

GREENFIELD COLLECTOR AND TINKER CREEK EXTENSION BOTETOURT COUNTY, VIRGINIA

CONSTRUCTION NOTES

1. ALL EXISTING SEWER SERVICES SHALL REMAIN FUNCTIONAL IN THEIR PRESENT CONDITION OR BETTER UNTIL SWITCHED TO PUBLIC SEWER.
2. ALL "DOWNSTREAM" FACILITIES SHALL BE FUNCTIONALLY CONSTRUCTED, TESTED, AND APPROVED BY THE ENGINEER FOR OPERATION BEFORE ANY EXISTING SEWER SERVICES ARE SWITCHED TO PUBLIC SEWER.
3. ALL SANITARY DISCHARGE POINTS FROM ANY STRUCTURE SHALL BE CONNECTED TO PUBLIC SEWER, I.E. SEPTIC TANKS, SINK DRAINS, BATHTUB DRAINS, ETC. ALL NON-SANITARY DISCHARGE POINTS SHALL BE DIVERTED FROM THE PUBLIC SEWER CONNECTION, I.E. ROOF DRAINS, STORM DRAINS, GUTTERS, ETC.

DRAWING INDEX

1. KEY SHEET
2. PLAN & PROFILE STA 0+00 - 15+00
3. PLAN & PROFILE STA 14+00 - 29+00
4. PLAN & PROFILE STA 28+00 - 43+00
5. PLAN & PROFILE STA 42+00 - 57+00
6. PLAN & PROFILE STA 56+00 - 71+00
7. PLAN & PROFILE STA 70+00 - 85+00
8. PLAN & PROFILE STA 84+00 - 99+00
9. PLAN & PROFILE STA 98+00 - 113+00
10. PLAN & PROFILE STA 112+00 - 127+00
11. PLAN & PROFILE STA 126+00 - 141+00
12. PLAN & PROFILE STA 140+00 - 155+00
13. PLAN & PROFILE STA 154+00 - 169+00
14. PLAN & PROFILE STA 168+00 - 183+00
15. PLAN & PROFILE STA 182+00 - 184+61
16. SUBMAIN "A" STA 0+00 - 1+07
17. SUBMAIN "B" STA 0+00 - 1+12
18. SUBMAIN "C" STA 0+00 - 2+22
19. SUBMAIN "D" STA 0+00 - 1+93
20. SUBMAIN "E" STA 0+00 - 2+00
21. SANITARY SEWER DETAILS
22. SANITARY SEWER DETAILS
23. SANITARY SEWER DETAILS
- 23A. METERING MANHOLE SITE PLAN & DETAILS
24. EROSION & SEDIMENT CONTROL PLAN
25. EROSION & SEDIMENT CONTROL PLAN
26. EROSION & SEDIMENT CONTROL DETAILS
27. EROSION & SEDIMENT CONTROL DETAILS

KEY CONTACTS

1. BOTETOURT COUNTY DEPT. OF PUBLIC WORKS
COUNTY ENGINEER: KEVIN SHEARER, P.E.
DIRECTOR OF PUBLIC WORKS: KURT HODGEN
540-473-8316
2. ENGINEERING CONCEPTS, INC.
PROJECT ENGINEER: SEAN GOLDSMITH, EIT
540-473-1253
3. ROANOKE GAS COMPANY
GARY FERGUSON
540-992-3981
4. NORFOLK SOUTHERN RAILROAD
DAN YOUNG
404-529-1440
5. ROANOKE CITY
DIRECTOR OF UTILITIES & OPERATIONS: KIT KISER
540-981-2602
6. HOPKINS WATER AND SEWER SYSTEMS
BILL HOPKINS
540-992-3439

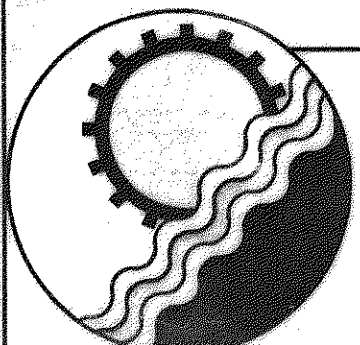
LEGEND

	ASPHALT ROAD
	GRAVEL ROAD
	PROPERTY LINE
	RIGHT-OF-WAY
	PERMANENT EASEMENT (30' WIDE TYPICAL)
	TEMPORARY CONSTRUCTION EASEMENT (60' WIDE TYPICAL)
	WATER LINE
	GAS LINE
	SEWER LINE
	FENCE
	OVERHEAD ELECTRIC
	SANITARY SEWER FORCEMAIN (EXISTING)
	SANITARY SEWER FORCEMAIN (PROPOSED)

GENERAL NOTES

1. INFORMATION ON THESE DRAWINGS CONCERNING THE LOCATION AND ELEVATION OF EXISTING UTILITIES, STRUCTURES, AND OBSTRUCTIONS HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION ARE NOT GUARANTEED, HOWEVER, NOR DOES THE ENGINEER ACCEPT ANY RESPONSIBILITY WHATSOEVER FOR DEVIATIONS OF THE EXISTING UTILITIES, STRUCTURES, OTHER FACILITIES, AND OBSTRUCTIONS FROM THE LOCATIONS AND ELEVATIONS INDICATED OR FOR THE EXISTENCE OF UTILITIES, STRUCTURES, OTHER FACILITIES, AND OBSTRUCTIONS NOT INDICATED ON THESE DRAWINGS.
2. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION TO ELIMINATE ANY POSSIBILITY OF ANY DISTURBANCE OF OR DAMAGE TO PUBLIC AND PRIVATELY-OWNED UTILITIES, STRUCTURES, OTHER FACILITIES, AND OBSTRUCTION RESULTING FROM HIS ACTIVITIES. TO THIS END, CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, TAKE ALL MEASURES NECESSARY TO PROVIDE, AND SHALL BE SOLELY RESPONSIBLE FOR, TEMPORARY SUPPORT AND SHORING, ADEQUATE PROTECTION, AND MAINTENANCE OF CONTINUOUS OPERATION OF ALL UNDERGROUND AND ABOVEGROUND WATER, SEWER, AND GAS MAINS AND SERVICE LINES; PETROLEUM LINES; TELEPHONE, TELEVISION, AND ELECTRICAL LINES, CABLES, AND POLES; EQUIPMENT CABLES AND CONDUITS; STORM SEWERS; BUILDINGS; TANKS; FENCES; AND ALL OTHER UTILITIES, STRUCTURES, BRIDGES, FACILITIES, AND OBSTRUCTIONS, WHETHER OR NOT INDICATED ON THESE DRAWINGS. ALL DISTURBED OR DAMAGED UTILITIES, STRUCTURES, BRIDGES, OTHER FACILITIES, AND OBSTRUCTIONS SHALL BE IMMEDIATELY REPAIRED, REPLACED, OR COMPENSATED FOR BY THE CONTRACTOR TO OWNER'S SATISFACTION, AND AT NO ADDITIONAL COST TO THE OWNER.
3. THE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR THE CHARACTER AND ACTUAL LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES, STRUCTURES, BRIDGES, OTHER FACILITIES, AND OBSTRUCTIONS WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, CONTACT THE OWNERS/OPERATORS OF ALL UTILITIES AND ARRANGE FOR THE VERIFICATION AND MARKING OF UTILITY LOCATIONS BY SAID OWNERS/OPERATORS. THE CONTRACTOR SHALL ASSIST THE UTILITY OWNERS/OPERATORS BY EVERY MEANS POSSIBLE TO DETERMINE THE LOCATION OF UTILITIES. THE CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR ALL DISTURBANCE OF ANY DAMAGE TO UTILITIES RESULTING FROM THE CONTRACTOR'S FAILURE TO ARRANGE FOR THE LOCATION OF UTILITIES BY THE OWNERS/OPERATORS OF THE UTILITIES. CONTACT MISS UTILITY (800) 552-7001.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL NEW ABOVE AND BELOW GRADE PIPING, STRUCTURES, ELECTRICAL EQUIPMENT AND CONDUIT, AND OTHER FACILITIES AT THE PROJECT SITE FROM ALL DISTURBANCE OR DAMAGE WHICH MAY RESULT FROM THE PERFORMANCE OF WORK ON THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE REPAIR OR REPLACEMENT OF ALL NEW ABOVE AND BELOW GRADE PIPING STRUCTURES, ELECTRICAL EQUIPMENT AND CONDUIT, AND OTHER FACILITIES AT THE PROJECT SITE WHICH MAY BE DISTURBED OR DAMAGED AS A RESULT OF THE PERFORMANCE OF WORK ON THIS PROJECT.
5. SITE CONDITIONS MAY NECESSITATE SLIGHT DEVIATIONS IN ALIGNMENT, GRADE, AND/OR LOCATION OF NEW FACILITIES FROM THE ALIGNMENT, GRADE, AND/OR LOCATION INDICATED ON THESE DRAWINGS. THE CONTRACTOR SHALL CONSTRUCT THE NEW FACILITIES TO SUCH DEVIATIONS AS DIRECTED BY THE ENGINEER WITHOUT INCREASE IN THE CONTRACT PRICE OR FINE.
6. THE CONTRACTOR SHALL MAINTAIN A CLEAR FLOW PATH TO AND THROUGH ALL SURFACE WATER AND STORM WATER DRAINAGE FACILITIES AT ALL TIMES.
7. THE CONTRACTOR SHALL GRADE, SEED, AND/OR SOD, AND MULCH THE ENTIRE AREA(S) DISTURBED BY CONSTRUCTION ACTIVITIES.
8. CONSTRUCTION AND START-UP OF ALL WORK SHALL NOT INTERFERE WITH THE OPERATION OF WATER AND SEWERAGE FACILITIES. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK WITH THE OWNERS AS REQUIRED.
9. MINIMUM COVER ON ALL PIPE SHALL BE 3 FEET UNLESS OTHERWISE SPECIFICALLY INDICATED ON THESE DRAWINGS. ALL PIPE SHALL BE INSTALLED WITH WARNING/CAUTION DETECTOR TAPE 18" FROM FINISHED GRADE.
10. WHERE IT IS NECESSARY TO DEFLECT PIPE EITHER HORIZONTALLY OR VERTICALLY, PIPE JOINT DEFLECTION OR BARREL BEND RADIUS SHALL NOT EXCEED 75% OF THE MANUFACTURER'S RECOMMENDED DEFLECTION ANGLE OR BEND RADIUS.
11. ALL PIPING SHALL BE PROPERLY SUPPORTED. ALL PIPING WHICH WILL BE PRESSURIZED DURING OPERATION SHALL BE PROPERLY RESTRAINED.
12. ALL CONSTRUCTION SHALL BE IN COMPLIANCE WITH THE CURRENT BOCA AND/OR STATE AND LOCAL BUILDING CODES.
13. CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION AREA IN A MANNER ACCEPTABLE TO OWNER AND SHALL BE RESPONSIBLE FOR REMEDIATING ANY DAMAGES RESULTING FROM FAILURE TO DO SO.
14. EXCEPT FOR ROCK, ALL EXCAVATION SHALL BE UNCLASSIFIED.
15. CONTRACTOR SHALL MAINTAIN LIMITS OF CONSTRUCTION WITHIN THE BOUNDARIES OF THE PROPERTY AND EASEMENTS AS INDICATED.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND MAINTAINING COMPLIANCE WITH ALL NECESSARY PERMITS, INCLUDING BUT NOT LIMITED TO LAND DISTURBING PERMIT, VDOT ROAD CROSSING PERMITS, RAILROAD CROSSING PERMITS AND BUILDING PERMITS.
17. ALL MANHOLE FRAMES AND COVERS SHALL BE WATERTIGHT UNLESS OTHERWISE NOTED.
18. ALL MANHOLES SHALL BE 48" DIAMETER UNLESS OTHERWISE NOTED.

AS-BUILT



ENGINEERING CONCEPTS, INC.

20 S. ROANOKE ST., PO BOX 619
FINCASTLE, VIRGINIA 24090
540.473.1253 FAX: 540.473.1254

No.	Revision	By	Appd.	Date	Drawn
1	Addition of Sheet 23A	SCG	WPJ	1/28/97	SCG
					Designed SCG
					Checked WPJ/JST
					Approved WPJ

**GREENFIELD COLLECTOR AND
TINKER CREEK EXTENSION**

**GENERAL NOTES AND
KEYSHEET**

AS SHOWN

DECEMBER 1996

PROJECT: 96081

1 of 27