

General Description:

- **Location:**
Petoskey, MI
- **Profile:**
Hospital
- **Project:**
Platinum ProgramSM -
Exterior masonry restoration

Services Provided:

- **Platinum Program**SM
- **StructureScan**TM
- Construction Management

Challenge:

- Avoiding disruption to Hospital operations
- Expensive equipment below work area
- Providing sheet metal through wall flashing

Solution:

- Netting and debris control measures
- Increased communication
- Scheduling sensitivity

Northern Michigan Hospital

Northern Michigan Hospital is a state-of-the-art medical facility located near the picturesque shores of little Traverse Bay. Years of warm summers and harsh winters in this area took a toll on the outside of the



*Corroded lintels observed and detected during a **StructureScan**TM survey*

the buildings facade. Further investigation showed this was attributed to an additive in the mortar, which was degrading the steel joint reinforcement. A full building survey was conducted at NMH, which showed that the additive was contained in only one building. However, a number of other deficiencies, such as, corroded lintels, deteriorated sealants, damaged masonry, etc., were identified.

hospital facility, and they decided to work with a consultant to provide solutions.

StructureTec was on-site providing a **StructureScan**TM Survey at the Northern Michigan Hospital, when some deterioration of the building envelope was observed. Additional interviews with the Client provided information about an adjoined building that had experienced failure of sloped masonry sills, where brick had actually fallen from

As is typical when performing work at a hospital; additional



Sheet metal used to conform to the curvature of the masonry



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attention must be paid in order to avoid any disruption during the client's operations. The first phase was conducted directly over the emergency room and survey wing. The second phase was performed at the exterior walls of the child delivery rooms. Additionally, mobile MRI and PET scanners were frequently placed directly below work areas, and a main hospital entrance was also present below the work area. Technical challenges included providing sheet metal-through wall flashing to conform to the curvature of the masonry.

As a solution to these challenges, during the first phase, additional netting and debris control measures were provided at the staging to prevent materials from falling and impact-

ing the surgery wing roof. Increased communication was required during the second phase in order to coordinate with the hospital staff. The work crews were thus notified if a delivery room was to be occupied at which point they would relocate to an adjacent area. Sensitivity was also required with scheduling staging areas around delivery of MRI and PET scanners below. Surprisingly, during the second phase of restoration, the Birthing Center was awarded a 100% Guest Satisfaction award. They, in turn, presented it to the Physical Plant because of their sensitivity to patient comfort and privacy. The Northern Michigan Hospital Physical Plant attributed much of this success to the overall project management process. ■



Overview of building envelope post construction

FEATURES	BENEFITS
Scientific approach to problem solving	Eliminated the cause of the problem not just effect
<i>StructureScan</i> TM Survey	Depicts substrata conditions not visible to the eye
Netting and Debris control measures	Prevents materials from impacting area below
Increased communication	Allows for coordination with staff
Platinum Program SM	Ensures a total quality process providing a "turn key" solution with one point of contact

Total Building Envelope Management SolutionSM

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