

Lam Building B Addition Environmental Noise Model

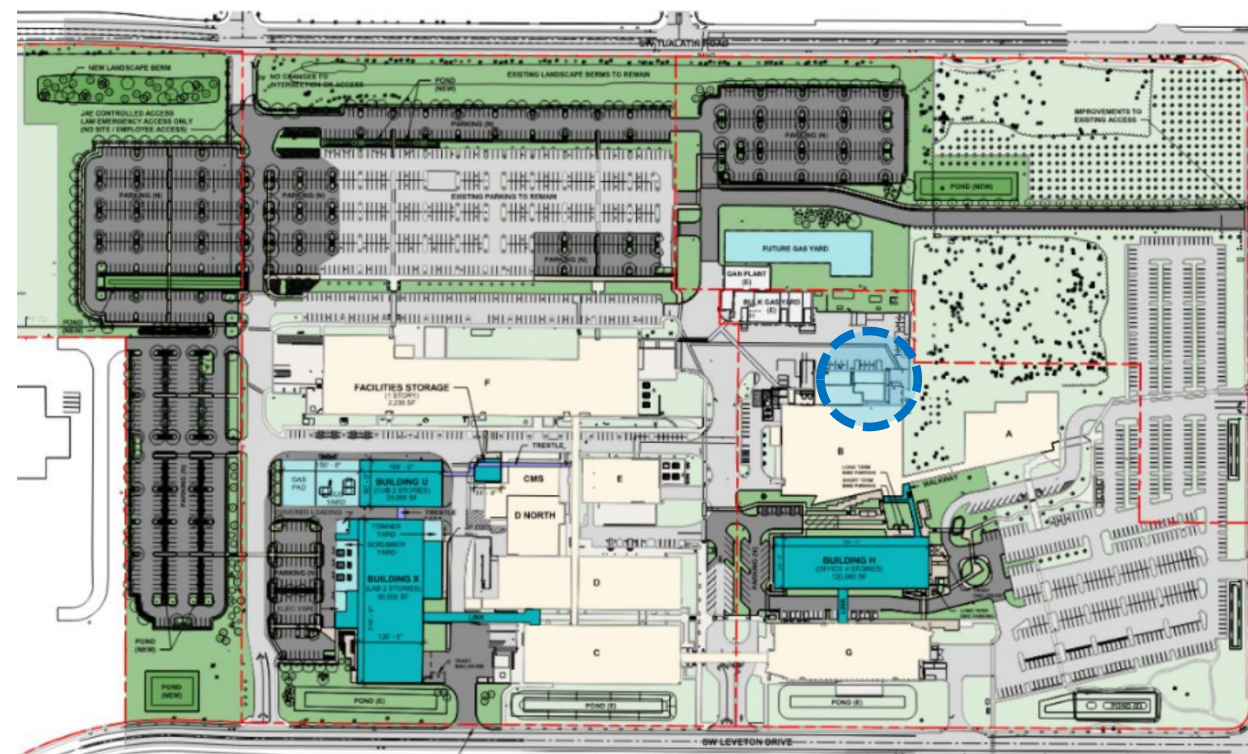
Presented to Mackenzie

CGA Project 26025.02

4 September 2026

Overview

- Noise modeling was conducted to evaluate the noise impact from new planned exterior noise sources associated with the new Building B Addition (dotted circle) on the Lam Tualatin campus.
- The modeling involved updating CGA's existing campus computer noise model to reflect the planned design for the TUX project, including noise sources associated with Buildings U, X, and H, and the Future Gas Yard.
- The predicted noise levels from the Building B Addition were then evaluated in combination with the predicted noise impact from the TUX project, to evaluate the overall noise impact from all planned new developments on the site.
- Predicted levels from the new developments were compared to, and combined with, the existing baseline background noise levels along the north property line – as measured by CGA in September 2025 – to evaluate the anticipated overall noise levels from continuous sources associated with the Lam campus.



Noise Modeling Methodology

- Analysis was conducted using a 3-dimensional computer noise model of the Lam campus and surroundings
- Calculations were performed using ISO Standard 9613-2 for predicting exterior noise propagation
- The calculation standard takes into account meteorological conditions, reflections, barriers, ground conditions, frequency content, etc.
- Predicted total noise levels = Predicted levels from new equipment + measured existing levels

Noise Sources

Exterior noise sources associated with the following planned developments were included in the model:

- The predicted noise impact from the TUX project
- Building X
- Building U and Yard
- Building H
- Future Gas Yard
- **Building B Addition**

All sources were modeled based on sound power data provided by the manufacturer, supplied by the project design teams.

Existing campus noise sources are not represented individually in the computer model, but are evaluated based on prior CGA site measurements

Noise from traffic, construction, and other transient noise is not included.

Predicted Noise Contours From All New Lam Developments

- Predicted contours are generated at 5 feet above ground level
- Locations 1 through 6 are previous CGA measurement locations, along the north property line
- The City of Tualatin Ordinance Limit of 50 dBA, which is applicable at noise-sensitive property lines, is shown as a bold contour.
- Noise from the new sources is predicted to be well below 50 dBA at all points along the north property line.

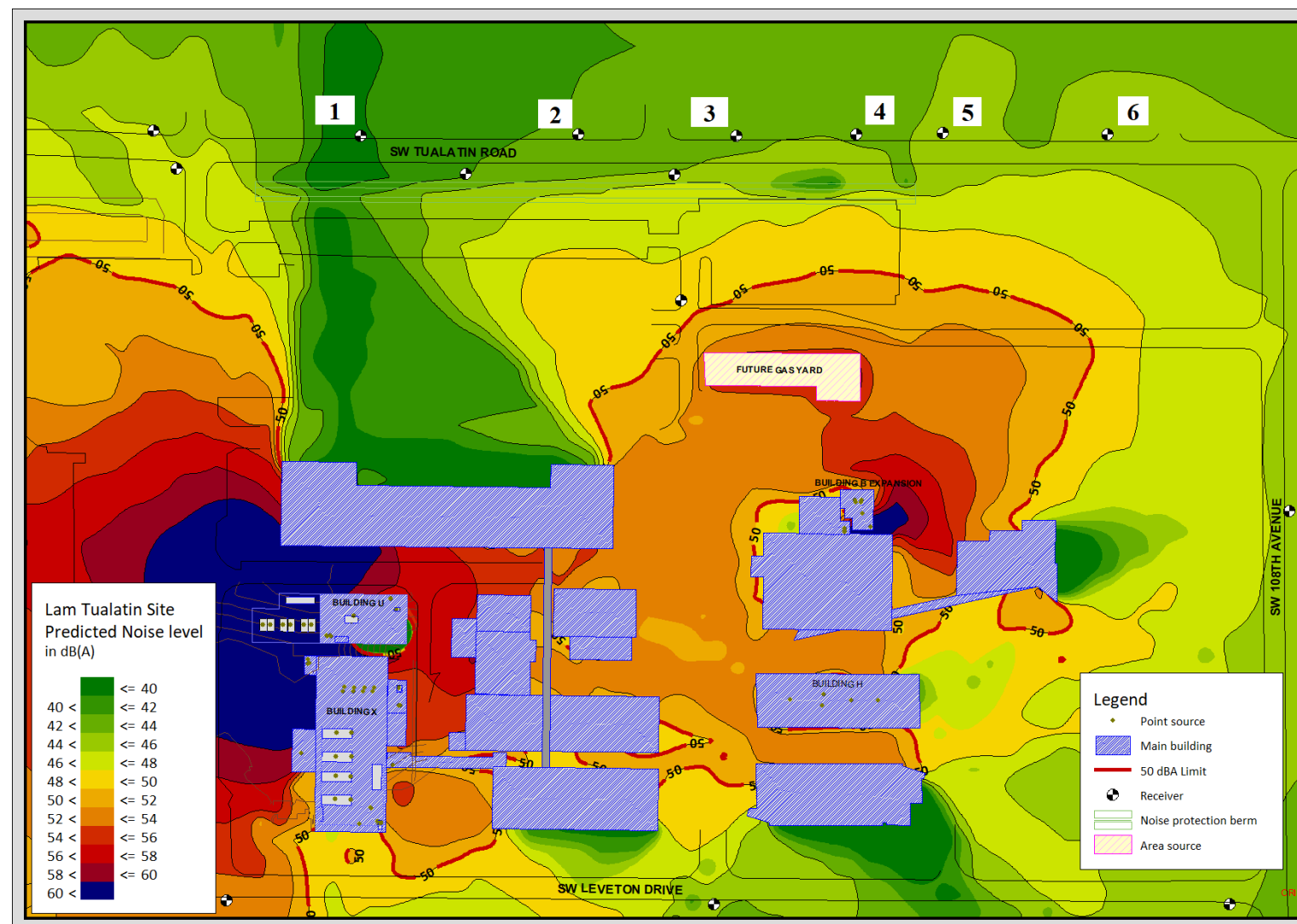
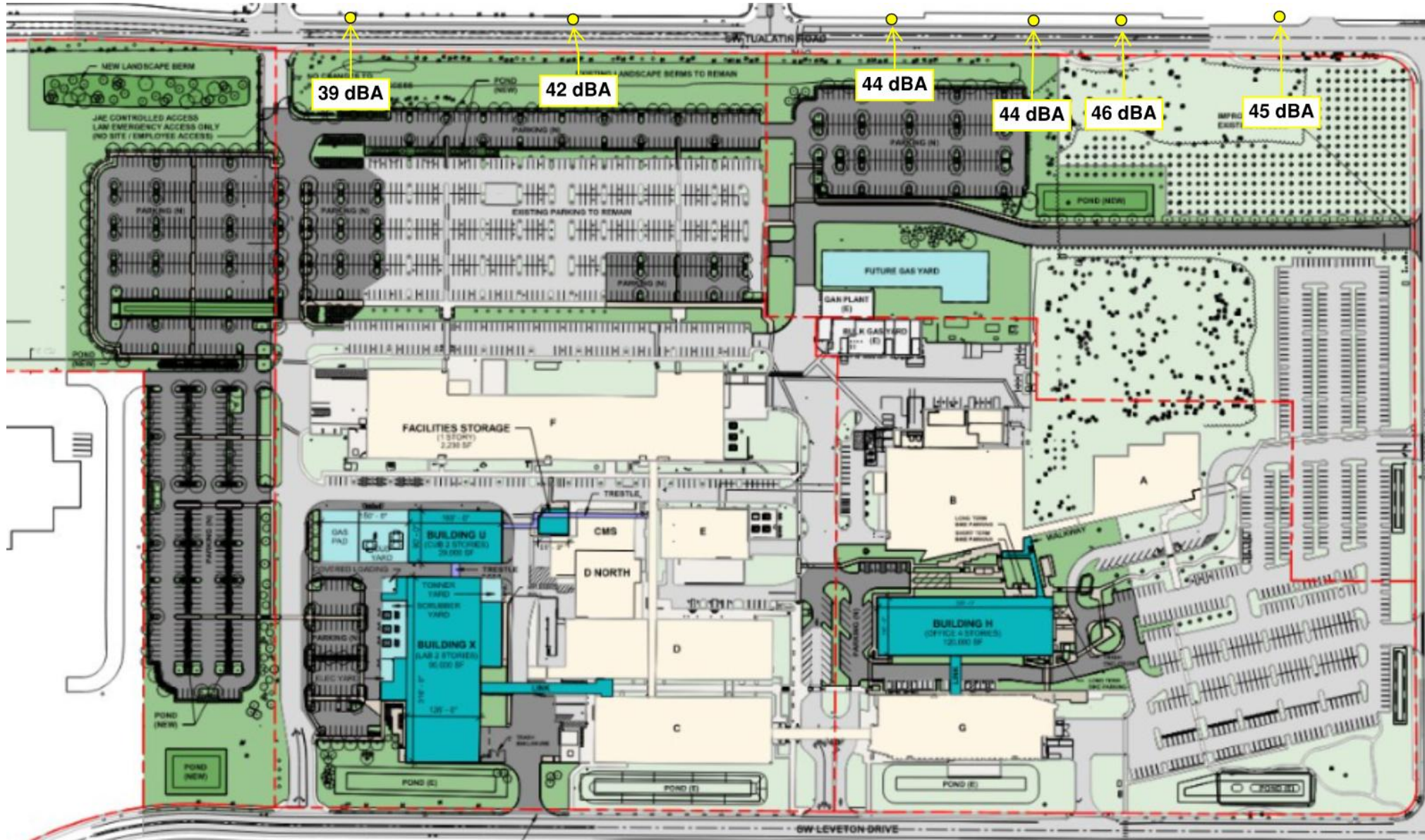
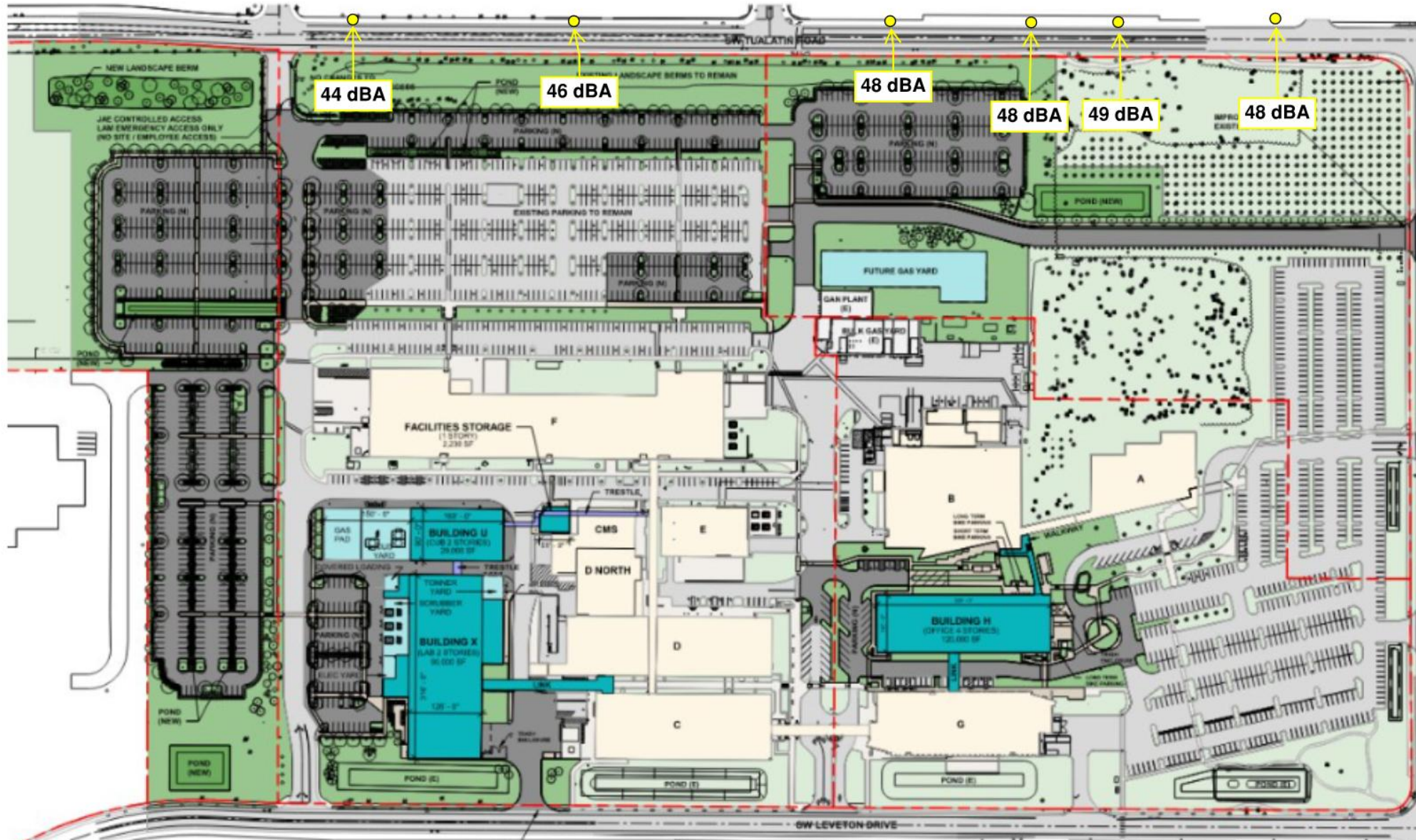


EXHIBIT B





Conclusions

- Noise from the new noise sources associated with all of Lam's planned developments are predicted to be well below the 50 dBA nighttime criterion
- New equipment associated with the Building B Addition is being designed such that the total campus noise levels will continue to comply with DEQ and City of Tualatin noise standards



FIRM DESCRIPTION

Colin Gordon Associates, founded in 1990, provides specialized consulting services in acoustics and vibration control. The company has grown steadily from a one-person firm to an experienced organization offering services world-wide. Currently the staff numbers fourteen employees, including support personnel, offering both breadth and a desirable degree of redundancy. Staff members include technical experts in architectural acoustics and noise control, industrial and environmental noise studies, structural dynamics and building vibration, computer modeling techniques, and dynamic measurements.

The firm is recognized nationally and internationally for its work in the design of low-vibration and low-noise environments for technological buildings. CGA serves a wide variety of organizations in the tech sector, including university research laboratories, the semiconductor and optoelectronics industries, the biotech, pharma, and healthcare communities, as well as the cutting-edge areas associated with nanotechnology. CGA provides to these sectors a selection of services ranging from sophisticated vibration and noise control to solutions of more conventional problems that may arise.

The firm also works extensively in the more traditional areas of building and environmental noise and vibration studies. The control of noise and vibration in buildings poses some unique problems ranging from the selection of design criteria to the development of design details and specifications for structural and mechanical systems. On many projects, the company serves as a member of the architect/engineer design team. On others, the company acts individually and directly with the owner.

CGA is based in a single office in Northern California as well as having several employees working remotely in various locations throughout the United States. The firm routinely provides services throughout the western hemisphere, the Middle East, Europe, and Asia.

Staff members have published extensively; a list of publications is available at the firm's website (www.colingordon.com). Collectively and individually, the staff of Colin Gordon Associates has a proven record of success in developing cost-effective solutions for a wide variety of noise and vibration problems.



Steven Lank

Acoustics and Vibration Consultant



Steven Lank has been with Colin Gordon Associates since 2010, and during that time, his work has focused upon noise and control for buildings of all types, including technology facilities, university laboratories, healthcare, office, and industrial facilities. His contributions involve environmental noise measurements, modeling and mitigation, HVAC noise control, room acoustics and speech privacy, structural dynamic analysis and evaluation, mechanical vibration control, and construction noise and vibration control and monitoring. He also oversees CGA's efforts in sustainable design, including LEED certification, as well as the firm's in-house instrumentation laboratory. He is a member of CGA's team of computer modelers, addressing environmental and room acoustics and HVAC noise modeling, as well as structural and groundborne vibration. He has provided acoustics and vibration consulting support, measurements, and evaluations on hundreds of projects, including many projects focused on environmental noise assessments, measurements, modeling, and mitigation designs.

Role at Firm

Vice President, Senior Consultant

Contact Information

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Work Location

Portland, OR

Education

BS Mechanical Engineering,
University of Virginia

Certification / Licenses

LEED AP

Member

National Council of Acoustical
Consultant (NCAC)

Acoustical Society of America (ASA)

Institute of Noise Control
Engineering (INCE)

American Society for Testing and
Materials (ASTM)

Institute of Environmental Sciences
and Technology (IEST)

Work History

2010 - Present

Consultant, then Senior
Consultant, then Vice President,
Colin Gordon Associates

2001-2010

Timber Truss Housing Systems

1999-2000

Facilities Planning and
Construction at the University of
Virginia Health Sciences Center

Steven regularly engages in research activities related to acoustics, noise, and vibration control, and has published a number of technical papers. He has also served on multiple committees related to acoustic standards and guidelines, including for the International Standards Organization (ISO), American Society for Testing and Materials (ASTM) and Facilities Guidelines Institute for the Design of Healthcare Facilities (FGI).

Prior to joining Colin Gordon Associates, Steven worked as a Project Engineer for Facilities Planning and Construction at the University of Virginia Health Sciences Center, where he oversaw and assisted with multiple lab and hospital renovation projects, and as a structural designer for Timber Truss Housing Systems, where he provided layout and design of support structures for roof and floor systems in residential and commercial construction projects. He obtained his B.S. in Mechanical Engineering at the University of Virginia in 2001, where he completed his undergraduate thesis on frequency analysis of guitar woods for the purpose of characterizing sound.