

CONSTRUCTION NOTES

The underground utilities shown herein were plotted from available information and do not necessarily reflect the actual existence, nonexistence, size, type, number, or location of these or other utilities. The general contractor shall be responsible for verifying the actual location of all underground utilities, shown or not shown, and said utilities shall be located in the field prior to any grading, excavation, or construction of improvements. These provisions shall in no way absolve any party from complying with the Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo.

All construction and materials used shall conform to current City of O'Fallon, MO, St. Charles County Dept. of Highways and Traffic, and latest Duckett Creek Sanitary District standards and construction specifications.

Consult Soils Engineer for soil compaction recommendations.

All utility relocations will be determined by the individual utility company.

No area shall be cleared without permission of the developer.

All filled places, including trench backfills, under buildings, proposed storm and sanitary sewer lines and/or paved areas, shall be compacted to at least 90 percent of the maximum density as determined by the "Modified AASHTO T-180 Compaction Test," A.S.T.M. D-1557, unless otherwise required by the inspecting soils engineer or soils report for this project.

All grades shall be within 0.2 feet, plus or minus, of those shown on the grading plan.

All areas shall be allowed to drain. All low points shall be provided with temporary ditches.

All swales shall be sodded, unless otherwise noted on the plans.

No slope shall be steeper than 3 horizontal to 1 vertical.

Erosion and siltation control shall be installed prior to any grading and be maintained throughout the project until acceptance of the work by the owner and/or controlling regulatory agency and adequate vegetative growth insures no further erosion of soil.

Additional siltation control devices may be required as directed by The City of O'Fallon, MO.

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 backfilling operations. Grading shall comply with recommendations in the soils report by Soils Consultants Inc. dated July 1997.

The Contractor shall notify the Soils Engineer at least two days in advance of the start of the grading operation.

Parking on non-surfaced areas is prohibited in order to eliminate the condition whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driving conditions. Contractor shall keep road clear of mud and debris.

Storm water pipes, outlets and channels shall be protected by silt barriers and kept free of waste and silt at all times prior to final surface stabilization and/or paving.

Siltation fences shall be inspected periodically for damage and for the amount of sediment which has accumulated. Removal of sediment will be required when it reaches 1/2 the height of the fences.

Straw bales shall be inspected periodically for deterioration. Bales which have rotted or failed shall be replaced. Removal of sediment will be required when it reaches 1/2 the height of the bales.

If cut & fill operations occur during a season not favorable for immediate establishment of a permanent ground cover, a fast germinating annual such as rye grasses or sudan grasses shall be utilized to retard erosion.

Undercutting for treatment of plastic clay conditions for foundations has not been considered in grading computations shown. Contact soils engineer if this condition exists.

The grading contractor shall perform a complete grading and compaction operation as shown on the plans, stated in these notes, or reasonably implied therefrom, all in accordance with the plans and notes as interpreted by the Geotechnical Engineer. Contractor is responsible for monitoring grading operation and accuracy of final rough grades. Notify engineer of any discrepancies affecting final grading balance.

Contractor is responsible to maintain all siltation control devices shown, and provide additional siltation control devices as deemed necessary due to field conditions. See approved grading plan set for location of devices.

All sanitary house connections have been designed so that the minimum vertical distance from the low point of the basement to the flow line of a sanitary sewer at the corresponding house connection is not less than the diameter of the pipe plus a vertical distance of 2 1/2 feet.

All trench backfills under pavement within the public right-of-way shall be granular backfilled. Trench backfills under paved areas, outside of public right-of-way may be granular backfill in lieu of the earth backfill compacted to 90 percent of the Modified AASHTO T-180 compaction test A.S.T.M. D-1557.

P.V.C. gravity sanitary sewer pipe sizes 4" through 15" shall conform to the requirements of A.S.T.M. D-3034, for the PSM-PVC sewer pipe fittings, SDR-35 Large diameter plastic gravity sewer pipe and fittings shall conform to the requirements of A.S.T.M. F-679. All fittings for P.V.C. pipe shall be of the same material and strength requirements as the sewer pipe.

When P.V.C. pipe is used, appropriate rubber seal waterstop, as approved by the sewer district, shall be installed between P.V.C. pipe and masonry concrete and brick structure.

All sanitary laterals shown on plan are to be constructed of 6-inch P.V.C. pipe.

All manhole and inlet tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor. At the time of construction stakeout of the sewer lines, all curb and grate inlets will be face staked, provided said stakes do not fall in the ditch line. If stakes fall within the ditch line, the sewer company or job superintendent shall notify the engineer by phone that stakes are needed and allow 48 hours for cuts.

All storm sewer pipe regardless of size shall be reinforced concrete pipe A.S.T.M. C-76, Class III Minimum, unless otherwise shown on the plans.

Corrugated metal pipe shall conform to the standard specifications for corrugated iron or steel galvanized culvert pipe AASHTO M-36.

Maintenance of the sanitary sewer mains shall be the responsibility of the Duckett Creek Sanitary District upon dedication of the sewers to the District. Maintenance of the storm sewers shall be the responsibility of the City of O'Fallon, MO, upon acceptance by the city for these storm sewers.

All disturbed earth areas within City, County and State right-of-way shall be sodded.

Blasting will require a permit from the City of O'Fallon, MO.

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 without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage system.

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.

All trash and debris on site, either existing or from construction, must be removed and properly disposed of off-site.

Soft soil in the bottom and banks of any existing or former pond sites or tributaries, or on any sediment basins or traps, shall be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material shall be placed in proposed public right-of-way locations or on any storm sewer locations.

ABBREVIATIONS

ATG	ADJUST TO GRADE
AI	AREA INLET
BF	BASEMENT FLOOR
CL	CENTERLINE
CC	CONCRETE COLLAR
CO	CLEAN OUT
CI	CURB INLET
CMP	CORRUGATED METAL PIPE
DCI	DOUBLE CURB INLET
ESMT	EASEMENT
EP	END OF PIPE
ED	ENERGY DISSIPATOR
EX	EXISTING
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FE	FLOWLINE
CL	2 GRATE INLET WITH SIDE INTAKE
2GISI	MANHOLE
MH	MAXIMUM
MAX	MINIMUM
MIN	NOW OR FORMERLY
N/F	POLYVINYLCHLORIDE (PLASTIC PIPE)
PVC	REINFORCED CONCRETE PIPE
RCP	RIGHT OF WAY
R/W	STATION
STA	TO BE REMOVED
TBR	TO BE REMOVED BY OTHERS
TBRBO	TO BE REMOVED AND REPLACED
TBR & R	TOP OF FOUNDATION
TF	TYPICAL
TYP	USE IN PLACE
UIP	UTILITY POLE
UP	WIDE
W	

LEGEND

— UC —	EXISTING UNDERGROUND CABLE TV
— UT —	EXISTING UNDERGROUND TELEPHONE
— UE —	EXISTING UNDERGROUND ELECTRIC
— OU —	EXISTING OVERHEAD UTILITY WIRES
— G —	EXISTING GAS MAIN
— W —	EXISTING WATER MAIN
— F —	PROPOSED FORCE MAIN
— F —	EXISTING FORCE MAIN
— — —	BUILDING LINE
— — —	EXISTING SANITARY SEWER
— — —	PROPOSED SANITARY SEWER
— — —	EXISTING STORM SEWER
— — —	PROPOSED STORM SEWER
— 5'0" —	EXISTING CONTOUR
— 520 —	PROPOSED CONTOUR
— — —	EXISTING TREE LINE
— — —	PROPOSED TREE LINE
— — —	SILTATION CONTROL
— — —	EX HIGH WATER OR DITCH
— — —	GRADE BREAK
— — —	STREET SIGN
— — —	SWALE
— — —	DIRECTION OF SHEET FLOW
— — —	CLEARING AND GRADING LIMITS
— — —	FIRE HYDRANT
— — —	LIGHT STANDARD
— — —	VALVE
— — —	LATERAL
— — —	ADDRESS
— — —	TREE
— — —	SANITARY SEWER DESIGNATOR
— — —	STORM SEWER DESIGNATOR
— — —	AIR RELIEF VALVE
— — —	AIR RELIEF VALVE & C.O.

SOILS ENGINEER NOTES

These plans have been reviewed by Soil Consultants, Inc. for their compliance regarding geotechnical recommendations relative to site development. Based on this review and available subsurface information, it is our opinion that the site may be constructed in accordance with the plans, good construction practices, and the recommendations given in our Geotechnical Report of July 1997.

We have not prepared any part of these plans and my seal on these plans is intended only to confirm my personal review and approval of the site grading plan as it relates to the stability of earth slopes.

Soil Consultants, Inc. must be involved during the construction phase of this project in order to determine if subsurface conditions are as anticipated from the field exploration data, that our recommendations relative to site grading are implemented, and that other geotechnical aspects of this site development are performed in accordance with these plans.



REVISIONS

NO.	DATE	BY	REVISIONS
1			
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3			
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PROJECT INFORMATION

PREPARED FOR:

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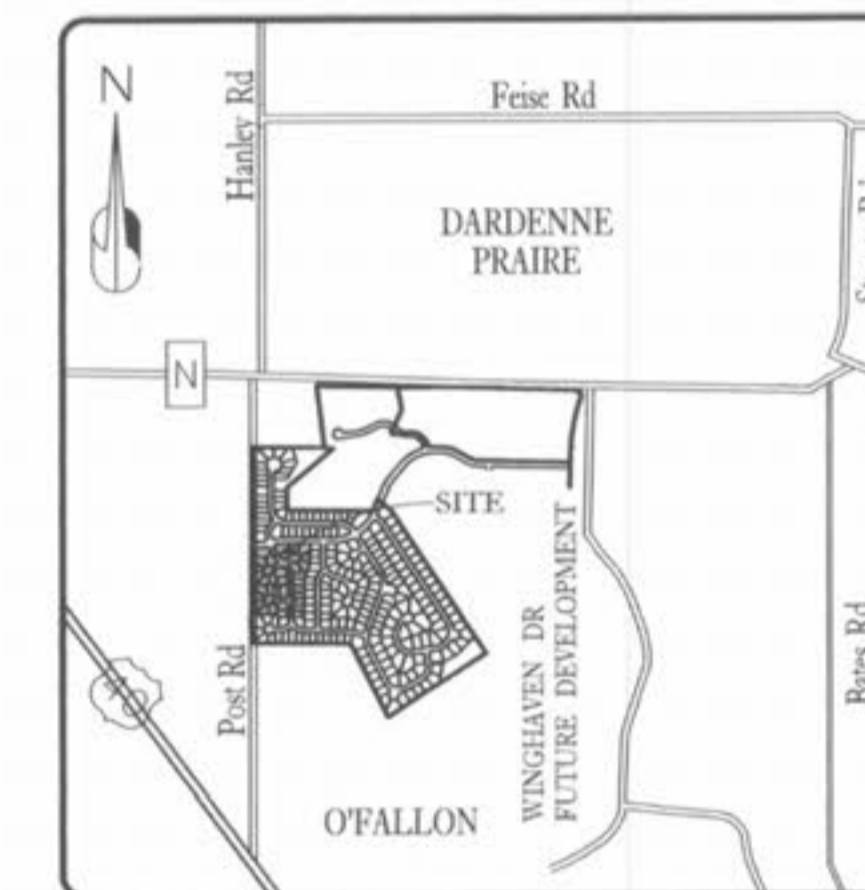
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WUNNENBERG'S MAP: PAGES 37, 38 & 47, 48
ZIP CODE: 63366
MUNICIPALITY: O'FALLON, MISSOURI

LOCATION MAP



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WINGHAVEN™
IRONWOOD VILLAGE

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