MultiCare Good Samaritan Hospital 2024 Master Plan Proposal

Draft Environmental Impact Statement

Prepared by

CITY OF PUYALLUP

Development and Permitting Services Department

November 5, 2024

CITY OF PUYALLUP | Development and Permitting Services Department

November 5, 2024

Dear Affected Agencies, Tribes, Organizations, and Interested Parties,

Following is the Draft Environmental Impact Statement (DEIS) for the proposed *Good Samaritan Hospital 2024 Master Plan Proposal Project.* This DEIS analyzes the probable adverse environmental impacts associated with two development alternatives and the no action alternative. The analysis and DEIS address the following elements of the environment, which were identified during scoping:

- Earth
- Plants and Animals/Critical Areas
- Air Quality / Greenhouse Gas Emissions
- Noise
- Land Use / Plans & Policies
- Aesthetics / Height, Bulk, & Scale / Light & Glare / Views
- Transportation
- Public Services
- Utilities

The public comment period for this DEIS is November 5, 2024, through December 6, 2024.

Agencies, tribes, organizations, and members of the public are invited to comment on the DEIS using one of the methods below. **All comments are due no later than 3pm on December 6, 2024.**

Submit comments via **email** to:	**CBeale@PuyallupWA.gov**
Submit comments in writing by **mail** to:	**Chris Beale, Senior Planner** City of Puyallup Development Services Department 333 S. Meridian Puyallup, WA 98371
The EIS can also be reviewed and downloaded from the City's website by following this link:	www.cityofpuyallup.org/GoodSamMasterPlan

Following the DEIS comment period, City of Puyallup will prepare a Final EIS (FEIS) that addresses comments received during the DEIS public comment period.

Copies of this DEIS have been distributed to agencies noted on the Distribution List of this DEIS (see Chapter 6). The DEIS can be reviewed at the City of Puyallup Development Services Department offices at 333 S. Meridian, Puyallup, WA 98371, at Puyallup Public Library branches, and online at www.cityofpuyallup.org/GoodSamMasterPlan. Digital copies of the DEIS are available from the City of Puyallup Development Services Department.

Sincerely,

Meredith Neal, Director
City of Puyallup Development & Permitting Services Dept.
253 841-5501
MNeal@puyallupwa.gov

DRAFT
ENVIRONMENTAL IMPACT STATEMENT

for the

Good Samaritan Hospital
2024 Master Plan Proposal

City of Puyallup
Development & Permitting Services Department

The Draft EIS (DEIS) for the ***Good Samaritan Hospital 2024 Master Plan Proposal Project*** has been prepared in compliance with the State Environmental Policy Act of 1971 (Chapter 43.21C, Revised Code of Washington) and the SEPA Rules, effective April 4, 1984, as amended (Chapter 197-11, Washington Administrative Code), and the City of Puyallup Environmental Policies (PMC 21.04). Preparation of this DEIS is the responsibility of the City of Puyallup. The City has determined that this document has been prepared in a responsible manner using appropriate methods and has directed the areas of research and analysis that were undertaken in preparation of this DEIS. This document is not an authorization for an action, nor does it constitute a decision or a recommendation for an action; in its final form, it will accompany the *Proposed Action* and will be considered in making the final decisions on the proposal.

Date of DEIS Issuance ..... **November 5, 2024**

Date Comments are due on the DEIS ..... **December 6, 2024**

FACT SHEET

Name of Project	**Good Samaritan Hospital 2024 Master Plan Proposal**
Proponent/Applicant	MultiCare Good Samaritan Hospital (MGSH)
Location	The MGSH campus is located in the City of Puyallup at the southwest corner of 15th Avenue SE and 3rd Street SE. The campus boundary encompasses an area of approximately 34.86 acres. The campus is bound to the north by Highway 512 and to the east by existing residential properties. To the south the campus is largely bounded by 15th Avenue SE; however, four parcels south of 15th Ave SE, between 3rd Street SE and 5th Street SE, are included in the campus. To the west, the campus is largely bound by 3rd Street SE, apart from six parcels located at the northwest corner of the campus.
Environmental Review	This State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) has been prepared per WAC 197-11-440 and the City of Puyallup Environmental Policies (PMC 21.04).
EIS Alternatives	The EIS evaluates the following alternatives: **<u>Proposed Master Plan</u>** To help meet the health care needs of the region, the Applicant has prepared the *Proposed Master Plan,* which includes growth in overall building space from the existing approximately 1.24 million sq. ft. of building space to up to 2.25 million sq. ft. of building space (reflecting a net increase of approximately 1,012,000 sq. ft.) over approximately 20 years. Full build out of the *Proposed Master Plan* would occur over four major phases; Phase One would entail five projects including a new patient care tower directly connected to the Dally Tower, a new parking garage supporting new patient beds and staff, a small expansion to the existing emergency department, an expansion to the existing central utility plant, and the Patient Care Tower Shell Buildout. Remaining phases could include two medical office buildings, a second new parking garage, and

an eventual central tower expansion connected to the north of Dally Tower and the new Patient Care Tower. The proposed location for the two medical office buildings and parking structure is north of 15th Street. All future phases of development beyond the initial Patient Care Tower are speculative and would be developed on an as-needed basis as determined by MGSH.

Alternative 1 – **Reduced Medical Office Building Size**
Alternative 1 includes growth in overall building space from the existing approximately 1.25 million sq. ft. of building space to up to 2,156,396 sq. ft. of building space (reflecting a net increase of approximately 912,000 gsf) over approximately 20 years compared to approximately 2,256,396 under the *Proposed Master Plan*. The mix of uses and building locations assumed under *Alternative 1* would be similar to those described for the *Proposed Master Plan*, except that the Medical Office Building B, proposed in Phase 3 under the *Proposed Master Plan*, would not be developed.

Alternative 2 – No Action Alternative
The *No Action Alternative* is required to be included in an EIS and is typically defined as what would most likely happen if the proposal does not move forward. Under this alternative, the DEIS assumes that future development of hospital uses outlined under the *Proposed Master Plan* and *Alternative 1* would not occur on campus, and that any future new projects (e.g., ancillary medical clinic/office uses) would apply for individual permits under PMC 20.43 on a site-by-site basis, adhering to development standards in the City's code (parking, height, lot coverage, FAR, setbacks, landscaping, etc.). Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur.

Lead Agency

City of Puyallup Development & Permitting Services Dept.

SEPA Responsible Official

Meredith Neal, Director
City of Puyallup Development & Permitting Services Dept.
333 South Meridian Street
Puyallup, WA 98371
253 841-5501
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EIS Contact Person

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Required Approvals and/or Permits

Preliminary analysis indicates that the following approvals and/or permits may be required from agencies with jurisdiction[1] for development of either of the EIS Action Alternatives; where the permit applies to only one of the alternatives, it is so noted. Additional permits/ approvals may be identified during the review process associated with specific development projects.

- **State of Washington**
  Dept. of Ecology
  - Construction Stormwater General Permit

- **City of Puyallup**
  Puyallup City Council
  - Master Plan Approval

  Development & Permitting Services Department
  Permits/approvals associated with implementation of individual projects, including:
  - Grading Permits
  - Civil Permits
  - Building Permits
  - Mechanical Permits
  - Plumbing Permit
  - Fire Alarm Permit
  - Fire Suppression Permit
  - Franchise Agreement Permit
  - Demolition Permits
  - Sign Permit(s)
  - Environmental Critical Areas Review

[1] An agency with jurisdiction is "an agency with authority to approve, veto or finance all or part of a nonexempt proposal (or part of a proposal)" (WAC 197-11-714(3)). Typically, this refers to a local, state or federal agency with licensing or permitting approval responsibility concerning a project.

- Water/Sewer Utility Permits

EIS Authors and Principal Contributors

EA Engineering, Science and Technology, Inc., PBC

- EIS Project Manager, Primary Author: Summary, Project Description, Land Use / Relationship to Plans and Policies, Aesthetics / Height, Bulk, and Scale / Light & Glare / Views, Public Services.

MIG

- Utilities (Sewer, Water, Stormwater)

Landau

- Earth, Air Quality/GHG, Noise

Facet (*formerly DCG Watershed*)

- Critical Areas (Wetlands, Plants and Animals)

Jacobs

- Transportation

Perkins + Will

- Project Architect – Architectural Design and Modeling, View Simulations, Massing Diagrams, Graphics

Location of Background Information

Background material and supporting documents are available at the offices of:

EA Engineering, Science and Technology, Inc., PBC
600 Stewart Street, Suite 800
Seattle, WA 98121

City of Puyallup Development Services Department
333 S Meridian
Puyallup, WA 98371

Date of Issuance of this DEIS

November 5, 2024

Date DEIS Comments Are Due

December 6, 2024

Written comments should be submitted to:
Via Mail:
Chris Beale, Senior Planner
City of Puyallup Development Services Department
333 S. Meridian
Puyallup, WA 98371

Via Email:
CBeale@PuyallupWA.gov

Availability of this DEIS

Notices of Availability of the DEIS have been distributed to agencies, organizations, and individuals noted on the Distribution List in Chapter 6. The EIS can also be reviewed and downloaded from the City's website by following this link: www.cityofpuyallup.org/GoodSamMasterPlan

Printed versions of the DEIS can be reviewed at:

- **City of Puyallup Development Services Dept.**
  333 S. Meridian (2nd floor)
  Puyallup, WA 98371

- **Puyallup Public Library**
  324 S Meridian
  Puyallup, WA 98371

Printed copies can be ordered for the cost of printing, which is estimated at $110, plus tax and postage (if mailed). Final costs for hard copies will be determined at the time of request.

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CHAPTER 1

SUMMARY

1.1 INTRODUCTION

This chapter provides a summary of the Draft Environmental Impact Statement (DEIS) for the proposed *MultiCare Good Samaritan Hospital 2024 Master Plan Proposal.* **Chapter 1** briefly describes the EIS alternatives: Proposed Action (Proposed Master Plan), Alternative 1 (the Reduced Medical Office Building Size) and Alternative 2 (No Action Alternative) and contains a comprehensive overview of environmental impacts identified for the EIS alternatives. Please see **Chapter 2** of this DEIS for a more detailed description of the EIS alternatives and **Chapter 3** for a detailed description of the affected environment, environmental impacts, mitigation measures, and significant unavoidable adverse impacts.

1.2 PROJECT SUMMARY

Proposed Action – Proposed Master Plan

To help meet the health care needs of the region, the Applicant, MultiCare Good Samaritan Hospital (MGSH), has prepared a new *Proposed Master Plan,* which includes growth in overall building space from the existing approximately 1.24 million sq. ft. of building space to up to 2.25 million sq. ft. of building space (reflecting a net increase of approximately 1,012,000 sq. ft.) over approximately 20 years.

The MGSH campus is located in the City of Puyallup at the southwest corner of 15th Avenue SE and 3rd Street SE. The campus boundary encompasses an area of approximately 34.86 acres. The campus is bound to the north by Highway 512 and to the east by existing residential properties. To the south the campus is largely bounded by 15th Avenue SE; however, four parcels south of 15th Ave SE, between 3rd Street SE and 5th Street SE, are included in the campus. To the west, the campus is largely bound by 3rd Street SE, apart from six parcels located at the northwest corner of the campus. The new campus development would largely be located in the east campus sector, in an area that is currently in green field and surface parking. Most of the new development would occur on the surface parking lot that is bound by 5th Street SE, 15th Avenue SE, and 14th Avenue SE. No development is anticipated in the portions of the campus south of 15th Avenue SE.

Full build out of the *Proposed Master Plan* would occur over four major phases; Phase One would entail five projects including a new patient care tower directly connected to the Dally Tower, a new parking garage supporting new patient beds and staff, a small expansion to the existing emergency department, an expansion to the existing central utility plant, and

the Patient Care Tower Shell Buildout. Remaining phases could include two medical office buildings, a second new parking garage, and an eventual central tower expansion connected to the north of Dally Tower and the new Patient Care Tower. The proposed location for the two medical office buildings and parking structure is north of 15th Street. All future phases of development beyond the initial Patient Care Tower are speculative and would be developed on an as-needed basis as determined by MGSH.

1.3 OBJECTIVES of the PROPOSAL

The *Proposed Master Plan* provides a long-term phased development plan that is intended to achieve the following development goals:

- **Patient Care Tower.** Construct a new Patient Care Tower on a timeline that is consistent with an associated Certificate of Need issued by the Washington Department of Health, with site construction estimated to begin in 2025 and licensing and opening of the new facility in 2026. The Tower would accommodate 200 net new licensed inpatient beds and 30 replacement observation (non-licensed) beds on campus. The observation beds currently exist on the campus, but would be consolidated in the Patient Care Tower. Spaces within the hospital vacated by the consolidation of observation beds would be used to facilitate patient discharge. The Patient Care Tower must include sufficient space for diagnostic and treatment, ancillary, support, utility, public and administrative activities appropriate to inpatient bed growth of this magnitude.

- **Clinical Space.** Construct sufficient outpatient clinical space through the development of one or more medical office buildings to support new patient and clinical service demand generated by hospital and regional growth.

- **Parking.** Provide for adequate vehicular parking for employees, patients, and visitors through a combination of structured and surface parking facilities to support the new campus facilities.

- **Invest in Current Facilities.** Strategically renew, expand, and modernize existing facilities on the MGSH campus, to support both clinical and nonclinical functions.

- **Futureproof.** Thoughtfully locate facility and infrastructure development on the MGSH campus in such a way that it maximizes future site flexibility and efficiency to respond to evolving campus and healthcare needs and priorities. This pertains to construction of buildings, roads and driveways, utilities, landscaping, public amenities, etc.

1.4 EIS ALTERNATIVES

For the purposes of environmental review, one action alternative and a no action alternative are also analyzed in this Draft EIS, including the Alternative 1 - Reduced Medical Office Building Size and Alternative 2 - No Action Alternative. A full description of these alternatives is provided in Chapter 2.

Alternative 1 – Reduced Medical Office Building Size

Alternative 1 includes growth in overall building space from the existing approximately 1.25 million sq. ft. of building space to up to 2,156,396 sq. ft. of building space (reflecting a net increase of approximately 912,000 gsf) over approximately 20 years compared to approximately 2,256,396 under the *Proposed Master Plan*. The mix of uses and building locations assumed under *Alternative 1* would be similar to those described for the *Proposed Master Plan*, except that the Medical Office Building B, proposed in Phase 3 under the *Proposed Master Plan*, would not be developed.

Alternative 2 – No Action Alternative

The *No Action Alternative* is required to be included in an EIS and is typically defined as what would most likely happen if the proposal does not move forward. Under this alternative, the DEIS assumes that future development of hospital uses outlined under the *Proposed Master Plan* and *Alternative 1* would not occur on campus, and that any future new projects (e.g., ancillary medical clinic/office uses) would apply for individual permits under PMC 20.43 on a site-by-site basis, adhering to development standards in the City's code (parking, height, lot coverage, FAR, setbacks, landscaping, etc.). Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur.

1.5 IMPACTS, MITIGATION MEASURES, and SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

The following section highlights the impacts, mitigation measures, and significant unavoidable adverse impacts that would potentially result from the EIS alternatives analyzed in this DEIS. **Table 1-1** summarizes the potential impacts that are anticipated under the EIS alternatives. This summary is not intended to be a substitute for the complete discussion of each element that is contained in **Chapter 3**.

Table 1-1
IMPACT SUMMARY MATRIX

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.1 – Earth		
Earthwork and Grading • Site grading/excavation that occur within certain steep slope areas and associated buffers have the potential for impacts on these areas. Temporary excavations that are required for the installation of structures and infrastructure could have a potentially adverse effect on immediately adjacent existing structures, utilities and other improvements.	• Development under *Alternative 1* would be generally the same as those discussed for the *Proposed Master Plan* because the footprints of the phases are essentially the same and there is minimal increase or change in location of buildings or impervious surface coverage.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there would be minimal increase or change in location of buildings or impervious surface coverage from existing conditions.
Landslide Hazard • While the likelihood of landslide occurrence is not anticipated to be substantially affected by development associated with the project, the stability of post-construction steep slopes will need to be assessed during the design phase.	• Development under *Alternative 1* would be generally the same as those discussed for the *Proposed Master Plan* because the footprints of the phases are essentially the same and there is minimal increase or change in location of buildings or impervious surface coverage.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there would be minimal increase or change in location of buildings or impervious surface coverage from existing conditions
Seismic Hazard • Potential seismic hazards include slope failure, soil liquefaction and ground rupture. Because a geotechnical analysis is not yet complete and many of these variables are unknown, the degree of likelihood associated with various seismic hazards cannot be predicted. Specific mitigation measures would be determined during site-specific design of future site improvements.	• Development under *Alternative 1* would be generally the same as those discussed for the *Proposed Master Plan* because the footprints of the phases are essentially the same and there is minimal increase or change in location of buildings or impervious surface coverage.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there would be minimal increase or change in location of buildings or impervious surface coverage from existing conditions.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.1 – Earth – cont.		
Erosion and Sedimentation • Erosion potential will likely be highest during construction, particularly on slopes that exceed 15 percent. The campus has no areas mapped as erosion hazard by the City. Erosion hazards at the site are expected to remain low after development of the various phases. However, the site should be evaluated for erosion after construction because filling materials may contain soil with greater erosion susceptibility.	• Development under *Alternative 1* would be generally the same as those discussed for the *Proposed Master Plan* because the footprints of the phases are essentially the same and there is minimal increase or change in location of buildings or impervious surface coverage.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there would be minimal increase or change in location of buildings or impervious surface coverage from existing conditions.
3.2 – Plants and Animals		
Construction • There would be no direct impacts to wetlands or wildlife habitat with development of the *Proposed Master Plan*. Construction would have the potential to negatively affect common, urban terrestrial wildlife species. No direct impacts would occur to Stream A or its buffer during construction.	• Construction impacts under *Alternative 1* would be similar to the *Proposed Master Plan*, except that the duration and intensity would be somewhat reduced because one less building (MOB B) would be built.	• Similar to the *Proposed Master Plan* and *Alternative 1*, no direct impacts to wetlands, streams, or wildlife habitat would be anticipated under the *No Action Alternative*.
Operation • No direct impacts to Stream A or its buffer are anticipated as a result of new development that could occur on the site under the *Proposed Master Plan*. Potential indirect impacts could occur due to increased impervious surface area, which can negatively affect stormwater volume and flow rates if impervious area is unregulated. These impacts would be addressed by compliance with stormwater regulations and standards.	• Same as the *Proposed Master Plan*.	• Similar to, but substantially less than the *Proposed Master Plan* and *Alternative 1* because there would be less construction and associated earthwork under *Alternative 2*.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.3 – Air Quality and GHG Emissions		
<u>Air Quality</u> *During Construction* • During demolition and construction, dust from excavation and grading could cause temporary, localized increases in the ambient concentrations of fugitive dust and suspended PM.	• Same as the *Proposed Master Plan*.	• Similar to, but less than the *Proposed Master Plan* because there would be less construction and associated earthwork under Alternative 2.
• Construction activities would likely require the use of diesel-powered heavy trucks and smaller equipment such as generators and compressors. These engines would emit air pollutants that could slightly degrade local air quality in the immediate vicinity of the activity.	• Same as the *Proposed Master Plan*.	• Similar to, but less than the *Proposed Master Plan* because there would be less construction and associated earthwork under Alternative 2.
• Some construction activities could cause odors detectable to some people in the vicinity of the activity, especially during paving operations using tar and asphalt. Such odors would be short-term and localized.	• Same as the *Proposed Master Plan*.	• Similar to, but less than the *Proposed Master Plan* because there would be less construction and associated earthwork under Alternative 2.
• Construction equipment and material hauling could temporarily increase traffic flow on streets adjacent to a construction area. If construction delays traffic enough to significantly reduce travel speeds in the area, general traffic-related emissions would increase.	• Same as the *Proposed Master Plan*.	• Similar to, but less than the *Proposed Master Plan* because there would be less construction and associated earthwork under Alternative 2.
During Operation **Emissions Associated with Commercial and Light Industrial Development**		
• Development is generally associated with increased vehicle traffic (employees, customers, and diesel delivery truck traffic), mechanical equipment (such as commercial boilers and heating units), and trucks at loading docks.	• Same as the *Proposed Master Plan*.	• Due to the need for medical facilities in the region, if the current location is not able to accommodate the growing need, patients would be required to travel farther for care, resulting in increased VMT and GHG emissions in the region under this alternative.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.3 – Air Quality and GHG Emissions con't		
During Operation con't **Regional Air Quality Impacts** • While the effect of the *Proposed Master Plan* may slightly worsen air quality at the local level, the Plan would likely improve air quality slightly at the regional level. However, the change in tailpipe emissions associated with the *Proposed Master Plan* would be very small relative to the overall regional tailpipe emissions in Washington State.	• Same as the *Proposed Master Plan*.	• Due to the need for medical facilities in the region, if the current location is not able to accommodate the growing need, patients would be required to travel farther for care, resulting in increased VMT and GHG emissions in the region under this alternative.
Mobile Source Air Toxics • On a regional basis, the EPA's vehicle and fuel regulations (coupled with ongoing future fleet turnover) will over time cause substantial emission reductions that will cause region-wide mobile source air toxics levels to be significantly lower than 2024 levels in most cases. Therefore, the *Proposed Master Plan* is not expected to be significant generators of mobile air toxics.	• Same as the *Proposed Master Plan*.	• Due to the need for medical facilities in the region, if the current location is not able to accommodate the growing need, patients would be required to travel farther for care, resulting in increased VMT and GHG emissions in the region under this alternative.
Point Source Emissions • Air contaminant emissions from the proposed project are anticipated to be below "major source" emission thresholds, and all ambient air quality impacts that result from facility operations would be below Ecology's human health impact acceptability criteria; therefore, project impacts to air quality are not expected to be significant.	• Same as the *Proposed Master Plan*.	• Similar to but substantially less than under the *Proposed Master Plan*.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.3 – Air Quality/GHG Emissions con't		
During Operation con't **Emissions from Vehicle Travel** • Tailpipe emissions from vehicles traveling on public roads would be the largest source of air pollutant emissions, however, it is unlikely that air quality impacts at local intersections would be significant.	• Same as the *Proposed Master Plan*.	• Due to the need for medical facilities in the region, if the current location is not able to accommodate the growing need, patients would be required to travel farther for care, resulting in increased VMT and GHG emissions in the region under this alternative.
GHG Emissions *During Construction and Operation* • The *Proposed Master Plan* would generate approximately 31,905 CO_2e per year of lifetime GHG emissions associated with construction activities, production/extraction of materials, energy consumption, and vehicle emissions from associated vehicle trips.	• *Alternative 1* would generate approximately 30,175 CO_2e per year of lifetime GHG emissions associated with construction activities, production/extraction of materials, energy consumption, and vehicle emissions from associated vehicle trips.	• As no development is proposed under the *No Action Alternative*, no GHG emissions associated with construction activities, production/ extraction of materials, energy consumption, and vehicle emissions from associated vehicle trips would be generated.
3.4 – Noise		
During Construction • Construction activities under the *Proposed Master Plan* would be accompanied by temporary increases in noise due to the use of heavy equipment and hauling of construction materials. Noise impacts would depend on the background sound levels, the type of construction equipment being used, and the amount of time construction equipment is in use.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative.
• Construction noise could have a temporary, localized impact on nearby residences, offices, a church, schools, and parks. However, due to the temporary nature of the noise and the restriction of construction activities to daytime hours, any impacts are expected to be less than significant.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
During Operation **Onsite Noise** • No major noise impacts have been identified on the existing campus, and any noise impacts on the surrounding community from the expansion of the campus with the *Proposed Master Plan* are expected to be less than significant.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative.
Local Roadway Noise • The *Proposed Master Plan* would result in increased traffic volumes along existing roadways in the project vicinity, but would result in a minimal increase of 1.2 dBA over the existing levels.	• Same as the *Proposed Master Plan*.	• The *No-Action Alternative* would result in an increase of 0.9 dBA over existing conditions, which would be minimal. Therefore, the *No Action Alternative* would not result in significant traffic noise impacts.
3.5 – Land Use		
During Construction - Conversion of Uses • Proposed development would displacement of existing surface parking, landscape area, and some medical uses on the campus.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative.
• Site preparation and construction of infrastructure and buildings could result in periodic, temporary impacts to adjacent land uses; impacts could include increases in activity levels; increased dust, emissions, noise levels, and odor from construction equipment and vehicles; vibration associated with construction activities and vehicle movement; and increased traffic associated with construction vehicles and construction workers. With identified mitigation, significant adverse impacts on surrounding land uses are not anticipated.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.5 – Land Use con't		
Direct Operation <u>Conversion of Uses</u> • Under the *Proposed Master Plan* the amount of impervious surface on the campus would increase (from approx. 22.1 acres currently to approx. 23.4 acres) and would replace existing impervious area (surface parking, driveway and walkway, paved plaza, etc.) and existing pervious area (landscaped and open space area). The majority of proposed new building area would be located on area currently containing paved surface parking.	• Same as the *Proposed Master Plan*. The amount of impervious surface on the campus would increase from approx. 22.1 acres currently to approx. 22.9 acres under *Alternative 1.*	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative. The amount of impervious surface would remain similar to existing conditions.
<u>Relationship to Surrounding Land Uses</u> • Increased activity levels would primarily relate to the increased employees and visitors to the future medical office and hospital uses. The types of activities would be similar to those currently on campus and in the campus vicinity, and would include vehicular and pedestrian traffic and noise associated with traffic and medical center activities (including emergency vehicle and delivery operations. No significant impacts are anticipated.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative. The amount of pedestrian and vehicular activity and associated noise would remain similar to existing conditions.
• The City of Puyallup Municipal Code includes standards to ensure the compatibility of development on MED-zoned properties under master plans with adjacent surrounding land uses, including: landscaping buffers, building setbacks, and maximum lot coverage, as well as performance standards for operation. The *Proposed Master Plan* would be required to conform to these regulations and/or standards established through the master plan process. As a result, significant land use impacts would not be anticipated.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
Indirect and Cumulative Impacts • Campus redevelopment assumed under the *Proposed Master Plan* would contribute to cumulative employment growth and intensification of land uses in Puyallup and would further the trend of development in the city. No significant impacts are anticipated.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative.
3.6 – Aesthetics – Height, Bulk and Scale		
• Development of the *Proposed Master Plan* would increase the height, bulk, and scale of buildings and structures on the MGSH campus relative to existing conditions, and would place taller, more dense development in proximity to surrounding low density residential development in certain areas.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative. Any new development occurring on the hospital campus would feature substantially less height, bulk, and scale than the *Proposed Master Plan* and *Alternative 1* due to required adherence to the City's existing development standards for uses unrelated to a hospital approved through a master plan.
• Several features of development under the *Proposed Master Plan* are designed to reduce the height, bulk, and scale impacts on the surrounding area. These features include the proposed overall development plan, setbacks, open space/landscaping, and development regulations incorporated into the *Master Plan.*	• Same as the *Proposed Master Plan*.	
• Existing physical barriers within and adjacent to the site (e.g., roadways and topography) would also help lessen height/bulk/scale impacts of proposed development.	• Same as the *Proposed Master Plan*.	

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.7 – Aesthetics - Viewshed		
Visual Character • Proposed development under the *Proposed Master Plan* would change the visual character of the site by introducing additional buildings, remodeling existing buildings, adding building additions, reconfiguration of some open spaces and the provision of additional landscaping, and the addition of parking structures. In general, new hospital and hospital-related structures would be built on areas that contain surface parking or greenfield under existing conditions; most existing campus building would remain.	• Same as the *Proposed Master Plan*.	• Under *Alternative 2*, the site would remain in its existing condition. All the existing buildings and landscaping would remain for the time being.
Views • Under the *Proposed Master Plan*, for a majority of the viewpoints, the overall visual character would change from a largely undeveloped view of a surface parking lot or open space area, to a densely developed urban site featuring mid-to-high-rise structures. The overall visual effect would be to vertically define the right-of-way corridors adjacent to campus. For the remaining viewpoints, views would remain similar to existing conditions, with a slightly more densely developed urban site.	• Same as the *Proposed Master Plan*.	• Under *Alternative 2*, the site would remain similar to its existing condition. All the existing buildings and landscaping would remain for the time being.
Light & Glare *During Construction* • New temporary sources of light and glare would be introduced to the site during construction activities over the phased buildout of the site. The lighting sources would be associated with infrastructure and building construction, lighting of the job site (to meet safety requirements), trucks, and other equipment.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.7 – Aesthetics – Viewshed con't		
Light & Glare con't *During Operation* • Following redevelopment, new hospital and medical office building uses would result in new light sources on the site under the *Proposed Master Plan*. Stationary sources of light produced by the project would include interior and exterior building lighting; commercial sign lighting; pedestrian level lighting along pathways, and landscaping; and street lighting that is required under City code. Mobile sources would include light and glare from vehicle headlights associated with vehicles entering and exiting structured parking areas from area roadways, and to a lesser degree, vehicles accessing on-street and surface parking. Given the mix of uses including hospital and medical office, nighttime lighting levels would be higher. New sources of glare on the site under the *Proposed Master Plan* could include reflection from building facades, windows, and pavement, and reflections from vehicle traffic.	• Same as the *Proposed Master Plan*.	• Impacts under *Alternative 2* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there are no new buildings proposed for construction under this alternative. Lighting levels would remain similar to existing conditions.
3.8 – Transportation		
Trip Generation • Under the 2028 Build Conditions (Phase 1), the *Proposed Master Plan* is expected to generate 338 PM peak hour trips and 256 AM peak hour trips. By the time of full build-out in 2043, these figures are anticipated to increase significantly, with a total of 993 PM peak hour trips and 797 AM peak hour trips.	• While *Alternative 1* is anticipated to generate fewer trips compared to the *Proposed Master Plan* by 2043, the projected impacts are expected to be comparable.	• The PSRC travel demand model was utilized to determine annual growth rates for the 2028 near term conditions and the 2043 long term conditions. Analysis of the model outputs identified a higher growth rate in the near term compared to the 30-year horizon projection. Based on these findings, an annual growth rate of 1.5 percent was applied to determine the 2028 *No Action Alternative* traffic volumes.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.8 – Transportation – cont.		
Traffic Operations **Level of Service Analysis** • In 2028, traffic generated by the *Proposed Master Plan* is anticipated to result in one intersection that would deteriorate below LOS standards. With the implementation of the proposed project, the intersection's performance is expected to deteriorate further from LOS E under 2028 *No Action* conditions to LOS F under the *Proposed Master Plan* with a delay increase of approximately 16% during the PM peak hour. By 2043, traffic generated by the *Proposed Master Plan* is anticipated to result in 11 additional intersections that would deteriorate below LOS standards.	• Potential LOS and delay impacts by 2028 under *Alternative 1* would be same as under the *Proposed Master Plan*. While *Alternative 1* is anticipated to generate fewer trips compared to the *Proposed Master Plan* by 2043, the projected impacts are expected to be comparable. Key intersections in proximity to the project site are likely to operate at unsatisfactory levels under both alternatives, as they are already functioning at or near capacity under 2043 *No Action* conditions.	• Under the *No Action Alternative* in 2028, it is anticipated that the number of study intersections that would operate below City of Puyallup standards would increase from 3 study intersections under existing conditions to 7 study intersections under the *No Action Alternative*. By 2043, the number of intersections that would be anticipated to operate below LOS standards would increase to 12 study intersections under the *No Action Alternative*.
Throughput and Queuing • While the LOS and delay values do not trigger any mitigation criteria under the 2028 *Proposed Master Plan*, it is anticipated that the overall transportation network congestion and queuing will experience a marked decline compared to the 2028 *No Action* conditions. In both AM and PM peak hour scenarios, the 2028 *Proposed Master Plan* exhibits an approximate 3% reduction in overall network throughput compared to the 2028 *No Action* conditions.	• In 2028, throughput and queuing impacts under *Alternative 1* are anticipated to be the same as the Proposed Master Plan.	• Under the *No Action Alternative* in 2028, the overall vehicle throughput is projected to marginally increase compared to the existing conditions. This improvement is primarily attributed to optimized signal timings and adjusted offsets to accommodate anticipated traffic volume growth.
• By 2043, a significant deterioration in intersection performance is projected with the *Proposed Master Plan*, encompassing LOS, throughput, and queuing metrics. Without implementing mitigation measures, congestion is expected to increase to such an extent that project-related traffic may face substantial difficulties either accessing the project site or exiting onto the surrounding roadway network due to severe congestion.	• While *Alternative 1* in 2043 is anticipated to generate fewer trips compared to the 2043 *Proposed Master Plan*, the projected impacts for queuing and throughput are expected to be comparable.	• Overall throughput under the *No Action Alternative* in 2043 is projected to increase compared to existing conditions.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
Freeway Segment Analysis • The *Proposed Master Plan* would not be anticipated to substantially alter the operational performance of the analyzed freeway segments.	• Same as the *Proposed Master Plan*.	• The *No Action Alternative* would not be anticipated to substantially alter the operational performance of the analyzed freeway segments.
Traffic Safety • Traffic safety conditions are predicted to get worse by 2028 and 2048 with future background traffic conditions and development of the *Proposed Master Plan*.	• Same as the *Proposed Master Plan*.	• Traffic safety conditions would be anticipated to worsen by 2028 and 2043 when compared to existing conditions due to anticipated future growth and associated traffic
Parking • Based on future demand and potential displacement of existing spaces, it is anticipated that development under the *Proposed Master Plan* would need to supply approximately 1,494 parking spaces over the course of the *Proposed Master Plan.*	• Parking demand and supply for *Alternative 1* would be provided at a similar rate as the *Proposed Master Plan*	• Under the *No Action Alternative*, it is assumed that the existing MGSH campus parking (approximately 1,858 parking spaces) would remain and no changes to the parking supply would occur on the campus.
3.9 – Public Services		
Police • Construction activities associated with new development would generate new calls for police service during the construction process, likely primarily related to construction site theft, vandalism, and construction accidents/injuries.	• Impacts would be anticipated to be similar to or slightly less than the *Proposed Master Plan* due to the construction and operation of one fewer Medical Office Building.	• Under the *No Action Alternative*, it is assumed that calls for police services would remain similar to existing conditions. No significant impacts to police services would be expected to occur.
• Once operational, development under the *Proposed Master Plan* could generate an incremental increased demand for police services, including new calls for services from the site. The types of calls would likely be similar to those experienced under existing conditions, as related to supporting the hospital's Emergency Department and responding to car prowls and vehicle thefts at campus parking lots and parking garages.	• Impacts would be anticipated to be similar to or slightly less than the *Proposed Master Plan* due to the construction and operation of one fewer Medical Office Building.	• Under the *No Action Alternative*, it is assumed that calls for police services would remain similar to existing conditions. No significant impacts to police services would be expected to occur.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
Fire/Emergency Services • Construction would generate new calls for services to the Central Pierce Fire Department related to fire incidences or workplace injuries during the construction process. Such injuries could require emergency medical services and ambulance transportation.	• Impacts would be anticipated to be similar to or slightly less than the *Proposed Master Plan* due to the construction and operation of one fewer Medical Office Building.	• Under the *No Action Alternative*, it is assumed that calls for fire and emergency services would remain similar to existing conditions. No significant impacts to fire or EMS services would be expected to occur.
• The City of Puyallup and Central Pierce Fire and Rescue identified several conflicts associated with the Master Plan design which could affect fire apparatus turnaround and fire access. Existing deficiencies have been identified by Central Pierce Fire and Rescue that are associated with the size and operation of the ambulance bay, lack of dedicated parking and the condition of the 7th Street access. MGSH would address these issues during detailed building and site design permitting to ensure required fire access and turnaround space is provided or maintained. MGSH is engaged in ongoing analysis of the throughput through its Emergency Department and enabling facilities, and has several planned and recently completed initiatives focused on increasing the efficiency of emergency services.	• Impacts would be anticipated to be similar to or slightly less than the *Proposed Master Plan* due to the construction and operation of one fewer Medical Office Building.	• Under the *No Action Alternative*, it is assumed that calls for fire and emergency services would remain similar to existing conditions. No significant impacts to fire or EMS services would be expected to occur. MGSH would continue to address existing issues related to providing fire access and turnaround space, as well as throughput through its Emergency Department and enabling facilities focused on increasing the efficiency of emergency services.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.10 – Utilities		
Construction • Construction of proposed utility improvements (water, sanitary sewer, and stormwater) for the implementation of the *Proposed Master Plan* would be scheduled together, and with other infrastructure improvements. During construction, the existing utility systems would continue to provide service to existing buildings to remain. Temporary service connections/bypasses may need to be provided to maintain utility coverage and minimize disruptions during construction.	• Same as the *Proposed Master Plan*.	• Existing campus would not be modified unless required to address maintenance issues of existing facilities.
Water Service **Domestic Water** • Development under the *Proposed Master Plan* would increase the demand for domestic water from the MGSH campus. A water demand analysis was conducted to assess the new water demand for the *Proposed Master Plan*. The *Proposed Master Plan* would generate an increase of 71% in domestic water usage as compared to existing conditions.	• Similar to the *Proposed Master Plan*. *Alternative 1* would generate an increase of 66% in domestic water usage as compared to existing conditions.	• Under the *No Action Alternative*, there would be no new services or modifications made to the existing water system, except as required to address future maintenance issues for the system. Water usage rates would remain similar to existing conditions.
Fire Flow • An analysis of the ability of the City's existing water system to provide water and fire service for full buildout of the *Proposed Master Plan* with the projected 2038 demands described in the City's Water System Plan was conducted. The analysis showed that the current fire flow requirement of 4,000 gpm would still be available from the existing public 12-inch water mains. However, the City's 8-inch water main (in an easement) on the east side of campus would not have capacity to provide the fire flow requirement.	• Similar to the *Proposed Master Plan*. The existing public 8-inch water main (in an easement) on the eastern side of campus would be replaced with a 12-inch water main to provide adequate fire flow.	• Under the *No Action Alternative*, there would be no new services or modifications made to the existing water system, except as required to address future maintenance issues for the system. Fire flow rates would remain similar to existing conditions.

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
Water System Capacity • The City of Puyallup has adequate water supply and treatment capacity within their existing water system to meet the estimated increase in water consumption for the *Proposed Master Plan.*	• Same as the *Proposed Master Plan*.	• Same as the *Proposed Master Plan*.
<u>Sanitary Sewer</u> • Development of the Master Plan under the *Proposed Master Plan* would increase the wastewater discharge flows from the MGSH campus. The amount of increase in discharge to the City's sanitary sewer system was estimated. The *Proposed Master Plan* would generate an increase of 78% in wastewater discharge as compared to existing conditions.	• Similar to the *Proposed Master Plan*. *Alternative 1* would generate an increase of 72% in wastewater discharge as compared to existing conditions.	• Under the *No Action Alternative*, there would be no new services or modifications made to the existing sanitary sewer system, except as required to address future maintenance issues for the system. Wastewater discharge rates would remain similar to existing conditions. The capacity deficiencies referenced in the City's Comprehensive Sewer Plan and EIS analysis would remain the same unless they are resolved by planned capital improvements in the City's Comprehensive Sewer Plan CIP.
Sanitary Sewer System Capacity Impacts • At full buildout of the *Proposed Master Plan,* the average daily flow estimated for the campus would increase to 0.153 MGD, which would result in less than 1% increase from current average influent flow to the WPCP. The WPCP has enough treatment capacity to meet the increased maximum daily sewer influent flows from the *Proposed Master Plan.*	• Same as the *Proposed Master Plan*.	
• Implementation of Phase 1 or full buildout of the *Proposed Master Plan* would create added demand on the City's sanitary sewer system downstream. New pipe capacity deficiencies and previously identified pipe capacity deficiencies (identified in City's Comprehensive Sewer Plan) are predicted with full buildout of the *Proposed Master Plan*. The additional peak flow discharge to the system from the *Proposed Master Plan* could exacerbate the previously identified pipe capacity deficiencies.	• Same as the *Proposed Master Plan*.	

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
<u>Stormwater</u> • The increase in impervious surfaces associated with development under the *Proposed Master Plan* would increase stormwater runoff rates and volumes and increase pollutant loading in stormwater runoff. Impacts to water quality could result from by-products of motor vehicles, and landscape chemicals. New on-site stormwater management facilities (flow control, water quality treatment, conveyance) would be installed in accordance with City of Puyallup stormwater requirements to mitigate potential impacts to the downstream system and resources.	• Same as the *Proposed Master Plan*.	• Under the *No Action Alternative*, no new development with its associated impervious surfaces is proposed. Therefore, the existing stormwater management conditions would remain as under existing conditions.
Stormwater System Improvements • MGSH campus areas that discharge into the city conveyance system that flows into the WSDOT trunkline conveyance system in SR 512 are governed by the existing 1970 WSDOT-City interlocal agreement which would require complying with both the City's and WSDOT's stormwater requirements for managing, detaining and treating the runoff prior to discharge into the City system.	• Same as the *Proposed Master Plan*.	

Proposed Master Plan	Alternative 1	Alternative 2 – No Action
3.10 – Utilities		
Stormwater con't **Stormwater System Improvements con't** • A stormwater site plan will be designed and constructed to manage stormwater runoff from the site for all disturbed areas of the *Proposed Master Plan*. Stormwater runoff would be collected from new building roof areas, hardscape areas, parking garages, and landscape areas. Collection of conveyance would be through catch basins, yard drains, area drains, and storm maintenance holes, and conveyed to their respective on-site stormwater management (OSSM) best management practices (BMPs), detention system for flow attenuation and water quality treatment system for pollution generating surfaces. Discharge of stormwater runoff to their respective Threshold Discharge Area (TDA) (Clarks Creek and State Highway to Puyallup River) would be preserved.	• Same as the *Proposed Master Plan*.	• Under the *No Action Alternative*, no new development with its associated impervious surfaces is proposed. Therefore, the existing stormwater management conditions would remain as under existing conditions.
Aquifer Recharge • Development on the MGSH campus under the *Proposed Master Plan* would be located within a Wellhead Protection Area and Critical Aquifer Recharge Area to the Central Pierce County Aquifer. Stormwater management facilities would be required to be designed to comply with wellhead protection and aquifer recharge regulation in accordance with the City's municipal code and adopted stormwater manual.	• Same as the *Proposed Master Plan*.	

SUMMARY OF MITIGATION MEASURES and SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Earth

Mitigation Measures

Legally-Required Measures

This section lists and describes potentially applicable design codes and regulations. Future design and construction at the site will be conducted in accordance with applicable regulations, codes, and standards in place at that time of a complete permit application.

- **Federal -** The federal government provides seismic information and standards. The 2021 IBC (ICC 2021) has adopted the seismic recommendations developed by the American Society of Civil Engineers *Minimum Design Loads for Buildings and Other Structures* (ASCE 7) using the 2016 probabilistic seismic hazard maps developed by the USGS for a seismic event with a recurrence interval of 2,475 years.

- **State -** Washington State has currently adopted the 2021 edition of the IBC pn March 15, 2024 (ICC 2021). The IBC applies to the design of continuously occupied buildings, so it would apply to the MGSH facilities. The types of buildings that would be developed at the MGSH site will most likely be designed in accordance with the 2021 (or later versions of the IBC in effect at the time of individual building permit applications) IBC.

  The Washington State Department of Ecology implements the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit system, which requires construction contractors to implement erosion and sedimentation control systems at all major Washington State construction sites.

- **Local -** The City uses the IBC as adopted by Washington State and amended by the City in the PMC. The critical areas mapped inside the site area are discussed in *Chapter 3.1.1* above. The City also adopted critical areas regulations in Chapter 21.06 of the PMC. These regulations do not preclude development within critical areas but do require permitting and special design and review to show that the proposed development minimizes impacts to critical areas to a satisfactory degree and manages hazards appropriately.

Measures Proposed as Part of Project

- Current plans for the *Proposed Master Plan* include features that aid in earth hazard mitigation. Both development alternatives include grading and vegetation of hazard areas to reduce erosion. In addition to grading and vegetation, future phases would cut and/or

fill within certain steep slope areas and associated buffers, likely using mitigation measures that are required by applicable regulations, codes, and standards in place at that time, thereby limiting disturbance of areas with increased potential for landslide and erosion hazards.

Other Possible Measures

Specific foundation support systems to be used for onsite improvements would be determined as part of the specific design and permitting of infrastructure and individual buildings associated with future site development. Actual codes and requirements, being structure-dependent, are too numerous and varied to be cited at this level of study. Some specific references have been included below in the relevant sections. Site-specific studies and evaluations would be conducted in accordance with PMC requirements and the provisions of the 2021 (or later versions of the IBC in effect at the time of building permit submittal) IBC. Mitigation measures to limit impacts from geologic hazards and associated foundation support considerations are summarized below.

Grading and Excavation

- Site grading would occur within certain steep slope areas and associated buffers under all alternatives. While there is the potential for impacts on these steep slope areas, mitigation measures such as slope stabilization and drainage improvements would address those impacts. In addition, in areas of the site where the proposed grading results in deep excavation, temporary shoring systems should be installed to address the potential for impacts associated with temporary construction excavations. The design and construction of excavation shoring systems would include an evaluation of nearby adjacent structures and utilities, and incorporate measures to limit impacts to those structures/utilities.

- During site grading and excavation activities, care should be taken to avoid structural damage to nearby structures/utilities that could occur due to construction-related vibrations and/or earthwork. All excavation and earthwork activities should be monitored to minimize and/or immediately address any such impacts to nearby or adjacent structures/utilities. Monitoring should include crack monitors placed on nearby structures, periodic observation, and photography to document the structural integrity of the surrounding buildings and determine whether there was resulting damage to the interior or exterior of the adjacent buildings.

- Fill that is placed during the site grading process would be placed in a manner that prevents settlement impacts to adjacent structures/utilities. As appropriate, monitoring could be conducted during construction to verify that no significant settlement of adjacent structures occurs as a result of the placement of fill.

Steep Slopes/Landslides

- Development adjacent to steep slopes would require site-specific analyses prior to construction [*see, e.g.,* PMC Section 21.06.1230(2)(a)]. If post-construction slopes are assessed and found to require stabilization near any future structure, action would be taken as required by applicable codes to mitigate slope instability concerns during the design and permitting for those structures. Mitigation measures could include but are not limited to retaining walls, structure setbacks, buttresses, and cutting and filling to establish flatter grades.

Erosion

- During construction, contractors should employ temporary erosion and sedimentation control measures and BMPs to control erosion as required in consistent with PMC Section 21.06.1230. These measures should be consistent with City critical area regulations (Chapter 21.06 of the PMC), and could include the following:
    1. Minimize areas of exposure
    2. Schedule earthwork during drier times of the year
    3. Retain vegetation where possible
    4. Seed or plant appropriate vegetation on exposed areas as soon as earthwork is completed
    5. Route surface water through temporary drainage channels around and away from disturbed soils or exposed slopes
    6. Use silt fences, temporary sedimentation ponds, or other suitable sedimentation control devices to collect and retain possible eroded material
    7. Cover exposed soil stockpiles and exposed slopes with plastic sheeting, as appropriate
    8. Intercept and drain water from any surface seeps, if encountered
    9. Incorporate contract provisions allowing temporary cessation of work under certain, limited circumstances, if weather conditions warrant.

Liquefaction

- Ground improvement techniques or deep foundations could mitigate liquefaction impacts, if needed, during the design of individual future structures. Several methods of ground improvement are available, including stone columns, vibro-compaction, vibro-replacement, deep soil mixing, compaction grouting, and others. The selection of the appropriate deep foundation or ground improvement technique is location-specific and would depend on a number of factors that would be considered during design and permitting of the future structures. Ground improvement and foundation support requirements should be determined as part of the design and permit approval process for each future onsite development project. Using a high-quality, well-compacted crushed rock or gravel backfill material during construction would also significantly reduce the potential for soil liquefaction.

Structure Settlement Under Static Loads

- Although not associated with a specific environmental hazard, structure settlement should be mitigated during the design and permitting for individual future structures. For multi-story structures, total and differential settlements could be accommodated by founding the structures on deep foundations or by implementing ground improvement techniques. Soil preloading/surcharging could likely be used to reduce total and differential settlements to within tolerable levels for utilities, parking lots, and single-story structures. Alternatively, lightly loaded structures could potentially be founded on mat foundations with flexible utility connections that would limit the potential adverse effect of differential settlement. Deep foundation options include driven piles and drilled shafts. These options should be assessed during the design phase when earth conditions can be assessed. Using a high-quality, well- compacted crushed rock or gravel backfill material during construction would also significantly reduce the potential for future structure settlement. However, regardless of the quality of fill that is anticipated to be placed, site structures will require site-specific geotechnical studies in order to design appropriate foundation systems under the City's building permit process.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts on earth resources are expected with implementation of the mitigation measures listed above.

Plants and Animals

Mitigation Measures

Legally-Required Measures

- Proposed development would comply with local, state, and federal regulations for environmentally critical areas, such as wetlands and protected wildlife habitat areas.

- The following regulations and standards limit impacts to the natural environment:
  - Puyallup Municipal Code
    Chapter 20.58 – Landscaping Requirements
    Chapter 21.06 – Critical Areas
    Chapter 21.12 – Clearing, Filling and Grading
    Chapter 21.20 – Storm water Management
  - Washington State Department of Ecology: Stormwater Management Manual for Western Washington
  - U.S. Fish & Wildlife Service: Migratory Bird Treaty Act

Other Possible Mitigation Measures

- Avoid or limit vegetation removal and construction activities from April to August to minimize disturbances to nearby breeding birds, as feasible.
- Plant native, drought tolerant species in landscaped areas.
- Direct lighting away from natural areas, use downcast lighting, and limit or exclude night lighting, where feasible.
- Maintain and monitor mitigation sites and retained/installed trees, as applicable.
- Limit use of fertilizers, pesticides and herbicides in developed areas.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts to streams, wildlife, or wildlife habitat would be anticipated under any alternative. For the most part, development and/or redevelopment activities would not be located near natural areas. Any impacts that could be anticipated would be adequately mitigated through application of existing regulations. Furthermore, redevelopment may result in improved stormwater management. Similarly, the buffer functions of Stream A may be improved if enhancement activities are proposed as part of a permit application.

Air Quality and GHG Emissions

Mitigation Measures

Legally-Required Measures

All development in Washington State is required to comply with the following regulations:

- National Ambient Air Quality Standards: As described above, the EPA establishes NAAQS and specifies future dates for states to develop and implement plans to achieve these standards.
- State Ambient Air Quality Standards: Ecology establishes state ambient air quality standards for the same six key criteria air pollutants as the NAAQS that are at least as stringent as the national standards; in the case of sulfur dioxide, state standards are more stringent.
- Puget Sound Clean Air Agency Regulations: All construction sites in the Puget Sound region are required to implement rigorous emission controls to minimize fugitive dust and odors during construction, as required by PSCAA Regulation 1, Section 9.15: Fugitive Dust Control Measures. All industrial and commercial air pollutant sources in the Puget Sound region are required to register with the PSCAA. Facilities with

significant emissions are required to obtain an NOC air quality permit before construction can begin.
- State of Washington GHG Laws: As described above, Washington State enacted a new law establishing GHG reduction limits.

Measures Proposed as Part of the Project

The following features would be incorporated into the project and would contribute to a reduction in GHG emissions. These measures are still in the planning phase, would be tied to individual phases or components of the *Proposed Master Plan*, and a quantitative analysis is not feasible, but it is expected that these measures would have only a small mitigation impact and would not affect overall GHG emissions in a measurable way:

- The applicant, of its landscaping design and consistent with applicable codes, would include vegetated buffers along the edges of campus, street plantings where appropriate, and open spaces with landscaping elements intended to buffer the impact of buildings and improve air quality.
- Stormwater retention and native landscaping are planned throughout the site consistent with applicable codes.

The following feature would be incorporated into the project and would contribute to improved air quality:

- No indoor wood-burning appliances will be included in either action alternative.

Other Possible Measures

Construction

Construction contractors should be required to implement air quality control plans for construction activities at the MGSH site. Contractors should be required to prepare a dust control plan that commits the construction crews to implement all reasonable control measures described in the Guide to Handling Fugitive Dust from Construction Projects (AGCW 2009). The air quality control plans should include best management practices (BMPs) to control fugitive dust and odors emitted by diesel construction equipment.

The following BMPs should be used to control fugitive dust:
- Use water sprays or other non-toxic dust control methods on unpaved roadways
- Minimize vehicle speed while traveling on unpaved surfaces
- Prevent track-out of mud onto public streets
- Cover soil piles when practicable
- Minimize work during periods of high winds when practicable.

The following mitigation measures should be used to minimize air quality and odor issues caused by tailpipe emissions:

- Maintain the engines of construction equipment according to manufacturers' specifications
- Minimize idling of equipment while equipment is not in use

If there is heavy traffic during some periods of the day, scheduling haul traffic during off-peak times (e.g., between 9:00 a.m. and 4:00 p.m.) would reduce effects on traffic congestion and would minimize indirect increases in traffic-related emissions.

Operation

No additional mitigation measures are currently included in the *Proposed Master Plan*; however, the following energy-efficiency measures could be incorporated into individual buildings during future stages of design:

- Use of low VOC coatings and materials
- Energy-efficient lighting
- Incorporation of passive solar design
- Energy-efficient heating and cooling systems
- Energy-efficient appliances
- Bicycle-storage areas, covered transit waiting areas, and other vehicle-reduction incentives.

Significant Unavoidable Adverse Impacts

No significant unavoidable impacts on plant and animal habitat are expected with implementation of the mitigation measures listed above.

Noise

Mitigation Measures

Legally-Required Measures

- City of Puyallup noise regulations would be followed that require limiting construction activities to between the hours 7 AM and 10 PM on weekdays and between 8 AM and 6 PM on weekends and holidays when noise is received in a District I property, or between 7 AM and 10 PM on weekdays and 9 AM and 10 PM on weekends and holidays when that noise is received in a sensitive property.

Other Possible Measures

- To reduce construction noise at nearby receivers, the following mitigation measures could be incorporated into construction plans and contractor specifications:
  - Locate stationary equipment away from receiving properties;

- Erect portable noise barriers around loud stationary equipment located near sensitive receivers;
- Turn off idling construction equipment;
- Require contractors to rigorously maintain all equipment; and,
- Train construction crews to avoid unnecessarily loud actions (e.g., dropping bundles of rebar onto the ground or dragging steel plates across pavement) near noise-sensitive areas.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse noise impacts are anticipated as a result of development under any of the EIS Alternatives. Additionally, implementation of the mitigation measures listed above would further reduce the potential for adverse noise impacts.

Land Use

Mitigation Measures

Measures Proposed as Part of Project

- Implementation of development standards in the *Proposed Master Plan* are, in part, intended to minimize potential land use impacts. These standards include, but are not limited to: building setbacks, visual screening with landscaping at campus edges adjacent to residential land uses, and implementation of the City of Puyallup review process.

Significant Unavoidable Adverse Impacts

Under the *Proposed Master Plan* and *Alternative 1*, intensification in land uses on the MGSH campus would occur as a result of increased density. With proposed mitigation measures, significant unavoidable land use impacts are not anticipated.

Aesthetics – Height, Bulk, and Scale

Mitigation Measures

Measures Proposed as Part of Project

- Development Regulations in the *Proposed Master Plan* and *Alternative 1* include standards related to building heights, building setbacks, landscape buffers, building square footage, lot coverage, open/green space, lighting, signage, and other elements, which would help reduce height, bulk, and scale impacts.

Significant Unavoidable Adverse Impacts

Development under the *Proposed Master Plan* and *Alternative 1* would change the height, bulk, and scale of the MGSH to a more intensive campus with increased density. Some might view these changes as positive, others as negative. No significant unavoidable adverse height, bulk, and scale impacts are anticipated with implementation of the identified mitigation measures.

Aesthetics - Viewshed

Mitigation Measures

Legally-Required Measures

- Pedestrian-scale lighting would be provided consistent with code, function, and safety requirements.
- Signs would comply with City of Puyallup code-required illumination standards.

Measures Proposed as Part of Project

- Development Regulations in the *Proposed Master Plan* include standards related to building heights, building setbacks, landscape buffers, building square footage, lot coverage, open/green space, lighting, signage, and other elements, which would help reduce height, bulk and scale impacts.

- Street trees and the use of building materials with relatively low-reflectivity at street level would minimize reflective glare-related impacts to pedestrians and nearby residents immediately adjacent to the site.

- Exterior lighting would include fixtures to direct the light downward and/or upward and away from on and off-site land uses.

- A detailed lighting plan would be developed to minimize off-site impacts through careful selection of lighting fixtures, and sensitive placement, intensity and orientation.

Other Possible Mitigation Measures

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

Significant Unavoidable Adverse Impacts

Proposed development under the *Proposed Master Plan* and *Alternative 1* would change the visual character of the MGSH site to a more intensive campus with increased density. Some might view these changes in visual character as positive, others as negative. No significant unavoidable adverse aesthetic or light and glare impacts are anticipated with implementation of the identified mitigation measures.

Transportation

Mitigation Measures

To address transportation impacts that are identified in this section and the *Traffic Operations Technical Memorandum* and *Traffic Safety Analysis Memorandum*, two primary mitigation strategies are proposed for the *Proposed Master Plan* and *Alternative 1*:

- Capacity Improvements: These involve physical modifications to intersections and corridors to increase their ability to handle traffic flow efficiently.
- Signal Timing Optimizations: This focuses on adjusting traffic signal timings to improve traffic flow and reduce delays.

Legally-Required Measures

Traffic Operations Measures

By 2028, the *Proposed Master Plan* and *Alternative 1* would require the installation of a new signal at the 23rd Avenue SE and 7th Street SE intersection. With the installation of a signal, this intersection would operate at LOS A in 2028 under the *Proposed Master Plan* and *Alternative 1*.

Table 3.8-13 summarizes the list of additional mitigation measures that would be necessary by 2043 with development under the *Proposed Master Plan*.

Table 3.8-13
MITIGATION MEASURES FOR 2043 PROPOSED MASTER PLAN

#	Intersection	2043 *Proposed Master Plan* Mitigations	2043 *Proposed Master Plan* AM		2043 *Proposed Master Plan* PM	
			Delay	LOS	Delay	LOS
1	S Meridian and 15th Ave SE	Add second southbound left pocket Overlap phasing for WBR Add eastbound shared through-right pocket	89.5	F	47.4	D
4	S Meridian and SR 512 WB Ramps	None. Mitigation at #1 resolves the impact.	24	C	41.6	D
9	S Meridian and 23rd Ave SE	None.	159.6	F	16	B
10	15th Ave SE and 3rd St SE	2 through lanes in eastbound and westbound directions Install a signal Eastbound and westbound left turn pockets recommended	9.4	A	27.4	A
11	15th Ave SE and 5th St SE	Install a signal Add a SBR lane Add westbound right turn pocket Add eastbound left turn lane	50.5	D	45.7	D
13	15th Ave SW and Fairview Dr	Optimize Signal Timings	32.6	C	55.4	E
14	23rd Ave SE and 7th St SE	Install a signal	7.6	A	16.1	B
20	S Meridian and 31st Ave SW	Optimize Signal Timings	42.9	D	44.2	D
24	S Meridian and 39th Ave SE	Optimize Signal Timings	70.9	E	52.9	D
27	5th St NW/5th St SW and W Pioneer	Optimize Signal Timings	42.4	D	81.8	F
34	S Meridian and E Stewart	Optimize Signal Timings	18.9	B	30.2	C
	15th Ave SE Corridor between S Meridian and 3rd St SE	Convert to a 4-lane corridor with two eastbound and westbound through lanes.				

#	Intersection	2043 *Proposed Master Plan* Mitigations	2043 *Proposed Master Plan* AM		2043 *Proposed Master Plan* PM	
			Delay	LOS	Delay	LOS
	15th Ave SE Corridor between S 3rd St SE and 5th Street SE	Convert to a 3-lane corridor with two eastbound lanes and 1 westbound lane.				
		Add a second westbound through pocket to accommodate queue spilling back from Meridian				

Source: Jacobs, 2024.

The majority of proposed mitigations are situated at study intersections along the 15th Avenue SE corridor. To accommodate anticipated peak hour traffic volumes (approximately 900 trips in the PM peak hour and 800 in the AM peak hour), the 15th Avenue SE corridor requires widening. A significant portion of the project-generated traffic utilizes the S Meridian/15th Avenue SE, 15th Avenue SE/3rd Street SE, and 15th Avenue SE/5th Street SE intersections, resulting in a deterioration of Level of Service (LOS) and increased queuing at these locations.

Since the main access point to the parking garage is located on 5th Street SE, most of the project and hospital traffic will traverse the 15th Avenue SE/5th Street SE intersection. During the AM peak hour, the predominant inbound project traffic causes the eastbound left turn at this intersection to experience the most substantial increase in volume. Conversely, in the PM peak hour, outbound project traffic leads to the highest traffic volume increase in the southbound right turn. Consequently, mitigation efforts necessitate additional capacity for these two movements, specifically an eastbound left-turn lane and a southbound right-turn lane. The eastbound left-turn lane should extend to the upstream intersection to manage queuing. Signalization of this intersection is also warranted to accommodate project traffic.

Capacity enhancements are similarly necessary at the S Meridian/15th Avenue SE intersection to address project impacts. Mitigation includes dual southbound left-turn pockets, an enhanced westbound right turn with an overlap phase, and an eastbound shared through-right turn pocket.

No mitigation is proposed for the S Meridian/23rd Avenue SE intersection, as the observed delay increases are not directly attributable to project traffic. The higher delay and queuing in the northbound direction at this intersection stem from congestion and spillback from the downstream S Meridian/15th Avenue SE intersection.

The 15th Avenue SE/3rd Street SE intersection also requires capacity improvements. Given right-of-way constraints that preclude a multi-lane roundabout, conversion to a signalized intersection with two eastbound and westbound through lanes is recommended. Two

eastbound through lanes are necessary to manage AM peak hour traffic, while two westbound through lanes are needed to accommodate both PM peak hour traffic and potential queue spillback from the S Meridian/15th Ave SE intersection. The 95th percentile westbound queue at the latter intersection can extend into the 15th Avenue SE/3rd Street SE intersection. Without a second westbound through lane, this spillback queue could obstruct left and right turn movements, further exacerbating queuing and potentially impacting the project driveway.

To integrate the capacity improvements at the three critical intersections along 15th Avenue SE, it should be widened to provide two lanes in each direction.

Under *Alternative 1*, most mitigation measures at intersections near the project site by 2043 are similar to the *Proposed Master Plan* with some minor changes. **Table 3.8-14** summarizes the list of mitigation measures that would be necessary by 2043 with development under *Alternative 1*.

Table 3.8-14
MITIGATION MEASURES FOR 2043 ALTERNATIVE 1

#	Intersection	2043 Alt. 1 Mitigations	2043 Alt. 1 AM		2043 Alt. 1 PM	
			Delay	LOS	Delay	LOS
1	S Meridian and 15th Ave SE	Add second southbound left pocket Overlap phasing for WBR Add eastbound shared through-right pocket	82.7	F	40.1	D
4	S Meridian and SR 512 WB Ramps	None. Mitigation at #1 resolves the impact.	19.1	B	36.9	D
9	S Meridian and 23rd Ave SE	None.	138	F	16.2	B
10	15th Ave SE and 3rd St SE	2 through lanes in eastbound direction Install a signal Eastbound and westbound left turn pockets recommended	39.3	D	17.7	B
11	15th Ave SE and 5th St SE	Install a signal Add eastbound left turn lane	48.9	D	11.3	B
13	15th Ave SW and Fairview Dr	Optimize Signal Timings	33.2	C	55.4	E
14	23rd Ave SE and 7th St SE	Install a signal	8.5	A	16.1	B

#	Intersection	2043 Alt. 1 Mitigations	2043 Alt. 1 AM		2043 Alt. 1 PM	
			Delay	LOS	Delay	LOS
20	S Meridian and 31st Ave SW	Optimize Signal Timings	42.9	D	44.2	D
24	S Meridian and 39th Ave SE	Optimize Signal Timings	70.9	E	52.9	D
27	5th St NW/5th St SW and W Pioneer	Add westbound right turn pocket (to relieve westbound through)	42.4	D	81.8	F
	15th Ave SE Corridor between S Meridian and 3rd St SE	Convert to a 4-lane corridor with two eastbound and westbound through lanes.				
	15th Ave SE Corridor between S 3rd St SE and 5th Street SE	Convert to a 3-lane corridor with two eastbound through lanes.				

Source: Jacobs, 2024.

The 15th Avenue SE and 5th Street SE intersection mitigation necessitates signalization with an eastbound left-turn lane. The eastbound left-turn lane must be extended up to the upstream intersection to accommodate the eastbound left-turning queue. The intersection must also be signalized to accommodate project traffic.

Similarly, capacity improvements are required at the S Meridian and 15th Avenue SE intersection to mitigate the project's impacts. Mitigations at this location include providing dual southbound left-turn pockets, enhancing the westbound right with an overlap phase, and adding an eastbound shared through-right turn pocket.

No mitigations are suggested at S Meridian and 23rd Avenue SE as the increase in delay is not directly attributable to the added project traffic. This intersection experiences higher delay and increased queuing in the northbound direction due to congestion and spillback from the downstream S Meridian and 15th Avenue SE intersection. Hence, no mitigations are recommended.

15th Avenue SE and 3rd Street SE also require a capacity increase. Considering the right-of-way constraints at this location preclude the installation of a multi-lane roundabout, it is recommended that the intersection be converted into a signalized intersection with two eastbound through lanes. Two eastbound through lanes are required to accommodate AM peak hour traffic. The addition of a westbound left-turn pocket is recommended to improve safety and reduce rear-end collisions.

The 15th Avenue SE corridor must be widened to two lanes in each direction between S Meridian and 3rd Street SE and to three lanes with 2 eastbound lanes between 3rd Street SE and 5th Street SE to integrate all capacity improvements at the three critical intersections along the project frontage.

Traffic Safety Measures

Measures are identified above to mitigate transportation operation impacts associated with the *Proposed Master Plan* and *Alternative 1*. These measures would also minimize impacts to traffic safety. The following measures are identified above as traffic operation measures and would also serve as mitigation measures that would affect traffic safety of the analyzed interchanges, segments and/or intersections.

- 15th Avenue SE and 3rd Street SE
  - Convert from roundabout to signalized intersection.
  - Provide two through lanes in eastbound and westbound directions.
  - Add eastbound and westbound left-turn lane pockets.

- 15th Avenue SE and 5th Street SE
  - Convert from stop-controlled to signalized intersection
  - Add a southbound right-turn lane pocket.
  - Add a westbound right-turn lane pocket.
  - Add an eastbound left-turn lane pocket.

- 23rd Avenue SE and 7th Street SE
  - Convert from a stop-controlled to signalized intersection.

- 15th Avenue SE Corridor between S Meridian and 3rd Street SE
  - Convert to a four-lane corridor with two eastbound and westbound through lanes.

- 15th Avenue SE Corridor between 3rd Street SE and 5th Street SE
  - Convert to a three-lane corridor with two eastbound through lanes and one westbound lane.
  - Add a second westbound through pocket west of 3rd Street SE to accommodate queue from S Meridian.

- 5th Street NW/5th Street SW and W Pioneer
  - Add a westbound right-turn pocket.

Significant Unavoidable Adverse Impacts

Development under the *Proposed Master Plan* and *Alternative 1* would generate new vehicle trips within the study area and result in certain intersections that would deteriorate below LOS standards and add increased delay; traffic operation throughput and vehicle queuing would also be affected. Increased traffic volumes with the *Proposed Master Plan* and *Alternative 1* would also result in a higher level of predicted future crash rates. The implementation of the mitigation measures listed above would reduce the potential for significant unavoidable adverse transportation impacts associated with the *Proposed Master Plan* and *Alternative 1*.

Public Services

Mitigation Measures

Legally-Required Measures

- All new buildings would be constructed in accordance with the current International Building Code (as amended by the City of Puyallup) and the current International Fire Code (as amended by the City of Puyallup).

- Adequate fire flow would be provided for all new buildings developed under the Master Plan or the Alternatives, in accordance with City of Puyallup requirements.

- All new construction associated with the *Proposed Master Plan* or the *Alternatives* would ensure required minimum fire lane widths are maintained or provided in order to accommodate turnaround for fire apparatus.

Measures Proposed as Part of the Project

- Dry standpipes would be provided in all new parking garages.

- Alternative fire access would be ensured following construction of the future support tower, which would encroach/eliminate an existing fire access area.

- Measures to improve existing fire and rescue emergency services operations would be implemented by MGSH, including:
  - Discharge Center Reconfiguration
  - Emergency Department Renovation Project
  - Utilization of Off-Campus Emergency Department

Other Possible

- Dedicated police parking could be provided at the Emergency Department and entrance to the Patient Care Tower.

- Dedicated police workspace could be provided in or in close proximity to the Emergency Department.

- License plate reader technology could be installed at the entrance of all major parking lots and parking garages.

- A camera system could be installed to monitor interior and exterior MGSH spaces.

- The Emergency Department ambulance bay could be reconfigured and improved in coordination with Central Pierce Fire and Rescue. Changes could include a combination of operational and/or physical changes to the existing space.

Significant Unavoidable Adverse Impacts

Development under the *Proposed Master Plan* and *Alternative 1* would generate additional demand for public services, primarily as a result of new development on the site resulting in additional employees, patients, and visitors; this demand is unavoidable. With implementation of the mitigation measures discussed above, no significant unavoidable adverse impacts to public services are anticipated.

Utilities

Mitigation Measures

Legally Required Mitigation

Water

- A private water system (domestic, irrigation, fire), fire hydrants, and water mains would be installed onsite that would comply with the City of Puyallup Public Works Department regulations and City Fire Code.

- Connections to existing public water mains would be provided in accordance with City of Puyallup Public Works Engineering & Construction standards.

Sewer

- A private sanitary side sewer system would be installed on the MGSH campus that would comply with the City of Puyallup Public Works Department regulations.

- Side sewer connections to existing public sanitary sewer mains would be provided in accordance with City of Puyallup Public Works Engineering & Construction standards.

- Approximately 310 lineal feet of existing 8-inch sanitary sewer main pipe to the west of the site would need to be upsized to a minimum 10-inch pipe by MGSH to convey the peak sewer flows from full buildout of the *Proposed Master Plan* and *Alternative 1*, if all the increase in sewer flows discharge into this sewer system. If MGSH only constructs Phase 1 of the Master Plan and the City installs capital improvements that are planned for the sewer main under SR 512 at 14th Avenue SE in 2025, then these deficiencies in the 310 lineal feet of 8-inch line are not predicted, and the 8-inch main would not need to be upsized. Further analysis and discussion between the City and MGSH will be required to determine MGSH's responsibility for upsizing the downstream sanitary sewer conveyance system; if the capacity issues could be resolved by the proposed improvements in the

City's Comprehensive Sewer Plan; and/or if further engineering analysis and sewer monitoring is needed to assess the predicted peak flows for the EIS alternatives.

Stormwater

- Temporary Erosion and Sediment Control (TESC) Best Management Practices (BMPs) and a Construction Stormwater Pollution Prevention Plan (SWPPP) would be implemented to address the potential for erosion/sedimentation with clearing, grading, and trenching for utilities, per City of Puyallup regulations.

- Permanent stormwater management systems would be installed onsite that would include flow control and water quality treatment that would comply with the current City of Puyallup code requirements for the adopted stormwater manual (Washington State Department of Ecology's Stormwater Management Manual for Western Washington 2019 edition), or the most recent edition adopted at time of construction, supplemented with requirements of Section 200- Stormwater Management of the City of Puyallup Public Works Engineering and Construction Standards (PWECS). MGSH campus areas that discharge into the city conveyance system that flows into the WSDOT trunkline in SR 512 would comply with both the City's and WSDOT's stormwater requirements, as required by the 1970 City-State Interlocal Agreement.

Flow control/detention facilities would be provided for stormwater collected onsite from full buildout of the Master Plan prior to discharge into City storm sewers that flow to the two drainage resources (Clarks Creek and Puyallup River in the State Highway Basin). Flow control facilities would be designed to mitigate the runoff to be similar to existing conditions. This would avoid increasing existing condition flow rates into Clarks Creek and WSDOT's trunkline that outfalls to the Puyallup River from the changes in land cover on campus.

- For streets that require traffic mitigation due to the *Proposed Master Plan* and *Alternative 1*, and result in new and replaced hard surfaces, flow control and/or water quality treatment facilities would be provided if City stormwater thresholds are met.

- New service storm drain pipe connections to existing public storm drain mains that discharge to Clarks Creek and State Highway basin would be provided in accordance with City of Puyallup Public Works Engineering & Construction standards.

- Stormwater management facilities would be designed to comply with wellhead protection and aquifer recharge regulation in accordance with the City's municipal code and adopted stormwater manual.

Measures Proposed as Part of Project

Water

- The City's existing 8-inch water main (in an easement) on the east side of the campus would be upsized to a 12-inch main to provide the assumed fire flow (4000 gpm for 4 hours) for the new buildings. If relocated, it would also maintain a loop system by reconnecting to the existing public 12-inch water mains in 13th Avenue SE and 15th Avenue SE to maintain adequate water pressure for the City's water system in the vicinity.

- The fire flow demands to the site would be confirmed at the time of building design. If the fire flow demand requirements for the campus increase from existing fire flow requirements, then further analysis would be required by MGSH's designers and the City to determine whether the existing 12-inch City water system is adequate to supply the needed fire flow.

Significant Unavoidable Adverse Impacts

No significant unavoidable adverse utility impacts are anticipated for any of the EIS alternatives with implementation of the required and proposed mitigation measures listed above.

Chapter 2

DESCRIPTION OF PROPOSED ACTION and ALTERNATIVES

CHAPTER 2
INTRODUCTION AND DESCRIPTION OF THE PROPOSED MASTER PLAN AND ALTERNATIVES

This chapter of the Draft Environmental Impact Statement (EIS) provides a discussion of the MultiCare Good Samaritan Hospital (MGSH) system, information on the MGSH campus and surrounding area, planning activities conducted in support of the proposed MGSH *Master Plan Update*, and a description of the Environmental Impact Statement (EIS) Alternatives. A detailed description of the affected environment, environmental impacts, mitigation measures and significant unavoidable adverse impacts is provided in **Chapter 3** of this Draft EIS.

2.1 Proponent and Project Location

Proponent

The project proponent is MultiCare Good Samaritan Hospital (MGSH).

Project Location

The MGSH campus is located in the City of Puyallup at the southwest corner of 15th Avenue SE and 3rd Street SE. The campus boundary encompasses an area of approximately 34.86 acres. The campus is bound to the north by Highway 512 and to the east by existing residential properties. To the south the campus is largely bounded by 15th Avenue SE; however, four parcels south of 15th Ave SE, between 3rd Street SE and 5th Street SE, are included in the campus. To the west, the campus is largely bound by 3rd Street SE, apart from six parcels located at the northwest corner of the campus. **Figure 2-1** presents a regional map and **Figure 2-2** presents a vicinity map.

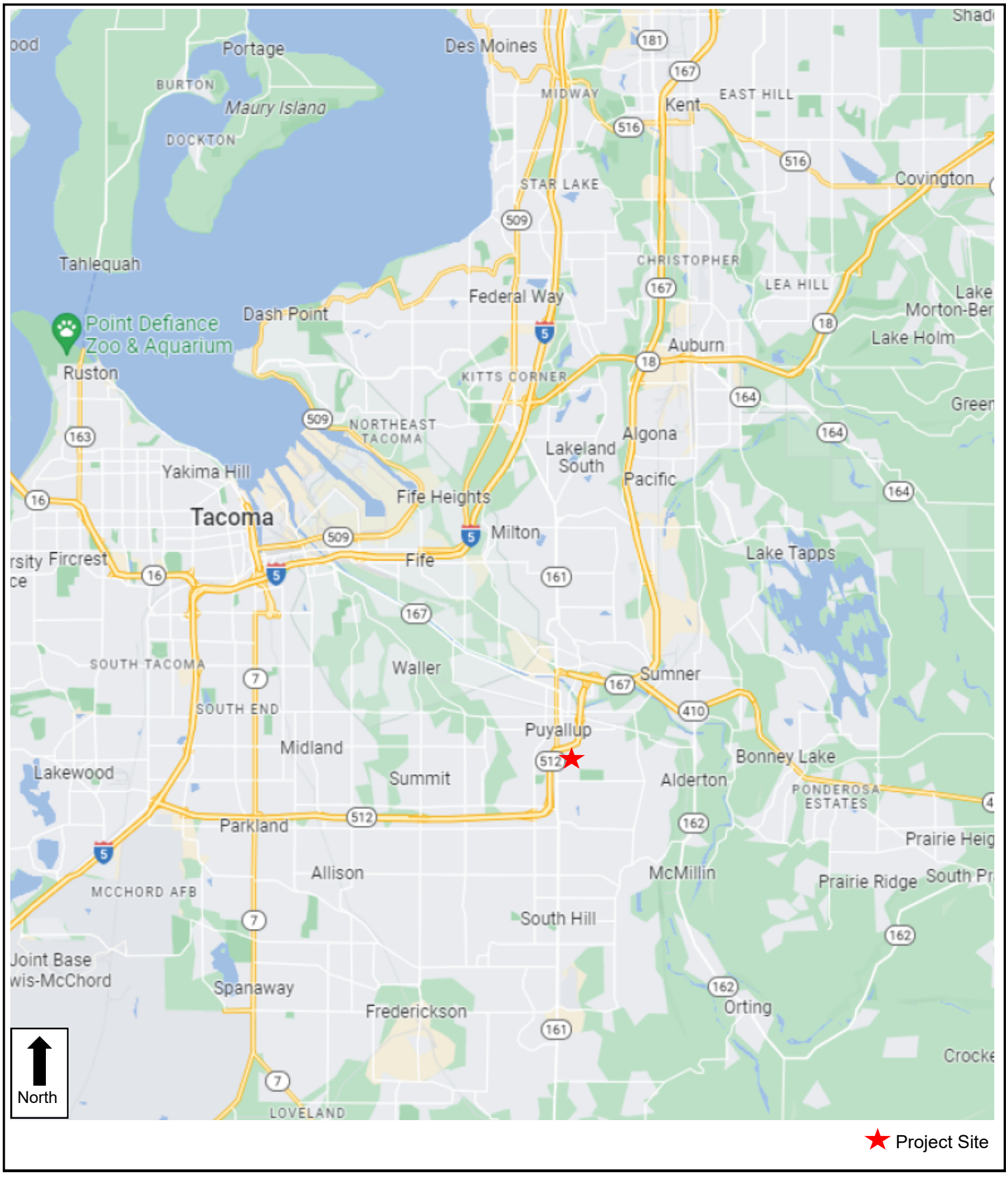
2.2 Overview and Proposed Action Need Summary

Overview

MultiCare is a Washington-based not-for-profit health care organization that has served the community since the founding of Tacoma's first hospital in 1982. MultiCare is now the largest not-for-profit, community-based, locally-owned health system in the state of Washington. The organization includes 12 hospitals and a system of services including inpatient care, primary care, virtual care, urgent care, dedicated pediatric care and specialty services.

MGSH was established in 1952 when the Lutheran Home and Welfare Society assumed management of Puyallup General Hospital at the request of its physician owners. Located in downtown Puyallup, the hospital outgrew its small facility by 1957, spurring its relocation to the current campus location at the intersection of 14th Avenue SE and 4th Street SE, where it was merged with another facility, Lutheran Minor Hospital. A new facility combining the functions of both

MultiCare Good Samaritan Hospital Master Plan
Draft EIS



Source: EA Engineering, GoogleMaps, 2023.

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Figure 2-1
Regional Map

MultiCare Good Samaritan Hospital Campus Boundary

Source: EA, GoogleEarth, 2023.

EA Engineering, Science, and Technology, Inc., PBC

Figure 2-2
Vicinity Map

hospitals opened in 1958. The facility has been expanded several times since and has acquired numerous surrounding properties to facilitate the growth.[1]

The MultiCare Good Samaritan Hospital (MGSH) serves as an acute care center for the Puyallup and East Pierce County community. The hospital features comprehensive inpatient and outpatient health care services, including a Family Birth Center, a 24-hour Emergency Department and pharmacy, cancer care through Tacoma General licensed MultiCare Regional Cancer Center, mental health programs and surgical services.

Proposed Action Need Summary

MGSH last submitted a revised Master Plan in 2007, which was approved by the City of Puyallup for a period of ten years as governed by Chapter 20.88 of the City of Puyallup Zoning Code. The Master Plan is now expired.

The key feature of the 2007 Master Plan was Dally Tower, a patient care building including emergency, diagnostic and treatment services, and nursing units, which significantly increased the hospital's capacity, and established a new main entrance. Buildout of the prior master plan also included a parking garage, central utility plant (CUP), and a medical office building with connected parking deck. The 2007 Master Plan allowed for 913,000 gross sq. ft. (gsf), of which approximately 648,000 gsf was built.

As of 2022, MGSH maintains a building inventory of 1.24 million gsf on its 34.86-acre campus. This is 345,000 gross sq. ft. (gsf) below the amount allowed under the prior Master Plan. The current off-street parking supply totals 2,412 spaces, with 1,858 of those spaces located north of 15th Avenue SE, which is the focus area for expansion in the *Master Plan*.

MGSH is the premiere provider for acute care services in East Pierce County, as well as the only provider of acute care services in Puyallup. MGSH currently operates at high inpatient occupancy percentages, and it has the largest emergency department (including off-campus emergency departments) in the State of Washington.

As the population in East Pierce County continues to grow, so does the need for healthcare services. MGSH has conducted growth studies to support its Certificate of Need application to the Washington State Department of Health. Estimates indicate that Puyallup and surrounding communities will require an additional 140 acute care beds by 2028, and 250 beds by 2036. This represents a 67% increase over MGSH's current licensed bed count of 375. Additional capacity is needed to maintain the quality of care and service levels expected by the community, given recent and expected future population growth in the region.

According to the Applicant, without expansion of MGSH, access to acute care services would be constrained for East Pierce residents, and they would be forced to delay or leave the community for care. This would create significant barriers to accessing necessary care and negatively impact the health of the community.

[1] MultiCare Good Samarian Hospital. *2024 Master Plan Proposal to City of Puyallup, Washington.* August 2024.

Table 2-1 lists the level of building space (gross square feet), building height (in feet) and setbacks from the campus boundary (in feet) under the current campus Master Plan.

TABLE 2-1
CURRENT CAMPUS CONDITIONS

	Current Campus Conditions
Total Campus Acreage	34.86 acres
Total Campus Building Space Capacity	1.25 million gross sq. ft.
Parking Supply	2,412, with 1,858 spaces in *Master Plan* focus area
Maximum Building Heights	70 ft.; or no greater than 246 ft. elevation north of 15th Ave. SE and 230 ft. elevation south of 15th Ave SE, whichever is less. Alternatively, buildings may be constructed to a 165 ft. height level, subject to express authorization in an approved master plan.
Setbacks from Master Plan Boundary	20 ft. if abutting an R zone; 10 ft. for all other zones

Source: MGSH Master Plan, 2024.

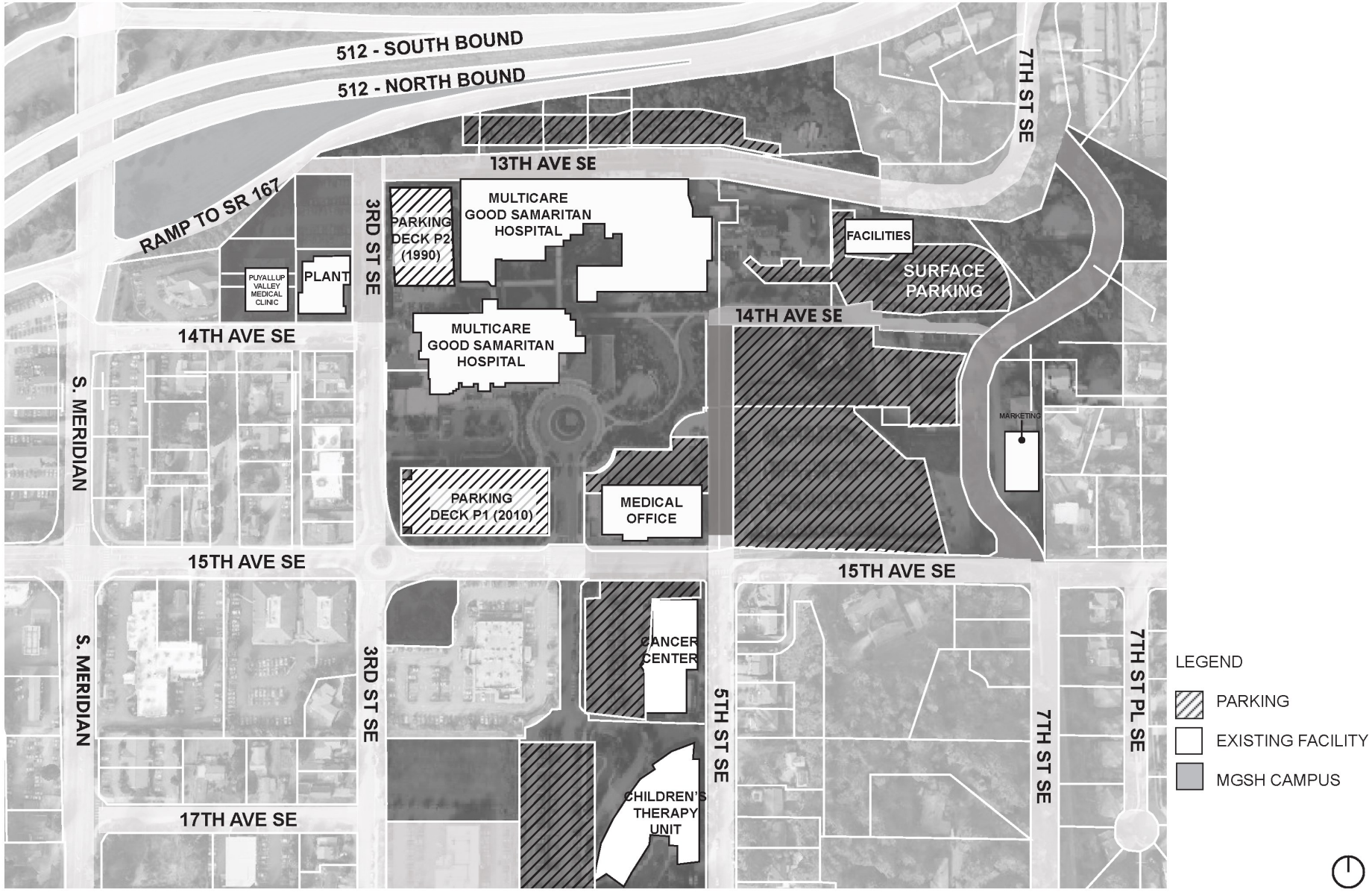
In order to allow MGSH to address health care needs associated with the regional/local population, the hospital is proposing an update to the 2007 Master Plan (see **Section 2.4** for details).

2.3 Current Campus and Surrounding Area Conditions

Existing Campus

The MGSH campus is located within the City of Puyallup (see **Figures 2-1** and **2-2**) and is designated 'Medical Facility' on the Puyallup Comprehensive Plan Future Land Use Map. The campus underlying zoning is Medical (MED), a specially-created zoning district adopted to reflect the presence of a major medical facility and related private medical office buildings. Height limits, as defined by the 2007 Master Plan, are 70 feet; or no greater than 246 ft. elevation north of 15th Ave. SE and 230 ft. elevation south of 15th Ave. SE, whichever is less. Alternately, buildings may be constructed to a 165 ft. height level, subject to express authorization in an approved master plan.

Existing building setbacks along the master plan boundaries, as defined by PMC 20.43.020-2, include 20-feet if abutting an R zone, and 10 feet for all other zones, provided that below-grade structures may project into a required yard if the entire yard area is landscaped. The approximately 34.86-acre MGSH campus currently contains 11 buildings, including two parking structures, connected by vehicular driveways and sidewalks, with a mix of surface and structured parking. Existing buildings range from approximately 15 feet to slightly less than 158 feet in height, with the majority of the buildings constructed since the 1990s (see **Figure 2-3**). The campus currently contains approximately 1.24 million gsf in building space, including Good Samaritan Hospital, Parking Garages P1 and P2, medical office building and parking garages, Good Samaritan Facilities building, and the existing Central Utility Plant for the hospital (see **Table 2-2**). Surface parking lots, paved sidewalks and walkways, and a few repurposed houses located on the eastern boundary comprise the remainder of the campus area.



Source: Perkins & Will, MGSH Master Plan, 2024.

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Figure 2-3

Existing Site Conditions

TABLE 2-2
EXISTING CAMPUS BUILDING CHARACTERISTICS

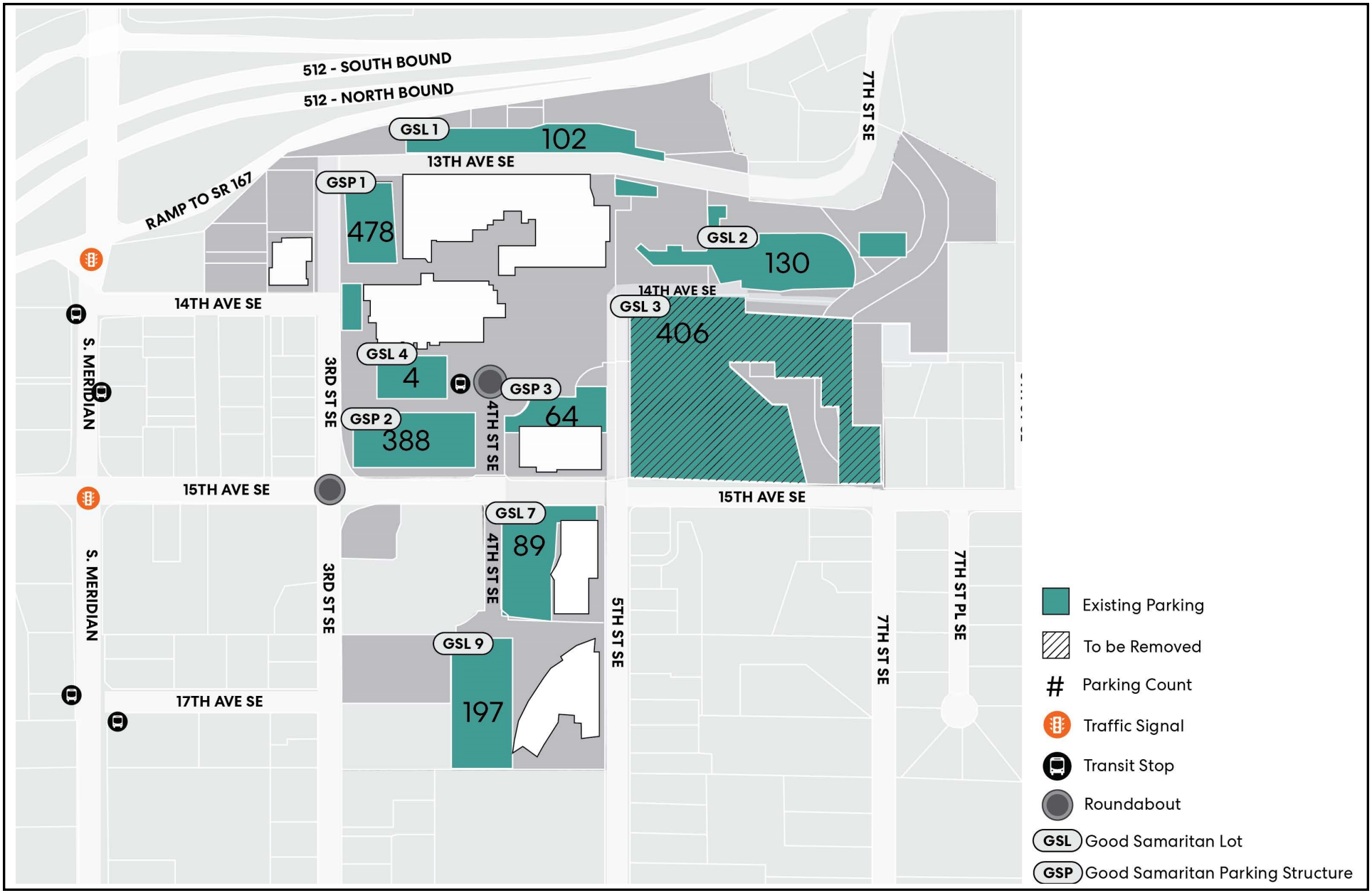
Building Identifier	Existing Building	Building Area (Gross Sq.Ft.)	Building Height (ft.)
A	Puyallup Valley Medical Clinic	22,482	38 ft.
B	Central Utility Plan	15,401	44 ft.
C	Cancer Center	35,537	32 ft.
D	Children's Therapy Unit	47,541	44 ft.
E	Pavilions • Pavilion - Meadow Addition • Pavilion – Forest • Pavilion - River	359,057	• 86 ft. • 76 ft. • 37 ft.
F	Dally Tower	375,800	157 ft.-6 in.
I	Medical Office Building	83,736	65 ft.
J	Facilities Building	12,471	24 ft.
K	622-623 14th (Marketing)	3,784	15 ft.
	TOTAL	**955,809**	
G	P2 Parking Garage (1990)	138,484	40 ft.
H	P1 Parking Garage (2010)	150,103	37 ft.
	TOTAL BUILDING SPACE	**1,244,396**	

Source: MGSH Master Plan, 2024.

Parking and Access

The MultiCare Good Samaritan campus currently contains a total of 2,412 parking spaces, with 1,858 parking stalls in the *Master Plan* focus area north of 15th Avenue SE. Most of the campus parking spaces are in eight surface lots and garages, with the remainder located near loading docks or hospital entrances (see **Figures 2-3** and **2-4**). Campus access is possible from multiple streets including 15th Avenue SE, 14th Avenue SE, 13th Avenue SE, 3rd Street SE, 4th Street SE, and 5th Street SE. The main hospital entrance is located at the rotunda off the intersection of 15th Avenue SE and 4th Street SE. Emergency department and ambulance entrance facilities are located off 3rd Street SE. Parking garage P1 is accessed via the emergency department access road off 3rd Street SE, and parking garage P2 is accessed via connections to 3rd Street SE and 13th Ave SE. The main hospital loading dock is located immediately west of the existing Dally Tower along 3rd Street SE. A secondary loading dock for kitchen facilities is located off 13th Ave SE.

MGSH's two free-standing outpatient facilities (Cancer Center and Children's Therapy Unit) are located adjacent to the hospital campus to the south (see **Figures 2-3** and **2-4**) and are outside the focus area for the *Master Plan Update*. The main entrance to these buildings is located off vacated 4th Street SE across from the driveway to the main hospital. These buildings have their own respective parking lots, sidewalks, and right-of-way connections to provide adequate pedestrian and vehicular access. The portion of the campus where these buildings sit is not proposed to be modified as part of the *Master Plan*.



Source: Perkins & Will, Nelson Nygaard, MGSH Master Plan, 2024.

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Figure 2-4

Existing Parking Inventory

Utilities

Existing utilities available to the MSGH campus are briefly described below (see **Figure 2-5**).

Domestic Water and Fire Protection

Water service to the MSGH campus is provided by City of Puyallup Water Division. All streets within and surrounding the MSGH campus have public water main infrastructure. There are 15 fire hydrants currently located in the campus vicinity.

Sanitary Sewer

Sanitary sewer service to the campus is provided by City of Puyallup Sewer and Stormwater Collections Division. Sanitary sewer mains (largely 8'' PVC pipe) are located in various streets surrounding the hospital campus. The northern buildings of the existing hospital drain to the sanitary sewer main in 13th Avenue SE, which routes toward Meridian Avenue. The Dally Tower and main hospital building drain toward 3rd Street SE, which drains and converges with 13th Avenue SE effluent waste at the intersection of 3rd Street SE and 13th Avenue SE. Sewer mains in 5th Street SE and 7th Street SE convey sewage waste from upstream residential users northward toward the City's sewage treatment plant.

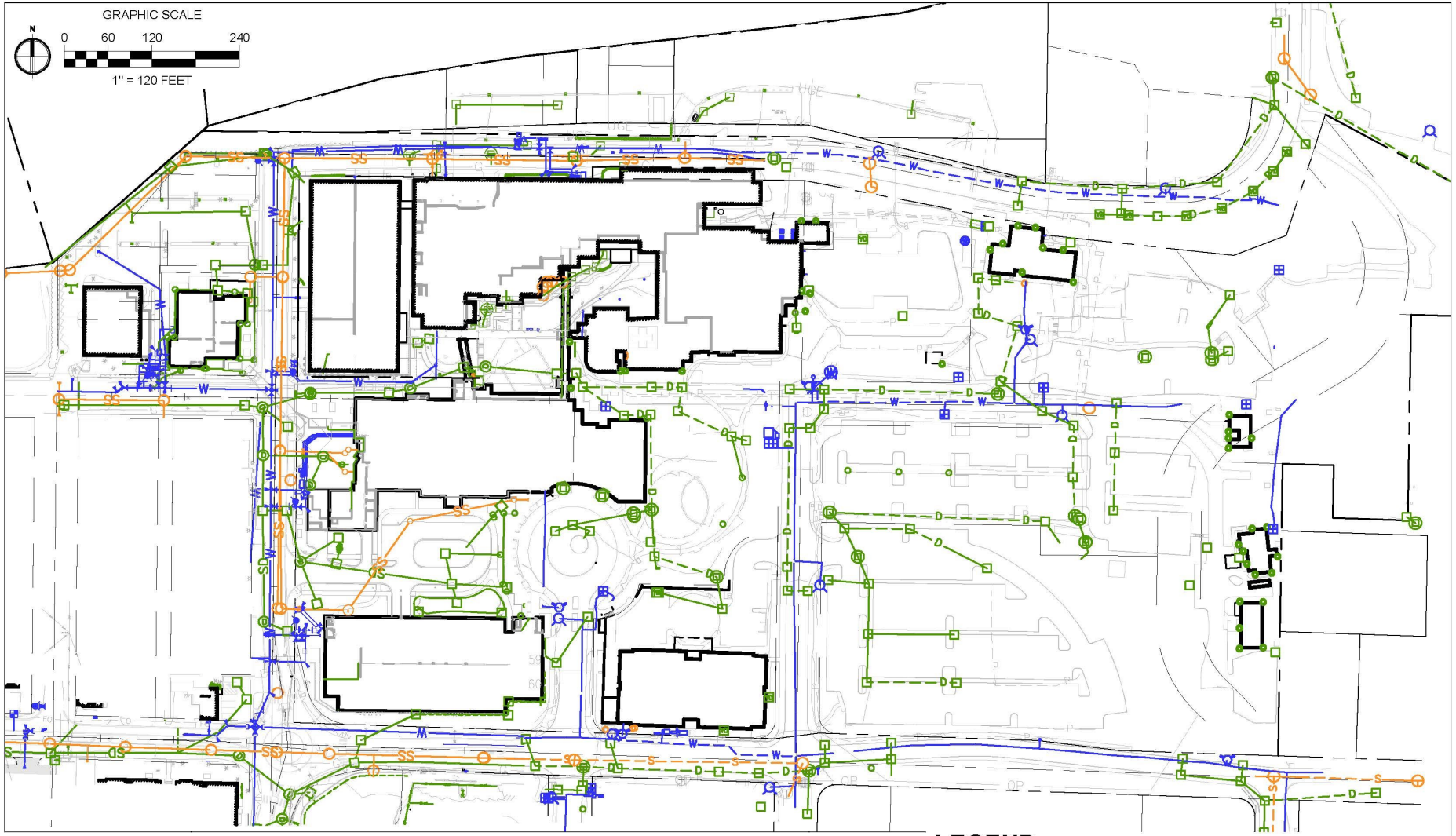
An approximately 1,400-foot section of sanitary sewer between South Meridian and 5th Street SW along 14th Avenue SW is undersized and does not currently have capacity for future development. This is planned to be upsized as part of the City's capital improvement projects in 2024.

Stormwater

Existing stormwater mains are located in streets adjacent to the MGSH campus, largely within 12" PVC pipe, or 42" reinforced concrete pipe. The campus currently drains into two separate drainage basins, with the portion of the campus north of 15th Avenue SE and west of 5th Street SE draining to the Clarks Creek Basin, and the remainder of the campus draining to the State Highway Basin.

Critical Areas

There are several critical areas mapped on the campus including wellhead protection areas, geologic hazard areas (volcanic and landslide hazard areas), and a previously contaminated but remediated site. The portion of the campus east of 5th Street SE is located within the 10-year, 5-year and 1-year wellhead protection areas for the City of Puyallup Well #13, and a portion of the western half of the campus is located within the 10-year wellhead protection area for the City of Puyallup Well #27. The northern edge of the hospital campus lies within a mapped 500-1,000-Year lahar boundary, which indicates the possible extent of pyroclastic flow resulting from the volcanic eruption of Mount Rainier (note: USGS staff indicate that current modeling places the Mt. Rainier lahar boundary at lower elevations, and the City has accepted USGS mapping as most accurate). High and moderate landslide risks are associated with portions of the campus that have steep slopes. Lastly, the previously contaminated site on the campus was associated with underground fuel oil tanks at several former single-family residences on the Dally Tower site. The source of the contamination was removed, and the site has a listed status of "No Further Action" as of 2012; this indicates there are no remaining contamination concerns. See **Chapter 3.1**, **Earth**, and **Chapter 3.2, Plants and Animals**, for additional details on and illustrations of critical areas.



Source: Perkins & Will, AHBL, MGSH Master Plan, 2024.

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Figure 2-5

Existing Utilities Map

Landscaping and Vegetation

Five primary categories of landscaping and vegetation are present on the campus including trees/lawn, trees/shrub, shrubs, tree canopy, and lawn, as described below.

- **Trees/Lawn***:* These areas are located in vehicular entry drives, parking lots and perimeter areas and comprise 15-20% of the planted areas. The trees in the vehicular entry drives are primarily deciduous, with many maple varieties, and some conifers, including Western red cedar. The lawn is irrigated. The parking lots and perimeter areas are a mix of deciduous and coniferous trees with lawn that does not appear to be irrigated.

- **Trees/Shrubs***:* These areas are located throughout the campus in the interior pedestrian areas, parking lots and along some drive lanes along the perimeter of the campus and in the south drive lanes. This type of landscaping makes up approximately 30-35% of the planted areas. The trees are a mix of primarily deciduous ornamental species, including a variety of maples. The shrubs consisted of several species, including rock rose, roses, Epimedium, heavenly bamboo, viburnum and others.

- **Shrubs***:* These areas are primarily located under building eaves or against buildings without sufficient space for trees, in the entry drop-off circle and along some parking areas. This planting type consists of approximately 5-10% of the planting areas. Species are the same as those found in the trees/shrub areas (see above).

- **Tree Canopy***:* There are unimproved areas along the perimeter of the campus that consist of a variety of deciduous trees and some conifers. The area to the north of the campus is primarily big leaf maple with approximately 5% significant trees. This area consists of approximately 20-25% of the planting areas.

- **Lawn: Some areas of the campus consist primarily of lawn and most of those areas** do not appear to be irrigated, with the exception of the area near the circular patio and associated paths. Lawn areas make up approximately 15-20% of the planting areas.

See **Figure 2-6** for a map of existing vegetation and landscaping areas on the MSGH campus.

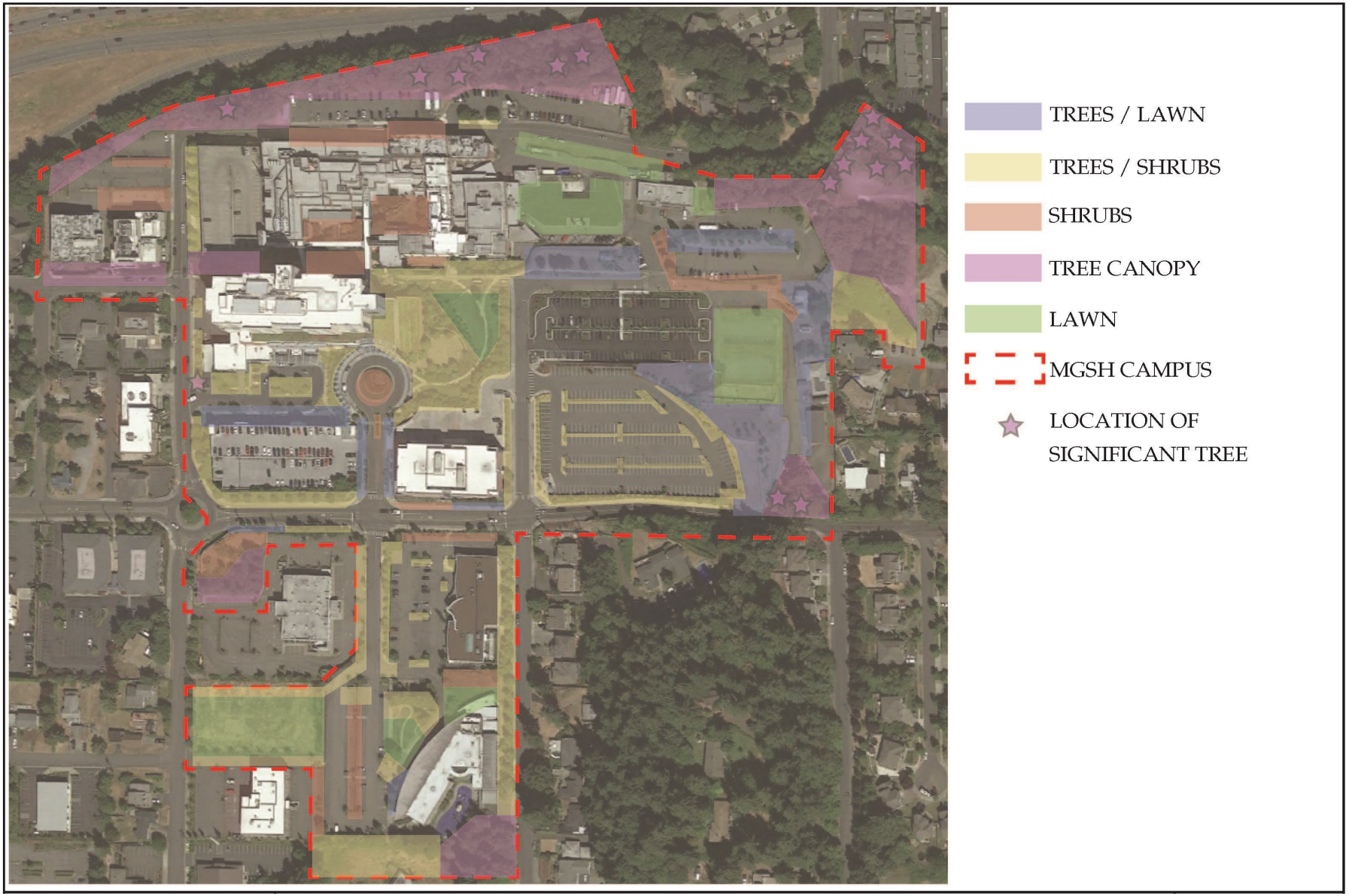
Summary

Table 2-3 summarizes existing characteristics of the MGSH campus, including building space, hospital beds, impervious (buildings, paved drives and sidewalks, etc.) and pervious (landscaping and natural area) area, campus population, and parking.

TABLE 2-3
EXISTING MGSH CAMPUS CHARACTERISTICS

Element	Amount
Campus Acreage	34.86 acres
Building Space	1,244,396 sq. ft.
Inpatient Hospital Beds	375 beds
Impervious Area	22.1 acres (63%)
Pervious Area	12.8 acres (37%)
Campus Staff Population (c. 2024)	approximately 2,351 FTEs
Parking	2,412 spaces

Source: MGSH Master Plan, 2024.



Source: Perkins & Will, AHBL, MGSH Master Plan, 2024.

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Figure 2-6

Existing Landscaping Map

Surrounding Area

The area surrounding the MGSH campus contains a mix of land uses. The Western Washington Fairgrounds lie to the northwest, across Highway 512. Multiple medical office buildings are present on the blocks immediately surrounding the campus; these are largely occupied by physicians affiliated with MGSH. The adjacent blocks to the south and southwest contain single-family residences and non-affiliated businesses. Nearby residences are also interspersed with privately-owned medical office buildings. Multi-family development lies to the northeast along 7th Street SE (see **Figure 2-2**).

2.4 Master Plan Planning Process

Recent studies for this region have identified a need for an additional 250 beds by 2036. Because approximately two-thirds of the building capacity established under the MGSH 2007 Master Plan has been utilized to this point (approximately 345,000 sq. ft. remains out of a maximum new sq. ft. allowed of 913,000 sq. ft. under the 2007 Master Plan), and because the 2007 Master Plan has expired, MGSH is proposing an updated *Master Plan* to guide future development on the campus to help address these health care needs of the region.

The proposed *Master Plan Update* represents an update to the 2007 Master Plan prepared by MGSH in compliance with Chapter 20.88 of the City of Puyallup Zoning Code. The 2007 Master Plan was adopted by City Council on June 18, 2007 (Ord. 2882).

MGSH began the process of updating the 2007 Master Plan in November 2022; the City, acting as Lead Agency, issued a Determination of Significance (DS) and Request For Comments on Scope of an Environmental Impact Statement (EIS) for the Good Samaritan Hospital Campus Master Plan on November 18, 2022. In January 2023, MGSH submitted their proposed *Master Plan.*

2.5 Environmental Review and Purpose

Consistent with the provisions of the State Environmental Policy Act (SEPA) (RCW 43.21C and WAC 197-11-050), the City of Puyallup is serving as the lead agency under SEPA (WAC 478-324-010 through -230).

As the SEPA lead agency, the City of Puyallup is responsible for ensuring SEPA compliance. The City determined that the proposed MGSH *Master Plan* could result in significant environmental impacts and that an EIS should be prepared. The City initiated the environmental review process by gathering public and agency input regarding specific topics and issues that should be analyzed as part of this EIS.

On November 18, 2022, the City of Puyallup issued a Determination of Significance and initiated the scoping process for this EIS. From November 18 through December 19, 2022, the City conducted the scoping comment period during which the public, agencies and tribes were encouraged to provide input regarding the scope of the EIS. During the scoping period, four (4) comment letters and emails were received.

Based in part on the input received during the scoping period, the scope of the EIS was defined by the City of Puyallup. The following environmental elements were identified for analysis in the EIS:

- *Earth*
- *Air Quality/GHG Emissions*
- *Plants & Animals*
- *Noise*
- *Land Use Patterns/Plans & Policies*
- *Aesthetics – Height/Bulk/Scale*
- *Aesthetics – Viewshed Analysis*
- *Transportation*
- *Public Services*
- *Utilities*

This EIS is intended to address the probable significant adverse impacts that could occur as a result of approval of the proposed *Master Plan*. A range of alternatives are analyzed in this EIS (see **Section 2.8** later in this chapter) that are intended, in part, to: 1) encompass a range of focuses for campus development that can reasonably accommodate the projected building space needs; and, 2) meet the identified *Master Plan* goals and objectives.

The approval of the proposed *Master Plan* is classified under SEPA as a project-specific EIS. This DEIS has been prepared for the proposed *Master Plan* based on information and analysis that has been prepared specifically for this document. It is assumed that the DEIS, together with the subsequent FEIS, will constitute complete SEPA documentation for the projects identified in the Master Plan and that no further SEPA review will be required. However, if substantial changes occur to the projects proposed in the Master Plan following issuance of the FEIS (e.g., beyond the envelope of potential development studied in the EIS) or new environmental information is identified, the City may determine that subsequent environmental analysis is necessary to address the project changes and/or the new environmental information.

2.6 Master Plan Goals (Objectives)

The proposed MGSH *Master Plan* provides a long-term phased development plan that is intended to achieve the following development goals:

- **Patient Care Tower.** Construct a new Patient Care Tower on a timeline that is consistent with an associated Certificate of Need issued by the Washington Department of Health, with site construction estimated to begin in 2025 and licensing and opening of the new facility in 2026. The Tower would accommodate 200 net new licensed inpatient beds and 30 replacement observation (non-licensed) beds on campus. The observation beds currently exist on the campus, but would be consolidated in the Patient Care Tower. Spaces within the hospital vacated by the consolidation of observation beds would be used to facilitate patient discharge. The Patient Care Tower must include sufficient space for diagnostic and treatment, ancillary, support, utility, public and administrative activities appropriate to inpatient bed growth of this magnitude.

- **Clinical Space.** Construct sufficient outpatient clinical space through the development of one or more medical office buildings to support new patient and clinical service demand generated by hospital and regional growth.

- **Parking.** Provide for adequate vehicular parking for employees, patients, and visitors through a combination of structured and surface parking facilities to support the new campus facilities.

- **Invest in Current Facilities.** Strategically renew, expand, and modernize existing facilities on the MGSH campus, to support both clinical and nonclinical functions.

- **Futureproof.** Thoughtfully locate facility and infrastructure development on the MGSH campus in such a way that it maximizes future site flexibility and efficiency to respond to evolving campus and healthcare needs and priorities. This pertains to construction of buildings, roads and driveways, utilities, landscaping, public amenities, etc.

2.7 Proposed Action – Proposed Master Plan

The *Proposed Master Plan* is being formulated to achieve the Objectives listed in **Section 2.6** above. The development contemplated under the *Proposed Master Plan* includes both the expansion of existing facilities and new buildings to respond to immediate and projected needs. The *Proposed Action* involves adoption and implementation of the *Proposed Master Plan*.

Proposed Master Plan Features

Campus Boundary

The current campus boundary and size (approximately 34.86 acres) would not change under the *Proposed Master Plan*. The campus boundary under the *Proposed Master Plan* would remain as illustrated in **Figure 2-3**.

Proposed Building Space

To help meet the health care needs of the region, the *Proposed Master Plan* includes growth in overall building space from the existing approximately 1.24 million sq. ft. of building space to up to 2.25 million sq. ft. of building space (reflecting a net increase of approximately 1,012,000 sq. ft.[2]) over approximately 20 years. See **Figure 2-7** for details on proposed and retained buildings.

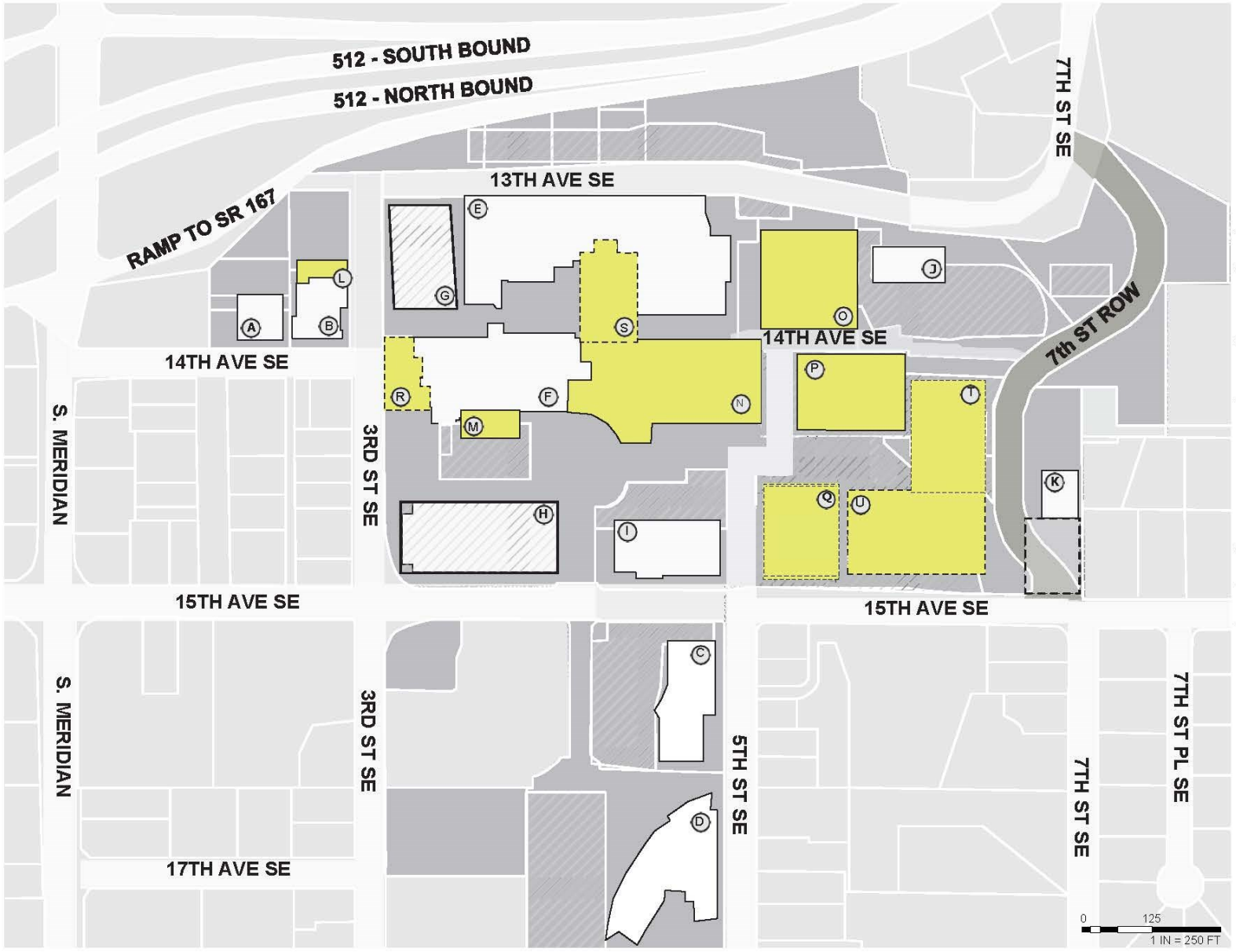
Proposed Building Uses

The mix of uses proposed for the MGSH campus are consistent with the current campus and the City of Puyallup's definition of a medical facility, as they will relate to and support inpatient bed demand, emergency department needs, and ancillary growth resulting from the hospital capacity expansion.

The new campus development would largely be located in the east campus sector, in an area that is currently in green field and surface parking. Most of the new development would occur on the surface parking lot that is bound by 5th Street SE, 15th Avenue SE, and 14th Avenue SE. No development is anticipated in the portions of the campus south of 15th Avenue SE.

Full build out of the *Proposed Master Plan* would occur over four major phases; Phase One would entail five projects including a new parking garage supporting new patient beds and staff, a small expansion to the existing emergency department, and an expansion to the existing CUP, and

[2] Approximately 7,000 sq. ft. of the current Dally Tower is anticipated to be demolished as part of the new patient tower construction.



Source: Perkins & Will, MGSH Master Plan, 2024

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Figure 2-7

Proposed Action—MSGH Campus at Full Buildout

the Patient Care Tower Shell Buildout[3] (see **Figure 2-8**). Remaining phases could include two medical office buildings, a second new parking garage, and an eventual central tower expansion connected to the north of Dally Tower and the new Patient Care Tower (see **Figure 2-9**). The proposed location for the two medical office buildings and parking structure is north of 15th Street. All future phases of development beyond the initial Patient Care Tower are speculative and would be developed on an as-needed basis as determined by MGSH.

Projects proposed under full build-out of the Master Plan are detailed by phase in **Table 2-4**.

TABLE 2-4
PROPOSED CAMPUS BUILD-OUT: 2023-2043

Facility	Phase	Proposed GSF	Proposed Building Height
Patient Care Tower	**1A**	230,000 gsf	157'-6"
Parking Structure (PS) 1	**1A**	190,000 gsf	50'
Central Utility Plant Expansion	**1A**	10,000 gsf	44'
Patient Care Tower Shell Buildout	**1B**	Shell Buildout	157'-6"
Dally Tower Emergency Department Project	**1C**	2,000 gsf	15'
Medical Office Building (MOB) A	**2**	100,000 gsf	85'
Parking Structure (PS) 2	**2**	260,000 gsf	68'
Medical Office Building (MOB) B	**3**	100,000 gsf	85'
Central Supply Tower	**4**	90,000 gsf	90'
Dally Tower Expansion towards 3rd Street	**4**	30,000 gsf	50'
Subtotal		**1,012,000 gsf**	

Source: MGSH Master Plan, 2024.

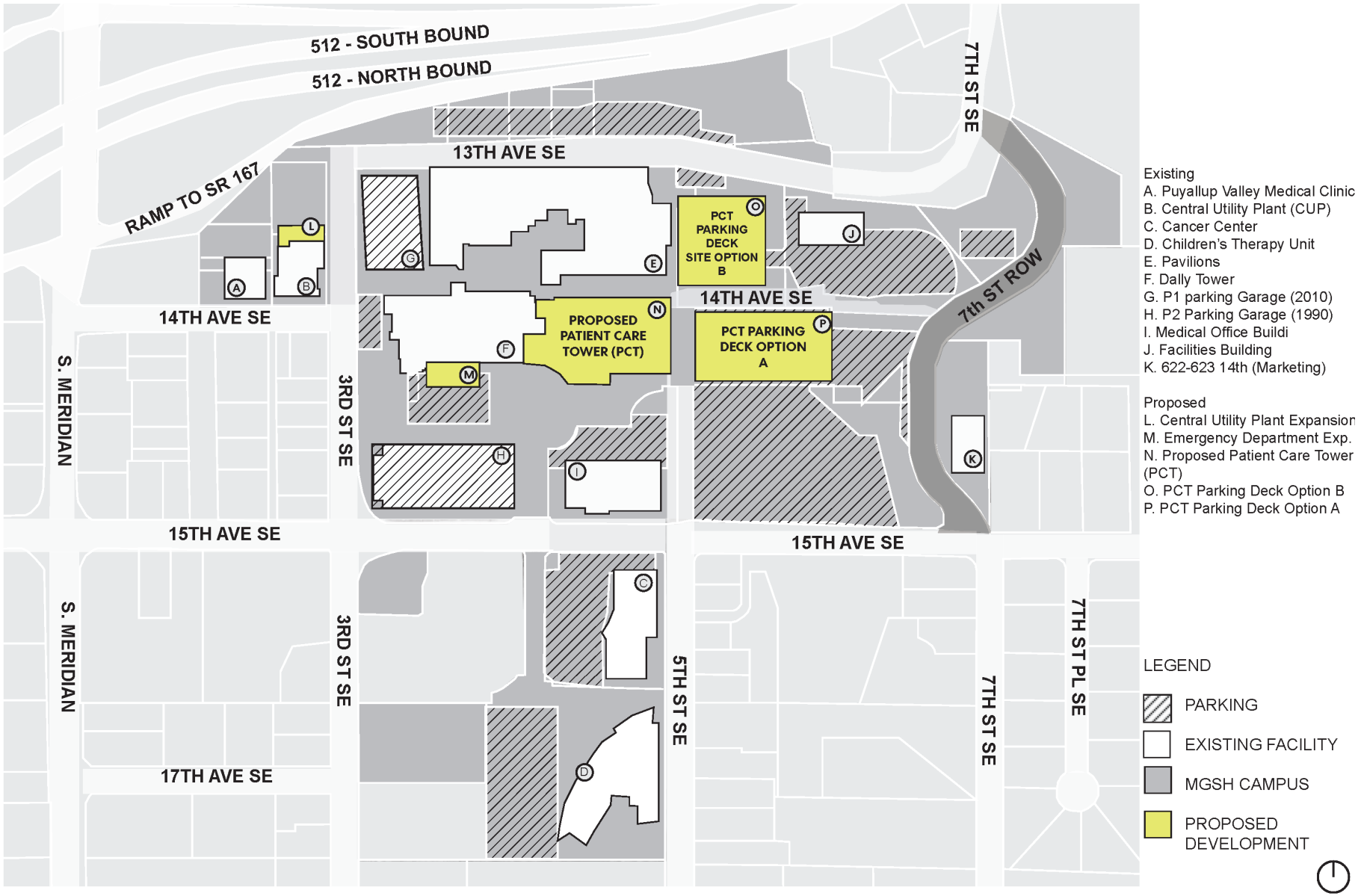
Phase I

The five projects developed in Phase I (estimated to occur between 2025 to 2028) would add 432,000 gsf to the MGSH campus, bringing total campus development to approximately 1,676,396 gsf. Primary components of Phase I of the *Master Plan* are as follows (see **Figure 2-8**):

1. **Dally Tower Emergency Department Project.** Project will provide increased functionality for the Emergency Department, operating rooms (ORs), diagnostic and treatment areas, and modern, single occupancy patient rooms in an academic medical care setting. Project will provide additional support spaces to enhance emergency care, organization, and efficiency. The purpose of the Project is to increase the level of patient care, but the Project is not expected to increase patient capacity. The Project allows for removal of the adjacent outside tent structure currently being used as part of the ER.

   Location: Dally Tower level 1 emergency department at 401 15th Ave SE
   Size: 2,000 gsf
   Height: Existing Dally Tower level 1 to level 2

[3] The Master Plan proposes to include a shell floor in the Patient Care Tower, which would allow the future build out of 40 additional licensed beds, bringing the new building's total bed count to 200 inpatient beds plus the consolidation of 30 existing observation beds.



Source: Perkins & Will, MGSH Master Plan, 2024.

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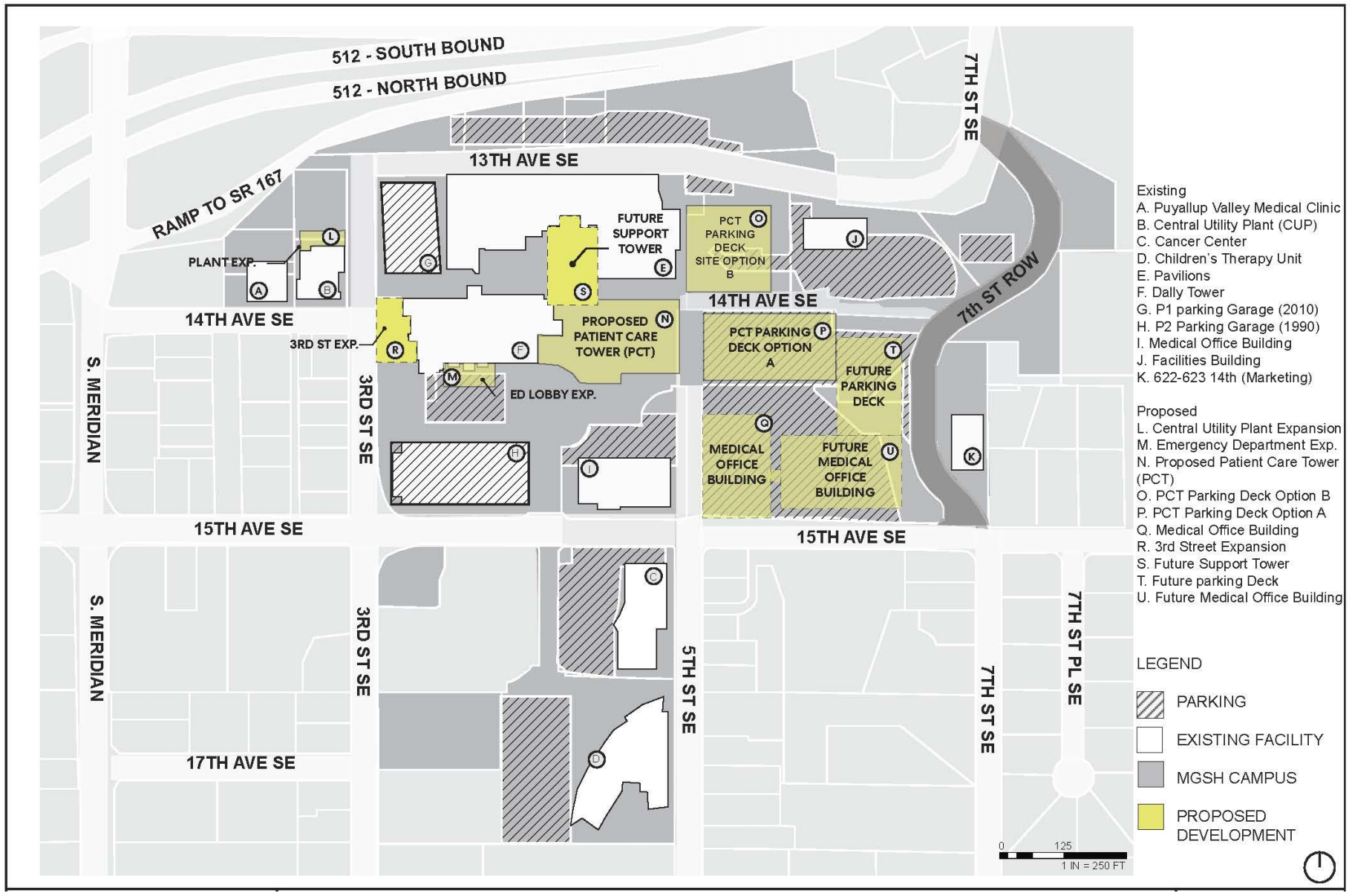
Figure 2-8

Proposed Action—Phase I



Source: Perkins & Will, MGSH Master Plan, 2024.

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Figure 2-9

Proposed Action—Potential Phases II through IV

Program: Expansion of Emergency Department patient waiting, prescreening, triaging, and intake services.
Displaced Facilities: Necessary modifications will be addressed.

2. **Patient Care Tower (PCT).** This project would increase the licensed inpatient capacity on campus in accordance with need projections on file with the State of Washington Department of Health and Certificate of Need issued to MGSH. The PCT would be located directly to the east of the current Dally Tower, would have direct physical connection to the current hospital, and is proposed to utilize the existing main entrance and drop off zone.

   Location: Directly east of Dally Tower with internal connections on all levels.
   Size: up to 230,000 gsf over 9 levels (based on topography, floors below level 3 are expected to be below grade)
   Footprint: 40,000 gsf.
   Height: Expected height will match that of Dally Tower parapets with additional typical mechanical equipment and elevator overruns.
   Program: Inpatient nursing units, Observation unit, Surgical pre-admit testing unit, patient registration, retail, and shelled space.
   Displaced Facilities: Site landscape and a paved area with tables and chairs. A portion of the Dally Tower would be demolished including patient registration and retail space. These programs would be relocated in the new Patient Care Tower.

3. **Parking Structure (PS) 1.** Concurrent to the construction of the new PCT, a new parking structure would be built to support the new parking demand driven by the new building. Currently there are two proposed locations: Option A, to the south of 14th Ave SE and Option B, to the north of 14th Ave SE.

   Location: Both options would be located east of the proposed new Patient Care Tower with Option A located at the southeast corner of 5th St SE and 14th Ave SE and Option B located at the northeast corner of 5th St SE and 14th Ave SE.
   Size: Option A could be sized at 190,000 gsf over seven levels with the top being exposed roof parking. The first two parking garage levels would be below grade. Option B could be sized at 160,000 gsf over 6 levels with the top being exposed roof parking.
   Footprint: Approximately 28,000 gsf for both Options A and B.
   Height: Targeting 50’ for both Options A and B.
   Program: Option A would provide 600 parking spaces for new Patient Care Tower and Main Hospital Complex. Option B would provide 540 parking spaces since the location would not remove existing surface parking stalls.
   Displaced Facilities: +/-60 surface parking stalls for Option A and zero for Option B.

4. **Central Utility Plant (CUP).** The new Patient Care Tower will require the CUP to be expanded.

   Location: Directly off current central utility plant located at the northwest corner of 14th Avenue SE and 3rd St SE.
   Size: 10,000 gsf
   Footprint: 10,000 gsf
   Height: Targeting 25'

Program: Provide expansion to existing centralized chilled water and emergency generator systems to support the new Patient Care Tower and the 3rd Street tower expansion.
Displaced Facilities: Displaces around 50 parking spaces, of which are targeted to be replaced by new stalls in the new parking garage.

Phases 2-4

Phases 2-4 would include five additional projects representing an additional 580,000 net gsf, bringing total campus development to 2,258,396 gsf, up from 1,678,396 gsf at the end of Phase 1 (see **Figure 2-9**). Primary components of Phases 2-4 of the *Master Plan* are described below.

5. **Medical Office Building (MOB) A**
   Location: Northeast comer of 15th Avenue SE and 5th Street SE
   Size: up to 100,000 gsf
   Footprint: 20,000 gsf
   Height: Average: 74'; Maximum: 85'
   Program: Private physician offices and related outpatient facilities.
   Displaced Facilities: Approximately 80 surface parking stalls that would be relocated to a future phase parking expansion.
   Occupancy: 2034

6. **Central Support Tower**
   Location: North of proposed new Patient Care Tower
   Size: 90,000 gsf
   Footprint: 15,000 gsf
   Height: Around 90’
   Program: Hospital support and ancillary services to be determined.
   Displaced Facilities: Partial demolition of River Pavilion.
   Occupancy: 2043

7. **Medical Office Building (MOB) B**
   Location: Just east of MOB A at Northeast comer of 15th Avenue SE and 5th Street SE
   Size: 100,000 gsf
   Footprint: 20,000 gsf
   Height: Average: 74’; Maximum: 85'
   Program: Private physician offices and related outpatient facilities.
   Displaced Facilities: Around 80 surface parking stalls that plan to be relocated to future phase parking expansion.
   Occupancy: 2043

8. **Parking Structure (PS) 2**
   Location: Adjacent to new MOB
   Size: up to 260,000 gsf
   Footprint: 35,000 gsf
   Height: Average: 59'; Maximum: 68'
   Program: Provide parking for MOB
   Displaced Facilities: Around 20 surface parking stalls to be relocated in parking garage.
   Occupancy: 2034

9. **Dally Tower Expansion to 3rd Street**
   Location: Expansion of 2-3 levels from the lower portion of the existing Dally Tower. The expansion would extend west towards 3rd Street and may extend above the current loading area.
   Size: 30,000 gsf
   Footprint: 15,000 gsf
   Height: Around 50'
   Program: Patient care programs may include diagnostic imaging, surgery, procedures, and hospital support programs. Project is not anticipated to increase ED or licensed bed patient capacity, and is intended to provide additional ED support programs only.
   Displaced Facilities: None
   Occupancy: 2043

Proposed Building Demolition

1. **Patient Care Tower (PCT).** - Approximately 7,000 sq. ft. of the current Dally Tower is anticipated to be demolished as part of the new patient tower construction.

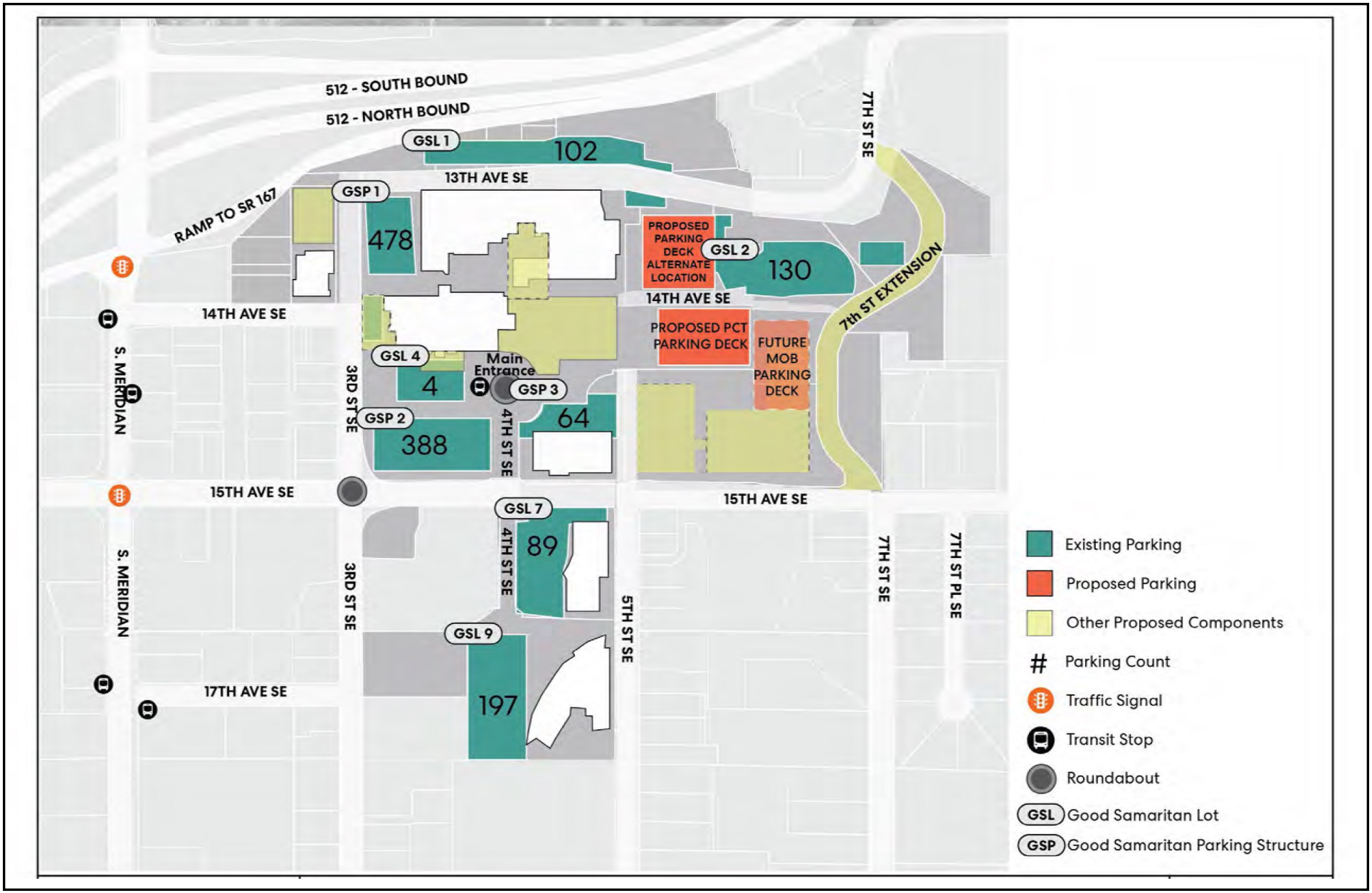
Parking and Access

Currently, there are approximately 1,858 parking spaces available on the *Proposed Master Plan* focus area north of 15th Avenue SE on the MGSH campus. Based on existing utilization patterns, approximately 200 of these existing spaces are available at peak times and could support future hospital expansion under the *Proposed Master Plan*. Up to 1,046 net new parking spaces are estimated to be needed for all future master plan phases, resulting in a total parking buildout (net new spaces + replacement of spaces lost due to new development) of up to 1,494 parking spaces for all future master plan phases (see **Figure 2-10**). Future parking demand and supply estimates are summarized in **Table 2-5**, below.

TABLE 2-5
ESTIMATED FUTURE PARKING DEMAND AND SUPPLY NEEDED

Phase	New Parking Demand (Cumulative)	Existing Spaces Available	Net New Spaces Needed (Cumulative)	Impacts to Existing Parking	New + Replacement Spaces Needed (Cumulative.
Phase 1A	480 spaces	200 spaces	280 spaces	Max 210 spaces removed	490 spaces
Phase 1B	600 spaces	200 spaces	400 spaces	Max 210 spaces removed	610 spaces
Phase 2	Up to 923 spaces	200 spaces	723 spaces	Max 448 spaces removed	Max 1,171 spaces
Phase 3	Up to 1,246 spaces	200 spaces	Up to 1,046	Max 448 spaces removed	Max 1,494 spaces
Phase 4	Up to 1,246 spaces	200 spaces	Up to 1,046	Max 448 spaces removed	Max 1,494 spaces

Source: MGSH Master Plan, 2024.



Source: Perkins & Will, Nelson Nygaard, MGSH Master Plan, 2024.

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Figure 2-10

Proposed Action—Proposed Future Parking Facilities

Circulation patterns in and around the campus would remain largely unchanged under the *Proposed Master Plan*, with the main hospital entrance remaining at the same location, and outpatient buildings and parking remaining in the same quadrant of campus. Patients and visitors accessing the new Patient Care Tower would continue to use the primary hospital drop-off at the Dally Tower off 15th Avenue SE. Access to the Phase I parking garage located to the east of the new Patient Care Tower could occur off 5th Street SE and/or 14th Avenue SE.

Utilities

Modifications and connections to existing public utilities would be required to accomplish projects in all phases including to water mains, sanitary sewer mains, and stormwater collection, detention and treatment facilities (see **Figure 2-11**). Further descriptions of utility service are provided below (see **Section 3.10, Utilities**, for further information).

Domestic Water and Fire Service

The City of Puyallup would continue to provide water service to the campus for development under the *Proposed Master Plan*. New water main connections would be installed for each new building. Connections would be sized depending on respective domestic and fire service demand, as well as available pressure and flow from the City's water distribution system. New fire hydrants and sprinklers would be installed to ensure adequate fire protection coverage for all proposed new buildings.

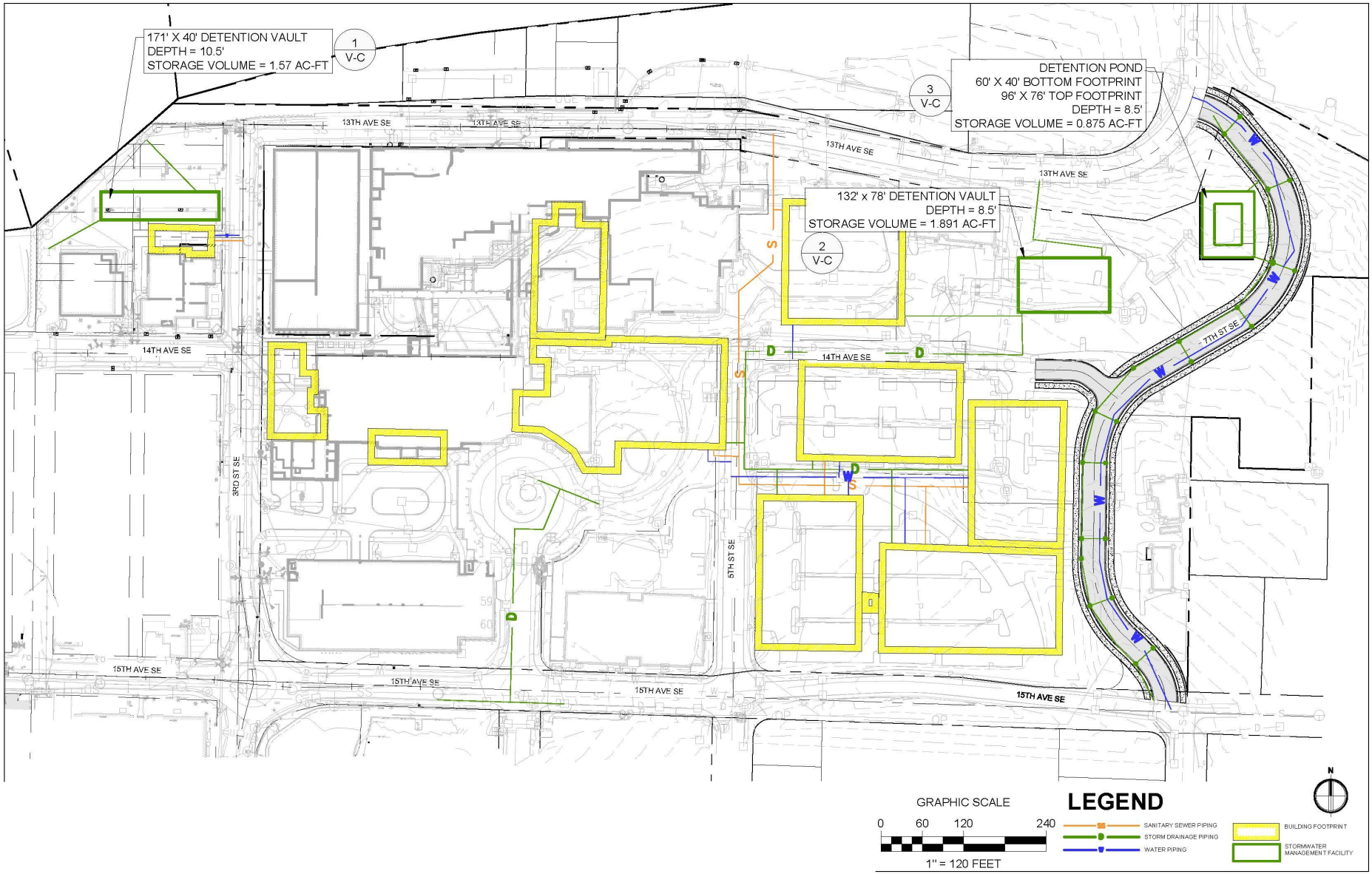
Sanitary Sewer

New sanitary sewer service connections would be required for proposed future improvements. The sanitary sewer main would be extended privately into the campus in alignment with 5th Street SE to facilitate the Patient Care Tower and allow for connections from future work in Phase 2. A new side sewer connection would connect from the Patient Care Tower to the sewer main extension. Parking Structure 1 would also connect to the sewer main extension. An oil-water separator would be installed on new parking garage sewer connections to treat effluent water prior to discharge. A new sewer connection and oil water separator would be installed at the Central Utility Plant expansion and connect to existing sanitary sewer main in 3rd Street SE.

Future phases of development (medical office buildings and parking garage improvements) would connect to the extended sewer main in 5th Street SE, which would be installed during Phase 1. Side sewer connections would make these connections to the main.

Stormwater

Stormwater would be collected from new impervious surfaces (building, roof areas, hardscape areas, parking lots and garages) and pervious surfaces. Conveyance would be made with solid catch basins, areas drains and manholes and piped to respective detention systems. Stormwater facilities sizing would be determined as required by the currently adopted edition of the Ecology Stormwater Management Manual for Western Washington (SWMMWW) at time of individual project development. Stormwater will be managed, detained, and treated in compliance with the SWMMWW. Campus stormwater would be divided across the two drainage basins serving the campus under existing conditions (Clarks Creek and State Highway). As required by regulations, existing basin boundaries will be retained, and stormwater facilities will be prescribed by basin rather than by phase of project.



Source: Perkins & Will, AHBL, MGSH Master Plan, 2024.

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Figure 2-11

Proposed Action—Proposed Utilities

Stormwater generated from the MGSH campus improvements for all phases of work is conservatively proposed to be managed by three separate detention facilities for preliminary sizing purposes, including two MGSH-owned detention vaults and one publicly owned detention pond. Prior to actual site development, projects will be evaluated to incorporate LID practices and the potential for infiltration in accordance with current City and State stormwater regulations, which could impact sizing and need for detention facilities. See **Chapter 3.10**, **Utilities**, and **Appendix F,** for additional information and details.

Landscaping

Existing landscape, open space, and public seating amenities would be maintained to the extent possible under the *Proposed Master Plan* (see **Figure 2-12**). Detailed landscaping plans would be developed in conjunction with future project designs and would be submitted to the City for appropriate permitting and approvals to ensure compliance with the City's landscaping requirements. The campus landscaping plan under the *Proposed Master Plan* would consist of the following key elements:

- **Natural Open Spaces**. Existing groves of trees on the margins of the campus would be retained during the development of the *Proposed Master Plan* as these provide natural buffers from Highway 512 and residences to the north and east and contribute to air quality and natural stormwater management. Future development is not currently proposed in areas of heavy vegetation[4].

- **Residential Buffers**. Vegetated buffers would be planted along edges of campus to help define the campus "edge" and provide visual screening for adjacent residential properties.

- **Campus Open Space**. Planned open space, containing a wide range of landscaping elements, employing both passive and active outdoor areas, would be utilized to establish sense of place, facilitate wayfinding, buffer the impact of buildings, provide for outdoor uses, improve air quality and aid with stormwater management.

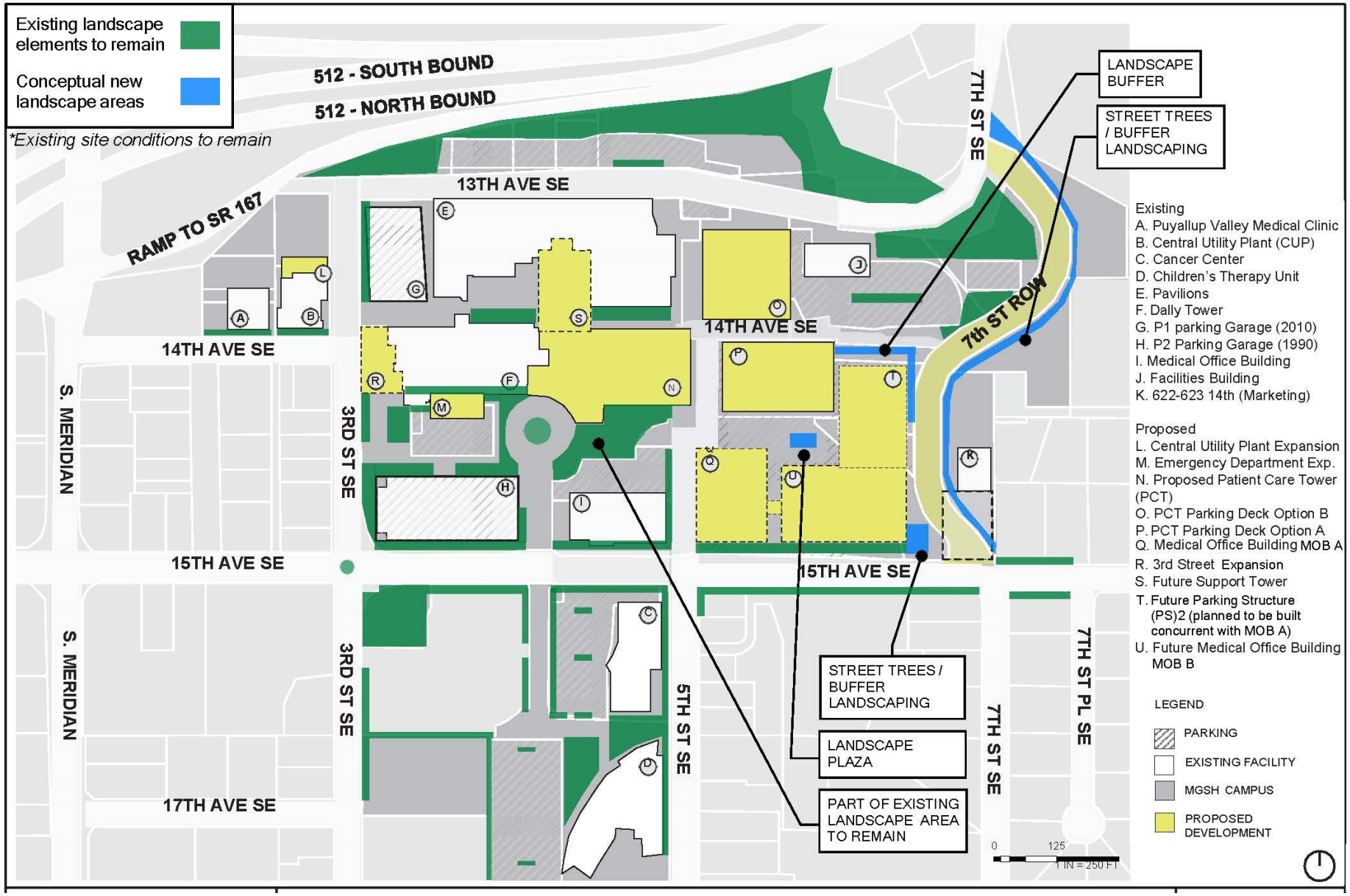
- **Street Landscaping**. Consistent with the existing campus landscaping design, street plantings would be included at appropriate locations to provide visual appeal, buffer adjacent uses, and define the edge of campus.

2.8 EIS Alternatives

Alternative 1 – Reduced Medical Office Building Size

Alternative 1 would be similar to the *Proposed Master Plan*, except that the second, 100,000 gsf Medical Office Building (MOB B) proposed under Phases 2-4 would not be developed. All other development proposed as part of the *Proposed Master Plan* would be built as described for the *Proposed Master Plan*.

[4] If construction of the 7th Street Extension is required as mitigation for potential transportation-related impacts associated with development under the proposed Master Plan, this roadway would be located within an area that is currently heavily vegetated.



Source: Perkins & Will, MGSH Master Plan, 2024.

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Figure 2-12

Proposed Action—Proposed Landscaping

Campus Boundary

The current campus boundary and size (approximately 34.86 acres) would not change under *Alternative 1*. The campus boundary remains as illustrated in **Figure 2-3**.

Proposed Building Space

Alternative 1 includes growth in overall building space from the existing approximately 1.25 million sq. ft. of building space to up to 2,156,396 sq. ft. of building space (reflecting a net increase of approximately 912,000 gsf) over approximately 20 years compared to approximately 2,256,396 under the *Proposed Master Plan*. See **Figure 2-13** for details on proposed and retained buildings.

Proposed Building Uses

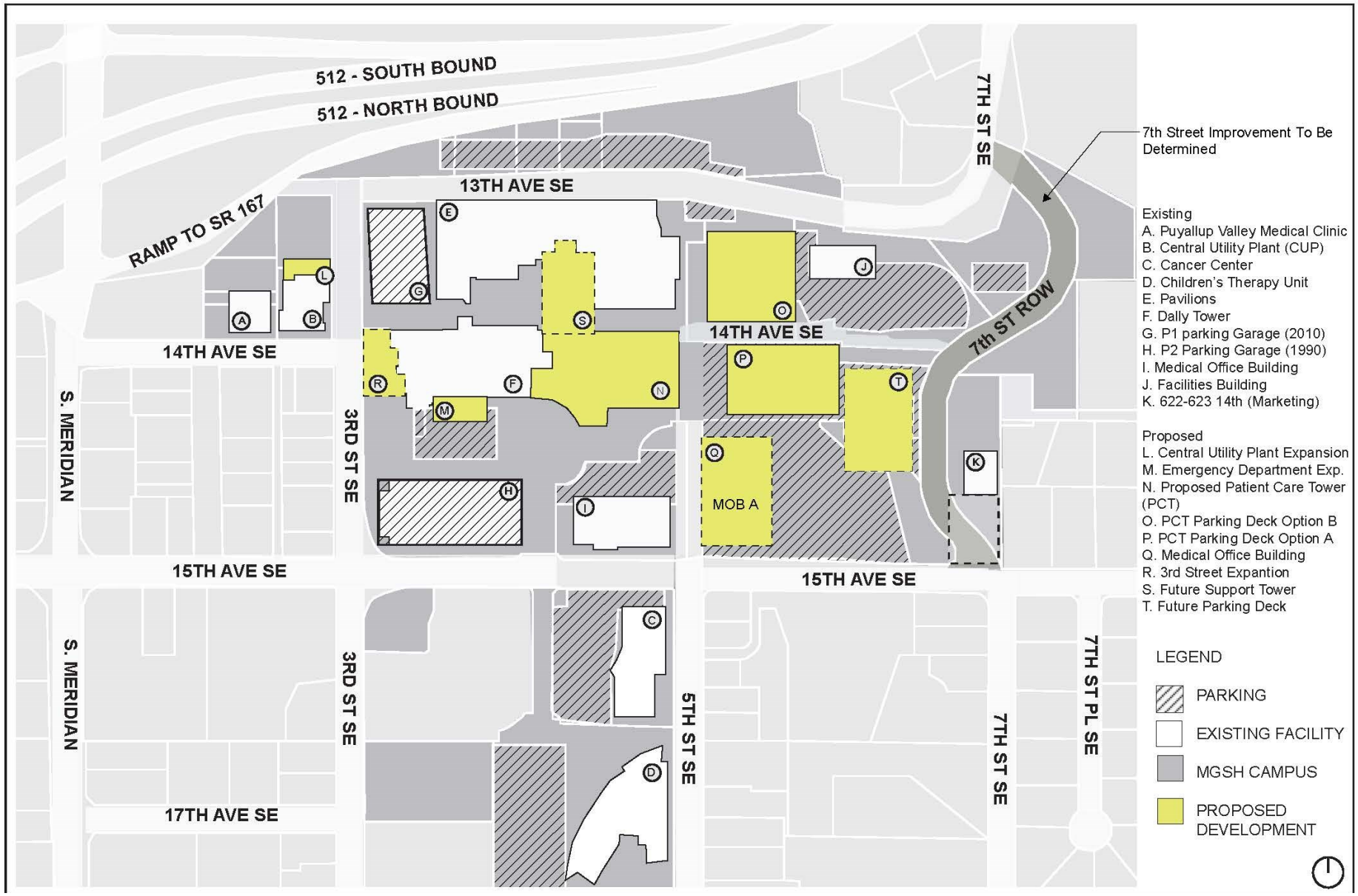
The mix of uses and building locations assumed under *Alternative 1* would be similar to those described for the *Proposed Master Plan*, except that MOB B, proposed in Phase 3 under the Master Plan, would not be developed. See **Table 2-6**, below, for details on buildout of the campus under *Alternative 1*.

TABLE 2-6
ALTERNATIVE 1 CAMPUS BUILD-OUT: 2023-2043

Facility	Phase	Proposed GSF	Proposed Building Height
Patient Care Tower	**1A**	230,000 gsf	157'-6"
Parking Structure (PS) 1	**1A**	190,000 gsf	50'
Central Utility Plant Expansion	**1A**	10,000 gsf	44'
Patient Care Tower Shell Buildout	**1B**	Shell Buildout	157'-6"
Dally Tower Emergency Department Project	**1C**	2,000 gsf	15'
Medical Office Building (MOB) A	**2**	100,000 gsf	85'
Parking Structure (PS) 2	**2**	260,000 gsf	68'
Central Supply Tower	**3**	90,000 gsf	90'
Dally Tower Expansion towards 3rd Street	**3**	30,000 gsf	50'
Subtotal		**912,000 gsf**	

Source: MGSH Master Plan, 2023.

Full build out of the project under Alternative 1 would occur over four major phases, similar to the *Proposed Master Plan.* Phase I would entail the same five projects as the *Proposed Master Plan*, including a new patient care tower directly connected to the Dally Tower, a new parking garage supporting new patient beds and staff, a small expansion to the existing emergency department for patient support services, expansion to the existing central utility plant, and the shell construction in the Patient Care Tower. Remaining phases could include one medical office building, a second new parking garage, and an eventual central tower expansion connected to the north of Dally Tower and the new Patient Care Tower. The proposed location for the one medical office building and parking structure is north of 15th Street and east of 5th Street (see **Figure 2-13**). All future phases of development beyond the initial Patient Care Tower are speculative and would be developed on an as-needed basis as determined by MGSH.



Source: Perkins & Will, MGSH Master Plan, 2024.

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Figure 2-13

Alternative 1—MSGH Campus at Full Buildout

Parking and Access

Parking and access would be the same as described for the *Proposed Master Plan* (see **Figure 2-14**). A total of approximately 723 new parking spaces would be included onsite under *Alternative 1*, which is approximately 323 fewer spaces than provided under the *Proposed Master Plan*.

Utilities

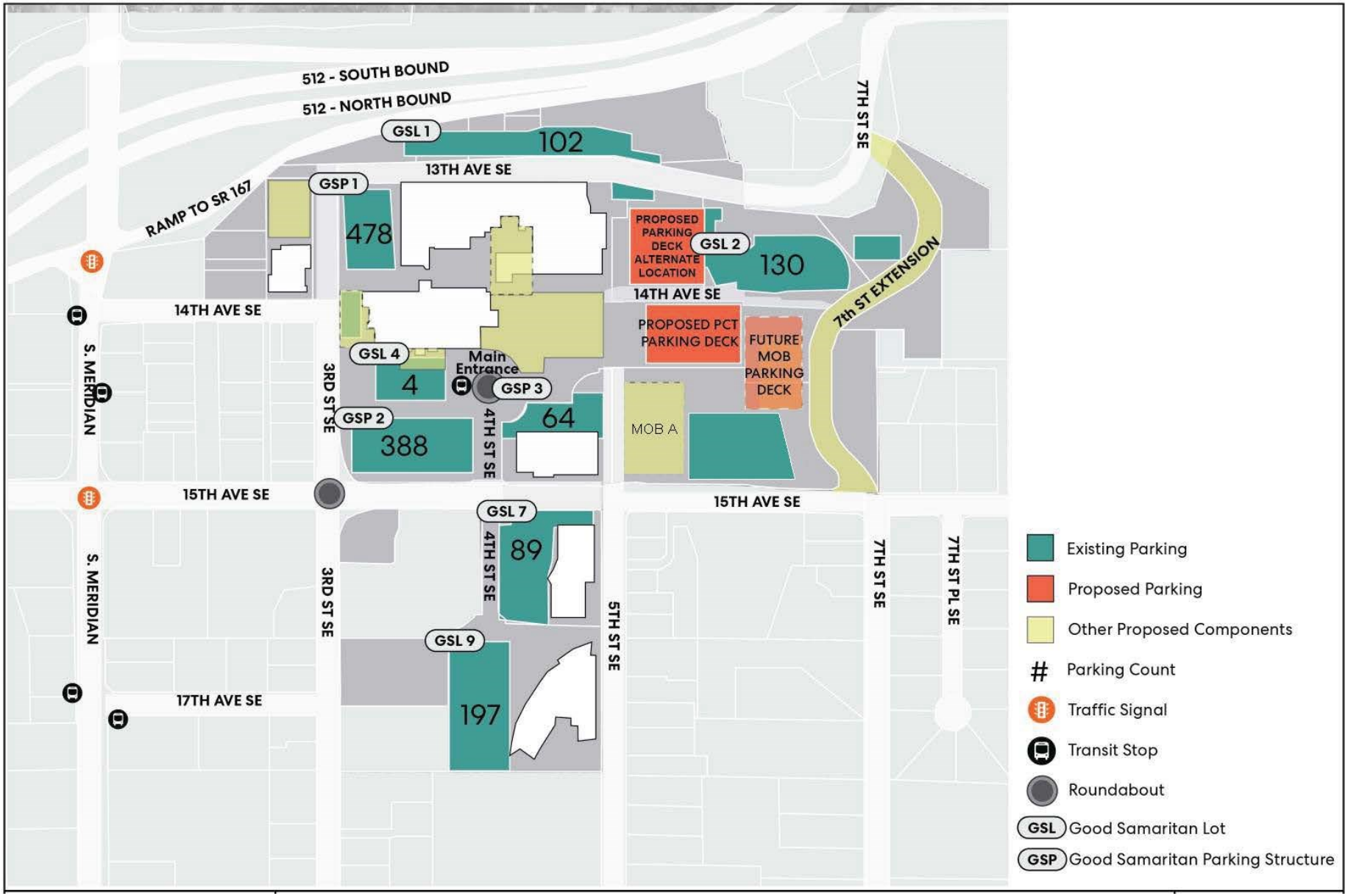
Alternative 1 would require water, sewer and stormwater service for the proposed development similar to the utilities previously described for the *Proposed Master Plan* (see **Figure 2-15**). Under *Alternative 1,* the existing surface parking lot would remain where MOB 2 is located under the *Proposed Master Plan*. This potential development site on campus would not require new sanitary sewer or water utility lines but would require stormwater facilities in order to collect runoff. Additionally, the required downstream facilities would remain the same since stormwater runoff from the impervious surfaces in the parking lot area would still need to be managed. Necessary utility extensions, modifications and upgrades would be made to serve any proposed development. See **Chapter 3.10, Utilities**, for further information.

Landscaping

Existing landscape, open space, and public seating amenities would be maintained to the extent possible under *Alternative 1*, similar to the *Proposed Master Plan* (see **Figure 2-16**). Detailed landscaping plans would be developed in conjunction with future project designs and would be submitted to the City for appropriate permitting and approvals to ensure compliance with the City's landscaping requirements. The campus landscaping plan under *Alternative 1* would consist of the same key elements as described for the *Proposed Master Plan*.

No Action Alternative

Under the *No Action Alternative*, it is assumed that the demand for increases in health care services in the region would continue and that additional development would still need to occur on the MSGH campus. However, under the City's code, hospital and hospital-affiliated uses can only be developed under an existing Master Plan (PMC 20.43.010). Therefore, this EIS alternative assumes that future development of hospital uses and hospital-affiliated uses outlined under the *Proposed Master Plan* and *Alternative 1* would not occur on campus, and that any future new projects for other uses would apply for individual permits under PMC 20.43 on a site-by-site basis, adhering to development standards in the City's code (parking, height, lot coverage, FAR, setbacks, landscaping, etc.). Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur.



Source: Perkins & Will, Nelson Nygaard, MGSH Master Plan, 2024.

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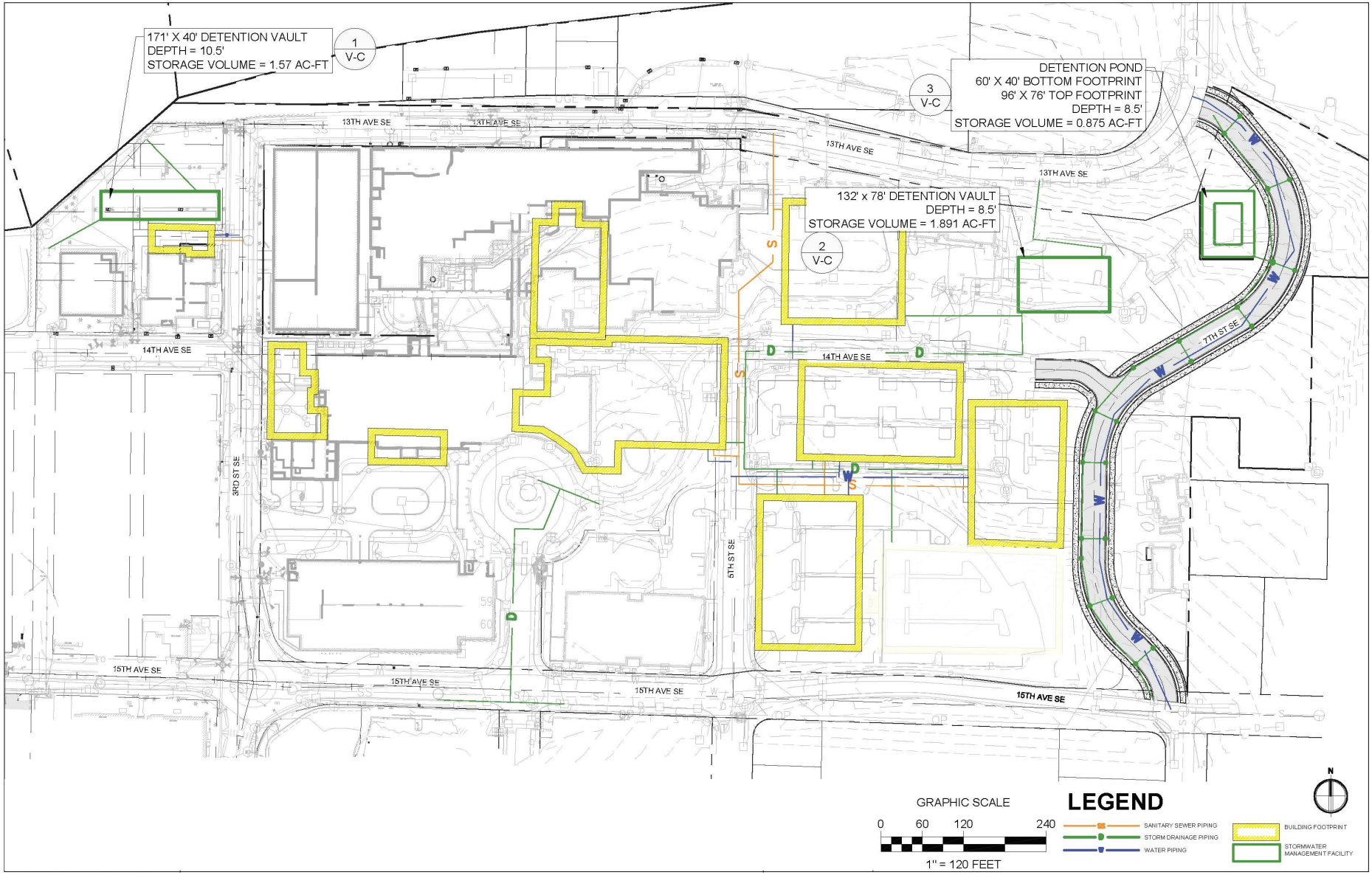
Figure 2-14

Alternative 1—Proposed Future Parking Facilities



Source: Perkins & Will, AHBL, MGSH Master Plan, 2024.

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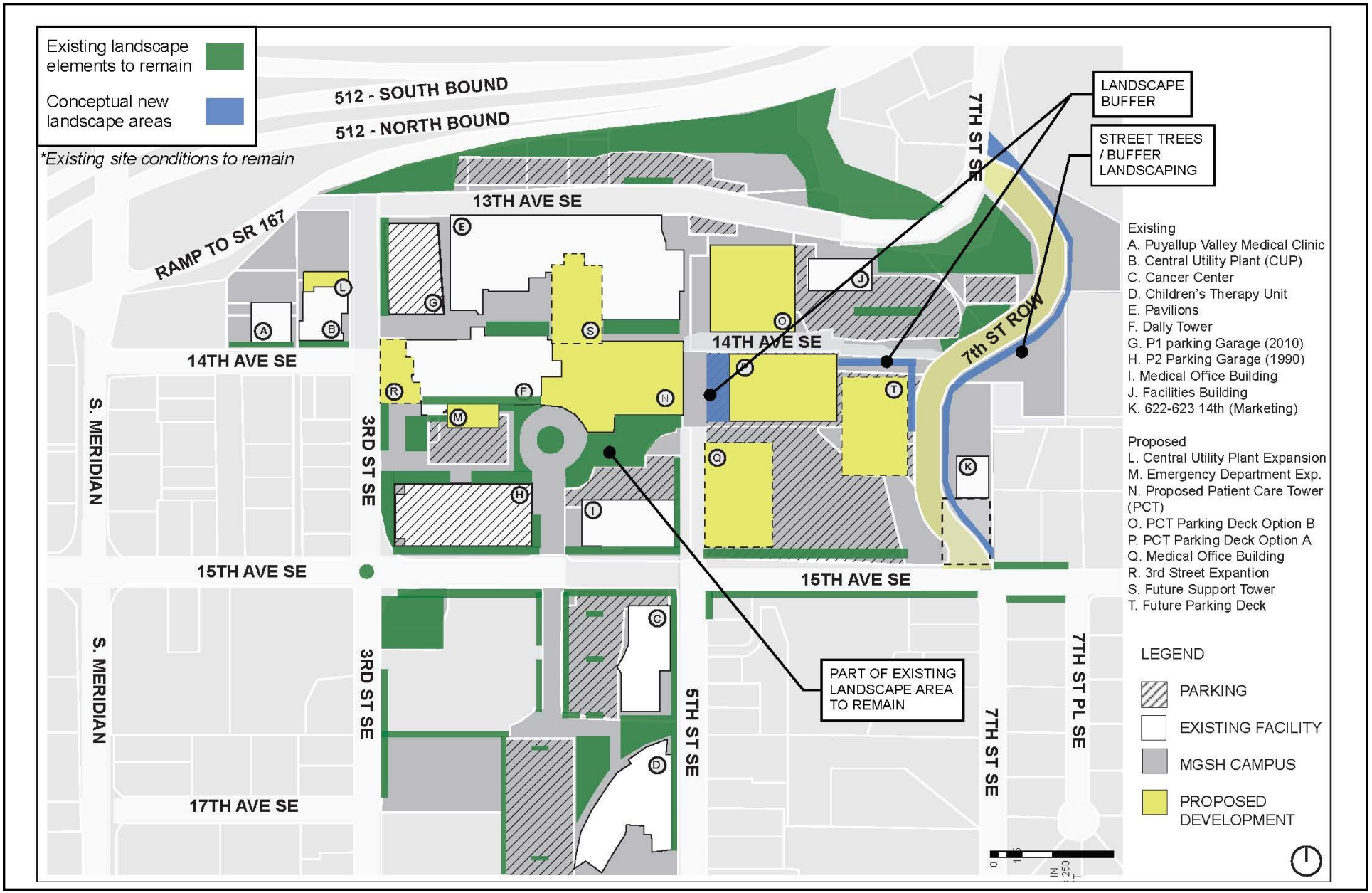
Figure 2-15

Alternative 1—Proposed Utilities



Source: Perkins & Will, MGSH Master Plan, 2024.

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Figure 2-16

Alternative 1—Proposed Landscaping

EIS Alternatives Summary

The *Proposed Master Plan* and *Alternative 1* reflect implementation of improvements to meet anticipated increased demands for health care services in the region. The *No Action Alternative* reflects conditions with no update to the 2007 Master Plan. The overall development assumptions under the EIS Alternatives are summarized in **Table 2-7** and include: **1)** campus acreage; **2)** new building space; **3)** total building space; **4)** building height limits; **5)** perimeter setbacks; **6)** number of hospital beds; **7**) amount of impervious surface; **8)** amount of pervious surface/open space; **9)** staff population; and, **10)** total number of parking stalls.

TABLE 2-7
COMPARISON OF EIS ALTERNATIVES*

	Proposed Master Plan	Alternative 1	No Action Alternative
Campus Acreage	34.86	34.86	34.86
New Building Space	1,012,000	912,000	0
Total Building Space	2,258,396	2,158,396	1,246,396
Building Height Limits	165’	165’	165’
Setback from Campus Boundary	10’ or 20’ if abutting an R zone	10’ or 20’ if abutting an R zone	10’ or 20’ if abutting an R zone
New Hospital Beds	200	200	0
Total Hospital Beds	575	575	375
Impervious Area[1]	23.4 acres (67%)	22.9 acres (66%)	22.1 acres (63% - existing)
Pervious Area[2]	11.5 acres (33%)	12.0 acres (34%)	12.8 acres (37% - existing)
Staff Population	Approx. 2,910 FTEs	Approx. 2,723 FTEs	Approx. 2,351 FTEs
Maximum Net New and Replacement Parking Spaces	1,494 spaces	1,171 spaces	0 spaces
Total Parking Supply[3]	3,352 spaces	3,029 spaces	1,858 spaces

[1]Includes area in building footprint, roadways, parking and hardscape.
[2]Includes area in landscaping and other natural open space.
[3]This reflects the total Parking Supply on the campus inclusive of 554 parking spaces south of 15th Avenue SE that are existing and would be unaffected by the development proposed in the Master Plan.
**7th Street Extension not accounted for in this table.*

7th Street Roadway Connection Option

A portion of the eastern half of the MGSH campus property was dedicated to a 60’ ROW (Parcel No. 201003260097) for a potential future city street connecting the northern extent of 7th Street SE to the southern extent of 7th Street SE through the MGSH campus (see **Figure 2-7**).[5] The purpose of this dedication was to facilitate city transportation planning for the 7th Street link between 13th Ave SE and 15th Ave SE and to facilitate future planning for the MGSH campus. The 7th Street SE Roadway Connection is currently shown under the *Transportation Element* within the City of Puyallup’s Comprehensive Plan.

[5] This was established on March 3rd, 2008, under City of Puyallup Ordinance #2900 as part of the 2007 development agreement between the City of Puyallup and MGSH.

This Draft EIS includes evaluation of the 7th Street Roadway Connection as a *potential mitigation measure*, which could provide a new north-south roadway segment between 13th and 15th Avenues SE. This roadway connection could add new vehicle access to and from the north and east sides of the campus. The potential impacts and effectiveness of this mitigation measure are evaluated under the *Proposed Master Plan* and *Alternative 1*.

2.9 Benefits and Disadvantages of Deferring Implementation of the Proposal

The benefits of deferring approval of the *Proposed Master Plan* and implementation of development of the *Proposed Master Plan* include the deferral of:

- Temporary construction-related impacts associated with vibration, noise, air pollution and traffic.
- Expenditure of funds to create new health care facilities.

The disadvantages of deferring the approval of the *Proposed Master Plan* and development under the *Proposed Master Plan* include:

- Inability to develop new health care facilities to meet the growing demand for health care services in the region and MGSH service area.
- Continued cost associated with maintaining aging facilities.
- Increased cost of building facilities at a later date.
- Continued decline of campus from over-use of existing facilities.
- Inability to implement newer modern medical practices to increase the levels of patient care at MGSH.

Deferral would not meet the MGSH's Objectives.

Chapter 3

AFFECTED ENVIRONMENT, IMPACTS of ALTERNATIVES, MITIGATION MEASURES, and SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

CHAPTER 3

AFFECTED ENVIRONMENT, IMPACTS, ALTERNATIVES, MITIGATION MEASURES and SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS

Chapter 3 describes the affected environment, impacts of the EIS alternatives, mitigation measures, and any significant unavoidable adverse impacts on the environment that are anticipated from development of the *Proposed Master Plan* under the EIS alternatives.

3.1 EARTH

This section of the DEIS describes the geotechnical conditions on and near the MultiCare Good Samaritan Hospital (MGSH) site. Potential impacts from development of the EIS alternatives on geotechnical conditions are evaluated and mitigation measures identified. This analysis is based on the Earth Technical Report prepared by Landau Associates in April 2024 (see **Appendix A**).

Methodology

The information summarized is based on a review of geotechnical borehole logs and of published sensitive/critical areas maps and surficial geologic and soil maps. Specifically, sources included US Geological Survey (USGS) maps, Natural Resources Conservation Service (NRCS) maps, borehole logs from the Washington State Department of Natural Resources (DNR) Subsurface Geology Information System, Pierce County Critical Areas maps, and the *Proposed Master Plan*.

See **Appendix A** for details on the methodology for the geotechnical analysis.

3.1.1 Affected Environment

This sub-section describes the existing geotechnical conditions on and near the MGSH site.

Topography

The topography at the site is gently to steeply sloping with elevations ranging from approximately 100 to 250 feet. Southeast of the site, a ridge rises to a maximum elevation of about 375 feet. The base of this ridge extends onto the MGSH site, with a maximum elevation of approximately 250 feet at the southeast corner of the site boundary.

Geology and Soils

The MGSH facility is located on the southern flank of the Puyallup River Valley. The topography of the Puyallup River Valley generally slopes from southeast to northwest following the Puyallup River, which flows from Mount Rainier to Commencement Bay. Additionally, the MGSH site is located in the southern portion of the Puget Lowlands, an elongated north-south trending topographical and bedrock structural depression situated between the Olympic Mountains and the Cascade Range in western Washington. The topography of the Puget Lowlands is dominated by a series of north-south trending elongated ridges and glacial uplands. The geology of the Puyallup River Valley includes a thick series of over-consolidated and normally consolidated glacial and non-glacial soils overlying bedrock. Below are further descriptions of geologic units present on the site.

- **Fill/Modified Land** The term "modified land" is used to describe surficial geologic conditions that have been "modified" by human activities such as, but not limited to: cutting, filling, grading, leveling, sluicing, shoreline protection, and railroad bed construction. There are a variety of locations at the MGSH site where soil was cut or filled within the footprint of the site. Therefore, some or all of the future development on the MGSH site could be constructed on modified land. Because a wide range of soil types could have been used as fill, and the fill could have been compacted to a variety of densities, the composition and relative density of the fill could vary widely, and specific engineering properties of the fill materials could be very different from location to location.
- **Recessional Lacustrine Deposits** are mapped across most of the site and consist of silt, clay, fine-grained sand, and organic matter. Recessional lacustrine soils are fine-grained soils that settled in still or slow-moving water in depressions in flat areas as glacial ice was receding.
- **Recessional Outwash** consists of hummocky, unsorted masses of sand and gravel that were deposited at glacial ice margins as ice retreated. This unit has not been overridden by glacial ice and is usually medium dense, ranging in composition from silty fine sand to coarse gravel with occasional cobbles and boulders. The unit is typically permeable and well drained.
- **Vashon Glacial Till** typically consists of a heterogeneous mixture of gravelly sand with scattered cobbles and boulders in a clay/silt matrix that was deposited beneath glacial ice. This very dense unit is sometimes referred to as 'hardpan.' Glacial till typically exhibits high shear strength and low compressibility characteristics.

See **Appendix A** for details on soils and geology.

Geologic Hazards

The City of Puyallup defines and identifies geologic hazard areas and has developed several GIS maps of geologically hazardous areas; these areas on and in the vicinity of the MGSH campus are mapped in the *Proposed Master Plan.* In general, before development is allowed in or immediately adjacent to mapped critical areas, detailed geotechnical studies must be conducted to address specific standards related to site geology and soils, seismic

hazards, and facility design. (see **Appendix A** for details and definitions of geologic hazards in the City of Puyallup).

Steep Slope and Landslide Hazards

The MGSH site area has steep slopes to the north of 13th Avenue SE and east of the parking lot near 15th Avenue SE (along the potential 7th Street SE extension). Scattered landslide hazard areas near current and potential future site structures are shown in the City's GIS map (see **Figure 3.1-1**); however, backfill conditions and grading associated with construction would govern the actual hazard potential with regard to the cut and filled portions of the site.

Erosion Hazards

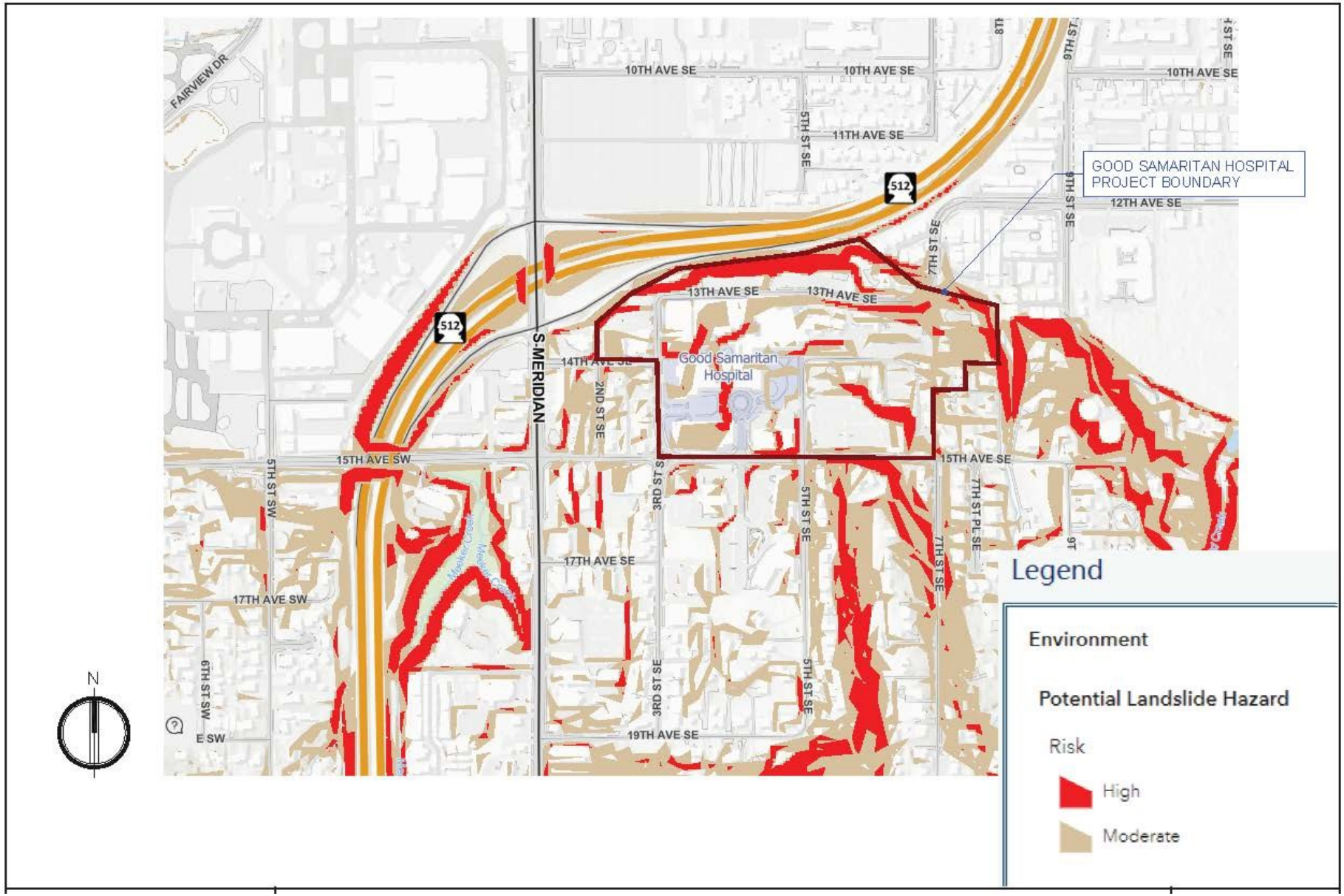
Pierce County has not identified any erosion hazard areas within the site according to the County's Critical Area Lookup App. Additionally, the NRCS has not identified any areas of the site as having a "moderate to severe," "severe," or "very severe" erosion potential.

Seismic Hazards

Per PMC Section 21.06.1210(3)(c), potential seismic hazards include earthquake-induced ground shaking, slope failure, settlement or subsidence, soil liquefaction and ground rupture. Seismic hazard areas are those areas subject to severe risk of earthquake damage as a result of seismically induced settlement or soil liquefaction. The glacial till deposits present in the study area are generally too dense to present a liquefaction hazard, and the fine-grained nature of lacustrine deposits generally prevents them from posing a liquefaction risk. However, if granular fill is placed below the water table in a loose to medium dense state during backfilling, liquefaction would be a concern. The risk for ground rupture to occur at the MGSH site is considered low because the nearest known or suspected active fault is located about five miles northeast of the site.

Volcanic/Lahar Zone Hazards

Per PMC Section 21.06.1210(3)(d), volcanic hazard areas are areas subject to pyroclastic flows, lava flows, debris avalanche, inundation by debris flows, lahars, mudflows, or related flowing resulting from volcanic activity. The USGS provided a lahar zone correspondence in 2022 that described the potential for lahar activity in the vicinity of the MGSH site, along with a USGS 2007 letter that detailed the extent of the potential flows. The *Proposed Master Plan* shows the volcanic hazard area limit near the project site (see **Figure 3.1-2**). The volcanic hazard area contacts the far northern extents of the site due to the lower elevation of this portion of the MGSH site. However, construction within the northern portion of the MGSH site is not expected to be within the volcanic/lahar hazard area based on USGS modeling that concludes the site would lie above the area that would likely be inundated.



Source: Perkins & Will, MGSH Master Plan, 2024

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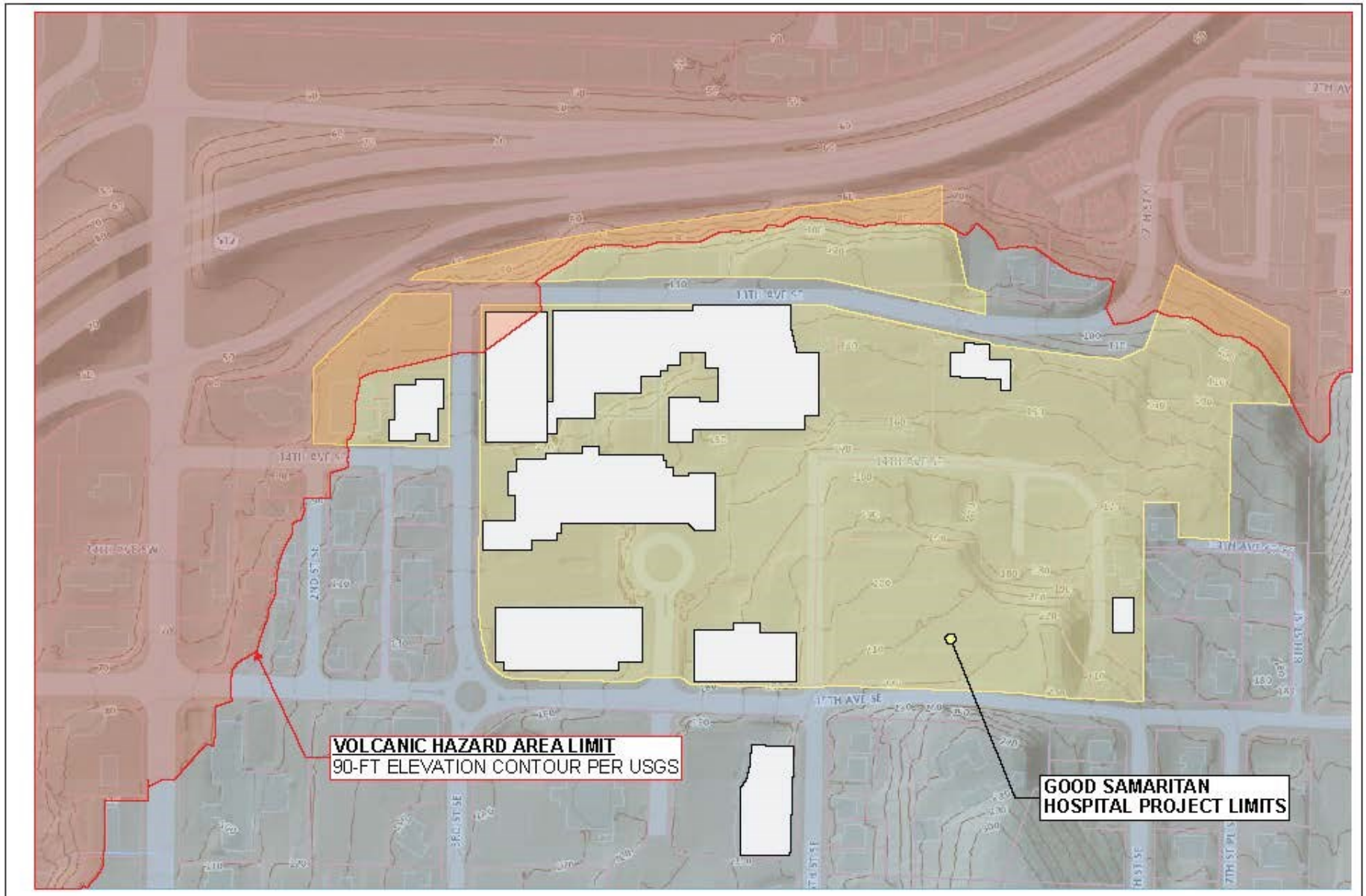
Figure 3.1-1

Landslide Hazard Areas



Source: Perkins & Will, MGSH Master Plan, 2024.

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Figure 3.1-2

Volcanic Hazard Areas

3.1.2 Impacts of the Alternatives

An analysis of the potential geotechnical impacts of the *Proposed Master Plan* is provided below. For the other alternatives, the analyses focus on any differences between the alternatives and the *Proposed Master Plan* (other aspects of these alternatives are expected to be similar to this alternative).

Proposed Action – Proposed Master Plan

The *Proposed Master Plan* provides for long-term phased development of the MGSH. The current campus boundary and size (approximately 34.9 acres) would not change under the *Proposed Master Plan*. Development under the *Proposed Master Plan* would occur in phases and include up to approximately 2.25 million gsf of building space (a net increase of 1.0 million gsf).

Phase 1 would include five projects constructed incrementally between 2025 and 2028, including buildings, building expansions, and parking structures. Approximately 7,000 sq. ft. of building area is anticipated to be demolished as part of new construction. Proposed development in Phase 1 would add 432,000 gsf to the MGSH campus, bringing total campus development to approximately 1.68 million gsf. See **Table 2-2** and **Figure 2-8** in *Chapter 2* for a summary and depiction of development in Phase 1 of the *Proposed Master Plan*, respectively.

Phases 2 through 4 would feature construction of five additional projects (estimated to occur between approximately 2028 through 2043), including buildings and parking structures. This development would add 580,000 net gsf, bringing total campus development to approximately 2.26 million gsf. See **Table 2-2** and **Figure 2-9** in *Chapter 2* for a summary and depiction of development in Phases 2 through 4 of the *Proposed Master Plan*, respectively.

Earthwork and Grading

Specific grading plans have not been developed for the *Proposed Master Plan*; however, additional development on the MGSH campus would require grading and excavation to achieve suitable finish grades for building construction and to facilitate construction of new buildings and associated infrastructure. Specific grading plans would be developed as part of the future design and permit process. Soil excavated during onsite grading activities would either be reused on site as structural fill (if determined to be suitable for that purpose) or transported off site to an appropriate disposal location in accordance with applicable local, state, and federal regulations.

Site grading and excavation that occur within certain steep slope areas and associated buffers have the potential for impacts on these steep slope areas. In addition, temporary excavations that are required for the installation of structures and infrastructure could have

a potentially adverse effect on immediately adjacent existing structures, utilities and other improvements. Construction-related vibrations associated with site grading and excavation activities could cause structural damage to nearby structures/utilities. Finally, the placement of fill immediately adjacent to existing structures and utilities could cause these structures/utilities to settle.

Geologic Hazards

Steep Slopes and Landslide Hazards

The MGSH site includes various areas mapped as moderate to high landslide hazard by the City. Areas within the site have notable high landslide hazard delineations with slopes of concern extending up to about 40 feet high and as steep as about 1 horizontal:1 vertical (1H:1V). Most of these slopes exist above the water table. In some areas, smaller slopes present moderate steep slope and landslide hazards. The degree of potential sloughing and sliding varies with the steepness and height of the slope. Steeper, higher slopes typically present an increased risk for sliding, whereas shorter slopes tend to produce smaller surficial sloughs. Slopes that are susceptible to movement under non-earthquake (static) conditions typically have an even greater hazard under earthquake loading conditions.

Depending on the design details of the proposed future medical office building and future parking deck (Phases 2 through 4), which would be established at the top, and within the buffer of a landslide hazard area, of a hill along the east of the campus, additional stability assessments will likely be needed in this area.

While the likelihood of landslide occurrence is not anticipated to be substantially affected by development associated with the project, the stability of post-construction steep slopes will need to be assessed during the design phase.

Seismic Hazards

Potential seismic hazards include slope failure, soil liquefaction and ground rupture. There is also potential for loss of soil strength (loss of bearing capacity for shallow foundations or the reduction in lateral and vertical capacities of deep foundations), ground surface settlement, and lateral displacement of soils supporting any current or future development structures that are established in or over liquefiable soils. The magnitude of settlement, soil movement, and loss of strength is a function of the soil thickness, soil quality, groundwater level, magnitude of the seismic event, and the specific foundation system of the structure. Because a geotechnical analysis is not yet complete and many of these variables are unknown, the degree of likelihood associated with various seismic hazards cannot be predicted.

Liquefaction can result in widespread structural damage if not properly mitigated. Damage caused by liquefaction can include: foundation rotation, slope failure, lateral spreading, and post-liquefaction ground subsidence (i.e. settlement).

Soil liquefaction, should it occur, would likely lead to consolidation of loose, saturated soil deposits, resulting in some surface settlement at the site. Loose, saturated soil deposits will likely be a concern only in fill areas because native soil deposits tend to be sufficiently dense enough to reduce the risk of liquefaction. The liquefaction hazard potential associated with fill can be substantially reduced by adequately compacting good quality fill. Because subsurface conditions vary across the site, overall settlement would vary, leading to differential settlements across the site and possibly differential settlements between adjacent foundation elements. Liquefaction-induced ground settlements could cause increased downdrag loading on deep foundations.

Impacts associated with soil liquefaction can be mitigated in a number of ways. Examples of possible mitigation methods include ground improvement, use of deep foundations, or designing for potential soil liquefaction impacts. The specific mitigation measures would be determined during site-specific design of future site improvements.

Ground rupture results when an earthquake or series of earthquakes rupture the ground surface along a fault, typically on the order of several feet. The MGSH site lies about 5 miles southwest of the Tacoma Fault Zone (WDNR; accessed December 29, 2023). Accordingly, it is not anticipated that ground rupture will be a significant part of the site-specific seismic design for the future site improvements, and mitigation to prevent ground rupture impacts would likely not be required. The ground rupture hazard is similar for all site soil types.

Erosion and Sedimentation

The MGSH site has no areas mapped as erosion hazard by the City. Erosion hazards at the site are expected to remain low after development of the various phases. However, the site should be evaluated for erosion after construction because filling materials may contain soil with greater erosion susceptibility.

Site development will inevitably reduce erosion potential in areas with impervious surfaces (e.g., buildings, concrete, pavement, etc.) and potentially increase in areas where surface runoff is concentrated if not controlled by other means. Erosion potential will likely be highest during construction, particularly on slopes that exceed 15 percent. Construction activities will also tend to increase erosion due to soil disturbance. Soil erosion best management practices (BMPs) should be used during construction to manage/minimize these effects.

Alternative 1 – Reduced Medical Office Building Size

Development under *Alternative 1* would include the same development program as the *Proposed Master Plan*, except that the second, 100,000 gsf Medical Office Building (MOB B) proposed under Phases 2-4 would not be developed. All other development proposed as part of the Master Plan under *Alternative 1* would be built as described for the *Proposed Master Plan*.

Potential impacts associated with excavation and grading activities, geologic hazards, and erosion and sedimentation under *Alternative 1* are generally the same as those discussed for the *Proposed Master Plan* because the footprints of the phases are essentially the same and there is minimal increase or change in location of buildings or impervious surface coverage.

No Action Alternative

Under the *No Action Alternative*, the site would largely remain in its existing condition. The *No Action Alternative* assumes that future development of hospital uses outlined under the *Proposed Master Plan* and *Alternative 1* would not occur on campus, and that any future new projects would apply for individual permits under PMC 20.43 on a site-by-site basis, adhering to development standards in the City's code. Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur.

Potential impacts associated with excavation and grading activities, geologic hazards, and erosion and sedimentation under the *No Action Alternative* would be substantially less than those discussed for the *Proposed Master Plan* and *Alternative 1* because there would be minimal increase or change in location of buildings or impervious surface coverage from existing conditions.

Cumulative Impacts

There are no known construction projects that are proposed adjacent to or in the immediate site vicinity of MGSH. Nonetheless, local construction projects could occur at the same time as construction of the *Proposed Master Plan* projects. The potential for these projects to result in earth-related impacts would depend on whether geologic hazards are located on or near the sites. These projects would be subject to City of Puyallup regulations for earthwork and created slopes. As a result, no significant earth impacts are anticipated from adjacent projects, in combination with the *Proposed Master Plan*.

Conclusion

Geotechnical hazard areas (e.g., steep slope, landslide, and seismic hazards, as well as volcanic lahar areas) have been identified onsite.

Clearing and grading to various extents would be required for redevelopment under all EIS Alternatives, which could result in earth-related impacts. The on-site soils are capable of supporting the proposed buildings, using standard construction techniques. Since there are geotechnical hazard areas present, implementation of required mitigation to avoid potential

impacts associated with steep slope, landslide, and seismic hazard areas, as well as volcanic lahar areas will be necessary.

3.1.3 Mitigation Measures

The following measures have been identified to address the potential earth-related impacts from construction and operation of the *Proposed Master Plan*. These measures apply to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts. Other Possible Measures are additional measures that could be implemented to address impacts but are not necessary to mitigate significant impacts.

Legally-Required Measures

This section lists and describes potentially applicable design codes and regulations. Future design and construction at the site will be conducted in accordance with applicable regulations, codes, and standards in place at that time of a complete permit application.

- **Federal -** The federal government provides seismic information and standards. The 2021 IBC (ICC 2021) has adopted the seismic recommendations developed by the American Society of Civil Engineers *Minimum Design Loads for Buildings and Other Structures* (ASCE 7) using the 2016 probabilistic seismic hazard maps developed by the USGS for a seismic event with a recurrence interval of 2,475 years.

- **State -** Washington State has currently adopted the 2021 edition of the IBC pn March 15, 2024 (ICC 2021). The IBC applies to the design of continuously occupied buildings, so it would apply to the MGSH facilities. The types of buildings that would be developed at the MGSH site will most likely be designed in accordance with the 2021 (or later versions of the IBC in effect at the time of individual building permit applications) IBC.

  The Washington State Department of Ecology implements the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater Permit system, which requires construction contractors to implement erosion and sedimentation control systems at all major Washington State construction sites.

- **Local -** The City uses the IBC as adopted by Washington State and amended by the City in the PMC. The critical areas mapped inside the site area are discussed in *Chapter 3.1.1* above. The City also adopted critical areas regulations in Chapter 21.06 of the PMC. These regulations do not preclude development within critical areas but do require permitting and special design and review to show that the proposed development minimizes impacts to critical areas to a satisfactory degree and manages hazards appropriately.

Measures Proposed as Part of Project

- Current plans for the *Proposed Master Plan* include features that aid in earth hazard mitigation. Both development alternatives include grading and vegetation of hazard areas to reduce erosion. In addition to grading and vegetation, future phases would cut and/or fill within certain steep slope areas and associated buffers, likely using mitigation measures that are required by applicable regulations, codes, and standards in place at that time, thereby limiting disturbance of areas with increased potential for landslide and erosion hazards.

Other Possible Measures

Specific foundation support systems to be used for onsite improvements would be determined as part of the specific design and permitting of infrastructure and individual buildings associated with future site development. Actual codes and requirements, being structure-dependent, are too numerous and varied to be cited at this level of study. Some specific references have been included below in the relevant sections. Site-specific studies and evaluations would be conducted in accordance with PMC requirements and the provisions of the 2021 (or later versions of the IBC in effect at the time of building permit submittal) IBC. Mitigation measures to limit impacts from geologic hazards and associated foundation support considerations are summarized below.

Grading and Excavation

- Site grading would occur within certain steep slope areas and associated buffers under all alternatives. While there is the potential for impacts on these steep slope areas, mitigation measures such as slope stabilization and drainage improvements would address those impacts. In addition, in areas of the site where the proposed grading results in deep excavation, temporary shoring systems should be installed to address the potential for impacts associated with temporary construction excavations. The design and construction of excavation shoring systems would include an evaluation of nearby adjacent structures and utilities, and incorporate measures to limit impacts to those structures/utilities.

- During site grading and excavation activities, care should be taken to avoid structural damage to nearby structures/utilities that could occur due to construction-related vibrations and/or earthwork. All excavation and earthwork activities should be monitored to minimize and/or immediately address any such impacts to nearby or adjacent structures/utilities. Monitoring should include crack monitors placed on nearby structures, periodic observation, and photography to document the structural integrity of the surrounding buildings and determine whether there was resulting damage to the interior or exterior of the adjacent buildings.

- Fill that is placed during the site grading process would be placed in a manner that prevents settlement impacts to adjacent structures/utilities. As appropriate, monitoring

could be conducted during construction to verify that no significant settlement of adjacent structures occurs as a result of the placement of fill.

Steep Slopes/Landslides

- Development adjacent to steep slopes would require site-specific analyses prior to construction [*see, e.g.,* PMC Section 21.06.1230(2)(a)]. If post-construction slopes are assessed and found to require stabilization near any future structure, action would be taken as required by applicable codes to mitigate slope instability concerns during the design and permitting for those structures. Mitigation measures could include but are not limited to retaining walls, structure setbacks, buttresses, and cutting and filling to establish flatter grades.

Erosion

- During construction, contractors should employ temporary erosion and sedimentation control measures and BMPs to control erosion as required in consistent with PMC Section 21.06.1230. These measures should be consistent with City critical area regulations (Chapter 21.06 of the PMC), and could include the following:
    1. Minimize areas of exposure
    2. Schedule earthwork during drier times of the year
    3. Retain vegetation where possible
    4. Seed or plant appropriate vegetation on exposed areas as soon as earthwork is completed
    5. Route surface water through temporary drainage channels around and away from disturbed soils or exposed slopes
    6. Use silt fences, temporary sedimentation ponds, or other suitable sedimentation control devices to collect and retain possible eroded material
    7. Cover exposed soil stockpiles and exposed slopes with plastic sheeting, as appropriate
    8. Intercept and drain water from any surface seeps, if encountered
    9. Incorporate contract provisions allowing temporary cessation of work under certain, limited circumstances, if weather conditions warrant.

Liquefaction

- Ground improvement techniques or deep foundations could mitigate liquefaction impacts, if needed, during the design of individual future structures. Several methods of ground improvement are available, including stone columns, vibro-compaction, vibro-replacement, deep soil mixing, compaction grouting, and others. The selection of the appropriate deep foundation or ground improvement technique is location-specific and would depend on a number of factors that would be considered during design and permitting of the future structures. Ground improvement and foundation support requirements should be determined as part of the design and permit approval process for each future onsite development project. Using a high-quality, well-compacted crushed rock or gravel backfill material during construction would also significantly reduce the potential for soil liquefaction.

Structure Settlement Under Static Loads

- Although not associated with a specific environmental hazard, structure settlement should be mitigated during the design and permitting for individual future structures. For multi-story structures, total and differential settlements could be accommodated by founding the structures on deep foundations or by implementing ground improvement techniques. Soil preloading/surcharging could likely be used to reduce total and differential settlements to within tolerable levels for utilities, parking lots, and single- story structures. Alternatively, lightly loaded structures could potentially be founded on mat foundations with flexible utility connections that would limit the potential adverse effect of differential settlement. Deep foundation options include driven piles and drilled shafts. These options should be assessed during the design phase when earth conditions can be assessed. Using a high-quality, well- compacted crushed rock or gravel backfill material during construction would also significantly reduce the potential for future structure settlement. However, regardless of the quality of fill that is anticipated to be placed, site structures will require site-specific geotechnical studies in order to design appropriate foundation systems under the City's building permit process.

3.1.4 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts on earth resources are expected with implementation of the mitigation measures listed above.

3.2 PLANTS AND ANIMALS

This section of the DEIS describes the plant and animal habitat, including critical areas (streams, wetlands and wildlife habitat), that occur on and near the MGSH site. Potential impacts from development of the *Proposed Master Plan* and EIS alternatives on plant and animal habitat are evaluated, and mitigation measures identified. This analysis is based on the *Critical Areas Report* prepared by Facet (formerly DCG|Watershed) in December 2023 (see **Appendix B**)

Methodology

Wetland and fish and wildlife habitat on and in the vicinity of the MGSH site were delineated and characterized during field investigations completed in September and November, 2023. The study area is defined as the 34.86-acre hospital campus, with adjacent public and private property screened from the edge of the study area or nearest publicly accessible land; no private property was accessed without permission.

Evaluation of potential wetlands was conducted in accordance with methodology from the *Corps of Engineers Wetland Delineation Manual* and *the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Wester Mountains, Valleys, and Coast Region Version 2.0*. The presence or absence of wetlands was determined based on an examination of vegetation, soils and hydrology.

The study area was evaluated for streams was based on the presence or absence of an ordinary high water mark (OHWM) as defined by Section 404 of the Clean Water Act, the Washington Administrative Code (WAC) 220-660-030, and the Revised Code of Washington (RCW) 90.58.030 and other guidance documents.

See **Appendix B** for additional details on the methodology for the plants and animals areas analysis.

3.2.1 Affected Environment

This sub-section describes the existing plants and animal habitat that occur on and near the MGSH site.

Campus Overview

The MGSH site is in the Puyallup River sub-basin of the Puyallup-White Watershed (WRIA 10). It is highly developed with little remaining natural areas. Remaining forested areas are located along the north and northeastern boundary of the study area along steep slopes that extend outside of the campus boundaries. These areas contain mixed conifer/ deciduous forests with an understory dominated by invasive vegetation. The invasive

species identified include high densities of English ivy, Himalayan blackberry, bindweed, English holly, and knotweed.

Streams

One stream (Stream A) is located adjacent to the northeast corner of the site (see **Figure 3.2-1**). The stream originates east of the study area and flows north along the base of steep slopes and discharges into a large, concrete municipal stormwater feature. The feature is a deep, concrete basin that channels water into a culvert which leads north. Only a small segment of the stream (approximately 115-feet) is located immediately adjacent to the study area.

The stream has OHWM indicators including bed and bank characteristics, sorted sediments, and exhibits a varying channel width of three to ten feet. The stream is wider where a small floodplain was included within the OHWM. The stream was dry at the time of the assessment, but provides potential fish habitat in the form of varying cobble and rock sizes, large woody debris, shading provided by riparian vegetation, and low gradients. However, it is unlikely that there is fish presence in the stream due to the man-made fish barrier created by the municipal stormwater facility. The riparian vegetation included pacific willow, red-osier dogwood, cherry laurel, Giant horsetail, and ladyfern.

Stream A is conservatively classified as a Type II stream under PMC 21.06.1010. Type II streams require a 100-foot standard buffer. With additional research, Stream A could be classified as a Type III stream (with a 50-foot buffer), because the surrounding development is suspected to preclude restoration of fish use in the future.

The northern boundary of the site was also screened because multiple mapping resources indicate the presence of a stream at this location. However, no OHWM or wetland indicators were found during the assessment completed for this EIS. This area is dominated by a thick mat of invasive vegetation.

Wetlands

No jurisdictional wetlands were observed within or adjacent to the study area. One data collection point was taken on the edge of the small flood plain area associated with Stream A. At this location, hydrophytic vegetation was observed but no indicators for hydric soils or hydrology were identified.

Wildlife and Habitat

As previously described, the MGSH campus is almost entirely developed, limiting functional wildlife habitat and overall wildlife use of the site. No state- or federally-listed species, species of local importance, or priority species are known to utilize habitat in the study area or are considered to have a close association with the habitat available on the campus.

Degraded wildlife habitat exists in the northern forested areas and the undeveloped parcel in the southwest (see **Figure 3.2-1**). The forested areas are considered low value habitat

Source: DCG\Watershed, 2024

EA Engineering, Science, and Technology, Inc., PBC

Figure 3.2-1

Existing Site Conditions

because they contain high invasive species cover and are fragmented. However, they still provide habitat for nesting birds and burrowing mammals. The forest located in the northeast portion of the site contains several large conifers. In addition, these areas can act as sanctuaries for wildlife in urban areas with limited remaining habitat. During the site visit a common raven and Columbian black-tailed deer were seen in the northeastern forested area near the stream.

An area in the southeast portion of the site remains forested and contains a stormwater detention pond. The created ponds could not support stocked or introduced fish due to sediment accumulation and lack of dissolved oxygen. Amphibians and reptiles are expected to be uncommon due to the surrounding roads and development, which disconnect habitat in the study area from nearby vegetated areas and generally create movement barriers to these less mobile wildlife species. However, breeding by some tolerant amphibian species may take place in the pond.

3.2.2 Impacts of the Alternatives

An analysis of the potential plant and animal habitat impacts of the *Proposed Master Plan* is provided below. For the other alternatives, the analyses focus on any differences between the alternatives and the *Proposed Master Plan*.

Proposed Action - Proposed Master Plan

The *Proposed Master Plan* provides for long-term phased development of the MGSH. The current campus boundary and size (approximately 34.9 acres) would not change under the *Proposed Master Plan*. At buildout in about 2043, development under the *Proposed Master Plan* would occur in phases and include up to approximately 2.25 million gsf of building space (a net increase of 1.0 million gsf).

Phase 1 would include five projects constructed incrementally between 2025 and 2028, including buildings, building expansions, and parking structures. Approximately 7,000 sq. ft. of building area is anticipated to be demolished as part of new construction. Proposed development in Phase 1 would add 432,000 gsf to the MGSH campus, bringing total campus development to approximately 1.68 million gsf. See **Table 2-2** and **Figure 2-8** in *Chapter 2* for a summary and depiction of development in Phase 1 of the *Proposed Master Plan*, respectively.

Phases 2 through 4 would feature construction of five additional projects from about 2028 through 2043, including buildings and parking structures. This development would add 580,000 net gsf, bringing total campus development to approximately 2.26 million gsf. See **Table 2-2** and **Figure 2-9** in *Chapter 2* for a summary and depiction of development in Phases 2 through 4 of the *Proposed Master Plan*, respectively.

Construction

Under the *Proposed Master Plan*, clearing and grading of the site would occur for each of the major phases of development. Vegetation that provides wildlife habitat in the north portion of the site would remain and the existing groves of trees on the margins of the campus would be retained to provide a natural buffer from Highway 512 and residences to the north and east. These trees also contribute to air quality and natural stormwater management.

There would be no direct impacts to wetlands or wildlife habitat with development of the *Proposed Master Plan*. As described in *Affected Environment*, there are no wetlands or state- or federally listed species, species of local importance, or priority species known to utilize habitat in the study area. Therefore, it is unlikely that development under the *Proposed Master Plan* would impact such areas.

Construction would have the potential to negatively affect common, urban terrestrial wildlife species during construction. However, the site area is already developed with high-intensity land uses, and any such impacts would be temporary.

During construction, vegetation removal and use of heavy equipment for clearing and grading could result in wildlife hazing or mortality, especially if these activities are conducted during the breeding season. The most common effect on wildlife from construction would be temporary disturbance from increased noise, equipment, and activity on the site. Highly mobile wildlife species (such as birds) are less likely to be directly impacted by construction activities. Following project buildout, wildlife use of the campus is expected to be similar to existing conditions.

No direct impacts would occur to Stream A or its buffer during construction. However, indirect impacts could result from sediment transport, erosion and/or spills from fuels or other sources. Temporary stormwater control measures would be implemented during construction, consistent with City of Puyallup requirements, to address and prevent these potential impacts.

Operation

No direct impacts to Stream A or its buffer are anticipated as a result of new development that could occur on the site under the *Proposed Master Plan*. Potential indirect impacts could occur due to increased impervious surface area, which can negatively affect stormwater volume and flow rates if impervious area is unregulated. Impervious surface area would increase by four percent under the *Proposed Master Plan*, from 63 percent of the site under existing conditions to 67 percent of the site. These impacts could be addressed by compliance with stormwater regulations and standards. As well, redevelopment of existing impervious areas could yield improvements to stormwater management overall, as current stormwater regulations are more stringent than when the site was originally developed.

Following project buildout under the *Proposed Master Plan*, wildlife use of the campus is expected to be similar to existing conditions.

Alternative 1 – Reduced Medical Office Building Size

Development under *Alternative 1* would include the same development program as the *Proposed Master Plan*, except that the second, 100,000 gsf Medical Office Building (MOB B) proposed under Phases 2-4 would not be developed. All other development proposed as part of the Master Plan under *Alternative 1* would be built as described for the *Proposed Master Plan*.

Construction

Construction impacts under *Alternative 1* would be similar to the *Proposed Master Plan*, except that the duration and intensity would be somewhat reduced because one less building (MOB B) would be built.

Operation

Similar to the *Proposed Master Plan*, no direct impacts to Stream A or its buffer are anticipated as a result of new development that could occur on the site under the *Proposed Master Plan*. Potential indirect impacts could occur due to increased impervious surface area, which can negatively affect stormwater volume and flow rates. Projected impervious surfaces would increase by three percent under *Alternative 1*, from 63 percent of the site to 66 percent. As noted for the *Proposed Master Plan*, these impacts could be addressed by compliance with stormwater regulations and standards. As well, redevelopment of existing impervious areas could yield improvements to stormwater management overall, as current stormwater regulations are more stringent than when the site was originally developed.

Following project buildout, wildlife use of the campus under *Alternative 1* would be expected to be similar to existing conditions.

No Action Alternative

Under the *No Action Alternative*, the site would remain in its existing condition. The *No Action Alternative* assumes that future development of hospital uses outlined under the *Proposed Master Plan* and *Alternative 1* would not occur on campus, and that any future new projects would apply for individual permits under PMC 20.43 on a site-by-site basis, adhering to development standards in the City's code, to the extent allowed. Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur.

Similar to the *Proposed Master Plan* and *Alternative 1*, no direct impacts to wetlands or wildlife habitat would be anticipated under the *No Action Alternative*. As described in *Affected Environment*, there are no wetlands or state- or federally listed species, species of

local importance, or priority species are known to utilize habitat in the study area. Therefore, it is unlikely that any development occurring under the *No Action Alternative* would impact such areas.

Any indirect impacts to critical areas would be evaluated on a project-by-project basis.

Cumulative Impacts

There are no known construction projects that are proposed adjacent to or in the immediate site vicinity of MGSH. Nonetheless, local construction projects could occur at the same time as construction of the *Proposed Master Plan* projects. The potential for these projects to result in wetland, stream, or wildlife/habitat-related impacts would depend on the location of the proposed projects in relation to these features. These projects would be subject to local, state, and/or federal regulations and best management practices. As a result, no significant impacts to wetlands, streams, or wildlife/habitat are anticipated from adjacent projects, in combination with the *Proposed Master Plan*.

Conclusion

The MGSH campus is located in a highly developed area with little remaining natural areas. Remaining forested areas are located along the north and northeastern boundary of the study area along steep slopes that extend outside of the campus boundaries. One stream (Stream A) is located adjacent to the northeast corner of the site. No jurisdictional wetlands were observed within or adjacent to the study area. No state- or federally-listed species, species of local importance, or priority species are known to utilize habitat in the study area or are considered to have a close association with the habitat available on the campus.

Clearing and grading to various extents would be required for redevelopment under all EIS Alternatives, which could result in impacts to wetlands, streams, and wildlife/habitat on and adjacent to campus. However, no significant unavoidable adverse impacts to streams, wildlife, or wildlife habitat would be anticipated under any alternative, because, for the most part, development and/or redevelopment activities would not be located near critical natural areas.

3.2.3 Mitigation Measures

The following measures have been identified to address the potential impacts to wetlands, stream, or wildlife/habitat from construction and operation of the *Proposed Master Plan*. These measures apply to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts. Other Possible Measures are additional measures that could be implemented to address impacts but are not necessary to mitigate significant impacts.

Legally-Required Measures

- Proposed development would comply with local, state, and federal regulations for environmentally critical areas, such as wetlands and protected wildlife habitat areas.

- The following regulations and standards limit impacts to the natural environment:
    - Puyallup Municipal Code
        Chapter 20.58 – Landscaping Requirements
        Chapter 21.06 – Critical Areas
        Chapter 21.12 – Clearing, Filling and Grading
        Chapter 21.20 – Storm water Management
    - Washington State Department of Ecology: Stormwater Management Manual for Western Washington
    - U.S. Fish & Wildlife Service: Migratory Bird Treaty Act

Other Possible Mitigation Measures

- Avoid or limit vegetation removal and construction activities from April to August to minimize disturbances to nearby breeding birds, as feasible.

- Plant native, drought tolerant species in landscaped areas.

- Direct lighting away from natural areas, use downcast lighting, and limit or exclude night lighting, where feasible.

- Maintain and monitor mitigation sites and retained/installed trees, as applicable.

- Limit use of fertilizers, pesticides and herbicides in developed areas.

3.2.4 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts to streams, wildlife, or wildlife habitat would be anticipated under any alternative. For the most part, development and/or redevelopment activities would not be located near natural areas. Any impacts that could be anticipated would be adequately mitigated through application of existing regulations. Furthermore, redevelopment may result in improved stormwater management. Similarly, the buffer functions of Stream A may be improved if enhancement activities are proposed as part of a permit application.

3.3 AIR QUALITY and GHG EMISSIONS

This section of the DEIS describes the air quality condition on and near the MultiCare Good Samaritan (MGSH) site. Potential impacts from development of the EIS alternatives on air quality are evaluated and mitigation measures identified. The analysis in this section is based on the Air Quality Technical Report prepared by Landau Associates in 2024 (see **Appendix C**).

Methodology

Existing air quality conditions and potential air quality impacts during construction and operation of the EIS alternatives were qualitatively analyzed. Relevant standards and guidance from U.S. Environmental Protection Agency (EPA), the Washington State Department of Ecology (Ecology), and the Puget Sound Clean Air Agency (PSCAA) are cited.

The *SEPA Greenhouse Gas Emissions Worksheet* formulated by King County was used to estimate the GHG emissions of the EIS alternatives for the lifecycle of development under the *Proposed Master Plan* and alternatives. The City of Puyallup's draft Environment and Sustainability Action Plan (ESAP) is discussed. Both the *Proposed Master Plan* and *Alternative 1* would include the addition of generators and boilers to the MGSH campus. Generators and boilers were evaluated separately from the screening level GHG projection for the entire project.

3.3.1 Affected Environment

This sub-section describes air quality and GHG conditions on and near the MGSH site.

Air Quality

Regulatory Overview

The EPA established National Ambient Air Quality Standards (NAAQS), and specified future dates for states to develop and implement plans to achieve these standards. The standards are divided into primary and secondary standards; the former are set to protect human health within an adequate margin of safety, and the latter to protect environmental values, such as plant and animal life. Ecology established the Washington State Ambient Air Quality Standards for the six criteria air pollutants that are at least as stringent as the national standards.

Key Criteria Air Pollutants

The following subsection describes the sources and environmental effects of the six key criteria air pollutants.

Carbon Monoxide(CO) - CO is a product of incomplete combustion generated by mobile sources, residential wood combustion, and industrial fuel-burning sources. CO is a concern related to on-road mobile sources because it is the pollutant emitted in the greatest quantity for which short-term health standards exist. CO is a pollutant whose impact is usually localized, and CO concentrations typically diminish within a short distance of roads. The highest ambient concentrations of CO usually occur near congested roadways and intersections during wintertime periods of air stagnation.

Ozone - Ozone is a highly reactive form of oxygen created by an atmospheric chemical reaction of nitrogen oxides and volatile organic compounds (VOCs), both of which are emitted directly from industrial and mobile sources. Ozone problems tend to be regional in nature because the atmospheric chemical reactions that produce ozone occur over a period of time, and because, during the delay between emission and ozone formation, ozone precursors can be transported far from their sources. Transportation sources such as automobiles and trucks are some of the sources that produce ozone precursors.

Particulate Matter (PM) - PM is generated by industrial emissions, residential wood combustion, motor vehicle tailpipes, and fugitive dust from roadways, haul roads, and unpaved surfaces. The highest ambient concentrations of PM generally occur near the emission sources, which in the study area (project area and immediate surroundings) would be from motor vehicle tailpipes on major roads. $PM_{2.5}$ has a greater impact than PM_{10} at locations far from the emitting source, because it remains suspended in the atmosphere longer and travels farther. The emergency generators and cooling towers serving MGSH could also be sources of PM within the study area.

Lead - The main source of lead pollution has historically been the transportation sector, but tailpipe lead emissions have declined significantly since the EPA implemented regulatory efforts to remove lead from on-road motor vehicle gasoline in 1995. The major emission sources of lead currently include lead smelters and metals processing plants and combustion of aviation gasoline. There are no known major sources of lead pollution near the project location.

Nitrogen Oxides (NO_x) and Sulfur Oxides (SO_x) - NO_X and SO_X are emitted by mobile sources and fuel-burning stationary sources. NO_X and SO_X pollution from tailpipe emissions form regional haze and deposit acid in the Olympic and Cascade Mountains surrounding Seattle, and NO_X is one of the ozone precursors that contributes to ongoing ozone issues in the Puget Sound region.

Greenhouse Gases (GHGs) - GHGs are a group of gases that, when present in the atmosphere, absorb, or reflect heat that normally would radiate away from the earth, and thereby increase global temperature. Several GHG constituents are commonly evaluated: Carbon dioxide (CO_2), methane, nitrous oxide, water vapor, ozone, and halocarbons. CO_2 is the individual constituent that is normally emitted in the greatest amount and generally contributes the most to climate change. Each individual constituent has its own global-

warming potential. To express the average emission rate and global-warming potential of the combined constituents, GHG emission rates are commonly expressed as the equivalent amount of carbon dioxide (CO_2e). The effects of GHG emissions are global rather than local, meaning the amount of GHG emitted is important, but not the specific location of the emissions.

Air Quality Attainment Status

Based on monitoring information collected over a period of years, the EPA and Ecology designate regions as being attainment or non-attainment areas for regulated air pollutants. Attainment status indicates that air quality in an area meets the NAAQS, and non-attainment status indicates that air quality in an area does not meet those standards. If the measured concentrations of criteria air pollutants in a non-attainment area improve so they are consistently below the NAAQS, Ecology and EPA can reclassify the non-attainment area to a maintenance area.

The Puyallup area encompassing the MGSH campus is in an attainment area for all pollutants, but it is within the Tacoma-Pierce County maintenance area for $PM_{2.5}$.

Air Toxics Issues

Existing development in the Puyallup area surrounding the MGSH campus poses no special issues related to air toxics. According to the EPA's National Air Toxics Assessment 2011 database, the respiratory cancer risk in the Puyallup area is roughly 30 x 10-6 or 30 cancer cases per million population, which is typical of urban and suburban areas in the Puget Sound region.

GHG Emissions

Background

The phenomena of natural and human-caused effects on the atmosphere that cause changes in long-term meteorological patterns is known as climate change. The gases that affect such warming are referred to as greenhouse gases or GHGs because they affect the global climate by trapping heat from the sun that is reflected by the earth, similar to how a greenhouse functions in a garden. The GHGs of primary importance are CO_2, methane, and nitrous oxide. Because CO_2 is the most abundant of these gases, GHGs are usually quantified in terms of CO_2e (carbon dioxide equivalent), based on their relative longevity in the atmosphere and the related "global warming potential" of these constituents. CO_2 is not considered an air "pollutant" that causes direct health-related effects, so ambient air quality standards have not been developed to gauge whether ambient CO_2 concentrations are acceptable at a given location.

The global climate changes continuously, as evidenced by repeated episodes of warming and cooling documented in the geologic record. But the rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as

glaciers have steadily retreated across the globe. However, scientists have observed an unprecedented increase in the rate of warming over the past 150 years. This recent warming has coincided with the Industrial Revolution, which was a period that resulted in a sharp increase in fossil fuel consumption through industrial development (factories, internal combustion vehicles, etc.) and large-scale deforestation through growth in agriculture. The result has been the release of substantial amounts of GHGs into the atmosphere, far beyond the level of naturally-occurring GHGs, and a reduction in the earth's ability to absorb GHGs leading to global GHG levels that are unprecedented in the modern geologic record.

Regulatory Overview

There are no specific emission reduction requirements or targets applicable to the project or the project area, nor are there any generally accepted emission level "impact" thresholds with which to assess the potential significance of localized or global impacts related to GHG emissions. Instead, there are Federal, State, and local policies and programs intended to consider and reduce GHG emissions over time, as briefly described below, and in much more detail in **Appendix C** to this DEIS.

City of Puyallup - The City of Puyallup's Environment and Sustainability Action Plan (ESAP), adopted in December 2023, outlines action steps to reduce GHG emissions and develop climate change resiliency within the city. The Buildings and Energy focus area of the ESAP includes strategies and actions to promote sustainable building development, such as a regional heat pump campaign to replace natural gas-powered furnaces and increase energy efficiency in existing commercial and residential buildings. The action steps are intended to be near term, within the next 5 years, and intended to be incorporated into the next update to the City's Comprehensive Plan in 2029, when a dedicated Climate Element will be established in accordance with updates to the Growth Management Act.

3.3.2 Impacts of the Alternatives

An analysis of the potential air quality/GHG impacts of the *Proposed Master Plan* is provided below for the EIS alternatives.

Proposed Action - Proposed Master Plan

The *Proposed Master Plan* provides for long-term phased development of the MGSH. The current campus boundary and size (approximately 34.9 acres) would not change under the *Proposed Master Plan*. Development under the *Proposed Master Plan* would occur in phases and include up to approximately 2.25 million gsf of building space (a net increase of 1.0 million gsf).

Phase 1 would include five projects constructed incrementally (estimated to be completed between 2025 and 2028), including buildings, building expansions, and parking structures.

Approximately 7,000 sq. ft. of building area is anticipated to be demolished as part of new construction. Proposed development in Phase 1 would add 432,000 gsf to the MGSH campus, bringing total campus development to approximately 1.68 million gsf. See **Table 2-2** and **Figure 2-8** in *Chapter 2* for a summary and depiction of development in Phase 1 of the *Proposed Master Plan*, respectively.

Phases 2 through 4 would feature construction of five additional projects from about 2028 through 2043, including buildings and parking structures. This development would add 580,000 net gsf, bringing total campus development to approximately 2.26 million gsf. See **Table 2-2** and **Figure 2-9** in *Chapter 2* for a summary and depiction of development in Phases 2 through 4 of the *Proposed Master Plan*, respectively.

Air Quality

Construction

During demolition and construction, dust from excavation and grading could cause temporary, localized increases in the ambient concentrations of fugitive dust and suspended PM.

Construction activity must comply with local regulations, which require a plan for dust control during grading, excavation, or filling (PMC 21.14.080). Regardless, construction activity could cause localized fugitive dust impacts at homes and businesses near the construction site.

Construction activities would likely require the use of diesel-powered heavy trucks and smaller equipment such as generators and compressors. These engines would emit air pollutants that could slightly degrade local air quality in the immediate vicinity of the activity. However, these emissions would be temporary and localized.

Some construction activities could cause odors detectable to some people in the vicinity of the activity, especially during paving operations using tar and asphalt. Such odors would be short-term and localized. Stationary equipment used for construction activities must comply with Ecology regulations requiring the best available measures to control the emissions of odor-bearing air contaminants.

Construction equipment and material hauling could temporarily increase traffic flow on streets adjacent to a construction area. If construction delays traffic enough to significantly reduce travel speeds in the area, general traffic-related emissions would increase.

Operation

Emissions Associated with Commercial and Light Industrial Development

For the purpose of evaluating air quality impacts, healthcare services are most closely related to commercial or light industrial development. Commercial development is generally associated with increased vehicle traffic (employees, customers, and diesel delivery truck traffic), mechanical equipment (such as commercial boilers and heating units), and trucks at loading docks. The PSCAA requires all commercial facilities to use equipment meeting minimum air emission standards, to obtain air permits before installing a new source of air pollution or modifying an existing source of air pollution, and to use best available control technology on permitted stationary equipment to minimize emissions. Emissions from stationary combustion (heating furnace), electricity, transportation, as well as for the planned additional generators and boilers associated with the *Proposed Master Plan* are evaluated below.

Regional Air Quality Impacts

Photochemical smog (the regional haze produced by ozone and fine airborne particulate) is largely caused by regional tailpipe emissions of cars and trucks traveling on public streets throughout the region, rather than localized emissions from any individual neighborhood. Tailpipe emissions caused by the *Proposed Master Plan* would be proportional to the regional increase in vehicles mile travelled (VMT) caused by this alternative. An exact VMT increase was not calculated as part of the traffic study being produced in concurrence with this evaluation. However, it can be reasoned that the *Proposed Master Plan* would likely slightly improve impacts on regional VMT. This is because the *Proposed Master Plan* would fulfill a local need for medical services that, if not fulfilled locally, would require that the local population seek the services farther away. The increased distance would contribute to increased tailpipe emissions throughout Washington State. Therefore, while the effect of the project may slightly worsen air quality at the local level, the project would likely improve air quality slightly at the regional level. Regardless of whether the effect improves or worsens air quality, the change in tailpipe emissions for MGSH would be very small relative to the overall regional tailpipe emissions in Washington State.

Photochemical smog was a serious concern in the Puget Sound region before the late 1980s, but federal tailpipe emission regulations have reduced vehicular emissions to the point that the region is currently a designated attainment area for ozone.

The Puget Sound Regional Council (PSRC) sets regional transportation emission budgets for three pollutants: CO, NO_X, and $PM_{2.5}$. The corresponding PSRC air quality conformity analyses concluded that its forecast of regional emissions for the 2040 planning year will be far below the allowable budgets (PSRC 2015). Because the change in tailpipe emissions associated with the *Proposed Master Plan* is expected to be small compared to the overall tailpipe emissions in the Puget Sound region, it was concluded that this would not result in a significant impact on regional air quality.

Mobile Source Air Toxics

On a regional basis, the EPA's vehicle and fuel regulations (coupled with ongoing future fleet turnover) will over time cause substantial emission reductions that will cause region-wide mobile source air toxics levels to be significantly lower than 2024 levels in most cases. Therefore, the *Proposed Master Plan* is not expected to be significant generators of mobile air toxics.

Point Source Emissions

The *Proposed Master Plan* would include new cooling towers, boilers, and diesel-powered backup generators, all of which are sources of localized emissions of criteria pollutants and toxic air pollutants. GHG emissions associated with this equipment is discussed in **Appendix C**. Consistent with any applicable permitting requirements, estimated air contaminant emission rates for the *Proposed Master Plan* will be calculated and submitted to the PSCAA as part of the Notice of Construction (NOC) air quality permit application. Air contaminant emissions from the proposed project are anticipated to be below "major source" emission thresholds, and all ambient air quality impacts that result from facility operations would be below Ecology's human health impact acceptability criteria; therefore, project impacts to air quality are not expected to be significant.

Emissions from Vehicle Travel

Tailpipe emissions from vehicles traveling on public roads would be the largest source of air pollutant emissions associated with development at the MGSH site. Potential air quality impacts caused by increased tailpipe emissions are divided into two general categories: Hotspots caused by localized emissions at heavily congested intersections and regional photochemical smog caused by combined emissions throughout the state.

Development under the *Proposed Master Plan* would likely increase vehicle travel on existing local public roads due to visitors and staff using the increased capacity of the MGSH campus. However, it is unlikely that the increased traffic and congestion would cause localized air pollutant concentrations at a local intersection to form a hotspot (i.e., a localized area where air pollutant concentrations exceed NAAQS). The PSCAA operates ambient air pollution monitors at some of the most heavily congested intersections in the Puget Sound region, and the NAAQS are met for all pollutants at all sites.

Furthermore, EPA motor vehicle regulations have steadily decreased tailpipe emissions from individual vehicles. Continuing decreases from individual vehicle emissions are expected to more than offset the increase in vehicle traffic, leading to a decrease in total GHG emissions from transportation sources, even as populations increase. For these reasons, it is unlikely that air quality impacts at local intersections would be significant.

GHG Emissions

Climate change is a major global issue. However, it is not possible to discern the impact that GHG emissions from a single development project may have on global climate change. Neither the EPA, State of Washington, nor City of Puyallup currently have regulations in place to provide guidance on analysis of the impacts of climate change and associated GHG emissions. For the purposes of analysis of the climate change impacts of the *Proposed Master Plan,* the *SEPA Greenhouse Gas Emissions Worksheet* formulated by King County was used to estimate the emissions footprint of the alternatives for the lifecycle of the development, specifically:

- the extraction, processing, transportation, construction and disposal of materials and landscape disturbance (embodied emissions);
- energy demands created by the development after it is completed (energy emissions); and
- transportation demands created by the development after it is completed (transportation emissions) (see **Appendix C** for the completed worksheet).

It is estimated that assumed development under the *Proposed Master Plan* would generate GHG emissions associated with construction activities (e.g., excavation and grading), production/extraction of construction materials, energy consumption from construction and operation, and vehicle emissions from associated vehicle trips.

Table 3.3-1 lists the life-cycle GHG emissions estimate, averaged over a 62.5-year period, comparing increases caused by the combined future development at the MSGH project. As shown in **Table 3.3-1,** total GHG emissions associated with the *Proposed Master Plan* are estimated to be 31,905 CO_2e per year. Washington State GHG legislation requires that total gross GHG emissions for 2040 fall to 70 percent below 1990 emissions, or 93,500,000 metric tons CO_2e per year, by 2040 (Ecology; accessed November 16, 2023). The GHG emissions of the *Proposed Master Plan* would be only a small fraction (0.03 percent) of total statewide annual GHG emissions. Additionally, GHG emissions associated with the *Proposed Master Plan* are expected to be similar to the GHG emissions associated with the *No Action Alternative*; therefore, the impact is not considered significant.

Table 3.3-1
COMPARISON OF ANNUAL GREENHOUSE GAS EMISSIONS

GHG Emission Estimates	Health Care Inpatient	Health Care Outpatient	Other	Projected Average Annual GHG Emissions (metric tons CO2e per year) [a]		
				Proposed Master Plan	Alternative 1	No Action
Forecast Emissions						
Emissions (Stationary)	39	39	39	631	569	N/A
Emissions (Electricity)	1,938	737	1,278	21,152	19,973	
Emissions (Transportation)	311	305	138	3,487	2,998	
Emissions (Generators)	--	--	--	127	127	
Emissions (Boilers)	--	--	--	6,507	6,507	
Total Emissions				31,905	30,175	N/A
Difference Between Alternatives:				**1,730 / 5%**		
Statewide estimated 2040 annual GHG Emissions:				**93,500,000**		
Project Emissions as a Percent of Total State GHG Emissions:				**0.03%**	**0.03%**	

(a) Calculation assumes a typical 62.5-year lifespan for the project.
Sourced and modified from King County SEPA GHG Emissions Worksheet (King County 2019).

Alternative 1 – Reduced Medical Office Building Size

Development under *Alternative 1* would include the same development program as the *Proposed Master Plan*, except that the second, 100,000 gsf Medical Office Building (MOB B) proposed under Phases 2-4 would not be developed. All other development proposed as part of the Master Plan under *Alternative 1* would be built as described for the *Proposed Master Plan*.

Air Quality

Construction and Operation

Potential impacts associated with construction activities and operational activities (emissions, localized stationary source emissions, localized CO hotspots, and regional tailpipe emissions) under *Alternative 1* are generally the same as those discussed for the *Proposed Master Plan*.

GHG Emissions

As shown in **Table 3.3-1**, total GHG emissions associated with *Alternative 1* are estimated to be 30,175 CO_2e per year. As listed in **Table 3.3-1**, *Alternative 1* would result in GHG emissions smaller than the *Proposed Master Plan* by 1,730 metric tons CO_2e per year. This

difference is because *Alternative 1* would not include the second, 100,000-sf Medical Office Building included in the *Proposed Master Plan*. The difference in estimated GHG emissions between the *Proposed Master Plan* and *Alternative 1* is approximately 5 percent; therefore, the two alternatives are considered equivalent for the purposes of this analysis. Additionally, GHG emissions associated with *Alternative 1* are expected to be similar to the GHG emissions associated with the *No Action Alternative*; therefore, the impact is not considered significant.

No Action Alternative

Under the *No Action Alternative*, the site would largely remain in its existing condition. The *No Action Alternative* assumes that future development of hospital uses outlined under the *Proposed Master Plan* and *Alternative 1* would not occur on campus, and that any future new projects would apply for individual permits under PMC 20.43 on a site-by-site basis, adhering to development standards in the City's code. Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur.

For the purposes of this analysis, it is assumed that no development would occur under the *No Action Alternative,* therefore, potential air quality impacts associated with construction and operational activities on and in the vicinity of the campus would be significantly less than those described under the *Proposed Master Plan*. However, due to the need for medical facilities in the region, development could occur either at the project location under individual project permit approvals, or at other locations in the region. If the current location is not able to accommodate the growing local need for medical care, patients would be required to travel farther for care, resulting in increased VMT and GHG emissions in the region.

Indirect/Cumulative Impacts

Development facilitated by the MSGH project (*Proposed Master Plan* and *Alternative 1*) would result in indirect effects on air quality. For example, additional people and vehicles in and around the MGSH site could lead to greater concentrations of pollutants that could adversely affect air quality.

The *Proposed Master Plan* and *Alternative 1* would increase local VMT. However, compared to other population and economic growth throughout the region, the increase attributable to the proposed MGSH project would be negligible, and as suggested earlier in this chapter, the project would likely improve air quality at the regional level by reducing the distance traveled for medical services.

All future development in Washington State would also contribute to worldwide emissions of GHG, which would contribute to potential future effects caused by global climate change (e.g., changes in seasonal temperature, seasonal precipitation, and local sea-level rise).

Conclusion

The MGSH campus and immediately surrounding area is currently in attainment for all air quality standards, and is located within the regional Tacoma-Pierce County maintenance area for $PM_{2.5}$.

The EIS Alternatives would generate air emissions during construction and operation of proposed development of the site, including GHG emissions. Air emissions during construction (e.g., dust and pollutants) would largely be controlled through compliance with City construction regulations. Tailpipe emissions from vehicles traveling on public roads would be the major source of air pollutant emissions associated with operation of the EIS alternatives. However, the site area is located in an attainment area for all criteria pollutants; therefore, it is unlikely that increased traffic would cause localized air pollutant concentrations ("hot spots"). The EIS alternatives would contribute to GHG emissions; however, the emission increase would be only a small fraction of total statewide annual GHG emissions. No single project emits enough GHG emissions to solely influence global climate change. Therefore, no significant air quality impacts are anticipated.

3.3.3 Mitigation Measures

The following measures have been identified to address the potential air quality impacts from construction and operation of the *Proposed Master Plan*. These measures apply to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts. Other Possible Measures are additional measures that could be implemented to address impacts but are not necessary to mitigate significant impacts.

Legally-Required Measures

All development in Washington State is required to comply with the following regulations:

- National Ambient Air Quality Standards: As described above, the EPA establishes NAAQS and specifies future dates for states to develop and implement plans to achieve these standards.
- State Ambient Air Quality Standards: Ecology establishes state ambient air quality standards for the same six key criteria air pollutants as the NAAQS that are at least as stringent as the national standards; in the case of sulfur dioxide, state standards are more stringent.

- Puget Sound Clean Air Agency Regulations: All construction sites in the Puget Sound region are required to implement rigorous emission controls to minimize fugitive dust and odors during construction, as required by PSCAA Regulation 1, Section 9.15: Fugitive Dust Control Measures. All industrial and commercial air pollutant sources in the Puget Sound region are required to register with the PSCAA. Facilities with significant emissions are required to obtain an NOC air quality permit before construction can begin.
- State of Washington GHG Laws: As described above, Washington State enacted a new law establishing GHG reduction limits.

Measures Proposed as Part of the Project

The following features would be incorporated into the project and would contribute to a reduction in GHG emissions. These measures are still in the planning phase, would be tied to individual phases or components of the *Proposed Master Plan*, and a quantitative analysis is not feasible, but it is expected that these measures would have only a small mitigation impact and would not affect overall GHG emissions in a measurable way:

- The applicant, of its landscaping design and consistent with applicable codes, would include vegetated buffers along the edges of campus, street plantings where appropriate, and open spaces with landscaping elements intended to buffer the impact of buildings and improve air quality.
- Stormwater retention and native landscaping are planned throughout the site consistent with applicable codes.

The following feature would be incorporated into the project and would contribute to improved air quality:

- No indoor wood-burning appliances will be included in either action alternative.

Other Possible Measures

Construction

Construction contractors should be required to implement air quality control plans for construction activities at the MGSH site. Contractors should be required to prepare a dust control plan that commits the construction crews to implement all reasonable control measures described in the Guide to Handling Fugitive Dust from Construction Projects (AGCW 2009). The air quality control plans should include best management practices (BMPs) to control fugitive dust and odors emitted by diesel construction equipment.

The following BMPs should be used to control fugitive dust:

- Use water sprays or other non-toxic dust control methods on unpaved roadways
- Minimize vehicle speed while traveling on unpaved surfaces
- Prevent track-out of mud onto public streets

- Cover soil piles when practicable
- Minimize work during periods of high winds when practicable.

The following mitigation measures should be used to minimize air quality and odor issues caused by tailpipe emissions:

- Maintain the engines of construction equipment according to manufacturers' specifications
- Minimize idling of equipment while equipment is not in use

If there is heavy traffic during some periods of the day, scheduling haul traffic during off-peak times (e.g., between 9:00 a.m. and 4:00 p.m.) would reduce effects on traffic congestion and would minimize indirect increases in traffic-related emissions.

Operation

No additional mitigation measures are currently included in the *Proposed Master Plan*; however, the following energy-efficiency measures could be incorporated into individual buildings during future stages of design:

- Use of low VOC coatings and materials
- Energy-efficient lighting
- Incorporation of passive solar design
- Energy-efficient heating and cooling systems
- Energy-efficient appliances
- Bicycle-storage areas, covered transit waiting areas, and other vehicle-reduction incentives.

3.3.4 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts on regional or local air quality are anticipated. Temporary, localized dust and odor impacts could occur during construction activities. The regulations and mitigation measures described above are adequate to mitigate any adverse impacts anticipated to occur as a result of the *Proposed Master Plan*.

Though no significance threshold currently exists for GHG impacts, modeled GHG emissions related to the project in 2043 under any action alternative are 0.03 percent of total statewide annual GHG emissions, and are not considered significant.

3.4 NOISE

This section of the DEIS describes the noise conditions on and near the MultiCare Good Samaritan Hospital (MGSH) site. Potential impacts from development of the EIS alternatives on noise conditions are evaluated and mitigation measures identified. This analysis is based on the Noise Report prepared by Landau Associates in 2024 (see **Appendix D**).

Methodology

An analysis of the potential noise impacts of the EIS alternatives was quantitatively addressed for temporary construction noise and long-term (operational) noise from nearby residential development. Noise associated with vehicular traffic on existing roadways is quantitatively addressed using a screening-level study.

In October 2023, 48-hour sound level measurements (SLM) were collected at three locations representative of residences nearest the project area. The measurements were taken using Larson Davis Class 1 sound level meters (Model LxT). The meters had been factory-certified within the previous 12 months and were field-calibrated immediately prior to the measurements. The microphones of the meters were fitted with wind screens and set approximately 5 feet above the ground (at a typical listening height).

Characteristics of Sound and Noise

For the purposes of this analysis, noise can be described as sound that is undesired, in terms of its loudness (amplitude) and frequency (pitch). Magnitudes of typical noise levels are presented in **Table 3.4-1**, below.

Table 3.4-1
COMMON SOURCES OF NOISE

Noise Source	Decibel Level	Notes
Jet takeoff at 50 feet	140	Physical pain and immediate injury
Chain saw, siren at close range	120	Uncomfortably loud
Loud entertainment venue	105-110	
Motorcycle at 50 feet	95	Very loud
Noisy urban street	85	
Washing machine or dishwasher	70	Possible annoyance
Range of normal human speech	50-70	
Average office	50	Quiet
Refrigerator hum	40	
Whisper, ticking watch	20-30	Barely audible

Sources: HUD 2009; CDC 2019.

The human ear responds to a very wide range of sound intensities. The decibel scale (dB) used to describe sound is a logarithmic rating system that accounts for the large differences

in audible sound intensities. This scale accounts for the human perception of a doubling of loudness as an increase of10 dB. Therefore, a 70-dB sound level will sound about twice as loud as a 60-dB sound level. People generally cannot detect differences of 1 dB; in ideal laboratory situations, differences of 2 or 3 dB can be detected by people, but such a change probably would not be detectable in an average outdoor environment. A 5-dB change would probably be perceived under normal listening conditions.

When addressing the effects of noise on people, it is useful to consider the frequency response of the human ear. Sound-measuring instruments are therefore often programmed to weight measured sounds based on the way people hear. The frequency-weighting most often used is A-weighting because it approximates the frequency response of human hearing and is highly correlated to the effects of noise on people. Measurements from instruments using this system are reported in "A weighted decibels," or dBA. All sound levels in this evaluation are reported in A-weighted decibels.

Distance from the source, the frequency of the sound, the absorbency of the intervening ground, obstructions, and duration of the noise-producing event all affect the transmission and perception of noise. The degree of this effect also depends on who is listening and on existing sound levels.

Regulatory Framework

City of Puyallup

The MGSH site is located Puyallup and is subject to the noise regulations established by the City of Puyallup Municipal Code (PMC). PMC Chapter 6.16 does not contain quantitative noise limits and adopts by reference relevant chapters of the Washington Administrative Code (WAC).[1]

As described in the following section, allowable "maximum permissible" sound levels promulgated in the WAC depend on the Environmental Designation of Noise Abatement (EDNA). The PMC identifies the EDNA based on zoning. Zones designated in Title 20 of the PMC as single-family residential zones (RS), multiple-family residential zones (RM), and planned residential development zones (PDR) are considered Class A EDNAs. Zones designated as commercial zones (C), professional office zones (OP), and planned community development zones (PDC) are considered Class B EDNAs. The Class C EDNA includes zones designed as manufacturing zones (M).

Section 6.16.060 of the PMC exempts the following noises from the provisions of Chapter 6:

- Noise created by warning devices not operated continuously for more than 30 minutes per incident
- Noise created by motor vehicles when regulated by PMC 6.16.030

[1] WAC Chapters 175-58, 173-60, and 173-62

- Noise created by motor vehicles, licensed or unlicensed, when operated off public highways except when such sounds are received in residential zones of the city
- Noise emanating from temporary construction sites except between the hours of 10:00 p.m. and 7:00 a.m.

Washington Administrative Code

Chapter 173-60 WAC limits the levels and durations of noise crossing property boundaries (see **Table 3.4-2**). Allowable maximum permissible sound levels depend on the EDNA of the source of the noise and the EDNA of the receiving property. WAC 173-60-030 stipulates that EDNA land classification shall conform to land uses unless a local jurisdiction has adopted a program in which EDNA classifications are based on zoning. Generally, lands in residential use are considered Class A EDNAs, commercial properties are considered Class B EDNAs, and industrial areas are considered Class C EDNAs. The maximum permissible noise levels are shown in **Table 3.4-2**.

Table 3.4-2
WASHINGTON ADMINISTRATIVE CODE MAXIMUM PERMISSIBLE SOUND LEVELS

EDNA of Source	EDNA of Receiving Property (dBA)		
	Class A (a)	Class B	Class C
Class A	55/45 dBA	57 dBA	60 dBA
Class B	57/47 dBA	60 dBA	65 dBA
Class C	60/50 dBA	65 dBA	70 dBA

Source: WAC 173-60-040.

The maximum permissible environmental noise levels cited above in **Table 3.4-2** may be exceeded for short periods as defined in WAC 173-60-040. The allowed short-term increases are as follows:

- Up to 5 dBA for a total of 15 minutes in any hour;
- Up to 10 dBA for no more than 5 minutes of any hour; or
- Up to 15 dBA for a total of 1.5 minutes of any hour.

These allowed short-term increases can be described in terms of L_{ns} that represent the percentage of time certain levels are exceeded. For example, the hourly L_{25} metric represents the sound level that is exceeded 25 percent of the time, or 15 minutes in an hour. Similarly, the $L_{8.3}$ and $L_{2.5}$ are the sound levels exceeded 5 and 1.5 minutes in an hour, respectively. The maximum permissible levels are not to be exceeded by more than 15 dBA at any time, and this limit is represented by the L_{max} noise metric.

WAC 173.60.050 exempts the following sources from the above-noted noise limits:

- Temporary construction noise, except when received in Class A EDNA properties between the hours of 10 p.m. and 7 a.m.

- Sounds created by motor vehicles when regulated by the state noise limit (Chapter 173-62 WAC)
- Sounds created by motor vehicles, licensed or unlicensed, when operated off public highways, except when such sounds are received in Class A EDNAs
- Sounds created by warning devices not operating continuously for more than 5 minutes (such as back-up alarms on vehicles).

Traffic Noise

Although the City of Puyallup has no noise limits applicable to general traffic noise on public roadways, the Federal Highway Administration (FHWA) Noise Abatement Criteria (NAC), and Washington State Department of Transportation's (WSDOT's) implementation of these criteria provide a means to consider traffic noise. The NAC are not applicable to this project however, they are presented here as quantitative noise thresholds for evaluating the impacts of traffic noise on receivers within the study area (project area and immediate surroundings).

The NAC identifies noise levels for various land-use categories to determine whether traffic noise impacts would occur. The NAC for residential areas, schools, active sport areas, parks, and trails is a level "approaching or exceeding" 67 dBA at exterior use locations, and WSDOT defines a peak-hour traffic noise level impact criterion of 66 dBA. Consistent with the NAC, WSDOT defines a traffic noise impact as either of the following:

- Peak-hour traffic noise level of 66 dBA (L_{eq}) or greater at the exterior outdoor use area of any existing or future dwelling; and
- Increase in peak-hour traffic noise of 10 dBA L_{eq} or greater (future project level minus existing level) at the exterior outdoor use area of any existing dwelling (considered a "substantial increase").

3.4.1 Affected Environment

This sub-section describes the existing land uses, zoning, and noise sources on and near the MSGH site.

Existing Land Use and Zoning

The project site is zoned Medical and is therefore conservatively considered a Class A EDNA source[2]. Land to the south and southwest is zoned Medical. Land to north and northeast of the project site is zoned High-Density Multiple-Family Residential. Land adjacent to the east and southeast of the project site is zoned Low Urban Density Single-Family Residential. The aforementioned adjacent properties are considered Class A EDNA receiving properties. Land adjacent to the northwest of the site is zoned General Commercial. These properties are

[2] The City classifies MED under EDNA B.

considered Class B EDNA receiving properties/ (See **Figure 3.5-3**, Zoning Map, in **Chapter 3.5, Land Use**).

Baseline Sound Level Measurements

Sound level measurements were taken at the following locations (see **Figure 3.4-1** for locations):

- SLM1: Near the eastern property boundary
- SLM2: Near the intersection of 15th Avenue SE and 7th Street SE
- SLM3: Northeast of the project site, near 7th Street SE.

Results of the sound level measurements are summarized below in **Table 3.4-3**.

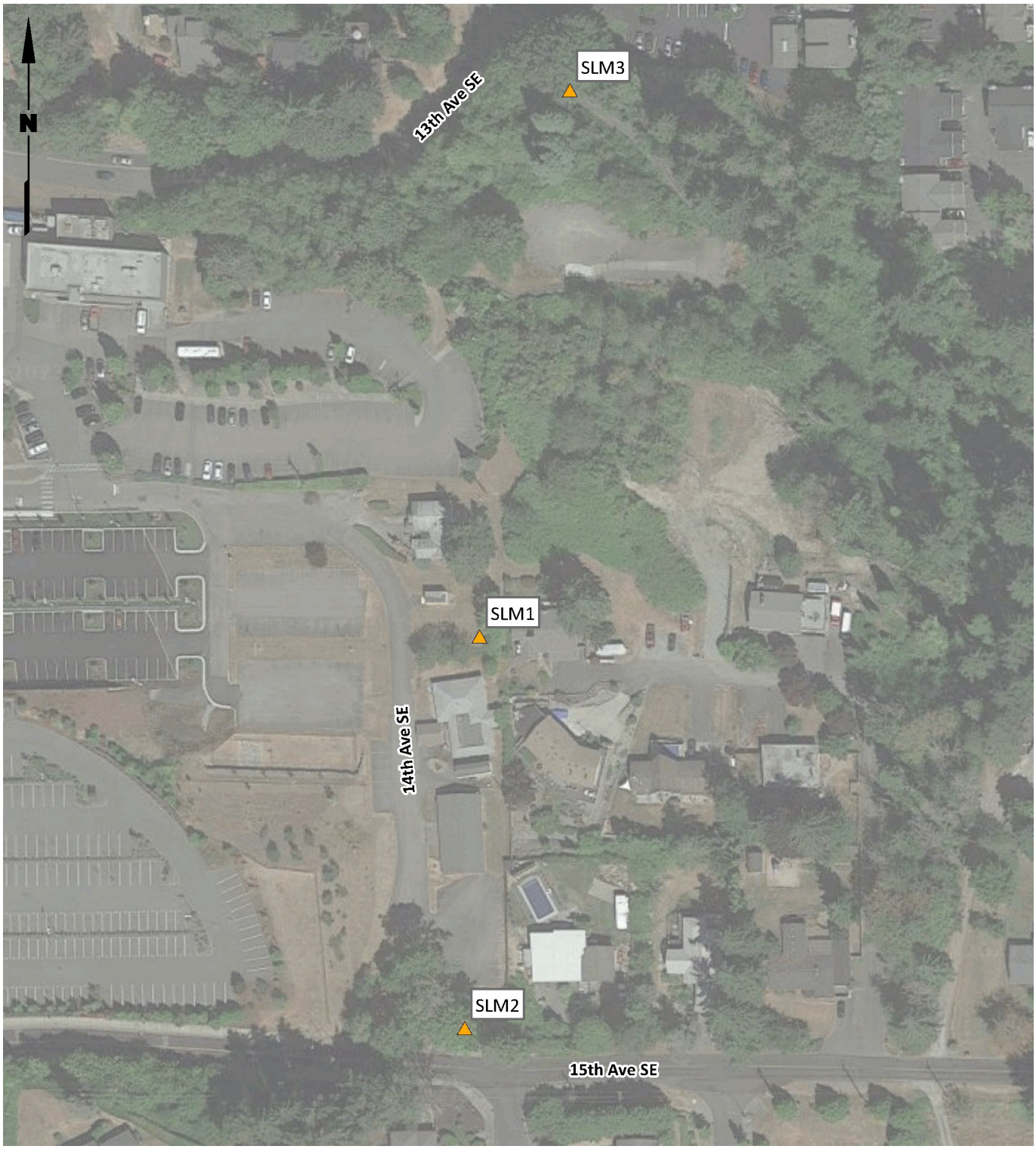
Table 3.4-3
MEASURED EXISTING SOUND LEVELS

Location	Time Period (a)	Range of Hourly Sound Levels (dBA) (b) (c)				
		Leq	$L_{2.5}$	$L_{8.3}$	L_{25}	Lmax
SLM1	Day	57-63	60-70	59-66	58-64	68-82
	Night	57-62	60-64	59-63	57-62	67-81
SLM2	Day	60-65	63-69	61-66	59-64	79-95
	Night	56-62	59-67	58-63	57-62	70-89
SLM3	Day	60-67	63-74	62-69	61-67	70-99
	Night	57-63	61-66	60-64	57-63	67-83

Source: Landau Associates, 2024,
Notes:
(a) "Day" refers to the hours between 7 a.m. and 10 p.m. "Night" refers to the hours between 10 p.m. and 7 a.m.
(b) The L_{eq} is the "energy-averaged" equivalent sound level. The L_{max} is the highest measured sound level. The $L_{2.5}$, $L_{8.3}$, and L_{25} levels are defined previously in this section in the discussion of the regulatory noise limits.
(c) Sound level measurements were made between October 4, 2023, and October 6, 2023.

Existing Traffic Sound Levels

A traffic study was conducted to document existing traffic volumes along various roadways in the project vicinity and to estimate projected traffic volumes associated with the *Proposed Master Plan* and *No Action Alternative*. Based on the traffic study, seven of the worst-affected roadway segments located adjacent to or near the MGSH property were selected for assessment of the potential for traffic noise impacts related to the project. The traffic volumes considered for this assessment are provided in **Table 3.4-4**. A review of the morning (AM) peak hour and evening (PM) peak hour traffic volumes revealed that the PM peak hour represents a worst-case scenario for traffic noise, so the PM peak hour was the focus of the traffic noise assessment.



Legend

▲ Sound Level Measurement Locations

0 125 250

Scale in Feet

Note

1. Black and white reproduction of this color original may reduce its effectiveness and lead to incorrect interpretation.

Source: Landau Associates, 2024.

EA Engineering, Science, and Technology, Inc., PBC

Figure 3.4-1

Sound Level Measurement Locations

Table 3.4-4
TRAFFIC VOLUMES ON SELECTED ROADWAY SEGMENTS

Roadway Segment	AM Peak Hour			PM Peak Hour			Speed (mph)
	Existing	2043 No Action	2043 Proposed Action	Existing	2043 No Action	2043 Proposed Action	
15th Avenue SW, East of 9th Street SW to SR512	775	945	1009	1005	1227	1312	35
15th Avenue SE, Meridian to 3rd St SE	940	1147	1865	950	1158	1926	25
15th Avenue SE, 3rd St SE to 5th St SE	780	951	1724	840	1025	1944	25
15th Avenue SE, 5th St SE to 7th St SE	340	416	491	435	531	623	25
S Meridian south of 15th	2465	3008	3163	2560	3123	3337	35
7th St SE south of 15th	215	262	340	365	445	537	25
12th Ave SE west of 9th St SE	150	184	200	265	323	345	25

Note: Two percent of traffic volumes were assumed to be heavy duty trucks.

Using the Existing (2023) traffic volumes identified in the traffic study, an assumed heavy truck percentage of 2 percent for all roads, and posted speed limits for each roadway segment, the FHWA's Traffic Noise Model (TNM) v2.5 was used to construct simple, representative models for each roadway segment considered for this assessment. TNM was then used to calculate the traffic sound levels at a standard distance of 50 feet from the centerline of each roadway segment. The modeled traffic sound levels along each roadway segment considered are provided in **Table 3.4-5**

Table 3.4-5
MODELED EXISTING (2023) TRAFFIC SOUND LEVELS

Roadway Segment	PM Peak Hour (Leq, dBA)
15th Avenue SW, East of 9th Street SW	64.4
15th Avenue SE, Meridian to 3rd Street SE	61.0
15th Avenue SE, 3rd Street SE to 5th Street SE	60.5
15th Avenue SE, 5th Street SE to 7th Street SE	57.7
South Meridian south of 15th Avenue SE	**68.4**
7th Street SE south of 15th Avenue SE	56.8
12th Avenue SE west of 9th Street SE	55.4

Note: Bolded text identifies existing traffic sound levels approaching or exceeding the FHWA/WSDOT NAC levels used to identify traffic noise impacts.

As noted in **Table 3.4-5**, existing traffic sound levels along South Meridian Street south of 15th Avenue SE currently exceed the 66 dBA identified as a traffic noise impact using FHWA/WSDOT noise impact criteria.

3.4.2 Impacts of the Alternatives

An analysis of the potential noise impacts of the *Proposed Master Plan* is provided below for the EIS alternatives. Noise impacts were assessed for the following elements: Construction noise, onsite operational noise, and noise associated with increases in offsite traffic. The noise impacts of each of these elements on existing residential receivers are discussed.

Proposed Action - Proposed Master Plan

The *Proposed Master Plan* provides for long-term phased development of the MGSH. The current campus boundary and size (approximately 34.9 acres) would not change under the *Proposed Master Plan*. Development under the *Proposed Master Plan* would occur in phases and include up to approximately 2.25 million gsf of building space (a net increase of 1.0 million gsf).

Phase 1 would include five projects constructed incrementally (estimated between 2025 and 2028), including buildings, building expansions, and parking structures. Approximately 7,000 sq. ft. of building area is anticipated to be demolished as part of new construction. Proposed development in Phase 1 would add 432,000 gsf to the MGSH campus, bringing total campus development to approximately 1.68 million gsf. See **Table 2-2** and **Figure 2-8** in *Chapter 2* for a summary and depiction of development in Phase 1 of the *Proposed Master Plan*, respectively.

Phases 2 through 4 would feature construction of five additional projects from about 2028 through 2043, including buildings and parking structures. This development would add 580,000 net gsf, bringing total campus development to approximately 2.26 million gsf. See **Table 2-2** and **Figure 2-9** in *Chapter 2* for a summary and depiction of development in Phases 2 through 4 of the *Proposed Master Plan*, respectively.

During Construction

Under the *Proposed Master Plan*, existing buildings would be demolished, clearing and grading would take place, and new infrastructure would be constructed. Demolition of existing structures, clearing and grading activities, and construction of new infrastructure and housing would be accompanied by temporary increases in noise due to the use of heavy equipment and hauling of construction materials. Noise impacts would depend on the background sound levels, the type of construction equipment being used, and the amount of time it is in use.

Noise originating from temporary construction sites and received in a Class A EDNA (residential) property is exempt from the WAC noise limits described above between 7 a.m. and 10 p.m.

Construction noise may have a temporary, localized impact on nearby residences, businesses, schools, and parks. However, due to the temporary nature of the noise and the restriction of construction activities to daytime hours, any impacts are expected to be less than significant.

During Operation

Onsite Noise

The *Proposed Master Plan* includes the expansion of patient care facilities on an existing hospital campus. Most of the expansion would occur within the MGSH campus and would include the same general types of buildings and sources (e.g., mechanical and cooling equipment) currently in use at the existing facility. No major noise impacts have been identified on the existing campus, and any noise impacts on the surrounding community from the expansion of the campus with the *Proposed Master Plan* are expected to be less than significant.

Local Roadway Noise

The *Proposed Master Plan* would result in increased traffic volumes along existing roadways in the project vicinity. As discussed earlier, the traffic volumes provided in the traffic study were reviewed and the worst-case roadway segments in the project vicinity and worst-case time period (i.e., the PM peak hour) were selected for the assessment. The traffic volumes and speed assumptions, provided in **Table A-1** in **Appendix D** to this Draft EIS, were input into TNM to calculate sound levels along the roadway segments with the *Proposed Master Plan*. The traffic noise modeling results are shown in **Table 3.4-6**.

Table 3.4-6
MODELED TRAFFIC SOUND LEVELS

Roadway Segment	2023 Existing Level (Leq, dBA)	No Action Alternative (Leq, dBA)		Proposed Master Plan(Leq, dBA)		
		No Action Level	Increase over Existing	Proposed Action Level	Increase over Existing	Increase over No Action
15th Avenue SW, East of 9th Street SW	64.4	65.3	0.9	65.5	1.1	0.2
15th Avenue SE, Meridian to 3rd Street SE	61.0	61.9	0.9	64.1	3.1	2.2
15th Avenue SE, 3rd Street SE to 5th Street SE	60.5	61.4	0.9	64.1	3.6	2.7
15th Avenue SE, 5th Street SE to 7th Street SE	57.7	58.6	0.9	59.1	1.4	0.5
South Meridian south of 15th Avenue SE	**68.4**	**69.3**	0.9	**69.6**	1.2	0.3
7th Street SE south of 15th Avenue SE	56.8	57.8	1	58.6	1.8	0.8
12th Avenue SE east of 9th Street SE	55.4	56.2	0.8	56.7	1.3	0.5

Note: **Bolded** text identifies existing traffic sound levels approaching or exceeding the FHWA/WSDOT NAC levels used to identify traffic noise impacts.

As shown in **Table 3.4-6**, the *Proposed Master Plan* would result in a 3.6-dBA increase over the existing traffic sound levels along the worst-affected roadway segment on 15th Avenue SE between 3rd and 5th Streets SE. As noted earlier, an increase in ambient noise of 2 to 3 dBA would likely not be perceptible in an average outdoor environment and an increase of 5 dBA would probably be perceived under normal listening conditions. As such, an increase of 3.6 may be perceived over existing conditions, however it would not be characterized as substantial using the FHWA/WSDOT impact criteria. Furthermore, while one roadway segment (i.e., South Meridian south of 15th Avenue SE) had modeled sound levels exceeding the 66 dBA level considered an impact by FHWA/WSDOT, the *Proposed Master Plan* would result in a minimal increase of 1.2 dBA over the existing levels. Finally, the project-related traffic noise impacts should be assessed by comparing the *Proposed Master Plan* levels to the *No Action Alternative* levels, and the increases of 0.2 to 2.7 dBA would not be characterized as substantial nor likely to be discernible.

Therefore, the *Proposed Master Plan* would not result in significant traffic noise impacts.

Alternative 1 – Reduced Medical Office Building Size

Development under *Alternative 1* would include the same development program as the *Proposed Master Plan*, except that the second, 100,000 gsf Medical Office Building (MOB B) proposed under Phases 2-4 would not be developed. All other development proposed as part of the Master Plan under *Alternative 1* would be built as described for the *Proposed Master Plan*.

During Construction

Under *Alternative 1*, the same construction activities as the *Proposed Master Plan* would occur (existing buildings would be demolished, clearing and grading would take place, and new infrastructure would be constructed), except for MOB B, which would not be constructed under *Alternative 1*. It is expected that the construction noise impacts would be similar to the *Proposed Master Plan* and are expected to be less than significant.

During Operation

Under *Alternative 1*, the traffic volumes are expected to be less than the *Proposed Master Plan*. As noted above, the *Proposed Master Plan* would not result in significant traffic noise impacts; therefore, it can be extrapolated that *Alternative 1* would not result in significant traffic noise impacts.

No Action Alternative

Under the *No Action Alternative*, the site would largely remain in its existing condition. The *No Action Alternative* assumes that future development of hospital uses outlined under the *Proposed Master Plan* and *Alternative 1* would not occur on campus, and that any future

new projects would apply for individual permits under PMC 20.43 on a site-by-site basis, adhering to development standards in the City's code. Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur.

With the *No Action Alternative*, traffic volumes are expected to increase due to general traffic growth rates in the region. The modeled traffic sound levels with the *No Action Alternative*, as shown in **Table 3.4-6**, increase by 0.8 to 1.0 dBA over the existing 2023 traffic sound levels. Such a minimal increase would not be discernible. With the *No Action Alternative*, one roadway segment (i.e., South Meridian south of 15th Avenue SE) has modeled sound levels exceeding the 66-dBA level considered an impact by FHWA/WSDOT, but the increase of 0.9 dBA over existing conditions would be minimal. Therefore, the *No Action Alternative* would not result in significant traffic noise impacts.

Cumulative Impacts

Development facilitated by the MSGH project (*Proposed Master Plan* and *Alternative 1*) would result in indirect effects on local noise levels. For example, additional people and vehicles in and around the MGSH site could lead to greater noise levels on roadways and sensitive receptors adjacent to the roadways. Traffic on nearby existing roadways, and associated noise will increase by 2043 as a result of general traffic growth under all alternatives, including the *No Action Alternative*. However, the modeled traffic sound levels associated with the *Proposed Master Plan* compared to the *No Action Alternative* would result in an increase of less than 3 dBA, which would not result in significant adverse impacts. *Alternative 1* is forecast to have a smaller increase in traffic volume than the *Proposed Master Plan*, so significant adverse impacts are not anticipated.

Conclusion

Development under the EIS Alternatives would result in additional noise onsite and in the site vicinity. Temporary construction noise would occur over the course of development of the MGSH campus. Construction-related noise would be greater under the Proposed Master Plan and Alternative 1 than under the No Action Alternative due to the longer construction period and the greater amount of development. The primary source of noise during operation of the project would be from vehicular traffic. Noise level increases modelled for each of the EIS alternatives were below the significance threshold of impact criterion of 66 dBA for all modeled road segments. With implementation of the mitigation measures listed below, no significant noise impacts are expected.

3.4.3 Mitigation Measures

The following measures have been identified to address the potential noise impacts from development associated with the *Proposed Master Plan*. These measures apply to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts. Other Possible Measures are additional measures that could be implemented to address impacts but are not necessary to mitigate significant impacts.

Legally-Required Measures

- City of Puyallup noise regulations would be followed that require limiting construction activities to between the hours 7 AM and 10 PM on weekdays and between 8 AM and 6 PM on weekends and holidays when noise is received in a District I property, or between 7 AM and 10 PM on weekdays and 9 AM and 10 PM on weekends and holidays when that noise is received in a sensitive property.

Other Possible Measures

- To reduce construction noise at nearby receivers, the following mitigation measures could be incorporated into construction plans and contractor specifications:
    - Locate stationary equipment away from receiving properties;
    - Erect portable noise barriers around loud stationary equipment located near sensitive receivers;
    - Turn off idling construction equipment;
    - Require contractors to rigorously maintain all equipment; and,
    - Train construction crews to avoid unnecessarily loud actions (e.g., dropping bundles of rebar onto the ground or dragging steel plates across pavement) near noise-sensitive areas.

3.4.4 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse noise impacts are anticipated as a result of development under any of the EIS Alternatives. Additionally, implementation of the mitigation measures listed above would further reduce the potential for adverse noise impacts.

3.5 LAND USE PATTERNS

This section of the Draft EIS describes the existing land use conditions on the MultiCare Good Samaritan Hospital (MGSH) campus and vicinity and evaluates the potential land use impacts that could occur as a result of the *Proposed Master Plan* and *Alternative 1* (Reduced Medical Office Building Size). Land use conditions under the *No Action Alternative* are also evaluated.

3.5.1 Affected Environment

Existing MGSH Campus

The MGSH campus encompasses approximately 35 acres, with the center of campus generally located east of 3rd Street SE between 15th Avenue SE and 13th Avenue SE, with the central portion of campus extending approximately 2,000 feet in an east-west direction and approximately 1,900 feet in a north-south direction. Four parcels to the south (south of 15th Avenue SE) and six parcels to the west (west of 3rd Street SE) are also included in the campus boundary. The entire campus is owned by MGSH.

The MGSH campus reflects an urban medical center land use character, with a mix of buildings with associated driveways, sidewalks, surface and structured parking, and vegetated open space. Currently, approximately 22.1 acres (63 percent) of the campus is in impervious surfaces, such as buildings, surface parking and roadways, with approximately 12.8 acres (37 percent) of the campus in pervious area such as landscaped open space. The campus currently contains 11 buildings ranging from one (approximately 15 feet high) to 12 stories in height (approximately 158 feet high), with a combined total of approximately 1.24 million sq. ft. in building space; characteristics of the existing buildings on the campus are summarized in **Table 3.5-1.**

The existing buildings in the central portion of campus are mostly separate structures, except for the multiple wings of the Pavilions complex (Meadow Addition, Forest, and River Pavilions). The Dally Tower in the northcentral portion of the medical center contains all the MGSH's total of 375 licensed hospital beds. Two sky bridges connect Dally Tower to the Pavilions structure. Two parking structures (P1 and P2 parking garages) are located along the western edge of central campus (along 3rd Street SE) with two medical office buildings at the southern edge of the central portion of campus along 15th Avenue SE (see **Figure 2-3** in **Chapter 2** of this DEIS). The main public vehicular entrance to the MGSH campus is from

15th Avenue SE, which provides access for patients, visitors, and transit. A second access from 3rd Street SE provides emergency/service access.

TABLE 3.5-1
EXISTING CAMPUS BUILDING CHARACTERISTICS

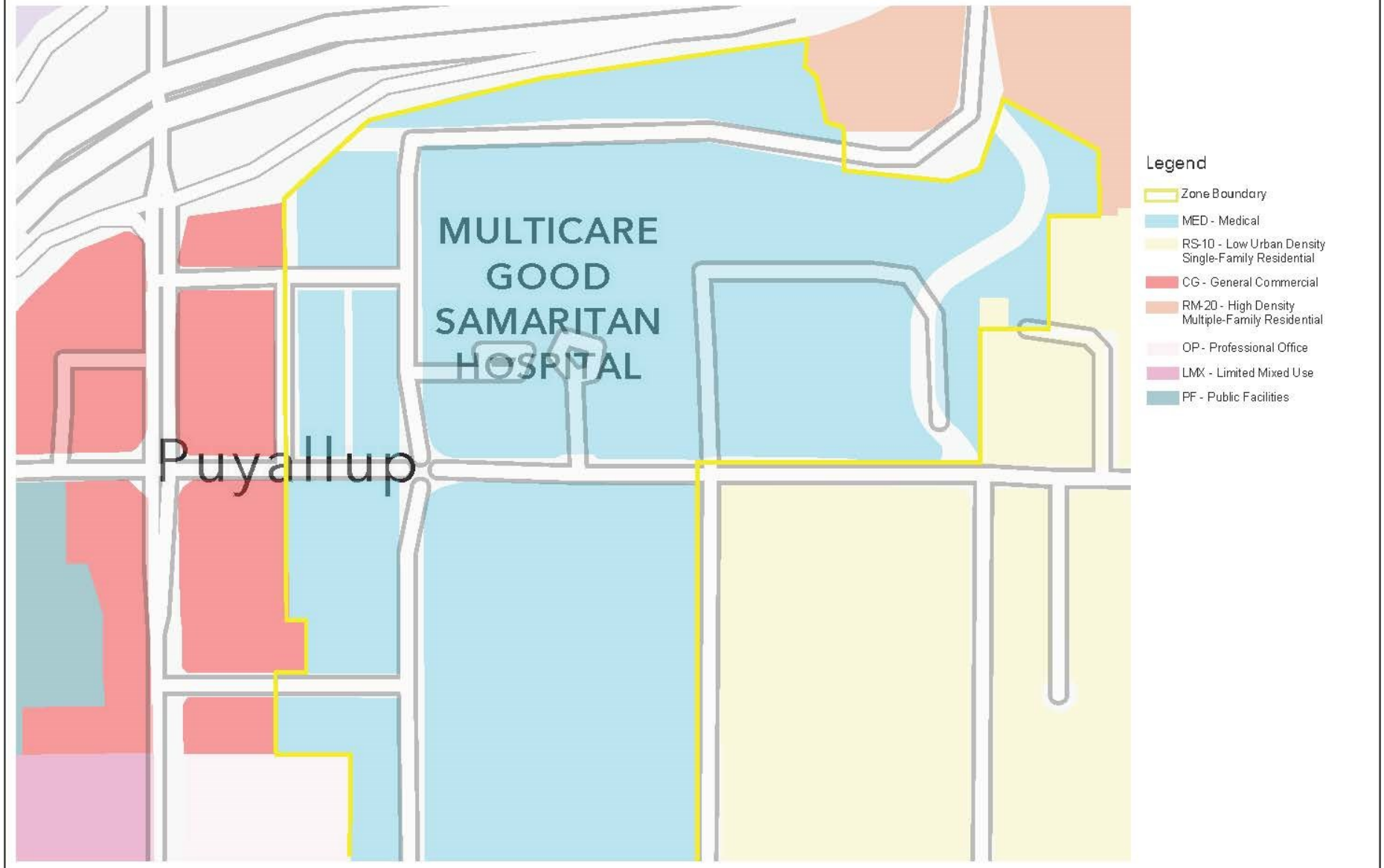
Building Identifier	Existing Building	Building Area (Gross Sq.Ft.)	Building Height (ft.)
A	Puyallup Valley Medical Clinic	22,482	38 ft.
B	Central Utility Plan	15,401	44 ft.
C	Cancer Center	35,537	32 ft.
D	Children's Therapy Unit	47,541	44 ft.
E	Pavilions • Pavilion - Meadow Addition • Pavilion – Forest • Pavilion - River	359,057	 • 86 ft. • 76 ft. • 37 ft.
F	Daily Tower	375,800	157 ft.-6 in.
I	Medical Office Building	83,736	65 ft.
J	Facilities Building	12,471	24 ft.
K	622-623 14th (Marketing)	3,784	15 ft.
	TOTAL	955,809	
G	P2 Parking Garage (1990)	138,484	40 ft.
H	P1 Parking Garage (2010)	150,103	37 ft.
	TOTAL BUILDING SPACE	1,244,396	

Source: MGSH Master Plan, 2023.

MGSH uses outside of the central portion of campus include a medical office building and utility plant building west of 3rd Street SE, and two medical office buildings located south of 15th Street SE (see **Figure 2-3** in **Chapter 2** of this Draft EIS).

Surrounding Area

The MGSH is generally situated in the locational center of the city of Puyallup. The area surrounding the MGSH campus contains a mix of land uses. The Western Washington Fairgrounds lie to the northwest, across Highway 512. Multiple medical office buildings are present on the blocks immediately surrounding the campus; these are largely occupied by physicians affiliated with MGSH. The adjacent area to the south and southwest contain single-family residences and non-affiliated businesses. Nearby residences are also interspersed with privately-owned medical office buildings. Multi-family development lies to the northeast along 7th Street SE (see **Figure 3.5-1**).



Source: Perkins & Will, MGSH Master Plan, 2024

EA Engineering, Science, and Technology, Inc., PBC

Figure 3.5-1

Existing Land Use Map

The land use pattern of the area surrounding the MGSH campus is largely built environment, with limited natural area. Prominent built features that influence the land use character of the area consist primarily of transportation routes, including State Route 512, which is the major north/south interstate vehicular travel corridor through the city of Puyallup, and is located approximately 250 feet east of the campus. S. Meridian St, a principal arterial in Puyallup, is another major north/south vehicular travel corridor with associated commercial land uses, is located approximately 500 feet west of the campus. Although these transportation corridors are major built features in the area, neither of these features are visible from the MGSH campus (SR 512 is at a lower elevation than the MGSH campus and existing off-campus uses are located between the campus and S. Meridian St). A relatively narrow vegetated area is located north of the MGSH campus, generally located between 13th Ave. SE and SR 512. One- to two-story single-family residences comprise the majority of the uses to the northeast and east of the campus; two-story multifamily residences are located farther to the northeast of the campus.

Existing Land Use Designations

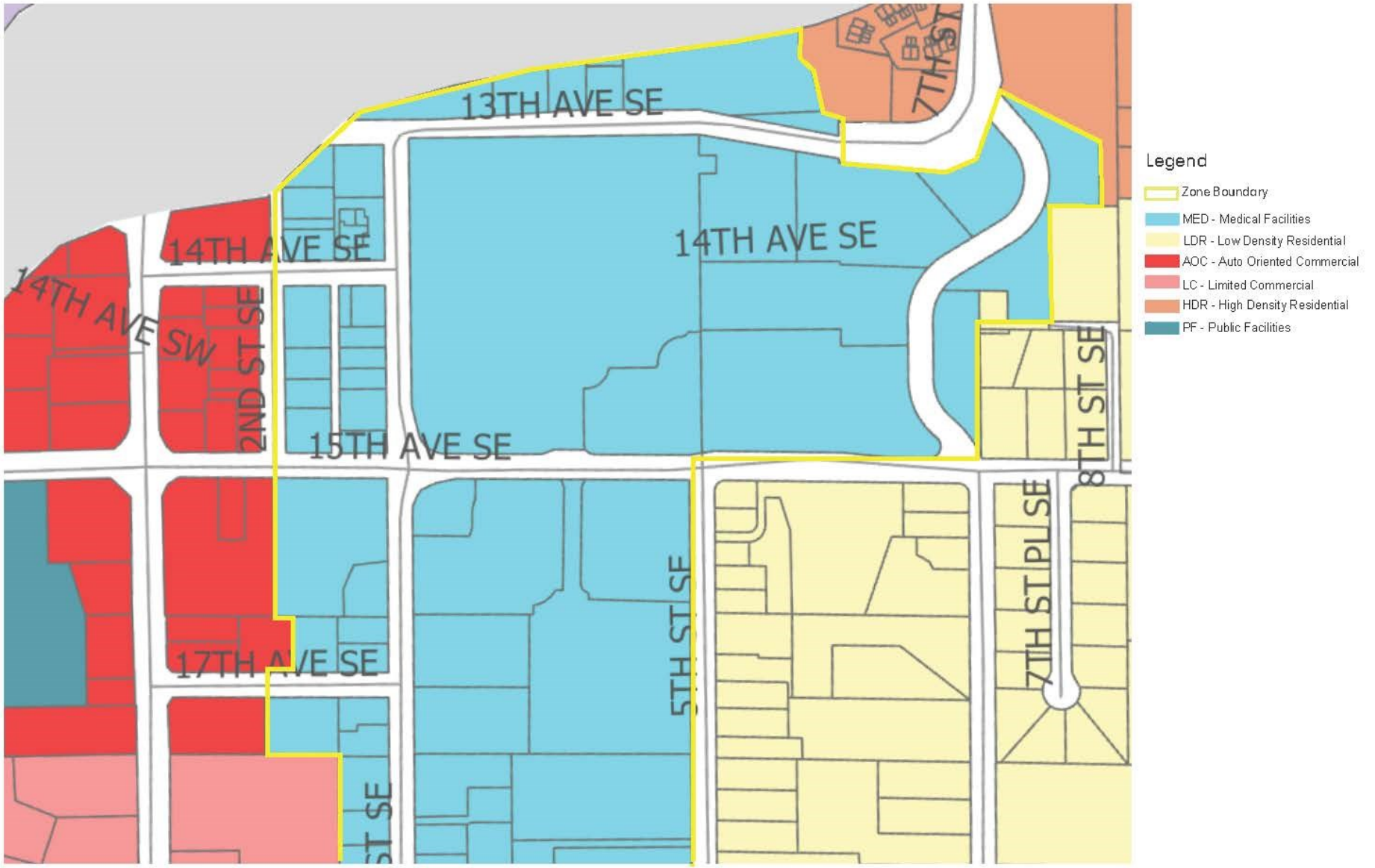
MGSH Campus

As indicated in **Figure 3.5-2**, the City of Puyallup Comprehensive Plan identifies the MGSH campus as Medical Facilities (MED). The MED designation is also applied to the area to the south (south to between 13th Ave. SE and SR 512 is also designated MED. The MED designation is intended to "*ensure that sufficient land is designated for medical uses to maintain the City's position as a regional provider of medical services*", and to "*encourage and support the medical community as an economic and employment driver in the city and east Pierce County*".

The MGSH campus is located within the Medical (MED) zoning area (see **Figure 3.5-3**). The purpose of the MED zoning designation is to: "*facilitate the development of a regional medical center through a master plan approval process that defines the overall scope and nature of development to occur within the master plan area over a period of years; and, supportive other uses of a regional medical center are also allowed within the MED zone outside the boundaries of an approved master plan*" (refer to the Relationships to Plans and Policies portion of this section for additional detail.

Surrounding Area

The City of Puyallup Comprehensive Plan identifies the area to the north, west and south as MED, with Auto Oriented Commercial farther to the west along S. Meridian, Low Density Residential farther to the south and east, with High Density Residential to the northwest (see **Figure 3.5-2**). The area surrounding the MGSH campus contains a range of zoning designations, including MED and RS-10 (Low Density Single-Family Residential) to the south, RS-10 to the east, RM-20 (High Density Multifamily Residential), General Commercial to the west along S. Meridian (see **Figure 3.5-3**). The maximum building height in the MED zone without a master plan, in the RS-10 zone, and in the RM-20 zone is 36 feet.

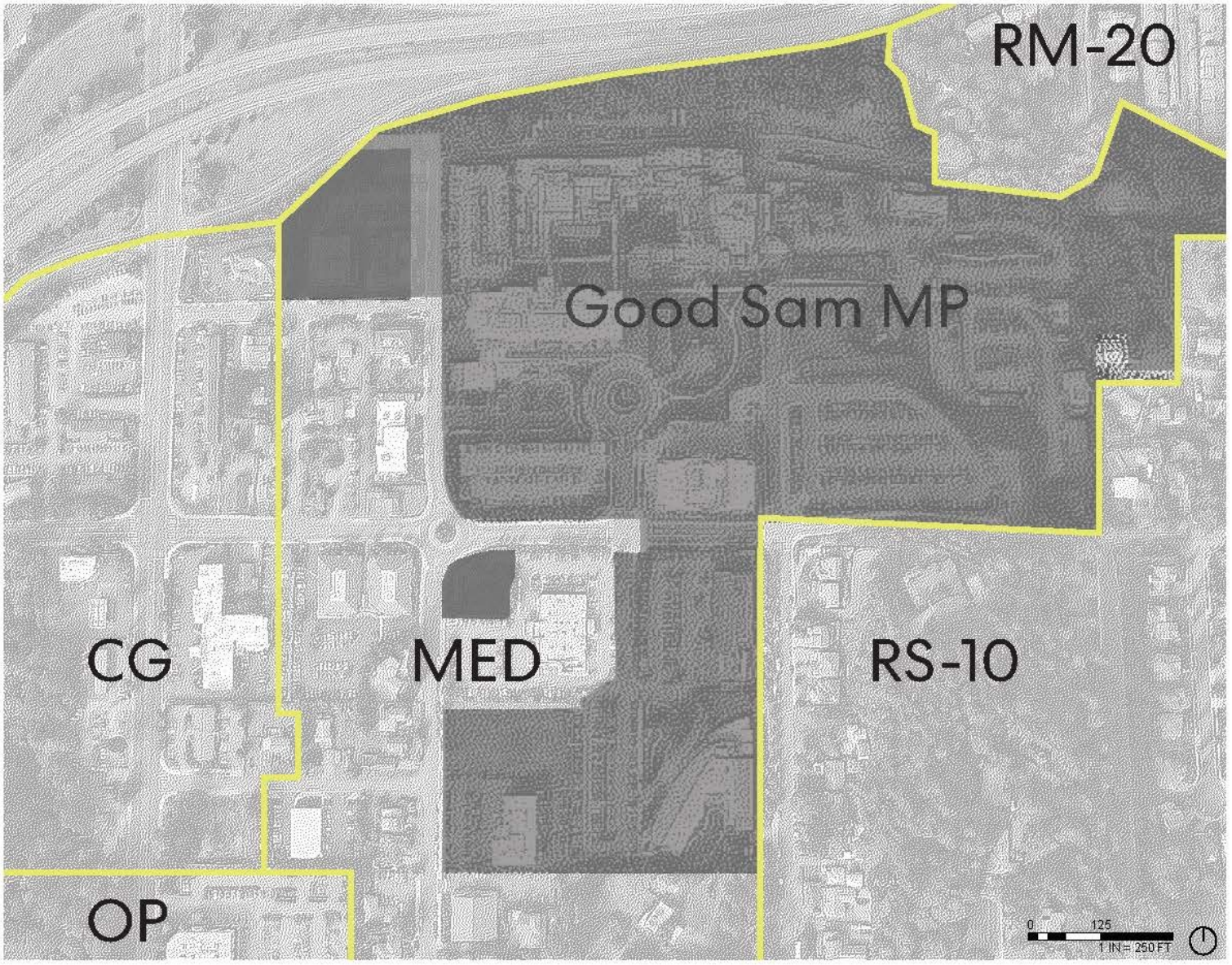


Source: Perkins & Will, MGSH Master Plan, 2024

EA Engineering, Science, and Technology, Inc., PBC

Figure 3.5-2

Comprehensive Plan Designation Map



Source: Perkins & Will, MGSH Master Plan, 2024.

EA Engineering, Science, and Technology, Inc., PBC

Figure 3.5-3

Existing Zoning Map

3.5.2 Impacts of the Alternatives

This section identifies and analyzes potential impacts on existing land uses on the MGSH campus and in the surrounding area that could occur with proposed development under the *Proposed Master Plan* and EIS Alternatives; proposed master plan development would be focus on the central portion of the MGSH campus. Land use impacts relate to construction and post-construction changes in the type, character or pattern of land use, the density of development, relationship to surrounding uses, and indirect/cumulative conditions.

Overall, implementation of the level of development under the *Proposed Master Plan* and *Alternative 1* would result in an intensification of uses on campus, replacement of some existing buildings, increases in building density, and increases in activity levels associated with the increase in campus population (staff and visitors). The overall mix and types of land uses on campus, and configuration of the campus boundary, would not change under the *Proposed Master Plan* and *Alternative 1.*

Proposed Action - Proposed Master Plan

Introduction

The *Proposed Master Plan* is intended to address anticipated growth in the demand for health care services in the region and would include approximately 1,012,000 sq. ft. of net new building space on campus (in combination with existing buildings, there would be a total of approximately 2.25 million sq. ft. of building space on campus), and up to 575 licensed hospital beds (an increase from the current 375 licensed hospital beds) over the approximately 20-year planning horizon. Approximately 7,000 sq. ft. of existing building space associated with Dally Tower would be demolished to accommodate proposed development. **Table 3.5-2** summarizes the overall development assumptions for the *Proposed Master Plan* along with existing conditions.

TABLE 3.5-2
PROPOSED MASTER PLAN DEVELOPMENT ASSUMPTIONS*

	Existing Conditions	Proposed Master Plan
Campus Acreage	34.86	34.86
New Building Space	NA	1,012,000
Total Building Space	1,246,396	2,258,396
Building Height Limits	165’	165’
Setback from Campus Boundary	10’ or 20’ if abutting an R zone	10’ or 20’ if abutting an R zone
New Hospital Beds	NA	200
Total Hospital Beds	375	575
Impervious Area[1]	22.1 acres (63%)	23.4 acres (67%)
Pervious Area[2]	12.8 acres (37%)	11.5 acres (33%)
Staff Population	Approx. 2,351 FTEs	Approx. 2,910 FTEs
Net New Parking Spaces	NA	1,494 spaces
Total Parking Supply	2,412 spaces	3,352 spaces

[1]Includes area in building footprint, roadways, parking and hardscape.
[2]Includes area in landscaping and other natural open space.
** 7th Street Extension not accounted for in this table.*

Phase 1 would include five projects constructed incrementally between 2025 and 2028, including buildings, building expansions, and parking structures. Approximately 7,000 sq. ft. of building area is anticipated to be demolished as part of new construction. Proposed development in Phase 1 would add 432,000 gsf to the MGSH campus, bringing total campus development to approximately 1.68 million gsf. See **Table 2-2** and **Figure 2-8** in **Chapter 2** for a summary and depiction of development in Phase 1 of the proposed *Master Plan*, respectively.

Phases 2 through 4 would feature construction of five additional projects from about 2028 through 2043, including buildings and parking structures. This development would add 580,000 net gsf, bringing total campus development to approximately 2.26 million gsf. See **Table 2-2** and **Figure 2-9** in **Chapter 2** for a summary and depiction of development in Phases 2 through 4 of the proposed *Master Plan*, respectively.

Construction

Under the *Proposed Master Plan* (Phases 1 through 4), site preparation and construction associated with proposed redevelopment would result in the displacement of existing surface parking, landscape area, and some medical uses on the campus. Temporary construction-related impacts could also occur on adjacent land uses during the construction period and could include: dust from demolition/pavement removal, grading and excavation; emissions from construction vehicles and equipment; increased noise levels from construction activities; vibration from heavy equipment, and, increased traffic associated with construction vehicles and workers. Depending on the location of construction activities on the campus, land uses that could be temporarily impacted would include: medical services uses on the MGSH campus; residential uses to the south, east and northeast; and medical office uses to the south and west. All construction impacts would be temporary and no significant, long-term impacts would be anticipated.

Land Use Patterns/Conversion of Uses

Proposed land uses within the MGSH campus are intended to provide a range of medical service uses similar to those currently on campus, and development assumed under the *Proposed Master Plan* would not represent a change in the types of land uses or land use pattern on campus (see **Chapter 3.5.1**, Existing Conditions, for further detail). Also see **Chapter 3.7**, **Aesthetics**, for discussion on building height, bulk, and scale under the *Proposed Master Plan*, including simulations of building massing.

As shown in **Table 3.5-2**, under the *Proposed Master Plan* the amount of impervious surface on the campus would increase (from approximately 22.1 acres currently to approximately 23.4 acres under the *Proposed Master Plan*) and would replace existing impervious area (surface parking, driveway and walkway, paved plaza, etc.) and existing pervious area (landscaped and open space area). The majority of proposed new building area would be located on area currently containing paved surface parking. The overall amount of pervious

area (landscaped and open space) area would be reduced from the existing approximately 12.8 acres to approximately 11.5 acres.

Relationship to Surrounding Uses

The relationship of the proposed new land uses with surrounding land uses is primarily a function of the intensity of the new uses (such as the type of site uses, density of the development and levels of activity associated with new development), intensity of the surrounding uses, proximity of the new uses to surrounding uses and provisions for buffers between new and surrounding uses.

As described above under **Chapter 3.5.1** - Affected Environment, at present the site area is largely built environment, with limited natural area. Prominent built features that influence the land use character of the area consist primarily of transportation routes, including State Route 512, which is the major north/south interstate vehicular travel corridor through the city of Puyallup, and is located approximately 250 feet east of the campus. S. Meridian St, a principal arterial in Puyallup, is another major north/south vehicular travel corridor with associated commercial land uses, is located approximately 500 feet west of the campus. Although these transportation corridors are major built features in the area, neither of these features are visible from the MGSH campus (SR 512 is at a lower elevation than the MGSH campus and existing off-campus uses are located between the campus and S. Meridian St). A relatively narrow vegetated area is located north of the MGSH campus, generally located between 13th Ave. SE and SR 512. One- to two-story single-family residences comprise the majority of the uses to the northeast and east of the campus; two-story multifamily residences are located farther to the northeast of the campus (refer to **Figure 3.5-1**).

With proposed phased development, activity levels (i.e., noise, traffic, etc.) associated with increased population on the campus and in the surrounding area would increase. An estimated 2,590 employees would occupy the campus at the end of Phase 1, with 2,910 employees on the site at full build-out (Phases 2 through 4), compared to 2,351 employees under current conditions. The types of activities would be similar to those currently on campus and in the campus vicinity, and would include vehicular and pedestrian traffic and noise associated with traffic and medical center activities (including emergency vehicle and delivery operations).

The general character of new medical center activity would be similar to existing medical office uses adjacent to the site to the west. However, the overall activity levels would be substantially greater than relatively low density single-family areas to the east and south, and would have a higher activity level than the surrounding residential uses in the campus vicinity.

New building and parking structure development under Phase 1 would be located primarily in the northern portion of campus, and would not be located in proximity to residential uses

to the east and south of campus. New building and parking structure development under Phases 2 through 4 would be located primarily in the eastern portion of campus and would be located in proximity to adjacent residential uses.

Proposed vehicular access to the campus under the *Proposed Master Plan* would continue to be provided from 15th Ave. SW. Due to the proposed level of development on the campus, the *Proposed Master Plan* would be anticipated to result in increased traffic and associated noise/air emissions from vehicles associated with employees and visitors travelling to and from the campus (see the **Chapter 3.4**, **Noise**, and **Chapter 3.8**, **Transportation**, and **Appendices D** and **E**, respectively, for details).

The City of Puyallup Municipal Code includes standards to ensure the compatibility of development on MED-zoned properties under master plans with adjacent surrounding land uses. These standards include: landscaping buffers, building setbacks, and maximum lot coverage, as well as performance standards for operation (e.g., to address noise, air quality, odors, hazardous materials, etc.). The development on the campus under the *Proposed Master Plan* would be required to conform to these regulations and/or standards established through the master plan process. As a result, significant land use impacts would not be anticipated (see **Chapter 3.5.5*,* Relationship to Plans and Policies** for details).

Indirect Impacts

Campus redevelopment assumed under the *Proposed Master Plan* would contribute to cumulative employment growth and intensification of land uses in Puyallup and would further the trend of development in the city. Given the location of the campus within an Urban Growth Area (UGA) and the existence of supporting services (e.g., retail and personal services) in the area (including services along S. Meridian St approximately 500 feet to the west, and in downtown Puyallup approximately 0.75 mile to the north), it is anticipated that existing supporting services could serve the demand that would be generated by development under the *Proposed Master Plan*. However, given the proposed level of development, it is possible that increased demand for supporting services could create indirect pressure for properties in the campus vicinity to redevelop. In addition, given the level of new employment that would be generated by development on the campus, an increased demand for new housing in the vicinity could be indirectly generated by associated new employees on the campus under the *Proposed Master Plan*. To the extent that new development is consistent with the Puyallup Comprehensive Plan, it is anticipated that new development in the vicinity of campus would be consistent with the City's future planning for the area.

7th Street Roadway Connection Option

A portion of the eastern half of the MGSH campus is dedicated to a 60-foot right-of-way for a potential future city street connecting the northern extent of 7th Street SE to the southern

extent of 7th Street SE through the MGSH campus (see **Figure 2-3**).[1] The purpose of this dedication was to facilitate city transportation planning for the 7th Street link between 13th Ave SE and 15th Ave SE and to facilitate future planning for the campus. The 7th Street SE Roadway Connection is currently shown under the *Transportation Element* within the City of Puyallup's Comprehensive Plan.

The 7th Street SE connection is not a proposal of the *Proposed Master Plan or Alternative 1*, but was identified early on as a potential mitigation measure for study in this EIS. If it is justified as a mitigation measure and required, construction of the 7th Street roadway would result in the clearing of existing natural area and some paving, and replacement with paved roadway/sidewalk with associated street trees. Temporary construction-related impacts could occur on adjacent residential land uses to the east and south during the construction period and would include: dust from clearing/pavement removal, grading and excavation; emissions from construction vehicles and equipment; increased noise levels from construction activities; vibration from heavy equipment.

Vehicle use of the roadway option would introduce new sources of noise, air emissions, and light/glare to a currently vacant area, and could be perceived at the adjacent residential uses. The optional roadway would include (landscape buffer, setbacks, etc.) which are intended to minimize the potential for impacts to adjacent residential land uses.

Alternative 1 – Reduced Medical Office Building Size

Introduction

Alternative 1 would be similar to the *Proposed Master Plan*, except that the second Medical Office Building (MOB B) containing approximately 100,000 sq. ft. of building space would not be developed. All other development assumed under the *Proposed Master Plan* is assumed under *Alternative 1*. **Table 3.5-3** summarizes the overall development assumptions for *Alternative 1* compared to those under the *Proposed Master Plan*.

[1] This was established on March 3rd, 2008, under City of Puyallup Ordinance #2900 as part of the 2007 development agreement between the City of Puyallup and MGSH.

TABLE 3.5-3
EIS ALTERNATIVE 1 ASSUMPTIONS*

	Existing Conditions	Proposed Master Plan	Alternative 1
Campus Acreage	34.86	34.86	34.86
New Building Space	NA	1,012,000	912,000
Total Building Space	1,246,396	2,258,396	2,158,396
Building Height Limits	165'	165'	165'
Setback from Campus Boundary	10' or 20' if abutting an R zone	10' or 20' if abutting an R zone	10' or 20' if abutting an R zone
New Hospital Beds	NA	200	200
Total Hospital Beds	375	575	575
Impervious Area[1]	22.1 acres (63%)	23.4 acres (67%)	22.9 acres (66%)
Pervious Area[2]	12.8 acres (37%)	11.5 acres (33%)	12.0 acres (34%)
Staff Population	Approx. 2,351 FTEs	Approx. 2,910 FTEs	Approx. 2,723 FTE
Net New Parking Spaces	NA	1,494 spaces	1,171 spaces
Total Parking Supply	2,412 spaces	3,352 spaces	3,029 spaces

[1]Includes area in building footprint, roadways, parking and hardscape.
[2]Includes area in landscaping and other natural open space.
**7th Street Extension not accounted for in this table.*

Construction

As under the *Proposed Master Plan*, site preparation and construction associated with redevelopment assumed under *Alternative 1* would result in the displacement of existing surface parking, landscape area, and some medical uses on the campus. The surface parking area along 15th Avenue SE that would be displaced for construction of MOB B under the *Proposed Master Plan* would not occur under *Alternative 1*.

Similar to the *Proposed Master Plan*, temporary construction-related impacts (noise, dust, etc.) could occur on adjacent land uses during the construction period. However, construction-related impacts to uses in the vicinity of the MOB B site under the *Proposed Master Plan* would not occur under *Alternative 1*. As under the *Proposed Master Plan*, construction impacts would be temporary and significant long-term land use impacts would not be anticipated under *Alternative 1*.

Land Use Patterns/Conversion of Uses

As under the *Proposed Master Plan*, proposed land uses within the MGSH campus are intended to provide a range of medical service uses similar to those currently on campus, and development assumed under *Alternative 1* would not represent a change in the types of land uses or land use pattern on campus.

As shown in **Table 3.5-3**, under *Alternative 1* the amount of impervious surface on the campus would increase (from approximately 22.1 acres currently to approximately 22.9 acres under *Alternative 1*) and would replace existing impervious area (surface parking driveway and walkway, paved plaza, etc.) and existing pervious area (landscaped and open space area). The majority of proposed new building area would be located on area

currently containing paved surface parking. The overall amount of pervious area under *Alternative 1* would be reduced from the existing approximately 12.8 acres to approximately 12 acres.

Relationship to Surrounding Uses

The amount of building space on the campus under *Alternative 1* would increase from approximately 1,246,000 sq. ft. under existing conditions to approximately 2,158,000 sq. ft. under *Alternative 1*, an increase of approximately 912,000 sq. ft. over existing conditions (compared to an increase of 1,012,000 sq. ft. under the *Proposed Master Plan)*. As under the *Proposed Master Plan*, the number of licensed hospital beds would increase from 375 to 575 and approximately 7,000 sq. ft. of existing building space would be demolished under *Alternative 1*.

Activity levels (i.e. noise, traffic, etc.) associated with increased population on the campus and in the surrounding area would increase as a result of development assumed under *Alternative 1*, although at a somewhat lower level than under the *Proposed Master Plan*. An estimated 2,723 employees would occupy the campus at full buildout under *Alternative 1*, compared to 2,910 employees under the *Proposed Master Plan*. The types of activity under *Alternative 1* would be similar to the *Proposed Master Plan*, would be similar to those currently on campus and in the campus vicinity, and would include vehicular and pedestrian traffic and noise associated with traffic and medical center activities (including emergency vehicle and delivery operations).

The general character of new medical center activity under *Alternative 1* would be similar to existing medical office uses adjacent to the site to the west, although the overall activity level under *Alternative 1* would be somewhat lower than under the *Proposed Master Plan*; primarily in the southeast corner of the campus given that development of MOB B is not assumed. However, the overall activity levels would be substantially greater than relatively low density single-family areas to the east and south, and would have a higher activity level than the surrounding residential uses in the campus vicinity,

As under the *Proposed Master Plan*, proposed access to the campus under the *Proposed Master Plan* would continue to be provided from 15th Ave. SW. Due to the proposed level of development on the campus, the *Proposed Master Plan* would be anticipated to result in increased traffic and associated noise from employees and visitors travelling to and from the campus (see the **Chapter 3.4**, **Noise**, and **Chapter 3.8**, **Transportation**, and **Appendices D** and **E,** respectively for details).

The development on the campus under *Alternative 1* would be required to conform to MED zone regulations and/or standards established through the master plan process. As a result, significant land use impacts under *Alternative 1* would not be anticipated (see **Chapter 3.5.5, Relationship to Plans and Policies** for details).

Indirect Impacts

Similar to the *Proposed Master Plan*, redevelopment under *Alternative 1* would contribute to cumulative employment growth and intensification of land uses in Puyallup, and would further the trend of development in the city. To the extent that new development is consistent with the Puyallup Comprehensive Plan, it is anticipated that new development in the vicinity of campus would be consistent with the City's future planning for the area.

7th Street Roadway Connection Option

Land use conditions associated with construction and operation of the 7th Street roadway would be similar to that described for the *Proposed Master Plan*.

No Action Alternative

Under the *No Action Alternative*, it is assumed that the demand for increases in health care services in the region would continue but no additional hospital development would occur on the MSGH campus. However, under the City's code, hospital uses can only be developed under an existing master plan. Therefore, the *No Action Alternative* assumes that future development of hospital uses outlined under the *Proposed Action* and *Alternative 1* would not occur on campus, and that any future new projects (e.g., ancillary medical clinic/office uses) that are separate from the hospital use would apply for individual permits on a case-by-case basis, adhering to development standards in the City's code.

Although some new development could occur on campus on an individual project basis, land use conditions under the *No Action Alternative* would remain largely similar to existing conditions.

Conclusions

The *Proposed Master Plan* and *Alternative 1* reflect implementation of campus redevelopment to meet anticipated increased demands for health care services in the region. The *No Action Alternative* reflects conditions without an approved master plan for the campus. **Table 3.5-4** summarizes the overall development assumptions for the three alternatives, followed by the primary conclusions of the land use analysis presented in this section.

TABLE 3.5-4
COMPARISON OF EIS ALTERNATIVES*

	Proposed Master Plan	Alternative 1	No Action Alternative
Campus Acreage	34.86	34.86	34.86
New Building Space	1,012,000	912,000	0
Total Building Space	2,258,396	2,158,396	1,246,396
Building Height Limits	165'	165'	165'
Setback from Campus Boundary	10' or 20' if abutting an R zone	10' or 20' if abutting an R zone	10' or 20' if abutting an R zone
New Hospital Beds	200	200	0
Total Hospital Beds	575	575	375
Impervious Area[1]	23.4 acres (67%)	22.9 acres (66%)	22.1 acres (63% - existing)
Pervious Area[2]	11.5 acres (33%)	12.0 acres (34%)	12.8 acres (37% - existing)
Staff Population	Approx. 2,910 FTEs	Approx. 2,723 FTEs	Approx. 2,351 FTEs
Maximum Net New and Replacement Parking Spaces	1,494 spaces	1,171 spaces	0 spaces
Total Parking Supply[3]	3,352 spaces	3,029 spaces	1,858 spaces

[1]Includes area in building footprint, roadways, parking and hardscape.
[2]Includes area in landscaping and other natural open space.
**7th Street Extension not accounted for in this table.*

- Construction under the *Proposed Master Plan* and *Alternative 1* would result in the potential for temporary construction-related impacts (noise, air emissions, traffic, etc.) to land uses in the vicinity of the individual construction sites; construction impacts associated with construction of Medical Office Building B would not occur under *Alternative 1*. The potential for temporary construction-related impacts could occur under the *No Action Alternative*, but at a lesser level than under the *Proposed Master Plan* and *Alternative 1.*

- The *Proposed Master Plan* and *Alternative 1* are intended to provide a range of medical service uses similar to those currently on the campus, and would not represent a change in the type or pattern of land use. Any individual projects under the *No Action Alternative* would also represent a continuation of the current medical service use.

- The amount of building space on campus would substantially increase under the *Proposed Master Plan* and *Alternative 1* with a corresponding increase in activity levels (i.e. noise, traffic, etc.); the level of activity on the campus would be somewhat lower under *Alternative 1*. The amount of new building space and increase in activity levels would be lower under the *No Action Alternative* than under the *Proposed Master Plan* and *Alternative 1*.

- Campus redevelopment under the *Proposed Master Plan* and *Alternative 1* would contribute to cumulative employment growth and intensification of land uses in

Puyallup and would further the trend of development in the city. It is anticipated that existing services could serve the demand for services generated by redevelopment under the *Proposed Master Plan* and *Alternative 1*, although some indirect pressure for new services and housing could be generated. The indirect demand for services and housing under the *No Action Alternative* would be less than under the *Proposed Master Plan* and *Alternative 1*.

- If required, construction of the 7th Street roadway would result temporary construction-related impacts on adjacent residential land uses to the east and south during the construction period. Vehicle use of the roadway option would introduce new sources of noise, air emissions, and light/glare to a currently vacant area.

3.5.3 Mitigation Measures

The following measure has been identified to address the potential land use-related impacts from development of the *Proposed Master Plan*. This measure applies to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts. Other Possible Measures are additional measures that could be implemented to address impacts but are not necessary to mitigate significant impacts.

Measures Proposed as Part of Project

- Implementation of development standards in the *Proposed Master Plan* are, in part, intended to minimize potential land use impacts. These standards include, but are not limited to: building setbacks, visual screening with landscaping at campus edges adjacent to residential land uses, and implementation of the City of Puyallup review process.

3.5.4 Significant Unavoidable Adverse Impacts

Under the *Proposed Master Plan* and *Alternative 1*, intensification in land uses on the MGSH campus would occur as a result of increased density. With proposed mitigation measures, significant unavoidable land use impacts are not anticipated.

3.5.5 Relationship to Plans and Policies

This section identifies the existing plans and policies deemed the most relevant to the *Proposed Master Plan* and *Alternative 1*. The plans and policies analyzed in this section include the following:

- Washington State Growth Management Act;
- City of Puyallup Comprehensive Plan; and,
- City of Puyallup Municipal Code.

Washington State Growth Management Act (RCW 36.70A)

Summary: The Growth Management Act (GMA) was first enacted as ESHB 2929 by the 1990 Washington State Legislature and has been subsequently amended to contain a comprehensive framework for managing growth and coordinating land use planning with the provision of adequate infrastructure. Many provisions of GMA apply to the state's largest and fastest growing jurisdictions, including Pierce County and all of its cities; some provisions of GMA (such as requirements to identify and regulate critical areas) apply to all local jurisdictions. GMA is long and complex, and the following discussion provides a brief summary of key provisions of GMA that are relevant to the City of Puyallup.

Among other requirements, jurisdictions subject to GMA must prepare and adopt:

- Comprehensive land use plans containing specific elements and embodying state-wide goals;
- Regulations consistent with those plans;
- Capital facilities plans (including financing elements) for utilities and transportation systems; and
- Programs designating and regulating critical/sensitive areas (including agricultural and forest lands, wetlands, steep slopes and critical habitat).

The general planning goals of GMA include: directing growth to urban areas; reducing sprawl; providing efficient transportation systems; promoting a range of residential densities and housing types; encouraging affordable housing; promoting economic development throughout the state; protecting private property rights; ensuring timely and fair processing of applications; maintaining and enhancing resource-based industries; encouraging retention of open space and habitat areas; protecting the environment; involving citizens in the planning process; ensuring the siting of essential public facilities (including state educational facilities); and identifying and encouraging the preservation of lands and structures with historical and archaeological significance.

Comprehensive Plans must contain elements dealing with land use, housing, capital facilities, utilities, rural lands, and transportation. Optional elements include conservation,

solar energy and recreation, as well as other areas dealing with the physical environment. Sub-area plans (i.e., neighborhood and community plans) are also authorized.

GMA requires that early and continuous public participation be provided for comprehensive land use plans and development regulations implementing such plans.

Discussion: The City of Puyallup has prepared and adopted a Comprehensive Plan (the most recent major update occurred in 2015) to guide future development and fulfill the City's responsibilities under GMA. The goals and objectives of the GMA have been incorporated into the City's Comprehensive Plan. The *Proposed Master Plan* and *Alternative 1* are consistent with the City's Comprehensive Plan (see the discussion below on the City of Puyallup Comprehensive Plan for further details).

City of Puyallup Comprehensive Plan

The City of Puyallup Comprehensive Plan provides the long-term vision and plan for managing the built and natural environment in the City of Puyallup. It includes goals and policy direction for community development, housing, economic development, environmentally sensitive areas, public services, annexation, and other related issues. The Comprehensive Plan was developed under the provisions of GMA and was initially adopted in September 1994. Elements of the Comprehensive Plan include the following:

- Chapter 1 – Foundations Element
- Chapter 2 – Natural Environment Element
- Chapter 3 – Land Use Element
- Chapter 4 – Housing Element
- Chapter 5 – Community Character Element
- Chapter 6 – Economic Development Element
- Chapter 7 – Transportation Element
- Chapter 8 – Utilities Element
- Chapter 9 – Capital Facilities Element
- Chapter 10 – Parks, Recreation & Open Space Element
- Chapter 11 – Downtown Neighborhood Plan
- Chapter 12 – South Hill Neighborhood Plan
- Chapter 13 – River Road Corridor Plan

The most recent major update to the Comprehensive Plan occurred in 2015 and the City of Puyallup is currently working on a new major update to the Comprehensive Plan which is expected to be completed by December 2024.

The City of Puyallup Comprehensive Plan identifies the MGSH campus as Medical Facilities (MED). The MED designation is also applied to the area north of the MGSH campus between 13th Ave. SE and SR 512. The MED designation was established for properties owned by or in the vicinity of MGSH, as they are a unique use that necessitates development standards and uses that are outside of the City's other commercial use designations. Policies for the MED designation should support this use while protecting the character of the community and surrounding neighborhood. A summary of relevant Comprehensive Plan goals and policies for the *Proposed Master Plan* and *Alternative 1* is provided below.

Land Use

Summary: **LU-7.1** Community services, including schools, community centers, and medical services should be focused in central locations and/or near transit centers.

Discussion: The *Proposed Master Plan* would continue to focus medical services in a central location in the City of Puyallup within the current MGSH campus area and MED zone. The current campus boundary and size would not change under the *Proposed Master Plan* and *Alternative 1*. Long-term phased development under the *Proposed Master Plan* and *Alternative 1* would allow MGSH to continue to meet the health care needs of the City of Puyallup and surrounding region from a consolidated, central location through the expansion of existing facilities and development of new buildings on the existing campus.

Summary: **LU-30** Ensure that sufficient land is designated for medical uses to maintain the City's position as a regional provider of medical services.

Discussion: As part of the planning process for the *Proposed Master Plan*, recent studies were completed for the region that identified the need for an additional 140 acute care beds by 2028 and 250 hospital beds by 2036. The *Proposed Master Plan* and *Alternative 1* would maintain the existing MGSH campus boundaries and guide future development on the campus to help address need for additional hospital beds and other health care needs of the City of Puyallup and surrounding region. The *Proposed Master Plan* would create approximately 1,012,000 sq. ft. of new building space, including 200 new patient care beds. *Alternative 1* would develop approximately 912,000 sq. ft. of new building space and the same new patient care beds as the *Proposed Master Plan.*

Summary: **LU-30.1** Encourage and facilitate a master plan for MGSH to guide long-term land uses and provide opportunity for input from and establish measures of protection for the surrounding residential neighborhoods.

Discussion: The *Proposed Master Plan* identifies the future development needs for MGSH and creates a proposed plan to guide future long-term development of the MGSH campus to meet those needs and continue to provide for the future health care needs of the City of Puyallup residents and surrounding communities. The *Proposed Master Plan* is intended to fulfill several long-term development goals for MGSH, including construction of a new Patient Care Tower, construction of additional outpatient clinical space, providing adequate parking for employees, patients and visitors, and investing in current facilities.

Preparation of the *Proposed Master Plan* and this DEIS with the City of Puyallup allows for opportunities for public input and to identify potential measures to minimize impacts to adjacent surrounding neighborhoods.

Summary: **LU-31** Encourage and support the medical community as an economic and employment driver in the City and east Pierce County.

Discussion: Development of the *Proposed Master Plan* and *Alternative 1* would support future long-term development of the MGSH campus to meet the needs for healthcare

services in the City of Puyallup and East Pierce County. New development under the *Proposed Master Plan* and *Alternative 1* would create new building space for health care uses which would be anticipated to generate an associated increased in staffing of approximately 187 new FTE. These projected new jobs associated with the *Proposed Master Plan* and *Alternative 1* would contribute to overall future employment within the City of Puyallup.

Economic Development

Summary: **ED-2** Ensure that local land supply, infrastructure and development standards support business opportunities.

Discussion: The current land area of the existing campus is anticipated to be suitable for the future needs of MGSH and the *Proposed Master Plan* and *Alternative 1* would retain the current campus boundary and size of the campus (approximately 34.86 acres). The *Proposed Master Plan* and *Alternative 1* identify infrastructure improvements necessary to support future development under the plan, including utilities (water, sewer, stormwater) and transportation and any necessary upgrades that are identified in the analysis in this DEIS. Development standards are identified as part of the *Proposed Master Plan* and *Alternative 1*. Potential future development would also be anticipated to comply with PMC 20.43.030 (see below for further discussion on PMC 20.43.030)

Summary: **ED-2.1** Designate and zone lands sufficient to accommodate the projected urban growth including as appropriate, medical, governmental, institutional, commercial, service, retail, and other nonresidential uses.

Discussion: As noted above, the current area of the existing campus is assumed to be sufficient for the future needs of MGSH and the *Proposed Master Plan* and *Alternative 1* would retain the current campus boundary and size of the campus (approximately 34.86 acres). Potential future development under the *Proposed Master Plan* and *Alternative 1,* including the Patient Care Tower, Parking Structures, Central Utility Plant Expansion, Patient Care Tower Shell Buildout, Dally Tower Emergency Department Project, Medical Office Building(s), Central Supply Tower, and Dally Tower Expansion would be accommodated within the current boundaries of the campus.

Transportation

Summary: **T-3.1** Ensure consistency between land use and the associated transportation system.

a. Coordinate land use and transportation plans and policies to ensure they are mutually supportive.
b. Implement transportation projects that reflect the intensity of the surrounding land uses and the classification of the associated roadway.

Discussion: Potential future development under the *Proposed Master Plan* and *Alternative 1* would be anticipated to generate additional vehicle trips and transportation impacts over

the course of phased buildout of the *Proposed Master Plan*. Mitigation measures are identified as part of the transportation analysis for this EIS and are discussed further in **Section 3.8** and **Appendix E**.

Summary: **T-3.2 Develop a transportation system that achieves the following levels of service metrics:**

Vehicular LOS: Maintain standards that promote growth where appropriate while preserving and maintaining the existing transportation system. Set LOS D as the standard for PM peak hour intersection performance, with the exception of the intersections contained along the Meridian, Shaw Road, and 9th Street SW corridors, where LOS E operations will be considered acceptable during PM period in recognition of the need to balance driver experience with other considerations, such as cost, right of way, and other modes.

Pedestrian LOS: Provision of sidewalks, trails, and/or separated paths will be prioritized within pedestrian priority areas, as defined in Puyallup Moves.

Bicycle LOS: Provision of bike lanes, separated paths, protected facilities, and bicycle boulevards, as defined in Puyallup Moves.

Transit LOS: Partner with Pierce Transit, Sound Transit, and other transit operators to provide transit stop amenities and safe access to transit at major transit stops and park and ride facilities.

***Discussion*:** As part of the analysis of the *Proposed Master Plan*, a Traffic Operations Memorandum was prepared by Jacobs (Jacobs, 2024) to identify transportation impacts that could occur with development of the Proposed Master Plan, including impacts to intersection LOS standards. The analysis utilizes the City's LOS standards as identified in the City's Comprehensive Plan. These LOS standards are LOS E or better at intersections on the Meridian Avenue corridor and LOS D or better at all other intersections and these standards are utilized as part of the basis for determining traffic operations impacts associated with the *Proposed Master Plan*. Measures are identified in the Traffic Operations Memorandum for those affected intersections that do not meet City LOS standards (see **Section 3.8**, Transportation, and **Appendix E** for further details).

The *Proposed Master Plan* also identifies existing pedestrian, bicycle, and transit facilities on and in the vicinity of the MGSH campus. MGSH would continue to support safe and convenient transit access to the campus by maintaining a well-designed sidewalk network to and from transit stops and managing vehicle traffic on campus roadways to maintain safe speeds and conflicts. MGSH intends to continue to provide a safe and accessible campus that would be supported by well-designed and maintained bicycle and pedestrian facilities, including sidewalks, crossings, signals, lighting, and bicycle support facilities. MGSH also maintains a commute trip reduction program that is intended to reduce single-occupancy vehicle travel and incentivize non-motorized travel and transit usage through various strategies. New, extended or expanded strategies could include: public transit passes,

bicycle subsidies, secure bicycle parking and showers/lockers, and other incentives for non-driving trips.

Summary: **T-3.3 Improve the transportation system concurrently with increasing demands due to growth.**

a) Track transportation concurrency to ensure that infrastructure can accommodate growth and maintain level of service standards.
b) Require developers to perform a transportation impact analysis, at the discretion of the City Engineer, to demonstrate the effect of significant additional travel demand from their projects on the transportation network. In the event the analysis shows that the project would impact the level of service in the affected area, new development is responsible for improvements to the transportation system. If the existing vehicle level of service is below the standard, the developer shall mitigate impacts to the pre-developed level of service condition plus an allowable increase in delay of up to 15%.

Discussion: A Traffic Operations Technical Memorandum was prepared for the *Proposed Master Plan* by Jacobs (Jacobs, 2024) to provide an analysis of transportation impacts with development on the MGSH campus under the *Proposed Master Plan*. This analysis is summarized in **Section 3.8**, Transportation (see **Appendix E** for the full technical analysis). The analysis identifies future baseline traffic growth that would occur in the vicinity of the site and calculates the number of vehicle trips that would be generated by the *Proposed Master Plan* over the phased development on the campus. Vehicle trip generation and trip distribution are then utilized to analyze potential LOS and delay impacts at 37 intersections in the vicinity of the MGSH campus. Impacts are identified at intersections where the project-generated trips cause the intersection to operate below City/State standards or where average delay increases by more than 15 percent at intersections that already operate below City/State standards. Measures are identified in the analysis to mitigate impacts at affected intersection locations (see **Section 3.8**, Transportation, and **Appendix E** for details).

Summary: **Table 7-8-A** This table summarizes the 20-year project list for the City's transportation improvements and describes the recommended citywide projects, which represent a balance of safety, maintenance, and operational improvements for all modes. Project Number 15 – 7th Street SE (15th Ave SE to 12th Ave SE) is located within the MGSH campus area and is identified as a potential opportunity to build a new roadway and sidewalk to improve motor vehicle connectivity.

Discussion: A portion of the eastern half of the MGSH campus property was dedicated to a 60' ROW (Parcel No. 201003260097) for a potential future city street connecting the northern extent of 7th Street SE to the southern extent of 7th Street SE through the MGSH campus. The purpose of this dedication was to facilitate city transportation planning for the 7th Street link between 13th Ave SE and 15th Ave SE (Project Number 15 in the City's Comprehensive Plan Transportation Element) and to facilitate future planning for the MGSH campus.

The 7th Street Roadway is not a part of the *Proposed Master Plan* or *Alternative 1*. This Draft EIS includes evaluation of the 7th Street Roadway Connection as a potential mitigation measure. This roadway connection could provide a new north-south roadway segment between 13th and 15th Avenues SE and could add new vehicle access to and from the north and east sides of the campus. The potential impacts and effectiveness of this mitigation measure are evaluated further in **Section 3.8, Transportation** and **Appendix E**.

It should also be noted that the City of Puyallup is currently working on a major update to the Comprehensive Plan which is expected to be completed by December 2024.

City of Puyallup Municipal Code

Summary: The City of Puyallup Municipal Code (PMC) Chapter 20 establishes land use zoning for the City of Puyallup. The MGSH master plan area is zoned as Medical (MED) and PMC 20.43 defines the MED zone and identifies permitted uses, development standards, design review standards, and performance standards.

The MED zone is intended to apply to areas of the community that are desirable and suitable for the development of a regional medical center and associated uses. Such areas must be designated "medical facilities" in the Puyallup Comprehensive Plan. The MED zone is intended to facilitate the development of a regional medical center through a master plan approval process that defines the overall scope and nature of development to occur within the master plan area over a period of years. Other uses supportive of a regional medical center are also allowed within the MED zone, outside the boundaries of an approved master plan.

Discussion: The *Proposed Master Plan* and *Alternative 1* would be consistent with the MED zone designation for the site as they would continue use of the existing MGSH, which provides regional medical facilities uses for the City of Puyallup and surrounding areas. Development of the *Proposed Master Plan* and *Alternative 1* would comply with the intent of the MED zone by updating the existing master plan to identify future development needs for MGSH in a phased approach. Phase I identifies five projects (estimated to occur between 2025 and 2028) and would include the Dally Tower Emergency Department Project, the Patient Care Tower, Patient Care Tower Shell Buildout, Parking Structure 1, and the Central Utility Plant Expansion. Phases 2 through 4 identify five additional projects (estimated to occur between 2030 and 2043), including Medical Office Building A, the Central Support Tower, Medical Office Building B, Parking Structure 2, and the Dally Tower Expansion.

Summary: PMC 20.43.010 requires the development and approval of a master plan pursuant to PMC 20.88 for any hospital or hospital-affiliated uses in the MED zone. Any master plan proposed within the MED zone must include a hospital as the primary use. Other uses as defined are allowed within the MED zone, but do not require master plan approval if located outside the boundaries or an approved master plan. Uses that are permitted only when included within an approved master plan are hospitals (and any addition to an existing hospital) and hospital-affiliated uses, including accessory uses such

as facility support buildings, off-street parking areas and structures, dining halls and food preparation facilities, pharmacies, newsstands, hospital-related facilities (e.g., outpatient surgery centers or therapy centers), heliport facilities, and public or private educational institutions.

Other uses are permitted as part of an approved master plan or outright within the MED zone, including clinical laboratories, offices and clinics providing medical services (e.g., dentistry, radiology, psychiatry, etc.), pharmacies, multi-family residences, adult family homes, and nursing homes.

Discussion: The *Proposed Master Plan* and *Alternative 1* would continue the primary hospital use for MGSH within the campus area, consistent with PMC 20.43.010, and identifies new development to support the continued growth of MGSH and allow for the provision of medical and hospital services to meet the anticipated future demand for the City of Puyallup and surrounding areas. Proposed development under the *Proposed Master Plan* that would be permitted only as part of an approved master plan would include, the Dally Tower Emergency Department Project, the Patient Care Tower, Patient Care Tower Shell Buildout, Parking Structure 1, the Central Utility Plant Expansion, the Central Support Tower, Parking Structure 2, and the Dally Tower Expansion. Pursuant to PMC 20.43.010, proposed Medical Office Buildings A and B would be permitted as part of an approved master plan.

Summary: PMC 20.43.020 identifies the required development standards that are applicable for properties in the MED zone when not included within an approved master plan. PMC 20.43.020(2) also identifies development standard that apply to properties included within an approved master plan, including:

- Minimum lot area – None.
- Minimum setback from street rights-of-way – None for streets on the interior of the master plan; 10 feet for all others.
- Minimum setback from master plan boundary – 20 feet if abutting an R zone; 10 feet for all other zones; provided that below-grade structures may project into a required yard if the entire yard area is landscaped.
- Maximum building height – 70 feet; or no greater than 246 feet elevation north of 15th Ave SE and 230 feet elevation south of 15th Ave SE, whichever is less. Alternatively, buildings may be constructed to a 165-foot height level, subject to express authorization in an approved master plan.
- Maximum lot coverage – None, provided that no more than 70 percent overall lot coverage is allowed within the boundaries of the master plan.
- Minimum landscaped area – None, provided that 20 percent of the overall total area within the master plan shall be landscaped.

Discussion: The *Proposed Master Plan* illustrates the approximate building footprints for all proposed future development that is identified in the master plan and is intended to meet

the setback requirements that are identified in PMC 20.43.020. At the time that proposed development occurs under the master plan, it is anticipated that affected facades at the campus boundary would be set back at least the minimum distance that is identified in PMC 20.43.020. Building setbacks would be confirmed as part of the permitting process.

Anticipated maximum building heights are identified in the *Proposed Master Plan* and are designed to conform to the building height regulations that are identified for the MED zone in PMC 20.43.020. The proposed Patient Care Tower would be the tallest building that is proposed in the master plan and would be similar in height to the existing Dally Tower building (approximately 157'-6").

The *Proposed Master Plan* would comply with the requirements for maximum lot coverage and provides a summary of proposed lot coverage that would be anticipated with development under the master plan. At full buildout of the master plan, it is anticipated that approximately 38 percent of the campus would be covered in buildings (new and existing retained buildings) and 67 percent of the campus area would be covered in impervious surface (buildings and other hard surfaces).

Landscaping, open space and green space are identified in the *Proposed Master Plan*. At full buildout, the master plan would include approximately 33 percent of the total campus area in pervious surfaces, including landscape, open space and green space. Existing landscape and open space would be maintained to the extent feasible under the master plan. New campus landscaping proposed for the campus under the master plan would include four key elements: natural open spaces, residential buffers, campus open space, and street landscaping.

Summary: PMC 20.43.030 states that all development within an approved master plan shall comply with the design standards specified within the master plan.

Discussion: Potential future development that is identified in the *Proposed Master Plan* and *Alternative 1* would comply with the design standards that are specified within the *Proposed Master Plan* and conformance would be evaluated with building permits.

Summary: PMC 20.43.065 indicates that off-street parking shall also be required as specified in the approved master plan and shall be sufficient to minimize the potential of on-street parking within and adjacent to the master plan area.

Discussion: Consistent with PMC 20.43.065, the *Proposed Master Plan* and *Alternative 1* identifies potential projects to provide off-street parking for existing and proposed development on the MGSH campus. Two new parking structures are identified for future development in the plan. Parking Structure 1 is anticipated to be developed as part of Phase I and would provide approximately 540 to 600 new parking stalls adjacent to the proposed new Patient Care Tower. Parking Structure 2 would be developed as part of Phases 2-4 and would provide additional off-street parking adjacent to the proposed Medical Office Buildings.

Summary: PMC 20.88 identifies the regulations and criteria for master plans. Master plan approval is required for specified uses and activities within certain zone districts. These uses, due to their large site areas, scale of buildings, high trip generation rates, incremental growth over time, unique characteristics, and potential impacts to the community, require a special degree of review and opportunity for public comment. It is expected that approval of a master plan will guide development within the affected area for at least 10 years.

A master plan must contain a conceptual site plan depicting the location and size of known and future development, a phasing plan for the proposed improvements, and development standards (including maximum building heights, setbacks, landscaping, building square footage, maximum lot coverage, open/green space, vehicular and pedestrian access, parking, lighting standards, and signage standards). A transportation management program must also be provided and include a designated performance standard with features to attain the standards. Program features can include but are not limited to special site design features, annual promotion events, contracted parking enforcement, or employee shuttle services.

A master plan application must also include necessary environmental analysis to allow for a determination of its potential environmental impacts and mitigation measures.

***Discussion*:** The *Proposed Master Plan* includes the full 2043 buildout plan for the MGSH campus that illustrates the conceptual buildout of proposed development under the plan. The conceptual site plan would increase the amount of building space on the campus by approximately 1,012,000 gsf (from approximately 1.24 million gsf to 2.2 million gsf). See **Figure 2-7** for the conceptual buildout plan for the *Proposed Master Plan* and **Figure 2-13** for the conceptual plan for Alternative 1.

A phasing plan for proposed development is identified in the *Proposed Master Plan.* New development is proposed over four separate phases, including the following:

- Phase I: Dally Tower Emergency Department, Patient Care Tower, Patient Care Tower Shell Buildout, Parking Structure 1, and Central Utility Plant Expansion.
- Phase II – IV: Medical Office Building A, Central Support Tower, Medical Office Building B, Parking Structure 2, and the Dally Tower Expansion.

An illustration of the proposed phasing plan under the *Proposed Master Plan* is provided in **Figure 2-8** and **Figure 2-9**.

Proposed development standards are identified and discussed in Chapter IV of the *Proposed Master Plan*, including maximum building heights, minimum building setbacks, landscaping buffers, building square footage, maximum lot coverage, open/green spaces, vehicular and pedestrian access, parking, lighting standards, and signage standards.

Chapter III of the *Proposed Master Plan* provides a summary of the current transportation management program for MGSH and discusses the future transportation management program(s) that would be provided under the *Proposed Master Plan.* Potential

transportation management program features could include parking management strategies (e.g., permit parking systems, priced parking, parking monitoring and data collection, and/or signage and wayfinding strategies) and commute trip reduction programs and associated strategies (e.g., public transit passes, pre-tax commuter benefits, additional secure bicycle parking, bicycle subsidies, subsidized carpool, vanpool or ride matching services, and guaranteed ride home or off-peak rideshare services). A full transportation analysis is included in this DEIS as part of **Section 3.8** and **Appendix E**.

Summary: PMC 21.06 serves as the City of Puyallup's Critical Areas Code and is intended to designate and classify environmentally critical areas and protect those areas and their functions and values, while also allowing for economically beneficial or productive use of land on private property. By limiting development and alteration of critical areas the City seeks to:

a) Protect members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides, steep slope failures, erosion, seismic events, volcanic eruptions, or flooding;
b) Protect citizens and the unique, fragile, and valuable elements of the environment, including ground and surface waters, wetlands, anadromous fish species, and other fish and wildlife and their habitats;
c) Prevent adverse and cumulative impacts to critical areas, direct activities not dependent on critical area resources to less ecologically sensitive sites, and mitigate unavoidable impacts to critical areas by regulating alterations in and adjacent to critical areas;
d) Protect species listed as threatened or endangered under the Federal Endangered Species Act and their habitats by prohibiting activities that kill, harass, harm, trap, collect, wound, hunt, or pursue such species/habitats; and,
e) Comply with the Federal Clean Water Act and Washington State Water Pollution Control Laws.

Critical areas identified and regulated in PMC 21.06 include wetlands, fish and wildlife habitat conservation areas, critical aquifer recharge areas, wellhead protection areas, and geologically hazardous areas (e.g., steep slopes, landslide and erosion hazard areas, seismic hazard areas, and volcanic hazard areas).

***Discussion*:** There are several critical areas mapped on the MGSH campus including wellhead protection areas, geologic hazard areas (volcanic and landslide hazard areas), and a previously contaminated but remediated site. The portion of the campus east of 5th Street SE is located within the 10-year, 5-year and 1-year wellhead protection areas for the City of Puyallup Well #13, and a portion of the western half of the campus is located within the 10-year wellhead protection area for the City of Puyallup Well #27.

The northern edge of the MGSH campus lies within a mapped 500-1,000-Year lahar boundary, which indicates the possible extent of pyroclastic flow resulting from the volcanic eruption of Mount Rainier[2].

High and moderate landslide risks are associated with portions of the MGSH campus that have steep slopes.

Lastly, a previously contaminated site on the campus was identified and associated with underground fuel oil tanks at several former single-family residences on the Dally Tower site. The source of the contamination was removed, and the site has a listed status of "No Further Action" as of 2012; this indicates there are no remaining contamination concerns. See **Chapter 3.1**, **Earth**, and **Chapter 3.2, Plants and Animals**, for additional details and illustrations of critical areas on the MGSH campus.

[2] It should be noted that USGS staff indicated that the City's mapped boundary for lahar is incorrect and current modeling places the Mt. Rainier lahar boundary at lower elevations. The City of Puyallup has accepted the USGS mapping as the most accurate.

3.6 AESTHETICS – Height, Bulk, & Scale

This section of the DEIS describes the aesthetics – height, bulk, and scale – conditions on and near the MultiCare Good Samaritan Hospital (MGSH) site. Potential impacts from development of the *Proposed Master Plan* and EIS alternatives on height, bulk, and scale are evaluated and mitigation measures identified. This analysis is based on information prepared by Perkins & Will in August 2024.

Methodology

The DEIS height, bulk, and scale analysis uses development information, site plans, and massing diagrams of the site prepared for the *Proposed Master Plan* and *Alternative 1*. The plans and diagrams depict the changes in site layout and massing under these alternatives, in the context of the surrounding neighborhood. Site plans and massing diagrams of the *No Action Alternative* were not prepared, as future development under this alternative is speculative and no land use plans were created. The height, bulk, and scale impacts that could occur in the future with development under existing zoning are generally discussed for the *No Action Alternative*.

3.6.1 Affected Environment

This sub-section describes the existing height, bulk, and scale conditions on and near the MGSH site.

2007 Master Plan

The 2007 MGSH Master Plan allowed a total of approximately 1.25 million gross square feet (gsf) of building space, or 913,000 gsf of additional building space, on the 34.9-acre campus. Approximately 648,000 gsf has been built to date. **Table 3.6-1** lists the level of building space (gsf), maximum building height (in feet), and setbacks from the campus boundary (feet) under the 2007 Master Plan.

TABLE 3.6-1
2007 MASTER PLAN HEIGHT, BULK, & SCALE PROVISIONS

	Height, Bulk, & Scale Provisions
Total Campus Acreage	34.86 acres
Total Campus Building Space Capacity	1.25 million gross sq. ft.
Maximum Building Heights	70 ft.; or no greater than 246 ft. elevation north of 15th Ave. SE and 230 ft. elevation south of 15th Ave SE, whichever is less. Alternatively, buildings may be constructed to a 165 ft. height level, subject to express authorization in an approved master plan.
Setbacks from Master Plan Boundary	20 ft. if abutting an R zone; 10 ft. for all other zones

Source: 2007 MGSH Master Plan, 2024.

Existing Height, Bulk, and Scale

There is currently a total of approximately 2.5 million gross square feet (gsf) of building space in 11 buildings (including two parking structures) on the MGSH campus (see **Table 2-2** in **Chapter 2** for a list of the existing buildings and structures). Most of the existing development is located on the west side of campus, to the north of 15th Avenue SE between 3rd Street SE and 5th Street SE; a small amount of development is situated to the south of 15th Avenue SE and on the west side of campus. Individual buildings range from the one story, 3,784 gsf marketing buildings located on 14th Avenue SE in east campus to the nine-story, 375,800 gsf Dally Tower in west campus. Impervious surfaces, including building footprints, roadways, parking, and other hardscape, presently cover 23.4 acres (63% of the site) and pervious surfaces, including landscaping and other natural open space, cover 11.5 acres (37% of the site). (See **Figure 3.6-1**, Existing Height, Bulk, and Scale/*No Action Alternative*).

Buildings surrounding the MGSH site include:

- **Northeast** - two-story multifamily apartment and townhome buildings;
- **East** - one- to two-story, single-family homes;
- **South** – two-story single-family homes (south of 15th Avenue SE), a two-story children's urgent care building (south of the Children's Therapy Unit building), one- and two-story medical office buildings (south of the three-story 1701 Reider building); and
- **West** - one- to two-story small to medium scale single-family homes south of 17th Avenue SW, additional one- to two-story single-family homes and one-story medical office buildings south of 15th Avenue SE, and two- to three-level medical office buildings south of 14th Avenue SE. The tallest buildings near to the site are hotels including the four-story Hampton Inn and Suites, approximately a half-block to the west of the site and the 6-story Fairfield Inn and Suites, approximately two blocks to the west.

3.6.2 Impacts of the Alternatives

An analysis of the height, bulk, and scale impacts of the *Proposed Master Plan* is provided below. For the other alternatives, the analyses focus on any differences between the alternatives and the *Proposed Master Plan*.

Proposed Action - Proposed Master Plan

The *Proposed Master Plan* provides for long-term phased development of the MGSH. The current campus boundary and size (approximately 34.9 acres) would not change under the *Proposed Master Plan*. However, building space would increase. At buildout in about 2043, up to 2.25 million gsf of building space could be built (a net increase of 1.0 million gsf). Impervious surfaces would cover 67% of the site and pervious surfaces would cover 33% of

PROPOSED MASTER PLAN (FULL BUILD OUT)

EIS ALTERNATIVE 1

NO-ACTION ALTERNATIVE

Source: Perkins + Will, 2024

EA Engineering, Science, and Technology, Inc.

Figure 3.6-1
Aerial Massing View

the site at buildout (versus the 63% and 37%, respectively, under existing conditions). (see **Table 3.6-2.**)

TABLE 3.6-2
COMPARISON OF HEIGHT, BULK, AND SCALE – EIS ALTERNATIVES

	Proposed Master Plan	Alternative 1	No Action Alternative
Campus Acreage	34.86 ac.	34.86 ac.	34.86 ac.
New Building Space	1,012,000 gsf	912,000 gsf	0 gsf[3]
Total Building Space	2,258,396 gsf	2,158,396 gsf	1,246,396 gsf
Maximum Building Height	165 ft.	165 ft	165 ft.
Impervious Surface Area[1]	23.4 ac.	22.9 ac	22.1 ac.
Pervious Surface Area[2]	11.5 ac.	12.0 ac.	12.8 ac.
Setbacks	10 ft. or 20 ft. if abutting an R zone	10 ft. or 20 ft. if abutting an R zone	10 ft. or 20 ft. if abutting an R zone

Source: Perkins & Will, 2024.
[1]Includes area in building footprint, roadways, parking and hardscape.
[2]Includes area in landscaping and other natural open space.
[3]Under the No Action alternative, future new projects would apply for individual permits under PMC 20.43 on a site-by-site basis.
**7th Street Extension not accounted for in this table as it is not part of the Proposed Master Plan.*

Phase 1 would include five projects constructed incrementally estimated between 2025 and 2028, including buildings, building expansions, and parking structures. Approximately 7,000 sq. ft. of building area is anticipated to be demolished as part of new construction. Proposed development in Phase 1 would add 432,000 gsf to the MGSH campus, bringing total campus development to approximately 1.68 million gsf. See **Table 2-2** and **Figure 2-8** in **Chapter 2** for a summary and depiction of development in Phase 1 of the proposed *Master Plan*, respectively.

Phases 2 through 4 would feature construction of five additional projects from about 2028 through 2043, including buildings and parking structures. This development would add 580,000 net gsf, bringing total campus development to approximately 2.26 million gsf. See **Table 2-2** and **Figure 2-9** in **Chapter 2** for a summary and depiction of development in Phases 2 through 4 of the *Proposed Master Plan*, respectively.

Height, Bulk, and Scale Impacts

Development of the *Proposed Master Plan* would increase the height, bulk, and scale of buildings and structures on the MGSH campus relative to existing conditions, and would place taller, more dense development in proximity to surrounding low density residential development in certain areas. (See **Figure 3.6-1**, Proposed Master Plan--Building Massing Diagram at Full Buildout.)

Phase 1

New campus development in Phase 1 would occur in the west part of campus -- between 13th and 15th Avenues SE and 3rd and 5th Streets SE -- where most of the larger scale medical buildings/structures are currently located. This development would include the proposed approximately 230,000 gsf, 141-ft. high Patient Care Tower. No new development would occur south of 15th Avenue SE (See **Table 2-4** and **Figures 2-8** in **Chapter 2** for details)

The overall height, bulk, and scale of proposed development in Phase 1 of the *Proposed Master Plan* would be similar to existing development on the west side of the campus, to the north of 15th Avenue SE (existing buildings up to nine stories and 375,800 gsf are located in this area).

Phases 2 through 4

Additional development in Phases 2 through 4 would primarily be located on the east side of campus; a small amount of development would occur on the west side of campus. Most of the new development would occur on the surface parking lot that is bound by 5th Street SE, 15th Avenue SE, and 14th Avenue SE. Development in this area would include two new Medical Office Buildings (MOB A and MOB B) each a maximum of 100,000 gsf and 85 feet high, and two parking decks a maximum of 260,000 gsf, and 68 feet high. The 90,000 gsf, 90-ft high Central Support Tower would be situated in the west part of campus.

The height, bulk, and scale of proposed development on the east side of campus would increase substantially over existing conditions and would be greater in scale than the residential areas to the east and south.

Several features of development under the *Proposed Master Plan* are designed to reduce the height, bulk, and scale impacts on the surrounding area. These features include the proposed overall development plan, setbacks, open space/landscaping, and development regulations incorporated into the *Master Plan*, as described below.

- **Overall Development Plan** – a substantial amount of the proposed new development would occur in the western part of campus where larger scale buildings are currently located.

- **Setbacks -** Like the 2007 Master Plan, setbacks would be 10 feet from the site perimeter, or 20 feet adjacent to residentially zoned properties (properties zoned residential are located to the east and south of campus, see **Section 3.5**, Land Use, for details).

- **Open Space / Landscaping -** Existing groves of trees on the margins of the campus would be retained with development of the *Proposed Master Plan.* These trees provide natural buffers from Highway 512 and residences to the east and south. Vegetated buffers would be planted along the edges of campus to provide additional

visual screening for adjacent residential properties. (See **Figure 2-12** in **Chapter 2**, Proposed Action—Landscape Plan.)

- **Development Regulations**- Development Regulations in the *Proposed Master Plan* include standards related to building heights, building setbacks, landscape buffers, building square footage, lot coverage, open/green space, lighting, signage, and other elements that would reduce height, bulk, and scale impacts.

Existing physical barriers within and adjacent to the site (e.g., roadways and topography) would also help lessen height/bulk/scale impacts of proposed development. For example, topography onsite slopes from south to north, with a 160-foot grade difference. The topography would allow proposed buildings to be set into the grade, thereby lessening their perceived height, bulk and scale from surrounding areas. Also, Highway 512 and 15th Avenue SE, which are external to the site, separate proposed development from surrounding areas. As a result, significant height/bulk/scale impacts are not expected under the *Proposed Master Plan*.

Alternative 1 – Reduced Medical Office Building Size

Proposed development under *Alternative 1* would be similar to under the *Proposed Master Plan*, except that one of the 100,000 gsf Medical Office Buildings (MOB B) would not be built. All other development proposed as part of the *Master Plan* would be as described for the *Proposed Master Plan*. A total of nine projects would be constructed incrementally through buildout in about 2043, resulting in a total of 912,000 gsf of new building space. Impervious surfaces would cover 66% of the site and pervious surfaces would cover 34% of the site (versus the 67% and 33%, respectively, under the *Proposed Master Plan*). See **Table 2-6** and **Figure 2-13** in **Chapter 2** for a summary and depiction of development under *Alternative 1*, respectively.

Height, Bulk, and Scale Impacts

Similar to the *Proposed Master Plan*, development under *Alternative 1* would increase the height, bulk, and scale of buildings on the MGSH campus relative to existing conditions, and would place taller, more dense development in proximity to low density residential development. However, less building development would occur than under the *Proposed Master Plan* on the east side of campus. (see **Figure 3.6-1**, Alternative 1--Building Massing Diagram at Full Buildout).

Like the *Proposed Master Plan*, the overall height, bulk, and scale of proposed development under *Alternative 1* would be similar to the existing development on the west side of the campus (existing buildings up to nine stories and 375,800 gsf are located in this area). However, the height, bulk, and scale of proposed development on the east side would increase substantially over existing conditions and would be greater in scale than the residential areas to the east and south. Under *Alternative 1*, only one Medical Office Building (MOB A) would be constructed on the east side of campus, adjacent to 15th Avenue

SE. The remaining area near this roadway would remain in surface parking. This reduction in building area would decrease the potential for height, bulk, and scale impacts to residential areas to the south.

Like the *Proposed Master Plan*, several features of proposed development under *Alternative 1* are designed to reduce height, bulk, and scale impacts on the surrounding area, including the overall development plan, setbacks, open space/landscaping, and development regulations incorporated into the *Master Plan*. Existing physical barriers within and adjacent to the site (e.g., roadways and topography) would also help lessen height/bulk/scale impacts of proposed development. As a result, significant height/bulk/scale impacts are not expected under *Alternative 1*.

No Action Alternative

Under the *No Action Alternative*, it is assumed that the demand for increases in health care services in the region would continue and but that that additional hospital development would not occur on the MGSH campus. Future new projects unrelated to the hospital use could apply for individual permits under PMC 20.43 on a site-by-site basis, adhering to existing development standards in the City's code (parking, height, lot coverage, FAR, setbacks, landscaping, etc.). Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur. Any new development occurring on the hospital campus would feature substantially less height, bulk, and scale than the *Proposed Master Plan* and *Alternative 1* due to required adherence to the City's existing development standards for uses unrelated to a hospital approved through a master plan.

Conclusion

Development on the MGSH site under the Proposed Master Plan and Alternative 1 would increase the height, bulk, and scale of buildings and structures on the campus relative to existing conditions, and would place taller, more dense development in proximity to surrounding low density residential development to the south and east of campus. Alternative 1 would include one fewer building on the east side of campus than the Proposed Master Plan. Several features of proposed development are designed to reduce height, bulk, and scale impacts on the surrounding area, including the overall development plan, setbacks, open space/landscaping, and development regulations incorporated into the Master Plan. Existing physical barriers within and adjacent to the site (e.g., roadways and topography) would also help lessen the height/bulk/scale impacts of proposed development.

Possible development under the No Action Alternative would occur on a site-by-site basis, adhering to existing development standards in the City's code, including lower building heights, lot coverage, FAR, etc.

3.6.3 Mitigation Measures

The following measure has been identified to address the potential aesthetics – height, bulk, and scale impacts from development of the *Proposed Master Plan*. This measure applies to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts . Other Possible Measures are additional measures that could be implemented to address impacts but are not necessary to mitigate significant impacts.

Measures Proposed as Part of Project

- Development Regulations in the *Proposed Master Plan* and *Alternative 1* include standards related to building heights, building setbacks, landscape buffers, building square footage, lot coverage, open/green space, lighting, signage, and other elements, which would help reduce height, bulk, and scale impacts.

3.6.4 Significant Unavoidable Adverse Impacts

Development under the *Proposed Master Plan* and *Alternative 1* would change the height, bulk, and scale of the MGSH to a more intensive campus with increased density. Some might view these changes as positive, others as negative. No significant unavoidable adverse height, bulk, and scale impacts are anticipated with implementation of the identified mitigation measures.

3.7 AESTHETICS - Viewshed

This section of the DEIS describes the aesthetic and light and glare conditions on and near the MultiCare Good Samaritan Hospital (MGSH) site. Potential impacts from development of the *Proposed Master Plan* and EIS alternatives on aesthetics and light and glare conditions are evaluated and mitigation measures identified. This analysis is based on massing diagrams and view simulations prepared by Perkins + Will in August 2024.

Methodology

Visual Character

For the aesthetics analysis in this DEIS, the visual character of an area is assumed to consist of the unique and important aesthetic features that comprise the visual landscape. Both natural and built features combine to define a location's visual character, including natural resources (topography, vegetation, geologic formations, wetlands, rivers, and other water resources), view corridors, vistas, parks, and landmark structures/districts.

Views

A view analysis was prepared for this DEIS based on photographs taken of the MGSH site from selected viewpoints and photo simulations of proposed development under the *Proposed Master Plan* and EIS alternatives from these viewpoints. The viewpoints for the visual analysis were identified based on public places with possible views of the site, including public roadways/sidewalks surrounding the site. Accordingly, six (6) viewpoints were selected for simulation based on the ability to view both the context and proposed development and understand the relationships associated with potential view impacts (see **Figure 3.7-1,** Viewpoint Location Map). Photos were taken using a normal lens setting (51 mm), and 3D photo simulations of the views of site redevelopment under the EIS alternatives from the selected viewpoints were prepared to represent building massing based on site and building elevations, locations, building heights, open spaces, and street alignments. The view analysis presented in this DEIS includes figures that incorporate the following:

- Photographs illustrating the existing visual condition as viewed from the respective viewpoints; and

- Simulations of building massing envelopes representing the extent of building massing visible from the respective viewpoint, consistent with assumed total building square footage, setbacks, and maximum heights and proposed topography. The building massing envelopes are those associated with the footprints illustrated in **Figure 2-7,** *Proposed Master Plan* - MGSH Campus at Full Buildout and **Figure 2-13**, *Alternative 1* - MGSH Campus at Full Buildout in **Chapter 2** of this DEIS and are intended to represent the general bulk and scale of proposed development under these alternatives. Views under the *No Action Alternative* are assumed to be the

same as existing conditions, since development under this alternative is speculative, unrelated to the hospital use, and no specific proposals are anticipated.

3.7.1 Affected Environment

This sub-section describes the existing aesthetics conditions on and near the MGSH site.

Visual Character

The project site is located in the center of the City of Puyallup, approximately one mile south of downtown Puyallup, and immediately south of Highway 512. The immediate site vicinity is generally comprised of residential uses (single- and multi-family), medical office, and hotel uses. Other than a six-story hotel building to the west (Fairfield Inn and Suite) and several nearby medical office buildings to the south/southwest, which are up to 3-and 4-stories, existing nearby buildings are generally one to two stories in height. Refer to **Chapter 3.6**, ***Aesthetics - Height, Bulk and Scale***, for additional information.

The existing visual character of MGSH site is defined by its topography, collection of low-mid- and high-rise buildings, parking structures, surface parking lots, and landscaping and vegetated areas. The existing buildings are typically modern in appearance, reflecting construction in the 1990s. Heavily vegetated areas are located at the northeast corner of the site. The hospital site consists of a steep hillside, which slopes from south to north, with nearly 160 feet of grade change occurring across the site from its highest to lowest points.

To the north of the site, the visual character is defined by the SR 512 Highway, bordered by a vegetated buffer to the south. To the northeast, there are mature trees and two-story multi-family residences, including the Country Gables Apartments, which is a collection of two-story multi-family buildings. The visual character of the areas to the east of the site is defined by a single-family residential neighborhood. To the south and southeast, the visual character is defined by single family residences along 5th Street SE, as well as additional residences at a higher elevation south of 15th Avenue SE. To the southwest, single-family residences and retail businesses are present. The homes are also interspersed with privately owned medical office buildings.

Views

There are no formally-designated city viewpoints or protected viewsheds in Puyallup. Six viewpoints were selected as being most representative of area viewpoints and/or were determined to have the greatest potential for redevelopment on the MGSH site to change the character of the view:

- **Viewpoint 1** – Looking North from 3rd Street SE, at the intersection with 15th Avenue SE;
- **Viewpoint 2** – Looking North from 5th Street SE, at the intersection with 15th Avenue SE;
- **Viewpoint 3** - Looking Northwest down 15th Avenue SE;
- **Viewpoint 4** – Looking Northwest from the southeast corner of surface parking lot;

- **Viewpoint 5** – Looking Northwest from 7th Street SE, from the intersection with 15th Avenue SE; and,
- **Viewpoint 6** – Looking Southwest from14th Avenue SE.

See **Figure 3.7-1** for the locations of these viewpoints. Existing views toward the MGSH site from these viewpoints are described below.

Viewpoint 1 – Looking North from 3rd Street SE

From Viewpoint 1, (see **Figure 3.7-2**), the existing view includes the tree-lined 3rd Street SE roadway extending to the north. In the mid-field view the west portion of the existing 9-story (157 ft.) Dally Tower is visible. In the distance, a vegetated hillside is visible on the horizon. Two medical office buildings (two stories each) on the opposite side of the street from the Dally Tower are largely obscured by trees and are only minimally visible.

Viewpoint 2 – Looking North from 5th Street SE

From Viewpoint 2, (see **Figure 3.7-3**), the existing view includes the intersection of 5th Street SE and 15th Avenue SE in the foreground. Existing hospital surface parking is visible to the east (right), and the east edge of the 4-level (65 ft. tall) MGSH medical building is visible on the opposite side of the street from the parking lot. The Tacoma valley is visible in the distance.

Viewpoint 3 – Looking Northwest down 15th Avenue SE

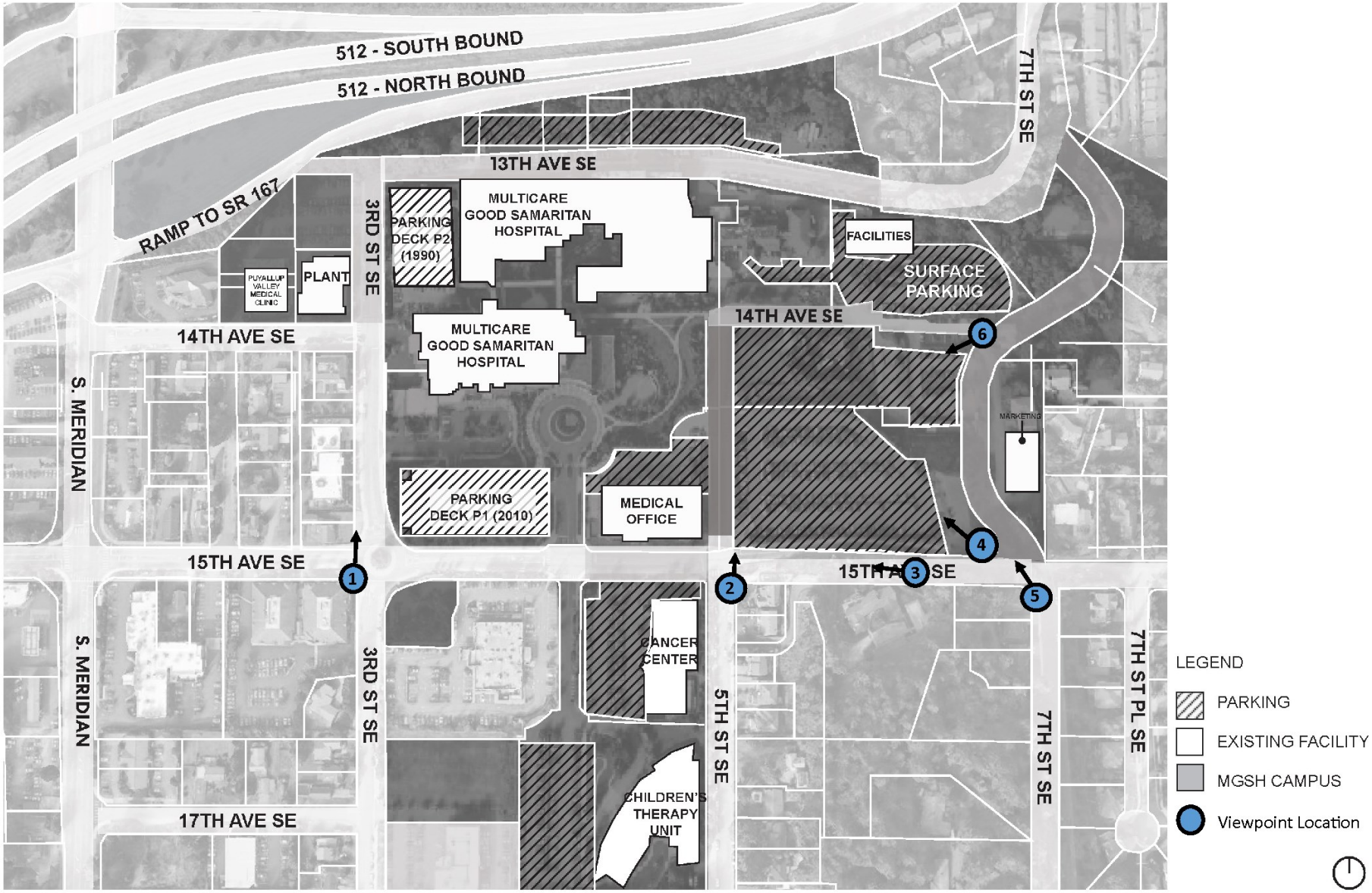
From Viewpoint 3 (see **Figure 3.7-4**), the existing view includes the 15th Avenue SE roadway extending into the distance. The roadway is lined on the north side (right) by a sidewalk and trees and is slightly elevated above the hospital surface parking lot. In the distance the 4-level (65 ft. tall) MGSH medical office building is partially visible.

Viewpoint 4 – Looking Northwest from the southeast corner of surface parking lot (located in southeast quadrant of campus);

From Viewpoint 4 (see **Figure 3.7-5**), the existing view includes the hospital's southeast surface parking lot with the Dally Patient Care Tower visible in the background. In the distance, views looking out across the valley to the northwest towards Tacoma are available. On clear days, the Olympic Mountain range is visible from this vantage point.

Viewpoint 5 – Looking Northwest from 7th Street SE

From Viewpoint 5 (see **Figure 3.7-6**), the existing view includes the 15th Avenue SE roadway extending uphill into the distance; in the foreground, the roadway is lined by vegetation and trees. No campus development is readily visible from this view location other than the 622-623 14th Ave. SE buildings, which are partially visible in the foreground on the north (right) side of the roadway; these are repurposed houses used by the hospital for storage and marketing uses. The hospital's southeast surface parking lot is screened behind a hill and is not visible from this location.



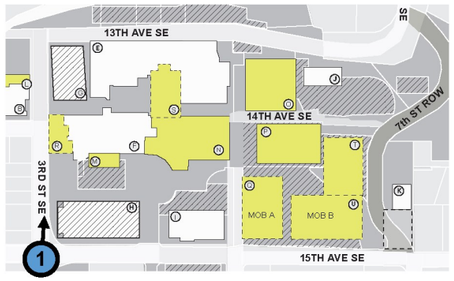
Source: Perkins & Will, & EA, 2024

EA Engineering, Science, and Technology, Inc., PBC

Figure 3.7-1

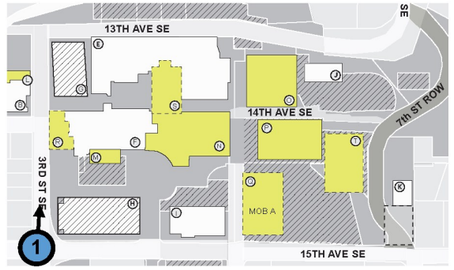
Viewpoint Location Map

VIEW 1



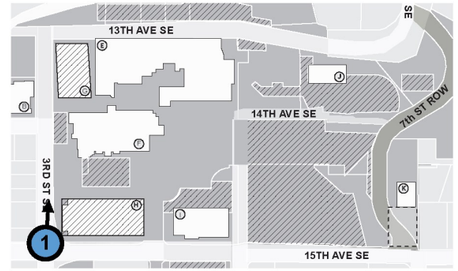
PROPOSED MASTER PLAN (FULL BUILD OUT)

3RD ST EXP.



EIS ALTERNATIVE 1

3RD ST EXP.



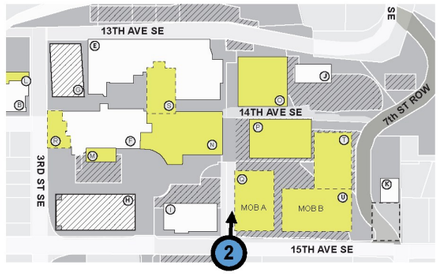
NO-ACTION ALTERNATIVE / EXISTING CONDITIONS

Source: Perkins + Will, 2024

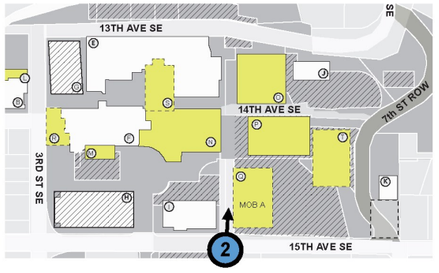
EA Engineering, Science, and Technology, Inc.

Figure 3.7-2
Viewpoint 1—Looking North from 3rd Street SE

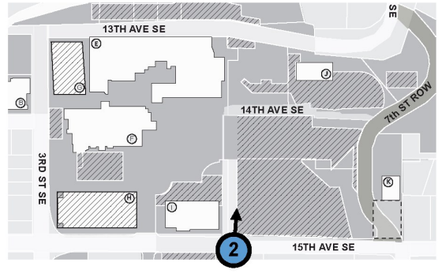
VIEW 2



PROPOSED MASTER PLAN (FULL BUILD OUT)



EIS ALTERNATIVE 1



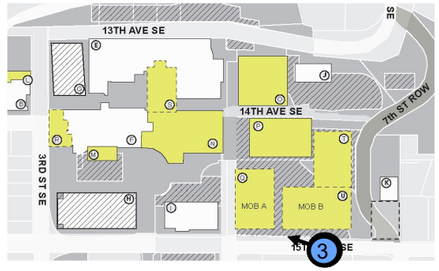
NO-ACTION ALTERNATIVE / EXISTING CONDITIONS

Source: Perkins + Will, 2024

EA Engineering, Science, and Technology, Inc.

Figure 3.7-3
Viewpoint 2—Looking North from 5th Street SE

VIEW 3



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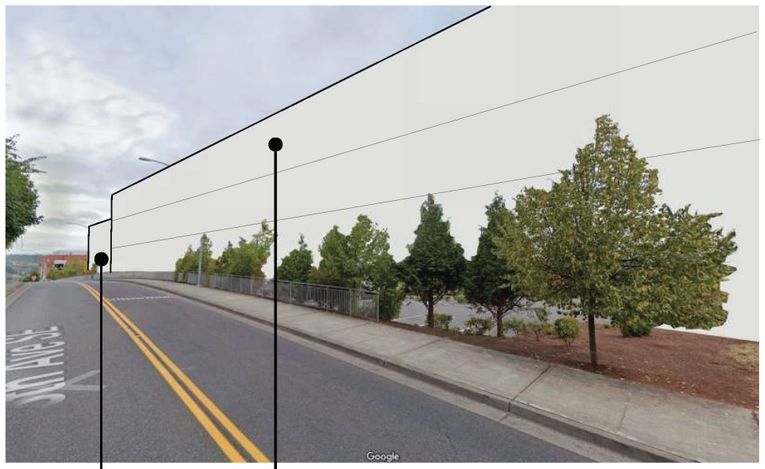

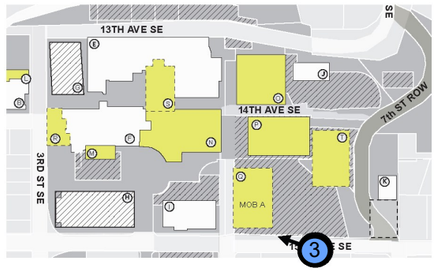

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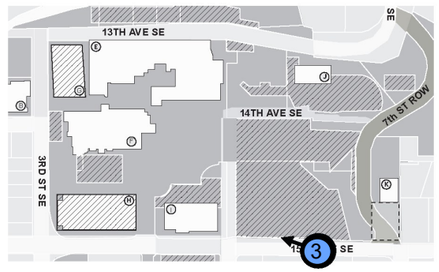


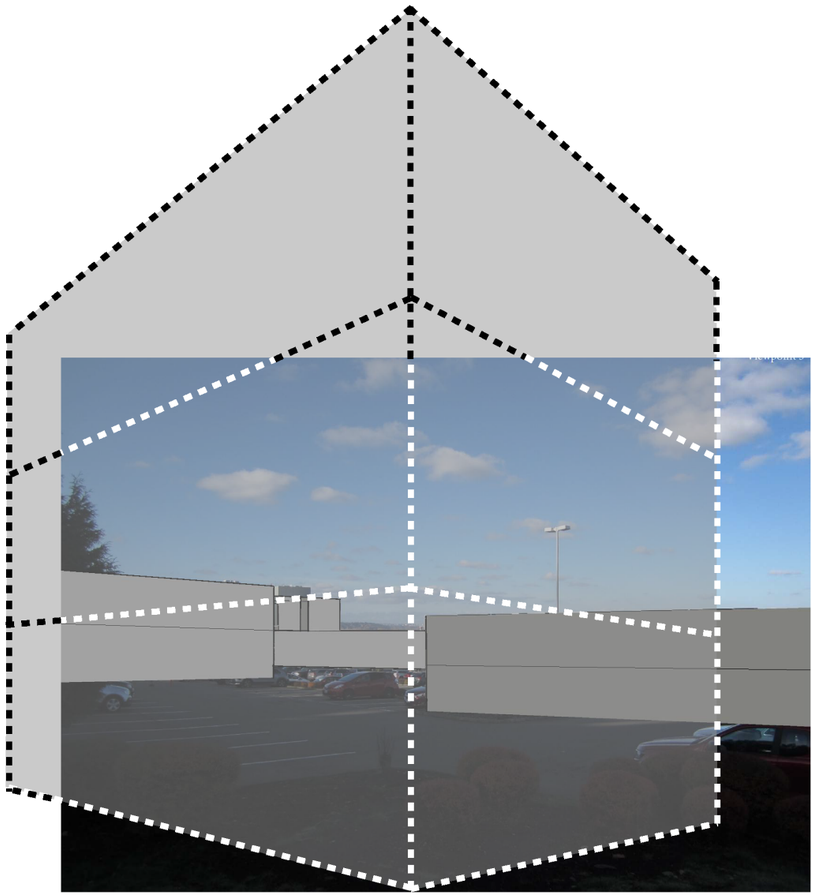
NO-ACTION ALTERNATIVE / EXISTING CONDITIONS

Source: Perkins + Will, 2024

EA Engineering, Science, and Technology, Inc.

Figure 3.7-4

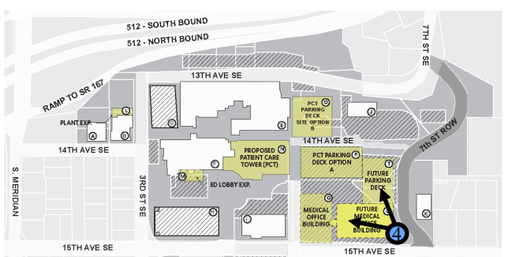
Viewpoint 3—Looking Northwest down 15th Avenue SE

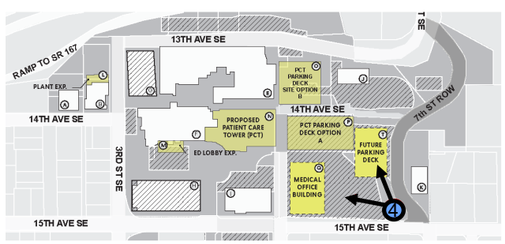


PROPOSED MASTER PLAN (FULL BUILD OUT)

EIS ALTERNATIVE 1

EXISTING CONDITONS / NO ACTION ALTERNATIVE





Source: Perkins + Will, 2024

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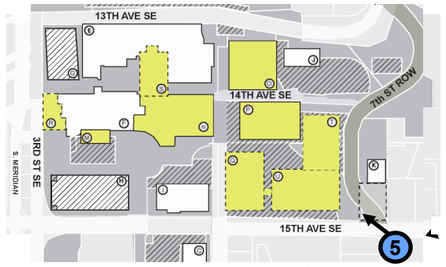
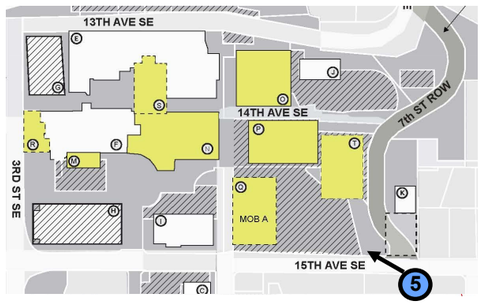
Figure 3.7-5

Viewpoint 4—Looking Northwest from Southeast Corner of Parking Lot

VIEW 5



PROPOSED MASTER PLAN (FULL BUILD OUT)



EIS ALTERNATIVE 1

NO-ACTION ALTERNATIVE/ EXISTING CONDITIONS

Source: Perkins + Will, 2024

EA Engineering, Science, and Technology, Inc.

Figure 3.7-6

Viewpoint 5—Looking Northwest from 7th Street SE

Viewpoint 6 – Looking West from 14th Avenue SE

This viewpoint photo was taken from 14th Avenue SE, internal to the hospital campus, where the roadway transitions to a north/south alignment. From Viewpoint 6 (see **Figure 3.7-7**), the existing view includes the 14th Avenue SE roadway extending into the distance to the south down the center of the photograph. The roadway is flanked on the west (right) by surface parking lots separated by a grass landscaping strip, and on the east by the 622-623 14th Ave. SE buildings, which are repurposed houses used by the hospital for storage and marketing uses. In the mid-field view, a vegetated hillside with mature evergreen trees is visible behind the surface parking lots on the west side of the street, and in the distant background the Dally Patient Care Tower is partially visible.

Light and Glare

Light

Site Lighting. Current lighting conditions on the site are indicative of an intensive urban setting, and light is emitted from both stationary and mobile sources. Surface parking lots and pedestrian walkways are lit by a combination of 20 ft. tall pole mounted lights as well as some limited 12 ft. tall pedestrian scale poles with decorative shielded fixtures. Vehicle drop off points are located across the campus, some of which contain lighted bollards, canopy up lights, and tree up lighting. Most drop off points also contain illuminated monument signage. Building entry points include exterior sconce and wall wash lighting.

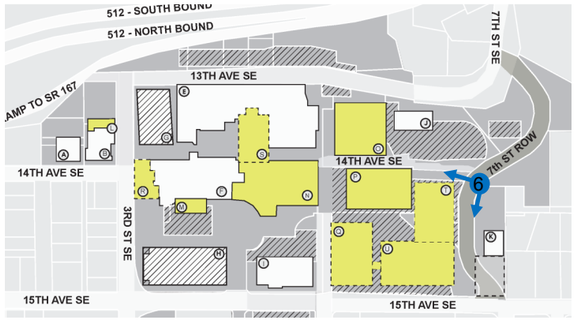
Other on-campus stationary sources of light include streetlights, which are present on area roadways (i.e., 3rd Street SE, 15th Avenue SE, 5th Street SE, 13th Avenue SE, and 14th Avenue SE). Mobile sources of light include light from vehicle headlights,[1] light associated with emergency vehicles, and light from service vehicles -- all of which enter, circulate within the hospital campus, park and subsequently exit the campus.

Surrounding Area Lighting. The neighborhood surrounding the site has nighttime lighting conditions that are generally less than those on the MGSH site, which is brighter and more constant due to the hospital operating for 24-hours per day. Within the surrounding neighborhood light is emitted from both stationary and mobile sources including interior and exterior building lighting, street lighting, and vehicles traveling on and accessing parking on area roadways, surface parking lots and private property.

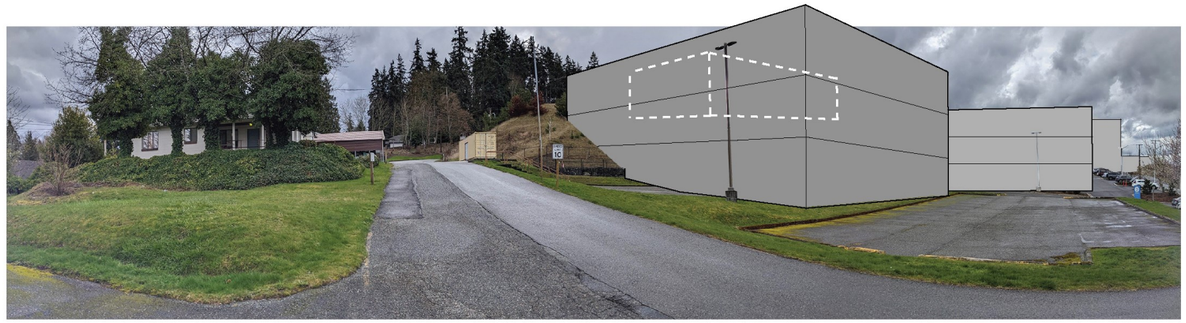
Glare

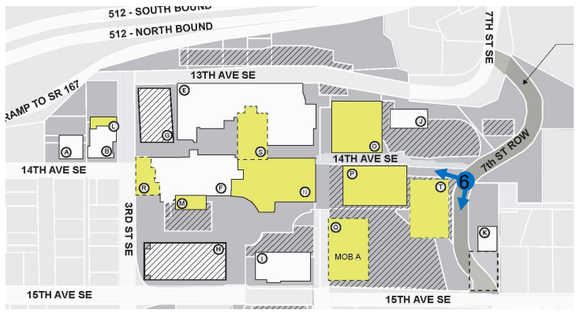
The primary sources of glare on and adjacent to the MGSH campus include light and reflective glare from glazing and other specular surfaces on vehicles traveling along area roadways, as well as light and reflective glare from glazing and

[1] Doctors, medical staff, Hospital employees, patients, and visitors.



PROPOSED MASTER PLAN (FULL BUILDOUT)





EIS ALTERNATIVE 1

NO ACTION ALTERNATIVE / EXISTING CONDITIONS

Source: Perkins + Will, 2024

EA Engineering, Science, and Technology, Inc.

Figure 3.7-7
Viewpoint 6–Looking West from 14th Avenue SE

other specular surfaces on existing buildings. Glare from existing buildings, paving, and vehicles on and near the site is expected to be minimal, given the types of buildings and amount of traffic that is present.

3.7.2 Impacts of the Alternatives

An analysis of the potential aesthetic/light and glare impacts of the *Proposed Master Plan* is provided below. For the other alternatives, the analyses focus on any differences between the alternatives and the *Proposed Master Plan*.

Proposed Action - Proposed Master Plan

The *Proposed Master Plan* provides for long-term phased development of the MGSH. The current campus boundary and size (approximately 34.9 acres) would not change under the *Proposed Master Plan*. At buildout in about 2043, development under the *Proposed Master Plan* would occur in phases and include up to approximately 2.25 million gsf of building space (a net increase of 1.0 million gsf).

Phase 1 would include five projects constructed incrementally (estimated between 2025 and 2028), including buildings, building expansions, and parking structures. Approximately 7,000 sq. ft. of building area is anticipated to be demolished as part of new construction. Proposed development in Phase 1 would add 432,000 gsf to the MGSH campus, bringing total campus development to approximately 1.68 million gsf. See **Table 2-2** and **Figure 2-8** in *Chapter 2* for a summary and depiction of development in Phase 1 of the *Proposed Master Plan*, respectively.

Phases 2 through 4 would feature construction of five additional projects from about 2028 through 2043, including buildings and parking structures. This development would add 580,000 net gsf, bringing total campus development to approximately 2.26 million gsf. See **Table 2-2** and **Figure 2-9** in *Chapter 2* for a summary and depiction of development in Phases 2 through 4 of the *Proposed Master Plan*, respectively.

Proposed development would modify the existing visual character of the site, change the height/bulk/scale of development, impact views toward the site, create shadows, and add new sources of light and glare. Changes in aesthetic conditions are anticipated to occur incrementally over the approximately 20-year build-out of the *Proposed Master Plan*.

Visual Character

Proposed development under the *Proposed Master Plan* would change the visual character of the site by introducing additional buildings, remodeling existing buildings, adding building additions, reconfiguration of some open spaces and the provision of additional landscaping, and the addition of parking structures. In general, new hospital and hospital-related

structures would be built on areas that contain surface parking or greenfield under existing conditions; most existing campus building would remain.

As noted in **Chapter 2** of this DEIS, boundaries of the campus would not change. Therefore, the new development would result in an intensification of on-campus uses and increased density. Lot coverage would increase from 63 percent (currently) to approximately 67 percent in the long-term (Phase IV).

Views

The following summarizes potential changes to view conditions that could occur with development of the *Proposed Master Plan*. Refer to **Figure 3.7-1** for a viewpoint location map.

Viewpoint 1 – Looking North from 3rd Street SE

Under the *Proposed Master Plan*, the existing foreground view would remain unchanged. In the mid-field view, the 50 ft. tall 3rd Street Extension to the Dally Tower would be partially visible. In general, the height and scale of the new development would be less than the Dally Tower, but similar to adjacent development across the street (see **Figure 3.7-2**). The overall visual character from this location of the viewpoint would remain similar to existing conditions, with a slightly more densely developed urban site.

Viewpoint 2 – Looking North from 5th Street SE

Under the *Proposed Master Plan*, the existing view of the surface parking lot would change to include the new four-level, 85 ft. tall Medical Office Building A (MOB A) in the foreground, with the new Patient Care Tower (157'-6'' tall) partially visible in the background. (See **Figure 3.7-3**). The height of MOB A would be similar to the existing four-story MGSH Medical Building across the street. The overall visual character from this location of the viewpoint would change from a largely undeveloped view of a surface parking lot, to a more densely developed urban site.

Viewpoint 3 – Looking Northwest down 15th Avenue SE

Under the *Proposed Master Plan*, the existing view of the tree-lined sidewalk elevated above the surface parking lot would change to include the four-level, 85-ft. tall Medical Office Building B (MOB B), with a portion of MOB A minimally visible in the background (see **Figure 3.7-4**). The overall visual character from this location of the viewpoint would change from a largely undeveloped view of a surface parking lot, to a more densely developed urban site featuring mid-rise medical office buildings, with vertical definition of the street corridor to the north.

Viewpoint 4 – Looking Northwest from the southeast corner of surface parking lot (located in southeast quadrant of campus)

Under the *Proposed Master Plan*, the existing views of the surface parking lot, Dally Tower and background views available to the northwest would be completely replaced by a close-in view of the new MOB B (see **Figure 3.7-5**). The overall visual character of the view would change from that of a location where open views toward the northwest are available looking out across the surface parking lot from a higher elevation, to a view of the new 4-level, 85-ft. tall medical building.

Viewpoint 5 – Looking Northwest from 7th Street SE

Under the *Proposed Master Plan*, the existing view would change to include a partial view of the 4-level, 85-ft. tall MOB B in the background on the north (right) side of the 15th Avenue SE roadway (see **Figure 3.7-6**). Overall, the character of the view from this location would remain similar to existing conditions with some additional visual density visible on the north side of the roadway.

Viewpoint 6 – Looking West from 14th Avenue SE

Under the *Proposed Master Plan*, the existing view of the 14th Avenue SE roadway flanked by surface parking and a vegetated hillside to the west (right) would change to include the three-level Future Parking Deck structure in the foreground, together with a portion of the three level PCT Parking Deck Option A building partially visible behind the foreground structure (see **Figure 3.7-7**). Further in the background, a portion of the new Patient Care Tower would be partially visible. The overall visual character from this location of the viewpoint would change from a largely undeveloped view of a surface parking lot, to a densely developed urban site featuring mid-rise parking structures. The overall visual effect would be to vertically define the 14th Avenue SE right-of-way corridor to the west.

Light and Glare

Construction

New temporary sources of light would be introduced to the site during construction activities over the phased buildout of the site. The lighting sources would be associated with infrastructure and building construction, lighting of the job site (to meet safety requirements), trucks, and other equipment. Construction lighting could potentially be noticeable in certain areas proximate to the site. Also, glare could reflect off construction vehicles and equipment, and construction-related vehicle headlights could at times produce light and glare when accessing the site from area roadways. While noticeable, such lighting is not expected to cause significant impacts. Construction lighting could be shielded from on and off-site residential buildings, and lighting associated with construction activities would be subject to City of Puyallup codes, which limit activities during nighttime hours.

Operation

Redevelopment of the site under the *Proposed Master Plan* would add a variety of sources of light and glare to the site.

Following redevelopment, new hospital and medical office building uses would result in new light sources on the site under the *Proposed Master Plan*. Stationary sources of light produced by the project would include interior and exterior building lighting; commercial sign lighting; pedestrian level lighting along pathways, and landscaping; and street lighting that is required under City code. Mobile sources would include light and glare from vehicle headlights associated with vehicles entering and exiting structured parking areas from area roadways, and to a lesser degree, vehicles accessing on-street and surface parking.

Light levels would be generally higher in the evenings and during the winter months, when there are more hours of darkness. Given the mix of uses including hospital and medical office, nighttime lighting levels would be higher. Redevelopment under the *Proposed Master Plan* would result in the elimination of some of the existing sources of light on the site; however, because the overall level of redevelopment on the site and the number of vehicles traveling through the site would be greater than under existing conditions, the overall level of light on the site would increase.

To manage potential nighttime lighting impacts, illumination would be shielded from the night sky and would generate minimal light spillage across property lines. Also, campus boundary-line setbacks and landscaping at the site edges would help to minimize light spillage. Signs would comply with illumination standards in the City of Puyallup codes. Significant light impacts are not anticipated with implementation of these measures.

New sources of glare on the site under the *Proposed Master Plan* could include reflection from building facades, windows, and pavement, and reflections from vehicle traffic. Specific glare impacts would depend upon the degree of reflective surfaces (e.g., glass windows) selected for building facades. Street-level and upper floor uses containing office and/or commercial uses would likely include some degree of glass exteriors and could produce more glare than other uses. The amount of glare generated would be typical of urban development and would represent an extension of existing development that occurs on the hospital campus. Overall, glare produced by the *Proposed Master Plan* is not expected to be significant.

Alternative 1 – Reduced Medical Office Building Size

Development under *Alternative 1* would include the same development program as the *Proposed Master Plan*, except that the second, 100,000 gsf Medical Office Building (MOB B) proposed under Phases 2-4 would not be developed. All other development proposed as part of the Master Plan under *Alternative 1* would be built as described for the *Proposed Master Plan*. **Table 2-6** in **Chapter 2** provides an overview of development under Alternative 1.

Visual Character

Like the *Proposed Master Plan*, development under *Alternative 1* would change the visual character of the site by introducing additional buildings to the campus and increasing intensity and density, primarily in locations that contain surface parking under existing conditions. However, with the construction of one fewer Medical Office Building, overall density introduced to the campus would be somewhat less under *Alternative 1* as compared to the *Proposed Master Plan*. More existing surface parking would be retained and remain undeveloped.

Views

The following summarizes potential changes to view conditions that could occur with redevelopment on the MGSH campus under *Alternative 1*. Refer to **Figure 3.7-1** for a viewpoint location map.

Viewpoint 1 – Looking North from 3rd Street SE

Like the *Proposed Master Plan*, under *Alternative 1* the existing foreground view would remain unchanged, but the new 50 ft. tall 3rd Street Extension to the Dally Tower would be partially visible in the mid-field view. Overall, views under *Alternative 1* from this viewpoint would change as described for the *Proposed Master Plan*, and the overall visual character from this location would remain similar to existing conditions with slightly increased density (see **Figure 3.7-2**).

Viewpoint 2 – Looking North from 5th Street SE

Similar to the *Proposed Master Plan*, the existing view of the surface parking lot would change to include the new four-level, 85 ft. tall MOB A in the foreground, with the new Patient Care Tower (9 stories, 157'6"ft. tall) partially visible in the background. Views under *Alternative 1* would be the same as those described from this viewpoint for the *Proposed Master Plan*, with the overall visual character from this viewpoint changing to a more densely developed urban site (see **Figure 3.7-3)**.

Viewpoint 3 – Looking Northwest down 15th Avenue SE

Under *Alternative 1* the view from this location would change to include the new MOB A (4-levels, 85 ft. tall), which would be partially visible within the background (see **Figure 3.7-5**). The overall visual character from this location of the viewpoint would remain relatively similar to existing conditions. Compared to the *Proposed Master Plan*, the overall character of the view from this location would not change as extensively because MOB B would not be developed under *Alternative 1*.

Viewpoint 4 – Looking Northwest from the southeast corner of surface parking lot (located in southeast quadrant of campus)

Under *Alternative 1*, the existing view would change to include a two-level future parking deck to the north (right) and MOB A to the west (left) (see **Figure 3.7-6**). Overall, the character of the view from this location would change to feature more development and density visible in the mid-field view. Compared to the *Proposed Master Plan*, the overall character of the view from this location would not change as extensively because MOB B would not be developed under *Alternative 1*, and the close-in view of a mid-rise building would not occur.

Viewpoint 5 – Looking Northwest from 7th Street SE

Under *Alternative 1*, no campus development would be readily visible from this location due to the lower elevation of the roadway (see **Figure 3.7-6**). Campus development would be screened from view by the existing hillside. Overall, the character of the view from this location would remain the same as existing conditions and the character of the view would change less than would occur under the *Proposed Master Plan*.

Viewpoint 6 – Looking West from 14th Avenue SE

Similar to the *Proposed Master Plan*, the foreground views of surface parking and a vegetated hillside would change to include views of two three-level parking structures. Views under *Alternative 1* would be the same as those described for the *Proposed Master Plan*, with the overall visual character from this viewpoint changing to a densely developed urban site with vertical definition of the 14th Avenue SE right-of-way corridor on the west (see **Figure 3.7-7**).

No Action Alternative

Under the *No Action Alternative*, it is assumed that the demand for increases in health care services in the region would continue but that additional hospital development would not occur on the MSGH campus. However, this EIS alternative assumes that future new projects within the MGSH campus unrelated to the hospital use could be subject to individual permits under PMC 20.43 on a site-by-site basis, adhering to existing development standards in the City's code (parking, height, lot coverage, FAR, setbacks, landscaping, etc.). Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur.

In general, the visual character of the MGSH site and views from *Viewpoints 1-6* (refer to **Figures 3.7-2** to **Figure 3.7-7**) would remain largely similar to existing conditions under the *No Action Alternative*. It is assumed that any new development occurring on the MGSH

campus on a site-by-site basis would be substantially less in height, bulk, and scale due to required adherence to the City's existing development standards.

Conclusion

Proposed development on the MGSH site under the Proposed Master Plan and Alternative 1 would change the visual character of the site by increasing density and intensity of the campus within the existing boundaries.

Views of new development under the Proposed Master Plan and Alternative 1 would change from public places surrounding the site, although there are no specific views or viewpoints designated by the City that would be impacted. The greatest changes in views would occur due the development of MOBs A and B that would be visible primarily in the foreground and mid-ground views from surrounding roadways under the Master Plan.

New sources of light and glare would be introduced by the Proposed Master Plan and Alternative 1 (e.g., from building facades, windows, and pavement, and reflections from vehicle traffic). Illumination would be shielded from the night sky and would generate minimal light spillage across property lines. The amount of glare generated would be typical of urban development and is not expected to be significant.

Possible development under the No Action Alternative would result in less view or light and glare impacts because less development would occur overall. Any new projects would occur on a site-by-site basis, adhering to existing development standards in the City's code meaning lower building heights, lot coverage, FAR, etc.

3.7.3 Mitigation Measures

The following measures have been identified to address the potential aesthetics impacts from development of the *Proposed Master Plan*. These measures apply to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts. Other Possible Measures are additional measures that could be implemented to address impacts but are not necessary to mitigate significant impacts.

Legally-Required Measures

- Pedestrian-scale lighting would be provided consistent with code, function, and safety requirements.
- Signs would comply with City of Puyallup code-required illumination standards.

Measures Proposed as Part of Project

- Development Regulations in the *Proposed Master Plan* include standards related to building heights, building setbacks, landscape buffers, building square footage, lot coverage, open/green space, lighting, signage, and other elements, which would help reduce height, bulk and scale impacts.

- Street trees and the use of building materials with relatively low-reflectivity at street level would minimize reflective glare-related impacts to pedestrians and nearby residents immediately adjacent to the site.

- Exterior lighting would include fixtures to direct the light downward and/or upward and away from on and off-site land uses.

- A detailed lighting plan would be developed to minimize off-site impacts through careful selection of lighting fixtures, and sensitive placement, intensity and orientation.

Other Possible Mitigation Measures

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

3.7.4 Significant Unavoidable Adverse Impacts

Proposed development under the *Proposed Master Plan* and *Alternative 1* would change the visual character of the MGSH site to a more intensive campus with increased density. Some might view these changes in visual character as positive, others as negative. No significant unavoidable adverse aesthetic or light and glare impacts are anticipated with implementation of the identified mitigation measures.

3.8 TRANSPORTATION

This section of the DEIS describes the transportation conditions on and near the MultiCare Good Samaritan Hospital (MGSH) site. Potential impacts from development of the *Proposed Master Plan* and EIS alternatives on transportation are evaluated and mitigation measures are identified. This analysis is based on the *Traffic Operations Technical Memorandum* and the *Traffic Safety Analysis Memorandum* that were prepared by Jacobs in 2024 (see **Appendix E**).

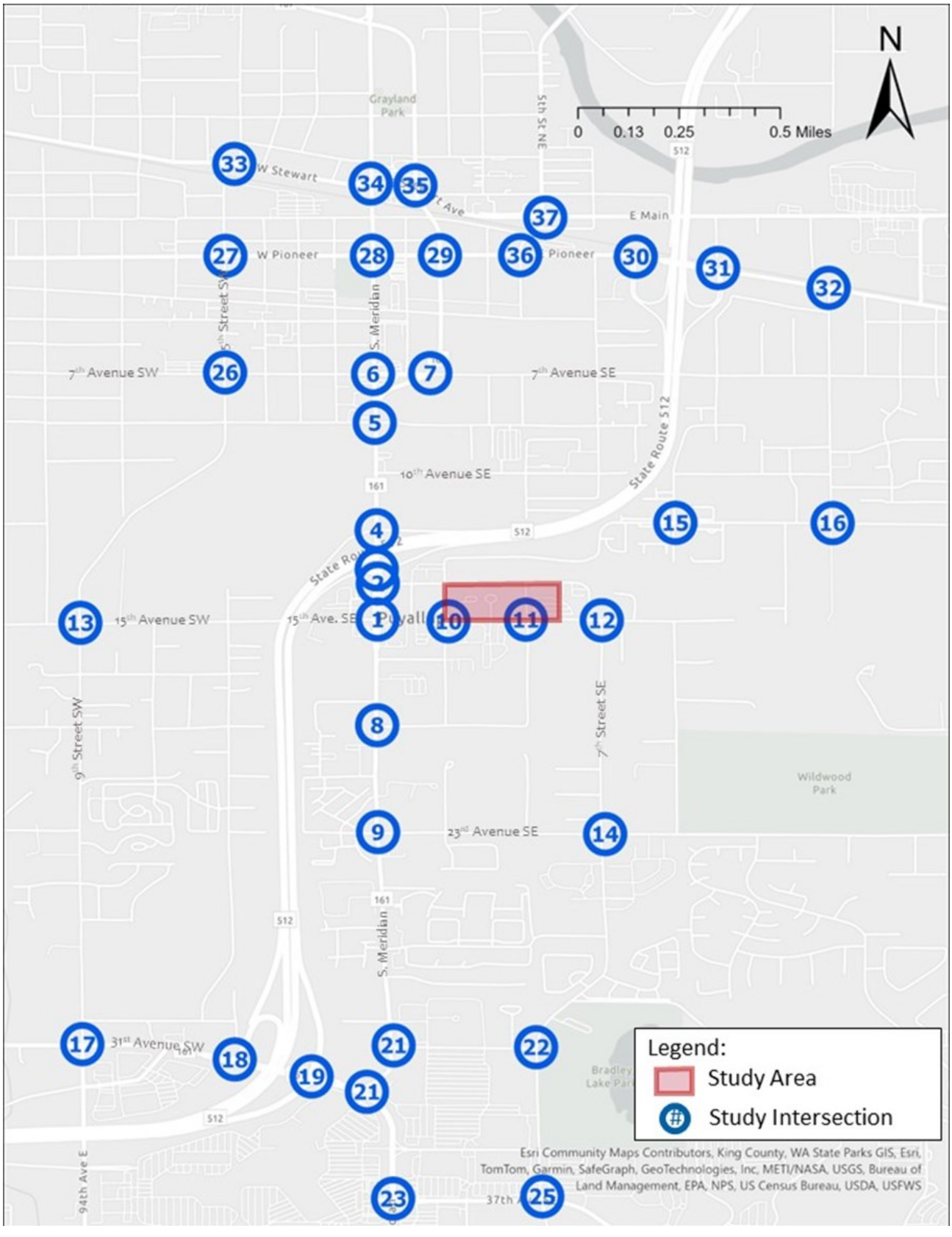
Methodology

Traffic Analysis

The traffic study completed by Jacobs involved the analysis of the weekday AM peak period (7:00 to 9:00 AM) and PM peak period (4:00 to 6:00 PM) since those time periods generally have the highest traffic volumes. A study area and study intersections were selected based on the *Proposed Master Plan* trip generation, trip assignment, and input from the City of Puyallup. The study area consists of a total of 37 intersections, including:

1. S Meridian and 15th Ave SE
2. S Meridian and 14th Ave SE
3. S Meridian and SR 512 EB Ramps
4. S Meridian and SR 512 WB Ramps
5. S Meridian and 9th Ave
6. S Meridian and 7th Ave SE
7. 3rd St SE and 7th Ave SE
8. S Meridian and 19th Ave SE
9. S Meridian and 23rd Ave SE
10. 15th Ave SE and 3rd St SE
11. 15th Ave SE and 5th St SE
12. 15th Ave SE and 7th St SE
13. 15th Ave SW and Fairview Dr
14. 23rd Ave SE and 7th St SE
15. 12th Ave SE and 9th St SE
16. 12th Ave SE and 13th St SE
17. 31st Ave SW and 9th St SW
18. 31st Ave SW and SR 512 SB Ramps
19. 31st Ave SW and SR 512 NB/EB Ramps
20. S Meridian and 31st Ave SW
21. S Meridian and 31st Ave SE
22. 5th St SE and 31st Ave SE
23. S Meridian and 37th Ave SE
24. S Meridian and 39th Ave SE
25. 5th St SE and 37th Ave SE
26. 5th St SW and 7th Ave SW
27. 5th St NW/5th St SW and W Pioneer
28. S Meridian and E Pioneer
29. 3rd St SE and E Pioneer
30. 3rd St SE and E Pioneer
31. E Pioneer and SR 512 EB Ramps
32. E Pioneer and SR 512 EB Ramps
33. 5th St NW/4th St NW and W Stewart Ave
34. S Meridian and E Stewart Ave
35. 3rd St SE/2nd St NE and E Stewart Ave/E Main Ave
36. E Pioneer and 5th St SE
37. E Main Ave and 5th At NE

See **Figure 3.8-1** for a map of the project study area intersections. A second study area was also utilized for the traffic analysis and included the SR 512 freeway segments between 9th Street SW and SR 167.



Source: Jacobs, 2024.

EA Engineering, Science, and Technology, Inc., PBC

Figure 3.8-1

Traffic Operations Analysis Study Area Intersections

The analysis of traffic utilized several models and software. The PSRC travel demand model was used to forecast future year No Build volumes in the study area and to determine project trip distribution assignment. Synchro and Vissim software were used to conduct the traffic operations analysis. Synchro was used to estimate average vehicle delay, queue lengths, and LOS for all the study intersections. Vissim was used to average vehicle delay, queue lengths, vehicle throughput, and LOS for the study intersections that are in the vicinity of the hospital campus and along S Meridian between 7th Avenue SW and 23rd Avenue SE. Vissim and Synchro were also used to analyze and determine the proposed mitigation improvements along the 15th Avenue corridor (see **Appendix E** for further details on the traffic analysis methodology).

Traffic Safety Analysis

A traffic safety analysis was conducted for three SR 512 interchanges with mainline segments, ramp terminals, and ramp segments. The analysis was performed using ISATe files. Segments and intersections surrounding the Good Samaritan Hospital site were performed using AASHTO's Highway Safety Manual Spreadsheets. The following interchanges, segments and intersections were analyzed in the corridor:

Interchanges:

- East Pioneer
- South Meridian
- 31st Avenue SW

Segments:

- South Meridian from 14th Avenue SE to 31st Avenue SW
- 7th Street SE from 15th Street SE to 31st Avenue SE
- 23rd Avenue SE from South Meridian to 7th Street SE
- 12th Avenue SE from 9th Street SE to 13th Street SE

Intersections:

- South Meridian at 14th Avenue SE
- South Meridian at 15th Avenue SE
- South Meridian at 19th Avenue SE
- South Meridian at 23rd Avenue SE
- South Meridian at 31st Avenue SE
- South Meridian at 31st Avenue SW
- 7th Street SE at 15th Avenue SE
- 7th Street SE at 23rd Avenue SE
- 7th Street SE at 31st Avenue SE

- 15th Avenue SW at 9th Street SW/Fairview Drive
- 15th Avenue SE at 3rd Street SE
- 15th Avenue SE at 5th Street SE
- 12th Avenue SE at 9th Street SE
- 12th Avenue SE at 13th Street SE

Interchanges were analyzed using the *Enhanced Interchange Safety Analysis Tool*. Segments and intersections were analyzed using the *Highway Safety Manual 1st Edition, Volume 2, Chapter 12 – Predictive Model for Urban and Suburban Arterials* contained in the *AASHTO Highway Safety Manual Spreadsheet* (see **Appendix E** for further details on the traffic safety analysis methodology).

3.8.1 Affected Environment

This sub-section describes the existing transportation conditions on and in the vicinity of the MSGH site, including existing traffic, traffic operations, vehicle throughput and queuing, traffic safety, and parking.

Existing Traffic

The *Traffic Operations Technical Memorandum* and associated analysis was conducted to document existing traffic volumes, level of service (LOS), traffic delay, vehicle throughput, and vehicle queuing. Existing traffic counts, including the number of heavy vehicles, were collected at study area intersections in June 2023. The weekday AM and PM peak traffic counts were collected on a mid-weekday with schools in session. In addition to field collected intersection turning movement counts, traffic data from the City Adaptive Signal Control Systems at the major study intersections along the S Meridian corridor were also collected. The final adjusted peak hour volumes were then validated by comparing the operations models LOS results with the general field observed conditions along the S Meridian Corridor.

Traffic Operations

LOS and Delay

LOS is a commonly used transportation method of analysis that is utilized to measure and describe the operational characteristics of intersections, roadway segments, and other facilities. The term equates seconds of delay per vehicle at intersections to letter grades “A” through “F” with LOS A representing optimal conditions and LOS F representing breakdown or over-capacity flows. The City of Puyallup Comprehensive Plan identifies LOS standards within the City, including LOS E or better at intersections on the Meridian Avenue corridor and LOS D or better at all other intersections. A standard of LOS D or better is also utilized in

this analysis for SR 512 study area intersections which is in accordance with Washington State Department of Transportation (WSDOT) standards.

Table 3.8-1 summarizes the existing LOS and delay conditions within the study area. The following intersections currently operate at LOS levels that do not meet City of Puyallup standards:

- 31st Avenue SW and 9th Street SW – PM Peak Hour
- 31st Avenue SW and SR 512 SB Ramps – PM Peak Hour
- 31st Avenue SW and SR 512 NB/EB Ramps – PM Peak Hour

Table 3.8-1
EXISTING CONDITIONS LOS AND DELAY SUMMARY

#	Intersection Name	Control	Existing PM		Existing AM	
			Delay	LOS	Delay	LOS
1*	S Meridian and 15th Ave SE	Signal	30.8	C	42.7	D
2*	S Meridian and 14th Ave SE	Un-Signalized	1.8	A	2.0	A
3*	S Meridian and SR 512 EB Ramps	Signal	7.2	A	6.4	A
4*	S Meridian and SR 512 WB Ramps	Signal	16.6	B	14.9	B
5*	S Meridian and 9th Ave	Signal	13.6	B	11.8	B
6*	S Meridian and 7th Ave SE	Signal	17.9	B	29.2	C
7*	3rd St SE and 7th Ave SE	Signal	19.5	B	18.7	B
8*	S Meridian and 19th Ave SE	Un-Signalized	1.5	A	1.4	A
9*	S Meridian and 23rd Ave SE	Signal	11.0	B	10.8	B
10**	15th Ave SE and 3rd St SE	Roundabout	4.8 (0.47)	A	4.4 (0.5)	A
11	15th Ave SE and 5th St SE	Un-Signalized	11.1	B	10.6	B
12	15th Ave SE and 7th St SE	Un-Signalized	2.3	A	4.5	A
13	15th Ave SW and Fairview Dr	Signal	38.6	D	26.4	C
14	23rd Ave SE and 7th St SE	Un-Signalized	31.0	D	19.3	C
15	12th Ave SE and 9th St SE	Un-Signalized	4.1	A	3.9	A
16	12th Ave SE and 13th St SE	Un-Signalized	7.7	A	7.2	A
17	31st Ave SW and 9th St SW	Signal	69.5	E	42.4	D
18	31st Ave SW and SR 512 SB Ramps	Signal	91.0	F	18.3	B
19	31st Ave SW and SR 512 NB/EB Ramps	Signal	61.2	E	35.7	D
20	S Meridian and 31st Ave SW	Signal	20.7	C	15.6	B
21	S Meridian and 31st Ave SE	Signal	16.3	B	15.3	B
22	5th St SE and 31st Ave SE	Signal	25.1	C	16.7	B
23	S Meridian and 37th Ave SE	Signal	59.7	E	14.7	B
24	S Meridian and 39th Ave SE	Signal	42.8	D	32.2	C
25	5th St SE and 37th Ave SE	Signal	26.9	C	20.8	C
26	5th St SW and 7th Ave SW	Signal	22.1	C	25.1	C
27	5th St NW/5th St SW and W Pioneer	Signal	54.0	D	40.5	D

#	Intersection Name	Control	Existing PM		Existing AM	
			Delay	LOS	Delay	LOS
28	S Meridian and E Pioneer	Signal	67.6	E	29.3	C
29	3rd St SE and E Pioneer	Signal	30.3	C	22.5	C
30	E Pioneer and SR 512 WB Ramps	Signal	28.2	C	15.8	B
31	E Pioneer and SR 512 EB Ramps	Signal	16.7	B	17.4	B
32	E Pioneer and 13th St SE	Un-Signalized	2.1	A	1.6	A
33	5th St NW/4th St NW and W Stewart Ave	Signal	36.5	D	27.4	C
34	S Meridian and E Stewart Ave	Signal	27.3	C	34.2	C
35	3rd St SE/2nd St NE and E Stewart Ave/E Main Ave	Signal	32.2	C	23.1	C
36	E Pioneer and 5th St SE	Signal	29.7	C	10.1	B
37	E Main Ave and 5th At NE	Signal	34.6	C	22.0	C

Source: Jacobs, 2024.

*VISSIM MOEs

**SIDRA MOEs – Reports delay and v/c ratio within parentheses

Throughput and Queuing

An analysis of throughput and queuing provides a measure of traffic demand versus served volume that represents how well the study area intersections can serve demand. Greater than 98 percent of the current traffic demand is successfully served by the study area intersections in the AM and PM peak hours. In addition, an analysis of the 50th and 95th percentile queue lengths was conducted for the study area. The 95th percentile queue length is a statistical measure that is used to assess the maximum queue length that is likely to occur at an intersection. It represents the queue length that is expected to be exceeded only five percent of the time and provides a conservative estimate for design and planning purposes. Whereas the 50th percentile queue length represents the middle value in a set of queue length measurements. It is a statistical measure that provides insight into typical queue conditions at an intersection (see **Appendix E** for further details on throughput and queuing).

During the AM peak hour, significant traffic congestion occurs along the northbound approaches of S Meridian, particularly at three key intersections:

- S Meridian and SR 512 EB Ramps
- S Meridian and 15th Avenue SE
- S Meridian and 19th Avenue

The northbound queue originates at the SR 512 eastbound ramps and 15th Avenue SE intersections, extending southward beyond 19th Avenue. This extensive queuing is primarily attributed to the heavy northbound traffic volume on S Meridian heading towards eastbound SR 512. The southern section of the study area also experiences significant traffic congestion during both AM and PM peak hours. During the AM peak hour, the congestion particularly occurs along the northbound approaches of S Meridian and westbound approaches of 31st Avenue SW between 39th Avenue SE and the SR 512 ramps. The

northbound approaches along S Meridian and westbound approaches along 31st Avenue SW between 39th Avenue SE and SR 512 ramps experience extensive queuing due to the heavy traffic heading towards SR 512. During the PM peak hour, both northbound and southbound approaches along this corridor experience congestion and queue spillback. See **Appendix E** for further details, including throughput and queuing summary tables.

Traffic Safety

Interchange Conditions

The existing interchange conditions consist of an urban area that has direct access to SR 512. Three interchanges were analyzed in the study area, including the mainline interchange of SR 512 and 31st Avenue SW, the mainline interchange of SR 512 and S Meridian, and the mainline interchange of SR 512 and Pioneer Way E. **Table 3.8-2** illustrates the crashes per year based on ISATe analysis under existing conditions and shows that the interchange of 31st Avenue SW has the highest level of crash rates, followed by S Meridian and Pioneer Way E (see **Appendix E** for further details on the traffic safety analysis).

Table 3.8-2
INTERCHANGE RESULTS – PREDICTED CRASHES

Interchange	Scenario	Year	Predicted Crashes for Entire Facility					
			Total	Fatal	Major Injury	Minor Injury	Possible Injury	Property Damage Only
SR 512 & 31st Avenue Southwest	Existing	2023	79.1	0.2	0.9	5.0	13.2	59.7
	Opening Year No Action	2028	81.2	0.2	0.9	5.1	13.8	61.1
	Opening Year Proposed Master Plan	2028	81.0	0.2	0.9	5.1	13.8	60.9
	No Action	2041	87.3	0.3	1.0	5.5	15.3	65.3
	Proposed Master Plan	2041	87.2	0.3	0.9	5.5	15.3	65.2
SR 512 & South Meridian	Existing	2023	41.9	0.2	0.5	2.7	6.4	32.1
	No Action	2028	43.2	0.2	0.5	2.8	6.7	33.0
	Proposed Master Plan	2028	44.3	0.2	0.5	2.9	7.0	33.8
	No Action	2041	45.7	0.2	0.5	2.9	7.4	34.7
	Proposed Master Plan	2041	48.6	0.2	0.5	3.1	8.0	36.8
SR 512 & Pioneer Way East	Existing	2023	22.9	0.1	0.3	1.8	4.0	16.7
	No Action	2028	23.5	0.1	0.3	1.9	4.1	17.1
	Proposed Master Plan	2028	23.5	0.1	0.3	1.9	4.1	17.1
	No Action	2041	24.4	0.1	0.3	1.9	4.2	17.9
	Proposed Master Plan	2041	24.5	0.1	0.3	1.9	4.2	17.9

Source: Jacobs, 2024.
Note: Design year 2041 was utilized instead of 2048 for the interchange analysis since ISATe files do not have the capability to perform analysis beyond 2041.

Segment Conditions

The existing roadway segment conditions consist of an urban area with a mix of commercial and residential buildings. Five surrounding segments were analyzed, including South Meridian from 14th Avenue SE to 31st Avenue SW; 7th Street SE from 15th Avenue SE to 23rd Avenue SE; 23rd Avenue SE from S Meridian to 3rd Street SE; 15th Avenue SW/SE from 9th Street SW/Fairview Drive to 3rd Street SE; and, 12th Avenue SE from 9th Street SE to 13th Street SE. **Table 3.8-3** illustrates the crashes per year based on *AASHTO's Highway Safety Manual Spreadsheets* analysis under existing conditions and shows that S Meridian has the highest crash rate by a wide margin. 7th Street SE and 15th Avenue SE/SW have similar crash rates, followed by 23rd Avenue SE and 12th Avenue SE (see **Appendix E** for further details on the traffic safety analysis).

Table 3.8-3
SEGMENT RESULTS – PREDICTED CRASHES

Total Predicted Crashes					
Year	**2023**	**2028**	**2028**	**2048**	**2048**
Condition	**Existing**	**No Action**	**Proposed Master Plan**	**No Action**	**Proposed Master Plan**
S Meridian Totals	17.179	18.637	19.328	21.326	23.000
7th St SE Totals	2.260	2.458	2.563	2.837	3.087
23rd Avenue SE Totals	0.943	1.029	1.034	1.189	1.200
15th Avenue SE/SW Totals	2.204	2.407	2.943	2.790	3.999
12th Avenue SE Totals	0.194	0.206	0.214	0.229	0.249

Source: Jacobs, 2024.

Intersection Conditions

The existing conditions for intersections around the MGSH site consist of an urban area with commercial and residential buildings. 14 surrounding intersections were analyzed, including six signalized, seven stop-controlled, and one roundabout intersection. The intersections included the following:

- S Meridian & 14th Avenue SE
- S Meridian & 15th Avenue SE
- S Meridian & 19th Avenue SE
- S Meridian & 23rd Avenue SE
- S Meridian & 31st Avenue SE
- S Meridian & 31st Avenue SW
- 7th Street SE & 15th Avenue SE
- 7th Street SE & 23rd Avenue SE
- 7th Street SE & 31st Avenue SE
- 15th Avenue SW & 9th Street SW/Fairview Drive
- 15th Avenue SE & 3rd Street SE
- 15th Avenue SE & 5th Street SE
- 12th Avenue SE & 9th Street SE
- 12th Avenue SE & 13th Street SE

Table 3.8-4 illustrates the crashes per year based on *AASHTO's Highway Safety Manual Spreadsheets* analysis under existing conditions and shows that the S Meridian has the highest crash rate (see **Appendix E** for further details on the traffic safety analysis).

Table 3.8-4
INTERSECTION RESULTS – PREDICTED CRASHES

Total Predicted Crashes					
Year	**2023**	**2028**	**2028**	**2047**	**2048**
Condition	**Existing**	**No Action**	**Proposed Master Plan**	**No Action**	**Proposed Master Plan**
S. Meridian/ 14th Ave SE	1.864	2.078	2.419	2.464	3.404
S. Meridian/ 15th Ave SE	4.312	4.744	5.241	5.548	6.936
S. Meridian/ 19th Ave SE	1.158	1.298	1.340	1.546	1.648
S. Meridian/ 23rd Ave SE	3.593	3.954	4.090	4.626	4.953
S. Meridian/ 31st Ave SE	2.518	2.780	2.875	3.284	3.512
S. Meridian/ 31st Ave SW	5.131	5.670	5.800	6.628	6.995
7th St SE/ 15th Ave SE	0.370	0.403	0.444	0.467	0.596
7th St SE/ 23rd Ave SE	1.636	1.762	1.951	1.992	2.326
7th St SE/ 31st Ave SE	1.229	1.356	1.383	1.596	1.662
15th Ave SW/ 9th St SW/Fairview Dr	1.831	2.014	2.054	2.334	2.451
15th Ave SE/ 5th St SE	1.201	1.289	1.458	1.446	2.732
12th Ave SE/ 9th St SE	0.481	0.514	0.526	0.576	0.609
12th Ave SE/ 13th St SE	0.342	0.364	0.378	0.407	0.450
15th Ave SE/ 3rd St SE	0.057	0.060	2.059	0.066	3.505

Source: Jacobs, 2024.

Parking

The existing MGSH campus contains approximately 1,858 parking spaces. The majority of these spaces are located in eight surface parking lots and garages on the campus. Parking spaces are restricted by user type with approximately 45 percent of the space reserved for employees and approximately 37 percent for patients and visitors (the remaining 18 percent are for ADA, physicians, valet and other uses).

MGSH completed a study of parking supply and demand in September 2021 that included an evaluation of weekday parking utilization. MGSH parking facilities were utilized at approximately 78 percent occupancy at the peak parking period (11:00 AM). Parking facilities were also approximately 77 percent occupied in the morning (9:00 AM) and early afternoon (1:00 PM). The study indicated that at 9:00 AM on weekdays, approximately 55 percent of spaces were occupied by employees, 22 percent were occupied by patients and visitors, and 2 percent were occupied by physicians.

3.8.2 Impacts of the Alternatives

An analysis of the potential transportation impacts of the *Proposed Master Plan* is provided below for the EIS alternatives. This discussion summarizes the analysis that was completed for the project as part of the *Traffic Operations Technical Memorandum* (Jacobs, 2024) and the *Traffic Safety Analysis* (Jacobs, 2024). Project trip generation related to the *Proposed Master Plan* was calculated using the latest edition of the ITE Trip Generation Manual, 11th Edition. Project trips were then distributed and assigned to study area intersections based on the results of a select link analysis using the Puget Sound Regional Council (PSRC) demand model, complemented by local traffic pattern inputs from the City of Puyallup. The analysis of transportation conditions includes an analysis of two time periods: a near-term condition in 2028 which assumes partial buildout of the *Proposed Master Plan* and a long-term condition in 2043 which assumes full buildout of the *Proposed Master Plan* and Alternative 1.

Potential impacts requiring mitigation were determined based on the following criteria:

- Intersection Failure: The addition of project-generated trips causes the intersection to operate below City/State standards.
- Significant Delay Increase: For intersections already operating below City/State standards under No Build conditions, the addition of project-generated trips results in an increase of average intersection delay by more than 15%.

These criteria ensure that the project's traffic impact is thoroughly assessed, and appropriate mitigation measures are implemented, when necessary. For the purposes of the transportation analysis, the *No Action Alternative* is presented first as it provides the baseline for future background traffic volumes which are utilized in the analysis of the *Proposed Master Plan* and *Alternative 1*. See **Appendix E** for the full analysis associated with the *Traffic Operations Technical Memorandum* and the *Traffic Safety Analysis.*

No Action Alternative

Under the *No Action Alternative*, the site would largely remain in its existing condition. The *No Action Alternative* assumes that future development of hospital uses outlined under the *Proposed Master Plan* and *Alternative 1* would not occur on campus, and that any future new projects would apply for individual permits under PMC 20.43 on a site-by-site basis, adhering to development standards in the City's code. Development standards associated with the expired, 2007 Master Plan would not be applicable. No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur. The analysis of the *No Action Alternative* also includes a level of future background growth that is based on the PSRC travel demand model which is described in further detail below.

Traffic Operations

The PSRC travel demand model was utilized to determine annual growth rates for the 2028 near term conditions and the 2043 long term conditions. Analysis of the model outputs identified a higher growth rate in the near term compared to the 30-year horizon projection. Based on these findings, an annual growth rate of 1.5 percent was applied to determine the 2028 *No Action Alternative* traffic volumes. The model also indicated a lower growth rate in the long-term and based on those findings, a conservative annual growth rate of one percent was utilized to determine the 2043 *No Action Alternative* traffic volumes.

LOS and Delay

Under the *No Action Alternative* in 2028, it is anticipated that the number of study intersections that would operate below City of Puyallup standards would increase from 3 study intersections under existing conditions to 7 study intersections under the *No Action Alternative*. **Table 3.8-5** summarizes the 2028 *No Action Alternative* LOS and delay conditions during the AM and PM peak hours. The following intersections would operate below LOS standards during the peak hours:

- 23rd Avenue SE and 7th Street SE – PM Peak Hour
- 31st Avenue SW and 9th Street SW – PM Peak Hour
- 31st Avenue SW and SR 512 SB Ramps – PM Peak Hour
- 31st Avenue SW and SR 512 NB/EB Ramps – PM Peak Hour
- S Meridian and 37th Avenue SE – PM Peak Hour
- 5th Street NW / 5th Street SW and W Pioneer – PM Peak Hour
- S Meridian and E Pioneer – PM Peak Hour

Table 3.8-5
LOS AND DELAY SUMMARY – 2028 NO ACTION ALTERNATIVE

#	Intersection Name	2028 NB PM		2028 NB AM	
		Delay	LOS	Delay	LOS
1*	S Meridian and 15th Ave SE	33.0	C	65.9	E
2*	S Meridian and 14th Ave SE	2.4	A	2.5	A
3*	S Meridian and SR 512 EB Ramps	7.9	A	7.1	A
4*	S Meridian and SR 512 WB Ramps	18.4	B	15.3	B
5*	S Meridian and 9th Ave	16.8	B	12.9	B
6*	S Meridian and 7th Ave SE	18.6	B	31.0	C
7*	3rd St SE and 7th Ave SE	19.1	B	18.9	B
8*	S Meridian and 19th Ave SE	1.6	A	20.6	C
9*	S Meridian and 23rd Ave SE	12.8	B	12.4	B
10**	15th Ave SE and 3rd St SE	4.7 (0.46)	A	4.3 (0.5)	A
11	15th Ave SE and 5th St SE	12.0	B	11.2	B

#	Intersection Name	2028 NB PM		2028 NB AM	
		Delay	LOS	Delay	LOS
12	15th Ave SE and 7th St SE	2.3	A	4.5	A
13	15th Ave SW and Fairview Dr	43.5	D	28.9	C
14	23rd Ave SE and 7th St SE	49.7	E	24.3	C
15	12th Ave SE and 9th St SE	4.2	A	3.9	A
16	12th Ave SE and 13th St SE	7.8	A	7.2	A
17	31st Ave SW and 9th St SW	84.9	F	49.0	D
18	31st Ave SW and SR 512 SB Ramps	123.3	F	25.0	C
19	31st Ave SW and SR 512 NB/EB Ramps	87.2	F	48.4	D
20	S Meridian and 31st Ave SW	27.5	C	20.4	C
21	S Meridian and 31st Ave SE	22.2	C	17.4	B
22	5th St SE and 31st Ave SE	27.1	C	17.0	B
23	S Meridian and 37th Ave SE	64.2	E	14.6	B
24	S Meridian and 39th Ave SE	51.1	D	43.6	D
25	5th St SE and 37th Ave SE	29.4	C	21.3	C
26	5th St SW and 7th Ave SW	25.4	C	26.5	C
27	5th St NW/5th St SW and W Pioneer	67.8	E	42.4	D
28	S Meridian and E Pioneer	81.2	F	29.8	C
29	3rd St SE and E Pioneer	36.3	D	23.3	C
30	E Pioneer and SR 512 WB Ramps	35.1	D	16.2	B
31	E Pioneer and SR 512 EB Ramps	17.9	B	18.8	B
32	E Pioneer and 13th St SE	2.6	A	1.9	A
33	5th St NW/4th St NW and W Stewart Ave	38.2	D	28.2	C
34	S Meridian and E Stewart Ave	29.6	C	39.1	D
35	3rd St SE/2nd St NE and E Stewart Ave/E Main Ave	32.9	C	24.4	C
36[a]	E Pioneer and 5th St SE	33.0	C	10.3	B
37	E Main Ave and 5th At NE	40.0	D	25.6	C

Source: Jacobs, 2024.
* VISSIM MOEs
** SIDRA MOEs – Reports delay and v/c ratio within parentheses
a – HCM 200 reported LOS due to HCM 6 constraints in calculating delay for approaches with shared through-left lanes.

By 2043, the number of intersections that would be anticipated to operate below LOS standards would increase to 12 study intersections under the *No Action Alternative*. Under the *No Action Alternative* in 2028, none of intersections failed during the AM peak hour; however, by 2043 six intersections are anticipated to operate below LOS standards during the AM peak hour. The following intersections are anticipated to operate below LOS standards in 2043 under the *No Action Alternative*.

- S Meridian and 15th Avenue SE – AM Peak Hour
- S Meridian and 23rd Avenue SE – AM Peak Hour
- 15th Avenue SW and Fairview Drive – PM Peak Hour

- 23rd Avenue SE and 7th Street SE – AM and PM Peak Hour
- 31st Avenue SW and 9th Street SW – AM and PM Peak Hour
- 31st Avenue SW and SR 512 SB Ramps – PM Peak Hour
- 31st Avenue SW and SR 512 NB/EB Ramps – AM and PM Peak Hour
- S Meridian and 39th Avenue SE – AM and PM Peak Hour
- 5th Street NW / 5th Street SW and W Pioneer – PM Peak Hour
- S Meridian and E Pioneer – PM Peak Hour
- E Pioneer and SR 512 WB Ramps – PM Peak Hour
- E Main Avenue and 5th Street NE – PM Peak Hour

Table 3.8-6 summarizes the 2043 *No Action Alternative* LOS and delay conditions during the AM and PM peak hours.

Table 3.8-6
LOS AND DELAY SUMMARY – 2043 NO ACTION ALTERNATIVE

#	Intersection Name	2043 NB PM		2043 NB AM	
		Delay	LOS	Delay	LOS
1*	S Meridian and 15th Ave SE	40.4	D	84.9	F
2*	S Meridian and 14th Ave SE	4.4	A	3.8	A
3*	S Meridian and SR 512 EB Ramps	10.1	B	9.7	A
4*	S Meridian and SR 512 WB Ramps	28.4	C	16.6	B
5*	S Meridian and 9th Ave	23.5	C	17.2	B
6*	S Meridian and 7th Ave SE	19.3	B	35.5	D
7*	3rd St SE and 7th Ave SE	17.6	B	20.3	C
8*	S Meridian and 19th Ave SE	1.9	A	60.7	E
9*	S Meridian and 23rd Ave SE	15.5	B	111.8	F
10**	15th Ave SE and 3rd St SE	5.1 (0.53)	A	4.5 (0.56)	A
11	15th Ave SE and 5th St SE	14.1	B	12.8	B
12	15th Ave SE and 7th St SE	2.4	A	4.7	A
13	15th Ave SW and Fairview Dr	58.0	E	34.2	C
14	23rd Ave SE and 7th St SE	85.6	F	39.3	E
15	12th Ave SE and 9th St SE	4.3	A	4.0	A
16	12th Ave SE and 13th St SE	8.0	A	7.3	A
17	31st Ave SW and 9th St SW	115.2	F	71.5	E
18	31st Ave SW and SR 512 SB Ramps	178.5	F	44.1	D
19	31st Ave SW and SR 512 NB/EB Ramps	150.2	F	81.5	F
20	S Meridian and 31st Ave SW	50.9	D	39.0	D
21	S Meridian and 31st Ave SE	40.0	D	26.7	C
22	5th St SE and 31st Ave SE	34.1	C	16.6	B
23	S Meridian and 37th Ave SE	75.1	E	20.2	C
24	S Meridian and 39th Ave SE	94.3	F	74.1	E

#	Intersection Name	2043 NB PM		2043 NB AM	
		Delay	LOS	Delay	LOS
25	5th St SE and 37th Ave SE	36.3	D	22.3	C
26	5th St SW and 7th Ave SW	36.0	D	29.4	C
27	5th St NW/5th St SW and W Pioneer	102.4	F	48.4	D
28	S Meridian and E Pioneer	112.6	F	31.0	C
29	3rd St SE and E Pioneer	51.2	D	24.9	C
30	E Pioneer and SR 512 WB Ramps	55.5	E	17.2	B
31	E Pioneer and SR 512 EB Ramps	20.9	C	21.6	C
32	E Pioneer and 13th St SE	5.1	A	2.5	A
33	5th St NW/4th St NW and W Stewart Ave	45.4	D	29.7	C
34	S Meridian and E Stewart Ave	37.5	D	49.1	D
35	3rd St SE/2nd St NE and E Stewart Ave/E Main Ave	34.2	C	26.9	C
36[a]	E Pioneer and 5th St SE	44.9	D	11.5	B
37	E Main Ave and 5th At NE	68.1	E	36.6	D

Source: Jacobs, 2024.
*VISSIM MOEs
**SIDRA MOEs – Reports delay and v/c ratio within parentheses
a – HCM 200 reported LOS due to HCM 6 constraints in calculating delay for approaches with shared through-left lanes

See **Appendix E** for further details on LOS and delay under the *No Action Alternative*.

Throughput and Queuing

Under the *No Action Alternative* in 2028, the overall vehicle throughput is projected to marginally increase compared to the existing conditions. This improvement is primarily attributed to optimized signal timings and adjusted offsets to accommodate anticipated traffic volume growth. The S Meridian and 15th Avenue SE intersection is anticipated to experience 40 to 100 percent increased queuing in the southbound and eastbound directions due to the increased background traffic volume growth. The southern section of the study area is also anticipated to experience increased queuing compared to existing conditions. This is anticipated to occur along the northbound approaches of S Meridian and westbound approaches of 31st Avenue SW between 39th Avenue SE and the SR 512 ramps in both the AM and PM peak hours.

Similar to the 2028 conditions, overall throughput under the *No Action Alternative* in 2043 is projected to increase compared to existing conditions. This is primarily attributed to optimized signal timings and adjusted offsets designed to accommodate anticipated traffic volume growth. However, despite signal timing optimization efforts, several critical intersections within the study area are expected to face challenges in serving the increased demand. This is likely to result in increased queuing, deterioration of LOS, and queue spillback to upstream intersections.

The queuing analysis indicates a worsening of northbound and southbound queuing along S Meridian during the AM peak hour. Notably, the intersection of S Meridian and 15th Avenue

SW is anticipated to experience significant increases in queuing along all four of its approaches during both AM and PM peak hours. Similarly, analysis of the study intersections in the southern section of the study area also indicated increased congestion and queuing compared to existing conditions.

See **Appendix E** for further detailed discussion and analysis on throughput and queuing under the *No Action Alternative*.

Freeway Segment Analysis

An analysis was also completed for the SR 512 freeway, including merge and diverge segments in proximity to the SR 512 and S Meridian interchange. **Table 3.8-7** summarizes the density and LOS for the analyzed freeway segments. As noted in the table, all evaluated segments maintain consistent LOS across the *No Action*, *Proposed Master Plan* and *Alternative 1* conditions. This indicates that the *No Action Alternative* would not be anticipated to substantially alter the operational performance of the analyzed freeway segments.

Table 3.8-7
SR 512 FREEWAY SEGMENT DENSITY AND LOS SUMMARY

Scenario	Segment Type	Segment	Density (pc/mi/h)	No of Lanes (Freeway/Ramp)	LOS
2023 Existing	1: Freeway	West/South of Meridian Interchange	28.9	4	D
	3: Freeway	At Meridian Interchange between merge/diverge	24.8	4	C
	5: Freeway	East/North of Meridian Interchange	31.1	4	D
	2: Diverge	Towards Meridian	32.3	1	D
	4: Merge	From Meridian	36.5	1	D
2028 No Action	1: Freeway	West/South of Meridian Interchange	32.9	4	D
	3: Freeway	At Meridian Interchange between merge/diverge	27.7	4	D
	5: Freeway	East/North of Meridian Interchange	35.7	4	D
	2: Diverge	Towards Meridian	31.0	1	D
	4: Merge	From Meridian	41.8	1	E
2028 Proposed Action & Alt. 1	1: Freeway	West/South of Meridian Interchange	33.7	4	D
	3: Freeway	At Meridian Interchange between merge/diverge	27.7	4	D
	5: Freeway	East/North of Meridian Interchange	36.2	4	D
	2: Diverge	Towards Meridian	31.1	1	D
	4: Merge	From Meridian	42.4	1	E
2043 No Action	1: Freeway	West/South of Meridian Interchange	42.5	4	E
	3: Freeway	At Meridian Interchange between merge/diverge	34.2	4	D
	5: Freeway	East/North of Meridian Interchange	-	4	F
	2: Diverge	Towards Meridian	37.3	1	E

Scenario	Segment Type	Segment	Density (pc/mi/h)	No of Lanes (Freeway/Ramp)	LOS
	4: Merge	From Meridian	-	1	F
2043 Proposed Action	1: Freeway	West/South of Meridian Interchange	44.5	4	E
	3: Freeway	At Meridian Interchange between merge/diverge	34.2	4	D
	5: Freeway	East/North of Meridian Interchange	-	4	F
	2: Diverge	Towards Meridian	37.6	1	E
	4: Merge	From Meridian	-	1	F
2043 Alt. 1	1: Freeway	West/South of Meridian Interchange	43.7	4	E
	3: Freeway	At Meridian Interchange between merge/diverge	34.2	4	D
	5: Freeway	East/North of Meridian Interchange	-	4	F
	2: Diverge	Towards Meridian	37.5	1	E
	4: Merge	From Meridian	-	1	F

Source: Jacobs, 2024.

* HCS does not report density for segments that operate at LOS F

Traffic Safety

Traffic safety conditions under the *No Action Alternative* are summarized in **Table 3.8-2**, **Table 3.8-3**, and **Table 3.8-4** for interchange, segment and intersection conditions. The analysis indicates that traffic safety conditions would be anticipated to worsen by 2028 and 2043 when compared to existing conditions due to anticipated future growth and associated traffic. See **Appendix E** for the complete analysis of traffic safety, including crash rates for individual segments and sub-segments.

Parking

Under the *No Action Alternative*, it is assumed that the existing MGSH campus parking (approximately 1,858 parking spaces) would remain and no changes to the parking supply would occur on the campus.

Proposed Action - Proposed Master Plan

The *Proposed Master Plan* provides for long-term phased development of the MGSH. The current campus boundary and size (approximately 34.9 acres) would not change under the *Proposed Master Plan*. Development under the *Proposed Master Plan* would occur in phases and include up to approximately 2.25 million gsf of building space (a net increase of 1.0 million gsf).

Trip Generation

Trip generation for the *Proposed Master Plan* was calculated by using the latest edition of the ITE Trip Generation Manual, 11th Edition. The analysis for the *Proposed Master Plan* reviewed two time periods, including 2028 Build Conditions (Phase 1 development) and 2043 Full Build Conditions (Phase 2 development). While potential development under the

Proposed Master Plan includes a range of facilities, for the purposes of the transportation element the analysis focuses on those facilities that would generate new/additional vehicle trips to the site. These potential facilities would include:

- New Patient Care Tower (Phase 1)
- New Medical Office Building A (Phase 2)
- New Medical Office Building B (Phase 2)

Table 3.8-8 summarizes the project trip generation that is anticipated under the *Proposed Master Plan*.

Table 3.8-8
TRIP GENERATION SUMMARY – PROPOSED MASTER PLAN AND ALTERNATIVE 1

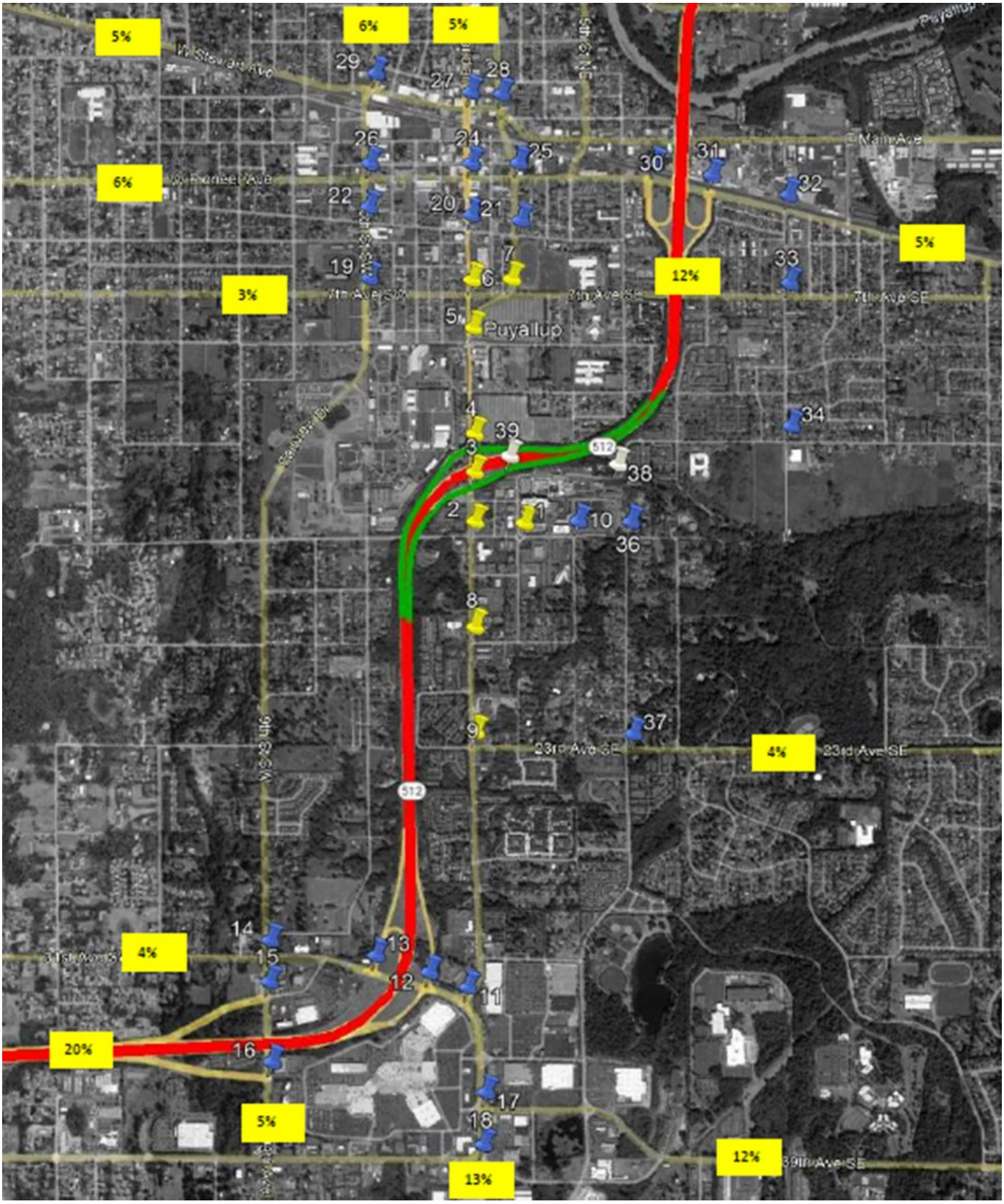
	Area	Units	Land Use	LCU	AM Trips			PM Trips		
					TOTAL	In	Out	TOTAL	In	Out
Phase 1 - 2028										
Patient Care Tower	200	beds	Hospital	610	256	184	72	338	112	226
Phase 1 Total					**256**	**184**	**72**	**338**	**112**	**226**
Phase 2 - 2043										
Medical Office Building A*	100,000	sqft	Medical Office	720	270	219	51	298	74	224
Medical Office Building B*	100,000	sqft	Medical Office	720	270	219	51	298	74	224
Phase 2 Total					**541**	**438**	**103**	**595**	**148**	**447**
Full - Prj TOTAL					**797**	**622**	**175**	**933**	**260**	**673**
Lower MOB - Prj TOTAL					**526**	**403**	**123**	**636**	**186**	**450**
*Within or near hospital campus										

As noted in **Table 3.8-8**, under the 2028 Build Conditions (Phase 1), the project is expected to generate 338 PM peak hour trips and 256 AM peak hour trips. By the time of full build-out in 2043, these figures are anticipated to increase significantly, with a total of 993 PM peak hour trips and 797 AM peak hour trips. These projections provide a comprehensive overview of the anticipated traffic impact at various stages of development.

Project Trip Distribution and Assignment

Project-generated trips were distributed and assigned to the study intersections and surrounding roadway network based on the results of a select link analysis using the PSRC demand model, complemented by local travel pattern inputs from the City. The trip distribution percentages are illustrated in **Figure 3.8-2**. The analysis indicates that:

- 12% of project traffic is expected to originate from or be destined to SR 512 east of the project site.
- 20% of project traffic is expected to originate from or be destined to SR 512 west of the project site.
- 30% of project traffic is anticipated to come from or go to the north and northwest, utilizing the local street network through downtown Puyallup for project access.



Source: Jacobs, 2024.

EA Engineering, Science, and Technology, Inc., PBC

Figure 3.8-2

Transportation Operations Analysis Project Trip Distribution

- The remaining 38% of project traffic is projected to originate from or be destined to areas south and southeast of the site.

This distribution pattern provides a comprehensive overview of the expected traffic flow patterns associated with the proposed development.

Traffic Operations

As part of the analysis of traffic operations, project-generated trips were allocated to the study area network in accordance with the trip generation rates and distribution percentages outlined in this section. These project-specific trips were subsequently superimposed onto the *No Action Alternative* conditions turning movement volumes to derive the Build conditions traffic volume for the *Proposed Master Plan*, as well as *Alternative 1*. The resulting traffic volumes for the 2028 Near-Term Condition, 2043 *Proposed Master Plan*, and 2043 *Alternative 1* conditions are shown in **Appendix E**.

LOS and Delay

In 2028, traffic generated by the *Proposed Master Plan* is anticipated to result in one intersection that would deteriorate below LOS standards. The 23rd Avenue SE and 7th Street SE intersection serves as a critical node for project-generated traffic, particularly for vehicles originating from the southeast of the project location. Its current all-way stop control may not be sufficient to handle the anticipated increase in traffic volumes efficiently. With the implementation of the proposed project, the intersection's performance is expected to deteriorate further from LOS E under 2028 *No Action* conditions to LOS F under the *Proposed Master Plan* with a delay increase of approximately 16% during the PM peak hour.

Table 3.8-9 and **Table 3.8-10** provide a summary of AM and PM Peak Hour LOS and Delay for 2028 and 2043 with the *Proposed Master Plan*.

Table 3.8-9
2028 AND 2043 AM PEAK HOUR LOS AND DELAY SUMMARY

#	Intersection Name	2028 No Action AM		2028 Proposed Action AM		2043 No Action AM		2043 Proposed Action AM			2043 Alt. 1 AM		
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	% NB	Delay	LOS	% NB
1*	S Meridian and 15th Ave SE	65.9	E	66.1	E	84.9	F	99.3	F	17%	98.0	F	15%
2*	S Meridian and 14th Ave SE	2.5	A	4.6	A	3.8	A	8.8	A		8.8	A	
3*	S Meridian and SR 512 EB Ramps	7.1	A	15.3	B	9.7	A	70.6	E		65.0	E	
4*	S Meridian and SR 512 WB Ramps	15.3	B	16.3	B	16.6	B	174.8	F	955%	97.8	F	490%
5*	S Meridian and 9th Ave	12.9	B	11.8	B	17.2	B	23.3	C		16.7	B	
6*	S Meridian and 7th Ave SE	31.0	C	27.7	C	35.5	D	49.4	D		40.1	D	13%
7*	3rd St SE and 7th Ave SE	18.9	B	18.7	B	20.3	C	21.0	C		20.4	C	0%
8*	S Meridian and 19th Ave SE	20.6	C	8.8	A	60.7	E	78.2	E		73.2	E	
9*	S Meridian and 23rd Ave SE	12.4	B	10.8	B	111.8	F	167.2	F	50%	148.9	F	33%
10**	15th Ave SE and 3rd St SE	4.3 (0.5)	A	4.5 (0.63)	A	4.5 (0.56)	A	26.4 (1.06)	C		6.3 (0.89)	A	

#	Intersection Name	2028 No Action AM		2028 Proposed Action AM		2043 No Action AM		2043 Proposed Action AM			2043 Alt. 1 AM		
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	% NB	Delay	LOS	% NB
11	15th Ave SE and 5th St SE	11.2	B	21.4	C	12.8	B	261.3	F	1941%	124.3	F	871%
12	15th Ave SE and 7th St SE	4.5	A	4.8	A	4.7	A	5.6	-		5.3	A	
13	15th Ave SW and Fairview Dr	28.9	C	28.6	C	34.2	C	32.6	C		33.2	C	
14	23rd Ave SE and 7th St SE	24.3	C	26.1	D	39.3	E	54.9	F	40%	49.9	E	27%
15	12th Ave SE and 9th St SE	3.9	A	3.8	A	4.0	A	3.7	A		3.8	A	
16	12th Ave SE and 13th St SE	7.2	A	7.2	A	7.3	A	7.4	A		7.3	A	
17	31st Ave SW and 9th St SW	49.0	D	50.1	D	71.5	E	81.2	F	14%	78.5	E	
18	31st Ave SW and SR 512 SB Ramps	25.0	C	25.3	C	44.1	D	47.7	D		47.1	D	
19	31st Ave SW and SR 512 NB/EB Ramps	48.4	D	48.5	D	81.5	F	87.2	F	7%	86.6	F	6%
20	S Meridian and 31st Ave SW	20.4	C	20.8	C	39.0	D	41.3	D		42.9	D	
21	S Meridian and 31st Ave SE	17.4	B	18.3	B	26.7	C	41.0	D		36.4	D	
22	5th St SE and 31st Ave SE	17.0	B	16.9	B	16.6	B	16.2	B		16.4	B	
23	S Meridian and 37th Ave SE	14.6	B	14.5	B	20.2	C	24.9	C		23.1	C	
24	S Meridian and 39th Ave SE	43.6	D	46.5	D	74.1	E	87.0	F	17%	85.8	F	16%
25	5th St SE and 37th Ave SE	21.3	C	21.4	C	22.3	C	22.9	C		22.7	C	
26	5th St SW and 7th Ave SW	26.5	C	26.9	C	29.4	C	31.4	C		30.8	C	
27	5th St NW/5th St SW and W Pioneer	42.4	D	43.2	D	48.4	D	58.9	E	22%	55.6	E	15%
28	S Meridian and E Pioneer	29.8	C	30.1	C	31.0	C	32.4	C		32.0	C	
29	3rd St SE and E Pioneer	23.3	C	23.6	C	24.9	C	26.2	C		25.7	C	
30	E Pioneer and SR 512 WB Ramps	16.2	B	16.2	B	17.2	B	17.2	B		17.2	B	
31	E Pioneer and SR 512 EB Ramps	18.8	B	18.8	B	21.6	C	22.0	C		22.0	C	
32	E Pioneer and 13th St SE	1.9	A	1.9	A	2.5	A	2.9	A		2.8	A	
33	5th St NW/4th St NW and W Stewart Ave	28.2	C	28.3	C	29.7	C	30.6	C		30.4	C	
34	S Meridian and E Stewart Ave	39.1	D	43.4	D	49.1	D	71.9	E	46%	64.0	E	30%
35	3rd St SE/2nd St NE and E Stewart Ave/E Main Ave	24.4	C	24.4	C	26.9	C	27.2	C		27.2	C	
36[a]	E Pioneer and 5th St SE	10.3	B	10.3	B	11.5	B	11.8	B		11.8	B	
37	E Main Ave and 5th At NE	25.6	C	25.7	C	36.6	D	38.1	D		37.8	D	

Source: Jacobs, 2024.

*VISSIM MOEs **SIDRA MOEs – Reports delay and v/c ratio within parentheses a – HCM 200 reported LOS

Table 3.8-10
2028 AND 2043 PM PEAK HOUR LOSE AND DELAY SUMMARY

#	Intersection Name	2028 No Action PM		2028 Proposed Action PM			2043 No Action PM		2043 Proposed Action PM			2043 Alt. 1 PM		
		Delay	LOS	Delay	LOS	% NB	Delay	LOS	Delay	LOS	% NB	Delay	LOS	% NB
1*	S Meridian and 15th Ave SE	33.0	C	33.5	C		40.4	D	60.2	E		57.3	E	
2*	S Meridian and 14th Ave SE	2.4	A	2.3	A		4.4	A	8.7	A		6.5	A	
3*	S Meridian and SR 512 EB Ramps	7.9	A	8.0	A		10.1	B	21.0	C		21.4	C	
4*	S Meridian and SR 512 WB Ramps	18.4	B	18.0	B		28.4	C	79.1	E		74.4	E	
5*	S Meridian and 9th Ave	16.8	B	15.4	B		23.5	C	29.0	C		29.4	C	
6*	S Meridian and 7th Ave SE	18.6	B	18.0	B		19.3	B	31.7	C		34.6	C	
7*	3rd St SE and 7th Ave SE	19.1	B	19.0	B		17.6	B	18.3	B		18.6	B	
8*	S Meridian and 19th Ave SE	1.6	A	1.5	A		1.9	A	11.3	B		16.5	B	

#	Intersection Name	2028 No Action PM		2028 Proposed Action PM			2043 No Action PM		2043 Proposed Action PM			2043 Alt. 1 PM		
		Delay	LOS	Delay	LOS	% NB	Delay	LOS	Delay	LOS	% NB	Delay	LOS	% NB
9*	S Meridian and 23rd Ave SE	12.8	B	11.4	B		15.5	B	18.1	B		23.1	C	
10**	15th Ave SE and 3rd St SE	4.7 (0.46)	A	5.1 (0.65)	A		5.1 (0.53)	A	40.2 (1.11)	D		11.7 (0.92)	B	
11	15th Ave SE and 5th St SE	12.0	B	30.1	D		14.1	B	278.9	F	1878%	149.1	F	957%
12	15th Ave SE and 7th St SE	2.3	A	2.4	A		2.4	A	2.5	A	4%	2.5	A	
13	15th Ave SW and Fairview Dr	43.5	D	46.8	D		58.0	E	72.4	E	25%	67.3	E	16%
14	23rd Ave SE and 7th St SE	49.7	E	57.6	F	16%	85.6	F	111.3	F	30%	104.9	F	23%
15	12th Ave SE and 9th St SE	4.2	A	4.1	A		4.3	A	4.1	A		4.1	A	
16	12th Ave SE and 13th St SE	7.8	A	7.8	A		8.0	A	8.1	A		8.0	A	
17	31st Ave SW and 9th St SW	84.9	F	86.0	F	1%	115.2	F	121.9	F	6%	119.2	F	3%
18	31st Ave SW and SR 512 SB Ramps	123.3	F	123.6	F	0%	178.5	F	178.0	F	0%	178.2	F	0%
19	31st Ave SW and SR 512 NB/EB Ramps	87.2	F	87.7	F	1%	150.2	F	152.6	F	2%	152.0	F	1%
20	S Meridian and 31st Ave SW	27.5	C	30.2	C		50.9	D	63.0	E	24%	58.8	E	16%
21	S Meridian and 31st Ave SE	22.2	C	23.1	C		40.0	D	42.7	D		42.3	D	
22	5th St SE and 31st Ave SE	27.1	C	27.3	C		34.1	C	37.9	D		36.5	D	
23	S Meridian and 37th Ave SE	64.2	E	63.8	E		75.1	E	76.0	E	1%	75.7	E	1%
24	S Meridian and 39th Ave SE	51.1	D	52.9	D		94.3	F	105.5	F	12%	102.0	F	8%
25	5th St SE and 37th Ave SE	29.4	C	29.7	C		36.3	D	37.6	D		37.2	D	
26	5th St SW and 7th Ave SW	25.4	C	27.3	C		36.0	D	45.4	D		42.2	D	
27	5th St NW/5th St SW and W Pioneer	67.8	E	73.3	E	8%	102.4	F	120.7	F	18%	113.9	F	11%
28	S Meridian and E Pioneer	81.2	F	85.5	F	5%	112.6	F	126.9	F	13%	122.6	F	9%
29	3rd St SE and E Pioneer	36.3	D	37.1	D		51.2	D	52.9	D		52.4	D	
30	E Pioneer and SR 512 WB Ramps	35.1	D	35.3	D		55.5	E	56.8	E	2%	56.4	E	2%
31	E Pioneer and SR 512 EB Ramps	17.9	B	17.9	B		20.9	C	21.2	C		21.1	C	
32	E Pioneer and 13th St SE	2.6	A	2.7	A		5.1	A	5.6	A		5.4	A	
33	5th St NW/4th St NW and W Stewart Ave	38.2	D	38.6	D		45.4	D	48.6	D		47.4	D	
34	S Meridian and E Stewart Ave	29.6	C	30.2	C		37.5	D	40.8	D		39.9	D	
35	3rd St SE/2nd St NE and E Stewart Ave/E Main Ave	32.9	C	32.7	C		34.2	C	34.1	C		34.1	C	
36[a]	E Pioneer and 5th St SE	33.0	C	46.2	D		44.9	D	46.2	D		45.9	D	
37	E Main Ave and 5th At NE	40.0	D	40.1	D		68.1	E	69.7	E	2%	69.3	E	2%

Source: Jacobs, 2024.

*VISSIM MOEs **SIDRA MOEs – Reports delay and v/c ratio within parentheses a – HCM 200 reported LOS

As indicated in **Table 3.8-9** and **Table 3.8-10**, by 2043, traffic generated by the *Proposed Master Plan* is anticipated to result in 11 additional intersections that would deteriorate below LOS standards, including:

- S Meridian and 15th Avenue SE
- S Meridian and SR 512 WB Ramps
- S Meridian and 23rd Avenue SE
- 15th Avenue SE and 3rd Street SE
- 15th Avenue SE and 5th Street SE
- 15th Avenue SW and Fairview Drive
- 23rd Avenue SE and 7th Street SE
- S Meridian and 31st Avenue SE
- S Meridian and 39th Avenue SE

- 5th Street NW/5th Street SW and W Pioneer
- S Meridian and E Stewart Avenue

Based on the traffic analysis, the intersection of S Meridian and 15th/23rd Avenue SE is projected to experience significant operational challenges. The intersection is anticipated to experience a delay increase exceeding 15% during the AM peak hour compared to the 2043 No Action conditions. This substantial increase in delay indicates a notable deterioration in traffic flow and intersection efficiency during the morning rush hour. VISSIM microsimulation results indicate a minimal delay increase at this intersection during the 2043 PM peak hour. However, this apparent stability is attributed to upstream bottlenecks at the 15th Avenue SE and 5th Street SE and 15th Avenue SE and 3rd Street SE intersections. These upstream constraints effectively meter traffic flow, preventing a significant portion of project-generated traffic from reaching the S Meridian and 15th/23rd Avenue SE intersection during the PM peak. If the upstream constraints were eliminated, allowing all project-generated traffic to reach this intersection, the analysis suggests it would likely operate at LOS F.

The intersection of S Meridian and SR 512 westbound ramps experiences significant congestion due to traffic patterns along the S Meridian corridor. This congestion is exacerbated by queue spillback from the S Meridian and 15th Avenue SE intersection, particularly during the AM peak period. The queue spillback from 15th Avenue SE leads to increased congestion at the SR 512 ramp intersections to the north. This congestion can potentially impact traffic flow on SR 512 itself, as well as vehicles attempting to enter or exit the highway. Both the southbound and northbound approaches at the S Meridian and 15th Avenue SE intersection experience extended queues during the morning rush hour. This queue spillback affects upstream intersections in both directions, creating a ripple effect of congestion. Intersections south of 15th Avenue SE also experience increased delays due to the northbound queue spillback. This results in a higher amount of unserved demand along the northbound S Meridian corridor, as vehicles struggle to progress through the congested area. The cascading effect of congestion along S Meridian highlights the interconnected nature of traffic flow in this corridor.

The intersection of 15th Avenue SE and 3rd Street SE is projected to be a critical node in the traffic network, serving as the primary access point for hospital parking garage and patient pick-up and drop-off areas. Under the 2043 *Proposed Master Plan*, this roundabout is anticipated to experience significant operational challenges with the volume to capacity ratio exceeding 1.0 under both the AM and PM peak hour conditions. The total traffic demand at this intersection, inclusive of the added project-generated trips, is projected to surpass the capacity of the current single-lane roundabout configuration.

15th Avenue SE and 5th Street SE intersection is utilized by all of the project traffic and is anticipated to experience operational failure. The projected traffic increase is significant with approximately 900 PM peak hour additional project trips and approximately 700 AM peak hour additional project trips. This significant influx of traffic is expected to cause a

dramatic decline in the LOS. This intersection deteriorates from operating at LOS B to LOS F under both AM and PM peak hour conditions. This severe decline in service quality necessitates comprehensive mitigation strategies to address the anticipated operational failure and maintain acceptable traffic flow conditions.

15th Avenue SW and Fairview Drive intersection experiences increased delay during the 2043 *Proposed Master Plan* conditions PM peak hour. While the intersection operates at LOS E in both the 2043 *No Action* and *Proposed Master Plan* scenarios during the PM peak hour, the *Proposed Master Plan* exacerbates congestion with an increase in average delay by 25%.

23rd Avenue SE and 7th Street SE intersection serves as a critical node for project-generated traffic, particularly for vehicles originating from the southeast of the project location. Its current All-Way STOP control will not be sufficient to handle the anticipated increase in traffic volumes efficiently. Under 2043 *Proposed Master Plan* conditions, the intersection's performance is expected to deteriorate further with LOS degradation from LOS E under 2028 *No Action* conditions to LOS F under 2028 *Proposed Master Plan* conditions with a delay increase of approximately 16%.

23rd Avenue SE and 7th Street SE fails under 2043 *Proposed Master Plan* conditions. This intersection is anticipated to reach operational failure during the AM peak hour with LOS deteriorating from LOS E to LOS F. While the intersection operates at LOS F in both the 2043 *No Action* and *Proposed Master Plan* scenarios during the PM peak hour, the *Proposed Master Plan* condition exacerbates congestion with an increase in average delay by 30%. This significant rise in delay suggests a notable worsening of traffic conditions, despite maintaining the same LOS designation.

S Meridian and 31st Avenue SW intersection deteriorates from LOS D under 2043 *No Action* conditions to LOS E under the 2043 *Proposed Master Plan* conditions PM peak hour, with an anticipated delay increase of 24%.

S Meridian and 39th Avenue SE intersection deteriorates from LOS E under 2043 *No Action* conditions to LOS F under the 2043 *Proposed Master Plan* conditions AM peak hour, with an anticipated delay increase of 17%.

5th Street NW/5th Street SW and W Pioneer intersection deteriorates from LOS D under 2043 *No Action* conditions to LOS E under the 2043 *Proposed Master Plan* conditions AM peak hour, with an anticipated delay increase of 22%. During the PM peak, the intersection operates at LOS F under both the 2043 *No Action* and 2043 *Proposed Master Plan* conditions but experiences an increase in delay by 18% under 2043 *Proposed Master Plan* conditions.

S Meridian and E Stewart Avenue intersection deteriorates from LOS D under 2043 *No Action* conditions to LOS E under the 2043 *Proposed Master Plan* conditions AM peak hour, with an anticipated delay increase of 46%.

Throughput and Queuing

While the LOS and delay values do not trigger any mitigation criteria under the 2028 *Proposed Master Plan*, it is anticipated that the overall transportation network congestion and queuing will experience a marked decline compared to the 2028 *No Action* conditions. This deterioration warrants careful consideration in long-term planning and potential preemptive measures to maintain optimal traffic flow.

In both AM and PM peak hour scenarios, the 2028 *Proposed Master Plan* exhibits an approximate 3% reduction in overall network throughput compared to the 2028 *No Action* conditions. This trend indicates a decline in intersection performance attributable to the additional project-generated traffic.

Despite higher traffic volumes under the 2028 *Proposed Master Plan*, the S Meridian and 15th Avenue SE intersection demonstrates lower total throughput during both AM and PM peak hours compared to the 2028 *No Action* scenario. This suggests that project-related traffic encounters difficulties navigating through congestion, both when accessing the project site and when exiting onto the surrounding roadway network. Similar patterns are observed at other intersections analyzed using VISSIM microsimulation. Hence, the LOS and delay values at the studied intersections show no significant changes.

Although the traffic volumes are higher under the 2028 *Proposed Master Plan* conditions when compared to the 2028 *No Action* conditions, the total intersection throughput at S Meridian and 15th Avenue SE intersection is lower under the 2028 *Proposed Master Plan* conditions during both AM and PM peak hours. This indicates that the project traffic is unable to get through the congestion to either access the project site or exit onto the surrounding roadway network. Similar patterns are observed at other intersections that are analyzed in VISSIM. Hence, there is no visible impact on the LOS and delay values at the study intersections analyzed in VISSIM.

The 15th Avenue SE and 3rd Street SE is also anticipated to experience increased queuing in the eastbound and westbound directions by approximately 50% to 100% during the AM and PM peak hours respectively. Despite the substantial increase in queuing, the roundabout at this intersection is anticipated to perform adequately and the increased queues are not expected to spill back into upstream intersections (see **Appendix E** for further details on throughput and queuing).

By 2043, a significant deterioration in intersection performance is projected with the *Proposed Master Plan*, encompassing LOS, throughput, and queuing metrics. Without implementing mitigation measures, congestion is expected to increase to such an extent that project-related traffic may face substantial difficulties either accessing the project site or exiting onto the surrounding roadway network due to severe congestion.

The 2043 *Proposed Master Plan* conditions demonstrate an approximate reduction in overall network throughput of 8% and 6% during the AM and PM peak hours, respectively, compared to the 2043 *No Action* conditions. Despite higher traffic volumes under 2043

Proposed Master Plan conditions the study area network serves a lower percentage of demand. During the AM peak hour, only 79% of the demand is served. During the PM peak hour, only 82% of the demand is served.

Despite higher traffic volumes under the 2043 *Proposed Master Plan* conditions, the S Meridian and 15th Avenue SE intersection demonstrates lower total throughput during both AM and PM peak hours compared to the 2043 *No Action* scenario by 5% during the AM peak and 9% during the PM peak. During the PM peak hour, the westbound approach at this intersection is unable to serve any of the project traffic resulting in increase of westbound queue by more than 200% and spilling back into the roundabout at 3rd Street SE. The eastbound queues are also anticipated to increase by more than 100% during both the AM and PM peak hours.

Similarly, the S Meridian and 23rd Avenue SE intersection demonstrates lower total throughput during both AM and PM peak hours compared to the 2043 *No Action* scenario by 12% during the AM peak and 8% during the PM peak. The northbound queue during the AM peak hour is anticipated to more than double causing a spill back into upstream intersections. Queues along other approaches at this intersection are also anticipated to experience an increase of more than 100%.

Similar patterns are observed at all the other intersections analyzed using VISSIM microsimulation with queue increases ranging from 50% to more than 100%. This indicates that project-related traffic faces significant challenges navigating through congestion when accessing and exiting the project site.

The 15th Avenue SE and 3rd Street SE roundabout is anticipated to experience a significant queue increase under 2043 *Proposed Master Plan* conditions. The eastbound 95th percentile queue is anticipated to increase from 114 ft to more than 1,500 feet during the AM peak hour. The westbound 95th percentile queue is anticipated to increase from less than 100 feet to more than 1,700 feet during the PM peak hour.

The 15th Avenue SE and 5th Street SE is also anticipated to experience a significant queue increase under 2043 *Proposed Master Plan* conditions. The eastbound 95th percentile queue is anticipated to increase from 98 ft to more than 1,700 feet during the AM peak hour. The southbound 95th percentile queue is anticipated to increase from less than 62 feet to more than 1,500 feet during the PM peak hour.

This highlights the substantial impact of the 2043 *Proposed Master Plan* conditions on traffic flow and congestion throughout the study area network (see **Appendix E** for further details on throughput and queuing by 2043).

Freeway Segment Analysis

A freeway segment analysis was completed for SR 512, including merge and diverge segments in proximity to the SR 512 and S Meridian interchange. **Table 3.8-7** summarizes the density and LOS for the analyzed freeway segments. As noted in the table, all evaluated

segments maintain consistent LOS across the *No Action*, *Proposed Master Plan* and *Alternative 1* conditions. This indicates that the *Proposed Master Plan* would not be anticipated to substantially alter the operational performance of the analyzed freeway segments.

Traffic Safety

Interchange Conditions

As indicated in **Table 3.8-2**, crash rates at interchange locations for SR 512 are anticipated to increase with the increase in traffic volumes associated with future background traffic conditions and development of the *Proposed Master Plan*. The interchange of SR 512 and 31st Avenue SW would have a slight improvement in crash rates due to changes in traffic volume through that intersection.

Segment Conditions

Table 3.8-3 summarizes the analysis for predicted crashes for roadway segments in the study area with future background traffic growth and traffic associated with the *Proposed Master Plan* by 2028 and 2048. Crash rates on roadway segments are anticipated to get worse as traffic volumes increase in the future. Similar to existing conditions, the S Meridian roadway segment continues to have a substantially higher predicted crash rate than any other roadway segment in the study area. Overall, predicted crash rates under the *Proposed Master Plan* would be slightly higher than under the *No Action Alternative*.

Intersection Conditions

As summarized in **Table 3.8-4**, crash rates at intersections are predicted to increase by 2028 and 2048 with future background traffic conditions and development of the *Proposed Master Plan*. The S Meridian/15th Avenue SE and S Meridian/31st Avenue SW would have the highest level of predicated crashes. Overall, predicted crash rates under the *Proposed Master Plan* would be slightly higher than under the *No Action Alternative*. See **Appendix E** for further details on the analysis of traffic safety at intersections, interchanges and roadway segments.

Parking

Future parking demand for the MGSH campus was estimated with the *Proposed Master Plan* based on existing baseline parking supply, existing parking demand and future parking demand based on parking demand ratios from the City of Puyallup and ITE. Based on the development included as part of the *Proposed Master Plan*, it is estimated that the future parking demand would be approximately 1,246 spaces. Future parking demand by phase is summarized in **Table 3.8-11**.

Based on the analysis of existing parking supply and utilization on the MGSH campus that is described in **Table 3.8-11**, the campus currently has parking spaces that are available at peak times (approximately 200 spaces) that could support a portion of future demand generated by the development of the *Proposed Master Plan*. Considering the existing

available spaces on the campus and future demand generated by development of the *Proposed Master Plan*, it is estimated that approximately 1,046 new parking spaces would be needed on the campus to serve development of the *Proposed Master Plan*. In addition, the displacement of existing surface parking as part of future development of the *Proposed Master Plan* is also to be considered in the analysis of future parking supply and demand. Future development under the *Proposed Master Plan* would displace certain existing surface parking areas on the campus to accommodate new buildings, including approximately 210 displaced parking space during Phase 1 and approximately 238 spaces in Phase 2. In total, approximately 438 displaced parking spaces would also need to be replaced over the course of development of the *Proposed Master Plan*. Based on these two factors for future demand and potential displacement of existing spaces, it is anticipated that development under the *Proposed Master Plan* would need to supply approximately 1,494 parking spaces over the course of the *Proposed Master Plan*. **Table 3.8-12** summarizes the future parking demand and parking supply under the *Proposed Master Plan*.

Table 3.8-11
ESTIMATED FUTURE PARKING DEMAND SUMMARY – PROPOSED MASTER PLAN

Master Plan Phase	Total Net New Parking Demand
Phase 1A	480 spaces
Phase 1B	120 spaces
Phase 2	323 spaces
Phase 3	323 spaces
Phase 4	--
Total	**1,246 spaces**

Source: Perkins + Will, 2024.

Table 3.8-12
MAXIMUM FUTURE PARKING DEMAND AND SUPPLY – PROPOSED MASTER PLAN

Phase	New Parking Space Demand	Net New Spaces Needed	Replacement Spaces Needed[1]	Net New and Replacement Spaces Needed	Total Cumulative Spaces[2]
Phase 1A	480	280[3]	210	490	2,348
Phase 1B	120	120	0	120	2,468
Phase 2	323	323	238	561	3,029
Phase 3	323	323	0	323	3,352
Phase 4	0	0	0	0	3,352
Full Buildout	**1,246**	**1,046**	**448**	**1,494**	**3,352**

Source: Perkins + Will, 2024.

[1] Spaces needed to replace existing surface parking that is assumed to be displaced with the Proposed Master Plan.

[2] Cumulative parking total for the MGSH campus with 1,858 existing spaces and new spaces provided under each phase of the Proposed Master Plan.

[3] Based on the analysis of existing parking, assumes that 200 existing spaces are available for use.

Alternative 1 – Reduced Medical Office Building Size

Development under *Alternative 1* would include the same development program as the *Proposed Master Plan*, except that the second, 100,000 gsf Medical Office Building (MOB B) proposed under Phases 2-4 would not be developed. All other development proposed as part of the Master Plan under *Alternative 1* would be built as described for the *Proposed Master Plan*.

Traffic Operations

LOS and Delay

Potential LOS and delay impacts by 2028 under *Alternative 1* would be same as under the *Proposed Master Plan*.

As noted in **Table 3.8-9** and **Table 3.8-10**, by 2043, 10 intersections would be anticipated to deteriorate below LOS standards under *Alternative 1* (compared to 11 intersections under the *Proposed Master Plan*), including:

- S Meridian and 15th Avenue SE
- S Meridian and SR 512 WB Ramps
- S Meridian and 23rd Avenue SE
- 15th Avenue SE and 3rd Street SE
- 15th Avenue SE and 5th Street SE
- 15th Avenue SW and Fairview Drive
- 23rd Avenue SE and 7th Street SE
- S Meridian and 39th Avenue SE
- 5th Street NW/5th Street SW and W Pioneer
- S Meridian and 31st Avenue SW

While *Alternative 1* is anticipated to generate fewer trips compared to the *Proposed Master Plan* by 2043, the projected impacts are expected to be comparable. Key intersections in proximity to the project site are likely to operate at unsatisfactory levels under both alternatives, as they are already functioning at or near capacity under 2043 *No Action* conditions. Despite the reduced trip generation under *Alternative 1*, significant traffic volume increases are still anticipated at several critical intersections, including:

- S Meridian and 15th Avenue SE: Approximately 11% additional traffic
- 15th Avenue SE and 3rd Street SE: 35% to 40% increase
- S Meridian and SR 512 WB Ramps: About 8% more traffic
- 15th Avenue SE and 5th Street SE: Over 50% increase

These substantial volume increases are expected to have notable impacts on the study area network in proximity to the project site.

Throughput and Queuing

In 2028, throughput and queuing impacts under *Alternative 1* are anticipated to be the same as the *Proposed Master Plan*. However, while *Alternative 1* in 2043 is anticipated to generate fewer trips compared to the 2043 *Proposed Master Plan*, the projected impacts for queuing and throughput are expected to be comparable.

The 2043 *Alternative 1* conditions demonstrate an approximate reduction in overall network throughput of 4.5% and 3% during the AM and PM peak hours, respectively, compared to the 2043 *No Action* conditions. Despite higher traffic volumes under 2043 *Alternative 1* conditions, the study area network serves a lower percentage of demand. During the AM peak hour, only 85% of the demand is served. During the PM peak hour, only 87% of the demand is served, which are better than the 2043 *Proposed Master Plan* conditions but worse than the 2043 *No Action* conditions.

Despite higher traffic volumes under the 2043 *Alternative 1*conditions, the S Meridian and 15th Avenue SE intersection demonstrates lower total throughput during both AM and PM peak hours compared to the 2043 *No Action* conditions by 3% during the AM peak and 6% during the PM peak. During the PM peak hour, the westbound approach at this intersection is unable to serve any of the project traffic resulting in an increase of westbound queue by more than 200% and spilling back into the roundabout at 3rd Street SE. The eastbound queues are also anticipated to increase by more than 100% during both the AM and PM peak hours.

Similarly, the S Meridian and 23rd Avenue SE intersection demonstrates lower total throughput during both AM and PM peak hours compared to the 2043 *No Action* conditions by 8% during the AM peak and 5% during the PM peak. The northbound queue during the AM peak hour is anticipated to more than double causing a spill back into upstream intersections. Queues along other approaches at this intersection are also anticipated to experience an increase of more than 100%.

Similar patterns are observed at all the other intersections analyzed using VISSIM microsimulation with queue increases ranging from 40% to more than 100%. This indicates that project-related traffic faces substantial challenges navigating through congestion when accessing and exiting the project site.

The 15th Avenue SE and 3rd Street SE roundabout is anticipated to experience a significant queue increase under 2043 *Alternative 1* conditions. The eastbound 95th percentile queue is anticipated to increase from 114 ft to more than 420 feet during the AM peak hour. The westbound 95th percentile queue is anticipated to increase from less than 100 feet to more than 560 feet during the PM peak hour.

The 15th Avenue SE and 5th Street SE is also anticipated to experience a significant queue increase under 2043 *Alternative 1* conditions. The eastbound 95th percentile queue is

anticipated to increase from 98 ft to more than 980 feet during the AM peak hour. The southbound 95th percentile queue is anticipated to increase from less than 62 feet to more than 1,220 feet during the PM peak hour.

Although *Alternative 1* would generate fewer project trips in 2043, this analysis highlights the substantial impact it would still have on traffic flow and congestion throughout the study area.

Freeway Segment Analysis

As noted in **Table 3.8-7** all evaluated freeway segments maintain consistent LOS across the *No Action*, *Proposed Master Plan* and *Alternative 1* conditions.

Traffic Safety

Traffic safety conditions under *Alternative 1*, including predicted crash rates, would be anticipated to be similar or slightly lower than the *Proposed Master Plan*. See **Table 3.8-2**, **Table 3.8-3**, and **Table 3.8-4** for a summary of predicated future crash rates for interchanges, roadway segments and intersections in the study area.

Parking

As noted above, development of *Alternative 1* would include the same development program as the *Proposed Master Plan*, except that the second, 100,000 gsf Medical Office Building (MOB B) would not be developed. All other development proposed as part of the Master Plan under *Alternative 1* would be built as described for the *Proposed Master Plan*. As such, it is anticipated that parking demand and supply for *Alternative 1* would be provided at a similar rate as the *Proposed Master Plan*.

Cumulative Impacts

Development facilitated by the MSGH project (*Proposed Master Plan* and *Alternative 1*) would result in indirect effects on local noise and air quality associated with increased traffic volumes including greater noise levels on roadways and increased emissions from vehicles. See **Section 3.2**, **Air Quality** and **Section 3.3**, **Noise** for further details on potential noise and air quality impacts. As noted in this section, the transportation analysis utilizes a future annual growth rate to identify baseline future traffic levels for 2028 and 2043 as part of the analysis for the *No Action Alternative*. These baseline future traffic levels are included as part of the analysis for traffic impacts associated with the *Proposed Master Plan* and *Alternative 1* to provide a cumulative analysis of traffic conditions under the *Proposed Master Plan* and *Alternative 1* with assumed future annual growth in the site vicinity.

Conclusion

Development under the EIS Alternatives would result in additional trip generation onsite and in the site vicinity which would result in impacts to transportation operations including certain intersections that would deteriorate below LOS standards and add increased delay; traffic operation throughput and vehicle queuing would also be affected. Due to the level of

development, the Proposed Master Plan would be anticipated to result in a higher level of trip generation and potential associated transportation impacts than Alternative 1. The implementation of the mitigation measures listed below is anticipated to minimize the potential for significant unavoidable adverse impacts.

3.8.3 Mitigation Measures

The following measures have been identified to address the potential noise impacts from development associated with the *Proposed Master Plan*. These measures apply to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts. Other Possible Measures are additional measures that could be implemented to address impacts but are not necessary to mitigate significant impacts.

To address transportation impacts that are identified in this section and the *Traffic Operations Technical Memorandum* and *Traffic Safety Analysis Memorandum*, two primary mitigation strategies are proposed for the *Proposed Master Plan* and *Alternative 1*:

- Capacity Improvements: These involve physical modifications to intersections and corridors to increase their ability to handle traffic flow efficiently.
- Signal Timing Optimizations: This focuses on adjusting traffic signal timings to improve traffic flow and reduce delays.

Legally-Required Measures

Traffic Operations Measures

By 2028, the *Proposed Master Plan* and *Alternative 1* would require the installation of a new signal at the 23rd Avenue SE and 7th Street SE intersection. With the installation of a signal, this intersection would operate at LOS A in 2028 under the *Proposed Master Plan* and *Alternative 1*.

Table 3.8-13 summarizes the list of additional mitigation measures that would be necessary by 2043 with development under the *Proposed Master Plan*.

Table 3.8-13
MITIGATION MEASURES FOR 2043 PROPOSED MASTER PLAN

#	Intersection	2043 *Proposed Master Plan* Mitigations	2043 *Proposed Master Plan* AM		2043 *Proposed Master Plan* PM	
			Delay	LOS	Delay	LOS
1	S Meridian and 15th Ave SE	Add second southbound left pocket Overlap phasing for WBR Add eastbound shared through-right pocket	89.5	F	47.4	D
4	S Meridian and SR 512 WB Ramps	None. Mitigation at #1 resolves the impact.	24	C	41.6	D
9	S Meridian and 23rd Ave SE	None.	159.6	F	16	B
10	15th Ave SE and 3rd St SE	2 through lanes in eastbound and westbound directions Install a signal Eastbound and westbound left turn pockets recommended	9.4	A	27.4	A
11	15th Ave SE and 5th St SE	Install a signal Add a SBR lane Add westbound right turn pocket Add eastbound left turn lane	50.5	D	45.7	D
13	15th Ave SW and Fairview Dr	Optimize Signal Timings	32.6	C	55.4	E
14	23rd Ave SE and 7th St SE	Install a signal	7.6	A	16.1	B
20	S Meridian and 31st Ave SW	Optimize Signal Timings	42.9	D	44.2	D
24	S Meridian and 39th Ave SE	Optimize Signal Timings	70.9	E	52.9	D
27	5th St NW/5th St SW and W Pioneer	Optimize Signal Timings	42.4	D	81.8	F
34	S Meridian and E Stewart	Optimize Signal Timings	18.9	B	30.2	C
	15th Ave SE Corridor between S Meridian and 3rd St SE	Convert to a 4-lane corridor with two eastbound and westbound through lanes.				

#	Intersection	2043 *Proposed Master Plan* Mitigations	2043 *Proposed Master Plan* AM		2043 *Proposed Master Plan* PM	
			Delay	LOS	Delay	LOS
	15th Ave SE Corridor between S 3rd St SE and 5th Street SE	Convert to a 3-lane corridor with two eastbound lanes and 1 westbound lane.				
		Add a second westbound through pocket to accommodate queue spilling back from Meridian				

Source: Jacobs, 2024.

The majority of proposed mitigations are situated at study intersections along the 15th Avenue SE corridor. To accommodate anticipated peak hour traffic volumes (approximately 900 trips in the PM peak hour and 800 in the AM peak hour), the 15th Avenue SE corridor requires widening. A significant portion of the project-generated traffic utilizes the S Meridian/15th Avenue SE, 15th Avenue SE/3rd Street SE, and 15th Avenue SE/5th Street SE intersections, resulting in a deterioration of Level of Service (LOS) and increased queuing at these locations.

Since the main access point to the parking garage is located on 5th Street SE, most of the project and hospital traffic will traverse the 15th Avenue SE/5th Street SE intersection. During the AM peak hour, the predominant inbound project traffic causes the eastbound left turn at this intersection to experience the most substantial increase in volume. Conversely, in the PM peak hour, outbound project traffic leads to the highest traffic volume increase in the southbound right turn. Consequently, mitigation efforts necessitate additional capacity for these two movements, specifically an eastbound left-turn lane and a southbound right-turn lane. The eastbound left-turn lane should extend to the upstream intersection to manage queuing. Signalization of this intersection is also warranted to accommodate project traffic.

Capacity enhancements are similarly necessary at the S Meridian/15th Avenue SE intersection to address project impacts. Mitigation includes dual southbound left-turn pockets, an enhanced westbound right turn with an overlap phase, and an eastbound shared through-right turn pocket.

No mitigation is proposed for the S Meridian/23rd Avenue SE intersection, as the observed delay increases are not directly attributable to project traffic. The higher delay and queuing in the northbound direction at this intersection stem from congestion and spillback from the downstream S Meridian/15th Avenue SE intersection.

The 15th Avenue SE/3rd Street SE intersection also requires capacity improvements. Given right-of-way constraints that preclude a multi-lane roundabout, conversion to a signalized intersection with two eastbound and westbound through lanes is recommended. Two

eastbound through lanes are necessary to manage AM peak hour traffic, while two westbound through lanes are needed to accommodate both PM peak hour traffic and potential queue spillback from the S Meridian/15th Ave SE intersection. The 95th percentile westbound queue at the latter intersection can extend into the 15th Avenue SE/3rd Street SE intersection. Without a second westbound through lane, this spillback queue could obstruct left and right turn movements, further exacerbating queuing and potentially impacting the project driveway.

To integrate the capacity improvements at the three critical intersections along 15th Avenue SE, it should be widened to provide two lanes in each direction.

Under *Alternative 1*, most mitigation measures at intersections near the project site by 2043 are similar to the *Proposed Master Plan* with some minor changes. **Table 3.8-14** summarizes the list of mitigation measures that would be necessary by 2043 with development under *Alternative 1*.

Table 3.8-14
MITIGATION MEASURES FOR 2043 ALTERNATIVE 1

#	Intersection	2043 Alt. 1 Mitigations	2043 Alt. 1 AM		2043 Alt. 1 PM	
			Delay	LOS	Delay	LOS
1	S Meridian and 15th Ave SE	Add second southbound left pocket Overlap phasing for WBR Add eastbound shared through-right pocket	82.7	F	40.1	D
4	S Meridian and SR 512 WB Ramps	None. Mitigation at #1 resolves the impact.	19.1	B	36.9	D
9	S Meridian and 23rd Ave SE	None.	138	F	16.2	B
10	15th Ave SE and 3rd St SE	2 through lanes in eastbound direction Install a signal Eastbound and westbound left turn pockets recommended	39.3	D	17.7	B
11	15th Ave SE and 5th St SE	Install a signal Add eastbound left turn lane	48.9	D	11.3	B
13	15th Ave SW and Fairview Dr	Optimize Signal Timings	33.2	C	55.4	E
14	23rd Ave SE and 7th St SE	Install a signal	8.5	A	16.1	B

#	Intersection	2043 Alt. 1 Mitigations	2043 Alt. 1 AM		2043 Alt. 1 PM	
			Delay	LOS	Delay	LOS
20	S Meridian and 31st Ave SW	Optimize Signal Timings	42.9	D	44.2	D
24	S Meridian and 39th Ave SE	Optimize Signal Timings	70.9	E	52.9	D
27	5th St NW/5th St SW and W Pioneer	Add westbound right turn pocket (to relieve westbound through)	42.4	D	81.8	F
	15th Ave SE Corridor between S Meridian and 3rd St SE	Convert to a 4-lane corridor with two eastbound and westbound through lanes.				
	15th Ave SE Corridor between S 3rd St SE and 5th Street SE	Convert to a 3-lane corridor with two eastbound through lanes.				

Source: Jacobs, 2024.

The 15th Avenue SE and 5th Street SE intersection mitigation necessitates signalization with an eastbound left-turn lane. The eastbound left-turn lane must be extended up to the upstream intersection to accommodate the eastbound left-turning queue. The intersection must also be signalized to accommodate project traffic.

Similarly, capacity improvements are required at the S Meridian and 15th Avenue SE intersection to mitigate the project's impacts. Mitigations at this location include providing dual southbound left-turn pockets, enhancing the westbound right with an overlap phase, and adding an eastbound shared through-right turn pocket.

No mitigations are suggested at S Meridian and 23rd Avenue SE as the increase in delay is not directly attributable to the added project traffic. This intersection experiences higher delay and increased queuing in the northbound direction due to congestion and spillback from the downstream S Meridian and 15th Avenue SE intersection. Hence, no mitigations are recommended.

15th Avenue SE and 3rd Street SE also require a capacity increase. Considering the right-of-way constraints at this location preclude the installation of a multi-lane roundabout, it is recommended that the intersection be converted into a signalized intersection with two eastbound through lanes. Two eastbound through lanes are required to accommodate AM peak hour traffic. The addition of a westbound left-turn pocket is recommended to improve safety and reduce rear-end collisions.

The 15th Avenue SE corridor must be widened to two lanes in each direction between S Meridian and 3rd Street SE and to three lanes with 2 eastbound lanes between 3rd Street SE and 5th Street SE to integrate all capacity improvements at the three critical intersections along the project frontage.

Traffic Safety Measures

Measures are identified above to mitigate transportation operation impacts associated with the *Proposed Master Plan* and *Alternative 1*. These measures would also minimize impacts to traffic safety. The following measures are identified above as traffic operation measures and would also serve as mitigation measures that would affect traffic safety of the analyzed interchanges, segments and/or intersections.

- 15th Avenue SE and 3rd Street SE
  - Convert from roundabout to signalized intersection.
  - Provide two through lanes in eastbound and westbound directions.
  - Add eastbound and westbound left-turn lane pockets.

- 15th Avenue SE and 5th Street SE
  - Convert from stop-controlled to signalized intersection
  - Add a southbound right-turn lane pocket.
  - Add a westbound right-turn lane pocket.
  - Add an eastbound left-turn lane pocket.

- 23rd Avenue SE and 7th Street SE
  - Convert from a stop-controlled to signalized intersection.

- 15th Avenue SE Corridor between S Meridian and 3rd Street SE
  - Convert to a four-lane corridor with two eastbound and westbound through lanes.

- 15th Avenue SE Corridor between 3rd Street SE and 5th Street SE
  - Convert to a three-lane corridor with two eastbound through lanes and one westbound lane.
  - Add a second westbound through pocket west of 3rd Street SE to accommodate queue from S Meridian.

- 5th Street NW/5th Street SW and W Pioneer
  - Add a westbound right-turn pocket.

3.8.4 Significant Unavoidable Adverse Impacts

Development under the *Proposed Master Plan* and *Alternative 1* would generate new vehicle trips within the study area and result in certain intersections that would deteriorate below LOS standards and add increased delay; traffic operation throughput and vehicle queuing would also be affected. Increased traffic volumes with the *Proposed Master Plan* and *Alternative 1* would also result in a higher level of predicted future crash rates. The implementation of the mitigation measures listed above would reduce the potential for

significant unavoidable adverse transportation impacts associated with the *Proposed Master Plan* and *Alternative 1*.

3.9 PUBLIC SERVICES

This section of the DEIS describes the existing public services (police and fire/emergency services) that serve the MultiCare Good Samaritan Hospital (MGSH) site and surrounding area. Potential impacts from development of the *Proposed Master Plan* and EIS alternatives on public services are evaluated and mitigation measures identified.

Methodology

Information for the public services section was obtained through research and personal communications with affected agencies, including: the Puyallup Police Department and Central Pierce Fire and Rescue (letter responses received on January 30, 2024).

3.9.1 Affected Environment

This sub-section describes the existing public services that serve the MGSH site, including police services and fire/emergency services.

Police

Police service to the MGSH site and surrounding area is provided by the Puyallup Police Department. The Puyallup Police Department currently operates out of one facility: the Public Safety Building, which is located at 311 W Pioneer Way approximately 0.8-miles north of the MGSH campus.

The Department currently (as of 2023) employs approximately 70 sworn officers,16 corrections personnel and 12 support staff.[1] The Department is led by the Chief of Police and consists of four divisions: operations, investigations, professional services and corrections. Each division is managed by a Captain and consists of squad sergeants to oversee each unit. The minimum staffing level from 12 AM to 12 PM is one sergeant and four officers, and minimum staffing from 12 PM to 12 AM is one sergeant and six officers.

Calls for service are managed and dispatched by South Sound 911, which handles all 911 calls for police and fire services in Pierce County. Calls are received and prioritized by South Sound 911 on a numerical system as priority 1 through 5, with 1 being the highest priority. Dispatchers at South Sound 911 assign patrol officers to calls based off priority through radio or their computer aided dispatch system.

Over the past five years, calls for service to the Department have increased from approximately 54,745 calls in 2018 to 56,672 calls in 2022 (an approximately 3.5 percent increase). **Table 3.9-1** summarizes calls for service over the past five years.

[1] Personal Communication. Puyallup Police Department. January 2024.

Table 3.9-1
PUYALLUP POLICE DEPARTMENT CALLS FOR SERVICE: 2018-2022

	2018	2019	2020	2021	2022
Calls for Police Service	54,745	59,883	50,295	53,264	56,672

Source: Puyallup Police Department, 2022 Annual Report.

The Department has a goal of responding to Priority 1 calls for service within 3 to 4 minutes, and a goal of responding to Priority 2 calls for service within 4 to 5 minutes. For staffing, the Department uses an "available time factor," meaning that they strive to have enough staffing so that officers have approximately 30-35 percent discretionary time in their shift for proactive policing and other community efforts. The Department does not currently use a population-based staffing goal model.

The Department has identified a need for a new Public Safety Building due to the poor condition of existing facilities and jail overcrowding. This project was put forth to Puyallup voters as a new bond measure in the November 2023 election (Proposition 1); however, the measure failed to pass.

The Department indicates that the majority of calls for service to the MGSH are currently to the Emergency Department to support various security needs. The Department also responds to incidents occurring in MGSH parking lots and parking garages, as related to vehicle prowls and motor vehicle theft.

Under existing conditions, the Department has indicated that a lack of dedicated police parking at the hospital's Emergency Department and patient care tower entrances is a deficiency.

Fire / Emergency Services

Central Pierce Fire and Rescue currently provides fire protection to the hospital and surrounding areas, and the unit's emergency medical services (EMS) delivers patients to the MGSH Emergency Department for treatment and care. Central Pierce Fire and Rescue is also part of the Pierce County Mutual Aid agreement that allows 19 fire agencies to support each other as needed. The Department's Administrative and Operations Center is located in Puyallup at 1015 39th Avenue SE in (1.3-miles south of the MGSH site), and the closest fire station with a medic unit to the hospital campus is Station #72 which is located at 3809 5th Street SE, approximately two miles south of the site. Station #72 is the primary station that responds to incidents at the hospital campus.[2]

Central Pierce Fire and Rescue currently employs approximately 350 firefighters and at least 75 firefighters are on duty at a given time to meet the Department's minimum staffing

[2] The station that is physically closest to the site is Station 73, which is in the same building as the Puyallup Police Department at 311 W Pioneer.

requirements. Station #72 has one fire engine, one truck, two medics and a Battalion Chief with 11-person staffing.[3]

From 2017 to 2022, calls for service to Central Pierce Fire and Rescue have increased by approximately 15 percent. Calls for service are received by and routed through South Sound 911 (the dispatch center for Pierce County) and based on the nature of emergency and pre-determined response plans, the dispatch center notifies the closest appropriate station and units to respond. The majority of the calls that the Department responds to are for emergency medical services. **Table 3.9-2** summarizes the annual calls to the Department from 2017 to 2022.

Table 3.9-2
CENTRAL PIERCE FIRE AND RESCUE CALLS FOR SERVICE: 2017-2022

	2017	2018	2019	2020	2021	2022
Central Pierce Fire & Rescue Total Calls for Service	29,774	30,253	31,589	28,943	33,822	34,363

Source: Central Pierce Fire and Rescue, 2021 Annual Report and Dept. Communications, Feb. 2024.

Station #72 (the station closest to the site) responded to approximately 7,052 calls for service in 2022 and 6,948 calls in 2023.

Central Pierce Fire and Rescue benchmarks response times against the National Fire Protection Association (NFPA) standards, which maintain a goal of responding within 5 minutes and 20 seconds or less, 90 percent of the time. In 2022, Central Pierce Fire and Rescue's average response time for fire incidents was 6 minutes and 15 seconds (6:15), and 90 percent of responses were achieved in 9 minutes and 12 seconds or less (9:12). The average response time for EMS calls was 6 minutes and 13 seconds (6:13) and 90 percent of the time was 9:05 or less.

Central Pierce Fire and Rescue has identified several existing deficiencies relative to hospital access and the condition and configuration of the Emergency Department. According to Central Pierce Fire and Rescue, these issues are:

- **Condition of 7th Street SE between 23rd Ave. SE and 15th Ave. SE** - This public roadway, (outside of the MGSH campus and 2023 *Proposed Master Plan* area) serves as one of the main routes into the hospital. Under existing conditions, the road is uneven and too narrow, with no place for traffic to cede the right-of-way to emergency vehicles. The uneven road surface necessitates serious reductions in speed to ensure proper patient care in the back of medic units.

- **Size and configuration of existing ambulance bay** - The existing MGSH ambulance bay is unable to handle the current level of emergency vehicle traffic, resulting in all ambulance stalls filled, with additional units lined up in the ambulance bay approach. Expanded

[3] Personal Communication. Central Pierce Fire and Rescue. January 2024.

ambulance bay capacity is needed, as well as restoration of access to the main entrance of the Emergency Department, where less acute patients can be dropped off more efficiently.

- **Lack of dedicated parking** - Due to a lack of dedicated parking, fire department engine apparatus responding to the hospital to retrieve personnel involved in emergent patient care are forced to park along 3rd Street SE. This results in a partial obstruction of the right-of-way, creating an additional hazard.

In order to address the above-identified issues that are the result of existing conditions and background population growth, MGSH is currently planning for or has completed several initiatives to improve existing conditions for fire and rescue emergency services providers. These measures include:

- **Private Ambulance Traffic Plan**. MGSH is implementing a plan to divert private ambulance vehicles carrying lower intensity patients to the Hospital's observation entrance, which reduces emergency vehicle traffic in the ambulance bays. This is intended to result in better utilization of existing hospital entry points and to reduce stress on emergency department resources. **Status: Complete in 2023 and reinforcing with non-emergent transport vehicles**.

- **Discharge Center Reconfiguration**. The discharge center servicing the Hospital's emergency department is currently located adjacent to the emergency department and will be relocated to another entrance that is already serving as a non-emergent ambulance transport area. Vehicles and pedestrians will therefore be redirected away from the main emergency department entrance, thereby alleviating some of the congestion that occurs at the main entrance. **Status: Estimated May 2024.**

- **Emergency Department Renovation Project**. The Hospital's throughput in the emergency department has been impacted by high patient volumes and the presence of a COVID-era tent in proximity to that department. The renovation will add treatment and triage space, allow increased patient throughput, and upon the removal of the temporary tent will restore the previous access that emergency services experienced in that area and allows faster EMS throughput. **Status: Plans submitted to Department of Health for Review; estimating completion by end of 2024**.

- **Utilization of Off-Campus Emergency Department**. MultiCare has made investments in the greater East Pierce community to bring three off-campus emergency departments to Parkland, Bonney Lake, and South Hill. It is working with emergency transportation providers to most efficiently use these facilities and alleviate pressure on the emergency department. **Status: Ongoing**.

Remedy of the existing condition of the 7th Street SE roadway remains an ongoing discussion between MGSH and the City of Puyallup. Improvement of this roadway is listed as a project in the City's 20-year Capital Improvement Plan for public streets.

3.9.2 Impacts of the Alternatives

An analysis of the potential public service impacts of the *Proposed Master Plan* and EIS Alternatives is provided below.

Proposed Action - Proposed Master Plan

The *Proposed Master Plan* provides for long-term phased development of the MGSH. The current campus boundary and size (approximately 34.9 acres) would not change under the *Proposed Master Plan*. However, building space would increase from the existing approximately 1.25 million gsf under the 2007 Master Plan to up to 2.25 million gsf (a net increase of 1.0 million gsf) over the approximately 20-year buildout period.

Phase 1 would include five projects constructed incrementally between 2025 and 2028, including buildings, building expansions, and parking structures. Approximately 7,000 sq. ft. of building area is anticipated to be demolished as part of new construction. Proposed development in Phase 1 would add 432,000 gsf to the MGSH campus, bringing total campus development to approximately 1.68 million gsf. See **Table 2-2** and **Figure 2-8** in *Chapter 2* for a summary and depiction of development in Phase 1 of the *Proposed Master Plan*, respectively.

Phases 2 through 4 would feature construction of five additional projects from about 2028 through 2043, including buildings and parking structures. This development would add 580,000 net gsf, bringing total campus development to approximately 2.26 million gsf. See **Table 2-2** and **Figure 2-9** in *Chapter 2* for a summary and depiction of development in Phases 2 through 4 of the *Proposed Master Plan*, respectively.

Police

Construction activities associated with new development under the *Proposed Master Plan* could generate new calls for police service during the construction process. These calls could primarily relate to construction site theft, vandalism, and construction accidents/injuries.

Once operational, development and associated new employees, visitors and patients under the *Proposed Master Plan* could generate an incremental increased demand for police services, including new calls for services from the site. The types of calls would likely be similar to those experienced under existing conditions, as related to supporting the hospital's Emergency Department and responding to car prowls and vehicle thefts at campus parking lots and parking garages.

The Puyallup Police Department has indicated that they expect to have adequate staffing and equipment to handle any increased demand for service generated by development of the Master Plan. However, the department has identified several changes to existing campus operations that could be implemented by MGSH to improve police service to the site both currently and in the future under buildout of the *Proposed Master Plan*. These improvements

include the addition of dedicated police parking at the Emergency Department and patient care tower entrances, the addition of license plate reader technology at all major parking lot and parking garage entrances, the implementation of a robust camera system inside and outside campus buildings, and the provision of dedicated officer work area either in or in close proximity to the Emergency Department. To address existing parking issues, MGSH has committed to adding new dedicated police parking stalls in proximity to the Emergency Department.

Fire / Emergency Services

Construction of up to 11 new or renovated buildings and/or facilities under the *Proposed Master Plan* could result in an increase in calls for service from Central Pierce Fire and Rescue. Calls for building inspections and other non-emergency fire services could also be expected to increase incrementally during construction and operation (i.e., annual fire service requirements) of Hospital/Hospital-related development in each phase. It is assumed that service demand generated by the new development on the MGSH campus could include a mix of calls related to fire protection, emergency medical services, special operations, and other fire department services. Central Pierce Fire and Rescue expects to have adequate staffing and equipment to meet any increased demand associated with the Master Plan development.[4]

The City of Puyallup and Central Pierce Fire and Rescue identified several conflicts associated with the Master Plan design which could affect fire apparatus turnaround and fire access. MGSH would address these issues during detailed building and site design permitting to ensure required fire access and turnaround space is provided or maintained.

Existing deficiencies have been identified by Central Pierce Fire and Rescue that are associated with the size and operation of the ambulance bay, lack of dedicated parking and the condition of the 7th Street access. MGSH is engaged in ongoing analysis of the throughput through its Emergency Department and enabling facilities, and has several planned and recently completed initiatives focused on increasing the efficiency of emergency services (refer to the Affected Environment discussion above for details). Also, MGSH is actively coordinating with Central Pierce Fire and Rescue on potential options for the reconfiguration of the Emergency Department ambulance bay in order to improve operations. Improvements under consideration include a combination of operational and/or physical changes that could be made to the existing space.

Beyond the initiatives identified above, MGSH indicates that the development associated with the *Proposed Master Plan* would allow the hospital to construct infrastructure and facilities that could benefit the Emergency Department's operations and provide additional care options that could help to relieve the community's reliance on the Emergency Department, including the creation of an observation / short stay unit in the new patient care tower.

[4] Personal Communication. Central Pierce Fire and Rescue. January 2024.

Alternative 1 – Reduced Medical Office Building Size

Development under *Alternative 1* would include the same development program as the *Proposed Master Plan*, except that the second, 100,000 gsf Medical Office Building (MOB B) proposed under Phases 2-4 would not be developed. All other development proposed as part of the Master Plan under *Alternative 1* would be built as described for the *Proposed Action*.

Impacts to police and fire services would be expected to be similar to or slightly less than the *Proposed Master Plan* due to the construction and operation of one fewer Medical Office Building. With one fewer project, less development would occur on the campus overall, resulting in shorter buildout periods, and fewer employees, patients and visitors on the campus in comparison to the *Proposed Master Plan*.

No Action Alternative

Under the *No Action Alternative*, it is assumed that the demand for increases in health care services in the region would continue but additional development would not occur on the MSGH campus. Any future new projects (e.g., ancillary medical clinic/office uses) that are unrelated to the hospital use would apply for individual permits under PMC 20.43 to the extent possible on a site-by-site basis, adhering to development standards in the City's code (parking, height, lot coverage, FAR, setbacks, landscaping, etc.). No changes to the building height overlays and setbacks, or the physical improvements that are included under the *Proposed Master Plan* or *Alternative 1* would occur.

Under the *No Action Alternative*, it is assumed that calls for police and fire services to the MSGH site would remain similar to existing conditions. MGSH would continue to address existing issues related to providing fire access and turnaround space, as well as throughput through its Emergency Department and enabling facilities focused on increasing the efficiency of emergency services. No significant impacts to police or fire and emergency services would be expected to occur.

Conclusion

Development under the Proposed Master Plan and Alternative 1 would generate additional demand for public services during construction and operation of the individual projects under buildout of the Proposed Master Plan. The Puyallup Police Department indicates they could likely handle increased demand generated by the action alternatives, provided that improvements to parking and security are incorporated into the campus. Central Pierce Fire and Rescue indicates that they could likely handle any increased demand resulting from the alternatives, provided that existing issues with the Emergency Department are addressed.

3.9.3 Mitigation Measures

The following measures have been identified to address the potential public service impacts from construction and operation of the *Proposed Master Plan*. These measures apply to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts. Other Possible Measures are additional measures that could be implemented to address impacts (including those related to existing conditions) and requests by Public Services but are not necessary to mitigate significant impacts.

Legally-Required Measures

- All new buildings would be constructed in accordance with the current International Building Code (as amended by the City of Puyallup) and the current International Fire Code (as amended by the City of Puyallup).

- Adequate fire flow would be provided for all new buildings developed under the Master Plan or the Alternatives, in accordance with City of Puyallup requirements.

- All new construction associated with the *Proposed Master Plan* or the *Alternatives* would ensure required minimum fire lane widths are maintained or provided in order to accommodate turnaround for fire apparatus.

Measures Proposed as Part of the Project

- Dry standpipes would be provided in all new parking garages.

- Alternative fire access would be ensured following construction of the future support tower, which would encroach/eliminate an existing fire access area.

- Measures to improve existing fire and rescue emergency services operations would be implemented by MGSH, including:
  - Discharge Center Reconfiguration
  - Emergency Department Renovation Project
  - Utilization of Off-Campus Emergency Department

Other Possible

- Dedicated police parking could be provided at the Emergency Department and entrance to the Patient Care Tower.

- Dedicated police workspace could be provided in or in close proximity to the Emergency Department.

- License plate reader technology could be installed at the entrance of all major parking lots and parking garages.

- A camera system could be installed to monitor interior and exterior MGSH spaces.

- The Emergency Department ambulance bay could be reconfigured and improved in coordination with Central Pierce Fire and Rescue. Changes could include a combination of operational and/or physical changes to the existing space.

3.9.4 Significant Unavoidable Adverse Impacts

Development under the *Proposed Master Plan* and *Alternative 1* would generate additional demand for public services, primarily as a result of new development on the site resulting in additional employees, patients, and visitors; this demand is unavoidable. With implementation of the mitigation measures discussed above, no significant unavoidable adverse impacts to public services are anticipated.

3.10 UTILITIES

This section of the DEIS describes the utilities – water, sanitary sewer, and stormwater – conditions on and near the MultiCare Good Samaritan Hospital (MGSH) site. Potential impacts from implementation of the *Proposed Master Plan* and EIS alternatives on existing public utilities are evaluated and mitigation measures identified. This analysis is based on the Utilities report prepared by MIG, and supporting technical memos prepared by Gray & Osborne (water, domestic and fire), BHC Consultants (sanitary sewer), and Brown and Caldwell (stormwater) in August 2024 (see **Appendix F**).

Methodology

Data provided by the City of Puyallup Public Works Department and the MGSH Master Plan Design team, as well as applicable water, sanitary sewer, and stormwater regulations, were reviewed. This data was used to describe existing utility capacity to and from the MGSH campus; estimate the increase in water consumption and wastewater discharge; identify mitigation requirements for stormwater management; and develop preliminary water, sanitary sewer, and stormwater management plans for the three EIS Alternatives: *Proposed Action - Proposed Master Plan (Proposed Master Plan), Alternative 1 – Reduced Medical Office Building Size (Alternative 1) and No Action Alternative*. Analysis of the impacts of the additional utility demands from proposed development on the City's utility systems was conducted based on technical input from Gray & Osborne, BHC Consultants, and Brown and Caldwell.

See **Appendix F** for details on the utilities methodology.

3.10.1 Affected Environment

This sub-section describes the utility conditions on and near the MGSH site.

Water

Water Source

The City of Puyallup (City) provides water to the MGSH campus for domestic, fire, and irrigation use. The City's water system supplies water to over 36,000 people within the City and its Urban Growth Area (UGA). Sources of water supply for the City include two natural springs, six production deep wells, and an inter-tie with the City of Tacoma.

The City's water distribution system consists of 190 miles of water pipes ranging in size from 2-inches to 24-inches in diameter. The distribution system conveys water to thirteen zones which maintain pressure for specific areas within the City of Puyallup. Water is stored in nine sealed reservoirs with 19.3 million gallons of capacity, prior to distribution throughout the City. Water is drawn from the reservoirs as needed to meet demand, which varies

throughout the year. The City's water system can produce over 13.7 million gallons of drinking water daily.

In 2022, approximately 1.245 billion gallons of water was authorized for consumption from the City's system (average 3.4 million gallons/day). The estimated consumption rate for an equivalent residential unit (ERU) was 194.5 gallons per day/ERU in 2022.

Water Distribution

The City's water distribution mains adjacent to and within the MGSH campus are as follows:

- 3rd Street SE – 12" DI
- 4th Street SE – 12" DI
- 5th Street SE – 8" DI (in easement)
- 13th Avenue SE – 12" DI
- 14th Avenue SE – 8" DI (in easement)
- 15th Avenue SE – 12" DI

DI = ductile iron

(See **Figure 3.10-1,** Existing Public & Private Water System.)

Existing domestic water, irrigation, and fire service protection to the various buildings and facilities on campus are from the adjacent water mains shown in **Figure 3.10-1**.

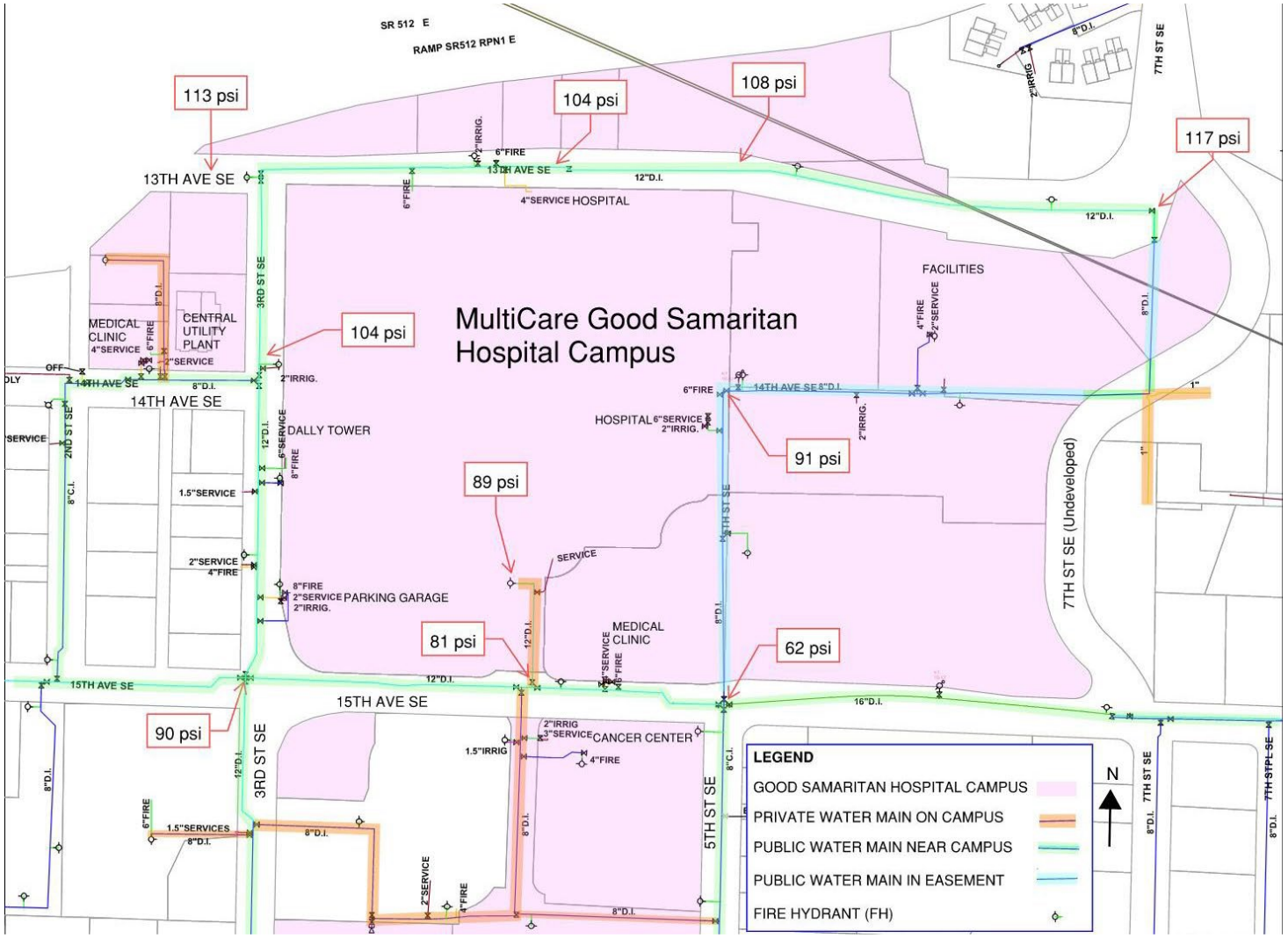
Existing MGSH Water Consumption

Based on City of Puyallup's utility accounting of water consumption in 2022, it is assumed that the current water use at the MGSH campus is approximately 35 million gallons of water per year, a majority being the hospital facilities' domestic water use.

The total water consumption in 2022 for the full MGSH campus was broken down as follows:

Domestic Water:	31,400,000 gallons
Irrigation Water:	3,560,000 gallons
Fire Service:	None
Total (rounded):	~35,000,000 gallons

For the area of proposed improvements identified in the *Proposed Action – Proposed Master Plan* and *Alternative 1* (hospital facilities located between 13th Avenue SE and 15th Avenue SE and 3rd Street SE and 5th Street SE, including: Dally Tower, Medical Offices, Central Utility Plant, Hospital Tower/Pavilions, and a parking garage), approximately 29,700,000 gallons of domestic water was provided to the campus by City of Puyallup in 2022. The remaining 1,700,000 gallons of domestic water was used on campus facilities not part of the *Proposed Master Plan* and *Alternative 1* (including MGSH facilities south of 15th Avenue SE and north of 13th Avenue SE) project area.



Source: Figure and water pressure data provided by Gray & Osborne, Inc. (11/23/2023). Public and private water main information provided by City of Puyallup.

psi = water pressure pounds per square inch

Source: MIG, Gray & Osbourne, City of Puyallup 2024.

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Figure 3.10-1

Existing Public and Private Water System

Fire Service

Existing fire services to various buildings on campus are provided from the 12-inch public water mains. There are also over 15 fire hydrants currently located in the vicinity and within the existing site from the existing 8-inch and 12-inch public water mains and from the private water mains. The current fire flow requirement for the hospital campus and existing buildings is 4,000 gallons per minute (gpm) for 4 hours, which is available from the 12-inch pipes surrounding and within campus. See **Appendix F** for analysis of the existing water system.

Sanitary Sewer

The City of Puyallup's Public Works Department presently provides wastewater collection and treatment for sites within the City, including for the MGSH campus. The City of Puyallup service area includes all the properties within the city limits as well as additional areas within the UGA and unincorporated areas of Pierce County.

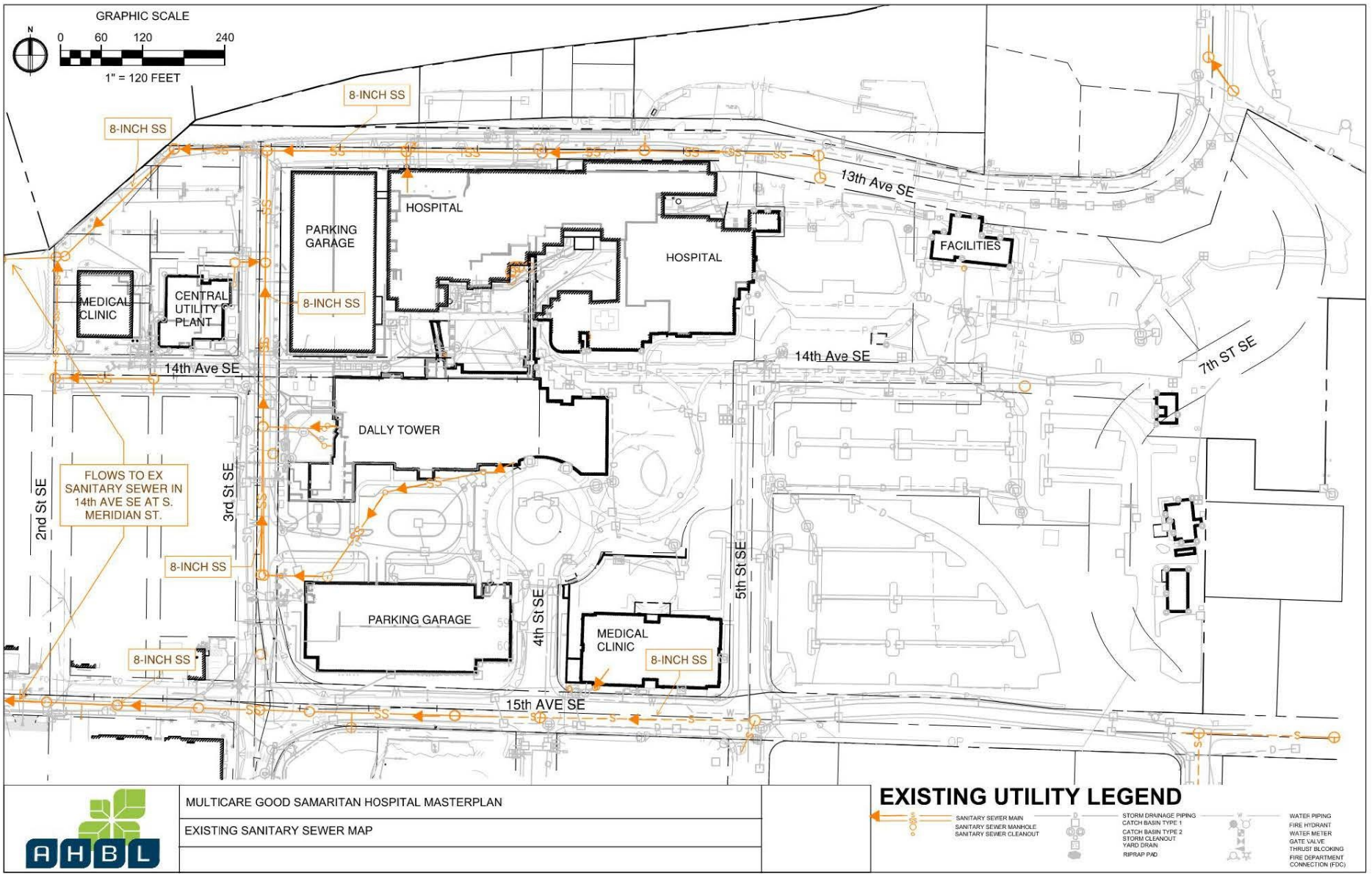
The City's existing sanitary sewer conveyance system includes over 225 miles of gravity sewer pipe, eight miles of force main, and 20 sewage pump stations. Wastewater flows are treated at the City's Water Pollution Control Plant (WPCP). Once treated, the wastewater is discharged into the Puyallup River. Prior to discharge into the river, wastewater is treated in accordance with U. S. Environmental Protection Agency (EPA) and Washington State Department of Ecology (Ecology) regulations. Current capacity of the WPCP is 27.4 million gallons per day (MGD) with an annual average influent flow of 9.5 MGD.

Sanitary sewer flows from the MGSH campus discharge into a public sanitary sewer piped conveyance system that was built in the 1950s with upgrades through 2011. Sanitary sewer mains are in the various streets surrounding the site with side sewer connections to the existing campus buildings and facilities. The public sewer mains adjacent to the campus in the street rights-of-way include:

- 3rd Street SE – 8" PVC
- 5th Street SE – 8" PVC (south of 15th Avenue SE)
- 7th Street SE – 8" PVC (south of 15th Avenue SE)
- 13th Avenue SE – 8" PVC and 8" RCP
- 15th Avenue SE – 8" PVC

PVC=polyvinylchloride pipe RCP= reinforced concrete pipe

The northern buildings of the existing hospital have side sewer connections to the sewer main in 13th Avenue SE, which conveys flows to the west towards S Meridian Street. The Dally tower and main hospital building have side sewer connections to the sewer main in 3rd Street SE which conveys flows to the north into the 13th Avenue SE sewer main. The sewer main in 15th Avenue SE conveys flow westward to the sewer main in S Meridian Street. See **Figure 3.10-2**, Existing Sanitary Sewer System.



Source: MIG, AHBL 2024.

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Figure 3.10-2

Existing Sanitary Sewer System

There are no known pipe capacity deficiencies for the sewer main in 13th Avenue SE east of Meridian that receives wastewater flows from much of the campus. However, further downstream from the MGSH campus, there are sewer pipe capacity deficiencies predicted for future demand and/or identified in the City's 2015 Comprehensive Sewer Plan. Some of the deficiencies are expected to be addressed with future City capital improvements.

Based on domestic water consumption in 2022, it is assumed that the current annual wastewater discharge from the MGSH campus is 31,400,000 gallons (which averages to 86,100 gallons/day). For the campus area where the proposed improvements are shown in the 2024 *Proposed Master Plan* (hospital facilities between 13th Avenue SE and 15th Avenue SE and 3rd Street SE and 5th Street SE), it is estimated that the facilities in this area currently discharge approximately 29,700,000 gallons of wastewater per year.

Stormwater

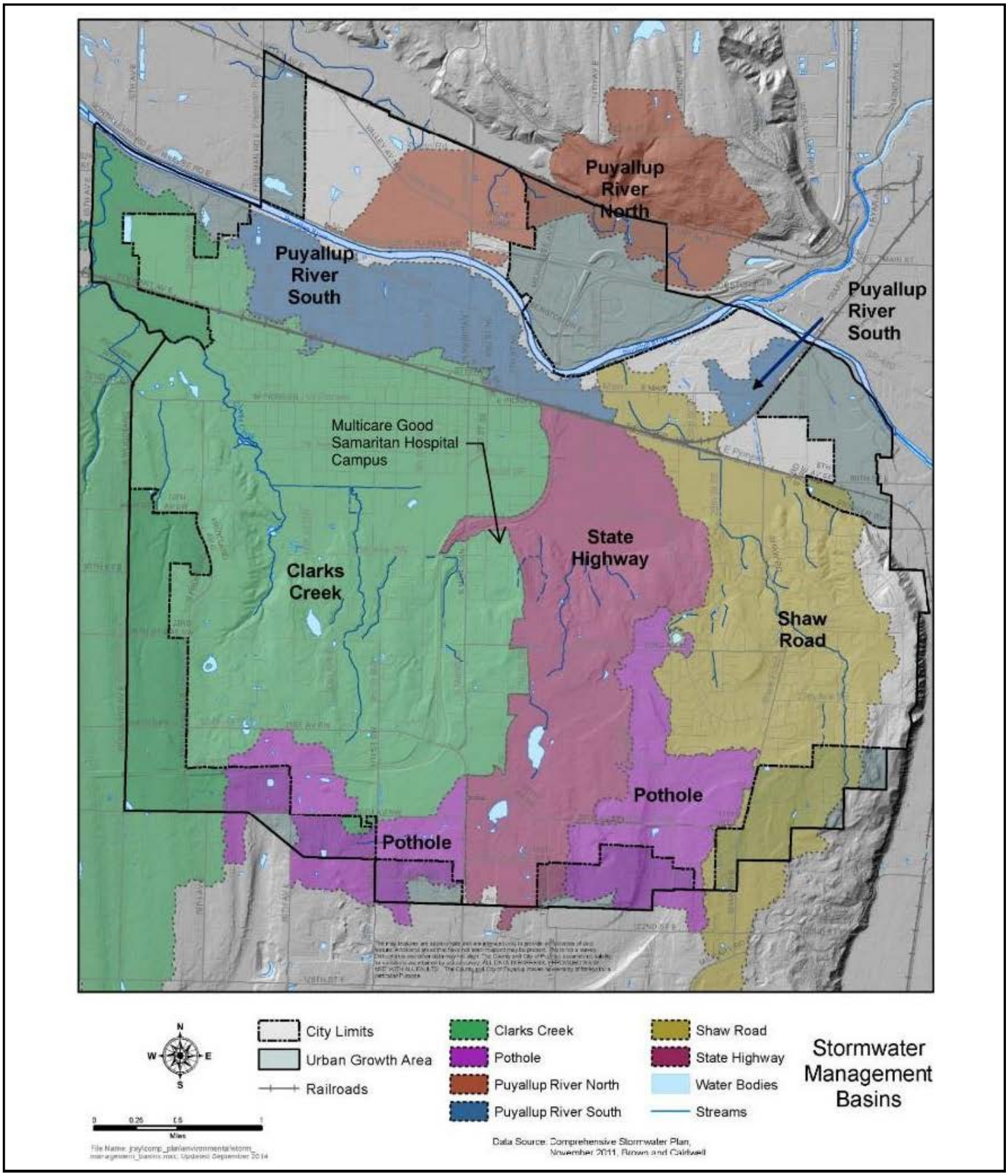
Stormwater runoff from the MGSH campus is currently collected within the on-site stormwater systems and then conveyed to the City's stormwater drainage conveyance system that discharges into two separate drainage basins, the Clarks Creek Basin to the west and State Highway Basin (along SR 512) to the northeast that outfalls into the Puyallup River (see **Figure 3.10-3**, Watershed Basins and **Figure 3.10-4**, Existing Stormwater Conveyance System).

Existing stormwater management systems are present on the MGSH campus and provide water quality treatment, conveyance, and/or flow attenuation (see **Figure 3.10-4**). Once the stormwater runoff from buildings and parking lots is collected it is then conveyed to existing stormwater mains located in streets adjacent to the MGSH campus at various drain pipe connection points surrounding the campus. The public storm drain conveyance system adjacent to the campus ranges from 8-inch to 42-inch pipes and pipe material varies from concrete pipe to PVC (for newer installed systems). There are several connection points to the City's storm drains for drainage from the campus.

Hydrology & Drainage Basins

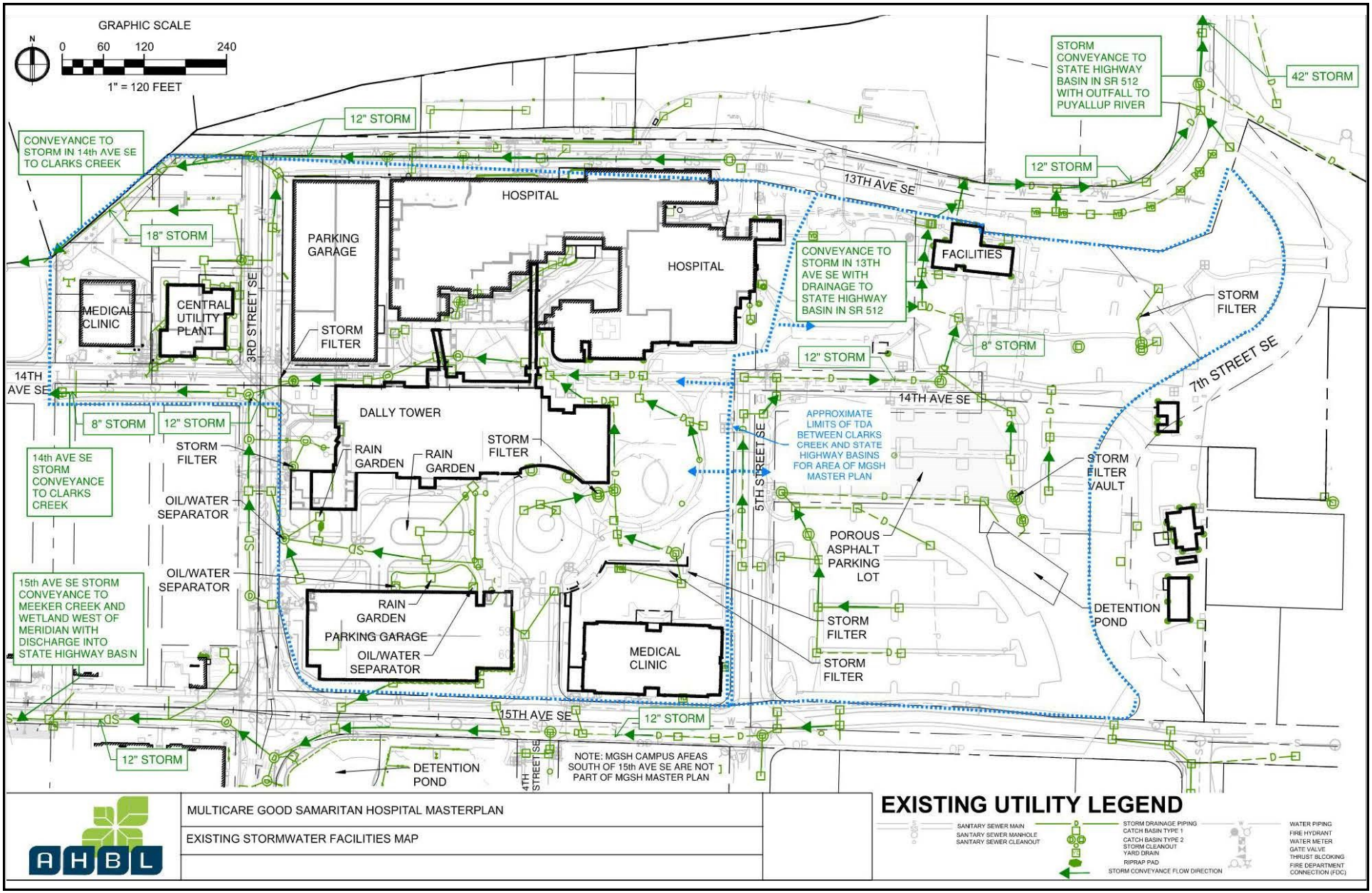
Approximately 22.1 acres (63%) of the existing campus is identified as impervious surfaces (i.e., building roofs, paved parking lots, and walks) and 12.8 acres (37%) of the campus is pervious surfaces (i.e., landscaping, lawns).

Stormwater runoff from the MGSH campus north of 15th Avenue SE drains into two storm drain conveyance systems that discharge into their respective drainage basins: Clarks Creek Basin to the west and State Highway Basin to the northeast that outfalls into the Puyallup River. Stormwater runoff from the MGSH campus south of 15th Avenue SE (outside the MGSH Master Plan) drains into the public storm conveyance system in 15th Avenue SE and flows west with outfall into a City identified wetland along Meeker Creek approximately 0.2 mile west of campus (intersection of 3rd Street SE and 15th Avenue SE) (see **Figure 3.10-3**).



Source: City of Puyallup Comprehensive Plan, 2024.

Figure 3.10-3
Stormwater Management Basins



Source: MIG, AHBL, City of Puyallup 2024.

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Figure 3.10-4

Existing Stormwater Conveyance System

The City of Puyallup Public Works Department's Maintenance and Operations division maintains the City's public storm drain conveyance system downstream and adjacent to MGSH campus within the City Limits. Washington State Department of Transportation (WSDOT) operates and maintains the storm conveyance system located within WSDOT right-of-way (ROW) of SR 512.

Drainage to Clarks Creek. The majority of the MGSH campus north of 15th Avenue SE and west of 5th Street SE discharges into the City's 12-inch storm drain mains in 13th Avenue SE and 3rd Street SE. The storm drain main in 3rd Street SE conveys flows to the north to 13th Avenue SE then flows west in the storm drain main in 13th Avenue SE. The City's piped conveyance system then crosses under SR 512 at 14th Avenue SE (30-inch pipe) and eventually discharges into Meeker Creek, a tributary to Clarks Creek. MGSH campus areas (not with proposed Master Plan improvements) south of 15th Avenue SE also discharge to a separate public storm sewer in 15th Avenue SE that flows to Meeker Creek and the wetland west of Meridian Street.

Drainage to State Highway Basin. Stormwater runoff from the remainder of the campus east of 5th Street SE flows into the City's 12-inch storm drain main in 13th Avenue SE and to the northeast to a 42-inch storm drain main in 7th Street SE. At 7th Street SE and 12th Avenue SE, the City's storm main discharges into a WSDOT trunkline conveyance system within WSDOT ROW of SR 512. Drainage from the MGSH campus to the conveyance system in SR 512 is referred to as the "State Highway Basin" in this EIS. The conveyance system along SR 512 eventually outfalls into the Puyallup River to the north. WSDOT maintains the City-State conveyance system between the connection at 7th Street SE to the outfall into the Puyallup River.

Downstream Stormwater Conveyance System Condition & Capacity

There are no known flooding or downstream conveyance capacity problems in the existing stormwater piped systems in 13th Avenue SE, 14th Avenue SE, and 15th Avenue SE adjacent to the campus that eventually drains to Meeker Creek and Clarks Creek.

For the City's piped conveyance system in 13th Avenue SE and 7th Street SE to where it discharges into the WSDOT trunkline conveyance system in SR 512, there are no known conveyance capacity problems. However, the WSDOT trunkline conveyance system in SR 512 downstream of 7th Street SE is governed by a 1970 City-State Interlocal Agreement that "restricts the amount of runoff that the City is allowed to discharge to the WSDOT trunkline" as part of a cost-sharing when WSDOT constructed SR 512 conveyance system. This WSDOT trunkline between 7th Street SE to its outfall into the Puyallup River is referred to as a City-State storm sewer. WSDOT is responsible for the maintenance of the trunkline. Per the 1970 agreement the City may send up to 68 cubic feet per second (cfs) of stormwater runoff to WSDOT's SR 512 storm drain. The City has exceeded the storm flows allowed into the WSDOT trunkline per the Interlocal Agreement. As a result, the City requires that any new development within the City limits that drains to the State Highway Basin provide and size flow control beyond the City's regulated flow control requirement

(Ecology) 50-year storm event. As such, flow control is required for new developments and redevelopments and must be sized for duration and release rate equal to or less than predeveloped existing conditions between the 50- and 100-year storm events. In addition to complying with City stormwater regulation, the portion of the MGSH project(s) that discharges to the State Highway Basin must also comply with the WSDOT stormwater regulations downstream analysis criteria.

During most storms, each portion of the MGSH campus drains to its respective basin. However, during very large storms, some flow in the WSDOT trunkline is diverted to the Meeker/Clarks system where 15th Avenue intersects with SR 512. The diversion occurs upstream from where drainage from the MGSH campus discharges into the WSDOT trunkline.

The 12th Avenue SE and 13th Street SE flooding location is the only known flooding location in the State Highway Basin near the site (see Figure 2.3-4 in the Utilities Technical Report in **Appendix F** for the location of this flooding). Flooding occurs at this location in an area with high groundwater and a general lack of stormwater infrastructure. However, the flooding is relatively minor (e.g., road flooding during major events only) and is not anticipated to be identified for an improvement program in the City's 2024 Stormwater Comprehensive Plan. The flow at the intersection of 12th Avenue SE and 13th Avenue SE are not impacted by runoff from the campus.

Aquifer Recharge

The MGSH campus is located within a Wellhead Protection Area[1] and Critical Aquifer Recharge Area[2] to the Central Pierce County Aquifer. Stormwater systems are to be designed in accordance with City requirements for protection of the aquifer.

3.10.2 Impacts of the Alternatives

An analysis of the impacts on utilities from development of the *Proposed Master Plan* is provided below. For the other EIS alternatives, the analyses focus on any differences between the alternatives and the *Proposed Master Plan*.

Proposed Action - Proposed Master Plan

Construction Impacts

Construction of proposed utility improvements (water, sanitary sewer, and stormwater) for the implementation of the *Proposed Master Plan* would be scheduled together, and with

[1] Per Chapter 21.06 of the Puyallup Municipal Code (PMC), a wellhead protection means the portion of a zone of contribution for a well, wellfield or spring, as defined using criteria established by the State Department of Ecology.

[2] Per Chapter 21.06 of the PMC, critical aquifer recharge areas are areas that have a critical recharging effect on groundwater and are essential for maintaining public water supplies including supplies of potable drinking water. These areas are susceptible to contamination from certain land use activities, and therefore must be protected.

other infrastructure improvements. During construction, the existing utility systems would continue to provide service to existing buildings to remain. Temporary service connections/bypasses may need to be provided to maintain utility coverage and minimize disruptions during construction.

Per City of Puyallup regulations, Temporary Erosion and Sediment Control (TESC) Best Management Practices (BMPs) and a Construction Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented to address the potential for erosion/sedimentation with clearing, grading, and trenching for utilities (see **Section 3.1**, **Earth**, for details).

Water

The City of Puyallup would continue to provide water service to the MGSH campus for development of improvements under the *Proposed Master Plan.*

Domestic Water

Development under the *Proposed Master Plan* would increase the demand for domestic water from the MGSH campus. A water demand analysis was conducted to assess the new water demand for the *Proposed Master Plan*. See Utilities Technical Report in **Appendix F** for assumptions used for estimating increases in water demand.

Table 3.10-1 summarizes the increase in domestic water demand (annual domestic water consumption, MDD, and Peak Flow) under the *Proposed Master Plan* (including Phase 1 and full development) and compares this demand to that under the EIS alternatives.

Table 3.10-1
SUMMARY OF ESTIMATED INCREASE IN NEW DOMESTIC WATER DEMAND – EIS ALTERNATIVES

Development Type	Increase in Water Demand (Gallons/year)[1]	Increase in MDD[5] (gpd)	Increase in Peak Demand[3,5] (gpm)
Proposed Action – Proposed Master Plan	24,810,000	300,000	773
Alternative 1 – Reduction in MOB B[2]	22,990,000	250,000	661
Phase 1 Only Proposed Action/ Alternative 1[4]	7,140,000	116,000	288
No Action Alternative	No change	No change	No change

Source: MIG, 2024.

MDD = maximum daily demand (domestic water use) gpd = gallons per day gpm = gallons per minute

[1]Patient Care Tower, Emergency Department Expansion, parking structures and medical office buildings were based on actual domestic water consumption for 2022 provided by City of Puyallup. All other buildings/facilities were based on information provided by MGSH 2023 Master Plan's engineering consultant AHBL.

[2]Does not include Medical Office Building B

[3]Peak Demand is a sum for all the facilities and with peak demand occurring simultaneously (including maintenance testing for supply tower). Actual peak demand for the campus would be less since peak demand for facilities would occur at various times during the day. For example, flow testing of the central utility plant would be done outside of peak flow demands for campus medical facilities.

[4]Phase 1 improvements would be the same for the Proposed Master Plan and Alternative 1 as described in this report.

*[5]Estimates for maximum daily demand and peak demand are based on assumptions in Utilities Technical Report's Table 3.1-1 (see **Appendix F**).*

*[6]Existing annual consumption is noted in **Table 3.10-2** for the No Action Alternative. Per Gray-Osborne's July 2024 Memorandum, based on the City's Water System Plan last updated in 2017, it is assumed the existing MDD is 206,000 gpd and Peak Demand is 233 gpm.*

Table 3.10-2 presents the estimated total annual water demand for the *Proposed Master Plan* (including Phase 1 and full development) and compares this demand to that from the EIS alternatives.

Table 3.10-2
COMPARISON OF ANNUAL WATER DEMAND USE – EIS ALTERNATIVES

Development Type	Annual Water Demand (Gallons)[1]	Percent Increase from Existing	Average Daily Demand (gallons/day)[1]
Proposed Action – Proposed Master Plan	59,770,000	71%	164,000
Alternative 1 – Reduction in MOB B[2]	57,950,000	66%	159,000
Phase 1 Only Proposed Master Plan/ Alternative 1[3]	42,100,000	20%	116,000
No Action Alternative	34,960,000	None	96,000

Source: MIG, 2024.

*[1] Includes Increase in annual water consumption for the EIS Alternative as noted in Utilities Technical Report's Table 3.1-2 (see **Appendix F**) plus existing annual consumption for entire campus as estimated from 2022 water utility bills. Average daily demand = Annual Water Demand/365 days.*

[2]Does not include Medical Office Building B

[3]Phase 1 improvements would be the same for the Proposed Master Plan and Alternative 1 as described in this report.

Fire Flow

The required fire flow for proposed development of the MGSH is a function of the size of proposed buildings and the type of construction (per the Fire Code of the City of Puyallup, Chapter 16.04 of the PMC). The required fire flow for the *Proposed Master Plan* and EIS alternatives is assumed to remain the same as under existing conditions, at 4,000 gpm for 4 hours assuming the new buildings are of similar type of construction and size as existing. An analysis of the ability of the City's existing water system to provide water and fire service for full buildout of the *Proposed Master Plan* with the projected 2038 demands described in the City's Water System Plan was conducted. The analysis showed that the current fire flow requirement of 4,000 gpm would still be available from the existing public 12-inch water mains. However, the City's 8-inch water main (in an easement) on the east side of campus would not have capacity to provide the fire flow requirement if it were to provide 4,000 gpm for 4 hours.

The fire flow demands to the site would be confirmed at the time of building design for the *Proposed Master Plan*. If the fire flow demand requirements for the campus increase from existing fire flow requirements, then further analysis would be required by MGSH's designers and the City to determine whether the existing City's water system is adequate to supply the needed fire flow.

Where existing fire hydrants would be impacted by proposed development, new fire hydrants would be installed onsite in accordance with City standards and the Fire Marshal requirements to maintain fire protection coverage.

Irrigation Water

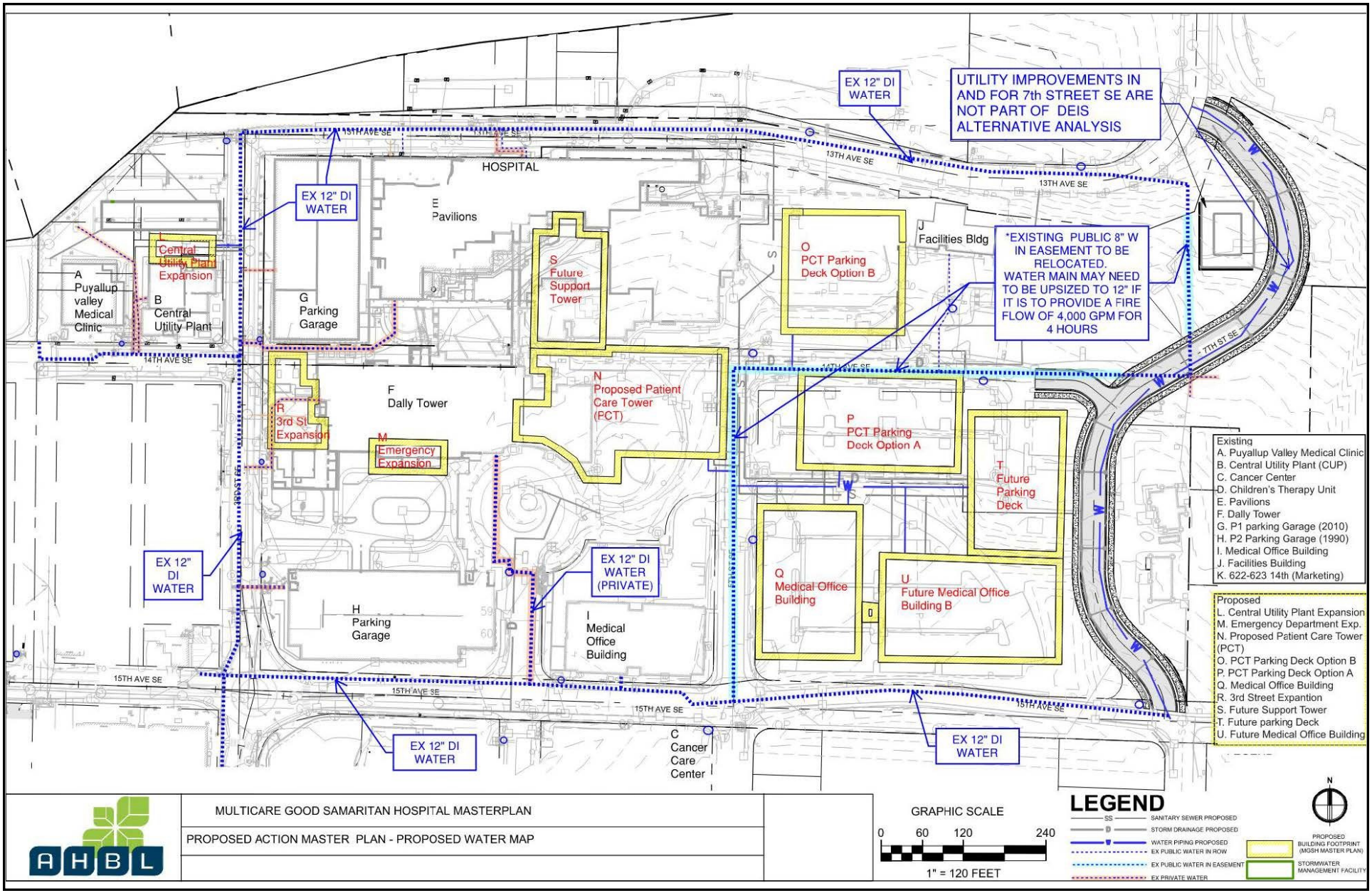
Typically, irrigation on the MGSH campus under the *Proposed Master Plan* would take place during off-peak water demand hours. In addition, there would be a reduction in pervious landscape areas on site. Therefore, the water demand for irrigation is not included in the analysis and the water demand for irrigation is expected to be similar to or less than existing conditions.

Proposed Water System Improvements

New water service connections, fire service connections, and fire hydrants would be provided to the new buildings and facilities onsite under the *Proposed Master Plan*. Connections would be sized depending on respective domestic and fire service demand, as well as available pressure and flow from the City's water distribution system. Appropriate backflow devices and appurtenances would be provided on domestic water and fire water services in conformance with the City's water standards. (See **Figure 3.10-5,** Proposed Water Distribution System – *Proposed Master Plan* & Alternative 1.)

Water System Capacity Impacts

The City of Puyallup has adequate water supply and treatment capacity within their existing water system to meet the estimated increase in water consumption for the *Proposed Master Plan.*



Source: MIG, AHBL 2024.

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Figure 3.10-5

Proposed Water System—Master Plan and Alternative 1

In terms of the water main distribution, based on modeling of the City water system, the existing 8-inch water main (in an easement) on the eastern side of the campus would not provide the assumed fire flow of 4,000 gpm for 4 hours under the *Proposed Master Plan* and would be replaced with a 12-inch water main located with an easement or ROW to provide adequate fire flow. Also, to maintain adequate pressure in the system, the upsized water main would be required to be looped by connecting to the existing public 12-inch mains in 13th Avenue SE and 15th Avenue SE.

Sanitary Sewer

The City of Puyallup would continue to manage the treatment of wastewater discharge flows from the MGSH site under the *Proposed Master Plan* via existing and new side sewer connections to the City's sanitary sewer conveyance system.

Development of the Master Plan under the *Proposed Master Plan* would increase the wastewater discharge flows from the MGSH campus. The amount of increase in discharge to the City's sanitary sewer system was estimated; see Utilities Technical Report in **Appendix F** for assumptions used to estimate the increase in annual wastewater discharge, MDD, and peak flow. **Table 3.10-3** also summarizes the increase in wastewater discharge under the *Proposed Master Plan* (including Phase 1 and full development) and compares this demand to the other EIS alternatives.

Table 3.10-3
SUMMARY OF INCREASE IN ESTIMATED WASTEWATER FLOWS – EIS ALTERNATIVES

Development Type	Annual Wastewater Discharge (gallons/year)[1,4]	Increase in MDD[5] (gpd)	Increase in Peak Flow[3, 4] (gpm)
Proposed Action – Proposed Master Plan	24,540,400	273,330	750
Alternative 1 – Reduction in MOB B[2]	22,715,400	223,330	638
Phase 1 of Proposed Master Plan or Alternative 1[5]	6,874,400	90,500	265
No Action Alternative	No change	No change	No change

Source: MIG, 2024.

MDD = Maximum Daily Demand gpd = gallons per day gpm = gallons per minute

*[1]Patient Care Tower, Emergency Department Expansion, parking structures and medical office buildings were based on data provided by City of Puyallup for existing domestic water consumption in 2022 for similar facilities. Wastewater discharge estimates for all other facilities were provided by MGSH 2024 Master Plan's civil engineering consultant AHBL. See the Utilities Technical Report's Table 3.2-1 (in **Appendix F**) for assumptions.*

[2]Does not include Medical Office Building B that is in the Proposed Master Plan.

[3]Peak Flow was calculated by summing up all peak flow rates for each facility. This assumes all peak flows happen at the same time in a day simultaneously, a very unusual / unlikely event of occurrence, and therefore conservative. Typically, peak sewer flow for campus facilities will vary based on building use and occupancy. For example, if it is assumed that the Central Utility Plant (peak flow of 150 gpm for 10 minutes in a day for maintenance) and the parking garages' peak flow does not occur at the same time as the hospital or medical office building then the cumulative Peak Flow would be reduced from 750 gpm to 470 gpm.

[4]Does not include existing wastewater discharges for campus facilities to remain.

[5]Phase 1 improvements are the same for Proposed Master Plan and Alternative 1 as described in Section 1.2 of this report.

Table 3.10-4 presents the estimated total annual wastewater discharge with the *Proposed Master Plan* (including Phase 1 and full development of the Master Plan) and compares this discharge to that from the EIS alternatives.

Table 3.10-4
COMPARISON OF ESTIMATED ANNUAL WASTEWATER DISCHARGE – EIS ALTERNATIVES

Development Type	Annual Wastewater Discharge (gallons/year)[1]	Percent Increase from Existing	Daily Average Wastewater Discharge (gallons/day)[1]
Proposed Action - Proposed Master Plan	55,940,400	78%	153,300
Alternative 1 – Reduction in MOB B[2]	54,115,400	72%	148,300
Phase 1 of Proposed Master Plan or Alternative 1[3]	38,274,400	22%	104,900
No Action Alternative	31,400,000	0	86,100

Source: MIG, 2024.

*[1] Includes increase in annual water consumption for the EIS alternatives as noted in the Utilities Technical Report's Table 3.2-2 (see **Appendix F**) plus existing annual consumption for entire campus as estimated from 2022 water utility bills. Daily Average = Year discharge/365 day.*

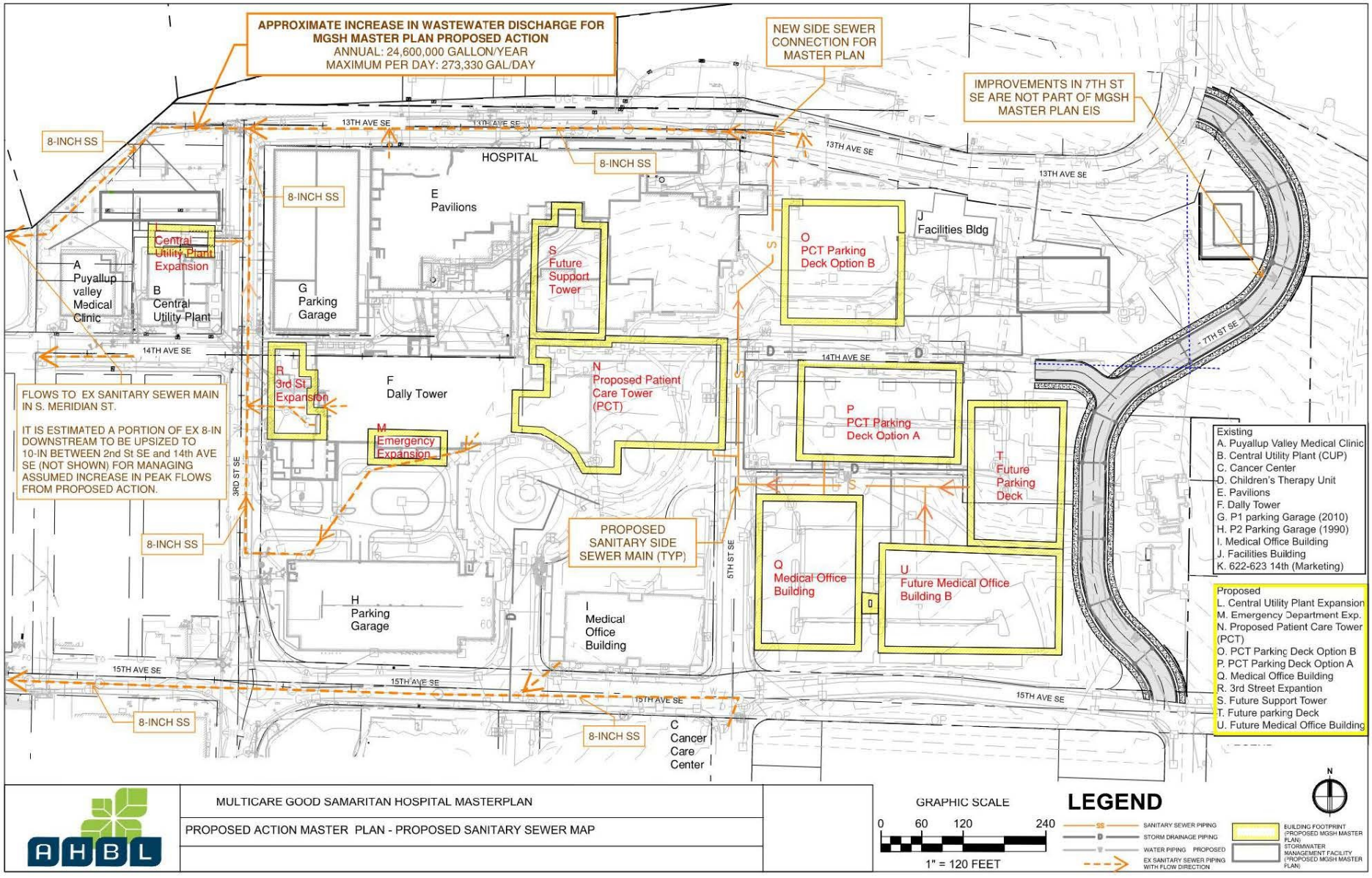
[2] Does not include Medical Office Building B.

[3] Phase 1 improvements are the same for Proposed Master Plan and Alternative 1 as described in this report.

Proposed Sanitary Sewer System Improvements

Sanitary sewer service connections would be required for each of the buildings and building expansions for the *Proposed Master Plan*. Where existing sanitary side sewers would be impacted by the new facilities or building expansions, the existing side sewers would be relocated. A private sanitary sewer main would be installed on the campus in alignment with 5th Street SE. A new side sewer connection would connect the Patient Care Tower, Parking Garages, and Medical Office Buildings to the sewer main extension. An oil-water separator would be installed when required for certain building on campus to treat effluent water prior to discharge into the side sewer that connects to the public sanitary sewer, per City requirements. A new side sewer connection and oil water separator would be installed for the Central Utility Plant expansion and connected to the public sanitary sewer main in 3rd Street SE. See **Figure 3.10-6,** Proposed Sanitary Sewer System – *Proposed Master Plan* & Alternative 1.

The increase in wastewater discharge from all the new facilities for the *Proposed Master Plan* would converge and drain into the existing public 8-inch sanitary sewer main in 13th Avenue SE and 3rd Street SE. Alternatively, it may be possible to direct some of the sanitary sewer flows into an extension of the public sewer main to the northeast in 13th Avenue SE if the existing sanitary sewer system that flows to the northwest does not have capacity.



Source: MIG, AHBL 2024.

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Figure 3.10-6

Proposed Sanitary Sewer System—Master Plan and Alternative 1

Sanitary Sewer System Capacity Impacts

At full buildout of the *Proposed Master Plan,* the average daily flow estimated for the campus would increase to 0.153 MGD, which would result in less than 1% increase from current average influent flow to the WPCP. The WPCP has enough treatment capacity to meet the increased maximum daily sewer influent flows from the *Proposed Master Plan*.

A review of the pipe conveyance capacity of the downstream sanitary sewer system was conducted using the City's hydraulic model from the City's 2015 Comprehensive Sewer Plan (see BHC consultant memo in **Appendix F** for analysis). Based on this review and assumptions, there were no current pipe capacity deficiencies identified for the existing sanitary sewer main in 13th Avenue SE upstream of Meridian Avenue. However, implementation of Phase 1 or full buildout of the *Proposed Master Plan* would create added demand on the City's sanitary sewer system downstream. New pipe capacity deficiencies and previously identified pipe capacity deficiencies (identified in City's Comprehensive Sewer Plan) are predicted with full buildout of the *Proposed Master Plan*. The additional peak flow discharge to the system from the *Proposed Master Plan* could exacerbate the previously identified pipe capacity deficiencies, as described below.

Full buildout. Approximately 310 lineal feet (LF) of 8-inch sewer main would need to be upsized to 10-inch sewer main immediately west of the campus, between 2nd Street SE and 14th Avenue SE, if all the increase in peak sewer flows from the *Proposed Master Plan* discharge into this sewer system. At full buildout with the capital improvements planned to be installed by the City to the sewer main under SR 512 in 2025, the 8-inch sewer main is still predicted to have deficiencies and would need to be upsized to convey the assumed peak sewer flows.

Phase 1. If the City installs the capital improvements to the sewer main under SR 512 and only Phase 1 improvements of the *Proposed Master Plan* are constructed, then the deficiencies in the 310 LF of 8-inch sewer main are not predicted and the 8-inch sewer main would not need to be upsized.

(See **Appendix F** for details.)

Stormwater

Under the *Proposed Master Plan*, the City of Puyallup would continue to manage the downstream conveyance systems that receive stormwater discharge flows from the MGSH site. Existing and new storm drain connections would be made to the public storm sewer mains. The MGSH campus areas draining to the two water resources, Clarks Creek and Puyallup River (State Highway Basin), would remain the same. However, there would be a change in the land use cover for those subbasin areas. Approximately 23.4 acre (67% of the site) would be covered in impervious surfaces (buildings, parking lots, walks, and pavement) and 11.5 acres (33% of the site) would be covered in pervious surfaces (lawn, landscape) at buildout of the *Proposed Master Plan*, a 4% increase in impervious surfaces over existing conditions. The increase in impervious surfaces would increase stormwater runoff rates

and volumes and increase pollutant loading in stormwater runoff. Impacts to water quality could result from by-products of motor vehicles, and landscape chemicals. New on-site stormwater management facilities (flow control, water quality treatment, conveyance) would be installed in accordance with City of Puyallup stormwater requirements to mitigate potential impacts to the downstream system and resources.

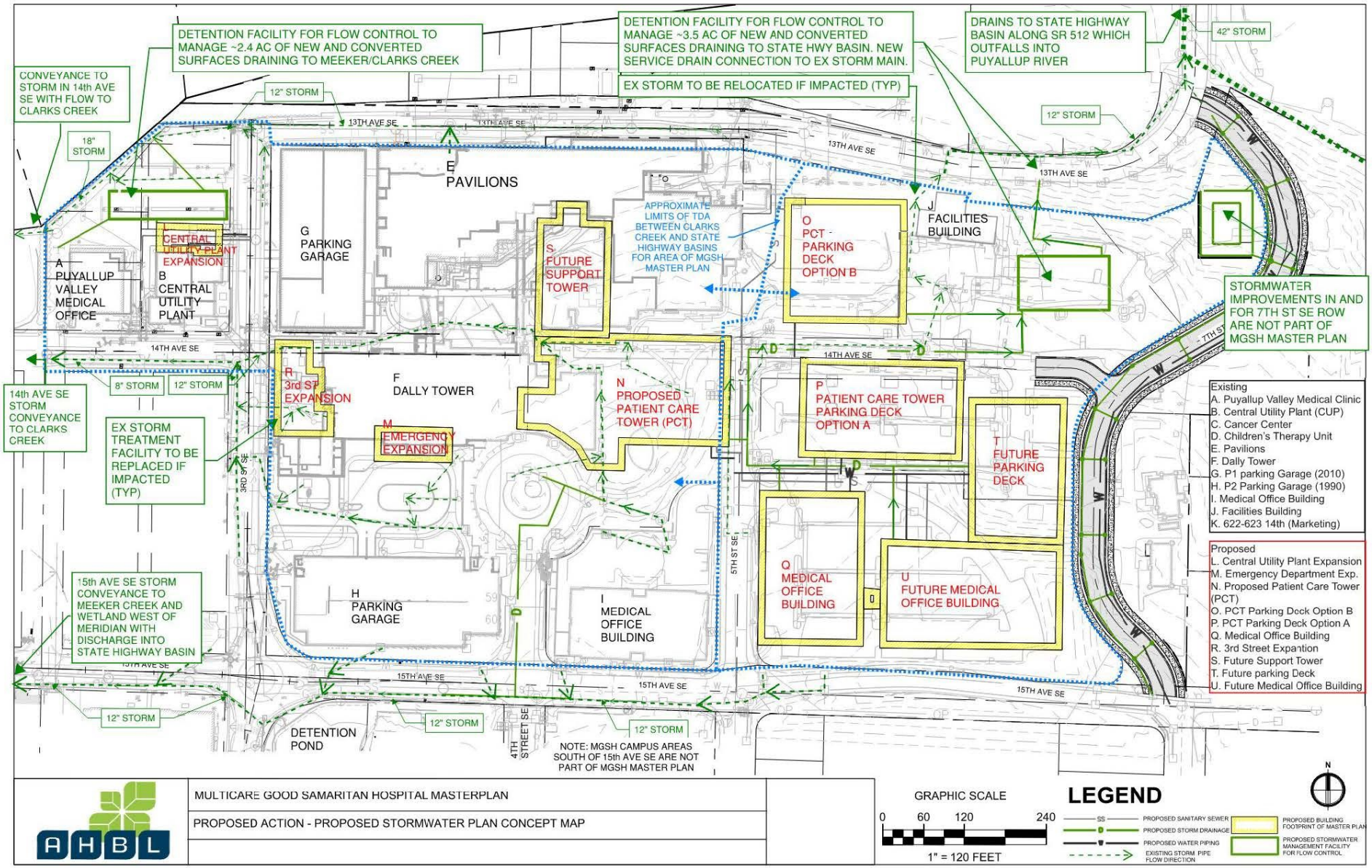
Where traffic mitigation measures (due to implementation of elements of the *Proposed Master Plan*) would result in change to impervious and pervious areas (e.g., road widening) within existing City street ROW, stormwater management facilities would be designed and constructed according to City of Puyallup regulations prior to discharge to their respective drainage basins (e.g., wetland/Meeker Creek west of S Meridian Street, Clarks Creek, and/or State Highway).

Stormwater System Improvements

The stormwater facilities provided for full buildout of the *Proposed Master Plan* would be designed to meet the City of Puyallup stormwater requirements in place at the time of permit. Currently the City has adopted the 2019 Washington State Department of Ecology Stormwater Management Manual for Western Washington (SWMMWW) and supplemented with requirements of Section 200- Stormwater Management of the City of Puyallup Public Works Engineering and Construction Standards (PWECS). Under the current City requirements, the *Proposed Master Plan* is considered a "Common Plan Development," thus, stormwater requirements for sizing flow control facilities and other minimum requirements are based on the disturbed area of the entire "Master Plan" and not by individual phased elements of the *Proposed Master Plan*.

MGSH campus areas that discharge into the city conveyance system that flows into the WSDOT trunkline conveyance system in SR 512 are governed by the existing 1970 WSDOT-City interlocal agreement which would require complying with both the City's and WSDOT's stormwater requirements for managing, detaining and treating the runoff prior to discharge into the City system.

A stormwater site plan will be designed and constructed to manage stormwater runoff from the site for all disturbed areas of the *Proposed Master Plan*. Stormwater runoff would be collected from new building roof areas, hardscape areas, parking garages, and landscape areas. Collection of conveyance would be through catch basins, yard drains, area drains, and storm maintenance holes, and conveyed to their respective on-site stormwater management (OSSM) best management practices (BMPs), detention system for flow attenuation and water quality treatment system for pollution generating surfaces. Discharge of stormwater runoff to their respective Threshold Discharge Area (TDA) (Clarks Creek and State Highway to Puyallup River) would be preserved. See **Figure 3.10-7** for the Proposed Stormwater Management System. Below are further details on the proposed stormwater management.



Source: MIG, AHBL 2024.

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Figure 3.10-7

Proposed Stormwater Management Concept—Master Plan and Alternative 1

The private on-site stormwater piped conveyance and collection system would be extended to collect runoff from site areas. Stormwater runoff from the Patient Care Tower, Emergency Department Expansion, (Dally) Tower expansion, and Central Utility Plant expansion would flow through new on-site flow control facilities and treatment systems and then discharge to the stormwater main that flows to Clarks Creek to the west. Stormwater runoff from redeveloped areas east of 5th Street SE north of 15th Avenue SE (proposed Patient Care Tower Parking Garage and Medical Office Buildings) would be collected and conveyed to proposed on-site detention and treatment systems and then continue to discharge into the existing 12-inch stormwater main in 13th Avenue SE that conveys flows to the northeast (via the existing 42-inch storm pipe in 7th Street SE) and the WSDOT trunkline in SR 512 (State Highway basin).

In addition to the flow control and water quality treatment facilities, other on-site stormwater management best management practices (OSSM BMPs) would be designed and implemented to infiltrate, disperse, and retain stormwater runoff onsite (such as through bioretention systems, porous pavements, rain gardens) to the extent feasible, in accordance with City requirements outlined in the SWMMWW. Further site-specific geotechnical evaluations will be required to determine which OSSM BMPs would be feasible during the design phase for new buildings and redeveloped site.

Stormwater runoff from new buildings and facilities located in the Clarks Creek basin would be managed by a new detention facility that is conceptually shown to be located in the existing parking lot north of the Central Utility Plant (see **Figure 3.10-7**) and then connect to the existing storm main in 13th Avenue SE that conveys flows to the southwest and into a storm main in 14th Avenue SE that drains to Clarks Creek.

Drainage to the State Highway basin outfalls into the Puyallup River. Direct discharges to Puyallup river must meet the requirements of SWMMWW and conditions in City of Puyallup's PWECS (Section 204.2). Currently 2019 SWMMWW does not require flow control facilities for runoff that has a direct discharge or indirect discharge via a Municipal Separated Storm Sewer System (MS4) to a specified exempt receiving water. Discharges to the Puyallup River, which is listed as an exempt receiving water (Appendix I-A in SWMMWW Volume I), would not be required to provide flow control facilities with redevelopment. However, for TDAs to the State Highway basin, due to the 1970 City-State Interlocal agreement that restricts the discharges from City storm sewer into the WSDOT trunkline, minimum requirement for flow control described in SWMMWW and PWECS (Section 204.2) is required. Furthermore, due to the Interlocal agreement restrictions, flow control facilities are to be designed to restrict flows between the 50 year and 100-year storm events to the pre-developed existing conditions and comply with WSDOT downstream analysis regulations.

With net increase in impervious areas stormwater runoff flow rates from existing conditions will increase. To mitigate potential impact of the *Proposed Master Plan*, the flow control/detention facilities will be required for stormwater collected on-site from the full

buildout of the MGSH campus *Proposed Master Plan*. This would then reduce the potential impact of increasing stormwater flows into the WSDOT trunkline conveyance system downstream from the site. Stormwater runoff from on-site areas that drain to the State Highway basin would be managed by a detention vault conceptually located in the existing parking lot southeast of the Facilities Building and then connect to the stormwater main in 13th Avenue SE that drains to the State Highway Basin (see **Figure 3.10-7**).

For streets that require traffic mitigation due to the *Proposed Master Plan* and result in new and replaced hard surfaces, if thresholds are met per City stormwater regulations and PWECS, then flow control facilities would be required and sized for their respective TDAs.

Current City stormwater regulations (and the SWMMWW) require the flow control facilities be sized to detain stormwater runoff from new and converted surfaces and release it at a flow rate and time duration for the predeveloped condition (typically forested condition). As a result, if the flow control facilities are designed and constructed per the requirements of SWMMWW, then it is expected there would be no increase in runoff flow rate from the existing conditions into the public drainage systems that flow to Clarks Creek and State Highway basins.

Enhanced stormwater treatment systems would be provided for each of the stormwater detention systems if thresholds are met for pollution generating surfaces, in compliance with City of Puyallup requirements and the SWMMWW. If thresholds are met for changes to City street ROW (to address MGSH traffic mitigation), then treatment facilities would be designed in accordance with the City's PWECS

If existing treatment systems (e.g., bioretention, StormFilter/water quality vaults, oil/water separators) are impacted by the proposed improvements, then they would be relocated and/or resized to meet SWMMWW requirements for treatment.

Aquifer Recharge

Development on the MGSH campus under the *Proposed Master Plan* would be located within a Wellhead Protection Area and Critical Aquifer Recharge Area to the Central Pierce County Aquifer. Stormwater management facilities would be required to be designed to comply with wellhead protection and aquifer recharge regulation in accordance with the City's municipal code and adopted stormwater manual.

Alternative 1 – Reduced Medical Office Building Size

Water

As with the *Proposed Master Plan*, the City of Puyallup would continue to provide water service to the MGSH campus for development under *Alternative 1*. Proposed development would increase the demand for domestic water from the MGSH campus; however, the demand would be less because there would be one less building (MOB B would not be built) than under the *Proposed Master Plan.* See **Table 3.10-1** for a summary of the increase in

domestic water demand (annual domestic water consumption, MDD, and Peak Flow) under the *Alternative 1* (including Phase 1 and full development). Also see **Table 3.10-2** for the estimated total annual water demand for *Alternative 1*. The City of Puyallup has adequate water supply and treatment within their existing water system to meet the estimated increase in water consumption for this alternative.

New water service connections, fire service connections, and fire hydrants would be provided to the new buildings and facilities onsite, similar to under the *Proposed Master Plan*. The existing public 8-inch water main (in an easement) on the eastern side of campus would be replaced with a 12-inch water main to provide adequate fire flow. To maintain adequate pressure in the system, the replaced water main would be looped as described for the *Proposed Master Plan.*

Sanitary Sewer

Like the *Proposed Master Plan*, the City of Puyallup would continue to provide sanitary sewer service to the MGSH campus for development under *Alternative 1*. Proposed development would increase wastewater discharge from the MGSH campus; however, the discharge would be less than under the *Proposed Master Plan* because there would be one less building (MOB B). See **Table 3.10-3** for a summary of the increase wastewater discharge under *Alternative 1* (including Phase 1 and full development). Also see **Table 3.10-4** for the estimated total annual wastewater discharge for *Alternative 1.*

Under *Alternative 1*, proposed sanitary sewer service connections would be provided for each of the buildings and building expansions, similar to under the *Proposed Master Plan*. Wastewater would drain to the same off-site system and City's WPCP as well. Development under *Alternative 1* would create added sewer demand for the City's sanitary sewer system downstream. The WPCP has enough treatment capacity to meet the increased maximum daily sewer influent flows from *Alternative 1*. However, new pipe capacity deficiencies and exacerbation of existing pipe capacity deficiencies further downstream from the campus (identified in the City's Comprehensive Plan) are predicted, similar to under the *Proposed Master Plan*.

The additional peak flow discharges to the system from full buildout of *Alternative 1* could exacerbate the existing capacity issues depending upon where new sanitary sewer flows from the site discharge to the public sewer system. At full buildout of *Alternative 1*, approximately 310 lineal feet (LF) of 8-inch sewer main would need to be upsized to 10-inch sewer main immediately west of the campus, between 2nd Street SE and 14th Avenue SE if all the increase in peak sewer flows from *Alternative 1* discharge into this sewer system. However, if the City installs capital improvements that are planned for the sewer main under SR 512 at 14th Avenue SE and only Phase 1 improvements of *Alternative 1* are constructed, then the deficiencies in the 310 LF of 8-inch sewer main are not predicted and the 8-inch sewer main would not need to be upsized. At full buildout of *Alternative 1*, even with the planned capital improvements, based on assumptions in the model for estimates

of peak flow, the 8-inch sewer main is predicted to have deficiencies and would need to be upsized. (See **Appendix F** for details.)

Stormwater

The City of Puyallup would continue to manage stormwater discharge flows from the MGSH site under *Alternative 1*. The areas draining to the two existing drainage basins, Clarks Creek and State Highway Basins, would remain the same as under existing conditions. Slightly less area would be covered in impervious surfaces under *Alternative 1* than under the *Proposed Master Plan* with the elimination of MOB B (22.9 acres/66% of the site would be in impervious surfaces, and 12.0 acres/34% of the site in pervious surfaces). Stormwater management facilities would be installed to mitigate potential impacts to water resources and the downstream system, in accordance with City of Puyallup stormwater requirements. Like the *Proposed Master Plan*, *Alternative 1* is not expected to exacerbate drainage issues in the site vicinity or need to provide off-site public stormwater conveyance improvements because the on-site private stormwater management system would include flow control and water quality treatment and would not increase the discharge of flows or change the quality of runoff from the site relative to existing conditions.

No Action Alternative

Under the *No Action Alternative*, it is assumed that the demand for increases in health care services in the region would continue but no additional development would occur on the MGSH campus. Existing campus would not be modified unless required to address maintenance issues of existing facilities.

Water

Under the *No Action Alternative*, there would be no new services or modifications made to the existing water system, except as required to address future maintenance issues for the system.

Sanitary Sewer

The City of Puyallup would continue to provide sanitary sewer service to the site for the existing facilities onsite under the *No Action Alternative*. Wastewater discharge and flows would remain the same since there would be no change to existing conditions. The capacity deficiencies referenced in the City's Comprehensive Sewer Plan and EIS analysis would remain the same unless they are resolved by planned capital improvements in the City's Comprehensive Sewer Plan CIP.

Stormwater

Under the *No Action Alternative,* no new development with its associated impervious surfaces is proposed. Therefore, the existing stormwater management conditions would remain as under existing conditions.

Cumulative Impacts

There are no known construction projects that are proposed adjacent to or in the immediate site vicinity of MGSH. Nonetheless, local construction projects could occur at the same time as construction of the proposed *Master Plan* projects based on the long-term time horizon for the *Proposed Master Plan* and *Alternative 1*. The potential for these projects to result in utility impacts would depend on the characteristics of the projects and their location in relation to existing public utility systems. These projects would be subject to local, state, and/or federal regulations and BMPs. As a result, no significant impacts to utilities (water, sanitary sewer, stormwater utilities) are anticipated from adjacent projects, in combination with the *Proposed Master Plan*.

Conclusion

Utility service for water, sanitary sewer and storm sewers to and from the site would continue to be provided by City of Puyallup. There are no known existing capacity issues in the public water, storm sewer and sanitary sewer systems that serve the site. There is one known stormwater flooding location located within the State Highway basin that is localized at an intersection due to lack of drainage infrastructure but drainage from the campus does not flow to this area.

Development under the Proposed Master Plan and Alternative 1 would generate additional demand for utilities (water demand and wastewater sewer) during operation of the project, with the Proposed Master Plan generating slightly more demand than Alternative 1 because one more new building (MOB B) is assumed to be developed with the Proposed Master Plan. Connections would be provided by MGSH to the existing public utility systems.

Water- The City of Puyallup has adequate water supply and treatment capacity within their existing water system to meet the estimated increase in water consumption for buildout of the Proposed Master Plan and Alternative 1. The existing City 8-inch water main (in an easement) on the eastern side of the campus would not provide the assumed required fire flow for the Proposed Master Plan and Alternative 1. This main would be replaced with a 12-inch water main and relocated (if applicable) to provide adequate fire flow for the new buildings and structures. To maintain adequate pressure in the system, the replaced City water main would be looped (a north-south main on the eastern side of the campus to connect to 12-inch water mains in 13th Avenue SE and 15th Avenue SE). If the replaced public water main is relocated outside its existing easement or City right-of-way, a new easement would be required per City requirements.

Sanitary Sewer- The City's WPCP has enough treatment capacity to meet the increased sanitary sewer flows from buildout of the Proposed Master Plan and Alternative 1. However, a portion of the City's 8-inch sewer main to the west of campus may not have adequate capacity to handle peak flows from full buildout of the Proposed Master Plan or Alternative

1, depending upon where new sanitary sewer flows from the site discharge to the public sewer system. This capacity issue could be addressed by: 1) upsizing the portion of the sewer main, or 2) the City implementing capital improvements that are planned for the sewer main under Highway 512 at 14th Avenue SE and constructing only Phase 1 of the Proposed Master Plan or Alternative 1, or 3) further engineering analysis and/or flow monitoring to identify existing peak flows from the campus facilities that could then confirm/revise assumptions for increase in peak flows from similar proposed building additions of the Master Plan

Stormwater- Temporary and permanent stormwater management systems would be installed onsite under the Proposed Master Plan and Alternative 1, in accordance with City of Puyallup standards and WSDOT's stormwater requirements. Points of discharge and drainage area to each of the two water resources, Clarks Creek and Puyallup River (State Highway Basin), would remain the same to avoid impacts to the downstream system. Stormwater flow control and water quality treatment would be provided to address the addition of new and replaced impervious surfaces and pollutants. In lieu of direct discharge to the Puyallup River, stormwater BMPs and flow control facilities would be provided for the MGSH areas within the State Highway Basin that flow into WSDOT's trunkline, per the City-State Interlocal agreement. For streets that require traffic mitigation due to the Proposed Master Plan and Alternative 1, and result in new and replaced hard surfaces, flow control and/or water quality treatment facilities would be provided if City thresholds are met.

No new demand for water, sanitary sewer and storm drainage utilities would be generated by the No Action Alternative, and no utility improvements would be required.

3.10.3 Mitigation Measures

The following measures have been identified to address the potential utility impacts from development of the *Proposed Master Plan*. These measures apply to all the alternatives unless otherwise noted. Legally-Required Measures are measures that are required by code, laws, or local, state, and federal regulations to address significant impacts. Measures Proposed as Part of Project are measures incorporated into the project to reduce impacts. Other Possible Measures are additional measures that could be implemented to address impacts but are not necessary to mitigate significant impacts.

Legally-Required Measures

Water

- A private water system (domestic, irrigation, fire), fire hydrants, and water mains would be installed onsite that would comply with the City of Puyallup Public Works Department regulations and City Fire Code.

- Connections to existing public water mains would be provided in accordance with City of Puyallup Public Works Engineering & Construction standards.

Sewer

- A private sanitary side sewer system would be installed on the MGSH campus that would comply with the City of Puyallup Public Works Department regulations.

- Side sewer connections to existing public sanitary sewer mains would be provided in accordance with City of Puyallup Public Works Engineering & Construction standards.

- Approximately 310 lineal feet of existing 8-inch sanitary sewer main pipe to the west of the site would need to be upsized to a minimum 10-inch pipe by MGSH to convey the peak sewer flows from full buildout of the *Proposed Master Plan* and *Alternative 1*, if all the increase in sewer flows discharge into this sewer system. If MGSH only constructs Phase 1 of the Master Plan and the City installs capital improvements that are planned for the sewer main under SR 512 at 14th Avenue SE in 2025, then these deficiencies in the 310 lineal feet of 8-inch line are not predicted, and the 8-inch main would not need to be upsized. Further analysis and discussion between the City and MGSH will be required to determine MGSH's responsibility for upsizing the downstream sanitary sewer conveyance system; if the capacity issues could be resolved by the proposed improvements in the City's Comprehensive Sewer Plan; and/or if further engineering analysis and sewer monitoring is needed to assess the predicted peak flows for the EIS alternatives.

Stormwater

- Temporary Erosion and Sediment Control (TESC) Best Management Practices (BMPs) and a Construction Stormwater Pollution Prevention Plan (SWPPP) would be implemented to address the potential for erosion/sedimentation with clearing, grading, and trenching for utilities, per City of Puyallup regulations.

- Permanent stormwater management systems would be installed onsite that would include flow control and water quality treatment that would comply with the current City of Puyallup code requirements for the adopted stormwater manual (Washington State Department of Ecology's Stormwater Management Manual for Western Washington 2019 edition), or the most recent edition adopted at time of construction, supplemented with requirements of Section 200- Stormwater Management of the City of Puyallup Public Works Engineering and Construction Standards (PWECS). MGSH campus areas that discharge into the city conveyance system that flows into the WSDOT trunkline in SR 512 would comply with both the City's and WSDOT's stormwater requirements, as required by the 1970 City-State Interlocal Agreement.

- Flow control/detention facilities would be provided for stormwater collected onsite from full buildout of the Master Plan prior to discharge into City storm sewers that flow to the two drainage resources (Clarks Creek and Puyallup River in the State Highway Basin). Flow control facilities would be designed to mitigate the runoff to be similar to existing conditions. This would avoid increasing existing condition flow rates into Clarks Creek and

WSDOT's trunkline that outfalls to the Puyallup River from the changes in land cover on campus.

- For streets that require traffic mitigation due to the *Proposed Master Plan* and *Alternative 1*, and result in new and replaced hard surfaces, flow control and/or water quality treatment facilities would be provided if City stormwater thresholds are met.

- New service storm drain pipe connections to existing public storm drain mains that discharge to Clarks Creek and State Highway basin would be provided in accordance with City of Puyallup Public Works Engineering & Construction standards.

- Stormwater management facilities would be designed to comply with wellhead protection and aquifer recharge regulation in accordance with the City's municipal code and adopted stormwater manual.

Measures Proposed as Part of Project

Water

- The City's existing 8-inch water main (in an easement) on the east side of the campus would be upsized to a 12-inch main to provide the assumed fire flow (4000 gpm for 4 hours) for the new buildings. If relocated, it would also maintain a loop system by reconnecting to the existing public 12-inch water mains in 13th Avenue SE and 15th Avenue SE to maintain adequate water pressure for the City's water system in the vicinity.

- The fire flow demands to the site would be confirmed at the time of building design. If the fire flow demand requirements for the campus increase from existing fire flow requirements, then further analysis would be required by MGSH's designers and the City to determine whether the existing 12-inch City water system is adequate to supply the needed fire flow.

3.10.4 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse utility impacts are anticipated for any of the EIS alternatives with implementation of the required and proposed mitigation measures listed above.

Chapter 4

ACRONYMS and ABBREVIATIONS

CHAPTER 4
ACRONYMS and ABREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ADD	Average Daily Demand
AM	morning
BMPs	Best Management Practices
Btu	British thermal unit
C	Commercial zoning designation
CCA	Washington State's Climate Commitment Act
cfs	cubic feet per second
CH_4	methane
City	City of Puyallup, Washington
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
CSS	Combined Sanitary Sewer Stormwater
CSWMP	Construction Soil and Water Management Plan
CY	cubic yards
dB	decibel scale
dBA	A-Weighted Decibel
DEIS	Draft Environmental Impact Statement
DI	Ductile Iron
DNR	Washington State Department of Natural Resources
DOE	Washington State Department of Ecology
DOH	Washington State Department of Health
DS	Determination of Significance
EB	eastbound
Ecology	Washington State Department of Ecology
EDNA	Environmental Designation of Noise Abatement
EIS	Environmental Impact Statement
EMS	Emergency Medical Service
EMT	Emergency Medical Technician
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Environmental Site Assessment
ESAP	Environmental and Sustainability Action Plan
ESHB	Engrossed Substitute House Bill
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FTE	full-time equivalent
FY	fiscal year
GHG	Greenhouse Gas Emissions
GMA	Growth Management Act
gpd	gallons per day

GPM	Gallons per Minute
GSF	Gross Square Feet
HSM	Highway Safety Manual
I-90	Interstate 90
IBC	International Building Code
ICC	International Code Council
IHSDM	Interactive Highway Safety Design Model
IJR	Interchange Justification Report
ISATe	Interchange Safety Analysis Tool Enhanced
$L_{2.5}$	Noise limits exceeded 2.5% of the time or 1.5 minutes in an hour
L_{25}	Noise limits exceeded 25% of the time or 15 minutes in an hour
$L_{8.3}$	Noise limits exceeded 8.3% of the time or 5 minutes in an hour
L_{eq}	Equivalent Sound Level
LID	Low Impact Design/Development
L_{max}	Maximum Noise Level
L_{ns}	Percentage of time noise limits are exceeded
LOS	level of service
M	Manufacturing zoning designation
MDD	Maximum Daily Demand
MED	Medical zoning designation
mgd	million gallons per day
MGSH	MultiCare Good Samaritan Hospital
MMBtu	million British thermal units
MOB	Medical Office Building
MOE	measure of effectiveness
mpg	miles per gallon
mph	mile(s) per hour
mtpy	metric tons per year
N_2O	nitrous oxide
NA	not applicable
NAAQS	National Ambient Air Quality Standards
NAC	Noise Abatement Criteria
NB	northbound
NEPA	National Environmental Policy Act
NFPA	National Fire Protection Association
NHS	National Highway System
NO_2	nitrogen dioxide
NOC	Notice of Construction
NOx	Nitrogen Oxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
O_3	ozone
OFM	Washington State Office of Financial Management
OHWM	Ordinary High Water Mark
OP	Professional office zoning designation
OSSM	Other On-site Stormwater Management
PDC	Planned Community Development zoning designation
PDR	Planned Residential Development zoning designation

PM	particulate matter
PM	evening
PM_{10}	particulate matter 10 microns or less
$PM_{2.5}$	particulate matter 2.5 microns or less
PMC	Puyallup Municipal Code
POTW	publicly owned treatment works
ppm	parts per million
PSCAA	Puget Sound Clean Air Agency
PSM	Process Safety Management
PSRC	Puget Sound Regional Council
PVC	Polyvinyl chloride – hard synthetic plastic pipe
PWECS	Public Works Engineering and Construction Standards
QC	Quality Control
RCW	Revised Code of Washington
RM	Multi-family residential zoning designation
ROW	right of way
RS	Single-family residential zoning designation
RTP	Regional Transportation Plan (PSRC, 2018)
SB	southbound
SE	southeast
sec/veh	seconds per vehicle
SEPA	State Environmental Policy Act
SIP	State Implementation Plan
SLM	Sound Level Measurement site
SO_2	sulfur dioxide
sq ft	square foot / square feet
SR	State Route
SWMMWW	WA Dept. of Ecology Stormwater Management Manual for Western Washington
SWPPP	Stormwater Pollution Prevention Plan
TDM	Transportation Demand Management
TESC	Temporary Erosion and Sediment Control
TNM	Traffic Noise Model
U.S. or US	United States
USGS	United States Geological Survey
VHD	vehicle hours of delay
VHT	vehicle hours traveled
VMT	vehicle miles traveled
vph	vehicles per hour
WAC	Washington Administrative Code
WB	westbound
WPCP	Water Pollution Control Plant
WSDOT	Washington State Department of Transportation
WSP	Washington State Patrol
WSTC	Washington State Transportation Commission
WTP	Washington Transportation Plan
WWTP	Wastewater Treatment Plant

Chapter 5
REFERENCES

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REFERENCES

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Chapter 6

DISTRIBUTION LIST

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DISTRIBUTION LIST

Tribes

Muckleshoot Tribe
Nisqually Tribe
Puyallup Tribe
Squaxin Island Tribe
Yakama Nation

Federal Agencies

U.S. Army Corps of Engineers

State Agencies

Washington State Department of Archaeology and Historic Preservation
Washington State Department of Commerce
Washington State Department of Ecology
Washington State Department of Fish and Wildlife
Washington State Department of Health
Washington State Department of Natural Resources
Washington State Department of Transportation

County

Central Pierce County Fire
Pierce County Planning
Pierce County Public Works
Pierce County Surface Water
Pierce County Transit
Pierce County Transportation Planning
Tacoma Pierce County Health Department

City

City of Edgewood
City of Fife
City of Puyallup
City of Sumner
City of Tacoma

Regional Agencies

Puget Sound Clean Air Agency
Puget Sound Regional Council
Puyallup School District

Media

Puyallup Herald

Libraries

Puyallup Public Library

Utilities

Comcast
Fruitland Mutual Water Co.
Puget Sound Energy
Valley Water District

Organizations

Master Builders Association of Pierce County
MultiCare Good Samaritan Hospital
Puyallup-Sumner Chamber of Commerce