



NEEDS ASSESSMENT

PHILOMATH FIRE & RESCUE



OUR HISTORY. OUR FUTURE. OUR PROMISE.

The values of our founder, Tom Mackenzie, remain the hallmarks of our firm. Upon this foundation we have, steadily and intentionally, built a team of experts focused on delivering the highest level of design excellence in service to our clients. This mark is our signature and our bond.

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The information in this document has been obtained from sources believed reliable. Our findings have been based on limited information and on-site observation. Because of the limited scope of our initial review, these preliminary findings should not be used as a principal basis for any decision relating to the site and/or building, and confirmation of the information contained within this document with the applicable government body may be necessary.

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INTRODUCTION



PROJECT TEAM

Philomath Fire & Rescue

Tom Phelps - Fire Chief

Doug Lilja - Deputy Chief

Lillee Rodriguez - Administrative Assistant

Rich Saalsaa - Fire and Life Safety Lieutenant

Ryan Riffle, Scott Moser, Ryan Rush - Lieutenants



Mackenzie

Scott Moore - Project Manager

Jack Claros, Cyrus Beedles - Architecture

Josh McDowell, David Linton - Structural Engineering



Project Team

Fire Station # 201
2150358.01



PROJECT INTRODUCTION

The Philomath Fire & Rescue is seeking to address serious operational limitations at their existing Fire Station 201, built in 1975. The objective of this report is to evaluate the conditions of the existing facility, identify improvements to better meet their needs and goals; provide a more efficient operational model and layout; better align with the current space demand for the Fire District; and allow for future prospective staff and facility growth. The improved facility will continue to be located on the existing site.

To aid the District with these efforts, Mackenzie was selected to assist with an evaluation of the existing conditions of the current facility and work with District staff to determine the operations-based needs.

Mackenzie, established in 1960 and based in Portland, Oregon, provides an integrated design approach to projects, including architecture, structural engineering, landscape architecture, civil engineering, land use planning, transportation planning and interior design services. Mackenzie's Public Projects team specializes in municipal and emergency response facility design, space needs evaluations, and bond campaign assistance. In the past decade, Mackenzie has worked on publicly funded projects in Oregon and Washington for more than 50 counties and municipalities, providing design and engineering services for more than 40 fire facilities, 18 police facilities and six municipal office buildings.

The information contained within this report provides a detailed overview of Mackenzie's work with the Philomath Fire & Rescue (District). All steps involved in this process have been documented and organized based on the associated task, and are contained within the pages of this report for the District for consideration.



EXISTING FACILITY ASSESSMENT

EXISTING FACILITY ASSESSMENT

The Philomath Fire & Rescue services a total population of 9,000 within a district of 58 square miles. The District is comprised of 3 fire stations, 16 apparatus, 7 full time employees and 42 volunteer firefighters with an average total number of response calls per year of 700.

Station 201 occupies approximately 14,800 square feet at 1035 Main Street Philomath, Oregon. It was built in 1975 (making it 40 years old at the time of this report) and staffs 3 twenty-four hour

employees, 3 day shift employees and a full time Administrative Assistant.

Mackenzie performed an architectural, structural, and high level building systems observation of the existing building, including review of its current use, operational deficiencies and material condition. Mackenzie's primary observations have been summarized with photo identification noted on the following floor and site plans and subsequent pages of this section.



PHILOMATH, OREGON

- Established : 1882
- Population: 4,630
- Size: 2.05 sq. miles
- Counties: Benton

Existing Facility Assessment

Fire Station # 201

2150358.01



EXISTING FACILITY ASSESSMENT SUMMARY

Overall, from our observation, the current condition of the building appears to be unsuitable in meeting the needs of Philomath Fire & Rescue. Beyond the lack of structural capacity required for Immediate Occupancy classification of Essential Facilities that is currently being remediated through the State of Oregon Seismic Rehabilitation Grant Funding program, there are a number of areas throughout the interior and exterior of the building where materials appear to be at, or nearing, the end of their useful life. Beyond those aspects of the facility, the majority of interior spaces are grossly undersized and over-utilized to meet the District's current needs and limit the possibility of accommodating future growth, and does not meet ADA (Americans with Disabilities Act) standards for public buildings and current Oregon Energy Code and NFPA standards.

Building Code Compliance

ADA Accessibility:

Due to the age of the facility, there are a number of areas that do not meet current building code requirements for ADA accessibility. Per code, fire stations are classified as a Title II structures. New construction of Title II structures requires full ADA compliance, whereas structures that undergo additions or remodels must spend up to 25% of the total new construction budget to bring the project into closer compliance with current ADA accessibility requirements through the removal of existing architectural barriers. Some of the areas that were observed as non-compliant consist of accessible route (elevator) to second floor area; stair and handrail construction; counter heights; plumbing fixture heights and clearances; faucet controls; hardware and clearances at doors; and flooring transitions.

Energy Code Compliance:

Since the building was originally constructed, energy code requirements have changed significantly, and as a result, the building envelope is not sufficient to maintain the required temperature range of the interior environment in an efficient manner. These deficiencies are primarily attributed to inadequate placement and quantity of insulation in the walls and roof; thermal breaks around doors and windows due to the age of materials and ineffective flashing; lack of a vestibule at the primary entrance(s); and less efficient building systems.

Miscellaneous Code Compliance:

Due to the organization of the building interior, it appears that building egress is non-compliant as a result of exterior door locations. Two exits are required from the office / living quarters area due to its combined size and occupancy classification. There are three doors to the exterior and two doors into the apparatus bay. Exiting through the apparatus bay is not allowed due to its' hazard classification, and one of the exterior doors exits through the kitchen, which is not allowed by code. The two remaining egress doors appear to be closer together than the minimum separation distance required by code.

Building Exterior Condition

Though currently serviceable, the existing building siding appears to show significant signs of weathering and is likely nearing the end of its' useful life. There are a number of areas where the paint has flaked off leaving the siding exposed to the elements and creating spots of significant water damage. Flashing has begun to fail due to its' age and further impacted the condition of the exterior siding at grade level and around select openings. Of particular concern are the west and south walls of the Annex, built as an addition to the existing structure in 2005. At these locations significant water damage was observed and should be monitored to ensure that bacteria does not develop within the material.

The existing roof appears to be in serviceable condition, but should be evaluated further moving forward to confirm that it condition, and that of the storm water drainage system, is suitable.

Operational Deficiencies

From an operational standpoint, the greatest challenge with the facility is centered on a general lack of space to serve the multiple functions required of a modern fire station. Out of necessity, most all rooms accommodate multiple uses; leading to a general lack of efficiency throughout the facility.

Administration and Living Quarters:

Within the office and living areas of the facility multiple functions are overlapping and crowded into small spaces. Administration areas are under sized for current needs and current staff size. The first floor restrooms in the facility are older, show degradation of materials, and are not ADA compliant to the extent required by current code. The showers for both the male and female facilities do not meet ADA requirements and, due to lack of space, the station lacks lockers and storage capabilities. The original conference room has been repurposed to now function as two offices, also with overlapping functions, which include the copy / work area; and additional bunk area accommodations.

Additionally the public entrance is very small and does not offer any seating or waiting area for visitors arriving at the station. There is no vestibule to maintain temperature control from the exterior and the room is not suitable for attending to first-aid needs without taking the individual into the more secure areas of the station if they were to arrive at the station and request assistance.

The laundry area is extremely small with limited working area and storage for laundry and janitorial supplies. There is also, no provision for hand washing items in the room due to a lack of utility sink and counter space.

The kitchen on the first floor is small and tucked away towards the corner of the building and serves as the primary kitchen for the resident staff and lunch room for full time administrative staff. Typically no more than two (2) staff members can utilize the kitchen at one time due to the lack of space.

Upstairs there is a large multi-purpose space that serves as the meeting / training room, dayroom and ancillary kitchen area. Though large in size, it lacks the proper amenities to efficiently serve in its' intended capacity, and it's location within the facility creates challenges both with it serving as a

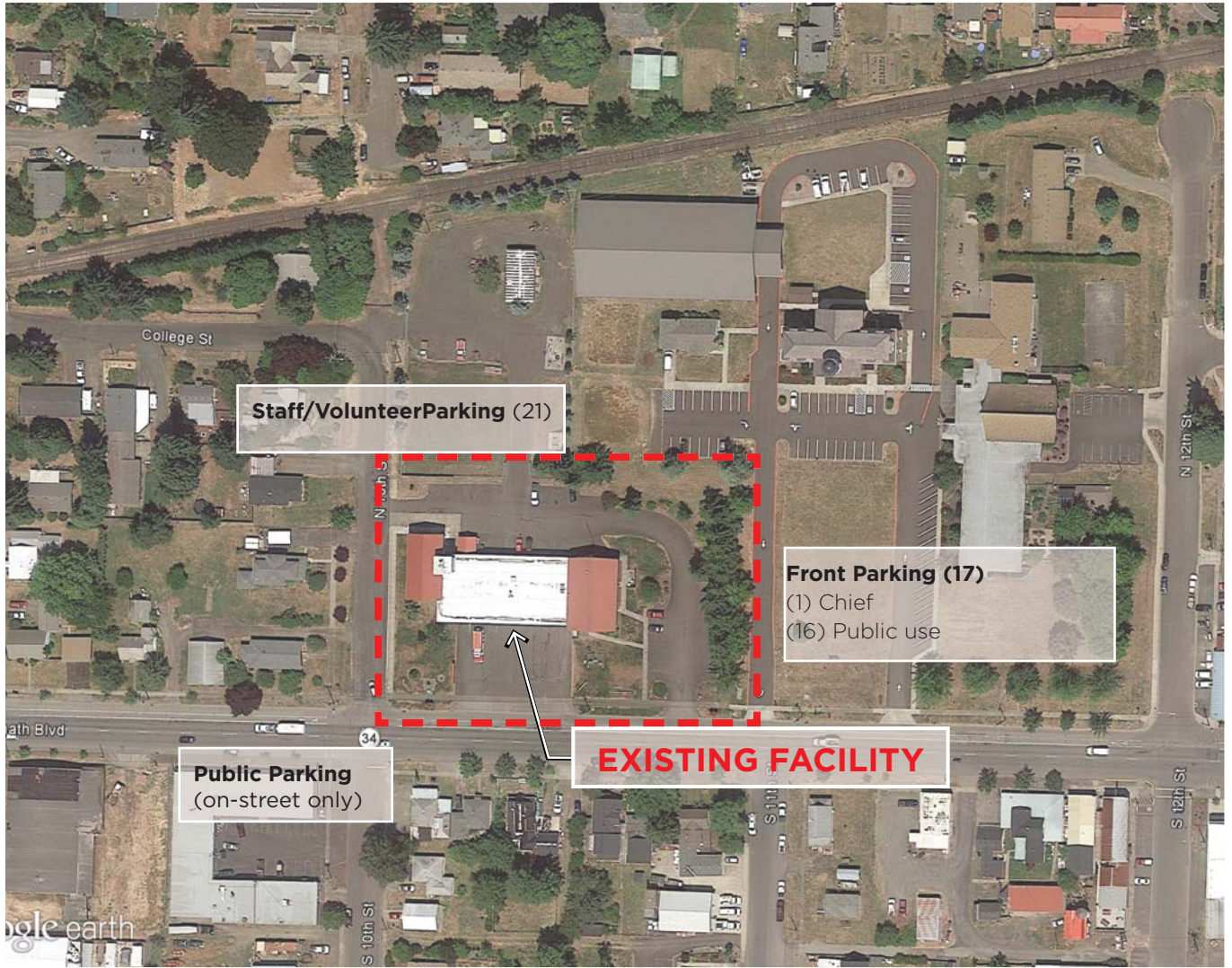
Existing Facility Assessment

public meeting space and dayroom for the crews. The toilet room facilities serving this area appear to have the correct quantities of plumbing fixtures, but are cramped and require upgrades to finishes that appear to be failing.

There is no dedicated communications room within the facility; paging equipment is currently located in a storage room and IT storage is located in the meeting room. These facilities should be placed in a location where they can be secured and not exposed to possible tampering or damage.

Apparatus Bay and Support Spaces:

Overall the apparatus bay is tight, leaving no capacity for additional apparatus within the space and no flexibility to partition portions of it off to accommodate the growth of other functions. The apparatus bay has a number of overlapping uses, serving as a storage space for District vehicles, turnout gear, PPE and hoses; physical training area and extractor. This creates an inefficient use of space that creates safety concerns for staff considering all the clearance needs of the equipment and vehicles housed within the apparatus bay. Additionally, the turnout gear located within the apparatus bay leaves them exposed to UV and air contaminants which degrades their condition requiring more frequent replacement.



EXISTING FIRE STATION 201

LOCATION

- 1035 Main Street, Philomath Or

YEAR BUILT

- 1975

SITE SIZE

- 22,800 SF (1/2 acre)

BUILDING SIZE

- 14,800 SF

PARKING ON-SITE

- On-Street Public Spaces
- 21 Staff Spaces In Back/ 17 Front Lot

FLOORS

- 2 stories

ZONING

- Public Use (PU)

FIRE SPRINKLERS

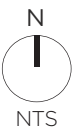
- Yes

CONSTRUCTION TYPE

- V-B

STAFFING

- 3 (24 hour emergency services)
- 3 (weekday emergency services)
- 1 Administrative Assistant

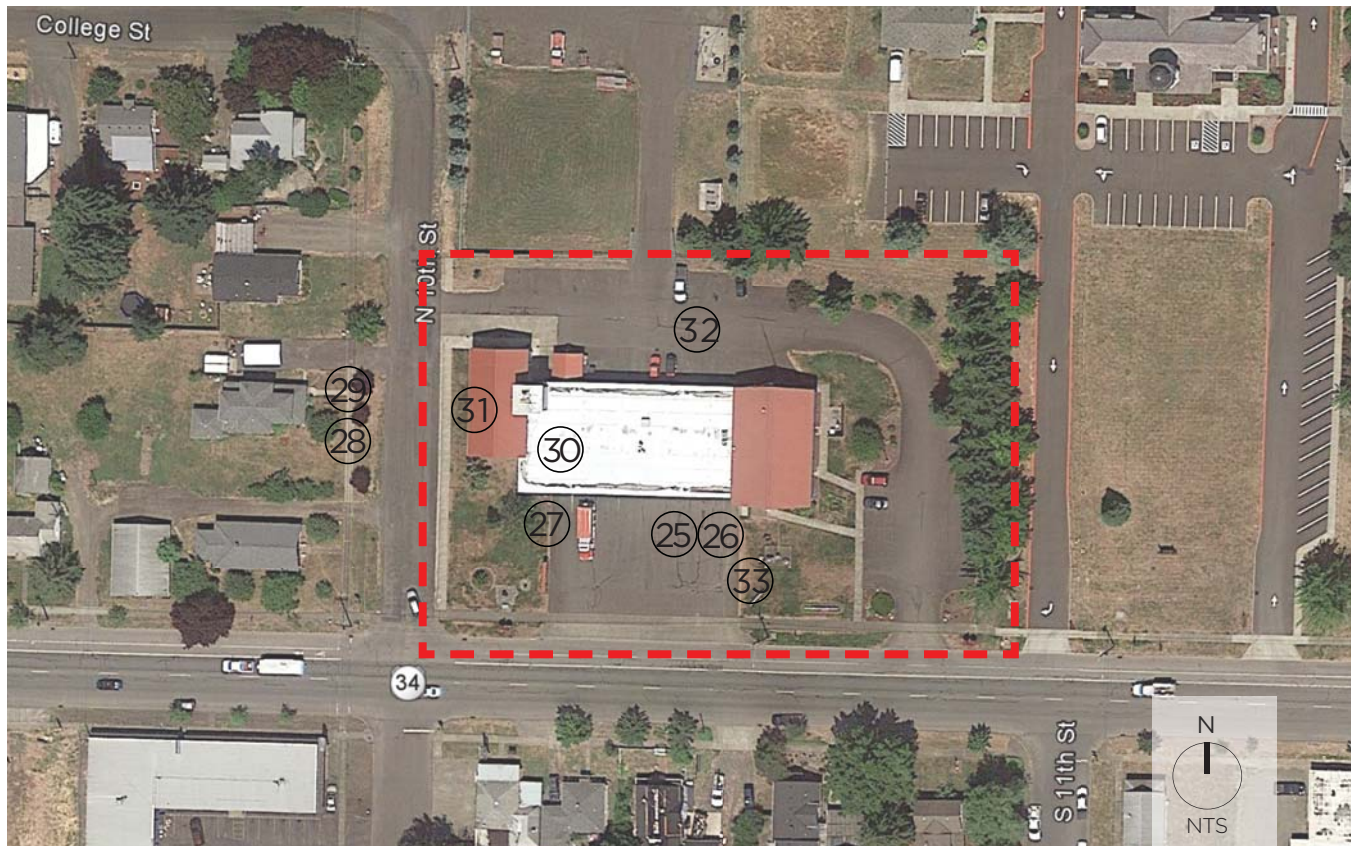


Existing Facility Site





VIEW OF FIRE STATION 201 (FROM SOUTHEAST ON MAIN STREET)

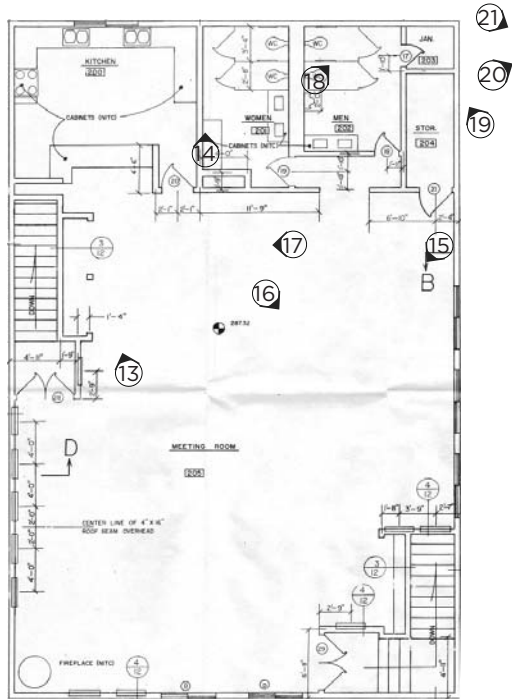


EXISTING FACILITY SITE AERIAL

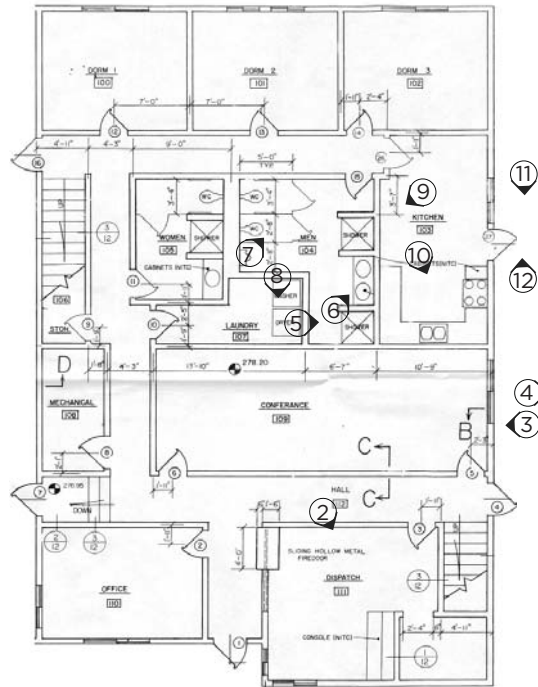
Philomath Fire & Rescue

December 2015

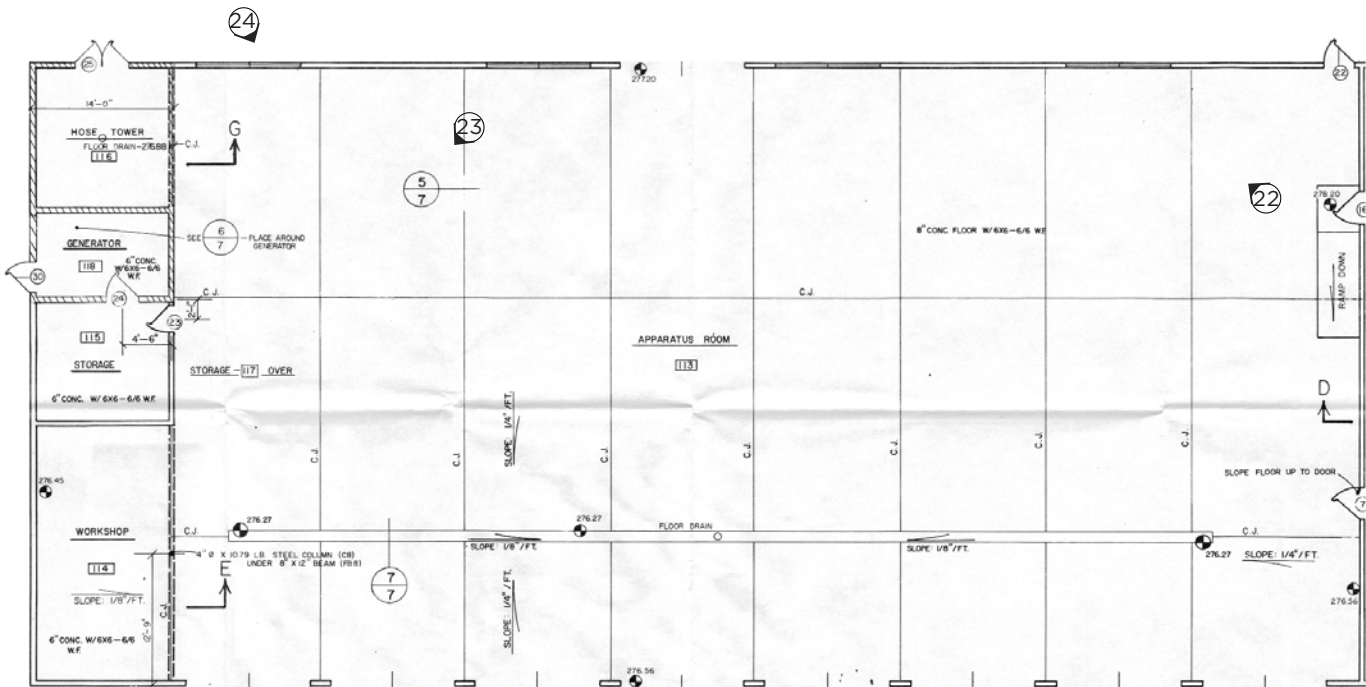
EXISTING FACILITY FLOOR PLANS



N EXISTING SECOND FLOOR PLAN
 I N.T.S.



N EXISTING FIRST FLOOR PLAN
 I N.T.S.



N EXISTING APPARATUS BAY FLOOR PLAN
 I N.T.S.

XX PHOTO LOCATIONS

(Corresponding photos can be found on the following pages and are numbered to match floor plans)



1. PUBLIC ENTRY

- No 911 vestibule
- No public seating or waiting area



2. RECEPTION AREA OFFICE

- INADEQUATE IN SIZE FOR FULL TIME STAFF
- LIMIT CAPACITY FOR STORAGE AND FUTURE GROWTH



3, 4. CONFERENCE REPURPOSED AS 2 OFFICES

- OFFICES SERVE MULTIPLE FUNCTIONS
- ONE OFFICE SERVES AS OFFICE AND ADMINISTRATIVE WORK AREA W/ COPIER
- ONE OFFICE SERVES AS PANIC ROOM AND OFFICE



5, 6. LAUNDRY

- LAUNDRY ROOM IS A VERY CONFINED SPACE WITH LIMITED STORAGE OR WORKING SURFACE SPACE

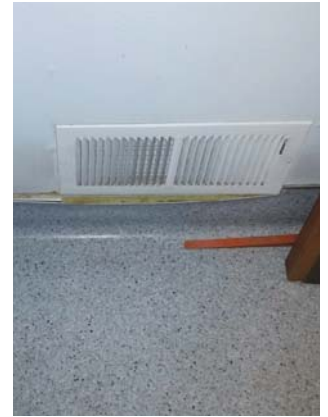
Existing Facility

Philomath Fire & Rescue

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7, 8. WOMENS SHOWER

- DOES NOT MEET CURRENT ADA SHOWER AND ACCESSIBILITY STANDARDS



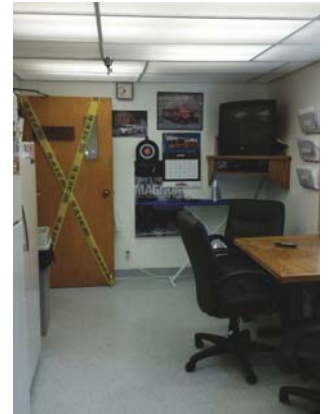
9, 10. MENS SHOWER

- DOES NOT MEET CURRENT ADA SHOWER AND ACCESSIBILITY STANDARDS



11, 12. KITCHEN - FIRST FLOOR

- CONFINED EXISTING KITCHEN THAT DOES NOT MEET CURRENT ADA ACCESSIBILITY STANDARDS
- CABINETRY, APPLIANCES AND FINISHES ARE NEAR END OF USEFUL LIFE.



13. STAIRS

- NO ADA ACCESS TO SECOND FLOOR
- NON ADA COMPLIANT HANDRAILS



Existing Facility



14. KITCHEN - SECOND FLOOR

- KITCHEN FACILITIES DO NOT MEET ADA ACCESSIBILITY STANDARDS. CORRECTLY NEXT TO MEETING ROOM THAT IS NOT ACCESSIBLE TO PUBLIC.
- CABINETRY, APPLIANCES AND FINISHES ARE NEAR END OF USEFUL LIFE.



15. MEETING ROOM

- EXISTING MEETING ROOM SERVES AS MULTIPURPOSE ROOM THAT IS USED TO OVERLAP FACILITY OPERATION USE, SERVES AS MEETING ROOM, DAY ROOM, STORAGE AND OFFICE AREA.
- SUSPENDED LIGHTING NOT SEISMICALLY BRACED.



16. MEETING ROOM

- LACK OF STORAGE DUE TO COMBINING OVERLAP OF FACILITY PROGRAM USE



17. MEETING ROOM

- LACK OF STORAGE DUE TO COMBINING OVERLAP OF FACILITY PROGRAM USE

Existing Facility Interior

Philomath Fire & Rescue

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18. WOMENS RESTROOM

- COUNTERTOP DOES NOT MEET ADA CODE REQUIREMENTS
- FINISHES IN FAIR CONDITIONS, HOWEVER ARE BEGINING TO DEMONSTRATE AGE AND SHOULD CONSIDER UPDATING



19. MENS RESTROOM

- COUNTERTOP DOES NOT MEET ADA CODE REQUIREMENTS
- FINISHES IN FAIR CONDITIONS, HOWEVER ARE BEGINING TO DEMONSTRATE AGE AND SHOULD CONSIDER UPDATING



20, 21. JANITOR ROOM

- LOCATION IS NOT IDEAL OR CENTRALLY LOCATED
- POSSIBLE MOISTURE, GYPSUM BOARD TAPE IS BUBBLING AT CORNER



22. APPARATUS BAY

- TURN OUT GEAR EXPOSED TO UV LIGHT

Existing Facility Interior

Philomath Fire & Rescue

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23. PHYSICAL TRAINING

- LOCATED IN APPARATUS BAY
- UNCONDITIONED SPACE SUBJECT TO TEMPERATURE FLUCTUATIONS.
- INADEQUATE SPACE TO USE AS WORKOUT AREA. FACILITY LACKS PROPER SPACE FOR ACTUAL DESIGNATED WORKOUT ROOM.



24. EXTERIOR - NORTH

- EXTERIOR PAINT IS FLAKING OFF SIDING AND CONCRETE. RECOMMEND NEW EXTERIOR PAINT.
- SIDING MATERIAL NEARING END OF USEFUL LIFE.



25. EXTERIOR - SOUTH

- EXTERIOR PAINT IS FLAKING OFF SIDING AND CONCRETE. RECOMMEND NEW EXTERIOR PAINT.
- SIDING MATERIAL NEARING END OF USEFUL LIFE.



26. EXTERIOR - SOUTH

- EXTERIOR PAINT IS FLAKING OFF SIDING AND CONCRETE. RECOMMEND NEW EXTERIOR PAINT
- SIDING MATERIAL NEARING END OF USEFUL LIFE.



Existing Facility Interior

27. EXTERIOR - SOUTH

- INSULATION IS EXPOSED, CREATING POSSIBLE CONDITION FOR MOISTURE PENETRATION AND POSSIBLE GROWTH OF MOLD



28. EXTERIOR - WEST

- EXTERIOR PAINT IS FLAKING OFF SIDING AND CONCRETE. RECOMMEND NEW EXTERIOR PAINT.
- EXCESS MOISTURE AND EXTERIOR BOTTOM OF SIDING ROTTING AWAY AND GROWING MUSHROOMS DUE TO EXCESS MOISTURE.



29. EXTERIOR - WEST

- EXTERIOR PAINT IS FLAKING OFF SIDING AND CONCRETE. RECOMMEND NEW EXTERIOR PAINT.
- EXCESS MOISTURE AND EXTERIOR BOTTOM OF SIDING ROTTING AWAY AND GROWING OF FUNGUS DUE TO EXCESS MOISTURE.



30. ROOF

- APPEARS TO STILL BE IN GOOD TO FAIR CONDITION. RECOMMEND FURTHER EVALUATION TO CONFIRM DRAINAGE SYSTEM IS ACCEPTABLE.



Existing Facility



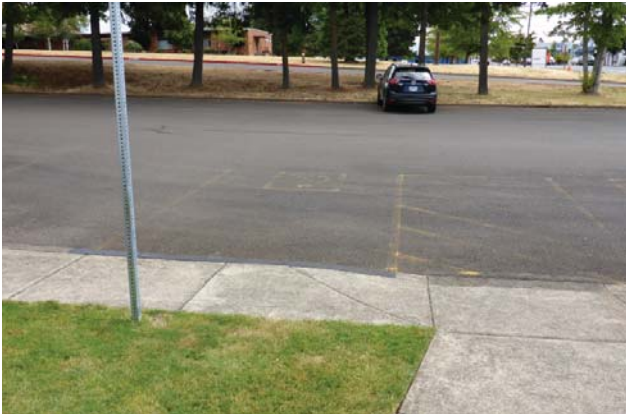
31. TOWER

- CRACK AT EXISTING CMU BLOCK OF TOWER (MOISTURE) PROBLEM.



32. EXTERIOR - NORTH

- PARKING SPACES NOT CLEARLY DEFINED
- NEW STRIPING



33. EAST PARKING (PUBLIC)

- PARKING SPACES NOT CLEARLY DEFINED
- NEW STRIPING



34. STORAGE MEZZANINE

- OVER CROWDED MEZZANINE USED FOR STORAGE DUE TO LIMITED STORAGE CAPACITY IN APPARATUS BAY.

Existing Facility Exterior

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01-19

35. STORAGE MEZZANINE - BEAM WATER DAMAGE

- WATER STAINING ON BEAM, FLOOR FRAMING SYSTEM SUGGEST WATER AND MOISTURE PENETRATION IN THIS AREA. FURTHER INVESTIGATION IS RECOMMENDED TO IDENTIFY SOURCE OF POSSIBLE INTRUSION.



Existing Facility Exterior

Philomath Fire & Rescue

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NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS

- “The National Fire Protection Association (NFPA) is an international nonprofit organization established in 1896. The company’s mission is to reduce the worldwide burden of fire and other hazards on quality of life by providing and advocating consensus codes and standards, research, training, and education.” (www.nfpa.org)
- The following table lists elements not in compliance with standards set forth by the National Fire Protection Association (NFPA). The sections listed below are the relevant sections for this study in reference to the existing Philomath Fire Station 201.

NFPA SECTION	DESCRIPTION	COMPLIANCE
NFPA 1	Fire Suppression Sprinklers	YES
NFPA 1221	Station Alerting and Communication System	YES
NFPA 1581	Minimum Sleeping Area	NO
	PPE Cleaning Area	NO
	EMS Decontamination Area	NO
NFPA 1851	Turnout Gear Storage	
	UV Exposure Protection	NO
	Thermal Exposure Protection	NO