

A SET OF AS-BUILT PLANS FOR LOT 4 OF "HANSEN INDUSTRIAL PARK"

A TRACT OF LAND BEING PART OF THE
NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF
SECTION 30, TOWNSHIP 47 NORTH, RANGE 3 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
- ALL TRENCH BACKFILLS UNDER PAVED AREAS SHALL BE GRANULAR BACKFILL, AND SHALL BE COMPACTED TO 90% OF THE MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST" (A.S.T.M. - D-1557). ALL OTHER TRENCH BACKFILLS MAY BE EARTH MATERIAL (FREE OF LARGE CLODS OR STONES). ALL TRENCH BACKFILLS SHALL BE WATER JETTED.
- NO GRADING WILL BEGIN PRIOR TO APPROVAL OF A GRADING PLAN BY THE CITY OF O'FALLON.
- ALL GRADES SHALL BE WITHIN 0.2 FEET OF THOSE SHOWN ON THE
- NO SLOPE SHALL BE STEEPER THAN 3:1. ALL SLOPES SHALL BE SODDED OR SEEDED AND MULCHED.
- ALL CONSTRUCTION AND MATERIALS USED SHALL CONFORM TO CURRENT CITY OF O'FALLON STANDARDS.
- ALL MECHANICAL EQUIPMENT TO BE SCREENED FROM PUBLIC VIEW.
- PROPOSED BUILDING WILL COMPLY WITH CURRENT AMERICAN DISABILITY ACT REQUIREMENTS.
- SEE ARCHITECTURAL DRAWING FOR ALL BUILDING DIMENSIONS, SERVICE CONNECTIONS, DETAILS, ETC.
- ALL UTILITIES SHOWN ARE EXISTING UNLESS OTHERWISE NOTED. ALL NEW UTILITIES SHALL BE LOCATED UNDERGROUND.
- ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
- THE DEVELOPER SHALL COMPLY WITH ARTICLE 26 PERFORMANCE STANDARDS.
- THE DEVELOPER SHALL CONFORM WITH THE CURRENT COMPREHENSIVE PLAN FOR THE CITY OF O'FALLON.
- ALL OUTSIDE TRASH CONTAINERS, HVAC UNITS, ELECTRIC, TELEPHONE AND GAS METERS, SATELLITE DISHES, AND ROOFTOP MECHANICAL APPARATUS SHALL BE THOROUGHLY SCREENED WITH MATERIALS AND/OR LANDSCAPING TO CONCEAL THE VISIBILITY OF SUCH ITEMS FROM THE VIEWS OF RIGHTS-OF-WAY AND/OR ADJACENT PROPERTIES AS REVIEWED AND APPROVED BY THE PLANNING DIVISION.
- ALL SIGNAGE TO BE APPROVED BY SEPERATE PERMIT.
- NO STORAGE OF CAMPER, BOATS OR RECREATIONAL VEHICLES WILL BE PERMITTED ON THIS SITE.
- RIP RAP SHOWN AT FLARED ENDS WILL BE EVALUATED IN THE FIELD AFTER INSTALLATION FOR EFFECTIVENESS AND FIELD MODIFIED AS NECESSARY TO REDUCE EROSION ON AND OFF SITE.
- CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF NORFOLK SOUTHERN'S NSCE-8 SPECIFICATIONS.

DEVELOPMENT NOTES

- Area of Tract: 12.93 Acres
- Existing Zoning: I-1 Light Industrial (City of O'Fallon)
- Number of Lots Proposed: 4 Lots
- The required height and building setbacks for I-1 are as follows:
Minimum Front Yard: 30 feet
Minimum Side Yard: 20 feet
Minimum Rear Yard: 35 feet
Maximum Height of Building: 35 feet or 3 stories
- Site is served by:
City of O'Fallon Water: 636-272-6818
AmerenUE Company: 1-800-95-ASKUE
St. Charles Gas Company: 636-946-0352
City of O'Fallon Sewer: 636-272-6818
Century Telephone Company: 636-332-7318
O'Fallon Fire Department: 636-272-3493
- According to the Flood Insurance Rate Map of the City of O'Fallon, (Community Panel number 291830 0240 E dated August 2, 1996) this property lies within zone X. Zone X is defined as an area of minimal flood hazard.

LOT 4 DEVELOPMENT NOTES

- Area of Proposed Buildings: 22,325 sq.ft.
- Proposed Use: Office/Warehouse
- Parking Required Office:
Office: 1 space per 300 s.f. exclusive of basement
6,575 s.f. / 300 = 21.91
Total Parking Required: 22 spaces
Total Parking Provided: 29 spaces (Including 2 handicap spaces)
Warehouse: 1 space per 400 + 1 per employee
15,702 s.f. / 400 = 39.25 + 5
Total Parking Required: 44 spaces
Total Parking Provided: 35 spaces (Including 2 handicap spaces)
(VARIANCE REQUIRED)
- Landscape Required:
64 (app.) x 270 = 17,280 S.F.
17,280 sq. ft. x 0.06 (%) = 1,036.80
Total Interior Landscape Required: 1,036.80 S.F.
Total Interior Landscape Provided: 3,652.87 S.F.
50.42 L.F. / 40 L.F. = 1.26 ~ 1
Total Street Trees Required: 1 Trees
Total Street Trees Provided: 2 Trees
- Site Coverage Calculations:
Building = 22,325 sq.ft. ~ 05.78%
Pavement = 100,944.56 sq.ft. ~ 26.08%
Green Space = 262,928.48 sq.ft. ~ 68.14%
- Elaine Drive to be repaired to City standards along the length of property.

U.S.G.S. BENCHMARK

SITE BENCHMARK:
CONCRETE MONUMENT 114.89 FEET SOUTH OF THE
NORTHWEST CORNER OF PIEPER PROPERTY BK.1557 PG.2026
ELEVATION (U.S.G.S.) = 603.14

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 the 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 or debris basins, silt traps or filters, stacked 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 tree grasses shall be established 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 tacked at the rate of 100 pounds per 1,000 square feet when seeded.
- 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 tacked 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.

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.

GRADING QUANTITIES:

26,523 C.Y. FILL (INCLUDES 15% SHRINKAGE)
26,523 C.Y. CUT (INCLUDES SUBGRADES)

BALANCED

THE ABOVE GRADING QUANTITY IS APPROXIMATE ONLY, NOT FOR BIDDING PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES PRIOR TO CONSTRUCTION.

O'FALLON 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 filled places under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 90% of the maximum density as determined by the "Modified AASHTO T-180 Compaction Test, or 95% of maximum density as determined by the standard Proctor Test AASHTO T-99. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. All filled places in proposed roads shall be compacted from the bottom up. All test shall be verified by a soil engineer concurrent with grading and backfilling operations. Ensure the moisture content of the soil in the fill areas is to correspond to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill. Proof rolling may be required to verify soil stability at the discretion of The City of O'Fallon.
- No area shall be cleared without the permission of the Project Engineer.
- The City of O'Fallon shall be notified 48 hours prior to construction for coordination and inspection.
- All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre-construction conditions.
- All construction and materials shall conform to the current construction standards of the City of O'Fallon.
- Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
- No slopes shall exceed 3(Horizontal) : 1(Vertical).
- The Contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The Contractor shall use whatever means necessary to control erosion and siltation including, but not limited to, stacked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MDDOT. The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MDDOT may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of silts or mud on new or existing pavement or in new or existing storm sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MDDOT.
- Erosion control systems shall not be limited to what is shown on the plan. Whatever means necessary shall be taken to prevent siltation and erosion from entering natural streams and adjacent roadways, properties and ditches.
- All building mounted lights shall be pointed downward and fully screened to prevent light from spilling over onto adjacent properties.
- All ground and roof hvac mechanical units to be screened from view.
- The Developer must supply City Construction Inspectors with soil reports prior to or during site soil testing.
- All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- All sidewalks, curb ramps, ramps 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 contractor prior to any construction shall notify the Project Engineer. Ensure at least one 8' wide handicap access aisle is provided and curb ramps do not project into handicap access aisles.
- Brick shall not be used in the construction of storm or sanitary sewer structures.
- The Contractor shall ensure all storm and sanitary sewer joint shall be gasketed O-Ring Type.
- Lighting values will be reviewed on the site prior to the final occupancy inspection. Corrections will need to be made if not in compliance with City standards.
- All proposed fencing requires a separate permit through the Planning Division.
- All sign locations and sizes must be approved separately through the Planning Division.
- All sign post and backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG and Carboline 133 HB paint (or equivalent as approved by the City of O'Fallon and MoDOT). Sign designating street names shall be on the opposite side of the street from traffic control signs.
- All new utility line shall be located underground.
- All erosion control systems shall be inspected and necessary corrections shall be made within 24 hours of any rainstorm resulting in one-half inch of rain or more.
- All graded areas that are to remain bare for over 2 weeks shall be seeded and mulched per DNR requirements.
- Prior to Construction Site Plan approval, a photometric lighting plan in accordance with the city of O'Fallon's Exterior Lighting Standards shall be submitted for review and approval for all proposed exterior lighting.

GRADING NOTES:

- A Geotechnical Engineer shall be employed by the owner and be on site during grading operations. All soils tests shall be verified by the Geotechnical Engineer concurrent with the grading and back filling operations.
- The grading contractor shall perform a complete grading and compaction operation as shown on the plans, stated in these notes, or reasonably implied there from, all in accordance with the plans and notes as interpreted by the Geotechnical Engineer.
- The Contractor shall notify the Soils Engineer at least two days in advance of the start of the grading operation.
- All areas shall be allowed to drain. All low points shall be provided with temporary ditches.
- A sediment control plan that includes monitored and maintained sediment control basins and/or straw bales should be implemented as soon as possible. No graded area is to be allowed to remain bare over the winter without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage system.
- Any existing trash and debris currently on this property must be removed and disposed of off-site.
- Soft soil 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 right-of-way locations or on storm sewer locations.
- Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The unsuitable material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly disc'd prior to the placement of any fill. The Soils Engineer shall approve the discing operation.
- Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory roller, or high speed impact type drum rollers acceptable to the Soils Engineer. The roller shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
- The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals.
- The Soils Engineer shall notify the Contractor of rejection of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.
- All areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted in accordance with the specifications given below. Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches, cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be loosely placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.
- The surface of the fill shall be finished so that it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.
- All siltation control devices shall be inspected by the contractor after any rain of 1/2" or more with any appreciable accumulation of mud to be removed and siltation measures repaired where necessary.
- No slope shall be steeper than 3(Horizontal):1(Vertical). All slopes shall be sodded or seeded and mulched.
- Any contaminated soil encountered during excavation shall be hauled and placed as directed by the owners environmental engineering representative.

SHEET INDEX

SHEET 1	COVER SHEET
SHEET 2	SITE PLAN
SHEET 3	STORM PROFILES
SHEET 4	SANITARY 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:

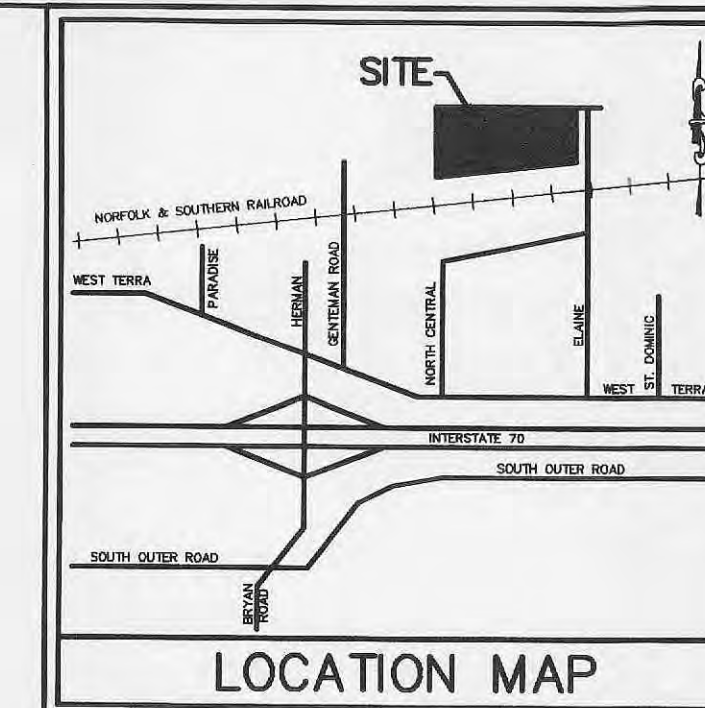
SIGNED: _____
P.E./L.S. _____
DATE _____



CALL BEFORE
YOU DIG!
1-800-DIG-RITE

AS-BUILT ADDED DECEMBER 2005

RAILROAD ACTIVITY #1074584



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	⊗
ROAD SIGN	—T—
TELEPHONE PEDESTAL	—TEL PED—
FENCE	—X—

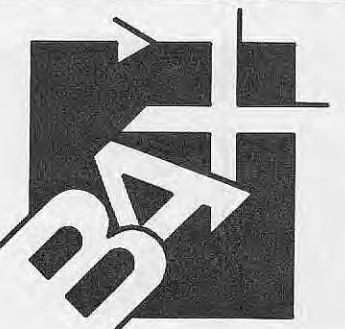
DECLARATION OF RESPONSIBILITY
I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for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

FEB 23 2006

ENGINEERING DEPARTMENT

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REVISIONS



ENGINEERING
PLANNING
SURVEYING

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

12-05-2005

DATE

95-6743AB

PROJECT NUMBER

1 OF 4

SHEET OF

6743ABASB.DWG

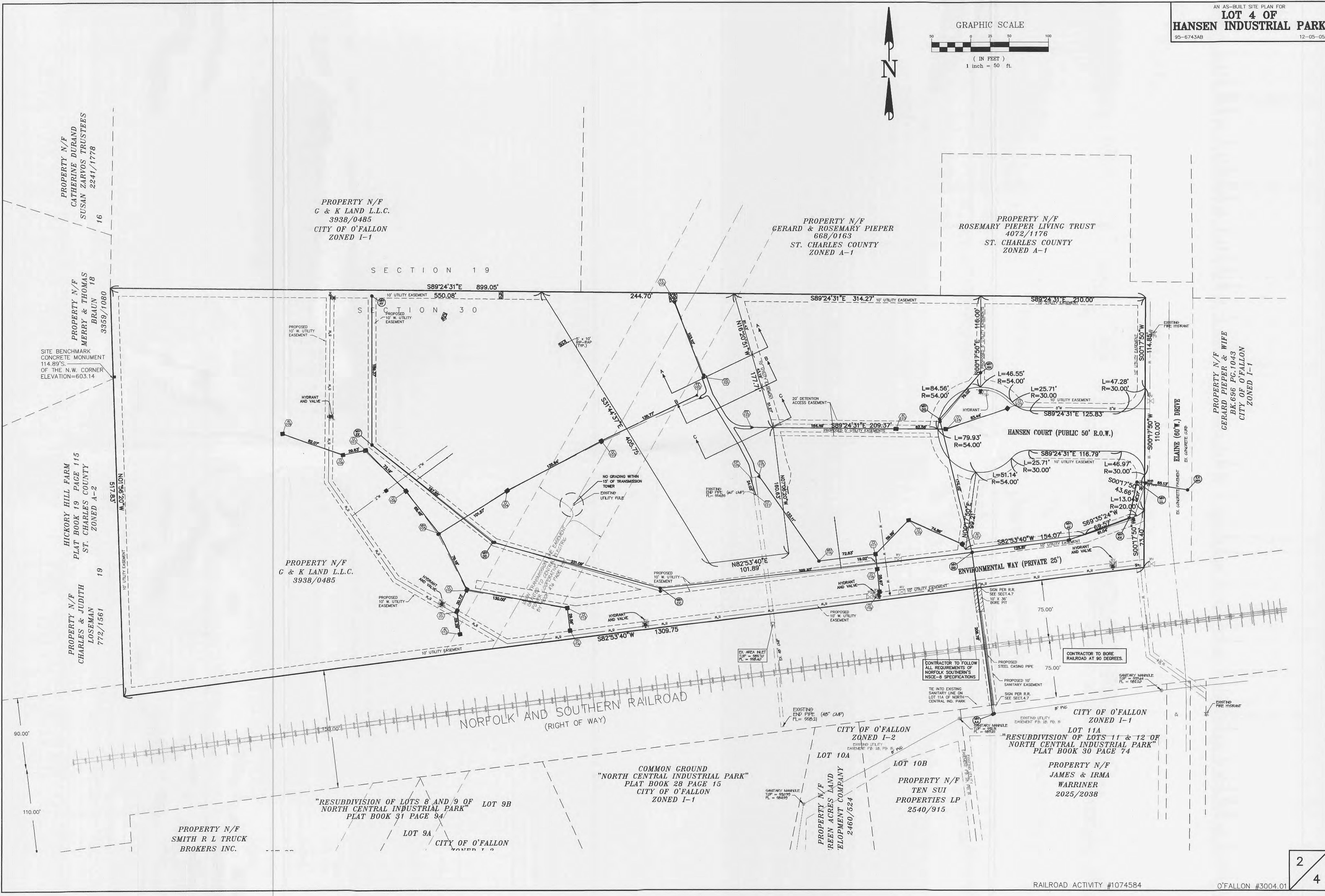
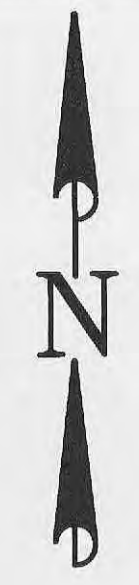
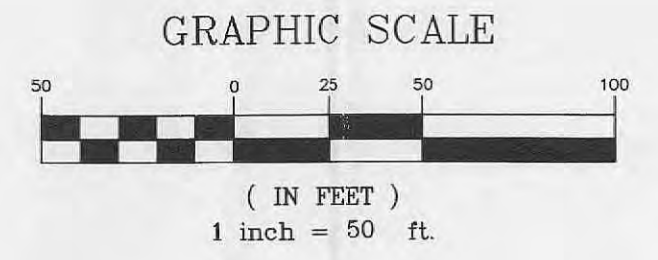
FILE NAME

BGC

DRAWN

DESIGNED CHECKED

O'FALLON #3004.01



PROPERTY N/F
 CATHERINE DURAND
 SUSAN ZARVOS TRUSTEES
 2241/1778
 16

PROPERTY N/F
 C & K LAND L.L.C.
 3938/0485
 CITY OF O'FALLON
 ZONED I-1

PROPERTY N/F
 GERARD & ROSEMARY PIEPER
 668/0163
 ST. CHARLES COUNTY
 ZONED A-1

PROPERTY N/F
 ROSEMARY PIEPER LIVING TRUST
 4072/1176
 ST. CHARLES COUNTY
 ZONED A-1

PROPERTY N/F
 MERRY & THOMAS
 BRAUN 18
 3359/1080

SITE BENCHMARK
 CONCRETE MONUMENT
 114.89'S
 OF THE N.W. CORNER
 ELEVATION=603.14

HICKORY HILL FARM
 PLAT BOOK 19 PAGE 115
 ST. CHARLES COUNTY
 ZONED A-2
 19

PROPERTY N/F
 CHARLES & JUDITH
 LOSEMAN
 772/1561

PROPERTY N/F
 C & K LAND L.L.C.
 3938/0485

PROPERTY N/F
 GERARD PIEPER & WIFE
 BK 696 PG. 1043
 CITY OF O'FALLON
 ZONED I-1

NORFOLK AND SOUTHERN RAILROAD
 (RIGHT OF WAY)

COMMON GROUND
 "NORTH CENTRAL INDUSTRIAL PARK"
 PLAT BOOK 28 PAGE 15
 CITY OF O'FALLON
 ZONED I-1

"RESUBDIVISION OF LOTS 8 AND 9 OF
 NORTH CENTRAL INDUSTRIAL PARK"
 PLAT BOOK 31 PAGE 94

PROPERTY N/F
 SMITH R L TRUCK
 BROKERS INC.

CITY OF O'FALLON
 ZONED I-2

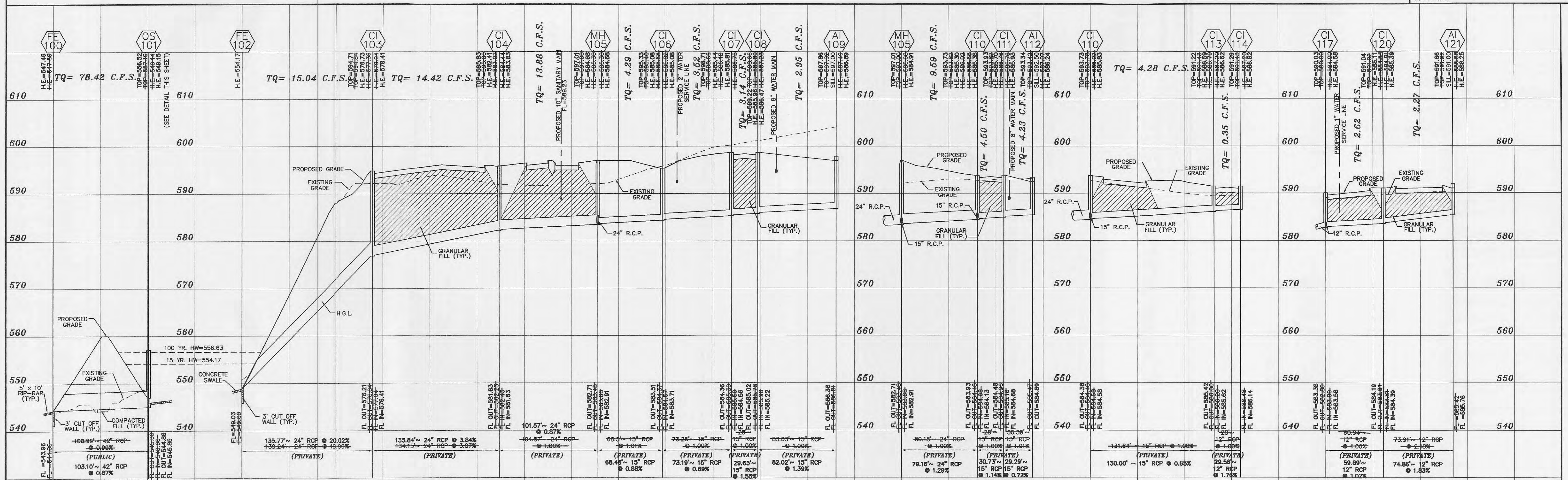
LOT 10A

LOT 10B

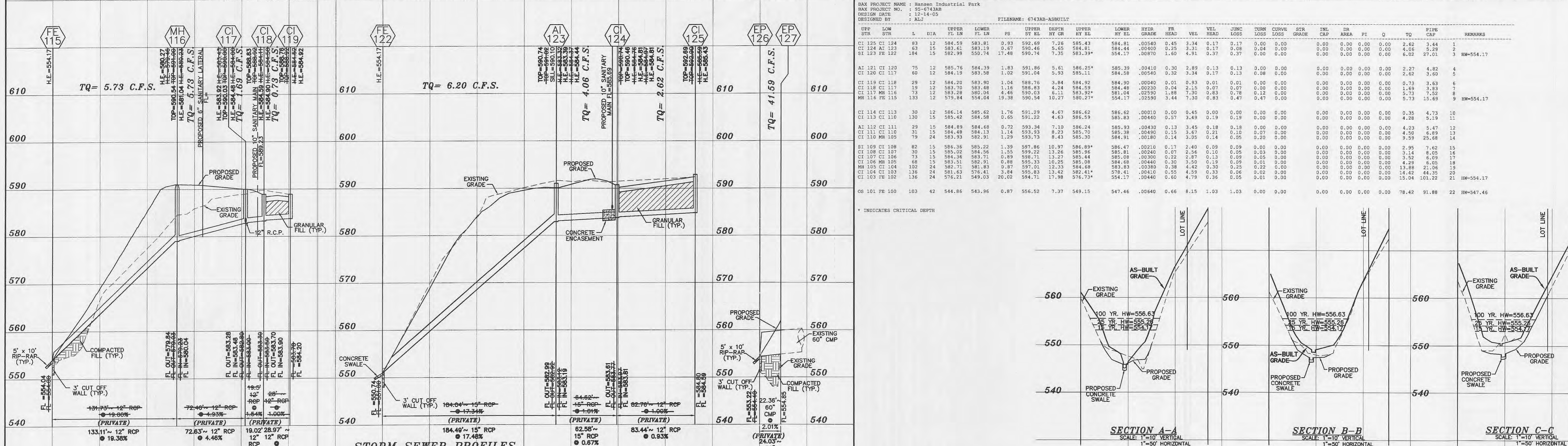
PROPERTY N/F
 TEN SUI
 PROPERTIES LP
 2540/915

CITY OF O'FALLON
 ZONED I-1
 LOT 11A
 "RESUBDIVISION OF LOTS 11 & 12 OF
 NORTH CENTRAL INDUSTRIAL PARK"
 PLAT BOOK 30 PAGE 74

PROPERTY N/F
 JAMES & IRMA
 WARRINER
 2025/2038



STORM SEWER PROFILES
 VERTICAL SCALE: 1" = 10'
 HORIZONTAL SCALE: 1" = 50'



BAX PROJECT NAME: Hansen Industrial Park
 BAX PROJECT NO.: 95-6743AB
 DESIGN DATE: 12-14-05
 DESIGNED BY: ALJ

FILENAME: 6743AB-ASBUILT

STN	STR	L	DIA	UPPER	LOWER	PS	UPPER	DEPTH	UPPER	LOWER	HYDR	FR	VEL	HEAD	LOSS	TURN	CURVE	STR	INCL	DR	PI	Q	TQ	R1PE	REMARKS
CI 121	CI 120	75	12	585.76	584.39	1.83	591.86	5.61	586.25*	584.81	0.0540	0.30	2.89	0.13	0.13	0.00	0.00	0.00	0.00	0.00	0.00	2.27	4.82	4	
CI 120	CI 117	60	12	584.19	583.58	1.02	591.04	5.93	585.11*	584.58	0.0540	0.32	3.34	0.17	0.13	0.00	0.00	0.00	0.00	0.00	0.00	2.62	3.60	5	
CI 119	CI 118	29	12	584.20	583.90	1.04	588.76	3.84	584.92	584.90	0.0040	0.01	0.93	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.73	3.63	6	
CI 118	CI 117	19	12	583.70	583.48	1.16	588.83	4.24	584.59	584.48	0.0230	0.04	2.15	0.07	0.07	0.00	0.00	0.00	0.00	0.00	0.00	1.69	3.83	7	
CI 117	MH 116	73	12	583.28	580.04	4.46	590.03	6.11	583.92*	581.04	0.0250	1.89	7.30	0.83	0.78	0.12	0.00	0.00	0.00	0.00	0.00	5.73	7.32	8	
MH 116	FE 115	133	12	579.84	554.04	19.38	590.54	10.27	580.27*	554.17	0.0250	3.44	7.30	0.83	0.47	0.47	0.00	0.00	0.00	0.00	0.00	5.73	15.69	9	HW=554.17

