Commencing at the Southwesterly corner of above said Lot C, said point also being located at the point of intersection of the Northerly line of Missouri State Highway 40TR, (US Route 40-61), variable width, as established by instrument recorded in Book 2740, Page 1733 of the above said records with the Easterly line of Progress Point Parkway, variable width, thence along said Easterly line the following courses and distances: North 12 degrees 23 minutes 06 seconds East 125.38 feet to a point of curvature to the left for which the radius point bears North 77 degrees 36 minutes 54 seconds West 1035.00 feet; thence along said curve with a chord which bears North 11 degrees 38 minutes 51 seconds East 26.65 feet, an arc length of 26.65 feet to a point on a non-tangent curve to the left for which the radius point bears North 80 degrees 22 minutes 47 seconds West 1029.00 feet; thence along said curve with a chord which bears North 03 degrees 33 minutes 42 seconds East 217.21 feet, an arc length of 217.61 feet to a point on a non-tangent curve to the left for which the radius point bears South 88 degrees 50 minutes 13 seconds West 1030.00 feet; thence along said curve for with a chord which bears North 02 degrees 59 minutes 01 seconds West 65.44 feet, an arc length of 65.45 feet to a point of tangency; North 04 degrees 48 minutes 14 seconds West 210.51 feet to the POINT OF BEGINNING of the herein described tract: thence continuing along last said Easterly line the following courses and distances: North 04 degrees 48 minutes 14 seconds West 1.92 fect to a point of curvature to the right for which the radius point bears North 85 degrees 11 minutes 46 seconds East 570.00 feet; thence along said curve with a chord which bears North 19 degrees 20 minutes 34 seconds East 466.34 feet, an arc length of 480.44 feet to a point on a non-tangent curve to the right for which the radius point bears South 38 degrees 34 minutes 05 seconds East 554.50 feet; thence along said curve with a chord which bears North 57 degrees 04 minutes 34 seconds East 109.07 feet, an arc length of 109.25 feet; North 62 degrees 43 minutes 14 seconds East 27.62 feet to a point of curvature to the right for which the radius point bears South 27 degrees 16 minutes 46 seconds East 189.00 feet; thence along said curve with a chord which bears North 73 degrees 55 minutes 54 seconds East 73.49 feet, an arc length of 73.96 feet to a point of compound curve to the right for which the radius point bears South 04 degrees 51 minutes 26 seconds East 121.00 feet; thence along said curve with a chord which bears South 74 degrees 59 minutes 31 seconds East 82.23 feet; an arc length of 83.90 feet to a point of compound curve to the right for which the radius point bears South 34 degrees 52 minutes 23 seconds West 189.00 feet; thence along said curve with a chord which bears South 45 degrees 26 minutes 21 seconds East 63.61 feet, an arc length of 63.91 feet to a point of tangency, said point also being located on the Southerly line of Technology Drive, variable width; thence along said Southerly line the following courses and distances: South 35 degrees 45 minutes 05 seconds East 128.17 feet; South 30 degrees 06 minutes 50 seconds East 35.32 feet and South 27 degrees 15 minutes 05 seconds East 360.88 feet; thence departing last said Southerly line the following courses and distances: South 62 degrees 44 minutes 38 seconds West 30.34 feet to a point on a non-tangent curve to the left for which the radius point bears South 32 degrees 56 minutes 08 seconds East 69.90 feet; thence along said curve with a chord which bears South 40 degrees 44 minutes 14 seconds West 39.30 feet, an arc length of 39.84 feet to a point on a non-tangent curve to the right for which the radius point bears North 63 degrees 57 minutes 48 seconds West 297.03 feet; thence along said curve with a chord which bears South 47 degrees 16 minutes 33 seconds West 215.20 feet, an arc length of 220.21 feet a point on a non-tangent curve for which the radius point bears North 22 degrees 32 minutes 29 seconds West 251.66 feet; thence along said curve with a chord which bears South 74 degrees 20 minutes 45 seconds West 60.35 feet, an arc length of 60.50 feet to a point on a non-tangent curve to the right for which the radius point bears North 09 degrees 50 minutes 07 seconds West 293.08 feet; thence along said curve with a chord which bears South 82 degrees 01 minutes 31 seconds West 19.03 feet, an arc length of 19.03 feet to a point on a non-tangent curve to the right for which the radius point bears North 04 degrees 52 minutes 24 seconds West 351.53 feet; thence along said curve with a chord which bears North 65 degrees 10 minutes 47 seconds West 348,27 feet, an arc length of 364,36 feet; North 36 degrees 58 minutes 56 seconds West 29,77 feet to a point of curvature to the left for which the radius point bears South 53 degrees 01 minutes 04 seconds West 50.50 feet; thence along said curve with a chord which bears North 60 degrees 58 minutes 10 seconds West 41.06 feet, an arc length of 42.28 feet to a point of tangency and North 84 degrees 57 minutes 24 seconds West 66.31 feet to the POINT OF BEGINNING and containing 358,195 square feet or 8.233 acres more or less according to calculations performed by Stock and Associates Consulting Engineers, Inc. on October 30, 2007.

LEGAL DESCRIPTION

Lot C-2 of Progress Point Village

A tract of land being part of Lot C of Progress Point, a subdivision according to the Plat thereof recorded in Plat Book 38, Pages 310 thru 313 of the records of the Recorder of Deeds Office in St. Charles County, Missouri and being located in U.S. Surveys 1669, Township 46 North, Range 3 East of the Fifth Principal Meridian, City of O'Fallon, St. Charles County, Missouri and being more particularly described as follows;

Beginning at the Southwesterly corner of above said Lot C, said point also being located at the point of intersection of the Northerly line of Missouri State Highway 40TR, (US Route 40-61), variable width, as established by instrument recorded in Book 2740, Page 1733 of the above said records with the Easterly line of Progress Point Parkway, variable width, thence along said Easterly line the following courses and distances: North 12 degrees 23 minutes 06 seconds East 125.38 feet to a point of curvature to the left for which the radius point bears North 77 degrees 36 minutes 54 seconds West 1035.00 feet; thence along said curve with a chord which bears North 11 degrees 38 minutes 51 seconds East 26.65 feet, an arc length of 26.65 feet to a point on a non-tangent curve to the left for which the radius point bears North 80 degrees 22 minutes 47 seconds West 1029.00 feet; thence along said curve with a chord which bears North 03 degrees 33 minutes 42 seconds East 217.21 feet, an arc length of 217.61 feet to a point on a non-tangent curve to the left for which the radius point bears South 88 degrees 50 minutes 13 seconds West 1030.00 feet; thence along said curve for with a chord which bears North 02 degrees 59 minutes 01 seconds West 65.44 feet, an arc length of 65.45 feet to a point of tangency; North 04 degrees 48 minutes 14 seconds West 210.51 thence departing last said Easterly line the following courses and distances: South 84 degrees 57 minutes 24 seconds East 66.31 feet to a point of curvature to the right for which the radius point bears South 05 degrees 02 minutes 36 seconds West 50.50 feet; thence along said curve with a chord which bears South 60 degrees 58 minutes 10 seconds East 41.06 feet and an arc length of 42.28 feet to the left for which the radius point bears North 54 degrees 30 minutes 50 seconds East 351.53 feet; thence along said curve with a chord which bears South 65 degrees 10 minutes 47 seconds East 348.27 feet and an arc length of 364.36 feet to a point on a non-tangent curve to the left for which the radius point bears North 06 degrees 06 minutes 51 seconds West 293.08 feet; thence along said curve with a chord which bears North 82 degrees 01 minutes 31 seconds East 19.03 feet and an arc length of 19.03 feet to a point on a non-tangent curve to the left for which the radius point bears North 08 degrees 46 minutes 01 seconds West 251.66 feet; thence along said curve with a chord which bears North 74 degrees 20 minutes 45 seconds East 60.35 feet and an arc length of 60.50 feet to a point on a non-tangent curve to the left for which the radius point bears North 21 degrees 29 minutes 07 seconds West 297.03 feet; thence along said curve with a chord which bears North 47 degrees 16 minutes 33 seconds East 215.20 feet and an arc length of 220.21 feet to a point on a non-tangent curve to the right for which the radius point bears South 65 degrees 35 minutes 23 seconds East 69.90 feet; thence along said curve with a chord which bears North 40 degrees 44 minutes 14 seconds East 39.30 feet and an arc length of 39.84 feet and North 62 degrees 44 minutes 38 seconds East 30.34 feet to a point on the Southerly line of Technology Drive, variable width; thence along said Southerly line the following courses and distances: South 27 degrees 15 minutes 05 seconds East 91.89 feet to a point of curvature to the left for which the radius point bears North 62 degrees 44 minutes 55 seconds East 430.00 feet; thence along said curve with a chord which bears South 47 degrees 05 minutes 47 seconds East 291.95 feet and an arc length of 297.87 feet to the Northwesterly line of a tract of land as conveyed to Trident Weldon Spring, LLC, by instrument recorded in Book 4376, Page 88 of the above said records; thence along said Northwesterly line South 23 degrees 03 minutes 31 seconds West 569.90 feet to the Northerly line of above said Missouri State Highway 40TR; thence along said Northerly line the following courses and distances: North 78 degrees 57 minutes 41 seconds West 513.70 feet; North 82 degrees 26 minutes 15 seconds West 81.99 feet and North 77 degrees 47 minutes 47 seconds West 200.13 feet to the Point of Beginning and containing 529,367 square feet or 12.153 acres more or less according to calculations performed by Stock and Associates Consulting Engineers, Inc. on October 30, 2007.

VEGETATION ESTABLISHMENT

TILLAGE PERPARATIONS *TILL TOP 4" OF SOIL

FERTILIZER

* PER SOIL TEST OR FOLLOWING TABLE:

LBS./1,000 S.F. K LIME TEMPORARY SEEDING 0.7 0.7 0.7 14 ENM+ PERMANENT 1.0 1.4 1.4 14 ENM+

+ SOIL TEST RESULTS TAKE PRECEDENCE, DUE TO HIGHLY VARIBALE SOIL pH.

SEEDING RATES TEMPORARY WHEAT OR RYE

150 LBS. / ACRE

PERMANENT FESCUES KENTUCKY BLUEGRASS/ PERENNIAL RYEGRASS FINE FESCUE

6 LBS / 1000 S.F. 8 LBS / 1000 S.F.

SEEDING PERIODS MARCH 1 - JUNE 1 LISTED LEGUMES/GRASSES AUGUST 1 - OCTOBER WHEAT/RYE MARCH 15 - NOVEMBER 1

STORMWATER DETENTION

THE PROPOSED SITE IS LOCATED WITHIN TWO EXISTING WATERSHEDS. STORMWATER DETENTION BASINS WERE CONSTRUCTED FOR BOTH OF THESE WATERSHEDS AS PART OF PHASE I AND II OF THE PROGRESS POINT DEVELOPMENT. THE DETENTION BASIN CALCULATIONS INCLUDED CONSIDERATIONS FOR FUTURE DEVELOPMENT OF LOT 'C'. THEREFORE, NO ADDITIONAL DETENTION IS REQUIRED.

TRAFFIC CONTROL

TRAFFIC CONTROL IS TO BE PER MODOT AND/OR MUTCD STANDARDS, WHICHEVER IS MOST STRINGENT.

EROSION AND SEDIMENT CONTROL NOTES

- Installation of perimeter sediment control shall be implemented as the first step of grading and within seven (7) days of grubbing
- 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
- 3. Any disturbed areas which will remain unworked for 14 days or more shall be stabilized with seeding and mulching per specifications within 7 days. If seasonal conditions prohibit seeding, mulching or matting shall be used.
- 4. All slopes or drainage channels, once constructed to final grade, shall be seeded and mulched per specifications within seven (7) days.
- 5. Silt fences shall be installed immediately around each storm sewer structure once final construction of each individual
- 6. All siltation control devices shall remain in place until upslope areas have been permanently stabilized.
- 7. 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 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 in 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." Owner shall be responsible for structure to remain as permanent after construction is complete.
- Erosion control 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.
- When deemed necessary, positive steps should be exercised to prevent this soil from damaging adjacent property and silting up all storm drainage systems whether on or off site.
- 10. LOCATIONS AND DETAILS FOR ALL SILTATION CONTROL DEVICES SHALL FOLLOW, "ST. CHARLES COUNTY SOIL AND WATER CONSERVATION DISTRICT EROSION AND SEDIMENT CONTROL" GUIDELINES. Siltation Control Schedule Implementation
- 1. Perimeter siltation control and construction entrances to be installed.
- Begin placing aggregate base in parking areas once area has reached final grade to prevent erosion.
- 3. Place silt fence around each storm sewer structure as it is
- 4. Immediately seed areas upon reaching final grade that are to be permanently seeded.

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
- 2. Grades should be sufficient to provide drainage, but should not exceed 10 percent.
- 3. Roadbeds shall be at least 24 feet wide.
- 4. All cuts and fills shall be 3:1 or flatter to the extent possible.
- Drainage attaches shall be provided as needed. 6. The roadbed or parking surface shall be cleared of all

with fabric manufacturer's specifications.

vegetation, roots and other objectionable material. A 10-inch course of 2" MINUS aggregate shall be applied immediately after grading or the completion of utility installation within the right—of—way. Filter fabric may be applied to the roadbed for additional stability in accordance

Vegetation

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.

Maintenance

Both temporary and permanent roads and parking areas may require periodic top dressing with new gravel. 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 and other drainage structures should be checked regularly to ensure that they do not become clogged with silt or other

All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in 1/2 inch of rain

STORM SEWER NOTES

- 1.) ALL CONCRETE SHALL BE REINFORCED, AND CONFORM TO A.S.T.M. DESIGNATION C76-80 CLASS III UNLESS NOTED.
- 2.) ALL STORM SEWER STRUCTURES WITHIN PROJECT SITE TO BE CONSTRUCTED IN ACCORDANCE WITH ST. CHARLES COUNTY HIGHWAY DEPARTMENT. 3.) TYPE "C" BEDDING IS REQUIRED FOR PIPES IN ROCK.
- 4.) ALL TRENCH BACKFILLS UNDER PAVEMENT SHALL BE GRANULAR BACKFILLED.
- 5.) ALL CURB INLETS AND AREA INLETS TO HAVE 5/8" TRASH BAR ACROSS INLET OPENINGS.
- 6.) "O" RING PIPE TO BE USED ON ALL STORM SEWERS.
- 7.) GRANULAR BACKFILL TO BE PLACED WITH A MINIMUM OF 1'H:1'V SLOPE FROM EDGE OF PAVEMENT.
- 8.) BRICK SHALL NOT BE USED IN THE CONSTRUCTION OF STORM SEWER STRUCTURES. 9.) PROVIDE 36" MINIMUM COVER FOR STORM SEWERS
- 10.) PROVIDE CONCRETE CRADLES FOR RCP AND CONCRETE ENCASEMENTS FOR HDPE AT CROSSING WITH SANITARY SEWER.
- 11.) COMPACTED ROCK BACKFILL IS REQUIRED IN THE DISTURBED GROUND AROUND THE STRUCTURE OF ALL DROP STRUCTURES.
- 12.) ALL STORM SEWERS ARE TO BE CONSIDERED PRIVATE, UNLESS OTHERWISE NOTED. 13.) CONTRACTORS TO PROVIDED ALTERNATE BID FOR ADS N-12 ULTRA WT OR EQUAL (SMOOTH INTERIOR) AASHTO TYPE "S" (N-12 ULTRA WT).
- THE STRUCTURE. 15.) CONNECTIONS AT ALL STORM OR SANITARY STRUCTURES TO BE MADE WITH "A-LOCK" JOINT OR EQUAL.

14.) ALL STRUCTURES AND MANHOLES SHALL HAVE POSITIVE DRAINAGE THROUGH

- Straw Bale Siltation Control Specifications
- Sheet Flow Applications
 - Bales shall be placed in a single row, lengthwise on the contour, with both ends of adjacent bales tightly abutting one
 - 2. All bales shall be either wire-bound or string-tied. Straw bales shall be installed so that buildings are oriented around the sides rather than along the tops and bottoms of the bales (in order to prevent deterioration of the bindings). See Detail this sheet.
 - 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 and shall be built up to 4 inches against the uphill side of the barrier (See detail this sheet).
 - 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. 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. Inspection shall be frequent and repair or replacement shall be made promptly as needed.
 - Straw bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized.

Channel Flow Applications

- 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 remaining steps for installing a straw bale barrier for sheet flow applications apply here, with the following
- 3. 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 (see detail) to assure that sedimentladen runoff will flow either through or over the barrier but not around it.
- Maintenance 1. Straw bale barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- 2. Close attention shall be paid to the repair of damaged fence, end runs and undercutting beneath fence.
- 3. Necessary repairs to barriers or replacement of silt fence shall be accomplished promptly.
- 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 metal tee post with spade base spaced on 5' centers with $6 \times 6/10 \times 10$ gage welded wire ence. See detail this sheet.
- 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. See detail this sheet.
- Fence height shall be a minimum of 4 feet in height, with the fabric installed on the fence on the upstream side.
- Silt fences shall be used only on sheet flow conditions.
- 6. Silt fences shall be installed around all storm sewer

Maintenance

- 1. Silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainf
- 2. Close attention shall be paid to the repair of damaged bales. end runs and undercutting beneath bales.
- 3. Necessary repairs to barriers or replacement of bales shall be accomplished promptly.
- 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 silt fence barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

EARTHWORK NOTES

- BULK CUT= 5,635 ± CUBIC YARDS
- BULK FILL= 6,548 ± CUBIC YARDS
- THE ABOVE QUANTITIES DO NOT INCLUDE TOPSOIL MATERIAL. CONTRACTOR TO FOLLOW GEOTECHNICAL ENGINEER RECOMMENDATIONS AND STRIP OFF 2"± OF TOPSOIL FROM DISTURBED AREAS PRIOR TO GRADING.
- 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 NTENDED FOR GENERAL USE, AND THE ENGINEER ASSUMES NO LIABILITY FOR COST OVERRUNS DUE TO EXCESS EXCAVATED MATERIALS OR SHORTAGES OF
- 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 STOCK 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, ETC.
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACTUAL SIZE OF THE FIELD EXCAVATIONS MADE FOR THE INSTALLATION OF UNDERGROU STRUCTURES, AND AS SUCH, THE ACTUAL QUANTITIES OF EARTHWORK FROM
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR COSTS INCURRED DUE TO UNSUITABLE MATERIAL WHICH MUST BE REMOVED 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.
- 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 MITIGATINO SHALL BE SHOWN ON THE GRADING PLAN AND DOCUMENTED BY THE SOILS ENGINEER.
- THE QUANTITIES ESTIMATED DO NOT TAKE INTO ACCOUNT SHRINKAGE FACTORS. THE GRADING CONTRACTOR SHOULD CONSULT THE SOILS REPORT FOR USE OF THE APPROPRIATE FACTORS DURING EARTHWORK CALCULATIONS.

GENERAL NOTES

- 1. BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK & ASSOCIATES.
- 2. ALL UTILITIES SHOWN HAVE BEEN LOCATED BY SURVEY AND RECORD INFORMATION. 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.
- NO SLOPE SHALL BE STEEPER THAN 3:1.
- 4. FEMA MAP 29183C0430 E DATED 8/2/96 ZONE "X" AND OTHER AREAS.
- 5. ALL SLOPES TO BE STABILIZED IMMEDIATELY AFTER GRADING.
- 6. ALL UTILITIES SERVING SITE ARE UNDERGROUND.
- 7. ALL OUTSIDE TRASH CONTAINERS, HVAC UNITS, ELECTRIC, TELEPHONE AND GAS METERS, SATELLITE DISHES, AND ROOFTOP MECHANICAL APPARATUS SHALL BE THOROUGHLY SCREENED WITH MATERIALS AND/OR LANDSCAPING TO CONCEAL THE VISIBILITY OF SUCH ITEMS FROM THE VIEW OF RIGHTS-OF-WAY AND/OR ADJACENT PROPERTIES AS APPROVED BY THE PLANNING AND ZONING COMMISSION.
- 8. ALL CONSTRUCTION AND MATERIALS USED SHALL CONFORM TO CURRENT CITY OF O'FALLON STANDARDS.
- 9. SEE ARCHITECTURAL DRAWINGS FOR ALL BUILDING DIMENSIONS AND DETAILS.
- 10. HANDICAP STALL LOCATIONS ARE TO BE DETERMINED AND COORDINATED WITH THE CITY OF O'FALLON. 11. ALL PROPOSED BUILDINGS LOCATED ON THE PROPERTY AND ARE DESIGNATED "FUTURE DEVELOPMENT", SHALL REQUIRE THE SUBMISSION AND APPROVAL OF A COMPLETED SITE PLAN THAT INDICATES THAT ALL SITE REQUIREMENTS HAVE BEEN MET OR EXCEEDED, PRIOR TO
- 12. ROOF TOP MECHANICAL EQUIPMENT ARE SHOWN BY PARAPET WALL AND GROUND MOUNTED MECHANICAL EQUIPMENT MUST BE FULLY SCREENED WITH LANDSCAPING OR SOLID MATERIALS
- 13. ALL FILL PLACED UNDER PROPOSED STORM AND SANITARY SEWER, PROPOSED ROADS, AND/OR PAVED AREAS SHALLL BE COMPACTED TO 95% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T-180 COMPACTION TEST OR 100% OF MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROTOR 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 BACKFILLING OPERATIONS. "NOTE THAT 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 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.
- 14. DEVELOPER MUST SUPPLY CITY CONSTRUCTION INSPECTORS WITH SOIL REPORTS PRIOR TO OR DURING SITE SOIL TESTING. REPORTS MUST CONTAIN THE FOLLOWING INFORMATION:
 - MAXIMUM DRY DENSITY
 - OPTIMUM MOISTURE CONTENT - MAXIMUM/MINIMUM ALLOWABLE MOISTURE CONTENT - CURVE MUST BE PLOTTED SHOWING DENSITY FROM A MINIMUM OF 95% COMPACTION AND ABOVE DETERMINED BY THE "MODIFIED AASHTO-180 COMPACTION TEST" OR FROM A MINIMUM OF 100% AS DETERMINED BY THE "STANDARD PROCTOR TEST AASHTO T-99, METHOD C" (ASTM D-698). PROCTOR TYPE MUST BE DESIGNATED ON DOCUMENT. - CURVE MUST HAVE ATLEAST 5 DENSITY POINTS
 - SPECIFIC GRAVITY - NATURAL MOISTURE CONTENT
 - LIQUID LIMIT - PLASTIC LIMIT
- 15. ALL PAVED ROADWAYS GOING ON AND OFFSITE WILL BE KEPT FREE OF DIRT,
- ROCKS, GRAVEL OR OTHER MATERIALS DURING CONSTRUCTION. 16. 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
- 17. ALL PAVING TO BE IN ACCORDANCE WITH ST. CHARLES COUNTY STANDARDS AND SPECIFICATIONS EXCEPT AS MODIFIED BY THE CITY OF O'FALLON ORDINANCES.
- 18. ALL PROPOSED WATER LINE SHALL BE C900 PVC OR BETTER.
- 19. BRICK SHALL NOT BE USED IN THE CONSTRUCTION OF STORM SEWER STRUCTURES
- 20. ALL PROPOSED FENCING REQUIRES A SEPERATE PERMIT THROUGH THE PLANNING DIVISION.
- 21. ALL SIGN LOCATIONS AND SIZES MUST BE APPROVED SEPERATELY THROUGH
- THE PLANNING DIVISION. SIGN LOCATIONS ARE SHOWN ON PLANS. 22. ALL SIGN POSTS 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 THE CITY AND MODOT). SIGNS DESIGNATING STREET
- NAME SHALL BE ON THE OPPOSITE SIDE OF THE STREET FROM TRAFFIC CONTROL SIGNS. 23. CONTRACTOR TO FOLLOW GEOTECHNICAL ENGINEER RECOMMENDATIONS
- PREPARED BY MIDWEST TESTING; REPORTS DATED SEPTEMBER 11,2007 (MT #11507) 24. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ANY ROCK ENCOUNTERED. CONTRACTOR SHOULD FAMILIARIZE THEMSELVES WITH ALL THE GEOTECHNICAL REPORTS LISTED ABOVE AND REVIEW THE RECOMMENDATIONS OF THE GEOTECH ENGINEER.
- 25. SITE COVERAGE CALCULATIONS: LOT C-1 $= 8.233 \text{ Acres } \pm (100\%)$ BUILDING AREA = $0.99 \text{ Acres } \pm (12.00\%)$
- PAVEMENT AREA = $5.50 \text{ Acres } \pm (66.80\%)$ GREEN SPACE = 1.75 Acres \pm (21.20%) 26. PRESENT ZONING: "HTCD" (HIGH TECH CORRIDOR DISTRICT)
- BUILDING SETBACK REQUIREMENTS PER ZONING: (A) FRONT YARD - THIRTY FEET (30')
- (B) SIDE YARD TWENTY FEET (20') (C) REAR YARD - THIRTY FIVE FEET (35')

27. O'Fallon P&Z Parking Requirements

- * 1 space per 300 square feet of floor area. Required Spaces = 1 per 128,000/300 SF Required: 427 Total Parking Spaces Provided: 614 Total Parking Spaces
- Handicapped Spaces: * 500-1000: 2% of Total * Over 1000: 20 plus 1 per 100 Required Spaces = 0.02 x 614 total spaces Required: 13 Total Parking Spaces Provided: 13 Total Parking Spaces
- Required Bicycle Parking: One (1) space per fifteen required automobile parking spaces Required automobile parking spaces is 427 spaces. Required bicycle parking is 29 spaces.
- 28. IMPROVEMENTS ARE TO BE MADE TO THE ADJACENT RIGHT OF WAY OF ALL DEVELOPMENTS TO MEET CITY OF O'FALLON STANDARDS AND SPECIFICATION. ANY ADJUSTMENTS IN THE GRADING OF RIGHT OF WAY WHETHER IT BE EXISTING CONDITIONS OR CAUSED BY THE CONSTRUCTION OF THE DEVELOPMENT SHALL BE APPROVED BY THE CITY OF O'FALLON UPON INSPECTION OF THE SITE.
- 29. ENGINEER ASSUMES 2 INCHES OF TOPSOIL, TO BE TREATED ON SITE. 30. TREE PRESERVATION CALCULATIONS: SEE LANDSCAPE PLAN.
- 31. DRIVEWAYS AND ENTRANCES PER ST. CHARLES COUNTY STANDARDS, HDPE PIPE IS TO BE N-12WT OR EQUAL AND TO MEET ASTM F14117, WATER TIGHT FIELD TEST
- 33. ALL PLANNING AND ZONING COMMISSION REQUIREMENTS HAVE BEEN ADDRESSED IN THIS PLAN SET. 34. ALL PUBLIC ROADWAYS SHALL BE KEPT FREE OF DIRT, ROCK, SILT, OR

THER DEBRIS. MUC, DIRT, OR OTHER MATERIALS DEPOSITED ON THE

ROADWAY BY VEHICLES ENTERING OR LEAVING THE SITE WILL BE

REMOVED WITHIN A REASONABLE TIME FRAME. 35. THE DEVELOPER IS TO POST A FINANCIAL GUARANTEE OF PERFORMANCE (PER APPROVED COST ESTIMATE) AS REQUIRED BY ARTICLE 405 OF THE SUBDIVISION ORDINANCE.

36. ALL LIGHT POLES ARE TO BE LOCATED WITHIN LANDSCAPED ISLANDS. 37. LIGHTING VALUES WILL BE REVIEWED ON SITE PRIOR TO THE FINAL

IN COMPLIANCE WITH CITY STANDARDS.

38. ENSURE 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, 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 AISLE IS PROVIDED AND CURB RAMPS DO NOT PROJECT INTO THE HANDICAP ACCESS AISLE). ALL HANDICAP RAMPS ARE TO BE CONCRETE.

OCCUPANCY INSPECTION. CORRECTIONS WILL NEED TO BE MADE IF NOT

- 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 or construction of improvements.

DUCKETT CREEK SANITARY

DISTRICT CONSTRUCTION NOTES

- 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 existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match preconstruction conditions.
- 4. All fill including places under proposed storm and sanitary sewer lines and paved areas including trench backfills within and off the road right-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 backfilling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during proofrolling and compaction.
- The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer
- 6. All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility
- of the sewer contractor. 7. Easements shall be provided for all sanitary sewers, storm
- sewers and all utilities on the record plat. 8. All construction and materials shall conform to the current construction standards of the Duckett Creek Sanitary District.
- 9. The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination of
- 10. All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to the flowline 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
- 11. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Dept. of Natural Resources
- specification 10 CSR-8.120(7)(E). 12. All PVC sanitary sewer pipe shall conform to the requirements of ASTM D-3034 Standard Specification for PSM 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 springline of pipe. Immediate backfill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 6 inches above the
- top of pipe. 13. All sanitary and storm sewer trench backfills shall be water
- jetted. Granular backfill will be used under pavement areas. 14. All pipes shall have positive drainage through manholes. No
- flat invert structures are allowed. 15. All creek crossings shall be grouted rip—rap as directed by District inspectors. (All grout shall be high slump ready—mix
- 16. Brick shall not be used on sanitary sewer manholes.
- 17. Existing sanitary sewer service shall not be interrupted. 18. Maintain access to existing residential drivewer and
- 19. Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber boot / Mission-type couplings will not be
- 20. Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the
- 21. 'Type N' Lock-Type Cover and Locking Device (Lock-Lug) shall be used where lock-type covers are required.

22. It is the responsibility of the Contractor to adjust all sanitary sewer manholes (that are affected by the development) to finish grade. H.D.P.E. STORM SEWER NOTES:

responsibility of the developer.

- 1.) STORM SEWER PIPE DESIGNATED AS HIGH DENSITY POLYETHYLENE (H.D.P.E.) SHALL HAVE WATER TIGHT GASKETED JOINTS WITH RUBBER O-RING GASKETS MEETING ASTM F477.
- O-RING GASKET SHALL BE INSTALLED ON THE SPIGOT END OF PIPE 2.) 12" TO 36" PIPE SHALL CONFORM TO THE AASHTD M294 CLASSIFICATION "TYPE S" AND 42" TO 48" SHALL CONFORM TO AASHTO MP6-95 CLASSIFICATION "TYPE D." 3.) ALL PIPE JOINTS SHALL CONSIST OF BELL AND SPIGOT JOINING SYSTEM WITH THE BELL COVERING TWO PIPE CORRUGATIONS AS RECOMMENDED IN AASHTO M294.
- 4.) PIPE MANUFACTURED FOR THIS SPECIFICATION SHALL COMPLY WITH THE REQUIREMENTS FOR TEST METHODS, DIMENSIONS AND MARKINGS FOUND IN AASHTO DESIGNATIONS M252 AND M294. PIPE AND FITTINGS SHALL BE MADE FROM VIRGIN PE COMPOUNDS WHICH CONFORM WITH THE REQUIREMENTS OF CELL CLASS 335420C AS DEFINED AND DESCRIBED
- 5.) FITTINGS MAY BE EITHER MOLDED OR FABRICATED AND SHALL CONFORM TO THE REQUIREMENTS AASHTO M252 AND M294. THE FITTINGS SHALL NOT REDUCE OR IMPAIR THE OVERALL INTEGRITY OR FUNCTION OF THE PIPE LINE. ONLY FITTINGS SUPPLIED OR RECOMMENDED BY THE PIPE MANUFACTURER SHALL BE USED. 6.) INSTALLATION OF THE PIPE SPECIFIED ABOVE SHALL BE IN ACCORDANCE WITH THE ASTM
- 7.) BOTH BELL AND SPIGOT (WITH O-RING GASKET) ENDS OF THE PIPE SHALL BE LUBRICATED AS RECOMMENDED BY MANUFACTURER AND INSERTED TO THE HOMING MARK ON THE SPIGOT END OF THE PIPE. 8.) MINIMUM RECOMMENDED TRENCH WIDTH SHALL BE NOT LESS THAN THE GREATER OF EITHER PIPE OUTSIDE DIAMETER PLUS 16 INCHES OR THE PIPE OUTSIDE DIAMETER TIMES 1.25, PLUS

12 INCHES AS OUTLINED HEREIN NOMINAL PIPE DIAMETER MINIMUM TRENCH WIDTH

- 11/06/07 REVISED PER CITY AND UTILITY COMMENTS PROGRESS POINT OFFICE BUILDING

SPECIFICATION SHEET



GEORGE M. STOCK E-25116 J.M.B.

11/28/07 FOR APPROVAL

11/21/07 REVISED PER CITY COMMENTS

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