A Museum of Architectural Elements

Design Process

Shawn Crowley
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ARCH 772 Design Thesis, Spring 2010,
Department of Architecture and Landscape Architecture,
North Dakota State University
Parti
Site Pictures
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Site Pictures

Week Two

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Site Pictures

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Site Pictures

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Week Two

Solar Studies

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Week Two

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Solar Studies

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Early Concepts

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Week Three

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Process Models
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Schematic Design

Week Four

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Schematic Design

Week Four
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Week Five

Schematic Design

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Schematic Design

Section 1
3/32" = 1'-0"
Schematic Design

Week Six

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Week Seven

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Week Seven
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Week Eight

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Week Eight

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Midterm Review

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Midterm Review

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Brick veneer
1" airspace
3/4" plywood
5 1/2" metal stud framing
Batt insulation
6 mil poly vapor barrier
5/8" gypsum wall board
3" concrete slab over ICF
floor framing w/ rebar

Radiant in-floor hydronic heating system
ICF forms of rigid insulation
Steel supports
Mechanical equipment
ICF foundation wall
2" rigid insulation on each side
6" poured conc. wall
(1) Steel rebar vert. @ 6'-0" o.c.
(2) Steel rebar horiz. @ 1'-0"
Design Development
Week Ten

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Design Development
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Design Development

Week Eleven
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Week Eleven  Spring 2010
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Final Drawings

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- Solar panels
- Mech. ductwork
- Space frame steel structure
- Steel tube column
- 3” wood decking
- Steel tube bracing
- Glulam beam hanging from the space frame
- Operable windows
- Mtl. stud framing
- Temporary exhibits

- 4” Earth
- Drainage mat
- Root barrier
- 6” Rigid insulation
- EPDM roof membrane
- 4” Composite decking
- 3/4”x8 Steel beam
- 1” Wood panel
- Wood backing supports
- 1” Rigid insulation
- Plywood
- 4” Mtl. stud framing w/ batt insulation
- HS55-8x114 column
- 6 mil. poly vapor barrier
- 5/8” Gypsum wall board

- Brick veneer
- 1” airspace
- 3/4” plywood
- 5 1/2” metal stud framing
- Batt insulation
- 6 mil. poly vapor barrier
- 5/8” gypsum wall board
- 3” Concrete slab over ICF floor framing w/ rebar
- Radiant In-floor hydronic heating system
- ICF forms of rigid insulation
- Steel supports
- Mechanical equipment
- ICF foundation wall
  - 2” Rigid insulation on each side
  - 8” Poured conc. wall
  - (2) #8 rebar vert. @ 4’-0” o.c.
  - (2) #8 rebar horiz. @ 1’-0”
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Final Drawings

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Final Drawings

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