GENERAL NOTES

1.) ALL UTILITIES SHOWN HAVE BEEN LOCATED BY OTHERS FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.

2.) ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

3.) ALL MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS AS REQUIRED BY THE CITY OF O'FALLON.

4.) ALL GRADED AREAS INDICATED SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES, SEEDING AND MULCHING AS INDICATED.

5.) PRIOR TO BEGINNING ANY WORK ON THE SITE, THE CONTRACTOR SHALL CONTACT THE OFFICE OF THE DEVELOPER FOR SPECIFIC INSTRUCTIONS RELEVANT TO THE SEQUENCING OF WORK.

6.) GRADING CONTRACTOR SHALL INSTALL AND THE CITY SHALL INSPECT ALL SILTATION CONTROL PRIOR TO STARTING THE CLEARING OR GRADING PER SILTATION SPECIFICATIONS. ADDITIONAL SILTATION CONTROL DEVICES MAY BE REQUIRED AS DIRECTED BY THE CITY OF O'FALLON.

7.) ALL FILLS AND BACK FILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.

8.) GRADING CONTRACTOR SHALL KEEP EXISTING ROADWAYS CLEAN OF MUD AND DEBRIS AT ALL TIMES.

9.) PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED AREAS. CONTRACTOR TO GRADE ALL AREAS TO REQUIRED SUBGRADE.

10.) NO GRADE SHALL EXCEED 3:1 SLOPE OR AS APPROVED BY THE CITY ENGINEER.

11.) ALL FILL PLACED UNDER PROPOSED STORM AND SANITARY SEWER LINES AND/OR PAVED AREAS SHALL BE COMPACTED TO 90 PERCENT AS DETERMINED BY THE MODIFIED AASHTO T-180 COMPACTION TEST OR 95 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. ALL TEST SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACK FILLING OPERATIONS. A COPY OF ALL TESTS SHALL BE SUBMITTED TO THE CITY OF O'FALLON.

12.) ALL SLOPES TO BE STABILIZED WITHIN 48 HOURS AFTER GRADING. (SEE SILTATION CONTROL SPECIFICATIONS)

13.) THE EROSION CONTROL PLAN SHALL BE IMPLEMENTED BEFORE CLEARING OR GRADING BEGINS.

14.) EROSION CONTROL SHALL NOT BE LIMITED TO WHAT IS SHOWN ON THE PLAN. ADDITIONAL MEASURES, DETERMINED BY THE CONTRACTOR OR THE CITY OF O'FALLON, MAY BE REQUIRED ON A DAY-TO-DAY BASIS TO PREVENT SILTATION FROM LEAVING THE SITE. A WASHDOWN AREA SHALL BE PROVIDED DURING ALL CONSTRUCTION ACTIVITIES.

15.) WHATEVER MEANS NECESSARY SHALL BE TAKEN TO PREVENT SILTATION AND EROSION FROM ENTERING NATURAL STREAMS AND ADJACENT ROADWAYS, PROPERTIES, AND DITCHES. (SEE SILTATION CONTROL B.M.P. SPECIFICATIONS)

16.) TOPOGRAPHIC AND BOUNDARY INFORMATION PROVIDED BY COLE & ASSOCIATES.

17.) ALL STREETS SHALL HAVE UNDERDRAINS BENEATH THE CURB AND GUTTERS ALONG BOTH SIDES OF THE PAVEMENT, AS SHOWN ON TYPICAL ROADWAY SECTION, OR AS DIRECTED BY THE CITY OF O'FALLON.

18.) THE DETENTION BASIN SHALL BE SODDED BELOW 100-YR HIGH WATER ELEVATION TO TOP OF BERM WITHIN 48 HOURS OF FINAL GRADING.

19.) ALL EXISTING SITE IMPROVEMENTS DISTURBED, DAMAGED, OR DESTROYED SHALL BE REPAIRED OR REPLACED TO MATCH EXISTING CONDITONS.

20.) TEMPORARY PARKING, MATERIAL, AND EQUIPMENT STORAGE IS PROHIBITED ON ADJACENT STREETS.

21.) STREET LIGHTING TO BE PROVIDED PER THE CITY OF O'FALLON STANDARDS.

22.) DEVELOPER WILL COMPLY WITH THE CITY OF O'FALLON REQUIREMENTS FOR OPEN SPACE AND RECREATIONAL FACILITIES OR SHALL UTILIZE FEES IN LIEU OF DEDICATION PROCEDURES .

23.) MAXIMUM HEIGHT LIMIT = 35' OR 3 STORIES.

24.) ALL CONSTRUCTION DETAILS SHALL BE PER THE MOST CURRENT DETAILS LOCATED IN THE CITY OF O'FALLON'S DESIGN CRITERIA BOOK AND THE SEDIMENT AND EROSION CONTROL MANUAL.

25.) TREES, ORGANIC DEBRIS, RUBBLE, FOUNDATIONS AND OTHER DELETRIOUS MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS. LANDFILL TICKETS 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.

EARTHWORK NOTES

BULK CUT............16,000..............± CUBIC YARD

BULK FILL..........16,000................± CUBIC YARD

NET FILL......00.......± CUBIC YARD CUT-INCLUDES 15% SHRINKAGE FACTOR AND 12" PAVEMENT SECTION (SUGGESTED SHRINKAGE SHOULD BE PROVIDED BY THE GEOTECHNICAL ENGINEER) ACTUAL FIELD RESULTS MAY VARY.

THE ENGINEER HAS CALCULATED THE ABOVE QUANTITIES OF EARTHWORK TO BE REGARDED AS AN ESTIMATE OF THE BULK MOVEMENT OR REDISTRIBUTION OF SOILS ON THIS PROJECT. AS AN ESTIMATE, THESE QUANTITIES ARE INTENDED FOR GENERAL USE, AND THE ENGINEER ASSUMES NO LIABILITY FOR COST OVERRUNS DUE TO EXCESS EXCAVATED MATERIALS OR SHORTAGES OF FILL.

THE QUANTITIES ESTIMATED FOR EACH OF THE IMPROVEMENT ITEMS LISTED ABOVE ARE BASED UPON THE HORIZONTAL AND VERTICAL LOCATION OF THE IMPROVEMENTS AS PROPOSED ON THE SITE ENGINEERING PLANS PREPARED BY COLE AND ASSOCIATES CONSULTING ENGINEERS.

THE ENGINEER'S EARTHWORK ESTIMATE DOES NOT INCLUDE ANY OF THE FOLLOWING ITEMS REQUIRING EARTHWORK THAT MAY BE NECESSARY FOR COMPLETION OF THE PROJECT: MISCELLANEOUS UNDERGROUND CONDUITS, INCLUDING SEWER LINES AND WATER MAINS LESS THAN TWENTY-FOUR INCHES IN DIAMETER, STANDARD MANHOLES; PROCESS OR TRANSFER PIPING; ELECTRICAL OR TELEPHONE CONDUITS; BASES FOR LIGHT STANDARDS; BUILDING FOOTINGS AND FOUNDATIONS, STRIPPING OF TOPSOIL, ETC..

THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACTUAL SIZE OF THE FIELD EXCAVATIONS MADE FOR THE INSTALLATION OF UNDERGROUND STRUCTURES, AND AS SUCH, THE ACTUAL QUANTITIES OF EARTHWORK FROM SUCH ITEMS MAY VARY FROM THE ESTIMATE SHOWN ABOVE.

THE ENGINEER ASSUMES NO RESPONSIBILITY FOR COSTS INCURRED DUE TO REMOVAL OF UNSUITABLE MATERIAL FROM SITE.

THE ABOVE QUANTITIES ARE AN ESTIMATE AND SHOULD BE CONSIDERED AS SUCH. IT IS THE GRADING CONTRACTOR'S RESPONSIBILITY TO PREPARE A QUANTITY TAKEOFF AND NOTE ANY DISCREPANCIES TO THE ENGINEER.

SANITARY SEWER NOTES

1.) UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE LOCATION 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 OF CONSTRUCTION OF IMPROVEMENTS.

2.) GAS, WATER AND OTHER UNDERGROUND UTILITIES SHALL NOT CONFLICT WITH THE DEPTH OR HORIZONTAL LOCATION OF EXISTING OR PROPOSED SANITARY AND STORM SEWERS, INCLUDING HOUSE LATERALS.

3.) ALL FILL INCLUDING PLACES UNDER PROPOSED SANITARY SEWER LINES AND PAVED AREAS INCLUDING TRENCH BACK FILLS WITHIN AND OFF THE ROAD RIGHTS-OF-WAY SHALL BE COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST (ASTM D1557)". ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACK FILLING OPERATIONS, WITH A COPY TO BE PROVIDED TO CITY OF O'FALLON. THE COMPACTED FILL SHALL BE FREE OF RUTTING AND SHALL BE NON-YIELDING AND NON-PUMPING DURING PROOF ROLLING AND COMPACTION.

4.) THE CONTRACTOR SHALL PREVENT ALL STORM, SURFACE WATER, MUD AND CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER SYSTEM.

5.) ALL SANITARY SEWER FLOW LINES AND TOPS BUILT WITHOUT ELEVATIONS FURNISHED BY THE ENGINEER WILL BE THE RESPONSIBILITY OF THE SEWER CONTRACTOR.

6.) EASEMENTS SHALL BE PROVIDED FOR ALL SANITARY SEWERS AND ALL UTILITIES ON THE RECORD PLAT.

7.) ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS OF THE THE CITY OF O'FALLON.

8.) THE CITY OF O'FALLON SHALL BE NOTIFIED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION FOR COORDINATION OF INSPECTION SERVICES.

9.) ALL SANITARY SEWER BUILDING CONNECTIONS SHALL BE 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 BUILDING CONNECTION SHALL NOT BE LESS THAN THE DIAMETER OF THE PIPE PLUS THE VERTICAL DISTANCE OF 2-1/2 FEET.

10.) ALL PVC SANITARY SEWER PIPE SHALL CONFORM TO THE REQUIREMENTS OF ASTM D-3034 STANDARD SPECIFICATION FOR PVC POLYVINYL CHLORIDE SEWER PIPE, 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 SPRING LINE OF PIPE. IMMEDIATE BACK FILL OVER PIPE SHALL CONSIST OF SAME SIZE "CLEAN" OR "MINUS" STONE FROM SPRING LINE OF PIPE TO 6 INCHES ABOVE THE TOP OF PIPE.

11.) ALL SANITARY AND STORM SEWER TRENCH BACK FILLS SHALL BE WATER JETTED. GRANULAR BACK FILL WILL BE USED UNDER ALL PAVEMENT AREAS AND WITHIN ALL STREET RIGHTS-OF-WAY.

12.) ALL PIPES SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLES. FLAT INVERT STRUCTURES NOT ALLOWED.

13.) BRICK SHALL NOT BE USED ON SANITARY SEWER MANHOLES.

14.) EXISTING SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED.

15.) MAINTAIN ACCESS TO EXISTING RESIDENTIAL DRIVEWAYS AND STREETS.

16.) PRE-MANUFACTURED ADAPTERS SHALL BE USED AT ALL PVC TO DIP CONNECTIONS. RUBBER BOOT/MISSION-TYPE COUPLINGS WILL NOT BE ALLOWED.

17.) ANY PERMITS, LICENSES, EASEMENTS, OR APPROVALS REQUIRED TO WORK ON PUBLIC OR PRIVATE PROPERTIES OR ROADWAYS ARE THE RESPONSIBILITY OF THE DEVELOPER.

18.) 'TYPE N' LOCK-TYPE COVER AND LOCKING DEVICE (LOCK-LUG) SHALL BE USED WHERE LOCK-TYPE COVERS ARE REQUIRED.

19.) MAINTENANCE OF THE SEWERS DESIGNATED AS PUBLIC SHALL BE THE RESPONSIBILITY OF THE METROPOLITAN ST. LOUIS SEWER DISTRICT UPON DEDICATION OF THE SEWERS TO THE THE CITY OF O'FALLON.

20.) SEPTIC TANKS SHALL BE ABANDONED IN ACCORDANCE WITH THE CITY OF O'FALLON'S STANDARDS AND SPECIFICATIONS.

21.) ESTIMATED SUBDIVISION SANITARY FLOW = 4200 GPD

22.) ALL SANITARY STRUCTURES SHALL BE CAST WITH A ⅞ DROP INSIDE OF THEM.

STORM SEWER NOTES

1.) ALL CONCRETE PIPE SHALL BE REINFORCED, AND CONFORM TO A.S.T.M. DESIGNATION C76 CLASS III UNLESS OTHERWISE NOTED.

2.) ALL STORM SEWER STRUCTURES WITHIN PROJECT SITE TO BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF O'FALLON CONSTRUCTION SPECIFICATIONS.

3.) ALL TRENCHES UNDER ALL AREAS TO BE PAVED AND UNDER EXISTING PAVING AND WITHIN STREET RIGHTS-OF-WAY SHALL BE GRANULARLY FILLED WITH 3/4" MINUS CRUSHED LIMESTONE ONLY. BACK FILL SHALL BE PLACED IN ACCORDANCE WITH THE CITY OF O'FALLON STANDARD CONSTRUCTION SPECIFICATIONS.

4.) ALL TRENCH BACK FILLS WITHIN THE PUBLIC RIGHTS-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACK FILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACK FILL ALSO IN LIEU OF THE COMPACTED EARTH BACKFILL.

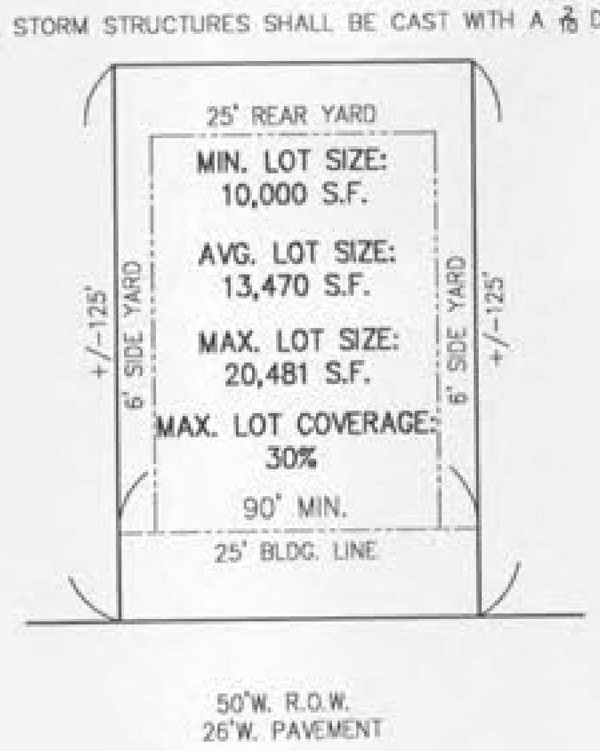
5.) "O" RING RUBBER GASKETED WATER TIGHT JOINTS SHALL BE USED FOR SPECIFIC SEWER REACHES AS NOTED ON THE STORM SEWER PROFILE SHEETS.

6.) ALL FILL INCLUDING PLACES UNDER PROPOSED STORM AND SANITARY SEWER LINES AND PAVED AREAS INCLUDING TRENCH BACK FILLS WITHIN AND OFF THE ROAD RIGHTS-OF-WAY SHALL BE COMPACTED TO 90 PERCENT OF MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST (ASTM D1557)". ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACK FILLING OPERATIONS, WITH A COPY TO BE PROVIDED TO CITY OF O'FALLON. THE COMPACTED FILL SHALL BE FREE OF RUTTING AND SHALL BE NON-YIELDING AND NON-PUMPING DURING PROOF ROLLING AND COMPACTION.

7.) EASEMENTS SHALL BE PROVIDED FOR ALL STORM SEWERS AND ALL UTILITIES ON THE RECORD PLAT.

8.) MAINTENANCE OF THE SEWERS DESIGNATED AS PUBLIC SHALL BE THE RESPONSIBILITY OF THE CITY OF O'FALLON UPON DEDICATION OF THE SEWERS TO THE CITY.

9.) ALL STORM STRUCTURES SHALL BE CAST WITH A ⅞ DROP INSIDE OF THEM.



TYPICAL LOT

N.T.S.

WATER LINE NOTES

1.) ALL MATERIALS AND METHODS OF CONSTRUCTION FOR WATER MAINS TO MEET THE REQUIREMENTS OF THE THE CITY OF O'FALLON.

2.) WATER MAINS SHALL BE POLY VINYL CHLORIDE (PVC) CLASS 200, SDR 21 PIPE CONFORMING TO A.S.T.M. SPECIFICATION D2241. THE PIPE SHALL BE PRESSURE RATED FOR A HYDROSTATIC WORKING PRESSURE OF 200 PSI AT 73.4 DEGREES F AND SHALL MEET ALL APPLICABLE REQUIREMENTS AS SET FORTH UNDER COMMERCIAL STANDARD (CS) 256-63.

3.) DUCTILE IRON PIPE MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL THE REQUIREMENTS OF U.S.A. STANDARD A2151 (A.W.W.A. C-151-65). THE PIPE SHALL BE FURNISHED WITH MECHANICAL, PUSH ON, OR FLANGE JOINTS AS REQUIRED. THE INTERIOR SURFACE OF PIPE SHALL BE COATED WITH A CEMENT-MORTAR LINING IN ACCORDANCE WITH U.S.A. STANDARD A 21.4 (A.W.W.A. C 104). AFTER DRYING, THE CEMENT LINING SHALL BE SEAL COATED WITH SIMILAR A.W.W.A. APPROVED BITUMINOUS VARNISH. ALL FITTINGS AND BENDS SHALL BE CONSTRUCTED OF CAST OR DUCTILE IRON.

4.) WATER MAIN TRACER TAPE TO BE INSTALLED WITH ALL WATER MAIN AND SHALL CONSIST OF THREE INCH WIDE TAPE MADE OF BONDED LAYER PLASTIC WITH A METALLIC FOIL CORE. TAPE SHALL BE "TERRA TAPE D" AS MANUFACTURED BY THE GRIFFOLYN COMPANY OF HOUSTON, TEXAS, OR APPROVED EQUAL.

5.) WATER MAIN LOCATOR WIRE SHALL BE INSTALLED WITH ALL WATER MAIN, FITTINGS, AND VALVE INSTALLATION AND SHALL CONSIST OF A STANDARD ELECTRIC SERVICE WIRE, A SINGLE NO. 12 U.L. APPROVED COPPER WIRE OF THE SOLID OR STRAND TYPE WITH INSULATION FOR 600 VOLTS.

6.) ALL VALVES FOR EXTERIOR USE SHALL BE BURIED GATE VALVES WITH A VALVE BOX AND TWO INCH SQUARE NUT ATTACHMENT FOR MANUAL OPERATION WITH STANDARD VALVE WRENCH. GATE VALVES SHALL BE IRON BODIED WITH BRASS OR BRONZE MOUNTED DOUBLE DISC GATE. GATE VALVES SHALL BE OF THE NON-RISING STEM TYPE, OPENED BY TURNING COUNTER-CLOCKWISE. THE VALVE STEM SHALL HAVE DOUBLE "O" RING SEALS AND TERMINATE AT TOP WITH TWO INCH SQUARE NUT. GATE VALVE CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE LATEST GOVERNING SPECIFICATIONS OF THE A.S.T.M. AND A.W.W.A. ALL GATE VALVES FOR USE SHALL BE "MUELLER" OR APPROVED EQUAL.

7.) VALVE BOXES FOR USE SHALL BE THE SCREW-TYPE, EXTENSION SLEEVE KIND, OR CAST IRON PIPE. ALL BOXES SHALL BE FITTED WITH A RECESSED COVER HAVING THE WORD "WATER" CAST IN THE TOP.

8.) FIRE HYDRANTS SHALL BE MUELLER "CENTURION" OR THE AMERICAN DARLING MODEL NO. "B-84-B". HYDRANTS SHALL BE TRAFFIC MODEL TYPE WITH A WORKING PRESSURE OF 150 PSI IN FULL COMPLIANCE WITH A.W.W.A. STANDARD SPECIFICATIONS C-502 OF THE LATEST REVISION. HYDRANTS TO BE THREE-WAY WITH TWO 2 ½INCH CONNECTIONS AND ONE 4 ½INCH CONNE

RE SHALL BE NO OBSTRUCTIONS WITHIN 6 FEET OF ANY FIRE HYDRANT AND/OR FIRE DEPARTMENT CONNECTION TO AN AUTOMATIC SPRINKLER SYSTEM.

11.) FIRE HYDRANT SHALL BE IN ACCORDANCE WITH THE O'FALLON FIRE PROTECTION DISTRICT.

12.) CONCRETE FOR THRUST BLOCKING AT BENDS, TEES, VALVES, HYDRANTS, ETC., SHALL BE 3,500 PSI COMPRESSIVE STRENGTH AT 28 DAYS.

13.) BEFORE WATER MAINS SHALL BE ACCEPTED AND PUT INTO SERVICE THEY SHALL BE TESTED FOR TWO HOURS ON EACH SEGMENT BETWEEN END POINTS AT A TEST PRESSURE OF AT LEAST 50% IN EXCESS OF NORMAL MAXIMUM OPERATING PRESSURE, NOT TO EXCEED 200 PSI. WATER MAINS SHALL BE STERILIZED AND FLUSHED IN ACCORDANCE WITH THE CITY OF O'FALLON.

14.) ALL WATER LINES AND SERVICE LINES SHALL HAVE A MINIMUM OF 42" OF COVERAGE.

15.) VERTICAL CLEARANCE BETWEEN SEWERS AND WATER MAINS SHALL BE A MINIMUM OF 2'-0". HORIZONTAL CLEARANCE SHALL BE A MINIMUM OF 10'-0".

16.) ALL TRENCHES UNDER ALL AREAS TO BE PAVED AND UNDER EXISTING PAVING AND WITHIN STREET RIGHTS-OF-WAY SHALL BE GRANULARLY FILLED WITH 3/4" MINUS CRUSHED LIMESTONE ONLY. BACK FILL SHALL BE PLACED IN ACCORDANCE WITH THE CITY OF O'FALLON STANDARD CONSTRUCTION SPECIFICATIONS.

O'FALLON NOTES

1) INSTALLATION OF LANDSCAPING AND ORNAMENTAL ENTRANCE MONUMENTS OR IDENIFICATION SIGNAGE CONSTRUCTION, IF PROPOSED, SHALL BE REVIEWED BY THE DEPARTMENT OF HIGHWAYS AND TRAFFIC FOR SIGHT DISTANCE CONSIDERATION AND APPROVED PRIOR TO INSTALLATION OR CONSTRUCTION.

2) THE DEVELOPER IS ADVISED THAT UTILITY COMPANIES WILL REQUIRE COMPENSATION FOR RELOCATION OF THEIR UTILITY FACILITIES WITHIN PUBLIC ROAD RIGHT-OF-WAY. UTILITY RELOCATION COST SHALL BE CONSIDERED THE DEVELOPER'S RESPONSIBILITY. THE DEVELOPER SHOULD ALSO BE AWARE OF EXTENSIVE DELAYS IN UTILITY COMPANY RELOCATION AND ADJUSTMENTS. SUCH DELAYS WILL NOT CONSTITUTE A CAUSE TO ALLOW OCCUPANCY PRIOR TO COMPLETION OF ROAD IMPROVEMENTS.

3) PROVIDE ADEQUATE TEMPORARY OFF-STREET PARKING FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE POHIBITED IN ORDER TO ELIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVING CONDITIONS.

4) ALL STORM WATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE POINT.

5) INTERIM STORMWATER DRAINAGE CONTROL IN THE FORM OF SILTATION CONTROL MEASURES ARE REQUIRED.

6) THE DEVELOPER IS REQUIRED TO PROVIDE ADEQUATE STORM WATER SYSTEMS IN ACCORDANCE WITH ST. CHARLES COUNTY AND M.S.D. STANDARDS.

7) NO SLOPE SHALL EXCEED 3(HORIZONTAL):1(VERTICAL) MAXIMUM.

8) ALL DISTURBED EARTH AREAS WITHIN CITY OF O'FALLON RIGHT-OF-WAY SHALL BE SODDED.

9) ALL PAVING TO BE IN ACCORDANCE WITH ST. CHARLES COUNTY STANDARDS AND SPECIFICATIONS EXCEPT AS MODIFIED BY THE CITY OF O'FALLON ORDINANCES.

10) DRIVEWAY LOCATIONS SHALL NOT INTERFERE WITH THE SIDEWALK HANDICAP RAMPS.

11) SIDEWALKS, CURB RAMPS, RAMPS AND ACCESSIBLE PARKING SPACES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED, "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (ADAAC) ALONG WITH THE REQUIRED GRADES, CONSTRUCTION MATERIALS, SPECIFICATIONS AND SIGNAGE. IF ANY CONFLICT OCCURS BETWEEN THE ABOVE INFORMATION AND THE PLANS, THE ADAAC GUIDELINES SHALL TAKE PRECEDENCE AND THE CONTRACTOR PRIOR TO ANY CONSTRUCTION, SHALL NOTIFY THE PROJECT ENGINEER.

12) ALL SIGN POST AND BACKS AND BRACKET ARMS SHALL BE PAINTED BLACK USING CARBOLINE RUSTBOND PENETRATING SEALER SG AND CARBOLINE 133 HB PAINT (OR EQUIVALENT AS APPROVED BY CITY AND MODOT).

13) ANY PROPOSED PAVILIONS OR PLAYGROUND AREAS WILL NEED A SEPARATE PERMIT FROM THE BUILDING DIVISION.

14) ALL SIGN LOCATIONS AND SIZES MUST BE APPROVED SEPERATELY THROUGH THE PLANNING DIVISION.

15) DEVELOPER MUST SUPPPLY CITY CONSTRUCTION INSPECTORS WITH SOIL REPORTS PRIOR TO OR DURING SITE SOIL TESTING. THE CONTRACTOR IS ADVISED THAT IF ALL OF THE INFORMATION REQUIRED IS NOT PROVIDED TO THE CITY'S CONSTRUCTION INSPECTORR, THE CITY WILL NOT ALLOW GRDING OR CONSTRUCTION ACTIVITIES TO PROCEED ON ANY PROJECT SITE.

16) CITY APPROVAL OF THE CONSTRUCTION SITE PLANS DOES NOT MEAN THAT SINGLE FAMILY AND TWO FAMILY DWELLING UNITS CAN BE CONSTRUCTED ON THE LOTS WITHOUT MEETING THE BUILDING SETBACKS AS REQUIRED BY THE ZONING CODE.

SILTATION CONTROL SPECIFICATIONS

SILTATION CONTROL GENERAL NOTES

1. INSTALLATION OF ALL PERIMETER SEDIMENT CONTROL SHALL BE IMPLEMENTED AND THEN INSPECTED BY THE CITY OF O'FALLON PRIOR TO CLEARING, GRUBBING, OR GRADING.
2. INSPECTION OF SILTATION CONTROL DEVICES SHALL TAKE PLACE ONCE EVERY SEVEN DAYS AND WITHIN 24 HOURS OF ANY 0.5"/24 HOUR RAIN EVENT. ANY SILTATION CONTROL IN NEED OF REPAIR SHALL OCCUR IMMEDIATELY. A COPY OF THE INSPECTION REPORT SHALL BE PROVIDED TO THE CITY OF O'FALLON.
3. WITHIN SEVEN (7) DAYS OF THE START OF CONSTRUCTION, ALL SWALES OR DRAINAGE CHANNELS, ONCE CONSTRUCTED TO FINAL GRADE, SHALL BE SODDED 12" ABOVE 100-YR STORM EVENT OR OVERFLOW ELEVATION. THE REST OF THE DRAINAGE CHANNELS SHALL BE SEEDED AND MULCHED PER SPECIFICATIONS.
4. SILT FENCES SHALL BE INSTALLED IMMEDIATELY AROUND EACH OPEN STORM SEWER AND AS DIRECTED BY THE CITY ENGINEER.
5. ALL SILTATION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED WITH VEGETATION.

SILTATION CONTROL SCHEDULE IMPLEMENTATION

1. CONTRACTOR SHALL INITIATE A PRE-CONSTRUCTION CONFERENCE PRIOR TO BEGINNING ANY WORK ON-SITE WITH THE OWNER, ENGINEER AND AGENTS OF THE THE CITY OF O'FALLON, FORTY EIGHT (48) HOURS PRIOR TO COMMENCING WORK ACTIVITIES.
2. CONTRACTOR SHALL INSTALL PERIMETER SILTATION CONTROL DEVICES AS SHOWN ON THE PLAN, PER ATTACHED SPECIFICATIONS.
3. AFTER ALL CLEARING, GRUBBING, AND EROSION CONTROL MEASURES ARE IN PLACE, GRADING AND UTILITY INSTALLATION CAN BEGIN.
4. CONTRACTOR SHALL INSTALL INLET PROTECTION, AS IDENTIFIED IN THE PLANS, AROUND EACH STORM SEWER STRUCTURE AS IT IS COMPLETED.
5. AREAS THAT ARE TO BE PERMANENTLY SEEDED SHALL RECEIVE STABILIZATION WITHIN 48 HOURS OF REACHING FINAL GRADE.
6. SEDIMENT SHALL BE REMOVED FROM THE DETENTION BASINS WHEN APPROXIMATELY ONE-HALF OF THE STORAGE VOLUME HAS BEEN FILLED, BUT IN NO CASE LESS THAN ONCE EVERY WEEK.
7. SEDIMENT SHALL BE REMOVED FROM BEHIND THE SEDIMENT FENCES WHEN THE DEPTH OF SEDIMENT REACHES SIX (6) INCHES, AS MEASURED FROM THE NATURAL GROUND. THE SEDIMENT FENCES SHALL BE REPAIRED, AS REQUIRED.

TEMPORARY ACCESS ROADS AND PARKING AREAS SPECIFICATIONS

1. TEMPORARY ROADS SHALL FOLLOW THE CONTOUR OF THE NATURAL TERRAIN TO THE EXTENT POSSIBLE. SLOPES SHOULD NOT EXCEED 10 PERCENT.
2. PARKING AREA GRADES SHOULD BE SUFFICIENT TO PROVIDE DRAINAGE, BUT SHOULD NOT EXCEED 4 PERCENT.
3. ROADBEDS SHALL BE AT LEAST 12 FEET WIDE.
4. ALL CUTS AND FILLS SHALL BE 3:1 OR FLATTER TO THE EXTENT POSSIBLE.
5. DRAINAGE DITCHES SHALL BE PROVIDED AS NEEDED.
6. THE ROADBED OR PARKING SURFACE SHALL BE CLEARED OF ALL VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.

MAINTENANCE

SEEDED AREAS ADJACENT TO THE ROADS AND PARKING AREAS SHOULD BE CHECKED PERIODICALLY TO ENSURE THAT A VIGOROUS STAND OF VEGETATION IS MAINTAINED. ROADSIDE DITCHES SHALL BE SODDED AND OTHER DRAINAGE STRUCTURES SHOULD BE CHECKED REGULARLY TO ENSURE THAT THEY DO NOT BECOME CLOGGED WITH SILT OR OTHER DEBRIS.

SHEET FLOW APPLICATIONS:

1. BALES SHALL BE PLACED IN A SINGLE ROW, AS SHOWN ON THE PLANS, WITH BOTH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER AND STAKED.
2. ALL BALES SHALL BE EITHER WIRE-BOUND OR STRING-TIED. STRAW BALES SHALL BE INSTALLED SO THAT BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES (IN ORDER TO PREVENT DETERIORATION OF THE BINDINGS).
3. THE BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED THE WIDTH OF A BALE AND THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF 4 INCHES. AFTER THE BALES ARE STAKED AND CHINKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AGAINST THE BARRIER. BACKFILL SOIL SHALL CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP TO 4 INCHES AGAINST THE UPHILL SIDE OF THE BARRIER.
4. EACH BALE SHALL BE SECURELY ANCHORED BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER. STAKES OR REBARS SHALL BE DRIVEN DEEP ENOUGH INTO THE GROUND TO SECURELY ANCHOR THE BALES.
5. THE GAPS BETWEEN BALES SHALL BE CHINKED (FILLED BY WEDGING) WITH STRAW TO PREVENT WATER FROM ESCAPING BETWEEN THE BALES. (LOOSE STRAW SCATTERED OVER THE AREA IMMEDIATELY UPHILL FROM A STRAW BALE BARRIER TENDS TO INCREASE BARRIER EFFICIENCY).
6. STRAW BALE BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED WITH VEGETATION.

CHANNEL FLOW APPLICATIONS:

1. BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE, ORIENTED PERPENDICULAR TO THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
2. THE BARRIER SHALL BE EXTENDED TO SUCH A LENGTH THAT THE BOTTOMS OF THE END BALES ARE HIGHER IN ELEVATION THAN THE TOP OF THE LOWEST MIDDLE BALE TO ASSURE THAT SEDIMENT-LADEN RUNOFF WILL FLOW EITHER THROUGH OR OVER THE BARRIER BUT NOT AROUND IT.

MAINTENANCE

1. SILT FENCE BARRIERS AND STRAW BALES SHALL BE INSPECTED WITHIN 24 HOURS AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL WITH A COPY OF WRITTEN REPORT TO BE PROVIDED TO THE CITY OF O'FALLON.
2. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED FENCE, END RUNS AND UNDERCUTTING BENEATH FENCE.
3. CONTRACTOR SHALL REPAIR OR REPLACE SILT FENCE IN THE EVENT OF DAMAGE OR FAILURE WITHIN 24 HOURS OF NOTIFICATION.
4. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
5. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE STRAW BALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

SILT FENCE SPECIFICATIONS

1. SILT FENCE TO BE WOVEN GEOTEXTILE FABRIC MIRAFI 100X OR EQUAL.
2. FABRIC TO BE SUPPORTED BY TEE POST WITH SPADE BASE SPACED ON 5' CENTERS..
3. FABRIC SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED A MINIMUM OF 6 INCHES DEEP FOR THE LENGTH OF THE FENCE. THE EXCAVATED SOIL SHALL BE BACKFILLED AGAINST THE FENCE.
4. FENCE HEIGHT SHALL BE A MINIMUM OF 4 FEET IN HEIGHT, WITH THE FABRIC INSTALLED ON THE FENCE ON THE UPSTREAM SIDE.
5. SILT FENCES SHALL BE USED ON ALL SHEET FLOW CONDITIONS.
6. SILT FENCES SHALL BE INSTALLED AROUND ALL STORM SEWER STRUCTURES.

O'FALLON NOTES (CONT....)

17) 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 THIS PLAN). CONTROL SHALL COMMENCE WITH GRADING AND BE MAINTAINED THROUGHOUT THE PROJECT UNITL 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 OR 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 CLENED TO THE SATISFACTION OF THE OWNER AND/OR THE CITY OF O'FALLON AND/OR MODOT.

18) 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-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 BOTOM OF THE FILL UP. ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS. ENSURE 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 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.

19) ALL UTILITIES SHALL BE LOCATED UNDERGROUND.

20) CONTRACTOR TO PROVIDE MARKINGS ON STORM SEWER INLETS. "PEEL AND STICK" ADHESIVE PADS WILL NOT BE ALLOWED. THE FOLLOWING ARE ALLOWED:

MANUFACTURER	SIZE	ADHESIVE	STYLE	MESSAGE	WEBSITE
ACP INTERNATIONAL	3-⅞"	EPOXY	CRYSTAL CAP	NO DUMPING DRAINS TO WATERWAYS (SD-W-CC)	www.acpinternational.com
DAS MANUFACTURING INC.	4"	EPOXY	STANDARD STYLE	NO DUMPING DRAINS TO STREAM (#SDS)	www.dasmanufacturing.com

21) REFER TO LANDSCAPING FOR ALL TREE PRESERVATION CALCULATIONS.

RE-VEGETATION SCHEDULE

VEGETATION

OFFSITE AREAS:
ALL ROADSIDE DITCHES, CUTS, FILLS AND DISTURBED AREAS ADJACENT TO PARKING AREAS AND ROADS SHALL BE STABILIZED WITH APPROPRIATE TEMPORARY OR PERMANENT VEGETATION ACCORDING TO THE APPLICABLE STANDARDS AND SPECIFICATIONS.

ONSITE:
REFER TO DRAWINGS FOR AREAS WHICH SHALL BE STABILIZED WITH APPROPRIATE TEMPORARY OR PERMANENT VEGETATION ACCORDING TO THE APPLICABLE STANDARDS AND SPECIFICATIONS.

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 NUETRALIZING MATERIAL AS PER STATE EVALUATION OF QUARRIED ROCK.

REVISIONS

12-29-05	1	CITY OF O'FALLON COMMENTS
02-09-06	2	CITY OF O'FALLON COMMENTS
04-03-06	3	CITY OF O'FALLON COMMENTS
05-02-06	4	MoDOT COMMENTS

DEVELOPER/OWNER:
R3 DEVELOPMENT, LLC
7800 HIGHWAY N
O'FALLON, MO 63366
(636) 561-3948

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O'FALLON, MO 63366

SPECIFICATIONS SHEET

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