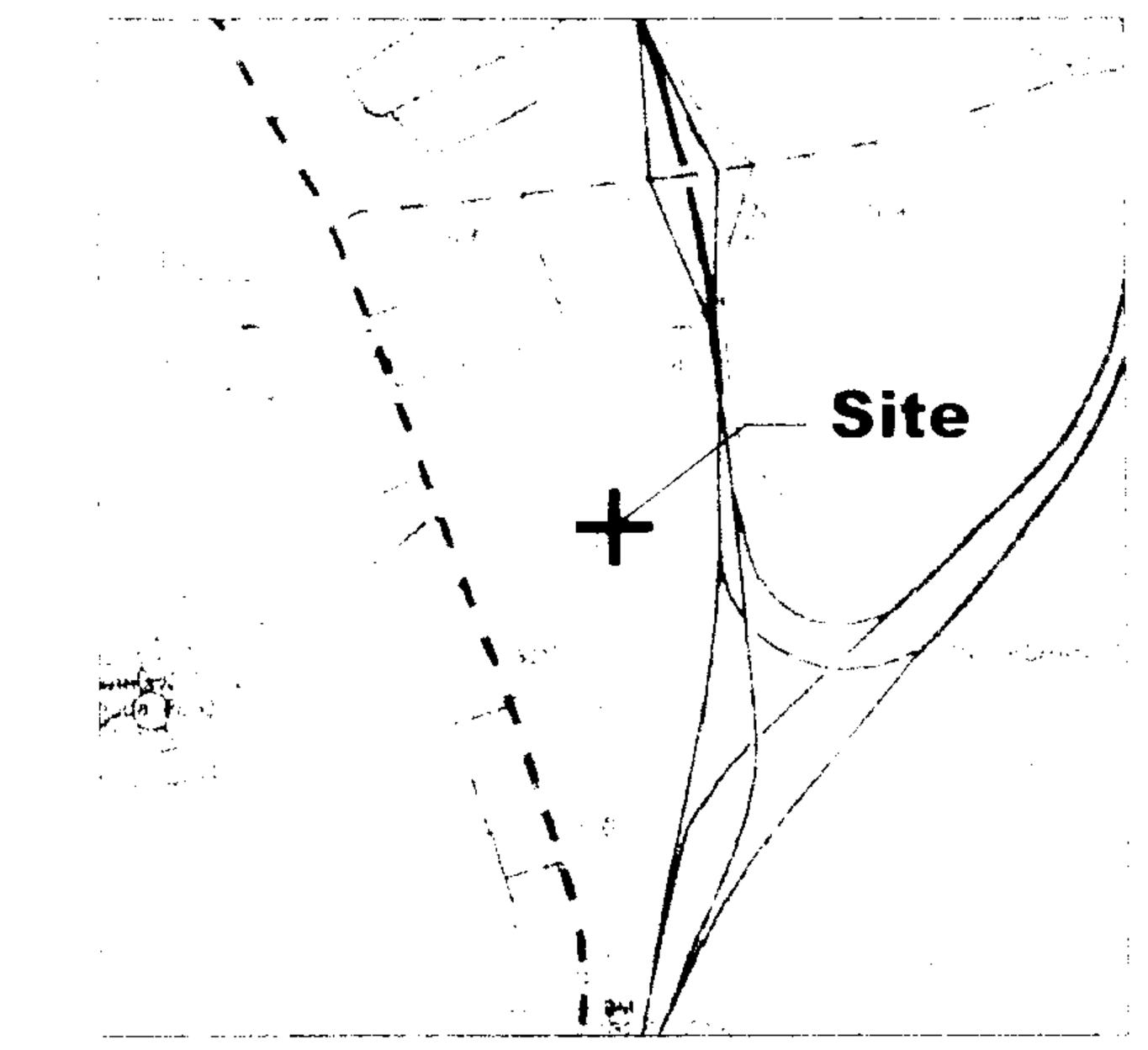
Ravenswood Industrial Park
Phase One
Ravenswood Drive
Prince George County, Virginia



Vicinity Map
Scale: 1" = 2,000'

Subdivision and Site Construction Plan General Notes:

1. All materials and construction within the public right of way shall be in accordance with current Virginia Department of Transportation's specifications and standards.
2. Land Use Permits (CE-7P) must be obtained from the Virginia Department of Transportation prior to beginning any construction within the existing state maintained right of way (including access).
3. VDOT is to receive written notification 48 hours prior to commencing with initial construction activities.
4. Prior to any construction, the contractor shall consult the engineer and verify the approval of the plans by all applicable federal, state and local agencies.
5. Preliminary design of the pavement structure for all subdivision streets shall be in accordance with the current edition of The Pavement Design Guide for Subdivision and Secondary Roads in Virginia. The completed design worksheet appendix IV shall be included with the initial plan submittal for each proposed pavement section utilizing the predicted soil support value shown in appendix I of The Pavement Design Guide.
6. The contractor shall verify the elevations of all points of connection or proposed work to existing curbs, sanitary lines, water lines, etc., prior to construction.
7. Upon discovery of soils that are unsuitable for foundations, subgrades, or other roadway construction purposes, the contractor shall immediately contact a geotechnical engineer and VDOT. These areas shall be excavated below plan grade as directed by the geotechnical engineer, backfilled with suitable material and compacted in accordance with current VDOT specifications.
8. All storm sewer design and construction to be in accordance with VDOT I & I LD-94 (D) 121.13.
9. All storm sewer pipe shall be reinforced tongue and groove concrete pipe in accordance with ASTM-C-76. Pipe within the right of way shall be a minimum CL-III or greater in accordance with current VDOT standards and specifications.
10. All pre-cast units shall be VDOT approved. Certification and VDOT stamp will be required on all units.
11. All concrete shall be class A3-AE (air entrained 3,000 PSI).
12. All entrances are to be designed and constructed in accordance with current VDOT standards. Residential lot access shall be provided per the following criteria:
    * All driveway entrance culverts are to be 15" diameter x 20' long pipe and shall conform to PE-1 private entrance standards unless otherwise directed by the Resident Engineer. No entrance culverts are to be installed within five (5) feet of a property corner.
    * VDOT standard CG-9D entrances shall be installed in curb and gutter neighborhoods. Contact VDOT for inspection 48 hours prior to entrance installation.
13. The developer is responsible for furnishing and installing stop signs at street intersections.
14. Design changes, specified materials changes and/or field changes from the approved plans need to be re-submitted to VDOT prior to proceeding with the work. A letter of explanation shall accompany the revised plans and/or drainage calculations, which must be submitted, to VDOT for review and approval by the Resident Engineer.
15. Contractor shall verify location and elevation of all underground utilities shown on plans in areas of construction prior to starting work. Contact engineer immediately if location or elevation is different from that shown on plan. If there appears to be a conflict, and/or upon discovery of any utility not shown on this plan, call Miss Utility of Central Virginia at 1-800-552-7001. The developer shall be responsible for the relocation of any utility within existing and/or proposed right of way required by the development.
16. All streetlights shall be located a minimum of 9.5' from the edge of pavement on curb and gutter streets and/or located a minimum of 5.5' behind the ditch line on open ditch streets.e
17. All roadside ditches shown as paved on plans are to be paved in accordance with the standard typical section as shown on the plans. Generally, all ditches with slopes exceeding 5 % or less than 0.75% shall be paved unless otherwise directed by the Resident Engineer. Any additional paving of the ditches, other than those shown on the road plans will be determined prior to acceptance of the roads into the VDOT secondary road system.
18. VDOT approval of construction plans does not preclude the right to require additional facilities as deemed necessary for acceptance of the roads into the VDOT Secondary Road System.
19. VDOT approval of these plans will expire five (5) years from the date of approval.
20. VDOT shall have performed the required field inspection (proof roll) prior to placement of the aggregate base course(s). Contact VDOT for subgrade inspection 48 hours prior to scheduling placement of aggregate bas course(s).
21. A prime coat seal between the aggregate base and bituminous concrete will be required at a rate of 0.30 gallons per square yard (REC-250 Prime Coat) per VDOT standards and specifications.
22. The scheduling of aggregate base installation and subsequent paving activities shall accommodate forecast weather conditions per Section 315 of The Road and Bridge Specifications.
23. VDOT shall have approved the aggregate base course(s) for depth, template and performed the required field inspection (proof roll) prior to placement of any surface course(s). Contact VDOT for inspection of the aggregate base course(s) 48 hours prior to application of the surface course(s).
24. An actual copy of the complete CBR report is to be submitted to VDOT in conjunction with final pavement designs. All pavement design recommendations shall be performed in accordance with the current edition of The Pavement Design Guide for Subdivision and Secondary Roads in Virginia.
25. A geotechnical engineer is to ascertain cause and certify recommended method of repair for all pavement structural failures prior to state acceptance.
26. All vegetation and organic material is to be removed from the right of way limits prior to conditioning of the subgrade.
27. All materials shall be in accordance with the VDOT Road and Bridge Specifications and Road and Bridge Standards.
28. Dry gutter is not allowed in VDOT right of way.
29. The developer will be responsible for the design costs of any traffic signal installation and/or modification under an account receivable with VDOT.
30. The necessity and locations for additional VDOT standard underdrains to be determined at time of subgrade inspection.
31. Approval of a detailed construction sequencing/maintenance of traffic narrative for the work zone is a prerequisite for issuance of a Land Use Permit allowing access to and construction within VDOT maintained right-of-way.
32. VDOT shall be provided documentation by a geotechnical engineer, certifying that all in-place pavements meet or exceed the approved pavement design thickness prior to state acceptance.
33. The establishment of a temporary vegetative cover is required on all denuded areas that are not to be fine graded for periods longer than 30 days.
34. No structure shall be constructed on state maintained rights of way unless said structures are shown on road construction plans approved by VDOT or such structures are covered by a VDOT Land Use Permit (or by a letter of intent from the Resident Engineer to issue said permit at the time of state acceptance).

Site Work / Earthwork Notes:

1. There was no geotechnical investigation performed on this site.
2. For bidding purposes, the Contractor shall assume that on site soils are available for engineered fill as may be required.
3. The Contractor shall employ the services of a Geotechnical Firm to observe proof rolling operations. The Geotech. Engineer shall approve borrow material used for engineered fill. The Geotech. shall also monitor all cut and fill operations and shall perform field density tests to verify compaction of same. The density tests shall be conducted at the Geotech. Engineer's discretion.
4. The Geotech. Engineer shall provide Owner with a copy of all field test reports and a letter of certification regarding same at completion of site work operations.
5. Contractor shall allow Geotech. firm at least 5 working days to check and approve proposed fill material prior to commencing fill operations.
6. First step in site work shall be to clear site of stumps, debris, vegetation, topsoil, etc.. Topsoil shall be stockpiled for later use. Location of stockpile shall be coordinated with Owner. Contractor shall ensure that all stockpiles are secure against erosion and shall install additional silt fence as may be required.
7. Existing asphalt along Ravenswood Drive shall be removed and hauled off site at the Contractor's expense. Stone sub-base may be reused if found to be suitable by the Geotech. Engineer. See Typical Pavement Section. Also, Contractor may elect to mill / grind existing asphalt and reuse for sub-base at his discretion and as approved by the Geotechnical Engineer.
8. Roadway shall then be proof rolled with a partially loaded tandem axle dump truck. The Geotech. Engineer shall be present during the proof rolling operations. All soft areas, if encountered, shall be undercut and controlled filled at the direction of the Geotech Engineer.
9. The Contractor shall provide unit costs for undercutting, hauling, and control fill if inferior conditions are discovered during proof rolling operations. The Contractor shall also provide a unit cost to underlay gravel with a geotextile fabric such as AMOCO 2002 as may be required.
10. Approved fill material shall be placed in lifts of no more than 8". Each lift shall be compacted and approved prior to placing next lift. Compaction criteria shall be 95 % of standard proctor per ASTM D-698 except the final 12" beneath pavement shall be increased to 98%.
11. The limits of disturbance in the wetland area shall be kept to a minimum. The Contractor shall take strict care to work inside the 50' right-of-way in the wetland area.
12. The Contractor shall acquire any and all necessary construction permits and post bonds for same as may be required by County or VDOT.

Utility Notes:

General:

1. The Contractor shall call Miss Utility at 1-800-552-7001 and shall verify location and elevation of all underground utilities in areas of construction prior to starting work.
2. The Contractor shall coordinate with all utility companies to determine the exact point of service connection at the existing utility.
3. All damage incurred to existing utilities during construction shall be repaired at the Contractor's expense.
4. All utility construction, i.e. piping, valves, hydrants, meters and boxes, clean outs, manholes, bedding, etc. shall comply with the International Plumbing Code, 1997 and with Prince George County Standards. County Engineer is Mr. Stephen McBride, P.E., 804-733-2625.
5. All work shall be subject to inspection by Prince George County. The Contractor shall notify County Official 48 hours prior to the start of work.
6. Owner shall be responsible for all utility fees.
7. All utility trenches in paved areas shall be backfilled, full height, with VDOT 21A stone.
8. GC shall be responsible for groundwater control as may be required.
9. Contractor shall submit complete "as-built" drawing of all site utilities at completion of project. All utilities shall be located with exact dimensions on "as-built" drawing.

Water:

1. Water lines shall be PVC, C900, with push-on, gasketed, joints and 12 ga. braided copper tracer wire.
2. Water piping for fire hydrant assembly shall be ductile iron.
3. Minimum cover for water line shall be 3.5 feet.
4. Water line and sanitary sewer line shall be separated by at least 10 feet of undisturbed or compacted earth.
5. Contractor shall install concrete thrust blocking at all bends, end caps, etc. as required. Same shall comply with County standards.
6. All water valves, as shown on the Plan, shall be located in cast iron inspection box marked "Water".
7. Lines, valves and hydrants shall be thoroughly flushed and tested per County standards.

Sewer:

1. Sanitary sewer line shall be PVC, SDR35, with push-on joints.
2. Sanitary sewer manholes shall be standard VDOT, 4' diameter, precast concrete manholes with standard VDOT frame and cover per Standard SMH-1.
3. Precast concrete manholes shall be jointed with preformed plastic gaskets. Manholes shall be set on 12" of stone. Steps shall be forged extruded aluminum or steel reinforced corrosion resistant rubber.
4. Manhole invert channels shall be shaped smooth and shall be formed with concrete per VDOT Standard IS-1. Changes in direction shall have as long a radius as manhole permits. Pipe to manhole connections shall be made with approved neoprene seal assemblies.
5. Gravity sewer lines shall be bedded in gravel - see Typical Detail on the plans.
6. Each section of line shall be air tested per County standards.

General Notes:

1	Owner & Developer:	I. Roland Specter P.O. Box 1936 Petersburg, Virginia Ph: 804-732-1910 Fx: 804-732-1915
2.	Legal Information:	TM. 33 - (A) - 13 Rives District
3.	Site Address:	Ravenswood Drive Prince George, VA 23875
4.	Zoning:	M-1, Limited Industrial
5.	Lot Size:	11.904 Acres
6.	Lot Coverage:	Allowed = 70 %, Provided = N/A
7.	Lot Frontage:	N/A
8	Lot Width:	N/A
9.	Length / Width Ratio:	N/A
10.	Setback:	10' Required. Provided = N/A
11.	Side Yard:	10' Required. Provided = N/A
12	Rear Yard:	0' Required. Provided = N/A
13	Building Height	60' Allowed. Provided = N/A
13.	Parking:	N/A
14	Water	Public
15	Sewer	Public

Legend:

DI	Drop Inlet
R	Radius
HP	High Point
SW	Sidewalk
Ex.	Existing
FH	Fire Hydrant
EOP	Edge Of Pavement
EOG	Edge Of Gravel
MH	Manhole
WV	Water Valve
WM	Water Meter
UP	Utility Pole
GW	Guy Wire
LP	Light Pole
C&G	Curb & Gutter
FL	Flow Line
MW	Monitoring Well
(125)	Proposed Topo
125	Exist. Topo
× 125.5	Proposed Spot Grade
125.0	Exist. Spot Grade
125.5	Top of Curb
× 125.0	Flow Line of Gutter
UGE	Existing Underground Electric
W	Existing Water Line
SS	Existing Sanitary Sewer Line
STS	Existing Storm Sewer
UGT	Existing Underground Telephone Line
OHT	Existing Overhead Telephone Line
OHT	Existing Overhead Telephone Line
G	Existing Gas Line
OHE	Existing Overhead Electric
UGC	Existing Underground Conduit
	Ex. Asphalt
	Ex. SW
STS	Proposed Storm Sewer Line
G	Proposed Gas Line
UGC	Proposed Underground Conduit
OHE	Proposed Overhead Electric
UGE	Proposed Underground Electric
W	Proposed Water Line
SS	Proposed Sanitary Sewer Line
UGT	Proposed Underground Telephone Line
OHT	Proposed Overhead Telephone Line
	S.S. Cleanout
	Plug
	Proposed Fire Hydrant Assembly
	Tee
	90° Elbow
	Gate Valve
M	Water Meter
x	Fence
	Limits Of Easement
	Edge Of Woods
	Dry C&G
	Bench Mark
	New Site Lighting
	New Heavy Duty Asphalt
	New Light Duty Asphalt
	New SW
	Survey Control Point

*UTILITIES ARE APPROVED SUBJECT TO WATER AND WASTEWATER CONTRACTS BEING APPROVED BY BOARD OF SUPERVISORS.

RECEIVED JAN 27

Drawing List:

Sheet	1 of 4:	Cover Sheet
Sheet	2 of 4:	Site Plan
Sheet	3 of 4:	Profiles & Sections Sheet
Sheet	4 of 4:	E & S & Details Sheet

Cover Sheet

Ravenswood Industrial Park
Phase One
Prince George County, Virginia

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