

U-GAS STL, INC
 895 BOLGER CT
 FENTON, MO 63026
 (636) 343-9770

Project Name: Phillips 66 O'Fallon

This is to certify that we have, during the Month of January 2006, measured the lengths, size and verified the top and flow elevations of the Storm and Sanitary sewers in place as of the date shown herein.

By: The Clayton Engineering Company
 Ashley M. Hoover, Mo. Reg. L.S. #2188
 G. Hogbin, Deputy

Project Benchmark: Top Iron Pipe with cap 320-D at northeast corner of QuikTrip property, Elevation = 624.15' (adopted from Survey by Clayton Engineering Company).



LOCATION MAP

WUNNENBERG'S 2004
 ST. CHARLES COUNTY STREET GUIDE
 PG 45, UU-16

SITE CONSTRUCTION PLANS

PHILLIPS 66
 879 BRYAN ROAD
 O'FALLON, MO 63366

AS-BUILT
 DRAWINGS

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PROPERTY OWNER & DEVELOPER:

U-GAS STL, INC.
 895 BADGER CT.
 FENTON, MO. 63026

MODOT
 314-340-4100
 *FIBER OPTICS MAY
 BE PRESENT

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 MISSOURI ONE-CALL SYSTEM INC.

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The signed and sealed original of this drawing is on file at the offices of The Clayton Engineering Company, Inc. The signed and sealed original is the official document and shall take precedence over any digital version.

3	01-05-06	SLH	AS-BUILTS
2	06-16-05	SLH	REVISED PER CITY OF O'FALLON & MODOT COMMENTS
1	05-02-05	SLH	REVISED PER CITY OF O'FALLON COMMENTS

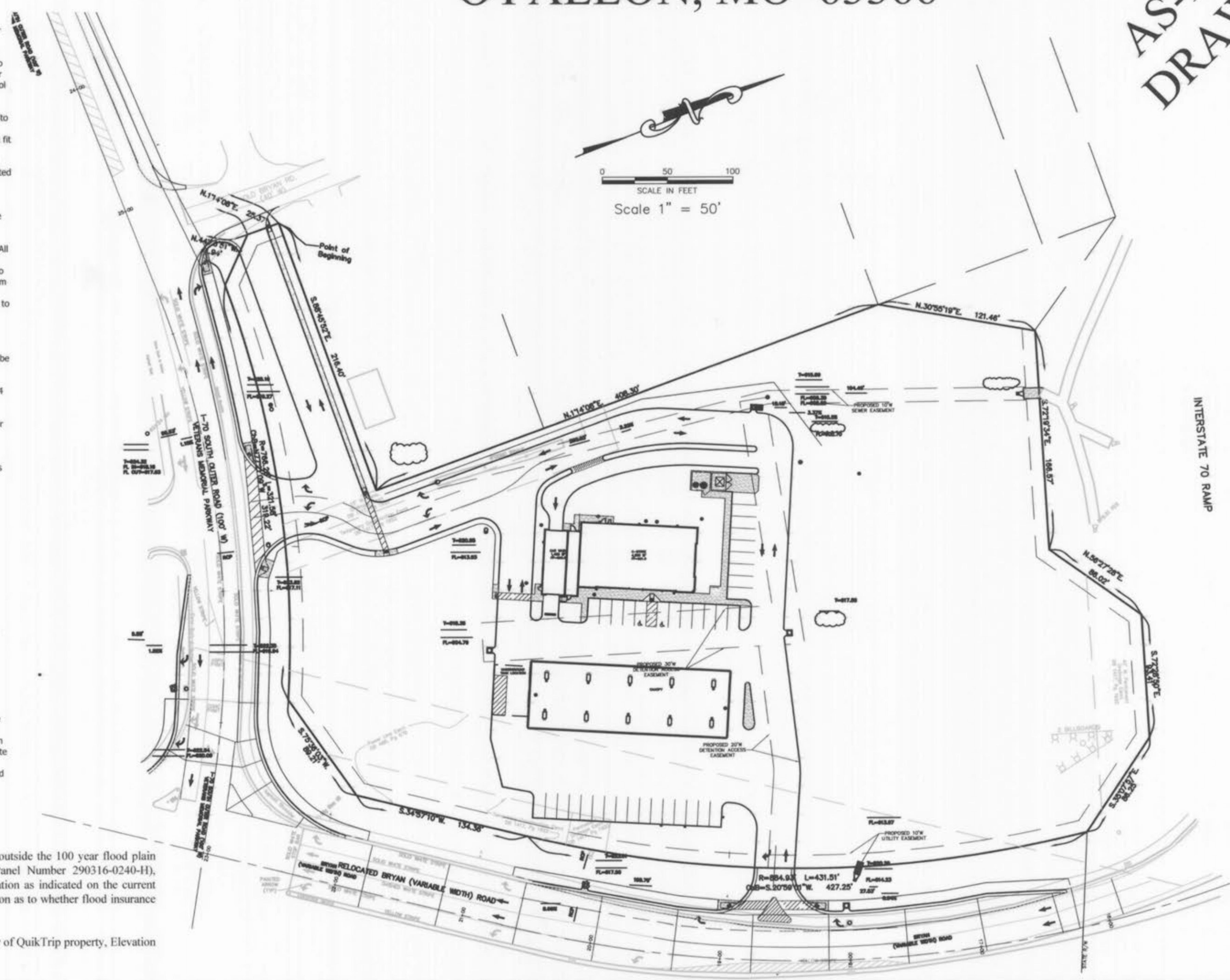
REVISIONS

the
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Designed	SWQ	Project Number	04221
Drawn	SLH	Sheet Number	
Checked	MJV		
Date	01/27/05		

1 of 13



- ABBREVIATIONS**
- AI - Area Inlet
 - B/B - Back to Back
 - CB - Catch Basin
 - C - Curb Inlet
 - CMP - Corrugated Metal Pipe
 - CTV - Cable Television
 - ChB - Chord Bearing
 - Conc - Concrete
 - DB - Dead Book
 - DCB - Double Catch Basin
 - DFL(N) - Drop FL from North
 - DIP - Ductile Iron Pipe
 - E - Electric
 - F/F - Face to Face
 - FES - Flared End Section
 - FF - Finish Floor
 - GI - Grate Inlet
 - Gr MH - Grate Manhole
 - L - Length of Curve
 - MH - Manhole
 - N/F - Now or Formerly
 - OHE - Overhead Electric
 - OHE&T - Overhead Electric & Telephone
 - PB - Plot Book
 - PL - Property Line
 - PVC - Polyvinyl Chloride Pipe
 - R - Radius
 - R/W - Right of Way
 - RCP - Reinforced Concrete Pipe
 - TBR - To Be Removed
 - TBR&R - To Be Removed & Replaced
 - TBRel - To Be Relocated
 - Typ - Typical
 - UGE - Underground Electric
 - UGFO - Underground Fiber Optic
 - UGT - Underground Telephone
 - UIP - Use in Place / Use in Place
 - VCP - Vitrified Clay Pipe
 - W - Water Service
- LEGEND**
- Area Light (w/ 120V Recept.)
 - Connection (Proposed)
 - Fire Hydrant
 - Concrete
 - Doorway Entrance
 - Drainage Flow
 - Swale
 - Water Meter Or Valve
 - Gas Meter Or Valve
 - Utility Pole w/ Guy Wires
 - Handicap Parking Space
 - Direction Of Traffic
- Existing** **Proposed**
- 500 - Contour (495)
 - 500.00 - Spot Elevation (380) or (500)
 - Sanitary Sewer
 - Storm Sewer
 - Utility Service (E, T, G, etc.)

Notes

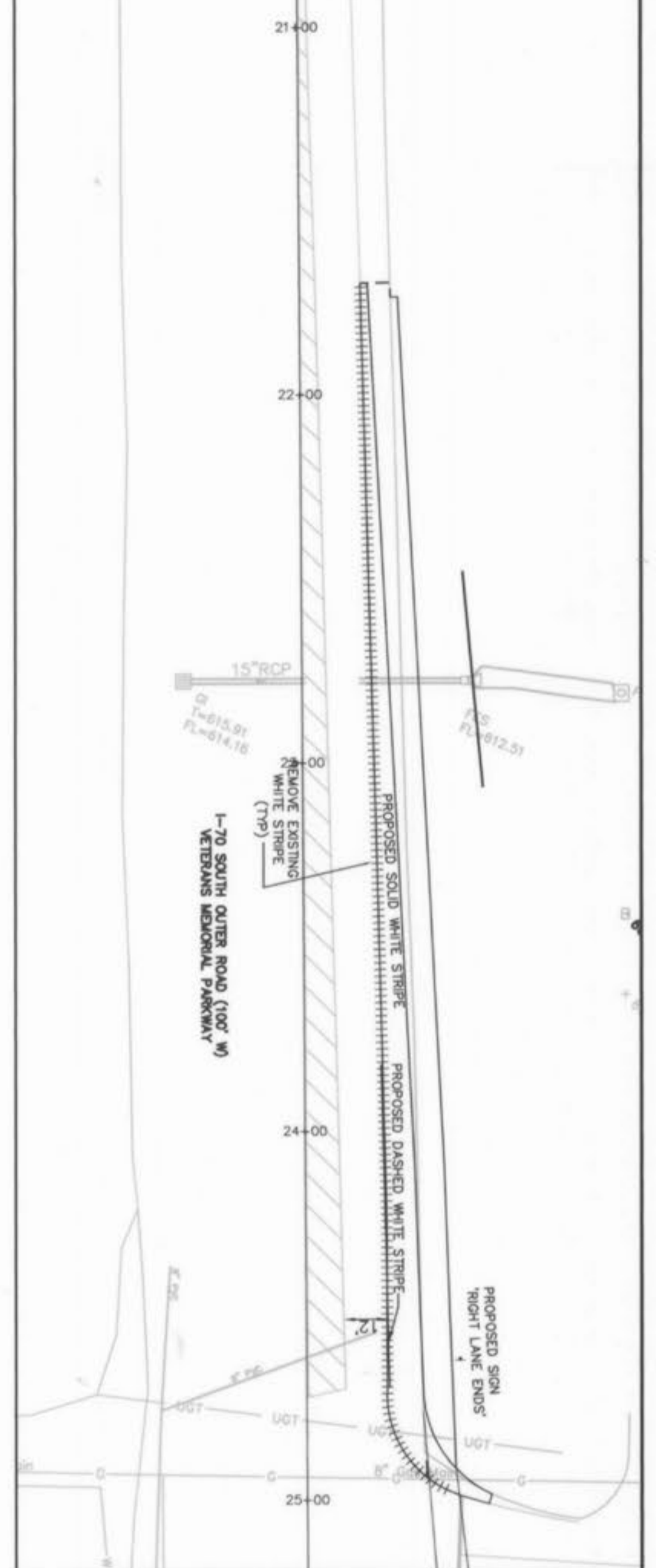
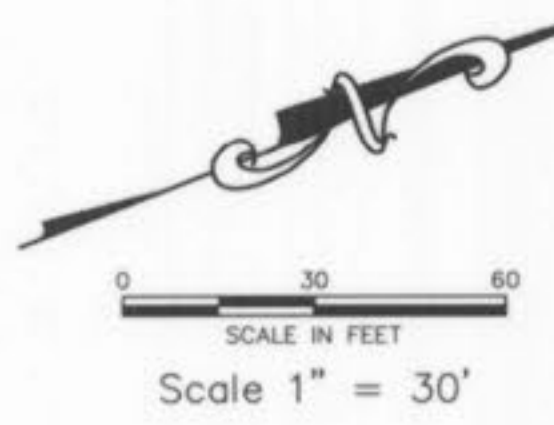
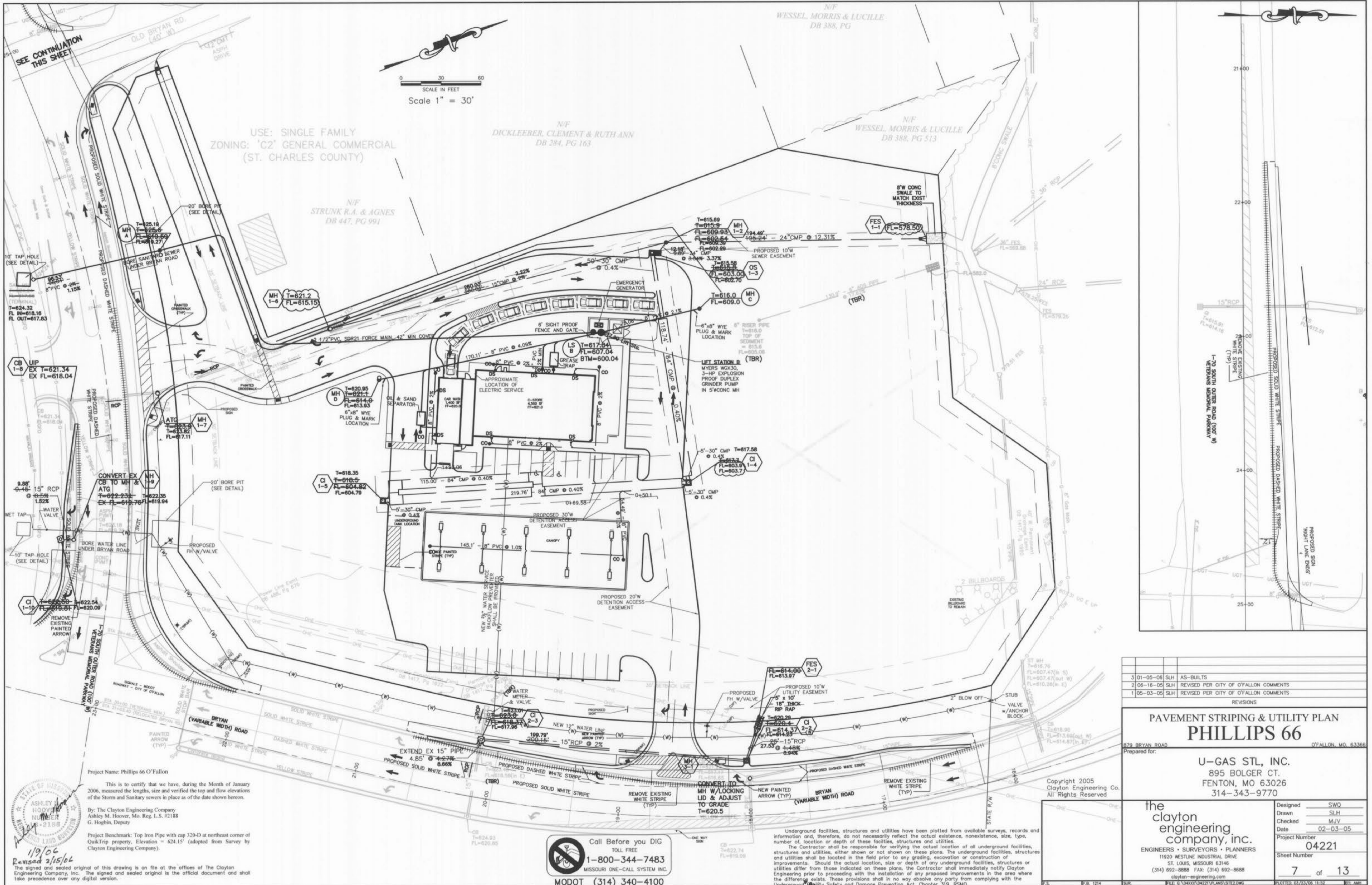
1. The Developer must supply City construction inspectors with soil reports prior to or during site soil testing.
2. The Contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The Contractor shall use whatever means necessary to control erosion and siltation including, but not limited to, staked 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 MoDOT. 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 MoDOT may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of silt or mud on new or existing pavement shall be removed immediately. Any depositing of silts or mud 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 MoDOT.
3. All fill placed under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 90% of maximum density as determined by the Modified AASHTO T-198 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99.
4. All fill placed in proposed roads shall be compacted from the bottom of the fill up. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. Note that the moisture content of the soil in 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.
5. No slopes shall be steeper than 3 (horizontal) to 1 (vertical).
6. All graded areas that are to remain bare for over 2 weeks are seeded and mulched (DNR requirement). Also, when deemed necessary, positive steps should be exercised to prevent this soil from damaging adjacent property and silting up all storm drainage systems whether on or off site.
7. All erosion control systems are inspected and necessary corrections made within 24 hours of any rainstorm resulting in one-half inch of rain or more.
8. The drainage swale locations are shown see typical swale section.
9. Provide erosion control for swales with velocities 2 to 5 cfs. It is suggested that for velocities >3cfs sodded swales be constructed.
10. Rip rap shown at flared ends will be evaluated in the field after installation for effectiveness and field modified if necessary to reduce erosion on and off site.
11. All paving to be in accordance with St. Charles County Standards and specifications except as modified by the City of O'Fallon ordinances.
12. Brick shall not be used in the construction of sanitary or storm sewer structures.
13. Joints shall be O-ring type.
14. A 5/8" trash bar shall be installed on all inlets.
15. All sanitary laterals and sanitary mains crossing under roadways must have the proper rock backfill and to required compaction.
16. Lighting values will be reviewed on site prior to the final occupancy inspection. Corrections will need to be made if not in compliance with City Standards.
17. All sign locations and sizes must be approved separately through the Planning Division. The sign locations are shown on the plans.
18. All sign post and backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer 50 and Carboline 133 HB paint (or equivalent as approved by City and MODOT). Signs designating street name shall be on the opposite side of the street from traffic control signs.
19. The City of O'Fallon shall also be contacted for utility locates under its maintenance responsibility. This may include water, sanitary storm, and traffic locates.
20. All utilities will be located underground.
21. Cutoff walls on flared end sections shall be 2' deep upstream and 3' deep downstream and flared end sections shall be reinforced concrete.
22. City water meters are to be placed in a dedicated easement or have the location approved by Alliance Water Resources prior to incorporation into the plans.
23. Full access curb cut onto Veterans Memorial Parkway will only be permitted on a temporary basis. Should a new access point to this property be possible due to the development of an adjacent parcel that fronts on Old Bryan Road, the full access onto Veterans Memorial Parkway shall be restricted to a Right-in/Right-out only. An escrow to cover this cost must be established with the City prior to Construction Site Plan approval.
24. Any damage incurred to the existing Multi-Purpose Trail along both Bryan Road and Veterans Memorial Parkway during construction shall be repaired.

By graphic plotting only, this property is in Zone "X" (an area defined as being outside the 100 year flood plain limits) of Flood Insurance Rate Map Number 29189C0316-H, (Community Panel Number 290316-0240-H), effective date: August 2, 1995. This note is for the purpose of providing information as indicated on the current Flood Insurance Rate Map for this area, and should not be construed as an indication as to whether flood insurance should, or should not be purchased.

Project Benchmark : NAVD 1929 Top Iron Pipe with cap 320-D at northeast corner of QuikTrip property, Elevation = 624.15' (adopted from Survey by Clayton Engineering Company).

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PHILLIPS 66 O'FALLON



3	01-05-06	SLH	AS-BUILTS
2	06-16-05	SLH	REVISED PER CITY OF O'FALLON COMMENTS
1	05-03-05	SLH	REVISED PER CITY OF O'FALLON COMMENTS

PAVEMENT STRIPING & UTILITY PLAN
PHILLIPS 66

879 BRYAN ROAD O'FALLON, MO. 63366

Prepared for:
U-GAS STL, INC.
 895 BOLGER CT.
 FENTON, MO 63026
 314-343-9770

Designed	SWQ
Drawn	SLH
Checked	MJV
Date	02-03-05
Project Number	04221
Sheet Number	7 of 13

Project Name: Phillips 66 O'Fallon

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By: The Clayton Engineering Company
 Ashley M. Hoover, Mo. Reg. L.S. #2188
 G. Hogbin, Deputy

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1/9/06
 Revised 2/15/06

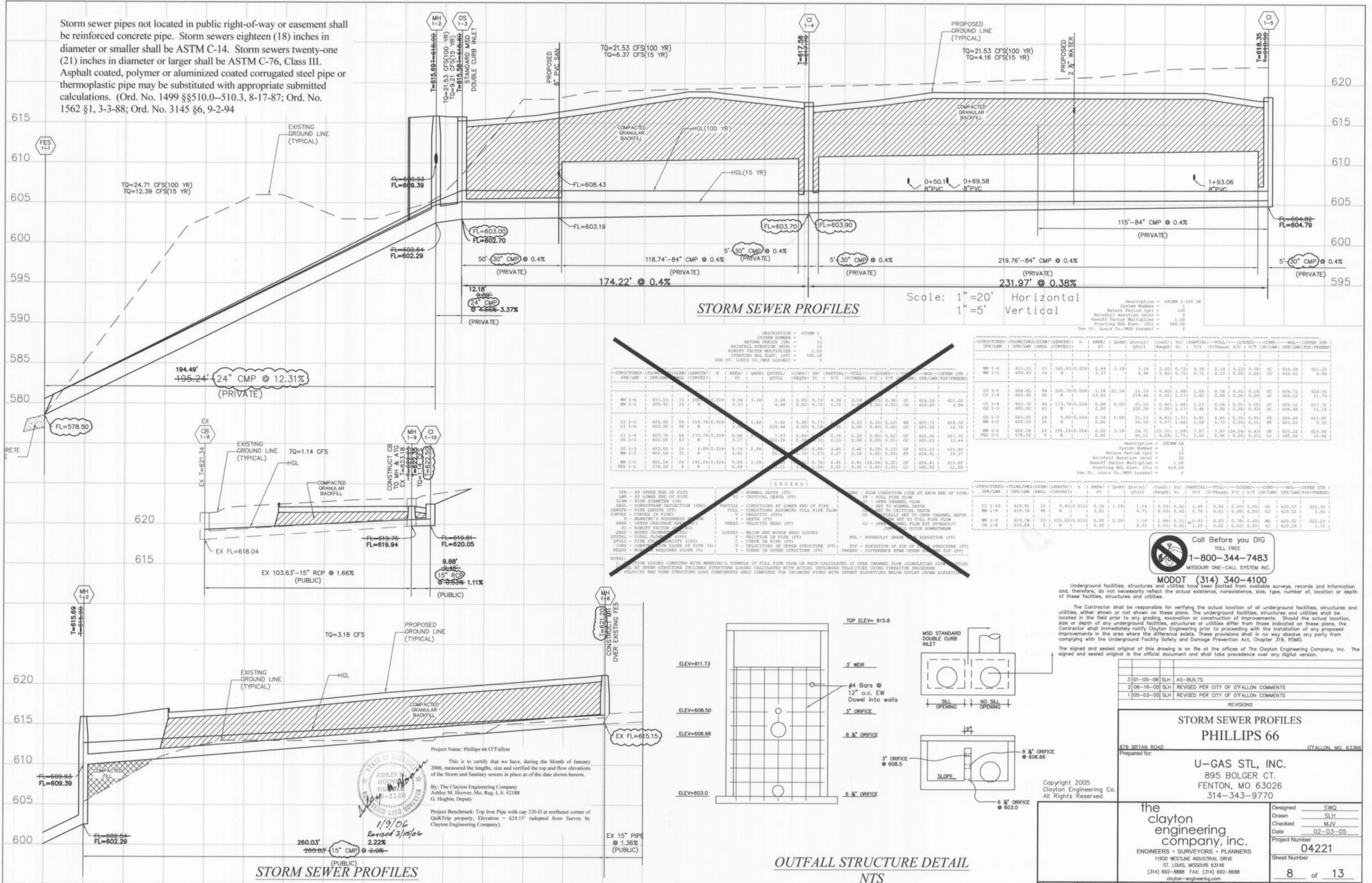
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Storm sewer pipes not located in public right-of-way or easement shall be reinforced concrete pipe. Storm sewers eighteen (18) inches in diameter or smaller shall be ASTM C-14. Storm sewers twenty-one (21) inches in diameter or larger shall be ASTM C-76, Class III. Asphalt coated, polymer or aluminized coated corrugated steel pipe or thermoplastic pipe may be substituted with appropriate submitted calculations. (Ord. No. 1499 §§510.0-510.3, 8-17-87; Ord. No. 1562 §1, 3-3-88; Ord. No. 3145 §6, 9-2-94)



DESCRIPTION = STORM 1
 SYSTEM NUMBER = 1
 RETURN PERIOD (YR) = 15
 RAINFALL DURATION (MIN) = 20
 RUNOFF FACTOR MULTIPLIER = 1.00
 STARTING HGL ELEV. (FT) = 580.00
 USE ST. LOUIS CO./MSD LOSSES? = Y

STRUCTURE	FLOWLINE	DIAM	LENGTH	N	AREA	QADD	QTOTAL	ICONS	YR	PARTIAL	FULL	LOSSES	COND	HGL	UPPER STR
UPP/LMB	UPP/LMB	ANGUL	CORVETS	FE	FE	QFULL	QFULL	INCHES	FE	V/F	V/F	FE	FE	UPP/LMB	UPP/LMB
MH 1-6	615.15	15	240.83	0.024	0.94	3.18	3.18	2.00	0.73	4.36	2.39	0.01	0.01	OC	616.26
MH 1-2	609.93	14	W	13.63	219.44	0.00	1.71	2.42	0.00	0.00	0.00	0.00	OC	610.65	
CI 1-5	604.82	84	229.76	0.024	1.38	21.34	21.33	0.40	1.48	1.64	0.56	0.01	0.18	OC	606.71
CI 1-4	603.90	90	W	13.63	219.44	0.00	1.71	2.42	0.00	0.00	0.00	0.00	OC	604.52	
CI 1-3	603.70	84	173.74	0.024	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	OC	604.48	
OS 1-3	603.00	24	9.89	0.024	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	FP	604.48	
MH 1-2	602.54	24	195.24	0.024	0.00	3.18	3.18	12.31	1.00	7.87	7.87	24.04	0.43	OF	605.22
PHS 1-1	578.50	0	W	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	OC	580.50

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1/9/06
 Revised 3/15/06
 2.22%

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NO.	DATE	BY	REVISIONS
3	01-05-06	SLH	AS-BUILTS
2	06-16-05	SLH	REVISED PER CITY OF OFALLON COMMENTS
1	05-03-05	SLH	REVISED PER CITY OF OFALLON COMMENTS

STORM SEWER PROFILES
PHILLIPS 66

879 BRYAN ROAD OFALLON, MO. 63366

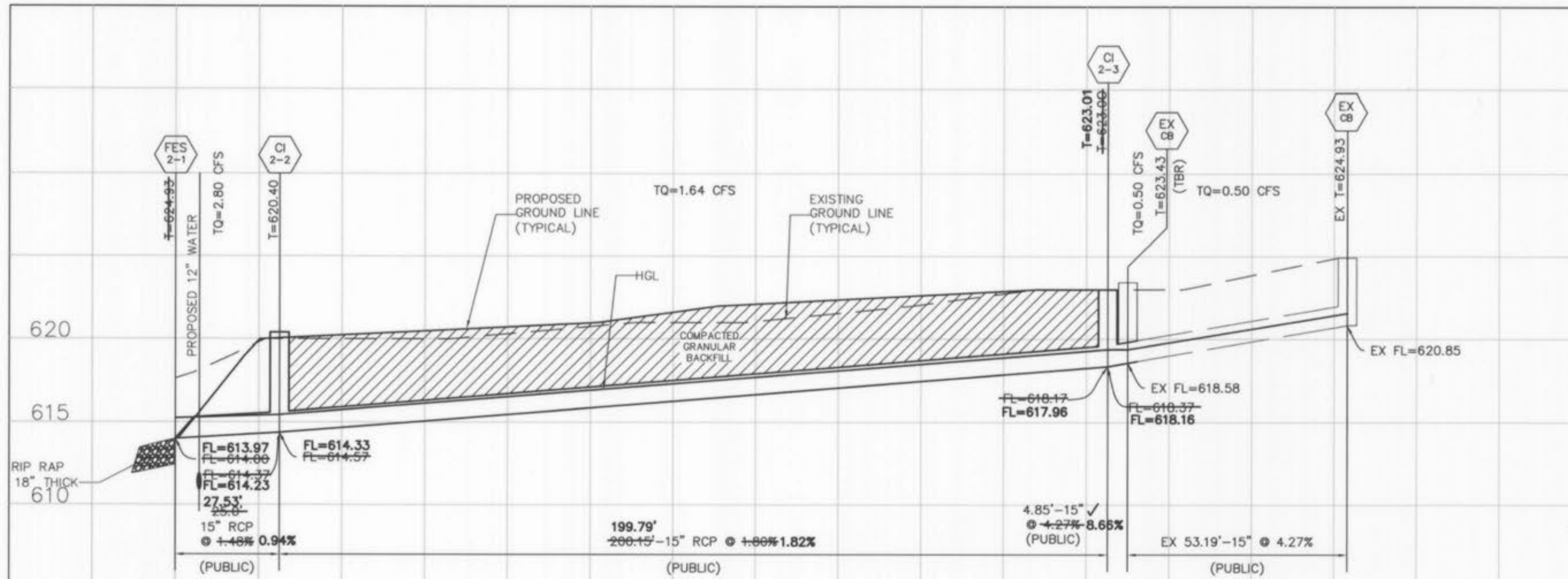
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 clayton-engineering.com

Designed by SWQ
 Drawn by SLH
 Checked by MJV
 Date 02-03-05

Project Number 04221
 Sheet Number 8 of 13



REVISIONS

NO.	DATE	BY	DESCRIPTION
1	3/13/06	AMH	Revise per city comments (3/07/06)
2	01-05-06	SLH	AS-BUILTS
3	06-16-05	SLH	REVISED PER CITY OF O'FALLON COMMENTS
4	05-03-05	SLH	REVISED PER CITY OF O'FALLON COMMENTS

LEGEND

- UPR - At upper end of pipe
- LRP - At lower end of pipe
- DIAM - Pipe diameter (in)
- ANGL - Downstream deflection (deg)
- LENGTH - Pipe length (ft)
- CURVE - Curve in pipe
- AREA - Upper drainage area
- RT - Runoff factor
- Qfull - Total flow rate (cfs)
- COEF - Coefficient of slope
- REGR - Minimum required slope

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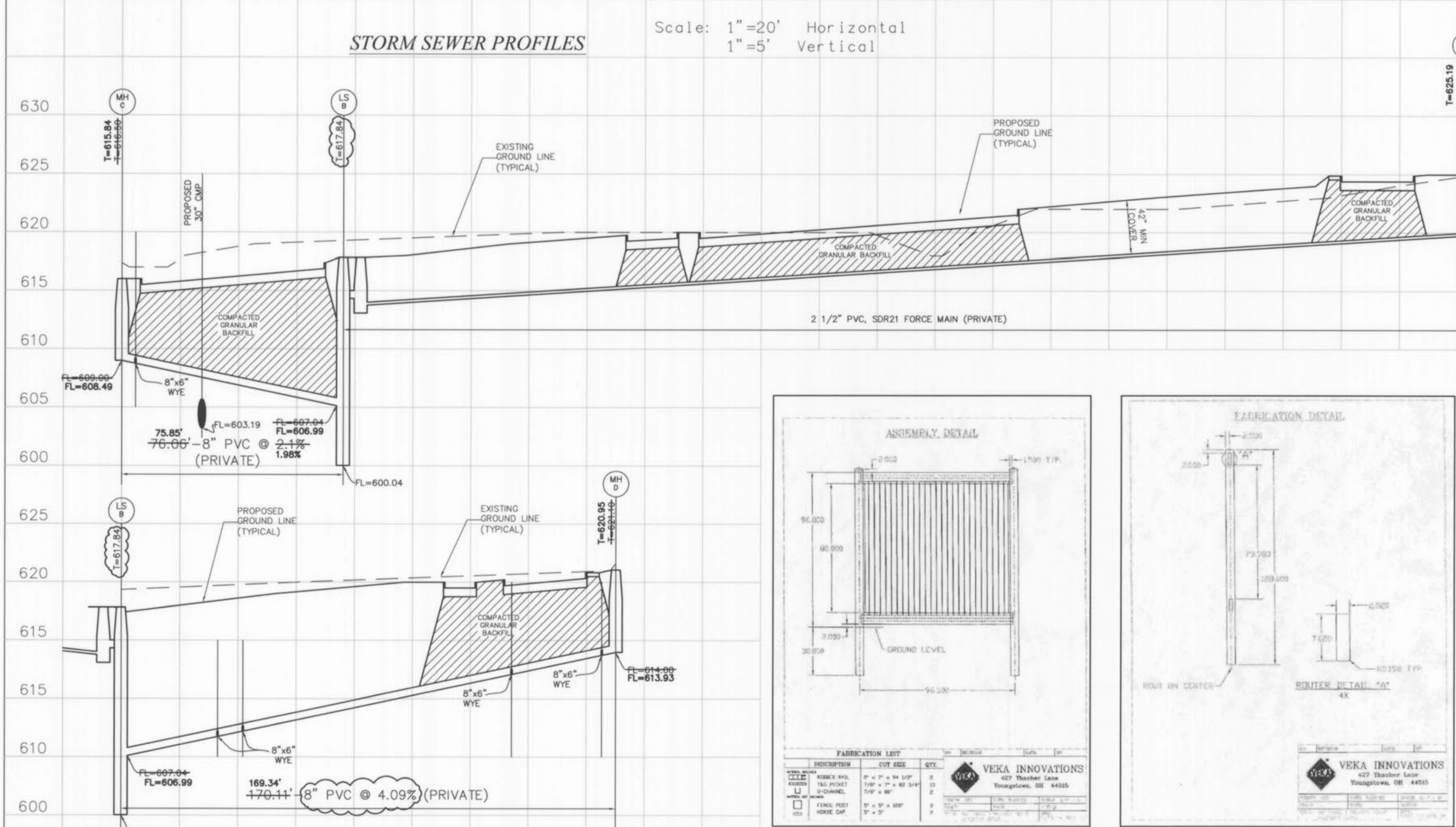
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1/9/06
Revised 3/05/06

STORM SEWER PROFILES

Scale: 1"=20' Horizontal
1"=5' Vertical



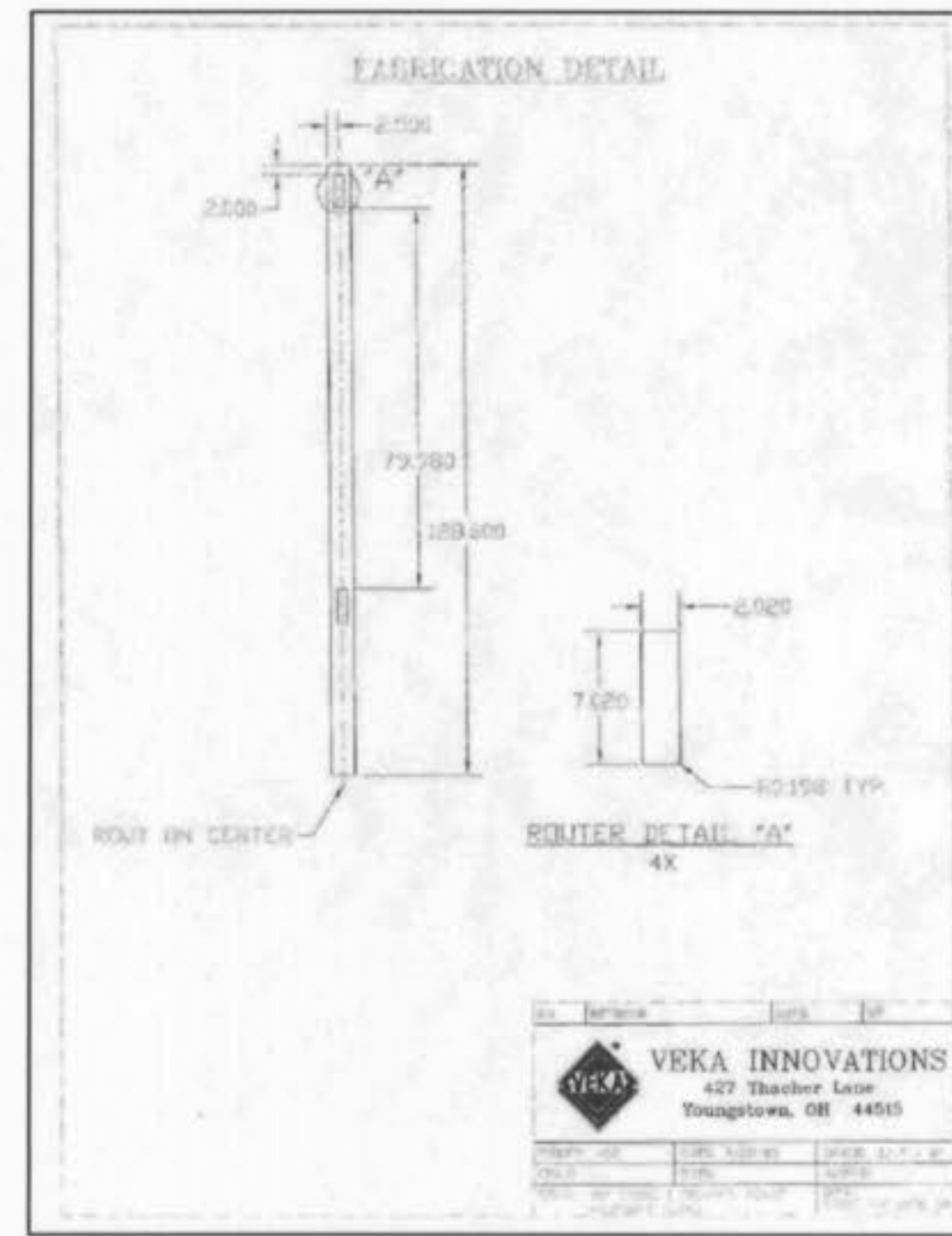
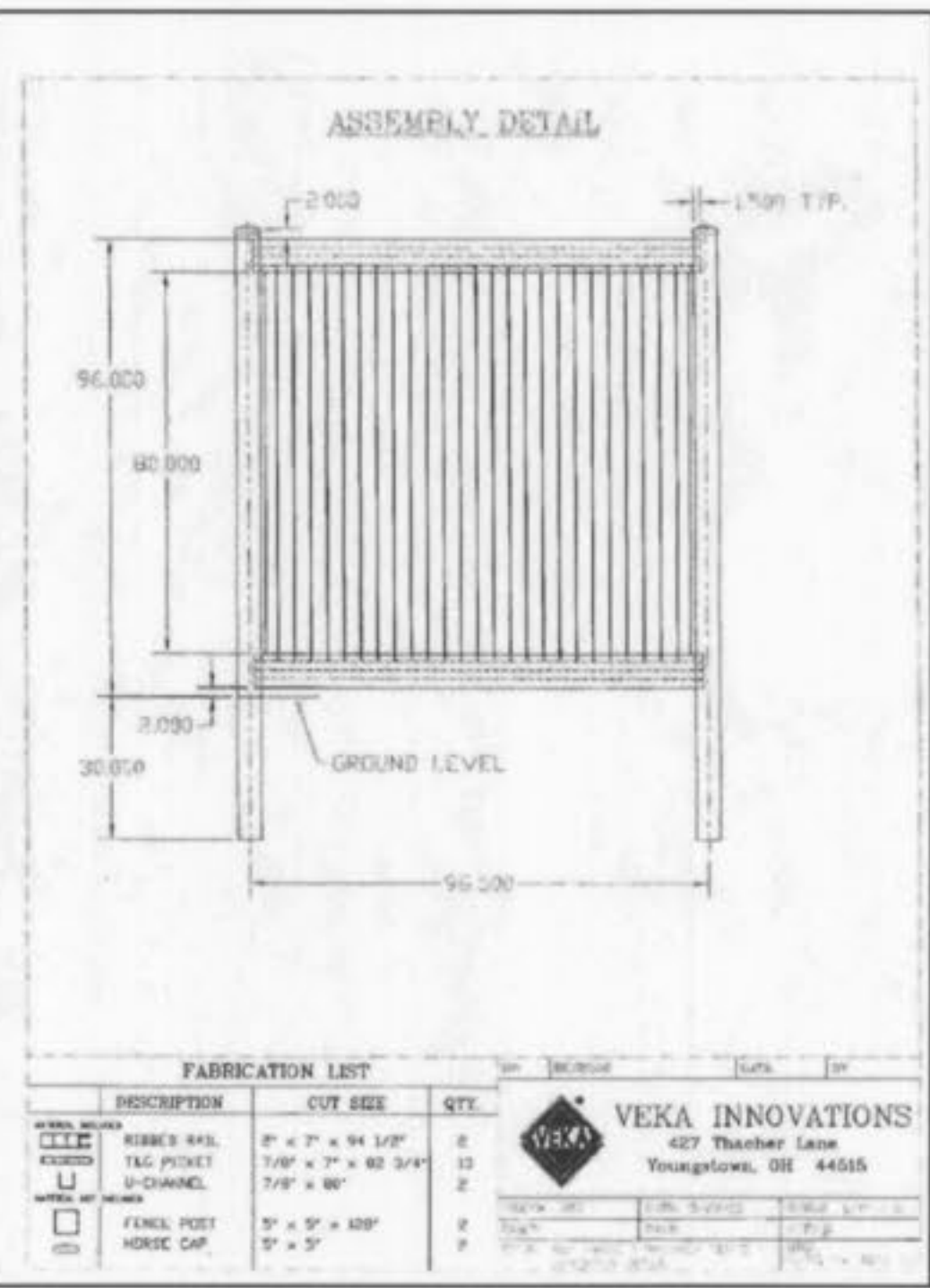
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SANITARY SEWER PROFILE

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SIGHT PROOF VINYL FENCE DETAIL

NOT TO SCALE

SANITARY SEWER PROFILES

Scale: 1"=20' Horizontal
1"=5' Vertical

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STORM & SANITARY SEWER PROFILES
PHILLIPS 66

879 BRYAN ROAD O'FALLON, MO. 63368
Prepared for:

U-GAS STL, INC.
895 BOLGER CT.
FENTON, MO 63026
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Designed: SWQ
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