

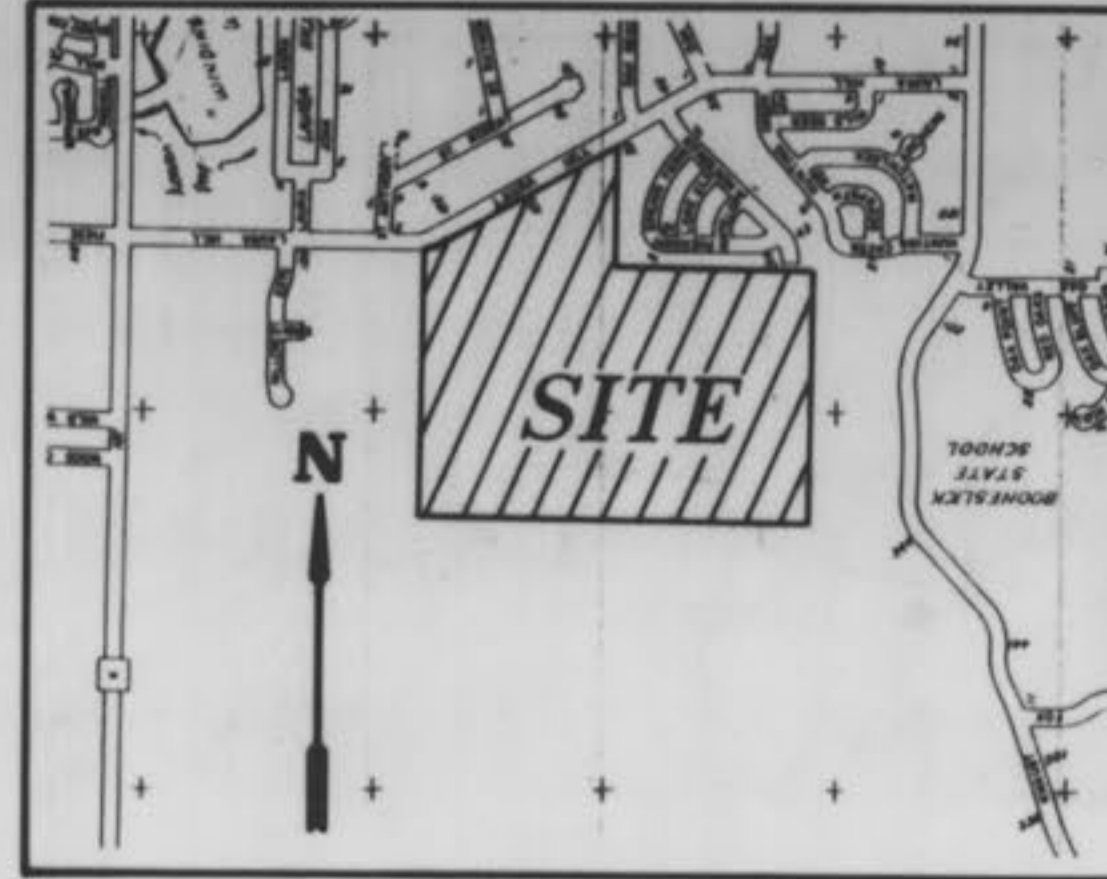
GENERAL NOTES

- 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 and/or construction of improvements.
- Erosion control shall not be limited to what is shown on the plans. The contractor shall take whatever means necessary to prevent siltation from entering adjacent roadways, properties, and ditches. Such control might include channeling runoff into sediment basins, channeling runoff into areas where an extra row of straw bales are used. A silt fence might be considered, if necessary.
- Owner/Developer assumes full responsibility as to the performance of the grading operation and assurance that all properties and County and State roads will be adequately protected.
- Soil preparation and re-vegetation shall be performed according to Appendix A of the Model Sediment and Erosion Control Regulations for Urban Development.
- Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. Refer to Appendix A of St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations.
- When grading operations are completed or suspended for more than thirty (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 Designated Official's recommendation.
- All fill including filled places under proposed storm and sanitary sewer lines and paved areas including trench backfills within and off the road right-of-way shall be compacted to 90% of maximum density as determined by the "Modified AASHTO T-180 Compaction Test (ASTM D1557)". All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during proof-rolling and compaction.
- Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- If straw bales or silt fences are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by contractor.
- All cut and fill slopes should be a maximum of 33% slope (3:1) after grading.
- Any wells and/or springs which may exist on this property should be located and sealed in a manner acceptable to the City of O'Fallon.
- All existing trash and debris on-site must be removed and disposed of off-site.
- Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.
- Soft soils in the bottom and banks of any existing or former pond sites or tributaries should be removed, spread out, and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or on any storm sewer location.
- No area shall be cleared without permission of the developer.
- The total yardage of this project is based on a 15% ± shrinkage factor.
- The shrinkage factor is subject to change, due to soil conditions (types and moisture content), weather conditions, and the percentage of compaction actually achieved at the time of the year grading is performed. As a result, adjustments in final grade may be required. If adjustments need to be made, the contractor shall contact St. Charles Engineering and Surveying prior to completion of the grading.
- Earth quantities were obtained from serial grid mapping with contours at two foot intervals, with a tolerance of plus or minus one foot or one-half (1/2) contour intervals.
- The vertical grading tolerance shall be plus or minus 0.2 feet for all rough grading.
- All construction and materials shall conform to City of O'Fallon Standards.
- All storm sewers shall be Reinforced A.S.T.M. C-76, Class III minimum, unless otherwise shown on the plans.
- All corrugated steel pipe shall conform to the requirements of AASHTO M-36 and shall be fully coated with bituminous material conforming to the requirements of AASHTO M-190. Corrugated steel pipe shall be helical pipe (if large) with reformed ends. Pipes shall be joined using steel hanger bands.
- All standard curb inlets are to have front-of-inlet 2' (two feet) behind curb, within public right-of-way, unless otherwise noted.
- Concrete Pipe Joints shall be M.S.D. Type "A" Approved Compression Joints and shall conform to the requirements of the Specification for Joints and Circular Concrete Sewer and Culvert Pipe, using flexible, watertight, rubber-type gaskets A.S.T.M. C-443. Band-Type Gaskets depending entirely on cement for adhesion and resistance to displacement during jointing shall not be used.
- All grout for rip-rap shall be high slump ready-mix concrete.
- 8" P.V.C. sanitary sewer mains shall meet the following standards: A.S.T.M. D-3034 SDR35, with wall thickness compression joint A.S.T.M. D-3212. An appropriate rubber seal waterstop as approved by the water district shall be installed between P.V.C. pipe and masonry structures.
- The length of the concrete encasement around the P.V.C. sanitary sewers and the storm sewers shall extend at least 5' into undisturbed soil to bridge the pipe across the trench backfill.
- The minimum vertical distance from the low point of the basement to the flowline of the sanitary sewer at the corresponding house connection shall not be less than two and one half feet (2 1/2') plus the diameter of the sanitary sewer.
- All sanitary laterals shown on plan are to be constructed of 4 inch P.V.C. pipe.
- All P.V.C. sanitary sewer mains are to be SDR35 or equal with "clean 1/2" to 1" granular stone bedding", uniformly graded. This bedding shall extend from 4" below the pipe to springline of pipe to 12" above the top of pipe.
- Brick shall not be used on sanitary manholes.
- All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri D.N.R. Specification 10CSR-4.120 (7) (E).
- All sanitary sewer construction shall conform to current St. Charles County Public Sewer District #2 Standards and Specifications.
- All pipes shall have positive drainage through manholes. No flat base structures are allowed.
- All trench backfills under paved areas shall be granular backfill, and water jetted. All other trench backfills may be earth material (free of large clods or stones) and shall be water jetted.
- All sewer tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.
- Easements shall be provided for storm sewers, sanitary sewers, and all utilities on the record plat. See record plat for location, size, and width of easements.
- Gas, water, and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including house laterals.
- All waterline construction shall conform to current Missouri-American Water Co. Standards and Specifications.
- The contractor shall place all fire hydrants within (3') three feet of the street curb.
- The contractor shall place the "steamer" outlet of the fire hydrant toward the street.
- The St. Charles County Public Sewer District #2 shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspections.
- All streets within this set of improvement plans shall be Publicly maintained after acceptance.
- All streets and right-of-ways shown on these improvement plans will be dedicated to the City of O'Fallon for public use forever.
- Barricades will be constructed per the standard specifications as shown in the "Manual of Uniform Traffic Control Devices". End of roadway markers shall be mounted 4 feet above the pavement on two pound "U" channel sign posts. Each marker shall consist of an 18" diamond panel with red reflectors.
- Sidewalk curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "Americans with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the Project Engineer shall be notified by the contractor prior to any construction.
- The most stringent of the above requirements shall apply.
- This property will be served by the following utilities:
Water District: Missouri American Water Co.
Sanitary Sewer: St. Charles County Public Water District #2
Electric: Union Electric Company (800) 552-7583
Gas: St. Charles Gas Company (314) 946-2422
Telephone: G.T.E. (314) 639-3434
- This property is located in the following service areas:
Fort Zumwalt School District
O'Fallon Fire Protection District No.1
- According to the December 15, 1992 preliminary flood insurance rate map for St. Charles County Community-Panel Number 29183C0116D, this property is not in the 100 year flood plain.
- This property shall conform to the O'Fallon Tree Ordinance No. 1689

PHASE II + III BUTTERNUT STAGE

BEING PART OF SECTION 33,
T. 47 N., R. 3 E. AND PART OF SECTION 4,
T. 46 N., R. 3 E. ST. CHARLES CO., MISSOURI

AS-BUILTS



LOCATION MAP
N.T.S.

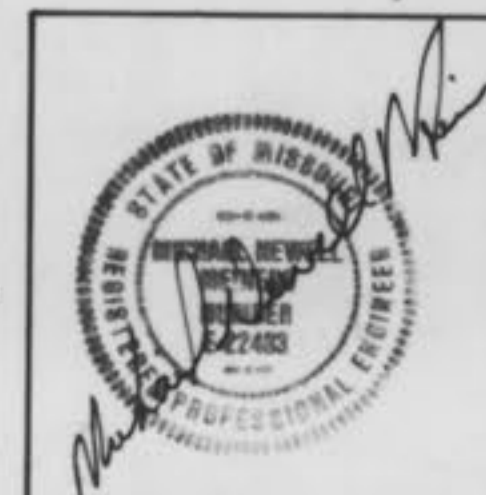
LEGEND

- BUILDING LINE
- EXISTING SANITARY SEWER
- PROPOSED SANITARY SEWER
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING WOOD AREA
- SILTATION CONTROL
- CREEK OR DITCH
- F.L. FLOWLINE
- GAS MAIN
- TELEPHONE CABLE
- WATER MAIN
- UNDERGROUND ELECTRIC
- OVERHEAD ELECTRIC
- STREET SIGN
- GENERAL SURFACE DRAINAGE
- LIGHT STANDARD
- CLEARING AND GRADING LIMITS
- STORM SEWER DESIGNATOR
- SANITARY MANHOLE DESIGNATOR
- LATERAL TAIL STAKE
- F.H. FIRE HYDRANT
- B.W.M. WATER MAIN
- B.O. BLOW-OFF VALVE
- DENOTES STREET ADDRESS
- CLEAN-OUT

DESCRIPTION	SHEET NUMBER
COVER SHEET	1
FLAT PLAN	5-6
GRADING PLAN	7-11
ENTRANCE DETAIL PLAN	42
STREET PROFILES	18-17
SANITARY SEWER PROFILES	19, 22, 23
STORM SEWER PROFILES	24, 26
DRAINAGE AREA MAP	27-34
CONSTRUCTION DETAILS	32-36

SITE BENCHMARK
O.L.P. at Southwestern corner of Hunting Creek Plat 3 approximately 900' South of the centerline of Laura Hill Road Elevation = 589.68'

OWNER/DEVELOPER
KAPLAN DEVELOPMENT & INVESTMENT
P.O. BOX 340 ST. PETERS, MO. 63366
(314) 946-6971



ENGINEERS AUTHENTICATION
The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in the project and specifically excludes revisions after this date unless reauthenticated.

St. Charles Engineering and Surveying
Revised 3-5-96, 4-3-96, 4-15-96
Sheet 1 of 36
S/C ST. CHARLES ENGINEERING & SURVEYING
801 South Fifth Street, Suite 202
St. Charles, Missouri 63301
Off. 947-0607, Fax 947-2448
Order No. 94-695
Date

Phase III
July 23, 1996
SANITARY & STORM AS-BUILTS
(AS SHOWN ON PROFILES)

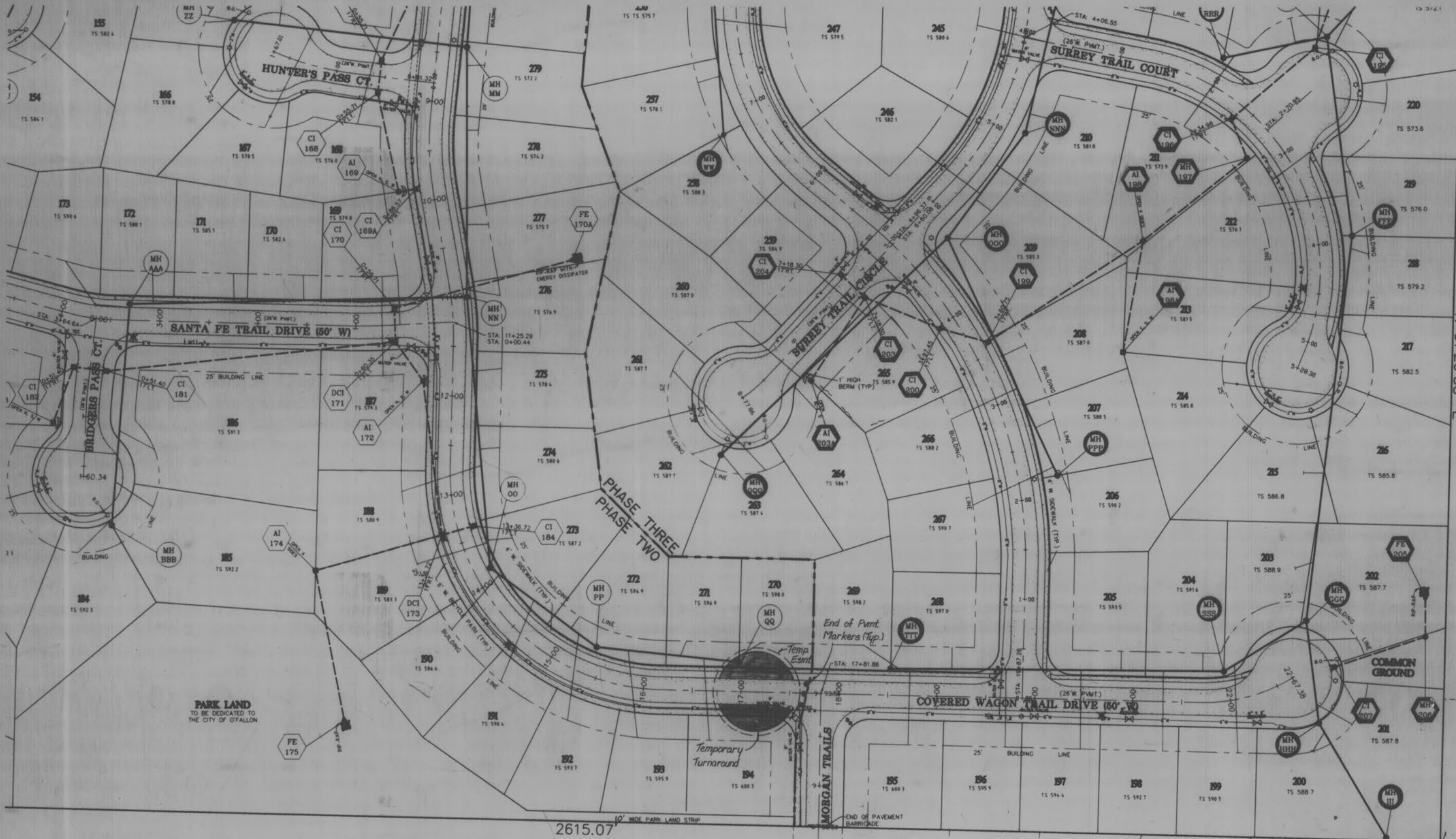
Phase III
 "As-Built"

SEE SHEET 5 OF 36

GRAPHIC SCALE



SEE SHEET 4 OF 36



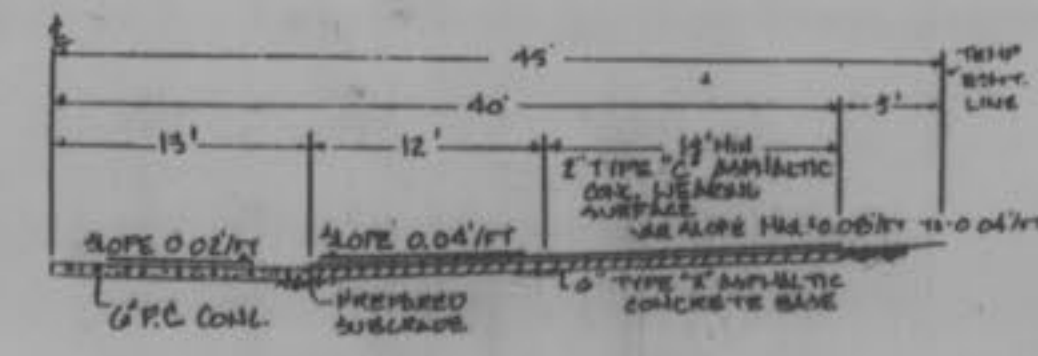
FORT ZUMWALT
 SCHOOL DISTRICT
 GR. 802, PG. 668

N 01°20'38" E

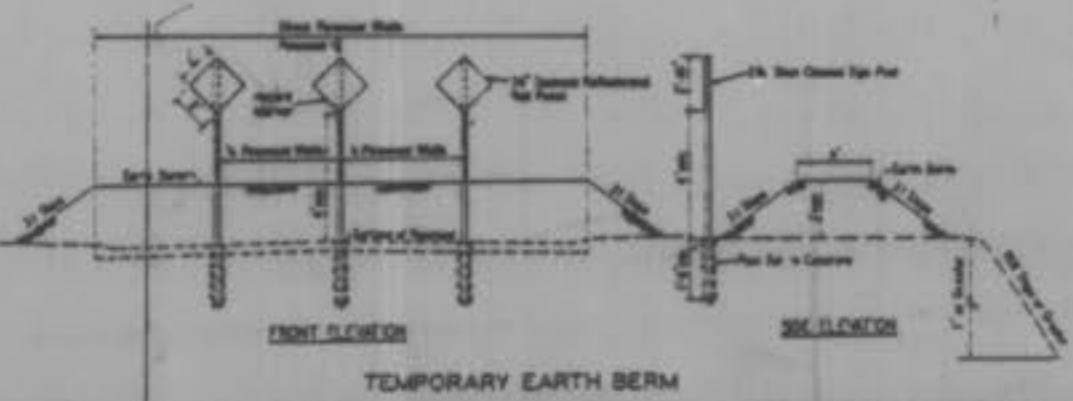
N 87°
 MICHAEL BEZOTTO
 GR. 814, PG. 301

PARK LAND
 TO BE DEDICATED TO
 THE CITY OF OFALLON

2615.07



TEMPORARY TURNAROUND
 1/2 SECTION A-A



TEMPORARY EARTH BERM

PROPOSED
 CALAMET RANCH

PHASE III

Phase III
"As-Built"

SANITARY TRUNK SEWER - CALUMET
RANCH WEST PORTION - SANITARY
SEWER PROFILES
ORDER NO. 94495
DATE: AUGUST 23, 1995

SCALE: HORIZONTAL: 1"=50'
VERTICAL: 1"=10'

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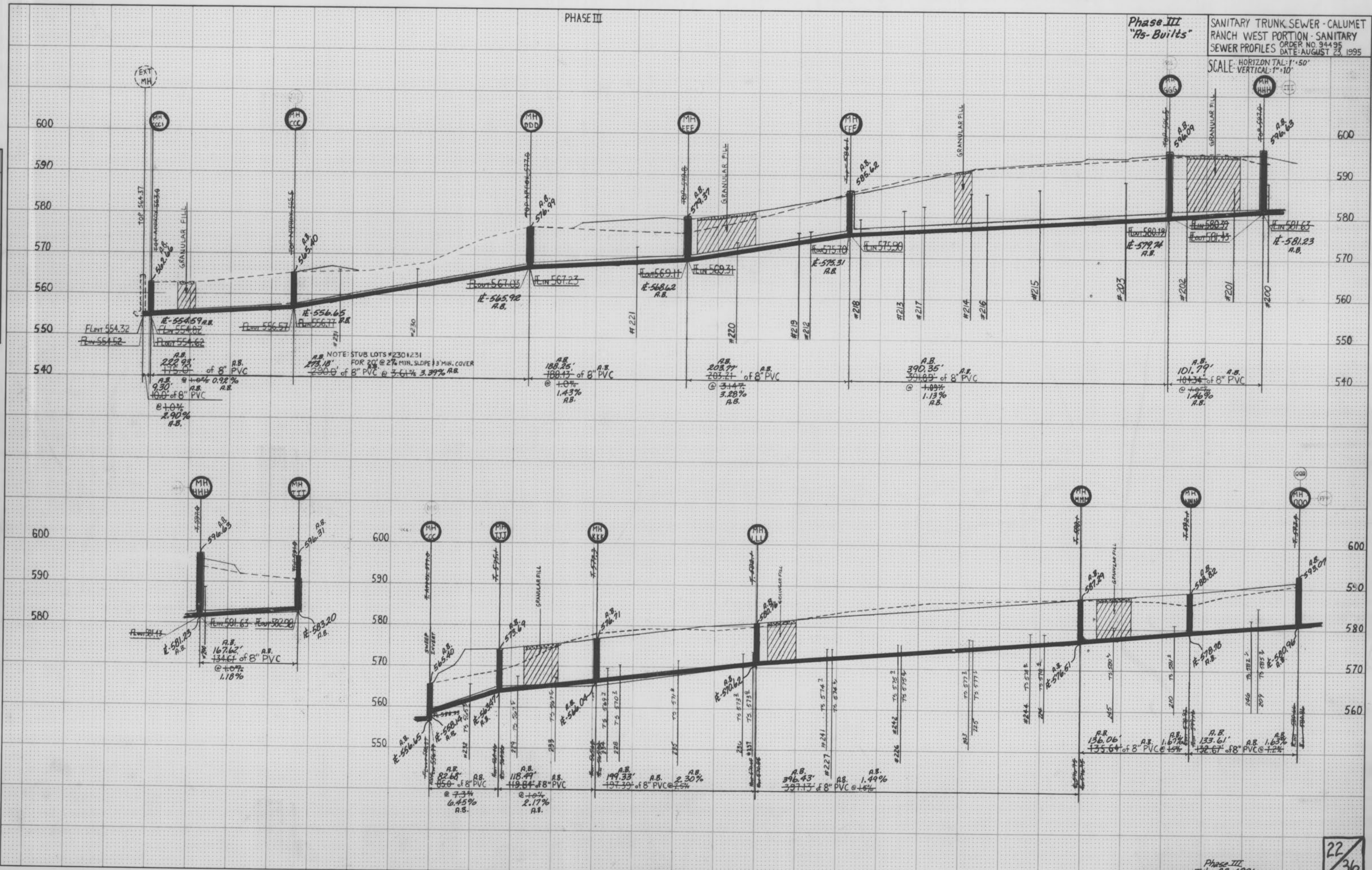


PLATE 3-FULL CROSS SECTION-FULL DOT
NATIONAL FORESTRY
PRINTED IN U.S.A.

Phase III
JULY 23, 1996
SANITARY & STORM AS-BUILTS
(AS SHOWN ON PROFILES)

22
36

2 of 4

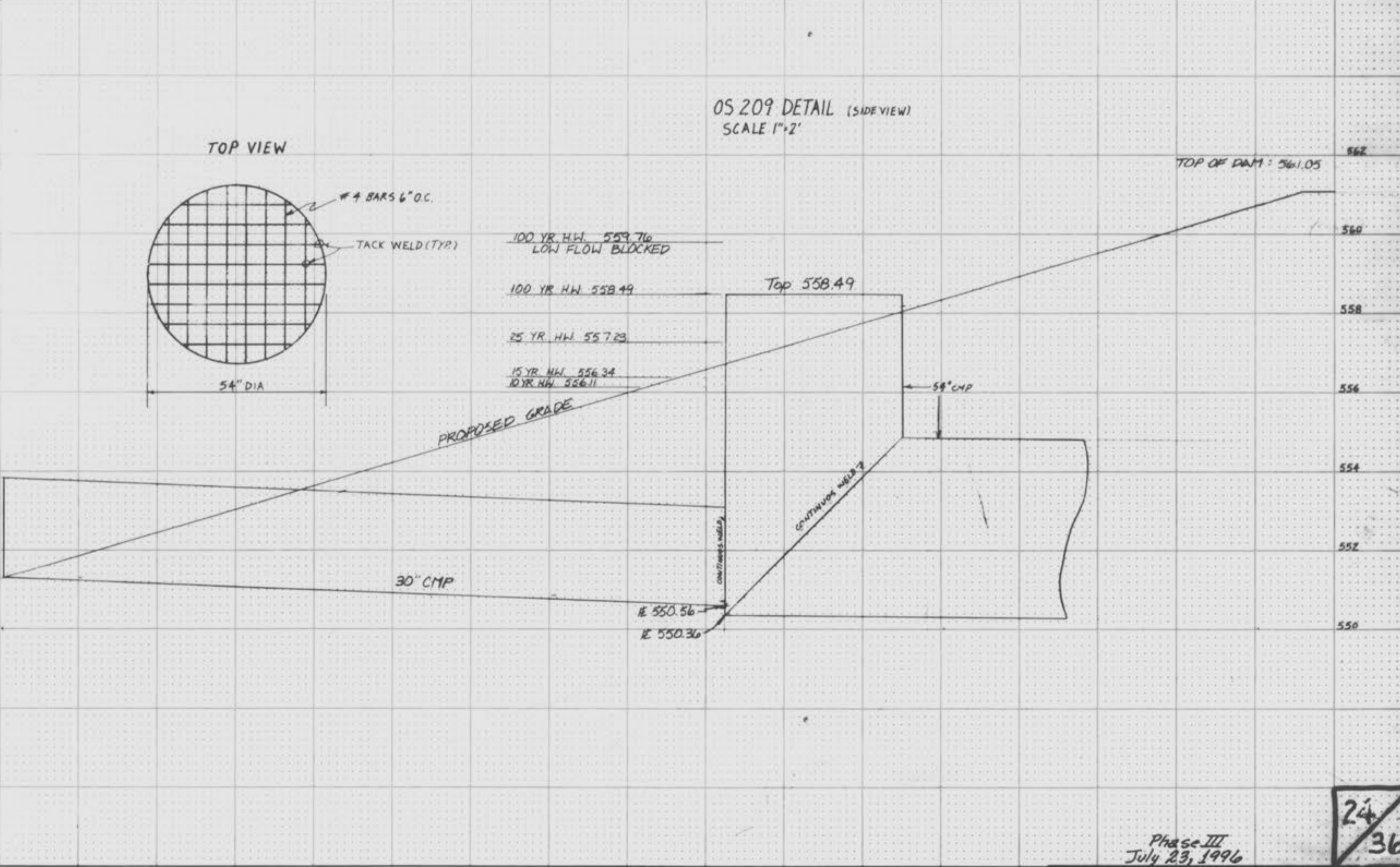
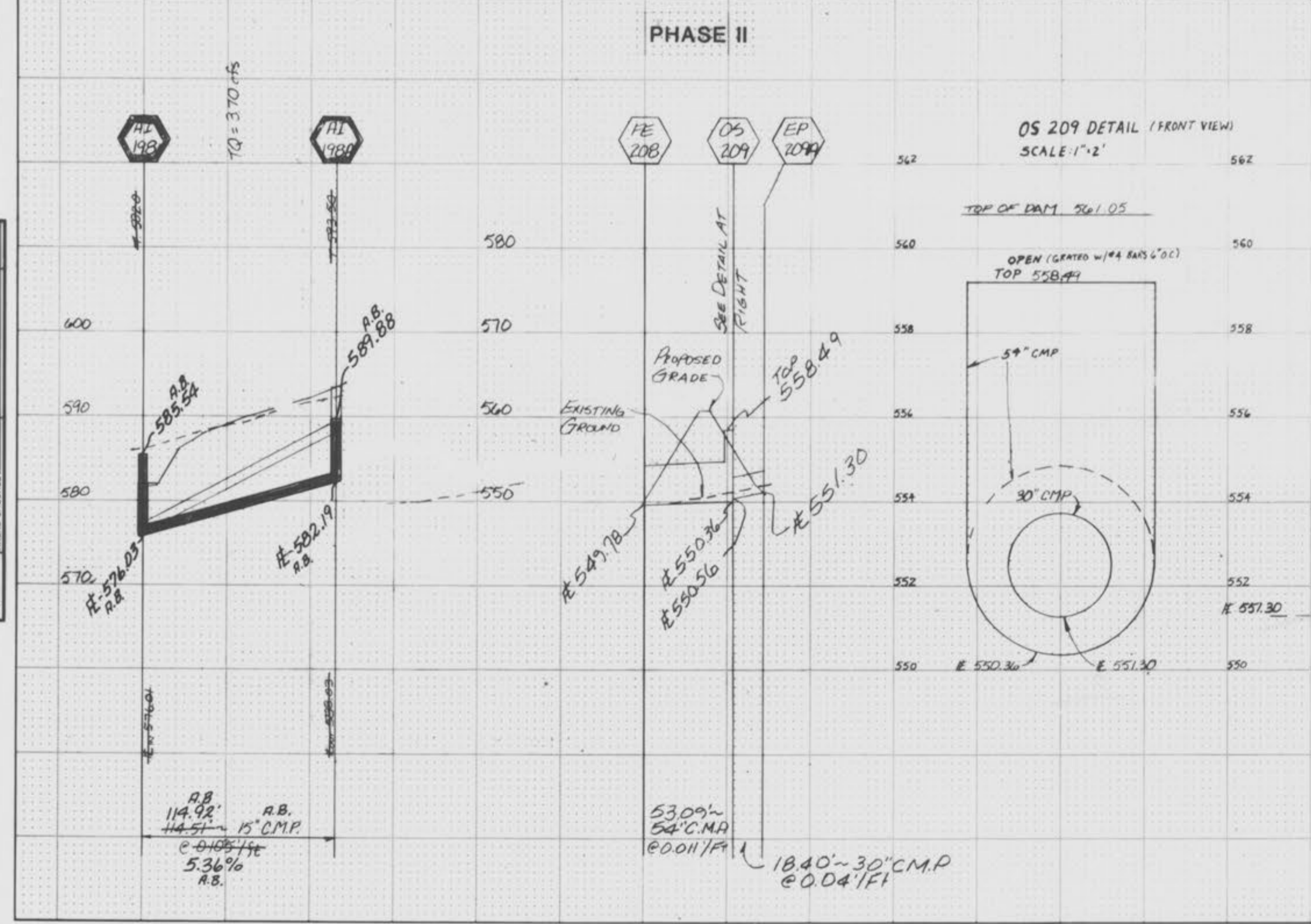
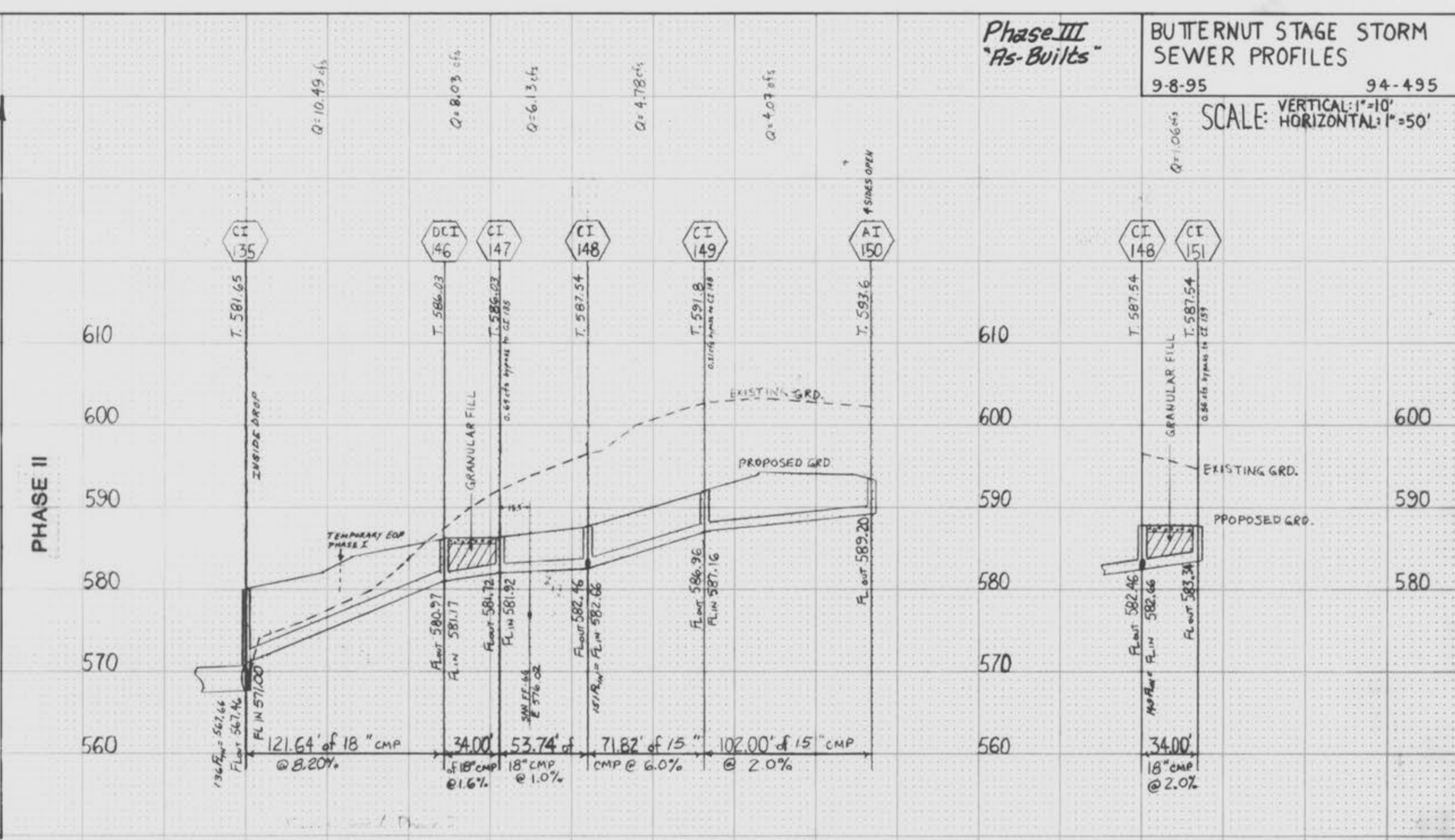
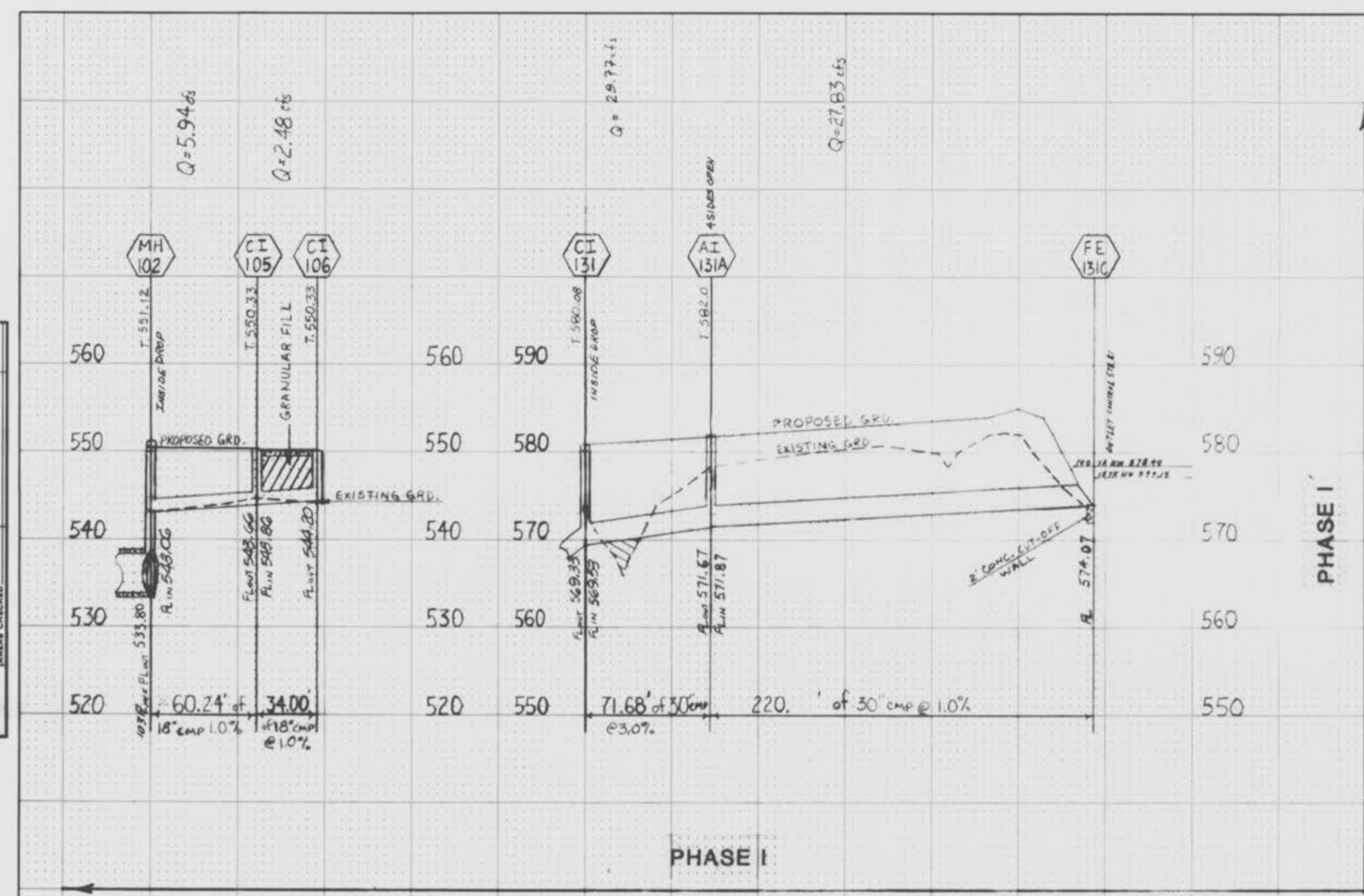
Huntington Downs 5/8
AS-BUILTS

FINAL SURVEY
NO. 10644

REVISIONS:
BY DATE
REASON

ORIGINAL SURVEY
NO. 10644

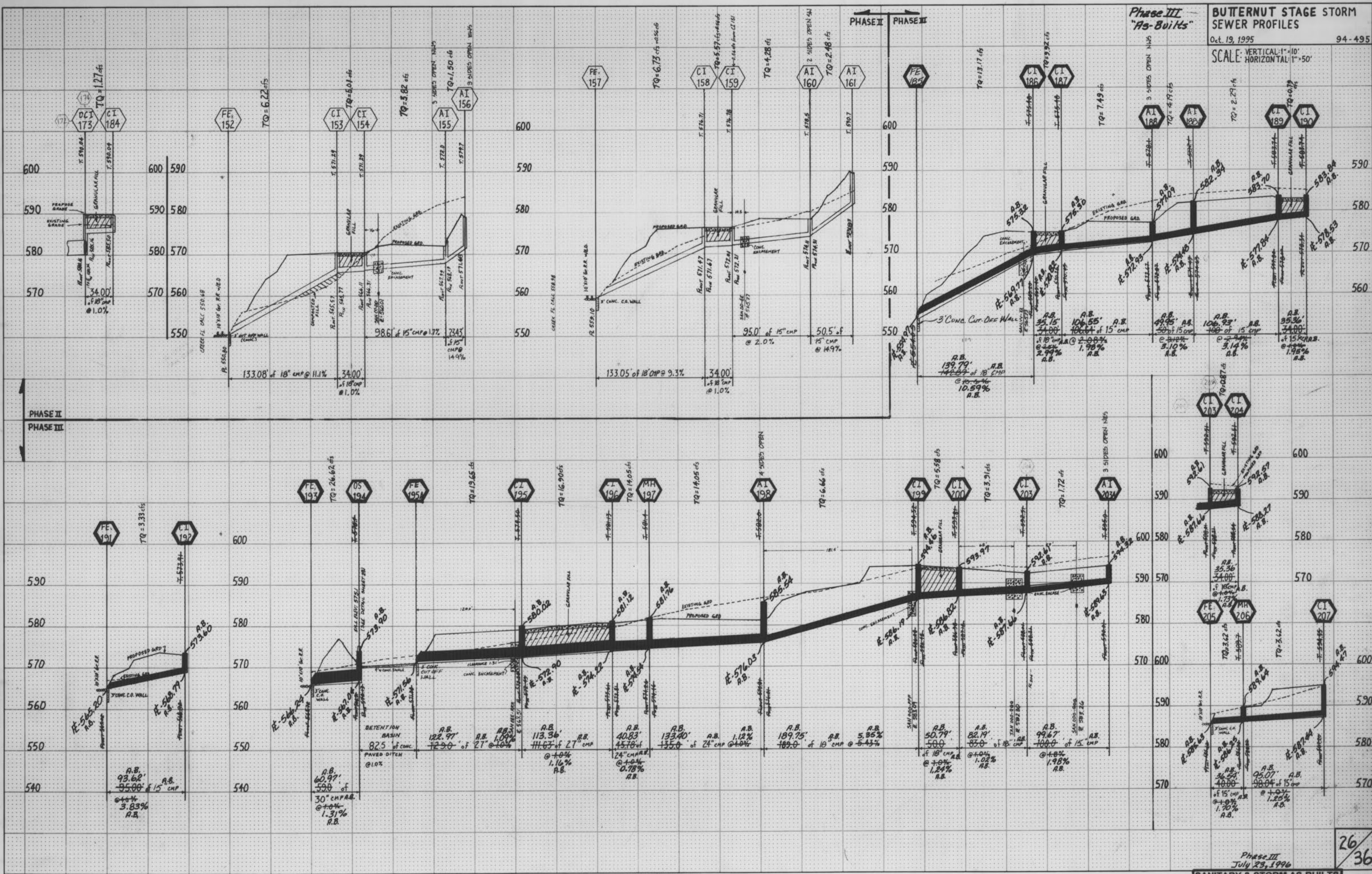
REVISIONS:
BY DATE
REASON



Huntington Down
AS-BUILTS 7/96

DATE	
BY	
FINAL SURVEY	
APPROVED	
NOTE BOOK	
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AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
APPROVED	
NOTE BOOK	
NO.	
AREAS CHECKED	



HIGHWAY FEDERAL AID SHEET
 PLATE 3-FULL CROSS SECTION-FULL DOT
 NATIONAL HIGHWAY TRUST
 PRINTED IN U.S.A.

Phase III
 July 23, 1996
SANITARY & STORM AS-BUILTS
 (AS SHOWN ON PROFILES)

26/36

Huntington Downs
 AS-BUILTS 7/96