

ITEM B



# Green Build Challenges

December 1, 2011



## ➤ **Past Challenges**

- Administrative
- Operational
- Third Party
- Construction

## ➤ **Future Challenges**

- Staff
- Revenue Generation
- Budget/Schedule



# Administrative Challenges

- Terminal and Landside designs to achieve Board goal of LEED Silver certification
- A strategy to transition from a progressive GMP to four conventional GMPs
- A plan to ensure each JV had:
  - A robust and rigorously enforced safety program
  - A qualified and autonomous QA /QC staff (i.e. independent of the production team) to oversee and guarantee quality
  - An independent commissioning agent



# Administrative Challenges

- A Terminal and Landside phasing plan that would permit the facilities to be activated in mid-2013
- Integration of the Contract 1 & 2 baseline schedules
- Development of a timely payment process for GMP invoices
- Timely responses to multiple audits
- Incorporation of audit recommendations into work flow processes



# Terminal 2W Operational Challenges

- Maintenance of passenger operations and a high level of customer service in the existing terminals while:
  - Adding new holdrooms and jet gates on the west side of the existing T2W concourse
  - Upgrading existing T2W concourse finishes
  - Implementing the new Concessions Program
- Develop a schedule to permit a mid-2013 opening
- Satisfy stakeholder requirements, e.g. SASS, BMS and CMMS



# Landside Operational Challenges

- Maintenance of vehicle operations while developing a new upper level roadway
- Maintenance of passenger operations in Baggage Claim and at the Ground Transit Island while driving piles and drilling caissons
- Development of a schedule to support the mid-2013 opening of the expanded T2W
- Avoid service damage - numerous underground utilities



# Third Party Challenges

- Multiple SDG&E gas line relocations
- City of San Diego water and sewer line permits
- AT&T phone lines



# Construction Challenges - Examples

## Structures Below Ground:

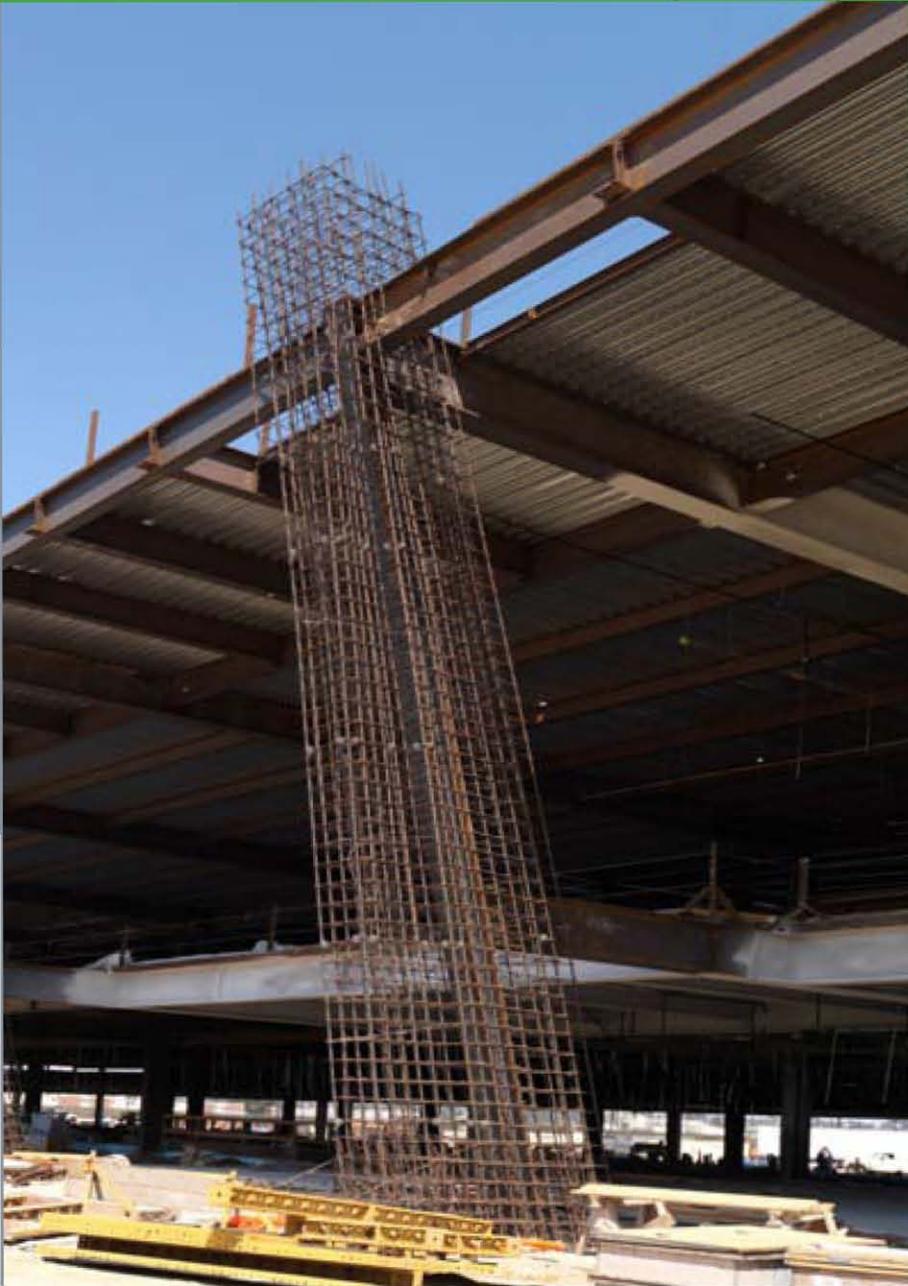
- Earthen wall collapsed while drilling 7' diameter x 105' deep caisson for Elevated Departures Roadway Bent 13N

## Structures Above Ground:

- 180 structural steel tie-ins/penetrations to existing roof/structure
- Concrete finish on first inclined column (discolored & “marbled”)
- Lightweight “Cell-Crete” roof on Sunset Cove (removed/replaced)
- Aircraft apron concrete panels (Twenty-three 20' x 20' panels removed due to unacceptable cracking. Switched to a night time operation to avoid problems with wind and sun.)



# Inclined Column





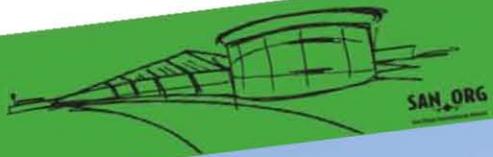
## BEFORE



## AFTER



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# Inclined Column



San Diego International Airport

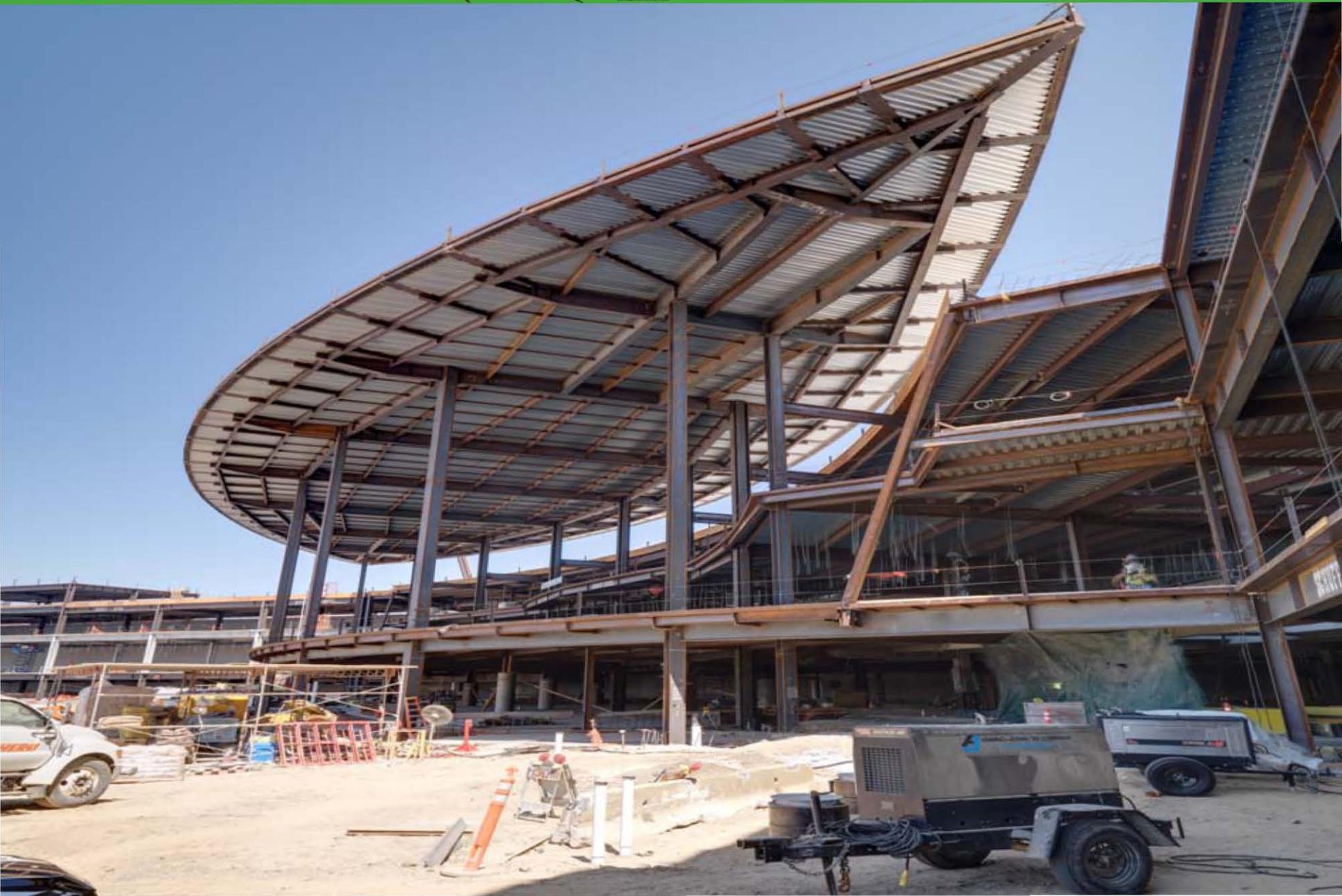
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# Sunset Cove Roof



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# Sunset Cove Roof





**BEFORE**

09.09.2011



**AFTER**

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# Aircraft Apron





# Future Program Challenges



## Audit Readiness

ARRA (BHS), FAA (Apron) & PFCs (Eligible Terminal Areas)



# Future Program Challenges

Contractor interactions/conflicts during the 2013 roll-out of the new concession venues:

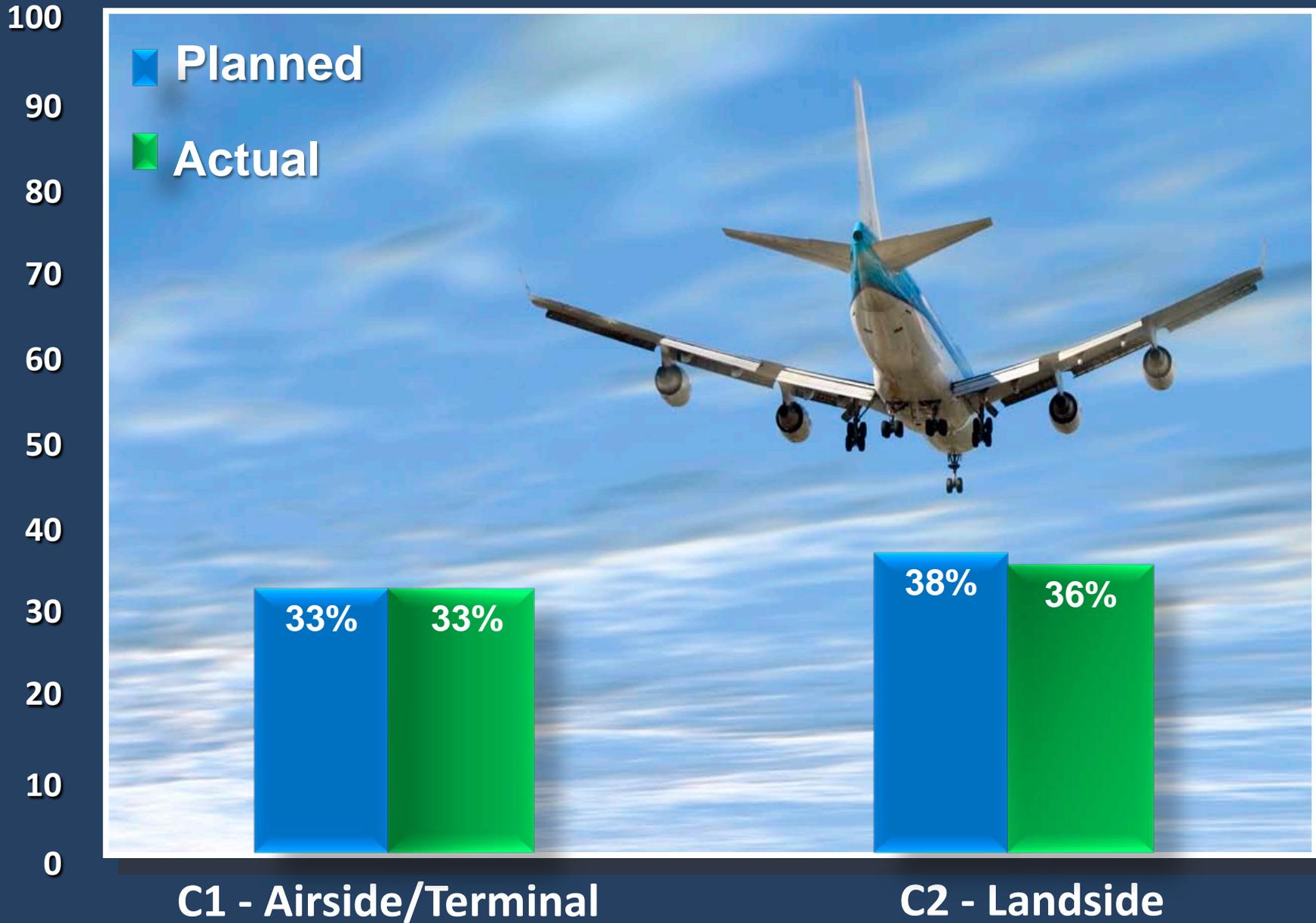
- Retaining key staff - Turner/PCL/Flatiron, Kiewit/Sundt and AECOM
- Income generating use of the Sunset Cove mezzanine space, e.g. airline clubs

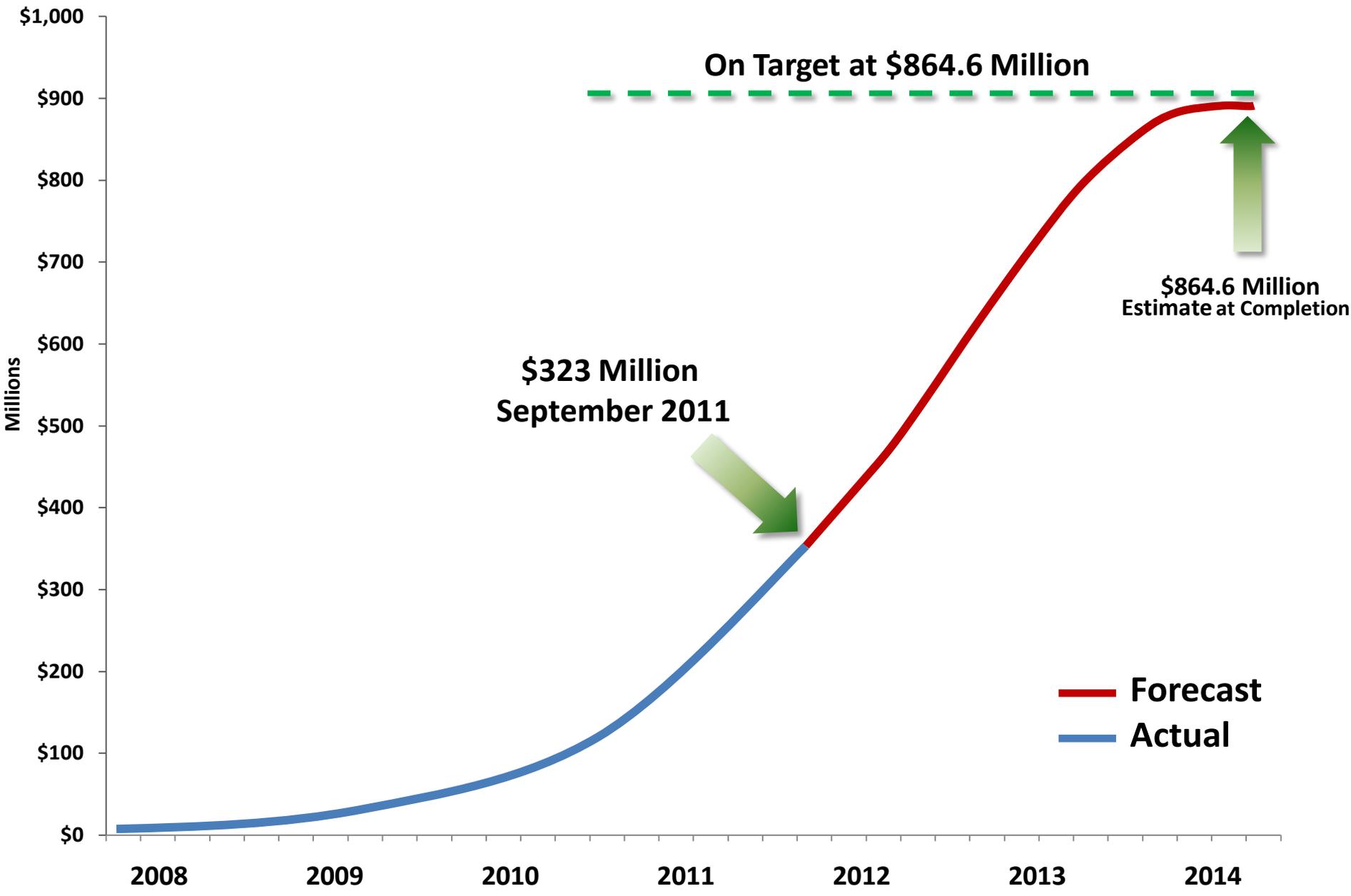


# Future Program Challenges

Budget performance against all four GMPs:

- Schedule performance against all four GMPs, especially the phased T2W schedule
- Budget/schedule indicators to monitor
  - Contractor billings vs. Cost Curve
  - Utilization of reserve funds
  - Scope Growth





**On Target at \$864.6 Million**

**\$323 Million  
September 2011**

**\$864.6 Million  
Estimate at Completion**

**Forecast**  
**Actual**





# Each GMP Includes:

Previously executed Task & Work Authorizations

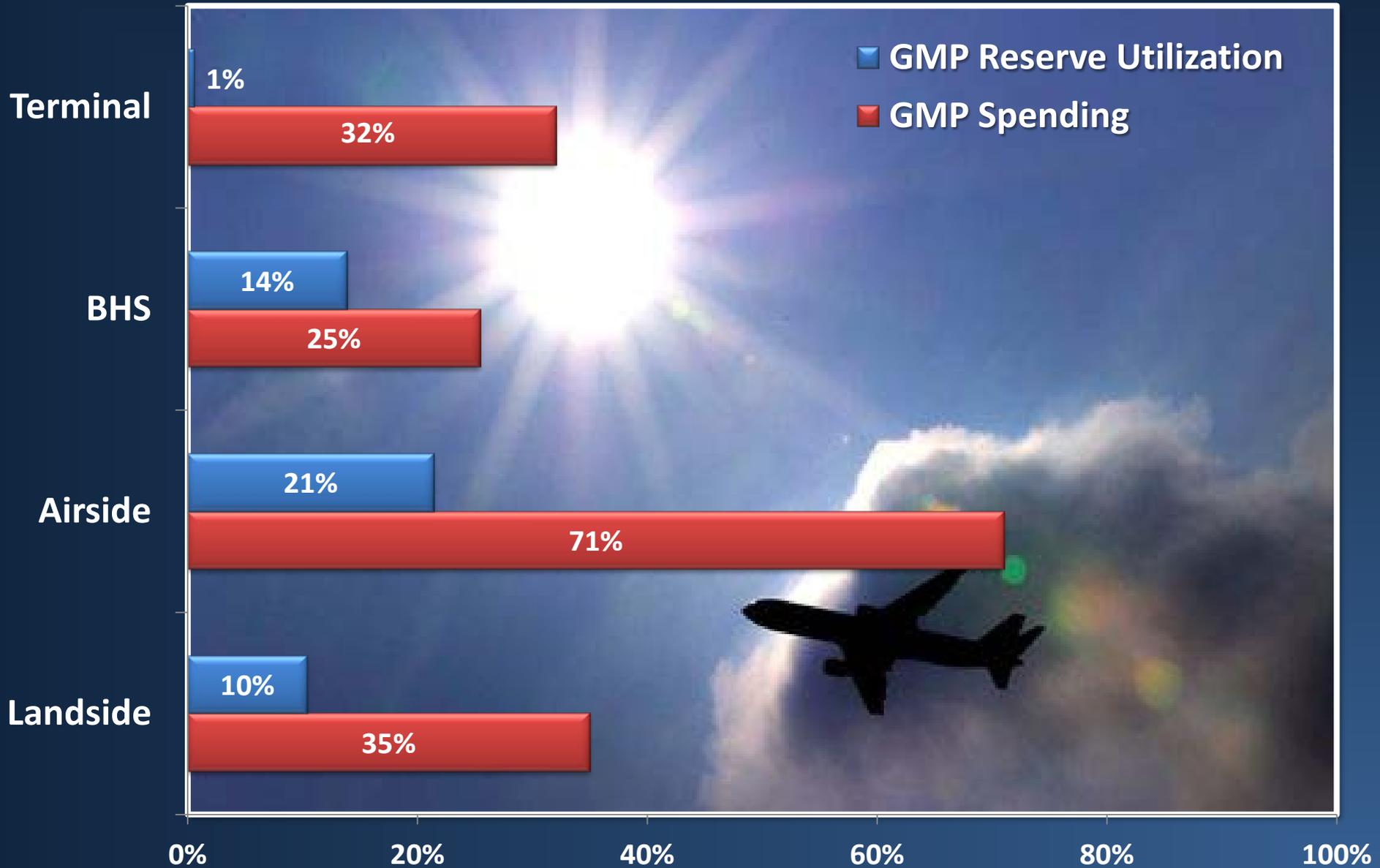
Previously bid, but not yet contracted work

## GMP Reserve Funds

- Negotiated values set aside for anticipated scope
- Negotiated values reserved for unforeseen work scope
- Allowances for Owner scope such as furniture, fixtures, equipment and finishes



# GMP Reserve Utilization



# Grand Opening – Early August 2013



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