



OKLAHOMA STATE CAPITOL RESTORATION

*Exterior Rehabilitation*

EXTERIOR DESIGN BUILD TEAM | JE DUNN | TREANOR ARCHITECTS | ADG

AUGUST 2016

15039DB MONTHLY CONSTRUCTION PROGRESS REPORT



# Contents

- 1 Summary & Key Activities
- 2 Safety
- 3 Scope of the Work



## SUMMARY

Long anticipated, the construction process is getting into full swing. August 2016 is our second month of construction and several activities are beginning to take place. On the west face of the north wing, scaffolding has been fully erected. Designed to exceed safety standards, our scaffolding will be fully covered, heated and cooled to provide a temperature controlled environment which is required for the repair materials and methods. It also creates both a more comfortable and safe working environment, as well as removing the impact of adverse weather conditions. In an effort to minimize the effects of our rehabilitation process, temporary wall partitions have also been installed in the rooms and offices that are receiving restored windows on North Wing West Elevation. Along with sound attenuation and dust reduction, some of these structures have been built with windows to allow occupants some of the natural light they are accustomed to. The removal of hazardous material has been completed by the State on phase one of the project, which paves the way for the restoration crews to begin the removal and revitalization of the Capitol windows.

Further, the process of providing electricity required to power construction equipment, heating and cooling units, and job site trailers has begun as well. In order to reduce visual obstruction, the electrical lines will be routed through underground boring. This process will safely route all of the electrical lines underground, while also maintaining the beauty of the Capitol campus.

## KEY ACTIVITIES

- Photographic drone documentation of existing Capitol conditions captured
- Completion of the first phase of scaffolding
- Interior partitions installed
- Installation of electrical power lines underground
- Hazardous material removed from the exterior of the NWE phase
- Beginning restoration process for the first phase of windows



## SAFETY

The safety of our workforce and the general public during the course of construction is the most important thing we must deliver. To that end, every craftsmen involved with the project receives a detailed project orientation, and prior to performing any task the teams develop detailed task specific work plans.

### *Data and Metrics*

Orientations Performed thru August 31, 2016	<b>66</b>
First Aid incidents Experienced	<b>0</b>
OSHA Recordable Incidents	<b>0</b>



Detailed Scaffold Training performed for the State on 08/23/16



AUGUST 2016



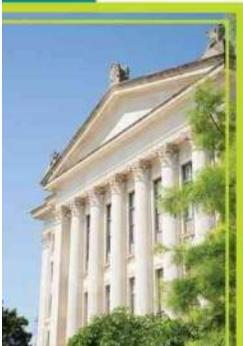
*Exterior Rehabilitation*

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DRONE PHOTOS OF EXISTING CONDITIONS 07.19.16



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## SCAFFOLD SYSTEM

A sophisticated and complex restoration and renovation process requires sophisticated tools and resources. The scaffold system that has been erected at the State Capitol of Oklahoma is not like typical scaffold structures. Below you will find a few facts that are instrumental in the success of the exterior restoration.

- Climate controlled scaffold system
- Scaffold system was utilized on other historical projects such as the Kansas State House
- State of the art design to optimize a workers ability to work safely



## WINDOW RESTORATION

A major portion of the renovation of the Oklahoma State Capitol includes restoring the existing cast iron and hollow metal frame windows. This process will include removing each window and the respective trim pieces and restoring each assembly at an off site location. We will also be replacing the existing storm windows with custom storm windows.

Due to the long lead times associated with conventional storm window models available from traditional storm window manufacturers, our trade partner Re-View has completed a custom interior storm window using technology from RapidPSI to create 3D profiles. The following prototypes are exact replicas constructed of polycarbonate in order to gain the proper submittal approvals prior to extruding custom aluminum profiles. Utilizing the 3D printed materials not only reduces the standard lead time of aluminum samples from 8 weeks to 5 days, but it is also a cost savings for the project.

### KEY FACTS

- Typical lead time of conventional storm windows is 10-12 weeks
- Custom window design will use 125% more aluminum than conventional storm windows to provide additional structural support



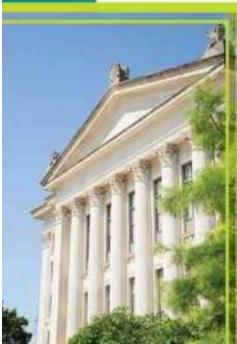
*Interior surface of the assembled mock up.*



*These 3 profiles are used as the stile, bottom rail, and intermediate rail of the storm window. The extrusions are custom dimensions to match the Oklahoma State Capitol project and have been enhanced with additional aluminum for structural support given the size of many of the Capitol windows. The mock up is made of 3-D printed materials*



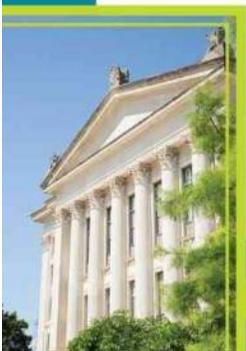
*Exterior surface of the assembled mock up with magnet strips for attachment to the steel window system.*





## PROGRESS PHOTOS

The photos attached in the subsequent pages were taken during the exterior team's mobilization onto the State Capitol of Oklahoma project site and also depict the beginning stages of the window restoration.





Gravel installation - looking west at east elevation of north wing



Gravel installation - looking west at north entrance of north wing



# ADG



Gravel installation - looking south at north elevation of west wing



Fence installation - looking southwest



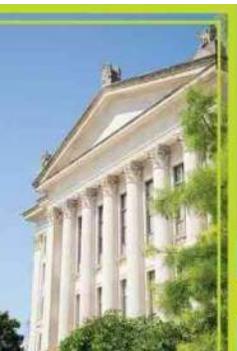
# ADG



Fence installation - looking south



Fence installation - looking southeast





Scaffold installation on west elevation of north wing

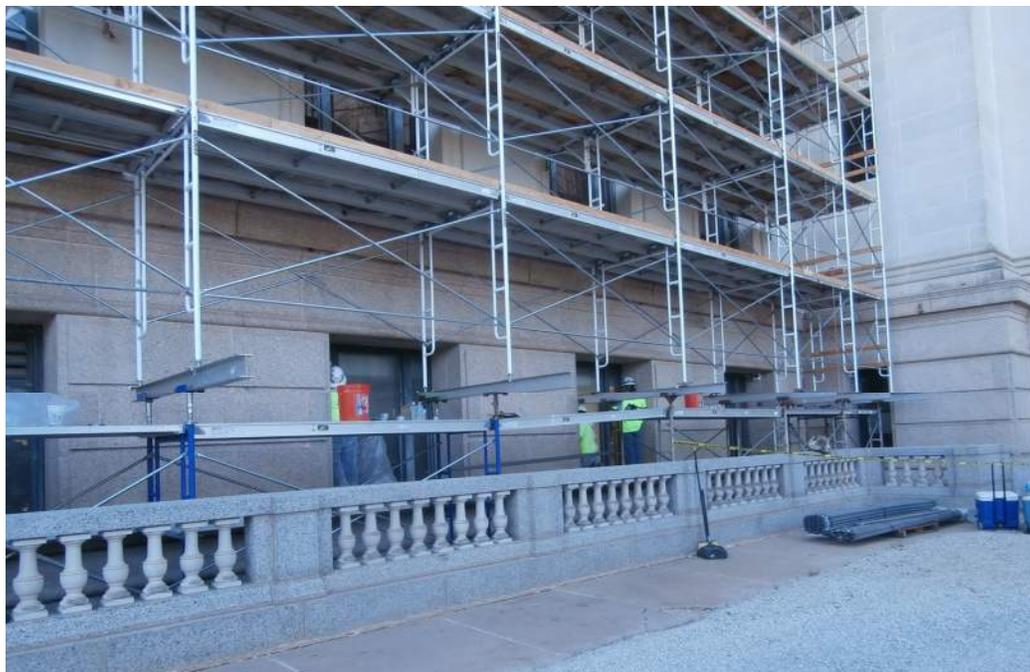


Scaffold installation on west elevation of north wing





Sidewalk closed sign at west wing sidewalk



Hazardous abatement - looking east at west elevation of north wing





Hazardous abatement of sealant at window 264



Hazardous abatement of fasteners at window 458





Hazardous abatement of fasteners at window 458



Paint strip testing of cast iron at window 264



# ADG



Scaffold installation progressing on north elevation of north wing



Scaffold installation progressing on north elevation of north wing





Window removal progressing on west elevation of north wing



Window labeling on west elevation of north wing





Cast iron removal in progress at window 546



Existing conditions behind cast iron at window 546





Cast iron removal in progress at window 546



Existing conditions behind cast iron at window 546

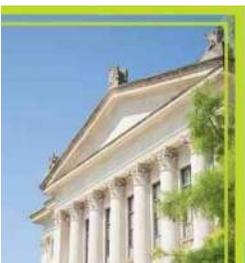




Existing conditions behind cast iron at window 546



Existing cast iron pieces removed from window 546



# ADG



Existing sash pieces removed from window 546



Existing sash piece removed from window 546





Concrete box installation protecting fire hydrant



Scaffold installation progressing on north elevation of north wing



# ADG



Scaffold installation in progress on north elevation of north wing



Interior partition installation progressing on west elevation of north wing



# ADG



Fastener removal progressing at cast iron on west elevation of north wing

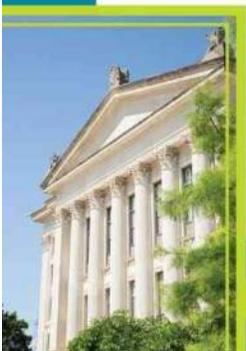




## PHASING & SCHEDULE ATTACHMENTS

The following documents are included in the subsequent attachments:

- Site phasing plan
- Site utilization plan
- Eight (8) week look ahead schedule
- Summary Schedule



JED Trailer Compound

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LIMA

DELTA

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JULIETTE

FOXTROT

TUNNEL (will continue across Lincoln)

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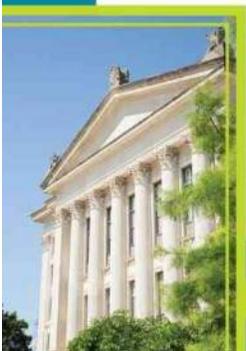
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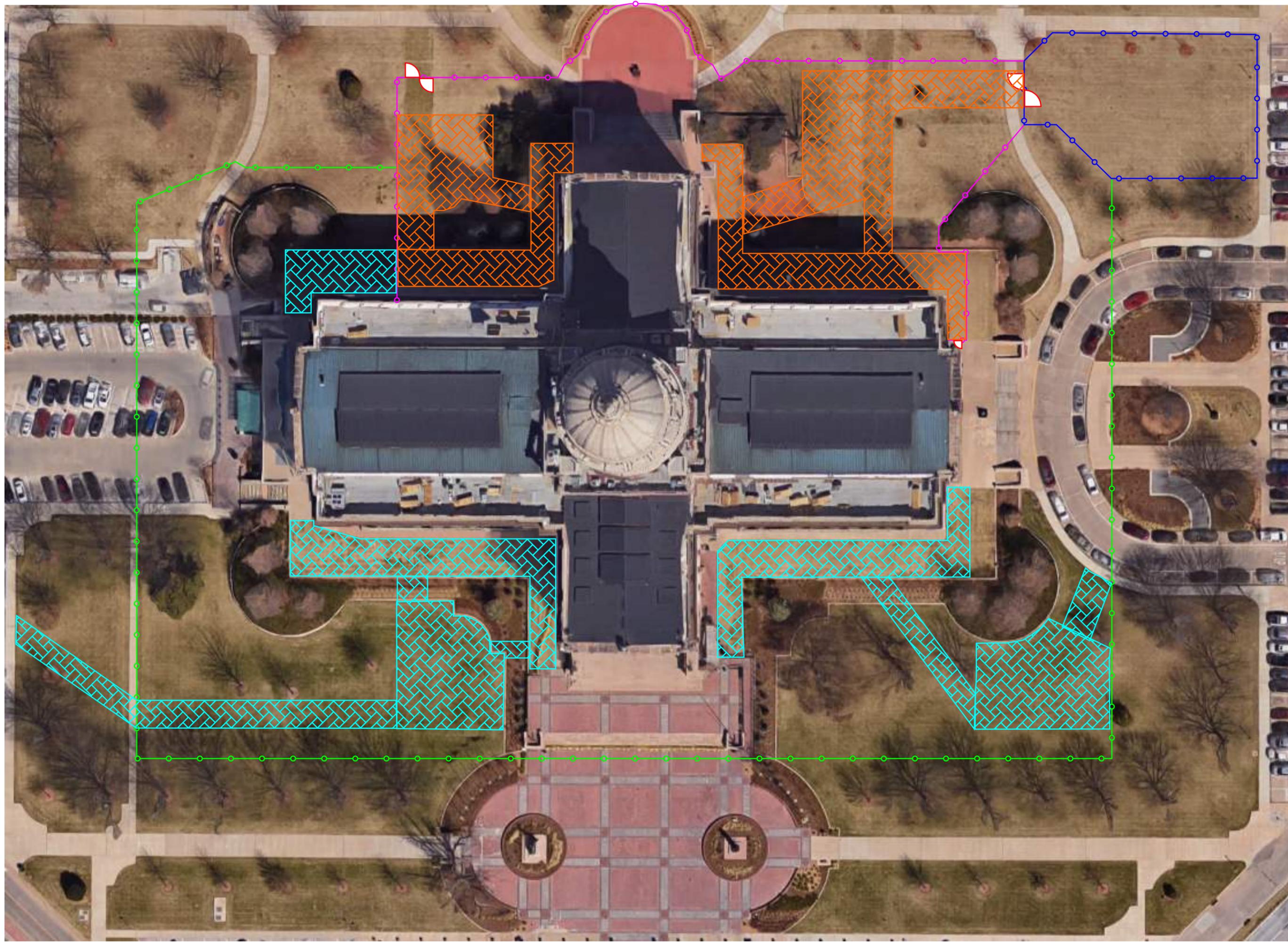
HOTEL



## SITE PHASING PLAN DESCRIPTION

The site phasing plan is a broad representation of the work flow for the capitol exterior rehabilitation. Beginning with ALPHA (west elevation of the north face), scaffolding has been constructed. We construct two phases of scaffolding at a time, which is followed by hazardous material removal, window restoration, and stone and lighting repair. As each phase is completed, the scaffolding will be disassembled and reassembled on the subsequent phases. This site phasing will occur for the duration of the rehabilitation until all work is complete, and the State's Capitol is back to its original beauty and functionality.





**Legend:**

- JED Trailer Compound
- Phase 1 Site Fencing
- Gravel laydown
- Fence gate
- Future phases site fencing
- Future phases gravel laydown

**Project:**  
Oklahoma State Capitol Rehabilitation

**Date:**  
08.22.2016

**Drawing:**  
Site Utilization Plan



## SITE UTILIZATION PLAN KEY

Per our site utilization plan, the JE Dunn trailer compound is the designated area for our staff members, trade partners, and material storage areas. It currently houses four field offices.  

Our site fencing is a revolving system that isolates our work area from the public as we move around the Capitol building, helping to ensure a safe work environment. 

The gravel lay-down areas are designated paths where machinery, supplies, and equipment are stored and provide a roadway for machinery to move supplies to and from the job site. The gravel will also serve as a protective barrier of the subsurface.  

Fence gates mark all areas where access can be gained to the job site for material and/or equipment deliveries, emergency access, or personnel access. These gates remain closed and are locked every night to ensure a safe work environment. 

