

STANDARD SYMBOLS & ABBREVIATIONS	
TREE OR BUSH	○
LIGHT POLE	○
SANITARY SEWER & MAINHOLE	—○—
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	○
TELEPHONE PEDESTAL	□
FENCE	—X—

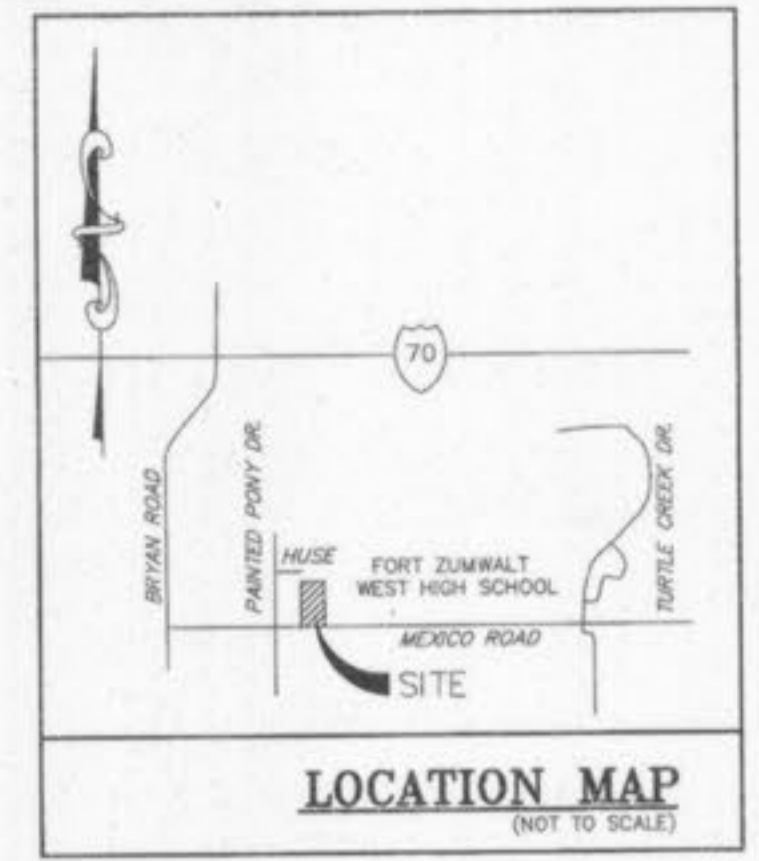
**BENCHMARKS:**  
 REFERENCE BENCHMARK: F 149 (ELEVATION: 542.80) (NAVD 1988 DATUM). THE STATION IS A USCGS BRASS VERTICAL MARK (DISC STAMPED "7 149 1935" SET IN A 6 INCH SQUARE CONCRETE MONUMENT, PROJECTING ABOUT 2.0 INCHES ABOVE THE GROUND SURFACE. THE STATION IS LOCATED IN THE NORTHEAST ANGLE OF A RAILROAD CROSSING AT NORTH MAIN STREET, SOUTH OF THE ENTRANCE TO THE CITY OF O'FALLON MUNICIPAL CENTRE. IT IS 46.5 FEET NORTH OF THE CENTER OF THE TRACKS; 2.4 FEET EAST OF A GUY POLE; 9.3 FEET EAST OF THE EAST EDGE OF SIDEWALK AND 5.7 FEET SOUTHWEST OF A PLASTIC BURIED CABLE MARKER AND PEDESTAL.  
 SITE BENCHMARK: ELEV 604.93 - CHISELED CROSS IN CONCRETE WALK ALONG THE NORTH SIDE OF MEXICO ROAD. SAID CROSS APPROXIMATELY 10.0' EAST AND 2.6' SOUTH OF AN IRON PIPE SET AT THE SOUTHWEST CORNER OF SUBJECT PROPERTY.

# A SET OF CONSTRUCTION PLANS FOR BUILDING RENOVATIONS PROFESSIONAL DEVELOPMENT CENTER FORT ZUMWALT SCHOOL DISTRICT

## A TRACT OF LAND BEING PART OF THE WEST HALF OF THE NORTHWEST QUARTER OF SECTION 31 TOWNSHIP 47 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI

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C6	DRAINAGE AREA MAP & PROFILES
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 Missouri Land Surveying Corporation #005  
 Missouri Engineering Corporation #227

**CIVIL COVER SHEET**  
 Building Renovations  
 Professional Development Center  
 Fort Zumwalt School District  
 9288 Mexico Road, O'Fallon, Missouri

Revisions		
No.	Date	By

Dr. JLH      OJ. JCM  
 Date 11/01/10  
 Job No. 08226.00  
 Sheet No. **C1**

**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 tests shall be verified by a soils engineer concurrent with grading and backfilling operations. Ensure the moisture content of the soil in the fill area is to correspond to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content and Proctor type must be designated on document 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 Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, silted straw bales and/or siltation fabric fences (positive 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 City of O'Fallon. The Permittee's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The City of O'Fallon may at its option direct the Permittee 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 silt 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 City of O'Fallon.
- 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 public view.
- 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 joints 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-50 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 lines shall be located underground.
- All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rainstorm resulting in one-half inch of rain or more. Any silt or debris leaving the site and affecting public right-of-ways or storm water drainage facilities shall be cleaned up within 24 hours after the end of the storm.
- All graded areas that are to remain bare for over 2 weeks shall be seeded and mulched per DNR requirements.
- Rip-rap shown at fored ends will be evaluated in the field after installation for effectiveness and field modified if necessary to reduce erosion on and off-site.
- Marking to be provided on storm sewer inlets. The City will allow the following markers and adhesive procedures only as shown in the table below. "Peel and Stick" adhesive pads will not be allowed.

**O'FALLON NOTES (CONTINUED)**

- Developer must supply City Construction Inspectors with soil reports prior to or during site soil testing. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
  - Maximum dry density
  - Optimum moisture content
  - Maximum and minimum allowable moisture content
  - Curve must be plotted to show density from a minimum of 90% Compaction and above as determined by the Modified AASHTO T-180 Compaction Test (A.S.T.M.-D-1157) or from a minimum of 95% as determined by the "Standard Proctor Test AASHTO T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
  - Curve must have at least 5 density points with moisture content and sample locations listed on document.
  - Specific gravity.
  - Natural moisture content.
  - Liquid limit.
  - Plastic limit.
 Be advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.
- Trees, organic debris, rubble, foundations and other deleterious material shall be removed from the site and disposed in compliance with all applicable laws and regulations. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.
- HDPE pipe is to be N-12WT or equal and to meet ASTM F1417 water tight field test.
- If there are any physical changes to MoDOT's right of way, such as grading or entrance modification, MoDOT requests the opportunity to review the plans, there will be improvements to the roadway required to support the proposed development within MoDOT's Access Management Guidelines.
- Connections at all sanitary or storm structures to be made with A-lock joint or equal.
- All sanitary laterals and sanitary mains crossing under pavement must have the proper rock backfill and to required compaction.
- Traffic control is to be per MoDOT or MUTCD standards, which ever is more stringent.

**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 siting 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 shall 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 diced prior to the placement of any fill. The Soils Engineer shall approve the dicing 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 or 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.
- The location of and details for all siltation control devices (silt fences and sediment basins) must follow the "St. Charles County Soil and Water Conservation District Erosion and Sediment Control" guidelines.
- Per City Ordinance 5082, long term post construction BMP's shall be utilized to control storm water runoff. These shall include having sodded, keeping gutter buddy's in place until vegetation is established, installing inlet filters, and having seeding and mulch installed as soon as possible to promote rapid vegetative growth. Any bare spots found will be reseeded as needed.

**DEVELOPMENT NOTES:**

- Area of tract: 2.767 Acres
- Disturbed Area: 0.592 Acres
- Existing Zoning: R1 (Residential) W/C.U.P. (City of O'Fallon)
- Proposed Use: School Development Center
- Area of Existing Building: 3,788 sq.ft.
- Required building & parking setbacks:  
 Front yard 25 feet  
 Side yard 6 feet  
 Rear yard 25 feet  
 Parking 10 feet along lot perimeter
- This property is served by the following utilities:  
 Electric: AmerenUE Electric Co. (636) 639-8312  
 Telephone: Centurytel Telephone Co. (636) 332-7318  
 Gas: Loctide Gas Co. (314) 658-5417  
 Water: Public Water Supply Dist. #2 (636) 561-3737  
 Sewer: City of O'Fallon (636) 281-2858  
 Fire District: O'Fallon Fire (636) 272-3493
- Flood Note: Per F.I.R.M. Flood Insurance Rate Map of the City of O'Fallon, Mo (Community Panel Number 23183C 0240 E Dated August 2, 1995). This property is within Zone X. Zone X is defined as an area outside the 500 year flood plain.
- Current Owner: Fort Zumwalt School District  
 110 Virg Street  
 O'Fallon, MO 63366  
 (636) 272-8620
- Existing sanitary service to be used with this project.
- All HVAC and mechanical units on site shall be properly screened as required by the entire perimeter of the building; the parapet shall have a minimum height that is at least as tall as the tallest unit mounted on the roof; ground mounted HVAC and mechanical units shall be screened by fencing, vegetation or some other means (approved by the Planning and Zoning Commission) that has a minimum height that is at least as tall as the tallest unit being screened. Landscaping shrubs are proposed.
- Site Coverage:  
 Building - 6,981 sqft - 5.79%  
 Pavement/Gravel - 30,018 sqft - 24.9%  
 Green Space - 83,541 sqft - 69.31%
- Parking required: Office = 1 space per 300 S.F. of area  
 Existing Building = 3,788 S.F.  
 Required parking = 3,788/300 = 13  
 Proposed spaces shown = 27
- Stormwater runoff calculation for 100 year storm:  
 Increase in impervious area=7,080 S.F. (0.16 acres)  
 0.16 Ac x (6.08-2.95)=0.50 cfs runoff  
 Max. allowable increase in runoff = 1 cfs  
 No detention required
- Access drive to salt storage shed shall be paved up to fence as part of development for front half of property.
- Landscaping Requirements:  
 A. 28 spaces x 270 S.F. per space = 7,020 S.F.  
 7,020 S.F. x 6% = 422 S.F. required Area  
 Interior Landscape areas provided = 1,080 S.F.  
 B. Street Trees Required: 1 tree per 40 L.F. of R.O.W.  
 200 L.F. of Frontage/40 = 5 trees required  
 Total Trees provided = 5 trees  
 C. Buffering required for every 100' of frontage:  
 1. 2 plant units and 6' High eight proof fence for a 20' wide bufferyard  
 2. 5 plant units for a 50' wide bufferyard  
 20'W bufferyard = 200 L.F. of frontage  
 200/100 x 2 = 4 plant units required  
 50'W bufferyard = 405 L.F. of frontage  
 405/100 x 5 = 21 Plant units required  
 Total Plant units required = 25  
 Existing plant units to remain = 50
- All paving to be in accordance with St. Charles County Standards and Specifications except as modified by the City of O'Fallon Ordinances.
- All siltation control devices will be in accordance with the St. Charles County Soil And Water Conservation District Erosion and Sediment Control guidelines.
- Tree protection call: Existing Trees = 62  
 Trees to be retained (20% min.) = 13  
 Trees to be retained (15/acre) = 42 (use larger number)  
 Trees to be removed = 1  
 Trees to remain = 51
- No more than 1 c.f.s. will be allowed to discharge at the entrance onto Mexico Road.
- Any existing wells and/or springs which may exist on the property must be sealed in a manner acceptable to the City of O'Fallon Construction Inspection Department and following Missouri Department of Natural Resources Standards and Specifications.

**ESTIMATED CONSTRUCTION & GRADING SCHEDULE**

-INSTALL EROSION CONTROL	3/1/10
-DEMOLITION WORK	3/1/10 - 4/1/10
-INTERIOR REMODELING	4/1/10 - 7/9/10
-GRADING AND PAVEMENT CONSTRUCTION	7/12/10 - 7/23/10
-FINISH GRADING, SEED AND MULCH	7/26/10 - 7/27/10

NOTE: DATES MAY VARY DUE TO INCLEMENT WEATHER.  
 A PERIOD OF ONE (1) YEAR FROM THE DATE OF THE PLANNING DEPARTMENT'S APPROVAL OF THE SITE PLAN IS PERMITTED. ANY COMPLETION DATE LONGER THAN THE ONE (1) YEAR PERIOD, OR AN EXTENSION OF THE TIME THEREOF, MUST BE REQUESTED IN WRITING BY THE DESIGN CONSULTANT AND APPROVED BY BOTH THE DIRECTOR OF PLANNING AND THE CITY ENGINEER.

NOTE: TEMPORARY VEGETATION TO BE IN PLACE DURING THE WINTER UNTIL THE TIME PERMANENT SEEDING AND MULCH CAN BE COMPLETED.

**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:



Manufacturer	Size	Adhesive	Style	Message (Part #)	Website
ACP International	3 7/8"	Epoxy	Crystal Cap	No Dumping Drains To Waterways (SD-W-CC)	www.acpinternational.com
DAS Manufacturing, Inc.	4"	Epoxy	Standard	No Dumping Drains To Stream (#SDS)	www.dasmanufacturing.com

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

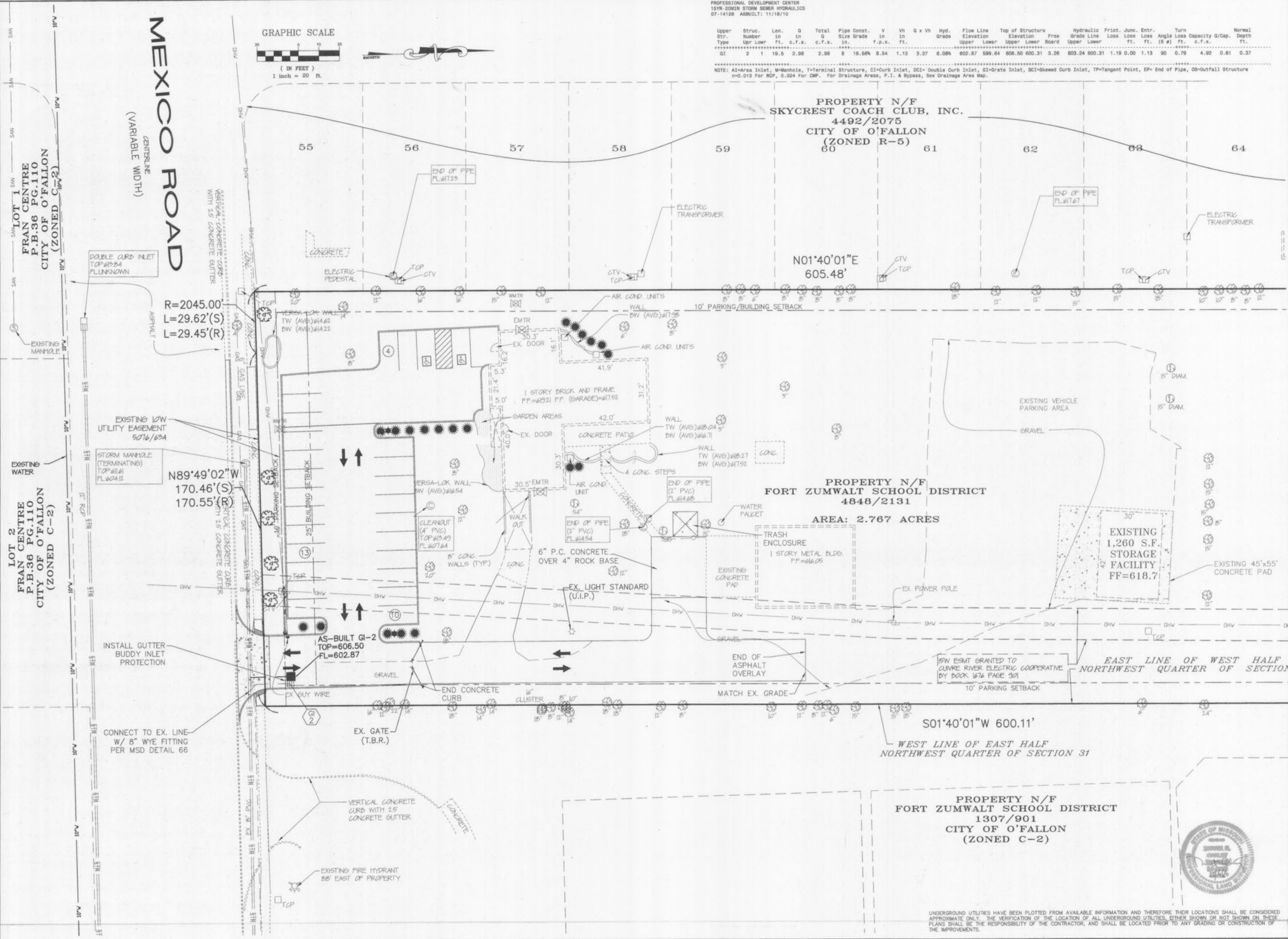
P&Z #1608.04 APPROVED 4/16/09

Ft. Zumwalt Prof. Dev. Ctr. As-built Pg. 1 of 2

PROFESSIONAL DEVELOPMENT CENTER  
 15YR-20MIN STORM SEWER HYDRAULICS  
 07-14128 AS-BUILT: 11/18/10

Upper Str. Type	Str. Number	Len. in	Q c.f.s.	Total Pipe Const. c.f.s.	V in	Vh in	Q x Vh	Hyd. Grade	Flow Line Elevation	Top of Structure Elevation		Hydraulic Frict. Loss		Entr. Loss	Turn Angle	Loss	Capacity Q/Cap.	Normal Depth								
										Upper	Lower	Upper	Lower						Upper	Lower						
GI	2	1	15.5	2.98	2.98	8	15.56	8.54	1.13	3.37	6.08	602.87	599.84	606.50	600.31	3.26	603.24	600.31	1.19	0.00	1.13	90	0.79	4.92	0.61	0.37

NOTE: AI=Area Inlet, M=Manhole, T=Terminal Structure, CI=Curb Inlet, DCI=Double Curb Inlet, GI=Grate Inlet, SCI=Skewed Curb Inlet, TP=Tangent Point, EP=End of Pipe, OB=Outfall Structure  
 n=0.013 For RCP, 0.024 For CMP. For Drainage Areas, P.I. & Bypass, See Drainage Area Map.



PROPERTY N/F  
 SKYCREST COACH CLUB, INC.  
 4492/2075  
 CITY OF O'FALLON  
 (ZONED R-5)

N01°40'01"E  
 605.48'

PROPERTY N/F  
 FORT ZUMWALT SCHOOL DISTRICT  
 4848/2131

AREA: 2.767 ACRES

S01°40'01"W 600.11'  
 WEST LINE OF EAST HALF  
 NORTHWEST QUARTER OF SECTION 31

PROPERTY N/F  
 FORT ZUMWALT SCHOOL DISTRICT  
 1307/901  
 CITY OF O'FALLON  
 (ZONED C-2)

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**Professional Development Center**  
 Fort Zumwalt School District  
 9288 Mexico Road, O'Fallon, Missouri

**SITE PLAN**

No.	Date	By

Dr. J.L.H.      Cr. J.C.M.

Date	11/01/10
Job No.	08226.00
Sheet No.	

**C2**

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.