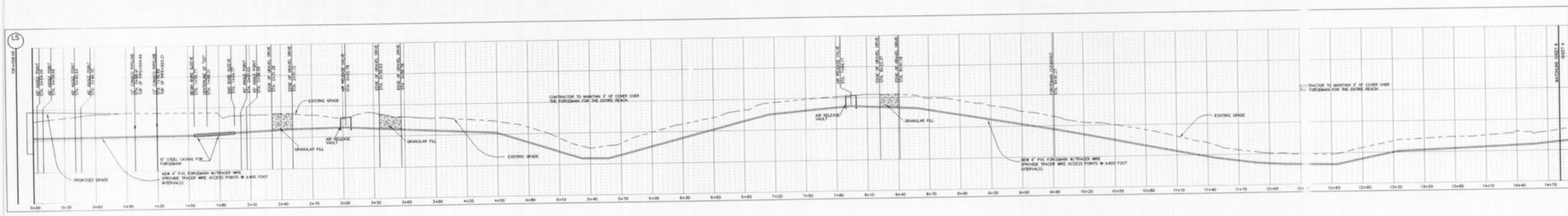
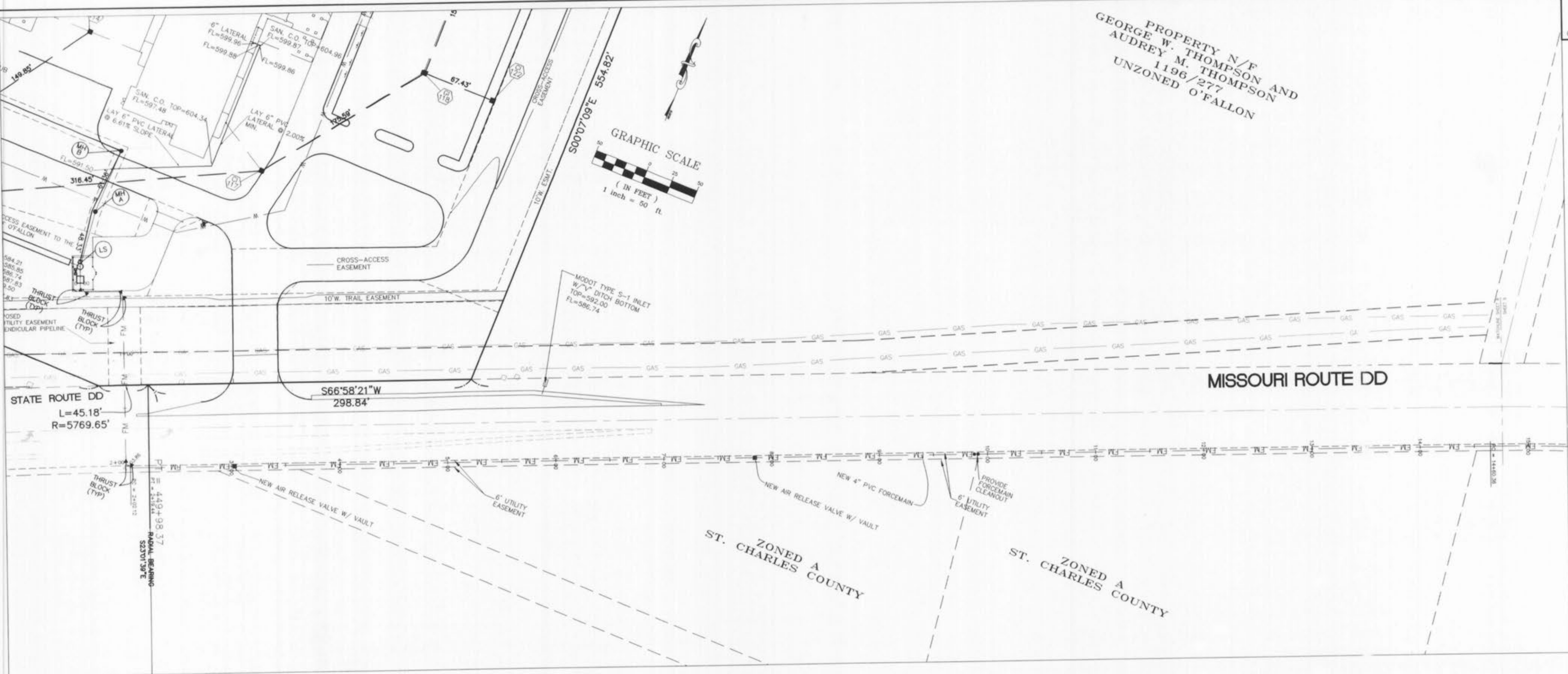
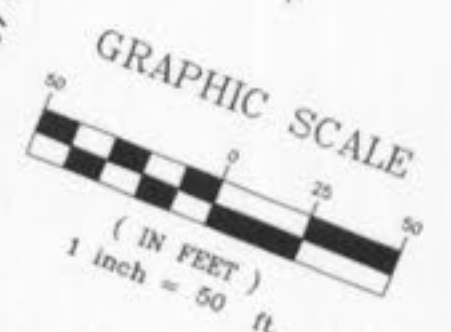




- 1) Storm sewer pipe that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.
- 2) If storm and sanitary sewers are parallel and in the same trench or overdig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flowline of the upper pipe.

AS-BUILTS ADDED JANUARY 2006

PROPERTY N/F
 GEORGE W. THOMPSON AND
 AUDREY M. THOMPSON
 1196/277
 UNZONED O'FALLON



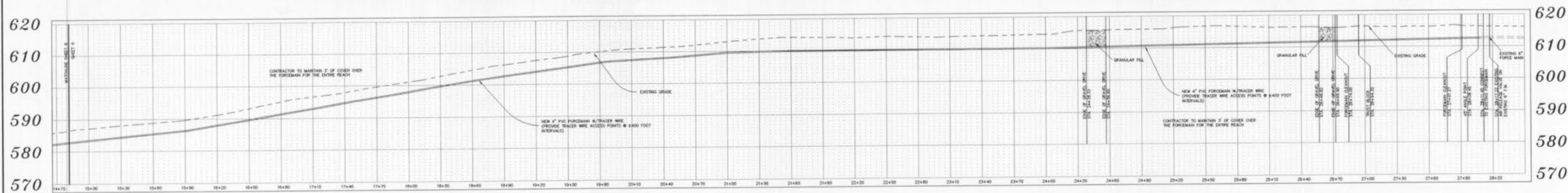
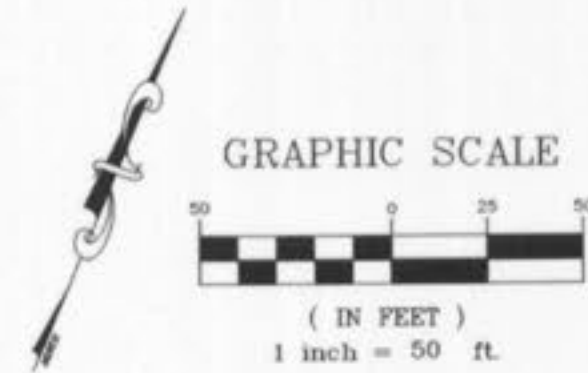
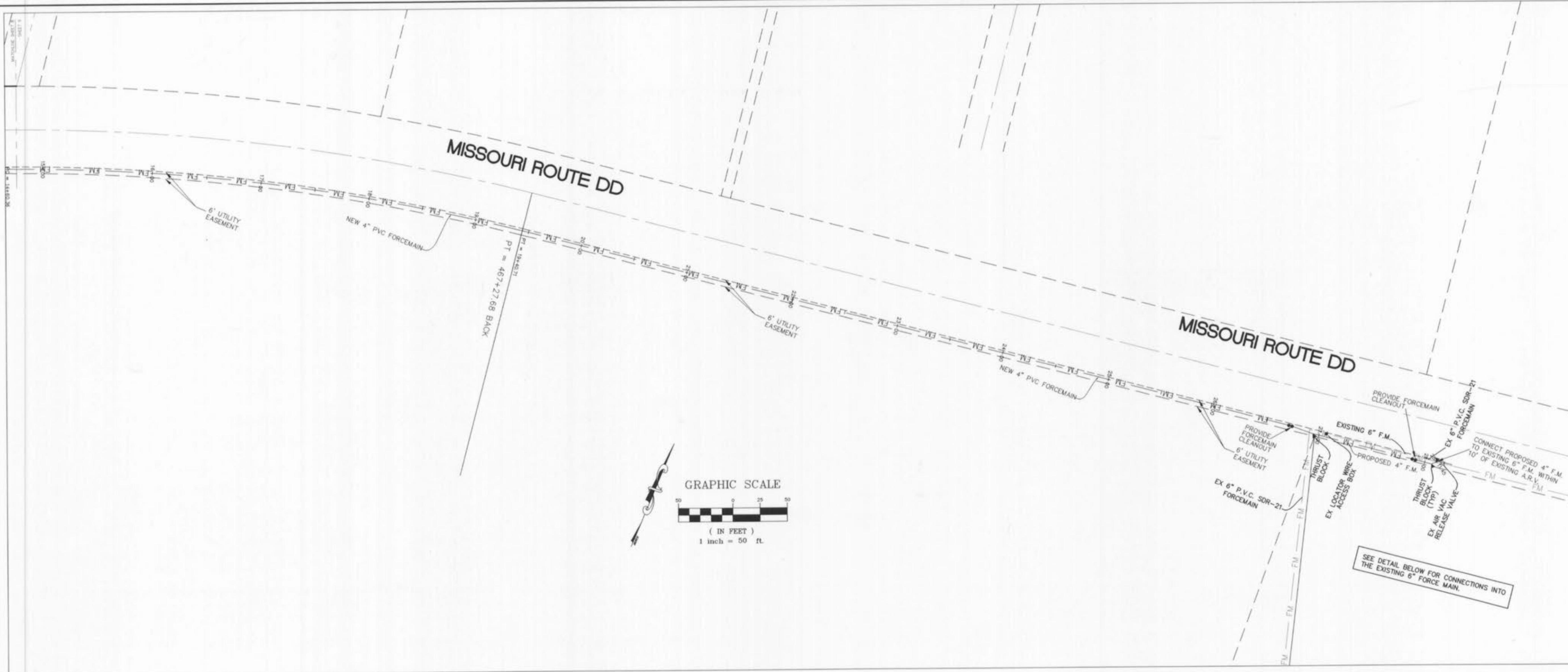
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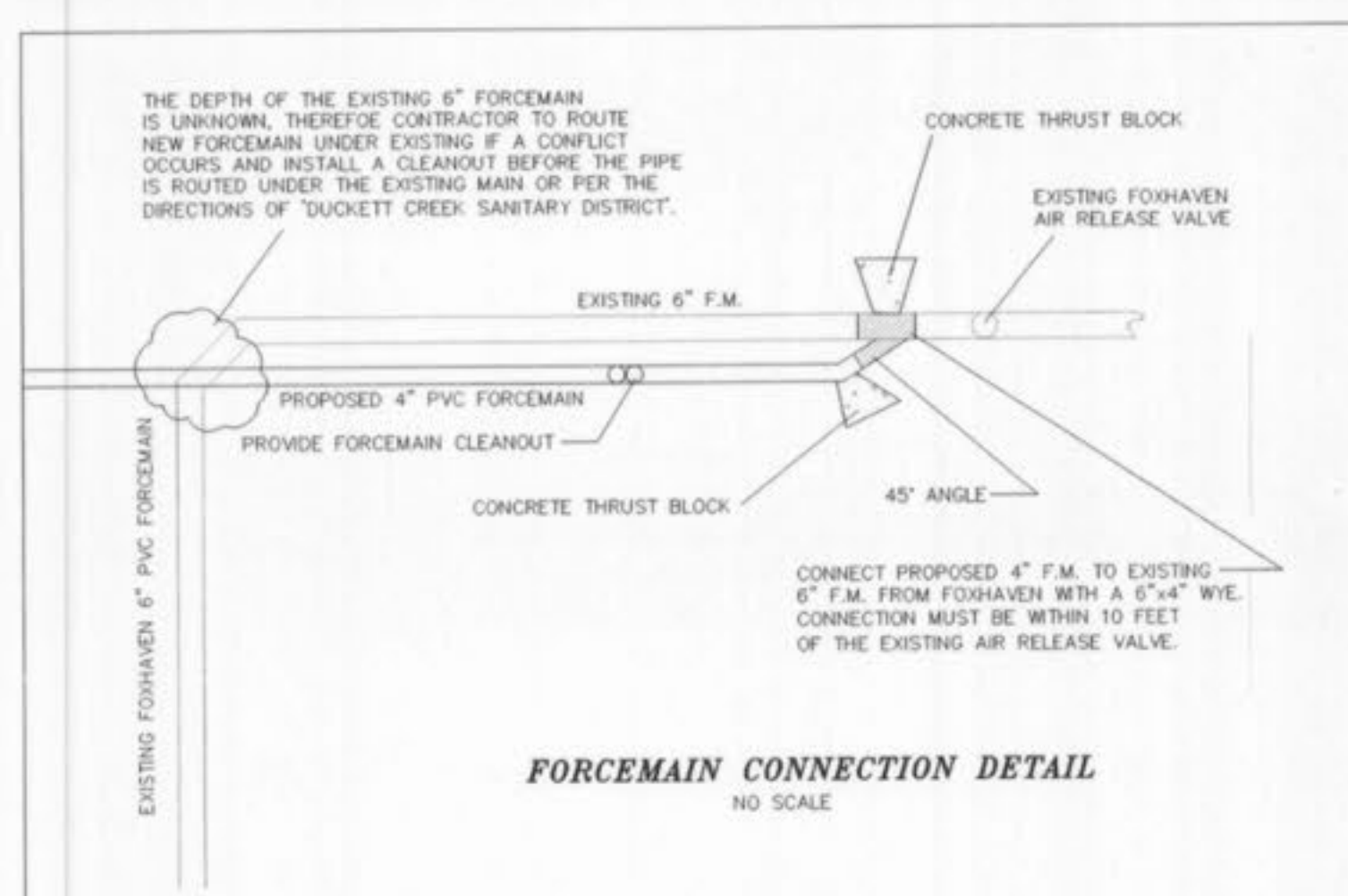
SANITARY PROFILE
 HORIZONTAL SCALE: 1"=30'
 VERTICAL SCALE: 1"=10'

- 1) Storm sewer pipe that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.
- 2) If storm and sanitary sewers are parallel and in the same trench or overdig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flowline of the upper pipe.

7/24/06
 [Signature]



SANITARY PROFILE
 HORIZONTAL SCALE: 1"=30'
 VERTICAL SCALE: 1"=10'



- 1) Storm sewer pipe that cross over existing or proposed sanitary sewer trenches shall be cradled in concrete through the full width of the sanitary sewer trench. The trench shall be backfilled and compacted with granular fill to the bottom of the concrete cradle.
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