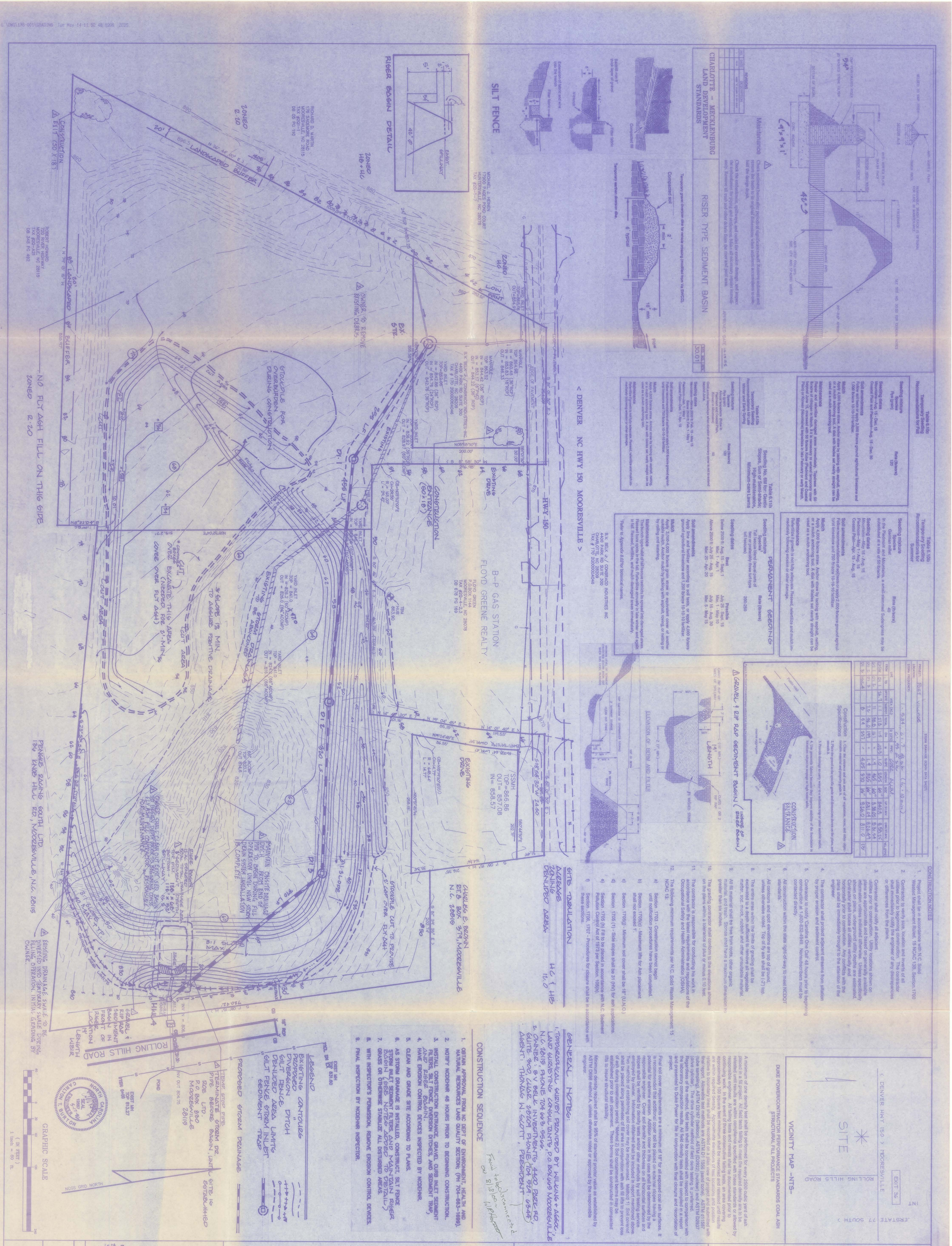
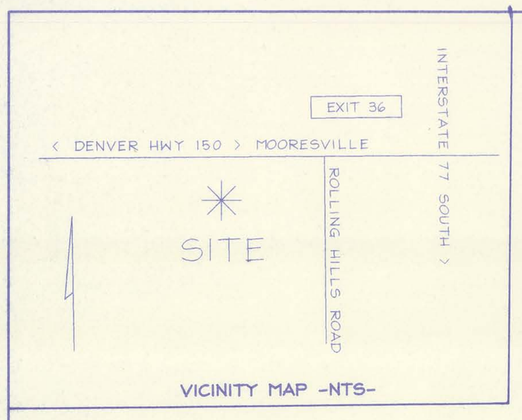
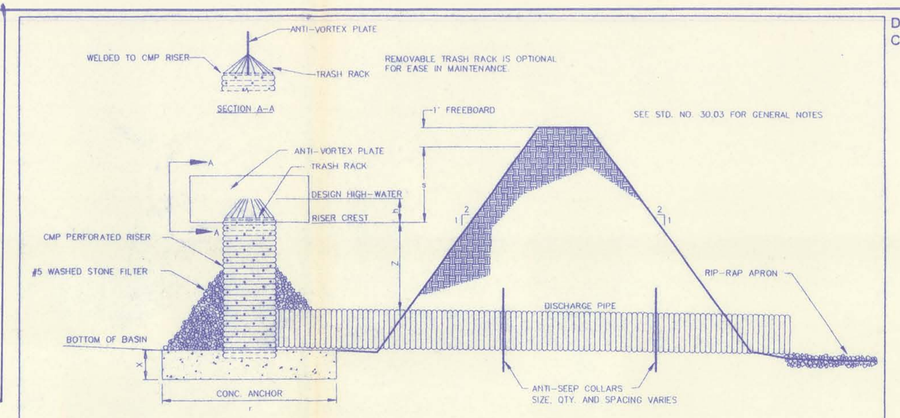
G:\DWG\176-001\GRADING Tue May 14 11:50:48 1996 ZEOS





VICINITY MAP -NTS-



DATA BLOCK

ø RISER	ø BARREL	z	h	r	s	x
54'	42"	6	2'	10	3	2

DATA BLOCK TO BE COMPLETED BY DESIGNER AND SUBMITTED WITH EROSION CONTROL PLANS

REVISIONS		
NO.	DATE	DESCRIPTION
		ADDED "Z" DATA IN DATA BLOCK

APPROVED DATE 10-19-95

CHARLOTTE – MECKLENBURG LAND DEVELOPMENT STANDARDS

RISER TYPE SEDIMENT BASIN

STD. NO. REV. 30.01

DUKE POWER / CONTRACTOR PERFORMANCE STANDARDS
COAL ASH STRUCTURAL FILL PROJECTS

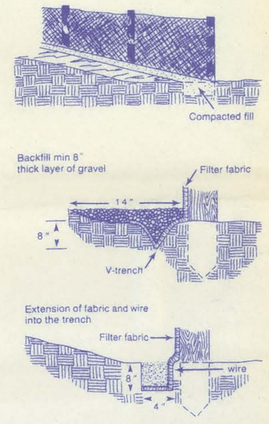
A minimum of one density test shall be performed for every 2500 cubic yards of ash placed in a fill project. All field tests failing to meet the required density are to be retested until results are within compliance specified within these standards or allowed by responsible engineer. All failing tests and retests shall be documented prior to continuing work. In the event of three consecutive failing tests, an area covering approximately 100 square feet minimum shall be reworked and retested until results are within required density. Approximate elevations of test locations and position relative to boundary lines shall be recorded on a plan view of project and submitted with final report. Allowable test methods are ASTM D1556 (sand cone), ASTM D1587 (tube sampling), ASTM D2167 (balloon), ASTM D2922 (nuclear), and ASTM D2937 (drive cylinder). The drive cylinder method of field density testing is preferred. Regardless of the method, field tests shall be consistent with respect to comparison with the laboratory compaction results. All field density tests shall be compiled in a report and presented to Duke Power for file in conjunction with final closure and recordation of project.

Final soil cover requirements are a minimum of 18" for all exposed coal ash surfaces. It is recommended that additional cover soil be placed on external slopes having a potential for extreme erosion. Additional cover in this case shall be determined by the responsible engineer. Cover soil density and thickness on all horizontal surfaces and slopes shall be verified by density tests and/or other methods by soil testing service employed by owner. Information obtained shall be included in report mentioned above. Two methods of establishing soil cover may be implemented. Method 1) Soil cover shall be placed along perimeter of fill area in conjunction with ash fill lifts to prevent loss of ash during construction period. Method 2) Soil containment berms may be established prior to ash placement. These berms shall be constructed in compacted lifts to insure structural stability.

Minimum density required shall be 95% of standard proctor value as established by ASTM D698 method A, unless otherwise noted or approved by the responsible engineer.

CONSTRUCTION SEQUENCE

1. OBTAIN APPROVAL FROM NC DEPT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES LAND QUALITY SECTION; (PH 704-663-1699).
2. NOTIFY NCDEHNR 48 HOURS PRIOR TO BEGINNING CONSTRUCTION..
3. INSTALL CONSTRUCTION ENTRANCE, GRAVEL CURB INLET SEDIMENT FILTERS, SILT FENCE, DIVERSION DITCHES, AND SEDIMENT TRAP.
4. HAVE EROSION CONTROL DEVICES INSPECTED BY NCDEHNR.
5. CLEAN AND GRADE SITE ACCORDING TO PLANS.
6. AS STORM DRAINAGE IS INSTALLED, CONSTRUCT, SILT FENCE STORM INLET SEDIMENT FILTERS.
7. GRASS OR OTHERWISE STABILIZE ALL DISTURBED AREAS.
8. WITH INSPECTOR'S PERMISSION, REMOVE EROSION CONTROL DEVICES.
9. FINAL INSPECTION BY NCDEHNR INSPECTOR.



SILT FENCE

CONSTRUCTION NOTES

1. Project shall be in accordance with N.C. Solid Wasted Management Rules, 15 NCAC 13B, Section.1700
2. Contractor to verify size, location and inverts of all utilities prior to beginning construction. The contractor shall immediately notify the engineer of any discrepancies or differences from the plans.
3. Contractor shall notify all adjacent utilities prior to construction. Utility locations shown on plans are approximate and based on generally available information unless indicated otherwise. Unless specifically shown on plans, underground utility depths are estimated. Contractor shall locate all utilities vertically and horizontally prior to construction. Any conflicts with the plans shall be immediately brought to the attention of the engineer.
4. The contractor shall protect adjacent streams from siltation by proper erosion and sediment control.
5. Contractor to notify 'Carolina One Call' 48 hours prior to beginning construction at 1-800-632-4949. Nonsubscribers must be contacted directly.
6. All construction within the state right-of-way to meet NCDOT standards.
7. All contours and spot elevations are top of ground, unless otherwise noted. Top of fly ash shall be (-2') typical.
8. The entire area within the limits of grading shall be excavated to a depth sufficient to remove all vegetable matter, sod, muck, rubbish and other unsuitable material.
9. All fill material shall be free from roots, other organic material, and trash. Stones shall have a maximum dimension no greater than six inches.
10. The grading contractor shall conform to the elevations shown on the plans within a tolerance of plus or minus 0.10 feet.
11. The contractor is responsible for conducting his work in accordance with the latest requirements and regulations of the Occupational Safety and Health Administration (OSHA).
12. The following minimum requirements per N.C. Solid Waste Management Rules 15 NCAC 13:
    a) Section .1703 - Construction cannot begin until notification procedures have been completed.
    b) Section .1705(c) - Maximum lifts for Ash placement shall not exceed 1'.
    c) Section .1705(j) - Minimum soil cover shall be 18" (U.N.O.)
    d) Section .1704 - Minimum two (2) feet of soil cover over bedrock may be used in lieu of 25' buffer from bedrock outcrop specified.
    e) Section .1705 (1) - Side slopes shall be 31 (H:V) for ash applications.
    f) Section .1705 (h) Fill to be placed in accordance with N.C. Sediment Pollution Control Act of 1973 per Section. 105(h).
    g) Section .1706, 1707 - Procedures for closure shall be in accordance with these sections.

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BURTON ENGINEERING ASSOCIATES
CIVIL ENGINEERS
LAND PLANNERS
2115 Rexford Rd • Suite 540 • Charlotte, NC 28211
(704) 365-8883 • Fax (704) 365-4508

Compacted soil
2 min
18" min
FLOW
6' typical

TEMPORARY DIVERSION

Construction Specifications

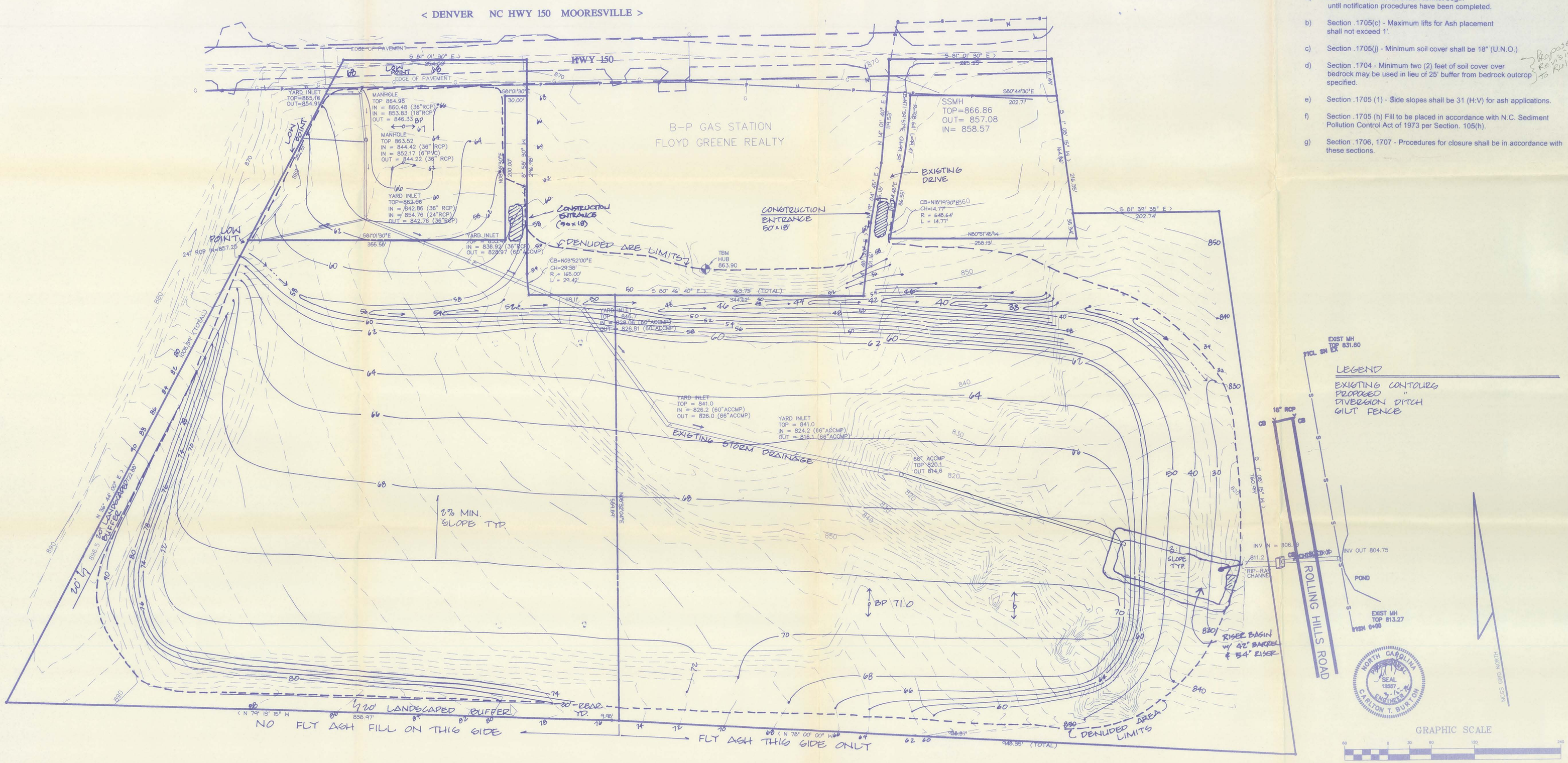
1. Remove and properly dispose of all trees, brush, stumps, and other objectionable material.
2. Ensure that the minimum constructed cross section meets all design requirements.
3. Ensure that the top of the dike is not lower at any point than the design elevation plus the specified settlement.
4. Provide sufficient room around diversions to permit machine regrading and cleanout.
5. Vegetate the ridge immediately after construction, unless it will remain in place less than 30 working days.

Maintenance

Inspect temporary diversions once a week and after every rainfall. Immediately remove sediment from the flow area and repair the diversion ridge. Carefully check outlets and make timely repairs as needed. When the area protected is permanently stabilized, remove the ridge and fill channel to blend with the natural ground level and appropriately stabilize it.

6.20

< DENVER NC HWY 150 MOORESVILLE >



Project	PORT VILLAGE PROPOSED FLY ASH FILL SITE
Sheet Title	GRADING, DRAINAGE & EROSION CONTROL PLAN
Engineer	CTB
Drawn By	GDM
Date	3/14/96
Revisions	
Project Number	176-001
Sheet	C1 of 1

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