# SPRINGHURST PARKWAY AT ROUTE "N" AMENDED ROAD PLANS FOR STA 0+41.01 - STA 6+00.00

A TRACT OF LAND BEING PART OF THE NORTHEAST QUARTER OF SECTION 10 TOWNSHIP 46 NORTH, RANGE 2 EAST OF THE 5TH PRINCIPAL MERIDIAN COUNTY OF ST. CHARLES, MISSOURI



# LEGEND

## EXISTING CONTOURS PROPOSED CONTOURS EXISTING SANITARY SEWERS EXISTING STORM SEWERS PROPOSED SANITARY SEWERS PROPOSED STORM SEWERS CENTERLINE EASEMENT CONCRETE PAVEMENT EXISTING TREES EXISTING SPOT ELEVATION + 698.10 PROPOSED SPOT ELEVATION SWALE \_\_\_ TO BE REMOVED TBR TO BE REMOVED & RELOCATED TBR & R TO BE REMOVED & RELOCATED BY OTHERS TBR & RBO TO BE USED IN PLACE BACK OF CURB FACE OF CURB ADJUST TO GRADE ATG GAS MAIN WATER MAIN FIRE HYDRANT POWER POLE TRAFFIC FLOW

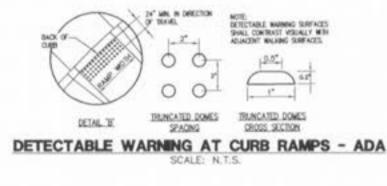
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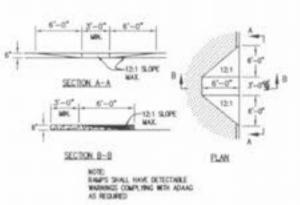
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MAY 2 3 2006

ENGINEERING DEPARTMENT

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ACCESSIBLE RAMP DETAIL

PREPARED FOR: 64N LAND & CATTLE COMPANY, L.L.C. 390 SOUTH WOODSMILL ROAD, SUITE 160 CHESTERFIELD, MO 63017 PHONE: (314) 291-9999 FAX: (314) 878-5101 O: \DRAW3700\2053705\RoodPlans\ROAD PLANS 3705Base.dwg May 05, 2006 - :18pm

# BENCHMARK

DNR SC-13 ELEV. 499.34' - "BRASS DISK" LOCATED 2.7 MILES± NNW OF INTERSECTION HWY. 94 & HWY D ON NORTH SIDE OF WESTBOUND LANES HWY, 40. 29.55' NE OF PK NAIL IN CENTERLINE WESTBOUND HWY. 40, 39.2' SW OF CENTER OF TOP OF NW END OF A CORRUGATED METAL PIPE & 10' NW OF CENTER OF FIELD ENTRANCE. NAVD 1988 (USGS)

### GENERAL NOTES:

- 1.) ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.
- 2.) ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM. 3.) BOUNDARY AND TOPOGRAPHIC SURVEY BY OTHERS.
- 4.) ALL MATERIALS AND METHODS OF CONSTRUCTION TO MEET THE CURRENT STANDARDS AND SPECIFICATIONS OF THE CITY OF O'FALLON & MODOT.
- 5.) ALL GRADED AREAS SHALL BE PROTECTED FROM EROSION BY EROSION CONTROL DEVICES AND/OR SEEDING AND MULCHING AS REQUIRED BY THE CITY OF O'FALLON, COUNTY OF ST. CHARLES & MoDOT.
- 6.) 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.
- 7.) GRADING CONTRACTOR SHALL INSTALL SILTATION CONTROL PRIOR TO STARTING THE GRADING. ADDITIONAL SILTATION CONTROL DEVICES SHALL BE INSTALLED PER THE CITY OF O'FALLON COUNTY OF ST. CHARLES & MoDOT. B.) ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH
- MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.
- 9.) GRADING CONTRACTOR SHALL KEEP EXISTING ROADWAYS CLEAN OF MUD AND DEBRIS AT ALL TIMES.
- 10.) PROPOSED CONTOURS SHOWN ARE FINISHED ELEVATIONS ON PAVED
- 11.) NO GRADE SHALL EXCEED 3:1 SLOPE UNLESS NOTED OTHERWISE AND APPROVED BY GEOTECHNICAL ENGINEER.
- 12.) A GRADING PERMIT IS REQUIRED PRIOR TO ANY GRADING ON THE SITE. NO CHANGE IN WATERSHEDS SHALL BE PERMITTED.
- 13.) INTERIM STORMWATER DRAINAGE CONTROL IN THE FORM OF SILTATION CONTROL MEASURES ARE REQUIRED.
- 14.) THE DEVELOPER IS REQUIRED TO PROVIDE ADEQUATE STORMWATER SYSTEMS IN ACCORDANCE WITH THE CITY OF O'FALLON & MODOT.
- 15.) ALL STORMWATER SHALL BE DISCHARGED AT AN ADEQUATE NATURAL DISCHARGE
- 16.) ADEQUATE TEMPORARY OFF-STREET PARKING SHALL BE PROVIDED FOR CONSTRUCTION EMPLOYEES. PARKING ON NON-SURFACED AREAS SHALL BE PROHIBITED IN ORDER TO FLIMINATE THE CONDITION WHEREBY MUD FROM CONSTRUCTION AND EMPLOYEE VEHICLES IS TRACKED ONTO THE PAVEMENT CAUSING HAZARDOUS ROADWAY AND DRIVING CONDITIONS
- 17.) THE OWNER SHALL, AT ALL TIMES, CONTAIN MUD AND OTHER SPOILS ON THIS SITE. NO VEHICLE, TRAILER OR CONSTRUCTION EQUIPMENT IS TO DEPOSIT MUD OR ANY OTHER MATERIAL ON PUBLIC STREETS. PROJECT WILL BE STOPPED IF

19.) IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER TO PROVIDE

- STREETS ARE NOT CLEANED IMMEDIATELY. 18.) CONTRACTOR/DEVELOPER IS TO OBTAIN EXCAVATION PERMITS BEFORE CONSTRUCTING ANY IMPROVEMENTS LOCATED IN THE COUNTY OF ST. CHARLES OR MODOT RIGHT-OF-WAY. 6.
- TRAFFIC CONTROL PER M.U.T.C.D.& MODOT. 20.) 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 FILLED 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, ENSURE THE MOISTURE CONTENT OF THE SOIL IN FILL AREAS IS O CORRESPOND TO THE COMPACTIVE EFFORT AS DEFINED BY THE STANDARD OF 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
- 21.) HEAVY BLACK U-CHANNEL POSTS WILL BE USED TO MOUNT SIGNAGE. STANDARD SUBDIVISION POST AND LIGHT WILL BE USED UNLESS ALTERNATE IS SUBMITTED AND APPROVED BY THE CITY.

MAY BE REQUIRED TO VERIFY SOIL STABILITY AT THE DISCRETION OF THE CITY OF

# 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 CITY OF O'FALLON, ST. CHARLES COUNTY, AND MISSOURI DEPT. OF TRANSPORTATION STANDARDS.
- 3.) TYPE "C" BEDDING IS REQUIRED FOR PIPES IN ROCK.
- 4.) ALL FILLED PLACES UNDER PROPOSED STORM AND SANITARY SEWER LINES AND/OR 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 D-1557). ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS
- 5.) ALL FILLED PLACES IN PROPOSED AND EXISTING ST. CHARLES COUNTY ROADS (HIGHWAYS) SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL TO 93 PERCENT MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST" (ASTM D-1557), ALL TESTS SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING OPERATIONS.
- 6.) ALL CONNECTIONS TO PRE-CAST STRUCTURES SHALL HAVE MANUFACTURED

MoDOT LOCATE (314) 340-4100

(FIBER OPTICS MAY BE PRESENT)

- 7.) "O" RING PIPE TO BE USED ON ALL STORM SEWERS.
- 8.) NO BRICK STRUCTURES WILL BE ALLOWED IN THE CITY OF O'FALLON. ADJUSTMENTS TO TOPS BY GRADE RINGS NOT BRICK.
- 9.) CAST IRON COVERS ARE REQUIRED FOR ALL INLET TOPS IN
- THE CITY OF O'FALLON.

SILTATION CONTROL

STRAW BALE DETAIL

IN DRAINAGE WAY (n.t.s.)

STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. AND

SERVICES PROVIDED BY OTHERS TO IMPLEMENT THE IMPROVEMENTS SHOWN ON THIS PLAN AND ALL OTHER

UTILITY NOTE:

DRAWINGS WHERE THE UNDERSIGNED ENGINEER'S SEAL

THE UNDERSIGNED ENGINEER HAVE NO RESPONSIBILITY FOR

APPEARS. THE CONSTRUCTION MEANS AND METHODS ARE THE SOLE RESPONSIBILITY OF THE OWNER AND CONTRACTOR. STOCK AND ASSOCIATES CONSULTING ENGINEERS, INC. HAS

SHOWN ON THIS PLAN UNLESS SPECIFICALLY ENGAGED AND

UNDERGROUND FACILITIES, STRUCTURES AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE

SURVEYS, RECORDS AND INFORMATION, AND , THEREFORE DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NON-EXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE FACILITIES,

STRUCTURES AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE UNDERGROUND FACILITIES, STRUCTURES, AND

WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319 RSMo.

JILITIES 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

AUTHORIZED TO DO SO BY THE OWNER OR CONTRACTOR.

NO RESPONSIBILITY TO VERIFY FINAL IMPROVEMENTS AS

10.) PROVIDE 5/8" DIA. TRASH BAR FOR ALL INLETS. 11.) ALL STORM SEWERS INSTALLED WITHIN MODOT RIGHT-OF-WAY SHALL MEET CURRENT MODOT STANDARDS AND SPECIFICATIONS.

SECTION B-B GENERAL NOTES: 1. Do not scale drawing. Follow Dimensions

- 2. Sittation Control Devices to remain in place until odequate vegetative growth insures no further erosion of the soil.

  3. Siltation Fences shall be inspected periodically for damage and for the amount of sedimentation which has accumulated. Removal of sediment will
- be required when it reaches 1/2 of the height of the siltation fence. Straw Bales shall be inspected periodically for deterioration. Bales which have rolled or falled.
- shall be replaced.
  5. Attachment of Geotextile Fabric to be in accordance with the manufacturer's

### SILTATION NOTES

- perimeter sediment control shall be implemented as the first step of grading and within seven (7) days of grubbing and filling the There after the site shall be stabilized and vegitated within 60 days of completion of paving.
- 2. Inspection of siltation control devices shall take place once every seven days and within 24 hours of any rain event. Any siltation control in need of repair shall occur
- 3. Any disturbed areas which will remain unworked for 30 days or
- 4. All slopes or drainage channels, once constructed to final grade, shall be seeded and mulched per specifications within seven (7) days. Every effort shall be made to stabilize and vegetate these areas until the City Engineer or their representative has given
- 5. Silt fences shall be installed immediately around each storm sewer structure once final construction of each individual structure is complete, and the City Engineer or their representative
- upslope areas have been permanently stabilized.

- Perimeter silitation control and construction entrances to be Grading, other than the placement of fill from off-site as permitted, to begin with detention basins which will serve as sediment ponds throughout the length of the project.
- location of storm sewer discharge locations.
- drainage channel between topsoil berm and detention basin.

- Temporary roads shall follow the contour of the natural terrain to the extent possible. Slopes should not exceed 10
- Grades should be sufficient to provide drainage, but should not exceed 4 percent.
- Roadbeds shall be at least 24 feet wide.
- 6. The roadbed or parking surface shall be cleared of all vegetation, roots and other objectionable material.
- 7. A 10-inch course of 2" MINUS aggregate shall be applied with fabric manufacturer's specifications.

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. The detention basin shall be sadded within 30 days of commencing its construction.

periodic top dressing with new gravel. Seeded 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 clagged with silt or other

- more shall be stabilized with seeding and mulching per specifications. If seasonal conditions prohibit seeding, mulching or matting shall be used. See this sheet for application rates.
- final approval to them.
- has given the City's approval.
- 6. All siltation control devices shall remain in place until
- 7. These areas shall be mulched and tacked at a rate of 100 pounds per 1,000 square feet when seeded.

### Siltation Control Schedule Implementation

- Temporary weirs filled with coarse aggregate will be cut in each end of the basins to filter the sediment out of the
- 3. Place straw bales in bottom of detention basin prior to each
- 4. Seed and mulch topsoil berm, once topsoil, has been stripped from site and placed per plans. Install straw bales in
- Begin placing aggregate base in parking areas once area has reached final grade to prevent erosion.
- Place slit fence around each storm sewer structure as it is
- 7. Immediately seed areas upon reaching final grade that are to be permanently seeded.
- Temporary Access Roads and Parking Areas Specifications

- 4. All cuts and fills shall be 3:1 or flatter.
- 5. Drainage ditches shall be provided as needed.
- 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

### Maintenance

Both temporary and permanent roads and parking areas may require

- 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
- . 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 . 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 6 inches. After the
- cales 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
- 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). 5. Inspection shall be frequent and repair or replacement shall
- be made promptly as needed. 7. Straw bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized and approved by the City Engineer or their representative.

- 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 remaining steps for installing a straw bale barrier for sheet flow applications apply here, with the following
- 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 sedimentiaden runoff will flow either through or over the barrier but

### Maintenance

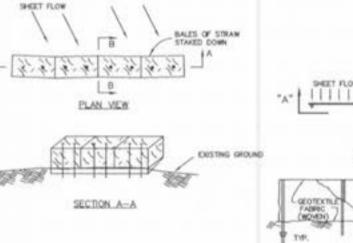
- 1. Straw bale barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- Close attention shall be paid to the repair of damaged fence, end runs and undercutting beneath fence.
- Should bales decompose or become ineffective prior to the end of the expected usable life, and are still necessary, the bales shall be replaced promptly.
- 4. Sediment deposits should be removed after each rainfall. They
- 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

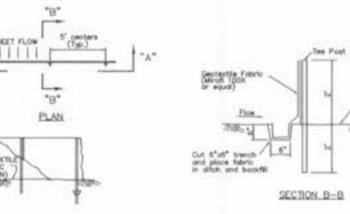
### the existing grade, prepared and seeded. Silt Fence Specifications

- Sit Fence to be waven geotextile fabric Mirafi 100X or equal. 2. Fabric shall be entrenched and backfilled. A trench shall be
- fence. The excavated soil shall be backfilled against the fence. See detail this sheet.
- 3. Fence height shall be a minimum of 4 feet in height, with the fabric installed on the fence on the upstream side.
- Sit fences shall be used only on sheet flow conditions. 5. Silt fences shall be installed around all storm sewer

excavated a minimum of 6 inches deep for the length of the

- Silt fence 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 bales, end runs and undercutting beneath bales Should the silt fence become ineffective prior to the end
- of the expected usable life, and are still necessary, the barriers shall be replaced 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.
- 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.





SECTION: A-A SILTATION CONTROL SILTFENCE DETAIL

HANGING FILE

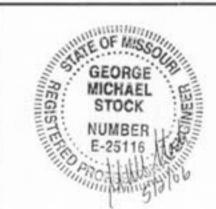
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Frank Godwin

Existing ground

3 05/02/2006 - REVISED PER CITY & MoDOT COMMENTS 2 04/07/2006 - REVISED PER CITY & MoDOT COMMENTS 1\ 02/23/2006 - REVISED PER CITY COMMENTS

SPRINGHURST PARKWAY ROAD PLANS TITLE/SPECIFICATION SHEET





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12/14/05 GEORGE M. STOCK

SILTATION CONTROL

(n.t.s.)

STRAW BALE DETAIL