

A SET OF AS-BUILT PLANS FOR LOT 2 OF WATERBURY COMMERCIAL PLAT ONE

A TRACT OF LAND BEING PART OF LOT 15 OF JOHN D. COALTER'S HOWELL'S PRAIRIE TRACT IN U.S. SURVEY 1669,
TOWNSHIP 46 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 locations shall be considered approximate only. The verifications 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 improvements.
- Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary and storm sewers including building laterals.
- All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre construction conditions.
- All filled places 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-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. 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 back filling operations. Ensure the moisture content of the soil in fill areas is to correspond to the compactive effort as defined by the 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.
- The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system.
- All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor.
- Easements shall be provided for all public sanitary sewers, storm sewers and utilities on the record plat. See record plat (if required) for location and size of easement.
- All construction and materials shall conform to the current construction standards of the City of O'Fallon and Duckett Creek Sanitary District.
- The City of O'Fallon and Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination and inspection.
- All sanitary sewer building connections have been designed so that the minimum vertical distance from the base point of the basement to the flow line of a sanitary sewer at the corresponding building connection is not less than the diameter of the pipe plus the vertical distance of 2-1/2 feet. (unless otherwise noted)
- All sanitary sewer manholes shall be waterproofed on the exterior in accordance Missouri Dept. Of Natural Resources specifications 10 CSR-8.120(7)(E).
- All PVC sanitary sewer pipe is to be SDR-35 or equal 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 back fill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 6 inches above the top pipe. (Note: All P.V.C. Force Main shall be C-900, Class 200 P.V.C.)
- All sanitary and storm sewer trench back fills shall be water jetted. Granular rock fill will be used under pavement areas.
- All pipes shall have positive drainage through manholes. No flat base structures are allowed.
- Brick shall not be used on sanitary sewer manholes nor shall brick be used in the construction of storm sewer structures.
- All PVC sanitary sewer pipe shall meet the following standards: A.S.T.M. D-3034 SDR-35 with wall thickness compression joint A.S.T.M. D-3212. An appropriate rubber seal waterstop as approved by the sewer district shall be installed between P.V.C. pipe and masonry structures. (Note: All P.V.C. Force Main shall be C-900, Class 200 P.V.C.)
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- Storm sewers 18 inch diameter and smaller shall be A.S.T.M. C-14 unless otherwise shown on the plans.
- Storm sewers 21 inch diameter and larger shall be A.S.T.M. C-76, Class II minimum, unless otherwise shown on the plans.
- All storm sewer pipe in the right-of-way shall be reinforced concrete pipe (A.S.T.M. C-76, Class III minimum).
- All storm sewer pipe shall be "O-ring" pipe. Joints shall be gasket D-ring type.
- All water lines shall be laid at least 10 feet horizontally from any sanitary sewer, manhole. Whenever water lines must cross sanitary sewers, laterals or storm drains the water line shall be laid at such an elevation that the bottom of the water line is 18 inches above the top of the drain or sewer. A full length of water pipe shall be centered over the sewer line to be crossed so that the joints will be equally distant from the sewer and as remote therefrom as possible. This vertical separation shall be maintained for that portion of the water line located within 10 feet, horizontally, of any sewer or drain it crosses.
- All water lines shall be C-900 Class 200 P.V.C.
- Any permits, easements, or approvals to work on public or private properties or roadways are the responsibility of the developer.
- All sanitary sewer laterals shall be a minimum of 6 inches in diameter.
- Maintenance of the sewers designated as "public" shall be the responsibility of the Duckett Creek Sanitary Sewer District upon dedication of the sewers to the district.
- All sign post and back and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer 5G 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.
- Each fire hydrant shall not have less than two 2-1/2 inch outlets and one 4-1/2 inch outlet, a 5-1/4 inch valve, a 6 inch barrel and shall be of the breakaway design, frost free with chain, left hand open design and have national standard threads.
- Fire hydrant shall be provided with a control valve in the hydrant connection such that the hydrant can be removed from service without shutting off water supply to other fire hydrants.
- There shall be no obstruction, i.e. planting, bushes, trees, signs, light standards, mailboxes, etc. within six (6) feet of any fire hydrant, and/or fire department connection to an automatic sprinkler system.
- In setting hydrants, due regard shall be given to final grade line. The center of a hose nozzle outlet shall not be less than 18 inches above grade and the outlets must face the street or access drive.
- All water mains proposed on this plan will be private. Private hydrants shall be painted entirely red (Porter 4119 or equal).
- All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- Lighting valves will be reviewed on site prior to the final occupancy inspection. Corrections will need to be made if not in compliance with city standards.
- Existing sanitary sewer service shall not be interrupted.
- Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber Boot/Mission-type couplings will not be allowed.
- "Type N" Lock-Type Cover and Locking Device (Lock-Lug) shall be used where lock-type covers are required.
- Sidewalks, curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials 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 aisle.)

PRINCIPALS & 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 City 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, staked straw bales or other approved measures to remove sediment from run-off waters. Temporary siltation control measures 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.

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 riprap or concrete or other suitable materials. Detention basins, diversions or any 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.
- 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. Variations will include designed stream bank erosion control measures. 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 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 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 siltting 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 erosion control systems shall be inspected and corrections made within 24 hours of any rainstorm resulting in one-half inch of rain or more.
- 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.
- Developer must supply City construction inspectors with soil reports prior to or during site soil testing.
- The Contractor shall assume complete responsibility for controlling oil 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 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 silts or mud on new or existing pavement or on 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.
- 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.
- All graded areas that are to remain bare for over 2 weeks are seeded and mulched.
- All erosion control systems are inspected as necessary corrections made within 24 hours of any rainstorm resulting in one-half inch of rain or more.

DEVELOPMENT NOTES

- Area of Tract: 4.949 Acres (Lot 2)
- Existing Zoning: C-2 General Business (O'Fallon)
- Proposed Use: Retail
- Area of Building: Total=46,125 sq.ft.
- The required height and building setbacks are as follows:
Minimum Front Yard: 25 feet
Minimum Side Yard: None
Minimum Rear Yard: 10' (20' Bufferyard if adjacent to residential)
Maximum Height of Building: Not to exceed 50'
- Site is served by:
Duckett Creek Sanitary Sewer District 636-441-1244
Ameren Union Electric Company 636-639-8312
Laclede Gas Company 314-658-5417
Public Water Supply #2 636-561-3737
SBC Telephone Company 636-949-1321
Cottleville Fire Department 636-447-6655
- According to the Flood Insurance Rate Map of the City of O'Fallon, (Community Panel number 290316 0430 E dated August 2, 1996) this property lies within zone X. Zone X is an area determined to be outside the 500-year floodplain.
- Parking Required:
Total building area = 46,125 sq.ft.
5.5 spaces per 1000 sq. ft. of floor area (Retail)
46,125 sq.ft./1000 x 5.5=254 spaces required
276 spaces provided (including 10 handicapped spaces)
Bicycle parking: 1 space per 15 parking spaces
275/15=18.33 ~ 21 bicycle parking spaces provided
- Site Coverage Calculations:
Building = 46,125 sq.ft. = 21.10%
Pavement = 135,312 sq.ft. = 61.88%
Green Space = 37,221 sq.ft. = 17.02%
- Existing detention basin provided for with the overall Waterbury development.
- Owner: D & M Properties, L.L.C.
308 East Springs Rd.
O'Fallon, MO 63366
636-379-2358
- All new utilities shall be located underground.
- All mechanical units shall be screened from public view.
- All signage is reviewed and approved under a separate permit.
- All construction methods and practices to conform with OSHA standards.
- Landscape Required:
Interior Landscape Requirements: (Lot 2)
276 (approx.) x 270 = 74,520 S.F.
74,520 sq. ft. x 0.06 (%) = 4,471
Total Interior Landscape Required: 4,471 S.F.
Total Interior Landscape Provided: 6,451 S.F.
- Street Tree Requirements:
1 tree every 40' of frontage = 576.97 / 40 = 14.42 ~ 14
14 Provided (10 proposed and 4 existing)
- Open Space Landscape Requirements:
36,210 S.F. / 3,000 S.F. = 12.07 ~ 12 Trees
Total Trees Required: 26 Trees
Total Trees Provided: 26 Trees (includes 1 existing tree to be removed and relocated)
- Bufferyard Requirements:
2 plant units per 100 of property line required
1 plant unit = 30 points
1 tree = 10 points
2 x 30 / 10 = 6 trees per 100 required
1,081 / 100 x 6 = 64.9
65 Trees Provided
- All lighting along the rear of the building shall be shielded.
- There are no existing or proposed drainage swales along Hwy K. All stormwater drains off the R.O.W. onto our proposed parking area and is collected by the proposed stormwater system.
- No loading/unloading operations or trash pick-up shall occur between the hours of 9:00p.m. and 7:00a.m.
- Plan subject to review and approval by Cottleville Community Fire Protection District.
- No slope shall be steeper than 3:1.
- Ensure 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 the handicap access aisle.
- The minimum fire flow from a single fire hydrant shall be fifteen hundred (1500) gallons per minute at twenty (20) psi residual pressure.
- All proposed fencing requires a separate permit through the Planning Division.
- All rooftop mechanical units shall be screened by a parapet wall, and all ground mounted units shall be screened with materials and/or landscaping.
- When electric service is established all transformers shall be screened from view except for access points on transformer.

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: *Daniel R. Turley*
P.E./S.
DANIEL R. TURLEY
REGISTERED PROFESSIONAL ENGINEER
NO. 15-2285
STATE OF MISSOURI
DIVISION OF LAND SURVEYING

CALL BEFORE
YOU DIG!
1-800-DIG-RITE
AND
MoDOT
(314) 340-4100



SHAMROCK DEVELOPMENT OF O'FALLON
P.O. BOX 578
O'FALLON, MO 63366
636-294-3793
AS-BUILT PLANS FOR WATERBURY COMMERCIAL, LOT 2

PREPARED FOR:

DISCLAIMER OF RESPONSIBILITY
I hereby certify that the documents attached 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.

GRADING QUANTITIES:

17,795 C.Y. FILL (INCLUDES 15% SHRINKAGE)
11,515 C.Y. CUT (INCLUDES SUBGRADES)
6,280 C.Y. SHORT

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

LEGEND

CL	CURB INLET	⊙	STREET LIGHT
D.C.I.	DOUBLE CURB INLET	—	EXISTING CONTOUR
AL	AREA	—	PROPOSED CONTOUR
M.H.	MANHOLE	—	STREET SIGN
F.E.	FLARED END SECTION	—	NO PARKING SIGN
E.P.	END PIPE	—	WATER VALVE
C.P.	CONCRETE PIPE	—	WATER VALVE
R.C.P.	REINFORCED CONCRETE PIPE	—	BLOW OFF ASSEMBLY
C.M.P.	CORRUGATED METAL PIPE	—	
C.I.P.	CAST IRON PIPE	—	
P.V.C.	POLY VINYL CHLORIDE (PLASTIC)	—	
C.O.	CLEAN OUT	—	
—	FIRE HYDRANT	—	
—	STORM SEWER	—	
—	SANITARY SEWER	—	

U.S.G.S. BENCHMARK

REFERENCE BENCHMARK: RMSB 487.55' CHISELED SQUARE ON NORTHWEST WINGWALL OF COUNTY HWY. K BRIDGE OVER DARDENNE CREEK.

SITE BENCHMARK: ELEV.=551.58'; OLD CROSS AT CENTERLINE P.C. OF WATERBURY FALLS DRIVE. SAID CROSS BEING 376.8' EAST (ALONG CENTERLINE OF WATERBURY FALLS DRIVE) OF CENTERLINE HWY. K AND CENTERLINE OF WATERBURY FALLS DRIVE.

SHEET INDEX

SHEET 1 COVER SHEET
SHEET 2 SITE PLAN
SHEET 3 STORM PROFILES

REVISIONS

NO.	DATE	DESCRIPTION

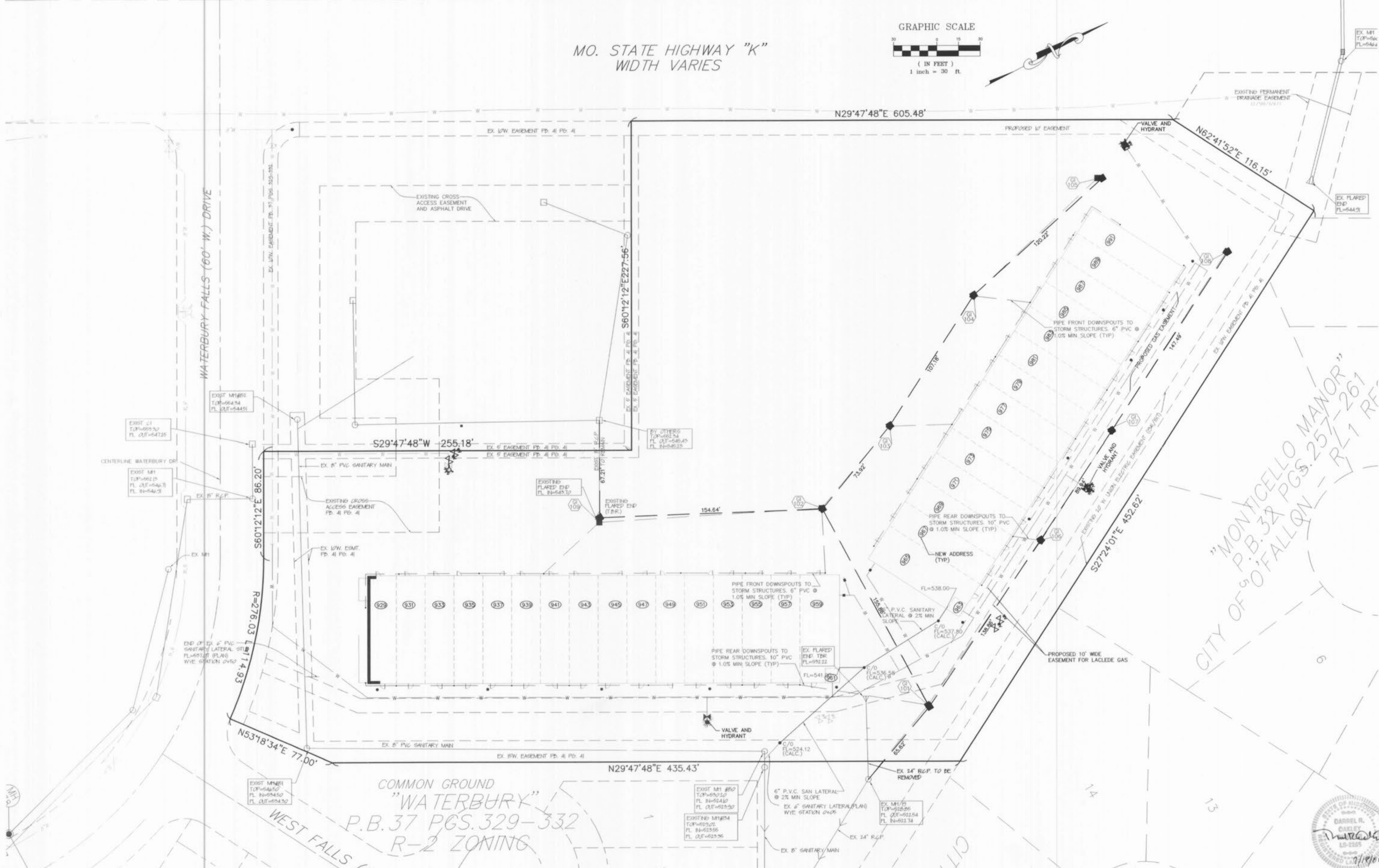
DATA
ENGINEERING
PLANNING
SURVEYING

221 Point West Blvd.
St. Charles, MO 63301
636-928-0552
FAX 928-1718

03-01-06
DATE
98-9713EC
PROJECT NUMBER
1 OF 3
SHEET OF
9713ECASB.DWG
FILE NAME
GMH
DRAWN
LDW DRO
DESIGNED CHECKED

O'FALLON FILE NUMBER: 9950.07

MO. STATE HIGHWAY "K"
WIDTH VARIES



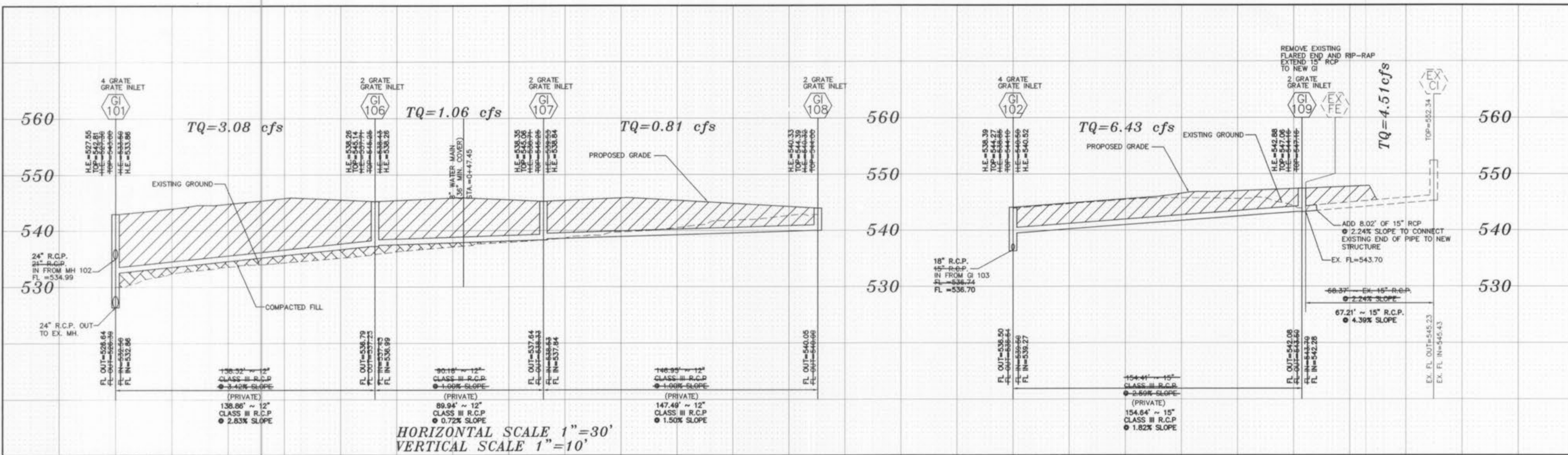
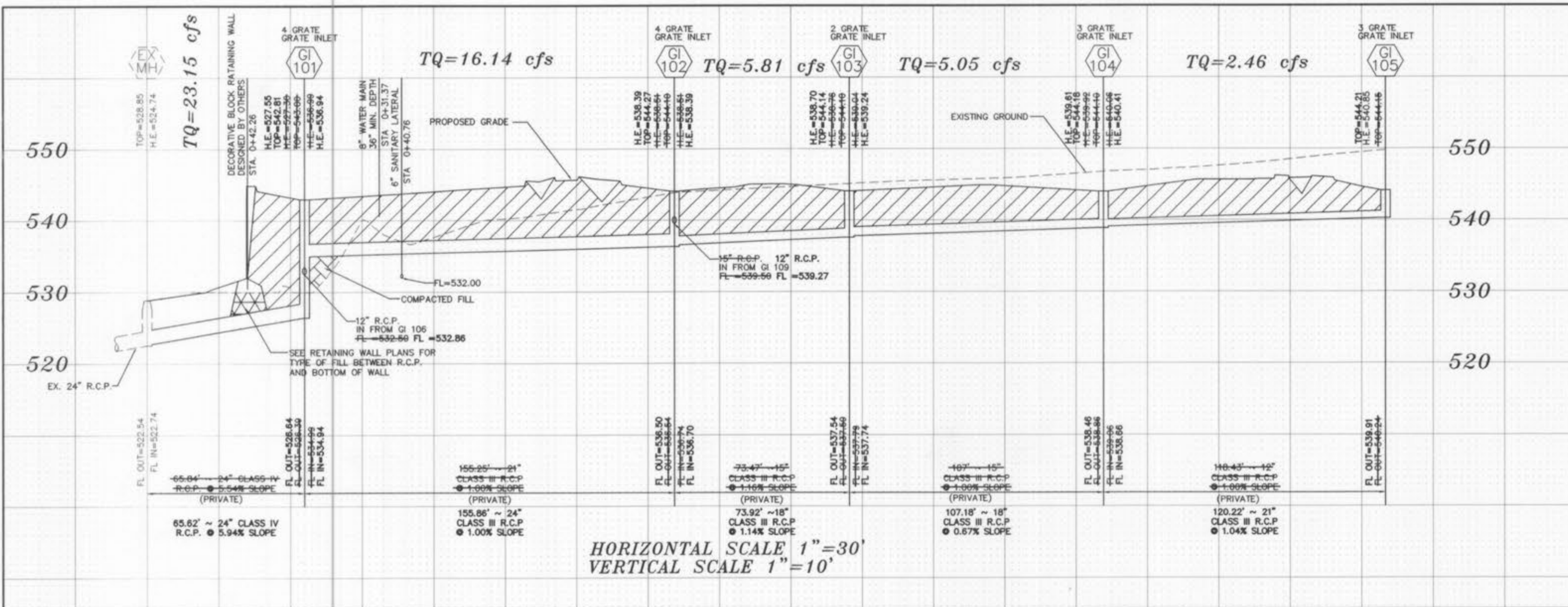
COMMON GROUND
"WATERBURY"
P.B. 37 PGS. 329-332
R-2 ZONING

"MONTICELLO MANOR"
P.B. 38 PGS. 257-261
CITY OF FALLON R/L 1 RF

AS-BUILTS ADDED MARCH 2006

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.





FILENAME: 9713EC

UPP STR	LOW STR	L	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER SF EL	DEPTH HY GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL	VEL HEAD	JUNC LOSS	TORN LOSS	TQ	PIPE CAP	REMARKS
GI 108	GI 107	147	12	540.00	538.53	1.00	544.25	5.83	540.32*	539.53	.00050	0.08	1.03	0.02	0.02	0.00	0.81	3.56	1
GI 107	GI 106	90	12	538.33	537.43	1.00	545.25	6.54	538.21*	538.43	.00090	0.08	1.35	0.03	0.01	0.00	1.06	3.56	2
GI 106	GI 101	138	12	537.23	532.50	3.42	545.25	7.54	537.71*	541.50	.00750	1.03	3.92	0.24	0.23	0.00	3.08	6.39	3
GI 109	GI 102	154	15	543.50	539.50	2.59	547.46	3.90	544.16*	540.50	.01600	2.47	5.74	0.51	0.51	0.00	6.43	10.40	4
GI 105	GI 104	118	12	540.24	539.06	1.00	544.15	3.30	540.85*	540.06	.00480	0.56	3.13	0.15	0.15	0.00	2.46	3.56	5
GI 104	GI 103	107	15	538.86	537.79	1.00	544.10	4.18	539.92	539.04	.00610	0.65	4.12	0.26	0.20	0.03	5.05	6.46	6
GI 103	GI 102	73	18	537.59	536.74	1.16	544.10	5.34	538.76	538.51	.00310	0.22	3.29	0.17	0.00	0.03	5.81	11.30	7
GI 102	GI 101	155	24	536.54	534.99	1.00	544.10	5.59	538.51	536.99	.00510	0.79	5.14	0.41	0.33	0.40	16.14	22.88	8
GI 101	EX MH	66	24	526.39	522.74	5.94	543.00	15.70	527.30*	524.74	.01050	0.69	7.37	0.84	0.69	0.24	23.15	53.27	9

FILENAME: 9713EC-ASBUILT

UPP STR	LOW STR	L	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER SF EL	DEPTH HY GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL	VEL HEAD	JUNC LOSS	TORN LOSS	TQ	PIPE CAP	REMARKS
GI 108	GI 107	147	12	540.05	537.84	1.50	544.39	4.06	540.33*	538.84	.00050	0.08	1.03	0.02	0.02	0.00	0.81	4.36	1
GI 107	GI 106	90	12	537.64	536.99	0.72	545.36	6.71	538.35	538.26	.00090	0.08	1.35	0.03	0.01	0.00	1.06	3.03	2
GI 106	GI 101	139	12	537.79	532.86	3.55	545.14	6.88	538.26*	533.86	.00750	1.04	3.92	0.24	0.23	0.00	3.08	6.71	3
GI 109	GI 102	155	15	542.08	539.27	1.82	547.06	4.18	542.88*	540.52	.00990	1.53	5.24	0.43	0.43	0.00	6.43	8.71	4
GI 105	GI 104	120	21	539.91	538.66	1.04	544.21	3.75	540.46	540.41	.00020	0.03	1.02	0.02	0.02	0.00	2.46	16.16	5
GI 104	GI 103	107	18	538.46	537.74	0.67	544.18	4.57	539.61	539.24	.00230	0.25	2.86	0.13	0.12	0.00	5.05	8.61	6
GI 103	GI 102	74	18	537.54	536.70	1.14	544.14	5.44	538.70	538.39	.00310	0.23	3.29	0.17	0.07	0.01	5.81	11.20	7
GI 102	GI 101	155	24	536.50	534.94	1.00	544.27	5.88	538.39	536.94	.00510	0.79	5.14	0.41	0.31	0.35	16.14	22.63	8
GI 101	EX MH	66	24	526.64	522.74	5.94	542.81	15.26	527.55*	524.74	.01050	0.69	7.37	0.84	0.70	0.26	23.15	55.15	9

AS-BUILTS ADDED MARCH 2006

