



**Lewiston City Council
WORK SESSION AGENDA
June 3, 2024 - 3:00 PM
Bell Building – Second Floor Conference Room – 215 D Street
Lewiston, Idaho 83501**

Seating will be available on a first-come, first-served basis. All others who wish to observe this meeting may watch and listen to the livestream on their own device(s) by visiting the City of Lewiston's website at cityoflewiston.org.

I. CALL TO ORDER

II. PLEDGE OF ALLEGIANCE

III. CITIZENS COMMENTS

This is an opportunity for citizens to address the Council on agenda items or other items they wish to bring to the attention of the Council. Citizens are encouraged to discuss operational issues in advance with the Mayor. In consideration of others wishing to speak, please limit your remarks to three minutes.

IV. PRESENTATIONS

- A. LEWISTON POLICE DEPARTMENT BADGE PINNING:** Promoting Corporal Tanisha Earl to the rank of Sergeant (Chief Kuzik)

V. ACTIVE AGENDA

- A. WW061 FY2023 EAST ORCHARDS SEWER PROJECT: PHASE 3 AMENDMENT #2:** Considering approving Amendment #2 to the Professional Service Agreement between the City of Lewiston and Merrick & Company for the East Orchards Sewer Expansion Phase 3 in the amount of \$85,500.00 and authorizing the Mayor to sign the amendment - Action Item (Public Works Director Johnson)

VI. DISCUSSION ITEMS

Please note that identifying an item as an "Action Item" does not require the City Council to vote on that item.

- A. MAIN STREET CORRIDOR IMPROVEMENTS PROJECT:** Update from Welch Comer & Associates, Inc. regarding the planned process for public engagement related to the preliminary design for the Main Street Corridor Improvements project - Action Item
- B. SHIPPING CONTAINERS:** Providing direction to the City Staff on how to proceed related to code enforcement of zoning code provisions prohibiting shipping/sea cargo containers - Action Item (City Planner Plaskon)

- C. **FIRE STATION HAZARD MITIGATION PLAN UPDATE:** Receiving an update on the Fire Station Hazard Mitigation Plan and providing direction to the Fire Chief and City Staff on next steps to remove other hazards at the City's fire station facilities - Action Item (Fire Chief Rightmier)
- D. **BERT LIPPS POOL:** Review and discussion of the Bert Lipps Pool study by Counsilman/Hunsaker & Associates, Inc. - Action Item (Councilor Spickelmire)
- E. **CITY OWNED PROPERTY:** Review and discussion about City-owned property for possible surplus or lease - Action Item (Councilor Liedkie)
- F. **CODE AMENDMENTS RELATED TO MUNICIPAL PARKING:** Discussion and consideration of changing the Lewiston City Code related to municipal parking lots - Action Item (Councilor Klein)

VII. UNFINISHED AND NEW BUSINESS

- A. **CITY COUNCILOR COMMENTS:** Comments shall not be related to an item currently before the City Council or an item that may come before the City Council in the foreseeable future, and shall be limited to comments, not discussion.
- B. **CITY BOARDS AND COMMISSIONS LIAISON UPDATES**
- C. **MAYOR COMMENTS**
- D. **AGENDA TOPICS:** - Action Item

VIII. ADJOURNMENT - Action Item

The City of Lewiston is committed to providing access and reasonable accommodation in its services, programs, and activities and encourages qualified persons with disabilities to participate. If you anticipate needing any type of accommodation or have questions about the physical access provided at this meeting, please contact the City Clerk's Office at least forty-eight (48) hours in advance of the meeting at 208-746-3671, ext. 6202.



SERGEANT BADGE PINNING

Please join us in congratulating
Cpl. Tanisha Earl on her promotion
to Sergeant!

Date: June 3, 2024

Time: 3:00 pm

Her badge pinning will take place
at the City Council Work Session



Bell Building
2nd floor conference room
215 D Street



Tanisha Earl



CITY COUNCIL MEETING AGENDA ITEM SUMMARY

ITEM TITLE WW061 FY2023 EAST ORCHARDS SEWER PROJECT: PHASE 3 AMENDMENT #2	AGENDA NO. V. A. AGENDA DATE: June 3, 2024
ITEM SUMMARY (Background, Discussion, Key Points, Recommendations, etc.) The City has partnered with the Urban Renewal District (URA) on the sewer expansion in the East Orchards. The City Council approved the current Professional Service Agreement with Mountain Waterworks, Inc. at the January 9, 2023, meeting. Since then, Mountain Waterworks, Inc. has merged with Merrick & Company. On May 22, 2023, the Council approved the Assignment of Professional Services Agreements to transfer the contractual rights and obligations from Mountain Waterworks to Merrick & Company. Public Works Director Dustin Johnson approved Amendment #1 in the amount of \$15,950 for additional design work to bring the Grelle Avenue segment from preliminary to final design after the URA approved the additional expense at their September 12, 2023, meeting. Amendment #2 aims to create a comprehensive rock depth map for the remaining project area not covered in the initial Agreement. In previous project phases, the initial design stage focused on mapping rock depths for selected sewer installation segments, some of which involved substantial rock excavation and related costs. By extending this mapping to the rest of the area, we can generate more accurate cost estimates earlier in the design phase and factor in rock depths when selecting segments for development. This approach streamlines the process and minimizes expenses by mobilizing specialized crews and equipment once for the entire area, rather than separately for each sewer design package. The anticipated benefits include significant time and cost savings throughout the East Orchards Sewer Project with a complete rock depth profile map. Additionally, the URA approved reimbursement of Amendment #2 at their February 13, 2024, meeting. The proposal from Merrick & Company totals \$85,500 for an estimated 16 days of work, with each additional day beyond the sixteen days costing an extra \$3,300.	
BUDGET IMPACT (Identify any or all impacts this proposed action would have on the City budget and/or personnel resources) The URA approved an \$85,500 contribution towards this project. A current year amendment will be required to recognize this contribution and to appropriate the funds. The URA did not approve the additional days, so anything over \$85,500 would be at the cost of the city. The City could request the additional funds if the work exceeds the 16 days from the URA but it	

would be at their discretion.

ACTION PROPOSED

Staff requests that the Council approve Amendment #2 to the Professional Service Agreement between the City and Merrick & Company for the East Orchards Sewer Expansion Phase 3. This amendment, for the amount of \$85,500.00, pertains to the Rock Boring Study. The staff also request authorization for the Mayor to execute Amendment #2.

Memo



Prepared For: Candida McHargue, Purchasing Coordinator

Prepared By: Joe Kaufman, PE, Engineering Project Supervisor: Wastewater-Stormwater

Date: May 15, 2024

Subject: WW06I East Orchards Sewer Project: Phase 3
Amendment 02 Approval

This memo requests approval of the attached Amendment 02 for the East Orchards Sewer Project: Phase 3. The City has partnered with the Urban Renewal District (URA) on sewer expansion in the East Orchards in recent trunk line and Cedar Ave phases. Both were completed with Council approval beginning in 2017. The overall project, including the areas covered in Amendment 02, is included in the current Wastewater Master Plan.

City Council approved the current Professional Service Agreement with Mountain Waterworks, Inc. at the 01/09/2023 meeting. The Public Works director approved Amendment 01 for \$15,950 of additional design work to bring Grelle Ave segment #7 from preliminary to final design after URA approved the addition expense in their 09/12/2023 meeting. URA approved reimbursing the expenses of Amendment 2 in their 02/13/2024 meeting.

Mountain Waterworks, Inc. merged with Merrick since the original agreement was approved. In the ownership change the contract was assigned to Merrick's name and the amendment is with Merrick. The same team of local professionals are performing the work after the ownership change.

Amendment 02 will map rock depths for future sewer designs in the rest of the project area not covered in the initial Agreement. In past phases of the project, the first stage of design has been rock depth mapping on segments selected for sewer installation. Some segments have significant rock excavation and related construction expenses. Mapping the remaining areas will allow for more accurate cost estimates earlier in the design process and allow rock depths to be considered when selecting segments to build out. It will also save money by only bringing in the specialized crew and equipment a final time for the area instead of for each sewer design package. It is anticipated that having a complete rock depth profile map will save time and money through the rest of the East Orchards Sewer Project.

Staff requests Council approval Amendment 02 for the Professional Services Agreement between the City and Merrick for WW06I FY2023 East Orchards Sewer Project: Phase 3 for \$85,500.

EC: Public Works Director; Utility System Manager; City Engineer; File

G:\Shared drives\Public Works CAPITAL\Wastewater\Wastewater Collections\WW06I East Orchards Sewer Expansion Phase 2\WW06I East Orchards Sewer Expansion Phase 3\Agreements\WW06I _Amendment 02 Memo.docx

Exhibit A-3

City of Lewiston East Orchards Sewer Project: Phase 3 (FY 2023)

AMENDMENT NO.2 – Rock Boring Study

Project Name:	East Orchards Sewer Project: Phase 3 (FY 2023)
Client:	City of Lewiston, Idaho
Client Project Manager:	Joe Kaufman, P.E.
Merrick & Company Project No.:	181.0270
Client Project Number:	WW056

SECTION 1 – Description

Background:

Merrick & Company provided the following sanitary sewer design plans for City review on August 4, 2023.

1. Burrell Avenue (1800/1900 Block) & 20th Street (Grelle Ave. to Birch Ave.) Design Plans and Contract Manual
 - a. Segment: 1, 17, 18, 19
 - b. ±2,503 lineal feet
2. Grelle Avenue Preliminary Design Plans (20th Street to 22nd Street)
 - a. Segment: 7
 - b. ±1,267 lineal feet
3. 20th Street Future Design Plans (Birch Avenue to Ripon Avenue)
 - a. Segment: 20
 - b. ±647 lineal feet

These scope of services were performed under the professional services agreement executed between Merrick & Company and the City of Lewiston dated January 9th, 2023.

Purpose:

This amendment is intended to modify the scope of work to include the following:

1. Complete a rock boring probe study for the purposes of determining the depth to refusal. The location of the bore within the study area will be determined by Merrick & Company performing a conceptual sanitary sewer routing plan. Just prior to boring, the location of the proposed bore will be staked out by Merrick & Company. The bore contractor will then drill through either pavement or natural ground to refusal or a max depth of 18 feet. When drilling, the contractor will record the depth of bore or refusal. Upon completion, Merrick & Company will obtain a GPS



horizontal and vertical location of the bore surface to deduct the bore depths that can later be applied to the sanitary sewer design plans and placed on the profiles. The areas within East Orchards to bore for rock are provided in the table below.

Segment	Street	From	To
2	Burrell Avenue	20 th Street	±Lindsey Creek Road
3	Cedar Avenue	19 th Street	20 th Street
6	Grelle Avenue	Btwn. 19 th and 20 th Streets	20 th Street
12	Powers Avenue	20 th Street	21 st Street
13-14	Birch Avenue	20 th Street	22 nd Street
15-16	Ripon Avenue	20 th Street	22 nd Street
21-22	21 st Street	Powers Avenue	Ripon Avenue
23, 24, 25, 27, 28	22 nd Street	Cedar Avenue	Hemlock Avenue
29-31	23 rd Street	Cedar Avenue	Powers Avenue
5	Cedar Avenue	22 nd Street	23 rd Street
8	Grelle Avenue	22 nd Street	23 rd Street
10, 11	Alder Avenue	21 st Street	23 rd Street

SECTION 2 – Amended Scope of Professional Services

Merrick & Company’s professional services for the amendment will generally be limited to the Tasks as outlined below. Merrick & Company will work closely with the City to collaborate with and streamline professional services to meet City priorities and objectives. All other tasks not defined to implement and complete the projects are assumed to be the responsibility of the City.

TASK 01: Project Management

Engineer will complete the following subtasks as defined below.

Task 01A: Preliminary Management and Closeout Services

- i. Set up project financial controls and reporting systems.
- ii. Hold routine internal project planning meetings and develop review risk register.
- iii. Track staff resources and implement financial controls.
- iv. Conduct monthly progress meetings.
- v. Complete monthly City invoicing and deliver progress reports to include project status, progress, schedule, and budget forecast.
- vi. Communicate and coordinate with City subconsultants (if any) and internal City staff for rock probes.

Task 01B: Quality Assurance/Quality Control

- i. Complete internal reviews of project deliverables.
- ii. Complete internal review of City deliverables, and facility design elements.
- iii. Hold internal meetings for quality assurance and to refine subsequent quality control processes.

TASK 02: Preliminary Siting and Routing

Engineer will complete the following subtasks as defined below.

Task 02: Preliminary Siting and Routing

- i. Review existing utility routing.
- ii. Collect and review available rock probe data.
- iii. Collect site topographic information, as needed, to determine rock probe location.
- iv. Complete conceptual sanitary sewer routing plan.

Assumptions:

- City to provide existing rock probe data as necessary.

TASK 03: Rock Boring

Engineer will complete the following subtasks as defined below.

Task 03: Manage Bore Subconsultant Services

- i. Determine scope of services and limits of work to obtain desired result of probe study.
- ii. Provide services of a competent subconsultant bore contractor.
- iii. Schedule boring work.
- iv. Provide subconsultant mapping and stakeout of bore locations based on conceptual sewer routing plan.
- v. Answer and respond to subconsultant questions.

Assumptions:

- City to provide traffic control.

SECTION 3 – PROJECT BILLING AND SCHEDULE

City shall pay Merrick & Company for the identified services in Section 2 as follows:

- Task 01: For Project Management, a Lump Sum of \$2,500
- Task 02: For Preliminary Siting/Routing, a Lump Sum of: \$11,500
- Task 03: For boring/probe work, a Lump Sum of: \$71,500
 - Should boring/probe work extend beyond 16 days, a daily rate of \$3,300 will be applied. This rate includes labor, equipment, and indirects.

Merrick & Company may alter the distribution of compensation between individual tasks to be consistent with services actually rendered with City approval.

IN WITNESS WHEREOF, the Parties have executed this Agreement on the day and year written below.

DATED this _____ day of _____ 2024.

CITY OF LEWISTON

By: _____
Dustin Johnson, Public Works Director

ATTEST:

Merrick & Co.

By: Stuart Hurley, P.E.

Title: Idaho Water Lead



On this 17 day of March 2024, before me, a Notary Public, personally appeared Stuart Hurley, P.E., known or identified to me as Stuart Hurley, P.E. of Merrick & Co., and stated he has the authority to execute this instrument on behalf of Merrick & Co., and did execute this instrument on behalf of Merrick & Co.

Notary Public for the State of Idaho

Commission Expires 12/22/2025



CITY COUNCIL MEETING AGENDA ITEM SUMMARY

ITEM TITLE MAIN STREET CORRIDOR IMPROVEMENTS PROJECT	AGENDA NO. VI. A. AGENDA DATE: June 3, 2024
ITEM SUMMARY (Background, Discussion, Key Points, Recommendations, etc.) This is an update for the Council from the Consultant, Welch Comer, selected to provide a preliminary design and estimate for the Main Street Corridor Improvements project (primarily consisting of Main Street from the Blue Bridge to 11th Street). The Consultant plans to review the planned process for public engagement and how it will influence the preliminary design. See attached memo from the Consultant.	
BUDGET IMPACT (Identify any or all impacts this proposed action would have on the City budget and/or personnel resources) This update does not impact the budget.	
ACTION PROPOSED None.	

Memorandum

TO: LUKE ANTONICH, P.E. CITY ENGINEER
FROM: PHIL BOYD, P.E.
PRJ. #: 48003
SUBJECT: MAIN STREET CORRIDOR IMPROVEMENTS
DATE: MAY 24, 2024
CC:

Luke: Thank you for the opportunity to provide the City Council with a brief overview of the Main Street Corridor Improvement Preliminary Design Process and answer any questions they may have. I would also like to solicit any specific thoughts council members may have about achieving the project objective of revitalizing Main Street's infrastructure to develop a people-centric downtown that stimulates private investment.

I am planning to provide the Council with a brief review of our planned process, with a focus on describing the public engagement process and how it will help inform the project design development. I anticipate a 15 to 30-minute presentation/discussion with the Council.

Please let me know if you have any other specific areas you would like me to prepare to address, and I will be happy to add that to my presentation.

CITY OF LEWISTON

MAIN STREET CORRIDOR IMPROVEMENTS

City Council Work Session

June 3, 2024

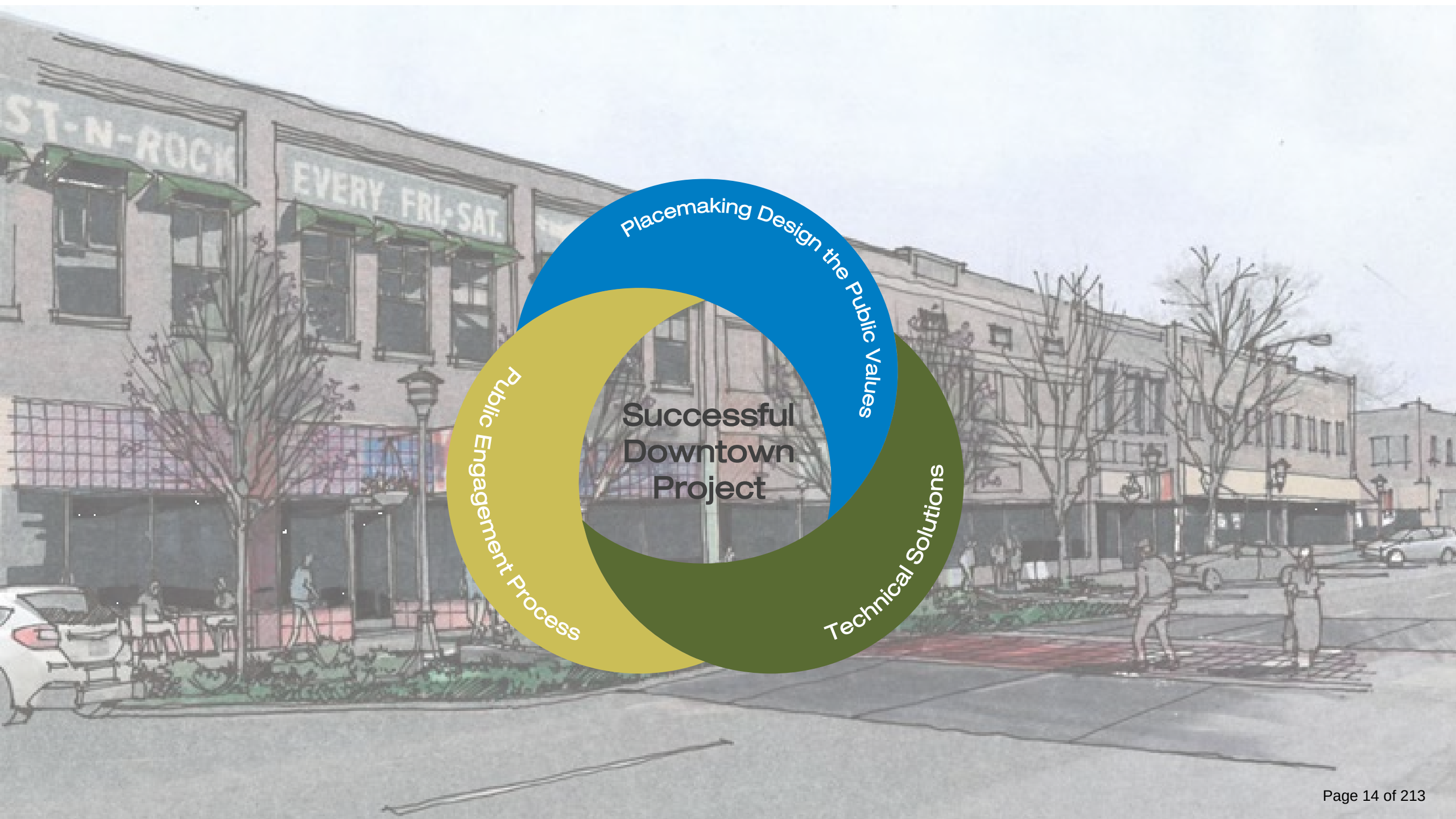
WELCH-COMER
ENGINEERS | SURVEYORS



GGLO

Bernardo Wills

WITH RECRAFT, KITTELSON & ASSOCIATES, QUALITY COUNTS, AND GEOPROFESSIONALS, INC



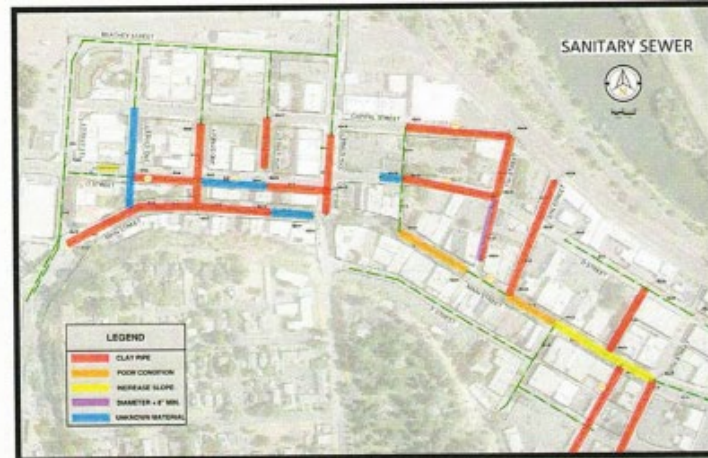
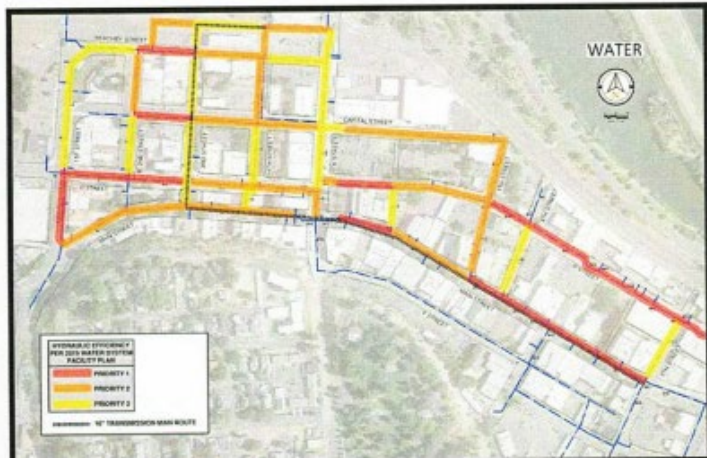
Team Roles

- **Welch Comer Engineers** – Design, Project Management, Public Engagement
- **GGLO** – Urban Design, Public Engagement
- **BWA** – Landscape Architecture, Public Engagement
- **ReCraft Creative** – Public Engagement

Transforming Downtown

Creating a Desirable Place for People and Businesses

Providing Safe, Reliable Infrastructure



PROJECT OBJECTIVE

Develop a community centric placemaking design and demonstrate downtown's critical infrastructure needs that will generate public enthusiasm for a G.O. Bond vote.

Project Process

10% Concept Development

- City Staff Mtg #1 (Kickoff)
- Steering Committee Mtg #1
- Property/Business Owner Interviews
- Business/Property Owner Mtg #1
- City Staff Mtg #2
- ITD Mtg #1
- City Council Presentation #1

50% Concept Development

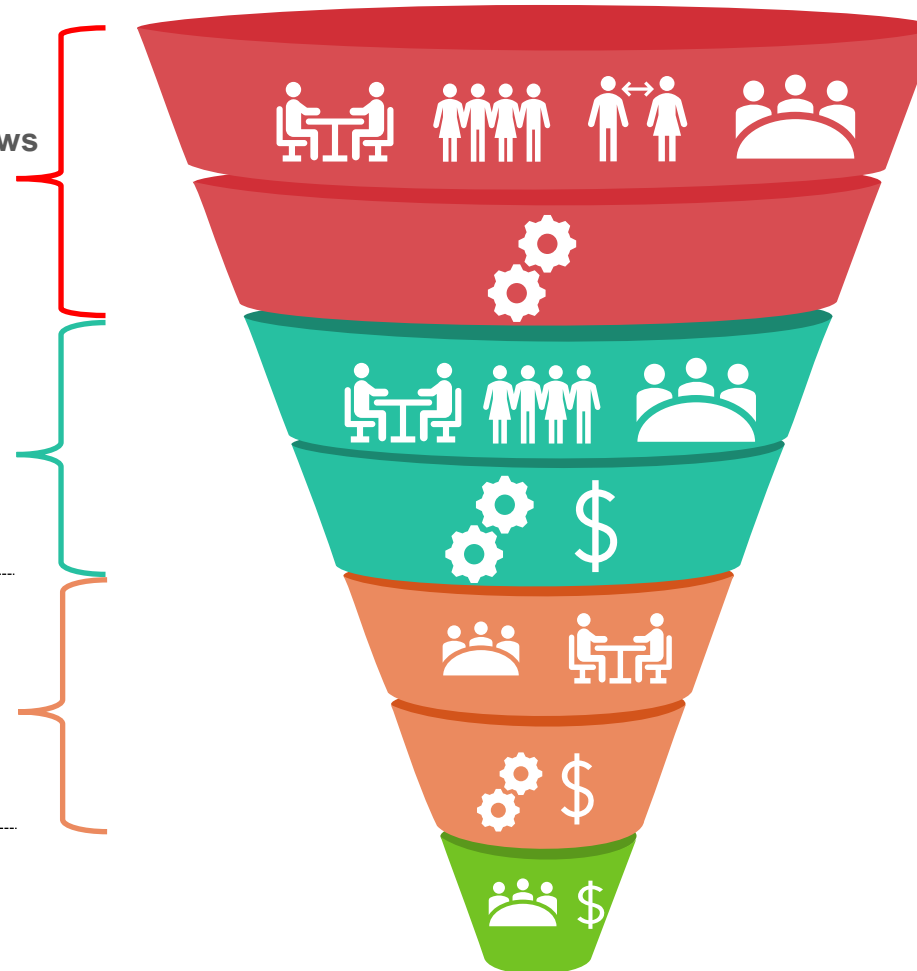
- City Staff Meeting #2
- City Council Presentation #2
- Steering Committee Mtg #2
- Business/Property Owner Mtg #2
- General Public Meeting #1

90% Concept Development

- City Council Presentation #2
- Steering Committee #3
- General Public Meeting #2

100% Concept Development

- City Council Presentation #3



TRANSITION TO FINAL DESIGN PHASE

Project Process

Review Design Process & Initial Thoughts



Present 10% Concepts & Receive Feedback



Present Concepts & Receive Direction



Present 50% Concepts, Cost & Receive Feedback



Present 50% Concepts & Receive Feedback



Present 50% Concepts & Answer Questions



Present 90% Concepts & Receive Direction



Present 90% Concepts & Achieve Consensus



Present 90% Concepts & Answer Questions



Present 100% Concepts & Receive Unanimous Vote



Phase	Meeting Name	Day	Date
Initial Concepts	City Staff Kickoff Mtg #1	Tuesday	5/7/2024
	City-WC Team Meetings (Video)	Thursday	5/23/2024
	City-WC Team Meetings (Video)	Thursday	6/6/2024
	City-WC Team Meetings (Video)	Thursday	6/20/2024
	Steering Committee #1	Tuesday	6/25/2024
	City-WC Team Meetings (Video)	Thursday	7/11/2024
Concept Validation and Refinement	City-WC Team Meetings (Video)	Thursday	7/25/2024
	ITD Meeting #1	Monday	7/29/2024
	Business/Property Stakeholder Meeting #1	Tuesday	7/30/2024
	City-WC Team Meetings (Video)	Thursday	8/8/2024
	City Council Meeting #1	Monday	8/12/2024
	City Staff Meeting #2	Monday	8/19/2024
Refine Concept & Estimates	Steering Committee #2	Tuesday	8/20/2024
	City-WC Team Meetings (Video)	Thursday	8/29/2024
	Business/Property Stakeholder Meeting #2	Tuesday	9/10/2024
Public Input	City-WC Team Meetings (Video)	Thursday	9/26/2024
	General Public Meeting #1	Tuesday	10/1/2024
	City-WC Team Meetings (Video)	Thursday	10/10/2024
Refine Concept & Estimates	City Council Meeting #2	Monday	10/14/2024
	City-WC Team Meetings (Video)	Thursday	10/17/2024
	Steering Committee #3	Tuesday	10/22/2024
Final Refinement & Publication	General Public Meeting #2	Thursday	10/24/2024
	City-WC Team Meetings (Video)	Thursday	11/7/2024
	City Council Meeting #3	Monday	11/25/2024
	City-WC Team Meetings (Video)	Thursday	11/28/2024

Public Engagement Overview

Objective: Provide a consistently accurate narrative.



Broad Public

- Booths at community events
- Subject-specific community workshops
- Project website, custom social media, eNewsletter
- Explanatory videos tied to digital surveys



Targeted Engagement

- Steering Committee
- Stakeholder outreach
- Policy issue workshops

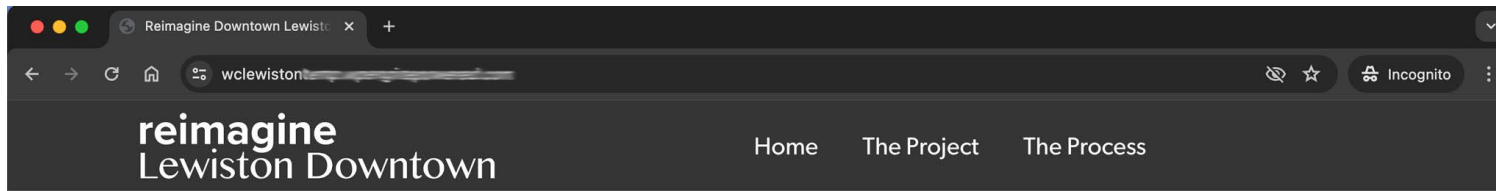


Elected Officials

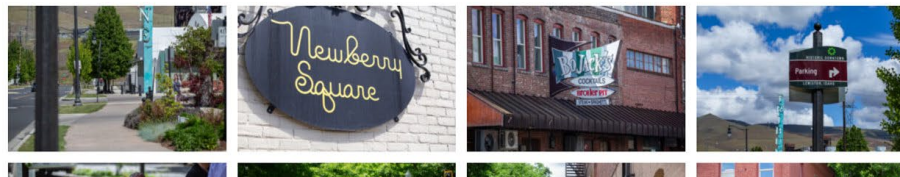
- Storybook documenting process
- Council presentations

Results

- ✓ Accurate community understanding of project
- ✓ Stakeholders participate in the process
- ✓ Understanding of community's support for next steps
- ✓ Methodology compliant with potential funding sources



The city of Lewiston is beginning a multi-year process to engage the community in considering a major renovation of downtown streets and utility systems.



The city of Lewiston is beginning a multi-year process to engage the community in considering a major renovation of downtown streets and utility systems.



Lewiston Main Street Improvements Public Engagement Overview

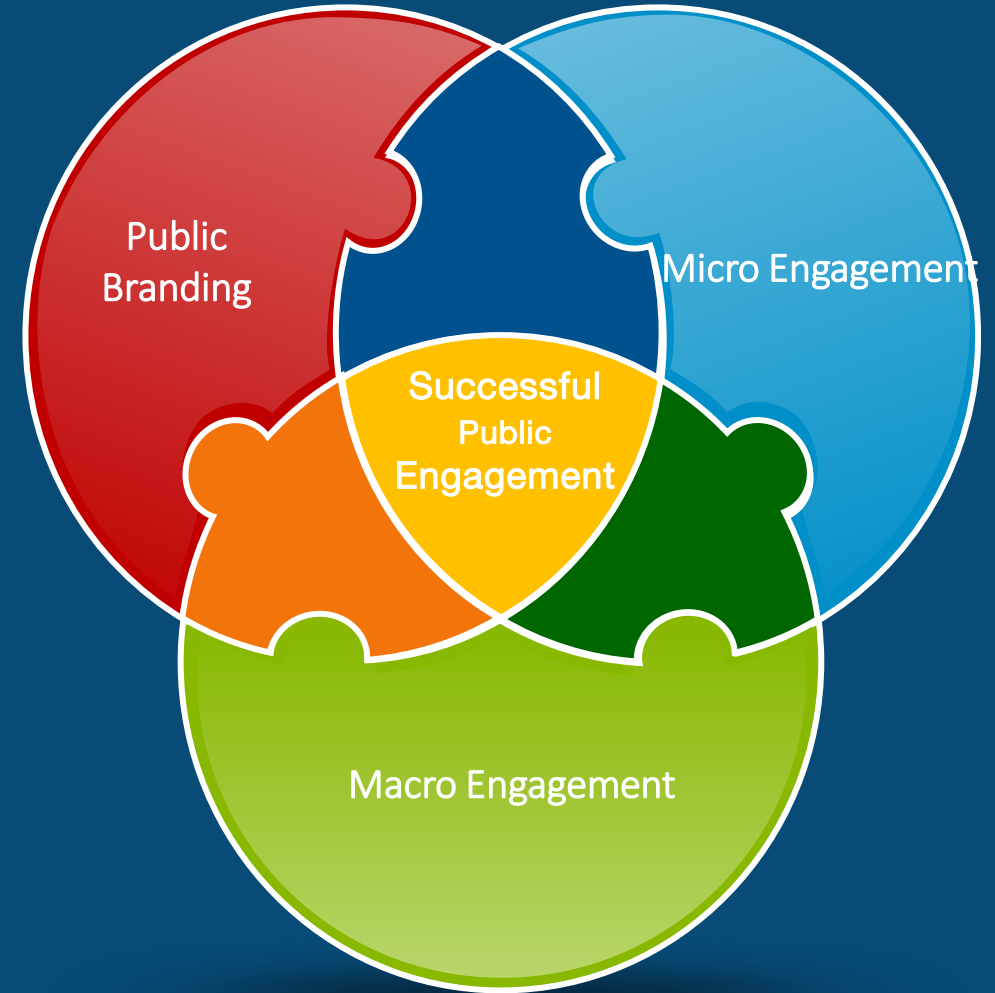
Objective: Provide a consistently accurate narrative.

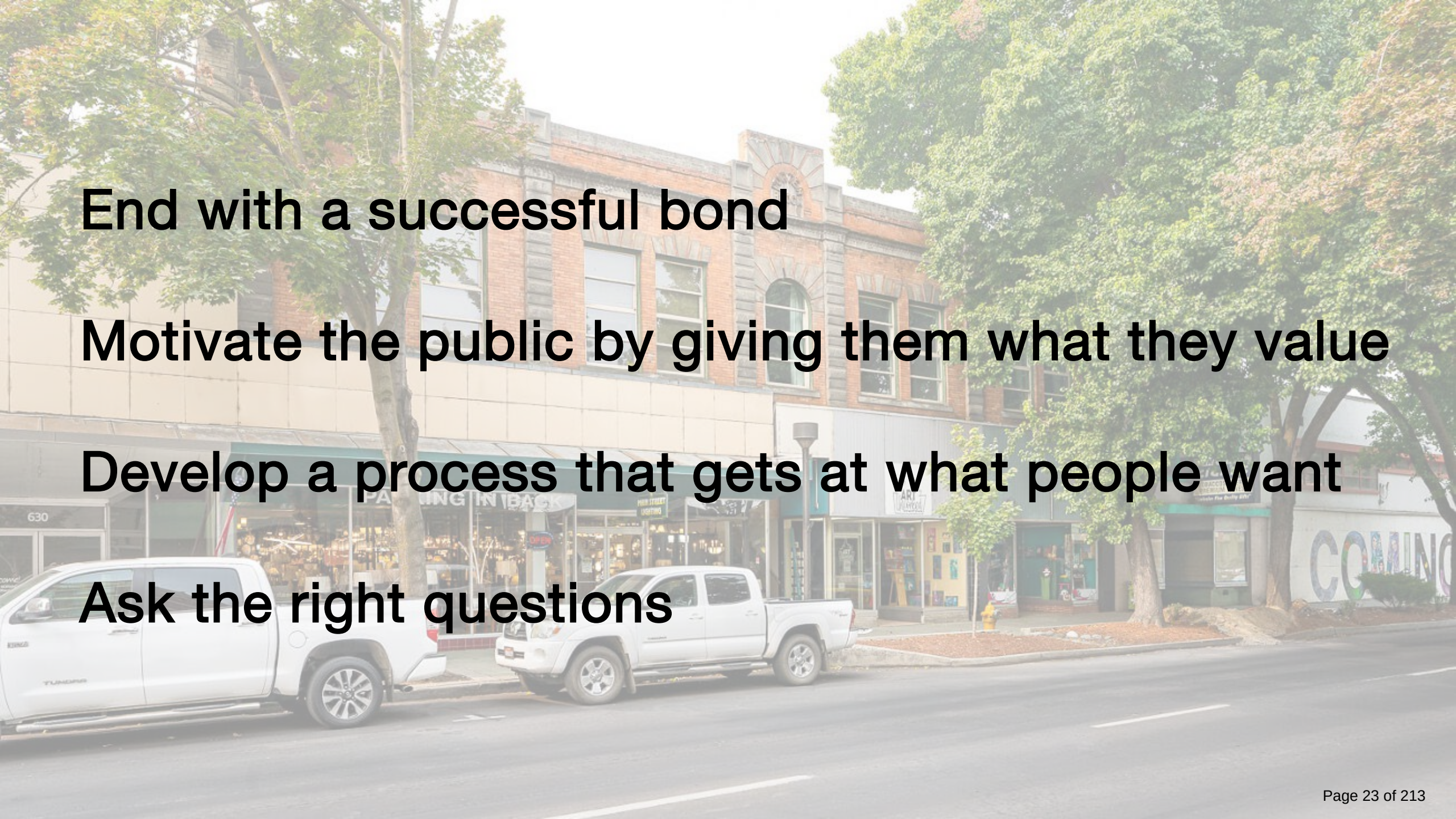
Why...is this project a priority...

What...are we trying to accomplish...

How...

- Stand-alone project branding
- Project website
- Original explainer videos
- Social media channels



A photograph of a street scene. In the background is a two-story brick building with several windows. In front of it is a single-story building with large glass windows, possibly a shop. Two white pickup trucks are parked on the street in front of the shop. Large trees with green and some yellowing leaves are on the right side of the street. The text is overlaid on the left side of the image.

End with a successful bond

Motivate the public by giving them what they value

Develop a process that gets at what people want

Ask the right questions

Thank You.



CITY COUNCIL MEETING AGENDA ITEM SUMMARY

ITEM TITLE SHIPPING CONTAINERS	AGENDA NO. VI. B. AGENDA DATE: June 3, 2024
ITEM SUMMARY (Background, Discussion, Key Points, Recommendations, etc.) City Staff seeks direction from City Council on code enforcement for zoning code provisions prohibiting shipping/sea cargo containers. See related memo from City Planner, Joel Plaskon for details.	
BUDGET IMPACT (Identify any or all impacts this proposed action would have on the City budget and/or personnel resources) Budget impact resulting from direction and action on this matter are unknown, at this time. If proactive enforcement of the current city code provisions is pursued, significant impact could occur to the Community Development Department's Code Enforcement Division.	
ACTION PROPOSED Direct staff to pursue the most appropriate option (see the memo referenced herein above) chosen by the Council.	

Memo



TO: Mayor and City Council
FROM: Joel D. Plaskon, City Planner, AICP
CC: Shannon Grow, Community Development Director
DATE: May 10, 2024
RE: Shipping Containers

In 1994 Lewiston City Code (LCC) was amended to prohibit the use of prefabricated containerized transport units (shipping containers) as “accessory buildings or storage buildings” in all zoning districts, except the Industrial, Port, and Airport Zones. This prohibition continues today, pursuant to LCC Sec. 37-129. The related code provisions were established primarily due to the “unsightliness” of these units. Over time, the demand for shipping container use as detached accessory buildings for storage purposes has increased. Many residents and businesses have placed them on their properties, despite their prohibition by LCC.

As with most of our code enforcement, the remediation of these violations is reactive, i.e. by response to complaints. Although this particular code enforcement matter is a very minor part of the current workload, the proliferation of shipping containers as storage buildings deserves attention. Code Enforcement staff estimates the number of shipping containers being used for storage buildings in the city to be well into the hundreds, and they have been observed in virtually every zoning district in the city. When a prominent code violation circumstance has been observed, proactive enforcement should be considered. However, such enforcement has significant implications.

As a matter of policy, it is good practice to reconsider code provisions that prohibit or prevent community members from doing something that is in high demand, especially when they do it despite prohibition. Out of interest, Community Development staff has polled the cities of Clarkston, Post Falls, Eagle, Moscow, Boise, Pullman, Kuna, and Ammon, and only Eagle prohibits the use of shipping containers as detached accessory buildings.

In light of these circumstances, Community Development staff is asking the City Council for direction on the possibility of either:

- 1) leaving these circumstances as they are, i.e. keep the prohibition in place and enforce violations on a reactive (in response to complaint) basis;
- 2) proactively enforcing the prohibition;

- 3) amending LCC to allow the use of shipping containers as detached accessory buildings by removing the prohibition provisions from the Zoning Code.

Should the Council choose option 3, then then it needs to direct staff to begin the public hearing process to amend the Zoning Code. The Planning and Zoning Commission will conduct a public hearing and make a recommendation on the matter, then the City Council will conduct a public hearing and render a decision to approve or reject the code amendment.



CITY COUNCIL MEETING AGENDA ITEM SUMMARY

ITEM TITLE FIRE STATION HAZARD MITIGATION PLAN UPDATE	AGENDA NO. VI. C. AGENDA DATE: June 3, 2024
ITEM SUMMARY (Background, Discussion, Key Points, Recommendations, etc.) The fire station facilities have been assessed for potential hazards that pose risks to personnel and operations. The hazards identified include structural issues, code compliance, hazardous materials, and other safety concerns. It is essential to address these issues to maintain a safe working environment and ensure the fire department can effectively serve the community.	
BUDGET IMPACT (Identify any or all impacts this proposed action would have on the City budget and/or personnel resources) Assigned Building Fund Allocation	
ACTION PROPOSED Provide clear directions on the next steps for the Fire Chief and City Staff to take appropriate actions to remove the hazards at the fire station facilities, ensuring the safety of the fire department personnel and the continued effectiveness of their operations.	

Lewiston Fire Department

Hazard Mitigation Analysis



April 24, 2024



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Mechanical Systems Report	



Overview

Architects West was retained by the City of Lewiston Fire Department to conduct a hazard mitigation analysis of three existing fire stations and provide recommendations for capital projects to address air quality and cross contamination, code and operational deficiencies, and best practices for firefighter health and safety.

Study Objectives:

1. Review previous studies to verify findings and recommendations.
2. Evaluate existing conditions relative to hazard mitigation, air quality, life safety, and code compliance.
3. Identify deficiencies in building materials, layout, and systems for best practices.
4. Propose solutions to identified station deficiencies. As appropriate, proposed multi-tier solutions ranked by cost and feasibility.

The subject facilities were inspected on April 2, 2024, with representatives from Lewiston Fire Department, Fire Marshal, City of Lewiston Facilities and Risk Management, and the mechanical engineering firm, MSI Engineers.

The summary references the Fire Station Analysis performed by Longwell-Trapp Architects, TCA Architecture-Planning-Design, and Berk, dated April 30, 2020. Also evaluated were the findings of the Limited Indoor Air Quality Diesel Particulate Report provided by PBS Engineering and Environmental, Inc., dated November 2023.

Please note that proposed solutions that involve revisions to the building layouts are conceptual starting points to convey the nature of the solutions needed, and have been generated without participation from the Lewiston Fire Department. In the event of a capital project, these solutions would be refined and finalized with input from appropriate parties. Also note that there are other functional improvements that could be implemented in all stations that would be beneficial to operations and response times, but are not directly applicable to hazard mitigation. These other solutions have not been considered in the scope of this report.

The following summarizes the findings of the report evaluation and facility conditions.

Fire Station 1 300 13th Street, Lewiston, ID

Construction Type (2018 IBC): V-B (non-sprinklered)
Occupancy Classifications: B, R3, S2, A3
Residential occupancy (R3) based on congregate dwelling
with 10 or fewer occupants.
Allowable Area: 7,000 SF non-separated
Actual Area: 7,762 SF, with 1,173 basement = 8,935 SF



Deficiencies:

Overall, we find the condition assessment from April 2020 to be relevant and applicable to the deficiencies observed. In addition to that assessment, the following items were also noted:

1. Building envelope does not meet energy efficiency standards in most respects. This would include wall and roof assembly R-values, glazing performance, door assemblies, system zoning. Envelope impacts heating and cooling function and operating expense.
2. While the building may have met applicable standards at the time it was built, it would not be allowed under current codes as either a separated or non-separated use.
3. Building systems: Refer to appended mechanical systems report at the end of this document.

The critical aspects to improving the health and well-being of firefighters include the following:

Finishes:

For infectious disease and contaminants control, porous and fibrous materials should be replaced throughout the clean areas. All carpet and wood surfaces should be replaced with cleanable surfaces. Grouted tile is not ideal in main living spaces, although it can be acceptable in clean-side bathrooms. This update is critical given the direct connection of living spaces to dirty areas.

Warm Zoning:

Best practices require a transition between dirty (hot) and clean (cold) zones, typically accomplished with warm zone pressurized vestibules that include boot wash and hand wash stations. Typical living activity should not require moving through a dirty zone between common uses. The apparatus bays currently have direct access into the kitchen and dayroom through a poorly sealed door that doesn't latch. Dorms and crew bathrooms are likewise accessed through a single door that opens directly into the bays. Crew members must pass through the bay alcove to move between dorms/bathrooms and the kitchen/dayroom. This activity causes both doors to cycle frequently in the course of basic living, increasing the passage of dirty side air and contaminants into both clean spaces. On the opposite (north) side of the bays, the Battalion Chief (BC) dorm is accessed directly off the dirty zone, and requires passing through the dirty zone to get to the nearest bathroom – which also directly opens to the dirty zone. This separate restroom is also currently used as the women's bathroom, due to its shower and privacy, which requires traversing the apparatus bays from the clean side just to gain access. It is also the dirty side bathroom, although all bathrooms open directly into the bays.

The clean side should be separated from the apparatus bays. The most typical way to do this is with vestibules. To create a proper vestibule in this situation will require modifications to a significant portion of the living space.

Response Pathways:

Response routing from dorms is inefficient. One must either exit through the bathrooms, or through the Captain's office space to get to the bays. This area could be rearranged to be more functional.

The fitness space is in the basement, and while encompassing a reasonable footprint for a station this size, it does not have adequate ceiling heights or space conditioning. The EMS storage area is accessed through the fitness room in the basement. Fitness space is atmospherically connected to the dirty side.

Gender Neutrality:

The current arrangement does not adequately accommodate male and female firefighters. Both restrooms and dorms are awkward for mixed groups. Contemporary stations utilize individual dorms and bathrooms to provide maximum flexibility. The existing space is not large, so a more functional configuration may cost dorm space.

Building Systems:

Refer to appended mechanical systems report at the end of this document.

Code Compliance:

There is no existing automatic fire suppression. A building in this configuration is not permissible without sprinklers under current codes. See further explanation below.

In the absence of fire suppression, dorms require egress windows. In the current configuration of the building, the (R3) dorms would need to be separated with a 2-hour fire wall from the (S2) apparatus area as separated occupancies. With sprinklers, the separation becomes a fire partition, and the rating is reduced to 1-hour for best practices, and a minimum of ½ hour per IBC requirements.

ADA issues exist throughout at doors, kitchen, and bathrooms, mostly with regard to maneuvering and operating clearances.

Current editions of the International Building Code (2018 or 2021) would allow a non-separated use analysis for a Type V construction in fire stations up to 7,000 square feet without fire suppression. The building is larger than this, so does not meet this criteria. To bring the building into compliance without fire suppression would involve a separated use analysis incorporating fire walls to divide the building based on uses. Primarily, this would involve a 2-hour separation between the dwelling spaces (R3) and other occupancies. It would be easier and more beneficial overall to add an automatic fire suppression system and work with lower levels of fire separation.

Other Considerations:

The building site is limited, which precludes significant expansion to improve building zoning and operational efficiency.

The living side needs laundry facilities.

The “public” entrance to the building is in an area that is difficult to observe and is not secured.

One potential solution could be to add a training room to the administration facility next door. This would present an opportunity to address the restroom and ADA deficiencies in the admin building, while creating a better training room for department use. The existing training room could then be captured for station uses such as decontamination, turnout storage, EMS storage, and improved separations for clean functions.

Working within the existing footprint will not allow complete resolution of deficiencies without sacrificing response capacity. The building site is already maximized, so incurring the expense to add a second level, for example, will just make the site limitations regarding security, parking, maneuvering, generator, and trash storage more pronounced.

Project Approach:

There are no low impact solutions that address current station deficiencies. To resolve the air contamination hazard and basic code compliance will require both architectural and mechanical solutions. A dorm and bathroom reorganization is critical to limit cross-contamination, and additional separations need to be provided at the clean areas on the north side of the bays.

The scope of work needed will necessarily have a direct impact on operations.

Design approaches shown for potential solutions are conceptual, displaying the elements of hazard mitigation and best practices discussed. Final designs may vary from those shown based on thorough confirmation of as-built dimensions, structural types, concealed conditions, and other factors outside the scope of the analysis. However, the concepts are intended to convey the types of solutions needed to address mitigation measures and best practices. Solutions are not intended to show the most ideal arrangements for a new contemporary station, but to work within the framework of existing conditions. Elements such as dormitory sizes, response pathways and amenity spaces (fitness rooms, firefighter offices, etc.) are scaled to fit within existing buildings and address basic needs, even if the results aren’t optimal.

Proposed Solutions:

1. Comprehensive remodel of dorm and bathroom wing to add transition vestibules, code required fire separations, and sleeping room egress. Concurrently, the remodel can improve response pathways and provide a flexible, gender-neutral layout. A maximum of seven dorms can fit in the space with three restrooms, or eight dorms with two restrooms.

Area of renovation = 1,165 SF

Estimated cost range: \$425,000 - \$475,000

2. Remodel kitchen, replace casework and countertops to eliminate wood finishes and adjust to new vestibule layout.

Area of renovation = 300 SF

Estimated cost range: \$40,000 - \$50,000

3. Reorganize existing training room into dirty side support area for decontamination, turnout gear, EMS supply, and front office space.

Area of renovation = 658 SF

Estimate cost range: \$100,000 - \$125,000

4. Add automatic fire suppression to the entire station.

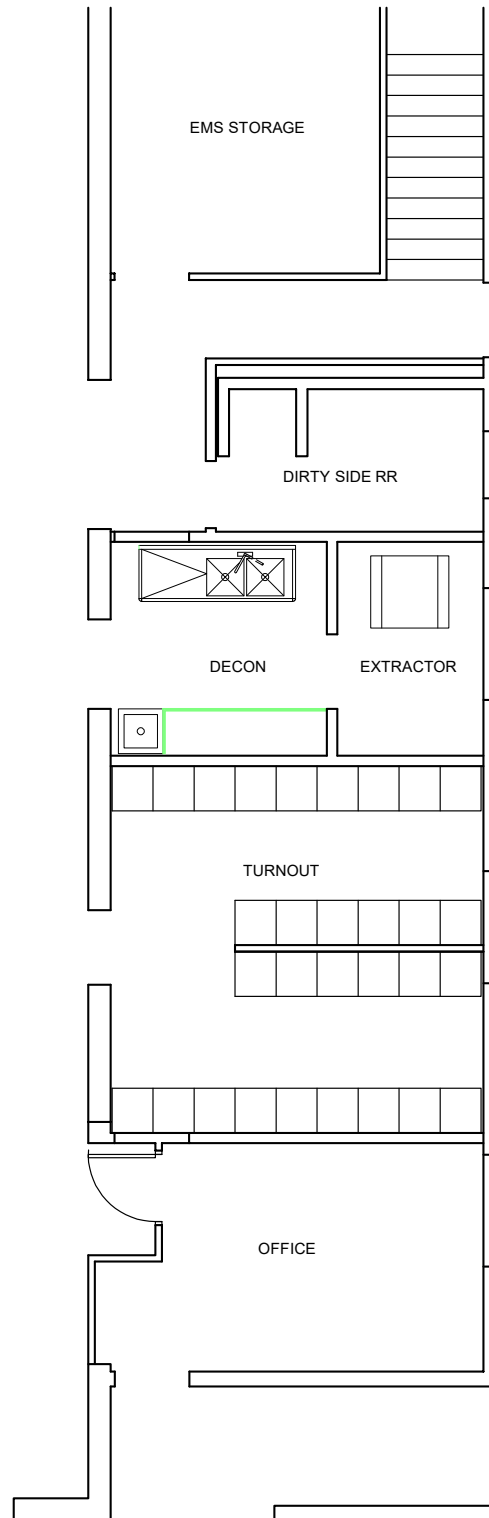
Area of renovation = 8,935 SF

Estimated cost range: \$200,000 - \$225,000

5. New Training Room at existing Administration Building, with accessible restrooms. This is outside the initial scope of the assessment, but becomes critical if the existing space is captured to address mitigation needs. The potential impact of this is estimated as follows.

Area of addition = 1,500 SF

Estimated cost range: \$600,000 - \$650,000



Existing room should not be used for a sleeping room. This could be converted to EMS Storage, and move this out of the basement.

Relocate Training Room, utilize space to improve decontamination and turnout storage.

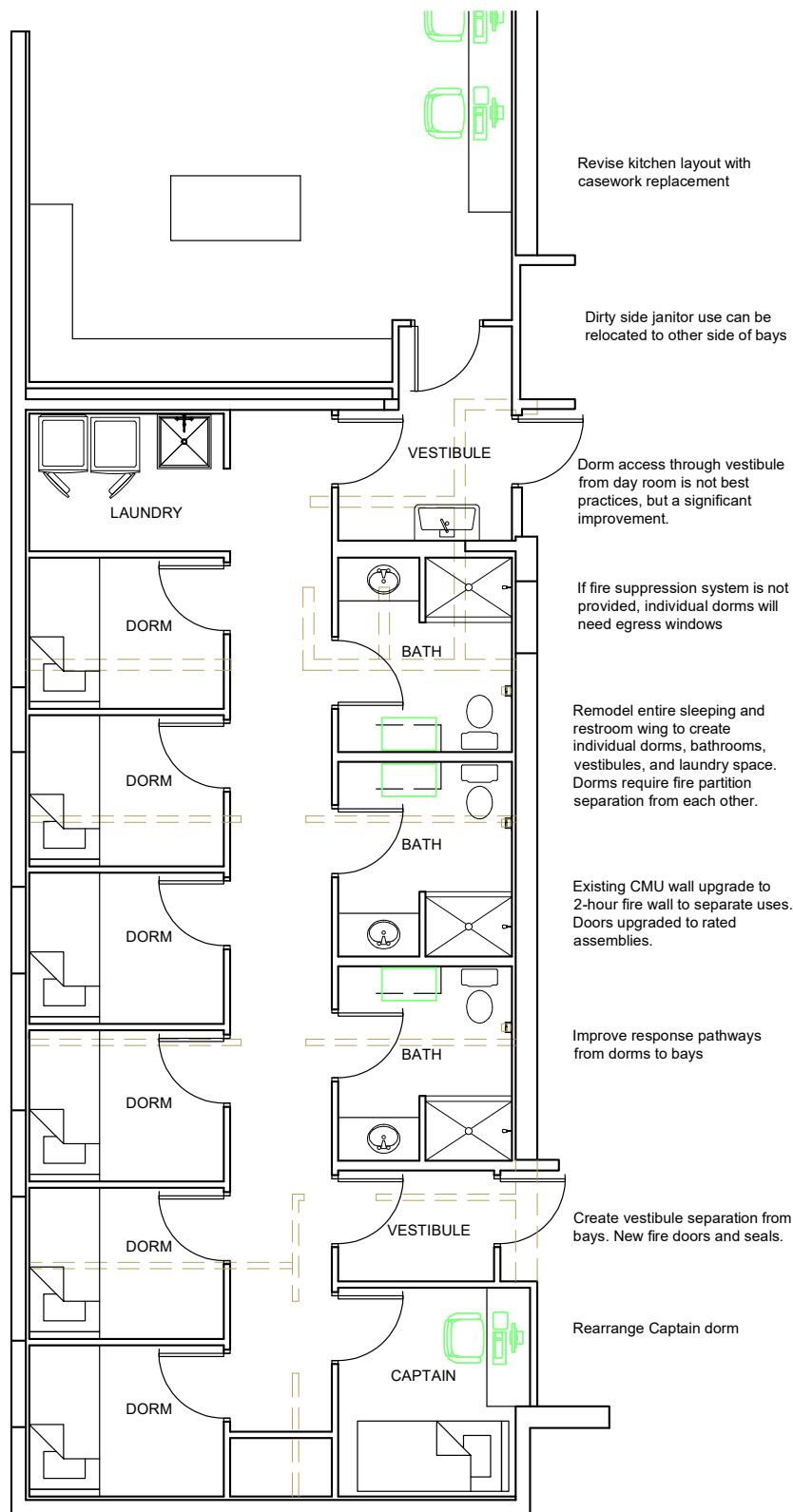
Relocate office to north side of bays to maintain public access. Separate office from bays.

Partial Plan - Dirty side



Lewiston Fire Department Station 1 Hazard Mitigation





Partial Plan - Dorms



Lewiston Fire Department Station 1 Hazard Mitigation



Fire Station 2 1533 Grelle Ave. Lewiston, ID

Construction Type (2018 IBC): V-B (partially sprinklered)
Occupancy Classifications: R3, S2
Residential occupancy (R3) based on congregate dwelling
with 10 or fewer occupants
Allowable Area: 7,000 SF non-separated,
no credit for partial sprinkler coverage
Actual Area: 5,000 SF, with 1,100 SF detached Annex



Deficiencies:

Overall, we find the condition assessment from April 2020 to be relevant and applicable to the deficiencies observed. In addition to that assessment, the following items were also noted:

1. Regarding codes and standards, the separation between the sleeping rooms and other occupancies is required to be 1-hour, even though the building qualifies for a non-separated use analysis. The incomplete sprinkler coverage within the building does not allow reduction in the fire partition rating.
2. Among the functional deficiencies not previously identified is the lack of a man door into the apparatus bays from the exterior.
3. The enclosure of the north exit access from the day room as a sleeping space violates building codes and best practices, both for fire separations and impeding access to an exit.
4. The generator is undersized and is housed inside a room immediately adjacent to dorms.
5. Building systems: Refer to appended mechanical systems report at the end of this document.

The critical aspects to improving the health and well-being of firefighters include the following:

Finishes:

For infectious disease and contaminants control, porous and fibrous materials should be replaced throughout the clean areas. All wood casework should be replaced with cleanable surfaces. Laminate or LVP flooring is not ideal, as it contains joints that can present maintenance challenges over time.

Warm Zoning:

Best practices require a transition between dirty and clean zones, typically accomplished with warm zone pressurized vestibules that include boot wash and hand wash stations. While the apparatus bays do not open straight into living spaces, the doors aren't properly sealed and vestibules aren't provided. Cycling the doors regularly will introduce contaminants into the clean space.

The extractor location requires traversing into the clean side of the building with contaminated turnouts, and is housed in the same room as clean side residential laundry, and adjacent to the dorms. The extractor should be relocated out of the clean side.

Dorms and bathrooms are separated from the bays by a hallway and secondary door. Fire separations are not up to code. This applies to all sleeping rooms in the facility.

The clean side should be separated from the apparatus bays with warm zone vestibules. To create proper vestibules will require modifications to a significant portion of the living space, as the current hallways do not meet ADA requirements.

There is no dirty side bathroom, so the Captain's/public bathroom is generally used, creating a contamination situation.

Response Pathways:

Dorm location within the building allows reasonable response time. However, the arrangement has other flaws in terms of gender neutrality, overall scale, and space utilization. The sleeping room in the day room exit area requires revision.

The fitness space is in the Annex building, in the apparatus bays. This presents a problem for contamination, and is also not ideal for response.

Gender Neutrality:

The current arrangement does not adequately accommodate male and female firefighters. Both restrooms and dorms are awkward for mixed groups. The Captain's dorm shares a bathroom that also serves for public use. This doubles as the women's shower room, as it provides privacy, but is awkward for access. None of the bathroom facilities meet ADA codes.

The primary dorms are located in a building area that could be expanded. Expanding this wing could address all of the functional and code deficiencies with the dorms.

Building Systems:

Refer to appended mechanical systems report at the end of this document.

Code Compliance:

Automatic fire suppression doesn't cover the full building, so does not provide egress and fire separation benefits under current codes. Any significant renovation would require sprinkler coverage to be extended throughout the building.

In the current configuration of the building, the (R3) dorms would need to be separated with a 1-hour fire partition from the (S2) apparatus area. If sprinklers are extended through the bays, the separation is reduced to a minimum of ½ hour per IBC requirements.

ADA issues exist throughout at doors, kitchen, and bathrooms, mostly with regard to maneuvering and operating clearances. Hallways are too narrow for the existing inset doors.

Current editions of the International Building Code (2018 or 2021) would allow a non-separated use analysis for a Type V construction in fire stations up to 7,000 square feet with the current partial coverage fire suppression system.

The current facility falls under this threshold, but any significant expansion would trigger the need to expand the system.

Other Considerations:

The building site is large, and would allow for substantial expansion of the building to both the west and north. It is understood that is part of the long-term future for this station, possibly incorporating a police presence as well. To address the zoning and functional facility issues, an expansion should be considered.

An exterior door should be added to the apparatus bays to allow direct ingress/egress to the space without operating the overhead doors or traversing the public area of the building.

A common issue with all stations is the lack of storage space for turnout gear and general storage. While this isn't the most critical health and safety item, turnout gear is ideally stored in a ventilated room with no UV exposure. Storing cleaned gear directly in the dirty space is not best practices.

Project Approach:

To resolve the air contamination hazard and basic code compliance will require both architectural and mechanical solutions. A dorm and bathroom reorganization is critical to limit cross-contamination. To properly address the ADA, sleeping room, and code deficiencies would involve expanding the building dorm wing to the north – reorganizing the sleeping rooms, laundry facilities, and bathrooms, while incorporating transition zones and compliant separations.

Relocating the fitness space to a more central location would involve a more significant expansion of the building, but would address cross contamination and response times from this commonly used space.

Design approaches shown for potential solutions are conceptual, displaying the elements of hazard mitigation and best practices discussed. Final designs may vary from those shown based on thorough confirmation of as-built dimensions, structural types, concealed conditions, and other factors outside the scope of the analysis. However, the concepts are intended to convey the specific types of solutions needed to address mitigation measures and best practices. The Station 2 site has ample area for expansion. Ideally, the proposed mitigation and code compliance measures would be incorporated into a master plan for the future station expansion.

Proposed Solutions:

1. Expand dorm wing of building to accommodate code compliant egress paths, warm zone vestibules, and additional dorms to eliminate non-compliant sleeping space(s). Rearrange spaces for gender-neutrality and best practices for sleeping environment. Add clean side laundry space. Will involve relocating generator further west.

Area of renovation/expansion = 1,058 SF Estimated cost range: \$420,000 - \$470,000

2. Combine existing decontamination space with laundry space to incorporate extractor into dirty side. Cost may vary depending on reorganization of entire decon space.

Area of renovation = 124 SF Estimated cost range: \$15,000 - \$30,000

3. Replace door to bays adjacent to current Captain's dorm. Add exterior door from apparatus bays.

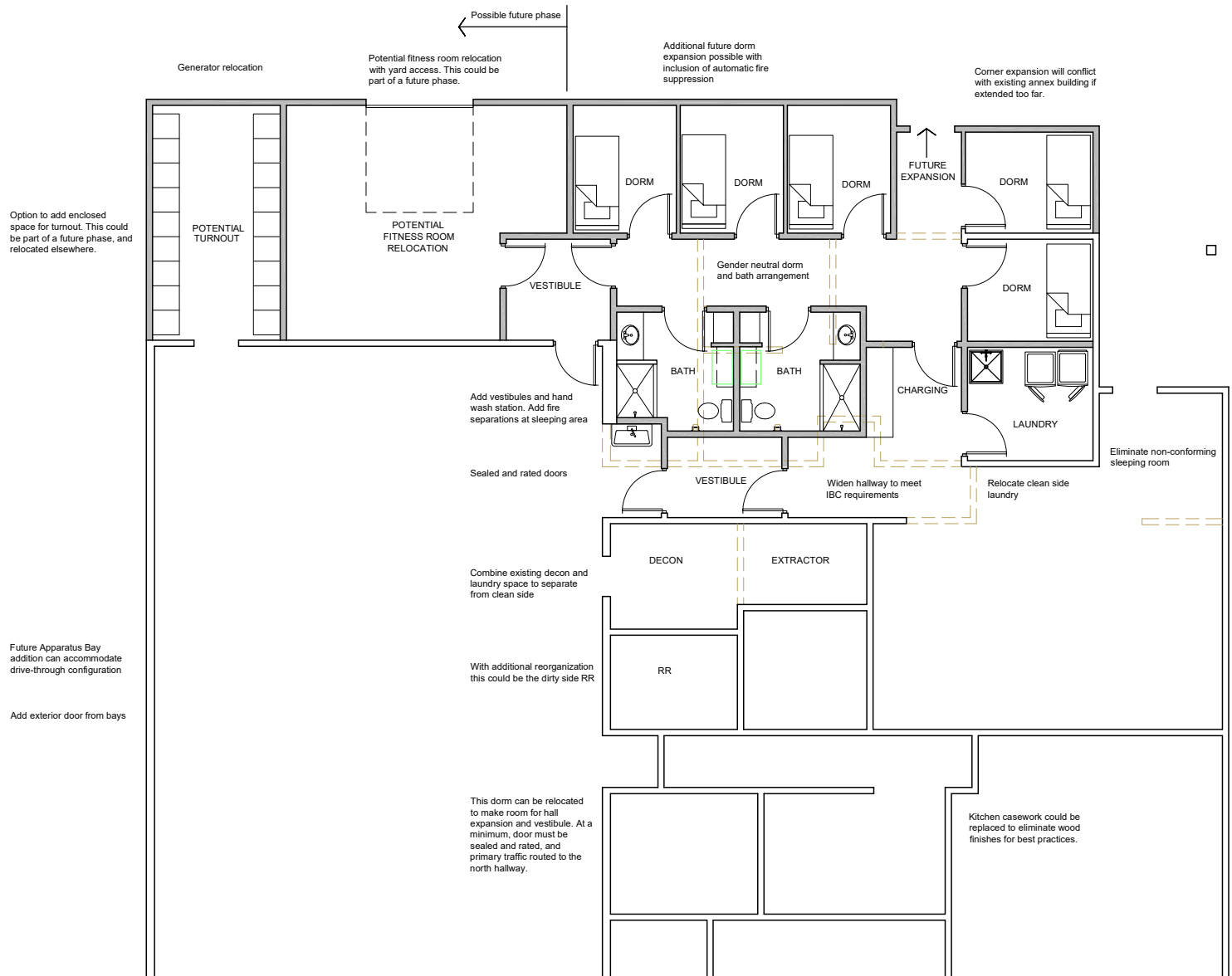
Area of renovation = N/A Estimated cost: \$10,000

4. Add automatic fire suppression system to apparatus bays, expand system into additions. Estimate assumes existing service size is adequate.

Area of work = 2,400 SF Estimated cost: \$45,000

5. Add a new Fitness Room and Turnout space. This could be a phased item designed into the future expansion of the station. The existing spaces are not in keeping with best practices and cross-contamination control, but are less critical than the zoning and code compliance at the dorm wing.

Area of addition = May vary Estimated cost range: TBD



Lewiston Fire Department Station 2 Hazard Mitigation



Fire Station 4 Burrell Ave. Lewiston, ID

Construction Type (2018 IBC): V-B (not sprinklered)
Occupancy Classifications: R3, S2
Residential occupancy (R3) based on congregate dwelling
with 10 or fewer occupants
Allowable Area: 7,000 SF non-separated
Actual Area: 5,000 SF



Deficiencies:

Overall, we find the condition assessment from April 2020 to be relevant and applicable to the deficiencies observed. In addition to that assessment, the following items were also noted:

1. Regarding codes and standards, the separation between the sleeping rooms and other occupancies is required to be 1-hour, even though the building qualifies for a non-separated use analysis.
2. The previous study did not elaborate on the deficiencies in the public entry area. Public access is directly into the bay space, and communicates into the clean side through a single-pane teller window into the Captain's office. The office leads directly into Captain's dorm, which is neither fire separated nor sealed.
3. Doors from the dirty side are not adequately sealed, and no warm zone separation is provided.
4. Building systems: Refer to appended mechanical systems report at the end of this document.

The critical aspects to improving the health and well-being of firefighters include the following:

Finishes:

For infectious disease and contaminants control, porous and fibrous materials should be replaced throughout the clean areas. All wood casework and wall finishes should be replaced with cleanable surfaces. Ceilings in the living spaces are porous and show accumulation of diesel fumes and grit.

Warm Zoning:

Best practices require a transition between dirty and clean zones, typically accomplished with warm zone pressurized vestibules that include boot wash and hand wash stations. Cycling the doors regularly will introduce contaminants directly into the clean space.

Dorms have been enclosed to assist with sleeping environment. While an improvement, the work does not meet codes for separations. Dorms are one door removed from the bays.

The clean side should be separated from the apparatus bays with warm zone vestibules. Without a significant redesign of the building interior and expansion of the footprint, this will not be feasible.

The fitness space is in the apparatus bays which presents a problem for contamination.

The decontamination area is tiny and directly in the bay space.

Response Pathways:

Dorm location within the building allows reasonable response time. The building scale is such that no space is far removed from equipment.

Gender Neutrality:

The current arrangement does not adequately accommodate male and female firefighters. While the dorms have been enclosed, restrooms are awkward for mixed use. A female crew member using a shower requires locking all other crew out of the only restrooms in the facility for the duration. Current bathroom facilities do not meet ADA codes. As the only restroom facilities in the building, they are also used directly from the dirty side.

Building Systems:

Refer to appended mechanical systems report at the end of this document.

Code Compliance:

Automatic fire suppression is not provided, so does not provide egress and fire separation benefits under current codes. Any significant renovation would require sprinkler coverage to be extended throughout the building.

The (R3) dorms would need to be separated with a 1-hour fire partition from the (S2) apparatus area. If sprinklers are installed, the separation is reduced to a minimum of ½ hour per IBC requirements.

ADA issues exist throughout at doors, kitchen, and bathrooms, mostly with regard to maneuvering and operating clearances.

Current editions of the International Building Code (2018 or 2021) would allow a non-separated use analysis for a Type V construction in fire stations up to 7,000 square feet. The facility falls under this threshold, but sleeping rooms must still be separated from other occupancies and each other with 1-hour partitions. Doors and penetrations through these assemblies must be rated accordingly.

Other Considerations:

The building is currently inadequate for the crew and area served, and has been slated for replacement. It was initially constructed as an Aircraft Rescue and Fire Fighting Facility (ARFF), but is no longer used for this purpose.

A common issue with all stations is the lack of storage space for turnout gear and general storage. While this isn't the most critical health and safety item, turnout gear is ideally stored in a ventilated room with no UV exposure. Storing cleaned gear directly in the dirty space is not best practices.

Project Approach:

There are no low impact solutions that comprehensively address current station deficiencies. To resolve the air contamination hazard and basic code compliance will require both architectural and mechanical solutions. Public

entry and bathroom reorganization are critical to limit cross-contamination, and additional separations need to be provided between clean areas and the bays. Given the minimal space within the building, creating adequate vestibules, separations, and reorganizing restroom facilities would impact operations during construction, and would most likely require expansion of the building footprint for an effective solution.

Short term solutions involve replacing doors and windows between clean and dirty functions, addressing fire separations, rearranging the public entry for security, and providing access to a dirty side restroom.

Design approaches shown for potential solutions are conceptual, displaying the elements of hazard mitigation and best practices discussed. Final designs may vary from those shown based on thorough confirmation of as-built dimensions, structural types, concealed conditions, and other factors outside the scope of the analysis. The concepts are intended to convey the specific types of solutions needed to address basic mitigation measures. Station 4 has been previously identified for replacement. Therefore, as a practical matter, the solutions proposed will address the most critical cross-contamination issues, but a comprehensive solution would require significant modification and expansion of the facility.

Proposed Solutions:

1. Create new public lobby separated from the apparatus bays. Enclose existing lobby for a vestibule separation from the bays. Replace doors to bays from living side with sealed fire rated assemblies. Replace existing teller window at office with a sealed assembly. (Office can be redirected toward the proposed new lobby.)

Area of renovation/expansion = 250 SF Estimated cost range: \$85,000 - \$100,000

2. Divide existing bathroom into two spaces, to provide separate warm-zone restroom. Cost may vary depending on final layout.

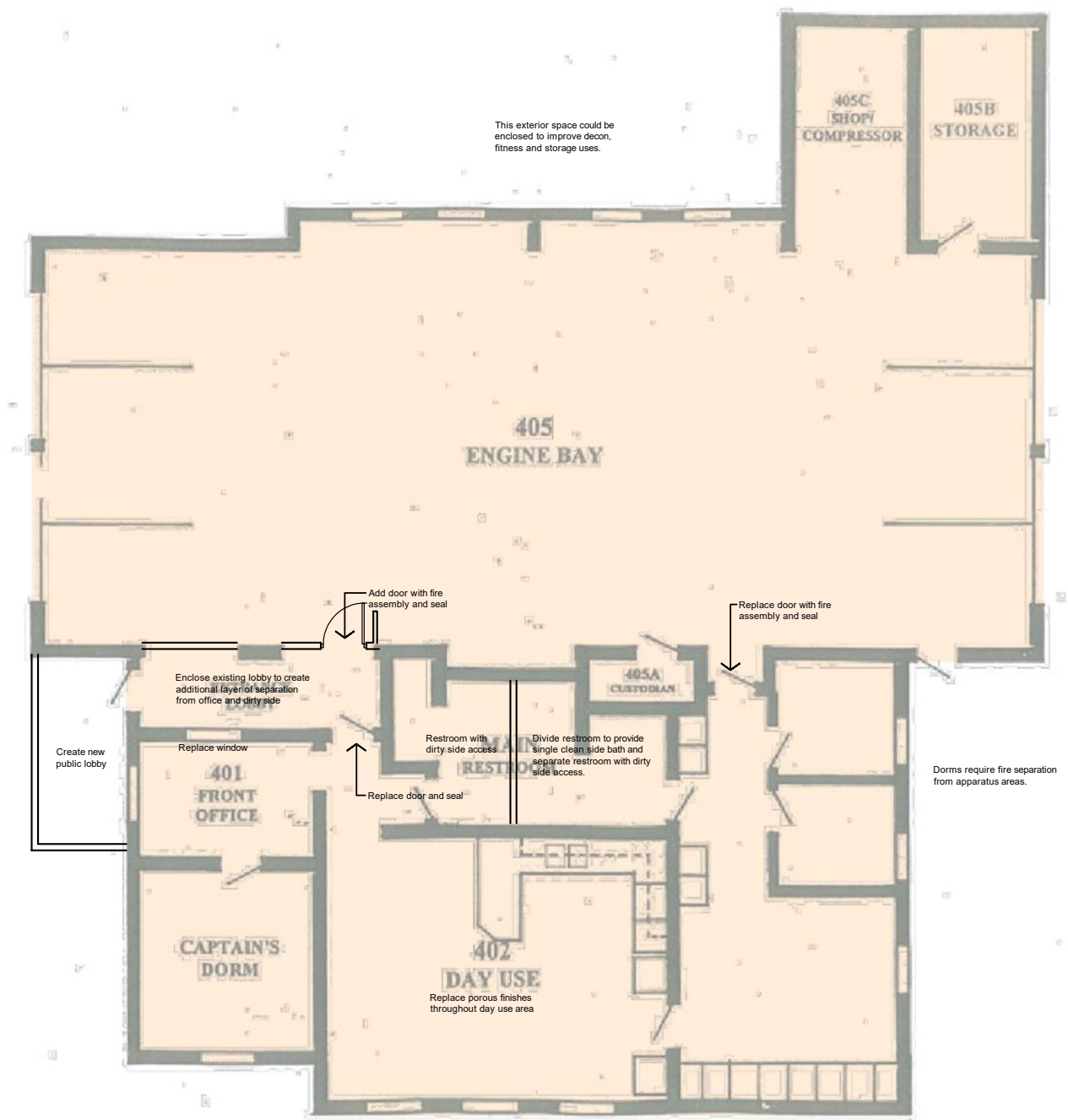
Area of renovation = 220 SF Estimated cost range: \$65,000 - \$85,000

3. Add fire separations around dorms - existing assemblies can likely be updated without complete removal. Update dorm doors to fire assemblies.

Area of renovation = N/A Estimated cost: \$10,000

4. Remove and replace wood casework and finishes in Day Use area. This may be covered under current mitigation efforts.

An automatic fire suppression system is not proposed for this station. The station is small enough that the necessary separations can be accomplished with fire assemblies, and the questionable future of the station makes this upgrade less practical. In the event the station is retained and significantly expanded in the future, automatic fire suppression would be required.



Floor Plan (NTS)



Lewiston Fire Department Station 4 Hazard Mitigation





MEMO

Date: 4/24/2024

To: Architects West

From: Brad Snow, PE – MSI Engineers

Re: Lewiston Fire Department – Fire Station HVAC and Ventilation System Analysis
- Fire Stations #1, #2 & #4

MSI #: 24.28

Study Objectives:

1. Evaluate the current fire stations' HVAC and ventilation systems, with respect to providing a safe and healthy working environment for the station's fire fighters and staff.
 - Improve Station Ventilation and Indoor Air Quality (IAQ).
 - Improve Station Thermal Comfort Levels.
2. Provide recommendations for possible system improvements, upgrades or replacements, in varying degrees as may be dictated by budget constraints, in order to inform fire department planning.

Background:

This evaluation is a follow-up to an overall Fire Station Analysis report that was prepared in 2020 by several consultants under contract to the Lewiston Fire Department. A portion of that report addressed the Indoor Air Quality (IAQ) of the several fire stations, with a focus on current and past contamination from diesel soot particulates, in response to the Department's concerns about diesel exhaust exposure to its fire fighters.

The report identified a number of areas with visible soot build-up in the several fire stations, mostly within the Engine Apparatus Bays, but also present on certain surfaces within the interior of the stations (some walls, ceiling tiles, carpeted areas, cedar wall paneling). It is our understanding that the department is in the process of removing and replacing much of the contaminated materials, and cleaning the visible soot build-up within the Engine Bays.

Also, as recommended in the report, the Department has installed a number of portable air cleaner units within the stations' sleeping and common area, as way to provide a certain degree of improved IAQ.

Beyond that, the report recommended a "...*thorough assessment of the HVAC systems servicing the facilities.*", as well as regular filter inspection and replacement. This current evaluation is therefore intended to provide the follow-up assessment as recommended by the earlier report.

General Observations:

Site visits to the three Lewiston fire stations were conducted by MSI Engineers and Architects West, in company with the Fire Department leadership, in order to observe and discuss the station conditions and operations.

The three fire stations vary in age from the oldest at 60 years olds (FS#1 built in 1964), to the newest station at 21 years old (FS#2 built in 1993).

From an HVAC standpoint, even though the overall system designs are more or less outdated, the stations appear to have been reasonably well maintained, and it seems that much of the original HVAC equipment has been replaced over time with newer units. In addition, all three stations are equipped with fairly new, source capture type tailpipe exhaust systems in the Apparatus Bays, to help control and expel diesel engine exhaust fumes from the fire trucks and EMT vehicles. The presence of tailpipe exhaust systems is a great improvement over the original designs, which only provided general exhaust from the apparatus bays.

HVAC System Potential Enhancements:

Ventilation and Indoor Air Quality:

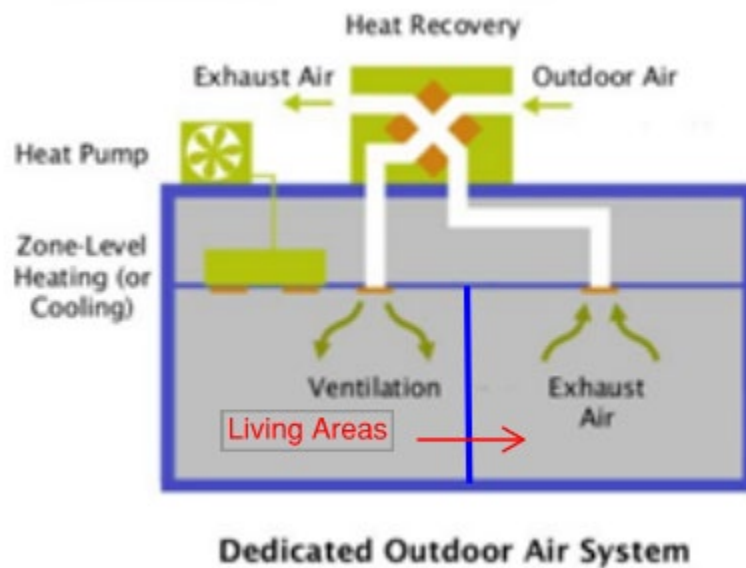
From a general health and well-being perspective for the fire fighters, good indoor air quality is a critically important element. Although the stations are equipped with a modern source capture system for the emergency vehicle tailpipe exhaust fumes, which is an excellent feature for controlling the apparatus bay air quality, the station's general living areas are somewhat lacking in terms of ideal ventilation and good IAQ maintenance. The existing gas-fired furnaces used in Station 1, have been equipped with upgraded filter banks, and have some degree of fresh air delivery capacity, but they are not really capable of providing the level of continuous ventilation and positive pressurization to the living areas, that more modern HVAC systems can provide.

Ideally, the living and work areas of the fire station should be provided with a continuous supply of fresh, outdoor air, that is filtered and delivered in sufficient volume to provide a degree of positive pressurization relative to the adjacent apparatus bay. This positive pressurization aspect helps to avoid migration of unwanted fumes, diesel engine exhaust and soot, that is generated during the operation of the emergency vehicles at times of departures and returns, thereby minimizing the fire fighter's exposure to these undesirable elements.

Proposed Ventilation and IAQ Improvement Options:

There are a couple of approaches to improving the ventilation and IAQ levels in the existing fire station, that seem practical:

- 1) Upgrade the existing furnace and/or roof-top AC unit (FS-4) ventilation configurations, with the addition of new Dedicated Outside Supply Air (DOAS) ventilation systems.
- 2) Replace the existing furnaces and/or roof-top AC unit (FS-4) with multiple, new, roof-top packaged units (see thermal zoning discussion below) in conjunction with new Dedicated Outside Supply Air (DOAS) ventilation systems.



Proposed Ventilation System – DOAS Unit (left) with Heat Recovery Core (right)

Thermal Control – Zoning:

The stations have very little thermal zoning control for the staff, with only a few individual areas of thermostatic control for the entire station. This provides only limited thermostatic control for the fire fighters, which often results in uncomfortable variations in temperature, and gives no individual control to the occupants in the several sleeping rooms.

In an ideal situation, there would be more thermal zoning throughout the station, in order to provide better comfort control for the staff. In the current HVAC configuration, this is difficult to accomplish, as traditional furnaces, or packaged roof-top type systems, are really only suitable for single zone control. Sometimes this can be slightly improved by installing multiple sub-zone thermostats throughout the spaces, and using the space temperature feedback to provide a sort of averaging demand signal, in order to better regulate the heating and cooling from the furnace. Although this can sometimes help to avoid some of the spaces from becoming overly hot or cold, it can also create the situation where “nobody is happy”, due to the averaging effect.

A better approach to providing additional thermal zoning, is to replace the relatively large single-zone furnace systems or roof-top units, and corresponding common air distribution network, with multiple smaller HVAC units, each serving smaller areas.

Proposed Thermal Zoning Improvement Options:

There are probably a couple of approaches that could be practical for upgrading the HVAC systems for the stations, depending on the geometry and construction arrangements:

- 1) Multiple Packaged Single-Zone Roof-Top AC Units.



Proposed HVAC System – Typical Packaged Roof-Top Units

- 2) Distributed VRF (variable refrigerant flow) Fan Coil Units or Multiple Split-System Heat Pumps.



Proposed HVAC System – VRF System – Ceiling Cassettes (left) and Remote Heat Pumps (right)

These are the two most common HVAC systems being utilized in many of the newer fire stations being constructed in the region.

Given that Stations 1 and 2 have flat roofs, they lend themselves reasonably well to the installation of multiple, smaller, packaged roof-top AC units. These can be located over the zones being served, with distribution ductwork mounted in the space above the ceilings. In this way the station can be sub-divided into several more, smaller, thermal zones, with more individual thermostatic controllability.

Although the installation of multiple, smaller, packaged roof-top units can enhance the controllability and thermal comfort in the larger areas, it is not really practical to use this approach to provide individual conditioning to each of the several small sleeping rooms. These rooms are just too small to justify separate individual roof-top units. However, the other alternative HVAC systems as noted above, either the distributed VRF fan coils or multiple heat pumps, are capable of being sized small enough to serve individual sleeping rooms, in an economical and practical manner. In fact, the installation of such systems has become normal practice in many of the newer fire stations in the region.

Specific Station HVAC Analysis and Recommendations

Fire Station 1

Station 1 is the oldest, and largest, of the three fire stations. It is located in downtown Lewiston and is situated adjacent to the Fire Department Administration building. It is configured into three separate areas: the main living area (dayroom, kitchen, dorm and offices), the apparatus bay (with workshop and mezzanine area), and the support areas (training, basement exercise room, and a single sleeping room).

HVAC System Description:

Main Living Areas:

Except for the dayroom, these areas are served by a single gas-fired furnace with a roof-mounted air conditioner. The furnace is located in the upper mezzanine of the apparatus bay. Supply air ductwork is fed down from the furnace, to an underground air distribution system to the various rooms, and discharged into the rooms from floor registers. The return air is also ducted back to the furnace, via an underfloor network, with some of the return air intakes routed through the interior CMU walls.

The gas-fired furnace appears to be a fairly new, high efficiency condensing type unit, with sealed combustion and PVC venting. It has been configured with an upgraded 2-stage filter arrangement. Outside ventilation air to the furnace return air side, is ducted up through the roof to a gooseneck type intake assembly. The air conditioning condensing unit is mounted on the roof, directly above the furnace assembly.



Existing Gas-Fired Furnaces, Filter Banks and Outside Air Intake Ducts (wrapped)

Dayroom, Kitchen and Restroom:

The dayroom was an addition to the original building, as is served by a separate split-system type fan coil unit and roof-mounted air conditioner.

There is a single restroom area serving the dorm/sleeping areas. A wall mounted exhaust fan serves the space. A small, residential type, range hood and exhaust fan serve the cooking area.

Apparatus Bay:

Heating:

The apparatus bay is provided with gas-fired, infrared type linear tube heaters, located along the perimeter walls of both sides of the bay. There is no air conditioning (mechanical cooling) provided in the apparatus bay.

General Ventilation:

There are two (2) roof mounted exhaust fans located above the apparatus bay, with ceiling level air intake grilles. The apparatus bay is provided with three (3) motorized intake air louver and damper assemblies, mounted on the rear side wall, at the mezzanine level. Operation of these exhaust fans and corresponding intake dampers appears to be manual. Station staff does not report operating these fans, and thought that they were only gravity vents, rather than powered exhausters.

Vehicle Tailpipe Exhaust:

The apparatus bay is equipped with a fairly new source capture, MagnaGrip brand, tailpipe exhaust system, with flex hose connections for each of the fire trucks and EMS vehicles. Flex hose drops and magnetic tailpipe intake boots are provided for each vehicle/parking space, with ducted exhaust routed to a single exhaust fan. Exhaust air is discharged through a sidewall exhaust stack assembly.

Exhaust fan operation is triggered by vehicle ignition, via a pressure sensor in the exhaust duct riser at each vehicle, that starts the exhaust fan. The exhaust fan is run for several minutes after the vehicles exit, and automatically stops. Unconditioned make-up air is via the mezzanine level air intake louver/damper assemblies and/or via the open overhead doors. Manual fan operation, via a wireless fob, can also be initiated by the staff when a vehicle returns and is being reconnected to the exhaust hose as it re-enters the bay.



Existing Apparatus Bay Gas-Fired Radiant Tube Heaters and Tailpipe Exhaust System



Existing Apparatus Bay General Exhaust Fans and Roof-Mounted Air Conditioners (beyond)

Support Areas:

Similar to the main living areas, these rooms are also served by a single gas-fired furnace with a roof-mounted air conditioner. This furnace is also located in the upper mezzanine of the apparatus bay. Supply air ductwork is fed down from the furnace, to an underground air distribution system to the various rooms. This section of the station has a partial basement, which is utilized as the fitness area of the station. Here the supply and return air ductwork is exposed at the ceiling level.

This furnace is also fairly new, and is configured identically to the unit serving the main living area. There appears to have been some previous attempts to provide some degree of individual room air flow modulation, with the addition of several small motorized zone dampers on the air outlets, with corresponding room thermostats. Reportedly, this approach never worked very well and has since been abandoned. So, at the present time, this area is basically configured as a single zone system.



Existing Basement Fitness Area and Exposed Ductwork

Station 1 - HVAC System Analysis and Commentary:

Although the design of the HVAC system for Station 1 is outdated by current standards, it has been reasonably well maintained and the furnaces appear to have been replaced with modern units in the recent past. The apparatus bay radiant heating system is effective and is in line with current designs used in other newer stations throughout the region.

In the apparatus bay, the installation of a source capture vehicle tailpipe exhaust system, provides an excellent enhancement to the station's overall indoor air quality, by greatly minimizing diesel exhaust fumes and soot build-up inside the station, compared to the original general ventilation-only system.

That said, there are a number of aspects to the HVAC system that could be improved or modernized to increase staff comfort and/or improved the station's indoor air quality.

- Upgrade the existing (or replacement HVAC system) building ventilation system with the addition of a Dedicated Outside Air Supply (DOAS) unit.
 - o DOAS unit(s), ductwork, power and controls: \$ 25,000 to \$ 50,000
- Replace the existing outdated HVAC gas-fired furnaces with either multiple smaller packaged roof-top AC units, or install multiple split-system type AC units (VRF or heat pumps).
 - o Multiple HVAC units (RTUs or HPs)
 - o Ductwork, power, controls and demo
 - o 4,200 sf @ \$48/sf to \$75/sf: \$200,000 to \$300,000
- Upgrade the existing general ventilation exhaust fan system for automatic operation with a new CO and diesel fume detector.
 - o Exhaust fume detector and controls: \$ 5,000 to \$ 10,000

Fire Station 2

Station 2 is the newest of the three fire stations. It is located in south east area of Lewiston. It is configured into two main areas: the main living and work areas (dayroom, kitchen, dorm, offices and work areas), and the apparatus bay. There is also a separate, detached Annex building, which is basically another apparatus bay for more emergency vehicles. The station's work-out room is located in the middle of the apparatus bay of the Annex.

HVAC System Description:

Main Living and Work Areas:

These areas are served by a pair of gas-fired furnaces with remote, ground mounted, air conditioners. The furnaces are located in a central mechanical room. Supply air ductwork is fed overhead from the furnaces, to an air distribution system run within the attic to the various rooms, and discharged into the rooms from ceiling registers. The return air is also ducted back to the furnace, via an attic network.

The gas-fired furnaces appears to be fairly new, high efficiency condensing type units, with sealed combustion and PVC venting. Each furnace is configured with a standard 1-stage filter arrangement. Outside ventilation air to each furnace return air side, is ducted into the attic to remote air intake vents.



Existing Gas-Fired Furnace and Overhead Air Distribution

Apparatus Bay:

Heating:

The apparatus bay is provided with a pair of gas-fired, overhead mounted, unit heaters, located in the middle of the parking areas. Staff reports these units are not as effective for heating the space, compared to the other stations that have infrared radiant tube heaters. There is no air conditioning (mechanical cooling) provided in the apparatus bay.

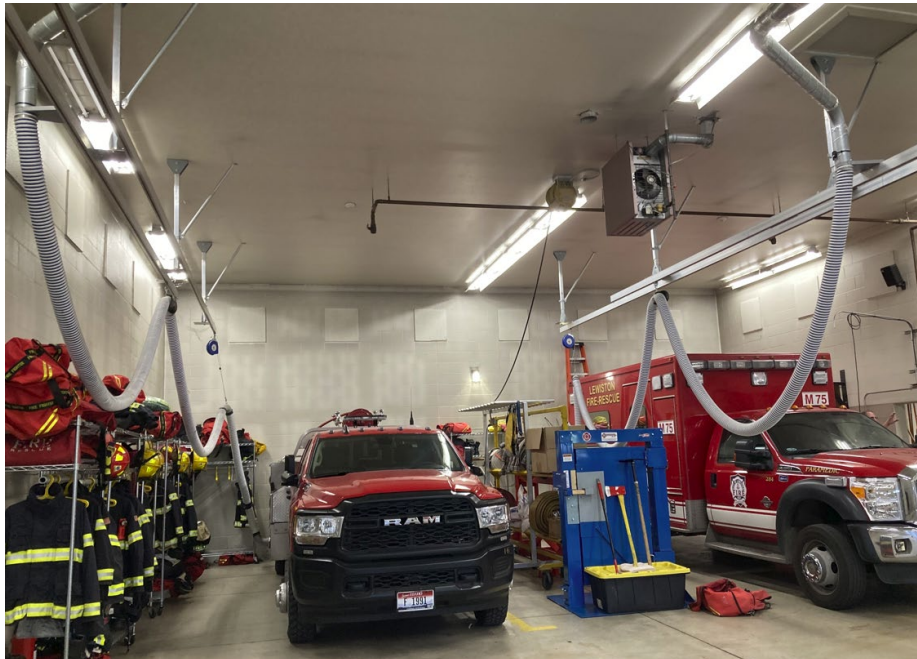
General Ventilation:

There is a low sidewall mounted propeller type exhaust fan, located on the outside wall of the apparatus bay. The apparatus bay is provided with a single motorized intake air louver and damper assembly, mounted on the opposite side, and diagonally from, the exhaust fan. Operation of this exhaust fan and corresponding intake damper appears to be manual. Station staff does not report operating this fan on a normal basis.

Vehicle Tailpipe Exhaust:

The apparatus bay is equipped with a fairly new source capture, MagnaGrip brand, tailpipe exhaust system, with flex hose connections for each of the fire trucks and EMS vehicles. Flex hose drops and magnetic tailpipe intake boots are provided for each vehicle/parking space, with ducted exhaust routed to a single exhaust fan. Exhaust air is discharged through a sidewall exhaust stack assembly.

Exhaust fan operation is triggered by vehicle ignition, via a pressure sensor in the exhaust duct riser at each vehicle, that starts the exhaust fan. The exhaust fan is run for several minutes after the vehicles exit, and automatically stops. Unconditioned make-up air is via the mezzanine level air intake louver/damper assemblies and/or via the open overhead doors. Manual fan operation, via a wireless fob, can also be initiated by the staff when a vehicle returns and is being reconnected to the exhaust hose as it re-enters the bay.



Existing Apparatus Bay Gas-Fired Unit Heater Tailpipe Exhaust System

Annex:

The Annex has a three apparatus bays for emergency vehicle parking. Presently the center bay is used for the station's fitness and work-out area. Heating is provided by a single overhead mounted gas-fired unit heater. A MagnaGrip source capture tailpipe exhaust system has been installed for the three parking bays.



Existing Annex Gas-Fired Unit Heater Tailpipe Exhaust System

Station 2 - HVAC System Analysis and Commentary:

Although the design of the HVAC system for Station 2 is also a bit outdated by current design standards, it has been reasonably well maintained and the furnaces appear to be in good condition. The apparatus bay overhead unit heater system is not as effective as the infrared radiant tube heaters in use in the other two stations.

Like Station 1, the source capture vehicle tailpipe exhaust system in the apparatus bays, provides an excellent enhancement to the station's overall indoor air quality, by greatly minimizing diesel exhaust fumes and soot build-up inside the station, compared to the original general ventilation-only system.

That said, there are a number of aspects to the HVAC system that could be improved or modernized to increase staff comfort and/or improved the station's indoor air quality.

- Upgrade the existing (or replacement HVAC system) building ventilation system with the addition of a Dedicated Outside Air Supply (DOAS) unit.
 - DOAS unit, ductwork, power and controls: \$ 25,000 to \$ 50,000
- Replace the existing outdated HVAC gas-fired furnaces with multiple split-system type AC units (VRF or heat pumps).
 - Multiple HVAC units (VRF or HPs)
 - Ductwork, power, controls and demo:
 - 3,000 sf @ \$50/sf to \$75/sf: \$150,000 to \$225,000
- Replace the apparatus bay unit heaters with infrared radiant tube heaters.
 - Infrared Radiant Tube Heaters: \$ 15,000 to \$ 25,000

- Upgrade the existing general ventilation exhaust fan system for automatic operation with a new CO and diesel fume detector.
 - o Exhaust fume detector and controls: \$ 5,000 to \$ 10,000

Fire Station 4

Station 4 is the smallest of the three fire stations. It is located in the south central area of Lewiston, adjacent to the airport. It was originally the fire-rescue station for the airport. Like Station 2, it is configured into two main areas: the main living and work areas (dayroom, kitchen, dorm, offices and work areas), and the apparatus bay.

HVAC System Description:

Main Living and Work Areas:

These areas are served by a single gas-fired packaged roof-top AC unit. Supply air ductwork is fed overhead from the roof-top unit, to an air distribution system run within the attic to the various rooms, and discharged into the rooms from ceiling registers. The return air is also ducted back to the unit.

The roof-top unit appears to be fairly new, and in reasonably good condition. The outside air ventilation intake hood is minimal, and there does not appear to be an enhanced filter bank in use.



Existing Living Area Gas-Fired Packaged Roof-Top AC Unit

Apparatus Bay:

Heating:

The apparatus bay is provided with gas-fired, infrared type linear tube heaters, located along the perimeter walls of both sides of the bay. There is no air conditioning (mechanical cooling) provided in the apparatus bay.

General Ventilation:

There is a single, roof-mounted, exhaust fan, located at the center of the apparatus bay. There are no corresponding fresh air intake louver/damper assemblies, and ventilation make-up is via open overhead doors.

Vehicle Tailpipe Exhaust:

The apparatus bay is equipped with a fairly new source capture, MagnaGrip brand, tailpipe exhaust system, with flex hose connections for each of the fire trucks and EMS vehicles. Flex hose drops and magnetic tailpipe intake boots are provided for each vehicle/parking space, with ducted exhaust routed to a single exhaust fan. Exhaust air is discharged through a sidewall exhaust stack assembly.

Exhaust fan operation is triggered by vehicle ignition, via a pressure sensor in the exhaust duct riser at each vehicle, that starts the exhaust fan. The exhaust fan is run for several minutes after the vehicles exit, and automatically stops. Unconditioned make-up air is via the mezzanine level air intake louver/damper assemblies and/or via the open overhead doors. Manual fan operation, via a wireless fob, can also be initiated by the staff when a vehicle returns and is being reconnected to the exhaust hose as it re-enters the bay.



Existing Apparatus Bay Tailpipe Exhaust and Radiant Tube Heaters

Station 4 - HVAC System Analysis and Commentary:

Although the design of the HVAC system for the living and work areas of Station 4 appears adequate, it also a bit outdated by current design standards for sub-zoning and ventilation. The apparatus bay radiant heating system is effective and is in line with current designs used in other newer stations throughout the region.

Like Stations 1 and 2, the source capture vehicle tailpipe exhaust system in the apparatus bays, provides an excellent enhancement to the station's overall indoor air quality, by greatly minimizing diesel exhaust fumes and soot build-up inside the station, compared to the original general ventilation-only system.

That said, there are a number of aspects to the HVAC system that could be improved or modernized to increase staff comfort and/or improved the station's indoor air quality.

- Upgrade the existing (or replacement HVAC system) building ventilation system with the addition of a Dedicated Outside Air Supply (DOAS) unit.
 - o DOAS unit, ductwork, power and controls: \$ 25,000 to \$ 35,000
- Replace the existing single HVAC roof-top unit with either multiple smaller packaged roof-top AC units, or install multiple split-system type AC units (VRF or heat pumps).
 - o Multiple HVAC units (RTUs or HPs)
 - o Ductwork, power, controls and demo
 - o 1,800 sf @ \$50/sf to \$75/sf: \$ 90,000 to \$135,000
- Upgrade the existing general ventilation exhaust fan system for automatic operation with a new CO and diesel fume detector.
 - o Exhaust fume detector and controls: \$ 5,000 to \$ 10,000

Limited Indoor Air Quality Diesel Particulate Report

City of Lewiston
Lewiston Fire Department
Station 1, Station 2, and Station 4

Prepared for:
City of Lewiston
Lewiston Fire Department
Lewiston Parks & Recreation

November 2023
PBS Project Number 64906.000



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Table 1 – Carbon Dioxide Monitoring Results
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Table 3 – Soot Wipe Sample Results
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APPENDICES:

APPENDIX A: Photo Page

APPENDIX B: Laboratory Reports

Soot Wipe Sample Chain of Custody Documentation and Laboratory Report
Soot Air Sample Chain of Custody Documentation and Laboratory Report

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1 INTRODUCTION

On October 23, 2023, PBS Engineering and Environmental Inc. (PBS) conducted a limited indoor air quality assessment in an effort to determine the extent of contamination from diesel soot particulates within three fire stations in Lewiston, Idaho. The sampling was conducted at the request of Lewiston Fire Department in response to concerns about diesel exhaust exposures and to provide remediation recommendations for contaminated surfaces and/or building materials.

At the request of Lewiston Fire Department, the scope of PBS' sampling efforts included screening for carbon dioxide (CO₂), carbon monoxide (CO), and total volatile organic compounds (TVOCs). PBS conducted air and wipe sampling in an effort to determine the presence or absence of soot on building components and in ambient air throughout each fire station.

2 DISCUSSION OF FINDINGS

2.1 Visual Inspection

A PBS industrial hygienist conducted a visual inspection in each of the three fire stations. The following items were observed during our on-site visual investigation. Additional details of the visual inspection findings are included in section 3 – Conclusions and the attached Photo Page.

Station 1

- No olfactory indications of contamination noted.
- Visible soot build-up noted on CMU walls within Engine Bay.

Station 2

- No olfactory indications of contamination noted.
- Visible soot build-up noted on CMU walls within Engine Bay.

Station 4

- No olfactory indications of contamination noted.
- Heavy soot build-up noted on CMU walls and concrete ceiling within Engine Bay.
- Soot build-up was noted on numerous building components throughout the interior of the fire station. The observed building components included gypsum wall and ceiling systems, ceiling tiles, carpet, and cedar wall paneling. Soot build-up was noted within both communal and sleeping areas.

2.2 Air Monitoring

PBS performed ambient air monitoring using TSI's IAQ-Calc and Rae Systems MiniRae 2000 Portable TVOC Monitor which measured and recorded CO, CO₂ and TVOCs. This information is used to determine whether the building's ventilation system is working adequately and is capable of maintaining appropriate working conditions.

2.2.1 Carbon Dioxide

Carbon dioxide is a colorless odorless gas that is one of the primary by-products of combustion and respiration. Although CO₂ is not considered toxic, elevated levels can cause drowsiness, headaches, irritability, and a general feeling of stuffiness.

The State of Washington Department of Labor and Industries (L&I) permissible exposure limit (PEL) for CO₂, based on a time-weighted-average (TWA), is 5,000 parts per million (ppm). ASHRAE recommends that CO₂ levels in an indoor environment not exceed 700 ppm above the outdoor air concentration. The monitoring results are shown in the table below.

Table 1 – Carbon Dioxide Monitoring Results

Station	Locations	Monitoring Results (ppm)	Regulatory Limit (ppm)	ASHRAE Recommended Threshold (ppm)
Station 1	Kitchen	1,014	5,000	1,144
	Engine Bay	510		
	Engine Bay at Idling Fire Engine	490		
	Dormitory	482		
Station 2	Main Entrance	453		
	Kitchen	440		
	Living Room	534		
	Dorm 204	516		
	Bathroom 204	542		
Station 4	Engine Bay	573		
	Dormitory	564		
	Kitchen	492		
	Chief's Room	561		

Outdoor testing of CO₂ performed at the time of this investigation indicated a concentration of 492 ppm. As such, the recommended ASHRAE threshold for indoor CO₂ is 1,192 ppm for the purposes of this investigation.

CO₂ levels did not exceed 1,192 ppm during the monitoring period. This is a strong indication that CO₂ is not a concern at the monitoring locations.

2.2.2 Carbon Monoxide

Carbon monoxide can be introduced into a building by means of improperly vented furnaces, boilers or gas heaters, automobile exhaust from attached garages, street level air intakes near parking lots and loading dock areas, and tobacco smoke. At low concentrations, CO can cause fatigue and, possibly, chest pains. In higher concentrations, CO can cause impaired vision, headaches, nausea, flu-like symptoms, and can be fatal.

Threshold Limit Value (TLV) refers to concentrations of airborne substances representing conditions under which it is believed that nearly all people can be repeatedly or constantly exposed without adverse health effects. The American Conference of Governmental Industrial Hygienists (ACGIH) TLV for CO is 25 ppm. The Washington State L&I PEL for CO is 35 ppm for 8-hours or 200 ppm for 5-minutes. The ASHRAE recommended threshold for indoor environments is less than 9 ppm. The monitoring results are shown in the table below.

Table 2 – Carbon Monoxide Monitoring Results

Station	Locations	Monitoring Results (ppm)	Regulatory Limit (ppm)	ASHRAE Recommended Threshold (ppm)
Station 1	Kitchen	0.2	ACGIH TLV 25 ppm WA L&I 35 ppm for 8-hours 200 ppm for 5-minutes	< 9.0
	Engine Bay	0.4		
	Engine Bay at Idling Fire Engine	0.2		
	Dormitory	0.1		
Station 2	Main Entrance	0.0		
	Kitchen	0.0		
	Living Room	0.1		
	Dorm 204	0.0		
	Bathroom 204	0.1		
Station 4	Engine Bay	0.0		
	Dormitory	0.0		
	Kitchen	0.1		
	Chief's Room	0.0		

Carbon monoxide results were below the regulatory limits and recommended threshold during the monitoring period. PBS does not consider carbon monoxide to be a concern in the areas tested.

2.2.3 Total Volatile Organic Compounds

There are hundreds of VOCs found in the indoor air, sometimes in concentrations suspected of being harmful. VOCs are released from many housekeeping and maintenance products, building materials, furnishing and equipment, and from human metabolism. Examples include: acetone and alcohols that are byproducts of human metabolism and can be released from cleaners and personal care products; ammonia from cleaners and diazo copiers; aromatic hydrocarbons from combustion processes, pesticides, paints, and solvents; benzene from combustion processes, gasoline, and solvents; chlorinated hydrocarbons from wood preservatives and solvents; styrene from carpet systems; phenols from equipment and furnishings; toluene from adhesives, gasoline, paints, and solvents; and 4-phenyl cyclohexane (4-PC) released from carpet systems.

PBS screened TVOCs throughout Station 1, Station 2, and Station 4. Screening was performed using a Rae Systems MiniRae 2000 Portable TVOC Monitor. The measurement accuracy range is 0-2000 ppm +/- 2 ppm.

- TVOCs were not detected throughout any of the three stations.

PBS does not consider TVOCs to be a concern in the areas tested during the time of the assessment.

2.3 Soot and Char Wipe Sampling

PBS collected seven (7) wipe samples for Char and Soot identification analysis. Sample locations were determined by visual observation and potential for contamination due to proximity to the Engine Bays. Areas of sampled surfaces was isolated using a 100 cm² template. Once isolated, the area was wiped with digestible wipes and placed into single use containers to prevent cross contamination. The samples were submitted to NVL Laboratories Inc. in Seattle, Washington for analysis in accordance with IESO 6001 Soot and Char. Laboratory analysis identified a presence of char and soot on all the samples collected. The wipe sampling results are presented in the below table.

Table 3 – Soot Wipe Sample Results

Station	Locations	Soot and Char on Wipe Sample
Station 1	Engine Bay, CMU Wall at Workout Equipment	Present
	Dormitory, Gypsum Wall	Present
Station 2	Kitchen, Gypsum Wall	Present
	Dorm 204, Bedroom, Gypsum Wall	Present
Station 4	Engine Bay Ceiling, Concrete	Present
	Dormitory, Gypsum Ceiling, at Return Vent	Present
	Chief's Room, Gypsum Wall, at Return Vent	Present

The laboratory report is included in Appendix B.

2.4 Soot Air Sampling

PBS collected nine (9) ambient air samples for Particulate Identification via soot analysis. Samples were collected using Air-O-Cell impactor cassettes and a high-volume vacuum pump. Each sample was collected at a flow rate of 15 liters per minute for five minutes (75 liters) from an elevation of approximately 4 feet above ground level. The samples were submitted to EMC Laboratories Inc. in Phoenix, Arizona for analysis via IESO 6001 method by optical observation for determination of airborne soot-like particles. Laboratory analysis identified a presence of soot-like particles in the samples collected. Details of the air samples are provided in the figure below.

Table 4 – Soot Air Sample Results

Station	Location	Sample Number	Raw Count	Count/m ³	Background Rating
Station 2	At Kitchen Table	0001	93	4467	Light
	Living Room	0002	44	2107	Light
	Dorm 204	0003	16	773	Light
Station 4	Engine Bay (Fire Engine Off)	0004	220	10560	Moderate
	Dormitory (Fire Engine Running)	0005	93	4467	Moderate
	Engine Bay (Fire Engine Running)	0006	66	3173	Light
Station 1	Living Room	0007	87	4173	Light
	Engine Bay (Fire Engine Running)	0008	240	11520	Moderate
	Dormitory (Fire Engine Running)	0009	147	7053	Light

3 CONCLUSIONS

Based upon PBS' observations and assessment in the field and review of laboratory data associated with this investigation, PBS concludes the following:

Visual observations and laboratory analysis indicate that airborne diesel/soot particulates and/or surface contamination from diesel/soot particulates are present throughout all three fire stations. PBS provides the following recommendations:

- Solid/Non-Porous Surfaces – Non-porous surfaces should be appropriately cleaned. Use of household cleaning products/degreasers such as Simple Green and a mild detergent wash water should be sufficient. Wash and rinse liquids should be captured and disposed of according to applicable state and federal regulations.
- Cedar Wall Paneling – Cedar wall applications should be removed and disposed of according to applicable state and federal regulations. Cedar wall applications could also be remediated through sanding with a HEPA filter attachment and/or encapsulated with an appropriate encapsulating paint.
- Ceiling tiles – Ceiling tiles should be removed and disposed of according to applicable state and federal regulations.
- Carpet – Carpeted areas should be removed and disposed of according to applicable state and federal regulations. Carpeted areas could also be professionally cleaned with chemical/steam cleaning methods that are appropriate for diesel soot removal.

PBS noted the use of break-away diesel exhaust systems. It is PBS' opinion that the soot build-up within the fire stations is historical in nature and a result of poor ventilation prior to the implementation of the exhaust systems. PBS recommends the continued use of these ventilation systems. In addition, bay doors should remain open when vehicles are idling. PBS also recommends the implementation of air-purifying equipment within sleeping and common areas.

PBS recommends a thorough assessment of the HVAC systems servicing the facilities. Pre-filters should be inspected and changed regularly. HEPA filters should be installed, if not already in place, and changed regularly. Filters should be inspected for potential bypass during regular maintenance. Filters currently installed could be replaced with filters that have higher minimum efficiency reporting value (MERV) ratings to capture finer particles.

4 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

PBS has performed this investigation in conformance with current standard industry practices and the signed agreement between the Client and PBS.

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PBS Engineering & Environmental
Carson Linklater, Project Designer

5 LIMITATIONS

This study was limited to the tests and locations as indicated to determine the absence or presence of certain contaminants. The site as a whole may have other concerns that were not characterized by this study. The findings and conclusions of this investigation are not scientific certainties but, rather, probabilities based on professional judgment concerning the significance of the data gathered. PBS is not able to represent conditions at the site beyond those conditions detected or observed at the time of the investigation.

The spectrum of potential sources affecting indoor air quality is very broad and the sensitivity of individuals to these sources varies. This investigation was limited in scope and was not intended to be an exhaustive study but, rather, a screening of potential pollutants and/or sources that may cause occupant discomfort.



Photo 1. Overview of Station 1 Engine Bay. Light Soot build-up noted throughout bay.



Photo 2. Close up view of CMU wall within Station 2 Engine Bay. Note the build-up of soot.



Photo 3. Close up view of porous building materials within Station 4. Note the staining where cedar trim was removed as indicated by the red arrow.

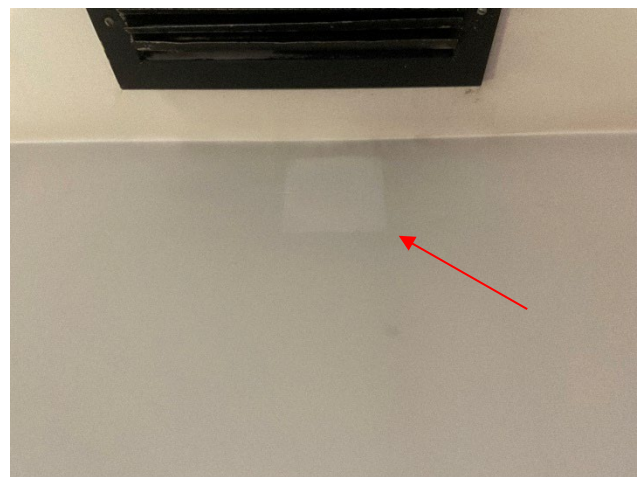


Photo 4. Close up of wipe sample location near a return vent within Station 4. Note the visible sample location due to the removal of soot as indicated by the red arrow.

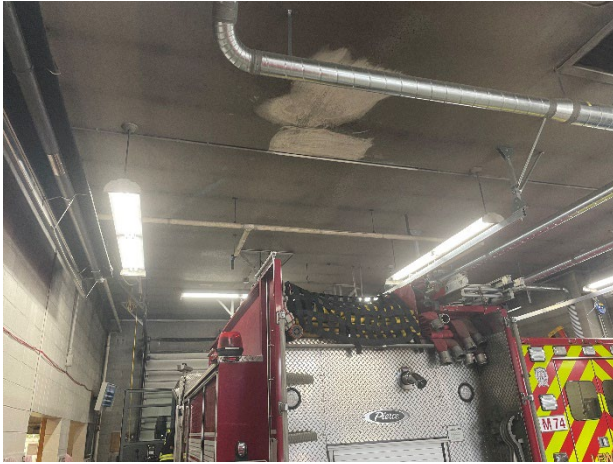


Photo 5. Overview of Station 4 Engine Bay ceiling. Note the heavy soot build-up compared to the area of the ceiling that had previously been wiped clean.



Photo 6. Close up view of soot-contaminated glued-on ceiling tile within Station 4.

October 26, 2023

J Kanani Patricio-Young
PBS Environmental - Richland
400 Bradley Blvd. Suite 106
Richland, WA 99352

Re: Particulates ID Report for NVL Batch No. 2317048.00

Dear Ms. Kanani Patricio-Young,

Enclosed please find test results for samples submitted to our laboratory for analysis to determine the presence of identifiable particulates.

Tape lifts from surfaces are mounted directly by pressing the sticky sides onto clean microscopic slides. Wipe samples are by pulling off darkened fibers and mounting them on glass slides with a drop of refractive index liquid on a cover slip. Samples are analyzed at 400x magnification.

Particle identification is determined by color, shape, particle size and structure with reference to published authoritative texts. Sample Description indicates visual appearance of sample prior to analysis.

This report is considered highly confidential and will not be released without your approval. Samples are archived for two weeks following analysis. Samples that are not retrieved by the client will be discarded after two weeks.

Thank you for using our laboratory services. If you need further assistance, please contact us at 206-547-0100 or 1-888-NVLLABS.

Sincerely,



Nick Ly, Technical Director

Enc.: Sample Results

Char and Soot ID Analytical Results



Client: PBS Environmental - Richland
Address: 400 Bradley Blvd. Suite 106
Richland, WA 99352

NVL Batch #: 2317048.00

Method : Microscopy

64906.001 Lewiston FD-Limited

Client Project: Diesel Sampling

Date Received: 10/26/2023

Matrix: Dust Wipe

Samples Received: 7

Samples Analyzed: 7

Attention: Ms. J Kanani Patricio- Young
Project Location: 3 Fire Stations - Lewiston, ID 86501

NVL Lab ID	Client Sample ID	Sample location	Date Sampled	Soot and Char on Wipe Sample	Average Char and Soot Count per 100 Fields Tape Sample
23103437	64906.001 W-001	Fire Station 2, Kitchen Wall, Gypsum	10/23/2023	Present	N-A
Comments: Fire-related particulates identified.					

NVL Lab ID	Client Sample ID	Sample location	Date Sampled	Soot and Char on Wipe Sample	Average Char and Soot Count per 100 Fields Tape Sample
23103438	64906.001 W-002	Fire Station 2, Dorm 204, Bedroom Wall, Gypsum	10/23/2023	Present	N-A
Comments: Fire-related particulates identified.					

NVL Lab ID	Client Sample ID	Sample location	Date Sampled	Soot and Char on Wipe Sample	Average Char and Soot Count per 100 Fields Tape Sample
23103439	64906.001 W-003	Fire Station 4, Bay Ceiling, Concrete	10/23/2023	Present	N-A
Comments: Fire-related particulates identified.					

NVL Lab ID	Client Sample ID	Sample location	Date Sampled	Soot and Char on Wipe Sample	Average Char and Soot Count per 100 Fields Tape Sample
23103440	64906.001 W-004	Fire Station 4, Ceiling, Dorm, Gyp at return vent	10/23/2023	Present	N-A
Comments: Fire-related particulates identified.					

Sampled by: Client

Analyzed by: Evelyn Ahulu

Reviewed by: Nick Ly

Date: 10/26/2023

Date: 10/26/2023

Nick Ly, Technical Director

Samples were mounted on glass slides and stained with lacto cotton blue media. Soot and char particle identification is determined by color, shape, particle size and structure with reference to published authoritative texts. Responsibility for interpretation of this data rests with the client.

Char and Soot ID Analytical Results



Client: PBS Environmental - Richland
Address: 400 Bradley Blvd. Suite 106
Richland, WA 99352

NVL Batch #: 2317048.00

Method : Microscopy

64906.001 Lewiston FD-Limited

Client Project: Diesel Sampling

Date Received: 10/26/2023

Matrix: Tape lift

Samples Received: 7

Samples Analyzed: 7

Attention: Ms. J Kanani Patricio- Young
Project Location: 3 Fire Stations - Lewiston, ID 86501

NVL Lab ID	Client Sample ID	Sample location	Date Sampled	Soot and Char on Wipe Sample	Average Char and Soot Count per 100 Fields Tape Sample
23103441	64906.001 W-005	Fire Station 4, Wall, Chief's room, Gyp at return vent	10/23/2023	Present	N-A

Comments: Fire-related particulates identified.

NVL Lab ID	Client Sample ID	Sample location	Date Sampled	Soot and Char on Wipe Sample	Average Char and Soot Count per 100 Fields Tape Sample
23103442	64906.001 W-006	Fire Station 1, Bay Wall, CMU	10/23/2023	Present	N-A

Comments: Fire-related particulates identified.

NVL Lab ID	Client Sample ID	Sample location	Date Sampled	Soot and Char on Wipe Sample	Average Char and Soot Count per 100 Fields Tape Sample
23103443	64906.001 W-007	Fire Station 1, Dorm Wall, Gyp	10/23/2023	Present	N-A

Comments: Fire-related particulates identified.

NVL Lab ID	Client Sample ID	Sample location	Date Sampled	Soot and Char on Wipe Sample	Average Char and Soot Count per 100 Fields Tape Sample

Comments:

Sampled by: Client
Analyzed by: Evelyn Ahulu
Reviewed by: Nick Ly

Date: 10/26/2023
Date: 10/26/2023


Nick Ly, Technical Director

Samples were mounted on glass slides and stained with lacto cotton blue media. Soot and char particle identification is determined by color, shape, particle size and structure with reference to published authoritative texts. Responsibility for interpretation of this data rests with the client.

INDUSTRIAL HYGIENE LABORATORY SERVICES



NVL

Company PBS Environmental - Richland

NVL Batch Number 2317048.00

Address 400 Bradley Blvd. Suite 106
Richland, WA 99352

TAT 5 Days **AH** No

Rush TAT

Project Manager Ms. J. Kanani Patricio-Young

Due Date 11/2/2023 **Time** 9:10 AM

Phone (509) 942-1600

Email kanani.young@pbsusa.com

Cell (808) 346-1128

Fax (866) 727-0140

Project Name/Number: 64906.001 Lewiston FD-
Limited Diesel Sampling

Project Location: 3 Fire Stations - Lewiston, ID 83501

Subcategory Nuisance and Respirable Dust

Item Code MISC-07

Method IESO 6001 Soot and Char

Total Number of Samples 7

Rush Samples

	Lab ID	Sample ID	Description	A/R
1	23103437	64906.001 W-001		A
2	23103438	64906.001 W-002		A
3	23103439	64906.001 W-003		A
4	23103440	64906.001 W-004		A
5	23103441	64906.001 W-005		A
6	23103442	64906.001 W-006		A
7	23103443	64906.001 W-007		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Kelly AuVu		NVL	10/26/23	910
Analyzed by	Evelyn Ahulu		NVL	10/26/23	
Results Called by					
☐ Faxed ☐ Emailed					

Special Instructions:

November 1, 2023

Ms. J. Kanani Patricio-Young
PBS Environmental - Richland
400 Bradley Blvd. Suite 106
Richland, WA 99352

Re: Fire-Related Particulates ID Report for NVL Batch No. 2317047.00

Dear Ms. Kanani Patricio-Young,
Enclosed please find test results for the 9 air sample(s) submitted to our laboratory for analysis on 10/26/2023.

Examination of these samples was conducted in accordance with the IESO 6001 Soot and Char method. Results are reported in Soot and Char particles per cubic meter (particles/m³).

Test results not blank corrected unless field blanks were provided.
Samples are archived for two weeks following analysis and will be discarded if not retrieved by the client after that period.

Thank you for using our laboratory services. Please do not hesitate to call if there is anything further we can assist you with.

Sincerely,



Nick Ly, Technical Director

Enc.: Sample Results

**Air, Soot & Char ID
Analytical Results**



Client: PBS Environmental - Richland
Address: 400 Bradley Blvd. Suite 106
Richland, WA 99352

Batch #: 2317047.00

Client Project: 64906.001 Lewiston FD-Limited Diesel Sampling

Date Received: 10/26/2023

Samples Received: 9

Samples Analyzed: 9

Attention: Ms. J. Kanani Patricio-Young
Project Location: 3 Fire Stations - Lewiston, ID 83501

Lab Sample ID:	23103428	23103429	23103430	23103431
Client Sample ID:	64906.001-0001	64906.001-0002	64906.001-0003	64906.001-0004
Sample Location:	Fire Station 2, Kitchen at table	Fire Station 2, Living Room	Fire Station 2, Dorm 204	Fire Station 4, Bay (Fire Engine Off)
Volume (L):	75	75	75	75

Particulate Type	Raw		Raw		Raw		Raw	
	Count	Count/m ³	Count	Count/m ³	Count	Count/m ³	Count	Count/m ³
Algae								
Amorphous debris								
Cellulose fibers								
Cotton fibers								
Crystalline fragments								
Feather barbs								
Glass fibers								
Gypsum crystals								
Hyphal fragments								
Insect parts								
Pollen								
Skin cells								
Soot and char particles	93	4467	44	2107	16	773	220	10560
Starch particles								
Synthetic fibers								
Toner particles								
Total: Particulates	93	4467	44	2107	16	773	220	10560
Background Rating	Light		Light		Light		Moderate	

Sampled by: Client

Analyzed by: Evelyn Ahulu

Reviewed by: Nick Ly

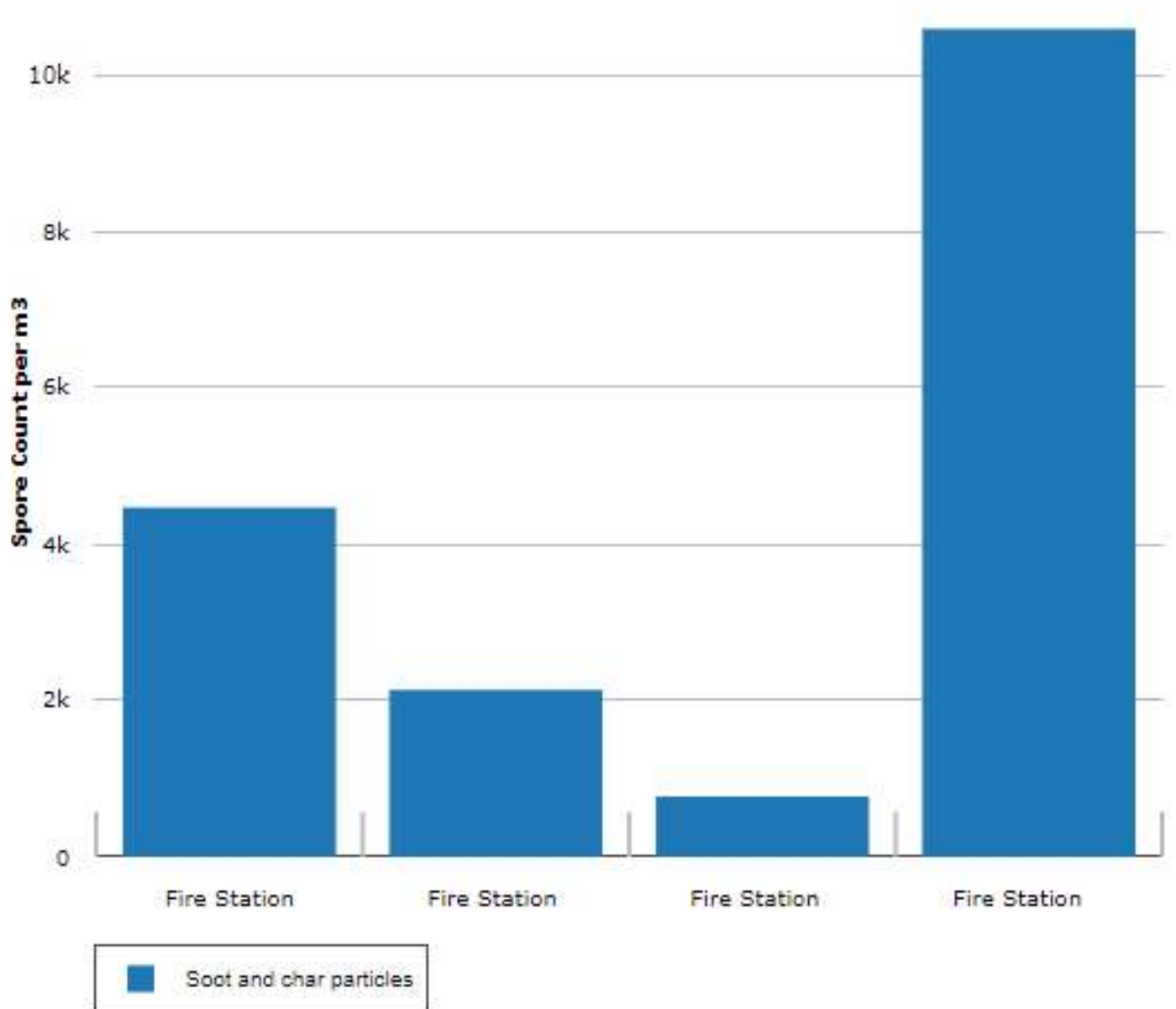
Date:10/26/2023

Date:11/01/2023

Nick Ly, Technical Director

Particle collection slides were removed from sampling cassettes and stained with lactophenol cotton blue. Particle types were identified by characteristic morphology at 300x magnification in accordance with NVL SOP 12.133. 'Raw counts' represents actual number of each particle type present in the sample, and 'counts per cubic meter' or particle concentration. Limit of detection (LOD) is the air concentration that would result in the observation of one particle by this analysis. Responsibility for interpretation of these data rests with the client.

Particulates Report: Total Count



Air, Soot & Char ID Analytical Results



Client: PBS Environmental - Richland
Address: 400 Bradley Blvd. Suite 106
Richland, WA 99352

Batch #: 2317047.00

Client Project: 64906.001 Lewiston FD-Limited Diesel Sampling

Date Received: 10/26/2023

Samples Received: 9

Samples Analyzed: 9

Attention: Ms. J. Kanani Patricio-Young
Project Location: 3 Fire Stations - Lewiston, ID 83501

Lab Sample ID: Client Sample ID: Sample Location: Volume (L):	23103432		23103433		23103434		23103435	
	64906.001-0005		64906.001-0006		64906.001-0007		64906.001-0008	
	Fire Station 4, Dorm (Fire Engine Running)		Fire Station 4, Bay (Fire Engine Running)		Fire Station 1, Living Room		Fire Station 1, Bay (Fire Engine Running)	
	75		75		75		75	
Particulate Type	Raw Count	Count/m³	Raw Count	Count/m³	Raw Count	Count/m³	Raw Count	Count/m³
Algae								
Amorphous debris								
Cellulose fibers								
Cotton fibers								
Crystalline fragments								
Feather barbs								
Glass fibers								
Gypsum crystals								
Hyphal fragments								
Insect parts								
Pollen								
Skin cells								
Soot and char particles	93	4467	66	3173	87	4173	240	11520
Starch particles								
Synthetic fibers								
Toner particles								
Total: Particulates	93	4467	66	3173	87	4173	240	11520
Background Rating	Moderate		Light		Light		Moderate	

Sampled by: Client

Analyzed by: Evelyn Ahulu

Reviewed by: Nick Ly

Date:10/26/2023

Date:11/01/2023

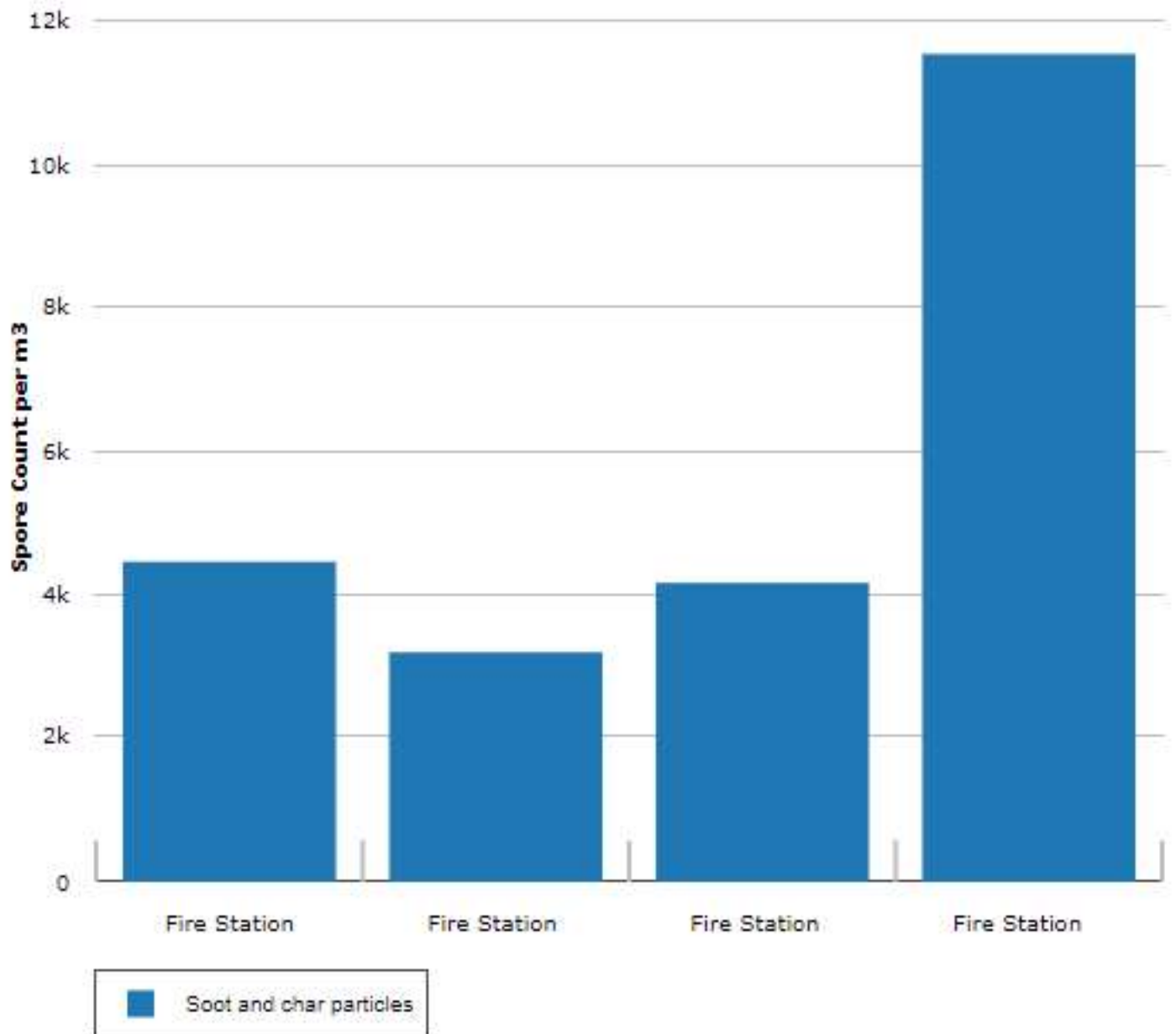
Nick Ly, Technical Director

Particle collection slides were removed from sampling cassettes and stained with lactophenol cotton blue. Particle types were identified by characteristic morphology at 300x magnification in accordance with NVL SOP 12.133. 'Raw counts' represents actual number of each particle type present in the sample, and 'counts per cubic meter' or particle concentration. Limit of detection (LOD) is the air concentration that would result in the observation of one particle by this analysis. Responsibility for interpretation of these data rests with the client.

Batch #: 2317047.00

Client Project: 64906.001 Lewiston FD-
Limited Diesel Sampling

Particulates Report: Total Count





Client: PBS Environmental - Richland
Address: 400 Bradley Blvd. Suite 106
Richland, WA 99352

Batch #: 2317047.00

Client Project: 64906.001 Lewiston FD-Limited
Diesel Sampling

Date Received: 10/26/2023

Samples Received: 9

Samples Analyzed: 9

Attention: Ms. J. Kanani Patricio-Young
Project Location: 3 Fire Stations - Lewiston, ID 83501

Lab Sample ID:	23103436			
Client Sample ID:	64906.001-0009			
Sample Location:	Fire Station 1, Dorm (Fire Engine Running)			
Volume (L):	75			

Particulate Type	Raw Count	Count/m ³	Raw Count	Count/m ³	Raw Count	Count/m ³	Raw Count	Count/m ³
Algae								
Amorphous debris								
Cellulose fibers								
Cotton fibers								
Crystalline fragments								
Feather barbs								
Glass fibers								
Gypsum crystals								
Hyphal fragments								
Insect parts								
Pollen								
Skin cells								
Soot and char particles	147	7053						
Starch particles								
Synthetic fibers								
Toner particles								
Total: Particulates	147	7053						
Background Rating	Light							

Sampled by: Client

Analyzed by: Evelyn Ahulu

Reviewed by: Nick Ly

Date:10/26/2023

Date:11/01/2023

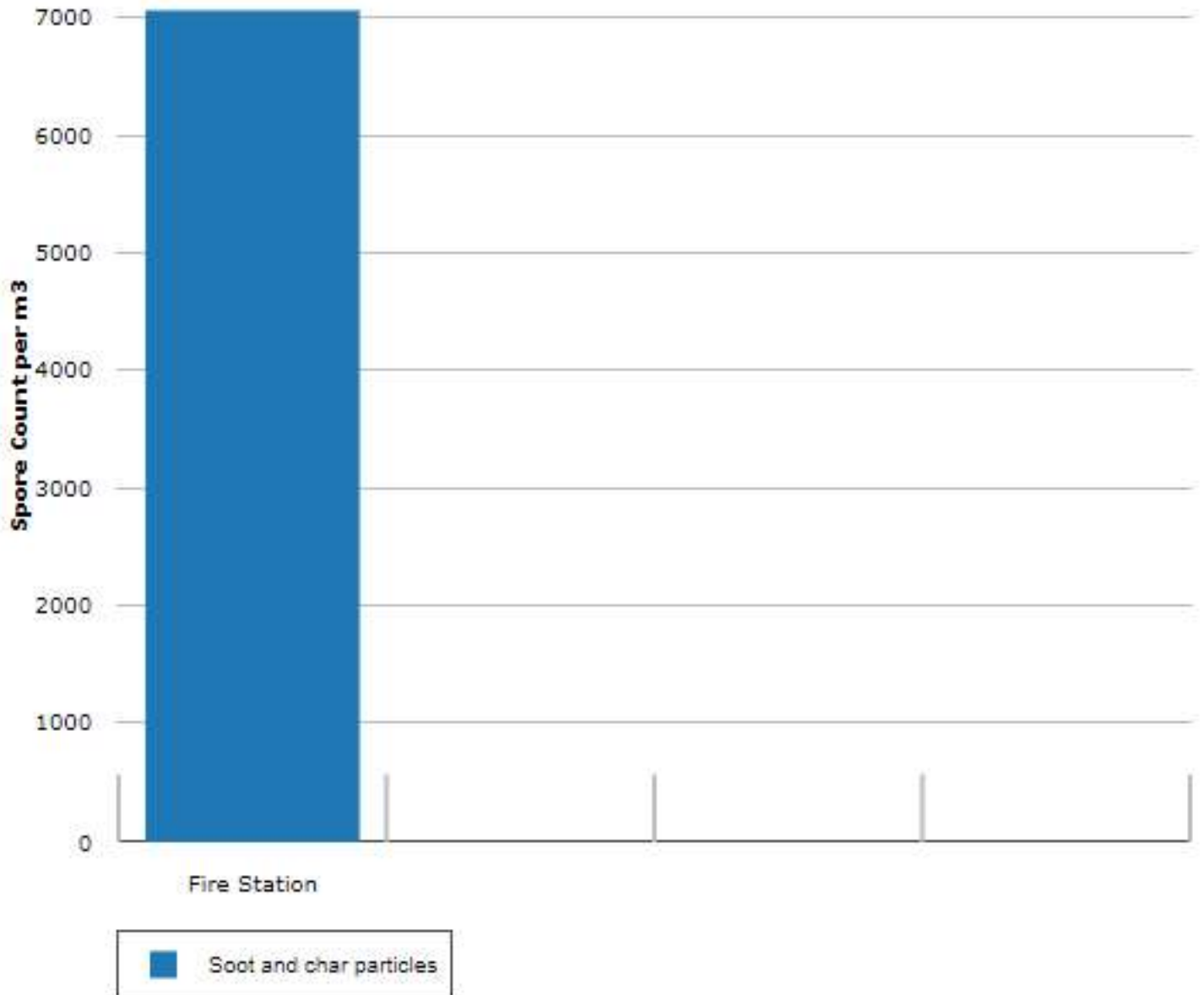
Nick Ly, Technical Director

Particle collection slides were removed from sampling cassettes and stained with lactophenol cotton blue. Particle types were identified by characteristic morphology at 300x magnification in accordance with NVL SOP 12.133. 'Raw counts' represents actual number of each particle type present in the sample, and 'counts per cubic meter' or particle concentration. Limit of detection (LOD) is the air concentration that would result in the observation of one particle by this analysis. Responsibility for interpretation of these data rests with the client.

Batch #: 2317047.00

Client Project: 64906.001 Lewiston FD-
Limited Diesel Sampling

Particulates Report: Total Count



INDUSTRIAL HYGIENE LABORATORY SERVICES



NVL

Company PBS Environmental - Richland

Address 400 Bradley Blvd. Suite 106
Richland, WA 99352

NVL Batch Number 2317047.00

TAT 5 Days **AH** No

Rush TAT

Due Date 11/2/2023 **Time** 9:10 AM

Email kanani.young@pbsusa.com

Fax (866) 727-0140

Project Manager Ms. J. Kanani Patricio-Young

Phone (509) 942-1600

Cell (808) 346-1128

Project Name/Number: 64906.001 Lewiston FD-
Limited Diesel Sampling

Project Location: 3 Fire Stations - Lewiston, ID 83501

Subcategory Nuisance and Respirable Dust

Item Code MISC-07

Method IESO 6001 Soot and Char

Total Number of Samples 9

Rush Samples

	Lab ID	Sample ID	Description	A/R
1	23103428	64906.001-0001		A
2	23103429	64906.001-0002		A
3	23103430	64906.001-0003		A
4	23103431	64906.001-0004		A
5	23103432	64906.001-0005		A
6	23103433	64906.001-0006		A
7	23103434	64906.001-0007		A
8	23103435	64906.001-0008		A
9	23103436	64906.001-0009		A

	Print Name	Signature	Company	Date	Time
Sampled by	Client				
Relinquished by	Federal Express				

Office Use Only	Print Name	Signature	Company	Date	Time
Received by	Kelly AuVu		NVL	10/26/23	910
Analyzed by	Evelyn Ahulu		NVL	10/26/23	
Results Called by					
☐ Faxed ☐ Emailed					

Special Instructions:

Lewiston Fire Department

Fire Station Analysis

Lewiston, Idaho

April 30, 2020



Project Team

Owner

City of Lewiston
1134 F Street
Lewiston, ID 83501

City of Lewiston Fire Department
1245 Idaho Street
Lewiston, ID 83501
Contact: Travis Myklebust, Fire Chief

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Hayden, ID 83835
208-772-0503
Contact: Cory Trapp, AIA, CSI, NCARB
Principal

Fire Station Consultant:
TCA Architecture + Planning + Design
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Contact: Brian Harris, AIA, LEED AP
Principal

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Seattle, WA 98121
206-493-2390
Contact: Ben Silver, GISP

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Appendix A – Current Travel Time Mapping by Station

Lewiston Fire Department – Statement of Purpose

Study Objectives:

1. Review current fire stations to verify that stations meet performance goals with current demand.
2. Evaluate current fire station locations and map current standard compliance.
3. Determine if the locations are adequate and provide alternative station locations if required.
4. Review current and future needs related to projected community growth.
5. Provide response time mapping for 3 current city stations.
6. Examine the conditions of the current stations related to station efficiency and functionality.
7. Review need to incorporate satellite police services in an East Orchards Fire Station.
8. Review the need for a training facility in the City of Lewiston.
9. Include Idaho Survey and Rating Bureau requirements, NFPA requirements and any fire service best practices regarding deployment of resources.

For the objectives noted above we will make recommendations and risk assessments to the City of Lewiston to guide future planning for the Fire Department.

Executive Summary

GENERAL

The following is an overview of the detailed documentation and analysis found within the report. These findings offer information to support future decision making relative to future deployment, optimized coverage based on a three-station model, and capital facility planning to support the Lewiston community.

FACILITY CONDITIONS

Four facilities consisting of Fire Station 1, Fire Station 2, Fire Station 4, and the Fire Administration Building were identified and assessed as part of this study effort. The physical condition of each facility coupled with the ability to support current and future operational needs were identified and documented. Key areas of review included:

1. Site Assessment
2. Exterior / Envelope Conditions
3. Programming/Space Plan
4. Codes and Standards
5. Systems

KEY FINDINGS BY FACILITY:

FIRE STATION 1

- While areas of the station have been renovated in an incremental make-due fashion over time, the facility is consistent with what would be expected in a 56-year-old fire station. Overall, the station is in fair to poor condition and lacks many of the systems and features would be found in a modern-day fire facility.
- Due to the current condition, lack of area to accommodate operational needs, and overall age, this facility should be considered for replacement.
- The response model suggests facility replacement should occur in an alternative location.
- If this facility is replaced the existing building could be repurposed for additional administration offices, training, reserve vehicle storage and/or vehicle maintenance.

FIRE ADMINISTRATION BUILDING

- This facility is generally in good condition, space is tight in some areas, lacks space for storage and a conference room. The facility has ADA accessibility issues and no room for additional staff.

- Since it is command and control for the department, the station should be equipped with an emergency generator.
- As decisions are made relative to the future location of station 1, this facility should be considered for future expansion or relocation.

FIRE STATION 2 (and Annex)

- This 27-year-old station was found to be the newest of facilities evaluated. Though the facility is generally in good condition the station has several code deficiencies, does not adequately support current programmatic needs and is not conducive to a healthy environment as it relates to cross contamination issues.
- Given the available site area and potential need to add a police substation in the general vicinity, an addition and interior renovation to better address operation needs should be considered at this location.

FIRE STATION 4

- This 47-year-old station was found to have substantial programmatic and code related issues and is be inadequate in size to address current operational needs.
- Given the extent of renovation that would be required, it will be more cost effective to replace the existing facility.
- The response model suggests facility replacement should occur in an alternative location.

TRAINING FACILITY

- Currently the City does not have any fire training facility. Manipulative training occurs on donated houses, found locations, and occasionally by traveling to Coeur d'Alene or Spokane which is costly and extremely remote for the City's service area.
- The City should evaluate if a shared training facility were located within the City if the ISO rating would move from a low 3 to a 2
- A possible regional partner with potential land was suggested to be Lewis and Clark State College near the new Technical School.

GROWTH AND RESPONSE

Based on the response modeling as part of this study, it is recommended that two of the current stations be replaced in an alternative location:

- **Station 1:** General vicinity of 21st St between 7th and 8th Ave. (no farther east than 21st St)
- **Station 4:** General vicinity of Bryden Ave and 4th Street and 5th Street.

IMPLEMENTATION TIMELINE

The following recommended timeline identifies near-term and long-term implementation horizons based on current and anticipated need as a result of both population growth and aging facilities. As the timeline extends past the mid-term, this study suggests that the target replacement timeline of Station 1 be re-evaluated based on actual growth and call load and project implementation adjusted accordingly.

- **Near Term: 2-5+ Years:**
 - Station 4 Replacement New Site
 - Training Facility Land Acquisition and Joint Facility discussions with Lewis and Clark State College
- **Mid-term: 8-10+ Years:**
 - Station 2 Renovation and Addition to the Existing Site
- **Long-term: 15+ Years:**
 - Target Station 1 Site Purchase (near term- next 3-5 years)
 - Station 1 Replacement New Site
 - Existing Station 1 - Administration Building Expansion or use for alternative city function

Lewiston Fire Department – Overview

The following is an overview of the existing Lewiston Fire Department provided to our team by your Fire Chief. This document contained very pertinent information that was valuable as background information for our study.



LEWISTON FIRE DEPARTMENT OVERVIEW

ORGANIZATION. The department has 56 full-time and 12 part-time employees. Full-time personnel are divided into five divisions: Administration (fire chief, deputy fire chief, division chief of training & safety and 2 administrative secretaries), Suppression (3 battalion chiefs and 21 firefighters), Emergency Medical Services (18 firefighters), Prevention (division chief and 2 inspectors) and Reserve (12 part-time firefighters). There are 16 personnel on duty 24 hours each day serving the public from 4 fire stations; 3 in Lewiston and the Asotin County Fire District #1 station: Station 1 (1 battalion chief, 1 captain, and 4 firefighters) serves downtown, North Lewiston and East Lewiston; Station 2 (1 captain and 4 firefighters) serves the East Orchards; Station 4 (1 captain and 2 firefighters) serves the airport area, West Orchards and Elks area; and the AC Station (2 firefighters) serves Asotin, Asotin County, Elks Addition, Hells Gate area and parts of downtown Lewiston. The three battalion chiefs have their office in the fire administration building.

MISSION. We will respond to each call with courage, conviction and compassion.

CORE VALUES. Value our people; Do the right thing; Lead by example; Give people the benefit of the doubt; Be accountable to yourself and others; Have pride in your job; Look for the positive; Show respect

CROSS-TRAINED AND CROSS-STAFFED. Firefighters are cross-trained to meet the various department missions; all department vehicles are cross-staffed. The on-duty crew takes the vehicles and tools it needs to perform the mission. Suppression and EMS Division duties include fire suppression; emergency and nonemergency ambulance service; aircraft rescue firefighting (ARFF) at the airport; hazardous materials response; rescue and extrication; disaster response; and public education. LFD is a multi-dimension, multi-function organization. By training and equipping the same personnel to perform numerous missions, the City receives greater return on its investment in personnel. All firefighters are certified EMS providers; all Paramedics and EMTs are firefighters.

Reserve Firefighters are part-time employees who fill in for full-time personnel absent for vacation, illness, injury, training, union business, jury duty, subpoena leave, leaves of absence less than 60 days, public education, awaiting new hires, and special assignments as agreed by both parties of the Collective Labor Agreement. Their activity is limited to either firefighter or ambulance attendant positions. Utilizing Reserve Firefighters greatly reduces overtime costs.

OPERATIONAL CONCEPT. Firefighters operate in teams carrying the tools and equipment needed to perform the various missions on board self-contained fire engines, ambulances and support vehicles. Firefighters function as risk managers; moving people, tools and equipment around to complete the multiple missions of the department.

AMBULANCE SERVICE. LFD has provided emergency and nonemergency ambulance service to Lewiston since 1961, and now by contract to Asotin, Asotin County, Colton, Nez Perce County, Uniontown and the southeastern part of Whitman County.

Effective January 1, 2010 our only response in Clarkston is for out-of-area transfers and trauma verified calls. Out-of-area transfers are a matter of patient choice and are not governed by Clarkston's ordinance establishing their ambulance service as the exclusive provider for the City of Clarkston.

Presently, counting the Reserve force, the department has 33 Paramedics, 5 Advanced EMTs and 25 EMTs. Of the 25 EMTs, 14 are specially trained to start IVs IOs and supra glottis airways. A council-appointed Emergency Medical Services Advisory Board (EMSAB), created by ordinance, makes recommendations to the council on medical service issues relating to rules and standards. For FY19 the department collected \$2.6 million in revenue on approximately \$3.4 million in billed services.

CALL VOLUME. Regardless of the number of vehicles responding to an incident, a "call" is defined as a single response to an address for assistance. We don't multiply the number of vehicles times the response to ascertain our call volume. In Fiscal Year 2019 the department responded to 6,845 EMS calls, 519 fire responses and 3 hazardous materials response, totaling 7,367 responses.

FIRE PREVENTION. The Prevention Division provides for the life safety of the public, as well as the firefighters, through the application and enforcement of the International Fire Code. The International Fire Code fits into an entire *family of codes* intended to work as a cohesive unit. It is designed and written as a *minimum code* for the protection of life and property from fire and explosion. Prevention conducts plan reviews and new and remodel construction inspections under the 2015 International Fire Code (IFC); conducts fire cause and arson investigations; conducts business license inspections; issues blasting permits and monitors blasting sites; determines needed fire flow and fire apparatus access requirements per IFC; operates the Juvenile Firesetter Counseling Program; enforces the IFC on commercial use of hazardous materials and processes; and provides operational support to other divisions.

New construction, additions or remodels, as well as changes in occupancy or process, is subject to the City's review process. There are several City entities involved at this level however, only the Fire Department has maintenance responsibility over the life of the subject property.

The IFC is adopted into law by the State Fire Marshal through the authority granted by state statute (Idaho Code 41-253) as a minimum standard for the State of Idaho. Conversely, cities and counties must take specific action to adopt the International Building Code in their jurisdictions to apply and enforce its requirements. The Fire Marshal and Fire Inspectors are considered assistants to the State Fire Marshal in carrying out the provisions of the IFC (Idaho Code 41-256). This code has been constructed through a process of public hearings and debate with all interested parties, weighing the political, social and economic considerations against the technical and legal requirements found within. Changes made to it on a local level must be more restrictive, not less restrictive, per State law. The City of Lewiston has adopted less restrictive amendments in opposition to this direction; therefore, the City has chosen to assume that liability. The Prevention Division makes every effort to enforce the fire code uniformly, consistently and above all, in a fair and unbiased manner.

The City Code Board of Appeals may review Fire Department interpretations of the IFC but does not have authority to waive the code.

FIRE LOSS. Fire loss in FY19 was \$1,008,320.

HAZARDOUS MATERIALS RESPONSE. LFD is the lead agency in the public-private partnership providing Level A hazardous materials emergency response to a five-county area: Clearwater, Idaho, Latah, Lewis and Nez Perce. The State funded the North Central Emergency Response Team (ERT) with \$97,000 in 1994 for three vehicles and equipment. Training and equipment for the team are provided through the State. The State is the lead agency in cost recovery for emergency response. The City has ERT response contracts with Washington State University and the City of Pullman.

MUTUAL AID. LFD has mutual aid agreements with Asotin, Clarkston, Moscow and Pullman Fire Departments, Asotin County Fire District #1, Moscow Rural Fire District, Wheatland Fire Protection District and Whitman County Fire District #14. Beginning in May of 2017 the department established an automatic aid agreement for structure fires with Asotin County Fire District #1, Clarkston Fire Department and Wheatland Fire Protection District. The department also has an emergency services agreement with Clearwater Paper Corporation and Medcor. We work closely with city, county and state law enforcement agencies in Idaho and Washington.

VEHICLES. LFD operates 7 ambulances; 5 engines; a 100-foot aerial; a rescue/extrication truck; 2 4WD grass-firefighting vehicles; a utility vehicle; an aircraft/rescue/firefighting vehicle; 30-patient Mass Casualty trailer; public education trailer; 2 state-owned hazardous materials trucks and 4 trailers; 2 pick-ups and 4 SUVs.

UNION. Battalion Chiefs, Captains, Engineers, Firefighters, Fire Inspectors and Reserve Firefighters are represented by the International Association of Firefighters Local 1773. They are affiliated with the AFL-CIO and work under a Collective Labor Agreement that is negotiated to address wages, benefits, working conditions, and all other terms and conditions of employment as provided by state law.

BUDGET. The FY20 budget, out of the General Fund, is \$9,031,020. Personnel cost is approximately 86% of the budget.

PROGRAMS. Department programs include Fire and Life Safety Education, Community Smoke Alarm Program, Juvenile Firesetter Counseling, Fire Prevention Week, EMS Week, Internal Quality Improvement, Ice and Cold Water Rescue, External Physician Quality Assurance Program, Blood Pressure Monitoring, Emergency Medical Dispatch (EMD), Emergency Medical Information Cards and Know When to Call 911 Campaign.

CLASS 3. Idaho Surveying and Rating Bureau has listed Lewiston as a Class 3 fire protection city.

THE FUTURE. Continue to replace aged apparatus and equipment, allowing emergency responders to have adequate tools to help provide excellent medical care and safely suppress fires.

The department has been working over the past couple years to develop a plan to replace the 45 year old fire station currently located at 424 Burrell Ave. In June of 2017 the city purchased a little over an acre of land located on the northwest corner of 5th Street and Bryden Ave. This site will become the new location for Station 4. When funding is secured it is our desire to begin construction in 2022 and occupy the station in early 2023. The new location will improve emergency response times to numerous areas of the community that are currently under served according to NFPA 1710 standards.

We will continue to address future staffing needs of the department as our community expands and call volume increases. Staff will review current and future deployment models, response statistics, community risk analysis and facility needs for the future. This process will involve the city council, city manager, fire department staff and community members. The input we receive will help us address citizen's expectations from their fire department.

SUMMARY. The Lewiston Fire Department considers itself a premier fire department. We provide a large number of services that are not found in many communities. With cross-trained personnel and cross-staffed apparatus responding to emergency and nonemergency requests, we are able to impact the lives of those calling for help almost immediately. The members of the Lewiston Fire Department recognize that our customers' first impression may very well be their lasting impression; compassion and professionalism are the essential elements we exercise with every customer contact.

Lewiston Fire Department - Existing Conditions

The following is an assessment of the existing conditions for the Lewiston Fire Department Facilities. Conditions reviewed include:

1. Site
2. Exterior/Envelope
3. Interior
4. Program/Space Planning
5. Operations
6. Codes and Standards
7. Structural
8. Mechanical/Plumbing
9. Fire Suppression
10. Electrical/IT/Alerting

FIRE STATION 1

300 13th Street, Lewiston, Idaho 83501

Built 1964

General

Facility Size	Main Floor 7,762 sf, Basement 1,173 sf
Bays	4 double depth bays, 2 are drive thru
Current Staffing	6
Current Apparatus	Engine (3), Medic (2), Battalion Chief (1), Brush Truck, Rescue Truck, Ladder Truck, Reserve Medic, Reserve Medic Ideally the Battalion Chief would be located more centrally in the Departments coverage area, however current facilities cannot accommodate this objective.
Future Staffing	0
Future Apparatus	None

Fire Station 1 is an 8,935 square foot building with a partial basement, sited adjacent to the Fire Department Headquarters. Emergency response is on 13th Street, and the drive through apparatus bays (2 of the 4) are accessed from G Street. Parking is provided behind the station and off of G Street. The property is a corner lot surrounded primarily by commercial use buildings.

ASSESSMENT

Site

Fire Station 1 has a front concrete apron and an “L” shaped asphalt cement paved (ACP) parking area on the north and west side of the station with a mix of visitor and employee parking (8 stalls). Unmarked parallel parking is used on the back side of the bays. The surfacing is in fair condition, however it was noted that the pavement is poor condition in several areas. Unenclosed dumpsters are in the west parking area. No on-site surface water conveyance was observed.

There is one non-compliant ADA designated accessible parking space located in NE corner of the parking lot but does not have code compliant access to the sidewalk. Sidewalks serving the station are in good condition.

There are a couple on-site storage sheds which have been added due to the lack of available storage in the station.

The site is not secure, and it was noted that crime has become an increasing challenge at this location. Security fencing around the station with gates would help address this issue.

The site is well maintained by the Fire Department.

Exterior/Envelope

The concrete masonry unit exterior envelope is in fair condition. There are flat roofs on the facility with rooftop mechanical penetration with no observed fall protection.

Interior

The existing materials and finishes generally exhibit signs of wear throughout. The station appears to have undergone numerous minor renovations over the years which has resulted in inconsistent residential quality materials in several areas. The following materials were noted in the station:

- Concrete apparatus bay slab- inadequate drainage for today's standards and non-structural cracking was observed throughout the station where slabs were exposed.
- VCT flooring select areas (fair condition) - joints in flooring material are difficult to maintain.
- Ceramic tile in kitchen area is in good condition however the grout joints appear difficult to maintain.
- Roll carpet (poor condition) - in Day Room and some sleeping areas of the station and has clear cross-contamination and cleaning issues.
- Roll carpet (good condition) – Training Room
- Rubber base
- Gypsum wallboard and concrete masonry unit walls (damaged in areas –especially corners)
- A variety of painted wood and metal doors (no kick plates in areas, paint is damaged)- fire ratings do not meet code.
- Cabinetry and countertops show wear throughout (heavy in areas)
- Lay-in acoustical ceiling tiles, gypsum wallboard, and wood ceilings

Programming/Space Planning

Crew living and working areas flank the apparatus bay to the north and south. The unsecured public lobby is located on the north side with no internal point of security. A multi-training room is accessible from the lobby.

Generally sleeping rooms, restrooms and the kitchen and dayroom are located on the south side and are inadequate to today's standards. Lack of doors and dorm like sleeping rooms are both a privacy and health issue relative to sleep deprivation, alerting controls, and the transfer of infectious disease. The exercise room, located in the basement, is not ADA accessible and appears to be found space. The ceiling is low for today's needs. Storage is inadequate throughout the station.

Shop & SCBA storage located in an alcove off the apparatus bay. Medical gas storage, turnout gear storage, and hose storage functions are located at the perimeter of the bay. This found storage is impacting clearance around apparatus. Additional mezzanine storage is accessed apparatus bay.

Operations:

Turnout time throughout the station is reasonable mainly due the station being small relative to modern facilities.

Cross-contamination is a problem throughout the station. This is a result of inadequate mechanical systems and inadequate air-pressure differentials, modern decontamination and cleaning areas, lack of hand and boot wash areas, and clear transition zones between “clean” living areas, and “dirty” (higher degree of potential contaminates) apparatus, and support spaces. Station materials and finishes in the station do not support cross contamination mitigation.

Gender Neutrality- the facility has limited options to accommodate mixed genders however at this time, given staffing this has not been a significant issue. We anticipate that will change over time.

Bulk EMS storage is located in the basement due to lack of storage adjacent to the bay.

Bay lengths and widths do not accommodate industry standard clearances around apparatus.

Codes & Standards:

Fire ratings- separation between the sleeping areas and the apparatus bay do not meet code

Fire suppression- the facility does not have a fire suppression system

ADA- does not meet requirements throughout the station: restroom accommodations, door access, program accommodations, signage, counter heights, etc.

Turnout storage- storage located in the apparatus bay and does not meet the best practices on a modern station

Decontamination/cleaning- the limited facilities observed are not enclosed and segregated from the bays

Medical gas storage- exceeds fire code limits based on quantity being stored. Medical gas tanks are required to be stored in one-hour fire resistive in vented designated areas.

Structural

The building is a single-story masonry building and is generally rectangular in plan. There are four apparatus bays. The exterior walls are constructed of concrete masonry units. The roof framing consists of sheathing supported by heavy timber. The floor is a concrete slab-on-grade. The basement consists of concrete bearing walls and a cast concrete deck.

The lateral-force-resisting system should be examined to determine the necessity of a seismic upgrade.

Mechanical/Plumbing

The office/sleeping/dayroom areas are served by a ducted air system. The sleeping rooms have no individual control.

The apparatus bay is heated with gas-fired overhead radiant heaters. The heaters appear to be in good condition.

There is no general bay exhaust for the apparatus room, however the bay does have a Magna-grip source capture exhaust extraction system. The fan only runs as needed automatically when engines are on and the bay doors are in process of opening. When the vehicle exits the bay, the flexible exhaust duct automatically detaches from the vehicle.

The station includes a cleaning and decontamination sink located in the apparatus bay.

Fixtures though out the station generally appear to be in good condition

Fire Suppression

Any renovation to this facility should incorporate a commercial grade fire suppression system.

Electrical/IT/Alerting

The facility does not include a modern integrated and segregated alerting system

The size of the service appears adequate for the buildings electrical needs a significant renovation will most likely demand a service replacement.

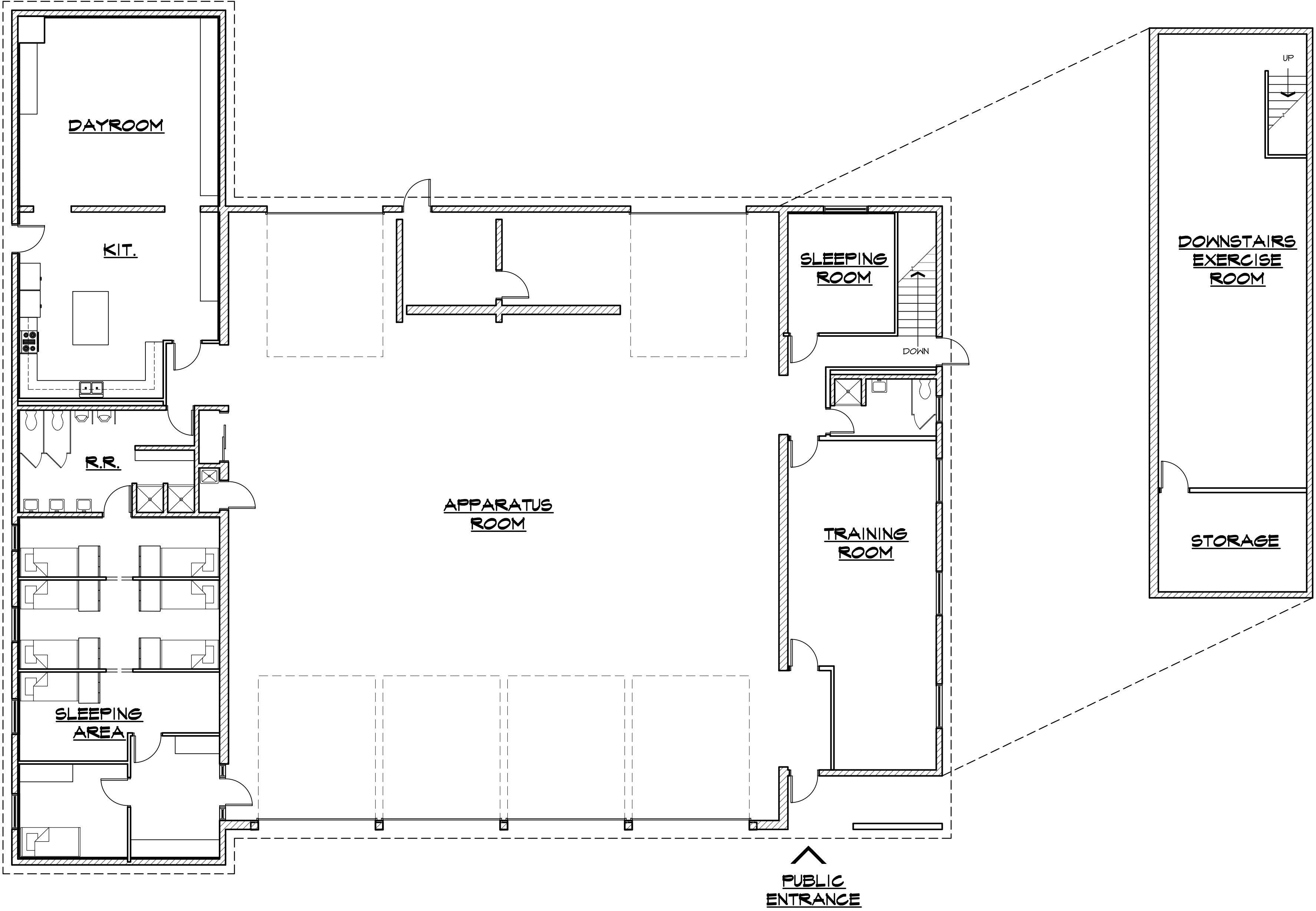
Lighting in and around the building is utilitarian except areas which have been renovated. The lighting generally outdated and with high glare. The lighting at exterior is not designed for exterior functions to take place as the lighting appears to be quite minimal.

Building interior lighting controls only consists of local switches, which does not comply with current energy conservation codes in the public areas.

The building has a cloud-based server. The building lacks building security for access control, intrusion detection and camera surveillance.

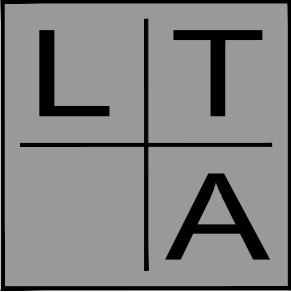
FIRE STATION

ONE



FIRE STATION 'I' AS-BUILT: FLOOR PLAN

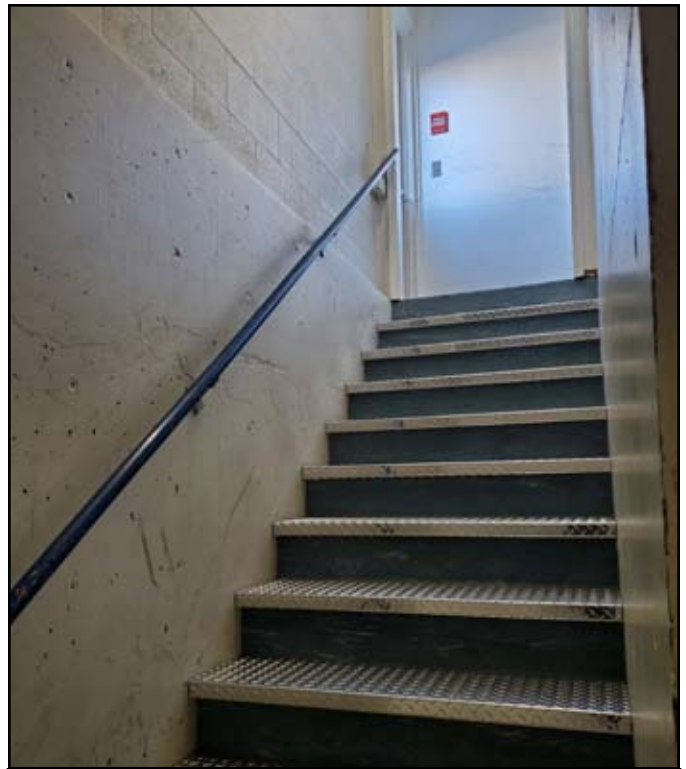
SCALE: 1/8" = 1'-0"



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STATION 1: RESTROOM



STATION 1: STAIRS TO BASEMENT

Diamond plate on stairs to make durable for training.
Using for training as other options not available.



STATION 1: AIR WORK ROOM



STATION 1: APPARATUS BAY

Floors do not drain properly.
Vehicle exhaust shown.



STATION 1: APPARATUS BAY

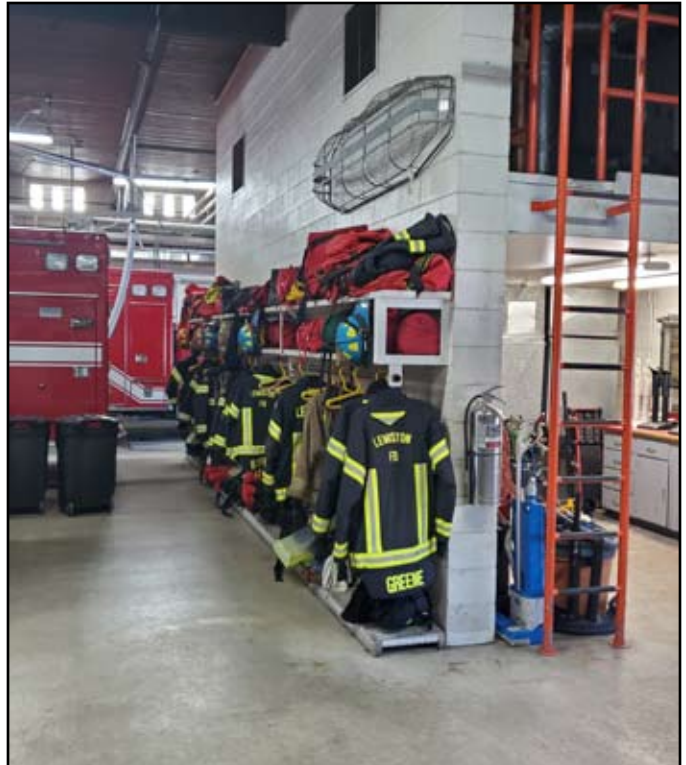


STATION 1: APPARATUS BAY



STATION 1: APPARATUS BAY

Turn outs stored in apparatus bay. Extra gear stored in apparatus bay due to lack of storage.



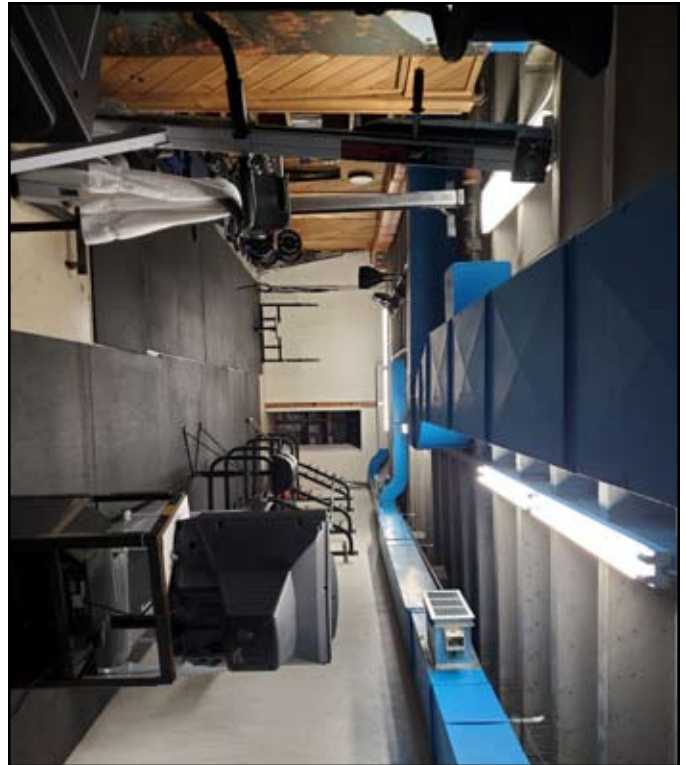
STATION 1: APPARATUS BAY

Turn outs stored in apparatus bay. Extra gear stored in apparatus bay due to lack of storage.



STATION 1: APPARATUS BAY

Electrical and additional air bottles in apparatus bay.



STATION 1: BASEMENT EXERCISE ROOM

Low ceiling and door ventilation for an exercise room.



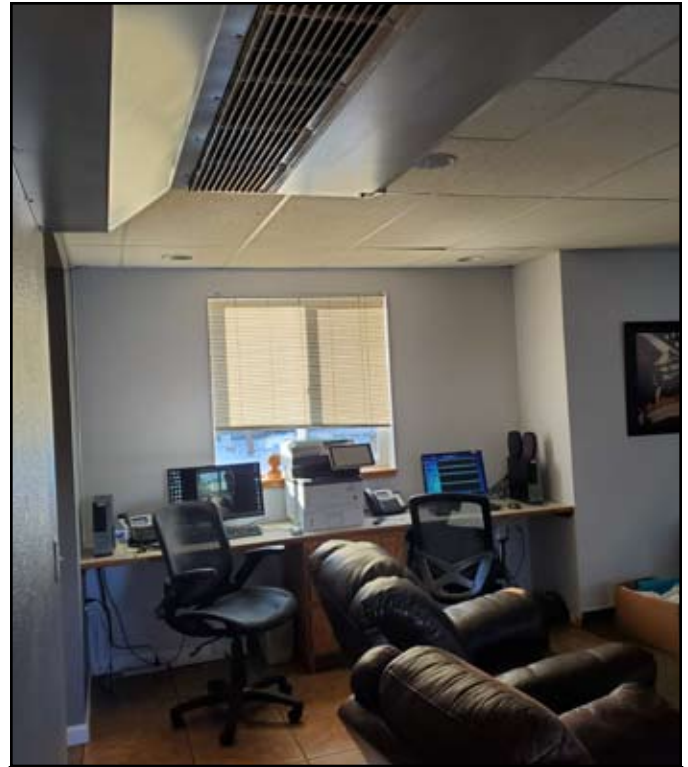
STATION 1: BASEMENT STORAGE



STATION 1: CAPTAIN SLEEPING ROOM



STATION 1: DAYROOM

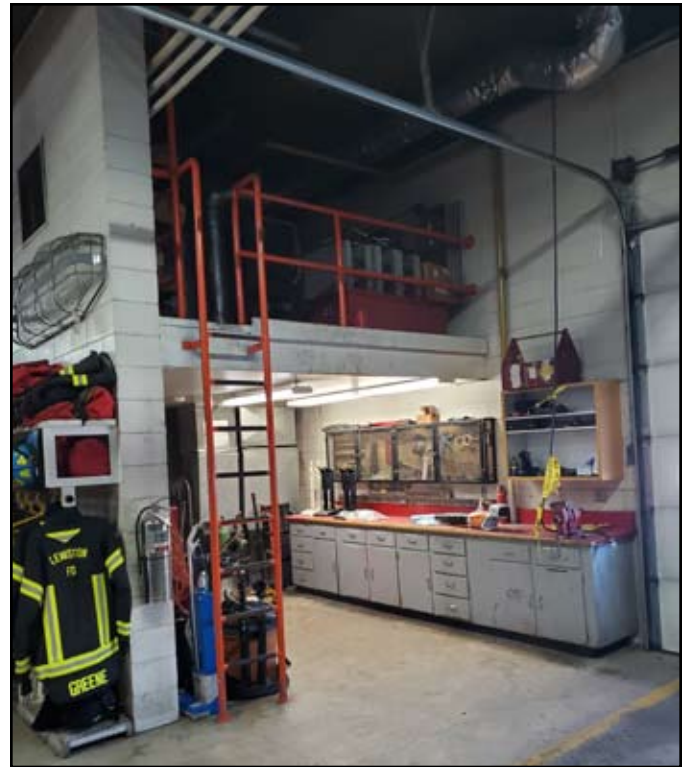


STATION 1: DAYROOM



STATION 1: DECON

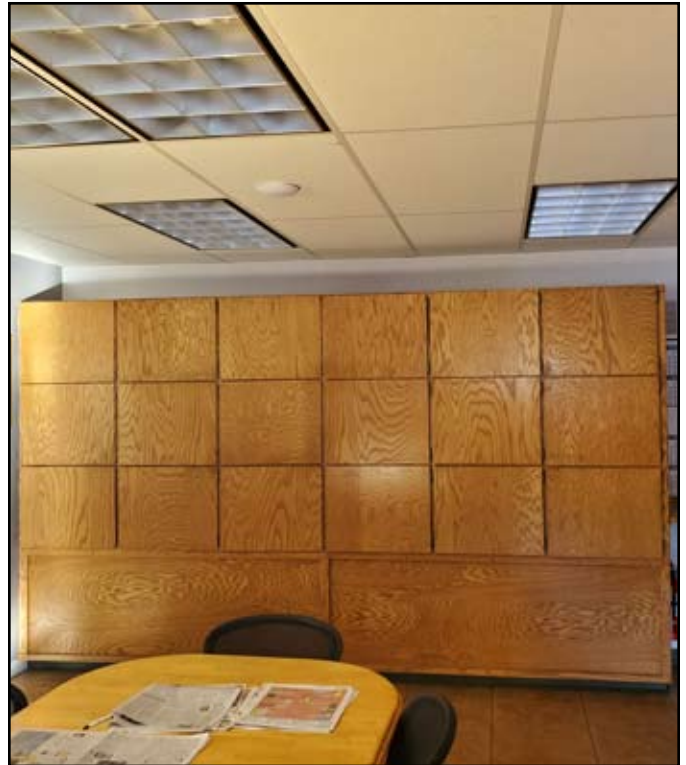
Alcove in apparatus bay.



STATION 1: WORK / MECH. PLATFORM



STATION 1: ENT. TO SLEEPING ROOMS
No fire rated separations to sleeping areas.



STATION 1: KITCHEN STORAGE



STATION 1: KITCHEN



STATION 1: STAFF OFFICE AREA



STATION 1: TRAINING ROOM



STATION 1: RESTROOM
Very dated. No ADA access.



STATION 1: RESTROOM



STATION 1: SHOWERS



STATION 1: SLEEPING ROOM

Little privacy or seperation. Very small spaces.



STATION 1: SLEEPING STORAGE



STATION 1: SLEEPING ROOM



STATION 1: SLEEPING ROOMS

Little privacy or seperation. Very limited storage.



STATION 1: STAFF ENTRANCE
Dangerous slopes, doors don't meet ADA.



STATION 1: NORTH EAST CORNER
Public entrance. No parking for the public.



STATION 1: WEST SIDE



STATION 1: NORTH SIDE
Staff parking.



STATION 1: WEST SIDE DAY ROOM ADD.
Small storage building due to lack of storage in building.



STATION 1: EAST SIDE
Apparatus Apron is short. Public entrance.

FIRE STATION 2

1533 Grelle Ave Lewiston, Idaho 83501

Built 1993

General

Facility Size	Main Station 5,000 sf, Annex Building 1 100 sf
Bays	2 double depth bays (plus a 3 bay Annex building)
Current Staffing	5
Current Apparatus	Main Station: Engine (3), Medic (2), Reserve Medic, Brush Truck Annex: Reserve Engine, Hazmat Truck
Future Staffing	1 for an Engine
Future Apparatus	None

Fire Station 2 is a 5,000 square foot building with a detached annex building of 1,000 sf.

Annex Building: Used to store a Hazmat Truck, reserve engine, hose storage, miscellaneous support equipment, and a physical fitness area. The Annex is accessed off 15th Street.

Station 2: Emergency response is on Grelle Avenue via non-drive through bays. Parking is provided adjacent to the station and is accessed off 15th street. Parking is limited and does not accommodate shift change, however area around the station is available for parking. The property is a corner lot surrounded primarily by residential structures.

ASSESSMENT

Site

Fire Station 2 has a front concrete apron on the south side of the station and asphalt cement paved (ACP) parking area on the east side of the station with a mix of visitor and employee parking (6 striped stalls). Unmarked paved areas are additionally used for parking. Trash cans are used at the station and vs dumpsters. There appears to be a drywell on the south front yard of the station. T

There is an ADA designated accessible parking stall located in parking lot but the grades appear to be great than 2%, thus making it non-compliant. Sidewalks serving the station are in good condition.

The site is not secure, and it was noted that crime around the station is less than that at Station 1. There is no security fencing around the station.

The site is well maintained by the Fire Department.

Exterior/Envelope

The concrete masonry unit exterior envelope is in good condition. There are pitched roofs on both facilities with rooftop mechanical penetrations. No observed fall protection.

Interior Station 2

The existing materials and finishes generally exhibit moderate signs of wear throughout. The station appears to have undergone a few minor renovations over the years to try and accommodate more sleeping areas, and turnout cleaning areas in the living areas which is problematic from a cross-contamination perspective. Living area materials, finishes, and appliances are residential in nature. The following materials were noted in the station:

- Concrete apparatus bay slab- inadequate drainage for today's standards.
- LVT and VCT flooring select areas was recently replaced (good condition) - joints in flooring material can be difficult to maintain.
- Ceramic tile in restrooms, floors and wainscot are in fair condition however the grout joints appear difficult to maintain. Ceramic tile appears to be original to the building.
- Rubber base in good condition throughout.
- Gypsum wallboard and concrete masonry unit walls
- A variety of painted wood and metal doors (no kick plates in areas, paint is damaged) - fire ratings do not meet code.
- Cabinetry and countertops show some wear. Countertops are finished with plastic laminate.
- Lay-in acoustical ceiling tiles, gypsum wallboard.

Programming/Space Planning

Crew living and working areas on the east side of the apparatus bays. The unsecured public lobby has a south entrance with no internal point of security.

Generally sleeping rooms and restrooms are inadequate to today's standards. Cross-contamination within the station is a concern because the extractor and chemical dispensing system is in the laundry room due to lack of space. Lack of doors and dorm like sleeping rooms are both a privacy and health issue relative to sleep deprivation, alerting controls, and the transfer of infectious disease. Overall, the department does not have enough adequate sleeping rooms nor locker space to support staff adequately. The Department provides linens and bedding for staff. The exercise room, located in the annex building due to lack of space in the station which is not only a challenge to turnout times but also the annex space houses apparatus, potentially contaminated equipment and lack an adequate ventilation system, this is found space. Storage is inadequate throughout the station.

The kitchen includes residential grade appliances, two refrigerators, which works fine for the station, and individual food lockers which are limited in number.

The Department has a culture of doing briefings at shift change in the dining area.

Shop & Decontamination areas are located in alcoves off of the apparatus bay with no clear separation between the bay areas. Turnout gear storage, and hose storage functions are located at the perimeter of the bay. This is not only best practice, but this is also impacting clearance around apparatus. This is not being done by choice but out of necessity due to lack of space. SCBA storage and medical gas storage is located in the annex building due to a lack of space in the fire station.

Operations

Turnout time throughout the station is reasonable mainly due the station being small relative to modern facilities.

Cross-contamination is a problem throughout the station. This is a result of inadequate mechanical systems (residential in nature) and inadequate air-pressure differentials, modern decontamination and cleaning areas, lack of hand and boot wash areas, and clear transition zones between “clean” living areas, and “dirty” (higher degree of potential contaminants) apparatus, and support spaces. The decontamination extractor is located in the middle of the Station in the general laundry room.

Gender Neutrality- the facility has options to accommodate mixed genders with a separate sleeping room and single user restroom available.

Bay lengths and widths do not accommodate industry standard clearances around apparatus.

Codes & Standards

Fire ratings- separation between the sleeping areas and the apparatus bay do not meet code

Fire suppression- the living area of the station has a fire suppression system but the bay does not.

ADA- does meet requirements throughout the station: restroom accommodations, door access, program accommodations, signage, counter heights, etc.. There are some minor ADA issues that need to be addressed.

Turnout storage- storage located in the apparatus bay and does not meet the best practices on a modern station

Decontamination/cleaning- the limited facilities observed are not enclosed and segregated from the bays and the extractor is in the living area.

Medical gas storage- exceeds fire code limits based on quantity being stored. Medical gas tanks are required to be stored in one-hour fire resistive in vented designated areas.

Apparatus fill is located above the apparatus, which are being removed in many jurisdictions due to potential safety issues.

A welding receptacle is located in the electrical room which is not advised.

Structural

The building is a single-story masonry and wood framed building and is generally rectangular in plan. There are two masonry apparatus bays. The exterior walls are constructed of concrete masonry units at the apparatus bay and wood framing with lap siding on the living areas of the station. Some areas in the bays appear to be uninsulated. We believed the roof is trusses throughout but that will need validation. The floor is a concrete slab-on-grade.

The lateral-force-resisting system should be examined to determine the necessity of a seismic upgrade if a renovation were to occur.

Mechanical/Plumbing

The office/sleeping/dayroom areas are served by a ducted air system. The sleeping rooms have no individual control. It is our understanding that the mechanical system is slated to be replaced.

The apparatus bay is heated with inefficient overhead unit heaters with a low upfront cost. The heaters appear to be in working order.

There is no general bay exhaust for the apparatus room, however the bay does have a Magna-grip source capture exhaust extraction system. The fan only runs as needed automatically when

engines are on and the bay doors are in process of opening. When the vehicles exit the bay, the flexible exhaust duct automatically detaches from the vehicle.

The station includes a cleaning and decontamination sink located in the apparatus bay.

Fixtures though out the station generally appear to be in good condition

Fire Suppression

Any renovation to this facility should incorporate a commercial grade fire suppression system added to the Apparatus Bay.

Electrical/IT/Alerting

The facility does not include a modern integrated and segregated alerting system

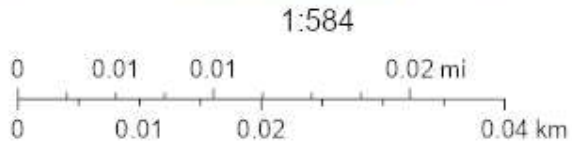
The size of the service appears adequate for the buildings electrical needs a significant renovation will most likely demand a service replacement.

The building has a generator, but is very undersized for the size of the facility and does not have enough power to operate the overhead garage doors during a power outage.

The building has a cloud-based server. The building lacks building security for access control, intrusion detection and camera surveillance.



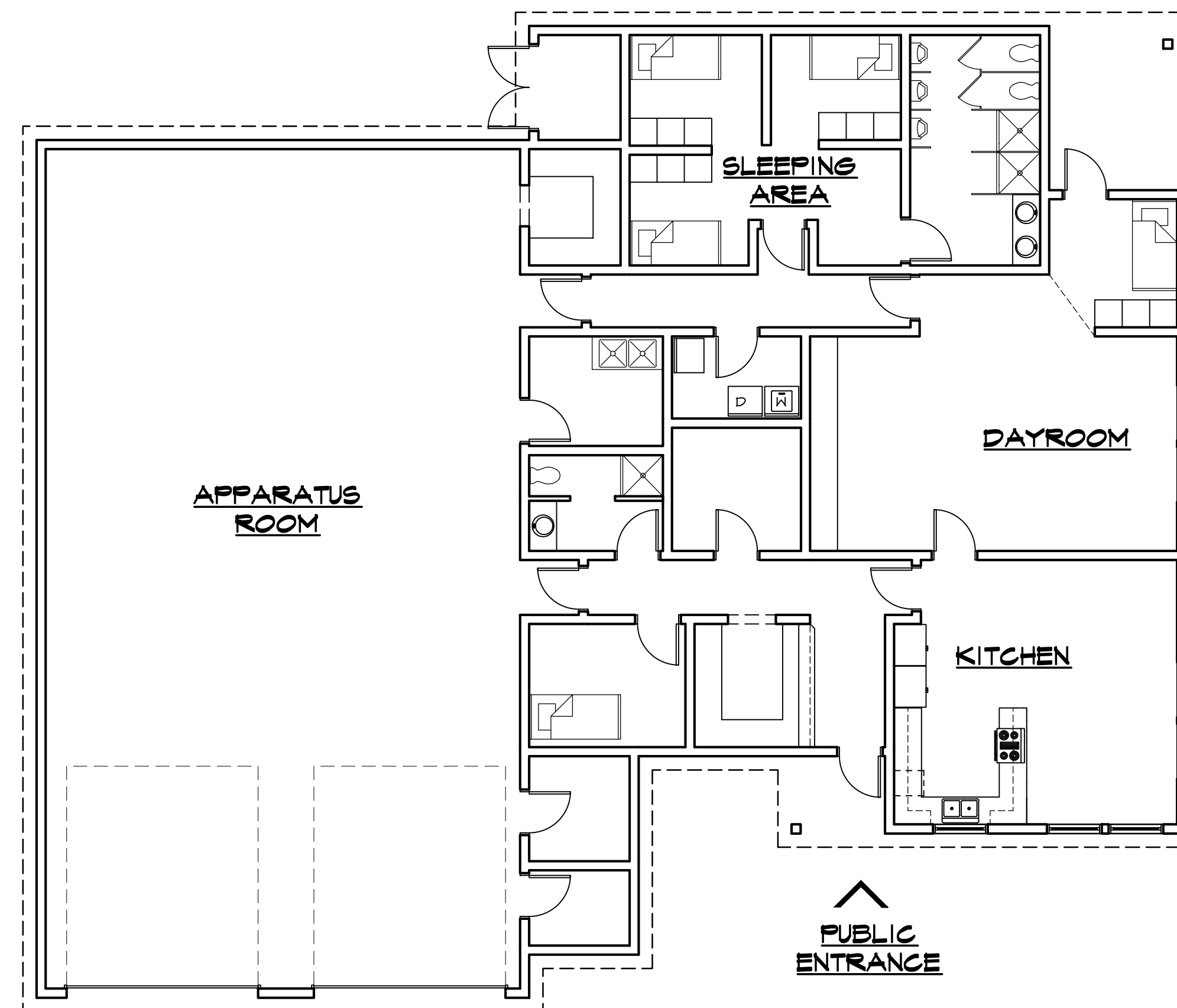
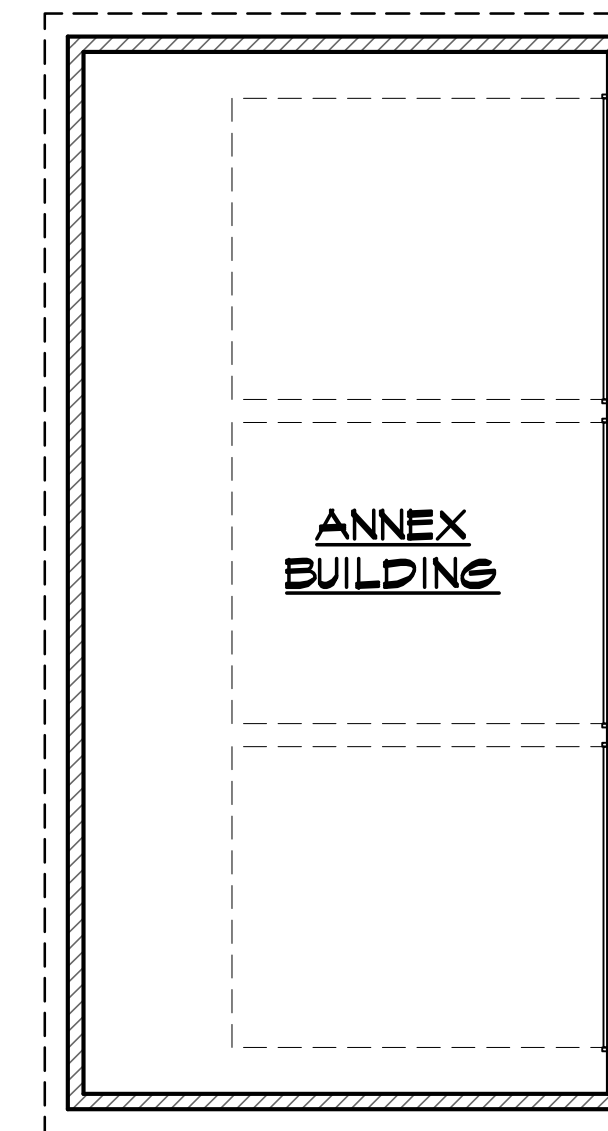
January 13, 2020



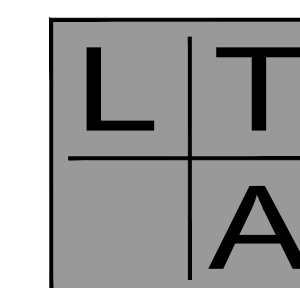
Nez Perce County GIS Services

Lewiston Fire Department Station 2

FIRE STATION TWO



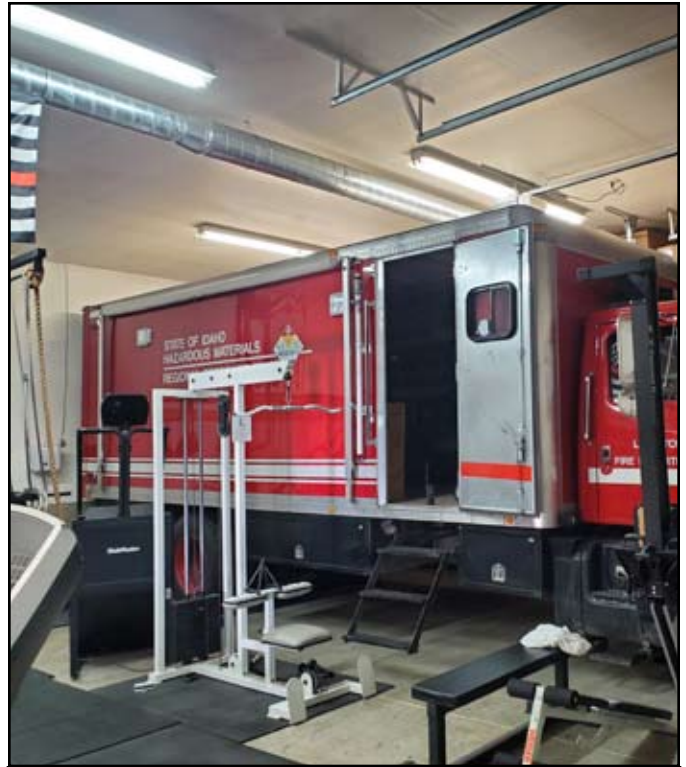
FIRE STATION '2' AS-BUILT: FLOOR PLAN
SCALE: 1/8" = 1'-0"



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STATION 2: ADA RESTROOM



STATION 2: ANNEX APPARATUS BAY
Exercise area in apparatus bay.



STATION 2: APPARATUS BAY
Turn out gear in apparatus bay.



STATION 2: APPARATUS BAY
Poor floor drainage. Vehicle exhaust provided.
No general exhaust.



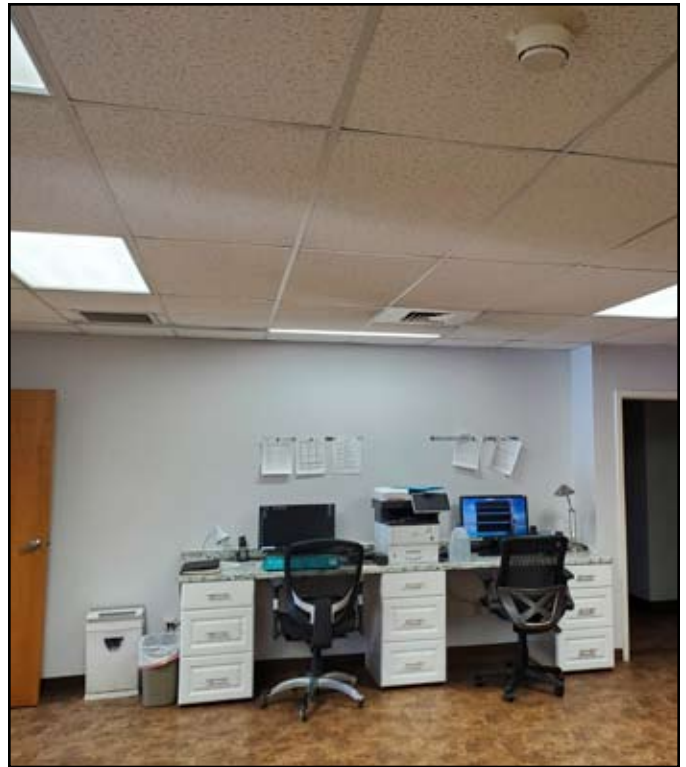
STATION 2: WORK ALCOVE OFF APPARATUS
Small, undersized work area.



STATION 2: DAY ROOM / SLEEPING AREA
Sleeping area added in corner of dayroom due to lack of space.



STATION 2: DECON



STATION 2: STAFF OFFICE / DAY ROOM



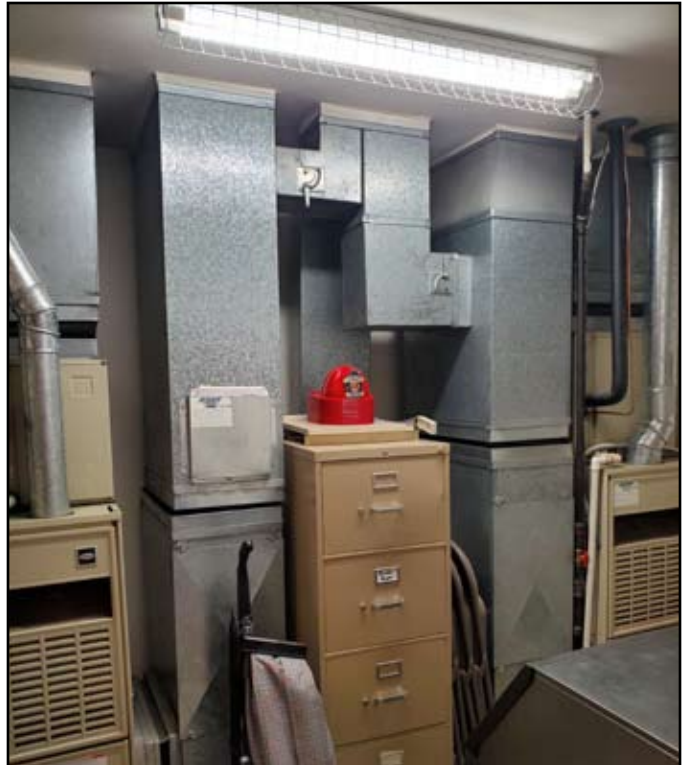
STATION 2: EXERCISE AREA / ANNEX APP. BAY



STATION 2: KITCHEN / DINING



STATION 2: DINING / KITCHEN



STATION 2: MECHANICAL ROOM



STATION 2: OFFICE / RECEPTION



STATION 2: RESTROOM



STATION 2: SLEEPING AREA
Sleeping areas small, lack of privacy, & storage.



STATION 2: ANNEX BUILDING



STATION 2: EAST SIDE PARKING
Limited staff parking.



STATION 2: SOUTH SIDE ENTRANCE
Public Entrance.



STATION 2: SOUTH SIDE
Large Apron. Lots of room for expansion.

FIRE STATION 4

Burrell Ave Lewiston, Idaho 83501

Built 1973

General

Facility Size	Main Station 5,000 sf
Bays	2 double depth drive thru bays
Current Staffing	3
Current Apparatus	Engine (3), Medic (0), Reserve Engine, Reserve Rescue
Future Staffing	3
Future Apparatus	Medic (2), Battalion Chief (1)

Fire Station 4 is a 5,000 square foot building located adjacent to the Lewiston Airport. Emergency response is on Burrell Avenue via drive through bays that also access the Airport property. Parking is provided adjacent to the station and is accessed off Burrell Avenue. The property is located adjacent to the airport and was formerly functioned as the Aircraft Rescue and Fire Fighting (ARFF) facility for the Airport. Recently a new ARFF was constructed on the south side of the airport and this function has been removed from the station. The surrounding neighborhood is composed of primarily residential structures.

ASSESSMENT

Site

Fire Station 4 has a front concrete apron on the south side of the station and asphalt cement paved (ACP) parking area on the east side of the station with a mix of visitor and employee parking (5 striped stalls) which are inadequate to serve the needs of the station. Unmarked paved areas are additionally used for parking. Trash cans are used at the station and vs dumpsters. There appears to be a drywell on the south front yard of the station.

There is not an ADA designated accessible parking stall, thus making the parking non-compliant.

Sidewalks serving the station limited to non-existent and are in poor condition.

The site is semi-secure with minimal fencing. It was noted that crime around the station is less than that at Station 1. There is a security fencing between the back of the station and the Airport grounds.

The site is well maintained by the Fire Department.

Exterior/Envelope

The concrete masonry unit exterior envelope is in good condition. There are minimum pitched roofs on the facility with rooftop mechanical penetrations. The roof membrane is nearing the end of its useful life and was scheduled to be replace several years ago. The floor is a concrete slab-on-grade.

Interior

The existing materials and finishes generally exhibit signs of wear throughout. The station appears to have undergone a few minor renovations over the years to try and accommodate more Storage and workout areas. Living area materials, finishes, and appliances are residential in nature. The following materials were noted in the station:

- Concrete apparatus bay slab- inadequate drainage for today's standards.
- VCT flooring select areas (fair condition) - joints in flooring material are difficult to maintain.
- Ceramic tile in restrooms, floors and wainscot are in fair condition and appear to be original to the building. Grout joints tend to be difficult to maintain.
- Rubber base in fair condition.
- Gypsum wallboard and concrete masonry unit walls
- A variety of painted wood and metal doors (no kick plates in areas, paint is damaged) - fire ratings do not meet code.
- Cabinetry and countertops show some wear. Countertops are finished with plastic laminate.
- Lay-in acoustical ceiling tiles, gypsum wallboard.

Programming/Space Planning

Crew living and working areas on the west side of the apparatus bays. The unsecured public lobby enters into the Apparatus Bay and has a north entrance with no internal point of security.

Generally sleeping rooms and restrooms are inadequate to today's standards. Overall, the department does not have enough adequate sleeping rooms nor locker space to support staff adequately. One of the bedrooms does not have an exterior window. The Department provides linens and bedding for staff. The exercise room is small and inadequate and split between two spaces. Part of the exercise room is located in an alcove off of the Apparatus Bay. Storage is inadequate throughout the station.

The kitchen includes residential grade appliances, two refrigerators, which works fine for the station, and individual food lockers which are limited in number.

The Department has a culture of doing briefings at shift change in the dining area.

Decontamination areas are located in alcoves off of the apparatus bay with no clear separation between the bay and decontamination area. Turnout gear storage, and hose storage functions are located at the perimeter of the bay. This is not only best practice, but this is also impacting clearance around apparatus. This is not being done by choice but out of necessity due to lack of space. SCBA fill, SCBA storage and medical gas storage is located in the Apparatus Bay due to a lack of space in the fire station.

Operations

Turnout time throughout the station is reasonable mainly due the station being small relative to modern facilities.

Cross-contamination is a problem throughout the station. This is a result of inadequate mechanical systems (residential in nature) and inadequate air-pressure differentials, modern decontamination and cleaning areas, lack of hand and boot wash areas, and clear transition zones between "clean" living areas, and "dirty" (higher degree of potential contaminates) apparatus, and support spaces.

Gender Neutrality- the facility has no options to accommodate mixed genders however at this time, given staffing this has not been a significant issue. The facility only has one multi-fixture restroom shared by all the staff. We anticipate that will change over time.

Bay lengths and widths do not accommodate industry standard clearances around apparatus.

Codes & Standards

Fire ratings - separation between the sleeping areas and the apparatus bay do not meet code

Fire suppression – There is no fire suppression system in the building.

ADA – does not meet requirements throughout the station: restroom accommodations, door access, program accommodations, signage, counter heights, etc.

Turnout storage- storage located in the apparatus bay and does not meet the best practices on a modern station

Decontamination/cleaning - the limited facilities observed are not enclosed and segregated from the bays.

Medical gas storage - exceeds fire code limits based on quantity being stored. Medical gas tanks are required to be stored in one-hour fire resistive in vented designated areas.

Apparatus fill is located above the apparatus, which are being removed in many jurisdictions due to potential safety issues. One of the fill stations has been moved down to a wall location at the front of the Apparatus Bay.

Structural

The building is a single-story masonry exterior walls and wood framed interior walls and is generally rectangular in plan. There are two masonry apparatus bays. Some areas in the bays appear to be uninsulated. The roof is minimum pitch structure framed with wood trusses throughout but that will need validation.

The lateral-force-resisting system should be examined to determine the necessity of a seismic upgrade if a renovation were to occur.

Mechanical/Plumbing

The office/sleeping/dayroom areas are served by a ducted air system. The sleeping rooms have no individual control.

The apparatus bay is heated with radiant overhead unit heaters. The heaters appear to be in good working order.

There is no general bay exhaust for the apparatus room, however the bay does have a Magna-grip source capture exhaust system. The fan only runs as needed automatically when engines are on and the bay doors are in process of opening. When the vehicle exits the bay, the flexible duct automatically detaches from the vehicle.

The station includes a cleaning and decontamination sink located in the apparatus bay.

Fixtures though out the station generally appear to be in fair condition

Fire Suppression

Any renovation to this facility should incorporate a commercial grade fire suppression system added.

Electrical/IT/Alerting

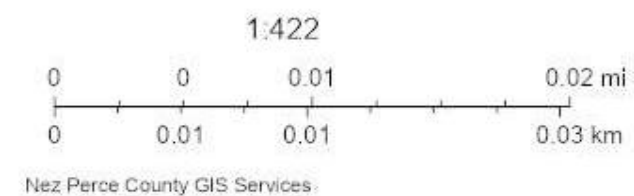
The facility does not include a modern integrated and segregated alerting system

The size of the service appears adequate for the buildings electrical needs a significant renovation will most likely demand a service replacement. The Electrical service is very old and appears to be original to the building. Parts may be difficult to obtain due to the age.

The building has a cloud-based server. The building lacks building security for access control, intrusion detection and camera surveillance.



January 13, 2020



Lewiston Fire Department Station 4



STATION 4: APPARATUS BAY



STATION 4: APPARATUS BAY



STATION 4: APPARATUS BAY

Additional air storage in apparatus bay.
Should be in a separate room.



STATION 4: SCBA APPARATUS BAY

SCBA in apparatus bay, should be in a separate room.



STATION 4: DECON

Undersized and in apparatus bay.



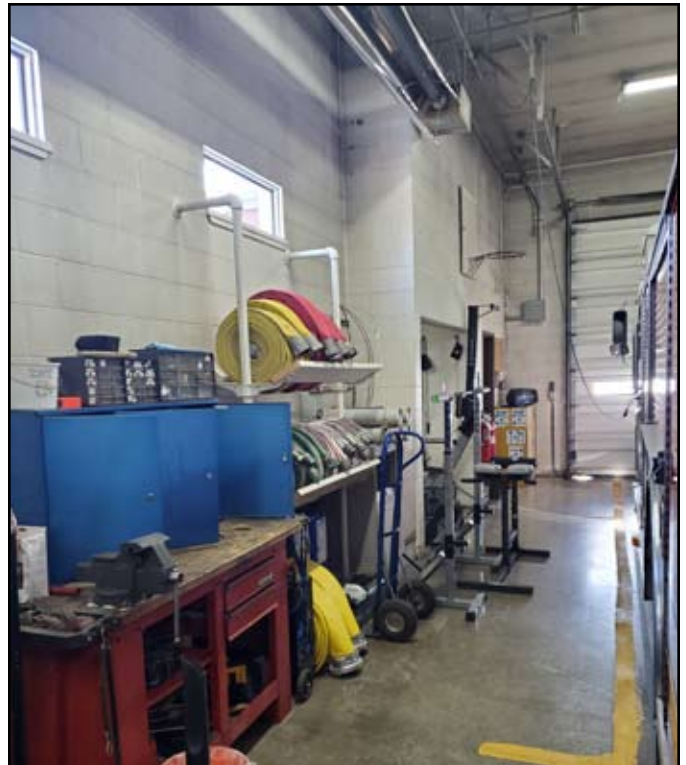
STATION 4: ELECTRICAL PANELS

Very old, located in apparatus bay.



STATION 4: ELECTRICAL

Very old, located in apparatus bay.



STATION 4: WORK / EXERCISE IN APP. BAY



STATION 4: ENTRY WAY

Part of apparatus bay, not separated.



STATION 4: EXERCISE ROOM OFF APP. BAY

Alcove off apparatus bay.
Should be in separate room.



STATION 4: STORAGE AND BUNKER GEAR



STATION 4: KITCHEN

Very dated.



STATION 4: LOCKERS



STATION 4: RESTROOM



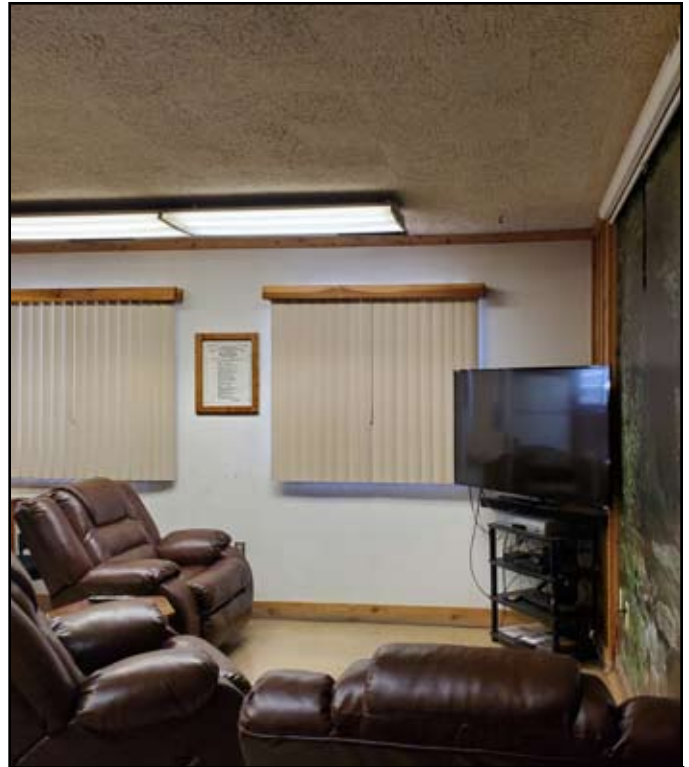
STATION 4: RESTROOM & SHOWER
Only one shower. Not ADA accessible.



STATION 4: RESTROOM
Not ADA accessible. Only restroom in building.



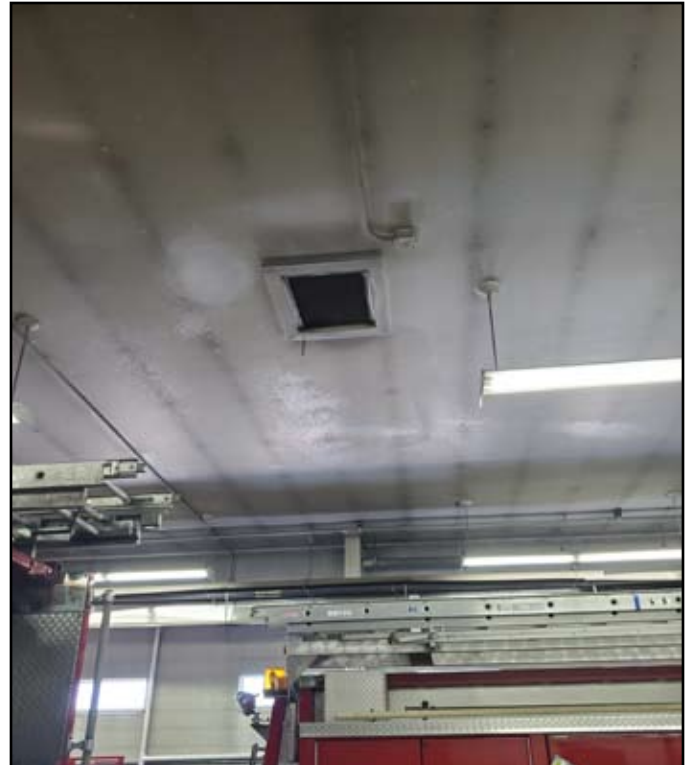
STATION 4: OFFICE / CAPTAIN SLEEPING



STATION 4: DAYROOM



STATION 4: SLEEPING AREA



STATION 4: CEILING IN APPARATUS BAY
Diesel exhaust on ceiling due to lack of vehicle exhaust system.



STATION 4: ENTRANCE



STATION 4: EXTERIOR

FIRE ADMINISTRATION BUILDING

1245 Idaho Street, Lewiston, Idaho 83501

Built 1962 (purchased by City 2002)

General

Facility Size	2,474 sf- 1,249 sf Main Floor & 1,225 sf Basement
Bays	0
Current Staffing	9 Total: Chief, Deputy Chief, Training Chief, Fire Marshal, (2) Admin, (2) Inspectors, Battalion Chief
Current Apparatus	Command Vehicles
Future Staffing	Addition of (1) EMS Chief- 3-5 years, (1) Fire Inspector 20+ Years (2) Off-site positions at City Hall
Future Apparatus	N/A

The Administration Building is a +/-2,474 square foot building including a basement, sited adjacent to Fire Station 1. Parking is provided in an "L" configuration with the majority of the parking accessed from G Street. The property is a corner lot surrounded primarily by commercial use buildings. The Fire Administration Building is located directly south of Fire Station 1. The Administration office does not currently have any space to add future staff.

ASSESSMENT

Site

The Administration Building has an asphalt cement paved (ACP) parking area on the east and south side of the building with a mix of visitor and employee parking (9 stalls). Unmarked parallel parking is used on the south side of the building. The asphalt surfacing is in good condition. Trash bins are kept behind a wood fenced area to the north of the building. No on-site surface water conveyance to a swale and potential drywell/infiltration area was observed.

There is one ADA designated accessible parking space located in SE corner of the parking lot with a ramp up to the front entry. Sidewalks serving the building are in good condition.

The site is not secure, and it was noted that crime has become an increasing challenge at this location (in the context of adjacent Fire Station 1 discussion). While security fencing around the Administration Building would help address this issue, there is always a balance as to how fencing might undermine the open nature of a public building.

The site is well maintained by the Fire Department.

Exterior/Envelope

The brick and lap siding exterior envelope is in good condition, though masonry could be cleaned. There are flat roofs on the facility with rooftop mechanical/plumbing ventilation penetrations with no observed fall protection. No roofing concerns were noted.

Interior

The existing materials and finishes generally well-kept and are in reasonably good condition. The Administration Building appears to have undergone a remodel approximately 7 to 8 years ago. The following materials were noted in the station:

- VCT flooring in the basement (good condition) joints in flooring material are difficult to maintain.
- VCT flooring in kitchen area in the basement is in good condition however joints in flooring material are difficult to maintain.
- Roll carpet (fair condition) on the main floor office areas.
- Roll carpet (poor condition) in the basement needs to be replaced.
- Rubber base throughout in good condition
- Gypsum wallboard in good condition
- Stained wood doors and wood frames (no kick plates in areas).
- Cabinetry and countertops in good condition.
- Lay-in acoustical ceiling tiles main floor, gypsum wallboard walls and ceilings
- Ceilings in the basement are gypsum wallboard with a popcorn finish. Need to verify that the ceiling finish does not contain asbestos.

Programming/Space Planning

Administrative staff is located on both the main and basement level of the facility with programmatic elements on each floor. Due to lack of storage, typical programmatic adjacencies are not ideal. Overall, additional future office space is needed, public education storage is needed, and an administrative conference room is also needed. While this facility does not include an emergency operations center, the facility should be connected to auxiliary power in the event of a power disruption to maintain functionality.

Operations

N/A

Codes & Standards

Fire suppression- the facility does not have a fire suppression system, while not required, this is the commend center and is highly recommended.

ADA- does not meet requirements throughout the building: restroom accommodations and access, door access, program accommodations, signage, counter heights, etc. The only restrooms in the building are located in the basement and are not accessible. The only break room in the building is also located in the basement and is not accessible.

Turnout storage- Administrative /Training staff turnout storage is generally kept in command vehicles which is adequate.

Decontamination/cleaning- Administrative /Training staff turnout/PPE cleaning and decontamination, if needed, will continue to occur at a fire station.

Exiting: Basement has two egress points to meet existing requirements. The second exit does pass through an office that must remain unlocked so exit can be accessed. Two exits are provided on the main floor.

Structural

The building is a two-story, main floor and basement, wood-framed building with a masonry veneer and is generally rectangular in plan. The roof framing consists of sloping wood joists and a wood deck. The floor is a concrete slab-on-grade in the basement and wood framing on the main level.

The lateral-force-resisting system should be examined to determine the necessity of a seismic upgrade.

Mechanical/Plumbing

The offices are served by a ducted air system with an exterior condensing unit.

Fixtures though out the office generally appear to be in good condition

Fire Suppression

It is recommended that any renovation to this facility should incorporate a commercial grade fire suppression system.

Electrical/IT/Alerting

The facility does not include a modern integrated and segregated alerting system, however since this is an administrative facility, it would not be expected.

The size of the service appears adequate for the buildings electrical needs. A significant renovation will most likely demand a service replacement.

Lighting in and around the building is utilitarian except areas which have been renovated. The lighting generally outdated and with high glare. The lighting at exterior is not designed for exterior functions to take place as the lighting appears to be quite minimal.

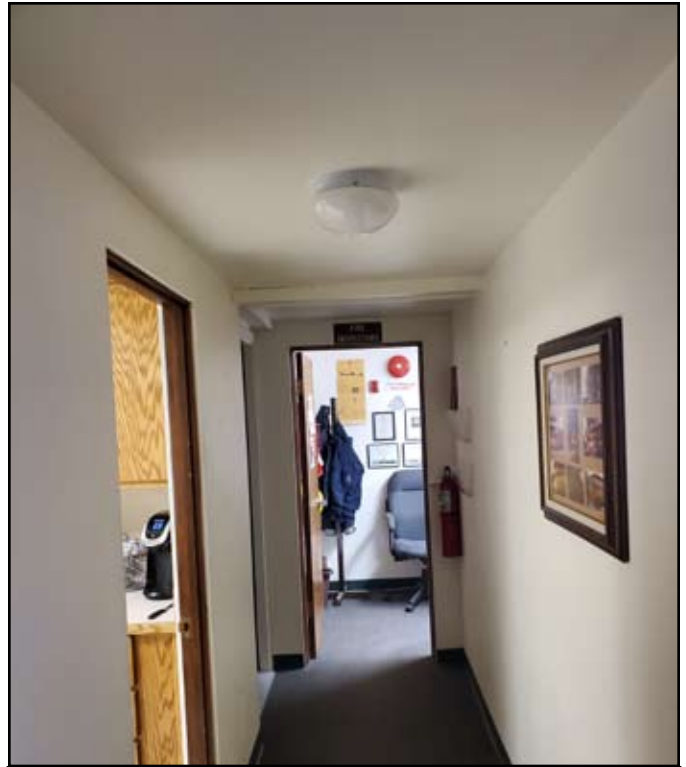
Building interior lighting controls only consists of local switches, which does not comply with current energy conservation codes in the public areas.

The building has a cloud-based server. The building lacks building security for access control, intrusion detection and camera surveillance.



ADMIN: BASEMENT BREAKROOM

Not ADA accessible to all staff because it is located in the basement.



ADMIN: BASEMENT HALLWAY

Second egress goes thru an office shown beyond.



ADMIN: BASEMENT OFFICE

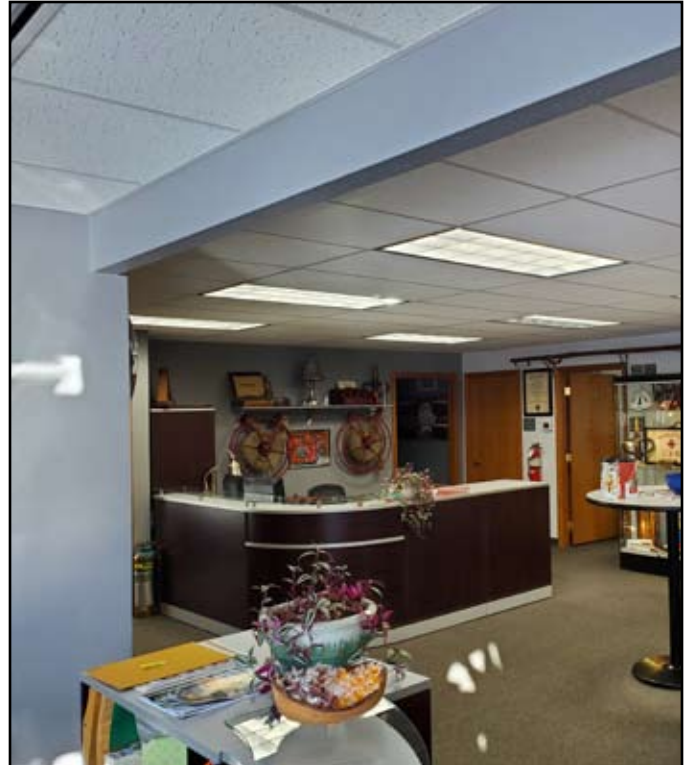
Office occupies egress path to second exit.



ADMIN: MAIN ENTRANCE



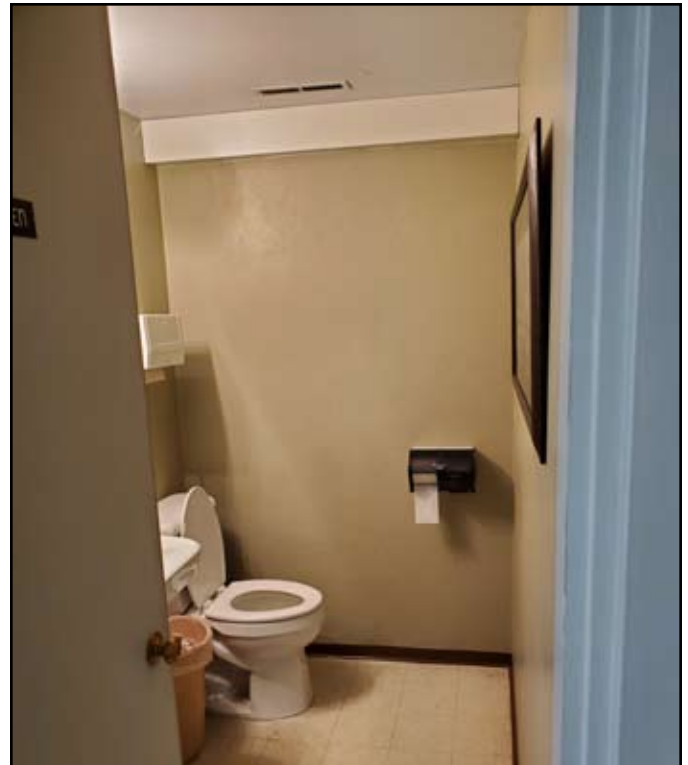
ADMIN: WEST ELEVATION
Second basement egress.



ADMIN: MAIN OFFICE



ADMIN: MAIN OFFICE



ADMIN: RESTROOM - BASEMENT

Restrooms are not ADA accessible as they are located in basement.

Lewiston Fire Department – Station Location Analysis

April 30, 2020

Introduction

The Lewiston Fire Department is an all hazards department that provides fire protection services in Lewiston, Idaho covering over 17 square miles and over 33,000 people. It additionally provides emergency medical services (EMS) in Idaho and Washington covering three counties, 1,700 square miles, and roughly 55,000 people. As the population grows in the Lewiston area, the Lewiston Fire Department requested this study to determine how best to provide its fire protection and EMS into the future.

The goal of this analysis is to evaluate the Department's distribution of fire stations, determine if the locations are adequate, and determine optimal locations for relocating any fire stations. Currently, the Lewiston Fire Department operates three fire stations within the City of Lewiston:

- **Station 1:** 300 13th Street, built in 1964
- **Station 2:** 1533 Grelle Ave, built in 1993
- **Station 4:** 424 Burrell Ave, built in 1973

As these stations age and reach their lifespan of usefulness, Lewiston is presented with the opportunity to replace these stations with facilities in locations which may allow the Lewiston Fire Department to better execute its mission.

Therefore, the key question driving this analysis is, what is the best location and configuration for stations to serve the Lewiston community into the future? This study answers those questions by following the below steps:

1. Establish Baseline Performance
2. Project Future Need
3. Model Alternative Station Location Scenarios
4. Evaluation Scenarios
5. Make Recommendations

Data Sources

The above method relies primarily on the following data sources:

- **Historical Fire and EMS Incidents:** Four years of fire and EMS incident data were provided by the Lewiston Fire Department for fiscal years 2015-2019. The data included breakdown by call type, date, location, response apparatus, and response time. For some data points, the location data was

not precise enough to be used in certain parts of analysis, which is discussed in more detail in the relevant sections below.

- **US Census American Community Survey (ACS) 5-Year Estimates:** The US Census uses statistically scaled survey data collected over rolling 5-year periods to produce demographic estimates at the city-level and many other geographies. The 2013-2017 ACS 5-year estimate for population of the City of Lewiston is used as the base population figure throughout this study.
- **Population and Housing Projections:** Population and housing projections were provided by the City of Lewiston Planning Department. These projections reflect a base year of 2017 and projection year of 2034. BERK digitized and used them as the basis for projecting growth in fire and EMS incidents.
- **Lewiston Transportation Network:** The City of Lewiston provided an up to date transportation network layer complete with speed limits, which was used to map baseline travel times, and served as the foundation for understanding what a future network could look like in order to model future travel times.
- **Transportation Analysis Zones (TAZ):** TAZ layers were provided by the Lewis-Clark Valley Metropolitan Planning Organization (LCVMPO) and served as the geographic level for which to project growth in incidents. TAZ boundaries are determined by the transportation network and help to segment areas of growth within the City of Lewiston. Additionally, the boundaries extend out of the city into the areas that are likely to receive new growth, which is critical for understanding the impacts of growth on providing fire protection and EMS.

Assumptions

A number of key assumptions needed to be made a part of this study, illustrated below:

- **Study Area:** The study area is defined as the City of Lewiston and areas where the City of Lewiston is likely to have new growth and/or annex throughout the planning period. This is due to both the scope of the initial request for proposals, as well as due to data limitations. The Lewiston Fire Department does serve communities outside of the City of Lewiston, including the City of Clarkston, and while thinking about how best to serve the fire protection and EMS to the entire region would be a valuable future planning effort, the scope of this effort is to understand first and foremost how the Lewiston Fire Department can best serve the City of Lewiston.

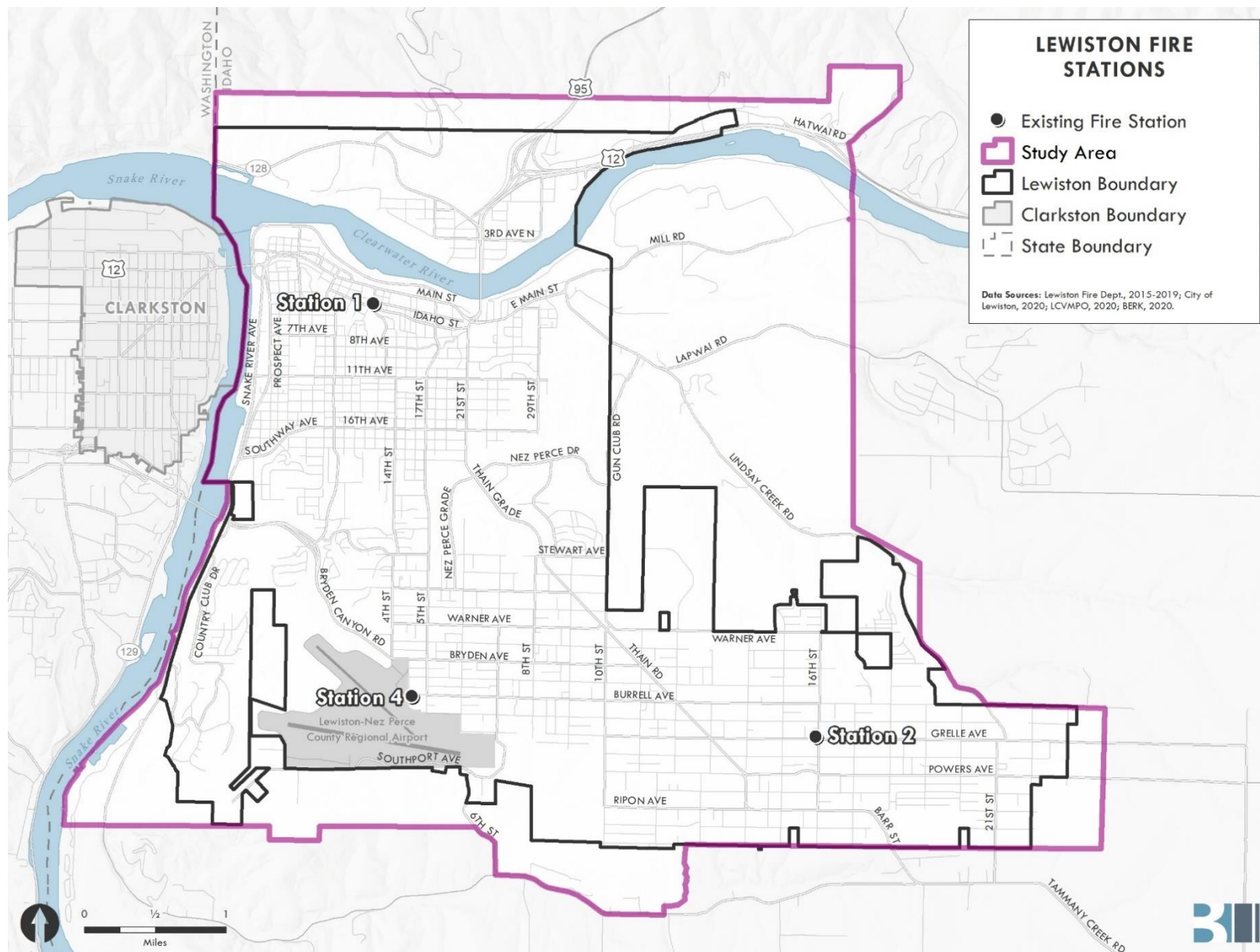
Additionally, data limitations prevented this analysis from being extended outside of the aforementioned study area boundary. Transportation network data with accurate speed limits, incident data, and growth projections were only available for the City of Lewiston.

- **Number of Stations:** Based on guidance from the Lewiston Fire Department, this study models and evaluates different scenarios for three fire stations. Adding more stations was not considered as part of this process. Additionally, it was decided that Station 2 would remain in its present location in all scenarios. The Station 2 property has room to accommodate a larger station, and is located in an area that is well poised to serve growth in the east part of the City of Lewiston.

- **Response Time Service Standards:** An 8-minute service standard was agreed upon with the Lewiston Fire Department as the basis for modeling and evaluating the different scenarios. This is defined as the goal of reaching all incidents within the study area within 8 minutes. The following section explains this in relation to National Fire Protection Association codes and standards.

To best serve the layout of this report, each section first presents the narrative, followed by any relevant maps at the end of each section.

Exhibit 1. Lewiston Fire Stations and Study Area



Source: Lewiston Fire Department, 2020; LCVMPD, 2020; BERK, 2020.

Establish Baseline Performance

Travel Time Mapping

Understanding expected travel times is a critical element of evaluating current and future service. Therefore, an early piece of this analysis uses the current transportation network to model travel times from existing Lewiston Fire Stations.

The National Fire Protection Association (NFPA) presents standards for total response time in Codes and Standards 1710 (abbrev. NFPA 1710): Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments.¹ The NFPA's standards break out total response time into the following phases:

- **Phase 1** – Alarm Handling Time
- **Phase 2** – Turnout Time and Travel Time
- **Phase 3** – Initiating Action/Intervention Time

This study focuses on the travel time portion of Phase 2. Sections C.3.4-C.3.7 of NFPA 1710 set out the following timelines for travel time performance objectives:

- First-arriving engine on scene time: **4 minutes**
- Second-arriving company on scene time: **5 minutes**
- Initial full alarm (low and medium hazard) time: **8 minutes**
- Initial full alarm (high hazard/high-rise time): **10 minutes and 10 seconds**

The project team, in agreement with Lewiston Fire Department staff, chose a target travel time measure of 8 minutes to be used for this study, however as shown throughout, travel time measures are broken up by 1-minute increments.

Exhibit 4 at the end of this section presents initial travel time mapping, visualizing travel times along the Lewiston transportation network under modeled conditions (Appendix A at the end of the report breaks these travel times down by station).

Response Time Mapping

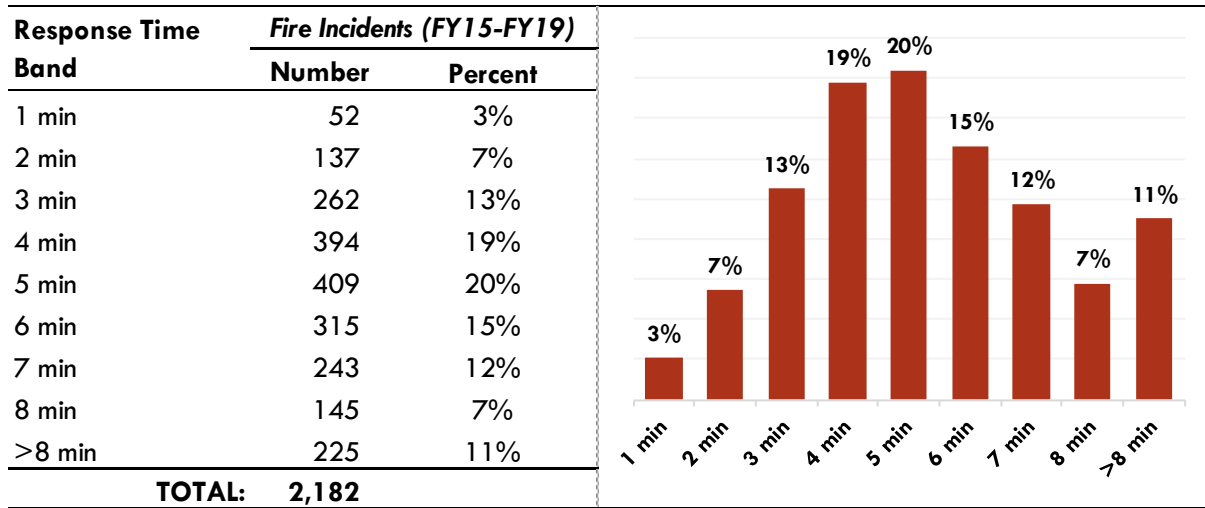
For the following portion of the analysis, incidents were filtered by those which fall inside the study area and those that have precise enough location data to be geolocated. Roughly 5% of total incidents do not meet these criteria.

Fire Incidents

For fiscal years 2015-2019, a total of 2,182 fire incidents within the study area met the location precision criteria above. Exhibit 2 shows these calls broken down by response time band.

¹ <https://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=1710>

Exhibit 2. Alarm to Arrival Time, Fire Incidents Located in Study Area, FY2015-FY2019



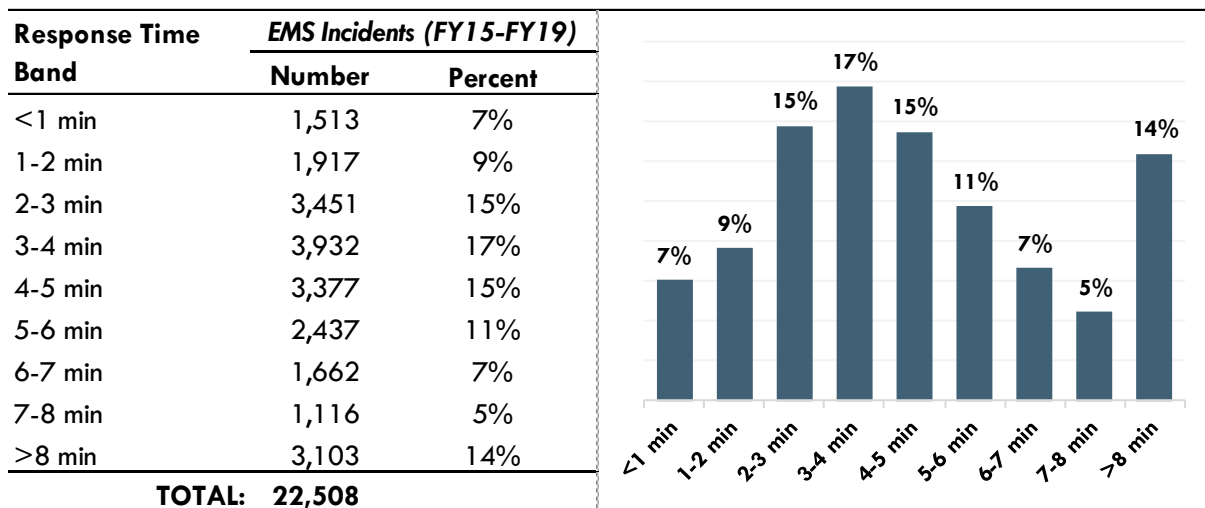
Source: Lewiston Fire Department, 2015-2019; BERK, 2020.

Average response time for these incidents was roughly 5.5 minutes across the entire study area. One helpful way to visualize this in different parts of the study area is to show average response time for a smaller geographic area. Exhibit 5 below shows average alarm to arrival time by 500x500 foot grid cell (~6 acres) for the identified study area. Incidents located within a given cell were combined to determine average response time within the cell.

EMS Incidents

For fiscal years 2015-2019, a total of 22,508 EMS incidents within the study area met the location precision criteria above. Exhibit 3 shows these calls broken down by response time band.

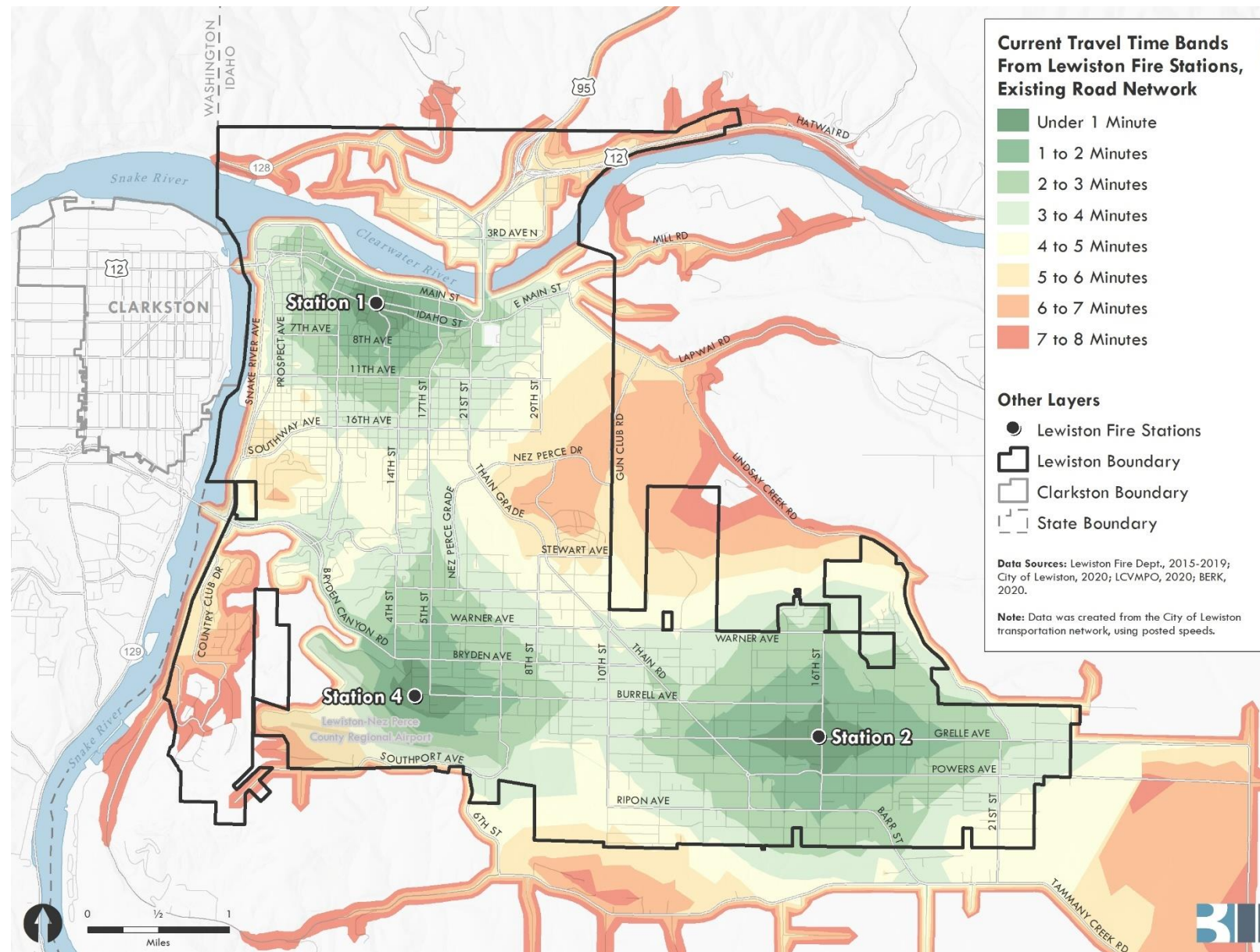
Exhibit 3. En Route to Arrive Time, EMS Incidents Located in Study Area, FY2015-2019



Source: Lewiston Fire Department, 2015-2019; BERK, 2020.

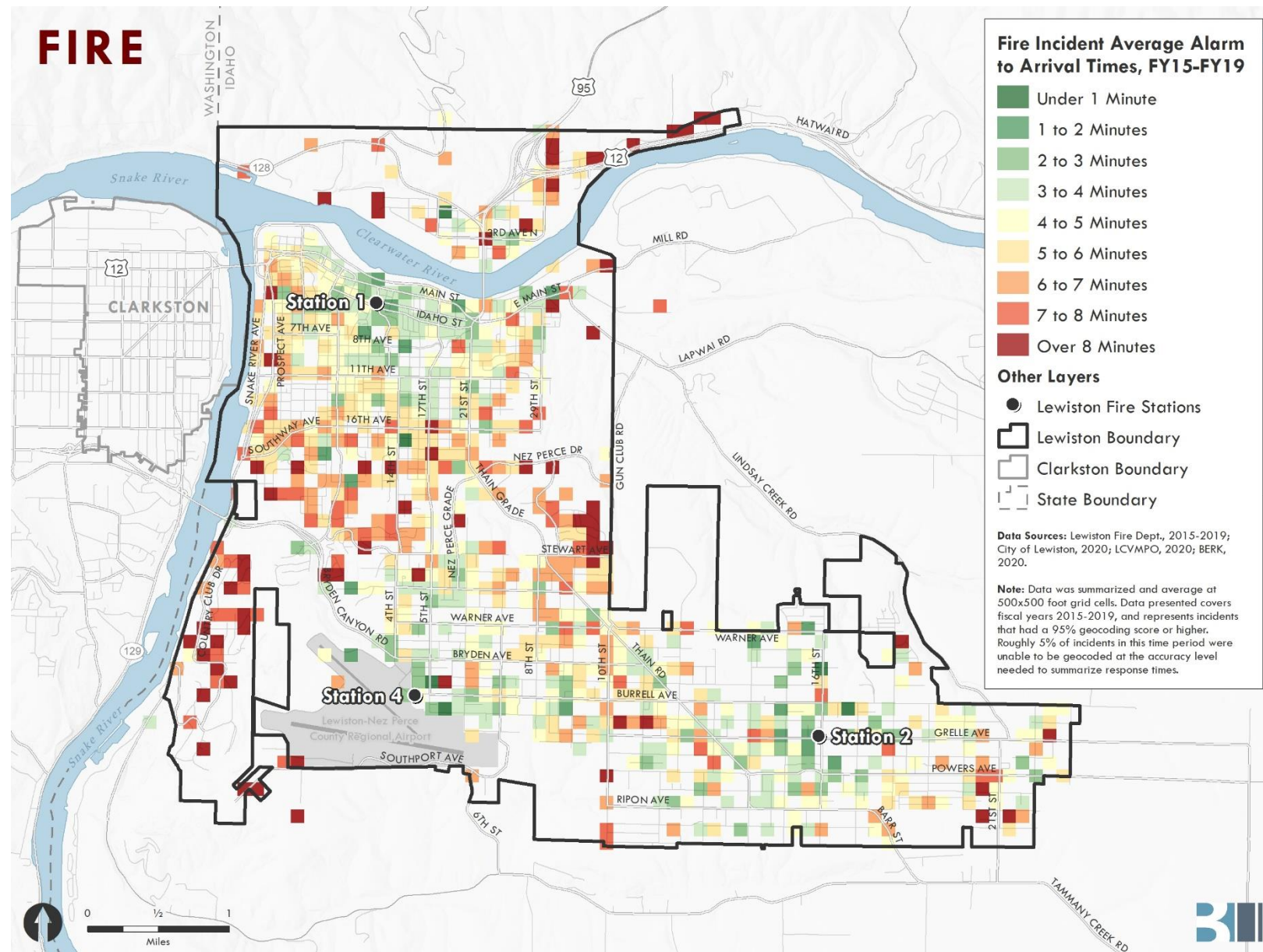
Average response time for these incidents was just over 5 minutes across the entire study area. Exhibit 6 shows average en route to arrival time by 500x500 foot grid cell (~6 acres) for all of the study area.

Exhibit 4. Travel Time From Lewiston Fire Stations



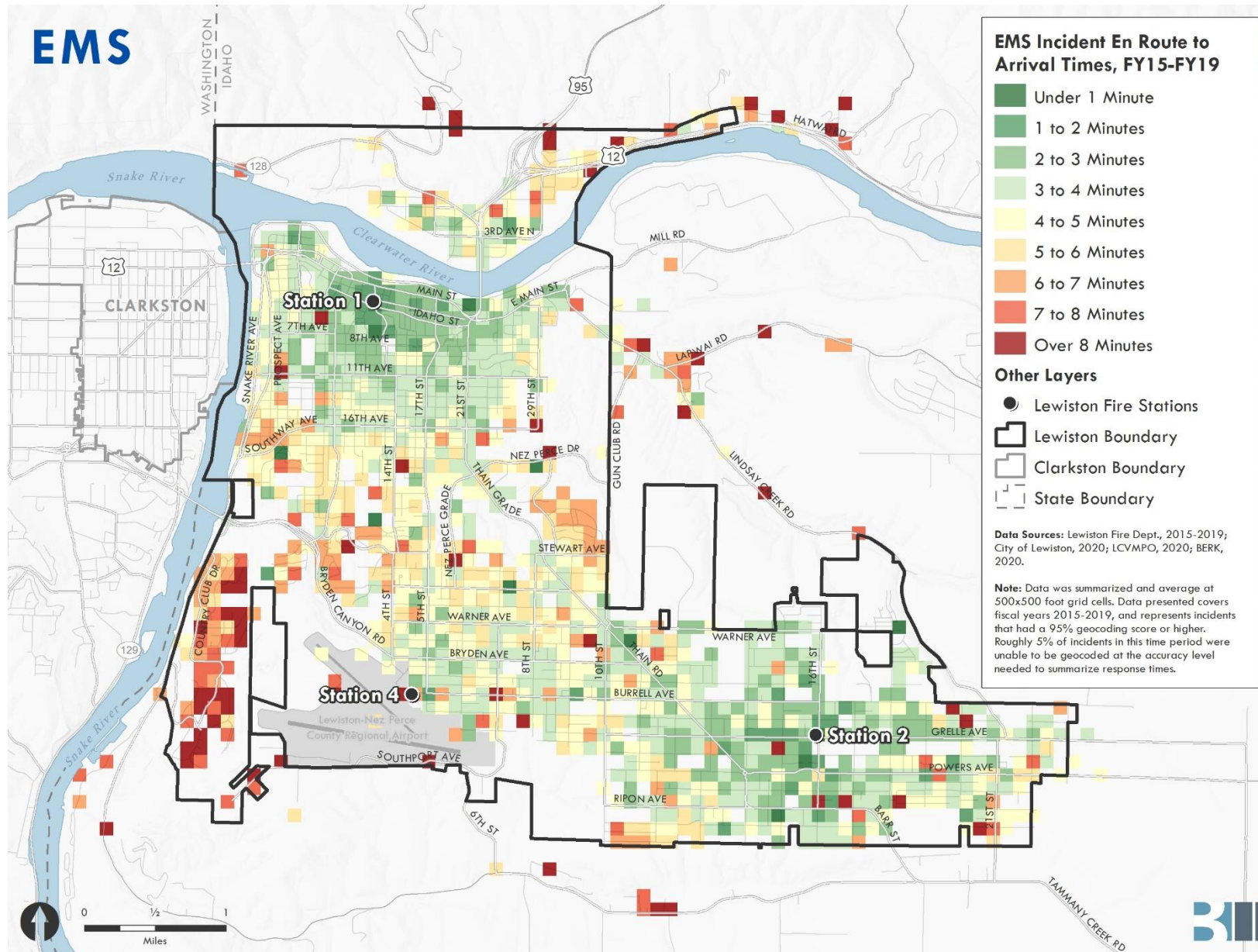
Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMPD, 2020.

Exhibit 5. Fire Incident Average Alarm to Arrival Times, FY2015-FY2019



Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMPD, 2020.

Exhibit 6. EMS Incident Average En Route to Arrival Time, FY2015-FY2019



Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMPD, 2020.

Project Future Need

This section of the analysis follows the steps below, and is visualized throughout this section in both tables and maps.

1. Map population and housing unit projections by Transportation Analysis Zone (TAZ).
2. Calculate percent growth in population for City of Lewiston between 2017 and 2034.
3. Project 2034 growth in Fire and EMS incidents in total study area overall based on percent growth in population.
4. Allocate 2034 growth in Fire and EMS incidents across study area based on share of total growth allocated to each TAZ.

The maps for this section show all metrics by **density per square mile**. This is an important distinction between showing raw population or incident counts, and helps to normalize the difference in size among TAZ boundaries.

Map Population and Housing Unit Projections

BERK obtained population and housing unit projections from the City of Lewiston Planning Department. The projections used for the analysis project population and housing unit growth from the base year of 2017 to the year 2034. The projections were provided hand drawn on a map, and as part of the digitizing process, BERK used TAZ as the summary level to show these projections. Additionally, as the projections show growth relative to a base year of 2017, not totals, US Census American Community Survey (ACS) 5-year Estimates were used to establish a base population estimate for the City of Lewiston (see data sources section in the Introduction for more information about ACS data).

Exhibit 7 shows total Lewiston population for 2017 and projected population for 2034. Additionally, the first map at the end of this section, Exhibit 10, shows population growth per square mile by TAZ across the entire study area.

Exhibit 7. City of Lewiston Population Growth, 2017-2034

	2017 POPULATION	2034 ADDITIONAL POPULATION	2034 PROJECTED POPULATION	PERCENT GROWTH 2017-2034
City of Lewiston	32,482	5,300	37,782	+16.3%

Source: US Census American Community Survey 5-year Estimates, 2013-2017; City of Lewiston, 2020; BERK, 2020.

Project Future Growth in Fire and EMS Incidents

Using the percent population growth derived above, BERK projected fire and EMS incidents across the study area for 2034. We first determined fire and EMS generation rates per capita and applied those rates to the 2034 overall population projection. Then, we allocated 2034 projected incidents to TAZ based on their projected share of population growth.

Fire Incident Growth

Exhibit 8 below shows baseline and 2034 projected fire incidents across the study area.

Exhibit 8. Growth in Fire Incidents, 2017-2034

	2017 FIRE INCIDENTS IN STUDY AREA ²	2017 FIRE INCIDENTS PER CAPITA	2034 PROJECTED POPULATION	2034 FIRE INCIDENTS PROJECTED IN STUDY AREA	2017-2034 GROWTH IN ANNUAL FIRE INCIDENTS
City of Lewiston	525	0.0162	37,782	611	86

Source: Source: US Census American Community Survey 5-year Estimates, 2013-2017; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; BERK, 2020.

Based on the share of growth each TAZ is projected to receive, we allocated 2034 fire incidents to TAZ and presented the projections by incident density per square mile. The maps noted below show this process:

- **Exhibit 11:** 2017 Fire Incidents per Square Mile
- **Exhibit 12:** 2034 Fire Incidents per Square Mile
- **Exhibit 13:** 2017-2034 Change in Fire Incidents per Square Mile

EMS Incident Growth

Exhibit 9 below shows baseline and 2034 projected EMS incidents across the study area.

Exhibit 9. Growth in EMS Incidents, 2017-2034

	2017 EMS INCIDENTS IN STUDY AREA	2017 EMS INCIDENTS PER CAPITA	2034 PROJECTED POPULATION	2034 EMS INCIDENTS PROJECTED IN STUDY AREA	2017-2034 GROWTH IN ANNUAL EMS INCIDENTS
City of Lewiston	4,564	0.1405	37,782	5,309	755

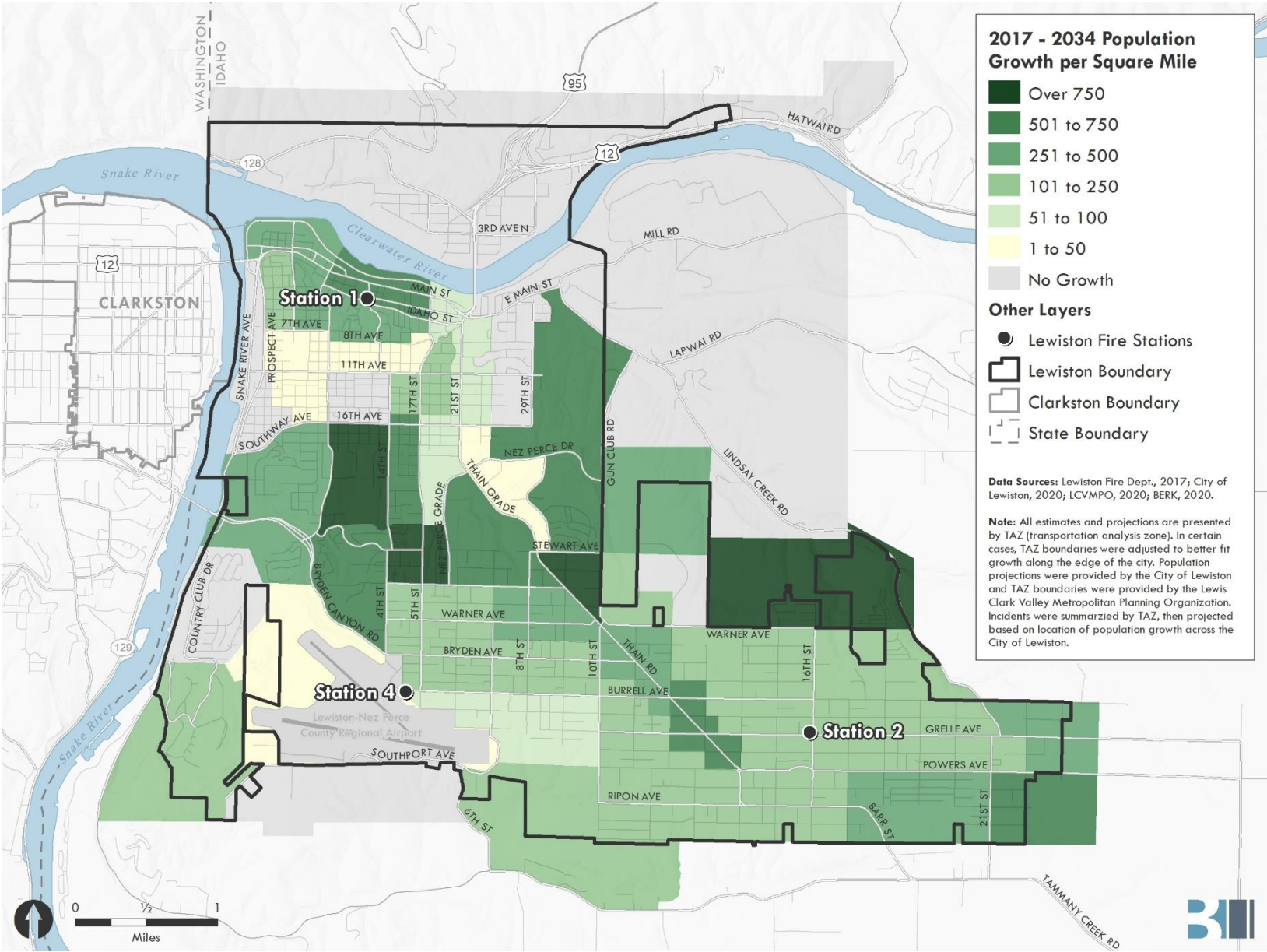
Source: Source: US Census American Community Survey 5-year Estimates, 2013-2017; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; BERK, 2020.

Using the same process as above, we allocated 2034 EMS incidents to TAZ based on share of population growth, and presented the projections by incident density per square mile. The maps noted below show this process:

- **Exhibit 14:** 2017 EMS Incidents per Square Mile
- **Exhibit 15:** 2034 EMS Incidents per Square Mile
- **Exhibit 16:** 2017-2034 Change in EMS Incidents per Square Mile

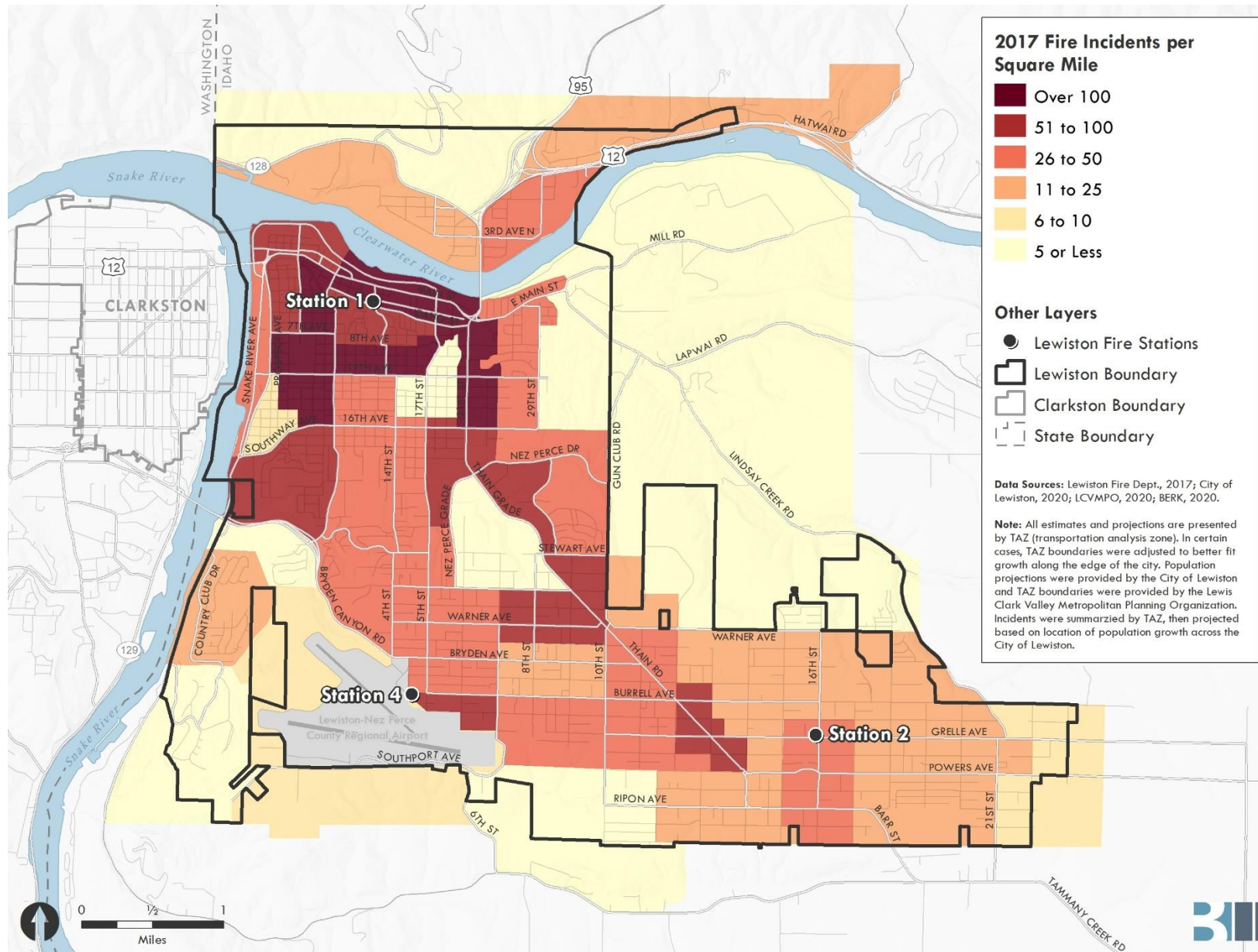
² Base year is 2017. However, because four full calendar years of incident data was provided, as well as to account for any anomalies in any given year, the average annual incidents between 2015-2018 is being used as the 2017 base year data.

Exhibit 10. 2017-2034 Population Growth per Square Mile



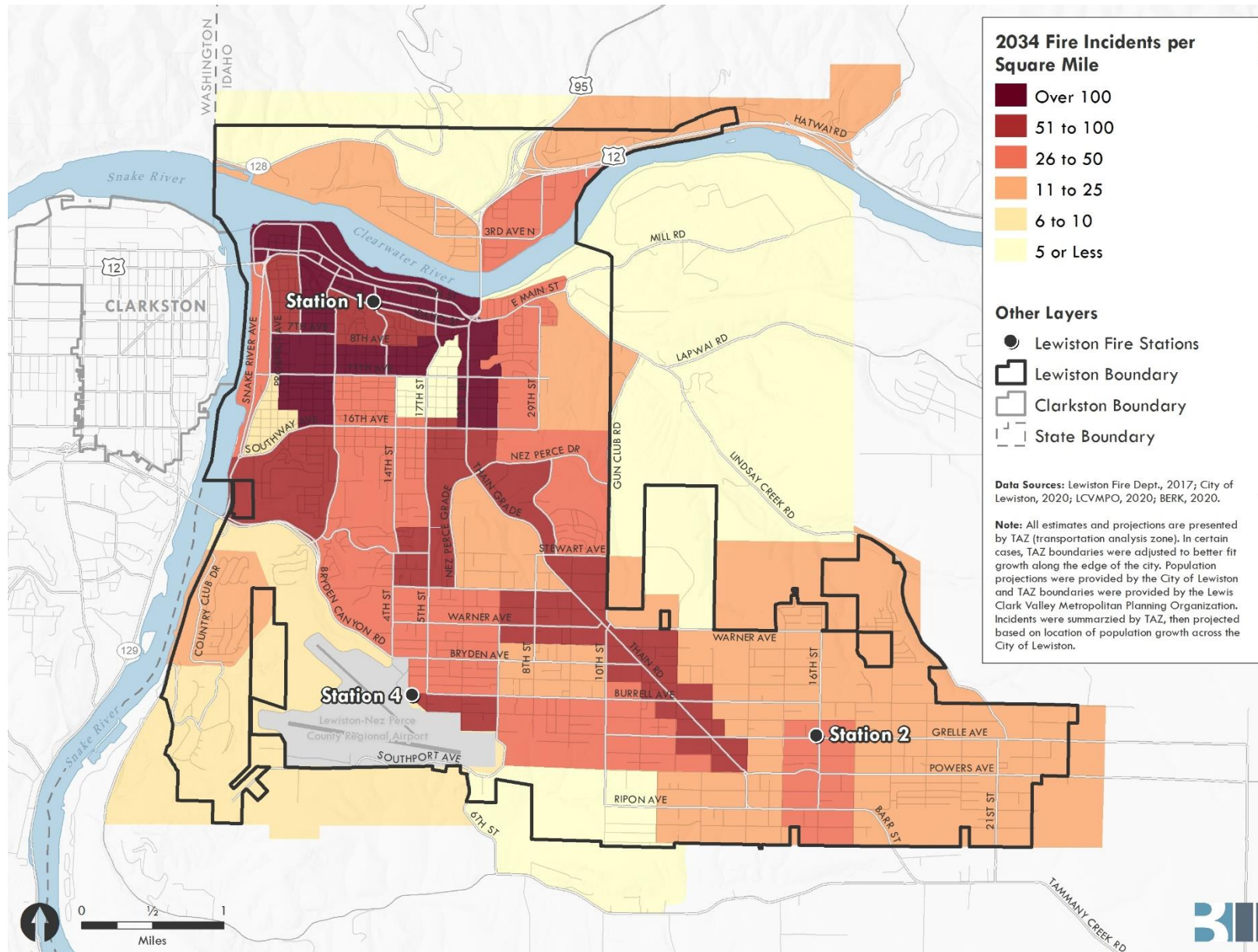
Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

Exhibit 11. 2017 Fire Incidents per Square Mile



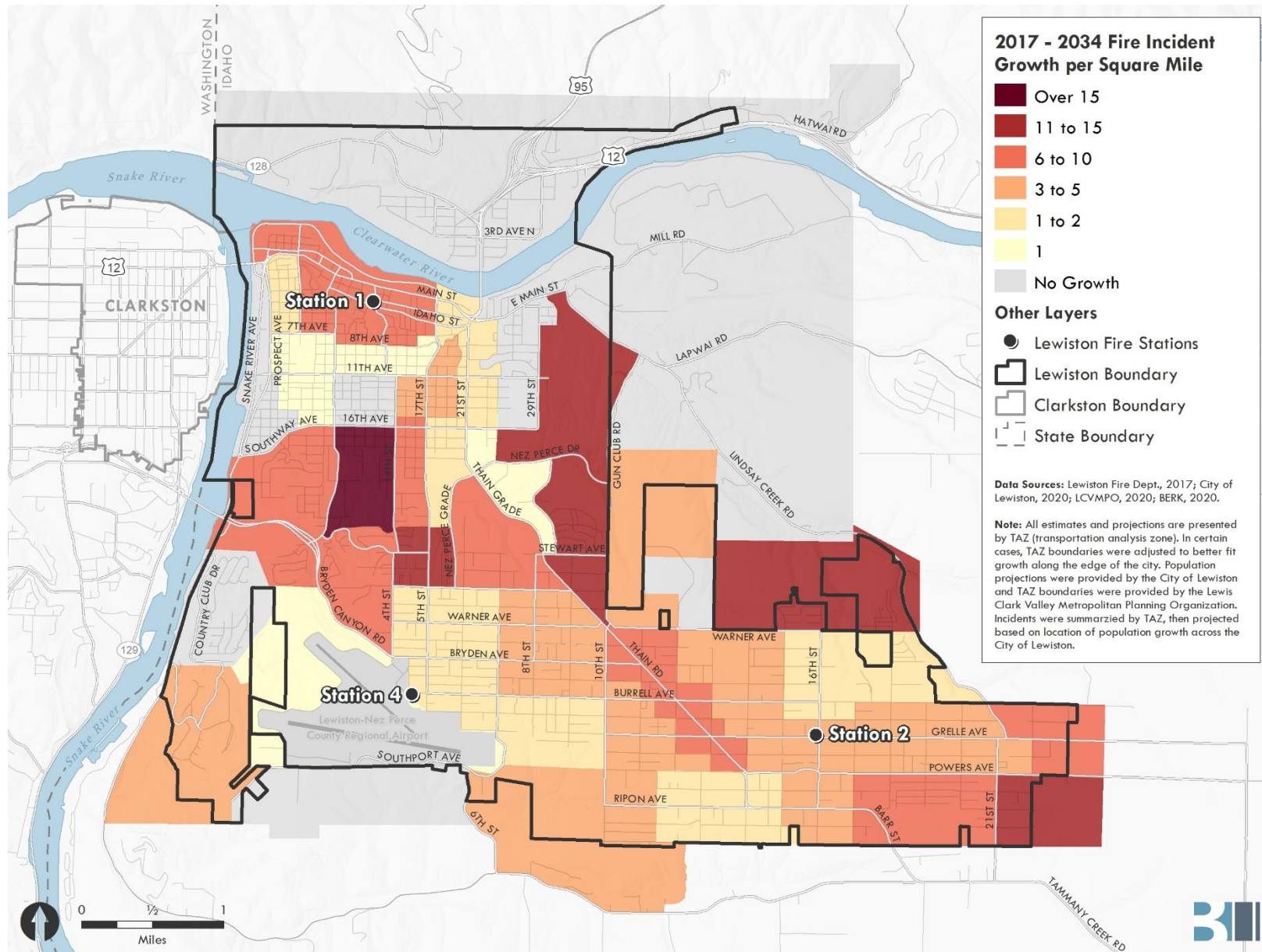
Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

Exhibit 12. 2034 Projected Fire Incidents per Square Mile



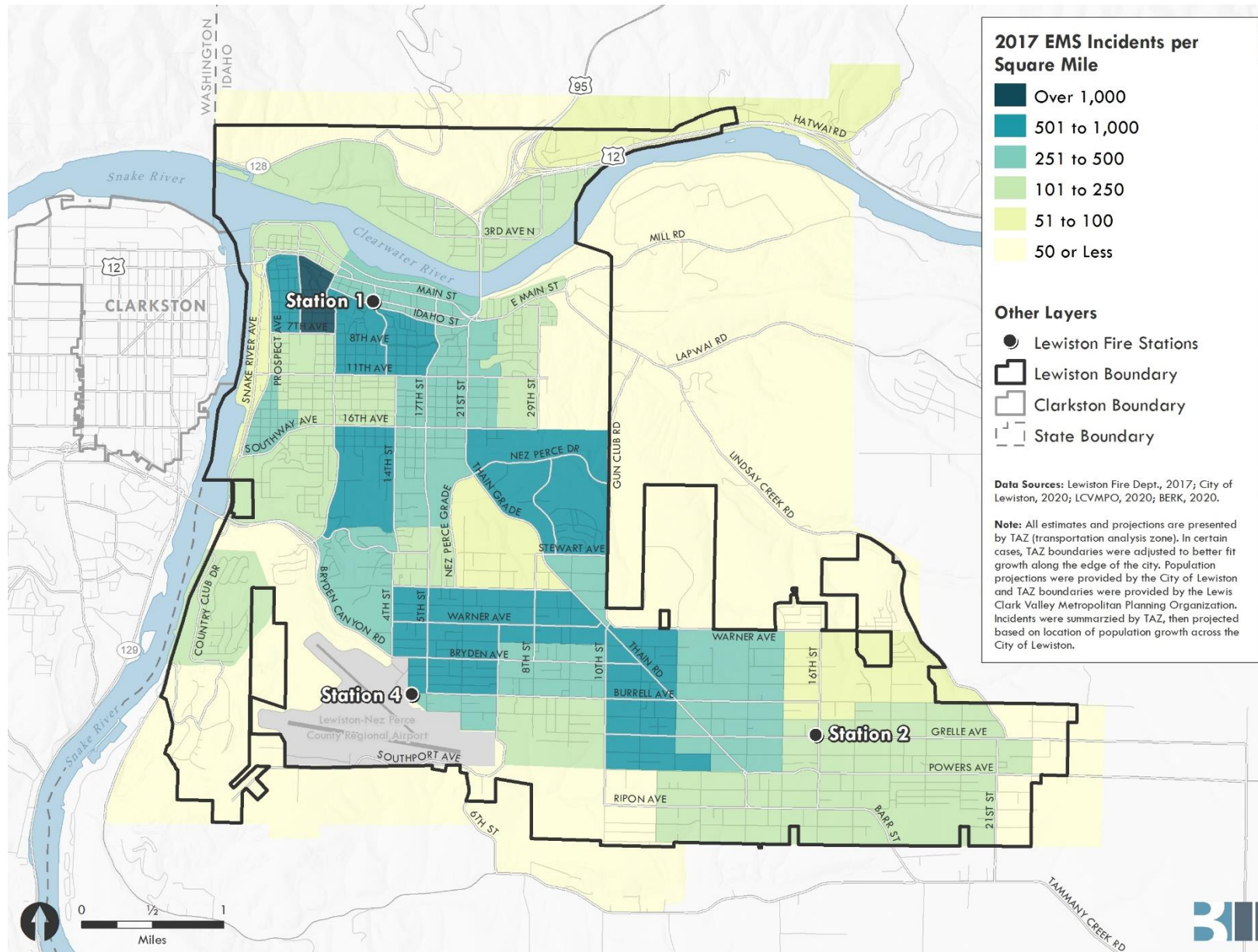
Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

Exhibit 13. 2017 to 2034 Fire Incident Growth per Square Mile



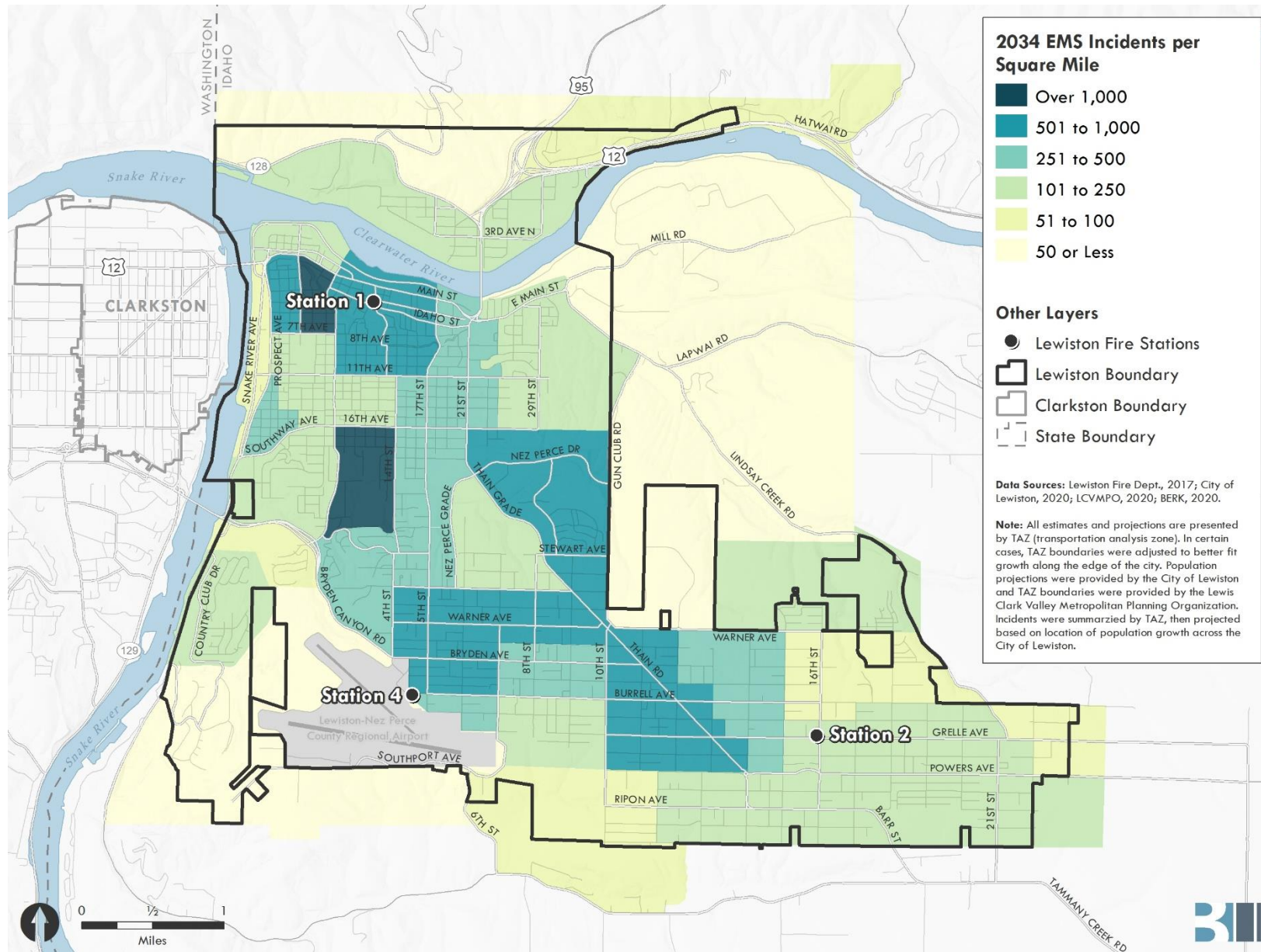
Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

Exhibit 14. 2017 EMS Incidents per Square Mile



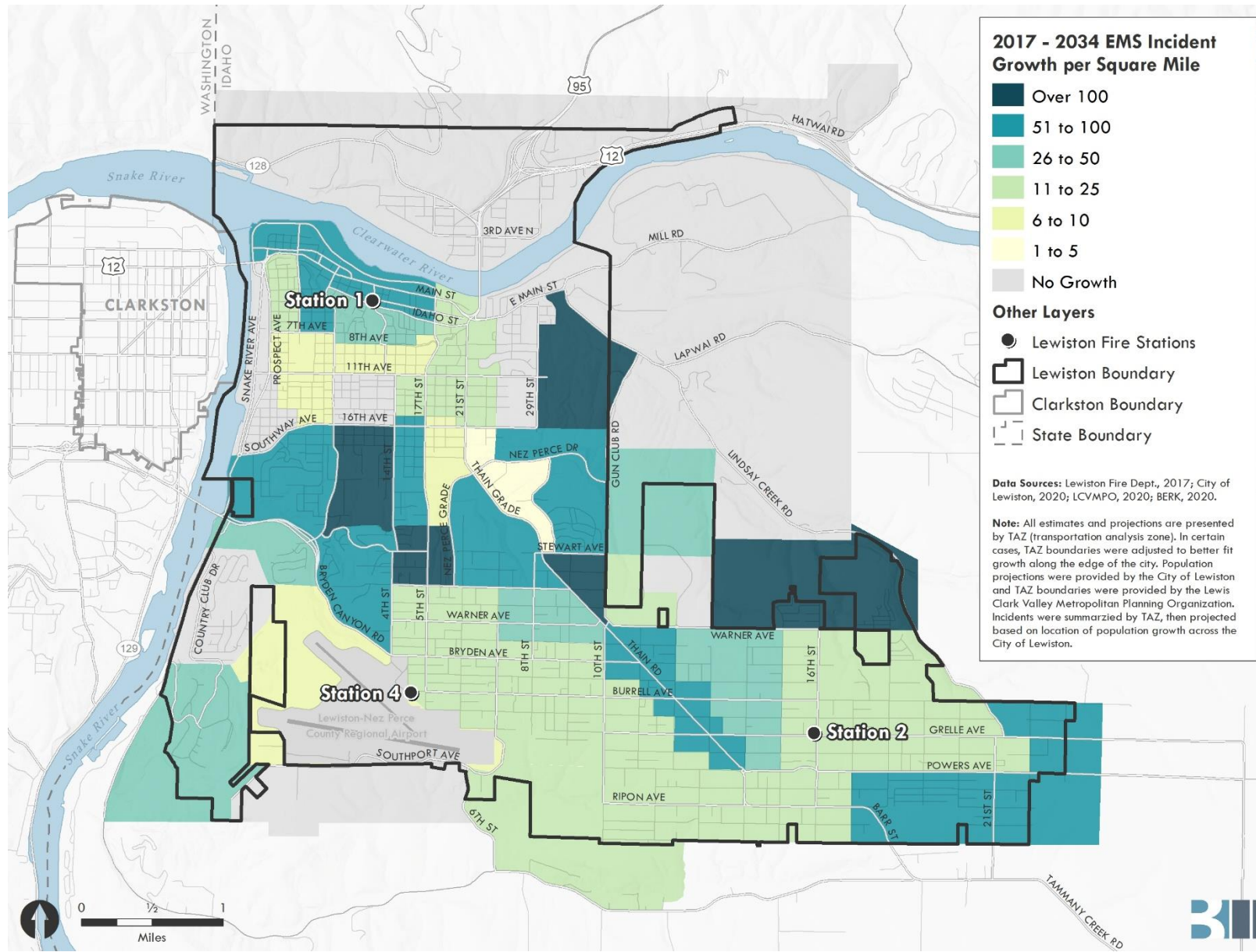
Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

Exhibit 15. 2034 Projected EMS Incidents per Square Mile



Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

Exhibit 16. 2017 to 2034 EMS Incident Growth per Square Mile



Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

Model Alternative Station Location Scenarios

The goal of this part of the analysis is to choose the optimal location(s) for station relocation(s) by using current incident locations and future incident projections. This analysis relies on an ArcGIS for Desktop tool called Location-Allocation within the Network Analyst extension. This core of this tool is building a transportation and response-to-demand model to solve for station locations that include the greatest amount of demand served within an impedance cutoff. The impedance measure is travel time, and in all scenarios below, we use an 8-minute cutoff for travel time.

The Lewiston transportation network is the primary input for the travel time modeling. We use transportation network attributes including speed limits, road segment length, and one-way restrictions to determine travel time calculations. We also incorporate inferred intersection attributes such as turn delays into the analysis.

All current incident locations as well as future incident projections make up the demand portion of each scenario. Once the transportation model is built out, the scenarios are solved based on how well potential locations serve projected incident demand, with the goal of maximizing the 8-minute response time to as many incidents as possible. This methodology is consistent with methods commonly used for fire station location analyses elsewhere.

Scenarios

Three scenarios were discussed by the project team and modeled:

- **Scenario 1 – Relocate Station 4 to Bryden Ave and 5th St Property:** Do not move Stations 1 and 2. Model the city-owned Bryden Ave and 5th St property as the replacement location for Station 4. See Exhibit 19.
- **Scenario 2 – Relocate Station 4 (unconstrained):** Do not move Stations 1 and 2. Let the model choose the optimal relocation site for Station 4. See Exhibit 20.
- **Scenario 3 – Relocate Stations 1 and 4 (unconstrained):** Do not move Station 2 and let the model choose the optimal relocation sites for Stations 1 and 4. Initially, BERK designed two separate scenarios for relocations these stations: one in which Station 4 is located first, then Station 1 is located; and another in which the two station locations are chosen simultaneously. These model runs yielded the same result, and thus were combined into a single scenario for presentation here. See Exhibit 21.

M73 and Asotin County Station

Currently, the Lewiston Fire Department EMS vehicle (M73) is stationed at the Asotin County Fire Station on Appleside Boulevard south of Clarkston, WA. While this resource is available to support EMS calls in both Clarkston and Lewiston, it complicates the modelling, which is otherwise configured to plan for stations that serve both EMS and fire. In addition, transportation data with the necessary attributes for travel time modeling was unavailable for Asotin County and the City of Clarkston, which would prevent M73 from being accurately modeled in response time scenarios.

As a result, BERK prioritized serving both fire and EMS with a given station location, knowing that for EMS, M73 in Asotin County will help with response times in the west part of Lewiston and the county club

area primarily. The project team discussed and agreed upon this in March 2020. Therefore, the scenarios do not include the Asotin County Fire Department location, and the model is restricted to station location selection based on response to incidents from a constellation of three primary stations in Lewiston.

Transportation Network and Future High Growth Areas

One limitation with projecting travel times in areas identified as high growth areas is that many of those areas are on the outskirts of the city where no transportation network exists currently. For those areas, it was assumed that as roads are built out, the transportation network will be designed in such a way to allow for at least 25 MPH speeds throughout and in a somewhat grid-like configuration. While in certain areas this may be a conservative estimate, in other areas it may be too high due to local speed limits or road configuration. In the end, this was determined to be a reasonable middle ground assumption.

Two specific transportation improvements were agreed upon by the project team to include in modeling, shown and highlighted in the maps below as “Potential Future Roads”.

Scenario Evaluation

For each scenario, the model calculated travel times from all possible station locations to future incidents, then identified station locations based on allocating future incidents to the station location which minimized travel time to the given incident. The location selection process was unrestricted, meaning the model could choose any location within the study area for a station.

For Scenario 1 (Bryden and 5th), no new station locations were selected; instead the model tested the proposed relocation site against future incidents and the future transportation network.

In scenarios 2 and 3, the model selected locations based on maximizing the number of projected incidents that fall within an 8-minute travel time from a potential station location. If multiple potential station locations are able to reach the projected incident location within 8 minutes, the model allocates the incident to the station which can reach the incident location in the least amount of time. This is an important distinction between basing the analysis solely on minimizing response times. While a greater number of projected incidents may be reached in one or two minutes by basing the analysis solely on response time, that would favor the core area and create more issues for serving the outer areas of the city where much of the future growth will be concentrated.

Therefore, the scenario modeling for Scenarios 2 and 3 identifies station locations that maximize the number of future incidents within an 8-minute travel time from the identified station location (see Exhibit 20 and Exhibit 21).

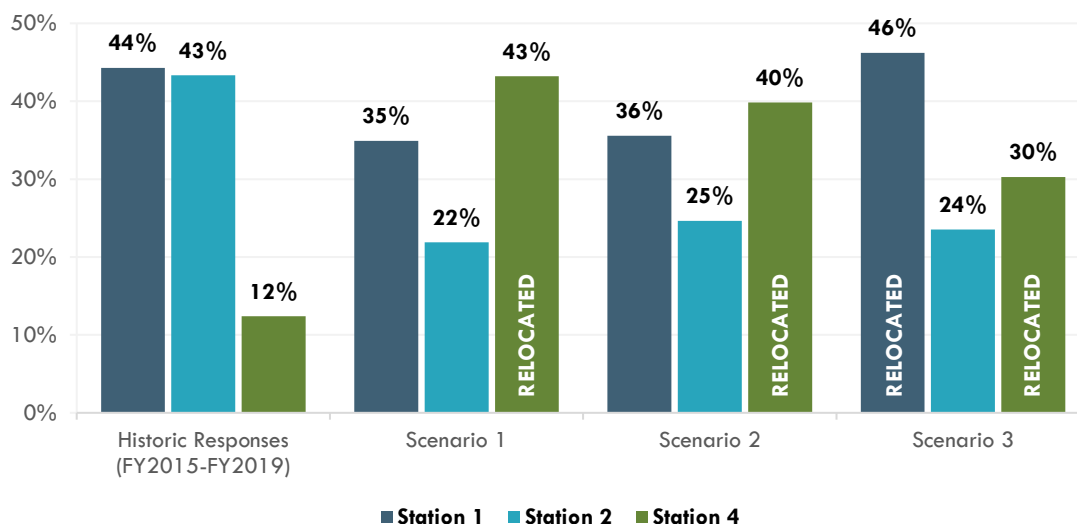
Distribution of Incident Response by Station

The model used to determine which station responds to each projected future incident location assumes each station has unlimited capacity to respond to incidents. Of course, this is not always the case. Our analysis of historic incident response data from FY2015 to FY2019 indicates that Stations 1 and 2 responded to 88% of all incidents, while Station 4 responded to just 12% of incidents. This may be due to their closer proximity to incident locations. However, station capacity likely also played a role.

Exhibit 17 compares the actual distribution of incident responses by station found in our historic data analysis to the allocated distribution of incidents by station in the modeled scenarios. It shows an optimal

incident response system would see Station 4 responding to a significantly greater proportion of total incidents and Station 2 responding to a significantly lesser proportion.

Exhibit 17. Share of Incident Response by Station, Historic Performance vs Modeled Scenarios



Source: Lewiston Fire Department, 2015-2019; BERK, 2020.

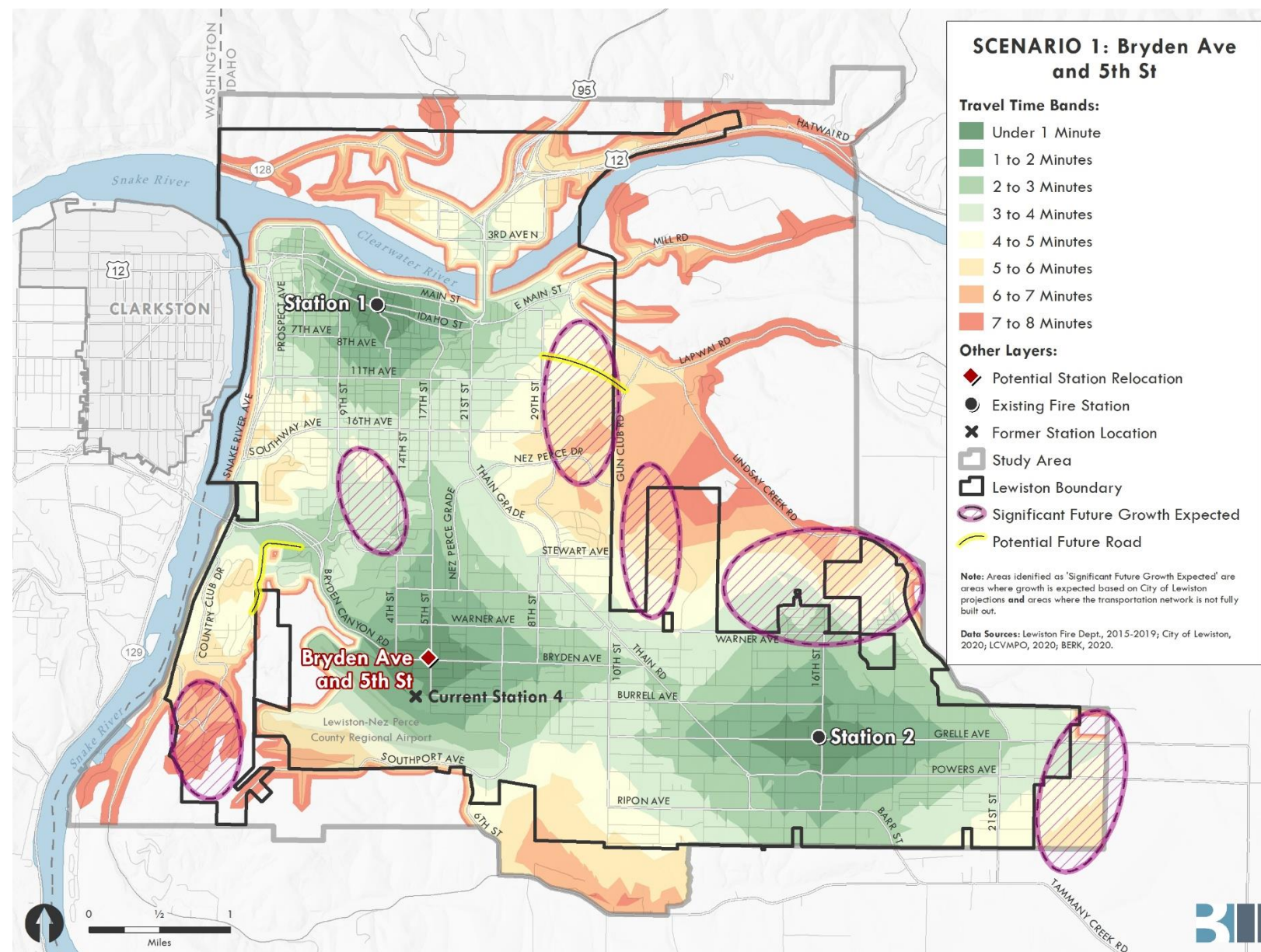
Station capacity is being addressed separately in this study. These findings indicate that station capacity will need to be a key criterion when deciding to relocate or rebuild a station. Exhibit 18 shows total historic incident response data from FY2015 to FY2019 compared to total incidents in our modeled scenarios, broken down by station. The scenarios below show total incidents for five projected years of incident data.

Exhibit 18. Total Incident Response by Station, Historic Performance vs Modeled Scenarios

	HISTORIC RESPONSES (FY2015-FY2019)	SCENARIO 1	SCENARIO 2	SCENARIO 3
Station 1	10,676	10,186	10,186	13,477
Station 2	10,453	6,380	6,380	6,864
Station 4	2,990	12,609	12,609	8,834

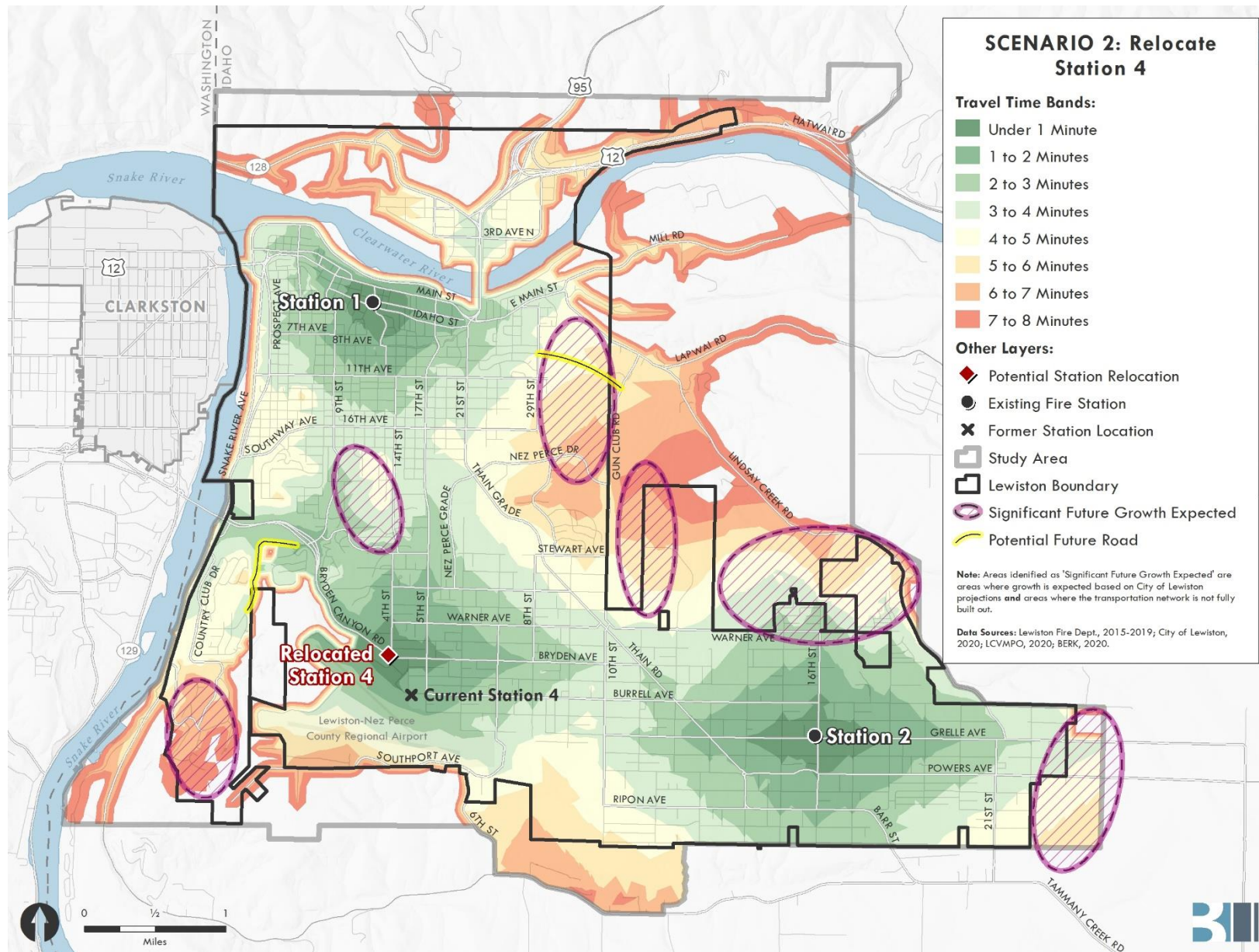
Source: Lewiston Fire Department, 2015-2019; BERK, 2020.

Exhibit 19. Scenario One – Relocate Station 4 to Bryden Ave and 5th Street Property



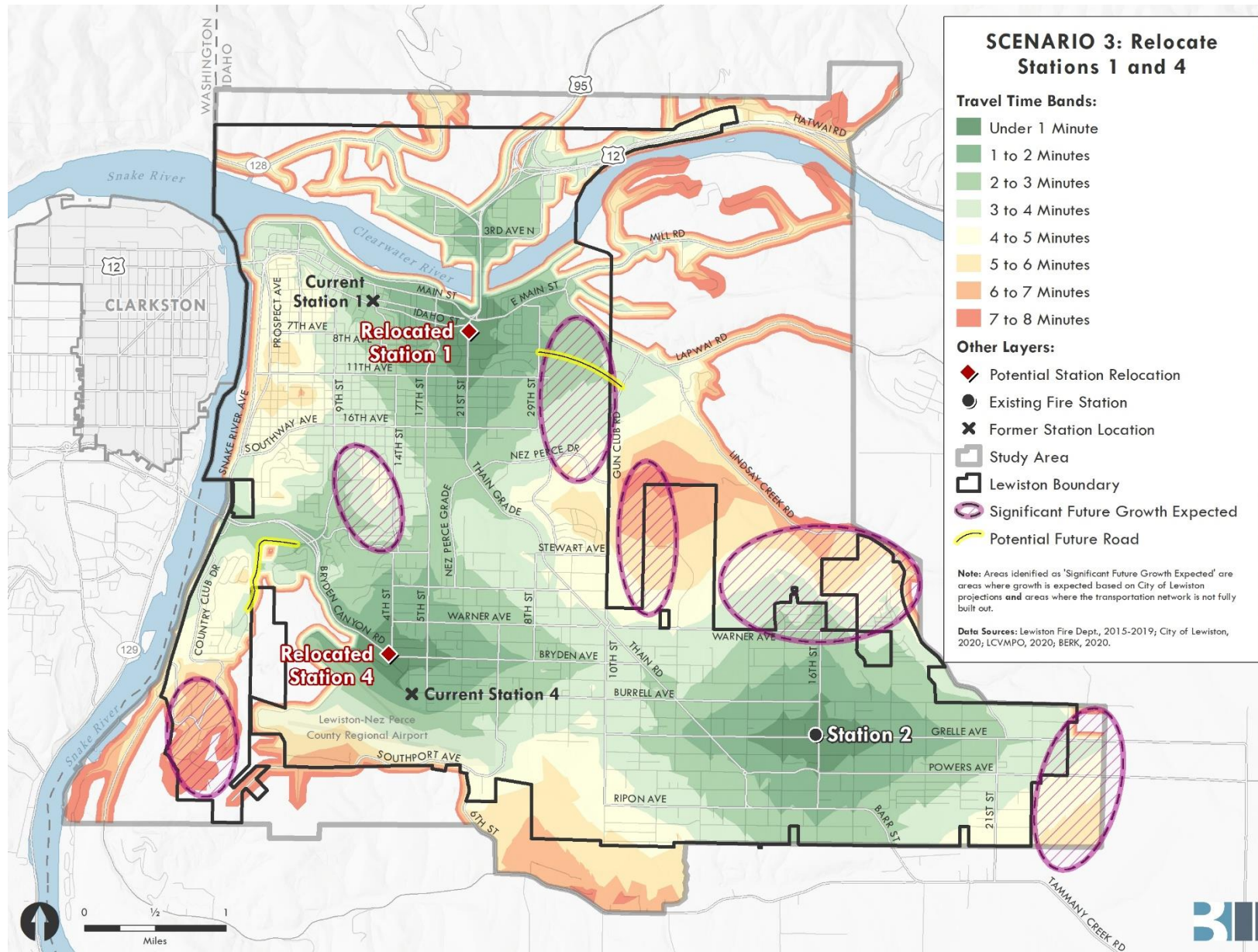
Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

Exhibit 20. Scenario Two – Relocate Station 4 (unconstrained)



Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

Exhibit 21. Scenario Three – Relocate Stations 1 and 4 (unconstrained)



Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020

Recommendations

Based on population and housing unit growth, projected incidents, and future modeling of incident response, **Scenario 3** is the best three-station alternative to accommodate the City of Lewiston. Our analysis indicates that relocating both Stations 1 and 4 will provide superior service for areas of future growth and maximize the percentage of responses in the Study Area that are within the 8-minute standard.

If the City of Lewiston chooses only to replace and relocate Station 4, it would still have a significant impact on its ability to serve a greater number of future incidents within an 8-minute drive time.³

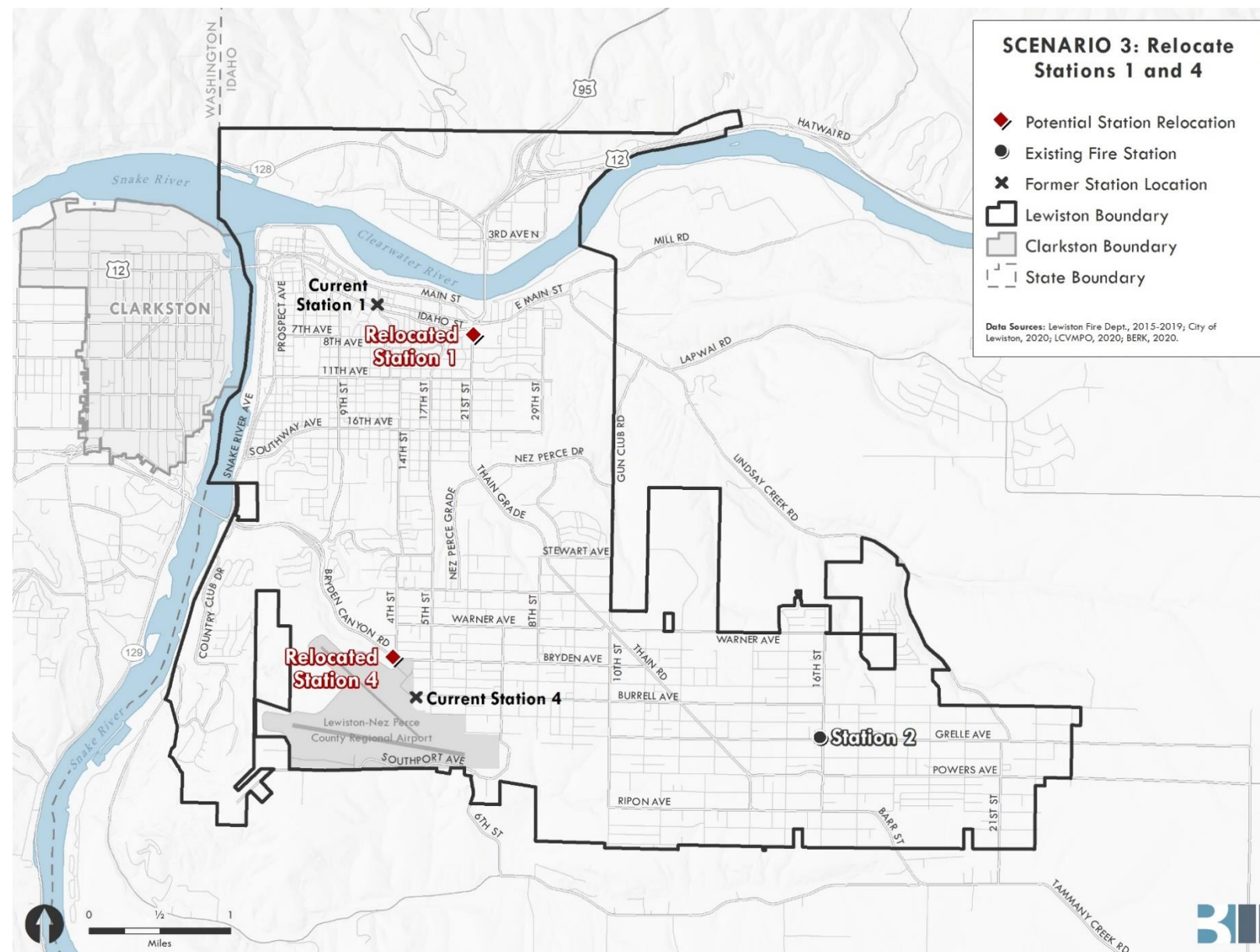
Below are the recommended station relocation sites, also shown in the map in Exhibit 22:

- **Recommended Station 1 Relocation:** General vicinity of 21st St between 7th and 8th Ave (no further east than 21st St.)
- **Recommended Station 4 Relocation:** General vicinity of Bryden Ave and 4th St

Our modeling identified these locations with an assumption of ideal traffic conditions and readily available sites for station development. There are other factors considered when relocating a fire station. Land availability is perhaps the largest factor. If the City were to restrict relocation to land currently owned by the City of Lewiston, **Bryden Ave and 5th St** would be a strong candidate for relocating Station 4, given its similar performance to the relocation site selected above at Bryden Ave and 4th St.

³ Additionally, our analysis indicates that expanding the capacity of Station 4 for incident response may free up the other two stations and improve response times in other parts of the Study Area. However additional operational analysis would be needed to confirm this.

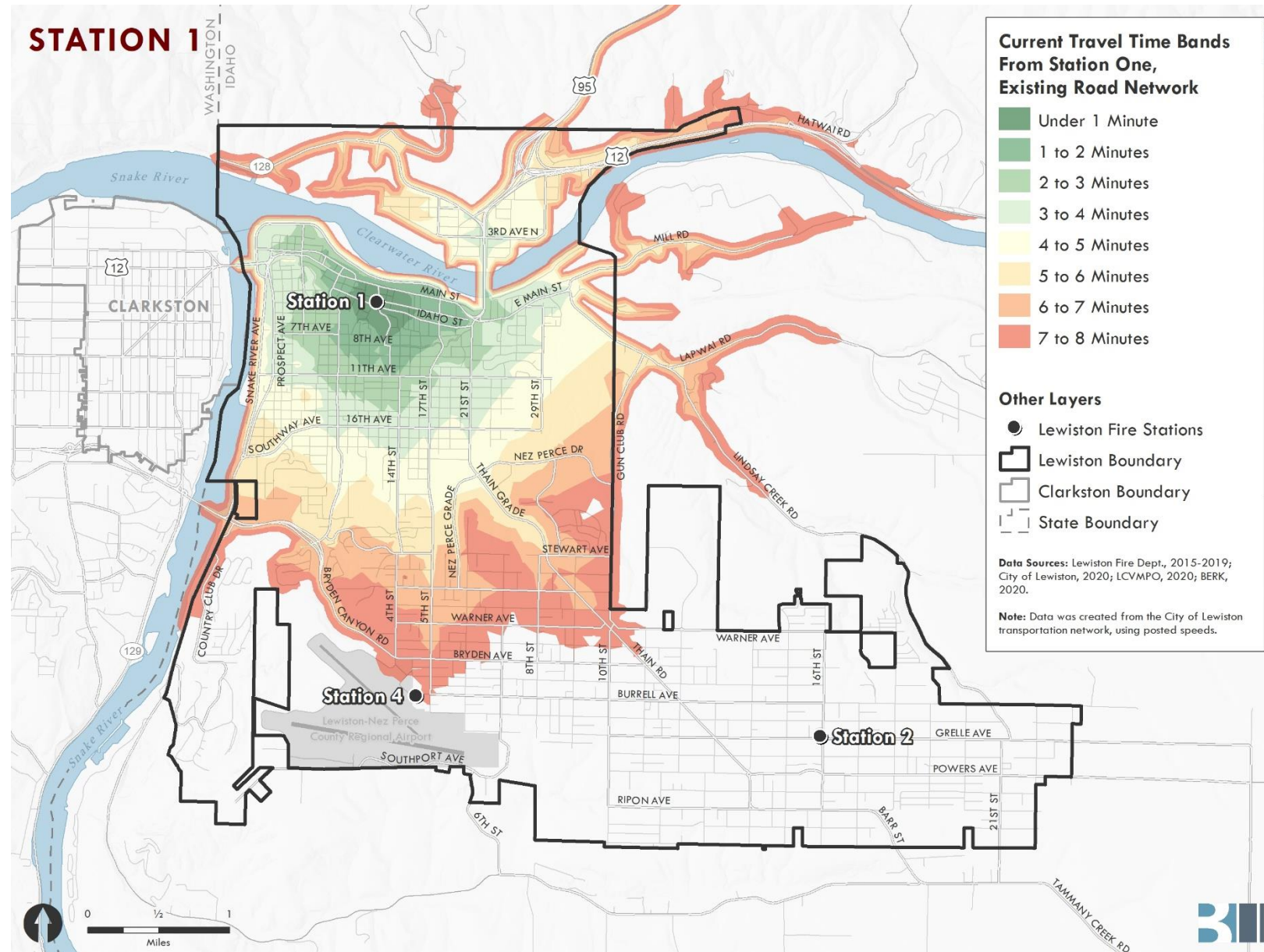
Exhibit 22. Recommended Station Locations – Modeling Scenario Three



Source: BERK, 2020; Lewiston Fire Department, 2015-2019; City of Lewiston, 2020; LCVMP, 2020.

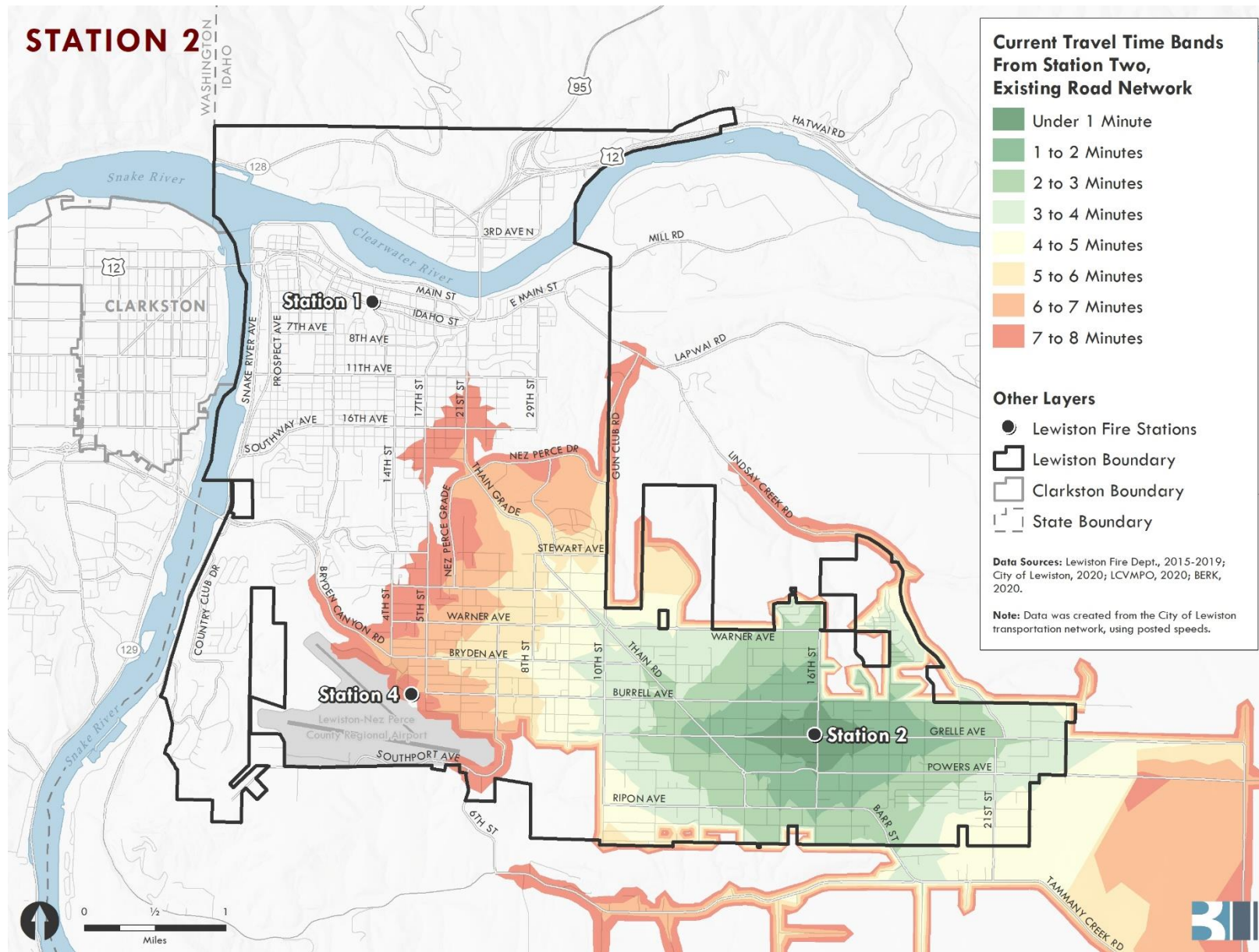
Appendix A: Current Travel Time Mapping by Station

Exhibit 23. Station One – Current Travel Time



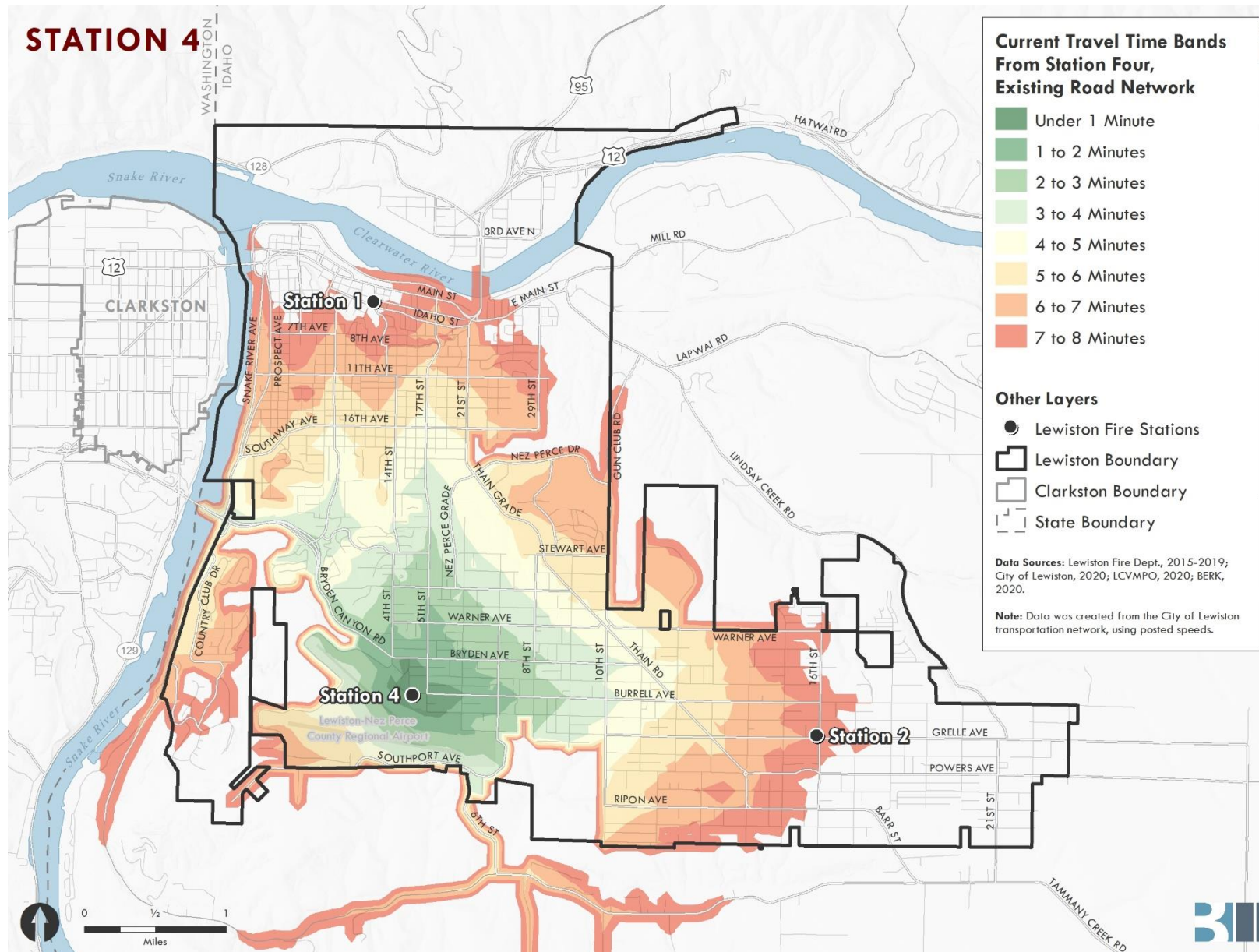
Source: BERK, 2020; City of Lewiston, 2020.

Exhibit 24. Station Two – Current Travel Time



Source: BERK, 2020; City of Lewiston, 2020.

Exhibit 25. Station Four – Current Travel Time



Source: BERK, 2020; City of Lewiston, 2020.



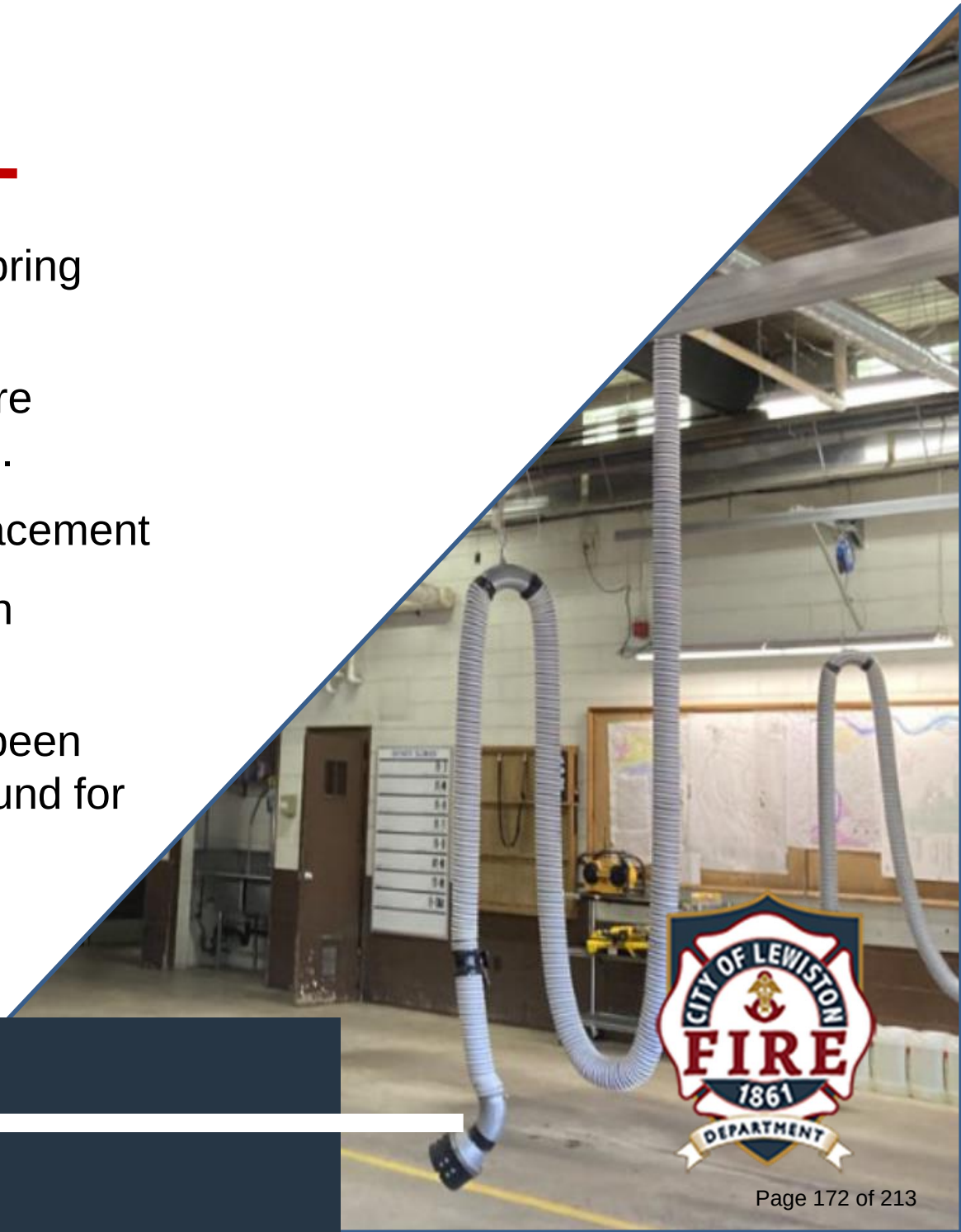
Fire Facility Hazard Removal

Overview of Plan Goals and Review of
Architects West April 24, 2024 Report



Background

- Design-Build Station 4 halted Spring 2023
- Council members directed the fire station hazards to be addressed.
- Fire Chief Retirement and Replacement
- The 2020 station study has been adopted as a road map
- The 2023 air quality report has been analyzed as part of the background for this report.
- Engineering Assessment





CITY OF LEWISTON



The Mission:

To respond to each call with
courage, conviction and compassion.



- Council
- Local 1773

- Facilities

- HR

(Risk, DEI, ADA)

- LPD

- CP&D

- Legal

- Purchasing

Cooperating Partners

"Great things in business are never done by one person; they're done by a team of people"

- Steve Jobs



Progress Update

Phase 1

0-6 Months

- ✓ HVAC Filters – MERV
- ✓ HEPA Filters
- ☐ U/V HVAC
- ☐ *Clean and Paint*
- ☐ *Carpet Removal*
- ✓ Consultant Evaluation

Phase 2

6-12 Months

- ☐ Long-term Air Quality
- ☐ CA Reduction - Strategic Plan
- ☐ Station Study and reports incorporated into a plan

Phase 3

> 12 Months

- Incorporate Strategic Planning Elements
- Create Long-term strategy
- Funding plan





CITY OF LEWISTON



“Rough Order of Magnitude” –
Estimation of the effort and cost
completed early in the project life
cycle and serves as a guide in the
selection of strategies and
planning options.



Station 1 - Proposed Solutions

- Remodel bedroom/bathroom wing (\$475K)
- Remodel Kitchen (\$50K)
- Reorganize the north wing (\$125K)
- Fire suppression (\$225K)
- Training room addition to admin (\$650K)
- Upgrade HVAC with DOAS(\$50K)
- Replace HVAC (\$300K)
- Upgrade Vehicle Exhaust (\$10K)

There are no low impact solutions that address current station deficiencies. To resolve the air contamination hazard and basic code compliance will require both architectural and mechanical solutions. A dorm and bathroom reorganization is critical to limit cross-contamination, and additional separations need to be provided at the clean areas on the north side of the bays.



- Expand Dorm wing (\$470K)
- Reconfigure decon/laundry space (\$30K*)
- Door reconfiguration (\$10K)
- Fire Sprinklers (\$45K*)
- Fitness room / Turnout space (\$TBD)
- Upgrade HVAC with DOAS(\$50K)
- Replace HVAC (\$225K)
- Replace Bay heaters (\$25K)
- Upgrade Vehicle Exhaust (\$10K)

Station 2 - Proposed Solutions

To resolve the air contamination hazard and basic code compliance will require both architectural and mechanical solutions. A dorm and bathroom reorganization is critical to limit cross-contamination. To properly address the ADA, sleeping room, and code deficiencies would involve expanding the building dorm wing to the north – reorganizing the sleeping rooms, laundry facilities, and bathrooms, while incorporating transition zones and compliant separations.



Station 4 - Proposed Solutions

- Hot/Cold separation Lobby (\$100K)
- Bathroom (\$85K)
- Fire Separation (\$10K)
- Remove and replace all wood finishes. (\$?)
- Upgrade HVAC with DOAS(\$35K)
- Replace HVAC (\$135K)
- Upgrade Vehicle Exhaust (\$10K)

There are no low impact solutions that comprehensively address current station deficiencies. To resolve the air contamination hazard and basic code compliance will require both architectural and mechanical solutions.

Short term solutions involve replacing doors and windows between clean and dirty functions, addressing fire separations, rearranging the public entry for security, and providing access to a dirty side restroom.



All Stations – Estimates



Station 1

≈ 1,885,000



Station 2

≈ 865,000



Station 4

≈ 375,000





- Station 1 and 4 locations
- Space for growth
- LPD Substation
- Radio Tower
- Utility Capacity
- Station Alerting Equipment
- Fixtures, Furnishing and Equipment

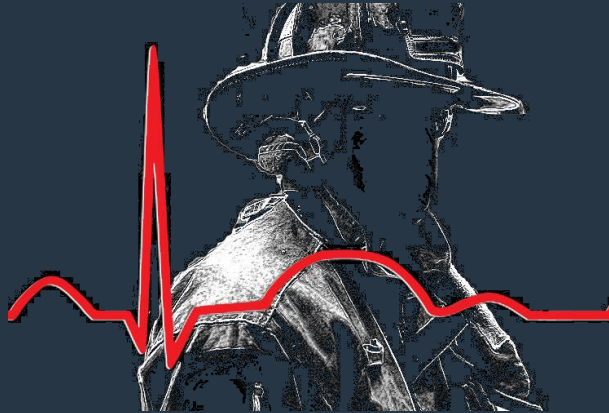
Unaddressed Issues





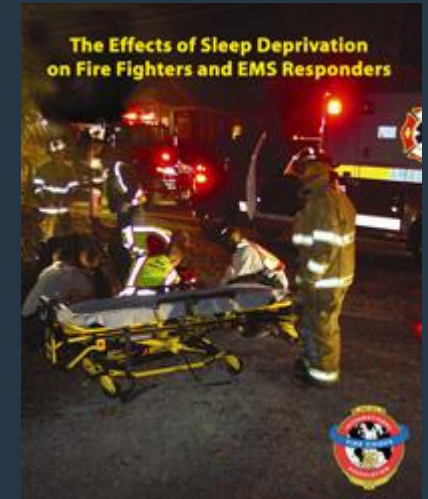
Cancer

- ✓ Clean and Seal DPM
- ☐ Prevent Recontamination
- ☐ Laundry (PPE/Daily)
- ☐ Create Zones
- ☐ Air Handling



Cardiac

- ☐ Station Alerting
- ☐ Workout Areas
- ✓ Fitness Testing
- ✓ Annual Physicals
- ☐ Nutritional Counseling



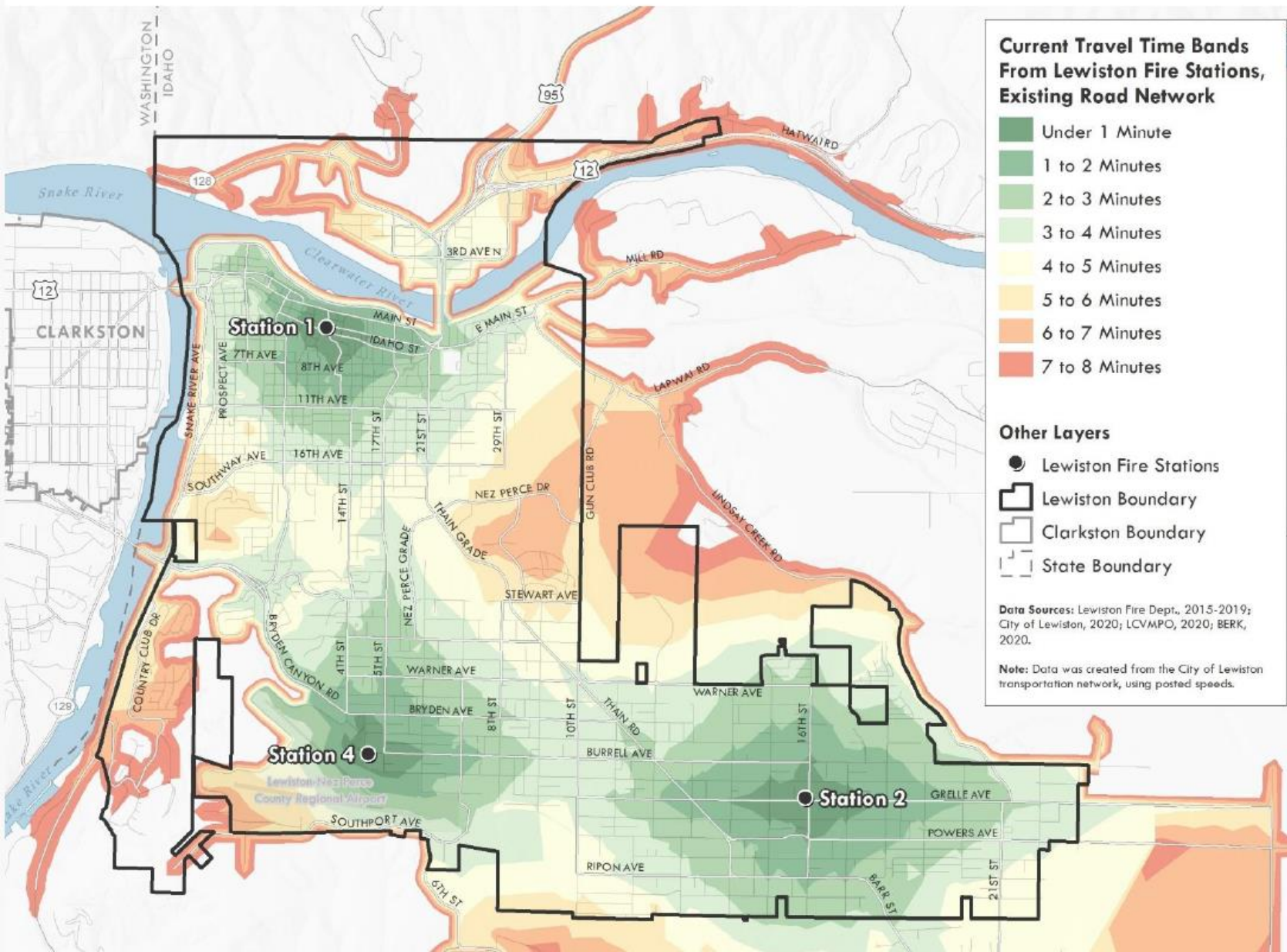
Cognitive Function

- ☐ Individual Dorms
- ☐ Station Alerting
- ☐ Purposeful Rest
- ☐ Recovery Training
- ✓ Schedule



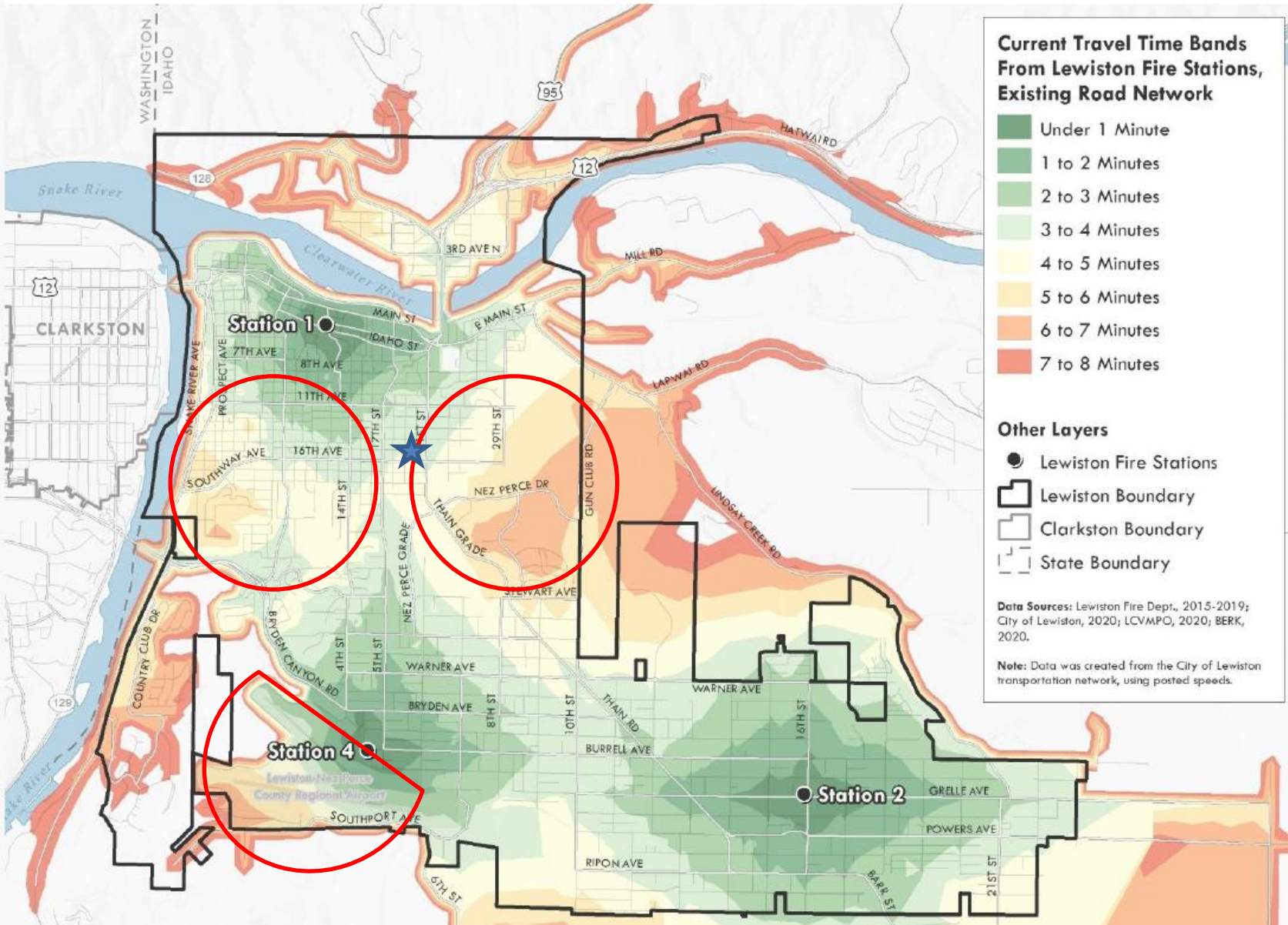
Station Locations

4. Travel Time From Lewiston Fire Stations



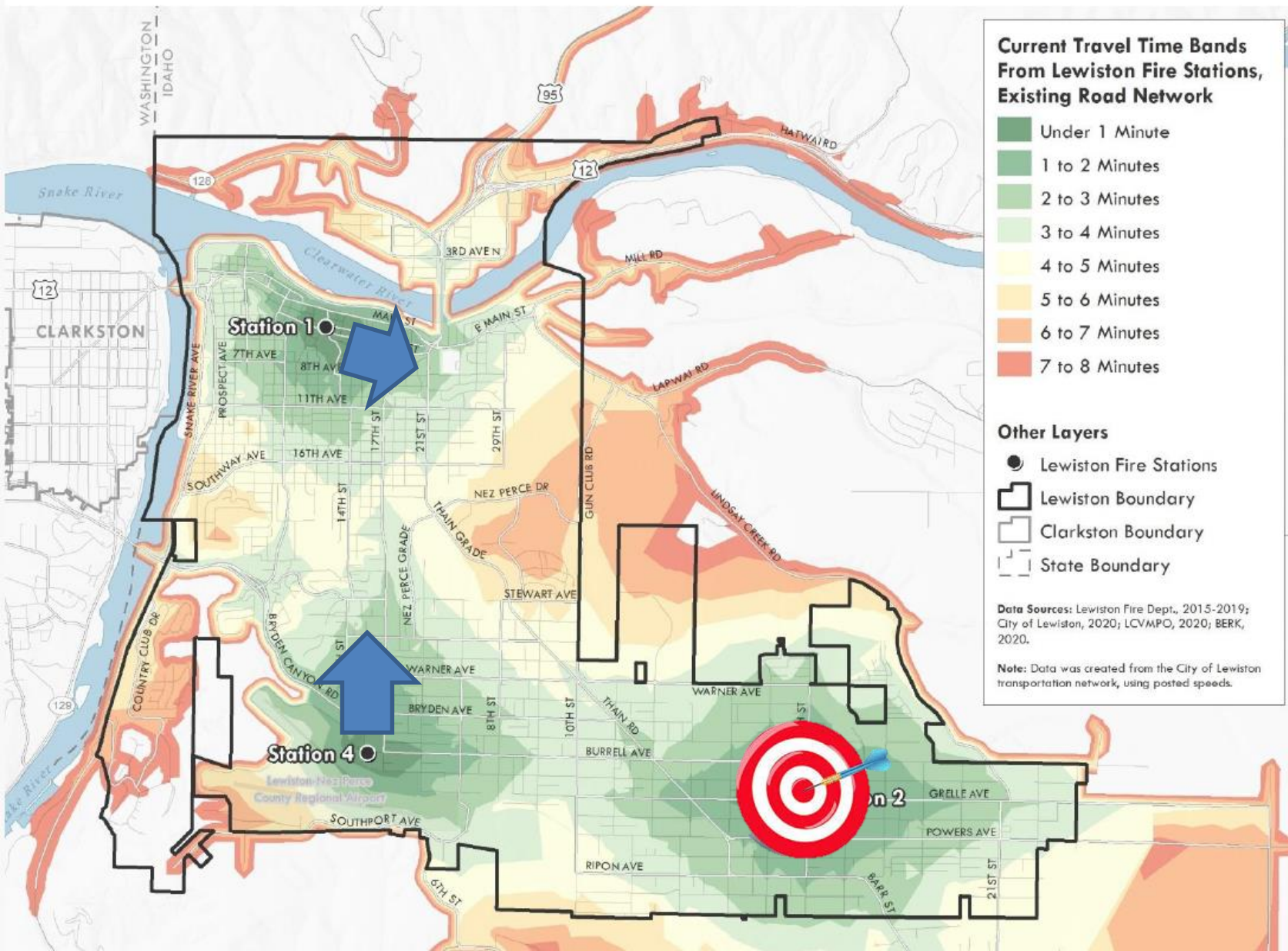
Problem Areas

4. Travel Time From Lewiston Fire Stations



2020 Study Conclusion

4. Travel Time From Lewiston Fire Stations



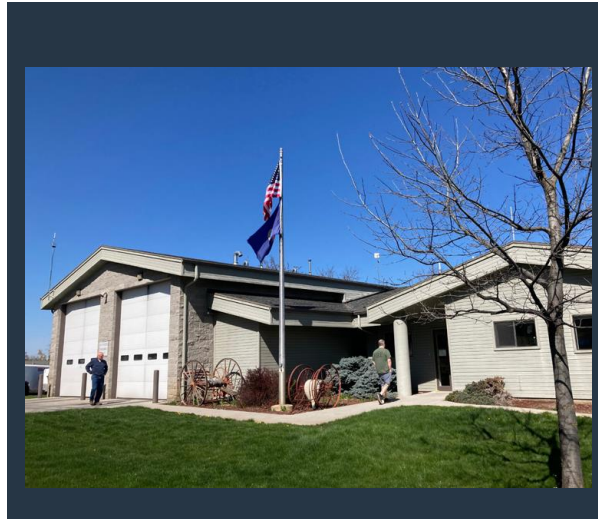
Recommendations



Station 1

Retrofit – Move

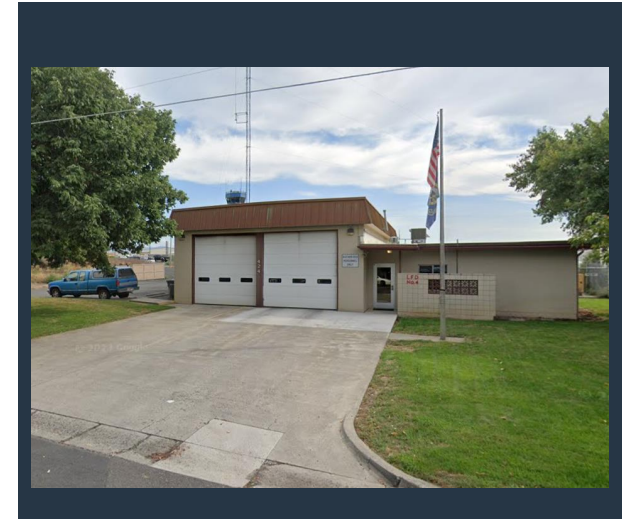
- Remodel bdr/ba wing
- Remodel Kitchen
- Reorganize the N. wing
- Fire suppression
- DOAS
- Vehicle Exhaust



Station 2

Renovation

- D/B Reno – Addition
- Add Classroom
- Evaluate Fire Admin
- Add LPD Substation
- Add Hose/Radio Tower
- Mini Training Facility



Station 4

Retrofit - Move

- Contamination Zones
- Bathroom
- Fire Separation
- R/R all wood finishes.
- DOAS
- Vehicle Exhaust



Discussion and Direction





AQUATIC FACILITY ASSESSMENT AND STUDY AGREEMENT

THIS AGREEMENT made and entered into at ST. LOUIS, MISSOURI, this 15th day of April 2024, by and between THE CITY OF LEWISTON, IDAHO hereinafter referred to as the "**Client**" and **COUNSILMAN-HUNSAKER & ASSOCIATES, INC.**, a Missouri corporation, doing business at 12851 Manchester Rd, Suite 120, St. Louis, MO 63131, hereinafter referred to as the "**Consultant**".

WHEREAS, the Client, is undertaking an Aquatic Assessment and Study Plan for the Bert Lipps Swimming Pool located in Lewiston, Idaho, hereinafter referred to as the "**Project**" and,

WHEREAS, the Consultant is a consultant in the field of swimming pool complex planning and design, and

WHEREAS, the Client, is desirous of retaining the Consultant as its independent contractor for purposes of assessing the Bert Lipps swimming pool, performing a market assessment, conducting stakeholder and community engagement, developing conceptual options and space programs, and projecting the anticipated capital and operational costs for the future operation of the swimming pool.

NOW, THEREFORE, in consideration of the covenants and agreements herein contained, the parties hereto agree as follows:

- I. SERVICES: The Client hereby retains the Consultant as its aquatic planning and design consultant for the proposed Project. The scope of the Consultant's services are:

TASK 1A: FACILITY ASSESSMENT

One (1), 1-day site visit

- A. Conduct a virtual Project planning meeting to outline the Project timeline, Project structure, communication expectations, requests for data and scheduling arrangements.
- B. Review the pool(s) for deficiencies with regard to current local health code, federal law, and industry standards.
- C. Recommend priority of renovation or replacement of pool systems (i.e., remedial, long range, etc.)
- D. Submit a written report of perceived substandard conditions and/or shortcomings of both the indoor and outdoor pools with analysis for possible action for correction, including identification of any equipment and/or systems requiring more intensive evaluation and analysis.
- E. The Consultant will develop an opinion of probable costs for any repairs notated in the report.
- F. Services to be provided to Councilman-Hunsaker by the Client will primarily consist of furnishing all available written reports and in its most recent form for the facility including:
 - 1. A written report (or copy of staff report) on existing construction or equipment problems and on-going maintenance problems. Note: The items in the staff report will constitute the primary focus of the survey/audit study.
 - 2. Original construction plans and specifications and/or subsequent construction documents for repair, renovation, replacement, etc.
 - 3. Operation and Maintenance Manuals.
 - 4. Shop drawings or other submittal data from the original construction or from subsequent construction.
 - 5. Submittal data or manufacturers' data on equipment now installed.
 - 6. A written report (or copy of staff reports) on recent work completed on the pool.
 - 7. A reported loss of water (quiescent) in 24 hours.
 - 8. A copy of any reports from regulatory agencies listing deficiencies in the facility.
 - 9. A copy of any accident reports (by the staff) or a list of perceived safety hazards to the user or staff.
 - 10. A "wish list" for features or changes desired in the facility. (This list could be accommodated in a stage-progression and allowances made in any plans for future work.)
 - 11. Cost estimates and/or proposals recently received for renovation or replacement work.
- G. Assessment Exclusions: The Consultant excludes the extensive and likely invasive examinations listed below: Extensive analysis of these areas of concern shall be authorized by the Owner as an additional service and completed by other Consultants specializing in these disciplines.
 - 1. Structural analysis of pool shell(s).
 - 2. Determining causes of identified water loss.
 - 3. Geotechnical testing and analysis at the site.
 - 4. Determining water table elevations at the site.

5. Locating aquifers at the site.
6. Locating electrical currents and their sources at and around the pool(s).
7. Equipotential bonding and grounding of the pool(s).

TASK 1B: NEEDS ANALYSIS

One (1), 1-day site visit combined with Task 1A

- A. Meet with the steering committee, plus any designated community groups and/or individuals involved in the Project to analyze needs and determine objectives in order to ascertain existing levels of service and the perceived needs of various user groups in the community.
- B. In addition to individual meetings, The Consultant will be available to participate in a public or by invitation civic meeting to discuss the various issues concerning the proposed facility. A matrix of programming priorities will be developed and discussed to prioritize programming and facility features. The Consultant will use the results of the interviews and public workshop to develop a needs profile.
- C. Conduct research and compile demographic information necessary to appropriately evaluate the proposed facility, including population, age distribution, income, weather analysis and economic considerations that could affect the Project's viability.
- D. Develop a web-based engagement platform utilizing engage.counsilmanhunsaker.com for website creation, project tracking, community project education and gathering feedback to solicit community input for the preferred aquatic facility features and amenities.
- E. Prepare and submit an outline of a Design Program of spaces and features for the proposed aquatic center describing the aquatic facility, pool size, shape and support spaces based on preliminary discussions and meetings noted above.
- F. Based on the first meeting and committee's review of the outline program, develop with the Client a Design Program for the aquatic facility with recommendations on the size and shape of the pool(s) and support spaces.
- G. Meetings:
 1. Virtual Project planning meeting
 2. On-site Project kickoff meetings
 3. Virtual site visit follow-up meeting
- H. Deliverables:
 1. Project kickoff presentation
 2. Market demographics
 3. Meeting notes
 4. Engagement platform creation
 5. Aquatic facility assessment presentation

TASK 2: DEVELOPMENT OF AQUATIC PROGRAM / CONCEPTUAL PLANNING:

- A. Based on the agreed upon program, the Consultant will prepare up to three (3) concepts. The Consultant will provide a conceptual plan of each option. The purpose of the plans will be to illustrate ways to organize the spaces in a functional arrangement and to confirm that the facility footprint will contain the areas proposed in the Design Program.
- B. The Consultant will prepare an Opinion of Probable Construction Cost for the aquatic facility concepts. Recent project bid figures of similar projects will be used as well as national estimating guides and local cost adjustment factors. The hard construction cost figures will

be supplemented by a development cost factor, which will include such "soft" costs as professional fees, survey, geotechnical report, document reproduction, advertisement for bids and all anticipated expenses related to the administration of the Project. The sum of these two cost figures will be the total Project cost so that the Owner will have a comprehensive overview before making an informed decision about the Project.

- C. The Consultant will meet with the committee to participate in a design workshop. Preliminary concepts and program features will be reviewed and confirmed. A public meeting may or may not be held as a part of this visit.
- D. The Consultant will make updates and revisions to the plan(s) as needed.
- E. Meetings:
 - 1. Virtual concept review meeting(s)
- F. Deliverables:
 - 1. Concept review presentation
 - 2. Engagement platform results

TASK 3: OPERATIONAL COST ANALYSIS:

One (1), 1-day site visit

- A. The Consultant will prepare an Operational Cost Analysis that will develop an opinion of operations protocol for the future operation of the aquatic facility. The following will be researched and analyzed and a final presentation to the Project committee outlining the methods and results of the study will be made.
 - 1. Operational data including attendance levels and trends, visitor mix, per capita expenditures, revenue, operating expenses, net operating income and net income after capital costs.
 - 2. Proposed marketing strategies, pricing policies and sponsorship efforts.
 - 3. Analysis of possible capital or operational partnerships with governmental entities, non-profit organizations, or private businesses
 - 4. Analysis of market penetration and compilation of demographic trends in the market area, including population levels and trends, incomes, age distribution and ethnic composition based on the Consultant's demographic data bank.
 - 5. A review of local weather patterns during the pool's effective operating season.
 - 6. A review of local school year schedules.
 - 7. A review of competing aquatic facilities in the market area.
 - 8. Projections of attendance potential.
 - 9. Projections of design level attendance figures and required capacity requirements.
 - 10. Projections of facility operational expenses, including personnel, chemical demand, operating supplies, maintenance and repair, utility demand, marketing, food, beverage, and retail.
 - 11. Projections of financial performance
 - 12. Preliminary estimates of warranted investment levels based on projected net operating income.
- B. Meetings:
 - 1. Virtual operational cost analysis review meeting

2. On-site final presentation

C. Deliverables:

1. Final presentation
2. Final report

II. DRAWINGS: All of the reports, drawings and specifications prepared by the Consultant as instruments of service are and shall be the property of the Consultant whether the Project for which they are made is executed or not. The Client shall be permitted to retain copies, including reproducible copies of the reports, drawings, and specifications.

III. DELIVERABLES:

A. Base Deliverables (included in lump sum listed under IV. FEES):

B. Copy of all presentations in PDF format and graphics for Owner use that detail the process and findings for the feasibility study.

1. Project kickoff presentation
2. Market demographics
3. Meeting notes
4. Facility assessment presentation
5. Engagement platform creation
6. Concept review presentation
7. Engagement platform results
8. Final presentation
9. Final report

IV. FEES: The Consultant's fee shall be a lump sum of **\$36,500.00** including up to two (2) site visits and inclusive of any related travel expenses.

The Consultant shall submit monthly statements of basic and additional expenses based upon the Consultant's hourly rate schedule for services completed at the time of billing. The Client shall make payment within thirty (30) days after receipt of the invoice from Counsilman-Hunsaker. Consultant may, after giving seven (7) days written notice to the Client, suspend services until payment is made in full of all past due invoices for this Project.

To the fullest extent permitted by law, and notwithstanding any other provision of this Agreement, the total liability, in the aggregate, of Counsilman-Hunsaker and Counsilman-Hunsaker's officers, directors, partners, employees, agents and Counsilman-Hunsaker's consultants, and any of them, to Client and anyone claiming by, through or under Client for any and all claims, losses, costs, or damages whatsoever arising out of, resulting from, or in any way related to the conclusions and recommendations expressed in the study shall not exceed the total compensation received by Counsilman-Hunsaker under this Agreement.

V. ADDITIONAL SERVICES: All additional services must be authorized in writing. The Consultant shall be paid for additional services according to the following fee schedule (if not listed as a lump sum):

Principal	\$285.00/hour
-----------	---------------

Director	\$250.00/hour
Project Manager	\$220.00/hour
Project Engineer/Architect	\$185.00/hour
Design Associate	\$155.00/hour
Administrative	\$90.00/hour
Site Visit	\$1,800.00 /day *

* Excluding travel expenses

- VI. TERMINATION: Each party agrees that upon the occurrence of a material breach or default of the other under the terms of this Agreement, it shall provide written notice of such default to the other. Such written notification given by the party shall specifically state the material breach or default under the terms of this Agreement. The notified party shall have thirty (30) days after such notice is given to remedy the specific breach or default. Upon the failure by the defaulting party to cure the specified breach or default within the allotted time, or recurrence of the same breach within thirty (30) days after its initial cure, the other party shall have the right to terminate this Agreement except with respect to any liabilities or obligations which, under the terms of this Agreement are to survive its termination.
- VII. SCHEDULE OF WORK: The Consultant shall execute all of the tasks listed above within 180 calendar days of receipt of a signed agreement and authorization to proceed. Review periods by the Client, or other extensions not caused by the Consultant, will be added to the 180 calendar days.
- VIII. ENTIRE AGREEMENT: This agreement constitutes the entire understanding between the parties and cannot be modified except by their mutual written consent. In the event of a conflict between this Agreement and the terms of any other agreement or document pertaining to the Project, the terms and provisions of this Agreement will be controlling.

IN WITNESS WHEREOF, the parties have hereunto set their hands on the day and year first above written.

ACCEPTED:
COUNSILMAN/HUNSAKER
& ASSOCIATES, INC.

CITY OF LEWISTON, IDAHO

Signature

George Deines, Studio Director

CH Team Member & Title
04/15/2024

Date

Signature

Printed Name & Title

Date

Client Information:

Valerie Warren
Parks & Recreation Facilities Maintenance Supervisor
Lewiston Parks and Recreation
T 208-746-2313
C 208-792-7230
F 208-746-9110
P.O. Box 617
1424 Main St,
Lewiston, ID 83501
<https://www.cityoflewiston.org/parksandrec>

COUNSILMAN-HUNSAKER

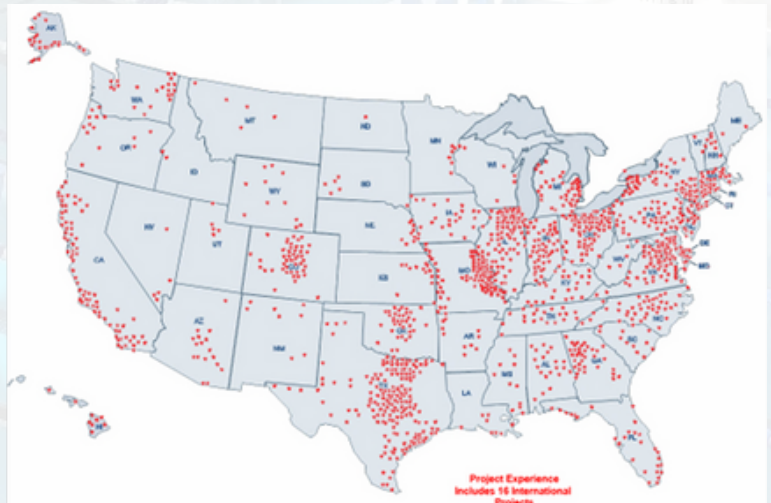
History

Councilman-Hunsaker was founded in 1970 as a collaboration between a world-famous swimming coach and one of his former athletes. Through his coaching career and extensive writings, James E. “Doc” Councilman, Ph.D., revolutionized the swimming world through research and innovation, training numerous Olympic and National champions along the way. One was Joe Hunsaker, a former three-time National Champion and World Record holder. With Doc Councilman serving primarily in a consulting role, Joe Hunsaker developed the firm into one of today’s foremost authorities on design and operation of aquatic facilities.

What Sets Us Apart

For more than 50 years, Councilman-Hunsaker has provided design and operational consulting for thousands of national and international aquatic projects of every size and complexity. Our portfolio includes newly designed and renovated pool projects for many market sectors: Parks & Recreation, Education, Hospitality and Wellness. Project types range from competition venues, leisure pools and waterparks to therapy pools and spas.

In addition, we have completed hundreds of Facility Audits and Feasibility Studies for the development of new or existing facilities and, having studied a multitude of facilities, we will help you benchmark the creation of your new facility and complete your project efficiently.



Councilman-Hunsaker is made up of an integrated team of design professionals and operational specialists with unrivaled aquatic industry experience. Our team brings exceptional collaboration skills and new project designs for the delivery of a high-quality, innovative aquatic facility. Our operational specialists will not only help you prepare for a successful launch, but will serve as your guide in achieving long-term operational success.



CIRCLE OF EXPERTISE

Counsilman-Hunsaker offers a full circle of aquatic services from existing facility evaluation to comprehensive concept development; from project visioning through design, engineering and construction administration to business management and aquatic operations. These services are completely customized and configured in a variety of ways to precisely fit the needs, desires and objectives of the owner/operator and the project team.



Design

From project visioning and development through sealed engineering drawings, we do it all. Even when starting with just a sketch of your vision, we will work closely with you throughout the design process to create a facility that meets or exceeds your dreams, while staying within budget.



Study

Through this comprehensive approach, we will provide you with the information you need to make a knowledgeable decision about the future of aquatics for your community. Our study process supplies you with the necessary tools to reveal valuable insights and information before funding your new aquatic center.



CIRCLE OF EXPERTISE



Operate

At Counsilman-Hunsaker, our goal is to optimize both our client's daily operations and the aquatic users' experiences. Our in-house swimming pool operators will assist with on-site facility operations. Our operations team is comprised of highly trained, experienced professionals who have obtained the highest ranking of Health and Safety Instructor certifications available. Our clients benefit from the experience and knowledge of our team, knowing that our recommendations and operational services are supported by all the leading aquatic safety providers.



Audit

Through our Facility Audit, many owners have discovered that replacing worn out equipment with short life cycles will allow them to serve a whole new generation of users. Other times, older pools can be economically reconstituted into modern swim centers. Counsilman-Hunsaker's evaluation of an existing pool will give you the information needed to make a knowledgeable decision regarding repair, renovation or replacement.

With Counsilman-Hunsaker as your partner, your new or renovated facility will become more than a pool or center. It will become a destination known for developing skills, creating memories and building communities through superior service and innovation.



HydroApps

Peace of mind comes through an efficient and safe facility but managing risk appropriately and effectively can be a challenge for operators. That's where HydroApps comes in, a full suite of web-based applications that takes aquatic facility management and professionalism to the next level. Developed in partnership with some of the most highly-regarded operational and educational leaders in the industry, our HydroApps provide you both the benefit of our combined aquatic knowledge and innovation along with the tools to streamline your compliance, documentation, and record keeping.



SUMMARY

An Aquatic Facility Feasibility Study Process with a Proven Approach

A Counsilman-Hunsaker Feasibility Study will provide you with a complete working plan for the creation of a new aquatic facility, including:

- **Needs analysis** — a comprehensive approach to determining the need for an aquatic facility and the “right-sizing” of aquatic elements to meet demand, need and purpose for aquatic experiences for the community
 - **Community engagement** — online data-gathering and aquatics-focused workshops, meetings with community representatives and stakeholders to develop a list of priorities for the facility’s uses and objectives
 - **Market and competition analysis** — an analysis of age groups, population density, incomes and user groups to project attendance, fee schedules and appropriate programming; research and analysis to determine the existing level of service at area aquatic facilities and the perceived need for additional aquatic programming and offerings
 - **Site analysis** — identification and evaluation of proposed sites for the aquatic facility
- **Facility conceptual planning** — aquatic facility conceptual drawings that accommodate the desired aquatic program elements identified in the needs analysis
 - **Construction cost estimates** — itemized, site-specific cost projections for the aquatic facility inclusive of the pool(s) and support structures
 - **Project cost estimates** — total costs including construction, site development, escalation and contingencies
 - **Design program analysis** — based on the conceptual designs, a more detailed assessment of the construction materials, techniques and specific equipment recommended for the proposed facility
- **Revenue and expense projections** — detailed calculations of annual operating revenues and expenses based on the gathered data and analytical research; opinions of financial performance (e.g. positive or negative cash flow)
 - **Projected annual operating budget**
 - **Sources of funding** — a discussion of possible options to fund the facility



With a Counsilman-Hunsaker Feasibility Study, you will have all the facts, figures and insights you need to make an educated and sound decision about how to move forward with your aquatic center.



SUMMARY

An Aquatic Facility Feasibility Study Process with a Proven Approach

There are numerous firms who conduct feasibility studies but Counsilman Hunsaker only focuses on aquatic studies. Why is this important? We have the knowledge base for aquatic projects, the pedigree of 50+ years in the world of aquatic design, relationships with American Red Cross, World Aquatics, USA Swimming, The Model Aquatic Health Code, and an array of aquatic specific manufacturers and contractors. We stay in constant communication with these groups to ensure the accuracy of cost estimates and hear the latest on new products and trends to hit the market. We also have over 100 active design projects, former aquatic operators on our team, and we review operational and budget data from existing aquatic facilities to ensure our projections are as accurate as possible.



- **If you need the best information on aquatics, go to the source.** We have active design projects underway, so we're constantly innovating and applying the latest knowledge. Many of our team members are former aquatic operators, still involved in the industry. This unique experience allows us to not just design a facility, but to create a detailed operations plan that considers real-world challenges and budgets.
- **National experience with regional presence.** We have a network of offices across the country, ensuring we understand the specific needs and trends in your area. This regional expertise is complemented by our national experience, allowing us to draw on a vast pool of knowledge and best practices in the world of aquatic facility planning and design.
- **Detailed information that comes from design, engineering, and continued involvement in the aquatics industry.** Our expertise goes beyond feasibility studies. We provide detailed information that flows from the design and engineering phases, ensuring your concepts are accurate and functional. This translates into a more realistic and achievable operations plan.
- **Network of manufacturers and suppliers.** We meet with aquatic-specific manufacturers monthly to ensure the accuracy of cost estimates and hear about the latest products and trends hitting the market. This ongoing dialogue keeps us at the forefront of the industry, ensuring your facility is designed with the most up-to-date technology and equipment.



PHASE 1

Needs Assessment, Market Analysis, and Preliminary Program Development

Through the needs assessment process, the Counsilman-Hunsaker team will work closely with the project team to identify the necessary aquatic facility components through a collaborative approach that combines our experience with the project team's local understanding of the current and future needs for aquatic offerings. During this phase we will:

- Seek creative opportunities to involve the community in the project development
- Engage aquatic users and stakeholders in the community to gather and analyze feedback about the need for an aquatic facility
- Complete an analysis that details the benefits and hurdles to the development of an aquatic facility to be inclusive of probable funding, administrative support and expectations, specific project needs and construction cost and annual operational cost ranges
- Define the most utilized and sustainable types of swimming pool(s) and aquatic facility components for your community

Community Engagement

Counsilman-Hunsaker, in conjunction with the project team will brainstorm creative ways to receive community input. We pride ourselves in being able to clearly communicate with elected officials and the community at large in reaching consensus for a community specific solution. Our job is to gather the information necessary and communicate it clearly and accurately to the project team and elected officials (if necessary) so that knowledgeable decisions can be made on how best to move forward with a future aquatic facility.

Our goal through the community engagement phase is to provide both high-touch (in-person) and high-tech (online/virtual) opportunities that allow participants to provide thoughtful and insightful feedback to be incorporated into our analysis.

Since Counsilman-Hunsaker's team consists of aquatic operators, current and former swimmers, former lifeguards and swim instructors, as well as aquatic enthusiasts, our team is well-versed in communicating, surveying and connecting with the various aquatic user groups. In fact, it's the part of our job we love the most! With our experience in the aquatics world, we will be able to accurately develop an aquatics program that will meet the needs of these user groups while providing insight on the key components needed for successful aquatic offerings within the community.



PHASE 1

Engaging community stakeholders preliminary meetings and workshops is instrumental in defining objectives and gaining support, as the aquatic facility design needs to reflect the community's goals and vision for the project, while aligning with the realities of the site, capital budget and operational costs. These workshops are designed to effectively identify opportunities and constraints of the project and to engage the local community to participate in the project. In the smaller, more intimate stakeholder meetings, we can learn any concerns regarding the size and shapes of the proposed pool(s), discuss necessary schedules and fee structures and hear about specific design requirement requests for the aquatic facility.

We believe in creating a **PUBLIC** process where we can effectively engage the community and stakeholders.

- **Personal Attention**
- **Understand Needs**
- **Build Trust**
- **Learn Concerns**
- **Intentional Listening**
- **Consensus Creation**

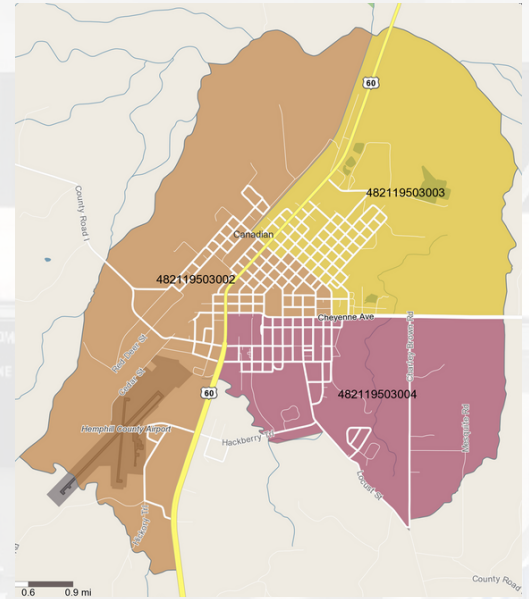


Through our process, we recommend holding both in-person and virtual community meetings to provide the opportunity for as many people as possible to attend and learn more about the project and share any feedback they may have. While these meetings can be combined into one, we recommended holding them separately as we've found both the in-person and virtual attendees get frustrated when they are being held concurrently which dilutes the overall value of the input process.

As part of Counsilman-Hunsaker's public input process we have the availability to setup a project-specific website through our online platform, engage.counsilmanhunsaker.com. Our comprehensive online platform will allow the community to create meaningful and accessible engagement opportunities that help create excitement and buy-in during the master plan process. Our platform is fully customizable to the project's needs and we can create a variety of input opportunities that involve the community in determining facility types, possible usage and even funding methods. Our platform enables a creative way for the community to provide feedback if they are unable to attend one of the public outreach meetings, or are not part of a targeted stakeholder group.

Market and Competition Analysis

- Evaluating current aquatic programs and services available
- Analyzing competition and duplication of services
- Recommendations for minimizing duplication and enhancing partnerships
- Reviewing policies, participation levels, operations, and structure
- Identifying deficiencies and improvement opportunities
- Researching other aquatic providers and their impact on future facilities.



A detailed demographic analysis based on service areas will show trends regarding population, income and age groups. An overview of these trends will help define the necessary aquatic elements.

Existing swimming pool assessment: For communities that have an existing aquatic facility, we will conduct an on-site inspection and investigate programmatic and mechanical integrity of the existing swimming pool's equipment, identify those that are substandard, and detail the various options for repair and replacement. The team will provide a detailed analysis with construction cost estimates for necessary repairs, including ADA accessibility, energy efficiency and pool mechanical systems. Options for the future will be outlined, including the existing pool's remaining lifespan, immediate repair costs, renovation options, and a comparative analysis with the cost of a possible new facility.

Site Analysis

We will work with the project team to create site selection criteria for the future aquatic facility development. These criteria shall be used to score individual sites to determine overall feasibility of future development. Analysis of potential sites for the aquatic facility based on the following criteria:

- Physically accessible with an emphasis on proximity to public transportation, crosswalks and major streets.
- Visible such that a civic presence can be achieved.
- Land use compatible with adjacent property and good relationships with other aquatic providers.
- Adequate size to support the intended program.
- Few development limitations.
- Ownership or site control.

PHASE 2

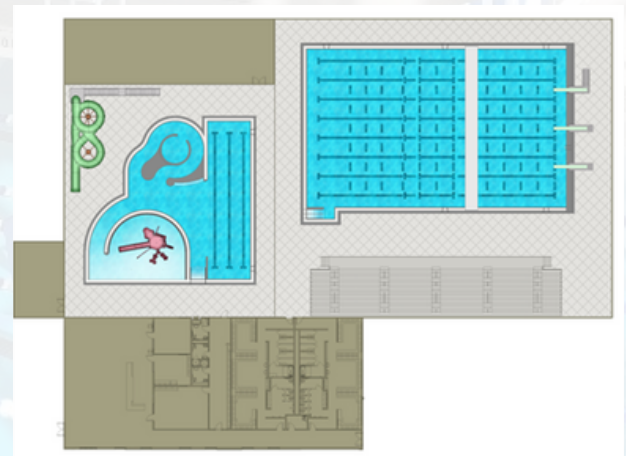
Aquatic Facility Conceptual Planning

Based on the results of the needs analysis Counsilman-Hunsaker will develop conceptual plans that represent the sizes and shapes of the necessary swimming pool(s) and related support spaces. These illustrative concepts will allow the project team to visualize the configuration, layout, and functionality of the proposed aquatic facility components. The plans will be drawn to scale and will accurately reflect state and national codes and standards for swimming pool design. Conceptual plans of different budget levels are often explored during this phase that show the minimum, preferred and ideal aquatic facility types dependent on the expected levels of capital and operational funding.

During this phase the overall capacity of the facility in terms of aquatic users, programs and spectators will be calculated along with the site requirement in total acres inclusive of parking demand. Facility concepts can be scaled and placed on aerial pictures of the prospective sites so the project team can better understand the site implications of the developed concepts.

Estimated Capital Cost

As a specialty consultant dedicated to aquatic design projects, Counsilman-Hunsaker maintains an intricate knowledge base of aquatic project costs nationally, regionally, and across various market sectors. Our continuous involvement with a multitude of aquatics projects ensures a real-time understanding of market conditions and cost data for this project. Our firm utilizes a detailed database to track actual project costs and to maintain our cost estimation spreadsheet which is utilized from the onset of each project to develop an opinion of construction cost at the program confirmation phase.



We then support the prime consultant and design team throughout the design phases of each project by refining our opinion of cost for the aquatics scope as detailed design decisions are documented. There are many design related factors that will influence the cost of the swimming pool construction, just as you would expect for the building construction. Such parameters as geotechnical conditions, structural design approach, finishes, & equipment selections will greatly impact the cost of constructing a commercial swimming pool. Counsilman-Hunsaker's track record of accurately projecting aquatic scope construction costs is often relied on as a resource to third-party cost estimators who do not typically have a great deal of experience with this specialty project type. We also maintain open lines of communication with numerous qualified and licensed commercial pool contractors from around the country.

PHASE 3

Operations Plan Utilizing Counsilman-Hunsaker's Aquatic Research Tool (CHART)

Through our study process we utilize our proprietary Counsilman Hunsaker Aquatic Research Tool (CHART) that includes 62 development factors for construction of indoor and outdoor aquatic facilities and over 200 data points to create our customized revenue and expense model. Utilizing CHART we incorporate Key Performance Indicators (KPIs) that affect your facility and will provide an accurate projection of revenue and expenses as well as develop a model for how to achieve your aquatic facility cost recovery goals.

	Renovation + Addition	Replacement
Dailey Admissions/Memberships		
Admissions/Memberships (Indoor)	\$238,457	\$302,484
Swim Team Revenue		
Meet Rental	\$14,000	\$20,000
Club Team	\$162,000	\$162,000
Lane Rentals	\$32,400	\$32,400
Master's Swimming	\$13,500	\$16,500
Misc Revenue	\$42,975	\$42,975
In-House Swim Team	\$28,800	\$28,800
Aquatic Programs		
Swim Lessons	\$106,881	\$106,881
Water Fitness	\$18,662	\$18,662
Lifeguard Certification	\$1,584	\$1,584
Food and Beverage		
Food and Beverage	\$9,795	\$12,425
Rentals		
Birthday Party	\$31,200	\$41,600
Private (Full Pool)	\$4,200	\$6,300
Total Revenue	\$704,453	\$789,610



PHASE 3

The operations plan will include a facility personnel analysis, direct facility expenses, programming expenses and utility demand. The personnel analysis will be based on the local market taking into account any forecasted changes in wage structure. The utility analysis will project the specific usage all of the related swimming pool and building systems to produce an accurate projection of costs.

A comprehensive analysis of the following areas will be conducted during this phase.

- Operational data including attendance levels and trends, visitor mix, per capita expenditures, revenue, operating expenses, net operating income and net income after capital costs.
- Proposed marketing strategies, pricing policies and sponsorship efforts.
- Analysis of market penetration and compilation of demographic trends in the market area, including population levels and trends, incomes, age distribution and ethnic composition based on the Consultant's demographic data bank.
- A review of local weather patterns during the pool's effective operating season.
- A review of local school year schedules.
- A review of competing aquatic facilities in the market area.
- Partnership types and operating strategies
- Projections of attendance potential.
- Projections of design level attendance figures and required capacity requirements.
- Projections of aquatic facility operational expenses including, personnel, chemical demand, operating supplies, maintenance and repair, utility demand, marketing, food and beverage and retail.
- Projections of revenue from daily admissions, memberships, aquatic programs, competitive swimming, food and beverage, and facility rentals.
- Preliminary estimates of warranted investment levels based on projected net operating income.

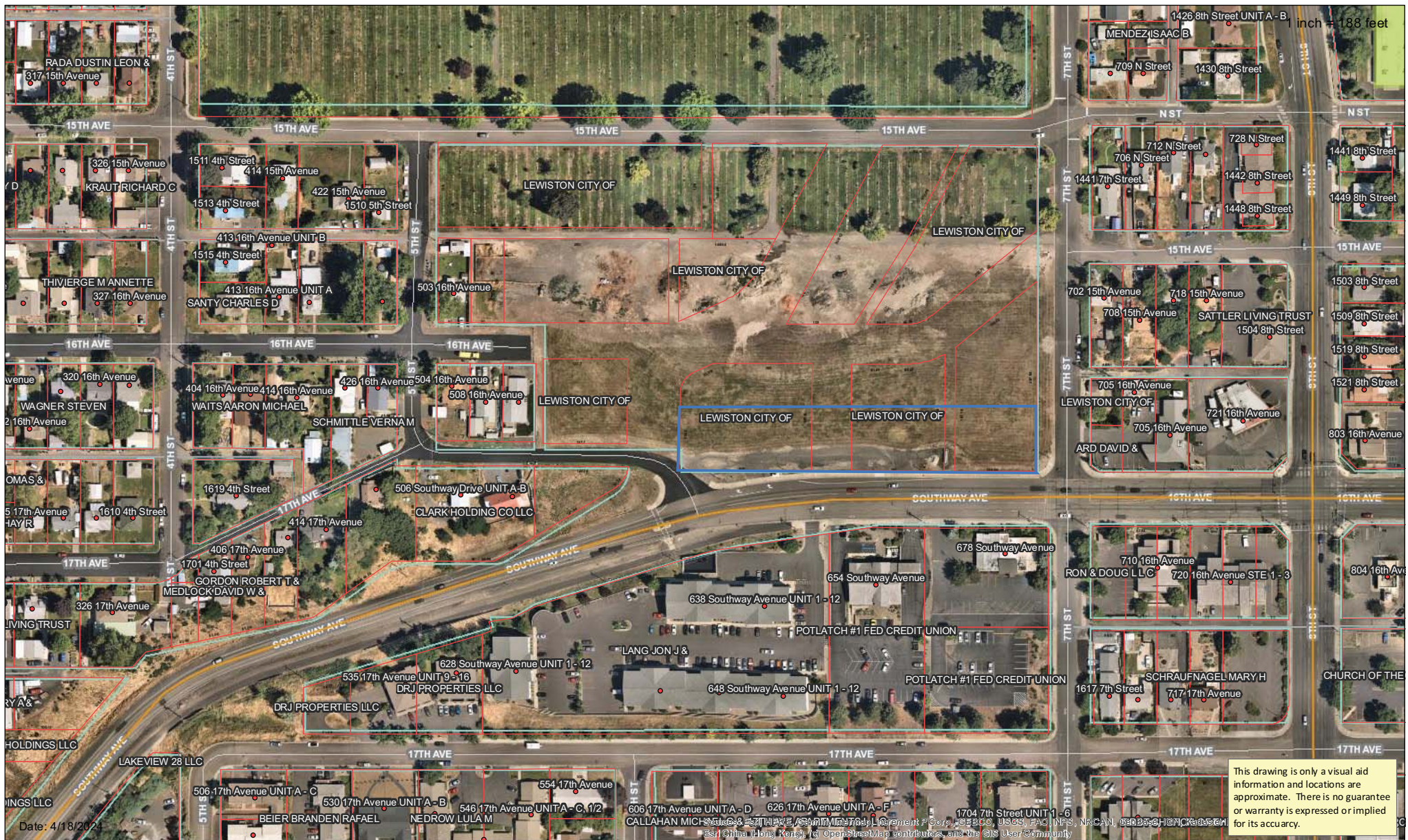


FINAL REPORT

The final report will outline options for the future of aquatic programming for the project. The executive summary will offer the options in detail, and the balance of the report will provide backup information and the detailed conceptual plans and financial analysis.



City of Lewiston





Board Members: Gary Peters, Joe Gish, Manderson Miles, Katherine Seekins, Laurie Wilson

Regular Board Meeting February 20, 2024 @ 3:00 p.m. PDT

- **CALL TO ORDER** – Chairman Peters called the meeting to order at 3:02 p.m.
- **PLEDGE OF ALLEGIANCE** – Chairman Peters led the attendees in the pledge of allegiance.
- **ROLL CALL** - Board members present: Gary Peters, Joe Gish, Mandy Miles, Katie Seekins, and Laurie Wilson. Others present: Thad O'Sullivan, attorney, Mike Isaacs, Airport Director, and Trey Dail, Ardurra.

- **AIRPORT DIRECTOR'S REPORT**

2023 was the first year airlines returned to profitability, netting \$2B for the full year. Delta led with +20% revenue; United was second. LWS to SEA brings in more enplanements to LWS than DEN or SLC which started immediately when launched. Enplanements are -10% in 2023 which was the result of Delta's 1 flight a day, being upsized to the E175 jet, and added SEA in mid-October. Seattle generated over 10% of the total enplanements in 2023. In April, United will move their Denver flight to the morning leaving at 5:30 am. Air Service is 2,724 for DL and 1,135 for UA for a total of 3,859. Parking gates started on February 5th. Two managers and two employees greeted customers at each gate and had a table at the entrance explaining the process, helping customers, and answering questions. Valbridge Property Advisors will have a land appraisal completed in March for Mark DeAtley's property next to the tower. The café has been closed this winter due to a lack of staffing. Clearwater Fence has all the poles set and waiting for additional fence fabric to complete the storage site. Obtaining quotes for electrical, light poles, and CCTV. Rental rates are being considered by the local average. It is estimated that there will be 150 spaces which will clear \$135,000/per year once it's full. Room to expand further east as millings become available. So far under budget, the fence is \$59k, the operator \$3k, and electrical \$15-25k.

- **OLD BUSINESS**

- **CONSENT ITEMS:** Chairman Peters called for a motion to approve Regular Board Minutes from January 16, 2024, a year-to-date monthly financial report for January 2024, and invoices over \$5,001; the motion was moved by Miles, seconded by Wilson, opened for discussion, the vote was called and approved unanimously.

- **NEW BUSINESS**

- **DISCUSSION ITEM:** Storm Water Permit. The city implemented a new fee for stormwater drainage totaling \$1,692.39 per month (bill corrected twice). Trey Dail, from Ardurra, indicated that he connected with the Idaho Department of Environmental Quality (DEQ) and LWS doesn't have a multi-sector general permit (MSG) like originally thought. Without this MSG, Dail thinks the bill will be amended back to an increased price estimated at \$15,977.34 per month. Ardurra is doing further investigation into options to obtain an MSG permit and the cost associated with it. Timeframe to get permit could be 8-6 months. Gish inquired if LWS could share the permit with City/County due to JPA;

the County is looking at options and more collaboration to follow.

- DISCUSSION ITEM: Surplus Land. FAA approved the release of the 6.48 acres of airport property located near Bryden Canyon Road—no significant need for air service. Property can be sold if approved by joint powers. Valbridge working on an appraisal.
- ACTION ITEM: Resolution 2024-05. Approve Barnett Air, LLC Lease. A new temporary lease created for Barnett Air, LLC is the same as last year. Peters called for a motion to accept the temporary lease for Barnett Air, LLC, the motion was moved by Seekins, seconded by Wilson, opened for discussion, and the vote was called and approved unanimously.
- ACTION ITEM: Resolution 2024-06. Approve Contract Change Order 3-16-0022-051 & 052-2022. The CCO includes payment for replacing existing domestic water infrastructure with new piping, extending domestic water across O'Conner Rd, communications equipment for a new security gate, and extension of communications conduit to revised transformer locations. CCO total cost is \$93,908.14 (AIP \$54,495.45, Non-AIP \$34,412.69, AIP eligible \$3,718.46). Peters called for a motion to approve the change order for AIP 051 & 052, the motion was moved by Gish, seconded by Wilson, opened for discussion, and the vote was called and approved unanimously.
- ACTION ITEM: Resolution 2024-07. Approve Contract Change Order 3-16-0022-053-2023. The CCO includes extended soil anchors, over-depth excavation and backfill, and a taxiway safety area along the south side of Taxiway A to provide stormwater drainage. CCO total cost is \$18,907.60 and AIP eligible. Peters called for a motion to approve the change order for AIP 053, the motion was moved by Miles, seconded by Seekins, opened for discussion, and the vote was called and approved unanimously.
- ACTION ITEM: Resolution 2024-08. Approve Grant Application 3-16-0022-056-2024. AIP 056 includes Runway 8/26 Rehab and overlay junctions for Taxiways A, A1, A2, and B Rehab. Application for federal assistance includes FAA grant support of \$2.6M and a local match of \$174,000. Peters called for a motion to approve the application for AIP 056, the motion was moved by Miles, seconded by Gish, opened for discussion, and the vote was called and approved unanimously.
- ACTION ITEM: Resolution 2024-09. Approve BIL Grant Application 3-16-0022-057-2024. AIP 057 is the BIL grant support for Taxiway A1, A2, B, Z, South Apron & AOB Apron. Application for federal assistance includes BIL FAA grant support of \$1,028,447 and a local match of \$68,564. Peters called for a motion to approve the application for BIL AIP 057, the motion was moved by Gish, seconded by Wilson, opened for discussion, and the vote was called and approved unanimously.
- ACTION ITEM: Resolution 2024-10. Approve Amended Land Lease Policy. The land lease policy stated leases increased every 5 years @ 2.5% per yr. That process made it unfair and inconsistent with tenants. The proposed changes remove language so all land is adjusted according to the CPI -U annually. Peters called for a motion to approve the amended changes to the Land Lease Policy, the motion was moved by Seekins, seconded by Miles, opened for discussion, and the vote was called and approved unanimously.
- ACTION ITEM: Resolution 2024-11. Approve Amended Rate & Fee Policy. Rate & Fee Policy changes are needed due to changing FAA regulations on setbacks of hangars to Taxilanes. The current rates and fees policy indicates 10', but the distance is determined by the size of the aircraft. The proposed change would modify 10' and replace it with FAA required distance in front of the taxilane since each hangar varies. Seekins inquired about the hangars on the North side of the runway that have a 10' foot distance to taxilane and suggested having language for conforming and nonconforming taxilanes to differentiate the two. Peters called for a motion to table the Amended Rate & Fee Policy, the motion was moved by Miles, seconded by Seekins, opened for discussion, and the vote was called and approved unanimously.

- ACTION ITEM: Resolution 2024-12. Approve Purchase of Toyota Sienna. Propose purchasing a 2015 Toyota Sienna Van from Rogers Toyota for \$24,618 with 63,478 miles. This van will be utilized for the shuttle; much lower miles, larger, and safer. Funding saved from the fence project can be redirected toward this purchase. Peters called for a motion to approve the purchase of the 2015 Toyota Sienna Van, the motion was moved by Seekins, seconded by Wilson, opened for discussion, and the vote was called and approved unanimously.

- **PUBLIC COMMENTS**

Marlin Israel indicated that the EAA will be hosting events on 3rd Wednesday of each month; this month the guest speaker is Rusty Bentz. EAA is actively involved in hosting breakfast and participating in local high school events.

- **COMMISSIONER COMMENTS**

Seekins thank Trey Dail from Ardurra for all their hard work. Miles indicated that the stormwater bill was a surprise. Gish welcomed the new County/City liaisons and appreciated their attendance. Peters appreciated the organization by staff. Feels the contract with United will be worked out with the City soon.

- **EXECUTIVE SESSION**

Commissioner Peters called for a motion to adjourn to the Executive Session, motion was moved by Miles and seconded by Gish. Wilson read Idaho Code Section 74-206(1)(f), and a roll-call vote was taken voting yes: Chairmans Peters, Miles, Seekins, Wilson, and Gish, approved unanimously. Motion passed. The audience was excused at 4:10 pm.

- **ADJOURNMENT** - Peters requested a motion to adjourn, motioned by Seekins, and seconded by Wilson, the vote was called, and adjourned at 5:01 pm.

March 19, 2024

Attest:


Laurie Wilson, Secretary



Board Members: Gary Peters, Joe Gish, Manderson Miles, Katherine Seekins, Laurie Wilson

Regular Board Meeting March 19, 2024 @ 3:00 p.m. PDT

- **CALL TO ORDER** – Chairman Peters called the meeting to order at 3:01 p.m.
- **PLEDGE OF ALLEGIANCE** – Chairman Peters led the attendees in the pledge of allegiance.
- **ROLL CALL** - Board members present: Gary Peters, Joe Gish, Mandy Miles, Katie Seekins, and Laurie Wilson. Others present: Thad O’Sullivan, attorney, Mike Isaacs, Airport Director, and Trey Dail, Ardurra.
- **AIRPORT DIRECTOR’S REPORT**

Total passengers in February 2024 totaled 3,795 which is 71% higher than in February 2023. Load Factors increased in February YOY +2% for United and +3.5% for DEL. Looking at our three hubs, Seattle continues to be the highest-demand route since DL started the route. SLC and DEN are about tied for 2nd place. The parking lot is full; still working out issues with the gated system. Storage lot has fence completed; working on power to gate and lights. The Fire Truck Helena Airport donated may meet the ARFF Index requirement; FAA is looking into it. AIP design is complete, and bids are open for two weeks. LWS Tower had another shutdown due to staffing; another controller will start in April. PFC Application 5 was amended. Kash CA Ammo storage on the hill by the storage lot needs some changes. The lease states a 250’ blast buffer is needed, but LFD says it’s 300’; meeting with engineers this month to resolve this. No discrepancies were found in either FAA or TSA inspections.

- **OLD BUSINESS**
 - CONSENT ITEMS: Chairman Peters called for a motion to approve Regular Board Minutes from February 20, 2024, a year-to-date monthly financial report for February 2024, and invoices over \$5,001; the motion was moved by Miles, seconded by Gish, opened for discussion, the vote was called and approved unanimously.
- **NEW BUSINESS**
 - DISCUSSION ITEM: Preliminary Budget Timeline.

Process	Deadline	Time
Work Session	Tuesday, April 9	3:00 p.m.
Work Session	Tuesday, April 23	1:30 p.m.
Board Meeting	Tuesday, April 23	3:00 p.m.
Preliminary Budget to Sponsors	Wednesday, May 15	
Approve Budget	Tuesday, July 16	3:00 p.m.
Submit Final Budget to Sponsors	On or before 1 st Monday in August	

- DISCUSSION ITEM: Change the April Board Meeting to a Special Meeting. Staff will be attending a conference that conflicts with the regular board meeting. The April board meeting will be changed to a special meeting held on April 23 at 3:00 p.m.
- DISCUSSION ITEM: Appraisal Report. Valbridge Property looked at a 6.3-acre parcel located on the North side of Bryden Canyon owned by the Airport and found the following:

 Value Conclusion	
Value Perspective and Premise	Current As Is
Value Type	Market Value
Real Property Interest	Fee Simple
Effective Date of Value	February 23, 2024
Value Conclusion	\$290,000
Usable Square Feet	\$1.99 psf

Information will be useful to determine the next steps for the property in discussions with the City and County. Seekins and Gish like the idea of breaking off the bike path from the property and leave for public use.

- ACTION ITEM: Resolution 2024-11. Approve Amended Rate & Fee Policy. Revised Rate and Fee Policy to address the rates for buildings that conform and do not conform with FAA standards (distance from the hangar door to the taxi lane). Peters called for a motion to approve the amended Rate and Fee Policy, the motion was moved by Seekins, seconded by Wilson, opened for discussion, and the vote was called and approved unanimously.
- ACTION ITEM: Resolution 2024-13. Approve Maiorana Sublease to Wohl. The agreement is done annually with no changes. Peters called for a motion to approve the sublease from Maiorana to Wohl, the motion was moved by Miles, seconded by Seekins, opened for discussion, and the vote was called and approved unanimously.

- **PUBLIC COMMENTS**

None.

- **COMMISSIONER COMMENTS**

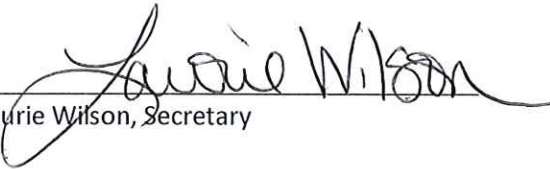
Wilson indicated that cruise lines are getting ready for their season and the number of cruise ship passengers looks good. Miles inquired about the United contract. Isaacs indicated that the contract is in United's possession for review. The city made changes to the lease to incorporate state language. Gish posted a video on Facebook about the pilot-controlled lighting system. Peters reiterated sentiments about the United contract and worked with Mayor; needed to address state language and grant assurance which took some time. Cubcrafter planes are being delivered and picked up in Lewiston.

- **EXECUTIVE SESSION**

Commissioner Peters called for a motion to adjourn to the Executive Session, motion was moved by Gish and seconded by Seekins. Wilson read Idaho Code Section 74-206(1)(f), and a roll-call vote was taken voting yes: Chairmans Peters, Miles, Seekins, Wilson, and Gish, approved unanimously. Motion passed. The audience was excused at 3:39 pm.

- ADJOURNMENT - Peters requested a motion to adjourn, motioned by Wilson, and seconded by Seekins, the vote was called, and adjourned at 4:06 pm.

April 23, 2024

Attest: 
Laurie Wilson, Secretary