Guide to the
Single Family Site Development Process for Sites Located in the Chesapeake Bay Resource Protection Area (RPA)

City of Virginia Beach
Planning Department
Development Services Center (DSC)
385-8277
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INTRODUCTION

The following guidelines apply to single family development and accessory uses, structures and/or other improvements proposed on residential properties located in the Chesapeake Bay Resource Protection Area (RPA) being reviewed by the Development Services Center (DSC). These guidelines do not supersede, but are used in conjunction with, the Public Works Specifications and Standards, the Site Plan Ordinance, the Chesapeake Bay Preservation Area (CBPA) Ordinance, the Stormwater Management Ordinance and the Virginia Erosion and Sediment Control Handbook.

The purpose of these guidelines is to provide the City review staff, design consultants, property owners, and contractors with a concise document that explains the broad scope and details of site plan requirements, drainage design, construction and maintenance on properties located in the RPA, whether new development, infill, or redevelopment. The accompanying Review Process, Documents and Required Notes are designed to clarify the plan requirements and minimize the time and effort necessary to gain plan approval. Close adherence to the Checklist and Required Notes by the consultant, owner and builder is essential for a successful project.

Site plans for single family homes are reviewed by the DSC staff for compliance with city ordinances, regulations, procedures, standards and policies and to help insure that the proposed construction will not have a detrimental effect on the surrounding properties, neighborhoods and environment. Under these guidelines, multiple single family sites that share drainage and/or access facilities will be reviewed under the multi-lot site plan process.

These guidelines include reference to and excerpts from the governing ordinances, specifications and other documents. For more detailed information, it is suggested that the user refer directly to the referenced document.

DESIGN PRINCIPLES AND GOALS

Site Drainage (Stormwater)

Many infill and redevelopment properties are located in subdivisions or areas without adequate drainage systems designed to handle intense storm events and treat runoff for water quality. In order to encourage development and redevelopment that is consistent with the City of Virginia Beach’s mission of enhancing the physical quality of the community, the following goals have been established relating to site drainage:

- Minimize runoff by minimizing the impervious cover;
- Maximize the use of infiltration where soils are suitable;
- Maintain the natural contours and vegetation of the land whenever possible;
- Minimize fill and the use of retaining walls;
- When fill and/or retaining walls are needed, insure that it does not block runoff presently crossing or entering the property;
- Insure that runoff does not drain onto adjoining properties; and
- Direct runoff to an improved, publicly or privately maintained system.
Site Utilities (Water and Sanitary Sewer)
Most single family sites are served by public water and sanitary sewer systems. Several sites, however, both in the urban and rural areas of Virginia Beach utilize private wells and septic systems. In all cases, it is critical that the site plan clearly shows how the residence will be served by water and sanitary sewer systems. Many properties have stood vacant for years due to lack of these services. The availability of public service cannot be assumed, even in densely populated areas. Verification of the existence and adequacy of these public services must be determined prior to site plan approval. Likewise, the ability of on-site soils to accept septic drainfields and the use of potable wells cannot be assumed. These on-site issues must be addressed and approved by the Virginia Department of Health, prior to approval of the site plan by the DSC.

Staff Review of Single Family Site Plans
DSC staff is tasked with reviewing and approving hundreds of single family site plans each year. It is the design consultant’s responsibility to insure that adequate consideration of the site and off-site conditions are accommodated in the design, calculations and supporting information. If problems occur, either during or after construction, that were not adequately addressed on the site plan, the consultant and permit holder (builder, owner, etc.) will be responsible for correcting the situation.

Staff Review Procedures
- **DSC staff** will perform a minimum check on the following items. Other items may be added as-needed:
  - Comparison of site plan with resources available on City’s (internal) GISWeb:
    - Zoning
    - Air Installations Compatible Use Zones (AICUZ)
    - Flood Zone
    - Watershed
    - Legal description
    - Plat recording information
    - Recorded plat (must be a legally created lot)
    - General shape and size of property
    - Capital Improvements Program (CIP) projects in the area
    - Soils (for infiltration of stormwater)
    - Public water availability
    - Public sanitary sewer availability
    - Existing improvements on-site
    - Existing improvements on adjoining sites
    - General topography/drainage in the area
    - RPA and variable width buffer location
    - Improvements on public property, rights-of-way and easements
  - Review of required information on the site plan (see checklist and required notes)
  - Review of Design:
    - Check for compliance with CBPA Board or Administrative Variance conditions and conditions required by City Council and any other City Board or staff
Guide to the Single Family Site Development Process

(Administrative Variance)

- Check plan against the preliminary plan approved by the CBPA Board
- Drainage, grading and Stormwater Management Facility (SWMF) design
- Verify plan does not negatively impact the adjoining properties (drainage issues)
- Driveway and driveway apron type, width and slope
- Street improvements, ditch, curb & gutter, shoulder, etc.
- Any construction on adjoining properties (requires written permission from adjoining property owner)
- Erosion and Sediment (E&S) controls
- Landscape plan and buffer restoration, adequacy of plant selection and placement in general

- Zoning staff checks for compliance with all zoning issues, including but not limited to, setbacks, building coverage, variances, etc.
- Civil Inspections reviews for erosion and sediment controls, CBPA Board conditions and checks current field conditions.
- Public Utilities reviews for water and sanitary sewer availability and adequacies.
- Waterfront Operations will determine if a Joint Permit Application (JPA) or Wetlands Board approval is needed.
Guide to the Single Family Site Development Process

City of Virginia Beach
Development Services Center

DSC INFORMATION NOTICE #103
February 6, 2004

Topic: Changes to Chesapeake Bay Preservation Area Ordinance (CBPAO)

On December 9, 2003, City Council approved amendments to the CBPAO. These changes became effective January 1, 2004.

1. The most significant change from the previous ordinance is the location of the 50-foot seaward and 50-foot landward buffers. These are now measured from the edge of waterbodies with perennial flow, tidal wetlands, tidal shores, and contiguous non-tidal wetlands. The total buffer is now considered “variable width,” and terminates 100 feet from the top-of-bank (highly erodible soils, ≥6% slope), if present, as it has in the past. The current mapped line defining the Resource Protection Area (RPA)/Resource Management Area (RMA) location has not changed.

2. The second most significant change is that most development and redevelopment in the 50-foot seaward and 50-foot landward buffers must be granted a variance by the CBPAO Board. In the past, minor projects were approved administratively. The revisions to the CBPAO deleted all references to minor projects. No changes have been made to the CBPAO Board variance approval process. Land Disturbance located landward of the 50-foot seaward and 50-foot landward buffers and still within the variable width buffer, will continue to require variances to the CBPAO, but these variances may be granted administratively. The administrative variance, if appropriate, will be granted by Planning staff during the normal review process. Administrative variances require the posting of signs on the property, similar to public hearing notification signs.

3. The third most significant change is the way in which the City staff is processing the plans and requests for administrative variances.

• Single Family Site Plans. For single-family sites, homeowners will no longer be able to receive same-day service on administrative variances. Site plan submittals are required for all development in the buffer. Administrative variances require the posting of signs on the property, similar to public hearing notification signs. In order to provide some relief to single-family site homeowners proposing relatively minor changes to their properties, we have created a “Partial Site Plan” category. Criteria for determining when a partial site plan is acceptable and what information is required on partial site plans are discussed in the attached documents. The decision to allow a partial site plan is made by Planning staff on a case-by-case basis during review of the preliminary project request.

• Commercial and Duplex Site Plans and Subdivision Construction Plans. The posting of signs and the administrative variance process will also apply to

Chesapeake Bay Resource Protection Area (RPA)
commercial sites and subdivisions as well. Commercial sites and subdivision plats and plans in the RPA must have a preliminary project review before plans are submitted in order to determine if an administrative variance can be granted during the normal review process. The Preliminary Project Review is the same as outlined for single-family sites. The applicant should contact the Planning staff and provide a preliminary site plan or other scaled drawing showing the existing and proposed improvements and complete the “Preliminary Project Request Form”. The review processes for final commercial site plans and subdivision construction plans has not changed. The design criteria for stormwater quality and quantity have not changed.

4. **The old CBPA Matrix and Checklists A-E are no longer used.**
Attached are diagrams pertaining to the changes in the location of the buffers.
(Refer to Page 6) [Go to Page 6]

**Effective Date:** January 1, 2004

**Planning Contacts:**

**CBPA Ordinance, CBPA Board Variances**
Richard (Rick) Scarper ([rscarper@vbgov.com](mailto:rscarper@vbgov.com)) .......................................................... 385-8612
Linda Bregant ([lbregant@vbgov.com](mailto:lbregant@vbgov.com)) .......................................................... 385-8598

**Preliminary Project Requests, Administrative Variances, Plan Review**
Michele Kitt ([mkitt@vbgov.com](mailto:mkitt@vbgov.com)) .......................................................... 385-8449
Giovanni Passaro ([gpassaro@vbgov.com](mailto:gpassaro@vbgov.com)) .......................................................... 385-8034
Ric Bagtas ([rbagtas@vbgov.com](mailto:rbagtas@vbgov.com)) .......................................................... 385-8509
CRITERIA FOR DETERMINING CBPA VARIANCE APPROVAL
JURISDICTION
(CBPA Board or Administrative)
1. Proposed improvements or construction in the 50’ seaward portion of variable width buffer: **CBPA Board Variance Required**

2. Proposed improvements or construction in the 50’ landward portion of the variable width buffer: **CBPA Board Variance Required**

   **Exception:** The proposed improvement is an addition to a principle structure, in which case, an Administrative Variance may be granted.

3. Proposed improvements or construction in the variable width buffer, landward of the 50’ seaward and 50’ landward buffers: **Administrative Variance Allowed**

   NOTE: Staff has discretion to send any Administrative Variance request to the CBPA Board. Administrative variances will be granted in accordance with Section 110 of the CBPA Ordinance.

CASE A

Waterbody w/perennial flow
Tidal Wetlands
Contiguous non-tidal wetlands
Tidal Shore (with or without bulkhead)

100’ CBPA Board Variance Area
 Administrative Variance Area

50’ Seaward Buffer
50’ Landward Buffer
100’ from Top of Bank

Highly Erodible Soils
slope ≥ 6%
Top of Bank
RPA
RMA

CASE B

Waterbody w/perennial flow
Tidal Wetlands
Contiguous non-tidal wetlands
Tidal Shore (with or without bulkhead)

100’ CBPA Board Variance Area
 Administrative Variance Area

50’ Seaward Buffer
50’ Landward Buffer
100’ from Top of Bank

Highly Erodible Soils
slope ≥ 6%
Top of Bank
RPA
RMA

CASE C

Waterbody w/perennial flow
Tidal Wetlands
Contiguous non-tidal wetlands
Tidal Shore (with or without bulkhead)

100’ CBPA Board Variance Area
 No Administrative Variance Area

50’ Seaward Buffer
50’ Landward Buffer

Flat
RPA
RMA

(Slope less than 6%)
Variance Process for Single Family Development Located in the Chesapeake Bay Resource Protection Area (RPA)

Site plan is submitted for review

Is site in RPA?

Is infill single family review required?

#1 Applicant Fills out Preliminary Project Request (PFR) application

Consultant prepares site plan for single family review process

City staff reviews PFR in Tuesday meeting

Site Plan Review Process for Single Family Sites

Direct customers to Zoning/Permits & Inspections for normal over-the-counter review/permit issuance

END

Options: Redesign or apply for Board approval #2

#3 Staff recommends administrative variance approval?

Administrative or Board variance?

Is a variance required?

RMA, exemption or redevelopment?

City staff provides suggested administrative conditions for project and project is entered into the Chesapeake Bay variance database

#2 Application is filed and fees are paid

Signs are posted for 30 days

Board Approval?

Consultant prepares site plan for single family review based on Board conditions

Consultant prepares full site plan for single family review based on Board conditions

City of Virginia Beach Development Services Center

Chesapeake Bay Resource Protection Area (RPA)
Site Plan Review Process for Single Family Sites Located in the Chesapeake Bay Resource Protection Area (RPA)

1. Site Plan submitted to the DSC for review

2. Intake Process - Log in, fees and Distribution to reviewers

3. Signs are picked up and posted for 15 days (Administrative Variance site plans only)

4. Consultant revises site plan and resubmits to DSC

5. Comments, including public for Administrative Variance, received and coordinated by Project Manager

6. Administrative Variance Needed?
    - Yes
    - No

7. Site Plan Approved?
    - Yes
    - No

8. Approval letter prepared and sent to consultant and/or owner/developer

9. Approval Letter Distribution:
   - Management and Support
   - Waterfront
   - Zoning
   - Consultant and/or Owner/Developer

10. Site Plan sent to Management and Support for street addressing (if needed)

11. Site plan held for "HOLDS" to be satisfied

12. Plan Distribution with copy of approval letter:
    - Civil Inspections (1)
    - CBPA (1)
    - DSC File (1)
    - Public Utilities (4), if required

13. Four (4) approved site plans are released to customer for permit issuance:
    - Permits & Inspections (2)
    - Customer (2)
    - Civil Inspections (1) [distributed to]
    - Survey Specialist, if needed

14. Direct customer to Zoning/Permits and Inspections for normal over-the-counter review/permit issuance

15. Consultant/Contractor/Owner/Developer requests release of site plans

16. "HOLDS" satisfied?
    - Yes
    - No

17. Plans remain on hold until all "HOLDS" are satisfied

18. Final approval for Administrative Variance?
    - Yes
    - No (minor differences in PPR plan/conditions and site plan)

19. Consultant/Contractor/Owner/Developer meets all required "HOLDS"

20. END Options: Redesign or apply for Board Variance #2

21. City of Virginia Beach Development Services Center
VARIANCE PROCESS FOR SINGLE FAMILY DEVELOPMENT LOCATED IN THE CHESAPEAKE BAY RESOURCE PROTECTION AREA (RPA)

1. **Preliminary Project Review:** Applicant (owner/developer) or consultant contacts the Planning Department/DSC at 385-8277 for a preliminary project review to determine if the proposed plan needs a CBPA variance. In order to make these determinations, staff must have (at a minimum) a copy of a survey, map or other scaled drawing showing the existing improvements and the proposed project. Photographs of the site, including the project area, are very helpful. Staff will ask the applicant to fill out a “Preliminary Project Request (PPR) Form” which asks for a brief description of the project. Staff will provide necessary research of city records and determine if a variance will be required. Staff will then provide the applicant with guidance and the plan requirements, usually in writing, within seven (7) days. The letter will state whether no variance, an administrative variance, or a CBPA Board variance is required. For Administrative Variances, staff will provide a recommendation and suggest appropriate conditions to mitigate any environmental impact on the Chesapeake Bay. This information will be entered in the CBPA variance database. (Return to Flowchart)

2. **Chesapeake Bay Preservation Area (CBPA) Board Variance Requirements:** If the plan must be approved by the CBPA Board, the applicant shall submit fifteen (15) copies of the site plan, one (1) reduced copy of the site plan (8 ½” x 11”), one (1) copy of the Water Quality Impact Assessment (WQIA), an Application for Chesapeake Bay Board Review, and other required information and fees to Current Planning, Room 115. *Note: the final site plan may not be submitted to the DSC for review until after the CBPA Board has granted approval.*

   - The applicant must post a sign on the subject property as part of public notification of the variance application.
   - Current Planning will route the plans for conceptual comments to the following review agencies: Civil Inspections, DSC, Zoning, and Waterfront, as needed.
   - The review agencies will return comments to Current Planning within ten (10) working days, preferably via email.
   - Current Planning (Rick Scarper) will determine whether staff comments are appropriate for inclusion in the CBPA Board package.
   - CBPA Board will take action on the project. Civil Inspections and DSC staff will attend the CBPA Board informal and formal meetings as needed. (Meetings are held on the 4th Monday of each month) (Return to Flowchart)

3. **Administrative Variance Requirements:** If it was determined during the Tuesday PPR meeting that an administrative variance can be considered, staff will provide the applicant
with a staff recommendation and conditions of development. A site plan must then be submitted and reviewed through the Site Plan Review Process for Single Family Sites Located in the Chesapeake Bay Resource Protection Area (RPA). (Return to Flowchart)

SITE PLAN REVIEW PROCESS FOR SINGLE FAMILY SITES LOCATED IN THE CHESAPEAKE BAY RESOURCE PROTECTION AREA (RPA)

4. Site Plan Submittal for Review: After a variance has been granted by the CBPA Board or it is determined by staff that and Administrative Variance may be considered, the applicant will submit the following to the DSC:
   • DSC submittal checklist
   • Thirteen (13) copies of the site plan (“full” or “partial”, depending on proposed improvements), including the landscape/buffer restoration plan
   • Eight (8) copies of the project narrative
   • Two (2) copies of drainage/CBPA calculations (full site plan only)
   • Three (3) copies of the WQIA (Water Quality Impact Assessment)
   • Two (2) copies of Water Resource Recovery Fee Computation Sheet (DFU) (if applicable)
   • Two (2) copies of AWWA Water Customer Data Sheet (Figure 4-5)
   • Review Fee
   • Administrative/Board Variance Fee, if applicable
   • If the plan includes a private sewer force main, two (2) additional copies of plan are required with each submittal

(Return to Flowchart)

5. Intake Process: The DSC technician will login the plan submittal, create the file folder and route the plans. If the plan includes an Administrative Variance request, the technician will prepare the public notification signs and contact the owner for sign pick-up. The site plan package will be distributed for review as follows:
   • Civil Inspections (if applicable):
     □ One (1) site plan, including landscape/buffer restoration plan
     □ One (1) copy of the project narrative
     □ One (1) copy of WQIA
   • DSC engineer:
     □ One (1) site plan, including landscape/buffer restoration plan
     □ One (1) copy of drainage calculations
     □ One (1) copy of the project narrative
     □ One (1) copy of WQIA
   • Current Planning/CBPA:
     □ One (1) site plan, including landscape/buffer restoration plan
     □ One (1) copy of the project narrative
     □ One (1) copy of WQIA
   • Zoning:

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Guide to the Single Family Site Development Process

- One (1) copy of the site plan, including landscape/buffer restoration plan
- One (1) copy of the project narrative
- Waterfront Operations:
  - One (1) copy of the site plan including landscape/buffer restoration plan
  - One (1) copy of the project narrative
- Planning/Management & Support:
  - One (1) copy of the site plan including landscape/buffer restoration plan
  - One (1) copy of the project narrative
- Public Utilities Engineering (if applicable):
  - One (1) copy of the site plan including landscape/buffer restoration plan
  - One (1) copy of the project narrative
  - One (1) copy of the Water Resource Recovery Fee Computation Sheet (DFU)
  - One (1) copy of the AWWA Water Customer Data Sheet (Figure 4-5)
- DSC project coordinator:
  - The file folder and all extra copies of the plans and other submitted information

6. Coordination of the Review: Each review agency will forward their comments to the DSC project coordinator. The DSC project coordinator will write the review letter within five (5) working days after the review agencies comments are due and send it to the applicant's consultant (via fax only) and the owner/developer. If the plan includes an Administrative Variance request, all comments received from concerned citizens regarding the project will be considered (Return to Flowchart)

7. Revised Resubmittal: If the plan was not approved, the consultant will make the necessary revisions and resubmit the plans for review. The resubmittal package shall consist of the following:
   - Thirteen (13) copies of the site plan, including the landscape/buffer restoration plan
   - Two (2) copies of drainage calculations, if revised
   - One (1) copy of Water Resource Recovery Fee Computation Sheet (DFU)
   - One (1) copy of the AWWA Water Customer Data Sheet (Figure 4-5)
   - Eight (8) copies of a letter addressing the City's comments and identifying all of the revisions made to the plan (Return to Flowchart)

8. Plan Routing for Review: The site plan, including the landscape/buffer restoration plan, will be routed to the following initial reviewing agencies: Civil Inspections, DSC engineer, Zoning, Waterfront Operations, Planning/Management and Support, Public Utilities Engineering, as needed. (Return to Flowchart)

9. Site Plan Approval: Each review agency will forward their comments to the DSC project coordinator. If the Administrative Variance is granted, the variance approval will be clearly stated in the review letter, the variance database will be updated and the letter will be placed in the file. The DSC project coordinator will write the approval letter within five (5) working days after the review agencies comments are due and send to the applicant's consultant (via fax only). Copies will be forwarded to the applicant by mail or fax upon request and to the reviewing agencies. (Return to Flowchart)
10. **Street Address:** When the plan is approved, the DSC project coordinator shall contact Planning/Management and Support to obtain the street address on eight (8) copies of the plan. (Return to Flowchart)

11. **Holds:** When the plan is approved, the following are some of the “holds” that may be placed on the release of the approved plan:
   - Submittal of the Responsible Land Disturber (RLD) information and certificate, if applicable
   - Proof of receipt of payment into the Lynnhaven Oyster Fund, if required
   - Posting of a right-of-way surety and issuance of a right-of-way permit, if applicable
   - Posting of an erosion and sediment control surety and obtain a Land Disturbing Activity Permit, if applicable
   - Any other holds as deemed necessary by CBPA Board action or during plan review, e.g., subdivision plat recordation, easement recordation, BZA variance, Encroachment Agreement, Waterfront permit, etc.
   (Return to Flowchart)

12. **Site Plan Distribution:** Upon approval (not release), copies of the site plan will be distributed to:
   - **Civil Inspections:** one (1) copy of the approved site plan including landscape/buffer restoration plan and approval letter
   - **Public Utilities Engineering:** four (4) copies of the approved site plan, including landscape/buffer restoration plan and approval letter
   - **Current Planning (Rick Scarper):** one (1) copy of the approved site plan including landscape/buffer restoration plan and approval letter
   - **DSC File:** one (1) copy of approved site plan including landscape/buffer restoration plan, approved drainage calculations (if not on plans), approval letter, and all other correspondence pertaining to the site
   (Return to Flowchart)

13. **Site Plans Released:** Upon satisfaction of the holds,” the plans will be released to the applicant and the plans will be distributed as follows (a copy of the approval letter will be attached to each plan):
   - **Applicant:** receives a total of four (4) copies of the approved site plan, including the landscape/buffer restoration plan; two (2) copies for Permits & Inspections and two (2) copies for applicant's use
   - **Civil Inspections:** distributed one (1) copy of the approved site plan, including landscape/buffer restoration plan (in addition to step 12 above) and copies of all sureties, permits and the RLD information and certificate, if applicable
   - **DSC/Surety Specialist:** if the project involves sureties, a plan will be placed in a separate surety file and current established procedures for commercial site plan sureties will be followed
   (Return to Flowchart)
CRITERIA FOR DETERMINING TYPE OF SITE PLAN REQUIRED (FULL OR PARTIAL) FOR PROPOSED IMPROVEMENTS IN THE RPA (Single Family Sites Only)

All construction requires a site plan be submitted to the Planning Department/Development Services Center (DSC) for review and approval prior to receiving a building permit. General guidelines for determining which type of site plan is suitable are listed below. The Planning Department staff will determine whether a full or partial site plan will be required during the review of the Preliminary Project Request (PPR).

**Full Site Plan** will be required for any improvements located on a slope of highly erodible soils (≥6%)

**Full Site Plan** may be required for the following construction and/or land disturbance regardless of the slope or presence of highly erodible soils:
- Demolition
- Pool (requiring excavation)
- Wooden deck on open piles (greater than 400 sq. ft.)
- Accessory structure (shed, gazebo, detached garage, etc.) that include a permanent foundation and/or exceed 400 sq. ft.
- Principal structure (dwelling, commercial building, etc.)
- Building addition
- Driveway or parking lot
- Regrading and/or fill
- Dredge spoil site
- Other similar construction activities

**Partial Site Plan** may be required (in lieu of Full Site Plan) for the following:
- Accessory structure such as (gazebo, shed, carport, above ground pool with no excavation, deck) 400 sq. ft. or less with minimal or no permanent foundation
- Paved walkway
- Extensive landscaping
- Removal of trees
- Wharf or paved or wooden walkway along the waterfront
- Water dependent facilities
- Second story addition
- Other similar construction activities
Appendices
City of Virginia Beach
Development Services Center

**PRELIMINARY PROJECT REQUEST** Form *(PPR)* Submittal

Date: ________________________________

Applicant: ________________________________________________________________________________________________

Address: __________________________________________________________________________________________________

Phone: ___________________________________________ Fax: ___________________________________________________

Owner’s Name, Address & phone (if different from applicant):  ______________________________________________________

Project Name & Address: ____________________________________________________________________________________

Has a CBPA Variance been granted on this property?    Yes     No     Unknown
If yes:   Board Variance Date: _________________________ Administrative Variance Date: _______________________

Have you spoken with anyone? If so, whom? _____________________________________________________________________

The following items are required with this request:

☐ Two (2) copies of Map or Survey with proposal shown
☐ Photos

NOTE: The total review time is 4 days from the date of the PPR Meeting.

**Description of Project (check all that apply)**

- Enclosed Building Addition
- Porch (open or screened)
- Sunroom
- Pool
- Deck
- Shed
- Detached Garage
- Carport
- Driveway
- Generator Pad
- Patio and/or sidewalk
- Sewer, water and/or drainage pipes
- New Building Construction
- Fill and/or grading
- Retaining Wall
- Landscaping
- Bulkhead, riprap, dock and/or pier
- Demolition
- Tree Removal
- Subdividing Property
- Gazebo
- Clearing
- Other (explain below)

**Brief Description of Project (include dimensions):**

_________________________________________________________________________________________________________
Checklist for SINGLE FAMILY SITE PLAN IN RPA PACKAGE Submittal

Date: __________________________________

Consulting Firm: ___________________________________________________________________________________________

Contact Person: _______________________________________  Phone: _________________________ Fax: _________________

Owner or Developer: ________________________________________________________________________________________

Owner/Developer's Address: __________________________________________________________________________________

Plan Title: _________________________________________________________________________________________________

The following items are required in the RPA Single Family Site Plan submittal package. Each item must be included or the submitted package will be rejected and returned to the consultant without review or comment.

☐ Transmittal Letter
☐ Eight (8) copies of the Project Narrative -
   A letter which explains the project. The letter must include a summary of the project parameters, variances requested or previously granted, previous City Council or Planning Commission action, proffers, prior agreements (written or verbal), and any other items which will help determine the appropriate review action required for the project.
☐ Thirteen (13) folded copies of the complete Site Plan, including the landscape/buffer restoration plan (Additional copies of the plan may be required after plan Approval)
☐ Two (2) copies of Drainage/CBPA Calculations (full plan)
☐ Three (3) copies of Water Quality Impact Assessment (WQIA)
☐ Two (2) copies of Water Resource Recovery Fee Computation Sheet (DFU) (if applicable)
☐ Two (2) copies of AWWA Water Customer Data Sheet (Figure 4-5)

Review Fee: Full Plan $280.00 Partial Plan $135.00 - Make check/money order payable to Treasurer, City of Virginia Beach - Check # ___________________

Has CBPA Variance Been Granted by Board?   ____Yes   ____No
If yes, what was the date of the hearing? _______________

Is Administrative Variance Needed?  Yes   No  (If Yes, attach copy of the PPR, Preliminary Project Request Letter)
☐ Administrative Variance Fee $150.00 – Check # ___________________

Water Tap Installation:
   ___ City of Virginia Beach
   ___ Developer/Owner
   ___ Not Applicable

Sanitary Sewer Installation:
   ___ City of Virginia Beach
   ___ Developer/Owner
   ___ Not Applicable

Has there been any discussion with City staff regarding this project?   ____Yes   ____No
If yes, with whom?_____________________________________________________________________
Items discussed:_____________________________________________________________________

City of Virginia Beach
Development Services Center

Guide to the Single Family Site Development Process
CHESAPEAKE BAY PRESERVATION AREA
WATER QUALITY IMPACT ASSESSMENT

Applicant’s Name: _______________________________________________________________

Applicant’s Telephone Number: _____________________________________________________

Property Address: ________________________________________________________________

Geographic Property Identification Number (GPIN): _________________________________________
(Please call the Department of Public Works for GPIN information at 385-1819)

CITY MAP GRID (determined by city staff): Letter _____________ Number ____________

IN THE SPACE BELOW, PLEASE DESCRIBE THE PROPOSED PROJECT:
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________

PLEASE CHECK ALL OF THE FOLLOWING INFORMATION WHICH APPLIES TO YOUR PROJECT:

PROJECT LOCATION:
☐ Resource Management Area (RMA)
☐ Resource Protection Area (RPA)
    ☐ Landward 50 Feet of Buffer Area
    ☐ Seaward 50 Feet of Buffer Area
    ☐ Slopes Exceeding 6% Grade (Highly Erodible Soils)
☐ Variable Width Buffer (landward of 50’ landward buffer)

PROJECT DESCRIPTION:
☐ Deck
☐ Addition
☐ Pool
☐ New House
☐ Commercial
☐ Multi-family residential
☐ Industrial
☐ Other: ______________________________

WILL THE PROJECT REQUIRE ANY OF THE FOLLOWING?
☐ Excavation
☐ Filling
☐ Grading
MATERIALS TO BE USED TO COVER LAND SURFACE:
- Wood
- Brick
- Concrete
- Asphalt
- Paving Blocks
- Other: ____________________________________________________________
- Gravel
- Stone
- Porous Paving
- Roof
- Pool

EXISTING SITE CONDITIONS:
- Heavily Wooded
- Understory/brush
- Sparsely Wooded
- Leaves/needles
- No Trees
- Bare Soil
- Marsh/Swamp
- Eroding soils/shoreline
- Stream
- Waterfront Property
- Ravine or Ditch
- Paved
- Grass
- Other: ____________________________________________________________

IMPACTS ON EXISTING VEGETATION:
- Number of trees to be removed
- Approximate square footage of canopy to be removed
- Approximate Square Footage of Understory/Brush/Leaves/Needles to be removed
- Number of Trees To Be Heavily Pruned
- Number of Dead, Dying or Diseased Trees to be removed
- Other: ____________________________________________________________

PROPOSED METHODS TO MINIMIZE SITE IMPACTS:
- Silt Fence
- Tree Protection/Barriers
- Limit Construction Activity To Flat Areas of Site
- Single Construction /Access Way
- Stockpile Construction Materials and Debris on Hard Surfaces
- Construction Entrance
- Barriers To Define Limits of Construction Activity/Land Disturbance
- New Structure Situated On Lot So As To Minimize The Encroachment Into the Resources Protection Area
- Multi-story Building
- Any other Methods, Please Describe: _________________________________________

PROPOSED MITIGATION MEASURES:
- Extensive Buffer Area Enhancement with Vegetation and Natural Ground Cover Consisting of:
  - Trees
  - Shrubs
  - Ground Cover of Pine Needles
  - Ground Cover of Mulch
Ground Cover of Leaves

- Number of New Trees Proposed
- Number of New Shrubs Proposed
- Square Feet of Buffer Restoration

Best Management Practices Utilized:
- Infiltration Planting Bed
- Dry Well
- Grass Swale
- Check Dam
- Oil/grit separator
- Wet Retention Pond
- Extended Dry Pond
- Bioretention
- Structural
- Other: _____________________________________________________________

Erosion and Sediment Control Structures Utilized:
- Gravel Dripline Intercept
- Gravel Downspout Intercept
- Sand and Gravel Under Deck Treatment
- Other: _____________________________________________________________

PLEASE DESCRIBE THE STEPS TO BE TAKEN FOR PROJECT CONSTRUCTION INCLUDING ANY PROTECTION AND MITIGATION MEASURES PROPOSED ALONG WITH THE CONSTRUCTION SEQUENCE OF THE PROJECT: Example: obtain permits, install silt fence and tree protection, build house, plant new trees, etc.
_______________________________________________________________________________
_______________________________________________________________________________

ARE YOU SEEKING OR HAVE YOU ALREADY OBTAINED PERMITS FROM OTHER LOCAL, STATE OR FEDERAL AGENCIES IN CONJUNCTION WITH THIS PROJECT? IF YES, PLEASE DESCRIBE: ____________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________

CAN YOU AVOID LOCATING THE PROJECT ON THE MOST SENSITIVE PORTION OF THE SITE AND IS THERE A SUITABLE AREA ON THE SITE TO DO SO?

- YES
- NO

IF YES DESCRIBE WHY THIS PROJECT DESERVES SPECIAL CONSIDERATION AND WHY AN ALTERNATIVE LOCATION IS NOT FEASIBLE:
_______________________________________________________________________________
_______________________________________________________________________________
_______________________________________________________________________________
PLEASE CIRCLE THE NUMBER THAT BEST DEPICTS THE GRADE/SLOPE OF THE YARD AND DRAW THE APPROXIMATE LOCATION OF YOUR PROPOSAL:

Example:

1. Flat Ground
2. Steep Slope
3. Flat - Steep - Flat
4. Steep - Flat
5. Gradual Incline
6. Gradual Incline - Flat
7. Other
PARTIAL SITE PLAN SUBMITTAL PACKAGE REQUIREMENTS

A Partial Site Plan is for review and approval of certain small, minimally land disturbing improvements proposed in the RPA, as determined by Planning Department staff during the preliminary project review.

The review time for partial site plans is approximately three (3) weeks. The following items are required to be submitted to the DSC for partial site plan submittals:

1. DSC submittal checklist
2. Thirteen (13) copies of a current, accurate survey of the entire property prepared in accordance with Virginia Law pertaining to Physical Improvements Surveys, and also containing the following minimum information:
   - Sealed, Signed and Dated (on each sheet) by a Professional duly licensed in the Commonwealth of Virginia, to perform such work
   - The owner’s name, address, phone number and fax number
   - Property lines, with bearings and distances or curve information
   - Locations of all existing improvements on the property, including all buildings and other manmade structures, paved surfaces, visible utilities
   - Location of the edge of the perennial waterbody, tidal wetlands, tidal shore, and/or contiguous non-tidal wetlands (RPA feature)
   - Location of the 50-foot seaward portion of the buffer
   - Location of the 50-foot landward portion of the buffer
   - Location of the top of the bank (>6% slope), if present
   - Location of the RMA (100’ landward of the top of bank)
   - Layout and dimensions of the proposed improvements
   - Trees near or within the area of construction and construction access path
   - Construction access path
   - Erosion and sediment control measures
   - Tree protection
   - Square footage of canopy to be removed
   - Required Notes for Single Family Site Plans in the RPA
   - Buffer restoration and tree mitigation is site specific, and as required by staff or CBPA Board
3. Eight (8) copies of the Project Narrative
4. Three (3) copies of the Water Quality Impact Assessment
5. A copy of the Preliminary Project Request Letter from Planning Department
6. Review fee for partial site plans: $135.00
7. If an Administrative Variance is required, an additional Variance fee of $150.00 is required. In addition, public notification signs for Administrative Variances are required to be posted on the property. Signs may be obtained from the DSC after the submittal package is accepted for review. DSC staff will contact the owner when the signs are ready to be picked up. Signs must be posted for at least 15 days prior to approval of the site plan.
FULL SITE PLAN SUBMITTAL PACKAGE REQUIREMENTS FOR
SINGLE FAMILY SITE PLANS IN THE RPA

A Full Site Plan is for review and approval of most projects in the RPA, as determined by Planning Department staff during the preliminary project review.

The review time for full site plans is approximately three (3) weeks. The following items are required to be submitted to the DSC for full site plan submittals:

1. DSC submittal checklist
2. Three (3) copies of the Water Quality Impact Assessment
3. Eight (8) copies of the Project Narrative
4. Two (2) copies of the drainage/CBPA calculations
5. Two (2) copies of Water Resource Recovery Fee Computation Sheet (DFU) (if applicable)
6. Two (2) copies of AWWA Water Customer Data Sheet (Figure 4-5)
7. A copy of the Preliminary Project Request Letter from Planning Department
8. Review fee for full site plans: $280.00
9. If an Administrative Variance is required, an additional Variance fee of $150.00. In addition, public notification signs for Administrative Variances are required to be posted on the property. Signs may be obtained from the DSC after the submittal package is accepted for review. DSC staff will contact the owner when the signs are ready to be picked up. Signs must be posted for at least 15 days prior to approval of the site plan. If a CBPA Board Variance was required, an additional Variance fee of $250.00.
10. Thirteen (13) copies of a site plan containing the following information:
   - Sealed, Signed and Dated (on each sheet) by a Professional duly licensed in the Commonwealth of Virginia, to perform such work
   - Name, address and phone and fax numbers of consulting firm
   - Name, address and phone and fax numbers of owner/developer
   - A blank space for City approval stamps, measuring 8”x 6” on the right hand side of the first sheet of the set of plans
   - A title block that clearly states the legal description (lot, block, subdivision name, or other defining name, etc.) of the property

   Note: Sites containing more than one lot normally require a resubdivision plat to vacate interior lot lines.
   - Property lines, complete with metes and bounds information, street names and north arrow
   - Approximate or exact street tie to the next improved street (for field location purposes)
   - Location Map
   - Graphic and/or written scale
   - Lot numbers or other property designations on the site and all adjoining sites.
   - Current topographic survey, including (but not limited to):
     - all existing building structures, walls, fences and other improvements on site, and on adjoining sites if within ten (10) feet of the property lines
     - Elevation Based on the NAVD 1988 Datum
     - Elevations sufficient to determine the drainage patterns on site and on

Chesapeake Bay Resource Protection Area (RPA)
adjoining sites
- locations and elevations of the adjoining street pavement, shoulders, ditches, drainage systems, upstream and downstream driveway pipes (see DSC notice #115)
- location and sizes of water mains, sewer mains and other utilities
- location of existing water meters and sewer cleanouts, fire hydrants, streetlights, power poles, power lines, transformers, telecommunications boxes, etc.
- locations, sizes and species of significant trees on and adjoining the site that will effect or be effected by the proposed construction
- existing septic tanks, drainfields and wells
- tidal wetlands and tidal shores
- top of bank (top of slopes 6% or greater) and toe of slope
- non-tidal wetlands
- edge of tributary streams

☐ Proposed improvements on the site including:
- Building footprint, upper floor overhangs, chimneys, porches, decks, steps, attached sheds, accessory buildings, etc.
- Building dimensions (to 0.1')
- Setback distances from the right of way line and other property lines to the building (to 0.1')
- Driveway and parking areas
- Sidewalks
- All Impervious Surfaces
- Trees (in accordance with Appendix E of the City Code, Tree Planting, Preservation and Replacement Ordinance and in accordance with the CBPA Board conditions if applicable)
- Walls and fences
- Stormwater management improvements - gutters and downspouts, swales, pipes, trenches, inlets, SWMF’s, etc.
- Proposed septic tanks and drainfields
- Proposed wells

☐ Proposed improvements in the right of way, including:
- driveway apron
- street sidewalk
- curb and gutter
- pavement widening
- ditches or swales
- drainage structures and pipes
- shoulders

Note: major right of way improvements will require a separate plan submittal

☐ Proposed elevations, grading and drainage on and adjoining the site, including:
- finished floor elevations of the lowest floor or floors in the house
- finished floor elevation of the garage (attached and detached garages)
- finished grades at the primary corners of the house, garage, accessory structures, pool decks, etc.
finished grades on the driveway apron at right of way line and edge of pavement
finished grades along all property lines
top and toe of fill and/or cut slopes
limits of fill and/or cut
top of wall elevations and finished grade elevations on both sides of the wall
locations & elevations of HVAC pads
locations, sizes and elevations of drainage swales, trench drains, infiltration facilities, roof gutter downspouts, etc.
connection of site drainage to a public or privately maintained drainage facility
elevations of street improvements (edge of pavement widening, curb and gutter, ditches, drainage facilities, etc.)

Proposed utility connections, including:
- locations of the nearest upstream and downstream sanitary sewer manholes with rim and invert elevations of the connecting main
- locations of existing water and/or sanitary sewer mains and sizes
- locations of proposed or existing water and/or sanitary sewer taps and sizes
- locations of proposed or existing water meters and/or sanitary sewer cleanouts
- provide rim and invert elevations of proposed sanitary sewer cleanout
- show known and potential conflicts, e.g., stormwater pipes/structures and private utilities
- provide DFU counts
- provide AWWA “combined fixture unit values” counts
- provide proposed water meter size

Note: major utility improvements will require a separate plan submittal

Clearly show and label the 50’ seaward buffer, the 50’ landward buffer, the top of the 6% slope (if applicable) and the landward limit of the variable width buffer (measured 100’ from the top of slope).

Clearly show and label the RPA feature from which the buffer is measured. (mean high water, tidal wetlands, non-tidal wetlands, etc.)

Clearly show and label the Limits of Land Disturbance.

The Limits of Land Disturbance must be delineated with heavy-duty construction fencing.

All erosion control methods must be clearly shown on the plan. (Standard details are not required)

Construction entrance. (12’ x 30’ minimum)

Tree Protection (must be heavy duty construction fencing)

Inlet Protection if applicable

Silt Fence (36” heavy duty orange silt fence)

Vehicular access areas

Stockpile (or note if none)

Staging areas

Landscape Plan/Buffer Restoration Plan including:
- Existing trees and vegetated areas
- Outline of all proposed improvements, including SWMF’s
Guide to the Single Family Site Development Process

- Limits of land disturbance
- Number of Trees to be saved
- Number of Trees to be removed
- Proposed planting plan
- Plant schedule

□ Tabulate:
- Number of trees removed
- Number of trees planted
- Square feet buffer restoration required
- Square feet buffer restoration provided

□ Required Notes for Single Family Site Plans in the RPA
□ CBPA Board or Administrative Variance Approval Date
- List of Conditions of Variance Approval

Required Details:

□ SWMF details:
Include the following note with the detail:
“If encountering unsuitable, poorly drained or very poorly drained soils during the installation of a SWMF, excavate to a sand layer and backfill with sand or stone to the bottom of the design elevation of the SWMF, at the direction of City Inspector.”

□ Retaining wall details:
Include the following note with the detail:
“The City of Virginia Beach does not review retaining walls for structural integrity. The owner/developer agrees to hold The City of Virginia Beach harmless in the event of a failure.”

If the retaining wall is three feet (3’) high or higher, the detail must be certified by a Professional Engineer or Architect licensed in Virginia.

□ Private Sewer Force Mains:
- An encroachment agreement is required for the portion of the private sanitary sewer within the public right of way or easement. Contact Public Works Real Estate at 385-4161 for an encroachment application.
- Provide a detail of the City of Virginia Beach standard saxophone connection on the plan, if connecting to an existing public sewer manhole.
- If connecting to an existing city or HRSD force main, provide PU Detail #13.
- Show the entire length of the force main, including the gravity manhole to which it will be discharging. In some instances, a profile will be required.
- Show the discharge rate of the private pump station in GPM and the TDH.
- Provide the following note: “The DSC office does not review private pump stations. The owner/builder must consult with the Virginia Department of Health and City of Virginia Beach Permits and Inspections Office on this matter”
- If the force main will be plastic or any other non-metallic pipe, provide a note on the plans to provide tracer wire for the entire length of the force main within the right of way.
- Provide a note that states: Provide two (2) coats of Sika 62 or Sika Hi Build to the interior walls of the receiving gravity sanitary sewer manhole.

Chesapeake Bay Resource Protection Area (RPA) 25
REQUIRED NOTES FOR SINGLE FAMILY SITE PLANS IN THE RPA
For use on FULL and PARTIAL Site Plans

The following notes are required in this order (separate any other notes from these on the plan):

1. The subdivision plat for this property was recorded in (map book & pages, deed book & pages or instrument numbers).
2. GPIN:______________________
3. Zoning:_____________________
4. Proposed Number of Dwelling Units: _______
5. Number of ERU's:_________
6. The property falls in the___________________Watershed. (Chesapeake Bay, Southern, Owls Creek, Atlantic Ocean)
7. The property does/does not fall in a Special Flood Hazard Area as shown on the FEMA NFIP FIRM for the City of Virginia Beach, Community-Panel Number 51553-__________, dated __________. The property falls in Flood Zone(s) _______. Base Flood Elevation (if applicable)_____ (NGVD 1929). The proposed dwelling is/is not located in a special flood hazard area.
8. The property does/does not fall in Floodplains Subject to Special Restrictions (refer to Site Plan Ordinance, Section 5B.5(c))
9. The lowest proposed floor elevation, including basements and attached garages, is at least one foot above the one-hundred year base flood elevation as adopted by the City of Virginia Beach.
10. This Plan is based on the NAVD 1988 Datum. The City of Virginia Beach control reference point used for the survey and design of this plan is #__________, Elevation _______.
11. The lot grading on this plan is in accordance with the latest subdivision construction plan submitted to and approved by the Director of Planning or his designee on ___________________. (Use N/A if not applicable)
12. Sidewalks are/are not required per the approved subdivision plans.
13. This site lies within aircraft Accident Potential Zone _____ and/or Clear Zone and/or Noise Zone(s)____ db and may be subject to aircraft accidents and/or above average noise levels due to its proximity to airport operations. Noise zone attenuation measures for new construction are required in accordance with the airport noise attenuation and safety ordinance and height restrictions have been imposed in accordance with Section 202(b) of the City Zoning Ordinance.
14. All erosion and sediment control measures shall be in accordance with the Virginia Erosion and Sediment Control Handbook, and as required by the city's inspectors.
15. Any and all material or debris tracked onto a public or private road surface will be removed at the end of each day. Sediment will be removed from roads by shoveling or sweeping, and will be transported to a sediment controlled disposal area.
16. All excavated material shall be disposed of in a lawful manner.
17. Area of site:_______________ sq.ft. __________________ acre(s)
18. Area of site outside of water and tidal wetlands:_______________ sq.ft.
19. Impervious Area calculations:
   Pre-development impervious area:_______ sq.ft. ___________ % of site
Post-development impervious area: _________ sq.ft. _________ % of site

20. Area of Land Disturbance: _________ sq.ft. _________ acre(s)

21. Residential tree calculation: _________ sq.ft. required
   _________ sq.ft. provided
   \textit{(refer to Tree Planting, Preservation and Replacement Ordinance)}

22. Sequence of Construction: \textit{(Site specific)}
   All construction sequences will contain the following first two steps:
   \begin{itemize}
   \item A. Obtain all required permits; and
   \item B. Hold a pre-construction meeting on-site with the Civil Inspector, if required.
   \end{itemize}

23. Revegetation/seeding schedule: \textit{(Site specific)}

24. Silt Fence shall be installed in accordance with State Standard and Specification 3.05

25. ALL LAND DISTURBING ACTIVITIES MUST CONFORM WITH THE
    APPLICABLE REGULATIONS OF THE CITY OF VIRGINIA BEACH CODES,
    ORDINANCES, AND PUBLIC WORKS SPECIFICATIONS AND STANDARDS
    AND THE VIRGINIA DEPARTMENT OF CONSERVATION AND
    RECREATION EROSION AND SEDIMENT CONTROL HANDBOOK. THE
    CONTRACTOR SHALL EXERCISE EVERY REASONABLE PRECAUTION,
    INCLUDING THE APPLICATION OF TEMPORARY AND/OR PERMANENT
    MEASURES DEEMED NECESSARY BEFORE, DURING AND AFTER
    CONSTRUCTION TO CONTROL EROSION AND PREVENT OR MINIMIZE
    SEDIMENT RUNOFF. THE PLANNING DEPARTMENT/PERMITS AND
    INSPECTIONS DIVISION SHALL ENFORCE THESE REQUIREMENTS. THE
    CITY INSPECTOR RESERVES THE RIGHT TO REQUIRE OTHER MEASURES
    NOT SPECIFICALLY DESCRIBED HEREIN TO CORRECT ANY EROSION OR
    Siltation Condition.

26. If required, AFTER OBTAINING ALL REQUIRED PERMITS, AND AT LEAST
    48 HOURS PRIOR TO ANY LAND DISTURBING ACTIVITY, THE
    CONTRACTOR SHALL CONTACT CIVIL INSPECTIONS AT 385-4558 TO
    SCHEDULE A PRECONSTRUCTION MEETING. FAILURE TO CONTACT
    CIVIL INSPECTIONS PRIOR TO ANY LAND DISTURBING ACTIVITY MAY
    RESULT IN A STOP WORK ORDER OR OTHER LEGAL ACTION.
**SIZING WATER SERVICE LINES AND METERS**

**CITY OF VIRGINIA BEACH**

**Water Customer Data Sheet**

<table>
<thead>
<tr>
<th>Fixture</th>
<th>Fixture Value</th>
<th>No. of Fixtures</th>
<th>Fixture Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bathtub</td>
<td>8</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Bedpan Washers</td>
<td>10</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Bidet</td>
<td>2</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Dental Unit</td>
<td>2</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Drinking Fountain - Public</td>
<td>2</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Kitchen Sink</td>
<td>2.2</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Lavatory</td>
<td>1.5</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Showerhead (Shower Only)</td>
<td>2.5</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Service Sink</td>
<td>4</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Toilet - Flush Valve</td>
<td>35</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>- Tank Type</td>
<td>4</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Urinal - Pedestal Flush Valve</td>
<td>35</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>- Wall Flush Valve</td>
<td>16</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Wash Sink (Each Set of Faucets)</td>
<td>4</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Dishwasher</td>
<td>2</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Washing Machine</td>
<td>6</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Hose (50 ft Wash Down) - 1/2 in.</td>
<td>5</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>- 5/8 in.</td>
<td>9</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>- 3/4 in.</td>
<td>12</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

**Combined Fixture Value Total**

Customer Peak Demand From Fig. 4 - 2 or 4 -3 x Press. Factor = ______ gpm

Add Irrigation - ______ Sections^ x 1.16 or 0.40+

- ______ Hose Bibs x Fixture Value x ______ Press. Factor = ______ gpm

Added Fixed Load

**TOTAL FIXED DEMAND**

= ______ gpm

---

* 100 ft^2 area = 1 section
+ Spray Systems- Use 1.16, Rotary systems- Use 0.40

**Figure 4-5 Water customer data sheet**

Source: AWWA M22 Sizing Water Service Lines and Meters (Jan. 2004)

<table>
<thead>
<tr>
<th>Fixture/Source</th>
<th>Fixture Units</th>
<th>No. of Fixtures</th>
<th>Total Fixture Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bathroom Groupings Consisting of:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Bath – 1 water closet, 1 lavatory, 1 bathtub or shower stall, 1 Bidet</td>
<td>5.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>½ Bath – 1 water closet, 1 lavatory</td>
<td>4.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Bathtub</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Bidet</td>
<td>1.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Combination sink and tray w/food grinder</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Combination sink and tray w/1&quot; to 1 ¼&quot; trap</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Dental Lavatory/Lavatory</td>
<td>1.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Dishwasher (commercial)</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Drinking fountain</td>
<td>0.5</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Ice cream machines w/dipper wells</td>
<td>0.5</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Ice machines/free standing (residential/commercial)</td>
<td>1.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Kitchen sink, domestic (1 ¼&quot; trap and grinder)</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Lavatory (1 1/4&quot; trap)</td>
<td>1.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Showers, domestic or per head</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td><strong>Sinks:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bar</td>
<td>1.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Flushing rim (w/valve)</td>
<td>6.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Laundry or wash sink (1 ½&quot; trap)</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>P trap (mop sink 3&quot; trap)</td>
<td>5.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Pot, scullery, etc. (large 3 or 4 comp. sink)</td>
<td>4.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Service (small 3 comp. sink)</td>
<td>3.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Shampoo/barber</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Slop (3&quot;) trap</td>
<td>5.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Surgeon's</td>
<td>3.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Urinal, Wall - Regular</td>
<td>4.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Urinal - 1 gal or less</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Washing Machine (Commercial)</td>
<td>3.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Washing Machine (Residential)</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td><strong>Water Closet:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flusheometer Tank (Private/Public)</td>
<td>4.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Private Use</td>
<td>3.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>Public Use (Lobby Area)</td>
<td>4.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td><strong>Unlisted Fixture or Trap Size:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Floor Drain w/2&quot; waste</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>1 1/4&quot; or less</td>
<td>1.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>1 ½&quot;</td>
<td>2.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>2&quot;</td>
<td>3.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>2 1/2&quot;</td>
<td>4.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>3&quot;</td>
<td>5.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td>4&quot;</td>
<td>6.0</td>
<td>x</td>
<td>=</td>
</tr>
<tr>
<td><strong>NO CHARGE FOR HUB DRAINS OR CONDENSATE DRAINS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emergency Floor Drain (2&quot; Trap)</td>
<td>0.0</td>
<td>x</td>
<td>=</td>
</tr>
</tbody>
</table>

**GRAND TOTAL OF FIXTURE UNITS**

Source: Uniform Statewide Building Code as Amended by the City of Virginia Beach  January 2007

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**Guide to the Single Family Site Development Process**

Chesapeake Bay Resource Protection Area (RPA)  29
Chesapeake Bay Preservation Area Administrative Variance Sign Posting Instructions & Information
(Please retain for your reference)

**FAILURE TO FOLLOW AND ADHERE TO THESE INSTRUCTIONS WILL RESULT IN THE DENIAL OR DEFERRAL OF YOUR APPLICATION**

PURPOSE:
Section 110(B) of the Chesapeake Bay Preservation Area Ordinance requires that:

"The applicant shall cause to be posted on the property which is the subject of the application a sign of a size and type similar to those required for Board variances."

The purpose of the sign is to notify the public that a request for an administrative variance has been filed and that public comment may be submitted to the City concerning the request. This constitutes the only public notice given for administrative variances. Therefore, the posting of the sign is extremely important and must be taken seriously by the applicant.

Instructions:

1. The applicant must post the sign, **not less than fifteen (15) days** prior to the time that an Administrative decision is rendered, and must remain in place until after the decision is rendered. The sign must be removed **no later than five (5) days** after the Staff action.

2. The applicant must post the signs, provided by the Planning Department, on the property, **within 10 feet of every public street**, on the shoreline, and must be clearly visible. (See sketch)

3. The sign must remain posted at all times during the 15 days prior to the application being acted upon. We strongly advise you to check each day to be sure the sign(s) is in place. If
you need a new sign, contact the Planning Department immediately at 385-4621 to arrange to have a sign picked up.

**Example:**

![Diagram of a sign posted at each street and waterway]

4. **The posting of the sign for at least 15 days prior to the application being acted upon is the responsibility of the applicant.** FAILURE TO INSURE THAT THE SIGN(S) IS POSTED AND REMAIN IN PLACE CAN, AND LIKELY WILL, RESULT IN DEFFERAL OF THE APPLICATION OR DENIAL.

   Section 110(B) notes "in the even that such sign is removed, obscured, otherwise rendered illegible or the City Manager determines that the requirements of this section have not been met prior to the application being acted upon, he/she may deny or defer the application".

5. To insure that the sign(s) are posted in such a manner that they remain in place against storm events or potential vandalism, we strongly recommend that you secure the sign on a sturdy post with large nails or screws and anchor the post in the ground with concrete or similar semi-permanent anchoring material. Another mounting method which has been successful, is to mount the sign in the ground by running two or three metal rods through the thickness of the sign along its length leaving up to half or third of the rod's length sticking out of the bottom of the sign and then inserting the portion that sticks out of the sign into the ground (similar to the way in which some "House for Sale" signs are mounted). In any case, do not forget to check to make sure the sign is in place during the 15 days.

   *For detailed legislation concerning this and similar issues, see Section 110(B) of the Chesapeake Bay Preservation Area Ordinance.*

(Return to Flowchart)
NOTE:

1.) BREAK UP EXISTING SOIL WITH A SHOVEL OR RAKE BEFORE INSTALLING SAND AND STONE.

2.) INSTALL SAND AND GRAVEL UNDER ENTIRE DECK AREA, EXCEPT AS SHOWN NEAR HOUSE.

3.) SEE PLAN FOR SIZE, LOCATION, MATERIALS, AND DETAILS OF DECK.

4.) THIS DETAIL IS FOR RESIDENTIAL APPLICATIONS ONLY.
NOTES:

- Depth dependent on depth to seasonal high ground water table and on the type of vegetation desired.
- Seasonal high ground water level must be at least 2 feet from bottom of bed.
- Stormwater flow must sheetflow to the bed.
- The slope into the bed from the side should be between 0.5% & 1% to ensure positive drainage to maintain sheetflow.
- Bed can only be used if proper soil types exist on the site. An actual field exploration may be required.
- Bed must be at least 10 feet from the foundation of structure.
- An emergency overflow berm must be placed downslope of the bed.
- Maintenance of the bed is the sole responsibility of the homeowner.
- The bed should not be installed until during final lot grading, otherwise it can become clogged or compacted.
- This detail is the minimum cross section necessary to meet C.B.P.A. requirements. The required length of the bed depends on the required storage volume. Larger beds than required may also be installed.
- Bed should be 3" higher on ends to prevent water running around the end.
- 3" depression must be maintained by the homeowner.
- For drainage / abpo calculation purposes, assume a 40% void space for storage.
- Bioretention/planting bed should be placed along a single contour / elevation so that runoff does not become concentrated.
- Bed should be placed above 5' MSL to prevent inundation during most high tide events.
- Bed may be planted with ground covers and shrubs.