

Facility and Needs Assessment

Salida Fire Department, Salida, Colorado

12.09.2020

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For more than 120 years, the City and South Arkansas Fire Department have taken excellent care of their existing facilities. Through that care, they have exemplified good stewardship to the community and extended the building's lifecycle well beyond the standard. By making modifications over time, they have accommodated the department and community's ever-changing needs. These modifications do have limitations and have passed the point of acceptance.

As a result of the building walkthrough, the building's physical assessment shows several high-risk areas:

- Building systems are inefficient, contributing to increased operating and maintenance costs
- Renovating the existing buildings will trigger costly renovations to meet code
- Expensive to modify buildings at the end of their lifecycle
- Facilities lasted four times a typical life cycle
- Aging facilities could have significant problems creating the loss of function; do not wait for a severe issue that leaves the department without a functional facility

A needs assessment conducted utilizing staff interviews and industry best practices highlighted the need for a 20,000 square foot facility to accommodate apparatus, administration, training, and living quarters. Improvement opportunities to the current ISO rating include staffing and training. Increased staffing in the 2021 budget to accommodate three full shifts presents training as the best ISO rating improvement possibility.

The team analyzed adequately sized sites within the community for access, topography, neighbors, utilities, compatibility, size, functionality, ownership, ability to serve, and environmental issues. The nine sites surveyed may not be available for sale and were used to show potential options. The team prepared test fits on the top four locations, as well as the existing location. The layouts illustrate four sites that meet the department's needs using best practices.

Regarding the existing location, the most significant limitation is its size. Acquiring additional space to rebuild or renovate is not an option. The test fits shown in the packet are for comparison and would not meet the department's needs nor allow for further growth. Other best practice considerations not included:

- Single floor design for firefighter safety
- Drive through bays
- Separation of hot, warm, and cold zones
- Gender specific quarters

A new facility would strengthen the current fire department program by increasing training opportunities, providing a safer firefighter environment, and reducing traffic disruptions downtown. Thus, securing the future of a program with an excellent track record of service and continued success for Salida and the South Arkansas community.

The existing facility assessment was developed from a site visit made by Neenan and PEC on October 13, 2020. In this document you will find our evaluation of the buildings broken down by system. This assessment is the subjective opinions of the team based on their experience, observations, and research within the limits of access. Under each system, we have noted the current condition findings, a recommendation for improvement, and level of risk associated with the deficiency.

In our evaluation we found life safety items that should be rectified to ensure the safety of your firefighters, such as:

- installing a second exit stair
- removing the chimney stack
- correcting the approach required for the apparatus bays
 - A recent industry report indicated that 16 percent of all reported emergency vehicle accidents involved backing the apparatus. This is an extremely high number. Most of the time, damage is minimal since vehicles are travelling a low rate of speed. Having trucks exit from and back in over a busy pedestrian way in downtown Salida opens the City up to potential citizen or property injury.

Most of our findings center around being able to provide a facility that addresses best practices for serving your community. For example, we recommend:

providing cancer prevention hot/transition/cold zones
having gender-specific private quarters
having a fire sprinkler system
providing space for additional engines
handicap accessibility
upgraded security systems

Other items we suggest meet industry standards and include

- improved energy efficiency
- improved living quarters
- commercial grade fixtures and appliances
- a single story facility for firefighter safety during night calls
- night lighting

To improve your ISO rating, we believe you would need to be able to provide additional training amenities. This would not be able to be added to your current facility due to site restrictions.

Salida Fire Department | General Facility Notes

Individuals Interviewed: Doug Bess, Kathy Rohrich

Assessors: Johnny Walston, The Neenan Company; Cory Myrtle, PEC; Kent Bruxwoort, PEC

Facility Overall Notes

| | |
|---------------------------|--|
| Name of Facility | Salida and South Arkansas Fire Protection District |
| Address | 120 & 124 East Street, Salida CO 81201 |
| Year Built | 1884 |
| Square footage | Approximately 10,000 sf |
| Architect | Unknown |
| Contractor | Unknown |
| Date of site visit | 10/13/2020 |

Building/Planning/Zoning

| | |
|--|--|
| What does the change of use trigger? | Facility assessment assumes no change of use |
| Are there existing record drawings? | Some for remodels |
| Soils report | No |
| Survey | No |
| Is the building currently compliant? Is it still used as originally designed? | The facility has non-compliance issues that are acceptable due to “grandfathering”. It is still being used for its original purpose and has been modified many times to accommodate changes in the past 136 years. |
| Maintenance records | No |
| Has the building been operational or occupied? | Yes |

Parking Lots

| | |
|---|---|
| Type | Concrete |
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Some repair needed at spalling areas. No marked onsite parking area. |
| Recommendation for improvement | Coat with epoxy |
| Risk Evaluation | Low |
| Photos |  |

Traffic Flows

| | |
|--|---|
| System analysis (existing condition and deficiencies) | Not enough room between building and street for fire trucks. Fire trucks must be backed in from a busy, downtown City street and over a pedestrian way. |
| Recommendation for improvement | Cannot increase distance to street. Could add a traffic light to reduce risk. |
| Risk Evaluation | High liability risk |
| Photos |  |

ADA Compliance – site and building access

| | |
|--|--|
| System analysis (existing condition and deficiencies) | Exterior stair for 2 nd story is not code compliant. |
| Recommendation for improvement | Replace with code compliant fire escape stair. |
| Risk Evaluation | Medium |
| Photos |  |

Site Circulation

| | |
|--|--|
| System analysis (existing condition and deficiencies) | No site area to provide circulation, zero lot lines. Pedestrian circulation is provided with City sidewalks and off-street parking along street. |
| Recommendation for improvement | Cannot improve site circulation due to existing conditions. |
| Risk Evaluation | Low |
| Photos |  |

Landscaping

| | |
|--|------|
| System analysis (existing condition and deficiencies) | None |
| Recommendation for improvement | n/a |
| Risk Evaluation | Low |
| Photos | |

Roof Coverings/Assembly

| | |
|--|---|
| Year Installed | 2018 |
| System analysis (existing condition and deficiencies) | Membrane roof has evidence of puddling and flashing failures. Noticed leak in 2 nd floor area. |
| Recommendation for improvement | Repair roof |
| Risk Evaluation | Low |
| Photos |  |

Exterior Windows

| | |
|--|---|
| Year Installed | 2007 |
| System analysis (existing condition and deficiencies) | No signs of leaking, windows are close to end of life |
| Recommendation for improvement | Budget for new window in 5 years |
| Risk Evaluation | Low |
| Photos | |

Exterior Doors

| | |
|--|--|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Overhead doors are in good shape. Man doors are old but in working condition |
| Recommendation for improvement | Verify maintenance on overhead doors: springs, roller, and motors could be end of life. Replace man door hardware to meet ADA standards. |
| Risk Evaluation | Low |
| Photos | |

ADA Compliance

| | |
|--|---|
| Year Installed | n/a |
| System analysis (existing condition and deficiencies) | Bathrooms and showers at 2 nd floor and exercise room are not ADA compliant, no elevator to 2 nd floor, door hardware not ADA, floor height change from bays to office with no ramps. |
| Recommendation for improvement | Upgrade and renovate to provide ADA compliant facility |
| Risk Evaluation | Low |
| Photos | |

Partitions

| | |
|--|--|
| Year Installed | Varies |
| System analysis (existing condition and deficiencies) | Good shape, no signs of major damage, small holes or dents |
| Recommendation for improvement | None |
| Risk Evaluation | Low |
| Photos | |

Interior Doors

| | |
|--|---|
| Year Installed | Varies |
| System analysis (existing condition and deficiencies) | Varying conditions, office doors are in good shape, man doors at bay areas are wood, sleeping area doors are older but in good shape. |
| Recommendation for improvement | Replace doors in shop with hollow metal, change out hardware to ADA. |
| Risk Evaluation | Low |
| Photos | |

Casework

| | |
|--|-------------------------|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Dated but in good shape |
| Recommendation for improvement | none |
| Risk Evaluation | Low |
| Photos | |

Floor Finishes

| | |
|--|---|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Sleep area carpet is older and shows wear. Flooring in kitchen, bathrooms, and offices is in good shape, exercise room flooring needs to be replaced. |
| Recommendation for improvement | Replace exercise room flooring and add flooring in exercise room bathroom. Budget to replace sleep and living area flooring in two to three years. |
| Risk Evaluation | Low |
| Photos |  |

Wall Finishes

| | |
|--|------------------|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | No major issues. |
| Recommendation for improvement | none |
| Risk Evaluation | Low |
| Photos | |

Ceiling Finishes

| | |
|--|---|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Some water damage at acoustical tiles. Drywall ceiling is old but in good shape. |
| Recommendation for improvement | Replace damaged tiles. |
| Risk Evaluation | Low |
| Photos |  |

Equipment

| | |
|--|--|
| Equipment Name | Air compressor |
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Equipment is functional. |
| Recommendation for improvement | Provide better access. |
| Risk Evaluation | Low |
| Photos |  |

Water Supply

| | |
|--|--|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | There are (2) separate water entries: one for original building and one for converted garage. |
| Recommendation for improvement | Adding fixtures could have the possibility of maxing out one of the water entries, which would require a new meter and water line. |
| Risk Evaluation | Low |
| Photos | |

Sanitary Sewer

| | |
|--|--|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | No comments from owner about any issues. |
| Recommendation for improvement | Recommend scoping the existing system to see if there are any issues with the underground piping system. |
| Risk Evaluation | Age and condition of pipe if there is remodel work that needs to be done. |
| Photos | |

Gas Service

| | |
|--|--|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | There are (2) separate gas meters: one for original building and one for converted garage. |
| Recommendation for improvement | Adding fixtures could have the possibility of maxing out one of the meters. This would require a new meter and line. |
| Risk Evaluation | Low |
| Photos |  |

Storm Sewer/Water Quality

| | |
|--|---|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | No comments from owner about any existing issues. |
| Recommendation for improvement | None |
| Risk Evaluation | None |
| Photos | |

Plumbing Service

| | |
|--|--|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | Fixtures are in working condition. |
| Recommendation for improvement | None |
| Risk Evaluation | May need to add ADA fixtures depending on code requirements. |
| Photos | |

Domestic Water Distribution/Isolation Valves

| | |
|--|---|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | There are (2) main cold water distribution lines: one for original building and one for converted garage. There is also (1) single hot water line serving original building (not garage). |
| Recommendation for improvement | None |
| Risk Evaluation | Low |
| Photos | |

Sanitary Waste

| | |
|--|--|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | System is in working order. No comments from owner about any existing problems. |
| Recommendation for improvement | Recommend scoping the existing system to see if there are any issues with the underground piping system. |
| Risk Evaluation | Age and condition of pipe if there is remodel work that needs to be done. |
| Photos | |

Rainwater Drainage

| | |
|--|---|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | System is in working order. Drains to public sidewalk, creates hazard |
| Recommendation for improvement | Connect to underground system |
| Risk Evaluation | High risk as a hazard in a public way |
| Photos | |

Hydronic System

| | |
|--|---|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | Abandoned boiler system no longer in use. |
| Recommendation for improvement | Remove boiler and all associated appurtenances from building. |
| Risk Evaluation | Low |
| Photos | |

Garage HVAC Equipment

| | | |
|--|---|--------------------|
| Year Installed | Multiple Install Years | |
| System analysis (existing condition and deficiencies) | Garage areas are currently served by gas unit heaters. One in the truck bay and one in the converted garage. A second unit was removed from the truck bay because it was located too close to items. | |
| Recommendation for improvement | Vehicle exhaust reels that attach directly to the vehicle and general exhaust (0.75 CFM/sq ft) are required for the garage to be brought up to code. This would require at least (1) exhaust fan for the vehicle exhaust and (1) exhaust fan for the general exhaust. | |
| Risk Evaluation | Risk to employee health and safety | |
| Photos |  | Garage Unit Heater |

RTUs and Air Handlers

| | |
|--|--|
| Year Installed | Multiple Install Years |
| System analysis (existing condition and deficiencies) | Original Building Office Space has a single zone RTU - DX cooling and gas heat. RTU is old and has issues with DX. Was being worked on when PEC was on site. Original Building Living Quarters has (2) newer RTUs. There is a newer gas furnace serving the fitness area. |
| Recommendation for improvement | Original Building Office Space RTU has had multiple issues in the past and is at the end of its life cycle. Recommend replacing with a like for like unit. Furnace serving fitness area does not have cooling. Recommend add condensing unit and cooling coil to furnace system. |
| Risk Evaluation | Low as an employee comfort and maintenance issue. |
| Photos | <div data-bbox="814 672 1178 943" data-label="Image"> </div> <p data-bbox="1199 922 1436 951">Living Quarters RTU</p> <div data-bbox="814 954 1171 1221" data-label="Image"> </div> <p data-bbox="1199 1063 1402 1092">Office Space RTU</p> |

Hot Water Distribution systems

| | |
|--|---|
| Year Installed | Original Building |
| System analysis (existing condition and deficiencies) | There is a single 50 MBH water heater serving the original building (not garage). |
| Recommendation for improvement | To bring the hot water system to code, we recommend adding a recirculation loop and recirculation pump. |
| Risk Evaluation | Low |
| Photos | |

Mechanical Controls

| | |
|--|--|
| Year Installed | N/A |
| System analysis (existing condition and deficiencies) | No central building controls system. All systems have standalone controls. |
| Recommendation for improvement | Add building control system |
| Risk Evaluation | Low |
| Photos | |

Electrical Service #1

| | |
|--|--|
| Year Installed | Unknown |
| Electrical service | 200A, 120/240 1-phase |
| System analysis (existing condition and deficiencies) | The first service to this facility feeds the south portion of the building. The service is fed overhead from a pole in the alley. The main disconnect and associated meter appear to have been updated at some point and appear to be in good working condition. |
| Recommendation for improvement | There are multiple services to this building but labeling at main disconnects indicating multiple services (which is required per National Electric Code) is not present. This is intended to alert emergency responders that more than one disconnect must be shut-off to kill power to the whole building. |
| Risk Evaluation | Size of electrical service to facility is smaller than would be provided for this type of facility to allow typical Owner and mechanical equipment and future flexibility. Since there are two smaller services to this facility instead of one larger service, this future flexibility is further limited because any spare capacity is split up into smaller chunks on the different services which could become an issue if a larger compressor or mechanical equipment is desired. |
| Photos |  |

Electrical Distribution Service #1

| | |
|--|--|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Interior distribution consists of a 200A main breaker Siemens panel that feeds a variety of loads. The panels appear to be in good working condition and was updated at some point. This panel feeds a small subpanel that is also fed from the generator. There are 4 spaces available in the panel which could be used for future loads which provides some flexibility. |
| Recommendation for improvement | If more flexibility is desired, replace with panel that can accommodate more circuit breakers. |
| Risk Evaluation | Total electrical load on this panel is unknown but it is possible that with compressor and rooftop unit being fed from this panel in addition to all the other general loads that it could be nearing its capacity which could limit future flexibility. |
| Photo |  |

Generator System - Service #1

| | |
|--|--|
| Year Installed | 2015 |
| Generator Size | 20kW, 120/240 1-phase, 100A main breaker |
| Fuel | Natural Gas |
| System analysis (existing condition and deficiencies) | The generator is located at grade in the alley and looks to have been installed approximately 5 years ago and to be in good working condition. It is a Kohler brand, residential grade generator. Generally, a more reliable, robust commercial grade generator is recommended for a Fire Station application. In addition, it is not clear if, being on grade without a housekeeping pad, this generator is being protected adequately from snow or pooling water. This could impede air intake/exhaust from the generator and possibly impact its ability to operate at full efficiency. The size of the generator appears to be sufficient for the loads being fed. |
| Recommendation for improvement | If issues occur with existing generator then it would be recommended that it be replaced with a commercial grade generator on a housekeeping pad. |
| Risk Evaluation | Issues presented are likely low risk in the short term, but the lifespan and durability of this equipment will not be as high as it would be with a commercial grade product. In the long term this could be a risk if equipment fails during a power outage. |
| Photos |  |

Generator System Distribution - Service #1

| | |
|---|--|
| <p>Year Installed</p> | <p>2015</p> |
| <p>System analysis (existing condition and deficiencies)</p> | <p>Generator distribution consists of a 100A automatic transfer switch that feeds a 100A load center that mainly serves a few garage doors, receptacles, and lights. There are 6 spaces in this panel for future additions if desired. Equipment appears to be in good working condition. Depending on the reliability of power, the amount of loads covered by the generator may be insufficient to allow the Fire Station to operate adequately during a prolonged power outage.</p> |
| <p>Recommendation for improvement</p> | <p>In this climate it would be expected that some level of heating would be covered by the generator to allow the building to be occupiable during an extended power outage. This also allows the crew living quarters to be utilized since some level of comfort can be maintained. If greater functionality is desired during a power outage, more systems should be added to the generator. This would likely impact the generator size and distribution.</p> |
| <p>Risk Evaluation</p> | <p>An extended power outage could impact the ability to operate efficiently out of this Fire Station. Depending on how this station is utilized this could present a risk if power is unreliable (which could be the case with overhead power distribution to the building).</p> |
| <p>Photo</p> |  <p>The photograph shows a grey electrical panel mounted on a wall. To the left of the panel, a yellow tool with a black handle is leaning against the wall. The panel has several wires connected to it. The background is a plain, light-colored wall.</p> |

Electrical service #2

| | |
|--|---|
| Year Installed | Unknown |
| Electrical service | 200A, 120/240 1-phase |
| System analysis (existing condition and deficiencies) | The second service to this facility feeds the north portion of the building. The service is fed overhead from a pole in the alley. The main disconnect and associated meter appear to have been updated at some point and appear to be in good working condition. |
| Recommendation for improvement | There are multiple services to this building, but NEC required labeling at main disconnects indicating multiple services is not present. This is intended to alert emergency responders that more than one disconnect must be shut-off to kill power to the whole building. |
| Risk Evaluation | Size of electrical service to facility is smaller than would be normally provided for this type of facility to allow typical Owner and mechanical equipment and future flexibility. Since there are two smaller services to this facility instead of one larger service, this future flexibility is further limited because any spare capacity is split up into smaller chunks on the different services which could become an issue if a larger compressor or mechanical equipment is desired. |
| Photos |  |

Electrical Distribution Service #2

| | |
|---|---|
| <p>Year Installed</p> | <p>Multiple years</p> |
| <p>System analysis (existing condition and deficiencies)</p> | <p>Distribution for this service is more patched together than the first service. It appears a panel (which was locked) splits the main feed into two feeds: one to the exterior rooftop unit and the other to an interior panel manufactured by Cutler Hammer. This interior panel is currently housed within some casework and is very old and in need of replacement. The circuit breakers within this panel are past their normal lifespan and it is possible they do not operate as intended anymore. It is not clear if this panel feeds other panels since the labeling was hard to read. There are no available spaces or spaces in this panel for future flexibility. The generator system does not connect into this service.</p> |
| <p>Recommendation for improvement</p> | <p>This panel should be replaced with a new panel that meets current code requirements and can be counted on to operate as intended.</p> |
| <p>Risk Evaluation</p> | <p>If a circuit breaker does not operate as intended, a circuit overload or short could occur on a branch circuit. This could degrade the integrity of the wire and insulation and lead to a fire.</p> |
| <p>Photo</p> |  |

Distribution and Branch Wiring

| | |
|--|--|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | A mixture of wiring in hardpipe conduit (i.e. EMT) and MC cable was observed. The integrity of the conductors was not checked. |
| Recommendation for improvement | Given the age of the Cutler-Hammer panel observed on Service #2 it would be recommended that wiring from this panel be upgraded to ensure it is still in good working condition. The integrity of this wiring could be examined when this panel is replaced. |
| Risk Evaluation | Low to medium |
| Photos | |

Interior Lighting

| | |
|--|--|
| Year Installed | Multiple Years |
| System analysis (existing condition and deficiencies) | Interior lighting is a mix of various LED fixtures types: lensed, parabolic, strip, and surface mounted wrap-around fixtures. In general fixtures appear to be in acceptable shape but are showing some age. |
| Recommendation for improvement | None |
| Risk Evaluation | None |
| Photos | |

Site Lighting

| | |
|--|--|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Site lighting is accomplished by general street lighting since this building sits right on the property line. It is possible light levels off the NE side of the building may be low due to lack of streetlights in that area. |
| Recommendation for improvement | Light levels could be evaluated at night taking into consideration the intended use of that parking area off the northeast portion of the building. If more light is desired a wall mounted light could be added over the garage door. |
| Risk Evaluation | Low (security issue) |
| Photos | |

I.T. Distribution

| | |
|--|---|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Existing IT equipment space was limited. Service equipment is in a closet and utilization equipment is mostly in a small cabinet in the office. |
| Recommendation for improvement | Provide a dedicated closet for this equipment with ample space for equipment and growth. |
| Risk Evaluation | Low |
| Photos |  |

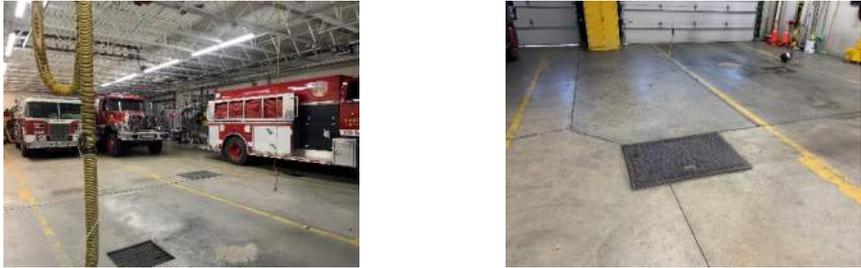
Fire alarm

| | |
|--|---|
| Year Installed | Unknown |
| System analysis (existing condition and deficiencies) | Residential detectors were observed but a full building fire alarm system was not noted. This type of system would not be required given the occupancy and size of this building. |
| Recommendation for improvement | None |
| Risk Evaluation | None |
| Photos | |

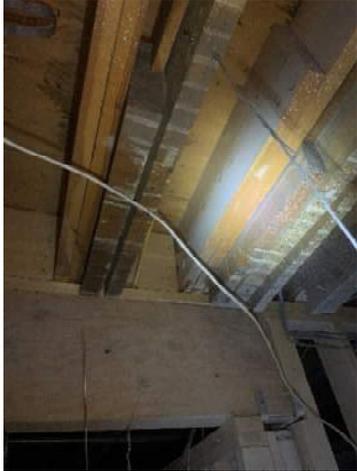
Foundations

| | |
|--|---|
| Year Installed | Original |
| System analysis (existing condition and deficiencies) | <p>Sub-surface construction could not be directly observed. However, based on our experience, the foundation walls most likely consist of both cast-in-place concrete and masonry block. We would anticipate the foundation system to be concrete spread foundations. PEC did not observe any evidence of excessive foundation movement and/or cracking.</p> <p>Minor concrete spalling at the south corner along the foundation wall was observed. Spalling appears to be isolated to a 24" section, and appears to be solely a concrete scratch coating/finish from past renovation or upgrade.</p> |
| Recommendation for improvement | Repair scratch coating to minimize water intrusion and additional spalling. |
| Risk Evaluation | Low |
| Notes | Overall, the foundation appears to be in good condition. |
| Photos |  |

Slab on Grade

| | |
|--|---|
| Year Installed | Original |
| System analysis (existing condition and deficiencies) | <p>The condition of the office quarters slab-on-grade is covered with carpet and tile. However, no large cracking, steps or settlements were observed.</p> <p>In the vehicle bays, the concrete slab had positive slope to internal floor drains. The concrete showed signs of cracking in numerous areas. The size and pattern of the cracking indicates that the cracking was likely caused by temperature shrinkage shortly after initial placement. The cracking does not appear to be a structural concern or issue, and does not appear to be caused by excessive movement.</p> |
| Recommendation for improvement | The concrete slab on grade is in good condition. Cracks may be sealed with appropriate caulking or sealant to prevent further spalling and damage, increasing the lifespan of the slab. |
| Risk Evaluation | Low |
| Notes | Overall, the slab-on-grade appears to be in good condition. |
| Photos |  |

Structure – Floor Framing

| | | |
|---|--|--|
| <p>Year Installed</p> | <p>Original</p> | |
| <p>System analysis (existing condition and deficiencies)</p> | <p>The floor framing consists of 2x12 wood joists spaced 16” on center. Previous renovations reinforced the existing joists by laminating an additional 2x12 to the existing. Interior load bearing walls were removed and had been replaced with built-up LVL beams supported by steel posts.</p> | |
| <p>Recommendation for improvement</p> | <p>None</p> | |
| <p>Risk Evaluation</p> | <p>Low</p> | |
| <p>Notes</p> | | |
| <p>Photos</p> |  |  |

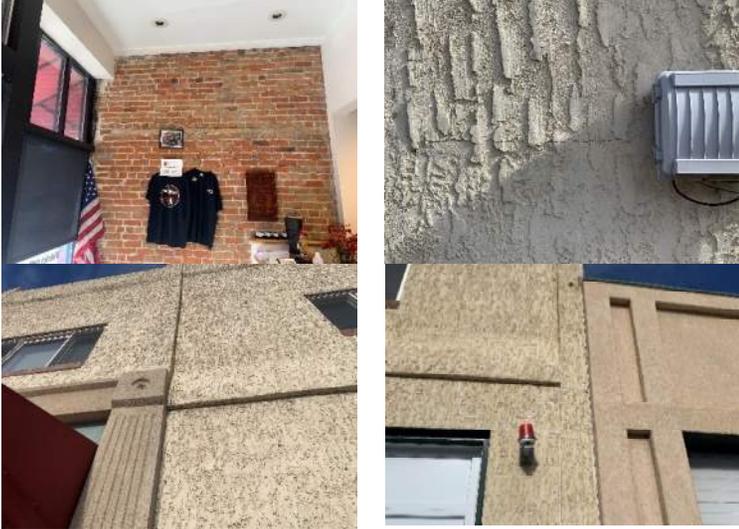
Structure – Roof Framing

| | |
|---|--|
| <p>Year Installed</p> | <p>Original</p> |
| <p>System analysis (existing condition and deficiencies)</p> | <p>The office and sleeping quarters (original fire station) roof framing is constructed out of wood bowstring trusses. An existing plaster ceiling covered the truss cavity. The condition of the roof framing was not accessible for complete observation. The bowstring trusses were only visible in a few locations where existing plaster ceiling had been removed. Past renovations added a framed plaster ceiling hanging from the existing bowstring trusses. An additional renovation added a acoustical drop ceiling. The roof framing over the sleeping quarters was not accessible for review. The roof framing in that area was flat and single sloped to the back of the building. With our experience we would anticipate the roof to be framed out of 2x joists bearing on existing multi-wythe brick walls. The joists would be pocketed into the wall. Past renovations did include dropped framed ceilings similar to the south section. The vehicle bay roof system is constructed of open web steel joist system. This roof appears to meet current building practices. The roof framing over the weight room and ladder truck bay was not accessible for observation. We would anticipate the roof framing of that structure to be out of 2x wood framing similar to the sleeping quarters.</p> |
| <p>Recommendation for improvement</p> | <p>It is expected the roof is at load capacity. If renovations require additional load on the wood roofs, it is likely the framing would need to be modified with new framing members. Existing trophies and other documents are stored above the ceiling. PEC does not recommend using ceiling cavity as storage. The existing ceiling was not designed to support storage loading.</p> |
| <p>Risk Evaluation</p> | <p>Low</p> |
| <p>Notes</p> | <p>Overall, the roof framing appears to be in fair condition.</p> |
| <p>Photos</p> |  |

Structure - Lateral Bracing

| | |
|--|--|
| Year Installed | Original |
| System analysis (existing condition and deficiencies) | The lateral system of the building relies on the exterior brick walls and are assumed to be unreinforced. No signs of lateral stress cracks were observed on the structure. However, this type of wall system may limit modifications to the exterior walls, including new openings during future renovations. |
| Recommendation for improvement | None |
| Risk Evaluation | Low |
| Photos |  |

Exterior Walls

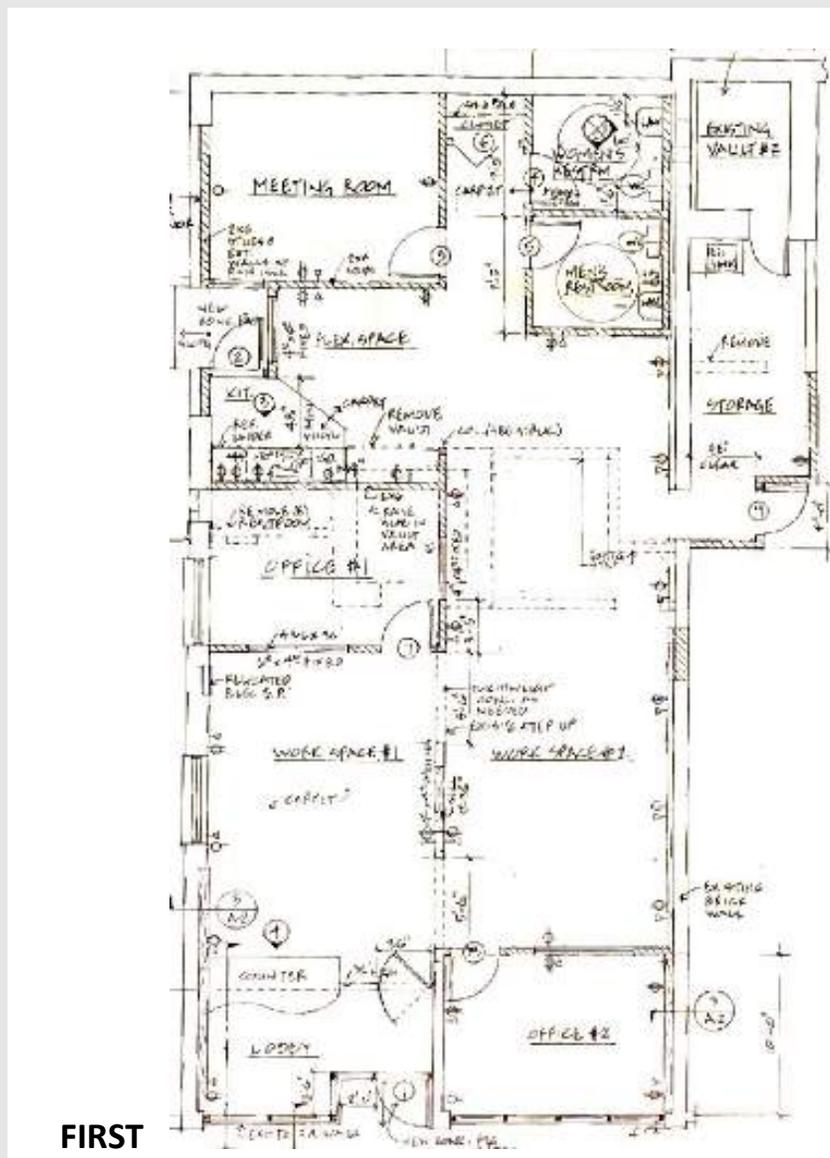
| | |
|--|---|
| Year Installed | Original |
| System analysis (existing condition and deficiencies) | Exterior wall framing consists of multi-wythe clay brick and concrete block walls. The block walls are covered with a stucco finish. The exterior multi-wythe brick wall has wood embedded into one layer of brick. While this does not pose a structural concern, it may limit future modifications and additions to the structure. Minor cracks in the stucco finish were observed along the southeast and southwest side of the structure. Cracking was observed near corners of larger door openings and where finish materials transition shape and style. |
| Recommendation for improvement | Repair of cracked or spalled exterior finish is recommended to protect from further water damage. |
| Risk Evaluation | Low |
| Notes | Overall, the exterior walls appear to be in fair condition. |
| Photos |  <p>The photos show: 1) Interior view of a brick wall with a fire department t-shirt and an American flag. 2) Close-up of exterior stucco finish. 3) Exterior view of concrete block walls with stucco. 4) Close-up of exterior concrete block walls near a door.</p> |

Other

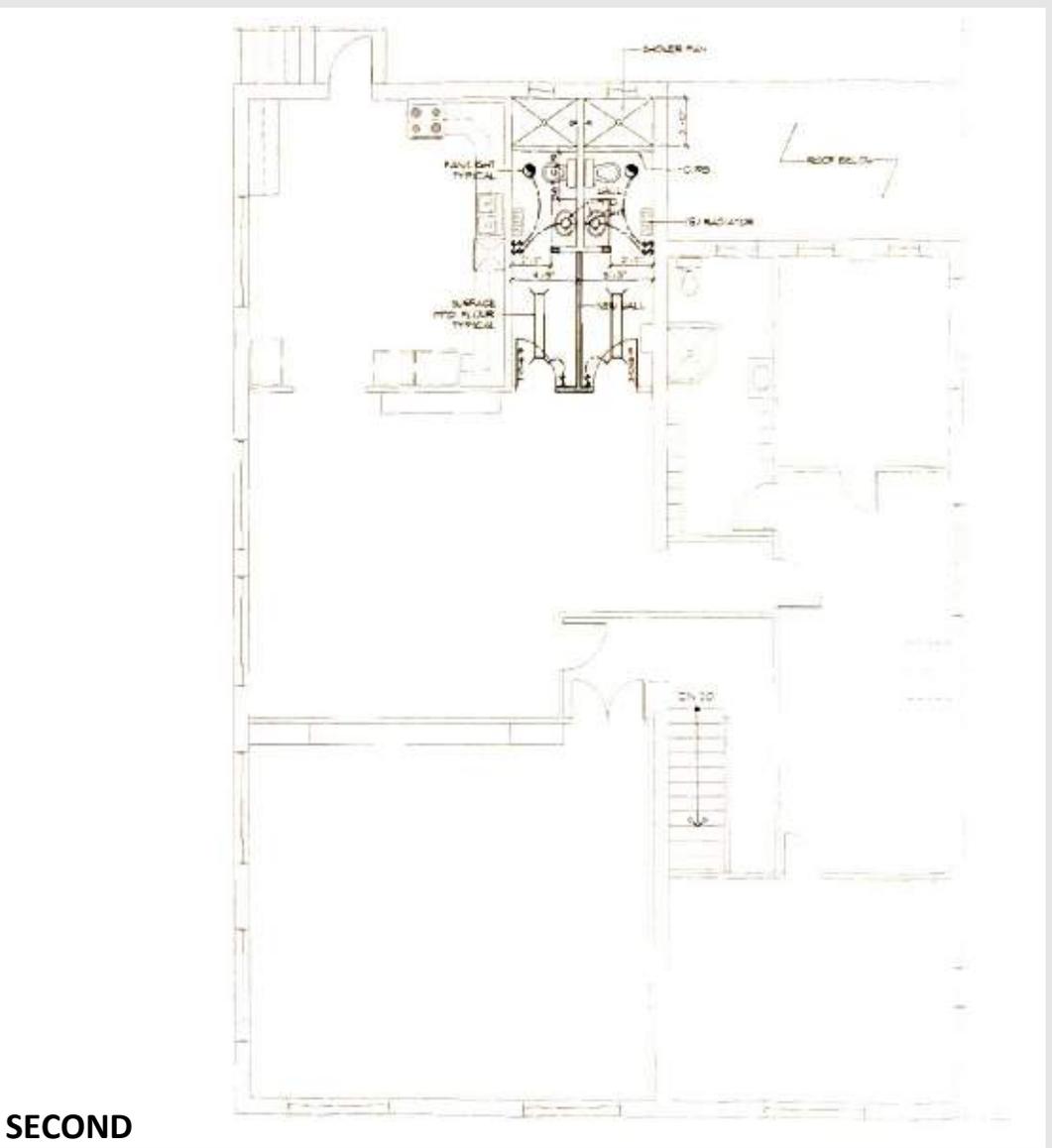
| | |
|---|--|
| <p>Year Installed</p> | |
| <p>System analysis (existing condition and deficiencies)</p> | <p>Multiple flue stack guy wires laterally support the stack. Damage was visible at the roof connection. A high wind or seismic event could cause the stack to tip and fall onto the structure below, which could cause damage or serious injury.</p> |
| <p>Recommendation for improvement</p> | <p>From our understanding, the existing boiler has been decommissioned. It is recommended if the flue extension is not required to remove the flue completely.</p> |
| <p>Risk Evaluation</p> | <p>Not an immediate risk, but needs to be checked regularly.</p> |
| <p>Photos</p> |  <p>The first photograph shows a tall, cylindrical metal flue stack standing on a roof. It is supported by several guy wires extending to the roof edge. The background shows a clear blue sky and some buildings in the distance. The second photograph is a close-up of a concrete roof connection, showing a significant horizontal crack that runs across the width of the concrete slab.</p> |

Salida Fire Department | Existing Plans

The City of Salida provided the following existing floor plans. The site plan is an aerial view of the lots on which the building is located.



FIRST



SECOND



| | |
|----------|--------------------------------|
| location | 120 & 124 E Street, Salida, CO |
| size | site acres – 0.26 |
| | parking spaces– 0 defined |

Salida Fire Department | Needs Assessment

The Neenan Company met with City of Salida Fire Department staff on October 21, 2020 to discuss facility needs for current and future staffing. In this interview, the team discussed what spaces and how many square feet for each would be needed to house administrative staff and three four-person shifts along with the associated training, storage, and equipment access needs. The analysis produced a building square foot requirement of approximately 20,000 sf. This does not include the request for a live-fire training facility, which is typically a separate structure.

Space List Summary

Salida Fire Department

Space List

Space List Completion Date: 10.21.2020
 Plan Completion Date: mm.dd.yyyy

| | | | | | |
|---------------|--|--|---------------|----------|--|
| TOTALS | | | 20,237 | - | |
|---------------|--|--|---------------|----------|--|

| | Current Staffing | Proposed Staffing | Space List | Plan XX.XX.XXXX | Remarks |
|---------------------------|------------------|-------------------|---------------|--------------------|---------|
| Building Support | | | | | |
| Administration | 4.00 | 4.00 | 2,548 | - | |
| Living Quarters | 12.00 | 18.00 | 4,662 | - | |
| Support Services | - | - | 1,105 | - | |
| Apparatus | | | | | |
| Apparatus and Maintenance | - | - | 11,333 | - | |
| Sub Total | | | 19,648 | - | |
| Gross Factor | 3% | | 589 | - | |

Salida Fire Department | Analysis of Site Options

The City of Salida identified nine appropriately-sized sites around the City that met the size requirement. The Neenan Company and PEC reviewed the sites against a list of site criteria to reduce the number of viable options. In the Site Analysis spreadsheet the criteria have been noted as Low, Medium, and High risk. Low risk means the site poses no significant deficiencies. High risk indicates there are significant flaws with the site as it pertains to the criteria.

| FACTORS | 120 & 124 E Street (existing) | | 505 Oak Street | | USFS location | | Old Town & Country | |
|---|-------------------------------|------------------------------|----------------|----------------------|---------------|---|--------------------|-------------------------|
| LAND | Cost | Comments | Cost | Comments | Cost | Comments | Cost | Comments |
| Size | 0.26 | Own | 2.11 | | 1.34 | City owned but may need to purchase more land | 3.15 | |
| Cost per acre/per s.f. | | | \$284,360 | Need to confirm | | | \$793,651 | Need to confirm |
| Total Cost | | | \$ 600,000.00 | | | | \$ 2,500,000.00 | |
| ADJUSTMENTS FOR SITE SPECIFIC COST FACTORS | | | | | | | | |
| FEEES | | | | | | | | |
| Electrical Development Fee | | 3-phase power not available | | | | | | |
| Planning/Civil Costs | | Will require height variance | | | | | | |
| CDOT involvement | | Maybe | | Yes | | Maybe | | Yes |
| Total Addl On-Site Costs | | | | | | | | |
| OTHER ISSUES: | | | | | | | | |
| Neighbors/Off Site | High | Pedestrians, Zero lot line | Medium | Proximity to homes | Low | Compatible with surrounding uses | Medium | Proximity to homes |
| Access from Site | Medium | Downtown | Low | Access to Oak Street | Low | Access to Highway 50 | Low | Access to Highway 50 |
| Topography/Soils | Low | | Low | Gravelly sandy loam | Low | Sandy loam | Low | Gravelly sandy loam |
| Availability of Utilities | Low | In place | Low | Excellent | Low | Excellent | Low | Excellent |
| Land Use Compatibility | Low | Commercial (C-1) | Low | Commercial (C-1) | Low | Planned Development | Low | Planned Development |
| Size/Functionality for Use | High | No ability to expand | Medium | limited | High | Training options on-site limited | Low | Good size for all needs |
| Ownership Timing | Low | Own | Medium | City does not own | Low | City does not own, but ready to | Medium | negotiation |
| Location/Ability to Serve | Low | Central location | Low | Central location | Low | Central location | Low | Central location |
| Environmental Issues | Low | None known | Low | None known | Low | None known | Low | None known |

| FACTORS | Vandaveer Site | | The Galleries New Maintenance | | Golf course | | Marvin Park | |
|---|----------------|---|-------------------------------|---|-------------|-------------------------------|----------------------|----------------------------------|
| LAND | Cost | Comments | Cost | Comments | Cost | Comments | Cost | Comments |
| Size | 87.51 | City owned | 1.95 | City owned, part of larger 70.58 acres | 5.30 | Need to work with Golf Course | No area to subdivide | City owned |
| Cost per acre/per s.f. | | | | | | | | |
| Total Cost | | | | | | | | |
| ADJUSTMENTS FOR SITE SPECIFIC COST FACTORS | | | | | | | | |
| FEES | | | | | | | | |
| Electrical Development Fee | | | | | | | | |
| Planning/Civil Costs | | May require master plan review | | May require annexiation into city. To avoid County fees | | Will require zoning change | | Will require zoning change |
| CDOT involvement | | No | | Yes | | No | | No |
| Total Addl On-Site Costs | | | | | | | | |
| OTHER ISSUES: | | | | | | | | |
| Neighbors/Off Site | Low | Isolated from other development | Medium | Proximity to homes | Medium | Proximity to homes | Medium | Proximity to homes |
| Access from Site | Medium | Relatively distant from Highway 50 | Low | Access to Highway 50 | Low | Access to Poncha Blvd | Low | Access to Crestone Ave |
| Topography/Soils | Medium | Loam to clay loam | Low | Loam and gravelly sandy loam | Low | Gravelly sandy loam | Low | Gravelly sandy loam |
| Availability of Utilities | High | Extend both water & sewer | High | Upgrade sewer, extend water | Low | Excellent | Low | Excellent |
| Land Use Compatibility | Low | Planned Development | Low | Outside City limits | Low | Parks | Low | Parks |
| Size/Functionality for Use | Low | Good size for all needs | High | Developable land limited | Medium | Good size, odd shape | Low | Good size for all needs |
| Ownership Timing | Low | City-owned | Low | City-owned | Low | City owns, vacant | High | Existing use as City park |
| Location/Ability to Serve | High | Longer travel time, bridge flooding potential | Medium | West location, longer travel times | Low | Central location | Medium | Longer travel time to south area |
| Environmental Issues | Low | None known | Low | None known | Low | None known | Low | None known |

| FACTORS | Site 8 - West of Golf Course | | Site 9 - 627 Oak Street | |
|---------------------------------|------------------------------|--|-------------------------|-------------------------------|
| LAND | Cost | Comments | Cost | Comments |
| Size | 6.22 | Unknown | 3.00 | Unknown |
| Cost per acre/per s.f. | \$80,386 | sale price 10/28/2020 | \$423,713 | Tax value |
| Total Cost | \$ 500,000 | | \$1,271,140 | |
| ADJUSTMENTS FOR SITE | | | | |
| SPECIFIC COST FACTORS | | | | |
| FEEES | | | | |
| Electrical Development Fee | | | | |
| Planning/Civil Costs | | May require annexiation into city to avoid County fees | | |
| CDOT involvement | | No | | Yes |
| Total Addl On-Site Costs | | | | |
| OTHER ISSUES: | | | | |
| Neighbors/Off Site | Medium | Proximity to homes | Medium | Proximity to homes |
| Access from Site | Low | Access to Airport Rd | Low | Access to Oak & Scott Streets |
| Topography/Soils | Low | Gravelly sandy loam | Low | Gravelly sandy loam |
| Availability of Utilities | Low | Excellent | Low | Excellent |
| Land Use Compatibility | Low | Not shown on zoning map | Low | Not shown on zoning map |
| Size/Functionality for Use | Low | Good size for all needs | High | Good size, demo existing |
| Ownership Timing | Medium | City does not own | Medium | City does not own |
| Location/Ability to Serve | Low | Central location | Low | Central location |
| Environmental Issues | Low | None known | Low | None known |

Salida Fire Department | Map of Sites in Service Area

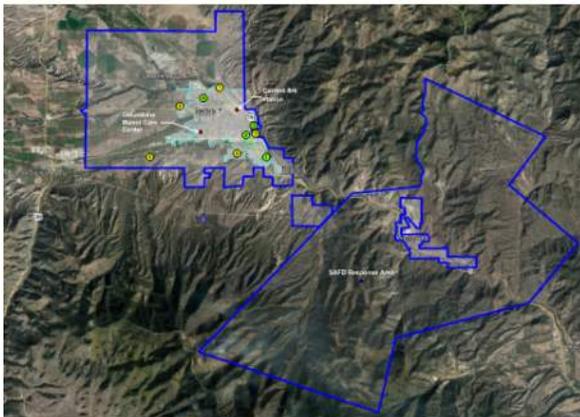
Salida Fire Facility - Response Areas and Potential Sites

TOP 4 SITES

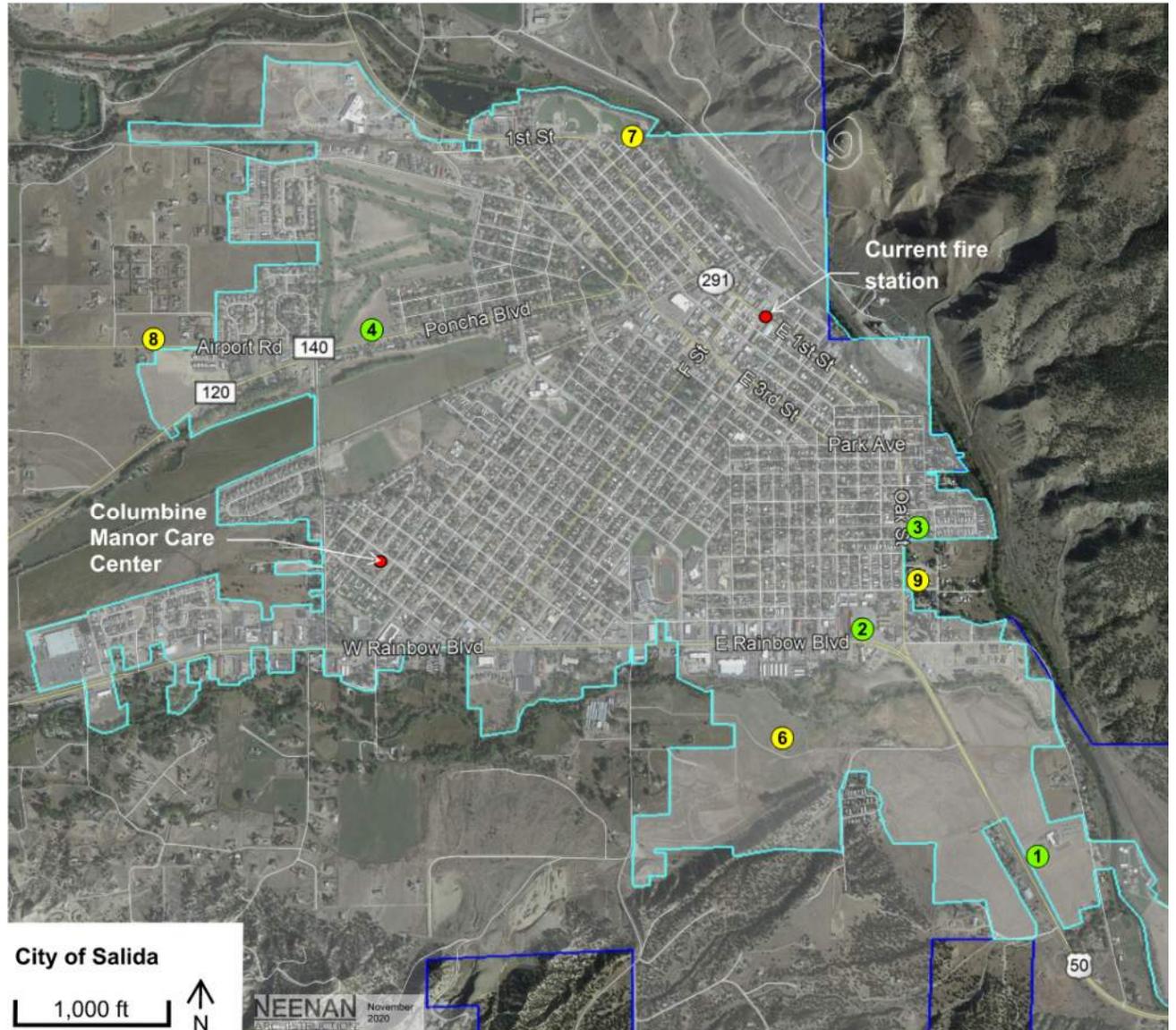
- 1 By USFS 4 mins, 2.1 miles from Columbine Manor
- 2 Old Town and Country 3 mins, 1.5 miles from Columbine Manor
- 3 Private Commissioner 4 mins, 1.8 miles from Columbine Manor
- 4 Golf Course 2 mins, 0.7miles from Columbine Manor

Other Sites

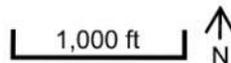
- 5 The Galleries
- 6 Vandever
- 7 Marvin Park
- 8 Site 8
- 9 Site 9



South Arkansas Fire Protection District Response Area



City of Salida



NEENAN November 2020

After identifying sites with the highest use potential, Neenan has developed conceptual site layouts for the existing site and the top four proposed sites.

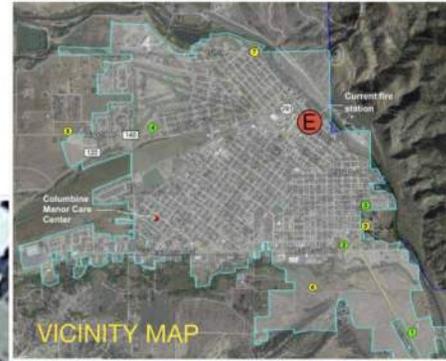
Salida Fire Department | Existing Location Option A – renovation and new construction

PROS -

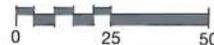
- + Good location
- + Revitalization of historic building
- + Good access to downtown district
- + Good identification as a safe-haven
- + Good public stewardship

CONS -

- Disruption of services during remodel and construction
- Lack of space for desired number of vehicles
- No staff parking
- Truck backing on public sidewalks
- No training area
- Disruption of downtown traffic
- Restricted turning radii
- Building height restriction of 35'
- Noisy environment during sleeping hours



FIRST FLOOR PLAN



SECOND FLOOR PLAN



Salida Fire Department | Existing Location Option B – new construction

PROS -

- + Good location
- + Revitalization of downtown site
- + Good access to downtown district
- + Good identification as a safe-haven
- + Good public stewardship
- + Alley access vs. West 1st Street

CONS -

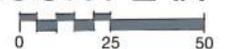
- Disruption of services during remodel and construction
- Lack of space for desired number of vehicles
- No staff parking
- Truck backing on public sidewalks
- No training area
- Disruption of downtown traffic
- Restricted turning radii
- Building height restriction of 35'
- Awkward public access due to administration on second level
- Elevator would be required
- Noisy environment during sleeping hours



FIRST FLOOR PLAN



SECOND FLOOR PLAN



Salida Fire Department | US Forest Service Site Option A

PROS -

- +Property allows for single story option
- +Non-signalized exit for equipment from site
- +Access onto a side street
- +Quiet neighborhood
- +Easy access to Highway 50
- +Close to area of regional growth
- +Compatible with surrounding land uses
- +Readily available water and sewer utilities

CONS -

- Additional land would be needed for training area
- Smallest site
- Signal required on Highway 50
- Distance to city center
- Circulation on the site is awkward
- No site amenities such as private yards for crew
- Limited design opportunities due to limited site size
- Vehicle apron with Northern exposure
- Shared access drive/additional development cost
- Limited drive through bays



Salida Fire Department | US Forest Service Site Option B

PROS -

- +Good access to overall response area
- +Easy access to Highway 50
- +Close to area of regional growth
- +Compatible with surrounding land uses
- +Readily available water and sewer utilities
- +Property allows for single story option
- +Quiet neighborhood
- +Vehicle aprons have good winter exposure
- +Expansion opportunities

CONS -

- Smallest site
- Additional land would be needed for training area
- Would require signal on Highway 50
- Distance from city center
- No site amenities such as private yards for crew
- Limited design opportunities due to limited site size
- Shared access drive/additional development cost
- No area for Training
- Coordination with CDOT

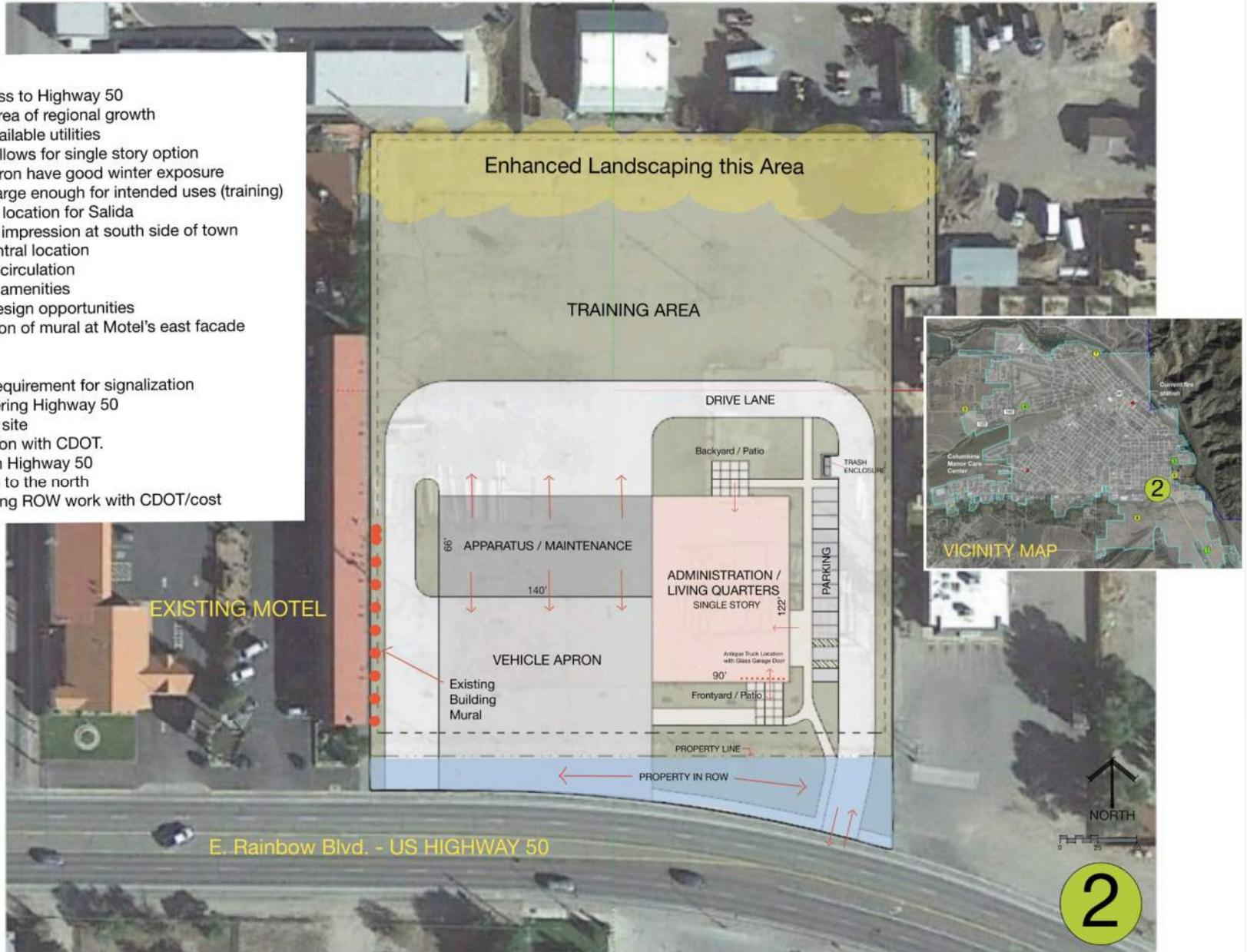


PROS -

- +Easy access to Highway 50
- +Close to area of regional growth
- +Readily available utilities
- +Property allows for single story option
- +Vehicle apron have good winter exposure
- +Property large enough for intended uses (training)
- +Good infill location for Salida
- +Good first impression at south side of town
- +Strong central location
- +Good site circulation
- +Good site amenities
- +Flexible design opportunities
- +Preservation of mural at Motel's east facade

CONS -

- Possible requirement for signalization when entering Highway 50
- Expensive site
- Coordination with CDOT.
- Noise from Highway 50
- Residence to the north
- Coordinating ROW work with CDOT/cost

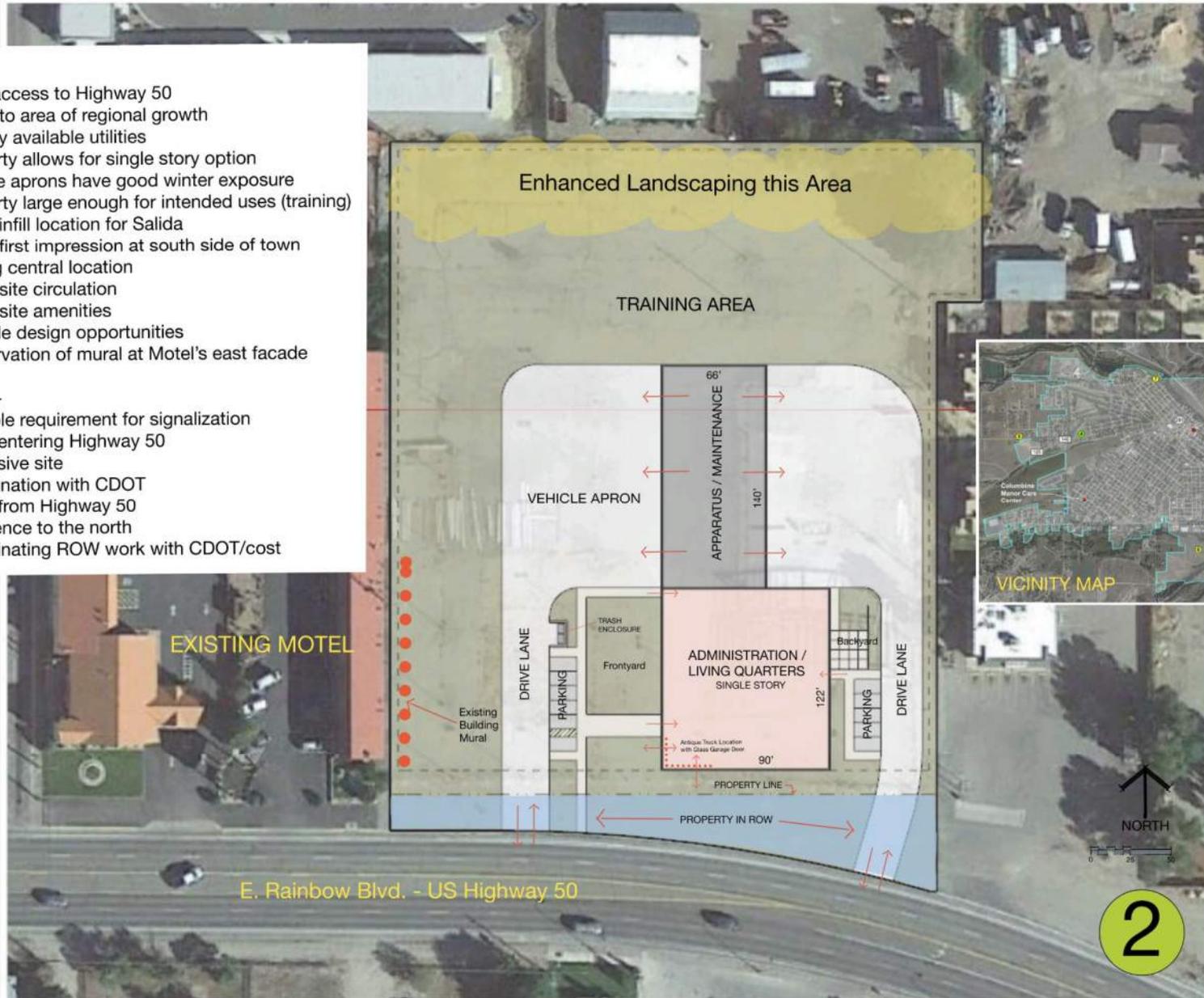


PROS -

- +Easy access to Highway 50
- +Close to area of regional growth
- +Readily available utilities
- +Property allows for single story option
- +Vehicle aprons have good winter exposure
- +Property large enough for intended uses (training)
- +Good infill location for Salida
- +Good first impression at south side of town
- +Strong central location
- +Good site circulation
- +Good site amenities
- +Flexible design opportunities
- +Preservation of mural at Motel's east facade

CONS -

- Possible requirement for signalization when entering Highway 50
- Expensive site
- Coordination with CDOT
- Noise from Highway 50
- Residence to the north
- Coordinating ROW work with CDOT/cost

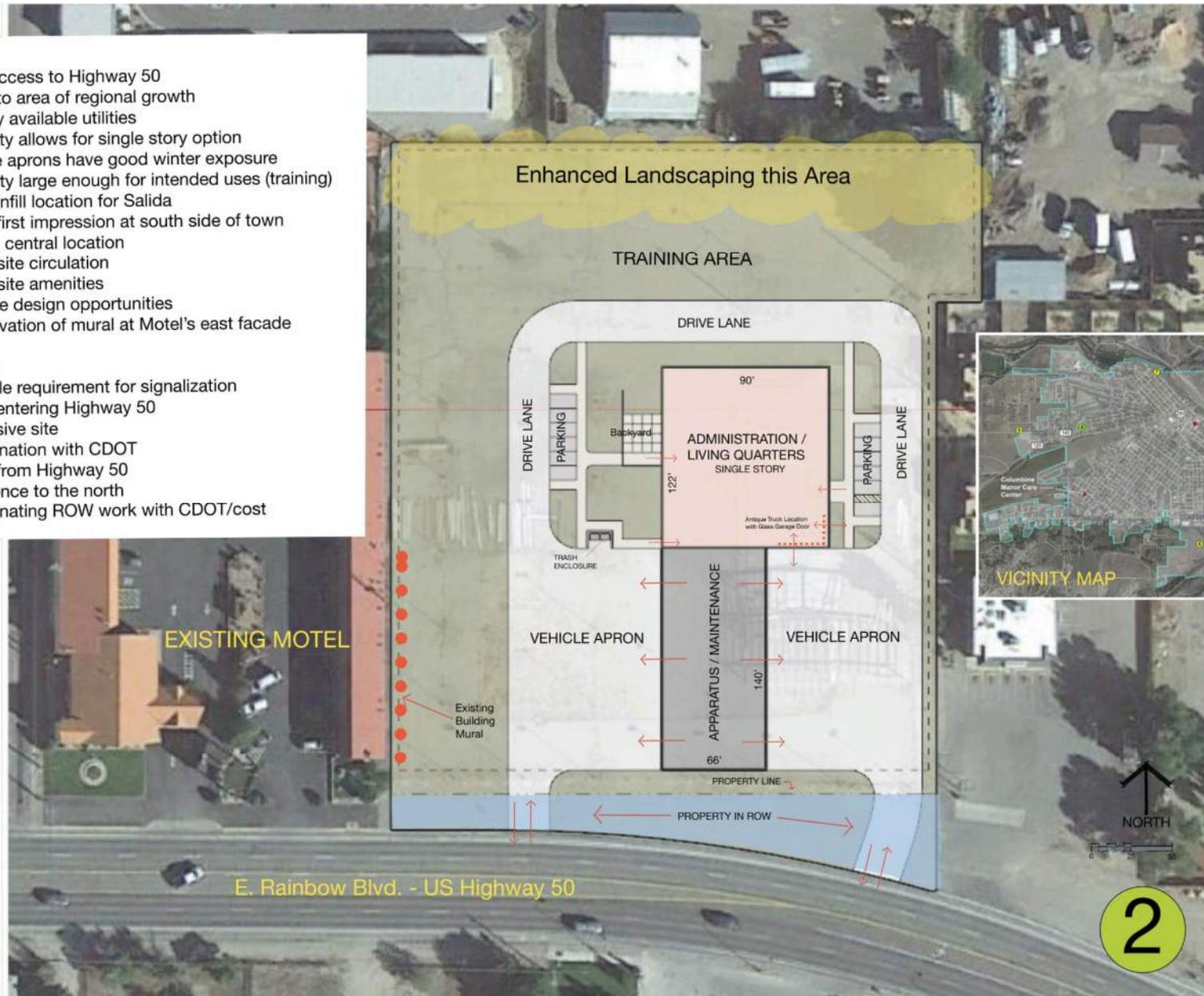


PROS -

- +Easy access to Highway 50
- +Close to area of regional growth
- +Readily available utilities
- +Property allows for single story option
- +Vehicle aprons have good winter exposure
- +Property large enough for intended uses (training)
- +Good infill location for Salida
- +Good first impression at south side of town
- +Strong central location
- +Good site circulation
- +Good site amenities
- +Flexible design opportunities
- +Preservation of mural at Motel's east facade

CONS -

- Possible requirement for signalization when entering Highway 50
- Expensive site
- Coordination with CDOT
- Noise from Highway 50
- Residence to the north
- Coordinating ROW work with CDOT/cost

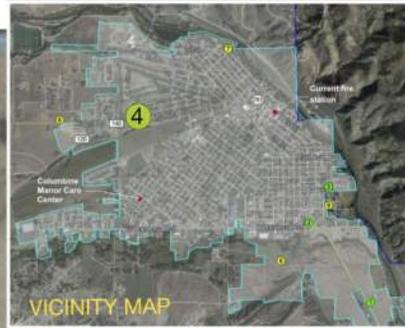




- | | |
|--|--|
| <p>PROS -</p> <ul style="list-style-type: none"> +Property allows for single story option +Both vehicle aprons have good winter exposure +Property large enough for intended uses (training) +Readily available utilities +Good central location +Good site circulation +Good site amenities +Flexible design opportunities +Quiet neighborhood +No signalization required when existing property +Training opportunity when existing building is demolished | <p>CONS -</p> <ul style="list-style-type: none"> -Residences to the east -Demolition of building required |
|--|--|



- PROS -**
- +Good access to Poncha Blvd.
 - +Property allows for single story option
 - +Good winter exposure on only one vehicle apron
 - +Property large enough for intended uses (training)
 - +Readily available utilities
 - +City owned
 - +Good site circulation
 - +Good site amenities
 - +Flexible design opportunities
 - +Good proximity to senior care facility
 - +Non-signalized movement from site
 - +Access onto a minor street
 - +Quiet neighborhood
 - +Potential to develop neighborhood amenities (wellness) and development of neighborhood park
- CONS -**
- Proximity to residences
 - Decentralized location
 - Rezoning may be required
 - Overhead power lines at south side of property



PROS -

- +Good access to Poncha Blvd.
- +Property allows for single story option
- +Vehicle aprons have good winter exposure
- +Property large enough for intended uses (training)
- +Readily available utilities
- +City owned
- +Good site circulation
- +Good site amenities
- +Flexible design opportunities
- +Good proximity to senior care facility
- +Non-signalized movement from site
- +Access onto a minor street
- +Quiet neighborhood
- +Potential to develop neighborhood amenities (wellness) and development of neighborhood park
- +Possible secondary access to Ouray Ave.

CONS -

- Proximity to residences
- Decentralized location
- Rezoning maybe required
- Overhead power lines at south side of property



PROS -

- +Good access to Poncha Blvd.
- +Property allows for single story option
- +Vehicle aprons have good winter exposure
- +Property large enough for intended uses (training)
- +Readily available utilities
- +City owned
- +Good site circulation
- +Good site amenities
- +Flexible design opportunities
- +Good proximity to senior care facility
- +Non-signalized movement from site
- +Access onto a minor street
- +Quiet neighborhood
- +Potential to develop neighborhood amenities and development of neighborhood park
- +Possible secondary access to Ouray Ave..

CONS -

- Proximity to residences
- Decentralized location
- Rezoning maybe required
- Overhead power lines at south side of property

Salida Fire Department | Conceptual Budget and Schedule

Conceptual budget and schedule information is provided to facilitate future planning for the City of Salida and South Arkansas Fire Department.

Conceptual Budget

Following is a range of costs for the construction and design of the project based on the program and average of the site designs. Cost variations are based on final site selection and design decisions.

- Site Costs: \$40 to \$60 per building square foot
- Building and Design Costs: \$290 to \$330 per building square foot

Existing Location Reuse

Exploration of the reusing the existing site has been included in the site comparisons. Several factors contribute to a higher construction cost in addition to the displacement of the fire department during demolition and construction.

- Second story design
- Tight downtown location creates additional site logistics
 - 20% to 30% cost increase over construction cost of new build

Conceptual Schedule

Below is a conceptual schedule for a new 20,000 square foot single-story fire station. The schedule variation is specific to site selected and City process required.

- City Process 2 to 6 months
- Design 4 months
- Construction 8 months