

Maintenance Facility Construction

Stevens County 2021-2022





Maintenance Facility Construction

Big Stone County 2020-2021

How to Sell the Project

- Demonstrate the need, space and height deficiencies of current building, may have OSHA air or space violations, deteriorated utilities or deficient structure?
- Get buy in from staff, make sure they understand the needs. They can make or break a project in the public eye outside of work.
- We toured several new shops with our facilities Committee over several years.



Space Constraints

Contract Methods

- CM at Risk- GMP delivery
 - County holds separate contracts with CM firm and Architect.
 - Construction Manager provides a Guaranteed Maximum Price(GMP) prior to bid opening. CM holds all subcontracts, CM assembles all bid packets.

Architect provides all design work.

- Considered Agency CM, Design Build and Municipal Lease.

Financing

General Obligation Bond

State Aid Bond, talk with SA Engineer early on to apply and gain approval to use SA funds to make payment.

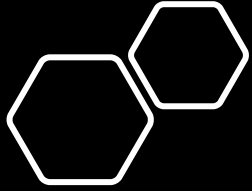
Big Stone used a combination of GO Bond and SA Bond.

Stevens County used a combination of GO Bond and spend down.

Both Counties initiated a Wheelage Tax to help pay for the bond payment. The Wheelage tax will sunset at the bond payoff date in both counties.

Construction Management Firm and Architect

- Choose an Architect/Design Firm and CM- Send out an RFP and hold Interviews.
- Big Stone advertised and chose the CM firm first and interviewed Architects with the CM,
- Stevens already had an Architecture Design Firm they were comfortable with and interviewed CM's independently. It is important that the CM and Architect work well together thru the design and construction phases.
- Design meetings, 3 to 5 meetings? Everything from the building material to the location of outlets are decided. Take good notes or record meetings to ensure that everything talked about is followed thru and added/subtracted to the building. Take time to review the plan sheets thoroughly.
- Bid Packages are put together by the CMAR and bid openings were held at the County Highway Facility. CM can and did bid on some packages.
- CM Firm will assign a Project Superintendent to be on site whenever work is being done and he may self perform some minor duties.



Background- Big Stone Facility

- 1940 CIP building with 12 ft OH doors, no crane and no vehicle lift. Location was in a residential area on a State Aid Street.
- Ventilation was poor and had potential OSHA violations for clearance around vehicles and air quality was an issue.
- No wash bay, no salt shed, Fuel facility was at the end of its life.
- Had two additions that were newer. Considered tearing down old shop, remodel office and expand the property to the west by abandoning an alley and acquiring two properties.
- Decision was made by the board to move to a new 5 acre location in an industrial area with city utilities. Required new cold storage, fuel facility and salt shed.
- New Office, Shop, Warm Storage, Wash Bay and Sign Shop. New Fuel Station, Cold Storage, Salt Shed, paved and fenced entire lot.

Dimensions of Big Stone

Constructed on 5 acres of bare ground, Cold Storage Building and Fuel Station were constructed in 2019 with Cash Reserves.

Lot had City Sewer, Water, Natural Gas and Fiberoptic Internet. Purchased for \$52,000.

Zoning, found that it was incorrectly marked residential on some city maps but in the end it was determined that it was properly zoned industrial.

Office 60 ft x 140 ft, including a materials lab and engineering garage, 8,400 sq Ft

Shop 60 ft x 140 ft, covered by 10 ton OH crane, pull thru bay and parallelogram lift, 8,400 sq ft

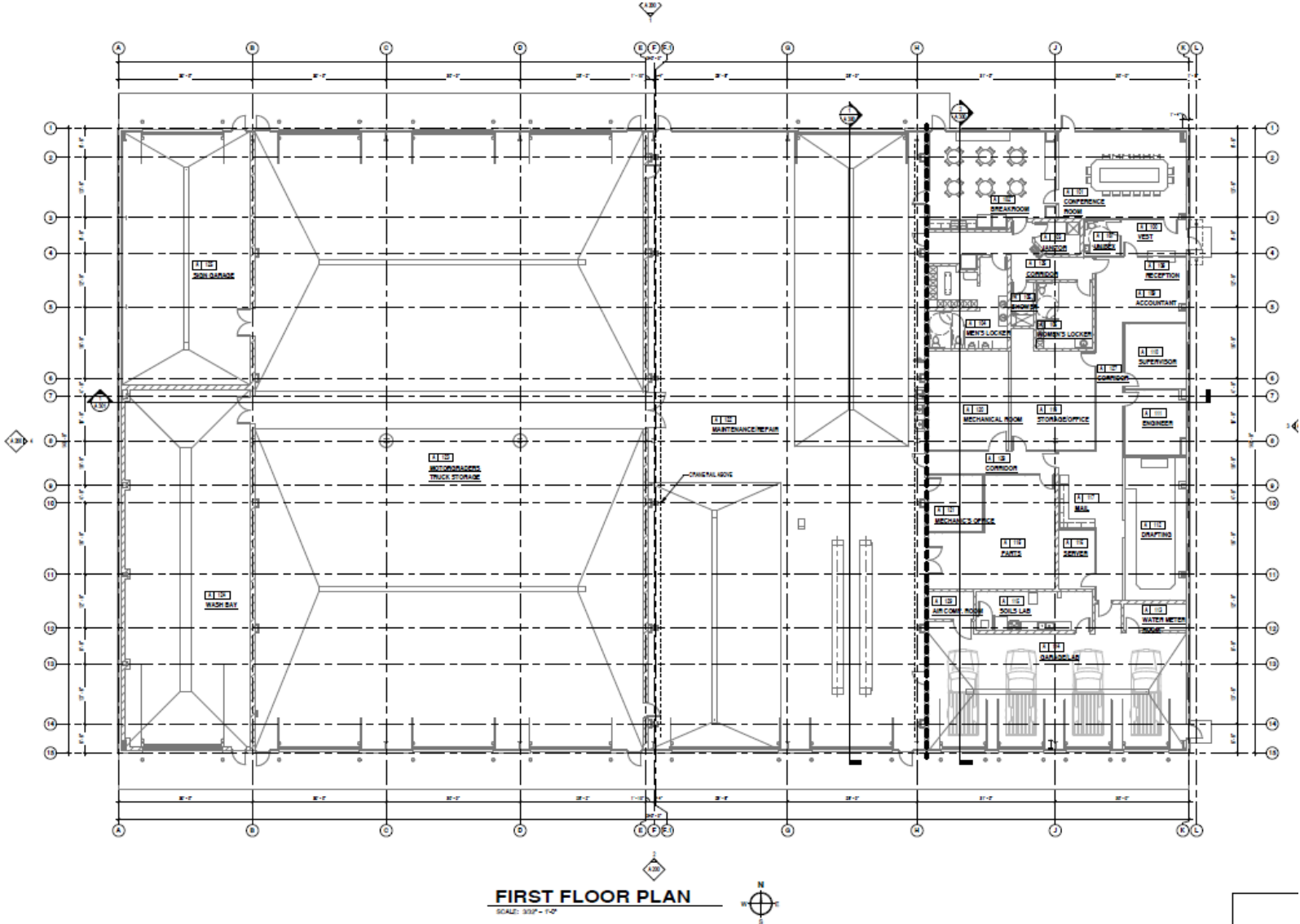
Wash Bay 80 ft x 30 ft, fits tandem truck with D6 on trailer, 2,400 Sq Ft

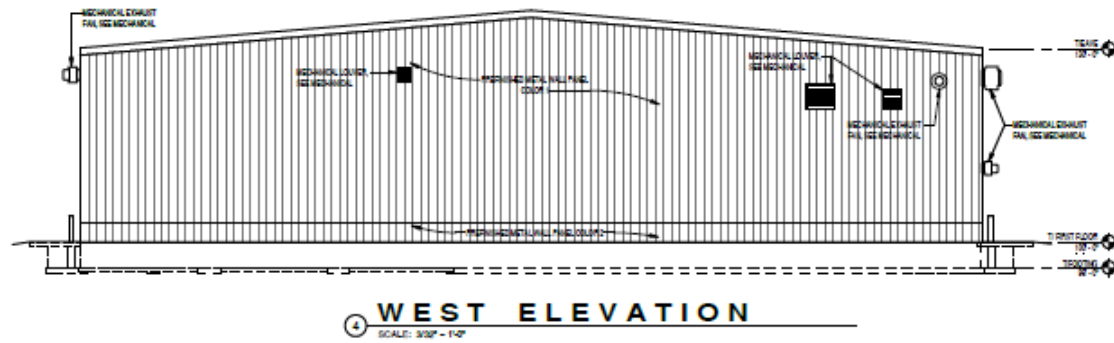
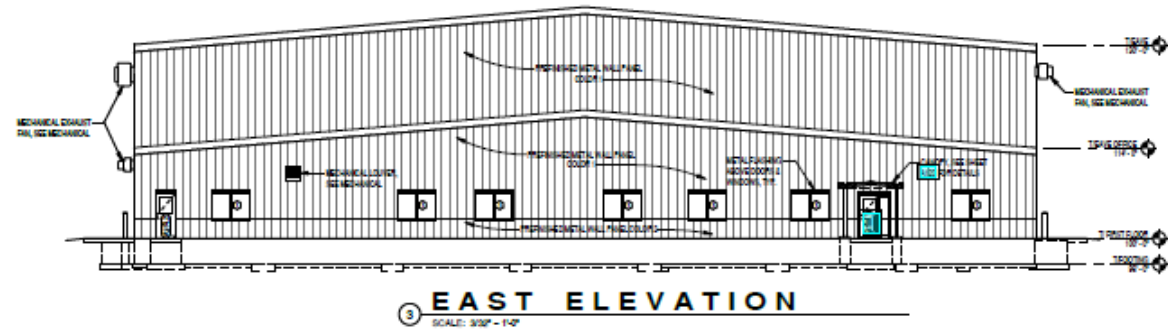
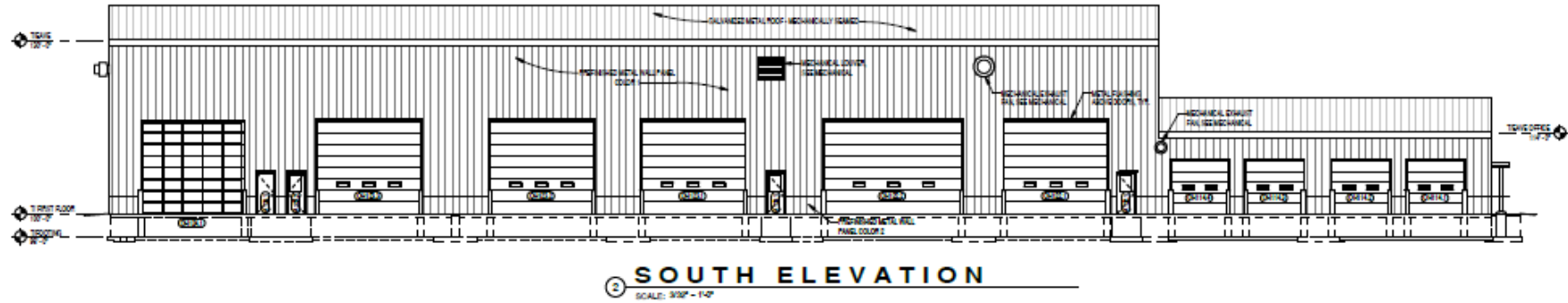
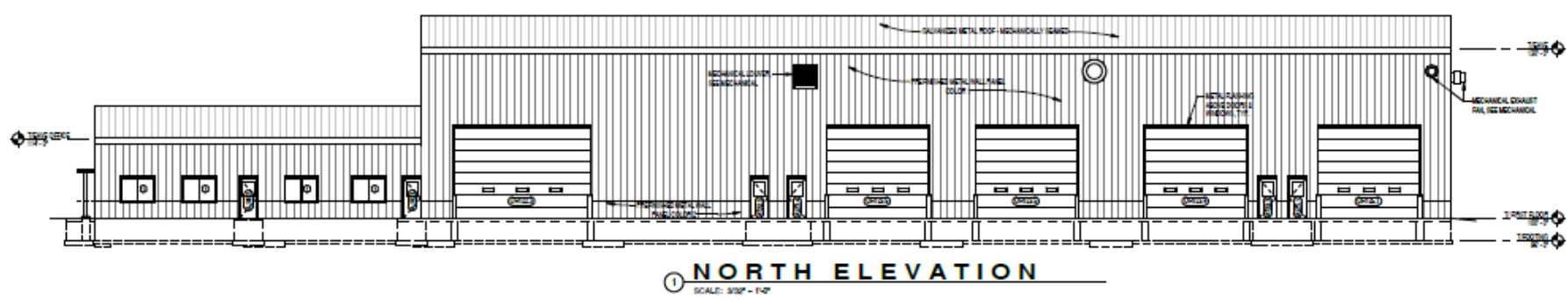
Warm Storage 90 ft x 140 ft, 12,600 sq ft

Sign Shop 60 ft x 30 ft, 1,800 Sq Ft

Total 33,600 Sq Ft, not including the cold storage building.

Big Stone County





Financing- Big Stone County

General Obligation Bond for \$2,992,607

State Aid Bond for \$2,841,987

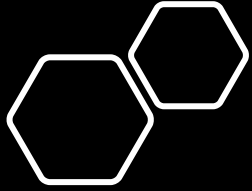
Total Bond Dollars \$5,834,594

Bond Fee's totaling \$133,388

Total Available Financing at \$5,701,206

GMP Prior to letting set at \$6,250,000

Bids opened spring of 2020 totaling \$5,750,000.



Background- Stevens County Facility

- 1963 construction with a remodel in 1997.
- The building had deteriorated plumbing, wiring was questionable, sewer was cast iron and had deteriorated to the point where it would need a complete replacement.
- The building was also not ADA compliant.
- The shop was small,
 - 5 ton OH crane covered less than 1/2 of shop
 - Piston vehicle lift
 - Air quality problems
 - OSHA space violations
 - Fuel station at end of life
- Previous County Engineer had laid the groundwork for a new shop.
- A public works project was discussed and planned from 2014 to 2019 when financing and design was started.
- Shared facilities with the City of Morris and Mndot was discussed but neither entity was interested in pairing.
- Decision was made to build on existing 14 acres, kept existing shop and warm storage, expanding warm storage into shop area alleviated space problems.

Dimensions of Stevens

Constructed on existing 14 acre lot, New office, shop and wash bay. Retained old building for warm storage, built fuel station with cash reserves.

Lot had City Sewer, Natural Gas and Fiberoptic Internet. A last minute decision by the city to utilize ARPA funds to run City Water to the site facilitated a sprinkler system addition to the building.

Office 60 ft x 115 ft, including a materials lab and engineering garage, 6,900 Sq Ft.

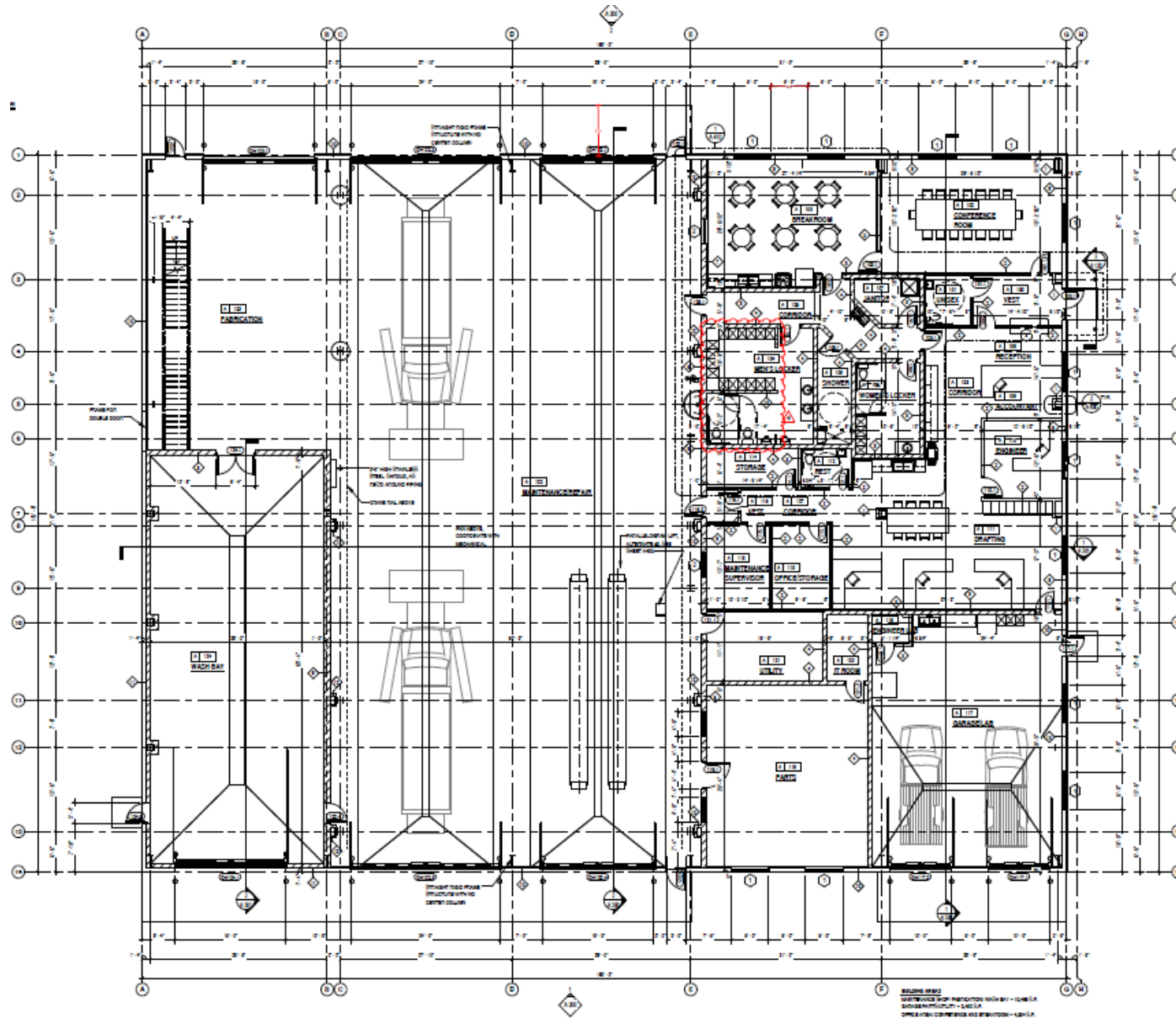
Shop 60 ft x 115 ft + 50 x 30 Fabrication Shop, covered by 10 ton OH crane, 2 pull thru bays and parallelogram lift, Fab Shop, 8,400 sq ft.

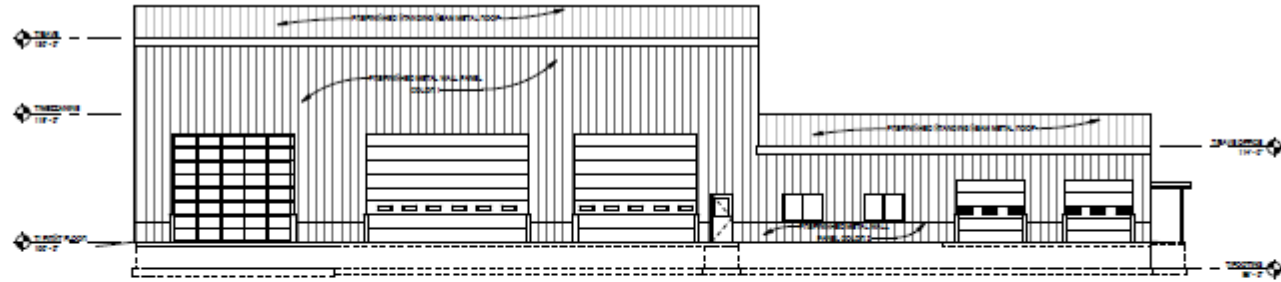
Wash Bay 66 ft x 30 ft, 1,900 Sq Ft.

Mezzanine above wash bay 1,900 Sq Ft. Brings total shop space to 10,300 Sq Ft.

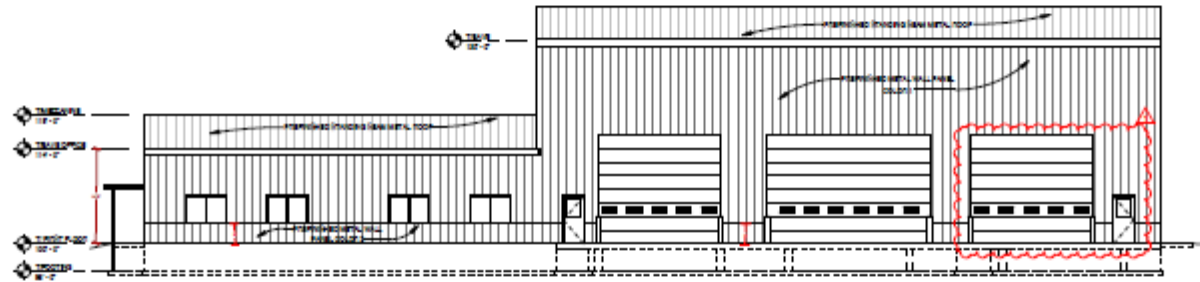
Total 19,150 Sq Ft.

Stevens County

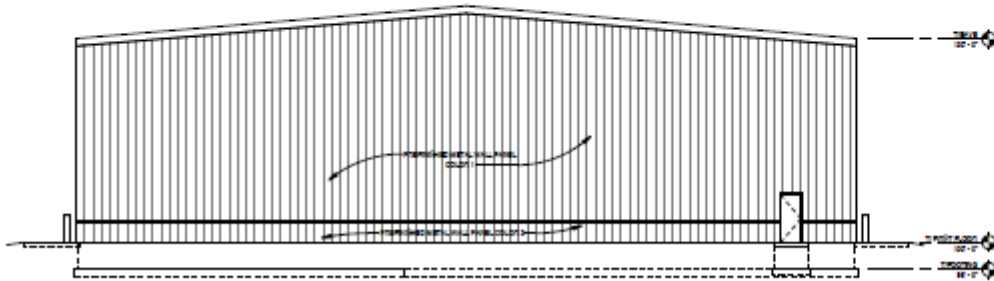




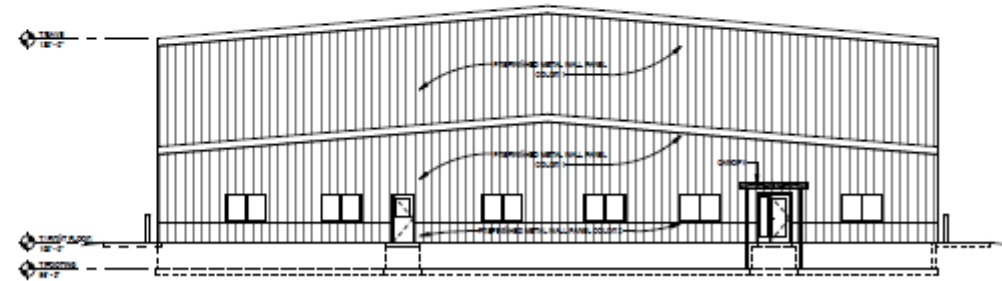
1 SOUTH ELEVATION
SCALE: 3/32" = 1'-0"



2 NORTH ELEVATION
SCALE: 3/32" = 1'-0"



3 WEST ELEVATION
SCALE: 3/32" = 1'-0"



4 EAST ELEVATION
SCALE: 3/32" = 1'-0"

Financing Stevens County

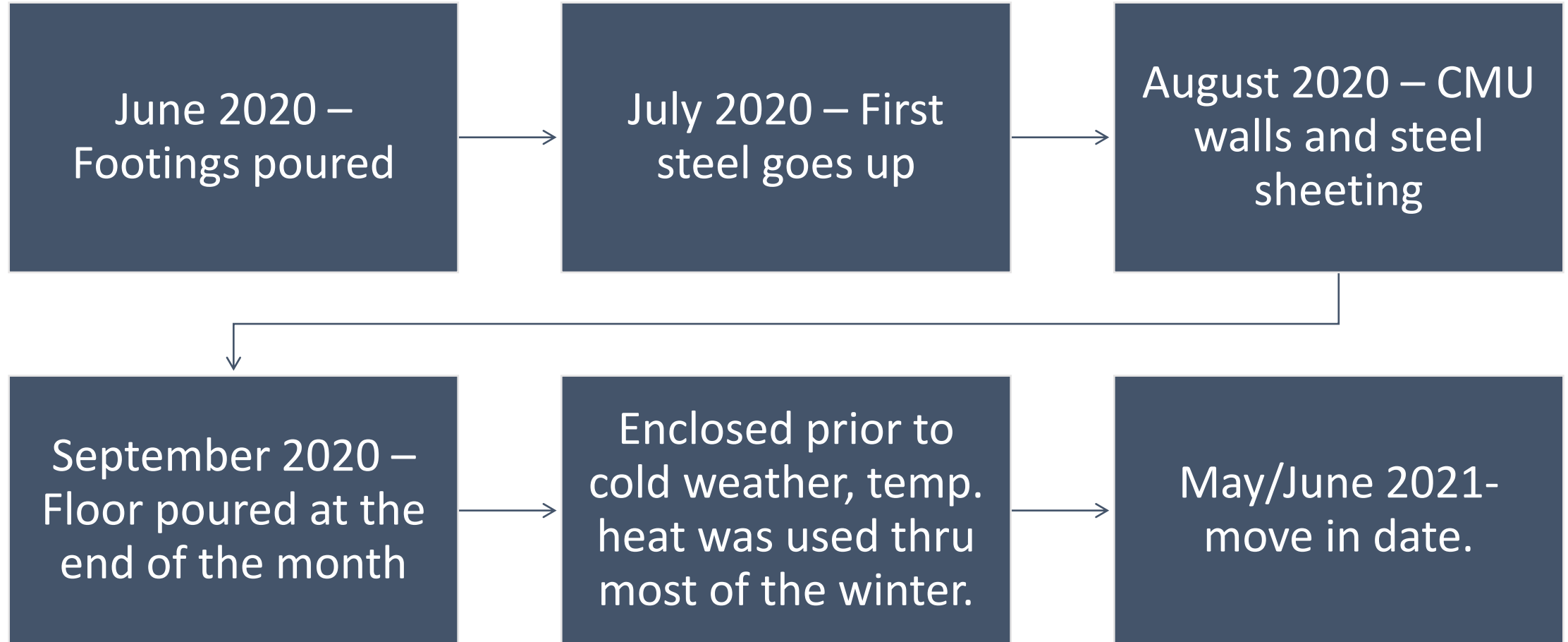
Fuel Station paid for out of cash reserves.

General Obligation Bond for \$2,750,000.

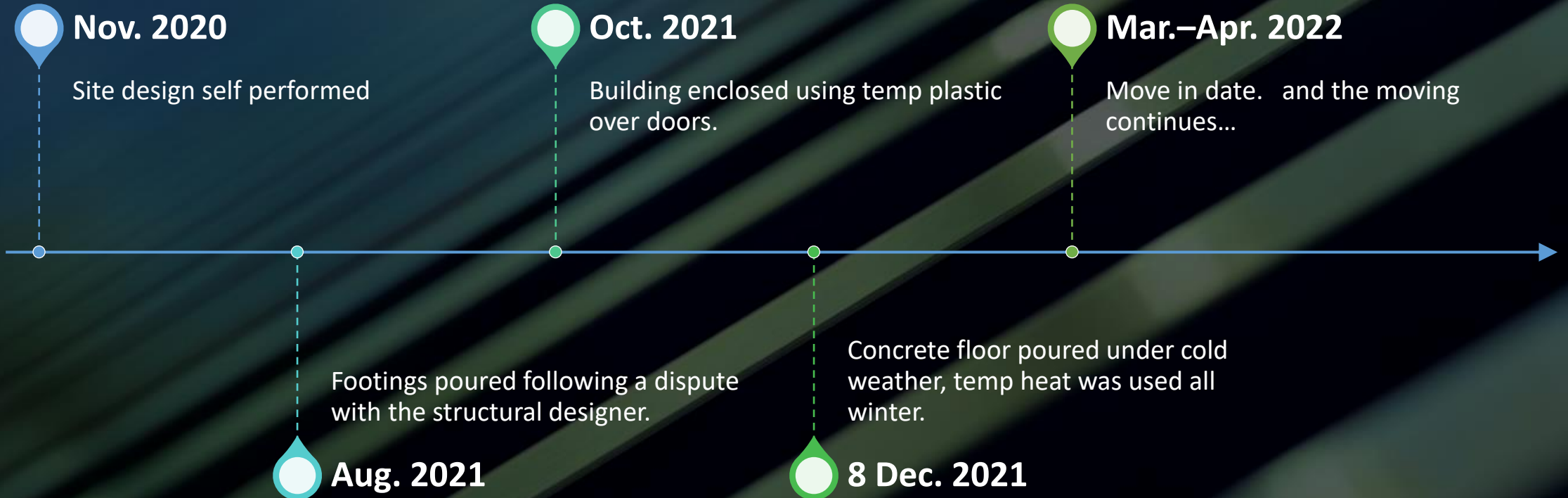
Spenddown of Cash Reserves for \$500,000

Total Project cost \$3,250,000

Timeline-Big Stone



Timeline – Stevens





Site Design and Prep.-Stevens & Big Stone



Self Performed Sediment Pond and Drainage



Big Stone Sediment Pond



Big Stone Site, footings



Footing Wall and Pier
Footing



Steel Frame Laid Out



Steel Frame Assembly



Concrete Masonry Walls going up



Office and
Locker Room
Area



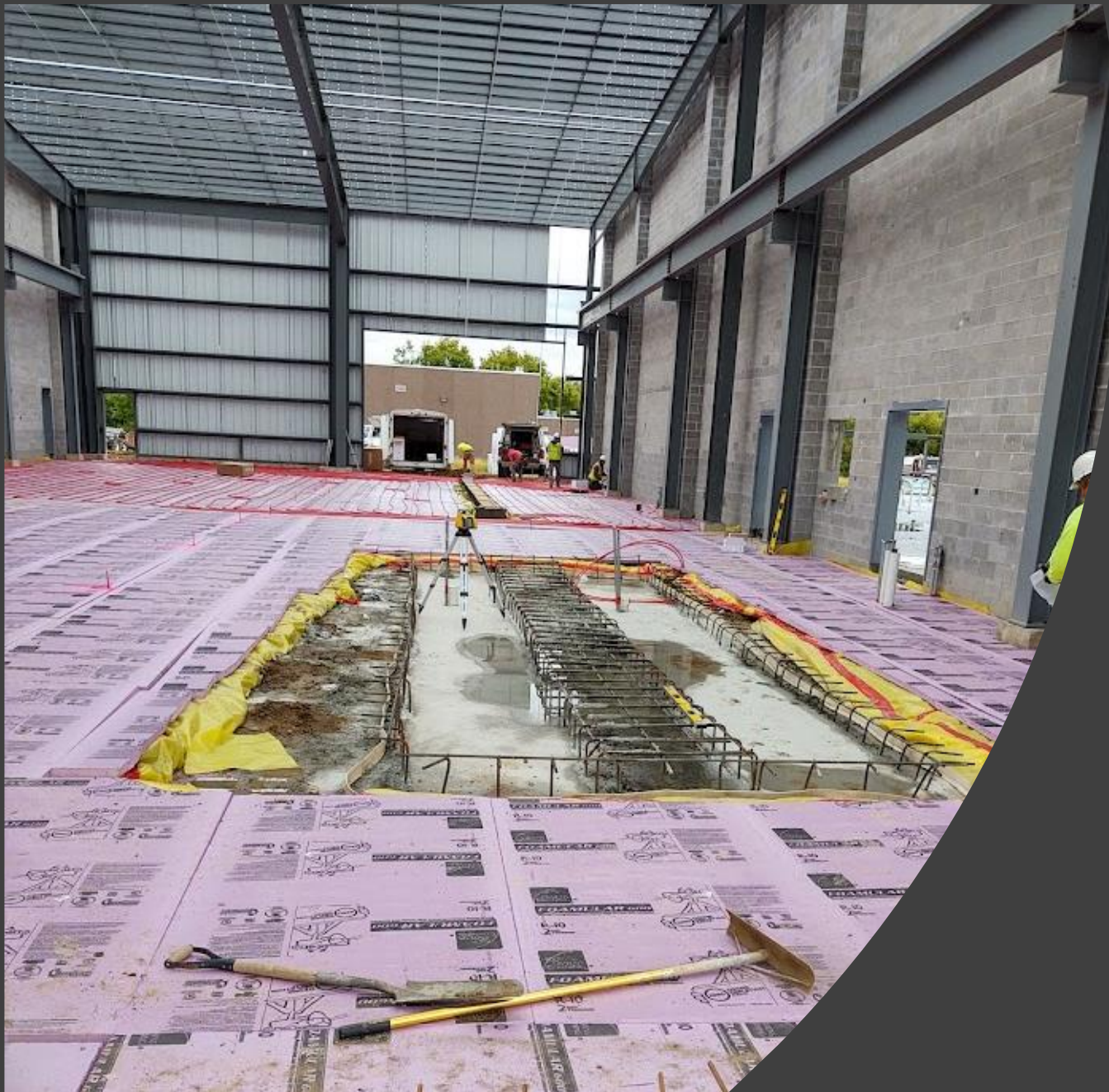
Locker Room Masonry Wall Footings





Mechanics Shop





Parallelogram
Lift Footing



Warm Storage Area





Warm Storage Area





Interior
Masonry Walls
Going Up



Plan for Current
and Future
Electrical Needs



Sand Separator and Heel Proof Grates in Shop

Drainage Around Building





Cold Storage
Building and
Fuel Station









Completed Shop- Big Stone



Big Stone Fabrication Area

949081



Big Stone Warm Storage 90' x 140'





A large industrial warehouse with yellow overhead cranes. The cranes are mounted on a high ceiling and have yellow beams and cables. A forklift is visible in the lower right corner. The warehouse has a high ceiling with exposed pipes and lights. A large white diamond shape is overlaid on the center of the image, containing the text "10 Ton Overhead Cranes".

10 Ton Overhead Cranes

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Mezzanine Access



Forklift
Access

33 Stairs



Wash Bay

Big Stone Co.

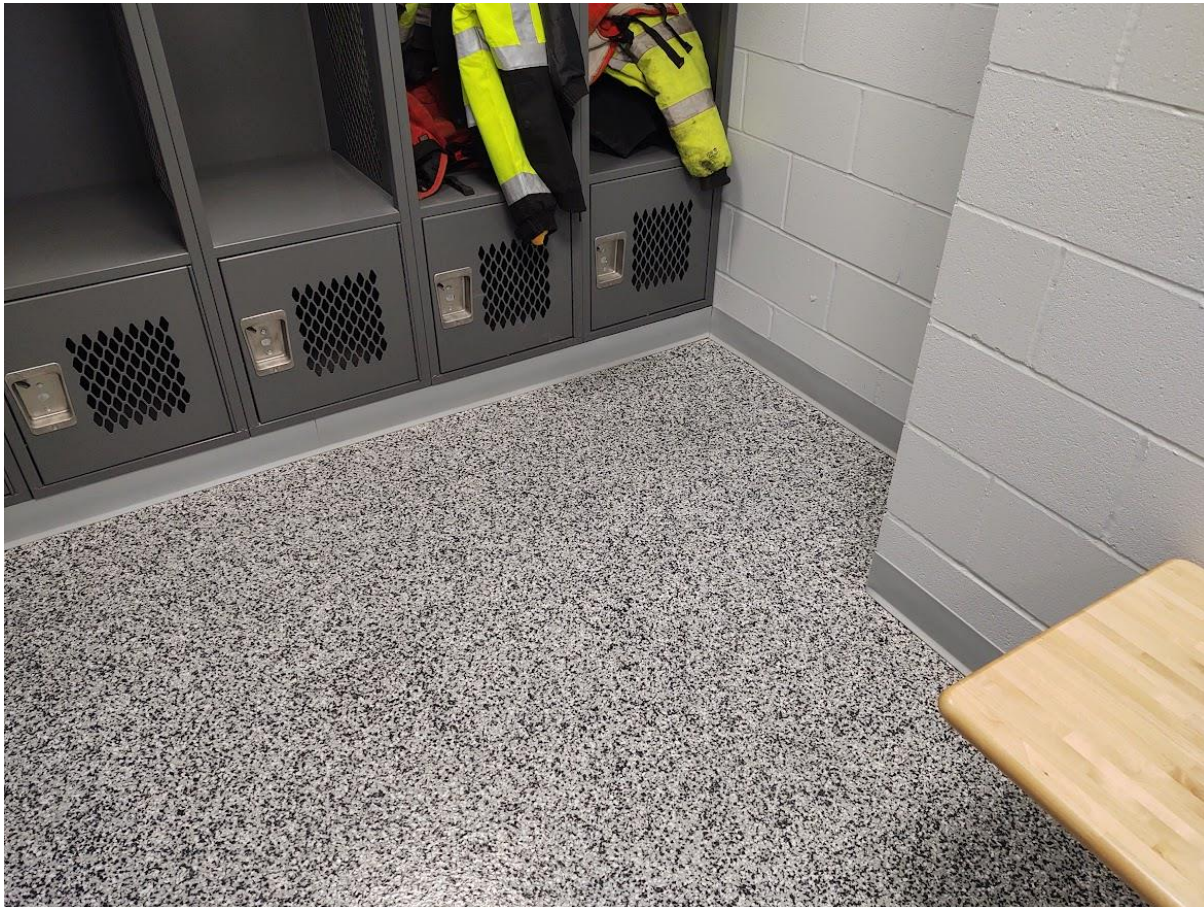




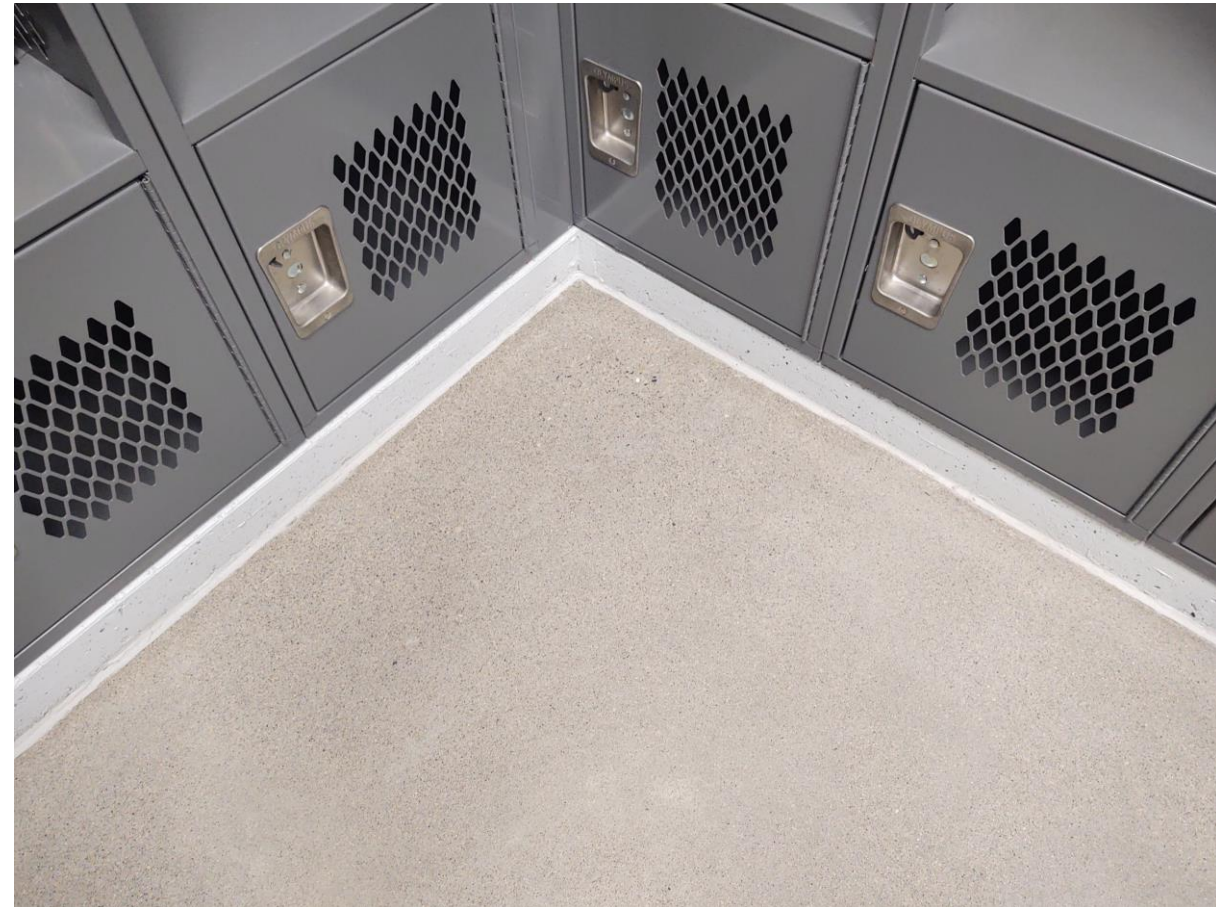
Big Stone Co. Wash Bay

Locker Room Floor

Big Stone- Epoxy Finish



Stevens- Polished Concrete



Doors, Paint, Polished Concrete Floor 9 ft Ceilings

Big Stone

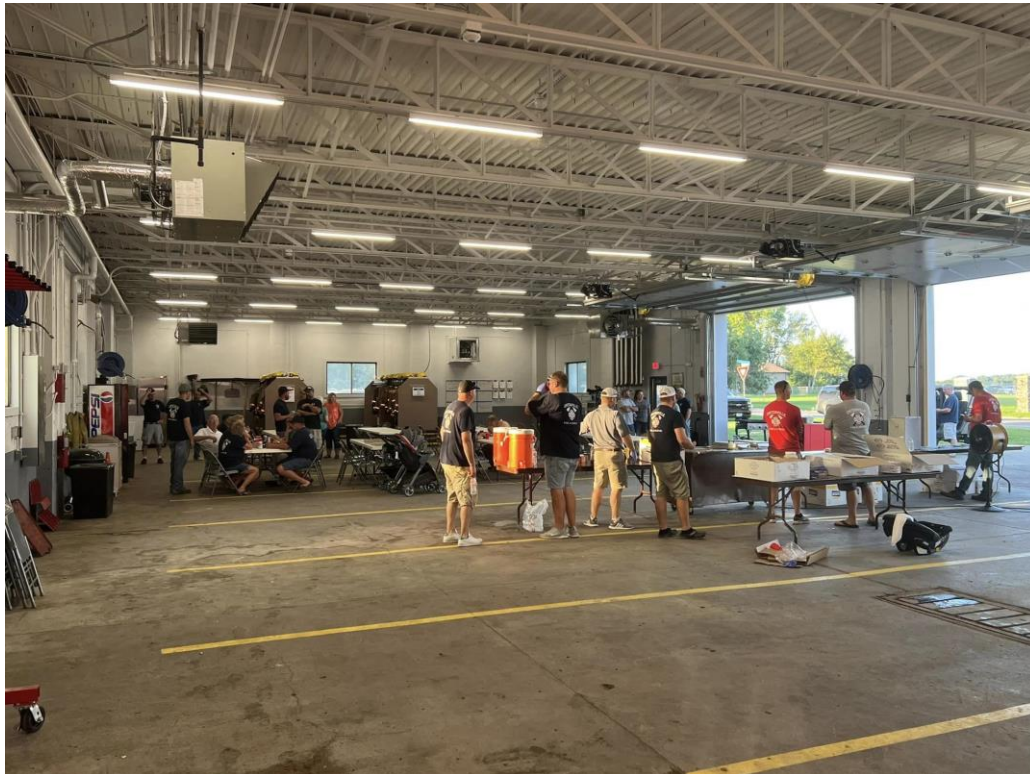


Stevens



Big Stone Old Building Refurbished

Ortonville Fire Hall



Meeting Room and Community Room



What went right?

- Mezanine Storage Area-Stevens
- Old Building Conversion to Fire Hall and Community Room-Big Stone
- Floor Heat in both facilities
- Timing, good prices and availability of materials, low interest rates on bonds
- Self Performed Demolition and Site Design the year prior to Construction.

What went wrong?

- Roof Drainage –Big Stone, repaired 2 weeks prior to paving.
- Wash Bay Lighting-Big Stone, added pod lighting on walls.
- Concrete Sealant Failure- Big Stone Warm Storage, corrected by resealing
- Miscommunication and delays from the design team caused delays in the project in Stevens.
- Roof leaks in the area of the High-Low Roof. Could have been avoided by continuing the high roof over the office area.

Other things to Consider

- Generator Power, utilize existing generator or buy new?
- Fuel Station- Both Counties upgraded fuel stations prior to construction.
- Cold Storage Building
- Keeping existing shop for warm storage until the end of its useful life.

Contact Information

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