BLOCK 75 PARKING GARAGE REPAIRS
GENERAL REPAIRS AND STAIRS ENCLOSURES

Public Works Committee Meeting
City Hall, Rapid City, SD
August 30, 2022
DESIGN TEAM

Stephen Kilber, PE - Albertson Engineering, Inc
Gene Fennell, AIA - Fennell Design, Inc
Dave Riemenschneider - West Plains Engineering, Inc
Matt Von Haden, PE - West Plains Engineering, Inc
Aaron Ashley - CO-OP Architects
Ian Garduna, PE - Renner Associates
Project History

• Parking Lot at Original Site
• Initial Garage: Single Level (1999)
Project History

- Final Level Addition (2008)
Project History

• Main St Square (2011)
Project Repairs: Structural

- Underside of 2nd Floor Along Main St Square
- Damaged Spandrel on North Wall of Ramp

Exposed rebar due to corrosion
Failed “sandwich plate”

Exposed rebar due to corrosion

“Sandwich Plate” Joint

Damaged Column at East Stairs
Project Repairs: Mechanical

- Rusting at Bend in Drain Pipe
- Clogged Slab Drains
- Completely Rusted Downspout
Project Repairs: Electrical

Corroded Electrical Conduit

Primary Mechanical Closet

Service Panel Inside Cabinet
Project Repairs: Stairways

Rusted Stair Pans Typical Throughout

Damaged Concrete Pans

Corroded Stringers and Stair Pans
Tread Wear Progression

New Construction
Stairs at Pennington Co.
Cast in 2011, Enclosed in 2013

15 Years Old (2013)

23 Years Old (2022)
Proposed Stairway Enclosures

- Mitigate Slip, Trip, and Fall Potential
- Better Protection From Environment
- Extend Life of Stair Repairs
- Reduces Future Maintenance
Project Comparison

Proposed Stair Enclosure
• Similar to Pennington County Garage
• Have “Open” Feel Users
• Minimal Opportunities for Loitering
Project Comparison - Night

Proposed Stair Enclosure
- Similar to Pennington County Garage
- Have “Open” Feel Users
- Minimal Opportunities for Loitering

Block 75 Garage Stairs

Pennington Co Garage Stairs
BLOCK 75 PARKING GARAGE REPAIRS
6TH STREET LOOKING NORTHEAST
8-26-2022
BLOCK 75 PARKING GARAGE REPAIRS
ALLEY LOOKING NORTHEAST AT 5TH STREET
8-26-2022
# Financials

## Block 75 Parking Garage Repairs (Estimates)
- Structural Repairs - $267,000 (~7%)
- Enclosures - $390,000 (~10%)
- Combined Cost - $657,000
  - 17% of Overall Project
- Total Project Cost - $3,940,000

## Item List

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
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<tbody>
<tr>
<td>Structural Items</td>
<td></td>
</tr>
<tr>
<td>Stair Renovations</td>
<td>$267,141</td>
</tr>
<tr>
<td>2000/2000 Product Application</td>
<td>$514,953</td>
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<tr>
<td>1200 Product Application - Bid Alternate</td>
<td>$84,830</td>
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<tr>
<td>Joint Repairs</td>
<td>$97,090</td>
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<tr>
<td>New Steel Framing</td>
<td>$171,070</td>
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<tr>
<td>Elevated DT Repairs</td>
<td>$82,178</td>
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<tr>
<td>Precast Repairs</td>
<td>$88,474</td>
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<tr>
<td>2nd Floor Deck Repairs</td>
<td>$95,926</td>
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<tr>
<td>Miscellaneous Repairs</td>
<td>$125,103</td>
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<tr>
<td>Mechanical items</td>
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<tr>
<td>Replacement of All Drain Inlets and Piping</td>
<td>$380,350</td>
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<tr>
<td>Installation of New Drain Inlets</td>
<td>-</td>
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<tr>
<td>Replacement of Fire Protection Lines</td>
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<tr>
<td>Electrical items</td>
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<tr>
<td>Replacement of All Conduits &amp; J-Boxes</td>
<td>-</td>
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<tr>
<td>Replacement of Damaged Lights</td>
<td>-</td>
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<tr>
<td>Replacement/Relocation of Main Service Panel</td>
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<tr>
<td>Architectural Items</td>
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<tr>
<td>Curtain Systems for Stair Enclosures</td>
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<tr>
<td>Civil Items</td>
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<td>*</td>
<td>$25,042</td>
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<tr>
<td>Drainage Improvements at NW Corner</td>
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<tr>
<td>Sub-total</td>
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<td>Overhead and Profit (25% of Sub-total)</td>
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<td>Design Contingency (15% of Sub-total)</td>
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<td>Total</td>
<td>$3,938,377</td>
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Questions?