

## Yesler Terrace Development Plan Mitigation Document - May 17, 2011

Listed below are those measures required to be implemented in order to mitigate environmental impacts. The measures apply to overall site development and individual buildings, whether the work is conducted by Seattle Housing Authority (SHA), non-profit housing providers, or private developers. As the overall manager of site development, SHA is responsible for ensuring compliance with these mitigation measures through binding agreements between SHA and development partners.

In addition to the measures listed below, future development at Yesler Terrace would be regulated by a new zone that is being established in the Land Use Code, and by detailed Design Guidelines. As the Code and Design Guidelines are being created in conjunction with the Planned Action Ordinance, their provisions are designed to mitigate land use, aesthetic and other impacts of the development. The elements of the new zone and Design Guidelines are not listed below. Rather, compliance with those requirements is listed as a general mitigation measure where applicable.

SHA has committed to the replacement of 561 extremely low income (at or below 30% of Area Median Income-AMI) replacement units. In addition, SHA will work with affordable housing development partners to provide 100 additional extremely low income units. Additional affordable housing, consisting of 290 very low income units (at or below 60% of AMI) and 850 workforce units (at or below 80% of AMI), is planned to occur with development partners, and is dependent upon receiving revenues from the sale of the market-rate components of the project. The allocation of units between the very low-income and workforce categories may vary.

Additional specific mitigation measures are listed below, organized by element of the environment:

### Earth

#### **Prior to Issuance of a Demolition, Grading, or Building Permit**

- Building or infrastructure design shall incorporate appropriate foundation support systems.
- Building permit applications shall include a site-specific seismic analysis for the proposed structure.
- Building or infrastructure design shall incorporate seismic provisions of the current version of the Seattle Building Code (International Building Code with Seattle amendments).
- For development proposals located adjacent to or within the Steep Slope/Environmentally Critical areas in the southern portion of the site, building permit applications shall include a site-specific analysis of the planned development, which shall identify appropriate methods of slope stabilization and other measures to prevent potential landslide impacts.
- Building permit applications shall include a site-specific analysis of the potential need for and impacts of excavation dewatering during construction, and shall identify appropriate measures to address any necessary dewatering. These measures could include site-specific design and control of dewatering systems, minimizing the extent and duration of dewatering, and monitoring for settlement.
- Building permit applications shall include a temporary erosion and sedimentation control plan (TESCP) and identification of proposed Best Management Practices (BMPs), consistent with

City of Seattle regulations, in order to control erosion. These measures could include the following:

- Limit areas of exposure;
- Retain existing vegetation where possible;
- Seed or plant appropriate vegetation on exposed areas as soon as earthwork is completed;
- Route surface water through temporary drainage channels around and away from disturbed soils or exposed slopes;
- Intercept and drain water from any surface seeps, if encountered;
- Use silt fences, temporary sedimentation ponds, or other suitable sedimentation control devices to collect and retain possible eroded material;
- Cover exposed soil stockpiles and exposed slopes with plastic sheeting, as appropriate;
- Use straw mulch and erosion control matting to stabilize graded areas and reduce erosion and runoff impacts to slopes, where appropriate;
- Temporarily cease work under certain, limited circumstances, if weather conditions warrant, and
- Rock pads or truck washing stations to limit excess soil materials from entering the right-of-way.

### **During Construction**

- For development located west of Boren and in the southern portion of the site, the existing drainage tunnels below the slide area shall be protected during construction, or replaced or improved with appropriately designed new infrastructure to the extent necessary. Construction shall include appropriate drainage measures to collect and route both groundwater and surface water runoff away from slide-prone areas for discharge to appropriate downslope locations.
- Contractors shall install temporary shoring systems as appropriate to address the potential for impacts associated with construction excavations. The design and construction of excavation shoring systems shall include an evaluation of nearby adjacent structures and utilities (e.g., the I-5 retaining wall located along the west side of the site, adjacent building foundations, and/or existing drainage tunnels), and shall incorporate measures to limit impacts to these structures and utilities.
- Groundwater discharged during construction shall comply with applicable requirements in the Stormwater, Grading, and Drainage Control Code.
- Fill from grading activities shall be designed to prevent settlement impacts to adjacent structures. As appropriate, monitoring shall be conducted during construction to verify that no significant settlement occurs.
- Excavated soil not reused onsite as structural fill (if determined to be suitable for that purpose), shall be transported offsite and disposed of at an appropriate disposal location in accordance with all applicable local, state and federal regulations.
- Foundation construction impacts shall be mitigated by proper design and construction of necessary temporary excavation shoring and dewatering systems. As necessary, ground elevation surveys shall be conducted in conjunction with pre- and post-construction inspections and photographic surveys of structures or facilities located near foundation construction activities.
- Construction shall be conducted in accordance with the approved TESCP and BMPs.

- Contractors shall incorporate appropriate measures to address potential impacts during drilled shaft installation of deep foundation support of structures, which may include the following:
  - Casings installed to control caving of soils during drilled shaft installation for deep foundation support of structures;
  - Vibration monitoring and ground elevation surveys conducted near construction activities;
  - Spoils generated during drilled shaft installation disposed of in accordance with applicable local, state, and federal requirements.

**Prior to Issuance of a Certificate of Occupancy**

- A permanent stormwater control system shall be installed, in accordance with City of Seattle regulations.
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Air Quality

**Prior to Issuance of a Demolition, Grading, or Building Permit**

- Building permit applications shall incorporate, to the extent necessary, building design features to mitigate identified air quality impacts associated with particulate matter.

**During Construction**

- BMPs shall be implemented to reduce construction-related emissions. Such practices shall include measures for reducing both exhaust emissions and fugitive dust. Possible control measures that could be implemented to reduce potential air quality impacts from construction activities include the following:
  - Use only equipment and trucks that are maintained in optimal operational condition.
  - Require all off-road equipment to have emission reduction equipment (e.g., require participation in Puget Sound Region Diesel Solutions, a programs designed to reduce air pollution from diesel, by project sponsors and contractors).
  - Use car-pooling or other trip-reduction strategies for construction workers.
  - Implement restrictions on construction truck and other vehicle idling (e.g., limit idling to a maximum of 5 minutes).
  - Spray exposed soil with water or other suppressant to reduce emissions of PM and deposition of particulate matter.
  - Pave or use gravel on staging areas and roads that would be exposed for long periods.
  - Covering all trucks transporting materials, wetting materials in trucks, or providing adequate freeboard (space from the top of the material to the top of the truck bed), to reduce PM emissions and deposition during transport.
  - Provide wheel washing stations to remove particulate matter that would otherwise be carried off site by vehicles to decrease deposition of particulate matter on area roadways.

- Cover dirt, gravel, and debris piles as needed to reduce dust and windblown debris.
- Stage construction to minimize overall transportation system congestion and delays to reduce regional emissions of pollutants during construction.

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## Water Resources

### **Prior to Issuance of a Master Use Permit**

- Detailed hydraulic modeling, using EPA's SWMM5, of the stormwater drainage and wastewater systems shall be completed during the design phase of the Yesler Terrace Redevelopment to determine the capacity of the existing system and any necessary improvements to the City's and site's drainage and wastewater infrastructure.
- Design and construction of the permanent stormwater control system, including conveyance and green stormwater infrastructure (GSI) flow control facilities, shall be in accordance with the City's Stormwater, Grading, and Drainage Control Code.
- Master Use Permit (MUP) applications shall incorporate a design for flow control facilities to mitigate stormwater runoff from increased impervious surface area. Flow control facilities shall be designed to reduce the peak stormwater discharge from the site relative to existing conditions, and to help reduce combined sewer overflows (CSOs), which can occur during heavy rainfall events.
- If it is determined that wetlands are located onsite, and if they are proposed to be disturbed, then, the project shall comply with applicable wetland mitigation requirements in the City's Environmentally Critical Areas Ordinance. If the wetlands are determined to be under the jurisdiction of the U.S. Army Corps of Engineers, then permit and mitigation requirements pursuant to Corps regulations would also apply.

### **Prior to Issuance of a Demolition, Grading, or Building Permit**

- Building permit applications shall include a Stormwater Operation and Maintenance Plan for both public and private stormwater systems.
- Building permit applications shall include a TESC and BMPs in accordance with the City's Stormwater, Grading, and Drainage Control Code.
- Building permit applications shall include a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the City's Drainage Code.
- Building roofs and siding shall not use unsealed external copper and galvanized metal, except where required by Code and/or necessary for public safety and/or where no feasible alternative exists. Zinc and copper source controls shall extend to rooftops and siding, which shall be constructed of inert materials so that water quality treatment facilities for metals removal would not be required.

### **During Construction**

- Construction shall be conducted in accordance with the approved TESCP, BMPs, and SWPPP.
- Construction entrances, wheel washes, street cleaning, and other BMPs shall be used to prevent tracking of soils beyond the project limits.

- BMPs for concrete work shall include the following:
    - Cement trucks wash water shall not be disposed of onsite, but would be returned to the off-site batch plant for recycling as process water; and
    - New concrete work would be covered and protected from rainfall until hardened.
  - Measures to control any impacts of excavation dewatering on groundwater shall include: site-specific design and careful control of dewatering systems, minimizing the extent and duration of dewatering, and re-infiltration of extracted groundwater.
  - Specialized products and other water quality treatment systems shall be used during construction if warranted and approved by the City.
  - If the combined sewer facilities where construction de-watering is to be discharged are determined to be at capacity, additional construction de-watering storage with flow control shall be provided.
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## Plants and Animals

### **Prior to Issuance of a Master Use Permit**

- MUP applications shall include a landscaping plan and identification of any exceptional or valuable trees that will be affected by the proposed development. “Exceptional trees” are as defined by DPD Director’s Rule 16-2008. “Valuable trees” are not required by City regulation to be preserved or replaced, but were assessed in the EIS with mitigation identified (see definition of “valuable” tree in Section 3.4-1 of the DEIS.) Development plans shall incorporate techniques, where feasible, that could preserve or prevent existing exceptional or valuable trees from being removed or damaged, and shall also incorporate design techniques that could increase tree survivability over time. Appropriate techniques to be identified in the MUP application in order to encourage the preservation of exceptional or valuable trees may include the following:
    - Creative site planning and architectural design.
    - Set the lower levels of the buildings away from the trees and their critical root zone (CRZ) (a cantilever or balcony effect).
    - Design the edges or portions of buildings and underground structures to avoid trees and their CRZ.
    - Install porous pavement (concrete, asphalt, pavers, or cells) or landscape areas in urbanized areas that will potentially assist in tree preservation.
    - Design sidewalks, roads, streets, and other impervious hardscape elements such that they avoid trees and their CRZ.
    - Locate existing overhead and proposed utilities underground, to the extent practicable, to avoid maintenance pruning and removal of trees in conflict with overhead utilities.
    - Consider future growth patterns of trees so that they will not need to be pruned to prevent harm to architectural features.
    - Practical and creative landscape design and installation practices.
    - New trees and other plant material should be installed in areas that will not conflict with the health of the remaining trees.
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- New trees and other plant material should be installed such that they do not conflict with each other or architectural features.
  - Consider the vertical and horizontal layering of the vegetation as it grows over time. A varied vertical and horizontal layering is ideal.
  - Design should consider incorporating elements of Seattle’s Green Stormwater Infrastructure (GSI)/Green Factor program.
- When removal of an “exceptional” or “valuable” tree is required by development, then the tree shall either be transplanted elsewhere on the Yesler Terrace site, or be replaced at a 1:1 ratio. When removal of an exceptional or valuable tree is required because it has been identified by a qualified professional as a Hazard Tree, then the tree shall be replaced at a 1:1 ratio. In the case of removal of an exceptional tree that is not transplanted, the replacement tree shall be of a size and species determined by DPD to result in a canopy cover, upon maturity, that is at least equal to the canopy cover of the tree prior to removal. Replacement trees shall be planted within the overall Yesler Terrace site as a first priority, with off-site planting only where feasible and approved by DPD.
- The landscaping plan shall incorporate the following considerations in identifying vegetation species for the site:
    - Invasive species, noxious weeds, and/or vegetation that contain allelochemicals that cause detrimental effects to other vegetation should not be planted within or near the project boundaries.
    - Native plants have a higher chance of surviving regional weather conditions and are more suited for attracting native animals.
    - Certain trees are considered harmful to hardscape surfaces. Trees that should be avoided in areas that have hardscape within the CRZ at maturity include, but are not limited to species of maples, American elm, tulip tree, pin oak, sweetgum, ash, cottonwood, and willows (Rindels 1995).
    - Native evergreen species are ideal (especially evergreen conifers) for Low-Impact Development (LID) concepts in terms of assisting in matching pre-existing conditions and mimicking the hydrologic cycle.

**Prior to Issuance of a Demolition, Grading, or Building Permit**

- The building permit application shall include a plan for implementation of construction methods and sequencing to preserve those trees required by the MUP to be preserved or transplanted, or those additional trees proposed to be retained onsite. Components of the plan may include:
  - Install fencing around trees before mobilization to prevent damage from construction activities.
  - Locate root systems visually or by other means (such as using underground radar equipment) to determine where construction activities should not occur.

### **During Construction**

- Trees to be preserved or replanted pursuant to the approved MUP or building permit shall be protected pursuant to the plan approved in the building permit plans.
- Nest removal for species protected under the Migratory Bird Treaty Act shall only occur outside of nesting season after birds have fledged.
- To the extent feasible, invasive plants shall be removed, in accordance with Washington State Executive Order 13112, to provide habitat for native animals.

### **For the Life of the Project**

- Property owners at the site shall establish a thorough landscape maintenance program during and after construction to ensure the vegetation remains healthy and free of invasive/undesirable plants.
- Property owners at the site shall apply arboriculture practices to all plants to ensure a prolonged and healthy tree life.

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## Energy – Climate Change and Greenhouse Gas Emissions

### **Prior to Issuance of a Master Use Permit**

- **Tree Protection** and new landscaping (see measures described above) help provide stormwater management, habitat value, noise buffering, air purification, carbon sequestration, and mitigation of the urban heat island effect.
- **Native Plants** – Native plants are adapted to the local climate and do not depend upon irrigation after plant establishment for ultimate survival. See measure described above encouraging use of native plants.
- **District Infrastructure Systems for Energy, Water and Waste** – If determined feasible by SHA, MUP applications shall include a plan for incorporation of District Infrastructure Systems and District solutions. District systems for Yesler Terrace could include energy, potable water, wastewater, and solid waste. District solutions could include district parking solutions and car sharing, and the use of local resources, materials and supplies.

### **Prior to Issuance of a Demolition, Grading, or Building Permit**

- **Natural Drainage** – Consideration shall be given to incorporating green roofs and using natural drainage techniques.
- **Building Design** – Consideration shall be given to incorporating green building features into building design. Examples of specific green building design strategies that might be incorporated include: solar panels for electricity generation or domestic solar hot water, energy star rated appliances, water conserving fixtures beyond code, low toxic materials, finishes, and flooring, energy and water sub-metering for individual units, high efficiency fixtures such as dual flush toilets, toilet flushing and irrigation supplied by recaptured wastewater or rainwater, dual plumbing systems for all new buildings to accommodate water reuse, and wind generated alternative energy.

- **District Heat System** – Consideration shall be given to incorporating on-site renewable energy sources such as geo-exchange, solar, or sewer heat recovery strategies, in order to increase use of renewable energy sources and reduce the net annual electricity consumption of the project in order to lower the production of greenhouse gas emissions associated with electricity generation.
- **Increased Energy Conservation Efforts** – Consideration shall be given to incorporating features that conserve energy beyond the minimum requirements of the Washington State Energy Code.

**During Construction**

**Waste Management and Deconstruction** – Contractors shall, to the extent feasible, incorporate sustainable waste management strategies into the demolition and construction process. Such strategies may include on-site source separated recycling, potential reuse of demolition materials on-site, deconstruction of existing buildings, and salvage and reuse of building components.

Environmental Health

**Prior to Issuance of a Demolition, Grading, or Building Permit**

- Building permit applications shall include a site-specific health and safety plan that includes the safety requirements of WAC 296-843, Hazardous Waste Operations, and WAC 296-155, Safety Standards for Construction Work, to minimize the potential for workers to be exposed to hazardous materials during both demolition and construction, as well as to address appropriate handling and disposal of any soil with contaminant concentrations greater than the MTCA cleanup levels.
- Building permit applications shall include a hazardous building materials survey to identify the presence of ACBM or lead-based paint and a plan to remove or stabilize them prior to demolition or remodeling.
- Prior to any activities that would affect the smokestack at the Steam Plant, the applicant shall perform testing of the residual material within the smokestack and the stack itself.

**During Construction**

- Contractors shall implement conventional dust control measures to minimize the exposure of workers and the immediate surrounding populations to construction-generated dust.
- Spill prevention and response planning shall be conducted prior to the start of construction to prevent and, if needed, respond to hydraulic oil or fuel spills.
- Proper characterization of contaminated soil and/or asphaltic concrete pavement, as part of site clearing, grading, or general excavating, shall be conducted in order to select an appropriate offsite disposal site.
- Excavation dewatering shall be conducted to the extent necessary. A King County Waste Discharge permit shall be obtained by the applicant or contractor prior to discharge of any dewatering water to the combined sewer. Monitoring of dewatering discharges shall be conducted to determine whether physical and chemical parameters are within King County

discharge limits. If parameters are outside acceptable limits, treatment may be necessary prior to discharging to combined sewer.

- In the event underground steam pipes associated with the former Steam Plant are uncovered during site grading or excavation activities, they shall be evaluated for the potential presence of hazardous materials (i.e., asbestos-containing pipe wrap).
- If groundwater or soil contamination is encountered (i.e. contaminant concentrations greater than MTCA Method A cleanup levels or other applicable standards), then characterization, remediation and/or monitoring would be necessary in accordance with MTCA cleanup standards.

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## Noise

### **Prior to Issuance of a Master Use Permit**

- For development proposals located at the western edge of the site adjacent to I-5, outdoor use areas shall be located to take advantage of the noise buffering effect of the proposed buildings.
- For development proposals located adjacent to Boren Avenue, courtyards or other outdoor use areas, if any, shall be oriented away from the traffic noise.
- For development proposals located at the western edge of the site adjacent to I-5, buildings shall be oriented to shield the site's interior open spaces from noise.

### **Prior to Issuance of a Demolition, Grading, or Building Permit**

- For development proposals including residential buildings in locations exposed to sound levels greater than 65 dBA L<sub>dn</sub>, the applicant shall demonstrate that building materials and techniques will be employed to reduce the transmission of noise from outside to inside spaces. The applicant shall demonstrate that construction materials and techniques incorporated into the proposed buildings will reduce interior sound levels in residential portions of the proposed buildings to 45 dBA L<sub>dn</sub> or less.
- The applicant shall demonstrate that proposed site grading minimizes to the extent practicable any increase in on-site ground-level elevations, thus reducing the potential for lower portions of buildings near I-5 to have a more direct line-of-sight to the freeway, and thereby increased noise levels.
- The applicant shall demonstrate that any HVAC equipment is in compliance with the City of Seattle's daytime and nighttime noise limits at nearby receiving locations.

### **During Construction**

- All construction activities shall be subject to City of Seattle Noise Ordinance requirements for residential/commercial zones
- In addition to the Seattle Noise Ordinance requirements, all construction contracts shall require that all construction activities include the following noise reduction measures:
  - Contractors shall use properly sized and maintained mufflers, engine intake silencers, engine enclosures, and turn off idle equipment.

- Mufflers shall be in good working order. Engine enclosures shall be used on equipment when the engine is the dominant source of noise.
  - Stationary equipment shall be located as far away from sensitive receiving locations as possible. Where this is not feasible, or where noise impacts are still significant, portable noise barriers shall be placed around the equipment, with the opening directed away from noise-sensitive receiving locations.
  - To the extent feasible, hydraulic or electric models shall be substituted for impact tools such as jack hammers, rock drills and pavement breakers to reduce construction and demolition noise. Electric pumps shall be specified if pumps are required.
  - To the extent feasible, contractors shall use broad-band or ambient sensing vehicle back-up alarms, which are typically less noticeable than traditional pure-tone alarms.
  - Construction staging areas expected to be in use for more than a few weeks shall be located as far as possible from sensitive receivers, particularly residences.
  - Contractors shall use quiet equipment and temporary noise barriers to shield sensitive uses, and orient work areas to minimize noise transmission to sensitive off-site locations.
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## Land Use

### **Prior to Issuance of a Master Use Permit**

- The development proposal shall comply with the new Master Planned Community – Yesler Terrace zone, all applicable design guidelines adopted by the City, and all other provisions of the Planned Action Ordinance.

### **For the Life of the Project**

- 561 extremely low income (at or below 30% of AMI) replacement units shall be built and distributed throughout the site identified in the Final Environmental Impact Statement.
  - Per SHA Board Resolution #4927, adopted in July 2009, low income housing units shall be configured to meet the in-home daycare licensing requirements, in sufficient number to at least equal the number of displaced in-home daycare tenant families at the time of relocation that have been licensed for the 24 month period prior to relocation.
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## Aesthetics

### **Prior to Issuance of a Master Use Permit**

- The development proposal shall comply with the new Master Planned Community – Yesler Terrace zone, all applicable design guidelines adopted by the City, and all other provisions of the Planned Action Ordinance.
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## Light and Glare

### **Prior to Issuance of a Master Use Permit**

- If a building has the potential to cause glare impacts on I-5 or Boren Avenue, then the MUP application shall include a site-specific glare analysis to evaluate the potential glare impacts of the proposed development upon I-5 and/or Boren Avenue. Glare impacts can be eliminated or minimized by building orientation, selection of exterior materials, and building design features.
- Building design shall incorporate components, such as street trees or the use of building materials with relatively low-reflectivity at street level, to minimize reflective glare-related impacts to pedestrians and nearby residents.

### **Prior to Issuance of a Demolition, Grading, or Building Permit**

- Building design shall incorporate appropriate glare mitigation features as required by the the MUP decision.
- Building permit applications shall specify the provision of pedestrian-scale lighting consistent with code, function and safety requirements.
- Building permit applications shall incorporate exterior lighting fixtures that direct light downward and/or upward and away from on and off-site land uses.

### **During Construction**

- Construction-related lighting shall be shielded and directed away from adjacent land uses.

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## Shadows

### **Prior to Issuance of a Master Use Permit**

- Compliance with the standards of the new Master Planned Community – Yesler Terrace zone, and the Design Guidelines, help to mitigate shadow impacts. Consistent with the Design Guidelines, in particular, consideration shall be given to locating open space areas in those locations with the least amount of building shadow falling on them from April through September during the hours of 10:00 AM to 4:00 PM.

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## Historic Resources

### **Prior to Issuance of a Master Use Permit**

- Yesler Terrace Steam Plant (designated City of Seattle Landmark and NRHP-eligible property) - Alterations to the exterior (designated feature) of the Steam Plant, including demolition of the building, cannot be undertaken without the review and approval of the City Landmarks Preservation Board. As a NRHP-eligible property, the applicant shall submit an adaptive reuse/rehabilitation plan to comply with the Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties.
- For development proposals located adjacent to or across the street from a designated Seattle Landmark site or structure, the MUP Application shall include an Adjacency Analysis, prepared

by the City's Historic Preservation Officer, assessing any adverse impacts to the designated landmark. The applicant shall comply with any additional mitigation measures required in the Adjacency Analysis.

### **Prior to Issuance of a Demolition, Grading, or Building Permit**

- Demolition and building permit applications for proposed development adjacent to or across the street from historic buildings shall include measures to avoid structural damage to these historic buildings that could occur due to construction-related vibrations and/or earthwork. All excavation, earthwork, pile driving, etc. shall be designed and monitored in order to minimize and/or immediately address any such impacts to these historic properties. Monitoring shall include crack monitors placed on nearby structures, periodic observation, and photography to document the structural integrity of the historic buildings and determine whether there was resulting damage of interior or exterior finishes, or exterior masonry and/or framing. If such damage occurs as a result of the project, the applicant shall mitigate any damage through repairs to the affected buildings.

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## Cultural Resources

### **During Construction**

If at any time during construction archaeological resources are observed, the following mitigation measures shall be implemented by the contractor and applicant to address potential impacts to cultural resources:

- Project site work shall be temporarily suspended at the location of the archaeological resource, the project manager shall immediately be notified and a professional archaeologist shall document and assess the discovery. The applicant shall contact DAHP and all concerned tribes for any impacts involving Native American sites.
- If project activities expose human remains, either in the form of burials or isolated bones or teeth, or other mortuary items, work in that area shall stop immediately. Local law enforcement, DAHP, and affected tribes shall be immediately contacted. The applicant shall not undertake any additional excavation until a process has been agreed upon by these parties, and no exposed human remains shall be left unattended.

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## Transportation

### **Prior to Issuance of a Master Use Permit**

- MUP applications shall include a Construction Management Plan to document the following:
  - Truck haul routes to and from the site.
  - Peak hour restrictions for construction truck traffic and how those restrictions will be communicated and enforced.
  - Truck staging areas (e.g., locations where empty or full dump trucks would wait or stage prior to loading or unloading.)
  - Construction employee parking areas.
  - Measures to reduce construction worker trips such as rideshare, shuttles, carpool, transit passes or related programs.

- Road or lane closures that may be needed during utility construction or relocation, roadway construction, or building construction. If any arterial street is affected by a partial or full closure, the contractor should also prepare a Maintenance of Traffic Plan detailing temporary traffic control, channelization, and signage measures.
- Mechanism for notifying community if road or lane closures would be required.
- Sidewalk, bike lane, and/or bus stop closures and relocations. If any sidewalk or bike facility is affected by a partial or full closure, the contractor should also prepare a plan detailing temporary pedestrian detour and signage measures.
- Mechanism for notifying community if sidewalk, bike lane, or bus stop closures would be required.
- MUP applications shall identify the estimated number of additional trips resulting from the proposed project. To the extent the new trips will cause the total number of trips generated by the site to exceed the threshold levels set forth in Table 1-3 (below), the development proposal shall incorporate plans for necessary intersection improvements as identified in Table 1-3:

#### *Thresholds for Mitigation Implementation*

The potential timing of the off-site intersection improvements was estimated as a percentage of the overall project generated trips, and is summarized in Table 1-3 below. The range of total trips generated by all sectors of development that would trigger the mitigation was also estimated. This analysis was performed by determining the increase in intersection delay associated with many levels of project trip generation. For intersections that are currently signalized, the need for mitigation was determined when the increase in delay associated with project trips exceeded a 5.0 second increase in average vehicle delay. This is the threshold that the City often applies to indicate a “significant” impact. For intersections where a signal is proposed, the need for mitigation was based on volume threshold in which side street traffic would likely warrant installation of a signal (range of 75 to 150 trips per hour on side street depending on the main street volume).

The analysis below notes that several measures would be needed very early in the development process (between 5 and 10 percent of the project trips). That is because these intersections would operate at poor levels of service under the No Action condition, and even small increases in project trips would be associated with an increase in delay above 5.0 seconds. The range is denoted since the actual intersection operations would also depend on the level of background growth. For the purpose of this analysis, all of the background growth was assumed to have already occurred before project trips were added. Some of the off-site improvements would not be needed until late in the project development (after 75 percent of the development is complete). It is noted that if the East of 12th or East of Boren sectors were to proceed first, individually, or together, the small number of trips that they would generate and the distribution of those trips would not trigger the need for any of the mitigation measures.

The need for a signal at the Yesler Way/8<sup>th</sup> Avenue intersection will be primarily related to the rate of development in the NW Sector of the site. Office uses in the range of 200,000 to 300,000 square feet could trigger this signal, depending on the level of background growth that has occurred when those uses are completed. The need for that signal could occur earlier if it is desired to facilitate pedestrian crossings of Yesler Way.

Table 1-3

**THRESHOLDS FOR MITIGATION IMPLEMENTATION**

Int. #	Intersection Name	Description of Improvement	Approximate PM Peak Trip Threshold for Mitigation <sup>a,b</sup>	
			Number of New Trips	Percent of Total New Trips
6	12th Avenue/ E Cherry Street	Restripe E Cherry Street to provide conventional left turn phasing (instead of separate phases for eastbound and westbound traffic).	1,060	80%
11	12 <sup>th</sup> Avenue/ Yesler Way	Change signal timing to provide slightly longer north-south phase to account for lane change due to Streetcar	730	55%
19	Rainier Avenue S/ S Dearborn Street	Add a southbound right turn pocket on Rainier Avenue S	1,000	75%
21	7th Avenue/ Cherry Street	Change cycle length to full cycle to match intersection at 6th Avenue/Cherry Street.	65-130	5-10%
22	9th Avenue/ Cherry Street	Convert to an all-way, stop-controlled intersection.	65-130	5-10%
26	9th Avenue/ Jefferson Street	Provide a second northbound lane at the all-way stop-controlled intersection or signalize.	1,060	80%
28	9th Avenue/ Alder Street	Convert to an all-way, stop-controlled intersection.	330	25%
31	8th Avenue/ Yesler Way	Install a traffic signal with left-turn pockets on certain approaches.	330-660	25-50% <sup>c</sup>
33	6th Avenue/ James Street	Retime intersection	65-130	5-10%
34	6th Avenue/ Yesler Way	Signalize.	65-130	5-10%

**Source: Heffron Transportation, Inc, January 2011.**

- a. *Approximate net increase of new project-generated PM peak hour trips generated by development at Yesler Terrace, East of 12<sup>th</sup> or East of Boren sectors expected to trigger the need for mitigation at each intersection where future operational impacts have been identified.*
- b. *For intersections that are currently signalized, the need for mitigation was determined when the increase in delay associated with project trips exceeded a 5.0 second increase in average vehicle delay. This is the threshold that the City often applies to indicate a “significant” impact. For intersections where a signal is proposed, the need for mitigation was based on volume threshold in which side street traffic would likely warrant installation of a signal (range of 75 to 150 trips per hour on side street depending on the main street volume).*
- c. *Need for traffic signal would relate to development in the NW Sector of the site as well as pedestrian crossing needs.*
- Building design shall incorporate appropriate provisions for truck access. Where possible, service drives shall be created to the side or back of buildings to provide access to loading docks, and shared use of loading docks shall be allowed. On-street loading zones may also be provided where approved by the City of Seattle’s Department of Transportation (SDOT). These should be limited to one per block face and located near service drives and away from

pedestrian entrances. If an occasional large truck is needed for a delivery (e.g., during a business or resident move), then temporary on-street loading could be provided with a street-use permit issued by SDOT.

- MUP applications shall include Transportation Management Plans (TMPs). Office-related TMPs shall comply with the DPD Director's Rule 19-2008, or its successor, with a goal of 20% employee commute trips by Single Occupant Vehicle (SOV). SHA and developers of residential parcels shall distribute information to tenants (in several languages, as needed) regarding transportation options, including transit routes, stop locations, and schedules, car sharing programs, and walking/bicycle routes.
- Office-related TMPs may utilize one or more of the following measures to assist in reaching the 20% SOV goal:
  - **Share office parking on weeknights and weekends.** Parking at key office garages could be made available for evening and weekend use by residential visitors or for residents who commute during the day. This would reduce the parking supply required.
  - **Unbundle parking from office leases.** Office tenants could be required to pay for parking as a separate fee from their office space lease. This promotes use of alternative transportation modes by itemizing the cost of parking.
  - **Charge for parking.** All office employees and visitors could be required to pay for parking at the market rate in the area. Discounts for all-day parking (e.g., Early Bird specials) should be discouraged.
  - **Offer a flex-pass for parking that limits the number of days an employee can park.** Most parking passes are sold on a monthly basis and allow unlimited parking during that month. A flex-pass would be a lower-cost option that would limit the number of days it can be used each month. This type of pass is a good option for employees who may take transit or ride a bike to work some days a week, but need a car on certain days for work or personal business.
  - **Do not reserve individual spaces for office parking.** Leases could be structured so that parking spaces at office buildings are not reserved for individual users. This allows all office parking to be shared by employees, and reduces the overall supply requirement.
  - **Provide for car-sharing programs.** Car-sharing programs (e.g., Zipcar) allow residents and/or site employees to share a pool of vehicles, which reduces parking demand.

### **For the Life of the Project**

- SHA shall work with King County Metro and SDOT to evaluate transit service needs as development at Yesler Terrace progresses. SHA could be a partner with other agencies pursuing funding opportunities, particularly new federal grants in which low-income housing and sustainable development increase a project's chance of funding.

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## Public Utilities

### **Prior to Issuance of a Master Use Permit**

- MUP applications shall include a hydraulic analysis of stormwater drainage and wastewater systems to determine necessary improvements to the City's and site's drainage and wastewater infrastructure.

**Prior to Issuance of a Demolition, Grading, or Building Permit**

- Permit applicants shall consider opportunities to incorporate water conservation features in building design.
- Design and construction of all water distribution facilities shall comply with City regulations for extensions and improvements to the City’s water system.
- New water mains shall be located within the new public roadway network or easements, consistent with the City’s public utilities regulations and design standards.
- Design and construction of public sanitary sewer systems shall comply with the City’s standard plans and specifications for extensions and improvements to the City’s sewer system.
- New sewer mains shall be located within the new public roadway network or easements, consistent with the City’s public utilities regulations and design standards.

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Public Services - Parks

**Prior to Issuance of a Master Use Permit**

- Low income housing units designed for use as in-home daycare businesses shall be configured, if necessary, to meet the outdoor play area requirements for licensed in-home daycare businesses.
- In the design of new open space areas, evaluate opportunities for new P-Patch community gardens to be provided onsite as part of redevelopment.

**For the Life of the Project**

- Maintenance of open space areas shall be the responsibility of SHA, except for those areas of private open space that will be maintained by the private developer pursuant to an agreement with SHA.

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Public Services - Police

**During Construction**

- Contractors shall ensure that portions of the site that are under construction are, to the extent feasible, fenced and lit, and monitored by surveillance cameras to help prevent construction site theft and vandalism.

**Prior to Issuance of a Certificate of Occupancy**

- Until market rate housing is introduced to the site, SHA shall continue funding for one dedicated Community Police Team officer to work with Yesler Terrace management and residents on crime and crime-related concerns.

## Public Services - Solid Waste

### **For the Life of the Project**

SHA shall employ measures, such as the following examples, to reduce the amount of solid waste generated by the Yesler Terrace Redevelopment, thereby reducing impacts on collection by SHA Solid Waste Division, Seattle Public Utilities and on disposal at the SRDS and ultimately the Columbia Ridge Landfill and Recycling Center in Gilliam County, Oregon:

- Accommodate onsite composting using various types of equipment, including earth bins and anaerobic digestion;
- Provide or encourage household composting units;
- Provide offsite composting after site collection; and/or,
- Provide for urban agriculture on the site to utilize organic waste.

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## Public Services - Community Services

### **Prior to Issuance of a Demolition, Grading, or Building Permit**

- The displacement of existing community service providers onsite would require SHA to comply with the federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA). The URA applies to projects with federal funding, such as Yesler Terrace, that involve the displacement of organizations/businesses. Specifically, requirements of the URA include:
  - Relocation advisory services;
  - A minimum 90 days written notice to vacate prior to requiring possession; and
  - Reimbursement for moving and reestablishment expenses.

### **During Construction**

- During the construction process, in accordance with the tenant relocation plan, SHA will link Yesler Terrace residents with service providers in areas that they relocate to in order to ensure continuity of services during the redevelopment of the site.

### **For the Life of the Project**

- SHA shall use the recommendations contained in the *Yesler Terrace Redevelopment Social Infrastructure Report* (January, 2011) to guide the negotiation of service partnerships and the allocation of neighborhood services space at the redeveloped site.

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## Socioeconomics

See measures listed above under Land Use regarding provision of replacement housing for extremely low income families.

In addition, all residents who remain in good standing with SHA and who maintain their eligibility for low income housing shall have the option of returning to the redeveloped Yesler Terrace site as new low income housing units become available.

### **Prior to Issuance of a Demolition, Grading, or Building Permit**

- SHA shall comply with the URA, which provides benefits for persons or organizations involuntarily displaced as a result of federally funded projects.
- SHA shall notify residents 18 months in advance of planned demolition and relocation activity. This early notification exceeds federal requirements by six months. SHA staff shall also provide one-on-one counseling to residents who would be relocated in order to help them identify and understand options for relocation assistance, including the overall package of benefits that they would receive. Residents shall have at minimum 6 to 8 weeks from the initial counseling session to determine which benefit package they prefer. However, this timeframe will not prevent residents from choosing a different benefit option if they so choose prior to receiving benefits.
- Prior to issuance of a demolition permit to demolish any existing residential buildings on the site, SHA shall have in place a tenant relocation plan describing the measures SHA will take to address the temporary relocation of residents during the construction process. The Tenant Relocation Plan shall comply with the URA, and the measures in the Planned Action Ordinance, and shall include discussion of the following components: Relocation Involvement, Relocation Options, and Relocation Assistance. Each of these components is further described below.
- SHA shall involve residents in relocation planning, and both disseminate and communicate information about the timing of resident choices related to relocation. These involvement and communication efforts may include, for example: community-wide relocation planning meetings to inform the community about relocation and solicit feedback on an effective approach; relocation surveys to assist with the development of relocation options and procedures that conform to the priorities and preferences of residents; a website with regular updates on the progress of the project and answers to frequently asked questions; articles in the newspaper distributed to SHA residents by Neighborhood House (The Voice) to share information; and regular relocation orientation meetings to explain relocation benefits and housing options.
- Relocation Options:
  - As required by the URA, residents would be offered a range of relocation assistance options. The URA applies to projects with federal funding, such as Yesler Terrace, that involve the displacement of people from their homes. Specifically, requirements of the URA include: Provide a minimum 90 days written notice prior to relocation; Provide reimbursement for moving expenses; and, Provide payments for the added cost of renting comparable replacement housing.
  - Some SHA tenants would be able to temporarily relocate to on-site units that would not be removed until later phases of demolition, and since construction would be phased, some residents would be able to move directly from their existing unit to a redeveloped unit, without having to leave the site.
  - SHA shall offer residents a range of relocation assistance options. Depending upon the availability of various resources and the phase of redevelopment, the following relocation options may be available to residents: tenant-based (Section 8) housing vouchers; relocation to another SHA-owned public housing development or to other SHA-owned property, where space is available; relocation to other on-site units that would not be removed until later phases of demolition; or relocation to newly constructed units on the site. Residents who plan to return to the newly redeveloped Yesler Terrace community shall have priority to be relocated to existing SHA housing.

- Relocation Assistance:
    - In conjunction with placing residents in comparable assisted housing situations, SHA shall also provide a package of relocations benefits for Yesler Terrace residents to prepare and assist residents with the actual task of moving. SHA relocation teams shall assist residents with their moves, reimburse the resident for the cost of the move, and/or provide a fixed moving expense and relocation allowance. Eligible tenants (i.e. elderly or disabled) could request assistance with packing and unpacking.
    - SHA shall also provide the following assistance:
      - Link residents with service providers in areas to that they relocate to in order to ensure continuity of services;
      - Provide transportation or transportation assistance (bus tokens, taxi scripts etc.) and accompany residents to visit potential units;
      - Assist residents with applications for relocation benefits and/or rental applications;
      - Coordinate with moving companies;
      - Assist with the transfer of utility accounts; and
      - Pay for the cost of utility disconnections and reconnections.
  - Those residents who do not wish to return to the redeveloped community may elect to receive a lump sum payment from SHA in compensation for their displacement, in order to make their own housing arrangements.
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## Environmental Justice

### **During Construction**

- All construction activities shall comply with City of Seattle Municipal Code regulations related to air quality and noise.
  - Compliance with the measures in the Planned Action Ordinance also helps mitigate Environmental Justice concerns.
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## Wind Analysis

### **Prior to Issuance of a Master Use Permit**

- The applicant shall demonstrate that the building layout and height of proposed structures are outside of or below the wider southern glide path for the Harborview helipad, as identified in the Draft Environmental Impact Statement.

### **Prior to Issuance of a Demolition, Grading, or Building Permit**

Compliance with the standards in the new Master Planned Community – Yesler Terrace zone, and with the detailed Design Guidelines, will address potential wind impacts from highrise structures.

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