### **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
- 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 ST.
- 4.) ALL GRADED AREAS INDICATED SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES, SEEDING AND MULCHING AS
- 5.) INSTALL SILTATION CONTROL PRIOR TO STARTING THE GRADING PER SILTATION SPECIFICATIONS. ADDITIONAL SILTATION CONTROL DEVICES MAY BE REQUIRED AS DIRECTED BY THE CITY OF O'FALLON.
- 6.) ALL FILLS AND BACK FILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN
- 7.) GRADING CONTRACTOR SHALL KEEP EXISTING ROADWAYS CLEAN OF MUD AND DEBRIS AT ALL TIMES.
- B.) NO GRADE SHALL EXCEED 3:1 SLOPE, OR AS APPROVED BY THE SOILS ENGINEER.
- 9.) ALL SLOPES TO BE STABILIZED IMMEDIATELY AFTER GRADING.
- 10.) THE EROSION CONTROL PLAN SHOULD BE IMPLEMENTED BEFORE GRADING BEGINS.
- 11.) EROSION CONTROL SHALL NOT BE LIMITED TO WHAT IS SHOWN ON THE PLAN.
- 12.) WHATEVER MEANS NECESSARY SHALL BE TAKEN TO PREVENT SILTATION AND EROSION FROM ENTERING NATURAL STREAMS AND
- 13.) TOPOGRAPHIC INFORMATION PROVIDED BY SURDEX & COLE & ASSOCIATES INC.
- 14.) SEEDING SHOULD OCCUR AS SOON AS GRADING IS COMPLETE.
- 15.) THE CITY OF O'FALLON RESERVES THE RIGHT TO REQUIRE ADDITIONAL EROSION CONTROL MEASURES IF THE PROPOSED MEASURES
- 16.) TOPSOIL SHOULD BE STOCKPILED AND REUSED. PROPER EROSION CONTROL OF THESE STOCKPILES SHOULD INCLUDE SEEDING AND STRAWING AND OTHER MEANS OF SEDIMENT CONTROL SUCH AS SILTATION FENCE AND STRAW BALES.
- 17.) THE SEDIMENT BASIN AND STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED. SEDIMENT SHALL BE REMOVED AND THE BASIN RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE 1 SEDIMENT HAS ACCUMULATED TO THE DESIGN DEPTH OF THE BASIN, REMOVED SEDIMENT SHALL BE DEPOSITED 2 IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL
- 18.) SEDIMENT BASIN CLEANOUT ELEVATION SHALL BE MARKED BY STAKES (MIN 3) PLACED IN THE BASIN MARKING THE CLEANOUT ELEVATION. STAKES SHALL BE REPLACED AS NEEDED TO BE INCLUDED IN SEDIMENT BASIN MAINTINANCE
- 19.) FLOODPLAIN IS SHOWN ON THE PLAN PER PICKETT, RAY & SILVER FLOOD STUDY DATED MARCH 10, 2006. (F.I.R.M. #29183C0880E
- 20.) CONTRACTOR MUST NOTIFY THE OFF-SITE PROPERTY OWNERS A MINIMUM OF 48 HOURS BEFORE COMMENCING CONSTRUCTION ON THEIR PROPERTIES. ANY DISTURBED OFF-SITE AREAS MUST BE RESTORED TO THEIR PRE-IMPROVED CONDITION.
- 21.) TRAFFIC CONTROL IS TO BE PER MODOT OR MUTCD WHICHEVER IS MOST STRINGENT.
- 22.) ALL PROPOSED EASEMENTS SHALL BE SHOWN ON RECORD PLAT.
- 23.) 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 OFF-SITE.
- 24.) BRICK SHALL NOT BE USED IN THE CONSTRUCTION OF STORM SEWER STRUCTURES.
- 25.) ALL CONCRETE PIPES WILL BE INSTALLED WITH O-RING RUBBER TYPE GASKETS.
- 26.) CONNECTIONS AT ALL STORM SEWER STRUCTURES TO BE MADE WITH A-LOK JOINT OR EQUAL.
- 27.) TREES, ORGANIC DEBRIS, RUBBLE, FOUNDATIONS AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.
- 28.) A 5/8" TRASH BAR WILL BE INSTALLED AND CENTERED ACROSS ALL AREA INLET AND CURB INLET OPENINGS.
- 29.) ALL STORM SEWER INLETS SHALL BE INSTALLED WITH A MARKER, BELOW IS THE RECOMMENDATIONS:

### THE CITY WILL ALLOW THE FOLLOWING MARKERS AND ADHESIVE PROCEDURES ONLY AS SHOWN IN THE TABLE

MANUFACTURER	SIZE	ADHESIVE	STYLE	MESSAGE (PART #)	WEBSITE
NTERNATIONAL	3 7/8"	EPOXY	CRYSTAL CAP	NO DUMPING DRAINS TO WATERWAYS (SD-W-OC)	WWW.ACPINTERNATIONAL.COM
DAS MANUFACTURING, INC.	4*	EPOXY	STANDARD STYLE	NO DUMPING DRAINS TO STREAM (SD-W-CC)	WWW.DASMANUFACTURING.COM

- 30.) THE DEVELOPER MUST SUPPLY THE CITY OF O'FALLON 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 \*MAXIMUM DRY DENSITY. \*OPTIMUM MOISTURE CONTENT.
- \*MAXIMUM AND MINIMUM ALLOWABLE MOISTURE CONTENT.
- CURVE MUST BE PLOTTED TO SHOW DENSITY FROM A MINIMUM OF 95% COMPACTION AND ABOVE AS DETERMINED BY THE MODIFIED AASHTO T-180 COMPACTION TEST" (A.S.T.M.-D-1157) OR FROM A MINIMUM OF 100% AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99, METHOD C" (A.S.T.M.-D698). PROCTOR TYPE MUST BE DESIGNATED ON DOCUMENT. \*CURVE MUST HAVE AT LEAST 5 DENSITY POINTS WITH MOISTURE CONTENT AND SAMPLE LOCATIONS LISTED ON DOCUMENT.
- \*NATURAL MOISTURE CONTENT. \*LIQUID LIMIT. \*PLASTIC LIMIT.
- 31.) ALL LOW PLACES WHETHER ON SITE OR OFF SITE SHALL BE GRADED TO ALLOW FOR PROPER DRAINAGE.

### INTERIM GRADING CONSTRUCTION PHASING

- 1) INSTALL CONSTRUCTION ENTRANCE
- 2) CLEARING OF EXISTING TREES 3) CONSTRUCT OFFSITE STORM SEWER
- BYPASS RUN, DETENTION OUTFALL STRUCTURE AND SEDIMENT BASIN.
- 4) INSTALL SILT FENCING 5) MASS GRADING
- 6) INSTALL DITCH CHECKS.
- 7) INSTALL ONSITE STORM SEWER.
- 8) FINAL GRADING 9) PERMANENT SEEDING & MULCHING

#### LAND DESCRIPTIONS

1088.75 FEET TO THE TRUE POINT OF BEGINNING.

DOYLE TRACT

A TRACT OF LAND BEING PART OF U.S. SURVEY 931, LOCATED IN TOWNSHIP 46 NORTH, RANGE 2 EAST, ST. CHARLES COUNTY, MISSOURI AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE INTERSECTION OF THE WEST LINE OF LAND NOW OR FORMERLY OF THE RHODES FAMILY FARM, INC. AS RECORDED BY DEED IN BOOK 2617, PAGE 1 OF THE ST. CHARLES COUNTY, MISSOURI RECORDER'S OFFICE WITH THE SOUTH LINE OF THE AFOREMENTIONED U.S. SURVEY 931;

THENCE ALONG SAID SOUTH LINE, SOUTH 82 DEGREES 14 MINUTES 19 SECONDS EAST, A DISTANCE OF 937.49 FEET TO THE EAST LINE OF SAID RHODES LAND, ALSO BEING THE TRUE POINT OF BEGINNING OF THE HEREINAFTER DESCRIBED DOYLE TRACT;

THENCE ALONG SAID EAST LINE NORTH 07 DEGREES 48 MINUTES 50 SECONDS EAST, A DISTANCE OF 2533.37 FEET TO THE SOUTH LNE OF BRIARCHASE ADDITION, A SUBDIVISION AS RECORDED IN PLAT BOOK 41, PAGES 200 THROUGH 203 OF SAID RECORDER'S OFFICE;

THENCE ALONG SAID SOUTH LINE AND THE SOUTH LINE OF LAND NOW OR FORMERLY OF CMB RHODES, LL.C. AS RECORDED BY DEED IN BOOK 4160, PAGE 471 OF SAID RECORDER'S OFFICE AND THE SOUTH LINE OF LAND NOW OR FORMERLY OF CMB RHODES, L.L.C. AS RECORDED BY DEED IN BOOK 4195, PAGE 1368 OF SAID RECORDER'S OFFICE, SOUTH 81 DEGREES 57 MINUTES 38 SECONDS EAST, A DISTANCE OF 1130.28 FEET TO THE WEST LINE OF FOX WOOD ESTATES PLAT ONE, A SUBDIVISION AS RECORDED IN PLAT BOOK 19, PAGE 175 OF SAID RECORDER'S OFFICE;

THENCE ALONG SAID WEST LINE AND THE WEST LINE OF FOX WOOD ESTATES PLAT THREE, A SUBDIVISION AS RECORDED IN PLAT BOOK 21, PAGE 41 OF SAID RECORDER'S OFFICE, SOUTH 07 DEGREES 34 MINUTES 03 SECONDS WEST, A DISTANCE OF 2009.42 FEET TO THE NORTH LINE OF LAND NOW OR FORMERLY OF DORRIS O. SCHIERBAUM, AS RECORDED BY DEED IN BOOK 981, PAGE 655 OF SAID RECORDER'S OFFICE;

THENCE ALONG SAID NORTH LINE, NORTH 81 DEGREES 28 MINUTES 10 SECONDS WEST, A DISTANCE OF 52.41

THENCE ALONG THE WEST LINE OF SAID SCHIERBAUM LAND, SOUTH 07 DEGREES 34 MINUTES 03 SECONDS WEST, A DISTANCE OF 519.18 FEET TO THE SOUTH LINE OF THE AFOREMENTIONED U.S. SURVEY 931; THENCE ALONG SAID SOUTH LINE, NORTH 82 DEGREES 14 MINUTES 19 SECONDS WEST, A DISTANCE OF

THE ABOVE DESCRIBED TRACT OF LAND CONTAINING 65.354 ACRES IS BASED UPON AN ACTUAL BOUNDARY SURVEY COMPLETED BY COLE AND ASSOCIATES, INC. DURING THE MONTH OF NOVEMBER 2005 AND IS SUBJECT TO ALL EASEMENTS, RESTRICTIONS, RESERVATIONS AND CONDITIONS OF RECORD, IF ANY.

#### RHODES TRACT

A TRACT OF LAND BEING PART OF U.S. SURVEY 931, LOCATED IN TOWNSHIP 46 NORTH, RANGE 2 EAST, ST. CHARLES COUNTY, MISSOURI AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE SOUTH LINE OF THE AFOREMENTIONED U.S. SURVEY 931 WITH OF THE EAST LINE OF LAND NOW OR FORMERLY OF DONALD & MARIANNE MOLLISON, AS RECORDED BY DEED IN BOOK 1872, PAGE 771 OF THE ST. CHARLES COUNTY, MISSOURI RECORDER'S OFFICE;

THENCE ALONG SAID EAST LINE AND THE NORTHERN PROLONGATION OF SAID EAST LINE ALONG WITH THE EAST LINE OF LAND NOW OR FORMERLY OF R. STEPHEN & CATHERINE M. BARNETT, AS RECORDED BY DEED IN BOOK 1874, PAGE 1123 OF SAID RECORDER'S OFFICE, NORTH 07 DEGREES 41 MINUTES 13 SECONDS EAST, A DISTANCE OF 4770.81 FEET TO THE SOUTH LINE OF BRIARCHASE PLAT ONE, A SUBDIVISION AS RECORDED IN PLAT BOOK 40, PAGES 72 THROUGH 75 OF

THENCE ALONG SAID SOUTH LINE AND THE SOUTH LINE OF BRIARCHASE PLAT TWO, A SUBDIVISION AS RECORDED IN PLAT BOOK 41, PAGE 275 & 276 OF SAID RECORDER'S OFFICE, SOUTH 81 DEGREES 24 MINUTES 19 SECONDS EAST, A

THENCE CONTINUING ALONG SAID SOUTH LINE, SOUTH B3 DEGREES 03 MINUTES 15 SECONDS EAST, A DISTANCE OF 625.07 FEET TO THE WEST LINE OF BRIARCHASE ADDITION, A SUBDIVISION AS RECORDED IN PLAT BOOK 41, PAGES 200

THENCE ALONG SAID WEST LINE SOUTH 07 DEGREES 46 MINUTES 42 SECONDS WEST, A DISTANCE OF 2241.65 FEET TO THE WEST LINE OF LAND NOW OR FORMERLY OF DOYLE FAMILY PROPERTIES, L.L.C. AS RECORDED BY DEED IN BOOK 3323, PAGE 1051 OF SAID RECORDER'S OFFICE;

THENCE ALONG SAID WEST LINE SOUTH 07 DEGREES 48 MINUTES 50 SECONDS WEST, A DISTANCE OF 2533.37 FEET TO THE SOUTH LINE OF THE AFOREMENTIONED U.S. SURVEY 931;

THENCE ALONG SAID SOUTH LINE NORTH 82 DEGREES 14 MINUTES 19 SECONDS WEST, A DISTANCE OF 937.49 FEET TO

THE ABOVE DESCRIBED TRACT OF LAND CONTAINING 103,198 ACRES IS BASED UPON AN ACTUAL BOUNDARY SURVEY COMPLETED BY COLE AND ASSOCIATES, INC. DURING THE MONTH OF NOVEMBER 2005 AND IS SUBJECT TO ALL EASEMENTS, RESTRICTIONS, RESERVATIONS AND CONDITIONS OF RECORD, IF ANY.

# NON-SEDIMENT POLLUTION CONTROL NOTES

1. HANDLING AND DISPOSAL OF HAZARDOUS MATERIALS

DO: PREVENT SPILLS USE PRODUCTS UP

FOLLOW LABEL DIRECTIONS FOR DISPOSAL REMOVE LIDS FROM EMPTY BOTTLES AND CANS WHEN DISPOSING IN TRASH

RECYCLE WASTES WHENEVER POSSIBLE DON'T: DON'T POUR WASTE INTO SEWERS OR WATERWAYS ON THE GROUND

DON'T POUR WASTE DOWN THE SINK, FLOOR DRAIN OR SEPTIC TANKS

DON'T BURY CHEMICALS OR CONTAINERS, OR DISPOSE OF THEM WITH CONSTRUCTION DEBRIS DON'T BURN CHEMICALS OR CONTAINERS

DON'T MIX CHEMICALS TOGETHER

2. CONTAINERS SHALL BE PROVIDED FOR COLLECTION OF ALL WASTE MATERIAL INCLUDING CONSTRUCTION DEBRIS, TRASH, PETROLEUM PRODUCTS AND ANY HAZARDOUS MATERIALS TO BE USED ONSITE, ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THAT MATERIAL.

3. NO WASTE MATERIALS SHALL BE BURIED ON-SITE.

4. MIXING, PUMPING, TRANSFERRING OR OTHERWISE HANDLING CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.

- 5. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED ONLY IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA IS EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS.
- 6. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW DIRECTLY TO STORM SEWERS, STREAMS, DITCHES, LAKES, ETC. WITHOUT BEING TREATED. A SUMP OR PIT SHALL BE CONSTRUCTED TO CONTAIN CONCRETE WASH WATER.
- 7. IF SUBSTANCES SUCH AS OIL, DIESEL FUEL, HYDRAULIC FLUID, ANTIFREEZE, ETC. ARE SPILLED, LEAKED, OR RELEASED ONTO SOIL, THE SOIL SHALL BE DUG UP AND DISPOSED OF AT A LICENSED SANITARY LANDFILL (NOT A CONSTRUCTION/DEMOLITION DEBRIS LANDFILL). SPILLS ON PAVEMENT SHALL BE ABSORBED WITH SAWDUST, KITTY LITTER OR PRODUCT DESIGNED FOR THAT PURPOSE AND DISPOSED OF AT A LICENSED SANITARY LANDFILL. HAZARDOUS OR INDUSTRIAL WASTES SUCH AS MOST SOLVENTS, GASOLINE, OIL-BASED PAINTS, ANDCEMENT CURING COMPOUNDS REQUIRE SPECIAL HANDLING. THESE MATERIALS WILL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH MODNR REQUIREMENTS.
- B. STATE LAW REQUIRES THE PARTY RESPONSIBLE FOR A PETROLEUM PRODUCT SPILL IN EXCESS OF 50 GALLONS TO REPORT THE SPILL TO MODNR (537-634-2436) AS SOON AS PRACTICAL AFTER DISCOVERY, FEDERAL LAW REQUIRES THE RESPONSIBLE PARTY TO REPORT ANY RELEASE OF OIL IF IT REACHES OR THREATENS A SEWER, LAKE, CREEK, STREAM, RIVER, GROUNDWATER, WETLAND, OR AREA, LIKE A ROAD DITCH, THAT DRAINS INTO ONE OF THE ABOVE

## STORM SEWER NOTES

- 1.) ALL CONCRETE PIPE SHALL BE REINFORCED, AND CONFORM TO A.S.T.M. DESIGNATION C76 CLASS II UNLESS OTHERWISE NOTED.
- 2.) ALL STORM SEWER STRUCTURES WITHIN PROJECT SITE TO BE CONSTRUCTED IN ACCORDANCE WITH CITY OF O'FALLON STORMWATER MANAGEMENT CONSTRUCTION SPECIFICATIONS.
- 3.) ALL TRENCHES UNDER AREAS TO BE PAVED AND UNDER EXISTING PAVING SHALL BE GRANULARLY FILLED WITH 3/4" MINUS CRUSHED LIMESTONE ONLY. BACK FILL SHALL BE PLACED IN ACCORDANCE WITH CITY OF O'FALLON STANDARD CONSTRUCTION SPECIFICATIONS.
- 4.) ALL TRENCH BACK FILLS UNDER PAVEMENT WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED.
- 5.) "O" RING RUBBER GASKETED WATER TIGHT JOINTS SHALL BE USED FOR ALL STORM SEWER REACHES ON THE STORM SEWER PROFILE SHEETS.

# EARTHWORK QUANTITIES

TOTAL AREA OF SITE: 169 Acres

ESTIMATED AREA TO BE DISTURBED: 17 Acres ESTIMATED AREA TO BE DEVELOPED: 9 Acres

15% SHRINKAGE FACTOR INCLUDED ESTIMATED GRADING QUANTITIES:

CUT VOLUME - 124,500 CUBIC YDS

FILL VOLUME - 124,500 CUBIC YDS

SITE BALANCES

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 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



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