ARCHITECTURE TEAM

• Junior Kemdirim
• Francisco Avila
• Joey Bahnsen
• Samantha Claman

Overview
• Redeveloping the existing building with new construction and design elements.
To reveal traces of the past building through the lens of the new design.
career directions for students in architecture, construction and engineering
The ACE Mentor Program of Iowa
2020-2011 Final Presentation
Team South

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INSPRIATION
Façade
Retaining Wall
Team South

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Retail
Office
Gallery
Cafe
Engineering Team

- Matt Minnick
- Hans Messersmith Holth
- Zach Parsons
- Moises Contreras

Overview
- Structural layout
- Mechanical and Plumbing
- Deck
- Site
Structural Layout
Curtain Wall

- Three columns for support.
- Two beams running along the edge.
Team South

Structural Layout
Vestibule

• Two Beams for elevator support.
# Plumbing

## Water

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<th>Count</th>
<th>Fixture Units</th>
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## Sanitary

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<td>Kitchen Sinks</td>
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</table>
HVAC

- 11,000 CFM Airflow
- 57”x 87”x 161” in basement
- 30 tons of cooling
- Outside condensing unit
- 371,000 BTU/hr heating
- Boiler unit in basement
Deck Layout

- Joists are spaced out 16” from each other
- Strength of deck relies on the live and dead loads
- Black beams hold more weight so they are thicker than the other joists
Deck Footings

• Columns spaced out 16’ for cars

• Columns in a row to make it easy for beams to go across
COLUMNS

- The deck sits on 3-2”x12” beam

- Wood column sits on a 12”x12” concrete base

- The base sits on a concrete footing that has to be a minimum of 3’-6” below the ground due to the frost line
DECK TO WALL CONNECTION

• Joist is connected to a 2” X 16” Ledger by a Joist Hanger

• Ledger is connected to the wall by Masonry Lag Bolts
RETAINING WALL

- Switchback Stairs
- Wall tapers off at the end
- Back fill wall with rock to help draining
PARKING LOT SITE PLAN

- Perpendicular parking
- 3 Storm drains
- 2 Handicap stalls
- Access to elevator on parking level
Thanks to our Mentors!

-Kassi Colman – The Weitz Company
-TJ Meyerholz - The Weitz Company
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-Nic Forbes - Invision