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

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 paying.

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.

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

If cut & fill operations occur during a season not favorable for immediate establishment of a permanent ground cover, a fast germinating annual such

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 Engineeer. 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 neccessary 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 21/2 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 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 sewers 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 foudation 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	
Al	AREA INLET	
BF	BASEMENT FLOOR	
E	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	FLARED END	
E	FLOWLINE	
2GISI	2 GRATE INLET WITH SIDE INTAKE	
MH	MANHOLE	
MAX	MAXIMUM	
MIN	MINIMUM	
N/F	NOW OR FORMERLY	
PVC	POLYVINYLCHLORIDE (PLASTIC PIPE)	
RCP	REINFORCED CONCRETE PIPE	
R/W	RIGHT OF WAY	
STA	STATION	
TBR	TO BE REMOVED	
TBRBO	TO BE REMOVED BY OTHERS	
TBR & R	TO BE REMOVED AND REPLACED	
TF	TOP OF FOUNDATION	
TYP	TYPICAL	
UIP	USE IN PLACE	
UP	UTILITY POLE	
144	WIDE	

WIDE

LEGEND

UC	EXISTING UNDERGROUND CABLE T	
UT	EXISTING UNDERGROUND TELEPHO	
UE	EXISTING UNDERGROUND ELECTRIC	
ou	EXISTING OVERHEAD UTILITY WIRE	
——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	
510	EXISTING CONTOUR	
-520-	PROPOSED CONTOUR	
~~~~	EXISTING TREE LINE	
$\sim$	PROPOSED TREE LINE	
	SILTATION CONTROL	
	EX HIGH WATER OR DITCH	
	GRADE BREAK	
5 ¹⁵	STREET SIGN	
	SWALE	
-~	DIRECTION OF SHEET FLOW	
	CLEARING AND GRADING LIMITS	
_Y	FIRE HYDRANT	
	LIGHT STANDARD	
-0-	VALVE	
-	LATERAL	
(173)	ADDRESS	
습 습	TREE	
0	SANITARY SEWER DESIGNATOR	
Ō	STORM SEWER DESIGNATOR	
A . R	AIR RELIEF VALVE	
A_R	AIR RELIEF VALVE & C.O.	
C 0	THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TO SHAPE THE PERSON NAMED THE PERSON NAMED IN COLUMN TO SHAPE THE PERSON NAMED TH	

# PROJECT INFORMATION

PREPARED FOR:

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PREPARED BY:

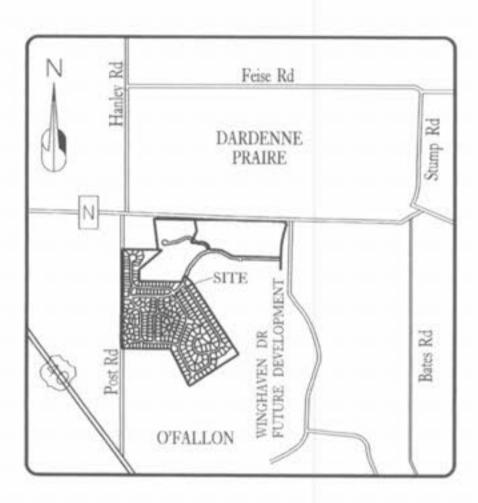
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WUNNENBERG'S MAP ZIP CODE: MUNICIPALITY:

PAGES 37, 38 & 47,48 63366 O'FALLON, MISSOURI

# LOCATION MAP



## 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.



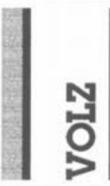
## **REVISIONS**



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WINGHAVER RESIDENTIAL L.L.C







ORMATIO INF

GENERAL

BASON PHASE 2) PERSIMAN SHEET OF DOM