

# Site Plan Approval

Revised February 2008



Caroline County Department of Planning and Community Development  
233 West Broaddus Avenue  
P.O. Box 424  
Bowling Green, VA 22427  
[www.visitcaroline.com](http://www.visitcaroline.com)  
Phone: 804-633-4303 Fax: 804-633-1766



## Caroline County Site Plan Procedures and Requirements

---

The land development application is for use by all applicants requiring site plan approval, including commercial, industrial, residential subdivisions and Planned Unit Developments (PUD). Site plans must be prepared by a licensed surveyor or engineer.

### Procedures for Site Plan Review and Approval

#### Pre-application Meeting

- Applicants need to meet with the Planning Department staff prior to plan development.

#### Preliminary/Final Site Plan Application Submittal

- Application deadlines for site plan submittals are typically the second Wednesday of each month (Contact the Planning Department for exact date).
- Application shall include ten (10) copies of the full site construction plans (prepared in accordance with the Caroline County Zoning Ordinance and the attached worksheets) for review, ten (10) folded copies of the overall site or key sheet (1 page), a completed site plan application and all required fees.
- All plan sheets shall be on standard 24 x 36 sheets.

#### Agency Review of Complete Plans

- Once a land development application is officially filed, the application and plans will be reviewed for minimum requirements. If the application is determined incomplete, the applicant will be notified in writing of the deficiencies. The applicant **cannot** resubmit the application until the next scheduled TRC meeting date. If the application is determined to be complete, it will be forwarded to each review agency for written comments.

#### Technical Review Committee

- Agency representatives will provide written comments to the Planning Department.
- All comments will be included in a written response to the applicant from the Planning Department within ten (10) business days from the date of the Technical Review Committee Meeting.
- Revisions to the site plan shall be made in accordance with Technical Review Committee comments.

#### Site Plan Revisions and Agency Review

- Submittal shall include a minimum of three (3) sets of revised plans and written responses to each comment provided from the previously submitted site plan. **An additional set of revised plans with written responses to comments shall be submitted for each agency requiring revisions. Revisions for the Department of Utilities require two (2) sets of**

**plans, VDOT requires two (2) sets of plans, the Planning and Building Department requires four (4) sets of plans. All plans shall be returned to the Planning Department for distribution.**

#### Revisions Still Required

- Repeat Site Plan Revision process as previously outlined if needed. An additional \$100 fee will be applied to any application requiring more than three (3) submittals.

#### Site Plan Approval

- The Department of Planning, VDOT, Department of Utilities, and the Building Official will sign **fourteen (14) copies** of the site plan upon approval. The County will return four (4) copies of the approved site plan to the applicant. Applicant must keep one copy of the **fully approved plans on site at all times during construction**. Once fully approved plans have been distributed, all other plans (early land disturbance, grading, etc) must be replaced with the signed copies.
- If the applicant would like more than four signed copies of the plan, then additional copies shall be provided.

#### Permits

- Site plan approval does not constitute a permit to begin construction and/or installation of improvements. A separate Building/Zoning/Land Disturbance permit application is required. Prior to issuance of a permit, the applicant is required to submit an application, pay appropriate fees, post bond (or other financial assurances) and schedule an on-site pre-construction meeting with staff. Permits will be issued at this meeting.

**\*Note: Partial approval for clearing, grubbing and grading is not recommended before subdivision or site plan approval. Approval of plans in this manner may expedite one element of the entire site plan; however, over the long run, plan approval in this manner creates delays for the entire site plan approval process. It also increases costs, hampers the review of all plans and increases the potential for errors in the plan review process.**

**As a result, partial approval of plans by the Department of Planning and Community Development is an exception. All requests for partial plan approval shall be submitted in writing to the Director of Planning stating the reasons for the request. Please note that the existence of a financial hardship, if the plan is not approved by a certain date, will not in itself be considered a valid reason to grant partial approval of the plan.**

If you have further questions please feel free to call the Department of Planning and Community Development at (804) 633-4303.



## Site Plan Submittal Checklist

---

### For ALL REQUESTS the following must be submitted:

- Ten (10) sets of 24x36 plans, **folded (unless over 35 pages)**
  - Ten (10) sets of the key sheet of the overall project (single sheet) folded to 9x12
  - Completed Land Development Application
  - Completed Project Information Sheet
  - Completed Site Plan Submittal Checklist
  - Completed Site Plan Checklist
  - Completed Drainage Plan and Analysis Checklist
  - Completed Erosion and Sediment Control Plan Checklist
  - Completed Landscaping and Lighting Plan Checklist (*Plans are to be incorporated into the comprehensive site plan and not submitted separately*)
  - Completed Chesapeake Bay Preservation Area WQIA
  - Investigation worksheets for Graves, Memorials and Historic Significance
  - Completed Water Quality Calculations Worksheet (*Must submit worksheets from the VA Stormwater Management Handbook*)
  - Required Fee(s) – Round up acreage fractions when computing fees – Total of fees to be listed under **Fee Calculation Schedule** of application
- 

- Commercial/Industrial - \$1250 + \$35/acre
- PUD - \$1250 + \$35/acre
- Multi-Family - \$1250 + \$35/acre
- Manufactured Home Parks - \$1250 + \$35/acre
- Erosion and Sediment Control Plan - \$300 + \$35/acre
- Stormwater Management Plan - \$300 + \$35/structure
- Minor Water Quality Impact Assessment - \$150
- Major Water Quality Impact Assessment - \$300

**Total:** \_\_\_\_\_

Prepared By: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_

## **Other Required Forms**

- Standard Letter of Credit
- Land Developer's Agreement
- BMP Maintenance Agreement
- Water Quality Calculations Worksheet  
*(From the Virginia Stormwater Management Handbook)*

## **Submission**

Prior to permit issuance  
Prior to site plan approval  
Prior to site plan approval  
With site plan application

## **Standard Notes and Supplementary Information**

- Required standard notes for Erosion and Sediment Control, Highway Corridor Overlay Districts, Chesapeake Bay Overlay District, Landscaping and Lighting.
- Organic mulch materials and application rates
- Seeding mixtures, rates and dates: Southern Piedmont and Coastal Plain
- Requirements for Stormwater Detention/Retention Basins

***To obtain copies of the required forms and/or standard notes for erosion and sediment control, overlay districts and stormwater management, please contact the Planning Department.***

# Project Information Sheet

Project Name: \_\_\_\_\_

Site Plan #: \_\_\_\_\_

Tax Map #s: \_\_\_\_\_

Total Area (acres): \_\_\_\_\_

Total Disturbed Area (acres): \_\_\_\_\_

Total Existing Impervious Area (ft<sup>2</sup>): \_\_\_\_\_

Total Proposed Impervious Area (ft<sup>2</sup>): \_\_\_\_\_

Total Impervious Area on Site (ft<sup>2</sup>): \_\_\_\_\_

% Imperviousness of Site: \_\_\_\_\_

Hydrologic Unit Code: \_\_\_\_\_

Is the area within a Chesapeake Bay Preservation Area (RMA)?  Yes  No

Does the project contain a Resource Protection Area (RPA)?  Yes  No

• If Yes, is there any encroachment in the buffer?  Yes  No

• If Yes, what is the total area of encroachment (ft<sup>2</sup>)? \_\_\_\_\_

Does the project contain wetlands?  Yes  No

• If Yes, will there be any wetlands impact?  Yes  No

• If Yes, what is the total impact area (ft<sup>2</sup>)? \_\_\_\_\_

Does the project currently contain stormwater basins/BMPs?  Yes  No

• If Yes, provide the Deed Book and Page Number of the Maintenance Agreement:

Deed Book: \_\_\_\_\_ Page Number: \_\_\_\_\_

• If Yes, what type of basin/BMP does the project contain?  Regional  Private

Will this project require a basin/BMP?  Yes  No

• If Yes, which type of basin/BMP?  Regional  Private

• If Yes, the basin will need to have a Maintenance Agreement recorded prior to plan approval.

## Project Information Sheet Continued

---

- Owner's Name and Address:

---

---

---

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

- Engineer/Surveyor's Name and Address:

---

---

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

- Developer's Name and Address:

---

---

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

# Caroline County, Virginia Chesapeake Bay Preservation

## Water Quality Impact Assessment for Site Plans and Subdivision Plans

Date: \_\_\_\_\_ Project Name: \_\_\_\_\_

Tax Map #: \_\_\_\_\_ Owner's Name: \_\_\_\_\_

Address: \_\_\_\_\_

Business Phone: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Have you reviewed the Chesapeake Bay Preservation Area Maps?  Yes  No

Have you conducted a field inspection on the proposed development site?  Yes  No

Have you reviewed the Caroline County Soil Survey?  Yes  No

### Resource Protection Area:

Does the site contain the following:  Tidal Wetlands  Tidal Shores  Nontidal wetlands connected by surface flow & contiguous to tidal wetlands or tributary streams  A 100-foot buffer adjacent to any RPA component?

### Resource Management Area:

Does the site contain the following:  Highly erodible soils  Highly permeable soils  Floodplain

Nontidal wetlands  Within 300 feet of an RPA Buffer

*Site specific information and supporting calculations may be provided to show development is not an RMA as indicated on county mapping resources.*

### Location of any RPA features, 100-year floodplains and wetlands must be field surveyed and shown on all applicable site plan sheets.

Will there be any land disturbance within a Chesapeake Bay Preservation Area?  Yes  No

If Yes, please state the area (acres or square feet), whether RPA or RMA and describe the nature of the disturbance:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Will the proposed development result in greater than 16% impervious cover?  Yes  No

If Yes, submit calculations and worksheets from the Virginia Stormwater Management Handbook for phosphorous loading. Development within an RPA also requires buffer equivalency calculations and BMP. Attach BMP design and calculations to the application. If a structural BMP is required, the property owner must also sign, notarize and record a maintenance agreement.

**I certify that I have determined through a review of mapping resources and site analysis that the proposed development meets the requirements of Article XV, Section 17 of the Caroline County Zoning Ordinance.**

Signature: \_\_\_\_\_

Professional License: \_\_\_\_\_

Name (Printed): \_\_\_\_\_

VA License Number: \_\_\_\_\_

# Investigation Worksheet for Graves, Memorials, Places of Burial and Historical Significance

---

I certify that I have investigated the property located at: \_\_\_\_\_

and described as tax map # (s): \_\_\_\_\_

Which is undergoing either a site plan or subdivision review by Caroline County and find that:

- Graves, objects or structures marking places of burial or historical significance **DO EXIST** on the property.
- Graves, objects or structures marking places of burial or historical significance **DO NOT EXIST** on the property.

**This information was verified by:**

- Deed description
- Visual verification
- Soil borings
- Other, specify: \_\_\_\_\_

*The location of such features that have been identified on the property will be shown on the proposed Site Plan and/or Subdivision Plan along with notes that describe the methods to be used in the preservation of these features. This shall be certified by the person responsible for the development of the Site Plan or Subdivision Plan.*

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Engineer/Surveyor Seal**

# Site Plan Checklist

---

Yes    No

1)        The following information shall be provided on the **site plan cover sheet**:

- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | a) Project Name   |
| <input type="checkbox"/> | <input type="checkbox"/> | b) Magisterial District, County and State   |
| <input type="checkbox"/> | <input type="checkbox"/> | c) Name(s), address(es) and phone number(s) of owner(s), developer and engineer who prepared the site plan. |
| <input type="checkbox"/> | <input type="checkbox"/> | d) Sheet index with number and title of sheets  |
| <input type="checkbox"/> | <input type="checkbox"/> | e) Date of completion of the plan and any subsequent revisions  |
| <input type="checkbox"/> | <input type="checkbox"/> | f) A vicinity map, at a scale no greater than 1"=2000'  |
- 

2)        The following shall be included in an information block on the **site plan cover sheet**:

- |                          |                          |  |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | a) Zoning of the property  |
| <input type="checkbox"/> | <input type="checkbox"/> | b) Case numbers for any associated rezoning, SPEX, Variance, etc.  |
| <input type="checkbox"/> | <input type="checkbox"/> | c) Use of the property   |
| <input type="checkbox"/> | <input type="checkbox"/> | d) Tax Map and Parcel Number(s)  |
| <input type="checkbox"/> | <input type="checkbox"/> | e) Total site acreage  |
| <input type="checkbox"/> | <input type="checkbox"/> | f) Existing/proposed building square footage   |
| <input type="checkbox"/> | <input type="checkbox"/> | g) Parking required and provided   |
| <input type="checkbox"/> | <input type="checkbox"/> | h) Loading spaces required and provided  |
| <input type="checkbox"/> | <input type="checkbox"/> | i) List any applicable overlay districts for the property  |
| <input type="checkbox"/> | <input type="checkbox"/> | j) Chesapeake Bay Preservation Area Designation  |
| <input type="checkbox"/> | <input type="checkbox"/> | k) Maximum building height is < 35'  |
| <input type="checkbox"/> | <input type="checkbox"/> | l) Revision Block  |
| <input type="checkbox"/> | <input type="checkbox"/> | m) Applicable permit # (s) for Army Corps of Engineers and Department of Environmental Quality   |
| <input type="checkbox"/> | <input type="checkbox"/> | n) Note stating that any and all asphalt, concrete or other driving surfaces, where new or replaced must be able to support a total imposed load of fire apparatus weighing at least 75,000 pounds. An engineer's certification shall be submitted to Caroline County prior to issuance of a Certificate of Occupancy. |
- 

3)        The following shall be included in a site tabulation chart on the site plan:

- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | a) Area of the building and the percent of the site occupied by the building      |
| <input type="checkbox"/> | <input type="checkbox"/> | b) Area of other impervious surfaces and the percent of the site occupied by them |
| <input type="checkbox"/> | <input type="checkbox"/> | c) Area of open space and the total percent of the site in open space             |
| <input type="checkbox"/> | <input type="checkbox"/> | d) Total impervious area and total percent of imperviousness                      |
-

## Site Plan Checklist Continued

Yes No

4) Accepted proffered conditions, special use permit conditions, if any, and any waiver or variances granted must be reproduced on a plan sheet.

5) North arrow on each applicable plan sheet

6) The scale of the site plan shall be as follows:

a) For projects containing more than 200 acres – not more than 200':1"

b) For projects containing 50-199 acres – not more than 100':1"

c) For projects containing 10-49 acres – not more than 50':1"

d) For projects containing less than 10 acres – not more than 30':1"

7) A legend showing all symbols used on the plan

8) The boundaries of the property involved by courses and distances with a linear precision of closure of one (1) foot in ten-thousand (10,000) feet; County and/or town boundaries; property lines; existing easements; streets; buildings; waterways; burial sites or cemeteries; and major tree masses.

9) Provide the owner names, tax map and parcel number and zoning for all adjacent properties

10) Topography at intervals of two (2) feet, unless waived or requested at a greater interval by the director. Reference source and date of all topography.

11) The general location and character of construction of proposed streets, alleys, driveways, curb cuts, entrances and exits, existing and proposed.

12) Location and dimensions of all off-street parking and loading areas and the location of on street parking if used to meet off-street parking requirements.

13) Location and method of screening for all outdoor waste receptacles on site. Provide a detail of the fence enclosure and gate on the plans.

14) The location(s) and size(s) of sanitary and storm sewers, water mains, culverts, and other underground structures, both existing and planned, in or near the project.

15) All existing easements must reference recordation information.

16) Sanitary facilities, if private, including primary and secondary drainfields.

## Site Plan Checklist Continued

---

Yes No

- |                          |                          |     |   |
|--------------------------|--------------------------|-----|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 17) | Show all existing gas, electric, telephone and cable lines.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 18) | Location of all internal landscaped areas   |
| <input type="checkbox"/> | <input type="checkbox"/> | 19) | General location, height and material for all fences, walls, screen plantings, berms and peripheral landscaping. The dimensions of required perimeter and front buffer(s), if any, shall be shown.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 20) | General location and orientation of proposed signs.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 21) | The location of any identified wetlands, as determined based on field delineation or other methods as approved by the Director. Where any wetlands disturbance is proposed, two (2) copies of all required State and Federal permits shall be submitted or a letter from the appropriate agencies stating that no permits are required.                                     |
| <input type="checkbox"/> | <input type="checkbox"/> | 22) | The location of any Chesapeake Bay Preservation Areas shall be shown on all applicable site plan sheets as determined by field delineation.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 23) | Show the location, width, and recordation information for all existing drainage easements. All proposed easements need to be a minimum of twenty (20) feet.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 24) | Provide all information required for compliance with Article XV, Section 17 of the Caroline County Zoning Ordinance, Chesapeake Bay Preservation Area.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 25) | Delineate the 100-year floodplain and provide the FIRM Community Panel Number.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 26) | Provide an erosion and sediment control plan in accordance with the Virginia Erosion and Sediment Control Law, Title 10.1, Chapter 5, Article 4 of the Code of Virginia; 4VAC50-30, Virginia's Erosion and Sediment Control Regulations; and the Erosion and Sediment Control regulations of the Code of Caroline, Section 45 (see Erosion and Sediment Control checklist). |
| <input type="checkbox"/> | <input type="checkbox"/> | 27) | Show the limits of all land disturbance associated with the proposed project.   |

## Site Plan Checklist Continued

---

Yes   No

- |                          |                          |     |   |
|--------------------------|--------------------------|-----|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 28) | If wetlands or hydric soils, as per the Caroline County Soil Survey, are present, provide a wetlands delineation and verification of the delineation from the Corps of Engineers. Provide copies of all applicable Corps and DEQ permits. |
| <hr/>                    |                          |     |   |
| <input type="checkbox"/> | <input type="checkbox"/> | 29) | The general location of proposed lots, setback lines, easements, proposed reservations for parks, parkways, playgrounds, bike, pedestrian and shared use paths, school sites and open space.  |
| <hr/>                    |                          |     |   |
| <input type="checkbox"/> | <input type="checkbox"/> | 30) | A tabulation of the total number of dwelling units of various types in the project and the overall project density in dwelling units per acre, gross or net, as required by district regulations.   |
| <hr/>                    |                          |     |   |
| <input type="checkbox"/> | <input type="checkbox"/> | 31) | Signature block with date space for applicable agencies which may include Department of Planning & Community Development, Department of Utilities, Virginia Department of Transportation, and Caroline County Building Official.          |
| <hr/>                    |                          |     |   |

# Drainage Plan and Analysis Checklist

---

Yes    No

       1)    Provide pre- and post development drainage areas in acres (supported by outline contour maps)

---

       2)    Provide supporting calculations for the computation of Q2, Q10, and Q100, both pre- and post-development, where required.

---

       3)    Provide runoff coefficients for the pre- and post-developed drainage areas. They must reflect the conditions of the ultimate development.

---

4)    Provide supporting calculations for all channels, existing and proposed, natural and man-made, including the following:

- a) Depth
  - b) Type of lining
  - c) Manning's 'n' value
  - d) Typical channel cross sections
  - e) Side slope ratios
  - f) Q2, Q10, Q100, V2, D10
  - g) Longitudinal slope
  - h) Linings described by stations
  - i) Contributing drainage areas
  - j) Flow arrows
- 

5)    Provide the following for all detention/retention basins:

- a) Construction details for the basin and outlet devices
  - b) Storm routing for the 2, 10, and 100 year storms
  - c) Delineate the approximate 100-year storm elevation
  - d) Contributing drainage areas
  - e) Completed calculation sheets per the Virginia Stormwater Mgmt Handbook
- 

6)    Provide the following for all culverts:

- a) Inverts
  - b) Length
  - c) Type
  - d) Headwater depth
  - e) Discharge protection
  - f) Outlet velocity
  - g) Diameter
  - h) Outlet Protection
-

## Drainage Plan and Analysis Checklist Continued

---

Yes No

- |                          |                          |    |  |
|--------------------------|--------------------------|----|--|
|                          |                          | 7) | Provide the following for all curb and gutter/storm sewer systems:   |
| <input type="checkbox"/> | <input type="checkbox"/> | a) | Depth and spread in gutter   |
| <input type="checkbox"/> | <input type="checkbox"/> | b) | Length of throats and placement of inlets  |
| <input type="checkbox"/> | <input type="checkbox"/> | c) | Type of material   |
| <input type="checkbox"/> | <input type="checkbox"/> | d) | Diameter   |
| <input type="checkbox"/> | <input type="checkbox"/> | e) | Velocity   |
| <input type="checkbox"/> | <input type="checkbox"/> | f) | Capacity   |
| <input type="checkbox"/> | <input type="checkbox"/> | g) | Hydraulic grade line computations noting elevations at key points (drop inlets, manholes, etc.)  |
| <input type="checkbox"/> | <input type="checkbox"/> | h) | Concrete flume transition details from curb to ditch   |
| <input type="checkbox"/> | <input type="checkbox"/> | i) | Details of VDOT standard structures (drop inlets, curb/gutter, etc.)   |
| <input type="checkbox"/> | <input type="checkbox"/> | j) | Provide profile for the storm sewer in conjunction with any road profiles or other utilities   |
| <hr/>                    |                          |    |  |
| <input type="checkbox"/> | <input type="checkbox"/> | 8) | Provide details of all special design structures (flumes, basin outlets, energy dissipaters, etc.).  |
| <hr/>                    |                          |    |  |
| <input type="checkbox"/> | <input type="checkbox"/> | 9) | Provide the location and description of all existing and proposed drainage structures, pipes, roof drains, swales, ditches, curbs, and channels and the direction of flow of each. |
| <hr/>                    |                          |    |  |

# Erosion and Sediment Control Plan Checklist

---

Yes No

- 1) Provide a narrative that includes the following:
- a) A brief project description of the nature and purpose of the land disturbing activity and the amount of grading involved.
  - b) A description of the existing topography, vegetation and drainage.
  - c) A description of neighboring areas such as streams, lakes, residential areas, roads, etc., which might be affected by the land disturbance.
  - d) A brief description of the soils on the site giving such information as soil name, mapping unit, erodibility, permeability, depth, texture and soil structure.
  - e) A description of areas on site which have potential serious erosion problems.
  - f) A description of the methods that will be used to control erosion and sedimentation on the site.
  - g) A brief description and specifications of how the site will be stabilized after construction is complete.
  - h) A brief summary of stormwater management considerations of downstream receiving channels and their condition and adequacy.
  - i) A schedule of regular inspection and repair of erosion and sediment control structures should be set forth.
  - j) Any calculations for the design of such items as sediment traps, sediment basins, diversions, etc.
  - k) A description of the steps of construction including any specific phases that will be implemented in the completion of the erosion and sediment control plan.
- 

2) Provide a vicinity map.

---

3) Provide the existing and proposed topography of the site.

---

4) Show the existing tree lines, grassy areas, or unique vegetation.

---

5) Show the boundaries of different soil types.

---

6) Provide a north arrow.

---

7) Show the areas with potentially serious erosion problems.

---

8) Provide the drainage breaks and the direction of flow within the drainage areas. Include a drainage map showing entire pre- and post-development drainage areas for all onsite and off-site drainage.

---

## Erosion and Sediment Control Plan Checklist Continued

Yes No

- |                          |                          |     |   |
|--------------------------|--------------------------|-----|---|
| <input type="checkbox"/> | <input type="checkbox"/> | 10) | Delineate the limits of clearing and grubbing associated with the proposed project.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 11) | Show the location of the erosion and sediment control measures to be used on the site. Sediment traps and basins shall include top and bottom dimensions, contour lines, and show tie-ins to existing grades.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 12) | Provide detail drawings of all structural practices used to control erosion and sedimentation for the proposed project.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 13) | Provide a seeding schedule on the plan.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 14) | Provide erosion and sediment control notes (see approved notes Page 18).  |
| <input type="checkbox"/> | <input type="checkbox"/> | 15) | Provide evidence that no more land than is necessary to provide for the desired use or development shall be disturbed.  |
|                          |                          | 16) | Environmental site assessment information consisting of:  |
| <input type="checkbox"/> | <input type="checkbox"/> | a)  | Base flood hazard areas (100-year flood plain).   |
| <input type="checkbox"/> | <input type="checkbox"/> | b)  | Location of all tidal and non-tidal wetlands.   |
| <input type="checkbox"/> | <input type="checkbox"/> | c)  | Location of all tidal shores.   |
| <input type="checkbox"/> | <input type="checkbox"/> | d)  | Location of all tributary and non-tributary streams.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 17) | Two (2) copies of all applicable U.S. Army Corps of Engineers and state permits necessary for activities in state waters and wetlands or appropriate waivers of jurisdiction that have been obtained.   |
| <input type="checkbox"/> | <input type="checkbox"/> | 18) | Cost estimates for all materials and construction.  |
| <input type="checkbox"/> | <input type="checkbox"/> | 19) | Include a water quality impact assessment for any proposed development within an RPA, including any buffer area modification or reduction, and for any development in an RMA which, due to the unique characteristics of the site or intensity of the proposed development, is considered to be environmentally sensitive land. |
| <input type="checkbox"/> | <input type="checkbox"/> | 20) | Verify MS-19 with supporting documentation, including calculations, cross-sections and other applicable information as necessary.   |

# Erosion and Sediment Control Notes

---

1. ALL APPROPRIATE EROSION AND SEDIMENT CONTROLS ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN CLEARING AND GRADING.
2. SEDIMENT BASINS AND TRAPS, DIVERSION DIKES, SEDIMENT BARRIERS AND OTHER MEASURES INTENDED TO TRAP SEDIMENT SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE ANY UPSLOPE LAND DISTURBANCE TAKES PLACE.
3. ALL SEWER LINES NOT IN STREETS ARE TO BE MULCHED AND SEEDED WITHIN 7 DAYS AFTER BACKFILL.
4. ALL TEMPORARY EARTH BERMS, DAMS, DIVERSIONS AND SEDIMENT CONTROLS ARE TO BE MULCHED AND SEEDED IMMEDIATELY AFTER GRADING. HAY, STRAW OR COMPARABLE MULCH IS REQUIRED.
5. ALL LAND, ON OR OFF SITE, WHICH IS DISTURBED BY CONSTRUCTION AND WHICH IS NOT BUILT UPON OR SURFACED SHALL BE ADEQUATELY STABILIZED TO CONTROL EROSION AND SEDIMENTATION.
6. ALL EROSION AND SEDIMENT CONTROL, INCLUDING SEEDING AND MULCHING, SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE CAROLINE COUNTY EROSION AND SEDIMENT CONTROL ORDINANCE AND THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VESCH), THIRD EDITION 1992.
7. ADDITIONAL EROSION AND SEDIMENT CONTROLS SHALL BE INSTALLED IF ON SITE INSPECTIONS REVEAL PROBLEMS.
8. STOCKPILED TOPSOIL WILL BE SURROUNDED BY APPROVED EROSION AND SEDIMENT CONTROLS.
9. ALL MEASURES ARE TO BE INSPECTED DAILY BY THE SITE SUPERINTENDENT. ANY DAMAGED STRUCTURAL MEASURES SHALL BE REPAIRED BY THE CLOSE OF THE FOLLOWING DAY. EROSION AND SEDIMENT CONTROLS SHALL BE REMOVED AFTER AREAS HAVE BEEN STABILIZED, BUT NOT BEFORE APPROVAL BY A CAROLINE COUNTY INSPECTOR.
10. THE AREAS USED FOR BURNING DEBRIS SHALL BE SEEDED USING APPROPRIATE SEEDING MIXTURE RECOMMENDED IN PLAN AFTER DEBRIS REMOVAL IS COMPLETED.
11. PERMANENT OR TEMPORARY SEEDING SHALL BE APPLIED TO DENUDED AREAS WITHIN 7 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SEEDING SHALL BE APPLIED WITHIN 7 DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT (UNDISTURBED) FOR LONGER THAN 30 DAYS. PERMANENT SEEDING SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
12. BEFORE NEWLY CONSTRUCTED STORMWATER CONVEYANCE CHANNELS ARE MADE OPERATIONS, ADEQUATE OUTLET PROTECTION AND ANY TEMPORARY OR PERMANENT CHANNEL LINING SHALL BE INSTALLED IN BOTH THE CONVEYANCE CHANNEL AND THE RECEIVING CHANNEL.
13. ALL DRAINAGE CALCULATIONS ARE BASED ON THE METHODS SET FORTH IN THE VIRGINIA DEPARTMENT OF HIGHWAYS (VDOT) DRAINAGE MANUAL AND VESCH 1992. ALL DRAINAGE CULVERTS AND OUTLET DITCHES SHALL BE DESIGNED FOR A 10 YEAR FREQUENCY STORM AND DONE IN ACCORDANCE WITH MS-19.
14. THESE EROSION AND SEDIMENT CONTROL NOTES APPLY TO ALL LAND DISTURBING ACTIVITY ASSOCIATED WITH THIS PROJECT, INCLUDING ROAD, SEWER LINE AND WATER LINE CONSTRUCTION.
15. THIS PROJECT WILL START \_\_\_\_\_ AND BE COMPLETED BY \_\_\_\_\_.

# Landscaping Plan Checklist

---

Yes No

- |                          |                          |     |  |
|--------------------------|--------------------------|-----|--|
| <input type="checkbox"/> | <input type="checkbox"/> | 1)  | Location of existing and proposed landscaping.   |
| <hr/>                    |                          |     |  |
|                          |                          | 2)  | Plant Schedule indicating:   |
| <input type="checkbox"/> | <input type="checkbox"/> | a)  | Latin and common plant names   |
| <input type="checkbox"/> | <input type="checkbox"/> | b)  | Number of plants   |
| <input type="checkbox"/> | <input type="checkbox"/> | c)  | Caliper, height and/or spread at time of planting  |
| <hr/>                    |                          |     |  |
| <input type="checkbox"/> | <input type="checkbox"/> | 3)  | Detail of required landscape screening and/or berm, if applicable.   |
| <hr/>                    |                          |     |  |
| <input type="checkbox"/> | <input type="checkbox"/> | 4)  | A finished grading plan shall be included and drawn in conjunction with all elements of the landscape plan.  |
| <hr/>                    |                          |     |  |
|                          |                          | 5)  | Narrative to include:  |
| <input type="checkbox"/> | <input type="checkbox"/> | a)  | Planting schedule  |
| <input type="checkbox"/> | <input type="checkbox"/> | b)  | Method of installation with appropriate details  |
| <hr/>                    |                          |     |  |
| <input type="checkbox"/> | <input type="checkbox"/> | 6)  | All existing trees on the site, or where there are groups of trees, must be outlined. However, all trees in excess of twenty (20) inches in diameter, measured at four and one-half (4.5) feet above the ground must be shown as individual specimens.   |
| <hr/>                    |                          |     |  |
| <input type="checkbox"/> | <input type="checkbox"/> | 7)  | Show all trees desired to be removed.  |
| <hr/>                    |                          |     |  |
| <input type="checkbox"/> | <input type="checkbox"/> | 8)  | All trees and/or groups of trees to be preserved shall be shown. In the event of cut and fill, excavation, or the laying of utility lines in proximity to trees that are shown to be preserved, the method of preservation shall be shown. Methods of preservation shall be consistent with those described in the Virginia Erosion and Sediment Control Handbook, 3 <sup>rd</sup> Edition, 1992, STD & SPEC 3.38. |
| <hr/>                    |                          |     |  |
| <input type="checkbox"/> | <input type="checkbox"/> | 9)  | Any required berms shall be installed with a minimum height of four (4) feet with a maximum slope of 4 to 1.   |
| <hr/>                    |                          |     |  |
| <input type="checkbox"/> | <input type="checkbox"/> | 10) | Cost estimates for all materials and installation.   |
| <hr/>                    |                          |     |  |

# Lighting Plan Checklist

---

Yes No

1) Location of existing and proposed exterior light fixtures (building and freestanding).

---

2) Photometric diagram showing illumination levels at all property lines.

---

3) Two (2) copies of fixture cutsheets for each proposed fixture.

---

Preparer's Signature \_\_\_\_\_

Date \_\_\_\_\_

## **Other Required Documents**

---

- Water & Sewer Plan Checklist
- Public Works Utility Extension Application (Attached) – Due at first submission.
- VDOT Site Plan Submittal Checklist
- VDOT Construction Notes – To be included on plans
- VDOT Erosion and Sediment Control Contractor Certification Information
- VDOT Land Use Permit Erosion and Sediment Control Contractor Certification

## Checklist for Water and Sewer Plans

Project Title \_\_\_\_\_

Existing utilities to be extended to service this project are shown on Sheet No(s) \_\_\_\_\_ or Approved Utility Plan No \_\_\_\_\_.

Yes No

- |                          |                          |     |  |       |
|--------------------------|--------------------------|-----|--|-------|
| <input type="checkbox"/> | <input type="checkbox"/> | 1)  | Virginia registered engineer's stamp & signature   | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 2)  | Plan and profile sheets are 24" x 36"  | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 3)  | Project vicinity map   | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 4)  | Owner/developer name and address shown on plans  | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 5)  | I.S.O. Fire Flow computations shown in plans (where applicable)  | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 6)  | Domestic water meter calculations shown on plans in accordance with A.W.W.A. Manual M-22 (where applicable)  | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 7)  | Water System designed to provide adequate domestic service and fire protection to owner's property. _____ " diameter line required to adequately serve this project in accordance with County standards. | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 8)  | Sanitary Sewer Service area map submitted with plans with calculations shown. _____ " diameter line required to adequately serve this project in accordance with County standards                        | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 9)  | Overall water and sanitary sewer plan submitted for phased projects. Fire hydrants and valve locations shown on overall water plan   | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 10) | Deflection angles shown on all manholes  | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 11) | Standard water and sewer notes shown on plans  | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 12) | Benchmarks shown every 500 feet  | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 13) | Direction of flow arrows shown on sanitary sewer   | _____ |
| <input type="checkbox"/> | <input type="checkbox"/> | 14) | All underground utility conflicts profiled and resolved  | _____ |

15) This project has been designed in accordance with the latest County Standard and State Regulations (whichever is more restrictive)

---

16) All proposed water and sewer lines connect to existing facilities that have been previously accepted by the county for operations and maintenance

---

17) All off-site easements necessary for the completion of this project have been acquired, recorded and their Deed Book and Page numbers are shown on the plans.

---

18) A list of the approximate material quantities to be used and the following notes are shown on the plans:

Sanitary Sewer

PVC plastic shall be ASTM D-3034 PSM SDR 35 min; Class "B" bedding (min) Non-reinforced conc. pipe shall be ASTM C-14 Class 2; Class "C" bedding

Water

PVC plastic pipe shall be AWWA C-900 Table 2 Glass 150 (min) Ductile Iron pipe shall be ANSI/ AWWA C151 Class 52 for 12" and smaller and Class 51 for 16" or larger

---

19) A blocking detail shown on the plan is per the Design Standards. Detail shows strength and quantity of concrete for each size and type of fitting used.

---

20) Backflow Prevention Plan submitted in accordance with Section 6 of the Commonwealth of Virginia State Board of Health Waterworks Regulations.

---

I hereby certify that I have compiled with the above and do herewith submit these plans for approval.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Certificate Number

\_\_\_\_\_  
Printed/Typed Name

\_\_\_\_\_  
Date

**CAROLINE COUNTY  
DEPARTMENT OF PUBLIC WORKS  
WATER & SEWER EXTENSION  
PROCEDURE**

---

*The following steps are required for the approval of Water and Sewer Extensions of the Caroline County Utility Systems. These steps are set forth to permit Caroline County to expedite the approval of your request. If these steps are not followed delays may occur in the approval process. This application for an extension of the Utility Systems must be submitted with the site plan for your development.*

---

- Fill out and submit an application for an extension of the Caroline County Utility Systems.
- Caroline County charges for actual expense incurred in reviewing and approving construction plans plus a 15% administrative fee which will be billed in arrears upon approval. An initial application fee will be required based on the number of lots in the development and is required at the time the extension is required. The initial fees are as follows:

0 to 100 lots; minimum Commercial	\$ 250
101 to 500 lots	\$ 500
501 and up lots	\$1,000

Plans will not be reviewed without submittal of the application and payment of initial fees. The remainder of the Extension Fee will be invoiced after approval of plans. **NO REVIEW OF PLANS WILL COMMENCE UNTIL SUCH TIME AS THE APPLICATION HAS BEEN RECEIVED AND THE FEE PAID.**

- Public Works requires five (5) sets of plans as part of the site development submittal. The County will require four (4) sets of fully executed plans and all are reminded that a fully executed set of plans must be on site at all times during construction.
- Plans must include a cost estimate based on unit values with quantities provided certified by the design engineer (water and sewer take off). The estimates will also be the basis of your development's utility bonds that must be approved by the Public Works Department as part of the site development process. Placement of the take off on the plans is advisable, but at minimum two (2) typed take offs are required by the Public Works Department.

- If plans contain utility lines in excess of 12" in diameter, a sewer pumping station, elevated storage, well and/or treatment approval by the Department of Environmental Control and Virginia Department of Health will be required prior to approval of these plans by the County. The County will require five (5) sets of DEQ and/or VDH approved plans to provide the final approval of the project.
- Submittals must include flow projections for the proposed development and a water model for the proposed water system including fire flow and static and residual pressures at all hydrants in the development. Static pressures and storage available to your development can be obtained from the Public Works Department at (804) 633-4386 during the design process.
- All plans shall be in accordance with Caroline County Specifications and standards. All fire hydrants must have a 5 1/4" barrel.
- All plan sheets must be 24"X36". One (1) set of half sized plan set will be provided for the County and the County will stamp half sized plans for use by the owner should they desire.
- The utility extension title sheet providing the portion of each sheet pictorially and in writing must be provided. Match lines must be included on each sheet.
- In all cases elevations will be stated in terms of mean sea level (mls) and bench marks provided with engineer certified elevation.
- If extension includes pumping stations, wells, elevated storage, etc. the County will not approve the development infrastructure for constructions unless such items are represented on the final set of plans. Individual items such as pumping stations, wells and/or treatment, elevated storage, etc. will be approved as individual plans.
- Revision of the plans will require the submittal of adequate revised plan sheets to the Department of Public Works to permit revision of all plans sets in their control. Developers should keep in mind that they must also maintain an approved set of plans on the project at all times therefore copies of the revised sheets to revise their plans should also be submitted.
- Caroline County's interpretation of specifications shall be binding on all parties.

***CAROLINE COUNTY PUBLIC WORKS  
WATER AND SEWER EXTENSION  
APPLICATION***

---

**Name of Development:** \_\_\_\_\_

**General location of Development** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

---

**Developer:** \_\_\_\_\_

**Contact Person:** \_\_\_\_\_

**Developer's address:** \_\_\_\_\_

\_\_\_\_\_

**Developer's telephone:** \_\_\_\_\_

**Developer's fax:** \_\_\_\_\_

**Developer's E-mail** \_\_\_\_\_

---

**Engineering Design Firm:** \_\_\_\_\_

**Engineering Contact:** \_\_\_\_\_

**Engineer's Address:** \_\_\_\_\_

\_\_\_\_\_

**Engineer's telephone:** \_\_\_\_\_

**Engineer's Fax:** \_\_\_\_\_

**Engineer's Email:** \_\_\_\_\_

---

**Number of Lots:** \_\_\_\_\_

**Plan Date:** \_\_\_\_\_

**Number of Sheets per Set:** \_\_\_\_\_

**Developer Authorized Signature:** \_\_\_\_\_

\_\_\_\_\_  
(name please print)

\_\_\_\_\_  
(title)

**Date received** \_\_\_\_\_ **Initial Application Fee** \_\_\_\_\_ **Receipt #** \_\_\_\_\_

# VIRGINIA DEPARTMENT OF TRANSPORTATION

## SITE PLAN SUBMITTAL CHECKLIST

**Mandatory items needed before review by District Land Development Section**  
**All plans must be submitted through appropriate county and VDOT Residency first**

- 1 **Residential or Commercial Entrances**  
 Sight distances shown on plan       Speed Limit shown on plan  
 Right hand turn lane length       Right hand taper length  
 Left hand turn lane length       Left hand taper length       Add turn lane access program to plan
- 2  **Formal Traffic Analysis by certified engineering firm**
- 3 **Mainline Culverts**  
 Culvert types       Diameters       Additional Culverts  
 Additional end sections       Additional end treatments       CD-1 with end sections  
 CD-1 with end sections       Drainage Calculations
- 4  **Drop Inlets and Manhole Information if applicable**
- 5 **Additional Protective Covering**  
 Standard EC-1       EC-2       EC-3       Paved Ditch
- 6 **Drainage**  
 Drainage Easements       Drainage Calculations
- 7 **Additional Drainage**  
 Additional Drainage Easements       Drainage Calculations
- 8  **Private Driveway Culvert Sizes**
- 9  **Typical Road Section**
- 10  **Road Design Categories**
- 11  **Horizontal Alignment**       **Curve Data**
- 12  **Vertical Alignment**       **Curve Data**
- 13  **Utility Location**
- 14  **General Construction Plan and Plat Notes shown on plans**
- 15 **Roadway Signage**  
 Stop signs, stop bars, speed limit signs, street signs, other special signs  
 Location of guardrail       Stopping sight distance
- 16  **VDOT signature approval block on plan**
- 17  **Adequate location map to include route numbers**

## CONSTRUCTION NOTES FOR VDOT (revised March 15, 2005)

1. All work shown hereon shall be in strict accordance with the Standards and Specifications of the Virginia Department of Transportation (VDOT) and County Ordinances.
2. It is the intent of these drawings to show all necessary work. Any item of work not specifically shown, but necessary to eligibility for acceptance, is hereby implied.
3. A permit must be obtained from VDOT prior to starting any construction within the State Right-of-way.
4. The Contractor/owner shall perform CBR testing on the subgrade in accordance with VDOT Specifications by a certified geotechnical engineer to determine base and pavement designs and this information must be forwarded to VDOT and reviewed prior to placement of stone base.
5. The Contractor/owner must specify in writing to VDOT prior to construction the type of subbase, base, and pavement to be utilized on each street for each traffic group.
6. The Contractor shall notify VDOT 72 hours prior to placement of base materials and prior to the placement of asphalt material to ensure VDOT's ability to perform testing such as proof rolling, depth checks, compaction & contamination. Option: A certified analysis from a private engineer/testing firm maybe submitted within 7 work days of the required tests. **72 hours notice to VDOT is still required prior to each activity.**
7. All culvert pipes shall be of a type approved by the Virginia Department of Transportation.
8. All entrance pipes for driveways shall be a minimum of 12" in diameter, unless otherwise specified by the plans. All private entrance (driveway) pipes shall be 30 foot in length for corrugated metal pipe and 28 feet for concrete pipe unless otherwise approved by VDOT. All driveway culverts in cul-de-sacs shall be concrete. See road construction plans for proper size culvert.
9. Contractor to verify all dimensions and elevations in the field before starting construction and notify the design engineer and VDOT of any differences.
10. The contractor shall erect street signs and traffic control signs as indicated on the subdivision construction plans. The signs shall conform to VDOT and County standards.
11. A minimum 35' pavement fillet radii is recommended. A pavement cross slope of 3/8":1' recommended.

12. Contractor shall do overlot grading as necessary to preclude the ponding of water adjacent to the roadway.
13. Slope easements will be required at all locations where the top of the cut or the toe of the fill exceeds the proposed dedication of right-of-way. See plat for exact location.
14. If running water is present in outlet channel during construction where ditch protection is required, the bottom of the channel shall be lined with rip-rap stone per the EC-1 standard further, EC-2 or EC-3 must have a minimum width of 4' fill sections and 5' cut sections.
15. Contractor shall be responsible to see that all erosion and sediment control standards are met and the Contractor to seed and mulch all disturbed areas along with all graded areas with the proposed right-of-way in accordance with VDOT specifications.
16. Final location of manholes, valves, fire hydrants, and other appurtenances shall not conflict with or constrict roadside drainage. Contractor shall adjust manholes and /or ditch alignment to insure proper roadside drainage compatible with existing field conditions.
17. All water, sanitary sewer, and storm sewer line trenches shall be compacted to 95% density in 6" layers. Compaction tests may be required by VDOT.
18. VDOT will require density tests from a certified engineer for all culvert installations 36" or larger.
19. Video inspection on all storm sewer systems may be required prior to final construction approval. VDOT inspector must be present during video taping process.
20. The contractor must contact VDOT Traffic Engineering Department at (540) 899-4540 prior to construction within 1000' of a signalized intersection.
21. The final footage and location for VDOT standard guardrail to be established prior to completion of the fine grading by joint inspection with contractor, VDOT and the owner representative.
22. Whenever tying into existing roadway a 1- foot milled joint and overlay of surface material is required.
23. Overlay may be required in order to obtain desirable cross-slope.
24. All storm structures shall have IS-1 invert shaping and SL-1's will be placed in structures at appropriate locations.