



# Construction Management at Ronald Reagan Washington National and Washington Dulles International Airports

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Robert Orkin  
Quality Assurance Manager  
Parsons Management Consultants



METROPOLITAN WASHINGTON AIRPORTS AUTHORITY



## Parsons Management Consultants – A Joint Venture

Parsons Transportation Group Inc.  
PB Americas, Inc.  
DMJM Aviation  
Delon Hampton and Associates, Chartered

PMC on the Project Since 1988

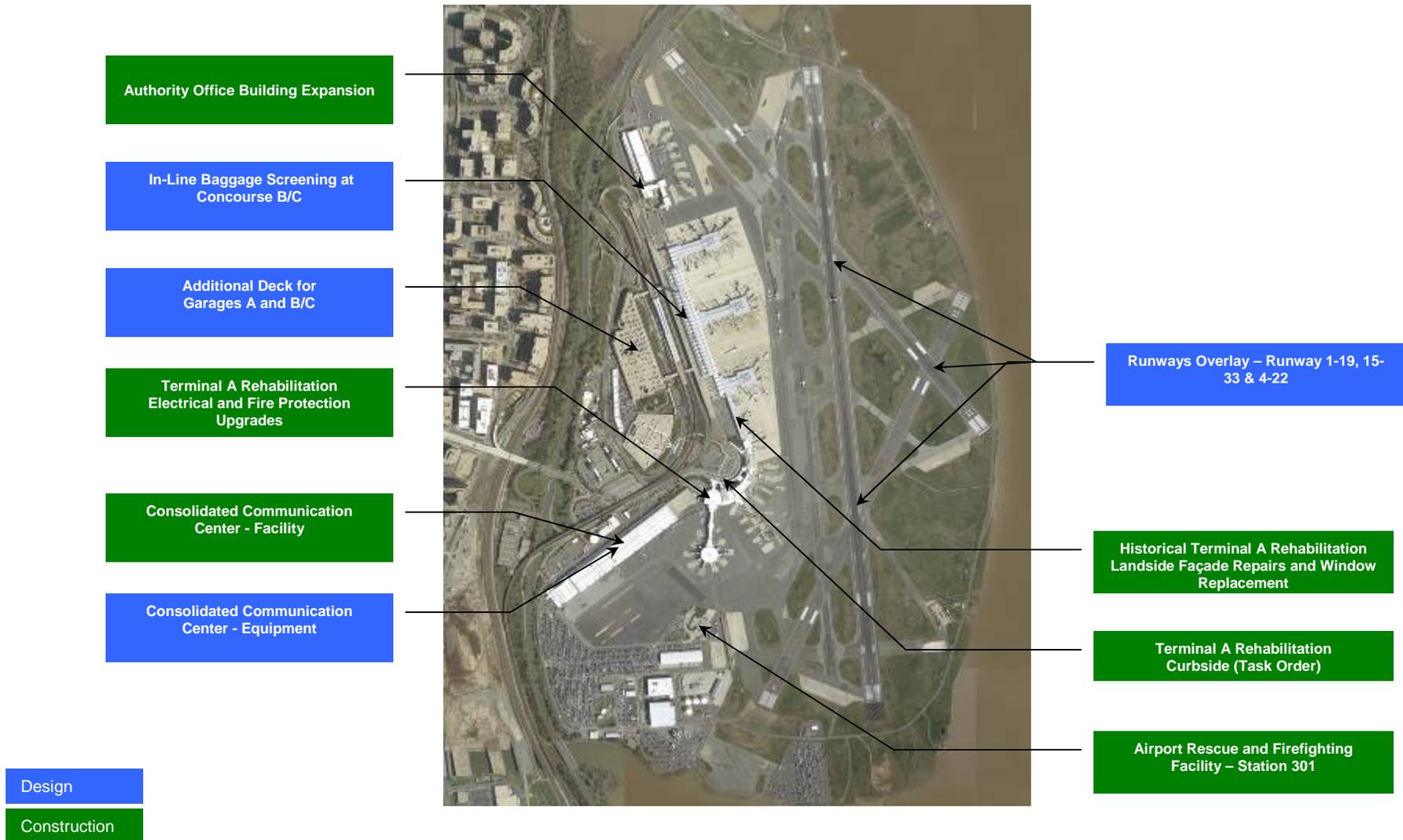
Current Contract Awarded 2004 (5 Years plus 3 Year Option)

Current 300 Staff from the Prime JV and other companies

# Ronald Reagan Washington National Airport (DCA)



# DCA – Major Design and Construction Projects



# TERMINAL A LANDSIDE FAÇADE REPAIR AND WINDOW REPLACEMENT

Designer: Shalom Baranes Associates, PC  
Contractor: Grunley Construction  
Start Date: March 2007  
Substantial Completion: August 2008

## DESCRIPTION:

The project involves upgrade and rehabilitation of the 1941 historical Terminal A exterior. The project includes the concrete and rebar repair, re-alkalization, recoating of all landside concrete surfaces, and select demolition. The project also includes replacement and renovation of the landside and airside windows in the 1941 historical terminal.



# TERMINAL A CONSOLIDATED COMMUNICATIONS CENTER

Designer: HSMM  
Contractor: Vista Contracting  
Start Date: January 2007  
Substantial Completion: September 2007

## DESCRIPTION:

The project consists of interior office, operations and related space construction to support the future Consolidated Communications Center in Hanger 5. The work is primarily on the second and third floors and includes building security, ADA, and roof and window improvements. There is a future construction contract that will provide and install the communications and dispatch equipment.



# AIRPORT RESCUE AND FIREFIGHTING FACILITY (ARFF), STATION 301

Designer: Hughes Group Architects  
Contractor: TGM Construction Corp.  
Start Date: May 2007  
Substantial Completion: June 2008

## DESCRIPTION:

The project is for the construction of a 22,800 square foot, single story Airport Rescue and Firefighting Facility (ARFF). The facility includes office administration space, five apparatus storage bays, mechanical storage unit, dormitory living space, locker rooms and kitchen and general support spaces.



# AUTHORITY OFFICE BUILDING EXPANSION

Designer: Pierce Goodwin Alexander and Linville  
Contractor: Vista Contracting  
Start Date: July 2007  
Substantial Completion: June 2008

## DESCRIPTION:

The project is for the construction of an 8,900 square foot, two level expansions to the existing Authority Office Building (AOB). The project also includes a 90 foot elevated walkway which will connect the AOB to Hanger No. 11.



# Washington Dulles International Airport (IAD)



# IAD - Major Construction Projects Underway

NOAA Relocation

Airport Rescue and Firefighting Facility

Cargo Building 6 Apron

Stallion Branch Sanitary Sewer

West APM Tunnels, Station Excavation and Utilities

Concourse B West APM Station and 15-Gate Expansion

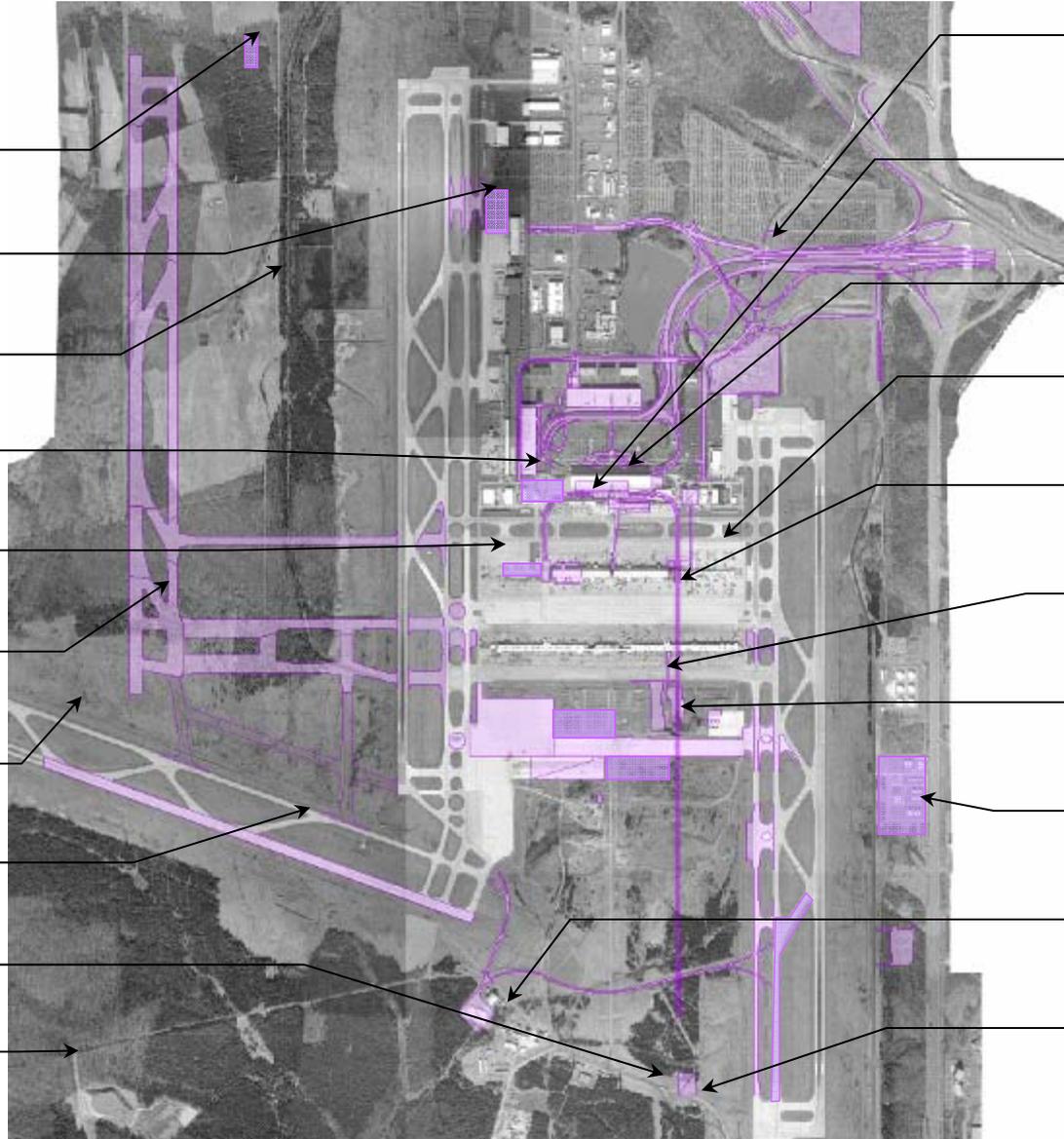
Fourth Runway Earthwork and Clearing Paving and NAVADIS

Dedicated Fire Water System

Taxiways Q Rehabilitation

Automated People Mover System Design-Build

Midfield Concourse Stations APM Enclosures



North Area Roads  
North Section Phase 3  
South Section Phase 2

Main Terminal APM Station and Final Mezzanine Security Screening

Main Terminal Expansion Joint Replacement

Rehabilitate Taxiway B Airfield Shoulders

East APM Tunnels and East APM Stations (Tier 1 and Tier 3)

Tier 2 / Concourse C Connector and Taxiway E Bypasses

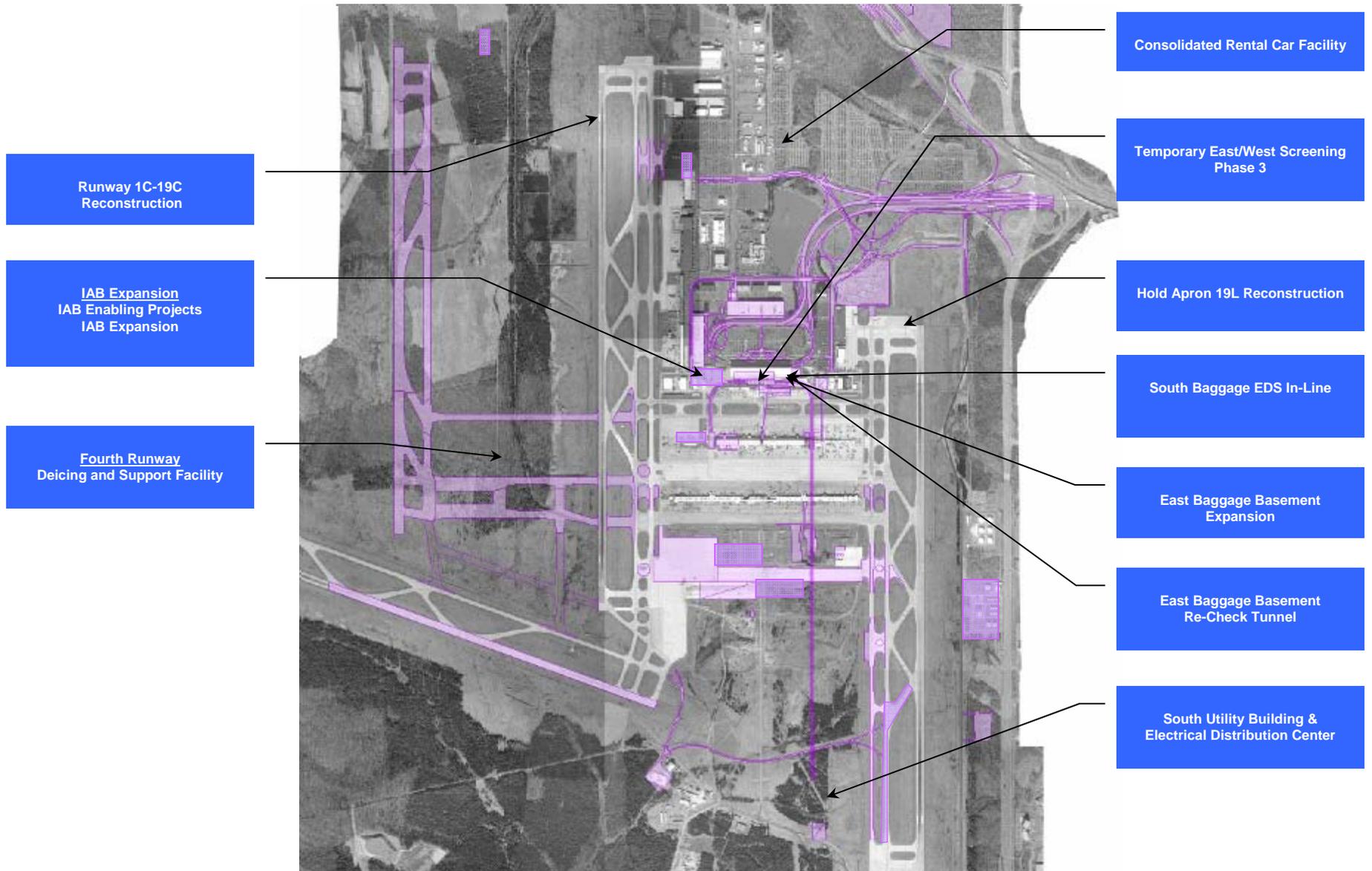
Tier 2 East APM Station

Fuel Settling Tank Farm  
Early Tank Procurement  
General Fuel Farm Construction

Vehicle Wash Facility

APM Vehicle Maintenance Facility

# IAD - Major Design Projects Underway

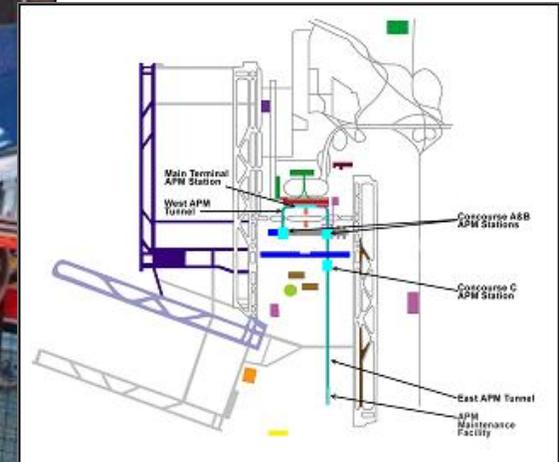


# AUTOMATED PEOPLE MOVER SYSTEM

Design/Build: Sumitomo Corporation of America  
Start Date: March 2003  
Substantial Completion: 2009

## DESCRIPTION:

The Automated People Mover (APM) System will replace most of the current Mobile Lounge system that is used to transport passengers between the Main Terminal and the Midfield Concourses. The train will operate on an underground dual track system. The design-build project includes design, manufacture, and installation of guideway, power, and automatic train control systems. The contractor will also provide 29 vehicles.



## AUTOMATED PEOPLE MOVER SYSTEM

### Delivery of Train Cars 1-4



First four AeroTrain cars and Maintenance/Recovery Vehicle left Mitsubishi factory in Japan on April 8, 2007 and were loaded onto a ship for transport to the United States.

Arrived in Philadelphia, Pennsylvania, May 22, 2007. Trucked to Baltimore, Maryland, and held over in respect for the Memorial Day weekend/Washington region holiday traffic.

Arrived at Dulles on May 30, 2007. Carefully removed from trucks and placed into the AeroTrain Vehicle Maintenance Facility in preparation for system testing in the near future.



## AUTOMATED PEOPLE MOVER SYSTEM

Vehicles 13 and 14 on Test Track



## AUTOMATED PEOPLE MOVER SYSTEM

### Vehicle #23 Outfitting



## AUTOMATED PEOPLE MOVER SYSTEM

### Vehicle Maintenance Facility



## AUTOMATED PEOPLE MOVER SYSTEM

### Vehicles 1, 2, 3, and 4 at Light Maintenance Bay



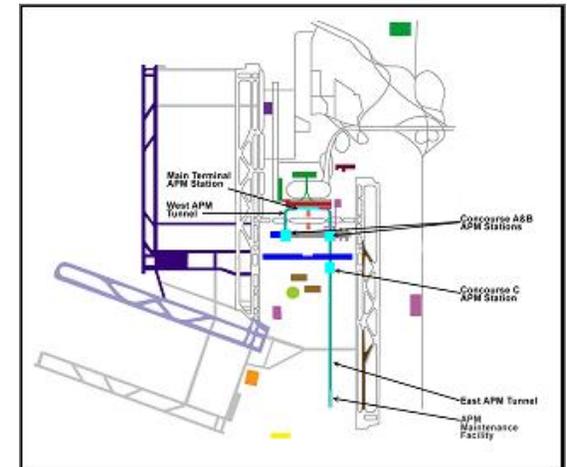
# EAST APM TUNNELS AND STATION

Designer: HNTB  
Contractor: Atkinson/Clark/Shea  
Start Date: October 2004  
Substantial Completion: September 2008



## DESCRIPTION:

This project consists of the east leg of the APM tunnels from the Vehicle Maintenance Facility north to the Main Terminal. The project scope also includes the Concourse B East APM Station and a station shell at the future Tier 3 East APM location.



## EAST APM TUNNELS AND STATION

Tier 3 Station – Outer Trackway – Drywall Partitions – Looking South



## EAST APM TUNNELS AND STATION

Tier 3 Station – Outer Trackway – View to North Crossover Area



## EAST APM TUNNELS AND STATION

Tier 1 Station West Side Apron Level – North End / Looking South



## EAST APM TUNNELS AND STATION

Tier 1 Station West Side Mezzanine Level – South End / Looking North



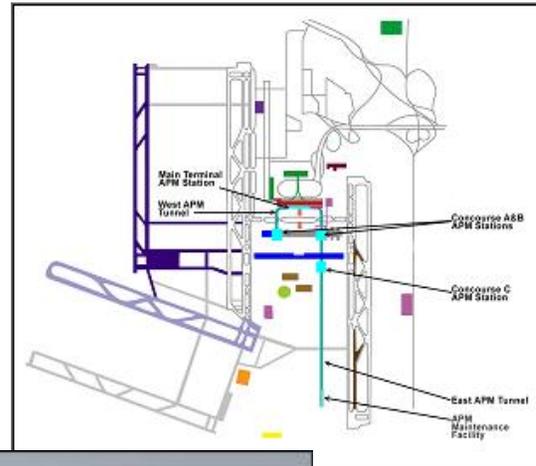
## EAST APM TUNNELS AND STATION

Tier 1 Station West Side Mezzanine Level – South End / Looking North



# TIER 2/CONCOURSE C EAST APM STATION

Designer: Kohn Pederson Fox Assoc.  
Contractor: Facchina Construction Company  
Start Date: March 2005  
Substantial Completion: April 2008



## DESCRIPTION:

This project consists of a side-center-side platform, two guideway station. The station includes crossovers, cast in place concrete automated people movers tunnels, a temporary heating and cooling plant, electrical substation, high-end architectural finishes, apron, and site work.

The work also includes temporary taxiway by-passes between Taxiway E and Taxiway F for the future Concourse C Connector Tunnel.



## TIER 2/CONCOURSE C EAST APM STATION

Architecture: View to Grand Stairway



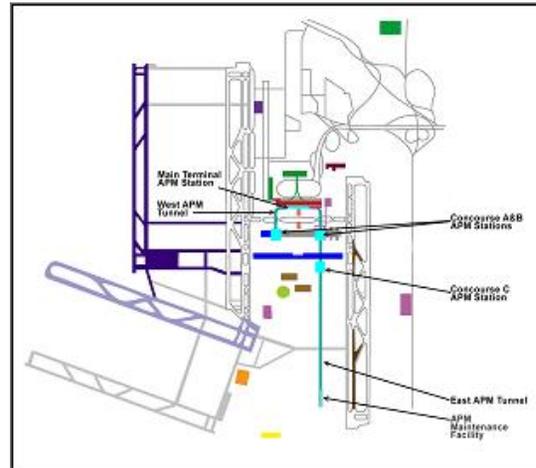
## TIER 2/CONCOURSE C EAST APM STATION

Temporary Central Plant for Tier 2 APM Station



## MAIN TERMINAL SECURITY MEZZANINE AND AUTOMATED PEOPLE MOVER STATION - PACKAGE 6

Designer: Skidmore, Owings and Merrill  
Contractor: Turner Construction  
Start Date: October 2002  
Substantial Completion: July 2009



**DESCRIPTION:**  
This project involves the construction of the new Main Terminal Automated People Mover (APM) Station, a security mezzanine, and a temporary mobile lounge dock and hold rooms. The project also includes both temporary and permanent security checkpoints in the Main Terminal.



## MAIN TERMINAL SECURITY MEZZANINE AND AUTOMATED PEOPLE MOVER STATION - PACKAGE 6

Overview Looking Northwest from Column 030 – East Side



## MAIN TERMINAL SECURITY MEZZANINE AND AUTOMATED PEOPLE MOVER STATION - PACKAGE 6

### Overview Looking East from Column 13 – East Side



**MAIN TERMINAL SECURITY MEZZANINE AND AUTOMATED PEOPLE MOVER STATION - PACKAGE 6**

Demo East Hold Room – Looking Northwest – East Side



**MAIN TERMINAL SECURITY MEZZANINE AND AUTOMATED PEOPLE MOVER STATION - PACKAGE 6**

Overview Looking West Column 16-30 – West Side



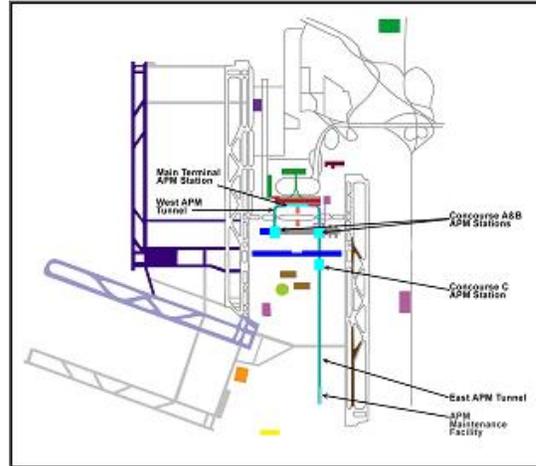
**MAIN TERMINAL SECURITY MEZZANINE AND AUTOMATED PEOPLE MOVER STATION - PACKAGE 6**

Forming Center Platform Column 5-04 – West Side



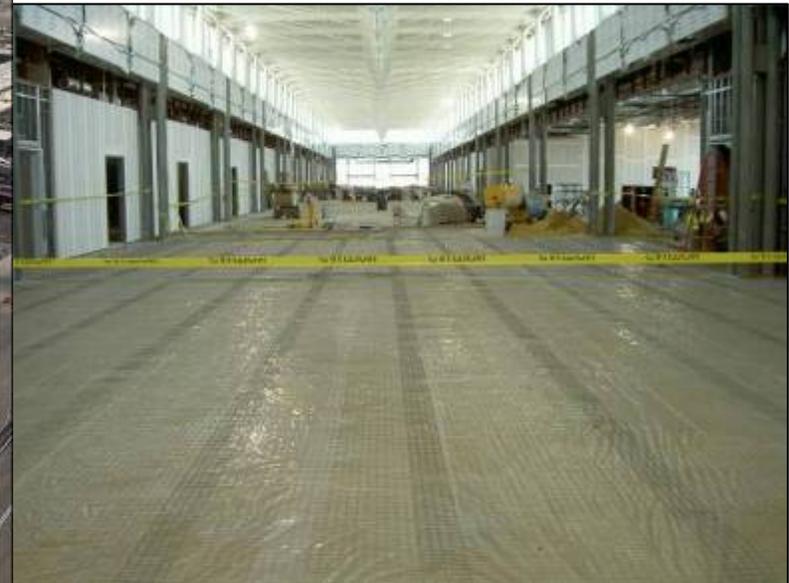
# CONCOURSE B WEST EXPANSION AND WEST APM STATION

Designer: Hellmuth, Obata & Kassabaum, PC  
Contractor: Balfour Beatty Construction  
Start Date: September 2005  
Substantial Completion: August 2008



## DESCRIPTION:

The West 12-gate expansion includes construction of a concourse and supporting space for domestic flights, a 60,000 square foot basement with a vehicular access ramp and 11,000 square foot mezzanine club level. Site work includes water and sanitary lines, apron paving, and hydrant fueling work. The APM station includes below-grade concrete construction, steel superstructure, station fit out, final utility connections, tunnel ventilation shafts, and associated tunnel equipment rooms.



## CONCOURSE B WEST EXPANSION AND WEST APM

Concourse Level (East End), Overview, Preparing for Terrazzo Installation, Infill Area



## CONCOURSE B WEST EXPANSION AND WEST APM

Overview, Platform & Mezzanine Level, Facing South, West APM Station



## CONCOURSE B WEST EXPANSION AND WEST APM

Track & Platform Level, Inner Track, Facing North, Escalator Deliveries, West APM Station



## CONCOURSE B WEST EXPANSION AND WEST APM

Overview, Connection with Existing Concourse B, West APM Station

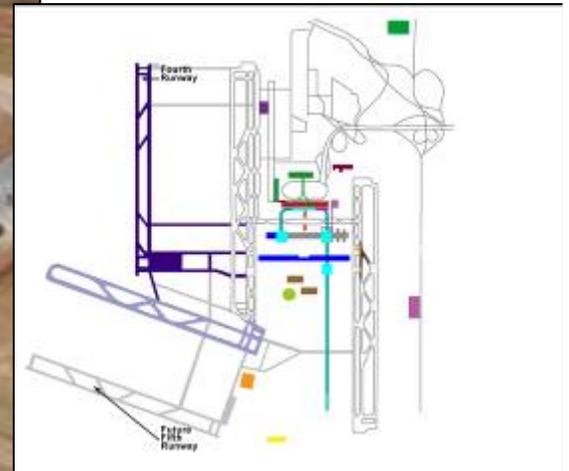


# FOURTH RUNWAY AND ASSOCIATED TAXIWAYS

Designer: Carter & Burgess, Inc.  
Contractor: Lane Construction Corporation  
Start Date: July 2006

## DESCRIPTION:

The project is for the paving and NAVAIDS construction of the Fourth Runway. The project consists of installation of erosion and sedimentation control materials, airfield/roadway pavements, utilities, marking/signage, permanent AOA fence, NAVAIDS, and biological treatment units.



## FOURTH RUNWAY AND ASSOCIATED TAXIWAYS, PAVING, AND NAVAIDS PACKAGE



## FOURTH RUNWAY AND ASSOCIATED TAXIWAYS, PAVING, AND NAVAIDS PACKAGE



## FOURTH RUNWAY AND ASSOCIATED TAXIWAYS, PAVING, AND NAVAIDS PACKAGE



## NORTH AREA ROADWAY IMPROVEMENTS – SOUTH SECTION, PHASE 2

Designer: Johnson-Mirmiran & Thompson  
Contractor: Lane Construction Corporation  
Start Date: March 2006  
Substantial Completion: April 2008

### DESCRIPTION:

The project improves the eastbound Dulles Airport Access Highway (DAAH) lanes from Saarinen Circle to Route 28 to meet the traffic forecasts for 25 million annual passengers. The project includes widening the east-bound access highway, improving collector roads and new ramp, and adding a new intersection at Aviation and Wind Sock Drive.



# NORTH AREA ROADWAY IMPROVEMENTS – NORTH SECTION PHASE 3

Designer: Johnson, Mirmiran & Thompson  
Contractor: Facchina Construction  
Start Date: August 2006  
Substantial Completion: August 2008

## DESCRIPTION:

The project consists performing all roadway improvements including widening the inbound Access Highway to meet the existing three lane section near the Aviation Drive bridge, Ramp Q road work, and adding bridges and road connections to the north and south ends of the project.



## NORTH AREA ROADWAY IMPROVEMENTS – SOUTH SECTION, PHASE 2

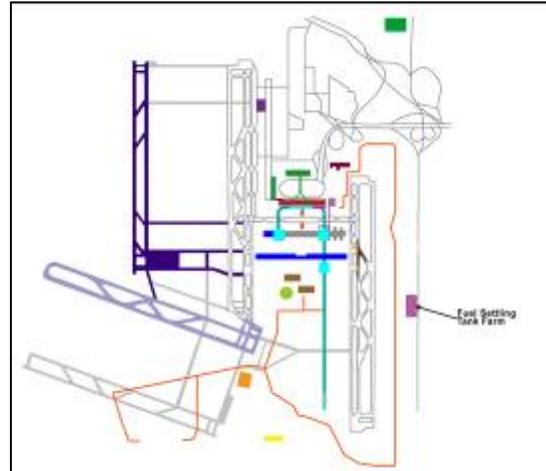


# FUEL SETTLING TANK FARM

Designer: Burns & McDonnell Engineering Co., Inc.  
Contractor: Grunley-Walsh, LLC  
Start Date: May 2006  
Substantial Completion: September 2007

## DESCRIPTION:

This project is for the construction of a delivery facility, fuel sampling building, and electrical controls building. The contract also includes the installation of a foam fire protection system, transfer pump and filtration system, and transfer piping to the existing hydrant fueling system tank farm.



## FUEL SETTLING TANK FARM





 **PARSONS MANAGEMENT CONSULTANTS**

*a joint venture of*

PARSONS TRANSPORTATION GROUP INC. □ PB AMERICAS, INC. □ DMJM AVIATION

DELON HAMPTON AND ASSOCIATES, CHARTERED