

NOTICE OF TYPE II DECISION
SENSITIVE LANDS REVIEW (SLR) 2004-00008 & 9
WALNUT STREET IMPROVEMENT PROJECT



120 DAYS = 11/5/2004

SECTION I. APPLICATION SUMMARY

FILE NAME: WALNUT STREET IMPROVEMENT PROJECT

CASE NOS: **Sensitive Lands Review (SLR)** **SLR2004-00008**
Sensitive Lands Review (SLR) SLR2004-00009
Adjustment (VAR) VAR2004-00039
Adjustment (VAR) VAR2004-00040
Tree Removal (TRE) TRE2004-00006 through 2004-00023

APPLICANT: Washington County **APPLICANT'S** David Evans and Assoc.
Capital Project Management **REP:** Attn: Gillian Zacharias
Attn: Matt Costigan 2100 SW River Parkway
155 N. First Avenue Portland, OR 97201
Suite 350-18, MS 18
Hillsboro, OR 97124

PROPOSAL: As part of a capital improvement project, the applicant is requesting Sensitive Lands approval to widen SW Walnut Street to three (3) lanes involving sensitive lands at Krueger Creek and an unnamed tributary resulting in new retaining walls, pavement, sidewalks and curbs, larger culverts underneath the road at both locations, and stream corridor restoration. In addition, as a result of the need to close SW Walnut Lane at the intersection of SW 135th/Walnut Street/Walnut Lane, an Adjustment to the 200-foot limitation length of a cul-de-sac and 2,000-foot perimeter block length is requested. The resulting Walnut Lane cul-de-sac will measure approximately 725 feet from SW 138th Avenue, and the block will increase from approximately 2,500 feet to 5,700 feet. Eighteen (18) trees greater than 12 inches in diameter will be required to be removed from these sensitive land areas and therefore, tree removal permits are required.

LOCATION: SW Walnut Street right-of-way between SW 121st and 135th Avenue. The stream crossings and related tree removals are between SW 122nd and 123rd Avenue and between SW 124th and 128th Avenue. The adjustments are in relation to the closure of SW Walnut Lane at SW 135th Avenue. Washington County Tax Assessor's Map Nos. 2S103BB, Tax Lots 7300, 7400, 9001 & 9100; 2S103BC, Tax Lots 700 & 5900; 2S104AD, Tax Lots 1400, 3700, 3800, 4500 & 4900; 2S104AC, Tax Lot 12600; and 2S104BD, Tax Lots 100 & 900.

**COMPREHENSIVE
PLAN and
ZONING**

DESIGNATIONS: R-4.5: Low-Density Residential District. The R-4.5 zoning district is designed to accommodate detached single-family homes with or without accessory residential units at a minimum lot size of 7,500 square feet. Duplexes and attached single-family units are permitted conditionally. Some civic and institutional uses are also permitted conditionally.

R-7: Medium-Density Residential District. The R-7 zoning district is designed to accommodate attached single-family homes, detached single-family homes with or without accessory residential units, at a minimum lot size of 5,000 square feet, and duplexes, at a minimum lot size of 10,000 square feet. Mobile home parks and subdivisions are also permitted outright. Some civic and institutional uses are also permitted conditionally.

**APPLICABLE
REVIEW
CRITERIA:**

Community Development Code Chapters 18.370, 18.390, 18.510, 18.775, 18.790, 18.795 and 18.810.

SECTION II. DECISION

Notice is hereby given that the City of Tigard Community Development Director's designee has **APPROVED** the above request subject to certain conditions of approval. The findings and conclusions on which the decision is based are noted in Section VI.

CONDITIONS OF APPROVAL

PRIOR TO COMMENCING ANY IMPROVEMENTS, INCLUDING CLEARING, GRADING, EXCAVATION, AND/OR FILL, THE FOLLOWING CONDITIONS SHALL BE SATISFIED:

Submit to the Planning Department (Morgan Tracy, 639-4171, ext. 2428) for review and approval:

1. Prior to any site work, the applicant shall submit a final Tree Protection Plan that shows exactly how far the tree protection fencing will be from the face of each protected tree (including those on neighboring properties where construction occurs within the trees' driplines) that will be impacted by construction activities within its dripline. The applicant, through their Project Arborist, shall justify the close proximity of the construction activities to the trees. He shall certify that the activities will not adversely impact the overall and long-term health and stability of each tree. Any construction that occurs within the neighboring trees' driplines should be justified by the applicant and approved by the City Forester and neighboring property owner(s). Work may proceed within the driplines only with the approval of the City Forester.
2. Prior to any site work, the applicant shall provide evidence of all necessary approvals from US Army Corps of Engineers and the Division of State Lands.
3. Prior to any site work, the applicant shall have the geotech engineer review and approve the construction plans for the City's review and approval.

**DURING THE PROJECT CONSTRUCTION,
THE FOLLOWING CONDITION SHALL BE SATISFIED:**

Submit to the Public Works Department (Matt Stine, 639-4171, ext. 2589) for review and approval:

4. During the project duration, the Project Arborist shall submit written reports to the City Forester, at least, once every two weeks, as he monitors the construction activities and progress. These reports should include any changes that occurred to the TPZ as well as the condition and location of the tree protection fencing. If the amount of TPZ was reduced then the Project Arborist shall justify why the fencing was moved, and shall certify that the construction activities to the trees did not adversely impact the overall and long-term health and stability of the tree(s). If the reports are not submitted or received by the City Forester at the scheduled intervals, and if it appears the TPZ's

or the Tree Protection Plan is not being followed by the contractor, the City can stop work on the project until an inspection can be done by the City Forester and the Project Arborist. This inspection will be to evaluate the tree protection fencing, determine if the fencing was moved at any point during construction, and determine if any part of the Tree Protection Plan has been violated.

**PRIOR TO FINAL CITY ACCEPTANCE OF THE ROAD IMPROVEMENT PROJECT,
THE FOLLOWING CONDITIONS SHALL BE SATISFIED:**

Submit to the Planning Department (Morgan Tracy, 639-4171, ext. 2428) for review and approval:

5. Prior to final acceptance of the project, the Project Arborist shall submit to the City Forester a final report describing how the Tree Protection Plan was implemented and detailing any failures to comply with the Tree Protection Plan. The report shall also describe the health of all remaining trees on the site, with details provided as to any tree that has had its root system disturbed or that has otherwise been damaged.
6. Prior to final acceptance of the project, the applicant must provide City staff with a letter from Clean Water Services that indicates compliance with the approved service provider letter (#4162) and that all conditions of approval from the service provider letter were complied with during all phases of construction

**THIS APPROVAL SHALL BE VALID FOR 18 MONTHS
FROM THE EFFECTIVE DATE OF THIS DECISION.**

SECTION III. BACKGROUND INFORMATION

Site History:

The site is comprised of the length of the street improvement project, between SW 121st and SW 135th Avenues. The focus of this review is three particular "sub-sites;" two stream crossings (1. Krueger Creek located east of SW 128th, and 2. an unnamed tributary to Krueger Creek located between SW 122nd and 123rd Avenues) and the reconfiguration of a three-way intersection at SW 135th/Walnut Lane/ and Walnut Street. The site is currently occupied by an existing substandard street, lacking sidewalks, curbs in many places, and two vehicle lanes with narrow shoulders. The County recently completed improvements to the intersection of SW 121st and Walnut. These improvements terminated just east of SW 122nd.

Vicinity Information:

The site is right-of-way that is located in the R-4.5 zone and the R-7 zone, and abuts the R-25 zone for a small portion of the site boundary. It is located on SW Walnut Street between SW 121st and SW 135th Avenue.

Site Information and Proposal Description:

The site is currently developed with a substandard street and associated improvements. The applicant is proposing to widen the street from two to three lanes, add curbs, storm drainage, and sidewalks. This will make a consistent improvement with other sections of SW Walnut that have already been improved. As part of the construction, additional fill will be placed in the drainageways to provide for the increased road width, and SW Walnut Lane will be terminated with a hammerhead in order to rectify an unsafe three way intersection.

SECTION IV. PUBLIC COMMENTS

The City mailed notice to property owners within 500 feet of the subject site providing them an opportunity to comment. Staff received two letters and several phone calls related to the proposed street project. A number of the concerns were related to the design of the overall street project. It should be noted that this land use review is specifically limited to the impact

analysis related to the two stream crossings, related tree removal and the proposed adjustment to permit the cul-de-sac to be longer than allowed and the block length to be longer than allowed. As far as comments that were specific to these issues, staff received the following:

Sue Beilke, Director of the Biodiversity Project of Tigard, notes that by redesigning the project design to eliminate a center turn lane through the sensitive land areas thus reducing the overall proposed street width, impacts to these resources would be reduced.

RESPONSE: Ms. Beilke raises an important consideration which is discussed in more detailed in the sensitive lands analysis below. The balancing of competing interests (road safety versus environmental impacts) is a central part of that discussion.

SECTION V. DECISION MAKING PROCEDURES, PERMITS AND USE

Summary Land Use Permits: Chapter 18.310

Defines the decision-making type to which the land-use application is assigned.

The request involves two adjustments to street improvement requirements (Type II Process), and two requests for sensitive lands reviews in drainageways (Type II Process as determined by 18.775.020.D and E.) Also included in the request are tree removal permits (Type I Process). The proposed project would typically not be subject to review as it is a street improvement project, the design for which has been acknowledged by City Council¹; however, because a portion of the project impacts two drainageways, and the proposed closure of Walnut Lane does not meet other applicable street improvement standards, this request is subject to administrative land use review by staff as a Type II process.

SECTION V. SUMMARY OF APPLICABLE CRITERIA

A summary of the applicable criteria in this case in the Chapter order in which they are addressed in this report are as follows:

- A. Applicable Development Code Standards**
 - 18.390 (Decision-Making Procedures)
 - 18.370 (Variances and Adjustments)
 - 18.510 (Residential Zoning Districts)
 - 18.775 (Sensitive Lands Review)
 - 18.790 (Tree Removal)
 - 18.810 (Street and Utility Improvement Standards)

SECTION VI. APPLICABLE REVIEW CRITERIA AND FINDINGS

A. APPLICABLE DEVELOPMENT CODE STANDARDS

Variances and Adjustments (18.370)

¹ 18.810.030.E. states “Unless otherwise indicated on an approved street plan, or as needed to continue an existing improved street, street right-of-way and roadway widths shall not be less than the minimum width described [in Table 18.810.1]...(The City Council may adopt by resolution, design standards for street construction and other public improvements. The design standards will provide guidance for determining improvement requirements within the specified ranges.)” While this provision allows Council to adopt street designs with different road and right-of-way widths, other provisions of 18.810, such as block and cul-de-sac length, still apply.

Adjustments for street improvement requirements (Chapter 18.810). By means of a Type II procedure, as governed by Section 18.390.040, the Director shall approve, approve with conditions, or deny a request for an adjustment to the street improvement requirements, based on findings that the following criterion is satisfied: **Strict application of the standards will result in an unacceptably adverse impact on existing development, on the proposed development, or on natural features such as wetlands, steep slopes or existing mature trees.** In approving an adjustment to the standards, the Director shall determine that the potential adverse impacts exceed the public benefits of strict application of the standards.

The applicant is requesting to close SW Walnut Lane where it currently intersects with SW Walnut Street. The reason is that the current 3-way configuration of SW Walnut Lane, SW Walnut Street and SW 135th will no longer work safely after SW Walnut Street is widened. To make this intersection function properly, one of the three streets has to be eliminated from the intersection. SW Walnut Lane is an Arterial, SW 135th is a neighborhood route and Walnut Lane is a local residential road. As such, it is reasonable to close the lowest classified route. While this will result in out of direction travel, it will affect the least number of users of the roadway system.

The requested adjustment will convert SW Walnut Lane from a through road to a long cul-de-sac. This cul-de-sac will measure approximately 725 feet, or 525 feet longer than what is prescribed by the code. The unacceptable adverse impact from strict compliance would be the result of designing a conforming intersection which in light of street separation requirements would locate the new intersection 125 feet away from Walnut Street. To accomplish this at least one, if not two existing homes would need to be removed. Moreover, a number of existing trees would have to be removed to make way for the new road alignment. The public benefit of a complying cul-de-sac is that the less distance that is served by a dead end street reduces the opportunities for roadway obstructions between emergency services and end points on the road. The marginal increase in length from 200 to 725 feet is mitigated in part by the fact that emergency vehicles will still be able to access from the other end of Walnut Lane since it will still abut public right-of-way and not be fenced off by private development. The director therefore finds that the potential adverse impact to the existing development and trees exceeds the public benefit of a complying cul-de-sac.

The second adjustment is a function of the same request. By terminating SW Walnut Lane, the block previously formed by SW Walnut Lane, SW 135th Ave, SW Fern Street, and SW 138th Ave measuring 2,500 feet, is interrupted. The new block is therefore measured by traveling SW 135th to SW Fern, to SW 138th, to SW 139th, left on SW Marcia to SW Northview Terrace, right to 130th Terrace, right on SW Liden, and left on SW Wilton to SW Walnut Street, back to SW 135th. The total distance for this circuitous route is roughly 5,700 feet. One possible complying solution would be to add an intervening street connection inside the original block. The most practical point to do this would be to extend SW 136th Court south from Walnut Lane to SW Fern Street, creating a block of 1,800 feet. This would incidentally reduce the length of the Walnut Lane cul-de-sac to 350 feet. The adverse impact would be the need to condemn right-of-way through the yards of four properties, construct this street extension, remove trees in doing so, as well as impact at least one house. It should be noted that it is inherently difficult to create conforming blocks in proximity to arterial streets due to the 600 foot street spacing requirement. This is acknowledged in the standard that requires limited block lengths². It is also difficult to create conforming blocks when land development is not being proposed, as is the case here. While the City has the authority to condemn land for public rights of way when it is in the general public interest to do so, the Director determines that the public benefit of a conforming block length does not outweigh the adverse impact to existing development and mature trees. It is possible that with future development of these parcels, this street can be extended; however, it is not reasonable to require this extension as part of this project.

² 18.810.040.B.1. states "The perimeter of blocks formed by streets shall not exceed 2,000 feet measured along the centerline of the streets except: For blocks adjacent to arterial streets, limited access highways, collectors or railroads."

FINDING: The Director has determined that the adverse impacts are greater than the public benefit of a fully complying street. The criteria for the adjustment are met.

Sensitive Lands (18.775)

Steep slopes. The appropriate approval authority shall approve, approve with conditions or deny an application request for a sensitive lands permit on slopes of 25% or greater or unstable ground based upon findings that all of the following criteria have been satisfied:

1. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than that required for the use;
2. The proposed land form alteration or development will not result in erosion, stream sedimentation, ground instability, or other adverse on-site and off-site effects or hazards to life or property;
3. The structures are appropriately sited and designed to ensure structural stability and proper drainage of foundation and crawl space areas for development with any of the following soil conditions: wet/high water table; high shrink-swell capability; compressible/organic; and shallow depth-to-bedrock; and
4. Where natural vegetation has been removed due to land form alteration or development, the areas not covered by structures or impervious surfaces will be replanted to prevent erosion in accordance with Chapter 18.745, Landscaping and Screening.

The proposed land form alteration is limited to the extent necessary to provide for a street, sidewalk, and utilities. The applicant has attempted to limit the land alteration by eliminating the sidewalk planter strips and providing retaining walls to capture the road bed versus filling to create a slope. A geotechnical report has also been performed. A final erosion control and grading plan will be required as part of the engineering approval process to insure that grading within the steep slope areas will not result in sedimentation or erosion, as well as avoid on or off-site adverse effects. Furthermore, the City will require the applicant's engineer to submit the proposed construction plans to the geotechnical engineer for review and approval prior to City approval of the construction plans. To address erosion concerns and removal of vegetation, the applicant will be required to submit an erosion control plan prior to any grading. The applicant is furthermore required through the CWS service provider letter to re-plant disturbed areas following completion of the roadway improvements.

Drainageways. The Director shall have the authority to issue a sensitive lands permit in drainageways by means of a Type II procedure, as governed in Section 18.390.040, using approval criteria contained in Section 18.775.070 when the following circumstances apply:

- a. Ground disturbance(s) or land form alterations involving more than 50 cubic yards of material;

The applicant is proposing 203 cubic yards of cut, and 304 cubic yards of fill in the streambeds. For the vegetated corridor 79 cubic yards of cut and 584 cubic yards of fill are proposed. There will also be a total of 3,370 cubic yards that will be temporarily displaced to accommodate construction of culverts and retaining walls.

Within drainageways. The Director shall approve, approve with conditions or deny an application request for a sensitive lands permit within drainageways based upon findings that all of the following criteria have been satisfied:

1. The extent and nature of the proposed land form alteration or development will not create site disturbances to an extent greater than that required for the use;

The applicant has proposed the site disturbances to accommodate the improvements to Walnut Street, namely the addition of sidewalks, bike lanes, and center turn lane. As part of these improvements, changes to the existing culverts and stream channels will be necessary. The total approximate square footage proposed to be altered is 1,750 square feet along

Krueger Creek, and 1,950 square feet along the unnamed tributary to Krueger Creek. The applicant has proposed to lessen the degree of disturbance with the use of retaining walls rather than constructing a 2:1 roadway slope. Also, the applicant's plan eliminates the planter strip areas to further constrict the width of the crossing. One letter received during the comment period notes that the design for Walnut Street includes a center turn refuge lane, even through the stream crossing areas. The letter questions whether this street section could be narrowed (by eliminating the center turn lane) to restrict the amount of land form alteration, and lessen the site disturbances while still providing for the street improvements.

The applicant has responded that the goal of the project is to make roadway improvements in order to provide a safer road than what currently exists in an effort to reduce the hazards to human life. Removing the center turn lane at these drainage crossings would not accomplish this because of the need for left turns at SW 123rd Avenue and into the residential driveways adjacent to the crossings. The elimination of the center turn lane would also impact the intersections of SW 122nd Avenue and SW 128th Avenue and potentially SW 121st Avenue.

This center lane storage is important because a single left-turning vehicle waiting for a gap in the oncoming traffic stream would block through movements. With the expected traffic volumes, waiting for a gap would cause a considerable back-up and could potentially cause rear-end crashes because of the unexpected stopping in the through lane. It is also poor practice to have left-turn storage through the entire corridor except for a few places. All drivers are creatures of habit and expect uniformity. Encountering a stopped vehicle in the through lane when it is expected to be in a turn lane would be a surprise. Some rear-end crashes would likely be a direct result of removing the left turn lane, as documented in the applicant's traffic report assessing the current road section that does not provide a left turn refuge lane.

The other implication of removing the center turn lane at these crossing would be that some drivers may decide to drive into the bicycle lane if a stopped left-turning vehicle were encountered. This would not only be an illegal action but a dangerous condition inflicted on bicyclists.

Also, the applicant notes that with the center turn lane, the two travel lanes are narrower than normal (proposed 11' wide). Without a median lane, these travel lanes would need to be wider (approximately 13' wide) for extra "shy distance" to account for driver error. The median lane is 12' wide. By eliminating the median lane, the travel lanes get wider, and the net result is a reduction of the roadway by eight feet. In the Krueger Creek crossing, approximately 960 square feet less impact would result. At the unnamed tributary, approximately 2,640 square feet less impact would result. The total reduction in impact of 3,600 square feet, does not account for the impact that will still result from the construction of culverts, grading, and equipment access. So the net reduction in construction impact would be less than the estimated 3,600 square feet. Even so, the location of the nearby intersections and multiple driveways, makes narrowing the road a less safe option, and would require long tapers to assist drivers to safely transition to the narrow section. As proposed, these "dead zones" over the streams where the median is provided, but no turning movements need accommodation, landscaped islands will be provided. This will soften the look of the street and provide some additional canopy cover over the pavement which may in turn reduce the temperature of the stormwater runoff into the streams.

Lastly, the applicant has already incorporated design measures to reduce the impact of site disturbances:

- ◆ Use of a narrower road cross-section from current City of Tigard design standards to minimize the width of the proposed roadway while still improving the safety of the road. Current standards call for an overall footprint of 74 feet which includes 2-12' travel lanes, 14' center turn lane, 2-6' bikelanes, 2-6' planter strips and 2-6' sidewalks. The proposed roadway cross-section utilizes a narrower width by reducing the travel lanes (11'), the center turn lane (12'), bike lanes (5') and the removal of the planter strip for a total footprint of 60 feet, or 14 feet narrower than typical.
- ◆ Use of walls to minimize the impact to the sensitive areas instead of vegetated slopes.

In addition to the measures taken to minimize the impacts, the project fully mitigates the impacts and improves the existing conditions as follows:

- ◆ A fish friendly passage box culvert, with a natural bottom, has been designed at Krueger Creek. The existing culvert pipe restricts potential fish passage and the improvements will now allow fish to migrate upstream. The new box culvert will daylight the creek sooner than the existing pipe does.
- ◆ Removal of a fish passage barrier (the eliminating of the driveway and culvert) immediately upstream of the Krueger Creek crossing and restoration of the stream channel back to its natural state.
- ◆ Removal of a six foot high fish passage barrier approximately 110 feet downstream of the Krueger Creek crossing and restoration of the stream channel back to its natural state.
- ◆ Removal of a semi-buried culvert located on an adjacent property, just upstream of the Krueger Creek crossing. This semi-buried culvert is in a deteriorated state and presents an unnatural obstacle in the stream. Removal will enhance the stream and help to restore it to its natural state.
- ◆ At the unnamed tributary (Terrace Lake), less than 0.02 acres of wetlands is being directly impacted. The payment in-lieu associated with this impact was made to DSL for their discretionary use in other, larger, wetland projects. This option was employed because the mitigation that would be performed by the project would not be effective in providing any long- term improvement. A mitigation plan has been prepared for the restoration of any areas that are impacted temporarily for the construction of the project. Plantings will be compatible with the existing vegetation.

In a good faith effort, the County will attempt to provide CWS buffer enhancements on adjacent private property (for both Krueger Creek and at Terrace Lake) as the property owners allow. This is completely at the will of the property owner but should the owner allow it, the County will provide plantings in these areas to bring the vegetated corridors to a "good" level according to CWS standards.

As a result of these efforts, and to accomplish the goal of the road improvement project, the development will not be creating site disturbances to an extent greater than that required for the use.

2. The proposed land form alteration or development will not result in erosion, stream sedimentation, ground instability, or other adverse on-site and off-site effects or hazards to life or property;

The applicant has prepared and submitted preliminary erosion control plans, with provisions for sediment retention for the construction impact area. Additionally, the applicant has submitted a Geotechnical Report, prepared by Geo Design to address ground instability concerns. The Hydrologic Report has evaluated the current and proposed conditions of the stream to ensure that no up stream or down stream impacts will occur. A Natural Resources Assessment, Biological Assessment, and Wetland Report prepared by David Evans and Associates has examined the impacts to the wildlife and other natural resources, and finds that the temporary nature of the disturbance will have minimal limited impact, and in regard to the replaced culverts, better fish passage will result. Finally, a Level 1 Hazardous Materials assessment was conducted to ensure that any sedentary hazardous materials are not present in the disturbance area which could be mobilized by the construction activity and transported downstream. That report found no evidence of recognized hazardous environmental conditions in the project area. Provided the recommendations of the various special reports are adhered to, the land form alteration will not result in adverse on or offsite impacts.

An erosion control and grading plan will be required as part of the final engineering approval process to insure that grading within the steep slope areas will not result in sedimentation or erosion, as well as avoid on or off-site adverse effects. Furthermore, the City will require the applicant's engineer to submit the proposed construction plans to the geotechnical engineer for review and approval prior to City approval of the construction plans.

3. The water flow capacity of the drainageway is not decreased;

The applicant has submitted a preliminary Hydraulic Report, prepared by David Evans and Associates, dated February 23, 2004. The findings within this report confirm that the water flow capacity of the drainageways are not decreased. Refer to page 12 of the Hydrology Report.

4. Where natural vegetation has been removed due to land form alteration or development, the areas not covered by structures or impervious surfaces will be replanted to prevent erosion in accordance with Chapter 18.745, Landscaping and Screening;

The applicant has submitted landscape restoration plans that Clean Water Services has reviewed and accepted. Additional mitigation planting will also occur. Erosion control plans have also been included to prevent erosion during the immediate disturbance period.

5. The drainageway will be replaced by a public facility of adequate size to accommodate maximum flow in accordance with the adopted 1981 Master Drainage Plan;

The 1981 Master Drainage Plan does not identify any public facilities for this portion of Krueger Creek or its unnamed tributary. Moreover, the drainageway is not being replaced; an existing culvert is being replaced and lengthened to accommodate the increased road and pedestrian improvements. The culvert is also being upsized to facilitate fish passage and stormwater conveyance.

6. The necessary U.S. Army Corps of Engineers and State of Oregon Land Board, Division of State Lands, and CWS approvals shall be obtained;

The applicant has shown approvals from Clean Water Services, but has not yet obtained U.S. Army Corps of Engineers, and Division of State Lands approvals. These will be required prior to commencing any site work.

7. Where land form alterations and/or development are allowed within and adjacent to the 100-year floodplain, the City shall require the consideration of dedication of sufficient open land area within and adjacent to the floodplain in accordance with the Comprehensive Plan. This area shall include portions of a suitable elevation for the construction of a pedestrian/bicycle pathway within the floodplain in accordance with the adopted pedestrian bicycle pathway plan.

There is no 100-year floodplain within or adjacent to the proposed development. This standard is inapplicable.

FINDING: Provided the applicant complies with the following conditions, the proposal can meet the criteria necessary to issue a sensitive lands permit on this particular site.

CONDITIONS:

- Following completion of the roadway improvements, the applicant must provide City staff with a letter from Clean Water Services that indicates compliance with the approved service provider letter (#4162).

- Prior to any site work, the applicant shall provide evidence of all necessary approvals from US Army Corps of Engineers and the Division of State Lands.
- Prior to commencing on site improvements, the applicant shall have the geotech engineer review and approve the construction plans for the City's review and approval.

Tree Removal (18.790)

The applicant is proposing to remove a number of trees in relation to the total street improvement project. A tree plan is not required for the project for two reasons. First, the project is not a subdivision, partition, site development review, planned development, or conditional use, and therefore is not subject to the tree plan requirements. Secondly, the trees are being removed from public rights of way which are neither lots nor parcels.

However, tree permits are required for the removal of any tree that is located in a sensitive land area. The applicant is proposing to remove a total of 18 trees from the four impact areas (both sides of the two drainageways).

18.790.050 states that tree removal permits shall be required for the removal of any tree which is located on or in a sensitive land area as defined by Chapter 18.775. The permit for removal of a tree shall be processed as a Type I procedure, as governed by Section 18.390.030, using the following approval criteria:

1. **Removal of the tree must not have a measurable negative impact on erosion, soil stability, flow of surface waters or water quality as evidenced by an erosion control plan which precludes:**
 - a. **Deposits of mud, dirt, sediment or similar material exceeding 1/2 cubic foot in volume on public or private streets, adjacent property, or into the storm and surface water system, either by direct deposit, dropping, discharge or as a result of the action of erosion;**
 - b. **Evidence of concentrated flows of water over bare soils; turbid or sediment-laden flows; or evidence of on-site erosion such as rivulets on bare soil slopes where the flow of water is not filtered or captured on site using the techniques of Chapter 5 of the Washington County Unified Sewerage Agency Environmental Protection and Erosion Control rules.**

The applicant has submitted erosion control plans that follow Clean Water Services standards. Clean Water Services has reviewed the project proposal and offered no comments and expressed no concerns. The Service Provider Letter also requires the implementation of an erosion control plan, and revegetation plan. A revegetation plan provides long term erosion prevention for the disturbed area. By implementing and adhering to these plans, erosion impacts will be minimal. The erosion control elements also include provisions for soil stabilization and water quality. Barriers will be in place to ensure that flow of surface waters are not impeded.

Additional protection measures have been recommended by the City Forester to ensure additional trees beyond what has been approved are not detrimentally impacted. This will further ensure that erosion controls will remain effective and soil stability is not affected.

2. **Within stream or wetland corridors, as defined as 50 feet from the boundary of the stream or wetland, tree removal must maintain no less than a 75% canopy cover or no less than the existing canopy cover if the existing canopy cover is less than 75%.**

The applicant has included a natural resource assessment that analyzes the existing tree canopy and a vegetative restoration outline that analyzes the proposed canopy cover after project completion. The existing canopy cover in the four areas of impact are 80%, 5%, 60%, and 10%, or a total square footage of 14,238 square feet. The applicant's revegetative plan

will add 43,510 square feet of canopy at plant maturity (a 300% increase), ensuring that the stream corridor will maintain a minimum of 80% canopy cover. Although the City's requirement allows the canopy cover mitigation to equal the existing canopy cover if less than 75% is already present, Clean Water Services requires a higher degree of mitigation for this removal. Since the Clean Water Services requirement is for 80% cover, and the applicant's landscape plan meets this requirement, the plan likewise meets the City's 75% canopy cover requirement.

FINDING: With the implementation of the applicant's landscape and erosion control plans and the further recommendations of the City Forester, this standard is met.

CONDITIONS:

- ◆ The applicant shall submit a final Tree Protection Plan that shows exactly how far the tree protection fencing will be from the face of each protected tree (including those on neighboring properties where construction occurs within the trees' driplines) that will be impacted by construction activities within its dripline. The applicant, through their Project Arborist, shall justify the close proximity of the construction activities to the trees. He shall certify that the activities will not adversely impact the overall and long-term health and stability of each tree. Any construction that occurs within the neighboring trees' driplines should be justified by the applicant and approved by the City Forester and neighboring property owner(s). Work may proceed within the driplines only with the approval of the City Forester.
- ◆ The Project Arborist shall submit written reports to the City Forester, at least, once every two weeks, as he monitors the construction activities and progress. These reports should include any changes that occurred to the TPZ as well as the condition and location of the tree protection fencing. If the amount of TPZ was reduced then the Project Arborist shall justify why the fencing was moved, and shall certify that the construction activities to the trees did not adversely impact the overall and long-term health and stability of the tree(s). If the reports are not submitted or received by the City Forester at the scheduled intervals, and if it appears the TPZ's or the Tree Protection Plan is not being followed by the contractor, the City can stop work on the project until an inspection can be done by the City Forester and the Project Arborist. This inspection will be to evaluate the tree protection fencing, determine if the fencing was moved at any point during construction, and determine if any part of the Tree Protection Plan has been violated.
- ◆ Prior to issuance of building permits the Project Arborist shall submit to the City Forester a final report describing how the Tree Protection Plan was implemented and detailing any failures to comply with the Tree Protection Plan. The report shall also describe the health of all remaining trees on the site, with details provided as to any tree that has had its root system disturbed or that has otherwise been damaged.

SECTION VII. OTHER STAFF COMMENTS

The City of Tigard Building Division has reviewed this application, but offered no comments.

The City of Tigard Engineering Department was sent this proposal for review and stated that they have no additional comments to add to the application.

City of Tigard Arborist has reviewed this application and provided the following comments:

LANDSCAPING AND SCREENING

18.745.030.C, Installation Requirements The installation of all landscaping shall be as follows:

The accepted planting procedures are the guidelines described in the Tigard Tree Manual. These guidelines follow those set forth by the International Society of Arboriculture (ISA) tree planting guidelines as well as the standards set forth in the American Institute of Architects' Architectural Graphic Standards, 10th edition. In the Architectural Graphic Standards there are guidelines for selecting and planting trees based on the soil volume and size at maturity. Additionally, there are directions for soil amendments and modifications.

In order to develop tree species diversity onsite it is recommended that the following guidelines be followed:

- ◆ No more than 30% of any one family be planted onsite.
- ◆ No more than 20% of any one genus be planted onsite.
- ◆ No more than 10% of any one species be planted onsite.

TREE REMOVAL

18.790.030, Tree Plan Requirement

A tree plan was not required as part of this project according to 18.790.030. Therefore, no review is necessary. However, any tree that is located on property adjacent to the construction project that will have more than 15% of its root system disturbed by construction activities should be protected. These trees should be identified, and a plan on how to protect the trees' critical root zones should be completed. I recommend the following if there are trees on neighboring properties that should be protected:

A note shall be placed on the final set of plans indicating that equipment, vehicles, machinery, grading, dumping, storage, burial of debris, or any other construction-related activities shall not be located inside of any tree protection zone or outside of the limits of disturbance where other trees are being protected.

All tree protection devices shall be:

- ◆ Visible.
- ◆ Constructed of 11 Gauge steel chain-link fencing supported on at least 2" O.D. steel posts. Each post shall be no less than four feet high from the top of grade. Each post shall be driven into the ground to a depth of no less than two and a half feet below grade. Each post shall be spaced no further apart than four feet.
- ◆ Between each post, securely attached to the chain-link fencing, shall be a sign indicating that the area behind the fencing is protected and no construction activity, including material storage, may occur behind the fencing.
- ◆ Inspected and approved in the field by the project arborist and City Forester prior to clearing, grading, or the beginning of construction.
- ◆ Remain in place and maintained until all construction is completed and a final inspection is conducted.

To determine the size of the tree protection zone (TPZ) the project arborist should follow the guidelines listed below:

- ◆ For individual trees follow the trunk diameter method. For every one-inch of diameter at breast height (DBH), or 4 ½ feet above the ground, allow 12 inches of space from the trunk of the tree. For example, a tree that is 15" at DBH must have at least 15' of tree protection zone around the entire canopy of the tree.
- ◆ For groups of trees the tree protection zone must be outside of the drip line of the trees on the edge of the stand. If there are conifers with narrow crowns on the edge of the stand follow the trunk diameter method or the drip line method, whichever is greater.
- ◆ Calculate and follow the Optimal Tree Protection Zone calculation as shown in "*Trees and Development: A Technical Guide to Preservation of Trees During Land Development*" by Nelda Matheny and James R. Clark.

- ◆ The project arborist may propose an alternate method for the establishment of the TPZ, provided the effort is coordinated with the City Forester.

If it is necessary to enter the tree protection zone at any time with equipment (trucks, bulldozers, etc.) the project arborist and City Forester must be notified before any entry occurs. Before entering the TPZ, the project arborist and City Forester shall determine the method by which entry can occur, along with any additional tree protection measures.

If you have any questions please call Matt Stine (ext. 2589). Thank you for requesting my comments on this project.

SECTION VIII. AGENCY COMMENTS

Clean Water Services has reviewed the proposal, and has no concerns or comments. CWS's review and preconditions are included with the application as Service Provider Letter, file number 4162.

Washington County has reviewed the proposal and indicated that they have no comments or objections to the proposal.

The US Army Corps of Engineers notes that this project has already received authorization from the Corps.

QWEST noted that the project is outside their service territory.

Oregon DEQ, Oregon DSL, and Oregon DFW were given the opportunity to review this proposal and submitted no comments or objections.

Tualatin Valley Fire and Rescue, PGE, NW Natural, Comcast, Verizon, and Tri-Met were given the opportunity to review this proposal and submitted no comments or objections.

SECTION IX. PROCEDURE AND APPEAL INFORMATION

Notice:

Notice was posted at City Hall and mailed to:

- The applicant and owners
- Owner of record within the required distance
- Affected government agencies

Final Decision:

**THIS DECISION IS FINAL ON OCTOBER 5, 2004 AND BECOMES
EFFECTIVE ON OCTOBER 20, 2004 UNLESS AN APPEAL IS FILED.**

Appeal:

The decision of the Director (Type II Procedure) or Review Authority (Type II Administrative Appeal or Type III Procedure) is final for purposes of appeal on the date that it is mailed. Any party with standing as provided in Section 18.390.040.G.1. may appeal this decision in accordance with Section 18.390.040.G.2. of the Tigard Community Development Code which provides that a written appeal together with the required fee shall be filed with the Director within ten (10) business days of the date the notice of the decision was mailed. The appeal fee schedule and forms are available from the Planning Division of Tigard City Hall, 13125 SW Hall Boulevard, Tigard, Oregon 97223.

Unless the applicant is the appellant, the hearing on an appeal from the Director's Decision shall be confined to the specific issues identified in the written comments submitted by the parties during the comment period. Additional evidence concerning issues properly raised in the Notice of Appeal may be submitted by any party during the appeal hearing, subject to any additional rules of procedure that may be adopted from time to time by the appellate body.

THE DEADLINE FOR FILING AN APPEAL IS AT 5:00 PM ON OCTOBER 19, 2004.

Questions:

If you have any questions, please call the City of Tigard Planning Division, Tigard City Hall, 13125 SW Hall Boulevard, Tigard, Oregon at (503) 639-4171.

PREPARED BY: _____
Morgan Tracy
Associate Planner

October 5, 2004

DATE

APPROVED BY: _____
Richard Bewersdorff
Planning Manager

October 5, 2004

DATE