



MULTNOMAH COUNTY
LAND USE PLANNING DIVISION
1600 SE 190TH Avenue Portland, OR 97233
PH: 503-988-3043 FAX: 503-988-3389
<http://www.co.multnomah.or.us/dscd/landuse>

NOTICE OF DECISION

This notice concerns a Planning Director Decision on the land use case(s) cited and described below.

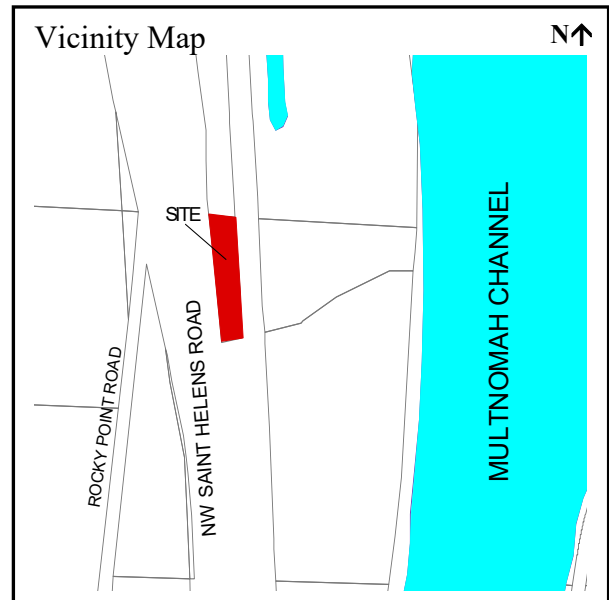
Case File: HDP 0-13

Permit: Hillside Development Permit

Location: NW Saint Helens Road (no situs address)
TL 200, Sec 36, T 3N, R 2W, W.M.
Tax Account #R98236-0340

Applicant: Marilyn Van Sickle, Manager
Schendel's Big Oak Marina
P.O. Box 778
Scappoose, OR 97056

Owner: Richard and Della Schendel
Schendel's Big Oak Marina
P.O. Box 778
Scappoose, OR 97056



Summary: HDP to correct conditions associated with off-site drainage entering property, and prepare site for proposed development. A zoning violation (ZV 99-043) was issued for unauthorized grading and filling related to existing drainage conditions. This permit is also for development approved under T3-01-005, including a 5,000 square foot building, parking, and short-term boat storage yard.

Decision: Approved with conditions.

Unless appealed, this decision is effective Monday, November 2, 2001, at 4:30 PM.

Issued by:

By: _____
Kerry Rappold, Planner

For: Kathy Busse - Planning Director

Date: Monday, October 22, 2001

Opportunity to Review the Record: A copy of the Planning Director Decision, and all evidence submitted associated with this application, is available for inspection, at no cost, at the Land Use Planning office during normal business hours. Copies of all documents may be purchased at the rate of 30-cents per page. The Planning Director's Decision contains the findings and conclusions upon which the decision is based, along with any conditions of approval. For further information on this case, contact Kerry Rappold, Staff Planner at 503-988-3043.

Opportunity to Appeal: This decision may be appealed within 14 days of the date it was rendered, pursuant to the provisions of MCC 37.0640. An appeal requires a \$108.00 fee and must state the specific legal grounds on which it is based. To obtain appeal forms or information on the procedure, contact the Land Use Planning offices at 1600 SE 190th Avenue (Phone: 503-988-3043). This decision cannot be appealed to the Land Use Board of Appeals (LUBA) until all local appeals are exhausted.

This decision is final at the close of the appeal period, unless appealed. The deadline for filing an appeal is Monday, November 2, 2001, at 4:30 pm.

Applicable Approval Criteria & Policies: Multnomah County Code (MCC): Hillside Development and Erosion Control (HD), MCC 34.5500 through .5525.

Copies of the referenced Multnomah County Code sections can be obtained by contacting our office at 503-988-3043 or by visiting our website at <http://www.co.multnomah.or.us/dscd/landuse>.

Scope of Approval

1. Approval of this land use permit is based on the submitted written narrative(s) and plan(s). No work shall occur under this permit other than that which is specified within these documents. It shall be the responsibility of the property owner(s) to comply with these documents and the limitations of approval described herein.
2. **Pursuant to MCC 37.0690, this land use permit expires two years from the date the decision is final if; (a) development action has not been initiated; (b) building permits have not been issued; or (c) final survey, plat, or other documents have not been recorded, as required. The property owner may request to extend the timeframe within which this permit is valid, as provided under MCC 37.0690 and 37.0700. Such a request must be made prior to the expiration date of the permit.**

Conditions of Approval

The conditions listed are necessary to ensure that approval criteria for this land use permit are satisfied. Where a condition relates to a specific approval criterion, the code citation for that criterion follows in parenthesis.

1. A site plan illustrating the location and type of the erosion control measures to be installed (such as sediment fences, tarps etc) shall be submitted to the Land Use Planning (LUP) office. In addition, photos that illustrate the erosion control measures have been installed shall be submitted to the LUP office, or the applicant may call the LUP office for a site inspection.
2. The Applicant shall retain and maintain all existing trees as described in the narrative and illustrated on the site plans, except those identified for possible removal by the Applicant.

Notice to Mortgagee, Lien Holder, Vendor, or Seller:

ORS Chapter 215 requires that if you receive this notice it must be promptly forwarded to the purchaser.

Findings of Fact

(Formatting Note: Staff as necessary to address Multnomah County ordinance requirements provides Findings referenced herein. Headings for each finding are underlined. Multnomah County Code requirements are referenced using a **bold** font. Written responses to code criteria prepared by or on behalf of the applicant are *italicized*. Planning staff comments and analysis may follow applicant responses. Where this occurs, the notation “Staff” precedes such comments.)

1. Description of Proposal:

Staff: Hillside Development Permit to correct conditions associated with off-site drainage entering property, and prepare site for proposed development. A zoning violation (ZV 99-043) was issued for unauthorized grading and filling related to existing drainage conditions. Stormwater runoff entering the property through the existing 18” culvert under Hwy 30 had severely eroded the site. Fill was illegally placed on the property to restore the site. Approximately 2,500 cubic yards of material was cut, and approximately 2,200 cubic yards was filled during the dry weather period prior to October 1999. The engineering analysis provided with this application certifies the work completed in violation of Multnomah County Code. This permit is also for development approved under T3-01-005, including a 5,000 square foot building, parking, short-term boat storage yard, small engine boat repair shop for watercraft, grading and drainage improvements. The boat storage area is not for long term storage but for boats waiting for repair or pick up. Refer to T3-01-005 for a complete description of the proposed improvements and compliance with Multnomah County Code requirements. The drainage improvements include, a drainage ditch along the west side of the property, and an 18” culvert to convey runoff from the existing 18” culvert under Hwy 30. The applicant’s proposal includes retroactive approval for fill placed along the east side of the property, and proposed grading, excavation and filling for the new development.

2. Site and Vicinity Characteristics:

Staff: The subject property is adjacent to Hwy 30, and part of Schnedel’s Big Oak Marina. It is zoned Multiple Use Agriculture (MUA-20). The site is a level bench situated between the highway to the west and railroad tracks to the east. The embankment on the west side of the property adjacent to the highway is approximately 25 to 30 feet high, and it is inclined at 2H:1V slope. The slope on the east side is an existing near vertical cut in bedrock, with fill placed on the slope to control stormwater runoff from the culvert under Hwy 30. A small well pump house located in the south end of the lot is the only existing development on the site. On-site vegetation includes White Oak trees, and grasses and shrubs. All areas previously disturbed by filling and grading activities have been revegetated. No watercourses or wetland areas are found on the property. However, to the east of the adjacent railroad tracks are floodplain and wetland areas associated with the Multnomah Channel. Stormwater runoff from the site and areas drained by the culvert under Hwy 30 pass beneath the railroad tracks in an existing culvert, and discharge to the wetland areas to the east.

3. Multnomah County Code

The following materials submitted by the applicant, prepared by county staff, or provided by public agencies or members of the general public relating to this request are hereby adopted as exhibits hereto and may be found as part of the permanent record for this application.

Hillside Development and Erosion Control HD

34.5500 Purposes

The purposes of the Hillside Development and Erosion Control subdistrict are to promote the public health, safety and general welfare, and minimize public and private losses due to earth movement hazards in specified areas and minimize erosion and related environmental damage in unincorporated Multnomah County, all in accordance with ORS 215, LCDC Statewide Planning Goal No. 7 and OAR 340–41–455 for the Tualatin River Basin, and the Multnomah County Comprehensive Framework Plan Policy No. 14. This subdistrict is intended to:

- (A) Protect human life;
- (B) Protect property and structures;
- (C) Minimize expenditures for rescue and relief efforts associated with earth movement failures;
- (D) Control erosion, production and transport of sediment; and
- (E) Regulate land development actions including excavation and fills, drainage controls and protect exposed soil surfaces from erosive forces; and
- (F) Control stormwater discharges and protect streams, ponds, and wetlands within the Tualatin River and Balch Creek Drainage Basins.

34.5505 Permits Required

- (A) **Hillside Development Permit:** All persons proposing development, construction, or site clearing (including tree removal) on property located in hazard areas as identified on the "Slope Hazard Map", or on lands with average slopes of 25 percent or more shall obtain a Hillside Development Permit as prescribed by this subdistrict, unless specifically exempted by MCC .6715.

34.5515 Application Information Required

An application for development subject to the requirements of this subdistrict shall include the following:

- (A) A map showing the property line locations, roads and driveways, existing structures, trees with 8-inch or greater caliper or an outline of wooded areas, watercourses and include the location of the proposed development(s) and trees proposed for removal.

Staff: The applicant submitted several site plans. The location of the property lines, the existing trees, erosion and sedimentation controls, and topography are illustrated on the plans. No watercourse exists on the property. The list of Exhibits provides details on these plans. Exhibit #1 is a reduced copy of the site plan.

This criterion is satisfied.

(B) An estimate of depths and the extent and location of all proposed cuts and fills.

Staff: The applicant's plans, specifically Exhibit #1, show the location of the cut and fill areas. Approximately 2,500 cubic yards of material was cut, and approximately 2,200 cubic yards was filled during the dry weather period prior to October 1999. Proposed development will include the excavation of approximately 50 cubic yards of rock in the northwest corner of the property, excavation for the drainage ditch and shop foundation trenches, and gravel and pavement surfacing in the parking areas. In addition, the Applicant has provided a completed "Hillside Development Permit Application: Geotechnical Reconnaissance and Stability Preliminary Study (HDP Form 1)" form (Exhibit #2). Craig C. Lavielle, P.E. of Lavielle Geotechnical, P.C. submitted the report. The HDP Form 1 includes the statements included above regarding the amount and type of cutting and filling on the site. Site plans show elevation drawings and fill areas as well as more profiles of the proposed work.

This criterion is satisfied.

(C) The location of planned and existing sanitary drainfields and drywells.

Staff: The marina operates with an approved sewage system. The proposed development will connect to the existing private water and sewage system. Refer to T3-01-005 for a description of the sewage system. Drainage improvements are described within this document, which include a drainage ditch, and culvert extension.

This criterion is satisfied.

(D) Narrative, map or plan information necessary to demonstrate compliance with MCC .5520(A). The application shall provide applicable supplemental reports, certifications, or plans relative to: engineering, soil characteristics, stormwater drainage, stream protection, erosion control, and/or replanting.

Staff: The Applicant submitted a narrative addressing the Multnomah County Code provisions, as well as site plans, engineering analysis, stormwater drainage information, erosion control information, and other required information to address the applicable standards.

This criterion is satisfied.

(E) A Hillside Development permit may be approved by the Director only after the applicant provides:

- (1) Additional topographic information showing that the proposed development to be on land with average slopes less than 25 percent, and located more than 200 feet from a known landslide, and that no cuts or fills in excess of 6 feet in depth are planned. High groundwater conditions shall be assumed unless documentation is available, demonstrating otherwise; or**

Staff: From the HDP Form 1, Mr. Lavielle, the engineer who wrote the submitted reports, states that the maximum slope on the property is 2H:1V (50%).

Because the slope of the site is greater than 25%, this criterion is not satisfied. The applicant must demonstrate compliance with (E)(2) or (E)(3).

(2) A geological report prepared by a Certified Engineering Geologist or Geotechnical Engineer certifying that the site is suitable for the proposed development; or,

Staff: The applicant has not submitted a geotechnical report satisfying the requirements of this criterion.

This criterion is not satisfied. Therefore, the applicant shall demonstrate compliance with MCC .5515 (E)(3).

(3) An HDP Form–1 completed, signed and certified by a Certified Engineering Geologist or Geotechnical Engineer with his/her stamp and signature affixed indicating that the site is suitable for the proposed development.

(a) If the HDP Form–1 indicates a need for further investigation, or if the Director requires further study based upon information contained in the HDP Form–1, a geotechnical report as specified by the Director shall be prepared and submitted.

Staff: The submitted HDP Form 1 has been completed, signed and certified by Craig C. Lavielle, Engineering Geologist, with his stamp and signature affixed indicating that the site is suitable for the proposed development. In response to question #9 on the HDP Form 1 report, "Do you recommend additional geotechnical studies (i.e. mapping, test pits or borings, stability analysis, etc) prior to site development)?" the engineer stated "No".

The submitted HDP Form 1 does not indicate further investigation of the proposed project or the site. Nor does the Director require further study based upon information contained in the HDP Form–1.

This criterion is satisfied.

(F) Geotechnical Report Requirements

(1) A geotechnical investigation in preparation of a Report required by MCC .5515(E)(3)(a) shall be conducted at the applicant's expense by a Certified Engineering Geologist or Geotechnical Engineer. The Report shall include specific investigations required by the Director and recommendations for any further work or changes in proposed work which may be necessary to ensure reasonable safety from earth movement hazards.

Staff: A geotechnical investigation pursuant to MCC .5515 (E)(3)(a) is not required for the proposed project.

This criterion is not applicable.

- (2) Any development related manipulation of the site prior to issuance of a permit shall be subject to corrections as recommended by the Geotechnical Report to ensure safety of the proposed development.

Staff: See previous comments.

This criterion is not applicable.

- (3) Observation of work required by an approved Geotechnical Report shall be conducted by a Certified Engineering Geologist or Geotechnical Engineer at the applicant's expense; the geologist's or engineer's name shall be submitted to the Director prior to issuance of the Permit.

Staff: See previous comments.

This criterion is not applicable.

- (4) The Director, at the applicant's expense, may require an evaluation of HDP Form-1 or the Geotechnical Report by another Certified Engineering Geologist or Geotechnical Engineer.

Staff: The Director does not require an evaluation of another HDP Form 1.

This criterion is not applicable.

- (G) Development plans shall be subject to and consistent with the Design Standards For Grading and Erosion Control in MCC .6730(A) through (D). Conditions of approval may be imposed to assure the design meets those standards.

Staff: These standards are evaluated below. See the Applicant and Staff comments below.

34.5520 Grading and Erosion Control Standards

Approval of development plans on sites subject to a Hillside Development Permit shall be based on findings that the proposal adequately addresses the following standards. Conditions of approval may be imposed to assure the design meets the standards:

(A) Design Standards For Grading and Erosion Control

(1) Grading Standards

- (a) Fill materials, compaction methods and density specifications shall be indicated. Fill areas intended to support structures shall be identified on the plan. The Director or delegate may require additional studies or information or work regarding fill materials and compaction;

Applicant: In general the silty fine sand excavated from onsite sources appears well suited for use in structural fills. The silty fine sand is moisture sensitive and care must be taken to control moisture during fill placement. If fill material is imported to the site

the import material should be clean sand and gravel that contains less than 5% passing the No. 200 sieve, based on the minus $\frac{3}{4}$ inch fraction. This type of material can typically be placed and compacted in wet weather conditions. No filling is planned for the proposed shop building area. Conventional shallow concrete foundations that will bear in the native, undisturbed medium dense silty sand will support the proposed shop. We recommend a large steel wheeled vibratory roller be used to compact the imported granular. Soil moisture-density shall be taken in the fill to document the compaction being achieved. If density tests taken in the fills indicate compaction is not being achieved, the fill should be scarified, moisture conditioned and recompacted. Revegetation of the cut and fill slope will be initiated as soon as possible after grading is complete. Fill placed on slopes steeper than 5H:1V shall be properly keyed and benched into the native, undisturbed slope as generally indicated in the attached Figure 3.

Staff: Exhibits #1 illustrates the location of the excavation and backfill to accommodate the proposed development. In addition to the approximately 2,500 cubic yards previously excavated and 2,200 cubic yards filled, 50 cubic yards will be excavated for the proposed building. Also, material will be added for the parking area, which includes gravel and pavement. The proposed drainage system (i.e. ditch and culverts) shall comply with the recommendations contained in the analysis prepared by Craig C. Lavielle, P.E., Lavielle Getechnical, PC. (Exhibit #3). The excavation and compaction of the site shall comply with the submitted engineer's recommendations.

This criterion is satisfied.

- (b) Cut and fill slopes shall not be steeper than 3:1 unless a geological and/or engineering analysis certifies that steep slopes are safe and erosion control measures are specified;**

Applicant: The proposed slope on the west side of the site is the Hwy 30 embankment. This slope is 25 to 30 feet high, and it is inclined at 2H:1V, (horizontal:vertical). This slope is comprised of silty fine sand over Columbia River Basalt (CRB) bedrock. The proposed 2 to 5 foot cut along the west side will be maintained at 2H:1V. Revegetation of the cut and fill slope will be initiated as soon as possible after grading is complete. The medium dense silty fine sand was modeled in our analysis of the stability of this slope, a copy of which is attached, as having an internal angle of friction of 32 degrees and a cohesion of 200 psf. The analysis indicates the additional 2 to 5 feet of slope height has no significant reduction on the stability of the slope. The slope on the east side is an existing near vertical cut in CRB bedrock. Proposed plans call for placing a wedge of fill, with a maximum depth of 3 to 5 feet, along the top of the east side cut. The medium dense silty fine sand fill was modeled in our analysis of the stability of this fill and bedrock slope, a copy of which is attached, as having an internal angle of friction of 30 degrees and a cohesion of 100 psf. The analysis indicates the additional 3 to 5 feet of fill has no significant reduction on the stability of the fill over bedrock cut slope.

Staff: The engineering analysis, the HDP Form 1, and the submitted plan information demonstrate the proposed cut and fill slopes exceed 3:1 as the applicant states above. An analysis has been provided that certifies these slopes are safe. In addition, erosion control measures have been specified.

This criterion is satisfied.

(c) Cuts and fills shall not endanger or disturb adjoining property;

Applicant: Based on our knowledge and experience with the rock, soil and fill material on this site it appears that the two most likely means of disturbing adjoining sites is reducing the stability of the site slopes and by allowing uncontrolled drainage of surface water. We have addressed the potential for slope instability in the section immediately above. The potential for uncontrolled surface water drainage is addressed below. The site will be graded to a 2% slope toward the west, to a 1 foot deep ditch located at the toe of the Hwy 30 embankment. The ditch will drain toward the south to an existing 10" diameter culvert installed beneath the access road. The new 10" culvert will discharge on to the rock slope at the southeast corner of the site. The water will then flow into the ditch along the railroad tracks to the existing 18' culvert beneath the tracks and then out into the wetland area. To prevent surface water from flowing over the east side slope a berm will be placed at the top of the fill slope. Calculations showing the available capacity of the proposed ditch and the proposed existing 10" at the access road crossing and the existing 18" culvert at the railroad crossing are attached. An 18" diameter culvert draining Hwy 30 currently discharges onto the west side slope. Plans call for extending this culvert across the proposed parking area and then down to the rock slope on the east side of the site. The water would then flow down the rock face, into the existing ditch beside the railroad tracks and then into the existing 18" diameter culvert beneath the tracks and out into the wetland area. Calculations showing the available capacity of the proposed ditch and the existing 18" and new 18" culverts are attached. Building a roof drain water will be collected and piped to the west side ditch at the toe of the Hwy 30 embankment slope.

Staff: Exhibit # illustrates the grading and filling previously done, and the proposed improvements to the property. In addition to making appropriate cuts and fills, as determined by the engineering analysis, the applicant will install erosion control measures on the property to prevent off-site impacts to adjoining properties.

This criterion is satisfied.

(d) The proposed drainage system shall have adequate capacity to bypass through the development the existing upstream flow from a storm of 10-year design frequency;

Applicant: Calculations showing the available capacity of the proposed ditch and the existing 10", and the new 18" and the existing 18" culverts are attached.

Staff: The Applicant submitted the Drainage Certificate (Exhibit #4) signed by Craig C. Lavielle, P.E. The certificate states, "I hereby certify that drainage improvements illustrated on the enclosed, stamped set of plans have been designed to adequately handle, on-site, run-off attributed to a storm of 10-year design frequency." In addition, the applicant submitted the calculations performed by Mr. Lavielle.

This criterion is satisfied.

- (e) **Fills shall not encroach on natural watercourses or constructed channels unless measures are approved which will adequately handle the displaced streamflow for a storm of 10-year design frequency;**

Staff: There are no natural watercourses on the subject property.

This criterion is not applicable.

(2) Erosion Control Standards

- (a) **On sites within the Tualatin River Drainage Basin, erosion and stormwater control plans shall satisfy the requirements of OAR 340. Erosion and stormwater control plans shall be designed to perform as prescribed by the currently adopted edition of the “Erosion Prevention & Sediment Control Plans Technical Guidance Handbook (1994)” and the “City of Portland Stormwater Quality Facilities, A Design Guidance Manual (1995)”. Land-disturbing activities within the Tualatin Basin shall provide a 100-foot undisturbed buffer from the top of the bank of a stream, or the ordinary high watermark (line of vegetation) of a water body, or within 100-feet of a wetland; unless a mitigation plan consistent with OAR 340 is approved for alterations within the buffer area.**

Staff: The property is not within the Tualatin River Drainage Basin.

This criterion is not applicable.

- (b) **Stripping of vegetation, grading, or other soil disturbance shall be done in a manner which will minimize soil erosion, stabilize the soil as quickly as practicable, and expose the smallest practical area at any one time during construction;**

Applicant: The stripping of vegetation, grading and other site soil disturbance was completed in the dry weather periods of October 1999. No further grading of the site is anticipated except for the excavation of approximately 50 cubic yards of rock in the northwest corner of the property, the installation of underground utilities (telephone, electric, sanitary sewer, water), the excavation of foundation trenches for the shop building and the placement of the gravel surfacing in the parking areas. The site has been completely revegetated with grass by hydroseeding.

Staff: The applicant proposes to minimize the soil erosion, and expose the smallest practical area during construction of the foundation and addition. Condition of Approval #1 requires to the install erosion and sedimentation control measures.

This criterion is satisfied.

- (c) **Development Plans shall minimize cut or fill operations and ensure conformity with topography so as to create the least erosion potential and adequately accommodate the volume and velocity of surface runoff;**

Applicant: Grading was minimized to less than 3,000 cubic yards each of cut and fill. The grading was designed to level an existing broad bench with minimal disturbance to the adjacent slopes.

Staff: The development plans minimize the amount of cut and fill needed to accommodate the proposed development, and ensure conformity with the topography so as to create the least erosion potential. In addition, the calculations and certifications submitted by the Applicant demonstrate that the site will adequately accommodate the volume and velocity of surface run-off.

This criterion is satisfied.

(d) Temporary vegetation and/or mulching shall be used to protect exposed critical areas during development;

Applicant: The site was revegetated with grasses by hydroseeding soon after grading was complete. No additional trees cutting is proposed. No tree wells are planned. Some scrub oak trees on railroad property may be effected by fill placed around the roots. We have contacted railroad officials to discuss this and they have accepted it.

Staff: See applicant and staff comments in MCC .5520 (A)(2)(a).

This criterion is satisfied.

(e) Whenever feasible, natural vegetation shall be retained, protected, and supplemented;

Applicant: Where ever feasible the natural vegetation shall be maintained. The majority of the site vegetation prior to development was grasses and shrubby trees. The exceptions were in the west center area and the trees along the top of the east side slope. The trees in the west central area must be removed to make room for the building and the storage area. The most of the trees located along the east side property line will remain undisturbed with out special measures. However, several of these trees will require half tree wells on their up hill side to avoid being buried by the proposed fill placement.

Staff: There is no stream on the subject property. The applicant states that natural vegetation will be retained as much as possible.

This criterion is satisfied.

(f) Permanent plantings and any required structural erosion control and drainage measures shall be installed as soon as practical;

Applicant: Temporary revegetation with grasses is complete. Permanent landscaping and a surface water diversion berm located along the east side of the parking area, will be installed as soon as possible after the structure and gravel surfacing are complete. No tree wells are planned. Some scrub oak trees are expected to die along the top of the

slope on the east side due to the fill placed around the roots. These scrub oaks are all less than 8 inches in diameter.

Staff: The applicant describes that some of the site vegetation will be retained. In addition, the applicant describes that permanent plantings, erosion control measures, and drainage measures will be installed after the construction activities are complete.

This criterion is satisfied.

- (g) Provisions shall be made to effectively accommodate increased runoff caused by altered soil and surface conditions during and after development. The rate of surface water runoff shall be structurally retarded where necessary;**

Applicant: The proposed gravel surface storage yard will drain toward the west, to a ditch located at the toe of Hwy 30 embankment slope. The stormwater calculations for the new 10" culvert beneath the access road and the west side ditch indicate both the ditch and culvert have the capacity to handle the flow without a detention facility. The existing 18" culvert beneath the railroad tracks will carry the water to the wetland area immediately adjacent to Multnomah Channel. The project will include structural controls on flow and pollution reduction features.

The 425 foot long, 4.5 foot wide and 1 foot deep drainage ditch on the west side of the proposed storage yard will serve as both a flow control by lengthening the path the water must travel to reach the wetland and as a grassy landscape swale for pollution reduction. By directing the surface water drainage off the graveled storage and parking areas to the west side ditch the average flow path will on average be 210 feet longer than the flow path was prior to development.

This ditch will also serve as a landscape swale that will reduce pollutants in the stormwater. The swale has been sized according to City of Portland design standards.

Staff: The applicant will install erosion control measures.

This criterion is satisfied.

- (h) Sediment in the runoff water shall be trapped by use of debris basins, silt traps, or other measures until the disturbed area is stabilized;**

Applicant: The sediment generated by the disturbance associated by utility installation, foundation excavations, and placement of gravel surfacing is expected to be minimal. Silt fencing and biobags will be used to control sediment run off.

Staff: The Applicant will install drainage improvements on the site. The applicant submitted drainage calculations and the Drainage Certificate to ensure the run-off will be accommodated on site and will not impact adjoining properties.

This criterion is satisfied.

- (i) Provisions shall be made to prevent surface water from damaging the cut face of excavations or the sloping surface of fills by installation of temporary or**

permanent drainage across or above such areas, or by other suitable stabilization measures such as mulching or seeding;

Applicant: Surface water run off will be diverted away from any excavations or disturbed areas by using berms and temporary swales. The proposed excavations for utilities and foundations will be less than 3 feet deep and therefore not require stabilization measures or shoring.

Staff: The applicant describes how this criterion will be met.

This criterion is satisfied.

- (j) All drainage provisions shall be designed to adequately carry existing and potential surface runoff to suitable drainageways such as storm drains, natural watercourses, drainage swales, or an approved drywell system;**

Applicant: The attached spreadsheets show calculations for the proposed extension of the 18 inch ODOT Hwy 30 culvert, the proposed new west side landscape swale ditch and the 10" culvert beneath the access road, and the existing 18" culvert beneath the railroad tracks.

The existing 18" culvert discharges to a moderate sized (approximately 3 acres) wetland area on the shore of Multnomah Channel. The traditional drainage path for the development area has been through the existing 18" culvert and into this wetland area. Any overflow from the wetland goes directly to Multnomah Channel. The attached calculations for the existing 18" culvert show that the 10 year storm will produce 21,850 cubic feet of water. If all of this water was present in the 3 acre wetland at the same time the water level would be raised $(21,850/43,560 \times 3)$ 0.17 feet or 2.01 inches. Continuous drainage across the wetland will of course reduce this because not all the water would be there at one time.

Staff: The Applicant submitted the drainage calculations and the Drainage Certificate to ensure that the run-off will be accommodated on site and will not impact adjoining properties. The applicant will install an 18" culvert and a drainage ditch.

This criterion is satisfied.

- (k) Where drainage swales are used to divert surface waters, they shall be vegetated or protected as required to minimize potential erosion;**

Applicant: Where drainage swales are used to divert surface water the swales will be vegetated or protected against erosion by placing mulch.

Staff: Staff acknowledges the applicant's statement. Throughout this decision document, the applicant has addressed the ability of the site to accommodate surface run-off and how the erosion control measures will be installed.

This criterion is satisfied.

- (l) Erosion and sediment control devices shall be required where necessary to prevent polluting discharges from occurring. Control devices and measures which may be required include, but are not limited to:**

- 1. Energy absorbing devices to reduce runoff water velocity;**
- 2. Sedimentation controls such as sediment or debris basins. Any trapped materials shall be removed to an approved disposal site on an approved schedule;**
- 3. Dispersal of water runoff from developed areas over large undisturbed areas.**

Applicant: The sediment generated by the disturbance associated by utility installation, foundation excavations, and placement of gravel surfacing is expected to be minimal. Silt fencing, straw mulch and biobags will be used to control sediment run off and run off velocity.

Staff: The applicant's plan identifies the items described above.

This criterion is satisfied.

- (m)Disposed spoil material or stockpiled topsoil shall be prevented from eroding into streams or drainageways by applying mulch or other protective covering; or by location at a sufficient distance from streams or drainageways; or by other sediment reduction measures;**

Applicant: Disposed of excavation spoil material shall be prevented from eroding by applying mulch or plastic sheeting, silt fences and biobags.

Staff: The applicant describes that measures will be taken as required.

This criterion is satisfied.

- (n) Such non-erosion pollution associated with construction such as pesticides, fertilizers, petrochemicals, solid wastes, construction chemicals, or wastewaters shall be prevented from leaving the construction site through proper handling, disposal, continuous site monitoring and clean-up activities.**

Staff: The site is to be kept clean as possible and any pesticides, fertilizers, solid waste, construction chemicals and construction waste materials brought to site shall be removed in property manner on a continuous basis.

This criterion is satisfied.

(B) Responsibility

- (1) Whenever sedimentation is caused by stripping vegetation, regrading or other development, it shall be the responsibility of the person, corporation or other entity causing such sedimentation to remove it from all adjoining surfaces and drainage systems prior to issuance of occupancy or final approvals for the project;**

- (2) **It is the responsibility of any person, corporation or other entity doing any act on or across a communal stream watercourse or swale, or upon the floodplain or right-of-way thereof, to maintain as nearly as possible in its present state the stream, watercourse, swale, floodplain, or right-of-way during such activity, and to return it to its original or equal condition.**

Staff: The applicant and property owner are responsible for any sedimentation caused by stripping vegetation, such sedimentation shall be removed from all adjoining surfaces and drainage systems prior to issuance of occupancy or final approvals for the proposed development.

(C) Implementation

- (1) **Performance Bond – A performance bond may be required to assure the full cost of any required erosion and sediment control measures. The bond may be used to provide for the installation of the measures if not completed by the contractor. The bond shall be released upon determination the control measures have or can be expected to perform satisfactorily. The bond may be waived if the Director determines the scale and duration of the project and the potential problems arising therefrom will be minor.**
- (2) **Inspection and Enforcement. The requirements of this subdistrict shall be enforced by the Planning Director. If inspection by County staff reveals erosive conditions which exceed those prescribed by the Hillside Development, work may be stopped until appropriate correction measures are completed.**

Staff: The Planning Director determines the scale and the duration of the project and the potential problems arising therefrom are such that the performance bond requirement is waived for this proposal [subsection (1)]. The site work will be inspected as needed and as required [subsection (2)].

The standards will be met as applicable.

(D) Final Approvals

A certificate of Occupancy or other final approval shall be granted for development subject to the provisions of this subdistrict only upon satisfactory completion of all applicable requirements.

4. Conclusion

Based on the findings and other information provided above, this application to retroactively approve cut and fill, and the proposed improvements satisfies applicable Multnomah County Zoning Ordinance requirements.

5. Exhibits

Exhibits referenced herein are enclosed, and a brief description of each is listed below:

1. Site plan
2. HDP Form 1
3. Stormwater Calculations
4. Drainage Certificate
5. Additional Site Plans
6. 1998 Air Photo of Property
7. A&T Map Showing Zoning in Area