

# Chicago Union Station Master Plan Study

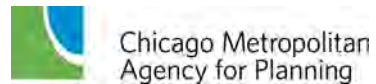
## Final Report



Prepared For:



In Cooperation With:



May 2012



## **Chicago Union Station Master Plan Study**

### **Prepared For:**

Chicago Department of Transportation

### **In Cooperation With Stakeholders Including:**

Amtrak

Metra

Chicago Transit Authority

Regional Transportation Authority

Chicago Metropolitan Agency for Planning

Illinois Department of Transportation

Metropolitan Planning Council

U.S. Department of Transportation

City of Chicago Department of Housing and Economic Development

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Some blank pages have been inserted to facilitate two-sided printing.

Labels on some engineering drawings may require printing at 11" x 17" to be readable.

Photographs were taken by TranSystems unless otherwise noted.

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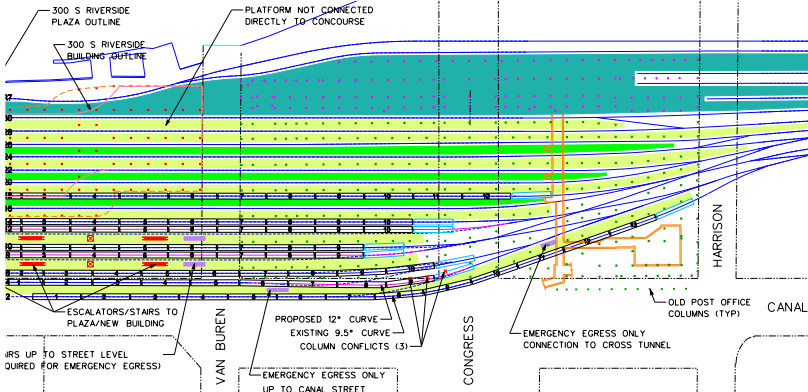
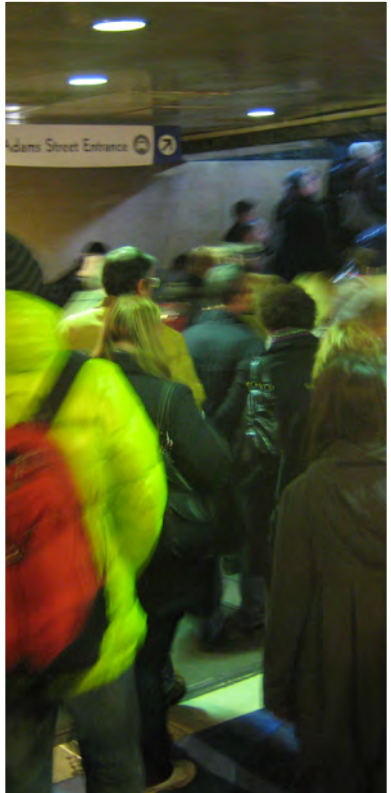
### G - Media articles, various

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# Executive Summary





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## Overview

The Chicago Department of Transportation (CDOT) has conducted the Chicago Union Station Master Plan Study in a collaborative effort with extensive participation from Amtrak (the station's owner), Metra (the station's primary tenant), and other stakeholder organizations. The current planning efforts represent a continuation of the City of Chicago's longstanding interests in improving passenger transportation and interchange facilities in the Union Station area, consistent with the City's Central Area ACTION Plan of 2009 and the Chicago Metropolitan Agency for Planning's GOTO 2040 regional plan.

Union Station is one of the region's key transportation facilities and economic drivers. It is the third-busiest railroad terminal in the United States, serving over 300 trains per weekday carrying about 120,000 arriving and departing passengers – a level of passenger traffic that would rank it among the ten busiest airports in the U.S. Most travelers at Union Station take Metra commuter trains. The Station is also the hub of Amtrak's network of regional trains serving the Midwest as well as most of the nation's overnight trains, which connect to the Atlantic, Gulf, and Pacific coasts.

This Study identifies potential ideas for adding tracks and platforms, as well as possible opportunities for improving passenger flows. Short, medium, and long-term opportunities have been identified to assist Amtrak, Metra, and other station stakeholders in preparing for these future improvements.

## Goals of the Study

- \* Provide sufficient capacity for significant increases in Metra and intercity passenger train ridership
  - \* Estimated 40% increase in trains by 2040
  - \* Possible significant further increases
- \* Make the terminal more inviting for passengers
- \* Provide more direct and convenient transfers to buses, CTA trains, taxis, shuttles, pick-up/drop-off
- \* Create a terminal that is vibrant, a civic asset, and a catalyst for growth in the West Loop and region

## Existing Conditions

Today's Station originally opened in 1925, and was designed primarily to serve long distance trains, including large amounts of mail and express traffic. Significant alterations were made to the station's Concourse level, located east of Canal Street, in 1970. Soon after Amtrak was established in 1971, it concentrated all intercity passenger train operations in Chicago at Union Station. Amtrak gained ownership of Union Station in 1984 and completed a major re-modeling in 1992. Amtrak is currently planning further improvements to the station in 2012 and beyond.

Most passenger station activities today take place in the Concourse area of the station, which now often operates at or close to capacity. In addition, station activity is constrained by street-level conflicts between taxis, buses, automobiles, shuttles, pedestrians, and bicycles. Continuing growth in both commuter rail service and Amtrak long distance and intercity passenger rail service, combined with the potential for future growth in high-speed intercity passenger rail, has compelled the City and affected railroads to consider future options for accommodating further growth in station traffic.



*South concourse in morning rush hour*

## **Planned Short Term Station Improvements**

Several station improvement projects currently have funding committed for implementation during the next few years.

### **Amtrak Improvements**

Amtrak is currently making a number of improvements that will enhance passenger conditions and amenities within the Station and reduce crowding. Installation of air conditioning in the historic headhouse building was completed by Amtrak in 2011. During 2012-13, Amtrak plans to replace the unsightly and obstructive concrete security barriers at major station entrances with more functional bollards. Amtrak also plans to relocate its Metropolitan Lounge facility into the headhouse building. This lounge is where sleeping car passengers wait before boarding their train, and is very well used as Chicago is served by more overnight trains than any other Amtrak station. After this move is completed the existing main waiting area will be nearly doubled in size, incorporating the space occupied by the old Metropolitan Lounge. The waiting room improvements and addition of new rest rooms are currently being budgeted and scheduled by Amtrak.

### **CDOT Improvements**

Two upcoming CDOT projects will improve local street traffic flow and curbside access to Union Station. The Central Area East-West Bus Rapid Transit project will improve bus lanes adjacent to the station on Clinton and Canal streets and provide enhanced Chicago Transit Authority (CTA) bus connections



between the station and the Central and East Loop areas. The Union Station Transportation Center project will create an off-street bus terminal located on the site of the existing surface parking lot south of Jackson, between Canal and Clinton (immediately north of the Amtrak-owned parking garage). It will provide direct, weather protected connections between the station and CTA buses while also relieving congestion on some of the nearby streets. Both of these CDOT-led initiatives are currently being designed and are scheduled for construction in 2013-2014.

## **Proposed Medium Term Station Improvement Ideas**

This study has proposed several ideas for medium term improvements to be studied further and implemented over a 5-10 year horizon.

### **Convert baggage platforms for commuter use**

Union Station features special baggage platforms that alternate with the passenger platforms on either side of the terminal tracks. Today many of these baggage platforms are seldom used, and the space they occupy could be better allocated to relieve crowding on the relatively narrow platforms that primarily serve commuter train passengers. It is proposed to remove two of the baggage platforms on south side tracks that are used almost exclusively by Metra commuter trains. Two tracks could then be relocated into the space now occupied by baggage platforms, allowing the adjacent passenger platforms to be widened to about 22 feet. That would be wide enough to permit the construction of stairs, escalators or elevators to provide direct access between the platforms and street level. These improvements would relieve overcrowding by both adding space and providing the opportunity for passengers to exit without going through the Station concourse.

### **Convert unused mail platform for intercity passenger train use**

Another vestige of an earlier time is the large unused "mail platform" located between the station's south tracks and the Chicago River. It is proposed to convert this space to passenger platforms served by tracks from both the north and south, which could add critical capacity to accommodate growth in intercity passenger train operations. Under the mail platform there is an existing underutilized basement area with high ceilings, as well as a below-grade passageway connecting this area to the basement under the existing passenger waiting areas. The space under the repurposed mail platforms could be redeveloped into a dedicated departure lounge and food service areas for the new passenger platforms, while the below-grade passageway could be renovated as a formal walkway connection to the existing station's concourse and waiting areas.

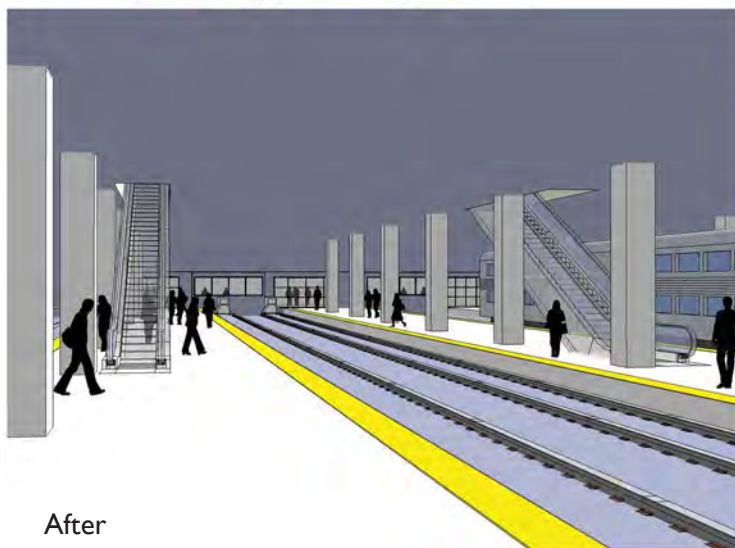
### **Enhance existing passenger station facilities to improve flow**

This study has developed ideas to more boldly reconfigure space within the existing concourse area to increase capacity and overall station utility for peak period crowds. The goals would be to open up the concourse to:

- \* Improve circulation and relieve congestion, particularly during peak periods and in the event of a major train delay
- \* Improve sight lines, so that people can more easily see where they want to go
- \* Expand capacity to allow for bi-directional access at major points of vertical circulation



Before



After

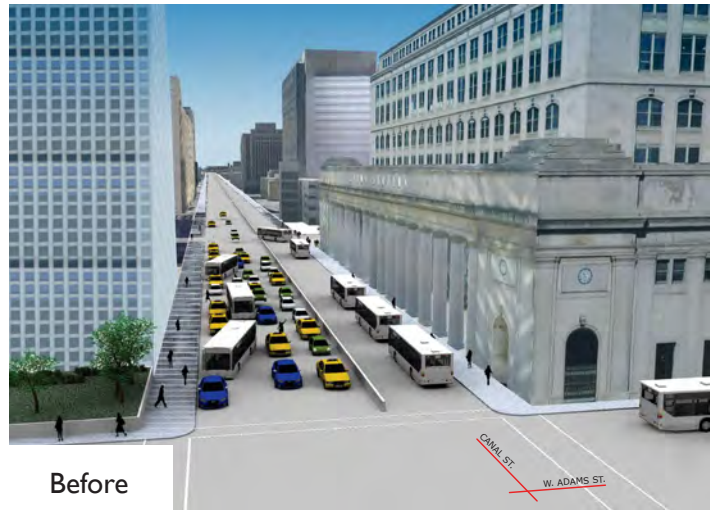
*As shown in the BEFORE (top) and AFTER (bottom) images to the left, reallocating baggage platform space would allow for passenger platforms to be widened and vertical circulation to be added.*

Some existing facilities on the concourse-level, such as Amtrak's ticket office, the passenger service area, rental car counter, and newsstand may be relocated to the historic headhouse to free up space for these circulation improvements in the concourse area.

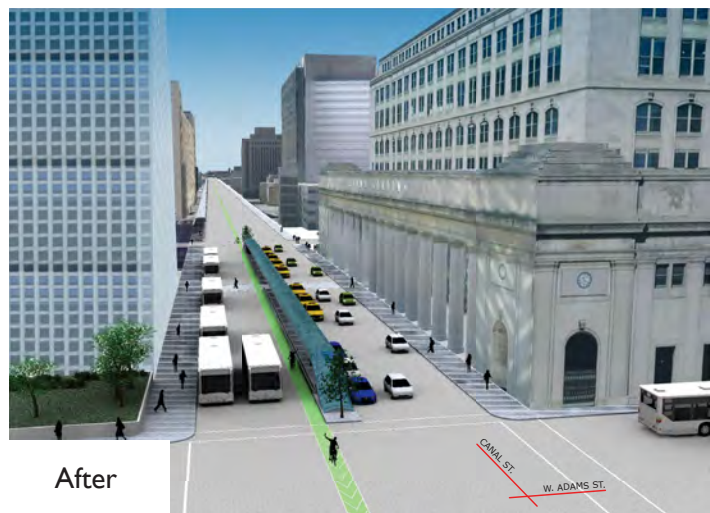
### **Rebuild Canal Street viaduct in a manner that improves street access**

Key segments of Canal Street are on a viaduct structure over Union Station's tracks. Constructing station tracks under the viaduct was an original design feature to increase the capacity of Union Station, and in the block between Adams and Jackson, the Canal Street viaduct forms the ceiling over an integral part of Union Station's passenger concourse. The viaduct was constructed in conjunction with the station, and is at the end of its design life. CDOT is planning to rebuild the viaduct later this decade and the Master Plan Study team has investigated whether some modifications could and should be made to the future replacement viaduct design to help in achieving the study goals, rather than simply replacing the structure exactly as it was originally built. Chief among these ideas would be creating traffic islands in Canal Street to add curb space for pick-up and drop-off traffic. This would be similar to pick up lanes at an airport terminal, with channelized traffic and parallel curbs. As part of the viaduct reconstruction project, direct stairs/escalators could be added between street level along Canal Street and the track/concourse level immediately below.

*Planned reconstruction of Canal Street will provide an opportunity for improved street access as shown in the BEFORE (top) and conceptual AFTER (bottom) images to the right*



Before



After

### **Possible Long Term/Visionary Station Improvement Ideas**

The study has developed concepts for increasing passenger handling capacity and improving the traveler experience by significantly expanding or completely replacing the existing intercity and/or commuter station facilities. These plans include two alternatives:

- \* Development of a new passenger train station facility in the 300 S. Riverside block, to be constructed on air rights over Union Station’s south tracks (which are owned by Amtrak) and integrating parts of the existing office building on this block
- \* Development of a completely new commuter and intercity passenger train station in the 200 S. Riverside block (replacing the structures currently on this block)

The study has also investigated two concepts for adding additional track and platform capacity in underground alignments that bypass and augment Union Station’s existing track and platform infrastructure. These plans would entail construction of functionally equivalent subway tunnels on one of two alternative alignments, Clinton Street or Canal Street.

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## Placemaking

The Union Station Master Plan Study team has worked closely with a Civic Advisory Committee established by the Metropolitan Planning Council to advance the goal of creating a transportation terminal that is vibrant, a civic asset, and a catalyst for growth in the West Loop and region, as well as exploring innovative financing strategies for the overall redevelopment effort. These placemaking principles call for the station's redesign to favor the creation of vibrant public spaces that have the potential to transform an imposing historic structure into one that invites interaction with its users and the surrounding city. Through the planned investments, the station should not only evolve into an efficient intercity and regional railroad hub, with easy connections to other transit modes, but also become a truly great place that attracts travelers and non-travelers alike.

## Public Input

A public meeting was held as part of the Union Station Master Plan Study during the late afternoon/early evening of Thursday, December 15, 2011 at Union Station's Union Gallery Room. The meeting utilized an open house format so that attendees could browse through numerous exhibits and discuss issues individually with staff from stakeholder agencies and the consultant team. A narrated presentation was delivered at two times during the open house. Approximately 200 people attended the event, and 67 of the attendees completed questionnaires on site. Additional comments from 30 people were also submitted by the Midwest High Speed Rail Association at the meeting, and 30 more comments were received online at the project website. This feedback was incorporated into the study's findings and recommendations.

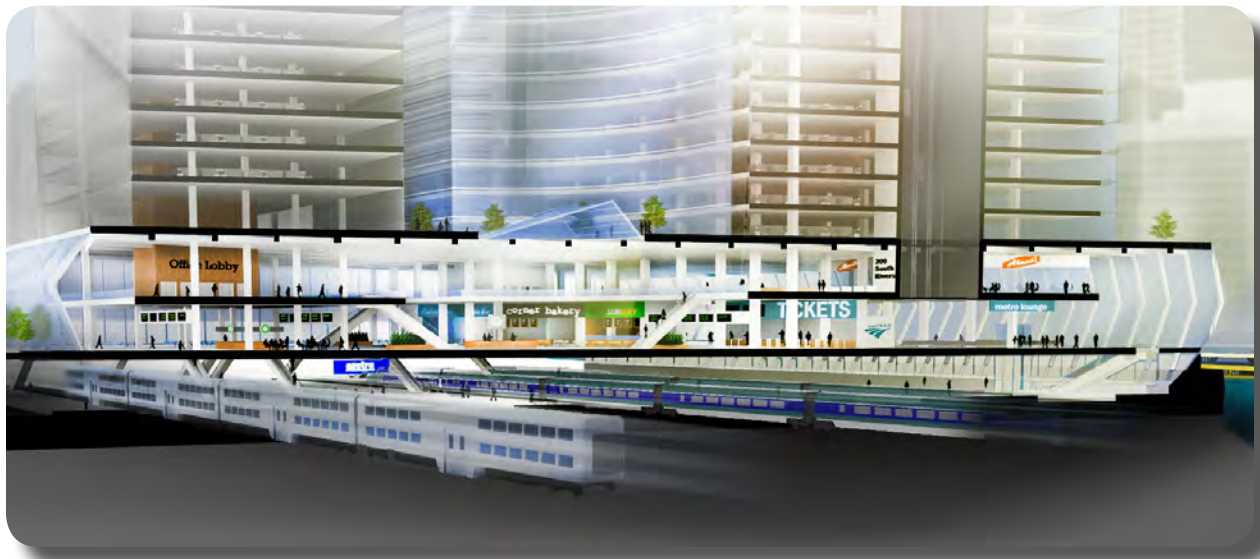
## Next Steps

This master planning study has advanced and developed numerous ideas that are intended to address major functional and operational issues affecting Chicago Union Station in the short, medium, and long term. The next steps for these ideas vary, but all involve proceeding with further planning, design, and/or construction to achieve the expected benefits. The overarching objective is to move each of these projects from ideas into construction and operation.

The Short Term ideas described in this report are already well advanced in planning and design, and in the case of CDOT's off street bus terminal and improved bus lane projects grant funds have been obtained for their construction. Several near term Amtrak customer facility improvement projects have also had their design work largely completed, but construction is not yet funded. Obtaining funding to complete these initiatives, as well as addressing Amtrak's outstanding "state of good repair" needs throughout Union Station should be a priority next step.

The Medium Term projects that have been identified are all focused on resolving serious operational shortcomings that have a direct impact on the ability of Union Station to serve a growing number of passengers. These projects will require further planning analysis and design work before they are ready to be funded for construction. The next stage of the CDOT-led Union Station Master Plan Study, involving simulation of train, station, and nearby street operations, is to begin later this year. This analysis will more precisely quantify the capacity increase that may be expected from each of the Medium Term ideas. It will effectively determine just how long the "medium term" is likely to be, and how soon the stakeholders will need to begin more serious consideration of the "long term/visionary" ideas for increasing capacity and improving the station's functionality.

The Medium Term ideas have thus far been conceived such that each of them would complement and not preclude or make more difficult the implementation of any of the more complex and expensive Long Term/Visionary ideas. However, the Long Term/Visionary ideas include two mutually exclusive alternatives for adding track and platform capacity via new underground alignments, as well as two other mutually exclusive alternatives for creating new station building facilities in either the 200 or 300 block of South Canal Street. Further analysis and public/stakeholder consultation will be needed to assess and determine the relative merits of each of these proposals and to decide which alternatives should advance towards implementation.



*A new intercity passenger train station could be constructed in the 300 S. Riverside block, integrating part of the existing office building on this block as well as Amtrak-owned air rights*

The logo for the Union Station Master Plan. It features the words "UNION STATION" in a large, bold, yellow, serif font with a black outline, set against a background of three horizontal black lines. Below this, the words "MASTER PLAN" are written in a smaller, yellow, sans-serif font on a black rectangular background.

**UNION STATION**  
MASTER PLAN

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