

BENCHMARK:
 MISSOURI DEPARTMENT OF NATURAL RESOURCES DIVISION OF GEOLOGY AND LAND SURVEY REFERENCE SYSTEM. LAND SURVEY STATION: F 149 - ELEVATION = 165.447 (METERS) OR 542.80 (US FEET). STATION DESCRIPTION: LOCATED IN THE CITY OF OFALLON, MO. APPROXIMATELY 12 METERS WEST OF THE CITY OF SAINT CHARLES AND 7.5 MI EAST OF WENTZVILLE AND IN FRONT OF THE CITY OF OFALLON MUNICIPAL CENTER. OWNERSHIP - CITY OF OFALLON.
 TO REACH THE STATION FROM THE INTERSECTION OF THE I-70 BRIDGE OVER CR-KSR-M (MAIN STREET), GO NORTH 0.6 MI ON MAIN STREET TO THE STATION ON THE RIGHT AT THE SOUTHEAST CORNER OF THE ENTRANCE TO THE CITY OF OFALLON MUNICIPAL BUILDING. THE STATION IS A STANDARD CGS DISK STAMPED "F 149 1935" AND SET IN A W/4 SQUARE CONCRETE MONUMENT PROJECTING 3 INCHES ABOVE THE GROUND. THE STATION IS 78 1/2 FEET SOUTH OF THE BRICK CITY OF OFALLON MUNICIPAL BUILDING ENTRANCE SIGN, 61.2 FEET SOUTHWEST OF A STOP SIGN, 45.0 FEET NORTH OF THE NORTH RAIL OF THE WABASH RAILROAD TRACKS, 28.6 FEET SOUTHWEST OF A LIGHT STANDARD, AND 25.7 FEET NORTHEAST OF A LIGHT STANDARD.

CVS/pharmacy
 TYPE 'B'
 13,225 SF
 95'-4" x 142'-4"
 ±1.88 ACRES
 73 SPACES
 PROP F.F. = 579.00

- GRADING NOTES**
- THE CONTRACTOR SHALL RESTORE OFFSITE CONSTRUCTION AREAS TO AN EQUAL OR BETTER CONDITION THAN EXISTED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 - ALL GRADES SHALL BE WITHIN 0.1 FEET MORE OR LESS OF THOSE SHOWN ON THE GRADING PLAN.
 - NO SLOPE SHALL BE GREATER THAN 3:1 AND SHALL BE EITHER SODDED OR SEEDED AND MULCHED UNLESS OTHERWISE NOTED OR DETAILED.
 - THE CONTRACTOR SHALL FIELD INVESTIGATE THE ENTIRE SITE PRIOR TO HIS BID SUBMITTAL NOTING THE EXISTING VEGETATION AND TREES AND INCLUDING THE REMOVAL AND DISPOSAL OF SAME IN HIS BID.
 - NO AREA SHALL BE CLEARED WITHOUT PERMISSION OF THE OWNER.
 - SILTATION CONTROL WILL BE PROVIDED AS REQUIRED TO PREVENT RUN-OFF. SEE SILTATION CONTROL PLAN AND DETAILS.
 - ALL TRASH, DEBRIS, ORGANIC MATERIAL, REFUSE, FROZEN EARTH, ETC., SHALL BE REMOVED FROM FILL AREAS PRIOR TO THE PLACEMENT OF CONTROLLED FILL. ALL FILLS AND BACKFILLS SHALL BE MADE OF SELECTED EARTH MATERIALS, FREE FROM BROKEN MASONRY, ROCK, FROZEN EARTH, RUBBISH, ORGANIC MATERIAL AND DEBRIS.
 - THE CONTRACTOR SHALL PROVIDE EROSION CONTROL PER THE EROSION AND SEDIMENT CONTROL PLANS AND MAY BE REQUIRED TO PROVIDE ADDITIONAL MEASURES AS REQUESTED BY THE CITY OF OFALLON, SHOULD EROSION CONTROL PLAN PROVE TO BE INSUFFICIENT.
 - CARE SHALL BE EXERCISED IN COMPACTION OF BACKFILL MATERIALS OVER THE TOP OF STRUCTURES OR PIPES IN ORDER TO PREVENT DAMAGE TO THE WATERPROOFING MEMBRANES, JOINTS, SEALS AND/OR THE PIPES AND STRUCTURES THEMSELVES. COMPACTION AND PLACING OF BACKFILL AND FILL MATERIALS SHALL BE PERFORMED UNDER THE CONTINUOUS SUPERVISION OF AN APPROVED TESTING LABORATORY. FILL SHALL NOT BE PLACED ON FROZEN GROUND, NOR SHALL FILLING OPERATIONS CONTINUE WHEN THE TEMPERATURE IS SUCH AS TO PERMIT THE LAYER UNDER PLACEMENT TO FREEZE.
 - ALL CITY, COUNTY, AND STATE ROADS SHALL BE KEPT FREE OF DIRT DAILY.
 - FINAL GRADES AT THE PROJECT BOUNDARY SHALL MATCH EXISTING ELEVATIONS UNLESS OTHERWISE SHOWN.
 - THE DEVELOPER IS REQUIRED TO PROVIDE ADEQUATE STORM WATER SYSTEMS IN ACCORDANCE WITH CITY OF OFALLON STANDARDS.
 - ALL GRADING AND DRAINAGE TO BE IN CONFORMANCE WITH CITY OF OFALLON STANDARDS.
 - INTERNAL STORM WATER DRAINAGE CONTROL IN THE FORM OF SILTATION CONTROL MEASURES ARE REQUIRED.
 - G.C. TO BE AWARE THAT A LAND DISTURBANCE PERMIT WILL BE REQUIRED. SITE PLAN/FIAT APPROVAL IS NOT TO BE CONSIDERED AS APPROVAL OF A LAND DISTURBANCE PERMIT.
 - ALL WORK SHALL BE IN COMPLIANCE WITH THE PROJECT GEOTECHNICAL SERVICES REPORT PREPARED BY TERRACON CONSULTANTS, TITLED "CVS PHARMACY STORE #10134 OFALLON, MO. PROJECT NUMBER: 15135079 DATED DECEMBER 10, 2013.
 - ANY DISTURBED SIDEWALK AREAS SHALL BE REPLACED WITH FULL SLABS.

THE CONTRACTOR SHALL READ AND BECOME FAMILIAR WITH THE FOLLOWING NOTES:

- GEOTECHNICAL ENGINEERING REPORT, PREPARED BY TERRACON CONSULTANTS, TITLED "CVS PHARMACY STORE #10134 OFALLON, MO. PROJECT NUMBER: 15135079 DATED DECEMBER 10, 2013.

COMPACTION REQUIREMENTS			
MATERIAL TESTED	PROCTOR TYPE	MIN DRY DENSITY %	MOISTURE CONTENT RANGE
STRUCTURAL FILL (COHESIVE)	STANDARD	95% TO 98%*	-1 TO +3%
STRUCTURAL FILL (GRANULAR)	STANDARD	95% TO 98%*	-1 TO +2%
RANDOM FILL (NON-LOAD BEARING)	MODIFIED	95%	-3 TO +3%
UTILITY TRENCH BACKFILL/WALL BACKFILL	MODIFIED	95%	-2 TO +2%

* 95% IF WITHIN 8 FEET OF FINISHED GRADE
 98% IF GREATER THAN 8 FEET BELOW FINISHED GRADE

- PRECAST MODULAR BLOCK WALL NOTES**
- THE PRECAST MODULAR BLOCK WALL IS SHOWN ON THESE PLANS FOR HORIZONTAL AND VERTICAL LOCATION PURPOSES ONLY.
 - THE DESIGN OF THE MODULAR BLOCK WALL SHALL BE PROVIDED BY THE WALL CONTRACTOR. THE MODULAR BLOCK WALL PLANS SHALL BE SEALED BY AN ENGINEER REGISTERED IN THE STATE OF MISSOURI AND SUBMITTED TO THE CITY OF OFALLON FOR APPROVAL.
 - THE MODULAR BLOCK WALL DESIGN SHALL BE SUBMITTED TO THE PROJECTS GEOTECHNICAL ENGINEER FOR APPROVAL BY THE WALL CONTRACTOR PRIOR TO CONSTRUCTION.
 - THE MODULAR BLOCK WALL BLOCK TYPE, AND SIZE SHALL BE SELECTED BY THE CVS REPRESENTATIVE PRIOR TO CONSTRUCTION. THE COLOR OF THE WALL SHALL BE BETHANY LEDGE.
 - THE ELEVATIONS SHOWN FOR THE MODULAR BLOCK WALL MAY VARY ACCORDING TO THE WALL SYSTEM SELECTED. THE ABBREVIATION "TW" XXXXX AS INDICATED ON THE GRADING PLANS INDICATES THE PROPOSED ELEVATION AT THE TOP OF THE FINISHED WALL. THE ABBREVIATION "BW" XXXXX INDICATES THE FINISHED GROUND ELEVATION AT THE FACE OF THE COMPLETED WALL. THE ACTUAL ELEVATION OF THE BOTTOM OF THE MODULAR BLOCKS OR FOUNDATION WILL BE DIFFERENT AND SHALL BE BASED ON THE WALL DESIGN.
 - THE PROJECT GEOTECHNICAL ENGINEER SHALL REVIEW GLOBAL STABILITY, FOUNDATION STABILITY AND WALL STABILITY AND ISSUE A REPORT TO THE CVS REPRESENTATIVE PRIOR TO CONSTRUCTION. THE WALL INSTALLER SHALL PROVIDE AN ALLOWANCE IN HIS/HER BID OF \$5,000.00 FOR THIS PURPOSE.
 - INTERNAL STABILITY ANALYSES SHOULD CONFORM TO THE LATEST DESIGN METHODOLOGY ACCEPTED FOR USE BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA), AASHTO, OR THE NATIONAL CONCRETE MASONRY ASSOCIATION (NCMA). SINCE THESE ANALYSIS PROCEDURES ARE BASED ON THE USE OF DRAINED STRENGTH PARAMETERS, THE BACKFILL USED FOR THE GEORID REINFORCED BACKFILL SECTIONS SHOULD BE A DRAINABLE GRANULAR MATERIAL CONFORMING TO THE ASSUMPTIONS OF THE ANALYSIS. COHESIVE SOIL OR GRANULAR MATERIAL CONTAINING HIGH AMOUNTS OF FINES ARE NOT CONSIDERED DRAINABLE AND SHOULD NOT BE ALLOWED IN THE GEORID REINFORCED BACKFILL ZONES, UNLESS PROVISIONS ARE MADE TO PROVIDE BACKSLOPE AND SURFACE DRAINAGE THAT WOULD PREVENT WATER FROM ENTERING THE BACKFILL. BOTH THE AASHTO AND FHWA DESIGN METHODS SPECIFY THAT REINFORCED BACKFILL MATERIALS CONTAIN LESS THAN 15 PERCENT PASSING THE NO. 200 SIEVE. THE DESIGNER SHOULD STATE IN THE CONSTRUCTION SPECIFICATIONS THE BACKFILL MATERIAL DESCRIPTION AND DESIGN STRENGTH PARAMETERS SO THAT UNSUITABLE MATERIALS ARE NOT ALLOWED IN THE BACKFILL ZONES DURING CONSTRUCTION.
 - GLOBAL STABILITY OF THE WALL SYSTEMS SHOULD BE ANALYZED USING BOTH DRAINED AND UNDRAINED STRENGTH PARAMETERS. PARAMETERS USED IN THE ANALYSIS SHOULD NOT EXCEED THOSE GIVEN IN THE FOLLOWING TABLE FOR THE NATIVE AND FILL MATERIALS ENCOUNTERED, OR ANTICIPATED TO BE PLACED BEHIND THE REINFORCING ZONES OF THE PROJECT. THESE PARAMETERS ARE BASED ON LIMITED LABORATORY TESTING PERFORMED AS PART OF THIS STUDY AND OUR EXPERIENCE WITH SIMILAR MATERIALS. CONFIRMATORY TESTING IS RECOMMENDED. WE RECOMMEND THAT THE WALL CONTRACTOR/DESIGNER BE REQUIRED TO PROVIDE THE GLOBAL STABILITY ANALYSES BASED ON THE PLANNED FINAL CROSS-SECTIONS, INCLUDING THE TOPOGRAPHY ABOVE AND BELOW THE WALLS, USING THE GENERALIZED SUBSURFACE STRATIGRAPHY DISCUSSED IN GEOTECHNICAL REPORT.

CALL BEFORE YOU DIG!
 1-800-DIG-RITE
 1-800-333-6837

NOTE: Underground utilities and structures have been plotted from available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction.

ESTIMATED EARTHWORK QUANTITIES

CUT = 3,370 CUBIC YARDS
 FILL = 2,938 CUBIC YARDS X 1.15 (SHRINKAGE/SWELL) = 3,379 CUBIC YARDS
 = 9 CY HAIL ON-SITE

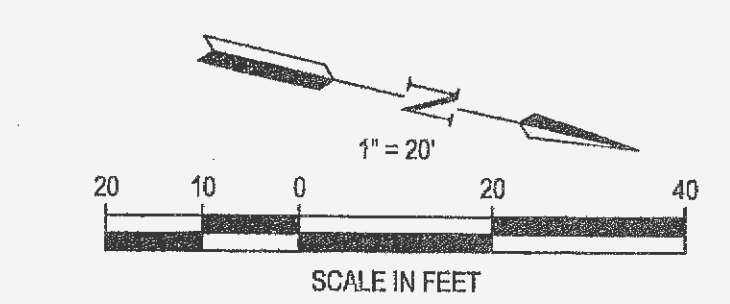
EARTHWORK QUANTITY NOTES:

THE CUT AND FILL QUANTITIES SHOWN ON THIS PLAN ARE FOR PERMITTING PURPOSES ONLY. THE GRADING CONTRACTOR IS CAUTIONED THAT THE QUANTITIES SHOWN ARE THE ENGINEER'S ESTIMATE FOR PERMITTING PURPOSES ONLY. THE GRADING CONTRACTOR SHALL COMPLETE HIS/HER OWN ESTIMATE WHEN BIDDING. NO ADDITIONAL COSTS WILL BE ALLOWED FOR GRADING WITHOUT JUSTIFICATION DUE TO PLAN CHANGES OR REVISIONS.

TOTAL AREA TO BE DISTURBED 2.21 ACRES

NOTE:
 REFER TO A.D.A. PLAN FOR SITE SPECIFIC A.D.A. LINES, GRADES, SLOPES AND ELEVATIONS.

NOTE:
 ALL ELEVATIONS SHOWN ON THE GRADING PLAN ARE TO TOP OF PAVEMENT OR FINISHED GROUND UNLESS NOTED OTHERWISE. ELEVATIONS TO POINTS OTHER THAN THE TOP OF PAVEMENT ARE NOTED AS FOLLOWS:
 TP-TOP OF PAVEMENT
 TC-TOP OF CURB
 TW-TOP OF WALL
 BW-FINISHED GROUND AT FACE OF WALL
 GRD-FINISHED GROUND AT YARD DRAINS



CVS pharmacy

PROJECT TITLE: NORTHERN 13,225-LEFT CHAMFER DRIVE-THRU STORE NUMBER: 10134

PROJECT TYPE: NEW CONSTRUCTION
 DEAL TYPE Fee for Service/Lease/Type B

CS PROJECT NUMBER: 52332

NORR
 ARCHITECTS ENGINEERS PLANNERS
 719 Glenwood Street
 Suite 1000
 Channahon, IL 62924
 (815) 324-3113

PREMIER CIVIL ENGINEERING
 308 TCW Court
 Lake Saint Louis, MO 63367
 Phone: (314) 925-7444 Fax: (314) 925-7457
 Missouri Certificate of Authority # E-2011000031
 Missouri Certificate of Authority # LS-2012007949

ENGINEER'S AUTHORIZATION
 The responsibility for professional engineering liability on this project is hereby limited to the set of plans authorized by the seal signature, and each herein attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes any other plans not specifically authorized.

STATE OF MISSOURI
 PROFESSIONAL ENGINEER
 BETHANY LEDGE
 STIVE MARION P.E.
 ENGINEER
 F2006007949

Developer / Owner Information
T.M. CROWLEY & ASSOCIATES
Grading Plan

P+Z No. 20-13
 APPROVED 9-5-13
 City No.

Sheet Number:
9
 PCE PROJECT NO. 094201