Overhead Contact System


Daniel Weaver & Raj Prajapati
Foothills and Expo II Projects
Foothills Project Map

- $486 Million Design-Build Project
- 11.4 miles, 24 acre M&O Facility, 6 stations
- Design & procurement under way
- Current operations: Utility investigation / Survey

- Interim NTP on 11/3/11
- Substantial Completion 9/2015 (1420 CD)
- Mobilize to Project Office in Azusa on 12/5/12
**Foothills Mainline Job Overview**

**Design Build Joint Venture Partners:**
- **Designer:** Parsons Transportation Group
- **Civil / Structures / Track:** Kiewit Southern California & Southwest Districts
- **Systems Installer:** Mass Electric Transportation District

**Foothills Contract Value**
- Foothills Original Contract Value: $485,867,000
- Systems Portion of the Work: $111,231,952

**MEC Scope**
- OCS, TPSS, Train Control, Communications, Traffic Signals, Ductbank
**Major OCS Vendors:**

1. Siemens – OCS Hardware

2. Millerbernd Manufacturing – OCS Poles

3. Filnor Inc. - Pole Mounted Disconnect Switches, 16 Bank M&O Pad Mounted Disconnect Switch, DC Switchboard, M&O Power and Indication Control Cabinets

4. BBRI – Traction Power Substations (Supplied by METRO)

**Major Train Control and Communications Vendor**

1. B&C Transit
Foothills Mainline Overview

1. 11.4 miles of double track light rail system from Pasadena to Azusa
2. 392 Tapered Tubular OCS Poles
3. 707 Cantilevers
4. 38,878 LF Parallel Feeder
5. 143,727 LF Messenger and Contact Wire
6. 10 Traction Power Substations
7. 3.1 Mile Shared Freight Corridor
1. 210 Tapered Tubular OCS Poles
2. 227 Cantilevers
3. 41 Headspans
4. 31,685 LF Contact Wire
SMV Cutover
SMV Cutover
Stringing Parallel Feeder
Expo II Project Overview

**Systems Contract Value**
$112,605,659

**MEC Scope**
Install OCS, TPSS, Train Control, Communications Systems

- **OCS Overview**
  - 1. 6.6 Miles Double Track OCS
  - 2. Low Profile System
  - 3. 325 Tapered Tubular OCS Poles
  - 4. 622 Cantilevers
  - 5. 7 Traction Power Substations
Expo II Project Overview

Design Build Partners:
Contract Model: Design Build
Prime Contractor: Skanksa-Rados Expo 2, J.V.
Systems Installer: Mass. Electric Transportation Group

Major Vendors:
MAC Products – Mainline OCS Hardware

IMPulse – Expo II Yard OCS Hardware

Millerbernd Manufacturing – OCS Poles

NMC Powerswitch – Disconnect Switches

BBRI – Traction Power Substations (Supplied by METRO)
Questions?