



CONSTRUCTION MEETING MINUTES

UNIVERSITY OF MINNESOTA - DULUTH James I. Swenson Science Lab

U of M PROJECT NUMBER 581-65-1221

BUILDING PERMIT 111068

ARCHITECT PROJECT NO. 01023

DATE: **August 5, 2003**

PROJECT: James I. Swenson Science Lab

LOCATION: University of Minnesota – Duluth
Duluth, MN 55812

OWNER: University of Minnesota

CONTRACTOR: M.A. Mortenson

SCOPE: \$ 25,451,000

START DATE: April 1, 2003

COMPLETION DATE: **December 31, 2004**

PRESENT: John Rashid -UMD
Greg Ewald -UMD
Brian Morse -STANIUS JOHNSON architects
Dan Pennington -M.A. Mortenson
Bret Woodland -M.A. Mortenson
Mike Pierson -M.A. Mortenson
Bob Braun -M.A. Mortenson

OBSERVATIONS AND DISCUSSIONS:

A construction meeting was held at 1:30 p.m. on Tuesday, August 5, 2003. There was a review of the previous construction meeting minutes dated July 29, 2003.

The following items were discussed and observations made:

Stanius Johnson Architects

www.staniusjohnson.com

■ Duluth: 1831 East 8th St. Duluth, Minnesota 55812-1396 Phone 218-724-8578 Fax 218-724-8717
□ St. Cloud: 2035 15th St. N. St. Cloud, Minnesota 56303 Phone 320-253-2100 Fax 320-253-2269

Principals Kenneth D. Johnson AIA Rickard A. Stanius AIA Ronald E. Stanius AIA
Partners Brian D. Morse AIA Steven B. P. Kalkman AIA
Associates Larry M. Turbes AIA Jeffrey E. La Tour AIA Deanna Schmidt CID

ACTION

MAM

1. Relative to item no. 1 of the previous meeting minutes, questioned by the architect Mortenson stated they are close to being back on schedule as a result of certain structural steel activities which have been resequenced in conjunction with several downstream work activity durations having been reduced.
2. Attached to these meeting minutes are the contractor's short term schedule, RFI log, and current Submittal log.
3. Relative to item no. 3 of the previous meeting minutes regarding proposal requests, the contractor is reminded that all proposal requests require backup by the subcontractor/supplier indicating labor, materials, and quantities. This is required for the architects review of the proposal request prior to approvals.

Architect is in receipt of PCO's # 11, 14, 15 and 18 which will be incorporated into Change Order No. 2. PCO's # 12, 16, 17, 19, 20, 21 and 24 are being reviewed by the Design Team at this time. Architect is awaiting responses to PR's # 10, 12, 14, 15.1, 31 and 32.

Contractor is to respond to these proposal requests as soon as possible.

4. Disruption avoidance issues:
 - The 6" waterline is tentatively scheduled for installation on August 25, 2003.
5. Progress to date:

MAM

- Structural steel is being set at upper level of Area A. Structural steel is scheduled for setting in the lower level of Area C next week.

MAM

- The contractor is proceeding with cooling tower footings in addition to piping from the cooling tower to the chillers.
- The first suspended floor slab pour is scheduled for Thursday of this week.
- Underground plumbing and piping is proceeding at Area B, slab on grade area. Pour is scheduled next week.
- The skyway pier is being poured next week.

MAM, Greg Ewald

- Sod site work restoration as well as top soil is substantially complete for the areas disturbed to this point. Mike Pierson indicated that the total cost for the site restoration work is between \$10,000 and \$15,000, contingent on an agreement on the quantity. The contractor will be paint marking the extents of the restoration and the total quantities will be reviewed between Mortenson and the University.

Regarding the re-use of the existing top soil, GME and Mortenson are discussing options for making the material comply with the specifications. This may require the input of the landscape architect. GME has submitted a report on this issue.

GME, MAM

6. Relative to item no. 6 of the previous meeting minutes, architect stated that he has contacted GME and instructed GME to document all cases where over excavation for footings are required to achieve the designed soil bearing pressure. This report needs to be location specific and give quantities of additional excavation out, additional backfill in, and additional cubic yards for concrete mud slab, and additional cubic yards of concrete footings. These will be reviewed and concurrence needs to be reached between GME and Mortenson.
7. Relative to item no. 7 of the previous meeting minutes concerning submittals, architect is still awaiting the following from the contractor.

MAM

- Coordination drawings. Bret Woodland indicated ground floor Area A coordination drawings are complete with respect to mechanical work and are being forwarded to the electrical for their input.

- MAM** ▪ Mock-ups and color samples. Reference architects letter to contractor of July 1, 2003.
- SJA, AEI** 8. Relative to item no. 8 of the previous meeting minutes regarding the site lighting revisions, Greg Ewald and Brian Morse have reviewed the drawing included with Proposal Request No. 33 and some minor revisions will be made and a PR#33.1 will be issued.
9. Relative to item no. 9 of the previous meeting minutes regarding the design review meeting for the landscape design work, this meeting is rescheduled for September 5, 2003 in Chicago.
- SJA** 10. Relative to item no. 10 of the previous meeting minutes regarding Elevator No. 1 shaft size, Brian Morse will contact elevator advisory group to discuss the issue of ADA compliance of the elevator size.
- MAM** 11. Relative to item no. 12 of the previous meeting minutes regarding the review of the concrete floor finish mock ups, the review date will be August 20, 2003.
- A brick mock-up has been laid up for the architects review. Mike Pierson indicated the siding samples will be ready for review with the louver colors at the August 20th meeting also. Mortenson is pursuing whatever other mockups they can put together for that same review time.
- MAM, GME** 12. Relative to item no. 17 of the previous meeting minutes regarding the concern for the mixing of piping trench excavation material with the sand at the slab on grade areas, Mortenson will have GME review these areas prior to pouring slab on grade.
13. Attached to these meeting minutes is a Field Trip Memorandum from Meyer Borgman Johnson dated July 29, 2003.
- All Contractors** 14. **The next construction meeting will be held Tuesday August 12, 2003 at 1:30 p.m., in the Construction Trailer.**

The preceding is assumed to be a complete and correct account of the items discussed, directions given, and conclusions drawn, unless this office is notified to the contrary immediately.

Brian Morse, AIA
bsa

attachments

| | |
|---|---|
| <p>cc: John Rashid, UMD Jim Riehl, UMD Stephanie Goke, AEI Michael Ross, RBJ Tiffany Nash, RBJ Dan Murphy, MBJ Bob Leonard, MAM Rick Stanius File</p> | <p>Bruce Gingerich, UofM – (mail) Scott Holm, UofM Ken Kornberg, KKA Tom Oslund, O&A Chris Rousseau, MSA Paul Johnson, MBJ Eric Edlund, GME Brian Morse</p> |
|---|---|

Request for Information Log

Date: 8/5/03

Mortenson Job No: 031007

Page: 1 of 1

| Issue | To | From | Number | Description | Status | Dated | Responded | Required | Days Held |
|--------------|-----------|-------------|---------------|------------------------------------|---------------|--------------|------------------|-----------------|------------------|
| 10-001 | ARCH | MORT | 00112 | Arch Prod. RFI #1 - Sunscrn Finish | NEW | 6/23/03 | | 6/30/03 | 43 |
| 15-045 | ARCH | MORT | 00187 | Space @ Floor for S, LW Risers | NEW | 7/28/03 | | 8/4/03 | 8 |
| 15-050 | ARCH | MORT | 00190 | 1 1/2" LV Exposure @ 153D | NEW | 7/30/03 | | 8/6/03 | 6 |
| 15-053 | ARCH | MORT | 00192 | Pump Locations/Sizes | NEW | 7/31/03 | | 8/7/03 | 5 |
| 05-105 | ARCH | MORT | 00193 | Railing @ Skyway Enter. Link 100 I | NEW | 7/30/03 | | 8/6/03 | 6 |

Open RFI's: 5

Submittal Log

Date: 8/5/03

Page: 1 of 2

Mortenson Job No.: 031007

| Submittal | Rev. | Title | Status | Submittal Date | Current Dates | | | | BIC | Days Held By Architect |
|--------------|------|--|--------|----------------|---------------|---------|--------|---------|-----|------------------------|
| | | | | | Rcvd. | Sent | Return | Forward | | |
| 02542 | | Precast Structures | | | | | | | | |
| 02542-SD-001 | 001 | Shop Drawings | SUB | | 7/29/03 | 7/31/03 | | ARCH | 5 | |
| 04060 | | Masonry Mortar | | | | | | | | |
| 04060-PS-001 | 001 | Mortar Mix Design/Reports, Man Cert: Mortar Mix Design | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 04060-PS-002 | 001 | Mortar Specs | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 04070 | | Masonry Grouts | | | | | | | | |
| 04070-CE-001 | 001 | Manuf. Certification/Test Reports: Manufacturers Certification | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 04080 | | Anchor & Tie Systems | | | | | | | | |
| 04080-PS-001 | 001 | Dur-o-Wal Anchor & Tie System Specs: Anchor & Tie System | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 04080-PS-002 | 001 | H & B Products Anchor & Tie System | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 04085 | | Joint Reinforcement | | | | | | | | |
| 04085-PS-001 | 001 | Joint Reinforcement Specs | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 04211 | | Brick Unit Masonry | | | | | | | | |
| 04211-CE-001 | 001 | Brick Unit Certification | SUB | | 7/17/03 | 7/21/03 | | ARCH | 15 | |
| 04211-TR-001 | 001 | Test Reports | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 04220 | | Concrete Unit Masonry | | | | | | | | |
| 04220-TR-001 | 001 | Concrete Block Testing/ Certificat.: Concrete Block Testing | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 04220-PS-001 | 001 | Concrete Unit Masonry Specs | SUB | | 7/17/03 | 7/21/03 | | ARCH | 15 | |
| 04930 | | Masonry Cleaning | | | | | | | | |
| 04930-PS-001 | 001 | Masonry Cleaning Specs: Masonry Cleaning Specs 600 Det, 1 | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 07211 | | Acoustical Insulation | | | | | | | | |
| 07211-PS-001 | 002 | Acoustical Insulation Specs | SUB | | 7/23/03 | 7/23/03 | | ARCH | 13 | |
| 07212 | | Thermal Batt Insulation | | | | | | | | |
| 07212-PS-001 | 002 | Thermal Batt Insulation Specs | SUB | | 7/23/03 | 7/23/03 | | ARCH | 13 | |
| 07213 | | Wall Thermal Insulation | | | | | | | | |
| 07213-PS-001 | 002 | Wall Thermal Insulation Specs | SUB | | 7/23/03 | 7/23/03 | | ARCH | 13 | |
| 07215 | | Cavity Wall Insulation | | | | | | | | |
| 07215-PS-003 | 001 | Cavity Wall Insulation Drywl: Cavity Wall Ins. Drywl | SUB | | 7/23/03 | 7/23/03 | | ARCH | 13 | |
| 07215-PS-001 | 001 | Cavity Wall Insulation Mason: Cavity Wall Installation Specs | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 07215-PS-005 | 001 | Foam Board Adhesive: PL300 Foam Board Adhesive | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 07650 | | Flexible Flashing | | | | | | | | |
| 07650-PS-001 | 001 | Flexible Flashing Specs | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 07811 | | Intumescent Mastic Fireproofing | | | | | | | | |
| 07811-PS-001 | 001 | Intum. Mastic Fireproofing Specs | SUB | | 8/1/03 | 8/4/03 | | ARCH | 1 | |
| 07900 | | Joint Sealers | | | | | | | | |
| 07900-PS-003 | 001 | Acoustical Joint Sealers Specs | SUB | | 7/23/03 | 7/23/03 | | ARCH | 13 | |
| 07900-PS-002 | 001 | Mason Joint Sealers | SUB | | 7/18/03 | 7/18/03 | | ARCH | 18 | |
| 08970 | | 4-Sided Structural Glazed Series | | | | | | | | |
| 08970-QA-001 | 001 | 4-Sided Structural Glazed Calcs | SUB | | 7/31/03 | 8/1/03 | | ARCH | 4 | |
| 08970-SD-001 | 001 | 4-Sided Structural Glazed Shops | SUB | | 7/31/03 | 8/1/03 | | ARCH | 4 | |
| 09910 | | Exterior Painting | | | | | | | | |
| 09910-PS-001 | 001 | Exterior Painting Specs | SUB | | 8/1/03 | 8/4/03 | | ARCH | 1 | |
| 09920 | | Interior Painting | | | | | | | | |
| 09920-PS-001 | 001 | Interior Painting Specs | SUB | | 8/1/03 | 8/4/03 | | ARCH | 1 | |
| 09920-SA-001 | 001 | Interior/Exterior Painting Samples: Interior Painting Samples | SUB | | 8/1/03 | 8/4/03 | | ARCH | 1 | |
| 10210 | | Fixed Metal Wall Louvers | | | | | | | | |
| 10210-SA-001 | 001 | Fixed Metal Louvers Color Samples: Fixed Metal Wall Louvers | SUB | | 6/23/03 | 6/25/03 | | ARCH | 41 | |

Submittal Log

Date: 8/5/03

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Mortenson Job No.: 031007

| Submittal | Rev. | Title | Status | Submittal Date | Current Dates | | | | BIC | Days Held By Architect |
|--------------|------|---|--------|----------------|---------------|---------|--------|---------|------|------------------------|
| | | | | | Rcvd. | Sent | Return | Forward | | |
| 10705 | | Sun Screens | | | | | | | | |
| 10705-SA-001 | 001 | Sun Screens Finish Colors | SUB | | 6/16/03 | 6/17/03 | | | ARCH | 49 |
| 10705-SA-002 | 001 | Sun Screens Powder Coat Finish Samp: Sun Screens Powder | SUB | | 6/16/03 | 6/17/03 | | | ARCH | 49 |
| 10705-SD-001 | 001 | Sun Screens Shops | SUB | | 6/16/03 | 6/17/03 | | | ARCH | 49 |
| 15030 | | Mechanical System Insulation | | | | | | | | |
| 15030-PS-001 | 002 | Mechanical System Insulation Specs | SUB | | 7/28/03 | 7/28/03 | | | ARCH | 8 |
| 15340 | | Laboratory Vacuum System | | | | | | | | |
| 15340-SD-002 | 001 | Laboratory Vacuum Systems | SUB | | 7/28/03 | 7/28/03 | | | ARCH | 8 |
| 15530 | | Piping Specialties | | | | | | | | |
| 15530-SD-001 | 002 | Steam Traps: Armstrong Steam Traps | SUB | | 8/4/03 | 8/5/03 | | | ARCH | 0 |
| 15902 | | Control Valves & Dampers | | | | | | | | |
| 15902-PS-001 | 001 | Control Valves & Damper Specs | SUB | | 7/11/03 | 7/28/03 | | | ARCH | 8 |
| 15904 | | Lab Temp & Airflow Control Systems | | | | | | | | |
| 15904-PS-001 | 001 | Lab Temp & Airflow Control Specs | SUB | | 7/28/03 | 7/28/03 | | | ARCH | 8 |
| 15910 | | | | | | | | | | |
| 15910-SD-001 | 001 | Temperature Controls Sequencing | SUB | | 8/4/03 | 8/4/03 | | | ARCH | 1 |
| 16084 | | Electrical Systems Firestopping | | | | | | | | |
| 16084-PS-001 | 001 | Electrical System Firestopping Spec | SUB | | 7/28/03 | 7/28/03 | | | ARCH | 8 |
| 16420 | | Secondary Unit Substations | | | | | | | | |
| 16420-SD-001 | 002 | Secondary Unit Substations | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16425 | | Switchboards | | | | | | | | |
| 16425-SD-001 | 002 | Switchboards | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16440 | | Disconnect Switches | | | | | | | | |
| 16440-SD-001 | 002 | Disconnect Switches | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16455 | | Busways | | | | | | | | |
| 16455-SD-001 | 002 | Busways | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16460 | | Dry Type Transformers | | | | | | | | |
| 16460-SD-001 | 002 | Dry Type Transformers | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16470 | | Panelboards | | | | | | | | |
| 16470-SD-001 | 002 | Panelboards | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16475 | | Distribution Panelboards | | | | | | | | |
| 16475-SD-001 | 002 | Distribution Panelboards | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16480 | | Motor Controllers and Contractors | | | | | | | | |
| 16480-SD-001 | 002 | Motor Controllers and Contractors | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16510 | | Lighting Fixtures | | | | | | | | |
| 16510-SD-002 | 001 | Lighting Fixture "G1" (Missed) | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16510-SD-003 | 001 | Linear Fixture Construction Dwgs | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |
| 16675 | | TVSS | | | | | | | | |
| 16675-SD-001 | 001 | TVSS System Shops | SUB | | 7/30/03 | 7/31/03 | | | ARCH | 5 |

Submittal's +21 Days: 4

UMD Science Building Project #031007
3 Week Schedule

| MORTENSON[®] | | August | | | | | | | | August | | | | | | | August | | | | | | |
|-------------------------------|------------------------------|--------|---|---|---|---|---|----|----|--------|----|----|----|----|----|----|--------|----|----|----|----|----|--|
| | | M | T | W | T | F | S | S | M | T | W | T | F | S | S | M | T | W | T | F | S | S | |
| Contractor Responsible | ACTIVITY | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | |
| | Area A | | | | | | | | | | | | | | | | | | | | | | |
| N. Erectors | Set str. Stl. - Upper levels | x | x | x | x | x | | | x | | | | | | | | | | | | | | |
| N. Erectors | Detail struct. Steel | | | x | x | x | | | x | x | x | x | | | | | | | | | | | |
| N. Erectors | Decking | | | | | | | | x | x | x | x | x | | | x | x | | | | | | |
| AGO | Underground plumbing | x | x | x | x | x | | | | | | | | | | | | | | | | | |
| API | Underground elect. | x | x | x | x | x | | | | | | | | | | | | | | | | | |
| Harbor City | Foundation walls | x | x | x | x | x | | | x | x | x | x | x | | | x | x | x | x | x | | | |
| Mortenson | SOG | x | x | p | x | x | | | x | p | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | Area B | | | | | | | | | | | | | | | | | | | | | | |
| N. Erectors | Set str. Stl. | | | | | | | | x | x | x | x | | | | x | | | | | | | |
| N. Erectors | Detail stl. | | | | | | | | | | x | x | | | | x | x | x | | | | | |
| N. Erectors | Decking | | | | | | | | | | | | | | | x | x | x | x | x | | | |
| AGO | Underground plumbing | x | x | x | x | x | | | x | x | x | | | | | | | | | | | | |
| API | Underground elect. | x | x | x | x | x | | | x | x | x | | | | | | | | | | | | |
| Mortenson | SOG | | | x | x | p | | | | | | x | x | | | x | p | | | | | | |
| Mortenson/Sowles | SOMD | | | | | | | | x | x | p | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | Area C | | | | | | | | | | | | | | | | | | | | | | |
| N. Erectors | Set str. Stl. | | | | | | | | x | x | x | x | x | | | | | | | | | | |
| N. Erectors | Detail stl. | | | | | | | | | | x | x | x | | | x | x | | | | | | |
| N. Erectors | Decking | | | | | | | | | | | | | | | x | x | x | x | x | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | Area D | | | | | | | | | | | | | | | | | | | | | | |
| Ulland Bros. | Exc.ftgs. & ductbank | | | | | | | | x | x | x | x | x | | | x | x | x | x | x | | | |
| Ulland Bros. | Install 6" waterline | | | | | | | | x | x | x | x | x | | | x | x | x | x | x | | | |
| Mortenson/ Sowles | FRP ftgs. | | | | | | | | | x | p | x | p | | | x | p | x | p | | | | |
| Mortenson/ Sowles | FRP walls | | | | | | | | | | | x | x | | | p | x | x | x | p | | | |
| Jamar/ Ulland | Waterproof-Backfill | | | | | | | | | | | | | | | | x | x | x | x | | | |
| N. Erect. | Set str. Stl. | | | | | | | | | | | | | | | | | | | | | | |
| N. Erect. | Detail str.stl. | | | | | | | | | | | | | | | | | | | | | | |
| N. Erect. | Decking | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | Cooling tower | | | | | | | | | | | | | | | | | | | | | | |
| Ulland Bros. | Exc. Ftgs. | x | x | x | x | x | | | | | | | | | | | | | | | | | |
| Mortenson/Sowles | FRP ftgs. | | x | p | x | p | | | | | | | | | | | | | | | | | |
| N. Erect. | Set str. Stl. | | | | | | | | x | x | x | | | | | | | | | | | | |
| Mortenson/Sowles | FRP walls | | | | | | | | | x | x | p | x | | | x | p | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

Brenda Abrahamson

From: Joy [jmichali@d.umn.edu]
Sent: Wednesday, August 06, 2003 4:20 PM
To: umd.business.announce@d.umn.edu
Subject: Swenson Science Building Update - August 6, 2003

IMPORTANT! This message has been blind-carbon-copied to you.
Do not reply-to-all or forward it without the author's permission.

DATE: August 6, 2003

TO: UMD Campus Community

FROM: Greg Ewald, Project Manager

RE: James I. Swenson Science Building

Lot W is now completely closed.

Kirby Drive from College Street to the Kirby Bus turn around is also now closed to thru traffic but will remain accessible for emergency and construction usage only.

A power-operated door has been installed at the south end of Marshall W. Alworth Hall to complete the accessible route.

The exit from the Kirby Loading Dock has been closed to routine thru traffic, but remains accessible as an "emergency exit" only. Exiting from the Kirby Loading Dock will be by means of utilizing the current entrance. Stop and go lights have been installed to allow two-way traffic. Please notify any personnel/vendors using this facility of these changes.

During the week of August 11, contractors will continue erosion and sediment control, excavation, foundation and grade wall work, site utilities, below grade waterproofing, backfilling and drain tile. Structural steel, decking, and concrete slabs will continue in both research and academic areas. Should you need any additional clarification or have special needs, please call Facilities Management at X8262 or Greg Ewald at X8274.

Thank you again for your patience and understanding during the construction process.

To view the construction site, please follow this URL to the project web cam <http://labscicam.d.umn.edu/axis-cgi/jpg/image.cgi?resolution=704x480>

Joy M
Facilities Management
Extension 8244
Have an awesome day!



July 30, 2003

FIELD TRIP MEMORANDUM

To: Brian Morse - Stanius Johnson Architects

Project: James I. Swenson Laboratory Science Building - UMD
UM project number: 581-98-1221
Duluth, Minnesota

Representative Contacted: Mike Pierson - Mortenson

Date of Field Trip: July 29, 2003

Written By: Paul A. Johnson, P.E.

A site visit was made to review the progress of construction. The following summarizes our observations and the items discussed with the project representative:

1. Structural steel and floor deck was erected to the second floor level (tier 1) at area A. Steel erection was underway at area B and was nearly complete to the second floor between grids 1 and 8. Deck had not yet been permanently placed and fastened at area B. Pierson noted that placement of first floor concrete in area A was scheduled for Friday August 1.
2. Reinforcing steel placement in area A at the first floor was not complete at the time of this visit. However, it was noted that top reinforcing steel over all girders 16" and deeper (reference detail C2/S701) was placed approximately 1 1/8" low. The scheduled reinforcing steel had been placed beneath the support bar, rather than above the support bar as detailed. It was agreed that the contractor had the option to revise all conditions to the specified detail, but was required to do so only over the 21" deep beams on grids 16 and 17 between grids E and F. Furthermore, it was agreed that all future reinforcing steel would be placed as indicated on approved shop drawings (top steel placed over the support bar with approximately 1" cover). It was observed that reinforcing steel mesh was supplied in flat sheets. The contractor is reminded to place and support the reinforcing steel mesh in accordance with detail C1/S701.
3. It was agreed that a construction joint would be placed north of grid D near mid span of adjacent purlins. All reinforcing steel present at the construction joint shall continue through the joint. No additional dowels are required.
4. Details related to PR-#12 and ASI-#14 (FS-4 through FS-6) were reviewed in place. The following items were noted:
 - 4.1. The exterior 5" deep channel required approximately 1/2" shim from the face of column (it apparently could not be placed tight to the column flange as intended). The shim material appears to be less than 1" wide at each flange of the channel. The shim is not adequately sized to transfer the forces in the specified welds.

Field Trip Memorandum

James I. Swenson Laboratory Science Building - UMD

UM project number: 581-98-1221

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- 4.2. The interior 8” deep channel was cut at grid 16 to permit the scheduled beam to connect to the column (the beam was inadvertently omitted from details FS-4 and FS-6). The channels lap the column flange approximately 1” on each side of the beam connection and are welded (vertically) across the channel ends to the column flange. This connection does not adequately transfer the forces within the specified connection.
- 4.3. Possible solutions to the conditions outlined in items 4.1 and 4.2 above were discussed. It was agreed that since the column pocket will be filled solid with concrete, transfer of the bracing forces will occur into the slab diaphragm regardless of the capacity of the “steel strap” connections each side of the column. Accordingly, it was agreed that transfer of forces from the diaphragm into the foundation walls would be accomplished as follows:
 - 4.3.1. Add headed shear studs through the metal deck to the top flange of the interior C8 at 24” on center along its entire length.
 - 4.3.2. Place 6-#4 additional slab bars at 3” on center (as close to the top of the slab as permitted by the remainder of the specified reinforcing steel) parallel to and immediately adjacent to grid L. Extend the additional reinforcing from near grid 15 to approximately four feet beyond the east end of the retaining wall. Bars are intended to be continuous but may be lapped 24”(staggered) if full-length bars are unavailable.
5. Washer bars are required at all braced frame diagonal connections adjacent to column bases and at columns along the retaining wall (grids C and 15) in accordance with approved shop drawings and detail A2/S401. No washer bars were observed at in-place columns although column base plates in area A had been grouted. It was agreed the specified washer bars would be added before the adjacent slab on grade is placed.
6. The contractor was reminded to coordinate the following items with the testing agency:
 - 6.1. Verification and documentation of size, quality and quantity of field welds at braced frame diagonal connections.
 - 6.2. Headed shear stud quantity, location and connection quality (a number of studs were observed bent over consistent with standard shear stud testing procedure).
 - 6.3. Review of field welds at the moment connections on the second floor adjacent to grid 17 between grids D and E.

These notes reflect the writer’s observations and understanding of the items discussed. Please notify MBJ (in writing) if there are exceptions with any item and if clarification or additional information is required.

PAJ/

Email Cc: Dan Murphy - Meyer, Borgman and Johnson, Inc. (Minneapolis)
Mike Pierson – Mortenson