## **Brown Line Capacity Expansion Project**

## Supplemental Service Strategy for Construction-Related Three-Track Operation

February 14, 2007



# Description of the Brown Line Reconstruction Project and Customer Impact



#### **Construction Impact Area**



#### North/South

#151 Sheridan #156 LaSalle #8 Halsted #9 Ashland X9 Ashland Express #50 Damen

#49 Western X49 Western Express #52 Kedzie/California #82 Kimball/Homan

#53 Pulaski

#### East/West

#155 Devon #84 Peterson #92 Foster #81 Lawrence #78 Montrose #80 Irving Park X80 Irving Park Express #152 Addison #77 Belmont #76 Diversey #74 Fullerton #73 Armitage #72 North #70 Division #66 Chicago #65 Grand

#20 Madison X20 Wash.//Madison Exp.

#### **Diagonal**

#22 Clark #36 Broadway #11 Lincoln/Sedgwick #56 Milwaukee

#### **Northside Express to Downtown**

#134 Stockton/LaSalle #135 Clarendon/LaSalle #136 Sheridan/LaSalle #143 Stockton/Michigan #144 Marine/Michigan #145 Wilson/Michigan

#146 Inner Drive/Michigan #147 Outer Drive Express

#148 Clarendon/Michigan



#### **Overview**

#### Issue

- Reconstruction of the stations and track at Belmont and Fullerton will require closing of one of the four tracks for more than two years (shown on following two slides).
- Supplemental service is required to provide service alternatives and extra capacity in the AM and PM Rush Periods.

#### **Customer Impact**

- Northbound running time between the Loop and Belmont will increase.
- Wait times will be longer due to reduced frequency, especially on the Brown Line and Purple Line.
- Total capacity will be reduced in the AM and PM Rush Periods.
- This transit dense environment provides multiple service alternatives.

#### **Guiding Principles**

- Continue to run service throughout the construction period.
- Reliably, effectively and safely transport the maximum number of customers.
- Focus attention in the peak direction to meet the greatest demand.
- Provide supplemental service to increase customer capacity in corridors adjacent to North Red Line and Brown Line stations.



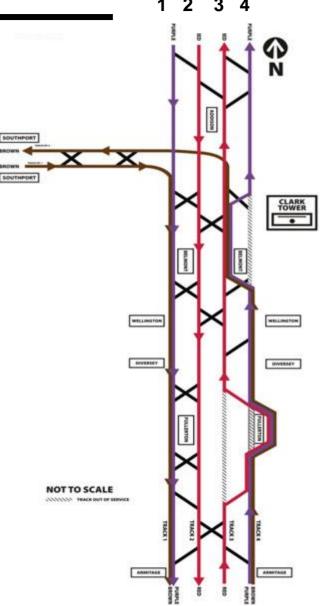
#### **Phase I Operations – Northbound Reroutes**

#### **Fullerton**

- All northbound trains operate on the new Track 4
- North of Armitage, northbound Red Line trains move to Track 4
- Leaving Fullerton, northbound Red Line trains return to Track 3

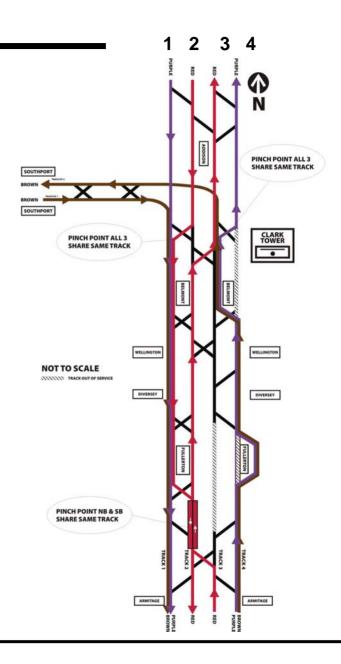
#### **Belmont**

- Northbound Red Line trains remain on Track 3
- Northbound Brown and Purple Express trains move to Track 3 after serving Wellington
- Northbound Purple Express trains return to Track 4 at Clark Junction or north of Addison





#### **Reversible Tracks**

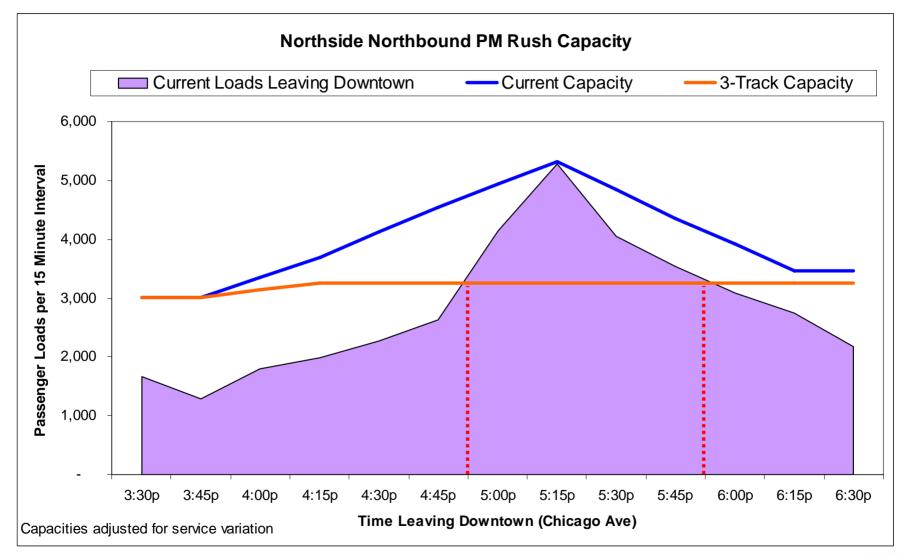




## **Customer Impact**

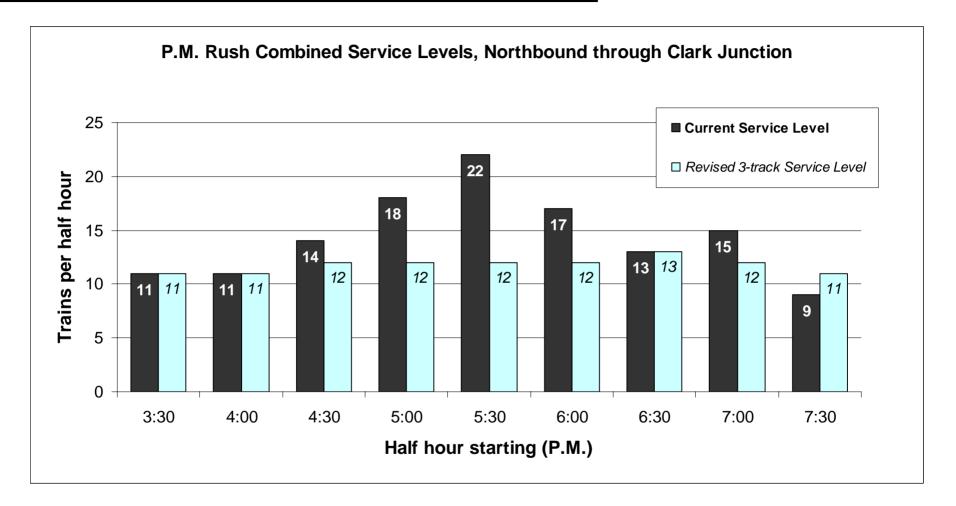


### Scheduled Capacity and Utilization - PM Northbound



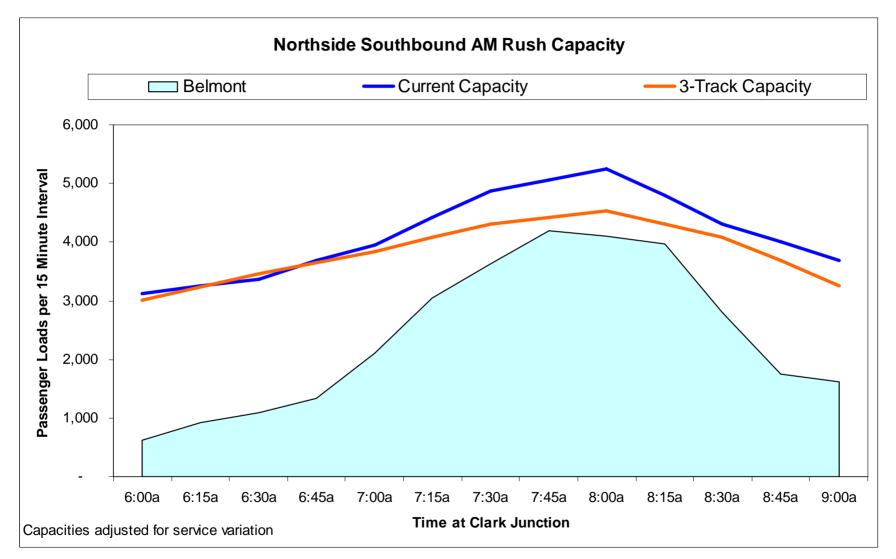


#### Phase 1 –Track Closure / Capacity Reductions - PM Rush Period



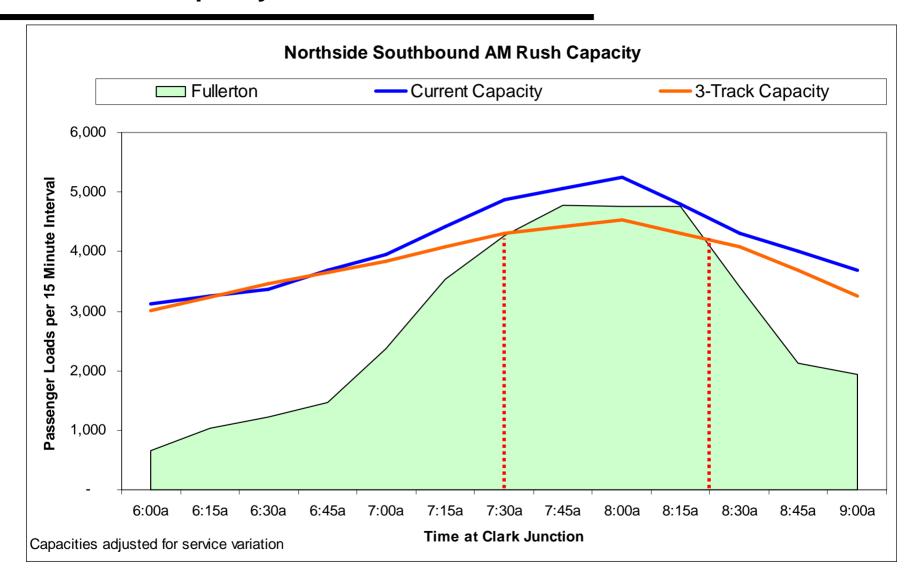


#### Scheduled Capacity and Utilization - Belmont Station AM Southbound



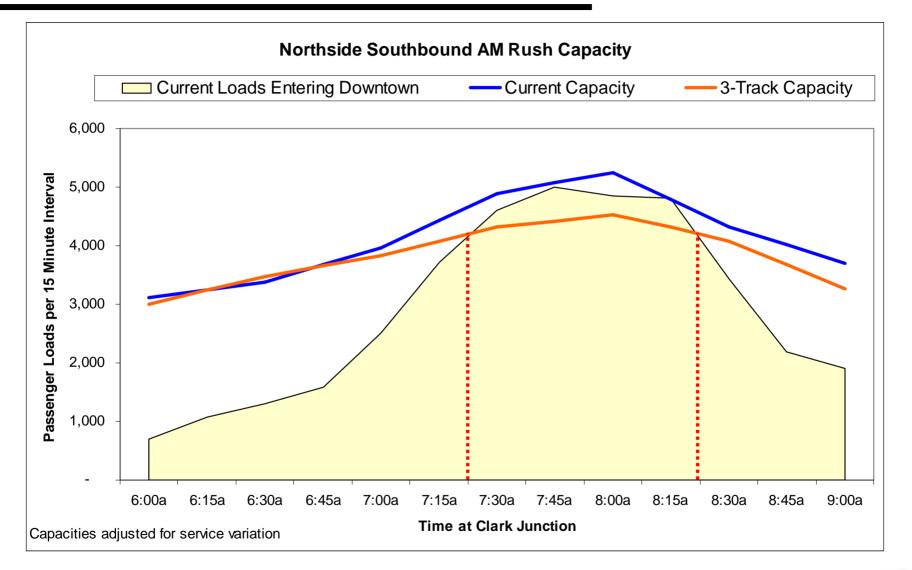


#### Scheduled Capacity and Utilization - Fullerton Station AM Southbound



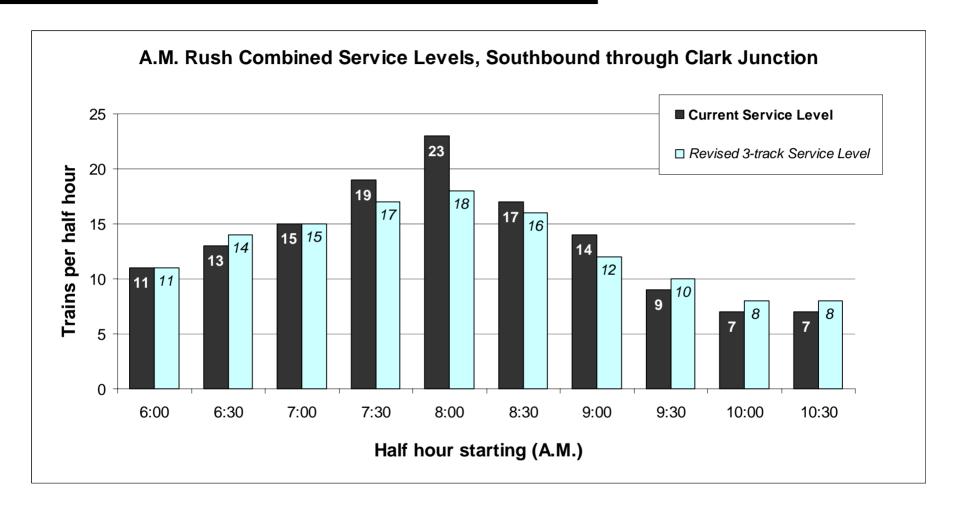


#### **Scheduled Capacity and Utilization - AM Southbound**





#### Phase 1 –Track Closure / Capacity Reductions - AM Peak Period



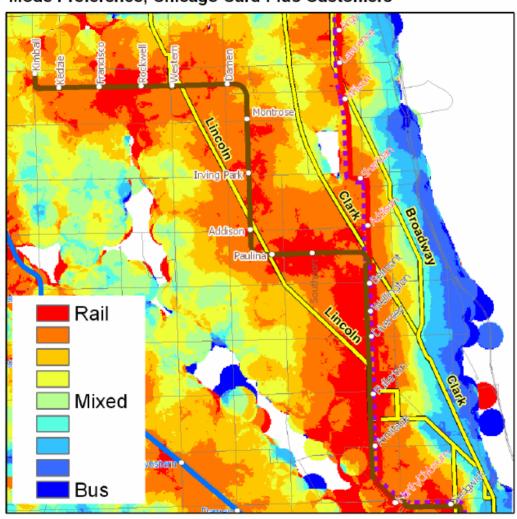


## **Construction Impact Zone**



#### **Mode Preference**

#### Mode Preference, Chicago Card Plus Customers

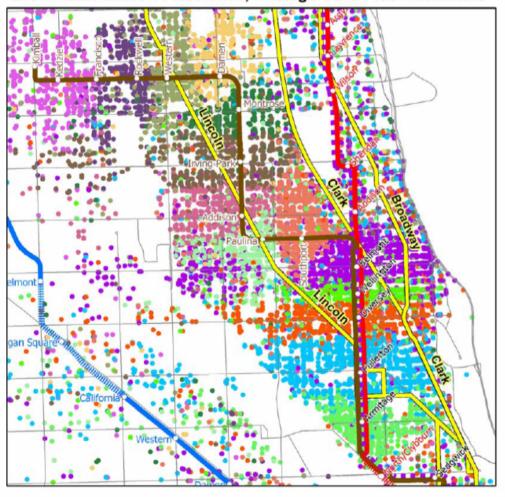


- Chicago Card Plus customers use both rail and express bus services.
- Customers in close proximity to the rail line tend to be rail users.
- Customers along the lakefront tend to prefer buses.
- The area between Broadway and Halsted is a transition zone with customers choosing both bus and rail.
- This transit dense neighborhood allows customers to use different modes by time of day if desired.
- Customers may commute using one mode in the AM and another in the PM.



#### **Brown Line Station Preference**

#### Brown Line Station Preference, Chicago Card Plus Customers



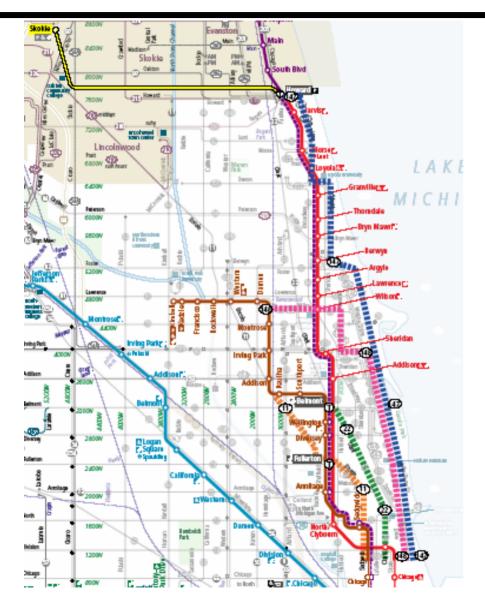
- Chicago Card Plus customers select rail stations based on geography.
- Thin bands can be seen around smaller stations such as Wellington indicating the station draws from the local area.
- East-west bands extending from Brown Line reflect connecting bus lines.
- Larger stations draw from greater distances and may reflect travel patterns in non-rush directions.
- Chicago Card and Chicago Card
   Plus customers in this sub-region of
   the City represent roughly 50 percent
   of all customers.



## **Supplemental Service Options**



#### **Bus Placement for PM Peak**



#11 Lincoln/Sedgwick: NB from Jackson to Paulina Current frequency: Every 10 - 15 minutes
Proposed frequency: Every 3 1/2 - 4 minutes

**#22 Clark:** NB from Jackson to Belmont Current frequency: Every 5 - 10 minutes Proposed frequency: Every 2 1/2 - 5 minutes

#147 Outer Drive Express: Congress/State to Devon/Broadway or Howard Terminal Current frequency: Every 5 - 10 minutes Proposed frequency: Every 2 1/2 - 5 minutes

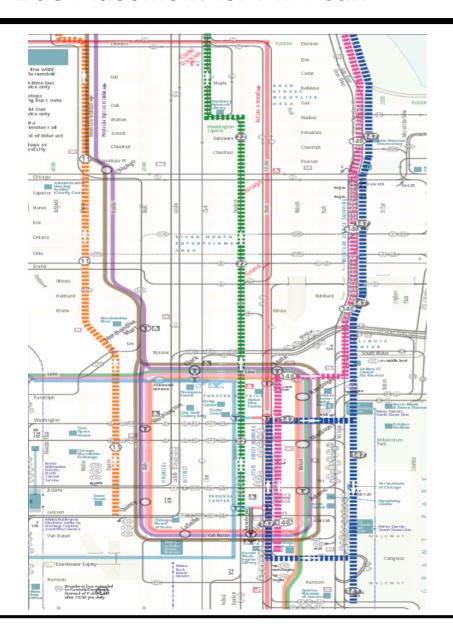
#148 Clarendon/Michigan Express: Congress/State to Broadway/Wilson or Damen/Wilson Current frequency: Every 10 - 15 minutes Proposed frequency: Every 5 - 7 1/2 minutes

#### **Staged Buses**

Maintain ability to make adjustments as people change their travel patterns.



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#### **Staged Buses**

Maintain ability to make adjustments as people change their travel patterns.



#### **Bus Placement for AM Peak**



#### #11 Lincoln/Sedgwick: SB Addison to Jackson

Current frequency: Every 10 – 15 minutes Proposed frequency: Every 2 - 12 minutes

#### #22 Clark: SB Belmont to Jackson

Current frequency: Every 3 - 8 minutes Proposed frequency: Every 2 - 8 minutes

## #134 Stockton/LaSalle Express: SB from Belmont to Adams/Wacker

Current frequency: Every 4 -10 minutes Proposed frequency: Every 3 - 10 minutes

## #135 Clarendon/LaSalle Express: SB Wilson to Adams/Wacker

Current frequency: Every 3 - 10 minutes

Proposed frequency: Every 3 - 10 minutes for a longer time period

#### #151 Sheridan: SB Belmont to Union Station

Current Frequency: Every 3 - 12 Minutes

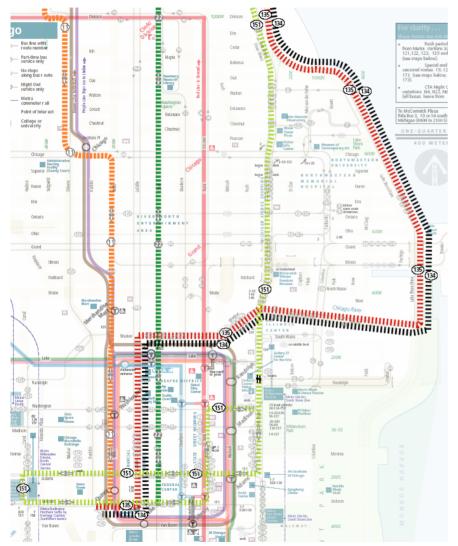
Proposed Frequency: Every 3 - 12 Minutes for a longer time period

#### **Staged Buses**

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Maintain ability to make adjustments as people change their travel patterns.



#### **Rail Support Strategies**



#### **Brown Line**

- Several AM rush trains will operate on the Brown Line between Belmont and the Loop to focus more capacity in the area with the highest demand
- Certain trains in the AM Peak will be routed south from the Loop to reduce train congestion through the construction zone. In the evening rush these trains will provide needed capacity in the Loop.

#### **Blue Line**

 Operate several trains south from Jefferson Park and north from UIC/Halsted to focus more capacity between Jefferson Park and Downtown due to expected increase use of Blue Line as an alternative.

#### **Purple Line**

 Purple Line trains will operate on the Outer Loop to follow the route of the Brown Line and limit downtown delays.



## **Supplemental Plan Summary**



## Supplemental Service Strategy Service and Coordination

#### **Service Components**

- Supplement lakeshore corridor service
  - AM #134, #135, #151
  - PM #147, #148
- Expand parallel peak period service
  - #11 Lincoln/Sedgwick
  - #22 Clark
- Monitor key routes
  - #156 LaSalle
  - #8 Halsted
- Deploy resources as needed
  - Improve existing service
  - Manage hot spots
- Maximize train utilization
  - Supplement Brown Line from Belmont south
  - Route Purple Line on Outer Loop
  - Supplement core of Blue Line



## Supplemental Service Strategy Service and Coordination

#### **Additional Coordination**

- Coordinate emergency response (Fire and Police) to minimize delays.
- Expand capacity for buses (with City) in key corridors in AM/PM rush.
  - Coordinate with Office of Emergency Management



## **Questions?**

