

PROJECT FACT SHEET

DENVER UNION STATION CONSTRUCTION - SPRING 2011

CONSTRUCTION ACTIVITIES IN FULL SWING AT DUS

Construction activities for the Denver Union Station transit improvements started in earnest in mid-February 2010, with utility relocations and establishment of a long-term traffic shift on Wewatta St. between 20th St. and 16th St. Design and engineering for the project has been ongoing since May 2009.

Transit elements to be constructed include:

- Underground Regional Bus Facility - 1,100 feet long, 22 bus bays
- Relocated RTD Light Rail (LRT) – three tracks, two platforms with canopies
- Extended 16th St. Mall Shuttle and relocated turn around
- Commuter Rail (CRT) Train Hall – eight tracks, five platforms, 44,000 sq. ft. PTFE membrane canopy (similar to DIA's roof)
- Public plazas and pavilions
- Street improvements

The construction boundaries are from 19th St. on the north to 16th St. on the south and from Wynkoop Street on the east to the consolidated mainline (CML) freight tracks on the west.



Relocated Light Rail tracks, February 2011



Building the Light Rail tracks in November 2011

Construction Sequencing

Construction will be done in phases due to the requirements to maintain street access, utilities, LRT service and 16th St. Mall Shuttle service. Since the underground bus facility is under most of the other elements, it must be built first.

Major construction in Phase 1 includes:

- Begin underground bus facility from the CML freight tracks to Wewatta St.
- Construct new LRT platforms and tracks north of the Millennium Bridge adjacent to the CML
- Relocate Amtrak services to a temporary station and platform at Wewatta St. and 21st St. which was completed February 2011
- Construct the Chestnut Pl. and 16th St. Mall Shuttle drop-off/pick-up loop

Phase 1 construction is currently scheduled to be completed in summer 2011.

Major Construction in Phase 2 includes:

- Relocate LRT station and 16th St. Mall Shuttle to the new permanent location
- Move northbound and southbound vehicle traffic from Wewatta St. to Chestnut Pl.
- Continue construction of the underground bus facility from Wewatta St. to the Denver Union Station building, (includes excavation and utilities removal/installation)
- Reconstruct Wewatta St.

Major Construction in Phase 3 includes:

- Construct the CRT tracks and platforms
- Complete train hall canopy and pedestrian bridge
- Complete underground bus facility interior
- Construct plazas and pavilions
- Pave and open 16th St., 17th St. and 18th St.
- Return Amtrak services to the historic Union Station

What has happened so far...

Regional Bus Facility

- Excavated 140,000 cubic yards of dirt
 - 58,000 cubic yards of dirt piled 45-feet high currently being used to backfill around the bus facility structure
 - At the deepest point, the excavation was 26 feet deep
- Placed six-inch concrete mud slab, installed waterproofing material and placed concrete base slab on bottom of excavation
 - Base slab is four-feet thick
- Placed concrete exterior and plenum walls
 - Exterior concrete walls are two-feet thick and 19-feet tall
- Placed concrete columns and column caps
- Erected precast concrete box girders and deck panels
- Placed concrete roof deck—Phase I of underground bus facility completely enclosed

Light Rail

- Built concrete retaining walls north of the Millennium Bridge
- Placed LRT platform concrete and high-block foundations
- Erected steel canopy frames and covered with PTFE fabric
- Placed sub-ballast and ballast



Denver Union Station and the Bus Box, December 2010

- Installed LRT track and turnouts north of the Millennium Bridge

Other Activities

- Moved/installed eight different utility lines. As with any construction project, many water, sewer, electrical and communication utilities must be removed, installed or improved to meet current codes. This process will be ongoing.
- Removed 7,700 feet of unused track and 4,000 ties.
- Moved Amtrak into its temporary location at the corner of 21st and Wewatta St. after remodeling the building and constructing a temporary train platform.



Denver Union Station and the Bus Box, March 2011

Upcoming and On-going Activities...

Regional Bus Facility

- Begin work on interior
 - Installation of electrical/mechanical rough-in
 - Masonry installation for interior partitions

Light Rail

- Complete “finishes” at platform
- Build 16th St. Mall Shuttle drop-off/pick-up loop
- Complete last segment of track, which will require a temporary LRT shutdown over the summer

Other Activities

- Complete Chestnut Place
- Install utilities along Chestnut Pl., Wynkoop St. and 16th St.
- Build 16th St. to LRT Platform and 16th St. Mall Shuttle loop

- Backfill around exterior of structure
- Demolish old Amtrak track and platforms
- Demolish existing HOV lanes outside of Union Station
- Begin excavation for Phase 2 of underground bus facility, starting adjacent to the historic building and moving west

