

Gopuram Status Report

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Issue

- Gopuram Construction Setback
- Extent of Damage
- Cause
- Remediation





Current Status

- Ornate Indian Decoration (Medallions) coming apart
 - Material Disintegration
 - Big Pieces Getting Unglued
- Material used
 - GFRC (Glass Fiber Reinforced Concrete)
 - Strength, Durability, Load Bearing Capacity, *Light Weight*
 - *Maybe not moldable easily?*
 - Mortar (Cement + Sand)
 - Cement
 - Gold Paint
- Noticed May 2014



Extent of Damage

- No Structural Issues
- Gopuram Construction
 - Steel Frame
 - Plywood Interior
 - Bulk Construction using GFRC
 - Big & Small Medallions attached*
- Roof Floor is Thick Membrane (Falling debris could puncture it)



Causes

- Material not suitable for exterior
- Improper Curing
- Ratio
- Improper Installation
 - Bonding Agent
 - Screw Anchor Not Secure
 - No Caulking
- Water Damage (Freeze/Expand)
- Interior Paint
- Staphis Lack Technical Knowledge
- Exterior Elements Unique to The Rocky Mountain Region
 - Lack of Humidity, UV, Hail



Collective Opinion of

- The Architect
- Construction Company Reps (Waner)
- Material Supplier (Two Sisters, Colorado Springs)
- Stapathis (1-hour Audio Interview with Mr. Rama Rao)
- EC Committee Members and others



Looking Ahead

- Remove all loosely attached pieces
- Create new forms
- Create new medallions
 - Use Correct material
 - Proper Curing
 - Attach Correctly
- Strip and Repaint
- Spring/Summer 2015 Timeframe



Video of Damage

- Warning (contains graphic content)

<https://drive.google.com/file/d/oB1Ejl8oGweXXaoVCZjItM2swaWs/edit>

