Retrofitting Today’s Stations for Tomorrow

Gates Transit Center Denver Union Station

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Two Case Studies in Denver

• Gates Transit Center, I-25 and Broadway Station

• Denver Union Station
RTD FasTracks

- 119 miles of new light rail and commuter rail
- 18 miles of bus rapid transit service
- 21,000 new parking spaces at rail and bus stations
- Expanded bus service in all areas
Gates Transit Center/ I-25 and Broadway Station

Southwest Corridor (2000)
Southeast Corridor (2006)
Bus Transfer Facility
Central Corridor
Interstate 25
South Broadway
Consolidated Main Line (BNSF/UP Freight)
LRT Station
Building Livable Communities with Transit
Site Facts

50 Acres Cherokee Land
- Broadway to Santa Fe
- I-25 to Mississippi/Arizona
Separated by Consolidated Main Line (CML)
Adjacent to 18 acres RTD land
Vanderbilt Park East – City “dirt” Park
Building Livable Communities with Transit

The Opportunity

- **Fundamentals**
  - Central location
  - Mountain and CBD views
  - Stable, attractive neighborhoods
  - Multi-modal hub

- **Daily Cars**
  - Santa Fe 150K
  - I-25 220K
  - Broadway 54K

- **Light Rail**
  - Trains every 3 minutes during rush hour

- **Buses**
  - Pulse Station
  - 454 daily bus connections
- Up to 4 – 6 million Square Feet of total development
- Building height - 4 to 12 Stories
- Up to 2,000 residential units
- Up to 3 million square feet of commercial – retail, entertainment, services, office
- 10-15 year build out
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Site Timeline

- Purchased by Cherokee Denver, LLC: Dec 2001
- Zoned TMU-30: Jul 2003
- Designated Urban Renewal Area: Jul 2003
- Approved General Development Plan: Feb 2005
- Approved Infrastructure Master Plan: Feb 2005
- Approved Design Guidelines: Dec 2005
- Approved Public Financing Plan: Feb 2006
- First Occupancy Anticipated: 3Q 2010
Gates Transit Center Key Opportunities

• RTD site rezoned to T-MU 30 as part of Gates Redevelopment
• Convergence of 3 light rail corridors
• Bus needs reduced due to new light rail corridors
• Available underutilized land under I-25
• Interested Developer
• Parcel included in TIF District
Gates Transit Center Key Constraints

• Bus proximity to LRT/Pulse Station
• No parking reductions for development
• Limited development area due to rail and highway constraints
• Phasing to allow bus operations during construction
• Fixed access points
• Height Limits due to view corridors
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Conceptual Land Use Plan
**Building Livable Communities with Transit**

**Conceptual Land Use Plan**

- **Site Area:** 18 acres
- **Total Development:** 660,000 SF, 1500 parking spaces
- **Uses:** Mixed Use Office/Commercial, Ground floor convenience retail
- **Transit Facilities:** 20,000 SF transit center, 10 bus bays, kiss n' ride, 560 PNR spaces
- **Infrastructure:** New Acoma St., Kentucky Ave., water and sewer, new pedestrian bridge
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Transit Facilities

Gates Transit Center
I-25 / Broadway Station
Cherokee Unsolicited Development Proposal
RTD I-25 / Broadway Intermodal Station
8.13.2007
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Transit Interface

Gates Transit Center
I-25 / Broadway Station
Cherokee Unsolicited Development Proposal
RTD I-25 / Broadway Intermodal Station
8.13.2007
Bus Circulation

Gates Transit Center
I-25 / Broadway Station
Cherokee Unsolicited Development Proposal
RID: I-25 / Broadway Intermoda Station
RI3, 2008
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Site Parking Summary

Gates Transit Center
I-25 / Broadway Station
Cherokee Unsolicited Development Proposal
RTD I-25 / Broadway Intermodal Station
& 13, 2007

Site Summary
- Parking Access
- Structured Parking Potential for Shared Use

Below Grade Parking (2 Levels)
- BLDG 1 313 Spaces
- BLDG 2 292 Spaces
- BLDG 3 132 Spaces
- BLDG 4 158 Spaces
- Transit Center 166 Spaces

Above Grade Parking (3 levels)
- BLDG 1 462 Spaces
- RTD Surface Parking (east) 562 Spaces (west) 500 Spaces
- Acoma On street Parking 40 Spaces

Total 2,625 Spaces
Site Massing Diagram
Pedestrian Bridge
Lessons Learned

- Transit agencies require more design earlier in the process
  - If it doesn’t work for buses, it just doesn’t work
- Optimal TOD depends on the site constraints
- Parking decisions as part of the zoning limit the ultimate opportunities for TOD
- Developers and Transit Agencies work on different time frames and schedules
Denver Union Station Redevelopment
DUS Partner Agencies

• City and County of Denver
• Colorado Department of Transportation
• Denver Regional Council of Governments
• Regional Transportation District
Union Station Today

- Site Area - 19.5 acres
- Total Building - 72,000 SF
- Main waiting room - 13,170 SF
- Amtrak, Ski Train, RTD 'C' Line, Mall Shuttle, restaurants, offices
- RTD purchases the Station in fall of 2001
- Master Plan approved in September 2004
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Denver Union Station Project Area

- Wewatta Street
- Wynkoop Street
- 16th Street
- 17th Street
- 18th Street
- 19th Street
- 20th Street
- Millennium Bridge
- Commons Neighborhood
- Mall Shuttle
- Passenger Rail
- New EPA Site
- Lower Downtown
- Millennium Bridge
- Commons Neighborhood
- Mall Shuttle
- Passenger Rail
- New EPA Site
- Lower Downtown
Site Program

Rail Components
- Amtrak
- Ski Train
- Boulder Commuter Rail (U.S. 36)
- East Corridor (Air Train)
- North Metro
- Intercity Rail (North and South I-25 Corridors)
- Future Expansion (I-70 Mountain Corridor)
- Future Expansion (other)
- Light Rail for SE, SW, West, and Gold Lines
- Platte Valley Trolley

Bus Components
- RTD Regional Bus
- RTD Local Bus
- Greyhound
- Interstate/International Bus
- Other Private Carriers/Motorcoach
- 16th Street Mall Shuttle
- Downtown Circulator
- Tour Buses
- Charter Buses
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Site Program

- Commercial Carriers
  - Taxi
  - Rental Cars
  - Vans and Shuttles
  - Ski Area Shuttles
  - Van Pool
  - Limo Services
  - Courier Services

- Additional Modes
  - Pedestrians
  - Single Occupancy Vehicles
  - Bicycles
  - Bike Station
  - PediCab
  - Motorcycles
  - Small Electric Vehicles
  - Horse Drawn Carriage
  - Parking
  - Service Vehicles
Vision Plan Street Level
Vision Plan Second Floor

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Commercial Bus Facility
T-MU-30 Zoning Massing Diagram
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USNC Transit District Plan
Denver Union Station

17th Street Cross Section – DUS to LRT
Building Livable Communities with Transit

View down 17th Street LRT to DUS

Courtesy SOM
Outdoor Train Room

Building Livable Communities with Transit
Outdoor Train Room

Courtesy SOM
Development Program

1. 63,000 office
   12,000 retail

2. 63,000 office
   12,000 retail

3. 192,500 office (option 1)
   210,000 hotel (option 2)
   7,500 retail

4. 305,000 office
   25,000 retail
   170,000 residential

5. 350,000 office
   20,000 retail
   130,000 residential

6. 685 stall parking garage

Primary Boundary for “DUS” 19.5-ac
Building Livable Communities with Transit Development Program
Building Livable Communities with Transit

Estimated Project Cost
($ in millions)

**Hard Costs**
- LRT system: $18.5
- Regional bus facility: $158.7
- CRT system: $129.8
- Streets & utilities: $17.7
- Shuttle system: $1.9
- Plazas & public spaces: $22.5
- Subtotal: $349.1

**Allowances**
- Amount spent to date: $23.2
- O/H & management fees: $23.2
- RTD Contingencies: $17.7
- Related hard costs: $41.5
- EOC operation & maintenance: $0.75
- Design, engineering & consulting fees: $13
- Project allowances: $9.7
- Subtotal: $129

**Total Estimated Project Costs**: $478.1
Building Livable Communities with Transit

Estimated Revenues

- CCD TIF $120.0 (25%)
- Metro Districts $25 (5%)
- Development Rights $38.5 (8%)
- Other Sources $19.4 (4%)
- FasTracks $208.8 (44%)
- FHWA $40 (8%)
- FTA $8.6 (2%)
- CDOT Senate Bill 1 $16.8 (4%)

Transportation Infrastructure Finance & Innovation Act (TIFIA)
- Up to 33% of costs
Current Schedule Milestones

- EIS Record of Decision October 15, 2008
- 30% Design complete September 2008
- Contractor Pricing late 2008/early 2009
- Start construction mid 2009
- Completion of Transit Elements mid 2013
- Development Complete 2012-2018
Issues and Challenges

- Politics of Separate Entities/Agencies
- Politics of Public Perception and Special Interests
- Multiplicity of Processes
- Funding Limitations
- Complexity of Finance Plan
- Complexity of Physical Plan
- High Public Expectations
- Powerful Community Groups
- Governance
- Schedule
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