

GENERAL CONSTRUCTION NOTES:

1. COMPLY WITH S59.1–406, ET SEQ. OF THE CODE OF VIRGINIA (OVERHEAD HIGH VOLTAGE LINES SAFETY ACT).
2. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA).
3. CONSTRUCTION TRAILER, FENCING, PARKING, AND STAGING AREAS SHALL BE COORDINATED WITH AND APPROVED BY THE OWNER.
4. MAINTAIN EMERGENCY, SERVICE, AND DELIVERY VEHICLE ACCESS TO THE SURROUNDING AREA AND COORDINATE THIS WITH THE OWNER.
5. THIS PROPERTY LIES WITHIN A 100 YEAR FLOOD PLAIN. THIS SITE IS LOCATED IN FLOOD ZONE AE, SHOWN ON FIRM COMMUNITY PANEL NO. 51161C0048. (EFFECTIVE DATE OF OCTOBER 15, 1993)
6. ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SITE CONDITIONS OR ANY INCONSISTENCIES OR AMBIGUITIES IN THE DRAWINGS SHALL BE IMMEDIATELY REPORTED TO THE OWNER'S REPRESENTATIVE, WHO SHALL PROMPTLY CORRECT SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR WITHOUT DIRECTION AFTER HIS DISCOVERY OF SUCH INCONSISTENCIES OR AMBIGUITIES, SHALL BE DONE AT THE CONTRACTOR'S RISK.
7. THERE ARE NO KNOWN GRAVES, OBJECTS, OR STRUCTURES ON SITE MARKING PLACE OF HUMAN BURIAL.
8. MOST RECENT OSHA TRENCHING STANDARDS APPLY ON THIS PROJECT.
9. CONTRACTOR SHALL OPEN CUT RESERVE AVE FOR 30" STORM SEWER AND POWERLINE INSTALLATION. SEE CITY OF ROANOKE UTILITY TRENCH REPAIR DETAIL, UTR–1, SHEET 11.
10. STRUCTURAL STEEL PLATES FOR MAINTAINING TRAFFIC SHALL BE INSTALLED IN ACCORDANCE WITH ROANOKE CITY EXCAVATION STANDARDS.
11. NOTE TO CONTRACTOR: RESERVE AVE. IS ON THE CITY OF ROANOKE PAVING CANDIDATE LIST AND WILL BE REPAVED WITHIN 3 YEARS. THEREFORE, MILL AND OVERLAY WILL NOT BE REQUIRED AS PART OF THE PAVEMENT REPAIR OF THE OPEN CUT.
12. FLOOD PLAIN ELEVATION, AFTER CONSTRUCTION OF HOTEL FACILITY, WILL BE 936.85, PER FLOOD PLAIN ANALYSIS REPORT PREPARED BY ANDERSON & ASSOCIATES, DATED MAY 1, 2006.
13. ACQUIRE ALL NECESSARY PERMITS BEFORE STARTING DEMOLITION/CONSTRUCTION. NOTIFY MISS UTILITY (800–552–7001) A MINIMUM OF 72 HOURS PRIOR TO EXCAVATION FOR FIELD LOCATION OF EXISTING UTILITIES.
14. COORDINATE CONSTRUCTION WITH THE OWNER TO ENSURE THAT PEDESTRIAN ROUTES (INCLUDING HANDICAP ACCESSIBLE ROUTES) ARE MAINTAINED THROUGH/AROUND THE PROJECT AREA DURING CONSTRUCTION. MINIMIZE DISRUPTION OF PEDESTRIAN ROUTES AND COORDINATE ANY NECESSARY DISRUPTION WITH THE OWNER. ALTERNATIVE PEDESTRIAN ROUTES SHALL BE PROVIDED, REMAIN OPEN, AND BE MARKED WHILE PRIMARY PEDESTRIAN ROUTES ARE BLOCKED. DISTURBANCE OF PEDESTRIAN ROUTES SHALL BE SCHEDULED FOR TIMES OF LOW TRAFFIC. PROVIDE SIGNAGE TO DELINEATE PEDESTRIAN ROUTES AROUND THE CONSTRUCTION SITE FOR THE DURATION OF CONSTRUCTION.
15. BY THE END OF CONSTRUCTION, PROVIDE LEGIBLE, SURVEYED MARK–UPS OF AS–BUILT SITE CONSTRUCTION ITEMS ON SITE PLANS TO THE ENGINEER FOR PREPARATION OF SITE RECORD DRAWINGS.
16. ALL MATERIALS & METHODS OF CONSTRUCTION FOR PAVING, SIDEWALKS, PAVEMENT MARKINGS, PAVEMENT MARKING ERADICATION, AND STORM SEWER SHALL COMPLY WITH THE MOST RECENT EDITION OF VIRGINIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF VAULT, PUBLIC SERVICE LINE, HYDRANT AND TAPPING SLEEVE/VALVE. ONLY THE TAP WILL BE PERFORMED BY WWA.
18. CONTRACTOR SHALL PROVIDE A MAINTENANCE–OF–TRAFFIC PLAN AND OBTAIN PLAN APPROVAL FROM THE TRAFFIC ENGINEERING DEPARTMENT OF THE CITY OF ROANOKE. CONTACT JACK WOODSON (540–853–2625) AND ALLOW TWO WEEKS MINIMUM FOR PLAN APPROVAL. CONTRACTOR SHALL UTILIZE CONSTRUCTION SEQUENCE LISTED BELOW FOR PREPARING MAINTENANCE OF TRAFFIC PLAN. ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE VDOT WORK AREA PROTECTION MANUAL.

SEQUENCE OF CONSTRUCTION (FOR WORK IN THE RIGHT–OF–WAY):

1. CLOSE BOTH WESTBOUND LANES ON RESERVE AVE TO ALLOW FOR INSTALLATION OF 30" STORM SEWER AND POWERLINE, MAINTAIN LANE CLOSURE TO ALLOW FOR INSTALLATION OF PUBLIC WATERLINE AND TAP INTO EXISTING WATER MAIN.
2. CONVERT EASTBOUND PASSING LANE INTO WESTBOUND LANE, DIVERTING WESTBOUND TRAFFIC AROUND CONSTRUCTION AREA.
3. UPON COMPLETION OF INSTALLATION OF STORM SEWER, POWER, AND PUBLIC WATER, COVER TRENCHES WITH STRUCTURAL STEEL PLATING.
4. REOPEN WESTBOUND LANES WITH PROPER SIGNAGE TO ALERT TRAFFIC OF THE STRUCTURAL STEEL PLATING.
5. CLOSE BOTH EASTBOUND LANES OF RESERVE AVE TO ALLOW FOR CONTINUATION OF INSTALLATION OF 30" STORM SEWER AND POWERLINE.
6. CONVERT WESTBOUND PASSING LANE INTO EASTBOUND LANE, DIVERTING EASTBOUND TRAFFIC AROUND CONSTRUCTION AREA.
7. UPON COMPLETION OF THE INSTALLATION OF STORM SEWER AND POWER, COVER TRENCH WITH STRUCTURAL STEEL PLATING.
8. REOPEN EASTBOUND LANES, ALLOWING FOR NORMAL TRAFFIC FLOW, WITH PROPER SIGNAGE TO ALERT TRAFFIC OF THE STRUCTURAL STEEL PLATING.
9. STRUCTURAL STEEL PLATING IS TO REMAIN IN PLACE UNTIL INSTALLATION OF PAVEMENT.
10. CLOSE BOTH WESTBOUND LANES ON RESERVE AVE TO ALLOW FOR PAVING OF BOTH OPEN CUT TRENCHES.
11. CONVERT EASTBOUND PASSING LANE INTO WESTBOUND LANE, DIVERTING WESTBOUND TRAFFIC AROUND PAVING AREA.
12. UPON COMPLETION OF PAVING, REOPEN WESTBOUND LANES.
13. CLOSE BOTH EASTBOUND LANES ON RESERVE AVE TO ALLOW FOR PAVING OF OPEN CUT TRENCH.
14. CONVERT WESTBOUND PASSING LANE INTO EASTBOUND LANE, DIVERTING EASTBOUND TRAFFIC AROUND PAVING AREA.
15. UPON COMPLETION OF PAVING, REOPEN EASTBOUND LANES TO ALLOW FOR NORMAL TRAFFIC FLOW.

SURVEY AND STAKEOUT NOTES:

1. TOPOGRAPHIC INFORMATION WAS PROVIDED BY HAYES, SEAY, MATTERN & MATTERN. BOUNDARY SURVEY PERFORMED BY LUMSDEN (DATED MAY 16, 2006).
2. HORIZONTAL COORDINATE POINTS ARE BASED ON VA STATE PLANE NAD83 ADJUSTMENT. VERTICAL ELEVATIONS ARE BASED ON NAVD88.
3. CONTRACTOR SHALL FIELD VERIFY HORIZONTAL AND VERTICAL SURVEY CONTROL.
4. EXISTING CONTOUR INTERVAL = 1' UNLESS OTHERWISE SHOWN.

DEMOLITION NOTES:

1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES.
2. UTILITIES, STRUCTURES, AND VEGETATION TO BE REMOVED/DEMOLISHED ARE SHOWN BOLD ON THE DEMOLITION PLAN. NOTIFY OWNER TO REVIEW REMOVAL/ALTERATION OF EXISTING ITEMS FOUND WITHIN WORK AREA BUT NOT SHOWN ON THE PLANS.
3. COORDINATE UTILITY DEMOLITION/INSTALLATION WITH THE APPROPRIATE UTILITY PROVIDER. INSTALL TEMPORARY CONNECTIONS NECESSARY TO MAINTAIN UTILITY SERVICES DURING CONSTRUCTION. COORDINATE TEMPORARY CONNECTIONS AND UTILITY SERVICE DISRUPTIONS WITH THE OWNER AND UTILITY PROVIDERS.
4. PAVEMENTS, SIDEWALKS, AND CURBS TO BE REMOVED SHALL BE SAWCUT. SIDEWALKS AND CURBS SHALL BE SAW CUT AT THE NEAREST EXPANSION JOINT OR CONTROL JOINT. PAVEMENT AND SIDEWALKS DISTURBED BY UTILITY CONNECTIONS AND OTHER WORK SHALL BE REPLACED AS SOON AS THE WORK CAUSING THE DISTURBANCE IS COMPLETE.
5. SALVAGE SIGNS WITHIN THE PROJECT LIMITS AND REINSTALL AT THE DIRECTION OF THE OWNER.
6. RESTORE ITEMS NOT NOTED TO BE REMOVED THAT ARE DISTURBED DURING CONSTRUCTION (INCLUDING BUT NOT LIMITED TO: UTILITIES, TREES, SIDEWALKS, CURBS, AND PAVEMENT) TO PRECONSTRUCTION CONDITIONS.

PAVING NOTES:

1. SITE CONCRETE SHALL COMPLY WITH STD. DETAIL CP–1. CONTROL JOINTS SHALL BE INSTALLED EVERY 10' (MAX), AND EXPANSION JOINTS SHALL BE INSTALLED EVERY 30' (MAX) UNLESS OTHERWISE NOTED. DOWELS SHALL BE INSTALLED AT EXPANSION JOINTS. INSTALL TURN DOWN CONCRETE CROSS SECTION FOR SIDEWALK WHERE IT ABUTS THE BUILDING PAD.
2. ASPHALT PAVING AND SURFACE TREATED AGGREGATE SHALL COMPLY WITH LIGHT DUTY/HEAVY DUTY DETAIL. WHERE NEW PAVEMENT IS INSTALLED ADJACENT TO EXISTING PAVEMENT, EXISTING PAVEMENT SHALL BE SAW CUT 1' BACK FROM THE EXISTING EDGE AND PRIMED WITH VDOT APPROVED PRIMER PRIOR TO PLACEMENT OF NEW ASPHALT MATERIAL.
3. PAVEMENT DESIGN AS SHOWN IN THIS PLAN SET IS BASED ON THE COUNTY'S STANDARD CBR VALUE (2000 VDOT PAVEMENT DESIGN GUIDE). CONTRACTOR SHALL ADJUST PAVEMENT DESIGN AS NECESSARY TO ACCOUNT FOR FIELD TESTED CBR VALUES THAT DIFFER FROM THE DESIGN VALUE USED ABOVE.
4. ALL PAVEMENT STRIPING AND ROADWAY SIGNAGE SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

DIMENSION AND SITE FURNISHING NOTES:

1. DIMENSIONS OF NEW BUILDING REFERENCE OUTER FACADE WALLS. DIMENSIONS TO BUILDINGS ARE TO EXTERIOR FACE OF BUILDING. USE DIMENSIONS OF BUILDING FROM ARCHITECTURAL & STRUCTURAL PLANS FOR CONSTRUCTION OF BUILDING. BEFORE START OF CONSTRUCTION, CHECK DIMENSIONS OF CURRENT BUILDING PLANS AGAINST FIELD LOCATED BUILDING CORNERS.
2. DIMENSIONS ARE PERPENDICULAR TO THE FACE OF CURB, BUILDING, SIDEWALK, AND PAVEMENT UNLESS OTHERWISE NOTED. CURVE RADII ARE 5' UNLESS OTHERWISE NOTED.
3. PARKING STRIPING SHALL BE IN ACCORDANCE WITH VDOT STANDARDS.

GENERAL UTILITY NOTES:

1. LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE BASED ON AVAILABLE ABOVEGROUND STRUCTURES (VALVES, MANHOLES, ETC.). FIELD VERIFY ALL EXISTING UTILITIES TO DETERMINE THAT FINAL UTILITY ARRANGEMENTS SHOWN ON THE PLANS ARE FEASIBLE PRIOR TO ORDERING MATERIALS. IF LOCATIONS OF EXISTING UTILITIES ARE FOUND TO BE IN LOCATIONS OTHER THAN THOSE INDICATED ON PLANS, CONTACT THE OWNER IN A TIMELY MANNER TO DETERMINE IF PLAN MODIFICATIONS ARE REQUIRED.
2. UTILITY SERVICE MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. SERVICE SHALL NOT BE INTERRUPTED WITHOUT PRIOR APPROVAL FROM THE OWNER. APPROVED PERIODS OF INTERRUPTED SERVICE SHALL BE MINIMIZED IN DURATION AND SHALL BE COORDINATED WITH THE OWNER AND UTILITY PROVIDER.
3. FIELD VERIFY LOCATION AND SIZE OF EXISTING UTILITIES AT THEIR CONNECTION TO UTILITIES SHOWN ON THE PLANS AS A FIRST STEP TO SITE UTILITY CONSTRUCTION.

UTILITY PROFILES:

1. EXISTING UTILITY CROSSING ELEVATIONS, GROUND SURFACE ELEVATIONS, AND MANHOLE TOP ELEVATIONS ARE APPROXIMATE. REFER TO GRADING PLAN FOR GROUND SURFACE ELEVATIONS. FIELD VERIFY EXISTING SURFACE ELEVATIONS AND EXISTING UTILITY INVERT ELEVATIONS. INSTALL MANHOLE TOPS FLUSH WITH FINAL GRADE.
2. PROFILE SCALE: 1"=40' H, 1"=4' V.

GAS NOTES:

1. SITE GAS LINES SHOWN ARE SCHEMATIC. SITE GAS LINES WILL BE DESIGNED AND INSTALLED BY THE GAS UTILITY PROVIDER. COORDINATE GAS INSTALLATION WITH THE GAS UTILITY PROVIDER.

ELECTRICAL AND COMMUNICATION NOTES:

1. SITE ELECTRIC LINES AND LIGHTING ARE SHOWN FOR COORDINATION ONLY. REFER TO ELECTRICAL PLANS/SPECIFICATIONS. COORDINATE SITE ELECTRIC INSTALLATION WITH THE ELECTRIC UTILITY PROVIDER.

WATER NOTES:

1. WATER LINE PIPING AND FITTINGS SHALL BE DUCTILE IRON IN ACCORDANCE WITH THE WWA SPECIFICATIONS.
2. DUCTILE IRON WATER LINE SHALL BE INSTALLED WITH A MINIMUM COVER OF 3 FEET IN ACCORDANCE WITH THE WWA SPECIFICATIONS AND THE WATER PIPE MANUFACTURER'S SPECIFICATIONS. WATERLINES SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH THE WWA SPECIFICATIONS. WATERLINE SHALL BE BEDDED ACCORDING TO WWA STD. DETAILS.
3. WATER LINE VALVE BOXES SHALL BE IN ACCORDANCE WITH WWA STD. DETAIL W–08.
4. WATER LINE CROSSINGS WITH SANITARY SEWER SHALL BE INSTALLED IN ACCORDANCE WITH WWA STD. DETAILS
5. WATER LINE BENDS SHALL BE INSTALLED AT ALL CHANGES IN DIRECTION, HORIZONTAL OR VERTICAL, THAT EXCEED THE SPECIFICATION REQUIREMENTS AND MANUFACTURER'S JOINT DEFLECTIONS.
6. COPPER PIPE BEDDING, WHERE REQUIRED, SHALL BE NON–LIMESTONE SAND. LIMESTONE SHALL NOT COME IN CONTACT WITH COPPER PIPE.
7. CONTACT THE OWNER, UTILITY PROVIDER, AND LOCAL FIRE AND POLICE DEPARTMENTS (IF APPLICABLE) WHEN THE WATER SYSTEM IS TAKEN OUT OF, AND PUT BACK INTO, SERVICE. DOWNTIME SHALL BE MINIMIZED AS MUCH AS POSSIBLE AND SHALL BE COORDINATED WITH THE OWNER.
8. BACKFLOW PREVENTERS FOR THE WATER SERVICE LINE ARE TO BE PROVIDED INSIDE THE BUILDING. SEE PLUMBING PLANS/SPECIFICATIONS.
9. WATER LINE CONSTRUCTION AFFECTING THE FIRE FLOW LINE SHALL BE IN COMPLIANCE WITH NFPA 14, NFPA 24, AND APPLICABLE LOCAL REQUIREMENTS.
10. WATER METER SHALL BE IN ACCORDANCE WITH WWA STD. DETAIL W–05.
11. FIRE HYDRANTS SHALL BE IN ACCORDANCE WITH WWA STD. DETAIL W–18.

5

12. ALL WATER AND SANITARY SEWER FACILITIES ARE TO BE INSTALLED ACCORDING TO THE WESTERN VIRGINIA WATER AUTHORITY DESIGN AND CONSTRUCTION STANDARDS.

STORM SEWER NOTES:

1. STORM SEWER PIPING AND FITTINGS SHALL BE RCP OR HDPE AS INDICATED ON THE PLAN AND PROFILE AND IN ACCORDANCE WITH VDOT SPECIFICATIONS. STORM CULVERT PIPING AND FITTINGS (WHERE SHOWN ON THE PLANS) SHALL BE RCP IN ACCORDANCE WITH VDOT SPECIFICATIONS.
2. RCP STORM SEWER LINES SHALL BE BEDDED IN ACCORDANCE WITH STD. DETAIL TB–2. HDPE STORM SEWER LINES SHALL BE BEDDED IN ACCORDANCE WITH STD. DETAIL TB–7.
3. ALL STORM SEWER OR CULVERT PIPE SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
4. STORM MANHOLE MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH VDOT STD. MH–2, AND SHALL HAVE INVERT SHAPING AND AND STEPS IN ACCORDANCE WITH VDOT STD. IS–1 AND MS–1 UNLESS OTHERWISE NOTED. SIZE MANHOLE DIAMETERS TO ACCOMMODATE ALL PIPES ENTERING AND LEAVING THE MANHOLE. STORM SEWER MANHOLES SHALL HAVE HS–20 RATED FRAMES, GRATES, AND COVERS. COVERS SHALL HAVE THE WORD "STORM" CAST ON THEM.
5. CONNECT STORM LATERALS TO ROOF DRAINS EXITING THE BUILDING AT INVERTS SHOWN. MAINTAIN A MINIMUM 18" OF COVER AND A MINIMUM 1% SLOPE, UNLESS OTHERWISE SHOWN. ALL STORM LATERALS SHALL BE 8" PVC UNLESS OTHERWISE SHOWN.
6. STORM CLEANOUTS SHALL BE INSTALLED IN LOCATIONS SHOWN ON THE PLANS. STORM CLEANOUTS SHALL BE IN ACCORDANCE WITH STD. DETAILS CO–2 AND CO–4. CLEANOUT TOPS SHALL BE IN ACCORDANCE WITH WWA STD. DETAIL "TRAFFIC BEARING CLEANOUT BOX.
7. PROVIDE NYOPLAST INLINE DRAIN BASINS AND DROP–IN GRATES OR EQUIVALENT, WHERE SHOWN, WITH DIMENSIONS SHOWN.
8. ALL HDPE STORM PIPING SHALL BE DOUBLE–WALL SMOOTH–BORE INSTALLED PER STD DETAIL TB–7.

5


SANITARY SEWER NOTES:

1. SANITARY SEWER PIPE AND FITTINGS SHALL BE DUCTILE IRON IN ACCORDANCE WITH THE WESTERN VIRGINIA WATER AUTHORITY DESIGN STANDARDS AND SPECIFICATIONS. SANITARY SEWER PIPE AND FITTINGS SHALL BE INSTALLED AND TESTED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS.
2. SANITARY SEWER LINES SHALL BE BEDDED IN ACCORDANCE WITH WWA STANDARD DETAILS AND SHALL HAVE A MINIMUM OF 3' OF COVER.
3. SANITARY SEWER MATERIALS AND CONSTRUCTION, WHERE CROSSING WATERLINES, SHALL BE IN ACCORDANCE WITH WWA SPECIFICATIONS.
3. SANITARY SEWER MANHOLES SHALL BE IN ACCORDANCE WITH WWA STANDARD DETAILS AND SPECIFICATIONS. SIZE MANHOLE DIAMETERS TO ACCOMMODATE ALL PIPES ENTERING AND LEAVING THE MANHOLE. SANITARY SEWER MANHOLES SHALL HAVE HS–20 RATED FRAMES AND COVERS AND SHALL BE CAST WITH THE WORD "SEWER" ON THE COVER. INSTALL SANITARY SEWER MANHOLES SO THAT RUNOFF DRAINS AWAY FROM MANHOLE TOPS.
5. SEWER SERVICE MUST BE MAINTAINED THROUGHOUT CONSTRUCTION. SERVICE SHALL NOT BE INTERRUPTED WITHOUT APPROVAL FROM THE OWNER. APPROVED PERIODS OF INTERRUPTED SERVICE SHALL BE MINIMIZED IN DURATION AND SHALL BE COORDINATED WITH THE OWNER.
6. SANITARY CLEANOUTS SHALL BE INSTALLED IN LOCATIONS SHOWN ON THE PLANS. SANITARY CLEANOUTS AND CLEANOUT TOPS SHALL BE IN ACCORDANCE WITH WWA STD. DETAILS.
7. SANITARY SEWER LINES INSTALLED AT SLOPES GREATER THAN 20% SHALL HAVE CONCRETE ANCHORS IN ACCORDANCE WITH WWA STD. DETAILS.
8. ALL SANITARY SEWER CONNECTIONS TO EXISTING LINES SHALL BE COORDINATED WITH AND PERFORMED BY THE WESTERN VIRGINIA WATER AUTHORITY.
9. ALL WATER AND SANITARY SEWER FACILITIES ARE TO BE INSTALLED ACCORDING TO THE WESTERN VIRGINIA WATER AUTHORITY DESIGN AND CONSTRUCTION STANDARDS.
10. SANITARY SEWER TAP TO EXISTING MANHOLE TO BE MADE BY CONTRACTOR. MANHOLE CONNECTION MUST BE CORED WITH A BOOT INSTALLED.

5

GRADING AND DRAINAGE NOTES:

1. PROPOSED CONTOUR INTERVAL IS 1' WITH ADDITIONAL SPOT ELEVATIONS FOR CLARITY, UNLESS SHOWN OTHERWISE.
2. EXISTING UTILITY TOPS SHALL BE ADJUSTED TO FINAL GRADE. UTILITY TOPS SHALL BE INSTALLED FLUSH WITH FINAL GRADE. FIELD VERIFY UTILITY STRUCTURE (MANHOLES, VALVES, ETC.) TOP ELEVATIONS PRIOR TO ORDERING MATERIALS.
3. MAINTAIN DRAINAGE FACILITIES ON AND THROUGH THE SITE AT ALL TIMES DURING CONSTRUCTION. PROVIDE TEMPORARY FACILITIES, PUMPING ARRANGEMENTS, AND/OR CONNECTIONS AS REQUIRED TO MAINTAIN DRAINAGE.
4. MATCH EXISTING GRADE WHERE NEW SIDEWALK/ASPHALT MEETS EXISTING SIDEWALK/ASPHALT.
5. HANDICAP ACCESSIBLE ROUTES SHALL BE INSTALLED AT 5% MAX SLOPE AND 2% MAX CROSS SLOPE. HANDICAP RAMPS AND CURB RAMPS SHALL BE INSTALLED AT 8.33% MAX SLOPE AND 2% MAX CROSS SLOPE. HC PARKING SPACES AND AISLES SHALL BE INSTALLED AT 2% MAX SLOPE IN ANY DIRECTION.
6. DISTURBED AREAS NOT TO BE PAVED SHALL BE TOPSOILED, SEEDED, AND MULCHED ACCORDING TO VESCH STANDARDS. GRADED AREAS AT A SLOPE OF 3:1 OR STEEPER SHALL HAVE SURFACE ROUGHENING ACCORDING TO VESCH STANDARDS.
7. SPOT ELEVATIONS INDICATED ARE FINISHED GRADE, TOP OF PAVEMENT, OR TOP OF SIDEWALK AT THE POINT DESIGNATED BY "+".
8. THE CONTRACTOR SHALL RETAIN A LICENSED INDEPENDENT GEOTECHNICAL ENGINEER AND TESTING LABORATORY TO VERIFY COMPACTION REQUIREMENTS.
9. WHEN FILL OPERATIONS ARE CEASED DUE TO WEATHER (RAIN, FREEZING, SNOW, ETC.), CONSTRUCTION SHALL NOT BE RESUMED UNTIL THE GEOTECHNICAL ENGINEER HAS VERIFIED SOIL STRENGTH HAS NOT BEEN ADVERSELY AFFECTED. IF SOIL STRENGTH HAS BEEN DECREASED, THE AFFECTED PORTION OF FILL SHALL BE RESCARIFIED, MOISTENED, OR DRIED AS REQUIRED AND RECOMPACTED TO THE SPECIFIED DENSITY.
10. BLASTING WILL NOT BE ALLOWED.
11. ALL FILL MATERIALS SHALL BE FREE FROM MUD, REFUSE, CONSTRUCTION DEBRIS, ORGANIC MATERIAL, ROCK OR GRAVEL GREATER THAN 4 INCHES IN ANY DIMENSION, FROZEN OR OTHERWISE UNSUITABLE MATERIAL.
12. ALL VEGETATION SUCH AS ROOTS, BRUSH, HEAVY SODS, HEAVY GROWTH OF GRASS, AND ALL DECAYED VEGETATIVE MATTER, RUBBISH, AND OTHER UNSATISFACTORY MATERIAL WITHIN THE AREA UPON WHICH FILL IS TO BE PLACED, SHALL BE STRIPPED OR OTHERWISE REMOVED BEFORE THE FILL IS STARTED. IN NO CASE WILL UNSATISFACTORY MATERIAL REMAIN IN OR UNDER THE FILL AREA.
13. THE CUT SUBGRADE MATERIAL SHALL BE COMPACTED TO 100 PERCENT OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698. THE MOISTURE CONTENT SHOULD BE WITHIN +/-3 PERCENTAGE POINTS OF THE MATERIAL'S OPTIMUM AS DETERMINED BY ASTM D 2216.
14. EACH LAYER OF THE FILL SHALL BE COMPACTED TO AT LEAST 100 PERCENT OF THE MAXIMUM THEORETICAL DENSITY AS DETERMINED BY ASTM D 698. MOISTURE CONTENT SHALL BE WITHIN +/-3 PERCENT OF OPTIMUM AS DETERMINED BY ASTM D 2216.
15. TOPSOIL SHALL BE REMOVED AS REQUIRED WITHOUT CONTAMINATION WITH SUBSOIL AND STOCKPILED CONVENIENT TO AREAS FOR LATER APPLICATION OR AT LOCATIONS SPECIFIED. ANY SURPLUS OF TOPSOIL FROM EXCAVATIONS AND GRADING SHALL BE STOCKPILED IN LOCATION APPROVED BY THE OWNER. A SILT FENCE SHALL BE INSTALLED ON THE DOWNSLOPE SIDE AND THE STOCKPILES SEEDED.
16. ON AREAS TO RECEIVE TOPSOIL, THE COMPACTED SUBGRADE SHALL BE SCARIFIED TO A 2 INCH DEPTH FOR PLACING TOPSOIL. BONDING OF TOPSOIL WITH SUBSOIL. TOPSOIL THEN SHALL BE SPREAD EVENLY AND GRADED TO THE ELEVATIONS AND SLOPES SHOWN. TOPSOIL SHALL NOT BE SPREAD WHEN FROZEN OR EXCESSIVELY WET OR DRY.
17. TESTING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER, AND SHALL BE PERFORMED BY AN APPROVED INDEPENDENT TESTING LABORATORY QUALIFIED TO PERFORM SUCH TESTS AND APPROVED BY ENGINEER. FIELD DENSITY TESTS CONFORMING TO ASTM D 698, SHALL BE MADE BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE ON EACH SOIL TYPE FOUND IN THE AREAS PREPARED TO RECEIVE FILL AND IN THE SOIL TO BE USED FOR FILL. FIELD DENSITY TESTS SHALL BE MADE BY THE GEOTECHNICAL ENGINEER OR HIS REPRESENTATIVE IN ACCORDANCE WITH ASTM D 1556 OR ASTM D 2922 AND ASTM D 3017 ON THE AREAS PREPARED TO RECEIVE FILL AND ON EACH LAYER OF COMPACTED FILL.
18. A MINIMUM OF ONE MOISTURE–DENSITY TEST SHALL BE PERFORMED FOR EACH TYPE OF FILL MATERIAL, AND EACH TYPE OF EXISTING SUBGRADE MATERIAL. ONE ATTERBERG LIMITS TEST AND ONE GRADATION ANALYSIS IS REQUIRED FOR EVERY SIX FIELD DENSITY TESTS. FIELD DENSITY TESTS SHALL BE PERFORMED AS FOLLOWS: A MINIMUM OF ONE TEST PER LIFT PER 2,500 SQUARE FEET IN THE BUILDING FOOTPRINT, AND ONE TEST PER 5,000 SQUARE FEET IN PAVEMENT AREAS.
19. UPON COMPLETION OF ALL EXCAVATION OF UNSUITABLE MATERIAL, AND FOR ALL FOOTINGS, THE GEOTECHNICAL ENGINEER SHALL VISUALLY INSPECT THE SUBGRADE AND EXCAVATIONS. UPON COMPLETION OF THE INSPECTION, THE GEOTECHNICAL ENGINEER SHALL PROVIDE WRITTEN NOTIFICATION TO THE OWNER.
20. FOLLOWING VISUAL INSPECTION, CONTRACTOR SHALL DEMONSTRATE TO THE GEOTECHNICAL ENGINEER THAT THE EXPOSED SUBGRADE DOES NOT CONTAIN PREVIOUSLY UNIDENTIFIED SOFT AREAS BY PROOF ROLLING. PROOF ROLLING SHALL CONSIST OF ROLLING THE ENTIRE SURFACE WITH APPROVED MECHANICAL EQUIPMENT WHILE OBSERVING THE SUBGRADE FOR DISPLACEMENT OR DEFORMATION.

NOTE:  
REVISION #5 MODIFICATIONS DENOTED  
WITH CLOUDS AND  SYMBOL

APPROVED  
JAN 19 2010



**ANDERSON & ASSOCIATES, INC.**  
Professional Design Services  
www.andassoc.com  
VA - NC - TN - WV

100 Ardmore St.  
Blacksburg, Va. 24060  
540-552-5592

DATE : 12 JUL 06  
DESIGNED: ATP, KER  
DRAWN : KJD  
CHECKED: ATP  
QA / QC : TMK

REV.#  
5

COMMENTS

DATE  
30 NOV 09

**CAMBRIA SUITES HOTEL**  
THE LILLEHAMMER GROUP, LLC  
ROANOKE, VIRGINIA

GENERAL NOTES

DOCUMENT NO.  
**24822 — 002**  
SHEET  
**2** OF **19**