



City of Portland, Oregon
Bureau of Development Services
Land Use Services

FROM CONCEPT TO CONSTRUCTION

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Date: April 26, 2012
To: Interested Person
From: Stacey Castleberry, Land Use Services
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NOTICE OF A TYPE II DECISION ON A PROPOSAL IN YOUR NEIGHBORHOOD

The Bureau of Development Services has approved a proposal in your neighborhood. The reasons for the decision are included in this notice. If you disagree with the decision, you can appeal it and request a public hearing. Information on how to appeal this decision is listed at the end of this notice.

CASE FILE NUMBER: LU 12-109183 EN TR

GENERAL INFORMATION

Applicant: City of Portland, Bureau of Environmental Services
Attn: Don Henry
1120 SW 5th Avenue, Suite 1100
Portland, OR 97204

Representative: Pacific Habitat Services Inc.
Attn: Craig Turner
9450 SW Commerce Circle, Suite 180
Willsonville, OR 97070

Site Address: FOSTER between SE 106TH and SE 112th AVE

Legal Description: LOT 1&4 TL 2600, STOUTS AC; LOT 1&4 TL 2500, STOUTS AC; N 78.3' OF LOT 5, STOUTS AC; S 52' OF LOT 5 LOT 8, STOUTS AC; LOT 9 TL 2900, STOUTS AC; LOT 9&12 TL 3000, STOUTS AC; LOT 13, STOUTS AC; LOT 2 TL 4700, STOUTS AC; LOT 2&3 TL 4600, STOUTS AC; LOT 6, STOUTS AC; LOT 7, STOUTS AC; LOT 10, STOUTS AC; LOT 14, STOUTS AC; TL 4800 0.50 ACRES, SECTION 15 1S 2E; TL 4700 0.34 ACRES, SECTION 15 1S 2E; TL 4300 0.36 ACRES, SECTION 15 1S 2E; TL 4600 0.30 ACRES, SECTION 15 1S 2E; TL 4500 0.71 ACRES, SECTION 15 1S 2E; TL 3500 0.30 ACRES, SECTION 15 1S 2E; TL 3900 0.15 ACRES, SECTION 15 1S 2E; TL 3700 0.25 ACRES, SECTION 15 1S 2E; TL 3600 0.20 ACRES, SECTION 15 1S 2E; TL 500 0.06 ACRES, SECTION 15 1S 2E; TL 100 0.48 ACRES, SECTION 22 1S 2E; TL 2300 1.06 ACRES, SECTION 22 1S 2E; TL 1000 2.04 ACRES, SECTION 22 1S 2E; TL 500 0.07 ACRES, SECTION 22 1S 2E; TL 4400 0.91 ACRES, SECTION 22 1S 2E; TL 2400 1.10 ACRES, SECTION 22 1S 2E; TL 900 1.74 ACRES, SECTION 22 1S 2E; TL 200 0.35 ACRES, SECTION 22 1S 2E; TL 300 0.29 ACRES, SECTION 22 1S 2E; TL 3000 0.40 ACRES, SECTION 22 1S 2E; TL 3100 0.40 ACRES, SECTION 22 1S 2E; TL 400 0.32 ACRES, SECTION 22 1S 2E; TL 1400 0.43 ACRES, SECTION 22 1S 2E; TL 2200 1.14 ACRES, SECTION 22 1S 2E; TL 700 0.49 ACRES, SECTION 22 1S 2E; TL 1300 0.67 ACRES, SECTION 22 1S 2E; TL 600 0.40 ACRES, SECTION 22 1S 2E; TL 3200 19.55 ACRES, SECTION 22 1S 2E

Tax Account Numbers: R798000010, R798000060, R798000100, R798000150, R798000200, R798000250, R798000300, R798000600, R798000650, R798000700, R798000750, R798000800, R798000900, R992150640, R992150740, R992150920, R992150930, R992151510, R992151740, R992152330, R992152370, R992152410, R992153170, R992220090, R992220120, R992220440, R992220490, R992220510, R992220520, R992220560, R992220640, R992220650, R992220710, R992220990, R992221030, R992221040, R992221050, R992221080, R992221110, R992221360, R992221570

State ID Numbers: 1S2E22BA 02600, 1S2E22BA 02500, 1S2E22BA 02700, 1S2E22BA 02800, 1S2E22BA 02900, 1S2E22BA 03000, 1S2E22BA 03100, 1S2E22BA 04700, 1S2E22BA 04600, 1S2E22BA 04400, 1S2E22BA 04300, 1S2E22BA 04200, 1S2E22BA 04000, 1S2E15CC 04800, 1S2E15CC 04700, 1S2E15CC 04300, 1S2E15CC 04600, 1S2E15CC 04500, 1S2E15CD 03500, 1S2E15CD 03900, 1S2E15CD 03700, 1S2E15CD 03600, 1S2E22AB 00500, 1S2E22BA 00100, 1S2E22BA 02300, 1S2E22BA 01000, 1S2E22BB 00500, 1S2E15CC 04400, 1S2E22BA 02400, 1S2E22BA 00900, 1S2E22BB 00200, 1S2E22BB 00300, 1S2E22BB 03000, 1S2E22BB 03100, 1S2E22BB 00400, 1S2E22BA 01400, 1S2E22BA 02200, 1S2E22BB 00700, 1S2E22BA 01300, 1S2E22BB 00600, 1S2E22BB 03200

Quarter Section: 3741

Neighborhood: Lents, contact David Hyde at 503-772-1376.

Business District: Foster Area, contact Nancy Chapin at 503-313-1665.

District Coalition: East Portland Neighborhood Office, contact Richard Bixby at 503-823-4550.

Plan District: Johnson Creek Basin - Flood Risk

Other Designations: 100-year floodplain

Zoning: CG, IH, EX, OS, R10b, c, d, p

Case Type: EN TR --Environmental Review; Tree Review

Procedure: Type II, an administrative decision with appeal to the Hearings Officer.

Proposal: The applicant, the Bureau of Environmental Services (BES) proposes continued work on the East Lents Johnson Creek floodplain restoration project. In this Environmental Review, the applicant proposes the public access improvements for Phase 2 of the project. The entire restoration site encompasses approximately 70 acres. The project will enhance fish habitat and flood storage capabilities of the Johnson Creek floodplain, and restore and enhance wetland and non-wetland riparian plant communities and habitats within the project area. The improved floodplain function will reduce the damages and economic impacts associated with flooding.

The project includes two phases. Phase 1 was approved through Case File Number LU 10-106710 EN AD. A portion of Phase 2 was approved in Case File Number LU 11-188353 EN. Those portions of the East Lents Floodplain Restoration Project approved in previous City of Portland Bureaus of Development Services Land Use Decisions are described below:

- **LU 10-106710 EN AD - Land Use Decision, April 14, 2010:** This Land Use Decision approved an Environmental Review for 1) grading along Johnson Creek to provide additional flood storage capacity and off-channel fish habitat; and 2) a new 700-foot-long walkway along SE 110th Drive; all within the Environmental Protection and Conservation overlay zone.
- **LU 10-106710 EN AD - Revised Land Use Decision, February 1, 2011:** This Land Use Decision approved the removal of trees from four tax lots that had not previously been included in the project design and the removal of trees for the construction of a new road from SE 112th Avenue to SE 108th Avenue.
- **LU 11-188353 EN - Land Use Decision January 26, 2012:** This Environmental Review approved removal of a 72-inch culvert, creation of a vegetated swale,

excavation of 24,400 cubic yards to enhance 18 acres of floodplain along Johnson Creek, and removal of 177 trees, all as preliminary work for Phase 2 of the project.

The current environmental review application includes aspects of the East Lents Floodplain Restoration Project Phase 2 that were not included in previous reviews. This review addresses public access improvements (a 10-foot-wide public recreational trail); removal of the existing SE 106th Avenue, SE 108th Avenue, and SE 110th Avenue bridges over Johnson Creek; and removal of non-native trees from the project area.

In addition, a parking lot and associated infrastructure to provide access to the new public trail, and a sidewalk and “pocket park” will be constructed outside of the environmental zone, on the south side of SE Foster Road. The proposed parking lot at the intersection of SE 106th Avenue and SE Foster Road and associated stormwater facilities, as well as the six-foot-wide sidewalk and small “pocket park” on the south side of SE Foster Road, are all outside of the environmental overlay zones and are not included in this environmental review.

Pedestrian Trail: The pedestrian trail will extend from the northwestern portion of the project site near SE Foster Road, southeast across Johnson Creek to the intersection of the SE 108th Avenue right of way, and the newly constructed east-west access road (SE Cooper Street). The trail will follow the berm southwest of Johnson Creek, and then turn south within the SE 108th Avenue right of way, after the roadway is closed. The trail has been aligned to avoid removing additional trees. The total length of the trail is approximately 1,853 feet.

The new pedestrian trail will consist of 10-foot-wide asphalt path with 2-foot gravel shoulders on either side. A new pre-fabricated pedestrian bridge will be installed where the trail crosses Johnson Creek in the western portion of the project area. The bridge will consist of a 10-foot-wide steel truss with concrete deck. Steel mesh panels will be used as the side railing. The bridge footings will be constructed above the top of the stream banks, and the bridge deck will be located above the 100-year flood elevation of 210 feet. Raising the trail to meet the required bridge elevation will involve placing approximately 100 cubic yards of fill on the south side of Johnson Creek.

Bridge Removal: The existing SE 106th Avenue, SE 108th Avenue, and SE 110th Avenue bridges over Johnson Creek will be removed as part of Phase 2 of the East Lents Floodplain Restoration. The 24,400 cubic yards of excavation and 8,537 cubic yards of fill within the resource area of the environmental zones described in LU 11-188353 EN includes earth-moving activities associated with the removal of these bridges. No additional excavation or fill will occur as a result of the bridge removal. The Phase 2 specifications call for the bridge removal to occur while Johnson Creek is isolated for the stream bank work and for a work containment system to be in place for removal activity, as well.

Much of the site is within the City’s Environmental Conservation and Environmental Protection overlay zones. Certain standards must be met to allow the work to occur by right in the environmental overlay zones. If the standards are not met, an Environmental Review is required. In this case, the project includes grading below the top of bank of Johnson Creek and the removal of native trees. The proposed trail is wider than 4 feet. Zoning Code Standards 33.430.170 A and C, and 33.430.190 B are not met by the proposal; therefore the work must be approved through an Environmental Review.

Tree Removal: The site is within the Johnson Creek Basin Plan District and areas within the 100-year floodplain must meet standards for tree protection. Trees are proposed to be removed from areas outside the environmental zones, but within the Johnson Creek Basin Plan District special flood hazard area. If the tree removal standards listed in Zoning Code Section 33.537.125 are not met, then Tree Review according to Chapter 33.853 is required.

Construction of the sidewalk on the south side of SE Foster Road will require the removal of four native trees. No additional trees will be removed for the construction of the public recreational trail, the associated pedestrian bridge, the parking lot, or other associated

features. Trees to be removed within 10 feet of the new sidewalk meet the standards in 33.537.125.

Section 33.537.125 of the Johnson Creek Basin Plan District allows the removal of trees listed on the Nuisance Plants List of the *Portland Plant List*. All of the non-native species proposed for removal from the site are listed on the Nuisance Plant List, with the exception of sycamore maple (*Acer pseudoplatanus*). Although it is not currently considered a “nuisance plant” by the *Portland Plant List*, it is the applicant’s opinion that sycamore maple is invasive and could threaten the restoration area if not removed from the site. A total of 51 sycamore maples six inches or larger in diameter have been identified to be removed and will be addressed in the proposed Tree Review.

RELEVANT APPROVAL CRITERIA:

In order to be approved, this proposal must comply with the approval criteria of Title 33. The relevant approval criteria are found in these Zoning Code sections:

- **33.430.250 B** Environmental Review for Resource Enhancement Projects
- **33.853.040** Tree Review
- **33.430.250 C** Environmental Review for Public Recreational Facilities

FACTS

Site and Vicinity: The work proposed in this Environmental Review submission is part of the overall East Lents Floodplain Restoration project. The entire East Lents Floodplain Restoration Project area covers approximately 70 acres. The work proposed in this application encompasses approximately 1.29 acres. The project area includes portions of Johnson Creek at SE 106th Avenue, SE 108th Avenue, SE 110th Avenue, and the proposed trail crossing (about 250 feet west of the SE 106th Avenue bridge); riparian vegetation along Johnson Creek; and non-riparian vegetation scattered throughout the floodplain.

The reach of Johnson Creek within the East Lents Floodplain Restoration site is approximately 4,000 feet long. It meanders through an area that for decades has been developed with residential and commercial uses. The majority of the creek’s riparian area consists of landscaped and mowed areas that are dominated by non-native and invasive species.

Within the project area, Johnson Creek is a low-gradient stream dominated by scour pools and glides. The average gradient within this reach is between 0.1 and 0.2%. Relatively long glides occur along the straighter portions of the stream with relatively deeper pools in the meander bends. Five relatively short riffles occur in the vicinity of the existing road crossings. The substrate in the riffles is composed primarily of boulders and cobble-sized, non-native rock, with sand and gravels filling the spaces between the larger stones. The streambed substrate in the majority of the creek is primarily fine sediments (sand and silt).

Most of the banks throughout the study area are steep; the exceptions are where slumping has occurred. Portions of the bank are armored with stone walls or slabs of broken concrete. Some are likely from the 1930s when the Works Progress Administration (WPA) lined the banks to control flooding. Examples of the WPA work are the stone walls that line portions of the banks downstream of SE 108th Avenue and upstream of SE 110th Avenue. Armoring ranges in height from 3 feet above the streambed to the entire bank height. The portions of the bank without armoring typically have slopes in the range of 75% or greater. The number of overhanging banks that could provide habitat for salmonids is relatively low.

Vegetation growing below the top of bank is generally less than six feet tall. Vegetation on the steep banks includes a few shrubs or small trees but is typically reed canarygrass (*Phalaris arundinacea*) and Himalayan blackberry (*Rubus discolor*). Touch-me-not and stinging nettle (*Urtica dioica*) occur in areas where groundwater seeps are present. Woody vegetation consists of a few small willows with a few moist riparian shrubs, such as red-twig

dogwood (*Cornus sericea*) and Pacific ninebark (*Physocarpus capitatus*) along with drier shrubs, such as snowberry (*Symphoricarpos albus*).

Throughout the study area, the riparian area is relatively narrow, although many portions have trees that are able to shade portions of the creek and provide wildlife habitat. Over the years, the riparian area has diminished in area and quality due to the encroachment of houses, the farming of adjacent fields and competition from non-native species.

Eleven species of native trees, nineteen species of non-native trees, seven species of native shrubs, and nine species of non-native shrubs grow within the project area. Patches of blackberry, reed canarygrass and other non-native species occur throughout the project area. The land has been impacted for decades from agricultural activities and more recently residential. Although the project area provides habitat for a variety of birds and mammals, the impacts of human disturbance are common.

Zoning: The zoning designation on the site includes the General Commercial (CG), Heavy Industrial (IH), Open Space (OS), and Residential 10,000 (R10) base zones, with the buffer (“b”), Environmental Conservation (“c”), and Environmental Protection (“p”) overlay zones (see zoning on Exhibit B).

The CG zone is intended to allow auto-accommodating commercial development in areas already predominantly built in this manner and in most newer commercial areas. The zone allows a full range of retail and service businesses with a local or regional market. The proposal does not include any new uses; these provisions are not specifically addressed through this Environmental Review.

The IH zone is one of the three zones that implement the Industrial Sanctuary map designation of the Comprehensive Plan. The zone provides areas where all kinds of industries may locate including those not desirable in other zones due to their objectionable impacts or appearance. The proposal does not include any new uses; these provisions are not specifically addressed through this Environmental Review.

The Open Space base zone is intended to preserve public and private open and natural areas to provide opportunities for outdoor recreation and a contrast to the built environment, preserve scenic qualities and the capacity and water quality of the stormwater drainage system, and to protect sensitive or fragile environmental areas. No new uses are proposed within the OS zone and the provisions of the zone do not apply to the proposal. The OS zone regulations are therefore not addressed through this Environmental Review.

The R10 zone is intended to foster the development of single-dwelling residences on lots having a minimum area of 6,000 square feet. Newly created lots must have a minimum density of 1 lot per 10,000 square feet of site area. The proposal does not include any new uses; these provisions are not specifically addressed through this Environmental Review.

The “b” overlay is intended to provide additional buffering between nonresidential and residential zones. The regulations of this overlay zone do not apply to the proposal.

Environmental overlay zones protect environmental resources and functional values that have been identified by the City as providing benefits to the public. The environmental regulations encourage flexibility and innovation in site planning and provide for development that is carefully designed to be sensitive to the site’s protected resources. They protect the most important environmental features and resources while allowing environmentally sensitive urban development where resources are less sensitive. The purpose of this land use review is to ensure compliance with the regulations of the environmental zones.

Environmental Resources: The application of the environmental overlay zones is based on detailed studies that have been carried out within eight separate areas of the City. Environmental resources and functional values present in environmental zones are described in environmental inventory reports for these study areas.

The project site falls within Resource Site 15 in the *Johnson Creek Basin Protection Plan (Plan)*. Resource Site 15 supports wildlife, such as muskrat and beaver, and a variety of

birds. This site includes areas that are part of the designated floodway and part of the floodplain for Johnson Creek.

Resource Site 15 covers 66 acres and includes significant resource values of water, storm drainage, scenic, fish and wildlife habitat, pollution and nutrient and sediment removal, sediment trapping, and recreation. It also includes 3,400 feet of Johnson Creek channel.

In the *Plan*, there are six “Management Recommendations” for this site.

These recommendations are:

1. Through restoration and revegetation, this site could be enhanced for its wildlife habitat value.
2. To reduce water temperature, plant trees to shade the creek.
3. Plant trees along the riparian strip to enhance visual impact, edge to the neighborhood, and to provide a “sense of place.”
4. Consider establishing an overflow channel from where the creek crosses SE 112th Avenue, west along the toe of Mt. Scott, to connect with the south drainageway at Publisher’s Paper (now Freeway Lands site), to reduce flooding and bank erosion along the serpentine main channel
5. Regrading to create shallower banks to reduce erosion, help stabilize the banks, while reducing siltation into the creek.
6. Because of its high visibility and lack of paved roads, consider using this site as a test area for alternative road construction or drainage treatment techniques that reduce surface runoff and control pollution.

The completion of Phase 2 will achieve five of the six recommendations; #6 is being partially achieved by the increased treatment of stormwater from SE 112th.

The proposed floodplain project will accomplish these recommendations by increasing the land used for flood retention or detention, and improving the fish and wildlife habitat. The willing seller program ensures that not only undeveloped or vacant land can achieve the recommendations, but also currently developed properties.

Impact Analysis and Mitigation Plan: A description of the proposal was provided on pages two through four of this report. The project includes a new pedestrian bridge over Johnson Creek, a new pedestrian pathway, and removal of existing road bridges. The following describes development alternatives other than the one proposed, that were considered by the applicant. The following additionally describes the proposed construction management plan, mitigation and monitoring proposal, as provided by the applicant.

Development Alternatives:

The applicant proposes to construct a multi-use trail across Johnson Creek to connect with the Springwater Trail. The path will exceed the 4-foot maximum width allowed by standard in Section 33.430.190, but it will meet ADA requirements and allow multiple uses, such as bicycles, walkers, runners, etc., to navigate the path safely and easily. The path will also provide access to the open space areas around Johnson Creek, for regular patrolling by Portland Police and other emergency responders.

The path will meet Portland Parks & Recreation (PP&R) multi-use trail standards (10 feet wide with 2-foot gravel shoulders) and will be approximately 1,853 feet long from SE Foster Road to SE Cooper Street. The trail will be built with a 3-inch thick layer of asphalt concrete over an 8-inch thick aggregate base. No new soil will be brought to the site. Existing soil will be used with the concrete and aggregate materials that will be brought to the site.

The location of the trail is across a formerly developed commercial property, across Johnson Creek at the narrowest location (post-restoration project), along the edge of the flood storage berm, and then within an existing gravel road (SE 108th Avenue). The alignment is logical

and provides the least detrimental impact to the identified resources and functional values of the site.

Providing a path through a natural area, particularly a restored area as proposed, is a thoughtful and useful approach. People tend to want to be near water and to walk through natural areas. A paved trail will keep people on a defined route and apart from the surrounding resources, while engaging them in the natural area. In addition, access for monitoring and maintenance of planted areas, as well as for educational opportunities can be made more easily via a defined path.

Other considerations taken into account during the design of the trail include the following:

- Locating the trail farther west would shift it to the floodplain enhancement area. Much of this area is expected to become wetland and the ground would be too wet for the development of the proposed trail. As currently proposed, the trail does not cross any wetland resources.
- The trail is located in areas previously used as a roadway, or already disturbed by grading activities associated with the restoration project.
- PP&R wanted the trail to be a side route off of the Springwater Trail and to have it connect near the parking lot. A parking lot near the Springwater Trail was desirable.
- BES already owned developed property along SE Foster Road suitable for a parking lot.
- Portland Police noted good visibility of the parking lot location adjacent to SE Foster Road, making it visible from the street and less attractive for deviant behaviors
- BES and PP&R sought a location to accommodate school bus access for school field trips.

The trail has been aligned to avoid the need to remove any additional trees. The proposed bridge is located in an area where streambank work has already been proposed to eliminate the need for any additional land disturbance. Additionally, the trail alignment was selected to cross Johnson Creek at its narrowest location, post-construction. The proposed bridge will likely be constructed while the work isolation barriers are in place for the streambank work to avoid impacts to Johnson Creek. Additionally, the bridge footings are located above the top of bank to avoid impacts to Johnson Creek, and the bridge deck is located above the 100-year flood elevation to avoid impacts to floodplain function.

The proposed parking lot and vegetated stormwater facilities are located outside the environmental zones and on the previously developed sites to avoid additional impacts to native plant communities.

No other alternative trail alignments were considered because the proposed alternative is the only alignment that meets the purpose and need established by BES, PP&R and the Portland Police Department, and minimizes impacts to resource areas. Location of the parking lot in another location would not provide easy access to the Springwater Corridor. Additionally, the proposed parking lot is currently located on a previously developed site so that its construction will not require the removal of trees or additional disturbance to vegetated communities. The proposed parking lot, as currently located, is entirely outside of the environmental zone.

Because the parking lot will serve as the point for school groups and the general public to access the trail proposed within the project site, the trail must cross Johnson Creek in the immediate vicinity of the proposed parking lot. The proposed alignment was selected because the bridge crosses Johnson Creek at its narrowest location, following completion of the streambank enhancement work. An alternative trail alignment and bridge crossing location would require a longer bridge crossing.

Construction Management Plan (CMP):

The construction methods described in this section will prevent erosion and sediment from impacting resources and functional values in the areas designated to be left undisturbed.

The applicant has described general construction methods proposed to control erosion during construction. They are summarized as follows:

Erosion and Sediment Control

The following components of the erosion control plan and project design will protect against erosion and prevent the transport of sediments to downstream receiving waters and ensure that impacts are minimized.

- All base erosion and sediment prevention control measures (including inlet protection, perimeter sediment control, gravel construction entrances, etc.) will be in place, functional, and approved in an initial inspection prior to the start of any construction activities.
- Construction entrances will be installed prior to construction and maintained for the duration of the project. Construction entrances will be the same as those described in the Phase 2 of the Floodplain Restoration Project.
- Active inlets to stormwater systems will be protected with approved inlet protection measures. All inlet protection measures will be regularly inspected and maintained as necessary.
- Sensitive resources (including wetlands, riparian protection areas, and trees) will be clearly delineated with orange construction fencing or chain link fencing in a manner that is clearly visible to anyone in the area. No activities will be permitted to occur beyond this construction barrier.
- Exposed cut and fill areas will be stabilized through the use of temporary seeding and mulching, erosion control blankets or mats, mid-slope sediment fences or wattles, or other appropriate measures. Slopes exceeding 25% may require additional erosion control measures.
- All “sediment barriers (to be installed after grading)” will be installed immediately following the establishment of finished grade.
- Seed used for temporary or permanent seeding will be per specifications.
- Slopes receiving temporary or permanent seeding will have the surface roughened to improve seed bedding and reduce run-off velocities.
- Long-term slope stabilization measures will include the establishment of permanent vegetative cover via seeding with approved seed mix and application rate.
- Long-term slope stabilization measures, including matting, will be placed over exposed soils by October 1.
- Temporary slope stabilization measures will include surface roughening, straw mulching, biodegradable matting, or other approved measures.
- Stockpiled soil or strippings will be placed in an approved, stable location and configuration. During “wet weather” periods, stockpiles will be covered with straw mulch. Sediment fence will be placed around the perimeter of all stockpiles.
- Appropriate dust control measures, including the application of a fine spray of water, straw mulching or other approved measures, will be used in areas subject to wind erosion.
- Saturated materials hauled off site will be transported in water-tight trucks to prevent the spillage of sediment or sediment-laden water.
- Concrete trucks will be washed out in a specified area, and runoff from this area will not be permitted to enter the stormwater system. If a wash-out area cannot be provided greater than 50 feet from any discharge point, secondary measures such as berms or temporary settling pits will be provided.
- BMPs such as check dams, berms and inlet protection will be used to prevent runoff from reaching discharge points.
- Catch basins, manholes, and other discharge points will be covered when applying seal coat, tack coat, etc. to prevent these materials from entering the stormwater system.
- All disturbed areas will be seeded with native seeds.

In-Water Work Isolation

Work below the ordinary high water (OHW) level of Johnson Creek will require in-water work isolation at five areas. The Phase 2 specifications call for the bridge removal to occur while Johnson Creek is isolated for the stream bank work and for a work containment system to be in place for removal activity, as well. Proposed work below the OHW level of Johnson Creek will be isolated from the flowing water, as follows:

- Erosion control measures will be installed prior to the start of work.
- For full stream isolation, Sedimat will be installed downstream of the work area; isolation barriers will be installed to specified elevations upstream and downstream of the work area; and existing stream flows will be maintained through bypass piping (or City approved bypass pumping).
- Following installation of the isolation barriers, the work areas will be dewatered. During dewatering, fish salvage from the isolation areas will be coordinated with the Oregon Department of Fish and Wildlife and the National Marine Fisheries Service. Water from the dewatering process will be treated through a settling tank or filter bag before being discharged to a vegetated area.
- After completion of the streambank work within the isolation areas, the work isolation barriers will be removed. For full stream isolation areas the downstream work isolation barriers will be removed first to backwater the work area. Upstream work isolation barriers will then be removed, followed by the Sedimat. For partial stream isolation areas, the isolation barriers will be removed, followed by the turbidity curtains and finally, the Sedimat.

Unavoidable Impacts:

Disturbance to the environmental resources from the proposed trail and bridge construction are very small. Construction of the trail and bridge footings will require permanent disturbance to approximately 97 square feet within the resource area of the Environmental Conservation overlay zone and 785 feet of the outer 25-foot transition zone. The bridge deck will be located approximately one foot above the 100-year floodplain elevation, which is approximately 210 feet. Elevation of the bridge deck above the 100-year floodplain elevation requires the unavoidable placement of fill in the environmental zones.

The proposed trail provides a benefit to the public by increasing opportunities for recreational activities such as walking bicycling, and wildlife viewing and providing access to the project site for educational opportunities.

Total disturbance to the environmental zones from the proposed project is very small, and those disturbances are summarized in the table provided in the response to Comment 9, above. As such, the proposed work proposed with this environmental review application is a part of the overall East Lents Floodplain Restoration Project. As discussed in the supplemental narrative provided with this application and the supplemental narratives provided with previous environmental review applications for the project, this project has a net beneficial effect on the Johnson Creek system by improving floodplain function and restoring fish and wildlife habitats within the stream and the riparian zone. The proposed trail provides an additional public benefit by providing opportunities for education and recreational activities and increasing access to the nearby Springwater Corridor.

The following table summarizes the amount of Environmental Resource Area covered by each of the project elements that are the subject of this environmental review application.

Project Element	Resource Area Affected (square feet)				Transition Area Affected	
	Environmental Protection Overlay Zone		Environmental Conservation Overlay Zone			
	Temp.	Perm.	Temp.	Perm.	Temp.	Perm.
Remove SE 106 th Ave.	60	0	55	0	0	0

Bridge footings						
Remove SE 108 th Ave. Bridge footings	22	0	21	0	0	0
Remove SE 110 th Ave. Bridge footings	0	0	141	0	0	0
Multi-Use Trail at SE 108 th Ave.	0	0	0	0	346	606
Pedestrian Bridge Footings	0	0	0	68	0	60
Trail at Pedestrian Bridge	0	0	0	29	0	725
Totals:	82	0	217	97	346	1,391

Removal of the bridge footings at SE 106th Avenue, SE 108th Avenue, and SE 110th Avenue will result in the temporary disturbance of approximately 82 square feet in the Environmental Protection Overlay Zone and approximately 217 square feet within the Environmental Conservation Overlay Zone. These disturbances were included within the disturbance areas described for streambank enhancement work approved in LU 11-188353 EN M.

Construction of the footings for the pedestrian bridge and the multi-use trail at the pedestrian bridge will result in permanent disturbance of approximately 97 square feet within the resource area of the conservation zone and approximately 785 feet within the 25-foot transition area. All of the disturbance associated with the pedestrian bridge and the trail approaches to the bridge are included within the disturbance areas described for streambank enhancement work approved in LU 11-188353 EN M.

Construction of the portion of the trail within the existing SE 108th Avenue right of way will result in permanent disturbance of approximately 606 feet and temporary disturbance of approximately 346 square feet of the 25-foot transition area.

The proposed parking lot and associated stormwater facilities are located entirely outside the environmental zone.

Proposed Mitigation and Monitoring:

The mitigation and the restoration for the East Lents Floodplain Restoration Project are intertwined to achieve this project's purposes. The mitigation was reviewed and approved as LU 11-188353 EN M. Because the work proposed in the current environmental review occurs in the same project area, no additional mitigation is proposed.

While removal of trees is proposed, trees have been retained to the extent possible, particularly in clusters along the riparian area and in wetlands. The removal of the bridges will not require the removal of additional trees, beyond that approved for LU 11-188353 EN M. The proposed trail has been aligned to avoid the need for additional tree removal. As part of the mitigation plan, stands of trees along the creek that provide important shade to the water during the summer months will be retained and enhanced to increase shade and improve wildlife habitat.

The primary purpose of the East Lents Floodplain Restoration Project is to improve floodplain functions, but many other benefits, such as improving fish and wildlife habitat and wetland and riparian functions, will be realized from the need to reduce flooding impacts. Improvements will be accomplished by removing hardened streambanks; laying

back steepened banks and creating floodplain terraces to restore more natural channel morphology and reconnect the stream to its floodplain; stabilizing streambanks; and grading to increase the floodplain's floodwater detention capacity. The restoration of floodplain function will reduce the damages and economic impacts associated with flooding.

A total of 55 trees will be removed as a result of the work proposed. Four of the trees will be removed for the construction of the sidewalk on the south side of Foster Road. The remaining 51 trees are non-native sycamore maples. Nuisance trees, according to the provisions in Chapter 33.430 of the City Zoning Code, are exempt from the requirements and would not have to be replaced with trees and shrubs. Although the WRP considers sycamore maple to be potentially invasive at the project site, the species is not included on the City's Nuisance Plant list, and therefore, is not subject to this exemption.

BES' Watershed Revegetation Program (WRP) will implement invasive plant species control and revegetation activities throughout the East Lents Floodplain Restoration site once initial construction activities are complete. The removal of the 51 sycamore maples proposed in this land use review, is part of WRP's invasive species control efforts. The WRP will provide and install all plant materials and maintain enhancement plantings for at least five (5) years. Initial site preparation will include control of non-native invasive vegetation. Installation will include the application of native seed to establish a native herbaceous ground cover and planting of woody materials. Maintenance will include follow-up treatment and control of non-native invasive and competing vegetation, as well as additional plant installation (interplanting), as necessary to achieve successful establishment of desired native tree and shrub density.

Because one of the goals of the project is to restore riparian and floodplain functions, many more trees will be planted than that specifically required by the code. Over 31,000 trees, shrubs, and groundcover plants will be installed over the 70-acre site. Removing non-native trees and other nuisance plants will improve the existing quality of the habitat for native fish and wildlife.

Eventually, the trees that will be planted will outnumber the removed trees many times and provide much more valuable habitat than is currently present. Several plant communities will be planted. These include riparian forest, scrub shrub, upland forest, wet ash forest, emergent, and moist herbaceous.

Land Use History: City records indicate that prior land use reviews include a variety of land use actions. These include the following:

- 5510 (LU 90-023748)
- 5812 (LU 90-024057)
- 5940C (LU 90-024186)
- 6411 (LU 90-024668)
- 6525 (LU 90-024786)
- 6852 (LU 90-025119)
- 6927 (LU 90-025194)
- 7005 (LU 90-025274)
- CU 38-71 (LU 71-001682)
- CU 030-72 (LU 72-001425)
- CU 032-74
- CU 38-74 (LU 74-001685)
- CU 116-76 (LU 76-003770)
- CU 048-78 (LU 78-002032)
- CU 083-79 (LU 79-003165)
- VZ 033-85 (LU 85-028249)
- CU 146-87
- LUR 91-00457 AD (LU 91-008712)
- LUR 92-00088 NE AD (LU 92-009207)
- LUR 94-00119 EN (LU 94-011021)
- LUR 94-00145 AD (LU 94-011047)
- LUR 94-00848 EN (LU 94-011750)
- LUR 96-00279 EN (LU 96-013116)
- 5144 (LU 90-023377)
- LUR 96-00786 EN (LU 96-013673)
- LUR 96-01078 EN (LU 96-013965)
- LUR 97-00173 AD (LU 97-014219)
- LUR 97-00174 MP (LU 97-014220)
- LUR 97-00176 SU (LU 97-014222)
- LUR 97-00876 VZ MP (LU 97-014922)
- LUR 97-00940 EN EF (LU 97-014986)
- LUR 98-00344 AD (LU 98-015650)
- LU 02-112753 EN
- LU 02-126261 MP
- LU 03-113394 ZC
- LU 03-118238 AD
- LU 03-149997 EV
- LU 06-133094 EN AD

- LU 07-107637 NE
- LU 07-116137 EN
- LU 09-137528 EN

The conditions of approval for these prior actions remain in effect. The applicant is responsible for meeting conditions of approval from these prior reviews while implementing this project.

- LU 10-106710 EN AD-- approved an Environmental Review to allow grading along Johnson Creek to provide additional flood storage capacity and off-channel fish habitat, and a new 700-foot long walkway along SE 110th Drive; and an Adjustment Review to Adjust Zoning Code section 33.537.150 D, and allow removal of 911 trees. The current proposal includes additional and refined grading along Johnson Creek and effectively “phases” both the grading portion and the planting portion of the overall project.
- LU 11-188353 EN -- approved an Environmental Review to allow removal of a 72-inch culvert, creation of a vegetated swale, excavation of 24,400 cubic yards to enhance 18 acres of floodplain along Johnson Creek, and removal of 177 trees, all as preliminary work for Phase 2 of the project.

Agency and Neighborhood Review: A Notice of Proposal in your Neighborhood was mailed on March 1, 2012.

1. Agency Review: Several Bureaus and agencies have responded to this proposal.

The City’s Bureau of Development Services, Site Development Services Section noted that earlier phases of this project involved large scale regrading under public works projects exempt from building permit requirements. The Bureau of Environmental Services has already obtained a Conditional Letter of Map Revision (CLOMR) for the Phase 1 work, which will modify the base flood elevation and floodway widths when complete. The current proposal now includes a pedestrian trail with bridge and a parking lot that are subject to building permit requirements. Additionally, existing roadway bridges will also be removed under this phase, but are not subject to building permit requirements as they are located within public rights of way.

The plans indicate that total excavation will exceed fill, and therefore balanced cut and fill requirements of Chapter 24.50, Flood Hazards will be met for the new parking lot and multi-use trail.

The current proposal is to remove several public bridges and place a new private pedestrian bridge abutment within the existing mapped floodway. No encroachments may be placed within the floodway without a hydraulic analysis which demonstrates that no rise in the base flood elevation will occur due to the obstruction. This analysis has not been submitted, but BES staff is currently preparing a second analysis for the floodway encroachments and will apply for a CLOMR for this additional work. The floodplain elevations and floodway have already been extensively reconfigured due to the Phase 1 work and will need to be remapped by FEMA. Since the site is currently being remapped and the existing floodway will need to be reconfigured, Site Development has no objection to conditional approval of this land use, provided the applicant provides confirmation from FEMA that the proposed floodway encroachments will be approved through its CLOMR review.

The BDS Life Safety noted that at least one accessible route shall be provided within the boundary of the site from public transportation stops, accessible parking spaces, passenger loading and drop off zones, and public streets or sidewalks to an accessible entry. OSSC 1103.1 Walks paralleling vehicular ways shall be separated from the vehicular way. OSSC 1103.2.4.7.

2. Neighborhood Review: No written responses have been received from either the Neighborhood Association or notified property owners in response to the proposal.

ZONING CODE APPROVAL CRITERIA

33.430.250 Approval Criteria for Environmental Review

An environmental review application will be approved if the review body finds that the applicant has shown that all of the applicable approval criteria are met. When environmental review is required because a proposal does not meet one or more of the development standards of Section 33.430.140 through .190, then the approval criteria will only be applied to the aspect of the proposal that does not meet the development standard or standards.

Findings: The approval criteria which apply to the proposed bridge removal project are found in Section 33.430.250 B, Resource Enhancement. The Public Recreational Facilities approval criteria in Section 33.430.250 C apply to the new multi-use trail. The applicant has provided findings for these approval criteria and BDS Land Use Services staff have revised these findings or added conditions, where necessary to meet the approval criteria.

33.430.250 B. Resource enhancement projects. In resource areas of environmental zones, resource enhancement projects will be approved if the applicant's impact evaluation demonstrates that all of the following are met:

1. There will be no loss of total resource area;

Findings: The floodplain restoration project and the enhancements along the stream bank, of which the removal of the SE 106th Avenue, SE 108th Avenue, and SE 110th Avenue bridges is a part, will not decrease the resource area. Removal of the 3 bridges from the right of way adjacent to and over Johnson Creek will create riparian habitat within areas that were formerly paved roadways. Resource area will not be lost as a result of this project. *This criterion is met.*

2. There will be no significant detrimental impact on any resources and functional values; and

Findings: This approval criterion requires the protection of resources from impacts related to the proposal, such as damage to vegetation, erosion of soils off the site, and downstream impacts to water quality and fish habitat. The applicant provided a description of the proposed construction management plan in the application case file (Exhibits A.1 and A.2), in addition to a graphic Construction Management site plan (Exhibits C.2 through C.7). The Construction Management Plan is described on pages 7 through 9 of this report.

The existing SE 106th Avenue, SE 108th Avenue, and SE 110th Avenue bridges over Johnson Creek will be removed as part of the East Lents Floodplain Restoration. The applicant proposes that the bridge removal to occur while Johnson Creek is isolated for the stream bank work, and that a work containment system be in place for removal activity, as well.

The applicant has stipulated that both the Work Isolation and Work Containment plans must be designed and stamped by an Oregon Professional Engineer.

The applicant noted that specific plans for bridge removal have not been prepared at this time. However, BES's bid documents will require the contractor to adhere to the City of Portland Standard Construction Specifications for Bridges (Part 00500) during the removal of the bridges. BES has added specifications to ensure that the bridge removal work is done in a manner that will not result in any adverse impacts to Johnson Creek or other resources on the site, including the following requirement of the contractor:

- *Provide unstamped bridge removal plans according to 00150.35, 21 calendar days before beginning removal work.*

Do not begin bridge removal work until the bridge removal plans have been approved. Include the following information in the submittal:

- *Removal sequence, including contractor staging and traffic staging.*
- *Detailed schedule of bridge removal work.*

- *Type of equipment that will be used, including size and capacity.*
- *Equipment location during removal operations.*
- *Disposal location.*

Since final designs for these elements have not been provided for this Environmental Review, a Final Construction Management Plan will be required prior to commencement of bridge removal activities. With conditions for review and approval of final construction management plans, *this criterion can be met.*

3. There will be a significant improvement of at least one functional value.

Findings: The primary purpose of the East Lents Floodplain Restoration Project is to improve floodplain functions, but many other benefits, such as improving fish and wildlife habitat and wetland and riparian functions, will be realized from the need to reduce flooding impacts. Improvements will be accomplished by removing hardened streambanks; laying back steepened banks and creating floodplain terraces to restore more natural channel morphology and reconnect the stream to its floodplain; stabilizing streambanks; and grading to increase the floodplain's floodwater detention capacity. The restoration of floodplain function will reduce the damages and economic impacts associated with flooding.

BES' Watershed Revegetation Program (WRP) will implement invasive plant species control and revegetation activities throughout the East Lents Floodplain Restoration site once initial construction activities are complete. The WRP will provide and install all plant materials and maintain enhancement plantings for at least five (5) years. Initial site preparation will include control of non-native invasive vegetation. Installation will include the application of native seed to establish a native herbaceous ground cover and planting of woody materials (bareroot trees, bareroot shrubs, and live pole cuttings) to establish site-appropriate native forest and scrub-shrub plant communities. Maintenance will include follow-up treatment and control of non-native invasive and competing vegetation, as well as additional plant installation (interplanting), as necessary to achieve successful establishment of desired native tree and shrub density.

Because one of the goals of the project is to restore riparian and floodplain functions, many more trees will be planted than that specifically required by the code. Over 31,000 trees, shrubs, and groundcover plants will be installed over the 70-acre site. Removing non-native trees and other nuisance plants will improve the existing quality of the habitat for native fish and wildlife.

Eventually, the trees that will be planted will outnumber the removed trees many times and provide much more valuable habitat than is currently present. Several plant communities will be planted. These include riparian forest, scrub shrub, upland forest, wet ash forest, emergent, and moist herbaceous.

The proposed restoration will result in a healthier ecosystem that will surpass the goal of a significant improvement of at least one functional value. The proposed project will result in the establishment of robust and diverse native tree, shrub, and herbaceous communities and will alleviate the periodic flooding that reaches SE Foster Road, improving floodplain function. Although the restoration of floodplain functions is the project's primary goal, the proposed project will also improve other functions such as riparian, wetland, scenic and recreational opportunities, fish and wildlife habitat functions, and improve the ability of the area to reduce pollution and increase nutrient retention and sediment trapping. The project will also improve water quality through the construction of stormwater treatment wetlands that treat runoff before it enters Johnson Creek at outfalls located within the project reach.

Removal of the bridges and hardened streambanks around them, laying back the steepened banks of Johnson Creek, and large scale replanting of the surrounding area will improve multiple floodplain and riparian functions and *this criterion is met.*

33.430.250 C. Public Recreational Facilities. In resource areas of environmental zones, public recreational trails, rest points, view points, and interpretative facilities will be approved if the applicant's impact evaluation demonstrates that all of the following are met:

1. Proposed development locations, designs, and construction methods are less detrimental to identified resources and functional values than other practicable and significantly different alternatives;

Findings: The criteria for public recreational facilities apply to the new multi-use trail and bridge over Johnson Creek, where it lies within the environmental zones. This criterion requires the applicant to demonstrate that alternatives were considered during the design process, and that there are no practicable alternatives that would be less detrimental to the identified resources and functional values.

The applicant provided an alternatives analysis that can be found in the application case file in Exhibits A.1 and A.2, and is summarized in this report on pages 6 and 7.

The trail was aligned to cross Johnson Creek at its narrowest point, post-construction and to minimize impacts to undisturbed vegetated communities. Much of the trail alignment is located within areas previously disturbed for the construction of the flood storage berm, and the southernmost portion of the trail is located within the right of way of the existing SE 108th Avenue. Immediately south of the new pedestrian bridge, the trail was aligned to avoid the removal of additional trees. An alternate alignment that places the trail outside of areas previously disturbed as part of the overall project would result in greater disturbance to vegetated plant communities.

The parking lot for the proposed trail is located on a previously developed site in the northwestern portion of the project area. Location of the parking lot in this area minimizes impacts to vegetated communities, as this site consists of previously developed lots. No additional trees will be removed to construct the parking lot at this location. This site meets desired goals of PP&R, BES, and the Portland Police Department because it is close to the Springwater Corridor, it provides enough space to facilitate access by school buses, and it is highly visible, making patrols easier, and reducing the risk of criminal activities. There are no other sites along SE Foster Road within the project area that meet all of these purposes and require less disturbance to vegetated communities.

The trail has been aligned to avoid the need to remove any additional trees. The proposed bridge is located in an area where streambank work has already been proposed, to consolidate disturbance area along the creek. The proposed bridge will likely be constructed while the work isolation barriers are in place for the streambank work, to minimize impacts to Johnson Creek.

The proposed multi-use trail encroaches into the mapped environmental zone where the trail aligns with SE 108th Avenue. In this area, the trail was aligned to coincide within the existing SE 108th Avenue right of way to avoid impacts to vegetated areas. The trail encroaches into the outer 25-foot transition area, but does not affect the resource, itself. Because of the distance of the proposed trail from Johnson Creek (79 feet at its closest location), and the location of the trail within an existing roadway, the proposed trail will have no adverse impacts to the resource at this location.

The trail approaches to the proposed pedestrian bridge require the placement of fill on both sides of Johnson Creek. At this location, construction of the bridge footings and trail will place fill over 97 square feet of the environmental zone resource area, and 785 square feet of transition area. This fill is necessary to raise the bridge above the 100-year flood elevation, which is approximately 210 feet. Because of existing and proposed topography along Johnson Creek, a pedestrian bridge that crosses Johnson Creek at any other location within the project site would require fill on either side of the stream to raise the bridge above the 100-year floodplain elevation. Because the proposed alignment was selected to cross Johnson Creek at its narrowest location, post-construction, the location of the bridge at any other location within

the project site would likely require a longer bridge, which would create a larger impact area than the bridge proposed with the current alignment.

Therefore, this alternative for the bridge placement on Johnson Creek, and for the trail alignment near the creek, has the fewest environmental impacts of other practicable alternatives and *this criterion is met*.

2. The public benefits of the proposal outweigh all significant detrimental impacts;

Findings: The proposed trail will extend from the northwestern corner of the project site, near the intersection of the Springwater Corridor Trail and SE Foster Road, southeast across the site to the end of SE Cooper Street, the new street that will connect the existing SE 108th Avenue right of way to SE 112th Avenue. This new trail will provide recreational opportunities such as walking, bicycling and wildlife watching, to the citizens of Portland. It will provide direct access to the Springwater Corridor Trail from the neighborhoods south and east of the project site. The public benefits provided by these access improvements greatly outweigh detrimental impacts, as no significant detrimental impacts are anticipated as a result of the project. *This criterion is met.*

3. Areas disturbed during construction, that do not contain permanent development, will be restored with native vegetation that is similar to the vegetation existing on the site and found on the Portland Plant List; and

Findings: As described in more detail on pages 10 and 11 of this report, all areas temporarily disturbed during construction will be replanted with native trees, shrubs, and herbaceous plants similar to what exists on the site. The mitigation plan showing plant community types and plant species to be planted is provided in attached Exhibits C.14 through C.17. *This criterion is met*

4. There will be no significant detrimental impact on resources and functional values in areas designated to be left undisturbed.

Findings: This approval criterion requires the protection of resources outside of the proposed disturbance area from impacts related to the proposal, such as damage to vegetation beyond the approved limits of disturbance, erosion of soils off the site, and downstream impacts to water quality and fish habitat from increased stormwater runoff and erosion off the site. It also applies to preventing flood plain impacts beyond the project area.

The applicant provided a detailed description of the proposed construction management plan in the application case file (Exhibits A.1 and A.2), in addition to a graphic Construction Management site plan (Exhibits C.2 through C.6). The Construction Management Plan is described on pages 7 through 9 of this report.

Specific plans for bridge construction were not included for this review. Since final construction plans showing specific bridge design, final grading plans, construction methods, methods to prevent construction materials from entering Johnson Creek, and post construction permanent erosion control/bank treatment have not been provided for this Environmental Review, a Final Construction Management Plan will be required for the new bridge prior to issuance of a building permit for the bridge.

Further, until FEMA has approved this project relative to its effect on the 100-year flood plain, no building permit can be issued to begin construction. The floodplain elevations and floodway have already been extensively reconfigured due to the Phase 1 work and will need to be remapped by FEMA. Since the site is currently being remapped and the existing floodway will need to be reconfigured, Site Development has no objection to conditional approval of this land use, provided the applicant provides confirmation from FEMA that the proposed floodway encroachments will be approved through it's CLOMR review.

With conditions for review and approval of final construction management plans, and for documentation of FEMA approval of the bridge, *this criterion can be met*.

33.853.040 Tree Review Approval Criteria

A. Trees in the Scenic Overlay Zone, Johnson Creek Basin plan district, or Rocky Butte plan district. A request to remove trees in the Scenic Overlay Zone, Johnson Creek Basin plan district, or Rocky Butte plan district will be approved if the review body finds that the applicant has shown that either criterion A.1 or A.2 is met and criterion A.3 is met:

Findings: Construction of the sidewalk on the south side of SE Foster Road will require the removal of four trees, as depicted on Figure 2A. Further, LU 10-106710 EN AD and LU 11-188353 EN approved removal of trees to allow grading of the banks of Johnson Creek to improve riparian habitat and floodplain functions. No additional trees will be removed for the construction of the public recreational trail, the associated pedestrian bridge, the parking lot, or other associated features.

Additionally, BES Watershed Revegetation Program plans to remove non-native, invasive tree species as part of their vegetation restoration efforts on the site. Table 1 is a list of non-native tree species to be removed from the floodplain restoration site by BES. Section 33.430.080(7) of City Code allows for the removal of vegetation listed on the City's Nuisance Plant List without an environmental review. Similarly, Section 33.537.125(C)(2) of the Johnson Creek Basin Plan District rules allows for the removal of trees listed on the Nuisance Plants List. As shown in Table 1, all of the non-native species that BES plans to remove from the site are listed on the Nuisance Plant List, with the exception of sycamore maple (*Acer pseudoplatanus*). The applicant considers this species to be invasive and a potential problem in the restoration area if they are not removed from the site. A total of 51 sycamore maples with a dbh of six inches or larger have been identified on the site.

Table 1. Non-native Trees to be Removed from the East Lents Floodplain Restoration Site by the Portland Bureau of Environmental Services

Common Name	Scientific Name	On City of Portland Nuisance Plant List?
Norway maple	<i>Acer platanoides</i>	Y
sycamore maple	<i>Acer pseudoplatanus</i>	N
tree-of-Heaven	<i>Ailanthus altissima</i>	Y
English hawthorn	<i>Crataegus monogyna</i>	Y
English holly	<i>Ilex aquifolium</i>	Y
white poplar	<i>Populus alba</i>	Y
sweet cherry	<i>Prunus avium</i>	Y
English laurel	<i>Prunus laurocerasus</i>	Y
black locust	<i>Robinia pseudo-acacia</i>	Y
European mountain-ash	<i>Sorbus aucuparia</i>	Y

A.1. The removal is necessary to allow for reasonable development of the site, including access to the site for construction, required parking, pedestrians, and utilities, and considering the allowed uses and characteristics of the area. Alternative locations and construction methods for structures, utilities and paved areas must be considered to maximize preservation of trees, with emphasis on preservation of trees that are 20 or more inches in diameter and tree groves; or

Findings: Tree review is required for removal of 51 sycamore maples that do not meet standards C1 through C6 of the Johnson Creek Basin Plan District tree removal standards. A primary goal of the overall project is the successful restoration of robust and diverse native plant communities within the floodplain restoration site. To achieve this goal, the project includes a mitigation plan to remove invasive species and replant native

trees, shrubs and herbaceous species to revegetate temporarily disturbed soils and enhance existing plant communities.

The presence of 51 sycamore maples six inches or more in diameter, along with many uncounted seedling sycamore maples on the site, threatens the success of the proposed enhancement and mitigation plantings along this reach of Johnson Creek. Because of the potential for sycamore maple to outcompete newly planted trees and shrubs in the restoration site, removal of the existing sycamore maples is necessary to prevent the species from dominating the replanted areas and becoming an expensive maintenance challenge in the future. Allowing this non-native species to overrun the restoration site would degrade the quality of the habitat. Because the entire area will be replanted with native species, removal of the non-native sycamore maples is consistent with the desired character of the site. *This criterion is met.*

2. For sites within the Scenic overlay zone or Rocky Butte plan district, the removal is to create or enhance a public view from public property or from a public right of way. Consultation with the City Forester is required; and

Findings: The site is not within the Scenic overlay zone or the Rocky Butte Plan District. *This criterion does not apply.*

3. The proposal will continue to meet the purpose of the relevant tree preservation or removal standards. Replacement plantings within the Scenic overlay zone must consist of approved vegetation listed in the Scenic Resources Protection Plan appendix.

Findings: The purpose of the Tree Removal Standards of the Johnson Creek Basin Plan District is stated in Zoning Code section 33.537.125 A. Purpose. The regulations of this section limit tree removal to protect the scenic and recreational quality of the Springwater Corridor, reduce stormwater runoff, flooding, erosion, and landslides and protect water quality and native vegetation.

This purpose is directly related to the primary goals of the overall East Lents Floodplain Restoration Project, which include restoring floodplain function and reducing flooding, protecting water quality, and restoring native vegetation. The construction of the proposed trail and the proposed public access improvements will also improve recreational opportunities. Removal of the sycamore maples and replanting of native vegetation is necessary to establish riparian communities dominated by native species. The purpose of the tree removal standards will continue to be met and *this criterion is met.*

DEVELOPMENT STANDARDS

Unless specifically required in the approval criteria listed above, this proposal does not have to meet the development standards in order to be approved during this review process. The plans submitted for a building or zoning permit must demonstrate that all development standards of Title 33 can be met, or have received an Adjustment or Modification via a land use review prior to the approval of a building or zoning permit.

Johnson Creek Basin Plan District, Section 33.537.100 General Development Standards

A. The following are prohibited within the Johnson Creek floodway as currently defined by the Federal Emergency Management Agency (FEMA). Exceptions to this are fences, public bridges, outfall structures, and fire hydrants, which are allowed subject to standards set by the Bureau of Environmental Services.

1. New above ground structures.

Response: A public pedestrian bridge will be constructed across Johnson Creek. The bridge deck will be constructed above the 100-year flood elevation of Johnson Creek. As a public bridge, this project is an exception to this standard.

2. Alterations to existing commercial and industrial structures that exceed 50% of the assessed value, or

Response: There are no proposed alterations to existing commercial and industrial structures.

3. Increase of building coverage.

Response: There is no proposed increase of building coverage.

B. Release of water from Powell Butte reservoirs into Johnson Creek is prohibited unless there is a system malfunction or when the release would result in no more than a 10 percent increase in water volume at any point in the creek during the release period. Water discharged during scheduled release periods must be dechlorinated.

Response: This provision is not applicable to the project.

C. Groundcover and shrubs identified on the Nuisance Plants List may be removed.

Response: Groundcover and shrub species listed on the City's Nuisance Plants List will be removed as part of WRP's efforts to install the mitigation plantings and establish the desired native plant communities.

D. Planting of plants listed on the Nuisance Plants List is prohibited.

Response: No plants listed on the City's Nuisance Plants List will be planted as part of the proposed project.

E. All vegetation removal activities must be surrounded or protected in a manner to prevent erosion and sediment from leaving the site.

Response: All vegetation removal activities will be surrounded or protected in a manner to prevent erosion and sediment from leaving the site. Erosion control measures for Phase 2 of the proposed project, of which the activities described in this environmental review submission are a part, are applicable to this project. The inlet protection measures and stream isolation protections described in that submission will be in place for the construction included in this submission. Those measures will prevent sediment from leaving the site. The erosion control measures to be used are described in detail in response to Section 33.430.250.A.1..

Section 33.537.150 Floodplain Standards

A. Purpose. The regulations of this section manage development in the floodplain in order to protect the quality and natural functions of the floodplain and reduce the loss of property in areas where flooding is common. Together, these regulations help reduce stormwater runoff, provide groundwater recharge, reduce erosion, retain and enhance native vegetation, and enhance water quality.

Response: The purpose of these provisions is directly related to the overall East Lents Floodplain Restoration project. As described in this environmental review submission, the primary goal of the project is floodplain restoration. Reducing flooding, stormwater runoff, and erosion are part of the project goals. Retaining and enhancing native vegetation and enhancing water quality are part of the project goals. Removal of the bridges and treatment of runoff from the proposed parking lot contribute to the achievement of the project's goals.

B. Where these regulations apply. These regulations apply to sites where any portion of the site is in the special flood hazard area.

Response: Portions of the site are within the Flood Risk Area of the Johnson Creek Basin Plan District.

C. Housing Types. In R3, R2, and R1 zones, allowed housing types are limited to multi-dwelling structures, duplexes, and attached housing. A house is allowed on lots of

record that cannot accommodate more than one dwelling unit under the provisions of Section 33.120.205 Density. Adjustments to this section are prohibited.

Response: No new houses are proposed.

D. Tree removal. Tree removal is subject to the standards of 33.537.125.

Response: Conformance with Section 33.537.125 is addressed below.

E. Impervious surface. No more than 50% of any site may be developed in impervious surface. Building eaves are included in the calculation of impervious surface.

Response: The total area of impervious surface associated with the pedestrian trail, parking lot, and sidewalk is less than one acre, which is less than 1.5 percent of the entire ±70-acre project site.

Section 33.537.125 Tree Removal Standards

A. Purpose. The regulations of this section limit tree removal to protect the scenic and recreational quality of the Springwater Corridor, reduce stormwater runoff, flooding, erosion, and landslides and protect water quality and native vegetation.

Response: The purpose of these standards is directly related to the primary goals of the overall East Lents Floodplain Restoration Project, which include restoring floodplain function and reducing flooding, protecting water quality, and restoring native vegetation. The construction of the proposed trail and the proposed public access improvements will also improve recreational opportunities.

B. Where these regulations apply. The standards of this section apply to trees that are 6 or more inches in diameter in the following locations:

1. Within 20 feet of the Springwater Corridor right of way;

Response: None of the trees to be removed are within 20 feet of the Springwater Corridor right of way.

2. On sites where any portion of the site is within the special flood hazard area; and

Response: Much of the site is within the special flood hazard area, and therefore, these tree removal standards apply.

3. On sites where any portion of the site is within the South Subdistrict as shown on Map 537-1.

Response: The site is not located within the South Subdistrict as shown on Map 537-1.

C. Standards. Trees 6 or more inches in diameter may not be removed unless one or more of the following are met:

1. The tree is determined by an arborist to be dead, dying or dangerous and needs to be removed;

Response: The trees indicated for removal have not been determined by an arborist to be dead, dying, or dangerous and in need of removal.

2. The tree is listed on the Nuisance Plants List;

Response: None of the trees indicated for removal are listed on the City's Nuisance Plants List. The WRP plans to remove trees listed on the Nuisance Plants List that are present on the site as part of their restoration efforts; however, all such trees have not been identified on project plans.

- 3. The tree is within 10 feet of existing or proposed buildings and structures attached to buildings, such as decks, stairs, and carports, or within 10 feet of a proposed driveway or right of way improvements;**

Response: None of the trees indicated for removal are within 10 feet of buildings or related structures or within 10 feet of a driveway. Four trees indicated for removal are being removed for the construction of the sidewalk on the south side of SE Foster Road. Because the construction of the sidewalk is a right of way improvement, the removal of these trees is allowed under this provision. None of the remaining 51 trees indicated for removal (all non-native sycamore maples) are within 10 feet of right of way improvements.

- 4. The tree must be removed due to installation, repair, or maintenance of water, sewer, or stormwater services. For new installation of services, tree removal allowed under this provision is limited to a single 10-foot-wide utility corridor per site;**

Response: None of the trees indicated for removal must be removed for installation, repair, or maintenance of water, sewer, or stormwater services.

- 5. The tree is within a proposed roadway or City-required construction easement;**

Response: None of the trees indicated for removal is within a proposed roadway or City-required construction easement.

- 6. The tree is at least 6 and up to 12 inches in diameter and does not meet any of the other standards of this Subsection, but is replaced with two trees. Replacement plantings must meet Section 33.248.030, Plant Materials. Trees to be removed within 20 feet of the Springwater Corridor must be replaced within 20 feet of the Springwater Corridor; or**

Response: The ratio of the number of replacement trees to the number of trees to be removed greatly exceeds 2:1. However, the trees to be planted are bare-root seedlings and do not meet the size requirements outlined in Section 33.248.030, Plant Materials. Therefore, the proposed project does not meet this standard.

- 7. Trees that do not qualify for removal under C.1 through 6 may be removed if approved through tree review as provided in Chapter 33.853, Tree Review. However, where the tree removal requires environmental review, only environmental review is required.**

Response: The 51 sycamore maples to be removed are not within the environmental zones and, therefore, not subject to environmental review. Conformance with the approval criteria of Chapter 33.853 are discussed above in the Tree Review.

CONCLUSIONS

The applicant proposes to remove the existing roadway bridges over Johnson Creek at SE 106th Avenue, SE 108th Avenue, and SE 110th Avenue. The applicant also proposes a new 10-foot wide, asphalt paved pedestrian trail that will extend from the northwestern portion of the project site near SE Foster Road, southeast across Johnson Creek, and south to the intersection of the SE 108th Avenue right of way, and the newly constructed east-west access road (SE Cooper Street). The trail will include a 10-foot wide, steel truss, pre-fabricated pedestrian bridge over Johnson Creek, in the northwestern portion of the project area. Lastly the applicant proposes to remove 51 sycamore maples from the site area, to reduce competition with native plantings.

Removal of the 3 bridges will allow the steepened and rock-armored banks of Johnson Creek to be graded back, increasing floodplain storage and area for native riparian plantings, and will increase floodplain and habitat functions throughout the area. This part of the project will meet the resource enhancement approval criteria in the environmental zone.

The new pedestrian bridge and trail are situated to best avoid unnecessary environmental impacts, and will provide significant public benefits in the form of connections to the Springwater Corridor. Disturbance areas for all proposed work will be restored and revegetated via an extensive replanting plan to be implemented by the City's Watershed Revegetation Program staff in BES. The trail and bridge meet the public recreational facilities approval criteria in the environmental zone. Removal of 51 sycamore maple trees is needed to reduce invasive species competition with the new plantings, and the tree review approval criteria are met.

The construction management plan for the bridge removal and pedestrian bridge construction is being finalized by the applicant's contractor and more detailed information about this work is needed to confirm that there will be no construction impacts on Johnson Creek or downstream waters. Conditions of approval requiring this information, as well as information demonstrating compliance with FEMA floodplain regulations, are necessary to ensure that the approval criteria will be met. The applicants and the above findings have shown that, with such conditions, the proposal can meet the applicable approval criteria. Therefore, this proposal should be approved, subject to the following conditions.

ADMINISTRATIVE DECISION

Approval of an Environmental Review for:

- Removal of 3 roadway bridges over Johnson Creek at SE 106th Avenue, SE 108th Avenue, and SE 110th Avenue;
- Construction of a 10-foot wide asphalt paved pedestrian trail with 2-foot graveled shoulders;
- Construction of a 10-foot wide steel truss pedestrian bridge with concrete deck over Johnson Creek; and
- Removal of 51 sycamore maple trees;

all within the Environmental Conservation and Environmental Protection overlay zones, and in substantial conformance with Exhibits C.2, through C.17, as signed and dated by the City of Portland Bureau of Development Services on **April 23, 2012**. Approval is subject to the following conditions:

A. As part of any BDS permit application submittal, the following development-related conditions (B through G) must be noted on each of the required site plans or included as a sheet in the numbered set of plans. The sheet on which this information appears must be labeled "ZONING COMPLIANCE PAGE - Case File LU 12-109183 EN TR." All requirements must be graphically represented on the site plan, landscape, or other required plan and must be labeled "REQUIRED." These exhibits shall be included on a sheet that is the same size as the plans submitted for the permit and shall include the following statement, ***"Any field changes shall be in substantial conformance with approved Exhibits C.2 through C.17."***

1. A Final Planting Plan, indicating all plantings to be installed for Phase 1 and for Phase 2 of the East Lents Floodplain Restoration project, shall be submitted with all permits, for review and approval by BDS Planning & Zoning Review staff. The planting plan shall substantially conform to Exhibits C.14 through C.17 (Mitigation Plan, Plant Lists and Revegetation Summary). All plants shall be selected from the *Portland Plant List*.

B. Prior to issuance of any BDS building permit for the new pedestrian bridge:

1. The applicant shall provide written confirmation from the Federal Emergency Management Agency confirming that a CLOMR for floodway encroachments depicted in this land use review has been, or will be approved, prior to issuance of the building permits for new pedestrian bridge and driveway.
2. The applicant shall provide final construction management plans for the new bridge showing: proposed final grading with 2-foot contour lines, location of excavation and fill, trees to be preserved/tree protection devices, construction ingress and egress, construction methods, methods to prevent construction materials from entering

Johnson Creek, and post construction permanent erosion control/bank treatment, all relative to environmental zone lines, top of bank, and Ordinary High Water; and in substantial conformance with Exhibit C.2 through C.6 Construction Management Plans.

C. Prior to issuance of any Demolition permits or any City permits for bridge removal or construction work, the applicant shall obtain a **Zoning Permit** from BDS, for review of final plans and on-site inspections as follows:

1. As part of the application for Zoning Permit, the applicant shall submit a final Bridge Removal Construction Management Plan that includes:
 - All information and notations presented on approved Exhibits C.2 through C.6.
 - Site- and bridge-specific Construction Management information for each bridge to be removed:
 - Bridge removal sequence, including contractor staging and traffic staging;
 - Detailed schedule of bridge removal work;
 - Type of equipment that will be used, including size and capacity;
 - Equipment location during removal operations; and
 - Disposal location.
 - Installation of a bright orange, 4-foot high, temporary construction fencing at edge of project area; and

D. Temporary construction fencing shall be installed according to Section 33.248.068 (Tree Protection Requirements), except as noted below. Construction fencing shall be placed along the Limits of Construction Disturbance for the approved development, as depicted on Exhibits C.2 through C.6 (Construction Management Plans), or as required by inspection staff during the plan review and/or inspection stages.

1. No mechanized construction vehicles are permitted outside of the approved “Limits of Construction Disturbance” delineated by the temporary construction fence. All planting work, invasive vegetation removal, and other work to be done outside the Limits of Construction Disturbance, shall be conducted using hand held equipment.

E. Phase 2 plantings (previously approved as a portion of all plantings proposed for Land Use Review LU 10-106710 EN AD and LU 11-188353 EN M) shall include a total of 8,260 trees, 11,625 shrubs, 15,135 live cuttings and 9 to 14 pounds per acre of herbaceous seed, and 1000 to 2700 plugs per acre of sedges and rushes, throughout the project area, using species selected from the *Portland Plant List*, in substantial conformance with the Final Planting Plan, required above in Condition A.1.

1. Phase 2 plantings identified on the Final Planting Plan shall be installed between October 1 and March 31 (the planting season).
2. Prior to installing required mitigation plantings, non-native invasive plants shall be removed from all areas within 10 feet of mitigation plantings, using handheld equipment.
3. An inspection of required plantings shall be required to document their installation: the applicant shall obtain a separate **Zoning Permit** for the purpose of ensuring an inspection of the required mitigation plantings by March 31 of the year following final grading of the site.

F. The land owner shall maintain the required plantings for five years to ensure survival and replacement. The land owner is responsible for ongoing survival of required plantings during and beyond the designated five-year monitoring period. The landowner shall:

1. Obtain a **Zoning Permit** for a final inspection at the end of the 5-year maintenance and monitoring period. The permit must be finalized no later than 5 years from the final inspection for the installation of mitigation planting, for the purpose of ensuring that the required plantings remain. Any required plantings that have not survived must be replaced.

G. Failure to comply with any of these conditions may result in the City’s reconsideration of this land use approval pursuant to Portland Zoning Code Section 33.700.040 and /or enforcement of these conditions in any manner authorized by law.

Note: In addition to the requirements of the Zoning Code, all uses and development must comply with other applicable City, regional, state and federal regulations.

This decision applies to only the City's environmental regulations. Activities which the City regulates through PCC 33.430 may also be regulated by other agencies. In cases of overlapping City, Special District, Regional, State, or Federal regulations, the more stringent regulations will control. City approval does not imply approval by other agencies.

Staff Planner: Stacey M Castleberry

Decision rendered by:  **on April 23, 2012.**

By authority of the Director of the Bureau of Development Services

Decision mailed: April 26, 2012.

About this Decision. This land use decision is **not a permit** for development. Permits may be required prior to any work. Contact the Development Services Center at 503-823-7310 for information about permits.

Procedural Information. The application for this land use review was submitted on January 31, 2012, and was determined to be complete on February 24, 2011.

Zoning Code Section 33.700.080 states that Land Use Review applications are reviewed under the regulations in effect at the time the application was submitted, provided that the application is complete at the time of submittal, or complete within 180 days. Therefore this application was reviewed against the Zoning Code in effect on January 31, 2012.

ORS 227.178 states the City must issue a final decision on Land Use Review applications within 120-days of the application being deemed complete. The 120-day review period may be waived or extended at the request of the applicant. In this case the applicant waived the 120-day review period, as stated with Exhibit A.3. Unless further extended by the applicant, **the 120 days will expire on: February 23, 2013.**

Some of the information contained in this report was provided by the applicant.

As required by Section 33.800.060 of the Portland Zoning Code, the burden of proof is on the applicant to show that the approval criteria are met. The Bureau of Development Services has independently reviewed the information submitted by the applicant and has included this information only where the Bureau of Development Services has determined the information satisfactorily demonstrates compliance with the applicable approval criteria. This report is the decision of the Bureau of Development Services with input from other City and public agencies.

Conditions of Approval. If approved, this project may be subject to a number of specific conditions, listed above. Compliance with the applicable conditions of approval must be documented in all related permit applications. Plans and drawings submitted during the permitting process must illustrate how applicable conditions of approval are met. Any project elements that are specifically required by conditions of approval must be shown on the plans, and labeled as such.

These conditions of approval run with the land, unless modified by future land use reviews. As used in the conditions, the term "applicant" includes the applicant for this land use review, any person undertaking development pursuant to this land use review, the proprietor of the use or development approved by this land use review, and the current owner and future owners of the property subject to this land use review.

Appealing this decision. This decision may be appealed to the Hearings Officer, which will hold a public hearing. Appeals must be filed **by 4:30 PM on May 10, 2012** at 1900 SW Fourth

Ave. Appeals can be filed Tuesday through Friday on the first floor of the Development Services Center until 3 p.m. After 3 p.m. and Mondays, appeals must be submitted to the receptionist at the front desk on the fifth floor. **An appeal fee of \$250 will be charged.** The appeal fee will be refunded if the appellant prevails. There is no fee for ONI recognized organizations appealing a land use decision for property within the organization's boundaries. The vote to appeal must be in accordance with the organization's bylaws. Assistance in filing the appeal and information on fee waivers is available from BDS in the Development Services Center. Please see the appeal form for additional information.

The file and all evidence on this case are available for your review by appointment only. Please call the Request Line at our office, 1900 SW Fourth Avenue, Suite 5000, phone 503-823-7617, to schedule an appointment. I can provide some information over the phone. Copies of all information in the file can be obtained for a fee equal to the cost of services. Additional information about the City of Portland, city bureaus, and a digital copy of the Portland Zoning Code is available on the internet at www.portlandonline.com.

Attending the hearing. If this decision is appealed, a hearing will be scheduled, and you will be notified of the date and time of the hearing. The decision of the Hearings Officer is final; any further appeal must be made to the Oregon Land Use Board of Appeals (LUBA) within 21 days of the date of mailing the decision, pursuant to ORS 197.620 and 197.830. Contact LUBA at 550 Capitol St. NE, Suite 235, Salem, Oregon 97301, or phone 1-503-373-1265 for further information.

Failure to raise an issue by the close of the record at or following the final hearing on this case, in person or by letter, may preclude an appeal to the Land Use Board of Appeals (LUBA) on that issue. Also, if you do not raise an issue with enough specificity to give the Hearings Officer an opportunity to respond to it, that also may preclude an appeal to LUBA on that issue.

Recording the final decision.

If this Land Use Review is approved the final decision must be recorded with the Multnomah County Recorder. A few days prior to the last day to appeal, the City will mail instructions to the applicant for recording the documents associated with their final land use decision.

- *Unless appealed,* The final decision may be recorded on or after **May 11, 2012 – (the day following the last day to appeal).**
- A building or zoning permit will be issued only after the final decision is recorded.

The applicant, builder, or a representative may record the final decision as follows:

- By Mail: Send the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to: Multnomah County Recorder, P.O. Box 5007, Portland OR 97208. The recording fee is identified on the recording sheet. Please include a self-addressed, stamped envelope.
- In Person: Bring the two recording sheets (sent in separate mailing) and the final Land Use Review decision with a check made payable to the Multnomah County Recorder to the County Recorder's office located at 501 SE Hawthorne Boulevard, #158, Portland OR 97214. The recording fee is identified on the recording sheet.

For further information on recording, please call the County Recorder at 503-988-3034. For further information on your recording documents please call the Bureau of Development Services Land Use Services Division at 503-823-0625.

Expiration of this approval. An approval expires three years from the date the final decision is rendered unless a building permit has been issued, or the approved activity has begun. Where a site has received approval for multiple developments, and a building permit is not issued for all of the approved development within three years of the date of the final decision, a new land use review will be required before a permit will be issued for the remaining development, subject to the Zoning Code in effect at that time.

Applying for your permits. A building permit, occupancy permit, or development permit may be required before carrying out an approved project. At the time they apply for a permit, permittees must demonstrate compliance with:

- All conditions imposed herein;
- All applicable development standards, unless specifically exempted as part of this land use review;
- All requirements of the building code; and
- All provisions of the Municipal Code of the City of Portland, and all other applicable ordinances, provisions and regulations of the City.

EXHIBITS

NOT ATTACHED UNLESS INDICATED

- A. Applicant's Statements
 - 1. Environmental Review Narrative
 - 2. Response to Incomplete Letter
 - 3. 120-Day Waiver
- B. Zoning Map (attached)
- C. Plans/Drawings:
 - 1. Existing Conditions Plan
 - 2. Construction Management Plan (attached)
 - 3. Construction Management Plan (attached)
 - 4. Construction Management Plan (attached)
 - 5. Construction Management Plan (attached)
 - 6. Construction Management Plan
 - 7. Tree Removal Plan (attached)
 - 8. Tree Removal List
 - 9. Proposed Development
 - 10. Proposed Development
 - 11. Proposed Development
 - 12. Proposed Development
 - 13. Pedestrian Bridge Elevation (attached)
 - 14. Mitigation Plan (attached)
 - 15. Mitigation Plant List (attached)
 - 16. Revegetation Summary
 - 17. Herbaceous plant quantities
- D. Notification information:
- E. Agency Responses:
 - 1. Site Development Review Section of BDS
 - 2. Live Safety Section of BDS
 - 3. Water Bureau
 - 4. Bureau of Environmental Services
 - 5. Site Development Review Section of BDS
- F. Correspondence:
 - No correspondence was received
- G. Other:
 - 1. Original LU Application
 - 2. Site History Research
 - 3. Incomplete Letter

The Bureau of Development Services is committed to providing equal access to information and hearings. Please notify us no less than five business days prior to the event if you need special accommodations. Call 503-823-7300 (TTY 503-823-6868).

Approved
City of Portland - Bureau of Development Services

LU # **12-109183-ENTR**

Planner **Stacy M. Lath** Date **4/23/2012**

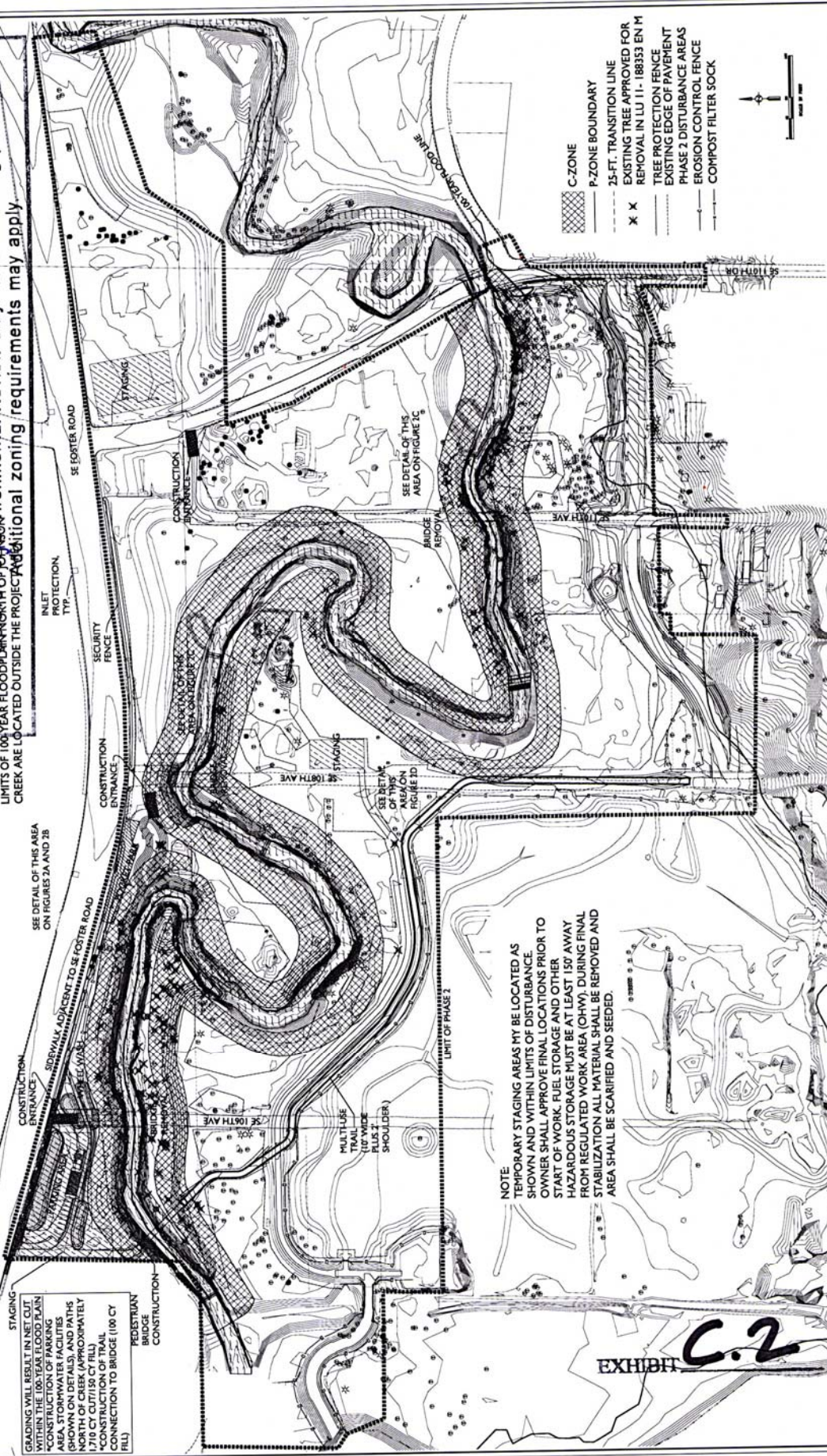
NOTE: LIMITS OF 100-YEAR FLOODPLAIN FOR ENVIRONMENTAL REVIEW ONLY. NOT A BUILDING PERMIT. CREEK ARE LOCATED OUTSIDE THE PROJECT. ADDITIONAL ZONING REQUIREMENTS MAY APPLY.

STAGING
 GRADING WILL RESULT IN NET CUT
 WITHIN THE 100-YEAR FLOOD PLAIN
 AREA STAGING FOR FUEL STORAGE
 (SEE DETAILS) AND PATHS
 NORTH OF CREEK (APPROXIMATELY
 1,710 CY CUT/150 CY FILL)
 *CONSTRUCTION OF TRAIL
 CONNECTION TO BRIDGE (100 CY
 FILL)
 PEDESTRIAN
 BRIDGE
 CONSTRUCTION

SEE DETAIL OF THIS AREA
 ON FIGURES 2A AND 2B
 CONSTRUCTION
 ENTRANCE
 SIDEWALK ADJACENT TO SE FOSTER ROAD
 SEE DETAIL OF THIS AREA
 ON FIGURE 2C
 INLET
 PROTECTION
 TYP.

STAGING
 CONSTRUCTION
 ENTRANCE
 SECURITY
 FENCE

STAGING
 CONSTRUCTION
 ENTRANCE
 SECURITY
 FENCE



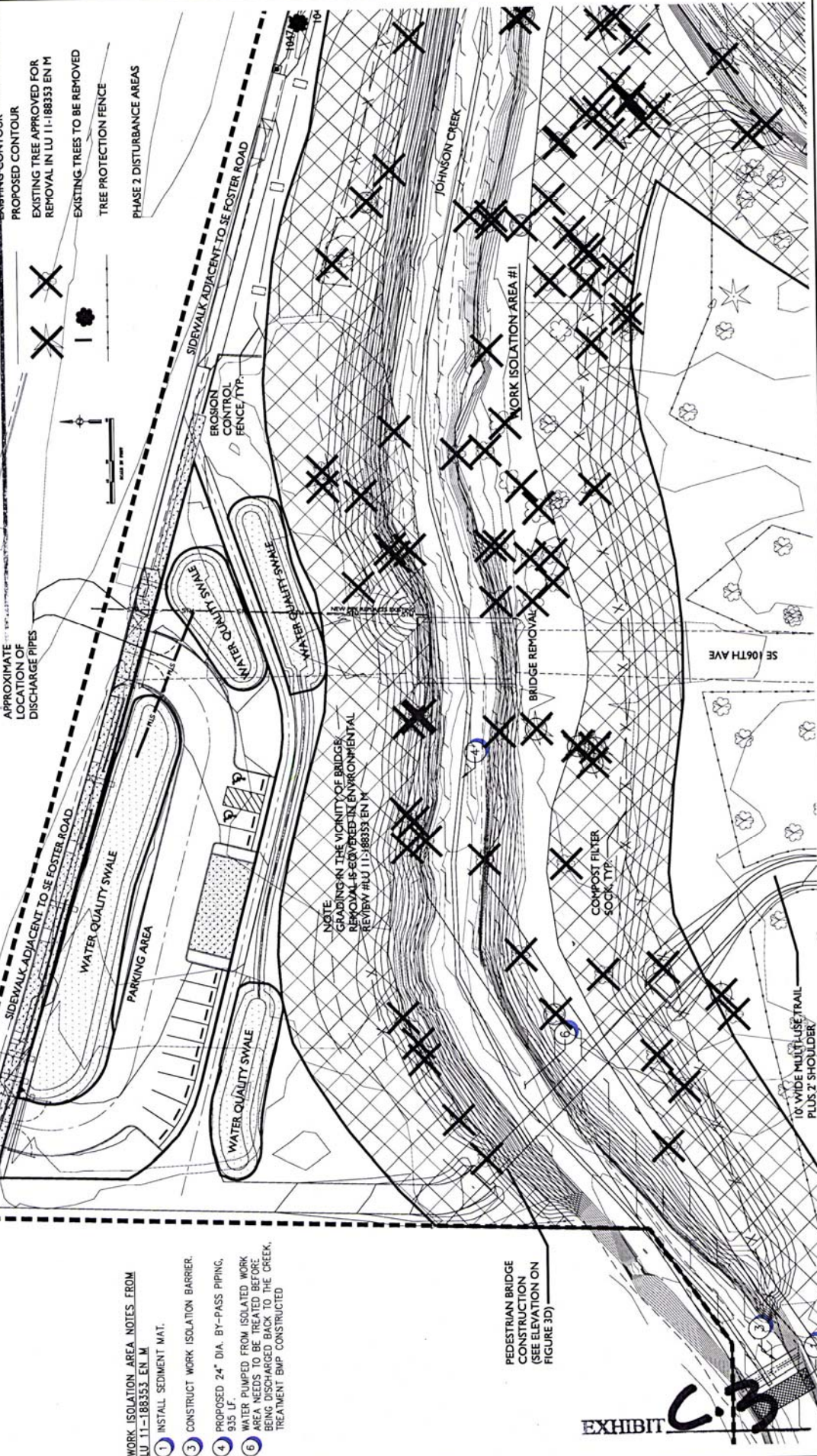
NOTE
 TEMPORARY STAGING AREAS MAY BE LOCATED AS SHOWN AND WITHIN LIMITS OF DISTURBANCE. OWNER SHALL APPROVE FINAL LOCATIONS PRIOR TO START OF WORK. FUEL STORAGE AND OTHER HAZARDOUS STORAGE MUST BE AT LEAST 150' AWAY FROM REGULATED WORK AREA (OHV). DURING FINAL STABILIZATION ALL MATERIAL SHALL BE REMOVED AND AREA SHALL BE SCARIFIED AND SEEDED.

EXHIBIT **C.2**

City of Portland - Bureau of Development Services
LU # 12-109183 EVTR

Planner Stephen (with) Date

* Approval for Environmental Review only. Not a building permit.
CITY OF PORTLAND
ADDITIONAL ZONING REQUIREMENTS MAY APPLY
APPROVAL BY THE CITY ENGINEER



WORK ISOLATION AREA NOTES FROM
11-11-188353 EN M

- 1 INSTALL SEDIMENT MAT.
- 2 CONSTRUCT WORK ISOLATION BARRIER.
- 3 PROPOSED 24" DIA. BY-PASS PIPING, 935 LF.
- 4 WATER PUMPED FROM ISOLATED WORK AREA NEEDS TO BE TREATED BEFORE BEING DISCHARGED BACK TO THE CREEK.
- 5 TREATMENT BMP CONSTRUCTED

PEDESTRIAN BRIDGE
CONSTRUCTION
(SEE ELEVATION ON
FIGURE 3D)

EXHIBIT

Approved

City of Portland - Bureau of Development Services

LU # 12-109183-ENR

WORK ISOLATION AREA

LU 11-188353-ENR

DATE: 1/23/12

BY: [Signature]

FOR: [Signature]

1. INSTALL SEDIMENT CONTROL FENCE TYP. APPROVAL FOR ENVIRONMENTAL REVIEW ONLY. NOT A BUILDING PERMIT.

2. CONSTRUCT WORK ISOLATION BARRIER. ADDITIONAL ZONING REQUIREMENTS MAY APPLY.

3. PROPOSED 24" DIA. BY-PASS PIPING, 485 LF.

4. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

5. EXISTING TREES TO BE REMOVED

6. TREE PROTECTION FENCE

7. PHASE 2 DISTURBANCE AREAS

8. SIDEWALK ADJACENT TO SE FOSTER RD

9. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

10. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

11. BRIDGE REMOVAL

12. TREE TO BE REMOVED, TYP.

13. SE 108TH AVE

14. JOHNSON CREEK

15. POCKET PARK

16. SE FOSTER ROAD

17. PROPOSED SIDEWALK

18. TREE PROTECTION FENCE TYP.

19. TREES TO BE REMOVED

20. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

21. EXISTING TREES TO BE REMOVED

22. TREE PROTECTION FENCE

23. PHASE 2 DISTURBANCE AREAS

24. SIDEWALK ADJACENT TO SE FOSTER RD

25. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

26. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

27. BRIDGE REMOVAL

28. TREE TO BE REMOVED, TYP.

29. SE 108TH AVE

30. JOHNSON CREEK

31. POCKET PARK

32. SE FOSTER ROAD

33. PROPOSED SIDEWALK

34. TREE PROTECTION FENCE TYP.

35. TREES TO BE REMOVED

36. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

37. EXISTING TREES TO BE REMOVED

38. TREE PROTECTION FENCE

39. PHASE 2 DISTURBANCE AREAS

40. SIDEWALK ADJACENT TO SE FOSTER RD

41. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

42. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

43. BRIDGE REMOVAL

44. TREE TO BE REMOVED, TYP.

45. SE 108TH AVE

46. JOHNSON CREEK

47. POCKET PARK

48. SE FOSTER ROAD

49. PROPOSED SIDEWALK

50. TREE PROTECTION FENCE TYP.

51. TREES TO BE REMOVED

52. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

53. EXISTING TREES TO BE REMOVED

54. TREE PROTECTION FENCE

55. PHASE 2 DISTURBANCE AREAS

56. SIDEWALK ADJACENT TO SE FOSTER RD

57. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

58. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

59. BRIDGE REMOVAL

60. TREE TO BE REMOVED, TYP.

61. SE 108TH AVE

62. JOHNSON CREEK

63. POCKET PARK

64. SE FOSTER ROAD

65. PROPOSED SIDEWALK

66. TREE PROTECTION FENCE TYP.

67. TREES TO BE REMOVED

68. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

69. EXISTING TREES TO BE REMOVED

70. TREE PROTECTION FENCE

71. PHASE 2 DISTURBANCE AREAS

72. SIDEWALK ADJACENT TO SE FOSTER RD

73. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

74. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

75. BRIDGE REMOVAL

76. TREE TO BE REMOVED, TYP.

77. SE 108TH AVE

78. JOHNSON CREEK

79. POCKET PARK

80. SE FOSTER ROAD

81. PROPOSED SIDEWALK

82. TREE PROTECTION FENCE TYP.

83. TREES TO BE REMOVED

84. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

85. EXISTING TREES TO BE REMOVED

86. TREE PROTECTION FENCE

87. PHASE 2 DISTURBANCE AREAS

88. SIDEWALK ADJACENT TO SE FOSTER RD

89. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

90. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

91. BRIDGE REMOVAL

92. TREE TO BE REMOVED, TYP.

93. SE 108TH AVE

94. JOHNSON CREEK

95. POCKET PARK

96. SE FOSTER ROAD

97. PROPOSED SIDEWALK

98. TREE PROTECTION FENCE TYP.

99. TREES TO BE REMOVED

100. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

101. EXISTING TREES TO BE REMOVED

102. TREE PROTECTION FENCE

103. PHASE 2 DISTURBANCE AREAS

104. SIDEWALK ADJACENT TO SE FOSTER RD

105. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

106. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

107. BRIDGE REMOVAL

108. TREE TO BE REMOVED, TYP.

109. SE 108TH AVE

110. JOHNSON CREEK

111. POCKET PARK

112. SE FOSTER ROAD

113. PROPOSED SIDEWALK

114. TREE PROTECTION FENCE TYP.

115. TREES TO BE REMOVED

116. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

117. EXISTING TREES TO BE REMOVED

118. TREE PROTECTION FENCE

119. PHASE 2 DISTURBANCE AREAS

120. SIDEWALK ADJACENT TO SE FOSTER RD

121. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

122. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

123. BRIDGE REMOVAL

124. TREE TO BE REMOVED, TYP.

125. SE 108TH AVE

126. JOHNSON CREEK

127. POCKET PARK

128. SE FOSTER ROAD

129. PROPOSED SIDEWALK

130. TREE PROTECTION FENCE TYP.

131. TREES TO BE REMOVED

132. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

133. EXISTING TREES TO BE REMOVED

134. TREE PROTECTION FENCE

135. PHASE 2 DISTURBANCE AREAS

136. SIDEWALK ADJACENT TO SE FOSTER RD

137. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

138. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

139. BRIDGE REMOVAL

140. TREE TO BE REMOVED, TYP.

141. SE 108TH AVE

142. JOHNSON CREEK

143. POCKET PARK

144. SE FOSTER ROAD

145. PROPOSED SIDEWALK

146. TREE PROTECTION FENCE TYP.

147. TREES TO BE REMOVED

148. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

149. EXISTING TREES TO BE REMOVED

150. TREE PROTECTION FENCE

151. PHASE 2 DISTURBANCE AREAS

152. SIDEWALK ADJACENT TO SE FOSTER RD

153. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

154. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

155. BRIDGE REMOVAL

156. TREE TO BE REMOVED, TYP.

157. SE 108TH AVE

158. JOHNSON CREEK

159. POCKET PARK

160. SE FOSTER ROAD

161. PROPOSED SIDEWALK

162. TREE PROTECTION FENCE TYP.

163. TREES TO BE REMOVED

164. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

165. EXISTING TREES TO BE REMOVED

166. TREE PROTECTION FENCE

167. PHASE 2 DISTURBANCE AREAS

168. SIDEWALK ADJACENT TO SE FOSTER RD

169. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

170. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

171. BRIDGE REMOVAL

172. TREE TO BE REMOVED, TYP.

173. SE 108TH AVE

174. JOHNSON CREEK

175. POCKET PARK

176. SE FOSTER ROAD

177. PROPOSED SIDEWALK

178. TREE PROTECTION FENCE TYP.

179. TREES TO BE REMOVED

180. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

181. EXISTING TREES TO BE REMOVED

182. TREE PROTECTION FENCE

183. PHASE 2 DISTURBANCE AREAS

184. SIDEWALK ADJACENT TO SE FOSTER RD

185. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

186. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

187. BRIDGE REMOVAL

188. TREE TO BE REMOVED, TYP.

189. SE 108TH AVE

190. JOHNSON CREEK

191. POCKET PARK

192. SE FOSTER ROAD

193. PROPOSED SIDEWALK

194. TREE PROTECTION FENCE TYP.

195. TREES TO BE REMOVED

196. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

197. EXISTING TREES TO BE REMOVED

198. TREE PROTECTION FENCE

199. PHASE 2 DISTURBANCE AREAS

200. SIDEWALK ADJACENT TO SE FOSTER RD

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209. PROPOSED SIDEWALK

210. TREE PROTECTION FENCE TYP.

211. TREES TO BE REMOVED

212. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

213. EXISTING TREES TO BE REMOVED

214. TREE PROTECTION FENCE

215. PHASE 2 DISTURBANCE AREAS

216. SIDEWALK ADJACENT TO SE FOSTER RD

217. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

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219. BRIDGE REMOVAL

220. TREE TO BE REMOVED, TYP.

221. SE 108TH AVE

222. JOHNSON CREEK

223. POCKET PARK

224. SE FOSTER ROAD

225. PROPOSED SIDEWALK

226. TREE PROTECTION FENCE TYP.

227. TREES TO BE REMOVED

228. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

229. EXISTING TREES TO BE REMOVED

230. TREE PROTECTION FENCE

231. PHASE 2 DISTURBANCE AREAS

232. SIDEWALK ADJACENT TO SE FOSTER RD

233. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

234. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

235. BRIDGE REMOVAL

236. TREE TO BE REMOVED, TYP.

237. SE 108TH AVE

238. JOHNSON CREEK

239. POCKET PARK

240. SE FOSTER ROAD

241. PROPOSED SIDEWALK

242. TREE PROTECTION FENCE TYP.

243. TREES TO BE REMOVED

244. EXISTING TREE APPROVED FOR REMOVAL IN LU 11-188353-ENR

245. EXISTING TREES TO BE REMOVED

246. TREE PROTECTION FENCE

247. PHASE 2 DISTURBANCE AREAS

248. SIDEWALK ADJACENT TO SE FOSTER RD

249. EROSION CONTROL FENCE TYP. COMPOST FILTER SOCK TYP.

250. GRADING IN THE VICINITY OF BRIDGE REMOVAL IS COVERED IN ENVIRONMENTAL REVIEW #LU 11-188353-ENR

251. BRIDGE REMOVAL

252. TREE TO BE REMOVED, TYP.

253. SE 108TH AVE

254. JOHNSON CREEK

255. POCKET PARK

256. SE FOSTER ROAD

257. PROPOSED SIDEWALK

258. TREE PROTECTION FENCE TYP.

259. TREES TO BE REMOVED

260. EXISTING TREE APPROVED FOR REMOVAL IN LU

Approved

City of Portland - Bureau of Development Services

LU # 12-109183 ETP

Planner *Sharon J. Jett*

Date *4/23/2012*

WORKSHEET FOR ENVIRONMENTAL REVIEW ONLY. NOT A BUILDING PERMIT.
C-ZONE IS SHOWN BY
LU 11-18833 EN M

Additional zoning requirements may apply.

1. INSTALL SEDIMENT MAT
2. INSTALL TURBIDITY CURTAIN.
3. CONSTRUCT WORK ISOLATION BARRIER.
5. PROPOSED 24" DIA. BY-PASS PIPING, 465 LF.
6. WATER PUMPED FROM ISOLATED WORK AREA NEEDS TO BE TREATED BEFORE BEING DISCHARGED BACK TO THE CREEK.

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING TREE APPROVED FOR REMOVAL IN LU 11-18833 EN M
- EXISTING TREES TO BE REMOVED
- TREE PROTECTION FENCE
- PHASE 2 DISTURBANCE AREAS



FIGURE
2C

4223
2/24/12
Detail of construction management for the proposed bridge removal at SE 110th Avenue at the East Lents-Johnson Creek Floodplain Restoration Project Phase 2 Public Access Improvements and Bridge Removal in Portland, Oregon. Provided by OIAK, Inc., 2012. Tree removal is shown on Figures 2E and 2F.

EXHIBIT C-5

Approved

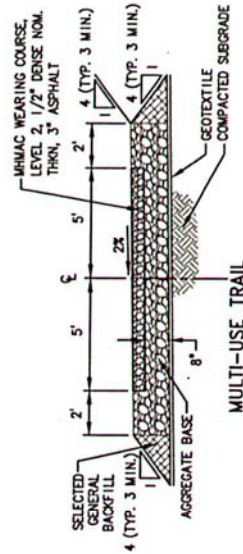
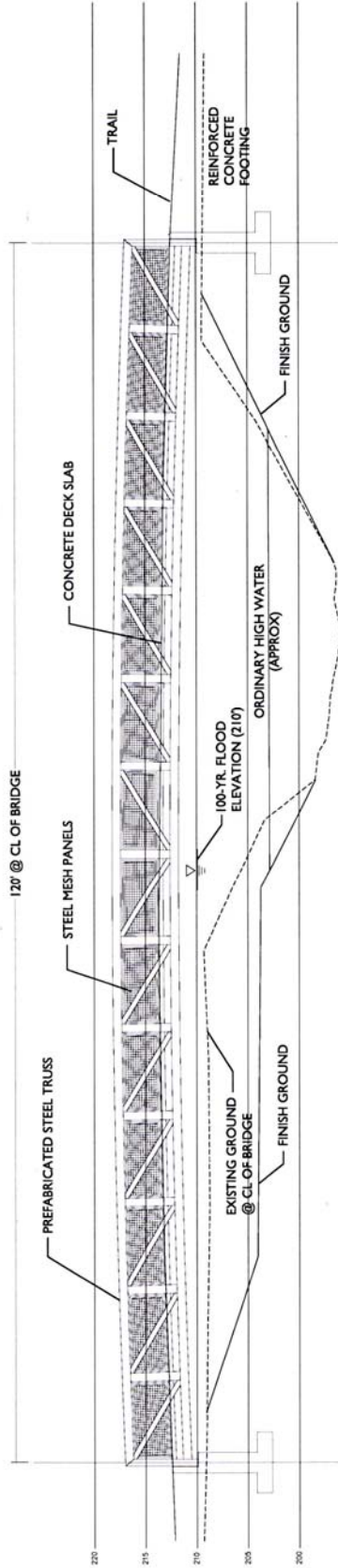
City of Portland - Bureau of Development Services

LU # 12-109183 EATR

Planner *Stacy M. Caldwell*

Date *4/23/2012*

* Approval for Environmental Review only. Not a building permit.
Additional zoning requirements may apply.



EXHIBIT

C.13

FIGURE 3D

Elevation view of proposed pedestrian bridge and cross-section of multi-use trail at the East Lents-Johnson Creek Floodplain Restoration Project Phase 2 Public Access Improvements and Bridge Removal in Portland, Oregon. Provided by OTAK, Inc., 2012.

4223

2/21/12

OTAK

Pacific Habitat Services, Inc.

Approved

City of Portland - Bureau of Development Services

LU #

12-109183 EWP

Planner

Sharon M. Carabet

Date

4/23/2012

* Approval for Environmental Review only. Not a building permit.
Additional zoning requirements may apply.

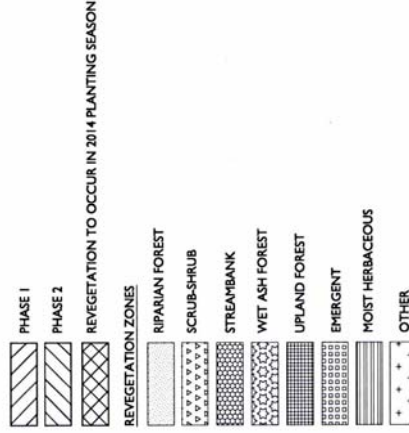


EXHIBIT C.14

4223

2/17/12

Mitigation plan for the East Lents-Johnson Creek Floodplain Restoration Project Phase 2 Public Access Improvements and Bridge Removal in Portland, Oregon. Provided by City of Portland Bureau of Environmental Services Watershed Revegetation Program, 2011.

Pacific Habitat Services, Inc.

FIGURE 4

RUPIANIAN FOREST

Species*	Common Name	# per acre*	Stock Type / Notes
Trees			
<i>Abies grandis</i>	Grand Fir	25 - 50	bareroot
<i>Acer macrophyllum</i>	Big-leaf Maple	50 - 75	bareroot
<i>Alnus rubra</i>	Red Alder	150 - 225	bareroot
<i>Crataegus siskiyawii</i>	Black Hawthorn	25 - 75	bareroot
<i>Fraxinus latifolia</i>	Oregon Ash	25 - 75	bareroot
<i>Populus balsamifera ssp. trichocarpa</i>	Black Cottonwood	75 - 125	bareroot
<i>Pseudotsuga mucronata</i>	Douglas-fir	25 - 75	bareroot
<i>Thuja plicata</i>	Western Redcedar	150 - 225	bareroot
Shrubs			
<i>Acer circinnatum</i>	Vine maple	25 - 75	bareroot
<i>Cornus sericea</i>	Red-sailer Dogwood	75 - 125	bareroot or cutting
<i>Corylus cornuta var. californica</i>	Boaked Hazel	25 - 75	bareroot
<i>Quercus venusta</i>	Indian Plum	125 - 175	bareroot
<i>Physocarpus opulifolius</i>	Ninebark	50 - 100	bareroot or cutting
<i>Rosa nutkana</i>	Noddy Rose	75 - 125	bareroot
<i>Salix speciosa</i>	Salmonberry	25 - 75	bareroot
<i>Sambucus racemosa</i>	Red Elderberry	25 - 75	bareroot or cutting
<i>Spiraea douglasii</i>	Hardsuckle	75 - 125	bareroot
<i>Symphoricarpos albus</i>	Snowberry	75 - 125	bareroot
Herbaceous Plants			
<i>Deschampsia cespitosa</i>	Tufted Hairgrass	70,000-100,000	seed
<i>Hieracium brachanthemum</i>	Meadow Barley	65,000-1,000,000	seed
<i>Carex obnupta</i>	Slough Sedge	0.01 - 0.2 lbs	seed (or 300 plugs/acre)
<i>Agrostis exarata</i>	Spoke Bentgrass	120,000-18,000,000	seed
<i>Bromus cernatus</i>	California Brome	125,000-1,300,000	seed
<i>Elymus glaucus</i>	Blue Wildrye	220,000-760,000	seed
<i>Lupinus rivularis</i>	Lupine	50,000-144,000	seed

* Actual plant quantities and species may be adjusted depending on planning site conditions, existing site vegetation, and availability of plant stock.

EMERGENT

Species*	Common Name	# per acre*	Stock Type / Notes
Herbaceous Plants			
<i>Alisma plantago-aquatica</i>	Water Plantain	400,000-3,200,000	seed
<i>Eleocharis ovata</i> or <i>E. palustris</i>	Common or Tall Spikerush	620,000-1,900,000	seed
<i>Glyceria occidentalis</i>	Reed Managras	600,000-1,000,000	seed
<i>Grindelia integrifolia</i>	Gumweed	400,000-1,300,000	seed
<i>Lycopodium gracilifolius</i>	Water Foxtail	400,000-2,000,000	seed
<i>Carex obnupta</i>	Slough Sedge	212,000-1,700,000	seed (or 300 plugs/acre)
<i>Saxifraga</i>	Sawtooth Sedge	30,000-1,600,000	seed (or 300 plugs/acre)
<i>Phytolacca americana</i>	Taprooted Rush	0.17 - 1 lbs	seed (or 300 plugs/acre)
<i>Deschampsia cespitosa</i>	Tufted Hairgrass	1,300,000-11,000,000	seed

* Actual plant quantities and species may be adjusted depending on planning site conditions, existing site vegetation, and availability of plant stock.

SCRUB SHRUB

Species*	Common Name	# per acre*	Stock Type / Notes
Trees			
<i>Crataegus siskiyawii</i>	Black Hawthorn	25 - 75	bareroot
<i>Fraxinus latifolia</i>	Oregon Ash	10 - 25	bareroot
<i>Malus fusca</i>	Western Crabapple	10 - 25	bareroot or cutting
<i>Salix lucida ssp. lasiocarpa</i>	Pacific Willow	150 - 225	bareroot or cutting
Shrubs			
<i>Cornus sericea</i>	Red-sailer Dogwood	250 - 350	bareroot or cutting
<i>Lonicera involucrata</i>	Twinstem	75 - 125	bareroot
<i>Physocarpus opulifolius</i>	Ninebark	25 - 75	bareroot or cutting
<i>Rosa pratincola</i>	Swamp Rose	75 - 125	bareroot
<i>Salix ssp.</i>	Various Scrub Willow	400 - 500	bareroot or cutting
<i>Sambucus racemosa</i>	Red Elderberry	25 - 75	bareroot
<i>Spiraea douglasii</i>	Hardsuckle	200 - 300	bareroot or cutting
Herbaceous Plants			
<i>Elymus glaucus</i>	Blue Wildrye	440,000-1,500,000	seed
<i>Deschampsia cespitosa</i>	Tufted Hairgrass	670,000-11,000,000	seed
<i>Agrostis exarata</i>	Bentgrass	600,000-1,000,000	seed
<i>Carex obnupta</i>	Slough Sedge	130,000-1,300,000	seed (or 300 plugs/acre)
<i>Lupinus rivularis</i>	Streambank Lupine	28,000-115,000	seed

* Actual plant quantities and species may be adjusted depending on planning site conditions, existing site vegetation, and availability of plant stock.

UPLAND FOREST

Species*	Common Name	# per acre*	Stock Type / Notes
Trees			
<i>Abies grandis</i>	Grand Fir	75 - 125	bareroot
<i>Acer macrophyllum</i>	Big-leaf Maple	50 - 100	bareroot
<i>Alnus rubra</i>	Red Alder	25 - 75	bareroot
<i>Fraxinus latifolia</i>	Oregon Ash	50 - 100	bareroot
<i>Pinus ponderosa</i>	Ponderosa Pine	75 - 125	bareroot
<i>Prunus emarginata</i>	Bitter Cherry	25 - 75	bareroot
<i>Pseudotsuga mucronata</i>	Douglas-fir	250 - 350	bareroot
<i>Rhamnus purshiana</i>	Cascara	25 - 75	bareroot
Shrubs			
<i>Acer circinnatum</i>	Vine maple	50 - 100	bareroot
<i>Berberis aquifolium</i>	Tall Oregon grape	100 - 150	bareroot
<i>Corylus cornuta var. californica</i>	Boaked Hazel	25 - 75	bareroot
<i>Hamamelis alberta</i>	Oregonian	25 - 75	bareroot
<i>Quercus venusta</i>	Indian Plum	25 - 75	bareroot
<i>Ribes sanguineum</i>	Red-flowering Currant	25 - 75	bareroot
<i>Rosa pratincola</i>	Swamp Rose	75 - 125	bareroot
<i>Rubus purpureus</i>	Blackberry	50 - 100	bareroot
<i>Symphoricarpos albus</i>	Snowberry	200 - 250	bareroot

* Actual plant quantities and species may be adjusted depending on planning site conditions, existing site vegetation, and availability of plant stock.

WETLAND FOREST

Species*	Common Name	# per acre*	Stock Type / Notes
Trees			
<i>Crataegus siskiyawii</i>	Black Hawthorn	50 - 100	bareroot
<i>Fraxinus latifolia</i>	Oregon Ash	350 - 450	bareroot
<i>Malus fusca</i>	Western Crabapple	25 - 75	bareroot
<i>Populus balsamifera ssp. trichocarpa</i>	Black Cottonwood	75 - 125	bareroot
<i>Rhamnus purshiana</i>	Cascara	25 - 75	bareroot
<i>Salix lucida ssp. lasiocarpa</i>	Pacific Willow	75 - 125	bareroot or cutting
<i>Thuja plicata</i>	Western Redcedar	5 - 25	bareroot
Shrubs			
<i>Cornus sericea</i>	Red-sailer Dogwood	150 - 250	bareroot or cutting
<i>Lonicera involucrata</i>	Twinstem	25 - 75	bareroot
<i>Physocarpus opulifolius</i>	Ninebark	75 - 125	bareroot or cutting
<i>Rosa pratincola</i>	Swamp Rose	75 - 125	bareroot
<i>Sambucus racemosa</i>	Red Elderberry	25 - 75	bareroot
<i>Spiraea douglasii</i>	Hardsuckle	150 - 250	bareroot or cutting
<i>Symphoricarpos albus</i>	Snowberry	75 - 125	bareroot
Herbaceous Plants			
<i>Elymus glaucus</i>	Blue Wildrye	440,000-920,000	seed
<i>Deschampsia cespitosa</i>	Tufted Hairgrass	670,000-11,000,000	seed
<i>Agrostis exarata</i>	Bentgrass	600,000-18,000,000	seed
<i>Carex obnupta</i>	Slough Sedge	120,000-3,500,000	seed (or 300 plugs/acre)
<i>Lupinus rivularis</i>	Streambank Lupine	28,000-58,000	seed

* Actual plant quantities and species may be adjusted depending on planning site conditions, existing site vegetation, and availability of plant stock.

MOIST HERBACEOUS

Species*	Common Name	# per acre*	Stock Type / Notes
Herbaceous Plants			
<i>Elymus glaucus</i>	Blue Wildrye	440,000-920,000	seed
<i>Deschampsia cespitosa</i>	Tufted Hairgrass	670,000-11,000,000	seed
<i>Agrostis exarata</i>	Bentgrass	600,000-18,000,000	seed
<i>Carex obnupta</i>	Slough Sedge	120,000-3,500,000	seed (or 300 plugs/acre)
<i>Lupinus rivularis</i>	Streambank Lupine	28,000-58,000	seed

* Actual plant quantities and species may be adjusted depending on planning site conditions, existing site vegetation, and availability of plant stock.

Approved

City of Portland - Bureau of Development Services

LU # 12-109183-ENTR

Planner Stacy W. Hartz Date 4/23/2012

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