

**CONSTRUCTION MAINTENANCE**  
ALL EROSION AND SEDIMENT MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR.

1. THE SILT FENCE BARRIER SHALL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED AFTER EACH STORM EVENT AND ALSO WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALFWAY TO THE TOP OF THE BARRIER.
2. THE CONTRACTOR SHALL ADHERE TO ALL MAINTENANCE REQUIREMENTS OF THE EROSION AND SEDIMENT CONTROL MEASURES AS OUTLINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
3. THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREA SHALL BE FERTILIZED AND RESEED AS NEEDED.
4. TRENCH DEWARTING, IF NECESSARY, SHALL BE ACCOMPLISHED IN COMPLIANCE WITH STD & SPEC. 3.26 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

OFFSITE BORROW AT PUBLIC SAFETY FACILITY (PSF)  
MATERIAL BROUGHT FROM THE OFFSITE BORROW AREA SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN.

## SEQUENCE OF CONSTRUCTION

THE FOLLOWING IS NOT INTENDED AS THE ABSOLUTE ORDER IN WHICH CONSTRUCTION MUST COMMENCE. IT IS PRESENTED ONLY FOR INFORMATIONAL AND PLANNING PURPOSES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE SPECIFIC SEQUENCE OF CONSTRUCTION.

### PHASE I - NEW WWTP

REMOVE TREES AS SHOWN ON PLAN.

INSTALL EROSION AND SEDIMENT CONTROL MEASURES.

CLEAR AND GRUB CONSTRUCTION AREAS.

RELOCATE ELECTRIC, TELEPHONE, AND WATER LINES

INSTALL TEMPORARY GRAVITY SEWER BETWEEN EXISTING MANHOLES A AND B (SEE SHEET 4) OR BYPASS PUMP AERIAL SEWER SECTION.

REMOVE EXISTING AERIAL SEWER AND PLUG, ABANDON, OR REMOVE AS SHOWN THE REMAINING SEWER LINES THAT WERE BYPASSED.

CONSTRUCT NEW WWTP AND APPURTENANCES.

INSTALL GENERATOR AND ALL SITE WIRING.

INSTALL NEW PIPING.

CONSTRUCT CONCRETE WALKWAYS AND REPAIR ANY DAMAGED CONCRETE THAT IS TO REMAIN.

GET NEW WWTP OPERATIONAL AND PERFORMING PROPERLY.

### PHASE II - LAGOON ABANDONMENT AND DEWATERING FACILITY CONSTRUCTION

SEE SHEETS 7 AND 8.

WHEN TREATMENT PLANT IS SUITABLY TREATING WASTE AS DETERMINED BY THE ENGINEER, REMOVE LIQUID WASTE FROM LAGOON AND PROCESS THROUGH TREATMENT PLANT.

REMOVE APPURTENANCES FROM LAGOON.

SLUDGE MAY BE PUSHED TO THE NORTHEAST PORTION OF THE LAGOON TO ALLOW CONSTRUCTION OF DEWATERING BUILDING. ALLOW SLUDGE TO AIR DRY AND ADD LIME AT A RATE OF 2 LB/100 SF TO MINIMIZE ODORS.

BURY DRIED SLUDGE IN-PLACE AND CAP PER SHEET 7.

SCARIFY BOTTOM OF LAGOON PRIOR TO PUSHING-IN EXISTING BERM.

CONSTRUCT LAGOON CLOSURE ELEMENTS AND SLUDGE DEWATERING FACILITY.

## EROSION AND SEDIMENT CONTROL NARRATIVE

### PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO CONSTRUCT A NEW WASTEWATER TREATMENT PLANT, THE EXISTING LAGOON WILL BE REMOVED. THE NEW TREATMENT PLANT WILL BE LOCATED BEHIND (SOUTHWEST) OF THE EXISTING CONTROL AND BLOWER BUILDINGS. THE SITE LAYOUT IS STRUCTURED SUCH THAT AN ADDITIONAL WWTP TRAIN CAN BE ADDED NORTHEAST OF THE NEW WWTP SHOULD THE CAPACITY NEED TO BE UPGRADED IN THE FUTURE. THIS PROJECT WILL ULTIMATELY DISTURB APPROXIMATELY 2.1 ACRES. THE MAJORITY OF THIS WILL OCCUR WHEN THE EXISTING LAGOON IS FILL-IN AS PART OF THE CLOSURE PLAN.

THIS SITE LIES WITHIN THE 100 YEAR FEMA FLOODPLAIN OF CATAWBA CREEK. TOWN BRANCH, AN UNMAPPED TRIBUTARY OF CATAWBA CREEK, LIES AT THE WESTERN AND SOUTHERN SIDES OF THE SITE. EROSION AND SEDIMENT CONTROL MEASURES WILL BE PROVIDED IN ORDER TO MINIMIZE THE AMOUNT OF SILT-LADEN RUNOFF LEAVING THE SITE.

### EXISTING SITE CONDITIONS

THE SITE OF THE PROPOSED WWTP IS ALONG THE SLOPE WEST OF THE EXISTING BLOWER BUILDING. THE SITE IS MOSTLY OPEN, BUT SOME TREE REMOVAL WILL BE NECESSARY.

### SITE BOUNDARIES

THE SITE IS BORDERED ON THE NORTH BY U.S. 220 NBL, ON THE EAST BY CATAWBA CREEK, AND ON THE WEST AND SOUTH BY TOWN BRANCH.

### SOILS

THE SOILS ON THE SITE ARE IDENTIFIED AS #38A: LINDSIDE SILT LOAM. IT IS DETAILED AS HAVING LOW EROSION POTENTIAL AND SLOW TO MODERATE PERMEABILITY.

### CRITICAL EROSION AREAS

THERE ARE NO AREAS ON THE SITE THAT POSE A MAJOR THREAT TO EXCESS EROSION.

### EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE LATEST EDITION OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

SILT FENCE: SILT FENCE SHALL BE INSTALLED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. IT WILL INTERCEPT SILT LADEN RUNOFF BEFORE IT EXITS THE SITE. SILT FENCE INSTALLATION SHALL BE COORDINATED WITH AND INSPECTED BY THE CITY'S EROSION AND SEDIMENT CONTROL INSPECTOR OR REPRESENTATIVE.

CONSTRUCTION ENTRANCE: A CONSTRUCTION ENTRANCE SHALL BE PROVIDED IN ORDER TO ALLOW MUD AND DEBRIS TO BE REMOVED FROM CONSTRUCTION EQUIPMENT PRIOR TO IT LEAVING THE SITE.

EC-2: ALL AREAS SHOWN AND ANY OTHER DISTURBED AREAS WITH 3:1 OR GREATER SLOPES SHALL HAVE EC-2 APPLIED.

TEMPORARY SEEDING: ALL DISTURBED AREAS LEFT UNWORKED FOR 30 DAYS SHALL BE SEEDED WITH THE APPROPRIATE TEMPORARY SEEDING MIXTURE.

PERMANENT SEEDING: ALL DISTURBED AREAS WHICH WILL NOT RECEIVE PAVING OR GRAVEL SURFACE SHALL BE SEEDED AS SOON AS GRADING IS COMPLETED.

TRENCH DEWARTING: IF TRENCH DEWARTING IS NECESSARY, IT SHALL BE ACCOMPLISHED IN COMPLIANCE WITH STD & SPEC. 3.26 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

### MANAGEMENT STRATEGY AND SEQUENCE OF CONSTRUCTION

FOLLOWING ARE THE PROPOSED MANAGEMENT STRATEGIES AND DETAILED SEQUENCE OF CONSTRUCTION:

#### PHASE I - NEW WASTEWATER TREATMENT PLANT

1. INSTALL TEMPORARY CONSTRUCTION ENTRANCE
2. REMOVE TREES
3. INSTALL SILT FENCE
4. CLEAR AND GRUB
5. GRADE SITE
6. CONSTRUCT NEW WWTP, PIPING, ETC.
7. INSTALL EC-2 STABILIZATION MAT
8. PERMANENT SEEDING
9. REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER ALL AREAS ARE STABILIZED AND A GOOD STAND OF GRASS IS PRESENT.

PHASE II - CLOSE EXISTING LAGOON - THIS SHALL ONLY TAKE PLACE AFTER VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY APPROVES THE OPERATION OF THE NEW WWTP.

1. DEWATER LAGOON BY PROCESSING WASTE WITHIN LAGOON OR THROUGH THE NEW WWTP.
2. REMOVE VERTICAL CURTAINS FROM WITHIN LAGOON. REMOVE CONCRETE SUPPORTS FOR CURTAINS.
3. CLOSE ALL PLUG VALVES.
4. DISCONNECT ALL PIPING AND PLUG ENDS AS SHOWN ON PLAN. REMOVE PIPING WITHIN LAGOON, REMOVE MANHOLES, ETC.
5. REMOVE PARSHALL FLUME AND AERATION STEPS.
6. FILL-IN EXISTING LAGOON WITH MATERIAL PUSHED-IN FROM EXISTING BERM.

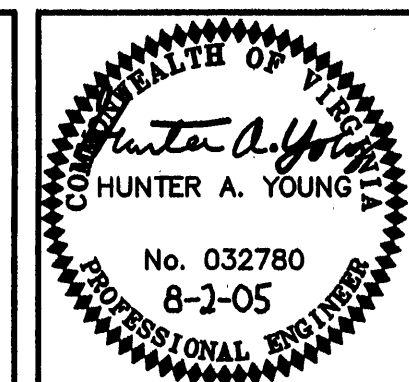
THE JOB SUPERINTENDENT SHALL ENSURE THE CORRECT INSTALLATION AND MAINTENANCE OF THESE MEASURES. THE CONTRACTOR SHALL HAVE AN APPROVED EROSION AND SEDIMENT CONTROL PLAN PRIOR TO LAND DISTURBING ACTIVITIES. NO EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED UNTIL STABILIZATION IS ACHIEVED AND REMOVAL IS APPROVED BY THE INSPECTOR.

### PERMANENT STABILIZATION

PERMANENT STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT STABILIZATION SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE (1) YEAR.

SEED SHALL BE PROVIDED AT THE FOLLOWING RATES:

POUNDS PER ACRE	SEED TYPE
128	KENTUCKY 31
2	RED TOP
20	SEASONAL NURSE CROP (ANNUAL RYE, FOXTAIL MILLET, WINTER RYE MIX)
20	CROWN VETCH



Revisions	Date
1. ADD GRAVITY SEWER BYPASS, ADJUST FENCE, LAGOON BERM INFO & OTHER ITEMS FOR REBID	8/2/05

Issue Date:	Drawn By:	Designed By:	Checked By:
APRIL, 2005	CLZ	BY: HAY	SWH

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FINCASTE WASTEWATER TREATMENT PLANT  
OVERALL PLAN, CONST. SEQ.  
& SEDIMENT CONTROL. NAR.  
BOTETOURT COUNTY, VIRGINIA

Vertical Scale:	N/A
Horizontal Scale:	AS SHOWN
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