

COLUMBIA COUNTY  
LAND DEVELOPMENT SERVICES

COURTHOUSE  
230 STRAND  
ST. HELENS, OREGON 97051  
(503) 397-1501

General Application

File No. \_\_\_\_\_

**GENERAL LAND USE PERMIT APPLICATION**

**TYPE OF PERMIT:** \_\_\_\_\_ Zone Change \_\_\_\_\_ Temporary Permit  
 X  Site Design Review \_\_\_\_\_ Resource Management Plan

Other: \_\_\_\_\_

**APPLICANT:** Name: Next Renewable Fuels, Inc., Attn: Gene Cotten

Mailing address: 11767 Katy Freeway, Suite 705 Houston, Texas 77079

Phone No.: Office (661) 201-2653 Home \_\_\_\_\_

Are you the \_\_\_\_\_ property owner?  X  owner's agent?

**PROPERTY OWNER:** \_\_\_\_\_ same as above, OR:

Name: Port of Columbia County

Mailing Address: PO Box 190, Columbia City, OR 97018

**PROPERTY ADDRESS** (if assigned): 81009 Kallunki Rd Clatskanie, Oregon

**TAX ACCOUNT NO.:** 8422-00-00100 Acres: 52.7 Zoning: RIPD

8422-00-00200 Acres: 30.6 Zoning: RIPD

\_\_\_\_\_ Acres: \_\_\_\_\_ Zoning: \_\_\_\_\_

**PRESENT USES:** (farm, forest, bush, residential, etc.)

Use: \_\_\_\_\_ Approx. Acres

Vacant & wetlands \_\_\_\_\_ 83

\_\_\_\_\_

\_\_\_\_\_

Total acres (must agree with above): \_\_\_\_\_ 83

COLUMBIA COUNTY  
LAND DEVELOPMENT SERVICES

COURTHOUSE  
230 STRAND  
ST. HELENS, OREGON 97051  
(503) 397-1501

General Application

File No. \_\_\_\_\_

**GENERAL LAND USE PERMIT APPLICATION**

**TYPE OF PERMIT:** \_\_\_\_\_ Zone Change \_\_\_\_\_ Temporary Permit  
 X  Site Design Review \_\_\_\_\_ Resource Management Plan

Other: \_\_\_\_\_

**APPLICANT:** Name: Next Renewable Fuels, Inc., Attn: Gene Cotten

Mailing address: 11767 Katy Freeway, Suite 705 Houston, Texas 77079

Phone No.: Office (661) 201-2653 Home \_\_\_\_\_

Are you the  X  property owner? \_\_\_\_\_ owner's agent?

**PROPERTY OWNER:**  X  same as above, OR:

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

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

**PROPERTY ADDRESS** (if assigned): not assigned

**TAX ACCOUNT NO.:** 8422-00-00300 Acres: 25.5 Zoning: RIPD

\_\_\_\_\_ Acres: \_\_\_\_\_ Zoning: \_\_\_\_\_

\_\_\_\_\_ Acres: \_\_\_\_\_ Zoning: \_\_\_\_\_

**PRESENT USES:** (farm, forest, bush, residential, etc.)

Use: \_\_\_\_\_ Approx. Acres

Vacant & wetlands \_\_\_\_\_ 25.5

\_\_\_\_\_

\_\_\_\_\_

Total acres (must agree with above): \_\_\_\_\_ 25.5

**PROPOSED USES:**

Modification to renewable diesel production facility approved by DR 21-03 and V 21-05.

Modification consists of relocated rail line and tree buffer.

**WATER SUPPLY:** \_\_\_\_\_ Private well.

Is the well installed? \_\_\_\_\_ Yes \_\_\_\_\_ No

\_\_\_\_\_  Community system.

Name PGE Beaver/Columbia Pacific Bio-Refinery

**METHOD OF SEWAGE DISPOSAL:** \_\_\_\_\_  Community Sewer. Name Port Westward

\_\_\_\_\_ Not applicable.

\_\_\_\_\_ Septic System.

If Septic, does the subject property already have a system? \_\_\_\_\_ Yes \_\_\_\_\_ No

If no, is the property approved for a Septic System? \_\_\_\_\_ Yes \_\_\_\_\_ No

**CONTIGUOUS PROPERTY:** List all other properties you own which have boundary lines touching this property:

Tax Account No.

Acres

Co-owners (if any)

8422-00-00500 (Port of Columbia County), 34.7 acres \_\_\_\_\_

8422-00-00600 (Port of Columbia County), 34.4 acres \_\_\_\_\_

8422-00-01100 (Port of Columbia County), 207.4 acres \_\_\_\_\_

8423-B0-00600 (Port of Columbia County), 4.4 acres \_\_\_\_\_

8423-B0-00700 (Port of Columbia County), 11.5 acres \_\_\_\_\_

**CERTIFICATION:**

I hereby certify that all of the above statements, and all other documents submitted, are accurate and true to the best of my knowledge and belief.

Date: 2-22-2023

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

**NOTE:** Please attach an accurate and detailed plot plan, including property lines, existing and proposed structures, location of septic tank and drainfield, farm - forest areas, large natural features (cliffs, streams, etc.).

+++++

Planning Department Use Only

Date Rec'd. \_\_\_\_\_ Hearing Date: \_\_\_\_\_

Or: Administrative \_\_\_\_\_

Receipt No. \_\_\_\_\_ Stormwater & Erosion Control Fees \_\_\_\_\_

Zoning: \_\_\_\_\_ Staff Member: \_\_\_\_\_

+++++



June 23, 2021

Mr. Matthew Laird  
Planning Manager, Land Development Services  
Columbia County  
230 Strand Street  
St. Helens, OR 97051

**Re: Port of Columbia County Authorization for NEXT Renewable Diesel Proposal for Port Westward**

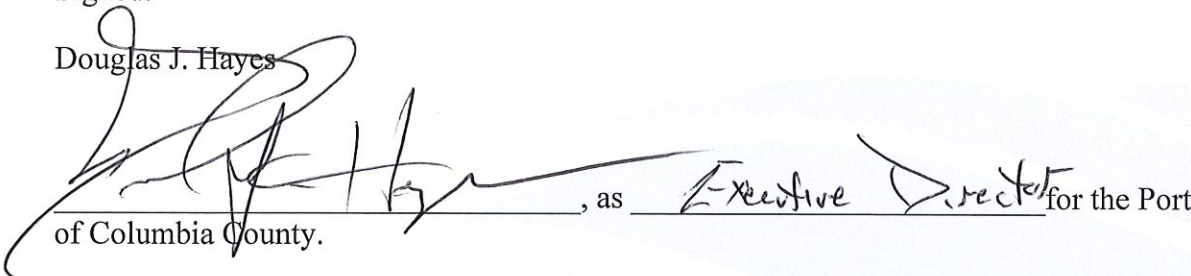
NEXT Renewable Fuels Oregon, LLC (“NEXT”) and the Port of Columbia County (the “Port”) have entered into a contractual relationship to allow NEXT to use all or a portion of the listed properties for its proposed Renewable Diesel facility at Port Westward. The Port hereby authorizes NEXT to apply for land use and development permits on the below-identified Port-owned properties in its land use application(s) for the Renewable Diesel facility.

The Port is the owner of the following properties:

8421-00-00600	8422-00-00100
8422-00-00400	8422-00-00500
8422-00-00600	8423-00-00900
8422-00-00200	8422-00-0700
8423-B0-00700	

Signed:

Douglas J. Hayes

  
\_\_\_\_\_, as Executive Director for the Port  
of Columbia County.

Date: 23 Jun 21

## Section 1550      **SITE DESIGN REVIEW**

The Site Design Review process shall apply to all new development, redevelopment, expansion, or improvement of all community, governmental, institutional, commercial, industrial and multi-family residential (4 or more units) uses in the County.

### .1      Types of Site Design Review:

Type 1:      Projects, developments and building expansions which meet any of the following criteria:

1.      are less than 5,000 sq.ft., and are less than 10% of the square footage of an existing structure.
2.      Increase the number of dwelling units in a multi-family project.
3.      Increase the height of an existing building.

Type 2:      Projects, developments and building expansions which meet any of the following criteria:

1.      have an area of 5,000 sq.ft. or more, or are 10% or more of the square footage of an existing structure.
2.      Change the category of use (e.g., commercial to industrial, etc.).
3.      New off-site advertising signs or billboards.
4.      Any project meeting any of the Type 2 criteria shall be deemed a Type 2 Design Review application.

.2      Design Review Process: The Planning Director shall review and decide all Type 1 Site Design Review applications. The Planning Commission shall review all Type 2 Design Review applications. Applications shall be processed in accordance with Sections 1600 and 1700 of this ordinance.

.3      Pre-application Conference: A pre-application conference is required for all projects applying for a Site Design Review, unless the Director or his/her designate determines it is unnecessary. The submittal requirements for each application are as defined in this section and the standards of the applicable zone, and will be determined and explained to the applicant at the pre-application conference.

.4      Pre-application Conference Committee: The committee shall be appointed by the Planning Director and shall consist of at least the following officials, or their designated staff members. Only affected officials need to be present at each pre-application conference.

- a)      The County Planning Director.
- b)      The County Director of Public Works.
- c)      The Fire Marshal of the appropriate Rural Fire District.

- d) The County Building Official.
- e) The County Sanitarian.
- f) A city representative, for projects inside Urban Growth Boundaries.
- g) Other appointees by the Planning Director, such as an Architect, Landscape Architect, real estate agent, appropriate officials, etc.

.5 Submittal documents: The following documents, when applicable, are required for a Site Design Review. The scope of the drawings and documents to be included will be determined at the pre-application conference by the Pre-application Conference Committee, and a Site Design Review Submittal Checklist will be given to the applicant, documenting which items are deemed not applicable or not necessary to determine compliance with County and State standards, with a short explanation given for each item so determined.

- 
- A. History.
  - B. Project narrative.
  - C. Existing site plan.
  - D. Proposed site plan.
  - E. Grading plan.
  - F. Drainage plan.
  - G. Wetland mitigation plan.
  - H. Landscaping plan.
  - I. Architectural plans.
  - J. Sign drawings.
  - K. Access, parking and circulation plan.
  - L. Impact assessment.
  - M. Site Design Review Submittal Checklist.

.6 Site Plan Submittal and Analysis: The applicant shall submit an application and any necessary supplemental information as required by this ordinance to the Land Development Services Department. The Planning Director or designate shall review the application and check its completeness and conformance with this ordinance. Once a Type 2 application is deemed complete, it shall be scheduled for the earliest possible hearing before the Planning Commission. A staff report shall be prepared and sent to the applicant, the Planning Commission, and any interested party requesting a copy.

.7 Planning Director Review: All Type 1 design review applications will be processed by the Planning Director or designate according to Sections 1601, 1602 and 1609 of this ordinance. If the Director determines that the proposed development meets the provisions of this ordinance, the director may approve the project and may attach any reasonable conditions.

.8 Planning Commission Review: The Planning Commission shall hold a public hearing for all Type 2 Design Review applications according to Sections 1603, 1604 and 1608 of this ordinance. If the Planning Commission determines that the proposed development meets the provisions of this ordinance, it may approve the project. The Planning Commission may attach any reasonable conditions to its approval of a site plan.

.9 Compliance: Conditions placed upon the development of a site are also placed upon

any building permits issued for the same site. These conditions shall be met by the developer prior to an occupancy permit being issued by the Building Official, or as an alternative, a bond shall be posted equal to 125% of the estimated cost of the unfinished work, to ensure completion within 1 year of occupancy. If all improvements are not completed within the 1-year bond period, the County may use the bond to complete the work.

.10 Existing Site Plan: The degree of detail in the existing site plan shall be appropriate to the scale of the proposal, or to special site features requiring careful design. An existing site plan shall include the following, unless it is determined by the Planning Director that the information is not applicable or is not necessary to determine compliance with County and State standards, and a short explanation will be given for each item so determined:

- A. A vicinity map showing location of the property in relation to adjacent properties, roads, pedestrianways and bikeways, and utility access. Site features, manmade or natural, which cross property boundaries are to be shown.
- B. A site description map at a suitable scale (i.e. 1"=100'; 1"=50'; or 1"=20') showing parcel boundaries and gross area, including the following elements, when applicable:
  1. Contour lines at the following minimum intervals:
    - a. 2 foot intervals for slopes 0-20%;
    - b. 5 or 10 foot intervals for slopes exceeding 20%;
    - c. Identification of areas exceeding 35% slope.
  2. In special areas, a detailed slope analysis may be required. Sources for slope analysis include maps located at the U.S. Natural Resources Conservation Service office.
  3. Potential natural hazard areas, including potential flood or high ground water, landslide, erosion, and drainage ways. An engineering geologic study may be required.
  4. Wetland areas, springs, wildlife habitat areas, wooded areas, and surface features such as mounds and large rock outcroppings.
  5. Streams and stream corridors.
  6. Location, species and size of existing trees proposed to be removed.
  7. Significant noise sources.
  8. Existing structures, improvements, utilities, easements and other development.

9. Adjacent property structures and/or uses.

.11 Proposed Site Plan: A complete application for design review shall be submitted, including the following plans, which may be combined, as appropriate, onto one or more drawings, unless it is determined by the Planning Director that the information is not applicable or is not necessary to determine compliance with County and State standards, and a short explanation will be given for each item so determined:

- A. Site Plan: The site plan shall be drawn at a suitable scale (i.e. 1"=100', 1"=50', or 1"=20') and shall include the following:
1. The applicant's entire property and the surrounding area to a distance sufficient to determine the relationships between the applicant's property and proposed development and adjacent properties and developments.
  2. Boundary lines and dimensions of the property and all proposed property lines. Future buildings in phased development shall be indicated.
  3. Identification information, including names and addresses of project designers.
  4. Natural features which will be utilized in the site plan.
  5. Location, dimensions and names of all existing or platted roads or other public ways, easements, and railroad rights-of-way on or adjacent to the property, city limits, section lines and corners, and monuments.
  6. Location and dimensions of all existing structures, improvements, or utilities to remain, and structures to be removed, all drawn to scale.
  7. Historic structures, as designated in the Comprehensive Plan.
  8. Approximate location and size of storm water retention or detention facilities and storm drains.
  9. Location and exterior dimensions of all proposed structures and impervious surfaces.
  10. Location and dimension of parking and loading areas. pedestrian and bicycle circulation, and related access ways. Individual parking spaces shall be shown.
  11. Orientation of structures, showing entrances and exits.
  12. All exterior lighting, showing type, height, wattage, and hours of use.
  13. Drainage, including possible adverse effects on adjacent lands.
  14. Service areas for waste disposal and recycling.



15. Noise sources, with estimated hours of operation and decibel levels at the property boundaries.
16. A landscaping plan which includes, if applicable:
  - a. Location and height of fences, buffers, and screening;
  - b. Location of terraces, decks, shelters, play areas, and common open spaces;
  - c. Location, type, size, and species of existing and proposed shrubs and trees; and
  - d. A narrative which addresses soil conditions and erosion control measures.

B. Grading Plans: A preliminary grading plan indicating where and to what extent grading will take place, including general contour lines, slope ratios, slope stabilization proposals, and natural resource protection proposals.

C. Architectural Drawings:

1. Building elevations and sections;
2. Building materials (color and type);
3. Floor plan.

D. Signs: (see also Zoning Ordinance Section 1300)

1. Freestanding sign:

- a. Location of sign on site plan;
- b. Elevation of sign (indicate size, total height, height between bottom of sign and ground, color, materials, and means of illumination).

2. On-Building Sign:

- a. Building elevation with location of sign (indicate size, color, materials and means of illumination);
- b. Plot plan showing location of signs on building in relation to adjoining property.

.12 Landscaping: Buffering, Screening and Fencing:

A. General Provisions:

1. Existing plant materials on a site shall be protected to prevent erosion.

Existing trees and shrubs may be used to meet landscaping requirements if no cutting or filling takes place within the dripline of the trees or shrubs.

2. All wooded areas, significant clumps or groves of trees, and specimen conifers, oaks or other large deciduous trees, shall be preserved or replaced by new plantings of similar size or character.

B. Buffering Requirements:

1. Buffering and/or screening are required to reduce the impacts on adjacent uses which are of a different type. When different uses are separated by a right of way, buffering, but not screening, may be required.
2. A buffer consists of an area within a required setback adjacent to a property line, having a width of up to 10 feet, except where the Planning Commission requires a greater width, and a length equal to the length of the property line adjacent to the abutting use or uses.
3. Buffer areas shall be limited to utilities, screening, pedestrian and bicycle paths, and landscaping. No buildings, roads, or parking areas shall be allowed in a buffer area.
4. The minimum improvements within a buffer area shall include:
  - a. One row of trees, or groupings of trees equivalent to one row of trees. At the time of planting, these trees shall not be less than 10 feet high for deciduous trees and 5 feet high for evergreen trees, measured from the ground to the top of the tree after planting. Spacing of trees at maturity shall be sufficient to provide a year-round buffer.
  - b. In addition, at least one 5-gallon shrub shall be planted for each 100 square feet of required buffer area.
  - c. The remaining area shall be planted in grass or ground cover, or spread with bark mulch or other appropriate ground cover (e.g. round rock). Pedestrian and bicycle paths are permitted in buffer areas.

C. Screening Requirements:

1. Where screening is required, the following standards shall apply in addition to those required for buffering:
  - a. A hedge of evergreen shrubs shall be planted which will form a four-foot high continuous screen within two years of planting; or,
  - b. An earthen berm planted with evergreen plant materials shall be provided which will form a continuous screen six feet in height within two years. The unplanted portion of the berm shall be

planted in lawn, ground cover or bark mulch; or,

- c. A five foot or taller fence or wall shall be constructed to provide a continuous sight obscuring screen. Fences and walls shall be constructed of any materials commonly used in the construction of fences and walls such as wood, brick, or other materials approved by the Director. Corrugated metal is not an acceptable fencing material. Chain link fences with slats may be used if combined with a continuous evergreen hedge.
2. When the new use is downhill from the adjoining zone or use being protected, the prescribed heights of required fences, walls, or landscape screening along the common property line shall be measured from the actual grade of the adjoining property at the common property line. This requirement may be waived by the adjacent property owner.
3. If four or more off-street parking spaces are required, off-street parking adjacent to a public road shall provide a minimum of four square feet of landscaping for each lineal foot of street frontage. Such landscaping shall consist of landscaped berms or shrubbery at least 4 feet in total height at maturity. Additionally, one tree shall be provided for each 50 lineal feet of street frontage or fraction thereof.
4. Landscaped parking areas may include special design features such as landscaped berms, decorative walls, and raised planters.
5. Loading areas, outside storage, and service facilities must be screened from adjoining properties.

           D. Fences and Walls:

1. Fences, walls or combinations of earthen berms and fences or walls up to four feet in height may be constructed within a required front yard. Rear and side yard fences, or berm/fence combinations behind the required front yard setback may be up to six feet in height.
2. The prescribed heights of required fences, walls, or landscaping shall be measured from the lowest of the adjoining levels of finished grade.
3. Fences and walls shall be constructed of any materials commonly used in the construction of fences and walls such as wood, brick, or other materials approved by the Director. Corrugated metal is not an acceptable fencing material. Chain link fences with slats may be used if combined with a continuous evergreen hedge.

- E. Re-vegetation: Where natural vegetation or topsoil has been removed in areas not occupied by structures or landscaping, such areas shall be replanted to prevent erosion.

.13 Standards for Approval:

The Planning Commission or Director shall make a finding with respect to each of the following criteria when approving, approving with conditions, or denying an application:

- A. Flood Hazard Areas: See CCZO §1100, Flood Hazard Overlay Zone. All development in Flood Hazard Areas must comply with State and Federal Guidelines.
  - B. Wetlands and Riparian Areas: Alteration of wetlands and riparian areas shall be in compliance with State and Federal laws.
  - C. Natural Areas and Features: To the greatest practical extent possible, natural areas and features of the site shall be preserved.
  - D. Historic and Cultural sites and structures: All historic and culturally significant sites and structures identified in the Comprehensive Plan, or identified for inclusion in the County Periodic Review, shall be protected if they still exist.
  - E. Lighting: All outdoor lights shall be shielded so as to not shine directly on adjacent properties and roads.
  - F. Energy Conservation: Buildings should be oriented to take advantage of natural energy saving elements such as the sun, landscaping and land forms.
  - G. Transportation Facilities: Off-site auto and pedestrian facilities may be required by the Planning Commission, Planning Director or Public Works Director consistent with the Columbia County Road Standards and the Columbia County Transportation Systems Plan.
- .14 Final Site Plan Approval: If the Planning Director or Planning Commission approves a preliminary site plan, the applicant shall finalize all the site drawings and submit them to the Director for review. If the Director finds the final site plan conforms with the preliminary site plan, as approved by the Director or Planning Commission, the Director shall give approval to the final site plan. Minor differences between the preliminary site plan and the final site plan may be approved by the Director. These plans shall be attached to the building permit application and shall become a part of that permit.

When to do  
**STORMWATER & EROSION CONTROL PLANS**

If applying for one of the following: You will need to submit 2 full size and one 11" X 17" of this/these plan(s):

- |  |   |
|--|---|
| <b>1. Single-Family &amp; Duplex Building Permits,</b>                                       | <ul style="list-style-type: none"><li>● Final Erosion Control Plan by Engineer for sites with known and apparent erosion problems</li></ul>   |
| <b>2. Commercial, Industrial, and Multi-family Building Permits (and Site Design Review)</b> | <ul style="list-style-type: none"><li>● Final Erosion Control Plan by Engineer; and</li><li>● Final Stormwater Plan by Engineer</li></ul>   |
| <b>3. Grading Permits,</b>   | <ul style="list-style-type: none"><li>● Required measures but no plan required (See Ordinance)</li></ul>  |
| <b>4. Partitions in zones allowing single-family dwellings and duplexes,</b>                 | <ul style="list-style-type: none"><li>● Conceptual Stormwater Plan by Applicant</li></ul>   |
| <b>5. Partitions in zones allowing multi-family dwelling units, commercial, industrial</b>   | <ul style="list-style-type: none"><li>● Preliminary Stormwater Plan by Engineer</li></ul>   |
| <b>6. Subdivisions,</b>  | <ul style="list-style-type: none"><li>● Preliminary Erosion Control Plan by Engineer</li><li>● Final Erosion Control Plan by Engineer</li><li>● Preliminary Stormwater Plan by Engineer</li><li>● Final Stormwater Plan by Engineer</li></ul> |
| <b>7. New Public Road Construction,</b>  | <ul style="list-style-type: none"><li>● Final Erosion Control Plan by Engineer</li><li>● Final Stormwater Plan by Engineer</li></ul>  |
| <b>8. Drainage Modifications.</b>  | <ul style="list-style-type: none"><li>● Final Erosion Control Plan by Engineer *</li></ul>  |

\* If area disturbed exceeds 2000 sq. ft. or 1000 sq. ft. on sites with known erosion problems.

# FINAL EROSION CONTROL PLAN

A final erosion control plan shall contain the information outlined below. The information shall be shown on one or more plan sheets that are drawn to scale. Narrative information can be included as notes on the plans.

*Existing Conditions Plan* showing:

1. The information provided for the preliminary erosion plan is sufficient, assuming that information accurately reflects the current state of the site. If significant changes have occurred to the site, a revised existing conditions plan is required.

*Site Plan* showing:

- Property boundaries, both existing and proposed, with dimensions.
- For commercial, multi-family, and industrial subdivisions, approximate locations of proposed structures on the site.

*Erosion Control Plan* showing:

- Locations and sizes (Areas or lengths) of erosion measures proposed to be used on the site during construction and after construction is completed.
- Maintenance schedule for insuring the erosion control measures continue to function as they are designed to function.
- For those measures requiring sizing calculations, a summary of the design calculations.
- This summary can be submitted in report form rather than shown on the plans.
- Contingency plan discussing additional erosion control measures to be applied if the proposed measures fail or are insufficient to control erosion.
- Discussion of how the site will be secured to prevent stormwater and erosion measures for being vandalized. A security fence with a locked gate or an on-site security guard are examples of methods to secure a large site.

# FINAL STORMWATER PLAN

## **Purpose**

The final stormwater plan provides the final design and analysis of stormwater facilities on the site. The final stormwater plan consists of engineering construction plans and a detailed discussion, in report form, of the various aspects of stormwater design on the project.

## **Format**

### *Engineering Plans*

Plans shall be stamped, signed, and dated by an engineer.

Typically engineering plans for a project shall contain, at a minimum, the sheets listed below. However, the engineer has the discretion to organize the plans differently, as long as the content requirements are met which include:

1. Site Plan
  - Grading and erosion Control Plan
  - Stormwater Plan
  - Stormwater and Erosion Control Details

### *Stormwater Report*

The stormwater report shall be stamped, signed, and dated by an engineer

The report shall be bound in a notebook or other type of binder. Drawing larger than 8 ½ X 11 can be attached to the report.

Detailed computations and software printouts utilized in the runoff analysis shall be included in the report appendix

Portions of the contents may be excluded, with county approval, if not applicable to the project.

## **Contents**

### *Engineering Plans*

The engineering plan set shall contain the following information:

- Existing and proposed property boundaries, easements, and right-of-ways, including stormwater easements.
- Existing and proposed topography in 2-foot contours, unless site topography makes a different contour interval more appropriate.
- Existing drainage features including streams, ditches, ponds, flood plains, and wetlands, on or adjacent to the site.
- Drainage flow routes through and on the site, including existing discharge points to and from the site.
- Proposed buildings, pavement areas, and other impervious surfaces.
- Proposed stormwater treatment and runoff control facilities, in plan and cross-section.
- Lengths and rim elevations of storm manholes.

- Cross sections and lengths of proposed open channel conveyance systems.
- Existing and proposed utilities.
- Existing and proposed on-site sewage disposal systems;
- Details of erosion control measures proposed.
- Details with sizes, lengths, and inverts for any orifices or weirs used for flow control.

### *Stormwater Report*

The stormwater report set shall contain the following information:

#### Maps:

- Site location map,  
At a minimum a USGS 7.5 minute topo series map shall be used showing site boundaries or site location for small sites and contributing drainage areas to the site.
- Soils map with site identified.
- Flood plain map with the site highlighted, if the site is in a flood plain.

#### Project Overview:

- Discussion of project scope and timing.
- Description of drainage to and from adjacent properties.
- Overview of methods used to mitigate stormwater impacts.
- Discussion of software and models used for computing runoff.
- If project went through an earlier review by the County, list approval conditions related to stormwater and describe how final plan meets conditions.
- List additional permits (e.g., wetland, flood plain, etc.) that may be required for the project and discuss any impacts these permits have on the proposed stormwater facilities.

#### Pre-Development Analysis

- Tabulate and discuss parameters impacting pre-development runoff calculations including curve numbers, impervious surface areas, slopes, and soil types and groups.
- Compute and tabulate pre-development flows for the 2, 10, and 100-year storms for the various discharge points from the site.
- Compute and tabulate existing off-site flows entering the site for the 2, 10, and 100-year storms.
- Compute and tabulate off-site flows for the 2, 10, and 100-year storms at build-out, if these flows will be different than the existing flows.
- Show on a map the point and basins included in the calculations.

#### Post Development Analysis

- Tabulate and discuss parameters impacting post-development runoff calculations including curve numbers, impervious surface areas, slopes, and soil types and



groups.

- Compute and tabulate post-development flows for the 2, 10, and 100-year storms for the various discharge points from the site.
- Compute the water quality storm flows that are required to be treated
- Compute and tabulate runoff flows that are required to be detained for the 2, 10, and 100-year storms at the various discharge points from the site.

#### Runoff Treatment

- Identify water quality storm runoff that will be treated
- Describe runoff treatment method to be utilized.
- List design parameters utilized to size runoff treatment facilities

#### Runoff Quality Control

- Tabulate flow rates that are allowed to leave the site based on pre and post development runoff analysis and the requirements in this ordinance.
- Describe runoff quality control methods to be utilized.
- List design parameters utilized to size runoff treatment facilities.
- Compute and tabulate peak flow rates, storage volumes, and ponding elevations for all design storms.
- If infiltration of runoff is proposed: Identify on-site soil types and discuss their suitability for the project; identify seasonal high water table elevations in relevant areas; identify on-site septic systems and discuss the impact of proposed infiltration facilities on these sewage systems; and discuss infiltration rates based on soil tests conducted by a geotechnical engineer.

#### Conveyance System

- Identify criteria used in sizing conveyance system.
- Compute and tabulate design flows, velocities, and conveyance capabilities for all parts of the proposed conveyance system.

#### Maintenance

- Identify who will maintain all parts of the stormwater system after completion.
- Describe operation and maintenance procedures for runoff treatment and quantity control facilities.

#### Appendix

- Include any report and permits associated with the site that impact stormwater runoff analysis. Examples of these types of reports include: geotechnical and soil reports, wetland delineations, floodplain analysis, groundwater studies, wetland fill permits, and other applicable permits.

Form #7

02/01/02

S:\PLANNING DIVISION\FORMS\Application Forms\Site Design Review Application.wpd