NOTICE: ALL LANDOWNERS, DEVELOPERS AND CONTRACTORS

FAILURE TO COMPLY WITH THE CONSTRUCTION PROCEDURE REQUIREMENTS LISTED BELOW MAY RESULT IN THE COSTLY REMOVAL OF STRUCTURES, TIME DELAYS, OR THE ISSUANCE OF A STOP WORK ORDER.

CONSTRUCTION PROCEDURE REQUIREMENTS

1. CITY INSPECTIONS: TO ENSURE THE COORDINATION OF TIMELY AND PROPER INSPECTIONS, A PRECONSTRUCTION CONFERENCE SHALL BE INITIATED BY THE CONTRACTOR WITH THE CITY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT. CALL 540/853-2250 TO ARRANGE A CONFERENCE AT LEAST THREE (3) DAYS PRIOR TO ANTICIPATED CONSTRUCTION.
2. STREET OPENING PERMIT: PRIOR TO THE COMMENCEMENT OF ANY DIGGING, ALTERATIONS, OR CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY (STREETS, ALLEYS, PUBLIC EASEMENTS) A STREET OPENING PERMIT SHALL BE APPLIED FOR AND OBTAINED BY THE CONTRACTOR FROM THE CITY OF ROANOKE.
3. PLANS AND PERMITS: A COPY OF THE PLANS APPROVED BY THE CITY (SIGNED BY THE PROPER CITY OFFICIALS) AND ALL PERMITS ISSUED BY THE CITY SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES OF ONGOING CONSTRUCTION.
4. LOCATION OF UTILITIES: THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
5. CONSTRUCTION ENTRANCE: THE CONTRACTOR SHALL INSTALL AN ADEQUATE CONSTRUCTION ENTRANCE FOR ALL CONSTRUCTION-RELATED EGRESS FROM THE SITE. SIZE AND COMPOSITION OF CONSTRUCTION ENTRANCE SHALL BE DETERMINED BY THE CITY SITE PLAN INSPECTOR.
6. STREETS TO REMAIN CLEAN: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT THE PUBLIC STREET ADJACENT TO THE CONSTRUCTION ENTRANCE REMAINS FREE OF MUD, DIRT, DUST, AND/OR ANY TYPE OF CONSTRUCTION MATERIALS OR LITTER AT ALL TIMES.
7. BARRICADES/DITCHES: THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL EXCAVATED DITCHES AND SHALL FURNISH AND ENSURE THAT ALL BARRICADES PROPER AND NECESSARY FOR THE SAFETY OF THE PUBLIC ARE IN PLACE.
8. SEWER AND PAVEMENT REPLACEMENT: CONSTRUCTION OF SANITARY SEWERS AND THE REPLACEMENT OF PAVEMENT SHALL BE IN ACCORDANCE WITH APPROVED STANDARDS AND SPECIFICATIONS OF THE CITY OF ROANOKE.
9. APPROVED PLANS/CONSTRUCTION CHANGES: ANY CHANGE OF VARIATION FROM CONSTRUCTION DESIGN AS SHOWN ON THE OFFICIALLY APPROVED PLANS SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO SAID CHANGES OR VARIATIONS IN CONSTRUCTION BEING MADE.
10. FINAL ACCEPTANCE/CITY: THE DEVELOPER OR CONTRACTOR SHALL FURNISH THE CITY OF ROANOKE ENGINEERING DEPARTMENT WITH A FINAL CORRECT SET OF AS-BUILT PLANS PRIOR TO FINAL ACCEPTANCE BY THE CITY.

WATER NOTES

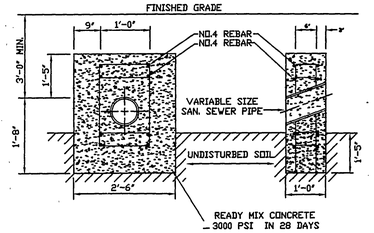
1. IN AREAS OF WATERLINE CONSTRUCTION, GRADES SHALL BE WITHIN SIX (6) INCHES OF FINISHED SUBGRADE PRIOR TO THE COMMENCEMENT OF THIS WORK.
2. ALL CONNECTIONS TO EXISTING WATER MAINS SHALL BE MADE BY THE CITY OF ROANOKE.
3. WATER PIPE SHALL BE DUCTILE IRON WITH PUSH-ON JOINTS. DUCTILE IRON PIPE SHALL CONFORM TO AWWA C-151/ANSI 21/51 AND FITTINGS SHALL CONFORM TO AWWA C-110/ANSI 21.10. THE PIPE AND FITTINGS SHALL BE BITUMINOUS COATED AND CEMENT LINED IN ACCORDANCE WITH AWWA C-104/ANSI 21.40. THE PIPE THICKNESS SHALL CONFORM TO AWWA C-150/ANSI 21/50 AND SHALL BE CLASS 50, AS A MINIMUM, UNLESS SPECIFIED OR INDICATED OTHERWISE.
4. MINIMUM CLEAR COVER OVER ALL WATER PIPE SHALL BE THREE (3) FEET.
5. MINIMUM COVER OVER ALL WATERLINES IS 3.0 FEET.

SEWER NOTES

1. PIPE AND FITTINGS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 AND SHALL CONFORM TO ASTM D-3034. BEDDING SHALL BE CLASS "B" MINIMUM.
2. CONNECT PIPE TO MANHOLES THROUGH PRECAST OPENINGS AND JOIN WITH EITHER A FLEXIBLE BOOT ADAPTER OR A PIPE SEAL GASKET.
3. MAKE RESIDENTIAL SERVICE CONNECTIONS WITH A FOUR (4) INCH PIPE THROUGH A WYE OR TEE-WYE BRANCH FITTING AND SHALL BE INSTALLED ON A MINIMUM GRADE OF ONE-QUARTER (1/4) INCH PER ONE (1) FOOT FROM THE SEWER PIPE OR MANHOLE TO THE PROPERTY OR EASEMENT LINE WHERE A CLEANOUT SHALL BE PLACED AND THE SERVICE LATERAL PLUGGED/CAPPED UNTIL EXTENSION.
4. FIELD MARK FUTURE SERVICE CONNECTIONS BY A TREATED, SOLID WOODEN (2"X4") MARKER THREE (3) FEET LONG SET VERTICALLY PLUMB WITH THE END OF THE CAPPED EXTENSION. PAINT THE TOPS OF THE MARKERS YELLOW AND SET FLUSH WITH THE FINISH GRADE. SHOW THE LOCATION AND INVERT DEPTH OF THE SERVICE CONNECTION ON THE AS-BUILT PLANS.
5. MINIMUM COVER OVER ALL SEWER LINES IS 3.0 FEET.

PAVING NOTES

1. PAVEMENT REPLACEMENT PER CITY STANDARD DETAIL.
2. SAW CUT EDGE OF EXISTING PAVEMENT WHERE NEW CG-6 IS TO MEET EXISTING PAVEMENT.
3. PROVIDE SMOOTH TRANSITION FROM EXISTING TO NEW PAVEMENT AND CURB AND GUTTER.



ANCHOR BLOCK

GENERAL UTILITY NOTES

1. SUPPLY AND INSTALL ALL MATERIALS AND METHODS FOR WATERLINES, SANITARY SEWERS AND STORM DRAINAGE IN ACCORDANCE WITH THE SPECIFICATIONS AND REQUIREMENTS OF THE CITY OF ROANOKE AND THE VIRGINIA DEPARTMENT OF TRANSPORTATION "ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS", LATEST EDITION.
2. OBTAIN ALL REQUIRED PERMITS AND NOTIFY APPROPRIATE OFFICIALS 48 HOURS PRIOR TO COMMENCEMENT OF WORK. OBTAIN INFORMATION FROM THE CITY OF ROANOKE CONCERNING PERMITS AND CONNECTIONS TO EXISTING LINES.
3. ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE CITY OF ROANOKE. NOTIFY APPROPRIATE OFFICIALS PRIOR TO COMMENCEMENT OF WORK.
4. SITE SHALL BE TO SUB GRADE PRIOR TO INSTALLATION OF UTILITIES. ALL UTILITIES SHALL BE IN PLACE PRIOR TO PLACEMENT OF PAVEMENT BASE MATERIAL.
5. USE SELECT MATERIAL FREE FROM FROST, LARGE CLODS, STONES, AND DEBRIS FOR BACK FILL FROM THE BOTTOM OF THE TRENCH TO TWELVE (12) INCHES ABOVE THE PIPE.
6. MINIMIZE ANY DISTURBANCE TO EXISTING WATER SERVICE, SEWER LINES OR ANY OTHER UTILITY DURING CONSTRUCTION AND PROVIDE QUALITY WORKMANSHIP.
7. MAKE ALL PIPE JOINTS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND THE CITY'S SPECIFICATIONS. MAKE JOINTS BETWEEN DIFFERENT PIPE MATERIALS WITH STANDARD FITTINGS MANUFACTURED FOR THE PURPOSE.
8. MAINTAIN ALL WATER LINES AT TEN (10) FEET HORIZONTAL SEPARATION FROM SEWER LINES AND MANHOLES; MEASURE THE DISTANCE EDGE-TO-EDGE. WHEN LOCAL CONDITIONS PREVENT THE DESIRED HORIZONTAL SEPARATION, THE WATERLINE MAY BE LAID CLOSER TO THE SEWER OR MANHOLE PROVIDED THAT THE BOTTOM OF THE WATERLINE SHALL BE AT LEAST EIGHTEEN (18) INCHES ABOVE THE TOP OF THE SEWER. WHERE THIS VERTICAL SEPARATION CANNOT BE OBTAINED, CONSTRUCT THE SEWER OF AWWA APPROVED WATER PIPE AND PRESSURE TREAT IN PLACE PRIOR TO BACKFILLING. THE SEWER MANHOLE SHALL BE OF WATERTIGHT CONSTRUCTION TESTED IN PLACE.
9. SEWER AND WATER TAPS SHALL BE LOCATED BY THE CONTRACTOR AND MADE BY THE CITY AT THE DEVELOPER'S EXPENSE.
10. LOCATE AND UNCOVER VALVE VAULTS AND MANHOLES AFTER PAVING AND ADJUST TO FINAL GRADE, IF NECESSARY.
11. VERIFY THE LOCATION AND ELEVATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IN AREAS OF CONSTRUCTION PRIOR TO STARTING WORK. CONTACT THE ENGINEER IMMEDIATELY IF:

    ANY LOCATION OR ELEVATION IS DIFFERENT FORM THAT SHOWN ON THE PLANS.

    IF THERE APPEARS TO BE ANY CONFLICT.

    UPON DISCOVERY OF ANY UTILITY NOT SHOWN ON THE PLANS.

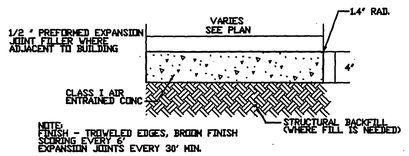
    TO MISS UTILITIES, CALL "MISS UTILITY" OF VIRGINIA (TOLL FREE 1-800-552-7001) 48 HOURS BEFORE YOU DIG. THE CONTRACTOR IS RESPONSIBLE FOR ALL

    DAMAGE CAUSED TO ANY UTILITY, PUBLIC OR PRIVATE, AS A RESULT OF THIS WORK. EXISTING UTILITY LOCATIONS SHOWN ARE A RESULT OF A COMBINATION

    OF EXISTING INFORMATION AND FIELD LOCATION OF SURFACE FEATURES. LOCATIONS ARE APPROXIMATE.
12. REPAIR ALL DAMAGE CAUSED TO ANY UTILITY, PUBLIC OR PRIVATE, AS A RESULT OF THIS WORK AT NO ADDITIONAL COST TO OWNER.
13. PROVIDE A CONTINUOUS AND UNIFORM BEDDING IN THE TRENCH FOR ALL PIPE. REMOVE STONES AND ROCKS FOUND IN THE TRENCH FOR A DEPTH OF AT LEAST SIX (6) INCHES BELOW THE BOTTOM OF THE PIPE AND TAMP SELECT FILL BEDDING PROVIDED. AFTER THE PIPE HAS BEEN PLACED IN THE TRENCH, BACK FILL THE TRENCH WITH SELECT MATERIAL, THOROUGHLY COMPACT TO 90% (95% UNDER PAVEMENT OR CONCRETE SLAB) OF THE STANDARD PROCTOR (ASTM D-698) USING CARE NOT TO DAMAGE THE PIPE. USE VDOT STANDARD PB-1 TRENCH FOR STORM SEWER AND UB-1 FOR SANITARY SEWER AND WATER.
14. PLACE BACK FILL FOR ALL UTILITIES IN ACCORDANCE WITH THE CITY'S SPECIFICATIONS, AND THE FOLLOWING CRITERIA:

    (1) BACK FILL NO TRENCH UNTIL AUTHORIZED BY THE CITY. MATERIALS USED FOR BACK FILL FROM THE BOTTOM OF THE TRENCH TO TOP OF THE PIPE SHALL BE CRUSHER RUN, OR APPROVED EQUAL MATERIAL. THOROUGHLY AND CAREFULLY COMPACT THE BACK FILL MATERIAL.

    (2) COMPACT BACK FILL BY MECHANICAL TAMPING THROUGHOUT THE DEPTH OF THE TRENCH TO INSURE A SUITABLE SUBBASE ACCEPTABLE TO THE ROAD ENGINEER. IF THE MATERIAL TAKEN FROM THE DITCH IS NOT SUITABLE FOR BACK FILLING, REMOVE IT AND USE AN ACCEPTABLE MATERIAL FOR BACK FILLING THE TRENCH.
15. IN AREAS OF WATER LINE CONSTRUCTION, GRADES SHALL BE WITHIN SIX (6) INCHES OF FINISHED SUB GRADE PRIOR TO THE COMMENCEMENT OF THIS WORK.
16. MINIMUM COVER OVER WATER AND SANITARY SEWER LINES SHALL BE THREE (3) FEET.
17. THE CITY OF ROANOKE SHALL MAKE ALL CONNECTIONS TO EXISTING WATER MAINS.
18. THE CONTRACTOR SHALL INSTALL ALL WATER SERVICE CONNECTIONS AND METER BOXES.
19. CONNECT PIPE TO MANHOLES THROUGH PRE CAST OPENINGS AND JOIN WITH EITHER A FLEXIBLE BOOT ADAPTER OR A PIPE SEAL GASKET.
20. MAKE RESIDENTIAL SERVICE CONNECTIONS WITH A FOUR (4) INCH PIPE THROUGH A WYE OR TEE-WYE BRANCH FITTING AND SHALL BE INSTALLED ON A MINIMUM GRADE OF ONE-QUARTER (1/4") INCH PER ONE (1) FOOT FROM THE SEWER PIPE OR MANHOLE TO THE PROPERTY OR EASEMENT LINE WHERE A CLEANOUT SHALL BE PLACED AND THE SERVICE LATERAL PLUGGED / CAPPED UNTIL EXTENSION.
21. FIELD MARK FUTURE SERVICE CONNECTIONS BY A TREATED, SOLID WOODED (2"X4") MARKER THREE (3) FEET LONG SET VERTICALLY PLUMB WITH THE END OF THE CAPPED EXTENSION. PAINT THE TOPS OF THE MARKERS YELLOW AND SET FLUSH WITH THE FINISHED GRADE. SHOW THE LOCATION AND INVERT DEPTH OF THE SERVICE CONNECTION ON THE AS-BUILT PLANS.
22. ALL UTILITY INFORMATION PROVIDED BY THE DEVELOPER H.B. HODGES.



SIDEWALK DETAIL
N.T.S.

GENERAL NOTES

1. PROVIDE NEW MATERIALS AND WORKMANSHIP IN CONFORMANCE WITH ALL APPLICABLE CODES, STATE AND FEDERAL LAWS, LOCAL ORDINANCES, INDUSTRY STANDARDS, AND OTHER CRITERIA WHICH WOULD NORMALLY APPLY TO WORK OF THIS NATURE. NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERING A CONFLICT IN CODES, ORDINANCES, STANDARDS, OR OTHER CRITERIA. APPLICABLE CODES AND STANDARDS INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, THE FOLLOWING:
    a. BOCA - BASIC CODES
    b. ROANOKE CITY
    c. VDOT - VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE STANDARDS AND SPECIFICATIONS
    d. VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS AND HANDBOOK, LATEST EDITION
    e. OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
    f. ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
2. MAINTAIN A SET OF APPROVED PLANS ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. OBTAIN EACH REQUIRED PERMIT PRIOR TO COMMENCING THAT PART OF THE WORK. PAY REQUIRED FEES.
4. NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF CONDITIONS WHICH DIFFER FROM THOSE SHOWN ON THE PLANS.
5. COMPLY WITH LOCAL ORDINANCES FOR BURNING OF WASTE. TRANSPORT WASTE MATERIALS AND UNSUITABLE MATERIALS FROM OWNER'S PROPERTY.
6. COORDINATE BUILDING DIMENSIONS WITH ARCHITECTURAL PLANS.
7. A PRECONSTRUCTION MEETING MUST TAKE PLACE PRIOR TO COMMENCING WORK. AS A MINIMUM, THE CONTRACTOR, OWNER'S AGENT AND CITY'S AGENT MUST ATTEND.
8. VERIFY THE LOCATION AND ELEVATION OF EACH EXISTING UNDERGROUND UTILITY IN AREAS OF CONSTRUCTION PRIOR TO COMMENCEMENT OF WORK. CONTACT ENGINEER IMMEDIATELY IF THERE APPEARS TO BE A CONFLICT, UPON DISCOVERY OF A UTILITY WHICH IS NOT SHOWN, AND UPON DISCOVERY OF A LOCATION OR ELEVATION WHICH DIFFERS FROM THAT SHOWN. TO LOCATE UTILITIES, CALL "MISS UTILITY", 1-800-552-7001. UTILITY LOCATIONS SHOWN ARE THE RESULT OF A COMBINATION OF FIELD LOCATION AND EXISTING INFORMATION. LOCATIONS ARE APPROXIMATE.
9. REPAIR ALL DAMAGE TO ANY UTILITY, PUBLIC OR PRIVATE, CAUSED AS A RESULT OF CONSTRUCTION ACTIVITIES, AT NO ADDITIONAL COST TO OWNER.
10. NOTIFY OWNERS OF UTILITIES IN AREAS OF CONSTRUCTION PRIOR TO COMMENCEMENT OF EXCAVATION.
11. SIGNAGE SHALL COMPLY WITH THE APPLICABLE REGULATIONS OF THE CITY. A SEPARATE PERMIT IS REQUIRED.
12. ALL TOPOGRAPHIC INFORMATION WAS PROVIDED BY THE DEVELOPER H.B.HODGES.
13. DO NOT SCALE DIMENSIONS. IF A QUESTION CONCERNING A DIMENSION ARISES, CONTACT THE ENGINEER FOR INTERPRETATION.
14. THIS PROPERTY DOES NOT LIE WITHIN THE LIMITS OF A 100 YEAR FLOOD BOUNDARY AS DESIGNATED BY CURRENT FEMA MAPS. PROERTY IS IN ZONE X UNSHADED. SEE MAP #51161C0046 D (EFFECTIVE DATE: OCT. 15, 1993).

EROSION & SEDIMENT CONTROL NOTES

1. PROVIDE CONSTRUCTION MATERIALS AND METHODS IN ACCORDANCE WITH ALL STATE AND LOCAL REGULATIONS, INCLUDING THE STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION. REFER TO THIS HANDBOOK FOR DETAILS AND SPECIFICATIONS OF EROSION CONTROL DEVICES.
2. SCHEDULE A PRECONSTRUCTION MEETING INVOLVING THE ENGINEER, DEVELOPER'S REPRESENTATIVE AND SELECTED CONTRACTOR ON SITE PRIOR TO BEGINNING CONSTRUCTION.
3. ADHERE TO THE EROSION AND SEDIMENT CONTROL NARRATIVE AS PART OF THIS CONTRACT. INSTALL EROSION CONTROL DEVICES AS PER THE NARRATIVE/PLAN.
4. NOTIFY THE PROJECT ENGINEER WHEN THE LOCAL GOVERNING OFFICIAL HAS INSPECTED AND APPROVED ALL IN-PLACE EROSION AND SEDIMENT CONTROL DEVICES, REQUIRED BY LOCAL ORDINANCES TO BE IN PLACE PRIOR TO LAND DISTURBANCE.
5. NOTIFY THE PROJECT ENGINEER 24 HOURS IN ADVANCE OF BEGINNING CLEARING AND GRADING OPERATIONS.
6. DISPOSE OF EXCESS EXCAVATION, AS WELL AS ALL ORGANIC MATTER AND DEBRIS, OFF SITE.
7. SEED AND MULCH OR TEMPORARILY STABILIZE ALL DENUDED AREAS WITHIN SEVEN DAYS OF DISTURBANCE. SEED TRENCHES IMMEDIATELY FOLLOWING BACKFILL.
8. REMOVE ALL DEMOLISHED MATERIAL FROM THE PROJECT SITE AND DISPOSE OF IN AN ACCEPTABLE LOCATION.
9. REINSTALL ANY STRUCTURE(S) RELOCATED AND/OR REMOVED DURING THE INSTALLATION OF THE PROPOSED IMPROVEMENTS AT NO ADDITIONAL COST TO OWNER.
10. INSPECT ESC MEASURES WEEKLY AND AFTER EACH RAINFALL TO INSURE PROPER FUNCTIONING.
11. AVOID CONSTRUCTION TRAFFIC IN NATURAL STREAMS AND DRAINAGE WAYS WHENEVER POSSIBLE.
12. REMOVE ALL SILT FROM STREAMS AND DRAINAGE WAYS PRIOR TO BOND RELEASE.

SITE SUMMARY

DEVELOPER: SOUTHWOOD MANAGEMENT, INC. ATTN: H.B. HODHES
5031 PITZER ROAD
ROANOKE, VA 24014
PHONE: 540-345-6886 FAX: 540-427-3924

TAX MAP NUMBER: 3340401 & 7120312
SIZE: 3.01 ACRES
ZONING: RM-2 & RS-3
MINIMUM LOT SIZE REQUIRED: 5,000 SF
MINIMUM LOT FRONTAGE REQUIRED: 50 FEET
LOT FRONTAGE PROVIDED: 50 FEET
SETBACKS: FRONT 30 FEET
SIDE 20% OF LOT WIDTH
REAR 25 FEET
MAXIMUM BUILDING HEIGHT: 35 FEET
MAXIMUM LOT COVERAGE ALLOWED: (40%-RM2) 35%-RS3
BUILDINGS: (40%-RM2) 35%-RS3

NOTE: THE TOPOGRAPHIC INFORMATION, INCLUDING STORM SEWER AND UTILITY LOCATIONS, HAVE BEEN PROVIDED BY THE OWNER, AND BALZER AND ASSOCIATES IS NOT RESPONSIBLE FOR ANY ERRORS OR OMISSIONS.

GRADING NOTES

1. REMOVE TREES, SHRUBS, GRASS, AND OTHER VEGETATION, IMPROVEMENTS OR OBSTRUCTIONS AS REQUIRED TO PERMIT INSTALLATION OF NEW CONSTRUCTION. REMOVE TREES AND OTHER VEGETATION, INCLUDING STUMPS AND ROOTS, COMPLETELY IN AREAS REQUIRED FOR SUBSEQUENT SEEDING. CUT OFF TREES AND STUMPS IN AREAS TO RECEIVE FILL MORE THAN THREE FEET IN DEPTH TO WITHIN EIGHT INCHES OF THE ORIGINAL GROUND SURFACE.
2. BARRICADE OPEN EXCAVATIONS OCCURRING AS PART OF THIS WORK AND OPERATE WARNING LIGHTS AS RECOMMENDED BY AUTHORITIES HAVING JURISDICTION.
3. CUT SURFACE UNDER PAVEMENTS TO COMPLY WITH CROSS SECTIONS, ELEVATIONS, AND GRADES AS INDICATED.
4. EXCAVATE TRENCHES TO UNIFORM WIDTH CONFORMING TO VDOT STANDARD PB-1 FOR STORM DRAINAGE PIPING. BACKFILL TRENCHES WITH CONTROLLED FILL.
5. PREVENT SURFACE WATER AND SUBSURFACE OR GROUND WATER FROM FLOWING INTO EXCAVATIONS AND FROM FLOODING PROJECT SITE AND SURROUNDING AREA. DO NOT ALLOW WATER TO ACCUMULATE IN EXCAVATIONS. REMOVE WATER TO PREVENT SOFTENING OF FOUNDATION BOTTOMS, UNDERCUTTING FOOTINGS, AND SOIL CHANGES DETRIMENTAL TO STABILITY OF SUBGRADES AND FOUNDATIONS. CONVEY WATER REMOVED FROM EXCAVATIONS AND RAIN WATER TO COLLECTING OR RUNOFF AREAS. ESTABLISH AND MAINTAIN TEMPORARY DRAINAGE DITCHES AND OTHER DIVERSIONS OUTSIDE EXCAVATION LIMITS FOR EACH STRUCTURE. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DITCHES.
6. PROTECT EXCAVATED BOTTOMS OF ALL TRENCHES AGAINST FREEZING WHEN ATMOSPHERIC TEMPERATURE IS LESS THEN 35°F (1°C).
7. FINISH LAWN AREAS TO WITHIN ONE INCH ABOVE OR BELOW REQUIRED SUBGRADE ELEVATIONS. SHAPE SURFACE UNDER WALKS AND PAVEMENTS TO LINE, GRADE, AND CROSS SECTION, WITH NOT MORE THAN 1/2" ABOVE OR BELOW REQUIRED SUBGRADE ELEVATION.
8. PROTECT GRADED AREAS FROM TRAFFIC AND EROSION. REPAIR AREAS WHICH HAVE SETTLED, ERODED, OR BECOME DAMAGED DUE TO CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST TO OWNER.
9. PLACE ALL FILL AND BACKFILL AS CONTROLLED FILL AS FOLLOWS:
    a. ESTABLISH SUITABLE SUBGRADE CONDITIONS PRIOR TO PLACING FILL BY PROOFROLLING, UNDERCUTTING AND COMPACTING AS NECESSARY.
    b. PLACE FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" FOR HAND TAMPERS.
    c. PRIOR TO COMPACTION, PROVIDE MOISTURE CONTENT TO WITHIN 3% OF OPTIMUM BY MOISTENING OR AERATING EACH LAYER. DO NOT PLACE FILL MATERIAL ON SURFACES WHICH ARE MUDDY, FROZEN OR CONTAIN FROST OR ICE.
    d. COMPACT SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY IN ACCORDANCE WITH ASTM D 698 (STANDARD PROCTOR):
        I. 95% UNDER PAVEMENT
        II. 85% UNDER LAWN OR UNPAVED AREAS
10. SPREAD TOPSOIL TO A DEPTH OF 4" OVER ALL DISTURBED AREAS NOT RECEIVING WALKS, PAVEMENT, WALLS OR BUILDING, INCLUDING TRENCHES. IMMEDIATELY FOLLOWING PLACEMENT OF TOPSOIL, DISK THE ENTIRE TOPSOILED AREA AND RAKE FREE OF STONES AND DEBRIS OVER 1/2" IN ANY DIMENSION. PROVIDE A FINISHED SURFACE FREE OF DEPRESSIONS OR HIGH SPOTS. SEED IMMEDIATELY.
11. OWNER (CONTRACTOR) SHALL EMPLOY QUALIFIED SOILS TESTING LABORATORY TO INSPECT EARTHWORK OPERATIONS. NOTIFY LABORATORY PRIOR TO PERFORMING EARTHWORK OPERATIONS.

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CONSTRUCTION OF A 12 LOT SUBDIVISION. PUBLIC UTILITIES ARE PLANNED. TOTAL PROJECT AREA IS 2.51 ACRES. TOTAL DISTURBED AREA IS APPROXIMATELY 2.3 ACRES.

EXISTING SITE CONDITIONS

ALONG DALETON ROAD SLOPES ARE GENERALLY 1.5%. THE WOODED AREA OF THE SITE HAS SLOPES OF 25%.

ADJACENT PROPERTIES

ADJACENT PROPERTIES ARE ZONED RESIDENTIAL, RM-2 AND RS-3.

OFF-SITE AREAS

THE EXISTING DI-7 AT THE INTERSECTION OF DALETON ROAD AND 24TH STREET WILL CONTINUE TO RECEIVE RUNOFF FROM THIS SITE.

SOILS

ON SITE SOILS WERE IDENTIFIED ON THE "GENERALIZED SOIL PARENT MATERIAL MAP" OF ROANOKE VIRGINIA. SOILS IN THIS AREA ARE GENERALLY IDENTIFIED AS 6C, CHISWELL-LITZ-URBAN LAND COMPLEX AND 24C, GROSECLOSE SILT LOAM..

CRITICAL EROSION AREAS

SILT FENCE WILL PLACED ALONG THE PROPERTY LINES OF THE EXISTING LOT ON 24TH STREET TO INTERCEPT ANY RUNOFF.

MANAGEMENT STRATEGIES

1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
2. THE GRAVEL CONSTRUCTION ENTRANCE WILL BE INSTALLED AS A FIRST STEP IN CONSTRUCTION.
3. SILT FENCE WILL BE INSTALLED AS A SECOND STEP IN CONSTRUCTION.
4. OTHER MEASURES WILL BE INSTALLED AS WORK PROGRESSES INTO THOSE AREAS.
5. TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING.
6. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
7. AFTER ACHIEVING ADEQUATE STABILIZATION, THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE CLEANED AND

PERMANENT STABILIZATION

ALL AREAS DISTURBED BY CONSTRUCTION WHICH DO NOT RECEIVE PAVING SHALL BE STABILIZED WITH PERMANENT SEEDING AS SPECIFIED. ALL SEEDING SHALL BE TACKED AND MULCHED AND PLACED IMMEDIATELY AFTER REACHING FINISHED GRADE.

STORM WATER MANAGEMENT

THIS PROJECT AREA IS LESS THAN 1% OF THE TOTAL DRAINAGE AREA OUT THE POINT THE STORM WATER LEAVES THE SITE. THEREFORE NO STORM WATER MANAGEMENT IS REQUIRED.

MAINTENANCE

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. IN PARTICULAR:

1. SILT FENCE WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALFWAY TO THE TOP OF THE BARRIER.
2. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED AS NEEDED.
3. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL DEVICES IMMEDIATELY AFTER EACH SIGNIFICANT RAINFALL AND DAILY DURING PERIODS OF PROLONGED OR HEAVY RAINFALL AND REPAIR ALL STRUCTURES AS NECESSARY WITHIN 48 HOURS.

EROSION AND SEDIMENT CONTROL MEASURES

ALL MEASURES TO BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

CONSTRUCTION ENTRANCE-3.02
A GRAVEL CONSTRUCTION ENTRANCE WILL PREVENT MUD AND DUST ENTERING DALETON ROAD.

SILT FENCE-3.05
SILT FENCE WILL PROTECT DOWNSTREAM PROPERTY FROM SEDIMENT LADEN RUNOFF.

STORM DRAIN INLET PROTECTION-3.07
EACH INLET WILL BE PROTECTED FROM SEDIMENT UNTIL THE SITE HAS STABILIZED.

TEMPORARY SEEDING-3.31
ANY DENUDED AREAS LEFT DORMANT FOR EXTENDED PERIODS OF TIME WILL BE SEEDED TEMPORARILY WITHIN SEVEN DAYS.

PERMANENT SEEDING-3.32
AREAS NOT RECEIVING PAVING WILL BE SEEDED.

SEDIMENT TRAP-3.13
DETAIN SEDIMENT-LADEN RUNOFF LONG ENOUGH TO ALLOW SEDIMENT TO SETTLE OUT.

CHECK DAM-3.20
REDUCE THE VELOCITY OF STORM WATER FLOW-TEMPORARY MEASURE WILL BE REMOVED WHEN DITCH IS STABILIZED.

DIVERSION DIKE-3.12
CHANNEL CONSTRUCTED ACROSS A SLOPE WITH A SUPPORTING EARTHEN RIDGE ON THE LOWER SIDE.

AS-BUILTS 12/17/2003

WVWA ID# 60SKXY

COMMONWEALTH OF VIRGINIA
ROGER I. STURGILL
No. 033058
PROFESSIONAL ENGINEER

BALZER AND ASSOCIATES, INC.
REFLECTING TOMORROW
PLANNERS • ARCHITECTS
ENGINEERS • SURVEYORS
1208 Corporate Circle
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102 Hubbard Street
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DALETON RD. SUBDIVISION
SOUTHWOOD MANAGEMENT, INC.
NOTES AND DETAILS
CITY OF ROANOKE, VIRGINIA

DRAWN BY: DRB
DESIGNED BY: DRB
CHECKED BY: RIS
DATE: JULY 26, 2002
REVISIONS:
8-30-02
9-19-02

SCALE: 30'

SHEET NO.
5 OF 6

JOB NO.
R0200106