Minnesota State Capitol Repairs, Restoration & Preservation
Work Package 2 and 2A Summary

Summary:
Work package 2 & 2A for the MN State Capitol project includes the following major work components.

- Underground mechanical, electrical & plumbing infrastructure work, which includes:
  - Removal of the existing concrete slab on grade.
  - 6’-8’ deep excavation trenches and, soil hauled off-site.
  - Underpinning of existing foundations to avoid settlement.
  - Installation of new underground ductwork, plumbing and electrical conduit.
  - Backfill and compact trenches with new soil and/or flow-able fill.
  - Installation of new concrete slab on grade and concrete curbs.
- Removal of existing roofing and installation of new roofing.
- Assessment of skylights for future repairs.
- Procurement of new mechanical air handlers and electrical switch gear (WP 2A) for installation at a later date (these items have long lead times).

Underground Mechanical, Electrical & Plumbing Work
WP-2 & 2A represents the next steps in providing the Capitol with new mechanical and electrical systems, while providing usable square footage in the basement. Existing mechanical ductwork and piping systems in the basement that have been installed overhead will be removed and new systems reinstalled underground. This provides square footage in the basement for offices or other functions.

The process of installing mechanical, electrical & plumbing infrastructure underneath the existing Capitol is very slow in nature, and quite complicated. JE Dunn will be working closely with geotechnical and structural engineers to maintain the structural integrity of the 100+ year old structural foundations. The excavation and underpinning work must be phased and balanced in order to spread out the disturbance impact to the existing structure in any given area. Soil borings have been taken and we can expect soil conditions to be quite consistent, however it is unknown how the soils will react to the work as we get started. We estimate that it will take more than a year to accomplish this work.
We expect to have (on average) 40-50 construction workers in the basement on any given day. Despite extraordinary efforts to minimize impacts to building occupants, it is important to understand the magnitude and complexity of this work. Our work will generally progress during normal business hours, and basement will look, feel, and sound like a major jobsite. Monitoring of air quality and vibration will be ongoing throughout the project. Parking lots O, N are closed and Aurora Ave will be closed in June for construction except for temporary ADA parking along Aurora Ave.

The underground work will start in early February beginning with concrete slab cutting and removal. This work will be phases just ahead of the actual trench excavation and underpinning. Equipment used in this work will include:

- Concrete saws
- Small backhoes and excavators
- Jackhammers and hammer drills
- Buggies and conveyors to transport soils

In addition to the East stairway leading to the basement, we will use a temporary ramp/opening at the southeast corner of the building to feed materials in and out. Bobcats will be used to transport material from this temporary ramp/opening to waiting dump trucks along Cedar Ave near the East entrance. The sidewalk on the Capitol side of Cedar will be closed for this purpose.

Corridor access through the basement will be available during construction. The route of this corridor will change often as the work progresses. Signage will clearly direct occupants and temporary plywood walls will separate occupants from the construction. Circulation to and from the basement to upper floors will be available at the stairs near the Rathscaller.

**Roof Replacement:**
Work will include removal and replacement of the existing flat/paver roof systems, restoration of existing copper roofs, restoring balconies, loggias and quadrigga. This work will begin in July of 2014 and be completed in two phases. Phase I (starting July 2014) includes the East roof. Prior to this roof phase, abatement of hazardous materials will occur in the East roof crawl space. Phase two (starting in June 2015) include the West and North sections of the roof.

The work includes complete removal of all existing flat roofing layers down to the original concrete roof deck, and replacement with new. There are several existing roof layers that will be removed. Existing cooper roofing and flashing systems will be repaired and replaced as
needed. Work at balconies, loggias and the quadrigga includes new waterproofing and installation of new wear surfaces and drain repair.

The roofing and waterproofing systems are hot applied (tar) products. While we intend to use smaller tar-pots to minimize odors, the wind will dictate odor migration. Air intakes at the roof will also be covered with filters to minimize odor.

The Capitol Repairs, Restoration, and Preservation project is quite comprehensive and will be disruptive to building tenants. We will attempt to employ all reasonable measures to minimize disruptions to building occupants and visitors during construction, and we welcome your feedback to make the experience more enjoyable.

Sincerely,

Your JE Dunn Construction Team